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THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED BY

DAWSON WILLIAMS, M.D.,

ASSISTED BY

CHARLES LOUIS TAYLOR.

VOLUME I 1905.

3/8/06
80043

JANUARY TO JUNE.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

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INDEX TO VOLUME I FOR 1905.

A.

Abbe, Professor, obituary notice of, 390
Abdominal diagnosis, reverberation in (Stacey Wilson), 655
——— hysterectomy for uterine fibromyomata (F. W. N. Haultain), 477
——— nephrectomy (Mr. Cholmeley), 1271
——— sections, three within one week on one patient, 1396
——— surgery, a surprise in, 89
——— symptoms, acute (W. Watson Cheyne), 1313
——— tuberculosis in childhood (W. P. S. Branson), 1273
——— wall and genito-urinary apparatus, congenital defect of (A. E. Garrod and Wynne-Davies), 356
Aberavon, housing at, 1123
Aberdeen, typhus fever in, 616
Aborigines of North America, note, 508
Abortifacient, increasing use of lead as an (Arthur Hall), 584; cases where used, 653
Abrahams, Bertram: Arthritis deformans and its allies, 599, 873
Abscess, peritonsillar opening of (T. F. Hugh Smith), 1330
——— subdural, following frontal sinus empyema (A. J. Martineau), 1082
Abscesses, peritonsillar, opening of (StClair Thomson), 645; (F. W. Jolly), 715; (W. H. S. Stalkartt), 882; forceps for opening, 662
Absinthe, law passed in Belgium forbidding the manufacture of, 1281
Academy of Medicine, Belgian, prizes offered by, 508
——— of Medicine in London, proposed, 570
——— Royal, of Medicine in Ireland, 189, 305, 477, 600, 774, 825, 943, 1274
——— Section of Pathology: Anæmic infarction of liver (Professor O'Sullivan for Dr. Roy Dobbin), 189; endothelioma of uterus (H. C. Earl and Mr. Maunsell), 189; myoma of rectum (H. C. Earl), 189; gastric ulcer (Mr. Gunn), 189; actinomycosis (Dr. Earl), 774; sarcoma of the conjunctiva (Arthur Benson and Dr. Mooney), 774
——— Section of Surgery: Cholecystotomy for acute cholecystitis following typhoid fever (Mr. Maunsell), 189; conservative perineal prostatectomy (C. Arthur Ball), 189; plaster-of-paris splints (W. T. de C. Wheeler), 600; oblique fracture of tibia (Edward H. Bennett), 600; some cases of joint excision (Mr. Kennedy), 600; painless hæmaturia (L. G. Gunn), 825; purulent collections (Robert Woods), 825; cleft palate (Sir Thornley Stoker), 1274; volvulus of cæcum (J. L. Keegan), 1274
——— Section of Medicine: Paratyphoid fever (Dr. Parsons), 305; large white kidney (Dr. Peacocke), 306
——— Section of Obstetrics: Physometric uterus (Alfred J. Smith), 477; cystic endometritis (Dr. Purefoy), 477; observations on Bossi's dilator (Alfred J. Smith), 477; chorionic villi in a case of ruptured tubal pregnancy (E. J. McWeeney), 885
——— Section of State Medicine: Earth temperature and diarrhœal diseases (Sir John W. Moore), 537; asylum dysentery (E. J. McWeeney), 943; poisoning by carbon monoxide (W. J. Thompson), 943
Accident, What is an? 1057
——— assurance, fee for consultation, 223
——— company's certificates, 1073
Accidents to railway servants, 938
Account forms, 393
Acetate of iron in pneumonia, 1024, 1188
Achard, M., relations between tubercle and traumatism, 445
Acid media in the isolation of the plague bacillus (W. C. C. Pakes and F. H. Joseph), 136
Acne rosacea caused by intranasal irritation (William Lloyd), 74; note on, 228, 695
——— x rays in (Dr. Codd), 1271
Act, the Coroners, and hospital surgeons, 568
——— the Dental, at Adelaide, 799
——— the Horseflesh, charge under at Oldham, 1207
——— Infant Life Protection, and "nurse children," 110
——— Leeds Corporation Consolidation, sanitary provisions of, 1298
——— the Lunacy, disqualifications under, 939, 1069
——— the Midwives, 25, 506, 510, 564, 835, 910, 957, 1117, 1248, 1400; in Lancashire, 25; in Manchester, 44; Boards of Guardians and, 506; in London, 506; East Sussex Council and, 505, 565, 1118; Obstetrical Society's examinations for, 506; Monmouthshire County Council and, 510; administration of in Liverpool, 804; at Cambridge, 835; working of in Manchester, 836; the administration of, 910; and its first penal clause, 957; and the medical profession, 1069, 1127, 1161, 1300, 1359, 1404; and payment of medical practitioners, 1117, 1248, 1252; in West Sussex, 1118; in the West Riding, 1118; in Warwickshire, 1118; note by Dr Routoul, 1252; and the Westminster City Council, 1363; and the Islington Borough Council, 1367; and the Devon County Council, 1367; at Cardiff, 1400; notification by midwife of intention to practise as such, 1400; monthly nurses, 1400
——— Public Health, Section CXIV of, and smells, 102
——— the Vaccination, magistrates and, 1247
——— Workmen's Compensation, case under, 567
——— the Workmen's, in Vienna, from a medical point of view, 567
Actinomycosis (Dr. Earl), 774
Action for negligence, verdict for defendant, 734
Acts, the Companies, registration of nurses under, 615; evasion of the Medical Acts under, 616
——— the Dental, evasion of, 1172
——— the Inebriates, homes under, 1009
——— the Medical, evasion of under the Companies Acts, 616, 1172
——— the Vaccination, distress warrants under, 1059
Adam, Edward, obituary notice of, 49
Adami, J. G., elected F.R.S., 494; adaptation and tuberculosis, 1133
Adams, C. E., carcinoma of left adrenal, 775
——— W. Coode, practitioners and chemists, 1071
Adaptation and tuberculosis (J. G. Adami), 1133
Adcock, Sir Hugh, appointed Persian Consul-General at Florence, 1104
Addiosell, Augustus W., removal of gall bladder in a woman of 75, 759
Adelaide, special correspondence from, 799; the Leith Napier case, 799; Government recognition of the Branch, 799; Dental Act, 799; nursing associations, 799; defence association, 799; report of medical officers of health, 862
Aden, boundary commission, 455; plague in, 425
Adenoid growths and deafness, 270
Adenoids, national importance of thorough and systematic removal of in childhood (Griffith C. Wilkin), 766, 1382
Adenoids, post-nasal, treatment of (John Ward Cousins), 182; correspondence on, 279, 335, 514, 624, 694, 808
Adenoma of kidney (Mr. Heaton for Mr. Barling), 1042
——— cystic, of left kidney, case of (W. G. Spencer), 249
Adiposis dolorosa (Douglas Stanley), 824; note on, 1188
Adirondack Cottage Sanatorium, note on, 948
Adrenalin, price of, 1024
Adulteration of food and drugs, 911
Advertisement, the gentle craft of, 47
Advertisements, indecent, 859
Advertising, medical, 43, 50, 515, 803, 1022, 1073, 1131
——— medical, and dental, and the Cape Medical Council, 43
——— ——— of medical practitioners in connexion with hydropathic and similar establishments, 499, 751
Africa, British East. See British
——— South. See South
——— West. See West
After twenty years (Percy Warner), 526
Agar, Samuel Hollingsworth, obituary notice of, 453
Age limit of intellectual work, 488
Agra and Oudh, United Provinces of, sanitary report for 1903, 852
Agreement, the cost of, 165
Agreements not to practise, 1131
Ailurophobia, 1395
Ainay-le-Chateau, care of the insane poor at, 363
Air-passage, foreign body in the (Percy Withers), 1146
Aitken, Chas. J., illness following tick bite, 412
Albert medal, 1390
Albinus, note on, 216
Alcock, S. King, uncertainty of post-mortem evidence in suspected lead poisoning, 1371
Alcohol as a cause of degeneration, 112
——— action of on the heart (W. E. Dixon), 538
——— and commercial efficiency, 565
——— and physical deterioration, 897
——— physical effects of, 1053
——— prescription of, 1111
——— wood, poisoning by, 262
Alcoholism, lectures on, 677
——— ——— Professor Sims Woodhead on, 91
——— ——— among the working classes, 797
Aldersmith, H., incubation period of mumps, 626
Alderson, F. Herbert, Indigestion, Its Prevention and Cure, rev., 24
Alexander, Forbes James, case of ileo-colitis in a child simulating acute intussusception, 73
——— ——— James, notice of death of, 803; obituary notice of, 857
Algeria, prevention of malaria in, 1331
Alien lunatics and inebriates, 675
——— the undesirable, 842
Aliens and infectious diseases, 1246
Alimentary canal, surgery of, note on (John Campbell), 304
Alison of Edinburgh, note on, 216
Allan, John, case of scarlet fever in an infant three weeks old, 593; heterochromia iridis, 990
Allan-Bennett, R., case of hæmarthros of the wrist, 594
Allardice, William C., simultaneous intrauterine and extrauterine gestation: operation: recovery, 942
Allbutt, T. Clifford, lecture on blood pressure in man, 315; discussion on influenza, 977, 1044
Allen, A. Taylor, New Streets: Laying out and Making up, rev., 482

Allison, T. M., Health in Infancy, rev., 310; feeding of infants, 748, 1125; sanatorium treatment of phthisis: is it worth while? 916
Allport, Wilfrid, case of syphilitic ophthalmoplegia, 534
Allworthy, S. W., The Irish Medical Directory, 1018
Almond-oil poisoning, case of (H. E. Heapy), 941
Aloes, note on, 636
Alphozone, note on, 1150
Ambidexterity (N. Bishop Harman), 14; note on, 550; correspondence on, 163, 334
Ambulance, field, 1023
——— motor, 696, 717, 956, 1017
——— railway carriages, 384
——— services for London, 31, 320, 494, 555, 731, 1286
——— services for Vienna, 508
——— surgeon, first female, 486
——— volunteer, school of instruction, 1023
——— work, note on, 494, 1130
Amblyopia caused by tobacco, 33, 478
Ambush II, skeleton of, 509
Amenorrhoea, 1187
America, female medical students in, 57; army medical reorganization in, 87; mortality among medical practitioners in, 198; cancer in, 264; quacks in, 374, 836; antivivisection in, 724; anticigarette legislation in, 724, 780; cancer research in, 785; compulsory vaccination in, 836; medical legislation in, 862. See also United States
——— tuberculosis conference in, 1339
American anatomists, conference of, 948
——— Cancer Commission, 166
——— Diet, 666
——— doctors and the Hall of Fame, 316
——— medical poet, an, 613
——— National Federation of Women's Clubs and the Higher Education of Women and Race Suicide, note, 319
——— nurses in Japan, 963
——— Public Health Association, thirty-second annual meeting, 319
——— South. See South
American-Indian girls as nurses, 557
Ammonium, salts of, effects of upon blood pressure (Arthur Edmunds), 57; correspondence on, 389, 451
Amputation of both legs, late results of (A. Turnbull), 1269
Anaemia, Report of Commission for Study of, rev., 1149
Anaemia splenica (J. H. Bryant), 476
Anaemic infarction of liver (Professor O'Sullivan for Dr. Roy Dobbin), 189
Anaesthesia, the corneal reflex in (H. Bellamy Gardner), 244; (L. Kirkby Thomas), 880; (William Elder), 1147; correspondence on, 971, 1183
——— in operations about the mouth, 1355
——— renal activity during (W. H. Thompson), 649
Anaesthetic, ethyl chloride as an (Dr. Graham), 1148; blue light as an, 1290, 1405
——— mixtures, a sterilizable inhaler for, 24
Anaesthetics, administration of, 105; risk of, 558; administered by unregistered dentists, 1164
Anaesthetist, choice of an, 1364
Anatomical charts, note on, 52
Anatomy, popular, 340
Ancient strike, a, 433
Anderson, Dr, note on the treatment of various diseases by light, 193
——— E. Garrett, antivaccination figures, 1249
——— John, patency of interventricular septum, 191; tuberculous meningitis in adult, 191
——— J. Wallace, Home Nursing and Hygiene, rev., 139
Andrews, Henry Russell, reports a case of uterine fibroid removed from a patient aged 20, 716, 826; ruptured interstitial pregnancy, 1332
Andrewes, F. W., case of cutaneous anthrax successfully treated by Sclavo's serum, 16, 296
Aneurysm of the aorta rupturing into the trachea, 133
——— opening from the first part of the thoracic aorta into the pulmonary artery (D. McNabb), 883
Angina or Angelina? 636
Angora ewe, morbid growth from (W. de Korté), 1092
Animals, liability for the bites of, 552
——— living, experiments on, 1204
Ankle, rare form of dislocation of (Thomas Eastes), 769
Ankylostomiasis, jubilee of the discovery of, 263; should it be made a notifiable disease? 273; prevention of (A. B. Dalgetty), 17; among miners, 218, 720, 1022; paper on (A. E. Boycott), 721
Anomaly, congenital, death at 15 from a, 671
Anthrasol, note on, 310
Anthrax in cattle, 734
——— spread of in Cheshire, 159; in Bradford, 339; at Wellingborough, 1113
——— increase of in Great Britain (Sheridan Delépine), 658
——— cutaneous, successfully treated by Sclavo's serum (C. B. Lockwood and F. W. Andrewes), 16; (Anthony Bowlby and F. W. Andrewes), 296
——— industrial (T. M. Legge), 529, 589, 641; note on, 611; (leading article), 668
Anthropology, social and criminal, 396
Antialcohol Congress, International, programme, 368
Antialcoholic movement in Vienna, 509
Anticigarette legislation in America, 724, 780
Antimalaria campaign in Corsica, 205; in Madras, 282
Antiquackery Congress in France, 317; in Italy, 1160
Antirabic inoculations in Vienna, 110
Antitetanus serum in treatment of tetanus: recovery (James Miller), 1269
Antitoxin, diphtheria, in cerebro-spinal meningitis, 1244
——— successful treatment of tetanus by (W. S. Campbell), 183
Antituberculous dispensary at Beaujon Hospital, 445
Antityphoid inoculation, a suggestion, 168; (leading article), 1343; German experience of, 726, 1166
Antivaccination, triumphant (at Dewsbury), leading article, 370; report of Local Government Board on, 382
——— figures, 1249
Antivaccinators, some recent and definite figures for, 98; and the Ossett figures, 738
Antivivisection in America, 724; prize story of, 679
Antivivisectionist stage thunder, 1295, 1360
Antrum of Highmore, transillumination of (A. Brown Kelly), 650
Anuria, calculous, in a child (Douglas Drew), 357
Anus, noma of (Dr. Darling), 825
Aorta, aneurysm of, rupturing into the trachea, 133
Apoplexy, prevention of (leading article), 782
Apothecaries, Society of, London, pass lists, 109, 224, 454, 665, 863, 974, 1366; the Gillson Scholarship in Pathology, 339, 751; Midwives Act, 751; title of licentiate, 917
——— Correspondence on, 972, 1016, 1127, 1183, 1249, 1300
Apparatus for transfusion, 25
Appendicectomy, operation for (A. W. Mayo Robson), 117
——— after-history of (leading article), 487
——— treatment of the stump in, 162, 222, 276, 333, 390
Appendicitis and colitis from a surgical point of view, relationships between (C. B. Lockwood), 466
——— in Berlin, 836
——— in the female sex, some peculiarities of (George Heaton), 463
——— in pregnancy, operations for, 1169
——— prospects and vicissitudes of after operation (Sir Frederick Treves), 457, 474, 535, 595; note on, 696
——— suppurative, unusual case of (George A. Clarkson), 118
——— treatment of (Rushton Parker), 114; (note), 375
Appendix, vermiform, value of in treatment of ulcerative and membraneous colitis (J. Hutchinson, Jun.), 1039
Arbitration, a matter for, 224
Armour, Donald, operation of gastro-duodenostomy, especially in reference to Finney's operation of gastro-pyloduodenostomy, 122
Armstrong College of Science, progress of structural additions, 45
——— James, obituary notice of, 106
Army, British, the medical service of, keenness for commissions in, 148; military operations in Nigeria in 1902-3, 166, 224; appointment of Surgeon-General Keogh (Week), 316; medal for the Thibet Mission, 392, 919; pay and expenses, 392; question in Parliament on the present condition of, 435; Aden Boundary Commission, 455; nursing in the, 504; R.A.M.C. colours, 514; Gilbert Blane medal, 514; dentistry in, 546; Queen Alexandra's Imperial Military Nursing Service, 630; civil surgeons for, 732, 1114; the clothing factory at Pimlico, 788; economy of an efficient service, 954; medal for Somaliland, 976; field ambulance, 1023; first aid in, 1023; Volunteer Ambulance School of Instruction, 1023; Yeomanry and Volunteer Medical Officers, annual dinner, 1073; training of Volunteer medical units, 1073; treatment of venereal disease and scabies in, 1106; Medical College of, 491, 1109; award of the Sir William Taylor Prize 1904, 1128; examination of Majors for promotion, 1128; examinations for candidates, 1185; financial position of medical officers, 1288; health of the, 1350
Army, French, in the time of Henry IV, Louis XIII, and Richelieu, 621
——— Indian, 51, 106, 392, 572, 604, 803, 1015, 1128, 1366, 1408; civil department, 51; rates of half-pay, 106; new pension rules, 392; revised rates of pay, 573; leave pay for, 694; promotion to lieutenant-colonel, 803; medal for Northern Nigeria 1903, 803; increased pay to, 803, 1015, 1128; financial position of medical officers, 1288; prize distribution at Netley, 1304; death of Lieutenant-Colonel Kaikhoso Sorabji Mariman, 1305; annual dinner, 1366; private practice, 1408
——— Medical Department Report for 1903, 1388
——— Medical College, note on, 491, 1109, 1169
——— medical reserve, an, 47
——— officers and colour blindness, 846
——— reform debate, 495
——— Russian, the sick and wounded of the, 553
——— United States, medical statistics, 42; reorganization of the medical service of, 87
Arsenic in the air of large towns, 203
——— and ergot in chorea (Clive Riviere), 354
Arsenical poisoning commission, the outcome of the report of, 555
Arterial blood pressure in clinical practice, determination of (C. J. Martin), 865; correspondence on, 967
Arterio-sclerosis, address on (James Barr), 53; note on, 456; correspondence on, 222
Arteritis, obliterative (E. Michels and F. Parkes Weber), 762
Artery, rupture of left coronary (A. F. R. Conder), 653
Arthrectomy of knee joint (Douglas Drew), 476
Arthritis deformans and its allies (Bertram Abrahams), 599, 873
——— rheumatoid, acute (Hale White), 598; correspondence on, 970
Arthuis, A., Un Traitement curatif de la Tuberculose pulmonaire, rev., 542
Artificial respiration in therapeutics, wider use of (Leonard J. Kidd), 881
Ascites, Talma-Morison operation for, 915
——— milky, in which the opalescence was not due to fat (F. Taylor and J. Fawcett), 1273
Aseptic block dressing tray, 1385
Ashby, Dr., vomiting in infants, 775
Ashton, Gough, obituary notice of, 973
"As ithers see us," 612
Asphyxiation of blast-furnace workmen, 1287
Aspirin and mesotan (G. Burnet), 827
Assam, sanitary report for 1903, 892
Assistant, the duties of an, 49
——— or accomplice? 808
Assistants and Principals. See Principals
——— doorplate, 1308
Association, American Climatological, Transactions, rev., 1099
——— American Medical, Bill of incorporation of, 368, 732
——— American Physical Education, annual meeting, 1055
——— American, for the Prevention of Consumption, annual meeting, 1339
——— American Public Health, thirty-second annual meeting, 319
——— Asylum Workers', annual meeting, 1168
——— Barry District Nursing, annual report, 1180
——— British, note re next meeting, 483
——— Dental, meeting at Salford, 1179
ASSOCIATION, BRITISH MEDICAL, annual meeting at Leicester, 1905, the pathological museum of, 219; recreation at, 1285
——— amalgamation of Bradford and West Riding Medico-Ethical Union with, 1107
——— Adelaide Branch, recognition of by the Government, 799
——— Bath and Bristol Branch, 249, 474, 771, 991; meeting and exhibition of lantern slides, 249; meeting and discussion of cases, 474, 991, 1382; milk depots (J. M. Fortescue Brickdale), 771; recto-urethral fistula (R. J. P. Lansdown), 771; purpura haemorrhagica (F. H. Edgeworth), 771; cases, 771
——— Birmingham Branch, 193, 304, 415, 533, 655, 824, 1041; aneurysm of the aorta rupturing into the trachea (Dr. Short), 133; supernumerary auricle (Dr. Glegg), 133; treatment of some common diseases of the ear, with a special reference to otectomy (Mr. Faulder White), 133; involution of uterus after labour (Dr.

John Duncan), 133; transposition of viscera (Dr. Short), 304; chronic ulcer of stomach, with perforation (Dr. Short), 304; nasal disease (Dr. Lamb), 304; rodent ulcer (Mr. Baines), 304; sarcoma of cranial bones (Dr. Sydenham), 304; Raynaud's disease and rheumatoid arthritis (Dr. Douglas Stanley), 304; discussion, 415; dry gangrene of lower limb (Mr. Gamgee), 533; hereditary syphilis (Mr. Lucas), 533; chronic syphilitic nephritis (Dr. Emanuel), 533; syphilis of the lungs (Douglas Stanley), 533; lupus of the upper air passages (Wilfrid Clegg), 534; syphilitic ophthalmoplegia (Wilfrid Allport), 534; Charcot's ankle (Mr. Billington), 534; dermography (Stacey Wilson), 655; reverberation in abdominal diagnosis (Stacey Wilson), 655; the level of the diaphragm and the circulation (Stacey Wilson), 655; lupus of pharynx (Dr. Lamb), 824; case for diagnosis (Willoughby Gardner), 824; adiposis dolorosa (Douglas Stanley), 824; congenital stenosis of duodenum (Willoughby Gardner), 824; panhysterectomy for fibroid (Dr. Purslow), 824; patellar flexion-dislocation (Wm. Thomas), 824; infantile cerebral diplegia (Dr. Kauffmann), 1041; pachydermia laryngis (Dr Lamb), 1042; adenoma of kidney (Mr. Heaton, for Mr. Barling), 1042; sarcoma of axilla (Mr. Heaton, for Mr. Barling), 1042; removal of gall stone from small intestine (Mr. Heaton, for Mr. Barling), 1042; intrathoracic growth (Douglas Stanley), 1042; hydrocephalus in adult (Stanley Barnes), 1042

BRITISH MEDICAL ASSOCIATION, Birmingham Branch, Coventry Division, 413; specimens, 413; diagnosis and treatment of typhoid fever (J. Orton) 413; notes on treatment (E. H. Snell) 414

——— Border Counties Branch, West Cumberland Division, meeting and exhibition of cases, 595

——— North Cumberland Division, meeting, 1147: mammary carcinoma with secondary deposit in spinal cord (Dr. Edington), 1147; pharyngeal tuberculosis (Arthur G. Wilkins), 1147; pulmonary tuberculosis (Dr. Bird), 1147; raw meat in tuberculosis (Dr. Goodchild), 1148; ethyl chloride as an anaesthetic (Dr. Graham), 1148

——— Ceylon Branch, 254, 661; Journal of, rev., 254, 661

——— Hong Kong and China Branch, 717; progressive muscular atrophy (Major Strickland), 717; the factors in plague incidence (Major J. S. Thomson), 717; votes of thanks, 717

——— Lancashire and Cheshire Branch, annual meeting, 1356

——— Leinster Branch and Surgeon-General Evatt, 498

——— Malta and Mediterranean Branch, 133; case of double infection of enteric and Mediterranean fever (Captain Kennedy), 133

——— Metropolitan Counties Branch, Westminster Division, 187; the place of sugar in the dietary of health and disease (William Ewart), 187

——— Metropolitan Counties Branch, St. Pancras and Islington Division, 772; items of treatment (Sir Hugh Beevor), 772

——— North of England Branch, 534, 1042: panophthalmoplegia (W. H. Brown), 534: Raynaud's disease (W. H. Brown), 534; ulcer of epiglottis (Dr. Peart), 534; retroversion of uterus (Lachlan Fraser), 534; Thiersch grafting from the rabbit (Lachlan Fraser), 534; specimens, 534; difference in type of diseases (Dr. Barrow), 1042; ataxic paraplegia (Dr. Dickie), 1042; specimens, 1042

——— North Lancashire and South Westmorland Branch, 883; modern treatment of phthisis (T. H. J. E. Hughes), 883; specimens, etc., 883

——— Oxford and Reading Branch, x-ray photographs of fractures and dislocations (Jonathan Hutchinson, jr.), 656; chloroform poisoning (Dr. Turrell), 656; gangrenous Meckel's diverticulum (Mr. Parker), 656

——— Perth Branch, molar pregnancy (Dr. Paton), 474; disseminated or insular sclerosis (Dr. Paton), 474; cases and paper, 474

——— Shropshire and Mid-Wales Branch, case, 1382; evolution in tuberculosis (Professor Leith), 1382; detection of carbon monoxide in the blood (Law Webb), 1382; adenoids (Russ Wood), 1382

——— Southern Branch, Portsmouth Division, 133, 772; cases of incision of maxilla and haroup (J. Ward Cousins), 133; ideal cholecystotomy and tuberculous glands of neck (C. P. Childe), 133; bulbar disease (C. C. Claremont), 133; fractured patella (Henry Rundle), 133; pathological specimens, 133; meeting and exhibition of cases, 772

BRITISH MEDICAL ASSOCIATION, South-Eastern Branch, Brighton Division, meeting and cases, 771, 1272

——— South-Eastern Branch, Canterbury and Faversham Division, thrombosis of deep cerebral brains (E. Weatherhead), 1091; cases exhibited by Dr. Henchley and Dr. Gosse), 1091, 1092

——— South-Eastern Branch, Isle of Thanet Division, clinical meeting, 595, 1148; demonstration of the electrical apparatus used at the Royal Sea-Bathing Hospital (Dr. Heaton), 1148

——— South Indian Branch, 254; Transactions of, rev., 254

——— South Wales and Monmouthshire Branch, Monmouthshire Division, meeting, 21; difficulties met with in the diagnosis of malignant disease of the liver (Mitchell Stevens), 21; demonstrations and exhibition of photographs, 21

——— Staffordshire Branch, meeting, cases, papers, and specimens, 534; radical operation for cancer of mouth (Edward Deanesly), 1270; stricture of transverse colon (Edward Deanesly), 1270; cases of gastric surgery (Edward Deanesly), 1270; perineal prostatectomy (Edward Deanesly), 1270; urethral polypus (Edward Deanesly), 1270; epidural haemorrhage (Edward Deanesly), 1270; incontinence of urine (Edward Deanesly), 1270; cerebral tumour (Mr. Cholmeley), 1270; pyonephrosis; abdominal nephrectomy (Mr. Cholmeley), 1271; sympathetic ophthalmitis (Dr. Cridland), 1271; infective vaccination (Dr. Cridland), 1271; paralysis of third nerve (Dr. Codd), 1271; x rays in acne (Dr. Codd), 1271; epithelioma of ear (Dr. Codd), 1271; x rays in treatment of hairy mole (Dr. Codd), 1271; separation of epiphysis of metacarpal (Dr. Codd), 1271; bullet in calcaneum (Dr. Codd), 1271; foreign body in sigmoid flexure), Dr. Codd), 1271; oesophageal obstruction (Dr. Codd), 1271; demonstration of some minor points of surgical technique (Edward Deanesly), 1271; specimens, 1272

——— Ulster Branch, 304, 824; nephrectomy (A. B Mitchell), 304; malignant disease of lung (Professor Lindsay), 304; surgery of the alimentary canal (John Campbell), 304; cases, etc., 305; male infantilism (William Calwell), 824; gynaecological operations (Professor Byers and R. J. Johnston), 824; cancer of rectum (Dr. St. George and Mr. Kirk), 824; method in drug prescribing (W. M. Storar), 824; thyrotomy for endolaryngeal cancer (W. M. Killen), 825; noma of anus (Dr Darling), 825; tetany and gastric dilatation (Dr. Trimble), 825

——— Victorian Branch, annual meeting and dinner, 490

——— Yorkshire Branch, 717; conjoint meeting, 717; specimens, 717

——— clinical and scientific proceedings, 21, 133, 187, 249, 304, 413, 474, 533, 595, 655, 717, 771, 824, 883, 991, 1041, 1091, 1147, 1270, 1385

——— colonial tribute to, 490

——— and the Colonies, 1394

——— committee work of, 1016

——— adjourned meeting of Council, 148, 376

——— election to Central Council, 1069

——— elections, annual, 1125, 1180

——— the President of, 669

——— coat of arms for, proposed, 278

——— grants for scientific research, 620, 741, 796, 850, 910, 1064, 1154

——— and local societies, 1004

——— the Year Book of 1905, 90, 221

Association, the British Optical, note on, 88, 898

——— British Temperance, 91; annual meeting, 1244

——— Canadian Medical, notice of meeting, 496

——— of Certifying Factory Surgeons, annual report, 155; deputation to Under Secretary of State, Home Department, 1

——— Convalescent Homes, 430, 544, 623, 741

Association, Cork Scientific, meeting and lecture, 1001

——— District Nursing, growing usefulness of at Leeds, 386

——— Domestic Economy, first general meeting, 1357

——— of Economic Biologists, first congress of, 990

——— of French Midwives, formation of, 859

——— Garioch and Northern Medical, summer meeting, 1115

——— German, of Scientists and Medical Practitioners, seventy-seventh annual meeting, 1000

——— Irish Medical, note on, 431; special meeting, 498; meeting of Committee, 847; annual meeting, 1173, 1248, 1293, 1305, 1353

——— Irish Medical Schools' and Graduates, annual meeting, 680, 1116; dinner, 680; election of officers, 1116

——— Manchester and Salford Provident Dispensaries, note on, 567

——— Medical Aid, proposed, in Cape Colony, 44

——— Medical Defence of South Australia, note on, 799

——— Medical Diplomates of Scotland, inaugural dinner, 426

——— of the Medical Press, International, meeting at Berne, 997

——— Medical Students' (of Queen's College, Ireland), 91

——— Medico-Ethical, Manchester, discussion on the influence of tradition on medical practice, 1005

——— Medico-Psychological, of Great Britain and Ireland, quarterly meeting, 485; election of a new president, 1050; meeting and cases, 1005, 1332

——— Midwives Rural, meeting, 283

——— Midwives, for Promoting and Training and Supply of, annual meeting, 420

——— Ontario Hospitals, 1354

——— for the Prevention of Consumption, National: Glasgow and District Branch, meeting at Glasgow, 266, 1173; annual meeting of London Branch, 737; Cork Branch, lecture by E. J. McWeeney, 1000; in America, 1000, 1339

——— Queen Victoria District Nursing (Liverpool), annual report, 797

——— of Registered Medical Women, 78, 479, 722, 886, 1040; muscular wasting in a single woman aged 27 (Miss Bore), 78; case of death third day after delivery, apparently of acute toxaemic hepatitis (Miss Garrett Anderson), 78; case of hydatidiform mole occurring at second pregnancy (Miss Bale), 78; treatment of pulmonary tuberculosis (Jane Walker), 479; case of mitral stenosis (Miss Woodcock), 722; oculo-motor paralysis (Miss Ivens), 722; contracted pelvis from osteomalacia (Miss Farrer), 722; exhibition of cases, 886; meeting and exhibition of cases, 1046; annual general meeting, 1390

——— Rural Midwives, annual meeting, 1160

——— St. John Ambulance, annual inspection of Belfast Fire Brigade Division, 1173

——— of Sanitary Inspectors, twenty-second annual dinner, 312; support Public Health Bill, 446

——— of South Wales, eighth annual meeting at Cardiff, 275; first meeting of session, 1180

——— Sanatorium, Report of the National, 557

——— Scottish Poor-law Medical Officers', annual meeting and report, 215; meeting and presentation to Dr. W. L. Muir, 436

——— State Children's, annual meeting, 1282

——— Volunteer Medical, annual dinner, 859; challenge shield competition, 1468

Associations, Head Teachers', National Federation of, annual report, 30; and hygiene, 30

——— Nursing, in Australia, 709

Asthma, spasmodic, subcutaneous in a case of (C. J. Whitby), 73

Astragalus, fracture of (J. Hugh Lett and J. Hutchinson, jun.), 1003

Asylum, auxiliary lunatic, in Ireland, 495

——— Ayr district, annual report, 1011

——— Bristol Lunatic, annual report, 1310

——— City of London, Stone, near Dartford, 30th annual report, 800

——— Cork district, 902

——— Derby Borough, annual report, 1011

——— Down district, 904

——— Dundrum, and patients' letters, 540

——— Dysentery (E. J. McWeeney), 914

——— Fife and Kinross district, note on patients at, 35

——— Gladesville (Sydney), additions to, 1122

——— Middlesbrough County-Borough, annual report, 1311

Asylum, Royal, for Deaf and Dumb, Margate, 1310
——— Youghal auxiliary, 1114
Asylums, Belfast, report of medical inspector in lunacy, 149
——— lunatic, coroners and deaths in, 571
——— lunatic, in Philadelphia, 1249
——— Royal Edinburgh, for the Insane, annual meeting 675
Ataxia, Friedreich's, the nature of (Dr. Rainy), 188
Ataxic paraplegia (Dr. Dickie), 1042
Atkinson, Dr., presentation to, 780
——— Edward, death of, 554; obituary notice of, 631
Atrophy, progressive muscular (Major Strickland), 717
——— of the skull, senile symmetrical (F. Parkes Weber), 129
Atropine, in inebriety (A. P. Hope Simpson), 132; in a case of morphine poisoning, recovery (A. Sheen), 1040
Aubyn-Farrer, Claude St., diplomates of Scottish colleges, 916
Auckland, New Zealand, contract medical practice in, 507
Auld, A. G., case of "fibroid pneumonia," 236
Auricle, supernumerary, 133
Austin, Major R. F. E., commonly overlooked factors in the vocal mechanism, 647
Australia, plague in, 558; prevention of consumption in, 850, 1120; quarantine conference, 831
——— medical practice in, 1233; Medical Acts, 1233; unqualified practice, 1233; public health service, 1234; public hospitals, 1234; lunatic asylums, 1235; contract medical practice, 1235; medical schools, 1236; medical men in parliament, 1236; British Medical Association, 1236
Austria, medical practice in, 1204; medical education, 1204; female practitioners, 1204; practitioners and the public, 1204; overcrowding of the profession, 1204; public services, 1204; professional earnings, 1205; contract medical practice, 1205; specialists, 1205; practices not negotiable, 1206; the profession and the law, 1206; unqualified practice, 1206; prescribing and dispensing, 1206; organization of the profession, 1206; medical providence, 1206; medical societies, 1207; social status, 1207
Automobile ambulances, 696, 717
Automobiles for medical men, 372, 636, 696, 1128
Autopsy, the conduct of an, 1410
Auvray, Maurice, La Chirurgie de Médiastin Antérieur (coeur et péricarde exceptés), rev., 418
Avellis, George, Verhandlungen des Vereins Süddeutscher Laryngologen, rev., 1335
Axial torsion of the uterus, 314
Axilla, sarcoma of (Mr. Heaton for Mr. Barling), 1042

B.

Bab, Hans, Die Colostrum Bildung, rev., 360
Babcock, Robert H., Diseases of the Heart and Arterial System, rev., 481
Babies as an investment, 1312
Babu, gratitude of the, 844
Bacillus coli, Is it a normal inhabitant of shellfish? (J. T. C. Nash), 183
——— enteritidis Gaertner in cow's milk, occurrence of (E. Klein), 136
——— of leprosy, cultivation of, 315
——— plague, use of acid media in the isolation of (W. C. C. Pakes and F. H. Joseph), 130
——— typhoid in shellfish, vitality of, 611, 885
Bacterial cultures for class purposes, method of preserving, 1412
Bacteriological investigations by Professor Siegel, notice on, 742
Bacteriology, conjunctival, some practical aspects of (Freeland Fergus), 502
Bad times and good sanitation, 1138
Bahia, destruction of the medical school at, 1257
Bailiffs, a judge on, 585
Bain, William, proposed confederation of the London medical societies, 799
Baines, Albert Henry, obituary notice of, 972
Baker, James Payne, obituary notice of, 803
Balfour, Andrew, third stage in the sexual cycle of the haemogregarine of jerboas, 1332
——— Hon. Gerald, appointed President Local Government Board, 614
Ball, Sir Charles, treatment of inveterate pruritus ani, 113
——— C. Arthur, conservative perineal prostatectomy, 189
——— H. B., case of chronic middle ear suppuration with thrombosis of the lateral sinus, 885
——— J. M. (part author), the Relation of the Cervical Sympathetic to the Eye, rev., 196; Modern Ophthalmology, a Practical Treatise on the Anatomy, Physiology, and Diseases of the Eye, rev., 197
Ballance, Charles, paper on dangers of radical mastoid operation, 777
Ballantyne, Arthur J., pupillary membrane, 1046
Ballyhaunis, trained midwife for, 495, 555
Banks, Sir William, memorial to, 34, 568, 912
Banzet, S. (part author), Chirurgie Orthopédique, rev., 859
Barbour, Freeland, climacteric haemorrhage due to sclerosis of the uterine vessels, 137
Bardswell, Noel Dean, appointed Medical Superintendent of the King's Sanatorium, 672
Barker, A. E., condition of the small intestine some years after extensive enterectomies, 720; cases illustrating alternative operations for intestinal obstruction, 756
——— H. A., the bloodless surgeon, 280
——— L. F., appointed to Chair of Medicine in Johns Hopkins University, 502
Barling, A. S., iodized catgut, 823
Barlow, Sir Thomas, appointed Holme Professor of University College, London, 845
Barnes, Dr., case of rodent ulcer, 304
——— Henry, medical worthies of Cumberland, 297
——— Stanley, hydrocephalus in adult, 1042
Barnett, H. Norman, suspended respiration under chloroform, 1381
Barr, James, address on arterio sclerosis, 53; two cases of Addison's disease, 478; determination of arterial blood pressure in clinical practice, 958
——— Martin W., Mental Defectives, their History, Treatment, and Training, rev., 660
——— Thomas, presidential address at meeting of Otological Society, 416
Barrau, Sir John, death of, 1068
Barrett, C. R. B., The History of the Society of Apothecaries of London, rev., 993
Barrow, Dr., difference in type of disease, 1042
Barry, report of medical officer, 386; outbreak of diphtheria at, 1058
Barton, J. Kingston, the feeding of infants, 1182
Barwell, Richard, Lateral Curvature of the Spine and Pelvic Deviations, rev., 888
Basch, Samuel Ritter von, obituary notice of, 1384
Bashford, E. F., discussion on carcinoma, 600
Basutoland, medical work in, 672
Bateman, A. G., inquest fees to hospital officers, 459; the Coroners Act and hospital surgeons, 578
Baths of Droitwich, the, 33
Batten, F. E., encephalitis, 76
——— Kayler D., neuro-fibroma of the eyeball and its appendages, 478
Battle, William H., the stump in appendicectomy, 277, 393
Bavaria, Duke Karl Theodor of, celebrates twenty-fifth anniversary of medical graduation, 665
Bayou, P. G., Histologischen Untersuchungsmethoden des Nervensystems, rev., 723
Bazin's malady successfully treated by high-frequency currents (W. F. Somerville), 244
Beadnell, C. Marsh, circumcision and clitoridectomy as practised by the natives of British East Africa, 964
Beatson, George T., etiology of carcinoma: Has it a physiological function in the body? 521
Beaumont, G. F., education committees and medical certificates, 512
Beckitt, J. Clay, haematemesis and melaena in an infant, 594
Beer, pure, 1059, 1171
——— v. tea, 1246
Beevor, Sir Hugh, items of treatment, 772
Belfast, public health of, 92, 100, 322, 617, 847, 1061; health lectures at, 149; report on the asylums, 149; overcrowded in the workhouse, 208; new coroner for, 266; proposed fixed salaries for dispensary medical officers, 286; medical report of the Consumptive Hospital, 322, 904; hygiene competition at, 322; sewage scheme of the Purdysburn Infectious Diseases Hospital, 377; constabulary medical officers, questions in Parliament, 435; alterations at the Court House, 617; cleansing of the Court House, 677, 789, 1124; Royal Victoria Hospital, annual report, 789; Sunday drunkenness in, 847; foreshore nuisance, Belfast Lough, 907; Maternity Hospital and the Central Midwives Board, 1204
Belgium, care of the insane poor in, 96, 150, 268; consumption of spirits in, 553; garden cities in, 836
——— medical practice in, 1215; legal qualifications, 1215; regulations of medical practice, 1216; duties of practitioners, 1216; professional earnings, 1216; public health, 1216; medical service of prisons, 1216; lunatic asylums, 1216; unqualified practice, 1216; contract medical practice, 1217; protection of professional interests, 1217; social position of the profession, 1217; the doctor in politics, 1217
Belgrade, University of, 836
Bell, Dr. J., presentation to, 780
——— R. Hamilton, thyroid like structures in ovarian cysts, 1332
Belloc, Hilaire, views on therapeutics, note, 100
Bengal, sanitary report for 1903, 851
Bennett, Edward H., oblique fracture of the tibia, 600
——— H. Percy, case of primary intradural tumour of optic nerve, 1041
——— William H., "Who's Who Year Book" and the medical profession, 48
Benson, Arthur, sarcoma of the conjunctiva, 774
Bentall, W. C., comminuted fracture of patella treated by open method and wiring, 75; interstitial myositis simulating tumour of sigmoid, 75; spontaneous evolution of a transverse presentation, 75; case of tetaniform convulsions, 1370
Bentley, Charles A., preliminary note upon a leucocytozoan of the dog, 958, 1018
Bequests to hospitals and medical charities, 75, 82, 140, 119, 160, 164, 198, 214, 256, 282, 329, 368, 385, 416, 486, 546, 565, 623, 631, 660, 724, 735, 771, 780, 815, 836, 847, 859, 904, 989, 1000, 1035, 1050, 1103, 1104, 1115, 1118, 1154, 1159, 1160, 1476, 1311, 1357, 1367, 1390
Berger, Paul (part author), Chirurgie Orthopédique, rev., 889
Bergmann, Professor von, elected President, Berlin Medical Society, 538
Beri-beri, ship (George A. Turner), 712; deputation of medical men to Colonial Secretary on, 732
Berkeley, Comyns, Non sibi, sed patriae, 220
Berlin, special correspondence from, 217, 384, 742, 797, 1014, 1122, 1401; epidemiological investigation of tuberculosis, 217; fatal imported case of small-pox, 217; the administration of the Rudolf Virchow Hospital, 817; ankylostomiasis among miners, 218; genius and hydrocephalus, 384; railway ambulance carriages, 384; alcoholism, 384; infant food dépôts, 384; Dr. Siegel's bacteriological investigation, 742; the control of infantile mortality, 742; the congress of internal medicine, Professor Wilhelm Roentgen, note on, 742; alcoholism among the working classes, 797; new wing of the Children's Hospital, 797; the discoverer of morphine, 797; appendicitis in, 836; evolution of dermatology in, 843; epidemic cerebro-meningitis, 1014; German Surgical Congress, 34th annual meeting, 1014; International Roentgen Congress, 1014, 1122; New Hygiene Institute, 1122; the Schiller Centenary, 1122; hospital provision in Berlin, 1401; human and bovine tuberculosis, 1401; statue of Virchow, 1401
Bermuda, inquiry into the existence of typhoid fever at (Lancelot Kilroy and F. W. Hooper), 878
Bernard, Dr. Armand, resignation of, 1550; extension of term of office, 1462
Berne, lady lecturer at university of, 836
Bernhard, Oscar, open methods of wound treatment, 915
Berry, G. A., visual efficiency, 1312
——— James, syphilitic destruction of nose treated by plastic operation, 1273
Bertie, Sir Francis, note, 957
Beta-eucaine lactate, 1093
Bexhill-on-Sea, new convalescent home at, 1288
Bezançon, Fernand (and Marcel Labbé), Traité d'Hématologie, rev., 946
Bickersteth, Robert, note on prostatectomy, 776
Bickham, Warren Stone, Textbook of Operative Surgery, rev., 887
Bicycle pedals, correct anatomical form of (R. A. Lundie), 768
Bidie, G., satinwoods and dermatitis, 74
Bier's hyperaemic treatment applied to gynaecological disease (Scott Carmichael), 137
Big Bill, a, 112
Bigg, Reginald, death of, 913; obituary notice of, 919
Bile salts, effects of upon blood pressure (Arthur Edmunds), 57; correspondence on, 389
Biliary calculi, surgical aspect of (E. Stanmore Bishop), 367; in the peritoneum, case of (Daniel Gillespie), 590
Biliousness, the hepatic factor in (Francis Hare), 816
Bill, Accidents (Mines and Factories), 674, 962
——— the Aliens, 892
——— Coal Mines Employment, 674
——— the Coroners, 603, 799
——— to control drug business, introduced into Japanese diet, 948
——— Infectious Diseases (Ireland), 1009
——— Juvenile Smoking, 616
——— Llandrindod Wells Water, 1068, 1180
——— Local Government (Scotland) Act Amendment, 555
——— London County Council (General Powers), 973
——— London Hospitals (Exemption for Rates), 788

Bill, Lunacy Act Amendment, 846, 902, 1009
—— Nurses' Registration, Question in the House, 496, 615, 788
—— Poor-law (Scotland), 1200
—— Prevention of Corruption, 616, 675, 788, 902
—— private, dangers of in legislation, 489
—— the Public Health Acts (Amendment), 1113, 1247
—— the Public Health, supported by sanitary inspectors of Manchester, 446; proposed amendment of, 555, 846; and security of tenure, 953
—— for Sterilization of Imbeciles, 956
—— Swansea Corporation, 903
—— Tuberculosis (Animals), Prevention and Compensation, 845
—— University College, London (Transfer), 675, 788
—— Vaccinations Prosecutions, 902
—— Workmen's Compensation, 1291
Billington, Mr., case of Charcot's ankle, 534
Bills, blocked, 788
Bingham, F. M., breech presentation complicated by spina bifida and hydrocephalus, 472
Binnie, J. F., Manual of Operative Surgery, rev., 1276
Bird, Dr., pulmonary tuberculosis, 1147
—— Percy Sandys, two cases of exfoliative dermatitis, 247
—— Major Robert, C.I.E. conferred upon, 34
Birmingham, Ambrose, obituary notice of, 225
—— C. L., Surgeon-General Evatt's report, 855
Births and deaths in England and Wales, 202
Bishop, E. Stanmore, surgical aspect of biliary calculi, 307; case of muco-colitis treated by lavage through the appendix, 598
—— G. T., cinnamon in dysentery, 823
—— S. Scott, Diseases of the Nose, Throat, and Ear, rev., 1335
Bishops and the doctor, the, 252, 334
Bismuth salts, actions and uses of (H. A. Caley), 538
Bisulphide of carbon, the law as regards workers with, 744
Bites of animals, liability for the, 552
Bizzozzero, Giulio, memorial to, 1000
Blackmail, an attempt to, 144, 160
Bladder, Diseases of, note on, 52
Blaikie, Tina M., case of urinary calculus forming round foreign body introduced into the bladder, 356
Blake, P. R., reports cases of herniotomy in the aged, 716
—— Richard Marlay, Surgeon-General Evatt's Report, 625
Blanchard, Professor, new book on mosquitos, 1014
Bland-Sutton, J., observations on a kidney which contained more than forty thousand iridescent calculi, 125; case of tuberculous disease of the body of the uterus, 353
Blane medal, the Gilbert, award of, 514
Blast-furnace workmen, asphyxiation of, 1287
Blatin, Marc, Le Soinage Médical et les Infirmières, ce qu'elles sont en France, ce qu'elles sont en Angleterre ce qu'elles devraient être, rev., 79
Blaxall, Francis Henry, obituary notice of, 106
Bleeding as a punishment for Roman soldiers, 100
Blind, proposed State provision for, 509
Blomfield, James E., incubation period of mumps, 412
Bloodless surgeon, the, 280
Blood corpuscles, protective action of snake venom on, 1344
—— detection of carbon monoxide in (Law Webb), 1382
—— glands. See Glands
—— parasites, Schaudinn's work on, 442, 570
—— pressure: effects of salts of potassium, ammonium, and bile salts upon (Arthur Edmunds), 57; correspondence on, 389, 451
—— arterial, determination of in clinical practice (C. J. Martin), 865; correspondence on, 967
—— in man, note on, 315
—— spirilla in, simulating malarial fever (G. Browse), 532
Blower, Miss J., presentation to, 780
Blue light as an anaesthetic, 1700, 1403
Board of Education and temperance teaching in schools, 446
—— Local Government, report on small-pox in the Dewsbury Union, 382; report to re outbreak of enteric in Bucks and Bedfordshire, 493; medical inspectors of, 616; and vaccination, 1075
—— Local Government, of Ireland, and the Drumconrath Dispensary, 91
—— Local Government for Scotland, and pulmonary phthisis, 1203
—— Metropolitan Asylums, and small-pox research, 85
—— Midwives. See Midwives
Bognanco, as a health resort, 967
Boinville, V. Chastel de, nature of the follicle cells of the mammalian ovary, 13
Boldt, J., Trachoma, rev., 196
Bolton, Charles, appointed assistant physician to University College Hospital, 845; case of absence of abdominal muscles, 991
—— J. S., drug treatment of inebriety, 1268
Bombarda, Miguel, medical practice in Portugal, 1214
Bombay, sanitary report for 1903, 852, 891
Bond, C. J., the Pathological Museum of the annual meeting, 1905, 219
—— Francis T., an inquiry bureau, 570
Bone, osteoplastic carcinoma in (F. H. Thiele), 775
—— marrow, microscopical examination of (Cecil Price Jones), 409; in the treatment of cachexial fever and kala-azar (Leonard Rogers), 705
Bonesetters, 918: Percival Pott on, 1361
—— failures, 1287
Bonney, V., the causation of puerperal infections, 77
Books for M.O.H. See M.O.H.
Bookselling by curse, 956
Booth, James, an inquiry bureau, 1362
Bordier, Dr., Les Rayons N et les Rayons N_1, rev., 150
Bossi's dilator, observations on (Alfred J. Smith), 477
Boston, L. Napoleon, Textbook of Clinical Diagnosis, rev., 993
Botany, illustrated works on, 1187
Bottomley, F. C., lobar pneumonia following measles, 237
Bovine and human tuberculosis, 34, 1401
Bowie, John, obituary notice of, 107
Bowlby, Anthony, cutaneous anthrax successfully treated by Sclavo's serum without excision, 296
Bowles, R. L., treatment of the apparently drowned and the best methods of resuscitation, 21
Boxall, Robert, mortality in childbed, 1093
Boyce, Rubert, health in West Africa, 223
Boycott, A. E., paper on ankylostomiasis, 721
Brachialgia and sciatica, some points in the treatment of (J. E. Harburn), 245
Bradford, J. R., errors of diagnosis in medicine, 1253
Bradford, anthrax in, 339; small-pox at, 846
—— and West Riding Medico-Ethical Union, amalgamation of with the Association, 1167
Bradycardia, paper on (George Gibson), 305; (John Hay), 776
Braidwood, Peter Murray, obituary notice of, 104
Brains of eminent persons, note, 182
Braithwaite, P. F., suicidal poisoning with "salts of lemon," perforation of the stomach, 183
Bramwell, Byrom, leukaemia and x rays, 1043
—— Edwin, word-blindness, 1043
Branca, A., L'Oeuf Humain et les Premiers Stades de son Développement, Eléments d'Embryogénie, rev., 778
Branch, C. W., an epileptic family, 1350
Branchial fistula. See Fistula
Branson, Guy J., cerebral symptoms in measles, 941
—— William P. S., tuberculosis and mortality in childhood, 72, 1273
Brazil, plague in, 779; prevention of consumption in, 849
Breach of promise and tuberculosis, 976
Bread, diabetic, gluten, and "essential," Heudebert's, 25
—— substitutes for diabetic patients, 145
Breathing exercise for children, 325
Breech presentation complicated by spina bifida and hydrocephalus (F. M. Bingham), 472
Brieldale, J. M. Fortescue, milk dépôts, 771; feeding of infants, 856, 1182
Bridgend, enteric outbreak at, 1193, 1357, 1403
Bristol, diphtheria in, 112
—— special correspondence from, 631; University College, annual report, 691; Children's Hospital report, 691; Hospital Sunday Fund, 691; Royal Infirmary, 692
British Colonies, cancer in, 362
—— —— medical practice in, 1237
—— East Africa, plague in, 101, 425; circumcision and clitoridectomy as practised by the natives in, 964
—— —— —— medical practice in, 1238
—— Guiana, health and vital statistics of, 167; "Medical Annual" rev., 430
—— —— medical practice in, 1240
—— Honduras, medical practice in, 1239
—— MEDICAL JOURNAL, note on, 434. SUPPLEMENT. See Supplement
—— New Guinea, medical practice in, 1238
—— ports, precautions against plague in, 1289
Broadbent, G. H., the new Association Year Book, 221; the Lancashire and Cheshire Branch and election for Central Council, 1069; annual elections throughout the Association, 1180
Broden, Dr., note on a new case of trypanosomiasis in a European, 39
Brodeu, Dr., Publications de la Société d'Etudes Coloniales de Belgique, rev., 662
Brouner, Adolph, diseases of the nose in their relationship to pathological conditions of other organs, 177
Brook, W. F., congenital hypertrophy and dilatation of the sigmoid flexure, 1035
Brouardel, P. (part author), Nouveau Traité de Medecine et de Thérapeutique, rev., 1149
Brousse, Dr., elected President Municipal Council of Paris, 544
Brown, A. Cassels, note on Sir Alexander Christison, 255
—— T. Warren, treatment of tuberculosis and tuberculin inoculation, 1089
—— W. H., case of deformity following burns, corrected by plastic operation, 20; case of Raynaud's disease, 534; case of panophthalmoplegia, 534
Browne, Charles, obituary notice of, 515
Browning and the taking of physic, 1338
Browse, G., case showing spirilla in blood simulating malarial fever, 532
Bruce, R. Wilson, presentation to, 207
Brunon, Dr. R., on nutritive value of sterilized cow's milk in infant feeding, 1014
Brunton, John, case of lactation in a male infant, 131
Bryant, J. H., case of anaemia splenica, 476
Brynmawr District Council, sewerage scheme of, 510
Bubonic plague. See Plague
Buchanan, G. Burnside, multiple carcinoma of intestine, 191; malignant disease of the thyroid gland, 885
—— G. S., report on small-pox in Gateshead and Felling in relation to Sheriff Hill Hospital, 226; spread of small-pox round small-pox hospitals, 1094
—— Leslie, case of congenital corneal injury, 1046; case of myoclonus, 1046
—— Major Malarial Fevers and Malarial Parasites in India, rev., 662
—— R. J. M., prognosis in pulmonary tuberculosis, 886
Buckley, Charles W., note on the action of phenolphthalein (dihydroxyphthalophenone), 302
Budden, Chas. W., diazo reaction in tuberculosis, 984
Buist, R. C., Committee work of the Association, 1016
Bulgaria, medical practice in, 1222; sanitation, 1222; district medical officers, 1223; hospitals, 1223; lunacy, 1223; prisons, 1223; education, 1223; fees and practice, 1223; quacks and illegal practice, 1223; clubs and societies, 1223; the general position of the profession, 1223
Bullet in calcaneum (Dr. Codd), 1271
Bulloch, W., variations in the opsonic index in tuberculosis, 136
Bullock, John Lloyd, death of, 1363
Buns for diabetics, 423
Burdwood, J. Watson, awarded grant for successful vaccination, 1282
Burgess, Arthur H., the stump in appendicectomy, 222
Burial, premature, 340
Burkholder, J. F., The Anatomy of the Brain, rev., 541
Burman, plague in, 317, 425; Indian medical officers in, question in Parliament re compensation allowance, 435; sanitary report for 1903, 891
Burnet, G., note on aspirin and mesotan, 847
Burnley, small pox at, 112, 159
Burns, William, clavicle fractured by muscular action, 1330
Bursa patellae, enlarged, 864
Burton-Brown, F. H., medical practice in Italy, 1208
Bussorah, medical practice in, 228
Butlin, Henry T., removal of contents of anterior triangle of neck in cases of malignant disease of tongue, 285
Buttar, Charles, compulsory Greek, 979, 388
Buzzard, E. Farquhar, myasthenia gravis, 1032
Byers, Professor, gynaecological operations, 824; records of a year's (1904) operations (gynaecological) at the Royal Victoria Hospital, Belfast, 982

C

Cachexial fever. See Fever
Cadge, William, address by Mr. Tweedy at the unveiling of the memorial window to, 99; copy of Herkomer's portrait of, 757

Cadman, Harold C., lead as an abortifacient 683
Caerleon District Council and housing, 1357
Caerphilly, health of, 798; council meeting, 1068
Caesarean section, paper on (W. J. Gow), 476
Cale, W. J., the calculation of the date of delivery in pregnancy, 243
Cairo medical school, annual dinner, 315
Caisson disease, note on, 330
Cajal, Ramon y, awarded Helmholtz medal, 320
Calcified tumour in Douglas's pouch (A. H. N. Lewers), 826
Calcium chloride in haemorrhage (H. H. Stokes), 183
Calculi, more than forty thousand iridescent, in a kidney (J. Bland-Sutton), 125
——— biliary, surgical, aspect of (E. Stanmore Bishop), 307; in the peritoneum, case of (Daniel Gillespie), 990
——— in the common duct, choledochotomy for (Mayo Robson), 825
Calculous anuria in a child (Douglas Drew), 357
Calculus, large cystic (C. Tilson Hudson), 594
——— uretero-lithotomy for (C. H. Fagge), 249
——— urinary, forming round foreign body introduced into the bladder (Tina M. Blaikie), 356
——— vesical, with symphysiotomy, case of (H. T. Palmer), 18
——— large case of (W. K. Hatch), 355
——— prehistoric (S. G. Shattock), 775
Calcutta, sanitary report for 1903, 852
Caldwell, E. W. (and W. A. Pusey), the Practical Application of the Roentgen Rays in Therapeutics and Diagnosis, rev., 361
Caley, H. A., some points in the action and uses of bismuth salts, 538
California, compulsory vaccination in, 916; mosquito reduction in, 1300
Calomelol, note on, 197
Calwell, William, male infantilism, 824; observations on dwarfism and infantilism, 1376
Cambridge, and the Midwives Act, 835; pathology and pharmacology at, 844
Cammidge, P. J., phenylhydrazin reaction, 1273
Camp, O. de la (part author), Anatomie und Physikalische Untersuchungsmethoden, rev., 541
——— treatment of consumptive lunatics, 673
Campagna, prevention of malaria in the, 140
Campbell, Colin, sanatorium treatment of phthisis—is it worth while? 449; intratracheal injections, 915
——— Harry, arterio-sclerosis, 222: teaching of hygiene in schools, 331; prevention of dental caries, 698
——— John, note on surgery of the alimentary canal, 304
——— Keith, obituary notice of, 973
——— Robert Allan, memorial to, 45
——— W. S., tetanus successfully treated with antitoxin, 183
Camphor poisoning: A note (Graham Grant), 1090
Canada, notes from, 35, 437, 496, 557, 678, 1354, 1387; infectious hospitals for Montreal, 35; the Montreal maternity hospitals, 35; evolution of the medical profession in, 85; medical men in senate of, 90; Ontario Medical Library, opening of new building, 437; secret commission, 437; resignation of Dr. Sullivan, 437; ancient and modern medicine, 437; Canadian Medical Association, notice of meeting, 496; forcible police search in a hospital, 496; report of the National Sanatorium Association, 557; sundry hospitals, notes on, 557; fire at the Royal Victoria Hospital, Montreal, 678; proprietary drugs and foods, 678; lepers in, 724; proposed Government grant to Toronto University, 1354; Ontario Hospital Association, 1354; treatment of pauper inebriates, 1354; traumatic hysteria, 1355; anaesthesia in operations about the mouth, 1355; malt extracts, 1387; typhoid outbreak at Hamilton, 1388; Dr. O'Reilly of the Toronto General Hospital, 1388
——— the future of the race in, 316
——— medical ministers in, 614
——— medical practice in, 636, 808, 1225; Medical Acts, 1225; Ontario, 1225; Quebec, 1226; New Brunswick, 1226; Nova Scotia, 1227; Manitoba, 1227; British Columbia, 1227; public medical service, 1227; tariff of fees, 1228; privileges conferred by the legal qualification, 1228; obligations of medical practitioners, 1228; unqualified practice, 1229; protective associations, 1229
Cancer, local irritation and, 48; in America, 264; in British colonies, 362; prevention of in India, 435; at Swansea, 510; discussion on (E. F. Bashford), 600; increase of and the decline of tubercle, 629; death from, twenty-two years after primary operation, Doyen's researches on, 729; see also Doyen. (A. W. George), 822; radium treatment of, 1067; cause of, 1071
Cancer commission, American, 106; in Vienna 1297
——— cinnamic salts in treatment of (Lovell Drage), 927, 1024
——— of colon, enterectomy for (F. T. Paul), 307
——— Doyen's researches on, 729, 1368. See also Doyen
——— endolaryngeal, thyrotomy for (W. M. Killen), 825
——— etiology of (George T. Beatson), 921
——— etiology and treatment of, correspondence on, 1183
——— of both Fallopian tubes (Dr. Cullingworth), 1432
——— of gall bladder due to irritation of gall stones, cholecystectomy and partial hepatectomy (J. Hutchinson, jun.), 126
——— of left adrenal (C. E. Adams), 775
——— leucoderma and scleroderma: points of incidence compared in (G. Lenthal Cheatle), 926
——— of liver, primary adrenal (S. Phillips and B. H. Spilsbury), 1274
——— mammary, dissemination of (W. Sampson Handley), 663
——— oöphorectomy for (Hugh Lett), 187
——— with secondary deposit in spinal cord (Dr. Edington), 1147
——— of mouth, radical operation for (Edward Deanesly), 1270
——— osteoplastic in bone (F. H. Thiele), 775
——— parasitic theory of, 1056, 1362
——— of rectum, case of (Dr. St. George and Mr. Kirk), 824
——— research in Germany, 319; in America, 785
——— at Liverpool, appointment of new director, 509
——— laboratories at Middlesex Hospital, fourth report, 1278
——— serums, preliminary report on, 542
——— of the soft palate, etc. (Herbert Snow), 303
——— spread of by the thoracic duct (Nathan Raw), 1380
——— statistics at Stuttgart, 1159
——— of the stomach, operations for, note, 261
——— case of (W. Mitchell Stevens), 928
——— of the tongue (leading article), 313
——— in young subjects, 666
"Cancer body" and certain normal constituents of the cells of gametogenic tissues, resemblance between (C. Walker), 1092. See also Epithelioma
Cancerous disease. See Cancer
Canvassing for Poor-law medical appointments, 227
Cape Colony, special correspondence from, 43, 860; the Medical Council and medical and dental advertising, 43; proposed medical aid association, 44; leprosy in, 860; house accommodation at Capetown, 861
——— medical practice in, 1229; Colonial Medical Council, 1229; unqualified practice, 1230; State registration of midwives and nurses, 1230; Public Health Act, 1230; lunacy law, 1231; leper asylums, 1231; convict stations, 1231
Carbon monoxide, poisoning by (W. J. Thompson), 943; detection of in the blood (Law Webb), 1382
Carcinoma. See Cancer
Cardiac dilatation, massage in (R. A. Fleming), 305
Cardiff, underfed school children at, 510; temperance teaching in schools at, 510; new mortuary at, 568; small-pox at, 692, 745, 799, 853, 1123, 1244, 1357; port sanitary authority, annual report of medical officer, 745; gift to museum, 709; and vestry powers, 914; University College, meeting of Council, 1058; and the Midwives Act, 1400; health report of, 1403
Carlyle, Thomas, story of, told by Moncure D. Conway, 255, 622; and the doctors, 890
Carmichael, Scott, application of Bier's hyperaemic treatment to gynaecological disease, 137
——— William, obituary notice of, 108
Carnegie trust for the Universities of Scotland, 497
Carter, F. Bolton, elected second honorary local secretary of the annual meeting of the British Medical Association, 148
Carver, A. E., infective colitis, 721
Case for diagnosis, 1252, 1311
Castor-oil seed, acute poisoning by a single (A. Gordon Gullan), 988; note on, 1076, 1188, 1299, 1312
Catalepsy, case of, 218
Cataract extraction, two cases of (De Vere Condon), 185
Catarrhal deafness, operation for, recovery (F. Faulder White), 1147
Catgut, iodized (A. S. Barling), 823
Catillon, A., De la Glycérine, Physiologie Thérapeutique, Pharmacologie, rev., 253
Caton, R., Harveian Oration, 1904; (1) I-em-Hotep and Ancient Egyptian Medicine, (2) Prevention of Valvular Disease, rev., 661
Cattle, anthrax in, 724
Cattle, C. H., treatment of haemoptysis, 67
Catto, C. E., imperforate ileocolic valve, 775
——— John, schistosoma cattoi, a new blood fluke in man, 11
Caudley, Edmund, convulsions in children, 944; digestibility of boiled and unboiled milk, 1161
Caveat emptor, 572
Cedar-wood oil, method of freeing paraffin from, 1381
Centenarians in Paris, 256
Cerebral diplegia, infantile (Dr. Kaufmann), 1041
——— haemorrhage, note on, 112
——— symptoms in measles, 941
——— tumour, case of (Mr. Cholmeley), 1270
Cerebro-spinal meningitis in New York, 716, 953, 1056, 1057; leading article on, 781; note on, 1168; in Prussian Silesia, 836, 967; in London, 899; in Liverpool, 1006; in Berlin, 1014; in Northamptonshire, 1247; correspondence on, 970; serum-therapy in, 1160; diphtheria antitoxin in, 1244; case of (J. R. Johnson), 989; three cases of (J. Hope Reford), 989; case of, lumbar puncture, recovery (James Donelan), 1143
Cerebrum and cerebellum, tuberculosis of, with external pointing of one caseous mass (reported by Charles Mackey), 186
Certificates, death, cost of, 555
——— medical (leading article), 548
——— required by the Obstetrical Society, 280
——— sickness, the police and, 1120
——— of unfitness to attend school, 454
Cervix dilator, a new, 662
——— uteri, "grape-like" sarcoma of (Herbert Williamson), 599
Ceylon, medical and sanitary report for 1903, 861; malaria in and mosquitos, 861
——— medical practice in, 1230
Chaillon, A. (part author), Précis d'Exploration externe du Tube digestif, rev., 23
Channel Fleet in the Forth, 1173
Chantemesse, Professor, part played by insects in the propagation of infectious diseases, note, 740
Chapman, T. A., influence of prevailing winds on phthisis, 163
Charaka Club and Professor Osler, 728
Charcoal, porosity of, 205
Charcot's ankle, case of (Mr. Billington), 534
Charge of negligence, 1408
Charities Register and Digest, Annual, rev., 1315
Charles, J. R., incidence and effect of some diseases on others, 764
Cheatle, G. Lenthal: points of incidence compared in cancer, leucoderma and scleroderma, 926
Chemists' shops, relation of registered medical practitioners to, 105, 1409
Chemists as opticians and dentists, 393; practitioners and, 1071; arrangements with, 1308, 1409
Cheshire, birth-rate and death-rate in, 1402
Chest, surface marking of (J. L. Rentoul), 184; note on (R. W. Leftwich), 472
Cheyne-Stokes respiration, 1349
Cheyne, Watson, appointed to the honorary medical staff of King Edward's Hospital for Officers, 312; acute abdominal symptoms, 1313
Childbed, mortality in (Robert Boxall), 1,093
Child rearing, original scheme for, 1607; and ventilation, 1292
Childhood, menstruation in ovarian disease, 246, 264
Children, cirrhosis of liver in, 920
——— defective, medical examination of, 393
——— diseases of, note, 1412
——— employment of, 1344
——— feebleminded, working colonies for, 1115
——— free meals for, cost of, 385
——— insurance of, 102
——— intussusception in, one hundred consecutive laparotomies for (Charles P. B. Clubbe), 1327
——— invalid, school for, 806
——— medical diseases of, books on, 920, 1168
——— mentally defective, 1061
——— newborn, intestinal obstruction in, 554
——— pauper, foster homes for, 911
——— recurrent vomiting in (H. Batty Shaw and R. H. Tribe), 347; (Frederick Langmead), 350
——— school, teeth of, 456; eyes and ears of, 666, 854; medical inspection of, 695 (leading article), 949; care of, at Leeds, 767, 1298; effect of extra meals on weight of, 797; treatment of defective sense organs in, 914; health of in Sydney, 1122; physique of in Manchester, 1170; in New York, 1289

Children, school, underfed, 510, 616, 692, 733, 788, 797, 846, 938, 995, 1000 (leading article), 1001, 1291, 1357
Chili, plague in, 558
China, Western medicine in, 1053
Chinese, College of Medicine for, at Hong Kong, 82
——— medicine (Tee Han Kee), 1121
Chisholm, Philip, a medical centenarian, 948
Chittenden, Russell, physiological economy in nutrition, note, 794
Chloride of ethyl as a general anaesthetic, bibliography of, 724
Chloroform, various apparatus for administration of, discussion at Académie de Médecine and Société de Chirurgie, 384; a coroner on deaths under, 385; case of death under (Isabel Venters and Eric Evans), 821; suspended respiration under (H. Norman Barnett), 1381
——— mask, 1276
——— poisoning, case of (Dr. Turrell), 656
Cholecystotomy for acute cholecystitis following typhoid fever (Mr. Maunsell), 189
Choledochotomy for calculi in the common duct (Mayo Robson), 825
Cholera and the Russian police, 784, 843, 955
——— insurance for medical practitioners, 1269
Cholmeley, Mr., case of cerebral tumour, 1270; pyonephrosis, abdominal nephrectomy, 1271
Chorea, ergot and arsenic in (Clive Riviere), 354
Christian Science, 432, 786, 1018, 1249, 1360
——— ——— defied by jiggers, 1076
Christison, Sir Alexander, note on, 255
Christ's Hospital, gift to, 545
Chromosomes and heredity, 505
Chronic diseases, an island for, 420
Church, Sir W. S., proposed confederation of the London medical societies, 745
Chyluria complicating pregnancy (J. C. Holdich, Leicester), 599
Cicatrices, grafting of completely-separated skin flaps in the treatment of contractures due to (Robert Kennedy), 930
Cigarette to cigar, from, 1007
——— clerical crusade against, 1104
Cinnamon in dysentery (G. T. Bishop), 823
Circularizing the profession, 803
Circulars to patients on the sale of a practice, 224
Circumcision and clitoridectomy as practised by the natives of British East Africa, 964
——— Jewish, death from, 1367
Cirrhosis of liver in children, 920
Civil surgeons for the army, 732
Civilian surgeons in South Africa, 845
Civilization and surgery: natura denaturans, 112
Clamp forceps, prepuce, 25
Clark, F. W., appointed official member Executive Council of Hong Kong, 1000
——— James R. Andrew, R.A.M.C. Militia, 277
Clarke, Lieutenant-Colonel Alfred, presentation to, 546
——— A. Bleckly, the gentle craft of advertisement, 47
——— J., acute strangulation of ileum through an aperture in mesentery, 594
——— Jackson, congenital dislocation of hip, 991
——— Rev. James, death of, 1357
——— W. Bruce, the stump in appendicectomy, 333; operative treatment of certain severe cases of indigestion, 468
Clarkson, George A., unusual case of suppurative appendicitis, 118
Class hospitals, 1286
Clavicle fractured by muscular action (William Burns), 1330
Cleft palate (Sir Thornley Stoker), 1274, 1373
——— ——— operative wounds healing by second intention (Edmund Owen), 1376
Clegg, W. T., cerebellar abscess following ear disease, 191; acute labyrinthitis, 192
Clemow, F. G., medical practice in Turkey, 1221
Cleveland, Arthur J., malignant disease of the fundus uteri treated by x rays through the abdominal wall, 925
——— ——— Major H. F., appointed medical officer to the household of the Ameer of Afghanistan, 34
Climacteric haemorrhage due to sclerosis of uterine vessels (Freeland Barbour), 137
Climate, influence of on death-rate, 147
Clinical material, wasted, 786
Clitoridectomy and circumcision as practised by the natives of British East Africa, 964
Clogg, H. S., perforated duodenal ulcer, 119; appendicitis in childhood, 945
Closet, an improved form of, 830
Club, Glasgow University, annual dinner, 1244
——— appointments, competition for, 1178
——— members, and private patients, 101; accidents to, 1178
Club, North of England Glasgow University, annual dinner, 785
——— patient, alleged neglect of a, 1251
——— practice, canvassing for, 1248
——— rates, 835
Clubbe, Charles P. B., one hundred consecutive laparotomies for intussusception in children, 1327
Clydach Vale colliery explosion, 745
Coastguard surgeons in Ireland, 845
Coat of arms for the Association, the proposal for a, 278
Cobra venom and proteid metabolism, 1008
Cocaine in dentistry, 168
Codd, Dr., case of paralysis of third nerve, 1271; x rays in acne, 1271; epithelioma of ear, 1271; x rays in ringworm, 1271; x rays in treatment of hairy mole, 1271; separation of epiphysis of metacarpal, 1271; bullet in calcaneum, 1271; foreign body in sigmoid flexure, 1271; oesophageal obstruction, 1271
Cold affusion in hyperpyrexia (John Haddon), 822
Cole, Sydney W., Exercises in Practical Physiological Chemistry, rev., 420
Coleman, Percy, ruptured kidney, empyema, nephrectomy, recovery, 942
Coleridgius bombitans in vacuo, 1112, 1177
Coles, Alfred C., Clinical Diagnostic Bacteriology, rev., 481
Colitis, infective (A. E. Carver), 721
——— ulcerative and membranous, value of vermiform appendix in treatment of (J. Hutchinson, jun.), 1039
——— and appendicitis from a surgical point of view, relationships between (C. B. Lockwood), 466
College, the Army Medical, note on, 491, 1109, 1169
——— Epsom, jubilee of, 1164, 1249, 1252
——— of Medicine for Chinese at Hong Kong, note on, 82
——— of Medicine, Durham University, annual dinner of past and present students, 144
——— Royal Naval at Osborne, note on, 673
——— Royal, of Physicians of Edinburgh, 339, 1075, 1250; quarterly meeting, 339, 1075; admission to fellowship, 339; admission to membership, 339, 1075; licences, 339; the late Sir John Sibbald, 1075; admission to the licence, 1075; annual report regarding the laboratory, 1075; Parkin Prize award, 1075; Conjoint Committee of Management of Triple Qualification, 1075; appointment of Morison lecturer, 1075; the title of Doctor, 1250; regarding diplomas, 1250
——— Royal, of Physicians of Ireland, 166, 339, 863, 1307; admission of members, 166; appointment of examiner, 339; monthly meeting, 863; pass lists and degrees, 1307
——— Royal, of Physicians of London, 282, 575, 917, 1023, 1131; ordinary quarterly comitia, 282, 1023; subject of Bradshaw lecture, 282; admission of members, 282; diplomates in public health, 382; licences, 282, 917, 1023; communications, 284, 917, 1023; elections, 282; reports, 282, 1023; library, 282; announcement of examination, 575; announcements, 917; address, 917; election of President, 917; plague in India, 918, 1023; the museum, 918; International Medical Congress 1906, 1023; Cancer Research Committee, 1023; membership, 1023; Fellowship, 1023, 1131; University of London, 1023; Baly medal, 1023; extraordinary comitia, 1131
——— Royal, of Surgeons of Edinburgh, 543, 973, 1307; fourth centenary celebration (John Smith), 543; programme, 973; pass lists and degrees, 973, 1307
——— Royal, of Surgeons of England, 165, 341, 371, 395, 632, 918, 1131, 1185, 1246, 1250, 1306, 1343, 1408; quarterly council, 165, 918; ordinary council, 1131, 1306; Court of Examiners, 165, 632, 1306; the late Mr. Arthur Quarry Silcock, 165; foundation of scholarships, 165; removal of member, 166; conference on school hygiene, 166; admission of Fellows, 166; Hunterian Oration (John Tweedy), 341; and hospital reform, 371; diplomas, 395, 1131; examiners in surgery, 395; Queen Victoria's Jubilee Institute for Nurses, 395; school for the teaching of earlier subjects, 395; Central Midwives Board, 395; the late Mr. Luther Holden, 395; dental surgery, 632; Bradshaw lecturer, 632; presentation of books, 632; Sir Gilbert Blane's medals, 632; Central Midwives Board, 632; Fellows' subscription dinner, 633; Jacksonian prize, 918, 1131; proposed institution of a medical school by the College, 918; representation of the College upon the Senate of the University of London, 918; studentship in surgery and anatomy, 918; report on the history and work of the conjoint laboratories, 1181; University of Sheffield, 1131; presentation to Mr. Thomas Bryant, 1131; teaching of chemistry and biology, 1131; and the title of Doctor, 1185; coming Council election, 1246, 1250, 1290, 1306, 1343; diploma of Fellow, 1306; licence in dental surgery, 1306; election of examiners, 1306; Atlantic Union, 1306; examination in dental surgery, 1306; pass lists, 1408
College, Royal, of Surgeons in Ireland, 339, 395, 454, 497, 575, 805, 863, 974, 1075; charter dinner, 339, 395, 454, 497; Representative on General Medical Council, 339; pass lists and degrees, 575, 974; prize winners, 805; election of examiners, 863, 1075; general meeting and election of officers, 1075; annual meeting, 1305; the one-portal system, 1306; elections, 1306; Fellowship examination, 1307; note on, 1360
——— Royal Veterinary, Dublin, visit of Earl of Dudley, 678
——— of Science, the Armstrong, progress of structural additions, 45
——— Trinity, Dublin, 50, 149, 339, 454, 575, 633, 805, 1307; pass lists and degrees, 50, 339, 454, 575, 633, 805, 1307; gift to, 149
——— University, Aberystwith, appointments, 1307
——— University, Bristol, annual report, 691
——— University, Cardiff, new college buildings, 575; plant diseases, 575; visit of the Prince of Wales to, 692
——— University, London, physiological department, 1074, 1251
——— West London Post Graduate, dinner, 1340
Collie, R. J. (and C. F. Wightman), First Aid in Accidents, rev., 1049
Collier, Mayo, dysphagia, 169
——— William, chronic constipation and its medical and surgical treatment, 772
——— W., sanatorium treatment of phthisis—is it worth while? 448
Colliery dispute amicably adjusted, 511
Collins, E. Treacher, neuro-fibroma of the eyeball and its appendages, 478
——— ——— F. H., triplets, 1381
Cologne, post graduate instruction in, 724
Colon, cancer of, enterectomy for (F. T. Paul), 307
——— transverse, stricture of (Edward Deanesly), 1270
Colonies, British, cancer in, 362; and the Association, 1394
Colonization, medical science and, 1002
Colour blindness on the football field, 262; and army officers, 846
——— element theory, the logic of, 318, 451
"Colour honours" for South Africa and the R.A.M.C., 31
——— vision, theories of, 318, 451
Comerford, Henry, obituary notice of, 1363
Commission demanded by treasurer, 835, 910
Committee, the Hospitals, conference arranged by, 430
——— Police and Sanitary, 556
——— vaccination expenses, report of, 615
Committees, education, and medical certificates, 512
——— hospital, lady members of, 842
Companies, medical and dental, 1203
Compensation for loss of tooth, 975
Complication of doctors, 976
Compulsory Greek (leading article), 199; note on, 493, 621; correspondence on, 279, 332, 387, 450, 625
Conder, A. F. R., rupture of left coronary artery, 653
Condon, de Vere, two cases of cataract extraction, 185
Congenital anomaly, death at 15 from a, 671
Congress of Accidents to Workmen, International, notice of meeting, 486; meeting, 1285
——— of Anatomy, International, date of meeting, 140
——— Antialcohol, Tenth International, programme of meeting, 368
——— Antiquackery, in France, 317
——— of Applied Chemistry, International 1390
——— of Climatotherapy, French, 724
——— French, of Social Hygiene, 1348
——— of French-speaking alienists, notice of meeting, 606
——— German, of Internal Medicine, 34, 1104
——— Surgical, 34th annual meeting, 1014
——— of Hydrology, International, 1209
——— International Medical, programme, 320, 486; laryngology at, 673
——— International Child Protection, 787
——— Medical, in Cuba, 787
——— Medico-Political, Belgian, note on, 486
——— of Midwives in Italy, 724
——— of Neurology, International, note on, 550
——— Pan-American Medical, note of fourth meeting of, 374, 1000; paper on the sanitary conditions in Cuba since the proclamation of the Republic, 552; note on proceedings of, 643
——— of Physiology, International, fifth meeting of, 1168
——— on Physicotherapy, International, 957
——— of Quackery in Paris, 843

Congress of Radiology, International, 1310
——— Roentgen, in Berlin, 453, 1014, 1122
——— South African Medical, programme of 1905 meeting, 620
——— of Tuberculosis, International, programme of next meeting, 43; subvention of £4,000 by French Government, 892; note on, 1167
——— of Veterinary Medicine, Eighth International, programme of meeting, 82
Conjoint Board in England, pass lists, 1023, 1131
——— Board in Scotland, 282, 805, 974; pass lists, 282, 805, 974
——— Colleges in Ireland, pass lists and degrees, 863, 974
——— examinations in Ireland, 282; pass lists, 282, 1307
Conjunctiva, malignant disease of (Freeland Fergus), 250; sarcoma of (Arthur Benson and Dr. Mooney), 774
Conjunctival bacteriology, some practical aspects of (Freeland Fergus), 522
Connell, Robert Patrick, obituary notice of, 1021
Conscientious objector, new form of, 674; at Spilsby, 675
Constant patients, 340
Constipation, chronic, medical and surgical treatment of (W. Arbuthnot Lane), 700, 718; (William Collier), 772; correspondence on, 1299, 1358
——— long-standing, case of (Harry Grey), 353
Constriction of the ureter (K. W. Monsarrat), 1323
Consultants, conduct of some, 515
——— and general practitioners, communications between, 630, 1308
Consultation, ethics of, 393, 572
Consumptive poor in London, care of, 905
Consumptives afloat, a sanatorium for, 52
——— breath of, contagion of, 509
——— See Tuberculosis
Contagion and phthisis, 449
Contract medical practice, 26, 101, 197, 507, 835, 910, 1066, 1111, 1178, 1248; women members of Friendly Societies, 26; private patients and club members, 101; can contract practice be abolished? 197; at Auckland, New Zealand, 507; commission demanded by treasurer, 835, 910; club rates, 835; the Powell Duffryn Collieries, 1066; in South Africa, 1111; the police and sickness certificate, 1120; accidents to club members, 1178; competition for club appointments, 1178; dichotomy, 1248; canvassing for club practice, 1248
——— in France, 1196; in Germany, 1202; in Austria, 1205; in Hungary, 1208; in Italy, 1210; in Spain, 1212; in Portugal, 1215; in Belgium, 1217; in Holland, 1218; in Denmark, 1220; in Australia, 1235
Contracts not to practise within an area, 50, 1365
Convalescent Home for Burnley Children, opening, 911; for Bexhill-on Sea, a new, 1288
——— the French Hospital, opening of annexe of at Brighton, 224
——— the Millfield, note on, 546
——— Homes Association. See Association
Convulsions, unilateral, and paralysis in young subjects associated with exudative erythema (T. K. Monro), 1144
Coombs, Carey, phthisis and contagion, 449; an unusual complication of varicella, 593
Cooper, Arthur, on the significance of scars of the genital region in the retrospective diagnosis of syphilis, 150
——— Astley, letter from Dr. Thackeray on, 437
Copley, W. H., obituary notice of, 49
Cord, spermatic. See Spermatic
Cork, sanatorium for consumption at, the proposed, 322, 790, 904, 1174; outbreak of typhoid fever at, 904; meeting of the scientific association, 1061; water supply, 1061; inspection of dairies at, 1174
Corneal injury, case of (Leslie Buchanan), 1046
——— reflex in anaesthesia (H. Bellamy Gardner), 244; (L. Kirkby Thomas), 880; (William Elder), 1147; correspondence on, 971, 1183
——— ulcers. See Ulcers
Cornelius Agrippa on early doctors, 42
Corner, Edred M., Clinical and Pathological Observations on Acute Abdominal Diseases due to Conditions of the Alimentary Tract and the Uniformity of their Origin, rev., 22
Coronary artery, rupture of left (A. F. R. Conder), 653
Coroner, remarks of a, on the verdict "suicide whilst temporarily insane," 101; on deaths under chloroform, 385; on the reviewing of bodies, 623; abolition of in New York, 666; Mr. Troutbeck as, 1364; mistaken strictures of a, 1364
Coroners Act. See Act
Coroners Bill. See Bill
——— and deaths in lunatic asylums, 571
——— and inquests, 1246
——— inquests and causes of death, 218
——— juries and riders, 434; viewing the bodies by, 732, 846
——— medical, 90
Corpus luteum, the (Cuthbert Lockyer), 826
Corrosive sublimate poisoning, 864
Corsica, antimalaria campaign in, 205
Cortezo, Carlos Maria, appointed Minister of Public Instruction in Spain, 845, 1112
Cosens, W. Burrough, case of impalement with protrusion of intestine, recovery, 132
Costa, John Chalmers Da, Modern Surgery, General and Operative, rev., 887
Cotterill, M., multiple chondromata, 1044
Cotton, Charles, appointed Knight of Grace of St. John of Jerusalem, 1160
Couch, a radiograph, 723
Cough after influenza, 168
Coumaric acids, sodium salts of as therapeutic agents (Gilbert T. Morgan), 1143
Council, Cape Medical, and medical and dental advertising, 43
——— East Sussex County, and the Midwives Act. See Sussex
——— Monmouthshire County, and the Midwives Act, 510
Council, General Medical, 141, 206, 516, 1060, 1116, 1242; leading article on, 1161; the penal business of the (leading article), 141; note on bound volume of minutes of, 206; the publication of the financial returns of, 516; laymen on, 1060; and the Board of Governors of the Apothecaries' Hall, Ireland, 1116; proposed declaration as to advertising and canvassing, 1242; disciplinary cases, 1242; direct representation, 1242; mortality in childbirth, 1243; University of Oxford, 1243; examinations in operative surgery, 1243; teaching without examination, 1243; preliminary examinations, 1243; public health, 1243; examinations for the public services, 1243; the *Pharmacopoeia*, 1243; finance, 1243; higher degrees in dentistry, 1244; the reform of, 1290
Couper, David, case of mesotan eruption, 715
Cousins, John Ward, treatment of post-nasal adenoids, 182, 514
Coutts, J. A., purulent pericarditis in an infant, 816; digestibility of boiled and unboiled milk, 1124, 1299
Cowburn, A. Douglas, insanity and murder, 331
Cows, tuberculous, danger of milk from, 445
Cox, Joshua J., case of achondroplasia, 598
—— Dr., appreciation of James Murphy, 1301
—— Ernest A., dilatation of the gall bladder simulating ovarian cyst, 1380
Craig, Albert B., obituary notice of, 750
Cramer, W., effect of salts of potassium, ammonium, and bile salts upon blood pressure, 389
Cray reservoir, the, 745
Creed, Thomas, death of, 1250
Cremation, progress of, in Great Britain, 99; in London, 148, 780; in Leeds, 159; in Manchester, 44, 159; abroad, 375; in France, 446, 1349; in Scotland, 1172
Creswell, W. George, prevention of dental caries, 749
Cretin, female, precocious puberty in a (F. Wellesley Kendle), 246
Cretinism and goitre, researches on, 26; in Vienna, 1356
Cretins, a city of, 34
Cribriform choroido-retinitis (R. W. Doyne and Sydney Stephenson), 1331
Crichton, G. C., mental science in medical education, 625
Cridland, Dr., sympathetic ophthalmitis, 1271; infective vaccination, 1271
Criminal appeals, 1408
Criminals, scientific detection of, note on, 437
Cripples, education of, 1170
Critchley, Harry, Aids to the Study of Sanitary Law, rev., 482
Crookshank, F. Graham, medical inspection of schools, 163
Croom, Sir Halliday, some curiosities of curetting, 1094
Crossgar, insanitation at, 1172
Crown Colonies, medical practice in, 1237
Cuba, the sanitary state of, 82, 256, 552, 573, 1160; proprietary medicines in, 836; tetanus neonatorum in, 1348
Cullingworth, Dr., primary carcinoma of both Fallopian tubes, 1332
Cumberland, medical worthies of (Henry Barnes), 297
Cumming, Hamilton, elected President, British Balneological and Climatological Society 1340
Cunningham, John, appointed Commissioner of Supply for County of Ayr, 1064
Cure of an eruption, 340
—— for the "itis," 1112
Curetting, some curiosities of (Sir Halliday Croom), 1094
Curgenven, J. Sadler, digestibility of boiled and unboiled milk, 969, 1181
Currie, John, case of trypanosomiasis, 248
Cyclical vomiting (Frederick Langmead), 830
Cyprus, public health of, 394
——— medical practice in, 1239
Cyst, ovarian. See Ovarian
Cystic adenoma of left kidney (W. G. Spencer), 249
——— endometritis (Dr. Purefoy), 477
Cystitis, chronic, acute ascending paralysis in cases of, 134
Cystocele, vaginal, cure of (Hey Groves), 337
Cystoscopy and its value in diagnosis of renal disease (David Newman), 539

D.

D.D.S., degree of, 1024
Dabbs, G. H. R., Mr. Watch, pawnbroker, note, 254
Dairies, infection of in Cork, 1174
Dairy and Cowsheds Order, defect in at Northwich, 159
Dakin, W. R., present teaching of practical midwifery in England, 577
Dalgetty, A. B., prevention of ankylostomiasis, 17
Dalton, Norman, examination of stomach by *x* rays with tube filled with subnitrate of bismuth, 720
Dalziel, T. K., removal of pharynx for epithelioma, 191
Damming the Thames, 854
Dangerfield, H. Vivian, La Béribéri: Définition, etymologie, historique, bactériologie, symptomatologie, pathogénie, pathologie, expérimentale traitement, rev., 889
Dangers of private Bill legislation, 489
Darling, Dr., case of noma of anus, 825
Darnell, Dr., action brought against: verdict for defendant, 734
Darwin, G. H., presentation to, 270
Davidson, Nathaniel, obituary notice of, 391
Davis, Edward P., Obstetric and Gynaecologic Nursing, rev., 779
Day, Donald D., malignant disease of the fundus uteri treated by *x* rays through the abdominal wall, 925
—— William A., sanatorium treatment of phthisis: is it worth while? 223
Deaf and dumb lunatics and paupers in Ireland, 1113
Deafness, catarrhal. See Catarrhal
Deanesly, E., cases of ureteral surgery, 654; radical operation for cancer of mouth, 1270; stricture of transverse colon, 1270; cases of gastric surgery, 1270; perineal prostatectomy, 1270; urethral polypus, 1270; epidural haemorrhage, 1270; incontinence of urine, 1270; demonstrations of some minor points of surgical technique, 1271; curability of hernia at all ages by operation, 1328
Deas, Dr., presentation to, 880
Death certificates, herbalists and, 431
——— cost of, 555; responsibility for, 1368
——— certification and registration of stillbirths, 692
——— at 15 years from a congenital anomaly, 671
——— a sign of, 214
——— of a famous frog, 284
——— registration, dangers of, 612
——— statistics, compilation of, 975
Death-rate, influence of climate on, 247
——— among Dover postal officials, 732
——— pauperism and, 332
Deaths, uncertified, 1060
——— in the profession abroad, 164, 283, 391, 573, 730, 803, 858, 918, 973, 1021, 1073, 1128, 1250, 1411
——— during the puerperium, 551, 1364
——— among sailors and factory operatives, 733
Deformity following burns, corrected by plastic operation (W. H. Brown), 20
Degeneration caused by alcohol, 112
Deglutition, mechanism of, 671
Delacour, Joseph, La Syndrôme Adénoïdien, Ozène, Végetations Adénoïdes, Appendicite Chronique, rev., 139
Delafield, Francis, Handbook of Pathological Anatomy and Histology, rev., 481
Delépine, Sheridan, University of Manchester new public health laboratories, 134; increase of anthrax in Great Britain, 658
Delivery in pregnancy, a calculation on the date of (W. J. Gaie), 243; note on, 636, 752; correspondence, 532
Deltoid, recovery from infantile paralysis of the (W. G. Spencer), 249
Dempster, Major Hubert, obituary notice of, 1128
Denmark, prevention of consumption in, 32

Denmark, medical practice in, 1219: medical graduation, 1219; medical practitioners and the law, 1219; sanitary service, 1220; professional incomes, 1220; medico-legal practice, 1220: unqualified practice, 1220: contract practice, 1220; medical associations, 1221; social status of the profession, 1221; statistics, 1221
Dental caries, prevention of, 629, 693, 749
——— companies, 1283
——— Register, names restored to, 1291
Dentists and anaesthetists, 454
——— Register, the, note on, 843
——— unregistered, 1114: administration of anaesthetics by, 1104
Dentistry, cocaine in, 168
——— in the army, 546
Derbyshire, health of, 110
Dermatitis caused by satinwoods (G. Bidie), 74: (M. Grabham), 822
——— exfoliative, two cases of (Percy Sandys Bird), 247
Dermatological therapeutics, staphylococcus vaccine in, 854
Dermatology, some new therapeutic methods in (Malcolm Morris), 697
——— ——— evolution of in Berlin, 843
Dermography (Stacey Wilson), 655
Desquamation in scarlet fever (D. Hamilton Kyle), 532; note on, 732
Devon County Council and the Midwives Act, 1367
Dewar, Thomas W., further report on the treatment of phthisis by iodoform infusion, 65
Dewsbury, "Triumphant Antivaccination" (leading article), 370; small-pox and antivaccination at, report of Local Government Board, 382; note, 1395
Diabene, what it is, 284
Diabetes, diet in, 306; blood glands as pathogenic factors in the production of obesity and (Arnold Lovand), 415; railway travelling and, 895
——— infective, 1345
——— mellitus accompanied by xanthoma and fatty necrosis of pancreas (Sir Dyce Duckworth), 1274
Diabetic gluten and "essential" bread, Heudebert's, 25
——— foods, 1311
——— patients, bread substitutes for, 145, 483
——— spice bun, 483
Diachylon, lead-poisoning from, 1022
Diagnosis and experience, 551
——— a successful, 168
Dialect terms, medical, 795
Diaphragm and the circulation, level of (Stacey Wilson), 655
Diarrhoeal diseases, earth temperature and (Sir John W. Moore), 537
Diazo reaction in tuberculosis (Charles W. Budden), 984
Dichotomy, note on, 456, 1248
Dick, J., Staveley, sanatorium treatment of phthisis: is it worth while? 512
Dickie, Dr., ataxic paraplegia, 1042
Dictionary, Murray's New English, medical terms in, 100, 842
Diet, American, 666
——— in diabetes, 398
——— during lactation, 1312
Dietary of health and disease, place of sugar in the (William Ewart), 187
Dietetics, a plea for the study of, 162, 228
Digestibility of boiled and unboiled milk, 963
Digitalis, action of on the human heart (James Mackenzie), 587, 702, 759
Dihydroxyphthalophenone, on the action of (Charles W. Buckley), 302: note on, 606
Dintenfass, Gustav, medical practice in Austria, 1204; in Hungary, 1207
Diphtheria in Bristol, 122; at Barry, 1068
——— antitoxin in cerebro-spinal meningitis, 1244
——— bacterial diagnosis of, 802
——— control of, 1349
——— persistence of Klebs-Loeffler bacilli after, 1132
Diplegia, infantile cerebral, 1041
Diploma in tropical medicine, examination for, 1024
Diplomates of Scottish Colleges, 857, 910, 972
Direct Representative for Ireland. See Ireland
Directory, City of London, 1905, note, 830
——— the Medical, 33
——— Irish Medical, 1018, 1071, 1128, 1183
Disbeliever in microbes, a, 322
Discipline of the medical profession, the, 220
Disclaimer, a, 49, 975
Disease of joints in a young child, multiple (W. Hale White), 397
Diseases, chronic, an island for, 426
——— due to preserved food, 670
——— incidence and effect of some on others (J. R. Charles), 764
Disinfecting chambers, 1171
Disinfection of books after scarlet fever, 1022
Dislocations, x-ray photographs of (Jonathan Hutchinson, jun.), 656
Dispensaries in County Louth, 902
Dispensary doctors, Irish, a serious indiscretion, 447, 514
——— Drumconrath, the dispute at the, 91: case before the Irish Court of Appeal, 321
——— Leeds Public, a dental department for, 45, 274; the guardians and, 160; appointment of pathologist to, 274; special work of, 1298
——— medical officers, proposed fixed salaries for, in Belfast, 266
——— Westminster General, note on, 109
Dispensers, qualified and unqualified, 1407
Dispensing or prescribing in medical practice, 965
Disqualifications under the Lunacy Act, 1902, 959, 1069
Distemper, immunization of dogs against, 198
Distress warrants under the Vaccination Acts, 1059
District medical appointments in Leicestershire, 227: vacant, 1022
Diverticulum, Meckel's, gangrenous (Mr. Parker), 689
Dixon, W. E., action of alcohol on the heart, 533
Dobbin, Edward John, notice of death of, 392
Dobson, Leonard, case of congenital ataxia in a boy aged 8½, 885
Doctor and the bishops, 262, 334
——— the family rights of, 393
——— in modern warfare, 1051
Doctoring cheap, and easy shaving, 456
Doctors, American, and the Hall of Fame, 316
——— and duellists, 672
——— lamp, the, 918
Dodd, J. Theodore, Pauperism and the Death-rate, 332
Dogs, immunization of against distemper, 198
Don, Alexander, sanatorium treatment of phthisis: is it worth while? 1405
Donald, Dr., macerated fetus retained in abdomen four years, 1097
Donelan, James, case of cerebro-spinal meningitis, lumbar puncture, recovery, 1143
Donnan, W. D., acute lymphatic leukaemia, 408
Donnet, Sir James John Louis, obituary notice of, 164
Don Quixote, tercentenary of, and the Colegio Medico of Madrid, note, 507
Door plate, again, the, 165, 224, 1308
Doran, Alban, dilatation of gall bladder simulating ovarian cyst, 1361, 1405; repeated tubal pregnancy, 1332
Dorland, W. A. Newman, Pocket Medical Dictionary, rev., 1099
Dornblüth, Otto, Diätetisches Kochbuch, rev., 139
Dougall, John, presentation of the Makdougall Brisbane prize to, 93
Douglas, Richard, Surgical Diseases of the Abdomen, rev., 946
——— W. T. Parker, incubation period of mumps, 594
Dover, "Captain" Thomas, note on, 966
Dover postal officials, death-rate among, 732
Dowden, J. W., recurring torsion of spermatic cord, 305, 932
Downie, Walker, removal of pharynx for epithelioma, 191
Doyen and his methods, 86; researches on cancer, 729; presents microscopic sections showing results of inoculation of animals with micrococcus neoformans, 742; institute in London, 1000; his cancer treatment, 1368
Doyne, R. W., cribriform choroido-retinitis, 1331
Drage, Lovell, teaching of practical midwifery, 693; cinnamic salts in treatment of cancer, 927
Dreschfeld, Dr., four cases of Thomsen's disease, 943; retirement of from Manchester Royal Infirmary, 1298
Drew, Douglas, calculous anuria in a child, 357; arthrectomy of knee joint, 476; stenosis of ureter, 720
Drink cure, the latest, 1395
Drogheda Union, plague regulations in, 1399
Droitwich, the baths of, 33
Dromedaries, trypanosomiasis in, 900
Drowned, treatment of the apparently, and the best methods of resuscitation, 21
Drug prescribing, method in (W. M. Storar), 824
——— treatment for inebriety (leading article), 950; (J. S. Bolton), 1268
Drugs, English, for Japan, 140
——— proprietary, 678; in Cuba, 836
Drumconrath dispensary, note on the dispute at, 91
Drunkenness and marriage, 733
Dublin, prevention of consumption in, 847
——— University, constitution of, 1009
Duckworth, Sir Dyce, case of xanthoma diabeticorum, 249; streptococcal pachymeningitis, 727; diabetes mellitus accompanied by xanthoma and fatty necrosis of pancreas, 1274
Duckworth, W. H. L., Morphology and Anthropology, rev., 482; Studies from the Anthropological Laboratory, the Anatomy School, Cambridge, rev., 779
Dudley, E. C., The Principles and Practice of Gynaecology, rev., 722
Duel, the hygiene of the, 433
Duellists, doctors and, 672
Duff, M. E. Grant, notes from a diary, cure of an eruption, 340; a delicate euphemism, 456; stories of Sir Richard Owen, 679
Dujarier, Ch., Anatomie des Membres, rev., 253
Dukes, T. Archibald, twisting of the funis, 73
Duncan, John, involution of the uterus after labour, 133
Duncanson, J. Gray, The Therapeutic Value of Suprarenal Gland Ducts, rev., 139
Dundee, infant mortality in, 974
Dunlop, James Craufurd, appointed to Royal Commission on care and control of defective and feeble-minded persons, 554
Dunn, William A., appointed one of the Pope's physicians, 948
Duodenal ulcer, perforated (H. S. Clogg), 119
Duodenum, congenital stenosis of (Willoughby Gardner), 624
Dupuytren's contraction of the palmar fascia, 920
Dürck, H., Atlas and Epitome of General Pathologic Histology, rev., 889
Dust nuisance in Vienna, abatement of, 273
——— problems, 1346
——— and quack advertisements, 1397
Dutch engineers, official visit to Newcastle-upon-Tyne, 913
Duties of notification, 1130, 1251
Dutton, Joseph Everett, obituary notice of, 1020; appreciation of, 1072; further details, 1250, 1363
——— Thomas, sanatorium treatment of phthisis: is it worth while? 513; a factor in sea-sickness, 1361
Dwarfism and infantilism (William Calwell), 1376
Dysentery, asylum (E. J. McWeeney), 943
——— cinnamon in (G. T. Bishop), 823
Dysphagia (Mayo Collier), 169

E.

Eade, Sir Peter, note on, 205
Eales, W., lead as an abortifacient, 653
Eames, Edward S. B., influenza immunity, 1072
Ear, treatment of some common diseases of, with special reference to otectomy, 133: epithelioma of (Dr. Codd), 1271
Earl, H. C., endothelioma of uterus, 189: myoma of rectum, 189
——— Dr., human actinomycosis, 774
Earthquakes and the public health, 837
Earth temperature and diarrhoeal diseases (Sir John W. Moore), 537
Eason, Herbert L., finances of the London medical schools and hospitals, 511
Eastes, Thomas, rare form of dislocation of the ankle, 769
Eckhard, Konrad, obituary notice of, 1363
Economy in hospitals, 670
——— of an efficient army medical service, 954
Eczema, note on, 111
Edge, Frederick, the stump in appendicectomy, 222
Edgeworth, F. H., purpura haemorrhagica, 771
Edinburgh, control of the milk supply of (W. G. Aitchison Robertson), 188
——— Harveian Festival, 1173, 1351
——— Medical Journal, centenary of, 216
——— Poor-law conference in, 1352
——— public health of, 1352
——— small-pox in, 1352
——— University. See University
Edington, Dr., mammary carcinoma with secondary deposit in spinal cord, 1147
Edmunds, Arthur, the effect of salts of potassium, ammonium, and bile salts upon blood pressure, 57; note on rhinitis caseosa, 180
Edridge-Green, F. W., theories of colour vision, 451
Education committees. See Committees
——— and measles, 1057
——— medical, a sidelight on, 39, 102
——— of women, the higher, and race suicide in America, 319
——— of workmen, and industrial poisoning, 313
Edye, Major J. S., A Guide to Medical Officers on Field Service, rev., 542
Egypt, plague in, 425, 779; ophthalmia in, 1168
Egyptian School of Medicine, the, 86
Elder, A. Vavasour, a factor in sea-sickness, 1269
——— William, corneal reflex in anaesthesia, 1147
Elections, annual. See Association
Electrocution causing gangrene of extremities, 134

Electrolysis, new multiple needle holder for, 1335
Elliot-Blake, H., medical service examination statistics and college reforms, 335; a sidelight on medical education, 971
Elliston, W. A., elected President of Medical Defence Union, 1281
Elswick, cost of small-pox hospital at, 623
Elvy, Frank, value of nitroglycerine in the practice of surgery, 16
Emphysema, subcutaneous, in a case of spasmodic asthma (C. J. Whitby), 73
Employment of children, 1344
Empyema, treatment of (J. Hogarth Pringle), 809; (Otto Grünbaum), 811
——— of frontal sinus followed by subdural abscess (A. J. Marcineau), 1082
Encephalitis, notes on cases of, 76
Encouraging the Volunteers, 1305
Endocarditis due to the micrococcus gonorrhoea (William Hunter), 525
——— gonorrhoeal (W. M. Hamilton), 770; (T. G. Horder), 884
——— influenzal (T. G. Horder), 884
Endometritis, cystic (Dr. Purefoy), 477; discussion on (Dr. Oliphant), 600
Endothelioma of uterus (H. C. Earl and Mr. Maunsell), 180
Enemata, the prolonged use of simple (Charles Gaskell Higginson), 74; correspondence on, 627
England, present teaching of practical midwifery in (W. R. Dakin), 577
——— plague in, 1400
English doctors' visit to Paris. See Paris
Enterectomy for cancer of colon (F. T. Paul), 307
——— at 12 hours old, recovery (A. E. Kennedy), 715
——— condition of small intestine some years after extensive (A. E. Barker), 720
Enucleation of the prostate. See Prostate
Epidemic, an anomalous (?) German measles (William Hartigan), 822
——— sore-throats traced to infected milk, 1165
Epidemics in Persia, 373; in North of France several centuries ago, 558
Epidural haemorrhage (Edward Deanesly), 1270
Epiglottis, ulcer of (R. S. Pearl), 534
Epilepsy, influence of stigmata of degeneration on prognosis of (W. A. Turner), 356
Epileptic family, a (C. W. Branch), 1530
Epileptics, colony treatment of, 426, 1492; appropriation for, in Indiana, 556; care and control of, 633, 695, 751, 804, 863, 974, 1130, 1251, 1309, 1367, 1409
Epiphysis of metacarpal, separation of (Dr. Codd), 1271
Epitaph, an obstetrical, 340
Epithelioma, removal of pharynx for (T. K. Dalziel and Walker Downie), 101
——— of ear (Dr. Codd), 1271
——— of the soft palate, etc. (Herbert Snow), 303. See also Cancer
Epizootic abortion, inquiry into pathology and etiology of, 1015
Epsom College. See College
Epsomian's register, an old, 576, 636
Ergophobia (W. D. Spanton), 300; note on, 851; correspondence, 386, 629
Ergot and arsenic in chorea (Clive Riviere), 354
Errors in observation, 547
——— of diagnosis in medicine (J. R. Bradford), 1253
Eruption, the cure of an, 340
Erythema, exudative, associated with unilateral convulsions and paralysis in young subjects (T. K. Monro), 1144
——— scarlatiniforme [influenzal] (James Hamilton), 131
——— and gonorrhoea (W. H. S. Stalkartt), 1381
Esperanto, proposed international journal in, 99; correspondence in, 1407
——— medical dictionary, 920
Ether soap, formula for, 1076
Ethyl chloride, siphon, a new, 1049; inhalers, 1368
——— as an anaesthetic (Dr. Graham), 1142; fatalities from, 1368, 1412
Eucalyptus trees and malaria, note, 456
Eugenics, national, 440
Euphemism, a delicate, 456
Evans, Eric, case of death under chloroform, 821
——— J. Howell, cervical auricle removed from a child, 885
——— Laming, anterior metatarsalgia, 479
——— Maurice Griffith, obituary notice of, 750
——— Morgan, appointed J.P. for county of Radnor, 1300
——— Thomas, two cases of suppurative goitre, 126
Evatt, George J. H., "Principals and Assistants," 47; the discipline of the medical profession, 220; the Leinster Branch and, 498; correspondence on report of, 625, 800, 855; note on report of, 677
Evils of the high collar, 1348
Evolution of public health administration, 203
——— spontaneous, 1381
——— and heredity, 1252, 1311, 1368
——— in tuberculosis (Professor Leith), 1382
Ewart, R. J., note on venesection, 598
——— William, the place of sugar in the dietary of health and disease, 187; soft-valve mitral stenosis without audible murmur, 357
Examination for F.F.P.S Glasg., 636
——— statistics and college reforms, the medical service, 335
Exercise and the open-air treatment of phthisis (John C. Thorowgood), 1090; correspondence on, 1358
Exeter, the influence of rainy winds, soil, poverty, and general death-rate on the phthisis death-rate in, 1892-1901 (William Gordon), 62
Exostosis of the orbit (Edgar Stevenson), 478
Expenditure of hospitals, 790, 832, 907
Experiments on living animals, 1294
Expert testimony, 528; evidence on statement of fact, 630
Eyeball, neuro-fibroma of (E. Treacher Collins and Rayner D. Batten), 478
Eyelid of a child, primary sore on (William Turner), 476
Eyes and ears of school children, 666, 854
Eyesight and schools, 258
Eye-strain and brain-strain, 153

F.

F.F.P.S.Glasg., examination for, 636
F.R.C.S.Edin., books for, 1076
Fabric for tropical wear, a, 25
Factors in plague incidence (J. S. Thomson), 717
Factory operatives, deaths among, 733
Fagge, C. H., uretero-lithotomy for calculus, 249
Faith cure and cavities, 920
Falconnet, M., note on, 255
Falkland Islands, medical practice in, 1239
Fallopian tubes, primary carcinoma of both (Dr. Cullingworth), 1332
Farmer, Professor, nature of malignant growths, 1277
——— E. J., appointed honorary member of St. John Ambulance Association, 1310
Farnan, Dennis J., acute lymphaemia in a child, 400
Fatigue (leading article), 200
——— in school children, 208
Faulkner, Alexander Samuel, notice of death of, 283
Fawcett, Dr., case of swelling of left hand and wrist (lymphangitis ?), 991; sclerodactylia, with vasomotor phenomena, 991; Kaposi's disease, 991; milky ascites in which the opalescence was not due to fat, 1273
Fayrer, Sir Joseph, note on, 33
Fee for attendance on puerperal case, 166; for consultation in accident assurance, 223; for police call, 336
Feeble-minded, the care of the, 88, 456, 1110
Feeding of infants, 627, 748, 855, 1125, 1182; nutritive value of sterilized cow's milk in, 1014
Fees to anaesthetists, 106, 224, 515, 572
——— for attendance on domestic servant, 1187
——— for consultation, 975
——— inquest, to hospital officers, 450, 512, 693, 751, 1021
——— insurance, 224
——— medical in legal cases, 515
——— to medical witnesses, 105, 202, 223, 280, 1021, 1303; at the Old Bailey, 1131; at the High Court of Justice, 1364
——— in puerperal case, 630
——— received by assistants, 336
——— a scriptural justification of, 168, 284
——— vaccination, 555, 1307
Feldman, M., case of haematemesis and melaena in an infant two days old, 352; peculiar case of heterophthalmos, 882
Fells, A., comminuted fracture of patella treated by open method and wiring, 75; interstitial myositis simulating tumour of sigmoid, 75; spontaneous evolution of a transverse presentation, 75; case of tetaniform convulsions, 1330
Female ambulance surgeon, the first, 486
——— medical students in America, 57; in France, 1194; in Austria, 1204
Fenwick, E. Hurry, value of the use of a shadowgraph ureteric bougie in the precise surgery of renal calculus, 1325; A Handbook of Clinical Electric Light Cystoscopy, rev., 1383
Féré, C., Le Traitement des Aliénés dans les Familles, rev., 828
Fergus, Freeland, malignant disease of the conjunctiva, 250; some practical aspects of conjunctival bacteriology, 522
Ferguson, G. B., the proposal for an Association coat of arms, 278
Fernandez, Angel Pulido, medical practice in Spain, 1211
Fernandez, Rodrigo, freedom of Campos (Palencia) conferred upon, 605
Ferraby, G. A., diagnosis of scarlatina, 355
Fever, cachexial and kala-azar, quinine and bone marrow in (Leonard Rogers), 725
——— cerebro-spinal. See Cerebro-spinal
——— enteric, cholecystotomy for acute cholecystitis following (Mr. Maunsell), 189
——— inquiry into the existence of at Bermuda (Lancelot Kilroy and F. W. Hooper), 878
——— diagnosis and treatment of (Nathan Raw), 192; (J. Orton), 413; (E. Snell), 414
——— outbreak at Bridgend, 1299, 1357, 1403
——— outbreak near Cardiff, 1058
——— outbreak at Cork, 914
——— at Hamilton, Ontario, 1388
——— outbreak at Lincoln, 312, 372, 378, 426, 484, 543, 618, 666, 724, 780, 834, 1050, 1060, 1104, 1160, 1244, 1282
——— in Malta, 733
——— at Neath, 1123
——— and school children, 493
——— and sewage works, 203
——— intermittent, in Malta (Them. Zammit and G. Caruana Sciciuna), 711
——— malarial, simulated by spirilla in blood (G. Browse), 532
——— Malta (leading article), 839
——— Mediterranean, experimental transmission of (Edward H. Ross and G. Murray Levick), 710; Report of Commission appointed by Admiralty, etc., for Investigation of, rev., 1140
——— pain, daily notes on the condition of in the Sheffield hospitals, 274
——— paratyphoid, notes on (Dr. Parsons), 305
——— puerperal, death from, 572
——— rheumatic, a contribution to the study of (G. B. Longstaff), 194
——— scarlet, the infection of (R. M. Littler), 355; diagnosis of (G. A. Ferraby), 355; anti-streptococcus serum in (J. Hedley Marsh), 355; and chronic nephritis, 451; desquamation in, 532, 752; in a child 3 weeks old, 593, milkborne, 803, 948; disinfection of books after, 1022; return cases of, 1130, 1300; convalescence from, 1244; spread of in Manchester, 1208
——— scarlet, German measles and measles, some points in the differential diagnosis of (F. J. Poynton), 229
——— spirillum in Uganda (Aubrey D. B. Hodges and Philip H. Ross), 713; note on, 864
——— tick (human), mode of infection in, 280
——— typhoid. See Fever, enteric
——— typhus, case of, at Stepney, 312, 432; at Aberdeen, 616; notes on 600 cases of (Frank Robinson and E. Thurlow Potts), 1137
——— yellow, negro immunity from, 103, 389
——— on the Ivory Coast, 204
——— and mosquitos, 552
Fevers in India, 531
"Fibroid pneumonia" (A. G. Auld), 236; (A. N. Fleming), 823
Fibroid, panhysterectomy for (Dr. Purslow), 824
——— uterine, removed from a patient aged 20 (reported by Henry Russell Andrews), 716, 826; and late marriage, 901
Fibroma, soft, of the larynx and neck, removed by external operation, without opening the cavity of the larynx (Sir Felix Semon), 6
——— soft, of the larynx and neck (F. J. Paul), 646
Fibromyoma of the uterus, treatment of (J. Inglis Parsons), 656
Fibromyomata, uterine, abdominal hysterectomy for (F. W. N. Haultain), 477
Field ambulance, 1023
Fielden, Victor G. L., twisting of the funis, 473; pharmacology and therapeutics of ice, 1264
Fiji, medical practice in, 1238
Filaria gigas, note on (George C. Low), 1379
Financial and physiological economy, 1076
Finger-prints, ancient reading of, 1338
Finlay, David W., sidelight on medical education, 219
Finney's operation of gastro-pyloduodenostomy in reference to the operation of gastro-duodenostomy (Donald Armour), 122
Finny, W. E St. Lawrence, appointed J.P. for borough of Kingston, 356
Finsen memorial, local committee at Newcastle-upon-Tyne, 45; stamp issued by Danish Government to enable poorer classes to subscribe to, 206
First aid in the army, 1023
Fisher, Theodore, a condition of the lower limbs often mistaken for phlebitis, 48; causation of pleurisy, 627, 802
Fistula, bronchial, 1187
——— recto-urethral (R. J. P. Lansdown), 771
Fitzgerald, Mr. O., Convalescent Homes Association, 746
Flannelette, danger of, 1402
Flats and health, 1300
Flatulence, note on, 111
Fleetwood and its sewage scheme, 743
Fleming, A. N., case of fibroid pneumonia, 823

Fleming, R. A., massage in cardiac dilatation, 305
Fletcher, Morley, dilatation of large intestine, 991
Flinn, Surgeon-Lieutenant Edgar, note on, 266
Flock mattresses, dangers of, 789, 1172
Flushing and sweating on eating, localized (Parkes Weber), 249
Fogs and mortality from diseases of the respiratory organs, 44, 102, 274
—— yellow, the chemistry of, 145
Foley, C. H., case of Landry's paralysis, 18
—— J. Leslie, case of pemphigus neonatorum, 770
Foo-chow, plague in, 26
Food, preserved, diseases due to, 670, 1401
—— and poison, some new views (leading article) 725
—— poisoning and the convalescence of influenza, 1071
Foods, proprietary, 678
Football field, colour blindness in the, 262
—— regulations of, 844
Force of habit, 1188
Forceps, prepuce clamp, 25
Foreign body in air passage (Percy Withers), 1146; in sigmoid flexure (Dr. Codd), 1271
Foreshore nuisance (Belfast Lough), 904
Formic acid and formiates, muscle tonic and diuretic action of, 741
Fortescue-Brickdale, J. M., milk depôts, 771; feeding of infants, 856, 1182
Foster, Sir Clement C. Neve, The Investigation of Mine Air, rev., 1334
Foster homes for pauper children, 911
Fothergill, E. Rowland, non sibi, sed patriae, 220; election of Central Council British Medical Association, 1069; annual elections throughout the Association, 1126; Midwives Act and the medical profession, 1404
—— W. E., variations of the menstrual function in anaemia, 943
Foulerton, A. G. R., the causation of puerperal infectious, 77; acute general gonococcic peritonitis, 1094
Fournier, Professor, syphilitic general paralysis, 566
Fowl, true hermaphroditism in (S. G. Shattock and C. G. Seligmann), 1602
Fowler, C. O., dinner to, 1054
—— John Francis Scott, obituary notice of, 1181
Fox, E. J., case of spontaneous subluxation of wrist, 770
—— Patrick Heliot, case of, 322
Fracture, some cases of (Thomas Laffan), 473
—— of the astragalus and os calcis (Hugh Lett and J. Hutchinson, jun.), 1093
—— of patella treated by open method and wiring (A. Fells and W. C. Bentall), 75
—— of the skull, compound depressed, cephalo-tetanus, recovery (W. H. Jalland), 1091
Fractures at the lower end of the radius (A. Fullerton), 358
—— x-ray photographs of (Jonathan Hutchinson, jun.), 656
France and Britain, 1108
—— antiquackery congress in, 317
—— care of the insane poor in, 323, 363
—— cremation in, 426, 1349
—— medical Ministers in, 264
—— medical practice in, 1193; legal qualification to practice, 1193; medical schools, 1193; medical education, 1193; medical women, 1194; responsibilities of practitioners, 1194; professional secrecy, 1194; public medical services, 1195; the profession and the service of justice, 1196; unqualified practice, 1196; contract practice, 1196; protection of professional interests, 1196; social position, 1196; the doctor in politics, 1196; statistics, 1196
—— sick nursing in, 223
—— visit of English doctors to. See Paris
François-Frank, Dr., appointed to chair of "Natural History of Organized Bodies" at Collége de France, 445
Franze, P. C., Aerztlicher Führer durch Bad-Nauheims Kurmittel für Aerzte und Laien, rev., 723
Fraser, Lachlan, case of retroversion of the uterus, 534; case of Thiersch grafting from the rabbit, 534; case of scald of chest treated by grafts from rabbit, 716
—— Lovat, knowledge of plague in India, 1249
—— R. M., principals and assistants, 103
Freeman, D. (of San Remo), proposed memorial to, 34, 264
French, Herbert, Medical Laboratory Methods and Tests, rev., 723
—— army. See Army
—— delegates, visit to Manchester sewage works, 1067
—— doctors before Molière, note, 508
—— revolution, part played by medical men in, note, 622
Frenum uvulae (F. Marsh), 822
Fresh-air treatment of surgical tuberculosis, 491
Freshwater, sanitary state of, 1292
Freund, Leopold, Elements of General Radiotherapy, rev., 361
Freyer, P. J., recent series of 60 cases of total enucleation of the prostate for radical cure of enlargement of that organ, 1085
Friedenwald, Julius, Diet in Health and Disease, rev., 1097
Friedreich's ataxia, the nature of (Dr. Rainy), 188
Friendly Societies' scheme for consumptives in the Midlands, 794
—— and slate clubs, 952
—— Society case, 103; appointments, 751
Frog, death of a famous, 284
Frontal sinus empyema followed by subdural abscess (A. J. Martineau), 1082
—— sinusitis, suppurative (W. Milligan), 171
Frost, William Dodge, a Laboratory Guide in Elementary Bacteriology, rev., 1049
Frumerie, Dr. de, Notions de Traitement Manuel, rev., 723
Fugent, a new stain (F. H. Joseph), note on, 136
Fullerton, A., fractures at the lower end of the radius, 358; Colles's Fracture and other Fractures and Disjunctions at the Lower End of the Radius and Ulna, rev., 1385
—— A. Y., can contract practice be abolished? 197
Fund, Banks memorial, 34, 568, 912
—— for the extension of Leeds Medical School, 45
—— factory girls' holiday, annual meeting, 1244
—— Griffiths testimonial, 197, 256, 327, 367, 425, 567, 545, 605, 664, 797, 967
—— Hospital Saturday, Metropolitan, accounts for 1904, 166, 780; annual meeting, 1012; tuberculosis and the industrial classes, 1012; in Manchester, 1179; in Sydney, 1401
—— Hospital Sunday, in Bristol, 691; at Glasgow, 734; in Dublin, 735, 1173; in London, Mr. George Herring's offer, 1050
—— the Jessie Alice Palmer, charitable, first three endowments made, 26
—— King Edward's Hospital, bequests, 140; report from secretary of re London hospitals, and medical schools, 421; annual meeting, 739, and Middlesex Hospital, 1290
—— Leeds Workpeople's Hospital, note on, 562
—— nervous diseases research, annual meeting, 842
—— Osler memorial, 90
—— royal national pension, for nurses, note on, 606
Fundus uteri, malignant disease of, treated by x rays (Arthur J. Cleveland and Donald D. Day), 925
Funis, twisting of the (T. Archibald Dukes), 73; (Victor G. L. Fielden), 473

G.

Gaff, T. T., appointed United States representative on Joint Commission to settle dispute between United States and Panama, 312
Galbraith, E. S., prevention of measles and whooping cough, 1359
Gall bladder, cancer of due to irritation of gall stones, cholecystectomy and partial hepatectomy (J. Hutchinson, jun.), 126; removal of in a woman of 75 (Augustus W. Addinsell), 752; dilatation of, simulating ovarian cyst (Alban Doran), 1316, 1465; (J. Basil Hall), 1380
—— stone removed from small intestine (Mr. Heaton for Mr. Barling), 1042
—— stones, experience derived from 1,000 operations for, 704
Galton, Francis, national eugenics, 449
Gamgee, Mr., case of dry gangrene of the lower limb, 533
Gangrene of the extremities caused by electrocution, 134
—— of the lower limb, dry (Mr. Gamgee), 533
—— of the scrotum (C. Mozourelli), 17
Gant, Frederick James, obituary notice of, 1410
Garcia, Manuel, centenary of, 206, 257, 431, 611, 623, 681; elected honorary member Vienna Laryngological Society, 554; the old master, 681; biographical sketch, 681; history of the discovery, 682; the celebration, 684; luncheon to visitors, 686; meeting of the Laryngological Society of London, 685; the banquet, 686; an act of reparation, 688; demonstration by Professor Glück, 688; receptions and entertainments, 688
Garden cities in Belgium, 836
—— suburb, the proposed Hampstead, 549
—— thermometer in clinical practice, 864, 976
—— village near York, 31
Gardner, H. Bellamy, corneal reflex the most reliable guide in anaesthesia, 244, 1183
—— Willoughby, congenital stenosis of duodenum, 824
Gargantua and the "medical finger," 216
Garrett, J. H., compulsory Greek, 332, 625
Garrod, A. E., haematuria, discussion on, 190; congenital defect of abdominal wall and of the genito-urinary apparatus, 356; St. Bartholomew's Hospital Reports (edited by), rev., 947
Gastric dilatation, tetany and (Andrew Trimble), 825, 986
—— operations, after-history of patients of (C. Mansell Moullin), 1037
—— surgery, cases of (Edward Deanesly), 1270
—— tumours, surgery of, 261
—— ulcer, case of (Mr. Gunn), 189
—— ulcer, perforated, operative treatment of (A. A. Young), 250; case of (J. P. Roughton), 533
—— ulceration, pyloroplasty and gastro-enterostomy for (Rushton Parker), 303
Gastro-duodenostomy, operation of, especially in reference to Finney's operation of gastro-pyloduodenostomy, 122
Gastro-enterostomy and pyloroplasty for chronic gastric ulceration (Rushton Parker), 303
Gastro-intestinal disorders, a possible mode of infection in, 168
Gaynes-Doyle, E. A., surgical treatment of hydrocele of tunica vaginalis, 184
Gelligaer, health of, 1123
Genital tuberculosis in gynaecology, 1106
Genito-urinary apparatus and abdominal wall, congenital defect of (A. E. Garrod and Wynne-Davies), 356
Genius and hydrocephalus, 384
George, A. W., death from cancer twenty-two years after primary operation, 822
German versus Greek, 330
—— experience of antityphoid inoculation, 726, 1166
—— insurance system and sanatoriums, 636
—— measles, measles, and scarlet fever, some points in the differential diagnosis of (F. J. Poynton), 229
—— infectivity in, 455
—— section of Medical Council of Prague and Quackery, 957
Germany, medical students in, 131; practitioners in 140; tuberculosis research in, 148, 217; cancer research in, 319; medical tour in, 483; care of the insane poor in, 499, 559; quackery in, 948; leprosy in, 961; meat eating in, 1346
—— medical practice in, 1197; permission to practise, 1197; examinations, 1197; graduations, 1197; examinations in State medicine, 1197; privileges and obligations, 1198; military service, 1198; professional secrecy, 1198; death certification, 1198; notification of infectious diseases, 1198; isolation, 1198; privileges of registration, 1198; prescriptions and dispensing, 1198; public medical services, 1199; Poor-law medical service, 1199; public health service, 1199; Imperial health department, 1199; State public health departments, 1199; Local Boards, 1199; tariff of fees, 1199; official, 1200; fees in private practice, 1200; unqualified practice, 1201; chemists and druggists, 1201; secret remedies, 1201; administration of the law, 1202; contract practice, 1202; voluntary medical organizations for the protection of professional interests, 1203; medical relief societies, 1203
Gestation, simultaneous intrauterine and extrauterine, operation, recovery (William C. Allardice), 942
Gheel, care of the insane poor at, 96, 150
Gibbs, Charles, fibrous masses in the corpora cavernosa, 991
Gibraltar, medical practice in, 1239
Gibson, G. A., some thoughts on pleurisy, 8; The Nervous Affections of the Heart, rev., 480; causation of pleurisy, 747
—— George, bradycardia (with lantern demonstration), 305
Gilbert A. (part author), Nouveau Traité de Medecine et de Thérapeutique, rev., 1149
—— N. J. L., and his death from swallowing a key, 851
Giles, Arthur E., The Diseases of Women: A Handbook for Students and Practitioners, rev., 138
—— Lieutenant-Colonel G. M., Climate and Health in Hot Countries and the Outlines of Tropical Climatology, rev., 602
Gillespie, Alexander Lockhart, obituary notice of, 48
Girgenti Inebriate Home, annual report, 1386
Given, J. C. M., case of paramyoclonus multiplex, 885
Glaister, John, Manual of Hygiene for Students and Nurses, rev., 1150
Glamorgan Education and Sanitary Committees, note on, 508; water supply of, 1357
Glanders in London, 1282, 1309
Glands, blood, as pathogenic factors in the production of diabetes and obesity (Arnold Lorand), 415

Glands, tuberculous, of neck, surgical anatomy and operative treatment of (W. Greenwood Sutcliffe), 1031; note on, 1188
Glasgow fever and small-pox hospitals, annual report, 1115; note on, 1293
Gleet, treatment of, 340
Glegg, Wilfrid, supernumerary auricle, 133; lupus of the upper air passages, 534
Glossina morsitans, new habitat of, 1347
Gloucestershire, vaccination in, 573; combined sanitary district, 1245; small-pox in, 1310
Glynn, E. E., case simulating intracranial tumour, 871
——— T. R., case simulating intracranial tumour, 871
Godson, Clement, elected corresponding member Societa Italiana di Obstetricia e Ginecologia, 1390
Goitre, two cases of suppuration of (Thomas Evans), 126
——— and cretinism, researches on, 26
Goitrous centre in Northern Nigeria, 306
Gonorrhœa and erythema scarlatiniforme (W. H. S. Stalkartt), 1381
Gonorrhœal endocarditis (W. M. Hamilton), 770; (T. G. Horder), 884
——— rheumatism, note, 168
Goodchild, Dr., raw meat in tuberculosis, 1148
Gordon, A. Knyvett, scarlatina and chronic nephritis, 451
——— Bennett Cup, 1368
——— William, influence of rainy winds, soil, poverty, and general death-rate on the phthisis death-rate in Exeter, 1892 to 1902, 62, 221
Gould, Pearce, appointed to honorary medical staff of King Edward's Hospital for Officers, 312
Gout, reasons for abandoning the uric acid theory of (Chalmers Watson), 127
Gow, W. J., paper on Cæsarean section, 476
Gowers, Sir William R., the pains of tabes, 1
Grabham, M., satinwoods and dermatitis, 822
Grafting of completely-separated skin flaps in the treatment of contractures due to cicatrices (Robert Kennedy), 930
Graham, James, appointed coroner for Belfast, 266
——— Dr., ethyl chloride as an anæsthetic, 1148
Grant, Graham, camphor poisoning, a note, 1090
——— Ogilvie, note on death of, 90; obituary notice of, 164
Graves's disease, treatment of, 1187
Grayston, W. Cass, notes on the treatment and filling of teeth, 540
"Greatest oculist in the world," note on, 205
Greek, compulsory (leading article), 199; note on, 493, 621; correspondence on, 279, 332, 387, 450, 625
Greek versus German, 330
Green, Edward, treatment of haemoptysis, 627; teaching of practical midwifery, 740
Green milk, case of (G. Arbour Stephens), 247
——— oysters, 284
Greenwood, Major, the Midwives Act and the medical profession, 1359
Gregor, Alex., tuberculous synovitis treated by Roentgen rays, 184
Grenada, health of, 51
Grey, Harry, case of long-standing constipation, 353
Griffith, Frederick Richardson, A Handbook of Surgery, rev., 603
Griffiths, A. D., the attempt to blackmail, 144; presentation to, 1160
——— Alfred Vavasour, obituary notice of, 391
——— testimonial fund. See Fund
"Gross receipts," 1022
Gross, Samuel D., award of prize, 507
Groves, Hey, cure of vaginal cystocele, 357
Grünbaum, Otto, treatment of chronic empyema, 811
Guaiac test, the (Lewis McMillan), 473
Guardians and their medical officers, 393
Guilleminot, H., Electricité Médicale, rev., 540
Gullan, A. G., two cases of Addison's disease, 478; acute poisoning by a single castor-oil seed, 923; hydatid cyst of lung, 991
Gunn, Mr., case of gastric ulcer, 189
——— L. G., paper on painless haematuria, 825
Gut, intussuscepted, sloughing of (R. T. Turner), 246
Guye, Ambroise Arnold Guillaume, obituary notice of, 164
Gynæcological disease, application of Bier's hyperæmic treatment to (Scott Carmichael), 137
——— laparotomies, analysis of 300 cases of (Arthur Lowers), 476
——— operations (Professor Byers and R. J. Johnston), 824; record of in 1904 in the Clarence Ward of the Royal Victoria Hospital, Belfast, 982
Gynæcology, genital tuberculosis in, 1106

H.

Haab, O., Atlas of External Diseases of the Eye, rev., 1099
Habershon, S. H., Convalescent Homes Association, 745
Haddon, John, plea for the study of dietetics, 162; cold affusion in hyperpyrexia, 822
Haemarthros of wrist, case of (R. Allan-Bennett), 594
Haematemesis and melæna in an infant (B. Morris and M. Feldman), 352; (J. Clay Beckitt), 534
Haematoma, puerperal, without lesion of uterus, 1345
Haematuria, discussion on (A. E. Garrod), 190; painless (L. G. Gunn), 825
Haemogregarine of jerboas, third stage in the sexual cycle of (Andrew Balfour), 1330
Haemoptysis, treatment of (C. H. Cattle), 67; correspondence on, 103, 626, 694, 1188
Haemorrhage, accidental concealed, hysterectomy for (J. H. Targett), 826
——— calcium chloride in (H. H. Stokes), 183
——— climacteric, due to sclerosis of uterine vessels (Freeland Barbour), 127
——— epidural (Edward Deanesly), 1270
Haemorrhages, acute intraperitoneal in women, 553
Haemorrhagic pancreatitis (T. C. Litler Jones), 307
Hahnemann, "ter-jubilee" of, 832
Hailes, Clements, treatment of post-nasal adenoids, 625
Hair dyes, 111
——— falling out, 864
Hairy mole, x rays in treatment of (Dr. Codd), 1271
Hale, Geoffrey Edward, obituary notice of, 107
Hall, Arthur, increasing use of lead as an abortifacient, 584
——— Basil, notes on a case of spasmodic torticollis, 192
——— G. Stanley, Adolescence: Its Psychology and its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education, rev., 829
——— Mr. James, notice of death of, 45
——— J. Basil, dilatation of the gall bladder simulating ovarian cyst, 1380
Hall of Fame and American doctors, 376
Halliburton, W. D., Handbook of Physiology, rev., 359; The Essentials of Chemical Physiology, rev., 360; effect of potassium and ammonium salts on blood pressure, 451; recent work on proteid chemistry and proteid diet, 538
Ham, B. Burnett, A Handbook of Sanitary Law, for use of Candidates for Public Health Qualifications, rev., 482
Hamer, W. H., appointed to deliver Milroy Lectures in 1906, 264
Hamilton, James, erythema scarlatiniforme (influenzal), 131
——— W. M., gonorrhœal endocarditis, 770
Hamilton (Ontario), typhoid fever at, 1388
Hamlen-Williams, T. R., death of, 510
Hammarsten, Olof, A Textbook of Physiological Chemistry, rev., 420
Hampstead, garden suburb, proposed, 549
Handley, W. Sampson, dissemination of mammary cancer, 663
Hands, sterilization of, 727
Hannam, A., certificates required by the Obstetrical Society, 280
Hansen, Soren, medical practice in Denmark, 1219
Harburn, J. E., some points in the treatment of brachialgia and sciatica, 245
Hard water, 863
Hardy, H. Nelson, death certification and registration of stillbirths, 692
Hare, Francis, the hepatic factor in biliousness, 817
——— Hobart Amory (Editor), Progressive Medicine, rev., 482
Harman, N. Bishop, ambidexterity, 14, 334
Harmer, S. F. (Editor), the Cambridge Natural History, rev., 1007
Harris, Charles James, obituary notice of, 632
Harrison, Edward, case of hourglass contraction of the stomach, 473
——— Reginald, motor ambulances, 1017; discussion on prostatectomy, 1044
Harrisson, Damer, union of nerves after division, 479
Harrogate sulphur water, radio-activity of (H. Douglas Wilson), 1330
Hart, D. Berry, Manual of Gynæcology, rev., 1048
Hartigan, T. J. P., a disclaimer, 49
——— William, an anomalous epidemic (? German measles), 822
Hartill, John T., the Coroners Bill, 693
Hartley, W. Darley, medical practice in South Africa, 1229
Hartmann, Henri, Travaux de Chirurgie Anatomo-Clinique, rev., 1270
Harveian lecture. See Lecture
——— Oration, 1905 (Frederick T. Roberts), 1369
Haslar, course of instruction for surgeons R.N. at, 859
Hatch, W. K., case of large vesical calculus, 355
Hatcher, Robert A., Textbook of Materia Medica, rev., 24
Haultain, F. W. N., abdominal hysterectomy for uterine fibromyomata, 477
Haworth, F. G., the feeding of infants, 627, 855
Hay, John, note on bradycardia, 776
Haynes, Stanley, damming the Thames, 854
Headache, nasal disease as a cause of (A. L. Whitehead), 179
Health and disease, place of sugar in the dietary of (William Ewart), 187
——— the laws of, 1167
——— lectures, popular, 52
——— of London (leading article), 143
——— public. See Public Health
——— resorts, notes on, Lucan Spa, 835; Bognanco, 967
——— in West Africa, 223
Heapy, H. E., case of almond-oil poisoning, 941
Hearder, Frederic P., ambidexterity, 163
Heart, action of alcohol on (W. E. Dixon), 538
——— inception of the rhythm of by the ventricle (James Mackenzie), 812
——— irregular action of, note, 228
——— new methods of studying affections of (James Mackenzie), 519, 587, 702, 759, 812
——— rupture of, sudden death from (W. T. James), 132; in an insane person (R. Campbell Nicholl and H. F. Bodvel Roberts), 186
Heath, Charles, restoration of hearing after removal of drum and ossicles, 417
Heaton, George, some peculiarities of appendicitis in the female sex, 463
——— Mr. (for Mr. Barling), sarcoma of axilla, 1042; adenoma of kidney, 1042; removal of gall stone from small intestine, 1042
Hebblethwaite, S. M., digestibility of boiled and unboiled milk, 1125, 1209
Hebra's atlas, note on, 456
——— sarcoma melanodes and the New Sydenham Society, 46
Henderson, E. E., The Influence of Changes in the Intraocular Circulation on the Intraocular Pressure, rev., 196
Hendley, T. H., small-pox inoculation in India, 1336
Henry, Howard, calculation of date of delivery in pregnancy, 532
——— Louis, lowering of the body temperature in hyperpyrexia by means of rapid evaporation of water, 769
Hepatic factor in biliousness (Francis Hare), 817
Herbalists and death certificates, 431
Hereditary process, theories of the, 441, 505
Hermann, L., Lehrbuch der Physiologie, rev., 360
Hermaphroditism of the Fowl (S. G. Shattock and C. G. Seligmann), 1092
Hernia, curability of at all ages by operation (Edward Deanesly), 1328
——— inguinal, bandaging, recovery (W. G. Williams), 1330
——— strangulated, in the aged (G. H. R. Holden), 881
——— of the umbilical cord (G. C. Stewart), 247
Herniotomy, in a man of 85, successful case of (Jas. A. Watts), 183; in a woman of 86 (Jacques Vaillaut), 412; cases of in the aged (reported by P. R. Blake), 716
Heroism at sea, 665
Hertwig, Oscar, Ergebnisse und Probleme der Zeugungs-und Vererbungslehre, rev., 310
Hertz, Dr., swelling of left hand and wrist (lymphangitis ?), 991
Hervieux, Paul, obituary notice of, 858
Heterochromia iridis (John Allan), 990
Heterophthalmos, peculiar case of (M. Feldman), 882; note on, 1312
Hett, Geoffrey, obituary notice of, 391
Heudebert's diabetic gluten bread, and "essential" bread, 25
Hewlett and Sons, C. J., awarded gold medal at Capetown for drugs, etc., 606
Hichens, Feverill S., sanatorium treatment of phthisis: is it worth while? 222
Higgins, O. E., compulsory Greek, 387
Higginson, Charles Gaskell, the prolonged use of simple enemata, 74; petechial rash o vomiting, 354
High collar, the evils of, 1348
Highlands, medical officer of health for, 903
Hildanus, Fabricius Guilhelmus, note on, 558
Hill, Leonard, London University and medical education, 512
——— Phillip E., receives grant for successful vaccination, 439
Hilliard, Harvey, blue light as an anæsthetic, 1405
Hinder, H. C., Lectures on Clinical Surgery, rev., 1383
Hirst, Barton Cooke, Textbook of Diseases of Women, rev., 1334

Hobson v. Bicknell, 1289, 1307
Hodder, W. M., The Destruction of Mosquitos, rev., 889
Hodges, Aubrey D. P., cases of spirillum fever in Uganda, 713
Hodgkinson, A. (reported by), case of spontaneous subluxation of the wrist, 770
Hoffa, Albert, Atlas und Grundriss der Verbandlehre für Studierende und Aerzte, rev., 1276
Hogarth and quackery, 831, 909, 1338
Holden, G. H. R., strangulated hernia in the aged, 881
——— Luther, obituary notice of, 337; funeral of, 392; estate of, 892
Holdich, Sir Thomas Hungerford, note on climate of India, 794
Holland, care of the insane poor in, 438
——— medical practice in, 1217; qualification to practice, 1217; registration privileges, 1217; obligations, 1218; lunacy, 1218; public health service, 1218; public medical services, 1218; remuneration, 1218; contract practice, 1218; illegal practice, 1218; defence of professional interests, 1219; benevolent and insurance funds, 1219
——— Philemon, note on, 1012
Holmes, D., case of, 322
——— Bayard, Surgical Emergencies, rev., 603
Holt, Chang A., first Chinaman to practise medicine in California, 666
Homburg Waters, note, 976
Homes for Consumptives, Queen Victoria, Sydney, annual meeting, 1491
Homœopaths, relations with, 1409
Honduras, British, medical practice in, 1239
Hong Kong, College of Medicine for Chinese at, note on, 82
——— medical practice in, 1239
——— plague in, 217, 311, 425, 558, 779, 965, 1118, 1281, 1400
Hooper, F. W., inquiry into the existence of typhoid fever in Bermuda, 878
Hopkins, F. G., elected F.R.S., 494
Horder, T. G., influenzal endocarditis, 884; gonorrhœal endocarditis, 884
Horne, Jobson, observations on the pathogenesis and prevention of loss of voice in singers, 648
Horrocks, William H., ergophobia, 386; awarded Sir William Taylor prize for 1904, 1128
Hospice de Bicêtre, note on, 1178
Hospital abuse, 570, 1406
——— administration and finance in London, 267 (leading article), 1284
——— Auckland (N.Z.) friction at, 634
——— authorities, liabilities of, 1287
——— Beaujon, inauguration of new anti-tuberculous dispensary at, 445
——— Belfast Consumptive, medical report of, 322
——— Belfast Maternity and the Central Midwives Board, 1294, 1404
——— Bolingbroke, G. H. Makins and Charters Symonds join consulting staff of, 606
——— for British Seamen at Constantinople, opening of, 198
——— Cancer, Brompton, fifty-fourth annual report, 575
——— Chalmers, Edinburgh, retirement of Dr. Claud Muir, 1203
——— for Sick Children, at Belfast, report, 266
——— for Sick Children, the Belgrave, successful matinée in aid of Dan Leno cot, 1050
——— for Sick Children, Berlin, new wing for, 797
——— for Sick Children, Bristol, annual report, 691
——— for Sick Children, Dublin, annual meeting, 1173
——— for Children, Liverpool County, sixth annual meeting, 744; intended new buildings, 744
——— for Sick Children, Manchester, appeal, 1297
——— for Sick Children, Pendlebury, annual meeting of governors, 509
——— for Sick Children, Shadwell, East London, opening of new block, 860
——— for Children and Women, Ulster, annual meeting, 734
——— Christ's, gift to, 546
——— Commission, New York, 906
——— Committees, lady members of, 842
——— for Consumption, National (Ireland), thirteenth meeting, 557
——— for Consumption (the Forster Green), Belfast, 735
——— for Consumption, Mount Vernon, festival dinner, 1362
——— Dental, of Ireland, annual meeting, 436
——— Dental for Sydney, a new, 447
——— Dental, Victoria, of Manchester, annual report, 509
Hospital, Devonshire, a Royal gift to, 433
——— for Diseases of the Chest, City of London, festival dinner, 1311
——— East Suffolk, asks guardians for a subsidy, 335
——— Edinburgh City, annual "at home," 436
——— for Epilepsy and Paralysis, Maida Vale, annual meeting, 1310
——— expenditure with efficiency, a control of, 574
——— for Fistula, St. Mark's, annual general meeting, 368
——— Eye, Oxford, eighteenth annual report, 826
——— Eye, Ear, and Throat, Ulster, annual meeting, 904
——— French, opening of annexe to convalescent home, 224; thirty-seventh annual dinner, 1282
——— German, Dalston, festival dinner, 1282
——— Glasgow Ear, annual meeting, 1307
——— Glasgow Small-pox, note on, 1293
——— Gray's, Aberdeen, donation to, 847
——— Guy's, an appeal for funds, 729
——— Ilkley Coronation Cottage, opening of, 1075
——— for Infectious Diseases, Purdysburn, Belfast, sewage scheme of, 377; note on, 1354
——— island in New York, 1008
——— for the Insane, Barnwood House, Gloucester, forty-fifth annual report, 805
——— isolation, duties of medical officers of, 394
——— Jewish, at Manchester, note on, 691
——— King's College, sixty-sixth annual report, 575; architect of new buildings, 1050; annual dinner, 1160
——— Llanelly, gift to, 798
——— London, opening of quarantined wards, 486
——— London Temperance, annual meeting, 975
——— Lying-in, County and City of Cork, meeting of subscribers, 1254
——— Lying-in (Liverpool), and the ladies' charity, annual meeting, 797
——— Manchester Northern, annual meeting, 509
——— for Mental Diseases, St. Andrew's, Northampton, report of, 860
——— Middlesex, cancer research laboratories at, fourth report, 1278; and King Edward's Hospital Fund, 1290
——— Montreal Maternity, forcible police search in, 496
——— Naval, at Malta, 789
——— New York State, fourth annual report, 167
——— Norfolk and Norwich, donation to, 957
——— officers, inquest fees to, 450, 512, 693
——— Orthopædic, of Ireland, opening of the new, 436
——— for Paralysed and Epileptic, National, annual court of governors, 670; dinner, 1390
——— Princess Alice at Eastbourne, treatment of an accident at, 51
——— provision in Berlin, 1401
——— Queen's Jubilee, note on, 433, 483, 730, 897, 918, 956, 1110; report, 1117
——— reform, note on, 489; (leading article), 547; correspondence on, 749; minor operations and, 914, 971
——— the Royal College of Surgeons and, 371; in Edinburgh, 497
——— Richmond, Dublin, visit of Lord Dudley to, 678
——— Royal City of Dublin, annual meeting, 678
——— Royal Dental of London, annual general meeting of governors, 633
——— Royal Eye, Manchester, annual meeting, 273
——— Royal London Ophthalmic, report presented at annual meeting, two new centres formed, 198; annual meeting, note on, 486
——— Royal National for Consumption for Ireland, medical report, 676
——— Royal Victoria, Belfast, statement by treasurer, 266; annual meeting, 789; record of a year's (1904) operations in the Clarence Ward (Gynæcological), (John W. Byers and R. J. Johnstone), 982
——— Royal Victoria Edinburgh, annual meeting, 1292
——— Royal Victoria, Montreal, fire at, 678
——— Royal Victorian, Netley, 1366
——— The Rudolf Virchow, administration of, 217
——— St. Bartholomew's, Students' Union smoking concert, 486; new treasurer, 494; Reports, rev., 947; donation to, 948
——— St. Helen's (Manchester), annual report, 1179; and the working classes, 1282
——— Samaritan, Liverpool, ninth annual report, 744
Hospital, Samaritan Free, opening of new out-patient department, 1340
——— Saturday Fund. See Fund
——— scalded to death in a, 32
——— Sheriff Hill, and small-pox in Gateshead and Felling, 226
——— ships for, time of war, 88
——— the Stanley, Liverpool, annual meeting, 567; growth of the institution, 567; need of improved quarters for the residents, 568
——— for Stone, St. Peter's, entertainment at, 368
——— for the Study and Treatment of Tumours, opening of, in Philadelphia, 198
——— surgeons and the Coroners Act, 568
——— Swansea, finances of, 568
——— Tottenham, extension of, 1411
——— for Tuberculous Patients in Paris (Incurable), selection of site, 566
——— various phases of the work of a (Sir Christopher Nixon), 238
——— Wanstead and Woodford Joint Board, 1059
——— for Women and Children, Leeds, annual meeting, 274
——— York, appeal for, 1281
Hospitals, amalgamation of, 486
——— bequests to, and medical charities, 75, 82, 140, 159, 160, 164, 198, 214, 256, 282, 329, 368, 385, 426, 486, 546, 565, 623, 634, 666, 724, 735, 772, 780, 798, 815, 836, 847, 859, 904, 988, 1000, 1035, 1050, 1103, 1104, 1115, 1118, 1154, 1159, 1160, 1276, 1311, 1357, 1367, 1390
——— casualties at, attendance on, 319
——— class, 1286
——— committee. See Committee
——— economy in, 970
——— expenditure of, 790, 832, 907
——— general, and women doctors in Sydney, 447
——— general, in London, conference of representatives, 634
——— honorary staff of, 998
——— infectious, for Montreal, 35
——— a libel on, 574
——— London, the administrative control of, 28; and medical schools, financial relations between, report of committee, 421; leading article, 427; correspondence on, 511
——— management of out-patients departments. See Out-patients
——— maternity, at Montreal, 35
——— and medical schools, note on, 752, 906
——— municipal control of, 102
——— New York, finances of, 89
——— small-pox (Glasgow) annual report 1115
——— and the spread of the disease, 1246
——— and well-to-do patients, 1056
——— and the working classes, 1282
Hôtel-Dieu, clinical lecture at, 1337
Hourglass contraction of the stomach, gastro-enterostomosis antecolica inferior (Edward Harrison), 473
House accommodation at Capetown, 861
——— of Commons, ventilation of the, 495, 753 (leading article), 782, 1059; medicine chest of the, 846; medical aid in, 1172
Housing reform in towns, 507, 1180
Houston, Thomas, staphylococcus vaccine in dermatological therapeutics, 854
Hovenden, Gerald S., treatment of post-nasal adenoids, 279
Howard, C. R., prevention of dental caries, 629
Howell, C.M. Hinds, streptococcal pachymeningitis, 721
"Howlers," medical, 284
Hoyle, James C., teaching of midwifery, 855
——— puerperal sepsis, 1300
Huchard, Professor, on muscle tonic and diuretic action of formic acid and formiates, 741
Huey, John J., receives Government grant for successful vaccination, 203
Hughes, T. H. J. E., modern treatment of phthisis, 883
Human and bovine tuberculosis, 34, 1401
——— tick fever, mode of infection in, 280
——— trypanosomiasis, 1105
Hungary, medical practice in, 1207; professional study and graduation, 1207; rights and duties of practitioners, 1207; professional earnings, 1207; statistics, 1208; the profession and the law, 1208; unqualified practice, 1208; contract medical practice, 1208; protection of professional interests, 1208; medical practice by foreigners, 1208; social position, 1208
Hunt, Dr., case of functional tachycardia after influenza, 534
——— F. K., an early editor of the "Daily News," note on, 100
Hunter, John, methods of (leading article), 901
——— William, case of acute endocarditis due to the micrococcus gonorrhœæ, 525
Hunterian oration (John Tweedy), 341
Hutchinson, Jonathan, Hebra's sarcoma melanodes and the New Sydenham Society, 46; leprosy and segregation, 1403

Hutchinson, Jonathan, jun., cancer of gall bladder, due to irritation of gall stones: cholecystectomy and partial hepatectomy, 126; intracranial resection of second division of fifth nerve, 134; syphilitic necrosis of skull, 249; sarcoma of fibula, 476; x-ray photographs of fractures and dislocations, 656; The Surgical Treatment of Facial Neuralgia, rev., 887; the value of the vermiform appendix in treatment of ulcerative and membranous colitis, 1039; fracture of the astragalus and os calcis, 1093
Hutchison, Robert, Lectures on Diseases of Children, rev., 309; proportion of fat in condensed milk when diluted, 390, 855, 1124
Huxley, Thomas Henry, story about, 740
Hydatid mole, histology of, 375
Hydrocele of tunica vaginalis, surgical treatment of (E. A. Gaynes-Doyle), 184; (R. K. Tandan), 882
Hydrocephalus in adult (Stanley Barnes), 1042
——— and spina bifida complicating breech presentation (F. M. Bingham), 472
Hydronephrosis due to movable kidney (F. J. Steward), 884
Hydrops of the joints, intermittent (Howard Marsh), 884
Hygiene and agriculture, colonial, 1030
——— at the Head Teachers' Conference, 30
——— of the duel, 433
——— and medicine in Morocco, 621
——— school, conference on, 328, 380; leading article on, 371
——— in schools, the teaching of, 41, 93, 153, 205, 208, 270, 325, 366, 440, 503, 563, 619, 689, 736, 791, 996; correspondence on, 331, 1124; conference on, 735
——— of Spanish churches, 486
Hygienic moonshine, 371
Hyperpyrexia, lowering of body temperature in, by means of rapid evaporation of water (Louis Henry), 769; cold affusion in (John Haddon), 822
Hypertrophy, prostatic, operative treatment of, 1162
Hypodermic needle, suturing with a, 808
Hysterectomy for concealed accidental haemorrhage (J. H. Targett), 826
——— abdominal, for uterine fibromyomata (F. W. N. Haultain), 477
——— vaginal, in the puerperium for sepsis due to suppuration of myoma, 78
Hysterical blindness and narcolepsy (Purves Stewart), 476
Hysteropexy and pregnancy, 951

I.

Ice, therapeutics and pharmacology of (Victor G. L. Fielden), 1264
Idiots, care and control of, 633, 695, 751, 804, 863, 974, 1130, 1251, 1309, 1367, 1409
Ileo-colitis in a child simulating acute intussusception (Forbes James Alexander), 73
Ileum, acute strangulation of (J. Clarke), 594
Illinois, State Sanatorium for, 836
Imbeciles, sterilization of, 956
Imitative suicide, 203
Immunization of dogs against distemper, 198
Impalement with protrusion of intestine, recovery (W. Burrough-Cosens), 132
Income tax, 111, 167, 340, 455, 516, 752, 1132, 1187
India, plague in, 51, 101, 204, 217, 311, 425, 558, 673, 680, 733, 779, 783, 954, 965, 1059, 1118, 1171, 1247, 1281, 1290, 1399, 1400; Knowledge of, 1249
——— sanitary and medical reports of the Central Provinces for 1902, 109; antimalaria campaign in Madras, 282; prevention of cancer in, 425; fevers in, 531; veterinary pathology in, 634; scientific investigation of plague in 673, 954; climate of, note, 794, 1252; opening of the King Institute of Preventive Medicine, 806; antiquity of vaccination in, 838; recent earthquake in, 948; knowledge of plague in, 951; leprosy in, 1058; small-pox inoculation in, 1336
Indian medical officers in Burmah, question in Parliament re compensation allowance, 425
——— medical service See Army
——— Pasteur Institute at Kasauli, annual report, 796
——— sanitary reports, 851, 891
Indigestion, operative treatment of certain severe cases of (W. Bruce Clarke) 468
Induction of labour: A comparison of methods (J. Spencer Shelly), 1378
Industrial classes and tuberculosis, 1012
——— poisoning and education of workmen, 313
Industry and health, 1309
Inebriate reformatory at Brentry, 692; for the three Ridings, 1123
Inebriates, treatment of in New York, 214, 434
——— and wine at Communion, 1412
——— pauper, from the economic point of view, 201; treatment of in Canada, 1354
Inebriety, treatment of, 32; atropine in (A. P. Hope Simpson), 132; drug treatment for (leading article), 950; (J. S. Bolton), 1268; note on, 1280
Infant food dépôts in Berlin, 334
——— Life Protection Act. See Act
Infantile cerebral diplegia, 1041
——— diseases, prevention of, grant by Berlin municipality towards, 711
——— mortality. See Mortality
——— paralysis. See Paralysis
Infantilism male (William Calwell), 824
——— and dwarfism (William Calwell), 1376
Infant's head, moulding of, before birth, 147
——— show, 549
Infants, the feeding of, 627, 748, 855, 1125, 1182
——— vomiting in (Dr. Ashby), 775
Infectious diseases in South Wales, 218, 330
——— in schools, 791
——— notification of, 1310
——— disorders, medical men and, 1057
——— hospitals. See Hospitals, infectious
Infirmaries, Poor-law, as training schools for midwives, 272
Infirmary, Cardiff, opening of electric pavilion at, 275; annual report, 386; gift to, 446; annual meeting of governors, 568, 692, 913, 1123; donation, 692, 913; register of patients, 1067
——— Cootehill Union, septicaemia in, 1171; suggested alterations in, 1291
——— County Antrim, annual report, 677
——— Glasgow Western, opening of new dispensary for out-patients, 207; gift to, 1115
——— Leeds General, proposed fund to extend the medical school, 45; training of nurses at, 274; large bequest to, 385; cost per bed, 742; classification of out-patients, 743; tenure of office by honorary staff, 743; post-mortem department, 743
——— Limerick County, outrage at, 617
——— Oldham, extension of, 744
——— Rochdale, gift to, 1015
——— Royal Aberdeen, annual report, 675
——— Royal Bristol, appeal, 692
——— Royal Edinburgh, annual general meeting, 93, 1173; and the London Hospital, 556
——— Royal Glasgow, rebuilding of, 1293
——— Royal Liverpool, annual meeting, 395; women medical students at, 569; appointment of assistant gynaecological surgeon to, 1015, 1356
——— Royal Manchester, result of polls as to beds in, 44; one hundred and fiftieth anniversary of, 218; annual meeting of trustees, 385; cost of new infirmary, 385; the corporation and the site of, 446, 509; allocation of beds and new appointments at, 967; clinical laboratory, 1297; new arrangements for teaching pathological anatomy at, 1298; retirement of Professor Dreschfeld, 1298; extension of Dr. Bernard's term of office, 1402
——— Royal Newcastle-on-Tyne, annual court of governors, 330; assistant appointments at, 913
——— St. Paul's Eye and Ear, Liverpool, thirty-second annual meeting, 744
——— Southport, annual meeting of governors, 446; and alcohol as a medicine, 446
Influenza, cough after, 168; in Vienna, 272; in Rome, 426; in Italy, 486; and mass mortality, 1055; food poisoning and the convalescence of, 1071
——— discussion on (T. Clifford Allbutt), 977, 1044
——— epidemiology of (H. Franklin Parsons), 980, 1044
——— immunity, 1272
Influenzal endocarditis (T. G. Horder), 884
——— erythema scarlatiniforme, 131
Ingratitude, 630
Inguinal hernia, bandaging, recovery (W. G. Williams), 1330
Inhaler for anaesthetic mixtures, a sterilizable, 24
——— the Vernon Harcourt, discussion on, 134
Inoculation, antityphoid, a suggestion, 168; German experience of, 726, 1169 (leading article), 1343
Inoculations, antirabic, in Vienna, 110
Inquest fees to hospital officers. See Fees
——— at Halifax, 751
——— a second, 1165
Inquests, a year's, at Manchester, 385; a time limit for, 1187
Inquiry bureau, an, 570, 1362
Insane, witchcraft and the beliefs of the, 784
——— person, case of "rupture of the heart" in an, 186
——— poor, report on the care of, 35, 96, 150, 210, 268, 323, 363, 438, 499, 559, 623, (leading article) 607
——— woman, prize of £50 won by in America, 99
Insanitation and dual control, 1130
Insanity and murder (leading article), 142; correspondence on, 219, 276, 331, 450
——— functional, and its relation to allied neuroses, 76, 265
——— on the inheritance of (Karl Pearson), 1175
——— incipient, treatment of (Sir John Batty Tuke), 501; correspondence on, 569
——— medical treatment of (Robert Jones), 875
——— prevention of, 1050
——— in New York, 1390
——— rural, 317
——— variation in its relation to origin of, 321
Insects, part played by in propagation of infectious diseases, 740
Inspection of food and meat, 502
Institute, the Henry Phipps, first annual report, 900
——— of intermediate studies, proposed for London, 727
——— Jubilee Nurses', Cardiff and District Branch, annual report, 613
——— the Rockefeller, laying of the corner stone, 26
——— Royal Sanitary, annual banquet, 1110
Institution, Liverpool Medical, 191, 251, 307, 478, 657, 721, 744, 776, 827, 885, 951, 1356; bony deposits following dislocation of elbow-joint (Robert Jones and David Morgan), 191; cerebellar abscess following ear disease (W. T. Clegg), 192; acute labyrinthitis (W. T. Clegg), 192; diagnosis and treatment of typhoid fever (Nathan Raw), 192; annual meeting and election of office-bearers, 251; cases, 307; specimens, 307; enterectomy for cancer of colon (F. T. Paul), 307; haemorrhagic pancreatitis (T. C. Littler Jones), 307; compression paraplegia (W. B. Warrington), 307; two cases of Addison's disease (James Barr and A. G. Gullan), 478; union of nerves after division (Damer Harrisson), 478; pathological meeting, 657; meeting and cases, 721; proposed enlargements and alterations, 744; Bradycardia (John Hay), 776; prostatectomy (Robert Bickerstelh), 776; dangers of radical mastoid operation (Hugh E. Jones), 777; dangers of radical mastoid operation (Charles A. Ballance), 777; meeting and exhibition of cases, 827; paramyoclonus multiplex in a man of 21 (J. C. M. Given), 885; haemorrhage due to high arterial tension (A. C. Wilson), 885; prognosis in pulmonary tuberculosis (R. J. M. Buchanan), 885; hydatid cyst of lung (A. Gordon Gullan), 991; second dentition and its medical aspects (Hubert Armstrong), 992; surgical treatment of chronic constipation (W. Blair Bell), 992; models of an old Roman catheter, etc. (Rushton Parker), 992; extension of, 1356
——— Rochdale Nursing, gift to, 623
Insurance of children, 102
Intellectual work, age limit of, 488
Intermittent fever. See Fever
——— hydrops of the joints (Howard Marsh), 884
Intestinal obstruction, 752; cases illustrating alternative operations for (Arthur E. Barker), 756
——— in newborn children, 554
Intestine, protrusion of caused by impalement: recovery (W. Burrough Cosens), 132
Intracranial resection of second division of fifth nerve, 134
——— tumour, case simulating (T. R. Glynn and E. E. Glynn), 871
Intranasal irritation causing acne rosacea (William Lloyd), 74; note on, 228
Intrathoracic growth (Douglas Stan[illegible]), 1042
Intratracheal injections, 915
Intrauterine respiration, 26
Intussusception, acute, simulated by ileo-colitis in a child, case of (Forbes James Alexander), 73
——— in children, one hundred consecutive laparotomies for (Charles P. B. Clubbe), 1427
Invalid children, a school for, 896
Inversion of taste, 516
Iodized catgut (A. S. Barling), 823
Iodoform infusion in treatment of phthisis (Thomas W. Dewar), 65
Ireland, Dr. W. W., jubilee testimonial to, 556
——— notes from, 91, 149, 207, 266, 321, 377, 436, 497, 557, 617, 670, 734, 789, 847, 904, 959, 1009, 1060, 1116, 1173, 1248, 1293, 1353; Professor Sims Woodhead on alcoholism, 91; Drumconrath Dispensary, note on, 91; the tragedy of the last medical officer, 91; scheme of the Local Government Board, 91; case before the Irish Court of Appeal, 321; public health of Belfast, 92, 100, 341, 617, 847, 1061; salaries of medical officers, 92, 266; a gift for Trinity College, 149; Belfast

asylums, report on, 149; health lectures at Belfast, 149; overcrowding in the Belfast Workhouse, 207; Ulster Medical Society, meeting, 207, 904, 1051, 1116, 1354; note on Surgeon-Lieutenant-Colonel Edgar Flinn, 266; Dr. Henry O'Neill nominated High Sheriff for Belfast, 266, 677; candidate for Parliament for South Belfast, 789; Royal Victoria Hospital, Belfast, statement by Treasurer, 266; annual meeting, 789; Belfast Hospital for Sick Children, annual report, 266; new coroner for Belfast (James Graham), 266; a shooting affair, 322; case of Dr. Holmes, late medical officer at Limerick Female Asylum, 322; Belfast Consumptive Hospital, 322, 904; hygienic competition, 322; sanatorium for consumption in Cork, 322, 790, 904, 1010, 1174; a disbeliever in microbes, 322; sewage scheme of the Purdysburn infectious diseases hospital, Belfast, 377, 1354; injunction against "surgeon-dentist" (limited), 436; opening of new Orthopaedic Hospital of Ireland, 436; Dental Hospital of Ireland, annual dinner, 436; charter dinner at the Royal College of Surgeons, 497; Irish Medical Association, meeting, 498, 847, 1116, 1173, 1248, 1293; annual meeting, 1353; Leinster Branch and Surgeon-General Evatt, 498; a lunacy commission, 557; National Hospital for Consumption, Ireland, thirteenth meeting, 557; sanitary inspection of schools, 557; poisoning by strychnine and mercury, 617; alterations in Belfast Court House, 617, 789, 1174; outrage at County Limerick Infirmary, 617; Royal National Hospital for Consumption for Ireland, annual meeting, 676; alcoholism, lectures on, 677; County Antrim Infirmary, annual report, 677; High Sheriff of Belfast, 677; Surgeon-General Evatt's report, 677; Royal City of Dublin Hospital, annual report, 678; Richmond Hospital, Dublin, visit of Earl Dudley, 678; Royal Veterinary College, visit of Earl Dudley, 678; Ulster Hospital for Women and Children, annual meeting, 734; action for negligence, verdict for defendant (Dr. Darnell), 734; Tughan v. Darnell, 735; General Medical Council, 735; Dublin Hospital Sunday Fund, 735, 1173; the Forster Green Consumptive Hospital, Belfast, 735; direct representative for Ireland, 789, 904, 916, 959, 1173, 1248, 1353; medical candidate for Parliament, 789, 847; Sunday drunkenness in Belfast, 847; the vacant senatorship in the Royal University of Ireland, 847; prevention of tuberculosis, 848, 904; "Q.C.C.," 904; outbreak of typhoid fever in Cork, 904; Down District Asylum, compliment to Dr Nolan, 904; the foreshore nuisance, Belfast Lough, 904; Belfast Consumption Sanatorium, 904; Ulster Eye, Ear, and Throat Hospital, annual meeting, 904; the Irish University question, 1020; Purdysburn drainage question, Belfast, 1010; National Association for the Prevention of Consumption, Cork Branch, 1010; women graduates at Dublin University, 1010, 1060; recognition of work for Russian sailors, 1010; the Royal University, 1010; meat and milk, 1010; Cork Scientific Association, 1061; water supply of Cork, 1061; the General Medical Council, 1116; Royal University of Ireland, 1116; Royal Medical Benevolent Society, annual meeting, 1117; National Children's Hospital, Dublin, annual meeting, 1173; St. John Ambulance Association, annual inspection of Belfast Fire Brigade Division, 1173; small-pox at Portadown, 1174; inspection of dairies at Cork, 1174; the Central Midwives Board, 1204; Queen's College, Belfast, meeting of subscribers, 1353; County and City of Cork Lying-in Hospitals, special meeting, 1354
——— auxiliary lunatic asylum in, 495
——— coastguard surgeons in, 845
——— deaf and dumb lunatics and paupers in, 1113
——— training of nurses in, 923
——— uncertified deaths in, 1171
Irish direct representative, 789, 904, 916, 959
——— dispensary doctors, a serious indiscretion, 447, 514
——— Medical Association. See Association
——— Medical Directory, 1018, 1071, 1128, 1183
——— Poor-law. See Poor-law
——— university question, 1009
Iridis, heterochromia (John Allan), 990
Iritis, relapsing, 284
Iron acetate in treatment of pneumonia (Herbert J. Robson), 812; note on, 1024, 1188
Irritation produced by plasters and strapping, 168
Islington Borough Council and the Midwives Act, 1367
Italy, foreign doctors in, 21, 373; light treatment in, 198; influenza in, 486; congress of midwives in, 724; medical profession in, 724; trachoma in, 1018; State sanatoriums in, 1018; anti-quackery manifesto in, 1160
——— medical practice in, 1208; education and qualification to practise, 1208; public medical services, 1209; professional earnings, 1210; unqualified practice, 1210; contract practice 1210; the doctor in politics, 1210
"Itis," cure for the, 1112
Ivory Coast, yellow fever on the, 204

J.

Jace, L. de, medical practice in Belgium, 1215
Jack, Florence M., Cold Sweets, Jellies and Creams, rev., 541; Entrées of Meat, Game and Poultry with Sauces, rev., 541
Jacobs, C., surgical intervention in cancer of the cervix uteri, 992
Jalland, W. H., compound depressed fracture of skull, cephalo-tetanus, recovery, 1001
James, A. H., case of fractured base of skull, 1040
——— S. P., A Monograph of the Anopheles Mosquitos of India, rev., 1275; a new leucocytozoan in dogs, 1361
——— W. T., sudden death from rupture of the heart, 132
Japan, American nurses in, 963
——— English drugs for, 140
Japanese art of ju-jitsu, 259
——— military surgery, 444
——— navy, losses of the medical staff of, 198
——— sick and wounded, note on, 263, 857
——— students, note on, 205
Jeaffreson, Geo. E., a very grave movement, 335
Jefferson, Dr. T. J., presentation to, 82
Jejunostomy, new method of (Mayo Robson), 825
Jenner Society. See Society
Jepson, Edward, dispensers qualified and unqualified, 1407
Jessen, F., Lungenschwindsucht und Nervensystem, rev., 1098
Jessett, Fred Bowreman, treatment of the stump in appendectomy, 162
Jewish circumcision, death from, 1307
Jewsbury, re British Natural Premium Life Assurance Association, result of appeal, 492
Jiggers, Christian Science defied by, 1076
Joan of Arc, medical descendent of, in the family of, 613
Johannesburg, health of, 786
Johnson, J. R., cerebro-spinal meningitis, 989
——— Samuel Ebenezer, appointed J.P. for County of Worcester, 948
Johnston, Alexander, obituary notice of, 632
——— R. McKenzie, treatment of post-nasal adenoids, 335; treatment of otitis media, 914
Johnstone, R. J., gynaecological operations, 824; record of a year's (1904) operations in Clarence Ward (Gynaecological) of the Royal Victoria Hospital, Belfast, 982
Joint affection possibly due to malaria (Howard Marsh), 884
——— excision, some cases of (Mr. Kennedy), 600
Joints, affections of, as met with in general practice (Edmund Owen), 637
——— intermittent hydrops of (Howard Marsh), 884
——— multiple disease of in a young child (W. Hale White), 397
Jollye, F. W., opening of peritonsillar abscesses, 715
Jones, Cecil Price, microscopical examination of bone marrow, 409
——— Herbert, combined sanitary districts, 971
——— Hugh E., dangers of radical mastoid operation, 777
——— Robert, functional insanity and its relation to allied neuroses, 76; bony deposits following dislocation of elbow-joint, 191; medical treatment of insanity, 875
——— T. C. Littler, case of haemorrhagic pancreatitis, 307
Joseph, F. H., use of acid media in isolation of plague bacillus, 136; note on fugent, a new stain, 136
Joule, James Prescott, monument to, 1067
JOURNAL, BRITISH MEDICAL, the SUPPLEMENT to the. See SUPPLEMENT
Judson, Adoniram Brown, The Influence of Growth on Congenital and Acquired Deformities, rev., 889
Ju-jitsu, the Japanese art of, 259
Jupe, Francis T. M., compulsory Greek, 387
Jury's protest, a, 223
Juvenile smoking and physical deterioration, 435
——— ——— Bill. See Bill

K.

Kala-azar and cachexial fever, quinine and bone marrow in (Leonard Rogers), 705
Kasauli, Indian Pasteur Institute at, annual report, 796
Kauffmann, Dr., infantile cerebral diplegia, 1041
Keen, Francis Noel, Urban Police and Sanitary Legislation, 1904, rev., 1150
Keene, George H., degree of M.D. conferred upon by Dublin University, 1010
Keetley, C. B., the stump in appendectomy, 276; surgical treatment of chronic constipation, 1358
Kehrer, Erwin, Die physiologischen und pathologischen Beziehungen der weiblichen Sexualorgane zum Tractus Intestinales und besonders zum Magen, rev., 1333
Keim, G., Traitement des Hemorrhagies Puerperales, rev., 722
Keith, Arthur, Human Embryology and Morphology, rev., 482
Kelly, A. Brown, transillumination of the antrum of Highmore, 650
——— A. O. J. (editor), International Clinics, rev., 662
——— Howard A., surgical notes on tuberculosis of the kidney, 1319; dinner to, 1340
——— J. K., uterine myoma, specimens of, 191
——— Thomas, J., teaching of practical midwifery, 747
Kempf, E. J., note on North American aborigines, 508
Kendle, F. Wellesley, case of precocious puberty in a female cretin, 246
Kennedy, Mr., some cases of joint excision, 600
——— A. E., enterectomy at 12 hours old, recovery, 715
——— Robert, grafting of completely-separated skin-flaps in the treatment of contractures due to cicatrices, 930
Kerr, James Graham, presentation of Neill prize for researches on lepidosiren paradoxa, 93
Keyser, C. R., case of Recklinghausen's disease, 249
Khory, Rustomjee Naserwanjee, obituary notice of, 107
Kidd, Leonard J., wider use of artificial respiration in therapeutics, 881
——— L., Irish Medical Directory, 1183
Kidney, which contained more than 40,000 iridescent calculi (J. Bland-Sutton), 125
——— adenoma of (Mr. Heaton for Mr. Barling), 1042
——— large white, case of (Dr. Peacocke), 306
——— left, cystic adenoma of, case of (W. G. Spencer), 249
——— movable, causing hydronephrosis (F. J. Steward), 884
——— ruptured, empyema, nephrectomy, recovery (Percy Coleman), 942
——— single, and renal surgery, 901
——— tuberculosis of, surgical notes on (Howard A. Kelly), 1319
Killen, W. M., thyrotomy for endolaryngeal cancer, 825
Killyleagh, insanitation at, 1291
Kilroy, Lancelot, inquiry into the existence of typhoid fever in Bermuda, 878
Kilvington, Basil, investigation on the regeneration of nerves, 935
King, the, and up-to-date operating tables, 101
King Institute of Preventive Medicine, opening of, 806
King's Sanatorium, the, 672
Kirby, W. Egmont, The Societies of Apothecaries, 1300
Kirk, T. S., some cases of perforation of stomach and intestine, 777
——— Mr., case of cancer of rectum, 824
Kissing and hygiene, 551
——— the book and Shakespeare, 1368
Klebs-Loeffler bacilli after diphtheria, persistence of, 1132
Klein, E., occurrence of bacillus enteritidis Gaertner in cow's milk, 136; vitality of the typhoid bacillus in shellfish, 885
Knecht, Professor, the chemistry of yellow fogs, 145
Knee-joint, operative methods, new and old, in tuberculosis of (Sir William Thomson), 68; correspondence on, 221, 389
Knox, D. N., enlarged infantile hernia, 191
Koch, Professor, whereabouts of, 1160
Koenig, Franz, Lehrbuch der speciellen Chirurgie, rev., 887
Korte, W. de, morbid growth from Angora ewe, 1092
Krehl, Ludolf, Pathologische Physiologie, rev., 481
Kresophen disinfectant, 1099
Kusy, Emanuel, appointed head of Sanitary Department of Austrian Ministry of the Interior, 90
Kyle, D. Hamilton, desquamation of scarlet fever, 532

L.

L. G. B., the M.O.H., and his district council, 1166
Labbé, Marcel (and Fernand Bezançon) Traité d'Hématologie, rev., 946

Labour, involution of uterus after, 133; metabolism during, 1170
——— induction of, a comparison of some of the methods (J. Spencer Sheill), 1378
Labrador, practice in, 1132
Lactation in a male infant (John Brunton), 131; note on, 228
——— diet during, 1312
Laffan, Thomas, some cases of fracture, 473; Irish dispensary doctors, 514; the Lucan Spa, 535; the Irish direct representative, 916
Lagrange, Fernand, La Médication par l'Exercice, rev. 723
Lamb, W., Guide to the Examination of the Throat, Nose and Ear, rev., 195; two cases of nasal disease, 304; case of lupus of pharynx, 824; pachydermia laryngis, 1043
Lamphey, water supply of, 914
Lancashire, small-pox in, 26 110, 159, 273, 1015
——— and Cheshire Branch and election for Central Council, 1069
Landry's paralysis, case of (C. H. Foley), 18
Lane, W. Arbuthnot, chronic constipation and its medical and surgical treatment, 7020, 718, 772
Lane Lectures, note, 957
Lang, Hugo, German-English Dictionary of Medical Terms, rev., 778
——— William (editor), the Royal London Ophthalmic Hospital Reports, rev., 105
Langmead, Frederick, on recurrent vomiting of childhood (cyclical vomiting), with the reports of two cases, 350
Lannelongue, M., relation between tubercle and traumatism, 445
Lansdown, R. J. P., recto-urethral fistula, 771
Laparotomies, gynaecological, analysis of 300 cases of (Arthur Lewers), 476; 100 consecutive cases of, for intussusception in children (Charles P. Clubbe), 1327
Laryngology, the jubilee of, 257; the evolution of (leading article), 667; at the International Medical Congress, 673
Laryngoscope, a new application of the, 456
Larynx and neck, soft fibroma of, removed by external operation (Sir Felix Semon), 6; (F. T. Paul), 646
Latham, Arthur, The Diagnosis and Modern Treatment of Pulmonary Consumption, rev., 820
Laumonier, Dr., New Methods of Treatment, rev., 253
Laurent, Emile, Géographie Médicale, rev., 361
Lawson, Arnold, quinine in the treatment of corneal ulcers, 250
——— D., skiagraphy of the lungs and pleura, 76
Laymen, intrusion of into medical practice, 262
Lay press, medical subjects in, 111
Lea, Arnold, vaginal hysterectomy in the puerperium for sepsis due to suppuration of myoma, 78; some remarks on puerperal infection, 581
—— Charles G., quinine in the treatment of corneal ulcers, 451
Lead as an abortifacient, increasing use of (Arthur Hall), 534; case where used (Harold C. Cadman), 653
——— poisoning at Mossley, 166; in Leeds, 743; from diachylon, 1022; from water pipes, 1297; uncertainty of post-mortem evidence in suspected (S. King Alcock), 1371; necropsies in, 1384
——— annual report of chief inspector of factories, 282
Leading Articles: The Supplement to the British Medical Journal, 27; a new trematode, 27; the administrative control of London hospitals, 28; the future of the Volunteer force, 29; sanatorium statistics, 82; the etiology of syphilis, 84; the Metropolitan Asylums Board and small-pox research, 85; penal business of the General Medical Council, 141; insanity and murder, 142; the health of London, 143; compulsory Greek, 199; fatigue, 200; pauper inebriates from the economic point of view, 201; the jubilee of laryngology, 257; schools and eyesight, 258; the Japanese art of ju-jitsu, 259; the professional relations of medical practitioners, 260; cancer of the tongue, 313; industrial poisoning and education of workmen, 313; axial torsion of the uterus, 314; John Hunter's methods, 369; triumphant antivaccination, 370; hygienic moonshine, 371; finances of London medical schools and hospitals, 427; the medical officer in the field, 428; advertising of medical practitioners in connexion with hydropathic and similar establishments, 429; after-history of appendicectomy, 487; an age-limit of intellectual work, 488; new prison rules, the, 488; hospital reform, 547; errors in observation, 547; medical certificates, 548; the family care of the insane, 607; Parliament and vaccination, 608; medicine and men of letters, 609; the evolution of laryngology, 667; industrial anthrax, 668; retrograde legislation, 669; food and poison, some new views, 725; German experience of antityphoid inoculation, 726; sterilization of the hands, 727; cerebro-spinal meningitis, 781; ventilation of the House of Commons, 782; prevention of apoplexy, 782; earthquakes and the public health, 837; antiquity of vaccination in India, 838; Malta fever, 839; tuberculosis in childhood, 893; Rabelais as a physician, 894; railway travelling and diabetes, 895; medical inspection of school children, 949; drug treatment for inebriety, 950; hysteropexy and pregnancy, 951; friendly societies and slate clubs, 952; underfed school children, 1001; medical science and colonization, 1002; the training of volunteer medical units, 1003; the doctor in modern warfare, 1051; re-education, 1052; western medicine in China, 1053; the aims of tropical medicine, 1105; treatment of venereal disease and scabies in the army, 1106; genital tuberculosis in gynaecology, 1106; the General Medical Council, 1161; a new spirochaete in syphilitic lesions, 1161; operative treatment of prostatic hypertrophy, 1162; medical and dental companies, 1283; hospital administration, 1284; style in medical writings, 1341; antityphoid inoculation, 1343; a Regius Professor's lay sermons, 1391; tuberculin as a curative agent, 1392; the Prime Minister and the public health administration, 1393
"League of Pitiful Deliverance," 905
Lecture, the Harveian, some new therapeutic methods in dermatology (Malcolm Morris), 697
——— the Romanes, 1347
Lectures, the Lane, 957
——— the Milroy, industrial anthrax (T. M. Legge), 529, 589, 641
——— the Morison, at the Royal College of Physicians, Edinburgh, 321
——— popular health, 52
Leedham-Green, Charles, on the closure of traumatic defects of the skull, 819
Leeds, correspondence from, 44, 159, 274, 385, 742, 797, 911, 1068, 1123, 1298; grants by the West Riding Education Committee to the Universities of Leeds and Sheffield, 44; fund for the extension of the Leeds Medical School, 45; dental department at the public dispensary, 45, 274; the crematorium, 159; Guardians and the public dispensary, 160; grants to medical charities, 160; appointment of pathologist to the dispensary, 274; annual meeting of Hospital for Women and Children, 274; training of nurses at the Leeds Union Infirmary, 274; influence of fog on the death-rate, 275; court dinner of the University, 385; large bequest to the general infirmary, 385; District Nursing Association, 386; general infirmary, cost per bed, classification of out-patients, tenure of office by honorary staff, post-mortem department, 742; death from lead poisoning, 743; registration of midwives, 743; feeding of school children, 797; Children's Relief Fund, 797; Dr. Hall's investigations, 797; effects of extra meals on weight of children, 797; foster homes for pauper children, 911; new public baths, 911; adulteration of food and drugs, 911; death of Mr. J. M. Nicol, 912; the late Sir John Barran, 1068; the Weatherill memorial, 1068; the aims of the University, 1068; inebriate reformatory for the three Ridings, 1123; convictions for watering milk, 1124; sanitary provisions of the new Consolidation Act; milk, food, laundries, libraries, wakes, 1298; inspection of school children, 1298; the public dispensary, 1298
——— workpeople's hospital fund, 562
Lees, David B., The Treatment of some Acute Visceral Inflammations, rev., 22
Leeward Islands, medical practice in, 1239
Leftwich, R. W., surface markings of the chest, 472; An Index of Symptoms as a Clue to Diagnosis, rev., 993
Legge, S. C., the corneal reflex in anaesthesia, 971
——— T. M., Milroy lecture on industrial anthrax, 529, 589, 641
Legislation, retrograde, 669
Legs, scrofulous ulcers of, successfully treated by high-frequency currents (W. F. Somerville), 244
Leicester, annual meeting at, 1245, 1285, 1343, 1394. See also Association
Leicester, J. C. Holdich, chyluria complicating pregnancy, 599; puerperal eclampsia, 1332
Leicestershire, district medical appointments in, 227
Leigh, Thomas Drake, oral sepsis and puerperal septicaemia, 882
Leith, outbreak of bubonic plague at, 1114, 1173, 1244, 1293, 1352, 1387
——— Professor, evolution in tuberculosis, 1382
Lemos, Pedro, curious medical certificate by, 1066
Leper colony of Molokai, 666
Lepers in the United States, 444, 619; in Canada, 724
Leprosy in Cape Colony, 860
——— contagiousness of, 1350
——— cultivation of the bacillus of, 315
Leprosy in the German Empire, 961
——— in India, 1058
——— note on the inoculation of in monkeys, 514
——— on the pathology and treatment of (Captain E. R. Rost), 294
——— in the Philippines, 312
——— and segregation, 1286, 1403
Lett, Hugh, oophorectomy for mammary cancer, 187; fracture of the astragalus, 1093
Leucocytes, clinical methods of enumerating (Edward Turton), 410; note on, 576, 696, 914, 1132
Leucocythaemia, with change of type from splenomedullary to lymphatic (C. H. Melland), 415
Leucocytozoan of the dog (Charles A. Bentley), 938, 1018; note on, 1008, 1361
Leucoderma, cancer, and scleroderma, points of incidence compared in (G. Lenthal Cheatle), 926
Leucopenia of cachexial fever and kala-azar, quinine and bone marrow in (Leonard Rogers), 705
Leukaemia and x rays (Byrom Bramwell), 1043
——— acute lymphatic (Thomas McCrae), 404; (W. D. Donnan), 408; (J. G. Slade), 476
Levick, G. Murray, experimental transmission of Mediterranean fever, 710
Lewers, Arthur, analysis of 300 cases of gynaecological laparotomies, 476; pregnancy in a rudimentary uterine cornu, 599; calcified tumour in Douglas's pouch, 826
Lewis, Sir W. T., honorary freedom of Cardiff conferred upon, 275, 623
Lewis, medical inspection of, 674; water supply in, 1113; insanitation in, 1247
Lewisham, small-pox at, 1000
Life assurance, importance of truthful answers by applicants for, 492
—— tables, short methods of constructing, 304
Light, notes on the treatment of various diseases by (Dr. Anderson), 193
Lincoln, outbreak of typhoid fever at, 312, 372, 378, 426, 484 543, 618, 666, 724, 780, 834, 1050, 1060, 1104, 1160, 1244, 1282
Lindsay, Professor, note on the diagnosis of malignant disease of the lung, 304
Ling, Maurice E., obituary notice of, 391
Liquorice in Mesopotomia, cultivation of, 317
Lisle, Arnold de, the story of the Red Cross movement, 1344
Literary Notes: 42, 99, 158, 216, 255, 311, 377, 437, 507, 558, 621, 679, 740, 794, 850, 890, 966, 1011, 1066, 1120, 1177, 1337, 1389; "Chemische Novitatem," a new monthly bibliography of current chemical literature, 42; "The Antiseptic," a new monthly Journal, 42; Dr. Weir Mitchell on "The Youth of Washington," 42; International Medical Statistics of Armies, 42; oculist seal found at Este, 42; Cornelius Agrippa on early doctors, 42; the fourth molar tooth in the skulls of an Australian aboriginal and a New Caledonian in the "Journal of Anatomy and Physiology," 99; "Eos," a new quarterly periodical, 99; prize won by an insane patient for solving a rebus and short essay on an assigned topic, 99; proposed new journal in Esperanto, 99, 507; William de Ripa, 99; William Cadge memorial window, address by Mr Tweedy at the unveiling of, 99; "Belfast Health Journal," 100; one of the early editors of the "Daily News," 100; bleeding as a punishment for Roman soldiers, 100; the treatment of a patient in "Emmanuel Burden," 100; the King accepts a copy of Mr. Grant's "Autobiography," 158; December number of "Field Naturalist's Quarterly," 158; German Navy League, 158; legal decision as to damages to be paid for sufferings caused by a wound, 158; centenary number of the "Edinburgh Medical Journal," 216; anatomical atlas of Albinus, 216; Dr. Alison of Edinburgh 216; Gargantua and the "medical finger," 216; the Library of the Surgeon-General's office at Washington, 216; "Every Boy's Monthly," 255; Edwin Lankester's "Half-hours with the Microscope," 255; Moncure Conway's story about Carlyle, 255; Henry Richter of New York is unable to render "Scheintod" into English, 255; M. Falconnet, 255; "A Student's Notes on Clinical Medicine" (Sir Alexander Christison), by A. Cassels Brown, 255; "Revue Internationale de la Tuberculose," 256; notice of translation of "Science and Hypothesis," by Mons. Poincaré, 311; notice of publication of an antivivisection story by Mark Twain, 311; John Frederick Struensee in January number of "The Practitioner," 311; notice of first number of "Annals of Psychical Science," 311; Sinhalese medical books of sixth century describe 67 varieties of mosquitos, 377; honour conferred on Sir Francis Cruise, 377; "Index Medicus Hispanus," 377; "Medical Notes and Queries," a new periodical, notice of, 377; military and naval pharmacy of the civil war in America, 377; Welsh National Library, 377; Henri Meige in "France Médicale" gives an

account of two French saints whose speciality was the cure of madness, 377; new books produced in 1904, 437; letter from Frederick Thackeray about Astley Cooper, 437; scientific methods of detecting criminals, 437; "Le Football Rugby et ses Accidents," 507; new monthly journal, "Zeitschrift für Eisenbahnhygiene, 507; award of Samuel D. Gross prize for 1905, 507; Colegio Medico of the Province of Madrid and the tercentenary of "Don Quixote," 507; notices of new medical books, 507; German troubles in South-West Africa (Louis Elkind), 508; North American Aborigines (E. J. Kempf), 508; French doctors before Molière, 508; prizes offered by Belgian Academy of Medicine, 508; "Malgaigne, sa vie et ses idées," by M. Pilastre, 558; notice of new work by Dr. Archibald Reid entitled "The Principles of Heredity," 558; the "Practitioner," special puerperal fever number, 558; "Metapsychic Phenomena," by Joseph Maxwell, 558; epidemics in North of France several centuries ago (Dr. Hélot), 558; Gabricius Gulhelmus Hildanus, 558; notice of "Our Hospitals and Charities," 558; announcement re Dr. R. Ghosh's "Materia Medica and Therapeutics," 621; the "Journal of Experimental Medicine," 621; the "Harmsworth Encyclopaedia," 621; Retention of Greek, 621; the French Army in the time of Henry IV., Louis XIII., and Richelieu, 621; part played by members of the medical profession in the French Revolution, 622; "First Aid," a new magazine, 622; Professor Osler, 622; Professor Charles Richet delivers an address to the Society of Psychical Research, 622; Thomas Carlyle and old age, 622; Carlyle's brother, 622; Robert Louis Stevenson in the Adirondacks, 622; "From Tokio through Manchuria with the Japanese" (Major Louis L. Seaman), notice of, 679; old Scottish medicaments, 679; anecdotes of Sir Richard Owen, 679; the Prize Anti-vivisection story, 679; "University Review," announcement of a new monthly journal, 680; "Harmsworth Encyclopaedia," 680; Manuel Garcia, 740; "House Beautiful," notice of, 740; "Canada Medical Record" absorbed into the "Montreal Medical Journal," 740; Story of Huxley, 740; Sir Frederick Treves's book has no "appendix," 740; Professor Chantemesse on the part played by insects in the propagation of infectious diseases, 140; "Osteopathy" plays a part in a play, 741; J. and A. Churchill's forthcoming medical publications, 741; "Author and Printer," 794; results of experience of 1,000 operations for gall stones, 794; note on "Physiological Economy in Nutrition," 794; the climate of India, 794; two autograph letters of Trousseau, 794; methods of prophylaxis against plague in Lyons, 1628-9, 850; first medical journal published in United States, 851; "ergophobia," 851; Dr. John Radcliffe, 851; N. J. L. Filbert and the swallowing of a key, 851; announcement of "Saints and Savages" by Dr. Robert Lamb, 890; new illustrated journal, "L'Avenir Medical," 890; new medical journal, "Le Droit Médical," 890; 164 medical libraries in the United States, 890; first number of International Magazine of School Hygiene, 890; "Medical Authors' and Publishers' Exchange," 890; history of medicine officially recognized by Philadelphia College of Physicians, 890; "Climate" announces its discontinuance, 890; "De l'Impregnation de la Mère" causes an action in France, 890; symphysiotomy first proposed, 890; Carlyle and doctors, 890; English translation of Professor Schlesinger's "Indications for Operation in Diseases of the Internal Organs," announcement of, 966; notice of new weekly paper, "Nursing Times," 966; centenary of the death of Schiller, 966; new journal of experimental pathology and therapeutics, "Zeitschrift für Experiment Pathologie und Therapie," 966; Captain Thomas Dover, Note on, 966; "Methods of Morbid Histology and Clinical Pathology," by Walker-Hall and G. Herxheimer, announcement of, 1011; "Archivos Latino Americanos de Pediatria," a new review devoted to children's diseases, 1011; "American Journal of Surgery and Gynaecology," henceforth to be known as the "American Journal of Surgery," 1011; Royal Academy pictures, 1005, 1012; Philemon Holland, 1012; Royal relics, 1012; an ancient Portuguese medical certificate, 1066; Oslerisms, 1120; poisoning in Scotland before 1625, 1120; Chinese medicine, 1121; a year's reports of the Imperial Library of Japan, 1121; new novel by Dr. S. Weir Mitchell, "Constance Trescott," 1121; "Nursing Times," first number, 1121; "Coleridgius bombitans in vacuo," 1177; notice of the "Empire's Cricketers," 1177, 1337; "University Review," first number, malaria notes, etc., 1177; records of an old Medical Dinner Society at Lyons, 1177; "Chinese made Easy," 1178; the Hospice de Bicêtre, 1178; notice of new volume of verses by the late Professor Theodor Meynert, 1337; "La Tribuna Medica" and the two Jenners, 1337; Browning on taking physic, 1338; an ancient reading of finger prints (Louis Robinson, 1338); a doctor who cannot understand his own writings, Ernst Krackowizer, 1338; the "Gryphon," 1338; Hogarth and quackery, 1338; "Le Radium," a new monthly journal, 1339; "Annals of Psychical Science," a new periodical, 1339 "Transvaal Medical Journal," first number, 1339; new book by Mr. James Cantlie, 1389; the King accepts a copy of Dr. W. J. Simpson's "Treatise on Plague," 1389; "Medico-Technologisches Journal," 1389; surgery in England in 1752, 1389

Littler, R. M., infection of scarlet fever, 355

Liver, anaemic infarction of (Professor O'Sullivan for Dr. Roy Dobbin), 189

——— primary adrenal carcinoma of (S. Phillips and B. H. Spilsbury), 1274

——— subacute atrophy of (S. G. Scott), 775

Liverpool, special correspondence from, 329, 445, 509, 567, 744, 797, 912, 1015, 1356, 1402; the Liverpool guardians and sanatorium treatment, 329; the infirmary for children, 330; the school of tropical medicine, 330; case of plague on a vessel in the Mersey, prosecution of the captain, 445; recent appointments in Liverpool, 446; new director of the cancer research, 509; women medical students at the Royal Infirmary, 509; the skeleton of Ambush II., 509; Stanley hospital, annual meeting, 567; the Banks memorial, 568, 912; the Medical Institution, proposed enlargements and alterations, 744, 1356; university chemical laboratories, 744; generous endowment to the laboratoriees, 744; Country Hospital for Children, annual meeting, 744; intended new buildings for, 744; Samaritan Hospital for Women, ninth annual report, 744; St. Paul's Eye and Ear Infirmary, thirty-second annual meeting, 744; Tropical Medicine School, appointment of an entomologist as lecturer, 744; The Ladies' Charity and Lying-in Hospital, annual meeting, 797; Queen Victoria District Nursing Association, annual report, 797; Dr. Ernest Nevins on consumption and municipal and parochial sanatoriums, 912; meeting of the Royal Sanitary Institute, 912; demolition of insanitary dwellings and the rehousing of the dispossessed, 912; appointment of an assistant gynaecological surgeon to the Royal Infirmary, 1015, 1356; cerebro-spinal meningitis, 1015; rumoured resignation of Dr. Armand Bernard, 1356; extension of term of office, 1402; Lancashire and Cheshire Branch meeting, 1356; epileptic colony at Maghull, satisfactory results of a year's working, 1402; low death-rate in the City, 1402

——— cerebro-spinal fever in, 1006

——— School of Tropical Medicine, return of the thirteenth expedition; Progress of sanitation on the West Coast, 272; appreciation of in Paris, 330; report on researches of expedition to Sierra Leone, 728; appointment of an entomologist as lecturer, 744; expedition to Amazon River, 902

——— small-pox and small-pox hospitals, 961, 1248

Liversedge, A., Tables for Qualitative Chemical Analysis, rev., 24

Living animals, experiments on, 1294

Llandaff, health of, 568, 1068

Llandrindod Wells Water Bill, 1068

Llantarnam, health of, 1068

Llantrissant and Llanwit Fardre, district council, report, 798

Lloyd, William, intranasal irritation causing acne rosacea, 74

Lobar pneumonia in children (G. A. Sutherland), 479

——— during enteric fever (Sidney Phillips and B. H. Spilsbury), 1093

——— following measles (F. C. Bottomley), 237, note, 340, 396, 864

Local Government Board. See Board

Local irritation and cancer, 48

Lockwood, C. B., case of cutaneous anthrax successfully treated by Sclavo's serum, 16; relationship between colitis and appendicitis from a surgical point of view, 466; summary of after-results of operations for appendicitis, 535

Lockyer, Cuthbert, the corpus luteum, 826

Locum tenens, the obligations of, 165; of today, 1312, 1368

Loewenfeld, L., Die psychischen Zwangserscheinungen, rev., 661

Logic of the colour element theory, 318

London, Academy of Medicine in, proposed, 570

——— ambulance services, 31, 320, 494, 555, 731, 1286

——— care of consumptive poor in, 905

——— cremation in, 148

——— Doyen Institute in, 1000

——— glanders in, 1282, 1399

——— health of (leading article), 143, 1229; public health report for the county of, 1903, 157

London, hospital administration and finance in, 267

——— hospitals, the administrative control of, 28; and medical schools, the financial relationship of, report of committee, 421; leading article on, 427; correspondence on, 511

——— port of, annual report of M.O.H., 1129

——— proposed institute of intermediate studies in, 727

——— medical education in, 1108

——— medical societies, union of. See Medical

——— milk depôts in, 615, 771

——— milk supply in, 1130

——— park mansions in, 318

——— preliminary and intermediate teaching in, 490

——— recruiting district, 615

——— School of Tropical Medicine, pass lists, 109; appointments to new chairs of helminthology and protozoology at, 204; festival banquet, 731, 957, 1064; aims of, 1105

——— schools, medical supervision of, 611

——— scientific teaching in, concentration of, 1108

——— street accidents in, 898

——— training of midwives in, 506

——— university and medical education, 510

Longbotham, George, obituary notice, 1184

Longford and sick soldier, 902

Longstaff, G. B., a contribution to the etiology of rheumatic fever, 194

Lorand, Arnold, blood glands as pathogenic factors in the production of diabetes and obesity, 415

Loveday, Francis J., elected churchwarden, 940

Love's Tribute, rev., 779

Low, George C., note on Filaria Gigas, 1329

Lowe, Alfred James, appointed J.P. for county of Lancaster, 1282

Lucan Spa, note on (Thomas Laffan), 835

Lucas, Clement, accidental electrocution causing extensive gangrene of extremities, 134

Lucey, W. C., obituary notice of, 1411

——— Mr., hereditary syphilis, case of, 533

Lumbar puncture in cerebro-spinal meningitis, recovery (James Donelan), 1143

Lunacy Act. See Act

——— Commission in Ireland, 557

——— expense of, 1201

Lunatics, consumptive, camp treatment of, 673

——— and inebriates, alien, 675

Lundie, R. A., correct anatomical form of bicycle pedals, 768

Lung, malignant disease of, note on diagnosis of (Professor Lindsay), 304

"Lungs" for Vienna, 273

Lungs, syphilis of, case of (Douglas Stanley), 533

Lungs and pleura, skiagraphy of, 76

Lunn, J., tumour of tongue, 991

Lupus of pharynx (Dr. Lamb), 824

——— of upper air passages (Wilfrid Glegg), 534

Luther, Dr., note on, 483

Luxemburg, practice in, 576

Lydston, G. Frank, The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases, rev., 1383

Lymphaemia, acute (E. J. McWeeney), 401

——— acute, in a child (E. J. McWeeney and Dennis J. Farnan), 400

Lymphatic leukaemia, acute (Thomas McCrae), 404; (W. D. Donnau), 408; (J. G. Slade), 476

Lynn-Jenkins, E., protective value of vaccination, 990

Lyons, methods of prophylaxis against plague in 1628-9, 850; an old medical dinner society at, 1177

M.

M.D. degree for practitioners, 52, 112

M.O.H., books for, 1130; the L.G.B., and his district council, 1166; qualification for, 1310

——— in Scotland, qualification for, 1310

MacAuliffe, Léon (part author), Précis d'Exploration externe du Tube digestif, rev., 23

MacBride, E. W., elected F.R.S., 494

McCall, Annie, sanatorium treatment of phthisis—is it worth while? 449

McCallum, Hugh A., visceroptosis, its symptoms and treatment, 345

McCann, F. J., proposed academy of medicine in London, 570

M'Clatchey, John, obituary notice of, 572

McClure, Dr., the climate of the Sahara, 992

McCrae, Thomas, acute lymphatic leukaemia, 404

McCulloch, H. D., negro immunity from malaria and yellow fever, 103

Macdonald, G. G., origin and course of the opsonins in acute pneumonia, 136

MacDonald, Greville, antivivisectionist stage thunder, 1360

——— Ian, elected corresponding member of the Academy of Medicine and Surgery of Seville, 437

McFarland, Joseph, A Textbook of Pathology, rev., 419
McGee, Anita Newcomb, elected member United Spanish War Veterans, 546
MacHardy, N. F., general paralysis successfully treated by urotropine, 185
MacIver, Donald, notice of death of, 392
Maclennan, Donald Urquhart, obituary notice of, 1411
MacKay, Malcolm, medical practice in Canada, 1225
——— W. A., elected corresponding member of Academy of Medicine and Surgery of Seville, 437
——— W. J. Stewart, The Preparation and After-treatment of Section Cases, rev., 945
Mackenzie, J., "ovarian pain," a plea for more accurate clinicate observation, 387
——— James, new methods of studying affections of the heart, 519, 587, 702, 759, 812
——— T. C., awarded Stanhope Gold Medal of Royal Humane Society, 665; awarded Arnott Memorial Gold Medal, 750
Mackey, Charles (reported by), tuberculosis of cerebrum and cerebellum, with external pointing of one caseous mass, 186
Mackinnon, Henry William Alexander, obituary notice of, 750
McKisack, Dr., on cold in pneumonia, 207
MacLachlan, James, elected Provost of Dornoch (Sutherlandshire), 140
Maclaren, Roderick, relations of medical men to each other, 241
Maclean, Ewen J., colliery dispute amicably adjusted, 511
MacLennan, Dr., Riedel's operation for chronic osteomyelitis, 251
McLiesh, John, Central Midwives Board and the Belfast Maternity Hospital, 1404
McMillan, Lewis, the guaiac test, 473
McNabb, D., case of aneurysm opening from the first part of the thoracic aorta into the pulmonary artery, 883
Macnamara, Nottidge Charles, Origin and character of the British People, rev., 252
Macnaughton-Jones, Dr., elected honorary member of Obstetrical Society of Leipzig, 546; Practical Manual of Diseases of Women and Uterine Therapeutics for Students and Practitioners, rev., 1048
McWeeney, E. J., acute lymphaemia, 401; in a child, 400; Dr. Schaudinn's work on blood parasites, 570; relation of the parasitic protozoa to each other and to human diseases, 656; case of chorionic villi in a case of ruptured tubal pregnancy, 885; asylum dysentery, 943; tuberculosis, its cause and prevention, 1010; spirochaetae in syphilis, 1262
Madagascar, radiography in, 614
Madeira, opening of a sanatorium at, 368
Madras, anti-malaria campaign in, 282, 1006; plague in, 675; sanitary reports 1903, 891
Magee, J. A., one-mark vaccination, 1360
Magennis, Edward, Surgeon-General Evatt's Report, 800
Magistrates and the Vaccination Act, 1247
Malaria in Algeria, prevention of, 1331
——— in the Campagna, prevention of, 140
——— in Ceylon and mosquitos, 861
——— in India, prevention of, 282, 1006
——— joint affection possibly due to (Howard Marsh), 883
——— negro immunity from, 103, 389, 625
——— prevention of, note, 420
——— stamping out of, 841
Malarial fever. See Fever
——— sanitation, 1347
Male infantilism (William Calwell), 824
Malignant disease, relation of uterus and ovaries to, 731
——— of fundus uteri treated by x rays (Arthur J. Cleveland and Donald D. Day), 925
——— growths, nature of (Professor Farmer, J. E. S. Moore, and C. E. Walker), 1277
——— pustule, case of (R. Stanley Thomas), 18
Mallory, Frank Burr, Pathological Technique, rev., 419
Malt extracts, 1387
Malta, health statistics of, 51; intermittent fever in (Them. Zammit and G. Caruana Scicluna), 711; typhoid fever in, 733; naval hospital at, 789
——— medical practice in, 1240
Mammalian ovary, nature of the follicle cells of (V. Chastel de Boinville), 13
Mammary cancer. See Cancer
Man, blood pressure in, note, 315
Man, and his choice of an occupation, 465
Manchester, correspondence from, 44, 101, 159, 218, 273, 329, 385, 446, 509, 567, 632, 691, 743, 911, 967, 1015, 1067, 1179, 1297, 1357, 1401; result of poll as to beds in receiving house, 44; fog and mortality from diseases of the respiratory organs, 44, 102; preparing for the Midwives Act, 44; Royal Army Medical Corps' new head quarters, 44; water supply, 44; slow progress of the adoption of cremation, 44, 159; a coroner on the verdict "Suicide whilst temporarily insane," 101; the King and up-to-date operating tables, 101; St. Mary's Hospital, board meeting, 101; the University of Manchester Public Health Laboratories, 102; prosecution for selling an ointment containing veratrin, 102; smells and Section 114 of the Public Health Act, 102; insurance of children, 102; Ladies' Public Health Society, annual meeting, 159; small-pox at Burnley, 110, 159; bequest to Hyde Infectious Diseases Hospital, 159; proposed medical institution and club, 159, 218; defect in Dairy and Cowsheds Order, 159; epidemic of suicides, 159; Port Sanitary Authority, monthly report, 159; military drill in schools, 159; spread of anthrax, 159; honour to local medical men, 218; coroners' inquests and causes of death, 218; case of catalepsy, 218; 150th anniversary of the infirmary, 218; should ankylostomiasis be made a notifiable disease? 273; small-pox in Lancashire during the last quarter, 273; annual meeting of the Royal Eye Hospital, 273; the City Council and the infirmary site, 329, 446, 509; hospital for skin disease, annual report, 329; physical exercise in schools, 389; proposed new ear hospital, 329; bequests to medical charities, 329; Manchester Aberdeen University club dinner, 329; coroner on deaths under chloroform, 385; a judge on bailiffs, 385; new skin hospital, donation towards, 385; free meals for children and their cost, 385; annual meeting of infirmary trustees and probable cost of new infirmary, 385; a year's inquests, 385; measles in Mid-Cheshire, 446; Board of Education and temperance teaching in schools, 446; should corporations provide nurseries? 446; nursing for threepence a day, 446; sanitary inspectors support Public Health Bill, 446; minstrels, music, and charities, 446; cold storage of milk in transit, 446, 691; Southport Infirmary and alcohol as a medicine, 446; provision for the blind by the State, 509; Northern Hospital, annual meeting, 509; division of the assets of the old Victoria University, 509; Children's Hospital, Pendlebury, annual meeting, 509; Victoria Dental, annual report, 509; appointments, 509; Crossley Sanatorium, note on, 567; municipal authorities and school restaurants, 567; housing reform in towns, 567; provident dispensaries, 567; case under Workmen's Compensation Act, 567; Port Sanitary Authority, 567; death of Dr. Cornelius O'Doherty, 567; coming of age of the University Women's Union, 623; a coroner on viewing bodies, 623; end of the winter session, 623; the Garcia centenary, 623; cost of a small-pox hospital at Elswick, 623; gift to Rochdale Nursing Institution, 623; Jewish Hospital, 691; medical graduation, 691; Fleetwood and its sewage scheme, 743; the law as regards workers with bisulphide of carbon, 743; Todmorden, its water scheme and its cost, 744; extension of Oldham Infirmary, 744; Victoria University, institution of scholarships, 744; part of new infirmary contract let, 911; new convalescent home for Burnley children, 911; Crippled Children's Help Society, 911; completion of Crossley Sanatorium in Delamere Forest, 911; opening of summer session, 911; allocation of beds and new appointments at the Royal Infirmary, 967; should children under 5 years attend public schools? 967; foundation of hospital at Leigh, 1015; small-pox in Lancashire, 1015; gifts to Rochdale Infirmary, 1015; visit of French delegates to sewage works, 1067; sewage sludge and fruit essences, 1067; monument to James Prescott Joule, 1067; recruiting returns for Manchester, 1067; enormous rejection of applicants, 1067; Hospital Saturday, 1178; St. Helen's Hospital, annual report, 1179; physique of Salford school children, 1179; meeting of British Dental Association at Salford, 1179; charge under the Sale of Horseflesh Act, 1297; appeal on behalf of the Sick Children's Hospital, 1297; Royal Infirmary and Ear Hospital, 1297; new arrangements for the teaching of pathological anatomy at the infirmary, 1298; retirement of Professor Dreschfeld from the Infirmary, 1298; spread of scarlet fever, 1298; the psychology of the dog's mind, 1357; Domestic Economy Association, annual meeting, 1357; progress of new infirmary, 1357; death of Rev. James Clarke, 1357; Whitsuntide vacation, 1357; case of bubonic plague, 1401; university notes and doings, 1402; composition of Manchester soot, 1402; birth-rate and death-rate in Cheshire, 1402; dangers of flannelette, 1402
Manila, water supply and sewerage for, 817
Mann, Gustav, on the thalamus, 289
——— J. Dixon, causes and treatment of oedema, 1077
Mariman, Lieutenant-Colonel Kaikhoso Sorabji, death of, 1305
Marion, Georges, Chirurgie du Système Nerveux, Crane et Encéphale-rachis et moelle-neris, rev., 1384
Marriage and drunkenness, 733
——— medical certificates for, 815
Marriott, Edward Dean, sanatorium treatment of phthisis, is it worth while? 161
Marsden, Prosper H., poisoning by single castor-oil seed, 1290
Marsh, F., frenum uvulae, 822
——— Howard, a joint affection possibly due to malaria, 883; intermittent hydrops of the joints, 884
——— J. Hedley, antistreptococcus serum in toxic scarlet fever, 355
Marshall, F. J., resigns post of R.M.O. at St. George's Hospital, 732
——— J. N., hospital reform, 749
——— Lewis W., digestibility of boiled and unboiled milk, 1017, 1182, 1360
Martin, Arthur J., the sewage problem, 659
——— C. J., determination of arterial blood pressure in clinical practice, 865
Martineau, A. J., frontal sinus empyema followed by subdural abscess, 1082
Mason, J. M., medical practice in New Zealand, 1236
Massage in cardiac dilatation (R. A. Fleming), 305
Matthew, Alexander, obituary notice of, 972
Matzenauer, Rudolf, Lehrbuch der venerischen Erkrankungen, rev., 828
Maude, Arthur, one-mark vaccination, 856, 1016
Maunsell, Mr., endothelioma of uterus, 189; cholecystotomy for acute cholecystitis following typhoid fever, 189
Mauritius, plague in, 101, 217, 311, 425, 558, 680, 779, 1400
——— medical practice in, 1240
Mayo, W. C., administration of anaesthetics in abdominal operations, 192
Measles at Merthyr, 386; at Winsford, 446, 509; at Newport (Mon.), 1067; at Rhymney, 1357
——— cerebral symptoms in (Guy J. Branson), 641
——— the prodromal rashes of (J. D. Rolleston), 233
——— and education, 1057
——— prevention of, 1359
——— German, infectivity of, 455
——— German measles and scarlet fever, some points in the differential diagnosis of (F. J. Poynton, 229
——— lobar pneumonia following (F. C. Bottomley), 237; note on, 340, 396, 864
——— notification of, 903
Meat eating in Germany, 1346
——— inspection, 502
——— and milk, 1010
——— poisoning, observations upon the micro-organisms of, and their allies (H. de R. Morgan), 1257
Meatus, external auditory, otolith removed from (H. J. Godwin), 472
Mechanism of deglutition, 671
Meckel's diverticulum, gangrenous (Mr. Parker), 656
Medical advertising, 43, 50, 515, 1307, 1308
——— Annual, A Yearbook of Treatment and Practitioner's Index, rev., 603
——— attendance in venereal disease, 50; in non-provided schools, 975
——— black lists, 959
——— certificate, an ancient Portuguese, 1066
——— certificates (leading article), 548; abuse of, 1054
——— certificates, and Education Committees, 512; and postal officials, 845, 1113, 1247
——— and marriage, 815
——— charities, abuse of, 616
——— college of the army, 1109
——— companies, 1283
——— coroners, 90
——— Council of Prague (German section) and quack advertisements, 957
——— curriculum, obstetrics in, 610
——— defence, 545
——— Union, annual meeting, 1279
——— descendant of the family of Joan of Arc, 613
——— dialect terms, 705
——— dinner society at Lyons, an old, 1177
——— Directory, the, 33
——— diseases of children. See Children
——— education, a sidelight on, 39, 102, 160, 219, 628, 801, 971, 1245
——— in London, 1108
——— and the London University, 510
——— mental science in, 625
——— ethics, 49, 105, 165, 393
——— etiquette, 336, 1111
——— evidence, a solicitor's views on charitable, 571
——— examination of defective children, 393
——— exorcism, 970
——— "finger," the, 216
——— golf tournament, 976
——— "howlers," 284
——— inspection in Scotland, 555

Medical inspection of elementary schools, 47, 85, 162, 555, 695
——— of school children (leading article), 949
——— of tramps at workhouse, 1309
——— inspectors of the Local Government Board, 616
——— legislation in America, 862
——— legislators in Portugal, 501
——— magistrates, 356, 948, 1000, 1282, 1500
——— Masons, Epsom College, 636
——— Members of Parliament in Canada, 90, 614; in France, 264
——— men, automobiles for, 372, 636, 696, 1188; attendance upon relatives of, 454; called in to assist midwives, payment of, 564, 633; and the dispensing of medicines containing poisons, 571; part played by in the French Revolution, 622; and the lay press, 803, 1022, 1308; visit of to Paris, see Paris; and advertisements of proprietary medicines, 1021; and infectious disorders, 1057
——— men, relations of to each other (Roderick Maclaren), 241; (leading article on), 260
——— minister, use of a, 1188
——— ministers in France, 264, 902; in Spain, 845; in Naples, 902
——— officer in the field (leading article) 428
——— ——— of health in the Highlands, 903
——— ——— of a workhouse, duties of, 339; of an isolation hospital, duties of, 394; to a nursing home, 1308
——— ——— a Spanish municipality and its, 605
——— ——— officers. Belfast Constabulary, questions in Parliament, etc., 435
——— — duties and customs of, 166
——— — officers of health and private practice, 733
——— — officers, Indian, in Burmah, question in Parliament re compensation allowance, 435
——— — officers, Irish Poor Law, salaries of, 92
——— question in Parliament re, 435
——— officers on "big liners," treatment of, 1252
——— officers, military, notification by, 394
——— organization, value of, 1005
——— orientalists, 554
——— Peace Committee, 899
——— poet, an American, 613
——— practice abroad, 1188, 1189. See also Medical Profession
——— ——— ——— in Bussorah, 228
——— ——— ——— in Canada, 636
——— ——— ——— in Labrador, 1132
——— ——— ——— in Newfoundland, 375
——— ——— ——— intrusion of laymen into, 262, 967; risks of, 630; prescribing or dispensing in, 965, 1126
——— practitioners and their relations to chemists' shops, 105, 336; unauthorized notices of in the lay press, 336, 695; advertising of in connexion with hydropathic and similar establishments, 429; and midwives, payment of, 1117, 1248; cholera insurance for 1269
——— ——— ——— in Germany, 140; in America, mortality among, 198; in Italy, 724; foreign, in Italy, 21, 373
——— prelate, a, 368
——— Press Association. See Association
——— profession, Who's Who Year Book and the, 48; evolution of in Canada, 85; the discipline of the, 220; and the Midwives Act, 1069, 1127, 1181, 1248, 1300, 1358, 1404
——— profession abroad in its educational, social, and economic aspects, 1189
——— profession in France, 1193; in Germany, 1197; in Austria, 1204; in Hungary, 1207; in Italy, 1208; in Spain, 1211; in Portugal, 1214; in Belgium, 1215; in Holland, 1217; in Denmark, 1219; in Turkey, 1221; in Bulgaria, 1222; in Servia, 1223; in Roumania, 1225; in Canada, 1225; in South Africa, 1229, 1232; in Australia, 1233; in New Zealand, 1236; Crown and Minor Colonies, 1237; East and West Coasts of Africa, 1238; British New Guinea, 1238; Fiji, 1238; British Honduras, 1239; Ceylon, 1239; Hong Kong, 1239; Cyprus, 1239; Falkland Islands, 1239; Gibraltar, 1239; Leeward Islands, 1239; Malta, 1240; Mauritius, 1240; St. Helena, 1240; West Indian Islands, 1240; British Guiana, 1240; Windward Islands, 1240; Seychelles, 1240; Straits Settlements, 1240
——— reform, 1126
——— Register," the, 670; names restored to, 1201; erasures from, 1309
——— Reserve, an Army, 47
——— school in Brazil, destruction of, 1257
——— schools and hospitals in London, financial relationship between, report of committee, 421; leading article on, 427
——— science and colonization, 1002
——— service of the Army, 316. See also Army, British
——— service examination, statistics and college reforms, 335
——— slander case, 630
Medical societies of London, proposed union of, 490, 728, 745, 783, 799, 848, 1108
——— sociology, meeting in Berlin, 425
——— students in Germany, 131; in Switzerland, 256
——— students, female, in America, 57
——— ——— strike of, in Madrid, 787
——— ——— training of, to be general practitioners, 103
——— study excursions. See Voyage
——— study tour in Germany, 483
——— subjects in the lay press, 1111, 1188
——— supervision of London schools, 611; in New York schools, 1397
——— terms in Murray's "New English Dictionary," 100
——— testimonials in trade advertisements, 224, 1308
——— units, volunteer, training of, 1003
——— visit to Paris. See Paris
——— witnesses, fees to. See Fees
——— ——— and minors, 1187
——— worthies of Cumberland (Henry Barnes), 297
Medicaments, old Scottish, note on, 679
Medicine, ancient and modern, 437
——— chest of the House of Commons, 846
——— the Egyptian school of, 86
——— errors of diagnosis in (J. R. Bradford), 1253
——— future of in South Africa, 612
——— and hygiene in Morocco, 621
——— and men of letters, 609
——— military, Mr. Roosevelt on, 730
——— old scheme for the socialization of, 664
——— popular, 510
——— tea as, 883
——— tropical. See Tropical
——— Western, in China, 1053
Medicines, proprietary, laws regulating the sale of, 514, 605
Medico-Legal and Medico-Ethical, 49, 104, 165, 223, 280, 336, 393, 454, 515, 571, 630, 695, 751, 803, 859, 918, 975, 1021, 1073, 1131, 1187, 1251, 1307, 1364, 1408; the ethics of supersession, 49, 105, 165, 393, 1308, 1364, 1409; a disclaimer, 49, 975; duties of an assistant, 49; partnership introduction, 50; value of a share, 50, 571; contracts not to practise within an area, 50, 1131, 1364; advertising by card, 50; medical advertising, 50, 515, 1022, 1073, 1131, 1307, 1308; professional secrecy, 104, 918, 1022; a friendly society case, 105; administration of anaesthetics, 105, 1364; fees to medical witnesses, 105, 223, 280, 1021, 1131, 1308, 1364; ethical conduct, 105; relation of registered medical practitioner to chemists' shops, 105, 336, 1308; rival claims to a case, 106; anaesthetists' fees, 106, 224, 515, 572; choice of partners, 106; duties of a substitute, 165, 280, 593, 695; cost of agreement, 165; the door-plate again, 165, 224, 1308; promise not to practise, 165; obligations of a locum tenens, 165; a jury's protest, 223; accident assurance, fee for consultation, 223; sight testing by opticians, 223; a matter for arbitration, 224; insurance fees, 224; circulars to patients on the sale of a practice, 224, 393; medical testimonials in trade advertisements, 224, 1308; unregistered midwife, 280, 918; sale of practice, the duty of a vendor, 280; puffing paragraphs in the lay press, 280, 336, 695, 803, 1022, 1187, 1308; the bloodless surgeon, 280; the bogey of medical etiquette, 336; police surgeons and medical etiquette, 336; fee for police call, 336; fees received by assistants, 336; workmen's compensation, 336; value of a practice, 336, 454, 695, 751; chemists as opticians and dentists, 393; ethics of consultation, 393, 572; medical examination of defective children, 393; account forms, 393; rights of a family doctor, 393; medical certificates for school children, 454; biographies and portraits of medical men in the lay press, 454; is it right to apply for an appointment which is not vacant? 454; attendance upon relatives of medical men, 454, 1365; dentists and anaesthetists, 454; patient's choice of medical attendant, 454, 571; conduct of some consultants, 515; medical fees in legal cases, 515; a misunderstanding, 515; medical men and the dispensing of medicines containing poisons, 571; a solicitor's views on charitable medical evidence, 571; coroners and deaths in lunatic asylums, 571; a surgery at a public-house, 571; Peet *v.* Lithgow, 572; death from puerperal fever, 572; caveat emptor, 572; risks of medical practice, 630; communications between consultant and general practitioner, 630; expert evidence on statement of fact, 630; privilege of public vaccinators, 630; twins, 630; a medical slander case, 630; ingratitude, 630; fees in puerperal case, 630; circularizing the profession, 695, 803; the Pope's physician and Pink Pills, 695; a Recidivist, 695; professional relations, 695; advertising of hydropathic establishments, 751; friendly society appointments, 751; inquest fees, 751, 1021; a Halifax inquest, 751; secret commissions, 803; "messages received," 803; Mr. Troutbeck and the medical profession, 859; indecent advertisements, 859; touting for practice, 829, 1131; employment of a registered midwife by a medical practitioner, 859; bonesetters, 918; melancholia, 918; the doctor's lamp, 918, 1022; compensation for loss of tooth, 975; supply of appliances, 975; medical attendance in non-provided schools, 975; may a registered practitioner be a director of a building society? 975; responsibility for medical debts, 975; inquest fees to hospital officers, 1021; medical men and advertisements of proprietary articles, 1021; "gross receipts," 1022; red lamps, 1022; lead poisoning from diachylon, 1022; surgery notices, 1022; a specialist and his professional brethren, 1022; Accident Company's certificates, 1073; assistant and principal, 1131; time limit for inquests, 1187; fees for attendance on domestic servant, 1187; payment of doctors' bills, 1187; property in day books, 1187; medical witnesses and minors, 1187; alleged neglect of a club patient, 1251; action against a medical man: Hobson *v.* Bicknell, 1307; death from Jewish circumcision, 1307; tongue-tie, 1307; Glasgow Ear Hospital, 1307; recognition of unqualified practitioners by school authorities, 1307; responsibility for death certificates, 1308; medical officership to a nursing home, 1308; claims of opticians, 1308; assistants' doorplate, 1308; arrangements with chemists, 1308, 1409; Mr. Troutbeck as coroner, 1364; a coroner's mistaken strictures, 1364; choice of an anaesthetist, 1364; relations with a district nurse and midwife, 1364; interpretation of contract not to practise, 1365; attendance upon a medical man's widow, 1365; criminal appeals, 1408; charge of negligence, 1408; relations with homoeopaths, 1409; relations with chemis[illegible] 1409
Mediterranean fever. See Fever
Meige, Henri, note on French Saints whose specialty was the cure of madness, 377
Meissner, Georg, obituary notice of, 1072
Melancholia, 918
Melaena and haematemesis in an infant (B. Morris and M. Feldman), 352; (J. Clay Beckitt), 594
Melland, C. H., leucocythaemia, with change of type from splenomedullary to lymphatic, 415
Mendel, Henry, Traitement de la Tuberculose Pulmonaire par la Médication intra-trachéale, rev., 829
Meningitis, cerebro-spinal. See Cerebro-spinal
——— traumatic spinal (M. B. Pinchard), 823
Menstruation in childhood, ovarian disease, 246, 264
Mental nurses, training of, 628
——— science in medical education, 625
Mentally-defective children, 1061
——— deficient boy, institutions for, 752
Menzel, Adolf v., post mortem proves him to have been hydrocephalic, 384
Mercier, Charles, insanity and murder, 219, 331
Merck, Willy, degree of M.D. honoris causa conferred upon, 322
Mercurial poisoning, fatal acute (E. Scott Sugden), 767
Mercury and strychnine poisoning, 617
"Merlin," antivivisectionist stage thunder, 1360
Mersey, case of plague on a vessel in the, 383
Merthyr, measles at, 386; report of medical officer of health, 1057; housing question at 1357
Mesopotamia, cultivation of liquorice in, 317
Mesotan eruption, case of (David Couper), 715; (J. P. Wills), 881
——— and aspirin, note on (G. Burnet), 827
"Messages received," 803
Metabolism during pregnancy, labour, and the puerperium, 1170
Metacarpal, separation of epiphysis of (Dr. Codd), 1271
Metcalf, M. M., An Outline of the Theory of Organic Evolution, rev., 1008
Metchnikoff on recent microbiological research on syphilis, 1178
Methylated spirit as a "drink" in Manxland, 312, 1008
Metric system, the, 112, 168, 620
Metropolitan Convalescent Homes Association, meeting, 544
Michels, E., obliterative arteritis, 762
Microbes, a disbeliever in, 322
Microbiological research on syphilis, recent (Roux and Metchnikoff), 1178
Micrococcus, gonorrhoeal, causing acute endocarditis (William Hunter), 525
Micro-organisms, thermal death-point of, 455
——— ——— of meat poisoning and their allies (H. de R. Morgan), 1257
Microscopical examination of bone marrow (Cecil Price Jones), 409
Middleton, W. J., arthritis deformans, 970
Midland Medical Union, annual dinner, 1104

Midwife, registered, employed by medical practitioner, 859
——— an unregistered, 280, 918
——— notification by of intention to practise as such, 1400
Midwifery, military, 145
——— instruction in, 386
——— practical, present teaching of in England (W. R. Dakin), 577; correspondence on, 693, 746, 799, 854 864
——— practice of, 727
——— scholarships, 745
Midwives Act. See Act
——— Association. See Association
——— Board, Central, 209, 272, 364; charge against a midwife of signing false certificates, 209; poor law infirmaries as training schools, 272; applications for the certificate of the Board, 272; number of women on the midwives roll, 272; payment of medical men called in to assist midwives, 564; and the Belfast Maternity Hospital, 1294. 1404
——— charges at Newport, 1298
——— Congress in Italy, 724
——— duties of, 1181
——— instructions for, 898
——— registration of, 1252
——— registration of in Leeds, 742
——— roll, the first, note on, 34
——— the supply of, 420
——— training of, 506, 1054, 1104
Mikado and Dr. Takamine, 1104
Milian, Dr., Le Liquide Céphalo-rachidien, rev., 360
Military drill in schools, 159
——— medical officers, notification by, 394
——— medicine, Mr. Roosevelt on, 730
——— midwifery, 145
——— operations in Nigeria 1902-3, 166, 224
——— surgery, Japanese, 444
Militia, R.A.M.C. (James R. Andrew Clark), 277
Milk, occurrence of bacillus enteritidis Gaertner in cows (E. Klein), 136
——— boiled and unboiled, digestibility of, 969, 1017, 1024, 1076, 1124 1132, 1181, 1299, 1360
——— charity in Philadelphia, 62
——— cold storage of in transit, 446, 691
——— condensed, proportion of fat in when diluted, 390, 802, 855, 916, 1124
——— depôts in London, 615, 771, 1130
——— green, case of (G. Arbour Stephens), 247
——— infected, epidemic sore throats traced to, 1165
——— preservation of, 1412
——— standard of fat in, 110
——— sterilized cows, nutritive value of in infant feeding, 1014; municipal supply of, 1075
——— sugar, pioneer, note, 830
——— supply of London, 1130
——— supply of Edinburgh, with suggestions for its more stringent control (W. G. Aitchison Robertson), 188
——— supply, Frost *v.* Aylesbury Dairy Company, 492
——— from tuberculous cows, dangers of, 445
——— watered, convictions for, 1124
Milkborne scarlet fever, 803, 948
Milky ascites in which the opalescence was not due to fat (F. Taylor and J. Fawcett), 1273
Miller, James, tetanus treated by antitetanus serum, recovery, 1269
Millfield Convalescent Home, note on, 546
Milligan, W., suppurative frontal sinusitis, 171; notes on two cases of labyrinthine suppuration, 417
Milroy lectures. See Lectures
Minchin, E. A., undertakes to conduct investigations in sleeping sickness, 494
Miners, ankylostomiasis among, 217
Minor operations and hospital reform, 914, 971
Minstrels, music and charities, 446
Misunderstanding, a, 515
Missouri, prevention of consumption in, 911
Mitchell, A. B., case of nephrectomy, 304
——— Sir Arthur, About Dreaming, Laughing and Blushing, rev., 888
——— Dr., case of cutaneous anthrax treated with Sclavo's serum, 992
——— S. Weir, "The Youth of Washington," note on, 42; 75th birthday, of, 546; new novel, "Constance Trescot," 1121
——— William, open-air treatment of consumption in Scotland 100 hundred years ago, 1359
Mitral stenosis without audible murmur soft-valve (W. Ewart), 357
Modern prescriptions, 614, 963
——— surgery, 1312
——— warfare, the doctor in, 1051
Molar pregnancy (Dr. Paton), 474
Mole, hydatid, histology of, 375
Molokai, leper colony of, note, 666
Money as a microbe killer, 956
Monkey, tuberculous, as a pet (F. W. Smith), 472
Monmouth, health of, 623
Monro, T. K., two cases of unilateral convulsions and paralysis in young subjects associated with exudative erythema, 1144
Monsarrat, K. W., constriction of the ureter, 1323
Monthly nurses, 1400
Montreal, infectious hospitals at, 35; maternity hospitals, sixtieth annual meeting, 35; forcible police search in the Maternity Hospital, 496
Moon, David Steele, obituary notice of, 919
Mooney, Dr., sarcoma of conjunctiva, 774
Moore, Frederick William, obituary notice of, 774
——— John Edward Shorrock, appointed new director of Liverpool Cancer Research, 509; nature of malignant growths, 1277
——— Sir John William, Earth Temperature and Diarrhoeal Diseases, 537
Moorhead, J. Gillman, Surface Anatomy, rev., 947
Morgan, David, bony deposits following dislocation of elbow joint, 191
——— Gilbert T., the sodium salts of the coumaric acids as therapeutic agents, 1143
——— H. M., Reminiscences of Forty-five Years of General Practice, 534
——— H. de R., observations upon the microorganisms of meat poisoning and their allies, 1257
Morison Lectures at Royal College of Physicians, Edinburgh, 321
——— Rutherford, appreciation of James Murphy, 1303
Moritz, Siegmund, causes, symptoms, and complications of the diseases of the nasal accessory sinuses, 174
Morocco, hygiene and medicine in, 621
Morphine poisoning, subcutaneous injection of atropine, recovery (A. Sheen), 1040
——— tablet to discoverer of, 757
Morris, B, case of haematemesis and melaena in an infant 2 days old, 352
——— Malcolm, some new therapeutic methods in dermatology, 697
Mortality in childbed (Robert Boxall), 1093
——— infantile, women's work and, 30; and tuberculosis (William P. S. Branson), 72; in Russia, 140; in Norway, 554; in Wales, 602; control of in Berlin, 742; question in the House, 846, 903; in Dundee, 974; in Queensland, 1006; conference on prevention of, 1280
——— influenza and, 1055
——— among medical practitioners in America, 198
——— in South African mines, 435
Mortimer, J. D., paper on the anaesthetization of children, 193
Morton, Thomas, obituary notice of, 803; memorial to, 892
Mosquito reduction, logical basis of the sanitary policy of (Ronald Ross), 1025; in California, 1390
Mosquitos, identification of (W. Scott Patton), 1090
——— and malaria, 1177
——— and yellow fever, 352
Mossley, lead poisoning at, 166
Motor ambulance, 696, 717, 956, 1017
——— car legislation, 1300
Motoring Annual, rev., 1099
Motto, a too appropriate, 396
Moulding of the infant's head before birth, 147
Moullin, C. Mansell, Enlargement of the Prostate: its Treatment and Radical Cure, rev., 80; after-history of patients upon whom gastric operations have been performed, 1037
Moure, E. J., Traité élémentaire et pratique des des Maladies de la Gorge du Pharynx, et du Larynx, rev., 195
Moussu, M., dangers of milk from tuberculous cows, 445
Mouth-breathing as a common antecedent to phthisis (W. C. Rivers), 941
Movement, a very grave, 335
Moynihan, B. G. A., Gall Stones and their Surgical Treatment, rev., 138; surgical treatment of ulcer of the stomach and of its complications, 753
Mozourelli, C., gangrene of the scrotum, 17
Mullins, George Lane, appointed Knight of Grace of Order of St. John of Jerusalem, 1160
Mumps, incubation period in (James E. Blomfield), 412; (W. T. Parker Douglas), 594; correspondence on, 626
Municipal authorities and school restaurants, 567
——— control of hospitals, 102
Munro, James, obituary notice of, 226
Munthe, Axel, appointed Honorary Commander Royal Victorian Order, 1390
Murder and insanity (leading article), 142; correspondence on, 219, 276, 331, 450
Murphy, Dr. J., death of, 1246; obituary notice of, 1301
——— Sir Shirley and Lady, dinner to, 263
Murray, R. W., surgical treatment of chronic constipation, 1299
Muscle-grafting for paralysis of left upper extremity (A. H. Tubby), 476
Muscle tonic and diuretic action of formic acid and formiates, 741
Muscular atrophy, progressive (Major Strickland), 717
Museum, pathological, at the annual meeting, 219
Myasthenia gravis (James Taylor), 517; (E. Farquhar Buzzard), 1092
Myers, A. A., sanatorium treatment of phthisis, is it worth while? 449
Mynyddislwyn, sewerage scheme, 745
Myoma of rectum (H. C. Earl), 189
——— vaginal hysterectomy in the puerperium for sepsis due to suppuration of, 78
Myopic conus (Leslie Buchanan) 1046
Myositis, interstitial, simulating tumour of sigmoid (A. Fells and W. C. Bentall) 75

N.

Nagel, Wilhelm, Gynäkologie für Aerzte und Studierende, rev. 138
Napier, Dr., patency of interventricular septum, 191; tuberculous meningitis in adult, 391
——— Dr. Leith, and his action against the South Australian Government, 799
Narcolepsy and hysterical blindness (Purves Stewart), 476
Nasal accessory sinuses, causes, symptoms, and complications of diseases of (Siegmund Moritz), 174
——— disease as a cause of headache (A. L. Whitehead), 179
——— diseases, two cases of (Dr. Lamb), 304
Nash, J. T. C., is B. coli a normal inhabitant of shellfish? 183
Naso-pharynx and nose, short note on (Stephen Paget), 643
Natal, report on plague in, 635
——— medical practice in, 1231; Medical Act, 1231; Public Health Service, 1231
National eugenics, 440
Nattan-Larrier, L., Les Médications Préventives, Sérothérapie et Bactério-thérapie, rev., 1049
Naval hospital at Malta, 789
——— surgeon, Mr. Roosevelt on the career of the, 858
Navarre, P. Just, records of an old medical dinner society in Lyons, 1177
Navy, Japanese, losses of the medical staff of, 198
——— League, the German, note on, 158
——— Royal, medical service of the, 224, 339, 750, 858; prizes open to medical officers, 224; proposed abolition, 339; appointment of dental surgeons, 750; Mr. Roosevelt on the career of the naval surgeon, 858; drawing of pay, 859; course of instruction at Haslar for surgeons, R.N., 859; surgeons in, 1171
Neath, enteric fever at, 1123
Neave, Sheffield, parasitic theory of cancer, 1362
Neck, removal of contents of anterior triangle of, in malignant disease of the tongue (Henry T. Butlin), 285
——— tuberculous glands of, surgical anatomy and operative treatment of (W. Greenwood Sutcliffe), 1031; note on, 1188
Neck and larynx, soft fibroma of (Sir Felix Semon), 6, (F. T. Paul), 646
Necropsies in lead poisoning, 1394
Needleholder for electrolysis, a new multiple, 1335
Negligence, charge of, 1408
Negro immunity from malaria and yellow fever, 103, 389, 625
Neilson, H. J., protective power of vaccination, 769
Nelaton, C. H. (part author). La Rhinoplastie, rev. 603
Nephrectomy, case of (A. B. Mitchell), 304
Nephritis, chronic, scarlatina and, 451
——— chronic syphilitic, case of (Dr Emanuel), 533
Nerves, regeneration of (Basil Kilvington), 935
Nervous, sanatorium for, 1390
Neurasthenia, note on, 111
Neuro-fibroma of eyeball and its appendages (E. Treacher Collins and Rayner D. Batten), 478
Neuron doctrine, Professor Waldeyer on, 1386
Neuroses, relation of functional insanity to allied, 76, 265
——— and psychoses, 1312
——— variation in its relation to the origin of insanity and the allied, 321
Nevins, Ernest, on consumption and municipal and parochial sanatoriums, 912
Newcastle Emlyn district, health of, 440
Newcastle-upon-Tyne, correspondence from, 45, 330, 913; Northumberland and Durham Medical Society, 45; Armstrong College of Science and visit of the King, 45; new wing College of Medicine, 45; Christmas festivities at the Royal Infirmary, 45; dinner of past and present students of Durham University College of Medicine, 45; local Finsen Memorial Committee, 45; death of Mr. James Hall, a well-

known philanthropist, 45; memorial to the late Robert Allan Campbell, 45; German versus Greek at the University of Durham, 330; banquet of past and present students, 330; new infirmary, progress of buildings, 330; Royal Infirmary, annual court of Governers, 330; caisson disease, 330; Royal Sanitary Institute provincial sessional meeting, 330; new wing at the University of Durham College of Medicine, 913; entries for the professional examinations, 913; death of Dr. Reginald Bigg, 913; official visit of Dutch engineers to new high-level bridge works, 913; assistant appointments at the Royal Infirmary, 913
Newfoundland, medical practice in, 375
Newman, David, cystoscopy and its value in diagnosis of renal disease, 539
Newport, sewer ventilation at, 623; measles at, 1067; midwives' charges at, 1298
Newsholme, A., aërial spread of small-pox, 1143
New South Wales: lunacy in 1903, annual report of Inspector-General of the Insane, 634; prevention of consumption in, 1120
Newspaper medicine, 318
Newstead, R. T., appointed lecturer in economic entomology, and parasitology at Liverpool School of Tropical Medicine, 606
New title, a, 52
New York, establishment of an inebriates' home in, 214, 434, 1289; quackery and legislation in, 432; Bureau of Health, 633; abolition of the coroner in, 666; cerebro-spinal meningitis in, 716, 781; Hospital Commission, 906; care of school children in, 1289, 1397; insanity in, 1390
New Zealand, patent medicines in, 373
——— contract medical practice in, 507
——— report of chief health officer, 861
——— medical practice in, 1236; public health, 1237; hospitals, 1237; workmen's clubs, 1237
Nicholl, R. Campbell, case of "rupture of the heart" in an insane person, 186
Nicholson, Edward, the metric system, 630
Nicol, J. M., death of, 912
Nigeria, military operations in, 1902-3, 166, 224
——— Northern, a goitrous centre in, 305; medal for, 1903, 803
Nitric acid, uses of, 110
Nitro-glycerine in the practice of surgery, value of (Frank E vy), 16
Nixon, Sir Christopher, various phases of a hospital's work, 238
Non sibi, sed patriae, 220
North American aborigines, note on, 508
Norway, infant mortality in, 554; leprosy in, 1286
Nose, diseases of, in their relation to pathological conditions of other organs (Adolph Bronner), 177; some books on, note, 920; syphilitic destruction of treated by plastic operation (James Berry), 1273
——— and nasopharynx, short note on (Stephen Paget), 643
Notation of prisms (Claud Worth), 250
Nothnagel, Hermann, Encyclopaedia of Practical Medicine, rev., 23
Notification, duties of, 1130
Nova et Vetera, the Surgeon-in-Chief of the Grande Armée, 37; medical terms in Murray's "New English Dictionary," 100; hygiene and medicine in Morocco, 621; an old scheme for the socialization of medicine, 664; medical dialect terms, 795; Hogarth and quackery, 831, 909; open-air treatment of phthisis in Scotland 100 years ago, 960; professional training a century ago, 1119; small-pox inoculation in India, 1336
Nuns as nurses, 1113
Nurse or sister, 1252
'Nurse Children" and the Infant Life Protection Act, 110
Nurseries, should corporations provide? 446
Nursery, the Hulme Day, note on, 446
Nurses, American in Japan, 993
——— American-Indian girls as, 557
——— co-operation, note on, 420
——— employment of, 1187
——— Incorporated Society for the Promotion of Higher Education and Training of, 254, 1062, 1128; evidence before the House of Commons Committee, 1128, 1186; meeting at Londonderry House, 1120, 1251
——— mental training of, 628
——— registration Bill. See Bill
——— registration of under the Companies Act, 615, 958
——— registration and training of, 400, 958, 1128, 1186
——— training of in Ireland, 993
——— Zola's country house to be a convalescent home for, 742
Nursing in the army, 504
——— for threepence a day, 446

O.

Obesity and diabetes, blood glands as pathogenic factors in the production of (Arnold Lorand), 415
Obliterative arteritis (E. Michels and F. Parkes Weber), 762
O'Brien, Colonel Bartholomew, obituary notice of, 973, 1021
Obstetric bag, a new, 662
Obstetrical epitaph, an, 340
Obstetrics, in the medical curriculum, 610; asepsis in, 617
Oculist seal found at Este, 42
Oculists, opticians as, 148, 223
O'Doherty, Cornelius, death of, 567
O'Duffy v. Appleton and others, 436
Oedema, causes and treatment of (J. Dixon Mann), 1077
Oefele, Baron von, Statistiche Vergleichstabellen zur praktischen Koprologie bei fieberlosen Patienten, rev., 23
Oesophageal obstruction (Dr. Codd), 1271
Oestreich, R. (part author), Anatomie und physikalische Untersuchungsmethoden, rev., 541
Ogilvie, George, decoration of Chevalier de la Legion d'Honneur conferred upon, 206
Ogle, William, obituary notice of, 1362
Oliphant, Dr., discussion on chronic endometritis, 600
Oliver, George, determination of arterial blood pressure in clinical practice, 969
——— Thomas, ankylostomiasis as affecting miners, 720
——— Professor, appreciation of James Murphy, 1302
O'Malley, John Francis, sanatorium treatment of phthisis: is it worth while? 800
Omoredanne, L. (part author), La Rhinoplastie, rev., 603
O'Neill, Henry, nominated High Sheriff for Belfast, 266; candidate for Parliament for South Belfast, 789, 847
One mark vaccination, 856
One-portal system, 1306
Ontario medical library, opening of new building, 437
Oophorectomy for mammary cancer (Hugh Lett), 187
Open-air treatment of phthisis in Scotland 100 years ago, 960
Operating tables, up-to date, remarks of the King on, 101
Operative interference in diseases of the stomach, 43
——— methods—new and old—in tuberculosis of the knee-joint (Sir William Thomson), 68; correspondence on, 221, 389
Ophthalmia neonatorum, 1252
Ophthalmitis, sympathetic (Dr. Cridland), 1271
Ophthalmoplegia syphilitic (Wilfrid Allport), 534
Ophthalmoscopy, note on, 284
Opie, Eugene L., Disease of the Pancreas: Its Cause and Nature, rev., 80
Oppenheim, H., Lehrbuch der Nervenkrankheiten für Aerzte und Studierende, rev., 541
Opsonic index in tuberculosis, variations in (W. Bulloch), 136
Opsonins in acute pneumonia, origin and course of the (G. G. Macdonald), 136
Optic nerve, primary intradural tumour of (H. Percy Bennett), 1041
——— neuritis (Leslie Paton), 1331
Opticians as oculists, 148, 223; the pretensions of, 1165; claims of, 1308
Oral sepsis and puerperal septicaemia (Thomas Drake Leigh), 882
Orange River Colony, medical practice in, 1231
Orbit, exostosis of (Edgar Stevenson), 478
O'Reilly, Dr., of the Toronto General Hospital, resignation of, 1388
Orthopaedic prize in Italy, note on, 606
Orton, J., diagnosis and treatment of typhoid fever, 413
Os calcis, fracture of (J. Hutchinson, jun.), 1093
Osler, Professor, memorial to, 90, 320; farewell address at Johns Hopkins University, 617; booklet in honour of, 622; the Charaka Club and, 728; elected Honorary Fellow Royal College Physicians, Ireland, 845; America's farewell to, 1058; acquaintanitas (leading article on), 1391
Oslerisms, 1120
Ossett figures and the antivaccinators, 738
Osteomyelitis, chronic, Riedel's operation for (Dr. MacLennan), 251
Osteo-sarcoma of the shoulder of over fifty years' duration, case of (A. J. Whiting), 19
O'Sullivan, Professor, for Dr. Roy Dobbin, anaemic infarction of liver, 180
Otitis media, chronic suppurative (Henry Smurthwaite), 180
——— treatment of, 748, 802, 914
Otolith removed from the external auditory meatus (H. J. Godwin), 472
Outdoor pauper lunatics, 1622
Out-patient departments, management of, 866, 859

Ovarian cyst simulated by dilatation of the gall bladder (Alban Doran), 1316, 1405; (J. Basil Hall), 1380; thyroid-like structures in (R. Hamilton Bell), 1 32
"Ovarian pain," a plea for more accurate clinical observation, correspondence on, 387
Ovarian pedicle, silk weavers and torsion of, 89
Ovaries and uterus, relation of malignant disease to, 731
Ovariotomy in a child (J. Hope Reford), 412
Ovary, mammalian, nature of the follicle cells of (V. Chastel de Boinville), 13
Owen, Edmund, affection of some joints as met with in general practice, 637: remarks on cleft palate operation wounds healing by second intention, 1376
——— Holgate, influence of tradition [on medical practice, 1095
——— Sir Isambard, proposed memorial to, 745
——— Sir Richard, anecdotes of, 679
Oxford, post-graduate study at, 1112; pathology at, 1396
Oysters, epidemics in North of France several centuries ago, attributed to, 558
——— green, 284
Ozzard, A. T. (editor), British Guiana Medical Annual, rev., 420

P.

Pachydermia laryngis (Dr. Lamb), 1042
Pagenstecher, Dr., note on, 205
Paget, Stephen, short note on the nose and naso-pharynx, 643
——— Tomlinson, William S., sanatorium treatment of phthisis, is it worth while? 1266
Paine, W. H., protective power of vaccination, 1147
Pakes, W. C. C., use of acid media in the isolation of the plague bacillus, 136
Palate, cleft (Sir Thornley Stoker), 1274
——— soft, epithelioma of (Herbert Snow), 303
Palmar fascia, Dupuytren's contraction of, 920
Palmer, H. T., case of vesical calculus with symphysiotomy, 18
——— the Jessie Alice, Charitable Fund, first three endowments made, 26, 256
——— J. Foster, pre-appendicectomy appendicitis, 539
Pancreas, fatty necrosis of, accompanied by xanthoma and diabetes mellitus (Sir Dyce Duckworth), 1274
Pancreatic tumours, surgery of, 955
Pancreatitis, haemorrhagic, case of (T. C. Litler Jones), 307
Panhysterectomy for fibroid (Dr. Purslow), 824
Panophthalmoplegia, case of (W. H. Brown), 534
Panton, J. E., obituary notice of, 1303
Paraffin from cedar-wood oil, method of freeing, 1381
Paralysis, acute ascending in cases of chronic cystitis, 134
——— general, two cases of, successfully treated by urotropine (N. F. MacHardy), 185
——— infantile, of the deltoid, recovery from (W. G. Spencer), 249
——— Landry's, case of (C. H. Foley), 18
——— of third nerve (Dr. Codd), 1271
——— syphilitic general (Professor Fournier), 566
——— unilateral, convulsions and, in young subjects associated with exudative erythema (T. K. Monro), 1144
Paramore, R. H., case of absence or rudimentary condition of uterus, 302
Paraplegia, compression (W. B. Warrington), 307
Parasite of the leucocytes of dogs, 988, 1008
Parasites, blood, Schaudinn's work on, 442
Parasitic protozoa. See Protozoa.
——— theory of cancer, 1056, 1362
Paratyphoid fever. See Fever.
Pardoe, John, choice of methods for radical cure of prostatic enlargements, 945
Paris, special correspondence from, 42, 384, 445, 566, 741, 855, 1014, 1178, 1296, 1355; sodium perborate, 42; M. Guéniot elected Vice-President of the Académie de Médecine, 43; M. Chamberland elected successor to M. Duclaux, 43; International Congress on Tuberculosis, 43; discussion on various apparatus for the administration of chloroform, 384; election of Professor Poirier as a member of the Académie de Médecine, 384; M. Terrier on scopolamine as a general anaesthetic in surgery, 445; MM. Lannelongue and Achard on the relationship between tubercle and traumatism, 445; M. Moussu on the milk from tuberculous cows, 445; inauguration of new antituberculous dispensary at Beaujon Hospital, 445; Dr. François-Franck succeeds Professor Marey in the chair at the Collège de France, 445; Professor Fournier on syphilitic general paralysis, 566; report of special commission to select site for a

hospital for incurable tuberculous patients from Paris, 566; Professor Huchard on the muscle tonic and diuretic action of formic acid and formiates, 741; Dr. Doyen presents microscopic sections showing results of inoculation of animals with micrococcus neoformans, 742; Emile Zola's country house to be a convalescent home for Nurses of Assistance Publique, 742; M. Terrier on the use of scopolamine, 853; programme for the reception of the English doctors to Paris in May, 853; project to lay out public gardens and recreation grounds on site of existing fortifications, 853; Dr. R. Brunon on nutritive value of sterilized cow's milk in infant feeding, 1014; Professor Blanchard's new book on the mosquito, 1014; proposed presentation of portrait medal to Professor Pozzi, 1014; MM. Roux and Metchnikoff on recent micro-biological research in syphilis, 1178, 1296; application of Roentgen rays by unqualified persons, 1296; election of Foreign Associates at Académie de Médecine, 1296; spirochaete pallida of Schaudinn in congenital syphilis, 1296; monument to Dr. Péan, 1296; monument to Professor Tarnier, 1355; law giving compulsory State aid to the aged and incurable poor, 1355

Paris centenarians, 256

—— medical visit to, 261, 841, 853, 897, 1008, 1100, 1108, 1174; reception at the Sorbonne, 1100; the Paris hospitals and almshouses, 1100; the Hôtel-Dieu, 1100; the Lariboisière Hospital, 1100; the Cochin Hospital, 1100; Saint-Antoine Hospital, 1100; Saint-Louis Hospital, 1101; Bretonneau Hospital, 1101; Boucicaut Hospital, 1101; Necker Hospital, 1101; Aubervilliers Hospital, 1101; Maternité Hospital, 1101; Salpêtrière Hospital, 1101; visit to the Hertford British Hospital, 1101; reception by the Faculty of Medicine, 1101; reception at the Hôtel de Ville, 1101; reception by the Assistance Publique, 1101; a wreath laid on Pasteur's tomb, 1101; visit to Chantilly, 1102; soirée at the Automobile Club, 1102; banquet at the Grand Hotel, 1102; reception by Professor Bouchard, 1103; private entertainments, 1103; excursions to Vichy and Pau, 1103; visit to French watering-places, 1174; surgical operations, 1241; clinical lecture at the Hôtel-Dieu, 1337

Park mansions in London, 318

Parker, Rushton, treatment of appendicitis, 114; pyloroplasty and gastro-enterostomy for chronic gastric ulceration, 303; gangrenous Meckel's diverticulum, 656

Parliament, medical notes in: The session of 1905, 376; the House of Commons, 376; Government Bills, 376; the course of business, 376; private members' Bills, 376; the ballot for private members' Bills, 434; the debate on the address, 434; the army medical department, 435; Indian medical officers in Burmah, 435; the salaries of medical officers in Strabane Union, 435; mortality in South African mines, 435; the Belfast constabulary medical officers, 435; prevention of cancer in India, 435; juvenile smoking and physical deterioration, 435; army reform debate, 495; Irish Poor-law Reform Commission, 495; vivisection, 495, 674, 743, 903, 1113; the ventilation of the House of Commons, 495, 733, 1059; trained midwife for Ballyhaunis, 495, 555; public health in the Highlands and Islands, 495; pupil teachers and vaccination, 495; an auxiliary lunatic asylum in Ireland, 495; physical deterioration, 496, 555, 674; Nurses Registration Bill, 496, 788; the Local Government (Scotland) Act Amendment Bill, 555; vaccination, 555, 615, 788; the Metropolitan Ambulance Service, 555; the outcome of the Report of the Arsenical Poisoning Commission, 555; the cost of death certificates, 555; medical inspection in Scotland, 555; the Public Health Bill, 555; vaccination fees, 555; medical inspection of elementary schools, 555; the police and sanitary committee, 556; the report of the Vaccination Expenses Committee, 615; milk dépôts in London, 615; revaccination, 615; the London Recruiting district, 615; the registration of nurses under the Companies Act, 615, 958; sale of poisons, 616; evasion of the Medical Acts under the Companies Acts, 616; Prevention of Corruption Bill, 616, 675, 788, 901; Juvenile Smoking Bill, 616; underfed school children, 616, 733, 788, 846, 958, 1291; medical inspectors of the Local Government Board, 616; London County Council (General Powers) Bill, 673; Coal Mines Employment Bill, 674; parochial medical officers in Scotland, 674; medical inspection of Lewis, 674; vivisection of dogs, 674, 1113; new form of conscientious objection, 674; exemption from vaccination, 674; physical condition of elementary school children, 674; Accidents (Mines and Factories) Bill, 674, 902; plague in Madras, 675, 788, 1059; aliens in lunatics and inebriates, 675; conscientious objector at Spilsby, 675; University College, London (Transfer), Bill, 675, 788; civil surgeons for the army, 732, 1114; death-rate among Dover postal officials, 732; viewing the body by coroners' juries, 733, 846; deaths among sailors and factory operatives, 733; plague in India, 733, 1059, 1113, 1171, 1247, 1290, 1399; typhoid fever in Malta, 733; medical officers of health and private practice, 733; outbreaks of disease in West Ross-shire, 733; Army Clothing Factory at Pimlico, 788; blocked Bills, 788; plague inquiry, 788; small-pox outbreaks and their cost, 788; London Hospitals (exemption from rates) Bill, 788; vaccination and the conscientious objector, 788; naval hospital at Malta, 789; dangers of flock mattresses, 789, 1172; coastguard surgeons in Ireland, 845; vaccination and the public services, 845; civilian surgeons in South Africa, 845; postal officials and medical certificates, 845, 1113, 1247; Public Health (No. 2) Bill, 846; Dundrum Asylum and patients' letters, 846; Lunacy Act Amendment (London) Bill, 846; Tuberculosis (Animals) Prevention and Compensation Bill, 846; the medicine chest of the House of Commons, 846, 1172; army officers and colour blindness, 846; pupil teachers and vaccination, 846, 1172; small-pox at Bradford, 846; infant mortality, 846, 903; Vaccination Prosecutions Bill, 902; Cork District Lunatic Asylum, 902; police surgeons in county Mayo, 902; Longford and sick soldiers, 902; dispensaries in County Louth, 902; Lunacy Acts Amendment Bill, 922, 1009; medical officer of health for the Highlands, 903; Swansea Corporation Bill, 903; promotion in the R.A.M.C., 903; small-pox on R.M.S. "Nile," 903, 1060; notification of measles, 903; training of nurses in Ireland, 903; after the Easter recess, 958, 1009; accidents to railway servants, 958; homes under the Inebriates Acts, 1009; Royal Commission on sewage disposal, 1009; Infectious Diseases (Ireland) Bill, 1009; constitution of Dublin University, 1009; sanitation of the House of Commons, 1059; distress warrants under the Vaccination Acts, 1059; Reading and the diet of casuals, 1059; Wanstead and Woodford Joint Hospital Board, 1059; pure beer, 1059, 1171; small-pox, 1060; laymen on the General Medical Council, 1060; uncertified deaths, 1060, 1171; typhoid at Lincoln, 1060; M.O.H. reports in Scotland, 1060; Public Health Acts (Amendment) Bill, 1113, 1247; nurses as nurses, 1113; water supply in Lewis, 1113; health of, 1171; insanitation at, 1247; anthrax at Wellingborough, 1113; deaf and dumb lunatics and paupers in Ireland, 1113; Irish Poor-law Medical Service, 1113; Youghal auxiliary asylum, 1114; unregistered dentists, 1114; vaccination marks, 1171, 1247; surgeons in the Royal Navy, 1171; health reports in Scotland, 1171; disinfecting chambers, 1171; septicaemia in Cootehill Union Infirmary, 1171, 1291; uncertified deaths in Ireland, 1171; Poor-law children, 1171; pathological specimens by post, 1172; evasion of the Medical and Dentists Acts, 1172; insanitation at Crossgar, 1172; beer v. tea, 1246; aliens and infectious diseases, 1246; small-pox hospitals and the spread of the disease, 1246; coroners and inquests, 1246; sanitation of the Thames estuary, 1246; magistrates and the Vaccination Act, 1247; spotted fever, 1247; Liverpool small-pox hospitals, 1248; vaccinated calves as food, 1248; reform of the General Medical Council, 1290; Poor Law (Scotland) Bill, 1290; phosphorous poisoning, 1291; sewage scheme at Stratton St. Margaret's, 1291; insanitation at Killyleagh, 1291; Workmen's Compensation Bill, 1291; names restored to Medical and Dental Registers, 1291; expense of lunacy, 1291; leaflets on ventilation and child rearing, 1292; sanitary state of Freshwater and Totland, 1292; after the Whitsuntide holidays, 1294, 1338; the International Labour Conference and phosphorus poisoning, 1398; erasures from the "Medical Register," 1399; glanders in London, 1399; plague regulations in Drogheda Union, 1399; water supply of Woolacombe, 1399

Parliament and vaccination, 608

Parliamentary representation of the Universities of Glasgow and Aberdeen, 149, 265

Parochial medical officers in Scotland, 674

Parsons, Dr., paratyphoid, notes on, 305

—— H. Franklin, epidemiology of influenza, 980, 1044

—— Inglis, double pyosalpinx, 190; treatment of fibromyoma of the uterus, 656

Partners, choice of, 106

Partnership introduction, 50

Pasteur institute, in Vienna, annual report, 273; at Kasauli (India), annual report, 706

Patella, comminuted fracture of, treated by the open method and wiring (A. Fells and W. C. Bentall), 75

Patellar flexion-dislocation (Wm. Thomas), 824

Patent medicines in New Zealand, 373

Paterson, J. V., word-blindness, 1043

Pathological specimens by post, 1172

Pathology at Oxford, 1396

Patient's choice of a medical attendant, 454, 571; written consent to operations, 967

Pathological anatomy, the place of, 90

Paton, Dr., case of molar pregnancy, 474; case of disseminated or insular sclerosis, 474

—— D. Noël (Editor), Reports from the Laboratory of the Royal College of Physicians of Edinburgh, rev., 1385

—— E. P., accessory thyroid, case of, 357

—— John, case of perforated ulcer in a child aged 7, 413

—— Leslie, optic neuritis, 1331

Patton, W. Scott, identification of mosquito, 1090

Paul, F. T., enterectomy for cancer of colon, 327; soft fibroma of larynx and neck, 646

Pauper inebriates from the economic point of view, 201; treatment of in Canada, 1354

Pauperism and the death-rate, 332

Payment of doctors' bills, 1187

Peacocke, Dr., case of large white kidney, 306

Péan, Dr., monument to, 1296

Pearson, Karl, on the inheritance of insanity, 1175

Peart, R. S., case of ulcer of the epiglottis, 534

Peet v. Lithgow, 572

Pemphigus neonatorum (J. Leslie Foley), 770; note on, 920

Penal business of the General Medical Council, 141

Pendred, Vaughan, sanatorium treatment of phthisis, is it worth while? 569

Pennsylvania Health Service, 133

Penny, Dr., two cases of a hitherto unrecorded complication of pregnancy, 193; presentation to, 1282

Penybont Sewerage Board, 1067

Percival, James Gates, American medical poet, note on, 613

—— Thomas, obituary notice of, 226

Percy, Pierre François, 37

Pericarditis, purulent, in an infant (J. A. Coutts and R. P. Rowlands), 816

Pericolitis sinistra (H. D. Rolleston), 721

Perineal prostatectomy, conservative (C. Arthur Ball), 189

Perineorrhaphy for rectal incontinence (C. Hamilton Whiteford), 881

Peritonitis, purulent, after pneumonia (John J. Powell), 715

Peritonsillar abscesses, opening of (StClair Thomson), 645, (F. W. Jollye), 715, (W. H. S. Stalkartt), 882, (T. F. Hugh Smith), 1330; forceps for opening, 662

Perry, Sir Allan, made member of municipal council of Colombo, 787

—— Deputy Surgeon-General William, obituary notice of, 573

Persia, epidemics in, 373; plague in, 1282

Petechial rash of vomiting (Charles Gaskell Higginson), 354

Pharmacopoeia, New United States, 1290

Pharyngeal tuberculosis, primary, note on, 752

—— case of (Arthur G. Wilkins), 1147

Pharynx, removal of, for epithelioma (T. K. Dalziel and Walker Downie), 191

Phenolphthalein, note on the action of (Charles W. Buckley), 302

Phenylhydrazin reaction (P. J. Cammidge), 1273

Philadelphia, milk charity in, 62; lunatic asylums in, 1249

Philip, R. W., resigns honorary secretaryship of Royal College of Physicians, Edinburgh, 90

Philippines, leprosy in, 312; sanitary work in, 1005

Phillips, Sidney, lobar pneumonia in enteric fever, 1093; primary adrenal carcinoma of liver, 1274

Phlebitis, a condition of the lower limbs often mistaken for, 48, 228

Phosphorus poisoning, report of chief inspector of factories, 283; case of, 1291; and the International Labour Conference, 1398

"Phossy jaw," 1130

Parasceology of progress, 1312

Phthisis and contagion, 449

—— influence of rainy winds, soil, poverty, and general death-rate upon the death-rate of in Exeter (William Gordon), 62; correspondence on, 163, 221

—— iodoform infusion in treatment of (Thomas W. Dewar), 63

—— modern treatment of (T. H. J. E. Hughes), 883

—— mouth breathing as a common antecedent to (W. C. Rivers), 941

—— open-air treatment of in Scotland 100 years ago, 960

—— sanatorium treatment of, is it worth while? (W. B. Ransom), 59; results of four years' sanatorium work in the treatment of (Rowland Thurnam and Charles E. Wheeler), 65; correspondence on, 161, 222, 390, 448, 512, 569, 800

—— See also Tuberculosis

Phthisical cavities, treatment of without operation (S. P. Pollard), 17

Physical Deterioration, Inter-departmental Committee on, and the Prevalence and Prevention of Syphilis, 57; alcohol and, 897
——— question in the House, 496, 555, 674
——— and juvenile smoking, 435
——— exercise in schools, note, 329, 689, 736
——— training in schools, 619
——— training of youth, 844
Physiology in elementary schools, 976
Phytin, note on, 81
Pica, note on, 576
Pike, C. R., very large stone: suprapubic lithotomy: recovery, 20
Pile, the poetry of the, 340
Pinard, Professor, prophylaxis of hereditary syphilis, 1283
Pinchard, M. B., traumatic spinal meningitis, 823
Pioneer milk sugar, note, 830
Piquard, G., Les Dégénérescences des Fibromyomes de l'Uterus, rev., 1048
Plague, prevalence of, 26, 51, 101, 204, 217, 311, 425, 445, 553, 680, 779, 955, 1113, 1281, 1400
——— in British ports, protection against, 1289
——— in Cardiff, 1179
——— in India, 673, 675, 733, 783, 788, 954, 1059, 1113, 1118, 1171, 1247, 1281, 1290, 1399, 1400; knowledge of, 1249
——— at Leith, 1114, 1118, 1173, 1244, 1293, 1353, 1387
——— in Manchester, 1401
——— in Natal, report on, 635
——— in Persia, 1282
——— in South America, 1110
——— in Sydney, 447, 1122
——— case of on a vessel arriving in the Mersey, 383, 445
——— and the geographical distribution of rats (Bruce Skinner), 994
——— methods of prophylaxis against in Lyons 1628-9, 850
——— bacillus, use of acid media in the isolation of (W. C. C. Pakes and F. H. Joseph), 136
——— epidemiology of, 318
——— incidence, factors in (J. S. Thomson) 717
Plaster-of-paris splints (W. T. de C. Wheeler) 600
Plastic operation in syphilitic destruction of nose (James Berry), 1273
Plate-washing machine, a, 80
Pleura and lungs, skiagraph of, 76
Pleurisy, some thoughts on causation of (G. A. Gibson), 8; correspondence on, 627, 747, 802
Pneumonia, iron acetate in the treatment of (Herbert J. Robson), 812, 1024; note on, 1188
——— acute, origin and course of the opsonins in (G. G. Macdonald), 136
——— fibroid (A. G. Auld), 236; (A. N. Fleming), 823
——— lobar, in children (G. A. Sutherland, 479
——— in enteric fever (Sidney Phillips and B. H. Spilsbury), 1093
——— following measles (F. C. Bottomley), 237; note on, 340, 396, 864
——— purulent peritonitis following (John J. Powell), 715
Poetry of the pile, 340
Poirier, Professor, elected member of the Académie de Médecine, 384
Poison bottles, 752
Poisoning, almond oil (W. E. Heapy), 941
——— camphor (Graham Grant), 1090
——— carbon monoxide (W. J. Thompson), 943
——— by a single castor-oil seed (A. Gordon Gullan), 988; note on, 1076, 1188, 1299, 1312
——— industrial and education of workmen, 313
——— lead, annual report of Chief Inspector of Factories, 283; uncertainty of post-mortem evidence in suspected (S. King Alcock), 1371; necropsies in, 1394
——— from diachylon, 1022
——— acute mercurial, fatal (E. Scott Sugden), 767
——— morphine, subcutaneous injection of atropine: recovery (A. Sheen), 1040
——— phosphorus, annual report of Chief Inspector of Factories, 283; case of, 1291; and the International Labour Conference, 1398
——— with "salts of lemon": perforation of the stomach (P. F. Braithwaite), 183
——— in Scotland centuries ago, 1110
——— by strychnine in a child (John R. Pooler), 767, 915; note, 864, 1024
——— by strychnine and mercury, 617
——— by wood alcohol, 262
Poisons, sale of, 616
Police and sickness certificates, 1120
——— surgeons and medical etiquette, 1336; in County Mayo, 992
Pollard, S. P., treatment of phthisical cavities without operation, 17
Polycythaemia, "splenomegalic" or "myelopathic" with true plethora and arterial hypertonia without cyanosis (F. Parkes Weber), 1013
Polypus, urethral (Edward Deanesly), 1270
Pontypridd Education Committee, report, 798
Popular medicine, 516
Pooler, John R., case of acute strychnine poisoning in a child, 767, 915
Poor, the consumptive, in London, care of, 905
——— the insane, report on the care of, 35, 66, 150, 210, 263, 323, 363, 438, 499, 559, 603; leading article on, 607
Poor law districts, readjustment of, 633
——— children, 1171
——— infirmaries as training schools for midwives, 272
——— Irish, the Reform Commission, 491, 694, 749
——— medical appointments vacant, 1410
——— medical officers, Irish, salary of, 92, 266
——— Medical Service. See Public Health
——— Irish, 694, 749, 800, 1113
——— Scottish, 221
——— training ship, a new, 948
Poore, George Vivian, memorial to, 1398
Pope's physician and pink pills, the, 605
Porritt, Norman, Religion and Health, their Mutual Relationship and Influence, rev., 1047
Port of London, health of, 1129
——— Sanitary Authority of Manchester, note on, 567
Porter, Bruce, appointed to honorary medical staff of King Edward's Hospital for officers, 312
——— Eugene H., appointed Commissioner of Health in State of New York, 1400
Portheawl meteorological station, 1058
Portugal, medical legislators in, 501
——— medical practice in, 1214; rights and duties of the profession, 1214; public medical services, 1214; the profession and the administration of justice, 1214; professional earnings, 1214; unqualified practice, 1214; contract practice, 1215; protection of professional interests, 1215; social position, 1215; the doctor in politics, 1215; statistics, 1215
Postal officials and medical certificates, 847, 1113, 1247
Post-graduate study at Oxford, 1112
Post-mortem temperature, 112
Post-nasal adenoids. See Adenoids
Potassium, salts of, effects upon blood pressure (Arthur Edmunds), 57; correspondence on, 389, 451
Potocki, J., L'Oeuf Humain et les premiers stades de son développement, Eléments d'embryologie, rev., 778
Pott, Percival, on bonesetters, 1361
Potts, E. Thurlow, notes on 630 cases of typhus fever, 1137
Poultice, the passing of the, 410
Pounds, Thomas Henderson, obituary notice of, 108
Powell, John J., purulent peritonitis after pneumonia, 715
——— Duffryn Collieries, 1066
Power, William Henry, nominated by the King a member of the General Council of Medical Education, 1112
Poynton, F. J., some points in the differential diagnosis of scarlet fever, German measles, and measles, 229
Pozzi, Professor, proposed presentation to, 1014
Practice abroad, 1188
——— medical. See Medical
——— notice to patients on transfer of, 303
Practitioners and chemists, 1074
——— general, training of students to be, 103
Praeger, Owen Maurice, obituary notice of, 225
Prain, D., elected F.R.S., 494
Pregnancy, appendicitis in, operations for, 1169
——— complicated by chyluria (J. C. Holdich Leicester), 593
——— hysteropexy and, 951
——— simultaneous intrauterine and extrauterine (William C. Allardice), 942
——— metabolism during, labour and the puerperium, 1170
——— molar, case of (Dr. Paton), 474
——— normal, error of diagnosis in, 89
——— date of delivery in, the calculation of (W. J. Caie), 243; note on, 636, 752; correspondence on, 532
——— ruptured interstitial (Russell Andrews), 1332
——— tubal, the possibilities of, 320; repeated (Alban Doran), 1332
——— in a rudimentary uterine cornu (A. H. N. Lewers), 593
Prelate, a medical, 308
Premature burial, 140
Prepuce clamp forceps, 25
Prescribing, modern, 953
——— or dispensing in medical practice, 965, 1125
Prescriptions, modern, 614
Presentation, transverse, spontaneous evolution of a (A. Fells and W. C. Bentall), 75
Preservatives, prohibited, 455
Press, the lay, medical subjects in, 1111
Prevalidin, note on, 81
Preventive Medicine, King Institute for, opening of, 806
Prime Minister and public health administration, 1393
Prince of Wales, health of, 787
"Principals and Assistants," 47, 103, 1131
Pringle, J. Hogarth, treatment of empyema, 809
Prisms, notation of (Claud Worth), 250
Prison reform, 1055
——— rules, the new, 488
Private patients and club members, 101
Profession, circularizing the, 695
Professional secrecy, 104, 918, 1022; discussion on, 601; relations, 695; in France, 1194; in Germany, 1193
——— training a century ago, 1119
Prolapsus uteri, fatal complete (Barbour Simpson), 137
Promise not to practise, 165
Property in day books, 1187
Proprietary drugs and foods, 678
——— medicines, laws regulating the sale of, 514, 605
——— in Cuba, 836
Prostate, recent series of 60 cases of total enucleation of, for the radical cure of enlargement of that organ (P. J. Freyer), 1085
Prostatectomy, complete, remarks founded on fifteen cases (J. Lynn Thomas), 1083
——— discussion on (Reginald Harrison), 1044
——— conservative perineal (C. Arthur Ball), 189; (Edward Deanesly), 1270
Prostatic hypertrophy, operative treatment of, 1102
Proteid chemistry and proteid diet, recent work on (W. D. Halliburton), 538
——— metabolism, cobra venom and, 1008
Protozoa, parasitic, relation of to each other and to human diseases (E. J. McWeeney), 656
Prurigus and, treatment of inveterate (Sir Charles Ball), 113; cause and treatment of (F. C. Wallis), 1029
Psoriasis, treatment of, 284
Puberty, precocious, in a female cretin (F. Wellesley Kendle), 246; note on, 264
Public Health and Poor-law Medical Services, 50, 110, 157, 226, 283, 329, 393, 455, 573, 633, 695, 751, 803, 863, 974, 1022, 1129, 1245, 1309, 1366, 1409; medical attendance in venereal disease, 50; wife of medical officer of workhouse as Guardian, 50; health of Derbyshire, 110; standard of fat in milk, 110; Infant Life Protection Act and "nurse children," 110; temperature of workshops, 110; small-pox at Burnley, 110; report for the County of London 1903, 157; allegations of neglect of duty against officials of a workhouse infirmary, 166; fee for attendance on puerperal cases, 166; duties and customs of medical officers, 166; lead poisoning at Mossley, 166; vital statistics for England and Wales, 1904, 226; small-pox hospital influence, 226; West Bromwich Board of Guardians and their district medical officers, 227; district medical appointments in Leicestershire, 227; canvassing for Poor-law medical appointments, 227; attendance on small-pox, 227; annual report of the Chief Inspector of Factories and Workshops, 283; Rural Midwives' Association, meeting, 283; Stockport water supply, 283; Stockport Union, number of lunacy cases at, 339; anthrax in Bradford, 339; duties of the medical officer of a workhouse, 339; guardians and their medical officers, 393; presentation of vital statistics, 394; short methods of constructing life tables, 394; notification of tuberculosis, 394; quarterly return of visits paid to union cases, 394; alleged neglect by public vaccinator, 394; notification by military medical officers, 394; duties of medical officer to an isolation hospital, 394; prohibited preservatives, 455; sanitary condition of Cuba, 573; vaccination in Gloucestershire, 573; vaccination and small-pox, 573; care and control of idiots and epileptics, 633, 695, 751, 804, 863, 974, 1130, 1251, 1309, 1367, 1409; New York Bureau of Health, 633; aerial transmission of small-pox, 633; payment of medical men called in to assist midwives, 633; readjustment of Poor-law districts, 633; medical inspection of school children, 695; milkborne scarlet fever, 803; administration of Midwives Act 1902, 801; bacterial diagnosis of diphtheria, 804; inspection of vaccination, 863; hard water, 863; water supply in rural Essex, 974; infant mortality in Dundee, 974; fees for consultation, 975; compilation of death statistics, 975; outdoor pauper lunatics, 1022; vacant district medical appointments, 1022; disinfection of books after scarlet fever, 1022; health of the Port of London, 1129; milk supply, 1130; insanitation and dual control, 1130; scarlet fever return cases, 1130; ambulance work, 1130; "phossy jaw," 1130; books for M.O.H., 1130; duties of notification 1130, 1251, 1310; scarlet fever return cases, 1169; industry and health, 1129; sanitary inspectors,

1309; flats and health, 1309; medical inspection of tramps at workhouse, 1309; Gloucester small-pox epidemic, 1310; qualifications for M.O.H., 1310; qualification for M.O.H. Scotland, 1310; the Midwives Act and the Westminster City Council, 1366; and the Islington Borough Council, 1367; and the Devon County Council, 1367; spread of small pox by vagrants, 1367; public vaccinators' fees, 1367; certificate of proficiency in vaccination, 1409; the conduct of an autopsy, 1410; prevention of quackery, 1410; vaccination awards, 1410; an assistant as public vaccinator and poor-law medical officer, 1410; vacant poor-law medical appointments, 1410
Public Health administration, the evolution of, 203, 864; the Prime Minister and, 1393
——— of Edinburgh, 1352
——— earthquakes and, 837
——— in the highlands and islands, 495
——— of Vienna, 567
——— Schools Yearbook, rev., 1335
——— services and vaccination, 845
Puerperal infections, the causation of, 77; some remarks on (Arnold W. W. Lea), 581
——— eclampsia (J. C. Holdich Leicester), 1332
——— haematoma without lesion of uterus, 1345
——— sepsis, 1300
——— septicaemia, oral sepsis and (Thos. Drake Leigh), 882
Puerperium, deaths during the, 551
——— vaginal hysterectomy in the, for sepsis due to suppuration of myoma, 78
Puffing paragraph, the, 87, 280, 336, 368, 454, 803, 1187
Pumice stone as a depilatory, 1412
Punjab, plague in 1901-3, 51, 1113; sanitary report for 1903, 852
Pupil teachers and vaccination, 495, 846
Pupillary membrane (Arthur L. Ballantyne), 1046
Pure beer, 1059
Purefoy, Dr., paper on cystic endometritis, 477
Purpura haemorrhagica (F. H. Edgeworth), 771
Purslow, C. E., irreducible prolapse of uterus, 778; panhysterectomy for fibroid, 824; repeated tubal pregnancy, 1094
Purulent cavities, treatment of (Robert H. Woods), 1080
——— collections (Robert Woods), 825
Pusey, W. A., and E. W. Caldwell, The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis, rev., 361
Pustule, malignant, case of (R. Stanley Thomas), 18
Pyloroplasty and gastro-enterostomy for chronic gastric ulceration (Rushton Parker), 303
Pynappel, M. W., medical practice in Holland, 1217
Pyonephrosis: abdominal nephrectomy (Mr. Cholmeley), 1271
Pyosalpinx, double (Inglis Parsons), 190

Q.

"Q. C. C.," first number of, 904
Quack advertisements, dust and, 1397
Quackery Congress in Paris, 843, 1000
——— in Germany, 948
——— and Hogarth, 1338; I. Mrs. Mapp and Dr. Ward, 831; II. Chevalier Taylor, St. Andre, Rock, and Misaubin, 909
——— and legislation, 432; in America, 836
——— prevention of, 1410
Quacks in America, 374
Queen Alexandra's Imperial Military Nursing Service, 504
Queensland, plague in, 965, 1118, 1281; infantile mortality in, 1006
Queirolo, Giovanni Battista, obtains seat in Chamber of Deputies, Italy, 483
Quinine in the treatment of corneal ulcers (Arnold Lawson), 250; (Charles G. Lee), 451; in cachexial fever and kala-azar (Leonard Rogers), 705
Quintuplets, 576

R.

R.A.M.C. and "colour honours" for South Africa, 31, 750
——— Colours Committee, 514
——— promotion in, 903
——— militia, correspondence on, 277
Rabelais, and the "medical finger," 216; as a physician (leading article), 894
Race, future of the in Canada, 316
——— suicide and the higher education of women in America, 319
Radcliffe, Dr. John, note on, 851
Radio-activity of the Harrogate sulphur waters (H. Douglas Wilson), 1330
Radiograph couch, a, 723
Radiography in Madagascar, 614
Radium in treatment of cancer, 1007
Radius, fractures of the lower end of the (A. Fullerton), 358
Railway ambulance carriages in Berlin, 384
——— servants, accidents to, 958
——— travelling and diabetes (leading article), 895
Raines, R., case of typhoid fever with rigors, 248
Rainfall in Wales, 623
Rainy, Harry, appointed Honorary Secretary to the Royal College Physicians, Edinburgh, 90; the nature of Friedreich's ataxia, 188
Ramsden, H. Kay, exercise and the open-air treatment of phthisis, 1358
Rangoon, sanitary report for 1903, 891
Ranking, Lieutenant-Colonel G. S. A., appointed Professor of Arabic, Persian, and Hindustani at Trinity College, Dublin, 554
Ransom, W. B., the sanatorium treatment of phthisis, is it worth while? 50
Rash, petechial, of vomiting (Charles Gaskell Higginson), 354
Raspail, Jose Alabern y, nominated Honorary Member, Fourth Class, Royal Victorian Order, 1340
Rats, plague and the geographical distribution of (Bruce Skinner), 994
Raw, Nathan, diagnosis and treatment of typhoid fever, 192; spread of cancer by the thoracic duct, 1380
Raw meat and tuberculosis (Dr. Goodehild), 1148
Rawling, Louis Bathe, Landmarks and Surface Markings of the Human Body, rev., 419
Ray, M. B., sulphuretted hydrogen waters, 916
Raymont, T., new appointment for, 798
Raynaud's disease, case of (W. H. Brown), 534
——— and rheumatoid arthritis, case of (Douglas Stanley), 304
Reading and the diet of casuals, 1059
Récamier, J., Traitement du Cancer Utérin Inoperable, rev., 1334
Recidivist, a, 695
Recklinghausen's disease, case of (C. R. Keyser), 249; (Batty Shaw), 308
Recreation at the annual meeting at Leicester, 1285
Recruiting in London, 615; in Manchester, 1067
Rectal incontinence, perineorrhaphy for (C. Hamilton Whiteford), 881
Recto-urethral fistula (R. J. P. Lansdown), 771
Rectum, myoma of (H. C. Earl), 189
——— serum per, 396, 456
Recurrent vomiting. See Vomiting
Recurring torsion of spermatic cord (J. W. Dowden), 305, 932
Red Cross, American National, new charter of, 148
——— movement, history of, 1344
——— lamps, 1022
Reed, Boardman, Lectures on Diseases of the Stomach and Intestines, for Practitioners and Students, rev., 994
——— Charles A. L., appointed U.S. Representative to settle dispute between United States and Panama, 312
Re-education, 1032
Rees, Ferdinand, the municipal control of hospitals, 102
——— Howell, presentation to, 623
Referred pain, 696
Reford, J. Hope, ovariotomy in a child, 412; cases of cerebro-spinal meningitis, 989
Regeneration of nerves (Basil Kilvington), 935
Registered midwife, employed by medical practitioner, 859
——— practitioner, may he be a director of a building society? 975
Registers, medical and dental, names restored to, 1291
Registrar-General for England and Wales, annual report, 484
Registration of nurses. See Nurses.
Regius Professor's lay sermons, 1391
Reid, A. D., examination of stomach by x rays and tube filled with subnitrate of bismuth, 720
——— Sydney Thomas, awarded Gilbert Blane medal, 632
——— W. L., treatment of prolapse of the uterus, 76
Reinhardt, Charles, sanatorium treatment of phthisis: is it worth while? 801
Relations of medical men to each other (Roderick Maclaren), 241; (leading article on), 260
——— with a district nurse and midwife, 1365
Renal activity during anaesthesia (W. H. Thompson), 649
Renal calculus, value of the use of a shadowgraph ureteric bougie in precise surgery of (E. Hurry Fenwick), 1325
——— surgery and single kidney, 901
Rennie, George E., medical practice in Australia, 1233
Renshaw, Jeremiah, memorial mosaic to, 1281
Renton, J. Crawford, the stump in appendicectomy, 277
Rentoul, J. L., surface markings of the chest, 184
——— Robert R., duties of midwives, 1181
Report of committee re financial relationship of London hospitals and medical schools, 421
——— of the Army Medical Department for 1903, 1388
——— of the Chief Inspector of Factories and Workshops, annual, 283; works inspected, 283; employment of children and young persons, 283; lead poisoning, 283; phosphorus poisoning, anthrax, 283; accidents, 283
——— on the care of the insane poor, 35, 96, 150, 210, 268, 323, 363, 438, 499, 559, 603; leading article on, 607
——— of the Public Health Committee of the London County Council, 1903, 157
——— of the Registrar-General for England and Wales, annual, 484
——— of the Vaccination Expenses Committee, 615
Reports, Indian sanitary, 851, 801
Respiration, artificial, wider use of in therapeutics (Leonard J. Kidd), 881
——— intrauterine, 26
Responsibility for medical debts, 975
Resuscitation of the apparently drowned (R. L. Bowles), 21
Retina, detachment of (D. J. Wood), 250
Retrograde legislation, 669
Revaccination, 615
Reverberation in abdominal diagnosis (Stacey Wilson), 655
Rheumatic fever, a contribution to the etiology of (G. B. Longstaff), 194
Rheumatism, gonorrhoeal, 168
Rheumatoid arthritis, acute (Hale White), 598
——— and Raynaud's disease, case of (Douglas Stanley), 304
Rhinitis caseosa, note on (Arthur Edmunds), 180
Rhodesia, medical practice in, 1232
Rhymney, Urban District Council, report of medical officer, 568; health of, 853; measles at, 1357
Richet, Charles, address to Society of Psychical Research, note, 622
Richter, Henry, unable to render "Sheintod" into English, 255
Riedel's operation for chronic osteomyelitis (D. MacLennan), 251
Rigby, Hugh Mallison, appointed surgeon in ordinary to Prince of Wales, 845
Ring sarcoma (L. Werner), 1331
Ringworm in Rome, relief of, 666
——— x rays in treatment of (Dr. Codd), 1271
Ripa, William de, note on, 99
Rival claims to a case, 106
Rivers, W. C., sanatorium treatment of phthisis: is it worth while? 569; mouth-breathing as a common antecedent to phthisis, 941
Rivers-Willson, A., the Societies of Apothecaries, 1016, 1072, 1300
Riviera water supply. See Water
Riviere, Clive, ergot and arsenic in chorea, 354
Robb, W., cerebro-spinal meningitis, 970
Roberts, Edward, appointed Sheriff for County of Cardigan, 724
——— F. T., dinner to, 486, 785; Harveian Oration, 1905, 1369
——— H. F. Bodvel, case of "rupture of the heart" in an insane person, 186
Robertson, W. G. Aitchison, milk supply of Edinburgh, with suggestions for its more stringent control, 188
——— W., Sanitary Law and Practice, rev., 660
Robinson, Frank, notes on 600 cases of typhus fever, 1137
——— H. Betham, extraperitoneal ureterolithotomy in a child, 357; dilatation of large intestine, 991
——— William, sanatorium treatment of phthisis: is it worth while? 1268
Robson, A. W. Mayo, operation for appendicectomy, 817, 277, 334; new method of jejunostomy, 825; choledochotomy for calculi in the common duct, 825; Cancer and its Treatment, rev., 947
——— Herbert J., iron acetate in treatment of pneumonia, 812, 1024
Rockefeller Institute, laying of the corner stone of, 26
Rodent ulcer. See Ulcer
Roentgen, Professor, note on, 742
——— rays in treatment of tuberculous synovitis (Alex Gregor), 184; application of by unqualified persons in Paris, 1296. See also X rays

Rogers, Leonard, diagnostic and prognostic value of the leucopenia of cachexial fever and kala-azar, and its treatment by quinine and bone marrow, 705
Rolleston, H. D., pericolitis sinistra, 721; Diseases of the Liver, Gall Bladder, and Bile Ducts, rev., 827; Talma-Morison operation for ascites, 915
——— J. D., the prodromal rashes of measles, 233
Romanes lecture, the, 1347
Rome, influenza in, 426; relief of ringworm in, 665; opening of new hospital for poor consumptives at, 1099
Roosa, D. B. St. John, Handbook of the Diseases of the Eye and Ear, rev., 659
Roose, Robson, obituary notice of, 391
Roosevelt, Mr., on military medicine, 730; on the career of the naval surgeon, 858
Ross, Edward H., experimental transmission of Mediterranean fever, 710
——— James, sanatorium treatment of phthisis: is it worth while? 513
——— Philip H., cases of spirillum fever in Uganda, 713
——— Ronald, the progress of tropical medicine, 156; mode of infection in human tick fever, 280; appreciation of Joseph Everett Duttou, 1021; logical basis of the sanitary policy of mosquito reduction, 1025; mosquitos and malaria, note, 1177
——— S. J., lead as an abortifacient, 653
Ross-shire, West, outbreaks of disease in, 733
Rost, Captain E. R., on the pathology and treatment of leprosy, 294
Rostoski, O., Manual of Serum Diagnosis, rev., 1049
Rotch, Thomas Morgan, Pediatrics: the Hygiene and Medical Treatment of Children, rev., 310
Rothacker, Oscar, Du Traitement de la Phtisie Pulmonaire, rev., 309
Roughton, J. P., case of perforated gastric ulcer, 533
Roumania, medical practice in, 1225; official appointments, 1225; fees and salaries, 1225; quacks and unqualified practice, 1225; the position of medical men, 1225
Roux, M., note on the inoculation of leprosy in monkeys, 534; on recent microbiological research in syphilis, 1178
Rowland, F. M., The Coroners Bill, 799
Rowlands, R. P., purulent pericarditis in an infant, 816
Royal gift, a, 433
——— relics, 1012
Rubber plasters and strapping, irritation produced by, note on, 111
"Rupture of the heart" in an insane patient (R. Campbell Nicholl and H. F. Bodvel Roberts), 186
——— of the left coronary artery (A. F. R. Condor), 653
Ruptured kidney, empyema, nephrectomy, recovery (Percy Coleman), 942
Rural insanity, 317
Russell, Hon. R., The First Conditions of Human Prosperity, rev., 137
Russia, plague in, 101, 425, 779; infant mortality in, 140
Russian army, the sick and wounded of the, 553
——— medical staff, official list of sick and wounded treated by, at Mukden, 34
——— medical men and workmen in, 483
——— police and cholera, 784, 843, 955
——— universities, note on, 426

S.

Sahara, climate of the (Dr. McClure), 992
Sailors, deaths among, 733
St. George, Dr., case of cancer of rectum, 824
St. Helena, medical practice in, 1240
St. Lawrance-Burke, A., minor operations and hospital reform, 971; the Midwives Act and the medical profession, 1069, 1181; one-mark vaccination, 1127
St. Luke, window in St. Ann's Church, Blackfriars, to, 1350
Sainter, Brigade-Surgeon James Dow, obituary notice of, 107, 302
Sale of practice, the duty of a vendor, 280
Salies-de-Béarn, note on, 976
Salkowski, Ernst, Beiträge zur wissenschaftlichen Medicin und Chemie, Festschrift zu Ehren des sechszigsten Geburtstages von Ernst Salkowski, rev., 300
"Salts of lemon," suicidal poisoning with: perforation of the stomach (P. F. Braithwaite), 183
Samways, D. W., "Sick Nursing in France," 223; the Riviera water supply, 451
Sanatorium Association. See Association
Sanatorium, for consumptives afloat, 52; for consumptive workmen, 81; at Winsley, note on, 215; opening of the Winter Day in Germany, 217; proposed for Cork, 322, 790, 904, 1174; a dismal failure in Liverpool, 329; opening of in Madeira, 368; in Westmorland, 507; the Crossley, note on, 567; the West Wales, 692, 913; in the United States, 849; the Crossley, in Delamere Forest, completion of, 911; Adirondack Cottage, note on, 948
——— the King's, 672
——— the National, annual meeting, 1119
——— State, for Illinois, 836; in Italy, 1018
——— statistics (leading article), 83
——— treatment of phthisis: is it worth while? note on, 1075; (W. B. Ransom), 59; (William S. Paget-Tomlinson), 1266; William Robinson, 1268; Alexander Don, 1405; results of four years' experience (Rowland Thurnam and Charles E. Wheeler), 65; correspondence on, 161, 222, 390, 448, 512, 569, 800, 916
——— treatment of consumption, results of, 261
——— for the nervous, 1390
Sanatoriums for consumptive workers, 1120
——— a directory of, 26
——— German insurance system and, 636
——— for metropolitan consumptives, 840
——— municipal and parochial, 912
Sanitary districts, combined, 971
——— inspection of schools in Ireland, 755
——— Inspectors' Association, twenty-second annual dinner, 312; support Public Health Bill in Manchester, 446; women as, 1309
——— Examination Board, pass list, 312
——— policy of mosquito reduction, logical basis of (Ronald Ross), 1025
——— reports, Indian, 851, 891
——— salutation, 551
——— work in the Philippines, 1005
Sanitation, development of, 847; of elementary schools, 896, 958; in Cuba, 1160
Sankey, E. H. O., treatment of incipient insanity, 569; disqualifications under the Lunacy Act 1890, 1069
Santa Cruz (Teneriffe), climate of, 436
Santi, Philip R. W. de, Malignant Disease of the Larynx (Carcinoma and Sarcoma), rev., 659
Sarcoma of axilla (Mr. Heaton), 1042
——— of conjunctiva (Arthur Benson and Dr. Mooney), 774
——— of cranial bones (Dr. Sydenham), 304
——— of fibula (J. Hutchinson, jun.), 476
——— "grape-like" of the cervix uteri (Herbert Williamson), 599
——— melanodes (Hebra's) and the New Sydenham Society, 46
Satinwoods and dermatitis (G. Bidie), 74; (M. Grabham), 822
Saundby, Robert, operative interference in diseases of the stomach, 48; appointed reporter in Section of Medicine at International Medical Congress at Lisbon on cirrhoses of liver, 370; elected consulting physician to West Bromwich District Hospital, 1112; reports a clinical lecture at the Hôtel-Dieu, 1337
Saunders, Arthur, case of congenital heart disease in a girl of 15, 885
Savva, M. H., compulsory Greek, 450
Saxon Snell prize, note on, 74
Scabies in the army, treatment of, 1106
Scald of chest treated by grafts from rabbit (reported by Lachlan Fraser) 716
Scalded to death in a hospital, 32
Scarlatina. See Fever, scarlet
Scarlet fever. See Fever, scarlet
Scars of the genital region in the retrospective diagnosis of syphilis (Arthur Cooper), 130
Schaudinn's work on blood parasites, 442, 570
Schiller, note on, 966; centenary, 1122
Schistoma Cattoi, a new blood fluke in man (John Catto), 11
Schlesinger, Hermann, Les Indications des Interventions Chirurgicale dans les Maladies Internes, rev., 887
Sclavo's serum. See Serum
Schmidt, Adolf, Lehrbuch der allgemeinen Pathologie und Therapie innerer Krankheiten rev., 78
Schoolboy's sleep, 1008
School authorities, and recognition of unqualified practitioners, 1307
——— children, teeth of, 456; enteric fever and 493; eyes and ears of, 666, 854; physical condition of, 674, 905; medical inspection of, 695 (leading article), 949; treatment of defective sense organs in, 914; health of in Sydney 1122; physique of in Manchester, 1179 in New York, 1289; in Leeds, 1298
——— underfed, 310, 616, 692, 733, 788 797, 846, 958, 995, 1000, 1491 (leading article), 1661 1357
——— hygiene, conference on, 328, 380 (leading article on) 371; lectures in, in Wales 720, 745
School, inspection and school diseases, 1110
——— for invalid children, 896
Schools, elementary, medical inspection of, 47, 85, 162, 555; sanitation of, 896; physiology in, 976; underfed children at, 995
——— and eyesight (leading article), 258
——— inspection of in Wales, 330
——— medical supervision of in London, 611
——— military drill in, 159
——— physical exercise in, note, 329
——— sanitary inspection of in Ireland, 557
——— teaching of hygiene in, 41, 93, 153, 205, 208, 270, 325, 366, 440, 503, 563, 619, 689, 736, 791, 996; correspondence on, 331; conference on, 735, 1124
——— teaching of temperance in, 310, 735
Schröder, Walter, inquest fees to hospital officers, 512, 693
Schweinitz, C. E. de (part author), The Relation of the Cervical Sympathetic to the Eye, rev., 196
Schwenter, Madame, M.D., appointed lecturer at University of Berne, 836
Sciatica and brachialgia, some points in the treatment of (J. E. Harburn), 235
Scicluna, G. Caruana, intermittent fever in Malta, 711
Scientific research, grants for, 620
Sclavo's serum, successful treatment of a case of cutaneous anthrax by (C. B. Lockwood and F. W. Andrewes), 16; (Anthony Bowlby and F. W. Andrewes), 296
Scleroderma, cancer and leucoderma, points of incidence compared in (G. Lenthal Cheatle), 926
Sclerosis, disseminated or insular, case of (Dr. Paton), 474
——— of uterine vessels causing climacteric haemorrhage (Freeland Barbour), 137
Scopolamine as a general anaesthetic in surgery, 445; M. Terrier on the use of, 853
Scotland, notes from, 35, 93, 149, 207, 265, 321, 436, 497, 556, 616, 675, 734, 847, 905, 958, 1011, 1114, 1172, 1292, 1351, 1386; Fife and Kinross District Asylum, note on patients, 35; recent strictures on the University of Edinburgh, 35; Royal Society of Edinburgh, meeting, 93, 1352; election of President of the Neurological Society, 93; Edinburgh Royal Infirmary, annual general meeting, 93; and the Edinburgh Students' Representative Council, 93; London Hospital, 556; Parliamentary representation of the Universities of Glasgow and Aberdeen, 149, 265; Western Infirmary, Glasgow, opening of new dispensary for out-patients, 207; presentation to Dr. R. Wilson Bruce, 207; variation in its relation to the origin of insanity and the allied neuroses, 265, 321; Royal Medical Society, Edinburgh, annual dinner, 265, 436; Glasgow and District Branch of the National Association for the Prevention of Consumption, meeting of, 266; Aberdeen Medico-Chirurgical Society, meeting of, 266, 321, 958, 1115; Aberdeen University Anatomical and Anthropological Society, lecture on Thibet by Captain A. W. Cook, 266; meeting, 1353; the Morison Lectures at the Royal College of Physicians of Edinburgh, variation in its relation to the origin of insanity and the allied neuroses, 265, 321; Scottish Poor-law Medical Officers' Association, meeting and presentation to Dr. W. L. Muir, 436; Edinburgh City Hospital, annual "at home," 436; honours to Scottish practitioners in Spain, 437; hospital reform, 497; Carnegie trust for the universities of Scotland, 497; Jubilee testimonial to Dr. W. W. Ireland, 556; the abuse of medical charities, 616; typhus fever in Aberdeen, 616; asepsis in obstetric practice, 617; Lord Rectorship of Aberdeen University, 675; Aberdeen Royal Infirmary, annual report, 675; Royal Edinburgh Asylum for the Insane, annual meeting, 675; closing of the Glasgow medical schools, 734; Glasgow Hospital Sunday Fund, 734; anthrax in cattle, 734; development of sanitation, 847; Gray's Hospital, Aberdeen, donation to, 847; physical condition of school children, 905; honorary degrees at Glasgow, 958; representation of the University of Edinburgh, 1011; Ayr District Asylum, Ayr, annual report, 1011; outbreak of bubonic plague at Leith, 1114, 1173, 1293; 1353, 1386; Glasgow and Northern Medical Association, summer meeting, 1115; Aberdeen, Banff, and Kincardine Branch, summer meeting, 1115; a windfall for education and charity, 1115; Belvidere fever and small-pox hospitals (Glasgow) annual report, 1115; cremation in Scotland, 1172; Edinburgh Royal Infirmary, annual meeting, 1173; the channel fleet in the Forth, 1173; Edinburgh Harveian festival, 1173, 1351; Glasgow and District Branch of the National Association for the Prevention of Consumption, annual meeting, 1173; rumoured retirement of Professor A. R. Simpson, 1292; Royal Victoria Hospital for Consumption, Edinburgh, annual meeting, 1292; Lock-

Government Board for Scotland and pulmonary phthisis, 1272; Chalmers Hospital, Edinburgh, 1293; rebuilding Glasgow Royal Infirmary, 1293; Glasgow Small-pox Hospital, 1293; Poor-law conference in Edinburgh, 1352; small-pox in Edinburgh, 1352; public health of Edinburgh, 1352; Professor Waldeyer on the neuron doctrine, 1386; the Girgenti Inebriate Home, annual report, 1386; proposed three-terms system at the Scottish Universities, 1387; professional golf clubs, 1387; proposed college Club in Glasgow, 1387
Scotland, M.O.H reports in, 1060, 1171
——— medical inspection in, 555, 674
——— open-air treatment of phthisis in 100 years ago, 560; note on, 1359
——— parochial medical officers in, 674
——— plague in, 1114, 1118
——— poisoning in, centuries ago, 1120
——— report on the care of the insane poor in, 210
——— small-pox in, 26, 497
Scott, S. G., subacute atrophy of the liver, 775
Scottish colleges, diplomates of, 857, 916, 972
——— medicaments, old, note on, 679
——— Poor-law medical service, 221, 436
Scrofulous ulcers on legs successfully treated by high-frequency currents (W. F. Somerville), 244
Scrotal irritation, 1368
Scrotum, gangrene of (C. Mozourelli), 17
Sea-sickness, treatment of (J. Metcalfe Sharpe), 1089; a factor in (A. Vavasour Elder), 1269; correspondence on, 1361
Secret commissions, 437, 803
Security of tenure and the Public Health Bill, 953
Sedgwick, Adam, "Students' Textbook of Zoology," rev., 1093
Sectürner, Dr. (discoverer of morphine), tablet erected to, 737
Seligmann, C. G., true hermaphroditism in the fowl, 1092
Sellors, T. Blanchard, sanatorium treatment of phthisis: is it worth while? 161
Semon, Sir Felix, soft fibroma of the larynx and neck, removal by external operation, without opening the cavity of the larynx, 6
Senile symmetrical atrophy of the skull (F. Parkes Weber), 129
Senn, Nicholas, Our National Recreation Parks, rev., 253
Septic sore throat, 516
Septicaemia, puerperal, oral sepsis and (Thos. Drake Leigh), 882
——— in Cootehill Union Infirmary, 1171
Serum, per rectum, 396, 456
——— antistreptococcus in toxic scarlet fever (J. Hedley Marsh), 355
——— antitetanus, successful treatment of case of tetanus by (James Miller), 1269
——— Sclavo's, successful treatment of a case of cutaneous anthrax by (C. B. Lockwood and F. W. Andrewes), 16; (Anthony Bowlby and F. W. Andrewes), 296; (Dr. Mitchell), 992
——— State Institute for the manufacture of, in Vienna, 1356
——— therapy in cerebro-spinal meningitis, 1160
Serums, cancer, preliminary report on, 542
Servia, medical practice in, 1223; sanitary administration, 1223; private practitioners, 1224
Sessile warts, treatment of, 516, 576, 808
Sewage scheme of the Purdysburn Infectious Diseases Hospital, Belfast, 377
——— disposal, Royal Commission on, 1109
——— farm, 1075
——— sludge and fruit essences, 1067
——— works at Manchester, visit of French delegates to, 1067
——— works and typhoid fever, 203
Sewer ventilation at Newport, 623
Sewerage schemes, for South Wales, 510, 1067; for Fleetwood, 743; for Mynyddislwyn, 745; for Manila, 817; for Stratton St. Margarets, 1291
Sex, distinction of in long bones, 671
Sexes, proportions of, in the United States, 140
Seychelles Islands as a health resort, 147
——— medical practice in, 1240
Shadowgraph ureteric bougie in precise surgery of renal calculus (E. Harry Fenwick), 1325
Sharpe, J. Metcalfe, treatment of sea-sickness, 1089
Shattock, S. G., prehistorical vesical calculus, 775; true hermaphroditism in the fowl, 1092
Shaving, easy and cheap doctoring, 456
Shaw, H. Batty, recurrent vomiting in children, 347
Shaw-Mackenzie, John A., local irritation and cancer, 48; etiology and treatment of cancer, 1183
Sheard, W. F., award for successful vaccination, 1059
Sheen, A., sanatorium treatment of phthisis: is it worth while? 161; recovery from morphine poisoning after subcutaneous injection of atropine, 1040
Sheffield, special correspondence from, 273; the Sheffield University Bill, 273; daily notes on the condition of fever pain, 274; burnt children, 274; Hospital Sunday, 274
Shelff, J. Spencer, induction of labour, a comparison of some of the methods, with notes of five recent cases, 1378
Shellfish, Is B. coli a normal inhabitant of? (J. T. C. Nash), 183; vitality of typhoid bacillus in, 611, 885
Shelly, Charles E., incubation period of mumps, 626
Sherman, General, story of, 752
Ship beri-beri (George A. Turner), 712
Short, Dr., aneurysm of the aorta rupturing into the trachea, 133; transposition of viscera, 304; chronic ulcer of stomach, with perforation, 304
Show infants, 549
Siam, plague in, 425, 558
Sibbald, Sir John, death of, 957; obituary notice of, 1019; estate of, 1340
"Sick Nursing in France," 223
Side-light on medical education, a. See Medical
Siegel, Professor, bacteriological investigations of, note on, 742
Sigmoid flexures, congenital hypertrophy and dilatation of (W. F. Brook), 1035
"Sign of death," a, 214
Silcock, A. Quarry, estate of, 256
Silesia, cerebro-spinal meningitis in, 836, 967
Silk weavers and torsion of ovarian pedicle, 89
Simpson, A. P. Hope, atropine in inebriety, 132
——— Barbour, fatal complete prolapsus uteri, 137
——— G. A. Garry, treatment of post nasal adenoids, 624; treatment of ear and eye troubles in elementary school children, 854
Singer, Charles, deformed fetus, 1332
Singers, pathogenesis and prevention of loss of voice in (Jobson Horne), 648
Sinuses, nasal accessory, causes, symptoms and complications of diseases of (Siegmund Moritz), 174
Sinusitis, frontal. See Frontal
Sisters and nurses, 1252
Skiagraphy of the lungs and pleura, 76
Skin disease, a peculiar, 1058
Skinner, Bruce, plague and the geographical distribution of rats, 994
Skull, closure of traumatic defects of (Charles Leedham-Green) 819
——— compound depressed fracture of, cephalotetanus, recovery (W. H. Jalland), 1091
——— fractured base of (A. H. James), 1640
——— senile symmetrical atrophy of (F. Parkes Weber), 129
——— syphilitic necrosis of, case of (J. Hutchinson, jun.), 249
Slate clubs and Friendly Societies, 952
Sloughing of intussusceipted gut: spontaneous recovery (R. T. Turner), 240
Slums and the law, 552
Small-pox, aërial transmission of, 633, 1148, 1246
——— attendance on, 227
——— question in the House, 1060
——— at Bradford, 846
——— in Berlin, 217
——— at Cardiff, 692, 745, 799, 853, 1123, 1244, 1357
——— at Dewsbury, report by Dr. S. W. Wheaton, 382; (leading article), 370; note on, 1395
——— at Gloucester, 1310
——— in Lancashire, 26, 110, 159, 273, 1015
——— in Lewisham, 1060
——— in Liverpool, 961; and small-pox hospitals, 961, 1248
——— in Scotland, 26, 497, 1352
——— difficulty of the diagnosis of, 147
——— hospital influence, 226
——— inoculation in India, 1336
——— outbreaks and their cost, 788
——— on the R.M.S. Nile, 903, 1060
——— spread of round small-pox hospitals (G. S. Buchanan), 1096; spread of by vagrants, 1367
——— and vaccination, 146, 573
——— research and the Metropolitan Asylums Board, 85
Smells and Section 114 of the Public Health Act, 102
Smith, Alfred J., physometric uterus, 477; observations on Bossi's dilator, 477
——— David, obituary notice of, 858
——— E. Temple, vagitus uterinus, 247
——— F. J., case of sprue or hill diarrhoea, 886
——— F. W., the tuberculous monkey as a pet, 472
——— John, Royal College of Surgeons of Edinburgh, fourth centenary celebration, 543
——— Priestley, dinner and presentation to, 144
——— R. Percy, training of mental nurses, 628
——— T. F. Hugh, opening of peritonsillar abscess, 1330
——— W. Johnson, dinner and presentation to, 780
Smoking, juvenile, and physical deterioration, 475
Smurthwaite, Henry, chronic suppurative otitis media, 180
Snake venom, protective action of on blood corpuscles, 1344
Snell, E. H., treatment of typhoid fever, 414
——— Saxon, prize, note on, 74
Snow, Herbert, epithelioma of soft palate, etc., 293
Soaps, antiseptic, 1132
Sobatta, J., Atlas der descriptiven Anatomie des Menschen, rev., 947; Grundriss der descriptiven Anatomie des Menschen, rev., 947
Societies, Friendly. See Friendly
——— local, and the British Medical Association, 1004
——— medical, of London, proposed union of. See Medical
Society, Aberdeen University Anatomical and Anthropological, 266, 1353; lecture by Captain A. W. Cook, With the Thibet Mission Force to Lhassa, 266
——— of Anaesthetists, 134; the Vernon Harcourt inhaler, 134; election of officers, 606
——— Antivivisection, National, annual meeting, 1065
——— of Apothecaries. See Apothecaries
——— Balneological and Climatological, British, 417, 992; climatology from a medical standpoint (Charles W. Buckley), 417; climatology of the Sahara (Dr. McClure), 992
——— Chelsea Clinical, 21, 193, 539, 718, 772, 945, 1310; treatment of the apparently drowned, with a practical demonstration of the best methods of resuscitation (R. L. Bowles), 21; the anaesthetization of children (J. D. Mortimer), 193; two cases of a hitherto unrecorded complication of pregnancy (Dr. Penny), 193; treatment of various diseases by light (Dr. Anderson), 193; pre-appendicectomy, appendicitis (J. Foster Palmer), 539; dental caries (C. Edward Wallis), 539; chronic constipation and its medical and surgical treatment (W. Arbuthnot Lane), 718, 772; choice of methods for the radical cure of prostatic enlargements (John Pardoe), 945; three cases of acholia in children (D. May), 945; eighth annual dinner, 1340
——— Clinical of London, 134, 249, 357, 476, 598, 720, 883, 991, 1093, 1273; intracranial resection of second division of fifth nerve (Jonathan Hutchinson, jun.), 134; acute ascending paralysis in cases of chronic cystitis (F. J. Walker), 134; accidental electrocution causing extensive gangrene of extremities (Clement Lucas), 134; syphilitic necrosis of skull (J. Hutchison, jun.), 249; uretero-lithotomy for calculus (C. H. Fagge), 249; localized flushing and sweating on eating (Parkes Weber), 249; Recklinghausen's disease (C. K. Keyser), 249; cystic adenoma of left kidney (W. G. Spencer), 249; recovery from infantile paralysis of the deltoid (W. G. Spencer), 249; xanthoma diabeticorum (Sir Dyce Duckworth), 249; soft-valve mitral stenosis without audible murmur (W. Ewart), 357; accessory thyroid (E. P. Paton), 357; extraperitoneal uretero-lithotomy in a child (H. Betham Robinson), 357; calculous anuria in a child (Douglas Drew), 357; anaemia splenica (J. H. Bryant), 476; narcolepsy and hysterical blindness (Purves Stewart), 476; muscle grafting for paralysis of left upper extremity (A. H. Tubby), 476; primary sore on eyelid of child (William Turner), 476; lymphatic leukaemia (J. G. Slade), 476; arthrectomy of knee-joint (Douglas Drew), 476; sarcoma of fibula (J. Hutchinson, jun.), 476; exhibits, 476; acute rheumatoid arthritis (Hale White), 598; arthritis deformans and its allies (Bertram Abrahams), 598; examination of stomach by x rays and tube filled with subnitrate of bismuth (Norman Dalton and A. D. Reid), 720; stenosis of ureter (Douglas Drew), 720; condition of the small intestine some years after extensive enterectomies (A. E. Barker), 720; streptococcal pachymeningitis (Sir Dyce Duckworth and C. M. Hinds Howell), 721; a joint affection possibly due to malaria (Howard Marsh), 883; intermittent hydrops of the joints (Howard Marsh), 884; hydronephrosis due to movable kidney (F. J. Steward), 884; congenital dislocation of hip (Jackson Clarke), 991; dilatation of large intestine (Morley Fletcher and Betham Robinson), 991; swelling of left hand and wrist [lymphangitis?] (Drs. Fawcett and Herz), 991; sclerodactylia with vasomotor phenomena (Fawcett), 991; Kaposi's disease (Dr. Fawcett), 991; tumour of tongue (J. Lunn), 991; ununited fracture of tibia and fibula (C. Symonds), 991; fibrous masses in the corpora cavernosa (Charles Gibbs), 991; abnormality of left testis (W. G. Spencer), 991; absence of abdominal muscles (C. Bolton), 991; exhibits, 991; lobar pneumonia during enteric fever (Sidney Phillips and B. H. Spilsbury), 1093; fracture of the astragalus (Hugh Lett and J. Hutchinson, jun.), 1093; fractures of the astragalus and os calcis (J. Hutchinson, jun.), 1093; milky ascites in which the opalescence was not due to fat (F. Taylor and J. Fawcett),

1273; syphilitic destruction of the nose treated by plastic operation (James Berry), 1273; primary adrenal carcinoma of liver (S. Phillips and B. H Spilsbury), 1274; diabetes mellitus accompanied by xanthoma and fatty necrosis of pancreas (Sir Dyce Duckworth), 1274; annual meeting, 1274
Society, Clinical of Manchester, 307, 775; surgical aspect of biliary calculi (E Stanmore Bishop), 307; vomiting in infants (Dr. Ashby), 775
——— Crippled Children's Help, annual meeting, 911
——— Dermatological of London, 192, 480; meeting and exhibition of cases, 192, 480
——— of Great Britain and Ireland, "Transactions," rev., 830
——— Electro-therapeutic, British, annual meeting and election of officers, 417
——— Epidemiological, meeting, 194, 656, 721, 1096, 1148; a contribution to the etiology of rheumatic fever (G. B. Longstaff), 194; relation of the parasitic protozoa to each other and to human diseases (E. J. McWeeney), 656; ankylostomiasis (A. E. Boycott), 721; the spread of small-pox round small-pox hospitals (G S. Buchanan), 1096; (A. Newsholme), 1148; Twenty-third Volume of "Transactions" of, rev., 1099
——— Friendly, a case concerning a, 105
——— Gynæcological, British, 190, 656, 992; annual meeting, 190; election of officers, 190; double pyosalpinx (Inglis Parsons), 190; President's valedictory address, 191; choice of treatment of fibromyoma of the uterus (J. Inglis Parsons), 656; surgical intervention in cancer of the cervix uteri (C. Jacobs), 992
——— Harveian, 307, 479, 776, 944; case of Addison's disease (J. J. Perkins), 307; remarks on the asymmetry of the thorax (Winslow Hall), 307; case of bronchiectasis (J. J. Perkins), 307; Recklinghausen's disease associated with dilated and dropped stomach (Batty Shaw), 308; severe multiple deformity (Laming Evans), 308; various other cases shown, 308; lobar pneumonia in children (G. A. Sutherland), 479; anterior metatarsalgia (Laming Evans), 479; clinical meeting and exhibition of cases, 776; convulsions in children (Edmund Cautley), 944; appendicitis in childhood (H. S. Clogg), 945
——— Hunterian, 251, 886, 1044; pathological meeting: specimens shown and discussed, 251; Transactions of, rev., 420; case of sprue or hill diarrhœa (F J. Smith), 886; sections of bilateral inguinal tumours (Stanley B Atkinson), 886; discussion on influenza (Clifford Allbutt and Franklin Parsons), 1044
——— Incorporated, for the Promotion of Higher Education and Training of Nurses, 254
——— Jenner, report of, 431
——— Ladies' Public Health, at Manchester, annual meeting, 159
——— Laryngological of London, 103, 685, 886; annual meeting, 193; election of officers, 193; exhibition of cases, 193; meeting and cases shown, 480; special meeting at Garcia centenary, 685; meeting and exhibition of cases and specimens, 886
——— Laryngological of Vienna, proposed festal celebration in 1908, 1244
——— of Medical History, French, election of officers, 20
——— Medical of Bad Nauheim, issue of a pamphlet on the waters of that place by, 908
——— Medical, Chorley and District, formation of, 606
——— Medical, Kidderminster, meeting and exhibition of cases, 418, 777, 1274
——— Medical, Leamington, annual meeting, 256
——— Medical of London, 76, 190, 359, 476, 600, 606, 721, 826, 1044, 1108; functional insanity and its relation to allied neuroses (Robert Jones), 76; encephalitis (F. E. Batten), 76; hæmaturia (A. E Garrod), 190; intracranial tumour (T. R. and E. E. Glynn), 359; cancer of stomach (Bruce Clarke, 359; oophorectomy (H. J. Waring), 359; exophthalmic goitre (F. J. Poynton), 359; aneurysm of the aorta (Dr. Brunton), 359; two cases of diabetes (W. Ewart), 359; supposed case of tumour of left lobe of cerebellum (W. Essex Wynter), 359; analysis of 300 consecutive cases of gynæcological laparotomies (Arthur Lewers), 476; Cæsarean section (W. J. Gow), 476; discussion on carcinoma (E F. Bashford), 600; one hundred and thirty-second anniversary dinner, 606; pericolitis sinistra (H. D. Rolleston), 721; infective colitis (A. E Carver), 721; clinical meeting, 826; discussion on prostatectomy (Reginald Harrison), 1044; annual conversazione, 1108
——— Medical, Manchester, annual meeting, 104; ordinary meeting and discussion of cases, 470, 943; case of achondroplasia (W. Thorburn), 598; muco-colitis treated by lavage through the appendix (E. Stanmore Bishop), 598; venesection (R. J. Ewart), 598; four cases of Thomsen's disease (Dr. Dreschfeld), 943; case of pyloric obstruction due to fibrous stenosis (Mr. Southam), 943; treatment of accidents from chloroform (Alexander Wilson), 943; variations of the menstrual function in anæmia (W. E. Fothergill), 943
Society, Medical, Northumberland and Durham, extraordinary meeting, 666
——— Medical, Oldham, meeting and exhibition of cases, 1046
——— Medical and Physical, Bombay, meeting, 480
——— of Medical Phonographers, note on, 426
——— of Medical Officers of Health, Incorporated, meeting, 658; increase of anthrax in Great Britain (Sheridan Delépine), 658
——— Medical Protection, London and Counties, annual general meeting, 545; action for recovery of debts collected, 1285
——— Medical Sickness and Accident, meetings, 82, 312, 546, 836, 1050
——— Medical Sickness, Annuity, and Life Assurance Friendly, annual general meeting, 1175
——— South-West London, Bolingbroke Lecture, 1390
——— Medical, Ulster, 91, 207, 358, 777, 904, 1061, 1116, 1354; Professor Sims Woodhead on alcoholism, 91; cases shown, 207; cold in pneumonia (Dr. McKisack), 207; fractures at the lower end of the radius (A. Fullerton), 358; paper on some cases of perforation of stomach and intestine (T. S. Kirk), 777; ninth annual meeting, 904; special meeting, 1116
——— Medical Benevolent, Sussex, first meeting, 1050
——— Medico-Chirurgical, Aberdeen, 266, 321, 958, 1115; meeting and exhibition of specimens, 266, 958; application of Roentgen rays in diagnosis of chest affections, 321; ten abdominal sections for abnormal pregnancies, 321
——— Medico-Chirurgical, Bradford, meeting, exhibition of photographs, and discussion, 358, 992; cutaneous anthrax treated without excision with Sclavo's antianthrax serum (Dr. Mitchell), 992
——— Medico-Chirurgical, Bristol, 251; fourth meeting of session, address by Professor Clifford Allbutt, 251
——— Medico-Chirurgical, Edinburgh, 188, 305, 1043, 1148; the milk supply of Edinburgh, with suggestions for its more stringent control (with lantern demonstration) (W. G. Aitchison Robertson), 188; nature of Friedreich's ataxia (Dr. Rainy), 188; recurring torsion of the spermatic cord (Mr. Dowden), 305; bradycardia (with lantern demonstration) (George Gibson), 305; massage in cardiac dilatation (R. A. Fleming), 305; word blindness (J. V. Paterson and Edwin Bramwell), 1043; leukæmia and x rays (Byrom Bramwell), 1043; multiple chrondromata (Mr. Cotterill), 1044; extroversion of the bladder (Alexis Thomson), 1044; clinical meeting, 1148
——— Medico-Chirurgical, Glasgow, 250, 359, 539, 885; operative treatment of perforated gastric ulcer (Alfred A. Young), 250; Riedel's operation for chronic osteomyelitis (Dr. MacLennan), 251; meeting and exhibition of cases, 359; cystoscopy and its value in the diagnosis of renal disease (David Newman), 539; malignant disease of the thyroid gland (George Burnside Buchanan), 885
——— Medico-Chirurgical, Leeds and West Riding, 192, 418, 539; notes on a case of spasmodic torticollis (Basil Hall), 192; administration of anæsthetics in abdominal operations, 192; secondary post-partum hæmorrhage (Dr. Hellier), 418; fibroid polypus of the bladder (H. Collinson), 418; treatment of croupous pneumonia (Johnstone Campbell), 418; malignant tumours of the intestines (Lawford Knaggs and O. C. Gruner), 539; specimen of mesocolic hernia (J. F. Dobson), 539
——— Medico-Chirurgical, Sheffield, 494; cases and specimens, 494
——— Medico-Chirurgical, West London, annual dinner, 368; boldness in treatment of certain cases of pneumonia (Alexander Morison), 658; clinical causes of cancer of breast (Cecil Leaf), 658; cervical auricle removed from a child (J. Rowell Evans), 885; acromegaly in a woman (Seymour Taylor), 885; congenital ataxia in a boy aged 8½ (Leonard Dobson), 885; chronic middle-ear suppuration (H. B. Ball), 885; congenital heart disease in a girl of 15 (Arthur Saunders), 885; recognition and treatment of mental disorders in private practice (W. H. B. Stoddart), 1333
——— Medico-Legal, meeting and discussion of cases, 193; meeting and discussion on privileged communications and professional secrecy, 601
——— Midland Medical, meeting and exhibition of cases, 895, 417, 480, 600, 778; case of spina bifida (Dr. Emanuel), 417; sarcoma of epididymis (George Heaton), 417; specimens from a case of cerebral tumour (Stanley Barnes), 417; paper by Douglas Stanley on syphilitic disease of some viscera, 417; irreducible prolapse of uterus (C. E. Purslow), 778
Society, National Health, meeting, 703
——— Neurological, of Great Britain and Ireland, 93; election of Sir John Batty Tuke as President, 93; annual meeting, 501; treatment of incipient insanity (Sir John Batty Tuke), 501
——— the New Sydenham, and Hebra's sarcoma melanodes, 46; "An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology," rev., 252; important additions to advantages offered to new members, 1109
——— a new medical, note on, 206
——— Northumberland and Durham Medical meeting of, 45
——— Obstetrical, Edinburgh, 137, 477, 1094; climacteric hæmorrhage due to sclerosis of uterine vessels (Freeland Barbour), 137; application of Bier's hyperæmic treatment to gynæcological disease (Scott Carmichael), 137; abdominal hysterectomy for uterine fibromyomata (F. W. N. Haultain), 477; some curiosities of curetting (Sir Halliday Croom), 1094; specimens, 1094
——— Obstetrical of London, 77, 357, 599, 826, 1095, 1332; the causation of puerperal infections (A. G. R. Foulerton and V. Bonney), 77; vaginal hysterectomy in the puerperium for sepsis due to suppuration of myoma (Arnold Lea), 78; cure of vaginal cystocele (Hey Groves), 357; wandering spleen forming pelvic tumour (Frank E. Taylor), 358; tuberculous disease of the body of the uterus (J. Bland-Sutton), 358; annual address, 358; officers and council for 1905, 358; examination for midwives, 506; enyluria complicating pregnancy (J. C. Holdich Leicester), 599; pregnancy in rudimentary uterine cornu (A. H. N. Lewers), 599; "grape-like" sarcoma of the cervix uteri (Herbert Williamson), 599; inaugural address: on present teaching of practical midwifery in England (W. R. Dakin), 577; the corpus luteum (Cuthbert Lockyer), 826; hysterectomy for concealed accidental hæmorrhage (J. H. Targett), 826; calcified tumour in Douglass's pouch (A. H. N. Lewers), 826; uterine fibroid in a patient aged 20 (Russell Andrews), 826; mortality in childbed (Robert Boxall), 1093; repeated tubal pregnancy (C. E. Purslow), 1094; acute general gonococcic peritonitis (A. G. R. Foulerton), 1094; puerperal eclampsia (J. C. Holdich Leicester), 1332; repeated tubal pregnancy (Alban Doran), 1332; thyroid-like structure in ovarian cysts (R. Hamilton Bell), 1332; deformed fetus (Charles Singer), 1332; ruptured interstitial pregnancy (Russell Andrews), 1332; primary carcinoma of both Fallopian tubes (Dr. Cullingworth), 1332
——— of London, certificates required by, 280
——— Obstetrical and Gynæcological, Glasgow, 96, 600; treatment of prolapse of the uterus (W. L. Reid), 76; discussion on treatment of chronic endometritis (Dr. Oliphant), 600; Transactions of, rev., 1385
——— Obstetrical and Gynæcological, North of England, 356, 539, 657, 886, 1273; annual general meeting, 356; election of officers, 356; meeting and exhibition of cases, 539, 657; removal of cancerous cervix by the abdominal route, with pelvic dissection (Arthur J. Wallace), 886
——— Ophthalmological, of the United Kingdom, 250, 478, 601, 1046, 1332; malignant disease of conjunctiva (Freeland Fergus), 250; quinine in the treatment of corneal ulcers (Arnold Lawson), 250; notation of prisms (Claud Worth), 250; detachment of retina (D. J. Wood), 250; exostosis of the orbit (Edgar Stevenson), 478; neuro-fibroma of the eyeball and its appendages (E Treacher Collins and Rayner D. Batten), 478; treatment of tobacco amblyopia (Mr. Wray), 478; meeting and exhibition of cases, 601; congenital corneal injury (Leslie Buchanan), 1046; myopic conus (Leslie Buchanan), 1046; the papillary membrane (Arthur L. Ballantyne), 1046; pulsating exophthalmos (S. Johnson Taylor), 1046; cribriform choroido-retinitis (R. W. Doyne and Sydney Stephenson), 1331; optic neuritis (Leslie Paton), 1331; ring sarcoma (L. Werner), 1331; visual efficiency (G. A. Berry), 1332
——— Otological, of the United Kingdom, 416; President's address, 416; restoration of hearing after removal of drum and ossicles (Charles Heath), 417; labyrinthine suppuration (Dr. Milligan), 417; cases and specimens, 417
——— Pathological, of London, 136, 308, 415, 538, 658, 775, 884, 1046, 1092; the occurrence of bacillus enteritidis Gaertner in cow's milk (E. Klein), 136; use of acid media in the isolation of the plague bacillus (W. C. C. Pakes and F. H. Joseph), 136; fugue, a new stain (F. H. Joseph), 136; origin and course of the opsonins in acute pneumonia (G. G. Macdonald), 136; variations in the opsonic index

in cases of tuberculosis (W. Bulloch), 136; laboratory meeting, 368; blood glands as pathogenic factors in production of diabetes and obesity (Arnold Lorand), 415; leucocythaemia with change of type from splenomedullary to lymphatic (C. H. Melland), 415; recent work on proteid chemistry and proteid diet (W. D. Halliburton), 538; laboratory meeting, 658; subacute atrophy of liver (S. G. Scott), 775; a prehistoric vesical calculus (S. G. Shattock), 775; imperforate ileo-colic valve (J. Catto), 775; carcinoma of the left adrenal (C. E. Adams), 775; osteoplastic carcinoma in bone (F. H. Thiele), 775; obliterative arteritis (E. Michels and Parkes Weber), 775; influenzal endocarditis (T. G. Horder), 884; gonorrhoeal endocarditis (T. G. Horder), 884; vitality of the typhoid bacillus in shellfish (E. Klein), 885; laboratory meeting, 1046; myasthenia gravis (E. Farquhar Buzzard), 1092; resemblance between the "cancer body" and certain normal constituents of the cells of gametogenic tissues (C. Walker), 1092; morbid growth from Angora ewe (W. de Korté), 1092; true hermaphroditism in the fowl (S. G. Shattock and C. G. Seligmann), 1102

Society, Pathological, of Manchester, cysts of the brain (E. F. Trevelyan), 657; fluid from a case of pleural exudation (Thomas Harris), 657; two cases of acromegaly (J. F. Hodgson), 657; macerated fetus retained in abdomen nearly four years (Dr. Donald), 1097

——— Pathological and Clinical, Glasgow, 191, 657, 826; removal of pharynx for epithelioma (T. K. Dalziel and Walker Downie), 191; multiple carcinoma of intestine (John H. Teacher and G. Burnside Buchanan), 191; enlarged infantile hernia (D. N. Knox), 191; uterine myoma (J. K. Kelly), 191; patency of interventricular septum (Dr. Napier and Dr. John Anderson), 191; tuberculous meningitis in adult (Dr. Napier and Dr. John Anderson), 191; specimen of tumour of arm (J. Graut Andrew), 657; two cases illustrating persistence of branchial clefts (J. Walker Downie), 657; otomycosis (J. Kerr Love), 658; specimens of lympho-sarcoma of neck (A. E. Maylard and John Anderson) 658; case of human anthrax (John H. Teacher), 658; meeting and discussion, 826

——— Pathological, of Vienna, the transmission of syphilis to non-anthropoid monkeys, 508

——— the Peace, conference at Manchester, 150

——— Pharmaceutical, of Great Britain, proposed introduction of the Pharmacy Acts Amendment Bill into the House of Commons, 103; annual dinner, 1169

——— of Psychical Research, address by Professor Charles Richet, note on, 622

——— for the Relief of Chest Diseases, Austro-Hungarian, opening of a sanatorium by, 273

——— for the Relief of Widows and Orphans of Medical Men, quarterly court of directors, 149, 892; annual general meeting, 1279

——— Royal, conversazione, 1166

——— Royal, of Edinburgh, meeting, 93, 1352; presentation of Makdougall Brisbane prize, 93; presentation of Neill prize, 93

——— Royal Life Saving, note on, 606

——— Royal Medical, of Edinburgh, annual dinner, 265, 436

——— Benevolent, annual meeting of Belfast and County Antrim Branch, 1117

——— Royal Medical and Chirurgical, 76, 187, 356, 474, 566, 720, 825, 1005, 1043, 1155, 1273; skiagraphy of the lungs and pleura (D. Lawson), 76; centenary of, date of celebration, 90, 1111; oophorectomy for mammary cancer (Hugh Lett), 187; influence of stigmata of degeneration on the prognosis of epilepsy (W. A. Turner), 356; congenital defect of abdominal wall and of the genito-urinary apparatus (A. E. Garrod and Dr. Wynne-Davies), 356; discussion on the prospects and vicissitudes of appendicitis after operation (Sir Frederick Treves), 474, 535, 595; annual meeting and report, 536; ankylostomiasis as affecting miners (Thomas Oliver), 720; new method of jejunostomy (Mayo Robson), 825; cholecystotomy for calculi in the common duct (Mayo Robson), 825; case of "splenomegalic" or "myelopathic" polycythaemia with true plethora and arterial hypertonia without cyanosis (F. Parkes Weber), 1043; centenary celebration, 1155; abdominal tuberculosis in childhood (W. P. S. Branson), 1273; phenylhydrazin reaction (P. J. Cammidge), 1273

——— Royal Meteorological, exhibition of dummy as a lightning stroke man, 606

——— Russian Red Cross, 1120

——— Seamen's Hospital, unveiling a new tablet over the Trinity House bed, 355

——— Surgical, International, date of meeting, 1169

——— for the Study of Disease in Children, meeting and exhibition of cases, 251, 538, 777, 944, 1095

Society, Therapeutical, 21, 194, 538, 827; some clinical observations on new remedies (Dr. Tirard), 21, 194; action of alcohol on the heart (W. E. Dixon), 538; some points in the actions and uses of bismuth salts (H. A. Caley), 538; aspirin and mesotan (G. Burnet), 827

——— of Tropical Medicine, American, second annual meeting, 892

——— Tuberculosis, International, annual meeting, 836

Sodium perborate, note on, 42, 310

——— salts of the coumaric acids as therapeutic agents (Gilbert T. Morgan), 1143

Soldier and his teeth, 732

Solicitor's views on charitable medical evidence, 571

Solimann, Torald, Textbook of Materia Medica, rev., 24

Somaliland, medal for, 976

Sommerville, D., teaching of hygiene in schools, 1124

Somerville, W. F., scrofulous ulcers of the legs successfully treated by high-frequency currents, 744

Sommerfeld, Th., Der Gewerbearzt, rev., 658

Sonnenburg, Edouard, Pathologie und Therapie der Perityphlitis (appendicitis), rev., 1384

Sore throat, acute septic, 516

——— throats, epidemic, traced to infected milk, 1165

South Africa, civilian surgeons in, 845

——— "colour honours" for and the R.A.M.C., 31; future of medicine in, 612

——— contract practice in, 1111

——— for early cases of phthisis, 1188

——— medical practice in, 1229, 1232; Cape Colony, 1229; Natal, 1231; Orange River Colony, 1231; Transvaal, 1232; Rhodesia, 1232

——— plague in, 101, 217, 311, 425, 558, 680, 779, 965, 1118, 1281, 1400

——— African mines, mortality in, 435

——— America, plague in, 1110

——— Wales, special correspondence from, 218, 275, 386, 446, 510, 568, 623, 692, 744, 798, 855, 913, 1067, 1123, 1179, 1298, 1357, 1403; infectious diseases in, 218, 330; proposed legislation, 218; a proposed new urban council, 218; University of, of Wales, Guild of Graduates, 218, 275; meeting of council, 510; note on, 623, 1180; county council inquiry at Treharris, 275; honour to Sir W. T. Lewis, 275, 623; opening of the electrical pavilion at Cardiff Infirmary, 275; Sanitary Inspectors' Association, eighth annual meeting, 275; first meeting of session, 1180; inspection of schools, 330; School of Hygiene, 330, 745; water of the Wye, 330; instruction in midwifery, 386; Barry medical officer's report, 386; measles at Merthyr, 386; at Newport (Mon.), 1067; Cardiff Infirmary, annual report, 386; gift to, 447; meeting of governors, 568, 692, 913, 1123; number of patients, 1067; health of Newcastle Emlyn district, 446; Abertillery urban district water, 447; national museum for Wales, 447, 623, 692, 1357; Tenby medical officer's report, 447; sewerage schemes, 510, 745; death of Dr. T. R. Hamlen-Williams, 510; cancer at Swansea, 510; Aberystwith College, 510, 793; underfed school children, 510, 692, 1357; temperance teaching in schools, 510; Midwives Act 1902, 510; Swansea Hospital finances, 568, 692; health of Llandaff, 568; Rhymney Urban District Council, 568; Cardiff's new mortuary, 568; Glamorgan Education and Sanitary Committees, 568; health of Monmouth, 623; sewer ventilation at Newport, 623; rainfall, 623; presentation at Garnant, 623; Welsh University College, 692; the National Museum and Library, 692, 744, 852, 1357; Brentry Inebriate Reformatory, 692; West Wales Sanatorium for Consumptives, 692; small pox at Cardiff, 692, 745, 799, 853, 1123, 1357; infantile mortality, 692; school hygiene, 745; proposed presentation to Sir Isambard Owen, 745; Mynyddislwyn sewerage scheme, 745; midwifery scholarships, 745; Cardiff Port Sanitary Authority, 745, 1179; the Cray reservoir, 745; Clydach Vale colliery explosion, 745; Pontypridd Education Committee, 798; health of Caerphilly, 798; Mr. T. Raymond's new appointment, 798; Llanelly Hospital, bequest to, 798; Swansea Port Sanitary Authority, annual report, 798; Llantrissant and Llanwit Fardre District Council, annual report, 798; gifts to Cardiff Museum, 799; Aberporth water supply, 799; Chepstow Board of Guardians, 853; West Wales sanatorium, 913; Swansea Asylum scheme, 913; Swansea birth-rate, 913; St. Mellon's Council, 913; Jubilee Nurses' Institute, Cardiff and District Branch, 913; water supply of Lamphey, Pembrokeshire, 914; Cardiff and vestry powers, 914; annual report for Merthyr, 1067; health of Llantarnam, 1068; Porthcawl Meteorological Station, 1068; University College, Cardiff, 1068; Llandrindod Wells Water Bill, 1068, 1180; Caerphilly Council, 1068; health of Llandaff, 1068; Barry diphtheria outbreak, 1068; enteric fever outbreak near Cardiff, 1068; Prince of Wales's visit to Cardiff, 1123; Aberavon housing, 1123; Swansea town refuse, 1123; health of Gelligaer, 1123; enteric fever at Neath, 1123; bubonic plague, 1179; University of Wales Court, 1180; Barry District Nursing Association, annual report, 1180; housing at Tredegar, 1180; midwives' charges at Newport, 1298; enteric outbreak at Bridgend, 1298, 1358, 1403; technical education in, 1357; Caerleon District Council, 1357; Merthyr Council and the housing problem, 1357; measles at Rhymney, 1357; Glamorgan water supply, 1358; Cardiff health report, 1403; relief of school children, 1403

Southam, Mr., case of pyloric obstruction due to fibrous stenosis, 943

Soya flour, 1312

Spain, clinical teaching in, 264; honours to Scottish practitioners in, 437; hygiene of churches in, 486; new minister of public instruction, 1112; prevention of consumption in, 1346

——— medical practice in, 1211; education and qualifications, 1211; rights and duties of practitioners, 1211; public medical services, 1212; professional earnings, 1212; the profession and the service of justice, 1212; unqualified practice, 1212; contract medical practice, 1212; protection of professional interests, 1213; social position, 1213; doctors in politics, 1213; statistics, 1213

Spanish municipality and its medical officer; 605

Spauton, W. D., ergophobia, 300

Sparklet syphons, 483

Specialist and his professional brethren, a, 1022

Spemann's Historicher-Medicinal Kalendar, 1905, rev., 24

Spencer, W. G., cystic adenoma of left kidney, 249; recovery from infantile paralysis of the deltoid, 249; abnormality of left testis, 991

Spermatic cord, recurring torsion of (Mr. Dowden), 305, 912

Spilsbury, B. H., lobar pneumonia during enteric fever, 1093

Spina bifida and hydrocephalus complicating breech presentation (F. M. Bingham), 472

Spinal meningitis, traumatic (M. B. Pinchard), 823

Spirilla in blood simulating malarial fever (G. Browse), 532

Spirillum fever. See Fever

Spirochaete in syphilis (E. J. McWeeney), 1262; M. Levaditi, 1296

——— in syphilitic lesions, a new, 1161

Spitting nuisance, the, 265, 462, 780, 870

Spleen, rupture of, case of, 5

——— wandering, forming pelvic tumour (Frank E. Taylor), 358

Splints, plaster-of-paris (W. I. de C. Wheeler), 620

Sponge, a surgical, 1099

Spontaneous evolution, case of (Ernest A. Cox), 1381

Squire, J. Edward, sanatorium treatment of phthisis: is it worth while? 448

Stalkartt, W. H. S., opening of supratonsillar and peritonsillar abscesses, 882; erythema scarlatiniforme and gonorrhoea, 1381

Standardizing of disinfectants, 1180

Stanley, Douglas, case of Raynaud's disease and rheumatoid arthritis, 304; case of syphilis of the lungs, 533; case of syphilitic ophthalmoplegia, 534; case of adiposis dolorosa, 824; intrathoracic growth, 1042

Staphylococcus vaccine in dermatological therapeutics, 854

Statham, J. C. B., clinical methods of enumerating leucocytes, 914

Stelwagon, Henry W., Treatise on Diseases of the Skin for the Use of Advanced Students and Practitioners, rev., 310

Stenosis of duodenum, congenital (Willoughby Gardner) 824

——— soft valve mitral, without audible murmur (W. Ewart), 357

——— of ureter (Douglas Drew), 720

Stephens, G. Arbour, green milk, 247

——— J. W. W., The Practical Study of Malaria and Other Blood Parasites, rev., 1150

Stephenson, Sydney, cribriform choroido-retinitis, 1331

Sterilization by x rays, 550

——— of the hands, 727; of imbeciles, 986

Stewart, A. Francis, poisoning in Scotland before 1625, 1120

Stevens, A. A., A Manual of the Practice of Medicine prepared especially for Students, rev., 79

——— George, prescribing and dispensing in medical practice, 1126

——— Mitchell, difficulties met with in the diagnosis of malignant disease of the liver, 21; case of cancerous disease of the stomach, 928

Stevenson, Edgar, exostosis of the orbit, 478
——— Robert Louis, note on, 622
Steward, F. J., hydronephrosis due to movable kidney, 884
Stewart, G. C., hernia of the umbilical cord, 247
——— Isla (part author), Practical Nursing, rev., 779
——— Purves, narcolepsy and hysterical blindness, 476
——— Robert William Glennan, awarded Gilbert Blane medal, 632
Stockport, water supply of, 283; Union, lunacy cases in, 339
Stoddart, W. H. B., recognition and treatment of mental disorders in private practice, 1333
Stoeltzner, Wilhelm, note on, 140
Stoker, George, an Army Medical Reserve, 47
——— Sir Thornley, cleft palate, 1274, 1373
Stokes, H. H., calcium chloride in haemorrhage, 183
Stokoe, Edith S., professional training a century ago, 1119
Stomach, cancer of (W. Mitchell Stevens), 928; operations for, 261
——— chronic ulcer of, with perforation (Dr. Short), 364
——— examination of by x rays and tube filled with subnitrate of bismuth (Norman Dalton and A. D. Reid), 720
——— functions, chemical diagnosis of, 1330
——— hour glass, contraction of: gas-enterostomosis antecolica inferior (Edward Harrison), 473
——— operative interference in diseases of the, 43
——— surgical treatment of ulcer of, and of its complications (B. G. A. Moynihan) 753
Stone, very large, suprapubic lithotomy, recovery (C. R. Pike), 20
Storar, W. M., method in drug prescribing, 824
Straaten, J. L. Van der, obituary notice of, 1303
Strachan, Henry, alleged negro immunity to malaria, 625
Straits Settlements, medical practice in, 1240
Strapping and rubber plasters, irritation produced by, note on, 111
Stratton St. Margarets, sewage scheme for, 1291
Street accidents in London, 898
Streptococcal pachymeningitis (Sir Dyce Duckworth and C. M. Hinds Howell), 721
Strickland, Major, progressive muscular atrophy, 717
Strike, an ancient, 433
Strychnine poisoning in a child, acute (John R. Pooler), 767, 915; note on, 864, 1024
——— and mercury poisoning, 617
Stuart, Hackworth, treatment of defective sense organs in elementary school children, 914
Students, training of, to be general practitioners, 103
Stuttgart, cancer statistics in, 1159
Style in medical writings, 1341
Styptol, note on, 311
Styracol, note on, 311
Subdural abscess. See Abscess
Substitute, the duties of a, 105, 280, 393, 695
Sugar, place of, in the dietary of health and disease (William Ewart), 187
Sugden, E. Scott, fatal case of acute mercurial poisoning, 767
Suicide, imitative, 203
Sullivan, Dr. (Kingston, Canada), resignation of, 437
Sulphuretted hydrogen waters, 916
Supersession, the ethics of, 49, 105, 165, 393, 1368, 1395, 1469
SUPPLEMENT to the BRITISH MEDICAL JOURNAL, notes on, 27, 202, 264, 371, 430, 494, 549, 614, 673, 787, 845, 1004, 1058, 1112, 1164, 1290, 1343
Supply of appliances, 975
Surface marking of the chest (J. L. Rentoul), 124; note on (R. W. Lefwich), 472
Surgeon-in-Chief of the Grande Armée, 37
"Surgeon Dentist" (Limited), injunction against a, 436
Surgeon's widow, a, 636
Surgeons in the Royal Navy, 1171
Surgery at a public-house, 571
Surgery, abdominal, a surprise in, 89
——— of the alimentary canal, paper on (John Campbell), 304
——— of gastric tumours, 261
——— Japanese, military, 444
——— modern, 1312
——— nitrous oxide in the practice of (Frank Elvy), 16
——— notices, 1022
——— of pancreatic tumours, 955
——— in Paris, 1241
——— orchestral, cases of (reported by E. Deanesly), 654
Surgical aspects of biliary calculi (E. Stanmore Bishop), 317
——— Anatomy, textbooks in, 1412
——— bag, a new, 662
——— operations, the exhibition of, 86
——— sponge, 1099
——— technique, some minor points of (Edward Dennesly), 1271
Surgical treatment of ulcer of stomach and its complications (B. G. A. Moynihan) 753
——— tuberculosis, fresh air treatment of, 491
Suspended respiration under chloroform (H. Norman Barnett), 1, 81
Sussex, East, and the Midwives Act, 506, 565, 1118
——— West, and the Midwives Act, 1118
Sutcliffe, W. Greenwood, surgical anatomy and operative treatment of tuberculous glands of neck, 1031
Sutherland, G. A., lobar pneumonia in children, 479
Suttoe, W., Christian Science, 1360
Suturing with a hypodermic needle, 808
Swaffield, Walker, teaching of practical midwifery, 746
Swansea, cancer at, 515; report of port sanitary authority, 798; asylum scheme, 913; birth-rate, 913; town refuse, 1123
Sweating and flushing on eating, localized (Parkes Weber), 249
Swizerland, medical students in, 256
Sydenham, Dr., case of sarcoma of cranial bones, 304
Sydney, special correspondence from, 447, 1122, 1401; bubonic plague in, 447, 1122, 1401; decrease in the death-rate 447; a new Coroners Act, 447; women doctors and the general hospitals, 447; the new Dental Hospital, 447; vital statistics of the metropolis for 1904, 1122; health of school children, 1122; additions to Gladesville Asylum, 1122; preservatives in foods, 1401; vital statistics, 1401; Queen Victoria Homes for Consumptives, 1401; Hospital Saturday, 1401
Sykes, William, negro immunity from malaria and yellow fever, 389; Percival Pott on Mrs. Mapp, the bonesetter, and on bonesetters generally, 1361
Symington, Professor J., appointed examiner for Indian Medical Service, 783
Symonds, C., ununited fracture of tibia and fibula, 951
Symphysiotomy, first proposed, 890
——— with vesical calculus, case of (H. T. Palmer), 18
Synovitis, tuberculous, treated by Roentgen rays (Alex Gregor), 184
Syphilis, the etiology of, 84
——— hereditary, case of (Mr. Lucas), 533; prophylaxis of (Professor Finard), 1288
——— of the lungs, case of (Douglas Stanley), 533
——— microbiological research on (Roux and Metchnikoff), 1173
——— prevalence and prevention of, 97; a correction, 327
——— or scabies, 1289
——— significance of scars of the genital region in the retrospective diagnosis of (Arthur Cooper), 130
——— spirochaetae in (E. J. McWeeney), 1262; M. Levaditi, 1256
——— tertiary, note on, 340
——— transmission of to non-anthropoid monkeys, 506
——— at the Cape, 228
Syphilitic destruction of nose treated by plastic operation (James Berry), 1273
——— general paralysis (Professor Fournier), 566
——— lesions, a new spirochaete in, 1161
——— ophthalmoplegia, case of (Douglas Stanley), 534
——— necrosis of skull, case of (J. Hutchinson, jun.), 249
——— nephritis, case of (Dr. Emanuel) 533

T.

Tabes, the pains of (Sir William R. Gowers), 1
Takamine, Dr., and the Mikado, 1101
Talbot, Eustace, death of, 1243; obituary notice of, 1362
Tallerman Institute, notice of change of address, 1390
Talma-Morison operation for ascites, 915
Tandan, K. K., surgical treatment of hydrocele of tunica vaginalis, 882
Targett, J. H., hysterectomy for concealed accidental haemorrhage, 826
Tarnier, Professor, unveiling of monument to, 1315
Taste, inversion of, 516
Taube, Frl. Hedwig Elise, first woman M.D. of Berlin, 1174
Taylor, Albert, the Sanitary Inspector's Handbook, rev., 1150
——— F., milky ascites in which the opalescence was not due to fat, 1273
——— Frank E., case of wandering spleen forming pelvic tumour, 353
——— Frederick, A Manual of the Practice of Medicine, rev., 73
——— George Stamp, obituary notice of, 1250
——— James, myasthenia gravis, 517
——— Robert W., Practical Treatise on Genito-urinary and Venereal Diseases and Syphilis, rev., 828
Taylor, Seymour, acromegaly in a woman of 25, 885
——— S. Johnson, case of pulsating exophthalmos, 1646
——— W. H., case of trypanosomiasis, 248
Taylor's Principles and Practice of Medical Jurisprudence, rev., 1647
Tea as medicine, 883
Teacher, John H., case of multiple carcinoma of intestine, 191
Teaching in London, preliminary and scientific, 450
Tee Han Kee, Chinese medicine, 1121
Teeth of school children, 456
Telegony, note on, 890
Telephotography and tuberculosis, 1055
Temperament, 1132
Temperance and hygiene, teaching of in schools, conference on, 735
——— League, the National, alcohol and commercial efficiency, 565
Temperatures, normal, 1112
Tenby, report of medical officer of health, 447
Teneriffe, climate of, 456
Terrien, F., Syphilis del Oeil et de ses Annexes, rev., 156; scopolamine as a general anaesthetic in surgery 415
Terrier, M., on the use of scopolamine, 863
Test tube for pouring, a convenient, 483
Tetaniform convulsions (A. Fellis and W. C. Bentall), 1330
Tetanus successfully treated with antitoxin (W. S. Campbell), 183; with antitetanus serum (James Miller), 1109
——— neonatorum in Cuba, 1343
Tetany and gastric dilatation (Andrew Trimble) 895, 955
Thackeray, Frederick, note on Astley Cooper, 437
Thalamus, on the (Gustav Mann), 289
Thames, damming the, 854
——— estuary, sanitation of, 1245
Thermal death point of micro-organisms, 455
Thibet mission, medal for the, 392, 949
Thiele, F. H., osteoplastic carcinoma in bone, 1735
Thiersch grafting from the rabbit (Lachlan Fraser), 534
Thimm, Captain A., Dutch Self-taught, with Phonetic Pronunciation, Vocabularies, Grammar Idiomatic Phrases, etc., rev., 420
Thomas, H. Wolferstan, some experiments in the treatment of trypanosomiasis, 1140
——— J. Lyon, remarks on complete prostatectomy founded on fifteen cases 1083
——— L. Kirkby, the corneal reflex in anaesthesia, 880
——— R. Stanley, case of malignant pustule, 13
——— William, note on patellar flexion dislocation, 834
Thompson, W. H., renal activity during anaesthesia, 649
——— W. J., poisoning by carbon monoxide, 943
Thomsen's disease, four cases of (Dr. Dreschfeld), 913
Thomson, Alexis, extroversion of the bladder, 1044
——— D. G. Pearce, obituary notice of, 225
——— Eric M., obituary notice of, 167
——— H. Byslop, treatment of haemoptysis, 103, 694
——— J. S. (Major), factors in plague immunity, 727
——— Robert Stevenson, obituary notice of, 452
——— St. Clair, treatment of postnasal adenoids, 272, 624; opening of peritonsillar abscesses, 645
——— Sir William, operative methods, new and old, in tuberculosis of the knee joint, 62, 389; Irish dispensary doctors, a serious indiscretion, 447
Thoracic duct, spread of cancer by (Nathan Raw, 1380
Thornton, John, Elementary Practical Physiology, rev., 360
Thorowgood, John C., exercise and open-air treatment of phthisis, 1190
Throat, acute septic sore, 516
"Throw Physic to the Dogs," 752
Thurnam, Rowland, results of four years' sanatorium work in the treatment of phthisis, 65
Thyroid, accessory (E. P. Pato), 257
Thyroid-like structures in ovarian cysts (R. Hamilton Bell), 1332
Thyrotomy for endolaryngeal cancer (W. M. Killen), 825
Tibia, oblique fracture of (Edward H. Bennet), 1735
Tichborne, Charles Robert Clarke, obituary notice of, 1625
Tick bite, paralysis following (Chas. J. Hill Aitken), 412
——— fever (human), mode of infection in, 280
Tidswell, H. H., medical inspection of elementary schools, 47
Tirard, Dr., clinical observations on some new remedies, 21, 194

Title, a new, 52
Tobacco amblyopia, 33; (Mr. Wray), 478
Todmorden, its water scheme and its cost, 744
Toldt, Carl, An Atlas of Human Anatomy, rev., 1553
Tomlinson, Lieutenant-Colonel Edward Denham, obituary notice of, 573
Tongue, cancer of (leading article), 313
——— removal or contents of anterior triangle of neck in malignant disease of (Henry T. Butlin), 285
——— tie, 1207
Torsion of the spermatic cord, recurring (Mr. Dowden), 305
——— of the uterus, axial, 314
Totland, sanitary state of, 1292
Touting for practice, 859, 1141
Trachoma in Italy, 1018
——— and venereal diseases, prize essay on, 1297
Trade winds, note on, 284
Traill, A., elected honorary Fellow, Royal College of Physicians of Ireland, 1061
Training ship, a new Poor-law, 948
Tramps at workhouse, medical inspection of, 1309
Transfusion apparatus, a, 25
Transillumination of the antrum of Highmore (A. Brown Kelly), 650
Transvaal burgher camps, note on, 613
——— medical practice in, 1232
Transverse presentation, spontaneous evolution of a (A. Fells and W. C. Bentall), 75
Traumatic defects of the skull, closure of (Charles Leedham-Green), 819
——— hysteria, 1355
——— spinal meningitis (M. B. Pinchard), 823
Traumatism and tubercle, relationship between, 445
Trematode, a new, 11 (leading article on), 27
Treves, Sir Frederick, prospects and vicissitudes of appendicitis after operation, 457, 474, 535, 595; invested with the insignia of a Knight Grand Cross of the Royal Victorian Order, 549; awarded Fothergillian Prize of Medical Society of London, 732
Tribe, R. H., recurrent vomiting in children, 347
Trichromic vision, 787
Trimble, Andrew, tetany and gastric dilatation, 825, 986
Trinidad, medical expenditure in, 110; prevention of consumption in, 849; climate of, 1187
Triplets, 1381
Triumphant antivaccination, 370
Tropical diseases, exhibition of, 606
——— Medicine, American Society of, second annual meeting, 892
——— Liverpool School of, return of the Thirteenth Expedition: progress of sanitation on the West Coast, 272; note on, 330; appointment of lecturer in economic entomology and parasitology, 606; report on expedition to Sierra Leone, 728; appointment of an entomologist as lecturer, 744; expedition to Amazon River, 902
——— London School of, pass list, 109, 973; appointments to new chairs of helminthology and protozoology at, 204; festival banquet, 731, 957, 1064; leading article on, 1105
——— aims of, 1105
——— progress of (Ronald Ross), 156
——— University of London and, 614
——— wear, a fabric for, 25
Trousseau, two autograph letters of, 794
Troutbeck, Mr., and medical witnesses, 223, 859; as coroner, 1364
Trudeau, E., Studies from the Saranac Laboratory for the Study of Tuberculosis, rev., 308
Truman, Charles Edwin, appointed dentist to the King's household, 1050
Trypanosomiasis in a European, note on a new case of, 39
——— case of (W. I. Taylor and John Currie), 248
——— experiments in the treatment of (E. Wolferstan Thomas), 1140
——— in dromedaries, 900
——— human, 1165
Tubal pregnancy, the possibilities of, 320; reported (Alban Doran), 1332
Tubby, A. H., muscle grafting for paralysis of left upper extremity, 476; Metropolitan Convalescent Homes Association, 623
Tubercle, decline of and the increase of cancer, 629
——— and traumatism, relationship between, 445
Tuberculin, note on, 82; as a curative agent, 1392
——— inoculation, treatment of (P. Warren Brown), 1089
Tuberculosis, adaptation and (J. G. Adami), 1133
——— breach of promise and, 976
——— camps, 1389
——— of cerebrum and cerebellum with external pointing of one caseous mass (reported by Charles Mackey), 186
Tuberculosis, channels of infection in, 899
——— in childhood (leading article), 893; W. P. S. Branson, 1273
——— and contagion, 449
——— diazo reaction in (Charles W. Budden), 684
——— evolution in (Professor Leith), 1382
——— genital, in gynaecology, 1106
——— Henry Phipps, institute for, first annual report, 900
——— human and bovine, 34, 1401
——— and the industrial classes, 1012
——— influence of rainy winds, soil, poverty and general death-rate upon in Exeter, 1802-1901 (William Gordon), 62; correspondence on, 103, 221
——— international congress of, programme of next meeting, 43, 1167
——— iodoform infusion in treatment of (Thomas W. Dewar), 65
——— of the kidney, surgical notes on (Howard A. Kelly), 1319
——— of the knee-joint, operative methods—new and old—in (Sir William Thomson), 68; correspondence on, 221, 389
——— and mortality in childhood, 72
——— mouth-breathing as a common antecedent to (W. C. Rivers), 941
——— notification of, 304
——— open-air treatment of and exercise (John C. Thorowgood), 1000; correspondence on, 1358
——— open-air treatment of in Scotland 100 years ago, 960; note on, 1359
——— opsonic index, variations in cases of, 236
——— prevention of, 32, 81, 215, 266, 507, 737, 793, 848, 849, 1119, 1339, 1400; in Australia, 850; in Brazil, 849; in Denmark, 32; in Glasgow, 266, 1173; in Ireland, 848, 904; in Liverpool, 912; in schools, 440, 503; in Spain, 1346; in the United States, 81, 564, 849, 911, 1339, 1400; at Ventnor, 1056; in the West Indies, 849; in Westmorland, 507
——— primary pharyngeal, 752
——— pharyngeal, case of (Arthur G. Wilkins), 1147
——— pulmonary, prognosis of (R. J. M. Buchanan), 886
——— and the Local Government Board for Scotland, 1293
——— question, the, 969
——— raw meat in (Dr. Goodchild), 1148
——— research in Germany, 148, 217
——— sanatorium treatment of, is it worth while? note on, 1073; (W. B. Ransom), 59; (William S. Paget-Tomlinson), 1266; William Robinson, 1268; Alexander Don, 1405; results of four years' work in the treatment of (Rowland Thurnam and Charles E. Wheeler), 65; correspondence on, 161, 222, 390, 448, 512, 569, 800, 916; results of sanatorium treatment of, 261; National Sanatorium for, annual meeting, 1119
——— sanatoriums, municipal and parochial, for, 612
——— South Africa in early cases of, 1188
——— surgical, fresh-air treatment of, 491
——— and telephones, 1055
——— treatment of, modern (T. H. J. E. Hughes), 883
——— and tuberculin inoculation, treatment of (T. Warren Brown), 1089
——— See also Phthisis
Tuberculous cows, danger of milk drawn from, 445
——— disease of the body of the uterus (J. Bland-Sutton), 358
——— glands of neck, surgical anatomy and operative treatment of (W. Greenwood Sutcliffe), 1031; note on, 1188
——— meat, sale of, 26
——— monkey as a pet (F. W. Smith), 472
——— patients, labour union colony for, 845
——— poor in London, care of, 905
——— synovitis treated by Roentgen rays (Alex. Gregor), 184
Tubo-uterine gestation, criminal abortion, death, 835
Tuke, Sir John Batty, elected President Neurological Society of Great Britain and Ireland, 93; treatment of incipient insanity, 501; Reports from the Laboratory of the Royal College of Physicians, Edinburgh, rev., 1385
Tumour, calcified, in Douglas's pouch (A. H. N. Lewers), 826
——— cerebral (Mr. Cholmeley), 1270
——— intracranial, case simulating (T. R. Glynn and E. E. Glynn), 871
——— of the optic nerve, primary intradural (H. Percy Bennett), 1041
——— pelvic, formed by wandering spleen (Frank E. Taylor), 358
——— of sigmoid simulated by interstitial myositis (A. Fells and W. C. Bentall), 75
Tumours, gastric, surgery of, 261
——— pancreatic, surgery of, 955
Tunica vaginalis, surgical treatment of hydrocele of (E. A. Gaynes-Doyle), 154; (R. K. Tandan), 882
Turkey, medical practice in, 1221; medical schools, 1221; medical administration, 1222; Public Health Council, 1222; International Board of Health, 1222; unqualified practice, 1222; professional earnings, 1222; medical associations, 1222
Turnbull, A., late results of amputation of both legs, 1269
Turner, George A., ship beri-beri, 712
——— G. R., Clinical Lectures on Appendicitis, Radical Cure of Inguinal Hernia and Perforating Gastric Ulcer, rev., 1384
——— H. Stanley, Christian Science, 1018, 1249
——— R. T., sloughing of intussusceped gut, spontaneous recovery, 246
——— W., primary sore on eyelid of a child, 476
——— W. A., influence of stigmata of degeneration on the prognosis of epilepsy, 356
Turrell, Dr., case of chloroform poisoning, 656
Turton, Edward, clinical methods of enumerating leucocytes, 410
——— Fletcher, T., on insanitary dwellings and rehousing the dispossessed, 912
Tweedy, John, the Hunterian Oration, 341
Twins, note on, 630
Typhoid bacillus, vitality of in shellfish, 611, 885
——— fever. See Fever, enteric
Typhus fever. See Fever
Typography, ethics of, 1132
Tyson, James, a Treatise on Bright's Disease and Diabetes, rev., 540

U.

Uganda, cases of spirillum fever in (Aubrey D. P. Hodges and Philip H. Ross), 713; note on, 864
Uhlenhuth, Dr., Das Biologische Verfahren zur Erkennung und Unterscheidung von Menschen und Tierblut, rev., 1385
Ulcer, duodenal, perforated (H. S. Clogg), 119
——— of epiglottis (R. S. Peart), 534
——— gastric (Mr. Gunn), 189
——— gastric, perforated, operative treatment of (Alfred A. Young), 250; case of (J. P. Roughton), 533
——— perforated, in a child, aged 7 (John Paton), 413
——— rodent, case of (Mr. Barnes), 304
——— of the stomach, chronic, with perforation (Dr. Short), 304; surgical treatment of (B. G. A. Moynihan) 753
Ulcerative and membranous colitis, value of vermiform appendix in treatment of (J. Hutchinson, jun.), 1039
Ulcers, corneal, quinine in treatment of (Arnold Lawson), 250 (Charles G. Lee), 451
——— scrotulous, of the legs, successfully treated by high-frequency currents (W. F. Somerville), 244
Umbilical cord, hernia of (G. C. Stewart), 247
Uncertified deaths, 1060
Underfed children. See Children
Union cases, quarterly return of visits paid to, 394
Union, Bradford and West Riding Medico-Ethical, and the Association, 1107
——— Medical Defence, annual meeting, 1270
——— Midland Medical, fourth annual meeting, 368; election of officers, 368; annual dinner, 1104
——— South Stoneham, guardians of and their medical officer, 393
United States, prevention of consumption in, 81, 564, 849, 911, 1339; army medical reorganization in, 87; Pennsylvania Health Service, 133; proportions of the sexes in, 140; Government control of vaccine virus in, 146; National Red Cross Society, new charter, 148; mortality among medical practitioners in, 198; note on the Surgeon-General's library at Washington, 216; cancer in, 264; cancer research in, 785; American Public Health Association, thirty-second annual meeting, 319; the higher education of women and race suicide, 319; quacks in, 574, 432, 836; treatment of inebriates in New York, 414, 434; lepers in, 444, 619; expert testimony, 528; New York bureau of health, 633; abolition of the coroner in New York, 666; cerebro-spinal meningitis in New York, 716; anti-cigarette legislation, 724, 780; antivivisection in, 724; drunkenness and marriage in, 733; compulsory vaccination in, 846; regulation of football in, 844; medical legislation in, 862; new pharmacopoeia, 1290; tuberculosis camps in, 1389
Universities of Glasgow and Aberdeen, parliamentary representation of, 140, 265
——— of Scotland, Carnegie trust for, 497; proposed three-term system at, 1387
——— in Russia, note on, 426
University of Aberdeen, 675, 863; Lord Rectorship of, 675; graduation ceremony, 863; pass lists and degrees, 863; award of prizes, 863
——— of Belgrade, note on, 836
——— of Berlin, confers M.D. upon a

woman for the first time, 1104; new Hygienic Institute for, 1122

University of Berne, lady lecturer appointed at, 836

——— of Birmingham, 281; appointments, 281; Sir Thomas Browne, lecture on, 281

——— of Cambridge, 224, 339, 395, 454, 515, 575, 665, 1023, 1074, 1131, 1250, 1306, 1365, 1407; appointments, 224, 515, 1074, 1306, 1407; diploma in tropical medicine and hygiene, 224; pass lists and degrees, 224, 339, 454, 575, 665, 1023, 1131, 1250, 1365, 1407; lectureship in pathology, 339, 665; erratum, 395; representative member of Girton College appointed, 454; compulsory Greek, 515, 575; permission to incept in surgery, 575; appointment of examiners, 1365; Marine Biological Association, 1365

——— of Chicago and pure water, 368

——— Columbia, 310; Reprints of Studies published by Workers in Pathological Department 1903-4, rev., 310

——— of Dublin, constitution of, 1009; women graduates at, 1010, 1060; honorary degrees, 1407

——— of Durham, 144, 339, 913, 974, 1074, 1365; College of Medicine, dinner to past and present students, 144; degrees of doctor in medicine and master in surgery, German versus Greek, 339; appointments of examiners, 339; new wing to College of Medicine, 913; entries for professional examinations, 913; pass lists and degrees, 973, 1074; Medical Graduates' Association, 1365; annual report, 1365; election of officers, 1366; dinner, 1366

——— of Edinburgh, 35, 108, 804, 862, 1011, 1074, 1292, 1365; pass lists and degrees, 108, 804, 862; recent strictures upon, 35; annual report for 1904, 108; numbers of students, 108; number of degrees conferred, 108; Fellowships, etc, 108; development and expansion of the University, 108; the Carnegie foundations, 108; new lectureships, etc., 108; personal changes, 108; benefactions, 108; additions to the library, 108; cataloguing the library, 108; structural changes, 108; miscellaneous, 108; the Lord Rectorship, 804; graduation ceremony, 862; representation in Parliament, 1011; General Council, 1074; announced retirement of Professor A. R. Simpson, 1292; university court, 1365

——— of Glasgow, 454, 804, 958, 1074; honorary degrees, 454, 958; pass lists and degrees, 804, 1074; graduation ceremony, 1074

——— of Ireland, Royal, 109, 339, 847, 1074, 1306; pass lists and degrees, 109, 1074, 1306; appointment of examiner, 339; vacant senatorship of, 847

——— Johns Hopkins, Professor Osler's farewell address, 617; Professor Osler's successor, 902; medical faculty of, 1104

——— of Leeds, 44, 109, 165, 281, 385, 575, 632, 805, 1068; grants by the West Riding Education Committee to, 44; appointment of extern examiners, 109; pathological department, 109; chair of Materia Medica and Therapeutics, 109; the Professorship in Public Health, 165; scholarships for medical students, 165; annual grant from the Education Committee, 281; foundation fund, 282; Mosely Education Commission, 282; court dinner of the, 385; appointments, 575; degrees, 632, 805; ad eundem degrees, 632; honorary degrees, 632; aims of, 1068

——— of Liverpool, 50, 454, 805; Vice-Chancellor's annual report, 50; post-graduate course, 454; generous endowment to the chemical laboratories, 744; pass lists and degrees, 805; Vice-Chancellor's address, 805

——— of London, 50, 109, 165, 281, 339, 395, 454, 510, 614, 632, 751, 862, 917, 973, 1023, 1074, 1131, 1250, 1305; pass lists and degrees, 395, 751, 1305; meeting of Senate, 50, 395, 632, 917; recognition of teachers, 50; regulations for M.D. degree, 50; London School of Tropical Medicine pass list, 109, 973; convocation, 165, 1023, 1074; readjustment of medical classes at King's College, 281; representation in Parliament, 339; chair of Physiology at University College, 395; recognition of graduates of other universities, 395, 917; mutual recognition of certificates by the Universities of Oxford, Cambridge, and London, 395, 917; appointment of Francis Galton Research Scholarship, 395; appointments, 395; King's College, appointment of Lecturer in Public Health, 395; University College, 454; chair of Pharmacology, 454; Holme Professorship, 454; and medical education, 510; and tropical medicine, 614, 632; report of Physiological Laboratory Committee for 1904-05, 632; changes in the regulations for internal and external students in the Faculty of Medicine, 632; appointments, 632, 917; proposed institute of intermediate studies, 727; election of Peter Thompson as Professor of Anatomy, and Arthur Dendy as Professor of Zoology, 751; Faculty of Medicine, 751, 1131; senatorial election, 751; Institute of Medical Sciences, 751, 917; visit of British physicians and surgeons to Paris, 751 (see also Paris); Board of Studies, 751; St. Thomas's Hospital Medical School, award of prizes, 862; recognition of teachers, 917; advanced lectures in physiology, 917; gift to the Institute of Medical Sciences Fund, 917; appointment to the Senate, 917; physiological laboratory, 917; Bedford College for Women, 917; presentation day, 1074; University College, London, Physiological Department, 1074, 1250

University of Manchester, 102, 224, 281, 339, 751, 1185; public health laboratories at, 102; opening of, 281; correspondence on, 334; degrees in dentistry, 224; pass lists and degrees, 339, 751; appointment of examiner, 339; coming of age of the Women's Union, 623; scholarships at Victoria University, 744; matriculation, 1185

——— of Oxford, 224, 281, 339, 395, 515, 632, 862, 1023, 1074, 1131, 1250, 1365, 1427; the reader in pathology, 224; chair of pathology, 281; scholarships in natural science, 281; pass lists and degrees, 339, 1023, 1074; Board of Faculty of Medicine, 395; Beit Professorship of Colonial History, 515; M.B. examinations, 515, 632; scholarships in natural science, 515; Radcliffe travelling Fellowship, 862; department of opthalmology, 1131; examination for degree of M.Ch., 1250; honorary degrees, 1365; natural science scholarships, 1365; examiner in preventive medicine and public health, 1365; degree by decree, 1407; appointment of examiners, 1407

——— of Rostock, appointment reserved for females in, 845

——— of St. Andrews, resolution to confer degrees, 575

——— of Sheffield, 44, 840, 1151, 1246; grants by the West Riding Educational Committee to, 44; note on, 840; description of, 1151; charter approved by the King, 1246

——— of Toronto, proposed Government grant to, 1354

——— of Wales, Guild of Graduates, 218, 275; meeting of council, 510; note on, 623; annual extra-collegiate meeting of court, 1180

Unqualified practice, laws against: in France, 1196; in Germany, 1201; in Austria, 1206; in Hungary, 1208; in Italy, 1210; in Spain, 1212; in Portugal, 1214; in Belgium, 1216; in Holland, 1218; in Denmark, 1220; in Turkey, 1222; in Bulgaria, 1223; in Roumania, 1225; in Canada, 1229; in Cape Colony, 1230; in Australia, 1233

——— practitioners and school authorities, 1307

Urata, Miss Tada, first doctor's degree on woman by University of Marburg conferred upon, 666

Urcter, stenosis of (Douglas Drew), 720; constriction of (K. W. Monsarrat), 1323

Ureteral surgery, cases of (reported by E. Deanesly), 654; polypus (E. Deanesly), 1270

Urcteric bougie (shadowgraph) in the precise surgery of renal calculus (E. Hurry Fenwick), 1325

Uretero-lithotomy for calculus (C. H. Fagge), 249

——— extraperitoneal in a child (H. Betham Robinson), 357

Uric acid theory of gout, reasons for abandoning (Chalmers Watson), 127

Urinary calculus forming round foreign body introduced into the bladder (Tina M. Blaikie), 356

Urine, incontinence of (E. Deanesly), 1270

Urocitral, note on, 81

Urotropine, successful, in two cases of general paralysis (N. F. MacHardy), 185

"Useless" in medicine, 1397

Uterine fibroid, removed from a patient aged 20 (reported by Henry Russell Andrews), 710, 826; and late marriage, 901

——— fibromyomata, abdominal hysterectomy for (F. W. N. Haultain), 477

Uterus, absence of rudimentary condition of (R. H. Paramore), 302

——— axial torsion of the, 314

——— endothelioma of (H. C. Earl and Mr. Maunsell), 189

——— fibromyoma of, treatment of (J. Inglis Parsons), 656

——— fundus, malignant disease of, treated by x rays (Arthur J. Cleveland and Donald D. Day), 925

——— involution of, after labour, 133

——— and ovaries, relation of malignant disease to, 731

——— physiometric (Alfred J. Smith), 477

——— prolapse of, fatal complete (Barbour Simpson), 137

——— treatment of, 76

——— retroversion of (Lachlan Fraser), 534

——— tuberculous disease of the body of (J. Bland-Sutton), 358

V

Vaccinated calves as food, 1248

Vaccination in America, compulsory, 830

Vaccination awards, 1410

——— antiquity of in India, 838

——— certificates of proficiency in, 1409

——— compulsory in California, 916

——— and the conscientious objector, 758

——— exemption from, 674

——— Expenses Committee, report of, 615

——— fees, 555

——— infective (Dr. Cridland), 1271

——— in Gloucestershire, 573

——— inspection of, 862

——— introduction of Bill to amend the law, 555

——— Local Government Board and, 1075

——— lottery, 576

——— marks, 1171, 1247

——— one-mark, 856, 915, 970, 1016, 1070, 1127, 1358

——— and Parliament, 668, 1171

——— protective power of (H. J. Neilson), 769; (W. H. Paine), 1140

——— value of (E. Lynn-Jenkins), 990

——— and the public services, 845

——— pupil teachers and, 495, 846, 1172

——— qualifying certificate in, 1075

——— and small-pox, 146, 573

——— successful, 303, 430, 1050, 1282

Vaccinator, public, alleged neglect by, 594; privileges of, 630; and general practitioners, 1404; an assistant as, 1410

Vaccinators, public, strike of in Vienna, 1297

Vaccine, variola, new stock of, 1166

——— virus, Government control of in America, 146

Vacher, Francis, The Food Inspector's Handbook, rev., 1150

Vaginal cystocele, cure of (Hey Groves), 357

——— hysterectomy in the puerperium for sepsis due to suppuration of myoma, 78

Vaginus uterinus, case of (E. Temple Smith), 247

Vagrants and the spread of small-pox, 1367

Vaillant, Jacques, successful herniotomy in a woman aged 86, 412

Value of a practice, 336, 454, 695

——— of a share, 50, 571

Van de Straaten, J. L., obituary notice of, 1303

"Vanity Fair" cartoons, note on, 546

Variation in its relation to the origin of insanity and allied neuroses, 265, 321

Varicella, an unusual complication of (Carey Coombs), 593

Variola vaccine, new stock of, 1166

Vegetarianism, practical, 844

Venereal disease, medical attendance in, 50; treatment of in the army, 1166; prize essay, on, 1297

Venom, snake. See Snake

Venters, Isabel, case of death under chloroform 821

Ventilation of the House of Commons, 495

——— and child-rearing, leaflets on, 1702

Ventnor, prevention of consumption at, 1066

Veratrin, prosecution for selling ointment containing, 102

Vermiform appendix. See Appendix

Vernon Harcourt inhaler, discussion on, 134

Vesical calculus with symphysiotomy, case of (H. T. Palmer), 18

——— large, case of (W. K. Hatch), 1

Victoria, Princess, operation on for appendicitis, 260

Vienna, antirabic inoculations in, 110

——— special correspondence from, 273, 528, 597, 967, 1297, 1356; opening of a sanatorium by the Austro-Hungarian Society for the Relief of Chest Diseases, 273; the abatement of the dust nuisance, 273; "lungs" for Vienna, 273; influenza, 273; the Pasteur Institute, annual report, 273; transmission of syphilis to non-anthropoid monkeys, 598; street ambulance service, 598; the medical profession and the Government, 598; the breath of consumptives, 599; a total abstinence students' club, 599; statistics for, 597; a new medical society, 597; the Workmen's Act from a medical point of view, 597; cerebro-spinal meningitis in, 967; protest against intrusion of laymen into medical practice, 967; patients' written consent to operations, 967; lead-poisoning from water-pipes, 1297; strike of public vaccinators, 1297; new cancer committee in Vienna, 1297; prize essays on trachoma and venereal diseases, 1297; cure of cretinism, 1356; a State Institute for the manufacture of serum, 1356; a new pharmacological institute, 1356; health statistics, 1356

Vincent, Ralph, proportion of fat in condensed milk when diluted, 916

Virchow, statue of, 1401

Viscera, transposition of (Dr. Short), 304

Visceroptosis, its symptoms and treatment (Hugh A. McCallum), 345; note on, 456

Visual efficiency (G. A. Berry), 1131

Vital statistics for England and Wales 1904, 1

——— presentation of, 304

Vivisection, question on, in the House, 495, 674, 733, 903, 1113
Vocal mechanism, commonly overlooked factors in (Major R. F. E. Austin), 647
Voice, pathogenesis and prevention of loss of, in singers (Robson Horne), 648
Volunteer Ambulance School of Instruction, 1023, 1184
——— Challenge Shield, 1184, 1282, 1282
——— Corps, the Manchester, opening of new head quarters, 106
——— Force, the future of the, 29
——— Medical Association, annual dinner, 859
——— medical units, training of, 1003, 1073
——— officer, note on resignation of, 630
——— training in April, 107
Volunteers, Royal Army Medical Corps, London Companies, distribution of prizes, 455; and South African honours, 710
——— encouraging the, 1205
——— Royal Engineers, First London, 694
——— uniform of regimental medical officers, 1408
Vomiting in infants (Dr. Ashby), 775
——— petechial rash of (Charles Gaskell Higginson), 354
——— recurrent, in children (H. Batty Shaw and R. H. Tribe), 347; (Frederick Langmead) 350
Von Basch. See Basch
Voyage d'Études Médicales 948

W

Waldeyer, Professor, the neuron doctrine, 1385
Walker, C., resemblance between the "cancer body" and certain normal constituents of the cells of gametogenic tissue, 1092; nature of malignant growths, 1277
——— Jane, treatment of pulmonary tuberculosis, 479
——— J. P., hospital abuse and its remedies 1406
——— Norman, An Introduction to Dermatology, rev., 310
——— T. J., acute ascending paralysis in cases of chronic cystitis, 134
Wallace, Arthur J., on removal of the cancerous cervix by the abdominal route, 886
Wallis, C. Edward, dental caries, 559
——— F. C., cause and treatment of pruritus ani, 1229
——— Kenneth Serjeant, death of, 1073
Walsh, Surgeon-Major-General Thomas, obituary notice of, 391, 631
Walsham's Handbook of Surgical Pathology, rev., 602
Walters, F. Rufenacht, sanatorium treatment of phthisis: is it worth while? 440
War, hospital ships for, 83
——— Office Wisdom, 864
Warfare, modern, the doctor in, 1031
Warner, Edward Henry, obituary notice of, 972
——— Percy, After twenty years, 526
Warning, a, 1412
Warrington, W. B., compression paraplegia, 307
Warts, sessile, treatment of, 516, 576, 608
Warwickshire and the Midwives Act, 1118
Washington, Surgeon-General's library at, note on, 216
Wasted clinical material, 786
Water pipes, lead poisoning by, 1237
——— supply of Aberporth, 791
——— of Abertillery Urban District, 447
——— of Cork, 1051
——— in rural Essex, 974
——— of Glamorgan 1355
——— of Lamphey, Pembrokeshire, 913
——— of Lewis, 1113
——— of Manchester, 44
——— for Manila, 817
——— of the Riviera, 451
——— of Stockport, 283
——— of Woolacombe, 1339
Watercress, dangers of, 784
Waters, A. C. S., The A. B. C. Instrument Check Book, rev., 254
——— A. T. H. (of Liverpool), jubilee of, 600
Waterston, David (editor), Edinburgh stereoscopic Atlas of Anatomy, rev., 778
Watson, Chalmers, reasons for abandoning the uric-acid theory of gout, 127
Watts, Jas. A., successful herniotomy in a man of 85, 183
Weatherhead, E., case of thrombosis of deep cerebral brains, 1091
Weatherill memorial at Leeds 1068
Webb, Law, detection of carbon monoxide in the blood, 1332
Weber, F. Parkes, note on senile symmetrical atrophy of the skull, 129; localized flushing and sweating on eating, 243; obliterative arteritis, 762; case of "splenomegalic" or "myelopathic" polycythaemia with true plethora and arterial hypertonia without cyanosis, 1043
Weeks, J. E. (part author), The Relation of the Cervical Sympathetic to the Eye, rev., 156
Weldon, W. F. R., current theories of the hereditary process, 441, 505
Wellingborough, anthrax at, 1113
Wellington, R. Henslowe, The Verdict of "Suicide whilst Temporarily Insane," a Legal Contradiction, rev., 542
Wells, Henry Marlyn, notice of death of, 280
Welsh National Library, note on, 377
Werner, L., ring sarcoma 1331
West Africa, health in, 223; sanitation in, 272
——— medical practice in, 1238
——— Bromwich board of guardians and their district medical officers, 227
——— Indies, prevention of consumption in, 849
——— medical practice in, 1240
——— Riding and the Midwives Act, 1118
Westcott, Marilyn: Esperanto, 1407
Western medicine in China, 1053
Westminster City Council and the Midwives Act, 1337
Westmorland, prevention of consumption in, 507
Wheeler, Charles E., results of four years' work in the sanatorium treatment of phthisis, 65
——— W. I. de C., plaster of paris splints, 600
Whitby, C. J., subcutaneous emphysema in a case of spasmodic asthma, 72
White, Arthur H., Poor-law medical service in Ireland, 742
——— Charles, obituary notice of, 1128, 1184
——— Ernest, presentation to, 140
——— Faulder, treatment of common ear disease, with special reference to otectomy, 133; treatment of otitis media, 748; operation for catarrhal deafness, recovery of hearing after ten years of almost total deafness, 1147
——— W. Hale, case of multiple disease of joints in a young child, 397; acute rheumatoid arthritis, 598
Whiteford, C. Hamilton, perineorrhaphy for rectal incontinence, 881
Whitehead, A. L., nasal disease as a cause of headache, 179
——— Walter, elected member of court of governors of Manchester University, 218
Whiting, A. J., case of osteo-sarcoma of the shoulder of over fifty years' duration (reported by Christopher Kolleston), 10
Whitlow, Samuel, death of, 1364
"Who's Who" year book and the medical profession, 48
Whooping cough and measles, prevention of, 1358
Wilcox, R. W., A Manual of Fever Nursing, rev., 1229
Wilder, W. H. (part author), The Relation of the Cervical Sympathetic to the Eye, rev., 156
Wilkin, Griffith C., national importance of thorough and systematic removal of adenoids in childhood, 766
Wilks, Samuel, determination of arterial blood pressure in clinical practice, 967
Williams, Chisholm, a disclaimer, 975
——— W. G., inguinal hernia, bandaging, recovery 1330
——— W. Roger, increase of cancer and the decrease of tubercle, 679
Williamson, Herbert, "grape-like" sarcoma of the cervix uteri, 509
——— R. T., bread substitutes for diabetic patients, 145
Willis, J. C., A Manual and Dictionary of the Flowering Plants and Ferns, rev., 662
——— J. D., private patients and club members, 1321
Wills, J. P., sanatorium treatment of phthisis, is it worth while? 513; case of mesotan eruption, 881
Wilson, A. C., five cases of haemorrhage apparently due to arterial tension, 885
——— Alexander, treatment of accidents from chloroform, 543
——— Allen, the cause of cancer, 1071
——— Henry, obituary notice of, 240
——— H. Douglas, radio-activity of the Harrogate sulphur waters, 1330
——— Stacey, dermography, 655; reverberation in abdominal diagnosis, 655; the level of the diaphragm and the circulation, 655
——— S. Wesley, Irish dispensary doctors, 514; Poor-law service of Ireland, 694, 800; medical reform, 1126; the Irish College of Surgeons 1362
Windward Islands, medical practice in, 1240
Winnipeg Sanatorium for Consumption, note on, 215
Wise, C. H., appointed J.P. for county of Essex, 1060
Witchcraft and beliefs of the insane, 784
Withers, Percy, food poisoning and the convalescence of influenza, 1071; foreign body in air passage 1140
Wolcott, William Owen, obituary notice of, 1363
Wolfe, John Rosenberg, obituary notice of, 49
Womb. See Uterus
Women doctors and the general hospitals, 447
——— graduates at Dublin University. See University
Women, the higher education of and race suicide in America, 319
——— acute intraperitoneal haemorrhage in, 553
Women's Union, Manchester University, coming of age of, 623
Women's work and infantile mortality, 30
Wood, D. J., detachment of retina, 240
——— F. C., a sidelight on medical education 1112
——— Outterson, elected president Medico-Psychological Association, 1050
——— Russ, adenoids, 1382
——— alcohol, poisoning by, 262
Woodhead, Sims, on alcoholism, 91
Woodruff, Charles E., "military midwifery" 145
Woods, Robert, purulent collections, 825; treatment of purulent cavities, 1080
——— Thomas, obituary notice of, 107
Woolacombe, water supply of, 1393
Word-blindness (J. V. Paterson and Edwin Bramwell), 1243
Work of a hospital, various phases of the (Dr. Christopher Nixon), 238
Workhouse, medical inspection of tramps at, 1360
——— infirmary, allegations of neglect of duty against officials of a, 166
Working colonies for feeble-minded children, 1110
Workmen, education of and industrial poisoning, 313
Workmen's compensation, 336
Workshop, the temperature of, 1110
Worth, Claud, the notation of prisms, 250
Wound, legal decision as to the damages to be paid for sufferings caused by a, 153
——— treatment, open methods of, 915
Wray, Mr., treatment of tobacco ambiyopia, 478
Wright, George A., operative methods—old and new—in tuberculosis of the knee joint, 221
——— Hamilton, Studies from Institute for Medical Research, Federated Malay States, Vol. II, On the Classification and Pathology of Beri-beri, rev., 602
——— James Homer, awarded Samuel D. Gross prize, 527 834
Wrist, haemarthros of (R. Allan-Bennett), 564
——— spontaneous subluxation of (reported by A. Hodgkinson), 770
Wye, the waters of the, 330
Wylie, John, appointed Commissioner of Supply for county of Ayr, 1064
Wynne-Davies, Dr., congenital defect of abdominal wall and of the genito-urinary apparatus, 356

X.

Xanthoma and fatty necrosis of pancreas accompanying diabetes mellitus (Sir Dyce Duckworth), 1274
——— diabeticorum, case of (Sir Dyce-Duckworth), 249
X-ray photographs of fractures and dislocations, 656
X rays, sterilization by, 150; examination of stomach by (Norman Dalton and A. D. Reid), 720; in treatment of malignant disease of the fundus uteri (Arthur J. Cleveland and Donald D. Day), 025; and leukaemia (Byrom Bramwell), 1043; in acne (Dr. Codd), 1271; in ringworm (Dr. Codd), 1271; in treatment of hairy mole (Dr. Codd), 1271
X rays. See Roentgen

Y.

Year Book of the British Medical Association for 1905, 00
Yearsley, Macleod, treatment of post-nasal adenoids, 1104
Yellow fever. See Fever
——— fogs, the chemistry of, 145
Yeomanry and volunteer medical officers' annual dinner, 1073
——— Imperial, recruits for, 694, 750
Young, A. A., operative treatment of perforated gastric ulcer, 250
——— A. H., elected president, Manchester Edinburgh University Club, 218
——— W. J., prolonged use of simple enemata, 627
——— William Mussen, obituary notice of, 49
Youth, physical training of, 844

Z.

Zammit, Them., intermittent fever in Malta, 711
Zierler, von Fr. E., Beiträge zur Behandlung putrider Zahnwurzeln unter specieller Berücksichtigung der Anwendung schwacher galvanischer Ströme (Elektrosterilization), rev., 1110
Zilgein, Dr., Manuel Théorique et Pratique des Autopsies, rev., 482

ILLUSTRATIONS.

PAGE

Fibroma of the Larynx and Neck, removed by External Operation without Opening the Cavity of the Larynx (Sir Felix Semon) (Four Figures) 6, 7, 8, 9
Schistosoma Cattoi, a New Blood Fluke in Man (John Catto) (Nine Figures—one p. 11, and eight being a Supplement to the BRITISH MEDICAL JOURNAL of January 7th, 1905
Osteo-sarcoma of the Shoulder of over Fifty Years' Duration (under the care of A. J. Whiting, reported by Christopher Kolleston) (Three Figures) 19
Deformity following Burns Corrected by Plastic Operation (W. H. Brown) (Three Figures) 20
Sterilizable Inhaler for Anaesthetic Mixtures 24
Prepuce Clamp Forceps 25
A Transfusion Apparatus 25
Pierre Francois Percy 37
Effect of Salts of Potassium, Ammonium and Bile Salts upon Blood Pressure (Arthur Edmunds) (Six Figures) 58, 59
Plate-washing Machine 81
Chart showing Changes in Refraction after an Interval of Five Years 94
Treatment of Inveterate Pruritus Ani (Sir Charles Ball) (Three Figures) 114
Operation for Appendicectomy (A. W. Mayo Robson) (Seven Figures) 117, 118
Operation of Gastro-duodenostomy, especially in Reference to Finney's Operation of Gastro-pylo-duodenostomy (Donald Armour) (Six Figures) 123, 124
A Kidney which contained more than Forty Thousand Iridescent Calculi (J. Bland-Sutton) (Two Figures) 125
The Infirmary or Central Asylum, Gheel 150
A Street in Gheel, showing Class of House Inhabited by Patients ... 151
Treatment of Post-nasal Adenoids (John Ward Cousins) (Two Figures) 182
Crofter's Houses, Upper Sound, Shetland 210
A Street in Balfron, showing Class of House Inhabited by Patients... 211
Home Inhabited by Patient at Lansival, Lierneux 268
Home Inhabited by Two Patients at Odrimont, near Lierneux ... 269
The Infirmary, Lierneux 269
Removal of the Contents of the Anterior Triangle of the Neck in Cases of Malignant Disease of the Tongue (Henry T. Butlin) (Four Figures) 285, 286, 287, 288
On the Thalamus (Gustav Mann) (Seventeen Figures) 289, 290, 291, 292, 293
A Patient's Home in Osmery, near Dun... 323
Pavilion des Gateuses 324
Patient's House in Osmery, with Surveillants (on left) and Nourricier (on right) 324
Fixation of the Symmetrical Resting Posture of the Trunk ... 326
Luther Holden 337
Recurrent Vomiting in Children (H. Batty Shaw and R. H. Tribe) (Two Figures) 348, 349
Long-standing Constipation (Harry Grey) 353
Large Urinary Calculus Forming Round Foreign Body introduced into the Bladder (Tina M. Blaikie) 356
Bedroom of a Patient in St. Bonney, near Ainay... 363
Small Infirmary with Group of Patients at St. Bonney, near Ainay ... 364
Patients with Nourriciers at Etang de Pirot, near the Foret de Tronchis, Ainay 365
The Infirmary at Ainay-le-Chateau 365
House of Patients of First Class, Veldwijk 433
House of Patients of Third Class, Veldwijk, 439 439
Dr. Schaudinn's Work on Blood Parasites (Five Figures) ... 442, 443
Samuel Hollingsworth Agar 453
Operative Treatment of Certain Severe Cases of Indigestion (W. Bruce Clarke) (Five Figures) 469, 470, 471
Convenient Test Tube for Pouring 483
Patient's Home at Rockwinkel 499
Ground Plans of Homes in Rockwinkel 500
New Methods of Studying Affections of the Heart (James Mackenzie), (Fifty-four Figures)
519, 520, 521, 522, 587, 588, 589, 703, 704, 705, 760, 761, 813, 814, 815

PAGE

Case Showing Spirilla in Blood Simulating Malarial Fever ... 532
Two of Seven Double Houses Built by the Asylum Authorities at Wilhelmseich 559
Homes of Two Patients at Kloster Neuendorf 559
Ground Plan of the Landesasyl at Jerichow 561
Edward Atkinson 631
Opening of Peritonsillar Abscesses (StClair Thomson) (Three Figures) 645, 646
Pathogenesis and Prevention of Loss of Voice in Singers (Jobson Horne) (Five Figures) 648, 649
Transillumination of the Antrum of Highmore (A. Brown Kelly) (Two Figures) 650, and a special Plate Facing 652
Forceps for Nose and Throat and for Opening Peritonsillar Abscess (StClair Thomson) 662
New Obstetric or Surgical Bag (Two Figures) 662
Manuel Garcia 681
Obliterative Arteritis (E. Michels and F. Parkes Weber) (Two Figures) 762, 763
Correct Anatomical Form of Bicycle Pedals (R. A. Lundie) (Five Figures) 768
Protective Power of Vaccination 769
Case of Spontaneous Luxation of Wrist... 771
Treatment of Empyema (J. Hogarth Pringle) (Three Figures) ... 810
Closure of Traumatic Defects of the Skull (Charles Leedham-Green) (Two Figures) 820, 821
Improved Form of Water Closet (Two Figures) 830
Determination of Arterial Blood Pressure in Clinical Practice (C. J. Martin) (Nine Figures) 865, 866, 867, 868, 869, 870
Case of Aneurysm Opening from the First Part of the Thoracic Aorta into the Pulmonary Artery (D. McNabb) 883
Etiology of Carcinoma (George T. Beatson) (Three Figures) 922, 924
Points of Incidence compared in Cancer, Leucoderma, and Sclerodema (G. Lenthal Cheatle) (Special Plates with thirty-eight Figures) ... ... Facing 926
Grafting of Completely-separated Skin Flaps in the Treatment of Contractures due to Cicatrices (Robert Kennedy) (Four Figures) 931
Regeneration of Nerves (Basil Kilvington) (Nine Figures).. 937, 938, 939, 940
Preliminary Note upon a Leucocytozoan of the Dog (Charles A. Bentley) (Two Figures) 988
Sir John Siebald 1019
Cause and Treatment of Pruritus Ani (F. C. Wallace) (Three Figures) 1029
Surgical Anatomy and Operative Treatment of Tuberculous Glands of Neck (W. Greenwood Sutcliffe) (Four Figures) ... 1032, 1033
New Ethyl-chloride Siphon 1049
Treatment of Purulent Cavities (Robert H. Woods) 1051
Remarks on Complete Prostatectomy founded on Fifteen Cases (J. Lynn Thomas) (Three Figures) 1084
Total Enucleation of the Prostate for Radical Cure of Enlargement of that Organ (P. J. Freyer) (Five Figures) 1085, 1086, 1087
Surgical Sponge 1099
University of Sheffield 1151, 1152, 1153
Spirochaetae in Syphilis (E. J. McWeeney) 1203
Chloroform Mask 1276
Nature of Malignant Growths (Professor Turner, J. E. S. Moore, and C. E. Walker) (Six Figures) 1277
James Murphy 1301
Cystic Tumour of Gall Bladder (Alban Doran) 1318
Value of the Use of a Shadowgraph Ureteric Bougie in the Precise Surgery of Renal Calculus (E. Hurry Fenwick) (Nine Figures)—one p. 1325, and eight being a Supplement to the BRITISH MEDICAL JOURNAL of June 17th, 1905
Multiple Needle-holder for Electrolysis 1335
Operation for Closure of Cleft Palate in Infants (Sir Thornley Stoker) (Five Figures) 1374, 1375
Remarks on Cleft-Palate Operation—Wounds Healing by Second Intention (Edmund Owen) 1376
Observations on Dwarfism and Infantilism (William Calwell) (Three Figures) 1377, 1378
Aseptic Block Dressing Tray 1385

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THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LONDON: SATURDAY, JANUARY 7, 1905.

A Lecture

ON

THE PAINS OF TABES.

Delivered at the National Hospital for the Paralysed and Epileptic, November 2nd, 1904.

By Sir WILLIAM R. GOWERS, M.D., F.R.S.,

Physician to the Hospital, and Consulting Physician, University College Hospital.

GENTLEMEN,—It is often well to let occasion wait on opportunity, and as I chance to have an unusual number of cases of locomotor ataxy under my care in the hospital at the present time I propose to take some features of this disease as my subject to-day. Its manifestations are many and various, and far transcend the mere inco-ordination which Duchenne recognized as the main symptom of the disease, and expressed in the name he gave to it. This name was apt enough, so far as his perception was concerned, but the extension of our knowledge of its manifestations is so great that we have fallen back on the older Hippocratic term, revived by Romberg, of "tabes dorsalis." It is a word which connotes almost nothing, and so may be made to denote almost anything—a convenient characteristic in medical terminology.

The sensory symptoms of the disease are those which I propose to consider to-day, and especially those which give to the malady a special terror for too many of its subjects—the pains of tabes. They are far more common than ataxy; they begin earlier in the course of the disease, and often make life almost unendurable in cases in which there is no other subjective symptom.

But it is not possible to discuss any manifestation of tabes without alluding to the morbid process which underlies the symptoms of the disease. What this is, indeed, is at present a matter of theory, but the evidence on which the theory rests is strong. I cannot now describe the evidence in detail, but I must give you, in a few words, an outline of what is believed. You may know it quite well, but it is not well to assume knowledge which may not be possessed by all.

The most remarkable feature in the pathology of the present time is certainly the rapid increase in our perceptions of the part played by chemical processes and chemical substances. We are compelled to believe that the symptoms of tabes are due to the influence of a chemical toxin, which results from syphilis and probably arises in a way similar to that by which the toxin that causes diphtheritic paralysis has been proved by Martin to be caused by the organisms of diphtheria. This is due to the indirect action of a ferment produced by the organisms, which influences the albuminous bodies in the process of their production, so that they are altered in constitution, perhaps very slightly, and yet enough to convert them into nerve poison instead of a food. The analogy is the more pertinent because, sometimes, the toxin of diphtheria causes precisely the symptoms of locomotor ataxy. The difficulty in the case of the cause of tabes is the long interval which elapses before it manifests its influence, and the strange way in which this is augmented at times, without any perceptible cause. Still, we may remember that one effect of specific diseases, immunity from recurrence, is life-long. It is conceivable that a chemical process once set wrong may be enduring in its perversion, and it is also conceivable that the pathological vitiation may be augmented by causes quite distinct from those which give rise to it.

One fact that I would especially impress upon you is that the effects of this toxin vary in different cases, in a way which is most strange. It compels us to believe that there must be minute differences in the chemical character of the toxin which fit in, as it were, with chemical differences in the constitution of the nerve elements, so as to enable it to act upon some and not upon others, even of similar nature—similar, but not identical.

The toxin, which we are compelled to assume to be the cause of tabes, exerts its influence chiefly on the elements of the lower sensory spinal neuron, which includes the nerve fibres of the posterior roots and the up-bearing (afferent) nerves, all of which depend for their vitality on the cells of the posterior ganglia. These cells determine the life of the sensory fibres from the limbs, and the posterior roots of the spinal cord, some of which end in the grey matter, not far from their entrance, while others ascend the cord in the posterior median column. The morbid influence seems to be exerted on the elements of this neuron, in greatest degree on the extremities of the fibres, which are the parts farthest from the vital centre, and where, therefore, the vital influence may be least. Thus we find the degeneration of the posterior root is greatest adjacent to the cord and within it, and the changes which are found in the distal sensory nerves are chiefly at their extremities. But the most marked degeneration is in the fibres of the posterior median columns, which seem to be the continuation of the fibres from the muscles, and are probably at the medulla connected with the cerebellum. The changes in the fibres which pass from the muscles to the spinal cord, and subserve the muscle-reflex action, on which depend both the knee-jerk and spinal co-ordination, must be assumed as the explanation of the early loss of the knee-jerk, and the peculiar features of the ataxy when this is developed. This brief reference to the pathological causation of the disease must perforce suffice to-day. I hope to return to them another time. I pass now to the symptom which is to-day our special subject.

Character of the Pains.

The pains of tabes are generally an early symptom of the disease, and they are often most distressing. In rare cases they are trifling, or so slight that they are hardly noticed, but this is the exception. You should know, however, that their occurrence may be denied by a patient who suffers much from them. Only this morning I saw a patient with loss of the knee-jerks, and asked him if he had had pains in his legs. "No," he replied, "I have had no pains, but I have suffered a great deal from rheumatism." On inquiry as to the character of the "rheumatism," it was ascertained that it consisted of the sharp darting pains characteristic of tabes. They had occurred specially on changes in the weather, as these pains so often do, and this had impressed the mind of the patient, and possibly the mind of his doctor, so that their rheumatic nature was considered beyond question. This is a mistake that is common, and one against which you should be on your guard. It is only in the case of pains of moderate intensity that this error can arise. It is not likely in the cases, unhappily frequent, in which their severity is such as to strain to the utmost the patient's power of endurance. Their tendency to occur in paroxysms, unheralded, and of uncertain duration, still

further induces a constant dread which cannot be shaken off, and no doubt increases the actual suffering. All pain that is much feared is felt more severely, for the process of apprehension seems to lower the resistance in the brain and augment the conscious suffering. You may have realized this yourselves, if you have ever had the opportunity of comparing the pain caused by the extraction of a tooth when you dreaded and anticipated it, and when you were resolved to ignore it and resist it. Something of this kind is probably at the root of the endurance of suffering by oriental nations. But this power becomes worn down by recurring pain, and the suffering is then always great.

It is useful to classify symptoms which are various in character. Nature, indeed, is prone to ignore our divisions, and to blend that which we distinguish. Nevertheless, most of the pains of tabes will be found to fall into one or other of the following forms, and their recognition is useful by giving you a better conception of the symptom, and also by aiding your observation. You are compelled to note more carefully when you endeavour to discern features and distinguish forms.

A. The first division of pains consists of those which are brief, commonly momentary, but succeeding each other after a short interval in the same place, commonly for hours, sometimes for days. Of these brief pains there are two important classes, the superficial and the deep.

1. The superficial pains seem to be on the surface or just beneath the surface. They are usually felt at one spot, often only a few inches in extent, sometimes larger, extending down part of a limb. They are most common on the limbs, especially on the lower legs and feet, but frequent also on the thighs, and on the arms and hands, especially on the inner side, that is, on the ulnar region, of the forearm and hand. Sometimes they are felt on the head; in one of the patients before you they occur on any part of the head, on the ears, on the face, and especially about the mouth. They are less common on the trunk than those that are deeper. Each pain is usually extremely brief, a stab or flash of pain, gone as soon as felt, but recurring. It is these pains which have given rise to the common term "lightning pains," an expression which so aptly conveys their character that once heard from a doctor's lips it is employed ever afterwards, and I have often known it to be spontaneously adopted when it has not been learned.

These superficial pains have one remarkable effect: they make the skin tender. After they have recurred a few times, sometimes almost as soon as they begin, the skin in that area becomes so tender that if touched the patient feels as if the place was an open sore. If the finger is drawn gently over it, or the bedclothes are moved upon it, the pain produced is often hardly bearable. A remarkable fact is that this occurs where sensibility to pain is lost. Sensibility to touch is lost in tabes much less frequently than that to pain, or it is only diminished when that to pain is lost. When this is the case, even when the tenderness that attends these pains is at its height, the prick of a pin may occasion no pain whatever. It is evident that the painful sensation is produced through the nerves of tactile sensibility, which indeed can alone be excited by such a surface stimulation. It is an illustration of the fact that almost any nerves, when intensely excited, may give rise to a sensation of the character of pain. You know how true this is of nerves which, under a normal stimulus, cause hardly any appreciable sensation, such as the afferent nerves of muscle, from which such extreme pain arises by their excessive stimulation in cramp. So it is also with the nerves of the pleura, peritoneum, and intestinal wall. Hence it is probable that these superficial pains may themselves be due to a morbid action in the tactile nerves—a fact of some importance. The tenderness of the skin caused by the pains slowly passes away after the pains have ceased, but may last a day or two.

2. The second variety of brief pains is deep-seated. They are not felt in or near the skin, but the sufferer is not able to refer them to any definite structure. Sometimes, however, they are described as being distinctly about the joints, not within them but in their immediate neighbourhood. They present the same features as the superficial pains, since pain after pain recurs at the same part, separated by a short interval. But the pains themselves are not so momentary as those on the surface, they generally last several seconds. One of the patients before you gives a description of them which is often heard—he compares them to a knife in the flesh turned round and round. Another says they are like hooks in the flesh, pulled on for a moment and then slowly released. Two other of the patients here compare them to a sudden dragging on the tendons, on the side of the foot in one case, in the other on the outside of the leg. Not only do these deep pains die away less quickly than those which are superficial, but after they have gone on for a little time some degree of pain is felt in the intervals. The character of the pain varies very much. Not only is it, as I have said, burning or darting, but it is sometimes described as precisely like the pain of cramp, when there is no muscular contraction. Such pain must be due to the nerve structures through which cramp is felt, the afferent muscle nerves. Remember, however, that any of these sudden pains may cause a reflex start of the limb in which they are felt, but this is purely secondary. In the abdominal wall also there may be secondary muscular spasm, sometimes very distressing.

These deep-seated brief pains are chiefly felt in the limbs, and especially in the legs. They occur in the arms, sometimes in the trunk, but less frequently on the head. They are not attended by the peculiar hyperaesthesia of the skin just mentioned, although sometimes there is a persistent increased sensitiveness in certain muscles, whereby pain is caused by their contraction.

B. The second division of the pains of tabes includes those which are prolonged, lasting for some time—hours, days, or even longer, in the same place. They often present variations in intensity, but not the complete intermissions or considerable remissions presented by the pains of the first class. They are more common in the trunk than in the limbs, but are met with in both the legs and arms.

The best-marked pains of this variety are deep. Prolonged local superficial pains are very rare, although, as we shall see, diffuse surface sensations are not uncommon. But one form must be recognized which is often, though not always, superficial—a girdle sensation at some position on the trunk, commonly at the level of the epigastrium. It is then often accompanied by a change in cutaneous sensibility in the same place, sometimes in a limited zone around the body. When the girdle sensation has a deeper character there is no corresponding change in the sensibility of the skin. Lightning pains are seldom met with in the zone. The fixed trunk pains are often unilateral, and then may give rise to difficulties in diagnosis; they may be thought to be intercostal neuralgia, or evidence of liver disease or of renal colic. The last is not an infrequent mistake when there are exacerbations. Another form which may also lead to error is that which is met with in the sciatic nerve, and sometimes closely simulates the pain of sciatic neuritis. Indeed, not only may it be difficult to discriminate between the two, but it is probable that actual sciatic neuritis does occur, since there is not only pain along the course of the nerve, but definite tenderness of it. I saw such a case a few months ago, and I might possibly have passed it as simple sciatica but for the habit of testing the knee-jerks in all such cases. Such a clinical habit is very useful; the misfortune is that, after finding nothing nineteen times, you neglect it in the twentieth, and find the omission has resulted in a grave error of diagnosis. This patient's knee-jerks were absent. Further inquiry elicited the fact that pains had occurred elsewhere, sharp and darting. His pupils had no light action. It was a case of stationary tabes. Then I learned that his life had been rejected just before at an assurance office, after a very careful examination by the physicians, who doubtless had discerned the nature of the case. No proposer would be rejected for simple sciatica, but no office would accept a case of tabes on account of the many possible perils the future may have in store for even an early and apparently stationary case. This is a digression; but a step down a by-path often gives you a view of some point more useful than you would otherwise obtain.

These persistent deeper pains have many forms. Indeed, the varieties of character they present are such as to baffle description. The enduring sensation is often varied by brief exacerbations, which seem to constitute a link with the intermitting pain. I have already mentioned one common variety, a sense of distressing tension on the muscles or tendons, varied by a sudden pull, and referred by the patient to the "leaders." It seems quite distinct from the cramp-like pain already referred to. It may be felt in the sole, calf, or hamstring muscles. When the deep, persistent pain reaches great intensity it has often a burning character and may be most severe, indeed, hardly endurable. It is often varied by a sensation as if the deep, red-hot iron were pulled and twisted. Such pain may last for twenty-four or forty-eight hours, unless relieved by treatment, and is one of the

most agonizing forms of tabetic pain. Even when an attack is so severe, it is seldom that any exciting cause can be traced.

The second form of fixed pains consists of widely diffused sensations, various in character, seldom amounting to severe pain, but often most distressing, on account of their persistence. They continue for long—for weeks, and even months, varying in degree, but never ceasing. The mind has no rest, and the powers of endurance are taxed by the duration rather than the degree of discomfort. Such sensations are sometimes deep, but more often superficial in character. They are described as tingling, numbness, "swelling," and the like—not rarely as sensations of heat or cold. Some of you may remember a man I showed you last summer, whose life was rendered one long misery by such sensations of painful coldness, especially in the left leg and left side of the trunk. Sometimes an actual sensation is disordered, as when a sensation of pebbles beneath the feet is felt whenever they are in contact with the ground. In other cases there is a deep-seated feeling, which is described as like that which would be "numbness" or "tingling" on the surface, only it is not superficial.

All these tabetic sensations vary much. An almost endless list may be made of them; many classes might be established, but they would serve no useful purpose. The simple divisions I have made will be found, I think, to have practical value, and will, as I have said, give that point to observation which is needed for precision.

TABETIC NEURALGIA.

From the pains of ordinary tabes I pass now to a form of the disease in which the pains dominate the aspect of the malady. If a patient came to you and complained of sharp darting pains in the legs, you would and should think at once of locomotor ataxy, and test his knee-jerks. If you found them normal, it is not unlikely that you would dismiss the idea of tabes from your mind. You might be right, but you might possibly be altogether wrong, and this is my reason for emphasizing the facts I wish to put before you. There is one variety of tabes in which pains are the only prominent symptom; the knee-jerk is not lost, and there is no ataxy. They may be regarded as cases of partial tabes; the symptom which is generally present and characteristic, loss of the knee-jerks, is absent. It may be said that these are simply cases in which the disease is in an early stage and is developing. This does not seem true of the majority of the cases. In those I have had the opportunity of watching for a time, the disease has advanced no further, so far as the ataxic symptoms are concerned, and in only one was there a further change in one knee-jerk. On the other hand, the pains had existed for years when the knee-jerks were still perfect, and we know that they are found to be lost, as a rule, as soon as the pains suggest a suspicion of the disease. Hence I think that these cases must be regarded as the result of a peculiar character of the toxin. They are not merely a stage in the development of ordinary tabes; they are a special variety.

The great difference in the symptoms and course of these cases can only, I think, be explained by assuming a difference in the character of the causal agent. We have another illustration of the varying incidence of the poison in the frequency with which ataxy does not develop when the toxin has a special tendency to act on the optic nerves. The fact has been absurdly misrepresented. The freedom from ataxy has been described as the result of the atrophy of the optic nerves. The only conclusion that is justified is that which I have mentioned, and of which the cases I am now considering afford another illustration. I think that the term "tabetic neuralgia" is an appropriate and unobjectionable designation for these cases.

This form of the malady is not common, but I have notes of eleven cases. Before I summarize their features I may briefly describe to you the last case I have seen. He is a man of 42, and contracted a chancre about twenty years ago, the nature of which cannot be doubted, since he went to Aix for a course of mercurial treatment. Let me mention, in passing, that you should always be very careful in the way you make inquiries regarding this remote though real cause of the disease. It is easy to ask questions in such a way as to indicate to the patient that it is the ultimate cause of his suffering, but it is not wise to do so. The knowledge may fill him with distress and self-reproach, and in most cases can do no good. Remember that you may convey this knowledge inadvertently, but not less effectively, merely by making a pointed inquiry regarding it as soon as you have discerned the leading symptoms. Take care to avoid this. Ask about it in the course of inquiries regarding other preceding diseases, inquire casually but carefully; you may easily ascertain all you need without raising any suspicions in the patient's mind.—This patient was sent to me on account of his pains, which began three years ago. They had been felt only in the legs and feet, in various parts; they were sharp momentary stabs; often an attack began as most trifling pains, frequently repeated, which he likened to the ticking of a watch; they gradually grew more intense and less frequent. Often they were felt at several places in the same attack, which lasted for hours, sometimes for days. They varied in severity, but even when least in degree they prevented sleep. They were always superficial, and wherever they were felt the skin became so tender that he could not bear it to be touched. The intervals of freedom varied, but he averred that a change in the weather to damp cold usually seemed to induce an attack. He presented no trace of unsteadiness, and his knee-jerks were active and equal. Sensation on the legs was perfect to touch, but he could not feel the pain of a prick, as such, on the feet and lower legs above the ankles, or on the lower half of the thighs—the prick there seemed only like a touch. Elsewhere pain was felt, although it was delayed near the limit of the analgesia. His pupils were not small, about $3\frac{1}{2}$ mm. in diameter. The right presented no light reaction even to a match; the left responded slightly. Otherwise his condition was normal. He had seen several doctors, and his pains had been ascribed to phlebitis (because he had some varicose veins), to neuritis, and to gout. The doctor who sent him to me had thought of tabes, but had dismissed the idea when he found the knee-jerks were normal.

I may now briefly summarize the facts of the 11 cases I have seen. All were in adult men. A clear specific history was present in about the same proportion as with ordinary tabetics, in 9 out of 11. In no case could the disease be excluded. The interval between the primary disease and the onset of the pains varied from 7 to 19 years, the average being 12 years. The knee-jerks were normal in degree, and equal on the two sides, in 8 out of the 11 cases. In 2 cases they were unequal, less on one side than on the other, but in only one was a further diminution observed. In this, when first seen, the jerk was good on the right side, but on the left could only be obtained with "reinforcement;" six months later it had disappeared on that side, while remaining good on the right, but he did not present the slightest trace of unsteadiness.

Considerable significance attaches to the presence, in these cases, of other symptoms often associated with ordinary tabes. The action of the pupil was not recorded in some of the cases, but in 2 the light-action was lost, in 2 others it was very slight but not absent, in 2 it was completely lost only on one side; in 1 there was instant contraction followed by dilatation to the former size, the exposure to light continuing unchanged, a peculiar reaction which I described many years ago. A significant fact is that one patient presented characteristic optic nerve atrophy. In this case the knee-jerks were normal, and no change occurred during a year the patient was under observation; there was no trace of ataxy, and he could walk ten miles with ease. In him sensation on the skin was quite normal, and it was so also in most of the other cases, but in 1 sensation to pain was lost on the feet and lower legs and lower parts of the thigh; in 1 sensation to pain was delayed on the legs and lost on some parts of the trunk, and in another it was lessened on the left leg and foot. One patient suffered from characteristic gastric crises, and he, with one other, complained of a girdle sensation.

The pains were the symptom for which all the patients sought relief, except the subject of optic nerve atrophy. They presented many of the variations met with in ordinary tabes, and were generally severe. Seven of the cases had superficial pains—intense, momentary, darting—and in six it was expressly said that they made the skin tender, so that, as one patient said, the contact of the bedclothes could not be borne. Another described the feeling "as if fish-hooks were stuck in the skin, and pulled on every few minutes." In three cases of intense darting pains tenderness of the skin was denied. Several patients had deeper pains, one about the joints, and one, who had both superficial and deep pains, expressly distinguished the former as making the skin tender, and the latter as not having this effect. They occurred in various parts—legs, arms, trunk, and in one case were troublesome in the head. In several they were said to be influenced by changes in the weather, as in ordinary tabes, being especially intense on a change to damp cold, as in the case first described.

The duration of the pains before the patient was seen was in three patients one year, in one 2 years, in three 3 years, in one 4 years, and in three 10 years.

The practical importance of these cases is their recognition, and perhaps also their future. In not one of the cases I have seen has the nature of the pains been suspected. They had been ascribed to gout, or to rheumatism, or else to neuritis, which has become a frequent diagnostic refuge. When pains cannot be referred to other causes it is easiest to refer them to a cause that is least generally familiar. But if you are aware of the occurrence of these cases of tabetic neuralgia, and look carefully for the other symptoms which are found associated with tabes; if you test sensibility on the limbs, and ascertain carefully the past history, you will seldom be in doubt as to the nature of the case. Especially important is a minute scrutiny of the character of the pains. Other causes may produce pains resembling the deep, dull, prolonged pains of tabes; but the real "lightning pains," momentary, stabbing the skin, as it were, or flashing along it, and varying in seat, are, I think, hardly ever caused by any other morbid process.

The recognition of the nature of these cases is also important in its influence on your opinion regarding the future. The fact of the tabetic nature of the pains may incline you to a grave prognosis. But I think that the danger of the development of ataxy in such cases is very small. In none of the cases I have seen has there been any trace of unsteadiness. The knee-jerks must disappear before the danger of ataxy arises. Even their loss does not necessarily involve a future defect of co-ordination, for it seems to attend a much slighter degree of impairment of the muscle-nerves than is needed to produce ataxy. We often see, and are able to watch for years, cases in the stationary first stage of tabes, when the knee-jerks are lost, but no trace of ataxy develops. Hence the future of the cases of this tabetic neuralgia, in which the knee-jerks are normal, or at most one only is impaired, may be regarded with equanimity, so far as the danger of inco-ordination is concerned. It is most unlikely that this form will ever deserve the name of locomotor ataxy. But the persistence of the pains, at least in some degree, must be regarded as probable.

Source of Tabetic Pains.

Can we discern the structures from which these pains of tabes proceed, or form a reasonable conjecture regarding their source? We must refer them to some part of the sensory neuron which undergoes degeneration in tabes, the neuron which depends for its vitality on the ganglion cells of the posterior nerve roots. We may dismiss the cells themselves from consideration; all evidence goes to prove that the nerve fibrillae simply pass through them and that no nerve energy arises in them. There remain the fibres of the sensory roots which pass into the cord and apparently end there, by contiguity to the structures of the reflex centres or to those which continue the sensory path up the cord. It is not probable that the fibres which degenerate in the posterior median columns conduct any sensory impulses which have a direct effect on consciousness. Lastly, there are the extremities of the peripheral nerves as a possible source of the pains. This origin certainly agrees best with the facts and enables us to understand them most readily. It is in the extremities of the nerves that the sensory impulses normally arise. We know that these nerve endings are the first to fail in their nutrition, perhaps because farthest from the vital centre, perhaps because the toxin has a special influence upon them. Indeed, their degeneration has been adduced as an objection to the origin of the pains in them, because they are found visibly degenerated only in late cases, and the pains are an early symptom. But truly this is what we should expect. The degeneration must begin by minute changes in molecular nutrition, and these must attain a degree relatively colossal before it can amount to alterations that can be detected by the microscope.

Other facts also suggest this source. As we might expect, the pains which are superficial and seem to be in the skin, afford us what seems the clearest evidence of their origin. The fact that their occurrence is attended with the remarkable tenderness which I have described, clearly suggests a peripheral origin. If the pain were produced in the spinal cord it is much less easy to understand the concurrence of the soreness at the spot. Another point which supports the same view is that in some cases a stroke on the tender skin not only causes pain but excites the same flash of intense pain which had occurred spontaneously. Would it not need considerable and weighty evidence to make us regard this local effect as produced through the medium of the change in the spinal cord?

Evidence to the same effect is afforded by the changes in nutrition which have been observed to attend the superficial pains. We may put aside the grave effects which have been described, such as rapid ulceration of the skin. I have never seen it, and I desire to adduce only what I have observed. One of the patients before you has local darting pains, and the area of the skin in which they are felt almost immediately becomes slightly reddened, and upon it are numerous small white spots, about a sixth of an inch in diameter. Dr. Holmes, our Resident Medical Officer, has seen them, but he has not been able to ascertain whether they are raised or not, on account of the significant fact that the tenderness of the skin is so great that the patient cannot endure the slightest touch. The change is probably of vasomotor origin, and perhaps proves no more than the local soreness, because the effect might be produced from the spinal cord. But a trophic influence of more significance was presented by a patient who was under my care here some years ago. He had attacks of superficial pains on the scalp, each lasting for a day or two. A week after each attack it was found that the hairs at that spot bent suddenly about an eighth of an inch from the scalp, and many of them broke off there. Clearly, coincident with the pains, there was an altered nutrition of the hair, whereby it had not a normal consistence and strength, which were regained when the pains had ceased. The evidence is strong—though I cannot speak of it now—that the trophic influence of nerves is one of direct continuity of their tissue with the structures they influence. The effect on the growth of the hair, coinciding with the pains, shows that there was a local alteration in the function and nutrition of the nerve endings, transient, causing the pains and causing also the imperfect nutrition of the hair. If you consider carefully the facts I have mentioned, I think you will agree with me that they constitute, when combined, strong evidence of the peripheral origin of the pains of tabes.

It may, perhaps, be said that the argument destroys itself. If the pains result from minute changes in nutrition, far below that which the microscope can reveal, they should cease with the establishment of the great alteration which is revealed by visible degeneration. But there may be nerve-endings little changed among those which are visibly degenerated, and also those which subserve the sense of pain may be much changed, and those of tactile sensibility little altered. At least we should expect this condition from the common preservation of the sense of touch when that of pain is lost. Histological research is still backward in the province of pathology. Tactile loss is comparatively rare in considerable degree, but is occasionally met with. I do not, however, remember to have met with superficial pains in a region in which the sense of touch was lost. Thus the degree of change in some nerve endings does not exclude the peripheral origin of the pains in others which are only slightly affected.

If we regard them as due chiefly to the distal nerve endings, the question arises whether other structures take part in their production. I fear this topic would lead us too far into the fogs of physiology. But it is a question whether pains may be produced from the conducting fibres when the degeneration ascends to them. We know that the function of the fibres differs from that of the endings chiefly in degree; they also can respond to a stimulus—that is, in them also other forms of energy can be converted into a nerve impulse. At present we can say no more. The origin of the pain-producing impulses within the cord is also a difficult question. It seems to me improbable that the brief surface pains can arise there, but the deeper pains of tabes, as we have seen, vary so much in character that we may consistently regard them as possibly varying in source, although it may be hard to distinguish those which arise in different parts of a sensory tract through which all sensory impulses pass. Moreover, the share the centres may take in the production of peripheral symptoms will need consideration also in connexion with the loss of sensation, which I have to leave unconsidered to-day.

The pains that may be felt in the trunk of a nerve, especially in the sciatic, may be the result of changes in the nerve-endings in its sheath. These are abundant; they are the source of the pain in sciatic neuritis, and the frequent sciatic pains of tabes show that they suffer with the other afferent nerves. Whether pains may be generated in the conducting fibres of the distal nerves, as degeneration ascends them from their extremities, we cannot say. Such pains

would be referred to the distribution of the fibres, just as are those which are generated in the stump left when a limb has been amputated. We know well that nerve impulses may be generated in conducting fibres, although a stronger stimulus is needed than suffices in the special transforming structures in which they end. A touch on the skin is enough; firm pressure may be needed on the nerve trunk. In the augmented sensitiveness which seems to attend degeneration, we can conceive that pains may be generated, and therefore cannot dismiss the hypothesis as inconceivable, although it may be incapable of proof. Some evidence, at least suggestive, might be afforded by a case of tabes in a patient who had lost a leg, but such a case has never come under my observation.

TREATMENT.

What can we do for these tabetic pains? If you do not ask the question now, you will ask it, and anxiously, when a case comes under your care. The treatment of the pains is partially separate from that of the disease, and so I may briefly speak of it; but prognosis and treatment are intertwined, and there is one fact which it is well to make clear to the patient. Although the pains can often be lessened, they can seldom be altogether arrested. The tendency to them continues, as a rule, in some degree. They come and go, but an increase in the pain does not necessarily indicate any increase in the underlying morbid process. It is important that this should be made clear, for the patient is prone to think that he is essentially worse whenever an attack of pain occurs more severe than usual; but the pain has no necessary proportion to the disease. The altered structures seem to be brought into a state of instability so great that they are susceptible to other morbid influences—gouty, "rheumatic" (as we say), and those due to digestive derangements and constipation, which often have a conspicuous relation to the attacks of pain.

Only the superficial pains can be relieved by local measures. Chloroform, sprinkled on lint, with oiled silk over it, generally gives some temporary relief. More lasting is the effect of a hypodermic injection of cocaine at the upper part of the area in which the pains are felt. A quarter or third of a grain usually stills the pain for one or two hours, and often the attack ceases. It is probable that some effect would be produced by the electrical administration of cocaine. If rubbed into the skin, in whatever combination, it has hardly any influence on sensibility. Voltaic electricity has no influence on the pains whichever pole is applied. But if the positive electrode of a voltaic battery is saturated with a solution of cocaine, 6 or 10 per cent., the sensibility of the skin is abolished to both touch and pain in ten minutes, and after a longer application the effect continues for about twice the time the current has been allowed to pass. This was ascertained some years ago, and I have lately verified it, although independently. With the negative electrode no such effect is obtained. I am sure that this deserves a careful trial in cases of tabes with superficial pains and tenderness. I have found it give speedy relief.

Applications to the surface have not much effect on the deeper pains. A deep injection of cocaine has little influence on severe pains which are in the softer substance of a limb, perhaps because it cannot be directed accurately to the nerves involved. But where the tissues are less in amount, as in the foot, pains that seem deep and do not cause tenderness of the skin may be stilled in a few minutes by an injection at the upper part of the region to which they are referred. As a rule, these deep pains are amenable to internal remedies, which are also useful for those which are referred to the skin. Of the various pain-stilling agents, the well-known coal-tar derivatives stand above all others, at least for pains of moderate degree. It is indeed strange how high a position these agents have attained in general estimation. Unknown twenty-five years ago, they are now among the agents most frequently used. They were inventions rather than discoveries; they were new combinations, artificial products, which, as far as we know, had never existed before. The first purpose for which they were used was to reduce the temperature in pyrexia, as the names of two of them still imply. But their power to relieve pain was soon discerned, and quickly superseded their antipyretic influence. It is almost wholly as pain-stillers that they are now used. They lessen many kinds of pain without causing sleep.

Moreover they maintain their place. Many things come into fashion, obtain for a time, and pass away, forgotten. Survival is a sure indication of value. That which is really useful, stays.

Phenacetin, antipyrin (or phenazone), and antifebrin (or acetanilide) are those which are most used and merit most confidence. They are of great service in most tabetic pains, unless they are of great intensity. One may succeed when another fails. The order in which I have mentioned them is the order in which they are most used, but the order of their efficiency is, I think, the reverse. Acetanilide is certainly the most effective and the least prescribed. This is possibly because it is more potent and has obtained the reputation of being less safe. I have not myself observed any evidence to support the opinion. Certainly, however, 10 gr. of acetanilide may be regarded as equivalent to 15 gr. of antipyrin. It is an element of more than one patent medicine for the relief of pain. Of each of these agents it may be said that the effect of a given quantity is greatest if it is given in a single dose. Its influence is also greater if given at the beginning of an attack than when the pains have become well developed. Thus employed they are most useful. Sometimes, however, the suffering is so intense as to resist every agent except morphine, and the patient's suffering may be so severe as to necessitate this agent, and to render even large doses necessary to quell the pain. It is strange that the influence of morphine seems to be "used up" in stilling pain. A dose, say, of $\frac{1}{3}$ gr., which would be hardly safe in health, so deep a sleep does it induce, may cause no sleep whatever if its sedative influence has been expended on severe pain. But such intensity as to compel morphine is rare, and neither morphine nor opium should be allowed to be taken at the patient's discretion.

Besides the relief of the tabetic pain when it occurs, something may often be done to lessen the tendency to its occurrence, to make it less frequent and less severe. The agent which I have found most effective for this purpose is the chloride of aluminium, given in a dose of 5, 8, or 10 gr. three times a day. It is readily soluble in water and may be combined with most other drugs. I can give no explanation of its action. I tried it just simply because chloride of ammonium also sometimes has a similar, although feebler, effect—a reason which you will say, and I admit, is not rational therapeutics. Yet that which is purely empirical sometimes deserves esteem. A similar influence may be obtained, in some cases, by the salicylate series of drugs, the alkaline salicylates, and also the salicyl-acetic acid called aspirin. The latter has the disadvantage of insolubility, but may be given suspended with mucilage. The influence of these agents is curious in connexion with the relation of the pains to changes in the weather.

The use of iodide of potassium or mercury belongs to the treatment of the disease rather than to that of the pains. I shall hope to refer to it on another occasion, but need only say now that I have seen no clear evidence of good from either. At present, moreover, I cannot say more than that we have still to gain experience regarding modern therapeutic appliances which have been thought, or may be thought, to have some capacity of relief. I refer to high-frequency electric currents, the so-called light baths, and radium. The last requires care. One patient here fancied he derived more benefit than we could discern, and when he left the hospital he purchased some. In spite of warning, he put the tube containing it against his skin at night and had some troublesome ulcers in consequence. Remember that local sores and inflammations may develop in these patients without the warning which pain supplies in health. It is indeed strange that this danger signal should be absent in a disease that is one of the most pain-giving. But the subject of the sensory defect in tabes, and its relation to the special symptom, ataxy, I hope to consider when we meet again.

RUPTURE OF THE SPLEEN.—An inquest was held at Aldershot on December 28th, 1904, on the body of a trombone player belonging to the mounted band of the Royal Artillery. He was admitted to the Cambridge Hospital on December 21st and died on December 26th. He was brought in unconscious, having become so in the course of a kind of fight with a bandboy. The latter in self-protection hit the deceased with a Wellington boot, and the deceased continued to fight until he became unconscious. The medical evidence showed that death was due to a rupture of the spleen. The deceased, it was stated, had served in India, and had there suffered from malarial fever. The jury returned a verdict of death from misadventure, and added a rider to the effect that the bandboy had used no undue violence in defending himself from attack.

SOFT FIBROMA OF THE LARYNX AND NECK, REMOVED BY EXTERNAL OPERATION, WITHOUT OPENING THE CAVITY OF THE LARYNX.

By Sir FELIX SEMON, C.V.O., M.D., F.R.C.P.,
Physician-Extraordinary to His Majesty the King.

The patient whose case forms the subject of the following communication was twice shown—on March 9th, 1898, and on June 2nd, 1899—to the Laryngological Society of London, and her case was made the subject of a further communication on June 3rd of the present year. If, nevertheless, the case be now—that is, after operation and microscopic examination have fully elucidated its nature—put on record in its entirety, this course appears to be justified by the extreme rarity of and the exceptional interest attached to its clinical history, its histological nature, and to the very unusual operation that was ultimately performed. It is, in fact, the first case, so far as I know, in which a pure soft fibroma has ever been observed to have involved simultaneously the larynx and neck, and the second on record in which a partly intralaryngeal tumour has been removed without the laryngeal cavity having been opened. Its history is as follows:

The patient, a married lady, aged 40, was sent to me on March 7th, 1898, by Dr. Harrison, of Chenies Court, S.W. She formerly lived in the North-West of Canada, and up to about 1888 enjoyed good health, except that she sometimes suffered from slight "spasms in the throat." These seem to have preceded all objective signs of her throat trouble. In 1888 she first observed a swelling in the left submaxillary region, which gradually grew until, in 1898, when I first saw the patient, it had attained the size of an average walnut. At first it gave no discomfort, and, more particularly, caused no difficulty in breathing or any disturbance of the voice. In spring and autumn it used to swell, but always returned to its previous size. Gradually it became tender on pressure and her breath became permanently short, whilst the previous attacks of spasm of the throat increased in severity. She went to Montreal and consulted Dr. Major, who found not only the external growth but additionally discovered a tumour in the larynx. The patient states that he attempted to puncture the latter, but did not strike fluid. He also endeavoured, according to the patient's statements, to snare the laryngeal growth, but the snare broke. Dr. Major, who had apparently never seen a similar growth, then recommended the patient to go to England, and to take further advice. She accordingly went to London in 1891, and was treated in a special hospital. Her medical attendant, she states, attempted to snare the intralaryngeal growth off with the galvano-caustic snare, but only brought off a very small piece of the growth, whilst during the attempt her throat and tongue were severely burnt. Three weeks afterwards her difficulty in breathing had increased to such a degree that tracheotomy had to be performed. This was followed by immediate relief of the breathing and very great improvement in general health, the patient having previously, according to her description, wasted away to a skeleton. The little piece of growth removed was stated by her attendant to have been of a malignant nature—indeed, of a cancerous character. No further attempts were made to interfere with the laryngeal growth, and the external swelling was never explored.

In 1896 the external swelling again increased so much in size in the spring, and gave the patient such discomfort, that she returned to her medical adviser, who is stated to have thought that there was fluid in it, but that he did not want to perform any further operation unless it was absolutely necessary. No further steps were then taken. Shortly before the patient came to me there had again been some increase in the external swelling, with a good deal of shooting pain in the throat, extending to the jaws and to both ears. All this had improved when I first saw the patient. She had not recently lost flesh, and had never had any dysphagia. Her voice was so surprisingly clear and strong, although she still wore her tracheal cannula, that the history, as given above, was listened to with a certain amount of incredulity. The result of the objective examination, however, fully confirmed the patient's statements. Externally, the small tumour in the left sub-maxillary region was tender to the touch, and any pressure on it, unless extremely gentle, each time caused immediate retching and coughing. It could, however, be ascertained that it was not adherent to the skin, and somewhat mobile in various directions, although it seemed to be fixed to something very low down. There was no enlargement of lymphatic glands in its neighbourhood. On laryngoscopic examination, a very surprising condition was seen. Whilst from the almost normal voice one would have expected a correspondingly normal aspect of the larynx, it was seen that almost the whole laryngoscopic image consisted of an enormous tumefaction of the left half of the larynx, which in front extended to nearly the free border of the epiglottis, and behind to the left arytenoid cartilage. All the corresponding parts of the larynx within that region seemed to have perished, as it were, in this smooth round tumefaction, which was covered by apparently normal but very pale mucous membrane. Of the epiglottis itself not much more than the free border could be seen, which was twisted so that the epiglottis looked towards the right. From this small remnant of normal configuration posteriorly both on the dorsal and vertical aspect, the tumefaction on the left side began, which involved the left ventricular band, the arytaeno-epiglottidean fold, and arytaenoid cartilage. To the right of this tumefaction a small chink remained, bordered on the right side by the right ventricular band. Neither of the vocal cords could be seen, and it could only be concluded from the integrity of the voice that the left vocal cord itself could not be involved in the process. The right arytaenoid cartilage moved well; the left half of the larynx was almost immovable. On touching the tumefaction with the probe, a feeling of elastic resistance was encountered, similar to that experienced on pressing upon the external tumour. The accompanying drawing

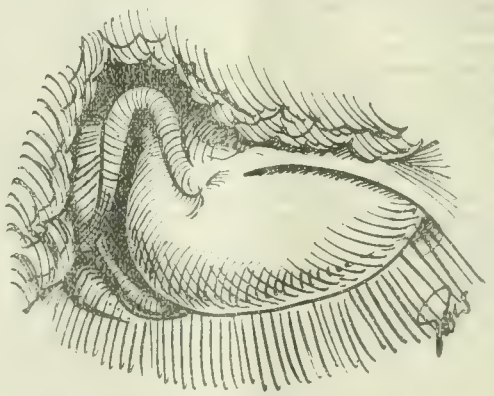


Fig. 1.—The laryngoscopic image in March, 1898.

(Fig. 1), kindly sketched at the time for me by my friend Mr. Ernest Waggett, gives a very good idea of the appearance of the larynx at that time.

The patient was shown, as already mentioned, on March 9th, 1898, to the Laryngological Society of London, with a view of eliciting opinions on the nature of the most uncommon condition described, the like of which I had never seen or heard of before. An animated discussion followed the demonstration, in which very varying views were expressed as to the nature of the tumour.

Dr. David Newman of Glasgow said that the laryngeal tumour looked like a sarcoma, but that the long history was somewhat against this suggestion, and that it was a fibrous or fibro-cystic growth.

Dr. Scanes Spicer thought that the tumour was encapsuled, and that if the mucous membrane were divided it would shell out.

Mr. Charters Symonds found difficulty in deciding what the relation of the outside to the inside tumour was. He thought, however, that the case might be surgically attacked, and without any great danger.

Mr. de Santi, although very uncertain of the nature of the tumour, inclined to the opinion that it was a slowly-growing fibro-sarcoma, and that the history of eight years' duration was not incompatible with the diagnosis of sarcoma.

Mr. Butlin thought that possibly the tumour was glandular in nature, and might be an extension or outgrowth of the thyroid gland. He pointed out that the external tumour moved with the hyoid on swallowing. He thought that an operation for removal might be attempted and with a prospect of success.

Personally, I was not much in favour of operation at that time, seeing the uncertainty of the nature of the tumour and

of the mutual relationship of the external and internal growths, and the probability that the external growth was apparently, as shown by the violent reflex symptoms arising when handling it, closely connected with the vagus. I therefore preferred watching the case a little longer before advising the patient, who was herself anything but favourably disposed to further operative measures, to submit to such.

The case was shown again on June 2nd, 1899, to the Laryngological Society, simply to show that the condition had remained absolutely *in statu quo*. No further opinions as to its nature were elicited on that occasion. During the next few years I saw the patient periodically at long intervals. No further changes took place during that time either in the subjective or objective symptoms.

In 1900 Professor Paul von Bruns, of Tübingen, kindly sent me a reprint of his contribution to the *Handbuch der Praktischen Chirurgie*, edited by Professor E. von Bergmann, himself, and Professor von Mikulicz, in which on page 104 I found the following description of an apparently analogous case, which I reproduce in verbatim translation.

Probably the removal of a laryngeal tumour by submucous shelling out from without, without opening the laryngeal cavity, such as I was able to carry out in the following case, might be regarded as a unicum. In a boy of 13, who had suffered for one year from hoarseness and difficulty of breathing when moving about, a tumour occupying the whole left side of the larynx was found, with smooth pale-pinkish surface formed by normal mucous membrane. This tumour extended in front to the middle line, and projected so as to fill the left half of the laryngeal cavity. The left ventricular band and the left ventricle of Morgagni had entirely perished in the tumour; nothing could be seen of the left vocal cord, whilst the right vocal cord showed normal condition and mobility. In addition, externally on the left side of the neck, corresponding to the lower border of the thyroid cartilage, a mobile dense tumour of the size of a hazel nut could be felt. The diagnosis was doubtful between an intralaryngeal and extralaryngeal goitre and a cyst, but when the internal tumour was punctured no fluid escaped. Tracheotomy was first performed, and a cannula introduced. After this the external tumour was dissected out from its surroundings, and it was found that a thin filiform pedicle extended from it below the lower border of the thyroid cartilage, and represented the connexion between the external and the internal tumour. By means of energetically lifting off the lower border of the thyroid cartilage, I succeeded in bloodlessly ("stumpf") shelling out the internal tumour, which was the size of a bean, without perforating the mucous membrane. Complete cure. Microscopic examination showed a fibro-myo-lipoma.

As this description was on all fours with the conditions seen in my own case, I informed the patient that a case quite similar to her own had been observed and successfully operated upon, and now advised a similar operation in her own case. The patient, however, who at that time suffered no distress whatever, refused operation. Very characteristically, it was more her fear that she would be unable to live without her tracheal cannula, which she had then worn for more than twelve years, and which, in the event of the operation proving successful, I of course proposed to remove at the same time, than the fear of the operation itself, which prompted her refusal.

At the commencement of 1904, however, fresh symptoms made their appearance. The patient, whom I had not seen for about two years, came again to see me on May 14th, nominally because she had recently had a cold and her throat was very sore. In reality, however, it was evident that matters had been getting worse during the last two years. She had had running from the eyes, her conjunctivae were inflamed, and there was very much increased salivation, which greatly troubled her. On laryngoscopic examination, the swelling of the left half of the larynx was seen to have greatly increased, and the form of the epiglottis was now completely lost. The external tumour was only slightly larger than it had been, but on external pressure the retching and coughing, which had formed so characteristic a feature of the case on former occasions, were even more accentuated. There could not be any doubt, I thought, that the tumour in its further increase of size was beginning to irritate the sympathetic, and that the epiphora and ptyalism were due to that cause. I again strongly recommended operation, and this time the patient consented.

The operation was performed on June 3rd, 1904, with the assistance of Mr. Stabb and in the presence of Drs. McBride and Law and Mr. Waggett, Mr. Tyrrell giving the chloroform. I exactly followed Professor von Bruns's plan—that is, I cut down upon the external tumour, dissected it out from its vicinity, and found at its distal end a thin, partly thread-like, pedicle, which I followed up as far as possible. The tumour, however—which in parts was extremely friable—broke during its removal into three pieces, which were removed without difficulty. In this case the tumour, which consisted of a number of yellow lobes and lobules, and was in its entirety fully as big as a medium-sized plum, entered the larynx not below but above the thyroid cartilage, between it and the hyoid bone. Both portions of the internal tumour—that is, the anterior one, which extended below the mucous membrane covering the epiglottis, and the lateral one, which occupied the region of the left ventricular band and the ventricle of Morgagni—were shelled out by means of the finger: and, in order to be sure that every particle of growth had been removed, Dr. McBride inserted his finger through the patient's mouth, until, having arrived in the interior of the larynx, it touched my own forefinger, introduced through the external wound, nothing being between the two fingers but the mucous membrane of the larynx, which could be preserved entirely intact. The mucous membrane forming the internal lateral wall of the very big cavity, which remained behind after removal of the tumour, was stitched to the adjoining tissues, as during inspiration it was strongly sucked inwards, and as it was feared that it might thus cause a fresh form of obstruction. The external wound was then closed in its entire length, only a small drainage tube being left in its deepest part. After completion of this operation the tracheal tube, which the patient had worn nearly thirteen years, was removed; the wall of the tracheal opening, which was lined with skin for a considerable distance inwards, was pared off entirely by a circular incision round the tracheal opening, and was subsequently dissected out, the funnel thereby remaining being temporarily closed by clamp forceps. Finally, preliminary horsehair ligatures were passed through the opening of the tracheal wound, but not closed. The clamp forceps was left in position until the following day in order to insure, in the event of dyspnoea arising, a reintroduction of the cannula. The tumour was shown the same day to the Laryngological Society of London, and a short description of the operation given.

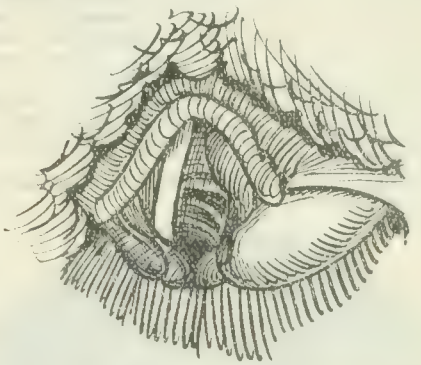


Fig. 2.—The laryngoscopic image in November, 1904.

The patient's recovery was absolutely uneventful and very rapid. The temperature remained perfectly normal throughout. There never was any dyspnoea. On the day after the operation the external wound looked well, and there had been so little secretion that the drainage tube was entirely removed. The tracheal wound also looked first-rate; the part secured by clamp forceps was cut off, and the tracheal opening, after previous application of iodoform and boracic acid, permanently closed. The patient got up on the second day after operation, and within one week left the home. She has remained well ever since, with the exception of occasional nocturnal spasms in her throat, which I believe to be of purely neurotic character.

The laryngoscopic appearances are at present as follows: The epiglottis has almost completely returned to its normal shape with the exception of its being uniformly and slightly thickened. The right half of the larynx, which can now plainly be seen, is perfectly normal in appearance and mobility. The left vocal cord is still obscured—except on phonation, when occasionally a glimpse of it may be obtained by the somewhat thickened left ventricular band, and the left aryepiglottic fold also appears still somewhat enlarged. The last-named two features are easily explained by the enormous distension which these lax structures have suffered for so many years by the big tumour which developed beneath them, and which stretched them to such a degree that a complete *restitutio ad integrum* was probably impossible. The

left arytenoid cartilage, however, moves perfectly well. The present condition of the larynx is very faithfully represented by the second sketch, for which I am indebted to Mr. E. Waggett. The patient's voice is quite natural, and she can even sing.

Of the tumour, which is shown in natural size in Fig. 3,

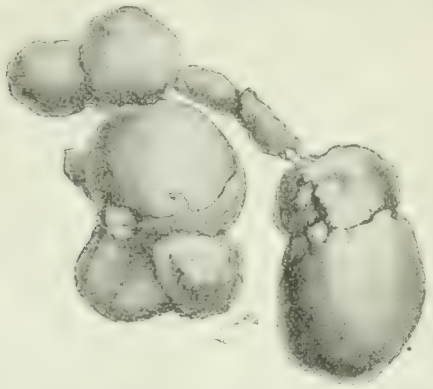


Fig. 3.—The tumour after removal, natural size, reconstructed. The piece on the right-hand side lay outside the larynx; the upper transverse piece, connected with the former by a long pedicle, caused the swelling of the epiglottis; the piece below this occupied the left arytaeno-epiglottidean fold.

Mr. S. G. Shattock, F.R.C.S., kindly gives the following description:

"A Tumour of Complex Form Removed in Three Portions.*

"The smallest elongated piece, mounted on the right hand side of the preparation, lay on the thyro-hyoid membrane through which the narrow anterior end passed so as to be continuous with the portion which is mounted highest; the latter lay beneath the mucosa of the epiglottis, and was itself continuous with the third and largest of the three portions, which occupied the right ary-epiglottic fold.

"Of the medium-sized piece of the three, microscopic sections were cut in the direction of the larger axis, and in a plane corresponding with the flatter side, the sections including about half of the mass.

"The structure as so shown is fairly uniform and typical of a soft fibroma (Fig. 4).

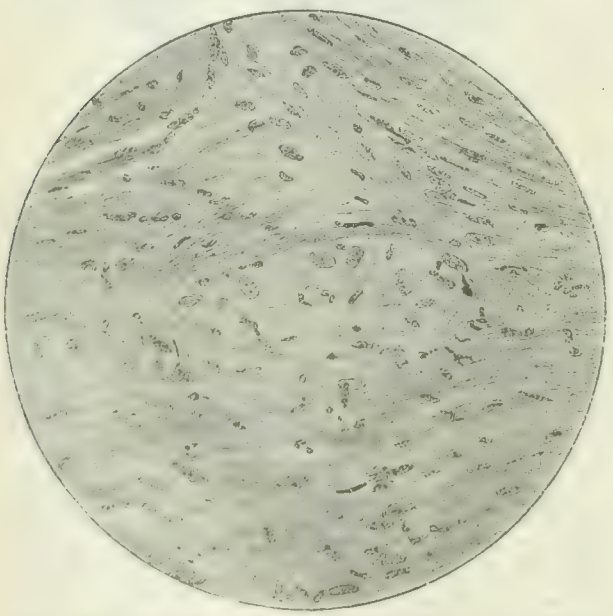


Fig. 4.—Microscopic section taken from the extralaryngeal portion of the growth, showing the typical structure of a soft fibroma.

"The tissue varies somewhat in closeness in different fields. Where closest it consists of closely apposed intersecting bundles of delicate wavy connective tissue; amongst the fibres of these, connective tissue cells are scattered in conspicuous numbers.

"In other spots the texture of the intersecting bundles is less compact, the groups of their component fibres being separated or disparted, yet still interconnected by delicate fibrils pertaining to the bundles themselves. These differences are to be ascribed to the presence of a varying amount of oedema.

"In the oedematous tissue clusters of lymphocytes occur, in addition to the other cell forms. Well-developed arterioles ramify in the new formation. There is no fat in any of the sections examined, nor are any nerve fibres discoverable.

"The elongated form of the tumour and the fact that it has tracked through the thyro-hyoid membrane suggest its possible source in the internal laryngeal branch of the superior laryngeal nerve, and I therefore further examined transverse sections of the narrowest of the three pieces—namely, that which perforated the membrane named. These sections, however, show only intersecting bundles of connective tissue, as already described, and nowhere any medullated nerve fibres.

"Although no evidence is forthcoming that the growth is a neuro-fibroma, it has, nevertheless, probably tracked along the internal branch of the superior laryngeal nerve or the superior laryngeal artery. Whether it was originally extralaryngeal or intralaryngeal is left doubtful by the clinical history.

"There is as yet no record of any similarly-disposed laryngeal fibroma. Of the tracking of connective tissue tumours instances will occur to mind—notably in the case of lipomata, as of those which grow along the spermatic cord from the subperitoneal fat or down the crural canal through the saphenous opening."

Remarks.

There seems no need for any further commentary upon this extraordinary case than that its histological structure, namely, that of an oedematous fibroma, explains a clinical factor in the case, which had been inexplicable to me until the microscopic diagnosis had been made. I must confess that I had looked with considerable scepticism upon the patient's very positive statement, namely, that the external growth had at various times considerably varied in size, but from the fact that so much serous infiltration is described by Mr. Shattock as existing between the fibrils of the growth, it seems quite possible that the varying size of the external growth, as described by the patient, may have been due to a variable amount of oedema within the tumour itself. Whether the growth began within the larynx or in the tissues of the neck remains, as stated by Mr. Shattock, doubtful from the clinical history, and has not been definitely determined by the histological investigation. But whatever its origin, the case acquaints us with the fact that pure fibromata may simultaneously involve the larynx and the neighbouring parts of the neck, a fact of which no example, so far as I know, has hitherto been recorded in medical literature.

In conclusion, it may be said that the close proximity of the growth to the superior laryngeal nerve fully explains the coughing and retching which immediately occurred whenever the external tumour was handled, whilst no equally tangible cause was detected in the course of the operation for the epiphora and salivation which had latterly formed prominent symptoms of the case. In all probability, however, the belief which was entertained when these symptoms made their appearance, namely, that they were due to irritation of the sympathetic caused by the increasing size of the growth, actually corresponds with the facts.

* The specimen is now in the museum of the Royal College of Surgeons (No. A 3,502).

SOME THOUGHTS ON PLEURISY.*

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Although this subject may be regarded as a well-worn theme, it is, nevertheless, surrounded by questions of considerable difficulty. With all the modern aids in diagnosis, it is still sometimes impossible to determine the causal influences which have produced it; while the attempt to form a forecast of its course is a matter of even greater difficulty. In the remarks which follow the aim of practical utility will be kept in view.

We shall approach the subject of pleurisy from the etio-

* Being the Introductory Lecture of the Mount Vernon Hospital Post-Graduate Course, delivered October 12th, 1904.

logical standpoint, and, in order to have some firm basis upon which to rest our conclusions, the experience of my seven years' tenure of office as a Hospital Physician in full charge of wards will be laid before you. Before giving you the results, however, a few preliminary observations are necessary.

DIAGNOSIS.

The modes of diagnostic inquiry fall naturally into two main groups. The first of these to be considered is the old-established method of clinical examination by inspection, palpation, percussion, and auscultation, along with such chest measurement and tracings as may further help in determining the physical conditions of the chest. After these ordinary means of physical investigation have been fully utilized there are still, secondly, some additional modern methods. Amongst these must be considered in the first place the application of the *x* rays in the exploration of the chest. It is my good fortune to-day to be in a position to hand round for your inspection a series of most instructive skiagraphs, demonstrating diverse pleural conditions, several of which have been very kindly placed at my disposal by my friend Dr. Lawson of Banchory, who has done some admirable work on this subject.

The other line of research consists mainly in cytology and bacteriology. Here we have to examine the exudate, if any be present, in order to ascertain the nature of the cells which are present, and to determine whether any specific organisms exist. The examination of the sputum is also necessary before reaching definite conclusions with regard to the condition of the lungs, seeing that pulmonary lesions so commonly throw light upon the real state of the pleura. The blood requires also to be thoroughly investigated, as the varying proportions of the different corpuscles cannot be disregarded in formulating a diagnosis. In addition to all these methods, the pathological examination of the urine is of considerable importance, as has been elsewhere shown by me,[1] and as will be further alluded to in the course of this lecture.

The investigation of the pleural contents in cases with effusion has, during the last few years, been assiduously practised, and as already said, the main points to attend to are the examination of the various cells, whether arising from the endothelium or from the blood, and of the bacteria which may be present. Both of these objects of investigation are of immense but variable usefulness. The examination of the cells, for example, is of less importance in purulent effusions than in those which are serous, while the determination of the micro-organisms, when this is possible, is of equal importance in both types of exudation.

CYTOLOGY.

In the examination of the cellular elements the methods are extremely easy. Some of the fluid is obtained from the pleural sac with an exploring syringe, rendered thoroughly aseptic, but not antiseptic. If cellular elements are few in number some of the fluid must be centrifuged, and preparations on slides are to be made. After fixing, the stains which have been found most useful in my own work are eosin and methylene blue, or Jenner's stain. Many others are in use, but these have seemed to me to give the best results.

The endothelial cells of the pleural membrane are found in larger or smaller numbers in the exudation. They are often found to have undergone fatty degeneration, and they occasionally appear in clusters. On the whole, however, it is more common to find them discrete. Occasionally amongst the cells derived from the tissues there are some characteristic of carcinoma or sarcoma. It has long been a matter of routine to look for a special arrangement of such cells; but this, on the whole, does not often occur. Sometimes special cells, pathognomonic of such conditions, may be seen.

Of the cells from the blood, erythrocytes and leucocytes are often both present in the exudate. The former present no conspicuous alterations, but the latter give us much useful information. Two forms of leucocyte are chiefly found, the polynuclear neutrophiles and the lymphocytes. They are present in variable proportions, and the former undergo various degenerative changes, chief amongst which are the glycogenic and the fatty. The lymphocytes appear much more stable, and are found in the two forms of large and small cells. The relative proportion of these different blood corpuscles throws considerable light upon the case from which they are obtained, both as regards its nature and duration. Undoubtedly in all types of exudation during the early stages the polynuclear neutrophiles predominate, while during the later stages of all of these conditions the lymphocytes preponderate.

There is one important question arising in connexion with such observations. Since the appearance of the observations of Widal and Ravaut[2] it has been a very common belief that pleural lymphocytosis is tantamount to pleural tuberculosis. Some questions connected with this aspect of the subject will be dealt with subsequently; but you will perhaps allow me to mention here my own conviction that the relative proportion of the various leucocytes is an expression of the stage and extent of the reaction rather than a proof of the nature of its cause. One most interesting case may be referred to in this connexion. A young man was recently under my care on account of pneumothorax. The sputum teemed with tubercle bacilli, yet the fluid in the lower part of the pleural sac—a perfectly transparent serous exudate, by the way—contained an enormous excess of polynuclear neutrophiles, with a much smaller number of lymphocytes—the large and small varieties being almost equal in amount—and a considerable number both of eosinophiles and of myelocytes. In this excellent illustration of my contention the examination of the blood revealed the following facts: Haemoglobin 78 per cent., erythrocytes 4,000,000, leucocytes 8,000.

BACTERIOLOGY.

The bacteriology of pleurisy has received more attention than the investigation of the cellular elements found in pleural exudations. The methods of detecting the various micro-organisms which are commonly employed are threefold: First, the results of microscopical examination; secondly, the products of culture incubation; and, thirdly, the effects of inoculation experiments. The methods of microscopical examination and of culture incubation are similar to those utilized in other bacteriological investigations, and there is no need to linger over the details, but you will perhaps allow me to mention that in staining pneumococci thionin-blue and Muir's stain have given me the best results, while ordinary methylene agents are in every way adequate for detecting streptococci and staphylococci, and the Ziehl-Nielsen process is unsurpassed for use in detecting tubercle bacilli.

The effects of inoculation should be ascertained in all doubtful cases; unfortunately, in many instances the results are, nevertheless, absolutely negative. Even in instances of serous pleurisy, undeniably produced by tuberculosis, no results have followed. It is probable that in such cases the bacteria have been destroyed by the activity of the processes which they have induced, and this idea is supported by the extreme difficulty of detecting some other microbes in pleural effusions.

A large number of different organisms are found in pleuritic exudates, but those which predominate are the pneumococcus, the streptococcus, the staphylococcus, and the tubercle bacillus. Each different observer who has recorded his results has, as might be expected, a different story to tell as regards the relative number of cases produced by each of these microbes. My own results will be referred to shortly.

SPUTUM, BLOOD, AND URINE.

The examination of the sputum yields certain useful results, but a considerable number of cases may afford no definite information by such means. Very often the expectoration consists merely of a serous fluid containing certain epithelial elements from the mucous membrane, without any definite pathogenetic organisms. But in certain instances the pneumococcus, the streptococcus, the staphylococcus, or the bacilli of tubercle or influenza, may be most helpful from the standpoint of diagnosis.

Turning, in the next place, to the blood, it must be premised that there may be no change in its constituents. This is true of all forms of pleurisy, in which the blood, examined by every known method, may be absolutely normal. In early cases of dry and serous pleurisy there may be a distinct leucocytosis, and the predominant elements in such instances are the polynuclear neutrophiles. An absence of leucocytosis at an early stage in such cases is rather suggestive of tuberculosis, and, according to some observers, the employment of tuberculin in such cases has given a definite reaction. It must be added that in pleurisy produced by the pneumococcus, even when pneumonia is absent, high counts of polynuclear leucocytes are common. In almost all cases of purulent pleurisy the blood shows a considerable increase of the polynuclear neutrophiles, and, as a rule, along with those a considerable diminution in the number of the lymphocytes.

Leucocytosis is the rule in cases of malignant pleurisy, and in such cases, together with an excess of polynuclear neutrophiles, coarsely granular eosinophiles are in excess, while myelocytes are not infrequently present.

In the last place, the bacteriological examination of the urine is sometimes useful. In certain doubtful cases complicated by pleural affections, the presence of tubercle bacilli may be established by careful investigation, and the presence thus shown of urinary tubercle is of great use. A certain amount of caution must be exercised in regard to this matter, as the smegma bacillus is only separated with considerable difficulty from the tubercle bacillus. A new light has further been thrown upon one form of infection occasionally resulting in pleurisy. Although undoubtedly far from common, rheumatic pleurisy does exist. Quite recently a beautiful example of general rheumatic inflammation of the serous membranes—pericardial, pleural, and peritoneal—was in my wards, with abundant diplococci in the pericardial exudate. In so far as is known to me the diplococcus of rheumatism has not yet been obtained from any pleural exudate, but my own personal observations have placed me in a position to be able to point out that its presence in the urine may be detected by centrifuging the fluid and staining the deposit.

ANALYSIS OF STATISTICS.

Having now considered in a manner as concise as possible the various methods of investigating the causes of pleurisy, you will allow me to refer to the cases which have, during the last seven years, been under my care in hospital.

Analysis of 118 Cases of Pleurisy.

Without pericardial implication:			
Dry pleurisy:			
Pneumococcal	... ...	21	
Streptococcal	... ...	2	
Rheumatic	... ...	4	
Tuberculous	... ...	16	
Influenzic	... ...	1	
Metabolic:			
Gouty	... ...	1	
Renal	... ...	1	
Neoplastic:			
Sarcomatous	... ...	2	
Cause uncertain	... ...	17	
		—	65
Serous pleurisy:			
Pneumococcal	... ...	4	
Rheumatic	... ...	1	
Tuberculous	... ...	13	
Metabolic:			
Renal	... ...	1	
Neoplastic:			
Carcinomatous	... ...	4	
Cause uncertain	... ...	15	
		—	38
Purulent pleurisy:			
Pneumococcal	... ...	1	
Streptococcal	... ...	2	
Staphylococcal	... ...	1	
Pneumococcal and streptococcal	...	1	
Tuberculous, streptococcal, and staphylococcal	...	1	
		—	6
With pericardial implication:			
Pleuro-pericarditis:			
Rheumatic	... ...	1	
Tuberculous	... ...	3	
Cause uncertain	... ...	2	
		—	6
Mediastino-pericarditis:			
Tuberculous	... ...	2	
Metabolic:			
Renal	... ...	1	
		—	3
Total	... ...		118

The total number of all cases which have passed through my wards is 2,710. Of these 118 were instances of pleurisy, whether simple or associated with other diseases, showing a percentage of 4.35 of all the patients admitted to the wards. It has appeared well to me to separate cases of pleural affection, without implication of any other serous membrane, from those in which the pericardium was affected. Of this class, without pericardial implication, there were 65 cases of dry, 38 of serous, and 6 of purulent pleurisy. Separating the cases with pericardial implication into two groups according as there were mediastinal adhesions or not, it will be seen that there were 6 cases of pleuro-pericarditis and 3 of mediastino-pericarditis.

ETIOLOGY.

It must be obvious from the most cursory consideration of the table that two causes stand out as predominant—the tuberculous and pneumococcal infections. Tuberculous infection was present in 35 of the cases, or 29.7 per cent. The pneumococcus was responsible, either alone or along with the streptococcus, for 27 cases, or 22.8 per cent. Contrasting the two different infections it is a matter of extreme interest to observe that their influence is in an inverse proportion as regards the production of dry and serous pleurisy.

The most startling point as regards the investigation of these facts is that in 34 of the cases (17 of dry and 15 of serous pleurisy) it was impossible by any means of investigation available to assign any cause for the pleurisy. In other words, in 28.8 per cent. the cause was absolutely uncertain. After the physical examination of the chest had yielded its conclusions, and every modern means of investigation had been employed, the causes of this large percentage of cases baffled detection. In all of them the blood was examined as a matter of routine, and in those presenting a fluid exudation, whether serous or purulent, the effusion was examined from the cytological as well as bacteriological points of view, while in a considerable proportion inoculation experiments were also resorted to.

Nowadays the doctrine is being more and more taught that such doubtful cases are of tuberculous origin. What is the evidence upon which this doctrine rests? In the first place, it is held that a considerable degree of lymphocytosis in the pleural effusion must be accepted as significant of tuberculosis, but it is admitted, even by those who push the tuberculous doctrine to its furthest limits, that in cases of rheumatic pleurisy a large number of lymphocytes may be present.[1]

Another point upon which great stress is laid is the subsequent history of cases of serous pleurisy. It is universally allowed that in a considerable proportion of cases pulmonary tuberculosis is the sequel of pleurisy. But it may be fearlessly asserted that in many cases the subsequent tuberculosis is the result of a later infection, the pleurisy not having even led to the pulmonary affection by leaving damaged tissues behind. One such instance always rises, and always will rise, before me in considering this question. The patient was an undergraduate suffering from what was proved to demonstration to be a case of rheumatic pleurisy with effusion. From this he made a perfect recovery, but two years afterwards pulmonary tuberculous set in, and he was carried off very rapidly. Several similar cases have been under my own personal observation, and they have led me to be somewhat sceptical as to the proofs of the tuberculous origin of pleurisy derived solely from the subsequent history of the cases. It must indeed be admitted that a considerable proportion of such cases may undoubtedly be tuberculous, even when no tubercle bacilli are present, when cultures from the exudate remain sterile, and when no result follows inoculation. Sometimes after death in such instances hidden tubercle is found in fibrinous adhesions binding the edges of the sulci together. In such instances it is probable that the organisms have been destroyed by their own activity. Osler's results from the *post-mortem* records in Baltimore are of great interest in this connexion.[3] In 101 successive cases occurring in his own wards tuberculosis was only determined in 32. As Osler points out, such evidence as this is of much greater value than mere clinical impressions. While only accepting the presence of characteristic bacilli, or positive inoculation, or tuberculous lesions elsewhere, as evidence sufficient to definitely establish the presence of tuberculous pleurisy, it must be allowed that a large lymphocytosis at an early stage in the exudation, and the absence of any definite leucocytosis in the blood, are eminently suspicious appearances, leading to the fear that cases of pleurisy presenting such features may be tuberculous. With this admission my remarks may be brought to a close. It only remains for me to express my sincere hope that the present course of lectures may in no respect fall below its predecessors, and that, as heretofore, the post-graduate instruction of the Mount Vernon Hospital may be of signal utility to the medical profession.

REFERENCES.

1 BRITISH MEDICAL JOURNAL, 1904, vol. ii, p. 1601. 2 *Comptes Rendus de la Soc. de Biol.*, 1903, p. 648. 3 *Boston Medical and Surgical Journal*, 1893, vol. cxxix. p. 53.

SCHISTOSOMA CATTOI, A NEW BLOOD FLUKE OF MAN.*

[WITH SPECIAL PLATE.]

BY JOHN CATTO, M.B., D.P.H.,
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WHILE I was Resident Medical Officer at St. John's Island Quarantine Station, Singapore, cholera broke out on a passenger ship from China. Some four hundred coolies were quarantined. Amongst them was a Chinaman from the Province of Fukien who presumably had never been away from China before.

He died of cholera after three days' illness. He was plump for a coolie. During life it was found that the right lobe of his liver extended two fingerbreadths below the costal margin. The left lobe was a handbreadth below the sternum, and its percussion dullness merged into the splenic. The spleen was palpable 1 in. from the iliac crest, and its notch was in line with the anterior axillary fold.

A necropsy was made an hour and a half after death. The adipose tissue throughout the body was a prominent feature. The appearance of the peritoneum suggested repeated attacks of peritonitis. The appendices epiploicae were thickened, and in some places matted together. The recto-vesical pouch was almost obliterated. Encasing the large intestine was a coat of fat, most marked at the mesenteric attachment. The mesenteric tissues were all thickened and loaded with fat. The mesenteric and prevertebral glands varied in size from a bean to a golf ball, the largest forming a cluster near the duodenum. The liver was uniformly enlarged. Its surfaces were markedly nodular, its borders sharp and irregular, the whole presenting the appearance of a very coarse cirrhosis. Its consistence was greatly increased, but its colour was not appreciably altered. The coats of the gall bladder were thickened, and a layer of fat almost completely encased this viscus, which was distended with clear mucoid, apple-jelly-like material containing several minute black gall stones. The colon was much thickened throughout. The mucous membrane was swollen, hyperaemic, and friable, presenting numerous small circular, superficial erosions and patches of necrosis. The outer coats were very tough, almost cartilaginous, and showed no tendency to ulcerate. The rectum was three-quarters of an inch thick all round, and was adherent to the bladder. It nearly filled the true pelvis. Where adhesions had formed the bladder wall was thickened, but elsewhere it was healthy, and nowhere was the vesical mucosa diseased. The sigmoid was uniformly thickened; in tracing the bowel upwards the thickening became less marked and more patchy. The coats of the caecum and appendix vermiformis were uniformly hypertrophied, the mucous membrane presenting small patches of ulceration and necrosis. The appendix was provided with a mesentery, and a distended lymphatic could be recognized running along its free surface. The liver and bowel cut gritty on section. The lower end of the ileum was thickened in patches, and the mucosa congested over corresponding areas. The enlarged spleen was pigmented. The stomach, pancreas, suprarenals, kidneys, heart, and lungs, showed no signs of coarse disease.

As the lesions above mentioned were peculiar, some of the viscera were preserved. Sections of the liver, mesenteric lymphatic glands, and bowel (Fig. 1) were made in Singapore by Dr. Finlayson, and at the Kuala Lumpor Research Institute by Dr. Daniels. Numerous small oval bodies having a smooth, stout capsule were found. Opinions differed as to whether these were coccidia or the ova of some unknown parasite, but the case was published in the Journal of the Malaya Branch of the British Medical Association as a case of coccidiosis in man. Subsequent examination in this country of sections of intestine showed ova and filaria-form embryos in bundles in the mucosa and villi of the large intestine. These, along with other specimens, were shown at the Medical Research Club, London, but no definite conclusion regarding the nature of the oval bodies was come to. An eminent German authority, to whom pieces of tissue were kindly sent by Dr. Bulloch, stated "that the oval bodies were neither coccidia nor the eggs of a trematode, but those of a nematode of unrecognizable species, etc." At Sir Patrick Manson's suggestion, to whom the specimens were shown, I devoted my whole time to working out the case at the London School of Tropical Medicine, where systematic examination and sections of all the preserved tissues were made. Soon after I commenced investigating, nematode embryos were found in smear preparations from the large intestine, and one was found in the vessel of a mesenteric lymphatic gland. These facts, coupled with the juxtaposition of ova—some empty—and embryos in the mucosa and villi of the large intestine, led to the suggestion of a nematode infection, but as no evidence of a differentiated embryo could be seen in any of the eggs, even in those lying in close proximity to the bundles of free embryos, one hesitated to adopt this conclusion. Subsequently, in sections of the mesocolon, I found adult trematodes, male and female, in the blood vessels (Fig. 9), the ova (Fig. 9, o) in the uterus of the female corresponding in every particular with the oval bodies found in the various viscera. It was now clear that I had to deal with concomitant trematode and nematode infections; that the oval bodies were the ova of the trematode; and that their close association with filarial embryos was merely accidental.

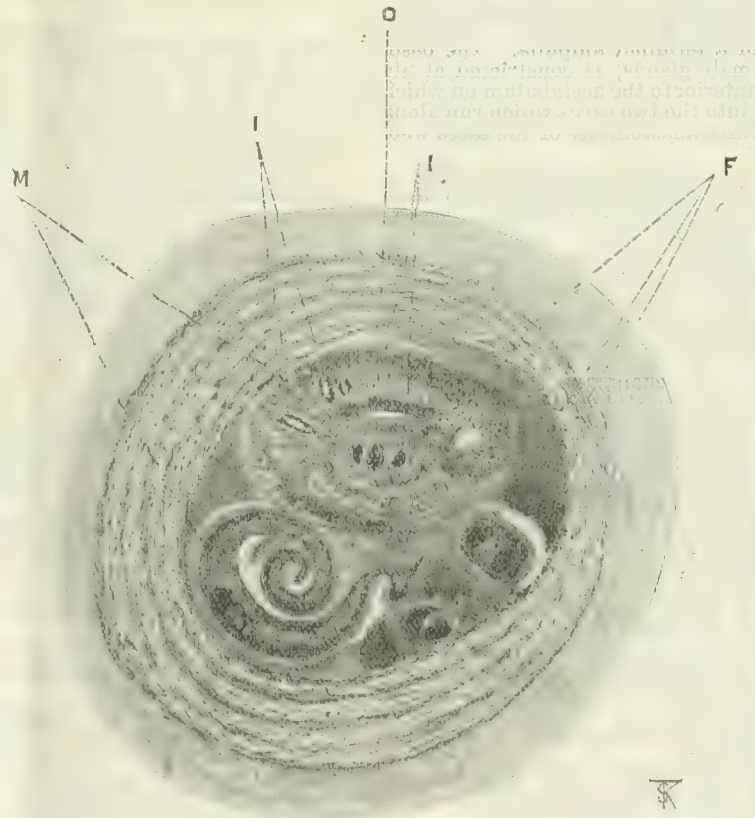


Fig. 9.—Transverse section of a mesenteric vessel showing: M, two male schistosomes; F, females; I, caeca in male; L, caeca in female; O, ovum. Magnification 56 ×.

A preliminary paper was read and drawings with specimens exhibited at the meeting of the British Medical Association at Oxford. Later, on continuing my dissections, entire mature worms were found in the smaller mesenteric blood vessels (Figs. 4 and 5.) It was difficult to determine the nature of the vessels in which the mature parasites lay. They were manifestly blood vessels, but whether arteries or veins was not so evident. I submitted my preparations to several eminent physiologists and pathologists. Unfortunately, there was no unanimity among them as to the arterial or venous nature of the vessels. I am constrained therefore to admit that this important point is for the present unsettled. My own conviction, however, is that the parasites occur in both arteries and veins. (See Fig. 2.)

*The Craggs Prize Essay, 1904, London School of Tropical Medicine.

Parental Forms.

The male (Figs. 4 and 5) is 9 mm. long, less than half a millimetre broad, and, in my spirit preparations, of a light brown yellow colour. The measurements are only relative as they are taken from spirit specimens. Three entire adult males, with fragments of others, were found. They closely resemble those of schistosoma haematobium, having their lateral borders incurved ventrally, thereby forming a canal groove along the entire length—the gynaecophoric canal—in which the female lies. The anterior extremity is blunt, with a terminal sucker in which the mouth lies. The dorsal lip of the sucker is longer than the ventral. Behind the sucker the body is slightly constricted, forming a neck. The worm attains its maximum breadth at the posterior sucker, which lies ventrally in the gynaecophoric canal about half a millimetre behind the anterior sucker, whence the body tapers gradually to a truncated posterior extremity. The posterior sucker is oval and trumpet-shaped, its long diameter being transverse; it is larger and more muscular than the anterior. Both suckers are retractile.

The alimentary system consists of a mouth furnished with a sphincter, a strong muscular oesophagus, and two caeca joining posteriorly to form a terminal ampulla. The oesophagus, surrounded by small glands, is constricted at its middle, and divides, just anterior to the acetabulum on which rests the posterior sucker, into the two caeca which run along either side of the body. Three anastomoses of the caeca were made out.

The excretory system ends in an excretory pore which is subterminal and ventral. The nervous system has not been satisfactorily determined. The reproductive system consists of a lobular testicle or testicles, vesiculi seminales, vas deferens, and genital pore with its sphincter, opening centrally into the gynaecophoric canal behind the posterior sucker.

A distinctive feature of this schistosome is the absence of ciliated warts on the integument, the presence of which constitutes so marked a feature of the African worm. Minor anatomical differences are: (*a*) Smaller size of the worm; (*b*) its longer vas deferens; (*c*) the characters of the testes.

The female (Fig. 4, B) is almost cylindrical (diameter 0.113 mm.), longer, more slender, and darker than the male. The cervical constriction is quite as marked as in the male. The suckers, alimentary and excretory systems, correspond with those of the male, except that the excretory pore is terminal. Owing to excessive fragility of the spirit specimen it was found impracticable to mount an entire specimen of the female worm.

The reproductive system consists of a muscular, central, elongated uterus occupying the anterior half of the body, and opening near the posterior sucker. The ova are arranged irregularly in single or in double rows. At the posterior extremity of the uterus are the shell glands and opening of the oviduct with the vitello-duct. Behind this the body bulges slightly to taper subsequently to a sharply-pointed extremity. The bulging marks the position of the ovary; posteriorly are the vitellogene glands.

From the female schistosoma haematobium the following differences have been made out:

(*a*) The posterior sucker is larger than the anterior; the converse holds good in the schistosoma haematobium.

(*b*) The bulging in region of ovary is more marked.

(*c*) The arrangement of the yolk glands is different.

In both sexes minute, highly refractile spines are seen in the suckers and at their anterior extremities.

The eggs (Fig. 7) are yellow-brown in colour, oval, measuring on an average 70μ long by 40μ broad. They vary between 60μ and 90μ in length and 30μ to 50μ in breadth. They have a stout, smooth shell on section. There is no trace of a spine or operculum. In the sections some of the ova were empty; others contained a central, circular mass which stained deeply; some contained cells staining at their periphery, whilst others had cells staining in the centre. These may or may not completely fill the ovum. In some cases the cellular contents were seen escaping from a ruptured ovum. In no one of the ova could distinct embryos be detected, although appearances suggestive of a developing embryo could be observed. The ova differ from those of schistosoma haematobium in their colour, shape, size, and in the absence of a spine. The bilharzia ovum is of a brown colour, contains a well-developed embryo, and is larger, 0.19 mm. (Looss). Moreover, its ends are more pointed, and it is provided with a spine.

The ulcerative lesions of the bowel produced by the new species differ from the corresponding lesions of the bladder produced by S. haematobium in the entire absence from the former of the fungating masses so characteristic of the latter. Further, the new species does not give rise to the perihepatic nodules as described by Sandwith in bilharziosis.

In addition to the character of the ova and to the anatomical differences already noted, there are certain other points which serve to differentiate the species.

1. The habitat of S. haematobium is reputed to be venous only, whereas the habitat of the new schistosome is mainly arterial; too much stress must not be laid on this point, seeing it has not been proved that the former cannot affect arteries or the latter veins.

2. The ova of S. haematobium affect mainly the urinary system, and escape from their human host by this channel. In the new species the ova apparently exclusively affect the alimentary system, escaping by this route from their human host.

3. In this case there is a much more general infection of abdominal viscera, for ova of S. haematobium have not been found in the pancreas and appendix.

4. The geographical distribution differs, for no case of bilharziosis has yet been met with in China.

Histopathology.

The parent worms are found in small groups at the bifurcations of the smaller mesenteric vessels, and partially or completely plug the vessels. In one arteriole 0.621 mm. in diameter two complete sections of the male and female are seen *in copulâ* (Fig. 9). Blood cells are occasionally seen between the wall of the vessel and the parasites.

Where ova accumulate they provoke at certain places a small-celled infiltration, which gives place later to a great proliferation of fibrous tissue. Pigment is seen in the liver and bowel. In the intestine from caecum to anus the ova occupy roughly two concentric layers—the one subperitoneal, where the ova are comparatively scarce; the other in the submucous coat, where they are innumerable, in some cases densely packed (Fig. 6). Between these zones in the muscular layers ova with their long axes at right angles to the bowel lie in single or in double rows. Ova are plentiful in the mucosa, are more numerous in the necrotic areas, and are seen apparently in process of extrusion (Fig. 8) at the margin of an ulcer.

Of the intestinal tract, the rectum and appendix are most affected; the distended lymphatic vessel in the appendix already referred to is choked with ova. Everywhere throughout the small intestine ova were found, but only in patches and in relatively small numbers.

The obliteration of the rectovesical pouch was probably caused by the irritation produced by ova accumulating in vast numbers in the wall of the rectum. In the many sections examined no ova were found in the vesical mucosa, though they were present in small numbers in the outer coats of the bladder.

In the liver the ova are plentiful, lying singly or in larger or smaller clumps embedded in the markedly hypertrophied fibrous connective tissue.

In many of the enlarged mesenteric lymphatic glands ova were found in the thickened trabeculae.

In addition to the localities already mentioned ova were found in the outer wall of the gall bladder, in the pancreas, liver capsule, fibrous coat of the larger mesenteric vessels, mesentery, pylorus, duodenum, jejunum, and ileum. Several sections were made of the round ligament of the liver and of the diaphragm without any ova being found.

Doubtless the life-history of the new schistosome corresponds with that of other trematodes, the geographical range of the intermediary host being the principal determining factor in its distribution.

That this case is unique is extremely improbable. When proper search has been made doubtless many additional cases will be found in the natives of the endemic districts. As a ready means of ascertaining the degree of prevalence and geographical range of the infection I would suggest systematic examination at *post-mortem* examinations of scrapings from the mucous membrane of the bowel, preferably of erosions or ulcerated patches. With a low power of the microscope only a few minutes are required to determine the presence or absence of the ova in such preparations.

The ova have probably been found many times in the course of ordinary microscopical examinations of faeces, but have been mistaken for the ova of ankylostoma duodenale, which they closely resemble.

It is interesting to note the accumulation of filariaform embryos in the villi, probably in the lacteals, of the intestinal tract, and their presence in faeces. I am not aware of any similar observation.

Diagnosis.

Sub-Kingdom...	Vermes.
Class ...	Plathelminthes
Order ...	Trematoda.
Family ...	Schistosomidae.
Genus ...	Schistosoma.
Species ...	Schistosoma Cattoi (Blanchard) 1904.

Measurements given below are from specimens found in hardened tissues:

	Female.	Male.
Length	? ...	0 mm.
Breadth	0.115 mm....	0.447 mm.
Breadth (near ovary)	0 134 mm....	—
Diameter at neck	0 041 mm....	0.180 mm.
Gynaecophoric canal	absent ...	entire length of body
Shape and size of posterior sucker	0.061 by 0.047 mm. (long. diam. longitudinal)	0. 200 by 0.180mm (long. diam. transverse)
Shape and size of anterior sucker	0.51 mm. circular	0.124mm. circular
Distance between centres of these	0 146 mm....	0.552 mm.
Genital pore...	behind posterior sucker	behind posterior sucker
Excretory pore	terminal	subterminal
Tubercles and cilia	absent	absent
Spines in suckers...	present but scarce	present

Habitat of Adults: Mesenteric vessels.

Ova: Oval with rounded ends and smooth stout capsule, destitute of spine and operculum.

Size: 0.065 to 0.090 mm. by 0.030 to 0.050 mm.

Found in intestinal tract and its appendages.

Number of Cases: One.

Symptoms: Probably colic and dysentery.

Physical Signs: Enlarged liver and spleen.

Geographical Distribution: Province of Fukien, China.

Type Specimen: Museum of London Tropical School of Medicine. Mounted in xylol balsam unstained from preserved formalin tissue.

It is possible that the filariaform embryos above referred to also escaped into the lumen of the bowels from the ulcers, for on making smear preparations from various parts of the bowel these embryos were found. In one smear thirteen embryos were present but in many others none were found. These embryos had the following measurements and characters; these, however, cannot be taken as accurate as none were got in fresh state.

Average length ...	0.300 mm.
Greatest thickness ...	0.008 ,,
Sheath	present.
Shape of head	truncate conical.
,, tail	sharp pointed.

(The sheath in many cases could not be seen, but embryos may discard it when in unnatural surroundings.)

Ova of trichocephalus dispar, ankylostoma duodenale, ascaris lumbricoides, in numbers, were found in the smears. Adult worms of all these were also found in the bowel.

I am deeply indebted to Sir Patrick Manson for much encouragement and criticism; and also for his sending specimens to the International Zoological Congress at Berne, where they were examined by Professor Blanchard, Drs. Loos, Ward, Stiles, Grossi, Monticelli, and other zoologists, who all agreed that the parasite was a schistosoma and new to science. Professor Blanchard has done me the honour of naming this new helminth *Schistosoma Cattoi*. To Drs. T. S. Kerr and E. E. Henderson the credit is due for the excellent drawings and photomicrographs.

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AN INVESTIGATION
INTO THE
NATURE OF THE FOLLICLE CELLS OF THE MAMMALIAN OVARY,

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[PRELIMINARY NOTE.]

THE primary object of this paper, which the writer regards as one of a preliminary nature, is to state as briefly as possible the results of an investigation into the nature of the follicle cells of the mammalian ovary. This investigation was from the first and has thus far been carried out on hypothetical grounds, as one of a series of other investigations connected with certain of the many problems which a student of cancer is called upon to face.

The term "follicle cells" is here intended to imply only those cells that go to form the zona glomerulosa and the discus proligerus of the Graafian follicle. The term is not intended to include the ovum itself, or those cells of the interstitium that enter into the formation of the investing layer.

The ovaries examined have been chiefly those of the rabbit, but sufficient attention has been paid to the ovaries of the bitch, cat, sheep, and sow, to show that the follicle cells in all these animals are of the same essential nature, and it is therefore reasonable to regard what is to be described as typical of mammals in general.

After a careful investigation extending continuously over the last three months, and involving the examination of many hundreds of nuclei belonging to the follicle cells of the mammalian ovary, the writer has been led to believe that the type of mitotic division prevailing in these cells is heterotype—that is to say, that these cells partake of the nature of germ cells as regards, at any rate, their method of dividing, and that the mitotic figures are characterized by exhibiting the halved or reduced number of chromosomes. These chromosomes are of a coarse nature as compared with those of the body generally (somatic cells), and resemble closely those that occur in the heterotype cell of a cancer or sarcoma, as recently described by Farmer, Moore, and Walker;[1] while the general character and the method of division is similar to what obtains in the parent cells of the ovum or spermatozoon.

The ovaries employed were transferred immediately after killing the animal to the fixing reagent. Various fixing agents were employed, the best results being obtained with Hermann's platino-osmic acetic mixture. In one case the fixing was carried out *intra vitam*, according to Mann's direction, with a mixture of picric acid, corrosive sublimate, formol, and water. The stain employed was chiefly iron-haematoxylin, the process being that recommended by Heidenhain. Owing to the smallness of the follicle cells and to the minute size of the chromosomes, decolorization was in some cases carried almost to vanishing point, the division of the mitotic figures being previously marked. By this means a more accurate opinion could be formed as to their delineation, shape, and disposition.

The coarse nature of the chromosomes has already been referred to. As seen *en masse* in metaphase, anaphase, or telophase, this character becomes the more obvious when compared with similar phases as revealed by a somatic cell. The polar views of the follicle cells show the distribution of the individual chromosomes more clearly, and their reduced number becomes the more apparent. By counting the chromosomes in serial sections this number, in the case of the rabbit, would appear to be about eight or rather more—that is to say, eight chromosomes are distributed to each pole respectively. The exact number, however, was very difficult to determine, but the evidence was sufficient to show that the number corresponds to the reduced, halved, or heterotype number, and not to the full somatic number, as seen in somatic cells or in cells of the body generally. The individual chromosomes are comparatively large as compared with the somatic type, their apices are rounded, not sharp and pointed. When arranged at the equator in metaphase they appear as small spherical bodies, sometimes in more fortunate specimens they suggest ring-shaped bodies. In anaphase the chromosomes present the appearance of horseshoes, though they are often irregular, one limb being longer than the other.

It has thus far been impossible to determine accurately the earlier and later phases in these follicle cells, no definite proof of a dividing nucleus exhibiting the somatic number of chromosomes could be established either in metaphase or anaphase, and it would almost seem as if the cell division is carried on throughout with a reduced number of chromosomes. Occasionally, however, a figure resembling the later stage of somatic prophase may be seen. On the other hand, the majority of the prophases, like the other phases, are suggestive of the heterotype process, and many cells present an appearance that would suggest "tetrad" formation as seen in an oöcyte or spermatocyte.

As further evidence of the germ-cell nature of this tissue it may be noticed in certain very young follicles—those that consist of a single layer of follicle cells surrounding an ovum and which are apparently at a stage immediately preliminary to assuming active growth—that two

adjacent nuclei are frequently in close apposition to one another. The nuclei are thus arranged in pairs, a single layer of such pairs surrounding the oöcyte. This duplication of nuclei is frequently seen in germ cells, and its existence in the zona glomerulosa of the young follicle, taken together with the evidence of the heteromitosis which this tissue exhibits, may be regarded as being highly suggestive of the non-somatic nature of the follicle, while its existence would seem to indicate the period at which these cells undergo reduction in their number of chromosomes.

The significance of these observations, so far as they go, may be calculated to form a new factor in more than one branch of scientific research, among which may be mentioned the problem of oögenesis, the obscure functions of the ovary connected with the sexual characteristics of the female, the nature of the yellow bodies that are largely constituted of the substance of these follicle cells, the abnormal heteromitosis of malignant tumours, and with the character of heteromitoses in general.

The metabolism of the sexual glands has for long been suspected of being in some way connected with malignant tumour growth. The work of Farmer, Moore, and Walker, already referred to, has established a subtle morphological resemblance between the character of the cells of malignant tumours and those that are directly concerned with the production of the sexual cells—a resemblance which is based upon the heterotype characters of the mitoses exhibited in both cases. The relation has been more recently emphasized by the important investigations of Beard[2] into the distribution of germ cells in the embryo of Raja batis and other fishes, showing that the cells from which a cancer springs, no matter how remote they may be from their normal position in the sexual glands, may be actually germ cells, and may bear a close relation or, as it were, family connexion to the cells of reproductive tissue.

The revelation of heteromitosis in what may be termed "natural follicle tumours" forms an important factor in connexion with certain problems of malignant tumours, in so far as these problems bear upon the morphology and history of germ cells, and upon the sexual characteristics and history of the individual. Further, the germ-cell character of the follicle cells carries with it a significance that should throw light upon those obscure functions of the ovary, generally attributed to internal secretions, and which determine the sexual characteristics of the female. Some transplantation experiments after the manner of Limon,[3] Knauer,[4] and others have already been carried out by the writer in connexion with this work, and will be published at a later date.

With regard to oögenesis, the connexion or family relation that is suggested between the follicle cells and the oöcyte, finds a parallel in certain of the lower orders; for example, in Dytiscus, as described by Giardina,[5] and in Styelopsis Grossularia, as described by Julin.[6]

Lastly, the remarkable and unparalleled changes that follicle cells undergo in the yellow bodies of the ovary after the expulsion of the ovum and liquor folliculi suggests a hope, dim though it may be, of finding a means of antagonizing what would otherwise seem to be a hopelessly incurable disease, a means more hopeful than that of removing or administering the combined products of the ovarian tissues *in toto*.

In a paper that is already being elaborated, the writer hopes to publish a fuller account of his work together with diagrams illustrating the same, and to enter into the more important bearings of his investigations in connexion with the problems already referred to. The present paper has been hurried into print sooner than would otherwise have been advisable owing to the fact that the investigations described are already known directly or indirectly to other pathologists and physiologists who are carrying out work that must be influenced by that of the writer.

I cannot conclude without expressing my deep sense of gratitude to Dr. Beard of Edinburgh for the valuable hints and assistance he has given me in connexion with this work, and also to Professor Sherrington for much of the material necessary for the investigation, and to my former colleague and senior, Professor Grünbaum of Leeds, without whose teaching and kindness this work would not have been entered upon

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AMBIDEXTERITY.

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THE relation of the right hand to the left, and the tendency of man to exercise the right hand to an apparent advantage as compared with the left, have been the subject of considerable debate owing to the formation by Mr. John Jackson of an "Ambidextral Culture Society," with a propaganda—the equal training of right and left hands in the arts and crafts of the day.

It appears reasonable that before we give our aye or nay to such a proposition we should find out how we arrived at our present state of so called right-handedness, and realize what that state really is. In this paper I wish—

1. To consider the influences determining our general right-handedness, and, incidentally, the persistence of cases of left-handedness.

2. To demonstrate the present existence of a very general degree of ambidexterity, or rather co-ordination of function in the fore-limbs.

THE PRODUCTION OF RIGHT-HANDEDNESS.

If we look back upon the line of phylogenetic development, we shall note that the limbs at their earliest appearance were just bilateral buds from the body wall; the condition is shown in the sharks, their limbs are symmetrical in arrangement and coincident in action. To this day man under similar circumstances uses his limbs in the same manner—in swimming with a breast stroke the limbs in their movements are in every way coincident. Quadrupeds when driven to a high speed drop the alternate use of the limbs, as in trotting and walking, and break into a gallop, in which there is a coincident action of the limbs of the two sides. In the progress of the phylum through amphibians to land animals the limbs developed flexures; fore and hind limbs became specialized—the fore-limbs to bear the weight of thorax and head, the hind-limbs to propel the body forwards—and this differentiation of function was allowable by reason of a peculiar torsion of the basal limb rod—humerus and femur—whereby elbow and knee flexures opposed each the other.

In the anthropoid type there is an appearance of an erect position of body, probably for the purpose of increasing the range of vision, and with this change there is an alteration in the shape of the trunk: from a deep carinate quadrupedal type it becomes broader and less deep, and the fore-limbs are carried outwards and dorsally, held apart by a new dermal clavicle, and serve no longer as supports but as servants of the head. The change in the shape of the trunk necessitates a new mode of packing the viscera within it; hitherto the viscera have been symmetrically disposed—heart betwixt lungs, liver in the anterior mesogastrium. Now these organs are pressed to the sides of the flattened trunk: liver takes one side, stomach and spleen the other, and the heart will take the roomiest side—that farthest from the liver. The liver has been pushed to the right side, stomach, spleen, and heart to the left. But what is it that turns the balance in this direction? Why should not the reverse emplacement be the general rule, as it is rarely in the anomaly of "situs transversus"? I think the clue is to be found in the direction of growth of the caecum. In quadrupeds, particularly in the herbivora, with their monstrous caecal sacs, the caecum lies in the most dependent part of the belly—that is, close up under the liver. It is to be found here in the newly-born of man. It has already been pushed to the right by reason of the twist of the rapidly-growing gut about its early attachment to the yelk stalk; and with its descent, by reason of the action of gravity and growth, on the assumption of the upright position there is determined the balance of the other viscera; the drag the caecum exerts on the peritoneum overbalances the liver to the right side.

But it will be asked, What determines the twist of the rapidly-growing gut, so that the caecum arrives beneath the

liver, pointing to the right? In the embryo the upper part of the gut, which forms stomach and duodenum, has ventral and dorsal mesenteries, and is so "stayed," thereby, that there is no inherent inducement for it to turn to the right or to the left when its growth in calibre and length requires a folding for its packing; but the lower part of the gut which forms small and large intestines, has only a dorsal mesentery, it is only fixed at its extremities and at one point low down in its original position by the vitelline pedicle. As this lower part of the gut grows in length the lowest part swings over the upper part in an arch, with the convexity to the left side; the "head" of this arched loop of gut becomes the caecum, the first part of the large gut to differentiate, and grows up under the liver to point to the right side. As I have indicated, that part of the gut which forms large and small intestines is free along its ventral border save at one spot, here it is continuous with the yelk stalk passing to the yelk sac, the connexion is large in the early embryo; along this tube run the vitelline vessels, which early get a twist from right to left. Now when an intermittent increase of pressure is forced into a coiled tube, the tube tends to uncoil or right itself, so with each pulse of the fetal heart there will be a tendency to reverse the twist of the vessels; the placental ends of these vessels are practically fixed, so the twisting action of the vessels must be exerted on the gut itself which at this early period bulges out from the line of the belly wall alongside the yelk-stalk. This is my explanation of the primitive twist of the gut which brings the caecum beneath the liver pointing to the right, and so determines our visceral asymmetry.

The production of the coiling of the vessels of the funis (it is a coiling and not a torsion as has often been erroneously stated) has been the subject of unavailing discussion amongst obstetricians for generations. There may be a particular explanation for it, or it may be of the nature of the curious spiral growths in climbing plants, the horns of antelopes, and the shells of snails, each of which has its own recognized direction; there may be explanations for these phenomena, but I do not know of them.

So far the argument has been a linking together of morphological facts; now we must conceive an incident in the life of primitive man. Suppose a fight between two of these men over some desirable female or coveted meal; man No. 1 smites man No. 2 a mighty blow below the left pectoral region, over the heart, and, knocking his enemy out, secures the desired booty; but man No. 2 communes within himself, and his awakening intelligence connects the knock-out blow and certain palpitations under the site of the blow; so, covering the aching part with his nearest available fore-limb, he falls upon his gorged conqueror with his single free arm, and slays him with a blow on the region he had found weak in himself. He has learned the secret of division of labour in his fore-limbs! A left shield-arm and a right fighting-arm. To those of his kind who follow his cunning selection of his natural weapons there comes victory over those who do not follow him, or, following, faultily oppose fighting-arm to fighting-arm and shield-arm to shield-arm—that is, become left-handed. But the death of the less cunning ones would not necessarily mean the complete establishment of a right-handed succession, for the victorious right-handed ones appropriating the females of their victims would beget to themselves offspring who would revert to the maternal custom; and the occasional occurrence of left-handed folk in our days may be fairly put down to such a habit of reversion. The process can be paralleled by casting back in improved breeds of cattle; the not infrequent lack of development of binocular vision in man and consequent divergence of the eyes, although each eye in all its equipment is normal; but most nearly in the case of the pleuronectids, the lop-sided flat fish, some of the genera of the order have the right side uppermost, others the left side, yet occasionally fish of a dextral genus are found in which the left side is uppermost and vice versa.

This is the explanation I incline to for the presence of a general right-handedness in man; it is a hypothesis I have put forward in many a round-table "grind" when teaching in Cambridge; it has been subjected to the keen criticism incident to such grinds, and found at least plausible and not abounding in fallacies.

Division of Labour in the Fore-Limbs.

Man is now right-handed, or, as I would rather say, man has a right fighting or active arm, and a left shield or passive arm; for it is not a case of superiority of limbs so much as a division of labour, save in the notable exception of writing, and then not altogether, as I shall show later. Almost all work is shared between the hands, the right always taking that share which is most active or vigorous. Illustrations of this might be given *ad infinitum;* I will content myself with stating a few examples from the common operations of the toilet, of feeding, and of some of the more skilled tasks.

Most men brush the hair of the head with a pair of brushes, using each hand equally and coincidently in the task. With women it is otherwise; the long hair of their heads requires that the hair be guided to the brush lest it tangle, so the left hand deftly separates braid from braid and the right hand wields the brush throughout the operation; when plaiting the braids each hand works equally and coincidently, and in the final view of the resulting coiffure through a double reflection each hand alternately holds the back mirror, whilst the other adjusts coils, plaits, and pins. The extraordinary bimanual dexterity, with hand-and-eye cerebration, involved in these common toilet operations of women, can hardly be appreciated by the man who has not attempted something like it, say, to push to the right or left a marked hair on the back of the head; although the hair can be clearly seen in the double reflection, it is ten to one he will on the first attempt push the hair the reverse of the way desired.

No right-handed man would dream of cutting cloth with the scissors held in other than the right hand, yet most cut the finger-nails with scissors held first in the right hand and then in the left. No right-handed man would shave another with razor held in other than the right hand, yet I know many men who in shaving themselves use the right hand for the right side of the face and the left hand for the left side.

Take the use of implements in feeding, say at the dinner table: The soup is conveyed to the mouth by the spoon in the right hand; the meat passively held by the fork in the left hand is cut by the knife in the right hand, and the left hand with singular accuracy performs a flexion and supination to carry the morsel to the mouth (in some countries this active conveyance is performed with the knife held in the right hand, in these places I have noticed that the back of the knife is recurved to facilitate the operation). The sweets are steadied in the plate by the fork in the left hand, whilst they are broken and conveyed to the mouth by the spoon in the right. And of the accessories to the meal: the bread is broken by the left hand, and the glass lifted to the mouth by the right.

Amongst the more skilled tasks, violin playing is a performance which illustrates in a most remarkable way the division of labour between the fore-limbs: The left hand shows a remarkable nimbleness of co-ordination of movement in fingering the strings, but this is a relatively passive movement to the swift and deft manipulation of the bow on the strings by the right hand. In the not unskilled tasks of screw-driving and nail-driving is seen the same division of labour; in screw-driving the left hand holds the screw and directs the thrust of the blade of the tool held in the right; in driving a nail the left hand holds the nail in place and dextrously evades the swiftly-descending blow of the hammer wielded in the right. In all these performances, can we say which hand does the most work? As well revive the fabled quarrel of the nose and eyes as to which owned the spectacles.

It may be urged that these examples are of actions which by long usage have become automatic, yet it can be as easily shown that when necessity arises most ordinary folk can learn at a relatively late age in life to perform intricate operations with either hand. We ophthalmic surgeons in England—at least, those of us trained at Moorfields—can operate on the eye, say for iridectomy, with either hand with equal facility. The surgeon, standing behind the head of the patient, incises the left eye with the long narrow-bladed knife of v. Graefe held in the left hand and vice versa.

Writing.

In writing alone we appear to be almost, though not wholely, right-handed. Not wholely, for there are old and new methods of inscription which are bimanual. He who uses a typewriter will know that his left hand can write swiftly and accurately both in alternation and in conjunction with the right (the latter in the use of shift keys for capitals and figures), and this whilst the writer thinks out his message. This in the new bimanual writing.

But there is an old method of bimanual writing. A visit to the nearest cemetery mason's yard will show the mason cutting his inscription with chisel and mallet chisel in left

hand and mallet in right. Which does the most writing—the chisel hand or the mallet hand? The sign-writer exhibits a remarkable instance of two-handed writing: the right hand of the painter holds the brush and rests on the mahl-stick held in the left. The left hand accurately moves the supporting stick as the letters are marked with the brush, the painter gets the vertical part of his flourish by the movement of his left hand, and the horizontal by the movement of the right.

But the most extraordinary performance in writing is the inscription of the Braille type by the blind; it is an astonishing piece of work. The writing is done from right to left; the right hand holds the tool which impresses the paper, whilst the left guides the point into the marks on the guiding frame; when the writing is complete the writer withdraws the paper, reverses it, and reads the embossed characters, feeling with both hands from left to right. Often I have noticed the left hand running on to the beginning of the succeeding line whilst the right hand was feeling out the finish of the line above. Was bimanual division of labour ever more surprising!

But enough. The examples I have given show clearly, I think, that ordinarily trained men are possessed of a real ambidexterity, or, as it would be better stated, co-ordination of bimanual action. It follows from this that the aim of the Ambidextral Culture Society is futile; mother nature has already done the work which this new society proposes, and done it so quietly and secretly and so delicately that the sponsor of the society has not seen her working. To the assertion of its founder that it would be well to train children to write, draw, and paint with each hand, I unhesitatingly reply—No. Nature has already shown in a long course of evolution that it is desirable to specialize in the use of the limbs. Four primitive flippers of the early vertebrate have developed into propellers and supporters in the mammal, then into the general carriers of the body and the particular servants of the head in man, and now last of all man has learned to use his fore-limbs in an exquisitely adjusted association so that each is the complement of the other.

In conclusion, I would like to add a word on a tendency I have noticed towards the cultivation of educational fads. In my school days the cast-iron "Latinism" of the public school system crushed out all pleasure in lessons, unless I count the joys of the occasional blue and red flares, the bangs and stinks of chemistry demonstrations; but the schools of to-day are by comparison places of delight where true knowledge is so exposed as to excite desire. Modern educational modes step more nearly in the ways of Nature, and in so far as we continue this healthy lead we shall succeed in drawing on the children. Do we take up with fads we shall be as bores to the youngsters and butts for the gibes of the cast-iron pedagogues who, alas! are not yet dead.

A CASE OF CUTANEOUS ANTHRAX SUCCESSFULLY TREATED BY SCLAVO'S SERUM.

BY

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ON November 9th, 1904, a man, aged 31 years, presented himself at St. Bartholomew's Hospital with a small slough on the right cheek. He was a worker in horsehair, and the lesion had all the appearance of a malignant pustule. Bacteriological examination showed the presence, in the clear fluid from the neighbourhood of the slough, of large numbers of bacilli in all respects resembling anthrax bacilli, and the man was therefore admitted to the hospital under the care of Mr. Lockwood. It may be added that cultivations yielded typical anthrax bacilli in large numbers, and that they proved virulent upon a mouse in quite characteristic fashion. The diagnosis of anthrax was thus completely established.

The patient stated that a red spot had first appeared on the cheek on November 5th. On admission his temperature was 101° F. The slough was about a quarter of an inch in diameter, and there was a moderate amount of redness and oedema around it. The glands at the angle of the jaw were enlarged. The lesion was on the right malar eminence, about three-quarters of an inch outside and below the outer canthus of the eye. The usual operation of excision would have entailed considerable disfigurement and probably a plastic operation to avoid ectropion

The case seemed, therefore, a specially suitable one for serum treatment, and a supply of Professor Sclavo's serum was at hand, having been provided by Dr. T. M. Legge, of the Home Office, a few months previously. We were unaware of any case previously treated with the serum in this country, but Dr. Legge had reported to us very favourably of the results which he had seen at Siena in the hands of Professor Sclavo. We have since learned from him that the serum had once before been used in England, but on a hopeless case. The present case seems to be the first in which it has had a fair trial.

Forty c.cm. of the serum were injected subcutaneously into the flank and abdomen on the afternoon of the man's admission to the hospital, and no other treatment was adopted. The temperature was then 102.4° F., and it rose in the evening to 103° F., when the pulse was 92. During the night the temperature fell to 98.6° F.

For the next two days the patient showed little improvement. The temperature oscillated between 98.4° and 101.4° F. and the pulse from 80 to 99. The slough increased somewhat in size, but was never larger than a threepenny bit. The surrounding oedema became much more marked, at times almost closing the eye, and the enlargement of the glands at the angle of the jaw increased considerably. There was also some swelling and redness of the fauces. Nevertheless, no new vesicles appeared around the slough, and the patient's general condition was well maintained, giving no ground for anxiety. No further dose of the serum was given.

By November 12th there was distinct improvement. The temperature was normal, the oedema much less, and the glands had decreased in size. On this day a cultivation from the tissues at the edge of the slough yielded no anthrax bacilli. Convalescence was now rapid, but the slough did not come away till November 26th, seventeen days after the administration of the serum. A small granulating surface was left, which appeared likely to leave a scar scarcely more serious than that resulting from vaccination. The patient left the hospital in good health on November 30th.

The serum treatment thus proved, in this case, completely successful, fully justifying the claim made for it by Professor Sclavo. We publish it because we believe it to be the first successful instance of its use in this country. In those cases which have recovered without excision there has commonly been a much more considerable loss of substance than was seen here, and the risk of a fatal issue is considerable. The operation of early excision, chiefly relied on in this country, is undoubtedly successful in the great majority of cases. But where the lesion is on the face, and especially in the vicinity of the eye, as in this case, the advantages of serum treatment are manifest.

THE VALUE OF NITRO-GLYCERINE IN THE PRACTICE OF SURGERY.

BY FRANK ELVY, M.R.C.S.ENG., L.R.C.P.LOND.

THE action of nitro-glycerine upon the arterial walls can be measured by the observant finger at the radial pulse, and a check is thus made upon its general action, almost corresponding to a control experiment, while one notes the local effect upon a diseased part. In the following cases the arterial walls, unnaturally contracted as a sequel to kidney disease, yielded sufficiently to permit of recovery.

On December 21st, 1900, I was asked to visit W. C., suffering from a swollen hand and insomnia. The patient was a man of 50 years, employed as a smith in De Beers's works. Fairly well nourished, pale of face and with minutely contracted pupils, he gave a history of a rough life, hard drinking, and many attacks of the "horrors," together with "bad kidneys" and frequent suppression of urine. For three days he had passed little urine and had had no rest, owing, he said, to pain in the back. His pulse showed high tension, the radial arteries resembled fine whip-cord. On the left hand were three small spark wounds, the cause, he stated, of the swelling and oedema of the dorsum around the wounds, brawny patches occurring at intervals. The oedema extended to the elbow and the axillary glands were enlarged and apparently tender. The small quantity of urine obtainable was dark and slightly albuminous the temperature subnormal and general headache complained of. Fomentations were applied to the hand.

On December 22nd increased cellulitis, bogginess, and a rise of temperature made incisions imperative, and under ether four half-inch incisions were made on the dorsum, followed by fomentations, while strychnine and stimulants were administered throughout.

On December 23rd I found the man weaker and obviously going down-hill. The hand, more swollen, was now very cold, and pain and sensation lost. The radial pulse on the affected side could not be felt. The skin from finger tips upwards was blanched, with blue and purple patches on the dorsum. The incised wounds had enlarged and gaped

widely, revealing a dry surface covered with dirty-looking sloughs. The condition appeared a typical moist gangrene. The obvious obstruction to the venous circulation by the pressure of oedema might account for this condition, but a deeper origin I believed was present in the contracted arteries. It was only after amputation, apparently his only hope, had been refused by the patient, that a rational treatment by nitro-glycerine suggested itself to me as a certain method of increasing the arterial inflow to the diseased part. That the venous obstruction would be overcome and the condition of stasis relieved was improbable. Nitro-glycerine 1/60th of a grain was given at 9 p.m. on December 23rd.

The vast improvement the following morning was apparent on December 24th, in the restored radial pulse on the affected side. The yellow sloughs had come away in the dressings. The wounds no longer gaped, while discharging freely a healthy-looking pus. The pallor and purple patches had cleared and sensation had returned completely. To describe the change as one from local death to life would be no exaggeration. It is needless to follow the subsequent history of this case, but it should be stated that necrosis of the index and middle fingers had already occurred, requiring their removal. Recovery was complete, the man returning to work in February the same year.

A brief account of the following case amongst others may be of interest.

A Chinaman, aged 60, suffering from a carbuncle on the neck, was treated by a crucial incision and scraping, under ether, the wound dressed with iodoform and gauze. After varied local treatment, the wound remained covered with a dry yellow slough, the skin and tissues around for an inch or more were swollen and indurated, and below was a chain of enlarged and tender glands. I gave tonics and stimulants as the patient was obviously weak and poorly nourished. The absence of any improvement after a week's treatment, the wiry, high tension pulse, suggested nitro-glycerine as a means of assisting the inflow and outflow of blood to the locally stagnant circulation. I gave the man two tabloids nitro-glycerine, gr. 1/100, during the next twelve hours. On the following day there was a free discharge of pus from the wound, the slough having disappeared. The pulse was soft. On the succeeding day three tabloids were given. The base of the wound was now clear. The edges gave evidence of healing. My notes record that after giving the drug for ten days the wound had healed.

Not only in incipient senile gangrene, but in all cases of impaired circulation in which contracted arterial walls are present, nitro-glycerine should be of great value to the surgeon. Even when the arteries seemed to be normal, I have constantly used the drug with benefit in local congestion.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE PREVENTION OF ANKYLOSTOMIASIS.

Sir Patrick Manson's suggestion in the British Medical Journal of November 5th of the use of tar in the treatment of ground itch of coolies is not altogether a new idea. It has been the common practice of medical officers of tea gardens in the Sylhet district for several years past to treat all early cases of the disease by the free application of Stockholm tar, and the result has been better than from any other treatment. It shortens the illness, checks the spread of the vesicles over the healthy skin, and prevents the large ulcers often seen in neglected cases, and no doubt it would act to a great extent as a preventive if it could be applied to the feet of all coolies before they went out to work. But that is just the difficulty, with Indian coolies at least. They will do nothing to assist and everything to thwart measures directed for their benefit. The tar and sand—sawdust would be very difficult to get in most tea gardens—would have to be applied at least once every day all through the rainy season, and that would be no small task with a working force of 500 and over, even with the active co-operation of the coolies themselves. Dipping the feet in phenyle, the wearing of shoes when working in infected localities, the use of trench latrines, and many other methods have been suggested from time to time and tried in different places, but none has really been successful, owing to the indifference, obstinacy, and obstructiveness of the people concerned. When they are ill they will come for treatment, perhaps, but not before. Anything that is exclusively for their own advantage they are ready to adopt; but anything that is partly for the benefit of their employer they will do little to advance, even if they do not actually resist it. It is this perverseness of nature that annuls all attempts at preventive measures amongst the natives of India, not only in small matters like the subject under discussion, but in vital matters, such as plague, cholera, and the like.

There is another plan of reducing the chances of infection from the larva of ankylostoma in infected ground—namely, by cutting down the tea bushes in an area round about the native lines, so that the coolies are compelled to go further afield, having now no shelter behind the thick bushes, and the infected plots will be exposed to the drying power of the sun. I have known of this plan being tried with success. I am not, however, trying to throw cold water on the suggestion made by Sir Patrick Manson, to whom all practitioners in the tropics owe such a debt of gratitude, but only trying to show how difficult it is to carry out these things with success.

S. Sylhet, India. A. B. Dalgetty, M.D., D.P.H.

GANGRENE OF THE SCROTUM.

I report the following case because, in addition to its being one of a very rare character, I should like to know what course I ought to adopt in respect of it.

A. A., a shopkeeper, aged 35 years, unmarried and of good constitution, had never suffered from anything more serious than occasional dyspepsia. He was usually very temperate, but for three days during a feast in cold weather he drank a great deal of native wine. He was then taken suddenly ill with headache, rigors, and general *malaise*, and sent for me. He had a temperature of nearly 106° and a pulse of 125 to 130, but his chief complaint was of intense pain in the neighbourhood of the ischia. There I could find nothing, but I discovered that the left testicle was swollen. I prescribed certain antipyretics which I have found useful and an ointment of belladonna, and then left. In a very short time, however—within a few hours—I was again sent for. I then found the scrotum everywhere enormously swollen, oedematous, and dark. In addition it pitted on pressure, and when palpated fine crackling was clearly perceptible.

I at once made a number of free incisions with a bistoury, evacuating a quantity of frothy blood and serum. Compresses of glycerine of quinine were constantly applied during the next three or four days, and strong tonics administered, but by that time the whole of the scrotal tissues were gangrenous, and had commenced to separate; this separation I completed without the patient feeling anything at all. The temperature after this gradually fell to normal, but the pulse remained very rapid for several days later. The gangrene only extended slightly to the perineum and neighbouring parts. The net result is that, though the patient has recovered and the perineum is cicatrizing, the two testicles hang separate, supported only by their respective cords. They show some tendency to adhere to one another, but I should be glad of suggestions as to the best way in which to treat them. The occurrence of this rapid local gangrene of the gas type is remarkable, and I am quite unable to account for it.

Mytilene, Turkey. C. Mozourelli.

TREATMENT OF PHTHISICAL CAVITIES WITHOUT OPERATION.

Without entering into the question as to whether the pyrexia of pulmonary tuberculosis is or is not always the result of a secondary infection of the lungs by pyogenic micro-organisms, I think it will be agreed that when we find pyrexia along with a cavity in the lung, one possible explanation of the temperature may be found in the supposition that the contents of the cavity have become septic, and that the cavity is not draining freely. If this be the case, the removal of the septic matter becomes a question of first importance. Operative drainage of these cavities is a proceeding of such gravity that it occurred to me, some time ago, to try if the cavity could be emptied by merely placing the patient in a suitable posture.

An opportunity presented itself in the person of a male patient at the Ventnor Hospital. His temperature was about 102° F. every evening; he had great dyspnoea; he was extremely feeble, and did not seem to have a much longer time to live. The physical signs in the region of the angle of the left scapula pointed to the existence of a choked cavity, and the symptoms of the case suggested that the contents of the cavity were septic.

After two weeks had passed, during which the patient steadily lost ground, I removed his pillow and bolster and raised the foot of the bed 6 in., directing him to keep his head low. Nothing particular happened for about four hours. He then had a very violent fit of coughing which lasted quite half an hour. Being in a very weak state he became rather alarmed and was somewhat exhausted, but he had coughed up 4 oz. of sputum which differed from his expectoration at all other times in that it had a very offensive odour.

His temperature in the evening again reached 102° F., but after that it fell steadily to about 99° F.

The further progress of the case was exceedingly satisfactory. In two days he was out of bed, and in three weeks he walked downstairs. From that time onwards the dyspnoea improved, so that he could walk for increasing distances on the flat, he also rapidly regained strength. I heard from him, some months after he left hospital, that he was able to get about comfortably, his breathing had continued to improve, his temperature was normal, and he was feeling fairly strong and well.

When it is borne in mind that his temperature had been high for some weeks before admission to the hospital; that it continued so without improvement in spite of rest and careful feeding; that he coughed up 4 oz. of offensive sputum, his expectoration at other times not having this odour; and that the very marked improvement followed definitely from the date of treatment, I think we may fairly conclude that the improvement was directly due to the treatment adopted, and was not merely the result of the usual sanatorium treatment which he was also receiving.

The special advantages of this treatment are:

1. That it is easy to carry out.
2. That it does not entail any risk to the patient, either immediate or remote.

I am indebted to Dr. Ross for kind permission to publish this case.

S. P. Pollard, M.B., B.C.Cantab.,
Late Assistant Resident Medical Officer to the Royal National Hospital, Ventnor.

CASE OF LANDRY'S PARALYSIS.

Landry's paralysis is such a rare and peculiar disease that the following case may interest the readers of the British Medical Journal:

History.—The patient was J. D., aged 35, son of an agricultural labourer, and employed working on a small farm. His parents stated they had never known him to suffer from any previous illness. His present illness dated from the beginning of July. Until then he was a strong, muscular individual, of industrious habits and temperate, living in a cottage healthily situated. He took to bed July 9th. For some days previous to that date he had noticed that his feet felt benumbed and weak, yet continued at his work. On the morning of July 9th he went by car to a local fair; returning in the evening he had to be carried off the car, owing to muscular inability to descend. Next morning his lower limbs were completely paralysed, the paralysis extending and involving his hands, arms, and trunk.

State on Examination.—I saw him first twelve days later. His arms, hands, muscles of trunk, and lower limbs were paralysed; he complained of cardiac pain, was sweating profusely over head, neck, and face, the muscles of the limbs were perfectly flaccid; sensation very dull, but no absolute anaesthesia. Flexing the limbs caused a certain amount of pain, as also did firm deep pressure of muscles. Knee jerk reflex and also superficial reflexes lost. Bladder and rectum unaffected. General condition: Temperature 98°, pulse 84, thin and inclined to hardness. Heart sounds, both accentuated and almost of ringing quality; he complained of cardiac tenderness. Deglutition noisy and spasmodic; tongue furred, constipation absolute for some days; and urine normal. Over the mid-dorsal spine the patient complained of tenderness on pressure; this existed nowhere else. Ophthalmoscopic examination negative.

Progress.—The lower bowel was cleared by an enema, followed by calomel and a saline in the morning. The back was blistered along the whole length of the spine from seventh cervical to lumbar region. Liquid diet was ordered. The patient rested well that night, and next day, as the pulse was softer and fuller, the cardiac pain diminished and the varying quality of its beats less apparent, he was ordered liq. ext. ergot m xx every four hours. This had to be stopped after forty-eight hours owing to its increasing the blood pressure and on account of added cardiac distress. He was then put on a saline diaphoretic mixture given every four hours, and containing m xx of ferric chloride in each dose. It suited him well, and was continued for a week, the bowels being also kept open and the liquid diet continued. At the end of that time the cardiac distress had entirely passed away, and the patient was sleeping and resting well. There was now slight movement of right hand, and I ordered massage of the limbs twice daily.

Result.—The patient liked the "massage," and under its influence the muscle tenderness disappeared. The "massage" was done by a big muscular individual, whom I instructed as the only available nurse. He continued it for a week, but during one sitting he rubbed the skin off the patient's thigh, and it was then discontinued; the curious point about it was that after each sitting the patient recovered temporarily a certain amount of power over his limbs. The skin abrasion healed readily, thus showing, with the absence of bedsores, that there were no trophic changes in the skin. The patient recovered gradually, and some two months later walked by himself into my surgery. He still had diminished knee-jerk, but the muscles were not wasted. Though he felt weak, he could walk a mile without fatigue.

Ardrahan. C. H. Foley, M.D.

A CASE OF MALIGNANT PUSTULE.

On August 5th, W. R. W., a butcher, skinned a cow that had died suddenly after a short illness, afterwards proved to be anthrax. On August 12th, seven days after skinning the cow, he noticed a pimple on the right forearm; it itched intensely and bled freely. He poulticed it, and on August 15th showed it to a medical man, who told him he had anthrax, and must have the sore excised. Consequently he came to the Cottage Hospital that afternoon, and was admitted under my care.

On the flexor surface of the right forearm, about 4 in. above the wrist, there was an angry-looking pimple, not unlike a vaccination vesicle, the size of a sixpenny piece: the centre dark, nearly black; the area around the pimple for ¾ in. was indurated; the whole forearm was swollen, oedematous, and red; temperature 100.4°, pulse 80; feels quite well.

He was given chloroform, and a disc of skin 2 in. by 2 in. excised and the wound burned with Paquelin's cautery, and then powdered with pulv. ipecac. and dressed with cyanide gauze. He was given pulv. ipecac. gr. v and morphine gr. ¼ every four hours.

August 16th. Temperature normal, pulse 72. Arm re-dressed. All oedema and redness of forearm had gone.

August 17th. The pulv. ipecac. stopped, as it made him sick.

August 22nd. The patient left the hospital, feeling quite well; the wound slowly granulated, and he made an uninterrupted recovery.

Remarks.—The Clinical Research Association reported that it was a typical "malignant pustule," and numerous anthrax bacilli were present. Anthrax is rare in this district. The cow died after an illness of less than twenty-four hours, and the next day 10 pigs out of 20 in the same field were dead and the other 10 very ill, but all recovered. This shows how virulent the disease was; but the seven days elapsed before the man developed any sign, and then four days more before he was treated; his system was evidently beginning to be affected, as seen by the rise of temperature. In applying pulv. ipecac. I followed the method advocated by Mr. Davies Colley in his paper on anthrax in *Guy's Hospital Reports, 1890*, kindly lent to me by Mr. Cock, who first saw the patient, and diagnosed malady, and sent the case to the hospital.

Exmouth. R. Stanley Thomas, M.A., M.D., B.C.Cantab.

CASE OF VESICAL CALCULUS WITH SYMPHYSIOTOMY.

Z., a native girl, aged 6 years, came to me from a far outlying village. She had been suffering for two years and was very emaciated. The bladder was incompetent and the urine contained much pus. On examination with a sound, a rough stone was found to occupy practically the whole of the bladder. Lithotrity was impossible, as the stone was so large that not more than ½ oz. of lotion was retained when injected into the bladder. An attempt to remove the stone through the urethra after dilatation also failed, and also an endeavour to bring it out through the vaginal wall because the stone was larger than the outlet of the pelvis.

As it seemed to me impossible to perform a suprapubic lithotomy without opening up the peritoneal cavity, I performed symphysiotomy by the open method, hoping that the increased pelvic outlet would enable me to get it away; my hope, however, was vain, and after doing considerable damage to the soft structures of the pelvic outlet I gave up the attempt, and two days later removed the stone intact through the anterior bladder wall behind the symphysis. I had previously pulled the latter nearly 2 in. apart; the peritoneal cavity was not opened, but I am certain that it would have been but for the symphysiotomy. The bladder was thoroughly washed out and the outer coverings sewn up, the symphysis wired together, and a gauze drain inserted to the bottom of the abdominal wound, the vaginal wound being packed round a catheter down the remains of the urethra. The case progressed very favourably, and now after three weeks the abdominal wound has quite healed up; there is no pus in the urine, and the vaginal fistula is slowly healing. The stone was almost round, 2¾ in. in diameter, with a uric-acid nucleus, the substance being principally phosphates; even when outside the body sufficient grip could not be obtained to crush it with a lithotrite. It weighed 1,260 gr. Vesical calculus is very common here, but this is by far the most difficult case I have had. I should like to know in what way the case ought to have been treated. I had no assistance except an inexperienced native who gave the chloroform.

Shiraz, Persia. H. T. Palmer, M.R.C.S., L.R.C.P.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

TOTTENHAM HOSPITAL, N.

CASE OF OSTEO-SARCOMA OF THE SHOULDER OF OVER FIFTY YEARS' DURATION.

(Under the care of A. J. WHITING, M.D., M.R.C.P., Assistant Physician to the Hospital.)

[Reported by CHRISTOPHER ROLLESTON, M.B., B.Ch., House Physician.]

E. K., a man, aged 63, was admitted to the Laseron Ward of the Tottenham Hospital on March 10th, 1904, for chronic Bright's disease.

History.—Between the ages of 12 and 13 the patient injured his left shoulder. Shortly after the accident the shoulder began to enlarge, and it continued to gradually enlarge for about four years. He was then in St. Mary's Hospital, and total amputation of the limb was advised This he refused. Patient had small-pox at the age of 16, and



Fig. 1.

typhoid fever at the age of 17. Syphilitic infection was denied. He had been a very heavy drinker all his life. Dropsy of the legs was first noticed thirteen years ago. He suffered from this at intervals up to the time of his admission, and for the previous seven weeks he had been getting weaker and very breathless.

Family History.—His mother and one brother died of apoplexy in middle life. Patient was the father of four healthy children. There was no history of malignant disease in the family.

State on Admission.—Patient was very anaemic, cachetic, and of a yellowish complexion. There was no actual jaundice. The tongue was thickly furred and tremulous. His temperature was subnormal throughout.

The Tumour.—The upper end of the left humerus was enormously enlarged, the enlargement being bony, and of equal hardness throughout. No egg-shell crackling could be obtained. The humerus was ankylosed to the scapula by the growth, which extended from its head to the junction of the middle and lower thirds of the shaft. The skin was stretched, but adherent at only one spot, where it had been punctured by a trocar forty-seven years before. The veins over it were enlarged. The elbow was directed outwards, as in a sub-coracoid dislocation (Fig. 1). He was able to use the arm fairly well, his occupation being that of a day labourer. There were no pressure symptoms, marked wasting of the muscles, or tingling or numbness of the fingers.

The heart showed no marked enlargement. There was some accentuation of the second aortic sound, but no murmurs. The arteries were much thickened. The pulse was 80, regular, and of marked high tension. There was marked emphysema. Small moist crepitations were heard over both sides of the chest. Nothing abnormal could be detected in the abdomen. The urine was of specific gravity 1010, acid, and contained albumen varying in amount from 0.9 to 1.09 gr. per oz. The urea was 1·3 per cent. A few granular casts were present. The amount of urine passed in twenty-four hours was 34 oz.

Progress.—Nothing of interest occurred in the patient's condition until March 21st, when he became very drowsy and breathless on the least exertion. Sore throat was complained of. The amount of urine passed became less, and the tension of the pulse was increased. On March 24th an erythematous rash appeared upon the forehead. The amount of urine passed was only 14 oz., and the percentage of the urea was 1.5. At 8 p.m. the patient was violently convulsed. The fit lasted for two minutes; he was quite unconscious for about three minutes after the cessation of the fit, and was unable to speak distinctly for about thirty minutes after the fit. The tongue was bitten, there was clonic, but no tonic stage observed. The pupils were pin-point during the fit. On March 25th there were two more fits; only 10 oz. of urine was passed, and the urea was only 1.4 per cent. On March 26th he was drowsy, his breathing was stertorous, but he had no fit. Twenty ounces of urine were passed during the twenty-four hours. On March 27th he had three more fits similar in character but shorter in duration than the previous ones. During the twenty-four hours he passed only 4 oz. of urine. On March 28th the patient became very yellow, the breathing more stertorous, and the breath more urinous in odour, and, in spite of active treatment, which had been directed, in the first place, to relieve the uraemic state, and in the second place to support the heart, he died of heart failure.



Fig. 2.

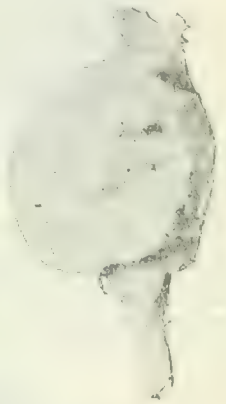


Fig. 3

Necropsy.—The muscles of the shoulder joint affected were slightl wasted. The circumference of the bony tumour was 17 in., its length 6 in. It extended to within 3 in. of the elbow joint. (Fig. 2). It was found that the growth was firmly ankylosed to the scapula at the glenoid fossa, but the scapula was not implicated in the tumour growth. Its surface was uneven, and in a few places it was quite soft, in others quite hard. On applying the saw the tumour was divided with the greatest ease in spite of its massive appearance. It was found to be full of spongy soft bone of the typical asbestos appearance. (Fig. 3.) In its upper quadrant there was an area about 1 in. square consisting of fat. The liver was very small and contracted; its weight was 3½ lb., and on the surface of the right lobe was a healed and cicatrized gumma. Although so small, microscopic examination showed no obvious overgrowth of its fibrous stroma. The kidneys weighed 3½ oz. each. They were small and contracted. The capsule was markedly adherent. There were a number of cysts on the surface, and the surface was very granular. The cortex was much diminished in size. The spleen was enlarged, and its capsule enormously thickened. An examination of the brain was not permitted.

REMARKS BY DR. WHITING.—The chief interest of this case and the point which seems to call for its publication is its bearing on prognosis. That a diagnosis of a malignant tumour should have been given when first he came under observation at St. Mary's Hospital is sufficiently clear from the operation recommended, and the circumstance that for 50 years he continued to use the condemned limb in his ordinary mechanical duties would hardly even now seem, in the abstract, to justify his refusal. The diagnosis at one time seemed to rest between a simple exostosis and an ossifying sarcoma of a low type of malignancy, but no such alternative

was possible after the necropsy. The case is another illustration of the difficulty of distinguishing between different degrees of malignancy in the earlier existence of tumours.

THE GENERAL INFIRMARY, LEEDS.

CASE OF DEFORMITY FOLLOWING BURNS, CORRECTED BY PLASTIC OPERATION.

(Under the care of Mr. W. H. Brown, F.R.C.S., Surgeon to the Infirmary.)

L. C., aged 11 years, was admitted in December, 1903, having been burnt when only 2 years old by falling into the fire. Her appearance was very dreadful and her condition most pitiable. More than half of any fluid that she drank ran out of her mouth, so that the clothing around her neck was constantly saturated. She had also salivary incontinence. It should have been mentioned that the child's chin was closely attached to the top of sternum, and she walked with her head bent forward.



Fig. 1.—Condition on admission for the first time.

The first thing called for was to stop, if possible, the dribbling from the mouth, and to accomplish this a cut was made across the throat from angle of jaw to angle of jaw, and the head pushed up to the erect position. The head having been pushed up to the erect position, a wound about



Fig. 2.—Condition on admission for the second time.

3 in. wide remained across the front of the throat (this wound leaves a scar tissue); two flaps of skin and subcutaneous tissue were taken off the shoulders and turned inwards to meet beneath the point of the chin. Many silk sutures were employed to hold the flaps in accurate position. The result of this part of the operation was to rid her of all dribbling, but her appearance still left a good deal to be desired. Three months later she was readmitted to undergo further operative treatment.

The lower lip was much everted, and there was no available skin on the neck which seemed likely to be of use, so a straight incision was made just below the red border, a stitch put through the red border, and the lip drawn up into a natural position.

The right arm was then brought across the face and fixed so as to allow of an ample flap being raised from over the middle of the upper arm, then laid into the space beneath the lower lip. This flap was left attached to the arm and stitched with silk sutures into its new position. A fortnight later the arm was set free from the face, and the flap was found to be living and healthy. The freed edge was stitched down level and the skin cut. The photograph reproduced in Fig. 3, taken six



Fig. 3.—Condition at conclusion of treatment.

weeks later, shows the result of the operation. There is still a little too much lower lip, but when the child is grown up sufficiently to appreciate the value or worthlessness of personal appearance I will make an attempt to remedy this if she demands it.

One or two points in the treatment of cases where extensive transplantations have to be undertaken may be worth mentioning. One is to keep the child quiet by means of small doses of opium for the first four or five days after operation, increasing the dose about half an hour before the first dressing. When possible, it is best to change the dressing for the first time under an anaesthetic.

Difficulty of feeding in this case was got over by means of a small rubber tube and funnel. She had all her nourishment for a fortnight by this method. Absolute fixation of the head was secured by using large sandbags on either side of the head with a strong brow band across the forehead.

This case along with others was shown at the Oxford meeting of the Association, but unfortunately the photographs of the other cases disappeared during the meeting, and it has not been found possible to replace them.

COLONY HOSPITAL, ST. VINCENT.

VERY LARGE STONE: SUPRAPUBIC LITHOTOMY: RECOVERY.

(Reported by C. R. Pike, M.R.C.S., L.R.C.P., Government Medical Officer.)

The interest in this case lies in the enormous size of the stone and in the fact that we were able to remove it entire with a very successful result.

C. J., female, white, aged 33, was admitted to hospital under Dr. C. W. Branch on July 23rd, 1904, suffering from tertiary syphilis of the foot and ankylostomiasis.

Condition.—Shortly after admission she was found to be also suffering from severe vesical symptoms, and on examination a large stone was discovered in the bladder. In spite of her general condition an operation was deemed advisable for the relief of the exhausting symptoms.

Operation.—On August 14th, at the request of Dr. Branch, I operated, assisted by Dr. C. H. Durrant, the patient being anaesthetized with chloroform. An incision about 4 in. long was made in the median line of the abdomen, with its lower end just over the symphysis pubis. The muscles having been carefully separated and the peritoneum

reflected from the bladder as high as possible, the fascia and fat were divided. There was some little bleeding at this stage of the operation, but it was easily controlled. Two silk threads were passed through the muscular wall of the bladder and the latter opened between them. The stone filled the whole of its cavity, and only with difficulty could the finger be passed between the stone and the walls. We had no appliance for crushing a stone, and it almost seemed as if the operation must be abandoned. However, Dr. Branch put two fingers in the vagina to press the stone upwards and forwards; Dr. Durrant used a long scoop as a lever, and I used my index fingers. By means of our united manipulations we managed to turn the stone in the bladder so that its long axis pointed upwards through the bladder and abdominal incisions. We were then able to remove it. The bladder was washed out with a warm weak solution of formalin, and the edges of the opening in it united with interrupted sutures of fine catgut, care being taken that the mucous membrane was not included. The abdominal incision was then closed, a drainage tube being placed in its lower angle. A Jacques catheter was left in the urethra.

Size of the Stone.—The stone removed was ovoid, light brown in colour, and perfectly smooth. It measures 3½ in. long, by 3 in. wide, and 2½ in. thick. It weighed when wet just after removal 13¼ oz. It now weighs 12¼ oz. Its chief circumferences are 10½ in. and 8¾ in. respectively.

Result.—A week after operation a urinary fistula formed in the lower angle of the abdominal incision, but two weeks later the wound had healed perfectly and the catheter was dispensed with. The patient made a good recovery, her other complications having yielded to treatment. She gained colour, strength, and weight, and was discharged well on October 1st, 1904.

REMARKS.—The only record of a stone removed entire exceeding this one in size that I can find is the one removed by Uytterhoven of Brussels. In his case the stone measured 6½ in. in length and 4 in. in thickness, and was pyriform in shape. Stones of 14 oz. and 23 oz. have been removed after being crushed, and stones up to 6 lb. have been found *post mortem*, but we desire to record this case as being one of the few in which exceptionally large stones have been successfully removed entire. I have to thank Dr. Branch for his courtesy in permitting me to report the case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—At a meeting of this Division, held in the Newport Hospital on November 25th, 1904, Dr. G. A. BROWN in the chair, Dr. MITCHELL STEVENS read a paper on the difficulties met with in the diagnosis of malignant disease of the liver. The distinction between primary and secondary disease was to be noted. Jaundice was not always present and frequently only appeared late in the disease. The anaemia ought to be distinguished from that of the pernicious type. The temperature may be raised in cancer and there may be rigors. Wasting might not be noticeable for a considerable time, and pain was not always present. The liver might or might not be nodular. Ascites was not very common. In cancer enlarged glands could sometimes be discovered in the neck. The discussion was carried on by Drs. BROWN, MORRELL THOMAS, HAMILTON, GREER. Dr. MITCHELL STEVENS replied to the remarks.—Dr. HAMILTON showed the patient and also radiographs of a case of congenital synostosis of both upper radio-ulnar articulations. The head of the radius was fused in the ulna, and the limited amount of pronation and supination was performed at the shoulder.—Mr. R. J. COULTER gave a demonstration of McKeown's apparatus for the removal of unripe cataract.—The HONORARY SECRETARY, in the absence of Dr. R. J. Paton, showed calculi removed from a contracted gall bladder in which packing had to be resorted to for drainage, as it was impossible to suture the gall bladder to the abdominal wall; a vesical calculus; a urethral calculus; a kidney removed for rupture due to injury.—Mr. W. J. GREER read a paper on five cases of operation for acute intestinal obstruction (mesenteric thrombosis, adhesions at hepatic flexure of colon, rupture at caecum, bands causing strangulation of ileum, caecum strangulated in crural canal).—Dr. MULLIGAN showed a photograph of an unusual injury to the head.

FOREIGN DOCTORS IN ITALY.—Dr. Santini, the leader of the movement for the protection of Italian medical practitioners, by refusal to admit foreign competition has once more brought the matter before the Italian Chamber of Deputies. The reply of the Government is of the classic official type. The question, said Signor Giolitti, is being studied and discussed with the various foreign Powers concerned.

REPORTS OF SOCIETIES.

THERAPEUTICAL SOCIETY.—At a meeting on December 20th, 1904, Mr. A. B. DAY in the chair, Dr. TIRARD read a paper on some clinical observations on new remedies. Uricedine, he said, or lithium citrate, with lemon juice and soda had been recommended for gout, uric acid concretions, and rheumatism. Really it chiefly acted as a laxative, and did not relieve the pain of gout, nor dissolve uric acid concretions. Its dose was 1 to 2 drachms. Urotropine made from formaldehyde and ammonia was said to be a diuretic which relieved cystitis owing to uric acid concretions, and destroyed typhoid bacilli in urine, but unless well diluted it might cause haematuria, and sometimes strangury, albuminuria and abdominal pains, such bad symptoms, however, did not happen if each dose were diluted with 5 oz. of water. In cases of offensive urine, and in doses of 5 to 15 gr., with uric acid sand, he found it to remove the offensive smell and diminish the sand. Aspirin, or acetyle-salicylic acid, was not better than salicylic acid, and often produced dyspepsia and profuse perspiration, sometimes diarrhoea. In headache from overwork in gouty persons, it often relieved the pain, and caused sleep, but the patient should be in bed after taking it, because of the perspiration. The dose was 10 gr., given in tablet form, since it was very insoluble in water. Mesotan, or mesoxylester of salicylic acid, was readily absorbed by the skin if applied with olive oil. It relieved the pain and stiffness of rheumatism when fever ceased. Sometimes it irritated the skin if rubbed on it, or if covered too thickly, or if mixed with water. It should be painted on with a brush, and well diluted with olive oil without water. Ovoferrin, made by heating iron tartrate with serum albumen, increased the haemoglobin. In a severe case of pernicious anaemia, its use with liquor arsenicalis, 15 minims thrice daily, increased haemoglobin 64 per cent. It should not be diluted till taken, or it might decompose.—Dr. DOUGLAS said that many new remedies were very expensive to use, and he thought ferri ammonio citras as useful as ovoferrin.

CHELSEA CLINICAL SOCIETY.—At a meeting on December 20th, 1904, Dr. R. L. BOWLES read a paper on the treatment of the apparently drowned, with a practical demonstration of the best methods of resuscitation. The method advocated by Dr. Bowles was a modification of that originally introduced under the name of Dr. Marshall Hall, for whom, in 1856, Dr. Bowles and others had carried out a series of experiments on the dead body. The three points chiefly insisted on by Dr. Bowles, and which he said had been amply demonstrated by dissections on the dead body, by experiments on living animals, and by the experience of actual cases of drowning, were the following: (1) That fluids are drawn into the lungs by the efforts at inspiration, and that it is the presence of fluid in the lungs which is in most cases the immediate cause of death in drowning; (2) that the prone position is the only one that can be relied on for emptying the lungs of fluid, and that this process of emptying the lungs must, on account of the inspissated character of the fluid from the admixture of blood, mucus, and saliva, be continued throughout the whole period of treatment; (3) that more air can enter the lungs through the aperture of the pharynx with the mouth shut than with it open. The method advocated by Dr. Bowles consisted of three separate movements. The first movement was to place the patient in the prone position and employ firm but gentle pressure on the back of the ribs for three or four seconds. The pressure should then be suddenly removed to allow the entrance of air on the recoil of the ribs. In this position the tongue fell forward, leaving the entrance to the windpipe free for air to enter the lungs and fluid to leave them. The second movement consisted in grasping the patient's left shoulder and rolling him on to his right side. This movement should be repeated every two seconds for about ten minutes. In this position the heart was left free, and the liver did not press down on the heart and lungs. In the third movement, which was to be employed if natural respiration had not been induced by the second, was an amplification of the latter. Instead of returning the patient at once to the prone position, the left arm was to be raised above the head until it was on a line with the body, and brought back again to the side, before the prone position was resumed. This movement assisted the expansion of the chest, and allowed the air to enter the left lung more freely. These movements should be continued for an hour, or until signs of natural breathing began.

REVIEWS.

THE TREATMENT OF ACUTE VISCERAL INFLAMMATIONS.

DR. LEES'S *Treatment of Some Acute Visceral Inflammations*[1] will prove a welcome addition to the literature dealing with the treatment of visceral inflammations: his experience is very wide, and the success which has followed the various methods advocated for the relief of dilatation of the heart, pericarditis, and other local inflammatory processes proves the correctness of the principles upon which his treatment is based. The volume contains not only the three lectures delivered before the Harveian Society of London in November of last year, and reported in the BRITISH MEDICAL JOURNAL, but also reprints of various articles appearing in different journals during the last quarter of a century; the majority of the subjects dealt with refer to the problems of circulatory disturbance, both in children and adults. We warmly commend the perusal of this volume, not only to practitioners but to medical students; the former will derive great practical benefit from the detailed way in which Dr. Lees points out the indications for the use of leeches, venesection, icebags, and salicylate of soda, and the latter will receive very homely and yet very necessary reproof for the careless disregard of percussion as a means not only of telling what is the actual position of the heart but also of the degree of distension of its various chambers. For all such lessons in the diagnosis and treatment of cardiac disease Dr. Lees has won for himself, and deservedly so, the gratitude of all students in medicine.

When, however, we turn to another aspect of this volume —the pathological—we are obliged to confess that we cannot offer the same degree of uniform praise. The subject of bacterial invasion of the animal body is one of first importance in the study of human and comparative pathology, and Dr. Lees makes frequent reference to a disorder which in the past has been known as rheumatic fever. The cardinal features of this disease are the inflammatory reactions centring in and about the joints, and certain well-known reactions in the endocardium, myocardium, and various serous surfaces. Arthritic phenomena are met with in certain other infections—as, for example, in the pneumococcus infection, in gonorrhoeal infection, in typhoid fever, in influenza, in cerebro-spinal meningitis, in malignant endocarditis, in the numerous cases of septicaemia and pyaemia in which such organisms as the staphylococcus, streptococcus, and bacterium coli commune occur; also in scarlet fever and other acute infectious diseases, the actual causes of which still remain an enigma in pathology.

There exists, however, this other large group of cases in which pain, redness, and swelling of the joints are cardinal features, and, as in the diseases above mentioned, in which an organism has been found, the endocardium, myocardium, and pericardium may be involved. A loose nomenclature has given to this group the name of acute rheumatism, or rheumatic fever. Many workers, despairing of finding one organism or agent as a cause of this group, have fallen back upon a therapeutic test, and have considered those cases alone true rheumatic fever which responded to sodium salicylate, the dosage being guided by the same rules as advocated by Dr. Lees, one of which is that the drug should be given in large quantities. Those cases characterized by arthritic phenomena which did not yield to this drug treatment were considered cases of septicaemia, and no surprise was felt if they terminated with involvement of the valves of the heart or myocardium, or of various pleural surfaces, such as the pericardium or pleura; even meningitis might be the final seat of involvement. It is well established that cases of so-called pneumonia have been found to be preceded for some days by the development of pneumococcal arthritis; influenzal pneumonia, too, is frequently preceded by a stage in which pains in the joints are the greatest features.

It is obvious, therefore, that "rheumatism"—that is, pain, etc., in the joints—is merely a symptom of bacterial infection, whether of a septicaemic or pyaemic nature, and that it is a mistake to label disorders "acute rheumatism" merely because a certain group of symptoms and a certain series of anatomical lesions are more or less completely developed. The discovery of Wasserman and Triboulet of an organism which is responsible for a certain number of the cases of septicaemia which have been called rheumatic fever has been confirmed by the elaborate investigations of Poynton and Paine, and it is indeed possible that this organism is responsible for the whole of the residuum of cases of septicaemia in which arthritic phenomena and cardiac involvement predominate; but there is no more reason for calling such an organism the "staphylococcus, streptococcus, or diplococcus rheumaticus"—thereby implying that it is *the* cause of a group of symptoms and pathological changes known as rheumatic fever—than there is for giving that qualification to such organisms as Pfeiffer's bacillus, the diplococcus of Fraenkel, or any other organism which may produce similar results.

[1] *The Treatment of Some Acute Visceral Inflammations.* By David B. Lees, M.A., M.D.Cantab., F.R.C.P.Lond., Senior Physician to the Hospital for Sick Children, Physician to St. Mary's Hospital. London: John Murray. 1904. (Crown 8vo, pp. 308. 6s.)

DISEASES OF THE ALIMENTARY TRACT.

IN the Erasmus Wilson Lectures delivered at the Royal College of Surgeons of England in 1904 Mr. CORNER dealt with the acute infective gangrenous processes of the alimentary tract, and he has republished these lectures in a volume entitled *Clinical and Pathological Observations on Acute Abdominal Diseases*,[2] in order to include with the lectures a good deal of interesting clinical material. His contention is that the acute necrotic processes met with in appendicitis, perforations of gastric duodenal and other ulcers, in acute diseases of the gall bladder, in strangulated hernia and inflammation of Meckel's diverticulum, and perhaps in acute pancreatitis and liver disease, are due to the action of pyogenic organisms. It is, therefore, remarkable that this argument is not supported by any special bacteriological observations, the process of reasoning being to show that the action of micro-organisms is the most probable cause, and that the other alleged causes are either non-existent or less constant. No doubt in Chapter XXIII some bacteriological results are quoted from other writers, but the author offers none of his own, on the ground that his "unaided bacteriological efforts were such as could only be managed in moments snatched from the extremely busy life of the Resident Assistant-Surgeon of St. Thomas's Hospital," and "are such that, "though they may help to form ideas, I do not consider them worthy of being brought forward." Under these circumstances one can hardly regard the author's thesis as being satisfactorily established, although unquestionably it is in the main in accordance with modern ideas, and is very probably true. The lectures are in other respects readable, and contain many interesting observations. In Chapter VII the author suggests an explanation of the frequent occurrence of appendicitis. We doubt whether it will be regarded as satisfactory, for, as we understand him, it amounts to this:

The caecum is a "rest place" analogous to the stomach, in which the contents of the intestine are prepared for their course in the next region of the alimentary tract—that is, in the colon. "As a consequence the caecum is the breeding-ground of bacteria, par excellence, of all parts of our intestine." "The appendix is an intestinal tonsil, an index of the fermentive processes which are going on within the caecum, a culture tube for the bacteria therein contained; hence the frequency of appendicitis." It may be as simple as this; but if so, it seems to have been an exceedingly bad arrangement on the part of Nature. We agree with the author in thinking that infective processes are mostly concerned in the destructive lesions of the intestine, but we demur to the suggestion that the perforation of a gastric ulcer is at all probably due to this; as a rule, the stomach in gastric ulcer is, when empty, sterile. We note the following errata: On page 25, "*La Progrèse Med.*"; on pages 15 and 24 "Anfrecht" for "Aufrecht"; on page 32 "infected" for "inspected"; on page 39 "coaption" for "coaptation"; and on page 64 the unusual spelling "adhaesions" is repeated several times.

[2] *Clinical and Pathological Observations on Acute Abdominal Diseases due to Conditions of the Alimentary Tract and the Uniformity of their Origin.* The Erasmus Wilson Lectures, 1904. By Edred M. Corner, B.Sc.Lond., M.A., M.B., B.C.Cantab., F.R.C.S.Eng. London: Archibald Constable and Co. 1904. (Demy 8vo, pp. 98. 3s. 6d.)

Under the title of the external examination of the digestive tract[3] Drs. CHAILLOU and MACAULIFFE have described a method of examination of the alimentary tract through the abdominal wall, by inspection, palpation, and percussion, not, however, in the sense in which we ordinarily understand such examination, but with a refinement and ingenuity which are largely due to Sigaud and the authors. The special disorders considered are almost entirely functional, but it is to be hoped that the writers will later on give us the result of similar careful observations in cases of various organic abdominal diseases; possibly they feel that this aspect of the subject has already received sufficient attention in the current textbooks, and that their special duty is to elucidate the physical signs in functional disorders. They recognize the existence of extreme types, some patients being of strong muscular and bodily development, others feeble; while others again are of an intermediate type; further, there is a special group described as subacute, the members of which suffer from chronic mild digestive disturbance with periodical exacerbations.

The development of all these cases is considered in detail, and several stages are recognized:—(1) "resistance" to or reaction against the disorder lasting, it may be, several years; (2) deterioration or "decline"; and (3) complete dissolution. These stages are found in the young as well as in adults. Inspection shows that the strong type of dyspeptic is of full habit and has a prominent abdomen; the degree of prominence may be made the basis of subdivision of this group. The feeble type is recognized in people with flat or even hollow abdomens, of feeble muscular development and poor appetites. Various signs are revealed by palpation of the stomach, caecum, large and small intestine and liver; the caecum, for example, may be ballooned, or offer a putty-like resistance, or the stomach on manipulation may yield various signs familiar to us as splashes, bell sounds, etc.

It is, however, more especially in regard to percussion that the writers make the most original statements. They recognize some five types of abdomens differing from one another in the characters of the percussion note yielded in different ill-defined regions. Thus, in health, the note in the gastric region is loudest and lowest, in the caecal or subhepatic zone the note is less loud but higher in pitch, and in the intestinal region (to the left and below) the note is of the least intensity and the highest pitch. In another common type the note over the gastric and caecal regions is identical; both these types may be met with in disturbed digestion. Other types may be met with in such morbid states, but not in health, for example, in the "inversed" type, a lower note occurs in the area which includes the caecal and intestinal region than in the gastric area, or a higher note in the intestinal region, and a lower in the gastro-caecal area. The reader will be tempted to discredit the possibility of defining such areas, for it is notorious that resonance may change frequently during an abdominal examination; the authors are well aware of this, and advise frequent and prolonged examination.

Such cases as Drs. Chaillou and MacAuliffe regard as instances of functional disorder of the alimentary tract are frequently met with, but we question whether in the early stages at least any grave symptoms would occur; yet if the progress to the stage of deterioration is so certain, it is important to recognize the condition early. We cannot, however, quite free ourselves from the suspicion that the authors in their enthusiasm have defined as morbid characters what are largely merely individual characteristics incapable of alteration by medicinal or hygienic means.

Whilst declaiming against chemical investigations as opposed to the more purely anatomico-clinical methods of Charcot as a basis for the correct treatment of such cases, the authors do not exclude such observations but merely desire to secure more recognition of the older methods. A final caution is given against neglecting the examination of the heart and urine in cases of so-called functional digestive disorder—a timely warning, for although it is freely admitted that toxic oedema may occur without coarse organic disease, the authors find that oedema is a cardinal sign of the stage of "decline" in the disorders they have studied.

The volume of the translation of NOTHNAGEL'S *Encyclopaedia of Practical Medicine*,[4] dealing with diseases of the intestines and peritoneum, is edited by Dr. H. D. ROLLESTON, who has had the opportunity of making considerable additions to the text so as to bring the book fully up to the present date, the original edition from which the translation was made having been published in 1903. Although we notice that it is called on the cover "English Edition," it is to our eyes disfigured by Americanisms of expression and spelling, such as the omission of all diphthongs, of the final "e" in such words as chlorid, oxid; and of the final "al," so that we get anatomic, physiologic, pathologic, chemic; there are in addition a good many slips, such as "bacillus coli commune (p. 38); "Baron Hoefele" for Oefele, p. 82; "purgin" for purgen (p. 118), and "impractical" (p. 296). On p. 805 we read: "Years ago the late Mr. Lawson Tait *associated* the use of magnesia sulphate in general peritonitis"; we suppose the word should be "advocated." The general accounts of disease are adequate, and are usually accompanied by good bibliographical references to recent publications upon the subjects treated. There are also a few good plates, of which the best unquestionably is that supplied by Mr. D'Arcy Power to illustrate intussusception. There are also some good drawings showing distension of coils of intestine as seen through the abdominal walls in obstruction situated in different parts of the bowel. Ulcerative colitis is limited by the author to the history of follicular ulceration, while the editor gives a brief reference to the attempt in England to establish a special form of ulceration of the colon and a reference to the work of Gemmel, Mott, Vedder and Duval, by which it is rendered practically certain that the disease in question is dysentery. The account of intestinal obstruction is very full and complete. The section on diseases of the peritoneum is largely taken up with the subject of appendicitis. The operation for perforation in typhoid fever is not much in favour with either physicians or surgeons, yet from the statistics here given it would seem that it deserves more attention. Out of 11 cases given by Osler 5 recovered; out of 112 collected by Finney 23 recovered; and of 289 cases collected by Elsburg 75 recovered. The following figures show, too, that the earlier the operation is performed the greater is the chance of recovery, for out of 15 operations performed within twelve hours after perforation 4 recovered; out of 20 operated on between twelve and twenty-four 6 recovered; while out of 13 operated on after twenty-four hours only 1 recovered. In the treatment of appendicitis all will not agree with the author in his advocacy of the use of opium or in his objection to the administration of purgatives. His attempt to depreciate the value of purging, by denying that the cases so cured are genuine, is not very convincing. On the other hand, his approval of surgical interference is qualified, for while admitting that there may be physicians who have realized that the knife is needed oftener and earlier than was believed some fifteen years ago, he thinks it is also true that surgeons have recognized that there are limits to the indications for the operation. The discussion of these indications is diffuse, and lacks the precision which is needed to aid the student or the inexperienced practitioner to formulate in his own mind the conditions in which an operation should be performed.

Baron OEFELE'S work on the chemistry of faeces[5] contains the results of a great deal of honest and by no means agreeable labour. The neglect of this subject is somewhat unworthy of a scientific profession, and we entirely agree with the author's expression of opinion that no department of science is less honourable than another. The method he has adopted is to give meals containing known quantities of various constituents of food, and to analyse the dejecta carefully. We doubt whether the author appreciates sufficiently the information gained by the usual methods of inspection practised by the profession. After all, by these simple means we learn the presence or absence of bile, blood, mucus, pus, and undigested particles of food. He lays stress upon the fact—of which, doubtless, we need to be reminded—that faeces are formed in great part independently of food; meconium is

[3] *Précis d'Exploration externe du Tube Digestif.* [On the External Examination of the Digestive Tract.] Par A. Chaillou et Léon MacAuliffe. Paris: A. Maloine. (Crown 8vo, pp. 164. Fr. 4.)

[4] *Nothnagel's Encyclopaedia of Practical Medicine.* English Edition. Diseases of the Intestines and Peritoneum. By Professor Dr. Hermann Nothnagel. Edited by Humphry D. Rolleston, M.D., F.R.C.P. Translated by Alfred Stengel, M.D. London: W. B. Saunders and Co. 1904. (Demy 8vo, pp. 1032. 21s.)

[5] *Statistische Vergleichstabellen zur praktischen Koprologie bei fieberlosen Patienten.* [Statistical Comparative Tables of Practical Coprology in Fever-free Patients.] Für Mediziner und Nahrungsmittelchemiker.] Von Baron Dr. Oefele, Praktischem Arzte für Diabetes und andere Stoffwechselkrankheiten, zur Zeit in Bad Neuenahr. Jena: Gustav Fischer. 1904. (Demy 8vo, pp. 180. M. 4.)

undoubtedly the most striking example; but if loops of intestine are isolated by ligature faecal masses are formed in them. According to the author, faeces are formed mainly by changes in the secretions of the intestinal tract set up by intestinal microbes. He describes normal faeces as being alkaline, decolorizing iodine, containing ammonia and urobilin but not bilirubin or any native bile pigment, no peptone, albumose, albumen, or sugar. As meconium contains bile pigment but no microbes, he suggests that the loss of bile pigment may be caused by the presence of microbes. With regard to the question whether constipation may lead to increased absorption, he states that a test meal in health gave a total of 249 grams of faeces, which, on drying, weighed 59 grams, containing 2.98 grams of nitrogen, 13.78 grams fat, 1.80 grams carbohydrates. On the other hand, in constipation the result was 125 grams faeces, 34 grams dry, 1.55 grams nitrogen, 8.36 grams fat, and 1.39 grams carbohydrates. He says that constipated faeces are poor in bacteria, hence there should be a reduction of intestinal putrefaction and fermentation. This is at variance with what is generally believed, and to the notorious fact that intestinal flatulence is common in constipated persons. It is somewhat amazing to be told that the great majority of constipated persons do not suffer from headaches, languor, irritability, and neurasthenic manifestations; in fact, on the whole, Baron Oefele seems to think constipation to be rather an advantage. The author's conclusions are interesting, but stand in need of confirmation.

Dr. ALDERSON'S small volume on *Indigestion*[6] is written for the benefit of patients suffering from indigestion, and is meant to be a "handy book of reference to the advice received in the physician's consulting room;" the writer informs his readers that it is quite possible for any one without any previous knowledge of physiology or anatomy, after carefully reading this book, to understand the reason why such and such a practice should be strictly followed. We expected to find very cautious advice couched in words understandable by lay readers, but based on sound physiological principles, and to a slight degree we were not disappointed; unfortunately the writer has interspersed so much of the amateur information that is to be picked up at dinner tables as to what is digestible or not, that we are tempted to regret that a physician should have taken trouble to write such a very popular treatise. If an individual makes a practice of abstaining from food between 8.30 a.m. and 7 p.m., and yet feels none the worse for it, why should he be frightened into taking a midday meal? To sit in a draught may cause the legs and feet to get cold, but will it "drive the blood to the liver?" And why should sitting in a train (whether with back to the engine or not is not clear) have any effect upon the bad results of a north or north-east wind? We have picked out a few of the faults of this volume, and have said little of its merits. The reader who is already informed will be able to winnow out advice that is sound from that which has little or no foundation in scientific fact. We do not know what amount of good the uninformed reader would derive from its perusal; with some reasonable advice, there is interspersed much repetition of what is merely traditional.

NOTES ON BOOKS.

A MEDICAL ALMANACK.

THIS almanack is printed in 183 sheets, to be torn off every other day as the year advances. Professors PAGEL and SCHWALBE have clearly devoted much care to their *Historischer-Medicinal Kalender*.[7] Each sheet, about 9 in. in length and over 3 in. in breadth, bears at the foot the dates of two consecutive days, with the usual astronomical and ecclesiastical notes. The middle of the page is devoted to short notices of the medical worthies of every age who began or ended their careers on the corresponding days, British authorities being duly honoured. The text also includes notes on medico-historical events, quotations from standard authors on medicine and doctors, and pieces of folk-lore. The essential feature of this almanack is an illustration at the head of the page. Several collections have been laid under contribution; the reproductions of the Dutch school of the seventeenth century are exceedingly good, so are the copies of yet older woodcuts from medical works of the Paré type. There remains a considerable proportion of facsimiles of medals commemorating the cholera at Hamburgh, the visit of Napoleon III and Eugénie to a cholera ward, the Red Cross Union and others less pleasing, and of the character rated by second-hand booksellers as "curious." The elaborate medal representing literally the figurative purgation of Louis XIV by the Pope and the Bey of Tunis would seem to show how that monarch was hated outside his own kingdom, until we find a similar work of art bearing the figures of Louis, Marlborough, and Eugene under the influence of a drastic judge, an unsavoury metaphor expressing the relief felt by all concerned when the Peace of Utrecht was signed.

PRACTICAL CHEMISTRY.

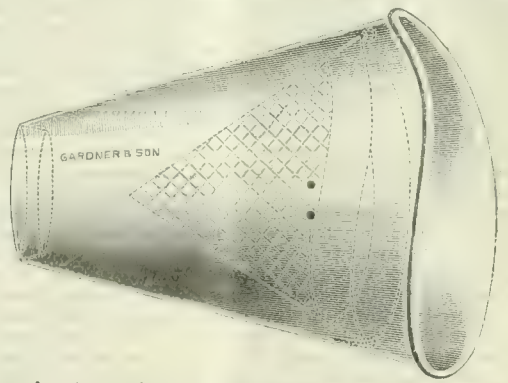
ONE is apt to regard tables for qualitative chemical analysis as a necessary evil with little educational value, but we have looked through those of Professor LIVERSIDGE[8] with very different feelings. Here we have an excellent book sufficiently complete for all students of chemistry, and yet so devised that any class may select for examination those substances in which they are particularly interested. The introduction should be read and digested by every student, as it may prevent the acquisition of those slovenly methods of manipulation so well known to every teacher of chemistry. The title of the book does not reveal its scope, for all important chemicals are dealt with in separate monographs; a "manual of qualitative testing" would be a more appropriate title, what are generally known as "qualitative tables" being of subsidiary importance. We need scarcely say that such an able teacher as the author does not regard the matter as complete in itself, but only as suitable for practical work with frequent explanations from a demonstrator.

MATERIA MEDICA.

IN their *Textbook of Materia Medica*,[9] Drs. HATCHER and SOLLMANN have succeeded in investing this usually dry subject with a considerable amount of interest. The contents are divided into three parts: Part I deals with the systematic study of crude drugs, the treatment being that usually accorded in current textbooks; Part II gives a useful summary of elementary histology and is well illustrated; Part III is devoted to chemical exercises on drugs; these are well devised and are both interesting and educational. The authors are to be congratulated on the system of the book; it contains useful matter which hitherto had to be culled from many different sources, and is remarkably free from errors.

MEDICAL AND SURGICAL APPLIANCES AND DIETETIC PREPARATIONS.

A Sterilizable Inhaler for Anaesthetic Mixtures.—The annexed figure represents an inhaler which has been made to the order of Mr. T. D. Luke, M.B., F.R.C.S.E., University



Lecturer in Anaesthetics, Edinburgh, by Messrs. Gardner and Sons of the same city. Mr. Luke is emboldened to draw

[6] *Indigestion: Its Prevention and Cure.* By F. Herbert Alderson, M.B. London and Newcastle-on-Tyne: Walter Scott Publishing Company, Limited. (Fcap. 8vo, pp. 128. 1s.)

[7] *Spemann's Historischer Medicinal Kalender, 1905.* [Spemann's Historico-Medical Almanack for 1905.] Bearbeitet von Professor Dr. J. Pagel und Professor Dr. J. Schwalbe in Berlin. Berlin and Stuttgart: W. Spemann. (M. 2.)

[8] *Tables for Qualitative Chemical Analysis.* By A. Liversidge, M.A., LL.D., F.R.S., Professor of Chemistry in the University of Sydney. Second Edition. London: Macmillan and Co. Limited. 1904. (Demy 8vo, pp. 126. 4s. 6d.)

[9] *A Textbook of Materia Medica.* By Robert A. Hatcher, Ph.G., M.D., and Torald Sollmann, M.D. London: W. B. Saunders and Co. 1904. (Crown 8vo, pp. 411, 56 Illustrations. 10s.)

attention to it because it is not an addition to the great number of inhalers already before the profession, but merely an improvement of one introduced several years ago by Mr. Clarence Blake, of Boston, which deserved more favour than it received. In its present form it consists of a truncated pyriform cone of nickel silver, inside which a second wire gauze cone is retained in place by a spring. The former has an opening at the top of about 2 in. by 1 in., the lower opening measuring 5 in. by $3\frac{1}{2}$ in. The whole apparatus, which weighs 6 oz., is sterilizable by boiling, and in using it a fresh piece of $1\frac{1}{2}$ in. domette bandage about $1\frac{1}{2}$ yards long is wrapped round the inner cone before each administration, rather more being used if ether alone is to be used; in certain cases a piece of sponge with large pores may with advantage be placed in the upper aperture. It is intended chiefly for the administration of A.C.E. or C.E. mixture, but ether alone can be given or even ethyl chloride, though as a rule a bag inhaler is better for the latter. The upper end of the cone can be papered if desired and thus made easier to hold than most cone inhalers on the market. Mr. Luke has used this inhaler largely during the past twelve months or more and finds it very satisfactory, especially in cases which require to be kept under C.E. mixture for a long time. It is likely, he thinks, to be particularly useful to medical men in country practice who only occasionally give anaesthetics and require an apparatus which will not get out of order. It is inexpensive.

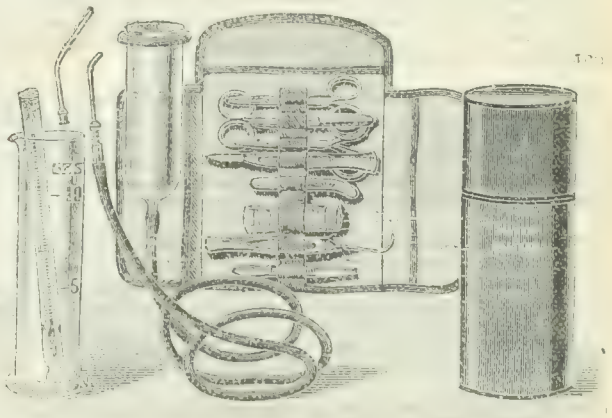


Prepuce Clamp Forceps.—Mr. G. E. Bellamy, M.R.C.S., L.R.C.P.Lond. (Glengariff, Kew Road, Richmond, Surrey), writes: Messrs. Evans and Wormull have made for me, at my suggestion, the prepuce clamp forceps for use in circumcision shown in the illustration. Its two advantages are: (1) The jaws are not serrated, but perfectly smooth, to avoid the risk of damaging the skin they grasp; (2) the jaws are bent from the joint at an obtuse angle, allowing perfect freedom and room for the hand holding the scissors. The joint is of the usual aseptic take-off pattern. I have found them very convenient in the circumcision of infants and young children.

A Fabric for Tropical Wear.—Messrs. Ellis and Co., of 21, South Molton Street, London, W., have recently placed upon the market a fabric designed for external wear in tropical climates or in hot weather anywhere. Upon the whole we are inclined to regard it as a successful attempt to solve a by no means easy problem, attention having been duly paid both to the requirements of medical science and to the practical needs of tailors. So far as the former is concerned, Messrs. Ellis have worked out the suggestions of a medical man well known in connexion with tropical medicine, while the fact that they have patented the material under the name of Solaro seems to prove that as practical tailors they are convinced of its suitability for coats, trousers, and dresses of various sorts. It is a woollen fabric made entirely of two-fold yarn; the weft threads are all red and the warp composed of two threads dyed separately of two different colours and then twisted together. These colours vary according to the precise purpose for which the garment is to be worn and the effect which it is wished to produce. Woollen tissues are of course much the safest to wear in hot weather either in or out of the tropics, and, provided they are of the right texture, they are also the most comfortable. In this cloth both points seem to have been borne in mind: on the one hand, it is a thin light fabric of comparatively great strength and of sufficient density to turn a considerable amount of rain without interfering with the due evaporation of body moisture; on the other, the question of colour as affecting heat absorption has been met by the ingenious use of a red weft, with the idea of protecting the wearer from the chemical rays of the sun. For the use of soldiers and others who wish to be as little visible at a distance as possible, the material is finished in khaki colour, while for ladies' dresses a variety of tints are provided. The material, we are informed, has been sealed by the Colonial Office for the wear of officers going to the tropical colonies, and it is being manufactured for Messrs. Ellis by G. A. Schofield and Co., of Huddersfield.

Heudebert's Diabetic Gluten Bread and "Essentiel" Bread.—Mr. R. O. Bischof has sent us a specimen of Diabetic Gluten Bread made according to Heudebert's patent. It is a very well prepared gluten bread, soft, pleasant to the taste, easily masticated and remarkably free from starch. There are two analytical reports submitted, one by Mr. Stevenson Macadam showing it to contain 17.65 per cent. of carbohydrate, and the other by a chemist in Paris, M. Marcel Arpin, giving the amount as 10.42 per cent. Mr. Bischof also sends a sample of Heudebert's "Essentiel" Bread which is in biscuit-like cylinders about $\frac{5}{8}$ of an inch in diameter and 5 in. long. They are intended to take the place of the toast or biscuits so often prescribed for the treatment of obesity and dyspepsia. It is claimed for them that they contain the addition of a new material rich in nitrogen and phosphates. According to Mr. Stevenson Macadam's analysis they contain 26.25 per cent. albuminous compounds, which is more than twice as much as is contained in ordinary bread.

A Transfusion Apparatus.—Messrs. G. Burford, M.B., and J. Johnstone, F.R.C.S., write, as the outcome of many successful transfusion cases, to recommend the apparatus here depicted. The special advantages, they say, are that (1) It is simple in device; every part can be kept surgically



clean. (2) It is ready in application, being available for immediate use, and only requiring warmth for preparing the solutions. (3) It is safe and accurate in use; the clearness of the fluid is viewed through the glass reservoir, and the thermometer enables the entering fluid to be kept at an equable temperature. Its employment for either subcutaneous or intravenous transfusion is equally easy. It is contained in a compact case of such a size as to get easily into an ordinary surgical or obstetrical bag. The makers are Messrs. Mayer and Meltzer, 71, Great Portland Street, W. It can be obtained also with the instruments necessary for subcutaneous transfusion alone.

THE annual dinner of the Laryngological Society is to take place on Friday, January 13th, at the Imperial Restaurant, Regent Street, W.

THE MIDWIVES ACT.—Dr. Edward Sergeant, who is Medical Officer to the Midwives Act Committee of the Lancashire County Council as well as to the Council itself, has prepared an interim report on the adoption of the Midwives Act, from which it appears that out of 1,077 midwives reported so far by the district medical officers, 603 have applied for admission on the roll and 498 have been approved. After March 31st next any midwife who desires to begin practice as such will be required to pass an examination under the direction of the Central Midwives Board before obtaining a certificate. The county death-rate for last year was the lowest recorded, being 15.2 per 1,000 of population. Dr. Sergeant urgently recommends the provision of a sanatorium for phthisical cases.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 83.

WOMEN MEMBERS OF FRIENDLY SOCIETIES.

B. asks: (1) Whether any friendly societies have female members; (2) what is usually charged for such members where the ages range from 16 years upwards, and where the male adult members pay 4s. per annum to the doctor.

*** (1) There are many friendly societies with female members; (2) such members are rarely, if ever, a source of profit to the doctor. Under no circumstances ought they to pay less than male members, and in order to permit of a slight chance of profit to the medical officer they ought to pay at least half as much again as the male members, and at the same time midwifery and illness connected with it ought to be strictly excepted and paid extra.

MEDICAL NEWS.

THE Harveian Society of London will hold a smoking concert at the Stafford Rooms, Titchborne Street, Edgware Road, on Thursday next, January 12th, at 8 p.m.

A PUBLICAN of Shefford, named Sladen, was on January 3rd, at the Guildhall, London, fined £20 and £3 15s. costs for sending thirteen pieces of tuberculous pork to the Central Meat Market for sale as human food.

SMALL-POX IN SCOTLAND.—During the period from December 16th to 31st, 1904, 11 cases of small-pox have been intimated to the Local Government Board. Of these, 3 were in Dundee, 3 in Falkirk, 1 in Glasgow, 1 in Coatbridge, 2 in the county of Stirling, and 1 in Argyllshire. Cases occurred at three new points during the period in question.

THE first three endowments under the Jessie Alice Palmer Charitable Fund of £1,000 each in memory of Jessie Alice Palmer have been made as follows: £1,000 to Westminster Hospital in recognition of the services to science of Dr. William Murrell, £1,000 to Queen Charlotte's Lying-in Hospital in recognition of the services to science of Dr. W. S. A. Griffith, and £1,000 to the British Home for Incurables.

THE opening lecture of the spring session of the North-East London Post-graduate College will be given at the Tottenham Hospital, on January 10th, at 4.30 p.m., by Mr. John Langton, F.R.C.S., Consulting Surgeon to the Hospital and to St. Bartholomew's Hospital. The subject of the lecture, to which all medical practitioners are invited, is: Points which should be considered in determining the prospects of the operation for the radical cure of hernia.

THE ROCKEFELLER INSTITUTE.—The corner stone of the Rockefeller Research Laboratory in New York was laid recently by Dr. Simon Flexner, Chairman of the Governing Board of the Institution, assisted by Drs. T. M. Pruden, T. Emmett Holt, and C. A. Herter. The foundation, it may be remembered, began with an initial endowment of £40,000, which has since been increased to upwards of £200,000; more is likely to follow as may be required.

SMALL-POX IN LANCASHIRE.—From the quarterly report of the Lancashire County Medical Officer we learn that during the year ended September 30th last, there occurred 371 cases of small-pox, with 20 deaths, in that county, the fatality being thus 5 per cent. During the last quarter of the said year there were 98 cases, with 3 deaths. Of these 98 cases, 79 were vaccinated persons (2 deaths of adults), and 19 were unvaccinated (1 death in childhood). All these cases but 2 were removed to hospital. Ten districts became free from infection, and 16 new districts were attacked during the quarter.

FRENCH SOCIETY OF MEDICAL HISTORY.—At a meeting of the Société Française d'Histoire de la Médecine, held on December 14th, 1904, the following were elected officers for 1905: *President:* Dr. E. Hamy, Member of the Institute of France and of the Academy of Medicine, and Professor at the Museum. *Vice-Presidents:* Dr. Gilbert Ballet, physician to the Paris hospitals and *professeur agrégé* in the Paris Medical Faculty; Dr. Paul Richer, Member of the Academy of Medicine, and Professor in the École des Beaux Arts. *General Secretary:* Dr. Albert Prieur. *Secretary:* Dr. Victor Nicaise. *Archivist and Librarian:* Dr. Beluze. *Treasurer:* M. Camille Vieillard.

CRETINISM AND GOÎTRE.—Professor Grassi of the University of Rome lately instituted, in conjunction with Dr. Munaron, a series of researches on cretinism and goître in the Valtellina district. According to a preliminary report of their results, the investigators have come to the conclusion that the cause of endemic goître must be sought for in poisons derived from a specific microbe, having its habitat not at first within the body of the patient but in wet soil. They believe that those poisons gain access to the human body by the alimentary canal by means of various substances, among which drinking water may be included.

A DIRECTORY OF SANATORIUMS.—The Committee on the Prevention of Tuberculosis of the New York Charity Organization Society and the American National Association for the Study and Prevention of Tuberculosis are about to publish jointly a directory of institutions and societies dealing with tuberculosis. It will form an illustrated volume of 270 pages. In it an attempt is made, it is believed for the first time, to present definite information of all the organized work on this subject which is being done in the United States and Canada. The book is divided into the following six sections: (1) Sanatoriums, hospitals, and camps; (2) special dispensaries; (3) the tuberculous insane; (4) tuberculous prisoners; (5) municipal control of tuberculosis; (6) association for the prevention of tuberculosis (including societies, committees and State commissions).

PLAGUE IN FOOCHOW.—Plague first visited Foochow in the summer of 1894, according to the British Consul for that port, but it has reappeared annually ever since that date with greater or less severity. During the past year, however, the epidemic was the mildest in type, the most restricted in extent, and the shortest in duration of any of its predecessors. At the beginning of July an outbreak of the disease occurred in two separate foci—in the heart of the city and in a village in Nantei, the island on which the foreign settlement is situated. It reached its height in the middle of the month, when the death-rate in the city was about 50 per day and in Nantei about 8. By mid-August the epidemic had practically ceased, and the disease did not make its appearance at any other place in the neighbourhood. In the districts lying to the south, however, between Foochow and Amoy, plague was more prevalent, and the duration of the epidemic more prolonged, but to the northward it never gained any footing. Plague has never travelled up the Min River, though cholera, which occasionally made its appearance, does so. Pagoda Anchorage, at the mouth of the river, where all the foreign shipping lies, had no cases of plague.

INTRAUTERINE RESPIRATION.—An obstetrical case of forensic interest has recently been reported by Dr. Wille (Ueber einen Fall von intrauterinem Luftatmen, *Zentralbl. für Gynäk.*, No. 20, 1904, p. 673) of Erlangen. The body of a fetus that had died from asphyxia due to prolapse of the cord was examined, and, to the surprise of the pathologists, both lungs were found to be distended with air. As the child had clearly died before delivery, no efforts were made to induce respiration when it was expelled. It was further made clear that there could have been no gases due to decomposition in the uterine cavity. Hence it was clear that the lungs had been filled by air inhaled in the uterus. From the moment that the membranes burst until the delivery of the child, no manipulations had been practised, not even any "taking of pains." Dr. Wille attributes the entrance of air in this case, first, to the fall of intra-abdominal below atmospheric pressure; secondly, to laxity both of the parietes and of the uterine walls marked in the patient; and, lastly, to imperfect closure of the os externum, due to the loop of umbilical cord which protruded from it for some time. Dr. Wille adds that much meconium was found in the respiratory tract, and this condition contributed to the asphyxia, which killed the fetus before it was delivered.

British Medical Journal.

SATURDAY, JANUARY 7TH, 1905.

THE SUPPLEMENT TO THE BRITISH MEDICAL JOURNAL.

THE principle of issuing official SUPPLEMENTS to the BRITISH MEDICAL JOURNAL was established two years ago, because it was anticipated that the new Constitution which was then getting into working order would necessitate the publication of a good deal more official matter, reports of meetings, memoranda from Committees and other documents, than had previously been called for. It was impossible to foresee the extent of this demand, and it was thought that the matter for publication would come irregularly—that is to say, that at one time a large amount would be received, and that at another the amount of what the printers call "copy" would be inconsiderable. Both anticipations have been fulfilled. It was also from the first intended to publish in the SUPPLEMENT other official documents not originating with the Association, such as Bills before Parliament, reports and proceedings of the General Medical Council, and so on. During the year 1904 twenty-four SUPPLEMENTS were published, containing in the aggregate 512 pages, or an average of nearly ten pages a week. It has always been felt that it would be from many points of view advantageous to publish a SUPPLEMENT of more or less uniform size weekly, but practical difficulties were encountered, to some of which allusion has already been made. The matter has again been under the consideration of the Journal and Finance Committee, which intimated its opinion that it was desirable to publish a SUPPLEMENT weekly, and the Editor has since received a communication from the Medico-Political Committee, stating that in order to procure to the SUPPLEMENT the attention necessary if reports referred to Divisions are to appear therein and not to be separately issued, weekly SUPPLEMENTS are desirable. Accordingly a SUPPLEMENT will in future be published with every issue of the JOURNAL. In order to facilitate this new enterprise some rearrangement of matter will be necessary, and it is proposed in future to publish in the SUPPLEMENT, in addition to the classes of matter mentioned above, some other official or semi-official notices such as abstracts of the vital statistics issued by the Registrars-General of the three countries, lists of medical vacancies and appointments, lists of appointments in the navy, army, and volunteers, and other formal *Gazette* notices, and the notices of meetings of Branches and Divisions of the Association. We would therefore ask readers interested in these matters to look in future in the SUPPLEMENTS for the information which they require under these heads. A calendar showing the arrangements for the work of the Association, so far as the information is available, will also be published in each issue of the SUPPLEMENT.

There is another point upon which we must make an appeal to members of the Association, an appeal made with the approval—and, indeed, at the request—of the Medico-Political, Organization, and Ethical Committees. One of the main objects with which the plan of issuing a SUPPLEMENT was instituted was to present at an early date in a convenient form all reports to the Association, and especially the documents relating to matters referred to Divisions either by the Representative Meeting, the Council, or by the standing Committees. This has been done as promptly as possible, but the Committees are arranging that in future all documents relating to matters referred to Divisions shall be issued as soon as they are ready, and that before each quarterly meeting of the Central Council a tabular statement of these matters shall be printed, indicating whether they have been referred by the Council or by a Committee, and, if so, by what Committee. Every member of the Association, therefore, before the matter is discussed in his Division, will have received in the SUPPLEMENT to the JOURNAL a copy of all the documents, and it is earnestly hoped that members will preserve at least those issues of the SUPPLEMENT which contain reports and memoranda dealing with matters so referred. Members are asked to bear in mind that the only other alternative — which is to reprint these documents in separate form for issue with the agenda paper of each Division—would lead to a serious and, it is felt, unnecessary call upon the funds of the Association; that is to say, upon the funds which the members provide for the discharge of the manifold responsibilities towards the profession which at their desire the Association is undertaking.

While we believe that there will be on the part of the general body of members a wish that there shall be no parsimony in meeting the calls upon the finances caused by the increased medico-political activity of the Association, we are confident that they will be equally averse from squandering money upon reprinting reports which have already been supplied to all members.

Before concluding we would make an appeal to the honorary secretaries and other officers of the Divisions to note that in order to ensure the satisfactory working of the weekly SUPPLEMENT it will be necessary that all notices for insertion in the current issue should be received at the central office in London not later than the first post on Wednesday morning.

A NEW TREMATODE.

THE activity in the study of tropical disease, so marked a feature in the medical history of the last few years, has given us many new facts—facts important in themselves but even more important on account of the light they throw on general pathology, and especially on the etiology of disease. Not the least interesting and curious of these discoveries is that of which the author, Dr. John Catto, gives a very complete account in our issue of to-day.

The profession has long been familiar with that curious trematode *Schistosoma haematobium* (Bilharzia haematobia) and the peculiar form of endemic haematuria for which it is responsible. The South African war has brought us many examples of this infection, and doubtless, as the extensive endemic areas infested by the parasite come to be settled up, the disease will become even more familiar to the profession in England. Although recently it has been shown that this or a similar parasite may be acquired in the West Indies, in the United States of America, in Mesopotamia, and in India, yet in these

countries it is very uncommon. Bilharzia is essentially a parasite of Africa, where in not a few localities—Egypt, for example—it is present in a large proportion of the inhabitants.

It would appear, however, that Asia, though practically exempt from the endemic haematuria produced by *S. haematobium*, possesses a schistosome of its own, also a blood parasite, though not involving, like the familiar schistosome, the urinary tract and portal circulation, but affecting principally the intestinal tract and mesenteric arteries, and giving rise to inflammatory and ulcerative lesions in the intestinal mucous membrane.

As to the specific differences between the two parasites Dr. Catto's observations leave us in no doubt. The ova alone are distinctive, the *S. haematobium* producing a spined ovum with a thick brown shell containing a ciliated embryo, the *S. Cattoi* producing a non-spined ovum with a thinner and more transparent shell enclosing an embryo which does not develop in the human body beyond the morula stage. Furthermore, the male *S. haematobium* is provided with a tuberculated integument, whereas the integument of the male *S. Cattoi* is smooth, without irregularities of any sort. These features alone, not to mention the respective locations of the worms, are specific differences; probably when fresh specimens come to be examined morphological differences in the internal anatomy also will be recognized.

That this new parasite has a wide geographical range is probable. Dr. Catto informs us that he has recently received a section of intestine, prepared in a Japanese laboratory in 1900, which shows ova having exactly the same characters and occupying the same position in the intestine as in his own case. It is certain, therefore, that the disease occurs in Japan, as well as in China whence Dr. Catto's case came.

Dr. Catto offers an explanation of the reason why the existence of such a parasite has not been recognized before, which is probably correct. He says the ova in the stools have been mistaken for the ova of ankylostoma, which they resemble in size, shape, and general appearance. In searching stools for the ova of parasites a low magnifying power is used and a critical examination of each egg is not generally made; now that Dr. Catto has pointed out the necessity for a more careful scrutiny it is very possible that the ova of the new schistosome may frequently be encountered in Asiatics. We trust observers in India and China will bear this in mind, and also act on Dr. Catto's hint to examine scrapings from the surface of the bowel in patients who have died from chronic enteritis with or without ulceration.

There can be no question now of the existence of two species of schistosoma in men. We have long thought that there might yet be another species, namely, that which produces the lateral spined ova, found only in bilharzia disease of the rectum. The explanation usually given is that the lateral position of the spine in the bilharzia ovum is merely an anomaly or accidental occurrence; this is not entirely satisfactory. It is difficult to understand why the same species of parasite should produce a terminal spined ovum when it attacks the bladder, and a lateral spined ovum when it attacks the rectum. Observers should endeavour to ascertain if the rectal bilharzia be not a distinct species with a special habitat and producing a special form of egg. To establish or confute this hypothesis parental forms must be sought for in the blood vessels in the rectum. Hitherto it has been believed that *Schistosoma haematobium* lives in the venous system, especially the portal. Dr. Catto appears to have shown that the new schistosoma occurs both in arteries and veins; might it not be that *Schistosoma haematobium* has a similar distribution?

So far we have had no adequate explanation as to how the parental bilharzia, living in the interior of the blood vessels, manages to deposit her eggs outside the vessel. The eggs cannot attain this position by being carried by the blood stream to the capillaries of the bladder; the blood stream sets in the opposite direction. The parent worm must somehow pierce the walls of the vessel; how it succeeds in doing this has yet to be explained. In the case of Dr. Catto's parasite the remarkable uniformity of the layer of eggs in the mucous membrane, as illustrated by his photomicrograph of a section of the appendix, is difficult to explain. The eggs are not in the capillaries—which they are too large to enter—but they may be in the lymphatic spaces, and possibly we may get an explanation of their singularly uniform distribution when we know more about the direction of the lymph currents in the bowel.

The remarkable position of the female worm, lying as she does embraced by the male, the cephalic ends of each diverging like the branches of a tree, suggests that such an arrangement, observed in both species of schistosoma, has some definite purpose. We would suggest that this purpose is the plugging of the vessels during the act of oviposition. When the ova in the gravid female are mature the worms, male and female, migrate along the blood vessels until they are brought up at the bifurcation of the smallest vessel their size permits them to enter. Arrived here the head of the male enters one branch and plugs it, while the head of the female enters and plugs the other. Thus haemorrhage would be prevented when the female, by means of some apparatus not yet recognized, pierces the wall of the vessel, and through the small hole so made ejects her ova into the perivascular tissue, whence they are distributed by the lymph stream.

The presence of integumental bosses in the male worm in *S. haematobium* and their absence in *S. Cattoi* probably has reference to their respective positions in the circulatory system; the latter lying principally in the arteries, the current of blood maintains the worms in their proper position, but in the case of *S. haematobium* the current would tend to carry them away during oviposition were it not that the male or outer worm has a rough integument by which to adhere to the vessel walls.

The mode of acquisition of bilharzia is still unknown. Possibly Dr. Catto's discovery may in time throw some light on this point, which is a most important one seeing that it has a direct bearing on prevention.

However these things may be, Dr. Catto's discovery, for which he has been awarded the Craggs Prize, and on which we heartily congratulate him, cannot fail to suggest many interesting problems, both in natural history and pathology.

THE ADMINISTRATIVE CONTROL OF LONDON HOSPITALS.

Lord Mount Stephen's munificent gift of £200,000 to King Edward's Hospital Fund for London is a generous deed worthy of due recognition by the public. This sum of money, representing £11,000 a year, will be a very considerable help in bringing the permanent finances of the fund up to the standard anticipated by its founder.

It has been for some time an open secret that His Majesty the King, who when Prince of Wales started the scheme, has been keenly disappointed because the public has failed to subscribe with the liberality he had expected of them. Instead of the income of the fund from its investments bringing in £150,000 a year as he had hoped, the distribution last year only amounted to £80,000, or about one-half of the original aspiration. Now that the public is beginning to realize that this Fund is not a mere distributor of charity in the form of doles, which in the long run do more harm than good, but is commencing to revolutionize hospital management in London and endeavouring to evolve out of a chaos of mismanagement and abuse a general system of supervision and control, larger and more steady and continuous support may be expected.

Almost from its inauguration the Fund has sent round its own visitors personally to inspect and report on the different institutions receiving grants, and has refused to give to bodies unfavourably reported on, or to those which do not act on its advice.

The Fund is now taking up the question of hospital expenditure, and has issued invitations to the large general hospitals to send representatives to a conference, the object of which is to discuss the form of the report to be issued this year, with a view to making the information it will supply as serviceable as possible in the interests of economy. The better-managed hospitals will readily accede to this invitation, whereas those whose administration is not above suspicion, may do so with more reluctance or even plausible excuses for absence. The King's Fund is providing some hospitals with information from a central office, and there is now a suggestion to open or arrange for a "Central Supply Dépôt," at which, collectively, hospitals could obtain their goods on better terms than by individually purchasing from different centres, as at present.

From the accounts sent in by the several institutions, it appears that there is considerable discrepancy in the prices paid for ordinary goods, such as food stuffs, drugs, and surgical dressings. It would seem that, for instance, generally speaking, the smaller hospitals have to pay more for their necessities than the larger ones. It must not, however, be at once assumed that because one hospital pays 11d. a lb. for beef and another only 8d. a lb., the one is paying too much or the other too little, for there may be a very perceptible difference in the quality or nutritive value of the meat. At the same time the accounts undoubtedly show that there is scope for a general revision by a responsible authority of the prices paid, with a prospect of a considerable saving in expenses as the result.

We are convinced that if the sensible charitable public is only assured that all money generously given by it to hospitals will be wisely expended it will at once come forward and place the permanent finances of King Edward's Fund in a position even stronger than the founder had himself hoped for.

Lord Mount Stephen, in the letter addressed to the Prince of Wales by which his magnificent gift is accompanied, "suggests that now is an opportunity for some one both willing and able to do a beneficent act in aid of the most deserving of all our charities." We most heartily echo this wish and consider that the King's Fund has done and is doing more to put the great medical charities of the metropolis on a sure and satisfactory footing than has ever been attempted before, and we trust that it will continue to enlarge its scope of useful control. This, and this alone, will attract to it the full support of the true and wise philanthropist, one who is fortunate enough to have brains as well as money and who prefers to do the good within his power during his lifetime, rather than look forward to some more or less useless monument of personal vanity after his death.

THE FUTURE OF THE VOLUNTEER FORCE.

THERE appears to be a very general impression that important changes in the volunteer force are contemplated by the War Office. In some quarters the impression has been formed that the volunteer force is to be abolished, whilst a more satisfactory interpretation of the signs of impending change points to reorganization as a field force to repel invasion or raids on our coasts by hostile troops.

The recent instructions to commanding officers of volunteers that proposals with regard to uniform should remain in abeyance until April next, together with the rumoured reduction of the volunteer force by 50,000 men, have raised the expectation of changes of importance in the near future.

The abolition of the volunteer force would undoubtedly lead to the adoption in some form of universal military service. If this were to be the result, the majority of volunteers would probably submit without complaint to the sacrifice of the force in which they have taken so much pride and to which they have devoted so much time and money. The gain to the country would compensate for the loss, and, if no less a sacrifice would open the eyes of the nation to the necessity of every man fitting himself to protect his country in time of need, the act would be justified. But if universal service is to be instituted the volunteer force might be utilized for training and needs to be modified, not abolished.

The remodelling of the force to create a field organization capable of rapid mobilization to repel raiders would be an immense step in advance. The organization of the volunteer force has been slow, and generally some ten years behind the times: from a mass of individual units without cohesion we have advanced to a partial organization into brigades—but brigades which could never take the field for want of transport, tools, and personal necessaries for the men. The question of the reorganization of the whole force into a possible means of defence against an invader is too big a question to be discussed in these columns. No organization of the volunteer force for service against an enemy can, however, be complete which does not take into account the provision of an efficient medical department. That the force has never hitherto been seriously considered as a fighting machine is evidenced by the inadequate organization of the medical branch, to say nothing of the transport and supply requirements. Organization does not mean discussing how to muddle through with makeshifts; it implies arrangements to render makeshifts unnecessary. The "organization" for extending the medical service of the army for war, as demonstrated by the South African campaign, illustrates the former conception, which it is to be hoped has now to give place to a true organization.

If the volunteer force is to be remodelled it will be the duty, as it will be the desire, of the medical profession, within and outside the army, to see that the medical arrangements are adequate. The existing companies of the R.A.M.C.(Vols.) and the brigade bearer companies, are good as far as they go, but there is a want of cohesion such as would result if they were made into one corps, and a want of elasticity due to the inclusion of the bearer com-

panies in their respective brigades. It is to be hoped that no reduction in this branch of the service will be suggested.

Lord Roberts, in his article on the British Army in the *Nineteenth Century and After*, states the fact, obvious but too often forgotten, that officers cannot be improvised, and this is true of the medical no less than of the combatant officer. Civilian medical men can be procured at any time; it is chiefly a question of expense. A force on service, however, requires medical *officers*—men with knowledge and experience of military needs and procedure.

For a volunteer army, operating in its own country, the stationary hospitals in rear of the mobile force might be staffed by civilians, but the medical units with the force must be component parts of the force and understand their relation to the whole.

The regimental medical officers of the volunteers are in many cases untrained in the duties they would be called upon to perform on mobilization, when most of them would be removed from their regiments for duties with the bearer companies or hospitals, whilst the senior medical officers have little training in the duties which would devolve upon them on mobilization. Volunteer medical officers must be prepared for a closer association with the R.A.M.C.(Vols.), rather than with the combatant regiments, though a certain number of regimental medical officers will still be needed. If large medical units—such as divisions of the R.A.M.C.(Vols.)—were formed at suitable centres, there would be more interest in the work and more *esprit de corps* amongst the medical officers than is possible with the large number of single bearer companies now in existence. The training of officers and men could be more efficiently carried out, and the distribution of individuals to units as required for mobilization would be facilitated. Centralization for training purposes tends to more complete co-operation of the different units when distributed throughout the force in the field where co-operation is especially valuable and necessary. One obstacle in the way of efficient organization of the Volunteer Medical Service in the past has been the want of community of interests amongst the volunteer medical officers themselves.

The various isolated units require to be collected into a true Volunteer Medical Service, where "my Brigade," "my Regiment," and "my Company" are subordinate to "our Department."

The details of the medical organization may be left until the purely military requirements have been decided upon and provided for, but they cannot be neglected. For the moment, the essential is that there shall be no reduction in the existing medical establishment of the volunteer force.

HYGIENE AT THE HEAD TEACHERS' CONFERENCE.

THE representatives of elementary school teachers who to the number of 80 attended the eighth annual conference of the National Federation of Head Teachers' Associations at Cambridge this week were welcomed by the Master of Downing, as deputy for the Vice-Chancellor. The annual report stated that the Federation now included 47 associations consisting of nearly 4,000 head teachers. The President, Mr. T. Shorne, in his inaugural address discussed various topics interesting to teachers. After referring to the need for more training colleges and more practical education in the higher classes of schools, he expressed his opinion that the medical and physical conditions of the child needed most careful consideration by medical men, who should be attached to all education authorities, so that their opinions and suggestions might be helpful to the teacher in dealing with the child at lessons and at play. He spoke strongly with regard to the number of children who were underclothed and ill-fed. Half the truth, he said, had not been told, and the hearts of teachers frequently failed them at the sight of a crowd of children hungry and ill-clad whom they were unable to relieve; such children could not be taught, and it was cruel to press them to study. He believed that if the public really understood the facts its generosity would soon find a remedy. He also spoke forcibly with regard to the necessity for physical training. The possession of citizens of good quality was the worthiest and the most abiding of all national treasures, and teachers held it to be intolerable that England, fitted as she is to produce the manliest men and the sweetest women, should come to such a pass that her sons promised by and by to be the puniest of European men. We are very glad to reproduce these expressions of opinion coming from a teacher holding so responsible a position. Inquiries which have been made for us during the last year or so show clearly that the root of the greater part of the unfitness, mental and physical, to be observed among the children of elementary schools is not congenital or hereditary defect, but inadequate feeding and clothing, and the want of effective supervision of the hygiene of the children and of the schools. We do not believe that an effective remedy will be found until, as Mr. Shorne implied, the medical supervision of schools and inspection of school children is made really effective. This, we believe, can only be done if to every school, or, at any rate, to every group of schools in the same district, a medical officer is appointed who will attend daily to detect the first signs of infectious disease, and to advise the teachers upon the health questions which arise in the course of their daily work.

WOMEN'S WORK AND INFANTILE MORTALITY.

THE further inquiry is pressed the more it becomes clear that the chief cause of infantile mortality, and that which exceeds all others in potency, is improper feeding. When Ballard laid down his earth-temperature rule in respect to the rise of infant mortality in the third quarter of the year, he suggested that its operation was intimately connected with food. Since that time many workers have brought forward fresh evidence in support of that view. Dr. Newman, the medical officer of Finsbury, has recently furnished his authority with a special report on the infant mortality of the third quarter, in which he arrives at much the same result, and in which he summarizes investigations extending over three years, showing the marked incidence of fatality upon artificially-fed children. In Dr. Reid's annual report on the health of Staffordshire for 1903, we find the same conclusion emphasized, though it is arrived at upon other grounds. Dr. Reid has classified "artisan" towns in the country into three groups, placing in the first group those in which the proportion of married women and widows engaged in work away from home to total females between the ages of 18 and 50 exceeds 12 per cent.; in the second group those towns in which the proportion was under 12 per cent. and over 6 per cent.; and in the third group those in which the proportion was under 6 per cent. He has worked out the infant mortality rates for the two last decennial periods (1891-90 and 1891-1900), and for 1901-3 for each of the three groups, with the result that the first group has respectively rates of 195, 212, 191 per 1,000 births, the second group 165, 175, 154, and the third group 156, 168, 146. He attributes the excess of the first group over the second and the second over the third to the employment of the women away from home, and, as a consequence, the proportion of wholly artificially-fed to entirely or partially breast-fed infants. This is an interesting result and harmonizes entirely with the inquiries carried out at Brighton, Croydon, Finsbury, and other places. Where infants are fed artificially there the infant mortality is highest. The remedy, broadly stated, is that to which Dr. Niven and others have drawn repeated

attention—namely, the education of the coming generation of mothers, that is, the girls in the elementary schools, in the art and practice of infant feeding. To achieve this, the first step is the training in hygiene of the teachers. Dr. Reid rightly recommends his Council, as the education authority for Staffordshire, to set to work on this task.

THE "COLOUR HONOURS" FOR SOUTH AFRICA AND THE R.A.M.C.

IN the Sydney (N.S.W.) *Morning Herald* of November 15th, 1904, there is an account of the presentation of colours at Melbourne to the various Australian regiments and corps which sent detachments to South Africa. Amongst the recipients of colours we note the New South Wales Army Medical Corps, now officially known as the Australian Army Medical Corps, Commonwealth Forces, New South Wales. The colours, which are similar to those presented to combatant regiments, were received by Lieutenant-Colonel Reuter E. Roth, D.S O., who, with a warrant officer and a non-commissioned officer, were deputed to proceed to Melbourne to represent the corps at the ceremony. The Australian Medical Corps is justly proud of the honour which has been conferred upon it by the King, and we congratulate the corps on this well-deserved recognition of its valuable services in South Africa. This is the first instance, in the British army at least, in which a medical corps has been granted colours, and now that the colours are left behind when a regiment goes to the seat of war, there seems to be no reason why a departmental corps should not have them. The departmental services of an army must be represented in every campaign, and the R.A.M.C. is present in smaller or greater numbers at every engagement. It is impossible to award special colour "honours" to a corps which, if it were treated in the same way as a line regiment, would be entitled to bear on its appointments the name of every campaign and of every important engagement in which British troops have taken part. The R.A.M.C. would probably prefer to retain the proud position of being "*hors concours*," so far as colour honours are concerned. The King's colour of a regiment which represents the army at large bears no honours, these being carried only on the regimental colour. The R.A.M.C. likewise shares the honours of the whole army and specifies none. But whilst the R.A.M.C. has so many war honours that it would be difficult to select a certain number to be borne on their crest, the auxiliary units of the corps have not had similar opportunities, and in the list of "colour honours" lately published the exclusion of the R.A.M.C.(Militia) and R.A.M.C(Volunteers) seems somewhat invidious. The Home Militia and Volunteer units of the R.A.M.C., like the Australian Army Medical Corps, rendered good service in South Africa, and there is no reason why they, in common with other Militia and Volunteer units, should not be entitled to add to their crest and bear on their appointments the proud record of their first war service.

LONDON AMBULANCE SERVICES.

IN its annual review of "the legal poor of London" the *Times* incidentally alluded to the delay which has occurred in pressing forward an improved ambulance service for London, in which reform our contemporary has always displayed keen interest. This lament evoked a letter from the Chairman of the Asylums Board, in which he states that it would be unjust to assume that such delay has been due to any apathy or neglect on the part of the Board. He adds that the Metropolitan Asylums Board applied to the Local Government Board for the necessary legal powers fourteen months ago, but that the Local Government Board, with a view to prevent overlapping, desired that, before granting these powers, a conference should be held with the London County Council, which, it was understood, was also contemplating the establishment of an ambulance service. Our readers will remember that in the BRITISH MEDICAL JOURNAL for December 10th we reported that the Fire Brigade Committee of the Council was still engaged upon its report as to how far it was possible to combine an ambulance service with the existing organization of the brigade. From further inquiries we have made we understand that the conference suggested by the Local Government Board between the County Council and the Asylums Board has not taken place, in consequence of the delay on the part of the Fire Brigade Committee in preparing a plan and estimates. This committee is composed of the following members of the County Council: Lord Elcho, the Hon. A. L. Stanley, the Hon. R. Guinness, Colonel Rotton, and Messrs. A. A. Allen, W. Bailey, John Burns, C. G. Clarke, S. Collins, T. Davies, J. D. Gilbert, W. C. Parkinson, G. Shrubsall, L. Sharp, and E. Smith, of whom the last two are respectively Vice Chairman and Chairman. With these gentlemen we understand the question now rests. It was clearly pointed out by the Metropolitan Street Ambulance Association, when they waited upon the County Council as a deputation, that if the organization of the Fire Brigade could be associated with the ambulance scheme the capital cost would be relatively small, but that if an entirely separate organization were set up a large outlay would be necessitated. We would, however, point out that the resolution of the Metropolitan Asylums Board of November, 1903, upon which application for legal powers was made to the Local Government Board, specifically excluded the case of street accidents, and contemplated a charge of 7s. 6d. for each case removed. We fail to see, therefore, that such a scheme would overlap or interfere with the proposed scheme before the London County Council, which was primarily intended for street accidents and casualties as part of a general municipal service. We are informed that conferences did take place in the earlier stages of the Council's inquiries between the Chairman of the Ambulance Committee of the Asylums Board (Lord Donerailе) and the Special Subcommittee of the Council, and it was understood that the Asylums Board had not intended to include in its proposals the handling of street accidents. It will be a matter of sore disappointment if the prolonged considerations which the Fire Brigade Committee are giving to the question do not speedily result in a practicable and efficient scheme.

A GARDEN VILLAGE NEAR YORK.

MR. JOSEPH ROWNTREE, the chairman of Rowntree and Co. Limited, conceived, some two or three years ago, the idea of starting a garden village for the employés in his chocolate factory. He accordingly purchased 120 acres of land at Earswick, West Huntingdon, about a mile from the factory, and about two from York, and to-day some thirty houses have been completed and have occupants. In order that the village shall continue to grow, and also that other garden villages may be established elsewhere, Mr. Rowntree has lately placed the estate in the hands of trustees, together with a large invested capital. This, with the rents of the houses added to it, will form the endowment of the trust. As might be expected, Mr. Rowntree has caused several wise clauses to be inserted in the deed of foundation. Thus, not less than one-tenth of the land, exclusive of roads, at any time the property of the trust, shall be laid out as parks, recreation grounds, and open spaces for the use of the inhabitants of the village, while the houses are not to occupy more than one-fourth of the sites on which they are built. The roadways are to be comparatively narrow, but there will be strips of grass about 6 ft. wide bordering them on either side, with trees. It is the founder's wish that the growth of civic interest may be encouraged, and a sense of civic responsibility fostered among those who may be members of any community belonging to the trust. There already exists at Earswick a consultative council of tenants, elected annually, who examine the plans of houses before they are built, and who are responsible for the care of such matters as the organization of clubs, the care of public parks, etc. Mr. Rowntree does not aim at making Earswick into a garden city. It is his desire rather to establish by degrees out of the funds of the trust other garden villages elsewhere when Earswick is sufficiently large. It is hoped that the net rental of the houses

may amount to about 3½ per cent. on the capital expended upon them, and as the administration of the trust is to be wholly unsectarian and non-political, with a rigid exclusion of those influences likely to impart to it a character sectarian as regards religion or belief, or exclusive as regards politics, Mr. Rowntree's scheme is likely to assist materially in the housing problem, and to do much good to that section of the population forced to work in factories.

THE PREVENTION OF TUBERCULOSIS IN DENMARK.

DENMARK has followed the lead given by Norway in attempting to deal with tuberculosis by legislation. In 1901 the law of the latter country required (1) notification of all cases of consumption of lung and larynx, and of all deaths caused by the disease; (2) that both private practitioners and public medical officers should instruct such patients as to hygienic precautions, while the authorities undertook the disinfection of dwellings and utensils. The Health Commission had the right of removing to a hospital any person whom they considered dangerous on account of infection. The law further provided against the employment of tuberculous wet nurses and children's nurses, and enjoined especial precautions as to the conditions of hotels, factories, workshops, railways, etc. Sweden introduced a less radical law, making notification of deaths and disinfection compulsory. This law came into force on January 1st, 1905. Denmark has been considering a proposed new law which has in it many highly interesting points. The proposals emanate from a Commission consisting of two medical men, Drs. K. Faber and C. Lorentzen, and a Government official. The report of this Commission deals very fully with the incidence and spread of tuberculosis in Denmark, with tuberculosis in prisons, etc., with the hygiene of tuberculosis, with the consideration of foreign legislation regarding tuberculosis, and with the means taken in other countries for the prevention of the disease. The Commission puts forward two sets of proposals, and the Government has adopted these recommendations with but trivial changes. The first set of suggestions make notification compulsory. The cases must be notified by the practitioner in attendance on a special form. Notification of all deaths from tuberculosis is also compulsory. Disinfection is to be carried out by the public authorities if it is thought necessary. The carrying out of hygienic measures is placed into the hands of the "Health Commission," as is the compulsory removal of any patient into hospital. In this particular the law is limited, and only reserves the right to interfere if the circumstances appear to necessitate it. Schoolmasters are bound to notify to the School Commission any case of tuberculosis among the scholars which come to their knowledge, and the Commission then decides whether it is necessary to remove the patient from learning together with other children. Schoolmasters, when applying for posts, must certify that they are free from any infectious form of tuberculosis. A schoolmaster suffering from tuberculosis in an infectious form is to receive a pension of two-thirds of the salary which he is drawing at the time. The penalty for contravention any part of the law is a fine of from 2 to 2,000 crowns, or imprisonment. The Commission points out that it is highly necessary that the fight against tuberculosis should not be turned into a fight against the tuberculous. The second set of recommendations deal with the help from the State in regard to the treatment of the tuberculous. All institutes for the treatment of tuberculosis are to be under the supervision of the Minister of Justice. The minimum number of beds and the maximum daily fee charged to the patient must be stated, and are controllable. Even private sanatoriums may be brought under this part of the law. Certain classes of patients receive assistance from the State; this assistance is not to exceed half the fee charged by the institute where they are treated. This assistance is under no circumstances to be given in such a way as to pauperize the patient. The State further undertakes to assist in building new sanatoriums. The yearly amount which the State will pay for the tuberculosis movement is to be fixed, but will be revised after ten years. Such is briefly the basis on which the Danish Government is prepared to deal with the problem of the consumptives, and the results of the law will be carefully watched by other countries.

THE TREATMENT OF INEBRIETY.

MR. SHEIL, who has just retired after twenty-five years' service as a metropolitan police magistrate, made some interesting observations on inebriety in the course of an interview with a representative of the *Evening Standard* on December 27th, 1904. As far as his district—that of the Westminster Police Court—was concerned, he could not say that he had noted any improvement in the point of temperance. The men, he thought, were as bad, and the women worse, than when he first took charge of it. Temperance in the sense of moderation was of no avail to the confirmed drunkard, because it was impossible to him, while as for total abstinence, although perhaps it might endure for a year, it usually was but a thing of a day. In almost every case a drink offered in a temperate and friendly spirit led to a fresh outbreak, and matters were then as bad or worse than before. Mr. Sheil, we believe, never thought it worth while to make use of the discretionary powers as to black listing granted him under the Act of 1902; and this fact, coupled with the views which he expressed, is justification for believing that he would be on the side of those who contend that none of the Acts at present in force with regard to inebriety really meet the situation. Those, too, who have followed the evidence given before the Royal Commission on the Control of the Feeble-minded will have noted that most of what Dr. Branthwaite, the Home Office Inspector under the Inebriates Acts, 1879 to 1900, had to say amounted to a condemnation of all the Acts in their present form. The Habitual Drunkards Act is merely permissive, while the Inebriates Act affects a comparatively very limited class of persons—namely, criminal and habitual police-court inebriates. It in no way touches an immeasurably larger class of persons who rarely, if ever, figure in police-court records or in public documents at all. This is not because they are not drunkards, but because of the endless sacrifices made for them by their friends in the hopes of keeping them out of trouble and of avoiding open scandal. These are the drunkards—men and women—who wreck their own prosperity and put a curse upon the lives of countless men, women, and children. Many of them are more or less secret drinkers, and their vice is often only known to a limited circle. Probably, indeed, few, if any but medical men in large town practice have any idea of the extent of the evil and of the number of silent tragedies due to this cause. A considerable percentage of these cases might prove to be curable if early and proper treatment could be enforced, but at present this is impossible. They must themselves apply for seclusion in a retreat, and this they can rarely be persuaded to do until matters have gone very far. This is quite natural, because many of these inebriates are as incapable of appreciating the gravity of their disease as any legally insane person; in any case, the net result is that the number of those who annually submit themselves to detention is, as Dr. Branthwaite puts it, "ridiculously small." Apart, moreover, from the best interests of these patients themselves, it seems wrong that so many other people should suffer through them and through the weakness of the law. In short, what is wanted in England is that which is already provided in at least nineteen or twenty other civilized countries in the world—namely, the provision of means for the compulsory detention in a retreat, for any period medically deemed to be desirable, of any person who is proved before a magistrate to be an habitual inebriate thanks either to drink or drugs.

SCALDED TO DEATH IN A HOSPITAL.

THE *Birmingham Daily Post* for December 30th, 1904, contains the report of an inquest held at Wolverhampton on the body of a child aged 5 months who was taken to the

Wolverhampton General Hospital on December 20th suffering from pneumonia and bronchitis. On December 27th it was scalded and died a few hours later. The hospital was represented by a solicitor and the House Governor. The nurse in charge of the children's ward on the night of the death stated that she placed a bronchitis steam kettle by the side of the child; this kettle had no spreader on the spout, as the one generally used had been sent to be repaired; while she was attending to another child the water in the kettle rose to a temperature that caused it to rush out of the spout on to the child, who was badly scalded. The witness, who was only a probationary nurse, added that the screw on the opening of the kettle was so tightly fixed that she could not unscrew it to fill the kettle, but had to do this by the spout. There was no indicator on the kettle to show how much water it contained. The house-physician attributed the accident to the kettle being too full, but admitted that the kettle was not a proper one. He did not think the child could have survived even if it had not been scalded. The jury returned a verdict in accordance with the medical evidence, but condemned the use of such a "miserable kettle," and also thought that there should be more nurses employed when there were twenty-three patients in a ward. It is much to be regretted that the hospital authorities should allow a probationary nurse to take charge of a large ward full of children at night. So far as we understand the evidence, this probationer had sole charge of twenty-three children at night. In these days, when the importance of well-trained nurses is being urged by the medical profession, it is unpleasant to find that hospital authorities are often the greatest sinners against this teaching. A kettle that has but one opening can only be regarded as a dangerous weapon specially constructed to eject boiling water and steam upon any person or thing within its range; the use of such an implement to supply steam for a baby suffering from bronchitis can only be explained by the deplorable ignorance of the management of the simplest domestic articles in which girls are now allowed to grow up. For this we can hardly blame the probationer, but there surely ought to be efficient supervision, and it is time that the hospital authorities revised the system under which such accidents are possible.

TOBACCO AMBLYOPIA.

IN a recent case it was decided (on medical evidence) that a certain failure of vision occurring in a workman was due to a brick falling on his head, and not, as alleged by his employers, to excessive smoking. The man admitted smoking 1½ oz. of tobacco a week, but this amount was considered insufficient to cause impaired vision. It must, however, be recognized that no hard-and-fast line can be drawn as to what is the limit of safety. Personal idiosyncrasy plays a large part; each individual who smokes has to find out by personal experience how much he can or cannot tolerate. The smoking of cigarettes or of cigars may, equally with the pipe, lead to amblyopia of varying degree, given a suitable subject. Any condition which lowers the general health may be a predisposing cause, but some who are apparently in the best of health are susceptible. Alcoholic indulgence is in many cases a contributing factor, but it is by no means essential. It is nicotine which, getting into the blood, selects certain nerve fibres (particularly the pupillo-macular fibres in the optic nerves) for its injurious action; and the stronger the tobacco—that is, the higher the percentage of nicotine—the greater will be the amblyopic effect in the susceptible person. Cases have been recorded in which quite small quantities of tobacco, even so little as ½ oz. a week, have been sufficient to cause decided amblyopia.

THE BATHS OF DROITWICH.

WE are informed that there is a movement on foot to improve the arrangements at the brine baths of Droitwich in Worcestershire. The water contains 31 per cent. of common salt—that is to say, about ten times as much as sea water, and may be regarded as a saturated solution of common salt and a type of the strongest brine bath. It also contains small quantities of sodium and calcium sulphate; the composition is, indeed, very nearly the same as that of the water of the brine baths of Rheinfelden in Switzerland. At Droitwich, owing to the water being so nearly saturated it cannot be heated in the ordinary way, and the hot baths are prepared by the addition of heated water; they are usually given at a temperature of 98° to 101° F., and are found useful in muscular rheumatism, sciatica, and chronic rheumatic and gouty affections. It is said also that, like the Rheinfelden baths, they have a tonic effect in convalescence from acute illnesses. According to Sir Hermann Weber and Dr. Parkes Weber,[1] the Rheinfelden baths are useful also in anaemic and cachectic conditions and in the treatment of scrofulous children. The same writers state that Professor Robin of Paris considers that the Rheinfelden baths have a good effect in some cases of chlorosis. There seems to be no reason why Droitwich should not become as popular with English people as the many German brine baths are with Germans if the arrangements are made equally good. The municipality of Droitwich may, perhaps, take example from the enterprise shown by such English spas as Harrogate and Bath.

SIR JOSEPH FAYRER.

SIR JOSEPH FAYRER, Bart., K.C.S.I., who celebrated his 80th birthday a few weeks ago, has recently settled in Falmouth. He is, we are glad to learn, in good health, and still hopes to be useful to the profession which he has served and loved so well. Sir Joseph Fayrer, who entered the Indian Medical Service in 1850, had previously held a commission both in the Navy and in the Army Medical Service, probably a unique experience. In India he had a most distinguished career; he was Residency Surgeon at Lucknow when the Mutiny broke out, and of his experiences and adventures during the historic siege of Lucknow he has given a vivid account in a volume published a few years ago with the title *Recollections of My Life*. He was the medical officer of the Staff which accompanied King Edward VII. then Prince of Wales, during his visit to India, and in 1874 was appointed President of the Medical Board, India Office. This office he held for over twenty years, and during the whole of that time he took an active part in the medical life of London. No man has better earned a right to rest, and the whole profession will, we are confident, join in wishing to him and to Lady Fayrer many years of health and happiness.

THE MEDICAL DIRECTORY.

THE 69th edition of the *Medical Directory* for 1905 has made its appearance with commendable promptitude, and presents all its familiar features. Its size does not appear to be in any way increased, but yet we find that the list of names of medical practitioners has increased by 572. This is a larger addition than has had to be noted for the past three years, or since 1901, when the additions numbered 703; it brings up the total number of medical practitioners, respecting whom more or less full information is to be found in the volume, to 38,361. The *Medical Register*, published at the beginning of March, 1904, contained 37,878 names. Of the total number in the *Medical Directory* for 1905 16,718 are placed in the provincial list for England, and 6,397 are assigned to London. Registered practitioners abroad come next with 448 names, and the list for Scotland contains 3,733, the next highest total being that reached by the naval, military, and Indian medical services combined; it numbers 3,101. Then comes the Irish list with 2,632 names, and finally the total—excepting for some ninety-six names which arrived too late for classification—the list is completed by the practitioners of Wales, numbering 1,236. The obituary list seems rather larger than usual; it fills some sixteen columns, and contains a few brief facts about some 600 deceased medical men. In some cases the names of the latter appear also

[1] *The Mineral Waters and Health Resorts of Europe.*

in other lists, but a note is appended to them stating that notice of death was in these cases received too late for the names to be struck out. This fact, of course, introduces a slight error into the enumeration of the medical men in the different areas which have been mentioned. The information given in other parts of the volume with regard to laws affecting the profession, schools, universities, hospitals, asylums, societies, and other matters of interest is as full and complete as usual.

THE FIRST MIDWIVES ROLL.

THE first edition of the *Midwives Roll*, which has just been published, consists of 369 quarto pages, 240 of which are occupied by the list of registered midwives, the number of whom is nowhere stated. The names are in alphabetic order, and the information given concerning those who bear them are as follows: The number of their registration certificate and their address; the date of their enrolment, and the general nature of the qualification in virtue of which they have been admitted to the list. The other pages are devoted to a list of the members of the present Central Midwives Board and of the authorities upon whose nomination they form part of it; a list of the institutions in England, Scotland, Ireland, and India, which have been recognized as training schools under Section C of the rules; and finally come copies of the Midwives Act and of the rules framed under it by the Board and approved by the Privy Council. The length of time for which these rules will remain in force is about twenty months from the present time. The first page or fly sheet of the volume contains a reminder that the operation of Section II of the Act will cease upon March 31st this year, and adds that the next *Roll* published will contain a complete list of all women registered under that Section. As this next *Roll* is to appear in June this year, and the present is dated December, 1904, the old tag epitaph on a baby which died three days after its birth, comes naturally into one's mind: "If so quickly to be done for, whatever then was I begun for?"

A CITY OF CRETINS.

ACCORDING to M. Guillaume Capus, the author of a book entitled *Les Médecins et la Médecine en Asie Centrale*, the population of the town of Khokand in Turkestan consists for the most part of sufferers from goître and cretinism. The traveller entering the town is at once struck by the fact that nearly every person he meets is the bearer of a more or less voluminous goître. Khokand is the only place in Turkestan in which such a state of things exists, and there appears to be nothing in the place or its surroundings to account for the prevalence of goître and cretinism. Its sanitary condition is satisfactory. The town is situated at a height of 1,300 feet, and is abundantly supplied with water from a river which, like the others in the same region, comes from the Alai mountains. When the Russian troops occupied Khokand in 1878, the medical officers noted that a tenth of the garrison became affected with goître after a few months' stay. The tumours yielded to the iodine treatment; nevertheless it was decided to abandon Khokand and transfer the head quarters to Marghillan.

GERMAN CONGRESS OF INTERNAL MEDICINE.

THE twenty-second German Congress of Internal Medicine this year will be held at Wiesbaden, April 12th to 15th, under the presidency of Professor Erb of Heidelberg. The question proposed for discussion is heredity. Dr. H. E. Ziegler of Jena will present a report on the present state of the doctrine of heredity in biology; and the importance of heredity in pathology, with special reference to tuberculosis, will be dealt with by Dr. Martius of Rostock. Among the communications promised are the following: Dr. A. Hoffmann of Breslau, The Treatment of Leukaemia with X Rays; Dr. Schutz of Wiesbaden, Researches on the Mucous Secretion of the Intestine; and Dr. M. Matthes of Jena, Autolysis. An exhibition of instruments, apparatus, and preparations will be held in connexion with the Congress. Communications relative either to the Congress or the exhibition should be addressed to the Permanent Secretary, Geheimrat Dr. Emil Pfeiffer, Parkstrasse 13, Wiesbaden.

HUMAN AND BOVINE TUBERCULOSIS.

IN a pamphlet dealing with the crusade against tuberculosis[1] Professor Paul von Baumgarten discusses Koch's theory of the difference in pathogenicity between human and bovine tubercle bacilli. Reference is made to 10 cases of inoperable malignant disease, in which early death was inevitable, in which the patients were repeatedly inoculated with bacilli cultivated by Professor Baumgarten from bovine *Perlsucht*. The justification for this procedure appears to have been based on the hope that the tuberculous virus might prove antagonistic to the malignant process. No reaction followed the inoculations, and on *post-mortem* examination no trace could be found of tubercle formation. But though human and bovine tubercle bacilli may not be identical, Professor Baumgarten recognizes that they have a common origin and have become differentiated only through residence in different environments. He also admits that some strains of human origin are, without any preliminary modification, capable of proliferation in bovine tissues; and, as the non-identity of the two types has not yet been universally established, he considers it would be unwise to relax any regulations which are at present being enforced with a view to safeguarding human beings from infection with tubercle bacilli of bovine origin.

MEMORIAL TO THE LATE SIR WILLIAM BANKS.

THE Committee appointed to carry out the establishment of a permanent memorial to the late Sir William Banks has adopted two schemes, one in connexion with the University, the other in connexion with the Royal Infirmary. The former scheme will consist of an endowed lectureship, for which the sum of £1,500 will be invested. The other, and larger, will be the establishment of a new out-patient department at the Infirmary. For this the sum of £15,000 will probably be needed. The subscriptions already promised towards the joint object amount to £3 550.

THE Ameer of Afghanistan having applied to the Government of India for the services of a British officer to take medical charge of his household, Major H. F. Cleveland, Indian Medical Service, will reside at Cabul with a staff of native subordinates.

THE KING has conferred the honour of C.I.E. upon Major Robert Bird, M.D., F.R.C.S., Indian Medical Service, Surgeon to the Viceroy of India. It will be remembered that Major Bird was sent early last year to Cabul to treat a bad gunshot wound of the hand from which the Ameer of Afghanistan was suffering.

THE friends of the late Dr. Freeman of San Remo have resolved that his great services to that health resort should be commemorated in some permanent way. It is proposed to place a stained-glass window in the church of All Saints, with which he was long associated, and also to found some other memorial unconnected with any church. Subscriptions to the Freeman Memorial Fund may be sent to Mr. Meysey Turton, British Vice-Consul, San Remo.

OFFICIAL reports published recently in St. Petersburg state that between September 25th and October 11th the Russian Army Medical Staff in the neighbourhood of Mukden had to treat 29,307 wounded (828 officers and 28,479 men) and 4,025 sick (198 officers and 3,827 men), a total of 33,332 sick and wounded. It will be remembered that General Kuropatkin's retreat from Liao-Yang took place in the last days of August, and that his abortive forward movement for the relief of Port Arthur began on October 2nd.

[1] *Die Bekämpfung der Tuberculose.* Leipzig: S. Hirzel. 1904. (Demy 8vo, pp. 28. M. 1.)

Canada.

Infectious Hospitals for Montreal.

Montreal has for years been in need of a suitable hospital for contagious diseases, but in March, 1903, it was thought that a solution of this problem of accommodation had been found. Two hospitals were to be erected, the agreement being that the city should supply the current expenses, provided that the directors saw to the erection of the buildings within a definite time limit. One of the hospitals was to be managed by the directors of the Notre Dame hospitals for Roman Catholic patients, the other by the directors of the Royal Victoria, General and Western Hospitals for Protestants. The Roman Catholic Board simply added a section for contagious diseases to their plans for a new hospital and set to work at once, so that they have now practically completed their part of the contract.

The Protestants, on the other hand, attempted to buy land for their hospital within city limits, as provided by the regulations, but met with such opposition from the owners of adjacent property that they were unable to obtain the site until it was too late in the season to begin building operations. As the time for the completion of the contract approached the Civic Hygienic Committee demanded the cause of delay, but when the difficulty had been explained, and it was stated that 90,000 dols. had been expended upon a suitable piece of land, they extended the period of contract until September, 1905. The lack of funds proved to be a serious obstacle in the way of the Committee, and a public meeting was called in order to put the question before the Protestant community. The chair was occupied by Dr. Roddick, who made an earnest appeal for liberal donations in order that the institution might be speedily completed. An appeal had already been made through the press about six months before, and some 36,000 dols. had been subscribed. This was utterly inadequate, even to make a beginning, and he urged upon every one present to do what he could to complete the work which had been begun in the face of so many obstacles. Mr. Ross spoke upon the necessity of a hospital for contagious diseases, and pointed his remarks with a subscription of 25,000 dols. Several other subscriptions of 1,000 dols. were taken up at the same meeting, and there is some prospect of the hospital being completed according to the revised contract.

The Montreal Maternity Hospitals.

At the sixtieth annual meeting of the Montreal Maternity Hospital, it was announced that with 15,000 dols. more the new building, which is in course of erection, would be free from debt. The gift of 40,000 dols. by Sir William McDonald, has enabled the Committee to present this very satisfactory report. It was also mentioned that the arrangement entered into last December with the Royal Victoria and General Hospitals had been very successful. Undergraduates from these institutions now took a three months' course of training in obstetrical work at the Maternity Hospital, and passed oral and written examinations there before leaving. In all 353 cases were treated with 2 deaths; and when it is considered that practically all difficult cases among the poor are sent to the hospital for treatment, the results are particularly gratifying.

Scotland.

Fife and Kinross District Lunacy Board.

On July 31st, 1903, there were resident in this asylum 570 patients, and on July 31st, 1904, there were were 564. There were 133 admissions during the year, and there were 139 discharges and deaths. This balance between the admissions and the discharges has been brought about, the Commissioners say, by the policy of Dr. Turnbull, the Medical Superintendent, in discharging to domestic and private care "patients who have passed into a condition of chronic harmless insanity, and who are not further benefited by asylum treatment. The judicious discharge," they continue, "of such patients is desirable from every point of view; it prevents undue accumulation and restores to the patients freedom, sane surroundings, and a useful life." Of these 133 admissions 73 were cases of mania, 35 were cases of melancholia, 12 were cases of dementia, 5 were general paralytics, 4 were epilepties, and there were 4 cases of congenital defect. As to the probable causes of insanity amongst the admissions, moral causes were assigned in 19, alcoholic intemperance in 26—that is, in 19.5 per cent.—hereditary influences were ascertained in 43, previous attacks in 31, and congenital defect in 6. Syphilis was assigned in 3, bodily diseases in 12, senility in 17, and the remainder are fairly equally distributed over the usually-cited causes.

During the year there were 47 discharged as recovered, giving a recovery-rate on admissions of 35.33 per cent., which though considerably higher than last year's recovery-rate (24.82) is lower than the average recovery-rate of this asylum. There were 34 discharged as relieved, of whom 15 were handed over to the care of their relatives and 10 boarded-out with unrelated guardians. There were 58 deaths during the year, giving the rather high percentage death-rate on the average daily numbers resident of 10.3. There were 11 deaths from general paralysis, 6 from phthisis, 7 from heart disease and 21 from cerebro-spinal disease other than general paralysis. All of the deaths were of a natural kind and the remainder do not call for more particular mention. The asylum has been free from epidemic or zymotic disease during the period covered by this report, the major accidents were few in number, and the general health has been good. The Commissioners note with approval that the District Board have unanimously agreed to contribute to the funds for maintaining the Pathological Laboratory of the Scottish Asylums.

The Recent Strictures on the University of Edinburgh.

Professor Cunningham, who presided at the dinner of third-year medical students in the end of December, 1904, took occasion to make an emphatic and indignant protest against the method in which part of the report of the Visitor and Inspector of the General Medical Council concerning the University of Edinburgh was drawn up. Not one charge was substantiated. He had examined in universities in all the three kingdoms and in every university of England save two, and denied that ignorance was the special characteristic of the Edinburgh student; on the contrary, he was quite up to the standard of other universities. He showed that the report was founded on the men who had failed (42 per cent. in clinical surgery against 29 per cent. in medicine), and not on those who had passed. Reinspection would be made welcome, and then the high standard of Edinburgh would be made clear.

A REPORT ON THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

I.—INTRODUCTION.

There are few, if any, facts of such far-reaching importance, and so well calculated to cause grave concern to the administrative heads of home departments, as the steady increase in the number of those recognized to be insane, an increase, as the recently-issued report of the Lunacy Commissioners shows, which is out of all proportion to the increase in the general population. Whatever the cause of this increase may be—whether it be extrinsic, depending on the increased pressure and strain of modern times, on a comparatively rapid change from a natural and out-of-door environment to that pertaining to a mechanical and industrial era, to an elevation of sanitary and hygienic standards and a corresponding elevation of ethical and altruistic ideals, which in fostering the unfit has to some extent thwarted their former natural elimination; or whether it is to be sought in an intrinsic deterioration, a declining national vigour of which the increase in insanity is merely a symptom—the fact remains that the asylums throughout the country are becoming glutted with sad wrecks of humanity, whose accumulation is imposing a serious financial burden on the community. The presence of this burden has been felt in many countries besides our own. Administrative departments in Germany, France, Italy, and Holland are fully alive to this evil and have tried various means for its mitigation, and it becomes us, in the light of their experience, to inquire whether, apart from all question of the cause of this increase and its possible diminution, the means employed in this country for the care and treatment of the insane poor are the best which can be devised commensurately with the outlay devoted to that purpose. A study of the reports of medical superintendents submitted to us from time to time, and of the reports of the Commissioners in Lunacy, leads us to doubt whether this is the case either from a pecuniary standpoint or that of the welfare of the patients. In saying this, however, we wish it clearly to be understood that we in no way dis-

arage the efforts of the medical officers and other officials, who, in the face of great difficulties, discharge efficiently their onerous duties.

The increase in the number of the certified insane in England is, according to the report of Lunacy Commissioners, almost entirely confined to the pauper class. The total number of certified lunatics in England and Wales on January 1st, 1904, was 177,199 persons, of whom 105,771 were pauper patients. Of these, 88,660 were housed in county, borough, and metropolitan district asylums, 11,364 in workhouses, 5,516 were outdoor paupers, and the small remainder were inmates of licensed hospitals and houses. The question thus practically narrows itself down to a study of the conditions obtaining in county and borough asylums, and the manner in which these asylums meet their ever-increasing exigencies. The disadvantages under which these asylums labour are known by all who have studied the question. Over and over again in the reports of asylum superintendents we meet with mention of overcrowding and its attendant ill-effects, an increased death-rate, particularly from tuberculous diseases and asylum dysentery, and all the discomfort and retarded recovery of patients consequent on the herding together of so many diversely afflicted patients in the same wards. This overcrowding is so considerable that a reference to the Blue Book mentioned above shows that in over a third of the county and borough asylums the average daily population for 1903 was in excess—in many cases considerably in excess—of the proper accommodation provided. Even this does not fully state the case, for, owing to a considerable preponderance of female over male cases, or vice versa, there may be local overcrowding, whilst the total accommodation may be in excess of the inmates at any one time. The difficulty of classification and distribution of patients according to their condition is thereby also impeded; it may even be impossible, and this, which cannot fail to exert a serious effect, has been the subject of unfavourable comment by many medical superintendents.

To meet the ever-increasing numbers, large and costly additions have constantly to be made to the asylums. The Commissioners speak in unequivocal terms of this tendency unduly to increase the size of these institutions:

> We are unable to view without grave concern the modern tendency to undue increase in the size of asylums for the insane poor, and we think the time has arrived when we should renew our protest against it. Its advocates justify it principally on the ground of convenience and economy, and if this were proved and there were no weighty counterbalancing evils we should have no adequate grounds for the expression of adverse views. This is, however, in our opinion, far from being the case. We have never failed to recognize the serious financial burden which the continually increasing accumulation of the insane poor is imposing upon the community, or to sympathize with every legitimate and practical effort to lessen its onerous character.
>
> As we have pointed out in previous reports, we think that this might be done to an appreciable extent by the building of asylums of simpler form of construction, in which the aged and harmless class of patients, who are now removed in increasing numbers from their homes and from the wards of workhouses into asylums which have been built and fitted for acute cases, might be accommodated and maintained at a somewhat cheaper rate.

They then show, as we have above stated, that the incidence and death-rate from asylum dysentery and phthisis—the bane of asylums—increase *pari passu* with the population. Further, they point out that if an asylum is enlarged beyond a certain size the increase ceases to effect an economy in money, but quite the reverse; and they continue:

> For these and many other reasons of a similar nature we regard the present tendency unduly to enlarge county asylums as distinctly retrogressive and opposed to the best interests both of the insane poor and of the public upon whom falls the burden of their maintenance. Justice and economy alike demand that the means which are provided to reinstate in health of mind and body those of the industrial classes who fall by the way should be those which are best calculated to secure that result in the speediest and most effectual manner, and this we believe to be hindered by the undue growth of asylums.

The authorities are thus face to face with the necessity—a necessity which shortly must become urgent—of erecting new asylums involving the expenditure of much public money. The proportion of lunatics to general population has increased so much of late years that whereas in 1894 there were in England and Wales 327 sane persons for every certified lunatic, in 1904 there were only 288. Thus if the ratio be maintained—and the tendency is towards a decided increase—and the increase in the population is continued at its present rate during the next ten years, a score of new asylums built at a cost in buildings and land of between five and six millions will hardly contain the increase. We do not propose to discuss the financial question in detail, but if there should be any scheme by which this expenditure can be avoided and at the same time as good or better results obtained in the treatment of certain of the insane, a pecuniary saving must be regarded as a very cogent reason for its adoption.

The history of the methods of management of the insane makes interesting, if at times painful, reading, but the most noticeable and hopeful feature of its evolution has been the steady amelioration of their environmental condition. The dungeons in which they were formerly immured have given place to cells, and cells to spacious wards; former brutal methods of mechanical restraint have been abolished, in fact, restraint of any kind is now practically obsolete, and the rigid incarceration of the inmates within the walls of the old-time madhouse has been so far relaxed, that in England to-day over 30 per cent. walk out weekly beyond the asylum grounds. This removal of barriers, however, has attained its most striking development in recent years by the adoption in many countries of the system of the family care of the insane, practised for hundreds of years at Gheel, in Belgium, or of some modification of that system. In Scotland since 1862, at Lierneux, in Belgium, since 1884, and more recently at Dun-sur-Auron, Ainay, and Levet, in France, at Veldwijk and elsewhere, in Holland, at numerous centres in Germany and also in Italy, colonies and villages attached to asylums have been formed which have been everywhere attended with eminently satisfactory results. Russia and Austria have also adopted this system, and there can be no question that its application in England to a considerable class of the asylum population—chronic, harmless, and incurable cases—would relieve the present state of congestion of asylums, would for many years obviate the necessity of erecting fresh asylums and extending existing structures, would to an appreciable extent diminish the burden which the maintenance of the unfit lays more and more heavily on the shoulders of the fit, and would be of marked benefit to the sufferers themselves.

Many alienists in this country are well acquainted with the working of this system of family care, either by personal inspection of the various colonies or through the writings of Letchworth, Sir Arthur Mitchell, one of the two Deputy Commissioners first appointed after the passing of the Scottish Lunacy Act of 1857, Drs. Sutherland and J. Macpherson, Commissioners in Lunacy in Scotland, Sir John Sibbald, Mr. T. W. L. Spence, the Secretary to the Scottish Lunacy Commission, Dr. Conolly Norman, Dr. Peeters, the present head of the Gheel Colony, and many others; but the meetings of the Congrès International de l'Assistance des Aliénés et spécialement de leur Assistance Familiale held at Antwerp in September, 1902, and, under the name of the International Home Relief Congress, at Edinburgh in June of this year, have done much to quicken interest in this important question, to spread information as to the results obtained in the more modern settlements, to remove doubts as to the practical workability of this system, and to establish in irrefutable fashion its favourable influence upon a large section of the mentally afflicted. These meetings were attended by men of international repute, fully representative of the best Continental and British expert opinion, and the resolutions adopted at the Antwerp meeting are so important and authoritative that they must be quoted here:

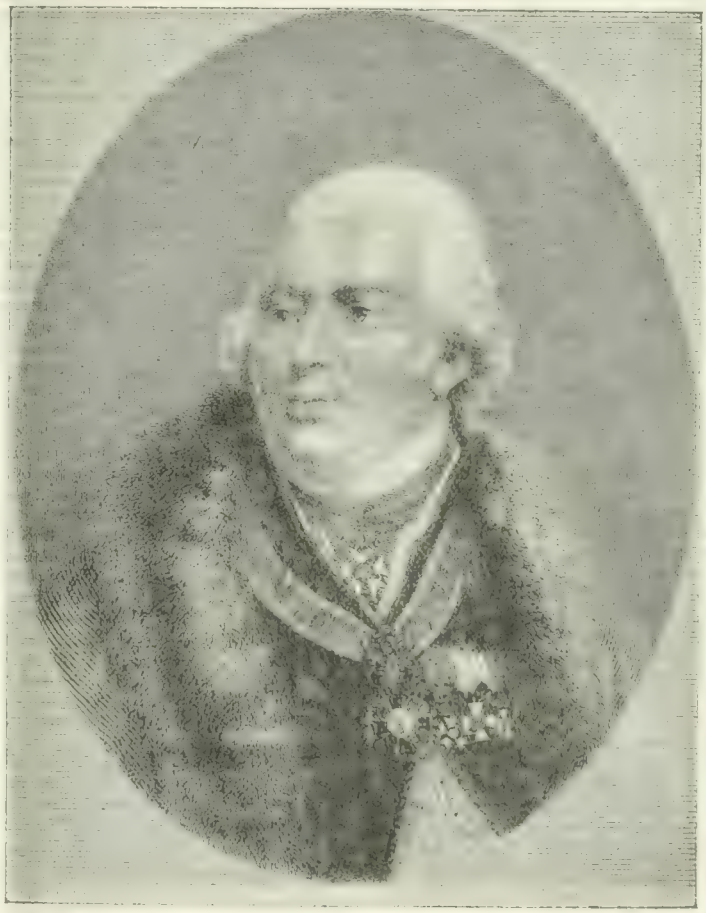
> 1. That the system of family care, in all its forms, should be applied in the largest measure.
>
> 2. The most practical way of initiating the system of family care is to institute it in the villages near asylums, the patients being placed with carefully-selected families, and kept under the regular and direct surveillance of the doctors of the asylum.
>
> 3. (*a*) For a very considerable proportion of the insane, the family colony represents the most free and least costly system of care, as well as an important curative co-efficient.
>
> (*b*) The system of family care can be added to every asylum institution organized in accordance with modern acquirements, especially when the attendants and their families are in favourable conditions as regards their houses, etc.
>
> (*c*) The generalization of this form of care can only be effected by putting it into practice round large establishments in small groups that can form the nucleus for true family colonies.
>
> (*d*) The adoption of the system of family colonies can arrest, actively and economically, the continual encumbrance of the asylums.

These resolutions, whose authoritative value, as Dr. Ford Robertson has said, cannot be impugned, are so completely at variance with the common practice in England that it behoves us to give to the methods and results of the family care of the insane the most careful consideration. As the Colony at Gheel is the oldest example of this system, and the type of which the others are modifications, it will be described first, published accounts being checked by observations made during a recent visit.

NOVA ET VETERA.

THE SURGEON-IN-CHIEF OF THE GRANDE ARMÉE.

A noteworthy feature in the reports from the seat of war that have been published in the newspapers has been the absence of sensational descriptions and realistic details of battlefields. This is all the more remarkable since war correspondents, as a rule, revel in the play of destructive forces, and might almost be thought to write with blood instead of ink. This novel reticence may be due to strictness of censorship; but it is by no means unlikely that the real cause is that the carnage has been so appalling and the amount of suffering so unspeakable that even sensation-mongers felt that the recital would "stagger humanity." Most writers on war dwell on its glories and keep its horrors discreetly veiled. We think this is to be regretted, for if the truth were fully told, the bare facts would plead more powerfully against war than the most eloquent expression of a platonic love of peace. Rulers of countries in which militarism is rampant naturally do not wish that people should know the truth; hence the exhibition of Verestchagin's terrible pictures of the realities of war was forbidden in Germany. Till people everywhere are made to feel that, in the terse phrase of General Sheridan, "war is hell," they will be misled by dreams of military glory. No people have ever loved this kind of glory more passionately than the French, to whom the Napoleonic legend, full as it is of blood and savagery and shame, is still a living source of national pride and inspiration. This legend has survived the most destructive criticism by such writers as Lanfrey and Taine, and it is probably too deeply implanted in the very foundation of the French character to be uprooted.



Something may, however, be done to dissipate the legend by a book written by a fervent admirer of Napoleon which was published a few months ago. This is the private diary kept by Baron Percy, Surgeon-in-Chief of the Grande Armée through several of Napoleon's campaigns.[1] References to the diary are made by two of Percy's biographers, but the manuscript originals were only recently discovered by M. Emile Longin in Egypt, where they were found in the possession of M. Charles Laroche, engineer to the Suez Canal Company, who is a grandnephew of Baron Percy.

The diary is incomplete, and M. Longin, after persevering inquiries among all the old campaigner's surviving relatives, has been driven to the conclusion that the missing parts are lost beyond hope of recovery. The existing diary, which covers the period from 1799 to 1809, is contained in thirteen notebooks of a size which could conveniently be carried in the pocket. The notes were written sometimes actually on the field, but most often in bed by the light of a smoky lamp or a wax candle taken from a church. From their disjointed character, the freedom of the language, and the intimacy of the confidences, it is clear that they were written without any thought of publication. This gives them a special value as being the faithful record of the impressions of a patriotic Frenchman, whom the glory of the conqueror never blinded to the terrible cost in life and suffering by which it was won. In his diary he shows not so much of set purpose as by the mere veracity of narrative the seamy side of war.

Percy was a man of very independent character, whose whole heart was in the work which his hand found to do, and who did it with his might. He was a man of singular honesty and integrity of character and of a fine humanity, which shows itself naturally in his references to the sick and wounded. He remained throughout a time of general unbelief a staunch Catholic, who practised his religion in an unostentatious manner. Like one or two others of Napoleon's officers, he carried his Bible about him in all his wanderings, reading it every day and often quoting it, in the Vulgate version, even in papers presented to the Academy of Surgery.

Although the whole of his professional life was spent with armies in the field he was from first to last a surgeon, and felt the trappings of the soldier which he was compelled to wear incongruous and burdensome.

Pierre François Percy was born on October 28th, 1754, at Montagney-lez-Pesmes, a village in what is now the Haute-Saône department, where his father practised as a surgeon. It has been stated that the family migrated from England with the Stuarts; but the only foundation for this legend appears to be a joke of the Duke of Northumberland, who used to speak of the surgeon-in-chief as "my cousin Percy." The family was settled in Franche-Comté long before the expulsion of the Stuarts from England, and Percy himself said with just pride: "Men of science have no need of ancestors; they belong to the universe." He received his early education at the Royal College of Besançon. His father, who had served as a surgeon-major in the army and had left the service in disgust, had often been heard to say that he would rather strangle his children than suffer them to adopt his own profession. But Pierre François soon showed so decided a vocation to surgery that his father allowed him to follow the bent of his genius. Young Percy therefore studied at the University of Besançon, where his career was so brilliant that he was admitted to the doctor's degree in 1775 on payment of a merely nominal fee. After a short period of further study in Paris, where he attracted the notice of the famous Louis, then Secretary of the Royal Academy of Surgery, Percy entered the army as an *aide-major* in 1776. From the first he was distinguished by his keen interest in his professional work. An operation of his, which proved the possibility of reproduction of the lower jaw or of a solid substance serving the purpose of that bone, attracted the attention of the Academy of Surgery, to which he presented many communications. In 1782 he was promoted to be surgeon-major. At Strassburg, whither he went with his regiment, he used the opportunities offered by the hospitals and libraries of enlarging his knowledge. In

[1] *Journal des Campagnes du Baron Percy*, Chirurgien en Chef de la Grande Armée. Publiés d'après les manuscrits inédits, avec une introduction par M. Emile Longin. Paris. 1904. (pp. lxxvii and 537.)

1784 he was made a corresponding member of the Academy of Surgery which awarded him several prizes for essays and inventions. So many prizes indeed did he win that he was asked not to compete further "in order to reanimate in some degree the general emulation which such continued successes threatened to extinguish."

In 1792 he was appointed Consulting-Surgeon to the Republican Army in the North. While giving perfect satisfaction to his chiefs he found time to send a last memoir to the Academy of Surgery in which he discussed the advantages and drawbacks of artificial sleep, whether before or after surgical operations. Afterwards he served with the armies of the Moselle and the Rhine, winning the highest praise for his services and for his courage from no less distinguished a soldier than Pichegru. No one in the army, in fact, exposed himself more than Percy; he was wounded three times, and at Mannheim he carried a wounded officer out of fire on his shoulders, a deed of valour which in our own day would have won for a British soldier the coveted distinction of the Victoria Cross. "The bridge over the Rhine," says his biographer Laurent, "was swept by twelve guns, and the French, who were on the opposite bank, filled with admiration of so splendid an action, sustained by their cheers the efforts of the surgeon-in-chief, under whose feet the broken pontoons were threatening to give way. He had the good fortune to reach in safety the bank occupied by the army, and to deposit there the wounded man, whom he had refused to abandon."

Percy distinguished himself no less in the campaign of 1796, where he attracted the favourable notice of his Commander-in-chief, Moreau. M. Longin claims for Percy the invention of movable ambulances, which has been attributed to Larrey. The Republic had destroyed the old medical service of the army and had put the sanitary officers under the orders of "war commissioners," who when not corrupt were indifferent and incapable. Ambulances and field hospitals did not exist. Even at head quarters there was no equipment for the treatment of the sick and wounded. In one corps the surgeons had nothing but a single case of instruments, half a pound of *pommade agglutinative*, and a small packet of worn linen. Writing on the subject Percy says: "What management! To see the indifference, the lethargic sleep of all the people at the head of affairs. When one speaks to them of hospitals it might be believed that a sick or wounded man ceases to be a man when he can no longer be a soldier."

In 1799 he was surgeon-in-chief of the army of Mayence. At this time his relations with the War Office became strained almost to breaking point. Having applied for the confirmation of some surgeons to whom he had given temporary appointments, he received a letter from Paris, in which he was informed that but for the favourable reports of his commanding officers, he would have been severely dealt with for not having sent regular reports to the Minister of War. Percy took the bold step of publishing this letter, together with his own reply, the tenour of which may be gathered from the following passages:

"Your letter has neither surprised nor moved me. I am not accustomed to praise from Paris, nor do I ever aspire thereto. Paris is too far from the army. It is here, on the battlefield and in the hospitals, that I win some praises which have power to please me, and if you have served in a single campaign you ought to know that, in my profession, one has no time to give to these tedious writings which are so much insisted upon and the concoction of which constitutes the sole merit of so many people in Paris. . . . ." "I believe you are a just man," he goes on to say to the Minister. "You are said to be a wise one, but you have been got at." He adds, "Spite will not, as some have basely hoped, make me send in my resignation. I shall remain firm and impassive at my post! I am willing to brave the fresh snubs, the new insolences with which envious and overweening mediocrity will doubtless continue to pursue me. I may perhaps be dismissed. I expect this fate without either desiring or fearing it. In that case, however, the responsibility for taking away from the unfortunate victims of war their friend, their support, their comforter, will not rest with me."

Another time, having occasion to complain of the central authority for giving positions as surgeons to incompetent persons, he says:

"Their number is so great and their incompetence so notorious that the troops are loud in their protests against this murderous abuse." He adds that the *inspection générale du service de santé* went among the soldiery by the name of *infection générale*. One can but faintly conjecture what would be the fate of a P.M.O. of the present day who should write to the War Office in this strain.

In 1800 Percy tried to bring about an agreement between commanders in the field that military hospitals should be recognized as neutral ground; his scheme was, in fact, an anticipation of the Geneva Convention. The proposal was, however, in advance of the time. In this campaign he rendered such services that after the battle of Memmingen General Lacourbe styled him in a dispatch "the father and the support of military surgery." By a curious coincidence, on the very day this dispatch was written Percy received a hectoring letter from Paris, addressed to him simply by his title. Percy's reply is characteristic. He requests the official to whom it is addressed to inform the Minister of War, "in whose name, but without whose knowledge, the most impertinent reprimands are constantly sent to me," that his name is Percy, whose fame "the ridiculous admonitions of some foolish clerks will not succeed in obscuring." "That name," he adds, "will perhaps live longer than those of many to whom intrigue, party, or chance has given an ephemeral celebrity." "Do not," he goes on to say, "allow him [the Minister] to remain in ignorance of the fact that the owner of that name is above all threats; that he has proved more than once that no authority can attempt with impunity to humiliate him; that he has no need either of the Minister or of the War Office; that he has a conscience, a fortune, and a reputation which make him independent; and that, if in his wish to be useful he bears patiently the toils of campaigning, he is firmly resolved to make war against the insolent fools who shall dare to worry him or seek to degrade him." If the tone of this letter strikes the reader as a trifle boastful, it must be remembered that it was written immediately after a terrible battle, in which Percy had spent himself without stint.

In the early days of the Consulate he was appointed an Inspector-General of the Sanitary Service of the Army, and Professor of Surgical Pathology in the Ecole de Santé, which was established in 1794. He was very successful as a teacher, for in addition to his enormous practical experience he knew the whole literature of his art.

In 1805 Percy for the first time served under Napoleon. After the battle of Ulm it fell to him to reorganize the hospitals in Vienna, and he distinguished himself greatly at Austerlitz. Thence onwards he served almost continuously in Germany, Poland, and Spain, till 1809, when an acute ophthalmia and failing general health made him unfit for further campaigning. He was deprived of his appointments at the Restoration, but lived surrounded by honour, love, and all that should accompany old age till 1825. Napoleon, who had the highest regard for him, left him a legacy of £2,000. He was created a Baron with a gift of £4,000, a member of the Institute of France, and a Commander of the Legion of Honour. He also received many marks of esteem from the King of Prussia, the Emperor of Russia, and other Sovereigns. He was held in an affectionate respect, which almost amounted to veneration, by his brethren and countrymen.

Percy's diary shows that the medical service of the French army was almost as defective under the Empire as under the Republic. For this the vast numbers of sick and wounded to be dealt with and the rapidity of Napoleon's movements were partly responsible. But the main fault lay with the bureaucrats of Paris, against whose corruption and incompetence even the organizing genius of Napoleon could not prevail. He complained to Percy at Warsaw in 1806 that they ruined his surgical service by their constant worrying and their stupid schemes. He went so far as to say that the French nation had become the most barbarous in Europe in regard to the service of the hospitals, and that the Cossacks treated their wounded better. Percy worked wonders by his energy and forethought, and Napoleon showed great interest in his work. On being informed after the battle of Eylau that the medical staff had neither dressings nor instruments, the Emperor exclaimed, "What organization! What barbarism!"

After the battle of Eylau Percy writes: "Oh, the effect of the fury of mutual destruction! Never did so many corpses cover so small a space; the snow was everywhere stained with blood, that which had fallen and was still falling began to hide the bodies from the afflicted eyes of the passers-by. . . . A multitude of commanders of corps and officers of rank had perished, the massacre was frightful, and our surgeons could not cope with the abundance of wounded. . . . At the lower part of the cemetery, on the side of the plain, blood had flowed in terrible amount; it was that of the Russians.

Around the church, in the town, in the yards, in the houses, in short everywhere, nothing was to be seen but dead bodies of men and horses; wagons passed over them and parks of artillery gashed and crushed the skulls and the limbs." Seven days after the battle he describes the ambulance as follows:

"The front part of the house was heaped with the dead bodies of the wounded who had been brought to the ambulance in a dying state. In a room on the ground floor, near and behind the door, was a heap of amputated limbs; blood ran on every side; the screams, the groans, the yells of the unhappy men brought in on ladders, guns, etc., of those who asked to be operated on at once, of those who were under the knife: these accents of suffering and despair, the agonizing picture of misery, evil chance, and suffering presented by this refuge of unhappy brave men—all this was most moving, and, although for the last sixteen years I have seen nothing else, I cannot accustom myself to these frightful scenes." After the battle of Friedland he writes in a similar strain:

"If one only saw dead men, the sight of a battlefield would not be so fearful, but it is the unhappy wounded whom one can neither succour nor remove all at once; it is the dying whose torments one must not put an end to that break a feeling heart."

We might go on quoting whole pages to the same effect. Over and over again Percy deplores the impossibility of relieving more than a fraction of the overwhelming amount of suffering with which he had to deal. His descriptions of the state of the hospitals, full of the stench of sloughing and gangrenous wounds, with the men lying on rotting straw, or on the ground amid their own filth without covering, food, medicine, or attendance, are so gruesome as to move not only the heart but even the stomach of the least sentimental reader.

Time and again he denounces the villainy and incapacity of the administrators responsible for these things; his appeals to the Emperor were always sympathetically received, but bore little practical fruit. Yet, if Percy's narrative is to be believed, Napoleon was by no means lacking in his solicitude for his sick and wounded; and, unlike Wellington, he often visited the hospital.

Another point which Percy was always urging on the Emperor was the reform of the medical service, for which he maintained that autonomy was necessary. He represented that the medical staff was an integral part of the army, and that, as such, it could not be efficient unless its officers had definite rank. For his own part, as has been said, he cared little for the decorative aspect of military rank, and he makes a jesting complaint of being obliged to wear a furred cloak, which, he says, makes him look like a "pandour." But he was always resolute in upholding the interests of his officers, and, though never asking anything for himself, he never failed to put forward the names of those whom he considered deserving of honours and reward.

For varied adventure and for the unconscious revelation of a character at once singularly virile and humane to the degree of tender-heartedness, we know of no book that can be compared with this diary of the Surgeon-in-Chief to the Grande Armée. There is much in it to interest both the surgeon and the general reader, and it forms one of the most faithful and thrilling records of some of Napoleon's campaigns. One lays down the book with a feeling of real affection for the sturdy veteran who bore with cheery fortitude weeks and months of journeying through mud and snow and sand, in constant discomfort and frequent danger, glad if now and again he could get a tolerable night's rest in a deserted house or a barn where there were neither putrefying corpses nor heaps of dung. One rejoices in his good fortune when he manages to get a tolerable supper with a bottle of indifferent wine.

Baron Percy was one of the finest types of the army doctor. He was respected by all for his splendid courage and his soldierly qualities, but it is evident that he owed his great position and his immense influence with the members of the Grande Armée, from the Emperor downwards, first of all to their well-grounded belief in his professional skill.

DR. BRODEN has published, through the Société d'Études Coloniales de Belgique, an account of a new case of trypanosomiasis in a European, which he recently observed on the Congo. There are records now of several similar cases, and the chief interest in them depends on what their termination will be. Such a case, it will be remembered, died recently in England of sleeping sickness. The chief symptoms in Dr Broden's case were headache, some erythematous patches, a rapid pulse, and enlargement of the glands.

A SIDELIGHT ON MEDICAL EDUCATION.

IN December, 1903, we published an analysis of the returns which had then recently been presented to the General Medical Council by the Admiralty, the War Office, and the India Office in respect of the examinations held for admission to the medical departments of those branches of H.M. service. A further analysis was published in June, 1904, and the latest in December last. On the next page we now publish a summary of all the aforementioned returns, in the same form as that in which they originally appeared in the SUPPLEMENTS to this JOURNAL at the dates mentioned, but with certain percentage comparisons added in order to make the nett results more clear.

THE AMOUNT OF COMPETITION.

The first three tables show the extent of the competition for admission to the three services; and from Table I it will be observed that the proportion of candidates to vacancies is highest in the examinations for admission to the Indian Medical Service, and lowest in those for the Royal Navy. The competition for the latter, which is only five candidates for every four commissions, would scarcely perhaps seem to be adequate; but the average of five to three for all the services combined appears satisfactory, especially when it is remembered that before each competition a number of would-be candidates are rejected on the ground of other defects than those of scientific knowledge; so that those who finally compete are, to some extent, selected men.

From Table II it will be seen that nearly half of all the candidates appear to be supplied at present by English schools of medicine, Scotland and Ireland each contributing about a quarter of the total number. From the Colonies, Malta, Melbourne, and Madras, come five candidates in all, or a little over 1 per cent., while two candidates who held both English and Scotch qualifications are put down as Mixed.

Table III shows the way in which the commissions vacant were finally awarded, and it will be noted that, if the present condition of things continues, the services promise to be officered in the future by about one-fifth Irishmen, one-fifth Scotchmen, and three-fifths English—proportions which differ considerably, we fancy, from those which have prevailed in the past.

SUCCESS AND FAILURE.

The next three tables (IV, V, and VI) fall into a different category; they show the performances of the candidates of each country in respect of the following points (*a*) the success of man against man as shown by the number of commissions carried off by the teams, so to speak, of each country in proportion to their respective component numbers; (*b*) the extent to which the candidates, although unsuccessful in competition, yet proved themselves qualified by passing the standard; (*c*) the proportion of men of each country who failed totally by not obtaining the lowest qualifying number of marks, and thus being rejected altogether. It will be observed that what we have called the English team comes out very much the best in all three particulars, proving some 30 per cent. more successful in competition and having only some 6 per cent. of total failures among its men. It is interesting, too, to note that while the Scotch team beats the Irish team by some 3 per cent., the Irish team comes to the front again in the proportion of men who passed the qualifying standard by having about 6 per cent. fewer total failures.

DIFFERENT QUALIFYING BODIES.

Finally come Tables VII and VIII, the first of which shows the precise performance of the candidates who represented each different qualifying body, and the second those of certain classes of medical qualifications in England, Scotland, and Ireland. The former is of very great interest, and is worthy of the closest study by each of the bodies which figure in the list; to them we leave it.

The latter and final table, however, calls for some observations in explanation. In this the various degrees and diplomas which exist are thrown into certain natural classes and the latter placed in the order of their success. The latter is judged not by the proportional number of commissions won, but by the height of the percentage of men who passed the qualifying standard, including those who won commissions, and by the consequent lowness of the percentage of total failures. It will be observed, however, that, except in one instance, the result or order of merit would have been the same if the percentage of winners had been taken as the test.

The following tables represent an analysis of the returns made to the General Medical Council of all examinations for the services since June, 1902—namely, two for the Indian Medical Service, three for the Royal Navy, and five for the Royal Army Medical Corps:

TABLE I.

Showing the Extent of the Competition for each Service.

Services.	No. of Candidates.	No. of Vacancies.	Proportion of Candidates to Vacancies.
Royal Naval Medical Service ...	86	70	5 to 4
Royal Army Medical Corps ...	245	151	5 to 3
Indian Medical Service	83	37	5 to 2
Total or average	414	257	5 to 3

TABLE II.

Showing whence the Candidates received their Qualifications.

Licensing Body.	Number of Candidates.	Proportion of Entire Number.
English Colleges and Universities...	196	47.3 per cent.
Scottish ,, ,, ...	106	25 6 ,,
Irish ,, ...	105	25 4 ,,
Colonial ,, ...	5	1.2 ,,
Mixed	2	—
Total or average	414	

TABLE III.

Showing the Proportion of Commissions Gained by the Candidates of each Country.

Country.	Number of Commissions Won.	Proportion of all Commissions Offered.
England	154	59.5 per cent.
Scotland	51	19 8 ,,
Ireland	48	18.7 ,,
Colonies	2	—
Mixed	2	—
	257	

TABLE IV.

Showing the Relative Success of the Candidates of Each Country in Proportion to their Respective Numbers.

Country.	Number of Candidates.	Number who Gained Commissions.	Proportion of Success to Candidates.
England	196	154	78 1 per cent.
Scotland	106	51	48 1 ..
Ireland	105	48	45.7 ..
Colonies	5	2	40.0 ,,
Mixed	2	2	—
Total or average ..	414	257	62.0 ,,

TABLE V.

Showing the Percentage of Candidates who Passed the Qualifying Standard, including those who Gained Commissions.

Countries.	Number who Entered.	Number who Passed the Standard.	Proportion to the Total.
English candidates ...	196	183	93 3 per cent.
Scottish	106	77	72.6 ,,
Irish	105	84	80 0 ,,
Colonial	5	2	40.0 ,,
Mixed	2	2	—
Total or average ...	414	348	84.1 ..

TABLE VI.

Showing the Proportion of those who Failed Totally among the Candidates of Each Country.

Country.	Number of Candidates.	Number Rejected.	Proportion of Total Failures.
English candidates ...	196	13	6 6 per cent.
Scottish	106	29	27 4 ,,
Irish	105	23	21 9 ,,
Colonial	5	1	—
Mixed	2	0	—
Total or average ...	414	66	15 9 ..

TABLE VII.

Showing Details of the Performance of each Class of Candidate.

Qualifications.	Number of Candidates.	Commissions.	Qualified but Unsuccessful.	Rejected.	Percentage of Success.
English Conjoint Board alone	140	108	25	7	77
,, ,, and Oxford degree..	2	2	0	0	—
,, ,, and Cambridge ,, ..	3	3	0	0	—
,, ,, and London ,, ..	12	11	1	0	92
,, ,, and Durham ,, ..	1	1	0	0	—
,, ,, and Edinburgh ,, ..	1	1	0	0	—
,, ,, and English L.S.A.	1	1	0	0	—
English Apothecaries' Society alone	10	7	1	2	70
,, ,, ,, and London degree	1	1	0	0	—
English Apothecaries' Society and Scottish diploma...	1	1	0	0	—
London degree alone...	2	2	0	0	—
,, and Manchester degree ..	1	1	0	0	—
Cambridge degree alone	4	3	1	0	75
Durham ,, ...	10	8	0	2	80
Manchester ,, ...	8	5	1	2	62
Birmingham ,, ...	1	1	0	0	—
Scottish Conjoint Colleges alone	38	15	8	14	39
,, ,, ,, and Edinburgh degree	1	0	0	1	—
Aberdeen degree alone	13	7	4	2	54
Edinburgh ,, ...	48	24	12	12	50
Glasgow ,, ...	6	4	2	0	66
Irish Conjoint Colleges alone	41	14	16	11	34
Dublin University alone	42	20	14	8	45
Royal University of Ireland	22	14	4	4	63
Colonial universities...	5	2	2	1	—
Total or average	414	257	91	66	62

TABLE VIII.

Percentage Comparison of the Work of certain Classes of Candidates.

Qualifications.	Number of Candidates.	Gained Commissions.	Qualified but unsuccessful.	Total qualified.	Number rejected.	Percentage of Winners.	Percentage qualified.	Percentage rejected.	Order.
English Conjoint diploma and English degree.	18	17	1	18	0	94.4	100 0	00.0	1
English Conjoint diploma alone	140	108	25	133	7	77 1	95.0	05.0	2
English degrees alone	26	20	2	22	4	76.9	84 6	15 4	3
Irish degrees alone	64	34	18	52	12	53.1	81.2	18.7	4
Scottish degrees alone...	67	35	18	53	14	52.2	79.1	20.9	5
Irish Conjoint diploma alone	41	14	16	30	11	34 1	73 2	26.8	6
Scottish Conjoint diploma alone	38	16	8	24	14	42 1	63.1	36 9	7
Other classes together	20	13	3	16	4	—	—	—	—
Total or average	414	257	91	348	66	62.0	84.1	15.9	—

It will be noted that those who held the English Conjoint diploma and an English degree come out best, all of them passing the standard, and 94 per cent. of them proving winners in competition. They were, however, only eighteen in number, and close upon their heels come the men holding nothing but the English Conjoint diploma, to the number of 140. Of these 95 per cent. passed the standard, and they thus beat by 10 per cent. those holding English degrees alone. This on reference to Table VII is seen to be due to a rather heavy total rejection rate among the Victoria University (Manchester) and Durham candidates, 20 per cent. in the latter case, and 25 per cent. in the former. The men holding either Scotch or Irish degrees alone come very close together, both in point of numbers and of success and failure. As to the Scotch and Irish Conjoint men it will be observed that the Scotch are well in front as regards winners, but fall considerably behind in the matter of total failures.

The extent to which any of these classes are above or below the average of absolute success, relative success, or total failure may readily be calculated by comparing the percentages of each with the figures given at the bottom of the table. In Table VIII the percentages of comparative success and total failure are not given, but many of them can be found in Table VII, and we have mentioned those of Durham and Manchester. Of the other universities which entered any appreciable number of candidates, Glasgow and Cambridge alike had no total failures, Edinburgh 25 per cent., Dublin University 19 per cent., Royal University of Ireland 18 per cent., and Aberdeen 15 per cent. Perhaps the most striking thing about all the figures is the position occupied by the English Conjoint men, with 77 per cent. of absolute winners, and only 5 per cent. of failures, out of the large number of 140 candidates. The London L.S.A. men, though few in number, did not do badly, and one of their number, who, however, held also the English Conjoint diploma, took the first place at one of the Indian Medical Service examinations, the second place being also taken by an English Conjoint Board man. At the other, the first place was won by a man holding both the M.B. London and the M.B Manchester, and the second again by a London M B. with an English Conjoint diploma in addition. It is at these examinations that the competition is keenest and the number of the totally rejected highest.

General Conclusions.

As to the general deductions which should be made from the tables opinions will probably differ, but in any case the summary is interesting, for the number of examinations and of the men engaged in them is large enough for the results to be regarded as throwing at least a sidelight upon the educational methods and curricula in force in different parts of the United Kingdom. This light has an additional value in that there are no other post-graduate examinations, in the ordinary subjects of a professional curriculum, designed to pick out those among the candidates who seem to have the best knowledge of their common profession. It is to be remembered too that though, as the examinations are competitive, it is impossible that all can succeed, yet there is no reason why any should totally fail by not reaching the qualifying standard.

THE TEACHING OF HYGIENE IN SCHOOLS.

IV.—The Education of Teachers.

We have pointed out the necessity for the teaching of hygiene to all children in elementary schools. It will be well to find out the best means of doing this without seriously taxing the brain of the person who is to teach. At present the London Education Committee requires teachers to pass an examination in the practice and theory of physical education, which consists of two parts—physiology and hygiene—as has already been explained. The Board of Education has recently issued a small volume containing the regulations for the training of teachers and for the examination of students in training colleges. In the preface it is stated that students ought to have an adequate knowledge of school hygiene, should understand the general conditions necessary for making a room healthy, and should be acquainted with the rules of personal health, and with the physiological principles upon which these rules are based. But when we come to examine the five alternative courses of study which sounded so fair when the President of the Board of Education spoke of them to the deputation last July, we find that in four instances the whole subject is dismissed with four or five lines of generalities, while even in the fifth, where the details are fuller, they only relate to school hygiene, that is to say, to the hygiene of the schoolroom and not of the scholar. This syllabus (5) contains three sections, the first on the principles of education, and the second on its practice; the third is as follows:

Section III.—*School Hygiene.*

The School and the Home.—Treatment of town and country children of poor and well-to-do parents. Their feeding, clothing, personal cleanliness, regularity of living, sleep and rest, exercise.

School Conditions.—Air, light, warmth, area and cubic space, school furniture, the attitudes of children at work.

Powers of endurance as regards lessons, physical development, and games.

Fatigue.—Signs of mental and physical fatigue. Order of lessons in the time-table. Local and temporary variations in the time-table.

Children of Normal and Abnormal Physique.—Detection (but *not* the treatment) of weakness in sight, hearing, physical power, and brain power; common ailments of school children. Influence of dirt, neglect, and exposure to infection.

Lord Londonderry could not promise that teachers trained in this small though certainly important branch of the subject would be available before 1906. Even accepting Lord Londonderry's most sanguine estimate, it will apply only to those young teachers at present in training colleges, while the mass of teachers now actually engaged in schools are entirely forgotten by the Board. Fortunately, however, the teaching of physical exercises has been made a compulsory subject of the Code, and the theoretical examination already referred to, although it goes in our opinion beyond what is necessary merely to guide a teacher giving instruction in physical exercises, may, if properly modified, form a starting point for a satisfactory system of training them. The modification would involve the omission of some details and the addition of others bearing on the early life and health of the children. It should be stated that a teacher who has passed the Board of Education (South Kensington) examination in advanced physiology and hygiene is not required to take the theoretical paper for the physical education certificate. Many teachers take the courses in physiology and hygiene laid down by the Board of Education for these examinations. These syllabuses go far beyond what is necessary, and it appears to us that the ideal plan, and in fact the commonsense plan, would be to teach these two subjects, physiology and hygiene, in such a way as to clearly show their relation to each other. Hygiene is closely dependent upon physiology, and the object of much of the teaching given in a course of physiology can only be properly appreciated when its practical bearing on hygiene is grasped by the student. For example, the physiology of respiration will be much more interesting if the composition of the air and the nature and origin of its common impurities are studied in conjunction; yet in the Board's syllabus these two subjects are taken in different courses. Again, we may compare the part of the syllabus in human physiology (Stage 2), which deals with food and digestion, with the corresponding part of the syllabus in hygiene (Stage 2).

Physiology.	Hygiene.
C. *Food, Digestion, and Absorption.*	3. *Food.*
The structure and functions of the salivary glands. The oesophagus; the structure of its walls. The stomach; its glands and their functions. The structure and functions of the intestinal villi. The structure and functions of the pancreas. The intestinal tubular glands and the function of their secretion.	Standard, economical, and wasteful diets; energy obtainable from food; putrefactive changes in food; methods of preserving food substances; diseases connected with the quantity, quality, and cooking of food; parasites introduced with food; nature and dietetic value of alcohol; brewing.
The proximate or immediate principles in articles of food. The distinctive chemical characters of albumin, globulin, peptone, tyrosin, starch, glycogen, cane sugar, and reducing sugars.	
The structure of the liver and the course of the blood through it. The arrangements of the ducts of the liver. The composition and functions of the bile.	

Such a course as we contemplate, in which physiology and hygiene are taught together, would practically include the whole of the theoretical basis of what is now called school hygiene, so that teachers would only require some instruction in the application of the general principles to the special circumstances of school administration. At the same time, this training would fit them to give the children in their classes lessons in personal and domestic hygiene. We have

already laid stress on the fact that this proposal need not add a burden to the teacher. The greatest sufferers will be the students now in the training colleges who are not being properly grounded in the general physiology and hygiene which they will presently be expected to teach. But the difficulties will diminish for future generations of teachers because they will, from their earliest school days, be gradually brought up to understand hygiene in its broadest and most practical aspects. They will have grasped its principles so thoroughly that it will be easy for them to qualify to teach it.

In our opinion the Board of Education should carefully reconsider the whole of its regulations with regard to the teaching of hygiene to teachers and should in particular revise the syllabuses in the book of regulations for training colleges.

LITERARY NOTES.

MESSRS. LONGMANS AND CO. have in the press an English translation of a collection of papers on *n* rays, communicated to the Paris Académie des Sciences by Professor Blondlot, of Nancy. *N* rays, as described by M. Blondlot, are a peculiar kind of rays emitted by a Crookes tube, a Nernst lamp, the sun, and many other sources. Their properties are said to be quite distinct from those of *x* or Roentgen rays, and from those emitted by radio-active bodies like radium and uranium. Many of Professor Blondlot's observations are of a simple character, and may be repeated without special apparatus. A small phosphorescent screen, suitable for repeating some of the experiments, is attached to the book. The translation, which has been made by Mr. J. Garcin, has been revised by Professor A. W. Reinold.

Chemische Novitaten is the title of a new monthly bibliography of the current chemical literature of all countries. The first number contains an interesting history of textbooks of chemistry by W. Ostwald. The periodical, which is published by Gustav Fock of Leipzig, will be useful to specialists.

The Antiseptic is the title of a new monthly journal of medicine and surgery published at Madras. The editor is T. M. Nair, M.D.Edinburgh: the proprietor and manager U. Rama Rau, medical practitioner. The journal is said to be the first of its kind published in the Madras Presidency.

Dr. Weir Mitchell, as is well known, in addition to being one of the foremost neurologists in the world, is one of the most brilliant of American novelists. His latest work of fiction, or rather imaginative reconstruction of history, is *The Youth of Washington*, which, after running a highly successful course in an American magazine, is about to be published here by Mr. Fisher Unwin. It records, in the form of an autobiography, the great American's life up to his twenty-seventh year. Parts of the narrative are in Washington's own language, while the rest is based upon a thorough study of all the available documents.

As a supplement to the annual report of the Surgeon-General of the United States Army for the year 1904, a pamphlet has been issued dealing with international military medical statistics for 1903. The tables used are those agreed upon at the meeting of the International Commission for the Unification of the Medical Statistics of Armies held at Buda Pesth in 1894, and afterwards modified to a certain extent. These tables, ten in number, supply an immense mass of facts regarding the United States army, its diseases and various matters relating to its efficiency.

At a recent meeting of the Padua Academy of Literature, Science and Art, Professor Ghirardini gave an account of the recent discovery in the district of Este (the Roman colony of Ateste) of a small square tablet of greenish stone with Latin inscriptions cut in reversed characters on the four sides. It was evidently a seal used for stamping the remedies employed by an oculist. Many similar seals have been found in the northern and western provinces of the Roman Empire—France, Great Britain, and Germany; but only seven have, it is said, been found in Italy. The name on the seal is Eseagatus, and each side bears the Greek name of a different remedy—two of them being for conjunctivitis, one for blepharitis, and another for general use in affections of the eye. The collyria were prepared in the form of small sticks which were stamped with the seal, and two small fragments of such sticks have been found in a tomb in the necropolis of Ateste. That the tomb was that of a surgeon is shown by the surgical instruments also found therein.

Cornelius Agrippa in his treatise *De Incertudine et Vanitate Scientiarum*, printed at Cologne in 1526, gives a curious picture of the medical profession in the early days of the sixteenth century. If he is to be believed, the way for a physician to gain a reputation was to wear an ample and pompous gown and large hyacinth rings on his fingers. It was an advantage for him to have come from a far-off country and to be a Jew or a Moor or of some other strange religion. In addition to this he must have a large stock of impudence so as to be able to lie and to boast of his possession of rare and singular remedies; he must, too, always have in his mouth a few words "half Greek, half barbarous." A gravity as of lead must complete his equipment. When called to a patient he inspects the urine, feels the pulse, looks at the tongue, handles the sides, stirs about the excrements, asking questions as to the mode of life and other more secret things; and "as if by these airs he had weighed the elements and the humours in a balance, he discourses magniloquently about them. Afterwards, after much fussing, he prescribes medicines: *Recipe*, pills, open a vein, use clysters, pessaries, ointments, cataplasms, loches, masticatories, gargles, sachets, perfumes, condiments, syrups, waters, antidotes, and theriacal confections. If the malady is ever so slight and the patient delicate, he will invent dainty devices and will in a masterful manner order all things which he thinks will be pleasant and agreeable to women or to effeminate men. He will have swinging beds hung up in the air or a fountain in which water falls drop by drop into a basin to compel sleep. He will prescribe rubbings, vapour baths, fomentations, cuppings. He will restore or comfort the patient with baths and feeding on the most dainty meats; he will order change of air. . . If the patient is rich or one in a position of great authority, then he will strive to prolong the illness as much as he can for the gain that he hopes to draw therefrom, and while he could cure the ill with a single medicament, he will do so only by degrees." He goes on to say that doctors are so little agreed that not one can be found that will approve without reserve, addition or alteration the medicines ordered by another; rather does he slily depreciate or openly deride them. If we are to believe Cornelius Agrippa the physicians of the sixteenth century in their own persons left a good deal to be desired from the hygienic point of view. They were, says he, for the most part contagious, always smelling of urine or faeces; they were even dirtier than midwives, having all their senses infected. "Wherefore in many countries the society of physicians, midwives and executions is equally avoided, no one being willing to eat or drink with them." Agrippa says that in his time surgery was accounted infamous by reason of its cruelty, adding quaintly, "Nevertheless, anatomy surpasses it in cruelty which for physicians and surgeons alike is a public butchery whereby criminals condemned to death were with most cruel tortures cut up alive and still breathing." With the usual inconsistency of the reckless accuser he adds that "at present on account of reverence for the name and the religion of the Christian, they have become a trifle more humane; for the man is first killed either by their own hands or by the sword of the executioner." "A trifle more humane," is good, as Polonius would say! Evidently the gentle art of antivivisectionist calumny did not begin with Miss Frances Power Cobbe or Mr. Stephen Coleridge; they had a worthy precursor in Cornelius Agrippa. In this, as in some other points of his *declamatio invectiva* against his brethren, for he was himself a doctor, there is a curious note of modernity.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Sodium Perborate.—M. Guéniot elected Vice-President.—M. Chamberland elected as successor to M. Duclaux.—International Congress of Tuberculosis and Exhibition of Tuberculosis.

AT a recent meeting of the Académie de Médecine Dr. Albert Robin presented on behalf of M. George F. Jaubert, D.Sc., a new product, sodium perborate, which he obtained by the action of boric acid on sodium peroxide. The new preparation is interesting from surgical as well as from the medical and hygienic points of view, for by simply dissolving it in water, it gives a chemically pure oxygenated water, the antiseptic properties of which are further increased by those of the sodium borate. Contrary to the oxygenated water of commerce, which is always reproached for its acid reaction,

the aqueous solution of sodium perborate is distinctly alkaline, as is that of borax. Sodium perborate is a white powder which keeps indefinitely even exposed to the air or in stoppered bottles. One kilogram of sodium perborate contains 104 grams, or about 80 litres of active oxygen, which is given off in the nascent state in the form of oxygenated water. This quantity, therefore, allows of the instant preparation of 8 to 10 litres of medicinal oxygenated water at 10 to 12 volumes. Sodium perborate may be used in solution or in powder. In solution in ordinary water it gives an oxygenated water possessing the same properties and serving the same uses as commercial oxygenated water. In major surgery it gives, as required, an oxygenated water of 2 to 12 volumes, slightly alkaline or neutral, in no way toxic, and free from any irritating substance. In minor surgery it presents the greatest advantages for temporary dressings, for with it it is possible to instantly obtain an unirritating antiseptic solution, which will be of service in washing wounds and in protecting them with compresses. But it is especially for hygienic purposes that the solution of sodium perborate will be used with advantage for the care of the skin and injection into natural cavities under normal or pathological conditions, and especially for hygienic purposes in the female sex; for metritis and leucorrhoea the perborate possesses antiseptic and astringent characters which injection in these cases require. In powder the perborate may be used directly. It will be used with success to dust on recent wounds, suppurating sores, and varicose ulcers. M. Jaubert has also prepared zinc strontium and calcium perborates, which will also have their particular therapeutic indications. Dr. Albert Robin in June last made a communication to the Académie de Médecine, which was analysed in the BRITISH MEDICAL JOURNAL, on the action of medicines in the nascent state, in which he brought out the therapeutic advantages of replacing in certain salts a portion of the water of crystallization by oxygenated water. The new salt obtained by M. Jaubert is a fresh example of the interest attaching to new medicines which may be obtained by this method.

M. Guéniot has been elected Vice-President of the Académie de Médecine for 1905, and will become President in 1906.

Keen competition took place in the election of a free associate member in succession to M. Duclaux, deceased. At the third turn of the ballot M. Chamberland obtained the necessary majority, and was duly elected pending the approval of the President of the Republic. The next largest number of votes were obtained by Dr. M. de Fleury and Dr. Voisin. M. Chamberland was born in 1851, and was one of the pupils and collaborators of Pasteur. M. Chamberland is at present one of the subdirectors of the Pasteur Institute, and head of the vaccination service.

The Bureau of the International Congress on Tuberculosis, to be held in Paris in October, 1905, met on December 20th, 1904, and fixed certain points in the organization of the Congress, enlarging the work of the sections and the scheme for the museum and exhibition. The President will be M. Hérard, and the Vice-Presidents M. Chauveau and Professor Brouardel. The work of the Congress will be conducted in two parts, each with two sections. Each of the sections will be autonomous with its own president, vice-presidents, and secretaries.

FIRST PART. *Medico-Surgical Pathology, Experimental and Comparative.*

Section A. Medical. President, President Bouchard.

Subjects for discussion:

1. Treatment of lupus by new methods. French reporters, Dr. Jeanselme and Chatin. Danish reporter, Dr. Forchhammer (Copenhagen).

2. Early diagnosis of tuberculosis by new methods. French reporter, M. Achard. Italian reporter, M. Mariani.

Section B. Surgical. President, Professor Lannelongue, who has on his Committee many Parisian and provincial surgeons, including Drs. Berger, Le Dentu, Lejars, Mauclaire, Villemin, Kirmisson; Drs. Kelsch and Gluwoski, of the Army Medical Service; Dr. Kermorgant, of the Colonial Service, and surgeons from Lyons, Bordeaux, Lille, Nancy, Montpellier, and Toulouse.

Reports will be made on the three following subjects:

1. Comparative study of the different tuberculoses. French reporter, M. Arloing (Lyon). German reporter, M. Kossel (Giessen).

2. Ileocaecal tuberculosis.

3. Surgical interventions in tubercle of meninges and brain.

SECOND PART. *Preservation and Assistance.*

Section C. In childhood. President, Professor Grancher. Vice-President, Professor Hutinel. Secretaries, Drs. Marfan and Méry.

Reports will be made on the three following subjects:

1. Preservation at school.

2. Preservation in the family.

3. Maritime sanatoriums.

Section D. In adult life. President, Professor Landouzy.

1. Etiological factors of tuberculosis. French reporter, M. Romme (Paris). Austrian reporter, M. Weichselbaum (Vienna). English reporter (not yet appointed).

2. Rôle of dispensaries and sanatoriums in the fight against tubercle. French reporter, M. Courtois-Suffit. Danish reporter, M. Bang (Silkeborg). Belgian reporter, M. Beco (Brussels).

3. Assurance and mutual aid societies in the fight against tubercle. French reporter, M. E. Fuster (Paris). German reporter, M. Bielefeld (Berlin). English reporter (not yet appointed).

The International Congress on Tuberculosis will not be simply a medical congress, but will be above all a congress of social hygiene. A certain number of members of the Bureau, and more particularly Professor Landouzy, have insisted on the important part to be given to the social side of the struggle against tuberculosis. It is for this reason that it has been decided to hold for three or four weeks during the month of October, 1905, an exhibition of tuberculosis which will be held in the Avenue d'Antin half of the Grand Palais in the Champs Elysées. This important exhibition will consist of four sections:

Exhibition.

1. *Scientific.*—For pathological anatomy, surgical specimens, bacteriology of tubercle, and comparative pathology.

2. *Social.*—Prevention, assistance, statistics, etc.

3. *Historical.*—History of tuberculosis in the human race; tubercle in art, literature, etc., and in history.

4. *Industrial.*—Prevention—foods, medicines, instruments; habitations, private and public, schools, barracks, etc.; travelling—railways, boats, hotels. Construction of hospitals, dispensaries, sanatoriums; cubic space, spittoons, etc.

Dr. Léon Petit will be the General Commissioner for the Exhibition.

CAPE COLONY.

The Medical Council and Medical and Dental Advertising.—Proposed Medical Aid Association.

A MOST unwonted degree of medico-political activity continues to be in evidence, partly due to the recognition by a few leaders of our usually apathetic profession of the fact that the medical future will largely take any shape impressed upon it to-day, partly a measure of self-defence against the unsparing onslaughts of a large section of lay critics inspired by political motives, and partly due to the pressure of competition, which makes even the veriest Gallio of medicine realize that things can no longer be allowed to drift according to the sweet will of the individual. The Cape Medical Council has exhibited a vigorous activity in putting down advertising. Its rule on the subject goes back some years, but hitherto, whenever a complaint has been made, the alleged offender has simply been written to for an explanation, which he invariably gave in the shape of an expression of child-like innocence of the law. On giving the explanation, he has then been written to requesting him "not to do it again," and the matter has ended. He has had no desire to do it again, having fully attained all the publicity required for his claims to specialism of abnormal general skill in the interval which has elapsed between his first advertisement and the consideration of any complaint by the Council. Lately, however, on the receipt of any formal complaint, the Council has summoned the offender and held a formal inquiry into his conduct. The results are that not only is he put to some trouble in answering the charge either personally or by counsel, but, if the minor charge of "improper and unprofessional conduct" is found proved, he is formally reprimanded and cautioned. This goes on record, and constitutes what the lawyers would call "a previous conviction," and if he repeats the offence he is at once liable to the major finding of "infamous and disgraceful" conduct, and a recommendation may be made to the Governor for the erasure of his name from the *Register*. A number of practitioners, both medical and dental, have lately been cautioned, and one dentist was recently recommended for the major penalty. His was a peculiarly gross case of dental advertising, and the Council took into consideration the fact that he had twice before been communicated with in connexion with other forms of advertising, although he had never been subjected to a formal inquiry. The Government accepted the recommendation, and erased his name from the *Register*, a notification of the cancellation of his licence being duly gazetted. He then appealed to the Supreme Court, and obtained a verdict with costs against the Council. It had always been supposed that only on a question of irregularity in procedure at an inquiry could the Supreme Court interfere with the Council, and the procedure in this case adopted was in strict conformity with

the interpretation placed upon the terms of the Act by successive legal advisers to the Council, some of them amongst the most eminent barristers in the colony. The main ground upon which the Chief Justice based his decision was that the Council had found the offender guilty of "infamous and disgraceful" conduct, whilst only indicting him on the charge of "improper and unprofessional" conduct. In this connexion it must be stated that the Council had always been legally advised that no person could be primarily charged with the major offence saving only in case of a repetition of the offence for which he had been previously reprimanded, but that, in the course of the inquiry on evidence led, the offence could be raised from the minor to the major degree, and that, however gross might be the offence, the Council would be in error if it framed any charge in terms of the major finding. To the lay mind the wording of the Act most clearly conveys that impression, one in which evidently successive Attorneys-General have shared. Apart from this actual legal ground, the Chief Justice went, as most of us think, very much out of his way to refer to the Council in scathing terms, and alluded to the merits of the case itself. In a previous dental case he had hinted very strongly that, if the issue were brought before him, he might declare the whole "reciprocity regulation," excluding foreign practitioners, as invalid. It is said that the Government contemplates introducing a short Bill next session with a view to embodying the reciprocity regulation in an actual statute, so as to put it beyond the reach of doubt.

Another matter of great ethical importance was discussed recently at a large meeting of the local Branch of the British Medical Association. An attempt is being made to introduce into Capetown the Medical Aid Association system. An insurance company doing industrial business proposes to offer its assurers the additional inducement of medical attendance and medicine for a subscription of 3d. a week. It is true that the remuneration offered to its medical officers is about 8s. per annum for each patient, and that it pledges itself to observe a wage limit of £2 a week, whilst it professes that no canvassing will be permitted. After an exhaustive discussion, the Branch, by a practically unanimous vote, decided that this was only the thin end of the wedge of an objectionable system, and condemned the Company's proposal as unethical. At the same time it appointed a committee to report on the question as to whether it was desirable and practical to establish some medical provident scheme on more ethical lines. The great point weighing with the members was that, although this particular proposal might be devoid of some of the most objectionable features of the system, it is certain that those features would obtrude themselves directly other companies entered the same line of business. It was decided to forward the resolutions to the Medical Council. Fortunately, however, the medical men who have been offered appointments under this particular company are all men sufficiently loyal to their profession to bow to any decision of the Association.

MANCHESTER.

Result of Poll as to Beds in Receiving House.—Fog and Mortality from Diseases of the Respiratory Organs.—Preparing for the Midwives Act.—Royal Army Medical Corps' New Head Quarters.—Water Supply.—Slow Progress of Adoption of Cremation.

The result of the poll of the Infirmary trustees was made known on December 28th, 1904. Of a total of 1,217 voting papers issues only 628 were returned, so that scarcely one-half of the trustees took the trouble to express their opinion. The policy of the lay Board of having no beds in the proposed central receiving house was affirmed by 385 to 235, giving a majority of 150. The state of the matter now is that the Board of Management are directed to deal with the matter, but as the receiving house will not be needed for some years the Board will be able to devote their energies to carrying out the plans for the erection of the main building. The question of a suitable site for the receiving house and whether a house should be built or rented—all these questions have still to be considered.

The recent dense sulphurous fogs were the cause of a heavy death toll. The medical officer of health reports that during the fog week the death-rate was 26.4 per 1,000 as compared with 21.8 for the previous six weeks. Of the total of 282 deaths, 55 were due to bronchitis, 34 to pneumonia, 23 to phthisis, and 8 to influenza. Of all the deaths occurring in the city, 42.5 per cent. were due to diseases of the respiratory organs. Much of the extra mortality for which the fogs are responsible will be spread over ensuing weeks. On the foggiest day during twenty-four hours, 25,557,000 cubic feet of gas were consumed in the city.

As the Midwives Act of 1902 comes into force on April 1st next, the Corporation in August last appointed a special committee of twelve—called the Midwives Supervising Committee—to whom were delegated the powers of the Council as the local supervising authority. The first duty of the Committee was to select a medical practitioner to act, under the supervision of the Medical Officer of Health, as the "Executive Officer" under the Midwives Act. To this office a salary of £250 is attached. There were about forty applicants, including half-a-dozen lady doctors. The Committee have decided to recommend Margaret Merry Smith, M.B., Ch.B.Edin., D.P.H., for the appointment. The selected candidate is at present resident medical officer at Craigleith Poorhouse, Edinburgh, and was formerly resident physician at the Mater Infirmorum Hospital at Belfast. This is the first appointment of its kind in the North of England. The "Executive Officer" will be required to devote the whole of her time to the work. It will be her business to visit midwives "both systematically and irregularly" in order to see that their homes are kept in a sanitary condition. The cases or bags of instruments of the midwives must be examined from time to time, the case-books inspected to see that entries are properly made. The officer will be required to visit the cases attended by the midwife in order to satisfy herself that the requisite procedures are carried out, that strict cleanliness in all things is observed, and that suitable provision is made for the dieting both of mother and child. The officer will also take charge of the notifications of deaths and stillbirths occurring in the practice of midwives.

The Royal Army Medical Corps (Vols.) have just completed their new headquarters. The building, with the outdoor drill ground, cover a space of a little over four acres. The Manchester Companies of the Royal Army Medical Corps (Vols.) sent for service in South Africa during the war 189 enrolled members of the corps, and in addition they enlisted 241 ambulance men, making a total of 430 officers and men. To the memory of those enrolled members who lost their lives—seven in all—a tablet has been placed in the new drill hall.

A year ago only eight million gallons of water a day reached the reservoirs from Thirlmere; to-day the volume poured into the Prestwich reservoirs from this source is twenty million gallons. The new pipe yields twelve million gallons daily. Thirlmere is now 32 ft. 9 in. deep—only 3 ft. short of the maximum depth. A combination of the best water from Longdendale and Thirlmere is said to be as near to absolute purity as possible. The Water Committee now propose to construct a great reservoir near Heaton Park, where a large quantity of water can be stored. At present the Thirlmere water is sent direct into the mains. The area of the reservoir will be 105 acres, and its storage capacity 500 million gallons.

From the annual report of the directors of the Manchester Crematorium for the year since December 1st, 1903, we learn that the number of cremations was 94, making a total of 831 since the opening of the institution. The directors regret that the disposal of the dead by means of cremation is not making more rapid progress. As a matter of fact, there is no more trouble in having a body cremated than there is in having it interred, while as matter of expense, the cost of burial by interment when all the accessories are considered, is greater than that incurred for cremation. Deaths still occur of persons favourable to cremation whose remains are interred owing to the fact of their not having given directions in writing before death of their desire to be cremated. A written direction is, however, not absolutely required.

LEEDS.

Grants by the West Riding Education Committee to the Universities of Leeds and Sheffield.—Fund for the Extension of the Leeds Medical School.—Dental Department at the Public Dispensary.

It is announced that the West Riding Education Committee has resolved, subject to certain conditions, to make grants, which will doubtless be renewed annually, to the Universities of Leeds and Sheffield of £4,500 and £1,500 respectively. In thanking the county council for the grant to Leeds, the Pro-

Chancellor, Mr. A. G. Lupton, stated that of the £100,000 for which the university was now asking a sum of £64,000 had already been subscribed.

A strong Committee, consisting of the teaching staff of the Medical School of the University, the staffs of the General Infirmary at Leeds, the Public Dispensary, and the Hospital for Women and Children, and representatives of some of the medical societies of Leeds and district, is in process of formation for the purpose of organizing a canvass, through medical men, to collect funds for the University, and especially for the purposes of the Medical School. The provision of new buildings for the Pathological Department, which is under consideration, will involve a considerable outlay. Many of the former medical students of Leeds, of whom there are some 600 in practice in various parts of the country, have expressed a willingness to assist, and it is hoped that in this way a substantial sum may be secured.

The institution of a properly-equipped dental department in connexion with the Leeds Public Dispensary has for long been a subject of careful consideration by the Board of this charity, and several conferences have been held between representatives of the dispensary and the Leeds and District section of the North Midland Branch of the British Dental Association. When the new buildings, which were opened in May by Professor Clifford Allbutt, were built, a handsome suite of rooms was provided for the purposes of a dental department, for it was believed that the negotiations then contemplated would have a fruitful result. This has happily been the case, and at a recent meeting of the governors resolutions were passed giving effect to recommendations of the Board on the subject. Six honorary dental surgeons, six honorary assistant dental surgeons, and an adequate number of anaesthetists are to be appointed, so that each day there will be two honorary officers on duty. The appointment to the posts will be made by the same Election Committee as appoints the house-physicians and house-surgeons of the institution. The equipment is proposed to be on the basis of a five or six chair department, and the dentists of Leeds and district have collected from among themselves and their private friends the sum of £500 towards the initial expenses. No time will be lost in making the necessary appointments, for which there are many suitable and strong candidates, and it is believed that the new department will be in full work in the course of a few months. This extension of the work of the dispensary, which is being undertaken in the interests of the poorer classes, and its development into a teaching department, without which it is held it could never attain to true success as a charity, will also enable dental students to obtain a complete course of instruction in Leeds, as the authorities of the Yorkshire College, now the University of Leeds, have for long been desirous of making fuller provision for the education of dental students, and possibly for the granting of degrees in dentistry. The usefulness of the Leeds Dispensary as a charity will be greatly increased by this and by other extensions which are contemplated, and it is hoped that the public of Leeds will respond generously to the appeal for increased financial support which is being mad.

NEWCASTLE-UPON-TYNE.

Northumberland and Durham Medical Society.—Armstrong College of Science and Visit of the King.—New Wing College of Medicine.—Christmas Festivities.—Dinner of Past and Present Students.—Local Finsen Memorial Committee.—Death of a Well-known Philanthropist.—Memorial to the late Robert Allan Campbell, M.B.

THE attendance at the meetings of the Northumberland and Durham Medical Society this winter has considerably improved and the interest in the work deepened. To the great variety in the programmes these are largely due. The November meeting was entirely given up to the exhibition of patients. If anything were required to demonstrate the wealth of clinical material available in the Newcastle-upon-Tyne Royal Infirmary it was the large number of patients exhibited that evening. In addition to the cases shown by the infirmary physicians and surgeons, the medical men of the neighbourhood brought patients, and thus contributed to make the clinical evening not only successful but instructive. At the December meeting Dr. J. W. Smith of Ryton read, by request of the President (Dr. Hume), a paper in which he gave his experience of thirty years of general practice. As was to be expected, the ground covered was extensive. The paper raised so many points for discussion that it was decided to postpone the consideration of it until it was published. The discussion will therefore not take place until the February meeting, by which time it is to be hoped the interest in the subjects dealt with will not have waned.

The structural additions to the Armstrong College of Science are being rapidly proceeded with. So far there has been nothing to interrupt their progress. When completed the building will be a handsome addition to the city. The matter has already been discussed by the Town Council and the President and Council of the College of Science as to asking the King to open the building in September on his way to Balmoral. It is thought that His Majesty might be disposed to break his journey for a few hours at Newcastle for this purpose.

The contracts for the new wing of the College of Medicine are now let, and given open weather the work will be gone on with at once.

At the Royal Infirmary and the Children's Hospital there were the usual festivities at Christmas. Many of the wards in the infirmary were beautifully decorated, thanks to the assistance rendered by the clinical clerks and dressers. The concerts in the wards given by the resident staff were much appreciated. The arrangements for the Christmas dinners were made and successfully carried out by the house governor, Mr. R. P. Orde, Dr. Parkin, and the resident staff. Sir George H. Philipson, as on previous occasions, was present, and extended to all the participants the good wishes of the season.

The dinner of the Past and Present Students of the University of Durham College of Medicine is to take place on February 3rd. As this banquet forms a rallying ground for old friends there is sure to be on this, as on previous years, a very large muster.

Newcastle-upon-Tyne has many close commercial ties with Denmark. As a consequenee there is always a large Scandinavian population in our midst, but apart from this Novocastrians have a high appreciation generally of our friends from across the North Sea. Three years ago Consul-General Faber of London (then of Newcastle) presented the Finsen apparatus to the Royal Infirmary, and since then the treatment of skin disease by the Finsen method has been extensively carried out by Dr. Limont. The death of Professor Finsen in not a loss to Denmark alone but to the world at large. In response to an appeal from the Danish Government a Newcastle committee has been appointed to assist in the erection of a permanent memorial in Copenhagen to Professor Finsen in recognition of his services to humanity and of the widespread benefits resulting from his methods of treatment. The committee is composed of Sir G. H. Philipson (chairman), the Mayor of Newcastle, Alderman A. P. Anderson (ex-Mayor), Consul-General Faber, Consul Louis Zollner, Professor Oliver, Professor George Murray, and Dr. Limont (honorary secretary and treasurer). Medical men and friends willing to contribute even small sums to the Finsen Fund should send such to Dr. Limont, Queen's Square, or to the Danish Consulate, Newcastle-upon-Tyne.

By the death, at the age of 79, of Mr. James Hall, Dilston Hall, Corbridge-on-Tyne, shipowner, the North of England has lost a benefactor and philanthropist. Like his brother, the late Mr. John Hall, who gave £100,000 to build a new infirmary, Mr. James Hall was a man of good works. He contributed freely to local charities, was instrumental in establishing the Wellesley Training Ship for boys at Tynemouth and the Whitley Village Homes for Girls, and, as had been said, "many hundreds of boys and girls, sent out from the Wellesley Training Ship and from the Village Homes, have attained to excellent positions in life, and have good reason to bless Mr. James Hall for the practical interest he took in their welfare."

Arrangements are being made for the unveiling at an early date of a granite tombstone with suitable inscription recently erected in St. Andrew's Cemetery to the memory of the late Robert Allan Campbell, M.B.Glasg., who died in January, 1902. Patients and friends have alike contributed thus to mark the resting place of one who in life was much respected and in death missed.

GRESHAM LECTURES.—The Gresham Professor of Medicine, Dr. E. Symes Thompson, will give a course of lectures on evolution in the vegetable kingdom at the Gresham College, Basinghall Street, on Jan. 17th, 18th, 19th, and 20th at 6 p.m

CORRESPONDENCE.

HEBRA'S SARCOMA MELANODES AND THE NEW SYDENHAM SOCIETY.

SIR,—You have so recently allowed me the liberal use of your columns in order to explain the present scope of the New Sydenham Society's work, that I feel much delicacy in asking you to repeat the favour. Nor would I venture to do so, if I did not hope that what I now wish to write is likely to interest your readers on its own account. In the former letter it was mentioned that one of the subjects to be illustrated in a forthcoming Fasciculus is the disease to which Hebra gave the name of "Sarcoma melanodes." Since that letter was written the patient, whose condition will be displayed in the plates referred to, has been brought to London, and has been made the subject of a special demonstration at the Polyclinic. He is a man of about 74, and has been for some years under the observation of Mr. Paulin Martin, of Abingdon, where he resides. He was under Dr. Gee's care in St. Bartholomew's when the portraits were taken. He is in a fair general condition, but his extremities and face display the lesions characteristic of the malady in question. These consist of bluish or almost black patches, of various sizes, attended by various degrees of thickening, and in some instances by small partially pedunculated little tubers resembling black currants. These patches made their first appearance almost simultaneously on the hands and feet, and have since slowly advanced upwards on all four limbs. On the face there are a number of small patches about the eyelids and on the lips. These are much less conspicuous than those on the limbs, but his palate and his ears present conditions of extreme interest. There is a bluish patch on each side of the raphé of the palate, that on the right side being attended by very considerable thickening. His ears are somewhat swollen and dusky, and arranged along the helix of each—exactly in the position in which little chalk stones are often seen in the gouty—are a number of soft bluish nodules. The skin of the trunk is almost wholly free. The conditions are arranged with bilateral symmetry, but are everywhere in excess on the right side. It would appear from the history that the disease commenced insidiously some six or seven years ago and progressed slowly. During the last eighteen months it has advanced a little in some parts and receded in others, but has nowhere shown any tendency to a malignant type of growth, or produced any gland disease. It is important to note that the eruption is everywhere attended by oedematous swelling.

Some of your readers may at this stage of my narrative be inclined to exclaim, "Another of those rare forms of skin disease which occur once in a half century, and delight the specialists, but of no interest for me; I shall never see a case of Sarcoma melanodes in my practice." Let me protest against this frame of mind, and endeavour to show that it is really not the dermatologist but the physician and the family practitioner who are concerned in the investigation of this curious and most interesting malady. There is much reason to suspect that despite the name given to it by Hebra, and several other designations which have since then been accorded it, it is simply a manifestation of gout.

When Hebra, and his son-in-law and successor Kaposi, first described "Sarcoma melanodes," they believed that it was a malignant affection destined to prove fatal within a year or two of its commencement. Histologically they thought it a "sarcoma." They fully recognized, however, that the malady in its bilateral development and tendency to generalization differed very definitely from those forms of "sarcoma" which commence by a single and quite local growth. Subsequent observation has much emphasized this latter point, and has also given grounds for doubt as to whether the disease does usually run a malignant course. The two authorities named made no inquiry as to gout, but it is a significant fact that their patients were all robust men past middle age.

When the patient whose case I am dealing with was produced at the Polyclinic opportunity was taken to show a number of portraits in order to prove the identity of his malady with Hebra's original cases and with others which have been described and figured subsequently. One of the most important points which it was sought to establish was that there is a juvenile as well as a senile form of the disease, and that when it occurs to young persons there is almost invariably a history of gout in predecessors. Of this juvenile form the type-illustration is one published some years ago by Dr. Judson Bury and ably commented upon by Dr. Radcliffe Crocker and Mr. Campbell Williams in a conjoint paper which recorded another instructive case. These observers obtained opportunity for microscopic examination, and, although they found much round-celled infiltration they hesitated to apply the designation of sarcoma to the process. In their own case—a girl of six—there was a most definite history of gout. Her grandfather and an uncle had suffered from gout badly. It remains for me to mention the facts as to gout in the old man whose case I have just given, and then I must cut short this somewhat lengthy narrative. Our patient, when asked if he or any of his relatives had had gout, replied "No." Subsequently, however, the following facts—from which the reader must draw his own conclusions—were elicited. His father kept a public-house, and both he and his father before him had, to use the son's expression, "spoiled good constitutions by heavy beer drinking." The son (our patient) was born in the public-house, and served in it during the years of his youth and early manhood. At that time he drank beer freely with customers. Subsequently becoming enlightened, he laid it aside, and for twenty years wore a blue ribband with absolute consistency. Becoming elderly, however, after a long period of robust health, he had a nervous breakdown, and was told that he had a weak heart. A friend advised him that port wine and bark were likely to do him more good than the medicine he was taking, and, adopting this more pleasant prescription, he took regularly three times a day a small wineglassful of a cheap port with a teaspoonful of tincture of bark in it. This was continued for some years, and, although his general health was improved, it was during this period that his eruption appeared. Although he had never had any definite joint pains, and nothing approaching acute gout, he had at one time had the skin swollen and bluish over the ball of one great toe. He and several of his relatives had suffered from sciatica.

The statements which I have made above will be found given in fuller detail in the *Atlas*, and they will have the advantage of being there well illustrated by portraits and accompanied by a tabular report of other cases. My object in troubling you with this synopsis of them is to show that they are of the utmost interest to all students of clinical medicine. It may be plausibly conjectured that, although Dr. Gee's patient is possibly the only living example of the disease in whose case a diagnosis has been made, there are at the present time scattered up and down the country within the limits of the British Isles a dozen or twenty others quite as well marked. Now, if these could be investigated and recorded, how soon might some of the most interesting and important questions which have been suggested by my narrative be set at rest. A new chapter in the history of gout would be written; and not only that, but fresh light would be thrown on the laws of hereditary transmission and the relationship between inflammations and new growths. As I endeavoured to explain in my former letter, our Society's *Atlas* is something much in advance of a mere atlas. We do not propose to be content with the publication of one or two specimen pictures of all well-recognized maladies and there leaving them, but hope to encourage and facilitate collective investigation throughout the profession. At present cases such as those which I have described fall most frequently under the eyes of those who do not understand them and who make no diagnosis. It will not be so any longer with those who possess our *Atlas* in respect to "Hebra's sarcoma melanodes." Nothing will be easier than its recognition, and the same may, I think, be asserted of nearly half a dozen of other more or less exceptional conditions of disease which will be found illustrated in the same fasciculus of our work.

The *Atlas* is now under the direction of a large representative Committee, and it is proposed to devote from time to time a page of letterpress to retrospective comments and additions so as to keep it well up to date and eliminate obscurities. The Committee in charge of the work is most desirous to adapt it in every way to the wants of the intelligent practitioner, and to make it one which he will not be content to glance over as it goes the round of his book club or to know that it is on the shelves of the hospital library, but will wish to have at his elbow for daily reference. As I formerly explained, we are very desirous at the present juncture to make a large addition to our list of members. We now afford four fasciculi of eight plates each for the annual guinea, but if we could double our numbers we could almost double our rate of issue, and we have plenty of material in hand.

I have recently had brought under my notice a number of

replies from some who have declined our Council's invitation to undertake the duties of local secretary, and endeavour to advance the interests of the Society. May I be permitted in concluding my letter to say a few words as to the reasons offered for thus declining?

The most common excuse alleged is "already too much occupied and no reading time." To this the reply is obviously that plates save time and labour, and teach at a glance what it might take hours to learn from a printed book. Others say that their book shelves are full, and these may perhaps be not unsuitably told that the knowledge of clinical medicine in our day moves fast, and it might be the part of wisdom to allow some of the new to supplant some of the old. Lastly, there comes the plaintive avowal, "the spirit is willing but the pocket is weak." This is a statement with which all must sympathize, but at the same time it may be urged that for the young practitioner there is no surer means of strengthening the pocket than the acquisition of clinical experience, and no better road to the latter than the careful study of the Society's *Clinical Atlas*.

In the hope that what I have written may induce many who have not already done so to send their guinea subscription for 1904 to Mr. Lewis, and that thus our wheels may be made to move yet more rapidly.—I am, etc.,

JONATHAN HUTCHINSON,
London, W. Honorary Secretary, New Sydenham Society.

MEDICAL INSPECTION OF ELEMENTARY SCHOOLS.

SIR,—I believe the majority of medical men are of opinion that a serious amount of injury is inflicted on a certain number of children from attendance at school. The results show themselves in different ways. A careful observer will notice that the majority of children of the present day have thin, pale, sharp, anxious faces, with a timid or apprehensive expression of eye; such children are constantly turning and twisting their heads for no apparent reason; these movements are, I believe, involuntary and purposeless, and to my mind they are a symptom of an overwrought mind.

The children of former days in this part of the country were remarkable for their round, fat, rosy cheeks and laughing eyes. Now all that is changed. As for the boys of this town, from the age of 14 to 18, they are all thin, weak, and narrow-chested, with sharp features and pale cheeks. The habit of smoking cigarettes is partly responsible for this, but the educational system is responsible for much of the physical and mental deterioration of the British race. The only way to preserve our children from the evils of our modern schools is for the State to appoint a medical man to inspect each school daily and give him full powers. By such means we might hope to safeguard the health of the rising generation.—I am, etc.,

Torquay, Jan. 3rd. H. H. TIDSWELL, M.R.C.S. and L.R.C.P.

AN ARMY MEDICAL RESERVE.

SIR,—I will be grateful if you will allow me to make a few remarks in reference to your criticism on my scheme for an Army Medical Reserve, published in the *Times* of December 8th.

I gather that your objection to the scheme is lest it should cause overlapping and lead to a dual control. I think this idea has perhaps arisen through a misapprehension of the proposed scheme in its relation with the military authorities. Possibly it is due to some remissness on my part in my letter to the *Times*. These objections were dealt with in the first paragraph of my scheme which was propounded some four years ago.

I said therein that I was strongly of opinion that, though the internal control and working of the civilian auxiliary hospitals should rest and remain with the civilian medical officers in charge, the system generally should be under the control of the military authorities. In this way the hospitals would be on the same footing as every other reserve unit, combatant and non-combatant. Take, for example, a militia regiment. When such a unit is called up for service it is not usual to supersede the officers in command, who train and organize it in times of peace, by officers of the regular army.

It was, and is, very clearly in my mind as the result of considerable experience that an alternative course, such as you suggest, in reference to civilian auxiliary hospitals would certainly lead to friction. The avoidance of such a result was not the least among the reasons that led me to propound the scheme as it stands.

If I understand rightly, under the scheme suggested in your article, the various individual officers retained in times of peace would be a number of persons not associated or connected with any special unit, and, on the occasion of war, these officers would be scattered about among the various military hospitals in a subordinate capacity, and thus thrown into connexion with a number of persons of whom they had no previous knowledge, and with whom they had never been associated. I do not believe the best men would accept such a position.

My scheme has the radical and essential difference that it contemplates forming the Army Medical Reserve officers, nurses, and orderlies into a series of self-contained, independent units, in which these persons will be associated together in times of peace, and able to take the field as complete organizations, under the control of the military authorities.

The object of making this suggestion is not only to ensure greater efficiency, but because it would enable the authorities to secure and control the services of the best class of men as no other scheme would. In all this I find support in the principles which Lord Kitchener has enunciated as the basis of his scheme in the reconstruction of the Indian army. For example, "The army in peace should be organized and trained in units of command similar to those in which it will take the field," and further, "that officers are to be educated in their own units." It is precisely these principles which I suggest should be applied to the Army Medical Reserve.—I am, etc.,

London, W., Jan. 2nd. GEORGE STOKER.

"PRINCIPALS AND ASSISTANTS."

SIR,—I lately troubled you with a letter of inquiry as to the benefits or the drawbacks of holding an assistant's position for a certain time by a young medical man before beginning practice. For the answers in the BRITISH MEDICAL JOURNAL and those sent to my address I am much obliged.

My reason for asking the questions was that in making an inquiry into the working of the Irish Medical Association one finds the almost complete absence of "assistants" a special feature in Irish practice. I could count on the fingers of one hand any instances of such a custom I have met with. As a result young medical men in Ireland take dispensaries in remote districts often direct from their medical schools—and lead lives of marked isolation from contact with other medical men—or with any scientific association—all their days.

The custom also exists of dispensary doctors who get leave of absence handing over their constantly large districts to neighbouring dispensary doctors with equally large tracts of country to care for. This much-complained-of condition could I think be modified by a proper system of *locum tenens* organization for the dispensary service, and it would allow young medical men to see country practice and to think twice before burying themselves for life in a lonely and perhaps poverty-stricken place. For short leave up to seven days such a method of combined districts may be permissible, but beyond that time it is greatly to be depreciated. The contact of medical men with varying forms of practice before finally settling down is truly a post-graduate education of a valuable kind, and it seems a pity that some substitute for this "wander year" should not exist in Ireland. An organization to supply *locum tenentes* for Irish medical men would probably in the end benefit them all, by inducing young medical men to avoid Irish practice, and I see no difficulty in the Irish Medical Association taking steps to organize in this direction. It would be a kind of substitute for the "assistantship" system of England, and while stopping the complaints of the guardians and the lay public would confer, I consider, indirect benefit on the whole Irish profession of medicine.—I am, etc.,

London, S.W., Jan. 2nd. GEORGE J. H. EVATT.

THE GENTLE CRAFT OF ADVERTISEMENT.

SIR,—It may be owing to a perverted sense of humour, but it has become a custom with me, in dealing with a modern magazine, to read the advertisements of quack medicines and American institutes, before proceeding to the "detective," "humorous," and "scientific" material, of which these periodicals are now (in certain proportions) almost wholly composed. Rarely do I miss my reward of harmless and genuine amusement.

In the *Pall Mall Magazine* of January, 1905, is an advertise-

ment of Eugen Sandow; facing his powerful portraiture is a downcast yet austere face labelled "Dr. Jenner, originator of vaccination." In these lineaments I seem to see, as "through a glass darkly," a decided resemblance to the portraits of one William Jenner, M.D., G.C.B., etc., the trusted friend and physician of the late Queen Victoria, who had, I suppose, as much to do with the "origination" of vaccination as Mr. Eugen Sandow himself.

I can hardly trace the exact connexion between "Sandow's system" and vaccination. It would almost appear that even "ad. writers" (I think they are called) have occasionally to lament a misspent Christmas, but I agree with Sir J. Crichton-Browne that it tells rather hardly on the living.—I am, etc.,

Shebbear, Dec. 31st, 1904. A. BLECKLY CLARKE.

A CONDITION OF THE LOWER LIMBS OFTEN MISTAKEN FOR PHLEBITIS.

SIR,—The condition described by Sir William Bennett has interested me because several cases of swelling of the limbs of obscure nature have come under my notice. But most of these have been of the upper extremity, and cannot therefore be considered to be of similar nature to the cases of Sir William Bennett. Such a case as the following is, however, interesting, and possibly worthy of mention.

A woman, aged 33, visited the Bristol Hospital for Sick Children and Women with swelling of both legs below the knee, the feet being comparatively unaffected. The swelling had appeared very rapidly on the previous day, after both hands and both feet had been "icy cold" for three days and smaller than usual. In addition to the swelling, on the inner side of the calf of the right leg was a large recent bruise-like patch. The swelling in this case differed from that of the cases of Sir William Bennett in that it pitted upon pressure, but I could discover no tenderness over the popliteal veins, or over the branches of the sciatic nerve. The absence of evidence of thrombosis and of neuritis, together with the curious mode of onset in an apparently healthy woman, led me to attribute the swelling to some obscure vasomotor causation.

The presence of a bruise-like patch may suggest that the case was an example of erythema nodosum; but the chronicity of the swelling negatives such an idea. The swelling of the left leg disappeared in a few weeks, but I find that there is still swelling of the right leg, five years after the patient was first seen. This last fact may suggest that something more than swelling of vasomotor origin was present. Such a possibility cannot be denied, yet I have seen oedema of nervous origin persist for a long period—for example, when swelling was present in a severe case of sciatica the swelling was still present four months after the pain had disappeared. While, however, interested in the possibility of even chronic swelling being of nervous origin, it seems to me that the physical signs described in the cases of Sir William Bennett would not always indicate swelling in which thrombosis was absent. In the *post-mortem* room we sometimes find thrombosis of veins that has given little or no indication of its presence during life, and in perusing a paper by Thayer on thrombosis in typhoid fever,[1] I noticed that cutaneous swelling was completely absent in many of his cases.—I am, etc.,

Clifton, Jan. 2nd. THEODORE FISHER.

LOCAL IRRITATION AND CANCER.

SIR,—Now that the parasitic origin of cancer has almost come to be regarded as an impossible theory, it may not be without interest to remind your readers that the older authorities considered the systemic origin of cancer as being necessary to its local evolution.

At the present time the opinion seems to prevail that a relation exists between cholelithiasis and cancer. In this connexion the most suggestive theory of the origin of cancer is that which has been propounded by Mr. J. H. Webb of Melbourne—namely, that cell proliferation is due to the deposition of cholesterine in the tissues, either locally from injury or some nutritional disturbance in the liver, associated with deficiency of the bile soaps which normally hold cholesterine in solution. For his conclusions and treatment I would refer those interested to my recently-published pamphlet, *On Some Methods of Hypodermic Medication in the Treatment of Inoperable Cancer*, in which I also describe some cases of my own treated with hypodermic injections of chian turpentine, the effect of which, there is reason to think, is also that of a solvent of cholesterine.

In the same way I suggest that the presence of glycogen in new growths may be due to a local deposition in the tissues or dependent on some nutritional disturbance in the liver, leading to cell growth. Incidentally I might mention that in two cases of malignant disease which have recently come under my notice, one or other parent died of diabetes. This, together with the comparative infrequency, as I believe, of glycosuria and cancer in the same patient, is suggestive of some alternation or antagonism between the two diseases. Chiefly, therefore, the underlying theory here put forward is, that cell proliferation or alteration of type of division may be dependent on some systemic condition, and local irritation determine the site of growth. Continued reflection on this subject has also led me to believe that in dealing with cancer, something more than purely local treatment is indicated—that is to say, that after the surgeon has removed the source of local irritation represented by the primary growth, there should follow treatment directed to the systemic origin of the disease. Were the lines of treatment I have indicated in my pamphlet to be carried out subsequently to operation, it is reasonable to hope that recurrence might not so frequently occur. This opinion has been partly based on the experience gained in the treatment of cases of cancer where the disease has passed beyond the sphere of surgical relief. If palliative results can be obtained in such unfavourable cases as these, it is only reasonable to conclude that where the conditions are favourable the results should be eminently better, and the tendency to recurrence diminished.—I am, etc.,

JOHN A. SHAW-MACKENZIE, M.D.Lond.

London, W., Jan. 2nd.

OPERATIVE INTERFERENCE IN DISEASES OF THE STOMACH.

SIR,—I am much obliged to Mr. Maylard for giving me the opportunity of saying that I am very sorry if my quotation from Professor Robin's book did him any injustice. The words used in French are—"toute dyspepsie grave et persistante"; according to my view and as I understand that of Professor Robin, the objection is to the "toute" and to the absence of reference to those indications which alone justify an operation.—I am, etc.,

Birmingham, Dec. 28th, 1904. ROBERT SAUNDBY.

WHO'S WHO YEAR BOOK AND THE MEDICAL PROFESSION.

SIR,—My attention has been called to a list of "Leading London Specialists" in the above publication for 1905, in which my name has been included. I hope it is not needful to say that this has been done without my knowledge or consent. My object in writing is to point out how harmful to the public as well as to the profession the information thus afforded, imperfect and generally misleading as it is, must be. Although I understand that the publication of names in this way is not legally preventable, notice of the matter in the columns of the BRITISH MEDICAL JOURNAL should go far towards avoiding a repetition of such a regrettable proceeding.—I am, etc.,

London, W., Dec. 30th, 1904. WILLIAM H. BENNETT.

OBITUARY.

ALEXANDER LOCKHART GILLESPIE, M.D., F.R.C.P.E.,

Medical Registrar, Royal Infirmary, Edinburgh.

WE regret to record the sudden death at 12, Walker Street, Edinburgh, on Christmas Day, of Dr. Alexander Lockhart Gillespie, one of the ablest of the younger physicians of that city. His name is bound up with the medical traditions and social life of Edinburgh. His father was a surgeon to the Royal Infirmary, and had a large and important family practice. His grandfather was also a highly-esteemed practitioner in the same city. The three men were all most genial, and enjoyed the social side of the medical life of Edinburgh in several of the clubs for which it has long been famous. All three had been medical officer to Donaldson's Hospital, a wealthy charity for the deaf and dumb. Both Lockhart Gillespie and his father wrote songs and sang them. The third Gillespie was an artist of no mean ability, and he was a great walker over the hills in the neighbourhood of Edinburgh. In these walks he was interested in

[1] *Medical Record*, October 1st, 1904.

the botany and the natural scenery in relation to geological formation.

He was Medical Officer to the New Club, as his father was before him, Medical Referee to the Edinburgh Merchant Company, to the Edinburgh Institute for the relief of incurables at their own homes, to the Dunlop Cancer Fund, to the Sun Life and other insurance companies, and Medical Registrar to the Royal Infirmary. He had been a President of the Royal Medical Society. After study at the Universities of Berlin and Prague he returned to Edinburgh, and took the M.D. degree, receiving a gold medal for the excellence of his thesis. He did excellent work as Registrar of the Royal Infirmary, making in that connexion several valuable contributions to medical literature. He did some good work in the laboratory of the Royal College of Physicians. He was the author of *The Natural History of Digestion*, a *Manual of Modern Gastric Methods*, and of various articles in the *Encyclopaedia Britannica*, *Encyclopaedia Medica*, *Proceedings* of the Royal College of Edinburgh, *Edinburgh Hospital Reports*, the *Journal of Pathology and Bacteriology*, and the *Edinburgh Medical Journal*.

He married a daughter of the late Dr. Blair Cunningham. The death of one of his children, the death of his wife, the death of his father-in-law, all told heavily on him, and he never again was the same man. His failure to receive an appointment in the Royal Infirmary was a keen disappointment to him. Why he failed it is difficult to understand, since he was a man of unusual ability, and, under a somewhat cynical surface manner, a most genial man and a most clever and entertaining companion. He leaves three young children, who yet little understand their loss.

JOHN REISSBERG WOLFE, M.D.Glasg.,

Consulting Oculist to the Royal Infirmary, Glasgow.

Dr. J. R. Wolfe, who has attained considerable reputation as an ophthalmic surgeon, died in Glasgow last week. Born in Breslau nearly eighty years ago, he received his medical education at Glasgow University, where he graduated M.D. in 1856. For some years he acted as ophthalmic surgeon to the Royal Infirmary, Aberdeen, but thereafter he settled in Glasgow. There he founded the Glasgow Ophthalmic Institution in West Regent Street, which is now connected with the Royal Infirmary. When the St. Mungo's College Medical School was started, Dr. Wolfe became the first Professor of Ophthalmology, and he was also Consulting Oculist to the Royal Infirmary, and attained to a considerable reputation in the ophthalmic world. More than a dozen years ago, however, he proceeded to Melbourne, where he practised for some time and took a prominent position.

About four years ago he returned to Scotland, and since then has been living in retirement. Dr. Wolfe in his active days was a frequent contributor to the medical press. His two sons are members of the medical profession.

EDWARD ADAM, M.D.St. And., M.R.C.P.I., M.R.C.S.Eng.,

Liverpool.

Dr. Edward Adam, whose death took place after a few hours' illness on December 19th, 1904, was a general practitioner of the best type, and was held in the highest esteem alike by the profession and the public. He was born in the co. Down 68 years ago, his father being a captain in the Royal Naval Reserve. He studied medicine at the School of Physic, Trinity College, Dublin, and qualified as member of the Royal College of Surgeons of England in 1857. After this he spent four years on the West Coast of Africa, and some 40 years ago began practice in Liverpool. His career was in every sense successful, and he kept himself well abreast with the advance of medical science. On the formation of the Medical Club he became its first chairman, and he was at one time a vice-president of the Medical Institution. In consequence of his special experience on the West Coast he was appointed a member of Committee of the School of Tropical Medicine. He was twice married. A few years ago his health began to fail, and he gradually gave up his practice, in which he was succeeded by his son-in-law, Dr. T. H. Evans. He was a man of wide general information, a good talker, and possessed a kindly, genial personality that made him universally liked.

Dr. William Mussen Young, a much-respected practitioner, of 3, Pembridge Road, Notting Hill Gate, recently died in the prime of life, after a brief illness. He came of an old Huguenot stock which settled in the North of Ireland on the revocation of the Edict of Nantes, the marriage of his people being recorded in the Cathedral of Lisburn in 1686, together with entries of seven generations of the Mussen (his mother's) family. Dr. Young went to Trinity College, Dublin, graduated M.D. at Queen's University, and acted for some time as House-Physician of Steevens's Hospital. For a number of years he was Assistant Medical Superintendent of the Suffolk County Asylum. During the Boer war he relinquished private practice in London and took several voyages to Cape Colony and Natal with the troops. Subsequently he joined the American Transport Line to make several transatlantic trips, winning high regard. He then returned to Ireland and worked for a year at the Rotunda. Later on, about four years ago, Dr. Young took up his residence at Notting Hill Gate, and quickly gained the esteem of his professional colleagues in the neighbourhood, being always ready to co-operate in the most unselfish way. He was a constant student of literature, both medical and general, and not long ago completed an erudite monograph on Dean Swift. His dwelling, which was a veritable museum of antiquarian bric-a-brac and a storehouse of books, showed clearly the way his inclinations turned. He was attended in his last illness by his neighbour and friend Mr. W. M. Noote, with Dr. Mitchell and Dr. Hunter in consultation. The body was removed to Ireland for interment, and a considerable number of medical men, patients, and others called at the house as a mark of respect before the coffin was despatched on its journey.

We regret to announce the death on December 26th, 1904, at the comparatively early age of 49 years, of Mr. W. H. Copley, of Wisbech, Cambs. After a successful career as a student at University College Hospital, he obtained the qualifications of the Royal Colleges in London, and spent one year in the Hospital, holding successively the offices of House-Surgeon and House-Physician. At an early age he entered into active practice at Wisbech, where his energy, skill, and geniality soon enabled him to make his way, and it was not long before he attained to an excellent position, being appreciated by his fellow practitioners and sought after by the public. At the North Cambridgeshire Hospital, where he was the Senior Honorary Officer at the time of his death, he was able to continue to work at the purely surgical side of medicine, for which he had an inclination and a natural aptitude. Here he did good and useful work, always endeavouring to keep abreast of the times for the sake of the patients and the community, both of which he served with his utmost energy to the very last. Three weeks before he died, from the effects of influenza on a constitution undermined for several years by diabetes, he was busy attending patients far and near. In the preceding year he was elected President-elect of the Cambridgeshire and Huntingdonshire Branch of the British Medical Association, and it is with great regret that the members of the Branch find that he will not be there to welcome them in his usual genial mood.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE ETHICS OF SUPERSESSION.

George Armstrong, M.B.—On the case as submitted to us our opinion is: (1) That B. was entitled to operate at the request of the relatives; (2) that no obligation rested upon him to communicate personally with A., he having arranged that the relations would do so, which is admitted they did; (3) under the circumstances, A. was under no obligation to operate if he was not satisfied that he would be paid, but on the other hand he has no ground of complaint if another surgeon was willing to accept the terms he had refused; (4) it was not necessary that B. should be told the reason the relatives desired to change the operator, but he was at liberty to ask and might be guided by the reply; (5) the reason given in this case was not such as should have made B decline the case; (6) if A. contemplated operating without a fee, he could have done so in the private hospital in which the patient was, and he need not have required the risky removal of the patient to the public hospital.

A DISCLAIMER.

Mr. T. J. P. Hartigan (London, W.) writes: A portion of the daily press having copied the reports of some of my cases which were published in the *British Journal of Dermatology* of last month, I should esteem it a favour if you would allow me to state it was done without my knowledge or consent.

THE DUTIES OF AN ASSISTANT.

M.A.—(1) An unqualified assistant engaged as a dispenser might make up and repeat a mixture under a general instruction to do so. (2) The principal would not be responsible for repairs to his assistant's bicycle unless there was an understanding to that effect. (3) It is undesirable that medical men should allow their biographies to appear in local periodicals.

PARTNERSHIP INTRODUCTION.

HOPE asks: (1) What is exactly meant by a "partnership introduction to a practice?" (2) When does the ingoing partner pay the purchase money—at the beginning or the end of the introduction? (3) If the money be paid at the beginning of the introduction and before the expiry of six months, and the ingoing partner is not satisfied, can he get free from the arrangement?

*** (1) That introduction which is given by close professional connexion with a practitioner who has made or possesses a medical practice in any district. It is the duty of the latter to introduce his partner to his own patients, either directly, or indirectly by employing him to attend them in his absence. (2) It is usual to pay at least half the purchase money on signing the deed of partnership and the remainder after the expiry of a time settled in the deed. (3) Unless a special clause were inserted in the partnership deed to meet such a contingency there would be no means of altering the arrangement without the consent of the senior partner.

VALUE OF A SHARE.

SENIOR asks: (1) What is the value of a quarter share of an old-established non-dispensing practice in a good locality? (2) If the senior partner retires after giving an introduction of three years, what is the value to the junior of the remaining share? (3) Is it usual for the bookings to fall off at first after the introduction of a junior partner?

*** (1) It would not be possible to give a trustworthy estimation of value on such data. (2) It is impossible to say. When the senior took a junior partner he would, if he did what is usual, settle in the partnership agreement the terms on which he was to be bought out. (3) It is a very usual occurrence.

CONTRACTS NOT TO PRACTISE WITHIN AN AREA.

S. W. asks the following: A. and B. were partners under the usual conditions, with a penalty clause forbidding the outgoing partner to practise at any time within a seven-miles radius. A. ultimately sold his share to B., who in his turn after a lapse of years sold his share to C. C. now asks A. to join him in partnership. Can A. safely do so without previously getting B.'s consent?—that is, can B., if he chooses, proceed against A. under the penalty clause?

*** A. is legally bound by his agreement with B., and the latter might proceed against him for infringing it; but seeing that, according to the circumstances stated, B. has no interest in the practice in question, he would have great difficulty in proving damage by A.'s action, and the Court might refuse B. an injunction against A., leaving him to bring his action for damages if he thought fit. If, however, there is any likelihood of B. being averse to A.'s joining C., A. would be wise to consult an experienced solicitor before taking such a step, as he might be involved in serious costs.

ADVERTISING BY CARD.

Z.—The name of the person of whom our correspondent complains does not appear in the *Medical Register* for 1904. We will make further inquiries.

MEDICAL ADVERTISING.

W. S.—We have referred the newspaper cutting to the Ethical Committee.

AIRDRIE.—A correspondent, who does not authenticate the communication with his name, might bring the matter before the Division of the British Medical Association.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on December 14th, 1904.

Recognition of Teachers.

The following have been recognized as teachers of the University:—*London Hospital:* Dr. Reginald C. B. Wall, Clinical Medicine. *Guy's Hospital:* Dr. John Henry Bryant, Pharmacology (including Pharmacy and Materia Medica and Therapeutics); Mr. Gerald Sichel, Medicine; Mr. Louis Albert Dunn, Anatomy (provisionally); Sir Alfred Downing Fripp, Anatomy (provisionally). *St. Thomas's Hospital:* Mr. Edred Moss Corner, Surgery; Dr. Joseph John Perkins, Pharmacology (including Pharmacy and Materia Medica and Therapeutics) *Middlesex Hospital:* Dr. Robert Arthur Young, Pharmacology (including Materia Medica and Therapeutics). *Westminster Hospital:* Mr. Bertram Louis Abrahams, Medicine: Mr. Edward Percy Paton, Clinical Surgery. *Royal London Ophthalmic Hospital:* Mr. William Tindall Lister, Ophthalmology. *London (Royal Free Hospital) School of Medicine for Women:* Mr. Frederick Gymer Parsons, Anatomy (provisionally),

Regulations for the M.D. Degree (Branch III) for Internal and External Students.

It was resolved: "That in the regulations for the M.D. degree, Branch III, as set forth in the *Calendar* for 1904-5, vol. ii, page 418, and vol. iii, page 35, of the Medicine Section, there be substituted for the words, 'Two papers in mental diseases and psychology (one of which may be a case for commentary),' the following: 'One paper or case for commentary in mental diseases. One paper in psychology.'"

Lectures in Advanced Physiology.—A course of lectures on the therapeutics of the circulation will be given in the Physiological Laboratory by Sir Lauder Brunton on Tuesdays at 5 p.m., beginning on January 24th. The lectures are addressed to advanced students, and are arranged to meet the requirements of candidates for honours in physiology at the University. Any member of a London school of medicine, whether an undergraduate of the University or not, can obtain a card of admission on application to the Academic Registrar.

UNIVERSITY OF LIVERPOOL.

VICE-CHANCELLOR'S ANNUAL REPORT.

THE first annual report of the Vice-Chancellor of the University of Liverpool has just been published. The transition from a college to an independent University has naturally involved an immense amount of labour not of a strictly educational nature, and the professorial staff has had a large amount of organizing work to cope with.

Number of Students.—There has been an increase in the attendance of students in all the faculties except medicine, in which there has been some falling off as compared with the preceding year.

Degrees.—The new University offers *ad eundem* degrees to all graduates of Victoria University who studied in Liverpool, and 328 former students have already availed themselves of this privilege. Six practitioners have obtained the diploma in Tropical Medicine during the year, and one diploma in Veterinary Medicine has been conferred.

The Staff of the Faculty of Medicine.—The Faculty of Medicine has been increased partly by the establishment of new posts, partly by the addition of new members drawn from the staffs of the hospitals recognized for clinical instruction. The following new lectureships have been instituted: Dermatology, Leslie Roberts, M.D.; Laryngology, J. Middlemass Hunt, M.B.; Clinical Pathology, Ernest E. Glynn, M.B., M.R.C.P.; Neuro-Pathology, W. B. Warrington, M.D., M.R.C.P. Mr. W. Thelwall Thomas, F.R.C.S., Assistant Surgeon to the Royal Infirmary and Assistant Lecturer on Surgery, in recognition of his long services to the school and in the teaching of surgery, has been made a member of the Faculty.

New Diplomas.—During the year the University has established diplomas in Public Health, Tropical Medicine, and Veterinary Hygiene, and the first examinations for these diplomas have been held.

Benefactions.—Various benefactions are recorded. Mr. Ralph Brocklebank gave £100 towards the maintenance of the anatomical museum, and Sir Charles Petrie gave £500 for a refrigerating machine. Dr. G. G. Stopford Taylor has endowed a fellowship of £100 per annum for a period of three years, for the encouragement of research in dermatological pathology, and a similar endowment has been made by Mr. W. T. Thomas for the encouragement of research in surgical pathology. Dr. Alexander will continue the fellowship which bears his name for the coming year.

New Medical School Building.—The new medical school building has been completed, and provides a dissecting-room for women students and other additional quarters. It also contains a large theatre for the lectures on surgery, forensic medicine, and dental subjects, a room for the teaching of ophthalmoscopy, two large, well-lighted rooms for practical and operative surgery, a classroom for practical toxicology and pharmacology, a common room for the Faculty, and the Dean's office.

Finance.—The Council of the University have agreed to take over the financial administration of the Faculty as from October 1st, 1904. For many years the Faculty has maintained its financial independence, and, owing to the energy and ability of those who have managed its affairs, not without success. But with the establishment of the University, and in view of the larger burdens that will necessarily be incurred, it was felt that the time had come to place the Medical Faculty on the same footing as the others.

Deaths.—Sympathetic references were made to the loss the University has sustained by the deaths of the Rev. S. A. Thompson-Yates, Dr. Alexander Davidson, and Sir W. M. Banks.

TRINITY COLLEGE, DUBLIN.

THE following degrees were conferred at the Winter Commencements on Tuesday, December 20th, 1904:

Honoris Causa.—D.Sc.: Ronald Ross, C.B. *M.D., M.S.:* Fredericus Treves, C.B., K.C.V.O.

M.B., Ch.B., B.A.O.—R. Bailey, F. G. Bury, T. Creaser, G. A. Crowley, J. Cunningham, C. E. Fawcett, K. R. C. Hallowes, J. F. W. Leech, G. J. M'Ivor, A. A. MacNeight, R. S. Smyth, H. Stewart, J. H. C. Thompson, W. M. Thunder, T. J. T. Wilmot, T. Wilson, F. J. M'Auliffe (*in absentiâ*).

D.Sc.: C. J. Patten.

M.D.: F. J. Blackley, E. B. Booth, J. F. Dixon, J. A. Kennedy, R. S. Smyth, Rev. S. Synge, W. P. Tate, J. G. Wallis, C. W. Webb (*in absentiâ*).

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MEDICAL ATTENDANCE IN VENEREAL DISEASE.

F. R. F. writes with reference to the question and answer under this head, published at p. 1770 of the BRITISH MEDICAL JOURNAL of December 31st, 1904, to suggest that orders for medical attendance by district medical officers are given because the applicant is believed to be destitute and unable to pay for attendance, and not as a reward for virtue or chastity. This being so, a medical officer refusing to attend—for example, a case of gonorrhoea—would be liable to have to defend himself before his Board of Guardians, or even to the Local Government Board. A contagious or infectious disease would naturally make a relieving officer stretch a point in favour of the applicant.

WIFE OF MEDICAL OFFICER OF WORKHOUSE AS GUARDIAN.

MILDENHALL asks whether there is any legal difficulty in the way of the wife of a medical officer of a workhouse becoming one of the Board of Guardians.

*** We know of no enactment which would prevent the wife of a workhouse medical officer becoming a guardian, if qualified and properly elected, but we should expect that the Local Government Board would not be satisfied, and that it might then call on the husband of the lady guardian to send in the resignation of his appointment.

INDIA AND THE COLONIES.

INDIA.

Plague in the Punjab, 1901-3.

WE have received three lengthy reports drawn up by Major E. Wilkinson, I.M.S., in which elaborate details are given regarding the prevalence of plague from October 1st, 1901, to September 30th, 1903, and of the measures, including inoculations, adopted for its suppression. The invasion of the province has been extensive and severe. By the end of September, 1903, the number of deaths reported amounted to 377,576, and there is reason to believe that that large total does not represent the full measure of the calamity. Few districts have escaped visitation, and the mortality in some cases was very serious. The disease reaches a climax in March and April, declines during the hot season, and regains force during the hot weather. Human intercourse and infected clothes are held to be the main agencies of extension, and rats are thought to cause infection of adjacent houses or villages. It is considered doubtful whether grain and articles of food or merchandise are carriers of infection. Evacuation has been found to be the most efficient preventive, and disinfection and desiccation have been resorted to as secondary aids. Compulsory measures have been abandoned in consequence of the attitude of the people and the great magnitude of the crisis.

Inoculation was practised extensively during the years 1900 and 1901, and the results were so favourable that it was resolved early in 1902 to resort to this measure on a large scale, especially as the people did not object to it or were actually inclined or eager to adopt it. Accordingly arrangements were made to conduct operations throughout the province, and a large staff of medical officers and men was engaged for the purpose. Difficulties arose which somewhat delayed the commencement of work, and the supply of vaccine by the Plague Research Laboratory at Bombay was inadequate and unsatisfactory. Still a good start was made, and matters looked promising until "on the 30th of October 19 persons were inoculated at Mulkowal, in the Gurat district, with the contents of one bottle of the fluid, and all of them contracted tetanus and died." This disaster led to a discontinuance of systematic work; nevertheless a large number of inoculations were performed during the season, and figures are given to show that both the incidence of plague, and the case-mortality were considerably lower among the inoculated than among the uninoculated.

MALTA.

Health Statistics.

IN the report on Malta which the Lieutenant-Governor, Mr. Merewether, communicates to the Colonial Office, it is stated that a comprehensive scheme for the drainage of the large towns and principal villages in the two islands has been drawn up, and the work is being carried out as rapidly as the resources of the Government will permit. The drainage of the Three Cities is now practically completed, and that of the large suburbs of Sliema and St. Julian's is well advanced. The population on March 31st last was estimated at 197,070, and the number of births registered during the year was 7,173, representing a general birth-rate of 37.69 per mille. The general state of public health is recorded as "good," though it is stated that the percentage of deaths among children under 5 years of age was 51.8, and that the general death-rate was 24.45 per mille. Zymotic diseases accounted for 288 deaths, or 5.7 per cent. of the total number of deaths. Two outbreaks of small-pox occurred, the disease having been imported in the one case from Tunis and in the other from Sicily, but in neither did it assume serious importance, though out of the 50 cases recorded 10 died. The mortality from diphtheria seems to be exceedingly high, the disease proving fatal in 57 cases out of 124 attacked. No statistics unfortunately, are given with regard to Malta fever, it being merely recorded that there were 706 cases of "fevers" and 99 deaths. The climatic conditions of the year were peculiar, the summer months being unusually cool, and the rainfall for the year reaching a total of only 14 695 in., some 10 in. below that of the preceding record.

GRENADA.

In his report on the Grenada Blue Book, the Colonial Secretary, Mr. Edward Drayton, speaks of the island as having "emerged from her troubles more prosperous than before," but her rapidly-increasing population, with the greater portion of the land absorbed by permanent cultivation, gives some cause for anxiety in the future. The health conditions are, moreover, not very satisfactory, for though there was no epidemic of any serious disease, the death-roll was nevertheless the highest on record, 1,716 deaths being registered during the year as against an average of 1,283 for the previous decennial period. The increase is especially marked in the case of fevers and disorders of the bowels, as is shown in the annexed table, which gives the deaths from the diseases mentioned during the last four years:

Disease.	1900.	1901.	1902.	1903.
Diarrhoea	95	109	83	215
Dysentery	45	297	130	145
Fevers	80	75	115	110
Enteritis	63	71	76	128

Apart from the epidemic of dysentery in 1901 the increase appears to be steady. Attention is also drawn in the report to the fact that the number of cases of yaws continues to augment. In Grenada (as in St. Lucia and Trinidad) there is a special yaws hospital, and here the cases under treatment during the last three years have been 150, 163, and 189 respectively, the majority coming, as in previous years, from the parishes adjacent to the hospital. The general death-rate for the island per mille was 25.71.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.

CIVIL DEPARTMENT.

AN officer in the Indian Medical Service, who has recently given up an appointment on the civil side, writes to say that one reason why civil surgeoncies have lost some of their attraction is that medical men in the employ of missionary societies now compete with civil surgeons upon lines which he thinks cannot be considered professionally correct. They take work not at the fees long established as those due to civil surgeons, but at the same rates as those paid to assistants; they thus compete both with English medical men and native practitioners. They even often appear in criminal cases as medical experts to oppose the evidence given for the Crown by the civil surgeons. He asks whether the missionary societies send out medical men primarily to treat the poor, or to benefit the societies financially by competing with local men for fees. So long as he had any personal interest in the matter he was content to say nothing, but now he thinks the attention of the missionary societies and others should be drawn to the matter.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE PRINCESS ALICE HOSPITAL AT EASTBOURNE.

THE *Eastbourne Gazette*, December 28th, 1904, contains some correspondence respecting the treatment of an accident at the Princess Alice Hospital in that town which raises a question of considerable general interest concerning the arrangements which small hospitals ought to make for receiving and dealing with accidents. According to the report before us a carpenter fell from a ladder a distance of 8 or 10 ft. on to an oaken floor. He was seen by a medical man who ordered him to be taken to the Princess Alice Hospital at once, and he was admitted to that institution shortly before one o'clock. He was not seen by any medical man until after half-past seven, and the explanation given by the President of the Hospital is that the Matron "telegraphed" for the medical officer of the week who promised to see the patient immediately, and gave instructions as to what should be done meanwhile, but being engaged with many pressing cases in his private practice forgot his promised visit. Later, the Matron "telegraphed" again, but the medical officer was out and did not get the message until after his return about seven, when he made arrangements for his partner to see the patient. The President of the Hospital expresses on behalf of the House Committee and the medical officer of the week, regret at the delay which occurred and proffers the assurance that everything in their power will be done to prevent any similar mishap occurring in the future. As the delay did not occur from any wilful neglect, but from forgetfulness, this assurance does not seem to be sufficient to prevent the possibility of the recurrence of such an unfortunate incident. We are told that "had the case been urgent the Matron would have kept on telephoning to the members of the medical staff until she found one at leisure to take on the case," but such an excuse implies that any nurse is competent to form an opinion of the nature of an accident, and places a responsibility upon nurses which they are not trained to bear, or could bear if a mistake were made. We often hear complaints that nurses take too much upon them, or that the public consider a nurse's opinion of equal value to that of a qualified medical practitioner. We feel bound to protest against such mistaken views, but if nurses are to be left in charge of hospitals, and the visiting officer to a hospital is to shelter himself behind a nurse's opinion, we do not see how these pretensions can be consistently denied. It seems plain to us that a hospital which receives accidents ought to make such arrangements that it should not be possible for an accident to be received and treated only by nurses for more than seven hours. A hospital with fifty beds should, we think, have a resident house-surgeon.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PERPLEXED would be glad to hear of a small town about 30 to 50 miles from London, on a main line of rail, for a middle-class family (income £200); one member suffers from chronic bronchitis and another from rheumatism; there are three in family. A dry, warm place with a gravel subsoil is desirable.

TEXTBOOKS ON TRIVIAL AILMENTS.

JUNIOR PRACTITIONER would like to hear of a quite modern work dealing with the treatment of the more or less trivial ailments which supply so large a proportion of the work of a general practitioner.

THE USE OF RADIUM.

CAUTION (Natal) writes: The unforeseen evil results to operators with *x* rays suggest the question whether it is not desirable that operators with radium may not need to take some precautions to protect their hands, and, if so, what precautions. Is there any substance or covering opaque to radium rays which could be used as a protection to those applying radium to patients frequently?

MISFORTUNE THROUGH ORDERING AN EYE-SHADE.

MR. ALBERT CORNER, M.R.C.S., etc (Forest Gate, E.) writes: That there may be misfortune through ordering such a simple, common, and easily-applied thing as an eye-shade seems, maybe, foolish. But yet, if a shade be applied to the inflamed or injured eye of a child or young person who has an error of refraction, a squint may be produced in the eye treated—an awkward thing to happen, and one which may easily lose a certain amount of a doctor's kudos, the squint being considered by the people of the district as due to the bad treatment used; therefore, do not apply a shade to a child's eye till you can put out of court error of refraction in the other.

*** Mr. Corner is right in saying that it is a very risky thing to keep a child's eye covered and still let the other go on seeing, for if the patient be hypermetropic the excessive convergence that takes place in the covered eye when he makes strong efforts at accommodation is very liable to lead to a permanent squint. The proper thing is either to keep the healthy eye under atropine while the other eye is covered, or else to correct fully the hypermetropia present. Both eyes may be shaded; but this is not so efficient as the other two methods, for the patient is sure to dodge the shade and it may not prevent the mischief.

ANSWERS.

X. Y. Z. will find diseases of the bladder, prostate, etc., satisfactorily considered in Taylor's *Practical Treatise on Genito-Urinary and Venereal Diseases and Syphilis.* Third edition. (London: Henry Kimpton. 1905. 28s.)

PSYCHO can obtain a set of six anatomical charts, suitable for the illustration of lectures to asylum attendants who are being prepared for the examination of the Medico-Psychological Association of Great Britain, from the Stores Department of the St. John Ambulance Association, St. John's Gate, Clerkenwell, London, E.C. Should he require any additional charts, he might communicate with J. Bale, Sons, and Danielsson, 83-89, Great Titchfield Street, London, W. We presume "Psycho" has already the *Handbook of Nursing* supplied by the Medico-Psychological Association. Further particulars as regards the examination may be obtained from the Secretary, Dr. Robert Jones, Medical Superintendent, Claybury Asylum.

POPULAR HEALTH LECTURES.

PLEXIMETER.—For popular health lectures the following will be found useful: *First Lessons on Health.* By J. Berners. (London: Macmillan and Co. 1901. 1s.) *Home Hygiene.* By John F. J. Sykes, D.Sc., M.D. (London: St. John Ambulance Association. 1898. 1s.)

The first of these is written in very simple language, having been primarily intended for school children. It is remarkably good of its kind.

The second, written by an expert in hygiene, is more full, but written for popular lectures. It is the textbook for the hygiene course of the St. John Ambulance Association. The textbook of the St. Andrews Ambulance Association (Glasgow) on *Home Nursing and Hygiene*, by J. Wallace Anderson, M.D. (Glasgow: St. Andrews Ambulance Association, 1904), also includes the subject of hygiene, shortly but clearly discussed. The National Health Society (53, Berners Street, W.) also publishes a small book on hygiene, *The Preservation of Health*, price 3d.

LETTERS, NOTES, Etc.

AN M.D. DEGREE FOR PRACTITIONERS.

PASSED writes: In reply to "Diploma," I would state that I obtained the M.D. of Durham long after I had passed the age of 50 years. I, like many of your readers, regretted that I did not graduate before I did. I would strongly advise all the agitators to cease making useless complaints, whereby they are wasting time, and I would say to all such complainants—offer yourselves as soon as you are 40 at the university which has so liberally opened the portal.

DR. FREDERICK W. COLLINGWOOD (London) writes: In answer to the letters of certain Durham graduates *re* "an M.D. degree for practitioners," I would remind them of the statistics of the public service examinations for the Navy, Army, and Indian Medical Services, which have shattered the assumption that the average degree is superior to the London diplomas. The desire for a degree is not that a man desires to pass himself off as a superior practitioner, but simply that an M.D. carries with it the statutory right to the title "doctor"; and, by the action of the Ethical Committee of the British Medical Association, it has been attempted to reserve to M.B.'s who have not taken the trouble to take the M.D. the popular and courtesy title of "doctor," leaving the non-graduate practitioner without a designation by which he is known to the public.

M.R.C.S., L.R.C.P., writes: It is difficult to allow a letter like that of "M.D. Durham" in the BRITISH MEDICAL JOURNAL of December 31st, 1904, p. 1784, to pass without comment. The smug self-complacent tone of his whole letter is amazing, not to say amusing. It is very interesting to be told that Durham is second only to Cambridge in seniority, but I am glad to see your correspondent does not carry his comparison further, as there might be one or two universities—Oxford, for instance—that might venture to claim a place in the list.

M.B., B.S. (Durham) writes: I have seen in the BRITISH MEDICAL JOURNAL the discussion on the M.D. degree for practitioners not graduates of the University of Durham. Should the Senate decree that the present restrictions be made any lighter I should have no thought whatever of proceeding to my M.D. degree, but should prefer to remain M.B., B.S. Durh., to show that I got my degree by going through the course and passing the professional examinations in the orthodox fashion instead of getting by what is commonly called the "back-door." At present even some graduates of other universities look down upon the M.D. degree, as it may have been obtained by the method mentioned above, and a degree of M.B., B.S. stands higher in their estimation than the M.D., as it shows that the holder worked properly for it.

SANATORIUM FOR CONSUMPTIVES AFLOAT.

DR. JOHN H. OGILVIE (Birtley, R.S.O., Durham) writes: A large sailing vessel will leave this country about the end of January for a long voyage in the Atlantic in warm latitudes. It will carry a number of consumptive patients (limited to 50), and a number of inebriate and other invalids. The consumptives will live on deck in the open air night and day, constantly breathing absolutely pure air containing much ozone. During the voyage the vessel will call at many ports, as Gibraltar, Canary Islands, Rio Janeiro, River Plate, Table Bay, St. Helena, Pernambuco, West Indies, etc. There time will be given to the passengers to see something of the countries and their peoples, and to learn something of their customs and manners. Everything will be done on board to make time pass pleasantly, music, games of all kinds, books, fishing, and boat sailing when possible, and it is also proposed to teach a foreign language (French or Spanish). I am going in chief medical charge, and I will be accompanied by an efficient staff of medical men and nurses.

A NEW TITLE.

AMONG the innumerable forms of quackery which flourish in the United States is one which rejoices in the style and title of "ceropathy." One of its adepts not long ago came under the official notice of the Coroner of Philadelphia. He had treated a case of diphtheria which proved fatal. He called himself "Doctor," and appended the letters "D.S.T." to his name. When asked what they meant he stated that they were intended to signify "Doctor of Suggestive Therapeutics." Suggestive indeed!

ERRATA.

IN the first instalment of Dr. F. C. Shrubsall's article on the Anthropometric Investigation of Hospital Patients, which appeared in the JOURNAL for December 24th, 1904, two errors occurred:

Page 1691, line 25, *for* $\frac{zx}{2}$ *read* $-\frac{zx}{z}$

Page 1692, line 5, *for* $3\sqrt[2]{\frac{\sigma_1^2}{N_1}+\frac{\sigma_1^2}{\mu_2}}$ *read* $3\sqrt[2]{\frac{\sigma_1^2}{N_1}+\frac{\sigma_2^2}{N_2}}$

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
ARTERIO-SCLEROSIS.

Delivered at the Opening of the Session (1904-5) of the Liverpool Medical Institution.

BY JAMES BARR, M.D., F.R.C.P., F.R.S.E.,
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THE views which I bring before you to-night are the result of numerous personal observations and deductions from well-ascertained facts. It is, to my mind, a deplorable fact that many of the ablest and most popular members of our profession are cut off in the prime of life and vigour of manhood from disorders of the circulation, which are much more easily prevented than the so-called preventable diseases. Men who are engaged in directing others should teach by example as well as by precept. Of course many a man may prefer to lead a very active and short, but to him enjoyable, life rather than drag it out to an inordinate length. In these days of professional struggle the man who does not at least retain his mental activity is certain to be pushed to one side, often in an unfair manner, by his youthful competitors. It is only with healthy blood vessels that any one can hope to retain his mental and bodily vigour, and expect to attain to a green old age. Methinks I hear some of our younger brethren murmuring that their seniors have already had their innings: the prophets where are they, and our fathers do they live for ever? But I would remind men who have no respect for age, nor value the fruits of ripe experience, that their own time is coming when they may be more ruthlessly pushed aside than those whom they have derided. I know that there is another view of life: that many men do not consider old age desirable, and when a man has ceased to be a productive agent, intellectually or physically, he becomes a mere cumberer of the ground, an obstacle in the path of progress which should be removed. A man cut off in his prime may be remembered as an intellectual giant, whereas if he had existed till his cerebral arteries became sclerosed, and he had become slow of thought and speech, or tended towards drivelling dementia, much of his former glory would have waned, and the memory of him would quickly pass into oblivion. No doubt many of the greatest geniuses who have adorned humanity have died at an early age. Thomas Young, who only lived 33 years, has left a more imperishable name than any man who has lived since. To-night I am not so much concerned with the prolongation of life as with the preservation of health—a sound mind in a sound body; the former can barely exist without the latter. In our individual struggles for existence there is no profession where "the struggle for the life of others" is more keen—to use the language of the late Henry Drummond in his remarkable work on *The Ascent of Man*: therefore we should all see to it that the spirit of altruism permeates our ranks.

ARTERIO-CAPILLARY FIBROSIS.

An enormous advance in diseases of the circulation was made when Gull and Sutton demonstrated that there was such a disease as arterio-capillary fibrosis, and that chronic granular kidney was merely a part, and not a necessary part, of a general arterial change. Such clear and wide generalization of morbid entities was the work of intellectual giants, but unfortunately they rested there; their inductive philosophy led nowhere except to the grave. They were satisfied with stating pathological facts, and describing the morbid anatomy of the disease. They should have gone some steps further back and have tried to elucidate the etiology of the affection.

Pathology is too often a dead science, as dead as the tissues which it examines, and the condition of which it tries to explain. If I approach the subject from the physiological rather than the pathological standpoint it is because I believe that it is along such lines that all great advances are being made. It is not sufficient to know our naked-eye and microscopic morbid anatomy; but we must start from the first deviations from physiological health, why and how such deviations take place, and how the conditions pass from health to disease. We must not only know that arterio-sclerosis is a thickening of the middle coat and an increase in the fibrous tissue of the inner coat, but we must know how these hypertrophic and hyperplastic changes are brought about, and how to prevent their occurrence.

As to the induction of these arterial changes, a very plausible and widely-accepted theory was that of the late Sir George Johnson, who held that in such cases the kidney lesion was primary, and the retention of effete materials in the blood which were noxious to the tissues led to a stop-cock action of the arterioles with subsequent hypertrophy of the muscular coat, and this peripheral resistance led in turn to high arterial tension and cardiac hypertrophy with all the resultant effects, a regular vicious cycle was thus established. The much wider and more comprehensive view was that of Gull and Sutton, according to which some cause or causes operating on the general arterial system produced the arterio-capillary fibrosis, which might involve the kidneys to a greater or lesser extent as part of the general vascular system. This is an intelligible view and the only one which will include all cases, as the general arterial changes do not run in parallel lines with those of the kidneys. It has generally been assumed, as a kind of self-evident axiom not requiring proof, that the blood in these cases, and especially in the cases where the kidneys are much involved, must be impure. Such assumptions are very convenient links in a chain of reasoning, but as the strength of the chain is that of the weakest link it is well to inquire of what materials the links are made. Recently, in conjunction with my house-physician Dr. Hurter, we have been examining the blood with the cryoscope in all cases of well-marked arterio-sclerosis. Our observations have not yet been numerous, but so far we have found the freezing point lowered in all cases from 0.015 to 0.16 of a degree Centigrade below the normal, except in one case of marked cerebral sclerosis without any kidney lesion. In this case metabolism was at a low ebb, but still the freezing point was -0.565°, the normal being -0.56°. However, this is merely one step further back in the elucidation of the problem which we wish to solve. We know that the deleterious substances in the blood cannot all be of the same nature, because their effects are different. Some products or toxins increase the arterial tone, either directly, like adrenalin, by stimulating the unstriped muscular fibre, or indirectly, like strychnine, through the nervous mechanism; while others, such as iodothyroidin, have a depressor action. Alcohol has a paralysing effect on the vasomotor system, while the caffeine series have a stimulating action.

ARTERIO-SCLEROSIS.

In the term arterio-sclerosis I mean to include not merely the thickening of the small arteries and arterioles, but also the atheroma and calcareous degeneration which are so common in the large arteries. In order to attain a clear comprehension of the matter in hand we must take a brief glance at the anatomy of the arteries.

ANATOMY OF THE ARTERIES.

Speaking generally, arteries consist of three coats: (1) An external or fibrous coat, composed of white connective tissue and longitudinally-disposed elastic fibres; (2) a middle or muscular coat, consisting of short muscular fibres arranged circularly round the vessel. There is also a certain amount of elastic tissue, together with white areolar fibrous tissue, the quantity of which increases with the size of the artery, while the relative proportion of the muscular fibres decreases; and (3) an internal or elastic coat which is further divisible into three structures, namely, the endothelium forming the lining membrane and consisting of irregularly polygonal flattened cells; a subendothelial layer of homogeneous connective tissue and star-shaped corpuscles, and it is in this layer that cell proliferation most frequently occurs; and lastly, elastic layers, composed of longitudinal elastic networks and the fenestrated membrane of Henle. The internal coat is quite devoid of blood vessels, and consequently is nourished by imbibition, not from the blood circulating in the vessels, but from the nutritive fluid exuding from the vasa vasorum, which are distributed in the outer and middle coats. These little nutrient vessels divide on the surface of the artery into small branches which enter the external coat, where they form a network, and some penetrate into the middle coat. In the external coat there are a few lymphatic vessels.

The want of direct blood supply to the inner coat, while it renders it less liable to acute inflammation, makes it more prone to degenerative changes of a low chronic inflammatory character.

When we pass down to the small arteries and arterioles the muscular layer is relatively better developed and the external tunic gradually lessens, and before the capillaries

are reached finally disappears. The aorta and its large branches differ from those of smaller calibre in the enormous amount of elastic and white fibrous tissues which almost completely replace the muscular layer of the middle coat. The external coat is very strong and is composed of white fibrous tissue and longitudinally-disposed elastic fibres, while the internal coat, like that of the other arteries, is divisible into three structures.

The cerebral arteries have thin walls in proportion to their calibre. Their inner coat is well developed; in the middle coat there is a fair amount of muscular fibre, but the elastic tissue is defective; the external coat is very attenuated and ceases before the muscular coat disappears, and the arterioles pass into the capillaries. This external coat is composed of connective and white fibrous tissue with longitudinal striation, and there are no elastic fibres. Robin described a lymphatic sheath over the arterioles, which strengthened them and helped to supply the place of the defective adventitia.

THE PHYSIOLOGY OF THE VESSELS.

With the exception of the cerebral, the coronary, and the pulmonary arteries, all the vessels containing muscular fibres are well supplied with vasomotor nerves, and it is largely due to this influence that the muscular tone is maintained. There is often considerable confusion between the terms tone and tension as applied to the vessels, though such confusion should scarcely arise if it be remembered that the term tone refers to the condition of the vascular wall, the state of contraction of the muscular layer, while tension is another name for blood pressure.

When the muscular coat contracts down on the contents of the vessel the wall of the artery is thickened, and its elasticity and tone increased. When a large tract of arterioles, such as the splanchnic area, is contracted, there is increased peripheral resistance to the blood flow, increased cardiac force is called out, and the general blood pressure or tension of the arteries rises.

When the arterioles and small arteries, which are well provided with a muscular coat and a rich plexus of vasomotor nerves, contract, the tone of these vessels is heightened, their calibre is lessened, and a barrier is opposed to the circulation, so that there is a demand for an increased action on the part of the heart to drive the blood through the contracted vessels. This must raise the blood pressure, or the head of the liquid, in all the proximal arteries, and this in turn drives the blood with increased velocity through the small contracted arterioles. The tension or lateral pressure in all the arteries and arterioles which are not contracted and not taking part in obstructing the circulation—for example, the contraction of a large tract, such as the arterioles of the splanchnic area or of the muscles—may raise the general blood pressure, and all the other arterioles, such as the cerebral, are subjected to this increased strain. But the lateral pressure in the contracted vessels is not increased, because with the diminution in the bed of the stream the pressure is converted into velocity. With the varying demands of the system under the ever-changing conditions of life it is not always the same set of arterioles which are contracted, and thus maintain the blood pressure, but all in turn with heightened blood pressure are subjected to enhanced lateral strain. In the highly muscular arteries well supplied with vasomotor nerves there are slow waves of contraction and relaxation, which not only give rise to waves of exaltation and depression in the general blood pressure, as shown by the Traube-Hering curves, but also lead to increased nutrition of the vessel walls through the vasa vasorum, with hypertrophy of the muscular coat; and by a process of imbibition there may be an increased supply of nutritive fluid to the intima, and a hyperplasia of the subendothelial layer. So long as the blood pressure does not exceed physiological limits no damage is done, and any hypertrophy of the muscular coat merely increases the elasticity of the vessels, and thus improves the general activity of the circulation. You thus get your robust muscular man with good vascular tone and medium tension. Arterial blood pressure, varying between 100 and 120 mm. of mercury, or perhaps somewhat higher, increases the elasticity of the vessels, and so improves the circulation, but when the mean pressure exceeds these normal limits, the elasticity gets impaired, and secondary changes take place in the vessel walls. When there is general contraction of the arterioles and small arteries, such as occurs in granular kidneys, the larger vessels, which are well supplied with elastic tissue, suffer first; and there will usually be found well-marked atheroma of the aorta and its main branches, while the small arteries remain fairly elastic—their muscular coat is hypertrophied and the intima thickened; but these changes have barely passed into the degenerative stage, and the walls remain fairly responsive to such agents as nitroglycerine, adrenalin, etc. Increased peripheral resistance leads to hypertrophy of the left ventricle, and, as the peripheral lesion goes on increasing, the heart keeps pace with the demands, and the intermediate pressure is maintained at a high level.

On the other hand, when we get small tracts of vessels contracted by such an agent as cold, there is only a local or limited portion of the circulation involved, and the general blood pressure is not raised, or at least it is not raised to any great height, nor for any lengthened period, consequently there is merely a lessened supply of blood to the area and a diminished dissipation of heat. There is no excessive blood pressure to drive the blood through the contracted arterioles, but that fluid travels in the direction of least resistance through the internal organs, and thus gives rise to increased production of heat. When any parts of the body are frequently exposed to cold, the long-continued contraction of the arteries and arterioles with their vasa vasorum leads to a local arterio-sclerosis with subsequent degeneration. Hence we often find in labourers and sailors, whose occupation exposes them to wet and cold, that their radials and other superficial arteries are very much degenerated, when their aortas, coronary arteries, and hearts may be in good condition. In many individuals the advanced degenerated condition of the peripheral vessels, which may even lead to gangrene, is no indication as to the state of the central vessels. We must, therefore, in all cases draw a distinction between the general and local circulations. A knowledge of the circulation, to be of any therapeutic value, must include every part of the circuit. Diseases of the heart most frequently arise from causes acting on the periphery, and hence there is here no room for specialism. The man who only studies the circulation with the aid of a stethoscope is a positive danger to society.

The arterial tension or pressure is the result of the force of the ventricular systole and the resistance at the periphery. In every healthy ventricle there is plenty of reserve force which is readily drawn upon when the peripheral resistance is from any cause increased. The force of the ventricular contraction and the tension therefore largely depend on the resistance to the outflow. As to whether this resistance is situated in the arterioles or capillaries there is a considerable difference of opinion, but perhaps the majority would locate it in the capillaries. No doubt the weight of the blood, its viscosity, and the friction in the vessels require a certain force to carry on the circulation no matter how low the resistance, but beyond this minimum it is difficult to conceive how any increased obstruction could arise in any system of branching tubes, such as the capillaries. An increase in the bed of a river cannot augment the resistance to its flow; it diminishes the velocity, but in no way augments the obstruction. For my own part I therefore look upon all cases of blood pressure above a minimal standard as due to obstruction in the arterioles and small arteries, which are well supplied with muscular fibres and vaso-motor nerves, and so readily contract. Very rigid and atheromatous vessels of large size no doubt increase the friction and lead to a great waste of energy; hence, although considerable force is required to carry on the circulation, the outflow is not necessarily obstructed, and so the mean pressure need not be high. In many cases of atheromatous disease, even when aneurysm of the aorta has occurred, the blood pressure is not high, and the previous hypertrophy of the heart may be replaced by atrophy. The contraction of the arterioles gives rise to high tension in all the proximal vessels, but the lateral pressure in the contracted arterioles is lessened and partly converted into velocity.

The *vis viva* or energy imparted by the left ventricle to the blood is represented by the weight of the mass to be moved, and the height of the column of blood, or in other words the blood pressure. The heart is a very adaptable pump which is constantly varying the force of its contraction according to the amount of work which it has to perform. The force of the systole largely depends on the amount of resistance: hence the height of the blood column (h) depends on the peripheral resistance to the outflow, the amount of blood expelled at each systole, the force, and to a less extent the frequency, of the expulsion. When the resistance is lessened the force of contraction is correspondingly diminished, and

when it is increased the heart draws upon its reserve energy. Syncope is due to a great fall in the blood pressure from whatever cause arising. This, no doubt, is due to the low tension in the aorta being insufficient to drive the blood through the coronary arteries, and thus the heart is not supplied with a sufficient amount of fuel to enable it to maintain the force of its contractions. When there is a fall in the blood pressure the necessity for a forcible cardiac beat has vanished, but the muscle retains its irritability, and the heart tries to keep the arteries moderately full by the increased frequency of its systoles—though the output of each individual systole may be lessened. Thus low arterial tension diminishes the force of the cardiac beat, while high tension raises it so long as the heart is capable of meeting the increased resistance; this, however, may be so great as to overpower the heart, and to tell backwards through the lungs on the general venous system; thus tending to equalize the pressure, and so the arterial column (h) in this case also falls. The surplus of expulsive power gets exhausted, the left ventricle is unable to meet the demands, the output is diminished, the lungs become engorged, the intrapulmonary pressure is raised and also that of the venous system. If the arteriolar resistance continue to be maintained, there is very little difference between the mean and systolic pressure, and the heart, if healthy, endeavours to maintain the circulation by increased frequency of contractions, and thus tachycardia is induced.

The velocity in the arterial tree depends on the force of the cardiac beat, or, in other words, on the height of the column (h) (velocity, $V = \sqrt{2\,Gh}$). If the arteries were rigid tubes with a given force, the velocity would be simply inversely as the sectional areas of the arteries at different distances from the heart, and the current would intermit with the beats of the heart. In cases of high tension a considerable amount of potential energy is stored up in the elastic walls of the arteries during ventricular systole, at the end of which this energy is paid out, or becomes kinetic, and thus the velocity tends to become more or less uniform. In cases of very low tension the arteries are not much distended, so that they in great part act as rigid tubes, and thus the velocity becomes more or less intermittent. In the arteries high tension lessens the velocity during systole but increases the mean velocity, while in low tension with a vigorous ventricle the velocity during systole is great but the mean velocity is low.

In such a disease as chronic granular kidneys, where the raised blood pressure is brought about by peripheral resistance, the mean velocity in the arteries very closely approaches that during systole, whereas in aortic incompetency, where the arterial pressure is chiefly due to the increased output from the ventricle, there is a great disparity between the systolic and mean velocities.

When the mean pressure is very high the blood is driven through the contracted arterioles with increased velocity, because the velocity is inversely as the sectional area, so, with equal forces, the velocity in contracted arterioles is greater than in those which are dilated. If the blood were a perfectly mobile liquid, and free to move without any resistance, the force of the cardiac contraction would be converted into velocity, and there would be very little pressure on the walls of the vessels.

But the blood is a very viscous fluid, and there is also considerable resistance to its flow from the arterioles, and from the friction against the walls of the vessels and between the corpuscles; thus the velocity is diminished, and the statical condition partly maintained. It is well known that in rigid tubes a considerable amount of force is used up in friction of the molecules against each other and against the sides of the tubes, so in those cases a much greater initial force is required to carry on the circulation—witness the enormous hearts which you find in cases of aortic regurgitation, in which the energy is not stored up in the arterial walls.

In elastic tubes the waste of force is very much reduced, the discharge is much greater, and where the tube is very elastic there is not much waste from friction. When the aorta and large arteries are healthy, and there is moderate tension, the force of the heart is used in propelling the blood onwards and storing its energy in the elastic coats of the vessels, which is again expended in the onward movement between the beats. When the tension is very low, as in many febrile conditions, the elasticity of the vessels is not fully employed, and the heart wastes its energy in futile efforts to carry on the circulation. When there is well-marked arterio-sclerosis, and atheroma of the aorta and large branches, the arteries play the part of rigid tubes; there is a great waste of energy, and nutrition fails.

So long as the blood pressure is maintained at a high level, there is an extra strain thrown on the heart, which leads to hypertrophy, and this is well exemplified in many chronic affections. But there are certain conditions, such as diabetes and neurotic states, where there may be long-continued high tension without any marked hypertrophy of the heart. In these diseases there is no plethora, the arterial tree is contracted, and the amount of blood to be moved is not great, the discharge from the arterioles and the corresponding output from the ventricle are small. We have seen that the energy of the heart is represented not merely by the height of the blood column, but also by the weight of the blood to be moved. Therefore in all cases we have not only to consider the blood pressure, but also the amount of blood in circulation, and we know that in different individuals both factors of blood pressure and blood weight vary very much.

It is often assumed that the capillary pressure stands in direct relation to the arterial, but such is not the case. We have seen that in high arterial tension the blood pressure may be largely converted into velocity in travelling through the contracted arterioles, but when it reaches the wide bed of the capillaries the velocity is diminished and the statical condition increased, so when there is high arterial tension the lateral pressure in the capillaries and venules may also be raised, but as the capillary obstruction is directly as the length and inversely as the cross section, the wide bed does not offer much resistance to the small rapid stream from the contracted arterioles, hence the blood still retains in part its increased velocity; the rise is therefore only relatively and not proportionately to that in the arteries. The higher the arterial pressure the greater the disparity between it and that in the capillaries and venules. The volume or weight of the blood traversing the capillaries at any moment also raises the lateral pressure within them, but this does not increase the arterial obstruction, hence dilated arterioles and a vigorous heart, although the mean arterial pressure be low, increase the lateral pressure in the capillaries and venules.

THE ETIOLOGY OF ARTERIO-SCLEROSIS.

Long-continued straining of the arterial coats impairs the elasticity and nutrition of the vessels, and we must now consider how atheroma and calcareous degeneration are brought about. The intima is nourished by imbibition, which takes place in great part during the vessel's repose—that is, between the pulsations, when the vessel is lax and not stretched. This period may be broadly stated as occupying an equal time to that of distension; but when you get high arterial tension there is no proper period of relaxation, but merely periods of greater or less distension. This constant straining soon leads to malnutrition of the inner coat, a chronic irritation or inflammation, which gives rise to hyperplasia of the cell elements of the subendothelial layer. This cell proliferation first appears as small white or yellowish-white patches, and these, from want of proper blood supply, soon undergo retrograde metamorphosis, and become more yellow from fatty degeneration. These cells quickly break up, and then there appear semi-solid masses, composed in great part of oil globules and cholesterine crystals, and are known as "atheroma." These atheromatous patches are situated in the deeper layers of the intima, and not only directly impair the vessel's elasticity, but also, from pressure and interference with nutrition, lead to fatty degeneration and wasting of the media, and thus impair the elasticity and stability of the artery. This atheroma may go on softening and increasing in extent, and may give rise to a solution of the inner coat from pressure leading to molecular changes, and then finally be discharged into the vessel, leaving a wound or ulcer (a solution of continuity), through which the blood can directly act on the middle coat, separating its fibres, and thus lead to aneurysm. On the other hand, the atheroma may become hard and firm from the deposition of lime salts, which give rise to the condition known as "calcification." These calcified masses, like their progenitors the atheromatous patches, are first situated beneath the endothelium, but after a time this gives way, and the calcareous plates project into the lumen of the vessel. Calcification also leads to the loss of elasticity, localized destruction of the inner coat, stretching of the media, and consequent lessening of the stability and firmness of the vessel.

High arterial tension, which we have been considering, affects all the arteries, we might say, in direct proportion to their size, the arch of the aorta suffering most; but there are

other forms of strain which lead to degenerative changes, and more or less localize the atheroma. Besides the lateral straining from blood pressure, there may be longitudinal straining of the walls of the vessel, and this may occur independently, or be associated with high arterial tension. Atheroma is more frequently marked along the greater curve of the arch of the aorta than along the lesser, not because the tension is higher in that part, but because there is also superadded the brunt of the blood current. Atheroma is more common at joints than in the straight course of the vessel, because there is the brunt of the blood current during flexions, and the longitudinal straining of the coats during extension. Again, atheroma is much more common in the neighbourhood of large branches than in other parts of the same vessel, because these branches are equivalent to an increase in the lumen with consequent increase in the total lateral pressure, and there is also the brunt of the diverted current. From these causes there frequently occurs dilatation of the arch of the aorta with thinning of its walls and impairment of its elasticity. Clinically, these conditions are readily diagnosed by the greater area of impaired percussion note, and by the clear ringing or clanging second sound.

The coronary arteries are, like the cerebral, thin-walled and devoid of vasomotor nerves; the blood is driven through them by the aortic pressure, and they are very liable to atheroma, but not to any true arterio-sclerosis or thickening of the middle coat. When the aorta loses its elasticity these vessels are not supplied with blood under sufficient pressure, the heart is not properly nourished through these, perhaps, atheromatous vessels, and myocarditis, either in the fatty or fibroid form, is the invariable sequence. The general blood pressure now falls, but the dilated vessels offer less resistance, so the heart can drive the blood along at a lower pressure, and although nutrition suffers there is less risk of the rupture of a cerebral blood vessel.

The cerebral vessels are fairly supplied with muscular fibre and consequently elastic, but as the vasomotor nerve supply is scanty or—according to Leonard Hill—absent, we do not get any marked arteriolar spasm, the vessels take practically no part in raising the general arterial pressure, which is chiefly effected by the splanchnic and muscular arterioles. The cerebral circulation is carried on in a closed box, and when there is high arterial tension the cerebral arteries are subjected to strain from within, atheroma is very common, especially in the larger vessels; the muscular coat of the smaller vessels, which has got no nerves to stimulate its contraction, gets atrophied, its fibres are pushed to one side, and miliary aneurysms are developed—as was first clearly shown by Charcot and Bouchard. These authors also showed that nature tried to strengthen these vessels by a periarteritis or thickening of the external coat and lymphatic sheath.

Those vessels which are richly supplied with vasomotor nerves and take an active part in regulating the peripheral resistance, such as the vessels of the splanchnic area, and those which supply the muscles and glands, are not very prone to atheroma, but the arterio-sclerosis takes the form of hypertrophy of the muscular coat, and hyperplasia of the sub-endothelial layer of the intima. This is well shown in the arterioles of granular kidneys. Whereas in the cerebral vessels which are subjected to internal strain—and, except for their muscular elasticity, are largely passive agents or mere conduit tubes—we get atheroma, periarteritis, muscular atrophy, and miliary aneurysms. In the large arteries, where the intima is well developed, and the middle and external coats contain an enormous amount of elastic and white fibrous tissue, the arterio-sclerosis consists of atheroma and calcareous degeneration, impaired elasticity, and perhaps thinning and dilatation of the walls. What are the causes of this arteriolar contraction which leads to arterio-sclerosis with all its consequent mischief? There is one very powerful secretion in the body—that of the suprarenal glands—which is largely concerned in maintaining the tone of the blood vessels. There seems to be some difference of opinion as to how the adrenalin acts. In a recent communication which I have had from Dr. R. T. Elliott of Cambridge, he concludes from his experiments that it only acts through the sympathetic nervous system, and that it

does not contract the coronary arteries of the cat, dog, or rabbit—and presumably not in man. Adrenalin only causes contraction of blood vessels which are innervated by the sympathetic, and there is no very obvious need in the animal economy for innervation of the coronary vessels.

I understand that Professor Schäfer now holds similar views, but the previous experiments of Oliver and Schäfer tended to show that it acted directly on the unstriped muscular fibre. These authors found that the depressor nerve did not act when the arteries were contracted by suprarenal extract, and fibrillar contractions of the cardiac muscle were induced after intravenous injection of this substance, presumably owing to excessive contraction of the coronary arteries. In the case of a boy suffering from pericarditis, with effusion, when I injected into the pericardial sac, after the removal of 20 oz. of serum, 40 minims of 1 in 1,000 solution of adrenalin, the pulse disappeared at the wrist, and for a time the boy's life was in imminent danger. Here the cardiac failure must have been due to contraction of the coronary arteries, because the very small amount of adrenalin solution, and its very rapid action, preclude the idea of the failure being due to any general rise of blood pressure, or to inhibition.*

I am quite ready to accept the evidence of Professor Schäfer and Dr. Elliott, but whether adrenalin acts indirectly through the sympathetic nervous system, or directly, by some special affinity, on muscular tissue innervated by the sympathetic, the broad facts remain that it is a vascular tonic and checks secretions from serous membranes.

I believe that, while adrenalin acts chiefly on the nerve endings, it has a direct effect on the unstriped muscular fibre, and is much more constant in its action than agents which act only through the vasomotor mechanism. It blanches fresh granulation tissue where there is no sympathetic nerve, and perhaps no larger blood vessels than newly-formed capillaries.

Some individuals seem to be provided with an inordinate supply of this material, and consequently their vessels are always in a contracted condition. The secretion of the thyroid has a directly opposite effect—it dilates the arterioles and lowers the arterial blood pressure. For the maintenance of pliant blood vessels these two secretions should be nicely balanced, but unfortunately they are often not well adjusted. Many of those who are well supplied with adrenalin have a poor thyroid secretion; while, on the other hand, cases of thyroidism are usually very deficient in adrenalin, and these latter may become a ready prey to tuberculous disease. A liberal combination of both secretions with slight excess of thyroid is well shown in those spare, active, sanguine individuals with amorous propensities—a class not altogether unknown in our own profession.

It is highly probable that an excessive secretion of adrenalin, especially if there be a defective action of the thyroid, may be quite sufficient to determine arterio-sclerosis, high blood pressure, and subsequent atheroma; but as a rule there are many other toxic products which are at least contributory agents.

As the diastolic pressure in the ventricle augments the tone of the cardiac muscle, so the arterial tension heightens the tone of the muscular wall; it would thus seem that there is action and interaction between tone and tension. The quality of the blood is a prominent factor in the development of tone and tension; an increase in alkalinity improves the tone, while an excess of carbonic acid raises the tension. The purin bodies, whether of endogenous or exogenous origin, contract the arterioles, and so raise the blood pressure.

Dr. George Oliver, in his epoch-making work on tissue-lymph circulation, shows that these waste products are important agents in the economy of nutrition; but there can be no doubt that when present in excessive amounts they lead to disastrous results by the induction of gouty changes, arterio-sclerosis, and subsequent degeneration. Dr. Oliver has also clearly elucidated the deleterious influences of alcoholic beverages. The effects of wines and malt liquors in the production of gout are well known, but the excessive indulgence in nitrogenous foods is even more pernicious to the vessels. The retention products in diseases of the kidneys are potent factors in producing arterio-sclerosis.

Thayer[1] has pointed out the part played by typhoid fever in the induction of arterio-sclerosis, and to many other infectious processes must be accredited a similar rôle in the etiology of nutritional changes in the vessel walls. Syphilis is, perhaps, the disease which is most frequently followed by disease of the arteries. Heubner, whose views are generally accepted, looked upon syphilitic disease of the vessels as a specific endarteritis, the cell proliferation commencing in

* Professor Schäfer writes to me: "The effects of putting adrenalin into the pericardium would probably be to cause the external layer of the myocardium to beat more strongly and faster than the internal, so that there would be inco-ordination."

the subendothelial layer. Dr. Byrom Bramwell holds that syphilis attacks the vasa vasorum, and so impairs the nutrition of the aorta and other large vessels. Dr. George Oliver [2] has noted that "in cases of acquired syphilis the radial calibre is commonly reduced with loss of postural variation." His "observations point to a general arteritis as the ordinary effect of the syphilitic infection, the intima of the whole arterial tract being involved."

It would seem that there is a hyaline degeneration with cell proliferation of the subendothelial layer which leads to rigidity of the vessel wall, and loss of its physiological variation in calibre. In most cases the blood pressure is somewhat raised, though never to such a degree as occurs in chronic Bright's disease; but in some cases the nutrition of the heart is impaired and the arterial tension low. In these latter, mercury, which is a sheet-anchor with some men for every patient with a syphilitic taint, plays havoc.

Heredity has an important influence in determining disease of the arteries, but personally I would very much rather inherit a tendency to gout than one to phthisis. The vigorous man has very little reason to find fault with his progenitors for his gouty tendency, for he has largely in his own hands the power to modify his ancestral tendencies. Not so, however, the poor hypotonic individual with feeble digestion, who is a prey to tuberculous disease and every depressing influence. Those who cannot produce healthy offspring had better leave that duty to others.

TREATMENT.

I have no time on this occasion to enter on the wide subject of treatment by diet, exercise, and drugs, but I can commend to your serious consideration the pioneer work of George Oliver. I am convinced that he is working on right lines, and he has made some valuable additions to our stock of vasomotor tonics and depressants. He lowered my mean blood pressure by 20 mm. of mercury for twenty-four hours with a single dose of ammonium hippurate. Personally I am very fond of agents which increase metabolism, as life itself implies change; hence I prescribe freely the iodine compounds and thyroid. Just as I frequently order a cardiac tonic with a vasomotor relaxant, such as a combination of digitalis and nitroglycerine, so I frequently combine a vasomotor tonic such as adrenalin with an agent like iodine to increase the metabolic changes. Sir Hermann Weber recently delivered an admirable lecture on "On means for the prolongation of life," which is worthy of careful study.

Prevention is always better than cure, and if you clearly recognize how these arterial changes are produced you will have no difficulty in preventing their appearance, or at least in delaying their development. The medicine of the future will be largely one of prevention of disease and preservation of health, and even in the present day there are very many individuals willing to pay—and pay well—for the maintenance of their health. I am confident that a great many more would go to the medical man to get overhauled—just as they go to the dentist—if medical men would deal with physiological conditions as well as pathological, and tell patients not merely how to get well but how to keep well. You must clearly understand that I am advocating not merely the prolongation of life, but also the vigour and manhood of the nation. God forbid that I should ever advocate any means which would sacrifice the latter for the former. There are already far too many weaklings—mentally and physically—in these degenerate days, when sentiment rather than reason rules the world.

> Ill fares the land, to hastening ills a prey,
> Where wealth accumulates and men decay.

Whatsoever thine hand findeth to do, do it with thy might; for there is no work, nor device, nor knowledge, nor wisdom, in the grave, whither thou goest.

REFERENCES.

[1] *The American Journal of the Medical Sciences*, March, 1904. [2] *Blood and Blood Pressure*, 1901.

INTERNATIONAL CONGRESS OF OBSTETRICS AND GYNAECOLOGY.—The fourth International Congress of Obstetrics and Gynaecology will be held at St. Petersburg, September 11th to 18th, 1905. Professor von Ott of St. Petersburg is the chairman of the Organizing Committee.

FEMALE MEDICAL STUDENTS IN AMERICA.—There are at present forty-three women pursuing the study of medicine and surgery in the University of Michigan. In the department of law of the same university there are only four female students.

THE EFFECT OF SALTS OF POTASSIUM, AMMONIUM, AND BILE SALTS UPON BLOOD PRESSURE.

BY ARTHUR EDMUNDS, M.S., F.R.C.S.,
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(From the Physiological Laboratory, King's College, London.)

[*Prefatory Note by Professor W. D. Halliburton.*—The detection of choline in the cerebro-spinal fluid and blood of animals, and human beings suffering from various forms of degenerative disease in the central or peripheral nervous system, was first shown to be practicable by Mott and myself. Our results have been confirmed by Gumprecht, Donath, Allen, O. Grünbaum, S. A. K. Wilson, Dana and Hastings, Rosenfeld, and others. The test is becoming widely recognized as an important one in the differential diagnosis of organic nervous lesions from cases of functional neurosis. On the other hand, certain investigators like Vincent and Cramer, and Mansfield, have questioned these results, and allege that the methods employed do not exclude contamination with chloride of potassium and ammonium. Even if we admit the slight solubility of these inorganic chlorides in perfectly absolute alcohol, it is difficult to see how the minute quantity of these substances which would be present could affect our general results. Some of the criticisms which have been passed on our methods appear to take it for granted that we considered a single test—that with platinum chloride—to be sufficient to establish the presence of choline in a solution. If our original papers are consulted, it will be seen that, where sufficient material was at our disposal, the chemical tests we employed were numerous, and the possibility of confusing inorganic chlorides with choline is discussed. We further considered it to be essential that chemical methods should be combined with physiological experiments. The most marked physiological result which follows the intravenous injection of choline is a large temporary fall of arterial blood pressure, but, if the animal is previously atropinized, this fall is not produced, and is usually replaced by a rise. We still hold that a combination of such tests is necessary; the platinum test, with or without Donath's modification, or the iodine test as modified by Allen, may be used from the chemical point of view; and, if either or both of these are positive, and if they are confirmed by the physiological reaction just mentioned, there can be no doubt as to the presence of choline.

Before any of the criticisms alluded to appeared I had become convinced of some gaps in our observations, and had set to work to remedy these. For instance, while Dr. Otto Grünbaum was working at the test in the wards of King's College Hospital, he pointed out to me that the bile salts give a platino-chloride very similar in crystalline form to that given by choline, and as Croftau [1] showed that small quantities of bile salts are present in normal blood, it was necessary to eliminate this possible source of error. I therefore suggested to Mr. Edmunds that he should investigate the physiological action of intravenously-injected bile salts, with which he has combined a similar investigation of the effect of small doses of potassium and ammonium chlorides. The following paper is the result of this work, and it is there shown that though cursory inspection of crystals of the platino-chlorides may lead to confusion between these various substances and choline, there can be no confusion if the simple physiological test is performed also. I am at present engaged in a systematic reinvestigation of the chemical tests for choline, and hope to present my results shortly. In the meanwhile I have been largely relieved of this task by the researches of Donath.[2]]

The present series of experiments was undertaken, as explained in Professor Halliburton's note, in view of possible confusion that may arise between choline and other substances. The substances investigated have been bile salts, potassium chloride, and ammonium chloride. I have not dealt with their chemical reactions, but with the results upon blood pressure that occur when they are injected intravenously. All, it is true, produce a fall of arterial pressure, but in no case is this fall neutralized or replaced by a rise of pressure after the previous administration of atropine. There can therefore be no confusion between such substances and choline if this reaction is investigated.

The experiments have been performed on cats and rabbits,

fully anaesthetized in all cases with either ether or A.C.E. mixture. The blood pressure in the carotid artery was registered in the usual way by a mercurial manometer. The injections were made into the external jugular vein. In some cases tracings were simultaneously taken of the intestinal volume by the oncometric method. The substances in question have often been injected consecutively in the same animal, but abundant controls have been performed to eliminate all possible error from this source. The effect produced by the mere volume of fluid injected has been checked throughout by the injection of similar quantities of normal saline solution.

Potassium Chloride.

The poisonous action of potassium salts is well known, and since my work commenced two papers on the subject have appeared. In one of these, by L. Braun,[3] very full references to the previous literature is given from Blake[4] onwards.

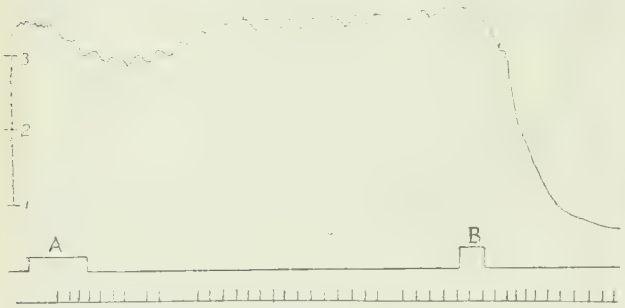


Fig. 1.—Effect on the arterial blood pressure of a rabbit produced by the injection into the external jugular vein of 2.5 c.cm. of a 1 per cent. solution of potassium chloride. This and all subsequent tracings read from left to right. The time tracing marks seconds. The raising of the signal line indicates the period of injection. The height of the blood-pressure tracing is indicated by the scale at the side, which marks in centimetres the distance from the abscissa. At A the injection was made slowly, at B rapidly.

Blake was the earliest to point out the condition of standstill of the heart which potassium chloride produces. Braun states that vaso-constriction is another result of non-lethal doses; he never observed vaso-dilatation. Among other things he finds that previous atropinization makes no difference to the effect of potassium on the heart; and I fully agree with him that the therapeutic use of potassium as a cardiac stimulant is contraindicated. The other paper is by E. G. Martin.[5] He also has directed particular attention to the heart, and finds that the inhibition produced by vagus stimulation is in many points similar to the effect of potassium on the terrapin's heart.

I employed solutions of potassium chloride varying in strength from 0.1 to 1 per cent. The effect of from 5 to 10 c cm. of the weaker solutions was a slight fall of blood pressure, but it was not until a 1 per cent. solution was employed that the results became marked. The rate of injection makes a considerable difference. Thus in Fig. 1 it will be seen that the injection of 2.5 c.cm. of a 1 per cent. solution caused a fall of only a few millimetres of mercury, but a few minutes later the same amount injected rapidly stopped the heart and killed the animal.

Choline never produces this immediate fatal result, and in the methods employed by Mott and Halliburton there can never have been the possibility of as much potassium chloride being present as to make a 1 per cent. solution. The effect of injecting atropine establishes an even more marked difference of physiological effect (Fig. 2), the fall of blood pressure being as well marked as before, whilst the injection of choline produces a rise, as shown in Fig 3.

Fig. 2 also illustrates how the fall of blood pressure is mainly of cardiac origin; the primary heart failure is followed by a well-marked "vagus pulse." Choline, on the other hand, produces a fall of pressure, mainly by dilating peripheral vessels. The tracing of the intestinal oncometer above the blood pressure tracing in Fig. 2 shows no evidence of vascular engorgement.

I further tested upon rabbits the effect of injections of similar doses of potassium chloride after the animal had received sufficient nicotine intravenously to abolish any reflex elevation of blood pressure on stimulation of the central end of the sciatic nerve. Owing to the lowering of general blood pressure produced by the nicotine, the effect of potassium chloride was not so marked, but still a good fall of blood pressure was obtained of the same character as before, and in some cases this was sufficient to kill the animal.

Ammonium Chloride.

If solutions weaker than 0.5 per cent. strength are employed the effect of injecting doses of from 5 to 10 c.cm. is practically negative. The same dose of a 0.5 per cent. solution produces a temporary fall of arterial blood pressure without any marked effect on the rate or regularity of the heart. The effect of 1 per cent. solutions is similar, but rather more intense. Fatal results were never obtained. Accompanying the fall of blood pressure is a dilatation of the splanchnic vessels, as

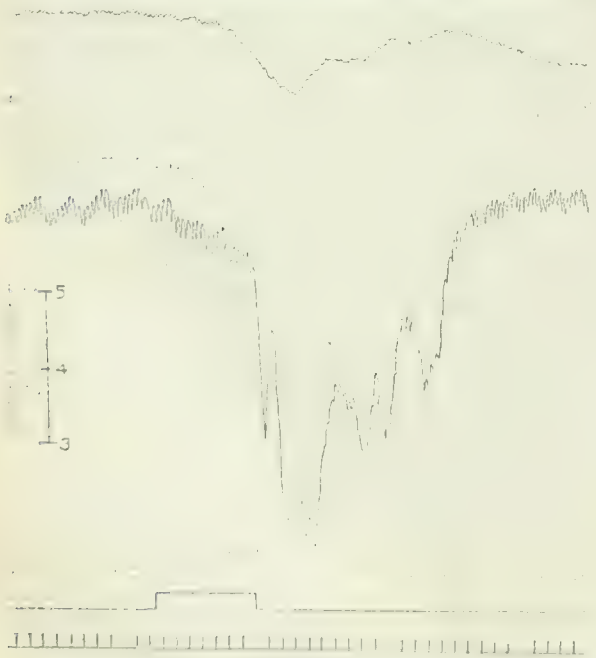


Fig. 2.



Fig. 3.

Figs. 2 and 3.—These show the effect in an atropinized animal (cat) of an injection of potassium chloride (5 c.cm. of a 1 per cent. solution) in contrast with that of choline hydrochloride (5 c.cm. of a 0.2 per cent. solution). The uppermost line in each case is a tracing of the intestinal oncometer. The fall of blood pressure produced by the potassium chloride (Fig. 2) contrasts very markedly with the rise produced by choline (Fig. 3).

shown by the intestinal oncometer. As in the case of the potassium salt, the previous administration of atropine has no effect on the action of ammonium chloride. The tracing in Fig. 4 shows the effect of an injection in an animal under the influence of atropine. The previous administration of nicotine has also no effect on the results.

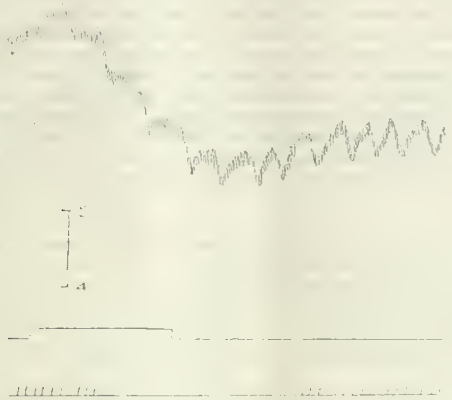


Fig. 4.—This shows the effect in a cat of the injection of 5 c.cm. of a 1 per cent. solution of ammonium chloride. The general character of the fall of pressure is very like that produced by choline, but differs from it in occurring after atropinization. The above tracing was taken in an animal under the influence of atropine: in the same animal in this condition the injection of choline produced a rise of pressure exactly similar to that shown in Fig. 3.

Bile Salts.

Sodium glycocholate and sodium taurocholate both produce a fall of blood pressure; but this fall is an insignificant one, even if the solutions used are of 1 per cent. strength, a concentration far beyond physiological limits. The effect of the taurocholate is rather more marked than that of the glycocholate. (See Figs. 5 and 6.) Any effect noted on intestinal volume was in the direction of dilatation, but this was, as a rule, too slight to be measurable. These results are unaltered by the previous injection of atropine or of nicotine.

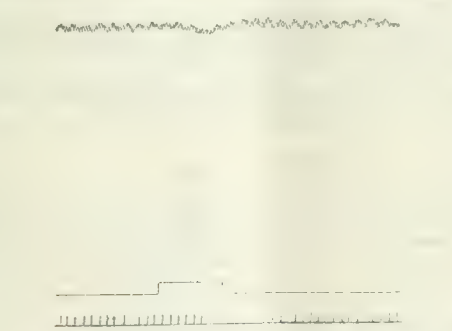


Fig. 5.—This shows the effect in a rabbit of the injection of 5 c.cm. of a 1 per cent. solution of sodium glycocholate.

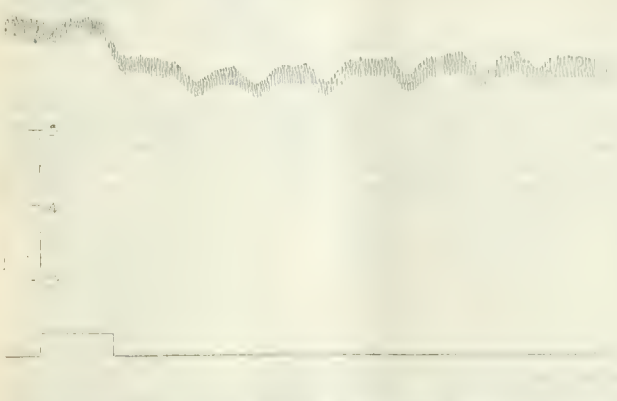


Fig. 6.—This shows the effect in a cat of the injection of 5 c.cm. of a 1 per cent. solution of sodium taurocholate.

Some years ago in this laboratory Dr. R. A. Young, who was at the time interested in the question of jaundice, commenced an investigation of the influence of bile salts on the circulatory system. The results he obtained were never published, and the reason why he did not continue the work was that the effect on blood pressure was found to be so slight; even with 5 per cent. solutions the fall presented was hardly greater than that shown in the accompanying figures. (Figs. 5 and 6.)

Conclusion.

From these experiments it will be seen that the physiological actions of potassium chloride, ammonium chloride, and bile salts are in many points fundamentally different from those of choline.

References.

[1] *American Journ. of Med. Science*, 1902, p. 150. [2] Donath's latest paper dealing with Mansfeld's criticisms appeared in *Zeitsch. f. Physiol. Chem.*, xlii, p. 563. 1904. [3] *Pflüger's Archiv*, ciii, p. 476. 1904. [4] *Edin. Med. and Surg. Journ.*, 1839. [5] *American Journ. of Physiology*, xi, p. 370. 1904.

THE SANATORIUM TREATMENT OF PHTHISIS. IS IT WORTH WHILE?*

By W. B. RANSOM, M.D., F.R.C.P.,

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It is now six years since, at a meeting held at Marlborough House, the mind of the people of England was first strongly drawn to the prevalence and possible prevention of consumption, and especially to its treatment by the so-called "open-air" method in sanatoriums. At that meeting the leaders of medicine of Great Britain and Ireland testified to the gravity of the plague and to their faith in the new principles. These views, though well known to a limited number of English medical men, came as a complete novelty to the general public and a considerable section of our profession, but in the course of the next two years spread widely and obtained many converts both medical and lay.

Since then sanatoriums for the well-to-do have multiplied abundantly; a few for the poor have been at work for two or three years, while others are being projected. But, as the wave of enthusiasm was great and expectations were lifted high, it is useless to deny that some depression has followed, that we are now in a vale of criticism which asks, Were these expectations justified and is this costly movement worth the cost?

These are questions which cannot be shirked and which we who advise the public in matters medical are bound to do our best to answer. Is the "sanatorium," or "open-air," treatment of phthisis markedly superior to older methods? If so, can it be carried on in this country as well as abroad, and, even if it can, is it equally applicable to the poor as to the rich?

That abundance of fresh air makes for strength and that the atmosphere of close, crowded, though comfortably warm, rooms makes for weakness, is a belief now generally professed (though rarely practised) by doctors and all men. But it must be clearly understood that life in the open air is not "sanatorium treatment." It is too commonly one's lot to meet an unfortunate consumptive who has been told to get plenty of fresh air, and who in spite of hectic, dyspnoea and loss of flesh, struggles along road, meadow, or seashore, panting for the breath of life, which to him is but a will-o'-the-wisp luring soul from body, when it should be a gentle spirit permeating a peaceful mind and quiet body. The medical man who casually orders fresh air without thoroughly insisting on the need of rest to the feverish patient has much to answer for. Abundance of the purest air, good food, and a careful regulation of rest and exercise, are the three essentials of sanatorium treatment as advised by Brehmer exactly fifty years ago (1854), and fifty years' experience of this triple rule has convinced impartial judges all over the world that in this way, with time and patience, phthisis can be more often arrested than by any other known method, and that whatever further therapeutic agent may be hereafter adopted this mode of life will always be a basis.

That a doctor should take his own physic is rightly considered a proof of his belief in it, and nothing is more striking

*A paper read before the Midland Branch of the British Medical Association, June 9th, 1904.

than the readiness of medical men when attacked by phthisis to resort to a sanatorium. Quite a number of sanatoriums, both in this country and abroad, are now managed by doctors who themselves were once patients, and among them are some of the most remarkable cures on record.

The evidence of the worth of this method may be looked at from two points of view: (1) The statistical, (2) the impression produced by the study of individual cases. Each method has its faults and each its merits, but probably the conjunction of the two may help us towards the truth.

Statistics.

Among obvious fallacies of the statistical are the different meanings given by different writers to such terms as "early" and "advanced" phthisis, and "improvement," "arrest," and "cure." More especially is the term "economic cure" and "capacity for work" a snare.

All medical men know the foolhardy rashness with which the patched-up consumptive rushes into work, matrimony, or other hazardous occupation.

It may, however, be stated without fear of contradiction that the figures of private or pay sanatoriums, as well as those organized for the poor in Germany and Switzerland, show an average of about 70 per cent. of cases very greatly improved during their residence; and some of the directors of these institutions speak of this proportion of "economic cures." Thus the German Imperial Health Office, analysing 6,000 cases from industrial sanatoriums, gives the number discharged as capable of work in five successive years at from 68 per cent. to 77 per cent.[1]

Private sanatoriums, attempting a more scientific analysis, speak of cures or apparent cures (in which presumably there are neither subjective nor objective signs of disease), and from a table given in Dr. Walther's valuable book on sanatoriums (p. 53) we find that but from 11 per cent. to 20 per cent. of cases can thus be reckoned, though the total number of "improvements" varies from 70 per cent. to 80 per cent. The following interesting table is given[2] by Dr. Burton Fanning as the result of the study of patients at Mundesley from June, 1899, to June, 1902—four years:

Arrest, and Fit for Work.	Arrest, but Unable to Work.	Improved.	Total Improvement.
32 per cent.	25 per cent.	26 per cent.	83 per cent.

Of the "arrested cases," 93 per cent. were living in August, 1903.

It would thus appear that sanatorium treatment in England in such capable hands as that of Dr. Burton Fanning is at least as effective as in Germany.

With regard to the permanence of the arrest or cure of the tuberculous disease, we find a marked difference between the well-to-do patients of private and the poor of industrial sanatoriums. Thus of 40 patients discharged as cured, or nearly cured, from Brehmer's Sanatorium in 1876, 25 were alive and well in 1890, and Dettweiler found that 72 out of 99 patients discharged from Falkenstein as "cured" were in good health from three to nine years afterwards. On the other hand, the above-mentioned German Government figures show that of the patients discharged as fit for work in 1897, only 27 per cent. were well and at work at the close of 1901, four years later, though it is also noted that some of those discharged as not improved were now found to be well.

Better results are reported from the Basel-Davos Sanatorium, where 58 per cent. were at work at the close of the fourth year after discharge; but I think it may fairly be said, as the result of a large mass of Continental statistics, that only about 30 per cent. of patients discharged from sanatoriums for the poor maintain the capacity for work more than four years. The German Board of Health speaks of this as an economically satisfactory result, and is of opinion that the very large sums spent in that country in the erection and maintenance of sanatoriums for the working classes are justified by the prolongation of life in this number of patients. These figures include patients in all stages of disease, but if we classify them according to their stage we get the most decisive answer as to the possibility of doing good to early cases and the uselessness of treating those that are advanced. Thus, Rumpf of Friederichsheim out of 541 cases treated in 1900 found between two and three years later 75.6 per cent. of first-stage patients at work and 3.4 per cent. dead, while of third-stage cases 54.8 per cent. were dead and 25.4 per cent. at work. Still more striking are some figures given by Weicker, which state that out of 1,367 patients three years after treatment, 95 per cent. of those in the first stage were at work and 95 per cent. of those in the third stage were dead.

In the consideration of sanatoriums for the poor maintained by private charity and public funds, the facts are of the utmost importance. In England sanatoriums for the poor have existed too short a time to allow of statistics of much value being collected from them; but the open-air treatment has been carried on longer than most people think. Thus, it was in 1893 that Dr. Jane Walker, and in 1895 that Dr. Burton Fanning started this treatment in Norfolk, while Dr. Philip took his first patients into the Victoria Hospital near Edinburgh in 1894; so that these three observers at least have had about ten years' experience of the treatment in both rich and poor.

Dr. Jane Walker[4] gives the following table of results of treatment of poor patients treated before January, 1902, and inquired about in January, 1903:

Number of Patients.	Well, and at Work.	Worse.	Died.	Lost Sight of.
95	26	9	23	34

Died in Sanatorium, 3.

Of Dr. Philip's results I have no information.

The Westmorland Sanatorium for the Poor has now been at work for four years, and in its report for 1904 sums up its results as follows:

Of 41 early cases, nearly all are now in robust health and earning a comfortable livelihood.

Of 54 "intermediate" cases, the majority are quite well; 7 have died.

Of 74 "advanced" cases, 32 have died, and the rest are invalids.

Thirty-nine cases were discharged from the sanatorium, after a short stay, as hopeless.

These figures point clearly to the uselessness of sending advanced cases to a sanatorium.

The average cost at the Westmorland Sanatorium was 36s. a week, or £93 10s. a year.

The Nottinghamshire Sanatorium in Sherwood Forest has been open since February, 1902, and in that year and 1903 received and discharged 110 patients, who have been classified as follows:

Table of 110 Patients Treated in the Nottinghamshire Sanatorium in 1902 and 1903.

Result.	Number of Cases.	Stage of Disease.	Percentage.
(*a*) Disease arrested ...	22	17 in first stage 5 in second ,,	20 per cent.
(*b*) Much improved ...	31	11 in first ,, 18 in second ,, 2 in third ,,	81.8 of total improved
(*c*) Improved	37	16 in first ,, 12 in second ,, 12 in third ,,	
(*d*) Stationary	6	1 in first ,, 3 in second ,, 2 in third ,,	18.2 per cent. total not improved
(*e*) Worse	14	2 in first ,, 9 in second ,, 3 in third ,,	
(*f*) Died	0	—	—

The term "arrested" is used when there is no expectoration, no fever, and no sign of active disease in the chest. The cost of maintenance is about £75 a year per patient. Of 42 patients who left the sanatorium in 1902, the following information was obtained in reply to inquiries made in February, 1904:

Well and at work	16=	11 in 1st stage 5 in 2nd ,,
Fairly well, but not at work	5=	All in 2nd ,,
Worse	5=	1 in 1st ,, 4 in 2nd ,,
Dead	16=	1 in 1st ,, 10 in 2nd ,, 5 in 3rd ,,

Thus exactly half of the patients discharged have maintained improvement gained for over a year, while half have got worse or died. And I ought to add that one of the patients in whom the disease was described as "arrested" in 1902 has within the last few months had a relapse. On the other hand, some of the patients who were only described as

"improved" have since their discharge done remarkably well and been among our most satisfactory cases. Thus a man (L. A.), who was in the sanatorium from June to September with acute softening of one apex, and was bringing up crowds of tubercle bacilli, made great general improvement while in residence, but could not be spoken of as "arrested," as he still on discharge coughed a little phlegm with bacilli. He was able, however, to spend a few more months in the country and intelligently to continue the rule of life learned in the sanatorium, and when examined a year later no lesion whatever could be detected in his chest by myself and by two other medical men. He has since been regularly at work, can take twelve-mile walks without fatigue, and in a letter written this year says, "I never felt better in my life." He further adds, "Before I broke down my winter life was marked by a succession of severe colds. Since I began the treatment colds and influenza have been all around, but the plague has not come near me."

The narration of this case is perhaps prematurely leaving the statistical aspect for that of personal impression, but it will serve as a text to illustrate the fact that the personal equation plays a large part in the compilation of statistics. There is obviously room for difference of opinion as to whether a given case should be classed as "arrested" or only "much improved," and we have had serious debate as to whether one should be labelled "stationary" or "worse." The most truth-loving mind may be biassed by the spirit of optimism or its reverse.

An interesting paper on the economic value of sanatorium treatment by Drs. Bardswell and Chapman was printed in abstract in the BRITISH MEDICAL JOURNAL of April 30th, 1904, but it dealt with patients treated on these lines, not in a country sanatorium, but in the Sheffield Royal Infirmary, and followed up their after-history for four years.

Of 29 cases admitted, 11 were from the first hopeless, while 16 seemed to have a chance of recovery. Of these 9 were discharged as fit for full work, 7 for light work. The period of treatment varied from six to over twelve months. Of the 9 apparently cured patients, 3 died within four years, 2 kept quite well till the fourth year and were then lost sight of, while 4 were positively known to be well and at full work up to the end of the fourth year. Of the 7 partially restored only 1 was alive at the end of four years, but 3 of them had done some work for three years.

Thus out of the 16 patients which were not quite hopeless from the first, it seems that in 6 only was a really satisfactory result obtained. It should, however, be remembered that most of these 16 were by no means slight cases, that their "open air" was that of smoky Sheffield, and that the conditions of life and work to which they returned were the reverse of the best.

IMPRESSION PRODUCED BY INDIVIDUAL CASES.

Leaving the statistical side of the question, I will pass on to the personal impression that the study of private, hospital, and sanatorium patients has made, and at once say that I entirely believe that the "open-air" or "sanatorium" treatment is the best we have, and should myself promptly resort to in the event of being attacked by tubercle. Yet at the same time I must confess that I think our anticipations as to its general applicability, as to the rapidity and permanence of its remedial action, have been somewhat too sanguine, and that a practical acquaintance with the difficulties attendant to its application to the working classes point to limitations to its sphere of action.

While I recall with pleasure several such cases as that above mentioned from our Nottinghamshire sanatorium, where intelligence on the part of the patient and financial assistance from friends has apparently led to a complete recovery, I cannot forget others where the want of one or both of these factors, or where, even with them, the natural lack of resistance of the body has caused the improvement to be but temporary, and yet others where, in spite of the disease being recognized early, and every possible therapeutic resource employed, the disease has progressed steadily to a fatal issue.

There is a proportion of acute cases, small it is true, occurring mostly in young people about 20, in whom no treatment, sanatorium or otherwise, has the slightest effect in mitigating the virulence of the disease. Such are obviously unsuitable for a sanatorium maintained by public subscription. Keeping them there is an unwarranted expense, and only tends to discredit the institution in the minds of outside medical men and the public. The more I see of phthisis the more do I agree with Walther as to the impossibility of making a prognosis without closely watching the patient for several weeks and observing the response to treatment.

To obtain the maximum benefit from a sanatorium for the poor it should be worked in connexion with an urban hospital, where the cases should be watched for a few weeks in the first instance and only those sent who exhibit some recuperative power. The medical examiner who is asked to certify at a single interview that a patient is suitable for a sanatorium may be able to, (nay, often must,) give a decided answer in the negative, but will certainly make many erroneous forecasts among those whom he passes as hopeful. And here I must be allowed to lament the little assistance given in this respect by the majority of general practitioners. By far the greater part of sanatorium candidates have been more or less under medical care for months; yet it is the rarest event to find any record of temperature, any instructions as to the need of rest and as to precautions against spread of infection. Unsuitable work is often allowed to be continued without its suicidal effect being made clear. I have known a Board School teacher, with copious phlegm and frequent slight haemoptysis, permitted to continue at work, with occasional days off, for a space of two years, until, being quite cachectic, he thought he would try a sanatorium. Until medical men recognize and insist on the prompt treatment of phthisis in its earliest stage, sanatoriums can only be beneficially worked as adjuncts to hospitals.

So much for the patients before they enter a sanatorium. What about their after-career? With the present class of cases—a few early and the greater number serious phthisis—it is obviously impossible, in a few months' course, to do more than effect some improvement. Even if all were quite early cases, a complete recovery could not be effected in the three or four months which is all that most working people can afford for the sanatorium. The most that can be expected is an "arrest" of the disease.

(It is unfortunate that the word "cure" has come into such popular use, probably from the German word "kur," which would be better translated "treatment.")

Whether this arrest will be permanent no one can say when the patient leaves the sanatorium, though one can fairly confidentially predict that it will *not* if the patient returns to an unhealthy home or work. It is therefore highly desirable that organized efforts should be made for the "after-care" of convalescent sanatorium patients to enable them to live for a time under favourable hygienic conditions, and undertake only such light work as may suit them.

The Nottinghamshire Association for the Prevention of Consumption has from the first recognized this essential supplement to sanatorium treatment, and through its "After-care" Committee had hoped to establish a horticultural colony. Lack of funds has unfortunately prevented the development of this scheme, but something has been done in aid of individual patients. Time will not permit me to enter into further details of this aspect of my subject.

Have we now got the data for answering the question, Are sanatoriums for the poor worth the expense?

We have evidence to show that in sanatoriums, as now managed, from one-fourth to one-third of the patients regain their working capacity for at least four years, and I am strongly of opinion that those who survive that period will live longer. The chief weeding-out comes in the first two years after discharge. Moreover, it is certain that when patients are sent earlier in the disease a large number of recoveries will occur. Can home or hospital treatment give as good a result? The home or out-patient treatment of poor phthisical patients is, in my experience, almost invariably, sooner or later, a failure; but undoubtedly a sequence of treatment in hospital and a convalescent home often does great good.

I have not statistics to compare with those of sanatoriums, but will mention a few objections to the latter plan. In the first place, special chest hospitals are few outside London and our largest cities, and general hospitals object to having more than a small proportion of phthisical patients in their wards, and also to keeping patients for so long a time as three or four months. Secondly, all these hospitals, so far as they are able, now treat their consumptives on sanatorium lines, and thus incur an equal expense; and, thirdly, there is no doubt that they would meet with greater success if their patients breathed, not the smoky air of towns, but the pure atmosphere of the country, and if they had extensive grounds and shady walks where the graduated exercise that is so essential could be taken under medical supervision.

If we are to treat consumptives at all, they are best treated in a special hospital, and such a hospital is best placed on a dry, bracing spot, with plenty of pure

country air. Such a hospital is a sanatorium. That consumptives should not receive medical treatment because so many relapse is a proposition so monstrous that few I hope will be found to utter it. It is an argument which will apply to many other diseases. What can be more sad than the experience of a children's hospital, where after every care has been lavished on the puny infants to bring about a restoration to health, the return to the squalid home and careless mother leads once more to marasmus and death? How many cases of heart disease do we laboriously patch up only to see fall back when the sufferer attempts again to earn his daily bread? Shall we condemn the care and skill of the surgeon who performs an elaborate operation to extirpate cancer, because in four-fifths of his cases the patient goes home to die a miserable death a year or two later? Humanity will not let us count the cost too closely in these. Neither shall it say to the consumptive—For you alone nothing can be done.

Let us try to *prevent* disease, and further all measures, public and private, which strike at the causes of consumption; but since it is still with us as our most fatal plague, let us also do what we can for those whom it has stricken.

Postscript.

Time limitations did not allow reference in the above paper to various other aspects of the tuberculosis question, whose importance is nevertheless great. Thus, the economic loss to the community from the mortality and inability to work from tuberculosis is obviously an important consideration in discussing means of prevention and treatment of the disease. The matter is one for the economist equally with the physician, and cannot be treated in detail here. It may, however, be pointed out that 60,000 persons die in each year of this malady in England and Wales, and if, with Dr. Biggs of New York, we put a value of £300 upon each such life, we get a sum of £18,000,000 lost annually, without counting the loss incurred during their last year of life, in which they are mostly incapable of work and kept at the expense of the community.

Secondly, no reference was made to the need of homes or hospitals for the isolation of advanced cases, which are frequently a danger to others. There is no doubt that this is a real need, and, in my opinion, could best be met by the provision of special wards in union infirmaries. The stigma of pauperism should be removed from these infirmaries, and there should be no more disgrace in going there for a chronic or hopeless malady than to an ordinary hospital for an acute or curable disease.

Thirdly, the due provision of sanatoriums and hospitals for consumptives should not exclude the out-patient or "dispensary" treatment of a large number at their own homes, on the lines described by Calmette, of Lille, at the British Congress on Tuberculosis, in 1901, and quite recently by Dr. Philip, of Edinburgh.[6]

This plan, which appears to have been first elaborated by Philip in 1887, and has been independently evolved by Calmette in Lille and by others in France, might in my opinion easily be carried out in the out-patient department of general hospitals by co-operation with municipal "lady health visitors," health inspectors, and with district nurses.

It would be an advantage if each such hospital had one or more special "out-nurses" with special training in hygiene to visit patients at their own homes. But much good could be done by the notification of phthisical out-patients to the medical officer of health and obtaining the assistance of his lady health visitors to instruct and help the patients at their homes.

References.

[1] *Tuberculosis*, June, 1903. Leipzig. [2] *Lancet*, August, 1903. [3] Quoted by Dr. Theodore Williams, *Lancet*, June 30th, 1900. [4] *Hospital Saturday Fund Journal*, December 31st, 1903. [5] British Medical Journal, June 11th, 1904

Congress of Psychology.—The fifth meeting of the Psychological Congress will be held in Rome from April 26th to 30th. The Organizing Committee consists of Professors Luciani, Tamburini, Sante de Sanctis, and Sergi, to any of whom communications relative to the Congress may be addressed.

Milk Charity in Philadelphia.—There has been established in Philadelphia a society having for its object the distribution of pasteurized milk to needy children throughout the city. It has nine supply stations. Half of the milk distributed by the society is given free to applicants who present a medical practitioner's certificate that the milk is needed and who are unable to pay for it. The other half is given at a nominal cost which puts it within the reach of all.

THE INFLUENCE OF RAINY WINDS, SOIL, POVERTY, AND GENERAL DEATH-RATE ON THE PHTHISIS DEATH-RATE IN EXETER, 1892 TO 1901.

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The influence of rainy winds on phthisis is so pronounced, so important, and so little recognized,* that no excuse is needed for reverting to the subject. A valuable report† has recently been issued by the sanitary authority of Exeter, dealing with the distribution of phthisis death-rate in those streets of the city in which deaths from the disease have occurred during the decade 1892 to 1901. From the figures in this report I propose to show that in Exeter—

1. The streets whose roadways are swept by the prevalent rainy winds—S.W., W., N.W.—suffer more from phthisis than those whose roadways are sheltered.
2. The streets built on relatively impervious soil tend to suffer more than those on relatively pervious soil.
3. The streets inhabited by the poor suffer more than those lived in by the well-to-do.
4. General death-rate apart from poverty seems not to affect phthisis death-rate.
5. Exposure to rainy wind exerts a greater influence than soil or poverty.
6. The influence of rainy wind appears to be direct upon the people exposed to it, not, as some have suggested, indirect, either through closure of doors and windows or through wet driven into walls.

Preliminary Remarks.

In dealing with these points it is necessary to consider female deaths only, because the men are so much from home during the day, besides being far more liable than the women to occupational phthisis.

Unfortunately the female populations of the streets are not available, so that the female phthisis death-rates have to be expressed in terms of the total populations. The error thus introduced, however, will probably not be a large one when numbers of streets, containing a considerable aggregate population, are grouped together, and will not, probably, be held to invalidate the striking results brought forward. It will be remembered, of course, that the figures so obtained should be about half the ordinary female death-rates. Deaths registered under 5 years of age have been excluded. Only two such were found—one amongst the sheltered, the other amongst the exposed streets.

A few words are needed about "made soil." This obviously cannot be regarded as of uniform composition. In Exeter it is associated generally with a very high phthisis death-rate, but the death-rates upon it seem to follow none of the laws which appear to govern the death-rates on such soils as clay, sandstone, and gravel. Consequently its inclusion amongst other soils tends to obscure the results obtained on the other soils. This may fairly be ascribed to its inconstancy of composition; and it will probably be thought allowable, perhaps even obligatory, to exclude it from consideration in most of the tables which follow, provided that a note to that effect is added in each case. Table I furnishes figures for the recalculation of all tables, including made soil, if that is desired.

1. *The Influence of Rainy Winds.*

In Table I the streets are arranged in ascending order of female phthisis death-rates expressed in terms of their total populations. It can be seen at a glance that streets with sheltered roadways (marked S) are commonest near the beginning, and streets with exposed roadways (marked X) are commonest near the end of the table. The natural inference drawn from this table is confirmed by Table II; but, in order to make sure that the result is not a chance one, the difference between shelter and exposure has been investigated separately

* If any one doubts this, let him refer to the discussions on the subject in the *Transactions* of the British Congress on Tuberculosis of 1901.

† This report, which I believe to be unique in character, divides the streets into groups according to the rateable values of the houses, and gives for every street during the ten years 1892 to 1901 the number of inhabited houses, the population according to the census of 1901, the average height above sea level, the direction of the street, its soil, its death-rate per 1,000 from all causes for ten years, its death-rate per 1,000 from phthisis for ten years, the deaths each year from all causes and from phthisis, the total number of deaths in the ten years from all causes and from phthisis, with the sex, age, and occupation of every death from phthisis in every year.

TABLE I.—*Phthisis in Streets of Exeter, 1892 to 1901.*

Name of Street.	Death-rate from Phthisis among Females (over 5 years of age) per 1,000 of Total Population Per Annum.	Shelter (S) or Exposure (X) of Roadway, as regards S.W., W., or N.W. wind.	Soil.	Rateable Value of Inhabited Houses in £ Per Annum.	Total Female Phthisis Deaths over 5 Years of Age, 1892–1901.	Total Population, Census 1901.
St. Leonard's Rd. ...	0	½S	Gravel	Over 30	0	324
Roberts Rd. ...	0	?	Clay	8–10	0	233
Springfield Rd. ...	0	S	,,	10–15	0	208
Haldon Rd. ...	0	S	Shillet	25–30	0	189
Cowley Rd. ...	0	X	,,	Over 30	0	177
Wierfield Rd. ...	0	X	Gravel	8–10	0	174
Codrington St. ...	0	S	Clay	,,	0	160
Salisbury Rd. ...	0	½X	,,	10–15	0	157
Waterbeer St. ...	0	S	Sandstone	8 and under	0	147
Friernhay St. ...	0	S	Made	,,	0	143
May Rd.	0	X	Clay	8–10	0	141
Red Cow Village...	0	X	Shillet	8 and under	0	135
Ewing's St.... ...	0	S	Gravel	,,	0	127
Dean St.	0	?	Clay	8–10	0	120
St. Sidwell's Aven.	0	S	Sandstone	10–15	0	119
Topsham Rd. ...	0	½X	Not stated	Over 30	0	119
Temple Rd. ...	0	½X	Clay	10–15	0	115
York Rd.	0	S	Sandstone	Over 30	0	108
Albert St.	0	S	Clay	8–10	0	104
Goldsmith St. ...	0	S	,,	25–30	0	98
Elmgrove Rd. ...	0	½X	,,	Over 30	0	93
Guinea St.	0	S	,,	8–10	0	76
Edmund St. ...	0	X	Made	8 and under	0	73
Cricklepit St. ...	0	S	,,	,,	0	70
Franklyn St. ...	0	?	,,	8–10	0	69
Gandy St.	0	S	Clay	20–25	0	66
Centre St.	0	S	Gravel	8 and under	0	51
Bear St.	0	S	Clay	,,	0	39
George St.	0	S	Sandstone	10–15	0	20
John St.	0	S	,,	over 30	0	14
Southernhay ...	0.1	?	Made	,,	1	506
Well St.	0.2	S	Sandstone	8–10	1	450
Victoria Rd. ...	0.2	½S	Clay	10–15	1	432
Clifton Rd. & Hill	0.2	S	,,	,,	1	410
Friar's Walk ...	0.2	S	Clay and pebble	15–20	1	399
Cheeke St.	0.2	S	Clay	8 and under	1	353
Longbrook St. ...	0.2	S	,,	20–25	1	335
Magdalen St. ...	0.3	?	Clay and shillet	10–15	3	882
Hoopern St. ...	0.3	S	Clay	8–10	1	316
James St.	0.3	½X	,,	8 and under	1	253
Tiverton Rd. ...	0.4	X	,,	20–25	3	640
E. John St. ...	0.4	½X	,,	8–10	2	478
High St.	0.4	X	Sandstone	over 30	2	465
Parr St.	0.4	?	Clay	8 and under	2	459
Wonford Rd. ...	0.4	½X	Gravel	20–25	2	419
Frog St.	0.4	S	,,	8 and under	1	229
Dinham Rd. ...	0.4	X	Shillet	10–15	1	228
New North Rd. ...	0.4	X	Made	25–30	1	205
Paris St.	0.5	S	Clay	10–15	6	1,024
Summerland St. ...	0.5	S	Sandstone	8–10	4	728
Portland St. ...	0.5	½X	Clay	10–15	3	554
Sun St.	0.5	?	Clay and shingle	8–10	2	366
Howell Rd. ...	0.5	?	Clay and shillet	20–25	2	336
Melbourne St. ...	0.5	X	Clay and shingle	8–10	1	197
Culverland Rd. ...	0.5	S	Clay	10–15	1	179
New Bridge St. ...	0.5	X	Made	25–30	1	172
Belgrave Rd. ...	0.5	S	Clay	8 and under	1	171
Lion's Holt ...	0.5	½X	,,	,,	1	170
Sidwell St.	0.6	X	Sandstone	15–20	11	1,845
Blackboy Rd. ...	0.6	X	Clay	10–15	6	971
St. David's Hill ...	0.6	X	Shillet	25–30	4	615
Fore St.	0.6	X	Sandstone	Over 30	3	454
South St.	0.6	?	Clay and shillet	20–25	3	441
Mary Arches St. ...	0.6	½X	Made	8–10	2	321
Blackall Rd. ...	0.6	X	Clay	Over 30	1	156
Preston St.... ...	0.7	X	Gravel	8–10	4	571
Coombe St. ...	0.7	X	Made	8 and under	4	525
Rack St.	0.7	X	Clay and shingle	,,	3	422
Russell St.	0.7	S	Clay	8–10	3	398
Stepcote Hill ...	0.7	X	Clay and shingle	8 and under	3	381
Northernhay St ...	0.7	½X	Not stated	10–15	2	285
Bonnay Rd. ...	0.7	X	Clay and shillet	8–10	2	252
Cathedral Yard ...	0.7	½X	Made	Over 30	1	140
Raleigh Rd. ...	0.7	?	Clay	20–25	1	139
Market St.	0.7	S	,,	10–15	1	127
Clifton St.	0.8	½X	,,	8 and under	4	477
Exe Island... ...	0.8	X	Gravel	,,	2	230
Belmont Rd. ...	0.8	S	Clay	20–25	2	230
Polsloe Rd.	0.8	?	,,	Over 30	1	117
Bartholomew St....	0.9	X	Shillet	10–15	9	1,100
Exe St.	0.9	X	Gravel	8 and under	5	550
Pennsylvania ...	0.9	X	Clay	Over 30	5	525
Catherine St. ...	0.9	?	,,	15–20	1	105
Roseberry Rd. ...	1.0	X	Clay	10–15	2	193
Oxford Rd. ...	1.2	½X	,,	15–20	3	238
King St.	1.2	S	Sandstone	8 and under	2	163
Church Lane ...	1.2	½X	Clay	8–10	1	83
North St	1.3	X	Made	10–15	8	564
Sandford St. ...	1.3	½X	Clay	8 and under	7	513
Commercial Rd....	1.3	X	Gravel	,,	5	350
Radford Rd. ...	1.3	½X	Made	8–10	4	299
Mt. Radford Sq. ...	1.3	S	,,	8 and under	1	77
Holloway St. ...	1.4	?	Clay and shillet	10–15	9	607
Paul St.	1.4	X	Clay and shingle	8–10	7	479
Smythen St. ...	1.4	X	,,	8–10	3	210
Jubilee St.... ...	1.4	X	Alluvial	8 and under	2	135
West Quarter ...	1.5	X	Sandstone	8–10	7	402
Queen St.	1.6	X	Made	Over 30	4	250
Chute St.	1.7	S	Clay	8–10	3	168
Devonshire Place	1.7	X	,,	20–25	2	114
St James Rd. ...	2.0	X	,,	25–30	1	49
Quay Lane	2.1	X	Clay and shingle	8 and under	5	238
Pancras Lane ...	2.3	S	Made	,,	4	170
Tudor St.	2.5	?	Shillet	,,	5	197
Mansfield Rd. ...	2.5	X	Clay	10–15	4	158
Castle St.	2.7	S	Made	15–20	4	167
Sidwella Cottages.	3.8	X	Sandstone	10–15	1	26

TABLE I. (*continued*).

in groups of streets on different soils and of different rateable value (Tables III and IV). It will be seen that the only exception occurs on made soil—the only soil of inconstant composition. In view of these figures I would submit that there can be no reasonable doubt that in Exeter exposure of the roadway of a street to rainy wind increases its phthisis death-rate.

2. The Influence of Soil.

In Table I the influence of soil is not obvious, and Table V shows that if soil possesses any real influence some other influence masks it. That this masking influence is that of wind-exposure is shown by the remarkable result of eliminating wind by the consideration of sheltered streets only. If a table be constructed of sheltered streets in ascending order of female death-rate (as they were arranged in Table I) it becomes obvious that the more pervious soils occur most commonly about the beginning, and the more impervious soils most commonly about the end of the table. The inference naturally drawn is confirmed by Table III, which shows that, *in shelter*, soil has a very marked effect on phthisis mortality. The death-rate on clay may be said to be roughly double of that on sandstone or gravel.

TABLE II (*Made Soil Excluded*).

	Population.	Female Phthisis Death-rate in Terms of Total Population.
Sheltered streets	5,675	0.42 per 1,000
Exposed streets	12,521	0.82 per 1,000

TABLE III.

Soil.	Population.		Female Phthisis Death-rate in Terms of Total Population.	
	Sheltered.	Exposed.	Sheltered.	Exposed.
Gravel	407	1,884	0.24	0.84
Sandstone ..	1,047	3,252	0.20	0.73
Clay	4,052	3,185	0.49	0.81
Made soil ..	607	1,789	1.15	1.00

TABLE IV (*Made Soil Excluded*).

Rateable Value of Houses.	Population.		Female Phthisis Death-rate in Terms of Total Population.	
	Sheltered.	Exposed.	Sheltered.	Exposed.
£8 and under ...	1,280	2,450	0.39	1 02
£8 to £10	1,672	2,486	0.47	0.96
£10 to £15	1,683	2,676	0.47	0.85
Over £20	1,040	3,195	0.28	0.65

There are no sheltered streets except on made soil at £15 to £20.

TABLE V.

Soil.	Population.	Female Phthisis Death-Rate in Terms of Total Population.
Gravel	3,034	0.62
Sandstone	5,007	0.60
Clay	12,237	0.58
Made soil	3,731	0.93

TABLE VI.

Rateable Value.	Population.	Female Phthisis Death-Rate in Terms of Total Population.
£8 and under	6,857	0.81
£8 to £10...	6,855	0.65
£10 to £15	8,365	0.60
£15 to £20	2,734	0.69
£20 to £25	2,720	0.51
£25 to £30	1,328	0.52
Over £30...	3,448	0.52

3. *The Influence of Poverty.*

In Table I the influence of rateable value is not apparent, but Table VI shows that it probably exists. To make its existence certain, however, it is necessary to eliminate the influences of wind and soil. Table IV shows the variations of phthisis death-rate with variations of rateable value, in sheltered and exposed streets separately. The exposed streets bear out the indication of Table VI, but, as exposure varies considerably in degree, no stress can be laid on this. The sheltered streets at first sight do not seem to bear out the indication, because the poorest have a relatively low death-rate. On investigation, however, this apparent discrepancy is easily removed. These poorest streets happen to be built on the most generally pervious soil. Table VII makes this clear and gives the values of the death-rates approximately corrected for soil, that is to say, expressed as they probably would be if all the streets were on a uniform clay soil (calculated on the basis of Table III). Needless to say, no weight is attached to the exact values so obtained, but they serve to illustrate the fact that when the influences of wind and soil are set aside rateable value has a definite effect on phthisis death-rate. Apparently there is no very great difference between rateable values up to £15, in phthisis death-rate, or between those over £20. The chief contrast seems to be between the streets below £15 and those over £20, the poorer having a phthisis death-rate roughly 66 per cent. greater than the richer.

4. *The Effect of General Death-rate.*

The figures in the report give, when examined, no indication that general death-rate, apart from poverty, has any

TABLE VII (*Made Soil Excluded*).

Rateable Value.	Proportion of Population on			Death-rate Corrected for Soil, that is, to what it should be for Uniform Clay Soil.
	Clay.	Sand-stone.	Gravel.	
	%	%	%	
£8 and under ...	44	25	31	0.57
£8 to £10... ...	74	26		0.55
£10 to £15 ...	92	8		0.50
Over £20... ...	88	12		0.33

TABLE VIII (*Made Soil Excluded*).—*Sheltered Streets only, of Rateable Value Under £15.*

General Death-rate.	Population.	Percentage on Clay.	Female Phthisis Death-rate.	Female Death-rate Corrected for Soil, Roughly.
		%	%	
Under 15 per 1,000 ...	1,375	10	0.58	0.64
Over 20 per 1,000 ...	718	48	0.41	0.62

effect on phthisis death-rate. Table VIII is an attempt to disentangle general death-rate from other influences. Sheltered streets of rateable values under £15 only are considered, and the percentage of the population on clay is stated (the rest being on gravel and sandstone—made soil was excluded).

At first sight it would seem as if high general death-rate went with low phthisis death-rate, but when a rough correction is made for soil (as was done in Table VII) the results are curiously nearly identical. Without laying any stress on this closeness of result, it appears at least that there is no evidence in Exeter that general death-rate, apart from poverty, exerts any influence on phthisis death-rate.

5. *The Influences of Rainy Wind, Soil, and Poverty Compared.*

Table I makes the influence of rainy wind obvious at a glance, but neither the influence of soil nor of poverty is thus apparent in it. This suggests that the first influence overpowers the other two, and this is borne out by the fact that when the influence of wind is eliminated by considering only sheltered streets, it becomes possible from an examination of a table constructed from them to discover indications of the influences of soil and poverty.

Again, the streets of rateable values over £20 appear only to have a death-rate from phthisis about 24 per cent. lower than the streets under £15 when wind is not eliminated, but when the streets are divided into sheltered and exposed, the sheltered streets over £20 appear to have a phthisis death-rate about 66 per cent. lower than those under £15, whilst the exposed streets show a difference of only about 12 per cent. between the two.

Similarly the streets on clay seem to have a slightly lower phthisis mortality than those on gravel when wind is not excluded, but when sheltered and exposed streets are separated, the sheltered streets on clay seem to have about twice the death-rate of those on gravel, whilst the exposed streets show practically no difference between the two.

On the other hand, exposure to rainy winds, even when no allowance is made for soil or poverty, seems in Table II to have a pronounced effect, the death-rate in the sheltered streets being only about half that in the exposed. In Tables III and IV this is shown to be a real effect, and to be even more pronounced in some cases when the influence of soil or of rateable value has been set aside. But the effect is even greater than appears from the figures. Amongst the streets fairly classed as sheltered some are undoubtedly more completely sheltered than the rest, and amongst the streets exposed some—by position or slope—are decidedly more

TABLE IX (*Specially-marked Shelter and Exposure, on Clay only*).

	Population.	Percentage.		Female Phthisis Death-rate as Before.
		Under £15.	Over £20.	
Sheltered Streets.				
Cheeke St., Albert St.				
Chute St., Codrington St.				
Guinea St., Hoopern St.				
Culverland Rd., Gandy St. ...	2,063	7	24	0.33
Springfield Rd., Goldsmith St. ...				
Longbrook St.				
Exposed Streets.				
May Rd., Mansfield Rd.				
Rosebery Rd., Blackall Rd. ...	1,684	30	70	1.18
Oxford Rd., Devonshire Pl. ...				
St. John's Rd., Pennsylvania ...				

windswept than others. Table IX is an attempt to compare these specially-marked shelters and exposures, at the same time eliminating the influences of soil and poverty, clay soil

alone being considered and the percentage of the population under £15 and over £20 being given. Even without considering rateable value, it appears that the exposed streets have actually nearly four times the phthisis death-rate of the sheltered, and when a rough correction is applied for rateable value the ratio becomes rather greater than four to one. Without insisting for a moment on these precise figures, it seems fair to conclude on the whole that the influence of rainy wind is considerably greater than those of soil and poverty. This conclusion is important, because it makes possible an enquiry into the effects of rainy winds in localities where the part played by soil and poverty cannot be assessed.

6. *The Influence of Rainy Wind Direct.*

Lastly, it has been asserted, on no grounds of evidence whatever, that the influence of rainy winds on phthisis is indirect only, producing its effect on the people through the medium of the houses, either by compelling the closure of doors and windows or by driving wet into the walls. It might have occurred to those who put forward these theories that doors and windows are not all on the westerly sides of houses, and that houses standing in valleys which receive the drainage of surrounding hills are at least as likely to be damp as those on a steep hill slope exposed to wind but with rapid drainage for rain. But the present material affords more solid ground for rejecting these surmises.

In Exeter Mr. Wreford, the Sanitary Inspector, assures me that the phthisis distribution cannot be explained by wet driven into walls, because the newer houses have double walls and 75 per cent. at least of the older house have battened walls, which amount to the same thing.

Further, the streets which suffer most from phthisis are those along which the wind blows—that is, just those in which it does not drive directly against doors, windows, and walls; and again, since the streets which suffer most are those whose roadways are exposed, it seems natural to conclude that the rainy wind exerts its influence on the people themselves as they pass along these roadways.

The recognition of a direct influence of rainy wind explains its injurious effect observed in cases of phthisis exposed to it, and the unsatisfactory results sometimes seen from "change of air" to a situation which is rainy and windy.

In conclusion, my best thanks are due to Mr. Wreford, Sanitary Inspector of Exeter, for most kindly placing at my disposal the invaluable assistance of his long and intimate knowledge of all parts of the city, especially for corroborating my classification of the streets into sheltered and exposed as regards the winds.

RESULTS OF FOUR YEARS' SANATORIUM WORK IN THE TREATMENT OF PHTHISIS.

BY

ROWLAND THURNAM, M.D., AND CHARLES E. WHEELER, M.D.,

Nordrach-upon-Mendip.

THE Sanatorium of Nordrach-upon-Mendip has now been open for five years, and a sufficiently large number of cases has come under observation to give a value to the statistics of results.

Only the first four years' cases have been taken into consideration, for it is only when a case has been tested by the lapse of some time that any confidence can be felt in the permanence of the benefit obtained from treatment, and of the cases of the first four years, only those have been retained for purposes of argument concerning whom definite news was forthcoming in the summer of 1904.

As far as possible all cases have been followed up, and the figures that follow have been based upon the replies that were made to our inquiries. The total number of cases available for use in this paper is 289. They may be divided into three main classes:

A. Severe (disease affecting either the whole of one lung or considerable areas in both, often complicated with disease of the larynx).

B. Moderately severe (disease affecting not more than one half of one lung, with or without slight affection of the other—laryngeal diseases occurring in this class also fairly frequently).

C. Slight (disease confined to one lobe of one lung).

CLASS A.—SEVERE.

This class includes 183 cases.

(*a*) Of these 56 died either in the Sanatorium or at home within twelve months of commencing treatment. Percentage, 30.6. As no effort is made in this Sanatorium to select mild cases, this class includes a number of patients who come as a last resource, often nearly moribund.

(*b*) Twenty-three patients died within two years of the time of commencing treatment here. Percentage, 12.7. In these cases treatment may fairly be said to have prolonged life, but nothing in the nature of even a partial cure was obtained.

(*c*) Thirty patients have been followed for two years, but we have no news of them later. We know only that they were alive more than two years after beginning treatment. Some are no doubt dead, and the others ought to fall into the divisions that follow, but in the absence of exact knowledge it seems better to form a special class for them. Percentage (alive after 2 years), 16.3.

(*d*) Thirty-nine patients report themselves in fair health in 1904. They are not able to undertake the work of people that have never broken down, but are all able to enjoy life and do a certain amount of work, but need to exercise care in living. Percentage (in fair health), 21.3.

(*e*) Thirty-five patients are in enjoyment of normal health, working as hard as ever they did, and able to do all that the normal healthy man can do. Percentage (cured), 19.1.

CLASS B.—MODERATELY SEVERE.

This class includes 84 cases.

(*a*) Corresponding to similar subdivision of Class A, includes 2 cases. Percentage (died within twelve months), 2.3.

(*b*) Includes 3 cases. Percentage (died within two years), 3.5.

(*c*) Includes 19 cases. Percentage (alive two years after), 22.6.

(*d*) Includes 11 cases. Percentage (in fair health), 13.09.

(*e*) Includes 49 cases. Percentage (cured), 58.3.

CLASS C.—SLIGHT.

Includes 22 cases.

There are no cases in subdivisions *a* and *b*.

(*c*) Includes 1 case. Percentage (alive two years after), 4.5.

(*d*) Includes 1 case. Percentage (in fair health), 4.5.

(*e*) Includes 20 cases. Percentage (cured), 90.9.

Taking all the classes together, the percentages are as follows: Total, 289 cases.

Subdivision (*a*) 58 cases. Percentage (died within twelve months), 20.06.

Subdivision (*b*) 26 cases. Percentage (died within two years), 8.9.

Subdivision (*c*) 50 cases. Percentage (alive two years after), 17.3.

Subdivision (*d*) 51 cases. Percentage (in fair health), 17.6.

Subdivision (*e*) 104 cases. Percentage (cured), 35.9.

The classification according to severity sufficiently emphasizes the desirability of commencing treatment early; but if even of severe cases 19.1 per cent. can be wholly cured and another 21.3 restored to a very fair measure of health—over 40 per cent., taking both classes together—then there can be hardly any cases of phthisis wherein something may not be hoped for from sanatorium treatment.

FURTHER REPORT ON THE TREATMENT OF PHTHISIS BY IODOFORM INFUSION.

BY THOMAS W. DEWAR, M.D., F.R.C.P.,

Dunblane.

IN the BRITISH MEDICAL JOURNAL for November 21st, 1903, I published a short preliminary report on the treatment of advanced pulmonary tuberculosis by the intravenous injection of iodoform, devoting myself chiefly to a description of the method. This involves at a later date either an admission that the hopes then expressed have not been fulfilled or the submitting of more convincing evidence to support the thesis then maintained. To establish the bona fides of my statements as far as possible I have had control examinations of the sputa made at the R.C.P. laboratory. In making the request I have intimated that the patients had been recipients of the iodoform infusion. At the beginning or end of some of the cases the name of a physician is placed in brackets. If at the beginning it means that they saw the case then, if at end, after treatment. I have asked their permission to introduce their names as evidence that the physical conditions were as stated, and I take this opportunity of thanking them for the courtesy. But they must not necessarily be understood as either approving the treatment or endorsing the moderate claims I have put forward for it. Until the lapse of time has confirmed the stability of the results and a larger number of cases have responded to the uniform treatment it is premature to ask them to commit themselves further. This being a purely clinical paper only a brief summary of lung symptoms is given. Other notes and observations are withheld.

Description of Treatment.

Modification of Solution.

Since publishing my first paper I have modified the solution by adding 40 per cent. of liquid paraffin to it. Liquid paraffin has a sp. gr. 0.880, is perfectly soluble in ether, and the resulting solution is blander and less irritating to the veins. It further makes it possible to use much smaller vessels, in fact the limit is only defined by the size of the needles and the operator's dexterity. (It may be desirable to state that liquid paraffin is not paraffin oil.) Before using it I generally filter an ounce or so through cotton-wool. It is colourless, odourless, tasteless, and in itself dissolves iodoform to a small extent. I have occasionally used the iodoform in liquid paraffin alone in the proportion of ½ gr. to 10 minims. This gives a preparation, part solution, part suspension, which is perfectly workable through find needles—for example, Schimmel—and may prove of service in tuberculous joints, or hypodermically in tubercle of the skin and glands and peritoneum. It is painless on injection, and is prepared by crushing the iodoform in the liquid paraffin with a probe in a conical minim glass.

Messrs. Burroughs Wellcome and Co. have made for me half-grain tabloids of iodoform and a nonactinic all-glass syringe. It is essential to use an "all-glass" syringe. Ether destroys and shrivels the plunger of an ordinary piston, and very soon small pieces of it separate. These introduced to the fine lung capillaries would certainly give trouble. One of the tabloids is placed in the syringe, crushed with the piston, the ether drawn in and shaken till the powder is dissolved. Thereafter a few minims of liquid paraffin may be drawn up and the whole well shaken. To facilitate introduction, avoid haste, and prevent any escape, the point of the needle is sealed by dipping it in hazeline cream. When working with the basilic veins the handkerchief tourniquet is placed immediately above the elbow, when with the forearm veins about its middle, and when with the veins on the knuckles or back of the hand at the wrist. The radial vein and the skin over it are thick and more difficult to puncture and this is increased by its mobility. The fault of mobility for injection purposes applies to the ulnar also, but both are very serviceable. Prominence and tension of veins is assisted by giving the patient something to grip firmly in the hand. It is desirable when possible to inject in daylight, it is so much easier. The veins are generally fullest after 3 p.m. If these conditions are impracticable they may be temporarily distended by placing the forearm in hot water, but if this is done the solution of iodoform in ether alone must not be used. With the 40 per cent. of liquid paraffin added, however, it is perfectly safe. Enter the needle vertically and try to pin the top of the curve of the vessel with the point of the needle, and then pushing it gently on and bringing it into line with the calibre of the tube insert it half way. The sensation of going into a space is felt at once, and can even be seen by an onlooker. The patients usually know when it is right.

Case I (Dr. Alex. Bruce; Dr. Craufurd Dunlop).

M., aged 40. Patient had dorsal myelitis at 37. Physical signs of consolidation and breaking down in upper lobe right lung with signs of cavity at apex. Friction and impaired percussion over left apex and under clavicle. Expectoration purulent, copious, showed large numbers of tubercle bacilli (R.C.P. Lab.). Temperature chart has already appeared in the British Medical Journal. During first five months his injections did not quite average one every second day. He was under observation about nine months and left with lungs quite healed, only an occasional expectoration in which tubercle was found with difficulty. A few months later, even this disappeared. (Dr. Alex. Bruce, Dr. Craufurd Dunlop.) He went to the South of France and was examined by Drs. Siordet and S. M. Rendall. Six months later he died of acute ascending myelitis. I never saw him after he left Dunblane, but Dr. S. M. Rendall wrote to me in reply to my request for a statement which I might publish: "I had the opportunity of seeing him twice in consultation with Dr. Siordet soon after his arrival and just before he left Mentone. On both occasions I considered that the lung disease was in complete abeyance, there was not a crepitation or a *râle* to be heard anywhere." Dr. Alex. Bruce, who saw him in Edinburgh a few days before his death, also assures me that he died of myelitis and his lungs had remained sound.

Case II.

F., 18. Probable tuberculous history. Delicate childhood, winter coughs, never had a healthy appetite, liable to attacks of abdominal pain not relieved by laxatives; weight, 9 st. The temperature chart has appeared in the British Medical Journal. It had touched 103° F. Pulse—morning 95, evening 128; respirations—morning 24, evening 32; night sweats, constant cough, scanty expectoration, consisting of little hard lumps which contained numbers of tubercle bacilli (R.C.P. Lab.). Physical signs of great consolidation over right upper lobe and a few crepitations. Absence of breath sounds over lower lobe in front. Anteriorly on left side, impaired percussion, breathing cogwheel VR and VF+. At the base post on right side were a few small crepitations. She also had several attacks of laryngeal pain and aphonia. Laryngoscopically nothing but congestion was observed. With tubercle active in the lungs, laryngitis and aphonia, and persistent abdominal pain, the prognosis was grave. She was under treatment eight months, receiving 151 injections. The laryngeal symptoms were treated by subcutaneous injections of CHI_3 in ether on either side the thyroid cartilage and endolaryngeal injections of the same solution through the cricothyroid membrane. When she left the lungs were dry and the disease quiescent—weight, 9st. 7 lb. She has been at work about a year and kept well; no tubercle bacilli (R.C.P. Lab.). (Drs. E. S. Jackson and B. G. Morison.)

Case III (Sir Thos. Fraser).

F., aged 20. Tuberculous history. Illness dates from an attack of scarlet fever seven years before. Weight 9st. Neither pulse nor temperature ever rose above 100. Sputum mucopurulent, contained large numbers of tubercle bacilli (R.C.P. Lab.). Right apex, anterior and posterior, impaired percussion and fine crepitations. Upper lobe of left lung and upper portion of lower lobe of left lung exhibited the physical signs of consolidation and breaking down. There were also friction rubs as low as the costal margin, anterior. Posteriorly, signs of consolidation, and breaking down from apex to angle of scapula: below that jerky breathing. This patient had not fewer than 250 injections. Sixteen months ago she climbed to the top of Dumyat, nearly 1,500 ft. Tubercle bacilli a very few (R.C.P. Lab.). Weight 10 st. (Sir Thos. Fraser.)

Case IV (L. J. M. Deas, Captain, I.M.S.; Dr. J. A. Taylor).

M., aged 21. Very pronounced tuberculous history. Sputum, large numbers of tubercle bacilli (R.C.P. Lab.). Right upper lobe, physical signs of consolidation anterior and posterior, with crepitations anterior, and signs of small cavity over second interspace anterior. Left lower lobe, crepitations and consolidation anteriorly, consolidation alone posteriorly. Ischio-rectal abscess. Height, 5ft. 11 in.; weight, 9 st.; sallow, cadaverous, and slightly cyanosed at tip of nose, lips, and finger-tips. Temperature 103° (it rose on several occasions to 105°); pulse—morning 80-92, evening 92-108; respirations—morning 24, evening 28. He was *x* rayed, and Dr. Philp reports: "The screen confirmed your diagnosis completely, but showed a more extended area of dullness on the left side." Eleven weeks later the screen only showed a faint shadow at the right apex; his temperature was normal in three months. The ischio-rectal abscess is healed. His weight is 11 st. 4 lb. He had 150 injections at least of the CHI_3 in ether +40 per cent. liquid paraffin. He has now very little expectoration, but tubercle can still be found in it. Posteriorly, there is no evidence of disease anywhere. Anteriorly, the percussion is still impaired over the upper lobe, and cavernous breathing is found over the inner end of the second interspace. This upper lobe is now expanding well. The left side is normal. (Professor Arthur Gamgee.)

Cases V, VI, and VII have many features in common. The earliest symptom in each was pleurisy, then slight consolidation, comparatively rapid recovery, and return to work; early relapse, more prolonged illness, more extensive infiltration and breaking down, extension of pleurisy and more restricted chest action, great flattening of thorax; obvious loss of lung substance, although distinct signs of a cavity exist only in No. 7; large numbers of tubercle bacilli in all (R.C.P. Lab.); digestion good in V and VI, but ruined in VII by previous efforts at overfeeding. All had constitutional disturbance, although the temperatures did not rise higher than 101° to 102°; all were incapacitated for work. On screening, the action of the diaphragm is very slight in V and VI, and in VII is quite lost.

Case V (Dr. J. E. Moorhouse).

M., aged 21, height 5 ft. 7½ in., weight 9 st. 7 lb.: social condition, penury. Probable tuberculous history; illness began four years ago with haemorrhage and pleurisy; principal lesion on left side, but both affected. He returned to work after four months' treatment, and has continued so without any relapse, and his weight has risen from 9 st. 7 lb. to 10 st. 2 lb.; his temperature is normal; cough and expectoration very slight, but there are still a good many bacilli in the sputum. The treatment has been continued two or three times a week while he has been at work. It is now a year since he resumed work, and he works seventy hours per week. Under more favourable conditions I feel sure he would have done still better.

Case VI (Professor Wyllie).

M., aged 40; social condition good; bad tuberculous history in family; illness began six years ago with pleurisy, from which he recovered. He relapsed very seriously four years ago; both lungs involved. He has now been at work for two years and for the past eighteen months has travelled regularly 70 miles a day, and I do not think in that time he has had more than two weeks holiday. He still coughs in the morning, and bacilli are still present. As a precautionary measure he generally gets an injection on Saturdays and Sundays. Four years ago little hope was entertained of his recovery.

Case VII.

M., aged 25, height 5 ft. 4½ in., weight 8 st. 8lb.; social condition, penury. Illness began three years ago with pleurisy; both sides were affected, but the principal lesion was on the right side. After six

months' treatment he was compelled to resume work, and has continued so uninterruptedly for nine months. With a history of pleurisy on both sides, a cavity at the right apex, and a bilobed bilateral infiltration it is rather remarkable that he can work at all. Despite the continuance of the treatment, as in Cases V and VI, his lung condition has not improved, although up to the present I do not think he has gone back. His weight increased 6 lb. before resuming work, but is back now to what it was. During the months of September and October he left home at 8.10 a.m., returning at 11.45 p.m., so the conditions under which he had to be treated could not possibly have been worse. He averages from 60 to 70 hours a week, and travels daily ten miles to work.

CASE VIII.

M., aged 20, social condition good, no tuberculous history, delicate as a child, said to have had atelectasis pulmonum; evidence of rickets in thorax; about six years ago had what seems to have been an abscess in the chest, and I suspect it is in the post mediastinum, has involved the greater part of both lobes of the left lung, and empties through a big bronchus. He cannot lean back in a chair, and only sleeps semi-prone on his right side. The right lung is perfectly healthy: the left apex and base, both anterior and posterior, are also healthy, but elsewhere is absolutely dull, all round back and front and under axilla. This dullness extends across to the right side, and the heart-beat is felt near the right axillary border in the fourth and fifth interspaces. He used to expectorate a pint of sanious fetid pus in twenty-four hours, and had occasional rigors and haemorrhage; enormous numbers of tubercle bacilli and cocci. He has been under treatment three winters. He now expectorates 9 oz. It is no longer fetid, and few organisms besides the tubercle are found, but these still exist in considerable numbers. The area of absolute dullness is not so extensive, and faint respiratory sounds are returning at its periphery. The apex beat is coming nearer the right mammary line. Had the condition not been established for three years before I saw him he might have been assisted by surgery, but the permanent displacement of his heart, embarrassment of breathing, and the danger of administering an anaesthetic, contraindicated this. He would probably have died on the table or soon after. He takes the ethereal solution in liquid paraffin easily, but five minims of the pure ethereal solution occasions breathlessness for hours. His utmost possible is a quiet uneventful life; he can walk several miles, his appetite is good, and he has no temperature. (Professor Arthur Gamgee.)

CASE IX (Dr. Livingston-Loudon).

M., aged 28. Height 6 ft. 2 in., weight 9 st.; social condition good; very pronounced tuberculous history; duration of illness before treatment six years. So soon as it was detected sanatorium treatment in Switzerland and at home was carried out with guaiacol, cod-liver oil, etc. Steady advance occurred in spite of every effort. There were cavities in both upper lobes—larger in the right—involvement in both lower lobes, bilateral pleurisy, very restricted action, and great flattening of chest. Patient could only sleep on his back. He had slight fever, considerable cough and expectoration, large numbers of tubercle bacilli. Sixteen months ago he had an exacerbation; temperature rose to 103.6; pulse 132; respirations 32; heavy night sweats; great increase of expectoration; clay stools; bilious vomiting, nausea, and loathing of food; in fact his whole appearance suggested the acute symptoms which so often precede the final dissolution. With many misgivings and very little hope for any response the treatment was begun. The temperature began to fall by fractions of a degree, and after several months regained what appeared to be his normal; that is, it rises to 99 or 99.2 either in the afternoon or evening. He is now the subject of hypertrophic pulmonary osteoarthritis, and every now and again expectorates calcareous particles. The expectoration has markedly decreased. He can now sleep on his right side, his appetite is good, and, while he can never hope to work, he gets about wonderfully. Great cold or a little wind at once embarrass his breathing. The crack-pot sound can still be elicited over the right cavity, but not over the left; both have shrunk very much. He has had a very large number of injections, which, even with the addition of liquid paraffin, occasion breathlessness for some hours, and consequently cannot be given oftener than two or three times a week.

It is almost unnecessary to add that Cases VI, VII, VIII, and IX all exhibit the clubbing of finger tips and cyanosed extremities so common in chronic phthisis.

CONCLUSION.

To criticize ones own results with something of impartiality is not easy. It is particularly difficult to be exact and not mislead in a disease so protean as phthisis, or to deduce much from such a small number of cases, yet some attempt is necessary at this stage. Cases I to V I would bracket together as "arrested." Their condition has been changed from what (in the opinion of others as well as my own) was a state of danger to one of comparative safety. They have practically lost their coughs, and in the occasional sputa only a very few tubercle bacilli can be found. In Cases I and II they have quite disappeared. However, I attach no special importance to this. It might only mean that at the time no tuberculous focus was breaking down, and probably an animal inoculation would have disclosed tubercle. In Case III I once failed to find any, but the R.C.P. Lab. found a very few afterwards. These cases have been under no restraint. The diet and general hygiene has been that most suited to each particular one. It is hardly credible that five consecutive patients should attain this measure of recovery by chance in the course of one general practice. If so, it is a remarkable coincidence. So far as I know, the climate of Dunblane has no special reputation in phthisis. I have known several cases leaving it in search of a better. The one factor common to all has been the infusion of iodoform, and to this I attribute their immediate recoveries. In Cases VI and VII I would say it has "retarded" the advance. They are examples of what are euphuistically described as "economic cures." Case VIII is very exceptional and rare—at least in general practice, and Case IX has been so shattered that passive existence is his highest possible. While the continued efforts of a physician to save a patient generally have a beneficial effect on the patient's mental condition, they unfortunately do not always influence for good the actual disease, and while admitting that patients' statements as to their feelings of betterness are not very reliable clinically, especially in phthisis, we cannot exclude such evidence altogether. Both VIII and IX believe that they have received benefit. The improvements observed are noted in their respective reports, and I must leave the open minded to decide. As time goes on there will probably be some readjusting in these classes, but however they develop, if I can keep in touch with them the issues will be admitted. If Cases VI to IX have not responded so well as I to V, their duration must be remembered; also obliterated capillaries, much interstitial change and thick-walled cavities offer physical obstructions to the free circulation of the fluid. Besides, it is a clinical experience that iodoform is not so potent in caseous as in recent tubercle. This is to be regretted, for patients who have struggled hard unaided for five or six years, by that very opposition, declare that they would have done well could we at the beginning have brought them efficient assistance. As there is always a relationship between the duration of an illness and the period required for its recovery, such cases may do so yet if the physician neither admits defeat nor recognizes trouble. The contention in my first paper was that "the continuous successful injection of an ethereal solution of iodoform was followed by improvement, that it was innocuous in moderate doses and powerful to arrest pulmonary tuberculosis." I trust from the rather hopeless series of cases enumerated it will be conceded that I have gone some way to establish this.

THE TREATMENT OF HAEMOPTYSIS.*

By C. H. CATTLE, M.D.Lond., M.R.C.P.,
Assistant Physician to the Nottingham General Hospital; Physician to the Sherwood Forest Sanatorium for Consumption.

As in the case of other symptoms, so in haemoptysis, the golden rule is if possible to remove the cause. Tuberculosis of the lungs is the most common cause of haemoptysis, and this we know we are often unable to remove; but unless we constantly bear in mind the various other causes of this symptom, we may treat the patient wrongly and overlook something obvious. The following case illustrates some of these difficulties. A man came to me at the hospital about a year ago with a history of occasional spitting of blood in considerable quantity for the last ten years. He was 48 years of age, temperate. He had had no other illness except operation for nasal polypi as a young man. At one time for his present trouble he had been dosed *ad nauseam* with creosote capsules, and had been told by a doctor he was consumptive. I could not find any morbid physical signs in the lungs, and it would be most unusual for consumption to exist for so long without producing signs. He had a slight cough, and expectorated small muco-purulent masses, slightly tinged with blood. The sputum did not contain tubercle bacilli. The left nostril contained polypi, and the mucous membrane over the middle and inferior turbinated bodies was much thickened. There had been no epistaxis, but I concluded the source of the bleeding was a vascular point in the naso-pharynx. The blood probably trickled down the posterior pharyngeal wall, and was then expectorated with a slight coughing effort. The attacks were always sharp and short, ceasing as soon as the patient rested from exertion.

In all cases of haemoptysis of doubtful origin the accessible cavities should be examined—the nose, pharynx, larynx, and mouth; even the neglect to notice bleeding gums has led to

* Read before the Nottingham Medico Chirurgical Society.

mistaken diagnosis. It is necessary to bear the following facts in mind:

1. A good many patients with bronchitis or bronchiectasis occasionally bring up a little blood-stained sputum.

2. A special form of haemoptysis, which may be fairly profuse, was described by the late Sir Andrew Clark as arthritic haemoptysis. It occurs in gouty, rheumatic, and often emphysematous patients of middle and advanced age, and depends on degeneration of arterioles and capillaries.

3. The haemoptysis of heart disease can generally be distinguished by appropriate physical signs.

4. Haemoptysis, either profuse or oozing, may be due to thoracic aneurysm communicating with a bronchus. This disease may be almost entirely latent, but should always be suspected where there is a brassy cough and persistent pain in the chest.

The treatment of the above forms of haemoptysis is the same as for haemoptysis in general, modified according to the disease in the course of which they occur.

The form of haemoptysis which we are most frequently called on to treat is that connected with pulmonary phthisis. Where no local cause of bleeding can be found we should act on the suspicion that tubercle is the cause. It has been estimated that 84 per cent. of cases of haemoptysis subsequently develop tubercle. It might be expected that physical signs in the lungs would settle the source of the blood, but this is not by any means always the case. A small tuberculous focus may not be evident to the stethoscope, and blood in the air passages will not necessarily give rise to a *râle*. The patient with haemoptysis breathes as shallowly as possible and we cannot tell him to cough in order to elicit physical signs. An examination of the chest may be necessary to assure the patient and his friends that he is not being neglected, but let us make it as short and perfunctory as possible, knowing how little it can benefit the patient, and how little we can learn from it.

In the mildest case of haemoptysis place the patient at rest in bed. He may come to our houses saying he has spat a little blood from his throat and make light of it. We need not overlook the possibility of the haemoptysis being non-tuberculous, but we know that in something like nine cases out of ten it is tuberculous if we can find no obvious cause. Therefore if the bleeding is only small we shall be acting in the patient's interest to make him rest in bed, for exertion will increase the blood pressure and add to the risk of increased haemorrhage. Haemorrhage in the early stage of phthisis depends either on capillary oozing, or on the ulceration of one of the smaller vessels. Even when profuse it will generally cease spontaneously when the patient is kept at rest. In the later stages, after cavities have formed, the arteries sometimes resist the destructive process going on in the lung. Their walls are weakened, often dilated to form fusiform aneurysms, and they have lost the support of neighbouring tissues. Under these circumstances haemorrhages are apt to recur frequently and may be fatal. One of my cases, an alcoholic subject, had a large number of these attacks, and finally died in a few moments from rupture of a pulmonary aneurysm. Some authorities go so far as to describe a haemorrhagic type of the disease. Where this liability exists we must do what we can to correct such influences as alcoholic excess, to keep down the blood pressure, and alter the quality of the blood if that appears to be at fault.

For an ordinary haemoptysis of moderate amount it is a good plan to give a quarter of a grain of morphine hypodermically. This has the effect of quieting cough and calming the action of the heart. If we come on the scene, as is often the case, when the first gush of blood is over, the morphine should still be given to quiet the patient's alarm, which tends to keep up the circulatory excitement which we are anxious to allay. There is one exception to the rule of giving morphine—namely, when the bleeding is so profuse as to flood the air passages and suffocate the patient. In this case he should be encouraged to cough up the blood, and we can only hope that a condition of syncope setting in will bring about arrest of the bleeding.

The next most useful measure for the arrest of haemorrhage is free purgation. The watery evacuation produced by salines is an effectual means of lowering the blood pressure and so favouring the formation of a clot in the ruptured vessel. For this purpose a teaspoonful of sulphate of magnesium or sulphate of sodium should be administered, and repeated every hour or two until a good action has been obtained. But where the haemorrhage has already been so severe as to threaten life the purgative had better be omitted, as we must rely on maintaining the most absolute condition of rest. In these desperate cases the subcutaneous transfusion of saline fluid should be practised, as it can be done without disturbing the patient.

Calcium chloride has acquired a reputation for increasing the coagulability of the blood. It may be given in 20 gr. doses every four hours, and probably does good. In a markedly haemorrhagic case it is better to give the chloride for three or four days, and then leave it off for a week, and so on, giving it intermittently for some time. Turpentine sometimes checks internal bleeding, but I think it is more effectual in melaena than in haemoptysis, probably because some of the unabsorbed drug may come in contact with the bleeding point. The numerous class of so-called astringents—for example, alum, dilute sulphuric acid, gallic acid, etc.—probably have very little effect on account of their great dilution before they reach the seat of haemorrhage.

An icebag to the chest may do good by quieting the action of the heart, but I think it is rarely required. Cold to the surface is said to cause reflex contraction of the internal vessels, but this is doubtful. The injection of half a pint of gelatine solution into the rectum two or three times a day is said to do good. For my own part I should be disposed to try the effect of purgation first.

For many years, following the advice of an old teacher, I used to prescribe a mixture containing ergot and gallic and sulphuric acids. Ergot is still recommended by several well-known authorities. The *rationale* of its action is that it acts on the muscular coat of the small arteries and causes their contraction. If it really has this action in medicinal doses, which I doubt, it can only do harm, for the general rise in the blood pressure will more than undo any good arising from the local action of the drug. Probably its action on the arterioles in ordinary circumstances is inappreciable, hence the harmful effects are not so frequently seen as we might expect.

For the same reason I consider adrenalin should not be given with a view to arresting haemoptysis. Applied locally, it has the power of restraining haemorrhage and blanching a congested surface. Taken by the mouth, it has a more certain constricting action on the blood vessels than ergot, but this action brings about a greatly increased blood pressure, which defeats the main object we have in view—namely, to maintain a low tension in the vessels so as to favour the formation of clot at the seat of the haemorrhage and prevent its being washed away by a new gush of blood. A much more rational plan of treatment is the inhalation of nitrite of amyl, as recommended by Hare, of Brisbane. The systemic vessels being of much greater extent than the pulmonary, a general dilatation of arterioles will be accompanied by diversion of blood from the pulmonary circulation and consequent reduction of pressure. I should certainly be inclined to try nitrite of amyl.

An Address

ON

OPERATIVE METHODS—NEW AND OLD—IN TUBERCULOSIS OF THE KNEE-JOINT.

Delivered before the Midland Medical Society, Birmingham.

By Sir WILLIAM THOMSON, C.B., F.R.C.S.,

Surgeon to the Richmond Hospital, Dublin; Honorary Surgeon to the King in Ireland.

[After some preliminary remarks Sir William Thomson said:]

I think you will admit that the treatment of tuberculosis of the knee-joint is not in a quite satisfactory position, and the variety of methods points to the fact that there is great difference in the views of surgeons as to what is best to be done. The disease is common enough, but if it is common it is not commonplace. It influences severely the life-history of the poor, among whom almost every individual must be a bread-winner; it mars many a career, which otherwise might be so successful, among those with the best social surroundings. It is, then, of great importance among the things that form the activities of a surgeon's life, and in dealing with it he may worthily exercise his best qualities, for not only does it demand high powers of brain and hand, but it will test his skill and patience to the utmost. And to my younger *confrères*

may I say that they will meet tuberculous arthritis far more frequently than abdominal mysteries with all their fascinating perplexities? So it seems to me that I am justified in trying to lay before you shortly the claims of competing methods and to arrive at a fair appreciation of them.

I start with the admission that by far the greater number of cases, if seen early, are amenable to a certain degree to treatment by mechanical methods. Some appliance, such as Thomas's splint, which gives rest to the joint, and enables the patient to take exercise in the open air, supplemented by generous constitutional treatment, will frequently stay the progress of the disease, and leave the patient with a joint, which may be damaged but useful. It is for this reason that we seldom find it necessary to interfere actively with children of the better class. The watchful care which they enjoy leads to an early recognition of symptoms, and medical aid is sought. But, unhappily, that is not so with children of the poor, whom we see in such numbers in the out-patient departments and hospitals of large towns. Their condition is not recognized by parents, who are too often unobservant or neglectful; or their complaints are attributed to some passing strain, or to "growing pains." When we see these cases, many of them have far advanced on the road which leads not only to permanent damage, but to the imperilling of the joint or limb altogether. What is to be done for them? Our hospitals have too many demands upon their space to give shelter to all these poor creatures. They cannot provide themselves with suitable splints and crutches, for they cost money. So we treat the less urgent of them as extern patients. We put up the limbs in plaster-of-paris, and send their owners back to their wretched dwellings, to every hostile condition that we can conceive—bad air, bad food, bad clothing. And with what result? There are some who appear to think that joints will in such circumstances get well in time. I envy them their optimism. In my experience, they do not get well. The poor live their uncared-for, happy-go-lucky lives as usual; perhaps they only appear at long intervals at the out-patient department, or not at all. But very surely the trouble goes on, and in the end, sooner or later, they come to us with a joint whose treatment has passed out of the region of simpler non-operative remedies, with greatly thickened synovial membrane, often with sinuses, sometimes permanently flexed and deformed.

Excision.

Up to fifty years ago it may be said that all such joints had a uniform fate at the surgeon's hands. They were promptly amputated, if only the patient would consent, and the sufferer was submitted to the risk of a 30 per cent. operative mortality. It came about, however, that limbs as well as life had an increasing value; and there arose among surgeons, influenced by the wonderful development of their art in response to the lessons of science, a desire to preserve what it had been the habit to condemn.

But long before this period—in 1782—Park, of Liverpool, had the honour of trying to place the treatment of these cases on a rational basis. He successfully excised the knee-joint, and seven years later he did the operation a second time with a fatal result. Filkin, of Northwich, had, however, anticipated Park by just twenty years, although he modestly withheld publication, and to him belongs the distinction of having performed the first operation of this kind. Up to 1816 only six cases are recorded. Then came a couple of Irish cases operated upon by Sir Philip Crampton. The procedure was one of the surgical curiosities of the time. No British surgeon other than Filkin and Park had ventured upon it, and naturally in Dublin, where Crampton operated in 1823, there was intense excitement in the profession. The theatre of the Meath Hospital was crowded by medical men and students. I have already put on record an account of the proceedings as described in the *Lancet* of 1825, but the story will bear repetition now. The writer says:

> It was the first time, we believe, that the removal of the knee-joint was attempted here. We earnestly hope it will be the last. The operator of course accomplished his purpose with his usual dexterity. But could he have beheld as we did the contorted countenances of the spectators, the knife would have fallen from his hand, never to be used where it was not more imperiously indicated. To be present was indeed a torture. One man vented his feelings in a wink, a second in a hem, a third overcame his sympathies in a forced fit of laughter. All to be sure admired, but all disapproved. We saw this poor creature a long time afterwards endeavouring to drag her limb with her by means of sundry wooden contrivances. Let it be called by whatever name the sanguinary desperadoes of the profession choose, we shall never be cheated out of our judgement, or fear to expose such practice when it falls under our observation.

Ninety-four years after (1856) Filkin's operation Syme is to be found protesting against "the vehement and persevering efforts which have lately been made to force into fashion two operations—(excision of the knee and of the hip)—which are bloody and formidable." The denunciation reminds me of the statement of a writer in one of the Scotch medical journals, who declared that Mr. Lizars, having twice operated for the removal of ovarian tumours and failed to save the patients, he was sure no one else would have the hardihood to repeat the experiment.

But as to knee-joint excision, the experiment was repeated in spite of much hostility. Butcher in Dublin and Heron Watson in Edinburgh laboured on, and Butcher—although his cases were few compared with present-day statistics—did succeed in establishing the operation in his own country. In England, however, the operation has never been popular. It takes a long time to overcome the opposition of men of accepted eminence; but in Ireland we have not been so reverent to authority, and the results we have obtained justify our position.

Injections.

It is a sound principle that we should take the easiest and the simplest road to attain a good result, but it must be clear beyond dispute that the plan we adopt is as effective as any rival one in regard to efficiency of the limb, that it has less risk to life, and that it occupies less time in reaching the final stage of success. Experiment in surgery has led us to very remarkable achievements, and it is essential to progress that all legitimate efforts in this line should not be hindered. The motive has been to cure, but I am not satisfied that the expectations which have been time after time excited in this department of surgery have been fulfilled. I have only to point to the variety of plans which have been submitted to the profession during the past few years to justify my view. The serum treatment has been abandoned, and in its place we have had the direct introduction of chemicals into the joint and the diseased synovial membrane. Lannelongue's injections of zinc chloride have not justified the claims made for them by that distinguished surgeon. Kolischer has admitted disappointment in the results obtained from his efforts to calcify the tuberculous structures by injecting neutral calcium phosphate. Arsenious acid, tincture of iodine, and other substances have also had a trial. Iodoform is extensively used in Germany as a germicide; Krause reports 23 cures of various diseased joints out of 60 treated. I have had the most satisfactory results from the use of iodoform injections in cases of chronic tuberculous abscess; but this is an entirely different thing from injection into the substance of a greatly-thickened tuberculous synovial membrane. Apart from the fact that many of these substances produce great pain, it is to be remembered that the injections must be repeated frequently at long intervals, and that the patient on these occasions has to endure some days of irritative fever, which in itself has a depressing influence on his general condition. Furthermore, the effect of the injection is limited to a small area around the point to which the needle has reached, and it is necessary to visit the already untouched parts at successive operations.

At least two dangers seem to attend these proceedings. We can have no assurance that the diseased membrane has in every part been subjected to the claimed curative effects of the injection. If, then, certain portions have not been beneficially affected they still remain as foci from which the disease will progress. The second danger is that outside the sphere of direct influence there must be an area of disturbance which may, and often does, advance to inflammation. In that area there are all the conditions which encourage mischief. In other words, the already diseased tissue in that zone beyond the reach of the germicide is stimulated into increased activity. So, as we should expect, in spite of all aseptic precautions, spots here and there inflame, caseate, and suppurate after the injections, and surely make the last condition worse than the first.

Meanwhile, what of the ligaments of the joint? One of the characteristics of this affection is the persistence and subtlety of the infective process. If we could say that disease is strictly limited to the synovial membrane we should perhaps be encouraged in our efforts. But every one knows that this is not so. Every ligament in the articulation is tainted or infiltrated. Even the skin gives evidence of it, as we see so often as the result of an incision in the unhealthy unhealing granulations that follow. Unless, then, we begin the injections at a very early stage, supposing them to be as potent as

is alleged, they are not likely to do good. On the contrary, by their interrupted character, and the limited portion of tissue which each can affect, they are more likely to create a false security while the disease is in truth making dangerous headway.

The opinion of German surgeons is in favour of this method; British surgeons have certainly not accepted it, although occasionally the results may be satisfactory, but the experience in these countries appears to be that it is an unreliable form of treatment, and that disappointment usually follows the practice of it.

ERASION.

But this having been tried and found wanting we have gone a step further in England. Professor Wright of Manchester some twenty years ago led the way in what was deemed a further advance, which would give better results than excision in the case of children. The suggestion that we might remove the disease, and at the same time preserve the mobility of the joint, is a very attractive one; and there have been many followers of his practice in all parts of the world.

Let us examine this method. It was believed at first that not only could the disease be extirpated, but that a movable joint could be secured, and that shortening would not follow because the epiphyses were not interfered with. But experience has not found the promises fulfilled. What is the position to-day? It is quite true that movement is preserved in some cases, but the effort to secure it as a routine practice has been abandoned. We know that shortening does take place, as reported in eight of Professor Wright's cases; and that there are other drawbacks which I believe give the operation a secondary position when compared with excision. In erasion the surgeon removes the synovial membrane, say, through two lateral incisions, or one of horse-shoe outline; probably divides the ligaments to secure better access; perhaps takes away the semilunar cartilages, brings the articular surface of the tibia and the femur into apposition, fixes the limb, and awaits not mobility but rigidity. For those who are most experienced in this operation do not make attempts at systematic passive movements, because they have learned that they are attended by undesirable results. Now, if we want to obtain union which will be solid and reliable, I do not think the best media for securing it are two articular cartilages. Mr. Howard Marsh has emphasized this by declaring that "the practical difficulty is that often no firm synostosis but only fibrous ankylosis can be obtained." And he says further, "while the hip, the ankle, and the elbow owe their security to the modelling of the articular ends, in the knee this security is entirely dependent on the presence of powerful ligaments. These ligaments, while they connect the bones firmly together, yet allow flexion and extension, sliding and rotation, as well as these movements in constantly varying forms of combination. By arthrectomy not only is the largest of the synovial membranes completely removed but the ligaments are divided. In fact, all the essential components of the joint except the articular ends themselves are sacrificed, and the bones are henceforth connected merely by cicatricial tissue. One is almost tempted to remark that if after this a useful joint remains the original strictures would appear to have been a needless arrangement."[1]

There can be no surprise, then, that a joint so treated, which depends for its subsequent stability upon the healing of its divided ligaments and the establishment of fibrous ankylosis, should disappoint our expectations. There being no true osseous union, the tendency to flexion is considerable, for the soft structures inevitably yield to the force of the flexor muscles. So serious is this tendency that Mr. Watson Cheyne says that "a back splint should be worn for a long time—sometimes for years."[2] Here the danger is that when the child has passed from direct surgical treatment the deformity may go on increasing, owing to the neglect of the parents, and the patient may return to us with a limb bent almost at right angles, demanding excision of the bones.

Now, there is no exaggeration about this picture. Professor Wright stated, at the Swansea meeting of the British Medical Association in 1903 that of the 97 cases which he analysed 12 had "slight" flexion and 26 "considerable" flexion—or more than one-third in all. I think I may say that a child with considerable flexion needs a crutch, and, although there may be no more active disease, for purposes of progression the patient is in no way improved.

In the second place, the procedure has a limited application—that is, it is specially reserved for children in whom the membrane only, or little more, is affected. There can be no objection whatever to adapting our operation to varying developments of disease; we do it every day; but we must be sure as to what the condition is.

Now I need hardly say that we cannot always be sure that the disease is absolutely confined to the membrane. Opening a knee-joint may reveal entirely unexpected conditions. There may be erosion of cartilages, pus pockets, and caries of the bone ends. Clearly, removal of the synovial structure will not suffice. The surgeon must develop his procedure. He must scrape out the caseous foci of disease; he must deal thoroughly with the caries and gouge out all dead or dying bone. It may be that he must use the saw, and his operation passes into the category of "modified" arthrectomy. When he does this it is difficult to discern the line which divides the proceeding from excision so far as immediate shock or ultimate mobility of the joint go.

In the third place, let me notice the question of permanent shortening due to interference with the epiphyses in excision. My own experience does not support the allegation that this is one of the results of the radical operation. In the large number of children on whom I have operated and examined subsequently at various periods I have not noticed this defect, and I believe it seldom occurs. If a neighbouring lesion has this effect as a necessity upon the epiphysary line, we should see it more frequently than we do. In the violence inflicted near the ends of young bones by fractures, even when there is a separation along the line of the epiphysis, we do not look for a stoppage of development. It may occur, and it is wise to take all chances into consideration in such circumstances, but I hold that we do not look for this as a matter of course. If the epiphysis were always as sensitive as undoubtedly it sometimes is, then we should expect to find this lack of development in many of the modified arthrectomies. For there the bone is entered, and the surgeon does not hesitate to use his gouge freely in clearing out carious masses, even if doing this carries him to the epiphysary line at more than one point. This invasion of a region of great physiological activity may be followed by all the dangers which are held by some to be inherent in the operation of excision. On the other hand, I wish to emphasize the fact that in the thorough operation we do not necessarily encroach upon the growing line at all, and that therefore we are not accustomed to see the disastrous shortening which we are told ought to follow.

THE ADVANTAGES OF EXCISION.

I have now brought before you what I conceive to be the defects of the methods which I have enumerated, and I have no doubt whatever that all these ways of dealing with tuberculous joints are inferior in all respects to the radical operation of excision. In my own experience the mortality is not 1 per cent., and is at least as low as that of the simpler operations. The results are certainly better, for, having removed the joint and cleared away the infected soft parts, we in the end have a limb which is free of disease, firm, stable, useful. We are not haunted by the perpetual suspicion that some day or other in a joint that we supposed to be saved a destructive outburst may occur. In cases of erasion we are dealing with children who do not realize what are the limits of use of the weakened joint. Some day there is perhaps an overstrain, and the whole trouble is set up again, to follow the weary road of rest and rigid splints, or perhaps to pass on to further palliative operations, or to removal of the limb altogether. All these conditions of prolonged liability to mischief which is only quiescent, and of close guardianship against possible movement and accident, are unsatisfactory. We certainly cannot get the protection among the poor, and these children are always running risks which are often realized in failure of the surgeon's efforts.

I have already said that in England excision of the knee does not stand in high favour. The recent textbooks relegate it to a position of secondary importance, and seem to place it in competition with amputation only. One surgeon has declared it to be "a comparatively rare operation." Another says, "that the old classical excision is a thing of the past." Well, let me assure you that in Dublin it is not rare, and that it is very much a thing of the present. And this is not because the smaller erasion has not been tried, but because experience and judgement have led us to adhere to what we believe to be more satisfactory.

There can be no doubt that at one time excision was a very fatal operation, but so was any procedure which involved opening of the large synovial sac. The revolution in the

treatment of wounds affected the results in a remarkable way. Ollier's mortality fell from 80 to 14 per cent. Another group of cases by Meusing shows a reduction from 33 to 5, and later on to 2 per cent.

My personal experience as to mortality is that no major operation could show a much better record. I have lost two cases out of seventy-eight excisions—one after amputation, and one from acute mania in a patient who, I then learned, had already been in a lunatic asylum.

My colleagues—Sir Thornley Stoker and Sir T. Myles—inform me that they have had no deaths. Mr. Tobin, of St. Vincent's Hospital, has just reported fifty cases with one death.

My first excision of the knee dates back just thirty years. It was done within a few weeks of my joining the visiting staff of my hospital. I remember very well the views of my senior colleagues. They had been there for thirty years before that, and some of them seemed to be still under the influence of that terrible *Lancet* picture of the sufferings of an unchloroformed patient. They had also seen in later times some of Butcher's cases, concerning which there were still horrible tales related in the schools and hospitals. They shook their heads deprecatingly and foretold inevitable disaster. But I was young and full of zeal, and I had the support of my younger colleagues. The excision was done, and the patient recovered. She was able to walk in three months, and many years afterwards I saw her in excellent health, the limb never having given any further trouble. This success gave me encouragement, and from that time I have steadfastly adhered to the operation, because, in my opinion, nothing so good in advanced cases has yet been devised. My patients have ranged in age from 4 years to 47, and I have of course met with all degrees of severity—cases in which only the synovial membrane was engaged, and others in which the bones were severely affected. But in all I have applied the same remedy always—thorough removal of the diseased parts and of sections from the femur and tibia, whether they were infected or not.

Here let me say that I never use Butcher's saw for this purpose. The best instrument is an amputation saw with movable back. It gives a flat surface which is not easy to secure with the narrow blade of Butcher's saw.

In the early days I used Heron Watson's splint; but I found that there were two objections to it. As the muscles shrank under the unyielding plaster-of-paris casing the patient suffered from jarring of the divided bone ends, and it was difficult to keep the discharges from getting beneath the covering and causing much uncleanness. I then tried a simple hoop-iron splint, from 1½ to 2 in. wide, posteriorly extending down from the buttock fold to the foot, bent to receive the heel and then carried forwards along the sole. In front I used the same material and fashioned it after the shape of Heron Watson's anterior splint. I found that with little padding this served very well, although I still used plaster-of-paris; but the disadvantages of this material persisted, and I determined to rely entirely upon bandages to secure the limb on the splint, and for twenty years I have never used plaster-of-paris. Next in our progress at the Richmond Hospital was the introduction of dowel-pins by Sir Thornley Stoker. These are used as soon as the cut bone surfaces are placed in position. One pin is passed through the tibia ¾ in. below the cut surface, and on one side, and is carried across obliquely into the cut surface of the femur at the opposite side, and pushed into the bone for 1½ in. or more until it meets compact tissue. Another is introduced in the same way from the other side of the tibia, and also pushed obliquely into the femur. The two pins thus cross each other, and the result is perfect fixity, so that the leg can be lifted from the table by the foot, as one rigid piece. This great advance, in conjunction with the light hoop-iron splint, removed our difficulty in the painful movement of the bones, and enabled us to dress the wound with great facility. In bed the leg is swung from a strong cradle, and so easy and secure is the whole limb that a patient is able to sit up against a bed-rest, or without one, on the third day.

It is absolutely essential that every visible portion of diseased soft tissue should be removed, and this is particularly the case in reference to the long pouch under the quadriceps tendon. This must be carefully dealt with. Further, I always make a 2-in. longitudinal incision through it, including the skin, so as to give direct exit to any oozing. The main wound, made as dry as possible, having been thoroughly swabbed with pure carbolic acid and then washed out with absolute alcohol, is drained on either side by openings carried through to the popliteal surface, and the tubes are removed in forty-eight hours. Esmarch's bandage is no longer employed.

In three or four weeks the pins, which project from the point of insertion about two inches, are withdrawn without any pain. The bony surfaces are now well advanced in their adhesion; the limb is firm, and complete osseous union is assured. At the present moment there is a case in Sir Thornley Stoker's ward which in four weeks has needed one dressing and has firm bone union, and the same result has followed a case of my own at present in hospital.

But all do not run so smooth a course as the weeks go by. Remember that, as elsewhere, we see these patients when usually the disease is well advanced, and they are driven by pain, or discharging sinuses, or lameness due to flexion, to seek relief. The membrane is very thick; often there are points of caseation and suppuration; the bone is diseased, and the capsule and other ligaments are infected. Then there may follow the formation of sinuses. But these we attack early and vigorously—time after time if necessary—until at last we have the satisfaction of sending our patient out with a saved limb.

I may be asked where I draw the line between excision and amputation. Well, I say that in every knee case which is only fit for radical operation the question that presents itself first to my mind is "Is this a case for excision?" I have not done ten amputations of the thigh for diseased knee-joint. Unless amputation is quite obviously indicated I begin with an excision exploration, always with permission to amputate if I find it necessary. But I wish to say that cases that I thought the most unpromising have turned out in the end quite satisfactory. Twice only I have amputated in the early days for failure of union. I have always felt, even in the worst cases, that it was fair to give the patient the chance of a sound limb no matter what the trouble. In subsequent treatment one can always easily take off a leg, but no wooden substitute can effectively take the place of a support of bone and muscle, even although we shorten and stiffen it.

This matter of shortening seems to me to have weighed quite unduly against the operation. There are two kinds—that which follows of necessity from the removal of portions of bone, and that which is the result of premature ossification of the epiphyses. This last can only occur in children, and I am inclined to think that in practice it is met with far less frequently than the books would lead us to expect. In the case of the child we may find that the disease has not yet deeply implicated the bones. Then the surgeon's purpose is to limit his bone incisions in such a way as to provide flat surfaces which will lie easily against each other, and become united in a few weeks. In such circumstances the epiphysary lines can be avoided, and the dreaded secondary shortening does not necessarily follow; when it does it can always be dealt with by some simple appliance. Some primary shortening there must be, the result of the removal of bone, but we must not forget that it is more easy to walk with such a leg than one in which erasion has produced ankylosis, but has had no effect on the activity of the epiphyses. Therefore, I cannot admit that the advocates of erasion as opposed to excision have a good case, when, the knee being stiffened, they claim a special advantage in the absence of any shortening.

But more serious is the occurrence of exaggerated flexion which undoubtedly used to occur occasionally in the earlier cases of excision in children, when the patients had passed out of surgical care for long periods. I am glad to say that I have not seen such a case for many years. The reason is that I invariably apply a well-made poroplastic splint when the patient is allowed to move about. The splint is moulded closely to the limb, so as to encase it, and extends from an inch below the trochanter to 2 in. above the malleoli. This should be worn for a year, and it can then be removed with safety. I believe that it might be taken off in a few months, but many of these patients are from distant country parts, and cannot be seen regularly. Let me add that the plaster-of-paris is inadvisable then as a support. It is heavier, and does not last so long, and when it cracks it loses its efficacy, and is apt to be removed and not replaced.

Conclusion.

In these remarks I have endeavoured to put before you the claims of the two important methods of treating advanced cases of tuberculosis of the knee-joint. I am an advocate of all legitimate enterprise in surgery, for it is from such action that all our great developments have sprung. But after a sufficient trial of new plans, it is wise to consider whether all

round the older method is worse or better. I think it is better. It enables us to remove disease in soft and hard parts, and to reach at once what might not otherwise be discovered. It gives us speedily a usable leg, safe from any serious recurrence or flexion. On the other side we have a long precarious period after erasion in which union is fibrous, and flexion often to a considerable degree is fairly common and always a danger.

To sum up in a few words, excision is definite, comparatively short in treatment, very free from serious after-complications, and quickly restores a patient to active life. Erasion is not definite, after-treatment is long, complications are always imminent and frequently develop, the patient is not speedily restored to active life, and lastly, when the surgeon ceases to look for a movable joint, the whole position is surrendered to excision.

I must thank you for the patient hearing which you have extended to me. It is a pleasure to me to be here, and especially not far from the towns in which these two great innovations in surgery have first seen the light. And if I have come to the conclusion that after all Park and Filkin's method is the best as practised to-day, and am able to tell you the story of the success of their imitators in Dublin, let me also pay sincere tribute to the ingenuity and enlightened skill of Mr. Wright, who in the treatment of joint disease has done so much to maintain the reputation of English surgery.

REFERENCES.

Diseases of the Joints and Spine, pp. 335, 337. [2] *Tuberculous Disease of Bones and Joints*, p. 189.

TUBERCULOSIS AND MORTALITY IN CHILDHOOD.

BY WILLIAM P. S. BRANSON, M.D., M.R.C.P.,
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THE purpose of this communication is to show the extent to which tuberculosis scourges the ranks of childhood in a populous quarter of the East of London, and the bearing of measles and whooping-cough upon the state of things; in addition, a few facts concerning the frequency of primary abdominal tuberculosis are cited, with some minor points of interest disclosed by limited, but accurate, mortality returns.

The pathological facts are based upon 343 consecutive autopsies at the East London Hospital for Children, where patients are admitted from birth to the age of 14, irrespective of age. The diagnosis of tubercle has rested mainly upon macroscopic evidence of caseation, and doubtful cases have been considered non-tuberculous, unless the microscope has confirmed a suspicion of tuberculosis.

AGE-INCIDENCE OF DEATH FROM ALL CAUSES.

Of a series of 328 consecutive deaths at the hospital the first four years of life witnessed 299, or 91 per cent. The ratio of the mortality to the admissions for each of these four years is as follows:

Age.	Percentage of Total Admissions.	Percentage of 343 Deaths.
One year and under	26	50
Second year	19	25
Third year	10	10
Fourth year	9	5

Thus the first year is by far the most fatal, both absolutely and relatively, to the total admissions at that age, and it appears that the death-rate from all causes falls steadily from the first year onward. It is far otherwise, however, with the proportion of the total deaths claimed by tuberculosis.

Of the 343 bodies examined, rather less than one-third were infected with tuberculosis, and rather less than one-quarter actually fell to the disease; the figures as regards age being as follows:

	One Year and Under.	Second Year.	Third Year.	Fourth Year.
Of 81 children dying of tuberculosis	71	22	16	12

Thus the first four years saw the deaths of 71 out of 81 children dying from the disease, leaving but 10 for the later years of childhood. In point of fact, no death from tuberculosis occurred later in the series than the eighth year; and though the figures for these years are too small for anything but general inference, it seems that few children die between the eighth year and adolescence, and very few of tuberculosis. It may be mentioned in passing that a majority of the deaths in this interval were due to rheumatic heart disease.

Now, though the absolute fatality of tuberculosis steadily diminishes from the second year onward, its fatality relative to the total deaths at each age mounts with enormous strides during the second and third years, and reaches its maximum during the fourth year, in which year the deaths from tuberculosis were no less than two-thirds of the whole. The actual figures are appended.

Percentage due to tuberculosis of total deaths during	first	year,	12
,, ,, ,,	second	,,	25
,, ,, ,,	third	,,	47
,, ,, ,,	fourth	,,	66

Thenceforward the percentage declines, but the figures are too small to be trusted.

The position that appears to be thus established is this: That children of the poor in London become, by elimination of the unfit and otherwise, progressively more resistant to lethal influences in general, from birth onwards to adolescence, while their specific susceptibility to tuberculosis is relatively heightened until their fourth year, and thence gradually declines.

INFLUENCE OF MEASLES, WHOOPING-COUGH AND HEREDITY.

For the purposes of this investigation the series of tuberculous deaths under consideration has been extended to 135.

In 25, or 18.5 per cent., of these cases the fatal illness was directly traceable to measles or whooping-cough, and to measles twice as often as to whooping-cough. This does not imply that the former has special powers of reducing resistance to tuberculosis, for in children of 4 years old and under measles is nearly twice as frequent as whooping-cough. Of 653 admissions up to the fourth year 186 had had measles, and 96 whooping-cough.

On the other hand, 68 of the total 135, or almost exactly half, had never had either of the above zymotic diseases, and it seems, therefore, that these ailments have less influence in determining tuberculosis than is generally believed. The operation of other causes, whatever they be, is particularly noticeable during the first two years of life, for it appears that 70 per cent. of children dying of tuberculosis before the age of 2 have had neither measles nor whooping-cough.

What these other causes are it is difficult to say with confidence, but the following figures and considerations drawn from experience indicate the probable identity of some of them.

Of the cases below the age of 2, inexplicable by the invocation of measles and whooping-cough, there was evidence of tuberculous inheritance, direct or collateral—that is, through uncles or aunts—in 23.5 per cent. In the remainder the immediate family record was sound, so far as the informants knew; and thus, with all allowance for errors of information, it is clear that neither measles nor whooping-cough nor inherited susceptibility plays a paramount part in propagating tuberculosis during the two years which witness the zenith of absolute fatality from the latter disease. But in the subsequent years—particularly the third and fourth—when resistance to lethal influences in general is rising rapidly, while the relative fatality of tuberculosis reaches its maximum, the state of affairs is different. After the age of 2, fatal tuberculosis is rare in children who have escaped the infection of measles and whooping-cough; but it must be remembered that a majority of all children above this age—among the poorer classes, at all events—has had one or other of these diseases, and the previous occurrence of these is found with almost equal frequency in the list of tuberculous deaths, and in the list of total admissions after the second year. Thus, of 58 fatal cases of tuberculosis after the second year, 74 per cent. had previously had either measles or whooping-cough, while, of 458 admissions for all causes, 69 per cent. had suffered similarly.

It seems, then, that there is nothing specific in the relationship between these infectious diseases and tuberculosis, and it remains to find some predisposing cause common, on the one hand, to infancy apart from these infections, and on the other to the later years of childhood in association with them. We have this common cause in catarrhal lesions of mucous

membranes. In infancy bronchitis and gastro-enteritis are frequent and severe, quite apart from infectious diseases, while after the second year severe bronchitis is a comparative rarity except in association with them, and severe gastro-enteritis, as a chronic condition, absolutely uncommon. It is probably correct to say, therefore, that catarrhal lesions of whatever origin are the real pioneers of tuberculosis in early life at all events, and that the power of measles and whooping-cough to determine the disease is limited by the gravity of the catarrhal lesions they produce.

PRIMARY ABDOMINAL TUBERCULOSIS.

There is a great divergence in the figures recorded by various observers as to the frequency of this variety of tuberculosis, even in this country. For instance, three observers in London record percentages ranging from 15 (Batten) to 23.4 (Still); and Price Jones, dealing with smaller figures, gives a percentage of 28.5. Considering that Still and Batten based their conclusions on cases inspected at the same hospital—Great Ormond Street—it can only be assumed that evidence of primary incidence in the abdomen satisfactory to the former was rejected by the latter. I have attempted accuracy of fact at the expense of numbers (and therefore at the expense of accuracy of inference) and submit my own experience in a series of 138 complete autopsies made at the East London Hospital for Children. A systematic search was made in all cases for evidence of tuberculosis, active or obsolete, in the bronchial and mesenteric glands, and all cases where reasonable doubt existed as to the priority of lesions have been classed as "doubtful." It may therefore be safely said that the frequency of primary abdominal infection in the series in question is not over-estimated, though it may fall short of the truth.

Among the 138 bodies there existed signs of tuberculosis—active or obsolete—in 43. The primary lesions were distributed as follows:

Primary in bronchial glands or lung	... 22	or 51.0 per cent.
Primary in intestines or mesenteric glands	9	or 20.9 ,,
Primary in petrous bone	1	
Doubtful	11	or 25.0 ,,

The figures are, of course, far too small for large assumptions, but it seems fair to say that primary abdominal infection is not the rarity it is often considered.

CONCLUSIONS.

1. That among the children of the poor in London tuberculosis is absolutely most fatal during the first two years of life, but, relatively to all other causes of death, becomes progressively more fatal until the fourth year.

2. That there is no specific relationship between measles and whooping-cough on the one hand, and tuberculosis on the other.

3. That catarrhal lesions of mucous membranes are the paramount predisposing causes of tuberculosis in early life, and that measles and whooping-cough are potent in this regard only through the catarrhs accompanying them.

4. That about 50 per cent. of children dying of tuberculosis in childhood have had neither measles nor whooping-cough.

5. That while the infection of tuberculosis in childhood is mostly airborne, primary infection of the abdomen is by no means a rarity.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE OF ILEO-COLITIS IN A CHILD SIMULATING ACUTE INTUSSUSCEPTION.

ON the morning of August 15th, 1904, I was called into the country to see a little girl of 5 years who the evening before whilst at play had been seized with sudden pain in the abdomen, with sickness. She had continued vomiting during the night, and had passed several loose motions, at first faecal in character, and later consisting of pure blood, or blood and mucus; there was much straining; the temperature was 103° F. and the pulse 130; the tongue was coated, but moist; the abdomen was slightly tender all over, but the tenderness was most marked in the right hypogastric, lumbar and inguinal regions. There was no dullness and little distension; the vomit consisted mainly of food and bile.

On August 16th, 1904, there was marked dullness in the three right regions and considerable tenderness, but no swelling; the motions continued to consist of pure blood and blood and mucus, and sometimes mixed with the smallest amount of excrement. Rectal examination revealed tenderness in the right inguinal region.

On August 17th, 1904, the temperature became subnormal, and the child was slightly collapsed. The sickness had stopped, but the motions still consisted of blood and blood and mucus.

On August 17th and onwards the motions became more faecal, although mixed with blood, until they at last became normal; the dullness cleared from the right half of the abdomen, and the child quickly recovered. The case was at first sight suggestive of acute appendicitis; but later on the appearance of stools of pure blood and blood and mucus, along with the marked dullness in the regions on the right side of abdomen led one to think of an acute intussusception or ileo-colitis. The ultimate progress of the case proved it to be the latter.

In the *Diseases of Children*, by Ashby and Wright, a somewhat similar case is reported, which was operated on for intussusception.

Knutsford, Cheshire. FORBES JAS. ALEXANDER, M.B., M.S.

SUBCUTANEOUS EMPHYSEMA IN A CASE OF SPASMODIC ASTHMA.

MR. E. M. B., aged 25 has suffered since early boyhood from periodical attacks of asthma. During the recent cold and foggy weather he attended a public dinner, and on the following day a severe attack began. On the second day of this attack he complained of a swelling of the front and sides of the neck, and on palpation I detected the crackling of subcutaneous emphysema. The emphysematous condition gradually extended up the face till it reached the lower part of the forehead, while the face and neck assumed a distinctly bloated appearance. The emphysema also extended down both arms as far as the wrists, covered the front of the thorax, and extended down the back as far as the upper border of the sacrum. The attack was severe. It was treated by injections of morphine and hourly 5-minim doses of the ethereal tincture of lobelia. The latter drug gave considerable relief, and the attack terminated by the free expectoration of intensely purulent sputa, containing numerous pyococci but no tubercle bacilli. The emphysema disappeared gradually after the dyspnoea had been relieved. The complication had not been observed in any of his former attacks. There are no symptoms or signs of phthisis, and the general health is good between the asthmatic seizures.

Bath. C. J. WHITBY, M.D.

THE TWISTING OF THE FUNIS.

I SEE Mr. N. B. Harman writes, in the BRITISH MEDICAL JOURNAL of January 7th, p. 15, "The production of the coiling of the vessels of the funis has been the subject of unavailing discussion amongst obstetricians for generations." Some time ago I convinced myself that this twisting is mainly due to the side upon which the mother sleeps. My method was this: Before the child was born I asked the mother upon which side (right or left) she slept at night, and wrote down her reply; when the child was born I also noted whether the cord was twisted "like a screw" or "unlike a screw." This was to avoid the confusing ambiguity of the phrase "twisted to the right." In the result, I find that of fifteen consecutive cases so recorded, eight mothers replied that they always "slept on the right side," and every one of their children had its cord twisted "unlike a screw." Three mothers replied that they slept on either side, not more on one side than the other; of their three children, two had their cords not twisted at all, and one had its cord slightly twisted unlike a screw. Four mothers said that they always slept on the left side, and their children each had its cord twisted "like a screw" except one, in which the record says it was twisted "to the right," and as this is specially underlined I believe it is meant to record a failure.

Any one can repeat this observation. The explanation seems to be that while the fœtus is floating freely in plenty of fluid, the mother getting into bed lies on her back and then turns on to one side; thus the child's head first falls towards the back and then towards the side, thus starting a twist which is repeated each night. Otherwise expressed, if the mother revolves herself the floating babe does not revolve, and therefore gets its cord twisted. I have wondered if the child is not injured sometimes in this way.

Croydon. T. ARCHIBALD DUKES.

SATINWOODS AND DERMATITIS.

IN the BRITISH MEDICAL JOURNAL of June 25th last, there was a very interesting paper by Mr. H. E. Jones, M.B., C.M., on Acute Dermatitis produced by Satinwood Irritation. As there are two kinds of satinwood in use in Great Britain, it seems desirable to point out which of these is the dangerous variety. They come from different parts of the tropics, and, although very much alike in appearance, do not seem to have any botanical affinity. The satinwood with which I am most familiar is derived from the deciduous tree *Chloroxylon swietenia*, which grows in Southern and Central India and in Ceylon. It has an astringent bark, which is prescribed by native physicians, and yields a yellow gum soluble in water; the mucilage has a peculiar odour, resembling that of fusel oil. The wood is close-grained, hard and yellowish-brown in colour, and when polished shows a rich satiny lustre. It contains a yellow pigment and a wood oil. It has been used from time immemorial in Southern India for making ploughs, oil mills, and carts, and more recently for cabinet work, coach-building, and making naves of gun-carriage wheels. In the earlier years of my Indian service I was for a time stationed near the western forests of Mysore, and while there devoted considerable attention to the useful trees, and published in 1862 a small *Manual of the Timber Trees of India*. While collecting materials for this *brochure*, much information was got from native carpenters, timber contractors, etc., but not one of these attributed any harmful properties to satinwood.

It may also be mentioned, that modern works on the timbers and other economic products of India make no allusion to noxious qualities existing in satinwood. It can therefore be confidently asserted that the East Indian timber is harmless, and as a matter of fact very little of it is now taken to Europe, as the other variety, which chiefly comes from Porto Rico and San Domingo, is more plentiful and cheaper. The botanical source of the latter is not accurately known, but it is supposed by some authorities to belong to the Ebenaceae, a statement which seems doubtful, as none of the members of that family appears to possess acrid or irritant qualities. In some species the bark of the Ebenaceae is astringent, and a few yield edible fruits, of which the persimmon is an example. Like the East Indian variety, the West Indian timber contains an oil, and it seems probable that this constituent of it is the offending element. Be this as it may, if further experience shows that West Indian satinwood is often hurtful to workmen, it would seem desirable to discard it and use the other variety, which is just as good for artistic purposes, and harmless to the artificer.

G. BIDIE, M.B., C.I.E., and K.H.S.,
Surgeon-General.
Barmore, N.B.

INTRANASAL IRRITATION CAUSING ACNE ROSACEA.

LOOKING over the articles in the many textbooks of skin diseases on the causation of acne rosacea (the condition popularly known as "grog blossoms" and "red nose"), I am struck by the absence of mention of nasal disease. The causes given are:

Disturbance of the digestive apparatus due to improper food or improperly-cooked food; excessive indulgence in alcoholic drinks, tea, coffee, tobacco, etc.; feeble circulation; functional or uterine disturbance; gout; exposure to sudden changes of temperature; cosmetics containing irritant substances, as in "make up" employed by actors and actresses.

During the past year I have had the good fortune to treat a number of cases of this disease with excellent results after intranasal operations. In the majority of my cases pressure on the septum by polypi and enlarged anterior ends of middle turbinates have been the cause; others suffered from hypertrophic rhinitis accompanied with a good deal of mucus, and the constant swallowing of this causes the indigestion complained of. There was no history of alcoholism, which many are inclined to believe to be the sole cause of the malady. In one case (an actor) the patient was told by a medical man that he would never obtain relief whilst he used cosmetics. Improvement not only in the condition of the nose but in the face generally is noticed in some cases within a week after the operation more especially if the source of irritation has been completely removed. All my patients were under 40 years of age. The additional after-treatment consists in treating the possible etiologic factors mentioned.

WILLIAM LLOYD, F.R.C.S.,
Surgeon, Nose, Ear, and Throat Dispensary, St. Pancras and Northern Dispensary, etc.

THE PROLONGED USE OF SIMPLE ENEMATA.

It is unadvisable to use warm evacuant enemata habitually, lest a torpid condition of the intestine ensue, and so ultimately the constipation becomes worse.[1]

THE above admirable sentence—the only one I have been able to find to the purpose—seems worthy of emphasis and comment, and may easily save many medical men from discredit and many patients from distress.

In long and debilitating illnesses, where the patient is confined to bed—for example, in the last three or six months of phthisis—there is commonly a tendency to constipation, due mainly to atony of the gut. This symptom is often met by the use of simple enemata twice or three times a week. After a few weeks "no result" is a common report, and the enema is repeated, with the addition of a little castor oil or glycerine, a "fair result" being subsequently reported. At last—say in five or six weeks—the enemata fail to act altogether, and the patient and friends do not conceal their discontent and anxiety. The doctor may very possibly fail to treat the symptom quite to his own satisfaction, for by this time the obstruction has become serious, and the patient's strength is much reduced. My strong opinion is that Dr. Ringer's advice ought to be heeded.

When the enemata are first used, the lower bowel, new to such disturbance, is stimulated and responds with ready contraction; moreover, owing to the fact that there is great sympathy of one part with another along the whole of the alimentary canal, there is certainly some reasonable response from the gut far above the parts actually reached by the enema. Thus, during the earlier days of the administration of the enemata, not only is the faecal accumulation of the lower gut removed, but also the peristalsis of a further long stretch of gut moves the canal's contents forward. But very soon toleration is progressively established in the lower gut, and, sympathizing with the condition of the lower gut, the upper parts perform less and less peristalsis. Thus in a few weeks the enema ceases to stimulate, and scybalae, accumulating in the colon, form at last an effectual obstacle to defaecation. The medical attendant is now confronted with a weak patient, a tolerant rectum, and a colon plugged with scybalae. I have twice had to face such a situation. The first time—pursuing what I now consider to be a second-rate plan—I gave an ounce of castor oil by the mouth, ordering another half ounce if the bowels were not moved in twelve hours. The single dose removed the obstruction satisfactorily. But on the second occasion I used a first-rate plan, gentler, safer, and more scientific. I ordered an enema of 10 oz. of warm olive oil to be administered at nightfall and retained if possible till morning. The patient was too weak to retain it perfectly; but a mackintosh sheet was placed under the proper portion of the bed sheet, and enough was retained. A simple enema next morning brought away all the loosened obstruction; and I recommend the method with the greatest confidence. Both my patients were thenceforth free from enemata; an occasional saline aperient given by the mouth sufficed for the remaining few weeks of their lives.

Finally, I object to the use of enemata as habitual aperients. Broadly speaking, a simple enema is good for two purposes only: First, to remove from below a faecal plug that cannot easily be removed by pressure from above; secondly, to remove faeces quickly, where time is an important consideration—for instance, in cerebral haemorrhage. With these exceptions I consider that constipation should always be relieved medicinally by doses given orally. Once look upon the simple enema as a common aperient and you are on the way to form, gradually and cumulatively, in your bedridden patients, a scybalous obstruction. To prevent such an obstruction is better work than to cause and cure one.

CHARLES GASKELL HIGGINSON, L.R.C.P.
Birmingham.

[1] Ringer and Sainsbury's *Handbook of Therapeutics*, 13th edition, pp. 98-9. (Lewis)

THE Saxon Snell Prize, founded to encourage improvements in the construction or adaptation of sanitary appliances, is awarded by the Council of the Royal Sanitary Institute at intervals of three years, the funds being provided by a legacy bequeathed to the Institute for this purpose by the late Henry Saxon Snell, F.R.I.B.A. The first prize, which will consist of £50 and a medal of the Institute, is offered in the year 1905 for an essay on domestic sanitary appliances, with suggestions for their improvement.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON MISSIONARY SOCIETY'S HOSPITAL, NEYOOR, TRAVANCORE.

THREE CASES.

(Under the care of A. FELLS, M.B., C.M.Ed., and W. C. BENTALL, L.R.C.P. and S.Ed.)

1.—COMMINUTED FRACTURE OF PATELLA TREATED BY THE OPEN METHOD AND WIRING.

G., a male native Christian, aged 42, was engaged early on February 4th, 1904, in loading a cart with sacks of grain. Whilst standing near the cart with a sack on his back the cart tilted, and pushing him, forced him down upon his left knee with considerable violence. He instantly experienced very severe pain in the joint, which was rapidly followed by swelling. He was carried several miles to the hospital upon a bed, where he was examined about 4 p.m.

State on Admission.—The swelling was then excessive and so tense that it was difficult to make out the condition of parts, but there was an obvious fracture of the patella. The man was in great pain and was unable to move the leg. There was a slight abrasion over the patella. Operation was at first refused and the leg was placed between sand bags, an evaporating lotion applied, and morphine given.

Operation.—Early next morning the patient gladly accepted operation. The region of the knee was well cleansed, and the joint opened by a horseshoe shaped incision with its convexity upwards. It was found to be distended with clot, and the capsule of the joint was ruptured transversely on either side. The patella was broken into six pieces. The upper two-thirds of the bone constituted one piece; the lower one-third was smashed into five fragments. The upper fragment was separated from the cluster of smaller fragments by an interval of about 1 in. The clot was removed and the joint well douched with hot mercury biniod. lotion 1 in 5,000. An attempt was then made to bind the lower fragments together by silk passed transversely, but it was found impossible to get them to lie accurately. These fragments were so small and so crushed that any attempt to drill them and pass wire through them only resulted in breaking them still more. The upper fragment was therefore drilled, and a stout silver wire passed through it. The wire was then passed under the lower fragments and brought out through the big patellae just where it was attached to the fragments. When the wire was tightened it was found to bring the lower fragments up into a fairly good position, though the apposition was by no means exact. It was considerably improved, however, by suturing with catgut the periosteum over the patella and the rents in the capsule of the joint on either side of the bone. The incision was then closed without drainage and the leg placed on a McIntyre splint.

Progress.—The patient had a considerable amount of fever for the first six or seven days, ranging from 99° in the mornings to 101° or 102° in the evenings, but as it yielded rapidly to 5-gr. doses of quinine, and as malaria is a very prevalent disease in this district, the temperature was probably due to that cause, though unfortunately the blood was not searched for parasites at the time. The knee progressed steadily, the swelling gradually subsiding. The stitches were removed on the eleventh day, healing by first intention being complete. The splint was removed on the fourteenth day and passive movement of the patella practised. The patient kept his bed for another fortnight, and was then allowed to get up and move about with the aid of a stick. By the sixth week all swelling had disappeared, but the range of movement was still very slight, the knee only bending to an angle of 150 degrees, but the leg was gaining in strength and the patient walked with more ease. Early in April the patient was again seen. The range of movement had increased and the patient was walking well, only feeling discomfort when going down a steep hill or down steps.

Result.—By August—that is, about six months after the accident—the patient was able to flex the knee to an angle of 50 or 60 degrees. The patella moved freely on the femur in all directions. He was able to walk six or seven miles at a stretch with ease, but longer distances still caused some pain.

REMARKS.—There seems to have been a twofold fracture in this case. First, by muscular strain the patella was fractured transversely, and then by violent impact with the ground the lower fragment was smashed into five pieces. Notwithstanding the severity of the injury the man was able to walk in a month, and within six months was able to cover considerable distances without any artificial aid.

2.—INTERSTITIAL MYOSITIS SIMULATING A TUMOUR OF THE SIGMOID.

V. I., aged 46, male, Brahman by caste, was admitted on October 11th, 1904, complaining of pain and swelling in the left iliac region with gradually increasing constipation. The pain was aggravated by any exertion that increased intra-abdominal pressure, such as sneezing, coughing, straining at stool. There was neither fever nor vomiting.

State on Examination.—On palpation a distinct tumour could be felt, about as large as a duck's egg, apparently in the sigmoid. It lay very close to the anterior superior iliac spine, was painless and mobile. With one hand placed behind the iliac crest and the other in front the tumour was easily grasped, and gave the impression of being quite mobile independently of the abdominal wall.

Operation.—On the 12th the abdomen was opened by an incision parallel to the course of the external oblique, with its centre over the tumour. There was fully an inch of subcutaneous fat. The fibres of the external oblique were separated and well retracted, and the internal oblique and transversalis divided. In so doing it was noticed that the latter muscles were hard and non-vascular; there was an utter absence of subperitoneal fat, and the peritoneum was so firmly fixed to the under surface of the muscles that in dividing them it was opened. The omentum was slightly adherent at this spot, but the adhesions were easily sponged off. The hand was then passed into the abdomen, but no tumour could be felt; the sigmoid and all other bowel within reach was perfectly healthy. With one hand in the abdomen and the other outside it was then found that the tumour was in the abdominal wall,—that it consisted, in fact, of the indurated muscles above referred to. The external oblique was stripped off the subjacent layers, and they were found to be affected over an area equal to the palm of the hand, the peritoneum being firmly blended with them. They were firm and hard, and scarcely bled at all when cut. A small piece of the hardened tissue was removed for examination, and the incision closed.

Result.—The case ran a perfectly satisfactory course as far as the operation was concerned, healing being rapid and sound. On the following day the patient was put on 10 gr. of pot. iodid. thrice daily, and the dose was soon increased to 15 gr. He left the hospital on the thirteenth day, with the tumour much reduced in size, and when seen a fortnight later no tumour could be felt.

REMARKS.—The piece of growth removed was found to consist of degenerated muscle, the fibres much broken up. Between the fibres was much connective tissue, but only a slight degree of small cell infiltration. There was an abundance of elastic fibres. It was apparently an interstitial myositis, of a sharply-defined area of the internal oblique and transversalis, of syphilitic origin, though no history of syphilis could be obtained. The case is of special interest on account of the very perfect way in which it simulated a tumour of the sigmoid. On palpation it gave the impression of being very freely mobile, and seemed to move independently of the abdominal wall, owing, probably, to the thick layer of subcutaneous fat and the healthy condition of the more superficial muscle.

3.—SPONTANEOUS EVOLUTION OF A TRANSVERSE PRESENTATION.

Kaliyanie, a Hindu, aged 31, 6-para, after a normal pregnancy, went into labour at midnight on October 30th. She was attended by native midwives, who detected nothing wrong until 6 a.m., when the right arm came down. At about 9 a.m. the patient's friends came to the Mission Hospital at Neyoor for assistance. On reaching the house at about 9.30 a.m. the patient was somewhat cold, sweating freely, and getting only occasional and somewhat feeble pains. The whole right arm of the child was projecting from the vulva and the shoulder was tightly wedged in the pelvis. The urine was drawn off and a drink of hot coffee and milk given. This greatly revived the patient, and a rapid succession of violent pains ensued, resulting in the delivery of the child by spontaneous evolution at about 10.30 a.m. The child's heart was beating with considerable vigour when delivery took place, but, in spite of prolonged efforts, respiration could not be induced. The child was of quite average size, but there were no means at hand of weighing it. It was well nourished and in perfect condition. The maternal parts were not injured and the puerperium was normal. Two facts seem specially worthy of note: (*a*) the delivery by spontaneous evolution of a well-developed fetus of average size in perfectly fresh condition; (*b*) the completion of the process within ten or eleven hours from the onset of labour.

BEQUESTS AND DONATIONS TO HOSPITALS.—Sir William Thomas Lewis has presented £1,000 to the Cardiff Infirmary. The late Mr. Spencer Charrington, M.P., bequeathed £500 each to the East London Hospital for Children, Shadwell, and the Victoria Park Hospital for Diseases of the Chest, and he directed the trustees to apply £500 annually for three years to the London Hospital unless at the time of his death the sum had been paid. Under the will of the late Mrs. Emma E. Temple of Ulster Place, Regent's Park, £2,000 each has been left to Charing Cross Hospital, St. George's Hospital, King's College Hospital, and the West London Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, Bart., M.D., F.R.C.P., K.C.V.O., President, in the Chair.

Tuesday, January 10th, 1905.

Skiagraphy of the Lungs and Pleura.

Dr. D. Lawson described the skiagraphical appearances of the lungs and pleura in various morbid conditions, especially in pulmonary tuberculosis. He exhibited an experiment showing the difference in behaviour of fluid and fluid *plus* air in a closed rubber bag, analogous to fluid pleurisy and hydropneumothorax, and then showed skiagraphs of 2 cases of pyopneumothorax—in one the *x*-ray appearance twenty-four hours before, three months, and nine months after operation respectively, in which the lung fully re-expanded, and in the other recovery with permanent collapse. He then demonstrated 2 cases of fluid pleurisy, representing different types, with the *x* ray appearances before and after operation in each case. He next showed skiagraphs of a case of pneumothorax in which the shadow of the collapsed lung was quite different to that in the above cases. A case showing the distinctive features of the shadow produced by thickened pleura, and one of left side dry pleurisy with right-sided apical lesion, were skiagraphically demonstrated. Skiagraphs from a case of actinomycosis of the lungs and pleurae; of 4 cases of rare lesion—namely, of primary infiltration of the middle third of a lower lobe, the upper lobe on the same side remaining either apparently unaffected or, if not so, then only affected at a later date and to a minor extent, and of injected bronchi, showing its relationship to the distribution of the disease. The *x*-ray appearances at four successive periods of a case of acute progressive pulmonary tuberculosis, and a case showing the presence of four cavities in the right lung, with a photograph of the lung showing the diagnosis accurately confirmed by *post-mortem* appearances were also demonstrated.

Dr. Hugh Walsham said the great use of the *x* rays in pneumothorax and pyopneumothorax was in the doubtful cases. The upper border of the shadow of serum was nearly always concave. There was still doubt as to the relative opacity of pus and serum; he himself was confident that pus was much more opaque. The position of the heart as revealed in the skiagraph was not of the same value in children as in adults. He had never found any shadow from a dry pleurisy. In regard to diagnosis, the *x* rays ought to make it possible earlier than by the ordinary methods—the shadow in cases recognizable by physical signs extended beyond the limit of physical signs. The delayed lighting of the lung with the screen and the deficient excursions of the diaphragm on the affected side were confirmatory of tuberculosis.

Dr. J. E. Squire thought the value of *x* rays in chest work was to confirm by sight what had been detected by other methods, and to give a permanent record of the conditions present. They were also of value in revealing fluid in the large proportion of difficult cases. He was doubtful if they could enable tuberculosis of the lung to be diagnosed earlier than by physical examination. In cases in which tubercle began in the lower lobe, it was difficult to say whether the shadow was not due to lesions in the lower part of the upper lobe overlapped by the lower lobe.

Dr. Leicester had never succeeded in diagnosing tubercle with the *x* rays which was not clearly revealed by the stethoscope.

Dr. Kingston Fowler considered the chief importance of *x* rays was in the question of diagnosis. He had examined with the screen 6 early cases of tubercle; 4 showed signs comparable with the physical signs, 2 showed little or nothing. Probably in nearly every case there was about three times as much disease as the physical signs indicated, hence the shadow might stretch beyond the adventitious sounds. There was need for training in interpreting skiagraphs. His experience was rather disappointing in diagnosis.

Dr. Rubenacht Walters referred to cases in which skiagraphy would have been of value.

Dr. Lawson replied.

Glasgow Obstetrical and Gynaecological Society.—At a meeting held on December 21st, 1904, Dr. J. K. Kelly, President, in the chair, a discussion on the treatment of prolapse of the uterus was introduced by Dr. W. L. Reid, who spoke first of the more chronic forms of prolapse, dwelling upon prophylaxis as very important. In milder forms a pessary—more especially that of Albert Smith—was often curative. When operative treatment was necessary the most suitable operation was amputation of the cervix with repair of the perineum together with anterior and posterior colporrhaphy. Fixation of the uterus to the anterior abdominal wall was also necessary in some cases. Dr. Reid said he had no experience of paraffin injection in such cases. Dr. Munro Kerr was impressed with the disadvantages of the watch-spring pessary as quickly becoming septic from the vaginal discharges. He also considered it of benefit having a strong pelvic floor when repairing the perineum. Dr. Balfour Marshall remarked that in those cases of hypertrophy of the median portion of the cervix a pessary was of use in causing shortening. Dr. Edgar had had some experience of paraffin injection, but considered it dangerous owing to subsequent pulmonary embolism. Dr. Scott McGregor had tried paraffin injection once with failure. Dr. Douglas spoke as to Martin's method of procedure. The President remarked that he seldom did a colporrhaphy when doing ventrifixation. Dr. Reid replied.—Specimens were shown by Drs. Munro Kerr, J. K. Kelly, and Edgar, and drawings were exhibited by Dr. Jardine.

MEDICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Monday, January 9th, 1905.

Functional Insanity and its Relation to Allied Neuroses.

Dr. Robert Jones read a paper on this subject in which he maintained that many of the conditions grouped under the term insanity were functional, that was without showing any discoverable structural change; insanity being defined as a symptom which might be due to many different morbid processes. Illusions, hallucinations, and delusions were the most convenient test producing an effect on conduct. But these might be due to temporary delirium from the disordered nutrition of febrile states. The physiology of the central nervous system concerned was described. The different reaction to stress of individuals of different families was alluded to, and also the hereditary equivalents of insanity. Delusive ideas might in time become associated with organic change, but as a rule they were functional. Functional diseases were characterized by short duration, variability, and recovery. Hysteria was as much allied to mania in women as hypochondriasis was to melancholia in men, but there was no definite hysterical psychosis. Hypochrondriasis was a functional state closely allied to insanity, the explanation of which might be cortical hyperaesthesia limited to certain areas. Neurasthenia was perhaps rather closely allied to hysteria; and of its exciting causes perhaps influenza was as frequent as any. Epilepsy as a cause of *quasi* insanity was alluded to, also convulsive tic, tetany, chorea and paramyoclonus multiplex as allied states. The necessity of maintaining a sound heredity and the need for the early treatment of patients manifesting mental symptoms were insisted on.

Dr. C. Mercier thought the question was whether there was any insanity which was not functional. As in sleep, so there might be a portion of the higher nervous system which might remain functionless or functionate irregularly, giving the waking dream state of insanity. It was not the damaged portion of the brain which produced symptoms, but the remaining undamaged portions.

Dr. T. Hyslop thought some cases called neurasthenia were closely allied to general paralysis. The important thing in insanity was not the illusions and delusions, but the something which prevented the patient knowing that they were illusions or delusions.

Dr. Andriezen considered that, as insanity was a profound disturbance of the brain, functional was an unfortunate term as applied to it. It was difficult to imagine how a so-called functional state could grade into an organic disorder. He had, for example, found diffuse cerebral sclerosis in cases of epilepsy ordinarily called functional.

Dr. Jones replied.

Encephalitis.

Dr. F. E. Batten read a paper describing cases with cerebral symptoms which corresponded closely with anterior poliomyelitis, having a like sudden onset, occurring chiefly in children, at a similar period of the year, tending to recovery, and probably due to a vascular lesion-thrombosis of the finer

vessels. Among them were cases with evidence of affection of the cerebral hemispheres, another group affecting the cranial nuclei or basal ganglia, and another affecting the cerebellum. The history of the subject was alluded to, and illustrative cases quoted.

Dr. C. E. BEEVOR said that the older theory of thrombosis of the large veins as explaining these cases was hardly sufficient, and it might well be that they were due to thrombosis of the smaller vessels.

OBSTETRICAL SOCIETY OF LONDON.

EDWARD MALINS, M.D., F.R.C.P., President, in the Chair.

Wednesday, January 4th, 1905.

THE CAUSATION OF PUERPERAL INFECTIONS.

MR. A. G. R. FOULERTON and Dr. V. BONNEY read a paper entitled an Investigation into the Causation of Puerperal Infections. They had examined the contents of the uterus: (1) In 12 cases in which the puerperium was normal, examination being made from the third to the tenth day after normal labour; and (2) in 54 cases of either miscarriage or labour at full term in which fever occurred. The writers had also made a bacteriological examination of the cervical secretion in 30 non-pregnant women who were suffering from vaginal discharge, with the following results: (1) Streptococci were present in the uterus in 25 out of 39 cases in which cultures from the contents of the uterus were obtained. (2) Streptococci were present in the vagina in two cases out of seventeen in which the contents of the uterus were apparently sterile of bacteria. (3) Streptococci were present in the uterus in 25 out of 40 cases of severe fever, and in the vaginal secretion in 2 out of 5 similar cases in which the contents of the uterus were sterile of bacteria. (4) Out of 14 cases of "slight" fever the contents of the uterus were sterile of bacteria in 10, and in 4 cultures of bacteria were obtained, but not a streptococcus. (5) Of the 15 cases in which the contents of the uterus were sterile of bacteria, a marked proportion were primiparae presenting considerable lacerations of the cervix or perineum. (6) The presence of micrococcus pneumoniae was proved in 4 of the cases, and in 2 others it was probably present. (7) In the present series the absence of M. gonorrhoeae and anaërobic organisms was noticeable. (8) In the series of cases in which the cervical secretion was examined proof was obtained of the presence in the cervical canal of non-pregnant women of bacteria, which had also been found in puerperal infections of the uterus, but in no case were streptococci found.

I. Puerperal fevers might be caused by—

(*a*) Primary infection of lacerations of the vaginal walls or perineal tissues (with secondary infection of the uterus sometimes).

(*b*) Primary infection of the contents of the uterus or of the placental site.

II. The processes concerned in the production of puerperal fevers may be classified as:

(*a*) Primary, vaginal, or perineal infection. { Local infection + toxaemia; Local infection + toxaemia, + General infection.

(*b*) Primary infection of uterus. { Local infection + toxaemia; Local infection + toxaemia, + General infection.

The authors arrived at the following conclusions: (1) Puerperal fever when bacteriological proof of the nature of the infection is wanting should be treated as being due to streptococcic infection; (2) active curetting of the uterus in puerperal infections is not to be advised; (3) the most satisfactory treatment for streptococcic infections of the uterus is comprised in the administration of an appropriate antistreptococcic serum, and digital exploration and clearing out of the contents of the uterus, followed by intrauterine douches; (4) the fever following a streptococcic infection of the uterus may be transient, and subside within forty-eight hours without any special treatment—a fact to be remembered when dealing with the conveyance of infection; (5) autogenetic infection is probably sometimes a cause of puerperal fevers, but the use of vaginal douching before labour with the view of obtaining asepsis is not advisable; (6) in this series of cases bacterial invasion of the uterus has always been marked by severe symptoms with abrupt rise of temperature to 102° F., or higher; (7) in the majority of the cases in which the contents of the uterus were sterile, and there were severe lacerations of the cervix or perineum, the symptoms were very much less severe, and the temperature did not rise to above 102° F.

Dr. PETER HORROCKS regarded the pathological fact that the contents of the uterus were found sterile in every instance where the puerperium was normal as another nail in the coffin of interference in labour—such as routine syringing, vaginal or uterine. He remarked on the absence of any distinction between septicaemia and sapraemia in the classification adopted by the authors, who had taken the amount of fever as the sole guide to the severity of the illness. The presence or absence of an offensive discharge was of the greatest moment. In the grave form, or puerperal septicaemia proper, the lochia were not offensive, but were scanty, or suppressed, and sweet; whereas in sapraemia the lochia were not scanty but were offensive, and when the offending products were cleared out of the uterus the temperature, as a rule, rapidly fell to normal, and the patient recovered. Doubtless, in some cases the patient suffered from mixed sepsis, and then the clearing-out process was not followed by the improvement usually expected. In the severe non-offensive fatal cases it had been his experience that there was always more or less peritonitis, generally suppurative. It was generally accepted that the microbe in these cases was the streptococcus. He would like to know whether it could be detected by examination of the blood. In his experience the results obtained by the use of antistreptococcic serum were sometimes excellent and sometimes *nil*, and, so far as he knew, it was impossible to say beforehand whether the serum would do good or not; hence it was his practice to administer the serum in 10 or 20 c.cm. doses subcutaneously two or three times in twenty-four hours.

Dr. AMAND ROUTH agreed that streptococci were the most frequent cause of the severer forms of puerperal fever. He had also found many cases of fever where the contents of the uterus were proved to be sterile. Was it possible that some of these cases were infected by moulds, yeasts, or streptothrices, all of which might cause diseases in women? He had very little faith in antistreptococcic serum, having seen only one case recover by its use, and had much more reliance on tr. ferri perchloridi in 20 or 30-drop doses every two or three hours. He considered that this drug ought to be given as a routine treatment. In all cases also the uterine cavity should be emptied and strong iodine solution applied all over the endometrium as soon as infection is suspected.

Dr. SIKES had examined about 20 cases of a mild type. He agreed with the authors that in such cases one got a negative result, and also that the most frequent association of bacteria was the B. coli communis with staphylococcus pyogenes, as from not a single one of his cases had he cultivated streptococcus from the interior of the uterus. He had been much impressed with the good results obtained by early digital exploration, followed by intrauterine douching, but he considered that the results from antistreptococcic serum were often unsatisfactory.

Dr. BOXALL agreed with the conclusion that as a rule active curetting of the uterus was not to be recommended. As regards the use of antistreptococcic serum, there were many disadvantages in its use, and he had seen considerable danger follow, but never appreciable improvement. Inasmuch as it had been proved that at the time of labour the vagina might contain pathogenic organisms, the presence of which was often unsuspected and difficult to detect, he adhered to the practice of douching the vagina early in the course of labour, with a view to preventing the possibility of autogenetic infection, on the same principle that he took measures to disinfect and render sterile the skin of the abdomen before performing laparotomy. Severe cases of septic infection had been often attributed to gonorrhoeal infection and to exposure of the patient to insanitary surroundings before labour set in; but his experience was that, provided antiseptic precautions were efficiently carried out and asepsis maintained during labour and afterwards, both the gonorrhoeal infections and the previous insanitary conditions were rendered inoperative, and never led to severe septic infection. In his opinion, the possibility of autogenetic infection need have no terrors for the obstetrician when antiseptics were efficiently employed.

Dr. ARNOLD LEA had carried out a similar investigation in 18 consecutive cases of severe puerperal infection, and with much the same result as the authors. He had also examined the blood in 14 of these cases. In 2 cases only were streptococci discovered, and both ended fatally. He believed that in many cases of fatal infection the blood remained free from streptococci. In these cases the infection was mainly lymphatic, and the blood remained sterile. This was especially frequent in the acute and rapidly fatal types, and might account for the frequent failure of the serum treatment; the streptococci developed in the lymphatic vessels and tissues of

the pelvis, producing toxaemia, but the serum was powerless to act directly upon them, as it could only be injected into the blood stream. He did not consider that the use of the curette was contraindicated in puerperal infection. It was a much more efficient method of cleansing the uterine cavity than the finger, but it should be done early and thoroughly.

Mr. Foulerton, in reply, explained that most of the cases which were clinically included under the term "sapraemia" fell into the pathological category of local infection *plus* toxaemia, occasionally with general infection superadded. He thought it unlikely that either M. gonorrhoeae, yeast parasites, or streptotricheae had been overlooked in any of his cases. Too much importance had, he felt sure, been attributed in some quarters to M. gonorrhoeae as a cause of puerperal infection. Both he and Dr. Bonney held very strongly that an immense proportion of the cases of streptococcic puerperal fever were avoidable, and the more nearly the conditions of general obstetrical practice approximated to those of a properly conducted lying-in hospital the less frequent would streptococcic infection be, and the lower the mortality from puerperal fever. Active curetting of the uterus in puerperal infections could not be justified, for if limited to the surface the operation would facilitate in every possible way deeper infection of the wall of the uterus and increase the mischief; and if the wall were already deeply involved no operative interference short of hysterectomy could remove the cause of infection. While recognizing the difficulties associated with serum treatment, there could not be any doubt in his mind that an antistreptococcic serum did act as a specific cure in some cases of puerperal fever.

Vaginal Hysterectomy in the Puerperium for Sepsis due to Suppuration of Myoma.

Dr. Arnold Lea read this paper. Curetting was performed without beneficial result. Pyrexia continued, with occasional rigors. There was no peritonitis. The uterus was removed by means of ligatures per vaginam seven weeks after delivery. Both uterine appendages and a portion of omentum, all of which were implicated, were removed at the same time. A glass vaginal drainage tube was used. The temperature fell to normal within a week; complete recovery followed. Pus from the tumour showed streptococci and B. coli communis.

Dr. Russell Andrews mentioned a case in which he performed abdominal hysterectomy three days after delivery on account of pyrexia and pain due to a fibroid as large as an adult head, which was undergoing central necrosis. The patient made a good recovery. He agreed that the vaginal route was to be preferred in such cases if the fibroid was not too large.

Dr. Boxall said that even the removal of an infected uterus sometimes failed to cut short the sepsis and to cure the patient. *Post-mortem* examinations made on patients who had succumbed to puerperal sepsis showed why in many cases this result was to be expected. For in many cases implication of the venous and lymphatic plexuses and other foci of infection formed beyond the uterus, which rendered it impossible to get rid completely of the whole source of the trouble even by opening the abdomen and removing the uterus. As a result, septic infection often continued to spread, and a fatal result often followed.

Association of Registered Medical Women.—At a meeting held on January 3rd, Miss Helen Webb, M.B. (President), in the chair, Miss Bone, M.B., B.S., showed a case of muscular wasting in a single woman aged 27. Weakness of the legs was first noticed after an attack of rheumatic fever eight years previously, and increased after a second attack three years ago. The father and grandfather were said to have had difficulty in opening the hands voluntarily; the sisters and brothers were all healthy. There was a marked paresis with wasting of the peroneal group of muscles on both sides and those of the hands, forearms, and face. Sensation was not affected. The electrical reaction of the affected muscles was diminished, but not altered qualitatively. No fibrillary twitching was found. The diagnosis lay between the peroneal type of progressive muscular atrophy and a muscular dystrophy of somewhat unusual distribution.—Miss Garrett Anderson, M.D., B.S., reported a case of death occurring on the third day after delivery; the cause was apparently an acute toxaemic hepatitis. The liver was bright yellow in colour with haemorrhagic areas scattered through it. The other internal organs were healthy. There was no sign of septic infection. Cultures from the peritoneal cavity and from the bile showed a pure growth of the bacillus coli communis, so that it was doubtful whether the affection of the liver ought to be ascribed to the action of the bacilli and their toxines or whether the case should be regarded as one of primary acute yellow atrophy. The grave symptoms began twenty-four hours after the confinement, and consisted in urgent and continuous vomiting, diarrhoea, and slight jaundice. There was blood in the vomit; no sign of peritonitis.—Miss Bale, L.R.C.P. and S., reported a case of hydatidiform mole occurring at the second pregnancy. The only symptoms were haemorrhage beginning at the end of the second month, rapid enlargement of the uterus from that time and vomiting. The uterus was emptied at the fourth month on account of continued haemorrhage, and the patient made a good recovery, though involution was slow. Three months later the patient was in good health and menstruating normally.

REVIEWS.

TEXTBOOKS OF MEDICINE.

The seventh edition of Dr. Frederick Taylor's *Manual of the Practice of Medicine*[1] follows on the same lines as its predecessors. As with all compressed treatises which deal with subjects of expanding and growing knowledge, the author has been compelled in many of his chapters to sacrifice fullness of description, and sometimes even important details, to exigencies of space. This is inevitable in any attempt to describe within the compass of an ordinary handbook the whole story of medicine. In this, as in previous editions, Dr. Taylor succeeds in presenting a bird's-eye view of his subject with fidelity and in an attractive and readable form; but each individual disease is nowadays so much better known in detail, while so much more must be learned concerning its pathology and etiology if its symptoms are to be fully understood and its treatment intelligently conducted, that short works of this description are becoming useful only for those who, having the foundations of their knowledge laid, desire to refresh it by as short and convenient a reference as possible. Dr. Taylor has brought the present edition well up to date by adding new chapters on trypanosomiasis, sleeping sickness, and several other diseases whose discovery is comparatively recent; he has also made considerable additions to other chapters dealing with disorders in which new discoveries have been made since the publication of his sixth edition three years ago. In these days, when dermatology has become so specialized a subject, it is doubtful whether he might not with advantage have secured space for more elaborate description elsewhere by eliminating the section on diseases of the skin. The book still remains one of the best of its type, and can be confidently recommended as trustworthy and up to date. Dr. Taylor succeeds, as far as the limitations of his space render success possible, and we feel sure that his new volume will prove no less strikingly successful than its predecessors.

Professor Schmidt has written his treatise on the general pathology and treatment of medical diseases[2] with a two-fold object. First of all, he recognizes that a student in the early stages of his medical studies is apt to think his duty is to learn various groups of symptoms, more or less defined in character, which are to be his guides to future recognition of disease; so far as it goes this view is good, but too often the student thinks that this alone will lead to success in diagnosis: the recognition of glycosuria or diabetes mellitus is a simple matter, but it is of the greatest importance that the student should bear in mind that glycosuria is a symptom which may be met with as a result of various causes. Fortunately, the generality of students are taught pathological principles during their hospital careers. We can, however, quite well understand that even then the student suffers, for too often clinical teaching does not pay sufficient attention to the pathological principles, and relies upon a symptomatic or even anatomical classification of disease. It is just at this point that the present volume will prove serviceable; it will secure to the student greater breadth of view and will place in correct perspective relationship such disorders, for example, as are characterized by reduced alkalinity of the blood—

[1] *A Manual of the Practice of Medicine.* By Frederick Taylor, M.D., F.R.C.P. Seventh edition. London: J. and A. Churchill. 1904. (Demy 8vo, pp. 1065, 38 illustrations. 15s.)

[2] *Lehrbuch der allgemeinen Pathologie und Therapie innerer Krankheiten.* [Treatise on the General Pathology and Treatment of Medical Diseases.] Von Professor Adolf Schmidt. Berlin: August Hirschwald. (Demy 8vo, pp. 470; 15 illustrations. M. 10.)

acidosis, or acidaemia as it is called—and he will no longer be puzzled by the discovery that the physical manifestations and even the symptoms of very different pathological states should have much in common: acidosis may result from the development within the body of oxybutyric and acetic acids in diabetes mellitus, in starvation as a result of an exclusively meat diet, in fevers, and in wasting of whatever origin. The student, therefore, who has to pay such close attention to diagnosis will be well rewarded by the perusal of Dr. Schmidt's treatise. The general practitioner who is conversant with the language will find an equally great reward, for the writer has dealt with treatment not by describing all the methods in vogue, but by giving a judicial survey indicating what methods of treatment have proved of value, and what are the solid advantages of treatment by such remedies as organic extracts and serums, electricity, massage, and even "suggestion."

From the preface of the *Manual of the Practice of Medicine*,[3] by Dr. A. A. STEVENS, we gather that it is largely an extract from the writings of Strümpell, Osler, Fagge, Bristowe, Frerichs, Liebermeister, Vierordt, Eichhorst, Wood, Ross, Gowers, Sansom, Henry, Tyson, Pepper, Paul, Murrell, Starr, Hilton, Dühring, Stelwagon, Van Harlingen, Tilbury Fox, Hardaway, Seiler, Cowen, Browne, Jacobi, Bruce, Brunton, Charcot, Dujardin-Beaumetz, Pavy, Mitchell, and Trousseau—a constituency of thirty-five authorities represented by 537 octavo pages. If we were asked point-blank whether the manual is anything more than a compilation, we should be at a loss to say. It certainly does not belong to what might be called the pemmican variety of literary pabulum; its proper classification might be with the meat extracts, and this is not necessarily dispraise, for the extractives, we are told, greatly stimulate the secretion of the digestive juices, whereby nourishing food-stuffs are more quickly and thoroughly made assimilable. Dr. Stevens's book, we hope—nay, even believe—may serve, if properly used, as an indirect digestive of the strong meat which is necessary for the growing medical student. But the lower animals, we are told, if fed on meat extracts alone, die sooner than those from which all pabulum is withheld, and we seriously consider that, if any medical student elect to confine himself to such a diet as that afforded in this *Manual*, his last state will be dire. To change the metaphor, however, for more hopeful ends, the book, we believe, may be useful in giving the student a view of the whole field of the practice of medicine proper, like some literary camera obscura; and he, being a wise and inquiring youth, will thereafter patiently thread out its paths for himself, taking as many days in the process as he gave seconds for the view. Moreover, as its subject-matter is accurate and up to date, the book might prove suitable for reading through in those troublous weeks before a final examination, although we believe that many will think a book of home-made extracts much to be preferred.

SICK NURSING IN FRANCE.

IF it is always good to see ourselves as others see us, our nursing institutions and those who are interested in their welfare will derive much encouragement from the account given by Dr. MARC BLATIN in a recent book on medical nursing and nurses.[4] He gives first a history of nursing in France, and an account of existing provisions for the nursing of the sick in hospital and private practice; he then describes the English nursing system, and makes a series of suggestions for the betterment of nursing as an occupation in France, adding a plea for its organization along the lines which have proved so successful in this country.

Dr. Blatin ascribes the superiority of the English system to the popularity of nursing among the middle and upper classes, to the thoroughness of the training which is enforced, to the discipline which governs nursing institutions and the nursing departments of hospitals, and to the exclusion of men from the immediate government and direction of nursing affairs. He lays special stress upon the thoroughness with which English nurses are taught their profession.

> The English have applied to the instruction of their nurses the great principle which they apply throughout in the matter of education to their engineers, men of business, soldiers, and sailors: "C'est en forgeant qu'on devient forgeron." Nurses have no need of elaborate theories. On the other hand, they ought to be acquainted with a mass of practical details which they cannot learn from books. The old principle is therefore applicable and applied to them with the greatest advantage.

In France, even at the present day, the position which nurses occupy is eminently unsatisfactory, and the circumstances by which the calling is surrounded make it but little attractive to the class of young woman best suited for the discharge of the onerous duties which belong to it. As a profession it is miserable, "less on account of the insufficiency of the emoluments than from the hardness of the work, the absolute lack of comfort, and the position of inferiority which the nurse occupies." In addition to this the food is inadequate and badly prepared, the number of nurses is too small for the requirements of the various hospital services, and the hygienic conditions amidst which they are compelled to live are inexcusably defective. The consequence of all this is an appalling mortality which must naturally go far towards rendering the service unpopular.

But according to the account given by Dr. Blatin, it is not only in the nursing department of French hospitals that organization is defective, the whole routine of procedure and management seems sadly in want of renovation. The following lurid description of a busy operating day in one of the hospitals is painfully realistic and pitifully gruesome:

> A dresser, with bared arms, blood-stained apron, and tongue-forceps hooked in his button-hole, emerges hastily from the operating theatre. He searches for the patient whom he has been instructed to anaesthetize. "It is you, Number 10," he says, "who are to be operated upon this morning for hernia?" "Yes, sir." Without further remark he pours the chloroform on the towel. The patient becomes agitated. He calls for a male nurse or a student. Every one is busy; the dresser becomes annoyed, and the patient struggles violently. At last a male nurse arrives, and throws himself half across the bed in order to hold down the patient, who now breathes stertorously and makes noisy efforts to vomit. The door of the operating theatre opens to let the wheeled litter pass out, on which has been placed a livid patient who has just been under operation; behind him follows an attendant carrying a bundle of blood-stained linen. Again the door swings open disclosing the surgeon or house-surgeon: "Come along, is he completely under the anaesthetic? It is the tenth—I should say the twelfth—laparotomy. Let us have this one, and let the next be anaesthetized at once!" And the operation cases follow one after another into this mysterious and awe-inspiring theatre, from which they return swathed in cotton wool and motionless like corpses. The surgeon departs, goes back to his private work, the assistant or the house-surgeon replaces him, and the sad procession of cases continues. The noisy exclamations of alcoholic patients as they are being got under chloroform, and the pitiful groanings of those who have been operated upon as they emerge from their anaesthetic, never cease for a moment. And all this without a sympathetic word being said to any of these unfortunates who are waiting their turn, and who naturally exaggerate a hundredfold the suffering and danger to which they are about to be exposed. In an English hospital no patient ever dies alone. A nurse is detailed for special duty in every moribund case. He is assured of having, up to the last moment of his life, some one to help to mitigate his final sufferings. In Paris the moribund patient passes away alone among frightened neighbours who turn away from him; in the midst of busy work, almost in touch with passing dressers and nurses, who, while bustling over their work, throw smiles to the students. Flies cover his face and crawl round his eyes, his feeble hands make vain attempts to pull up the sheet, and the rattle in his throat is heard throughout the ward as a pitiful and sustained appeal, without it occurring to any one to adjust the bed clothes, to chase away the flies, or to separate the dying man's lips that he may breathe better. The rattling ceases. He is dead!

We hope that this picture is overdrawn, and that Dr. Blatin may have spread his colours too thickly in order to reinforce the attempt now being made in Paris to establish a nursing system on lines which will, in time, make such a scene as that above described impossible. An Association pour le Développement de l'Assistance aux Malades has been established in the Rue Amyot, under the superintendence of Mademoiselle Schérer, and it is hoped that from this initial enterprise a school of nurses may rapidly be formed large enough to furnish a skilled and efficient equipment not only for the hospitals but also to supply the nursing wants of private individuals and families. Dr. Blatin gives well thought out details of the plan by which he believes this desirable consummation may be attained. He has fully grasped the methods which are followed in this country, and we can pay him no higher compliment than to say that if those in authority in France would but read his excellent book and follow its precepts, they would confer on their country an incalculable boon, and gain from their suffering poor an everlasting gratitude.

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[3] *A Manual of the Practice of Medicine prepared especially for Students.* By A. A. Stevens, A.M., M.D., Professor of Pathology in the Woman's Medical College of Pennsylvania, etc. Sixth edition. London: W. B. Saunders and Co. (Crown 8vo, pp. 556. 10s. 6d.)

[4] *Le Soignage Médical et les Infirmières. Ce qu'elles sont en France, ce qu'elles sont en Angleterre, ce qu'elles devraient être.* By Dr. Marc Blatin. Paris: J. B. Baillière et Fils. 1905. (Demy 8vo, pp. 276. Fr. 3.50.)

PANCREATIC DISEASE.

THE causation of haemorrhage into the pancreas, whether occurring alone or in association with inflammatory signs, has been the subject of much controversy. Some of the most recent contributions to our knowledge of this subject are due to the inquiries carried out by Dr. OPIE, whose excellent work on *Disease of the Pancreas*[5] deserves careful study. On those comparatively rare occasions in which a small calculus can lodge in the ampulla of Vater, completely closing its outlet and at the same time allowing the biliary passages to form a channel continuous with the pancreatic duct several results are possible. If the biliary secretion is taking place at a pressure higher than that of the pancreatic juice, bile will enter the ducts of the latter organ. Supposing the duct of Santorini or other accessory ducts are equal to the task of conveying the combined secretion of the pancreas and liver into the duodenum, then physiological conditions are undisturbed. If, on the other hand, the accessory pancreatic ducts are incapable of performing satisfactorily this increased duty, then the pancreatic secretion would be retarded and then eventually driven back into the substance of the gland. When this condition is experimentally repeated by ligature of the pancreatic outflow into the duodenum followed by the injection of bile into the duct of Wirsung, changes occur in the pancreas and adjacent tissues identical with those met with in the disorder we know as acute haemorrhage into the pancreas as seen in man. We may infer with Dr. Opie that it is bile as such which, driven into the pancreas, causes the haemorrhage, or we may consider the explanation of the haemorrhage to be the same as that offered for the explanation of fat necrosis, namely, that it is a result either of digestion by the pancreatic juice, or is due to the necrotic effect of the secretion on the blood vessel walls similar to that which produces necrosis of the parenchyma and of the fat cells. That this latter view is probably correct is shown by the fact that other liquids besides bile can on injection into the pancreatic duct producing similar results. Further, we should expect that if it were merely the bile acting as a chemical agent which was responsible for the pancreatic haemorrhage, then in Dr. Halsted's case, described at p. 113, the haemorrhages into the pancreas should not have been more marked in the distal part of the gland, where bile was not observed, but near the duodenum where this secretion filled the pancreatic ducts. Probably in a future edition Dr. Opie will be able to give us fresh ideas on pancreatic disease based on the more recent physiological studies of Pawlow, Cohnheim, Starling, Delezenne, and others.

Another subject, with the study of which Dr. Opie's name is closely and deservedly associated, is the relationship of degeneration of the islands of Langerhans to the occurrence of diabetes mellitus. Schäfer, Laguesse, and Diamare were the first to suggest that these structures give rise to a secretion which passed into the circulation directly through the blood vessels and exerted a profound influence upon carbohydrate metabolism. Dr. Opie suggests that destruction of the islands of Langerhans is responsible for a certain number of cases of diabetes mellitus. This view has already inspired much inquiry on the part of other workers; some do not find the change to occur as frequently as Dr. Opie; others are inclined to regard the degenerative changes as the result rather than the cause of hyperglycaemia; others again find that diabetes mellitus can occur without these changes taking place in the pancreas. This last objection does not, of course, negative the opinion held by Dr. Opie and other observers, for we are not in the position to say that diabetes mellitus is due to disturbance of any one particular organ; it is a result which may ensue from the disturbance of several organs or systems which, when acting normally, maintain physiological glycaemia. The important subject of chronic pancreatitis and the interesting deductions made by Dr. Opie on the pathogenesis of haemochromatosis deserve careful consideration because of the relationship of the former to cholelithiasis and of the latter to hepatic cirrhosis and glycosuria.

Dr. Opie's summary of the diagnostic features of the different maladies discussed reveals the meagreness and equivocal character of our information; but we are obliged to admit that success in diagnosis can only be eventually rendered possible by careful clinical and pathological research on lines so ably carried forward by the writer.

[5] *Disease of the Pancreas: Its Cause and Nature.* By Dr. Eugene L. Opie. Philadelphia and London: J. B. Lippincott Co. 1903. (Demy 8vo, pp. 359. 21 Illustrations. 3 dollars.)

PROSTATIC DISEASE.

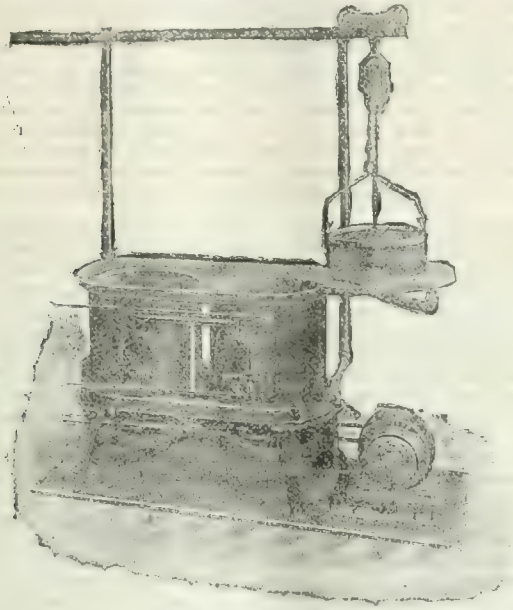
THE first part of the third edition of Mr. MANSELL MOULLIN'S work on "*Enlargement of the Prostate*"[6] is devoted to the development, anatomy, histology, and functions of the organ. It is held that this gland is developed from the Wolffian ducts and not from the urethra; that the primary change in the enlargement of the organ lies in the gland tissue, and that it is of the nature of a neoplasm; later the stroma partakes in the increase. The thickened cortical layer seen in many enlarged prostates is partly due to the process of encapsulation caused by an increase in the adenomatous masses, and partly to an actual increase in the amount of the outer non-glandular portion of the organ. The increase in size is said to affect all parts of the gland in by far the greater number of cases. The "pathological middle lobe" is described as usually developed from isolated gland tissue lying beneath the mucous membrane, from which it follows that this "middle lobe" is from the first within the muscular tissue of the bladder. A distinction is therefore drawn between a "middle lobe" and an increase in the "median portion" of the gland. The author holds that the enlargement of the gland is connected in some way with the vas and the master organ, the testis. The other current theories are passed in review but not adopted. Chapters follow on the effects of the enlarged prostate on the bladder and other organs, on the symptoms produced, on the diagnosis, and on the clinical examination of the organ in disease. It is pointed out that simple enlargement of the organ is usually a painless affection, and in the generality of cases calls for no special treatment. The disastrous effects of cystitis are shown both as regards their effect on the comfort of the individual and on the urinary apparatus. The palliative treatment, both local and general, is fully considered, and the last part of the work deals with the question of operative interference. No definite statement is made as to the time at which the operative interference should commence, but the author expresses his opinion that the popular dread of habitual catheterization is well founded. The suprapubic route is favoured in prostatectomy because of the facilities it gives for a thorough examination of the interior of the bladder. The success of the operation depends on the encapsulation of the adenomatous masses; if no adventitious capsule has been formed, the prostate will be found hard and fibrous and the enucleation will not succeed. The last chapter deals with orchidectomy, vasectomy, and the allied procedures. The immediate relief that follows castration is said to be due to the abatement of the congestion; true atrophy does not follow for some time. The *post-mortem* evidence quoted here as to atrophy following castration is not very conclusive, while the evidence on the other side is somewhat striking. The author explains the non-occurrence of atrophy in such cases by saying that the enlargement is due to a neoplasm which could not be expected to atrophy. In this connexion it may be pointed out that the author apparently holds that most enlargements of the prostate are of the nature of a new growth. Vasectomy, it is considered, is less certain than castration, and should therefore be reserved for special cases. Unilateral operations may in certain cases be useful. The last chapter is especially interesting, and serves to show how much has yet to be learnt concerning the relations of the several parts of the sexual apparatus towards one another.

[6] *Enlargement of the Prostate: its Treatment and Radical Cure.* By C. Mansell Moullin, M.D., F.R.C.S. Third Edition. London: H. K. Lewis. 1904. (Demy 8vo, pp. 216. 6s.)

MEDICAL AND SURGICAL APPLIANCES AND DIETETIC PREPARATIONS.

A Plate-washing Machine.—The annexed engraving depicts an apparatus known as the vortex dish-washing machine. We have watched it in operation in the kitchens of a large restaurant, and were impressed with the extreme ease with which it was managed and the rapidity with which it did its work. Wire baskets full of greasy plates and table utensils were lowered into it and removed in something less than two minutes; upon examination, as soon as they were cool enough to handle, they were found not only absolutely clean, but dry and polished as well; we fancy, too, that owing to the heat of the water used and the added soap and alkali they would probably have proved sterile as regards most organisms of the non-sporing type. The result is obtained by the action underneath the tank of a propeller driven either by electric or

steam power which keeps the constantly boiling water in a state of rapid but smooth centripetal movement. The plates, etc., it is to be noted, except for putting them into and removing them from the baskets are untouched by hand, nor are dishcloths of any kind employed. The initial cost of these machines is, we understand, considerable, but apart



from the saving of labour and time and better results, there is little risk of breaking and chipping china, so it is conceivable that they would form a good investment for any medical institution fitted with steam or other power and which has much plate washing to do. The machine is of American origin and supplied in England by the Hamilton Low Company, 59, Hatton Garden, E.C.

Prevalidin is a paste sold in collapsible tubes for use in the camphor inunction treatment of phthisis. Each tube contains 20 grams, and one-fifth part (4 grams) is used for each inunction. Prevalidin contains 10 per cent. of camphor, together with balsam of Peru, oil of eucalyptus, and oil of rosemary, these being mixed with a basis which is rapidly absorbed. Messrs. Thomas Christy and Co., Old Swan Lane, Upper Thames Street, E.C., are agents for the supply of prevalidin.

NEW REMEDIES.

UROCITRAL.

UROCITRAL,[1] or theobromine sodium citrate, is a white powder easily soluble in warm water; the solution has a pleasant taste and a weak alkaline reaction. It contains 45 per cent. of pure theobromine. The sodium citrate aids the action of the theobromine, and the compound is said to produce no secondary effects such as are observed when diuretin (theobromine sodium salicylate) or agurin (theobromine sodio sodic acetate) are employed. It is used like diuretin in doses of 0.5—1 gram (7½—15 gr.) daily, and is best dissolved in cinnamon water. Substances with an acid reaction—such as fruit juices—should not be added, since they lead to the precipitation of theobromine.

PHYTIN.

Phytin[2] has hitherto been simply described as a compound prepared from various seeds which contain phosphorus in combination. According to Loewenheim it consists of the double salt of calcium and magnesium with anhydro-oxymethylene diphosphoric acid, which is known as a phosphorus compound occurring in nature. It contains 22.8 per cent. of phosphorus, and is a white, odourless, and almost tasteless powder; it is soluble in water, and the aqueous solution can be taken for long periods without repugnance. It is put up in gelatine capsules, each containing 0 25 gram (4 gr.); the usual dose is 4 capsules daily for adults and 1—2 daily for children. Phytin is claimed to be of use in all cases where invigorating treatment is indicated and to possess a specific action against impotence.

[1] *Pharm. Zeit.*, 49, 1054.

[2] *Berlin. klin. Woch.*, 1904, No. 47, through *Pharm. Zeit*, 49, 1022.

PREVENTION OF CONSUMPTION.

THE SANATORIUM FOR CONSUMPTIVE WORKMEN.

THE scheme for instituting a sanatorium for workers, which has been developed by the Special Committee formed under the auspices of the Hospital Saturday Fund, has reached a stage which promises realization in the near future. The Committee has now issued an appeal for £50,000 for the expenses of building and furnishing. A suitable site of 252 acres has been offered to the Committee for the sum of £5,600, and half of the ground can be let off at a satisfactory rental. It is proposed that when erected the sanatorium shall be self-supporting, and friendly societies and other organizations of working men are asked not only to contribute to the cost of erection, but to endow beds. Friendly societies and other organizations which endow beds will be able to nominate to such beds any of their members who may be consumptive, and the advantages of the institution are thus not necessarily limited to London patients. The sanatorium, as planned, will accommodate 200 patients, and the estimated cost per bed is stated to be 25s. weekly.

The erection of a sanatorium for consumptive working men by the workers themselves is only rendered possible by the organization of the workers into large societies, such as the various Friendly Societies and trades unions, but, even so, £50,000 is a large sum to be provided out of the earnings of working men. We can hardly conceive a better use to which some portion of the funds of the large societies of working men could be devoted than in providing for the treatment of those of their members who may become attacked with consumption. The overcrowded condition of the various hospitals for consumptives makes delay in commencing systematic treatment unavoidable, whilst the importance of early treatment can hardly be over estimated. It is to be hoped that the Committee will avoid the mistake, which has been made in some other instances, of spending unduly large sums in the building of a palatial sanatorium, outside which the patients are encouraged to live as much as possible. The more nearly, consistent with hygienic requirements, the interior of the sanatorium agrees with the home conditions of the inmates the more likely are the patients to continue to follow out the mode of life of the sanatorium when they return to their homes. It will rarely be possible to keep the patients sufficiently long in residence to ensure complete cure, and if they come to associate efficient treatment with a palatial institution, they may become impressed with the apparent hopelessness of attempting to carry on the treatment with any expectation of success in their own dwellings. The Committee, however, has, we believe, taken this view of the matter into careful consideration, and we look forward with satisfaction to the speedy realization of this commendable undertaking.

UNITED STATES.

Ohio.—The Ohio State Sanatorium Commission at a recent meeting adopted the following minimum requirements for a site for the proposed State hospital for tuberculosis: (1) It shall include not less than 350 acres of land. (2) A portion of this land shall be not less than 800 ft. above sea level. (3) A certain part of it must be timbered. (4) The land must afford a suitable site for buildings, sloping south, south-south-east, or south-south-west, and be well sheltered from prevailing winter winds; it must also offer a pleasing landscape. (5) The soil must be dry, pure, easily drained, and at least 100 acres shall have good agricultural qualities. (6) An abundant supply of pure water shall be easily accessible. (7) The site must be not more than three miles from a railway station and not less than one mile from any city or village. (8) It must afford good railroad facilities and be easily accessible from any part of the State.

Chicago.—It has been decided to concentrate the efforts of the State Board of Health, the Illinois Medical Society, and the Committee on Tuberculosis of the Visiting Nurses' Association of Chicago. The first aim of the new Society will be to secure a £50,000 appropriation for a State sanatorium where researches can be conducted and tuberculous patients treated. The next step will be to establish branches. Particular attention will be devoted to out-of-door camps. The Committee includes the names of Drs. N. S. Davis, Professor of Medicine of the North-Western University; Ludwig Hektoen, Pathologist at the Rush Medical College; and Frank Billings; and Mrs. Ellen M. Frake, President of the Federation of Women's Clubs.

MEDICAL NEWS.

The Middlesex Hospital has received £500 from Mrs. Pearson, through Mr. A. Pearce Gould, for the purpose of continuing the work of research into the cause and cure of cancer.

Lectures for Sanitary Officers.—The thirty-ninth course of lectures and demonstrations held by the Royal Sanitary Institute will commence on Monday, February 13th. Full particulars can be obtained on application to the Secretary, 72, Margaret Street, London, W.

Presentation.—Dr. T. J. Jefferson, J.P., of Market Weighton, was on December 20th, 1904, presented, before a large and representative gathering, with an illuminated address by the members of the Loyal Maxwell Lodge of Oddfellows (Market Weighton and Newbald) as a mark of respect and esteem, and an expression of the gratitude of the members for the kindness Dr. Jefferson has shown them during the forty years he has been medical officer of the society.

A meeting, under the auspices of the Rural Midwives' Association, will be held, by kind permission of Mrs. Murray, at 50, Albemarle Street, W., on Wednesday, January 25th, at 2.30 o'clock, to consider the best means of carrying out the Midwives Act in rural districts. The questions of supervision, inspection, the best type of midwife, the financial aspect, and various difficulties will be fully discussed. Any one practically interested in the subject who desires invitations is requested to communicate with the Secretary, The Rural Midwives' Association, 47, Victoria Street, S.W.

International Congress of Veterinary Medicine.—The eighth meeting of the International Congress of Veterinary Medicine is to be held this year at Buda-Pesth. It will comprise three sections: (1) Veterinary Sanitary Police; (2) Biology; (3) Pathology. Among the questions to be dealt with in the first of these are the prophylaxis of domestic animals against tuberculosis, and in particular the anti-tuberculous vaccination of bovine animals, and the prevention and extinction of rabies. In the Section of Biology the question of dairy hygiene and the prevention of milk contamination will be discussed. The milk question, especially in its bearing on the dissemination of tuberculosis, will also be debated in the Section of Pathology. Among other questions on the programme of this section are the relations of human to bovine, avian, canine, and other animal forms of tuberculosis; cancer in domestic animals, the tropical diseases of domestic animals, the part played by protozoa in diseases of animals; the toxic substances produced by the parasites of animals; the most recent experiments as to the transmission of diseases from animals to man.

Tuberculin.—In the *Pharmaceutical Journal* of December 24th, 1904, Mr. F. W. Gamble draws attention to some confusion between the different tuberculins of Koch which might lead to unfortunate results. The dose of the old tuberculin, now used almost exclusively for diagnostic purposes, is reckoned in cubic centimetres of the concentrated liquid, whilst that of the new tuberculin, or tuberculin T.R., is estimated in milligrams of solid substance. According to Mr. Gamble these different tuberculins have been confused in certain well-known publications, with the result that the properties of one are attributed to the other, and the directions for use might lead to the injection of ten or even one hundred times the required dose. Although the use of tuberculin, both for diagnostic purposes and in the treatment of tuberculosis, is not so general in this country as in some parts of the Continent, both varieties are sufficiently often employed to make such confusion as Mr. Gamble describes a matter of importance. We must refer inquirers to the columns of the *Pharmaceutical Journal* for the references given in support of Mr. Gamble's thesis, and if he is correct in his conclusions it is to be hoped that steps will be taken to correct any inaccuracies which might lead to undesirable effects.

The Sanitary State of Cuba.—Reports have for some time been current that yellow fever, which was suppressed in Cuba while the island was under American administration, was once more gaining a foothold, and this was attributed to laxity on the part of the Cuban Government in enforcing sanitary regulations. In view of these reports Senor Quesada, the Cuban Minister at Washington, has issued a statement in which he says that there has been no epidemic of quarantinable diseases. He adds that yellow fever, smallpox, cholera, and the plague have not developed in Cuba since the proclamation of the Republic. Neither of the two cases of yellow fever which occurred at Punta de Sol in October and November has disseminated the disease. He states that the rate of mortality in the island has steadily decreased since the establishment of the Republic, and now compares favourably with the best results in the United States and in Europe. He admits that, owing to the financial inabilities of certain municipalities, caused by the recent war, and up to this year by the low prices obtained by Cuban staple products, they have been unable to do as much as they would like for water supply, street cleaning, pavements, and sewers, but he affirms that this has not caused yellow fever.

Medical Sickness and Accident Society.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on December 30th, 1904, Dr. de Havilland Hall in the chair. The accounts presented showed a considerable increase in the number and amount of the sickness claims. The amount paid away during the winter months is greater than that disbursed in the warmer weather, but claims are now being received from members suffering from influenza, which are numerous, though of short duration. At the last general meeting it was resolved that all members of the Society who reach the age of 65 in sickness benefit should receive a cash bonus of 10 guineas in respect of every 1 guinea of weekly sickness benefit which they had secured. A statement was produced to the Committee showing that these bonuses had been paid to all the members so far entitled to them, nearly £1,000 having been disbursed in this manner. The usual amount of the bonus is £42, and to many of the recipients the cheque for this amount came as an agreeable surprise. It is paid to them at the time when, through their having attained the limit of age allowed by the rules, they are no longer entitled to draw sickness pay. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

The Hong Kong College of Medicine for Chinese.—We have received a remarkable and—from the point of view of human progress—even inspiring document in the calendar of the Hong Kong College of Medicine for Chinese, in which is set forth how it was founded in 1887, largely through the efforts and enthusiam of Sir Patrick Manson, Dr. James Cantlie (the earlier Deans of the College), the late Rev. Dr. Chalmers, and the late Dr. William Young. The College has its head quarters in the Alice Memorial Hospital, Hong Kong, and the affiliated Nethersole Hospital is also open to students for purposes of clinical instruction. The Rector, who is the President of the Governing Court of the College, is Hon. Francis H. May, C.M.G., Colonial Secretary, and its present Dean, the third in the succession, is Dr. Francis W. Clark. Up to 1904 87 students had been enrolled, of whom 28 had retired, 40 were engaged in study at various stages of the curriculum, and 19 had passed all the examinations, had been certified fit to practise their profession, and were granted the title of Licentiate in Medicine and Surgery (L.M.S.H.). The list of their names begins with Sun Yat Sen, Japan, and ends with Peter Quincey, Shanghai. The minimum period of study is five years, and all professional examinations are conducted by independent examiners appointed by the Senate, who, as a rule, have no other connexion with the College. Candidates are required, after having passed a matriculation examination, to have attended courses of instruction in all, or almost all, the recognized subjects for the home degrees, including tropical diseases and infective fevers. During 1905 four medical scholarships are open for competition among the members of the school. It is, we think, not too much to say, on the strength of such a record alone, and assuming for the nonce the prophetic rôle, that the so-called Yellow Peril, if such there be, is growing beautifully less.

Bequests.—Miss Hannah Beswick, of Mossley, by her will bequeathed £1,000 to each of the following: Ashton-under-Lyne Infirmary, Manchester Royal Infirmary, Henshan's Blind Asylum and the Manchester Royal Eye Hospital. After paying some private legacies, the residue of the estate, which is expected to be considerable, is to be equally divided among the four institutions mentioned.

British Medical Journal.

SATURDAY, JANUARY 14TH, 1905.

SANATORIUM STATISTICS.

As a paper by Dr. W. B. Ransom, which will be found elsewhere in this issue, serves to remind us, it is now some six years since the education of the public with regard to the prevalence and preventability of phthisis was first taken seriously in hand. Like at least one other of the great public medical policies of the day, it was initiated at Marlborough House. Since then great energy has been devoted to the furtherance of the movement, and it has so far prospered that there is now little fear that the crusade against tuberculosis, in one direction or another, will be allowed to drop. That part of it which consists in the general application of open-air or sanatorium treatment started with the advantage of a strong professional feeling in its favour, and its underlying principles are so thoroughly in accord with what may be called medical common sense, that the conversion of a platonic acceptance of them into provision for their practical application has so far met with no serious opposition. Indeed, so far as the wealthier classes are concerned, the provision is likely soon to be sufficient, but as regards the nation at large nearly everything still remains to be done.

For open-air treatment to play any really great and effective part in the general war against tuberculosis, sanatoriums for the treatment of the curable and homes for the care of the incurable must be dotted freely throughout the length and breadth of the land, and must be erected chiefly, and maintained largely, out of the public purse. The expense of sanatorium treatment is considerable, though fortunately the large sums spent upon the King's sanatorium at Midhurst and on some others need not be taken as a standard of the necessary outlay. Nevertheless, the aggregate expenditure entailed, for instance, in the provision by any county council of a sufficient number of homes and sanatoriums for its area is very great, and though not incommensurate, we think, with the ultimate beneficial addition to the life capital of the nation, it is scarcely to be wondered at that some authorities should hesitate to face such an outlay of public funds.

Some idea of the magnitude of the problem and the difficulties standing in the way of its solution may be gathered from the case of the Metropolitan Asylums Board. To all interested in the subject we commend a careful study of the summary of the negotiations which have taken place in connexion with the endeavour to persuade that body to take upon itself the responsibilities of acting as the sanatorium authority for the metropolis, given by Dr. Orme Dudfield in a paper[1] read before the council of the Charity Organization Society in October last.

As was foreseen from the beginning, difficulties of this character are inevitable; they have already been overcome in many places, and we confidently believe that in process of time, and even before very long, they will be overcome in all localities, and that sanatorium treatment will thus be added everywhere to the other muniments of the antitubercle war. Nevertheless, it must be understood that this will not ensure the attainment of the fullest usefulness of these institutions. When the sanatoriums are erected, occupied, and in full work, the pendulum will inevitably again swing back, and voices powerful enough to make themselves heard will insist that the expense of maintenance is heavy, and will ask if it be worth while to keep them up. This, indeed, is virtually the question asked by Dr. Ransom. He asks it in a friendly spirit, and answers it with a free affirmative. The man who asks it hereafter, and at the time which we have in mind, will be some Ratepayers' Only Friend, and he will ask it in a very different tone. The public will then turn to the medical profession for an answer. How will the answer be given, or, to speak more precisely, in what way will the opinion of the profession be formed?

Doubtless in this as in other matters many men will be influenced chiefly by their personal experience of the greater or smaller number of individual cases with which they themselves have had to deal. The general body of the profession, however, will probably take a broader view, and, especially when called upon to advise whether a great expenditure of public moneys shall be continued or stopped, will desire to form its opinion upon mass results. There will then be a general call for a more or less official statement of the net outcome of the past year's work and expenditure, and this will necessarily take the form of statistics; it is worth while, therefore, to consider whether under present circumstances the call is likely to be answered. A statement based upon a quotation of the results obtained by individual institutions will not suffice; the statistics must be mass statistics collected and compiled from a vast number of different sources but all drawn from returns prepared upon precisely the same lines, so that the ultimate statistical statement shall be made up of units which are truly comparable. Are the materials for such a statistical statement at present in the process of formation? Dr. Ransom, it will be noted, bases his reply to his self-propounded question both upon statistics and upon personal impressions. It is fairly obvious, however, that he depends much more upon the latter than upon the former, while the reasons why he should do so are still more evident. In his statistical consideration he deals only with a few of the better known sanatoriums; nevertheless the terms which he has to mention as used in connexion with the indication of results are numerous and even when they coincide there is no certainty that they are intended to cover precisely the same conditions of health or disease.

Even, therefore, without going further than this paper, there is sufficient warranty at hand for stating with considerable confidence that no materials for mass statistics are at present in process of formation. There is, in short, no consensus among administrators of sanatoriums either as to what terms shall be used to denote the condition of patients before, during, and after treatment, or as to the precise sense in which they shall be used. This is an important matter, and one to which it seems to us atten-

[1] An account of this paper, and of the important discussion which followed its reading, may be found in the December issue of *Tuberculosis*, published by Adlard and Son, St. Bartholomew Close, E.C., for the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

tion should be given without further delay. Obviously, from any statistics based upon the summing up of varying clinical pictures by different persons it is impossible to eliminate all error, but if agreement were reached the limits of the variation of error might be deduced to a very low figure. As a model of the sort of form which might be adopted we may point to the terminology framed for the use of its members by the Nomenclature Committee of the American Climatological Association, which was published in the EPITOME of May 21st, 1904, par. 312. Finally it may be remarked that an agreement would have an immediate as well as future value. Brehmer's rule of abundance of pure air and careful regulation of rest and exercise still forms the foundation of all sanatorium treatment, but the ways in which it is carried out differ in detail to some extent, and until some agreement such as that here referred to has been reached it will remain difficult or impossible really to assess the value of these variations in sanatorium routine.

THE ETIOLOGY OF SYPHILIS.

SOME time ago Metchnikoff and Roux proved that syphilis can be transmitted to anthropoid apes. They have been continuing their researches and in a recent paper[1] report several further observations which are of considerable interest and importance. One of these throws some light on the intimate nature of the syphilitic virus itself. Two chimpanzees were inoculated with a suspension of the same syphilitic material under experimental conditions which, with one exception, were absolutely identical. The material inoculated into one of the animals was first passed through a Berkefeld filter. In this animal not the slightest trace of disease was produced. The other developed typical syphilis. The permeability of the filter used had been previously tested; it was found to be impermeable to cholera and water vibrios but to admit the passage of certain other minute bacterial micro-organisms. This is, therefore, a very valuable orientation experiment upon the size of the mysterious syphilitic organism; relatively to the bacteriological standard of magnitude, its size is small but definitely appreciable. Moreover, the absence of movement in a suspension of active syphilitic virus examined under the microscope indicates that the organism is non-motile.

We also learn that the syphilitic virus is readily destroyed by heat. After exposure to a temperature of 51° C. for one hour, Metchnikoff and Roux found that its power to produce infection in the chimpanzee was completely destroyed. They then endeavoured to determine if it was equally susceptible to the well-known bactericidal power of glycerine, and found that when syphilitic material was diluted with several volumes of concentrated glycerine, and then immediately inoculated into chimpanzees, the efficacy of the virus was not destroyed. This is an interesting observation, but one naturally wants to know what would have happened if the glycerine had been allowed to act for a longer period.

It is well known, as a matter of general bacteriological experience, that it is often possible to destroy the virulence of infective material without rendering it incapable of producing immunization. It was therefore interesting to see whether the syphilitic virus after filtration, or after heating to 51° C., possessed the property of acting as a vaccine. In order to throw some light on this question the chimpanzees used for the experiments with filtered and heated material were inoculated, three weeks subsequently, with unmodified syphilitic virus. In both cases typical syphilitic lesions resulted. This experience makes it appear probable that viruses which have been deprived of all pathological action and are incapable of provoking even a local lesion, cannot be employed with any hope of success for the production of immunity against syphilis.

Finding that syphilitic material which has been rendered inert by artificial means is useless as a vaccine, the main problem, as it presents itself to Professors Metchnikoff and Roux, is to obtain a vaccine consisting of living material which, while sufficiently potent to produce a local lesion, is incapable of causing a more general infection. If a diminution of virulence could be obtained by a mere diminution in the amount of material inoculated, there would be a reasonable prospect of solving the problem very readily, by instituting an adequate series of experiments with graduated doses, and so determining the dose appropriate for the production of a minimal lesion. But unfortunately there is no indication that the relationship of virulence to dose is one of direct proportion. A small amount of syphilitic material obtained from a monkey of the special *Macacus cynomolgus* produced absolutely no result when inoculated upon a chimpanzee. Forty-eight days afterwards the same chimpanzee was inoculated with a larger amount of material from another specimen of *Macacus cynomolgus*. Syphilitic lesions were produced, and were so extensive as to render it impossible to consider *Macacus cynomolgus* a suitable anthropoid for the provision of a safe vaccine.

Metchnikoff and Roux consider that the problem therefore resolves itself into an attempt to discover the exact species of animal in which the factors of natural susceptibility and natural resistance to the syphilitic virus are so nicely balanced that it will yield a vaccine sufficiently attenuated to be incapable of producing severe disease in the higher and more susceptible anthropoids and at the same time sufficiently vigorous to be capable of producing in them the degree of specific tissue reaction which is requisite for immunization. Various species of monkeys, as we know from the work of Dr. Nuttall and others, differ very considerably in the proximity of their blood-relationship to man, and it is only in animals closely allied to man that experimental syphilis can be produced at all; there is therefore a reasonable theoretical ground for the expectation that an animal may be found which occupies the desired intermediary position in its reaction to the syphilitic virus. Professors Metchnikoff and Roux are eagerly engaged upon the quest for the species of monkey which will fulfil this desideratum. Their work is still in the stage of orientation and not extensive enough to form a basis for general conclusions, but we note that they have already obtained some results which are sufficiently encouraging to justify further research.

As the experimental representative of man the chimpanzee has proved particularly useful. Every specimen inoculated, ten in all, developed syphilis; in seven instances the animals were inoculated with serous fluid from hard chancres in human subjects, in the other three the material used for inoculation was obtained from syphilitic lesions in other anthropoid apes. Typical lesions appeared after an incubation period which was found to vary in different cases from 22 to 37 days.

[1] *Annales de l'Institut Pasteur*, November, 1904.

THE METROPOLITAN ASYLUMS BOARD AND SMALL-POX RESEARCH.

THE advantage which would accrue to public health from better knowledge of the pathology and bacteriology of small-pox is self-evident. Immense attention has been given to this disease ever since preventive medicine came to be studied as a science, and we have at command probably a larger bulk of well-ascertained facts regarding the epidemiology of small-pox than in the case of any other infectious disorder. The relations between human and bovine variola have long been established, and thanks to Jenner's discovery of vaccination more than a century ago, we possess in the case of this alone among the infectious diseases a practically certain method of rendering ourselves immune to attack, and every day we turn this knowledge to practical account. But as yet we cannot complete the natural history of our most preventable infectious disease. We need further knowledge of the variola micro-organism, satisfactory methods for its identification, facts as to its vitality under different conditions, and many other matters for which the work of the bacteriologist and experimental pathologist is essential.

Some advance in this direction was made in America last year by the publication of the investigations of Councilman and others into the organisms termed "cytorictes variolae," but in this country small-pox has received comparatively little attention from bacteriologists since the investigations of Dr. Monckton Copeman some ten years ago. One reason, no doubt, is that in many places it is difficult to obtain material from small-pox cases, even in epidemic times, owing to the promptness with which such cases are removed to hospitals situated at a considerable distance from populous neighbourhoods. In London the subject has a special interest for the Metropolitan Asylums Board, which annually spends something like three quarters of a million on the isolation of cases of infectious sickness, and would be the first to benefit by any new knowledge resulting in improved methods of prevention or cure of any of the diseases which it is called upon to treat.

Several months ago a proposal was made to the Metropolitan Asylums Board by Dr. T. F. Ricketts, the medical superintendent of their large small-pox establishment at Joyce Green, that use should be made of the exceptional opportunities there existing for study of the bacteriology and pathology of small-pox, and that for this purpose the Board should agree to certain investigations involving experiments on animals being conducted on the hospital premises. No cost was to be thrown on the rates; the work proposed could not in any way interfere with the comfort or well-being of the patients; moreover, the scheme was conditional on the assent of the Home Office and Local Government Board, and thus would necessarily receive careful inquiry from expert officials. Objection was at once taken, however, by "antivivisectors" on the Board and by others outside. A large section of the Board was induced to offer strenuous opposition to the proposal, and great efforts were made to prejudice the boards of guardians, by whom the Metropolitan Asylums Board managers are elected.

It is satisfactory that in the end, after protracted debates, the Board has given its assent, but it is much to be regretted that so many of its members should have allowed themselves to receive proposals made by an experienced and responsible officer in such a manner as has been described. No public body has better cause for turning a deaf ear to the misrepresentations of antivivisectors. Not many years ago an imposing deputation, headed, if we remember right, by the late Lord Coleridge, implored the Metropolitan Asylums Board to have no part or lot in methods of dealing with diphtheria involving experiments on animals. The Metropolitan Asylums Board manager has but to contrast the figures of diphtheria mortality given in his Board's reports for the years before and after the general use of antitoxin at its hospitals to realize how much human life would have been lost had that advice been followed.

MEDICAL INSPECTION OF SCHOOLS.

WE are glad to find that the principle that the medical inspection of schools should be conducted not by special whole-time officers, nor by medical officers of health, but by medical men engaged in ordinary family practice in the neighbourhood is gaining ground. The principle was fully explained in Mrs. Watt Smyth's work on *Physical Deterioration*, and has frequently been restated in our columns; by medical inspection is understood the supervision of the health of the school children in relation especially to infectious diseases, overpressure, and underfeeding. In a leading article in its issue of January 10th the *Times* writes: "We are strongly impressed with the belief that, while the medical officer of health should be the school authority in all sanitary matters, and should be supreme over drainage, ventilation, lighting, cubic space, and similar matters, yet that, when he is restricted to his official work, it would usually be better to employ a practitioner as the visiting medical officer of the school in relation to any questions in which the health of individual children might be concerned." After referring to the investigations of Sir Shirley Murphy and others, who have shown that schools form the most frequent centres from which infectious diseases are diffused, our contemporary continues: "Watchfulness over this aspect of their activity would be best maintained by a medical man who was accustomed to observe the beginnings of illness in single patients, rather than the conditions favourable to its extension in a community." The occasion which drew forth these remarks was a meeting of the Society of Medical Officers of Health to discuss the report of the Inter-Departmental Committee on Physical Deterioration. Sir Lauder Brunton, who introduced the subject, had spoken of periodical medical inspections of school children, which is of course a very different thing; by such inspections the feeble-minded, the short-sighted, and the underfed would eventually be picked out, but not before a certain amount of preventable mischief had been done. The system of periodical medical inspection would also fail to prevent elementary schools becoming, as has happened frequently in the past, centres of infection for measles, whooping-cough, scarlet fever and diphtheria. Moreover, we believe that it would be for other reasons undesirable to divorce this work from the ordinary practice of the profession: it is not work that calls for the appointment of specialists; it is exactly the work which the general practitioner is doing every day, and is better qualified to do well than any other class of men in the profession; moreover the experience would be valuable to young practitioners. We venture to think that the present time, when local education committees are beginning their career, is an opportune moment for the discussion of the subject by the Divisions of the Association; it is very much easier to introduce a good system at the beginning of a new order of things than to reform a defective plan when once established.

THE EVOLUTION OF THE MEDICAL PROFESSION IN CANADA.

To the *Montreal Medical Journal* for December, 1904, Dr. A. A. Foucher contributes a sketch of the origin, evolution, and present condition of the practice of medicine in Canada. The art, and such science as there was at the

time, was imported into that country from France some three centuries ago. One of the first physicians mentioned in the history of Canada is Bounerme, who went out with Champlain in 1608, and was concerned in a mutiny against that leader. Later one hears of Robert Gifrard, Seigneur of Beauport, Physician to the King of France, and Counsellor to His Most Christian Majesty at Quebec, as first physician to the Hôtel Dieu of that city. In 1658 a licence to practise as a Master Barber-Surgeon was issued to Jean Madry of Quebec. The barber-surgeons had a good field for the exercise of their professional talents in Canada, where practitioners of a higher grade were for a long time almost unknown. The first hospital established in North America was the Hôtel Dieu of Quebec, which was founded in 1639 by the Duchess d'Auguillon, niece of Cardinal Richelieu. In 1643 the Hôtel Dieu of Montreal was founded by Mademoiselle Mance. The state of surgery in Canada at the time may be inferred from the fact that this pious foundress, having dislocated her shoulder by falling on the ice, found native talent so unsatisfactory that she went back to France to be treated. When Canada became a British colony in 1763 French immigration almost entirely ceased. A medical profession of home growth was thus called into being. Nowhere has Dr. Foucher found any indication that a French-Canadian went to France to study medicine before the beginning of the nineteenth century. As there was no medical school in the colony those who wished to acquire the art and had money enough went to the United States, where the first school was established in Philadelphia in 1765. In 1787 George the Third issued an ordinance exempting doctors from service as constables in Quebec and Montreal. In the following year he decreed that no one should practise as a physician or a surgeon without the permission of the Government or the Commander-in-Chief, and issued a commission to certain authorities to examine applicants. That decree marks the first step in the formation of a body having control of professional interests. It reappeared in 1847 under the name of the Collège des Physiciens of the Province of Quebec with more extended powers and privileges. The first Canadian Medical Society was founded in Quebec in 1826, the first President being Joseph Morin. Till that time the hospitals of Quebec and Montreal had never been used for purposes of clinical instruction. An Emigrants' Hospital under the control of the Government was founded at Quebec, and the patients were given the right to choose their own doctors. Naturally the result was chaos. The Government then appointed a staff of four, selected from the oldest practitioners in the city. The others, of course, were dissatisfied, and things were no better than before. In 1819 the English General Hospital was founded in Montreal; among its regulations was one to the effect that "the position of doctor or surgeon will only be given to those having a diploma of a University or College within the limits of the British Empire." The first members of the medical staff were Drs. Caldwell, Robertson, Stevenson, Holmes, and Loedel, all of whom taught medicine privately, and later became the founders of the first regular school of medicine in Canada. On the foundation of McGill University they formed themselves into its medical faculty. The first course of lectures was given in the winter of 1829-30. In 1827 King's College was founded in Toronto; later it assumed the title of University of Toronto. Then arose in succession the Victoria University of Coburg in 1836, started by the Methodists, and Queen's University at Kingston in 1841, founded by the Presbyterians. The year 1843 saw the founding of the Montreal Medico-Chirurgical Society, which lived only two years. Sir William Hingston was present at its decease in the quality of president. The society was reorganized in 1870, and since then has enjoyed a continuous existence. A school of medicine and surgery was founded in Montreal in 1842, and was affiliated to the Victoria University of Coburg, with the power of conferring the diplomas of that institution. It continued the teaching of medicine up to 1893, when it became amalgamated with Laval University of Montreal, of which it has remained an integral part. The School of Medicine in Quebec was founded in 1848, and was replaced later by Laval University. Trinity College, University of Toronto, was founded in 1851; then came Laval University in Quebec in 1852. The Canadian Medical Association, which meets every year in one of the principal cities in Canada, was founded in 1867. Bishop's University, of Lennoxville, founded a Faculty of Medicine in Montreal in 1872, and finally in 1878 there was established the Laval Medical Faculty of Montreal.

THE EGYPTIAN SCHOOL OF MEDICINE.

THE new volume of scientific *Records*,[1] published by the Egyptian Government School of Medicine, covers a fairly extensive field. As the result of a research on the venom of scorpions, Dr. W. H. Wilson finds that the active principle of the venom is apparently of a proteid nature, probably either a nucleo-albumin, an acid albumin, or a primary albumose. The active principle is soluble in glycerine and in saline solution, but insoluble in 85 per cent. alcohol, and is unaffected by drying. For the guinea pig the minimal fatal dose is approximately 0.1 milligram per kilogram. The poison produces muscular spasms of peripheral origin, copious secretions of the glandular tissues, and, finally, death from inability of the respiratory muscles to respond to stimuli reaching them from the central nervous system. Dr. Llewellyn P. Phillips has an interesting article on the part played by malaria in the production of ascites. Taking 100 consecutive cases of ascites at Kasr-el-Aini Hospital, Cairo, he found that 78 per cent. were due to diseases of the liver and spleen; while malignant disease, syphilis, alcoholic, and bilharzial cirrhosis accounted for 16 of these cases, 30 were definitely attributable to malarial disease, and in the remaining 32 cases, described as doubtful, a malarial origin was considered probable in as many as 22. Mr. F. C. Madden, F.R.C.S., writes of his surgical experience of some unusual manifestations of bilharzia, including tumours found in the bladder, transverse colon, vulva, vagina, and uterus. The description of some of these tumours is rather meagre, and it is difficult to satisfy oneself that a diagnosis of malignant disease could in every case be excluded. Mr. Madden admits that it is an open question whether some of the hard, firm masses associated with bilharzial disease ought not to be regarded as cancerous. They certainly give rise to much interesting speculation as to whether we may regard bilharzial infection as a genuine "pre-cancerous condition," and we sympathize with Mr. Madden in his regret that the valuable pathological material available at his hospital has not been thoroughly investigated owing to the lack of skilled scientific assistance. Other articles deserving of mention are an interesting description by Mr. Gorgy P. G. Sobhy of the customs and superstitions of the modern Egyptians connected with pregnancy and childbirth, and a very elaborate treatise by Dr. Elliot Smith on the morphology of the occipital region of the human brain, with special reference to that of the Egyptians.

THE EXHIBITION OF SURGICAL OPERATIONS.

IN a communication from the Paris correspondent of the *Standard*, which appeared in that journal on January 7th, it was stated that Dr. Doyen was plaintiff in a case which has excited a good deal of gossip in Paris. "For some years past," he says, "Dr. Doyen has had all his more important surgical operations cinematographed, his object being to leave an exact record for the eminent surgeons of future ages. Unhappily, the firms which took the films do not seem to have regarded their responsibilities in a scientific spirit. According to Dr. Doyen, not only were the films used for the edification of curious audiences in Europe and America, but they were even exhibited at country fairs. It is about three years ago that the first films were taken, and, shortly afterwards, a Parisian hostess, anxious to provide a novel entertainment

[1] *Records of the Egyptian Government School of Medicine.* Vol. II. Edited by the Director. Cairo: National Printing Department. 1904. (Demy 4to, pp. 173. 7 plates, 48 illustrations.)

for her guests, had a cinematographed operation performed after a select little dinner party. These interesting displays promised to become fashionable, until a lady, who some time before had undergone an operation, happened to be present at a party where the cinematograph, by some extraordinary coincidence, proceeded to give a graphic representation of her sufferings. There is no doubt that the films taken at Dr. Doyen's operations were sold and exhibited against the doctor's wish. He tried by every means to stop the display of the films, and is now claiming 200,000 francs damages. The defendants allege that, as they took the films, they were free to use them as they pleased. Judgement in the case has been deferred." The "awkward dilemma" in which Dr. Doyen has found himself placed brings to mind a curious—it might almost be called a parallel—instance of the fondness of our Gallic neighbours for physiological or anatomical displays for the special delectation of select private parties, as far back as a century and a half ago. In *The World*, No. 6, dated Thursday, February 8th, 1753, after commenting on the fact that "the last branch of our fashions into which the close observation of Nature has been introduced is our desserts," and instancing many of the remarkable achievements of the confectioners of the time, the entertaining essayist winds up with the following paragraph, the concluding sentence of which is somewhat remarkable in view of the displays with which modern Parisian hostesses have been amusing their parties: "I shall mention but two instances of glorious magnificence and taste in desserts, in which foreigners have surpassed everything yet performed in this sumptuous island. The former was a Duke of Wirtemburg, who, so long ago as the year 34, gave a dessert in which was a representation of Mount Ætna, which vomited out real fireworks over the heads of the company during the whole entertainment. The other was the Intendant of Gascony, who, on the late birth of the Duke of Burgundy, among other magnificent festivities, treated the *noblesse* of the province with a dinner and a dessert, the latter of which concluded with a representation, by wax figures moving by clockwork, of the whole labour of the Dauphiness, and the happy birth of an heir to their monarchy." *Mutatis mutandis*—cinematograph pictures for clock-worked waxworks—the incident seems so strikingly similar as to deserve notice.

THE PUFFING PARAGRAPH.

ONE of the most frequent of the manifold complaints which are poured into the editorial ear is of the appearance in newspapers of biographical notices of medical practitioners or records of their achievements. The puffing paragraph with which the new journalism has made us too familiar is always objectionable, but in the case of medical men it is often something worse, for it may be false as well as fulsome. In this way it may be misleading to the public as well as harmful to the practitioner, who is made ridiculous by inappropriate praise. There is nothing, indeed, that makes the judicious grieve more than maladroit flattery, which is as embarrassing to the victim as the clumsy caresses of the horse in the fable who tried to emulate the dog's gambols about his master. It may be assumed, on the low but solid ground of enlightened self-interest, that as a rule puffing paragraphs concerning medical practitioners are not inspired by them. Newspapers cannot, as long as the law of libel is not infringed, be prevented from giving information which is considered likely to interest their readers. What, then, is to be done by the doctor on whom a too friendly editor persists in turning the limelight? In a recent issue we mentioned that an American physician had proceeded against a newspaper which had puffed him for injury caused by what may be termed an inverted libel. We have not seen the result of the case, but we fear that in this country at any rate such an action would probably fail. Another method is that adopted by the Orleans Parish Medical Society which lately passed a resolution to the effect that "copies of all articles appearing in the daily press of this city relating to members in this society shall be placed by the secretary in a scrapbook, which shall be kept on the president's desk for the inspection of members. The book shall be indexed. Any member whose name shall appear therein will have the privilege of attaching thereto a written explanation." More recently another American society has adopted a similar measure. The plan certainly seems to be worth a trial. Any man may be puffed once or even twice without his knowledge, or even against his will. But if his name constantly appears in the papers he may find it difficult to satisfy his brethren that he is the innocent victim of a malign combination of circumstances.

ARMY MEDICAL REORGANIZATION IN AMERICA.

THE Medical Service of the United States Army has for a long time been undermanned to a degree that would seriously cripple its efficiency in war. Strong representations on the subject have from time to time been made by successive surgeon-generals, and the matter has been brought before the Legislature. Till now nothing has been done, although the responsible authorities, unlike some others nearer home, are fully alive to the importance of a really efficient army medical service. There appears, however, to be a good prospect of a satisfactory solution of the question. In the annual report of the Secretary of State for War recently submitted to Congress the following highly significant passage occurs: "It is evident that a staff department, which has a *personnel* insufficient to perform the duties required of it in time of peace, cannot be successfully expanded to meet the increased responsibilities of war. The commissioned *personnel* of the Medical Department is nearly 200 short of the number required to perform its work at present, and the deficiency has to be made good by the employment of civilian physicians under contract. This is an expensive and unsatisfactory expedient in time of peace, while in time of war it heavily handicaps the efficiency of the Department. A Bill to increase the efficiency of the Medical Department was sent to Congress at its last session with my approval, it having also received the favourable endorsement of my predecessor, Mr. Root. It provides for an increase in the Medical Department from 320 to 420, so as to do away with most of these contract surgeons. It also provides, approximately, the same proportion in each grade as is now given to the Medical Department of the Navy, and which the Medical Department of the Army enjoyed prior to the reorganization of February 2nd, 1901. While this Bill will only slightly increase the cost of the Medical Department it will very greatly increase its efficiency." In a telegram from Washington, dated January 10th, which appears in the *Times* of the 11th, it is stated that the President has sent a Message to the Senate urging the passing of the Bill providing for the reorganization of the medical service of the army. Mr. Roosevelt says: "I am satisfied that the medical corps is much too small for the needs of the present army, and therefore very much too small for its successful expansion in time of war. If it is left as it is, no amount of wisdom and efficiency in its administration can prevent a complete breakdown in the event of a serious war." The Bill had already been passed when the President's Message was received, but we quote his words, inspired as they are by practical wisdom and a due sense of the gravity of the matter to which they refer, in the hope that Mr. Arnold-Forster and the Army Council may find in them a lesson which they will lay to heart. *Mutato nomine* they apply to our own army, which is as ill-provided with medical officers as it is with guns; but our Government is apparently too busy with "hustling" income-tax payers and warring on passive resisters to have time to spare for such a trifle as the health of the army. They have at last been forced to listen about the guns; is it too much to hope that they will next be compelled to deal in a serious spirit with the question of providing a medical service sufficient in numbers as well as efficient in quality? It is only fair, however, to say that if our Army Medical Service is again caught unprepared for war, with the clearly foreseen and repeatedly foretold result of a disastrous breakdown, the fault will lie not so much with the Government as with the people of this country. If the

nation wishes that the soldiers who fight its battles should be properly cared for when wounded or sick, it has only to speak the word. As long as it continues to treat the matter with utter indifference, Governments—which, after all, only reflect its will—may be trusted to do likewise.

HOSPITAL SHIPS FOR TIME OF WAR.

IN a letter to the *Times* of December 26th, 1904, Mr. Alfred Stead describes the arrangements made by Japan before the present war in regard to hospital ships for the transport of sick and wounded in time of war, the insular position of Japan rendering such ships, it was held, a prime necessity. Their establishment by Japan was due to the Red Cross Society, which has nearly 1,000,000 members. It was considered useless to depend on transports improvised into hospital ships on the outbreak of war, because all vessels would then be needed for the transport of troops, and, besides, their lack of sanitary arrangements would involve serious risk to invalids and wounded. Accordingly it was decided that hospital ships of special design should be built, and the question of expense of construction and of their lying idle for long periods had to be faced. An arrangement was eventually made with the Government-subsidised steamship company, the Nippon Yusen Kaisha, to build and equip at the expense of the Society two ships on a plan of construction to be laid down by a technical Committee of the directors of the Medical Service of the army and navy, a naval architect of the Imperial Navy, an engineer of the Nippon Yusen Kaisha, and members of the Administration Committee of the Society, which were to be sold by the Society to the Nippon Yusen Kaisha at the cost of construction, in yearly payments, without interest, extending over twenty years, on the condition that when required for transport work they should be available in their original form, and during that time the company should be paid an indemnity at the rate paid by the Government for requisitioning its ships. The cost of food, etc., for the staff was to be paid by the Society, and the ordinary running expenses, including coal, by the company. During the specified twenty years the company was to take all responsibility regarding damage or loss of the ships, and at the end of that time the Society undertook to build three ships with the accumulated sum of the moneys paid by the company and the interest accruing. This arrangement began to take effect in August, 1897, and by the end of 1898 two hospital steamers, costing £54,000 each, were completed on the Clyde. The boats have proved extremely valuable both in the Boxer rising and in the present war. Their gross tonnage is 2,774, their horse-power 878, their maximum speed 14¼ miles, and each contains 208 beds, besides a full equipment of medical and surgical officers, rooms, and stores. During the Boxer outbreak the ships made seven trips, and each carried 3,059 patients. It might not be other than a sign of a wise humility if Great Britain learned some object lessons from her pupil, and if no unofficial enterprise showed itself the War Office, Mr. Stead suggests, might well enter into an arrangement with one or other of the great British steamship lines on the Japanese model.

THE BRITISH OPTICAL ASSOCIATION AGAIN.

AT a recent meeting held at Manchester, called for the purpose of presenting illuminated addresses to two of the organizers of the British Optical Association, an ill-informed attack seems to have been made upon the medical profession on the ground that the "General Medical Council," or the "Medical Faculty," or "medical men"—for the different reports before us vary to this extent—are promoting, or about to promote, some Bill before Parliament, which, if passed, would have the effect of taking away from the body of optologists "thousands of students and hard-working men who were engaged in a legitimate calling." We certainly find it hard to understand how any Act of Parliament could take from the body of optologists students or men, few or many, hard-working or otherwise, but as both the *Manchester Courier* and the *Daily Telegraph* agree in reporting the statement in these words, we presume it was what was said. The *Daily Express* uses almost the same words, but says: "The Bill will take away from the ranks of opticians thousands of hard-working students by stigmatizing them as quacks." A Bill that would do this would certainly be a strange document, but it is curious that it is quite unknown to us. According to the *Daily Express*, Mr. Sutcliffe, the Secretary of the British Optical Association, says that "the Bill drafted by the Medical Council is so drastic that a masseur in a Turkish Bath would be liable to arrest if he said that he could do a patient good by rubbing him!" No doubt rubbers in Turkish baths often give unsolicited advice, and talk great nonsense to the persons who are undergoing their attentions; they have generally an ointment or a liniment which they try to recommend, very much in the same manner as our friends the hairdressers endeavour to promote the sale of their wares by taking advantage of the thinning of our locks which naturally results from the advance of time. But the British Optical Association has proposed to seek "legislative powers" to enable it to give certificates of efficiency in sight testing, against which proposal we have protested, and shall continue to protest, on the ground that it is impossible to consider sight testing as simply a question of mechanics, or the human eye as merely an optical instrument. Ocular defects are so closely related to many general or local diseases that great public harm would result from any legislation which sanctioned the view that all defects of eyesight can be remedied by a tradesman equipped with a sheet of test type and a case of lenses.

THE PROBLEM OF THE FEEBLE-MINDED.

DR. TREDGOLD'S paper read at the Guildhall Conference on the Feeble-minded has now been printed, and will be found to contain a very succinct discussion of the sociological bearings of the efforts now being widely made to improve the condition of the mentally defective class. He points out "that with the exigencies of civilized life, the demands upon the intellectual faculties of the individual become daily more exacting," and consequently that it is highly important to the community to devise means to prevent those who by original infirmity are incapable of meeting them from swelling the ranks of pauperism, crime, and insanity. Defining amentia, or mental deficiency, as the manifestation of an imperfect or arrested development of certain cells of the brain, in the great majority of cases due to a defect inherent in the germinal plasm, Dr. Tredgold deduces from the teachings of experience, as well as of etiology, that cure is out of the question; yet training can do much, at any rate for the milder grades of defect, though effective training involves a large expenditure of time and money. Such an expenditure, however, he argues, is not wasted if thereby such unfortunates may be prevented from drifting into pauper vagrancy, into crime, and into insanity, a course which entails upon the community a charge far in excess of that of even specialized education. He does not agree with the views held by some, that "all patients suffering from whatever degree of mental defect should be subject to permanent detention," and contends that "so long as the feeble-minded, or any other section of society, are capable of earning an honest living, it appears unjustifiable to interfere with their liberty." At the same time, he recognizes the necessity of judicious after-care even for them, and alludes to the scope there is for philanthropic persons to form associations for this purpose, and perhaps also to provide industrial colonies or boarding-houses of a voluntary character. But training alone does not solve the whole problem, "since it fails in one-third, and is only partially successful in another third of the cases"; and so, in addition to (1) adequate training and (2) after-care associations, Dr. Tredgold advocates (3) the establishment of industrial colonies for the permanent detention of those who are only partially self-supporting, and (4) cheaper institutions for the permanent detention of

the failures. The last-mentioned class, he thinks, might fittingly be dealt with under the provisions of the "Idiots Act," so far as detention is concerned; but the difficulty everywhere, except, perhaps, in the metropolitan area, is the lack of sufficient accommodation for unimprovable imbeciles, which Dr. Tredgold thinks the county councils, either singly or in combination, should be required to provide.

SILK WEAVERS AND TORSION OF OVARIAN PEDICLE.

AN interesting article on an association of a well-known gynaecological complication with a special industry has recently been published by Gelpke, of Liesthal.[1] In the hospital of that town, near Bâle, no less than 8 cases of axial rotation of the ovarian pedicle were admitted during the last three or four years, as suffering from peritonitis, inflamed appendix, or intestinal obstruction; indeed, in three instances it is admitted that no diagnosis was made until the abdominal cavity was opened. All the patients worked at a ribbon factory. The weaving of the silk ribbons involves violent flexion of the trunk, indeed, it was calculated that each weaver bent forward at the loom 18,000 times daily! The presence of a second tumour seems necessary to produce torsion when the weaver has an ovarian cyst, sometimes the second was a tumour of the opposite ovary; in the majority of cases, however, it was a gravid uterus. Gelpke's experience is exceptional in respect to twisted pedicle, and he observes with some reason that it is strange why every ovarian cyst does not become acutely twisted if that complication be due, as is usually taught, to internal causes. But many cysts never rotate on their pedicles, and therefore Gelpke believes that the complication is probably due in the great majority of instances to external causes. In his series the evidence seems very clear; in numerous isolated cases external influences must have often been overlooked, whilst we may add that in other cases singly reported such influences were duly recognized. Vomiting and coughing are well-known causes of torsion of another type like cases collected by Martin, where acute torsion occurred from the concussions in a railway sleeping-car, or when a patient stepped out of a tram-car backwards, or slipped downstairs. In closer association with Gelpke's cases Cario's series must be mentioned, where the complication followed stooping to pick something off the ground, and Fowler's case, where the patient was a marble polisher accustomed to lie almost flat on the slab on which she was working. Tight-lacing may certainly cause acute torsion, as in Martin's case, where an actress dressing for a male part was seized with characteristic acute symptoms. In short, it is evident that vocations demanding rapid movements of the body predispose to acute torsion, but it is not so certain how far the commoner, slowly-developing form of axial rotation is due to external causes.

ERROR OF DIAGNOSIS IN NORMAL PREGNANCY.

THERE is a tendency, now that asepsis renders abdominal operations easy and safe, to resort perhaps too speedily to exploratory incisions. Obstetrical surgery can now number many triumphs not only in Caesarean section, but also in operations for pregnancy in a malformed cornu. It is very advisable, however, not to be too ready to suspect such a condition on the ground that there is pregnancy with pain and with irregularity of the structure which bears the fetus. Professor P. Bar reported, a few years ago, a case in which there seemed to be in early pregnancy a soft tumour containing the fetus attached to a firm uterus. Between the two there was a certain amount of mobility. Nevertheless, the pregnancy proved to be perfectly normal. In such cases the ovum has become attached to the uterine wall close to the orifice of one tubal canal, so that the adjacent part of the uterus develops at first much more rapidly than the remainder. After the middle of pregnancy the rest of the uterus undergoes softening until the normal uniform softness is attained. Mortagne[1] recently discussed at a meeting of the Société Obstétrique de Paris a case in which a woman suffered from violent pains in pregnancy, with losses of blood and discharge of pieces of decidua, There were two distinct tumours—one hard, simulating a big uterus, the other soft and resembling an extrauterine sac in the second month. Dr. Bar, however, examined this case, and found that normal uterine pregnancy existed, but that there was the characteristic irregularity in consistence of its walls which was familiar to him. He had recently attended a patient in this condition who aborted in the second month; the decidua was expelled complete, and was of the shape of a gourd, with the ovum in its smaller end, whilst its larger end was absolutely empty. Brindeau reported another case in which the patient had violent pains, which, taken with the physical signs, simulated ruptured extrauterine pregnancy. The sister of this patient had recently died from that cause. An exploratory incision was made and normal pregnancy discovered; abortion occurred within a few days. The patient was a very hysterical subject. Other cases of exploration in which there was no tubal or cornual sac have occurred, and not only have surgeons but also experienced obstetricians made this mistake. *Ne quid temere fac*, but the opposite error of taking an extrauterine for an intrauterine pregnancy is a very grave matter.

THE FINANCES OF THE NEW YORK HOSPITALS.

WE learn from the *Boston Medical and Surgical Journal* that Mr. F. Tucker, Vice-President of the Provident Loan Society of New York, has been investigating the financial state of the New York hospitals. Last year the accounts of the twenty private hospitals of the city showed an aggregate annual deficit of nearly £100,000, and he states that the lean year just experienced by all these institutions is reflected in the recently-issued annual report of the Presbyterian Hospital, which shows a deficit of more than £14,000. Mr. Tucker quotes with approval the following passage of that report: "Unless the public conscience is quickened, and larger means for current expenses are provided, the hospital system of New York must at some date not long distant be changed. It means that, except for such provision, public hospitals under municipal management, supported by taxation, must in great part take the place of our present hospitals, which are private only in the sense that they were founded and have been supported by private benevolence, and are under the direction of managers recruited by natural selection from our best citizens, and not subject, as is too often the case with municipal hospitals, to political change or popular caprice." In Mr. Tucker's opinion the solution of the financial problem of the hospitals is to be found in the raising of a large endowment fund to be used in supplementing their incomes.

A SURPRISE IN ABDOMINAL SURGERY.

Now that gynaecologists so often explore the abdominal cavity they feel less surprise at the unexpected conditions which they find, but cases like that recorded by M. E. Foisy[2] still cause some astonishment. It was that of a woman, 39 years of age, who had had a chequered reproductive history. When 24, she had an abortion, followed by septic infection and retention of decidual fragments; a year later she had a full-time labour, which lasted three days, and ended in the birth of a dead infant, and was followed by puerperal sepsis; two years later she had another full-time labour, not accompanied by puerperal mischief; four years after that she had an abortion, with slight septic infection; and, to complete the record, two years later she had a sharp attack of gonorrhoea. On pelvic examination it was found that the body of the uterus was lying retroverted; a tender mass was felt in the right fornix, and an elastic mass in the left fornix; the cervix was enlarged. The diagnosis was made of chronic metritis and disease of both uterine appendages. Dr. Foisy opened the abdomen, and with some difficulty removed the right appendages, which were very ad-

[1] Stieltorsion der Ovarial Cysten. *Gynaekologia Helvetica*, 1904, p. 23. *Revue de Gyn. et de Chirur. Abdom.*, vol. viii, 1904, p. 887.

[1] *Revue de Gynéc. et de Chirur. Abdom.*, vol. viii, p. 361.
[2] *Bull. et Mém. Soc. Anat. de Paris*, 7, s. vi, p. 662, October, 1904.

herent. When he came to look for the left appendages he discovered a second uterus deeply situated in the left part of the pelvis and in the position of retroflexion. The two uteri were separated by a fold of peritoneum, a mesentery passing antero-posteriorly from the anterior surface of the rectum to the posterior surface of the bladder; its lower margin was in contact with the cervix at the point where the two bodies joined; its upper border was free and sharp, and it was vascular. The appendages on the left were also very adherent. Dr. Foisy performed supravaginal hysterectomy. The right uterus, the larger of the two, had attached to it a subperitoneal fibroid, the size of a nut; the left uterus also showed a small fibroid. The cervix was large and single. The two uterine cavities met at an angle and formed, along with the canal of the cervix, a Y; but the right arm of the Y was vertical in direction while the left was almost horizontal. It was, therefore, a case of uterus bicornis unicollis with subperitoneal fibroids and disease of both sets of appendages. Dr. Foisy thinks it probable that the uterine malformation accounted for the abortions, and possibly also for the retention of the decidual membranes and placenta, and for the long and painful confinements which had occurred. Hysterectomy was performed on account of the disease of the ovaries and tubes.

CENTENARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The date of the celebration of the centenary of the Royal Medical and Chirurgical Society has now been fixed for May 22nd, 23rd, and 24th, and, as announced in a previous issue, the principal events will be a reception by the President, an exhibition relating to medical matters of 100 years ago, a festival dinner, and a *conversazione* at the Royal College of Surgeons. It is expected that the exhibition will be of special interest, and any members of the profession or others who are able to lend medical treasures appertaining to that period will be assisting in promoting the success of the celebration. The exhibits will not include general medical antiquities, but will be strictly limited to what was in actual use in 1805; even medicine bottles, pharmaceutical apparatus, and old prescriptions of or about that date would be recognized as treasures, and cared for accordingly. The souvenir volume to be published will deal with the material progress of the Society as well as its scientific work, and will contain illustrations of its various homes beginning with its cradle in Gray's Inn. At the ordinary meeting of the Society held on Tuesday last, it was announced that the following distinguished men had been nominated for the Honorary Fellowship of the Society, and would come up for election on February 14th: Professor Nothnagel of Vienna, Professor Welch of Baltimore, Professor Marchiafava of Rome, Dr. Ramon y Cajal of Madrid, Professor Pavloff of St. Petersburg, Professor Kitasato of Tokio, and Professor Bohr of Copenhagen, with the following representative men of British science: Lord Rayleigh, Sir Samuel Wilks, Sir William Ramsay, Sir William Gairdner, Lord Lister, Dr. Gaskell, and Dr. Robert Barnes.

MEDICAL CORONERS.

We are informed that Dr. E. J. Slade-King, of Ilfracombe, is a candidate for the vacant office of county coroner for the Barnstaple Division of Devonshire. Dr. Slade-King acted as deputy to the late coroner for many years, and thus has had special experience in the duties of the office which he now seeks. Wherever a suitable candidate is available, we believe there is no doubt that it is in the interests of the public and the proper administration of justice that the coroner should be a medical man. The first duty of a coroner is to examine into the cause of death in any case in which the ordinary certificate of death cannot be given; in comparison with this all other obligations upon him fall into the shade, and it is quite obvious that a medical coroner is more fitted to discharge this duty promptly and efficiently, and to guide the jury to a correct conclusion, than a lawyer without medical training. Further, it must be remembered that inquests are not held in all cases reported to the coroner; he is expected to use his discretion in deciding whether an inquest is necessary, and in a very large proportion of cases he is able to satisfy himself that death was due to natural causes, thus saving considerable expenditure of public money, much waste of jurymen's time, and often much distress to relatives.

THE ASSOCIATION YEAR BOOK, 1905.

The British Medical Association *Year Book* for 1905, which was issued with the new year, contains—in addition to the calendar and lists of Branches and Divisions and their officers, and other matter to be found in the first edition issued last year—an alphabetical list of members, with their addresses and an indication of the Division and Branch to which they belong. The volume also contains the articles and by-laws of the Association as amended, a list of members of the Council and Standing Committees for 1904-5, as well as of Committees appointed for special purposes, and a list of the representatives in the Representative Meetings, 1904-5. The first volume issued last year was, we have reason to know, very useful not only to officers of Branches and Divisions, but also to many members of the Association, who found in it a ready work of reference on matters concerning the activity of the Association. The volume contains short articles on the history and constitution of the Association and on the work of the past year.

THE PLACE OF PATHOLOGICAL ANATOMY.

Professor Orth, of Berlin, in an address delivered before the Kaiser Wilhelm's Academy, emphasizes the importance of pathological anatomy for modern medical science. He reminds his audience that our knowledge, both of therapeutics and of the etiology of disease, is to a large extent based upon anatomical and histological data, and points out that even in the class of infectious diseases now known to be caused by a bacterial agent, the more modern science of bacteriology is not complete in itself, but requires to be supplemented by the work of the morbid histologist.

Dr. R. W. Philip, who recently resigned the appointment of Honorary Secretary to the Royal College of Physicians of Edinburgh, had held the office for ten years. As already announced, he has been succeeded by Dr. Harry Rainy.

A sum of £2,000 has already been collected towards the memorial to Professor Osler, which, as already stated in the British Medical Journal, it is proposed to erect in Baltimore. It is hoped that the fund will reach £20,000 or more.

The death of Dr. Ogilvie Grant will be lamented far beyond the borders of the county of Inverness, to which he was medical officer. He was a member of the Central Council of the British Medical Association for many years, and was President of the Northern Counties of Scotland Branch in 1893. We hope to publish a notice of his career in an early issue.

Dr. Emanuel Kusy, Ritter von Dubrav, has been appointed head of the Sanitary Department of the Austrian Ministry of the Interior with the title of "Sektionschef." The appointment has given great satisfaction to the medical profession, not only as a well-deserved tribute to Dr. Kusy's high organizing capacity, but as a recognition of the great importance of the department of the administration at the head of which he has been placed.

The medical profession is fairly well represented in the Senate of Canada as well as in the Canadian House of Commons. There are nine in the former and fifteen in the latter body. In the United States Senate there are only two, while there are none in the House of Representatives. France is still the country where medical men are most prominent in politics; in the Senate there are thirty-nine, and in the Chamber of Deputies fifty-one. Many of them, however, like M. Combes, M. Clemenceau, and M. de Lanessan, are politicians first and doctors only to the extent of holding a diploma.

Ireland.

PROFESSOR WOODHEAD ON ALCOHOLISM.

Ulster Medical Society.

THE third general meeting of the Ulster Medical Society was held in the Medical Institute on the evening of January 5th, Dr. Calwell, President, occupied the chair, and there was a large attendance. Dr. McLorinan was elected a member.

The President in calling upon Professor Sims Woodhead, of Cambridge, to open the discussion on alcohol as a protoplasmic poison, said that the strong statements of our leading generals, clergy, judges, and medical men with regard to alcohol, demanded that we should reconsider the whole question and study the results of scientific research, clinical evidence, and social statistics and not be afraid to throw over tradition and obey unbiassed experience. Professor Woodhead referred to the action of alcohol on various forms of life and elaborated the resemblance between the action of alcohol and that of starvation and of phosphorus and some other poisons on the various animal tissues and organs.

The discussion was continued by Professor Byers, who asked whether there was any evidence to show whether alcoholism reduced the immunity due to vaccination as it had been shown by the lecturer to reduce the immunity to anthrax, tetanus, and other affections. Dr. Byers mentioned the great change that had come over clinical practice. Professor Lindsay said that in some instances clinically he believed alcohol did good, but he gave it sparingly. The discussion was continued by Dr. Kevin, Professor Milroy, Dr. Burns, Dr. John Campbell, who drew attention to its use as a chemical anaesthetic and as an aid to diaphoresis, Dr. Gardner Robb, Mr. Mitchell, Mr. Killen, and the President. Dr. Woodhead, in replying, said that the oxidation of alcohol that took place in the body was a protective oxidation. Insanity in Ireland was proportional to the amount of money spent in drink.

Professor Symington proposed a vote of thanks to Dr. Woodhead, which was seconded by Dr. John Campbell, and passed with acclamation.

British Medical Temperance Association.

At the invitation of the local branch of the British Medical Temperance Association Professor Sims Woodhead delivered a public lecture on "Alcohol" on January 5th in the large Wellington Hall of the Y.M.C.A. The Lord Mayor (Sir Otto Jaffé) occupied the chair.

Professor Woodhead illustrated the lecture by limelight slides, and showed the effect of alcohol on various kinds of life—vegetable, invertebrate, and vertebrate. Its effect on human tissue and on the action of some of the organs was then described. The similarity of the effects of certain poisons and of starvation with those of alcohol was mentioned and its use as a nutriment examined.

A cordial vote of thanks to Professor Woodhead was proposed by Dr. Kevin, President of the North of Ireland Branch of the British Medical Temperance Association, and seconded by Professor Byers, and passed with acclamation.

The Lord Mayor, in conveying the motion, said that only between 30s. and 40s. had been expended on alcohol during the past year in the large Children's Hospital, of which he was honorary treasurer.

On the afternoon of January 6th the President of the North of Ireland Branch of the British Medical Temperance Association (Dr. Kevin) gave an "at home" in the Medical Institute to its members to meet Professor Woodhead, who during his stay was the guest of Professor Byers. There was a large attendance, and a most enjoyable afternoon was passed.

The Medical Students' Association.

On the invitation of the Medical Students' Association of Queen's College, Professor Woodhead addressed a large meeting of students in the McMordie Hall on the evening of January 6th. The chair was taken by Dr. Lowry, President of the Association; and among those present were the Lord Mayor, Professor Park, Professor Byers, Professor Milroy, Dr. Norman Barnett, and Dr. Osborne.

Dr. Woodhead said his experience of students was that he who refrained from the use of alcohol was the best all round as a worker and an athlete. As a house surgeon he had seen many cases due to indulgence in strong drink. He asked them to take a large, broad outlook on the question; they would see much of the seamy side of life in the future, and it would be impossible for them to fail to see that, in the vast majority of instances, crime and poverty, as well as disease, started with the excessive use of alcohol. Statistics were quoted to show the amount of the money spent on drink.

Dr. Milroy proposed, and Professor Park seconded, a cordial vote of thanks to Professor Woodhead, which was adopted enthusiastically.

DRUMCONRATH DISPENSARY.

It is unpleasant to have to admit that the effort of the Poor-law medical officers in Ireland to better their condition by trying to induce their professional brethren to refrain from taking vacant dispensaries at inadequate salaries has not been attended with much success, except in one instance, the now notorious Drumconrath Dispensary district, which the County Louth Branch of the Irish Medical Association has succeeded in keeping vacant for upwards of two years.

The Local Conditions.

The Louth Branch has made such a gallant fight over this vacancy, and the Irish Local Government Board have resorted to such questionable tactics to crush the Doctors' League, as it is called, that we think it desirable to give a full statement of the case from the diverse points of view of the three parties to the dispute—the Local Government Board, the local Board of Guardians, and the Irish Medical Association.

Drumconrath is—or perhaps we should say was—one of the five dispensary districts of the Ardee Union situated in the counties of Meath and Louth and midway between the important seaports of Drogheda and Dundalk. In former times it was a fairly populous rural district, the land being some of the richest in Ireland; but owing to the depression in agriculture of the last quarter of a century cultivation has practically ceased, and the land is used for grazing only. As a result the labouring population has greatly decreased, a few herdsmen sufficing for large tracts; and whereas in 1851, when the dispensary districts were formed, the total population was some 27,000, it is now barely half that.

The Tragedy of the last Medical Officer.

The story of the late medical officer of Drumconrath is one of the saddest among many such in the Irish Poor-law service. When he was appointed medical officer, more than fifty years ago, the district was a good one for private practice; he was a clever practitioner, and was able to live comfortably, and the salary of the dispensary was an item of small importance. By degrees the economic causes referred to deprived him of his private practice, and at 76 years of age, after fifty years' service, he found himself in bad health, too old to work, and with no money saved. He had to resign, and was allowed a retiring pension of less than half his salary—about £60 a year. He could not live on it, was threatened with actions for debts incurred in better times and with eviction from his residence. With no refuge but the workhouse, as his pathetic letter to the guardians pointed out, this poor old man, victim to the Irish dispensary system, in a moment of despair put an end to his too-long life.

Drumconrath, County Meath, Sunday.

Hopeless, soon homeless. Helpless, friendless; driven into a corner from which I cannot extricate myself. Forsaken. No relative save one—inmate of Shiel's Houses, Armagh—E. J. Johnston Jones, 4, Wilmot Terrace, Belfast. Myself almost gone; my reason almost. Awful temptation; debts on every side; no loophole, no way of escape, save one, which greatly tempts. Leave me in St. Mark's. Can't think. Where to turn for advice or help I know not. . . . Forgotten, forsaken, disgraced, disappointed, tempted beyond measure, may God forgive the thought in my mind; no hope in this world. The mental strain is greater than I can bear. I am tempted beyond endurance. God pardon me and forgive me for my rash deed.

JOHN JONES, Friday.

May God forgive me. No way out of the tangle; driven desperate; no hope. May the good God look down and forgive me.

JOHN JONES.

As an old friend said of him, "Peace to the ashes of kindly, cultured, big-hearted John Jones."

THE SCHEME OF THE LOCAL GOVERNMENT BOARD.

Dr. Jones resigned two and a half years ago, and the Ardee Board of Guardians forthwith advertised for a doctor for the district. Four abortive elections were held. At a fifth one candidate applied and was elected at the usual salary, but this gentleman, after an interview with some of the members of the Louth Branch, resigned. The guardians proposed to increase their offer to £150, but the Local Government Board refused to consent upon the grounds that the other medical officers of the Union would demand a similar increase.

During all this time the guardians were and are still paying a *locum tenens* the Irish Medical Association terms of £4 4s. a week *plus* vaccination and registration fees, a total of about £240 a year, all of which comes out of the rates, the Government grant not being available for *locum tenens* appointments.

The Local Government Board's opinion was that, owing to the decreased population, two medical officers would be sufficient to discharge the duties of three districts, and they proposed to divide Drumconrath between the medical officers of the two adjoining districts of Collon and Dunleer, and give to each of these medical officers one half of the salary hitherto allowed for Drumconrath, thus bringing their salaries up to about £180 each. Wonderful to relate, the guardians of Ardee had more consideration for the poor than to consent to this arrangement, and we think they were right. The three districts of Dunleer, Collon, and Drumconrath are 54 000 acres, or about 86 square miles in area. The proposed redistribution would increase the size of Dunleer from 17,000 to 23 000 acres, and it would be 17 miles across in its longest diameter, while Collon would be increased from 14,000 to 30,700 acres and 17½ miles across.

Having failed to induce the guardians to fall in with their views as to the medical requirements of the poor of Drumconrath, the next step of the Local Government Board was to send down one of their inspectors to hold an inquiry. Many witnesses were examined—magistrates; Catholic, Protestant, and Presbyterian clergy; ratepayers, guardians, and even the "ultimate peasant," but not one could be found to express approval of the Local Government Board's proposal.

What the report of their inspector, Dr. Flynn, was we do not know, because the Board refused to disclose it; but, having been foiled in every other direction, they fell back upon their bureaucratic authority to issue a sealed order enforcing their views, regardless of the wishes of the people who have to bear the expense. This order was issued on September 5th, 1904; it divided the Drumconrath district between the two adjoining districts of Dunleer (Dr. Keelan) and Collon (Dr. Caraher). But, besides this, the Board ordained that Dr. Keelan, who had been twenty-four years medical officer of Dunleer, and had acquired a fair private practice in that town, and had erected a house for himself, should remove his residence to one more central for the new district assigned to him—a gross act of injustice.

On September 28th, the Irish Medical Association applied for a writ of *certiorari* in the names of Drs. Keelan and Caraher, the two medical officers affected by this sealed order, to bring it up to be quashed upon the grounds that the action of the Local Government Board was *ultra vires*, as the Poor-law Relief Act of 1861 did not give it power to abolish an existing dispensary district.

The case was heard on December 6th and 7th before the King's Bench Division, consisting of the Lord Chief Baron, Mr. Justice Andrews, and Mr. Justice Johnston.

It was argued on behalf of the plaintiff by Mr. T. Healy, K.C., that it would be necessary for the Board of Guardians to elect medical officers to the new districts, and to do that so they must first dismiss Drs. Keelan and Caraher; but these gentlemen having office are not deceased of office, and can only be dismissed upon sufficient grounds, and mere convenience was not sufficient grounds. The Lord Chief Baron seems to have concurred in this view, for he said: "These men will have to undergo a new election, and they may not be elected." We do not know whether the Local Government Board took note of this point when it issued the sealed order, but if it holds good in law it places Drs. Keelan and Caraher in a very strong position, and the Local Government Board in a very tight corner.

As to the main point, the power of the Local Government Board to make the order, the Lord Chief Baron, in delivering the unanimous judgement of the Court, decided against the contention of counsel for the plaintiffs, and held that the Local Government Board was not acting *ultra vires;* that it was entitled, having regard to the diminished population, to rearrange the dispensary districts so as to afford relief to the ratés while conserving the interests of the sick poor; but the observations of the judges throughout the hearing of the case plainly indicated that their sympathies were entirely on the side of the ill-paid, overworked dispensary medical officers, and that they decided against them with reluctance. They gave costs against them, but only to show their disapproval of some observation made by Mr. Mathison, K.C., one of the counsel for the plaintiffs, charging the Local Government Board with *mala fides*, an interpretation which Mr. Mathison subsequently indignantly disclaimed.

The Future.

What will be the outcome of this most important case we cannot foresee. That the Irish Medical Association will, in the interests of its members, fight it to a finish we have no doubt. It is the first stand up fight between the profession and the Local Government Board since the promulgation of the Enniskillen resolutions. Drumconrath is the only appointment the Irish Medical Association has succeeded in keeping vacant, and if it can also succeed in beating the opposition—which, we regret to say, is the Local Government Board in this case—the position of the Association will be strengthened immensely. No one observing the course of events in Ireland can doubt for one moment that, were the medical officers and the guardians left to settle their differences without the constant interference of the bureaucracy in Dublin they would have arranged matters long ago upon terms advantageous to both. The Local Government Board has tried and is trying to treat the medical officers as if they were whole-time civil servants without any of the advantages the civil servant enjoys. One fact is very obvious, that the Local Government Board in rearranging these districts has had small consideration for the everlasting distance factor. The "ultimate peasant" who has to travel ten or twelve miles to the medical officer's residence to present him with a red ticket and to return the same distance to get medicine after the patient has been visited, does not possess a motor car, however much the Local Government Board may prate about "the increased facilities for locomotion." Ireland is a sparsely populated country with comparatively few railways and exceptionally bad roads, and any attempt on the part of the Local Government Board to further enlarge the already too extensive dispensary districts will only aggravate the existing difficulty of affording adequate medical aid to that "ultimate peasant" who, as our Commissioner, Surgeon-General Evatt, pointed out is the last person whose needs are considered by the authorities.

Public Health of Belfast.

At the monthly meeting of the City Council the resolution proposing that bacteria beds be placed in Victoria Park, was rescinded, *nemine contradicente*. At the same meeting the Superintendent Medical Officer of Health reported that 769 births had been registered in Belfast during the month and 606 deaths; the annual death-rate from all causes was 22 0; 222 cases of zymotic disease had been notified including 22 of small-pox; two deaths occurred from small-pox, both in unvaccinated men. Dr. Robb, the Medical Officer in charge of the Small-pox Hospital, reported that 172 cases had been admitted to the hospital in this epidemic; that no case admitted had ever been revaccinated; that 8 deaths had occurred; and of these 8 every one showed either no vaccination marks or very inefficient; 34 still remain in hospital; and 44 in the reception house. Dr. King Kerr, Chairman of the Health Committee, made a very forcible and convincing speech in regard to small-pox and revaccination in moving the adoption of the minutes of the Committee.

At the weekly meeting of this Board on January 3rd, considerable discussion arose on the action of one of the dispensary medical officers visiting a National School and vaccinating the children. The Executive Sanitary Officer had written to the Medical Officer to vaccinate or revaccinate the pupils of this school as one of the scholars lived in a house where a case of small-pox had occurred.

The following resolution was passed by 20 votes to 5:

> That we disapprove of the action of the dispensing medical officer in revaccinating the child of ——— without his consent; that we hereby protest against the action of the public health authorities and the school teacher in the matter; and that the Local Government Board and the Public Health Authorities be furnished with this resolution.

Salaries of Medical Officers.

At a specially convened meeting of the Kinsale Board of Guardians a deputation of medical officers appeared before the Board to support an application made by them for an increase of salary. Dr. Vickery directed the attention of the Board to the fact that the salaries in the Kinsale Union are only £100 per annum, and that owing to the diminution in vaccination, registration, etc., his salary was actually £15 less in 1903 than it was in 1896. After the medical officers retired one member of the county council, in an exceedingly sympathetic speech, made out a very strong case for them. It is hoped that some good may come of the application.

Guardians are full of consideration for the well-to-do ratepayers, but that their own neglect of putting things in repair

is often paid for in a most expensive way never seems to impress itself on them. In Dr. Leader's report on the Mill Street Dispensary he writes thus:

Valuable medicines are destroyed and have to be thrown away. The poor people who wait there are injured. I have myself often to make up medicines standing in 3 in. of water, and got severe colds. We have to stuff holes with paper, when a sixpenny weather board would prevent the harm.

Scotland.

ROYAL SOCIETY OF EDINBURGH.

THE fifth ordinary meeting of the Royal Society of Edinburgh was held on Monday evening, January 9th. Professor James Geikie, Vice-President, occupied the chair, and there was a large attendance to hear a lecture on Charcoal Vacua by Sir James Dewar. The communication was a sequel to one by Professors Tait and Dewar read before the Society in 1875. The Chairman presented the Gunning Victoria Jubilee prize for 1900-4 to Sir James Dewar for his researches on the liquefaction of gases and on the chemical and physical properties of substances at low temperatures. Sir James at the beginning of his address intimated that he would hand over the material part of the prize to the University of Edinburgh as a small donation towards the memorial which was to be erected to his revered master, P. G. Tait.

The Chairman also presented the Keith Prize to Sir William Turner, Principal of the University of Edinburgh, for his memoir entitled, A Contribution to the Craniology of the People of Scotland, and for his Contributions to the Craniology of the People of the Empire of India. These memoirs, important as they were, formed a comparatively small part of the work which Sir William Turner had done in the field of physical anthropology. Four great leaders had been chiefly instrumental in developing that branch of science which had received the name of physical anthropology—Broca in France, Huxley and Flower in England, and Turner in Scotland.

The Chairman also presented the Makdougall Brisbane prize to Mr. John Dougall for his paper on An Analytical Theory of the Equilibrium of an Isotropic Elastic Plate. The presentation of the Neill Prize to Professor James Graham Kerr for his researches on Lepidosiren Paradoxa, published in the *Philosophical Transactions of the Royal Society, London*, was also intimated.

Sir William Turner returned thanks to Sir James Dewar for his gift to the University.

THE NEUROLOGICAL SOCIETY OF GREAT BRITAIN.

Sir John Batty Tuke, M.D., F.R.C.P.E., M.P., has been elected President of the Neurological Society of Great Britain and Ireland.

EDINBURGH ROYAL INFIRMARY.

The annual general meeting of the Court of Contributors of the Edinburgh Royal Infirmary was held on January 2nd, the Lord Provost presiding. The annual report, which had been circulated, was held as read. The Lord Provost said that day completed twenty-five years' occupancy of the new Royal Infirmary buildings. The past year had been a record year with 11,125 indoor patients, with an average of 810 daily, and an average length of residence for each patient of 24.5 days. The outdoor patients numbered 33,412. The ordinary income was £33,814 7s. 5d. The cost per bed had been reduced by £2 12s. 5¾d. It was claimed that this had been done without giving the patients either worse or less food, or impairing medical or surgical treatment. Attention had recently been directed to the cost per bed in the London hospitals, and he would like to compare the £61 7s. 10d., which was the cost per occupied bed in the Edinburgh Infirmary, with the figures relative to the London hospitals. The details were as follows: London Hospital, £128 5s.; Guy's, £122 5s.; St. Bartholomew's, £120; St. Thomas's, £117 10s.; St. George's, £156; Middlesex, £119 15s.; St. Mary's, £115 10s.; King's College, £119 10s.; University College, £140 5s.; Westminster, £132 5s.; and Charing Cross, £120 10s. It was, he thought, a matter for congratulation that the Edinburgh Infirmary was managed at less than one-half the average cost per bed of the London hospitals. His Lordship alluded to the value of the sites of London hospitals, and suggested that if the value of these sites were realized, and the hospitals removed elsewhere, there would be sufficient money to maintain the institutions for years, and the change could be effected without in any way injuring the interests of the patients. Regarding the new rule as to the age limit, he took it for granted that it would not apply to the present Professors of the University of Edinburgh. Nor should the new rule apply to the members of the ordinary staff who were serving their second or third term of five years.

Six vacancies on the Board of Managers were filled up.

THE EDINBURGH STUDENTS' REPRESENTATIVE COUNCIL.

On January 26th the Students' Representative Council of the University of Edinburgh will celebrate its majority by a dinner, a torchlight procession, and a students' night. The first-mentioned will be held in the dining hall of the University Union on the evening of January 26th, and the Lord Rector has already expressed his desire to be present. The Council is inviting to this function many of the most eminent men in the spheres of art, literature, and science, delegates from the other British universities, all the former Presidents of the Council, and others interested in the welfare of students and the universities.

THE TEACHING OF HYGIENE IN SCHOOLS.

V.—SIGHT IN RELATION TO EDUCATION.

A GREAT deal of responsibility rests with teachers with regard to the eyesight of the children attending elementary schools.

What are teachers taught about conditions likely to injuriously affect the eyes of these children? Nothing. Teachers of physical exercises in the elementary schools in London are, as we said before, obliged to pass an examination in physiology and hygiene, and doubtless a certain proportion outside London pass examinations in these subjects because they think they may be useful. But however excellent the physiology of the eye in the books used as textbooks, beyond a scientific description of its structure and mechanism, they contain no information to guide the teacher as to the conditions to be guarded against as likely to be injurious to the eye. There are not only the conditions of the schoolroom, amount and arrangement of day and artificial light, and the shape of desks, but there is also the description and amount of work to be considered. Unfortunately, teachers are powerless to alter the structure, the windows, or the artificial lighting of their class-rooms, but often if they realized that it is necessary for the light to be on the left hand side of the desks they could alter the position of these, and, especially in the infant and junior schools, they could give blackboard work in a great many instances instead of microscopic reading and writing. Teachers are constantly accused of want of initiative, that they follow a time-table slavishly, and that instead of using their intelligence they trust to the judgement of those who framed the school programmes. But in condemning narrow, groovy, teaching methods the fact is quite lost sight of that their training and education do not fit them for the duties which they undertake, and that want of knowledge, not want of intelligence, is at the root of the evil. Who is to blame? The education authorities for not realizing this, and supplying suitable books and teaching in training colleges. Briefly, the responsibilities placed upon the teachers are enormous, and they are not equipped to acquit themselves creditably in regard to them. For instance, they are obliged to test the eyes of all the children in their classes, and to decide whether spectacles are required or not.

A visit to one of the elementary schools will convince the visitor of the superficiality of this examination. It is plain to the most casual observer that certain children have something wrong with their eyes; they hold the book up to their noses or their noses down to the book; the teacher admits that a boy is short-sighted, but once his business of testing the eyes is over, he does not trouble his head whether the boy is taken to an ophthalmic surgeon; and if he is, does not insist on his wearing his spectacles. Now, were a teacher to realize what this neglect means to the child he would be the first to prevent mischief. What is known by the average teacher of the causes of myopia, of the defects in school methods tending to produce these causes, and how they can be remedied?

The influence of direct heredity in producing myopia is differently estimated by different ophthalmologists, but all are agreed on two points: (1) That myopia may be acquired by the children of parents who are not myopic. Perhaps in these cases the child is born with some predisposition, some weakness of the sclerotic which predisposes it to yield; but it cannot be asserted that an eye perfectly strong and healthy at birth

may not, by the operation of the causes to be mentioned, become weak and myopic; (2) that myopia once acquired tends to increase if the causes which produce it are allowed to continue.

Probably it is generally known that the brain of the infant is very large in proportion to the body as a whole, as compared with the proportion in the adult. It is, we believe, not so well recognized that at birth the eye has attained its full development even more nearly than the brain. Vierordt has calculated that whereas the weight of the full-grown man is to that of the new-born infant about as 19 to 1, and the weight of the full-grown brain to the new-born brain as 3.7 to 1, the weight of the full-grown eye is to the weight of the new-born eye as 1.7 to 1. Further, the cornea reaches its full size many years before the other parts of the body have completed their growth, though, curiously enough, the opposite holds true with regard to the crystalline lens, which goes on growing long after all other parts of the body have ceased to grow, even after they have begun to shrink.[1]

A child may be born with hypermetropia or astigmatism; they are congenital deformities in fact, but the shape of the eye of the future myope is not elongated at birth. Mr. Priestley Smith says: "The elongation is never present at birth," and all authors agree that it is at any rate only rarely congenital. In fact the healthy eye in infancy is short and flat, but the lens is rounder and more elastic than at later ages, so that accommodation is easier. The eye during childhood grows gradually longer, but it is not until about 11 years of age that it has elongated so as to attain the normal length in proportion to its other dimensions. It is a significant fact that myopia generally first begins to become troublesome at the age of 8 or 9. The causes producing it must of course have been at work before this.

Statistics collected in Germany and Austria all tend to prove that the proportion of children suffering from myopia steadily increases from the lower to the higher classes in the schools. An investigation carried out in the communal schools of Paris showed that of the children between 7 and 9 years of age 1.9 per cent. were myopic, of those between 10 and 11 years 6.9 per cent., and of those between 12 and 13 years 14.8 per cent. The same thing appears to be true in London. Dr. Sayer,[2] Assistant Medical Officer to the London Education Committee, recently published in our columns the result of an investigation into the eyesight of a large number of children attending the elementary schools. She examined 1,864 children in infant schools. She found that at 6 years 81 per cent. had normal vision, and only 3.5 per cent. serious defects; but at every quarter of a year of age there was an increase in the defects, until at 8 years old only 77 per cent. had normal vision, while 8 had serious defects; this proportion increased until at 11 years old it was 11 per cent. She points out that this means that in London alone at least 25,000 children are being seriously handicapped in all their pursuits—both work and play and general observation.

In the myopic eye the posterior parts of the sclerotic and choroidal coats are thinned, proving, as de Schweinitz[3] says, that "the elongation of axis is due to a stretching of the coats of the eye." No doubt there must be predisposition, either congenital or acquired, to a weakness of the coats of the globe. It is no doubt true also that many myopic children have parents who suffer from the same defect; but even Schmidt-Rimpler, whose statistics were collected in Germany where myopia is very common, found that the parents of nearly half the children with myopia were not themselves myopic.

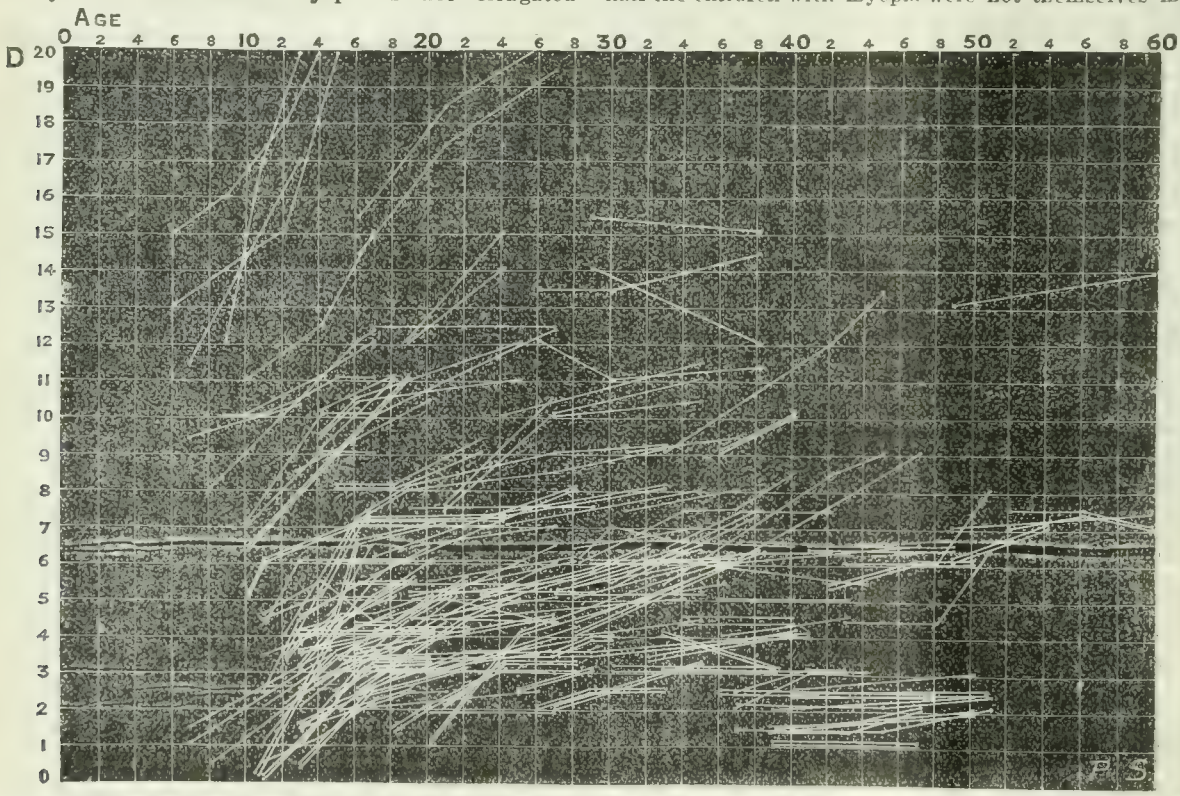


Chart showing changes in refraction observed after an interval of five years or more in 100 persons of the ages stated (Priestley Smith).

Netolitzky[4] points out very truly that the fact that myopia is to this extent hereditary should only stimulate the study of its causes and render us more anxious, by removing them, to check its development in all children, whether the offspring of myopic parents or not. The mechanical cause leading to the production of myopia is the compression of the eyeball by the ocular muscles producing distension of its coats backwards by the excessive convergence necessary at the close distance at which myopes work. The tendency to distension is increased by congestion of the eye. Netolitzky believes that this is the most important factor, and that near work plays the chief part in the production of myopia. He says:

> Of the various theories to account for myopia, that is most worthy of belief which attributes the chief part in its production to passive and active hyperaemia produced by close work, leading to the bending forward of the head, due to badly constructed school desks, by the fumes of stoves, by tight collars, and still more by accommodation and convergence, especially when the light is bad, the object small, or the print bad; finally, the strain on the optic nerve, and the increased

[1] *Ophthalmological Society's Transactions*. Vol. x. British Medical Journal, 1904, vol i, p. 1418.

[2] *Diseases of the Eye*. Philadelphia: W. B. Saunders. 1892.

[3] *Handbuch der Schulhygiene*, von Dr. Leo Burgerstein und Dr. Aug. Netolitzky. Zweite Auflage. Page 870.

action of the oblique muscles combine to increase the long diameter of the eyes.

In introducing a discussion in the Section of Ophthalmology at the annual meeting of the British Medical Association in 1901, Mr. Priestley Smith,[5] who, as is well known, has given special attention to the investigation of the development of the eye after birth and of the conditions which produce myopia, pointed out that though in some persons the condition might continue without much change for many years, in others it reached a higher and higher degree as time went on, and was accompanied by damage to the tunics of the eye, leading sooner or latter to serious impairment or loss of sight. He maintained that, other things being equal, the younger the patient, and the higher the myopia, the more likely is it to increase in degree. In support of this view, he presented a chart which is so instructive that we have obtained his leave to reproduce it here; it shows the changes of refraction which took place during periods of five years or longer in 100 cases of myopia observed by himself; but it will be observed that, whereas towards the right side of the chart, that is to say, at adult ages, the lines connecting the points showing the degree of myopia at various ages are, as a rule, more or less horizontal; at the other end of the chart, where the records refer to children or young people, the majority of lines are inclined at a more or less acute angle upwards. The chart, therefore, strongly supports the conclusion mentioned above, that the younger the patient the more likely is the myopia to increase.

The increasing error of refraction requiring stronger and stronger glasses for its correction is not the only evil which follows progressive development of myopia. Mr. Richardson Cross, in a paper read at the Annual Meeting of the British Medical Association in 1896,[6] showed, from an analysis of 1,774 cases, that when myopia existed of more than — 2.75 D., the average vision, when corrected, was considerably below the normal; and he stated, as a general proposition, that as myopia increased in degree there is at least a slight diminution in the best attainable acuteness of vision. This visual defect depends partly upon complications, particularly in the choroid, partly upon amblyopia, and partly upon the aberration of light associated with a strong spectacle lens. Mr. Priestley Smith says that, though a child with myopia—8 D. may have little or no choroidal change, he must not be regarded as permanently exempt, for a choroidal lesion may develop later on, and that an adult with the same degree of myopia will generally show considerable choroidal changes. The commonest of these changes is very interesting in the present connexion; it is the condition known as the myopic crescent, which is produced by stretching and displacement of the choroid brought about by yielding an extension of the sclera. The further diffuse changes which occur later on appear to be due to the continuance of the stretching, which leads to vascular and degenerative changes in the damaged membrane.

These observations bring us to the important conclusion that myopia in childhood, even though not severe at the time, must be regarded as a serious condition, inasmuch as it is not only probable that the error of refraction itself will increase, but that it will tend to disease of the fundus of the eye, which diminishes the acuteness of vision, and may, as is well known, eventually lead to blindness.

So far reference has been made chiefly to what may be called the mechanical causes of myopia, but, inasmuch as all children are more or less subjected to the same conditions in school, it is obvious that there must be other factors at work. Mr. Nettleship has said, "General enfeeblement of health, as after severe illness or prolonged suckling, seriously increases the risk of progress even after middle life"; and Wray found in several instances that where one member of a family had high myopia while the brothers and sisters had none, the myope had suffered from protracted infantile marasmus, the others not. Mr. Priestley Smith has compared the yielding of the sclera to the deformation of the bones in rickets, and says, "It is clear that constitutional disease may be a factor in any case of myopia. It may account for the abnormal yielding of the sclera; it certainly often aggravates the morbid changes in the choroid and retina."

It is clear that all these authorities have had in mind the depressing effect on nutrition of constitutional diseases, and we may add to the list, without fear of contradiction, insufficient food. Mr. Henry Power has insisted on the importance of a full and sufficient diet, and disapproves of work being done before breakfast.

[5] BRITISH MEDICAL JOURNAL, 1901, vol. ii, p. 1162.
[6] Ibid., 1896, vol. ii, p. 633.

To sum up, the causes of myopia may be classed as predisposing and determining. Of the former, the most important are heredity and malnutrition, whether from disease or want of food; of the latter, any causes producing congestion of the eye, whether excessive convergence or accommodation, or habitual stooping due to insufficient light or badly-constructed desks.

Let us now examine the conditions in schools likely to assist in producing myopia. Children are first sent to school as early as 3 years old, and from that age begin to learn to read, to write, and to sew. Needlework drill is one of the most grotesque inventions of which the human intellect has been guilty. The first stage of this strange performance consists in needle threading. Here you see rows of chubby babies, all under 4, seated at desks holding a special needle several inches long, which they are made to thread. When this is done the thread is seized at either end by each infant and raised to the level of its eyes. Then, to the accompaniment of music, the children are required to swing the needle up and down and backwards and forwards, always quicker and quicker, spurred on by an enthusiastic teacher, who might be the leader of a band of dancing dervishes. It is true that a considerate School Board prescribe that the points of the needles shall be blunted, but in spite of this the escape of the babies seems nothing short of providential. The next stage of this remarkable educational system imperils the eyes in another way. The infants are taught a hemming drill, and how to "make a little stitch"; but in order that the full significance may be understood, the actual words used by the teachers and repeated by the children must be quoted:

1. I must put my needle under my left thumb with the eye of the needle pointing to the ceiling.
2. I must put my thimble on the top of the needle and take hold of it near the point and hold it up for teacher to see.
3. I must make a little stitch.
4. I must let my thumb *hop* over to the other thumb.
5. I must push my needle till my thumb touches the work.
6. I must pull it (the needle) out a little way, lift up my thimble finger, let it snap over the cotton and pull it right through.

Usually two to three hours a week are devoted to this for a year or two, a few stitches being completed at each lesson after about a year's practice in the drills, for the small children cannot hold the work properly, and are slow. Little wonder that children and teachers become nervous and irritable.

To the class above the babies (average age 4) knitting-pin drill is taught.

Knitting-pin Drill for Class above the Babies (one pin only).

A knitting pin must be prepared for each child. There must be *two* loops having *one short* and *one long* end of cotton in the middle of one knitting needle, which each child must have before it on the desk.

1. I must take up the needle with my right thumb and forefinger.
2. I must put my left thumb over the needle, push the stitches (two loops) nearly to the top, and take hold below the first stitch.
3. I must take (with the right hand) the short end of cotton, lay it along the needle, and close the other fingers over it.
4. I must place the right thumb on the top of the left forefinger at right angles with the other thumb.
5. With all the fingers of the right hand grasp the cotton.
6. I must lift the pointing finger, crook it, and put it under the cotton, which should come half-way up the first joint.
7. I must turn the cotton over the needle (not moving the thumb off).
8. Lift it back again.

(Numbers 7 and 8 should be repeated several times.)

(NOTE.—In some classes "I must" is used with Number "1" only.)

We now arrive at the average age of 5, when knitting drill is done with two pins.

Knitting Drill with Two Pins (ages average 5 years).

Apparatus for each child—A few stitches cast on and two [or three rows knitted.

1. I must hold the needle close to the top with my right thumb and forefinger.
2. Put my left hand over the needle and push the stitches nearly up to the top and take hold with the finger and thumb just below the first stitch.
3. I must take the other needle in my right hand and put it under the first stitch.
4. I must take hold of the cotton with all my fingers and keep my thumb on the needle.
5. I must unclasp the pointing finger, crook it, and put it under the cotton.
6. Turn the cotton over the right hand needle, bring it through the stitch on the left hand and let that stitch come off, not taking the right thumb off the needle.
7. Repeat by putting the right-hand needle into a fresh stitch.

So by progressive stages myopia is carefully cultivated, until at the age of 8 or 9 fine back-stitching is done, to see which the emmetropic eye requires a magnifying glass. Had those

who drew out the scheme been bent on devising a plan whereby to produce myopia far and wide among the children, they could hardly have succeeded better.

We are therefore not surprised to be told that myopia is more common among girls than among boys. Mr. Priestley Smith, who examined 1,100 board school children, found myopia in 7.5 per cent. of the girls and 4.5 per cent. of the boys.

We have taken needlework as an illustration of the evil effects of close work, but similar criticisms must be made on the methods of teaching reading and writing to children with undeveloped eyes. We propose in a subsequent article to consider the means of preventing the increase of myopia among school children.

A REPORT ON
THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

II.—OLD GHEEL.

Legend and History.

There are few places which have been more frequently described than this quaint old Belgian village, few about which so diverse opinions have been expressed, and none which surpass it in medico-historical interest. So intimate is its connexion with the traditions, beliefs and superstitions of a bygone age, and so subtly compounded is the flavour of times more credulous and less prosaic than ours with a place whose system in its modern development is the completion of a tardy and devious evolution in our own country and which bids fair to become incorporated into all modern methods of dealing with the insane, that no description of its present state would be complete without an account of its patron saint and fount of origin, Saint Dymphna. For this purpose we cannot do better than give the account of the thirteenth century chronicler, Petrus Cameracensis, translated from the German of Heuckencamp.

When, through the resurrection and ascension into Heaven of our Lord, the saying of the prophets had been fulfilled and the religion of Christ had been carried by the apostles through all the world, there lived in Ireland a king who, although he served heathenish gods, exceeded all other princes in richness and power. This king had a wife descended from an illustrious race, of surpassing loveliness, to whom he was devotedly attached. These two possessed a daughter, nothing inferior to her mother in beauty, named Dymphna, who was brought up in the royal household. But, waxing to womanhood, she found no satisfaction in the pleasures of her position, disdained dances and merry songs, and was baptised secretly, and thereupon devoted herself body and soul to the service of the immortal Christ, her master. Thereafter her mother fell ill and soon died. The king was at the beginning almost consumed with pain and grief at the loss of his spouse, but after some time he resolved to send ambassadors into the neighbouring provinces and lands to seek one whom he might elect to marry, yet must the lady be equal in beauty and knightly rank to his deceased consort. And thus it happened. The wisest and most eloquent of his servants were sent on this mission, but however zealously, far and near, they sought, nowhere could they discover one of so great beauty. Then turned they sadly back and told their lord. There was, they said, but one way. The king must his own child—his daughter Dymphna—take to wife, since she alone equalled in beauty and birth her dead mother. Scarcely had this abominable counsel been pronounced than the Fiend—the enemy of all virtue—kindled a shameful lust for his own daughter in the breast of the king.

The chronicler continues that Dymphna revolted, fled secretly in company with an aged priest—Gerebernus by name—and a gleeman and his wife, over the sea. They landed near Antwerp, and wandered inland, till, reaching Gheel, they found a church dedicated to St. Martin, and decided to stay there in quiet retirement.

In the meantime, in her father's house they had become aware of the flight of Dymphna, and after the king had vainly searched the neighbouring regions for his daughter, he bethought him to seek and capture the fugitives across the sea, took ship, and landed in the harbour of Antwerp. From thence he sent messengers in different directions that they might bring him knowledge of his child. Now, it so happened that some of these messengers reached Westerloo and stayed there overnight. But when in the morning they were about to fare forth and would pay in their native coinage, the keeper of the inn said that he already had a number of such coins, only he knew not either their inscription or their worth. To the questioning of his guests, he related how he had received them from a young lady who dwelt in the neighbourhood with a worthy priest, and how beautiful she was, and how she appeared to him to be of high descent.

Then were the searchers no more in doubt, they had found the track of Dymphna, and they hastened to bear the glad tidings to the king. Forthwith he went with his people, reached Gheel, and found there the fugitive with her protector. But when the king began to reproach his daughter and to try to turn her heart to go back with him, the aged Gerebernus lifted up his voice and with bitter words rebuked the king for his wicked demands. He had to pay for his hardihood with his life, for at once the knights fell upon him and slew him. Again the king endeavoured, at first with promises and then with threats, to gain his end, but when he saw that Dymphna remained steadfast his anger overcame him, he ordered his servants to kill her before his eyes, and, as none dared carry out this dreadful command, he, beside himself with rage, tore his sword from his side and murdered his own child. . . .

Many marvellous signs and wonders are related as occurring after this murder, including the finding of the bones, after many years, enclosed in stone sarcophagi of dazzling whiteness, which had no joint or break, and were clearly the work of the angels. These were set in the church, to-day the church of St. Dymphna, and very soon the miraculous healings, particularly of the insane and weak-minded, which followed the invocation of these saints, was noised abroad and attracted pilgrims from very distant parts. There is, according to some writers, a special appropriateness in the choice of St. Dymphna, to be the agent of Divine providence in the healing of the insane, seeing that she successfully resisted the incestuous passion of her father, whose obsession and final murderous impulse have been accepted as evidence that he was the subject of circular insanity.

The pilgrims, who increased in number year by year, were received into the houses of the inhabitants, and appear to have been kindly treated, and indulgences were granted to those who aided in their maintenance by giving alms. So great was the influx that in the latter half of the fifteenth century the local authorities were obliged to lay down stringent regulations restricting the houses for their reception to those in the immediate vicinity of the church, which restriction had later to be removed. About the year 1449 there was built out of the thank-offerings an annex to the church, a miniature asylum or *Zeikenhaus*, with four chambers (*Ziekenkamers*). In these the patients were placed on arrival for nine days, during which period of *Novena*, or nine days' devotion, a certain ceremonial was observed and they received daily the benediction of the priests. From that time to the middle of the nineteenth century the history of the colony is one of an unregulated influx of pilgrims, lunatic, imbecile, hysterical, and epileptic, of treatment by priestly exorcism, of an entire absence of medical supervision, organization or care, of barbaric methods of restraint, and of miraculous cures duly entered in the official archives and formally attested, cures of such kind as are encountered to-day at Lourdes or Holywell. Here almost more than anywhere else mediaeval beliefs and superstitions have reached into the most modern times, so that to the imaginative ear the clank of the fettered lunatics still echoes through the quiet streets. We have not space wherein to trace in greater detail the history of Old Gheel, full as it is of humanly pathetic and at times inhumanly gruesome interest. Its story reads like a fairy tale, and the endless pilgrimage of a thousand years seems but an interminable procession of ghosts which flit across the records of fourteenth century Papal bulls, of the Cronycke van Brabant or the writings of the learned Smetius like shadows, to jump to startling tangible reality in the protocols, the *Archief van het Gemeentehuis* of Gheel.

The beginning of the new era was entered upon in 1856, when, after many unfortunate occurrences, including the murder of the Burgomaster of Gheel by a patient, the Communal Government was constrained to appoint a medical superintendent to the Colony. The choice fell upon Dr. Bulkens, at whose instigation the infirmary was erected, and who until 1876 ruled the colony, and was of immense service to it. Even then, however, the conditions which obtained were far from satisfactory. Hampered by the immemorial traditions of the place, in which the belief in demoniacal possession and the efficacy of cure by exorcism were still deeply imbued—so much so that in the late Sixties and early Seventies patients laden with chains were still, it is related by Dr. Alt, brought to the Dymphnakerk for cure by priestcraft—and impeded still further by utterly inadequate medical supervision, it is not surprising that the maintenance, care, housing, and clothing of the patients left much to be desired, and created a most unfavourable impression on medical visitors. Numbers of foreign alienists at this period visited Gheel, and their adverse criticisms created an atmosphere of distrust, which even yet has not been entirely dissipated.

THE PREVALENCE AND PREVENTION OF SYPHILIS.

THE Inter-Departmental Committee on Physical Deterioration took a considerable amount of evidence with regard to the prevalence of syphilis and the means which could be found to check its ravages, and devoted several paragraphs of its report to the subject. It may be convenient to take this opportunity of reproducing some of the views expressed by witnesses.

PREVALENCE AND RESULTS.

With regard to the question whether syphilis was increasing or decreasing in extent, most of the witnesses, including Sir Alfred Cooper and Dr. F. W. Mott, agreed that there was no evidence of the increase of syphilis, and the first-named witness considered that there was some decrease. The same opinion was held by Surgeon-General Sir William Taylor, K.C.B., who attributed it to the precautions taken in India and other tropical stations, by which the worst taint was kept out of this country. Sir Victor Horsley, in reply to Dr. Tatham, said that with existing data it was impossible to say whether the prevalence of the disease is greater or less than it was twenty years ago, but that there was some positive information with regard to its virulence. On this point he said in reply to the chairman:

(10,530) . . . As regards the actual destructive lesions of syphilis, they evidently are not so common. In general hospital practice one used to see more gummata and more active destruction of bone than you see nowadays; but with regard to the remoter consequences of syphilis in the second and third generation in nerve diseases, of course we think at the present moment they are more common, but probably it is only that more work has been done on their pathology and we have more correct knowledge of their origin from syphilis, and that syphilis is really a prime factor in many of those diseases.

In reply to a request to describe the ravages and complications produced by syphilis, Sir Alfred Cooper gave the following brief but comprehensive catalogue:

(3,818) I should place insanity as almost one of the first things—insanity; idiocy; diseases of bones, producing deformity and disfigurement; diseases of the eyes, producing blindness; diseases of the ear, producing deafness; diseases of the internal organs, causing defective nutrition and deficient development: diseases of the nervous system, producing insidious forms of paralysis, locomotor ataxy; and it is responsible for a large proportion of the cases of lunacy and idiocy in our asylums.

Sir Victor Horsley would add to this list congenital syphilitic disease of the lungs, which he said was the real cause of death in many infants under 6 months of age, dying of what was generally classed as bronchitis.

Dr. Mott, questioned as to the relation of syphilis to insanity, said that syphilis was the cause in between 25 and 40 per cent. of the men admitted. So far as the increase of insanity was due to general paralysis, he attributed it to syphilis. On this subject he said:

(10,480) The great argument in favour of general paralysis being due to syphilis is the fact that congenital syphilitic children suffer from general paralysis; it comes on just after puberty to 20 years of age, and it affects the sexes equally, because, of course, the possibility of infection is equal; whereas, in the adult form it affects the males four times more frequently than the females. As you rise in the social scale so it becomes less and less frequent. The whole of the arguments are very strong in favour of that. I find that in 80 per cent. of these cases one can get a history of syphilis.

PREVENTION.

Commission of Inquiry.

The witnesses were agreed as to the necessity for a State inquiry by way of a Royal Commission into the prevalence of syphilis and the means which should be taken to check it, and it was pointed out that statistics founded on death certificates were fallacious, owing to the insidious forms of disease produced in the late stages, and to the reluctance of medical men to mention syphilis in a death certificate.

With reference to the need for inquiry, Sir Victor Horsley said:

(10,537, 10,538) The first step which should be taken is to have a Commission of Inquiry into the prevalence of venereal disease. A committee that I had the honour of belonging to collected information in regard to the hospitals. I understand the reference to this Committee is chiefly to the poorer classes. Now, on that point you could begin with the workhouse infirmaries and give the medical officer of the workhouse infirmary statutory power to detain a patient. At the present moment, as soon as a patient enters a workhouse or, by implication, a workhouse infirmary, he can be shifted about between the two institutions; he can be taken out of the workhouse, where he is congregating with innocent people, and put into a Lock ward in the infirmary. But the medical officer has no power to keep him there, and a medical officer, no doubt, ought to have that power . . . so long as he found his release would be a detriment to the community.

The precedent of the Royal Commission on Tuberculosis was quoted, and Sir Alfred Cooper handed in the following resolution of the Brussels Conference:

Resolution of International Conference at Brussels.

The Conference requests the various Governments to constitute in each country a Commission charged (*a*) to determine the frequency of venereal diseases among the civil population, apart from temporary variations; (*b*) to inquire into the institutions actually in existence for the treatment of venereal diseases, the distribution of hospitals, the number of beds available in different places, and to propose the most efficacious measures for the treatment of these diseases; (*c*) to collect opinions as to the best means for preventing and limiting the spread of venereal diseases among the civil population and to formulate conclusions upon the subject.

Upon this point the Committee on Physical Deterioration in its report, after pointing to the good done by the tuberculosis enquiry by stimulating interest in the subject and to the recent resolutions of the Brussels Congress as to the urgency of the matter, expressed its opinion "that the moment is ripe for a searching and exhaustive investigation into the the extent of the malady, and for a definite pronouncement on the steps that should be taken, while arresting its progress, to trace and counteract its effects."

Notification.

The Committee declined "to express a definite opinion on so thorny a subject as notification, although they think the considerations in its favour have great weight." The evidence taken was conflicting on this point. Dr. Mott and Dr. Robert Jones thought that there were practical difficulties in the way of its adoption, and that it might lead to concealment of the disease.

Sir Alfred Cooper, on the other hand, considered the suggestion practicable, and cited the regulations in force in Russia:

(3,870). . . . I was in St. Petersburg in 1875, and they had greatly checked syphilis there. Directly there is a case it is reported, whether it is a prince or princess, or duke or duchess, or even one of the grand dukes. If one of the grand dukes gets syphilis it would have to be reported, and he would be surrounded by police regulations, and it would be quite impossible for him to pass it on to anybody.

Sir Victor Horsley, while admitting that there would be difficulties in enforcing notification, believed that they might be overcome. With reference to the objection that infected persons might conceal the disease and therefore fail to obtain treatment, he said that the same argument had been used against the compulsory notification of acute infectious diseases and had been proved by experience to be unsound. The general fear of the disease would, he thought, lead sufferers to seek treatment. If notification was made compulsory the medical man notifying would have to be given the protection of privilege. At the present time death certification statistics were vitiated because the medical man signing a death certificate would often not dare to put syphilis in the certificate as the cause of death. Sir Victor Horsley added that the British Medical Association had been for some time engaged in endeavouring to make the death certificate a private document between the Registrar-General and the medical man, so as to take away the onus of publication. He considered that such a change in the system of certificates was absolutely necessary to afford material for any accurate estimation of venereal diseases and their effects, and that there should be a protection afforded to medical men on the score of libel; the certificate should be made a privileged communication. Upon this point the report of the Committee contains the following recommendation: "The Committee would desire to see all reference to the 'cause of death' eliminated from the statutory death register. The medical opinion as to cause of death should be regarded as confidential, and should never be divulged, as is permissible at present, by the registrar to the friends of the deceased. The medical certificate should be sent by the local registrar direct to the Registrar-General, who would use it for the elaboration in his national mortality statistics. In this way the Committee believe that the accuracy of the records would be greatly increased."

TREATMENT.

Both Sir Alfred Cooper and Sir Victor Horsley said that the hospital accommodation for treating syphilis was defective. With regard to London the former made the following statement:

(3,849). As regards measures to be taken to diminish the amount of venereal disease, one of the primary considerations must be to see that the accommodation for the relief of sufferers from such disease is efficient and adequate. Taking the case of London, it may be said without fear of contradiction that the accommodation for the treat-

ment of venereal disease is lamentably inadequate. There is only one special hospital for the relief of such cases—the Lock Hospital—which has two branches, one for females with 135 beds, and one for males with only 27 beds. In some of the general hospitals a limited number of beds is available for these cases, and a considerable proportion of the patients seen in the out-patient departments are suffering from venereal disease, or from its effects, remote or immediate. But the attention bestowed on such cases is utterly disproportionate to their gravity. The patients are not informed of the serious nature of their disease, or of the risks of contagion, or of the necessity for prolonged treatment; their attendance is irregular, and usually ceases with the disappearance of their symptoms. The amount of teaching done on this subject is very limited, so that at the commencement of their career the majority of medical practitioners are only possessed of a very insufficient knowledge of the subject. At the first visit to the hospital, the patient, who is usually completely ignorant of the dangers and consequences of the disease both to himself and to others, should be instructed in the necessity for prolonged treatment, and in the importance of his running no risk of communicating disease to others; all possible methods of his spreading the contagion should be pointed out to him; if a married man, the possible result to his wife and to their subsequent progeny should be explained; and, in the case of unmarried men, the necessity of remaining so till the period necessary for treatment has elapsed must be emphasized. Not only should there be no obstacles placed in the way of such cases attending in general hospitals, but, on the contrary, every facility and encouragement should be held out to them, and efforts made to gain their trust and confidence at the outset of the treatment. One of the great drawbacks in inducing male patients to attend for a sufficient period is the time that must be occupied by each visit to the hospital, involving the loss of a portion of their day's wages; to counteract this, the out-patient department should be open on certain evenings of the week, when patients could attend after their day's work was over. This has for many years past been done at the London Lock Hospital on three evenings a week, when a large number of patients attend who otherwise would have to go untreated. It is advisable that there should be special departments at general hospitals for the treatment of this class of disease, and all such cases should be relegated to that department; it should be under the charge of some one specially skilled in that branch of professional knowledge; and a course of instruction in that subject should be compulsory for every student. These special departments have been in exstence for years past in the majority of European countries and in America, and, further, special wards are set aside for the reception of such cases.

Sir Victor Horsley thought that the real trouble was that an ordinary syphilitic patient was not, in the vast majority of cases, so much bodily ill as to consent to enter a hospital; he persisted in going on with his occupation and became a source of infection to innocent people. Though patients were usually much afraid of the disease at first, the treatment was so successful in the early stages that they immediately felt very much better and grew callous. He considered that if detention was made obligatory it ought to be for not less than six months; a great many cases undoubtedly escaped treatment, especially those in which the chancre was internal.

SOME RECENT AND DEFINITE FIGURES FOR ANTIVACCINATORS.

IN public health matters, as in other problems, the field of statistics is often an uneven battleground, where contending sides seem to win and lose alternately. In regard to the question of vaccination and its protective influence against small-pox, however, the vastly overwhelming weight of statistical evidence has so long been on one side that it would appear needless to adduce further records in favour of vaccination. Nevertheless, the circumstances of a recent outbreak of small-pox among school children at Ossett, near Wakefield, furnish so striking an example that the details ought to be published for the benefit of that section of the community whose opposition to vaccination still survives. These details, which have been carefully investigated by the local Medical Officer of Health (Dr. Greenwood), and by Dr. Kaye, the County Medical Officer for the West Riding of Yorkshire, are briefly as follows:

The undenominational school at Commonside, Ossett, is a public elementary school with a mixed and infants' department. The latter is practically separate, while the mixed department consists of three rooms under the same roof, in which the number of scholars is as follows: Room A, 69; Room B, 74; Room C, 26; total, 169 scholars.

On the 27th October, 1904, the schoolmaster observed a girl (L. B., aged 11), in Standard IV with a suspicious rash on the hands and face. No time was lost in calling in the Medical Officer of Health, who promptly diagnosed small-pox, and caused the case to be removed to the hospital. Disinfection of the premises, vaccination of contacts, and all other precautionary measures were put in hand, but, as the subsequent events show, the infection had already been sown, and it bore fruit according as it fell upon good or bad ground.

Room A.—The particular class in which the infected child was a pupil consisted of 27 boys and girls, ranging from 9 to 13 years of age. Their condition as to vaccination was as follows: Vaccinated and revaccinated, 6; vaccinated only in infancy, 13; unvaccinated, 8 (including the infected scholar). By November 10th (that is, the incubation period, or a fortnight from the discovery of the first case) every unvaccinated scholar in the class had developed small pox, while every one of the others has escaped up to the time of writing (December).

Other classes in Room A comprised in all 42 scholars whose condition as to vaccination was as follows: Vaccinated and revaccinated, 8; vaccinated only in infancy, 20; unvaccinated, 14. In due course, 12 out of the 14 unvaccinated ones went down with small-pox, only 2 escaping. Of those vaccinated in infancy, all escaped except 5, and these were all over the age of 11 years. All the revaccinated ones remained unaffected.

Room B.—In Room B, 74 scholars were accommodated as follows: Vaccinated, 31; unvaccinated, 43. The exposure to infection in this room was relatively slight, being only due to the casual mingling of scholars in the approaches and in the playground. Nevertheless, 13 of the unvaccinated ones took the disease, while all those who had been vaccinated escaped.

Room C.—This room was entirely devoted to Standard I, comprising 26 scholars, aged 6 to 9 years, whose chances of mixing with the older scholars of the infected Room A were naturally reduced. Fourteen had been vaccinated, and 12 were unvaccinated. All of the former escaped, while 4 of the unvaccinated ones took small-pox within the fortnight.

Collecting all the figures into one table, we get the following interesting and instructive summary:

Room or Class.	Unvaccinated Scholars.		Vaccinated Scholars.		Total Scholars.	
	(a) Taking Small-pox.	(b) Escaping.	(a) Taking Small-pox.	(b) Escaping.	(a) Taking Small-pox.	(b) Escaping.
Room A: Standard IV, where first case occurred	8	0	0	19	8	19
Remainder of Room A...	12	2	5	23	17	25
Room B	13	30	0	31	13	61
Room C	4	8	0	14	4	22
Totals	37	40	5	87	42	127
	77		92		169	

The next table shows the same figures expressed as percentages:

Room or Class.	Unvaccinated Scholars.		Vaccinated Scholars.		Total Scholars.	
	(a) Taking Small-pox.	(b) Escaping.	(a) Taking Small-pox.	(b) Escaping.	(a) Taking Small-pox.	(b) Escaping.
	%	%	%	%	%	%
Room A: Standard IV, where first case occurred	100	0	0	100	30	70
Remainder of Room A...	86	14	18	82	40	60
Room B	30	70	0	100	18	82
Room C	33	67	0	100	15	85
Totals	48	52	5	95	25	75
	100		100		100	

Such figures as these call for but little comment. In Standard IV the circumstances furnished an almost perfect experiment which it is not possible for investigators to carry out for themselves. We had here the introduction of a case of small-pox into a class of children some of whom were

unvaccinated and the rest vaccinated. Every one of the former promptly took the disease, while all the vaccinated scholars escaped. In the rest of the school the conditions of this unpremeditated experiment were not so perfect, but even there the following facts stand out: (1) Throughout the whole school not a single revaccinated person took the disease; (2) in the class originally infected and in Rooms B and C every child who contracted small-pox was unvaccinated, although the vaccinated children predominated in numbers; (3) out of the 42 cases occurring in the entire school, only five had been vaccinated, and these five were in one class of older scholars, in whom naturally the effect of infantile vaccination was wearing off.

CREMATION IN GREAT BRITAIN.

THERE are now nine crematoriums in active existence in Great Britain. The oldest of these is St. John's, Woking, which was opened in 1885; and the most recent is Birmingham, which was opened in 1903. Between them come in order of seniority of foundation Manchester, opened in 1892, Glasgow in 1895, Liverpool in 1896, Hull (municipal) and Darlington in 1901, Leicester (corporation), Golder's Green, Hampstead Heath, in 1902, and Lawnswood, Leeds, in 1904. The following additions to the list will be made in the course of 1905: The City of London Corporation crematorium at Ilford, and the Bradford crematorium. The total number of cremations carried out in this country since the establishment of the practice is 4,407, the figures for the several crematoriums being as follows: Woking, 2,653; Manchester, 838; Glasgow, 157; Liverpool, 264; Hull, 68; Darlington, 11; Leicester, 14; Golder's Green, 383; Birmingham, 19. The figures for the various crematoriums during 1904, as compared with those for 1903, show only a slight increase at several, and at one (Woking) even a trifling decrease, but, owing to the influence of Golder's Green, the returns taken together show an increase of 91 cremations last year as compared with 1903. The following table, for which we are indebted to the courtesy of Mr. Herbert T. Herring, Medical Referee of the Cremation Society of England, displays at a glance the facts in regard to the progress of cremation in Great Britain:

Name of Crematorium.	Opened in.	Number of Cremations.		Total Number of Cremations Since Commencement.
		1903.	1904.	
St. John's, Woking ..	1885	143	138	2,653
Manchester	1892	92	94	838
Glasgow	1895	18	20	157
Liverpool	1896	40	40	264
Hull (Municipal)... ..	1901	18	20	68
Darlington...	1901	1	7	11
Leicester (Corporation)	1902	5	8	14
Golder's Green, N.W. ..	1902	158	220	383
Birmingham	1903	—	19	19
		475	566	4,407

These figures show that while, on the whole, cremation is making steady headway among us, the progress is somewhat slow. There is reason to believe that the feeling against the practice, whether founded on theological beliefs or on sentimental considerations, is less strong than it was even a few years ago. The public mind is slowly, perhaps, but we think surely, becoming accustomed to the idea; it must be confessed, however, that it is not yet keenly interested in the matter. This indifference is probably in large measure due to ignorance on the subject of cremation. Moreover, most people in the conduct of their affairs prefer to follow the line of least resistance; and cremation is rightly surrounded by stricter requirements in the way of certification than are as yet insisted upon in the case of ordinary burial. Nevertheless, in view of the many obstacles with which they have to contend, the advocates of cremation are to be congratulated on the success that has crowned their efforts. On the other hand, the cause which they are active in promoting has lost its most powerful champion by the death of Sir Henry Thompson. To his initiative the movement owed its inception, and under his skilful direction it steadily gained strength and volume. No man of less commanding position or less energizing influence could have secured a hearing for a proposal which thirty years ago was looked upon by the general public as an outrage on one of the most sacred instincts of human nature; and no man of less indomitable resolution could have overcome the vast obstructing mass of prejudice which stood in the way of the reform which he had at heart. His loss is irreparable, but there is some consolation in the thought that he lived to see the work which he had set himself to do on a fair way towards accomplishment.

LITERARY NOTES.

MESSRS. SKEFFINGTON AND SON will shortly publish a book by Mr. Norman Porritt, Consulting Surgeon to the Huddersfield Infirmary, entitled *Religion and Health: their Mutual Relationship and Influence*.

The January number of the *Journal of Anatomy and Physiology* contains, among other papers, reports of two cases of fourth molar tooth in the skulls of an Australian aboriginal and a New Caledonian, by Dr. J. T. Wilson; a note by Mr. Charles Earle on the presence of a supernumerary milk incisor in the human dentition; and an account of the theory of nerve components and some of its recent developments by Mr. Onèra A. Merritt.

Under the title of *Eos* a new quarterly periodical dealing with the recognition and treatment of abnormal children and adolescents is published in Vienna by [A. Pichler's Wittwe und Sohn. The editors are Drs. M. Brunner and S. Krenberger, Director Mell and Director Dr. Schloss. The first number contains, among other original communications, a paper on the soul of the deaf and dumb child by Dr. Brunner, and one on the mental life of a blind person by Luigi Ansaldi.

The American journals announce that a female inmate of the Minnesota State Insane Hospital has won a prize offered by a Boston magazine for the solving of a rebus and a short essay on an assigned topic. The prize was a trip abroad or a sum of £50. The woman has applied to the State Board of Control for permission to make the trip, but the Board does not deem it safe to let her go. She submitted her solution of the rebus and her manuscript in such good form that no question as to the mental soundness of the prize winner occurred to any of those concerned in the award. In the magazines which provide an outlet for the poetic, philosophic, and literary inspirations of the inmates of certain asylums in this country there is often little or no trace of intellectual eccentricity to be detected. There is always, however, an element of danger in reviewing these productions. We have heard of one case in which such a magazine was mentioned with gracious condescension as creditable to the supposed writers, who turned out to be members of the asylum staff.

Mr. F. R. Greenwood, F.S.Sc.Lond., L.S.A., of Portsmouth, asks us to state that it is proposed to start a new international journal in Esperanto, devoted to medicine, surgery, and other branches of the art of healing. Co-operation with the Esperanto press will at once be undertaken if sufficient support is given to the scheme. Mr. Greenwood is president of the Portsmouth Esperanto Society, which was established in April, 1903. It was stated in the BRITISH MEDICAL JOURNAL of July 2nd, 1904, p. 38, that the Librairie Hachette had undertaken to publish an international scientific monthly in Esperanto, and that a review entirely written in that *lingua franca* has been in existence in Hungary for a year. At least two French medical journals, the *Archives de Thérapeutique* and the *Archives d'Hydrologie et de Climatologie*, regularly publish articles in Esperanto.

An account of William de Ripa, one of the Chaplains on the staff of St. Bartholomew's Hospital in the reign of Henry III, is contributed by Dr. Norman Moore to the January number of the *St. Bartholomew's Hospital Journal*. William appears to have been Master of the hospital between 1212 and 1240. He was also Vicar of the Church of St. Sepulchre. A charter in his handwriting is reproduced to which is attached the seal of Stephen de Gosewell, a name which will probably live longer in *Pickwick* than in the charter. Dr. Moore remembers hearing Dickens read the trial scene, and the tone of his voice as he mentioned "the plaintiff's house in Goswell Street." Every one knows the name of that classic thoroughfare, but very few, as Dr. Moore says, are aware that it was the street of a hamlet "extra barram de Aldredesgate," outside the bar of Aldersgate on the way "versus Iseldone," towards Islington.

The address delivered by Mr. Tweedy, President of the Royal College of Surgeons of England, in Norwich Cathedral

on the occasion of the unveiling of the William Cadge memorial window on December 6th, has been printed by request, with a reproduction of the photograph of the window which appeared in the BRITISH MEDICAL JOURNAL of December 10th, 1904. The address, which was well delivered, and made a deep impression on those who heard it, is in itself a fine memorial of the famous surgeon of Norwich. Mr. Tweedy lays stress on the fact that "the contributors to the memorial window are not the professional friends and associates of Mr. Cadge in East Anglia only, nor are they entirely medical men in the United Kingdom, but they include physicians and surgeons, some of them of the highest eminence, practising in the Colonies and in many foreign countries; in Australia and in Canada, in India and in the West Indies, in the United States of America, in France and in Germany, in Italy and in Sweden, in Belgium and in Russia." He adds: "Greater honour can no man have than this: That 'his brilliant talents as a surgeon, his great sympathy with suffering, his invariable kindness and courtesy,' gained for him the good opinion and confidence of his companions and his peers while he lived, and their affectionate remembrance in death."

We have received the first number of the third volume of the *Belfast Health Journal*, which, as stated on the front page, is "devoted to the health of the people." It is the organ of the public health movement in Belfast and Ulster, with which the distinguished editor, Dr. Henry O'Neill, has been identified during the past twenty years. It speaks well for the interest taken in public health by the people of Ulster that over 60,000 copies of vols. i and ii have already been issued. To meet the ever-growing demand for trustworthy information on the matters with which it deals, it has now been found necessary to increase the size of the journal. The issue before us fully justifies this best proof of public confidence. In addition to vital statistics and the fullest possible information as to sanitary matters in Belfast it contains numerous clearly-written articles on small-pox and vaccination, typhoid fever, consumption, diet and the food supply, and many other things. Dr. O'Neill takes all hygienic learning for his province, and rightly includes the happiness of the home and kindred matters within the scope of a journal devoted to the promotion of health. The *Belfast Health Journal* is copiously illustrated, and is throughout interesting as well as instructive. We wish Dr. O'Neill success in his self-sacrificing labours.

It may not be generally known that one of the early editors of the *Daily News* was a member of the medical profession, Mr. F. K. Hunt. The story is told in the late Sir John Robinson's *Fifty Years of Fleet Street*, published not long ago:

> The political editor of the *Daily News* at that time was a rather notable man, the late Mr. Thomas Walker, whom Mr. Gladstone afterwards appointed to the editorship of the *London Gazette*. Mr. Walker had risen from very poor circumstances. In his youth he was in danger of starving in the streets of London, when good fortune led him to the surgery of a medical man named Frederick Knight Hunt. The youth asked for employment. "I will do anything," he said; "I will sweep out the surgery, I will run on errands; only do please give me something to do." He had made many unsuccessful applications that day. Mr. Hunt liked the look of him, took him in, and found him useful in a variety of ways. The surgeon subsequently became sub-editor, then editor of the *Daily News*, and he introduced his assistant to the paper.

In the *Memoirs of Uribaldus*, written about 440 A.D., it is stated that one of the corporal punishments inflicted on the Roman soldier was bleeding. Three centuries before him, Aulus Gellius wrote that it was an old custom to open a vein in the case of a soldier guilty of some breach of military discipline. He says: *Fuit haec quoque antiquitus animadversio jubere, ignominiae causa, militi venam solvi et sanguinem dimitti.* It would be interesting to know whether the punishment had its origin in a belief that misconduct was due to disease which might be cured by a common therapeutic practice, or whether it was a sentimental penalty intended to denote that the culprit was unworthy to shed his blood for his country.

In Mr. Hilaire Belloc's clever but somewhat indiscriminating satire *Emmanuel Burden* the following account of the treatment of a patient is given:

> His doctors, however, with the double object of permanently curing their patient and of advancing the science they adorned, determined to defer his return to business.
>
> With his physique, and under these conditions of increasing strength, the analysis of his malady became more and more difficult. His medical advisers determined, therefore, to prescribe a potion, whose virtue it was so to lower the action of the heart and to befog the brain, as to bring its recipient to a state the pathology of which is common knowledge throughout the profession. Thus artificially reduced to a condition which would indeed be morbid, but the familiarity of which would permit them to agree upon its nature, they could proceed from the known to the unknown, they could build up a definite basis, they could cure thoroughly, and they, the great scientists hoped, at the same time, to observe what organ it was that had failed their patient, and had yet eluded their consummate powers of observation.
>
> A drug was therefore administered to him by the nurse, and he was told, as invalids must ever be, that it was but a harmless tonic.

Mr. Belloc's views on therapeutics are interesting. They remind us of the story of the American physician who was called in to a child with a suspicious eruption. Having carefully studied the case, the man of art delivered himself to the following effect: "I ain't posted in pustules. But you jest give the little cuss this draught. That will give him fits. Then send for me. I'm h—l on fits." We are sure that the profession would be glad to learn the nature of Mr. Belloc's wonderful "potion."

NOVA ET VETERA.

MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.

IN the recently-issued part of Dr. MURRAY'S *New English Dictionary*[1] there are not a few words which are of special interest to the medical man.

The section, which carries the dictionary from the word *pargeter* (whitewasher) to the word *pennached* (feathered), fully maintains the high standard which this monumental work has reached, and, although not a medical lexicon, it here, as always, does full justice to both the scientific and popular words which are used in medicine.

One of the first medical terms met with in turning over the pages is the as yet non-naturalized *paries* (plural *parietes*), with *parietal* and various compounds beginning in *parieto-*; and here we pick up the information, by the way, that in the United States *parietal* means "pertaining to residents within the walls of a college," the antonym, therefore, of our "extra-mural." *Parietary*, an obsolete name for the herb *pellitory*, so "singular against cholerike inflammations" (as a sixteenth-century quotation tells us) throws an unexpected light upon the common name "pellitory *of the wall*." Then we come upon *paristhmitis*, a little-used term for tonsillitis; from this is derived *paristhmiotome*, the instrument for cutting or scarifying the tonsils. *Parity*, signifying the fact of having borne children, has its first illustrative quotation taken from the year 1878; while *parous*, meaning "having brought forth offspring," would seem to be of as recent origin as 1898, although often used before then in its compounds "*multiparous*, *primiparous*," etc. *Parmacety*, the popular corruption of *spermaceti*, is illustrated by the well-known quotation from Shakespeare's Henry IV. (Part I.): "The soveraign'st thing on earth was Parmacity, for an inward bruise." *Parocciptal*, *parolivary*, *paromphalocele*, *paronychia*, *paroophoron*, *parorchid* (the epididymis), *parorexia* (perverted appetite), *parosmia* (perverted sense of smell), *parostosis*, *parotic*, *parotid*, and *parovarium* form a long series of *par's*, all sufficiently and suggestively illustrated from books new and old. *Paroxysm* in its medical sense of "an increase of the acuteness of a disease," is set forth in quotations from 1577 to 1876; and *parthenogenesis* and its associated words requires quite a long explanatory paragraph.

Then follows the obsolete *parture* ("the bringing forth of young"), with all its offspring so familiar nowadays to the obstetrical mind—for example, *parturient*, *parturition*, *parturifacient*, *parturiency*, and others not so familiar—for example, *parturiate*, *parturious*, and *parturiometer*. *Pasme*, we note in passing, is now obsolete, but was once used for "a swoon"; and Dr. Murray gets almost slangy when he tells us that to "pass in one's cheques" is "to die." The *passing-bell* marks an old meaning of the word *passage* (death); and *passion*, signifying "a painful affection," is now used only in such phrases as "*colic passion*, *iliac passion*," and the like.

Pasteurize seems to have been first used in 1881; it is hardly sufficiently defined as "to sterilize by Pasteur's method." *Patagium* is given as a non-naturalized word meaning the fold of skin acting as a wing for certain flying mammals and reptiles; it may be noted, however, that it is

[1] *A New English Dictionary on Historical Principles.* January 1st, 1905. Pargeter—Pennached (Volume VII). Oxford: Clarendon Press and London: Henry Frowde. To be obtained in volumes £2 12s. 6d. each; half volumes £1 7s. 6d. each; or in monthly instalments, price 3s. 6d. each.

now used also for the pathological or teratological fold of skin found occasionally in the human subject, passing from the chest wall to the humerus or to the side of the neck; it is thus employed by Ballantyne in his work on *Antenatal Pathology* (vol. ii). *Patella* is given as a non-naturalized word, but surely its indenization cannot be long delayed. *Paten*, with which it is etymologically connected, is fully dealt with. A curious word is *paterish*, said of a sheep when it is affected with water on the brain and dizzy and stupid in consequence. How the term *pathetic* came to be given to the fourth pair of cranial nerves is described in a quotation.

A wonderful list of words comes under the headings *patho-*, *pathogenesis*, *pathognomonic*, *pathology*, and the termination *-pathy* (as in *allopathy*, *hydropathy*, *geopathy*, *photopathy*, etc.); and even to read over the illustrative quotations will recall many things to the medical mind which it is well to keep stored there. "Conditions which are pathological in one animal are natural in others" is one of these illuminating illustrative quotations. The peculiar meaning of *peccant* in such medical expressions as "peccant matter," "peccant humours," and the like is clearly defined; and *pectoral*, in the sense of something good for diseases of the chest, is interestingly dealt with. We have no space for *pectoriloquy*, *pedesis*, *pediculosis* (coming in suggestive proximity to *pediluvium*), *pedicure*, *pellagra*, *pelvis*, *pemphigus*, *penial*, and *penile*; but there are two or three other words which must not be passed over in silence. *Pecten* and *penil* both mean the pubes, and the first, although obsolete in that form, is ever present in *pectineal*. *Pech* (to pant) and *pechan* (stomach) are words the knowledge of which is likely to be of more use to the medical man north of the Tweed than to his southern brother. *Peirastic* means experimental, but we are as yet spared the infliction of hearing of peirastic physiology.

The word *patient*, or rather its illustrative quotations, betray Dr. Murray's nationality, for they are "humorously tricky" or *pawky* (q.v.). Here they are: "To us surgiens aperteneth to oure pacientz that we do no damage"; "the physicien is not sure for amongis his pacientis he may take sekenesse"; "cheirurgions ought not to be boystiouse about his pacientes, but lovyngly to comforte theym"; "he brings his physicke after his patient's death"; and, most pawky of all, "he endeavoured to practise medicine but could nowhere find patients." Dictionaries sometimes are no less entertaining than rhymes.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 84.

PRIVATE PATIENTS AND CLUB MEMBERS.

DR. J. D. WILLIS (Manchester) writes: On a certain occasion last year I was called in to attend a sick child. In the same bed was the father, also sick, but being attended by his club doctor. He told me that he had been bad a few days, and so far did not feel much better. I told him to send for a bottle for himself, as well as the child, as I knew what suited him. He had two or three bottles, and improved nicely.

A couple of years before, I attended him through a severe attack of pneumonia with much pleuritic pain. I and my predecessor in the practice have been the regular medical attendants of the family. The patient has always been able to pay for private medical attendance, but on this latter occasion thought he would have his club doctor, as it was cheaper. He pays weekly to my collector, and has had no difficulty in doing so.

His wage is regular, and runs about 34s. a week. The club allows him sick pay, which is right, but I consider that the doctor was an interloper, and had no right to cut the ground from under my feet by attending the man for a penny a week. Shall I be charged with unprofessional conduct? If so, what about the other man?

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending December 10th the deaths from plague in India amounted to 17,439, against 17,728 in the previous seven days. The principal figures are: Bombay City, 69, against 70 during the previous week; Bombay Districts, 5,822, against 6,670; Calcutta, 12, against 8; Bengal Districts, 925, against 727; North-West Provinces and Oudh, 5,367, against 4,425; Punjab, 2,725, against 3,446; Rajputana, 432, against 292; Central Provinces, 458, against 529; Hyderabad State, 609, against 768; Madras Districts, 408, against 392.

SOUTH AFRICA.

Cape Colony (Port Elizabeth).—During the weeks ending December 10th and 17th the fresh cases of plague numbered 2 and 0; deaths from the disease, 0 and 0. On December 17th 3 cases remained under treatment. Plague-infected rats and mice continue to be found at Port Elizabeth and East London. At the latter town 2 plague-infected cats have been found.

MAURITIUS.

During the weeks ending December 29th, 1904, and January 5th, 1905, the fresh cases of plague numbered 19 and 9, and the deaths from the disease 11 and 7 respectively.

BRITISH EAST AFRICA.

According to a telegram dated Mombasa, January 2nd, 1905, plague has broken out at Port Florence. Six cases and 4 deaths are reported.

RUSSIA.

According to a Central News telegram dated St. Petersburg, December 27th, 1904, pneumonic plague has broken out in two Cossack settlements and three Khirgis villages situated about thirty-three miles north of Guriev. Two hundred deaths are reported.

SPECIAL CORRESPONDENCE.

MANCHESTER.

A Coroner on the Verdict "Suicide whilst Temporarily Insane."—The King and Up-to-date Operating Tables.—St. Mary's Hospital.—The University of Manchester Public Health Laboratories.—Prosecution for Selling an Ointment containing Veratrin.—Smells and Section 114 of the Public Health Act.—Fog and its Death-toll.—Insurance of Children.

THE City Coroner of Manchester had before him recently the case of a man who had committed suicide. The man, though he had not been doing much work lately, was of a cheerful disposition, and had never threatened to harm himself. The jury returned a verdict of "Suicide during temporary insanity." The Coroner pointed out that mere depression of spirits does not constitute insanity. For a murderer to be relieved of criminal responsibility it must be shown that he is incapable of distinguishing between right and wrong. He wished to know why juries returned this verdict seeing that it was just as logical to assume that no man in his right mind would take the life of another as that he would commit suicide. The verdict, no doubt, admits of an historical explanation, as at one time it was the only means whereby juries in the past could circumvent the law which decreed the penalty of burial at cross-roads with a stake through the heart. The Coroner thinks there is now no reason for finding such a verdict. Perhaps the following facts may serve to explain this stereotyped verdict. Less than a century ago the custom of burial at four cross roads was observed in Manchester. The most recent case of which there is any record took place in 1821. The body was buried at New Cross by the "runners" at midnight. The "runners" also kept order amongst the spectators who assembled to see the sight. Several bodies were found in 1846, when excavations were being made at New Cross in connexion with the sewage construction works. In the case of one James Massey, who hanged himself in the New Bailey in 1807, the body was taken away and buried on Kersal Moor. In the course of a few days it was exhumed and buried in a ditch near Cross Lane. Even this did not suffice; it was again exhumed and buried in Salford, after which triple interment the body was allowed to rest in peace. In 1753 the procedure was even more remarkable. In the case of an ostler who had hanged himself in a stable, the jury returned a verdict of "self-murder," and the body was ordered to be "drawn on a sledge and buried at four lane-ends, with all the clothes on, and to have a stake driven through the body, which was executed on Tuesday forenoon in the presence of a numerous concourse of spectators." No wonder, therefore, juries sought to evade the law by a pious fraud.

On Saturday last the King and Queen travelled from Chatsworth to Buxton, when they paid a visit to the Devonshire Hospital, where they were received by the Duke of Devonshire. The Royal Party inspected the day rooms for females and males and the Jubilee accident wards. Her Majesty the Queen is described as going about as though she were an angel of mercy, and she chatted with many of the women. On visiting the operating theatre the King said they wanted a glass operating table to be up to date. On this subject, he said to Dr. Turner, he could speak feelingly. During the luncheon, after the visit, the King promised to present a glass operating table to the hospital.

The new Board of the St. Mary's Hospitals met for the first time towards the end of last week, when Sir Frank Forbes

Adam was elected Chairman of the institutions formerly known as the St. Mary's and Southern Hospital for Women.

The Lent term at the University began on Tuesday, January 10th, the previous term having ended on December 22nd, 1904. Invitations have been issued by the University authorities in connexion with the public health laboratories, which will be opened on January 27th by Mr. W. J. Crossley. After the formal opening of the laboratories honorary degrees will be conferred by the Vice-Chancellor. The Treasury has issued a minute with regard to the increase of the grant from £27,000 to £44,000 to University College. They reserve £9,000 for their final report, and recommend the distribution of £18,000 of the additional amount. The University of Manchester, heads the list with an increase of £2,500, making in all £6,000 a year; Liverpool receives an additional £2,000, making a total of £5,000 a year; while Leeds, receives an extra £1,700, making its grant up to £4,000 a year.

Several well-known Bradford chemists were summoned before the city police court on January 4th for "selling a certain poison, to wit veratrin, to M. C., who was a person unknown to you." A gentleman representing the Patent Medicine Vendors' and Drug Stores Association was for the prosecutor, while the defence was undertaken by the Chemists' Defence Association. The proceedings were taken under the Pharmacy Act of 1868, which made it unlawful to sell poison to any person unknown to the seller. A woman had purchased from the defendants borax and a box of Rankin's ointment, which was marked "Poison." The woman was supplied without any questions being asked. Rankin's ointment, the City Analyst said, was "for destroying vermin in the head"; it contained 1½ per cent. of pure veratrin. For the defence it it was alleged that the prosecution had not been brought in the interests of the public. The information had been laid by the secretary to the Association of Patent Medicine Vendors, who claimed the right to sell medicines, whether they contained poison or not. The article was sold in the form of an ointment and not as a poison. It was admitted that the ointment contained a poison; so does tobacco contain nicotine, and no one would charge tobacconists with selling poison. It was further contended that if this ointment contained poison, it was of such a character that the seller was not required to enter the purchaser's name in a book, but that it was sufficient to mark the ointment "Poison." The stipendiary reserved judgement.

The Corporation recently summoned a local firm of chemical manufacturers for allowing noxious vapours to escape from their works. Amongst other products manufactured is naphthylamine. The smells said to be emitted were variously described by the witnesses for the prosecution as "pungent, sickly, nauseous, abominable—an admixture of indiarubber, sewage, and burnt sugar." Yet another said they had killed two dogs, while a third animal turned tail and ran when it approached within two hundred yards of the works. The chemist of the sanitary department said that the firm had adopted various recommendations made by him to prevent the escape of vapours, and that the plant was as efficient as it could be made. The stipendiary said the defendants could not be convicted under Section CXIV of the Public Health Act. The section did not prohibit the carrying on of a business which caused a nuisance; it left the manufacturer open to carry it on provided he used "all practicable means" of abating or preventing the emission of effluvia. Although there was some evidence that a nuisance had been occasioned, that did not conclude the case, the defendants being allowed to show that they used all practicable means for preventing it. It was not suggested there were any other means that could possibly be employed. The case was dismissed.

The returns of the medical officer of health for the week ending December 31st, 1904, reveal the belated but certain effect of the recent fog. The death-rate which in the preceding six weeks had averaged 23.3, rose in the last week of the year to 34 7 per 1,000 of the population; the deaths were mainly due to chest diseases. Salford had a similar, though less severe, experience; the death-rate rose from 22.7 to 27.7. Of the deaths in Manchester, 31 per cent. were those of aged people—that is, over 60 years of age—and 43 per cent. of these deaths, or nearly one-half, were due to bronchitis, pneumonia, and consumption. In the course of the week 65 fresh cases of dangerous infectious disease were reported, including 2 of small-pox.

The insurance of the lives of children is largely practised in the North-West of England. The Legislature dealing with the protection of child life in this regard dates from 1849. Under this Act no insurance was allowed in respect of children under the age of 6 years. Under the Act of 1855 insurance was allowed up to £6 of children under 5 years of age, and up to £10 under the age of 10 years. Other Acts were passed up to 1896, and between 1875 and the present time these Acts have been before Parliament no fewer than 64 times. The Chief Registrar of Friendly Societies prosecuted at Stockport a friendly society and several persons for infringement of the Act of 1896, one of the defendants in respect of obtaining money on the death of a child without the production of a death certificate, and in the case of other defendants of obtaining sums of money on the death of their children under five years of age, the sums being in excess of that allowed by Section LXIII of the Act of 1896, which provides that a society or branch, whether registered or unregistered, shall not pay any sum on the death of a child under ten years of age except the parent or representative of the child produces a certificate issued by the registrar of deaths containing particulars mentioned under the Act. Investigation showed that in regard to one unregistered society a considerable amount of money had been paid in respect of children during the last two years, and the provisions of the Act had not been observed. Sums varying from £6 to £9 had been obtained in the case of death of children only a few months old. The magistrates inflicted a penalty on the society and on the other defendants. In the course of the case it was stated that the infant mortality for the seventy-six great towns was 229 per 1,000 births; of Stockport it was 339 per 1,000 deaths.

CORRESPONDENCE.

A SIDELIGHT ON MEDICAL EDUCATION.

SIR,—From your very interesting article on a Sidelight on Medical Education one is able to gauge fairly accurately the relative value of the various diplomas and degrees which admit to the *Medical Register*.

Two facts stand out prominently: (1) That the London University degree is the best medical qualification; (2) that the English Conjoint Board and L.S.A.London men were more than a match for the holders of degrees from Cambridge, Manchester, Glasgow, Royal, Dublin, Edinburgh, and Aberdeen Universities. Even at the present time many graduates of the above universities look down upon the holders of the M.R.C.S., L.R.C.P.Lond., and L.S.A.Lond. Your article turns the tables completely.

The most striking fact in your article, I think, is the success of the London L.S.A. men; their diploma by those who knew nothing whatever about it was looked upon as quite inferior to most others, whereas by the tables it is found to be of a higher value than most of the various universities.

If this article on medical education should get into the daily papers we may expect the public to seek after doorplates bearing the word "Mr.," and leave the "Dr." and "M.D." severely alone.—I am, etc.,

Tottenham, Jan. 7th. F. C. WOOD.

MUNICIPAL CONTROL OF HOSPITALS.

SIR,—With reference to your leader on the King's Hospital Fund, I am of opinion that a goodly number of people refuse to contribute because they believe that all hospitals should be under municipal control, and supported by the rates. Just as the Lifeboat Institution ought to be under national control. The first step will be grants in aid of local hospitals made by the municipalities.

Personally, I believe that most of the present evils will continue until there is municipal control. In this connexion it is well to contemplate the progress of schools supported by voluntary contributions towards Council schools. What a blessing to get rid of subscribers and the idea of charity in connexion with hospitals!

I believe it would be in the public interest, if the medical staff of hospitals were salaried officials. Then they would not need to worry about getting a *quid pro quo* for their honorary services, by the exclusion of other medical men from the hospitals, which ought to be the centre of medical life in the locality. Thus would the general public benefit by a higher level of medical work all round. I think hospitals should not be charitable institutions, but parts of a national medical organization for dealing with the illnesses and accidents which render inefficient the units of the army of workers, to which all the useful members of the community

belong. I have no doubt in my own mind that before the end of this century, the large majority of the members of our profession will be the paid servants of the municipal sanitary authorities.

May that blessed time soon come!—with its hours of off-duty, no bills, less quackery, less humbug, less dread of poverty through old age, or sickness, no battles of the clubs, fewer opportunities of professional jealousy, and more opportunities for true scientific medical work.—I am, etc.,

Wigan, Jan. 8th. FERDINAND REES.

THE TRAINING OF STUDENTS TO BE GENERAL PRACTITIONERS.

SIR,—The object of this letter is to point out to all thinking general practitioners, who have the future well-being of their profession at heart, the necessity of reintroducing some modification of the old apprenticeship system into the training of the student (and future general practitioner).

For instance, requiring six to twelve months' training with a general practitioner in the routine of general practice. It could well be included any time after passing the intermediate examination, and could run concurrently with hospital work, assuming the practitioner resided within easy reach of the hospital.

The experiences of the writer and many other practitioners of *locum tenentes* and assistants would be very different if some such regulation were enforced. The average *locum tenens*, possibly a highly-trained scientific man, knows absolutely nothing of the routine of a general practice, can hardly speak kindly to a patient—regards them all as cases! (not living human beings), cannot dispense nor wrap up a bottle of medicine decently, lies in bed in the morning, has only attended 20 cases of midwifery, and then demands £4 4s. a week.

The result to a general practitioner is that he shudders at the thought of a necessary holiday, knowing that in all probability it will mean the loss of several patients altogether, the reduction of income by 60 to 80 per cent., and increased expenses, so that a holiday is often deferred and only taken when tired nature can endure no longer, and it is absolutely necessary at whatever cost.

If a practitioner had a sequence of men who had previously worked with him, and from whose number he could procure an absolutely reliable man, then the *locum tenens* and assistant system would be shorn of its terrors.

I may say I went through a modified apprenticeship whilst a student and qualified in the minimum time—hence the apparent dogmatism of my views.

With regard to the composition of the General Medical Council I ask, Who should be in the majority, the general practitioners or consultants?—the former probably being about 85 per cent., and the latter 15 per cent. of the total number of names on the *Medical Register*.—I am, etc.,

LATE HOUSE-SURGEON AND HOUSE-PHYSICIAN.

December 12th, 1904.

PRINCIPALS AND ASSISTANTS.

SIR,—In reference to the letter of Surgeon-General Evatt, in the BRITISH MEDICAL JOURNAL of January 7th, allow me to state that at the last meeting of the Ulster Branch it was proposed by the writer, and seconded by Dr. W. Calwell, that a register be formed in connexion with the Branch of suitable practitioners to act as *locum tenentes* for the members.

The resolution met with a good deal of support from those present, and was finally referred to the Council of the Branch for further consideration. This function seems quite compatible with the objects of the British Medical Association, and would supply an urgent want, as I know that country practitioners, out of touch with a medical school, are put to great inconvenience and anxiety to procure substitutes for their summer holidays. In the case of recent graduates it would have the effect which Surgeon-General Evatt suggests—of demonstrating to them that the calling of an Irish dispensary doctor is "a grand one to be out of." With an expression of the appreciation which is shared by Irish practitioners in Surgeon-General Evatt's services, I am, etc.,

Belfast, Jan. 9th. R. M. FRASER, M.D.

NEGRO IMMUNITY FROM MALARIA AND YELLOW FEVER.

SIR,—As the interesting remarks and queries in Dr. Sykes's letter on the above subject, which appeared in the BRITISH MEDICAL JOURNAL of December 31st, 1904, do not seem to have evoked any replies, I venture to offer a few suggestions as they occur to me.

1. The negro exemption from both malaria and yellow fever seems to me to be the result of an endemic acquired immunity, in consequence of his having survived accidental inoculations in childhood in his native environment, the period of exemption lasting so long as he remains in his natural environment and under its influences, and disappearing as he migrates elsewhere to altered climatic and dietetic influences. The detection of the plasmodium malariae in the blood of the majority of young negro children in malarious districts of the West Coast of Africa by Professor Koch is only natural, whereby the immunity in adult life is acquired. Nor does it seem surprising that there should be a much higher malarial and sickness death-rate among American negroes imported back to West Africa after having lived under totally different conditions, though under somewhat similar climatic conditions, in the Southern States, for a few generations, than among their aboriginal kith and kin who have not been exposed to these influences entailing loss of immunity.

2. There also seems little doubt that this immunity does arise from the same kind of acquired endemic immunity which we find in all resident races when compared to maiden communities. To the high mortality from measles among the natives of the Fiji Islands, quoted by Dr. Sykes, might be added a similar high mortality from measles in the well-known epidemic among the Faroe islanders; the susceptibility of East Indians to plague, and their comparative exemption from enteric fever; the blood of three healthy Indians who had not contracted enteric giving a positive reaction to Widal's test, as shown by Colonel Crombie in London last year, this latter being more in the nature of a natural immunity. As to the rôle of the negro skin and its colour in relation to any exemption from these infections, as noted by Darwin, and the unknown peculiarity of constitution suggested by him, there would seem to be little doubt but that the skins of savage races fulfil more important functions than those of clothed civilized races. It is their most highly developed excretory organ, and a very active one in certain seasons, when it is naturally oleaginous from the amount of sebaceous material excreted. In the seasons when this is deficient, oil or grease is resorted to, more as an emollient for smearing their bare bodies, and it must be a remarkable protection against chills, restricting rapid evaporation from the surface. That it would to some extent mechanically prove an obstacle to mosquitos, etc., I have no doubt, and more useful to those of tender years.

The great food question, upon which the composition of the blood so entirely depends, seems often to be lost sight of where pathogenic germs are considered, especially in comparing the constitutions of people of the tropics with those of temperate climes. The fact that the former are of necessity vegetarians, and to a great extent total abstainers of alcohol, when in their natural environment, they become possessed of peculiar vital and recuperative powers, and are capable of more effective defensive reactions of the organism.—I am, etc.,

Bournemouth, Jan. 10th. H. D. MCCULLOCH, M.B.

THE TREATMENT OF HAEMOPTYSIS.

SIR,—I read with interest the remarks of Dr. St. George Eyre Harris in the BRITISH MEDICAL JOURNAL of December 31st, 1904, on my article dealing with the treatment of haemoptysis. I quite agree with Dr. Harris as to the importance of avoiding all unnecessary excitement and discomfort in the treatment of severe haemorrhage from the lungs, but do not regard that as contraindicating the administration of calcium chloride per rectum. In quite a number of cases, after the subcutaneous injection of morphine, I have given rectal injections of chloride of calcium with good results, and very little discomfort to the patient. The method I adopt is a simple one: the foot is gently drawn up so that the knee and hip-joints are flexed, and a soft catheter, connected by a short piece of rubber tubing, with an ordinary brass ear syringe, is passed for a distance of several inches into the rectum, the injection being slowly given.

I also agree with Dr. Harris that the examination of the patient's chest after severe haemoptysis is not unattended with danger, and had better be omitted; but in cases which have been previously examined, and in which the locality of an area of softening or cavitation is known, I think that the

use of the icebag is of decided value, provided always that the area underlying is the seat of haemorrhage.

My experience however does not accord with that of Dr. Harris in the frequency with which bronchopneumonia follows the use of the icebag. In several cases of severe haemoptysis I have seen bronchopneumonia subsequently develop, but it appeared to bear no direct relationship to the application of ice, its cause apparently being the aspiration of infected blood from the diseased area into the finer bronchi. In this connexion Baumler[1] states, "considerable haemoptysis in cases of this kind (an aneurysmatic dilatation of a branch of the pulmonary artery lying in the wall of a small cavity) sometimes also ushers in an attack of multiple bronchopneumonia, caused by the aspiration of the bacillary contents of a cavity."

Of the use of saline cathartics I have had little experience. I have frequently used calomel in cases in which as a result of sanatorium treatment there has been a marked rise in blood pressure, and I have observed very good results follow its administration. I have also found such drugs as the mineral acids, alum, and iron of some use in slight cases, but they are useless if the haemorrhage is severe. Dr. Harris makes no reference to the application of heat to the abdomen; this I have found of real value, and would recommend it as a routine measure in all cases of severe haemoptysis.—I am, etc.,

H. HYSLOP THOMSON.

Consumption Sanatorium of Scotland,
Bridge of Weir, N.B., Jan. 10th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PROFESSIONAL SECRECY.

ALTHOUGH the time-honoured doctrine of professional secrecy cannot be pleaded in this country in courts of law, it is not habitually used to withhold information from those who have a right to it, nor is the compulsory notification of disease regarded by the profession as involving its violation, so simple and limited is the conception of the doctrine held here. In France, however, matters are otherwise, and it is not surprising to find that the very principle itself has been attacked in an able paper by Dr. Charles Valentino, published in the *Revue Scientifique*.

Article 378 of the French Penal Code forbids medical practitioners under penalty of imprisonment for one to six months and a fine of from 100 to 500 francs to reveal any secrets confided to them. The wording of the Code excepts those cases in which the law obliges disclosures, but it allows a medical witness to refuse to answer any question in the witness-box if he pleads the inviolability of professional confidences, although it expects medical men to denounce crimes of which they may have been witnesses. It exempts cases of lunacy from the prohibition on the ground of the social necessity that the practitioner should testify to what he has seen or heard in order to enable the patient to be placed under restraint. On the other hand, it does not allow him to make known facts which have come to his knowledge, even if this be necessary to clear himself when falsely accused, as in the case of a Dr. Watelet who in 1885 was charged by the newspaper *Le Matin* with having killed one of his patients, and who was prosecuted and fined for publishing a true statement of the facts. The law does not recognize the competence of the patient himself to liberate the doctor from the obligation to keep silent, for although such consent may free him from any risk of a suit for damages it cannot be pleaded as a defence to a police prosecution under Article 378.

The effect of such a conception of the principle of professional secrecy is shown by the fact that the law of notification of infectious disease has always encountered numerous objections from the medical profession in France, and has been little observed, medical practitioners in fact regarding the obligatory notification as opposed to their interests (Lavarenne, Labbé). It has even been questioned whether a practitioner who in the course of an examination discovers evidence of poisoning may reveal the fact, although it is true that the writer (Frebuchet) concludes in the affirmative.

Although Dr. Valentino demands nothing less than the total abrogation of professional secrecy as it is understood in France, he is quite willing to leave as much of it as we have in England, which seems to be sufficient for domestic purposes, for he agrees as to the need for professional reserve, and for so much of the rule as may prevent idle gossip about patients, or protect the practitioner from indiscreet questioning.

The notion which seems to obtain in France that any relaxation of the strict inviolability of medical secrecy would deter patients from seeking medical advice is proved to be vain by the experience of this and other countries, but we quite agree that the sudden announcement of a change might be misunderstood in France, and at least for a time create the fear that the confidences of the consulting room would no longer be respected. Dr. Valentino points out that in many places the old edifice is being condemned, and its outworks are already sapped by modern ideas, so that he trusts to time to bring about a saner medical opinion.

The origin of the dogma of medical secrecy is usually ascribed to the so-called Hippocratic oath, which, whether drawn up by Hippocrates or not, is at least of great antiquity, and expresses sentiments with regard to the discretion of the physician which have probably commended themselves to the medical profession at all times and in all places. These words, as given in Adams's translation are:

> Whatever in connexion with my professional practice, or not in connexion with it, I see or hear in the life of men which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret.

It is clear that the words "which ought not to be spoken of abroad" are inconsistent with the view that the oath imposes an obligation of absolute silence. This is to be found in the French penal code and nowhere else, but there is reason to believe that those legislators who in 1810 gave legal sanction to this doctrine had no idea of the scope of the measure they were passing, for in the reports of the debate in the Corps Législatif (February 7th, 1810) the introducers of the Bill, speaking of Article 378, said that it was intended to restrain those physicians who "sacrifice duty to wit, trifle with the most serious subjects, or pander to curiosity by indecent revelations and scandalous tales." How far the effect has surpassed these laudable limits has been already explained.

In order to illustrate the opinions held in England upon this subject we may refer to the cases in which correspondents have applied to the BRITISH MEDICAL JOURNAL for advice.

The most common example is that in which a medical practitioner is asked to give information respecting his patient to the other side in view of possible or pending legal proceedings. There can be no doubt that the right course to pursue is to refuse to answer any such questions without the consent of the patient or his representatives, who should also clearly understand the effect of the information to be given. It is no justification to say that if subpoenaed the medical practitioner would be compelled to disclose the facts required in the witness-box. The express direction of the judge to a witness to answer a question must be obeyed and dispenses with the obligation; but no medical practitioner should sell to an insurance company or other litigant for a fee the information he has acquired confidentially in his position as medical adviser.

The next most common question is whether a medical practitioner ought to disclose to an employer the nature of an illness or condition for which he has been consulted by an employé. As a general rule no disclosure should be made without the consent of the patient, who should understand the purport of the communication to be made, as there is little doubt that a medical practitioner would be legally liable for any damage to the patient which might arise in consequence of his report, and it might be held that the consent of the patient was not sufficient if he was not aware of the nature of the facts to be revealed and their bearing upon his interests.

On the other hand, there are certain cases about which we are sometimes asked questions where there is no obligation to secrecy. These are where the medical man is engaged by the employer, on whose behalf he makes the examination and to whom it is his duty to report. In such cases he may assume that the patient on presenting himself understands the conditions, but, if there is any doubt, he should make it quite clear that the result of the examination will be reported. We have even been asked whether medical officers in the army and navy are justified in reporting the nature of the complaints for which they are consulted by the men under their care, as in certain cases the medical report may involve stoppage of pay; there is no doubt that the military regulations absolve from the obligation to professional secrecy. The wisdom of stopping pay under the conditions indicated is a

[1] BRITISH MEDICAL JOURNAL, April 2nd, 1904, p. 772.

question which must not be allowed to interfere with the obvious duty of the medical officer. Other cases in the same group are those in which the medical practitioner is asked a question concerning the health of the patient by a person who, like the vicar of the parish or his wife, may have no right to make the inquiry but may be influenced by the best motives and a desire to assist the patient. In such circumstances it is very difficult to lay down an absolute rule, but it is generally better to decline to answer without the consent of the patient. The refusal can be worded in such a way as not to give offence, and if the medical practitioner considers that it would be to the advantage of the patient that the information should be given, he can easily obtain permission.

Then there are the cases of non-notifiable infectious diseases where it is necessary to protect other persons from the risk of contact. It is as much the duty of a medical man to prevent the spread of disease as to respect the secrets of his patient; but, as a rule, there should be no difficulty in obtaining the permission to take the necessary steps to protect other people; and it can only be in the face of selfish and wicked indifference to others that a medical practitioner might feel compelled to interfere, but he should generally be able to do so effectually without revealing his patient's secret.

Lastly, there are police cases in which the question arises whether a medical practitioner should reveal to the police facts which have come to his knowledge, and which may be evidence of a crime. Even the French Penal Code allows no sophistries about medical secrecy to justify the concealment of crime, and there can be no doubt that it is a duty which medical practitioners share with all other citizens to give all information in their possession to aid the police in the prevention and punishment of crime, although it can only rarely be their duty to volunteer such information. The cases which have been submitted to us are generally those in which the facts observed have only been sufficient to raise a suspicion; and we have been asked whether under these circumstances it would be right to communicate with the police. The opinion we have always given in doubtful cases is in favour of doing nothing. A medical practitioner placed under these circumstances is bound to consider the facts carefully; and after due consideration he must judge how far they justify a criminal inference. There is something revolting to every rightly constituted mind in a person admitted to a household in a confidential capacity playing anything like the part of a spy, and we are sure that a very cautious attitude is the only proper one for medical practitioners to maintain towards all such matters. It has more than once happened that the local police have asked all the practitioners in a district to supply certain information, such as to give the name of any woman recently confined who should consult them. In this the police ask medical men to go beyond their duty, and the request should be disregarded.

A FRIENDLY SOCIETY CASE.

ON December 22nd, 1904, Mr. Fitzroy Cowper, sitting as Deputy County Court Judge at the Marylebone County Court, heard the case of Davis *v.* Sainsbury and Griffin, which raised a question as to the legal position of the medical officer of an unregistered Friendly Society. The action was brought by a Mrs. Davis to recover the sum of £10 alleged to be due to her from the funds of the Old Paddington Wharves Women's Mutual Sick, Benefit, and Sharing Club. The society was unregistered. The Secretary (Mr. Sainsbury) and the Medical Officer (Dr. H. Griffin, M.R.C.S., L.R.C.P.) were made defendants. Mr. Harris appeared for the plaintiff; Mr. Nonweiler, solicitor, for Mr. Sainsbury; and Mr. W. V. Ball (instructed by the Solicitor to the Medical Defence Union) for Dr. Griffin.

At the sitting of the Court Mr. Ball applied to have the case against Dr. Griffin dismissed with costs. He stated that the plaint had been issued in November. On November 30th Messrs. Hempson, Solicitors to the Medical Defence Union, wrote to the plaintiff's advisers, stating that Dr. Griffin was merely the medical officer of the club, and had no control over or interest in its policy or finances. He also said that if the case was proceeded with, Dr. Griffin would be separately represented at the trial. In spite of this letter the case was proceeded with. On December 21st, however, the plaintiff wrote to say that she would not proceed against Dr. Griffin. The solicitor to the Defence Union replied that he had already sent instructions to counsel, but that if a proportion of the costs actually incurred were paid, he was willing to drop the matter. This offer was not accepted.

His Honour ruled that as formal notice of discontinuance had not been served the case must proceed.

At the hearing it appeared that, according to the rules, Dr. Griffin had been appointed arbitrator to determine disputes between members and the club. As the subject matter of the action had been duly submitted to, and had been decided by, Dr. Griffin, his Honour held that the law had no jurisdiction to try the case. He therefore dismissed the action. With regard to costs, he said that, as there was some uncertainty about the rules, he would dismiss the action without costs as against Mr. Sainsbury, but with costs as against Dr. Griffin.

THE ADMINISTRATION OF ANAESTHETICS.

C.—A SURGEON who undertakes to perform an operation however simple assumes the responsibility for the safety of his patient so far that he is obliged to do the best possible for him under the circumstances. In an emergency a surgeon would be justified in performing a serious operation with inadequate instruments and assistance, but where he has plenty of time to make all necessary arrangements he is bound to provide all that may conduce to the safety of the patient and the success of the operation. He must consider the expense of the necessary assistants, including the anaesthetist, in arranging for the fee, as it would be no defence in an action for damages to say that he could not afford to provide such assistance on account of the inadequacy of the fee, unless this had been explained to the patient or the patient's friends when the arrangements for the operation were talked over. Subject to these considerations we may say that it is quite usual for medical men to give chloroform in a confinement.

FEES TO MEDICAL WITNESSES.

SURGEON OF POLICE writes: I was summoned to appear at the quarter sessions to give evidence that a constable concerned in one of the cases was ill and unable to attend the court. My evidence was taken immediately after the grand jury had been charged by the Recorder, and the whole period of my detention did not exceed ten minutes. On calling for my fee next day the prosecuting solicitor offered me half a guinea, which I refused, remarking that the fee for giving evidence at quarter sessions was always a guinea. He replied that under the "new rules" I was only entitled to half the fee, as I had not been detained four hours, but that he would submit my objections to the Clerk of the Peace for his decision. He has now written to say that the latter has decided that half a guinea is all I am entitled to. I have always understood that the "Statutory Rules and Orders, 1903," referred to as the "new rules," applied to a magistrate, or magistrates, in petty sessions.

*** This is one of the latest examples of the "discretion" exercised by magistrates' clerks in the name of the court, to whom the discretion is given by the Home Secretary's Order of November 12th, 1903. In our comments on the Report of the Departmental Committee and on the new rules made in consequence of it by the Home Office we drew attention (BRITISH MEDICAL JOURNAL, July 18th, 1903, and January 2nd, 1904) to the proviso that if any witness were detained less than four hours from his house or place of business he should only be allowed one-half the fee he would otherwise be entitled to, and expressed the fear that if this applied to medical witnesses it would result in the half-guinea fees which the Departmental Committee considered inadequate being continued under the new rules. We understand that since the issue of the new rules a circular letter has been sent to justices' clerks by the Home Office, telling them to regard the fees named in the Statutory Order of November 12th, 1903, as maxima, and to graduate those they pay downwards according to their discretion. We hope some M.P. will get a copy of this letter and ask a question about it in the House of Commons when it meets. In the meanwhile, as the Medico-Political Committee of the British Medical Association has appointed a subcommittee to consider the question, full particulars of all such cases as the above should be sent to the Medical Secretary, British Medical Association, 429, Strand, W.C.

THE RELATION OF REGISTERED MEDICAL PRACTITIONERS TO CHEMISTS' SHOPS.

H. A. asks whether a registered medical practitioner may legally continue to reside with his father, who is a chemist.

*** As we understand our correspondent, he does not propose to take any part in the business, but to reside on and practise from the same premises. Although the profession does not regard with favour any connexion of its members with the retail drug trade, there is nothing illegal about the proposed course.

ETHICAL CONDUCT.

F. W. D. M.—We have no desire to palliate such conduct as our correspondent describes when we say that we do not think it is professional misconduct of which the Ethical Committee or the General Medical Council could take notice. If the money were obtained by false pretences, or the creditors were induced to forego their just claims by false statements, the individual complained of might come within reach of the criminal law, but such a case would have to be dealt with by the Courts of Law.

THE ETHICS OF SUPERSESSION.

A. writes: A. attends a patient in her confinement. Chloroform is necessary, and B. is called in to give it, A. delivering the patient. The patient again becomes pregnant, engages B., and he attends without previously informing A. of the patient's preference. A. only hears of the matter subsequently through the medium of neighbours. Was B.'s conduct correct?

*** B. might have felt some delicacy in accepting the engagement if his only introduction had been through being asked on the previous occasion to give chloroform, but the patient had a right to change her medical attendant, and B. was free to take the case. It was not B.'s duty to inform A. of the patient's desire to change. It would be impracticable to make a rule to forbid a practitioner who had seen a patient in consultation, or in rendering help to a neighbour, from ever accepting that patient as his own, for if this were done in places where there is no consultant class a large and yearly increasing number of persons would become "taboo" to other than their own medical attendants, and be deprived of their right to choose their medical adviser. It is therefore necessary to make the rule forbidding supersession extend only to the particular illness for which a medical man

may have been called in to consult or assist. B. could not ethically have taken over the case during the illness in which he was asked to assist.

RIVAL CLAIMS TO A CASE.

DOUBTFUL.—A. and B. are practitioners in the same district. A. is summoned to see the child of C., but as he is engaged for some hours tells C. to call in some one else if he cannot wait. Accordingly C. requested B. to see the case without telling him he had been for A. When B. has seen the child he meets A. going to see it, and they decide to return together and consult on the case. Neither A. nor B. had previously attended the family, but A. had attended C.'s relations; on this ground and by reason of the fact that A. had been summoned first, he (A.) considered that he had a prior claim to the case, and accordingly B. withdrew. Was B. acting in conformity with the ethical law in the point or would he have been justified in pressing his claim to the case?

*** As A. told C. to "call in some one else if he could not wait," and as C. of his own choice requested B. to attend, B. would have been justified in retaining the case. If A. had wished to keep the case he should have asked B. to see the case for him, but it does not appear that B. acted as A.'s substitute.

ANAESTHETISTS' FEES.

ASTONISHED writes that he was called in by a brother practitioner to administer an anaesthetic. He received no fee on that occasion, and later applied to the practitioner for payment. This was refused, and he was told he should apply to the patient. He persisted in his claim, and at length was paid by his colleague, but not before he had threatened to have the matter settled in a court of law. Was he justified in the course he pursued, and would he have been successful in the county court?

*** It is the duty of a practitioner calling in an anaesthetist to see that he is paid, and he is legally responsible for the fee. He is not justified in referring the anaesthetist to his patient, and if he had been sued he would probably have been forced to pay, and would have been responsible for any scandal brought upon the profession by such an action.

A CHOICE OF PARTNERS.

"INQUIRER" writes that a senior partner has been attending a patient who, without giving the former notice, sends for the junior partner. What should the junior partner do?

*** The junior should attend if the patient so desires. As both partners are interested in retaining the patient it would be absurd for any division to arise between them on this account.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MANCHESTER R.A.M. VOLUNTEER CORPS.

THE opening ceremony in connexion with the new head quarters of the Manchester Royal Army Medical Volunteer Corps took place on Saturday, January 7th. Colonel Coates, as chairman, and commanding the Manchester companies, gave a brief history of the corps since its formation in 1885. In addition to the facts already given in the BRITISH MEDICAL JOURNAL the following may be of interest. Colonel Coates stated that the original strength was one company of 100 men, and their head quarters an old cottage in Burlington Street. Shortly afterwards a second company was added. Now they held a record in the fact that they had the honour of sending the largest contingent of volunteers to the front during the late campaign in South Africa. At present their strength was 924 non-commissioned officers and men in seven companies and nine transport sections. Hence the need for new head quarters. To meet the disbursement £4,000 had been obtained by public subscription, and this response, though generous, was totally inadequate to meet their requirements. The War Office gave a loan of £10,000, which must be repaid. The Lord Mayor unveiled a tablet in memory of the men of the corps—seven in number—who died whilst on service in South Africa. Major-General Mackinnon, Director-General of the Auxiliary Forces, declared the building open. He said that in the future reorganization of our land forces the volunteers were intended to occupy a more prominent position than they had done hitherto. In future they would become more and more an integral part of the forces of the country.

INDIAN MEDICAL SERVICE.

RATES OF HALF-PAY.

THE Secretary of State has decided that the rates of half-pay of officers of the Indian Medical Service shall in future be the same as those laid down in the Royal Warrant for those of the same rank in the Royal Army Medical Corps.

THE AMERICAN CANCER COMMISSION.—According to a telegram from New York which appeared in the *Daily Telegraph* of January 10th, the American Cancer Commission has come to the conclusion that cancer is not a hereditary disease. In an elaborate report covering its four years' investigation the Commission states that its main effort has been to discover the cause of cancer, and that it has completely failed. The Commission rejects the parasitic theory, and is inclined to believe that it may be due to errors in development. With regard to treatment, the Commission holds that cancer can be completely cured if the patient is operated on early and thoroughly. Certain superficial cancers can be cured by the *x* rays, but for deep cancers that method is considered useless.

OBITUARY.

FRANCIS HENRY BLAXALL, M.D., ETC.,

Fleet Surgeon R.N. (retired), late Medical Inspector H.M. Local Government Board.

THERE has recently passed away at an advanced age a public official who made his mark in two allied spheres of work, and earned the honour and esteem of a large circle of friends in each—Dr. Blaxall, of Bath, formerly of the Royal Navy, and more recently connected with the Local Government Board. Francis Henry Blaxall served in the Royal Navy for over twenty years, attaining the rank of Fleet Surgeon on his retirement. During his naval career he served in the Russian war, receiving the honour of the Baltic medal.

Having become known, from his work on Mauritius fever and other researches, to be a painstaking and scientific observer, Blaxall was first engaged as an Inspector of the Privy Council under Simon, and afterwards served as an Inspector of the Local Government Board under Seaton and Buchanan. During his service in that capacity, from 1871 to 1891, he took part in many and various branches of sanitary work. Thus he was intimately engaged in carrying out the administration of the Vaccination Acts of 1867 and 1871; he organized and took considerable share in the "cholera survey" of the ports and port sanitary districts of the country; and he made numerous inquiries for the Board into the etiology of infectious diseases, and the sanitary circumstances and administration of many districts of the kingdom. Thus, Blaxall's name is associated with inquiries into enteric fever at Sherborne, Wellington, Calne, Festiniog, Gunnislake, Padstow, Selborne, Blaby, Melton Mowbray, Ilkeston, Weston-super-Mare; into diphtheria at Sculcoates, Plymouth, Taunton, Kingsclere, Midsomer Norton; into scarlet fever at Swindon and Lower Brixham; into measles at Bridgwater. Further, he made special investigation into the sanitary state of Redruth, Wiveliscombe, Newtown, Okehampton, North and South Tawton, Keynsham; and into questions of water supply at St. Ann's Chapel and Burnham. Blaxall's reports on these inquiries have all been published, and are monuments of patience, skill, and industry. The medical officer's annual volumes also contain some very important reports of his on the constitution of port sanitary districts. His intimate knowledge of nautical matters was of the greatest service to the Board in this connexion, and it may be said that much of the success of port sanitary administration to-day is due to the efforts of Blaxall in establishing it upon secure foundations.

On his retirement from public life in 1891 he had a fierce tussle with the Treasury over his pension, in which he ultimately won. It was seriously contemplated to reduce his civil pension by the amount of his naval pension, both of which Blaxall had fairly earned. It is gratifying to record that he succeeded in retaining both and in living fourteen years to enjoy them. These troubles over, Blaxall spent a happy, though uneventful, retirement at Bath, where he lived during his later career, and where he was always delighted to welcome his old friends, both official and private. Recurring attacks of bronchitis weakened him greatly, and the end came on December 23rd.

Blaxall was an eminently lovable man, and his warm-heartedness was only equalled by his transparent honesty and straightforwardness. He had many of the characteristics of a sailor, such as a buoyant breeziness which seemed to sweep everything before it. He was very popular amongst all his friends and acquaintances, as well as those with whom he was brought into official contact. His death is greatly regretted by all who knew and had been associated with him. His wife, a daughter of Admiral McHardy and sister of Professor McHardy, of King's College, predeceased him. He left no issue.

JAMES ARMSTRONG, M.B.EDIN., L.R.C.S.EDIN.,

Consulting Physician, Lying-in Hospital, Liverpool.

WE regret to record the death of Dr. James Armstrong, which took place on December 26th, 1904, at his residence, Plas Bennett, Denbigh. He was born about fifty-eight years ago, and studied at the University of Edinburgh, where he graduated M.B. in 1868. He subsequently settled in Liverpool, and practised in Rodney Street until his retirement a few years ago. He had a high-class general practice, with a tendency to specialize in the diseases of women and children, and he was the author of several papers dealing with the practical

aspects of obstetrics. He was formerly one of the physicians to the Lying-in Hospital, and at the time of his death was Consulting Physician to that institution. He was also Senior Physician to the Infirmary for Children. He held the offices of Treasurer and of Vice-President to the Medical Institution.

Of a naturally quiet and retiring disposition, he never courted popularity; but he gained the confidence of his fellow practitioners and of a large circle of friends and patients. A few years ago he suffered a severe loss in the death of his wife; his health gave way, and, acting on medical advice, he gave up practice, and went to live in the country. He was fond of golf and other forms of sport. His lamented death was due to a gun accident.

RUSTOMJEE NASERWANJEE KHORY, M.D.BRUX., L.R.C.P.Lond., London.

DR. RUSTOMJEE NASERWANJEE KHORY, a descendant of the ancient Persians, and a follower of Zoroaster in religious usages, lately passed away at Surat House, Loudoun Road, St. John's Wood, at the comparatively early age of 65, and was buried in the Parsee cemetery at Brookwood. It is hardly necessary to refer to the story of the Parsees since their arrival as exiles in India several centuries ago. Driven by Mohammedan persecution from Persia, they found shelter and protection on the shores of Guzerat, from which they went to the island of Bombay, where they have long formed the most influential part of the native community. The medical profession has always been worthily represented among the Bombay Parsees, such names as Colah, Davur, and Hormusji being well known in the science and practice of medicine and surgery in Western India.

Dr. Khory obtained the diploma of L.R.C.P.Lond. in 1870, and graduated M.D.Brux. He had completed his course in the Grant Medical College and had become a Licentiate in Medicine of the Bombay University in 1864.

Dr. Khory occupied a high place in the profession, chiefly on account of his culture and learning, which won for him the honourable and well-deserved position of Syndic and Dean of the Faculty of Medicine of the University of Bombay. During his term of office as Dean he worked hard and perseveringly towards the attainment of a higher standard of excellence in the qualification tests for the University degrees, which are greatly prized by the lucky and few possessors, as the University, though only an examining body, is very jealous and proud of its name and reputation. Dr. Khory's efforts as an educational reformer were eminently successful, but his name and reputation will go down to posterity mainly as the author of a unique work entitled *Bombay Materia Medica and Therapeutics*, published in 1887, in which for the first time native drugs were catalogued and described in a scientific and systematic manner. It is difficult to estimate correctly the value and importance of this book, the contents of which include all the remedies used by Vayids and Hakims of the present day, for good or for evil amongst the suffering millions of our fellow-subjects in India. A new edition of this work, with the more comprehensive designation of *Materia Medica of India and their Therapeutics*, has recently been published in two volumes, with the able collaboration of Dr. N. N. Katrak, in which the Eastern and Western drugs are alphabetically arranged according to their botanical, chemical, and zoological orders. This plan will tend to render it even more useful and better known to the profession in both hemispheres.

Dr. Khory was for many years Honorary Physician to the Jamsetjee Jeejeebhoy Hospital, and prominently identified with the Bombay Medical Association; it is therefore hoped that some one of his many compatriots will find time to compile a permanent record of the labours of so distinguished a member of our profession.

WE regret to have to record the death, on December 31st, 1904, of Dr. GEOFFREY EDWARD HALE, of Eton. He was the eldest son of the late Rev. E. Hale, Assistant Master at Eton College. He was educated at Eton, and subsequently studied medicine at Cambridge and St. George's Hospital. He took the degrees of M.B., B.C.Camb., in 1891, and in the same year became M.R.C.S., L.R.C.P.Lond. At St. George's Hospital he won a scholarship and the Acland and Treasurer's prizes. Dr. Hale had held several appointments at St. George's Hospital, and at one time was Assistant Demonstrator in Anatomy and Physiology at Cambridge. He contracted scarlet fever from a patient, and this was followed by pneumonia, which caused his death. Although Dr. Hale started without buying a practice, he had worked up a very large connexion in Eton, Eton College, and the neighbourhood, and at the time of his death was doing as much as was possible for one man to do. His devotion to the poor people was great, and the large attendance of many parishioners at his funeral testified to the universal popularity which he had won. Dr. Hale married in 1894 Mary, daughter of the Rev. H. Kynaston, D.D., Canon of Durham, and leaves two children, a boy and a girl, aged 9 and 7 respectively.

WE have to record the death of Brigade-Surgeon SAINTER, which took place at Craigellachie, Banffshire. He was born in 1835, and after leaving the King's School, Macclesfield, he studied for the medical profession at the Manchester Royal School of Medicine and Royal Infirmary. He took the diploma of M.R.C.S. in 1858 and that of L.R.C.P.Lond. in 1869, and became F.R.C.S.Edin. in 1871. In 1859 he entered the Army Medical Service. He served for two years (1859-61) with the field force on the staff of the expedition to Northern China, and was present at the taking of the Taku Forts. After a short term of home service he was ordered to India, where he served with the Royal Artillery in Bengal (1862-6), in Bombay (1866-9), in the Punjab (1872-4), and in the North-West Provinces of India throughout the cholera epidemic of 1874-7, when he returned home for good. He was stationed in Manchester until his retirement from the army in 1880 with the rank of brigade-surgeon-lieutenant-colonel, after twenty-one years' service. Brigade-Surgeon Sainter was the author of various papers and reports on cholera and dengue fever.

WE regret to record the death, on January 5th, at Birr, Ireland, of Dr. THOMAS WOODS, who attained a great reputation as a general practitioner and was held in the highest esteem by the profession and the public. He was the author of *Phthisis*, *Lord Rosse's Telescopes*, *Reasons against the Theory of Evolution*, and numerous contributions to the medical and scientific journals. His contributions to the *Philosophical Magazine* in 1852 on the subject of "Heat of Chemical Combinations" caused considerable stir in the scientific world. He was also interested in photography since its infancy, and did much to advance the art to the perfection it has at present attained. He enjoyed for a long time, a large practice, and held up to the present year all the principal Poor-law and other appointments in the town. He was simple in his life, helpful to the sick and needy, unwearied in performing deeds of mercy with no thought for his own individual advantage, and in short was one of the noblest of a noble profession. Dr. Woods died in his 90th year. He was twice married and leaves a large family to deplore his loss. Four of his sons are in the medical profession.

DR. JOHN BOWIE, a well-known and respected practitioner in Edinburgh, died on January 3rd at the age of 73. Originally a man of fine physique, he was practically in harness till the end, having been confined to bed for only a couple days. He died somewhat suddenly of heart failure. Dr. Bowie was a man of marked ability and force of character. Being from sincere conviction a life-long abstainer, he took for many years a prominent part in the public advocacy of the temperance cause, and he was a powerful and successful platform lecturer. The increasing demands of a large practice prevented him latterly from engaging in this sphere of labour, but in his daily routine duties he remained a quiet but persistent advocate of total abstinence from alcohol. Dr. Bowie was much trusted and greatly loved by his patients, and his funeral, although privately conducted, was largely attended by sorrowing friends. His wife predeceased him by some seventeen years, and he is survived by a family of two daughters and four sons, two of whom are members of the medical profession.

WE regret to announce the death of Dr. ERIC M. THOMSON, Senior Assistant Medical Officer of the Government Lunatic Asylum, Jamaica, who died there on November 1st, 1904, at the early age of 27. He was born in the county of Banff, and received his early education at Milne's Institution, Fochabers. Proceeding to the University of Aberdeen, he took the degree of M.A. in 1897, and in 1901, after a successful curriculum, he graduated M.B. and Ch.B. Shortly after graduation, he was

appointed Assistant Medical Officer in James Murray's Royal Asylum, Perth. This post he held until October, 1903, when he was appointed Junior Assistant Medical Officer of the Government Lunatic Asylum, Jamaica. Shortly after his appointment he was promoted to the Senior Assistantship early in 1904, his health gave way, and after a severe illness he died on November 1st.

MR. THOMAS HENDERSON POUNDS died at the age of 45, on December 27th, 1904, as the consequence of an accident which occurred six weeks previously whilst driving his motor-car. He was son of Staff Commander Pounds, R.N., and was born at Portsmouth, educated at Southsea, and subsequently entered Charing Cross Hospital. Having taken the diplomas of M.R.C.S., L.S.A., in 1881 he settled at Snodland, in Kent, where he was in practice for six years, during which period he, in 1884, took the diploma of F.R.C.S. In 1887 Mr. Pounds settled in Derby, where for a short time he was in partnership with Dr. Legge. He originated the Women's Hospital, and was appointed Surgeon there about fourteen years ago. Mr. Pounds was also one of the founders of the Derby Medical Society; he was its first Secretary, and filled the office of President in 1901-2. Being an enthusiastic motorist he was the first medical practitioner in Derby to use a car. His accident occurred while returning from a consultation, a dog getting entangled in his front wheel and locking his steering gear. He was respected highly by his fellow medical men and his patients, and many of the sick poor have cause to remember his numerous acts of kindness.

WE regret to record the death of another of the junior members of the medical profession in Edinburgh. WILLIAM CARMICHAEL, M.B., C.M., Kinleith, 25, Braid Road, Edinburgh, died at Cedars Road, London, of pneumonia, on December 31st, 1904. Some weeks ago he had an attack of influenza. This, coming after the death of his brother, the illness of his wife, and a somewhat shortened holiday, told rather severely upon him. He went to the West of Scotland to recruit, but finding it too cold he moved southwards, contracted pneumonia in London, and died somewhat suddenly after two or three days' illness. He graduated in 1890, and was for six months a Resident Surgeon in the Royal Infirmary. Some time later he settled in one of the southern suburbs of Edinburgh, and by a pleasant and kindly manner he had acquired a very considerable practice. He leaves a widow, but no children.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

THE annual report for 1904 has been issued:

Numbers of Students.

During the past year the total number of matriculated students (including 317 women) was 3,000, the highest number reached for eleven years. Of this number, there were enrolled 231 (including 7 women) in the Faculty of Science, and 1,480 (including 4 women) in the Faculty of Medicine. Of the students of medicine, 683, or over 46 per cent., belonged to Scotland; 352, or nearly 24 per cent., were from England and Wales; 113 from Ireland; 74 from India; 238, or over 16 per cent., from British colonies; and 20 from foreign countries. The number of women attending extra-academical lectures, with a view to graduation in medicine in the University, was 116.

Degrees Conferred.

The following degrees were conferred during 1904: Bachelor of Science (B.Sc.), 38 (including 1 woman); Doctor of Science (D.Sc.), 5; Bachelor of Medicine and Master in Surgery (M.B., C.M.), 4; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), 161 (including 12 women); Doctor of Medicine (M.D.), 61. The General Council of the University now numbers 9,736. The special University certificate in diseases of tropical climates was conferred on 54 candidates (including 6 women).

Fellowships, etc.

The total annual value of the University fellowships, scholarships, bursaries, and prizes now amounts to about £18,270—namely, in the Faculty of Arts, £10,755; in the Faculty of Science, £1,545; and in the Faculty of Medicine, £3,630. A number of bursaries are in the gift of private patrons, but the great majority of the University bursaries, prizes, etc., are awarded by the Senatus after competitive examination. In addition to the above, a sum of upwards of £600, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

Development and Expansion of the University.

In response to the appeal recently made to the public (by a committee of friends of the University desirous of aiding in its improvement and expansion) for subscriptions to provide for its further development, Sir Donald Currie, G.C.M.G., of Garth and Glenlyon, has made the munificent gift of £25,000. He has expressed a wish that the revenue from his money should be applied to the remuneration of a staff of lecturers such as the authorities of the University may find it advisable from time to time to appoint. The University Court, being desirous of permanently associating his name with the fund, have resolved to designate it "The Sir Donald Currie Lectureship Endowment Fund." Other contributions to the extension scheme have also been intimated to the extent of £15,000, including a sum of £5,000 given by Sir John Jackson, LL.D., to the Tait Memorial Fund, for the encouragement of physical research. At the Martinmas term the University Court purchased from the Town Council the grounds of the City Hospital in Infirmary Street, with the buildings thereon, at the price of £15,000. Sir R. Rowand Anderson has been appointed architect, and has been instructed to adapt the buildings thus acquired, in the first instance, to the purposes of the Natural Philosophy and Engineering Departments, which it is intended to reorganize and equip so as to meet modern educational requirements.

The Carnegie Foundation.

Although the Carnegie Foundation has not as yet had an appreciable influence in increasing the number of students, it is noticeable that many who avail themselves of the section of the scheme which provides for the payment of class fees take out a larger number of classes than they would probably otherwise have done. Of those who have been appointed to Carnegie post-graduate fellowships and scholarships, and who have received grants in aid for research, a considerable proportion are graduates of the University of Edinburgh. In accordance with the scheme of allocation intimated in 1902, grants have been made in augmentation of the salaries of several of the University lecturers, and an annual grant of £1,000 is made to the library for the purchase of books.

New Lectureships, Etc.

In connexion with a scheme lately arranged with the War Office, for the selection and education of University candidates for commissions in the regular army, a lectureship in military subjects has been instituted in the University. The course of instruction, which is not confined to army candidates, extends over three winter sessions, and embraces military history and strategy, tactics and the history of tactics, military engineering and topography, military law, and organization. A graduate in arts or science who has duly performed the work of this course, and fulfilled certain requirements as to service with the volunteers and with a unit of the regular army, becomes eligible for a commission in the regular army. Captain H. M. Johnstone, Royal Engineers (retired) has been appointed to the lectureship, and has entered upon his duties. Dr. J. O. Affleck and Dr. C. B. Ker, Consulting Physician and Medical Superintendent respectively in the City Hospital, have been appointed University Lecturers on Infective Fevers; and a Lectureship in the Practical Application of Anaesthetics has been instituted, to which Mr. Thomas D. Luke, F.R.C.S.E., has been appointed.

Personal Changes.

The vacancy caused by the lamented death of Dr. A. P. Aitken, first holder of the Lectureship on Agricultural Chemistry, has been filled by the appointment of Mr. Leonard Dobbin, Ph.D.

Benefactions.

The University has to make grateful acknowledgement of numerous benefactions, in addition to those above noted. Among these may be mentioned: a bequest by the late Miss Annabella Kirkpatrick, of 39, Moray Place, Edinburgh, through the Association for the Better Endowment of the University, of a sum of over £1,800 for the foundation of a fellowship or scholarship in the University of Edinburgh; a donation of £210 for the purpose of original research, by Mr. Edward George Currie, of The Deanery, Battle, Sussex; and a further gift by the Rev. Professor Gwatkin, of Cambridge, of a collection of molluscan radulae for the microscope. The trustees of the late Mr. William M'Cunn, of Landour, Largs, have also intimated the institution of four "M'Cunn Medical Research Scholarships," each of £100 a year, open to all graduates in medicine of the four Scottish universities.

Additions to the Library.

The additions to the University Library numbered 1,793, being an increase of over 700 from the previous year.

Cataloguing of the Library.

The recataloguing of the Library has been continued during the past year under the superintendence of Dr. James Burgess, C.I.E., and is now practically completed, the alphabetical arrangement of the entries and insertion of cross-references being at present proceeded with. The number of volumes dealt with so far in the general library is nearly 210,000; but, in addition to these, several departmental libraries have been catalogued, especially the theological and the physiological libraries; as have also been the medical books in the reading-room of the new buildings. The cataloguing has brought to light a considerable number of incomplete works and the want of others, which, it is thought, a university library ought to possess, and the filling up of such gaps is being steadily kept in view, a grant made by the Carnegie Trustees for this purpose having placed the library authorities in a more favourable position for doing so than was formerly the case. The question as to the printing of the catalogue will have to be considered as soon as the alphabetical arrangement of the entries is complete. The printing of a short catalogue of some 25,000 books in the library for the use of students and readers generally is now proceeding, and will, it is hoped, be completed within the next year.

Structural Changes.

In the library a great improvement has been effected during the past year by the introduction of a system of steel shelving of the most modern and approved type. The rooms so far dealt with are those on the ground floor, with the exception of the reading-room and the Reid Room; and in those parts alone sufficient additional space has already been gained to accommodate newly-acquired books for many years to come. Before the new system is introduced into other parts of the library a long-felt want, it is hoped, will be supplied by the construction of a fireproof strong-room for the safe keeping of the numerous precious, or even irreplaceable, treasures of the library. The lady students have had a very useful adjunct added to their reading-room, namely, a well-lighted cloak and conversation room, which was opened by the Principal on behalf of the Library Committee. The opening of a new entrance to the Quadrangle of the University Old Buildings, has afforded much-needed facilities for students passing from the new to the old buildings.

Miscellaneous.

Among other matters of interest the following may be noted: The Lord Rector, the Right Hon. Sir R. B. Finlay, K.C., M.P., etc., delivered on January 21st his Rectorial address, his subject being International Arbi-

tration; several new schemes of instruction and graduation in various Faculties have been under consideration during the year; arrangements have now been made for the admission of women students in the Faculties of Arts and Science to study in the chemical laboratories.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE, LONDON.

Lectures on Advanced Physiology.—The course of ten lectures on Enzymes to be given by Dr. W. M. Bayliss, F.R.S., in the Physiological Theatre, University College, London, will commence on January 18th, at 5 p.m., and will be continued on succeeding Wednesdays at the same hour.

LONDON SCHOOL OF TROPICAL MEDICINE.

Of the thirty-seven students who attended the school for the session October-December, 1904, the following eighteen passed the examination at the end of the course: Drs J. H. Cook, D. Alexander (Colonial Service), T. G. D. Cooper (Colonial Service), and D. H. Ainslie, with distinction; W. A. Densham, H. N. H. Joynt (Colonial Service), G. H. L. Fitzwilliams, P. Phillips (Colonial Service), J. Gillies, D. A. Ashton (Colonial Service), J. C. Carr, R. Dane (Colonial Service), J. W. Gromitt (Colonial Service), C. H. D. Ralph (Colonial Service), A. C. Lorena (Colonial Service), F. L. Norris (Colonial Service), and W. F. L. A. Holcroft (Colonial Service); Miss Kathleen Dawson.

ROYAL UNIVERSITY OF IRELAND.

Final M.B. Examination.

THE Royal University has issued the following new regulation in reference to the Final M.B. Examination:

1. In the spring and again in the autumn of each year two separate examinations will be held simultaneously—one for pass candidates only, the other for honour candidates only. When entering, each candidate must state at which of these examinations he selects to be examined. A candidate who has entered for the honour examination may be allowed to change to the pass examination on giving to the secretary a satisfactory reason for doing so at least one week before the commencement of the examination; but under no circumstances will a candidate who has entered for the pass be allowed to change to the honour.

2. Honour exhibitions will be awarded on the results of the honour examination only.

3. Candidates at the honour examination whose answering may not be such as to qualify them for honours, may nevertheless be adjudged to have passed the examination provided they exhibit in their answers knowledge equivalent to what is required from candidates who satisfy the examiners at the pass examination.

UNIVERSITY OF LEEDS.

FACULTY OF MEDICINE.

Dates of Examinations.

THE time tables for the March and July examinations have been issued. The written examinations begin on March 20th and on July 10th, and the practical and oral in the case of each examination follow on the written.

Appointment of Extern Examiners.

The following appointments to external examinerships were made by the Council:

Medicine.—G. Newton Pitt, M.D., F.R.C.P., Lecturer on Pathology, Guy's Hospital.

Surgery.—Albert Carless, M.B., M.S., F.R.C.S., King's College, London.

Pathology.—William Bulloch, M.D., London Hospital.

Midwifery and Gynaecology.—Peter Horrocks, M.D., F.R.C.P., Obstetric Physician, Guy's Hospital.

Mental Diseases.—G. Newton Pitt, M.D., F.R.C.P.

Medical Jurisprudence.—Sir Thomas Stevenson, M.D., F.R.C.P., Senior Scientific Analyst to the Home Office.

Public Health.—J. Lane Notter, M.D., late Professor of Military Hygiene, Netley.

Materia Medica.—Francis Warner, M.D., F.R.C.P., F.R.C.S., Lecturer in the London Hospital Medical College.

Anatomy.—George Dancer Thane, Professor of Anatomy, University College, London.

Physiology.—J. S. Edkins, M.B., Lecturer, St. Bartholomew's Hospital.

These appointments have been made in accordance with the following regulation. External examiners are appointed at first for one year only, but they are eligible for re-election for a further period of two years. They are recommended by the Senate for election by the Council in any case in which the Board of the Faculty concerned shall present a recommendation, passed by the Board *nemine contradicente* in favour of the appointment of a particular examiner, but in other cases after an advertisement for such examiner shall have appeared in selected newspapers.

Pathological Department.

To meet the immediate requirements of the Pathological Department a sum of £294 has been placed by the Council at the disposal of Professor Grünbaum for the purchase of microscopes and apparatus.

The Chair of Materia Medica and Therapeutics.

Dr. Chadwick, who has held the Professorship of Materia Medica and Therapeutics since 1898, has tendered his resignation, and the Council referred the question of the "teaching and manner of dealing with the Chair, which includes the subjects of materia medica, practical pharmacy, pharmacology, and therapeutics," to the Board of the Faculty of Medicine.

The following report of the Board on this subject was approved by the Senate and adopted by the Council:

"In virtue of the increasing importance and extent of the subject, the Board of the Faculty of Medicine recommend the creation of a Chair of Pharmacology, the occupant of which shall give his whole time to the subject.

"The Board is also of opinion that a laboratory should be attached to the said Chair.

"Pending the creation of a Chair of Pharmacology, the Board recommend that the present Chair of Materia Medica and Therapeutics be not now filled; but that a lecturer with a seat on the Faculty and the Board be appointed for the intervening period on such terms and conditions as will enable the recommendations in the report to be carried into effect when practicable.

"The Board is of opinion that the appointment of a lecturer at the present time is the better course, for the following reasons:

"1. It will facilitate the appointment of a Professor of Pharmacology when the Council are able to make the appointment.

"2. It affords a means for the continuation of the instruction in therapeutics when the Chair of Pharmacology is created; and

"3. It thereby avoids the compulsory retirement of the lecturer appointed for the interregnum."

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have passed the Primary Examination (Part I) in the subjects undernoted:

Biology.—A. J. V. Matthews, St. Mary's Hospital; V. P. Norman, London Hospital; H. H. Smith, Royal Free Hospital; J. B. Tackaberry, Middlesex Hospital.

Chemistry.—E. C. R. Fisher, Royal Free Hospital; J. B. Tackaberry, Middlesex Hospital.

Materia Medica and Pharmacy.—S. F. H. Everill, Birmingham.

The following candidates have passed the Primary Examination (Part II) in the subjects undernoted:

Anatomy.—R. Beesley, Manchester; T. P. Braim, Leeds; M. L. Ford, London Hospital; J. G. Lewis, King's College Hospital; C. C. Morrell, London Hospital; M. Rathbone, Royal Free Hospital; L. D. Stamp, Guy's Hospital; H. Stanger, Leeds.

Physiology.—M. L. Ford, London Hospital; C. C. Morrell, London Hospital; M. Rathbone, Royal Free Hospital; L. D. Stamp, Guy's Hospital; H. Stanger, Leeds; E. F. Waddington, Leeds.

HOSPITAL AND DISPENSARY MANAGEMENT.

WESTMINSTER GENERAL DISPENSARY.

THE building in which the Westminster General Dispensary has carried on its work since 1774 has recently been entirely renovated and brought up to date in its structural arrangements and fittings through the generosity of its treasurer, Mr. T. F. Blackwell, J.P., D.L., and that in a thorough manner. After entering the hall of the old Georgian house of which the premises consist, the surgical department is entered by a door on the right and the dispensary proper is on the left. The surgery has the appearance of a modern operation room with its concrete mosaic floor, its white painted walls, its tables with glass tops, its glass shelves, glass instrument cupboards, its sink with antisplasher taps, three-way foot tap and knee waste plug, and its electric light and portable standard lamps. The surgery is connected by a vestibule with the waiting room for surgical patients, which is also a model of cleanliness and light, and is comfortably warmed with radiators. The rooms devoted to medical cases, with the committee room, are on the first floor, being connected with the ground floor by a wide staircase characteristic of the period. The physician's room corresponds fairly closely with the surgery only that it is more obviously a consulting room. Partitioned off from it is a small dark room with electric light fittings. The waiting room is a duplicate of the surgical waiting room. On the floor above are the spacious rooms of the resident medical officer, the post being a yearly appointment, and on the floor above that are the quarters of the housekeeper. In its new home the dispensary must be reckoned as among the most modern of the metropolitan dispensaries, and in its fittings it can have but few rivals in their scientific and commodious, not to say elegant, character.

INDIA AND THE COLONIES.

INDIA.

Sanitary and Medical Reports of the Central Provinces for 1902.

WE have received four reports relating to sanitation hospitals and dispensaries, vaccination, and lunatic asylums in the Central Provinces, containing the statistics of the year 1902, with short comments. They have all been drawn up by Colonel M. D. Moriarty, I.M.S., Administrative Medical Officer and Sanitary Commissioner. It is hard to understand why the data were not combined in one volume, but there may be some administrative reason for compiling and issuing four reports in place of one. The year was healthy. The birth-rate was 48·29, the highest on record since 1881, and the death-rate 25·82, which is pronounced to be remarkably low. Notwithstanding the high birth-rate, infantile mortality was lower. Plague prevailed in several localities, causing 1,061 deaths. Antimalarial measures have been adopted in some municipal towns by way of experiment. The sale of quinine is being pushed. Arrangements have been made for the supply of Calmette's antivenene to dispensaries. No increase of lathyrism occurred. Evidence of sanitary activity, especially as regards villages, is apparent.

The number of hospitals and dispensaries open was 190—an increase of 3 having taken place. In these were treated 1,348,011 patients. There was a decrease in indoor patients, owing to the healthier year, the death-rate among these being 8.60 per cent., against 9.22 in 1901. Arrangements for the separation of male and female out-patients exist in nearly all the dispensaries. Female medical attendants and midwives are attached to a large and increasing number. The number of cases of tuberculous disease treated seems to be on the increase. The financial condition of these institutions appears, on the whole, to be satisfactory. Native gentlemen prefer to endow beds rather than give subscriptions. The vaccinations performed during the year numbered 464,051, giving a ratio of successful vaccination to population of 37.30—considerably below the birth-rate. Animal and prepared lymph was largely used. A percentage of success of 95 25 was obtained from the use of glycerinated lymph. The mortality caused by small-pox was moderate.

The report on lunatic asylums refers to the years 1900, 1901, and 1902. There are two asylums in the province—at Nagpur and Jubbulpore—in which were accommodated 186 and 182 inmates; 73 per cent. of the admissions were males. The period reported on was a sickly one, and both sickness and death-rates were unusually high, the latter being: for Nagpur, 4 59 per cent., and for Jubbulpore, 3.92. It has been decided not to concentrate the lunatics of the province in one asylum under a specially skilled officer on account of the limited numbers in confinement and the small insane population.

TRINIDAD.

Medical Expenditure.

Those in authority in Trinidad are apparently beginning to look a little askance at the condition of things in the medical department of the island. From Mr. Hugh Clifford's report, just published by the Colonial Office, it seems that for the year under consideration the total cost of the medical department was £81,233, of which the sum of £34,912 was spent on personal emoluments, and the remaining £46,321 on other charges. This is an increase of £6,300 over the expenditure of the preceding year, and amounts to more than one-tenth of the entire annual expenditure of the colony. Moreover, the figures show an annual tendency to swell, increasing automatically with the increasing population, says Mr. Clifford, "in a fashion which, under the existing system, defies control." The conditions obtaining in the island are, undoubtedly, widely different from those of most European countries. With practically no middle class, and with a very limited number of wealthy persons, the proportion of poverty is abnormally large. The Government has had, consequently, to provide the services of medical officers in districts where a livelihood would be impossible for the private practitioner, and it has also had to support mainly, if not entirely, various institutions which at home are maintained by the voluntary subscriptions of private individuals. The indenture system, too, has not been without its effect, for the estate hospitals found necessary for the treatment of sick Indian coolies have led the native, whether able to pay or not, to the not unnatural conclusion that he has an equal right with the imported labourer to their advantages, and to the services of the medical officers of the district. The idea, moreover, is one which has shown itself capable of expansion in other directions, and it is now becoming accepted in the popular mind that the Government is able to provide all that is desired by the individual at the charges of the State, and that Government property, being public, may be made use of by any one for his own personal advantage whenever the opportunity offers. The position, Mr. Clifford thinks, is fast becoming serious. It is satisfactory to note that Government has got some return for its £81,000, for the health conditions of the island are tolerably good, at all events so far as malaria and the efforts to master yaws are concerned, but, as in other parts of the West Indies, tuberculosis seems markedly on the increase.

ANTIRABIC INOCULATIONS IN VIENNA.—A report on the work of the Vienna Antirabic Institute in the years 1902 and 1903 has just been issued by the director, Dr. Karl Sternberg. The total number of persons treated during the period under review was 536, of whom 2 died. In addition to these a child who had been treated in 1901 also died within the period covered by the report. In the course of the ten years the institute has been in existence 2,146 persons have been treated.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF DERBYSHIRE.

DR. BARWISE, the medical officer of health, is able to record for 1903 the lowest death-rate which has yet been recorded in Derbyshire—namely, 14 7. The lowest rate previously was 15 1, in 1902. The infant mortality for 1903 was 136 per 1,000 births, but in several districts it was above 170, and in Whittington urban district it reached the high figure of 213. In the borough of Chesterfield the infant mortality-rate among illegitimate children was 375 per 1,000 born. The medical officer reports 201 cases of small-pox during the year, of whom 13 died. The disease was of a mild type, and was introduced into the county during the year by tramps some forty times. Dr. Barwise devotes a section of his report to urging the importance of some special legislation for dealing with the vagrant question. Diphtheria has been prevalent in the county (583 cases), but the mortality-rate has been low owing to the increased use of antitoxin. The provision of a county sanatorium is advocated, and the estimated cost is stated to be about £10,000, with £1,724 annual expenditure. Considerable progress has been made in the purification of sewage in the county, and effluents are regularly being produced from works consisting of septic tanks and percolating filters without the use of any land, the effluents being non-putrescible, free from suspended matter, and capable of supporting fish life. Much remains to be done in the way of enforcing the dairy order. The report contains abstracts of the district reports.

STANDARD OF FAT IN MILK.

THE Cheshire Chamber of Agriculture has forwarded to the Warrington Town Council a resolution recently adopted by the Chamber that "it is imperative, now that an official standard of milk has been fixed, that local authorities should be urged to carry out the regulations relating to the sale of milk more strictly in accordance with the spirit of the circular issued by the Board of Agriculture, December 28th, 1901." The Committee appointed by the Board of Agriculture in 1902 adopted 3 25 per cent. of fat as the minimum for genuine milk. This has not been adopted, and 3 per cent. fat and 8.5 per cent. solids not fat is the present standard. The borough analyst reported that a considerable number of samples analysed by him yielded only 3 per cent. of fat, which he had not been able to report as adulterated, though the probability is that a large percentage of the cream had been abstracted. He reported that in all cases of reported adulteration, even to a slight extent, there should be further investigation by inquiry as to the source of the milk, and by the taking of samples from the farmer after seeing the cows milked. This report was adopted. By adopting this method no injustice would be done to the milk dealer.

INFANT LIFE PROTECTION ACT AND "NURSE CHILDREN."

MISS FRANCES ZANETTI, the Government inspector under the Infant Life Protection Act to the Chorlton Union, in her annual report on the subject of nurse children, says that this year her observations have again shown her that the apathy and indifference of the parents are, in many cases, responsible for the poor class of home in which the babies are nursed. Her complaints respecting inadequate clothing, improper feeding-bottles, etc., have been answered by complaints that the parents, who in many cases seldom visit their children, grudge paying any extra money beyond the sum for maintenance. Especially has she noticed indifference on the part of mothers towards delicate children needing hospital treatment.

The "inspector" gives concrete cases to substantiate her remarks. That the Act is not a dead letter is shown by the fact that one of the nurses who had been nursing children for a number of years was deprived of her licence under the Act. During the year 180 visits were made in connexion with the Act, affecting 94 children placed out at nurse. These included 48 children which came within the Act. The latter cases were described as on the whole satisfactory. Several unsatisfactory cases, which did not fall within the provisions of the Act, were met with. As an example of many similar cases: Two babies were being nursed, but the mother of one slept in the house, by reason of which notification became unnecessary. "A baby, adopted for a lump sum of £50, died at the age of 7 months from bronchitis and convulsions two months after its adoption. It had previously been out at nurse for a weekly payment." "A great many of the children visited were the children of married people living apart on account of the intemperate habits of one, usually the mother. Such children, as a rule, show signs of previous neglect; one died a fortnight after it was placed out. I have visited these cases as often as possible, and again have found little actual neglect, but a considerable amount of improper feeding, neglect of sanitation in the houses, and other unsatisfactory conditions highly prejudicial to the health of the children, and only likely to be remedied by regular inspection."

THE TEMPERATURE OF WORKSHOPS.

ONE of the provisions under the Factory Act is that employers shall take adequate measures for securing "a reasonable temperature" in the rooms occupied by their workpeople. The provisions of the Act do not seem to be too well known in Manchester, or the fulfilment of its provisions presents other difficulties. At the police-court last week a firm of rag and fent dealers were fined for a breach of this regulation. The Chief Inspector stated that the rooms were found to be defective in heating last March, and the defendants were asked to comply with the requirements of the Act within three months. In December an inspector found thirty-eight women working in one room at a temperature of 40°, and thirteen women in another room where the temperature was 42°, the outside temperature that day being 38°. This is the first case brought into court under the Act. From the defendants' point of view it was urged that increased heating involved an increased cost for fire insurance and in some cases there would be a difficulty in effecting insurances at all. The law was enforced.

SMALL-POX AT BURNLEY.

SMALL-POX continues to spread in Burnley. Seven fresh cases were notified between December 31st and January 3rd. There are now thirty-five patients in the small-pox hospital. It is recorded as a remarkable fact that the tenth member of the family connected with a man who died has been attacked.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SURGEON R.N. asks for advice in the treatment of gonorrhoeal rheumatism.

GAITER has a case of varicose veins (extensive) which was operated on some years ago with indifferent result; patient has to wear Martin's bandage; his occupation requires much walking. He would be glad to know how puttees compare with the said bandage: they ought to be cooler, lighter, and as easily applied. Are they more satisfactory?

COUGH AFTER INFLUENZA.

NEMO asks for advice in the treatment of the distressing laryngeal tickling causing violent paroxysms of coughing met with during and after influenza. Inhalations, mustard leaves to throat, sedatives, spraying, etc., appear to have little or no effect.

INCOME TAX.

PROBE writes: I am in receipt of a pension from the Board of Guardians of a hundred guineas This year for the first time, besides being assessed on the profits of my ordinary practice, I am charged also £5 on my pension under a separate schedule. Will you kindly state whether I am liable, as it seems an anomaly to grant a pension and then subsidize it?

*** The pension is taxable, and if the amount has not already been included in the return of the profits of the practice under Schedule D, it is correctly charged with tax under Schedule E.

HAIR DYES.

R. M. K. asks to be recommended a convenient hair dye for a patch of grey hair on the prominently exposed part of the head, due to neurosis; the natural colour of the hair is dark brown.

*** Aureol, which, with hydrogen peroxide, gives light blonde to deep brown. The aureol and hydrogen peroxide are sold in separate bottles, with instructions for use. Or a brown pomatum could be used made up of lard and umber (for brown) or ivory black (for black). Such are sold in sticks. Walnut juice can also be used. Note that pyrogallic acid as a reducing agent with silver and other metallic salts, has its dangers. Aureol is stated to consist of metol 1 per cent.; amidophenol hydrochlor. 0.3 per cent.; menoamido diphenylamin 0.6 per cent., dissolved in alcohol 50 per cent.; and sodium sulphite 1½ per cent.

IRRITATION PRODUCED BY RUBBER PLASTERS AND STRAPPING.

DR. E. SYDNEY HAWTHORNE, F.R.C.S. (Mudgee, New South Wales), writes: It has been my experience of late years to have numerous complaints from patients of a considerable amount of cutaneous inflammation and consequent discomfort arising from the above cause. The varieties used have always been of the best English and American manufacture, and chiefly the emyl, belladonna, and ordinary adhesive strapping The irritation commenced as a rule several hours after the application with a scalding pain under the plaster or strapping and intense itching surrounding it; this increased to such an extent that removal was the inevitable result. The skin on examination presented all the appearance of cutaneous inflammation, followed in a few days by vesication and desquamation necessitating the application of suitable remedies. In one patient in particular at any time the application produces all the symptoms and signs above mentioned, lasting upwards of a week, one night of which will be sleepless. Lately I have communicated with a neighbouring medical practitioner upon the subject, and he also has had similar experience amongst his patients, necessitating his using the older forms of plaster and strapping, which is spread on linen and leather. I have never received any complaints regarding the application of the latter variety either from the patients who suffered from the above variety or otherwise. With the object of learning from some of your readers the probable explanation of this unfortunate condition, I should feel indebted if you would insert these few remarks in the BRITISH MEDICAL JOURNAL.

ANSWERS.

H. C. M. will find concise directions upon the subject of the preservation of pathological specimens for museum purposes in the small work, *Clinical Pathology and Practical Morbid Histology*, Second Edition, by T. Strangeways Pigg, M.A. London: Strangeway and Sons. 1901. (5s.)

A. H. M.—*A Textbook of the Diseases of the Ear for Students and Practitioners.* By Professor Adam Politzer of Vienna, translated at the personal request of the author and edited by Milton J. Ballin, Ph.B., M.D., and Clarence L. Heller, M.D. Fourth edition, revised and enlarged, with 346 original illustrations. London: Baillière, Tindall and Cox. 1902.

TABES doubtless recognizes the great difficulty of finding such accommodation as he needs for his patient. He might in the first place apply to the Secretary of the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, W.C., and to the Secretaries of the British Home and Hospital for Incurables, Streatham Common, S.W., and the Royal Hospital for Incurables, West Hill, Putney Heath, S.W.

NEURASTHENIA.

H. R. might refer to the discussion on the relation of neurasthenia to insanity, in the Section of Psychological Medicine at the annual meeting of the British Medical Association held in Manchester, 1902 (BRITISH MEDICAL JOURNAL, October 18th, 1902, p. 1208). The *Practical Treatise on Nervous Exhaustion (Neurasthenia)*, by G. M. Beard and A. D. Rockwell (London: H. K. Lewis. 1890. 7s. 6d.), is "out of print."

TREATMENT OF FLATULENCE AND ECZEMA.

M. relates the case of a man of 79 who has suffered from eczema all his life (kind and area involved not stated), and complains now chiefly of flatulence and borborygmi. Motions are at times clayey. There has always been a very slight trace of albumen in the urine. Occasionally he has suffered from slight attacks of catarrhal jaundice. He has had a variety of treatment. M. desires suggestions as to the flatulence.

*** As there are no piles (rectal examination has been negative) a dinner pill such as the following—res. podoph., gr. $\frac{1}{2}$ to $\frac{1}{4}$, quin. sulph., ext. aloes Soc., āā gr. j, ext. bellad. vir., gr. $\frac{1}{2}$ to $\frac{1}{8}$—would be useful. A small dose of nux vomica could be added with advantage to improve tone of intestines. But the thing to aim at is disinfection of the intestines. For this salol or benzonaphthol in gr. v doses night and morning should be ordered. The patient should not take large quantities of fluid, but a tumbler of hot water an hour before the principal meal would be helpful. All articles of diet likely to lead to fermentation, such as sweets, starchy articles, beer, and so forth, should be avoided. The patient might also continue the sodium sulphate with benefit, with a small amount of mag. sulph. added to it occasionally, and taken warm. That is all that can be said about the case without seeing the patient. As to the eczema, its extent and so forth would be factors in treatment *ad hoc*.

LETTERS, NOTES, Etc.

INCOME TAX "HUSTLING."

MR. T. HALLETT FRY (Income Tax Reclamation Association, 11, Queen Victoria Street, E.C.) writes as follows:

The public, through the medium of the press, has long been chafing at the more stringent Inland Revenue regulations on the matter of income tax collection. Allow me to inform you that collectors are now pasting on the demand notes the following apparently official form:

"Income Tax, House Duty, and Land Tax.
"New Regulations, 1904-5.

"Please note that I am requested to obtain early and prompt payment of the above taxes, due January 1st, 1905, and payable on or before that date.

"Payment should be remitted on receipt of this notice.

"The Income Tax Schedule A (Property Tax) is deductable (*sic*) from the next payment of rent after the date of the receipt."

This certainly does appear somewhat like the disclaimed "hustling" However, in my opinion the greatest evil is that the time for appeals is now being curtailed, and actually that if notice of appeal is not given within the ten days, which has always nominally been the rule, assessments, however inequitable, are confirmed. The result is that the amount demanded—be it even many times the assessed's income—must be paid and distraint may be made therefor.

*** A careful perusal of the memorandum issued by the Chancellor of the Exchequer a short time ago leads us to conclude that some misapprehension exists as to the intentions of the Inland Revenue authorities. We gather that the hand of the tax-gatherer is strengthened, not against the general body of taxpayers, but against that section of the community which defers payment of income tax for some six or eight months after it falls due. To such people the Chancellor says, in effect, "Pay earlier, or take the consequences." No doubt in taking up this position he has an eye to the replenishment of the coffers of the State; but there is something to be said for it even from the point of view of the average citizen. A glance at the weekly returns of national income and expenditure shows that some 75 or 80 per cent. of the income tax is paid before March 31st in each year; and the majority who pay in good time will not be inclined to complain because the laggards are to be required to pay up also, and the outstanding 20 per cent. is to be got in before the close of the financial year. It would seem that up to the present the prompt payer has had a grievance against his procrastinating neighbour, who is now to be made to mend his ways. It is difficult to draw any definite conclusions from the language of the official document, but we believe that "hustling" will exist only to the extent indicated.

This slip which our correspondent sends us does not appear to be an official form, but rather a memorandum drawn up by a local collector for use in his own district. As, however, it is being circulated, the attention of the Inland Revenue authorities might be drawn to the slip, and inquiry made as to whether it has been sanctioned by them. In view of the terms of the Chancellor's memorandum, we should expect the answer to be in the negative. We cannot think that Mr. Fry has

been correctly informed on the point referred to in the last paragraph of his letter. No doubt the Income Tax Commissioners would be technically correct in taking up the position indicated, but we have never heard of the letter of the law being strictly enforced in this respect. If in any particular case this has been done, we think that, on application being made to the surveyor of taxes, or the Board of Inland Revenue, authority would be given for the adjustment of a serious over-assessment, although the application was actually a little out of date.

CIVILIZATION AND SURGERY: NATURA DENATURANS.

A PROPOS of a leader which was published in the BRITISH MEDICAL JOURNAL of December 24th, 1904, p. 1709, the following verses have been sent us by Dr. R. C. Buist, of Dundee:

Dame Nature as marvel we're wont to accept,
The poets we know in her praise are adept:
Yet the making of man's been a muddled affair,
To the surgeon so oft he must go for repair.

In building the body with bounty quite heedless
She's given us many an organ that's needless;
'Tis a lesson long learnt from old war alarms
That a man may be merry who's laid down his arms.

There are those with one lung, and of that but a part,
And a man is made happy by losing his heart;
Some folks of one kidney we've all of us seen,
And a few can now think of the best without spleen.

We can do without stomach and yards of intestine,
It renders so simple the task of digestin';
A man is still man with no limbs underneath,
And woman is woman sans eyes, tongue, or teeth.

The true modern man has no hair to his pate,
And with an appendix he's not up to date;
Gall bladder and glands are but sources of pains,
And it's funny how many can do without brains.

DEGENERATION CAUSED BY ALCOHOL.

DR. ROBERT R. RENTOUL (Liverpool) writes: In the BRITISH MEDICAL JOURNAL of December 24, 1904, p. 1699, you publish a report of an address given by me at the Medico-Legal Society upon degeneration. When referring to my remarks upon alcohol as a cause of degeneracy you only partially mention my proposal that a medical certificate of the cause of death should consist of two parts: (1) One part which should certify the fact of death and the identity of the deceased (this to be given to the relatives of deceased); and (2) the other part certifying the cause of death, which should be sent direct by the medical man to the Registrar-General in London, Dublin, or Edinburgh, as the case may be. This form can now be adopted by the Local Government Board if the Association will only push the demand. Medical men always seem to fail at grasping the fact that the Commons never care to legislate upon any point in advance of public demand. *Ergo*—

May I urge every medical man to see the dead body of the person before he signs the certificate? Such a visit will be gladly paid for by the average relative; and, further, to refuse to grant an official certificate of the cause of death unless he has seen the patient alive within two days of death. No honest person ever refuses to pay a reasonable fee for a certificate. I fear that if medicals do not give more care to death and cause of death certification, it will be taken altogether out of their hands, as it has been in France, and handed over to an official body of medicals. I would mention that the medicals connected with hospitals should make a strong effort to rid themselves of the present unpleasant opinions held by many of the public—that they refuse to state the real cause of death in alcoholism and syphilis for fear of losing the financial help of certain interested parties—an accusation which will soon, I hope, be met by more reliable statistics.

THE METRIC SYSTEM.

MR. E. JOHNSON (Secretary of the Decimal Association, London) writes: In the letter of "G. S. B.," in the BRITISH MEDICAL JOURNAL of December 17th, 1904, p. 1668, the reference to the value of a "quarter" is a happy illustration of the vagueness of our weights and measures. During the sittings of the Select Committee of the House of Lords on the Weights and Measures (Metric System) Bill, Lord Kelvin asked the Warden of the Standards, one of the witnesses, what a quarter (referring to the corn measure) was a quarter of. The witness was unable to reply. Lord Kelvin remarked: "What a splendid illustration of the simplicity of our weights and measures! The chief custodian of the standards of these weights and measures is not able to tell us what a 'quarter' is a quarter of." There is another instance of vagueness in our measures which must appeal to all who have to deal with medical prescriptions, whether as dispensers or patients, especially perhaps the latter. I refer to the teaspoon and tablespoon. The household teaspoon varies from 60 minims to 120 minims, while the tablespoon may contain anything from 240 minims to 500 minims. Where accuracy in prescriptions is essential it is evident that the use of such varying measures must be a source of inconvenience if not of actual danger. Your readers may possibly be not all aware of the great progress which the Decimal Association has made towards the adoption in this country of the metric system. The passing by the House of Lords in May last of the Weights and Measures Bill marks an important stage in that progress, and we have at the present time something like 330 members of the House of Commons who are pledged to vote for the measure when it comes for discussion before that House. The petitions, moreover, presented to the House of Lords in favour of the Bill represent something of the national feeling in favour of the reform. Those petitions represented 69 Town, City, and County Councils, 50 Chambers of Commerce, 42 Trades Unions, 60 Teachers' Associations, the Inspectors of Weights and Measures in 80 districts, 30 Retail Traders' Associations, several Chambers of Agriculture, and a vast number of engineers and manufacturers of all sorts. It can thus be seen that the demand for reform does not come from one class only of the community, that it is not an agitation, as has been asserted, of a few professors and students, but is of a national character. It is of great importance at the present juncture that all who believe in the urgent need of a scientific system of weights and measures for this country should, as far as possible, aid the Decimal Association in their efforts towards its attainment.

DIPHTHERIA IN BRISTOL.

WE regret that we cannot publish in full a further communication on this subject which we have received from Dr. Davies and Mr. Heaven. In reply to Dr. Cobbett's question whether the identity of certain bacilli "was established by testing for the power of forming acid out of glucose, and by inoculating guinea-pigs," their answer is that they did not employ these tests, but do not regard their omission as any reason for modifying the opinions which they have already expressed.

"AMERICAN EXTERMINATION SOCIETY."

THE National Mosquito Extermination Society, which recently held its second annual meeting in New York, has decided to change its name to the American Extermination Society. As the society must be considered to know best the objects which it exists to promote, it would be presumptuous on the part of any outsider—and doubly so, no doubt, of a Britisher—to offer any criticism on its choice of a name. Perhaps, however, we may be permitted to express a hope that the society does not really, as its change of name might be taken to imply, aim at the extermination of Americans.

CEREBRAL HAEMORRHAGE.

MR. PERCY HARDY, M.B., House-Surgeon, Dorset County Hospital, writes to point out in connexion with the note from Sir Samuel Wilks, published in the BRITISH MEDICAL JOURNAL of December 24th, 1904, p. 1732, that it is stated in Allbutt's *System of Medicine* that there are several recorded instances of death from cerebral haemorrhage in from five to ten minutes.

AN M.D. FOR PRACTITIONERS.

A DIPLOMATE WAITING TO COMPLETE HIS FIFTEEN YEARS IN PRACTICE writes: May I second the advice of "Passed" to agitators to cease making complaints? Comparisons are odious, and do not of necessity reflect to the credit of the comparer.

M.D.DURH. writes: I would remind "M.B., B.S.Durh." that if the doubly-qualified practitioner of fifteen years' standing and 40 years of age, who obtains the M.D. of Durham University, has not "worked properly for it," it was the same body of examiners who examined "M.B. and B.S.," and I would remind "M.B. and B.S." of the old adage "it is a foul bird that soils its own nest."

A BIG BILL.

IN the Probate Court of Chicago, Dr. L. C. H. E. Ziegler recently filed a bill of particulars as to claims made by him for services as medical adviser against the estate of Mrs. Harriet G. McVicker, who died recently in California. Mrs. McVicker was the widow of the well-known theatrical manager, J. H. McVicker, and the mother of Mrs. Edwin Booth. Dr. Ziegler's claim in full amounts to £25,200.

THE USES OF NITRIC ACID.

IN connexion with the death of Dr. Khory, the author of *Bombay Materia Medica*, a correspondent recalls the fact that the virtues of nitric acid in the treatment of hepatic affections were first discovered by Dr. Helenus Scott, of Bombay, and quotes the following story of the unexpected efficacy of that drug under unusual circumstances. Sir John Malcolm mentions that whilst conveying by camel bottles of nitric acid for trial in Persia, part of his baggage having been left without a rearguard was plundered by a tribe of Mama Sunee robbers; his account is as follows: "We had reason when on the first mission to remember this tribe, who in conformity with one of their most ancient usages had plundered a part of our baggage that was unfortunately left without a guard in the rear. The loss would have been greater but for a curious incident. Among the camels left behind was one loaded with bottles containing nitric acid which had been furnished in considerable quantities to us at Bombay. The able physician who discovered its virtues was solicitous that its efficiency should have a fair trial in Persia, and it certainly proved a sovereign remedy in an extreme case, but one in which he had not anticipated its effects. The robbers, after plundering several camel loads, came to that with the nitric acid. They cast it from the back of the animal upon the ground. The bottles broke, and the smoke and smell of their contents so alarmed the ignorant and superstitious Mama Sunees that they fled in dismay, fully satisfied that a pent-up genie of the Feringees had been let loose, and would take ample vengeance on them for their misdeeds. The truth of this was proved by the testimonies of the camel drivers, the subsequent confession of some of the thieves and the circumstance of several of the loads which were near the nitric acid being untouched."

POST-MORTEM TEMPERATURE.

THE *Caledonian Medical Journal* quotes the following from the *Scottish Reminiscences* of Sir Archibald Geikie, Secretary of the Royal Society: A country doctor, who was attending a laird, had instructed the butler of the house in the art of taking and recording his master's temperature with a thermometer. On repairing to the house one morning, he was met by the butler, to whom he said, "Well, John, I hope the laird's temperature is not any higher to-day?" The man looked puzzled for a moment, and then replied: "Well, I was just wonderin' that mysel'. Ye see he deed at twal' o'clock."

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Clinical Remarks

ON

THE TREATMENT OF INVETERATE PRURITUS ANI.

BY SIR CHARLES BALL, M.CH., F.R.C.S.I.,
HON. F.R.C.S.ENG.,
Surgeon, Sir Patrick Dun's Hospital; Regius Professor of Surgery, University of Dublin; Honorary Surgeon to the King in Ireland.

AT the recent meeting of the British Medical Association at Oxford an interesting discussion took place in the Section of Dermatology on the causation and treatment of pruritus ani; any one reading that debate cannot fail to be struck with the enormous number of distinct diseased conditions to which this annoying symptom was attributed by the various speakers, and large as the number of supposed causes assigned were, the various plans of treatment advocated were still greater. All the resources, not only of the *Pharmacopoeia*, but of the *Extra Pharmacopoeia*, being in turn favoured.

The conclusion which naturally presents itself from reading this discussion is that the etiology of pruritus ani is in many cases indefinite, of the many causes assigned few are obviously operative, while on the other hand, the majority are purely speculative; also that the treatment is frequently eminently unsatisfactory.

Cases in which itching of the anus is the prominent symptom may be conveniently classed in three groups:

1. Those due to parasites either animal or mycotic.
2. Those resulting from dermatitis of the cutaneous portion of the anal canal and surrounding skin.
3. Those in which the disease is essentially in the nerves supplying the affected area with sensation.

1. *Parasites.*

The treatment of cases included in the first group is simple and effective once the nature of the parasitic cause has been determined.

2. *Dermatitis.*

In the second group are included cases classed under that protean generic term eczema. As in other parts of the body, great variety is to be observed in the intensity of the inflammation, the character of the local appearances, and the efficacy of treatment adopted; some cases yield to the simplest remedies, while others prove intractable to all usual therapeutic methods. It will generally be found that the most suitable applications to eczema of the anal region when acute and of the moist variety are those which are emollient and unirritating, while in the more chronic and in the dry variety highly stimulating applications, such as nitrate of silver, etc., are indicated. I have frequently found the best application to be an ammonia soap, which may easily be prepared by diluting linimentum ammoniae *B.P.* with olive oil as much as may be necessary, but no general treatment is invariably suitable: what cures one will make another, which as far as appearances go is identical, much worse; so that it is sometimes necessary to change the treatment very frequently until the necessities of the individual case are at last met. In the treatment of these cases it must always be remembered that the local trouble may be due to some more general disease, notably gout or diabetes.

Although the majority of cases of pruritus ani due to chronic dermatitis are curable, if sufficient care and time is devoted to their treatment, a few appear to defy all the usual forms of therapeutics, and may justly be termed inveterate.

3. *Nerve Lesions.*

The third group consists of those cases in which chronic intolerable itching is present, without obvious evidence of dermatitis, although abrasions of the skin may be present, the result of scratching; there are, however, often present very definite trophic changes in the skin, notably white patches, due to loss of normal pigment, while sometimes the skin surrounding the anus is of a dull bluish-white colour with a smooth surface like parchment. That their cause is due to some change in the sensory nerves of the affected area there cannot be any doubt, but by calling them neuroses we do not advance the etiology any further than when we similarly describe certain forms of trigeminal neuralgia, the intimate pathology of which is unknown, as neuroses. In some of these cases a condition of dermatitis is present at the commencement, which, however, may quite disappear, with no improvement, but rather an aggravation of the itching; in others no inflammatory state of the skin other than that produced by scratching is ever present. These cases are quite incurable by any form of external application or internal treatment, and their lot is a very miserable one, the intolerable or, as it has been aptly termed, painful itching keeping the patient awake at night and rendering life almost unbearable.

The surgical measures which have hitherto been adopted in these cases, whether resulting from inveterate dermatitis or nerve lesion, appear to be two: (1) The cauterization of the skin affected down to the papillary layer with the benzolin cautery strongly advocated by the late Sir W. Mitchell Banks, and (2) the complete removal by excision of the implicated skin. I have no personal experience of either method, as they appeared to me both crude and unscientific.

Reasoning from the analogy of the satisfactory results obtained by the removal of the Gasserian ganglion in cases of extreme trigeminal neuralgia, it occurred to me that inveterate pruritus ani might be similarly treated by the excision of the posterior roots and ganglia of the third and fourth sacral nerves; as, however, I feared that possibly this might interfere with sphincteric control of the rectum, I determined to adopt in the first instance the more simple procedure of division of the terminations of the sensory nerves to the affected skin. This appears such an obvious method that I feel sure it must have occurred to other surgeons, but I have not seen any cases published in which it has been carried out.

In the erect or recumbent position the anus is a canal about 1 in. in length, the lower two-thirds of which is covered by thin skin arranged in vertical folds, while the upper third is covered by mucous membrane of the rectum; these two are separated by a somewhat irregular line covered by transitional epithelium, where the anal valves are situated. When the nates are forcibly separated, or when the patient makes an expulsive effort, the vertical folds of skin become apparent as radiating folds, with which we are familiar when examining the anus, and the muco-cutaneous junction can be brought into view by gently separating the parts still further. The cutaneous portion of the anal canal is abundantly supplied with sensory nerves, in the terminations of which end-bulbs have been demonstrated by several observers, but that part of the anal canal which is covered by mucous membrane is, on the contrary, almost devoid of ordinary nerves of sensation; pruritus ani, therefore, never passes to the mucous membrane above the muco-cutaneous junction, but is confined to that portion of the anal canal with cutaneous covering, and the skin in the immediate neighbourhood of the anus, especially those parts which are in contact in a position of rest. If, therefore, a typical case of pruritus ani is examined, it will be found that the affected area implicates the lower portion of the anal canal and the surrounding skin, extending further in the middle line towards the coccyx behind, and along the perineum in front, even not infrequently involving the fourchette in the female, than it does upon the sides. The implicated region is elliptical in shape, quite twice as long in the antero-posterior direction as it is broad in the lateral, with the anal canal in the centre; it receives its sensory nerves from branches of the third and fourth sacral nerves, which come down on the levator ani muscle and reach the skin by perforating the external sphincter muscle. The procedure about to be described is devised for the purpose of dividing all these nerve twigs before they reach the skin of the affected area.

OPERATION.

The skin having been cleansed as completely as possible and shaved, a curved incision is made on each side of the affected area (Fig. 1) enclosing the entire ellipse with the exception of a narrow neck in front and behind; these incisions are carried down to the sphincter muscle, and the flaps raised by careful dissection with scissors from the surface of the muscle, round its anal margin, and up the anal canal to above the muco-cutaneous junction, the dissection extending round the entire circumference, all connexions with the subjacent tissues being divided (Fig. 2). The pedicles in front and behind are now undercut to a point well beyond the area of irritation, and the outer concave edges of the incision also undercut to a distance of at least a quarter of an inch free of the involved skin all round. Care must next be taken to stop all bleeding, and the flaps should not be replaced until it is completely arrested, as the formation of a haematoma in the wound might compromise the vitality of the flaps. The flaps are finally replaced and retained by sutures, a few intervals being left between them for drainage.

The immediate result of this operation is to render the entire ellipse included between the incision, the pedicles, and outer edges as far as they have been undercut, superficially anaesthetic (Fig. 3) and the itching is at once relieved.

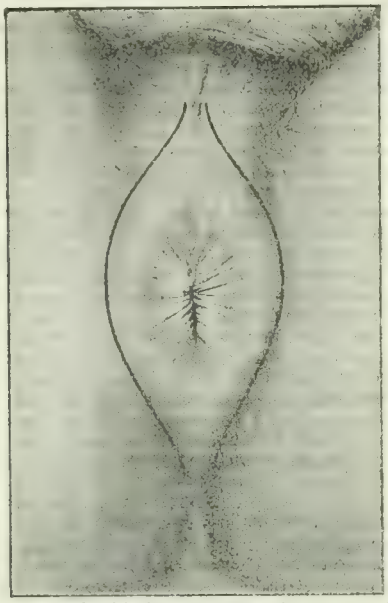


Fig. 1.—The area involved in inveterate pruritus ani, and the lines of incision in the operation described in the text.

The first case operated on in this manner occurred nearly two years ago; except for slight superficial vesication upon one side of the flap, healing was rapid; cutaneous sensation returned some months after the operation, but by this time the skin had become so altered that the pruritus did not return, and he has not had a moment's trouble with itching since. His case had been an extremely severe one, of sixteen years' duration, and his life so miserable that he threatened suicide if he could not be relieved.



Fig. 2.—Operation for inveterate pruritus ani. Method of dissecting up the flap and of dividing the terminal cutaneous nerve twigs, which for the purpose of clearness in the drawing are somewhat exaggerated.

In a second case, operated on thirteen months ago, the flaps united at once without trouble, and complete relief followed with the exception of one point about the size of the tip of the little finger, near the coccyx, which had not been sufficiently undercut. Five months afterwards he returned, asking that this part might be operated on as well. The raising of a flap containing the irritable area completely cured him and he has remained well since.

In a third case, a woman, the area of irritation, besides implicating the anal region, extended forwards to the posterior fourchette, the undercutting of the anterior pedicle and skin of the perineum was therefore somewhat extensive, and was carried round the posterior margin of the vulva. Recovery in this case was rapid and the relief of the pruritus complete.

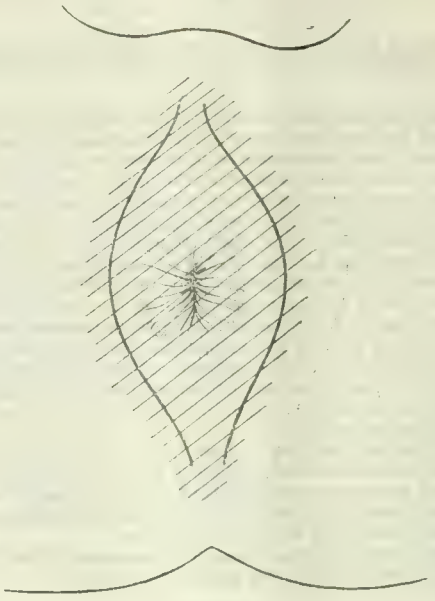


Fig. 3.—The oblique lines indicate the area which is rendered anaesthetic by the operation for inveterate pruritus ani.

So far the cases are too few to generalize from; they, however, prove (1) that the operation gives immediate relief, and (2) that superficial sensation may be restored without recurrence of the pruritus, and we may hope that in some of these distressing cases a permanent cure will be established; we know, however, that in cases of neurectomy for trigeminal neuralgia, recurrence sometimes takes place after long intervals, and that the removal of the Gasserian ganglion alone can be considered a radical operation. Should recurrence of pruritus supervene after the operation I have described the removal of the posterior roots of the third and fourth sacral nerves with their ganglia should, I believe, be seriously considered.

Remarks
ON
THE TREATMENT OF APPENDICITIS,
WITH AND WITHOUT OPERATION.

Read before the Rhyl and Denbigh Division, North Wales and Shropshire Branch.

By RUSHTON PARKER, M.B., B.S., F.R.C.S.,
Professor of Surgery, University of Liverpool; Surgeon, Liverpool Royal Infirmary.

THE occurrence of sudden and disabling pain in the right iliac fossa, with tenderness in the immediate region of the appendix, and vomiting, is ordinarily a malady of striking distinctness, not more conspicuous than its tendency to subside, and even to pass away altogether, sometimes without leaving any trace. The occurrence of relapses, however, and other circumstances have led to the practice of removing the appendix, and to the performance of operations which are among the most important, not to say interesting, in surgery. Not only has surgical operation, more readily and promptly performed, got rid of a great deal of misery in relapsing cases, and in addition saved the lives of persons whose severer cases would have been fatal without it, but it has also thrown light on the pathological anatomy of this disease much more abundantly and satisfactorily than *post-mortem* examinations ever can, by reason of revealing the changes in numerous cases that recover. It has thus made clinical judgement more easy, and has added enormously to our knowledge.

One may truly say that the more one operates the more one is convinced of the frequent necessity of prompt operation.

SYMPTOMS.

A simple attack of appendicitis is frequently attended by constipation, a febrile condition, and a furred tongue, in which the administration of castor oil or sulphate of magnesia in repeated small doses appears to be of decided benefit. The symptoms may have been severe but of short duration, and any fever may have quickly subsided. In other cases the bowel condition may predominate, although obviously arising in appendicitis, and a state of intestinal obstruction be established, with inability to pass flatus, vomiting, and constipation, painful distension, ineffectual peristalsis, and fever. The appendix has been originally at fault; its acutely inflamed condition has set up adjacent peritonitis; a varying amount of swelling, sometimes a prominent hard lump, may exist without abscess: or abscess may form without other swelling, or be masked by general intestinal distension. This state of things may be attended with a rapidly-spreading purulent peritonitis, indicated by continuous fever, quick pulse, local tenderness, and a very obvious state of serious illness due to toxaemia. It thus comes about that operations of greatly varying difficulty and danger are required for appendicitis and its several associated conditions. It is all very well, however, to talk about sudden pain in the right iliac fossa when this has been conspicuous and well noticed, and when there are few other symptoms to observe. But this symptom may not have been noticed, or may have been so overshadowed by intestinal obstruction as to lead to the fallacious attempt to relieve the latter by palliative treatment when the only relief is by abdominal section.

Have we not all attended cases of intestinal obstruction, sometimes evidently beginning in the appendix, at other times of origin unknown or not evident, but still yielding to a treatment directed to the palliation of intestinal obstruction alone? Have we not all also met with similar cases where palliative treatment has wofully failed and the patient has died unrelieved; or other cases, again, where a tardy abdominal section may have been anatomically successful, but the patient's powers have not been equal to the strain; in other words, the loss of valuable time, for want of more precise knowledge, has told with fatal effect.

In dealing, therefore, with obstinate constipation, flatulent distension, pain and tenderness in the abdomen, with fever, it is important to remember how likely it is that appendicitis may be at the bottom of it. If the symptoms do not subside in a day or two, or show a decided tendency to yield to a palliative treatment, in which salicylate of soda is of great assistance, immediate or early operation should always be kept in view and prepared for. The principal guides are the temperature and pulse: persistently raised temperature to 101° or less, and a pulse of over 80 should be a warning to constant vigilance.

The loss of valuable time, and the drifting of the case into a state beyond remedy, or only fortuitously capable of rescue, is frequently and mainly due to the omission to recognize, or to imagine if recognition be not possible, that appendicitis may be accountable for the mischief. You may have the best of rules for the management of appendicitis in several of its phases when you have recognized its existence; but what are you to do when you have no idea that it is present, and the symptoms of its onset have not presented themselves in a form usually considered as typical?

It is only natural that patients should dread operations of all kinds, and medical attendants have often a dread of suggesting them. But, in my opinion, one of the best ways to avoid operating unnecessarily is to keep the procedure always in mind, and to be ready for it. In this way the question is faced more early and the decision made more easy. The object of all our precautions, in appendicitis, is not to let slip the cases that rapidly drift into an unmanageable condition; and in such cases, as in many others, the diagnosis is everything.

Although it is true that cases of relapsing appendicitis are often not urgent, and that the time for operation in such cases can often be chosen at leisure, that fact does not lessen the importance of being keenly alive to the urgent cases. This object is best attained by remembering that the diagnosis is not always simple and straightforward, but is rather liable to pitfalls, and may sometimes only be possible by exercising the imagination in cases presenting the symptoms chiefly of intestinal obstruction. A timely operation in many a case averts what are often called "fulminating" symptoms; but not only that—it is often only just in time to reveal the commencement of that very fulmination, or inflammatory explosion, that would have rapidly extended with further delay.

It is not uncommon in the severest cases for the operator to be in doubt whether to open the abdomen in the middle line, or over the appendix, and after exploring through a median incision to have to make a second over the right iliac fossa. In such doubtful cases, the fact that appendicitis is so frequent a cause of intestinal obstruction suggests the right iliac incision as more likely by itself to throw light on the trouble. Even in this event a supplementary median incision may sometimes be needed.

The swelling in the iliac fossa adjacent to the groin is of very varying extent and consistence. All is accounted for by the effects of inflammation. Sometimes the caecum is chiefly involved, at others the adjacent intestine participates, and very frequently the omentum. The solid swelling may appear mysterious at the bedside, apart from the existence or detection of abscess, which then explains itself, but its nature is explained during operation, which reveals the swollen, matted, and indurated parts.

One relapsing case in a man of 25, on whom I operated, not for urgent symptoms but because of previous relapses and of present enlargement, showed the caecum much thickened, the basal half of the appendix severed from the apex, and adherent to the caecum with obliteration of the stump. In fact, a spontaneous cure had occurred, and I left this portion alone. Such occurrences must often happen, and the mechanism of spontaneous cure was here well illustrated. The enlargement of the caecum may sometimes suggest a resemblance to malignant tumour; but the smooth exterior, purplish-red coloration, with the previous history, shows its real nature. The disappearance of the swelling in the sequel has confirmed the expectations entertained at the operation.

One case, attended with hard swelling, with pain, tenderness, constipation, and attacks of fever resembling relapsing appendicitis, actually proved to be malignant tumour. Thinking that a spontaneous cure was to be expected, I put off operation for a month or more, giving the patient small doses of castor oil, and later of Epsom salts, with decided benefit. But eventually a fresh access of fever, with tenderness at the swelling, made operation advisable. On exposing the caecum, masses of gelatinous colloid material escaped, and it was evident that one had to do with colloid carcinoma of the caecum, perforating its wall and extended over the peritoneal surface. A faecal fistula formed, but closed again in a few weeks, and the patient went to a convalescent hospital after two months. He was 47 years of age; the operation was performed in December, 1903; temporary healing had occurred by the end of February, 1904; and I have lately heard that he died in the following June. The entire duration of his disease as noticed was just under a year.

Just one other case where the thickening was very marked. A ship's officer had a severe attack of appendicitis on the voyage to New Brunswick in November, 1899. When he got ashore he consulted a surgeon, who advised him to seek operation as soon as he got back to Liverpool. He consulted me for the purpose, and I found a very distinct swelling, feeling like a small sausage, 3 or 4 in. long and less than 1 in. wide. There was no other symptom at the time, no pain, tenderness, or illness; but I never felt a more evident thickening, which lay deep in the iliac fossa in the region of the caecum. As he was anxious to make another voyage, I could see no reason why he should not, and certified him as fit to do so, asking him to see me without fail on his next arrival five or six weeks later, when I expected to have to operate. He never came, and seven months later I wrote to ask what had become of him. His wife replied, saying that he was at sea, that the swelling had disappeared soon after he saw me, and that he had been perfectly well ever since.

Every one knows that appendicitis may get perfectly well after one or more attacks; but it is not equally evident that some instances of apparent relapse are not actually so. As a case in point, a young man, aged 23, had an attack of appendicitis in March, and another in September, 1901, each laying him up three or four weeks. In the following October he had one which his doctor described as pain in the right side of the abdomen, but not situated in or near the appendix, which also was not tender. Operation had already been advised, and the patient was anxious to get it over and done with, to save time and get to work again. But when I saw him with his doctor the latter made it so clear that the symptoms in the last short attack were not those of appen-

dicitis, but probably due to the dragging pain of peritoneal adhesions some distance off, that I advised a little more rest, and at least a postponement of operation, which I did not expect would be required. Three years have now elapsed, and the patient has been quite well all the time. All the same, there have been cases in which I have refrained from operation, but in which I should now operate without hesitation. When operations have passed through the "necessary evil" stage, and have come to be performed more for what they are worth, a time arrives when their avoidance comes to be regarded as an "unnecessary evil."

DIAGNOSIS AND MANAGEMENT.

It may now be well to review the diagnosis and management in cases of appendicitis, always premising that we have constantly to do with cases that are clear and cases that are most obscure. Relapses evidently imply some degree of recovery from previous attacks, and as a general rule there is not felt to be much risk in watching the patient through one or more new attacks, while resting in bed and submitting to palliative treatment. A good routine treatment at the onset is at once to give salicylate of soda in 15 gr. doses four times a day—that is every six hours. In the presence of mere constipation, while the patient can pass wind, and is therefore not in a state of intestinal obstruction, there is nothing better than sulphate of magnesia in small doses (1 or 2 drachms) from twice to four times a day, flavoured with aromatics. As long as a comfortable aperient action results, this may be continued as required; and if under this treatment the symptoms subside and keep in abeyance, the notion of operation does not become pressing, and need not be entertained except as a relief to the irksomeness of relapses. But if the temperature and pulse keep up without relief to the pain and tenderness it is better to prepare for operation in a couple of days, either in a first attack or a relapse.

The question of operation after a first mild attack is not easy to settle beforehand; but there are occasions when both the medical attendant and the patient argue that if the case is likely to come to operation the sooner the better, to save anxiety, time, and possibly danger, for the less the damage to the appendix the easier the operation and the more certain its success.

Though I am not in favour of undertaking such operations without good and clear surgical grounds, it may be wisely and fairly said, "When in doubt, operate." The doubt arises just as much in relapsing cases. Nobody can say that a first attack is to be the last, even when no trace can be found, nor can anybody say that the very obvious swelling that may be left after one or more attacks is incapable of absorption and resolution.

In the slighter cases the operation is performed under the best and simplest conditions. The absence of septic exudation leaves all clear within, permits the closure of the abdomen and of each layer of the abdominal wall, especially if the muscles have been severally split in the direction of their fibres. The usual result is a quick and simple healing, with no deformity by hernia.

Relapses may occur at intervals of several months, or of only a few weeks, or of not many days. In two such cases where the symptoms had subsided I hardly thought operation necessary. But the physicians in charge had observed the attacks closely and pressed operation, which I accordingly performed. In each case there was evidence of disease justifying the operation, and the expectation of further relapses. In one the appendix was twice its natural diameter, with lymphy adhesions all along, but no perforation or gangrene. In the other the appendix was firm and rounded, feeling like a cord, and, when laid open, found catarrhal within. Both cases recovered well and soundly, and are free from the dread of appendicitis in future.

The aperient treatment referred to should not be repeated or pushed if abdominal distension should come on or the patient not be able to pass flatus. If the pain increase instead of diminishing, the temperature and pulse continue above normal, and there be increased tenderness or a definite elastic swelling at the caecum, operation should be prepared for and not delayed beyond a couple of days. All this implies the occurrence of typical symptoms pointing directly and evidently to the appendix. Should intestinal obstruction exist at or shortly after the onset, or should the obstruction symptoms be the first noticed, and not yield quickly to arrest of all diet, with or without the administration of opium or morphine, abdominal section at the site of the appendix should be undertaken. There are often cases in which the notion of appendicitis is apt not to occur, and it cannot be too urgently insisted upon as a frequent but unsuspected cause of intestinal obstruction.

If it were possible to judge all cases aright, even when observed in the earlier stages, it might be supposed that many of the more difficult and formidable operations that have to be performed could be prevented. But this can never be; for, however skilful and vigilant medical men may be, they are not always called to cases before serious mischief has already threatened the life of the patient. It thus becomes a duty now and then to recommend, and to undertake, while the strength of the patient appears to be still well maintained, operations which soon after their commencement remove all hope entertained before they began. In spite of precautionary packing, to prevent pollution of the uninfected peritoneum, a flood of foul matter issuing from its recess enters fresh avenues of absorption, if not during the operation, soon after, and rapidly brings about the fatal collapse of toxaemia. It is astonishing, however, what may be actually recovered from in some people under conditions similar to those proving rapidly fatal in others. In some of the worst cases one can say that if the patient could only live long enough the resources of surgical art would be equal to the emergency, and the foul poison could be eliminated.

OPERATION.

Thanks to the spread of knowledge by improved experience, and the good judgement so increasingly prevalent in all classes of the profession, severe cases are often promptly detected and brought early to operation. In many such cases an abscess or foul exudation is exposed and successfully drained and dressed without conveying contamination to fresh surfaces, and with an end to the poisonous absorption that previously weakened the patient. It now and then is impossible, sometimes undesirable, to search out the appendix. It is then enough to deal with the exudation or abscess; and the appendix heals *in situ* by closure and atrophy of its perforated portion, just as it may heal in cases where there has been no discharge and no operation. Sometimes an abscess forms and has to be opened on the healed site from which the appendix has been successfully removed.

The steps of operation are usually as follows: After disinfection the integuments are divided in the right iliac fossa, an inch or so above and parallel to the fold of the groin, the incision being from 3 to 5 in. long, and its middle point opposite the anterior iliac spine. The aponeurosis of the external oblique and the fibres of the internal and transversalis are split in the line of their course and the aperture held open by retractors. The peritoneum is opened in the line of the skin incision, and included in the retractors. The appendix is then sought, and its removal is easy or difficult according to its position and changes. If lying in a forward position and loose its removal is easy, and when the parts are slack enough they can be brought out of the wound without trouble. If not, the caecum is detached from its bed by stripping with the fingers. A "purse-string" suture of silk thread on a domestic straight needle is passed several times through the surface of the caecum in a circle distant ½ in. or more from the base of the appendix, and left loose. The appendix is squeezed between compression forceps about an inch from its base, tied at the squeezed spot and cut off, and the stump invaginated and pushed into the caecum, while the purse-string is drawn close and tied. If the parts are aseptic the abdomen is closed by continuous suture of peritoneum, a few points to rearrange the separated fibres of each muscle, and finally skin sutures.

Nothing but boiled saline water need be used after disinfecting the hands, skin, and instruments, in washing sterilized sponges or gauze wipes, or the latter may be used dry throughout. A dressing of sterilized gauze is put on, and the wound commonly heals right off.

Rubber gloves are often worn, but when septic exudation is expected they should be used to protect the surgeon's hands, and before attempting to displace any parts it is important to pack the healthy peritoneum around the caecum with sterilized gauze or sponges, so that all foul pus or lymph may be brought directly out and prevented from spreading into uncontaminated parts. The incision, too, cannot in such cases always be restricted, or the division of abdominal muscles across their fibres avoided. The appendix is then felt for if not visible. It may be attached down in the pelvis or up in the loin near the kidney, behind the caecum, or hidden by adhesions in front or at one side of the caecum. It may be as much as 7 in. long, or anything less, thickened,

widened, or not, softened, torn, and dilapidated by ulceration, gangrene, or unavoidable injury in fingering. Occasionally a concretion is found within, or escaped by perforation into the abscess or exudation. Concretions of any kind are exceptional, but are more often of faecal composition, and more rarely calcareous. The steps for removing the injured appendix are similar to those described above, allowance being made for the altered circumstances. The foul surfaces are stuffed with gauze before the protective packs are removed. The wound is unsewn, or only slightly so, and the plug is left from one to three days, according as it is loose or adherent. The unaffected peritoneum becomes sealed around the plug. A local cleansing before plugging may be attempted by applying pure liquid carbolic acid after wiping the foul surfaces dry, and followed immediately by the application of a rag wetted with methylated, rectified, or absolute alcohol. The carbolic acid acts instantly, and the alcohol removes what remains of it and prevents damage by it. The after-treatment demands a diet for a day or two of little more than drinks of water or tea with or without a little weak alcohol; sometimes only sips of these liquids. Additions of nutritious fluids are in severe cases only cautiously and gradually made, as appetite returns and the state of the bowels permits. The dressings require removal every day, and the dry gauze pack, after its first removal, is to be changed at intervals of a few hours or a day or two, according to the amount of discharge. The use of xeroform powder aids the disinfecting and healing process, under such circumstances.

AN OPERATION FOR APPENDICECTOMY.

By A. W. MAYO ROBSON, D.Sc., F.R.C.S.,
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So many different methods of performing appendicectomy have been described that one almost hesitates to add to the list, yet, as I have been told by several experienced surgeons both at home and abroad who have witnessed the operation I am about to describe, that they had never seen this particular method, I think perhaps a knowledge of the ease with which it can be carried out, and of its efficiency, may afford some excuse for my describing the operation that I have done in chronic appendicitis or in the intervals of acute attacks some hundreds of times with universally satisfactory results. Moreover, by the adoption of this method, it is safe to promise that the patient will be, under ordinary circumstances, on the sofa in ten days, and able to return home within the fortnight without risk of hernia or abdominal weakness.

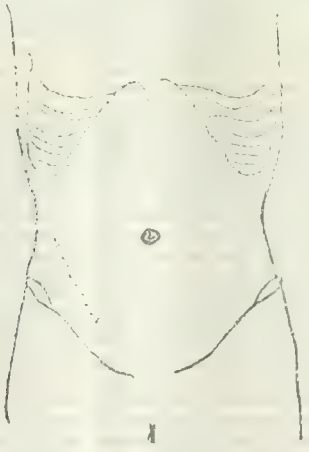


Fig. 1.—To show line of incision.

An oblique incision of 3 to 4 in. (Fig. 1) is made about 2 in. internal to the right anterior superior spine of the ilium down to the aponeurosis of the external oblique, which is then split in the direction of its fibres to an extent equal to the external incision. The fascia over the internal oblique is divided in the direction of its fibres, and the internal oblique and transversalis are then split in the same direction, so as, when the margins are forcibly stretched, to make a lozenge-shaped opening with the peritoneum as its floor. As a rule there is no bleeding, but if any vessels bleed they are at once ligatured before opening the peritoneum.

The peritoneum is then caught up by two pairs of pressure forceps and brought to the surface, when it is incised between the forceps and the opening is increased to the extent of an inch to an inch and a half (Fig. 2). Through the

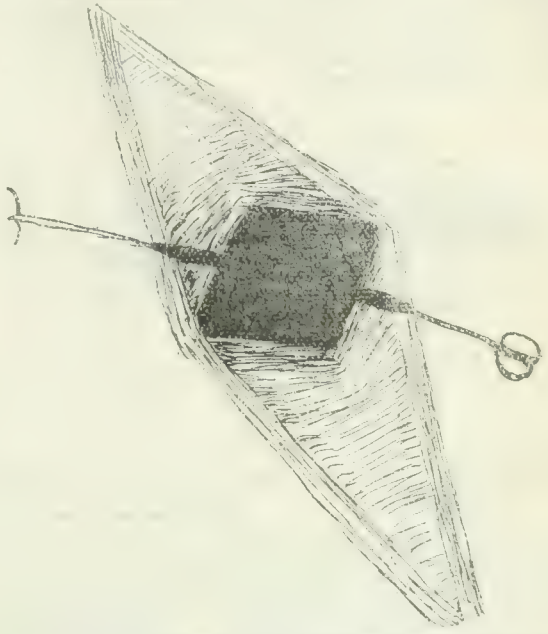


Fig. 2.—Peritoneum exposed in floor of space obtained by splitting the muscles.

opening the caecum is seen and drawn up. By following the longitudinal band the appendix is soon discovered, and any adhesions are separated by the finger, or, if needful, ligatured. As soon as the appendix is brought to the surface any protruded caecum or colon is returned into the abdomen, leaving the appendix and the apex of the caecum protruding through the lozenge-shaped aperture in the abdominal wall (Fig. 3).



Fig. 3.—Caecum and appendix projecting through lozenge-shaped space obtained by splitting the muscles.

The mesentery of the appendix is then seized with pressure forceps and divided between the forceps and the appendix, a ligature being applied to the stump. If the mesentery is very long it may need to be ligatured in two, or even three, portions; but, as a rule, one ligature is sufficient (Fig. 5).

The root of the appendix close to the caecum is then seized between the blades of a pair of ordinary Spencer Wells pressure forceps and crushed (Fig. 4), the forceps being taken off and reapplied at right angles, in order to make the crushing more complete, so as to leave only the peritoneal

coat in the crushed portion. To this crushed base of the appendix, close to the caecum, an ordinary thin catgut ligature is applied and cut short (Fig. 5). A purse-string suture is then inserted around the root of the appendix (Fig. 6), but not tightened until the appendix has been removed, which is effected by seizing it with the pressure forceps just above the crushed portion and cutting it through between the ligature and the forceps. The ligatured stump of the appendix, consisting merely of a little nipple of tissue, is depressed by means of a probe or a pair of Lister's sinus forceps and the purse-string suture tightened.



Fig. 4.—Forceps applied to root of appendix.

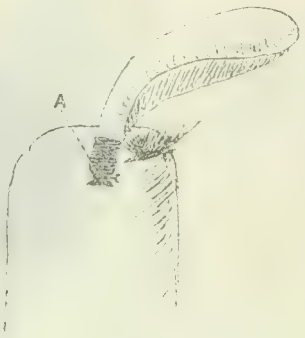


Fig. 5.—Crushed portion of root of appendix with ligature applied close to caecum.

This entirely buries the ligatured root of the appendix, making the surface of the caecum appear as in Fig 7. For additional security another purse-string suture may be applied, this taking up the root of the mesentery so as to make it form an additional cover to the tip of the caecum. The ligature of the crushed stump of the appendix is not absolutely necessary, as the crushing quite seals the lumen of the appendix. If thought desirable, it may therefore be omitted, but personally I usually apply the ligature.



Fig. 6.—Purse-string suture applied but not yet tightened.



Fig. 7.—Dimple seen after tightening the purse-string suture.

The caecum is then returned, and the peritoneum closed by a circular suture, after which the muscles, none of which have been divided, fall together. Two or three interrupted catgut sutures are applied to unite the separated margins of the internal oblique, and then several sutures are in like manner applied to the edges of the aponeurosis of the internal oblique muscle to secure accurate apposition, after which the skin is united by several interrupted sutures.

A dry aseptic dressing is then applied, and not disturbed for ten days, at which time the patient may be allowed on the sofa. The damage to the abdominal wall is so slight that no belt is necessary or even desirable.

In acute cases, where the root of the appendix cannot always be safely brought to the surface, I have found that crushing the root of the appendix and applying a catgut suture to the stump has been sufficient to secure freedom from a faecal fistula; but in the usual operations in the quiescent period, as described above, I always apply the purse-string suture in addition.

It will be seen that the first part of the operation, the splitting of muscles, is similar to the one advocated by Dr. McBurney, but the treatment of the appendix which I have employed for years was original on my part, though I believe it does not differ much from the method pursued by Dr. Ochsner of Chicago and by Dr. Doyen of Paris, both of whom probably arrived at the operation as I did, independently of one another.

If there are no special complications to cause delay, the operation can be readily completed in from ten to fifteen minutes. Where the diagnosis is doubtful, and it may be necessary to examine the abdominal contents more thoroughly than is generally necessary in a simple operation on the appendix, a vertical incision through the outer part of the rectus sheath is employed and the muscle is displaced inwards, when the posterior sheath of the rectus and the peritoneum are divided together in a vertical direction; in this way a free opening can be made large enough to admit the fingers or even the hand without dividing any muscle. When the operation is finished, the posterior and anterior parts of the rectus sheath are united separately, and a strong abdominal wall is left. Through this incision the appendix, the pelvic organs, the kidney, and the gall-bladder region can be readily explored, and if needful to do any further operation on these organs the incision can be extended without division of muscle or serious weakening of the abdominal wall.

UNUSUAL CASE OF SUPPURATIVE APPENDICITIS.

BY GEORGE A. CLARKSON, F.R.C.S.ENG.,
Leicester.

THE appendix being liable to considerable variation in position, the abscess resulting from inflammation of that body is liable to extend in many directions. In the following case the abscess not only produced intestinal obstruction by pressure on the anterior wall of the rectum, but subsequently having perforated the pelvic fascia forming the sheath of the psoas, the pus passed below Poupart's ligament in the sheath of that muscle.

A man, aged 32, was taken ill in February, 1901, with a mild attack of appendicitis. With rest and treatment the symptoms gradually subsided, and at the end of a month the patient was able to get about again.

At the beginning of May, 1901, there was a relapse, and before long difficulty was experienced in getting the bowels to act, and the patient suffered much discomfort and pain. Aperients and enemata had less and less effect, and by May 19th there was almost complete obstruction. This was due to pressure on the anterior aspect of the rectum by a fluctuating swelling, which could easily be felt by the finger and which was obviously an abscess. The walls of the rectum were completely flattened against the sacrum. The amount of swelling in the right iliac region was very slight. On May 20th the abdomen was opened in the Leicester Infirmary, and an abscess containing extremely fetid pus was found behind the bladder. Nothing could be seen of the appendix owing to adhesions. The abscess cavity was drained, and the wound closed in fourteen weeks.

After a lapse of two years—that is, in July, 1903—a fresh attack occurred, and a large inflammatory mass formed in the right iliac region. This gradually subsided, but by the middle of September a large mass was again present, accompanied by severe constitutional symptoms, great pain, and consequent loss of flesh and strength. The pain, which was so intense as to necessitate the free use of morphine, extended down the right thigh as far as the knee. The thigh then became gradually flexed on the pelvis, and the least movement of it caused great suffering.

As the patient desired that an attempt should be made to relieve his condition, on October 1st I opened the abdomen over the inflammatory mass. The caecum and adjacent coils of small intestine were found densely adherent in all directions, and the active trouble apparently lay behind and internal to the caecum. As an attempt to separate the adhesions nearly resulted in the bowel tearing, the wound was closed. Following the operation, the right thigh continued to become more and more flexed on the pelvis, the severe pain persisted, and profuse sweats occurred.

Early in December swelling and fluctuation was obvious below Poupart's ligament, and an abscess was opened in the sheath of the psoas containing more than 20 oz. of very foul-smelling pus. This gave great relief to the pain, but the patient continued to emaciate, and the thigh remained in the same flexed position. Large quantities of pus were discharged daily, and the patient died of exhaustion on April 29th, 1904.

Had the patient consented to an operation at the time of the first attack, probably there would have been little difficulty in dealing with the appendix; but with the recurrence in 1903 a condition arose which surgery was powerless to relieve.

PERFORATED DUODENAL ULCER:

WITH A REPORT OF THREE CASES.

BY H. S. CLOGG, M.S.LOND., F.R.C.S.ENG.,
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THE three following cases of perforated duodenal ulcer which have recently been under my care present some points of interest, and hence I venture to record them:

CASE I.

Male, aged 44. He had always enjoyed very good health; it was impossible to obtain any history of previous gastric or intestinal disease. Whilst lifting a heavy packing case he was suddenly seized with acute pain in the right hypochondriac region; he became very faint and was carried to the hospital, a distance of about 100 yards. On admission he had recovered to a great extent from his initial collapse; the pulse was of good quality, 80 per minute; temperature 97°. He vomited three times in rapid succession: the vomit was bile-stained. He complained of considerable pain in the right hypochondriac region, and this region of the abdominal wall was held very rigid; the maximum point of tenderness was about 1 in. above and to the right of the umbilicus. Apart from the right hypochondriac region the abdomen was free from all tenderness and moved freely on respiration. No food had been taken for some two hours previous to the occurrence of the severe pain. Two or three hours later the pain was much easier; he again vomited some bile-stained material. The temperature had risen to 100.6° and pulse to 104. During the night he slept well and appeared free from pain.

The following morning he did not complain of any pain, but on deep pressure some tenderness was elicited in the right hypochondriac region. The temperature was 100° and the pulse 98 to 106. The abdomen was perfectly soft, and moved uniformly on respiration. On percussion it appeared quite normal. Later in the day his condition changed, and rather suddenly so. The pulse increased in frequency and reached 130 per minute; the temperature rose to 102°; respirations were unaltered. The abdomen was slightly distended generally; abdominal movements were free, except in the right hypochondriac region, and there the wall was held rigidly fixed and great tenderness was complained of, the remainder of the abdomen being free from all pain and tenderness. On percussion there was an area of tympany reaching from the umbilical level on the right side upwards to the fifth rib in the nipple line, backwards to the mid-axillary and inwards to the mid-lines. There was absence of liver dullness anteriorly. When the patient was turned on to his left side this tympanitic area extended backwards to the scapular line, beyond which level some impaired resonance was obtained over the right base where the entry of air was deficient. Some impaired resonance was also present in the right loin. These signs pointed to a localized collection of fluid gas in the right hypochondrium, and from the situation and the absence of all previous symptoms a perforated duodenal ulcer was suspected.

Operation.—Twenty-eight hours after the initial symptoms a median epigastric incision was made and lengthened eventually to about 5 in. On opening the peritoneal cavity some turbid fluid escaped; this was coming entirely from the right side; the remainder of the peritoneum was not infected apparently, and was shut off by sterile gauze packing. The duodenum just beyond the pyloric opening was considerably thickened and adherent to the liver; from amongst these adhesions fluid was seen issuing. The adhesions to the liver were separated and a perforated ulcer exposed in the centre of a very indurated duodenal wall; the perforation was about the size of a threepenny piece. An attempt was made to close the hole with Lembert sutures. The bowel, however, was too friable to permit this. The free edge of the omentum was brought up and stitched around the perforation. The peritoneum was carefully dried as thought. A counter incision was made in the right loin, just below the last rib, and immediately the peritoneal cavity was opened some few ounces of turbid fluid escaped. The anterior wound was closed with the exception of about 1 in., through which a rubber drainage tube was passed to the surface of the ulcer; the lumbar wound was drained by a rubber tube also. The operation lasted about thirty-five minutes. At the close of j of saline solution were put into the median basilic vein. The following morning the patient had a rigor, the temperature reaching 105° and the respirations 36. Lung trouble was anticipated, but the alarming symptoms subsided in a few hours and the temperature fell to normal in a few days. The tubes were removed on the eighth day. A few days later a small abscess developed in the abdominal wall, presumably due to stitch infection. This was treated and all went well. Now, seven months later, the man is in perfect health; he has no symptoms of duodenal ulceration, active or healed.

The points of main interest in this case are: (1) The absence of all symptoms previous to those of perforation. This appears to be the case in about 50 per cent. of perforated duodenal ulcers. It is so common, in fact, that in a middle-aged man, in previous good health, who suddenly develops signs of acute perforative peritonitis of the upper abdomen, duodenal ulcer should be strongly suspected. (2) The occurrence of acute symptoms during some severe straining action. This is frequently observed in gastric and not uncommonly recorded in the duodenal perforation also. In the stomach it is easy of explanation. The abdominal wall contracting would tend to compress a full stomach and cause a rupture at any weak spot. Compare the etiology of the cases of spontaneous rupture of the stomach. The condition is somewhat different in the duodenum, and it is difficult to conceive that the strain can cause a perforation in a similar way. In this case, and possibly in others recorded, I think the strain tore adhesions between the duodenum and liver, and thus caused the hole in the duodenum. (3) The length of the "latent period" and the almost entire absence of symptoms in that period. In most acute abdominal conditions after the initial collapse there comes a period in which the patient is comparatively comfortable, but generally some evidence of abdominal disease can be detected. In this case the abdomen was practically free from all evidence of disease; the pulse was a little increased in frequency, and the temperature a little elevated, and slight tenderness on deep pressure was present. Signs of peritonitis did not develop until twenty-four hours later. The perforation in the early collapse must have been very small and immediately sealed by adhesions. Later adhesions gave way and allowed of free extravasation. (4) The clinical phenomena pointing to an effusion of gas and fluid in the upper right region of the abdomen. The large area of tympany obliterating the liver dullness, changing its limits on movement of the patient on to the left side, and the general suppleness of the rest of the abdomen produced a gastro-intestinal perforation. At the operation no adhesions were found shutting this fluid collection off from the rest of the abdomen, and it is difficult to understand why it did not overflow into the general peritoneal cavity, but it evidently did not. This right renal pouch, the extent of which was first pointed out, I think, by Rutherford Morison, is said to be capable of holding a pint, and in this case it must have had its full complement. (5) The importance of a lumbar drain may be emphasized. I thought I had evacuated the whole collection from the anterior incision, and was surprised to find the escape of more fluid from my lumbar incision. Drainage from the anterior wound alone would have been very imperfect.

CASE II.

Male, aged 37. He was thought to have had an attack of acute appendicitis two years previously, and the history given of this illness strongly suggested the appendix was at fault. Apart from this there was no history of previous gastro-intestinal disease. He was suddenly seized with acute abdominal pain, chiefly on the right side, and the maximum pain was in the right lumbar region. The pain occurred two hours after dinner. Six hours later he was easier, but still had considerable pain in the right side of the abdomen. The abdomen moved freely, with some restriction on the right side; the wall was somewhat rigid here, but not particularly in the iliac fossa. Temperature, 100.2°; pulse 80 to 90. A few hours later the pain increased in severity, the pulse became more frequent, and the temperature was rising. When seen thirty hours after the onset of the symptoms, he was evidently very ill. The temperature was 102.6°, pulse 120. The abdomen was distended and its movements were very much restricted. The whole of the right half of the abdominal wall was rigid; the maximum tenderness was in the right iliac fossa. There had been no vomiting; the bowels had acted once. Liver dullness was present to the normal extent; some questionable impaired resonance was present in the right loin. He was evidently rapidly getting worse. From the previous attack of appendicitis, the absence of all other previous illness, and, when seen, the maximum pain and tenderness in the right iliac fossa, perforative appendicitis was diagnosed. Pelvic examination was negative.

Operation.—Thirty-one hours after the initial symptoms an incision was made in the right iliac fossa; on opening the peritoneal cavity some turbid, non-smelling fluid escaped; the appendix was immediately exposed and seen to be healthy. A gastric or duodenal perforation seemed therefore most probable, and the abdomen was opened in the epigastrium. A considerable quantity of turbid fluid welled up from the right side. A perforation of the duodenum was discovered about three-quarters of an inch beyond the pylorus. This was closed with a single layer of Lembert sutures. The margins of the perforation were not very healthy and did not hold the stitches well, and consequently the omentum was drawn up and stitched over the site of perforation. The peritoneum was then cleansed. The peritonitis appeared to be quite localized to the right side of the abdomen. A counter-opening was made in the right loin and a tube was passed through this. The epigastric and iliac incisions were drained with gauze. The operation lasted forty minutes. The patient made an uninterrupted recovery. The gauze drains were dispensed with on the seventh day and the tube on the tenth day. Four months later he is in very fair health, but suffers from what he terms "indigestion"—that is, occasional pain some two to three hours after food, which lasts a very variable time.

This is unaffected by diet. Presumably this is due to the unhealed duodenal ulcer.

The interesting feature about this case is the similarity to appendicitis which is very frequently seen in cases of duodenal perforation.

Case III.

Male, aged 53. He suffered from "indigestion" for three years. This "indigestion" was pain about half an hour after meals; it was not constant; he was often free for weeks together. The pain lasted about two hours, and was often relieved by taking food. There was no vomiting; he suffered much from flatulence. For three weeks the pain had been getting worse, and was particularly so at night-time; it then had no relation to food. He was suddenly, whilst walking along the street, seized with acute abdominal pain and collapse; he was able to walk a few yards to a doctor's house, where he lay very collapsed for about an hour, being quite unable to move. He was then carried to the hospital, merely a few yards off. On admission he was evidently in considerable pain. Temperature 96°, pulse 90, respirations 26. The abdomen was flattened, moved only slightly on respiration; it was generally rigid and markedly tender in the right hypochondriac region. When I saw him, about eight hours later, he was still in considerable pain; the abdomen was moving more freely, but there was still some tenderness in the right hypochondriac region. Temperature had risen to 99°, pulse 90. No abnormal percussion changes were observed. There had been no vomiting. He was the subject of chronic bronchitis and emphysema, and had been under treatment for many months for bronchial asthma. From the history and clinical signs I suspected a perforated duodenal ulcer, and advised operation. This was absolutely refused. A few hours later he consented to the operation, and I again saw him. At this time every abdominal symptom had disappeared; his pulse was 90, and temperature 99°. I doubted my original diagnosis, especially when he informed me that he had frequently been like it in the past few weeks. No food was allowed by the stomach. The pain in the right hypochondrium returned, however, and with it the rigidity; the pulse rose slightly to 100, and the temperature 99.8°. These facts, together with the severe initial collapse, made me determine to operate.

Operation.—Twenty-two hours after the initial symptoms a median epigastric incision was made about 5 in. long. On opening the peritoneum 3 or 4 oz. of turbid lymph escaped from the right hypochondriac region, the lower stomach and intestines in this region were coated with lymph. In the first part of the duodenum was a tiny perforation surrounded by very indurated bowel wall. The surrounding bowel would not hold sutures and therefore an omental graft was sewn over the perforation with a few interrupted sutures. The peritonitis was quite localized; the peritoneum was carefully cleansed; a lumbar incision was made and the peritoneum drained from here by a rubber tube; the site of perforation was covered with gauze, the epigastric incision was closed with the exception of the gauze drain. The operation lasted thirty-five minutes. The following day he developed acute bronchitis which gave rise to considerable anxiety for a few days. It gradually subsided, however. The skin sutures gave way and caused considerable gaping. The lumbar wound healed in a fortnight; the epigastric sinus discharged for some two weeks longer, and the wound was very slow in healing. All his "indigestion" left him for some three or four weeks, but then he suffered again from discomfort and flatulence.

Symptoms.

The symptoms of gastric ulcer are often extremely uncertain, and it is not very infrequent for the first symptom of an ulcer of the stomach to be the initial shock of acute perforative peritonitis. It is quite a common experience to be told that the only symptoms previous to the perforation of a gastric ulcer were occasional vague pains of "indigestion." But yet the majority of cases of gastric ulcer which perforate have previously suffered from symptoms which should lead one very strongly to suspect the existence of the ulcer. This is not the case in perforated duodenal ulcer.

To Collin, Perry and Shaw, Schwartz, Weir, and others, we are indebted for papers on the subject of duodenal ulcer in one or more of its phases. From a series of cases recorded in more recent times, some of which are included in the statistics of the above-mentioned authors, some of which have only been published since these papers, and a few are previously unrecorded, I deduce the following facts:

Sex: Males 47; females 3.

Between 18 and 20 years of age	perforation occurred			6 times.
,, 20 and 30	,,	,,	,,	14 times.
,, 30 and 40	,,	,,	,,	16 times.
,, 40 and 50	,,	,,	,,	14 times.

These figures apply only to the age at which perforation occurred; it is impossible to say at what age the ulcer developed, since so many are free from symptoms.

In every case in which mention is made of the fact the ulcer appears to have been chronic.

In 26 cases previous symptoms are stated to have been entirely absent, the patients being in very good health previous to the occurrence of perforation. Of the 24 patients who suffered from previous symptoms, in 16 the only complaint was occasional or continuous "indigestion" of some duration. This means they suffered from pain after food occasionally, or more or less regularly, but the pain had no constant time-relation to the ingestion of food. Sometimes pain was experienced immediately, and sometimes not for three or four hours after a meal. Pain was sometimes replaced by discomfort merely, and a sense of distension of the upper abdomen. Pain is sometimes described as being worse on the right side of the epigastrium, but this is so inconstant, even in the same patient, that it is of little value in diagnosis. In 4 cases the pain was very severe, occurring in paroxysms. These paroxysms occurred at such irregular intervals after meals that it seems very much open to doubt whether they had any dependence on food. A more reasonable explanation seems to be a stretching of adhesions. Whether this were so in these cases is not mentioned, but the paroxysms resemble very much the pain we associate with gastric adhesions. Tenderness in the right hypochondriac region is mentioned only three times. Other features concerning the pain have been noticed by various observers, but were not present in this series of 50 cases. Thus Boas describes pain radiating to the back; Marocco describes pain referred to the tenth and twelfth dorsal vertebrae; the latter observer and Schwartz have noticed pain referred to the right shoulder. Poynton records the case of a patient where pain was so severe as to resemble the erosion of vertebrae from an aortic aneurysm. Many observers lay great stress on the time of the occurrence of pain after the ingestion of food. Many of the latter observations, however, are from patients in whom an ulcer has never been proved to exist, either by operation or *post-mortem* examination, and in a disease like duodenal ulcer, where the symptoms are so indefinite, it is quite useless to attempt to build up statistics in any other way. In this series of cases which I have collected pain certainly never had this constant relation to food which is said to be so characteristic by many authorities. In fact, the time of occurrence of pain after meals, the situation of the pain more to the right than the left side of the middle line, the areas of referred pain, and the tenderness on the right side, are all of very little value in the diagnosis of a duodenal ulcer.

In 8 cases only haemorrhage occurred; in 4 haemorrhage was the only symptom; in 4 haemorrhage and some occasional epigastric discomfort both existed; in 3 cases the blood was vomited alone; in 2 cases it was passed by the bowel alone; and in 3 cases haematemesis and melaena both occurred. Vomiting apart from haematemesis was only recorded four times.

This apparent absence of all symptoms previous to perforation in about half the cases is borne out by other observers. Thus Schwartz found that 20 out of 25 patients who perforated from a duodenal ulcer were in apparent good health, or so slightly indisposed that they had never consulted a physician previous to the occurrence of perforation. Weir found that in 25 out of 51 the first indication of the ulcer was perforation.

Mortality.

The mortality of duodenal ulceration may be roughly estimated from the following figures:—Chvostek, in 63 cases of duodenal ulcer, noticed perforation 27 times; in Collin's 262 cases it was present in 181; Oppenheimer describes it in 38 out of 79 cases. It can be gathered from these statistics what a very frequent complication perforation is. It is impossible to say in what exact percentage it occurs, but from these figures and from the fact that the majority of cases run a chronic course, and that only comparatively rarely has cicatrization been noticed (39 out of 262—Collin), the percentage must be a very high one; in fact, it so frequently occurs, that it may almost be said to be the one constant sign. Perforation probably occurs in about half the cases of duodenal ulcer.

Results of Surgical Treatment.

The results of the surgical treatment of perforated duodenal ulcer, although encouraging, leave a lot to be desired. The recovery after operations taken from a large number of statistics from all sources, and including all varieties of perforation and peritonitis, is something like 20 or 25 per cent. About 65 per cent. of those operated upon in the first twelve hours recover; about 12 per cent. of those operated upon between the twelfth and twenty-fourth hour recover, but after this only a very small proportion. These results are improving every year, perhaps owing to the earlier recognition of perforative peritonitis, and also to the improved technique performed for the same. Yet the improvement is slight, and duodenal ulcer still has a very high mortality.

Summarizing the above facts, it may be said that the symptoms of duodenal ulcer are very indefinite, and often consist of no more than vague "indigestion" pains; that in about 50 per cent. of cases perforation is recorded as the initial sign; that taking all varieties of perforation the mortality is about 75 per cent.—this is considerably lessened the earlier the case comes under surgical treatment; that this mortality is being slightly lessened year by year, but only by the earlier recognition of perforative peritonitis and improved operative technique; that the diagnosis of duodenal ulcer is as yet very uncertain; that the comparatively high mortality from duodenal ulcer can only be lessened by surgical treatment before perforation, or by an even yet more certain diagnosis of acute perforative peritonitis.

Clinical Course.

Duodenal ulcers run a chronic course; cicatrization is very infrequently noticed. Perforation occurs in about 50 per cent. of cases, and this still has a very high mortality. The results of operation for duodenal ulcer previous to perforation are, as recorded cases show, most brilliant. Pain disappears, haemorrhage ceases, health is rapidly improved. The mortality is very low, and I can find no recorded case where perforation has occurred after gastro-enterostomy. With these facts before us, therefore, the treatment of a patient whom we strongly suspect to be suffering from duodenal ulcer becomes entirely surgical; and even more, with a reasonable suspicion of duodenal ulcer, the treatment should be surgical.

A duodenal ulcer may perforate so as to permit of free extravasation of intestinal contents into the peritoneal cavity. This is generally seen in those cases which perforate shortly after a meal. If only a little fluid escape the symptoms are often very much modified, and are those of local peritonitis; but the general peritoneal cavity is not shut off. Perforation may occur, adhesions form, and a periduodenal abscess arises. In the first class of case the symptoms are those of any acute perforative peritonitis of epigastric origin, and the diagnosis depends on previous history. Pain is not more marked on the right than the left side, or with such inconstancy as to be valueless in the diagnosis. A man of middle age with absence of previous symptoms would suggest a perforated duodenal ulcer. The second class of case is the more frequent. The early symptoms here are the same as in the former class, but generally less intense. There is, however, in every case an acute onset—sudden severe pain and some collapse; vomiting is infrequent. It is in this class of case that the pain from the very earliest is so often experienced in the right upper region of the abdomen.

But sometimes here, also, the pain at the onset is general or most intense around the umbilicus, but after a short time it becomes referred almost entirely to the right hypochondriac region. The early pain is not in these cases in the lower abdomen. The prognosis in perforated duodenal ulcer depends primarily on the extent of peritonitis, which bears some relation, but an inconstant one, to the duration of the perforation, and also to the amount of fluid in the stomach at the time of perforation. In Cases I and II the patients were being fed by the mouth for some hours after the perforation occurred, and at the operation there was an extensive local peritonitis with much extravasation, whereas in Case III nothing was given by the mouth, and there was a very little extravasation. The successful result of the operation in each case is due to the fact that the peritonitis was localized, although operation was performed twenty-eight, thirty-one, and twenty-two hours after the perforation.

Operation must be performed in quite the early stages, certainly before the peritonitis is general, and also before there is much local extravasation. A person in previous good health who is suddenly seized with acute abdominal pain and severe collapse, is in the majority of cases suffering from some grave disease in the abdomen or chest. The chest may be excluded in a few hours if we pay attention to the following points: The absence of true abdominal rigidity, the temperature, and the pulse-respiration ratio, and other evidences of acute pulmonary trouble—for example, the aspect of the patient and cough. The severe tearing character of the pain, the severe collapse, true abdominal rigidity, the facial aspect, the increased pulse-frequency in the early stages, all point to a peritoneal lesion. The pain abates somewhat, the pulse often diminishes, rigidity however persists, and the temperature rises. In this period, which is often referred to as the "latent period," it is most rare for all symptoms to disappear unless the patient be under the influence of any drug. Sometimes, however, they are so mild as not to be complained of by the patient.

A few years ago I remember a young man was thrown from his bicyle and fell on the handle-bars, the handle-bar striking him in the abdomen. He was severely collapsed for about half an hour, and then resumed his journey, a distance of two miles. Some few hours later he had evident peritonitis, and operation showed that an extensive tear in the small intestine with wide extravasation of intestinal contents. Every one has seen patients walk into the hospital during their latent period, not in any marked evident distress. During this latent period some signs of peritonitis are generally evident, and they are true abdominal rigidity, abdominal pain and tenderness, and some fever. The pulse frequently has fallen after the initial shock, and it is not a true guide. In these cases of subacute perforation some rise in temperature after the initial collapse is very constant. It may be only 100° or possibly less, but is very significant. Immediately there is evidence of any peritonitis the abdomen must be opened. Delay on the off-chance that the peritonitis will result in a localized abscess is not justifiable. We can never foretell this in any case of peritonitis, and localized abscesses from duodenal perforation are notoriously fatal. A most careful watch must be kept on all patients suddenly afflicted with acute abdominal pain and collapse. Food by mouth must be withheld, and morphine must not be given.

Prognosis.

The prognosis of perforated duodenal ulcer at the present day is not so good as perforated gastric ulcer. This is merely because in perforated gastric ulcer the early symptoms are more severe, and signs of peritonitis appear earlier. A duodenal usually perforates subacutely, the early symptoms are less intense, and signs of peritonitis are longer delayed; they are milder, and we do not appreciate, until unfortunately too late, their existence. Too much stress cannot be laid on the importance of the initial collapse which is present in some degree in all perforations of the gastro-intestinal tract. The very fact that a duodenal ulcer perforates subacutely and the peritonitis will often remain localized and the extravasation is so limited, should make the prognosis of perforated duodenal ulcer comparatively good. But this, unfortunately, is not so. A clear appreciation of the early signs is imperative. We must recognize that sudden acute abdominal pain and collapse means something—and something, generally, of a very serious nature—and no pains must be spared to elucidate their origin, and once we have slightest suspicion of peritonitis the abdomen must be opened. In Case III I was almost entirely guided by the early signs in the diagnosis of perforative peritonitis; for, when I saw him first, there was merely a suspicion of peritonitis. My regret is that I did not operate earlier, but, as events showed in this case, it made no difference, but it might have done so. I am well aware that more than one abdomen has been opened on the suspicion of perforative peritonitis, and nothing has been found. But what a very small minority these are—so small as to be absolutely of no value.

Diagnosis.

Many diseases may, of course, be confounded with a perforated duodenal ulcer. The chief among these are perforated gastric ulcer, acute peritonitis of gall-bladder origin, suppuration in connexion with the colon, and acute appendicitis. Peritonitis from the gall bladder and colon can generally be differentiated by the previous history and the onset of the symptoms. Acute appendicitis is frequently confused with duodenal perforation, as in Case II. This is easily understood from anatomical considerations, the extravasation gravitating down along the colon, and collecting in the right iliac fossa. So frequent is this, that in 17 out of 50 cases acute appendicitis was diagnosed, and in 10 additional cases it was suspected. Peritonitis should be diagnosed before this widespread extravasation has occurred.

A perforated duodenal ulcer has only on rare occasions been diagnosed.

1. Symptoms of perforative peritonitis occurring in a person in previous good health, particularly a male subject between 30 and 50 years of age, the early symptoms being marked in the upper region of the abdomen, should excite a suspicion of duodenal perforation.

2. Should these symptoms occur in a person who has previously complained of gastric disturbance, however vague it may be, the suspicion is greater. In the very acute perforating duodenal ulcers the differential diagnosis from gastric perfora-

tion will be impossible. Gastric ulcers generally perforate in young anaemic women; duodenal ulcers in men between 30 and 50. But this is by no means constant.

3. Symptoms of acute perforative peritonitis of epigastric origin and spreading down to the right iliac fossa, simulating an acute appendicitis, is frequently seen in duodenal perforation, but very infrequently in gastric perforation. In these cases it can generally be noticed that the early signs are referred to the upper abdomen, the iliac fossa is only secondarily involved. Rigidity at first is in the hypochondriac region, and only later in the iliac region. The initial shock is more intense generally in acute perforative appendicitis, and septic poisoning is seen earlier in the history of the case.

4. An acute appendicitis may travel from the iliac fossa to the right hypochondriac region, and thus simulate a duodenal perforation. The earliest signs here are in the right iliac region, and only secondarily located in the hypochondrium. The similarity of duodenal perforation to acute appendicitis must be borne in mind, and by attention to the onset, the early site of pain, the area of rigidity and the initial higher fever in appendicitis, a correct diagnosis will generally be arrived at.

5. The occurrence or not of haematemesis or melaena should be inquired into. A previous history of melaena only suggests a duodenal perforation.

6. It is easier to exclude other causes of perforative peritonitis than a duodenal ulcer, and by exclusion a perforated duodenal ulcer ought to be more frequently diagnosed.

AFTER-HISTORY.

An interesting point in connexion with perforated duodenal ulcer is the after-history of the patients who recover from operation. Several interesting questions arise. Should symptoms have been present before the operation, do they continue? Should symptoms have been previously absent, do they arise later on, after the successful closure of the perforation? Does perforation ever occur again, and are these patients still in great danger from this catastrophe? Does the treatment stop with the suture of the ulcer, and ought not further surgical means be taken to secure healing of the ulcer?

The after-records of these patients is almost entirely wanting in surgical literature. Occasionally a note after some months is added that some "indigestion still remains," or something to that effect, but there are, as far as I know, no recorded after-histories from which these questions might be answered. I cannot find the records of a case which has perforated a second time. Viewing the question generally from the statistics I have given above it would seem that our treatment should not stop at the successful treatment of the perforation. Duodenal ulcers are very chronic. They show a very little tendency to heal naturally: merely sewing up a hole in the floor of an ulcer, or placing a piece of omentum over it cannot increase this slight tendency towards natural healing. Theoretically the dietetic treatment of the patient after the operation might do so, but we have no evidence to show that it does. The dietetic treatment of a chronic gastric ulcer is very unsatisfactory, and we should expect the same in duodenal ulcer. If we compare chronic gastric ulcers which perforate and are successfully operated upon, and follow these cases afterwards, in many—I should estimate the majority—symptoms of an unhealed ulcer persist. Looking at the question from the statistics of duodenal ulcer, and by comparison with gastric ulcer, in all probability the ulcer remains opened. What is (1) the inconvenience to the patient of this unhealed ulcer, and (2) what is the danger to life? The inconvenience to the patient can only be measured by his symptoms. Should symptoms persist or arise further surgical measures should be undertaken, other things being equal. The danger to life is perforation. Although I can find no evidence of this having occurred twice in the same patient, I see absolutely no reason why it should not. Realizing the serious condition of a patient with a duodenal ulcer, I advocate further interference to secure the closure of the ulcer. With this end in view, after explaining to two of my cases the position, I advised a further operation. Both patients, however, preferred to run the risk, and declined. The third case was so extremely ill from acute bronchitis after the operation that it was not suggested to him.

A word may be said here with regard to the closure of the perforation. In the majority of these cases there is considerable induration around the perforation, and to close by sutures means puckering the wall and consequent narrowing of the lumen of the bowel. A better method, I think, will be found in an omental graft, if this can be secured, and, failing this, a coil of small intestine. Omentum is perfectly safe; it is easily secured by a few stitches. In fact, probably laying the omentum over the site of perforation and keeping it in position with gauze packing would be sufficient, if time were a great object or for any reason suturing were rendered very difficult. An omental graft would, theoretically, be a more protective barrier against a future perforation than suture.

A duodenal ulcer may perforate, adhesions form, and local suppuration occur. These localized abscesses from duodenal perforation are very rare. Bainbridge in 1903 collected all cases which had been recorded up to then, and found only 26. I have seen one case since. Of the 27 cases, 23 died without a diagnosis being made, in 2 a diagnosis was made at the operation, in 2 a correct diagnosis was made; one of these was operated upon, the after-history is not given, and in the second the condition of the patient prevented any interference. The age of the patients varied from 15 to 56 years, but the majority occurred at the age at which perforated duodenal ulcer is most frequently seen. Analysing the few cases where the previous history is recorded, about 50 per cent. had suffered from gastric trouble, which is mentioned as digestive disturbance, digestive disorders, dyspepsia, or stomach trouble. In one case blood had been passed per rectum a year before, a second case occasionally vomited blood; 6 cases have been operated upon; in 3 cases the abscess was merely opened, and in 3 cases the perforation sutured. Moynihan records a successful case in which he diagnosed the perforation during the operation, closed it, and drained the abscess. Lowson records a case where he diagnosed the condition before operation, sutured the perforation, and drained the abscess. The after-history of the case is not given. A fatal result has attended all the other cases.

The diseases most liable to be confounded with this condition are appendicitis, acute inflammation or perforation of the gall bladder, and suppuration in connexion with the colon. More than once the trouble was thought to have been entirely above the diaphragm. The points in the diagnosis upon which I lay stress are the following:

1. The absence of previous symptoms.
2. If there be a history of previous trouble, its exact nature should be elicited—whether gastric or suggestive of gall stones or appendicitis, or of obstruction from carcinoma of the colon.
3. The exact situation of the early pain. This is usually referred to the right epigastric or hypochondriac region, higher than that of appendicitis.
4. The early rigidity and tenderness over the upper half of the right side of the abdomen.
5. The early tenderness on deep pressure over the lower ribs posteriorly and laterally.
6. The marked increase of pain on deep inspiration in quite the early stages.
7. The frequently observed clinical signs of elevation of the right half of the diaphragm.
8. These abscesses very frequently contain gas, thus differing from those of the gall bladder. Gaseous abscesses originating from the gall bladder are most rare, and in carcinoma of the colon and in appendicitis a detectable quantity of gas in the early stages is most unusual.

THE OPERATION OF GASTRO-DUODENOSTOMY; ESPECIALLY IN REFERENCE TO FINNEY'S OPERATION OF GASTRO-PYLO-DUODENOSTOMY.

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THAT the operation of gastro-jejunostomy is the one practically always employed in this country when it is desired to make an anastomosis between the stomach and small intestine for whatever cause, is clear from a search through the literature published upon the subject. In none of the textbooks, save one, is the operation of gastro-duodenostomy mentioned except in connexion with that of pylorectomy; and one goes so far as to say, "gastro-duodenostomy being only employed after a pylorectomy has been performed." That such statements need revision is obvious in the light of recent work published from various clinics abroad.

This is especially true with regard to cases of pyloric stenosis of a non-malignant nature. Stretching of the pylorus, or rupture of its subperitoneal layers, by digital or instrumental means, whether performed by the method of Loreta or Hahn, has proved unsatisfactory owing to immediate risks and remote results, and has been practically abandoned. Pyloroplasty seems to have fallen into disfavour in recent years; partly on account of recurrences following it, but chiefly owing to the improved methods and increased facility of performing gastro-jejunostomy. The especial objections urged against the operation of pyloroplasty have been enumerated by Finney as follows:

1. Its inapplicability in cases of extensive and firm adhesions about the pylorus.

2. Its inapplicability in the presence of still active ulceration.

3. The liability to recurrence of the stricture due to contraction of the scar.

4 The inability to obtain good apposition on account of rigidity of the walls of the stomach and duodenum.

5. The outlet of the stomach is not placed at the most dependent portion, hence in the presence of motor insufficiency the aid of gravity in emptying the stomach is lost.

Theoretically, the ideal operation for pyloric stenosis is pylorectomy. But this must necessarily remain of limited usefulness on account of its greater technical difficulties and increased risks. With rare exceptions, malignant disease is its sole indication.

There remains for discussion the operation for forming an anastomosis between the stomach and small intestine in order to short-circuit the pyloric constriction. This operation of gastro-intestinal anastomosis may be a gastro-duodenostomy or a gastro-jejunostomy. Unfortunately, of late, a loose way of applying to the latter the general term of gastro-enterostomy has arisen, leading to a great deal of confusion.

From a physiological point of view the operation of gastro-duodenostomy presents great advantages over that of gastro-jejunostomy. The stomach contents are conducted into the intestine at, or above, the level of the entrance of the bile and pancreatic juice. The danger of these secretions accumulating in the intestine and being regurgitated into the stomach is done away with, The occurrence of the *circulus viciosus*, which is even now present in a certain percentage of cases of gastro-jejunostomy, will not occur after a gastro-duodenostomy. Bile may be regurgitated in small quantities at first, but its presence in the stomach has been shown to be harmless. Nor can a peptic ulcer occur in the intestine as a result of gastro-duodenostomy, owing to the normal neutralization of the stomach contents on entering the duodenum. That this is a point of great importance is shown by an increasingly large number of such cases being reported from time to time, many of which have been fatal owing to perforation.

Anatomically, the operation of gastro-duodenostomy is not so simple as that of gastro-jejunostomy. But the difficulties of the former have been exaggerated owing to a lack of appreciation of its most important step, namely, the adequate freeing of the duodenum. This done systematically and thoroughly the operation is devoid of any difficulty apart from that connected with intestinal suturing.

Clinically, the chief indication for gastro-duodenostomy is stenosis of the pylorus of a benign nature, whether due to tumour or cicatricial contraction. That it may be employed for malignant stricture as well is shown by a successful case reported by Kocher. But such cases must be of rare occurrence. Adhesions, as suggested by some, are no contra-indication to the operation, as will be seen when discussing Finney's method.

The idea of performing a gastro-duodenostomy for pyloric stricture originated with Jaboulay in 1892. He used a Murphy's button to effect the anastomosis. In 1897 Villard modified the operation, and published three successful cases under the title of Subpyloric Gastro-duodenostomy. Tavel, Henle, de Quervain, Koslowsky, and others have performed Villard's operation, and speak highly of it. Kocher has further elaborated the operation by a more extensive freeing of the duodenum, rendering its descending part, its inferior flexure, and a portion of its transverse part so movable that the parts to be sutured can be brought out and isolated with gauze, thus shutting off the field of operation from the general peritoneal cavity. He designates his method "lateral gastro-duodenostomy," and says of it: "To one who has convinced himself how easily and securely this lateral gastro-duodenostomy can be performed—provided the duodenum can be rendered sufficiently movable—it will be evident how admirably the operation fulfils the indications for treatment in stenosis of the pylorus." He moreover does not limit the operation to special cases, but regards it as the normal procedure, and thinks that it will take precedence over all previous methods of gastro-enterostomy and pyloroplasty. He proposes to employ this operation in all cases of pyloric stricture.

In 1902 Finney designed and carried out a modification of the method of lateral anastomosis, which he described under the rather misleading title of A New Method of Pyloroplasty. In his operation he really combines a pyloroplasty with a gastro-duodenostomy, and a better term would be that of "gastro-pylo duodenostomy." Neither adhesions, however firm and extensive, of the pylorus to surrounding structures, abdominal wall, liver, gall bladder, omentum, and colon, nor the thickened walls of the pylorus and stomach have proved a bar to the performance of this operation. With care and perseverance they can be overcome by judicious dissection. Active ulceration would appear to be possibly the only objection to this operation. It is performed as follows: An incision 6 to 8 in. long is made through the right rectus muscle. The adhesions binding the pylorus to the neighbouring structures are divided, and the pyloric end of the stomach and first part of the duodenum are freed as thoroughly as possible. "Upon the thoroughness with which the pylorus, lower end of the stomach, and upper end of the duodenum are freed depends in a large measure the success of the operation and the ease and rapidity of its performance. I wish to emphasize this as one of the most important points in the operation" (Finney). A suture is taken in the upper wall of the pylorus, which is by this means retracted upwards. A second suture is inserted into the anterior wall of the stomach, and a third into the anterior wall of the duodenum, at equidistant points from the suture placed in the upper wall of the pylorus.

These second sutures should be about 12 cm. ($4\frac{3}{4}$ in.) from the latter, and mark the lower ends of the gastric and duodenal incisions respectively. By placing them as low as possible the new pylorus is made amply large, and thus the danger of subsequent contraction is reduced to a minimum. Traction is then made upwards on the pyloric suture, and downwards in the same plane on the gastric and duodenal sutures. By this means the stomach and duodenal walls are kept taut and the placing of the sutures greatly facilitated (see Fig. 1). The peritoneal surfaces of

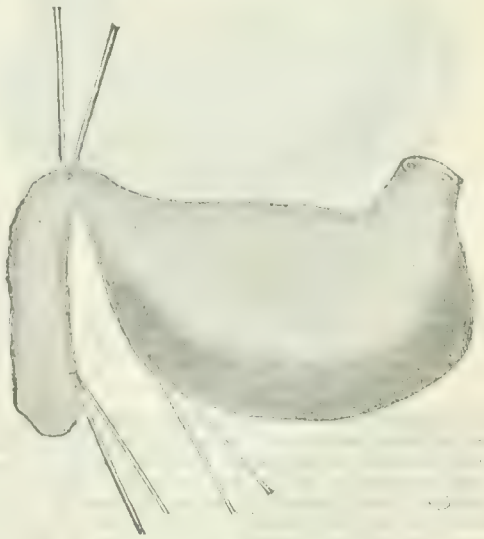


Fig. 1.

the duodenum and of the stomach along its greater curvature are then sutured together, as far posteriorly as possible (see Fig. 2). Finney recommends a continuous suture for this, as being more easily and quickly applied, and it can be reinforced after incision of the stomach and duodenum.

After the posterior line of sutures has been placed an anterior row of mattress sutures is taken. These are not tied but left long, as shown in Fig. 3. These sutures should

be so placed as to allow ample room for the incision. After they have been placed they are retracted vertically in either direction from the middle of the portion included in the row

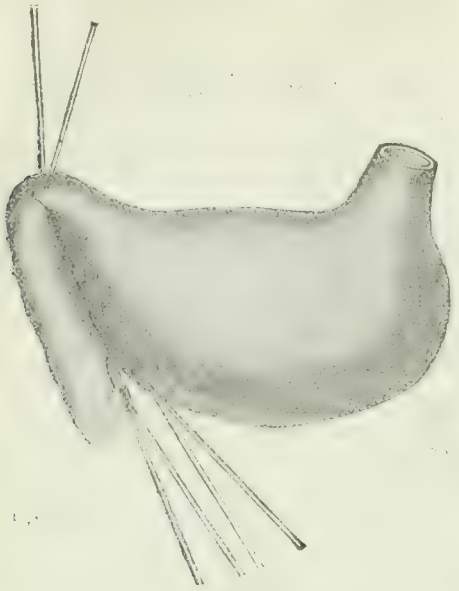


Fig. 2.

of sutures (see Fig. 4). When retracted the incision is made in the shape of a horseshoe. The gastric arm of the incision is made through the stomach wall just inside the lowest point of the line of sutures, and is carried up to and through the pylorus and around into the duodenum, down to a corresponding point on the duodenal side (see Fig. 4). Excision of

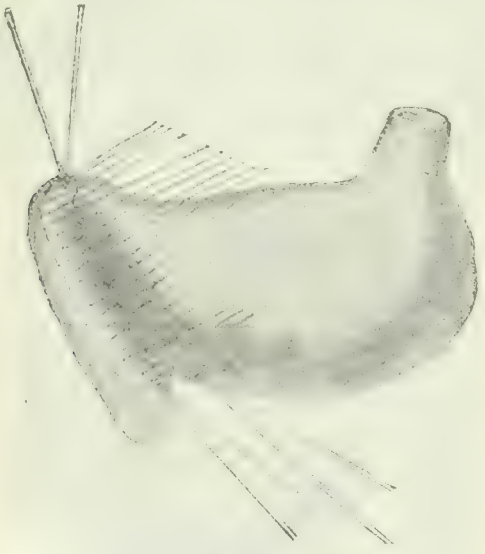


Fig. 3.

the anterior portion of the thickened pylorus, and if necessary the adjacent portions of the gastric and duodenal walls, lessens the danger of subsequent contraction, and also allows of easy approximation of the two surfaces. Haemorrhage is then stopped. Any redundant edges of mucous membrane are trimmed off with scissors. A continuous catgut suture is now taken through and through all the coats of the intestine on the posterior side of the incision (see Fig. 5). This reinforces the posterior sutures, secures better approximation of the cut edges of the mucous membrane, and prevents the reunion of the divided intestinal walls. The anterior mattress sutures are then straightened out and tied, and the operation is complete (see Fig. 6). A few Lembert sutures may be added if it is thought desirable to reinforce the mattress sutures. The abdomen is closed without drainage. Nothing is given by the mouth for the first thirty-six to forty-eight hours. Feeding is carried on by nutrient enemata, gradually replace by mouth feeding, beginning on the second or third day.

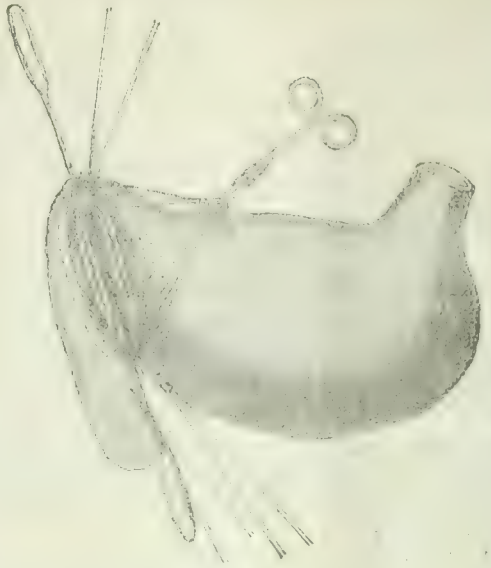


Fig. 4

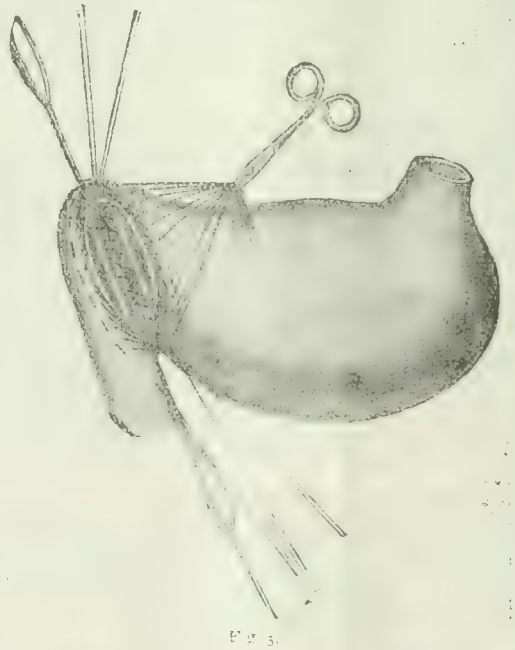


Fig. 5.



Fig. 6.

Three factors of great importance are brought out in this operation:

1. All the stitches are placed and the posterior row tied before the bowel is opened, and it remains open just long enough to control the haemorrhage.

2. The size of the newly-formed pyloric opening is limited only by the mobility of the stomach and duodenum and by the judgement of the operator.

3. Unless the stomach is very much dilated or has descended to an unusual extent, the lower limit of the new outlet is at or near the level of its most dependent portion. Should the stomach be very much dilated, a gastropexy or gastroplication can be performed at the same time.

Clinical Observations

ON A

KIDNEY WHICH CONTAINED MORE THAN FORTY THOUSAND IRIDESCENT CALCULI.

BY J. BLAND-SUTTON, F.R.C.S.,
Surgeon, Chelsea Hospital for Women; Surgeon, Out-patients, Middlesex Hospital.

IN July, 1904, Mr. T. F. Long, Chesham, placed under my care in the Middlesex Hospital a printer, 38 years of age, on account of persistent pain in the right loin. The man was so stout that nothing abnormal could be made out by the fingers. The urine contained microscopic traces of blood and pus cells, and the blood and pus became markedly increased after the patient walked about the garden; exercise of this kind also intensified the pain in the loin. We had no doubt that the kidney contained a calculus, and after two attempts Mr. Mann obtained an excellent skiagraph indicating the presence of a large amount of calculous matter in the kidney.



Fig. 1.—A sacculated kidney with an inadequate ureter. The largest sacculus contained more than 40,000 calculi.

At the operation the kidney was found much enlarged and very movable and its lower half stuffed with calculi. As the organ was completely disorganized it seemed a prudent course to remove it. This presented no difficulty, and the man easily recovered.

The kidney is somewhat noteworthy in itself: during the operation I noticed the ureter to be particularly narrow, and that it exhibited the anatomical peculiarity of which I have described many examples under the name "inadequate ureter." It is well recognized that the junction of the renal pelvis with the ureter proper is indicated by a marked narrowing of the lumen of the duct, which may conveniently be called the "ureteral strait." Occasionally the ureter from this point downwards is very narrow, and is sometimes even less than one-fourth the average dimensions of an adult ureter. Abnormally narrow ureters of this kind are termed—and not inappropriately—inadequate.

All the calyces of this kidney were widely dilated and sacculated, but the largest sacculus, which constituted more than half the organ, contained a great multitude of stones, which rolled about almost like quicksilver as soon as the sac burst, and a large number of them escaped and could not be recovered.

The calculi require consideration in two groups. Thus, the first consists of ten calculi of varying sizes and shapes. The largest calculus is of the size and shape of a child's astragalus with well-marked facets, indicating that these stones had been subject to considerable pressure. A few had the more regular contour of beans, a further proof of the pressure to which they had been subject (Fig. 2). The remaining concretions are fairly spherical, and all of a bright colour, like old gold. These bodies were carefully dried and measured. The total quantity is 10 drachms, and an average drachm contained 4,120 discrete calculi. The counts were carefully made and controlled, and the total, 40,000, is probably far below the real estimate, without considering the large number unavoidably lost.

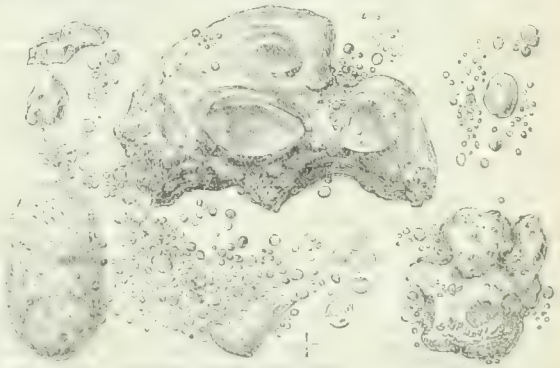


Fig. 2.—Separate calculi from the sacculus shown in the preceding drawing.

Fortunately I was able to interest Mr. A. M. Kellas, Lecturer on Chemistry at the Middlesex Hospital, in these concretions, and he has furnished me with an excellent report, of which the following is a summary: Mr. Kellas points out that the larger bean-shaped bodies, whose iridescence he compares with that of stannic sulphide, consist of three parts: (1) A husk consisting in the main of calcium phosphate; (2) a harder part or kernel composed of concentric layers enclosing (3) a small white central body. The laminated portion of the kernel consists mainly of calcium oxalate with traces of calcium phosphate. The central body is almost pure calcium oxalate. The small spherical calculi consist of a thin husk and a nearly white central body. Calcium oxalate and calcium phosphate are present in both portions. Epithelial matter exists in the concretions, but is more abundant in the husk than in the kernel.

The iridescence of these calculi is as remarkable as their great number; those who are interested in this phenomenon will find it considered in a paper of great interest by Mr. S. G. Shattock in the *Transactions of the Pathological Society*, vol. xxxvii, 325, Iridescence in Calculi.

The chief clinical features in the case appear to be these: This man had pain in his right loin for a period of fifteen years. He never remembers to have passed a calculus, yet the small spherical bodies found in his kidney seemed to be made to traverse the ureter. The sac which contained them appeared to communicate with the renal pelvis by a small orifice, barely allowing the passage of a thin bristle. It seems probable that the sacculus which contained this collection of renal stones was of congenital origin, and that for many years urine had slowly filtered among them, and drained away through the minute orifice into the pelvis of the kidney; the retarded flow through the pouch was a means of adding to the number of the concretions, whilst the anatomical conditions of the sacculus hindered their escape.

The only other specimen of this kind with which I am acquainted is a collection of light brown renal calculi in the

Museum of the Royal College of Surgeons. They were taken after death from a man 19 years of age, whose "kidney was hydronephrotic and the ureter narrowed." The calculi in this case probably amount to 40,000. None exceeds ⅛ in. in diameter. In structure the concretions are crystalline at the centre and laminated towards the exterior; they are composed of nearly pure oxalate of lime.

CANCER OF GALL BLADDER DUE TO IRRITATION OF GALL STONES: CHOLECYSTECTOMY AND PARTIAL HEPATECTOMY.

By J. HUTCHINSON, JUN., F.R.C.S.,
Surgeon, London Hospital.

THE following case possesses many points of interest:

A woman, aged 66, was sent to me by Dr. Miles Miley of Hampstead with the diagnosis of gall stones. There could be no doubt she had suffered from a collection of these in the gall bladder for over two years. During this time she had repeated attacks of abdominal pain; each attack lasted upwards of twenty minutes, and was accompanied by retching and followed by sweating. A warning of each attack was given by her becoming somewhat yellow, and subsequently slight jaundice became more obvious. She was constipated, and the stools were of light colour after the attacks. She was not known to have passed any calculi, but the operation showed that these were mostly small and would readily escape notice. After each attack there was much prostration, and for a time some distension of the abdomen.

When I saw her first, in July, 1904, there was a deep-seated rounded swelling in the right hypochondrium, which moved downwards an inch on deep inspiration. The dullness over it was continuous with that of the liver. The tumour could be moved from side to side to some extent and had all the features of a distended gall bladder. Her urine was normal. In the right lung at the apex were some signs suspicious of tuberculous change. The patient was thin, and attributed her weakness and wasting to the sufferings which attended the attacks of biliary colic. I admitted her to the London Hospital and operated on July 22nd. A free vertical incision through the right rectus muscle showed a distended gall bladder overlapped by the liver edge. The latter being raised, the fundus of the gall bladder was incised, and over eighty calculi removed from its cavity. Most of these were small and facetted, but there were two or three larger ones, the largest being ¾ in. in diameter. The gall bladder was entirely cleared with the scoop and by irrigation. It was then found that the fundus was thickened and rendered hard by carcinomatous growth, with small papillary projections of the mucous membrane. Examination showed that the cancer had extended into the liver immediately above, where it formed rounded lumps, but the infiltration appeared to be limited to the immediate neighbourhood of the gall bladder. I therefore determined to excise a wedge-shaped piece of the liver with almost the whole gall bladder. When this was done considerable haemorrhage followed, but was controlled by pressure and ultimately by deep catgut sutures, bringing the sides of the extensive hepatic wound together. The neck of the gall bladder was then sewn to the peritoneum and two drainage tubes were inserted, one in the right loin and the other in the anterior wound, most of which was closed by silkworm-gut stitches.

The patient recovered from the shock of the operation fairly well, but two days later an interesting complication occurred, namely, acute dilatation of the stomach, which bulged forwards and downwards nearly to the left iliac crest. By means of washing out and the administration of strychnine this dilatation subsided, and for three weeks she went on well. The wound required daily attention. The temperature was normal during this time, but after the fourth week it was of the hectic type, without anything being found to account for it. The biliary fistula remained. She was ultimately sent to Felixstowe, where she remained some months. The hectic temperature continued, and I heard in November, 1904, that there was evidence of extensive recurrence of cancer in the liver.

At the time of operation I was in doubt whether it was worth while to attempt excision, and the sequel confirms the view that such an operation is hardly justifiable. The patient possibly lived a few months longer than she would otherwise have done, but she was an invalid the whole time, requiring the most careful nursing.

It certainly appeared that the affected area of liver was wholly excised, but naturally it is almost impossible to make sure of this. On section it was seen that the nodules shaded off into the hepatic tissue. I do not think the correct diagnosis could have been made before operation; in the more common cases of cancer around the common bile duct it is more easy to do so.

The fact that post-operative acute dilatation of the stomach was recovered from in this case is noteworthy, it being one of the gravest complications that can occur. It should also be noted that whilst the gall bladder was packed with stones and the fundus invaded with cancer, yet there was no cholecystitis, this being contrary to the accepted teaching on the subject.

That the existence of the calculi preceded for long the development of cancer there can be no doubt, and it is reasonable to suppose that their irritation led to its production. Lebert and Cornil and Ranvier, however, hold that the cancer leads to the formation of gall stones. Surely such a view cannot be correct when the fundus alone is the site of the morbid growth. Mr. Roger Williams[1] seems to admit that cancer may be caused by gall stones, though very rarely:

When gall stones and cancer of the gall bladder are concomitant I submit that all the indications point to antecedent morbid conditions of the cystic mucosa, as being the determining factor of these concretions.

What the "antecedent morbid condition" referred to is Mr. Williams does not explain. Presumably it is a form of chronic inflammation such as we see so often in the tongue as a forerunner of epithelioma. In the case just reported the mucous membrane of the gall bladder, except where it was cancerous, was to all appearance healthy, and there was no trace of cholecystitis.

I am able to adduce two other items of evidence which bear on the controversy. The first shows that cancer of the gall bladder fundus may originate independently of any calculi. A man, aged 70, died in my wards at the London Hospital as the result of severe injuries sustained by being run over. In the fundus of his gall bladder (otherwise normal and containing no calculi) was a firm nodule lying in and beneath the mucous membrane. The nodule was solitary, oval, and about one-third of an inch in diameter. For the careful microscopic report I am indebted to our pathologist, Dr. Salaman. "The small swelling consists of tubular and more or less cystic epithelial growths surrounded by strands of muscular and fibrous tissue. Some of these are purely adenomatous, and the entire growth would appear at its origin to have been an adenoma; however, changes have taken place in two directions. The subcolumnar epithelium has grown in some tubules into the lumen and converted them into solid masses of cells, whilst the fibrous external coat remains good. In others they have grown through the connective tissue and are definitely invading the stroma."

This case is of particular interest as being one of the earliest stage of cancer in this region that has been recorded.

The remaining case is one in which gall stones had given rise to typical symptoms for five years in a woman aged 42 years. It resembled so much the case first given that full details are unnecessary. I performed cholecystotomy and removed the calculi, but finding a growth in the fundus of the gall bladder, did not attempt more. She died three days after the operation, and at the *post-mortem* examination an irregular mass of cancer was found growing from the fundus into the liver. The glands in the lesser omentum were also involved: "The mucous membrane of the fundus was greatly thickened, consisting of large open alveoli lined with columnar cells, many of which are vacuolated. In the musculo-fibrous wall of the bladder are several dilated alveoli of similar nature."

It will be noted that calculi had existed in the gall bladder for several years before the growth developed. This case also confirms the grave outlook of any surgical interference in cancer of this region. The only hopeful treatment is to remove the gall stones early, before their irritation has induced cancer.

REFERENCE.
1 BRITISH MEDICAL JOURNAL, December 31st, 1904.

TWO CASES OF SUPPURATION OF GOÎTRE.*

By THOMAS EVANS, M.D.,
New Quay, Cardiganshire.

IN the district in which I have practised for many years simple goître among women is not uncommon; but I had never seen a case of suppuration of goître until 1902. However, a second case occurred in my practice within twelve months of the first. The medical brethren nearest me had not seen any such cases. The medical and surgical literature within my reach is also silent with regard to such a complaint. But in the Memoranda of the BRITISH MEDICAL JOURNAL for October 15th, 1904, p. 1105, Dr. Arthur G. Wilkins of Ashton-under-Lyne refers to a case of suppurative goître in an old man of 74.

CASE I.

Mrs. M. T., aged 54, wife of a master mariner, childless, was in fair

* Communicated to the South Wales and Monmouthshire Branch of the British Medical Association.

health, except that she had simple goitre for many years, and had been subject to occasional attacks of catarrhal cough.

On January 5th, 1902, she had an attack of vomiting, with pains in the right back, which slowly subsided. But from January 22nd to 26th she had a series of rigors in the daytime, followed by feverishness at night. Subsequently for ten days there recurred feverishness at night, followed by remission in the morning, the temperature ranging between 99° and 102.5°, and the pulse between 60 and 68 per minute.

On the fifteenth day from the first rigors, after careful examination of the patient and consultation with my friend Dr. John Davies of Aberayron, nothing could be found to account for the pyrexia. Noon temperature 99°, pulse 56, night temperature 101°, pulse 76. Sulphate of quinine (3 gr. every four hours), and phenacetin (5 gr. at night) were administered.

On the thirtieth day, after continuance of similar symptoms, we agreed that the pyrexia was probably due to the thyroid enlargement. At noon the temperature was 100°, pulse 72, night temperature 101.5°, pulse 64. Thyroid extract was tried with phenacetin, but the same symptoms persisted till the seventy-first day, when the circumference of the neck over the thyroid swelling measured 15 in., the swelling extending vertically about 4 in., and the lower part of it on the left side becoming red and painful.

On the eighty-eighth day—that is, three months after the first rigor—the swelling on the left side had become redder and softer, but the temperature lower and the pulse slower. After consultation with Drs. Davies of Aberayron and Evans of Green Grove, the abscess was lanced and a considerable quantity of pus escaped. A large drainage tube was introduced into the wound, and it was dressed antiseptically. This operation gave considerable relief to the patient, and she improved much in appearance, but the temperature became subnormal afterwards for some days. The wound continued to discharge, and did not finally heal until three months after opening, but the affected side of the thyroid tumour disappeared entirely, and the patient recovered her usual health.

November 26th, 1904 (sixteen months after the last report). The general health of this lady has continued very satisfactory. There is no perceptible swelling on the left side of the neck, and the swelling on the right side is much diminished, being less than a hen's egg in size. The circumference of the neck over the tumour now measures only 12½ in., being 2½ in. less than it was a week before the abscess was opened.

CASE II.

Mr. G. J. D., aged 42, occupation schoolmaster, had an enlarged thyroid (goitre) for many years which used to swell and become irritable with colds, etc.; otherwise he had been in good health.

On July 11th, 1903, he was first attended by me, having been ailing for two or three days, suffering from feverishness, with pains in the head, erythema on the left elbow, and other symptoms, which were concluded to be owing to influenza. He was treated with aperients, salicylate of soda, and tepid sponging to allay his feverishness, and an occasional dose of phenacetin or phenazone to relieve pain. However, these symptoms continued with temporary abatement till the twelfth day of illness, when at 6 p.m. the temperature was 104°, pulse 84, and the respirations 23 per minute, and crepitation was heard on auscultating over the base of the right lung; no cough or stitch in the side. The case was also seen on this day by my friend, Dr. Evans, of Green Grove, who likewise diagnosed influenza, and recommended 5 gr. of quinine sulphate to be taken three times a day in addition to the other medicines.

On the fifteenth day, 6.30 p.m., the temperature was 104.3°, the pulse 68, and the respirations 9 to 15 per minute. No crepitation then heard over the right back. For last two days observed considerable swelling and redness of the left side of the goitre, together with tenderness on pressure. The circumference of the neck over the goitre measured 17 in.

On the eighteenth day, 5.30 p.m., temperature 100.8°, pulse 60; the swelling in the neck more tense, and extending downwards as far as the manubrium; turgid veins seen coursing across the swelling. There is distinct fluctuation to be felt in the centre of the swelling. The patient is easier, and now sleeps without phenacetin.

On the nineteenth day, after due antiseptic precautions had been taken, the abscess was freely opened, and a saucerful of pus escaped. A large drainage tube was introduced into the wound, which was afterwards dressed with carbolized gauze and boric wool.

On the next day at noon the temperature was 98.2°, pulse 52 per minute. The patient felt much better, but an uncertain crepitation was again heard over the base of the right lung. There was copious purulent discharge from the abscess.

On the ninth day, subsequent to opening the abscess at 6 p.m., the temperature was 99 8°, and the pulse 68 per minute. There was still free discharge from the abscess, but it was difficult to keep the opening patent, so a plug of double cyanide gauze was substituted for a drainage tube.

In about a month after opening the abscess the patient was able to go away for change of air to the wells, etc., the sinus still discharging. The circumference of the neck over the thyroid then measured 16¼ in. Afterwards the patient returned home much improved in general health, and was able to resume his occupation in less than three months, but the sinus did not finally close until six months had elapsed. The circumference of the neck had reduced over 2 in.

November 19th, 1904. This gentleman has been in good health during the past year. The goitre on the left side has now completely disappeared, and on the right side it has much diminished, so that now he requires a collar of only 14½ instead of 15½, used before the illness.

It will be seen that in both these cases the persons were of middle age, and that both recovered slowly from the suppuration, followed by the disappearance of the goitre on the affected side, and diminution of it on the opposite side. The first case appeared to have been spontaneous in its origin—commencing with rigors, then running a chronic obscure course, characterized by mild evening pyrexia and morning remission, so that the cause of the symptoms could not be determined for the first month, then running on for two more months before the abscess was mature for evacuation, and taking another three months to discharge before finally closing.

The other case, which appeared to have been secondary to an attack of influenza, ran an acute course with high fever, and the abscess matured for evacuation on the nineteenth day; but the sinus did not finally close until six months afterwards.

In both these cases, the suppuration occurred on one side only, and both recovered their general health satisfactorily. It would be interesting to know what would have been the effects if the suppuration had occurred on both sides.

In the *Practitioner* for April, 1901, p. 415, Dr. Walter Edmunds says, "In the treatment of an ordinary goitre, if an operation is decided on, one lobe is generally removed. The operation is frequently followed by atrophy of the opposite lobe." But he shows that excision of the whole thyroid gland has been followed by grave symptoms like myxoedema, and even by death in one case. Mr. Bernard Pitts (in Treves's *System of Surgery*, vol. ii, p. 376) recommends in cases of solid goitre the removal or division of the isthmus only, but not to remove the whole gland.

REASONS FOR ABANDONING THE URIC ACID THEORY OF GOUT.

BY CHALMERS WATSON, M.D., F.R.C.P.E.,
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IF we may judge from the discussion on the chemical pathology of gout held at the meeting of the British Medical Association in 1904, it would appear that the uric acid theory still occupies the foremost place in the mind of most investigators of this disease. Whatever place this theory occupies in the mind of those who are seeking to determine by the aid of laboratory methods the exact rôle of uric acid or its allies, it must be admitted that the theory has been abandoned by many clinicians of wide experience in the disease. Dr. Goodhart, in an address on Acidity, published in the *Lancet* in 1900, writes as follows: "For myself, I cannot but think that had it not been for our eagerness to get hold of something to 'treat,' the uric acid theory that is dominant at the present day would never have become the fetish that it has." My object in this paper is to submit facts gained from research which strongly support this teaching of clinical experience as to the minor rôle of uric acid in the production of gout.

My investigations were commenced in 1898, and with a bias strongly in favour of uric acid. As the research developed, however, the defects of this theory became more and more apparent. I am now convinced that the general adoption of the uric acid theory has been attended by two unfortunate results. In the first place, the prominence given to this theory has unduly narrowed the field of inquiry relative to the disease; and in the second place, it has obscured the significance of the facts actually observed. The grounds for these two statements will be shortly stated. These can, perhaps, best be submitted in the form of an epitome of the steps which have led me to abandon the view that uric acid is an important etiological factor in the disease. For a fuller account of the various points the reader is referred to the original papers. The investigations deal in turn with (*a*) chemical, (*b*) histological, and (*c*) clinical questions.

OBSERVATION I.—*Uric Acid in the Blood of Birds.*

The first point investigated was the presence of uric acid in the blood of birds. Sir A. B. Garrod, using older methods of investigation, failed to find uric acid in the blood of birds. Dr. Luff, in his valuable Goulstonian lectures, gives the results of his investigations on this point. He states that "after most careful examination of very large quantities of the blood of the turkey, goose, duck and fowl, I have never been able to detect any uric acid in the blood of these birds," and he interpreted this as "conclusively supporting the view that

uric acid is normally produced in the kidneys." Dr. Luff further utilized this result as the main basis of his view as to the renal origin of gout. As the question of the existence of uric acid in the blood of birds appeared to me a vital one, I made a series of investigations on this point. Five observations were made, four on the blood of birds and one on the blood of a snake.[1] In each instance the presence of uric acid was determined, a weighable quantity being obtained on three occasions (see Table I).

TABLE I.

	C.cm.	Grams H_2U.
Duck	1,750	0.0352 gram.
"	50	Qual. reaction only.
Goose	1,050	0.0428 gram.
Turkey	1,500	0.0328 "
Snake	1,500	Qual. reaction only.

These results show conclusively that uric acid is normally present in the blood of birds; they also negative the view that uric acid is normally formed in the kidney; they further indicate that the theory of the renal origin of gout, so far as this rests on the absence of uric acid in the blood of birds under normal conditions, cannot be entertained. It is right to add that Dr. Luff has in later writings abandoned this view.

OBSERVATION II.—*Uric Acid in Pathological Fluids.*

The second point selected for investigation was the examination of the blood or tissue fluids from a number of diseased states, with the special object of determining the presence or absence of uric acid. Six observations were made[2] (see Table II).

TABLE II.

	Sex.	Age.	Fl. Oz.	Grams H_2U.
Chronic Bright's disease	F.	60	10	0.0068
Malignant disease	M.	55	30	0.0155
Aneurysm (aortic)	M.	40	19	0.0087
Ulcerative endocarditis	M.	30	26	0.0075
Lobar pneumonia	M.	22	10	qual.
"	M.	40	33	0.0170

A glance at Table II shows that in a number of diseased states which have no known relationship to gout, uric acid was present in weighable quantity in the limited amount of blood or pleural fluid examined. This result merely confirmed the work of previous investigators. When we further consider the thoroughly-established fact that in leukaemia uric acid may be present in the blood to an extent greater than obtains even in aggravated cases of gout, and yet that disease is unaccompanied by either the clinical or pathological features of the gouty state, we are forced to conclude that Garrod's original theory, which was based largely on the presence of uric acid in the blood, needs very material modification. It is idle to contend that in leukaemia the uric acid is excreted as fast as it is produced. There is no proof that this is the case; and even if it were so, Dr. Ringrose Gore has well pointed out that uric acid can be no exception to the general law that a substance acts as a poison in direct proportion to the amount of it present in the circulating fluids. Consideration of these points shows that in focussing attention on uric acid in its relation to gout the field of inquiry has been unduly restricted. Further proof of this was obtained in the course of the next investigation dealing with the excretion of uric acid in the urine in acute gout.

OBSERVATION III.—*Uric Acid Excretion in Gout.*

The necessity of investigating this point was obvious from the fact that the uric acid theory was to a great extent based on the view held by Sir A. B. Garrod that the excretion of uric acid is diminished during the paroxysm, this being associated with a retention of uric acid in the system. A detailed analysis of the urine was made in two cases of typical gout, a daily examination of the urine being made for many weeks. In addition to the urea and uric acid, the amount of P_2O_5 was also estimated.[3] The results of this investigation showed no disturbance in the uric acid elimination either before, during, or after the paroxysm (see Tables III and IV).

TABLE III.—*Case I. Uric Acid Excretion in Acute Gout.*

	Urea.	H_2U	H_2U—Urea Ratios.	Average of Days.
	Grams.	Grams.		
Acute attack*	28	1.15	1—24	5
Acute attack—three weeks later	24	1.39	1—17	3
In the interval	21	1.31	1—16	3

* Last five days of a severe attack (see temperature chart later).

TABLE IV.—*Case II.*

	Urea.	H_2U	H_2U—Urea Ratios.	Average of Days.
	Grams.	Grams		
Interval—mixed diet	24	0.39	1—63	6
Interval—mixed diet and thymus administration	21	0.35	1—69	4
Acute attack—mixed diet	25	0.65	1—39	3
After acute attack—milk diet	33	0.53	1—59	4

Other observers have recorded a like result. We may therefore conclude that there is no striking change in uric acid elimination in acute gout, and accordingly we are justified in stating that one of the main premises on which the uric acid theory was based is erroneous. (The results of these investigations further appear to show that the tissues of gouty subjects reacted to nuclein administration in the same manner as healthy tissues.)

Reference may appropriately here be made to the other main pillar of the uric acid theory—namely, the diminished alkalinity of the blood during the acute attack. The researches of Magnus Levy have clearly proved, even to the satisfaction of those who still pin their faith to the uric acid theory, that there is no diminution in the alkalinity of the blood during the acute attack. If, then, as has been shown, the main premises of the uric acid theory are untenable, it is evident that further investigation on the traditional lines could not be fruitful in its results. Attention was therefore directed to the histological appearances of the disease.

OBSERVATION IV.—*The Histological Appearances of Gout in Lower Animals.*

At the outset it is important to bear in mind that the classical description of the histological appearances in gout dates from a time prior to our knowledge of general and local infective processes. It is therefore natural that the histological records of the disease, as given in the classical works, are, from the standpoint of modern pathology, remarkably incomplete. Some years ago I had the rare opportunity of studying the histological appearances of the tissues in a case of acute gout in a fowl, and have recently recorded the results of this examination.[4] The facts may be here summarized. The gouty deposit in the tissues, the changes in the synovia, the widespread thrombosis, and the characteristic areas of necrosis in the kidney in this case clearly indicated the nature of the disease. It was a typical case of gout. At the time of publication doubts were expressed by some critics as to the genuine gouty nature of the renal and other lesions. These doubts did not appear to me to be well founded. In this connexion it is of interest to note that recently in the course of a repetition of Ebstein's classical experiments on gout, kidney lesions were established identical with those described and illustrated in this paper. From the clinical and pathological record of this case we are "driven to the conclusion that we have to deal with a case of pure gout in which the disease had run a natural course, in which an examination of the tissues shows that the *post-mortem* appearances generally are characteristic of an infection by bacteria or their products." The facts learned from this investigation indicated the importance of reinvestigating the histological appearances of chronic gout in man.

OBSERVATION V.—*The Histological Appearances of Chronic Gout in Man.*

The results of this inquiry were embodied in a paper published a few months ago.[6] These results were in the main an independent confirmation of those previously obtained by Dr. Berkart. The main facts may be summarized:

(*a*) In gouty deposits in the subcutaneous tissues, the appearances of the tissues warrant the statement that we have no

more right to assign etiological significance to uric acid than to other substances of an unknown nature found in the structureless material left after removal of the crystals.

(*b*) An examination of gouty tendons showed that the necrotic areas had a definite relation to the vessels of the part. The appearances in the tendons indicate that the necrotic areas are to be accounted for by an infection by the blood stream.

(*c*) The erosion of cartilage was due not to the presence of uric acid but to the action of small rounds cells of the granulation tissue type.

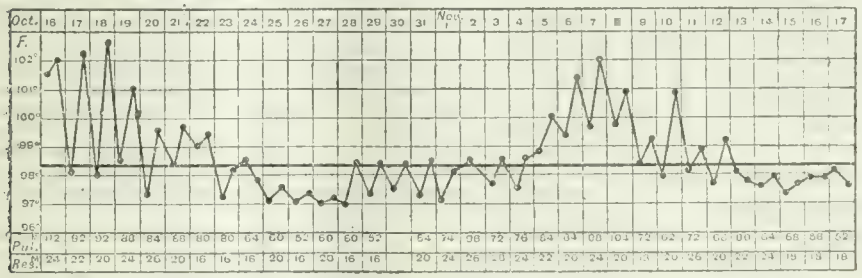
(*d*) At the gouty deposits in the bone, attention was directed to (1) the richness of the blood supply, (2) the general character of the giant cells, and (3) the great accumulation of small round cells of the nature commonly associated with the action of bacterial toxins.

(*e*) Stress was laid on the alterations in the interior of the bone, more especially on the disappearance of the marrow proper and rarefaction of the bone trabeculae.

The general conclusion in this paper was that "the *tout ensemble* of the pathological pictures is strikingly similar to that seen in chronic infective diseases. From this point of view the uric acid is regarded as the feature which gives the inflammation its specific character." A study of the facts recorded in this and the preceding paper showed to my mind conclusively that the adoption of the uric acid theory had obscured the significance of the facts actually observed.

OBSERVATION VI.—*From the Clinical Standpoint.*

When it became apparent that the results obtained from these histological investigations did not support the uric-acid theory, but rather suggested an infective condition, the point at once presented itself for consideration whether the latter hypothesis would conflict with the teaching of clinical experience. It does not. I submit that, on the contrary, this hypothesis more adequately explains the phenomena of acute gout than does any other theory.



In the clinical picture of acute gout, the manner of onset, the course of the temperature curve, the changes in the blood indicating disturbances of the marrow function,[2] and the marked liability to relapses, all strikingly recall the picture of an acute infective disorder. This is illustrated in the chart of one of the cases recorded in Observation III.

GENERAL CONCLUSIONS.

From the foregoing we conclude that the evidence of the laboratory is in harmony with the teaching of clinical experience, and shows that uric acid is not an important etiological factor in the production of gout. The author believes that (1) there is an infective element in the disease; and (2) the uric acid is the feature which gives the inflammation its specific character. According to this view the chief source of infection is the alimentary tract, and an injudicious dietary—meat or drink -acts mainly in virtue of its influence on the bacteria present in the digestive tract. This view by no means minimizes the importance of the hereditary factor in the disease.

In concluding this summary, I must refer to a very suggestive paper on gout recently published in the *Lancet* by Woods Hutchinson. The keynote of this paper is, I think, to be found in its definition of gout as a "Toxaemia of gastro-intestinal origin accompanied by the formation of an excess of urates, this excess of urates being due to the breaking down of the leucocytes and fixed cells in the attempt to neutralize the poison—in other words, being the measure of the resisting power of the tissues. The formation and introduction of the toxins, be it well understood, are by no means confined to the gouty; it is only the nature of the resistance of the body to them that gives the character of gout."

Dr. Woods Hutchinson rightly lays stress on leucocytosis, the main bone-marrow function. The importance of this function and the correctness of Dr. Woods Hutchinson's conception of gout have been strongly emphasized to me by the results of some clinical and therapeutic observations on bone marrow which I have carried out coincidently with the investigations referred to in this paper.

It only remains for me to refer to the likely lines for fruitful investigation. Reliable evidence for or against the general theory put forward in my paper should, I think, be looked for along the following lines:

(*a*) It is advisable to investigate the influence of (1) a meat diet and (2) a carbohydrate diet, on the digestive secretions and on the ductless glands. Special attention should be directed to the thyroid gland and the bone marrow.

(*b*) It appears advisable to repeat Ebstein's experiments with the aid of skilled bacteriological methods.

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A NOTE ON SENILE SYMMETRICAL ATROPHY OF THE SKULL.

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A CURIOUS condition of symmetrical circumscribed thinning of the parietal bones, generally regarded as a form of senile atrophy of the skull, has been described, with or without illustrations, by Virchow,[1] Maier,[2] Sauvage,[3] Meyer,[4] Féré,[5] Eve,[6] Humphry,[7] and others. Most examples have occurred in old persons, especially women, but Meyer mentions commencing atrophy of the parietal bones in a melancholic man only 44 years of age, and I have met with a typical instance in a woman only 55 years old, the subject of biliary cirrhosis and jaundice of four years' duration, whose case I described in the BRITISH MEDICAL JOURNAL for April 25th, 1896. In all cases the change in the skull is the same in kind, the only difference consisting in the degree of thinning of the parietal bones and in the size of the thinned areas. The thinning is due to a circumscribed depression with shelving edge on the outer surface of the parietal bone, due, as Mr. Targett[8] pointed out in the specimen I gave to the Royal College of Surgeons, to removal of the outer table over the affected area and wearing away of the diploë, so that the inner table forms the floor of the depression. The inner surface of the skull is generally unaltered.

In the museum of the Royal College of Surgeons are Egyptian and other skulls showing these symmetrical areas of atrophy. One of these skulls, presented to the museum by Mr. Flinders Petrie, is from Gurob (Fayoum) in Egypt, probably of about 1,300 years or so before the Christian era, and has been described and figured by Mr. F. S. Eve in the *Transactions of the Pathological Society of London* for 1890. Sir G. M Humphry,[9] who, in his book on the *Human Skeleton*, in 1858 attributed the condition to a peculiarity of congenital conformation, afterwards, in 1890, before the Royal Medical and Chirurgical Society of London, described it as probably a result of senile changes. Ziegler,[10] in the ninth German edition of his well-known textbook of pathological anatomy, gives an excellent illustration of symmetrical parietal depressions, and thus refers to the subject: "Lacunar absorption affecting large portions or the whole of the skeleton takes place first in old age, and is, therefore, called senile atrophy. The process is sometimes especially advanced in the flat bones of the body, the skull, the shoulder-blades, and the pelvis, notably in parts which are not covered by muscles. In the skull the absorption of the parietal bones may proceed so far that the whole of the outer table and the diploë become destroyed, and finally portions of the inner table, and at spots here and there even both tables, completely disappear."

But the question arises, Is this symmetrical atrophy of parietal bones merely a senile change, and if so, why does it sometimes occur in younger persons? Bernard Hollander[11] collected a number of cases associated with melancholia, and regarded the condition as due to trophic influences accom-

panying the melancholic state. I think there can be no doubt that the change is due more to senility than anything else, and would express myself thus:

The condition is probably due to a process of lacunar absorption accompanying senility or other chronic states of depressed nutrition.

Not every senile change is present in every aged person, and some senile changes develop relatively early in life in individuals predisposed to them by hereditary factors, or by wasting diseases or chronic causes of depressed nutrition, including mental causes—for example, premature whitening of the hair.

These considerations may serve to account for the early onset of symmetrical atrophy of the parietal bones in a patient with melancholia, as also in my case of chronic jaundice and cirrhosis of the liver. In the same way "brown atrophy" of the heart, exactly similar to that found in very aged persons, may notoriously sometimes be met with in younger persons dying of cancer and other chronic wasting disorders.

The lacunar absorption which causes the atrophy of the outer table in the parietal bones is probably not solely due to senility, but, as other "senile" atrophies, intimately connected with it. Senile atrophies of organs and parts of the body are nearly always either general or symmetrical in distribution. The localization of symmetrical senile atrophies is probably to be accounted for by portions being selected which are no longer being much used, and are of least vital importance for the organism. Thus the bones and muscles of extremities which are not much used tend to atrophy early, and in the skull the symmetrical atrophy of the parietal bones occupies a site which is not pulled on by muscles, and is mechanically of relatively little importance for maintaining the strength of the brain case and its safety from concussion.

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ON THE SIGNIFICANCE OF SCARS OF THE GENITAL REGION IN THE RETROSPECTIVE DIAGNOSIS OF SYPHILIS.

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IN seeking evidence of syphilis in cases of nervous or other internal disease when the cause is obscure, it is usual to examine the skin and mucous membrane, and, if scars are found in the genital region, their presence seems often to be looked on as evidence in favour of syphilis. If, on the other hand, no scars are found, their absence is sometimes looked on as implying absence of syphilis. In either case such a conclusion without further inquiry may lead to error.

In order to understand the matter aright, it is well in the first place to bear in mind what seems often to be forgotten, namely, that the primary lesion of syphilis is not in itself a destructive lesion, and therefore does not necessarily leave any scar at all. It may or may not do so according to circumstances which will be considered by and by.

Although venereal disease in some form is the chief source of genital scars it is by no means the only one, for scars in this region may be due to many other causes—such as balanitis, irregular herpes, abscesses, and injuries of various kinds, including the use of caustics and surgical operations.

Supposing, then, that a scar or scars are present on the penis or groins, or both, what is their significance, and especially what is their value as evidence of syphilis? To find an answer to this question the first thing to be done is, of course, to inquire into the history, and this in many cases will settle the point. But in many other, and notably in some venereal cases, the history helps little or not at all, so that an attempt has to be made to gain information by other means.

It has already been mentioned that the primary lesion of syphilis does not necessarily leave a scar, and when the site of inoculation is mucous membrane, as it is in the great majority of cases, and especially if the sore be under cover of the prepuce, and not cauterized or otherwise irritated, no permanent mark may be left behind. That this really happens any one who doubts may satisfy himself by examining his syphilitic patients from time to time after the primary sore has healed, when it will be found that in some of them no trace of it remains. The same remark applies also in many cases of late internal syphilitic disease. This absence of scar occurs mostly among those who are of careful and cleanly habits, and thus is oftenest met with in private practice. In many other cases, however, and in hospital practice as a general rule, pyogenic matter of some kind gains access to the primary sore, and thus a degree of ulceration, which varies in different cases, is set up, and consequently a scar may be left. But although the primary lesion of syphilis on mucous membrane may not leave a scar, it is, nevertheless, a fact that when the skin is its seat there is nearly always sufficient loss of tissue to lead to scarring, so it becomes important to remember that a scar on the body of the penis, if from a venereal sore at all, nearly always means syphilis.

The local or soft *chancre* is probably the principal cause of genital scars, and owing to the irritating quality and the ready autoinoculability of chancrous pus the ulcers usually multiply, and thus multiple scars remain. Exceptions to this are met with when the virus is destroyed while the sore remains single or when a careful patient manages to prevent autoinoculation. The local chancre—in the uncircumcised, at any rate—nearly always attacks primarily the mucous membrane. When the skin is affected it is usually by consecutive inoculation. When the virus of syphilis and that of the local chancre are both present the resulting "mixed chancres" may, of course, be multiple; and, of course, also, if more than one place happen to be inoculated at the time syphilis is contracted, there may be more than one primary sore. In practice, however, it is found that the primary lesion of syphilis is single in the great majority of cases. For instance, of 103 syphilitic patients in whom the primary lesion was still present at the time they were admitted into the Male Lock Hospital when I was house-surgeon there I noted that 91 had only one sore. Of the remaining 12, 7 had two sores, and only 5 had more than two. As a general rule, therefore, it may be said that a single scar of the penis points towards syphilis, while multiple scars point to the local chancre.

A syphilitic scar, after the induration has disappeared, is generally round or oval, thin, non-adherent, and quite supple. On the skin it is also often deeply pigmented at first and the pigmentation is slow to disappear.

Gummata may, of course, leave scars either on the penis or groins, but, excepting what is sometimes called "relapsing chancre," their rarity and the time of their appearance, being themselves late signs, would make them little likely to cause difficulty in such cases as those now under consideration.

In connexion with this subject it may be as well to mention that, apart from gumma, enlarged inguinal glands go for nothing or little in the diagnosis of late syphilis. It may also be remarked that neither in primary nor in secondary syphilis is the adenopathy of very long duration, and even at the time it is present requires to be considered in relation to other evidence, for, as has been pointed out elsewhere,[1] a large number of non-syphilitic men have a degree of glandular enlargement equal to that found in some cases of primary syphilis.

If *phagedaena* attacks either syphilitic or local sores the resulting scar will be irregular in form and much larger than that due to almost any other cause except extensive injury, and there may be so much loss of substance that considerable deformity is left. So that very extensive scarring of penis or groins, if not traumatic, points to phagedaena.

Gonorrhoea may be accountable for scars of the penis or groins as the result of abscesses in connexion with that disease.

The scarring left by ulcerating *balanitis* may be considerable, and is usually accompanied by adhesions between the prepuce and glans penis. In adult life balano-posthitis is mostly arrested before it ulcerates sufficiently to leave scars, but during infancy and childhood it is often unnoticed and therefore untreated, and its effects often lead to trouble later in life, for the irregular cicatricial surface left by partial adhesions is easily abraded or torn during coitus, and is thus very liable to become inoculated if the patient is exposed to infection. Unless they become infected, however, such scars are hardly likely to lead to difficulty in diagnosis, as their appearance and history would usually prevent mistakes.

When *herpes* ulcerates from constitutional causes or from accidental irritation or the application of caustics it may leave a scar. Such a scar is usually irregular in form, and may have a crenulated border which is characteristic. But if a single-spot herpes ulcerates, or in any case if the ulceration has been extensive, the resulting scar will have no characteristic features, and the diagnosis will depend chiefly on the history, especially a history of repeated attacks of herpes.

Suppuration of a *sebaceous follicle* on the skin of the penis, like similar lesions elsewhere, may also leave a scar. Such scars from their position might give rise to a suspicion of syphilis. But they are pitted, and very much smaller than a syphilitic scar in the same situation, and the history ought to help in leading to a right conclusion.

Abscesses may be venereal or non-venereal. A suppurating bubo may accompany a suppurating syphilitic sore, and occasionally a lymphatic abscess occurs on the dorsum penis, with or without a bubo. The local chancre is the most frequent cause of suppurating bubo, and also, though less frequently, of suppurating lymphangitis of the penis. Gonorrhoea is sometimes accompanied by suppurating bubo, and rarely by lymphatic abscess of the penis. Much more common are periurethral abscesses, the scars of which are often adherent, and generally situated on the under surface of the penis.

Tuberculous lesions are so rare on the penis that they need only be mentioned. In the groins they are not so rare, and it should be remembered that tuberculous scars are irregular, adherent, thickened, and often puckered or seamed, which will usually serve to distinguish them from other scars. Enlarged glands also will often be found at the same time, as well as signs of tubercle elsewhere.

Of *traumatic* scars those due to surgical operations or to accidental injury have a history which, as a rule, is quite easily obtained. But when the injury has been wilfully inflicted by the patient himself a true history may not always be forthcoming. People sometimes do strange things—for example, a gentleman, after a long period of continence, yielded to temptation, and immediately afterwards, stricken with fear and remorse, applied a red-hot iron to the penis. To the severe burn thus produced he next day applied strong carbolic acid and subsequently nitrate of silver. The result was a most troublesome ulcer which was accompanied by a suppurating bubo, and took six weeks to heal. Such cases are no doubt rare, but they are worth remembering when difficulty arises as to the origin of a scar.

CONCLUSIONS.

From the foregoing remarks it may be gathered that the diagnostic value of genital scars is not always easy to determine. But although no hard-and-fast rules can be laid down, still the retrospective diagnosis of syphilis is a matter of such importance that an attempt ought always to be made to get information from every available source, and attention to the points that have been mentioned will sometimes help materially in the clearing up of an otherwise doubtful case.

Excluding for the moment non-venereal cases, the following rough summary may perhaps be found useful:

1. Genital scars are more common and more marked in hospital than in private practice.
2. In many cases of nervous or other late form of internal syphilis the genital region is free from scars.
3. A single scar on the skin of the penis suggests syphilis.
4. A single scar on the mucous membrane also suggests syphilis as a rule—occasionally the local chancre.
5. Multiple scars on the mucous surface of the penis only suggest the local chancre.
6. Multiple scars on both mucous membrane and skin also suggest the local chancre.
7. Inguinal scars, together with scars on the penis, suggest the local chancre.
8. An inguinal scar without any penile scar (if venereal at all) suggests gonorrhoea.
9. Extensive scarring of penis or groin, or both, suggests phagedaena.
10. Genital scars, with scars on other parts of the body, suggest an ulcerating syphilide.

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MEDICAL STUDENTS IN GERMANY.—The number of students of medicine in all the German universities in the last summer semester was 6,049, as against 6,072 in the previous year. In the corresponding period of 1894 the number was 7,796.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ERYTHEMA SCARLATINIFORME (INFLUENZAL).

IN March last you published a paper of mine on erythema scarlatiniforme (influenzal). Since then I have made notes of 10 cases and have seen about eight other cases. As the subject is of great importance to general practitioners I here report the history of half a dozen cases condensed from my case-book.

1. April 2nd, 1904. Arthur N., aged 10 years. Mother stated that two days previously he came home from school cold, shivering and aching all over; she put him to bed. On evening of April 1st he complained of sore throat, and on the 2nd, when I first saw him, he had a diffused red rash all over the body, face and extremities; temperature 99°; throat sore, no patches, neck sore, glands swollen; no taste or smell; tongue creamy; aching all over. April 3rd, rash disappearing; temperature normal; no taste or smell. Kept him under observation for ten days, but no development.

2. May 10th, 1904. F. W., male, aged 15 years; siphon filler. Saw him at 10 p.m.; temperature 102°; respirations hurried; complains of aching all over and sore throat, pulse rapid, fauces congested, no patches; a diffuse scarlet rash on face, body and extremities. Mother stated he had not had scarlet fever. History given: Two days previously had shivering and felt ill, but remained all day at work; went to work on 10th, but had to leave off at dinner time. 11th, temperature normal, rash fading. 12th, quite well except that he cannot smell. 14th, came to see me—quite well.

3. May 22nd, 1904. W. D., aged 8 years. History given: On 20th came over shivering with headache and general aching. On 21st, hot, thirsty, and no appetite. On morning of 22nd complained of sore throat and nausea; had been delirious all night; rash visible. I saw him in evening, he then had a diffuse red rash all over; throat congested, temperature 102°, pulse quick, delirious. Had scarlet fever four years previously. 23rd, rash almost gone; tongue creamy; temperature subnormal; no taste or smell. He rapidly convalesced; no desquamation.

4. May 27th, 1904. Mrs. C., aged 28 years, consulted me for diffused rash on face, body, and extremities, of characteristic scarlet appearance; throat congested; said she felt cold, shivering, and aching all over two days previously; taste and smell abolished, tongue creamy; temperature 101°. On 28th, temperature 99°. On 29th seems well but weak; no taste, but can smell a little. Kept under observation for a fortnight, but no sign of fever.

5. May 16th, 1904. T. V., aged 7. History given: On 14th shivering, thirsty, and feverish; on morning of 16th complained of throat and rash appeared. When I saw her the temperature was 99.4°; tonsils swollen, submaxillary glands in both sides swollen, and diffuse red rash general. On 17th, temperature 99°, rash fading, tongue still creamy. On 18th, temperature normal, rash almost gone. On 19th, temperature 101°; gland under right angle of jaw much swollen and very painful. On 20th and 21st, condition unchanged; temperature 100°. On 22nd, temperature normal; swelling of gland disappearing. I kept her under observation till June 6th, but there was no desquamation or other sign of scarlet fever.

6. June 11th, 1904. W. L., aged 9 years. Mother stated he was languid and sleepy on 9th, but seemed better on 10th. When seen on 11th had a red suffusion all over surface; temperature 99.6°; tongue yellow, fauces injected, but did not complain of sore throat; headache and general malaise; can taste. His mother remarked that he seemed exactly as he was when he had scarlet fever three years ago, except that he did not vomit. On the 12th, general appearance same as yesterday; complains of itching; was quite well in two days more.

The notes of the other four cases are very similar to these, and the cases, the notes of which I did not take, also ran a similar course.

I would like to draw particular attention to the resemblance with scarlet fever in the history of invasion of these cases—namely, the scarlet efflorescence after two days of fever upon the skin, fauces, and tonsils, accompanied in all by some tenderness of submaxillary glands and in some by marked swelling of these glands.

London, S.W. JAMES HAMILTON, M.D., Q.U.I.

LACTATION IN A MALE INFANT.

THE secretion of a little milky fluid by the breasts of newborn infants is not rare in either sex, but the continuance for any length of time is unusual. A case where the process has been carried on for four months in a male infant is therefore worthy of record.

The child was born on August 2nd, 1904, and two or three days after birth the nurse noticed and drew my attention to a swelling of the breasts, which were about the size of walnuts, hard to the touch, and from which I could, on gently squeezing, obtain several drops of milk. Treatment was not suggested; the tumefaction of the breasts subsided in a fort-

night, but the secretion continued, that in the left breast until the first week of this month, while from the right several drops are still obtainable on slight pressure, such as when the child is washed. The secretion has the characteristic naked-eye and microscopic appearance of milk, and, doubtless owing to presence of lactose, reduces Fehling's solution. The child is well formed and healthy.

London, W.C. JOHN BRUNTON, M.B., M.R.C.S.

ATROPINE IN INEBRIETY.

IN the treatment of inebriety it is not always possible to place the patient in an institution, nor even under private control. In such cases a reliable drug treatment, which can be carried out in the ordinary course of a private practice, is very desirable. But has such a treatment been found? In several of last year's numbers of the BRITISH MEDICAL JOURNAL your very interesting investigations on this subject were reported. But the methods described are not, in most cases, possible in private practice.

The atropine treatment, detailed by Dr. McBride, of Toronto, seemed easy of application and productive of good results, and I now wish to report a case in which, so far, this method has been most successful. One swallow does not make a summer, but the following history seems to promise that in atropine there is a true antagonist to alcohol:

A. B. C., aged 48, began to drink heavily nearly twenty years ago; thirteen years ago he managed to give it up after a struggle. With occasional relapses he remained a sober man until the autumn of 1903, when he again began to drink heavily. This time no treatment, either medical or moral, was of any avail, and things went from bad to worse, until the first days of May, 1904.

I was asked to see him on May 8th, 1904, and found him in the worst stage of a drunken debauch. He had been drinking beer and spirits heavily for days, and was on the verge of delirium tremens. I waited till the effects had partly passed off and then persuaded him to undergo the atropine treatment. In order to test its efficacy, he was allowed to retain a bottle of whisky in his bedroom and was given leave to take any alcohol he wished. The treatment was that recommended by McBride (BRITISH MEDICAL JOURNAL, April 30th, 1904), and consisted, very shortly, of:

1. Frequent and good meals every four hours.
2. Combined hypodermic injection of atropine sulphate and strychnine nitrate in the following quantities: First week, atropine $\frac{1}{100}$ gr., strychnine $\frac{1}{30}$ gr., t.i.d. Second week, atropine $\frac{1}{75}$ gr., strychnine $\frac{1}{30}$ gr., t.i.d. Third week, atropine $\frac{1}{50}$ gr., strychnine $\frac{1}{30}$ gr., t.i.d. Fourth week, atropine $\frac{1}{100}$ gr. bis in die.
3. A mixture containing fluid extract of cinchona, spt. ammon. aromat., and spt. aether. chlor. thrice daily.
4. The thorough regulation of the bowels.

Several points in the case deserve remark: (1) On the second and third days he indulged, with permission, in a bottle of beer. (2) During the second and third weeks he suffered from interference with accommodation and dim vision, owing to the dilatation of the pupils. He also complained of thirst, but this symptom ceased to annoy him when he was given potassium chlorate lozenges. (3) At the close of the third week he began to twitch in the hands and face, and the strychnine was immediately stopped.

He has now been living his ordinary life since the middle of June, and assures me that he has not only no taste for liquor, but a marked aversion to it. From being a poor, hopeless wretch, he has become a strong, hard-working, cheerful member of society. I ought to remark that the treatment involved three weeks' holiday from his occupation, a trifle compared with the months of uselessness caused by his drunken habits.

A. P. HOPE SIMPSON, M.R.C.S., L.R.C.P.,
Honorary Assistant Surgeon, Children's Infirmary, Liverpool.

SUDDEN DEATH FROM RUPTURE OF THE HEART.

I HAVE been led to communicate the following case by reading the notes of a similar one published in the BRITISH MEDICAL JOURNAL of December 17th, 1904, and on the grounds of the rarity of the condition.

M. C., aged 65 years, stout, and suffering from dementia, died suddenly April 14th, 1904, while dressing after her bath. She had been an inmate of the asylum since June 12th, 1899, but no indication of heart disease had been noted.

At the *post-mortem* examination the pericardium was found full of blood. What looked like a fine incision, $\frac{3}{4}$ in. long, was seen on the anterior wall of the left ventricle, near and parallel to the interventricular septum, about $1\frac{3}{4}$ in. above the apex, with blood oozing from it. This admitted a probe into the left ventricle. Further examination showed a blackened and necrosed area of the heart muscle, not apparent from the outer surface. The myocardium was very friable, and showed marked fatty degeneration to the naked eye, and, on treatment with osmic acid, under the microscope. Sections were stained with picrocarmine; these showed thickening, but no occlusion of the coronary vessels. The mitral valve was thickened and atheromatous, and the cavities dilated. The heart weighed 13 oz. The liver and kidneys showed fatty degeneration.

Paul Brouardel, in his *La Mort et la Mort Subite*, gives a description of 17 cases of rupture of the heart, which he has collected, and states that Aran, thirty years previously, had collected 33 instances; of these 25 were ruptures of the left ventricle, 3 of the right ventricle, 3 of the right auricle, 1 of right and left ventricle, and 1 of the right auricle and right ventricle. Brouardel states that rupture may occur in the course of small-pox, enteric fever, and septic pneumonia. It is due in these cases to an acute myocarditis.

W. T. JAMES, M.B., Ch.B Edin.,
Carmarthen. Assistant Medical Officer, Joint Counties Asylum.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

DORSET COUNTY HOSPITAL.

CASE OF IMPALEMENT WITH PROTRUSION OF INTESTINE: RECOVERY.

(By W. BURROUGH COSENS, Honorary Surgeon to the Hospital.)

W. P., a boy, aged 12 years, on September 3rd, 1904, fell out of a tree—a distance of 6 ft.—on to some spiked railings; on these he hung suspended. On admission to hospital he was found to be suffering from great shock; the extremities were cold and pallid, and his pulse quick and flickering. The following wounds were found: (1) A perforating wound on the left side three-quarters of an inch long at the juncture of the lower and middle thirds of a line drawn between the umbilicus and anterior superior spine; from this protruded a knuckle of small intestine and a piece of omentum dirty and much bruised; (2) a wound about 1 in. long at the lower margin of the eighth left rib, involving the skin, subcutaneous tissue, and external intercostal muscle; (3) a wound $1\frac{1}{2}$ in. long, $1\frac{1}{2}$ in. below the left crest of ilium, and $\frac{3}{4}$ in. from the centre of the spine, laying bare the upper part of the sacrum and lower lumbar vertebra; (4) a wound about $1\frac{1}{2}$ in. long near the left side of his anus, a probe passing about 4 in. and touching the sacrum which was laid bare of periosteum.

Operation.—Shortly after admission ether was administered by Dr. Hardy. The protruding portion of the omentum was excised and the pieces of small intestine thoroughly cleansed. A good deal of blood and several small fragments of clothing were removed from the abdominal cavity, which was swabbed out but not irrigated. The edges of the wound were then trimmed and sutured in the ordinary way. The other wounds were slightly enlarged, cleaned, and left open.

Progress.—The next day (September 4th) the temperature was 101.8°; pulse, 120; respirations, 36. Hypodermic of strychnine, $\frac{1}{30}$th gr., and morphine, $\frac{1}{6}$th gr., administered; fed by nutrient enema; hot water by mouth. September 5th.—Temperature, 101.2° F.; pulse, 124; respirations, 40. Vomited twice; slight abdominal distension; rectal tube passed. 6th.—Temperature, 99.2°; pulse, 114; respirations, 39. Vomited twice; rectum washed out. 7th.—Temperature, 99.4°; pulse, 98; respirations, 32. No vomiting; flatus passed. 8th.—Temperature, 99.2°; pulse, 86; respirations, 32. Retention of urine; catheter passed. 9th.—Temperature, 99°; pulse, 80; respirations, 28. Bowels moved naturally. 10th.—Slight haemorrhage from rectum. 14th.—Abdominal wound dressed. 17th.—Pus and faeces passed through wound in perineum.

Result.—September 24th. The boy voided urine naturally for the first time since the 8th. All wounds were healed, except that in the perineum. About a month later the tube was left out of the perineal wound, and after six more days it quite healed. November 3rd.—Two months after the accident the boy was discharged cured.

REMARKS.—The good result in this case must, I think, be attributed to the immediate operation—in spite of the profound collapse of the patient—and the probable absence on the spikes of those septic organisms peculiar to large manufacturing towns. The after-treatment mainly owes its success to the care and attention of my House-Surgeon, Dr. Percy Hardy.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Birmingham, January 12th, 1905.

T. E. UNDERHILL, M.D., President, in the Chair.

Aneurysm of the Aorta Rupturing into the Trachea.—Dr. SHORT showed the aorta, heart, and trachea of a man, aged 35, who died suddenly from the rupture of an aortic aneurysm. During the few days that he was under observation there was no other sign or symptom beyond the characteristic ringing cough. There was no tumour, murmur, pain, dyspnoea, or sign of intrathoracic pressure, and the pupils, pulses, and vocal cords gave no indication. He was regularly at work until the cough caused him to seek advice. The aneurysmal sac was only about as large as a Barcelona nut, and communicated by means of a small opening with the trachea. Death was instantaneous.

Supernumerary Auricle.—Dr. GLEGG showed a supernumerary auricle, which he had removed from the skin in front of the right tragus of a girl aged 12 years.

Treatment of some Common Diseases of the Ear, with a Special Reference to Otectomy.—Mr. FAULDER WHITE read a paper on this subject. He thought there were sufficient grounds for a general reconsideration of our methods of treatment of some common diseases of the ear, and expressed the hope that medical men generally would devote more attention to the subject, and that in time the textbooks would become more reliable guides to treatment than hitherto. Allusion was made to the dangers attending the course of an otorrhoea, dangers underestimated by many medical men. The general failure to cure otorrhoea was admitted in 1895. Mr. White submitted that there was evidence to show that results in 1905 were very little better in many places. Should recourse be had to the radical operation? Not unless the bone was deeply involved; not if otorrhoea could be cured by any measure less dangerous to the features, to the hearing, to the life. Mr. White believed that practically every case was curable by antiseptic irrigation with or without otectomy, provided treatment was taken in hand before the bone was deeply involved. Otectomy had brought hundreds of cases within reach of cure that could not be cured by irrigation alone. In spite of his critics, otectomy was not ossiculectomy. The removal of the ossicles was not the essential feature of the operation, and in some cases he had preferred to leave them *in situ*. The object of otectomy was to remove as far as possible all diseased tissue from the meatus, middle ear, attic, and surrounding bony walls. Carious bone was freely scraped away, and in two or three cases the outer wall of attic had been removed by a chisel through the meatus. This would not perhaps be practicable, and certainly not necessary, in every case. Those who remembered the old operation of arthrectomy would at once appreciate the meaning of otectomy, and its essential distinctions from any set operation. Mr. White then described the operation, in which he was much assisted by several special instruments, such as his otitome, his attic cannulae, probes, and curettes. After the operation there was little disturbance, and usually hardly any pain; the body temperature remained near or at the normal. In no case had any serious symptom arisen. In only one case had the hearing been unfavourably affected; in most cases it had been greatly improved. Mr. White read an account of his first three cases, which encouraged him to persevere in spite of the alleged objections to intrameatal operations. Since these cases over a hundred otectomies had been performed, and many people had thereby been cured who had previously been under skilled treatment for long periods without relief. The popular impression that the "drum" or membrane was an essential organ of hearing was shown to be erroneous, and he had recently showed them patients who had very good hearing in spite of the fact that in each case both membranes had been completely removed. The important matter of irrigation was next dealt with, and objection was taken to the use of improper solutions at improper temperatures, squirted with violence from a stiff brass syringe. A Higginson's syringe, with a suitable attic cannula, was the proper instrument to use, and a solution of the silico-fluorides the most suitable fluid for irrigation. Finally, the possibility of relieving certain cases of extreme deafness, the result of chronic catarrh or sclerotic changes, by operative treatment was briefly considered. Although Mr. White was aware that in England otologists were not very hopeful of much permanent benefit resulting, he was of opinion that the last word had not been said upon this subject. He ended by giving short notes of five cases in which he had operated with encouraging results.—The paper was discussed by the PRESIDENT, Drs. LAMB, GLEGG, SYDENHAM, MELSON, and Mr. MORRISON; and Mr. WHITE replied.

Involution of Uterus after Labour.—Dr. JOHN DUNCAN read a paper entitled, Involution of the Uterus after Labour, as shown by External Examination of the Fundus Uteri. Data from seventy cases, of which the following is an abstract: (*a*) Relation of fundus uteri to umbilicus; averages; charts; daily excursions of fundus; time of vanishing of fundus. (*b*) Relation of fundus to symphysis pubis. (*c*) Relation of umbilicus to symphysis. (*d*) Lateral deviation of fundus; occipito-posterior cases. (*e*) Antero-posterior variations.—Dr. PURSLOW and Mr. MORRISON spoke, and Dr. DUNCAN replied.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.

AT a meeting held on December 6th, 1904, Dr. HACKMAN in the chair, Dr. J. WARD COUSINS showed a case of incision of superior maxilla and one of harelip and cleft palate after operation.—Mr. C. P. CHILDE showed a case of ideal cholecystotomy and tuberculous glands of neck.—Dr. C. C. CLAREMONT showed a case of bulbar disease.—Mr. HENRY RUNDLE showed a man whose left patella, fractured six years previously, had been treated by means of a back splint and strapping drawing the fragments together, with an admirable result. The patient fractured the right patella in March, 1904, when the fragments were wired. Nine weeks afterwards the wire broke, and as a result union gave way, and a separation of 2 in. occurred between the fragments. The broken wire was removed, the edges of the patella freshened, and the fragments again wired. At present the movement of the joint was limited, but was increasing. He considered that some risk attended wiring operations in fractured patella, and that this method did not necessarily produce a better or more useful joint than that obtained by careful mechanical treatment.—The following pathological specimens were shown: Dr. J. WARD COUSINS, ruptured tubal gestation removed by abdominal section; gall stones (sixteen in number), with jaundice, removed from cystic duct.—Dr. C. C. CLAREMONT, malignant disease of the oesophagus.—Dr. L. MAYBURY, a tumour connected with the uterus.—Dr. J. G. BLACKMAN read a clinical note on rodent ulcer.—Mr. HENRY RUNDLE read notes of a case of malformation of lower extremities, with photographs and radiographs.

MALTA AND MEDITERRANEAN BRANCH.

A MEETING of this Branch was held on January 2nd, Colonel W. O. WOLSELEY, R.A.M.C., President, in the chair. Captain KENNEDY, R.A.M.C., read a paper on a case of double infection of enteric and Mediterranean fever. The case, of very short duration, did not react to Mediterranean fever and very feebly to enteric. At the *post mortem* examination, however, enteric lesions were found in the intestine and from the spleen cultures of both enteric bacilli and Mediterranean fever cocci were obtained. The paper then discussed the case in all its aspects. A discussion followed in which Colonel WOLSELEY, Deputy Inspector-General BENTHAM, Major GRAY, Dr. T. ZAMMIT, and Staff-Surgeon GILMOUR took part. Captain KENNEDY replied. The meeting was then adjourned to March 2nd.

THE PENNSYLVANIA HEALTH SERVICE.—A Bill providing for the reorganization of the public health service of the State is to be introduced into the Pennsylvania Legislature in the coming session. The Bill provides that the State Board shall appoint for each county a practising physician of at least five years' experience to be medical officer of the county; such physicians must have special knowledge of sanitary law and administration. The county courts will name a health officer in each township to serve under the county physician. All these officers will have full power to investigate anything suspected of being a nuisance, including pollution of streams, will have authority to make arrests, and may summon witnesses. The idea is to have the State constantly patrolled by medical inspectors, whose business it shall be to detect things in any way harmful to the health of the people. The Bill has been endorsed by the State Board of Health and by practically all the medical societies of the State.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, January 13th, 1905.

Intracranial Resection of Second Division of Fifth Nerve.

Mr. Jonathan Hutchinson, jun., showed a man on whom he had performed this operation two years ago for epileptiform neuralgia, with resultant absolute freedom from the attacks, although he had since been exposed to much wet and cold at sea. There was no inconvenience from the anaesthesia.[1]

Acute Ascending Paralysis in cases of Chronic Cystitis.

Dr. T. J. Walker (Peterborough) had had 3 cases of long-standing chronic cystitis which had terminated fatally by a most rapid acute ascending paralysis.

The first case was that of a baker who, at the age of 15, injured his urethra by falling astride a rail, and who was under treatment for recurrent stricture and chronic cystitis from the age of 25 to 40 years, but who was able to follow his work. One night he felt numbness in his feet and some loss of power in the legs. Before that evening paralysis had extended upwards to the arms and thorax, the breathing became embarrassed, and he died eighteen hours after the onset of the paralytic symptoms. There was no necropsy. The two other cases were very similar. One was that of a farmer, aged 62; the other that of a butcher, aged 67. Both had had cystitis for years. Paralysis, commencing in the lower limbs, appeared suddenly in each case, and ended fatally, in one case forty-eight hours, in the other case in eighteen hours after the first onset of the paralytic symptoms. There was no *post-mortem* examination in either case.

Dr. Walker referred to a case mentioned by Stanley, of a man in St. Bartholomew's Hospital, and to another case which had occurred under Dr. Saundby in Birmingham. He then discussed the pathology of Landry's paralysis, and concluded that the connexion was not a reflex nervous one, but an extension of microbes from the bladder to the spinal cord.

Mr. Clement Lucas thought the association of cystitis and paralysis was not one of cause and effect, but that the paralysis occurred in persons exhausted by long illness, which happened to be cystitis. It was possible that bacterial infection of the urinary tract might produce a toxin which might affect the cord.

Dr. Farquhar Buzzard said that the spinal cord was very susceptible to the action of toxins. There were probably three different forms of acute ascending paralysis: (1) Cases in which formerly no spinal lesions were found after death, though with recent improved methods very slight changes were being discovered; (2) cases in which gross lesions were found—such as softening, due to many different varieties of bacteriological infection; (3) cases of acute ascending meningo-myelitis, amongst which he would probably class Dr. Walker's cases.

Mr. Walter Spencer remarked that an acute ascending paralysis occurred in rabies in animals and in man.

The President said that every case of acute ascending paralysis must not be considered to be a case of Landry's paralysis.

Dr. Walker, in reply, could not doubt there was some causal relationship between the cystitis and paralysis. Urinary paraplegia, which was quite different from the condition he had described in his paper, was not mentioned in many books on urinary diseases.

Accidental Electrocution Causing Extensive Gangrene of Extremities.

Mr. Clement Lucas described a case in a boy, aged 15, admitted into Guy's Hospital, March 4th, 1904.

The lad, an employé at an Electric Supply Corporation station, was standing on a discharged transformer so as to dust a ledge, when he slipped and clutched at a cable, through which a current of 10,000 volts tension was passing. He was only in contact with this for thirty seconds. Respiration at once ceased, the limbs were burnt, swollen, and stiff. Artificial respiration was immediately resorted to, and the boy came round. On being seen soon after at Guy's, some shock was present, though this was not profound, the radial pulse could not be felt; he was conscious. The right hand was dead, white, strongly flexed and supinated; the arm showed solid oedema up to the shoulder; the forearm was crimson and peeling. The left hand suffered far less. Both feet were badly burned; there was anaesthesia and paralysis for four inches above the ankles. An everted wound in the axilla showed the point of exit; this was just behind a metal clasp of the braces. On the third day the right arm was amputated through the shoulder-joint, a short deltoid flap being used. Arterial thrombosis was found up to the origin of the superior profunda. The patient stood the operation well, and, as on the third day afterwards the gangrene began to spread, both legs were amputated. Toxaemia set in, and death occurred on the ninth day after the accident.

Other similar cases of recent occurrence were referred to, and the condition was discussed.

Mr. Aspinall (electrical engineer) divided the injuries caused by electricity into two groups, according as to whether the current flowed through the body or not. In the first group were four varieties: high-tension shock with good or bad contact, low-tension shock with good or bad contact. He defined high tension as being of over 750 volts. In the second group, where no arc was formed, he separated cases due to fright from those due to shock. Burning was generally inverse to the amount of shock. The cry emitted in the cases of shock was a peculiar characteristic sound, half sigh and half groan.

Dr. S. Jellinck (Medical Officer in the Royal and Imperial Hospital of Wieden, Vienna) sent a communication, of which the following abstract was given by Mr. Walter Spencer:

Electrical currents were harmful according to the tension of the current and the resistance of the human body. A tension of 100 volts demanded precautions, a tension of 200 volts and more might be dangerous; a tension of 400 volts might be fatal. But the harmful character of the tension was affected by the resistance. A man was killed near Prague by a current of 95 volts when standing barefoot in a mixture of potash and sugar. On the other hand, an electrical employé in Vienna, though much damaged, was not killed by a current of 5,500 volts. Under resistance there was to be considered the resistance of entry and the resistance of exit. As regarded the resistance of entry there was the condition of the clothes dry or wet, or of the skin. The dry, horny palm of a workman might present a resistance of as much as 100,000 ohms; soft, moist skin, also lesions of the skin had a very much diminished resistance, whilst the resistance of the mucous membrane of the mouth fell below 1,000 ohms. The resistance of exit depended upon the nature of the ground; also as it was usually the feet which connected with the ground, the covering of the feet. An electrical employé might come in contact with currents of high tension and do so with impunity, if the feet were covered with non-conducting material. In the case of the workman above mentioned standing barefoot in potash and sugar, the resistance of exit was very small indeed. The condition of the ground was most important; in private houses and in some mills the ground formed a good protection; mineral acid factories and coal mines, on the other hand, especially favoured the occurrence of an accident. In making rules for the prevention of accidents, rooms and shops containing electrical installations should be distinguished according to the tension of the current and the nature of the ground into "the safe" and "the dangerous."

Dr. Wilfred Harris agreed that the important fact was not the actual voltage but the horse-power behind the voltage—the amperage. If burning was caused, the case was less dangerous than one with no burning.

Mr. Lucas replied.

SOCIETY OF ANAESTHETISTS.

C. Carter-Braine, F.R.C.S., in the Chair.

Friday, December 2nd, 1904.

The Vernon Harcourt Inhaler.

Dr. Edgar Willett, in opening a discussion on the Vernon Harcourt inhaler, said that he had now used the apparatus in over 250 cases, and in selected cases in his hands it had given a satisfactory anaesthesia. In the large majority of cases he started the anaesthesia with gas and ether, and after some four or five minutes went on to the inhaler. He had done this because he found that it saved time, and in one case serious symptoms of syncope from chloroform, which disappeared under ether, had occurred. He had also found Mr. Harcourt's "increase tube," which allowed of the percentage being increased to 3 per cent., of great use, and with it he was but rarely obliged to discard the apparatus for some other. Of course there were a large number of cases in which the inhaler could not be used, but apart from these he had found that the inhaler answered to all the ordinary requirements, where ether was contraindicated.

Dr. H. Macnaughton-Jones had used the inhaler for all abdominal operations since it was first devised. The average time in securing anaesthesia was ten minutes, and he should certainly say the post-operative effect as regards sickness was very good. His experience of the appliance included many of the severest pelvic operations, some requiring as long as two hours for their completion.

Mr. Walter Tyrrell said his experience was exactly the

[1] Vide volume of *Clinical Society's Transactions* for 1903-4.

same as that of Mr. Willett. He would not be without the inhaler for anything.

Mr. PERCY SARGENT, Resident Assistant Surgeon at St. Thomas's Hospital, had seen the apparatus in use in the hands of a number of anaesthetists for a variety of surgeons, including himself. He was forced to say that from the operator's point of view it was not satisfactory. The induction took a longer time than could be spared by a surgeon with a long list of operations before him, while the anaesthesia was in a large number of cases too light, and "reflex movements," movements that required controlling by dressers, far too common. Where the anaesthesia was started with ether, he readily understood that the inhaler was more successful, as the initial incision was made while the patient was under the influence of that drug.

Dr. BLUMFELD said that after considerable use of the inhaler he had formed definite conclusions as to its value. Such instruments might be regarded from two points of view, the purely physiological or the clinical. He dealt entirely with the latter aspect. There were certain disadvantages in the inhaler which should be mentioned. Cases of operations about the face or neck were obviously instances in which the apparatus could not be used; in addition there were many cases in which the condition of the patient rendered it impossible to attain a perfect result in a reasonable time. Thus on several occasions in abdominal operations he had discarded the instrument because of the unsatisfactory relaxation of muscles. He fully realized the importance of accurate and small dosage in the use of chloroform, but did not agree that it was to be obtained only by the use of this inhaler.

Dr. DUDLEY BUXTON pointed out that they were there to obtain the results of the experience of anaesthetists who had used the inhaler, and not to discuss whether a 2 per cent. chloroform vapour was sufficient for all the exigencies of surgery. The "regulator" was graded for this percentage, but it could equally well be arranged for higher percentages if such were required. The arguments advanced against the inhaler were: (1) That it failed to produce anaesthesia; (2) that it produced dangerous depth of narcosis; (3) that it was unreliable, in that the register of strength was inaccurate. From his own experience of nearly 600 cases, he could say that he had met with no deaths and no dangers, though reports to the contrary had been hinted at. If a greater depth of narcosis than was represented by the third degree of Snow—the true surgical anaesthesia—was required, then either a greater length of inhalation or a higher percentage than 2 per cent. could be obtained by employing either a larger bottle or the accessory tube. The statements about increased percentages being caused by alterations in the depth or frequency of respiration had been discussed by Mr. Harcourt, and his answers to the criticism were conclusive. The speaker's clinical experience went to show that both the changes in respiration due to "respiratory storms," which could occur only during incomplete anaesthesia—that is, in the induction stage—and the alleged dangerous increase in percentage due to "slopping" of the chloroform in the bottle when it was shaken, were negligible. He had never seen any symptoms of increased narcosis, which must have arisen if any considerable rise in the percentage of chloroform had been inhaled. Of course care must be taken to avoid shaking, but even raw students were soon able to acquire this heedfulness. The immense value of this inhaler lay in the fact that the person using it who would be watching his patient, knowing what depth of narcosis was required, was able to regulate to a nicety the dose given. He was convinced that a more extended use of the apparatus in the hands of those whose experience had been unfavourable, would give better results.

Dr. SILK stated that though he had had no experience of the inhaler himself, he felt that he was justified in forming an opinion founded on the very full description of other anaesthetists' results. It was obvious that its use was a limited one, as Mr. Willett had made it abundantly clear that it was not suitable for infants, operations about the mouth, and abdominal operations where full muscular relaxation was required. It was, therefore, not a suitable instrument with which to teach students. With regard to its alleged safety he pointed out that with the death-rate from chloroform, taken all round, at 1 in 3,000, it was a little premature to make dogmatic statements from figures which only amounted to hundreds of administrations, and those in the hands of specialists, among whom the death-rate was far lower than the figure he had mentioned. He preferred to regulate the dose by the requirements of each individual case, and not by the theoretical percentage that was thought to be sufficient.

Sir VICTOR HORSLEY said the inhaler marked a great advance on the usual haphazard methods of giving chloroform. He had seen it used in a great number of cases of his own, and always with a satisfactory result, after the administrator had mastered the instrument. It enabled the latter not only to know exactly what amount he was giving at any particular moment but also what he had been giving. As regards those cases where there was insufficient relaxation of abdominal muscles, he thought that complete relaxation should not be aimed at, as that indicated a dangerous amount of narcosis.

Mr. H. C. CROUCH said that no report of the inhaler held in the hand was of any value; he had used it unclamped, and had seen that the amount of shaking completely destroyed the intentions of the inventor, as the percentage of chloroform was obviously increased to a dangerous extent. It was idle for Dr. Buxton to say that the inhaler did not shake; the only plan, scientifically, was to so fix it that it could not shake. He had done that, and he found that the result was very different from the results with it unclamped. Sir Victor Horsley had said that it was an enormous advantage to know the amount of chloroform that was given; he agreed, but that was precisely what one did not know with the Harcourt inhaler, as with the indicator at 2 per cent., even in the clamped instrument, one might be giving 1.3 per cent. or 2.3 per cent., and one could not tell which. He was amused to see that the supporters of the apparatus had now given up the 2 per cent. limit as insufficient, and had found that the "increase tube," which allowed of a nominal 3 per cent. to be given, was often necessary.

Dr. LEVY said that it was not necessary to violently splash the chloroform in order to raise the percentage of vapour, an appreciable increase of vapour being produced by the gentlest possible oscillation of the bottle, an extra surface of chloroform being thus presented by reason of the wetting of the sides of the bottle. During the transfer of the patient from the anaesthetizing room to the operating theatre he had seen the bottle swaying sufficiently to produce a 5 per cent. vapour. It was significant that an excess of vapour was thus yielded at the moment when it was most necessary. Sir Victor Horsley had stated that 2 per cent. vapour was sufficient for all purposes. Such a statement evolved from the use of the Harcourt inhaler could not be accepted in view of the gross inaccuracies of this instrument. When using an apparatus which eliminated these errors he found that 2 per cent. was quite insufficient. As the Harcourt apparatus possessed sources of excess of vapour, it was logical to assume, therefore, that more than 2 per cent. was administered in cases in which it was successfully used. He did not mean to suggest that the bottle was intentionally shaken, the normal oscillation of the bottle, and that consequent upon the application of the hand to the bottle in warming it being sufficient to ensure an efficient strength of vapour in the majority of cases. With regard to the large variations admitted to be consequent upon fluctuations in the strength of the breathing, Sir Victor Horsley had explained these errors away by saying that whilst weak breathing gave a higher percentage it also resulted in a lower dosage (less total chloroform per minute). This argument did not affect the innate fact that the apparatus did not evolve the percentages it registered; and, moreover, Sir Victor Horsley's dosage theory still required substantiation—it did not appear to be in conformation with prevalent views.

Mrs. MARY SCHARLIEB, M.D., M.S., said the Vernon Harcourt inhaler had been used for her patients over thirty-four times. In 27 cases the time of induction was accurately recorded. Anaesthesia had been induced in 8 min. 3 sec. on an average. The anaesthesia had been perfect and the muscles well relaxed. There had been less sickness and distress after the operations than is usual.

Dr. DUDLEY BUXTON, in the absence of Mr. WILLETT, replied. He said most of the speakers had had little or no experience of the apparatus; theirs were pious opinions which lacked conviction. He agreed with everything that Sir Victor Horsley had said. To Dr. Silk he could only say that Mr. Willett's limitation of cases was due to the fact that that gentleman held ether to be a safer anaesthetic than chloroform, and so he employed it whenever it was possible. The speaker used the inhaler for children (the faces of infants were not suitable for closely-fitting masks) and for mouth operations until anaesthesia was established, when he had recourse to a mouth tube and a Junker's inhaler. Mr. Crouch's remarks had been already dealt with. He believed

that Dr. Levy's objections were more academic than real. In all cases the chloroformist must be alive to clinical phenomena, and must meet the indication of the case. This was provided for by the valve in the Harcourt inhaler. The period of induction was from eight to ten minutes, and this was a shorter time than was required by the surgeon for his preparations. Where time was important the ethyl-chloride-ether-chloroform sequence could be used.

PATHOLOGICAL SOCIETY OF LONDON.

Professor E. Klein, F.R.S., Vice-President, in the Chair.

Tuesday, January 17th, 1905.

The Occurrence of Bacillus Enteritidis Gaertner in Cow's Milk.

Professor E. Klein recounted a series of observations showing that in many samples of cow's milk Gaertner's bacillus was present. Amongst 39 samples of milk derived from different farms situated in different English counties, no fewer than 10, or 25.5 per cent., contained the bacillus Gaertner. The animals injected with the sediment of 300 c.cm. (the sediment of each sample being used for two guinea-pigs, one peritoneal and a second subcutaneous) developed a chronic disease consisting in enlargement of the spleen, with the development of miliary purulent nodules. The nodules contained abundance of bacilli belonging to one single species, the bacillus enteritidis Gaertner, as was proved by culture in all media, by staining, by flagella staining, by agglutination test, and by injection and feeding of guinea pigs and mice with culture. It was further experimentally shown that the above chronic disease in the "milk" guinea-pigs was owing to the relative scarcity of the bacilli in the milk, since by using for injection very minute doses of culture ($\frac{1}{10000}$ part or less of a cubic centimetre of a twenty-four-hours' old broth culture) the animals survive, and, after eight days, commence to develop the miliary nodules of the spleen; large doses ($\frac{1}{50}$ to $\frac{1}{100}$ part of a cubic centimetre of a twenty-four-hours' old broth culture) cause acute septicaemic infection and death. It is disquieting to reflect that such milk kept in a warm place or in the warm months of the year might be fraught with undesirable consequences to the consumers, owing to milk being a good medium for the multiplication of the bacilli, and owing to the character of the milk remaining unaltered during their multiplication.

The Use of Acid Media in the Isolation of the Plague Bacillus.

Dr. W. C. C. Pakes and Dr. F. H. Joseph communicated a note on the above. During the course of the year 1903, several suspicious cases of plague were examined in the Government laboratories (Transvaal), and the ubiquity of the pneumococcus in the Transvaal led the authors to search for an easy method of isolating the B. pestis from such concomitant organisms as the pneumococcus. The idea really had originated from the examination of the organs of a native who had died, of a definite adenitis which was proved to have been due to the pneumococcus. At the time of the recent outbreak of plague on the Witwatersrand, they found that when the sputum or lung juice of patients suffering from the pneumonic form was inoculated into rabbits and guinea-pigs (in the absence of tame rats), the inoculated animal died, sometimes apparently of plague and sometimes of pneumococcic septicaemia. Although in the ordinary way guinea pigs were not nearly so susceptible to the pneumococcus as were rabbits, nevertheless they found that occasionally the guinea-pig succumbed, and the only recoverable organism was the pneumococcus, even though morphological plague organisms had been seen in the smear preparations of the original sputum or lung. The work of many investigators had shown that the pneumococcus was intolerant of certain media, and experiments were commenced with a variety of them. As the most hopeful results appeared to follow from the use of acid broth, accurate observations were made, among others, upon the comparative growth of the two organisms on media of different degrees of acidity. Ordinary nutrient broth was standardized according to Eyre's method, and the two organisms were grown side by side.

The results are given in the table in the next column, from which it will be seen that the pneumococcus will grow slightly in broth of an acidity of + 20, and will not grow in + 25. With the B. pestis, however, a good growth was obtained in broth having a reaction of + 40, while the organism will multiply in broth of an acidity as high as + 45.

When, therefore, as not infrequently happened in this country (the Transvaal), a sputum was examined that contained organisms which, from the microscopic appearances, consist of a mixture of the B. pestis and the pneumococcus, it had been found very useful to inoculate + 25 or + 30 acid broth with the material direct, and incubate at 37° C., and when necessary to inject guinea-pigs or rabbits with the resulting cultivation. By this means the pneumococcus had on several occasions been entirely eliminated, and the animals in question had died of plague infection. It was true that other bacteria would grow in broth of this acidity, and that consequently the test was not an absolutely infallible one; but such organisms were not frequently met with in a suspicious plague sputum, and therefore in many instances a final positive result had been arrived at when direct inoculation had left the matter still in doubt. In actual practice during the whole time of the outbreak, except at the very first, any specimen of lung or sputum which contained pneumococci, as well as bacilli indistinguishable from the B. pestis, was inoculated into the subcutaneous tissue of the groin of a guinea-pig, and at the same time acid broth was inseminated, so that there would be a double chance of obtaining the bacillus in the pure culture, and therefore of arriving at an unambiguous diagnosis.

Reaction of Media to Phenolphthalein.	B. Pestis.	Pneumococcus.
−5	No growth	—
−2	,,	—
Neutral	,,	—
+10	Fair growth	Good growth.
+15	,,	Very fair growth.
+20	Very fair growth	Slight growth.
+25	,,	No growth.
+30	Fair growth	,,
+35	Not so vigorous	,,
+40	Slight growth	,,
+42	,,	,,
+45	Traces of growth	,,

Fugent—a New Stain.

Dr. F. H. Joseph communicated a note on the above. The stain consisted of a mixture of alcoholic solutions of methylene blue, fuchsin, and gentian violet. The following formula was arrived at after many trials:—(1) Methylene blue, saturated alcoh. sol., four parts; (2) basic fuchsin, saturated alcoh. sol., three parts; (3) gentian violet, saturated alcoh. sol., five parts. The mixture is allowed to stand for from three weeks to a month. One part of the stain is diluted with two parts of distilled water, and allowed to remain on the dried coverslip for forty-five seconds, washed in water, dried, and mounted. Bacteria appear of a deep red colour, whilst the capsules are of a light violet tint.

Origin and Course of the Opsonins in Acute Pneumonia.

Dr. G. G. Macdonald made a communication on the course of the opsonins in cases of acute lobar pneumonia. The technique employed was that of Wright, the culture of pneumococcus having been acclimatized to saprophytic life, and giving luxuriant cultures on glycerine agar. Up to the present he had examined eight cases of acute lobar pneumonia measuring the opsonic content of the serum from day to day and comparing it with the opsonic content of the serum of a normal individual. At the commencement of the infection, while the temperature is in the ascendant and during the fastigium, the opsonic content of the serum is below that of the normal healthy individual. With the onset of crisis there is a striking rise in the opsonin which passes the normal limits and attains figures corresponding to an index of as high as 1.6. Referring to Neufeld's recent experiments he had found that the opsonin in the normal serum is destroyed by heat at 60°.

The Variations in the Opsonic Index in Cases of Tuberculosis.

Dr. W. Bulloch communicated the results he had obtained in measuring the opsonic contents of the serum from patients suffering from different forms of tuberculosis. As a standard he first determined the variations met with in a series of 37 healthy individuals—20 males, mostly medical students, and 17 females, mostly hospital nurses. The opsonic index was found to present only slight variations from 0.8 to 1.2, as compared with the normal 1. He then detailed the results of the examination of the serum of 113 cases of lupus, 10 cases of the surgical forms of tuberculosis (bones, glands, etc.), and 19

cases of medical tuberculosis, mostly phthisis. The lupus cases were those undergoing light treatment by Finsen's method at the London Hospital; phthisical serums had been drawn from patients in private sanatoriums. The results in the cases of lupus showed that 3 per cent. had an opsonic index of 0.25 to 0.3; 10 per cent. an index of 0.4 to 0.5; 17 per cent. an index of 0.5 to 0.6; 21 per cent. an index of 0.6 to 0.7; 17 per cent. an index of 0.7 to 0.8; 15 per cent. an index of 0.8 to 0.9; 7 per cent. an index of 0.9 to 1.0; and 13 per cent. an index of 1.0 to 1.4. Altogether 65 per cent. of the lupus patients examined showed an index of less than 0.8. In a general way there was a correspondence between low opsonic values and a failure to cure or ameliorate the lupus by Finsen light, cases with a high opsonic index, according to clinical testimony, having done well under treatment. In regard to the question of phthisis, the results showed that a large percentage of "arrested" or "cured" cases of early phthisis still showed after prolonged periods a low opsonic content of the serum.

EDINBURGH OBSTETRICAL SOCIETY.

Professor A. R. SIMPSON, M.D., in the Chair.

Wednesday, January 11th, 1905.

CLIMACTERIC HAEMORRHAGE DUE TO SCLEROSIS OF UTERINE VESSELS.

DR. FREELAND BARBOUR contributed a paper on this subject. He had recently under his care in the Royal Infirmary, Edinburgh, an 11-para, aged 46. The menstrual history was normal till about three months before admission to hospital, when a discharge of blood commenced which persisted for sixteen weeks. At times this discharge was small in amount, at others very profuse. On admission the patient was weak and anaemic. No history of syphilis could be obtained, nor was there any thickening of the radial or temporal arteries. The uterus was enlarged to about 4 in. in vertical measurement, it was irregular in shape, it presented no evidence of malignant change of the cervix. As cancer of the body of the uterus was suspected panhysterectomy was performed. From this the patient recovered, and left the hospital feeling well. Examination of the uterus showed that the walls were thick and hard, and the blood vessels stood out prominently from the cut surface. The mucosa was healthy-looking, and the cervix also appeared to be normal. Microscopical examination showed that the vessels of the mucosa were apparently increased in number. The walls of the capillaries were found to be thickened by a deposit of concentric lamellae of fibrous tissue round the endothelial lining. Healthy capillaries were also present. In the muscular walls the blood vessels were also increased in numbers, and the artery walls were much thickened; this was in most cases due to increase in the thickness of the middle coat, and in some the intima was involved. The uterine artery was practically free from pathological change, but the walls of the vessels in the broad ligament were much thickened. Cases resembling this had been described by Pishevin and Petit, Bland-Sutton, Reinecke, Pozzi, and Simmonds. In all, the pathological changes in the vessels occurred before the menopause. They differed in many respects from those which are found in "apoplexia uteri," which occurs in old women. The etiology was obscure. The differential diagnosis from malignant disease and from haemorrhage, due to retained products of conception, could be arrived at only by careful consideration of the history of the case. Curettage and microscopical examination of the mucosa may reveal the true nature of the lesion. In the way of treatment hysterectomy alone gave good results.

The paper was discussed by Drs. HAULTAIN, JESSIE MCGREGOR, and FORDYCE.

DR. BARBOUR, in reply, suggested that the probable cause of the haemorrhage lay in the fact that the muscular coat of the vessels was largely replaced by fibrous tissue. If rupture of the vessel occurred owing to absence of vaso-motor action the haemorrhage persisted.

THE APPLICATION OF BIER'S HYPERAEMIC TREATMENT TO GYNAECOLOGICAL DISEASE.

A paper on this subject was read before the Society by Dr. SCOTT CARMICHAEL. The success of the method depended on the fact that the rate of flow of blood through the parts exposed to this line of treatment was much increased. In the clinic of Professor Martin of Berlin the method had practically replaced all others in the treatment of pelvic exudates. In the larger and more acute exudations suppuration was hastened, while in the chronic forms absorption has been accelerated. The treatment was applied as follows: The patient was placed in an apparatus in the form of a box which enclosed the body from the costal margins to middle of the thighs. Air which had been heated in an adjacent small compartment was now allowed to circulate through the box, escaping finally through a small opening in the roof. The temperature was regulated by a thermometer projecting through the roof of the apparatus. At first the temperature of the air was not allowed to exceed 110° C., but it was gradually raised till 150° C. could be tolerated. Profuse sweating was induced. The result was that great local relief was given, the general condition of the patient rapidly improved, the appetite increased, and the listless, apathetic appearance which was so characteristic of those lesions rapidly disappeared. Even after a few applications a hard exudate was found to become soft and break down. This method was also found to be most beneficial in the treatment of adhesions associated with uterine displacements, and in many cases of salpingo-ovaritis. It was contraindicated in tuberculous disease of the uterine adnexa, in cases where high temperature accompanied the lesion, and in all forms of heart disease.

The paper was discussed by Professor SIMPSON and Drs. HAULTAIN and JESSIE MCGREGOR.

FATAL COMPLETE PROLAPSUS UTERI.

DR. BARBOUR SIMPSON read notes of a patient, aged 42, who had been admitted to the Royal Infirmary, Edinburgh. She complained of falling down of the womb. Examination showed a complete "prolapsus uteri," which could not be replaced even under chloroform. The mass was extremely sensitive to manipulation. A catheter passed into the bladder showed that the organ lay in the front part of the herniated mass and below the level of the pudenda. Till a fortnight before admission she experienced little inconvenience from the hernia, which had been present for several months. She died somewhat suddenly, and a *post-mortem* examination showed that an abscess cavity was present; this extended from the utero-vesical pouch upwards into the peritoneal cavity for a distance of 8 in. The intestines were found so densely matted together as a result of pre-existing chronic peritonitis, that reposition of the uterus was impossible.

SPECIMENS.

The following were shown:—Professor SIMPSON: (1) Two uteri with fibroids and diseased ovaries removed by supravaginal hysterectomy; (2) Tumours from a case of double ovariotomy with burst cysts and secondary deposits; (3) parovarian tumour with twisted pedicle; (4) anencephalic fetus.—Dr. HAULTAIN: (1) Fibroid uterus removed by hysterectomy; during the operation one ovary could not be found; on examining the tumour after removal from the pelvis the ovary was discovered spread over part of the mass in an extremely thin layer; (2) cancer of the body of the uterus.—Dr. BARBOUR SIMPSON: Two specimens of exomphalos.

REVIEWS.

VEGETARIANISM IN DISGUISE.

SOCIOLOGICAL problems are responsible for a vast accumulation of literature which sees the light of day ostensibly to suggest how existing difficulties may be overcome and worse evils than those which now prevail avoided, but in reality to preach some new gospel of how to live or to revive some languishing panacea for the cure of all social and national evils. A small volume on *The First Conditions of Human Prosperity*,[1] by the Hon. R. RUSSELL, belongs to this category. It is a readable book, containing a considerable amount of useful information which must have been collected at the expense of long and patient investigation. The author is disturbed lest in the near future the British Empire should, like other great empires of former times, depart from its present glory, and he endeavours to point out how national decrepitude and senility may be delayed if not indefinitely prevented. The degenerative process seems to him, indeed, to have already commenced, for he says:

> With the beginning of the present century we see an ominous reversion to crude, barbarous errors in nearly every direction. . . The great ideas of the Victorian era, which would have led mankind into a glorious new world of science and beauty, are being everywhere assailed; corruption has taken hold of our citadel; cruelty and luxury, always exacting a double misery, are rampant; literature, including a section of the daily press, has descended to an unimagined level of triviality, frippery, and unfaithfulness.

[1] *The First Conditions of Human Prosperity.* By the Hon. R. RUSSELL. London: Longmans, Green and Co. 1904. (Crown 8vo, pp. 152, 2s. 6d.)

This is a fairly comprehensive indictment and would suggest, if true, that our national vitals are not merely threatened, but have undergone such serious pathological changes that the prognosis has already become alarming. Mr. Russell, however, believes that the national constitution is still vigorous enough to overcome its maladies if they are treated speedily and *secundum artem*. He approves of modern sanitation, advises strict attention to every hygienic law, and strongly protests against the evils of overcrowding and impure air; and on all these points his doctrine is admittedly sound. But he proceeds further, and recommends the decentralization of the population, so that people may return to the land, which ought to be fairly divided among them; a fair distribution of work, so that the rich shall not be afflicted with corrupting idleness nor the toilers with excessive hours of labour; and such control of the country's wealth as shall prevent the easy attainment of comfort and luxury, in order that the liberty of the subject may no longer be compelled to

struggle against the tendency to a mean subserviency, which, in the presence of unscrupulous financial operators, is too apt to pervade a multitude.

Finally, there are dietetic faults to be corrected if the necessary conditions of human prosperity are to be fulfilled, and no fewer than sixty pages are devoted to a somewhat detailed examination of the influence, for good or ill, of various foods and drinks upon the human organism. A record of the food habits of most nations of the earth is given, and the general conclusion arrived at is

that both races and individuals living entirely or chiefly on plant food, or on plant food with the addition of eggs and milk, are stronger and happier, other things being equal, than races and individuals living chiefly on the flesh of beasts.

Herein lies the kernel of the book—a plea for vegetarianism, wedged within other hypothetical and unattainable conditions of a general argument in favour of a perfect world inhabited by a perfected humanity. The millennium is not yet at hand, and it may be doubted whether its advent would be hastened were it possible for Mr. Russell, and those who believe with him, to convert all mankind to the "vigorite" views which are so strongly expounded in this volume.

GALL STONES.

MR. B. G. A. MOYNIHAN'S *Gall Stones and their Surgical Treatment*[2] is a satisfactory textbook, and gives a comprehensive account of this condition and its attendant complications. We are not sure that any explanation has been offered of the comparative frequency of gall stones in Yorkshiremen; the experience of the Leeds Infirmary is certainly unique among British hospitals, and Mr. Moynihan's personal acquaintance with the affection has well equipped him to write this book. Mr. Moynihan also displays a thorough knowledge of the work of others on the subject, and not the least interesting parts of his chapters are those in which he traces the evolution of pathological knowledge and of surgical technique regarding the many different phases of gall-stone disease.

The arrangement of the early chapters is that which is customary; a chapter on anatomy, which contains some excellent coloured illustrations, is followed by others on the constitution and formation of gall stones, on the morbid anatomy, and the symptoms and signs. The chapter on morbid anatomy is one of great value, and is probably the most complete and detailed account of this aspect of the subject to be found anywhere. Its title—"The General Pathology of Gall-stone Disease"—would be improved by the omission of the adjective: it would be a more natural sequence if Chapter VI, which deals with the morbid anatomy of remote consequences of the disease, followed immediately Chapter III. The signs and symptoms of the condition are fully discussed in two chapters of considerable length, and their value is much increased by the description of clinical examples illustrative of special symptoms. There is some duplication of description here which might advantageously have been avoided; for example, on pages 109 and 145-6, and pages 147 and 163. In the description of acute cholecystitis, on page 147, it should be stated that the symptoms are not rarely of less extreme severity than that described. We should also have been glad to find a fuller consideration of the question of general differential diagnosis than that given.

The subjects of perforation of the gall bladder and intestinal obstruction due to gall stones are considered in special sections, and these are followed by a long and admirably clear description of the various operative procedures practised on the bladder and ducts. It is somewhat of a surprise to find in a monograph of this kind a long account of the author's practice in regard to such matters as hand sterilization and the preparation of clothing, instruments, swabs, ligatures, dressings, etc. This is perhaps something of the nature of a digression, more especially as it does not materially differ from the recognized methods of surgeons generally to-day. In describing details of operations, Mr. Moynihan is at his best; he is in agreement with Kehr and others in abandoning cystendysis, but his denunciation of this operation is perhaps unnecessarily forcible, as to some at least it still appears to be an open question whether for a certain small number of cases operated on during quiescence this will not ultimately be adjudged the method of choice. Throughout the book Mr. Moynihan expresses his views with admirable clearness, and he supports them by a large number of clinical examples which will be much prized by those who know the difficult problems and tasks which gall-stone surgery not infrequently presents.

[2] *Gall Stones and their Surgical Treatment*. By B. G. A. Moynihan, M.S., F.R.C.S. London: W. B. Saunders and Co. 1895. (Demy, 8vo, pp. 386. 71 illustrations. 17s.)

GYNAECOLOGY.

THE handbook of diseases of women[3] by Mr. BLAND-SUTTON and Dr. GILES maintains its deserved popularity, one reason for which is that its more recent issues have not grown bulky and unportable in form and literary style for the hands and minds of its readers. Indeed, the authors have made the fourth edition shorter by seven pages than the third, yet new matter has been introduced. By a freer use than ever of big clarendon type and italics as headings to paragraphs the book is made convenient for reference as well as for thorough study. The chapters on major operations are not increased, nor is much said about relative merits, which is right, as a pupil is incompetent to judge such matters; whilst an author cannot endow him with his own skill and experience nor justly compare before his readers his own favourite operations with surgical procedures preferred by others as experienced as himself. How far the treatment of fibroids by operation is to be practised by experts and how far to be taught to the student are two different questions, alike only in their gravity. The authors teach in this, as in earlier editions, that the most effectual treatment of a uterine fibroid is thorough removal whenever practicable at the earliest possible moment. That the removal of the tumour is in itself highly beneficial to the patient there can be no doubt, hence the increased vigour which, as the authors say, is to the patient a revelation. We must note that they turn attention to Dr. Crewdson Thomas's after-histories of a hundred cases of supravaginal hysterectomy for fibroids, work of a most satisfactory kind, which should be continued, as the precise value and advantages of leaving the ovaries cannot be said to be accurately defined. We want more evidence from practitioners about the after-histories of patients from whom the ovaries have been removed for any reason. The chapters on salpingitis and above all those on extrauterine gestation have been admirably revised.

Six years ago Dr. NAGEL issued the first edition of his work under the title *Die Gynäkologie des praktischen Aerzte*, that is, Gynaecology for the Practitioner. The title has been slightly modified. *Gynäkologie für Aerzte und Studierende*[4] has achieved popularity in Germany mainly, we believe, because it is written in a readable style not usual in works of this class in any language. We explained the general principle on which this work was written in a review of the earlier issue in February, 1899. It is satisfactory to find that the pages are not cumbered with drawings of instruments and diagrams of operations only suited for experts: on the other hand, the plates are very clear. The author dwells much on diagnosis and treatment, and the pessary question is briefly reviewed; his directions as to the choice and application of the instrument are judicious. The treatment of displacements is a most difficult subject which falls to every practitioner. As the author deals with pessaries so he discusses other familiar resources of gynaecological therapeutics. It is strange to find in an able summary like this manual how

[3] *The Diseases of Women: A Handbook for Students and Practitioners*. By J. Bland-Sutton, F.R.C.S., and Arthur E. Giles, M.D., B.Sc.Lond., F.R.C.S.Edin. Fourth edition. London: Rebman, Limited. 1904. (Crown 8vo, pp. 520. 127 illustrations. 11s.)

[4] *Gynäkologie für Aerzte und Studierende*. [Gynaecology for Practitioners and Students.] Von Dr. Med. Wilhelm Nagel, a. o. Professor a. d. K. Friedrich-Wilhelms. Universität zu Berlin. Second Edition. Berlin: Gustav Fischer. 1904. (Demy 8vo, pp. 420. 106 illustrations. M. 10.)

much our art and science has done for patients with big abdominal tumours, and how unsatisfactory the treatment of incontinence of urine remains.

THE *N* RAYS.

THE latest of the series of volumes published under the general titles *Les Actualités Médicales* is an essay by Dr. BORDIER[1] on the *n* rays. The first part deals with the discovery of the Blondlot rays—called *n* rays, in honour of the University of Nancy—rays that are supposed to be emitted by the sun, by a Nernst lamp and Auer lamp, and by many other objects—as, for instance, tempered steel. The principal sources, luminous and non-luminous, the means of detecting these rays by incandescent flames and screens of calcium sulphide and registering their action by photographs are first described. Their physical and physiological properties are then discussed. Before accepting the marvellous results which M. Charpentier relates as regards the emission of *n* rays by nervous and muscular tissue in action, their effect on vision, on taste, on smell, it would be well to wait until more satisfactory and convincing evidence is forthcoming. Dr. Bordier has set forth the subject very much as it is set forth by those who have studied it, and who have for the most part recorded their statements in the *Comptes Rendus* of the French Academy. At the recent meeting of the British Association the physicists then assembled seemed to doubt even the existence of the *n* rays.

NOTES ON BOOKS.

NURSING.

PROFESSOR WILCOX'S book should be entitled Lectures on Fever to Nurses rather than *A Manual of Fever Nursing*.[2] It contains too much of what, from the nursing point of view, is unnecessary, and omits a good deal of what a nurse should know. The first four chapters, which treat of fever in a general way, are good; but when we turn to those devoted to the special fevers there is much to seek. Take diphtheria, for instance. While the technique of making cultivations from the throat is explained at length, the paramount importance of being on the *qui vive* to prevent sudden heart failure is not mentioned, and the nursing of intubation and tracheotomy cases is most inadequately dealt with. Nowhere do we find feeding with the nasal tube and its difficulties described. Yet in most of the acute febrile diseases of children this is a measure which has frequently to be employed. We could mention other important omissions. Consequently, as a manual of fever nursing we are sorry we cannot recommend the volume. Regarding it, however, as an elementary textbook of medicine suitable for the nursing profession we have nothing for it but praise.

Home Nursing and Hygiene[3] is the official textbook of the St. Andrew's Ambulance Association on the subject of home nursing and hygiene, and as such it is a little disappointing, probably because too much has been attempted in the small space. In less than 150 pages we have the various details of nursing, a sketch of the main principles of hygiene, and a guide to the application of the roller bandage, with illustrations. The medical and hygienic details are well done, so far as space allows, and in themselves make the book valuable to non-medical readers. In proportion to the space allotted to the practical details of nursing, however, the medical points discussed (for example, in Chapter VI) seem to be treated somewhat fully for such a handbook. There is a good common-sense tone throughout, and perhaps the practical part is purposely left to be demonstrated in the lectures on nursing. The pen-and-ink sketches to illustrate the principles of bandaging are crude, and are in some cases too far removed from the description they illustrate: for instance, the description and the illustration of the T bandage are seven pages apart. The chapter on surgical nursing suffers, in the copy sent for review, by the omission of one or more pages at the end, and possibly the absence of an inde is also due to the binder.

SUPRARENAL GLAND PRODUCTS.

An interesting paper on *The Therapeutic Value of Suprarenal Gland Products*,[4] read by Mr. J. GRAY DUNCANSON before the Therapeutical Society in January, 1904, has been published in pamphlet form. After noting the physiological effect of suprarenal gland extract, as observed by Oliver and Schäfer, the author gives a short critical examination of the numerous medical preparations on the market made from the suprarenal gland. Therapeutically Mr. Duncanson considers these preparations to be of great value to the general practitioner. They are ischaemic, and in combination with cocaine increase the analgesic properties of that drug and limit its toxic effects. They are haemostatic, and properly employed are valuable in both external and internal haemorrhage. Illustrative cases give point to the author's conclusions and show the dosage and mode of employment of the different preparations. It is interesting to note that the only case of haemoptysis referred to by Mr. Duncanson was "influenced badly" by suprarenal treatment. In conclusion, Mr. Duncanson makes the suggestion that a national institution for the investigation of drugs would be advantageous.

A DIETETIC COOKERY BOOK.

DR. OTTO DORNBLÜTH has given us in his dietetic cookery book[5] much valuable information about the composition, digestibility, and nutritive value of the various food stuffs in health and sickness. He lays special stress on two things: (1) Cleanliness, not only of the surface, but of every corner and dark place; cleanliness of all cooking vessels, in the preparation of food, removing the cause of bad smells, etc.; and (2) punctuality; meals served to the minute, especially in the case of invalids, and served in an agreeable form in agreeable surroundings. He enumerates according to their relative importance the properties of which food to be nourishing should consist—water; albuminous, fatty, and carbohydrate substances, and so on; and working through the various food stuffs ordinarily in use, he shows the nutritive properties of each. The value of milk is enlarged upon; here again the importance of cleanliness is insisted on, and much information is given showing the important part milk plays in the nourishment of invalids and children. The author denounces all artificial foods, that is, the various meat extracts so largely advertised; they may not be bad in themselves, but to be efficient as a means of nourishment, so large a quantity would have to be consumed that they would become distasteful to a patient, besides entailing great expense. Tea and coffee he commends as stimulants if not taken too strong; similarly alcohol in moderation, on account of its beneficial effect on heart and brain. The author gives 310 recipes used in his own sanatorium, and a bill of fare for sixty days in the year. Useful advice is given as to feeding in fever, and disorders of stomach, liver, and heart, and in gout, as well as instruction on the rearing and feeding of infants. Every subject touched on is well worked out, and the book will be found specially useful by all those who have to do with the feeding of invalids.

"THE ADENOID COMPLEX."

In his work on what he calls the adenoid complex, ozaena, adenoid vegetations, chronic appendicitis,[10] Dr. JOSEPH DELACOUR nails his colours to the mast with the statement on the front cover that "ozaena, adenoid vegetations, and chronic appendicitis are consequences of the same trophic disturbance of lymphoid tissue." The adenoid complex is a function of thyroid insufficiency. This thesis is elaborated to the utmost with the support of many clinical observations which are, perhaps, rather apt illustrations than irrefragable proofs. The comparison between chronic atrophic rhinitis and "appendicite atrophique" is certainly striking (p. 186). He further states (p. 190) that "the penetration of foreign bodies or faecal masses into the appendix is favoured by the progressive atrophy of the walls of the organ, which converts what is naturally only a potential cavity into one pathologically actual, with a caecal orifice which is at times

[1] *Les Rayons N et les Rayons N1*. Par Dr. Bordier. Paris: Baillière et Fils. 1905. (Crown 8vo, pp. 95. Fr. 1.50.)

[2] *A Manual of Fever Nursing*. By R. W. Wilcox, M.A., M.D., LL.D., Professor of Medicine in the New York Post-Graduate Medical School and Hospital, etc. Philadelphia: P. Blakiston's Son and Co.; and London: Rebman, Limited. 1904. (Crown 8vo, pp. 236. 1 dol.)

[3] *Home Nursing and Hygiene*. By J. Wallace Anderson, M.D., F.F.P.S.G., and George H. Edington, M.D., F.F.P.S.G. Glasgow: St. Andrew's Ambulance Association. 1904. (Fcap. 8vo, pp. 150. 1s.)

[4] *The Therapeutic Value of Suprarenal Gland Products*. By J. Gray Duncanson, M.B., M.S. London: Therapeutical Society. (Crown 8vo, pp. 15. For private circulation.)

[5] *Diätetisches Kochbuch*. Von Dr Otto Dornblüth. Second edition. Würzburg: A. Stuber. 1905. (Cr. 8vo, pp. 358. M. 5.40.)

[10] *Le Syndrome Adénoïdien: Ozène, Végétations Adénoïdes, Appendicite Chronique*. [The Adenoid Complex: Ozaena, Adenoid Vegetations, Chronic Appendicitis.] Par Dr. Joseph Delacour. Paris: A. Maloine. 1904. (Demy 8vo, pp. 225.)

gaping." The ultimate pathogeny of the conditions is conveyed in the italicized sentence (p. 202) that "*le syndrome adénoïdien est fonction de l'insuffisance thyroïdienne.*" He advises thyroid opotherapeusis in the way of treatment. The volume is full of valuable references to medical and historical literature, and the arguments are so suggestive and interesting as to repay perusal, even if they may not carry conviction.

MEDICAL NEWS.

THE late Mr. Joseph George Lambert, after making certain bequests, has left the residue of his estate, probably about £70,000, to the King Edward's Hospital Fund for London.

AT a recent meeting of the Dornoch (Sutherlandshire) Town Council Dr. Jas. MacLachlan was unanimously elected Provost of the Burgh. The honour is the more noteworthy since it is seldom that a medical man is elected Chief Magistrate in Scotland.

A MEETING of an international committee of anatomists was held at Geneva on December 20th, 1904. Each member represented five of the leading anatomical societies of the world. It was decided to convoke the first meeting of a federated international congress of anatomy to be held at Geneva from August 7th to 10th.

MEDICAL PRACTITIONERS IN GERMANY.—The number of medical practitioners in the German Empire at the end of September, 1904, was 30,457. Of these, 18,480 were domiciled in Prussia, 3,299 in Bavaria, 2,304 in Saxony, 987 in Wurtemburg, 1,177 in the Grand Duchy of Baden, 731 in the Grand Duchy of Hesse, and 871 in Alsace-Lorraine.

A COURSE of lectures and demonstrations on applied hygiene for school teachers will be given during 1905, under the direction of the Royal Sanitary Institute, partly at Bedford College and partly at the Parkes Museum, Margaret Street, W. Further particulars can be obtained on application to the Secretary, 72, Margaret Street, London, W.

IT is mentioned by a German journal as "an interesting fact relative to the history of contemporary civilization," that Dr. Wilhelm Stoeltzner, who was recently appointed Professor of Paediatrics in the University of Halle, has married Fräulein Helene Ziegelroth, Doctor of Medicine and *approbirte Aerztin*.

CONGRESS OF SCHOOL HYGIENE.—The French Congress of School Hygiene will hold its second meeting in Paris this year at Whitsuntide. The following is the programme of discussions: (1) The medical inspection of primary schools; (2) the education of families in school hygiene; (3) vacations and holidays; (4) tuberculosis and teachers; (5) the overloading of school courses and competitions for admission to large schools. Professors Debove, Grancher, Landouzy, and Pinard are honorary presidents of the Congress. All communications should be addressed to Dr. I. Ch. Roux, 46, rue de Grenelle, Paris.

PRESENTATION.—Dr. Ernest White, who has just retired from the Medical Superintendency of the City of London Asylum after nearly eighteen years' tenure of office, was the recipient of an illuminated address and silver tea and coffee service from the members of the Visiting Committee (past and present) at a dinner given on January 11th by its chairman, Sir George Wyatt Truscott, who in making the presentation alluded in felicitous terms to Dr. White's faithful and distinguished services to the Corporation of London. On January 13th Dr. White was also presented by the staff of the Asylum with a silver-mounted tantalus as a mark of esteem and regard. Dr. White retains the chair of psychological medicine at King's College.

ENGLISH DRUGS FOR JAPAN.—One of the German pharmaceutical journals in a recent issue gives some interesting figures as to the drugs and surgical appliances used by the Japanese in the present war. The following show the medical stores supplied from England alone to the Japanese War Minister up to October 1st, 1904: Antifebrin, 20,000 kilos; antipyrin, 1,350 kilos; boric acid, 10,000 kilos; bismuth, 17,000 kilos; chloroform, 6,000 kilos; cocaine, 54 kilos; quinine, 1,350 kilos; cinchona bark, 10,000 kilos; Dover's powder, 10,000 kilos; formaldehyde, 3,500 kilos; iodoform, 2,500 kilos; calomel, 1,500 kilos; creosote, 25,000 kilos; morphine, 90 kilos; salicylate of soda, 25,000 kilos; and 30,000 yards of sticking plaster. It will be noted that neither carbolic acid nor corrosive sublimate appears in the list. This is explained by the fact that the Japanese War Department had so large a stock of both these substances in store since the war with China that further supplies were not required.

THE PREVENTION OF MALARIA IN THE CAMPAGNA.—Professor Postempski of Rome recently presented to the President of the Italian Red Cross Society the medical officers who had taken part in the campaign against malaria in the Campagna. The results have been highly satisfactory. The number of persons subjected to the prophylactic treatment with quinine was 11,962. Only 380 were attacked by the fever, of whom 67 had it as a primary and 313 as a relapsing disease. Some of the latter had suffered several times.

INTERNATIONAL CONGRESS OF OBSTETRICS AND GYNAECOLOGY.—As has already been stated in the BRITISH MEDICAL JOURNAL, the fifth meeting of the International Congress of Obstetrics and Gynaecology is to be held at St. Petersburg from September 11th to 18th of the present year. The principal subjects proposed for discussion are: (1) *Accouchement forcé;* (2) the operative treatment of fibromyoma of the uterus; (3) vaginal methods of operation in obstetrics and gynaecology; (4) critical discussion of the operative procedures for retrodeviations of the uterus; (5) chorion-epithelioma.

INFANT MORTALITY IN RUSSIA.—An association for the prevention of infant mortality has recently been formed in Russia. At the first meeting, held on December 24th, 1904, Professor Gundobin stated that of 2,100,000 children born each year in the European dominions of the Czar alone more than 1,200,000 died under the age of one year. The principal causes of this mortality were, according to him, the low state of civilization and the bad material condition of the peasants. The object of the new association is to establish crèches and hospitals in the country districts, to provide a supply of good milk for poor children, and to diffuse a knowledge of the principles of hygiene among the people. General v. d. Ropp, Imperial Councillor, was elected President, Dr. A. Russoff, Vice-President, and Dr. W. Dementjeff, Secretary of the association.

THE PROPORTIONS OF THE SEXES IN THE UNITED STATES.—A study of the proportion of sexes in the United States was, we learn from *American Medicine*, recently published by the Bureau of the Census. The whole population of the continental United States was first counted with distinction of sex in 1820. During the seventy years from 1830 to 1900 the absolute excess of males was greater at each census than at any preceding enumeration, with one exception—that of 1870—when the excess of males was less than in 1850 and 1860. This reduction, by about 300,000, was doubtless due to the deaths in the Civil War and the diminished immigration during the decade. The greatest relative excess of males was in 1890, when in each 10,000 people there were 242 more males than females. By 1900 this excess had decreased to 216 in 10,000—less than the relative excess in 1890 and 1860, but greater than that at each other census.

INTERNATIONAL CONGRESS OF PSYCHOLOGY.—The International Congress of Psychology will, as has already been announced in the BRITISH MEDICAL JOURNAL, hold its fifth meeting this year at Rome, April 26th to 30th. There will be four sections. That of Experimental Psychology, the President of which is Professor G. Fano of Florence, will deal with psychology in its relations to anatomy and physiology, psycho-physics and comparative psychology. That of Introspective Psychology will, under the presidency of Professor R. Ardigo of Padua, devote itself to psychology in its relations to philosophical sciences. The section of Pathological Psychology, the President of which is Professor E. Morselli of Genoa, will discuss hypnotism, suggestion, and analogous phenomena, and psycho-therapeutics. The programme of that of Criminal, Paedagogic, and Social Psychology, which is under the presidency of Professor Lombroso of Turin, has not yet been published. The languages recognized by the Congress are Italian, French, English, and German. The President of the Congress is Professor Giuseppe Sergi of Rome; the General Secretary, Dr. Sante de Sanctis, to whom all communications relative to the meeting should be addressed at the Instituto Fisiologico, 92, Via Depretis, Rome.

British Medical Journal.

SATURDAY, JANUARY 21ST, 1905.

THE PENAL BUSINESS OF THE GENERAL MEDICAL COUNCIL.

No part of the work of the Council entails a heavier responsibility than the conduct of its penal business, and as some misconception appears to prevail as to its powers and their exercise we propose to briefly review it, taking to some extent as our text a recent opinion given by Mr. Muir Mackenzie.[1]

Under the terms of the Medical Act, 1858, the Council may, if it sees fit, erase from the *Medical Register* the name of a person who has been convicted of felony or of misdemeanour or who has been adjudged guilty of "infamous conduct in any professional respect." In the case of convictions for felony or misdemeanour the facts are beyond dispute, having been investigated in a law court, and it only remains for the Council to decide whether the offence has been of such a nature as to render erasure of the name from the *Register* necessary. The custom is for the Council to offer to the convicted person the opportunity of appearing before it and of urging either personally or by counsel any extenuating circumstances.

But when conduct infamous or disgraceful in a professional sense is imputed the conditions are wholly different. Here no offence known to the common law has necessarily been committed, and the Council has first to ascertain the facts and then to decide upon their gravity. But the Act, while conferring these powers upon the Council, lays down no rules for the conduct of the inquiries, nor does it confer any power to administer an oath nor to compel the attendance of witnesses. Hence the Council has had to formulate in Standing Orders its own mode of procedure, and in doing so to meet, so far as may be, the difficulties in the way of securing that evidence given before it shall be reliable. With this object it requires that all complaints and most evidence shall be substantiated by being presented in the form of sworn statutory declarations, while at the same time it informs complainants that the weight carried by the sworn declarations will be materially diminished if the witnesses be not tendered for oral examination.

As Mr. Muir Mackenzie points out in his memorandum penal cases which come before the General Medical Council fall into two classes: first, those which are brought before the Committee by societies such as the British Medical Association, the British Dental Association, or the medical defence societies, or by individuals; and secondly, those brought before it by public bodies, such as the medical licensing authorities, or by coroners. In the latter case, however, he points out that it can hardly be said that there is a complainant in the ordinary sense of the word. In fact, the position of the Council is not that of having to decide a dispute between a complainant and a respondent. Its duty is, when facts are brought to its notice, to decide in the interests of the public and of the medical profession whether the misconduct alleged and proved against a practitioner requires the erasure of his name from the *Register*. It seems to us, therefore, that in the opinion of its legal adviser the Council would be acting well within its powers if, on its own initiative, it directed inquiries to be made into any case of alleged misconduct, and acted upon the result of such inquiry, even in the absence of any formal complaint. It had been commonly objected that the Council ought not to be both prosecutor and judge, but accepting Mr. Muir Mackenzie's view—and the Council showed no disposition to dispute it—there is, in fact, no need for any person corresponding to a prosecutor in ordinary actions in a court of law. It is the duty of the Council to guard the purity of the *Register;* it is given very large powers to carry out this duty, and the Act merely directs that it shall make "due inquiry;" it says nothing about a complainant, and does nothing to limit the discretion of the Council as to collecting information for itself.

Hitherto the Council has acted upon the assumption that it was not called upon to make inquiry unless a formal complaint was made to it; formerly, when such a complaint was received at the office of the Council, it was submitted to the President, who decided whether it was a proper case to come before the Council. But as the penal work increased, a committee was appointed with the object of relieving the President of some part of this responsibility. This committee, the Penal Cases Committee, has grown in importance, and from being merely an advisory committee to the President has come to fulfil the functions of a grand jury; it reviews the evidence, decides whether there is a prima facie case, and whether the gravity of the offence alleged is such that it ought to go before the Council. But as it has no statutory existence, it is, we have been informed, careful to limit itself strictly to the exercise of this time-saving function of preliminary investigation.

It was recently proposed by Sir William Thomson that the further duty should be imposed on the Committee of seeing that the complainant had communicated the nature of his complaint to the person complained of, a somewhat anomalous state of things having come to light at an inquiry in which the defendant when appearing before the Council was in error as to the name of the complainant. But on Mr. Mackenzie's advice this proposal was withdrawn, for it was pointed out that in many instances, such as that of a report by a coroner, it would be inapplicable; moreover, it might cause worse evils than those it was intended to remedy, for it might encourage collusory settling of matters which ought to come before the Council, and might even lead to complaints being made for blackmailing purposes, or to the getting out of the way of inconvenient witnesses. Moreover, although the Council is free to make its own standing orders, it is after all bound to entertain a complaint properly presented and supported by evidence, and should not enforce requirements of an unusual nature before doing so. It was therefore left to the Penal Cases Committee to act according to its discretion in this matter.

In the case alluded to there was no miscarriage of justice, and the mistake arose through the defendant having jumped to a conclusion which happened to be erroneous without having made due inquiries. A person against whom a complaint is made would not, we are

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, December 3rd, 1904, p. 212.

informed, encounter the smallest difficulty in learning at the proper stage the nature of all the evidence to be brought forward and by whom it is being brought forward.

The Act does not confer upon the Council any power to censure or to warn persons brought before it, an omission which has been remedied in some of the more recent Colonial Acts. This occasionally places the Council in the position of either having virtually to whitewash a course of conduct of which it may strongly disapprove, or else of having to inflict the extreme and only penalty. The difficulty is sometimes met in practice by the Council finding that the facts proved are disgraceful, but postponing its final vote as to the removal of a name till the next session, in order to give the person complained of an opportunity to amend his ways. It is possible that this may be a stretching of the powers conferred by the Act, but, as its effect is in the direction of leniency, few if any cases being on record in which the name was ultimately removed, it is not likely that any exception will ever be taken to this being done.

INSANITY AND MURDER.

There is an uncomfortable feeling that in trials for murder, when the plea of insanity is raised for the defence, the legal proceedings are not of so complete and satisfactory a nature as they are in other classes of cases. For instance, in trials in the Admiralty Court in which technical questions concerning navigation arise there are special nautical experts, known as "assessors," to assist the formation of judgements by the Court. But in the complicated question of the mental state of the prisoner it is in most cases left to the defence to initiate and sustain arguments as to unsoundness of mind, and it is only after the trial, and when the verdict of the jury has been given, that the medical advisers of the Crown are asked their opinion. The judge in a naval court is not considered competent to decide the question as to whether the helm should have been put to port or to starboard, but he is allowed to be the unaided arbiter of the most difficult problems in psychological medicine.

Allowing that under the present system justice is satisfied in the long run, it may be asked "why then interfere with the existing custom?" The answer is because it is contrary to public policy and to the spirit of our laws to allow a process to continue which is the converse of what it should be. It is not usual to set up the plea of insanity except when there is no doubt that the prisoner did actually commit the deed; other methods of avoiding a conviction are resorted to by preference, and this plea is usually brought up by counsel for the defence when no other loophole of escape is possible. When the plea is advanced the counsel calls his partisan witnesses who are practically confronted by the prison surgeon, and upon this conflict of evidence the judge determines his ruling to the jury. If the verdict is adverse, and the prisoner is condemned, his state of mind is then inquired into by Government experts, and a correct conclusion is doubtless arrived at. The question is, why this inquiry is not made before the trial, and how the farce of convicting a man only that he may be reprieved shall be avoided. If the prisoner is in poor financial position it may be impossible to procure expert evidence at the trial, and his counsel has to make the best he can of any signs of mental aberration: if, however, funds are forthcoming we may see the not unusual conflict of medical opinion which is apt to occur when a favourable verdict—not necessarily the truth—is sought. To the medical mind it seems a work of supererogation to try a man who is insane, except in so far as a legal enquiry is necessary to establish his insanity and to direct what shall be done with him. To the legal mind, however, the presence of insanity is merely an incident which has nothing to do with the fact of whether the prisoner is guilty or not; the former is indifferent as to whether the prisoner did or did not do it; the latter is equally indifferent as to whether the prisoner is insane or not—he must be tried, anyhow. It is here that we would ask why if the prisoner is insane he should in any case be allowed to plead? It is quite true that if the insanity of the prisoner is very manifest the court may, and sometimes does, refuse to allow him to plead, but this is not an invariable proceeding. In those cases in which the prisoner is not allowed to plead it would seem that the bill ought to have been thrown out by the grand jury.

The lawyer might argue that by not allowing the prisoner, if found to be insane, to plead, we are consigning him to a life seclusion in a criminal asylum, whereas if the trial had been allowed to proceed, and counsel permitted to exercise his own judgement as to bringing forward the plea of insanity, some extenuating circumstances might have been found which would have materially altered the result in the prisoner's favour. Such, we believe, was the line followed in the trial of Captain Dudley and another in the *Mignonette* case, but we contend that it is not fair, either to society or to the prisoner, to run the risk. If in the opinion of legally-constituted assessors a prisoner brought up on a charge of murder is insane, and if this is shown to the satisfaction of the judge after consultation with the medical assessors, then the trial should not be allowed to proceed, or, if it is permitted to go on, it should be merely for the elucidation of concurrent matters not concerning the responsibility of the prisoner himself.

It is surely not utopian to contend that the court ought to have the fullest information as to the prisoner's mental condition in murder trials. In no class of case is there more prima facie ground for suspicion that the mental equilibrium is upset, and yet as things now stand there is no guarantee that the principal function—the control over motives—was capable of being exercised, nor even if the motives themselves were diseased or not. It is apt to be assumed that because a certain action shows premeditation and thought in its accomplishment, therefore responsibility is a necessary accompaniment; it is forgotten that the mechanism of a voluntary action is the same in the insane as in the sane, and that the difference between the degree of responsibility which should be attached to the agent lies not in the perfection with which the deed is carried out but in the integrity of the elements, especially the emotional tone out of which the voluntary or impulsive action arose.

That the present system is not satisfactory would appear from the large number of reprieves after the capital sentence has been pronounced, testifying to the great latitude allowed to the rise of the impulsive condition under circumstances of mental irritation more especially in the case of female criminals, in whom there is every reason for thinking that mental control is very easily upset. In his address at the meeting of the British Medical Association at Oxford in July last the President of the Section of Psychological Medicine expressed the

opinion that the wrongdoer, even if insane, should be punished to some extent; but as this "punishment" merely amounted to detention in an asylum, it can perhaps be viewed more as a safeguard to society than as a penal infliction on the insane prisoner by way of retribution. It can be no satisfaction to the prosecuting counsel to press home his claim for conviction and obtain his verdict when he knows that the decision will probably be reversed upon an examination—which ought to have been made before—of the person who is being treated on the assumption that he is responsible, whilst all the time no trustworthy evidence has been adduced that he is fit to plead or that at the time when he committed the offence he was *compos mentis*. To the court itself it would be a great relief to know that in all human probability the case is being tried on a right basis, and that it is equitable to use all the resources of evidence in investigating the circumstances under which the prisoner who is certified to be of sound mind is being tried for his life.

A recommendation has been made by the Medico-Political Committee of the British Medical Association as to "the desirability of consultation between medical witnesses in legal cases likely to be brought before the courts"; the question of medical assessors has also been discussed with a view to their appointment in civil cases: all the arguments used for these reforms apply *mutatis mutandis* to criminal cases. The spectacle so often seen of medical expert opinion tending in diametrically opposite directions on questions referring to the same facts has before now been the subject of caustic remarks by court and counsel. If the true medical or surgical state of the case—as far as this is possible—were clearly defined before the court, leaving the consequences only to be equitably determined, it would clear the ground for judge and jury, and would relieve the ultimate authority of the responsibility of determining a question for which it has neither experience nor capacity. If once the principle for which we are contending were admitted, there would be no difficulty in indicating the machinery of the process.

THE HEALTH OF LONDON.

THE appearance of the annual report of the medical officer of health of the administrative County of London, which we notice elsewhere, reminds us afresh of the advances which have been made in recent years, not only in sanitary administration but in the standard of the actual health of the people. London—more a province than a city and more a collection of cities even than a province—furnishes peculiar difficulties to the sanitarian. Its mere area, its enormous population, the acute problems which are its heritage—all these conditions create circumstances which might well lead to despair. Yet so considerable has been the advance of applied knowledge in the realm of preventive medicine that, notwithstanding London's continual growth and increase in complexity, it is possible to report for 1903 the lowest death-rate on record. Broadly that may be accepted as some criterion of public health. That, however, is but one item—possibly fairly to be considered the apex of the pyramid, but still only one item—in a vast record of solid work accomplished by the medical officers and their staffs in London, and co-ordinated into one by Sir Shirley Murphy, the medical officer of health for the county.

It should be remembered that the statutory powers of the County Council are comparatively small. They exercise their power in sanitary matters largely as an advisory board, as a central bureau, as a clearing-house, as a co-ordinating centre. The bulky volume which constitutes the medical officer's report will be found to consist of a record of such work rather than a statement of statutory powers exercised. And it is fit and proper that it should be so, at all events in the present stage of London government. Hence we find the first part of the report consisting of statistics and discussions, admirably collated and presented, drawn, in large measure, from the reports of the medical officers of the twenty-nine municipal divisions of London. Here we see the Council as co-ordinator.

The second portion of the report deals with matters of administration in several of which the County Council possesses the key to the situation, and exercises statutory powers. Chief among these are such matters as the licensing and control of cowsheds, slaughter-houses, common lodging-houses, and so forth. Here we see the County Council as administrator, and on the whole the work is admirably done, and probably, considering the difficulties, better done than in any other great city of the world. We observe there has been a steady reduction in cowsheds, and an increasing effort made to control the milk supply. The effort might, indeed, well serve as an example to all the other county councils in England and Wales. Tuberculosis, a disease at one time rife among city-kept cattle, is diminishing almost to the vanishing point, and previously insanitary and objectionable shippons are now maintained in some degree of order and cleanliness. Much the same may be said of the slaughter-houses. Much the same again is true, though of course in a different way, of the common lodging-houses, to which increased attention has recently been devoted.

In the third portion of the report are some of the records of investigation carried out by the medical officer or his assistants, and here we see the County Council as the agent of special inquiry. Such inquiries are of the greatest value. The medical officer of health of a metropolitan borough cannot as a rule undertake work of this nature. He has abundant other duties to perform, and he is circumscribed by the boundary of his district. But the officers of the Council are not so bounded, and from them special inquiries should, in our judgement, be expected They have both the facilities and opportunity. They have also, if we are to judge from the results, the personal equipment necessary to such work. It would be difficult to overestimate the value of such inquiries as, for example, that of Dr. Hamer into the prevalence of enteric fever and its channels of infection. We do not claim that all his views should be accepted, or that his conclusions will always stand the light of the future. But we do claim that this sort of work on behalf of the County Council is so done as more than to justify the undertaking of it.

We conceive, therefore, that the record of work contained in this report is its own best defence, its own best recommendation to the people of London. Amid various political cries and party movements it is encouraging to witness steady solid progress in one of the great public services at the heart of the empire. For the health of London is, after all, a matter of imperial concern, an invaluable national asset, and whatever contributes to it calls for the sympathetic support of good citizens. What, in our view, chiefly contributes to it is an efficient public health service in each of the metropolitan boroughs and in the County Council. Our view, if we mistake not, is shared by

Mr. Henry Jephson, the Chairman of the Public Health Committee of the Council, who has not failed to do his part in stimulating that efficiency and in encouraging co-ordination between the various departments of the same service. It is in advisory duties, co-ordination, and special inquiries that the Public Health Committee of the County Council will, in our judgement, serve London best. The large mass of statutory work and detail can be most effectually accomplished in all probability by the borough councils. It is not interference or rivalry, but inspiration, wise stimulation, and hearty co-operation which should be the contribution of the County Council. The medical officer's report is an excellent illustration of how this service may be rendered.

AN ATTEMPT TO BLACKMAIL.

IT is one of the noblest characteristics of the medical profession that, notwithstanding the proverbial differences of its members in other things, they are always ready to co-operate in defending one of their body against unjust attack. A notable example of this fine spirit is afforded by the staunchness with which the cause of Dr. A. D. Griffiths of Bridgend has been taken up by his professional brethren in South Wales. A report of the legal proceedings in which he became involved as a consequence of the legitimate discharge of his professional duty was published in the BRITISH MEDICAL JOURNAL of December 17th, 1904, p. 1673. It is unnecessary to do more than refer to the case here; a summary of the facts will be found in a letter bearing the signatures of Dr. Thomas Wallace, Chairman, and Dr. Ewen J. Maclean, Honorary Secretary, of the Cardiff Division; Dr. W. D. J. Morris, President of the Cardiff Medical Society; and Dr. R. S. Stewart, Superintendent of the Glamorgan County Asylum, which is published in the present issue at p. 160. From that letter it will be seen that although the jury awarded Dr. Griffiths £500 damages, being five times the amount which he asked for, there is no likelihood of a farthing of the money being forthcoming, and Dr. Griffiths, as is so frequently the result of such actions, is left to pay his own costs, amounting to about £205. It is surely a monstrous thing that a professional man whose conduct was pronounced by the judge who tried the case to have been correct in every particular should be put to the torture of a public trial, and should be mulcted in a heavy sum for the legal vindication of his character, which stood before all men high above reproach, against a scandalous and absolutely groundless charge. We take this further opportunity of congratulating Dr. Griffiths on the courage with which he faced his accusers and on his successful defeat of a vile conspiracy. We are sure that the whole profession shares with the members of the South Wales and Monmouthshire Branch, the Cardiff Division, and the Cardiff Medical Society, in the sympathy which they feel for Dr. Griffiths, and we venture to hope that this feeling will find practical expression in a wide and liberal response to the appeal of the Committee which has been formed to collect funds to defray the heavy legal expenses which Dr. Griffiths has to meet. A man who exposes a conspiracy against his professional character fights for the honour of the whole profession as well as his own, and it is right, therefore, that he should not be allowed to suffer in his private interests for his successful battle in a public cause.

THE DURHAM UNIVERSITY COLLEGE OF MEDICINE.

IT has already been announced in the BRITISH MEDICAL JOURNAL that the annual dinner of the past and present students of the Durham University College of Medicine will be held in the Library of the College at Newcastle-upon-Tyne on Friday, February 3rd. This will, we understand, be the first time the dinner takes place in the College. The occasion will be further remarkable owing to the fact that Dr. R. S. Peart, one of the oldest students of the College, will be in the chair. Among those who have accepted the invitation to be present as guests are the Mayor and the Sheriff of Newcastle-upon-Tyne; Lord Armstrong; Sir Andrew Noble, Bart; Sir G. H. Philipson, M.D.; Sir Isambard Owen, M.D.; Professor F. B. Jevons, Sub-Warden of the University; Mr. Edmund Owen, Consulting Surgeon to St. Mary's Hospital, London; Mr. Herbert T. Herring, M.B., Vice-President of the Durham Graduates' Association; and Professor R. Howden, M.D. In an interesting historical sketch of the school which appears in the *College Gazette* it is stated that it began in a large room over the entrance to Bell's Court, Newcastle. In 1832 Drs. G. Fife, Knott, and Frazer were joined by Mr. (afterwards Sir) John Fife, Mr. Potter, and Mr. McAllum in the formation of the "Newcastle-upon-Tyne School of Medicine and Surgery." During two sessions they gave instruction "tentative, imperfect, preluding," but "enthusiastic and hopeful," for the lecturers were volunteers, and had first to teach themselves before imparting wisdom to the eight or nine pupils who had joined. The population of Newcastle was only 42,760, and of the 60 practitioners in the town and district many were opposed to the scheme. The school throve so well that after its first two sessions more and better accommodation was required, and the hall of the "Worshipful Company of Barber-Surgeons together with Wax and Tallow Chandlers," in the Manors, was taken at a yearly rental of £40. A lecture room, a dissecting room, a room for chemistry and materia medica, and one destined for the museum were fitted up. But dissatisfaction gradually crept in and led up to an acute crisis, terminating in the disruption of the school in 1851. Each of the two factions began life on its own account, and founded rival schools, but this divorce lasted only some half-dozen years, when they once more came together. A little over half a century ago the College became connected with the University of Durham. The first medical examination of the University was established in 1856. The M.B. degree appears to have been instituted about 1860. In 1870 a closer union was established with the University, and thenceforward the College was styled, "The Durham University College of Medicine, Newcastle-upon-Tyne," and was invited to elect a representative to sit on the Senate of the University. Its subsequent history has been one of continued prosperity.

MR. PRIESTLEY SMITH.

MR. PRIESTLEY SMITH'S recent resignation of the post of Honorary Ophthalmic Surgeon to the Queen's Hospital, Birmingham, has been made the occasion of a notable demonstration of the warm personal regard in which he is held by his many pupils and friends. His past house-surgeons entertained their former chief at a dinner given in his honour in the Grand Hotel, Birmingham, on January 14th, when a presentation was made to the distinguished ophthalmologist. Dr. Purslow presided, and Mr. Wilfrid Allport acted as Vice-President and Secretary. After the toast of "The King" had been duly honoured, Mr. Allport proposed "The Guest of the Evening." He briefly alluded to the work which had made Mr. Priestley Smith's name world-renowned; to his great powers as a teacher, which ever won for him the love and admiration of all those with whom he was associated. The toast, which was drunk with musical honours, was received with great enthusiasm. Dr. Purslow, before making the presentation, spoke of the unanimity with which the suggestion had been taken up. He pointed out that out of 43 residents whom Mr. Priestley Smith had had during his long tenure of office it was only possible to circularize 36, since 2 were dead and 5 were abroad, thousands of miles away, and would not have had time to reply. No fewer than 29 accepted, and the others sent letters expressing their great regret at their inability to be present, and their sincere sympathy with the project. He felt sure that the presence of so many—several of whom had come from a great distance—must be gratifying and refreshing to Mr. Priestley Smith's heart. With only one exception all Mr. Priestley

Smith's house-surgeons had been students of the Birmingham Medical School—a circumstance unique in the history of the hospitals of that city. He next referred to his great popularity as a colleague, and to the high esteem that the General Committee of the Queen's Hospital had for his sound common sense and business-like capabilities, shown by the fact that on his resignation from the staff they immediately elected him a member of their Committee. Dr. Barwise spoke of Mr. Priestley Smith's kindliness of nature and the influence for good he had always exerted on those with whom he came in contact, citing instances exemplifying his uniform consideration for the patients and all those around him. Dr. Purslow then presented a handsome silver rose-bowl (of the loving-cup pattern) and a pair of massive silver candlesticks. The bowl bore the following inscription: "Presented to Priestley Smith, Esq., M.B., Ch.M., F.R.C.S.Eng., by his past House-Surgeons at the Queen's Hospital, Birmingham, as a token of the great regard and affection in which they hold him." Mr. Priestley Smith, who was evidently deeply affected by the proceedings, in a characteristic speech warmly expressed his thanks for the honour that had been shown him and for the presentation, which he said would ever be for himself and his family a pleasurable memento of the occasion.

MILITARY MIDWIFERY.

American Medicine of December 24th contains a communication from Major Charles E. Woodruff, Surgeon U.S. Army, in reply to one by a Chicago physician who had implied that the opinions of "an army surgeon of several campaigns" on obstetrics and maternal impressions were of no particular value. Whereunto Major Woodruff makes the somewhat startling reply that American army surgeons are really obstetricians. "They are supposed," he says, "to be official experts in the speciality of military medicine, including all the branches of camp and barrack sanitation, relations to health of clothing, climate and food, modifications of civil surgery found necessary in the same classes of cases far from modern operating rooms, whether found on the battlefield, lines of communication, or in temporary sheds in dirty surroundings, where a modern surgeon would not dream of operating, diseases peculiar to troops, anthropology as related to the selection of recruits, and a host of other subbranches about which a civil physician never bothers. But, legally, army surgeons are specialists in only one thing—obstetrics." In the century and a quarter during which the United States Government has found it necessary to employ highly-trained professional experts to keep its soldiers well enough to fight, it has only once defined the duties of these experts, who are called officers of the medical department. That definition was given when Congress passed a Bill declaring it to be the duty of officers of the medical department to give gratuitous professional services to the families of officers and soldiers when practicable. Formerly, according to Major Woodruff, American army surgeons were only too glad to give these services as a courtesy, and the relations between surgeon and patient were confidential, as in civil life; but the law changed all this. Formerly the post commander could not inquire into such private affairs, but now it is his right and duty to inquire why it was that the surgeon spent so much time with Lieutenant and Mrs. X, instead of being at the hospital; and the surgeon has to explain the details of the obstetric case if required. The medical officers have the distinction of being the only obstetricians officially employed by the nation, and army ladies are the only ones entitled to have the details of their obstetric trials recorded in the national archives. A new speciality of military obstetrics has thus been created. By the terms of another law the United States Secretary for War has power to assign medical officers to any duty that he thinks proper, but nowhere is any duty explicitly stated by law, except obstetrics. It is natural, therefore, that in the professional examination for promotion from assistant surgeon to surgeon the most searching questions should be in obstetrics and gynaecology. It is even rumoured, says Major Woodruff, that a medical officer failed in his examination, and was declared unfit to treat soldiers, because he could not describe how to remove a woman's ovaries through the vagina. The history of the United States shows that there are few rewards, except the consciousness of duty well done, for the army doctor who becomes an expert in his speciality of military medical science. "Rewards, honours, renown, and promotion are reserved exclusively for those who drop their calling and take up something else; one man is renowned for his work in stomach digestion, another as a librarian, others as writers and investigators of fevers, others as leaders of troops, others as writers of unsigned editorials, anthropologists, ornithologists, bacteriologists, chemists, and what not." And are there no honours or rewards for successful midwifery? Alas, even the special function assigned by law to the medical officers of the United States army is in danger of extinction. Whereas, formerly, officers were induced to marry and were allotted houses and had at hand obstetricians ready to meet probable contingencies, now the American Government, on the plea of a sordid economy, refuses to build houses for all its officers out on the frontier, and wishes to brigade them. Hence, marriage is discouraged and the military obstetrician is in danger of finding his occupation gone, as officers will in future be too old when they reach matrimonial rank to provide material for the exercise of his special skill.

THE CHEMISTRY OF YELLOW FOGS.

PROFESSOR KNECHT, of the Manchester Technical School, has presented a report on "What Fogs are Made Of." In the School of Technology huge fans drive the air from inlets placed at 25 ft. and 70 ft. above the ground level. Before reaching the fans the air passes a screen or filter consisting of about one hundred galvanized corrugated iron sheets, fixed on edge three-quarters of an inch apart and completely filling the air-inlet duct. Immediately above the screen the air meets with a fine spray of water, and passing through the screens and fans is heated by exhaust steam. The bulk of the impurities of the air are thus removed and fall with the water into two chambers. After the fog at the end of November the sludge taken from these chambers was black, as if it consisted of soot. On drying, however, it became grey, and left on ignition a very large amount of ash. It contained only very small quantities of hydrocarbons and phenolic constituents. The percentage of ordinary soot was small. During the fog of December 22nd more exact analyses were made from the matter filtered out from air passing through the screens at the rate of 300,000 cubic feet an hour, with a flow of water of water of 240 gallons. The water became black and greasy looking; it contains a small quantity of black solids in suspension, the filtrate had an acid reaction, due chiefly to sulphuric acid, the acidity of the liquid was equal to 6.2 gr. of sulphuric acid to the gallon, representing a total of approximately 3.5 oz. of acid taken out hourly. The total solids of the wash-water were in the proportion of 91.7 gr. per gallon; they consisted of a considerable quantity of iron in the ferrous state, and some in the ferric, ammonia, lime, magnesia, a trace of arsenic, and sulphuric and hydrochloric acids. The iron probably came from the screens, but the other parts of the sludge probably from the high chimney near the school, in which the combustion of the coal is far more perfect than in house fires. The screens and water do not remove all the particles. Black particles exist in the air in these buildings.

BREAD SUBSTITUTES FOR DIABETIC PATIENTS.

IN the *Medical Chronicle* for January of the present year there is a useful article by Dr. R. T. Williamson of Manchester on bread substitutes for diabetic patients. As he very justly points out, one of the greatest practical difficulties in the dieting of cases of diabetes is to find a satisfactory substitute for bread. This is less than it was a few years ago, as a number of preparations made from vegetable and milk albumens can now be obtained which

are practically free from carbohydrates. At the same time he warns his readers that many bread substitutes used by diabetic patients are loaded with carbohydrates, and that unfortunately these are often recommended by medical men who believe them to be free from starch. He urges that before recommending any diabetic bread medical practitioners should test it for starch with iodine solution, which causes the bread to assume a deep blue-black colour when much starch is present. Such bread substitutes are only profitable to the baker, and it would be much better to allow the patient a limited quantity of ordinary bread and potatoes. The bread substitutes which he recommends are, in the first place, those prepared from vegetable albumens, of which roborat is the best. This may be made into small rolls in the following manner: Roborat, 4 oz., butter 1 oz., one egg, ¼ oz. German yeast, and a small pinch of salt. Mix two tablespoonsful of lukewarm water with the German yeast, and the roborat with a little more water, and mix into a paste. Allow this to stand in a warm place for five minutes, beat up the egg in two or three tablespoonfuls of warm milk; add this to the paste with the butter, mix and add a little more water if necessary; bake in small tins for twenty minutes. The albumen of nuts, almonds, and coccanuts, has often been used in the manufacture of cakes for diabetics, but they are apt to cause dyspepsia, and many patients do not like the taste. Plasmon and protene are milk albumens, from which cakes may be made in any household, or biscuits can be obtained prepared from them; casoid bread and biscuits (the latter called Kalari and Pro-lacto biscuits) can also be bought, but we would add the necessary caution that in ordering plasmon or protene biscuits for diabetic patients they should be described as diabetic biscuits, for the biscuits so named are practically free from starch, while others are only relatively free. Dr. Williamson, however, is in favour of home-made preparations, mainly because they are softer than bought biscuits—a matter of some importance to many diabetic patients whose teeth are defective. It is necessary to emphasize what Dr. Williamson has said as to the untrustworthiness of many of the diabetic foods largely advertised, and the need there is for medical practitioners to use the iodine test before giving the authority of their recommendation to particular articles. Good diabetic foods are often beyond the reach of poor patients on account of their expense, and, for these, potatoes used in limited quantities may be made to take the place of bread. Potatoes contain under 100 gr. of starch per oz., so that ½ lb. of potatoes would contain 800 gr. of starch, or less than half the quantity contained in an equal weight of bread. The directions to patients are too often merely qualitative. It is not at all uncommon to find that they forbid any article of food containing carbohydrates, except toast, of which the patient eats unlimited quantities; yet probably no source of carbohydrate food has a greater influence upon the excretion of sugar. There seems to be a vague but baseless notion that toasting bread deprives it in some way of its sugar-forming capacity; except so far as part of it may be actually burnt and carbonized, the only result is to deprive it of water, to rupture the starch capsules, and to forward the chemical transformation of the starch in the direction of sugar. That more harm is not caused is due to the fact, which has been properly appreciated, even by specialists, only during the last ten or fifteen years, that all diabetics possess some power to assimilate carbohydrates, while in many this power is considerable. The duty of the medical adviser is to determine the maximum amount of carbohydrate which each patient can take without harm—that is, to fix the limit within which the whole of the sugar, or nearly the whole of the sugar, is assimilated and the symptoms which arise from excess of sugar in the blood are controlled. This can be done very easily if the quantity by weight of carbohydrate food taken is known and is compared with the total amount of sugar excreted. For example, a patient taking 4 oz. of white bread at 275 gr. of carbohydrates per oz., 8 oz. of potatoes at 98 gr. per oz., and a pint of milk at 20 gr. per oz., is, taking in round figures, 2,300 gr. of carbohydrates; if the patient is excreting 40 oz. of urine containing 5 gr. of sugar to the oz. (a total of 200 gr.), 2,100 gr. of carbohydrates are assimilated. The 200 gr. excreted are probably not sufficient to give rise to any symptoms; but if they do, the diet should be diminished to that extent—as, for instance, by reducing the bread to 3 oz., the starch of bread being, as a rule, that most likely not to be assimilated.

SMALL-POX AND VACCINATION: A MODERN INSTANCE.

EVERY outbreak of small-pox adds to the evidences in support of vaccination. Medical men with any real knowledge of the disease require no statistical proofs of the worth of the Jennerian preventive, and facts relating to recent small-pox should, strictly speaking, count for no more and no less than those belonging to epidemics of an earlier date. Yet it is always useful for medical men in their intercourse with, and endeavours to educate, the public, to be able to point to fresh illustrations of the truth about vaccination as based on a century's accumulated experiences. We therefore call attention to a short article published last week (p. 98), which contains some very striking figures showing how variola in the end of last year differentiated in an elementary school between the unvaccinated and the vaccinated. The children sat side by side at the same benches, with nothing to distinguish them in respect of small-pox excepting that some had, owing to parental foresight, been safeguarded against attack; whilst others, owing to parental indifference or wrongheadedness, had been left open to the disease. In a total of 169 children, 77 were unvaccinated and 98 were vaccinated. Infection was introduced by a girl in Standard IV, and of the 77 unvaccinated 37 took small-pox; while among the 98 vaccinated only 5 were attacked. The vaccinated included 14 who had also been revaccinated, and every one of these escaped. For the details we refer our readers to the article itself. They need not expect to convert professed antivaccinationists, but what they may hope for is to influence by such examples people who are still amenable to reason.

GOVERNMENT CONTROL OF VACCINE VIRUS IN AMERICA.

ON July 1st, 1902, the United States Congress approved an Act regulating inter-State traffic in vaccine virus, antitoxin, and analogous products. In accordance with the provisions of that Act and the regulations framed in accordance with its provisions, the Surgeon-General of the Public Health and Marine Hospital Service is required to cause an inspection of the establishments manufacturing vaccine virus for inter-State sale to be made, and the director of the hygienic laboratory of that service is required from time to time to buy vaccine virus in the open market, and examine it to determine the presence of impurities or lack of potency. The laboratory examinations are made in accordance with the usual bacteriological methods, and primary vaccinations in children are made to determine the potency of the virus and to study the character of the "takes." According to the *Journal of the American Medical Association* it is now over a year since any great number of bacteria have been discovered in a vaccine point or capillary tube, and the bacteria present were of the harmless variety. The frequent inspections of the vaccine establishments which must be made every year by officers of the national health service, and the almost constant laboratory examinations of the vaccine virus sold by druggists, have enabled the Federal Government to control the manufacture of vaccine throughout the States. The notable improvement in the quality of the vaccine virus is not only manifest in the lessened impurities, as shown by laboratory tests, but fewer infected "takes" are reported. Before the passage of the Act many cases of "sore arm" were reported, and these were readily accounted for by the serious contaminations found in vaccine virus produced by irresponsible manufacturers. Writing in 1902-3, Dr. M. J. Rosenau showed that "green" virus was sold on the open market, and that manufacturers did not give sufficient attention

necessary to the production of a clean product. Within a few months following the enactment of the law, four firms went out of business, not having been able to comply with the modern requirements. The Surgeon-General of the Public Health and Marine Hospital Service is now giving attention to the precautions which should be taken by manufacturers in the transport of their vaccines from place to place. Our contemporary says that much of the vaccine virus found on the market is impotent because it has been sterilized in the baggage or mail car by too close proximity to the steam coils.

THE DIFFICULTY OF THE DIAGNOSIS OF SMALL-POX.

THE difficulty which may arise in making a correct diagnosis in some cases of small-pox is illustrated by a case which has occurred in London. A commercial traveller was taken ill on January 3rd, and was seen by Dr. W. W. Jacobs of Lee, who made a provisional diagnosis of influenza. On January 6th Dr. Jacobs noticed some suspicious spots, and on January 7th he thought the patient was suffering from small-pox, and asked the Medical Officer of Health, Dr. Wellesley Harris, to see the patient. Dr. Harris agreed with the diagnosis of small-pox, and advised that the patient should be sent to the Small-pox Hospital. Dr. Ricketts, Medical Superintendent of the Small-pox Hospitals and of the Receiving Station at Rotherhithe of the Metropolitan Asylums Board, saw the patient at the station. After careful examination he came to the conclusion that the patient was not suffering from small-pox but from a skin disease often mistaken for it. Dr. Harris said that the rash when he saw the patient presented a resemblance to measles which was well known to occur as a prodrome in the worst type of small-pox. The patient died of haemorrhagic small-pox. Dr. Ricketts has probably had more experience in the diagnosis of small-pox than any man living, and during the last twelve years thousands of cases have passed through his hands. Thanks to his vigilance mistakes have been remarkably few, and this was the first in which his judgement had been at fault. A case of suspected small-pox is usually first seen by one or more private practitioners, and then by the medical officer of health, and if, in their opinion, the case is one of small-pox the patient is sent to the receiving station, where the superintendent must give a definite opinion as soon as possible, and act upon it promptly; he cannot devolve his responsibility on any one else, and cannot divide it. But no man, as Dr. Ricketts himself said, is infallible. The real moral of the incident seems to us to be that, as long as small-pox is allowed to continue owing to neglect of vaccination and revaccination, the risk of error of diagnosis in both directions cannot be altogether eliminated.

MOULDING OF THE INFANT'S HEAD BEFORE BIRTH.

EVERY practitioner is familiar with the transitory deformity of the infant's head produced by its transit through the birth canal, and the careful obstetrician is able from studying it to tell what has been the position and what the movements of the head in the mechanism of labour. It may even be imagined that an obstetrical Sherlock Holmes, if such a medico-legal personage were to arise, would be able to construct a theory and carry through an inquiry to a luminous termination simply by the close examination of a head with the marks upon it of its intranatal progress. But, of course, in thus estimating at a high value the forensic importance of the deformity of the fetal head after labour, we must be quite certain that similar changes cannot be produced before the onset of labour at all. Now, an observation of Dr. Planchu[1] suggests that there can be no such certainty. In the case of a young primipara with a rachitic pelvis (having a true conjugate of less than 3 in., and showing also general narrowness), Dr. Planchu determined, with the patient's consent, to perform Caesarean section just before the full term. The fetal head was lying in the transverse diameter at the brim; it greatly overlapped the symphysis, and was freely movable. The operation was carried out before the supervention of labour pains, in order to avoid the inconvenience of interference if parturition occurred during the night. The placenta was found inserted upon the anterior uterine wall, but otherwise the Caesarean section presented no unusual difficulties or complications. Saline injections were given on account of the free haemorrhage which took place during the division of the anterior uterine wall. The infant's head showed marked asymmetry. The left parietal bone (which lay next the symphysis pubis at the end of pregnancy) was flattened and its eminence nearly effaced; it was slightly overlapped at the sagittal suture by the right parietal. The right parietal bone had an increased curvature; its eminence was very prominent, and below the eminence was a wide depression running antero-posteriorly about the level of the tempore-parietal suture. The right side of the head was much higher than the left, and the right parietal eminence lay in a plane anterior to the left. By the fifth day of life all these deformities had passed away. In this case, as the author points out, the head had been subjected to no pressure in the pelvic canal in labour; it had, in fact, been protected by the liquor amnii up to the time when the uterine incision was made. It ought, therefore, to have shown the usual characters of the head of an infant removed by Caesarean section, namely, the absence of all moulding; but in place of this, it had exactly the deformities which we are led to look for when a head enters the flat pelvis in the transverse diameter with the posterior parietal bone leading. Dr. Planchu attributes the moulding to the pressure of the head against the pelvic brim maintained constantly during the last month of pregnancy, and due largely to the contractions of the muscles of the anterior abdominal wall. What the short but severe pressure of labour usually accomplishes was here brought about by the long-continued but less severe pressure of pregnancy. It must be confessed, however, that this explanation does not meet all difficulties of interpretation, although it is not easy to advance a more satisfactory one. The idea, for instance, of a deformity produced early in pregnancy would seem to be rendered unlikely by the location of the grooves and projections. The subject is worthy the attention of the medical jurist.

[1] *Lyon Médical*, vol. cili, No. 52, p. 1044, December 25th, 1904.

THE INFLUENCE OF CLIMATE ON DEATH-RATE.

EXTREMELY favoured by nature in their geographical position, the Seychelles Islands enjoy a very pleasant climate, if a somewhat rainy one. Situated to the north of the area of hurricanes they escape the disaster that the latter inflict from time to time upon the Mauritius planter, and only experience the steady south-east trades from May to October and mild northerly trades with variable breezes and calms during the remainder of the year. The result is that the islands are extraordinarily healthy, not merely in comparison with other tropical countries, but even with temperate lands, and to emulate their death-rate is almost a counsel of perfection. The average would appear to be a little over 17 per mille, and in 1902 it was only 16.4. These favourable statistics, however, were much altered by the curiously abnormal season of 1903, which exhibited the record rainfall of 130 in., exceeding the average of the twelve previous years by no less than 32 in. Rain was recorded on 171 days, and from January to June the fall was consistently heavy and continuous, ranging from 14 in. in February to 20 in. in June, the total for the half-year being only 100.08 in. The result of this unusual prevalence of wet weather was a marked increase in various febrile disorders, and the death-rate for the year reached the abnormal figure, for the Seychelles, of 23.5 per mille, most of the increase being referable to fever, dysentery, and pneumonia. A marked feature in the mortality returns, according to the official report on the Colony, is the large proportion of old persons whose deaths are recorded. During the year 27 per cent. of the deaths were of persons over 50, some 11 per cent. were registered as above 70, and 6 were centenarians. There seems a remarkable longevity among the Creole peasants

and also among the liberated Africans who were landed in the Colony from men-of-war engaged in the suppression of the slave trade.

THE AMERICAN NATIONAL RED CROSS.

By a new charter of the American National Red Cross which has been passed by both Houses of Congress, and approved by the President, the American Red Cross Society has been placed under the control of the Government. The governing body of the general society is to consist of a central committee of eighteen members. Six of these are to be chosen by the incorporators of the parent organization. When six or more State and territorial societies are formed, these will be entitled to elect six members of the central committee, but at present twelve of the eighteen are to be appointed by the President of the United States. When the State organizations are completed the President will have the appointment of six central committeemen, one of whom he is to designate as chairman. It is provided that the President must select among his committeemen one from each of the departments of State, War, Navy, Treasury, and Justice. From this central committee is to be chosen an executive committee of seven members. The annual financial reports are to be audited by the War Department and transmitted by it to Congress. By the operation of this provision it is intended to prevent in future such scandals as have grown out of the transactions of the Society in the past. The American National Red Cross Society, which the American National Red Cross is to succeed, was organized in 1881. Its energies were not restricted to war, but some of its most effective work was done in furnishing relief to those suffering from great calamities, like the Michigan fire of 1881, the Florida yellow-fever epidemic of 1888, the Johnstone flood of 1889, the Russian famine of 1891-2, the South Carolina tidal wave of 1893, the Armenian massacres of 1896, the Galveston tidal wave of 1900, and the Mont Pelée eruption of 1902. During the Spanish-American war the Society fitted out ships for the benefit of the soldiers and sailors. The new charter is designed to bring the Red Cross Society into effective co-operation with the Federal Government and its military and civil systems.

CREMATION IN LONDON.

At the general meeting of the London Cremation Company held on December 22nd, 1904, the Chairman, Sir Herbert Thompson, Bart. (son of the late Sir Henry Thompson), who presided, sketched the progress made since the company commenced operations in December, 1902. From that date to the end of their first financial year, a period of ten months, they cremated 125 bodies. During the succeeding twelve months up to October 31st, 1904, they cremated 215 bodies, showing an advance of about 50 per cent. If each successive year showed a like increase on the preceding one, it would not be long before they were making a profit. For the present, however, Sir Herbert Thompson admitted they did not make both ends meet; as the result of the year's working they were £681 odd to the bad. This, however, was partly due to their having met out of current revenue some exceptional expenses that would not recur every year. He was convinced that they had only to persevere for a time and they would see the rapid spread of a system which so completely satisfied the requirements of public health, which saved so much land from being given over to unprofitable uses, and which he thought was to every reflecting mind in all its associations so much purer and nobler than burial. That it was the reflecting minds which responded to their appeal was shown by the large proportion of distinguished names among those bodies which were brought to them for cremation. Since the last general meeting they had cremated among others at Golder's Green the bodies of Mr. Herbert Spencer; Rear-Admiral Heath, C.B.; Madame Antoinette Sterling; Sir Leslie Stephen, K.C.B.; Sir John Scott, Deputy Judge Advocate-General; Sir Herbert Murray, K.C.B.; Sir Walter Sendall, Governor of British Guiana; Sir Clement Le Neve Foster, Professor of Mining in the Royal College of Science; Lady Dilke; and Lord Hobhouse, the distinguished jurist. It was impossible, said Sir Herbert Thompson, not to believe that the example of so many well-known people must help to make cremation more common.

OPTICIANS AS OCULISTS.

A CORRESPONDENT sends us a circular, issued by J. Lizars, who advertises himself as "Optician by appointment to the Glasgow Ophthalmic Institute, Greenock Eye Infirmary, Paisley Eye Infirmary, Edinburgh Eye Infirmary, Ulster Eye Infirmary, etc." We would draw the attention of the authorities of these institutions to the manner in which Mr. Lizars advertises himself and the claims he puts forward. It does not seem right that a man should be able to claim an official connexion with these institutions, which are presumably under the control and direction of members of the medical profession, while he puts forward claims in his advertisement to supersede the regularly trained medical ophthalmologist in the selection of spectacles. He says: "Consult me when you have the slightest sign of eye trouble. There is danger in delay. I will help your eyes to see naturally." And again: "The adaptation of spectacles should be left to a capable Refractionist, who can examine the refractive condition of the eyes and prescribe the lenses which will correct the error, and fit them into a frame, which will enable the wearer to obtain the full benefit of the correction. Otherwise correctly prescribed lenses may be quite unwearable through a badly-fitted frame." That is to say, do not go to a medical practitioner who may give you a correctly written prescription, but come to me, where you will have not only the lenses selected but the frame fitted at the same time. We have repeatedly pointed out the untenable nature of the claims made by some opticians, and we trust that all eye hospitals will refuse to recognize those members of the trade who persist in putting forward these unfounded pretensions.

TUBERCULOSIS RESEARCH IN GERMANY.

A SUM of £7,500 figures again on the budget of the Ministry of the Interior of the German Empire for 1905 as required for the prosecution of research work on tuberculosis and the carrying out of measures of prevention. Experimental investigations as to the identity of human and animal tuberculosis are to be made by the Imperial Health Bureau. Accurate statistics are to be gathered from sanatoriums which, it is hoped, will form a basis for a definitive judgement as to the efficacy of treatment in these institutions. More stringent measures for the prevention of the disease are to be adopted by the Imperial authorities.

MR. F. BOLTON CARTER, M.S.Lond., has been elected second Honorary Local Secretary of the Annual Meeting of the British Medical Association, to act with Dr. Astley V. Clarke.

THE Council of the British Medical Association met at 2 p.m. on Wednesday, January 18th, and sat until 6 p.m., when it was found necessary to adjourn to Wednesday, February 15th, at 2 p.m., in order to conclude the important business still remaining on the agenda.

THE Calendar of the Association, Notices of Meetings of Branches and Divisions of the Association, Lists of Vacancies and Appointments, the Diary for Next Week, and Announcements of Births, Deaths, and Marriages will be found in the SUPPLEMENT, pages 20 to 24.

WE are pleased to be able to state that the competition for commissions in the Royal Army Medical Corps is becoming keener than it has been of late years. Down to January 17th 65 candidates had entered their names for 28 or 30 vacancies. This, we believe, is considerably over the average number of candidates at previous examinations held in January.

Ireland.

A Gift for Trinity College.

Sir John Nutting, a Dublin merchant, has addressed a letter to the Provost and Fellows of Trinity College, offering to provide for five years ten Annual Entrance Exhibitions, each of the value of £100 (£50 per annum for two years), to be awarded without further examination and at the discretion of the Board to ten young men or women who shall have competed with success at the Senior or Middle Grade Examinations of the Board of Intermediate Education in Ireland, and who undertake to pursue their studies in Trinity College. The exhibitions are to be confined to pupils of Irish secondary schools (Protestant and Roman Catholic) which have no other endowment than the "results fees" of the Intermediate Board, any other endowment to act as a disqualification. If at the end of the five years covered by the offer a sufficient number of Roman Catholics is then in Trinity College to justify the expenditure he will provide a further sum of £5,000 towards the erection of a Roman Catholic chapel within the walls of Trinity College on the site which the Board has offered to provide.

These offers have been accepted, and the Provost and Fellows have tendered their thanks to Sir John Nutting. That gentleman in his letter further points out that even if no religious difficulties were in existence the opportunities offered to poor and clever Roman Catholic boys by Trinity College have been hitherto far too limited. For the present state of affairs it seems to him that no remedy can be permanent or satisfactory which does not satisfy three conditions:

(1) That a university education of the best type shall be easily accessible to all young Irishmen and Irish women of ability and ambition, without distinction of creed or class.

(2) That such young men and women of all creeds and classes shall receive their university education in common, and that no artificial barriers shall divide them at the time when they are being shaped into useful citizens of a country whose traditions and opportunities are their common heritage.

(3) That it shall be possible for university students of all creeds to have the religious opportunities which their conscience demands, so that no student shall be required to sacrifice in the smallest degree any religious scruple to the claims of secondary education.

The object which Sir John Nutting desires to attain is most laudable, for it would in a great measure help to soften the asperities of social and religious life in Ireland. One always notes this in the happy relations which are so often established between youths of various religious convictions who are educated together in secular matters. But however great the general desire is that the resulting assuagement of bitter feelings should be widened, one is not very hopeful that the offer will be taken full advantage of by those for whom it is intended. The scheme of university education demanded by the leaders of the Roman Catholic Church is very different from a nationalization of Dublin University. No doubt a number of Roman Catholics will enter Trinity by the proposed channel. As it is, the numbers increase instead of diminishing, but we should like to see some authoritative acceptance which would put an end to the unrest on this subject. But we can, at all events, welcome any effort which on general grounds extends the advantage of higher education to some who could not otherwise attain them. For this reason, if for no other, the donor deserves thanks not only for what he has done, but for the example which he has set in liberality of thought and action.

Since the foregoing was written the Bishops of the Catholic Church in Ireland have published a series of resolutions in which they warn their "flocks against the danger of accepting these educational bribes. The present attempt in no way differs in principle from the attempts made by Trinity College for the past 300 years to wean away the Catholic youth of Ireland from their allegiance to their faith and their country." "No true Irish Catholic will accept the proffered scholarships, and those who may be weak enough to do so may rest assured that their fellow-countrymen will never forget their recreancy in this crisis of our struggle for educational equality." And the Bishops go on to say that "this device .....will only help to build up the determination of our people to have at last, in a way that suits them for higher education, their proper share of the income which Trinity College draws from eighteen Irish counties, without showing any high example in its dealings with its estates."

Belfast Asylums.

The Report of the Medical Inspector in Lunacy (Sir George O'Farrell) was submitted to the last meeting of the Belfast Asylum Committee. Besides the ordinary routine details, mention is made of the bacteriological and microscopic work done in the laboratory of the asylum during the year; also of the success attending the new scheme of dietary, of the great advantages of the villa plan, which is being adopted in the new asylum.

Health Lectures in Belfast.

Dr. O'Neill delivered the second of his lectures on the health of Belfast on the evening of January 10th in the Grosvenor Hall. The lecturer dealt chiefly with the inspection and preparation of meat and with the sterilization of milk. The examples of St. Helens, Fécamp, and Havre, Paris, Liverpool, London, and Glasgow were quoted. The best methods of dealing with milk in large towns and the powers necessary to guard against the importation of milk from unknown dairies in the country were described. A cordial vote of thanks to the lecturer terminated the proceedings.

Scotland.

The Parliamentary Representation of the Universities of Glasgow and Aberdeen.

The question of the representation of the Universities of Glasgow and Aberdeen in the House of Commons continues to excite a good deal of interest in Scotland, and many letters have appeared in the Scottish political newspapers. The last suggestion we have seen is made by Dr. Harry E. Dixey, of Malvern, who has proposed that the controversy should be referred to three well-known leaders of the Unionist party to go into the whole matter and decide which candidate is best entitled to support. If the candidates should decline to be bound by the decision of the arbitrators, Dr. Dixey suggests that another candidate should be chosen who would command the undivided support of the party.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A quarterly court of the directors of the Society for the Relief of Widows and Orphans of Medical Men was held at 11, Chandos Street, W., on January 11th, Mr. Christopher Heath, President, in the Chair.

The President announced the death, on January 5th, of Mr. J. B. Blackett, who had filled the office of Secretary to the Society for thirty-seven years, and the following resolution was unanimously passed:

> That this court has received with deep regret the announcement of the death of Mr. Joseph Blackett, M.R.C.S., who has so ably filled the office of Secretary to the Society for the Relief of Widows and Orphans of Medical Men since 1868. The court desires to place on record its appreciation of the valuable services of Mr. Blackett to the Society and of his unvarying kindness and consideration for the annuitants of the charity, and wishes to convey to his family its sincere sympathy in their bereavement.

It was reported that 52 widows and 16 orphans had received a Christmas present, amounting in all to £574, in addition to their annuities. A sum of £1,293 was allotted in payment of the half-yearly grants to the annuitants; 4 new members were elected, and one new application on behalf of a widow was received.

Four applications for the vacant office of Secretary were received and considered, and Mr. Edward J. Blackett, M.R.C.S., L.R.C.P., was elected to succeed his father as Secretary.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 87.

A REPORT ON
THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

III.—MODERN GHEEL.

The Village.

The village of Gheel lies some thirty miles east of Antwerp in the middle of a flat, low-lying, and highly-cultivated tract of country known in Flemish as the Kempenland, and in French as the Campine. The village, with its surrounding district, has an area of 11,000 hectares (roughly ten square miles), and has, including the patients, a population of between 12,000 and 13,000 people. Of these, 7,000 live in the village, and are for the most part small farmers, tradesmen, farm servants, and employés in the breweries, etc. The little railway station on the Antwerp-Gladbach line touches the north end of the long straggling village which from this point of view seems to be only an elongated street of somewhat dingy houses, backed by the high spire of the Church of St. Amand. The street, which is largely unpaved, is permeated by a *tram-baku* with an infrequent service between Gheel and Malines, and seemed at the time of our visit strangely empty of inhabitants, and pervaded—as is, indeed, the whole village—by an air of sober quietude, amounting to depression. The centre of the town into which this street debouches is of more cheerful aspect, and encloses a small park, surrounded on three sides by pleasant houses of varied architecture, and on the fourth, or north side, is filled up by the large church of St. Amand. Here is the principal hotel of the place—the Hotel L'Agneau—a druggist's shop, and several small estaminets and herbergen (auberge). The ubiquity of these houses of entertainment is a marked feature of the whole village. Every other house appears to be either an estaminet or a herberg, but so far as we could see very little drinking went on in them, and the beverages sold were of a light and relatively harmless nature. Nevertheless, the omnipresence of these houses does not seem desirable in a town containing nearly 1,000 lunatics under family care. At the south end of the village—on the Gheel-Herenthals-Malines road—stands the infirmary or reception-asylum, where the patients on arrival undergo a period—as a rule, one to two weeks—of observation; where acute cases, or those requiring special attention, are retained or brought in from the outside colony for treatment; and where the business connected with the administration of the colony is conducted. The infirmary has accommodation for 70 patients, and contains to-day on an average 60 to 65 inmates. More than thirty years ago Jules Falret prophesied that the infirmary would grow at the expense of the colony, and the methods of treatment become by insensible degrees those of a closed asylum. That prophecy is the most gratuitous form of error is well shown by the fact that since then the number of patients in the colony has grown from 730 to 2,000, whilst the asylum population has only grown from between 20 and 30 to between 60 and 65.

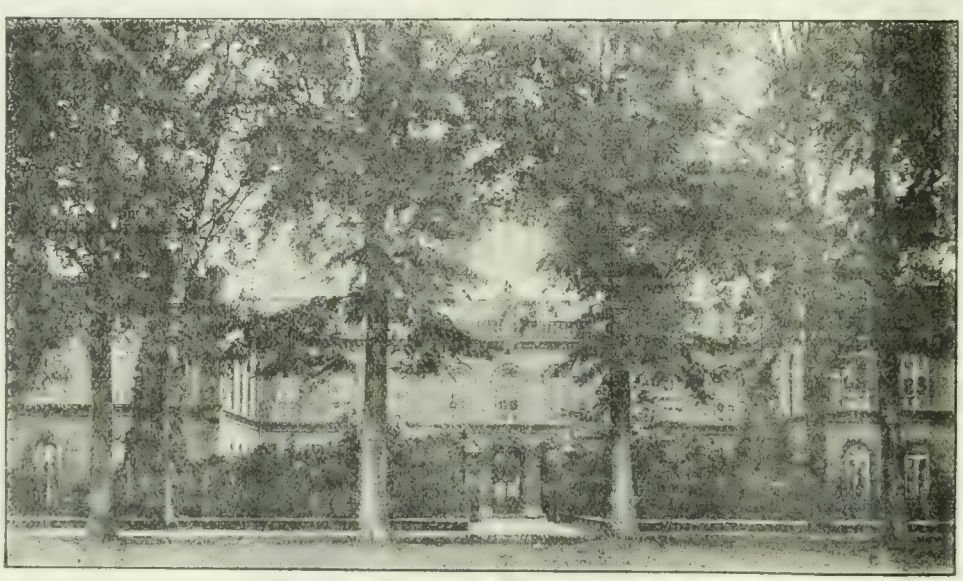


Fig. 1.—The Infirmary or Central Asylum, Gheel.

The Asylum.

Dr. Peeters, who makes the asylum his own special care, kindly conducted us over the institution, which—although in construction it is in no way comparable to modern asylums—made a very favourable impression. The patients, who had every appearance of being well cared for, were clean and well clothed, the wards were airy and well lit, the beds comfortable and daintily furnished, and the whole place beautifully clean. The psychiatric treatment leaves nothing to be desired, and all forcible methods of restraint, handcuffs, waist-belts, strait-jackets, etc., have been entirely abolished. The only feature which struck us, as it has other visitors, as requiring alteration, was that the windows of the isolating cells for violent cases were fitted with metal grilles, constituting, as a former visitor said, a direct invitation to suicide. The asylum is provided with a separate bathing establishment for the use of patients, an isolation hospital for infectious cases, a museum and library, and a pathological laboratory fitted with the most modern instruments of research. At the time we visited it the medical officer appointed specially for this work, Dr. Deroitte, was engaged in making a series of observations with Ramon y Cajal's new method. Dr. Peeters then placed us in the charge of M. Mathieu, the *Commis à la Colonie*, to whom we are much indebted for the time and trouble he took to explain to us the working of the colony.

Administration.

The government of the colony and infirmary is placed nominally under the authority of a Comité Permanent, composed of the Burgomaster as President, one Alderman of the Commune, and three other members nominated by the Minister of Justice; but for all practical purposes the Medical Director is the sole responsible head. The colony contained on January 1st of this year 1,834 patients, of whom about one-half reside in the village and the other half are distributed over the small detached farms and hamlets of the district. The colony is for medical purposes divided into four sections, which are accurately delimited and have each as far as possible an independent service. Each sectional medical officer, or *sectiegeneeskeer*, is required to visit and report upon each chronic incurable patient within his district at least once a month, and each patient who seems to offer a chance of recovery at least once a week. Naturally some cases require and receive more frequent visitation, and as in the course of any one visit the medical officer sees many other cases in passing, the whole colony is practically under daily medical inspection. There are also *gardes de section*, lay inspectors, numbering seven at present, who visit every patient in their respective sections at least twice monthly and report upon their condition, clothing and management, upon the state of the dwelliug, the quality of the food and so on. Lastly the medical director must make at least once a year a general inspection of the colony.

In addition to the bathing establishment at the infirmary, there are installations at four extremities of the colony, in the South at Steelen, in the West at Larum, in the East at Kievermont, and in the North at Holven, and it is proposed to erect another for the use of the numerous paying patients in Gheel. Two *baigneurs* who have charge of the bathing of the patients, which is carried out according to medical prescription, and one *garde-adjoint* at Oosterloo complete the machinery of supervision.

This *service de la surveillance*, then, is most careful and minute, and, owing largely to this fact, the patients are received everywhere as members of the family. They eat at the same table when that is possible, and receive the same, or greater, attention than the proper members of the family; they go with them to church, and, in order that there may be no line of separation between the patients and the family, the number of patients which any guardian may have under care is restricted to two. During our stay we visited hundreds of patients in the village and the surrounding country, and we can testify to the general air of contentment amongst the patients, to their comfortable and adequate clothing, to the wholesome and abundant fare provided by their guardians, to the cleanliness and comfort of the dwellings, and to the generally satisfactory character of their surroundings.

About one-tenth of the total number are paying patients—the so-called *pensionnaires*—for the most part boarded out in Gheel itself. They pay from 500 to 3,000 francs a year to their hosts (*hôtes*), and besides this make payment of 11 per cent. of the pension price to the treasury of the colony towards treatment and the cost of administration. We visited several of these paying patients and found them living on friendly terms with their hosts, comfortably housed, possessing private rooms to which they might retire at will, and many of them intelligently and usefully employing themselves. The remaining 1,600 odd pauper patients are located in the homes of carefully-selected guardians (*nourriciers*), who are for the most part small farmers, tradesfolk, or working people. It has been found that certain cases, suffering from certain types of mental disorder, do better with some of these than with others—a sort of specialism in guardianship, which is taken into consideration in the choice of a guardian. An important feature of the great variety of homes and *nourriciers* which offer themselves for selection—a feature whose beneficial value cannot be overestimated, and which is wofully lacking in closed asylums—is that it permits of the choice of a home in any one case in which the patient will feel really at home, an environment to which he is habituated, and in which he will find human interests and sympathies which he will assimilate as his own.



Fig. 2.—A street in Gheel showing class of house inhabited by patients.

The Homesteads.

We found the *nourriciers* to be, almost without exception, clean, kindly, and intelligent folk, displaying both pleasure and a certain amount of pride in the proper discharge of their duties and the welfare of the patients. They have printed instructions as to the management, feeding, clothing, and bedding of the patients, they are subject to the continual inspection of the medical officer and *gardes* of their section, and they receive, further, instruction in their duties in the form of lectures and published reports of medical conferences on the family care of the insane. Dr. Meeus, with commendable zeal, has also for a long time given special courses of lectures and practical demonstrations to the *nourriciers* and *gardes* of his section. We have said that in the infirmary all mechanical means of restraint have been abolished. In the colony also the old brutal instruments of coercion, whose use incurred so much just censure from last century writers, have been suppressed, so much so that the *nourricier* has not even the right of confining a patient in his room, and if in exceptional cases this is found to be unavoidable, the doctor and *garde* of the section must be at once informed. In certain cases, however—persistent masturbators and those who remove or destroy their clothing—the employment of gloves of cloth or leather is permitted. This we cannot regard otherwise than as a mistake. Such cases should be kept within the asylum.

The housing of the patients is, generally speaking, excellent. We, like all who have recently visited Gheel, were delighted with the country houses. These comfortable homesteads with their beautiful surroundings of well-tended garden, field and pasture, and their interiors with tiled floors lightly sprinkled with silver sand, clean washed walls and spotless furnishings, have an air of health and homely comfort which leaves nothing to be desired. The kitchen which opens directly from the door and on one side directly into the cow-byre is the centre of the home and the scene of diverse activities. It was, in all the houses we visited, a large and airy apartment with an immense fireplace, comfortably furnished, and notwithstanding that our visit was unexpected, absolutely clean and tidy. The door into the cow-byre is near the fireplace and permits by an ingenious arrangement of rail and pulley of the carriage to the cattle of hot mashes and prepared food. This proximity of the cow byre to the principal living-room has been considered to be an objection for the removal of which certain alterations have been suggested by Dr. Meeus in his paper on house construction in *L'Assistance Familiale*, 1904. The bedrooms—every adult patient throughout the whole colony must, according to the regulations of the colony, have a bedroom to himself—are as a rule on the ground floor, and where there are two patients the bedrooms are contiguous. Each, also by regulation, must have a minimum square surface of 6 metres and a height of 2½ metres, that is, a cubic space of 15 metres. They must also have each a window to open at will 1 metre high and ½ of a metre wide.

The houses in the village are in many respects inferior to those in the Campine, but are nevertheless as a rule thoroughly comfortable and clean, admitting plenty of air and sunlight. The condition of the houses in the village, as regards apparent comfort and richness of furnishing, is extraordinarily variable, and this—which at first sight appears to lay some of the poorer houses open to invidious comparison—is, when regarded from the standpoint of the ideas of comfort of some of the poorer patients, a decided advantage. Only in one part of the village, over which Dr. Boeckmans kindly conducted us, was there anything approaching discomfort. Here, as Dr. Alt has already said, the arrangements were not of the general excellence which characterized the rest of the town, and the streets appeared dirty and ill-drained.

We have already commented on the clothing and diet of the patients, and we need not do more than say that the clothing is provided from the institution, is comfortable and sufficient, that the inventory which accompanies each patient is checked by the *gardes* on their rounds, and that the food is that of the family in which the patient is placed, and is excellent in quality and abundant.

Results.

The 1,834 patients, of whom 1,014 were men, and 820 women

are for the largest part either congenital idiots and imbeciles (35 per cent.), or cases of chronic, secondary, organic, or senile dementia (37.5 per cent.). About 10 per cent. are cases of epilepsy and hysteria, and a further 7½ per cent. of melancholia and hypochondria. Cases of acute mania are naturally excluded, as, of course, are all cases which are violently excitable, homicidal, suicidal, or given to indecent exposure. Such cases are, in the first place, not often sent to Gheel, and, when they are, are weeded out at the infirmary, and sent back to closed asylums. Of the patients sent to Gheel, about 17 per cent. are thus returned as unsuitable for family care. Each case has thus been subjected to a double examination, first at the district from whence he came, and afterwards at the infirmary. On the first sign of violent excitement in a patient under family care, he is brought back to the infirmary for a further period of observation. Many cases of circular insanity have been treated successfully in this way, living for the most part in the colony, and returning to the infirmary for treatment during periods of excitement. It is a fact, moreover, that many patients who have been somewhat excitable and inclined to violence in the asylum, and about whose entire suitability for family life doubts have been entertained, have become calm and tractable under the soothing domestic influences of the families in which they were placed. Experience shows that many more cases than might be expected do well under family care. This was most instructively demonstrated when in 1881 the Belgian Government decided to close the asylum of Ste. Anne-lez-Courtrai. One hundred and fifty-three inmates of that asylum, till then considered dangerous, were transferred to Gheel, and out of that number only two were found to be unsuitable for the colony!

We have said that the patients enter into all the interests and pursuits of the family, and this naturally includes the work of the family in which they are lodged. They assist in the work of the house, the female patients attend to the children, sew, knit, and fulfil various domestic offices, and on the farms the patients give valuable help in the culture of the gardens and land. To a very large extent the conversion of the former barren and waste lands of the Campine to the present fruitful and smiling country is due to the patient labour of hosts of sufferers who have sojourned here, and have found surcease of pain in those congenial tasks and healthful toil which are everywhere twice blessed, in blessing him that gives and him that takes.

The fear, expressed by many who have had no practical acquaintance with the working of this system, that the patients would be hard-driven by their guardians, is found to be groundless; efficient supervision renders it impossible. In not one case here or elsewhere did we meet a patient who wished to be removed from family care to the closed asylum.

The patients are divided, according to the amount of care and attention required, into three classes: the *propres*, who are able to attend to themselves, and are on the whole well conducted; the *semi-gâteux*, who are at times disorderly and dirty in their habits; and the *gâteux*, who are dirty and require constant attention.

Finance.

The *nourriciers* are paid by the government of the colony according to the class of the patients placed in their care, 85 centimes a day for the *propres*, 99 centimes for the *semi-gâteux* and 125 centimes for the *gâteux*. For these sums, however, the *nourriciers* are required to refund to the treasury of the colony towards erection and maintenance of bath-houses, etc., about 20 centimes, retaining to themselves 64 centimes in the case of the first class, 80 centimes in the second and 105 in the third class. From this source and from the payments of the *pensionnaires* the colony thus receives a yearly income of over 180,000 francs. This system is found, apart altogether from the cost of erecting asylums or interest on the outlay, to be more economical than the system of closed asylums.

Under this system, then, the cost of maintenance of the patients is less and the patients are happier and more contented than under asylum régime.

Death-rate.

This is an element of the greatest importance, and is an indication second to none of the value of any therapeutical measures. "Dites moi votre mortalité," said Baillarger, "et je vous dirai quel est votre régime." For purposes of comparison we place side by side the figures of the Gheel colony and those of English asylums since 1893, and in considering these figures it is important to remember that the English figures include the deaths amongst the *total* asylum population, whilst those of Gheel refer to a more or less specialized class—dements, chronic maniacs, imbeciles, and epileptic cases, in all of whom the mortality is notoriously high. On *a priori* grounds, therefore, we should expect a much higher death-rate amongst the patients of Gheel than in the mixed asylum population in England. The subjoined figures are from the Lunacy Commissioners' fifty-eighth report and from Dr. Peeters's *Situation Actuelle de la Colonie de Gheel:*

TABLE A.—*Percentage Deaths on Average Number of Resident Patients.*

	England and Wales.	Gheel.
1893	10.22	6.40
1894	10.39	5 90
1895	10 02	5 40
1896	9.78	5.50
1897	9 53	5 70
1898	9.66	5.30
1899	9.37	5.70
1900	9.27	5.20
1901	9.13	6.01
1902	9.40	4.07
1903	9.17	4.04
Average	9.57	5.38

The death-rate amongst the insane population in England and Wales is thus almost double that of the colony of Gheel, and this, as we shall see later, holds good also for other colonies. A number of causes co-operate to produce this excessive mortality in our English asylums, but all have their root in the close congregation within limited areas of large numbers of the insane, and amounting in some English asylums to between 2,600 and 3,000. England is not alone in this. Examination of the statistics of other countries shows a death rate amongst the insane comparable in magnitude to our own; everywhere this marked contrast obtains between the mortality in closed asylums and that of family colonies. There is nothing surprising in this. What is surprising is that in an age like ours, when the beneficent influences of unlimited sunlight, fresh air, and natural occupation are fully recognized, and in which the value of the insurgence, indispensable for healthy life, of those sensory stimuli to which man has become attuned during the long ages of his open-air evolution, is affecting all our methods of treatment of the sane—that in an age such as this it is still permitted to herd together thousands of the insane poor within the square area of a few thousand yards. In our private asylums, with their spacious parks and private golf courses, the environmental conditions are naturally superior, and the average death-rate to daily average residents for the past ten years was 6.17 per cent., as contrasted with the 10.06 of the county and borough asylums. Even this death-rate, however, is greater than that of the Gheel colony.

Tuberculosis.

The most important cause of death amongst the insane is consumption. It is the bane of every asylum, selects its victims from amongst the ranks of the secondary dements, congenital idiots, imbeciles, and the epileptic, and is preponderatingly rife amongst the indigent insane. The deaths from tuberculous disease amount in certain asylums to as much as 35 per cent. of the deaths from all causes, and accounted for no less than 1,586 deaths amongst the population of county and county-borough asylums, hospitals for the insane, and licensed houses in England and Wales during the year 1903. The proportion of tuberculous deaths to deaths from all causes in the county and borough asylums was 17.4 per cent. in 1903, and these figures include only deaths from phthisis pulmonalis and general tuberculosis, and take no account of many other deaths, possibly tuberculous in origin, collected under other categories—for example, tumours of the brain, meningitis, pleurisy and empyema, and diseases of bones and joints. The English Commissioners in Lunacy are never weary in pointing out the prevalence of tuberculous diseases in asylums. In their report for 1902 they said:

> The proclivity of the insane, whether confined in asylums or not, to tuberculous disease, especially pulmonary phthisis, has long been recognized. The conditions of asylum life undoubtedly favour its incidence, and, with improvements in sanitation and diet, there has certainly been some diminution in the proportion of those attacked.

And again, in their report for 1903, they say:

The evils of undue aggregation in consumption have already been widely recognized by the public, who have long since realized the extreme difficulty, if not the impossibility, of maintaining in health even animals of the lower species which are kept in confinement under such conditions.

They further prepared a series of tables in this last report relating to county and borough asylums arranged under three groups: A of asylums of more than 1,000 inmates, B of 500 to 1,000 inmates, and C of less than 500 inmates, and they found that the respective proportions of tuberculous deaths to deaths from all causes were: A 18.3 per cent., B 16.5 per cent., and C 16 per cent. This enormous death-rate from consumption in asylums has awakened wide attention, and the results of the special committee appointed by the Medico-Psychological Association in 1901 to investigate the matter receive corroboration from the writings of Wulff, Osward, Snell, Anglade, von Grashey, and many other writers.

Let us turn now to the tuberculous mortality of Gheel. We have already mentioned the fact that the incidence of tuberculous disease is heaviest on the dements, congenital idiots and imbeciles and the epileptic. This fact is so well known that it hardly calls for statistical support, but we may mention in this connexion the important results of an inquiry into this question by Crookshank and France, who found that dements, congenital idiots and imbeciles were subject to tuberculous disease in at least four times the proportion found in other forms of mental disease, and those of Snell, from whom we take the following figures, in 1,240 cases of death occurring at the asylum of Hildesheim:

TABLE B.

	Cases.	Tuberculous Deaths.	Percentage.
Démence consécutive à la mélancolie	143	59	41.2
Mélancolie	169	67	39.7
Démence consécutive (en dehors de celle qui se rattache à la mélancolie)	162	62	39.6
Délire	177	63	35.6
Démence primitive idiotie	63	19	30.1
Folie épileptique	102	28	27.4
Manie	59	16	27.1
Folie périodique	38	7	18.4
Paralysie	320	1	0.3
Délire aigu	7	0	0.0
Total ..	1,240	322	25.9

Now, as we have already said, the patient population of Gheel is almost entirely composed of those classes of patients upon whom the incidence of tuberculous disease is the greatest in all asylums, and yet here, as in the total death-rate, we find a tuberculous mortality which is only the half of that in our English asylums. The following figures are taken, with the exception of the last column, from Dr. Peeters's *La Tuberculose dans les Etablissements d'Aliénés*, which contains an instructive summary of the whole subject:

TABLE C.

	Population January 1st.	General Mortality.	Tuberculous Deaths.	Percentage to Total Deaths.
1894	1,886	131	11	8.39
1895	1,916	119	9	7.56
1896	1,983	123	10	8.61
1897	1,973	129	10	7.75
1898	1,983	119	9	7.56
1899	1,954	124	8	6.45
1900	1,957	124	11	8.87
1901	1,853	131	16	12.21
	Total 1,000		84	8.42

The average proportion of the tuberculous mortality to the deaths from all causes in Gheel for the eight years ending January 1st, 1901, was thus 8.42 per cent. as contrasted with the 17.4 per cent. of our county and borough asylums for 1903. This one fact, apart from all other advantages, is in our opinion a sufficient vindication of the merits of this system, and would by itself justify the plea for the liberal extension wherever possible of the family care of the insane poor.

Recovery Rates.

Little remains to be said from the statistical standpoint. With a class of patients such as that at Gheel little is to be expected in the way of permanent recovery—the acute and curable cases not being as a rule sent there, and it is little less than remarkable that out of the 2,708 patients admitted during the fifteen years ending January 1st, 1904, there should have been 521 discharged as cured and 150 as notably improved, giving a recovery-rate on admissions of 19.2 per cent., or, including the notably improved, 24.5 per cent. of favourable results, and this amongst a class of patients largely composed of transfers from other asylums.

Conclusion.

Here we must leave Gheel, with its old-world superstitions and modern psychiatric methods, its quiet streets and healthful farms, whose air of homely comfort and sober restfulness is in such marked contrast with the noise, confusion, and restlessness of our crowded wards, and in doing so would express our indebtedness to its energetic head, Dr. Peeters, and to Drs. Cuisenaire, Boeckmans and Deroitte, and M. Mathieu for the time they graciously put at our disposal. We have much to learn at Gheel and much more to unlearn, many preconceptions and prejudices to discard, ere the facts concerning the family care of the insane can be appreciated at their true worth.

THE TEACHING OF HYGIENE IN SCHOOLS.

VI.—EYE-STRAIN AND BRAIN-STRAIN.

WE have already said that the principal causes of myopia are convergence of the eyes and stooping of the head. It is obvious that everything should be done to prevent these conditions in schools, and in order to accomplish this it is of first importance that every teacher should be impressed with the importance of the following points:

1. An ample supply of light.
2. The light must fall upon the work from the proper direction.
3. The object looked at must be easily distinguished.
4. The object must be so placed as to be seen without stooping.
5. There must be a distance of not less than 10 in. between the eye and the work.

Miss Sayer states that: "At 6 years of age 3 per cent. have seriously bad vision and 88 per cent. can see $\frac{6}{6}$ with each eye; at 11 years of age 11 per cent. have seriously bad vision and only 58 per cent. see $\frac{6}{6}$ with each eye. The rest have slight defects."

That myopia scarcely ever exists before the age of 5, and that statistics taken in elementary schools by Mr. Priestley Smith and others prove that from that age onwards the numbers of children who suffer from it steadily increase, goes to show that school conditions must be defective.

It should be clearly understood that the points mentioned should be attended to not only with the object of checking the development of myopia, but also in order to prevent unnecessary strain upon the brain and nervous system of the growing child. The child has not only to see the object but also to take in what it means; the younger the child the greater the strain. The eye and the brain have to be educated while both are at the same time undergoing a process of growth and development.

Dr. Kerr, who was the first to give to this point the prominence it deserves, in his report for 1903 says:

School effects from fine work and poor illumination are more likely to show themselves in general nerve strain and unhealthy neurotic or nutritional conditions than in very defective visual acuity during school life. The real harm of defective vision and of school work not adapted to the visual capacity of the young lies in the strain thrown on the developing nervous system. A great deal of unnecessary strain is exacted from children in our infant departments.

Probably many of us fail to recognize how much a child in the infant class has to learn in relation to the senses. Its higher centres have to become co-ordinated; it has to understand how to combine impressions received from the organs of vision, hearing, and tactile sensation, so as to obtain a complete mental conception of an object. To take a very simple example: it has to learn to associate the form of a letter with its sound. It is obvious that if we add to these natural difficulties artificial obstacles, the strain on the nervous system must be increased until it produces distinctly injurious effects, not merely upon the eye, but also upon the development of the intellect. Every teacher knows the difficulty of rivetting a child's attention; if the object the child is expected to see and to understand is too small or insufficiently lighted, its attention wanders. Yet the cultivation of the faculty of attention is perhaps one of the most important parts of the

teaching in an infant school. Again, with regard to the rules that the object must be so placed as to be seen without stooping, and to be at a distance of not less than 10 in., it must be pointed out that their observance not only influences the eyes, but also the spine and bones generally. There can be no doubt that a faulty attitude in writing and reading is the commonest cause of lateral curvature, and as has been said before, habits contracted in the infant schools are likely to stick to the child all through its school life.

Dr. Kerr, in his evidence before the Committee on Physical Deterioration, said he considered that "the methods pursued in many infant schools were responsible for the development of visual defects; 95 per cent. of over 1,000 infants examined for the purpose between the ages of 6 and 6½ managed to reach the standard of normal visual acuity in London, but among older children it was found that 10 per cent. had exceedingly defective vision." "The conditions," he says, "are bad for infants' eyesight in every way; the work is too fine." He summed up by saying that the teachers as a body are comparatively ignorant of hygienic principles. He considered that hygienic knowledge is necessary for both teachers and inspectors, that it should be a necessity for the teachers' qualifications, and the points he suggested were: (1) Increased care by separation and treatment both educationally and hygienically of the already damaged; (2) the necessity of hygienic knowledge for teachers and inspectors; and (3) the "sanitary conscience" as a school ideal.

There is no doubt that the proper education of the teacher is at the root of the whole matter. The teacher of the infants and youngest children should receive by far the most scientific training, combined with the common-sense practical application of this teaching. By this we do not mean a grounding in science, but a well-reasoned education calculated to turn them out reasonable beings. One of the speakers at the Teachers' Conference in London on January 7th made a strikingly wise assertion, that whereas we generally account a university professor as the most important of our teachers, infinitely more important is the nursery governess or the teacher in the kindergarten. Never was truer word spoken, and in ignorance of this fact lies the greatest flaw in our educational system. All our best efforts should be given to the training of the teachers of our youngest children, and if their education was sound and practical, such abuses as infants under 7 doing fine needlework, reading out of fine print books, and writing between lines, would die the death they deserve.

No money should be spared on the education of these women, so that their education should be thorough and leisurely; and it would be wise to allow them opportunities of talking with broad-minded sympathetic women, whose advice is precious; and, if possible, they themselves should be married women with children of their own, and whose instincts might therefore be trusted. No mother with a spark of instinct would put her baby of 4 to learn needlework drill or to do hemming; but an ignorant girl in charge of that same baby might possibly perpetrate this crime. Every habit is formed in the infant department and becomes fixed if allowed to be contracted. The very first thing one would expect a teacher of infants to realize is that their eyes must not be overworked, and that a sufficient working distance is maintained; to develop a child's mental powers at the expense of its physical is a suicidal policy. Some of our few experts distinctly lay down that, putting the question of eyesight out of the question, the time given to reading, writing, and sewing under the age of 7 is so much time wasted—wasted because the child can be grounded in so much else during this time; its character can be formed, its brain, which is particularly susceptible to influences, trained, and its senses developed. The senses, if not developed, die down, and the child is deprived of them for ever. It is during this time that the large or so-called coarse movements of the limbs should be exercised, in order that the child should gain motor control. After the control is acquired, such mechanical things as sewing, which requires steadiness of hand and precision of eye, will follow as a natural consequence. At present drawing is taught in the following manner to infants in elementary schools: The teacher chooses a subject—last week in every school visited it was the new moon and the star Venus—she draws a picture of the moon and the star Venus on the blackboard and colours them with crude coloured chalks (we may remark in passing that most of the teachers had put a grotesque face in the moon, in order, they said, to interest the infants). The children are seated at their desks, at the extreme outer edge of which small drawing boards are fixed into a groove, bolt upright, without the slightest slant. They are presented with coloured chalks, crude like that of the teachers, and have to copy what they see on the blackboard. Now, let any one interested in the subject try to do freehand drawing seated at a desk, upon a vertically-placed board about 15 in. by 10 in. To begin with the *raison d'être* of freehand drawing is done away with when the arm cannot move freely in a sufficiently large space. From the cramped sitting posture the back and the eye are strained, and the arm, wrist and hand rendered unsteady. Has an artist, an engineer, or an architect ever been seen using a canvas placed vertically on an easel? Of course not; the canvas always slopes to assist the eye and the hand. Every school should have gently sloping canvas blackboards round the sides of the schoolrooms placed at the average height of the children. All work should be done standing for the free exercise of the large muscles. Freehand drawing, properly carried out, is really a physical exercise—it exercises not only one limb but the whole body, it trains the eye, and cultivates the artistic faculties. If children are allowed coloured chalks these should be of the most artistic shades, not crude aniline dyes. The colour sense is precocious, and can from the earliest age be trained either from the point of view of the vandal or of the true artist; if utterly neglected it can gradually die out altogether, and with it much that is morally elevating.

All the centres influencing movements and the senses of hearing and seeing are supplied by one blood vessel. It is evident that over-pressure may easily ensue. As the power of spontaneous drawing dies out as the brain matures, it is very important to develop this as early as possible, or we shall never have anything but deficient children. Instead of choosing a cut-and-dried subject, and drawing it atrociously as a model on a blackboard for the class, if teachers would appeal to the imagination of children and allow them to show their originality and their individuality, the gain would be incalculable. A good plan is to tell a story and allow them each in their own way to draw the things which have struck them most in the story. Mrs. Kirk, who has done so much to reform the teaching in infant schools in Bradford, and has such a wide experience, adopts this method in her own school with the most interesting results. In fact, all her teaching aims at developing the highest artistic senses of her children in such a way as not to injure their eyesight and their physique.

Many eye specialists consider that an unhealthy physique has a good deal to do with bad sight. We quote Mr. Priestley Smith: "A sound physique, a healthy, vigorous condition of the body generally is antagonistic to the working of almost every morbid process, and even in the case of short sight, the causes of which are mainly local rather than constitutional in their operation, it has a powerful deterrent influence. An ill-nourished, pale, and lax condition of body lowers the resisting power of the eye, as of every other organ; . . . an impaired physique brings with it, among other evils an impaired resistance to the active causes of short sight." And, as we stated last week, Mr. Nettleship and Mr. Henry Power hold the same opinion. If this be true it is significant that Sir William Anson has spoken of 60 000 children so physically unfit as to be unable to profit by the education they are receiving; and that Miss Ettie Sayer, Assistant Medical Officer to the London County Council Board of Education, after a careful investigation, calculated that at least 25 000 children are seriously handicapped in all their pursuits owing to bad sight.

	Boys (56 Departments).			Girls (51 Departments).			Mixed (12 Departments).			Infants (44 Departments).		
	Satisfactory.	Fair.	Bad.	Satisfactory.	Fair.	Bad.	Satisfactory.	Fair.	Bad.	Satisfactory.	Fair.	Bad.
School conditions ..	51		2	48	3	—	12	—	—	43	1	—
Window lighting ..	28	14	14	26	16	9	10	1	1	16	12	16
Artificial lighting ..	33	12	11	33	7	11	7	4	1	30	8	6
Heating	45	5	6	45	1	5	11	—	1	35	3	6
Ventilation	43	6	7	43	4	4	11	—	1	33	5	6
Seats and desks	50	4	—	44	6	1	10	—	2	39	4	1
Environment of schools	7	17		31	17	3	11	1	—	29	12	3
Physical development..	23	22	1	26	15	10	11	—	1	26	11	7
Cleanliness	23	18	1	26	15	10	11	—	11	28	6	10

A good teacher of infants should limit the time spent by her pupils in work involving the straining of the eyes. Mines of knowledge can be imparted without requiring the children to touch a book or a pen. She should see that her schoolroom is properly lighted, both as concerns natural and artificial lighting. The table (p. 154) taken from Dr. Kerr's annual report (year ending March, 1904) shows clearly that there is much that is wanting in this and other respects.

The importance of the direction in which the light falls upon the book of the child is not realized. The light should come from the left, and although there is uncertainty in the minds of experts as to whether an ideal light might not come from both sides, that coming from the left hand is good enough. In no case must the windows face the child, and if they are placed behind the body and head they form a shadow on the book. Windows in the schools are only cleaned once, at the beginning of each term, and teachers complain that they get so grimed before the end that the light is quite insufficient. This point requires looking into by the educational authorities, who should remember the excellent maxim of "penny wise and pound foolish."

Mr. Priestley Smith, in speaking of the artificial lighting of schoolrooms, says:

> The desks should be illuminated by a row of burners placed not many feet above them, and somewhat to the left. Ground glass globes, which greatly diminish the intensity of the light, should be replaced by transparent chimneys for the sake of clearness and steadiness, and reflectors may be added with great advantage.

Abroad in many schools the walls are distempered a soft water green; this is restful to the eyes.

As soon as it is considered wise allow the children to use readers, these should be printed in good clear large type on thick paper through which the type on the next page cannot show. The distance between the letters and lines should be observed and their proportionate thickness. Slates happily have been abolished, and if drawing boards are used for chalk drawing, these should be quite black instead of the dirty browny-grey neutral colour of those at present used in the schools. Inasmuch as children sit at desks during the whole of their lessons these should be selected with the greatest care.

Dual desks are strongly to be condemned as tending to produce contorted attitudes and to spread infection. It seems generally considered that foot rests are injurious, as they are apt to favour a cramped position unless they happen to be in exactly the right place, which, on account of the varying height of the children, is not often the case. The back requires support, and in order to supply this the edge of the desk should project slightly beyond the edge of the seat so that the child may lean back. A gentle slope—say from 15 to 20 degrees—is necessary. It should be possible to raise it so that the book when resting upon it for reading is at an angle of about 45 degrees, and not less than 12 in. from the eyes.

In order to enable the children to stand up at their desks, while at the same time meeting the objection that single desks take up space, Dr. Kerr in his report for 1904 recommends a continuous desk of half a dozen places with single pedestal chairs known as the Sheffield system. The advantages of this system are, he states:

1. That the seats are isolated.
2. Each child is accessible.
3. Each child can stand by its seat in its place; drill can be taken for a minute or two with the children in their places.
4. Rooms cannot be overcrowded.
5. The tilting of each desk on end for cleaning of the floor is not required.

The space taken up by the desks and gangways in a classroom is, he points out, the same as in the case of dual desks, about 1,000 square inches per seat. Cleaning is very much simplified with these seats and desks.

For the youngest children flat tables or desks are most suitable, and we think that it would be good to have only enough of these in the room to accommodate half the children, while the other half stood doing blackboard or other work. They might have stools which they could move about themselves, and the babies might even play on the floor, building bricks, etc. In fact, it is a question whether desks should exist at all in departments of infants below 6; everything points to the injury done to children of that age by cramping them in fixed positions for five hours a day. It is of interest to know that babies under 4 are only allowed for recreation a quarter of an hour in the morning and ten minutes in the afternoon, just at an age when physical exercise and movement are so essential. We cannot resist quoting the following from the Code for Teachers (Article 147) of the London School Board: "It is exceedingly important that children should as far as possible be prevented from acquiring the bad habit of working with a short distance from eye to work. In no case should any child be permitted to occupy itself with work nearer to the eye than a foot.

"In infants' departments, in girls' when sewing, in boys' when writing or doing fine work or painting, the children may often be seen to bring their eyes down closely to their work, ensuring cramped chests, round backs, and much eye-strain. During such work teachers should pay special attention to prevent these habits, and endeavour to secure observance of a proper working distance."

So much for a rule framed by the members of a learned and responsible body who might be supposed to possess hearts and intelligence. Forty or fifty infants are flung into one schoolroom; the time table is filled with tasks of machiavellian ingenuity; inspectors take care to reduce the teachers to such a state of moral fear that they quickly lose every shred of personal initiative, and slavishly follow this time table. They can follow the time table and set infants to do blinding work, but what no one can expect is that one teacher should succeed in obliging the forty or fifty infants to hold their books or their work at a stated distance from their faces.

It would be more to the point if they taught their children how to breathe correctly and how to sing in tune, to play games (always with a gentle amount of discipline). As Froebel pointed out eighty years ago, the child is not playing, but primitive man trying to educate himself. Grown-up people use recreation as a relaxation, a rest; strenuousness is characteristic of play in children, and the younger the child the more serious the play becomes. Give these children clay or sand and they will be happily and profitably employed for hours. Give them chalks and a blackboard; who knows that among them may not be lurking a future Whistler or Burne-Jones? In this way they can keep their individuality, and their sight.

ASSOCIATION OF CERTIFYING FACTORY SURGEONS.

ANNUAL REPORT.

THE Honorary Secretary's report for the year 1903-4, which has just been issued to the Certifying Factory Surgeons' Association, is rather more extensive than usual, and contains a great deal of matter of exceptional interest to the factory surgeon. The prosperity of the organization is shown by a credit balance of £73 and a net increase of 30 on the membership roll. The number of members, which stands at 355, is regarded as very satisfactory in view of the fact that there are only 120 surgeons in the whole country who make over 1,000 examinations per annum and only 57 who can boast of over 2,000. The rules of the Association have been revised during the year, the principal alterations being the establishment of a Council in place of a Committee of Management, provision for the engagement of a paid secretary, and the making of regulations for the investment of surplus funds.

REPRESENTATIONS TO CHIEF INSPECTOR.

An important memorial which was transmitted to the Chief Inspector for presentation to the Home Secretary, in July last, is published in full. This relates to certain desirable alterations in the conditions under which the duties of the office are carried out, and the various points are dealt with under six separate headings.

Examinations for Certificates of Fitness at the Surgeons' Residence or Rooms.—This deals with the most objectionable feature of the appointment, from a factory surgeon's point of view, namely, the examinations which have to be made at the surgery for a sixpenny remuneration. Though this has been continuously objected to during the last thirty years, new ground appears to have been broken in the present memorial. It is contended that the power given by the Act of 1901 to enter the works for the purpose of inspecting the process at which the examinee is employed has rendered examinations elsewhere than at the factory unworkable and contrary to the spirit of the Factory Act, and it is therefore claimed that the surgeon must necessarily have discretionary power as to where he will examine any child. It is pointed out that the total number of youthful employés being under or over 5 cannot possibly regulate the necessity for investigating the nature of any particular employment, as such processes as file-cutting, emery grinding, mineral water bottling, and others with dangerous or unguarded machinery have no

dependence, either for their existence or dangers, upon the number of youths engaged at them. It is shown that municipal corporations, gas and electricity companies, builders and contractors, railway companies, and the owners of money-making monopolies which require only skilled adult labour and an occasional apprentice, are prominent among those who avail themselves of the sixpenny examination, so that its abolition would not be likely to prove a particularly severe tax upon industry.

Remuneration for Investigation of Accidents.—Under this heading it is claimed that the minimum fee of 3s. for two visits (that is, to the works and to the injured person), and a fairly lengthy report is quite inadequate, and it is asked that this be raised to 5s., with a mileage rate of 1s. a mile when over three miles is travelled.

Remuneration Paid for Investigation and Report on Cases of Industrial Poisoning, etc.—It is held that the special importance of this class of work should command a higher rate of pay than accident investigating, and very good arguments are brought forward in support of this contention. It is suggested that the minimum fee be advanced to 7s. 6d.

Payment for the Annual Report.—The Act of 1891 created the obligation to make an annual report, but made no provision for payment, and the previous attempts made by the Association to get this defect remedied are detailed. The keeping a daily account of one's work under so many different headings means a considerable labour, and the totalling up at the end of the year involves a certain expenditure of time; as this is done for the information of the Government it is thought to be only fair that the Government should provide some remuneration. The fee recommended is 5s. for the first 100 examinations, and 2s. 6d. for each additional 150, with a limit of 3 guineas. The Chief Inspector is reminded that a chartered accountant's certificate, to the effect that the total annual cost would prove to be about £660, was forwarded to him in July of 1901.

Certifying of Female Young Persons between 16 and 18 Years of Age.—It is stated that the Association statistics show a 17 per cent. higher rejection-rate for medical reasons among females than males; that during the age-period mentioned there is a particular liability to anaemia and special troubles; that conditional certificates would be very valuable between these ages; and that future maternal obligations should not be lost sight of. These arguments are thought to be sufficiently strong to prove the advisability of bringing these girls before the certifying surgeon.

Extension of the "Certificate of Fitness" Requirement to Workshops.—It is claimed that the number of rejections made every year has quite proved the utility of the medical examination in the case of factories, and as it is the general rule to find worse conditions and a lower class of employés in workshops, the extension of this requirement to such places would be a proper step in national advancement. It is thought that a better reason for the enforcement of a medical certificate could be found than the bringing into a workshop of an electro-motor or gas engine. As a tentative measure it is suggested that the Secretary of State make an order extending medical supervision to workshops employing female "young persons."

REPORTS OF DEPARTMENTAL COMMITTEES.

Such parts of the reports of the Departmental Committees on Compensation for Injuries to Workmen and Physical Deterioration as deal with the duties of certifying surgeon are concisely summarized, and the evident impression in departmental circles that the services of these medical officers could be utilized with advantage to a greater extent than at present is fully emphasized.

Workmen's Compensation.—The failure of the office of medical referee under existing conditions is explained and the recommendation that these duties should in the future be combined with those of the factory surgeon is approved of. The suggestion to render this officer independent of private practice by paying him a sufficient salary would, if acted upon, prove an effectual means of creating confidence in his opinion when given before a court. It is pointed out that the Association had previously advocated the utilizing of the certifying surgeons' accident reports in compensation cases.

Physical Deterioration.—It is pointed out that the whole of the witnesses who gave evidence on the work performed by the certifying surgeon were agreed as to the advisability of extending the duties of the office. The taking in hand of the anthropometric survey in so far as factory employés are concerned, the examination of persons over 16 years of age, the making of re-examinations at stated periods, the medical examination of young persons employed in coal mines, the extension of the certificate-of-fitness obligation to workshops, and the certification of women returning to work after confinement are the directions in which such extensions are advocated. With reference to the suggestion that the "Advisory Council" on public health matters should contain members nominated by medical corporations, it is held that the Association of Certifying Factory Surgeons would have a strong claim for representation.

ABSTRACTS OF ANNUAL REPORTS.

A strong effort is made at the end of every year to persuade the members to send in abstracts of their annual reports. During 1903 the members who responded accounted for 204,977 examinations and for 2,355 rejections, 1,159 of the latter being for medical reasons. Though the number of males examined is very little in excess of the females, the latter are considerably ahead in rejections, the total percentages for all ages being 0 45 and 0.7 respectively. The most common causes for rejection appear to be want of cleanliness (including pediculi), disease of organs of special sense, developmental disease, skin disease, constitutional disease, unsuitability for dangerous processes, and disease of the circulatory system. It is worthy of note, however, that 3 95 per cent. of the rejections were for infectious febrile disease.

The report concludes with an appeal to the members to support the Industrial Hygiene Section at the forthcoming meeting of the British Medical Association at Leicester, and by a notice of an international congress on industrial accidents, to be held in Liége during the month of June this year.

THE PROGRESS OF TROPICAL MEDICINE.

ON January 12th Major RONALD ROSS delivered a lecture on the progress of tropical medicine at Liverpool before a large and distinguished audience.

He said that a large part of the British Empire lay within or near the tropics—the East and West Indies, the chain of West African Colonies, and many isolated possessions and protectorates, such as Egypt and British Central Africa. In many of these, and no less in many of the tropical possessions of France, Germany, Holland, and Belgium, disease was the principal bar to progress. Particularly in the case of tropical Africa one could not fail to be struck by the fact that that great continent still remained uncivilized, in spite of its proximity to Europe, much greater than that of Asia or America, which, however, had advanced far more than Africa in the path of civilization. All things considered, he was convinced that the principal cause for this backwardness was the so-called unhealthiness of the African "climate," where, as used frequently to occur on the West Coast, half the Europeans in a settlement might be obliterated by some epidemic within a few weeks, and rapid progress was hardly possible. The ever-present endemic diseases of these vast areas, and of many more tracts of the tropical world, paralysed administration by direct mortality, and also by compelling a constant return to Europe in search of health; it paralysed commerce for the same reasons, vastly increased the cost and dangers of military expeditions, and checked the missionary and explorer on the threshold of the countries which they came to open up. Not only on the European visitor, but on the wretched natives themselves, did they wreak their evil. Before prosperity in such areas could even be dreamt of they must set themselves to the wheel of tropical sanitation and struggle against those maladies which were the cause of the evil. There was only one way, and that was to ascertain their nature. Mere empirical efforts to cure them, or even to prevent them had in most cases failed for many centuries. Several of the great tropical maladies, such as malaria, typhoid, dysentery, guinea-worm, and, perhaps, Malta fever, were known to the ancients, but, of course, scarcely more than clinically. Perhaps the first great discovery in tropical medicine was that made by unknown persons of the efficacy of cinchona bark in malarial fever. Having enumerated the names of several scientists who had discovered the germs of some of the diseases, including the bacterium of Malta fever, the bacillus of plague, the epidemic type of dysentery, sleeping sickness, and black sickness, Major Ross asked what was the true nature of all these discoveries. They actually showed

them the cause of many maladies, but without immediately showing how to cure or prevent them. What they wished to learn regarding these organisms was from a practical point of view—not their structure or classification, but the method by which they effected an entrance into the body. After referring to the work of Hankin and Haffkine on plague, and to the observations of Loos in Egypt on ankylostomes, he said that perhaps the most complete triumph of science in regard to the mode of propagation of diseases was obtained in connexion with malaria and yellow fever. It was often asked whether malarial fever could not be produced in other ways than by the bite of mosquitos. He could only say that no satisfactory evidence of this had yet been given. There was no doubt yellow fever alone did more to check the prosperity of tropical America than almost anything else. The last of our triumphs was the discovery of the exact method of its propagation. When the Americans seized Cuba in the Spanish-American war they at once set themselves to the task of grappling with this malady. Their Government immediately appointed a commission of experts. These gentlemen tried to find the parasite which caused the disease and failed, and he might say that no one had yet succeeded in this endeavour. Fortunately, however, there was a physician living in Havana, namely, Dr. Finlay, who had long maintained a theory similar to that which had been found to hold with regard to malaria, namely, that yellow fever was also carried by mosquitos. He satisfied himself that mosquitos of the kind called *Stegomyia* did carry it, and gave a number of these insects to the American Commission for further experiment. The fact that yellow fever was carried by mosquitos, and by mosquitos only, was now determined with the utmost certainty. The discoveries, made mostly within the last quarter of a century, had resulted in the partial or complete solution of the great problems they sought to solve—at least, in connexion with five or six of the most important tropical diseases, each of which slew annually its millions or hundreds of thousands of victims. But while science could make discovery after discovery tending to benefit human life, it did not follow that human life would be benefited. Science had not only to discover but also to persuade. They had to persuade not only the public but the municipal and Government authorities, in whose hands public sanitation was placed. They owed the initiative to a great statesman—Mr. Chamberlain—who early in 1899 publicly formulated a scheme for the creation of schools of tropical medicine. His initiative was immediately followed in London and Liverpool, and they had received great support from merchants throughout this country connected with our tropical possessions. Their own school, ably led by Sir Alfred Jones, had not been second in this enterprise, and had collected funds for a very large amount of pure scientific work and also for direct sanitary labour, and the London School and the schools of Hamburg and elsewhere had contributed their share. They in Liverpool, though not possessing the advantage of the metropolitan position of the London School, had nevertheless trained 125 qualified medical men and women from all parts of the world.

Mr. CHAMBERLAIN, in proposing a vote of thanks to Major Ross, said he believed that of all the great discoveries which science had made during the last generation there were none which could give us greater satisfaction than those which had contributed to lessen human suffering. He doubted whether in any department of medicine such great and promising discoveries had been made as in the investigation of those tropical diseases with which the name of Major Ross was so honourably connected. It was to him in a special sense an interesting subject. Naturally, in the course of his life, he had been brought to consider in a special manner the growth, the condition, and the progress of the British Empire, and he thought it would be admitted that they as Britons were asked what in their history they were most proud of, they would all agree that it was the acquisition, the administration of this empire, and that for them the most interesting thing in the future was to know how far they would be able to maintain it. It was to the men who had in the first place as explorers or missionaries, or as parts of military expeditions, or as parts of more peaceful expeditions sent out for the sake of commerce, that they owed the British Empire, and it was to these men that they had to look in order that they might maintain it. Now one thing was brought home to every one who had had any practical connexion with the administration of the Colonies, and that was that we were constantly giving of our best in order to secure the welfare of our own possessions in the world. We paid a heavy tribute for being an imperial race. We lost not only in military expeditions, but we had lost in the past very heavily from the results of tropical diseases. He, therefore, was also one of the founders of empire who showed them in any way how to reduce those terrible losses, how to get the most from the talent, the energy, and the courage that they sent abroad. That gave to all connected with the Tropical School of Medicine, and with the inquiries of which it was one of the centres, its special interest and its special importance, and he thought they could not be too grateful to those who had taken an active and prominent part in the work.

THE PUBLIC HEALTH REPORT FOR THE COUNTY OF LONDON IN 1903.*

WE welcome again the annual report of the medical officer of the Administrative County of London. Among the many services which Sir Shirley Murphy has rendered to the public health not the least is the yearly statement which he furnishes to the London County Council on the health of the twenty-nine communities which constitute the metropolis. It is one of the most important official documents issued yearly concerning the health of the State and sanitary administration.

POPULATION AND BIRTH-RATE.

It is estimated that another 34,000 persons were added to the population of London to the middle of 1903, which now numbers 4,613,812. The number of marriages was 40,215, giving an annual rate of persons married of 17.4 per 1,000 living—a slight decrease since 1902, but more than in 1894, when it was 17.0—the lowest return since 1851. The birth-rate continues to show decline, and is now 28.4 per 1,000 living per annum—"the lowest recorded rate in London since the institution of civil registration."

DEATH-RATE AND ITS CHIEF CAUSES.

The death-rate of 15.2 is also the lowest on record. The medical officer points out that this remarkably low rate was not peculiar to the metropolis, and was in part due to general causes, such as favourable meteorological conditions. Nor must we fall into the ready error of measuring the health of a community only by its death-rate. There are many facts to consider in estimating public health. Nevertheless, a steadily declining death-rate since 1841 is a solid fact indicating, broadly, a steady advancement in sanitation and "life capital." The corrected death-rate (16.5) places London in 1903 at the top, with the exception of Bristol (14.7), of the great towns in England, and even with foreign capitals London compares favourably. Paris had a rate of 17.9, New York 18.2, Rome 19.8, and St. Petersburg 23.8. Rome appears to have been the only instance of an increased death-rate in 1903. The medical officer again measures the health conditions of London by life-table methods, and concludes that during 1903 compared with the decennium 1891 to 1900 there was a saving of 18,742 lives, representing a gain to the community of 665,333 years of "life capital." It may also be noted in passing that the infant mortality (130) is one of the lowest on record, and here also the rate is lower than any other town in England, except Bristol (116).

When we turn to consider the chief causes of death in the metropolis in 1903 we find that the most marked diminution occurred in diseases of the respiratory system, diseases of the nervous and circulatory systems, phthisis, and diphtheria. An increase occurred in deaths attributed to cancer, to suicide, and to diseases of the urinary system. Cancer was alleged to be the cause of 4,695 deaths, the annual average of the preceding ten years being 3,964. The rate per 1,000 has therefore risen, and is now 1.02 per 1,000 living. Factors have been calculated for correcting for differences in the age and sex constitution of the several populations concerned, with the result that it becomes evident that these differences are partly responsible for the differences in the crude death-rates obtaining in the several districts.

SMALL-POX.

The epidemic of small-pox which began in 1901 seems to have run its course by the end of 1902. In the former year there were 1,700 cases notified, and in the latter 7,796. In 1903 there was a fall to 416, and it is noteworthy that, as usual

* Report of the Public Health Committee of the London County Council submitting the Report of the Medical Officer of Health of the County for the year 1903. London: P. S. King and Son. No. 285. Price 3s. 6d. Pp. 77, with four appendices, charts, etc.

in small-pox epidemics, the tail-end affected the nomadic class of society frequenting common lodging-houses and similar places. Sixteen of these lodging-houses were invaded; 33 cases occurred in them, and doubtless many were infected by their inmates. Sir Shirley Murphy again draws attention to the large proportion of children born in London "not finally accounted for" in the vaccination returns. In 1901, the latest year for which returns are available, 25.2 per cent. of the total births come into this category. In 1881 it was 5.7.

Other Zymotic Diseases.

The medical officer discusses the effect of the new powers concerning measles (which during 1903 was scheduled as a "dangerous infectious disease" in London), but is disinclined to express any definite view at present. There is evidently an increase of known cases, and probably a wider recognition of the value of these powers as an educational influence in teaching parents as to the seriousness of the disease and the chief preventive measures. Scarlet fever was widespread but mild, only 2.9 per cent. of the cases being fatal. It appears to have been spread largely by unrecognized cases. The same may be said of diphtheria (case-rate per 1,000 living 1.7, case mortality per cent. 9.6), which has fallen in mortality per cent. as much as 13 in a decennium, and is chiefly difficult to control on account of its spread by unrecognized cases. Increasing bacteriological work is done in London in the attempt to detect the "carriers." The case-rate of enteric fever has also been steadily declining, and now stands 0.5 per 1,000 living, which is the lowest since 1889, when notification became obligatory, and as regards deaths from this disease in proportion to the population, the return is lower than it has been since 1869. Food and contact appear to be commonest channels of infection. In Fulham there was a limited outbreak believed to have been caused by the drinking of polluted water. In the appendix is a special report by Dr. Hamer, the Assistant Medical Officer, on the prevalences of enteric fever in London at the close of 1903. It is interesting to observe the increasing efforts made by sanitary authorities in the prevention of phthisis, which is slowly but steadily declining in London. Seventeen of the twenty-nine authorities adopt voluntary notification of the disease, and disinfection after death from phthisis is now the rule, all of which is a recent growth in administration. The whole of the report dealing with disease as a cause of death, and the channels by which it is spread in a community, is of exceptional value and interest, not only at the present time, but will continue to be so. The mode of presenting the statistics and the charts accompanying them are almost models of what such records should be.

Sanitary Administration.

The County Council license cowsheds to the number of 277 as against 446 in 1894, a substantial and probably, on the whole, a desirable reduction. The condition of cowsheds and cows in London is excellent, and various steps are taken to control the milk supply. There has been a marked reduction also in the number of licences for slaughterhouses, which is wholly good. They are objectionable places in large towns in any event, but when not well managed or insanitary, or too small to be efficient, they are intolerable. An immense amount of work is being done in the matter of closing insanitary houses, and probably never in the history of London has so much attention been given to this great question. We are particularly glad to see that Sir Shirley Murphy devotes considerable space to the subject of sanitation in tenement houses and in common lodging houses. During the year Dr. C. W. F. Young, now the Medical Officer for the County of Middlesex, made an inquiry as to the extent to which houses originally constructed for one family were adapted for use of several families when subsequently let in tenements. In numerous instances he found that no alteration had been made, and that the only water supply available for all the families was derived from a tap in the back yard or in the wash-house on the ground or basement floors. The sanitary convenience accommodation was provided in the back yard, and a wash-house common to all the tenants was generally found. Proper cooking stoves were of course absent. When it is remembered how many thousands of Londoners live in these tenement houses it is evident that much remains to be done for a large class of the community. There are 470 common lodging-houses in London, with authorized accommodation for 28,893 persons. These have been regularly inspected. A census has been taken during 1903, from which it appears that about 4,000 beds are vacant every night. In some districts, also, many of the tenement houses are only partly let. Recently the writer met with the owner of a whole street of tenement houses in Central London who declared that quite half his tenements were empty. This may be exceptional; but these facts may be set alongside the view, frequently expressed in public, that there is absolutely no house room for the poor. The medical officer devotes some eight or ten pages to reporting on factories and workshops, which is a comparatively recent addition to his report, and certainly enhances its value. Another important section is concerned with the inspection of food, and, as an appendix, Dr. Hamer's report on the manufacture of aërated waters, from which it would appear that there would be advantage in regulating the conditions under which these beverages are prepared. But at present it must be admitted that the evidence of any real danger is tentative, and depends upon data not at present obtainable. Finally, there is an appendix on sanitary inspectors and their duties in the various boroughs. Taken as a whole, this report for 1903 is a worthy successor to the classics which have already emanated from the Public Health Department of the London County Council, and reflects the highest credit upon the medical officer and his staff.

LITERARY NOTES.

We are asked to state that His Majesty the King has been pleased to accept a copy of the *Autobiography* of Mr. Frederick J. Gant, F.R.C.S., Consulting Surgeon to the Royal Free Hospital, which has just been published.

Miss M. A. Nutting, of the Johns Hopkins Hospital, Baltimore, is said to be preparing a work in which a full account of the development of nursing will be given. It goes back to the most remote historic period and comes down to the present time.

The December number of the *Field Naturalists' Quarterly* contains as usual much that is attractive to all interested in natural history. The editor, Dr. Gerald R. Leighton, begins a series of papers on heredity, and contributes a chapter on parasitism to another series on British field zoology; Mr. F. G. Aflalo writes amusingly on the psychology of the angler's fish, and Mr. Thomas Hepburn writes instructively on the protective coloration of plumage and eggs. Other papers by various writers deal with the mistletoe bough, British bats, "our bug friends," the feeding of snakes in captivity, and the naturalists in China.

To the December number of the *Nineteenth Century and After* Dr. Elkind contributes an informing article on the German Navy League. His aim is to show that the German naval policy in general, and that of the Navy League in particular, is not aggressive, as it is said to be by some newspapers in this country, but purely defensive. In the *Leisure Hour* for December the same writer has a good deal that is interesting to say about the German Kaiser and his Chancellor. He describes the Emperor William as interested in the encouragement of the arts and sciences. He follows, we are told, the progress of science in all its different branches with the closest attention: he has experimental lectures delivered to him by experts on all new inventions and discoveries of importance; and he finds time to read, or at least glance through, a considerable number of the newest scientific publications. He has a fixed day every week for entertaining twenty persons of eminence in various professions. Dr. Elkind does not say that the Kaiser on these occasions condescends to enlighten each of the eminent persons in turn as to the mysteries of his own profession, but it is difficult to suppose that he does not avail himself of so excellent an opportunity of playing his favourite part of general instructor.

The *Echo Médical du Nord* quotes from the *Recueil d'Arrêts Notables du Parlement de Tournay*, by Messire Mathieu Pinault, printed at Valenciennes in 1702, a legal decision as to the damages to be paid for sufferings caused by a wound. "The sufferings of a wounded man," it is laid down, "must be estimated at something, and even at much in fixing the damages, if the wounds are dangerous." Reference is made to a case in which judgement was given in March, 1696. A man had inflicted two sword cuts on the head of a widow's son; in each case the cut penetrated to the bone. The widow stated that her son had been confined to his bed for sixty days without being able to work. She placed the damages at 5 florins a day, the sum to include the sufferings of the patient. She appealed against a first decision whereby she was awarded 40 *patars* (a Flemish bronze coin) per day for three weeks, and succeeded in getting from the higher court 120 florins, being at the rate of 3 florins per day, "including the pain."

SPECIAL CORRESPONDENCE.

MANCHESTER.

Ladies' Public Health Society.—Small-pox at Burnley.—Bequest to Hyde Infectious Diseases Hospital.—Proposed Medical Institution and Club.—Defect in Dairy and Cowsheds Order.—Epidemic of Suicides.—Cremations during the Past Year.—Port Sanitary Authority.—Military Drill in Schools.—Spread of Anthrax.

AT the annual meeting of the Ladies' Public Health Society it was stated that one of every six children born in the district died before the first anniversary of its birthday, and that in some districts the rate is higher. The work of the Society extends all over the poorer quarters of Manchester and Salford, which are divided into twenty-three districts, in each of which lives a salaried health visitor. The Corporation of Manchester pays the salaries of nine visitors and Salford of four. The visitors go to the dwellings in their districts and show the tenants how to disinfect their houses. When defects, such as overcrowding, stopped drains, etc., are detected, the facts are reported to the municipal health authorities. The visitors had been instrumental during the year in getting 8,984 rooms and yards thoroughly cleansed and whitewashed. Its system of linking individual voluntary effort with municipal work is the secret of the Society's success. We take a few pregnant sentences from the report:

"Few women in the slums who are feeding their babies ever tasted milk in quantity, and very few really believe that it is actually a food. Milk is apparently the last thing to be bought, and oatmeal porridge is rarely used. Tea and bread are fatally common. The argument against the use of milk is that it is too expensive: against porridge, the children will not eat it; tea and bread give no trouble to prepare." "There is an absolute belief in spirits as a cure for everything." "One mother was found giving her baby brandy by the half-teaspoonful—neat and continually." "The mothers, too, take whisky and gin in such quantities, long before the child's birth, that the name 'whisky baby' is now given to some poor feeble mites that are born into the world."

Ignorance and poverty are the two main factors that contribute to these results.

Fresh cases of small-pox were notified at Burnley every day last week, and there are now thirty-nine patients in the small-pox hospital.

Mrs. Harriet Booth, widow of Dr. Booth, Godley, bequeathed the residue of her estate, amounting to £1,000, to the Infectious Diseases Hospital at Hyde.

A meeting will be held in the Town Hall for the purpose of furthering a scheme for the establishment of a medical institution and club in the centre of the city. The Committee recommend that the institution be founded and conducted on the following main lines:

(1) The hiring and furnishing of a suite of rooms in a central position in the city, which will provide—(*a*) Accommodation for meetings of medical and allied associations and of the profession generally; (*b*) library and reading room for the use of members; (*c*) smoke room, and, if possible, billiard room, for the purpose of promoting social intercourse; (*d*) accommodation for the serving of light refreshment; (*e*) accommodation for caretaker or steward. (2) The annual subscription to be 1 guinea. (3) The raising of the amount of capital required for furnishing by the formation of a limited liability company. The capital to be £2,000, made up of 2,000 shares of £1 each. Only 1,000 shares to be issued in the first instance, and not more than one-half of the share capital to be called up, except by resolution of the shareholders in case of special emergency. (4) Every member to be a shareholder to the extent of at least one share, unless he be in practice over eight miles from St. Ann's Square, be a resident medical or surgical officer to a city hospital, or be engaged as a qualified assistant to a general practitioner.

The Northwich Rural Council have decided to make urgent representations to the Local Government Board as to the necessity for reform of the Dairy and Cowsheds Order, especially in one particular. It appears that there is no necessity to register a small dairy from which milk is merely sold to neighbouring cottages. The Council urge that these are the very dairies which should be subjected to stringent regulations, inasmuch as the amount of land, shippons, etc., is limited. The demand for reform has arisen chiefly owing to an epidemic of typhoid fever in a Mid-Cheshire village. Every case of typhoid is declared to have been the result of the sale from a small unregistered dairy of contaminated milk.

The coroner for Manchester stated that there has been quite an epidemic of suicides. Last week he had 6 cases, several cases had been reported at the infirmary, and a number of persons had been charged at the police court with attempted suicide. It is a remarkable fact that immediately after the report of one suicide there is generally an epidemic. The coroner characterized this as an insoluble psychological problem. Probably the tendency is akin to the imitative faculty so strongly developed in some people.

The annual report of the Manchester Crematorium, Limited, states that since December, 1903, 94 cremations had been performed as against 92 in 1902-3. Although the increase was small, since then a number of crematoriums have been opened in various parts of the country. Owing to this, Manchester had lost the custom of the Midlands and practically of Yorkshire. Since the opening, 831 cremations have taken place at the Manchester Crematorium.

The medical officer to the Port Sanitary Authority reported to the monthly meeting of the authority held on January 9th, that during the past four weeks 237 vessels had been inspected, and defective conditions had been found in 119 British and 6 Norwegian. This shows the high average of insanitary vessels found in the docks. During the last year 2,621 vessels were inspected, as compared with 1,344 in 1901. During the year 142 cases of sickness occurring on vessels in the port had been investigated.

At a conference held in Manchester by the Peace Society and a number of teachers, the question of physical culture in schools was discussed. Lord Avebury wrote that he was "not clear whether drill in schools really tends to increase the military spirit." A reverend gentleman from Cambridge condemned the use of drill, and incidentally of enforced games in schools. In the end, the following resolution was carried:

That this conference of teachers held in Manchester desires to place on record its opinion that for the fuller development of the physical health of young children every encouragement should be given to harmless games, and that military drill, where not directly injurious, is greatly inferior on every ground to well-directed physical culture under competent instructors.

Notwithstanding the precautions which are being taken to prevent the spread of anthrax in Cheshire, further cases have occurred, and in the Sandbach district the disease is assuming serious proportions.

LEEDS.

The Crematorium.—Guardians and the Public Dispensary.—Grants to Medical Charities.

THOSE who favour cremation as a means of disposal of the dead will be interested to learn that the Headingley-cum-Burley Burial Board have completed the building and equipment of the crematorium which, after a Government inquiry in 1903, it was decided to erect at Lawnswood Cemetery. The new building consists of a cremating chamber, which is 34 ft. by 20 ft., and contains the furnace. This communicates by an ante-lobby with the Nonconformist chapel, which is itself in close proximity with, and indeed under, the same roof as the Church of England chapel, so that cremation may be carried out conveniently after services in either chapel. The cremating chamber also has direct access from the grounds by means of a porch. The chimney is encased in a stone tower 80 ft. high, and this, together with the rest of the building, is of considerable architectural beauty. Various forms of furnaces are used in the different crematoria in this country, which now number nearly a dozen. At Woking the Gorini system is in use, as in Italy; and at Manchester and Hull a form of the Siemens regenerator furnace, which is in vogue in Germany. As the installation at Leeds is the first of its kind in this country, a brief description of the furnace will be of interest. It has been put up by Messrs. Toisoul, Fradet, et Cie, who are the patentees. The incinerating chamber is vault-shaped, built of brick, and has two grooves in the floor in which the projections of the introducer slide. At the far end are the gas burners, eighteen in number, and on the Bunsen system. The gas is conveyed by a large main, and, in addition to the general control in the supply of gas to the furnace, each burner has its own regulating tap. At the sides of the furnace hot air can be supplied in graduated amount from the regenerator, a system of pipes, so arranged under the furnace, and in relation with its flue, that the heat from the furnace is employed to heat the air entering in this way. The introducer consists of a trolley which runs on rails and carries the coffin from the chapel, and by a special arrangement of projecting rails places it with precision in the incinerating chamber. The tray on which the coffin rests is made of sheet iron. At the junction of the flue with the chimney is a large pilot gas-burner to secure an

upward draught before the furnace is lighted. It is claimed that during the process the temperature can be regulated to a nicety by the amount of gas supplied, by the use of dampers, and by varying the supply of hot air from the regenerator; and it is guaranteed that, starting with the furnace cold, a body may be reduced to ash within five hours, with a consumption of 10,000 cubic feet of gas. In actual practice the furnace is first of all heated to the required temperature so that the process is much shortened, and the reduction of the body to grey ash will take about an hour and a half; and if occasion arises subsequent incinerations may be commenced immediately on removal of the ashes at a small expenditure of gas. The furnace complies with the conditions laid down for successful cremation by the International Congress held at Dresden, and it is further claimed that by the manner of regulating the temperature and the admission of air the body is at first rapidly desiccated by a process of distillation and that the combustion is fully carried out on the admission of air and some lowering of temperature. The preliminary experiments and the first cremation, which was carried out on January 4th, were all within the terms of the guarantee, and the further behaviour of the furnace will doubtless be watched with interest by experts.

For many years the Leeds Board of Guardians have made a small annual grant to the dispensary, and a very strong case was made out for a substantial increase in this by Alderman Ward, as spokesman of a deputation from the dispensary, at the last meeting of the Board. Mr. Ward was able to point out that the number of patients had gone up from 25,000 in 1902-3 to 36,000 in the past year. In addition to the large amount of work done by the honorary staff and residents in the out-patient rooms, between 2,000 and 3,000 patients were visited in their own homes, and in this way a large amount of work was done on behalf of those who could not attend at the infirmary or the dispensary, and in this way 16,000 visits were paid. If it were not for this department of the dispensary's work many more cases would fall to be treated by the guardians. An improved eye and ear department had been started, and increased expense would result from the establishment of a completely equipped dental department. The great increase in the amount of work done was, in a measure, due to the opening of the handsome new premises in North Street. Since the opening of this, on May 12th, the work of the institution had been carried on under very satisfactory conditions, but at a considerably greater expense.

The following sums have been distributed to the medical charities by the Committee of the Leeds Triennial Musical Festival, namely: General Infirmary, £560; Leeds Public Dispensary, £120; Leeds Hospital for Women and Children, £120; and £40 to each of the following: District Nurses' Association, Blind Institution, Tuberculosis Association, Cookridge Convalescent Home, and Workpeople's Convalescent Homes. The profits on this occasion were smaller than in former years, for, including the present distribution, sum of £20,000 has been allotted to the charities as a result twelve festivals.

CORRESPONDENCE.

AN ATTEMPT TO BLACKMAIL.

Sir,—In the British Medical Journal for December 17th, 1904, under the title of "An Attempt to Blackmail," you published an account of an important action which was tried at the Glamorgan Assizes, held at Swansea last month, the plaintiff being Dr. A. D. Griffiths, of Bridgend, a member of the Cardiff Division and also of the Cardiff Medical Society. Details of the case, taken from the *South Wales Daily News*, were given and the fact noted that the Judge pointed out that Dr. Griffiths's actions had been correct in every particular, and, in concluding his summing-up, told the jury that, although the damages which they might award would probably never be paid, they ought to give some such sum as would show that in their opinion the charges were absolutely groundless. The jury, after a brief consultation, declared a verdict for Dr. Griffiths, with £500 damages, or five times as much as he had asked for.

At a meeting of the South Wales and Monmouthshire Branch of the Association subsequently held at Carmarthen, a resolution was passed unanimously expressing the sympathy of the Branch with Dr. Griffiths in his painful experience, and congratulating him on the way in which he had justified its faith in his character.

A similarly-worded resolution was also unanimously passed at a joint special meeting of the Cardiff Division and of the Cardiff Medical Society on January 4th, and also at a meeting of Incorporated Society of Medical Officers of Health. At the joint meeting it was made known that, as had been anticipated, not a farthing of the awarded damages will be realized by Dr. Griffiths, and that his legal expenses for the action amounted to something like £205.

It was felt, further, that an opportunity should be given to his fellow members of the Association and others to express their practical sympathy with Dr. Griffiths, who with commendable courage and determination had successfully met so dangerous an attack not only on his own reputation but also on the bona fide status of the general practitioner.

A Committee was accordingly appointed to establish a fund to defray this unavoidably heavy bill of costs. The Committee consists of the Chairmen and Honorary Secretaries of the Cardiff Division and Cardiff Medical Society respectively, Drs. R. S. Stewart and W. Randall (Bridgend), with Dr. A. P. Fiddian (The Walk, Cardiff) as Treasurer.

Donations to the fund will be gratefully received and acknowledged by the Treasurer or the undersigned.—We are, etc.,

Thomas Wallace, M.D.,
Chairman of Cardiff Division (Howard Lodge, Newport Road, Cardiff).
W. D. J. Morris, M.R.C.S.,
President, Cardiff Medical Society (1co, Craws Road, Cardiff).
R. S. Stewart, M.D.,
Superintendent, Glamorgan County Asylum, Bridgend.
Ewen J. Maclean, M.D.,
Honorary Secretary, Cardiff Division (12, Park Place, Cardiff).

The Treasurer begs to acknowledge the following donations already received or promised:

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A SIDELIGHT ON MEDICAL EDUCATION.

Sir,—An important sidelight on the results of the service examinations has been omitted, and it very fully and correctly explains the main reason why candidates who have been educated and have qualified out of London do not do so well as those who have been trained in London. It is this: The examiners in surgery and medicine are taken from London hospitals or are (in nearly every case during the last ten years) selected from graduates or fellows of the London University or Colleges of Surgeons and Physicians. In London there is a great uniformity at all hospitals in the method of examining patients (both medical and surgical cases) and in the method of operating and of treating fractures and dislocations. At other centres these methods often are not followed, and are even discounted, and entirely different ideas are taught—which the London teachers may not only condemn but may possibly be totally unaware of. It only follows as a natural consequence that candidates who adopt them at the competitive service examinations are completely at a disadvantage, simply because they are working on "wrong lines" so far as scoring well is concerned.

That this is actually so I know from personal observation and experience. I also know for a fact that a graduate who had passed well at a Scottish university and was going in for the F.R.C.S. of the English College was told to abandon all his methods of bandaging and surgical treatment if he wanted to pass, as they would be absolutely condemned by the examiners. He had, in fact, to gain totally different ideas, or, at any rate, to adopt them as an expedient to face the examination, which he passed successfully. Exactly the same thing holds in surgery for the service examinations.

I am fully aware that the medical examiner has been a Glasgow professor, but that has rarely been the case in a long series of years. The surgery examiner has never been any other than a London surgeon. In such subjects as anatomy, materia medica, and midwifery (not now one of the R.A.M.C. subjects, though still in the I.M.S. list), clinical and operative work does not come in, and the candidates read the standard books, and so are on level terms as a rule for the competition.

But there is another factor to be considered. At the northern universities note-taking is practically a fine art, and many men take shorthand notes and excellent sketches of

diagrams, etc., and do little reading of standard works. They know in consequence the ideas of the professors, and fully adopt their methods at the final examinations. It is equally evident that such work does not give them very wide views, unless the lecturer criticizes other methods as well as his own. Time, however, is too short for this, and most specialists (examiners included) have a biassed opinion of their own methods and a prejudice against those of others if in opposition to themselves. All the worse for men going in for an open competition. The London student takes few notes. I may mention that many universities outside London follow the methods of German surgeons, or of other Continental authorities; and as London, for some unaccountable reason, apparently questions the right of others to hold other surgical views than itself, disaster follows if candidates do not profess to follow London teaching—at all events, *pro tempore*.

If this is not a very valid and well-known fact, let those who systematically "coach" for the R.A.M.C., R.N., and I.M.S. candidly state their experience and their views.—I am, etc.,

January 17th. FACT.

THE SANATORIUM TREATMENT OF PHTHISIS—IS IT WORTH WHILE?

SIR,—In your leading article in the BRITISH MEDICAL JOURNAL of January 14th on Sanatorium Statistics you say that if we are to wage successful war against tuberculosis sanatoriums must be dotted freely over the length and breadth of the land, and must be erected chiefly and maintained largely out of the public purse. I readily admit the value of such treatment, but there are many difficulties in the way, especially in dealing with the poor. There is a sanatorium boom on just now, and it requires to be carefully watched and considered, ere we try to induce public bodies to spend large sums of money, at the expense of the rates, in dealing with this question. Anything that is done should be done tentatively and as an experiment. I am altogether opposed to the spending of large sums of money in erecting palatial buildings for the treatment of consumption. I think many mistakes have been already made in this direction. Much may be done, in my opinion, in all workhouse hospitals in carrying out the treatment of fresh air, rest, and food, by devoting certain wards to such cases, with verandahs and open windows. This was carried out with success a few years ago at the Mill Road Infirmary in Liverpool, which is situated in the centre of the city.[1] At the Bath Workhouse a similar arrangement has been adopted with success.

Then I would advocate that, if possible, Boards of Guardians should acquire a suitable site in the country, and begin by putting up châlets for the dealing with a few cases, adding accommodation as required and waiting for results.

We have this important point to bear in mind in dealing with the poor: We have no power to compel them to undergo treatment for a certain time. They do not appreciate the gravity of their condition. They only care to get sufficiently well (in their own opinion) to get back to work.—I am, etc.,

A. SIBEN, M.D.,

Cardiff, Jan. 16th. Visiting Medical Officer, Cardiff Workhouse.

SIR,—From the public health point of view the reply to the above question must be a direct negative. It is not worth anybody's while to begin anything at the wrong end. It is not worth while to waste money on the treatment of a disease which can be more profitably spent on its prevention. It is not worth while resorting to tentative methods before tried methods have failed. Have they failed? The answer is to be found in the Registrar-General's returns. From these we know that they have succeeded mightily. In the whole realm of State Medicine is there anything more certain than the way to prevent consumption? Is not the sanitary condition of a country the measuring-rod of its consumption death-rate? Is it necessary to again point out the immediate and marked diminution of the consumption death-rate that follows on the laying of main drains and the increase of cubic space? We do not need to ask here if it is worth while. This way is not blocked by an insoluble financial problem. Here is no room for "popular movements," stump oratory, enthusiasm, or specialism—and, above all no need is here for the making of laws and by-laws to be used as instruments of persecution against a class the misfortunes and miseries of which entitle it to our sympathy and compassion.

Now, it is certain that the task of treating the sick wholesale can never devolve on the State, which can deal only with disease-prevention. Is the sanatorium a preventive institution? Despite the absurd claim that it is necessary to erect enormously expensive buildings in order that people may be taught the value of fresh air, I maintain that the sanatorium is in no sense whatever a preventive institution. Nor can the statistics—when we can get them (which is not often) be deemed reliable. It is my belief, indeed, that an authoritative analysis of sanatorium statistics, which is bound to come sooner or later, will give the *coup de grâce* to the statistical method in medicine. The profession and the world at large is getting a little weary of figures, which, as Lord Byron said of the ladies, "lie with such a grace—the very truth seems falsehood to them." In this connexion I would suggest a little more accuracy in definition. What is *now* the meaning of "first stage"? From what one sees, "first stage" is largely an affair of the imagination—sometimes of the specialist, frequently of the patient. A young fellow came to me for the performance of a very small operation previous to his entry into a sanatorium. Here is his history: The consumption scare having got on to his nerves somewhat, he consulted three medical men in turn, who could find nothing wrong with him. But, as he was "looking rather pale," his friends sent him to a specialist (so he said), who sent him to a sanatorium. Up to the time of his leaving the sanatorium, his sputum had never been examined. On leaving, however, an examination was made, but the result was not communicated to him. When I saw him again he was almost as well as ever. Previous to his "cure," he was able to do anything that any other healthy young fellow could do. He habitually took a ten miles' walk without experiencing fatigue. No doubt he swells the list of cured.

And what is intended by the headline, "Able to resume work"? Are we to understand that numbers of people whom consumption has caused to cease from their occupations have been so far benefited as to be able to resume work? If not, such statements are very misleading.

In conclusion, Sir, while sanitarians are dreaming of a world made whole by those harsh and barbarous methods which are born of State interference and official domination, the people, backed up by a large and growing section of the medical profession, are waking to the knowledge that there is a better, more human, and more righteous way to the desired goal, and that it lies along the broad and beaten track of sanitary betterment—and it is well with humanity that it is so.—I am, etc.,

Nottingham, Jan. 14th. EDWARD DEAN MARRIOTT.

SIR,—After reading Dr. Ransom's interesting paper under the above title,[1] I, for one, cannot but answer the question in the affirmative, and be thankful to the author for such convincing proof; but he fails, I think, to recognize the helplessness of the general practitioner when he says, "until medical men recognize and insist on the prompt treatment of phthisis in its earliest stage, sanatoriums can only be beneficially worked as adjuncts to hospitals."

The practitioner with a wealthy *clientèle* may find the matter simple. In his case an early diagnosis is made, confirmed by examination of the sputum, or a visit to a Harley Street physician, and with little ado the patient is sent to a sanatorium for six months, more or less, according to the progress made.

Not all of us, however, have patients who can be so fortunate, and I think I speak for the majority in asking, "What are we to do?" I agree with Dr. Ransom that the home or out-patient treatment of poor consumptives is a failure, yet it is the only treatment possible to the working man. The clerk may be in the service of a humane firm—I have noticed that banks in particular are very generous to phthisical employés—and arrangements may be made to send him to a sanatorium, his salary continuing to be paid meanwhile, enabling his wife and children to live in comfort till his return. Even in this case the result must be unsatisfactory if he returns to an indoor occupation. The artisan's pay ceases with his work, and, if he goes to a sanatorium, his wife and children lose their breadwinner. I need not here consider those cases which we do not see until the disease is too far advanced to hope for arrest, but will instance one that is typical of many.

An artisan, married, father of four children, seeks advice because he has not been feeling up to the mark lately, has had indigestion and a slight cough, has been sweating a little at night, and thinks he is losing flesh—in short, exhibiting

[1] BRITISH MEDICAL JOURNAL, November, 1902.

[1] BRITISH MEDICAL JOURNAL, January 14th, 1905.

symptoms that make me suspect early pulmonary phthisis. Examination of the lungs confirm the diagnosis, and I recommend him to go to a chest hospital, informing him that he may be able to procure open-air treatment therefrom, and warning him against the inevitable result if he is not so treated. He declines because he cannot afford the time, his wife and children would be in sore straits during his absence, and he would have no work to take up on his return; besides, to go back to his own trade would be as bad as ever, and he is not trained nor fitted for light work.

The sequel is the same whether he remains under my care or becomes an out-patient at a chest hospital; temporary improvement, a fresh cold, relapse, another improvement, and so on to the end—a few months or two or three years hence, as the case may be. A similar case to this is seen by any general practitioner every week or two, presenting one of the greatest problems he is called on to solve. Here we have a man on whom others depend bound to die in a year or two if not treated by the open-air system, and that is impossible. It is too utopian to hope that the State will take care of the wife and children while the breadwinner is being cured, but this seems the only solution.

Then, too, there must be great risk of infection to the family, especially to the wife, in these early cases, as well as in those more advanced. The lady health visitors, district nurses, and health inspectors give good advice and instruction, but it is rarely, if ever, carried out. I feel sure, sir, that all general practitioners whose work lies to a great extent among the artisan and labouring classes will welcome any suggestions that might lead to a practical solution of this important question.—I am, etc.,

T. BLANCHARD SELLORS, L.R.C.S., L.S.A.

Balham, S.W., Jan. 11th.

A PLEA FOR THE STUDY OF DIETETICS.

SIR,—No one can have read our JOURNAL during the last few months without being struck with the signs of dissatisfaction at our present etiology, and the desire and necessity for attention to diet. We are just awakening to the fact that diet is important, not only in the treatment but also in the prevention of disease. The question of "physical deterioration" has called special attention to the diet of infancy. Dr. Robert Hutchison, in the JOURNAL of October 29th, 1904, is reported to have said:

> With the progress of civilization the feeding of infants by their mothers had ceased to be a matter of instinct, and had become a science if not a fine art.

How mothers are to be taught the science and art of feeding not only their infants but themselves, is a subject well worthy of the attention of our Association. But, until dietetics assumes the importance it deserves in the medical curriculum, we cannot expect the profession to have the influence it might have upon the people, with regard to food; and the General Medical Council would surely receive the support of the profession, if it made dietetics a subject for examination for every qualification to practise medicine.

With regard to diet as a cause of disease of the nervous system, Burton's wonderful book, deserving of the closest study of every one, affords striking evidence. He himself was a melancholic—or a neurasthenic, as we would now call him—and he found that certain articles of diet increased his symptoms. We may class melancholy, then, as a diet-produced disease, which attention to diet will cure.

It has long been known that epilepsy can be relieved and even cured by diet, and in the JOURNAL of November 5th, 1904, in the review of Dr. Spratling's *Epilepsy and its Treatment*, we learn that, from his study of the subject, he concludes:

> that its etiopathology rests with a variety of toxic or autotoxic agents, not as yet definitely isolated or determined.

It, too, then, must be classed as a diet-produced disease.

In the JOURNAL of December 10th, 1904, in noticing Dr. Claye Shaw's *Ex Cathedra Essays on Insanity*, you commend his broad views of insanity and quote this sentence:

> That one person, then, is melancholy and another elated does not of necessity show that different structures are involved in the cases; it may be that, not only is the cause the same, but the part acted upon is the same, too; and, therefore, the absurdity of worshipping symptoms is a misleading idolatry, blinding us to the true essence of the process we are investigating.

How true is that, not only with regard to insanity, but to every other disease? And have we not good reason to believe that, if melancholy and epilepsy are diet-produced diseases, diet may have something to do with the causation of insanity—perhaps as much as alcohol—and might assist in its cure? By making lunatics work, our asylums have raised the percentage of recoveries, the work, no doubt, undoing some of the harm that is done by the over-feeding persisted in, in all our asylums and poorhouses, with the blind obstinacy of red-tape.

In the JOURNAL of January 7th we have two letters, most suggestive, on the subject of diet. Dr. Shaw Mackenzie, in writing on local irritation and cancer, says:

> At the present time the opinion seems to prevail that a relation exists between cholelithiasis and cancer. In this connexion, the most suggestive theory of the origin of cancer is that which has been propounded by Mr. T. H. Webb of Melbourne—namely, that cell proliferation is due to the deposition of cholesterine in the tissues, either locally, from injury, or some nutritional disturbance in the liver, associated with deficiency of the bile soaps, which normally hold cholesterine in solution.

And he urges the necessity of treatment directed to the systematic origin of the disease, after the surgeon has removed the source of local irritation, represented by the primary growth. It appears probable that the conclusion arrived at by the late Sir William Banks, that it is from overeating that cancer is increasing, may be found to be correct, and then cancer will be added to the increasing list of diet-produced diseases.

The other letter to which I referred is that of Mr. Jonathan Hutchinson (p. 46 of the JOURNAL) on "Hebra's Sarcoma Melanodes." One would at first sight suspect that a disease with such a name was malignant and obscure; but what does Mr. Hutchinson venture to say? He thus writes:

> There is much reason to suspect that, despite the name given to it by Hebra, and several other designations which have since been accorded it, it is simply a manifestation of gout.

No one will question Mr. Jonathan Hutchinson's powers of observation, and when, with his ripe experience, he ventures to trace such a disease to gout, which is diet-produced, what a vista is opened up! What diseases, it may well be asked, are not dependent upon diet, if melancholy, epilepsy, insanity, cancer, and sarcomata can be traced to it as their cause. Such a list, is surely long enough, and important enough, to form a strong plea for the establishment of a chair of dietetics in every medical school.—I am, etc.,

Hawick, N.B., Jan. 8th. JOHN HADDON, M.D.

THE TREATMENT OF THE STUMP IN APPENDECTOMY.

SIR,—I was interested in reading Dr. Seelig's views[1] as to the treatment of the appendix in the operation of appendectomy, as it completely endorses my views as expressed in my work on *Surgical Diseases of Stomach and Intestines*, published in 1892. I found by experiment on the cadaver that a fine silk ligature tied firmly round the appendix divided the mucous membrane completely, and that the membrane on the distal side of the ligature, after the appendix had been severed, was readily removed by a small curette, or even a pair of dissecting forceps. After this is removed I invariably cauterized the exposed surface with pure carbolic acid, carefully wiping away any superfluous acid. A stitch or two of catgut was then introduced through the divided peritoneal surfaces, which were thus brought accurately together. I am in the habit of burying the whole stump by passing a purse-string suture around it, and tying.

This method of dealing with the appendix always appeared to me to be the simplest and most rational, and I have never had occasion to regret adopting it.—I am, etc.,

London, W., Jan. 11th. FRED. BOWREMAN JESSETT.

MEDICAL INSPECTION OF SCHOOLS.

SIR,—I venture to think that not a little surprise may be excited by that portion of your editorial article on page 85 of the BRITISH MEDICAL JOURNAL for January 14th, which suggests that the supervision of the health of school children, in relation, *inter alia*, to infectious diseases, should not be conducted by medical officers of health.

It seems necessary to clearly distinguish the two groups of reasons for the medical inspection of scholars.

The first group has to do with the physical fitness or unfitness of scholars; determined by such conditions as imbecility, epilepsy, defective sense organs, deformities, malnutrition, and so forth. The inspections called for by such conditions are periodical and systematic, and may well be performed by those engaged in some form of practice, special or general.

That the reasons for such inspections are cogent may be conceded. But the institution of the inspections themselves is, after all, a socialistic enterprise which has no *direct* effect

[1] EPITOME, BRITISH MEDICAL JOURNAL, January 7th, paragraph 6.

on what is called, in a limited, and conventional or arbitrary sense, "public health."

The second group of reasons for the medical inspection of scholars has to do with the prevalence of zymotic disease amongst them; and the dangers accruing thereby to both scholars and the community.

The inspections called for by these reasons are not only periodical and systematic, but irregular and occasional, and may involve not only the whole body of scholars at any school at a given time, but individual children who are unable to attend school, and are not under medical treatment. That the supervision of such inspections—a measure specifically directed towards the control of zymotic disease—should not be in the hands of medical officers of health is surely Gilbertian.

You quote, with approval, some remarks from the *Times* of January 10th. But the *Times* only went so far as to say that "when he (the medical officer of health) is *restricted to his official work*, it would be usually better to employ a practitioner as the visiting medical officer . . . in relation to the . . . health of individual children." No doubt; no one would be foolish enough to suggest that the medical officer of a city, or county borough, should personally examine the throat of every little urchin who has a running at his nose.

But what adequate reason can there be for refusing to medical officers of health the supervision of this particular measure designed to check zymotic disease? Should not the work of the visiting medical officers be co-ordinated and directed by the one official of the sanitary authority who is at any moment in possession of the ascertainable facts relating to the prevalence of zymotic disease in a given district?

In the case not considered by the *Times*—that of a district in which the medical officer of health is actually engaged in practice—surely it is not suggested that such a practitioner is, *a priori*, less capable of inspecting individual scholars than is one of his brethren who has not the advantage of special experience in public health work, and has no administrative machinery at his command?

For, after all, it is on the advice of medical officers of health that schools are closed and individual scholars, whether themselves "sick" or "contacts," are excluded.

Surely it must have been some misgiving on this point which led to the hint that the experience gained in inspecting scholars would be "valuable" to "young practitioners."

It seems, Sir, to many a pity that any hindrance should be caused to that co-ordination of "public health" with "public education" which the new Act has rendered feasible. Many local sanitary authorities are now local education authorities. The appointment of the medical officer of health as medical officer to the Education Committee has seemed so natural as to be almost inevitable. As the *Times* points out, the medical officer of health must be the "school authority in all sanitary matters."

By all means, in places where it is not possible for the medical officer of health personally to inspect scholars, let visiting medical officers be appointed who may or may not be assistant medical officers of health, specialists, or general practitioners. But, unless the "conduct" or "supervision" of the inspections (at least, so far as they relate to infectious disease) is retained by the medical officer of health, confusion in practice and administration is bound to occur. That is to say, the work of the inspectors must be co-ordinated by, and reported to, the medical officer of health.

In places where the education authority is a Committee of the county council, the county medical officer of health will doubtless advise that Committee, and, under his and the Committee's general directions, the local medical officer of health will advise local Committees of Managers, and "conduct" inspections either personally or with such assistance as may be required.

But unless the inspection of scholars be co-ordinated with sanitary administration little practical benefit to the public health will be secured. "Merely another channel for gratuitous advice" will be the cry of those practitioners who are not requested to act as "visiting medical officers." As has been recently suggested by Dr. Wilkinson,[1] the work of the school attendance officer could be usefully combined with that of the sanitary inspector. This combination could obviously only be carried out where the medical officer of health is the education medical officer.

In this district, as no doubt in many others, the sanitary inspector has been enabled to work hand in hand with the attendance officer. The beneficial results have been most striking; but they could not have been obtained if the medical examination of scholars, reported by the school attendance officer as absent through sickness, had been performed independently of the medical officer of health.—I am, etc.,

London, S.W., Jan. 14th. F. GRAHAM CROOKSHANK.

[1] *Public Health*, January, 1905.

AMBIDEXTERITY.

SIR,—Whilst fully agreeing with Mr. Bishop Harman's conclusions against the pushing of ambidexterity,[1] one cannot altogether accept his ingenious evolutionary theory of the production of right-handedness. Has he not forgotten his unregenerate days, since the majority of boxers prefer a right guard and left hitting position. The position he gives looks clumsy because it is unusual.

Is not the real explanation of right-handedness (as in many other debated points) to be found in environment and education? Follow the growth and upbringing of an infant. A few days after birth the healthy infant uses both arms together, as in rubbing its fists against its eyelids; then when it begins to "notice" it will grab a half-crown with either or both hands. Now if it is brought up like a healthy young savage, lying on the floor or carried with both hands free, it will grow up ambidextrous; but as a rule this is not the case, and the child is made left-handed, for the majority of nurses—environment—are right-handed, and so carry the infant on the left arm, with its right arm pressed against the breast and its left arm free to clutch at anything near or far. Presently the child begins to toddle, and is brought on show by the fond parent, duly introduced to visitors, and told to shake hands. Now education commences. The child puts forward the left hand, which has been free, but is checked by "Not that hand, dearie; the other." How often one has heard that! Then, when promoted to a knife and fork, it takes many days of scolding to impress the fact that the knife must be held in that awkward right hand, and in a minority of cases it is not, or will not be, impressed, and a left-handed person persists; or a partial education takes place and mixed cases result—as, for example, those two celebrated Yorkshire cricketers, Hirst and Rhodes, both all-round first-class men, both bowling left-handed and batting right. But that is not true ambidexterity, which really does not exist, though a partial does, as Mr. Harman points out in his iridectomy example. This acquired ambidexterity is undoubtedly very useful in certain trades—for example, wood-carving; but, as he insists, to the majority the common usage, division of labour, is best.—I am, etc.,

FREDERIC P. HEARDER, M.D.

North Riding Asylum, York, Jan. 15th.

INFLUENCE OF PREVAILING WINDS ON PHTHISIS.

SIR,—Dr. Gordon's remarkable paper in the BRITISH MEDICAL JOURNAL of January 14th, 1905, p. 62, leaves one in little doubt that the direction of streets in relation to that of the prevailing wind has an influence on the incidence of phthisis on their inhabitants.

Dr. Gordon's interpretation of his facts appears, however, to be precisely the reverse of the true one. One's doubts are first raised by its contradiction of the well-ascertained fact that plenty of air is inimical to phthisis, not causative. In the next place, it seems very doubtful whether the inhabitants of exposed or sheltered streets spend more time when out of doors in their own or the opposite quality of street. Finally, the inquiry is based on women who spend much time indoors, not on men who are more outside.

The truth seems to be that though the streets are exposed the houses are not, whilst in the sheltered streets the houses are really exposed. When the wind roars down a street it passes the houses, and makes little attempt to enter them. In a sheltered street the air pressure is on the fronts and backs of the houses, where doors and windows exist, and where the wind succeeds in finding every crack and cranny, and in passing through the houses. If this explanation is correct, the houses on the windward side of a "sheltered" street ought to be more immune to phthisis than those on the opposite. If available statistics exist the point could be easily settled.—I am, etc.,

Reigate, Jan. 14th. T. A. CHAPMAN, M.D.

[1] BRITISH MEDICAL JOURNAL, January 7th, 1905.

OBITUARY.

OGILVIE GRANT, M.B., C.M.Edin.

Medical Officer, County of Inverness.

Dr. Ogilvie Grant, whose death we had the sad duty to announce last week, was born forty-eight years ago, and belonged to a well-known family in Inverness. He received his early education at the Inverness Royal Academy, whence he proceeded to the Edinburgh Academy before entering the University of Edinburgh, where he graduated M.B. and C.M. in 1882, taking the D.P.H. of the Royal College of Physicians, Edinburgh, in 1890. After spending some time at the post-graduate classes in Vienna and Prague, he commenced practice in his native town, being associated with the late Dr. Chapman; during the time he was in private practice he acted as one of the medical staff of the Northern Infirmary. When the County Council came into existence, Dr. Grant was appointed medical officer for the county, a position which he held up to the time of his death; he was also M.O.H. for the town as well as police surgeon. The vast area of the county of Inverness, extending as it does from one side of Scotland to the other, and including several of the outer islands, entailed a considerable amount of travelling, besides a great deal of clerical work.

Dr. Grant's reports always contained much that was of interest in connexion with public health. It may be remembered that Dr. Grant some years ago attracted attention to the miserable condition of many of the houses of the crofters on the west coast and Outer Islands, and did much, both by directing and instructing the sanitary authorities in these outlying districts, to bring about a better condition of things as well as by personal supervision. Dr. Grant was a member of the British Medical Association, and represented the Northern Counties Branch on the Central Council for several years. He was in a great measure responsible for getting the travelling expenses of members of the Council paid. He was President of the Branch in 1903; of the Caledonian Medical Society in 1902.

Dr. Grant was an active member of the volunteer force, being at the time of his death Brigade-Surgeon-Lieutenant-Colonel of the Highland Brigade. He devoted much time to ambulance work, and was a life member of the Order of St. John of Jerusalem. He was also a member of the Masonic Brotherhood. For some months back Dr. Grant had been in an indifferent state of health; an attack of pleurisy, followed by pneumothorax undermined his constitution, and although he migrated to the more genial climate of Bournemouth in the hope of gaining some improvement in his general health, his strength gradually failed, and a few days before his death he expressed a wish to be taken back to his Highland home; this wish was fulfilled, but he only survived a day or two after his arrival.

Inspector-General Sir James John Louis Donnet, K.C.B., M.D., died at Bognor on January 11th, aged 88. He entered the Royal Navy as Surgeon, July 27th, 1840; became Fleet Surgeon, December 12th, 1845; Deputy Inspector General, May 13th, 1867; and Inspector-General, April 14th, 1875; retiring from the service, March 5th, 1876. He was a son of Surgeon Henry Donnet, R.N., and was educated at Paris, Edinburgh, and London. The *Royal Navy List* thus summarizes his services: Present as Assistant-Surgeon of *Vesuvius* at operations on coast of Syria, and at siege and fall of the fortress of St. Jean D'Acre in 1840; had charge of R. M. Hospital at Acre after its fall (war medal, Syria clasp, and Turkish medal); Secretary to Diplomatic Mission sent by Her Majesty's Government to His Shereefian Majesty the Emperor of Morocco (the Holy War—Algihed—being proclaimed shortly after), under Consul-General Drummond Hay, in 1844; Medical Officer in medical charge at the successful capture and destruction of the town of Ngunduvau, in Viti Levu, Fiji, 1848; epidemic of yellow fever on board *Calypso* in 1849, when in medical charge of that ship; Arctic expedition in 1850-51 (*Assistance*), when the first footsteps of Franklin were discovered (Arctic medal); Superintendent of convict ship *William Jardine* to Western Australia in 1852; Senior Medical Officer of flagship *President* at attack of allied squadrons on the stronghold of Petropaulowski, in Kamschatka, in 1854, and at its dismantling in 1855; member of Committee to Report on Contagious Diseases in Navy and Army, 1864-6; sent by Admiralty to Paris and Brussels to collect information; administrative and executive charge of Port-Royal Hospital, Jamaica, during the epidemics of yellow fever of 1867 and 1869; appointed by Her Majesty the Queen one of her Honorary Surgeons, 1870, and Honorary Physician, February 7th, 1893; Principal Medical Officer in charge of medical wards of Royal Naval Hospital, Haslar, during the epidemics of small-pox and enteric fever, and cases of fever and dysentery after Ashantee war, 1873-4; administrative and executive charge of Royal Naval Hospital, Malta, 1874; member of Committee appointed to choose a site for Naval Cadets College, 1876; member of Committee appointed to inquire into causes of outbreak of scurvy in Arctic Expedition under the command of Sir George Nares, K.C.B., 1877; was awarded the good-service pension, 1878; the Diamond Jubilee Medal in 1897, and the Coronation Medal in 1902; M.D., University, St. Andrews; L.R.C.S. of Edinburgh; L.S.A., London; K.C.B., June 22nd, 1897, on the commemoration of Her Majesty's Diamond Jubilee.

We regret to have to record the death from paralysis, at the age of 63, of Dr. Peter Murray Braidwood. The deceased was the son of the Rev. John Braidwood, a missionary in India, where the early years of his life were spent. He received his medical education in Edinburgh, Berlin, Prague, and Vienna, and graduated M.D Edin. in 1863, receiving the gold medal. In the same year he took the diploma of L.R.C.S.Edin., and became F.R.C.S.Edin. in 1880. He won the Astley Cooper prize in 1868, the Fothergillian medal in 1877, the Boylston medical prize of the Harvard University in 1883 and received an honourable mention from the Imperial Council of Prussia in 1872. Dr. Braidwood formerly practised in Birkenhead, where he is still remembered with grateful affection by many old patients, and was at the time of his death Consulting Medical Officer to the Wirral Children's Hospital, which institution he was chiefly instrumental in establishing. Owing to ill-health he was obliged, some fifteen years ago, to remove to the South of England, hoping to recover sufficiently to start again, but was never able to do so.

We regret to announce the death of Dr. Ambroise Arnold Guillaume Guye, Professor of Otology in the University of Amsterdam, which occurred a few days ago at the age of 65. Professor Guye was born at Maestricht in 1839, and studied medicine at Amsterdam, where he graduated in 1862. After a further course of study at Vienna, Berlin, and Paris, he began to practise in Amsterdam as a specialist in diseases of the ear. He qualified as *Privat-docent* in 1874, and in 1886 he was appointed Extraordinary Professor. He contributed largely to the literature of his speciality. His name is perhaps best known to the general profession by his work on what he called "Aprosexia Nasalis," a deficiency in the power of mental application caused by obstruction of the nasal passages by adenoid vegetations, enlargement of the turbinate bones, etc. He was Chairman of the Editorial Committee of *Janus*, the well-known periodical devoted to the history of medicine and medical geography. Professor Guye was held in the highest esteem for his personal qualities as well as for his professional skill. He was a Knight of the Dutch Order of the Lion.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Lecorché, formerly physician to the Paris hospitals, *professeur agrégé* in the Paris Medical Faculty, and author of monographs on gout, diabetes, and diseases of the kidneys, aged 75; Dr. Auclair, Surgeon to the Roubaix Hospital, from the effects of a railway accident, aged 37; Professor Friedrich Moriz Brauer, the distinguished entomologist of Vienna, aged 72; Dr. Guido Botlander, Professor of Physical Chemistry in the Technical School of Brunswick, and for a long time Assistant to Professor Binz in the Pharmacological Institute of Bonn, aged 49; Dr. Ernst Hallier, sometime Professor of Botany in the University of Jena, well known for his researches on the bacteriological causation of infectious diseases made in the pre-Kochian era, aged 73; and Dr. Martin Brasch, a well-known neurologist of Berlin, author of works on mental disease in relation to the law, etc., aged 39.

Bequest.—The late Rev. Albert Watson of Oxford, a former principal of Brasenose, bequeathed £250 to the Radcliffe Infirmary, £150 to the Kidderminster Infirmary, £100 to the Great Ormond Street Hospital for Sick Children, and £50 to Wimbledon Cottage Hospital.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE DUTIES OF A SUBSTITUTE.

H. K. writes: A. B. and C. are neighbouring and friendly practitioners, B. and C. being partners. On Christmas evening A. was out spending the evening at a friend's house in the district, when he was inquired for by telephone by W., a patient of old standing. A.'s maid replied that he was out. A. has since learnt that W.'s grandchild—who was staying with her for Christmas—was taken suddenly ill, and W., finding A. was out, immediately rang up B. B was ill in bed, but sent his partner, C., who, on arrival, was told by W. that A. was her doctor, and had been telephoned for, but was out. C. made no reply to the remark, and continued attendance on the patient till well, to the surprise of W., who states that she quite expected to see A. on the following morning, feeling sure that C. would hand the case over to A., as B. had done when called in on a former occasion and under similar conditions. A. is at present in attendance on W., and has learnt the facts of the case from her. Was C. justified in continuing attendance, and, if not, how should A. act towards C. in the matter or in the future?

*** If C. understood that he was merely acting in an emergency he ought to have communicated with A. and left him to go on with the case, but he may plead that he did not understand this and supposed that W. wished him to continue in attendance. W. might have been more explicit with C., and have communicated herself with A., so that there could be no misunderstanding. There was also failure of duty on the part of A.'s maid, who ought to have ascertained who was telephoning and offered to send for her master, or, under instruction, have indicated who would see the case for him during his absence. Had this been done the position of the practitioner who attended would have been distinctly that of a substitute, and this slight difficulty would not have arisen. It does not appear to be a matter worthy to cause any alteration in A.'s conduct towards C., and perhaps some time he may have an opportunity of getting C.'s explanation in a friendly way.

COST OF AGREEMENT.

OMEGA writes that he has recently purchased a death vacancy from the widow of a medical practitioner. The agreement was formally drawn up by the vendor's solicitor, and a copy given to our correspondent, who was charged with half the costs of the vendor's solicitor. Before signing the agreement, he submitted it to his own solicitor, and he wishes to know: (1) If it is usual for the purchaser to pay half the costs of the vendor's solicitor; (2) if so, whether the vendor ought not to pay half the costs of the purchaser's solicitor.

*** It is usual for the vendor's solicitor to draw up the agreement, and for each party to pay half the cost of drawing up this document. With regard to all other legal expenses, each party ought to pay his own costs.

SUPERSESSION.

T. G. B. writes that he was engaged to attend a tradesman's wife in her confinement. She suffered every winter from bronchial asthma, and on December 28th, 1904, he was called in to see her, as she was suffering from acute bronchitis. He continued his attendance, and on January 1st a child was born. He paid a visit on the following day, but on Tuesday morning the husband called to say that, as his wife had no sleep, and as our correspondent would not give her a sleeping draught, he had called in another practitioner, who continued in attendance until her death. "T. G. B." wrote to the practitioner who had superseded him asking for an explanation, but had received no reply to his letter; he asks whether in future he ought in any way to recognize his rival.

*** The patient and her husband had a perfect right to change their medical attendant, and any other practitioner was free to take over the case on the understanding that our correspondent was duly informed that his services were no longer required. On the other hand, he had no right to any explanation from the practitioner who superseded him. Under these circumstances he has no grievance, and should not seek to embitter an incident of this kind, which is always liable to occur, and should not be taken too much to heart.

THE DOOR-PLATE AGAIN.

D. T. C. J.—We cannot approve of the suggestion that a practitioner who possesses an *x*-ray apparatus should indicate it upon his door-plate.

PROMISE NOT TO PRACTISE.

F.R.C.S.I. writes: A. was in practice for some years. He died, and his widow sold the goodwill to B. C. succeeded B., and paid him £1,200 for the goodwill. A.'s son was a medical student, and his mother assured C., in presence of C.'s wife, that she would never allow her son to practise in the neighbourhood. Now the son has gone into practice near, living with his mother, and doing his best to secure the old patients. Has C. any remedy?

*** Unless the promise was made for a specific consideration, and not merely out of good nature, it would not amount to a valid agreement, even if it could be proved by an independent witness. It is further doubtful whether a mother could make a promise which would bind her son after he came of age, although if it was for a proper consideration she would be liable to damages for its breach.

THE OBLIGATIONS OF A *LOCUM TENENS*.

CREUDDYN.—Assuming this statement of facts to be correct, the *locum tenens* should not have taken advantage of the circumstances to engage in practice. We have previously urged the importance of obtaining an agreement not to practise locally within a certain period of time, before a *locum tenens* is engaged to act for a principal in bad health, who may possibly break down altogether or die. This case should be reported to the local Division of the Association.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

CONVOCATION.

A MEETING of Convocation was summoned to be held at the University on Friday, January 13th, but, a quorum of members not being present at the end of half an hour after the meeting should have commenced, the Chairman declared the meeting adjourned to May next.

Informally Sir E. H. Busk informed the members present that the librarian and his staff were making great progress in the arrangement and cataloguing of the books of the University Library, so that members of Convocation and others would shortly be able to consult the library, and to borrow as many as six books therefrom.

At the invitation of the Vice-Chairman of Convocation most of the members present proceeded to the physiological laboratories, where the Director, Dr. A. Waller, explained the method of conducting research work adopted therein, and showed some experiments he was conducting to ascertain the excitability of certain muscular tissue.

UNIVERSITY OF LEEDS.

The Professorship of Public Health.

WHEN Professor Hartley sent in his resignation as Professor of Public Health, it was accepted by the Council with regret, and received by all his colleagues on the Board of the Faculty of Medicine with a very genuine sense of the loss sustained by the University in the ending of his long connexion with the medical school. Mr. Hartley, however, felt that the time was opportune for certain changes in the teaching, and that it was desirable the department should have as its responsible head one who was more devoted as a specialist to the important and growing subject of public health, and he loyally placed his resignation in the hands of the Council.

Acting on a report of the Senate, the Council of the University sought and obtained the consent of the Sanitary Committee of the City Council to offer the Chair to Dr. Spottiswoode Cameron, the Medical Officer of Health. Professor Cameron, whose work is well known to medical men far beyond Leeds and the West Riding, will receive a warm welcome from all his colleagues on the teaching staff.

Scholarships for Medical Students.

Some changes in these scholarships are being made which it is believed will increase their usefulness.

1. The Medical Scholarship of 64 guineas, being the composition fee for the course of education for a university degree exclusive of preliminary scientific training and hospital practice, is now to be awarded on the result of the Joint Matriculation Examination, on the report of the examiners concerned, to a candidate for that scholarship who has passed in all the subjects required to be passed by students on entering upon a medical course, and who has signified his intention of entering the University of Leeds as a medical student.

2. The Infirmary Scholarship of the value of 40 guineas, which is given by the Faculty of the Infirmary, and covers the course of clinical instruction, is to be awarded after a report from the examiners on the results of the First M.B. Examination held in June of each year.

3. As heretofore, medical students who are studying also for the B.Sc. degree are eligible for the Akroyd and Brown scholarships, the Leeds City Council scholarships, and some free studentships under the grant of the Leeds City Council.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on January 12th, Mr. John Tweedy, President, in the chair.

Court of Examiners.

The vacancy in the Court occasioned by the death of Mr. A. Q. Silcock and that occasioned by the expiration of the period of office of Mr. W. H. A. Jacobson will be filled in at the Council meeting on February 9th.

The late Mr. Arthur Quarry Silcock.

A vote of condolence was passed to the family of Mr. A. Q. Silcock, who died on December 19th, 1904.

Foundation of Scholarships.

A report was received from the President and Vice-Presidents regarding an offer made by Mrs. Macloghlin of Southport to found scholarships in memory of her husband, the late Mr. E. Percy P. Macloghlin, M.R.C.S., formerly in practice at Wigan. Mrs. Macloghlin's offer is made in accordance with the intention and expressed desire of her husband, and she proposes, in five years from his death, to give to the College a sum of £10,000 for the purpose of endowing these scholarships, which are intended to assist young students in need of financial help to proceed with their professional studies.

The Council gratefully accepted Mrs. Macloghlin's munificent offer, and agreed to administer the trust which had been arranged by the President and Vice-Presidents in consultation with Mrs. Macloghlin.

Among the details relating to the scholarships are:

Five scholarships to be founded—the first to be given away in the first year succeeding the investment of the fund, and another in each of the next four ensuing years, so that there may always thereafter be one scholarship to be given away in each year.

The scholars to be young men studying and seeking to qualify themselves as Members of the Royal College of Surgeons of England.

No student to be allowed to compete for a scholarship unless he shall be nominated as a candidate for a scholarship.

Such nominations to be made by the Council of the College upon the recommendation of the head master of an institution recognized by the College for instruction in science, or of such head master or teacher as the Council may decide to recognize for such recommendations, provided always that nominations shall only be made in the case of students whose conduct has been satisfactory and who are in need of financial assistance in the prosecution of their studies.

Forms of petition and such information as is necessary for candidates for these scholarships may be obtained from the Secretary, Royal College of Surgeons, Lincoln's Inn Fields, London, W.C.

The approximate value of each scholarship will be £60 per annum.

Removal of Member.

The name of a member of the College, recently struck off the *Medical Register*, was struck off the list of members, for unprofessional conduct.

Conference on School Hygiene.

The President reported on behalf of himself and the Vice-Presidents, that, in pursuance of the authority given to them by the Council on November 10th last, they had appointed Dr. H. Timbrell Bulstrode to represent the College at the Conference on School Hygiene arranged by the Royal Sanitary Institute to be held in London from February 7th to 10th, 1905.

Donation.

Mr. Edmund Owen presented to the College, on behalf of Mr. Edward Atkinson, M.R.C.S., of Leeds, six saws invented and used by Hey for operations on the skull.

THE following gentlemen having passed the necessary examinations, and having conformed to the by-laws and regulations have been admitted Fellows of the College in order of seniority as members, namely:

Messrs. J. A. Hayward, M.D.Lond.; C. E. Marriott, M.C.Camb.; F. J. Hasslasher, M.B.Lond.; J. Clay, M.B., B.S.Durh.; H. D. Pollard, M.B.Lond.; D. J. McGavin, M.D.Lond.; C. F. Walters, L.R.C.P.Lond.; R. C. Elmslie, M.B., B.S.Lond.; G. E. Waugh, M.D.Lond.; W. F. H. Coke, L.R.C.P.Lond.; E. R. Carling, M.B., B.S.Lond.; S. Hastings, M.B., B.S.Lond.; H. Davies-Colley, B.C.Camb.; H. Upcott, L.R.C.P.Lond.; N. E. Waterfield, M.B.Lond.; J. E. Adams, L.R.C.P.Lond.; H. A. Lyth, M.B., B.S.Lond.; W. A. Rees, M.B.Lond.; J. H. Burgess, M.B.Lond.; A. R. Brailey, M.B., B.C.Camb.; N. Carpmael, L.R.C.P.Lond.; C. B. Goulden, M.B., B.C.Camb.; W. L. Harnett, M.B., B.C.Camb.; A. T. Moon, L.R.C.P.Lond.; K. Black, L.R.C.P.Lond.; T. J. Faulder, L.R.C.P.Lond.; N. I. Spriggs, M.B., B.S.Lond.; F. H. Parker, M.B., B.C.Camb.; R. J. Ferguson, M.D., M.Ch., R.U.I.; A. McNab, M.B., Ch.B.Edin.; H. B. Tawse, M.B., Ch.B.Aberd.

The following gentlemen passed the First Professional Examination in Anatomy and Physiology for the Diploma of "Fellow," namely:

Messrs. S. C. Allen, M.D., B.Ch., New Zealand; M. R. Blake, M.D., C.M.Toronto; H. Blakeway, G. E. Charles, C. C. Chovce, M.D.Edin.; J. L. Falconer, M.B., Ch.B.Vict.; D. C. L. FitzWilliams, M.B., Ch.B.Edin.; A. Fleming; T. H. Foulkes, Capt. I.M.S.; W. B. Griffin, T. S. Hele, A. L. Home, M.B.Lond.; C. B. Howse, G. M. Huggins, A. R. Jordan, B. T. Lang, F. S. Mackenzie, M.B., C.M.Edin.; C. E. Marriott, M.B., M.C.Camb.; N. Patterson, M.D., B.Ch.Edin.; H. Pierpoint; D. Rankin, P. A. Reckless, R. T. Slinger, M.B., Ch.B.Vict.; H. A. R. E. Unwin, J. B. F. Wilson, and E. M. Woodman.

Eighty-five candidates presented themselves for this examination, of whom 26 passed and 59 were referred.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

Membership.

AT a stated meeting of the Royal College of Physicians of Ireland, held on January 14th, the following candidates were admitted to the membership of the College: Edward J. M. Watson, M.D.; T. Gillman Moorhead, M.D. At the previous meeting of the College, held on January 6th, Lieutenant-Colonel F. C. Reeves, I.M.S., was admitted to the membersip.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ALLEGATIONS OF NEGLECT OF DUTY AGAINST OFFICIALS OF A WORKHOUSE INFIRMARY.

OUR attention has been directed to the report in the *East Anglian Daily Times* of an inquest which was held recently at Ipswich by the coroner of that borough on the body of a man who had died in the Infirmary of the Ipswich Workhouse. After the death of this patient reports of neglect in nursing and inattention to the ordinary requirements of the deceased during his illness became so prevalent as to lead the coroner to consider an inquest necessary. At the first sitting of the court the inquiry was adjourned in order that a *post-mortem* examination might be made, and this was directed to be done by Mr. G. S. Elliston, the Medical Officer of Health for the district, who held no official position in reference to the workhouse.

The evidence given by Mr. Elliston showed that the death of the patient was undoubtedly due to phthisis, and that there was a considerable quantity of suitable nutriment in the stomach of the deceased which he considered had been administered a few hours before death. The body was clean externally, and without marks of violence, and there were no bedsores, though emaciation was so extreme as to cause the bones to protrude through the skin. The jury, after an hour's deliberation, returned the following verdict: "That the deceased died from consumption, and that the nurses carried out their duties as laid down by the Department, and that the allegations of neglect are not borne out by the evidence." The conclusion of the jury must be regarded as highly satisfactory. Allegations such as were circulated in this case are easily made, but here, all such failed to be substantiated. It was, on the other hand, proved by evidence that the deceased was a complaining and dissatisfied patient, and was himself of very dirty habits.

We have carefully read the account of the coroner's somewhat lengthy summing-up of the evidence, and we note all the material evidence appears to have been most aptly commented on by him. He pointed out to the jury that they had met to ascertain the precise cause of the death, and it was not for them to inquire whether there had been any breach of the Consolidated Order of the Local Government Board, or whether any person had discharged his duty or not, except so far as any breach of these regulations or any neglect of duty had caused or accelerated the death of the deceased.

This verdict of the jury was supplemented by a rider to the effect that in their opinion the nursing staff of the infirmary required augmentation, and further, that pauper inmates of the workhouse ought not to be engaged as wardsmen. As to this we are in agreement with the jury, and we have good reason to believe that in all well-conduced infirmaries these faults in management are gradually, if not rapidly, disappearing, and we have every hope that in the near future, the regulations of the Local Government Board on these points will be more strictly adhered to, and if necessary made compulsory. With a full staff of efficient salaried nurses allegations such as gave rise to this scandal at Ipswich would become events of the past.

We are so often struck by the opinions expressed by coroners' juries, and by the fact that matters are discussed at length by them which have no bearing on the cause of death and which are consequently considered in error, that we gladly record our appreciation of the way in which this inquest was conducted by the coroner, who evidently allowed all reasonable latitude for remarks throughout the inquiry, but did not allow any improper questions to be put to the witnesses by any one present, not even by members of the Board of Guardians, nor even by any of the jury.

FEE FOR ATTENDANCE ON PUERPERAL CASE.

R. W. C., who is a district medical officer, writes, saying he was called to a woman on the third day after she had given birth to a child when under the care of a midwife. He found the patient suffering from septicaemia, and he treated her till she recovered. He had an order in due course from the relieving officer. Our correspondent asks (1) whether he can charge £1 for attendance, this being the usual fee for midwifery cases in his union. He appears to have a doubt on this point, as by Article 182 of the Consolidated Order only attendance at or *immediately* after delivery would entitle him to this fee: (2) whether boards of guardians are compelled to supply their officers, either gratuitously or on payment, with copies of contracts they may have signed.

*** (1) We do not think that under Article 182 of Consolidated Order the ordinary midwifery fee could be claimed, but we consider that under Article 183 a fee of £2 may have become due to him if the attendance he gave can properly be described as of long duration, as there can be no doubt the malady was of puerperal origin. Article 183 is as follows: Provided that in any special case in which . . . long subsequent attendance in respect of some puerperal malady or affection may have been requisite, any district medical officer *shall receive* the sum of £2. (2) We know of no regulation which compels guardians to supply copies of contracts to any of their officials, but we believe that the latter can demand to see any contract they may have signed, and it would be only right for any officer to be allowed to copy the whole or any part of any contract he may have entered upon.

DUTIES AND CUSTOMS OF MEDICAL OFFICERS.

G. B. F.—A medical officer is quite within his rights in making a charge for professional attendance on the master of a workhouse of which he is the medical officer, but we believe that it is not usual to make such a charge. A board of guardians cannot make an order for their medical officer to attend all their meetings, but they may direct him to attend any ordinary or special meeting if his presence is required for any special purpose.

LEAD POISONING AT MOSSLEY.

THE Medical Officer of Health for Mossley has called attention to the large number of cases presumably of lead poisoning in the borough. Analysis of the water supply is being made. The severe epidemic of lead poisoning which occurred in the borough some ten years ago is still fresh in the minds of the inhabitants, and much uneasiness is therefore felt with regard to the recent development.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MILITARY OPERATIONS IN NIGERIA IN 1902-3.

AN Army Order recently issued announces that the King has been graciously pleased to approve of the Africa General Service Medal, with clasps, being granted to the forces employed in the undermentioned military operations, provided that the claims of the officers and men are approved by the Army Council. The medal with clasp, "N. Nigeria, 1902," will be granted to all officers and men under the command of Captain G. C. Merrick, Royal Artillery, at Argungu, and on French convoy duty between June 15th, 1902, and November 30th, 1902, both dates inclusive. The medal with clasp, "S. Nigeria, 1902-03," will be granted to all officers and men who between July 7th, 1902, and June, 1903, both dates inclusive, took part in the operations in Southern Nigeria under Colonel A. F. Montanaro, C.B., Royal Artillery, against the Uris and the people of Omonoha and Ebima respectively, and the operations under Lieutenant-Colonel W. C. G. Heneker, D.S.O., Connaught Rangers, against Chief Adukukaiku of Igarra. Officers, soldiers, and others already in possession of the Africa General Service Medal will receive the clasp only. The grant of the medal and clasp, or clasp only, to officers of the regular and auxiliary forces will be confined to those who had official sanction to be present.

HOSPITAL AND DISPENSARY MANAGEMENT.

METROPOLITAN HOSPITAL SATURDAY FUND.

THE accounts for 1904 closed on January 9th, 1905. The total sum collected was £24,232, as against £23,565 in 1903, a net increase of £667. The sum received during the last seven days amounted to £5,892. The amount received from patients in part payment for surgical appliances was £2,289, as against £2,045 in 1903, an increase of £244, and in part payment for convalescent home and special hospital treatment £941, as against £931 in 1903, an increase of £10. The total sums collected for five years are as follow: 1900, £20,186; 1901, £21,455; 1902, £22,870; 1903, £23,565; 1904, £24,232.

INDIA AND THE COLONIES.

BRITISH GUIANA.

THE Colonial Surgeon-General's report on the health and vital statistics of British Guiana for the past year is not a very encouraging document. Taken as a whole, the death-rate for the Colony (28.9) cannot be looked upon as excessively high for a tropical country not too favourably situated, especially when the conditions necessarily attending alien coolie labour on sugar plantations are borne in mind. But it is otherwise with the death-rate for the capital (Georgetown), which attains the high figure of 44.5 per mille. The Surgeon-General attributes this alarming rate to various causes: indirectly to the defective means for the disposal of the sewage and to the excessive overcrowding so general among the poorer classes, and directly to tuberculosis—the percentage of deaths from which in the city is 13.9—and the disorders brought on by neglect and malnutrition, which cause an enormous infantile mortality. According to the returns of the Registrar, the mortality of children under 1 year of age to every thousand children born was for the whole Colony 205; for the blacks, 238; and for the city of Georgetown, 334. There can be only one conclusion, the Surgeon-General remarks, which is that, while the infantile mortality for the whole Colony is excessive (in England it ranges from 130 to 140 per mille), for the city of Georgetown it is appalling. He suggests that milk dépôts selling properly sterilized milk at cost price or even given away free to the very poor should be established, and practical lessons given to mothers on the care and feeding of infants, but though the Medical Department is devoting serious attention to the matter, he opines that it will be no easy task to induce the people to amend their ways.

Turning to the diseases considered worthy of special remark in the report, we find it recorded that in the year under consideration small-pox of a comparatively mild type prevailed throughout the Colony. This, though no statement to that effect is made, must doubtless have been the same epidemic as that recorded at this period from so many of the islands of the West Indies, of an unusual, aberrant type, very mild, and by some observers looked upon as possibly due to some as yet undescribed micro-organism, though in British Guiana its peculiarities do not appear to have been so well marked. There were in all 1,821 cases. In only very few instances did the disease appear on the sugar estates, where the inhabitants are mainly East Indian coolies, but when it did it was always in unvaccinated persons. Most of the cases occurred in Georgetown. The mortality was extremely low, only fourteen deaths being registered—a death-rate of 0.7 per cent. There appears to be no doubt that there was an increased amount of malarial sickness during the year, most of the district medical officers making returns to this effect, but the country does not lend itself very easily to effective work against *Anopheles*, and little can be expected of the natives themselves, who, it is stated, "would do nothing from year's end to year's end did not one stir them up, for they see nothing amiss in the grossest of conditions." It is the progress of ankylostomiasis, however, which is on the whole the most disquieting feature of the report. Originally brought into the Colony by the East Indian coolies, the importation is steadily kept up by this source, and the Surgeon-General states that it causes more harm than all the other internal parasites put together. Dr. Barnes, of the Georgetown Hospital, calls especial attention to the great increase of this helminthiasis within his own experience. It was carried up the rivers by the charcoal burners, who are almost invariably affected, and by their agency it spread to the goldfields, where the insanitary habits of the gold-diggers afford every opportunity for its dissemination. Persons working in contaminated fields and trenches are also frequent sufferers from the other manifestation of the disorder known as "ground itch," or *pani-ghao*, and it is evident that unless energetic steps be taken to stamp out the disease it will eventually become a serious matter for the plantation owner.

THE fourth annual report of the New York State Hospital for the Care of Crippled and Deformed Children, established by the Legislature in 1900, shows that during the year 42 patients have been under treatment in its 25 beds, including 16 cases of hip disease, 11 of infantile palsy, 5 of congenital dislocation of the hip, and 4 of spinal caries. The States of Minnesota, Ohio, and Illinois are about to establish similar hospitals.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

APOMORPHINE would be much obliged for any hint in the treatment of the following case: A gentleman, aged about 60, has for several years been troubled with chronic patches of psoriasis, situated near the umbilicus, over the pubes, and on the more usual sites on the knees and elbows; gouty tendency; habits good. Various treatment has been tried, including (internally) arsenic, antimony, thyroid glands salicine, intestinal antiseptics; (externally) tar in various forms, chrysarobin, hydrargyrum etc., after removing the scales and reducing the hyperaemia. High-frequency current alternated with *x* rays resulted in slight temporary improvement. Under strict vegetarian *régime* the patches have markedly increased in size. The greatest advance was made with an ointment containing oil of cade 40 per cent. Would residence in a warm climate hold out hope of resulting benefit?

M.B. asks for advice in treating a puzzling heart case. The patient, a lady, about 56, has suffered for some years from distressing attacks of irregular action, varied at other times by extremely rapid action. The rhythm in the irregular action is usually two beats—pause, three beats—pause, and so on. At first the pulse is full and strong, flushed face, and throbbing carotids; later it becomes very feeble, and patient much exhausted. The attacks usually last from twelve to twenty-four hours; they are becoming much more frequent, and the patient is getting thin and emaciated. There is no valvular disease, no appreciable dilatation or hypertrophy; the kidneys are healthy. The case has been variously diagnosed as fatty heart, dilatation of aorta, dilatation of right innominate, some lesion of innervating apparatus of heart. Bromides, iodides, digitalin, strophanthus, arsenic, strychnine, cactina pellets, strict attention to alimentary system have all been tried, but the condition gets worse. The last attack necessitated strychnine hypodermically.

COPPER TUBULAR BOILERS FOR MOTORS.

DR. BURTON ROBINSON (1, Marine Terrace, Liverpool) writes: Will any of your readers who are motorists kindly give me their unbiassed experience in regard to the repair of a tubular steam boiler?—Are copper tubes superior to steel? Do they stand the varying heat and pressure as well as steel? What is the life of a copper tubular boiler? Is it practicable to have copper tubes put into a steel shell? My experience is that steel tubes are perforated in eighteen months.

INCOME TAX.

NORTHUMBRIA writes: I fill up income-tax paper in spring. In September I get blue paper with notice to pay five times the amount that I am entitled. I appeal. I get notice to appear before Commissioners. Commissioners say they don't doubt my statement of income—send me out of room to consider my case—bring me back and say that I have to pay a certain amount. I wanted to argue point; they would not listen, but told me to go. A week after that I get another blue paper with gross income put quite correctly, but only £18 allowed off as insurance (that is, after the £160). I appeal again, pointing out that I can claim amount paid for drugs, half house rent and upkeep of bicycle. I get a letter saying there is no appeal from what the Commissioners fix. The law distinctly says that the amount spent on drugs can be claimed. Could I successfully meet the collector in the County Court?

*** It is not quite clear from "Northumbria's" letter whether the second blue paper received related to the same assessment as the first, with regard to which he had already been before the Commissioners. If it did, he can proceed no further with his objection, but may be compelled to pay the tax as fixed by the Commissioners. It is true that the cost of drugs is allowable as an expense for income tax purposes, but "Northumbria" should have made his claim for these when he stated his case before the Commissioners, as, when their decision has once been given, it cannot afterwards be questioned. Our correspondent will be well advised in accepting the assessment for the current year, and in seeing the surveyor of taxes and asking his advice and assistance before making next year's return. If he keeps proper books he should have no difficulty in getting the surveyor to fix a satisfactory assessment for the future. The County Court has no jurisdiction in income-tax matters, and no satisfaction would be obtained by going there, the collector of taxes having the power of distraint without taking any preliminary legal proceedings. If the second blue paper related to a separate source of income not included in the assessment referred to in the first notice received, "Northumbria" can appeal to the Commis

sioners for an adjustment of any overcharge in the same way as he ha already done in regard to the source of income assessed in the first notice.

ANSWERS.

T. J. H.—We have been unable to ascertain that the practice of slitting the outer canthus in order to make the eyes look larger exists in any country: the appearance it would produce would not be likely to appeal to any one but a South Sea savage dressed in war paint and feathers. If by accident or disease the outer canthus is enlarged it produces a hideous appearance, and the operation of sewing it up is frequently performed.

ACCOUCHEUR.—When a medical man is engaged to attend a woman in childbirth it is implied that he is to use his judgement and do what is best for the patient. The patient's husband is called in only if she is in such danger that she ought to be allowed to see those dear to her: or if a question arises upon which her husband's wish may properly influence decision—for example, as to craniotomy.

GONORRHOEAL RHEUMATISM.

M. D. writes: In reply to "Surgeon, R N.," this is a troublesome complaint, but amenable to careful treatment. Sometimes strapping up a knee with "Scott's" dressing, the emp hydrarg. co., gives great relief: but pot iodidi gr. v, decoct. sarsae co. 3j ter die, with pil. plumbi gr. v every night should also be given. If this does not cure or relieve the pain, I have great faith in carbonate of guaiacol gr. v night and morning.

COUGH AFTER INFLUENZA.

M. D. writes: "Nemo" should examine patient's chest carefully to make sure it is laryngeal. Sometimes nasal irritation will cause cough, for the congestion seems to spread from nose to throat and from throat to nose. Often a nasal spray will give great relief. Some of my patients have found great relief from Allen and Hanburys' troches. No. 18 cocaine, potass. chlorat. and borax, or the lozenges of *P. B.* morphine and ipecac.

IRRITATION PRODUCED BY PLASTERS AND STRAPPING.

M.D. writes: There is no doubt most men in practice have been troubled as Dr. Hawthorne. My opinion is as follows: None of the hospital plaster purchased is really the old emp. adhaesivum *P B*, solely because it cracks and peels off the material it is spread upon. The manufacturers mix up a formula of their own with a good deal of resin in it. No doubt it sticks better, is more adhesive, but this irritation should be pointed out to them and this ingredient may then be omitted. It is made for appearance and sale. I do not know whether the irritation from emp. belladonnae is not more irritating than the hospital emp. adhaesivum. There is only one house that my emp. belladonnae is obtained from, solely for this reason.

COCAINE IN DENTISTRY.

R. W.—We should hesitate to use a large dose of cocaine on faith of other ingredients preventing its toxic effects. These are fickle in their manifestation; one of the worst cases of toxic effect with which we are acquainted occurred in the person of a patient with whom cocaine had been used with great success three or four times previously. Though the preparation mentioned is to some extent used by dentists, we should prefer a freshly-made solution of cocaine hydrochloride, and should not advise the injection of more than half a grain, whatever preparation be used. But its use in dental surgery is not on the increase; the gums absorb with difficulty, and the results are variable.

LETTERS, NOTES, Etc.

ANTITYPHOID INOCULATION: A SUGGESTION.

MAJOR C. N. C. WIMBERLEY, I.M.S., writes to express the opinion that Dr. Wright has at any rate been working on right lines in his endeavour to diminish typhoid fever, which is so serious a scourge to the army. He asks whether it should not be made a condition of service that all men enlisting for a reasonable period should have to undergo inoculation with typhoid vaccine, just as revaccination for small-pox has been made compulsory in Germany. Failing this experiment on a large scale, he suggests that a substitute might be found in the by no means inconsiderable number of medical men who enter the naval and military services of the Empire. He thinks that they would be ready to undergo the trifling discomfort of antityphoid inoculation, and in this way afford to the public a living example of the benefits available for humanity at large. He suggests, further, that instead of two inoculations, the first with an attenuated and the second with an exalted vaccine, they should go through a series of inoculations with vaccines of increasing potency. He believes that in this way, with little discomfort to themselves, there would be established a complete immunity to a disease fatal to a certain proportion of their number yearly, while the benefits of the process would be made manifest to an intelligent public.

A SUCCESSFUL DIAGNOSIS.

THE following story, which we find in the *Journal of Nervous and Mental Diseases*, points an instructive moral: A successful business man, said to be suffering from neurasthenia of a pronounced type, was sent to a well-known American physician. He had consulted many physicians and had been sent hither and thither in search of health. After a careful examination the physician said gravely: "I want to say to you, first, that the diagnosis in your case is perfectly clear." The patient looked up at him anxiously as if awaiting his doom. The doctor went on to say: "My diagnosis is you are a d——d fool!" The patient immediately jumped up from his seat and seized the physician's hand, crying out: "Thank you, doctor; that's the kind of talk I like to hear." He promptly proceeded to get well.

THE METRIC SYSTEM.

MR. E. JOHNSON (Secretary of the Decimal Association, London) writes: Referring to the letter of Dr. Gordon Sharp on the metric system, published in the BRITISH MEDICAL JOURNAL of December 24th, 1904, p. 1736, I beg to be allowed to point out that occasionally in some parts of Germany the ½ kilo. is colloquially called by the old name of "pfund," and that this fact has caused many people to imagine that the metric system is not thoroughly adopted in that country. It may be perfectly true that fatal mistakes are made on the Continent through mistaking the multiples, and fatal mistakes are heard of in England from other causes; but probably the real reason for such mistakes, either here or elsewhere, is not the defect of the system in vogue, but the carelessness of the dispenser. It seems, indeed, to the lay mind that the mistake of giving ten or a hundred times the intended dose is an incredible one, the very great excess serving to draw attention to the error on the part of the dispenser who knows the character of the drugs he is dispensing. We do not forget that in England patients take their dose by measure, and in this connexion I should like to say that my attention has been drawn to the serious anomaly that our household teaspoon varies in capacity from 30 to 60 minims, while the tablespoon may be anything from 240 to 400 or 500 minims. This is an instance of the lack of precision which exists at present.

MR. GEORGE MOORES, Secretary of the British Weights and Measures Association, writes: Referring to the letter appearing in the BRITISH MEDICAL JOURNAL of January 14th, from Mr. E. Johnson, Secretary of the Decimal Association, he mentions a large number of supporters of various kinds which his Association has, but I would like to state, from personal interviews which I have had with members of some of the aforesaid bodies of supporters, that it is clear those petitions which they have presented in favour of the compulsory adoption of the metric system in this country, have been largely based on a misunderstanding of the question by those voting for such petitions. The nation can only arrive at a true conception of the position by having both sides of the question put before it, and this Association has been formed for the purpose of organizing and presenting the case against the metre, and in favour of standardizing and simplifying British units of weights and measures. Judgement so far has gone by default, but there are strong signs that such a state of apathy is fast passing away. Amongst the members who have joined us are doctors, manufacturing and dispensing chemists, and we believe that the more our case is known the less will be the number of nominal supporters of the metric system. It is of the greatest importance, in view of the early reintroduction of the obnoxious Metric Bill before the House of Lords, that the country should at the present time support this Association in presenting the British case before those members of Parliament who are asked to obliterate the units which are universal throughout the Anglo-Saxon race, and which, with the spread of English commerce language, and law, are fast being introduced into other parts of the world.

A SCRIPTURAL JUSTIFICATION OF FEES.

WHEN Chaucer says of his doctor of physic that his study was but little on the Bible, he was echoing a popular calumny on the profession which has lasted to our day. To what good purpose however, doctors can on occasion apply scripture was shown by Sir James Simpson when, in reply to the foolish preacher who denounced him for using chloroform to enable women to escape the curse pronounced on Eve, he quoted the case of Adam, who was thrown into a deep sleep before his rib was removed. Another ingenious application was made some years ago by an American surgeon, who brought an action for his fee against a patient on whom he had operated successfully for strangulated hernia. The patient, though a wealthy man, with the fine sense of gratitude with which most of us are only too familiar, resisted the claim on the ground that the charge was exorbitant. In the course of the trial the attorney for the defendant sarcastically asked the surgeon if there were no limit to his charges. "None in this case," said the doctor. "On what authority, sir?" "The Bible." "Explain yourself." "'Eye for eye, tooth for tooth, yea, all that a man hath will he give for his life.'" The remark had its effect upon the jury and the doctor won his case. Even M. Doyen, however, would scarcely push this text to the full length of its literal meaning, or surgery would come to be the art of reducing millionaires to medicancy.

A POSSIBLE MODE OF INFECTION IN GASTROINTESTINAL DISORDERS.

MRS MARY EVEREST BOOLE (London) writes: Many parents have a custom, highly commendable in itself, of encouraging children to allow bees to share their fruit or jam. This is felt to be a good object lesson for the little ones in respect for industry and gratitude for its results, as well as a graceful recognition of the bee's own dainty cleanliness. But in some parts of England there exists a fly indistinguishable to the unskilled eye from the honey bee. I have seen it in the Thames Valley. It lives among human excrement, and is therefore likely to carry germs of many gastric and enteric parasites. It has a habit of flying towards artificial light—a lamp, etc.—like some night moths. Therefore in any village where supposed "bees" are seen flying about lamps it is advisable to warn children and servants against allowing any creature to come near food on the presumption that it is a genuine busy bee.

A CORRECTION.

OWING to an error in the original manuscript it was stated (BRITISH MEDICAL JOURNAL, January 7th, 1905, p. 24) that the upper end of the cone inhaler designed by Mr. T. D. Luke could be papered; it should have been stated that the tapering of the upper end makes the inhaler more convenient to hold than many other cones.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Clinical Lecture ON DYSPHAGIA.

Delivered at the London Post-Graduate College and Polyclinic.

BY MAYO COLLIER, M.S.LOND., F.R.C.S.ENG.,
Senior Surgeon, North-West Hospital.

GENTLEMEN,—I have brought for your inspection to-day this man, who states he is 51 years of age. He is a carriage builder by trade, and has now been ailing some six months. He is suffering from dysphagia, or difficulty in swallowing. The cause of his trouble is not apparent.

I propose to discuss with you this afternoon the subject of dysphagia and to try and make out by the process of exclusion the exact nature of this man's trouble.

With an experience of twenty-nine years in hospital and other practice I have naturally seen some few of these cases. I know of no task or problem that can be presented to the surgeon that is more difficult or requires more care and circumspection than when a patient who is unable to swallow presents himself and asks for relief.

It is only after obtaining a complete history, and after making a most careful survey and minute examination of the nose, mouth, pharynx, larynx, neck, chest, arms, and abdomen, that you will be in a position to come to any correct opinion on the case. When foreign bodies have been swallowed their exact location can only be made out with the help of the probang, bougie, or Roentgen rays.

This man says he was quite well six months ago and could take his food like any ordinary person. He dates his trouble from swallowing a small bone or piece of gristle. Since then he has off and on experienced some trouble in swallowing. Up to within the last few weeks he has never been sufficiently bad to prevent him taking soft and well-chewed food. Within the last twenty-one days his dysphagia has become quite acute, and he is and has been reduced to swallowing quite small quantities of milk, tea, and broth. Lately he has lost flesh rapidly, and, as you see, is now much reduced in weight.

Ultimately his symptoms became so acute that he was admitted into the hospital under my care and operated on as an emergency case by my colleague, Mr. Templeton. A most successful operation was performed, and the man can now feed himself and go about like an ordinary individual, but neither Mr. Templeton nor I knew the exact nature of the obstruction to the oesophagus, although we may make a shrewd guess. I may here add that in this case there is no suspicion of syphilis, alcohol, tubercle, or gout.

All diseases of the oesophagus have a tendency to constrict, and eventually to occlude, its passage. In some instances the constriction may be purely nervous or reflex, but in the great majority of cases it is either due to fibrous or cancerous degeneration of the walls of the canal, and is then termed "organic stricture."

The great feature of oesophageal stricture is dysphagia, but there are many conditions producing dysphagia that are not due to stricture, and to these as well as stricture we must direct our attention this afternoon.

DIAGNOSIS.

Before passing an instrument down the oesophagus with a view to making a diagnosis of stricture it is necessary to examine for, and eliminate, the following conditions that may give rise to dysphagia independently of stricture:

1. *Morbid Conditions of the Nose, Mouth, or Pharynx.*

On a patient complaining of dysphagia, after having carefully made notes of the personal history, mode of onset, and details of illness, you will sit him down in a chair near a good light, and, with the aid of the frontal and laryngeal mirrors, you will examine for:

(*a*) *Bad Teeth.*—Bad teeth have been known to cause lock-jaw, as well as chronic inflammation of the lining of the stomach and oesophagus.

(*b*) *Tumours, Abscess, or other Affections of the Tonsils.*—These may cause marked dysphagia and obstruction to deglutition.

(*c*) *Tumours or cysts of the uvula, pharynx, or post-nasal spaces* may produce dysphagia. A polypus of the post-nasal space may hang down and cause complete dysphagia.

(*d*) *Post-diphtherial paralysis* of palate or pharynx may be present.

(*e*) *Glosso-labio-pharyngeal palsy* must not be omitted, as well as general paralysis, as a severe and fatal cause of dysphagia.

All these obstructions and conditions can be easily seen and made out by opening the mouth and depressing the tongue with a spatula in a good light. An abscess may exist behind the wall of the pharynx from caries of the cervical vertebra, or suppuration of the cervical glands, and cause marked and serious dysphagia. I have had two such cases under my care in the hospital recently.

A gumma, tuberculous ulcer, or syphilitic sore may each be present and set up a lesser degree of dysphagia or difficulty of deglutition. These conditions can be easily seen by simple inspection of the oropharynx.

2. *Morbid Conditions of the Larynx.*

Tuberculous or malignant disease of the larynx or upper opening of the oesophagus, oedema of the epiglottis or arytenoid cartilage, or other diseases of these structures may produce marked and profound dysphagia. Perichondritis, with or without abscess and growths in or about that organ, may cause dysphagia.

All these conditions are easily seen and their presence determined by the aid of the laryngeal mirror. The combination of dysphagia with cough and dyspnoea will point to the larynx as being affected.

3. *Tumours in the Neck Outside the Oesophagus.*

A cyst or abscess or tumour of the thyroid body may so press on the oesophagus as to cause marked dysphagia. Such a case was under my care recently. The cyst was of old standing and suddenly suppurated during an attack of influenza. This abscess caused death by pressure on the oesophagus and trachea.

4. *Aneurysm.*

An aneurysm of the internal carotid artery may develop inwards and cause dysphagia. Any tumour or abscess arising in the neck outside the oesophagus may press upon it and so obstruct its lumen.

In some cases an aneurysm of the innominate artery is limited to its postero-internal aspect, and developing in this direction its first and only symptom may be dysphagia. The usual signs of innominate aneurysm, such as difference of pulses on right and left side, difference in pulsation in the right and left carotids, enlargement of superficial veins in head and neck, pain and dyspnoea: these may be one and all absent, and the patient may be quite free from any other symptom than dysphagia. There is one point, however, of cardinal importance in the diagnosis of innominate aneurysm. It is this, that when the aneurysm causes marked dysphagia it nearly always causes some dyspnoea and cough. Dysphagia associated with dyspnoea and cough would certainly make one think twice as to the possibility of innominate aneurysm in the absence of any laryngeal affection.

Aneurysm of the aorta may give rise to dysphagia by pressing on the oesophagus, and, as in innominate aneurysm, the reckless passage of a tube may precipitate a fatal termination. The symptoms of aortic aneurysm are pain, dyspnoea, dysphagia, oedema, but of all these the dyspnoea is the most characteristic and important.

The dyspnoea may arise from:

(*a*) *Direct Pressure on the Trachea.*—This can be seen with the laryngoscope or its effects can be heard with the stethoscope.

(*b*) *Pressure on the bronchus* is characterized by a wheezing cough and some expectoration, with a marked difference of breath sounds on the two sides of the chest.

(*c*) *Pressure on the Lung.*—In these cases the dyspnoea is not marked till a late stage, when the aneurysm presses on and becomes incorporated with the lung. The lung then forms part of the aneurysmal sac.

(*d*) *The Recurrent Laryngeal Nerve.*—In pressure, irritation, stretching, or compression of this nerve the voice is hoarse and much changed, there is a cough of a metallic character, and usually some frothy expectoration. Any exertion brings on severe and distressing dyspnoea, and sudden attacks of dyspnoea without exertion are not uncommon. On examining the larynx there is usually loss of the power of abduction on the left side, and the cord rests in the cadaveric position or is completely adducted.

(*e*) *Pressure on the Pulmonary Vein.* When this is the cause of the dyspnoea there is considerable lividity of surface and signs of pulmonary congestion. The dysphagia associated with aortic aneurysm seldom or never precedes the dyspnoea.

It is always a late symptom and is usually associated with pain.

One more characteristic of the dysphagia of aortic aneurysm is that it is nearly always associated with pain, and this pain is referred to the episternal notch, and with it there is a feeling as if there were a cord or string round the root of the neck.

5. *Intrathoracic Tumours.*

Enlarged tuberculous glands, cancerous and other tumours or abscesses may develop in the posterior mediastinum from the spine or other surroundings and compress the oesophagus. A local empyema may threaten the life of the patient by compressing the trachea or oesophagus. One such case came within my own experience. A collection of pus at the apex of the left pleura pressed so severely on the oesophagus and trachea that an exploratory operation had to be undertaken to assist the diagnosis.

In all these cases, when a tumour or aneurysm is suspected, a skiagraph will greatly assist the diagnosis; but always remember that dyspnoea followed by dysphagia and pain will most certainly make one very suspicious of aortic aneurysm.

6. *Dislocation of the Sternal End of the Clavicle Backwards.*

This may occur in two ways: From accident in a well-formed and healthy subject, and when associated with excessive curvature of the spine.

In the classical case reported by Sir Astley Cooper the end of the bone pressed so severely on the oesophagus and trachea as to threaten life. The sternal end of the bone was removed with a saw, and the patient's life saved.

7. *Impaction of a Foreign Body in the Gullet.*

In these cases there is generally a history and knowledge of the fact, or the patient has missed his false teeth on waking in the morning, or is conscious of having swallowed a coin or a piece of bone, or what not. These are the most important conditions that are likely and liable to simulate stricture of the oesophagus, and by the process of exclusion you must eliminate each and every one of these before you are justified in passing an oesophageal bougie to assist your diagnosis.

Now, with this patient before us, we have an excellent opportunity of carrying on our examination in the way I have indicated; and I propose now, with your assistance, to see if there are any of these eight conditions present before I pass this tube to find out more about the cause of his difficulty of swallowing.

[The patient being placed in a chair near a good light the lecturer said:]

You will see that, although few teeth are left, those that remain are sound. There is no stiffness of the jaws. The mouth and oropharynx are healthy. The nose and postnasal space are free from polypus or other growths. The larynx gives us no indication of paralysis, growths, ulceration, or other morbid conditions. The movements of the cords are quite healthy. There is no bulging into the pharynx by growths in the neck, such as aneurysm, postpharyngeal tumours, or abscesses, or growth of any kind. The thyroid body is quite movable and apparently free from disease. There is no evidence of swelling at the root of the neck on the right side, no enlargement of the veins of the head and neck, no oedema of the arm, and the pulses in both radial arteries are equal. There is no pain, except in the back, low down, opposite the xiphoid cartilage. He has no dyspnoea, no dullness front or back, and no difference in breath sounds. There is no evidence of intrathoracic tumour of any magnitude. The sternal end of either clavicle is in its place. There is no history of having accidentally swallowed a foreign body.

USE OF THE OESOPHAGEAL BOUGIE.

Having carefully excluded all these conditions, we are now justified in passing an oesophageal bougie. The passing of an oesophageal bougie requires tact, determination, and care, and any hesitation or want of skill on the part of the surgeon will end in disaster. I have seen a feeding tube come out of the nose; I have seen it passed into the larynx; I have seen it coiled up in the postnasal space; in fact, I have seen it in every position but the right one.

An anaesthetic is often desirable in these cases, but as this man is now comfortable and confident, he will allow me to pass this medium-sized bougie without hesitation. I seat him in a chair and request him to sit up and open his mouth. By bending the head slightly forwards I avoid the prominence of the second cervical vertebra, and by grasping the instrument about 8 in. from its tip I can pass it into his oesophagus without causing him the least laryngeal irritation or discomfort. You see that the bougie has passed some 10 or 12 in. and there stops. The tip is now not far off the lower end of the oesophagus but will not pass further. On withdrawing it you see it is covered with thick pasty mucus streaked with blood. The age of the patient associated with the rapid wasting and the complete obstruction will enable us now to say that this man has malignant disease of the oesophagus near the cardiac end.

Now what should we have done in a case like this to relieve him of his urgent symptoms of impending death from starvation? Do not wait till it is too late to operate. Operate first and make your diagnosis afterwards. Mr. Templeton, acting for me, was sure this man was dying of starvation. He did not wait an hour, but fed him by an opening in the stomach within four hours of his entrance into the hospital. You see this man now—he is the picture of contentment. He drove here in a cab and smoked his pipe all the way, and is now comparatively happy.

OPERATION.

The operation that we performed that snatched this man, so to say, from the jaws of death from starvation is known as gastrostomy. We gave him a mouth in his stomach, and, more than this, we aimed at giving him a new oesophagus also. If you examine him you will see his new mouth over the cartilage of the eighth rib, and with a probe you will make out the new oesophagus that leads into the cavity of the stomach. This operation is known as Albert's modification of gastrostomy, and I think it is the most efficacious of all the methods introduced within the last twenty-five years.

You will appreciate the advances made in surgery when I tell you that twenty-five years ago the foremost surgeons of the day in this country, with few exceptions, did not even so much as contemplate this operation. They looked upon opening the stomach for malignant stricture as useless and deadly. I will read you a passage from the best-known surgery of the day from the pen of one of the ablest men that ever lived—Professor Sir John Eric Erichsen, written in 1872.

> Speaking of gastrostomy as performed by Sedillot and Cooper Foster, he says the value of this operation has as yet to be determined by experience. In no case in which it has hitherto been done has it succeeded in adding much, if anything, to the prolongation of life. In reasoning upon it two objections present themselves. First, there is the great and immediate danger of destroying life outright by the induction of peritonitis. But supposing this risk to be overcome, what is gained by the artificial opening? It is true that through it the patient might be nourished, but as every idiopathic stricture of the oesophagus is either from the first of a cancerous nature, or ultimately assumes a malignant action, of what advantage is it to endeavour to prolong a precarious existence which in a few months or weeks must be cut short by the unchecked progress of a malignant disease? Would not the immediate danger of the operation much more than counteract all good to be eventually derived from it?

What a change in twenty-five years! Now it is the general opinion that the operation is simple and safe, and extremely efficacious, and is to be resorted to on all occasions when the life of the patient is or may be threatened by starvation. I would here add that the French surgeon Sedillot was the first to perform this operation in the year 1846. Some years afterwards Mr. Cooper Foster performed a similar operation for the first time in this country without success.

Then came a slow sequence of cases by various expert surgeons with little success. Out of the first 60 cases, 50 died within forty-eight hours, peritonitis and exhaustion accounting for the majority of the failures. With antiseptic surgery came freedom from suppuration and freedom from giving way of the stitches that bound the stomach to the abdominal wall.

With antiseptic surgery the great gulf was bridged. Until to-day, gastrostomy, if performed before the patient is moribund with starvation and semi-decomposition, is one of the safest and simplest procedures in surgery. The operation as performed in this case may be described in Mr. Jacobson's own words as follows:

> The peritoneum is opened either by an incision parallel with the costal cartilage or by one just within the linea semilunaris high up. The stomach having been drawn out, a long conical diverticula of the anterior wall of the viscus is pulled well out of the wound, and the parietal peritoneum and the posterior layer of the sheath of the rectus are sutured round its base, care being taken not to constrict it much. A continuous suture is used, and every care taken not to perforate the mucous coats of the stomach.
>
> A small incision is now made through the skin a little above the front

and on the level of the costal cartilages. The skin between the two openings having been separated from the subjacent parts, the diverticulum of the stomach is drawn up under the skin and over the costal cartilages as far as the small skin incision to the edge of which its apex is united by a few sutures. A small opening is now made here into the stomach, and the orifice fixed to the skin by one or two points of suture.

The lower part of the wound is then closed by continuous suture. As a result, the diverticulum of the stomach is drawn upwards; its base is gripped by the muscular fibres of the rectus, while a short upward-directed subcutaneous oesophagus is also formed. All escape of fluid is thus prevented, and the patient can be safely fed at once.

SUPPURATIVE FRONTAL SINUSITIS:

ITS SURGICAL TREATMENT, BASED ON AN ANALYSIS OF FORTY CASES.

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SUPPURATIVE disease of the nasal accessory sinuses in its relation to general systemic affections, to septic intracranial lesions, and to infective processes within the tympanic and orbital cavities has been brought somewhat prominently before the profession of late years, more especially since the various epidemics of influenza have visited this country. The difficulties of accurate diagnosis, of differential diagnosis, and of a true estimate of the damage inflicted, or likely to be inflicted, upon the individual in question, present problems at once interesting and instructive to those engaged in this particular department of medical work.

For practical purposes the nasal accessory sinuses may be divided into two main groups, (1) those whose ostia drain into the middle meatus, and (2) those whose ostia drain into the superior meatus.

In the first group are included the maxillary antra, the anterior ethmoidal and fronto-ethmoidal cells and the frontal sinuses; in the second group the posterior ethmoidal cells and the sphenoidal sinuses.

Pus coming from any of the sinuses included in the first group drains into the anterior portion of the middle meatus, whilst its flow is materially increased upon stooping or upon bending the head forwards and downwards. More especially is this the case when the maxillary antrum is the source of the purulent collection. In suppurative disease of the posterior group of cells, the flow takes place backwards towards the nasopharynx, and is usually to be seen upon rhinoscopic examination covering the posterior ends of the middle turbinals and the adjacent regions of the lateral walls of the nasopharynx.

The main difficulty in practice is first of all to determine from which sinus or sinuses the flow of pus is taking place. To ascertain this it is frequently necessary to examine the patient on more than one occasion.

Experience shows that it is a matter of comparative rarity to find only one sinus or one group of cells affected. In the vast proportion of cases two or more sinuses are involved.

Zuckerkandl, with his great and unique experience, never found a single case *post mortem* in which frontal-sinus suppuration was uncomplicated with ethmoidal; and E. Fraenkel, in 146 autopsies, did not find one uncomplicated case of suppurative frontal sinusitis.

This tendency to multiple sinusitis may be due to the virulence of the original infective process or to an auto-infection. The anatomical arrangement of the various ostia also favours the passage of pus from one sinus to another. Thus, it is no uncommon thing to find that when one or other of the higher sinuses is affected a secondary infection of one of the lower sinuses follows. It is not always, however, a case of actual infection or disease of the lower sinus which results. The sinus may act merely as a reservoir into which pus trickles, and, should it be drained at a sufficiently early stage, no permanent damage may have been inflicted upon its delicate mucosa. This mechanical infection is more especially prone to take place as the result of frontal-sinus suppuration when the purulent fluid flows down the infundibulum directly into the maxillary antrum, guided thither either by the intimate relationship of the two ostia or along a narrow gutter of mucous membrane running from the open end of the infundibulum to the ostium maxillare.

The principal etiological factors responsible for frontal-sinus suppuration may be grouped as (1) local, (2) general causes.

The most important local causes are extension from some previously-existing morbid intranasal lesion and traumatism. General causes are epidemic influenza, diphtheria, syphilis, scarlet fever, measles, pneumonia, and catarrhal affections of the upper respiratory tract.

The particular germ responsible for the production of any of these general diseases may be found within the sinus. Bacteriologically, however, no specific organism is responsible for the incidence of the sinusitis. Various cocci—streptococci, staphylococci, meningococci, pneumococci, and various bacilli; for example, Pfeiffer's, Friedländer's, etc.—have from time to time been demonstrated in pus taken from infected sinuses.

The histo-pathological changes which take place are at first confined to the mucosa, but later on the underlying or surrounding bony structures may become the seat of a caries-necrotic process ending in perforation and extension of septic disease to the intracranial or orbital cavities.

The mucosa lining the affected sinus or sinuses undergoes marked degenerative changes in chronic cases, becoming succulent, oedematous, and finally polypoid. As a result the natural orifices of the sinuses tend to become occluded. Distension follows, with at times disastrous consequences. In practice the latent and open form of empyema is the one most commonly met with; that is, where there is a free secretion of pus from the mucosa lining the sinus, with, at the same time, sufficient egress to prevent the supervention of tension symptoms. The advent of any acute catarrhal condition, or any increase in the virulence of the infective agents, may rapidly transform a latent into an acute and closed empyema.

In the diagnosis of acute suppurative frontal sinusitis no special difficulties are encountered, but it is quite otherwise in cases of chronic latent empyemata. Localized pain, which is such a valuable symptom in the diagnosis of deep-seated suppuration is usually conspicuous by its absence. It is true that pressure over the floor of the sinus, which happens to be its thinnest wall, does at times produce marked pain, but an almost equal amount of discomfort is not uncommon when similar pressure is made over the floor of the opposite sinus. To elicit this symptom to the best advantage the finger must be introduced well under the supraorbital arch and pressure made upwards and inwards.

It is rare to find local pain complained of over the anterior wall of the sinus. This wall is its thickest wall, and in chronic cases is prone to become still thicker as the result of a formative osteitis.

The line of flow of pus is perhaps one of the most valuable of the objective indications of the disease. Pus coming from the frontal sinus appears in the anterior portions of the mid-meatal region, its flow is not much influenced by the position of the head as in bending forwards, its colour is usually of a light canary yellow tint, and the patient is usually conscious of a slightly disagreeable odour.

My experience has been that the fronto-ethmoidal cells are invariably affected in cases of frontal-sinus suppuration, and from the practical point of view should always be broken into and drained in operation cases. An accurate estimate of the presence or otherwise of pus in the frontal sinus is, I believe, more readily obtained by excluding the participation of the maxillary antrum and anterior ethmoidal cells in the suppurative process—in other words, more by the presence of negative than of positive indications.

In the diagnosis of empyema of the maxillary antrum positive information is usually obtained by the aid of trans-illumination. The opacity of the affected side contrasts markedly with the brilliant illumination of the opposite antrum. The fact also that the patient is usually conscious of a glow of light in the eye of the non-affected side—a sign which is absent from the affected side—is a useful aid to diagnosis. In doubtful cases washing out of the affected sinus either by the introduction of a cannula through its natural orifice or the passage of a Lichwitz's trocar through the thin inner bony wall of the sinus, that is, just under cover of the inferior turbinated body, serves to definitely demonstrate the presence or absence of pus in the antrum.

The diagnosis of anterior ethmoidal suppuration presents greater practical difficulties, partly on account of the frequent existence of polypoid granulations in the mid-meatal region, and partly also on account of the difficulty of seeing the orifices of the cells. To facilitate observation it is advisable to remove, either by scissors and cold wire snare or by

means of a Gründwald's forceps, the anterior one-third of the middle turbinated body. When this has been successfully accomplished it is possible to probe the anterior ethmoidal cells and to syringe pus from infected areas. It is also possible to block by means of a pledget of wool the orifice of the ostium maxillare and then to watch the line of flow of pus, the patient's head being meantime bent slightly forwards to facilitate the exit of secretion. Even now doubt will frequently remain in the observer's mind as to the implication of these ethmoidal cells and as to the number implicated. The removal of the anterior end of the middle turbinal is, however, not only fully justified under such circumstances, but is also the first preliminary step essential to the successful treatment of frontal sinus and anterior ethmoidal suppuration. Transillumination of the frontal sinus gives such uncertain results that it is not to be relied upon.

In 357 out of 500 skulls examined by Logan Turner with both sinuses present 98, or 27 per cent., failed to illuminate upon both sides, 50, or 14 per cent., failed upon one side, 40 illuminated upon the opposite side, and 23 were negative upon the opposite side.

A definite, or as nearly definite diagnosis as is possible, having been arrived at, the next step is the consideration of the line of treatment to be adopted for a given case. Speaking generally, intranasal treatment should, I hold, always precede any external operation, not only on account of its being a comparatively mild proceeding, but also because the success of any external operation is thereby more likely to be secured. I must, however, admit that it has never been my experience to see a genuinely chronic case of frontal-sinus suppuration cured solely by intranasal procedures, and a consideration of the histo-pathological appearances of the degenerated mucosa lining the sinus must, in my opinion, militate greatly against the chances of its so doing. At the same time it is only fair to state that cases of complete cure have been recorded by Chiari and others.

Even provided that an external operation has been decided upon, intranasal treatment should be carried out several days —seven to ten—before its performance. By so doing, the troublesome haemorrhage which accompanies intranasal operations, especially operations upon the middle turbinal, is done away with—a very material advantage when we consider that the patient is under the influence of a general anaesthetic.

The main object of intranasal treatment is to secure as free drainage as possible from the infected sinus. This is best accomplished by the removal of the anterior third of the middle turbinated body. The infundibular orifice is thus brought into view, when it is possible to pass a cannula into the sinus and to thoroughly wash it out. Although this proceeding is possible and practicable in some cases, it must be admitted that it is a difficult manipulation, and requires the daily attendance of the patient for many weeks. All attempts to open the sinus from the interior of the nose are to be deprecated, the necessary manipulations being both dangerous and uncertain.

When faced with this question, whether an external operation, with its various risks, its uncertainties, and its possible failure, should be undertaken or not, many pros and cons must be weighed in the balance.

In the first place, To what extent is pus in the frontal sinus injurious? That it affects the health of the individual will, I think, be generally admitted. Its absorption into the general blood stream and its possible inhalation into the respiratory passages must not be overlooked. The fact, also, that septic disease of the bony walls of the sinus, with extension to the meninges or frontal lobes of the brain, is not uncommon, renders its presence a menace to the life of the individual. Again, even in the absence of any definite implication of bone, pathogenic organisms are at times transmitted along small venules or lymph radicles to distant organs, there to set up localized or generalized suppuration.

In the majority of cases I have operated upon, the factors which have mainly decided the question in favour of external operation have been failure of intranasal treatment, persistent purulent discharge, severe attacks of headache, and general mental hebetude. How exactly the almost constant headache and dull apathetic mental condition are brought about it is difficult to say. I can hardly think that it is due to tension within the sinus, for two reasons. In the first place, in these chronic cases, these open empyemata, there is always a fair leakage of pus into the nose, there is usually no bulging of the floor of the sinus, and there is no acute localized pain such as one is accustomed to associate with pent-up pus. On the contrary, there is often comparatively little pus in the sinus, although it is constantly being secreted.

It may, however, be argued that if the surgeon is able by intranasal treatment to secure a free vent for pus, even although he is unable to arrest its secretion, the need of any external operation is done away with. Under such circumstances the patient has the continuous annoyance of having pus in his nasal passage or passages, of running the risk of having neighbouring sinuses infected, of the possible extension of disease to the orbital, tympanic, or cranial cavities, and of the supervention of septic disease of some portion of the respiratory tract. Are complications such as these sufficiently frequent, even in the absence of pain and fever, to warrant the surgeon in advising external operation?

Again, if an external operation be performed, be it an Ogston-Luc, a Kuhnt, or a Killian, what are the prospects of cure? The word "cure" is so often loosely used and loosely applied that it is better to definitely state what meaning, in this paper at any rate, it is meant to convey.

In using the word "cure" I mean that rhinoscopic examination shows the entire absence of pus, that headaches have ceased, that the primary incision has completely healed, and that no diplopia is present. Such a restricted use of the word "cure" must mean that the percentage of recoveries is not particularly great. If one considers for one moment the complicated series of cells forming the ethmoidal labyrinth and the other nasal accessory sinuses it must be granted that it is a matter of the very greatest difficulty to so completely eradicate all suppurating foci that not a drop of pus appears within the nasal passages upon rhinoscopic examination. I hold that even the presence of a small quantity of pus is sufficient to reinfect any one of the sinuses, and therefore must of necessity be an element of danger to the patient. Others hold that all that is required is to produce and to maintain free drainage so as to avoid tension symptoms, for example, headache, neuralgia, etc., and that the more or less continuous secretion of pus must be put up with. With this view I do not agree.

The broad fact remains, however, that after opening and draining the sinus headache disappears, and the state of the general health becomes much improved. That in certain cases an osteitis of the bony walls of the sinus takes place is evident from the marked thickening of the bony walls so often met with during operation. It is possible that this sclerosing osteitis, by pressing upon the terminal filaments of sensory nerves, is in part, at any rate, responsible for the pain so frequently complained of.

The dangers to life are both direct and indirect. Direct dangers are the onset of septic osteomyelitis, septic meningitis, septic orbital cellulitis, and intracranial abscess. Indirect dangers are pyosepticaemia, inhalation pneumonia (septic), purulent bronchitis, and septic disease of the middle ear with its possible consequences.

It must be admitted, however, that it is extremely difficult to estimate the actual danger to life. The same difficulty is met with in estimating the dangers of septic middle-ear disease. The meningitis or the pneumonia from which the individual dies is recorded as the cause of death regardless of the fact that these diseases may be, and frequently are, secondary to primary suppuration within the nasal accessory sinuses or the tympanic cavities. With regard to cosmetic results my experience is that the greatest deformity is prone to follow the performance of the Killian operation. That some deformity will result is probable, although it is surprising how slight it sometimes is even in cases of extensive operation. In several of my cases I have noted that a peculiar keloid-looking scar develops months after operation, and this I take to be due to the constant action of the fibres of the orbicularis palpebrarum muscle preventing local rest to the tissues, just as I believe the movements of the platysma muscle are responsible for the keloid appearance of scars after operations upon the neck.

A very guarded prognosis is always advisable. The virulence of the infective agent, the number of sinuses involved, the histo-pathological changes produced in the mucosa, the general health, and the surroundings of the patient are all factors worthy of consideration.

The results which I have obtained in the treatment of frontal sinus suppuration leave much to be desired, and my object is to place on record an epitome of the cases operated upon with their ultimate histories. With this end in view there is appended to this paper a summary of results based upon an analysis of 40 cases operated upon during the last

eight years—cases whose after-history has been followed and carefully noted. The analysis includes the age and sex of the patient, the sinus or sinuses involved, the duration of the disease prior to operation, the date of the operation, the particular operation performed, the duration of the after-treatment and the final result.

The main practical difficulties encountered in treatment are (1) the efficient removal of all disease, (2) the maintenance of free drainage, and (3) the warding off of secondary infection.

It must be obvious to any one acquainted with the complicated series of cells, which taken together form the various nasal accessory sinuses, that complete eradication of all sepsis is a matter of the greatest difficulty. More especially is this the case when dealing with the complicated series of cells which go to form the ethmoidal labyrinth. A survey of the table at the end of this paper shows how frequent the implication of the ethmoidal cells is, and therefore how real the difficulties are. The fact also that various diverticula are met with in the frontal sinus, that the sinus is frequently prolonged backwards over the orbital roof, and that it is in communication with an air-containing space—the nasal passage—are factors of the greatest practical importance.

In only 6 of the 40 cases, or 15 per cent., was the frontal sinusitis uncomplicated. In 21, or 52.5 per cent., the maxillary antrum upon the same side was affected, and in 18, or 45 per cent., the corresponding ethmoidal cells.

In mixed cases, where two or more groups of cells are affected, it is advisable to first of all deal with the maxillary antrum and ethmoidal cells, and subsequently, if necessary, with the frontal sinus. It has been urged by some writers that the higher sinuses should first of all be treated, and subsequently those on a lower level, on the ground that reinfection of the lower sinuses may take place so long as disease of a higher sinus exists. Against this, however, there is the undoubted fact that the treatment of antral and ethmoidal suppuration is simpler, and that it can be efficiently carried out without external operation, and again until an exact diagnosis of frontal empyema from clinical signs and symptoms is possible it seems to me preferable to attack those sinuses which experience proves are not only the ones most frequently affected, but also the ones most amenable to treatment. My experience is that the most important aids to the diagnosis of frontal-sinus suppuration are exclusion symptoms—namely, exclusion of the participation of the maxillary antrum in the suppurative process, either by transillumination or by washing out its cavity, and, secondly, exclusion of the participation of the ethmoidal cells by blocking the ostia of the maxillary antrum and frontal sinus with pledgets of wool, and then examining for a flow of pus in the mid-meatal region.

A diagnosis of frontal-sinus suppuration having been arrived at, and external operation having been elected, it remains to decide as to which particular operation is to be performed. The aim in all cases is the same—namely, to remove the purulent contents of the sinus and to encourage a return to a state of health in its lining mucosa or to effect a complete obliteration of the sinus itself. The means to be adopted vary according to the amount of disease present the condition of the mucosa, and the size and capacity of the sinus.

To open the sinus a median or a supraorbital incision is made. The median incision is chiefly useful in cases of bilateral empyema. The supraorbital incision is the one more frequently employed, and on the whole is the one followed by the least amount of deformity. In a few exceptional cases a combination of both incisions is useful. A portion of the anterior bony wall or floor of the sinus or of both having been removed, and the mucosa lining the sinus having been exposed and incised, attention should be directed to whether it is granular, polypoid, or necrotic and to the size and capacity of the sinus itself. In cases where the sinus is full of pus but where no extensive pathological changes are found in the mucosa my practice is to do as little as possible, to cleanse the sinus, and to secure efficient drainage. Where, however, the mucosa is the site of marked pathological degeneration my practice is determined by the size of the sinus. In a sinus where the antero-posterior diameter does not exceed ½ in. I set about removing the whole anterior wall, and this irrespective of its superficial extent, with the definite intention of endeavouring to effect its complete obliteration. Under such circumstances the amount of after-deformity is surprisingly little and the after-results surprisingly good.

A most important practical consideration is the advisability or otherwise of completely closing the external wound at the time of operation. My own experience is against closure of the primary incision on account of the risks of retention of pus, septic infection of the diploë, and the frequency with which it is necessary to reopen it. No doubt complete sewing up of the original incision gives a certain *éclat* to the operation, and produces a more finished piece of work, but it is not, in my opinion, in the true interests of the patient.

My practice now is, after a few unfavourable experiences of primary closure, to sew up only the outer third, or at the most the outer half, of the original incision, and to bring any packing which may be used through its inner half, or to insert a fairly large drainage tube. The more open the wound is kept the better the result. This applies with equal significance to the intranasal opening from the sinus. Provided that a sufficient amount of the middle turbinated body has been removed, and that the infundibular passage has been efficiently enlarged, a drainage tube leading into the nose is unnecessary.

In sinuses where the antero-posterior diameter exceeds ½ in.—and this is very frequently the case—I prefer to remove all mucous membrane and to encourage the obliteration of the sinus by a gradual filling up with healthy granulation tissue. The process is certainly slow and tedious, but the results, provided fresh infection can be avoided, are good. To avoid reinfection of the granulating area is one, if not the greatest, practical difficulty encountered in the successful treatment of sinus suppuration. The greatest care is necessary to endeavour (1) to clear out all infected areas of mucous membrane within the sinus, (2) to remove all infected fronto-ethmoidal and, if necessary, anterior ethmoidal cells, and (3) to keep the corresponding nasal passage clear and free from stagnant and decomposing secretion. In uncomplicated cases, where it is deemed advisable to obliterate the sinus, the idea occurred to me that it might be worth while to shut off all communication with the nose by closing the infundibular passage. For this purpose I propose to employ ivory screw nails, and with a small screw-driver to screw the nail into the passage until the lumen is completely obliterated. The frontal sinus then becomes a bony cavity communicating with the air only through the original supraorbital incision. Subsequent treatment consists in keeping it lightly packed and in encouraging the formation of healthy granulation tissue. In this way the sinus is ultimately obliterated by a bed of healthy cicatricial tissue.

Of the 40 cases two, or 5 per cent., died from abscess within the corresponding frontal lobe. In both cases the abscess was complicated with septic meningitis.

Twenty-eight of the patients, or 70 per cent., made a complete recovery, and have had no recurrence of suppuration.

Four of the patients, or 10 per cent., have still a discharge, although small in amount, from the sinus.

In five of the cases, or 12.5 per cent., despite fairly persistent treatment, in two of the cases extending over a period of four years, fairly profuse suppuration still persists from both frontal and both ethmoidal sinuses.

In one case (No. XI) the result is unknown. The patient has since gone to South Africa. A good result is not anticipated, the patient having developed pulmonary tuberculosis.

The intricate arrangement of the accessory nasal sinuses, the difficulty encountered in securing at any one operation a complete eradication of disease, of maintaining free drainage, and the risks of reinfection are factors which militate in no small measure against a successful issue.

The great improvement in general health following successful operative procedures, the freedom from headache and from a constant purulent nasal discharge, should, however, encourage the surgeon to devote time and minute care to the treatment of these troublesome, at times dangerous, and at all times tedious cases.

Epitome of Cases.

CASE I.—Female, aged 39. Duration of suppuration many years. Right and left frontal, ethmoidal, sphenoidal, and maxillary sinuses involved. Operation, December, 1895. Median incision: removal of anterior wall of frontal sinuses. Partial cure.

CASE II.—Male, aged 25. Duration of disease one year and a half. Left frontal, maxillary, and ethmoidal sinuses involved. Operation, March, 1896. Median incision; obliteration of sinus; alveolar drainage of antrum. Cure.

CASE III.—Male, aged 42. Duration of disease six months. Right frontal and maxillary sinuses involved. Operation, July, 1896. Median incision; nasal drainage of frontal sinus and alveolar drainage of maxillary antrum. Complete recovery. Recurrence of disease in

frontal sinus, post-influenzal, in July, 1904. Reopening of sinus; recovery; cure.

Case IV.—Male, aged 18. Duration of disease two to three years. Right and left frontal and right and left maxillary antra involved. Operation, August, 1896. Median incision; alveolar drainage of antra. Cure.

Case V.—Female, aged 18. Duration six months; uncomplicated case. Median incision; intranasal drainage; rapid recovery. Cure.

Case VI.—Female, aged 26. Left frontal and ethmoidal sinus involved; duration of disease two years. Operation, March, 1897. Supraorbital incisions; nasal drainage; abscess in left frontal lobe; extensive basal meningitis. Death.

Case VII.—Male, aged 19. Duration of disease six years; right and left frontal and right and left ethmoidal sinuses involved. Operation, April, 1897. Median incision; two further operations performed; considerable deformity, but ultimate cure.

Case VIII.—Male, aged 38. Duration of disease six months; uncomplicated case of right frontal-sinus suppuration. Operation, April, 1897. Median incision; occasional discharge, probably from ethmoidal labyrinth.

Case IX.—Female, aged 28. Duration of disease twelve years. Right frontal empyema; left maxillary antrum; supraorbital incision; Caldwell-Spicer operation upon maxillary antrum; right frontal sinus reopened and drained both externally and internally. Ultimate cure.

Case X.—Male, aged 53. Duration of disease three years. Left frontal sinus and left maxillary antrum involved. Operation, July, 1897. Supraorbital incision; alveolar drainage of antrum. Cure.

Case XI.—Male, aged 22. Duration of disease two and a half years. Right and left frontal sinuses and left maxillary antrum involved. Operation, October, 1897. Supraorbital incisions; Kuhnt's operation upon frontal sinuses; Caldwell-Spicer's operation upon maxillary antrum. Patient developed pulmonary phthisis; went to South Africa. Result unknown.

Case XII.—Male, aged 24. Duration of disease one year. Right and left frontal and ethmoidal sinuses and right maxillary antrum involved. Operation, January, 1898. Median incision; intranasal drainage. Cure.

Case XIII.—Female, aged 27. Duration of disease seven years. Right and left frontal, maxillary, and ethmoidal sinuses involved. Operation, September, 1898. Very unsatisfactory case. Partial cure.

Case XIV.—Female, aged 21. Duration of disease ? years. Left frontal and ethmoidal sinuses involved. Operation, December, 1898. Supraorbital incision; sinus kept packed. Cure.

Case XV.—Female, aged 37. Duration of disease a few years. Left frontal and maxillary sinuses involved. Operation, November, 1898. Supraorbital incision; Caldwell-Spicer-Luc operation upon antrum. Cure.

Case XVI.—Male, aged 16. Duration of disease doubtful. Right and left frontal and ethmoidal sinuses involved. Operation, February, 1899. Median incision; drainage with tubes in nose; daily irrigation. Cure.

Case XVII.—Male, aged 18. Duration of disease, two years. Right and left frontal and ethmoidal sinuses involved. Operation, March, 1899. Left sinuses dry; from right sinuses still slight discharge. Cure upon one side.

Case XVIII.—Male, aged 54. Duration of disease two years. Right frontal, ethmoidal, and maxillary sinuses involved. Operation, October, 1899. Supraorbital incision; alveolar drainage of antrum; intercurrent attack of erysipelas. Cure.

Case XIX.—Male, aged 47. Duration of disease a few years. Right and left frontal and right and left maxillary antra involved. Operation, October, 1899. Unsatisfactory case; still discharges; result doubtful.

Case XX.—Male, aged 45. Duration of disease a few years. Right and left frontal, ethmoidal, and maxillary antra involved. Operation, October, 1899. Kuhnt's operation upon frontal sinuses; Caldwell-Spicer's operation upon maxillary antra; patient still under treatment; still frequent headache.

Case XXI.—Male, aged 21. Duration of disease five years. Right and left frontal and ethmoidal sinuses; left sphenoidal and left maxillary sinus involved. Operation, November, 1899. Kuhnt's operation; Caldwell-Spicer's operation upon antrum. Unsatisfactory case; when last seen, still slight discharge.

Case XXII.—Male, aged 40. Duration of disease a few years. Right and left frontal and maxillary sinuses involved. Operation, February, 1900. Three separate operations performed; relief to all head symptoms; general health unsatisfactory; slight discharge persists.

Case XXIII.—Male, aged 25. Duration of disease thirteen months. Right frontal and maxillary sinuses involved. Operation, May, 1900, supraorbital incisions; alveolar drainage. Cure.

Case XXIV.—Female, aged 25. Duration of disease doubtful. Left frontal sinus affected. Operation, October, 1900. Supraorbital incision, nasal drainage, daily irrigation, rapid progress. Cure.

Case XXV.—Male, aged 36. Duration of disease six months. Left frontal sinus affected. Operation, April, 1901. Supraorbital incision. Rapid cure.

Case XXVI.—Female, aged 12. Duration of disease uncertain. Left frontal and ethmoidal sinuses involved. Supraorbital incision, drainage with nasal tubes. Cure.

Case XXVII.—Male, aged 40. Duration of disease uncertain. Right frontal sinus involved. Uncomplicated case. Operation during acute stage. Rapid cure.

Case XXVIII.—Female, aged 32. Duration of disease one year. Right frontal and maxillary sinuses involved. Operation, October, 1901. Frontal sinus packed; packing gradually removed. Maxillary antrum infected, but apparently not diseased. Cure.

Case XXIX.—Male, aged 30. Duration of disease four years; right and left frontal and ethmoidal sinuses involved. Killian's operation; cure.

Case XXX.—Female, aged 35. Duration of disease doubtful; right and left frontal sinuses and right and left maxillary antra involved; discharging fistula in middle line of forehead. Very extensive operation; insertion of gold plate under skin of forehead; comparatively slight deformity. Cure.

Case XXXI.—Female, aged 21. Duration of disease eight months. Right and left maxillary antra and left frontal sinus involved. Operation, July, 1902. Rapid cure.

Case XXXII.—Male, aged 35. Duration of disease unknown; left frontal sinus affected. Operation, October, 1902. Killian's operation; considerable deformity. Cure.

Case XXXIII.—Female, aged 26. Duration of disease three years; left frontal and maxillary sinuses affected; supraorbital incision; alveolar drainage; abscess in left frontal lobe; extensive basal meningitis. Death.

Case XXXIV.—Male, aged 22. Duration of disease six months; left frontal sinus affected. Operation, November, 1902. Supraorbital incision, nasal drainage. Cure.

Case XXXV.—Male, aged 25. Duration of disease doubtful; left frontal sinus and maxillary antrum affected. Operation, March, 1903. Kuhnt's operation upon frontal sinus; alveolar drainage, followed by Caldwell-Spicer-Luc operation upon antrum. Cure.

Case XXXVI.—Female, aged 29. Duration of disease doubtful; right and left frontal and ethmoidal sinusitis. Operation, November, 1903. Kuhnt's operation. Cure.

Case XXXVII.—Female, aged 34. Duration of disease doubtful; uncomplicated left frontal sinusitis. Operation, June, 1904. Supraorbital incision. Nasal drainage. Cure.

Case XXXVIII.—Male, aged 27. Duration of disease fourteen months; left frontal sinus and left ethmoidal labyrinth affected. Operation, August, 1904 Kuhnt's operation, rapid recovery. Cure.

Case XXXIX.—Male, aged 46. Duration of disease seven years. Right frontal sinus and right ethmoidal cells affected. Operation, August, 1904. Killian's operation, slight deformity. Cure.

Case XL.—Female, aged 20. Duration of disease ? years; left frontal sinus, ethmoidal labyrinth, and maxillary antrum affected: Killian's operation (October, 1904) upon frontal sinus. Excellent progress up to date.

THE CAUSES, SYMPTOMS, AND COMPLICATIONS OF THE DISEASES OF THE NASAL ACCESSORY SINUSES

IN THEIR RELATION TO GENERAL DISEASES, OPHTHALMOLOGY, AND NEUROLOGY.

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It is for the purpose of this paper unnecessary to go into the interesting but intricate chapter of the anatomy of the "adnasal" cavities (I have coined the word "adnasal" in place of "nasal accessory," and hope the expression may recommend itself). It will suffice to mention that the frontal, the ethmoid, the sphenoid, and the maxillary sinuses have this in common, that they are irregular, bony cavities, some of them subdivided by bony lamina, standing in connexion one with another or with the nasal cavity by narrow openings. The adnasal cavities are lined by mucous membrane, continuous with the mucous membrane of the nose, and a diseased condition of an adnasal cavity may therefore have originated in the cavity itself or in an adjoining cavity, or in the nose, and may affect the bone, the periosteum, or the mucous membrane.

Causes.

Whilst syphilis is a frequent cause of disease of the adnasal cavities, tuberculosis is rare. The most frequent are inflammatory affections, due to infectious organisms. Principal among these are acute coryza and influenza; in both the infection is carried into the adnasal cavities directly from the mucous membrane of the nose. Lindenthal[1] and others have shown the presence of the influenza bacillus in the pus of adnasal cavities after influenza. Next to influenza in frequency, acute croupous pneumonia causes adnasal disease (E. Fraenkel[2]), a fact which is, I believe, not generally known, and ought to be borne in mind. As the pneumococcus is found in the healthy nose, and has been found in healthy adnasal cavities, it seems that by some cause or another it may suddenly become active and virulent. Of other infectious diseases, scarlatina, measles, diphtheria, erysipelas, small-pox, and cerebro-spinal meningitis may be followed or accompanied by adnasal disease. In regard to epidemic cerebro-spinal meningitis, Weichselbaum[3] has found the

meningococcus in the adnasal cavities of every case he examined, and he considers it probable that the infection takes its primary root in the nose and adnasal cavities, and spreads thence to the cerebral cavity.

When erysipelas and adnasal inflammation are seen together it is of course difficult to say which of the two has been primary; chronic inflammatory adnasal disease is often accompanied by intercurrent attacks of facial erysipelas.

Micro-organisms.

Fraenkel and others have demonstrated the presence of true diphtherial membranes in the adnasal cavities after diphtheria, and, besides the influenza bacillus, the diplococcus pneumoniae, the meningococcus intercellularis, the staphylococcus pyogenes aureus, streptococcus pyogenes, and also the gonococcus and bacterium coli have been found in the pus of adnasal cavities.

Other Causes.

The adnasal cavities may also become invaded by tumours, or inflammation in them may be caused by traumata. A frequent cause of infection of the antrum is, as is well known, dental caries.

Whilst it is certain that rhinologists frequently find that one or another of the before-mentioned infectious diseases formed the onset of adnasal disease, statistics as to the frequency by which the infectious diseases are followed or accompanied by adnasal disease are still wanting.

SYMPTOMS.

General.

The symptoms which accompany disease of the adnasal cavities are frequently of a general character; their true origin is often masked, and they may be, and are not rarely, mistaken for symptoms of some other affection.

A frequent, but not by any means a constant, symptom of adnasal disease is headache. The form of headache is in no way characterized; it may be general or circumscribed, constant or intermittent. Hajek[4] describes as almost characteristic for the intermittent headache of adnasal disease that it is apt to follow even after a moderate indulgence in alcohol or tobacco, or after mental work or excitement. Though the form of headache accompanying adnasal disease is by no means characterized, the following forms are most frequently found:

1. *Neuralgic Headaches.*—Most frequently infraorbital or supradental, and then usually of a most violent character, in acute inflammation of the antrum; supraorbital in inflammation of the frontal cavity. These neuralgias may be persistent or intermittent. They usually exacerbate when the free discharge from the affected nasal cavity is temporarily stopped, but they may also be intermittent, when accompanying chronic closed empyemata. According to Hajek, these neuralgic attacks almost always take place in the morning hours, rarely in the afternoon, never at night. The pains are apt to radiate along the several branches of the fifth, and as they are relieved by phenacetin or antipyrin, the disease is frequently mistaken for simple neuralgia. Hajek says that he has not been able to find a single case of this form of neuralgia following influenza which has not been due to adnasal disease. True attacks of "tic douloureux" have as yet not been found due to adnasal disease.

2. *Diffuse Headache.*—This is usually of a dull character, felt in the frontal, parietal, or occipital region, or deeply in the head. A localization of the cavity affected from the region in which the pain is felt is impossible. It cannot be too distinctly understood that extensive adnasal disease may exist and headache never be felt, or that the headache may be frontal in disease of the antrum, or occipital in disease of the frontal cavity, etc. All one can say is that the affections of the frontal and sphenoid cavities are more frequently accompanied by headache, those of the antrum and ethmoid cavity not rarely unaccompanied by headaches.

On the whole, frontal headaches are more frequently felt with adnasal disease, whether affecting the frontal, the ethmoid or the supramaxillary cavity; whilst disease of the sphenoid cavity is more frequently accompanied with pain felt in the occipital region or at the vertex.

3. *Hemicranic headache* is but rarely found with adnasal disease, though Grünwald[5] mentions four cases of typical megrim due to adnasal disease.

Fever.

Another frequent symptom of adnasal disease is an irregular temperature, this being due to absorption or retention of pus. The temperature curve may be of a pyaemic or hectic character, and, if the latter, may be grossly misleading until a rhinological examination is made. A case of this sort came lately under my observation.

CASE I.—The patient, a lady aged 40, had, six weeks before I saw her, an attack of influenza of moderate severity, from which she had never quite recovered; her temperature, occasionally normal in the morning, was mostly raised with evening exacerbations to 101° or 102°, 102.8° being the highest record. She had suffered from almost persistent but not very severe diffuse headache, thought to be due to the temperature, though, on inquiry, she stated that it was worse in the morning. She had lost all appetite for food and had therefore become very emaciated; she had occasional night-sweats. Nothing abnormal could be found on repeated careful physical examination, excepting slightly harsh breath sounds over the right apex, and, though she had no cough, it was thought she suffered from incipient phthisis. On hearing that the patient also suffered from a purulent catarrh from one side of the nose, alternating with periods of obstruction of the same nostril, I was led to make a rhinoscopic examination. This showed that there was an empyema of one frontal sinus. I removed the anterior part of the middle turbinated body, which was greatly enlarged, and some hypertrophied mucous membrane, and thus afforded a freer drainage to the affected sinus, with the result that the patient almost immediately lost the headache and fever, and is now reconvalescent.

Neurasthenic Symptoms and Pulse.

Not at all rare are symptoms of cerebral congestion, mental excitability with flushing of face and quick pulse, or, on the other hand, symptoms of depression, lassitude, inability to work, the mental state bordering on melancholia, with slow and irregular pulse, or other so-called neurasthenic symptoms, which are really due to pyaemic absorption from infected adnasal cavities, the symptoms disappearing when the *fons et origo mali* is treated. Hajek mentions several such cases.

CASE II.—Only a few weeks ago I saw a lady, sent to me by Dr. Edwards of Chorlton, suffering from chronic empyema of the antrum. She complained of occasional flushes to the head, lasting half an hour and longer, together with palpitation, the pulse often going to 120 in the minute. All these symptoms were relieved by according a free exit to the accumulated pus and washing out the cavity.

Asthma.

A few cases have been observed in which pulmonary asthma seemed to be due to adnasal disease, but whether this was due to the adnasal disease or the accompanying hypertrophy of the mucous membrane of the turbinals must remain in question. When Hack[6] several years ago first drew attention to the reflex symptoms in the form of asthma, etc., due to intranasal disease, the frequency of these reflex coincidences was no doubt over-estimated, but now it seems almost as if the pendulum had swung too far to the other side, and there can be no doubt that if any nasal or adnasal disease is present in a case of asthma it ought to be treated, with the possibility of relieving the asthma at the same time.

Gastric Symptoms.

Patients with adnasal disease and abundant purulent secretion, which is often of more or less fetid character, are frequently complaining about a disagreeable taste in the mouth and early morning vomiting; they may lose their appetite and the symptoms may simulate a gastric disorder. This is especially the case when the ethmoid or sphenoid cavities are affected and the secretion is apt to run into the naso-pharynx.

IMPORTANCE OF RHINOSCOPIC EXAMINATION.

Seeing the variability of the symptoms which appear in connexion with adnasal diseases, and considering the circumstance that a diseased condition of the adnasal cavities may exist without any apparent symptom pointing to the nose, it is clear that the diagnosis may go considerably astray until a rhinological examination is made; it would be specially erroneous to wait for any swelling of the integuments or an external tumour, as these occur only rarely. A discharge from one nostril, with intermittent periods of obstruction of the same nostril, is a symptom directly pointing to adnasal disease.

The diagnosis can only be established by a thorough rhinoscopic examination, including anterior and posterior rhinoscopy, and, if necessary, the use of the probe, aspiratory trocar, transillumination, Roentgen-ray examination, etc.

EYE COMPLICATIONS.

The adnasal cavities are separated from the orbits by bony walls which in many cases are very thin; these walls, in

addition to their normal openings for the passage of nerves and blood vessels, occasionally show congenital defects, a matter to which Onodi[7] has lately given special attention. These defects occur more frequently on the orbital plate of the frontal bone, at the lamina papyracea and lamina cribrosa of the ethmoid, and at the upper and lateral angles of the sphenoid cavity. Abundant anastomoses exist between the vessels and nerves of the orbits and its contents and the nasal accessory cavities. These simple anatomical facts explain how a diseased condition of the adnasal cavities may spread to the orbits and its contents, first, "ex continuo," and, secondly, by "infective embolism." Whilst Kuhnt[8] first drew attention to the subject, Ziem[9] went so far as to declare that 30 per cent. of all eye cases were due to primary nasal disease; the writings of Hajek, and especially of Eversbusch,[10] have brought considerable light on this subject.

The eye symptoms most frequently connected with adnasal diseases are:

1. Obstruction of the lachrymal duct, with epiphora.
2. Conjunctivitis.
3. Oedema or an inflammatory swelling of the eyelids.

In disease of the antrum and ethmoid cavity it is usually the lower eyelid, in disease of the frontal sinus the upper eyelid, which becomes swollen—sometimes accompanied with swelling of the adjoining integument. The oedema is usually slight, and may appear and disappear. Often the oedema is present in the morning and disappears during the day; it is also apt to be brought on by bending forward.

Inflammatory disease of the frontal sinus only rarely produces a large external intumescence. A case of this sort is reported by the Duke Charles Theodore of Bavaria. The frontal sinus had gradually bulged outwards into the orbits, so that it was taken for an exostosis, only at the operation it was shown to be a frontal empyema. In the so-called "mucocele" of the frontal sinus such bulgings towards the orbita causing displacement of the bulb, have more frequently been observed.

Perforations of Orbital Wall.

Empyemata of the frontal and ethmoid sinus occasionally perforate towards the orbits; such perforations may take place slowly or acutely. In frontal-sinus disease it is usually the inner and upper angle of the orbits which is first affected, pressing the eyeball outwards and downwards, whilst in ethmoid disease the inner and lower angle is the place affected, and the eye is pressed upward and outwards. Whilst the slow perforative process is going on, the eyelid swells, sometimes to a considerable degree, and there is chemosis of the conjunctiva; the swelling may then again disappear, but a tender spot with more or less infiltration remains in the orbital wall; this may show raised edges, due to periostitis, and finally a circumscribed or general orbital abscess may form: the former, if due to frontal sinusitis, tends to perforate at the middle of the upper eyelid; if due to ethmoiditis, at the lower and inner angle of the orbits. Acute perforation usually leads to general orbital abscess, and, unless speedily opened, to destruction of the eye; it is accompanied by considerable rise of temperature, rigors, severe pain, and serious general symptoms. The diagnosis is frequently only established when the probe, introduced into the opened abscess, penetrates into the affected adnasal cavity, or when the fluid used for rinsing out the abscess flows off through the nostril, or when on sneezing or blowing the nose air escapes through the opening of the abscess. In the latter way, also, considerable emphysema of the eyelids, etc., may form.

Optic Neuritis, etc

The close proximity of the sphenoid cavity and of the posterior cells of the ethmoid (Onodi) to the optic nerve explains the nature of the eye symptoms connected with the affections of these cavities, namely, sudden loss of vision of one eye through compression of the optic nerve in the foramen opticum or by perineuritis, or exophthalmos through serous or purulent infiltration of the retrobulbar tissues.

Intermittent Exophthalmos.

There are two distinctive symptoms frequently combined with the exophthalmos caused by adnasal diseases, namely: (1) The exophthalmos is, at first at least, not permanent, but comes and goes. This is due to the periodical exacerbations which chronic adnasal empyemata frequently show, these again depending largely upon the freedom of the discharge or its obstruction. (2) The exophthalmos is usually combined with more or less paralysis of the muscles of the eyeball through their inflammatory infiltration.

Papillitis.

The threatened affection of the optic nerve will be shown by hyperaemia or engorgement of the papilla, as observed by Kuhnt. The same author has also recorded three cases of thrombosis of the vena centralis retinae due to adnasal disease.

Other Eye Complications.

It is difficult to elucidate how far a complication of adnasal disease with iritis, choroiditis, and cyclitis, may be causal or simply accidental; enough that in some cases the eye trouble only improved when the adnasal disease was successfully treated.

Interesting is the observation of Eversbusch, who has several times seen a swelling of the middle turbinated body precede so called sympathetic inflammation of the other eye, so that in cases where there is any ground for fear he always and regularly examines the nose and advises enucleation of the affected eye as soon as nasal symptoms arise.

CEREBRAL COMPLICATIONS.

Whilst headache, neuralgic and other nervous symptoms are frequent concomitants of adnasal disease, more serious cerebral complications—as meningitis, cerebral abscess, and sinus thrombosis—are happily of comparatively rare occurrence. Nevertheless, Dreyfuss[11] was able to collect in 1896 the *post-mortem* histories of about 50 cases, and I have been able to find the records of 26 additional cases. But, if we consider, as Hajek says, that an accurate dissection of the nose and adnasal cavities is only exceptionally made, and that conspicuous macroscopic alterations which draw the attention of the pathologist to these organs may be absent, we must come to the conclusion that the sparing record of these complications is at least partly due to deficient examination.

In most of the recorded cases a perforation had taken place. This is either due to an inflammatory process or to syphilis, rarely to tuberculosis. In other cases the bone was found macroscopically intact, whilst the dura mater over it was inflamed and microscopic changes were present in the bone; occasionally no alterations could be detected in the bone, and the cerebral complications were due to infective thrombosis.

Empyema of the maxillary cavity seems the least to endanger cerebral complications. Dreyfuss records 5 such cases—1 of sinus-thrombosis, 4 of abscess in the frontal lobe. Cases in which an acute inflammation of the antrum was caused by an infection from a carious tooth (with or without extraction) with consecutive purulent thrombophlebitis and meningitis have long been known to the surgeon, and numbers of such cases are recorded.

Empyema of the frontal sinus is more frequently followed by cerebral complications. The mode of infection is usually perforation of the posterior frontal wall with consecutive abscess in the frontal lobe. The symptoms are in most cases of an insidious onset, as an abscess in the frontal lobe may be present without causing any distinct symptoms; even when these arise, they are usually of a more general nature, as rise in temperature, general *malaise*, etc., to which only later severe headache, vomiting, somnolence, and convulsions become added. When the left frontal lobe is affected mental changes arise, whilst they remain absent in right frontal abscess (Phelps); when the posterior frontal convolutions become involved, brachial and facial monoplegia, or, if on the left side, aphasia may be present.

The cases of cerebral complications, observed after ethmoid disease, were all of an extremely acute course. The infection usually takes place through the lamina cribrosa with consecutive frontal abscess or general meningitis.

In empyema of the sphenoid cavity the cerebral complications arose in most cases without perforation of the bony wall, a transmigration of the infective material having taken place through the diploë of the bone after a preceding periostitis. The intracranial affection often announces itself by sudden amaurosis through implication of the optic nerve, with consecutive meningitis, intradural abscess, or thrombosis of the sinus cavernosus.

CASE III.—In 1899 a girl, aged 18, presented herself at the Manchester Hospital for Consumption and Diseases of the Throat. She had suffered for some time from severe headache and a disagreeable discharge from the back of her throat. On rhinoscopic examination I found both nares filled with adherent crusts and pus in the nasopharynx. As the girl

had come at a late hour and on a busy day, and the symptoms presented no signs of urgency, I deferred further nasal examination and simply ordered a nasal douche. Two days later I was summoned to a coroner's inquest to explain what operation I had performed without permission of the parents, etc. Happily this had only consisted in the introduction of a nasal speculum and the rhinoscopic mirror—not even a probe had been used. It appeared that the patient, on her return from the hospital, had complained of increased headache, had in the course of the day become unconscious, and had died during the following night after several convulsive attacks. At the *post mortem* examination a basal purulent meningitis was found and a perforation, probably of a syphilitic nature, in the sphenoid bone near the sella turcica.

Meningitis Affected by Eye Symptoms.

In many cases the meningitis or other cerebral symptoms arose consecutively to an orbital abscess or to one or another of the various eye complications before mentioned. Thus in one case blindness of both eyes developed eight days before the fatal meningitis (Duplay), in another strabismus was observed three weeks before basal meningitis (Grünwald), in another ptosis, dilated pupil, paralysis of eye muscles two weeks before basal meningitis (Demarquay), disease of visual power and ptosis before intradural abscess (Russell), blindness and exophthalmos of both eyes before basal meningitis (Raymond), etc.

Several cases of fatal meningitis have been observed after operation on the adnasal cavities, we will take it not because they were operated on, but on account of the operation being performed too late.

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DISEASES OF THE NOSE IN THEIR RELATIONSHIP TO PATHOLOGICAL CONDITIONS OF OTHER ORGANS.

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NASAL obstruction is very common in the north of England, it is frequently overlooked, and its results on the development of children are most disastrous and far-reaching. The chief cause of nasal obstruction in infants is catarrh of the nasal mucous membrane. We know that the lower turbinated bones are (relatively) larger than in adults, and that the posterior and anterior ends of the mucous membrane of these bones are thickened. A slight catarrh of the mucous membrane will thus readily give rise to nasal obstruction. Infants are particularly liable to rhinitis; there is the possibility of infection during birth; they often lie in wet napkins, they are frequently nearly suffocated by flannel bandages, eiderdowns, etc., they crawl about on the cold and draughty floor or the dirty and dusty carpet. In elder children post-nasal growths are the commonest cause of nasal obstruction.

The results of nasal obstruction can be divided into two classes:

1. The effect on the general health and development of the child.
2. The effect on the neighbouring parts and organs.

The most disastrous result is the consequent arrested development of the lungs and chest. The upper part of the chest is generally fairly broad, but the lower part is narrow and contracted. If the child is rickety the deformity is, of course, more marked, but there can be very evident deformity without rickets. The children keep the mouth open, which gives them a stupid expression. They are languid and restless, irritable, sleep heavily, and often wake during the night and scream. They do not get on well at school, and they take a dislike to outdoor sports and exercise. Their speech is frequently much affected, and they have a tendency to stammer and stutter.

A very important question has recently been discussed, as to whether children with nasal obstruction are more liable to infection (local and general) than children who can breathe through the nose. We know, thanks to the excellent work of StClair Thomson and others, that no micro-organisms are found on the posterior parts of the healthy mucous membrane, and that the air passing into the naso-pharynx through the normal nares is practically free from germs. These stick to the moist mucous membrane, and are destroyed there. In cases of nasal obstruction the mucous membrane and the tonsils become diseased, and the micro-organisms entering through the mouth settle on these affected parts, grow there very rapidly, and give rise to general and local infection—tubercle bacilli, diphtheria bacilli, germs of scarlet fever, measles, whooping-cough, etc.

In infants nasal obstruction is specially deleterious. Infants involuntarily breathe through the nose, and have frequently great difficulty in learning to breathe through the mouth. If you watch an infant asleep you will see that the tongue is pressed tightly against the hard palate, and that the breathing is entirely nasal. When there is nasal obstruction the infant does not readily adapt itself to mouth breathing; it sleeps restlessly, and is constantly waking and screaming. There is also increased difficulty in suckling. The child cannot suckle long together—it has to stop every few seconds to open the mouth and get breath. The result is imperfect oxidation of the blood, and impaired nutrition.

Nasal obstruction also affects the neighbouring organs and parts to a considerable extent. The mouth is generally open, and thus the muscles of the face and jaws become extended and relaxed. The gums are dry and inflamed, which often causes malformation and disease of the teeth. The hard palate is high and very arched. The upper front teeth become displaced. The nasal septum is bent. The mucous membrane of the nares is swollen, and often shows polypoid degeneration.

REFLEX SYMPTOMS.

We have all of us heard a great deal too much and are utterly sick of the so-called "nasal reflexes." At one time every disease or pain of the human body was proved, by nasal specialists, to be of nasal origin. Personally I do not believe that a small innocent spur of the nasal septum does give rise to hundreds of ailments. Numerous and varied reflex symptoms are, however, very frequently due to disease or irritation of the mucous membrane of the nares, and can be cured by local treatment of the same, and by that only. Many cases of asthma, hay fever, vasomotor rhinitis, spasm of the glottis, catarrh of the trachea, of the bronchi, irregular heart, cardialgia, conjunctivitis, asthenopia, contraction of the field of vision, neuralgia, megrim, epilepsy, vertigo, enuresis, hysteria, dysmenorrhœa, etc., are often of nasal origin, though of course not always.

Many cases of asthma are of nasal origin. In every case of asthma the nares should be most carefully examined, and any obstruction, polypus, etc., removed, and any diseased mucous membrane treated with the galvano-cautery. And yet I am constantly seeing cases of asthma which have been under treatment for years, and in which the nose has never been examined. Many of these I have relieved by treating the nares, but only after irreparable damage has been done to the patient's health and lungs.

In every case of hay fever the nares should also be examined and, if necessary, treated. Although cases of genuine hay fever are not very common in this country, a similar disease—so-called pseudo-hay fever—is very common. This is due to a condition of hypertrophy of the mucous membrane of the nares or to nasal polypi. Any change of temperature, dust, bad smell, can bring on symptoms similar to those of hay fever: sneezing, watery discharge, nasal obstruction, with severe headache, epiphora, etc. These cases can all be cured by the application of the galvano-cautery to the diseased mucous membrane or the use of the snare.

I do not for one moment wish to affirm that all cases of asthma and hay fever are due to nasal disease or nasal polypi; but many certainly are. If the nares are not normal they should always be treated. Even if this does not cure the asthma it must have a beneficial effect on the patient's general health and development. Francis has recently published a pamphlet on some 400 cases of asthma. He claims to have cured or relieved the majority of these by applying the galvano-cautery to the mucous membrane of the septum. Fleiss, of Berlin, recently wrote a paper on the connexion between the nose and the genital organs, which has raised a great deal of discussion. He examined and experimented on the nares of numerous women during the period of menstruation, and found that if you apply cocaine to the anterior part of the lower turbinate, or to the tubercle of the septum, you relieve the pain. If you destroy the mucous membrane over these areas, menstruation is permanently less painful. These

experiments have been frequently repeated, but with varying results.

Diseases of the nose, hypertrophy, atrophy, or polypoid degeneration of the mucous membrane, ozaena, are extremely common in the north of England; in fact, so common that they are not infrequently looked upon as a normal condition and not treated! And yet they are often of far-reaching importance. The inflammation in the nares may spread directly to the neighbouring organs: the throat, trachea, lungs, ear, eye, accessory nasal cavities, and from these into the meninges, brain; or pus coming from the nares may cause local inflammation elsewhere, or give rise to septic gastritis, neuritis, and general cachexia, due to chronic septic poisoning.

Ear.

The mucous membrane of the middle ear is practically continuous with that of the nose and nasopharynx. Most cases of middle ear disease are due in the first instance to catarrh of the nose. It is therefore absolutely necessary that in all cases of otitis media the nose and throat should be carefully examined, and, if necessary, treated. As long as the nose is diseased the deafness is sure to increase, in spite of all local treatment of the ear. Formerly, before this fact was properly appreciated, aural treatment was most unsatisfactory. I think it was Sir Astley Cooper who said that there were only two kinds of ear disease, one due to wax, which anybody could cure, and the other due to other causes, and these cases could not be cured by anybody, not even by a surgeon.

Eyes.

The fact that the nose and the eye are situated so very near together, that they are in direct connexion with one another through the nasal duct, that the venous supply is in direct communication through the frontal and other veins, and that there is a very intimate reflex vasomotor connexion—these facts are proof enough that there must be a very intimate relation between the two organs. If we go carefully into the history of many diseases of the eye, we do in reality find that they are in close connexion with some affection of the nose.

In most cases of rhinitis we find that the disease has extended up the nasal duct, thus causing the mucous membrane of the duct to swell, and preventing the free passage of tears into the nose; or, the inflammation has spread into the lachrymal sac, giving rise to mucocele, and this causes and keeps up inflammation of the conjunctiva and cornea. In all cases of unilateral conjunctivitis, superficial keratitis, the lachrymal sac and also the nares should be carefully examined.

We all of us know how very difficult it is to cure some cases of epiphora, and how the affection returns again and again in spite of the most careful treatment by the ordinary methods: slitting open the canaliculus, passing probes, syringing out, etc. And why? Simply because the seat of the disease is in the mucous membrane of the nose, and until we cure this we cannot possibly prevent the inflammation from spreading up the nasal duct and obstructing the free passage of the tears. I have, in late years, cured many cases of long-standing epiphora, simply by treating the mucous membrane of the nose.

There is a peculiar typical affection of the conjunctiva and cornea, phlyctenular ophthalmia or marginal keratitis, which is very common in children, and which has a great tendency to recur. In these cases there is nearly always some affection of the nares. If we carefully treat and cure the rhinitis, the ophthalmia will probably not recur again.

Supraorbital neuralgia is often due to hypertrophic rhinitis. It disappears after the application of the galvano-cautery to the diseased mucous membrane of the nares. All the symptoms of asthenopia, difficulty in reading, pains in and over the eyes, photophobia, contraction of the field of vision, scotomata are often caused by nasal obstruction and disease. Orbital abscess is in many cases due to disease of the nose or the frontal sinus.

Accessory Nasal Cavities.

Catarrh of the nares often spreads into the accessory nasal cavities, maxillary antrum, ethmoidal and sphenoidal cells, and the frontal sinus, and causes empyema of the same. These cases are extremely common, of very great importance, and often overlooked. Empyema of the maxillary antrum is sometimes caused by a diseased tooth, but in my opinion it is generally due to affection of the mucous membrane of the nares. The rhinitis may disappear, as it is more amenable to treatment; but the empyema, when once established, is difficult to cure except by surgical interference.

Diseases of the frontal sinus, ethmoidal and sphenoidal cells, are much more frequent than is generally supposed. Most cases of recurrent polypi of the nares are due to these affections. There is a constant discharge of pus, more or less offensive, which drops into the trachea, lungs, and stomach, and not only sets up local inflammation, but also becomes absorbed and can give rise to most dangerous general symptoms. Hunter (*Oral Sepsis as a Cause of Disease*) has recently drawn attention to diseased teeth and gums as a cause of severe local and general infection. These cases are extremely common, and are often overlooked by the medical man and the dentist.

Discharge from the accessory cavities of the nares, if perhaps not quite so frequent, is certainly quite as dangerous.

Meningitis.

Empyema of the frontal, ethmoidal, and sphenoidal cells is often the cause of orbital abscess, meningitis, brain abscess, thrombosis of the cavernous sinus, optic neuritis. I have during the last three months seen two fatal cases of thrombosis of the cavernous sinus due to disease of the sphenoidal cells, in which, curiously enough, there were no nasal symptoms, subjective or objective, and the affection of the sphenoidal cells was only discovered at the necropsy.

Specific disease of the nose, especially of the upper part, often causes meningitis, and should be most carefully and thoroughly treated.

Gastritis.

Gastritis is often caused and kept up by discharge from the nares and accessory nasal cavities. One of the most characteristic symptoms of ozaena—a disease most common in Yorkshire—apart from the offensive smell, is the peculiar pale ashy complexion of the patient. A bad taste in the mouth in the morning, with vomiting and no appetite, are other common complaints. These symptoms are due to the passing of the offensive nasal discharge, full of bacilli, into the stomach, and their deleterious action on the mucous membrane and on the contents of the same. We know that even the acid contents of a healthy stomach do not kill all the bacilli, as large numbers of them and their spores pass into the intestines unharmed. Bacilli frequently invade the mucous membrane of the stomach and set up extensive inflammation, which causes fatty degeneration of the glands and consequent incurable indigestion. They also act on the stomach contents, decompose them, and produce bodies which are extremely harmful and irritating. We must remember that in cases of ozaena there is a constant trickling down of offensive mucus into the stomach, day and night for years, not only during the periods of digestion, when there is a plentiful supply of hydrochloric acid, which destroys the bacilli, but also between mealtimes, when there is very little HCl.

It is not surprising that under these circumstances the stomach contents are often in a very active state of fermentation and decomposition, and that the mucous membrane is in a condition of chronic inflammation. I have washed out the stomach in several cases of ozaena in the morning, and the offensive condition of the contents surpassed even my most vivid expectations.

Headaches.

It is not generally known that headaches are often due to diseases of the nose and nasal accessory cavities. In many cases nasal trouble does not cause the headaches, but only aggravates already-existing symptoms, which are due to other causes. In all cases of chronic headache, the cause of which cannot be found, and in which there are nasal symptoms (nasal obstruction, discharge, sneezing, etc.), the nose and accessory cavities should be carefully examined and if necessary treated. If this were done, a large number of cases of so-called incurable headaches would be relieved. We should also not hear so much of the so-called "nervous headaches," a term which means absolutely nothing, and is only a cloak to cover our ignorance.

Nasal headache is often of a neuralgic character, and it is then generally caused by disease of one or more of the accessory cavities. It is chiefly supraorbital or localized in the middle of the head (behind the eyes) or at the top or back of the head. It is usually intermittent, often very severe, and it comes on at certain fixed periods. It is always at its worst in the morning. This is of great clinical importance in distinguishing between frontal pain due to nasal disease and eye strain. In the latter the pain is always better in the

morning and worse in the evening. A diffuse headache is often due to nasal obstruction or rhinitis, but it can also be caused by disease of the accessory cavities. We all know the distressing symptoms which follow a so-called cold in the head (acute rhinitis). Professor Guye, of Amsterdam, calls the complex of symptoms which follow nasal obstruction or rhinitis "aprosexia," the inability to concentrate the thoughts on any one subject. These symptoms—diminished capacity for work, loss of energy, dislike to go anywhere or do anything, forgetfulness, loss of memory, general mental depression, etc.—have is some cases been so severe as to cause patients to commit suicide.

OVER-ZEAL.

In conclusion, I should like most strongly to dissociate myself from those enthusiastic practitioners who think that every little spur or deviation of the nasal septum, or slight hypertrophy of the mucous membrane of the nares, is most dangerous and harmful, and must always be removed. Nor do I believe that all diseases are of nasal origin. But I do think that in all cases of asthma, hay fever, laryngitis, bronchitis, deafness, headache, gastritis, etc., the nares should be carefully examined, and, if necessary, treated. Every patient who suffers from nasal obstruction or nasal discharge should be thoroughly treated, especially in childhood. In fact, it should be part of the routine examination on the part of the physician, to ask the patient if he can breathe with his mouth shut, if one or both sides of the nostril are not occasionally blocked, if he can smell and taste, and if there is any discharge from the nares. If this were done thoroughly, a good many mistakes in diagnosis would be prevented, and many patients saved from much unnecessary suffering.

NASAL DISEASE AS A CAUSE OF HEADACHE.

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IT is now a well-recognized clinical fact that headaches may in some instances be caused by nasal disease, but the relative frequency of this cause, the special character of the pain, and the detection of the various conditions of the nose giving rise to pain are not so well known.

Practically we find that diseases of the nose giving rise to headache may conveniently be placed in three groups. First, acute and chronic catarrh, or suppuration in the nose or its accessory cavities; second, deformities or diseases which cause mechanical interference with the functions of the nose; third, cases of latent obstruction, which are specially apt to escape detection.

In the first group of cases the pain is usually located at the root of the nose and the frontal region, less frequently in the occipital and vertical regions. We are all familiar with the headache which at times accompanies an ordinary nasal catarrh—a pain which may in some cases be little more than a sense of weight and fullness, but in others may vary from a dull aching pain across the root of the nose and in the frontal region to one of the greatest severity.

In acute suppuration of the antrum or frontal sinus the pain is experienced in the same areas, but is constant and usually more intense, and in the case of antral suppuration there may be pain localized in the antrum with infraorbital neuralgia, and in either case there may be tenderness on palpation over the sinus affected.

In chronic suppuration there is often no pain at all, but in some cases severe frontal or occipital headache is present, frequently every day, showing a remarkable tendency to recur at particular and regular periods of the day. The headache in these cases is almost invariably present when the subject awakes in the morning; as the day advances the pain becomes less severe, and usually passes off entirely during the latter part of the day.

There is no fixed relation between the area over which the pain is experienced and the particular sinus affected, even in cases which are apparently precisely similar, although the seat of pain is usually constant in the same case. Frontal pain seems to be just as frequent when the antrum is affected as when the frontal sinus is attacked. In disease of the antrum, the pain is usually frontal, in frontal sinus disease it may be frontal or occipital, when the sphenoidal sinus is affected it may be occipital or may be felt at the back of the eyes.

Pain is invariably present in acute sinus suppuration and in about half the cases of chronic empyema. I have notes of several cases in which constantly recurring headache was the only symptom of chronic sinus suppuration, and the frequent use of the handkerchief directed attention to the nose. In such cases, where the headache is severe, no importance may be attached by the patient to the presence of a nasal discharge from which only slight inconvenience is experienced. In some instances the suffering during an attack is so great that the patient is entirely incapacitated from work, and the resemblance to the typical forms of migraine so marked that the differential diagnosis may be difficult.

Syphilis may attack the nose, causing ulceration of the mucous membrane and necrosis of the bone, and may give rise to a purulent discharge with severe pain. In these cases the pain is usually worse towards and during the night. The tuberculous affections of the nose are not usually accompanied by much pain.

In the second group of cases the headache is almost invariably frontal, and is associated with constant nasal obstruction on one or both sides. In the third group the symptoms are very similar, but there is no obvious obstruction to nasal respiration during the daytime. The congestion of the mucous membrane over the turbinate bones is intermittent, and always worse when the subject assumes the horizontal position. In both these groups the tendency is usually for the pain to be present in the early morning and to pass off during the later hours.

The actual cause of the pain in the head in all three groups of cases seems to be (*a*) the pressure of hypertrophied and swollen parts upon each other, more especially the middle turbinate against the septum; (*b*) actual congestion and inflammation of the nasal mucous membrane; (*c*) retention of pus; (*d*) the disturbance of the blood and lymphatic circulation at the base of the skull: this may probably be reflex, since it is possible to have a complete nasal obstruction without any headache whatever. The differential diagnosis of empyemata of the sinuses of the nose is beyond the scope of this paper, but the presence of a purulent discharge in the middle meatus or between the middle turbinate and the septum is an indication of an affection of one or more of the accessory cavities for which surgical interference may be required.

In the second group of cases a careful examination of the nose will reveal the presence of the obstruction to nasal respiration. It must be remembered that the obstruction may be in the posterior portion of the nose, and posterior rhinoscopy will demonstrate an obstruction in a nose which may appear perfectly free to anterior inspection. Growths and inflammatory swellings in the nose, spurs, and deviations of the septum and various forms of hypertrophy of the turbinates may be present.

In the third group the abnormally erectile character of the mucous membrane over the turbinate bones may not be detected at the first examination, but a furrow or depression in the mucous membrane over the septum will often be seen opposite the turbinate, caused by the pressure of the turbinate during the intermittent periods of enlargement. The characteristic history of restless sleep, morning headache, dry mouth and throat on awakening will be obtained.

In all cases it must not be forgotten that headaches and nasal suppuration or obstruction may exist together, but it does not follow that the nasal disease is the cause of the headache.

CONCLUSIONS.

The following facts seem to be clearly established:

1. Nasal disease is undoubtedly the cause of headaches in a certain percentage of cases, although it is doubtful whether it is possible for headache to be produced by any nasal condition which does not give rise to discharge, or to obstruction to normal nasal respiration.

2. In all cases of persistent headache, a careful examination of the nose should be as much a routine practice as the examination of the urine, the teeth, and the eyes; since in some instances the nasal symptoms may be ignored by the patient, and a careful examination of the nose will be necessary to establish the diagnosis.

3. Suppuration in the accessory sinuses and marked nasal obstruction, constant or intermittent, should be thoroughly treated.

4. Small spurs, deviations, and hypertrophies not causing obstruction should be left alone, as no relief will be given from the headaches by treatment of these.

5. If the middle turbinate bones are enlarged and pressing

upon the septum, especially upon the tubercle, and if all other possible causes of headache have been eliminated, partial removal of the hypertrophied bone should be advised, since in many such cases complete relief is given.

A NOTE ON RHINITIS CASEOSA.

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(From the Physiological Laboratory, King's College, London.)

A case of this interesting condition is reported by Mr. W. H. Kelson in the British Medical Journal for December 31st, 1904. The author gives an account of the cheesy material removed, which in his case consisted of a mass which was structureless except for a faint striation. It was composed of fatty material, and contained no cholesterin and no remains of epithelium.

Recently a case occurred in King's College Hospital, under the care of Mr. Arthur Cheatle, to whom I am indebted for an opportunity of examining this interesting deposit. The clinical features of the case were in no marked way different from those of Mr. Kelson's case, but the deposit differed very considerably.

It was a putty-like material with a very offensive faecal smell. It was yellowish in colour, and I expected to find that it was largely fatty in nature. On the contrary, however, it contained practically no fat. It gave only the very slightest reaction with osmic acid, and the ethereal extract left no greasy stain when evaporated.

The extract with chloroform contained cholesterin in small quantity, which gave Salkowski's test, and consequently was true cholesterin, not iso-cholesterin. On incineration, there was an extraordinarily large residue, mainly calcium phosphate.

On microscopical examination the deposit was seen to consist of a mass of needle-shaped crystals of calcium phosphate. These were embedded in a granular mass of detritus, none of the granules of which could be stained black with osmic acid. Staining with methylene blue gave no evidence of epithelial cells or other organized residue, but with iodine and sulphuric acid I was able to stain several hyphae of an unrecognizable fungus.

In discussing the etiology of this condition Mr. Kelson dismisses tuberculosis as a cause, and the subsequent rapid cure of these cases is certainly not suggestive of tuberculosis. The theory of its analogy with cholesteatoma is also difficult to reconcile with the absence of any epithelial remnants. The other theory suggested by Mr. Kelson is that it is a condition of chronic suppuration with retention. On the one hand the nature of the deposit in the case under my own notice is certainly very different from that of inspissated pus, while there is no evidence that there has ever been retention of pus, the deposit being found free in the nasal cavity.

There is, however, another condition which may be somewhat analogous—namely, the chronic catarrh which in the gall bladder is accompanied by the formation of calculi containing calcium compounds and cholesterin. Is it not possible that in rhinitis caseosa we have another mucous membrane in a state of chronic catarrh in which a similar process is taking place, leading to the formation of these pultaceous masses, secondary decomposition being responsible for the offensive odour?

CHRONIC SUPPURATIVE OTITIS MEDIA: THE NECESSITY OF EARLY, SYSTEMATIC, AND ENERGETIC TREATMENT.

By HENRY SMURTHWAITE, M.D.,
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It is not my intention to enter at length into the origin of the disease of chronic suppurative otitis media. The greatest percentage of cases arise during childhood, and apart from the specific febrile diseases—of which scarlet fever claims the largest number—chronic catarrhal conditions in the middle ear is the starting point, the latter being dependent on adenoid vegetations in the postnasal space. Subsequently micro organisms find their way up the Eustachian tube, or, it may be, by the blood or lymph channels, to the middle ear, and there set up conditions which result in acute inflammation of the lining membrane, with, finally, pus formation and perforation of the membrana tympani, the same tending to become chronic from lack of appropriate treatment.

In looking back over a period of years, facts stand out clearly before my view, and now in the light of riper experience I can unhesitatingly say that many a valuable life to the State might have been saved had early energetic treatment, systematically carried out, been adopted. But I think you will all agree with me that many of these cases of "running ears" have been left to cure themselves as best they could, or at most only a half-hearted endeavour to stay the mischief has been attempted. Of course, unfortunately most of such cases are to be found among the poor who have to battle with insufficiency of food and general unhygienic surroundings; nevertheless, this should make us not the less earnest in our efforts.

I am quite confident were I to go round the National Board schools in this town and examine the ears of the children attending those schools, I should find a large number suffering from discharging ears of a more or less mild or severe type; and, what is more, a large percentage of these cases were under no form of treatment whatever, their parents having no idea of its existence, or attached no importance to the same from pure ignorance of its possible danger.

When so much is nowadays being written and talked about the physical degeneration of the race, surely it is high time the State appointed medical men, as in Germany and America, to periodically examine children attending the national schools, who, apart from their recognizing and preventing the dissemination of the infectious diseases, would nip in the bud many early cases of suppurative ear disease which, if untreated, might ultimately terminate fatally, or lead to a more or less permanent deafness.

Infection by Way of the Auditory Nerve.

As certain facts bearing on my last remarks, I may instance 3 cases of death in the Royal Infirmary during the present year, the primary cause of which being directly attributable to old standing and untreated middle-ear disease. In 2 of these cases the immediate cause of death was cerebral abscess, while in the third the patient died from acute septic lepto-meningitis. It is not generally recognized that septic mischief in the middle ear can reach the brain or its coverings by way of the labyrinth and auditory nerve, but that such is a fact this case fully illustrates.

Case 1.

The patient, with a pustular discharge from the ear, and showing signs of sinus thrombosis, was operated on, but on opening up the lateral sinus it was found quite patent. The mastoid and antrum were thoroughly cleared out, the wound dressed, and the patient sent back to bed. The following day death supervened, the patient having never regained consciousness from the time she was brought into hospital. At the necropsy it was found that, although the sinus and brain were quite healthy, there was pus in the subarachnoid space, which, while not extending over the convexities, was most marked on the cisterna basilica. Injection of the vessels was not a prominent feature, this stage evidently having given place to pus formation, of which there was a large quantity. No doubt, had this patient survived a few days longer, a cerebellar abscess would have resulted, for the pus was gravitating to the posterior fossa, and would, sooner or later, have burst through on to the surface of the brain, which point I suggested at the International Congress at Bordeaux this year when recording the case. Through the courtesy of Mr Leech, whose patient the case had been, I made sections of the petrous bone, and by this means was able to trace pus from the labyrinth along the lymph sheaths of the auditory nerve to the meninges by way of the internal auditory canal. The semicircular canals were full of pus, the same having found its way into the vestibule through a perforation in the foramen rotundum.

This is an instructive case, and should make us bear in mind that we have not always got to the seat of the disease, apart from cerebral or cerebellar abscess, after the performance of the radical operation and opening up of the lateral sinus.

Otologists are now convinced, from the number of cases recently reported, that suppurative labyrinthitis, secondary to septic middle-ear disease, is of much more frequent occurrence than was formerly supposed to be the case. Either the round or oval window may be perforated, or a necrosis of the horizontal semicircular canal's bony wall may exist, and thus a propagation of infection from the middle ear to the labyrinth is possible, but the mode of origin of septic labyrinthitis in the greatest percentage of cases, according to statistics, is through direct communication between the middle ear and vestibule from perforation of the fenestrae rather than necrosis of the bony walls.

OTHER CHANNELS OF INFECTION.

On looking at the tympanic cavity, with its thin osseous walls, we can easily understand how readily perforation can result when once necrosis takes place, and thus a direct road for the extension of septic mischief to the meninges is opened up, with the formation of the subdural abscess. The parts of the temporal bone which most frequently become perforated are naturally the thinnest, and thus we find the tegmen tympani, on which part of the temporal lobe rests, is the seat in a large majority of cases, such perforation varying from a pin's head to possibly the whole of the tegmen and roof of the mastoid antrum. The petro-mastoid canal is a direct channel between the antrum and petrous bone, and is, as Dr. Mouret in a communication to the International Congress of Otology at Bordeaux this year tells us, a vestige of the hollow which exists in the newborn infant, and a channel of infection from the antrum. Occasionally the posterior surface of the petrous bone is the seat of perforation, resulting in the formation of a cerebellar abscess.

Lastly, a fatal sinus phlebitis may be set up by a carious opening of the mastoid directly into the membranous sinus, although this may occur without any signs of such opening, the infection, as already stated, in all probability reaching the sinus by way of the lymph or blood vessels. Politzer says when there are no apparent signs of necrosis the infection may be carried to the brain by the migration of bacteria along the interstices of the connective-tissue bands which accompany the anastomotic blood vessels of the brain and tympanic cavity.

CAUSES OF THE PERSISTENCE OF CHRONIC SUPPURATION.

The reason we fail to clear up the discharge in some of our cases is that often one treatment is adopted in all cases alike, no consideration being taken of the causes which enter into the maintenance of such discharge. For instance, syringing the ear out daily with some simple antiseptic solution might cure one case, whereas the same procedure in another would have no marked beneficial effect. Hence, in our treatment we should first examine our case thoroughly and seek for and remove the cause.

A large percentage of chronic suppurative cases are nothing more than a catarrh of the membrane of the middle ear, which has become septic, there being no other complication. Provided there is no impediment to the free entrance of air up the Eustachian tube, the discharge will more often than not soon cease with the daily use of a Politzer's bag, and syringing out the ear with warm boracic lotion. But, unfortunately, all our cases are not so plain sailing, for granulations, polypi, or small areas of necrosis in the walls of the tympanic cavity or of the ossicles may exist. More often than not in children there is a mass of adenoid tissue in the posterior nares, or the tonsils are chronically enlarged, either of which latter in itself is sufficient to keep up the discharge, however often we cleanse out the ear by syringing. A couple of illustrations will suffice to show the truth of this assertion:

CASE II.

A male patient, age 20 years, came to me in June, 1903, complaining of a mucopurulent discharge from his right ear, which had persisted for some six years, in spite of syringing it out more or less daily with boracic lotion. On examining the ear I saw a large perforation in the antero-inferior segment of the membrana tympani through which a thick discharge flowed. Clearing away the discharge revealed neither granulations nor polypi, and as the discharge was sweet I had no reason to suspect dead bone. Inspection of the throat showed a very much hypertrophied right tonsil, so much so that it reached the middle line of the pharynx, and which he informed me had troubled him concurrently with his ear trouble. I removed the tonsil and ordered the continuation of the lotion, the thorough drying out the ear with absorbent cotton-wool, and final insufflation of boracic powder, with the result that the discharge stopped in a fortnight, and up to the present has not returned; what is more, the perforation in the drum has now closed. In this case the enlarged tonsil was acting as a plug to the Eustachian tube.

CASE III.

The other case was a girl, aged 14 years, who was sent home from school with a discharge from the left ear, following an acute otitis some three weeks before. I adopted the same local ear treatment as in the above, but at the end of eight days the discharge was as copious and thick as the first day I saw her. At the first visit I had pointed out to the parents the probability of my having to clear out the posterior nares, as the Eustachian tube was quite occluded by a mass of adenoid tissue which could be easily felt with the finger. This I did at the end of the above-stated period, and each successive day the discharge diminished, finally disappearing at the end of ten days.

The treatment of suppuration in the tympanic cavity is much the same as in any other part of the body, namely, to establish thorough drainage, allowing the wound, as it were, to heal from within outwards.

Often or not there is only a pin-point perforation in the membrane, which is not large enough to allow a free outflow of the discharge. In such a case we should enlarge the opening, so that the solutions we use for cleansing purposes may readily come in contact with the middle ear and freely flow out again. It is only by such means we can hope to make this cavity aseptic.

This is especially indicated when there are cholesteatomatous masses in the cavity, which it is almost impossible to remove either by syringing or with forceps through a small opening. Such masses, if allowed to remain, keep up the discharge, and in time, by degrees enlarging, may block up the whole tympanic cavity and antrum, absorbing the bone, and finally cause a possible fatal cerebral complication, through perforation of the osseous walls.

In long-standing cases unhealthy granulations spring from the edges of the perforation, may block up the outlet; or polypi, varying in size from a small pea to an olive, which very often originate in the attic, and gradually enlarging project through the perforation into the external auditory canal, are so a source of obstruction.

Granulations and small polypi are best removed with a ring knife, whereas larger polypi can easily be cleared out by means of the cold snare.

CASE IV.

I removed from a woman's ear a polypus some six months ago which blocked up the whole external auditory canal, partially protruding from the meatus. From its large size I was easily able to get the snare well back to its root and so entirely remove the same.

This can be done almost painlessly if one instils a 20 per cent. solution of cocaine into the ear some fifteen minutes previous to the operation, or, better still, if a pledget of cotton-wool, soaked in such solution, be placed well up to the pedicle of the polypus.

It is wonderful how quickly the discharge often ceases after the removal of these polypi, especially if we have been successful in detaching a small piece of necrosed bone to which the pedicle is often attached. When the granulations are only small the best remedy is undoubtedly the instillation of a warm solution of boracic acid (gr. x) and rectified spirit (℥iv) in an ounce of water. The spirit has a tendency to shrivel up these granulations. Sometimes caries of one or other ossicle is the cause of a protracted ear suppuration, and nothing short of ossiculectomy will prove of permanent benefit.

Put briefly, any obstruction to the easy outflow of the discharge, whether it be granulations, polypi, or cholesteatomata in the middle ear, sodden desquamated epithelium in the external auditory canal, or caries of the ossicles, are the main causes of a persisting suppuration in the great majority of cases; deep-seated caries in the tympanic walls, antrum, or mastoid cells causing the remainder.

The simple drying out of the external auditory canal and middle ear as far as possible, without any previous syringing, followed by insufflation of boracic acid powder, gives most satisfactory results in selected cases. If the Eustachian tube is patent, the perforation large, there being merely a septic discharge, with none of the complications previously mentioned, then by this treatment, thoroughly carried out, we can oftener than not look to a favourable result.

At the early part of 1904 I adopted this treatment on a series of ten children selected from the poor, who lived under hygienic conditions, to say the least of it, not of the best; yet, in 8 out of the 10 cases, the discharge ceased in from ten days to three weeks. The ear must be thoroughly dried out each day, or, if the discharge be excessive, night and morning with pledgets of absorbent cotton-wool. When the external auditory canal is clear use a Politzer bag, then wipe out again any further discharge which may have been forced out of the tympanic cavity into the canal. When most of the discharge is removed insufflate fine boracic powder (precipitated), the finer the better, for there is more chance of the particles coming in contact with the mucous membrane in the tympanum. Some of the powder must reach the middle ear, and not remain as a mere plug at the meatus or middle of the canal, for here it would only dam back the discharge.

Boracic acid, besides its mild antiseptic properties, has a strong affinity for moisture, hence its value in this form of ear disease.

Of course, should the discharge be too excessive for the powder to thoroughly absorb, we may have to resort to syringing with warm boracic lotion, to which, if the discharge

is foul, carbolic acid may be added. But the treatment I personally prefer in such cases is to wash out the tympanum through the Eustachian tube with boracic lotion, and after cleansing and drying the external auditory canal, to instil 10 drops of a solution of rectified spirit and carbolic acid (acid. carbol. gr. v, spt. vin. rect. ℥ iv, aq. ad ℥ j) into the ear, allowing it to remain fifteen minutes, and then to remove by means of absorbent cotton-wool the remaining moisture—which I consider is an important part of the treatment—and finally insufflate a fine powder of boracic acid. With the exception of washing out the tympanum through the Eustachian tube, which can be done every second or third day according to the amount of the discharge, the above treatment should be carried out daily or twice daily, but the object being to keep the parts as dry as possible.

A treatment which I used in the clinic of Politzer in certain cases, and which I have since adopted with very good results, is to irrigate the ear with a normal saline solution once a week, while a solution of hydrogen peroxide, spiritus vini rectificatus, and boracic acid is instilled every third day. The patient can carry out this treatment himself.

To deal successfully with cases of purulent discharge from the ear time and trouble are necessary, and as the patients, as a rule, have to carry out the greater part of the treatment themselves, it is most important to instruct them how to do it thoroughly. If we are to look for success this time and trouble must be given; a half-hearted treatment is worse than useless, and it is just because the parents in many cases do not carry out our instructions that we are doomed to disappointment.

If such a discharge is allowed to persist, complications which I have already mentioned may possibly arise, for, as Wilde has said, we can never say when, where, or how a discharge from the ear will end.

The struggle for existence in the race for life is sufficiently difficult for the majority of the physically fit without having an additional handicap imposed in the form of a deprivation more or less of the faculty of hearing; we should, therefore, do all in our power to instil into the poor the possible danger and consequences of a discharge from the ear, and the necessity of early treatment on its first appearance.

Case after case comes to me with the same old history—that during childhood they had a discharge from one or other ear, getting better or worse alternately, and that nothing much was thought about it, as it was supposed that the child would grow out of it. If such cases do eventually heal up, cicatricial adhesion about the ossicles and fenestrae are left, the hearing power being materially affected, in many cases beyond repair.

Prophylaxis is always better than cure, and if we take the mischief in time—that is, in early childhood or youth—we shall have done much for the hearing power of those who are to take their share, however small that share may be, in the future building of the empire.

THE TREATMENT OF POST-NASAL ADENOIDS.

By JOHN WARD COUSINS, F.R.C.S., M.D.Lond.,
Senior Surgeon, Royal Portsmouth Hospital, and the Portsmouth and South Hants Eye and Ear Infirmary.

Post-nasal adenoids occur very frequently in children; they are variable in size, soft, and readily bleed on pressure. They develop on all the walls of the naso-pharynx, blocking the orifices of the Eustachian tubes and the posterior nasal apertures, causing habitual mouth breathing, repeated attacks of chronic nasal catarrh, deafness from disturbance of the middle ear, and also mental and physical depression. The indications for operative interference can generally be recognized more by the persistency and urgency of the symptoms than by the examination of the nose and throat. The removal of these growths can be undertaken without any risk, provided there is no active disorder or any impairment of the health.

After an attack of tonsillitis or catarrhal inflammation of the naso-pharynx, it is always desirable to defer the operation for a few days.

Some surgeons use curettes of many forms, while others prefer a steel finger-nail or post-nasal forceps. For children the best instrument is the sterilized finger-nail, as it can be safely employed both to define and remove the growths in the obscure recesses of the naso-pharynx, guided by the sense of touch. I very seldom use any curette, although it is sometimes necessary in the removal of the firmer adenoids which are found in older patients. In my operations upon children I use only the simple contrivances represented in Fig. 1, and

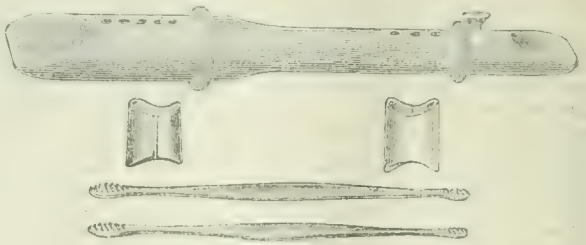


Fig. 1.

with these I have cleared the naso-pharynx in hundreds of cases, and I have had very seldom—if ever—occasion to repeat the treatment. The mouth gag is a short rod of hard wood carrying a wooden ring to regulate its insertion between the teeth, and one end of it is larger than the other to suit the capacity of different mouths. The metal rings are simple protectors of the forefingers of the operator, and the nasal probes are made of flexible metal, and are of great utility in clearing the posterior nasal apertures.

After preparing the patient by the frequent application of some deodorizing mouth-wash, I always carefully examine the teeth and remove any loose tooth before the introduction of the gag. An anaesthetic is of great assistance in clearing the naso-pharynx, but it requires very careful administration. I prefer A.C.E. or chloroform, but whatever anaesthetic is employed it must only be continued to arrest corneal sensibility, and always short of suspending the reflex actions of coughing and swallowing. As soon as the patient is ready, the head is brought well over the edge of the table, and is there supported by the hands of a nurse or the arm of the surgeon; at the same time the shoulders are raised on a pillow. The nasal probes are passed through the inferior meatuses into the pharynx; the gag is fixed in the right angle of the mouth and the left forefinger is introduced into the pharyngeal fossa, and with it the sides and roof, the Eustachian orifice, and the posterior nasal apertures are rapidly cleared. The gag is then shifted to the left angle of the mouth and the operation is repeated on the right side with the right forefinger (see Fig. 2).

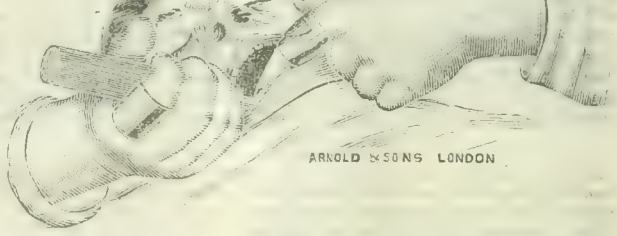


Fig. 2.

The probes are now freely applied around the posterior orifices, and rubbed over the inferior nasal passages. In many cases the haemorrhage is free, and it is necessary to have some sponges at hand to wipe the blood out of the mouth and pharynx. After clearing away the adenoids I always excise the tonsils if they are unhealthy and enlarged. Transient shock sometimes follows the operation, and cases of troublesome haemorrhage have been reported caused by tearing the mucous surface with forceps.

After the patient has recovered from the anaesthetic the improvement in the hearing power and breathing is often very marked. As a general rule I order rest, and light and soft food for a few days.

The Brains of Eminent Persons.—A society having for its object the education of the public to the advantages which may be secured from the scientific study of the brains of eminent persons has been organized in America. A Committee—consisting of Professor B. G. Wilder, Dr. E. A. Spitzka, and Dr. Alexander Herdlicker—has been formed for the purpose of drawing up a form of bequest in conformity with legal requirements whereby persons may during their lifetime devise their brains to the society.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CALCIUM CHLORIDE IN HAEMORRHAGE.

HAVING read letters lately in the BRITISH MEDICAL JOURNAL with reference to the action of calcium chloride in haemorrhages, I thought it might be of some interest to mention two cases which came under my notice some time ago:

Rupture of Kidney.—Private V. was brought to hospital on a stretcher in a state of collapse on October 31st, 1904. He had been swinging on a rope in the gymnasium when he came in collision with another man whose knee struck him in the left lumbar region. About three hours after, when reaction set in, he passed a pint of urine with a considerable amount of blood. I ordered ½ gr. morphine hypodermically, as he was in much pain. The following morning (November 1st) he passed about a pint of urine with a large quantity of blood. I ordered calcium chloride gr. xv every four hours, and ice pack to the seat of injury. About 4 p m. the same day he passed a small quantity of urine with blood which was coagulated. At 6 p.m. he had a sharp attack of pain over the region of the bladder; this I attributed to clots in that organ. I repeated morphine hypodermically, which relieved the pain. He passed a fair night.

The next day (November 2nd) he passed in the morning urine with less clots of blood. About 2 p m. the same day the urine passed was much clearer, and at about 6 p.m. the urine looked almost normal. He had no return of the haemorrhage after this, and his recovery was uninterrupted. The highest temperature reached was 100° in the evening.

Haematemesis.—This occurred in a married woman, who vomited up on three separate occasions large quantities of blood. I ordered a mixture of lead acetate and morphine without any benefit. I then ordered an enema of calcium chloride gr. xx, ext. carnis ℥ ss. tepid water 4 oz. After this the haemorrhage ceased, and there has been no return of it since.

H. H. STOKES, M.B., Lieut.-Col., R.A.M.C. (ret.)
Dépôt, Oxford.

SUICIDAL POISONING WITH "SALTS OF LEMON": PERFORATION OF THE STOMACH.

ON December 19th I examined the body of a young woman, aged 24 years, who had died suddenly on the evening of December 17th. The course of events immediately prior to her death appears to have been as follows: About 6.30 p.m. she left her home and went to a chemist's shop near by, where she bought three penny packets of salts of lemon (each containing a quarter of an ounce). She then went to a neighbour's, and sent the woman of the house on an errand, apparently so that she should be left alone, and then evidently took the poison she had bought; this would be about 6.45. Most likely she took the whole quantity, as none was found in the house. She then, about 7 o'clock, went to the house of another friend, to whom she said "I am dying," and commenced to vomit. This friend took her home, where she died at 7 10.

On *post-mortem* examination, externally there were white corrosions at the left corner of the mouth, on the tongue, and on the inside of the cheeks. On opening the body, part of the stomach contents were found to have escaped into the general peritoneal cavity. The stomach, which still contained 4 or 5 oz. of thick brownish fluid, showed at the cardiac end two circular perforations about 1½ in. apart; the larger was ½ in. in diameter, and the smaller ⅜ in. The stomach wall around these was extremely thin and quite denuded of mucous membrane for a radius of several inches; the rest of the stomach showed the mucous membrane intensely congested and inflamed and in places partly detached. The œsophagus and duodenum showed similar changes in a less degree; the upper part of the jejunum was reddened only. The heart was of a pale colour, empty, soft, and flabby. The other organs all appeared healthy. The fluid in the stomach did not contain any crystals; it gave in a very marked manner the characteristic oxalic acid reactions with silver nitrate and calcium sulphate solutions.

The main point of interest in the above case centres in the fact that perforation occurred. This is unusual in poisoning by oxalic acid. It is also of interest in showing the relation between the dose taken and the time in which it proved fatal, namely, ¾ oz. in twenty-five minutes.

Then, too, the large size of the perforation in a short time would appear to indicate that it was taken in a concentrated form into an empty stomach.

Lastly, the case again emphasizes the ease with which this powerful poison can be obtained.

Bury. P. F. BRAITHWAITE, M.B.Lond.

IS B. COLI A NORMAL INHABITANT OF SHELL-FISH?

HAVING carried out numerous bacteriological investigations with shell-fish, I am in a position to state that my results confirm those previously reported by Klein, Boyce, Hewlett, Houston, and others, to the effect that shell-fish from "pure" waters on the sea coast, many miles removed from any obvious source of pollution, do not contain typical B. coli communis.

A physical feature of interest is that the samples of shell-fish from "pure" sources which I have examined are but poor-looking specimens as compared with the fine, fat, dilute-sewage-fed shell-fish which so frequently contain B. coli.

No doubt the "fattening" process which has been adopted for years past by relaying shell-fish in the estuarial reaches of rivers which receive in their course both sewage and sewage effluents, has been largely accomplished through the organic matter so introduced.

Dr. Klein has shown how rapidly oysters will clean themselves of B. typhosus and B. coli if kept in a sufficient quantity of pure sea water; yet we find no indication of a practical application of this fact on the part of shell-fish merchants generally.

J. T. C. NASH, M.D.,
Medical Officer of Health, Southend-on-Sea; formerly Demonstrator of Bacteriology at King's College, London.

TETANUS SUCCESSFULLY TREATED WITH ANTITOXIN.

MISS H., aged 31, fell against a hoe in a garden on August 18th, 1904, cutting her right elbow. The wound was about 2 in. in length, and there was a good deal of swelling but very little bleeding. A day or two afterwards, as it was paining her, she showed it to a doctor. On August 29th she noticed that her jaw was rather stiff, and on September 2nd she consulted a doctor, who examined her throat and prescribed a gargle. She then came to Whitley, and as the condition continued to get more serious she consulted me on September 6th.

State on Examination.—When I saw her, she had very flushed cheeks and the peculiar facial expression termed risus sardonicus. Her artificial teeth (upper set) had been removed, and she was only able to separate her lower teeth from the gums ¼ in. The muscles on both sides of the neck were tense. The recti abdominalis were tender and tense; the left leg was stiff and painful. When lifted in bed she was rigid and her back slightly arched. She had not slept for four nights.

Progress.—On September 7th, 30 c.cm. tetanus antitoxin serum was injected, and liquid nourishment administered frequently. September 8th, 10 c.cm. serum; able to take more nourishment, and three quarts of milk and three eggs were given. September 9th, 20 c.cm. serum, and as she was still sleepless, trional gr. xxx. September 10th, 20 c.cm. serum; some improvement in stiffness. On September 11th she was able to open her mouth quite half an inch.

Result.—September 12th, spasm of back and leg quite gone. She continued to improve daily, and on September 15th 20 c.cm. serum was given for the last time. By September 20th she was quite free from spasm of the jaw, and she soon regained her usual health.

REMARKS.—The interest of this case lies in the difficulty of diagnosis in the early phases, and the rapid cure effected by tetanus antitoxin. The patient stated that she was becoming more and more stiff until the serum was injected, and three days after the first injection there was marked improvement. I have tried the serum in the acute type of case with no satisfactory result.

Whitley Bay. W. S. CAMPBELL, M.B., C.M.

SUCCESSFUL HERNIOTOMY IN A MAN OF 85.

ON October 24th, 1904, I was called, in consultation by Dr. Howard of Hyde, to an old man nearly 86 years of age. I found him suffering from an irreducible inguinal hernia, which had descended that day. I was informed that he had been ruptured for many years, but the rupture was kept up usually by a truss; it had come down occasionally through leaving off the truss, and been reduced with great difficulty. On this

occasion we were, however, quite unable to reduce it. As there were no signs of strangulation, I ordered the application of an icebag.

Next morning I found it still irreducible and presenting evident signs of strangulation. I thereupon decided to operate immediately. Chloroform was administered, and the operation proceeded with in the usual way. It presented no unusual feature. The sac was opened, and the bowel returned into the abdomen after dividing the stricture, the sac being then ligatured and cut off.

His subsequent progress was excellent; there was never any rise of temperature nor vomiting. Liquid food was allowed on the third day. I removed the dressing on the seventh day for the first time, and found the wound soundly healed. The sutures were removed, and three days later the old man got up apparently none the worse for his experience. He has remained perfectly well ever since, and has never had any more trouble with his hernia.

Though not claiming this as by any means a unique case, I think it is certainly of sufficient rarity to merit publication, in the hope that no case of strangulated hernia may be allowed to die, however old, without operation being undertaken.

Hyde. Jas. A. Watts, M.B., B.S., M.R.C.S.Eng.

TUBERCULOUS SYNOVITIS TREATED BY THE RÖENTGEN RAYS.

G. C., aged 17, at school, consulted me on December 24th, 1903, in regard to pain and swelling of the left knee joint, from which he had suffered for the previous year and a half. There was a well-marked history of tuberculosis of bone in the family. His father and elder brother, who are alive, suffer from spinal curvature in the cervical region. His mother, who is dead, also suffered from the same complaint.

The patient when I first saw him was gradually becoming worse. The knee joint was swollen and painful. The pain was subject to exacerbations, especially after exercise, and on these occasions it sometimes was so great that walking became difficult. He had been recommended lotions and bandaging with rest, with no apparent benefit. He himself, in view of his family history, feared caries of the knee-joint and requested a skiagraph examination. The first examination with the *x* rays lasted ten minutes. The screen revealed nothing abnormal in the bones. Two plates were then exposed; these were spoilt during development. The patient was therefore asked to submit himself to another examination, which he did on December 30th. On development of the plates nothing abnormal was revealed in the bones. The conclusion arrived at was that the patient was suffering from tuberculous synovitis. This diagnosis was subsequently confirmed by an independent opinion.

I did not again see anything of the boy till February 3rd, 1904, when he presented himself with the statement that since the two exposures to the *x* rays the pain and swelling of the joint had become less, and that so convinced was he of the benefit that had accrued from these two irradiations that he wished to continue them as treatment in the hope of ultimate cure. Having explained the purely experimental nature of the treatment, I commenced the exposures. The coil used had a 14 in. spark. The focus tube was of high resistance. The distance from the wall of the tube to the affected part was 6 in. The amount of current used was 6 ampères, at a pressure of 60 volts. The duration of the sittings was ten minutes twice a week. In all eleven exposures were given, including the two preliminary ones for diagnostic purposes. The pain and swelling rapidly subsided, and the joint became absolutely normal. The last exposure was given on March 5th, 1904, and the joint has remained quite well ever since.

Penryn. Alex. Gregor, M.B., M.Ch.

SURFACE MARKING OF THE CHEST.

I read with pleasure and profit the many articles on phthisis that appeared in the British Medical Journal of January 14th, and I consider that general practitioners like myself are deeply in debt to the writers of those articles.

In reading these papers, and in recording my own cases, I have been struck by the inadequateness of the present system of surface marking the chest, and so for myself I have devised the following system. I say "devised," for I have never heard of it, nor have I ever read of it before.

1. Divide the chest into four vertical portions by four vertical lines—that is, mid-sternal (anterior), mid-vertebral (posterior), and a mid-axillary one on each side. The anterior and posterior are fixed lines, and if the space between them be measured it will be found that the mid-axillary line is half way between them.

2. Divide the chest into three horizontal portions by two horizontal lines—that is: (*a*) One drawn round the chest, passing over in front of the lower edge of the second costal cartilage, where it articulates with the sternum, and behind over the fifth dorsal vertebra; (*b*) one drawn round the chest, passing over in front of the lower edge of the seventh costal cartilage, where it articulates with the sternum, and behind over the ninth dorsal vertebra.

The difficulty in the back is finding the fifth and ninth dorsal vertebrae; but this can be overcome by either counting down from the seventh cervical or up from the twelfth rib. In any case the lines, if drawn horizontal from the anterior points, will pass over the posterior ones.

These vertical and horizontal lines divide the chest into regions, which I name as follows: Anterior left and right apical, middle, basilar; posterior left and right apical, middle, basilar. These regions are still further subdivided vertically by the ribs and interspaces; horizontally, by measuring from the anterior and posterior mid-lines, which I call zero lines.

The advantages of this system to my mind are: First, it has the same regions for front and back which regions are easily remembered and are associated with certain pathological conditions, a few of which are: Apical, with phthisis; middle, with heart diseases and pneumonia; basilar, with collections of fluid in pleura. Secondly, in describing disease it enables us to be accurate and to convey to others exactly what we mean and how extensive any disease is. Thirdly, facts recorded in this manner along with temperature, loss or gain in weight would be easily understood, and we could form a correct mental picture of the condition under consideration; also, in personal records this system would save time. Two examples will suffice. A patient with phthisis in left lung at apex=left anterior apical down to second rib—or in short, L.A.A. ↓2nd R. A patient with dullness at right base=right posterior basilar tenth rib so many inches from middle line—or in short, R.P.B. 10th R. to 5 inches.

I am fully conscious of the many imperfections of this system, but I consider it a step in the right direction and a help in describing the conditions existing in any particular case. As we now use such phrases as "apical phthisis," "basilar phthisis," it would be well if some such system as I propose were used to define these terms.

Lisburn, co. Antrim. J. L. Rentoul, M.B., Ch.B.Edin.

SURGICAL TREATMENT OF HYDROCELE OF TUNICA VAGINALIS.

The old method of tapping and injecting of the sac was practised at the Colonial Hospital, Trinidad, W.I., for many years. I used iodine, ergot, mercuric chloride, zinc sulphate, and chloride. Most of them gave pain and there was a liability to recurrence.

After the operation by incision of the sac, suturing the edges to the skin and allowing the sac to granulate up, healing took a long time, and there was a possibility of impairment of the testicle from contraction of the cicatrix.

In my annual report on the hospital for 1898, I described two operations on the tunica vaginalis for its radical cure:

1. Tapping and injecting two parts of carbolic acid to one of tincture of iodine. Later I omitted the iodine altogether as giving too much pain. The pain with the pure acid lasts only a few minutes, there is a liability of rapid refilling; both pain and refilling are usually avoided by the immediate application of iced lead and opium lotion for one to three days.

2. *By Incision.*—This is by far the surer method of treatment, giving the best results, and keeps the patients the shortest time in bed—about eight to twelve days. The parts having been thoroughly cleansed with the usual lotions, I make an incision over the swelling in front, cutting the dartos; the tunica having been exposed, this is separated all round from the connective tissue to about two-thirds of the circumference. The tunical sac is now incised directly opposite to the epididymis and cord, care being taken that the incision is carried to more than half of the sphere of the swelling. The fluid having been freed, I turn the tunica vaginalis back as one would the sleeve of a coat, carrying the cut edges as far back as the junction of the external surface of the tunica with the subdartal tissue. The reflected tunica is kept in position by continuous catgut sutures through its two layers. The cavity is

thoroughly washed out with antiseptic lotion and the skin brought carefully together with silk sutures. A large drainage tube is put in at the lowest angle. The whole operation is completed within thirty minutes. The results have been very satisfactory. The drainage tube is removed the next or following day, the sutures on the fifth to eighth day, and the patient discharged on the eighth to twelfth day. In cutting through the tunica care should be taken not to cut through a possible transposed cord lying in front. Unless more than half the circumference of the enlarged tunica is incised it will not fold over as it should. Large drainage must be used to ensure no pocketing of blood. The suturing of the reflected tunica must be done loosely if a continuous suture is used, to avoid any purse-string pulling, which would convert the tunica into a bag and prevent its complete obliteration. Occasionally, owing to vitiated health of the patient from malaria, drink, or other causes, healing is delayed beyond the usual time. The general health in these cases must be attended to and the cause treated.

Dr. Scheult, my chief assistant, has since modified this operation by freeing the whole distended sac first, incising and reflecting the tunica back until the cut edges meet behind the testicle, and then securing the edges by two or three catgut sutures. The cavity is then thoroughly cleansed and dried and closed without any drainage. This operation is quicker, and, if no haemorrhage occurs, heals in eight to ten days. I think the objection to this method is:

1. The probability of the epididymis being constricted by the contracting tunica.
2. Haemorrhage in the cavity unless a drain is used.

These two methods have been in practice here from 1898 to date, during which time 111 cases have been operated on without recurrence noticed so far.

E. A. GAYNES-DOYLE,
Resident Surgeon-Superintendent.

Trinidad.

TWO CASES OF CATARACT EXTRACTION.

CASE I.—Wife of a Seyed. Cataract in left eye; vision in right eye good. Cocaine 3 per cent. was instilled five times into the eye at intervals of three minutes; intending to do "extraction without iridectomy" no eserine was used. On completion of the corneal incision, the iris tending to prolapse became lodged between the lips of the wound. Fearing that the iris should obstruct the delivery of the lens, I intended to replace it with a spatula. When, however, the spatula touched the iris she made an exclamation of pain, attempted to close the eyes, drew up her legs on the table, and brought her hands roughly to her head. During this brief instant of spasm the lens burst through its capsule and shot out through the wound, and was followed by a certain loss of vitreous. The lens I found in the outer canthus of the eye; the eyeball immediately filled with blood, the pupil showing a deep red colour. I bathed the eye with cold water, but the bleeding continued for about fifteen minutes. I then removed as much of the blood as I could consistent with safety, and instilled atropine. I expected that severe trouble and total blindness would result; in the fortnight that followed, however, there was very little pain and no prolapse of the iris, and a gradual absorption of the blood took place. Two months have now elapsed since the operation, the pupil is clear and black, she can count fingers at 3 ft., and colour vision is good. With spectacles she will have very useful vision in that eye.

CASE II.—The right eye of an old man, aged 60, whose eyes were both cataractous, was operated on. Eserine was instilled and iridectomy and capsulotomy performed; a normal-sized double convex cataract presented in the wound, and was removed without difficulty. After the removal of this lens the eye still gave the appearance of being cataractous, the pupil being white. Thinking that a large and opaque piece of capsule had remained, I tried to remove it by upward friction on the cornea. To my astonishment a second cataractous "lens" presented in the wound, and was delivered in two segments, having broken along its weakest and thinnest diameter. This "lens" differed from the first in being about 2 mm. in thickness at its circumference, and being of the thickness of tissue paper in the centre; it appeared to be "plano-concave."

I would be interested to know whether any other operator has seen a case of this apparently spontaneous fission of a lens of abnormal shape.

DE VERE CONDON, M.B., B.Ch.,
Residency Surgeon in the Persian Gulf. Captain, I.M.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

COTON HILL HOSPITAL FOR THE INSANE, STAFFORD.

TWO CASES OF GENERAL PARALYSIS SUCCESSFULLY TREATED BY UROTROPINE.

(By N. F. MACHARDY, M.B., Ch.B., Assistant Medical Officer.)

THE following two cases are very interesting as showing recoveries—at least temporary, and probably permanent—from general paralysis of the insane, associated in the first case with locomotor ataxia. The treatment used was urotropine. These are the only two cases treated, and both have maintained their recovery up to date of publication.

CASE I.—G. W., aged 44; admitted October 11th, 1902; dangerous and violent; marked G.P. Had suffered from locomotor ataxia for over two years before admission, and for one week from mental symptoms. Grandiose delusions as regards wealth and strength.

Progress till put on Urotropine.—Delusions became worse. November 13th. Said he was worth £300,000,000. Steady progression of disease affecting his walking and speech till September, 1903, when he was confined to bed and leading a catheter life, and had to be attended to like an infant. By November 15th he had become very weak, and I then tried urotropine, commencing with 5 gr. daily.

Progress while on Urotropine.—December 29th. Urine is beginning to come away naturally. Patient is able to sit up and be assisted about by an attendant; is talking, but full of delusions.

January 20th, 1904. Physically much stronger; is now up, and has regained the power of his limbs. He passes all his urine naturally now; is full of delusions, says he is a girl faked up as a man, is king, is very wealthy, etc.

February 20th. Considerable mental and physical improvement. Plays billiards now, but not well; ataxia is diminishing; memory affected and illusional; is now on 10 gr. urotropine daily.

March 20th. Talks more distinctly; is losing his delusions; plays billiards better; is only worth £30,000.

April 20th. Has had no lightning pains for three months; plays whist and billiards constantly; has lost all his chief delusions, especially those of grandeur; is now on 15 gr. urotropine daily.

May 11th. Memory still imperfect, and still a little boastful, but has no delusions now, and can talk well; physically very fit.

June 10th. Has had no lightning pains since January; memory improving; no delusions or signs of G.P.; pupil contracts to light now.

July 1st. Home on probation.

August 1st. Since going home I hear he is still better, and now only appears nervous; is still on 15 gr. urotropine; discharged to-day.

October 1st. I hear he is as well as he has been, and shows no signs of breaking down.

CASE II.—A. E. G., aged 38. Admitted May 28th, 1904. Duration of attack, since January, 1904. Showed some improvement in February and then became much worse. On admission he had Argyll-Robertson pupils, and very exaggerated knee-jerks, with ankle clonus, twitching of facial muscles, slurring speech, etc.

Progress of Case.—June 2nd. He leads a catheter life. Has been put on urotropine 2½ gr. twice daily. He is recovering from his semi-cataleptic condition, but hardly talks.

June 9th. Showed some improvement since last entry. Now passes a little urine by himself and can help to dress himself. Has once or twice been quite talkative. Told me he was buying a yacht 250 ft. long for £10,000.

June 14th.—Improvement still continues. Gave him 5 gr. urotropine twice daily, but he had some haematuria, so I have stopped it completely for a time.

June 23rd. Has gone back. Catheter life again. Put him again on 2½ gr. urotropine twice daily.

June 29th. Improving daily. Delusions of exaltation passing away. Can walk without assistance. Told me to-day he was a poor man. Passes water freely.

July 8th. Improvement has been very rapid. Now walks about and talks like a sane man. No delusions. Progress almost unbelievable.

July 12th. Apparently well in every respect. Slight inequality of pupils only physical symptom.

July 15th. Went home on probation.

August 16th. Discharged "cured."

September 10th. Got a letter from him to-day, very sensible. His friends think he is better than he has been for years. He is starting his business again.

October 2nd. Still well and continuing urotropine.

In conclusion, I would state that the influence of urotropine is marked from day to day. If the patient shows signs of relapsing an increased dose stops the tendency. As before remarked, these two cases are the only ones treated, so this method deserves a trial in similar cases, as so far I have no failures to chronicle.

MANCHESTER CHILDREN'S HOSPITAL.

TUBERCULOSIS OF CEREBRUM AND CEREBELLUM WITH EXTERNAL POINTING OF ONE CASEOUS MASS.

(Reported by Charles Mackey, M.B., Ch.B., late Senior Resident Medical Officer.)

By the kind permission of Dr. H. Ashby, Senior Physician to the above hospital, I am able to publish the following notes of the case of D. H., a girl aged 5½ years, who was admitted into hospital on January 29th, 1904, with vomiting, headache (chiefly occipital), paresis of lower limbs, and impairment of vision. In the family history there seemed nothing of importance. The child herself had always been healthy and as intelligent as her class-mates of about the same age.

History of Present Illness.—Vomiting and headache began in October, 1903. Weakness of legs was noticed the following month. In December her vision failed, and legs became almost paralysed; arms unaffected; incontinence of urine on one occasion only; no history of injury, cough, or emaciation. The vomiting was irregular in occurrence, and unaccompanied by retching.

State on Admission.—A pale, weakly-looking, intelligent, blind child. Temperature normal. She was unable to walk or stand; her legs seemed to have lost all power although there was no apparent wasting of their muscles. She had fair strength in arms and hands, and complete control over the movements of the upper limbs. The sensory functions were normal; the knee-jerks were present, and ankle clonus could be elicited on either side, so also could Babinski's sign; the organic reflexes were normal; the pupils were active but unequal, the left less dilated than the right; there was marked optic atrophy present; perception of sound was more acute on the left side; heart and lungs apparently normal.

Treatment.—Light nutritious diet and potass. iodide.

Progress.—The patient's condition showed very little change during the succeeding two months, by the end of which time hydrocephalus and retraction of the head began to appear. The sutures of skull opened up and the cranial bones became separated. On March 31st a conical, fluctuant, pulsating swelling appeared over the left coronal suture about the level of mid-frontal gyrus. Examination of its contents by means of exploring syringe gave negative result; only clear fluid appeared along with a little brain substance. On April 20th the tumour was much larger and its apex had become necrosed, cerebro-spinal fluid escaping from it; the hydrocephalus was more marked; the face was oedematous and cyanosed; the limbs showed no contractions; slight phonophobia was present. On April 27th the patient had lapsed into a comatose condition. She swallowed in a feeble manner, and had paroxysms of screaming; her breathing was slightly stertorous; no convulsions.

Operation and Result.—The left lateral ventricle was drained this day in the following manner. First, brandy 5ij was given in a nutrient enema and morphine gr. ⅛ administered hypodermically. After due preparation of the scalp a semicircular incision made above and behind the left ear over a region corresponding to the superior temporal gyrus. A disc of bone was then removed by a trephine 1½ in. above and behind external auditory meatus. The dura mater bulged into the opening, but no pulsation was seen. A crucial incision having been made in the dura a small amount of cerebro-spinal fluid escaped. Fine sinus forceps were then inserted into brain substance for 2½ in. and much clear fluid ran away. A very small rubber drainage tube was left in ventricle and fixed to the wound with a silk suture. As soon as ventricle was tapped pulsation was seen and breathing was much improved. She died six hours afterwards.

Remarks.—On opening skull after death the membranes were found adherent to surface of cerebrum over left mid-frontal gyrus around situation of the tumour which was a yellowish nodule about the size of a Barcelona nut. Its apex was formed of necrosed brain-tissue; in the deeper layers many giant-cells were seen and below a thick caseous mass around which was a large number of leucocytes. This surrounding infiltrated zone gradually faded until normal cerebrum was reached. From the above it will be seen that the tuberculous nodule had made its way through membranes, coronal suture, and scalp. Examination of the eyes showed several small tubercles in the choroid. There was another smaller caseous nodule in the left supramarginal gyrus ½ in. from the surface. The cerebellum showed very little of its normal tissue, the whole of the vermis and most of the lateral lobes being caseous. I offer many thanks to Dr. David Orr (Pathologist of Prestwich County Asylum) for his kindness in preparing microscopical preparations, and also to Dr. C. Paget Lapage, who was a resident with me at the time, for some of the clinical notes.

WARWICK COUNTY ASYLUM, HATTON.

A CASE OF "RUPTURE OF THE HEART" IN AN INSANE PERSON.

(By R. Campbell Nicholl, L.P.C.P.I., L.R.C.S.I., and H. F. Bodvel Roberts, M.A., M.R.C.S., L.R.C.P., Assistant Medical Officers to the Asylum.)

A woman, aged 77, was admitted as a patient six years ago. She was certified on admission as the subject of "senile dementia," with no apparent cardiac or other bodily infirmity. She was of a sallow complexion and very stout. There was no history of syphilis or alcohol. During her residence in this institution she enjoyed good bodily health, seldom spoke, and performed her daily routine in a mechanical manner.

On the day of her death she spent the morning as usual, and at 3 p.m., when walking across the day-room, was seen by a nurse to fall forward on her face without any apparent cause. When the nurse raised her, blood was pouring from the mouth and nose, and the breathing was stertorous. On the arrival of the medical officer a few minutes later the patient was pulseless and had ceased to breathe, and was obviously dead. There was no external head injury.

Necropsy.—The calvarium was very brittle, the dura mater thick and so adherent to the bone that in places it had to be chiselled away; the falx cerebri, close to its attachment to the crista galli of the ethmoid bone, had further undergone ossification. Between the dura and pia arachnoid was a copious amount of dark fluid blood, completely filling the subdural space. No localization to any particular meningeal vessel could be made out, and there was no fracture of the skull. The pia arachnoid was adherent to the brain cortex, and had a milky, granular, opaque appearance. The brain weighed 48 oz., and was very soft in consistency. The vessels of the base were in an atheromatous condition, but not exceptionally so. The ventricles all contained excess of fluid; there was no sign of intracerebral haemorrhage.

There was a large deposition of mediastinal fat. On opening the pericardial cavity the heart was found embedded in a mass of clotted blood about an inch thick. The heart (weight 14½ oz.) on removal showed a rupture about three-quarters of an inch long externally on the anterior surface of the left ventricle, running upwards towards the auriculo-ventricular groove. There was a large deposition of pericardial fat. When opened, the muscle tissue of the heart was found degenerate, the fatty change being so marked as to present patches of yellow fat interspersed with the cardiac tissue visible to the naked eye. The valves appeared competent, though the aorta was somewhat atheromatous. On careful dissection of the fissure it was found to extend into the left ventricle below, across the auriculo-ventricular groove to the auricle, but had not torn the endocardium of the auricle. The wall of the ventricle at this point was very thin, friable, and exceptionally degenerate. Dissection of the coronary artery showed that the anterior descending branch supplying the area in the vicinity of the rupture was entirely occluded by a thrombus, which had undergone fibrous organization. Another small branch, which was embedded in the external fat, had become calcified.

Remarks.

The interesting points in this case we consider are: (*a*) The selective distribution of the degenerative changes; (*b*) the absence of any clinical symptoms suggestive of these gross changes before death; (*c*) the connexion between the cardiac rupture and the meningeal haemorrhage; and (*d*) the condition of the brain and meninges, which were so suggestive of general paralysis of the insane. We are of the opinion that the meningeal haemorrhage was the primary event, that it was spontaneous, and that the heart ruptured at that particular spot owing to the thrombosed condition of the coronary branch, and we suggest that the denseness and adherency of the dura to the calvarium may have been the primary factor.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.

Westminster, Friday, January 20th, 1905.

J. BLAND-SUTTON, F.R.C.S., in the chair.

The Place of Sugar in the Dietary of Health and of Disease.—Dr. WILLIAM EWART read a paper on this subject. He said: A large proportion of the total daily expenditure in calories being provided in the average adult's diet by carbohydrates, the question arose how much of the latter might profitably be supplied as sugar. Individual inclination for sugar as such varied; so did individual tolerance, as might be shown by systematic urinary testings, some being capable of storing the supplies in the shape of fat, others, as a result of alimentary diabetes, emaciating in proportion to the in-take. Among its chief advantages as a food should be mentioned its high heat-producing value; that it needed no digestion; and that being soluble and easily absorbed, it was available in health for the following purposes: (1) To furnish the supplies for any unusual expenditure of energy—in particular, muscular energy; and it was a fact that the value of carbohydrates and sugar in connexion with athletic work had been more fully recognized of late years; (2) to promote the deposition of fat when indicated; (3) to supersede ordinary food and to avoid the risk of indigestion when from nervousness, excessive fatigue, or lack of time and comfort, as often occurred in travelling, digestion was likely to be interfered with, and dry raisins, as recommended by Sir William Gull, and chocolate and bread, answer this purpose best; and, lastly, to form the staple of diet in the unproductive and more vegetative ages and stages of life with little wear and tear. The pathological aspect of the subject included, owing to the well-known irritating property of sugar for the mucous membrane and to the liability to fermentation, "sugar acidity" and "sugar catarrh" as distinct from the common "starch dyspepsia." These might be obviated by avoiding absolute excess, relative excess, and any complicating admixtures. For instance, in acute fevers, and particularly in typhoid, where milk itself was not to be recommended, the whey, which was really a saline solution of lactose, might be rendered more nutritious as well as palatable by the addition of from ½ lb. to ¾ lb. daily of sugar. In other wasting affections, in relative starvation with overwork, and especially in phthisis, sugar was available in a great variety of preserves, jams, chocolates, etc., and in molasses—the old-fashioned treacle—which had been credited with medicinal virtues, and which was rendered more acceptable to the fastidious by the addition of golden syrup. But the supplies must be strictly limited to the time of the meals, as sugar was not only a highly nutritious, but an eminently hunger-stilling, food.—Dr. BUCKMASTER dealt with the chemico-physiological part of the subject. He began by saying that the total carbohydrates to be obtained from the entire organism only amounted to 1 per cent., and that sugar was the only foodstuff which was normally present in the excreta—namely, in the urine. In some cases a man might lose as much as 1.4 grams of sugar in the twenty-four hours, and, in fact, in health there was a constant loss of sugar. He next spoke of the different tolerance of different healthy individuals; some on consuming 1 lb. of dextrose would lose only 0.1 or 0.2 per cent. in the urine, and this might be considered the normal loss. He referred to Naunyn's test meal, consisting of 100 grams of chemically pure dextrose, which was not necessarily given on a quite empty stomach. If after this meal 2 or 3 per cent. of what was given appeared in the urine, such a subject was intolerant to larger doses of sugar. Even in cases of cirrhosis of the liver, the leakage of sugar might not be more than the normal. Furthermore, when a man passed more than 2 per cent. of this sugar, such a one was liable to become diabetic. Mention was made of the interesting fact that sugar was absorbed by the blood vessels of the intestines and then transformed into dextrose, the sugar found in the blood. If sugar was introduced into the lower part of the ileum, the chyle and vessels of this region absorbing sugar from the gut, the percentage of sugar found locally might reach as high as 0.7. He finally referred to the statement that when sugar was taken at the same time as some forms of alcohol, such as sweet wines, it more readily appeared in the urine.—Dr. SPRIGGS first referred to the question of carbohydrates in nutrient enemata, and considered it was not advisable to add these, except in very small quantities. Speaking of the value of sugar in the diet for those training, he said that as meat was of value in building up muscle, so carbohydrates were the diet for the discharging of energy. He passed on to a consideration of the importance of the carbohydrates in fever cases, especially when given in the form of starch, and condemned the sudden cutting off of this body in cases of diabetes, and mentioned the risk of producing coma by so doing.—Mr. GARDNER criticized the remarks of Drs. BUCKMASTER and SPRIGGS, and referred to the sugars found in wines, concluding by the remark that perhaps after all port was the least harmful.—Dr. LONGHURST referred to the practical side of sugar in all questions of diet, and considered the large quantities consumed by some of the native races in the form of sugar cane, which they were continually sucking, and with apparent great benefit. He spoke of the generally well-recognized fact that thin people could consume far larger quantities of sugar without deleterious results than stout ones.—Mr. MANDERS considered that the health of the troops during the South African war was largely maintained by the liberal supply of sugar in the form of jam, which kept up the heat of the body in cold weather.—Mr. NORMAN BENNETT discussed the relation of dental caries to lactic acid fermentation produced from starchy foods, and considered the glucose found in common sweets as a determining cause. He concluded by expressing the opinion that the reason why many native races, who lived largely on sugar cane, maintained excellent teeth, was because of the mechanical cleansing of the surface of the teeth by the cane rather than to the fact of the large quantities of sugar they consumed.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

A. PEARCE GOULD, M.S., F.R.C.S., Vice-President, in the Chair.

Tuesday, January 24th, 1905.

OÖPHORECTOMY FOR MAMMARY CANCER.

MR. HUGH LETT communicated an analysis of 99 cases of inoperable carcinoma mammae treated by oöphorectomy. There was marked improvement in 23.2 per cent., and distinct improvement in 13 other cases—that was, 36.4 per cent. of all cases operated upon were materially benefited by the operation. If those over 50 years were omitted, of the remaining 75 cases 29.3 per cent. showed marked improvement, and 9 distinct improvement—that was, 41.3 per cent. were benefited by the operation. In successful cases the benefit had been great, and was mainly shown in relief from pain, marked improvement in health, diminution or even disappearance of the growth, healing of ulcers, and prolongation of life. The duration of the improvement was not very often stated, but in 15 cases the improved condition of the patient was maintained for more than twelve months, and four other patients had good health for four and a quarter years or more. Oöphorectomy did not cure the disease, for in all the cases in which the growth had disappeared after the operation it had subsequently reappeared, locally or elsewhere, with the exception of one patient, who was alive and free from recognizable cancer at the present time, five years after oöphorectomy. The most favourable age for operation was from 45 to 50; in relatively young patients it should be given a further trial, but after 50 it was rarely worth doing. The fact that the patient had passed the menopause did not contraindicate the operation. Thyroid extract was not a necessary factor in the treatment, though the results had been slightly better when it had been given. Secondary growths in the viscera contraindicated the operation; rapidity of growth, or an early recurrence after the primary operation, made the prognosis unfavourable. The mortality in this series of cases was a little over 6 per cent. The actual cause of death, however, in several of these cases might be regarded as accidental; in two the fatal issue was due to pulmonary embolism, and in one to acute mania.

Mr. BRUCE CLARKE showed a patient who had remained well for five years after the ovaries had been removed for duct carcinoma. He had never used the method except in absolutely hopeless cases, and of five cases all were improved for a certain length of time, but no other case than the one shown survived more than three years after the operation.

Mr. STANLEY BOYD thought the most important point to note was the duration of the cancer before the operation.

Reference was made to cases with an interval of four and a half, six and a half, and six years' interval, in these the resistance to the disease was high from the start; they were very chronic cases. There was almost nothing which was an absolute bar to the operation. He had employed a combined oöphorectomy and the complete removal of the breast in three cases, and his impression was that a better result was obtained than would have occurred from either separately.

Mr. Jonathan Hutchinson, jun., considered that the paper gave encouragement to surgeons to persist with the operation, but cases of recovery also occurred without any treatment. There was no time limit of recovery; in one case death occurred from the disease after eleven years of apparent freedom.

Dr. G. Herman said that, although the cases were not numerous enough to prove facts in regard to age, yet they gave strong indications. A conclusion to be drawn was that with thyroid treatment added to the operation, improvement was greater than without.

Mr. McAdam Eccles considered that the nature of the cancer present was of importance in regard to progress. Microscopic examination of the ovaries removed might give interesting information, and that of growths which had shrunk after oöphorectomy should also be made. Reference was made to a patient on which he had done double oöphorectomy who was practically well sixteen months after operation and died ten months later.

Mr. Pearce Gould remarked on the fallacy of drawing statistical inferences on the recorded cases alone. The paper showed that certain striking results did follow the operation in some cases. Of his own cases, several in number, in only one was there material improvement, which commenced almost immediately after the operation. The patient died from another cause, and no visceral growths were found. Until the nature of cancer was known the operation could not quite satisfactorily be discussed. It was certain that there were physiological means by which the disease could be influenced.

Mr. Lett replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, January 18th, 1905.

The Milk Supply of Edinburgh, with Suggestions for its More Stringent Control (with Lantern Demonstration).

Dr. W. G. Aitchison Robertson read a paper on this subject. He first pointed out that three-fourths of the food of infants in towns was supplied by cow's milk, and therefore the importance of a proper article was of the highest moment. Many diseases of infancy arose from either bad food or improper feeding. He had tested so-called "pure milk" obtained from thirty-one dairies in Edinburgh; most of those were situated in the poorer parts of the city. He examined the quantity of lactic acid in each specimen of milk and found that it varied from 0.112 to 0.3 per cent. The quantity of lactic acid present was a reliable test as to the degree of decomposition which milk had undergone. When the amount reached 0.25 the milk was unfit for consumption. This acid, even in minute doses, caused in infants gastric and intestinal irritation, flatulence, pain, and diarrhœa. Its action on the intestinal mucous membrane was to weaken its powers of resistance; as a result the tubercle bacillus was able to penetrate it. This was followed by intestinal tuberculosis, which was a common disease of infants. The presence of tubercle bacillus in milk varied from 4 per cent. in Manchester to 56 per cent. in Cambridge of all specimens examined. Its presence was therefore very common. Dr. Robertson next described the byres which he had examined in Edinburgh. There were 115 of these in the city, containing 3,072 cows. Many were surrounded by densely populated tenements, which prevented efficient ventilation, and this is regarded by the proprietors as inimical to a large milk supply per cow. The animals were kept in constant confinement in those ill-lighted and ill-ventilated buildings, and were never allowed to pass into the open air from one year's end to the other. The cubic air space allowed per cow varied from 370 to 600 cubic ft. in the older byres to 800 in the more modern. At least 1,000 ft. should be allowed. The ventilation of the byres was of the crudest, since very little pure air could reach the lower parts of the buildings which are occupied by the cows. In such an atmosphere tuberculosis was easily spread, the presence of the tubercle bacillus could easily be demonstrated in the expectoration of a diseased animal. Dr. Robertson next dwelt on the dirty habits of the milkers, and the imperfections of their methods of milking. Proper attention was not paid to the grooming of the animals, and as a result particles of faeces, epithelial debris, hairs, etc., fell into the milk. The number of organisms in freshly-drawn milk obtained from Edinburgh byres varied from 50,000 to millions per c.cm. Whereas specimens obtained from well-conducted country dairies contained from 1,000 to 30,000 per c.cm. If such milk were at once refrigerated and then kept below 50° F. it would be found that there would be no appreciable increase in the number of organisms for twenty-four hours. As a result of his investigations Dr. Robertson made the following suggestions: (1) Total abolition of cowsheds within city bounds; (2) dairy farms to be situated in the country, and, if necessary, miles from the town to be supplied; (3) careful veterinary inspection and the use of the tuberculin test once every six months; (4) animals to be pasture-fed as much as possible; artificial feeding to be carefully selected: when food is changed the latter must be effected gradually, otherwise the character of the milk changes, and this is injurious to children; (5) cows to be kept in the fresh air during spring, summer, and autumn; (6) abundant air space to be provided in cowsheds; each animal should have 1,200 cubic feet of freely available air; (7) through and constant ventilation of the sheds to be provided; each animal should have from 8,000 to 10,000 cubic feet of freely available air; (8) proper construction of the sheds as regards lighting, drainage, and an impermeable floor should be obtained; (9) all manure to be removed twice daily from the sheds; (10) the animals should be carefully groomed at least once daily, and the abdomens, flanks, and udder carefully washed; (11) clean waterproof covering with an opening through which the udder projects should be placed over the belly of the animal and fastened over the back; (12) an abundant supply of water should be supplied to the sheds, also wash-basins for the use of milkers; (13) the udder, the teats and hands of milkers should be carefully washed before commencing operations; (14) each milker should attend to personal cleanliness, and while at work should wear a clean cotton overall; (15) the first small quantity of milk from each teat should be thrown away as it is loaded with organisms; (16) the milk should be received into a covered pan provided with a small funnel-shaped opening; (17) the milk should be at once strained and refrigerated; (18) the milk cans and churns must be carefully sterilized by steam or boiling water. Each can should have a closely fitting and padlocked lid; (19) the milk should be at once dispatched to its destination. Passing it from vessel to vessel should be avoided, as this promotes bacterial growth; (20) frequent medical examination of the workers should be made; (21) frequent bacteriological examination of the milk is necessary. For the proper carrying out of the changes the supply of milk should pass into the hands of the municipal authorities. Till pure wholesome milk was obtainable pasteurization was essential, where this was done the effect on the death-rate of infants was enormous. Thanks to the humanity of a wealthy citizen this process was carried out in the poorer parts of New York, with the result that the mortality of children under 5 years of age had fallen by 50 per cent. Dr. Robertson was of opinion that the addition of small quantities of antiseptics to milk was almost harmless, certainly less so than the consumption of that article in a more or less rotten condition. He urged on the profession the incomparable advantages of breast-feeding infants to all other methods, and that the physique of future generations rested largely in their hands and in their teachings.

The paper was discussed by the Chairman, who had noted no improvement in the milk supply of Edinburgh for the past twenty-five years. Drs. H. Dunlop, Littlejohn, Carmichael, Robertson (Leith) also spoke. The Society considered that the conditions revealed by Dr. Aitchison Robertson's investigations were of such importance that a Committee was appointed to consider the whole subject thoroughly.

The Nature of Friedreich's Ataxia.

Dr. Rainy contributed notes and a lantern demonstration on the pathological conditions found in the spinal cord of a patient who had died while suffering from this disease. The primary lesion seemed to be a premature disappearance of the nerve elements, either from deficient longevity or from some developmental defect perhaps associated with imperfect myelin production. The peripheral nerves were involved, the fibrils disappeared, and their place was taken up by fibrous

tissue. The same degeneration was to be observed in the "cauda equina." In the cord the posterior roots were affected, but no change was to be seen above the entry of the sensory tracts into the brain. No lesion of the cerebrum or cerebellum could be detected. The interstitial tissue, neuroglial in origin, in the tracts affected in the cord, was very much increased. It often presented a whorl-like arrangement, and might entirely replace the nerve elements. The blood vessels and the pia mater of the cord showed no change. In the upper dorsal region the posterior roots alone showed degenerative changes. The lower cervical nerves were affected in parts; some of the highest revealed no change. The cross pyramidal tracts showed some degeneration as high up as their decussation. Clark's column showed very extensive changes. The degeneration in the direct cerebellar tract was probably due to this. The spinal cord on the whole was smaller than it should be. The distribution of the degeneration (as observed in the posterior columns) indicated that the lesion followed the course of the individual nerve roots.

The paper was discussed by Dr. ALEXANDER BRUCE.

CASES AND DEMONSTRATIONS.

Dr. ALLAN JAMIESON: (1) A case of psoriasis illustrating the effect of oxidized pyrogallic acid in treatment. (2) Two cases of lupus treated by the *x* rays after a prolonged period of rest. *Microscopic Demonstrations.*—Dr. CHALMERS WATSON showed microscopical preparations illustrating the changes induced in the thyroid gland of animals by a meat diet. —Dr. RAINY: Sections of the spinal cord showing degenerative changes from the case of Friedreich's ataxia.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

H. C. EARL, M.D., F.R.C.P.I., in the Chair.

Friday, January 6th, 1905.

ANAEMIC INFARCTION OF LIVER.

PROFESSOR O'SULLIVAN (for Dr. ROY DOBBIN) showed specimens from a case of extensive anaemic infarction of the liver. The case was one of puerperal eclampsia with jaundice. A large gall stone was impacted in the upper end of the gall bladder. The smaller branches of the hepatic artery showed extensive degeneration of the walls, commencing in the muscle cells of the middle coat, and accompanied by a similar change in the walls of groups of capillaries in the neighbourhood of the branches of the artery. The degenerated material took on Weigert's fibrin stain deeply, and gave none of the amyloid reactions. Hyaline thrombi were present in some of the arteries. The walls of the hepatic and portal veins were healthy. Some of the portal veins inside the infected areas were thrombosed.

ENDOTHELIOMA OF UTERUS.

The PRESIDENT and Mr. MAUNSELL showed an endothelioma of the uterus.

Professor O'SULLIVAN thought that in the present state of knowledge in regard to endothelioma, unless one could establish the transition from the ordinary endothelium of the lymph space to the tumour endothelium, the diagnosis was not justified.

The PRESIDENT agreed with Professor O'Sullivan, and admitted that there were many parts of the tumour from which nobody could possibly establish a diagnosis.

MYOMA OF RECTUM.

The PRESIDENT showed a large myoma of the rectum which was removed from a woman during parturition by Dr. Frank Golding, of Headford. The tumour measured 3½ in. in its longest diameter by 2½ in. in its shortest. It presented some patches of calcification near its surface. It was attached to the wall of the rectum by a thin membrane.

Dr. TRAVERS SMITH asked was there any possibility of it being a uterine tumour which had found its way out per rectum?

The PRESIDENT did not think it was a uterine myoma. If a patient had had a myoma like that eating into her bowel she would have complained about it. Dr. Golding had also given a distinct history of its having a membranous attachment, which would not have been present if the tumour had eaten its way into the rectum.

GASTRIC ULCER.

Mr. GUNN showed a gastric ulcer which he thought tuberculous.

Professor O'SULLIVAN asked the reason for supposing the ulcer to be tuberculous. The rarity of tuberculous conditions in the stomach made it worth while to examine it carefully if it was supposed to be tuberculous.

Mr. GUNN said the reason he thought it so was that there was old tuberculous disease of the abdomen and active tuberculosis of the lungs, the patient probably swallowing a lot of the sputum. The ulcer was also tuberculous-looking, having thin, undermined edges.

Case.

Mr. GUNN exhibited a case of Pott's caries.

SECTION OF SURGERY.

G. JAMESON JOHNSTON, M.B., F.R.C.S.I., in the Chair.

Friday, January 13th, 1905.

CHOLECYSTOTOMY FOR ACUTE CHOLECYSTITIS FOLLOWING TYPHOID FEVER.

MR. MAUNSELL read a paper entitled Cholecystotomy for Acute Cholecystitis following Typhoid Fever. The cholecystitis manifested itself on the twenty-seventh day after the patient's admission to Mercer's Hospital. The muco-pus removed from the gall bladder contained a pure culture of Eberth's bacillus, as proved by numerous tests. Mr. Maunsell briefly described the affections of the gall bladder which might complicate enteric fever, and strongly advocated operative treatment, quoting cases and statistics in support of his contention.

The CHAIRMAN related two cases of typhoid fever in which complications had arisen, calling for surgical intervention. In one there was necrosis of the laryngeal cartilages, and in the other there was a chronic abscess of bone, and in both typhoid bacilli were found in the pus.

Sir CHARLES BALL had seen many cases in which disease of bone had occurred many months after typhoid fever. He related a case also in which, during the acute stage of the fever, a large abscess developed in the upper lobe of the lung.

Dr. FINNY considered that the question of interest in Mr. Maunsell's case was whether the acute cholecystitis was a complication of the acute fever or a sequel. These complications were to be expected, not in the height of the fever, but just when the patient seemed to be getting better. He did not think typhoid bacilli were the sole cause of the complication in the present case, as they were often found in great numbers in the gall bladder without any results, locally or otherwise, in the neighbourhood. Mr. Maunsell's patient first came under observation on account of a septic finger, and it was just possible that septic organisms were associated subsequently with the typhoid bacilli.

Mr. MAUNSELL, in reply, stated that in looking up the literature of the subject he had noted instances of complications arising fourteen and a half years after typhoid fever, in which pure cultures of the typhoid bacillus were obtained. He had thought of the possibility of the crushed finger having had something to do with this case, but on very careful examination no septic organisms could be found.

CONSERVATIVE PERINEAL PROSTATECTOMY.

Mr. C. ARTHUR BALL introduced this subject by referring to the methods of prostatectomy as usually performed by the suprapubic or perineal route, which he considered could not be regarded as ideal surgical procedures, for the prostate had to be removed largely by the sense of touch. Haemorrhage during these operations was not fully under control, and the amount of injury inflicted on the bladder, urethra, and ejaculatory ducts was frequently considerable. The question to be decided was, Can the prostate, or rather a sufficient part of the prostate, be removed so as to cure the patient without inflicting permanent injury to important anatomical structures? Perineal prostatectomy, as performed by Dr. Young of the Johns Hopkins Hospital, seemed to him to fulfil these conditions more fully than the methods previously advocated. He proceeded to explain Young's operation of conservative perineal prostatectomy, illustrating the various steps of the operation by means of lantern slides, showing that the lateral and median portions of the prostate could be removed without injuring the mucous membrane of the bladder or the urethra and ejaculatory ducts, a matter of some importance now that prostatectomy is being done in younger men.

The CHAIRMAN said he had always performed the suprapubic operation, and still thought it the right one. He did not think there were such things as lobes in enlarged prostate; the prostate was simply adenomatous, and there was no definite lobar arrangement. The ingenious idea of Lane's

operation was to be admired—namely, the preservation of the ejaculatory ducts.

Mr. EDWARD H. TAYLOR stated that he had had the privilege of being present at Mr. Ball's prostatectomy operations. He had previously no experience of the perineal method, but had performed the suprapubic operation, and was much impressed in its favour. It was not very difficult, but left much to be desired, as one had to work largely by the sense of touch. He was impressed by the ease with which the prostate could be exposed by means of a curved incision in front of the anus, the facility with which the capsule could be peeled off the lateral lobes, and the large veins of the vesico-prostatic plexus avoided. Against the operation was the fact that it entailed an extensive dissection and division of the compressor urethrae muscle. There was considerable risk, therefore, of injuring the sphincteric apparatus of the bladder, and subsequent incontinence of urine. There was much less risk of incontinence with the suprapubic operation.

Mr. MAUNSELL thought it was a mistake to say that all cases should be done either by the suprapubic or by the perineal operation. His experience was only with the former, because in his cases the prostatic enlargement was very marked. He would not think of removing a large adenomatous prostate through the perineum, and would employ the perineal operation only for prostates of small size. The speed with which it could be performed was in favour of suprapubic prostatectomy, and this was a point of importance with elderly patients.

Mr. LENTAIGNE had often thought that a better method than the suprapubic in prostatectomy could be devised, but he was not yet converted to the perineal route; it was much more likely to lead to septic troubles than the suprapubic, as there was much more division of tissues.

Sir THOMAS MYLES did not quite understand what became of the mucous membrane of the bladder which covered the upward bulging portions of the prostate. Was it torn in parts or was it removed *en bloc*? Was the ideal method to leave an intact urethra and an intact bladder? He described the method by which he had carried out the perineal operation. In his opinion, if the bladder mucous membrane covering the prostate had to be divided at all it had better be cleanly removed, otherwise a ragged surface was left and pieces of the mucous membrane might subsequently obstruct the urethra.

Mr. STONEY stated that, viewing prostatectomy from the anatomical standpoint, the best method was that which aimed at removing the prostate from within the bladder. In the perineal operation the prostatic capsule was divided and the pelvic cellular tissue was exposed to septic influences.

Mr. BALL, in reply, said the mortality after the perineal operation was less than half that following the suprapubic, which alone would tend to make one employ the perineal route. Although in many cases suprapubic prostatectomy could be done with rapidity, yet this was by no means always the case. Also, he thought drainage was better by the perineal than by the suprapubic route. In conservative perineal prostatectomy the mucous membrane of the bladder over the prostatic lobes was supposed to be left intact.

EXHIBITS.

Mr. MAUNSELL exhibited (1) a patient upon whom he had operated for acute cholecystitis, and subsequently for gangrenous appendicitis; (2) a gall bladder removed for phlegmonous cholecystitis, and another for hydrops.—Mr. C. ARTHUR BALL exhibited (1) prostate removed by perineal prostatectomy; (2) prostate and calculi removed by conservative perineal prostatectomy.

MEDICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Monday, January 23rd, 1905.

HAEMATURIA.

DR. A. E. GARROD, in opening a discussion on this subject, said the chief interest of haematuria was clinical, in this respect differing from haemoglobinuria. Reference was first made to its diagnosis, especially the differentiation of smoky urine from carboluria, and haematoporphyrinuria with albuminuria. The tests for haemoglobin in the urine were discussed. The spectroscopic appearances were not so conclusive as was sometimes supposed. The ozonic ether and guaiacum was a test of extreme delicacy, and rarely misleading as from pus or an iodide. The value of the microscopic appearance of red blood corpuscles with and without other elements, such as casts, was estimated. In the coexistence of pyuria and haematuria bacteriological evidence was of specia value. The indications afforded by the coexistence of crystals were alluded to. The age of the patient was of importance, as in possible renal sarcoma in infants, in infantile scurvy, of which haematuria might be the initial and only symptom. In later childhood it was especially liable to occur as an isolated symptom of obscure nature, apart from nephritis, calculus, and haemophilia. A haematuria from eating rhubarb was described. Familial haematuria, endemic haematuria from the bilharzia, haematuria in recurring attacks from nephritis with albuminuria but without oedema, that from laceration from muscular effort, and that in prostatic hypertrophy were alluded to.

Dr. BRUCE PORTER mentioned a case in which haematuria was attributable to eating asparagus.

Mr. T. H. KELLOCK alluded to the profuse haematuria from papillomatous growths in the pelvis of the kidney and bladder. Sarcoma of the kidney in children often gave no urinary sign, being perirenal in position. The use of the cystoscope in haematuria was illustrated. The value of the symptom in the presence of renal calculi was shown to be chiefly in showing the position of the calculus, in the cortex particularly.

Dr. J. H. BRYANT also described cases of haematuria elucidated by the employment of the cystoscope, and discussed the rôle of bacteriological examinations in the cases.

Mr. SWAN insisted on the use of the cystoscope in the recognition of the cause of profuse haematuria; even in a medium which was not clear, by washing out the bladder quickly with antiseptic lotions, a snap-shot view might be obtained. In some cases of tuberculous cystitis haematuria was the only sign. In cases with enlarged prostate haematuria was rarely the only symptom.

Dr. POYNTON alluded to the haematuria in ulcerative endocarditis apart from infarcts and due to toxic nephritis.

The PRESIDENT gave a review of the subject from the surgical side.

Dr. GARROD replied.

BRITISH GYNAECOLOGICAL SOCIETY.

ANNUAL MEETING.

Professor JOHN W. TAYLOR, M.Sc., President, in the Chair.

Thursday, January 12th, 1905.

ELECTION OF OFFICERS.

THE following officers were elected for the current year: *Honorary President:* R. Barnes, M.D.; *President:* William Alexander, M.D. (Liverpool). *Vice-Presidents:* E. Stanmore Bishop (Manchester); Bedford Fenwick, M.D. (London); F. Bowreman Jessett (London); R. P. Ranken Lyle, M.D. (Newcastle-on-Tyne); Sir A. V. Macan (Dublin); J. Jameson Macan, M.D. (London); H. Macnaughton-Jones, M.D. (London); Christopher Martin (Birmingham); J. A. Mansell Moullin (London); Thomas Oliver, M.D. (Newcastle-on-Tyne); Heywood Smith, M.D. (London); W. Dunnett Spanton (Hanley). *Honorary Treasurer:* W. H. Slimon, M.D. (London). *Council:* T. Gelston Atkins, M.D. (Cork); N. T. Brewis (Edinburgh); G. Roe Carter, M.R.C.P.I. (London); Sir J. Halliday Croom, M.D. (Edinburgh); William Duncan, M.D. (London); F. Edge, M.D. (Wolverhampton); George Elder, M.D. (Nottingham); T. J. English, M.D. (London); J. H. Ferguson, M.D. (Edinburgh); Clement Godson, M.D. (London); Arthur Helme, M.D. (Manchester); R. J. Kinkead, M.D. (Galway); J. Macpherson Lawrie, M.D. (Weymouth); Samuel Lloyd, M.D. (London); John Padman (London); Ernesto Pestalozza, M.D. (Florence); J. J. Redfern, M.D. (Croydon); Charles Ryall (London); R. T. Smith, M.D. (London); J. H. Swanton, M.D. (London); J. W. Taylor, M.D. (Birmingham); W. Travers, M.D. (London); H. F. Vaughan-Jackson (Potter's Bar); Hugh Woods, M.D. (London). *Editor of the Journal:* J. J. Macan, M.D. (London). *Assistant Editor:* J. Hutchinson Swanton, M.D. *Honorary Secretaries:* Sol. Jervois Aarons, M.D.; Smallwood Savage. *Auditors:* C. H. Bennett, M.D.; F. A. Purcell, M.D. *Trustees of the Property of the Society:* G. Granville Bantock, M.D.; R. S. Fancourt Barnes, M.D.; Clement Godson, M.D.

DOUBLE PYOSALPINX.

Dr. INGLIS PARSONS showed a double pyosalpinx symmetrically enlarged on each side, and removed without any rupture. Even in the presence of dense adhesions, by taking time and separating the adhesions from behind and below, he found it often possible to isolate and remove both tubes without rupture.

PRESIDENT'S VALEDICTORY ADDRESS.

The PRESIDENT delivered his valedictory address. After reviewing the progress of gynaecology during the last year, and alluding to the loss the profession had suffered from the deaths of many eminent men, he mentioned that his association with the Society, of which he became a Foundation Fellow more than twenty years ago, was coterminous with his work as an operating gynaecologist. During that time he had performed 1,291 operations with only 85 deaths, a total mortality of 6.5 per cent. But many of the deaths were unavoidable or only indirectly due to operation. One was from apoplexy; four were cases of acute perforative peritonitis, one of which was a Cesaraean section with a child now still alive; four were moribund cases of intestinal obstruction and twenty-two patients died rather from malignant disease than from the results of the operation. He had, however, to regret some early cases of sepsis and one from secondary haemorrhage. Some cases also of myomata operated on by the modified clamp operation might no doubt have been saved by more modern methods. Taught by experience, his best work had been in the last five or six years, which, including a fair proportion of grave cases, showed a mortality of only 1 per cent. His experience extended over days of ignorance, when hardly anything was left undone that favoured infection, over days of empirical asepsis and the more recent ones enriched by our acquired knowledge. He attributed the greatest advantage to the recognition of the efficiency of heat in sterilization, to the disinfection of the hands by permanganate of potash supplemented by spirit and biniodide of mercury, not only before operation but after every dangerous contact; and to the substitution of fine, interlocking chain sutures of silk for ligature *en masse*. Fine silk he had found to be in time as perfectly absorbed as catgut. Pelvic haematocele, the so-called broad ligament haematoma, formerly the commonest complication of post-operative convalescence, though attributed to the use of a sharp needle, he had not found to be so. It was more probably due to ulcerative erosion of the vessels owing to infection from the thick silk used in tying the pedicle. The removal of the appendages for myomata had gradually though not entirely been abandoned in favour of abdominal or vaginal hysterectomy, and he now seldom performed that operation for gonorrhoeal tubal disease, preferring systematic treatment with biniodide of mercury, which even in cases demanding interference, when combined with the evacuation of the sacs and drainage was generally better than the old operation. In inguinal coeliotomy by Reclus's method, by tying off a small amount of mesentery at each side of the spigot of glass at the original operation, he found that the subsequent division of the intestine was practically bloodless and not accompanied by arterial haemorrhage, as otherwise was too often the case. In conservative operations some of his greatest successes had been the separation of adnexal adhesions to the intestines causing obstruction; hysteropexy and ventrosuspension were also conservative, but he had found conservative operations on the appendages disappointing. Simple prolapse of the ovary, due to retrodisplacement, was best treated by shortening the round ligaments without opening the peritoneum. Disliking all forms of fixation, he had abandoned anterior colpotomy, but had become more and more attracted by posterior colpotomy, the advantages of which were not to be overlooked even in virgins or children. The essential point in the operation after the disinfection of the vagina was free drainage with iodoform gauze. Vaginal ovariotomy and vaginal enucleation demanded increasing consideration.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

Professor MUIR, M.D., President, in the Chair.

Monday, January 9th, 1905.

REMOVAL OF PHARYNX FOR EPITHELIOMA.

DR. T. K. DALZIEL and Dr. WALKER DOWNIE described a case of removal of the pharynx and a portion of the larynx for epithelioma. The growth involved a considerable area of the pharynx in its whole circumference, the posterior wall of the larynx, and the orifice of the glottis; there was also a large mass of infected glands in the right side of the neck. The operation was performed without hope of cure, but for the alleviation of the miserable state of the patient, and proved much more formidable than had been anticipated. The whole growth was removed. The oesophagus was then detached from the trachea for a distance sufficient to allow of the end being brought out and stitched to the skin of the side of the neck for the use of the stomach tube. The anaesthetic used was chloroform. The patient made an uninterrupted recovery. The tracheotomy tube, which had been inserted before the main operation was started, was removed after three and a half weeks. The only trouble was the constant trickling of saliva from the mouth, there being no other way of escape for it; but this ceased after two months, the salivary glands having stopped functionating. All food necessarily was taken through the stomach tube; this did not affect the secretion of saliva. The patient since the operation had nursed her husband and her son through severe illness; but now, after six months of happiness and usefulness, she was dying from pressure on the air passages by a large mass of glands in the right side of the root of the neck.

MULTIPLE CARCINOMA OF INTESTINE.

Dr. JOHN H. TEACHER and Dr. G. BURNSIDE BUCHANAN showed a specimen of multiple carcinomata of the intestines. The primary tumour appeared to be that situated in the rectum; there were about twenty nodules of various sizes scattered along the whole length of the great intestine, and a group in the lower part of the small intestine; there was also considerable infiltration of the mesentery. The secondary nodules were situated in the submucous layer of the gut. The course of the spread of the disease could not be traced.

Dr. HENRY RUTHERFURD showed a specimen of multiple carcinoma of the great intestine. A tumour (carcinoma) of the rectum had been removed two years previously.

ENLARGED INFANTILE HERNIA.

Dr. D. N. KNOX showed the sac of an encysted infantile hernia, and read notes of two such cases. The specimen was taken from a patient aged 72; the hernia had been in existence for many years, and was as large as a cocoanut. The other case occurred in a child.

UTERINE MYOMA.

Dr. J. K. KELLY showed a number of specimens of uterine myomata and ovarian dermoids, and read short notes of the cases.

PATENCY OF INTERVENTRICULAR SEPTUM.

Dr. NAPIER and Dr. JOHN ANDERSON gave an account of a case of patency of the interventricular septum. The orifice occupied the undefended area of the septum, and measured about an inch in diameter. In spite of this considerable defect patient enjoyed perfect health up to her seventeenth year, then manifested signs of cardiac weakness, but recovered and remained well until the birth of her first child at the age of 27. She died soon after with symptoms suggestive of aortic incompetence.

TUBERCULOUS MENINGITIS IN ADULT.

Dr. NAPIER and Dr. JOHN ANDERSON described a case of tuberculous meningitis in an adult which simulated enteric fever.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 19th, 1905.

JAMES BARR, M.D., F.R.C.P., President, in the Chair.

EXHIBITS.

DR. W. BLAIR BELL exhibited and demonstrated the use of the following instruments: (1) Combined peritoneum forceps and wound retractor; (2) complete infusion apparatus, with improved venous cannula.

BONY DEPOSITS FOLLOWING DISLOCATION OF ELBOW-JOINT.

Mr. ROBERT JONES and Dr. DAVID MORGAN presented an analysis and radiographic illustrations of 16 cases of bony deposits following dislocation of the elbow-joint under their observation. These deposits had followed simple dislocation, unaccompanied by fracture, and were not associated with myositis ossificans progressiva. They differed from myositis ossificans due to local irritation, and their occurrence in presence of a fracture was not associated with callus display. The periosteum was believed to be the origin of these bony deposits. A series of radiographic lantern slides depicted their growth, from slight shadows to dense bony formation. The diagnosis and prognosis was discussed, and microscopic slides were shown to demonstrate their true bony nature as distinct from calcareous changes.

Cerebellar Abscess following Ear Disease.

Mr. W. T. Clegg read notes of a case of cerebellar abscess which occurred as the result of acute ear trouble. The clinical history of the case was given and the differential diagnosis between temporo-sphenoidal and cerebellar abscess discussed. An operation had been performed, but without relief to the patient. At the necropsy a large abscess was found in the right lateral lobe of the cerebellum, the infection having travelled from the ear along the sheath of the auditory nerve. There was no meningitis.

Acute Labyrinthitis.

Mr. Clegg related a case of acute labyrinthitis in a child aged 2 years and 8 months, in which the symptoms closely resembled those of meningitis. After recovery deafness persisted. There had been no discharge from the ear.

Diagnosis and Treatment of Typhoid Fever.

Dr. Nathan Raw read a paper on some points in the diagnosis and treatment of typhoid fever, based on an observation of 362 cases treated in hospital during the last sixteen years. He referred in detail to the great difficulties in diagnosis which many cases presented in the early stages of the disease, and discussed the value of Widal's reaction as an aid to the practitioner. Haemorrhage and perforation were the two most formidable complications, and a careful summary of the symptoms of perforation of the intestine was given, as it was highly important to be able to diagnose its immediate onset, so that prompt operative measures might be adopted. In his opinion the treatment of the future would be directed towards reducing the virulence of the bacilli and the onset of toxaemia, on the lines suggested by Professor Wright, or by the introduction of a serum. The cold or continuous bath treatment undoubtedly in other countries gave better results than any other, but he believed it would be some considerable time before it was generally adopted in this country in the treatment of typhoid fever.

Dr. W. Carter approved of Brieger's suggestion of feeding patients suffering from typhoid fever with pure peptones, and he had carried it into practice for many years. He mentioned two cases in which Widal's reaction proved misleading.

Dr. W. B. Warrington considered that even when made with much care the serum reaction was not devoid of ambiguity, and the observer was from time to time left in doubt as to the positive or negative nature of the reaction.

Dr. N. E. Roberts was of opinion that the mortality of enteric fever in Liverpool, when treated in hospital under modern conditions, would average about 12 per cent. He based this on his experience of close upon 2,500 cases treated at the city hospitals since 1892. The mortality of the disease was greatly influenced by the class of patient under treatment, and, as illustrating this point, Dr. Roberts said he had never lost a nurse or any member of the hospital staff from enteric fever at the Grafton Street or Parkhill hospitals since he joined these institutions in 1892.

The President, Dr. J. Hill Abram, Dr. T. R. Bradshaw, Dr. A. G. Gullan, Dr. C. J. Macalister, Dr. R. S. Archer, and Dr. R. J. M. Buchanan also took part in the discussion.

Dermatological Society of London.—At an ordinary meeting held on January 11th, Mr. Malcolm Morris, who was in the chair, showed a young lady, aged 19 years, who had been troubled three years with warts on the back of the hands. These had been removed by means of the *x* rays, and one year later telangiectases had appeared on the situations which had been exposed, and these were still increasing. Mr. Morris commented on the unusually long latent period between the exposure and the development of the evil effects.—Dr. T. Colcott Fox showed a young man who had travelled all over the world and lived in almost every climate, and who had first noticed four years ago a red spot on the right shin. This had enlarged very slowly without giving rise to any special symptoms, and had been followed in May, 1904, by the appearance of several other spots on the same and the other leg, and quite recently on the arm. The patches were flat and a little scaly, the centre was pale and obviously atrophic, and the margin was a little reddened. Careful examination had shown that there were no anomalies of sensation, and Dr. Fox thought that there need be no apprehension of any serious disease, and that he thought the eruption probably belonged to the class of so-called idiopathic atrophies to one of which the name of erythromelie had been given.—Dr. E. G. Graham Little showed a man with widespread lupoid eruption on the face affecting the whole of the nose, and patches on both cheeks and both ears. The disease had commenced six years previously with a blow on the nose. The patches were much thickened, and obviously transparent and granulomatous-looking; he thought, therefore, that some might consider it to be a true lupus vulgaris. A section of the diseased area was also exhibited in order to aid in the diagnosis. The opinion was almost unanimous that the disease was lupus erythematosus.—Dr. Sale Barker (introduced) showed an interesting group of children in which ringworm of the scalp had been treated by the *x* rays. The method he used was to measure the current actually passing between the terminals of his vacuum tube, and to use a constant spark gap. He then gave the children longish exposures, and found that usually two were sufficient to cause epilation. He pointed out that in a case in which he had caused a total defluvium for disseminated ringworm, and in which there must have been some overlapping of the exposed areas, no dermatitis had resulted. A considerable discussion took place over these cases, and the general opinion seemed to be that the method was now firmly established as the speediest cure for ringworm of the head. Many members had used it in numerous instances and no member reported any untoward result, though all agreed that the greatest care must be used.

Leeds and West Riding Medico-Chirurgical Society.—At a meeting held on January 9th, Dr. Bronner in the chair, Mr. Basil Hall read notes of a case of spasmodic torticollis treated by resection of the spinal accessory and posterior cervical nerves. The patient, a quarryman, aged 37, had suffered from otorrhoea on the right side twenty years previously. The otorrhoea ceased completely eight years ago. He then had a slight tremor of the head. One year ago he began to suffer from tinnitus and became quite deaf in the right ear. Soon after spasmodic torticollis appeared, which had steadily grown more violent until he became quite incapacitated. When first seen he was suffering severely from spasm of the right sterno-mastoid and the left retrocollic muscles. The right retrocollic muscles were also involved, but to a lesser extent. The movements, which were very violent, abated when he lay down, and ceased altogether during sleep. The affected muscles were much hypertrophied. There was no ocular defect. The right tympanic membrane was practically destroyed. On November 12th, 1903, an inch of the right spinal accessory and the first, second, and third posterior cervical nerves of the left side were excised. The patient's condition was much improved, but a good deal of spasm remained in the right retrocollic muscles. He remained for two months under observation, when, as no further improvement took place, the first, second, and third posterior cervical nerves on the right side were excised. The patient left the hospital at the end of three weeks. There was no spasm but there was a fine tremor of the head. He was last seen twelve months after the first operation. There had been no return of the spasm. He could hold his neck erect and extend it on the trunk. The tremor remained. Mr. Moynihan discussed the paper, and referred to 4 cases in which he had performed a similar operation. Mr. Hall replied.—Mr. W. C. Mayo drew attention to the difficulties in the administration of anaesthetics in abdominal operations due to the nervous reflexes due to the surgeon's manipulations. When the patient had suffered much abdominal pain these reflexes were more difficult to overcome. For eighteen months he had given chloretone (15 to 20 gr.) half an hour before commencing the operation, and had found that patients took the anaesthetic better and more quickly, with fewer after-effects. He drew attention to the difference of opinion as to the best anaesthetic in these cases. He had obtained good results with a mixture of ethyl chloride 20 per cent., chloroform 40 per cent., and ether 40 per cent., given on a towel, as chloroform, only faster, until the corneal reflex had nearly gone; and then changing to ether in a Clover's inhaler, until the breathing was deep and regular, pupils fairly dilated, and the muscles of the lower jaw quite relaxed. The patient was now ready for operation, for which relaxation of the abdominal muscles was the chief point. When the abdomen had been opened it was often a help to the surgeon to change to chloroform. With regard to the ethyl-chloride-chloroform-ether mixture mentioned above, most patients went quietly into unconsciousness in from one and a half to six minutes, with less struggling and excitement than with

chloroform. There was no cyanosis or excess of mucus, the breathing quiet and regular, and the colour good. The anaesthesia was inclined to be of a light character. Attention was also drawn to the necessity for attending to oral sepsis for some days before the operation, thereby avoiding pneumonia, and also the combating of shock by the use of liquid. strychninae and oxygen administered from a Hewitt's gas-bag. Messrs. LITTLEWOOD, MCGREGOR YOUNG, MOYNIHAN, WARD, BASIL HALL, and Dr. BRONNER discussed the paper, and Mr. MAYO replied.—Cases and pathological specimens were shown by Dr. GORDON SHARP, Dr. J. B. HELLIER (with Mr. J. A. HARGREAVES, of Wetherby), Mr. DOUGLAS SEATON, Mr. H. LITTLEWOOD, Mr. H. SECKER WALKER, Dr. A. E. PORTER, Dr. BARRS, Mr. CARLTON OLDFIELD, Dr. TREVELYAN, Mr. LAWFORD KNAGGS, and Mr. L. A. ROWDEN.

CHELSEA CLINICAL SOCIETY.—At a meeting on January 17th, Dr. VINCENT DICKINSON, President, in the chair, Dr. J. D. MORTIMER read a paper on the anaesthetization of children. After referring to various practical details of preparation, induction, and estimation of degree of anaesthesia, also the depth of anaesthesia advisable in certain operations, he pointed out that the prone or latero-prone positions were apt to embarrass the breathing, especially in rickety children, and that in case of empyema the child should never be turned on the sound side. In considering the choice of an anaesthetic and the method of administration he insisted on the necessity in case of chloroform of a gradual but not too prolonged induction, of unremitting attention on the part of the administrator, and a free admixture of air. Precautions should be taken against retraction of the tongue and epiglottis, and the lint, if such be used, should never be applied closely to the face; by so doing it was certainly possible to anaesthetize, or rather narcotize, a child using a very small amount of chloroform, but the method was both inconvenient and dangerous. Coroners and juries appeared to be under the impression that the amount used was a measure of the amount inhaled, and that a small quantity used meant a skilful administration, whereas the reverse was often the case. He was a disciple of Dr. Hewitt in regard to percentage inhalers, but Krohne and Sesemann's was free from the chief objections urged against the more complicated ones, although he could not vouch for the absolute accuracy and safety claimed for it, and if the child were not amenable, induction was apt to be attended with serious difficulties. —Dr. PENNY read a paper on two cases of a hitherto unrecorded complication of pregnancy. The first case was seen by him in consultation with Dr. Charles Morris, and, on her subsequent removal to the Grosvenor Hospital, by the other members of the staff there. The second case was seen by Dr. Morris and Dr. Seymour Taylor. Both patients recovered, although they presented very alarming features, and both miscarried—one at six and a half months (child survived three hours), the other within a fortnight of full term (child dead and cuticle peeling). They both simulated enteric very closely, and the blood was twice examined for Widal's reaction in the first case, but with a negative result. In this case the illness began with a rigor and a temperature of 103°, with constipation for the first week, but afterwards the bowels were relaxed and the stools were distinctly typhoid in character. Two days before she miscarried the temperature rose to 104.8°. On July 9th it was 103.6°, just before labour pains began. Immediately labour started it dropped to 97°, and remained subnormal afterwards for two or three days. There was no further pyrexia. In the second case there was constipation throughout. When first seen by Dr. Penny, on July 2nd, she complained of severe pain in the upper part of the right lumbar region extending as far back as the ninth rib in the scapular line. On the right side the colon was very distended and overlapped the enlarged uterus. The temperature varied between 100° and 102° until July 8th, when it rose to 103 6°. An hour or so before the pains came on it was 101.2°. On July 10th, immediately labour began, it dropped to 97°, and as in the first case remained subnormal for three or four days, when it reached the normal standard and there was no further pyrexia. Dr. Penny could offer no explanation.—Dr. ANDERSON read a paper on the treatment of various diseases by light. After briefly referring to the influence of light on metabolism, and on the amount of haemoglobin in the red corpuscles, he gave details of several cases which he claimed as having been cured by light. One lady who had been suffering from pain in the right arm and leg for eighteen months, and during that period had not slept except by the aid of drugs, after three weeks' treatment was completely cured, being for six months free from pain and sleeping soundly. He also gave instances of its marvellous effects in gout, rheumatism, various neuralgias, anaemia, and insomnia. Dr. Anderson thought that, owing to the influence of light on the nervous system and blood corpuscles, the various organs performed their functions more thoroughly and improved health resulted. He thought all cases were not suitable for light treatment, and that it should not be used indiscriminately.

MEDICO-LEGAL SOCIETY.—A meeting of this Society was held on January 17th, Sir WILLIAM J. COLLINS, President, in the chair.—Dr. J. G. GARSON narrated a case of disputed double fracture of the right clavicle, which resulted in a civil action for damages. He also gave a demonstration of the development of invisible finger-prints, and pointed out the extent to which the method could be applied.—Dr. A. DOUGLAS COWBURN opened a discussion on the law relating to the criminal responsibility of the insane. Although the knowledge-test of right and wrong propounded by the judges in 1843 was often unfitted for actual cases, yet no change could be effected without very general moral support. Medical evidence was too often vague and lacking in precision. "Moral insanity" was rare by itself, and most cases of alleged insanity were quickly discerned by a skilled alienist. Criminals in the legal sense should be classified before sentence was pronounced, and not, as obtained at present, when they reached their cells. He would suggest: (1) The professional criminal; (2) the habitual criminal, with a bad police record; (3) the occasional criminal, who yielded to temptation; (4) the insane criminal, who should be exempt from conviction; and (5) the weak-minded criminal, who needed medical treatment rather than penal correction. Dr. JAMES SCOTT regarded a recommendation to mercy as a recognition of the prisoner's "weakmindedness." Dr. ERNEST WHITE held that sanity graduated down to insanity along a slope. Both he and Dr. OUTTERSON WOOD would consider each case on its merits. Sir WILLIAM J. COLLINS, in concluding the discussion, insisted that the test of guilt was not within the sphere of cognition, but that of volition. In considering problems involving responsibility there is, and must be, a mental calculus. He submitted that the questions at the back of our minds were: Had the prisoner the power of choice? Could he act upon it? Were his choice and act in accordance with the general moral sanction of the time and place in which he lived, and with the legal sanction prescribed by the Legislature?

MIDLAND MEDICAL SOCIETY.—At a meeting of this Society, held at the Medical Institute, Birmingham, on January 18th, Mr. WOOD WHITE, President, in the chair, Mr. BARLING showed (1) a patient from whom he had successfully removed a tumour of the cerebrum; (2) a man who had been the subject of migraine of many years' standing and who was cured by the fixation of a movable kidney; (3) a specimen of advanced hydronephrosis in a movable kidney removed from a woman, aged 50, who had suffered pain, more or less, for twenty years, but more severely during the last twelve months. The other kidney was also freely displaced downwards, but was not hydronephrotic.—Mr. GAMGEE showed (1) a woman, aged 51, who for seven years had suffered constantly from very severe headaches, which had resisted all ordinary forms of treatment; fixation of a right movable kidney had resulted in complete cure of the headaches; (2) a large hydronephrosis removed from a woman aged 40. The patient had suffered from a movable right kidney for twenty years, and the hydronephrosis was apparently the direct result of the mobility.—Mr. BARLING read a paper on renal mobility and its treatment.

LARYNGOLOGICAL SOCIETY OF LONDON.—At the annual meeting of this Society on January 13th, the following officers were elected to serve during 1905: *President:* Charters J. Symonds, F.R.C.S.; *Vice-Presidents:* W. Milligan, M.D., F. Willcocks, M.D., J. B. Ball, M.D., William Hill, M.D.; *Council:* L. H. Pegler, M.D., J. Walker Downie, M.B., P. McBride, M.D., W. R. H. Stewart, F.R.C.S., Sir Felix Semon, C.V.O., M.D., E. Furniss Potter, M.D.; *Honorary Treasurer:* H. B. Robinson, F.R.C.S.; *Honorary Librarian:* StClair Thomson, M.D.; *Honorary Secretaries:* P. R. W. de Santi, F.R.C.S., and H. J. Davis, M.B., M.R.C.P. At the ordinary meeting the following cases and specimens were shown: Dr. STCLAIR THOMSON exhibited a case of epithelioma in a man

aged 50, in whom laryngo-fissure was performed, and there was no recurrence after six months. He also showed a boy aged 14, in whom tracheotomy was performed for extreme stenosis, the larynx being extensively ulcerated and the cords fixed in the middle line. There was marked improvement after the operation, and the diagnosis rested between tubercle, lupus, or congenital syphilis.—Mr. DE SANTI showed, for diagnosis, a case of swelling of the left arytenoid region in a woman aged 35. The diagnosis was considered to be either tubercle or malignant growth.—Dr. TILLEY showed a case of tracheal obstruction. The opinion of members was that the case was probably syphilitic.—Sir FELIX SEMON showed (1) a case of pharyngeal and laryngeal nystagmus in a case of probable tumour of the pons; (2) a case of inflammatory oedema of obscure origin, affecting the posterior part of the larynx, in a man aged 45.—Dr. FITZGERALD POWELL showed a case of epithelioma of the palate, tonsil, tongue, and cheek, and invited suggestions as to the effect of *x* rays in such a case. The opinion generally expressed was that *x* rays would not be of much value in such cases.—Dr. WESTMACOTT showed a case of ulceration of the soft palate which had been operated upon frequently, yet was perpetually recurring. It was not influenced by iodide of potassium.—Mr. PARKER showed a case of symmetrical enlargement of the thyroid; and a beautiful series of paintings in oil indicating diseases of the throat and larynx were exhibited by Dr. SMURTHWAITE.—Dr. PATERSON showed a pair of laryngeal forceps for use by the direct method.

EPIDEMIOLOGICAL SOCIETY.—At a meeting held on January 20th, Dr. B. A. WHITELEGGE, C.B., President, in the chair, Dr. G. B. LONGSTAFF read a paper entitled a contribution to the etiology of rheumatic fever, which was a continuation of one read before the Society in 1880 and republished, with additions, in his *Studies in Statistics*. After referring to the general abandonment of the popular view of the causation of rheumatic fever and its recognition as a bacterial disease, which, though suspected by Prout and Trousseau and implied in its inclusion by Dr. Farr among his zymotic diseases, was not accepted thirty years ago, he discussed the changes that had been made in the Registrar-General's nomenclature and classification. Acute and subacute rheumatisms had been transferred from the general group to one of rheumatic fever and rheumatism of the heart, while chronic valvular disease had been removed, though often traceable to previous attacks of rheumatic fever. Rheumatoid arthritis had very properly been transferred to other constitutional diseases, as had rheumatic gout—which ought to have referred to gout, which it was, pure and simple—and ulcerative endocarditis was a consequence of septicaemia. All cases of suspicious deaths after childbirth were inquired into by letter, with the result that puerperal fever had received a large accession, as had pyaemia (other than puerperal) from the transfer of cases following accidents from the class of violent deaths. These changes had considerably altered the numerical relations and order of the several diseases, but their expediency, except as regards rheumatic gout, the curves of which were identical with those of gout, had been fully justified by the results. The curves, seasonal and of age incidence, had been rendered far more characteristic, while the other rheumatisms to which the mixture of acute and chronic gave no character at all now showed a steady rise in incidence from infancy to old age, the maximum being between the 65th and 75th years, while that of rheumatic fever and the acute cardiac disease was from the 5th to the 15th or 20th. There was a resemblance between the curves of erysipelas and puerperal fever alike as regards age, incidence, seasonal distribution, and years of greater or less prevalence amounting to practical identity; those of scarlatina and septicaemia were very similar, while that of acute rheumatism resembled both pairs. Diphtheria had remained nearly stationary for half a century, but the deaths from enteric fever had fallen from an average of 378 per million to one of 175, and scarlatina from one of 854 per million, with fluctuations of 20 to 70 per cent. to one of 183, with less variation in different years. Both pyaemia and puerperal fever had, however, been more prevalent, for greater vigilance did not account for more than half the increase of 20 per cent.—namely, from a mean of 63 to one of 76; though it must be admitted that in the former period it rose in 1874-5 to 131 and 105 per million, and in 1893 to 102. The year 1893, remarkable for heat and drought, was marked by a maximum mortality from scarlatina, erysipelas, puerperal fever, rheumatic fever, enteric, and diphtheria epidemics, brought to an abrupt close by the heavy rainfall of 1894. The geographical distribution of the deaths from rheumatic fever, most numerous in London and Yorkshire, and fewest in the Eastern and North Midlands, gave no support to the theory of its origin in damp and cold, which was exploded by the fact of its greatest prevalence in hot dry autumn. The influence of erroneous etiology on the therapeutics of a disease could not be other than serious, while only on correct data could its prevention be accomplished. The close relation, if not interdependence, of erysipelas and puerperal fever had been strenuously insisted on by Dr. Galabin, while Dr. Newsholme had done very much towards securing assent to the newer views of rheumatic fever as an infective disease.—Sir W. CHURCH expressed his distrust of all, and especially of international statistics, which were apt to be falsified by differences of nomenclature, in addition to the well-known errors of diagnosis and registration. Rheumatic fever was an essentially urban disease, and it was this, rather than any climatic conditions that explained the position of Yorkshire and London, as well as the ascent of Wales from almost the lowest to a place equal to the higher synchronously with the great development of industry and growth of towns, as Cardiff in Glamorgan. All army statistics were opposed to any climatic theories.—Dr. NEWSHOLME deprecated basing mortality statistics on entire countries or even counties, since epidemics were mostly local and the peaks they would produce were obliterated. They indicated local conditions as did fatality-rates, which were often more instructive than death-rates. He would, too, prefer the prevalence or morbidity to the death-rate when, as in rheumatic fever, the death-rate and the fatality were very low. The years of high mortality and prevalence of septic sequelae in scarlatina and other diseases were those in which streptococci were most widely diffused.

THERAPEUTICAL SOCIETY.—At a meeting held on December 20th, 1904, Dr. NESTOR TIRARD read a paper entitled Some Clinical Observations with New Remedies. These included uricedin, urotropin, aspirin, mesotan, and ovoferrin. Concerning these, Dr. Tirard gave the limits of utility in his practice, and indicated sundry dangers or inconveniences which had arisen. (1) Uricedin, composed of lithium citrate with lemon juice neutralized by soda, had been recommended for gout, gravel, uric acid diathesis, and rheumatism, but it did not relieve the pain of gout nor dissolve uric acid concretions. It acted chiefly as a laxative in doses of 1 to 2 drachms. (2) Urotropin, termed chemically hexamethyline-tetramine, was made by combining ammonium and formaldehyde. It was stated to be a diuretic, to dissolve uric acid concretions, to relieve cystitis, and to destroy typhoid bacilli in the urine, but unless well diluted it might cause haematuria, albuminuria, and abdominal pains. These symptoms did not occur in Dr. Tirard's practice, as he always added at least 5 oz. of water to each dose. He found it very useful in cases of offensive pus in the urine, as the smell disappears and the uric acid sand diminishes. Dose, 5 to 15 gr., well diluted. (3) Aspirin, or acetyle salicylic acid, had little advantage over ordinary salicylic acid, and often produced dyspepsia, profuse perspiration, and sometimes diarrhoea. It was useful in cases of headache in gouty persons, especially from overwork. It often gave great relief from the pain, and caused refreshing sleep. After taking aspirin the patient should remain in bed, on account of the great perspiration. Dose, 10 gr., in cachets or tabloids, as it was sparingly soluble. (4) Mesotan: The methoxymethyl ester of salicylic acid was very readily absorbed by the skin, and when applied with olive oil it relieved the pain and stiffness of rheumatism after the temperature had fallen, but not during the fever nor in gonorrhoeal rheumatism. It sometimes caused great irritation of the skin if it was rubbed on too violently or covered up too thickly, or if mixed with water. It should be painted on with a brush, and be well diluted with olive oil free from water. (5) Ovoferrin, or iron vitelline, made by heating iron tartrate with serum albumen. It increased the haemoglobin in the blood, and improved the digestion and general well-being. Dose, 2 fluid drachms. It should not be diluted till taken, or it might become decomposed.

MANCHESTER MEDICAL SOCIETY.—The annual meeting of this Society was held on January 11th for the election of office-bearers. Mr. W. Thorburn was elected President.—Dr. E. M. BROCKBANK described an old MS. on urines, in the possession of the Society, some pages being reproduced by lantern slides.

REVIEWS.

LARYNGOLOGY AND RHINOLOGY.

THE elementary and practical treatise on diseases of the throat,[1] by Dr. E. J. MOURE, of Bordeaux, places in the hands of students and practitioners of the subject a guide which is at once clear, exhaustive, and well abreast of our present day knowledge. The anatomy of the fauces and pharynx is treated in a minute yet readable fashion. Stress is laid on the fact, sometimes ignored, that the muscles of the soft palate receive their nerve supply from the vago-accessory and not from the facial nerve. Among other forms of pharyngitis is included the acute ulcerative lacunar tonsillitis, first described by Moure himself, from the breaking down of a cyst formed by a blocked lacuna. The ulcero-membranous angina associated with stomatitis, and known as Vincent's angina, is described as often confounded with diphtheroid pharyngitis and Moure's acute ulcerative lacunar tonsillitis. Its extension on to the faucial pillars is specially noted. These varieties of acute sore throat come comparatively seldom under notice in "special" clinics and the descriptions here given are therefore all the more valuable. The author advocates the use of the galvano-cautery for various purposes for which it is scarcely ever employed in this country, such as the opening of peritonsillar abscesses and the section of the anterior pillar of the fauces in cases of encapsuled tonsils, but he utters a caution against using it for enlarging the orifices of crypts containing tonsillar calculi, for fear of creating cicatricial synechiae which would facilitate fresh calculous formations. Among the tuberculous lesions is described an infiltro-oedematous condition of the uvula and palate unaccompanied by pain. The chapter on the pathology of the lingual tonsil includes an interesting description of a rare condition—chronic abscess of the base of the tongue. Moure attaches little importance to the slighter degree of hypertrophy of the lingual tonsil in relation to the various symptoms frequently attributed to it. He refers to the influence of secondary syphilis in producing hypertrophy, but makes no reference to the smooth atrophy of the part observed by Virchow in old tertiary cases. For the removal of intralingual goitres he recommends transhyoid incision. The varieties of pharyngitis are carefully detailed, and the section on retropharyngeal abscess is peculiarly interesting, but little attention is drawn to those septic forms of sore throat in which death so frequently occurs from blood poisoning rather than from the local disease. Granular pharyngitis has, according to the author, lost a great deal of its importance; and in this view many will agree with him. He recognizes, however, its disturbing effects when localized in the lateral walls of the pharynx. Half of the book is devoted to the affections of the larynx, including a very practical chapter on the injuries to which the part is liable. He draws attention to the crepitation produced in the normal larynx when the large cornua of the thyroid cartilage are rubbed against the vertebral column, from which the crepitus of fracture must be carefully distinguished. The indications for tracheotomy in fractures of the larynx are clearly laid down. The distinction between laryngismus stridulus and laryngitis stridulosa is not so sharply defined as in some of our English works on the subject. The study of influenzal laryngitis is thorough and original. The author is strongly impressed with the important part played by the various forms of rhinitis in the production of laryngeal disease. Persistence in smoking tobacco is forcibly denounced as injurious in syphilis of the throat, in the chapter in which the descriptions of the various local manifestations of this affection are admirably given. In regard to the production of stenosis of the larynx, he considers the operation of inter-crico-thyroid laryngotomy or that of section of the cricoid cartilage often at fault, at all events if the cannula is retained beyond a short time. Among numerous valuable hints contained in the chapter on tuberculosis of the larynx may be cited the statement that "certain ill-timed methods of treatment are susceptible of precipitating the evolution of the disease," a point always to be kept well in mind. In regard to the diagnosis, he insists that the velvet-like aspect of the interarytenoid mucous membrane which Türck, and after him Brebion and other authors, wished to make out as a pathognomonic sign of tuberculous laryngitis is by no means characteristic of tuberculosis. The paralyses are fully detailed in an ample chapter. Dr. Moure gives more weight than we do to the share taken by irritation of the recurrent in the production of the adducted position of the vocal cord in the earlier period of a progressive lesion of the nerve, as also to the action of the crico-thyroid and transverse arytenoid muscles. He endorses Semon's view with regard to the extreme rarity of malignant degeneration of benign growths. He illustrates and describes most of the instruments and methods employed for the removal of laryngeal polypi and speaks favourably of the galvano-cautery on certain cases in the hands of those who are sufficiently habituated to laryngoscopic manipulations. The views expressed with regard to operations for intrinsic carcinoma are in accord with those promulgated by Semon and Butlin. The illustrations are most excellent. The work concludes with a chapter on the inflammations of the larynx occurring in the eruptive fevers, erysipelas and rheumatism. The whole book gives evidence of the author's great experience in practice as well as in teaching. He steers with great judgement between extravagance and parsimony in explanation and is certain to give the greatest satisfaction to his readers whether practitioners or students.

DR. WILLIAM LAMB'S *Guide to the Examination of the Throat, Nose, and Ear*[2] is intended for senior students and junior practitioners. It is a little work clearly and pleasantly written, and provided with thirty-two illustrations, all, except eight or nine, taken from other works. The original illustrations comprise several good figures of dissections of the nasal cavities; the others are of instruments, etc. After some preliminary remarks, the author passes to the examination of the pharynx, nose, larynx, and ear in successive chapters, and there is a final chapter headed, "Hints on Local Treatment." In the chapters on examination, besides the use of the various instruments and the appearances seen in different diseases, anatomical points are described. The section on examination of the mouth is full of practical points for the beginner. It is followed by remarks on the examination of the pharynx and naso-pharynx. In posterior rhinoscopy the direction is given for the patient to sit *lower* than the surgeon, which, we think, must be a mistake. Under this head we miss any description of how to use a palate hook, and any reference to a self-retaining form of hook. This is important, as by the proper use of this instrument a good view can almost always be obtained in adults without any difficulty. Examination of the nose through the anterior nares is described in 47 pages. A good deal of attention is devoted to sinus trouble, on which the author has some practical remarks, but there is no systematic account of how to examine these cavities. The whole work bears traces of practical experience in the difficulties which students encounter in studying the subject, and so cannot fail to be of considerable value to them. Several misprints such as "Wylde," "Siegel," "Schrapnell's membrane," "Finestra," may easily be corrected in another edition.

OPHTHALMOLOGY.

THE first part of the new volume of the *Royal London Ophthalmic Hospital Reports*[3] contains five very interesting papers. In the first Mr. Nettleship discusses renal retinitis in young subjects, and relates 80 cases of interstitial nephritis from various sources occurring in people under 21 years of age. There were nearly twice as many females as males affected with chronic interstitial nephritis, though there were rather more males than females affected with parenchymatous nephritis. Mr. Nettleship concludes that one or other of the specific fevers, including syphilis, is responsible for 31 out of 45 cases. He also gives his views on the prognostic and diagnostic value of retinitis in diabetes, and asserts that retinal changes in diabetes do not point to early death in so direct a way as the retinitis of chronic Bright's disease. In discussing the question whether these changes in diabetes are really due to an accompanying nephritis, he points out that from half to three-quarters of his cases died from diabetic coma, and presumably the ocular mischief was caused by the principal disease. A case of primary chancre of the conjunctiva which led to interstitial keratitis is described by Mr. E.

[1] *Traité élémentaire et pratique des Maladies de la Gorge, du Pharynx, et du Larynx* (Elementary and Practical Treatise on Diseases of the Throat, Pharynx, and Larynx). Par Dr. E. J. Moure. Paris: Octave Doin. 1904. (Demy 8vo, pp. 646, 202 illustrations. Fr. 12.)

[2] *Guide to the Examination of the Throat, Nose, and Ear.* By W. Lamb, M.D., C.M., M.R.C.P. London: Baillière, Tindall, and Cox. 1904. (Crown 8vo, pp. 164; 32 illustrations. 5s.)

[3] *The Royal London Ophthalmic Hospital Reports*, vol. xvi, Part 1. Edited by William Lang, F.R.C.S. London: J. and A. Churchill. 1904. (Demy 8vo, pp. 122, 5s.)

Treacher Collins. The keratitis came on nearly two years after infection had cleared up under treatment. He found that in five other cases the eye affected by the keratitis was the one in which the primary infection took place, and the interval of time separating the primary sore from the eye trouble varied from five months to ten years. Mr. J. Herbert Parsons has contributed a long and highly technical article on the innervation of the pupil, dealing with the nerve supply of the iris. It is taken as proved mainly from physiological experiments that there are dilator fibres present in the iris, and that they are supplied by branches of the sympathetic nerve. Diagrams are given showing the course these fibres take. It is shown that constriction of the pupil may be due to: (1) contraction of the constrictor muscle; (2) relaxation of the dilator muscle; (3) dilatation of the radially-disposed blood vessels. The reverse of these conditions will produce dilatation of the pupil. Then follows an account of the large amount of work that has been done by many observers on this subject. Paradoxical pupillo-constriction is discussed, and a long account is given of the many ambiguous results of the work done on the subject of the efferent pupillo-dilator paths. Paradoxical pupillo-dilatation is then considered, but no attempt is made to unravel the tangle of speculations as to the reflex pupillary centre; the number of centres that have been described with the greatest assurance is bewildering in the extreme. There is, however, very conclusive evidence in favour of the extreme importance of the third nerve nucleus. Various other phenomena associated with the nervous mechanism of the pupil are discussed, and the paper should be read in order to follow the numerous points that it brings out. The final paper is by Mr. George Coats on Thrombosis of the Retinal Vein. It is the result of the examination by pathological methods of four cases. The following pathological conditions have been suggested to explain the clinical picture of thrombosis: (1) Thrombosis in the central vein; (2) occlusion of the vein by proliferation of the intima; (3) multiple thrombi in the retinal veins; (4) multiple emboli or perhaps thrombi of the retinal arteries; (5) changes leading to thickening of the retinal vessels; (6) haemorrhage into the substance of the optic nerve. Whether all these conditions can produce the clinical picture, or whether one condition is always present, cannot yet be said to be proved. In examining such cases transverse sections of the eye in series should be cut, and this is more especially necessary when cutting the disc and optic nerve. The four cases are then described in detail. Various suggestions are made to account for the conditions found and the pathological state of the vessels is dwelt upon. The paper is illustrated by several photographs of the actual sections. This new volume fully keeps up the reputation of the reports, and the papers are in every way comparable to the many others that have been published in times past.

Another of those useful books treating of one small subject has lately been published in America. It consists of a series of papers on *The Relation of the Cervical Sympathetic to the Eye*,[4] by DE SCHWEINITZ, WILDER, BALL, and WEEKS, read before the Section of Ophthalmology of the American Medical Association at the annual meeting in May, 1903. De Schweinitz discusses the physiology of the sympathetic; Wilder, the influence of resection of the sympathetic ganglia in glaucoma; Ball, the influence of resection in optic atrophy, hydrophthalmos, and exophthalmic goitre; and Weeks, the pathology of the sympathetic. It will thus be seen that the subject is treated from all points of view. The part of most interest to ophthalmic surgeons is that on division of the sympathetic for glaucoma. Many cases have been reported, and Wilder gives a full account of the literature, and details of his own cases, as well as those of others. In many of the cases the fields of vision are reproduced, as well as photographs of the microscopic appearance of the ganglia removed. A study of these cases rather confirms the idea that, beyond leading to contraction of the pupil, the operation does not do very much good. The operation, however, appears to have done more good for exophthalmic goitre than any other treatment. At the end of the book a few pages are devoted to the discussion that followed the reading of the papers. A perusal of the book rather tends to confirm the idea that the operation is recommended on insufficient grounds; and, considering the fact that it is a serious undertaking, we certainly think that it will not be continued, at least as a treatment for glaucoma. The book will be most useful to any one working at the subject, especially the bibliography given by Wilder.

A paper on the influence of changes in the intraocular circulation on the intraocular pressure,[5] contributed to the *Journal of Physiology* by Mr. E. E. HENDERSON and Professor E. H. STARLING, contains the following conclusions—the animals used for the experiments were dogs and cats: (1) The intraocular pressure is a function of the blood pressure in the ocular blood vessels, and varies directly as the latter. (2) The intraocular pressure rises and falls with the general arterial blood pressure, and is not appreciably affected by a certain degree of rise of pressure in the great veins. (3) Stimulation of the sympathetic (head end) causes a preliminary rise of intraocular pressure, due to contraction of the orbital unstriated muscle, followed by a slow fall of blood pressure occasioned by a contraction of the intraocular blood vessels. (4) Stimulation of the peripheral end of the divided fifth nerve root causes a rise of pressure due to contraction of the orbital unstriated muscle. This effect is absent if the fibres going to the Gasserian ganglion from the sympathetic are degenerated in consequence of preliminary extirpation of the superior cervical ganglion. (5) There is no evidence of vasodilator fibres to the eyeball either from the fifth or the cervical sympathetic. (6) The effects of adrenalin or nicotine on the eye vary according as the local or general effects preponderate.

The preliminary part of Dr. TERRIEN's book on syphilis of the eye and its appendages[6] contains a description of the anatomy of the eye, about which there is nothing particular to note; it resembles that usually given in similar books; there are also two black and white drawings representing the appearance of the normal fundus. After this the author starts his subject with a chapter on hereditary syphilis, and in it is a description of retinitis pigmentosa, with a drawing of the fundus in this disease. Congenital cataracts, microphthalmos, nystagmus, congenital malformations, and squint are also included. In the part dealing with interstitial keratitis there is a drawing showing the condition of the cornea in this disease, and the three stages of infiltration, vascularization, and resolution are well and carefully given. Iridochoroiditis, which some observers consider to be a separate disease, is here rightly described as one of the complications that may manifest itself as the result of the attack of irido-cyclitis that produces interstitial keratitis. During the stage of infiltration, hot bathing and atropine are advised. In this chapter are included keratomalacia, affections of the optic nerve, and paralysis of the muscles of the eye. The second part deals with acquired syphilis: first the primary sore. The possibility of accidental inoculation is mentioned, and the clinical appearance of a chancre on the eyelid, etc., is described, together with an account of the diagnosis, prognosis, and treatment. The secondary forms of the disease are next discussed, and there are some drawings giving the clinical and microscopic appearance of the iris and ciliary body, together with a drawing showing the ophthalmoscopic appearance of the fundus in a case of disseminated choroiditis, and other drawings of optic neuritis, etc. The disease as it manifests itself in the tertiary stage is next carefully considered, including the symptoms and determination of paralyses of the extraocular muscles. The next chapter deals with the later and more remote consequences of the disease—namely, tabes, general paralysis, etc. The final chapter, of about twenty pages, is devoted to treatment, and, like many members of the French school, the author strongly advocates both the rubbing in and also the injection of mercury. The technique is described and the method of intramuscular injection is that most advocated. The book is complete and goes carefully into the subject.

One of the most interesting books we have had the pleasure of reading of late is a monograph on trachoma,[7] by Dr. J. BOLDT, surgeon in the Ninth West Prussian Infantry Regiment, translated into English by Messrs. J. Herbert Parsons and

[4] *The Relation of the Cervical Sympathetic to the Eye.* By Drs. C. E. de Schweinitz, W. H. Wilder, J. M. Ball, and J. E. Weeks. Chicago: Press of American Medical Association. 1904. (Demy 8vo, pp. 120.)

[5] The Influence of Changes in the Intraocular Circulation on the Intraocular Pressure. By E. E. Henderson, F.R.C.S., and E. H. Starling, F.R.S. *Journal of Physiology*, vol. xxxi, No. 5, August, 1904.

[6] *Syphilis de l'Oeil et de ses Annexes.* [Syphilis of the Eye and its Appendages.] Par le Dr. F. Terrien. Paris: G. Steinheil. 1905. (Crown 8vo, pp. 316, 42 illustrations. Fr. 4.)

[7] *Trachoma.* By Dr. J. Boldt. Translated by J. Herbert Parsons, D.Sc., and Thomas Snowball, M.B., C.M., with an Introductory Chapter by E. Treacher Collins, F.R.C.S. London: Hodder and Stoughton. 1904. (Demy 8vo, pp. 254. 7s. 6d.)

Thomas Snowball. The disease having been recently brought to the notice of the British public by the reports of the Royal Commission on Alien Immigration, a great deal is heard about it just now, and much is seen of it among the aliens, chiefly consisting of foreign Jews, that crowd the out-patient departments of our hospitals. Mr. Parsons, in his introduction, sums up the condition that now exists very truly when he says that "consistent with our well-earned reputation for international philanthropy, we are indeed acting as a trachoma filter-bed to the United States." The introductory chapter has been written by Mr. Treacher Collins, who in the 53 pages it occupies goes well into the matter, and gives an interesting description of the origin, spread, and distribution of the disease. The book will be well worth getting if it were only for this chapter. In the other chapters Dr. Boldt treats the matter in a most thorough manner, and we know of no book, at least in English, in which the disease is so well discussed. Chapter I deals with the history and epidemiology, Chapter II with the geographical distribution, Chapter III with the symptoms and course of the disease, Chapter IV with etiology, Chapter V with diagnosis, Chapter VI with prognosis, Chapter VII with treatment, and Chapter VIII with prophylaxis. In the chapter on diagnosis the difficulty frequently experienced in deciding if a certain doubtful case is or is not trachoma is discussed, and the rules of Jacobson, in vogue in the Prussian army until 1893, and those of Von Hippel that superseded them, are given. The former held the dualistic theory of the disease, while the latter held the unitarian, the distinction between follicular and granular diseases being again relinquished. In the chapter on treatment the ancient remedies as used by Hippocrates are given, as well as those of comparatively recent date; and it is interesting to watch the development up to the most modern methods. Subconjunctival injections, upon which at one time much hope was founded, have not proved satisfactory. Careful excision of the fornix is advocated, though much harm may be done if too much is removed. The light treatment is only just mentioned. In the chapter on prophylaxis excellent advice is given, and if the rules so ably laid down were remembered and acted upon it is quite certain that trachoma would become a disease of the past. Unfortunately, at present it is raging in England, and with all the aliens that pour into the country and cannot leave it again (for America will not take them), and among whom it is almost rare to find healthy lids, we certainly do not stand much chance of stamping it out yet awhile. We have nothing but praise for the book, and the translators are to be congratulated on having done their task so well.

In the elaborate book on *Diseases of the Eye*,[*] by Dr. JAMES MOORES BALL, of St. Louis, will be found everything relating to ophthalmology, from embryology to the latest described disease. Part I contains the embryological portion, and a most minute description of the anatomy of the eye, with numerous drawings, most of which are original, and show the anatomical relation of parts almost better than any other book with which we are acquainted; it is obvious that an immense amount of work has been done to produce this result. Then comes the chapter on physiology and the methods of examining the eye, the latter being illustrated with diagrams that have a striking similarity to those used by Lang in his book on this subject, the same fact strikes us on reading the text. The diseases of the eyelids are first described, and then follows the lacrymal apparatus, conjunctiva, cornea, sclera, and iris. This completes the first volume of 400 pages and about 300 illustrations, including the coloured plates. The diagrams showing ciliary and conjunctival injection would have been better had they been coloured. Part II describes the diseases of the various deeper structures of the eye—choroid, lens, vitreous, retina, optic nerve, muscles, refraction, operations, etc., and, finally, there is a chapter on the microscopical examination of the eye. There are some very excellent drawings of the fundus illustrating diseases of the choroid, retina, and optic nerve. The author is strongly in favour of early iridectomy in glaucoma, and if this does not check the progress of the disease he sometimes resorts to sclerotomies, and even the removal of the superior cervical ganglion of the sympathetic. He considers that the benefit of the latter operation is increased by a previous iridectomy. The final chapter, on the microscopical examination of the eye, is very useful, and any one possessing this book will have a guide not only to the treatment of the diseases of the eye, but will also be able to refresh his memory as to what should be done with an eye after removal. In order to save time in the production of the book, the author has availed himself of the services of Dr. W. Zentmayer for the chapter on Anomalies of the Muscular Apparatus; Dr. Jay C. Knipe for Ocular Symptoms of Nervous Diseases; Dr. W. T. Shoemaker for Diseases of the Orbit; Dr. J. T. Krall for Errors of Refraction; Dr. H. G. Goldberg for Hygiene of the Eye; and Dr. W. E. Fischer for Methods Employed in the Microscopic Examination of the Eye. A copious index completes the work, which is well got up, beautifully illustrated, and very complete.

[*] *Modern Ophthalmology: A Practical Treatise on the Anatomy, Physiology, and Diseases of the Eye.* By James Moores Ball, M.D.St. Louis. In two volumes. Philadelphia: F. A. Davis Company. 1904. (Demy 8vo, pp. 820. 21 coloured plates, 417 illustrations. 7 dols.)

NEW REMEDIES.

CALOMELOL.

CALOMELOL (or kalomelol) is a colloidal form of calomel prepared at von Heyden's chemical works. As is well known, calomel is insoluble in all ordinary solvents, and indeed cannot be dissolved without altering its chemical nature. Calomelol, on the other hand, is soluble in water (1 in 50), in saline solutions, and in blood serum; like the majority of the newer colloids, it is prepared with egg albumen, and contains 25 per cent. of this substance, the remainder being calomel. It is a fine white-grey powder, nearly tasteless and odourless. Calomelol ointment is a pale grey preparation of soft consistence; it contains about 45 per cent. of calomelol. When used as an inunction, mercury is said to appear in the urine after five applications. The activity of the ointment is much increased by the addition of 2 per cent. of finely-divided mercury, and the latest specimens of the ointment contain this addition. The normal daily dose is 6 grams (by inunction). Experiments on men and animals do not appear to favour its internal use, as sickness and purging resulted; similarly, subcutaneous and intramuscular injections were very painful. On the other hand, the ointment and also a dusting powder (calomelol 5, zinc oxide 2.5, starch 2.5) acted promptly against local syphilitic eruptions.

THE GRIFFITHS TESTIMONIAL FUND.

DR. A. P. FIDDIAN (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount already acknowledged	15	4	0
Dr. J. Tatham Thompson	1	1	0
Dr. Alfred Rees	0	5	0
Dr. J. H. Rees	0	5	0
Dr. Cornelius A. Griffiths	0	10	6
Dr. S. Allan Shiach	0	5	0
Dr. W. D. J. Morris	0	10	[illegible]
Dr. Herbert Vachell	1	[illegible]	[illegible]
Dr. Thomas Wallace	1	1	[illegible]
Dr. William Sheen	1	1	[illegible]
Dr. William Martin	0	10	6
Dr. R. Tudor Thomas	0	10	6
Dr. T. Garrett Horder	0	10	6

The object and particulars of the fund were stated in our columns last week, p. 160.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page S4.

CAN CONTRACT PRACTICE BE ABOLISHED?

DR. A. Y. FULLERTON (Murrurundi, N.S.W.) writes: Is there a chance that within a reasonable period of time contract work will be universally abandoned by the profession? There is no doubt in my mind that all our misfortunes arise from the ridiculous payments received by practitioners from their lodges. Not only that, but the attitude of the lodge patients towards their contracted medical men is so different from that observed in patients who pay decent fees. I know I often find their conduct unbearable and I have no doubt any man of spirit must feel the same. Is it hopeless to try and stir up the few men at the top who trouble their heads about those near the bottom to join in a crusade and down all contract work? Surely we can make out fees small enough to suit all pockets without binding ourselves body and soul to the extortionate demands of people who in the majority of cases have no right whatever to this quasi-benevolent form of medical treatment.

MEDICAL NEWS.

The Royal Dental Hospital, Leicester Square, has received a donation of £100 from the Worshipful Company of Goldsmiths.

The municipal authorities of Marburg have decided to found an institution for the treatment of persons suffering from cancer. The directorship of the institution will be offered to Dr. Opitz, Extraordinary Professor of Gynaecology, who is reported in the daily press to have discovered a new method of treating cases of cancer hitherto deemed incurable.

A hospital devoted to the study and treatment of tumours, especially malignant tumours, has recently been opened in Philadelphia. The medical staff includes Dr. Boardman Reed, Dr. Addinell Hewson, Dr. G. Betton Massey, and Dr. Howard R. Swayne, men whose names give promise of sound clinical and scientific work.

Aggressive Quackery.—The combined nature healing associations of Thuringen are, it is said, about to present a mass petition to the governing body of the University of Jena, asking for the establishment of a chair of their special variety of quackery in that famous seat of learning.

Moorfields Eye Hospital.—The report presented to the annual general meeting of the Royal London Ophthalmic Hospital Guild stated that two new centres had been formed at Bury St. Edmunds and Pinner respectively. The members of the guild now number 200, with 100 associates. The guild has been able to help with blankets, coverlets, and sheets, and during the last two years has maintained a cot and woman's bed, and has replenished the nurse's library.

The Light Treatment in Italy.—The first light institute in Italy will shortly be opened at Florence. The institution owes its foundation to the initiative of the well-known dermatologist, Professor Pellizzari, who was able to secure the co-operation of an influential committee. The King of Italy and Queen Margaret have given generous support to the institution, and contributions have also been received from the authorities of the Commune and Province of Florence, from the Florentine Committee of the Italian Antituberculosis League, and from a large number of private persons.

British Hospital in Constantinople.—A new British Seamen's Hospital, with accommodation for fifty patients was as opened at Constantinople on January 19th in the presence of a large gathering of members of the British colony, representatives of British maritime and commercial interests, of the medical profession, and several members of the Diplomatic Body. The President of the Pera Municipality was also present. Mr. Townley, the British Chargé d'Affaires, said the institution was an honour to the country and the British name. Lady Susan Townley then unlocked the main entrance of the hospital. The hospital, which both in structure and equipment embodies the most modern principles, is said to have cost over £30,000.

The Pharmaceutical Society of Great Britain.—The Council of the Pharmaceutical Society of Great Britain has resolved, we learn from the *Times*, that the Pharmacy Acts Amendment Bill shall be introduced into the House of Commons at the earliest opportunity. The Council proposes a clause to prohibit absolutely the use of the title of "chemist" or "druggist" or "chemist and druggist" by limited companies, and to prevent such companies carrying on the business of a chemist and druggist unless one of the directors of the company, and all assistants in charge of branch shops, are duly registered chemists. Further, anything which would be an offence under the Pharmacy Acts, if committed by an individual, will, according to this clause, be an offence for which all the directors of a limited company will be liable, if done on behalf of the company. The Bill will probably be introduced by Mr. T. Lough, M.P., and a large number of members on both sides of the House have already promised their support.

Losses of the Medical Staff of the Japanese Navy.—The *Sei-I-Kwai Medical Journal* of October 31st states that, according to the returns made to the Medical Department of the Imperial Navy of Japan, the total number of naval officers and men killed and wounded up to the end of September was 2,321. Of these, 655 were slightly and 556 severely wounded, 1,022 killed, and 88 missing. The losses of the medical staff were 6 surgeons killed or drowned, 1 chief medical attendant killed or drowned, 8 medical attendants killed or drowned, and 4 wounded. Six surgeons were attacked by infectious diseases, 2 assistant surgeons by typhoid fever, and 13 medical attendants by dysentery and typhoid fever. All these recovered.

International Antialcohol Congress.—The tenth International Antialcohol Congress will be held at Bucharest this year from September 12th to 17th. Among the questions proposed for discussion are the Sunday closing of public-houses and drinking saloons and the expediency of founding a workmen's total abstinence league.

The Immunization of Dogs Against Distemper.—Mr. Henry Gray, M.R.C.V.S., has vaccinated over 700 dogs against this disease with very successful results. The specific microbe of distemper is easily obtained in a pure state from the blood of the distempered dog, when killed in the early stage of the disease, before secondary infections have set in. When grown in artificial cultivation its virulence is quickly reduced by employing 6 per cent. glycerinated bouillon as the culture medium. The attenuation is progressive, according to the age of the culture, and by reinoculation into ordinary bouillon various degrees of attenuation can be obtained. To obtain the best results it is often desirable to use three vaccines of graduated virulence, commencing with the weakest. The second may be inoculated a fortnight after the first and the third a month after the second.

Mortality among Medical Practitioners in America.—During 1904 the deaths of 2,142 medical practitioners in the United States and Canada were recorded in the *Journal of the American Medical Association*. This represents a mortality of 17.14 per 1,000. The average age at death was over 60 years, and the average length of practice over thirty years. The list includes not only orthodox practitioners, but members of the so-called "schools" which are recognized by State Boards of medical examiners. The statistics are incomplete, as in 954 cases there was no indication of the cause of death, or the cause assigned was so obscure or so manifestly incorrect as to be valueless; in 421 the age was not given, and in 288 the number of years of practice was omitted. In 1902 our contemporary chronicled the deaths of 1,400 regular practitioners, and in 1903 the deaths of 1,648 practitioners including homoeopaths and eclectics. Thus, the mortality rates have been: 1902, 14.74 per 1,000; 1903, 13 73; 1904, 17.14. During 1904 the American Medical Association lost by death 166 members. Heart disease leads the death causes with 205; these of course include sudden deaths stated to have occurred from "heart failure," etc. Of the deaths due to cardiac disease, 16 were from angina pectoris and 3 from fatty degeneration. Cerebral haemorrhage, which includes "paralysis," "apoplexy," etc., caused 179 deaths. Pneumonia heads the list of clearly-defined diseases with 172 deaths, or 7.5 per cent. of the total mortality. Nephritis, including "kidney disease," was responsible for 91 deaths, and uraemia caused 16. Tuberculosis is said to have been the cause of 90 deaths, all but 8 of which were from tuberculosis of the lungs. Cancer caused 39 deaths; typhoid fever, 37; septicaemia, chiefly from operation wounds, 23; diabetes, 20, gastritis, 16; appendicitis and meningitis, each 15; bronchitis and insanity, each 11; haemorrhages and peritonitis, each 9; asthma, influenza, locomotor ataxia, paresis, rheumatism and gangrene, each 6; erysipelas, 4, and diphtheria and scarlet fever, each 3. Of the total number of deaths, 143 were due to violence of one kind or another. Of these deaths 95 are chargeable to accidents, 36 to suicide, and 12 to homicide. Under the head of accidents, poison caused 21 deaths; railway accidents, 17; falls, 14; drowning, 10; street-car accidents, 8; runaways, 7. Of 36 practitioners who committed suicide 14 used poison; 11, firearms; 3, haemorrhages from cut arteries; 2, asphyxiation by gas; 1, drowning; 1, hanging. In 4 cases the method employed was not stated. During 1904 12 practitioners were murdered; this is 3 more than in 1903, and 1 less than in 1902. Of the 12, 10 died from gunshot wounds, 1 was stabbed, and in 1 case the cause was not stated. The ages of the practitioners who died varied between 22 and 104 years, the average being about 60 years. The largest number of deaths —57—occurred at the age of 60; followed by 51 at the age of 70; 45 at the ages of 65 and 68 respectively; 43 at the age of 67; 41 at the ages of 75 and 76; and 40 each at the ages of 72 and 73. Above the age of 70, 596 deaths occurred; above the age of 80, 241 deaths; above the age of 90, 19 deaths; and 3 practitioners had passed the age of 100, the oldest on record being 104.

British Medical Journal.

SATURDAY, JANUARY 28TH, 1905.

COMPULSORY GREEK.

THE question whether Greek should be retained as a part of the requirements for a degree in arts has lately been the subject of considerable discussion both at Oxford and at Cambridge. The battle has been raging intermittently for more than thirty years. The reformers who, in the interest alike of the Universities and of an increasing number of students, ask for an alteration that would make Greek an optional instead of a compulsory subject, have so far been beaten; but the cause which they advocate has in recent years been steadily gaining adherents both among schoolmasters and among leading representatives of classical and other branches of learning at the Universities. From a report of a conference held on April 25th, 1904, between the Studies and Examinations Syndicate of the University of Cambridge and representatives of the Incorporated Association of Assistant Masters in Secondary Schools[1] it appears that the opinion of the Association as a body was that Greek should not be compulsory for any class of students. It is added that "it was afterwards stated incidentally that 98 per cent. of the members of the Association belonged to smaller schools in which Greek is at present no part of the regular curriculum." This statement seems to be regarded by some champions of compulsory Greek as putting the opinion of the Association out of court. To us, on the contrary, it appears to be the expression of a fact which must be reckoned with by the Universities, unless they are content to see the mass of students seek degrees at seats of learning whose portals are not closed against them by the rusty locks of a rigid conservatism. Even at Eton, the chief among the stately homes of classical studies in this country, the number of boys who go on to the universities is said to be steadily declining, and this is attributed by those who ought to know to the fact that compulsory Greek stands like a lion in the path. It is particularly in the case of intending students of science and medicine that it acts as a deterrent.

As far as can be ascertained from the reports of syndicates and conferences, and from the copious and somewhat heated correspondence which has recently appeared in the *Times*, the general feeling of university educationalists is in favour of making degrees more easily accessible to students whose early training has not been directed along the classical groove. The opposition comes mainly, as might be expected, from the non-resident members of the universities who, having themselves been schooled in the old learning, wish to impose the same discipline on all who come after. At Cambridge the question will come before Convocation early in February, when it is expected that the country clergy, who form a large proportion of the non-resident voters, will muster in force in defence of the Greek which probably most of them have forgotten. On the other hand, the medical graduates of Cambridge are now no longer a negligible quantity, and if they will take the trouble to vote for the relief of the overburdened student who is anxious to avail himself of the splendid opportunities of scientific training offered by their university, they may turn the scale in favour of reform.

It is unnecessary here to argue at any length the question whether Greek should continue to be compulsory. No useful purpose, educational or other, can be served by making all students pass under the same linguistic yoke. Of the value of a training in exact scholarship there can be no doubt; it prepares the mind, as scarcely any other branch of study does, to grapple with intellectual problems of the most diverse character, and the want of the discipline it affords is often painfully manifest in medical writings, where slovenly thought is made more confusing and irritating to the reader by obscurity of expression. But if we follow Johnson's advice and clear our minds of cant, we must recognize that Greek, as it is generally taught, is of no educative value whatever. The majority of boys, even at the best schools, do not learn Greek at all. They get by rote, more or less correctly, a few "vocables," as Carlyle would have said, and after some years spent in that unprofitable exercise they can, perhaps, with the help of a "crib" or a lexicon, stumble through a few easy sentences of Xenophon. But of Greece, "the sapient nurse of finer arts," of the wonderful people who have left the ineffaceable impress of their thought on the human mind, of their life, and of their language as it lived on the lips of poets, orators, and philosophers, they know nothing. How many men who have been through the usual school course and have taken a pass degree at the university have, after a few years, anything but the most shadowy recollection of the Greek in the acquisition of which so large a part of their early life was spent? It is on record that in our campaign in Abyssinia an officer in command of the advance guard, wishing to send an important message to head quarters, wrote it in Greek characters, which the united efforts of three distinguished officers, all of whom were supposed to have learnt Greek at school, failed to decipher. Is it, as the elder Weller said of matrimony, worth while to go through so much to learn so little? If we look the facts fairly in the face, may we not say of the knowledge of Greek that is gained by compulsion what Rousseau said of cloistered virtue, that it is not worth preserving?

The plea that, if Greek be removed from the list of compulsory subjects at the Previous or other preliminary examination for admission to a degree, the study will be abandoned, cannot be taken seriously. A language which is the key to so much of what is noblest and most beautiful in literature will always find eager students for its own sake. Moreover, as a famous Oxford scholar said, Greek offers many substantial rewards to its devotees; as long as scholarships and fellowships are to be won by means of it there is no fear of its being neglected. Greek scholarship may safely be left to take care of itself. In any case it is difficult to see how insistence that all who wish to get a degree shall show a faint and fleeting knowledge of the mere elements of the language can help to keep the study of it alive.

The question which the University of Cambridge has to decide for itself is not whether Greek is to be thrown overboard, but whether it is to be retained as an optional instead of a compulsory subject. The proposal is to allow

[1] First Report of the Studies and Examinations Syndicate: *Cambridge University Reporter*, November 11th, 1904. Appendix K., p. 217.

candidates to offer French or German as an alternative to either Latin or Greek, one of which will still be required. This, it will be seen, is by no means equivalent to the abandonment of Greek; indeed, the Head Master of Winchester has said that he is "not sure that if a candidate were allowed to offer either Greek or Latin, in course of time Greek would not become the more popular subject." However this may be, we hope that all who intend to follow medicine, which still ranks as one of the learned professions, will continue to learn at least as much Greek as may help them to understand the terminology of their science; and, if they have the good fortune to make discoveries, to describe them in words that will not make the classical scholar "stare and gasp." But it is surely a degradation of the finest instrument devised by man for the utterance of thought to retain it where it can serve no better purpose than to be a stone of stumbling on the way that leads to university degrees.

FATIGUE.

PLUTARCH has left us the name of the runner—the famous Eukles—who carried the news of the victory of Marathon to the gates of Athens, when the Greeks under Miltiades in 490 B.C. overthrew the might of Persia under Darius. The distance of Marathon from Athens is twenty miles, and Eukles, exhausted by his exertions, had but power to call out to his compatriots "Χαίρετε χαίρομεν"—announcing the victory—when he fell dead. Kruse's statue in Berlin represents the runner as he is running at full speed; the body is thin and supple, the face has an anxious longing expression, the head is slightly raised, the left hand grasps the left breast in the region of the heart, the thin spare chest—in which one can distinguish the outlines of the ribs—is in the position of inspiration, while the whole figure gives one the idea of complete exhaustion, as if the man would instantly collapse. Here we have fatigue merging into over-stimulation, exhaustion, and death.

On the mental side Cervantes gives us a picture of the immortal knight of La Mancha, who became so infatuated with the study of works on chivalry that he passed whole days and nights over these books, and thus "with little sleeping and much reading his brains were dried up and his intellects deranged." Be it noticed that Cervantes gives due prominence to the importance of "little sleeping." Fatigue is the consequence of over-exertion, and results in part from the excessive functional activity of the organ primarily concerned, but this in its turn may involve other organs not directly associated with the overworked organ, the connexion being maintained either through the influence of the nervous system or by the blood stream. The phenomena of fatigue, therefore, will be as varied as the organs manifesting this condition. All our organs conform to one general law, that an adequate stimulus, frequently repeated without due intervals of repose, produces fatigue, and ultimately exhaustion. From the sensory aspect of the question, fatigue is a sensation, a feeling or sense of weariness or tiredness which marks inability for further exertion either physical or mental. There is a diminution of the power of exertion, accompanied by more or less definite sensations of what we call fatigue which seem to affect every part of the body. Fatigue from this point of view falls into the same category of sensations as hunger and thirst. It is essentially a protective mechanism giving us warning as to an injurious condition. This point has been well brought out by Sir William Gowers in his recent article in the *Quarterly Review*. Perhaps absolute fatigue never occurs, because the painful sensations prevent complete exhaustion of the reserves. Indeed, our sensation of fatigue does not increase directly with the amount of work done, but in a more rapid ratio. Every extraordinary effort has to be paid for eventually.

What is Nature's great yet simple method for the avoidance of fatigue? It is rhythm. A period of activity is followed by a period of repose or rest, a period of restitution of matter and energy if it be considered as a metabolic problem. The sustained rhythmical beating of cilia is thus made possible. The heart and the diaphragm in their rhythmical cadence teach the same lesson. The heart puts in a period of rest immediately after the exertion of each of its chambers, while it is guarded by nerves which further control its activities, and thus we can explain why "a harp of thousand strings should keep in tune so long." Rhythm is the secret, length of days is the result. Voluntary movements with sustained attention are particularly fatiguing. Who has not experienced the fatigue, and even something more, from a too arduous study of the pictures in the Academy or in a picture gallery? When we consider the interest awakened, the attention given to the study of minute details of the pictures successively presented to the eye, the neuromuscular efforts necessary to raise the head often to pictures above the line, to elevate the upper eyelids, to turn the eyeballs upwards on a horizontal axis, and it may be to converge them, and in addition the strain on the ciliary muscle, we have the co-ordinate action of a series of mechanisms which soon become fatigued, and make their possessor conscious of their condition and warn him to halt and seek repose.

In the broad sense, during fatigue of any organ, matter and energy are used up more quickly than they are supplied so that restitution lags behind waste. It is not, however, the mere using up of matter and energy which causes fatigue. It is not so much the amount used up as the rate at which it is used up. Emphatically, it is "the pace that kills." Shortly after the middle of last century, Ranke showed that certain waste products were produced in muscle, which acted as "fatigue products," and among these he instanced lactic acid. Fatigue, therefore, is largely a chemical problem. Before this, however, in 1845, Helmholtz, in one of his earliest papers, showed that the watery extract of a fatigued muscle was diminished while the alcoholic extract was increased by about 30 per cent. It is plain, therefore, that even from the point of view of metabolism the causes are complex. Fatigue is due not only to the want of something, but also to the presence of other bodies. We may assume that organs in great activity produce toxic products which pass into the blood stream, and these, reaching a certain concentration, affect prejudicially other and remote organs. In this way one can explain why a long walk, where the incidence of work falls on the muscles of the legs, after a few hours affects all parts of the body. The person is "tired and sore all over." These toxic products give rise to the pyrexia of the young Alpine climber and are the cause of "gymnasts fever." We are in the habit of pointing to certain glands with or without ducts as producing "internal secretions" which they discharge into the blood or lymphatics. To all intents and purposes these toxic products of muscle, and it may be of nervous tissue as

well, are internal secretions, only they are the products of the metabolic activities of a complex motor organ, and not of a glandular. Indeed, Ranke, by washing out the blood vessels of a fatigued muscle with normal salt solution, and then by removing these products, partly restored the diminished excitability of the muscle.

The researches of Ranke, Abelous, Langlois, Mosso, and others have shown that extracts of fatigued muscles, or the blood of a fatigued dog, when injected into the blood vessels of a fresh, unfatigued, healthy animal, produce all the symptoms of fatigue in the previously fresh animal. Nothing can illustrate better than the phenomena of fatigue the "interdependence" or "oneness" of the body. "Touch one touch all" is the motto of the body corporate. It is plain there may be a local fatigue as well as a sense of general tiredness. The fatigue products produced locally in muscle probably act on the numerous sensory nerve terminals which are now known to exist in muscle, and excite painful sensations which warn us as to the local state of affairs, while the further action of these toxic bodies may affect the end-plates or junction between nerve fibre and muscle—the weakest link in the peripheral chain—and thus afford us a doubly protective mechanism. If local fatigue be carried too far a general poisoning of the whole system is the result, with phenomena very like those of the acute infectious diseases. But while the presence of these toxins in large amount clog and poison the machinery they are not the sole cause of fatigue. The chief cause is the progressive diminution of the substances that are necessary for the manifestation of energy, resulting in a gradual diminution of the irritability of the living substance. This side may be represented by the famous "peau de chagrin" or "wild ass's skin" of Balzac. The possessor of the famous "peau de chagrin" could obtain whatever he wished for, but every wish gratified resulted in a certain shrinkage of the skin commensurate with the magnitude of the wish so gratified, and there was no means of restitution. In view of this double process, it has been proposed to distinguish between those two causes, and to term that state which results from consumption of the substances necessary to the manifestation of activity, exhaustion, and to reserve the name of fatigue for that condition resulting from the accumulation of and poisoning by toxic decomposition-products. It is difficult to separate the two processes, as they occur simultaneously, the one being the reflex of the other.

There is, however, a method by which these results may be separated. If the fatigue products are toxins, it ought to be possible to produce an antitoxin. This has been attempted by Weichardt of Berlin. It is very difficult to obtain considerable quantities of fatigue toxins. In completely fatigued guinea-pigs or rabbits the temperature falls very greatly just before death, which is preceded by sopor, dilatation of the pupil, etc. From the muscles of such an exhausted animal a fluid can be expressed which contains a toxin. If this be injected into a fresh animal all the symptoms of profound fatigue are produced. The muscle juice of the fatigued muscle produces the same results after the removal of proteids and dialysis of the diffusible substances. The fatal toxic products of fatigued muscle are unstable, becoming atoxic after eight days. The poison is to be classed amongst the autointoxication toxins. It can be counteracted by a specific antitoxin. By the injection of the toxin into the blood vessels of a horse, an antitoxic serum is obtained which prevents the toxic effects which are produced by toxic fatigue products. The antitoxin in contradistinction to the toxin itself is a resistant body, which can be kept for a length of time. These researches open up an important chapter in the physiology of the process of fatigue. If it is possible to diminish some of the sensory phenomena of fatigue by the introduction of antibodies, either by the mouth or subcutaneously, obviously a very important adjuvant will be added to the group of restoratives.

PAUPER INEBRIATES FROM THE ECONOMIC POINT OF VIEW.

DR. BRANTHWAITE, in his recent report as Inspector under the Inebriates Act, to which reference was made in a recent issue, while promising us further facts, makes some interesting suggestions on the financial aspect of the question of the detention of inebriate persons in reformatories. The whole subject of the treatment of inebriety is so new and also so difficult that any but experts may be pardoned for an imperfect understanding of the matter. It is, however, the duty of every ratepayer, whether medical or lay, to try to understand exactly for what he pays, otherwise he is hardly in a position to complain. The clinical findings given in the report by those engaged in supervising the 1,012 persons at present under detention in the State reformatories would seem to leave the duty of the State towards them beyond question. They must be segregated, assisted, and controlled. There is not even at the present moment any question of where, or how, the places are prepared, and in them treatment is assuredly being excellently carried out. But a considerable number of people still remain in doubt as to the expediency of spending public money on what is after all an uncertainty. They forget other uncertainties for which they also pay, and they desire in this case a guarantee that reform should be secured. Otherwise three years of strenuous and continued effort on behalf of the individual inebriate seems to them a waste. It seems a long and costly business, and, after all, it is argued, the money is being spent on persons who but for their vice should be supporting themselves, and who, if they are being taken in hand at all, should be given the most penal, uncomfortable and cheap form of detention which is all they deserve or are worth.

This primitive view probably furnishes, as Dr. Branthwaite points out, at least one of the reasons why hardly a fraction of those persons for whom the Act provides, and who must undoubtedly be subjects for its application, have come under treatment. In combating this view Dr. Branthwaite gives it as his opinion that the cost and expenditure of reformatories will compare favourably with similar outgoings in prisons, asylums, and workhouses, and he lays stress on the probability that if any inebriate who ought to be in a reformatory is not costing his country anything through that channel, he is assuredly costing it as much, if not more, elsewhere. The report says: "Any reasonable amount of money which may be spent on the detention of inebriates cannot in any sense be considered an additional burden upon public funds or in the light of expenditure which might be saved by allowing the Inebriates Act to become inoperative. Habitual inebriates are not created by the Acts in question; they have always been with us, and until we can reduce their number will always continue to be a cause of serious expense to the country."

A case is quoted which brings Dr. Branthwaite's contention home. A woman aged 55 was committed to a reformatory in 1902, after having been charged before the magistrates 315 times. "Her police-court history, so far at least as is known, extends over thirty-six years, of which she spent in the aggregate twenty-three years in prison—twenty-three years—and yet we are questioned whether three years in a reformatory is justifiable." . . . "She is now a hopelessly degraded, feeble-minded woman, without any possibility of reformation or improvement in the future, and an excellent example of the result which follows multiple short penal sentences. I cannot understand why she was not dealt with when the Inebriates Act first came into force in January, 1899; that would at least have spared her forty-five appearances before the court, about twenty-two months of useless imprisonment, and eight journeys to the union."

Dr. Branthwaite suggests that the expenses incurred by keeping these persons in prison, by the damage they cause to person and property when at liberty, by their share in the cost of the police force, by their calls upon the services of police surgeons, and by the cost of legal proceedings generally, are very considerable. In addition, he reminds us that most of these persons bring into the world families of legitimate or illegitimate children, whom they neglect or never support, and who in their turn often become charges on the rates.

From across the Atlantic comes similar testimony. In an able paper Dr. Lewis D. Mason bears out Dr. Branthwaite's contentions as to the extravagance and entire futility of the penal method of dealing with these cases. Dr. Mason has carefully analysed the police statistics of four large American cities—New York, Chicago, Philadelphia, and Boston. He found that in these cities about one-half the total arrests for all causes were for drunkenness. Fifty per cent. of these were rearrests. The cost to the city of Boston in 1898 was 210,494 dols. for 26,156 arrests, or about 8 dols. each arrest. One-half of these were rearrests, retrials, or recommittals of persons who had been arrested from two to fifty times each. The arrests for drunkenness in New York City for the year ending June, 1902, were 71,573, or over half the total arrests, and fully 50 per cent. of these were rearrests and recommittals of the same persons who had been arrested and committed from two to seventy-five times each. Fifty per cent. of this expense was, therefore, unnecessary, and would have been saved if the individuals well known to the police could have been arrested and incarcerated once only annually. Dr. Mason also points out that the person detained on a longer sentence could have been made to contribute materially to his own support—an impossibility under the short-sentence method.

Dr. Mason considers that "the 'long-term commitment,' with a judicious use of the 'probation method,' as practised and recommended by the Boston authorities, and the 'parole system,' as used in our penal institutions and insane asylums, would solve the problem of the civic care of the pauper inebriate and lessen both the State and municipal expenses as to his control." In this country we have the full mechanism of this procedure already at work. Experts have succeeded in rousing the English public to a practical sense of its responsibilities. The inebriates exist (probably figures, if they could be obtained, would show a condition of things in this country analogous to that obtaining in America), only in this country the reformatories exist for a good proportion of them. The remaining thing needful appears to be a "realizing sense" of their responsibility on the part of those whose duty it is to bring the inebriates to the reformatories. The inspector would seem to be amply justified in his surprise at their attitude in the matter, even from the aspect of £ s. d.

THE "SUPPLEMENT."

THE SUPPLEMENT for this week contains a report of the proceedings of the Council of the Association at its meeting on January 18th. As already announced, the business was not concluded, and the Council will meet again on Wednesday, February 15th, at 2 p.m. In the SUPPLEMENT is published also a list of members elected to the Association during the last three months, showing the Branches to which they severally belong. In addition, reports of meetings of Branches and Divisions, lists of medical vacancies and appointments, together with the diary for the week and the Association calendar, will be found in the SUPPLEMENT.

BIRTHS AND DEATHS IN ENGLAND AND WALES.

IN another column we are enabled, by the courtesy of the Registrar-General, to publish the birth-rates and death-rates, together with the death-rates from the seven chief epidemic diseases, and the infant mortality death-rate in England and Wales for the year 1904. It will be seen that the decline in the birth-rate which has been observable for so many years past has continued; the birth-rate for England and Wales in 1903 was 28.4 per 1,000 living, in 1904 it was 27.9. The decline is observable to an almost equal extent in rural districts and in the seventy-six great towns, the smaller towns having remained apparently stationary. There is, unfortunately, no satisfactory evidence that the infant mortality is declining; in fact, the rate in 1904, which was 146 per 1,000 births, was considerably higher than in 1903, when it was 132. The most discouraging fact is that there is a decided increase in the infantile mortality in the seventy-six great towns, although the climatic conditions of last summer did not favour any prolonged prevalence of epidemic diarrhoea.

MEDICAL WITNESSES' FEES.

A STORY reaches us from one of the Midland towns of a very shabby attempt on the part of the local police authorities to take advantage of one of the regulations in the new scale of witnesses' fees, so as to reduce almost to vanishing point the fees paid to medical men for giving evidence instead of considerably increasing them, as the Home Secretary declared would be the effect of the new scale. It appears that hitherto one of the medical practitioners in the town had been accustomed to examine children and the houses in which they lived under the Cruelty to Children Act, and was allowed 10s. 6d. for his examination and 10s. 6d. for giving evidence at the police-court in each case, never having had more than two cases at the court in one day. Recently, however, he was asked by the police superintendent to visit nine houses, and examine their condition and that of the children living in them. He advised that steps should be taken to prosecute in seven of these cases, and this necessitated his appearing to give evidence seven times in one day. On applying for his fees he was offered 2 guineas in all for his examinations and evidence, and told that the law did not allow of his being paid more. Here, however, the police authorities were decidedly wrong, since the new rules make no mention of what fees are to be paid for "qualifying to give evidence," and the medical witness was clearly entitled to half a guinea for examination in each of the seven cases, and 2 guineas for giving evidence in more than one case, making 5½ guineas in all. For the future medical men in this district will probably decline to make examinations unless assured that they will be paid for each of them, and will possibly not find time to make more than two such examinations in any one week.

TYPHOID FEVER AND SEWAGE WORKS.

IN the *Journal of the Royal Army Medical Corps*, January, 1905, Lieut.-Col. R. H. Firth, R.A.M.C., deals with an unusual cause of enteric fever infection, which is of interest in connexion with sewage disposal. He ascribes the infection in one case at Aldershot to the fact that the boy attacked had been meddling with the spreaders of a Stoddart filter in which at the time there were the specific germs of enteric fever. It must be confessed, however, that the chain of evidence is by no means conclusive and that other sources of infection are not satisfactorily excluded, for, although it is stated that after close investigation no other source could be ascertained, it is also stated that there were other cases occurring about the same time of which it is not suggested that the infection was in any way due to the cause alleged in this case. It is well, however, to have on record such a case, which, at least, points to the possibility of infection from biological filters. Few definite observations have been made in this direction. The matter was inquired into by the Royal Commission of 1865, but they found no evidence of ill health caused by sewage works. As a matter of fact it has often been remarked that men working on sewage works are remarkably free from diseases such as enteric fever and epidemic diarrhoea, and the same holds good of their families in cases where they live in close proximity to the works. There are cases where enteric fever has been caused by drinking the effluent from sewage works, and this, of course, is to be expected, knowing as we do from Dr. Hunter's experiments reported to the Royal Commission now sitting that intestinal bacteria can easily escape in such effluents. The subject is one which needs investigation, and it would be well if all cases like this could be thoroughly investigated and reported. If the Association of Sewage-works Managers would report every suspicious case coming within their ken to the medical officers of health of their districts some useful information might be in time compiled.

THE EVOLUTION OF PUBLIC-HEALTH ADMINISTRATION.

THE development of sanitary legislation is largely a history of protecting people against themselves, and this, of necessity, is a slow and gradual process. In this country the change is progressing in many directions, but less perceptibly than in the British Colonies. To observe the process of evolution, or the slow broadening down "from precedent to precedent," it is necessary to study the modern history of a new world. An excellent example is afforded us in Tasmania. In January, 1904, the Public Health Act of 1903 came into operation, and replaced the old Central Board of Health by a department of public health controlled by a chief health officer, to whom were deputed the powers and functions of the late Board, together with certain additional duties. We now have before us the first half-yearly report of Dr. J. C. S. Elkington, the chief medical officer. There were at that time 73 local authorities nominally existing. But it was found that only 45 of them possessed rating powers, 28 being Boards of Health in name only, with no powers of raising revenue to carry out sanitary duties. Moreover, only 16 of the 45 authorities possessed medical officers, and only 26 possessed qualified sanitary inspectors. A large number availed themselves of the services of the police for the execution of sanitary measures. Many of the "authorities" had no sanitary by-laws. The result of such conditions may readily be imagined. In one large county town the inspector's report—he was a police officer—stated that some 140 premises had been inspected in the previous month and all found satisfactory, but when 25 of these were properly inspected by the chief medical officer it was found that only 1 was even in a moderately sanitary condition. This matter of efficient sanitary inspection is receiving attention under the new Act. Vaccination is also being pressed forward, and attention is being given to the control of food supplies, especially milk. Both these subjects demand early attention in view of the small-pox outbreaks and food-borne disease which have occurred. Special work is being inaugurated for the prevention of tuberculosis, and the importance of supervision of dairy cattle and the use of the tuberculin test is emphasized. The Government veterinarian carried out one series of tuberculin tests upon a "Government herd" of 24 dairy cattle, with the result that "16.6 of these animals were found to be suffering from tuberculosis." If this were to be taken as in any degree indicative of what obtains generally in the colony, which probably it is not safe to do, the time is indeed at hand for vigorous measures, for the percentage (66) is 12 more than the highest Geddes found in testing herds in this country. Possibly the medical officer means 16.6 per cent., but it is not so stated. Steps are also being taken to provide isolation hospitals for infectious disease, and the medical officer concludes his report with a list of seven desiderata, including a steam disinfecting machine, a properly qualified and experienced sanitary inspector, funds for active administration of the Vaccination Act, legislation for control of milk supplies, and provision of bacteriological facilities. The entire report furnishes a most interesting illustration of the evolution of sanitary administration from a condition of primitive inefficiency to one in which modern requirements are met.

IMITATIVE SUICIDE.

SOCIAL as well as physical diseases are catching, and it is one of the few disadvantages of a cheap press that the public is familiarized with the details of private crimes, notably of poisoning and other forms of murder. Occasionally, eyes which might be far better occupied, pore over the details of a robbery, a murder, or a suicide until the impressed mind becomes obsessed with a desire to go and do likewise. The recent discovery of a human skeleton, found upon inquest to be that of a man who shot himself six months ago in a wood at Lugershall, led to the statement by his acquaintances that a similar suicide, which was universally discussed last year, had preyed upon his imagination and probably had culminated in a subconscious suggestion that he should destroy himself in a similar manner. Akin to such crimes are the numerous false confessions which follow the wide publication of facts of any crime of importance. Such self-accusers are often the victims of hysteria and melancholia, and accounted for many of those who claimed to have been bewitched in the olden days. Many cases are recorded where the same weapon has been used to effect several successive and similar crimes. It is thus a wise rule, apart from its forensic origin, to facilitate the production of real testimony when and if later demanded, for the coroner to confiscate pistols, knives, and other exhibits, which if handed back to the witness by the police would be the morbid centre of a passing curiosity, even if they did not lead to greater imitative evils. Many cases are on record which justify King John's reflection:

> How oft the sight of means to do ill deeds
> Makes ill deeds done!

ARSENIC IN THE AIR OF LARGE TOWNS.

MR. WILLIAM THOMSON, F.R.S.E., F.I.C., of the Royal Institution Laboratory, Manchester, has made experiments[1] which appear to show that arsenic is ordinarily present in the urine of people living in Manchester, and by presumption of those living in other large towns. The method employed rigorously excluded all chances of the arsenic found being derived from the reagents or apparatus employed. Specimens of the urine from six patients in the Manchester Southern Hospital were found to contain arsenic varying in amount from $\frac{1}{50}$ to $\frac{1}{1000}$ gr. a gallon. The former amount was obtained from the urine of a woman, aged 47, who had been thirteen days in the hospital, had lived on simple food, and had taken no medicine during that time. In investigating whether solid or liquid articles of diet could be the source of the urinary arsenic, an experiment was made as to

[1] *Mem. and Proc. of Manchester Lit. and Philosoph. Soc.*, 1904, vol. xlix, part 1.

the rapidity of the elimination of the drug from the body. A man, aged 24, a teetotaler, whose urine on January 22nd, 1904, contained $\frac{1}{30\,0\,0}$ gr. per gallon, and on April 18th $\frac{1}{10\,0\,0\,0}$ gr.; was given $\frac{1}{6}$ gr. arsenic trioxide in solution on April 20th, 1904, at 4 p.m.; one hour later the urine contained $\frac{1}{8\,0\,0}$ gr. per gallon, after seven hours $\frac{1}{3\,0}$ gr., after sixteen hours $\frac{1}{6}$ gr., after nineteen hours $\frac{1}{3\,0}$ gr., and after twenty-three hours $\frac{1}{1\,0\,0}$ gr., the total amount eliminated during the twenty-three hours being estimated at 16 per cent. of the total quantity taken. A sixth and last sample tested after forty-seven hours contained $\frac{1}{2\,0\,0\,0}$ gr., being the amount present before the drug was administered. As it seemed probable that the arsenic found in the urine of people living simply and taking no alcoholic liquor might arise from breathing the air in large towns, five samples of urine from persons living in a convalescent home in the country were examined; four of these were free from arsenic, and one contained $\frac{1}{1\,1\,0\,0}$ gr. per gallon. Of three samples taken from children in the Northern Hospital for Children, Manchester, all being fed on a milk or bread and milk diet, one showed $\frac{1}{2\,0\,0}$ gr., another $\frac{1}{1\,0\,0\,0}$ gr., and the third, from a child who was taking milk alone, but that in large quantities, showed no arsenic. The soot from a domestic chimney contained 1.5 gr. per lb., and two samples of house dust from Leeds contained 0.4 and 0.3 gr. per lb. respectively. Five samples of urine obtained from persons who had been working in the glass factories of St. Helens, where the vapour of arsenic is used in the processes, contained either $\frac{1}{3\,0\,0}$ or $\frac{1}{4\,0\,0}$ gr. per gallon. Six specimens obtained from the metal works of Swansea gave amounts varying from $\frac{1}{3\,0}$ to $\frac{1}{8\,0\,0}$ gr.; others from persons working in Sheffield gave amounts from $\frac{1}{1\,0\,0\,0}$ to $\frac{1}{4\,0\,0}$ gr., and six samples from persons living in the Hebrides, where peat alone is burned, were absolutely or practically free from arsenic.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

THE new chairs of helminthology and protozoology at the London School of Tropical Medicine, to the establishment of which attention was recently called in the BRITISH MEDICAL JOURNAL, have been filled by the appointment of Mr. Robert Thomson Leiper to the former and Mr. W. S. Perrin to the latter. Mr. Leiper, who was selected from a list of thirty-seven candidates, had a very distinguished career at the University of Glasgow, where he graduated as M.B., B.Ch. While still a student he gave much attention to biology and investigated the minute structure of many parasitic forms among the lower animals and more particularly of marine parasitic worms. He read a paper on a new parasitic worm found in *Echinocardium cordatum* (Penn.) at the Belfast meeting of the British Association. A descriptive account by him of "Avagina incola," with a note on the classification of the Proporidae, was published by the Zoological Society of London in their *Proceedings* for 1904. During the last winter session of the Glasgow University Medico-Chirurgical Society he demonstrated and gave a preliminary account of a new sporozoon parasite encysted in the skin of *Rossia macrosoma*. In 1902, while still an undergraduate, he was appointed by the Senate University Research Student in the Embryological Department; he was also awarded a Carnegie Medical Research Scholarship. For some time past he has been wholly engaged in helminthological study and research. This work has included the examination of helminthic material brought back by the Scottish National Antarctic Expedition. Mr. W. S. Perrin, who has been appointed to the Chair of Protozoology, was a Scholar of Gonville and Caius College, Cambridge, and obtained a first class in both parts of the Natural Science Tripos. He was elected Shuttleworth Research Scholar of his college. Last spring he was selected by Professor Adam Sedwick to assist him in carrying out a scheme which he had long had in mind of establishing a school of workers at the protozoa in Cambridge. In pursuance of this purpose, Mr. Perrin has for some months past been studying parasitic protozoa under Dr. von Prowazek, assistant to Dr. Schaudinn in the Marine Zoological Station at Rovigno, near Trieste.

PLAGUE IN INDIA.

THE deaths from plague in India during the last week in December, 1902 and 1903, were 14,000 and 17,000 respectively, but in the corresponding week of 1904 the figures stood at 22,645. The outlook for the coming months is therefore far from hopeful. The increase of plague in the United Provinces—North-West Provinces and Oudh—largely accounts for the heavy mortality during the week in question, for of the 22,645 deaths recorded in these Provinces, those from plague amounted to no less than 9,574. Ever since plague appeared in the United Provinces the progress of the epidemic has been slow and the disease has been for the most part confined to a few districts in the Province. In the month of December, 1904, however, the disease spread widely and increased in virulence, and this part of India now heads the plague mortality list for the first time. In the parts of India where plague has prevailed severely, as in the Bombay Presidency and the Punjab, the disease seems to be lessening in extent and virulence, and it is hoped that it may gradually subside. This has been the history of plague in every country where it has appeared—a gradual increase, a sudden burst of great virulence, and a gradual decline. This course has been very marked in the case of the Punjab and the United Provinces, and what has happened in these districts may be repeated in Bengal and other parts of India in subsequent years. As yet but three of the many districts in which plague has been lingering for nine years have experienced severe outbreaks; but with the warning of other countries and districts before us, it would appear that virulent outbreaks may yet occur in several others. It must be confessed that prophylaxis, whether by serum inoculation or by sanitary measures, has met with little success. The Government of India is, no doubt, anxious to do all it can to limit the epidemic of plague, but, it must be confessed, without success. The introduction of an organized effort to deal with plague independently of Government control in India is an impossibility, and the outlook seems to us very gloomy.

YELLOW FEVER ON THE IVORY COAST.

THE geographical distribution of yellow fever, as Dr. Clemow remarks in his *Geography of Disease*, is noticeable for its peculiarly limited character and for the great constancy with which the disease remains within its prescribed limits. The truth of the statement, or at all events of the concluding part of it, is well borne out by the report of Mr. J. P. Armstrong, British Vice-Consul on the Ivory Coast, recently published by the Foreign Office. This part of the shoulder of Africa has always been an important area of yellow-fever prevalence, and of late years the ravages of the disease have proved a serious bar to trade. In 1899 there was a severe epidemic at Grand Bassam, and again in the following year; indeed, judging from the report, it would seem that this town, the main port on the Gold Coast, has scarcely been able to show a clean bill since. Mr. Armstrong states that during 1903 no steamers entered the port for four months, and all trade was at a standstill. The continuous outbreaks have brought about such disastrous business conditions that the greater part of the merchants would be only too glad to see the port closed to trade, while of the native traders at least 50 per cent. have left. The European population of the town is about 60, and the death-rate for 1903 attained the enormous figure of 50 per cent. The total number of deaths for the rest of the colony was 30 out of a population of 240, or 125 per mille. The fever appears to be of a particularly virulent type, but no statistics are given as to the case-mortality. The French authorities seem, however, to have at length realized that it is necessary to deal energetically with the situation. The possibility of the abandonment of the town was actually under consideration at one time, which looks as if the part played by the mosquito was insufficiently realized, the more so as rigorous disinfection and the burning of houses are mentioned as among the measures adopted. The filling in of the swamps and general cleansing of the town

are now, however, receiving attention, though the task is no easy one, the town being built on a strip of sand about 200 yards wide, the greater part of which is a marsh.

THE POROSITY OF CHARCOAL.

THE first lecture of the session of the Royal Institution was of unusual interest. It was given by Sir James Dewar, and described certain newly-observed low temperature phenomena. The power of charcoal to absorb gases is one of the commonplaces of the text-books of chemistry and physics. The discovery was made by Fontana as long ago as 1775, and the work of De Saussure and Graham proved that at ordinary temperatures different gases are absorbed in very different proportions; thus charcoal absorbs at such temperatures ninety times its bulk of ammonium, but not quite twice its bulk of hydrogen. Sir James Dewar finds that, speaking generally, a very much larger quantity of a gas is absorbed at low temperatures, and the many striking experiments by which his lecture was illustrated were designed to illustrate this point, and to show how in this way very high vacuums may be obtained. The absorbability of the various gases even at the temperature of liquid air varied a good deal; the amount of hydrogen absorbed still remained relatively small, while the absorption of helium or neon was almost *nil*. The method affords a means of separating these gases from air. At the temperatures of liquid hydrogen not only hydrogen itself but helium also was absorbed.

JAPANESE STUDENTS.

M. REVON, a Frenchman who was for seven years a Professor in the University of Tokio, says that the most characteristic feature of the Japanese student is that he studies. So keen is he about his work that he will read by the light of a cage full of glow-worms if he can get no better source of illumination. He hangs on his master's lips, taking notes with feverish eagerness, and asking innumerable questions after the lecture. So far from having to be urged to work, he rather needs, as Johnson might have said, to be "sufflaminated." One of M. Revon's pupils went mad, and several died as the result of excessive study. Abundant provision is made by the University authorities for gymnastics and other physical exercises; nevertheless, overwork is making Japanese students a race of bespectacled prematurely aged men, foredoomed to consumption. Overpressure begins early and lasts throughout the whole period of studentship. Before entering the University a young man has to go through the secondary and afterwards the higher schools, where in the space of three or four years he learns three or four European languages, besides the general principles of the science to which he may wish later to devote himself. Owing to the length of the curriculum, Japanese are for the most part older than European students; many of them, indeed, are married, and fathers of families. Academic discipline is easily maintained, as the students have the greatest veneration for their teachers, who on their part are always courteous and accessible. Exchanges of hospitality between masters and pupils are frequent, and social intercourse is constant and intimate. The Japanese student has from childhood been familiar with the ancient maxim: "Thy father and mother are as the sky and earth; thy lord as the moon; thy teacher as the sun." These sentiments have been crystallized into a proverb of three words—*Ondji yori sodatchi*, which means education is more than birth.

"THE GREATEST OCULIST IN THE WORLD."

IT is recorded that Homer was occasionally known to nod, and surely the genial editor of *M. A. P.* must have been in somnolent mood when he last week admitted to its columns an unblushing and inexcusable puff of an already much-advertised foreign oculist. The paragraphs begin with the modest assertion that "Probably the greatest oculist in the world is Dr. Pagenstecher of Wiesbaden." Shakespeare has told us "there is much virtue in an *if*," and those bold and sceptical individuals who might venture to dispute Dr. Pagenstecher's claim to the supreme position assigned to him must endeavour to draw consolation from the word *probably*. In the present instance it is unnecessary to recall the well-known injunction, "*Cherchez la femme*," for in the following description of the oculist's hands the feminine enthusiast stands revealed. "But when his hands touch one it is a revelation of the genius of the man. Beautiful hands they are; white and firm, with slim fingers and pink filbert-nails. And in each of those finger tips seems to live a separate brain, an independent visioning power." One is constrained to ask, Why are we flooded with this gush of nauseous twaddle? Can it be that the aristocracy and plutocracy alluded to in the paragraphs have had time to discover that the highly-boomed oculist is not omniscient, but must accept his percentage of failure with the rest of his medical brethren, and therefore the time has arrived when an injudicious admirer deems it advisable to bang the advertising drum? Advertisement is contrary alike to the spirit and the practice of our profession, and we earnestly hope that the lay press will aid us in our endeavour to discourage it.

THE SPITTING NUISANCE.

THE police authorities of New York appear now to be thoroughly in earnest in carrying out the municipal enactments forbidding expectoration in public places. Quite recently ten well-dressed men were fined two dollars each for spitting in one of the subway stations. Persons who do not happen to have sufficient money about them to pay the fine are sent to gaol, a procedure which of itself is likely to have a wholesome educative influence on the public mind. The wardens of some of the police court prisons say they have more public spitters in their custody than any other class of offender. In some courts the average number of charges of this kind dealt with daily is about half a dozen. When will our own civil authorities follow the excellent example of New York, and instead of leaving it to the discretion of omnibus and railway companies to put up notices mildly deprecating expectoration, set themselves resolutely to put down the disgusting and noxious practice?

HYGIENE IN SCHOOLS.

ON January 20th the Bucks Education Committee, under the presidency of the Chairman (Lord Buckinghamshire) adopted a recommendation to the effect that a communication should be issued to all school correspondents in the county requesting the managers to consider the expediency of introducing the teaching of hygiene and temperance into the schools under their charge, and referring to the support given to the movement by 15,000 members of the medical profession, headed by Sir William Broadbent.

THE ANTIMALARIA CAMPAIGN IN CORSICA.

AT a recent meeting of the Paris Academy of Medicine M. Laveran presented a report by Dr. F. Battesti, of Bastia, on the third campaign of the Corsican Antimalaria League. This shows that the results of the League's efforts in 1904 were still more satisfactory than in 1903, and proved conclusively the great advantages of the mechanical protection of dwellings by means of metallic screens. In several houses situated in the immediate neighbourhood of marshes which were protected in that manner no case of malaria occurred. In stations and railway servants' huts only partially protected, the morbidity fell from 47 to 11.66 per cent. The postal and telegraph services have begun to adopt similar means of protection in the most unwholesome parts of the east coast of Corsica, and the results have been excellent. In regard to the objection that the metal screens at the

windows are unpleasant and interfere with ventilation, Dr. Battesti publishes letters from persons who passed the summer of 1904, which was exceptionally hot, in houses so protected; all the writers say that so far from interfering with ventilation, the screens made it possible to keep the windows open during the night without fear of mosquitos. The prophylactic use of quinine also gave satisfactory results. Dr. Battesti gives an account of a systematic attempt to destroy *Anopheles* within a certain area, and urges on municipal and other public authorities of Corsica the expediency of adopting such measures on a large scale.

A NEW MEDICAL SOCIETY.

There is, or was, a Browning Society formed by enthusiasts who strove to find a meaning in passages as to which no enlightenment could be got from the poet himself. Previously there had been a John Sterling Society, whose *raison d'être* was to give the friends and admirers of a minor poet, now chiefly remembered by the fact that Carlyle wrote his life, opportunities of meeting him when he was in London. As far as we are aware, however, there has hitherto been no society named after a living medical man. We learn with some interest, therefore, that the William M. Welch Medical Society, with a membership of twenty-five, held its first formal meeting on December 19th, 1904, at the residence of Dr. Welch in Philadelphia. The Society is composed of ex-resident and some of the present resident physicians of the Municipal Hospital in that city, and was formed and named in honour of Dr. Welch, who was long at the head of that institution. He was appointed physician-in-charge of the Municipal Hospital in 1870, and served in that capacity until 1903.

SIR PETER EADE.

Sir Peter Eade, Consulting Physician to the Norfolk and Norwich Hospital, celebrated his 80th birthday on January 19th, and his colleagues on the staff of the hospital took the opportunity of presenting him with an address, accompanied by a small present, in recognition of the high esteem in which he is held by them, and of the valuable services he has rendered to the institution during the forty-seven years he has been connected with it. Sir Peter Eade belongs to a generation at the hospital which included Crosse, Cadge, and Bateman. He still, we are glad to learn, enjoys good health, he is able to attend the weekly Board of Management regularly, and is frequently present at the hospital consultations.

THE CENTENARY OF MANUEL GARCIA.

Senor Manuel Garcia, to whom we owe the invention of the laryngoscope, will complete his hundredth year on March 17th. As has already been announced in the British Medical Journal, the anniversary is to be made the occasion of a great demonstration in his honour by laryngologists of every nationality, who will at the same time celebrate the jubilee of their speciality. The programme, as far as at present arranged, is as follows: At midday a ceremonial meeting will be held at the rooms of the Royal Medico-Chirurgical Society, Hanover Square. The Spanish Ambassador will attend to congratulate the illustrious centenarian in the name of the Government of his native country, and addresses will be presented by the Royal Society, before which Senor Garcia read his paper entitled "Physiological Observations on the Human Voice" just fifty years ago; by delegates of the Berlin, South German, French, Dutch, and Belgian Laryngological Societies; by musical societies, and by old pupils of the famous *maestro*. In order not to overtax the strength of Senor Garcia, the addresses will for the most part be only formally presented, and the whole duration of the proceedings will not exceed one hour. The meeting will conclude with the presentation to Senor Garcia of his portrait painted by Mr. John Sargent, R.A., at the request of admirers throughout the world, together with an album containing the names of the subscribers. In the afternoon a scientific meeting will be held in the same place for the purpose of giving foreign specialists an opportunity of seeing the methods of work and results of their British brethren. In the evening there will be a dinner, probably at the Hotel Cecil, at which ladies will be present, and it is expected that Senor Garcia will make a speech. Notwithstanding his great age, he is still fairly vigorous in body, and he was able to attend the annual dinner of the Laryngological Society on January 13th. His mental powers are absolutely undimmed by age, and his memory of scenes and events witnessed by him in Spain in his early boyhood is remarkably vivid. In addition to his native tongue, Spanish, he speaks English, French, and Italian fluently, and has some knowledge of German.

We have been favoured, by the courtesy of the Registrar of the General Medical Council, with a bound volume of the minutes of its proceedings for the year 1904. The volume, which extends to 752 pages, contains an index and twenty-five appendices, eight of which are reports by the Examination Committee on the examinations of various universities and licensing bodies. The proceedings of the Council were fully reported in Supplements to the British Medical Journal published immediately after each session.

A banquet in support of the London School of Tropical Medicine will be held in London on May 10th. Mr. Chamberlain, who is the "true" if not the only "begetter" of the school, and who has shown so statesmanlike an appreciation of the far-reaching importance of tropical pathology in regard to the consolidation of our empire, will preside. The Duke of Marlborough has consented to be Chairman of the Dinner Committee.

Mr. Henry W. Marshall, of the Stock Exchange, has offered to the King Edward's Hospital Fund for London certain freehold land in London, believed to be worth £12,000 and at present let on a lease of which twenty-five years are unexpired at a rental of £420 per annum. The gift is made on the condition that £18,000 is subscribed to the permanent income fund before July 31st next. The sum still required to bring up the permanent income fund from investments to £50,000 per annum is £30,000.

The Danish Government has issued a stamp bearing the head of the late Professor Finsen with the object of placing within reach of the poorer classes a means of subscribing to the national monument by which it is proposed to commemorate the work of the Danish investigator. On the occasion of the Christmas and New Year holidays the Danish Postmaster-General also issued four million illustrated postcards. The profits on the sale of these postcards are to form the basis of a fund for the erection of a sanatorium for indigent consumptives.

The President of the French Republic has conferred on Dr. George Ogilvie, Senior Physician to the French Hospital, the much-coveted decoration of Chevalier de la Légion d'Honneur. The cross was handed to him by M. Paul Cambon, the French Ambassador, on January 26th. Dr. Ogilvie has been on the staff of the French Hospital for some eight or nine years, and the distinction has been conferred in recognition of the valuable services which he has rendered to that institution. The prominent part played by Dr. Ogilvie in the reception of our French visitors last summer will be remembered by all who on that occasion listened to the speeches delivered by him in French with a mastery of the subtler graces of the language and a purity of accent seldom to be heard from British lips. We congratulate him on the high honour which he has received.

Scotland.

THE WESTERN INFIRMARY, GLASGOW.

Opening of the New Dispensary for Out-patients.

THE formal opening of the new dispensary buildings of the Western Infirmary took place on January 18th. Sir Matthew Arthur, the Chairman of the managers, presided, and amongst others present on the platform were Lord and Lady Blythswood, Lady Arthur, and Sir John and Lady Primrose.

After prayer by Principal Story, the Chairman said the question of increased dispensary accommodation had been before the managers of the Western Infirmary since 1892. At that time, however, they had much work in hand in connexion with the development of the rest of the infirmary, and the time was not suitable for a special appeal for the dispensary. In 1897 they issued an appeal for subscriptions towards the building fund of a new dispensary, and ultimately received nearly £25,000 for that purpose. The growth of the work of the outdoor department of the infirmary was illustrated by a comparison of the numbers for last year with those for 1892. In the year 1892 the number of outdoor patients was 12,422, and the visits paid 38,507; while for the year ending on October 31st last the patients had increased to 22,010, and the number of separate visits was 94,235. The visits of outdoor patients thus amounted to an average of about 300 daily. Besides the relief it afforded to those sick poor, the dispensary held an important place in the scheme of medical education. It was compulsory for students to attend the outdoor practice of a hospital, and at the Western Infirmary there were generally about 400 students enrolled. In the design of the new buildings, therefore, special attention had been given to the provision of increased facilities for teaching. The estimated cost was nearly £35,000, or about £10,000 more than the sum specially subscribed. Sir Matthew Arthur then called upon Lady Blythswood to perform the opening ceremony, and in doing so referred to her special interest in several kindred institutions in Glasgow and the West of Scotland.

Lady Blythswood having declared the buildings open, and having been presented with a handsome silver bowl by the contractors as a memento of the occasion, Lord Blythswood returned thanks on behalf of his wife.

Sir Lauder Brunton was then called upon for an address, and, after referring to his long connexion with outdoor patients at St. Bartholomew's Hospital, he congratulated the company on the excellence of the new dispensary buildings in which they were met. It might be asked whether it was worth while to expend so much money upon the treatment of out-patients. He believed that the money so expended was put out to interest and came back bearing fruit tenfold or even a hundredfold. The patients benefited and their families benefited, and so the working power of the community was increased. The wealthier classes benefited, too, for in such outdoor departments the future medical men learned much of the treatment of the common ailments, and in this new dispensary the arrangements for teaching were excellent. Sir Lauder Brunton then went on to urge that the sick poor not only needed medical advice and medicines such as they would be given there, but that they must have proper food, and, in particular, a supply of fresh and pure milk. He spoke of the formation of a National League for Physical Education and Improvement, the object of which was to get the many societies and organizations at present working for the good of the people to co-operate. He trusted that a branch of this League would be formed in Glasgow, and that medical men, municipal authorities, and institutions like the Western Infirmary would give their aid in the movement. In conclusion he congratulated the audience on the admirable arrangement of the new buildings, and expressed the hope that those who had so munificently founded the institution would see that it maintained its place by sufficiently subscribing to keep it up, so that it might long remain, as it was now, the best of its kind in existence.

The Lord Provost (Sir John Ure Primrose) moved a vote of thanks to Lady Blythswood for her kindness in opening the dispensary, and a similar compliment was paid to Sir Lauder Brunton for coming from London to address them.

The proceedings then terminated, and the company had the opportunity of inspecting the various rooms of the new buildings.

The new dispensary buildings are situated to the west of the main infirmary block, and will afterwards be joined to the main building by a well-lit corridor. The entrance to the dispensary proper is from Church Street. Patients on their first visit will be directed to a waiting room, where all the usual enquiries will be made and the cases classified. The general waiting hall is a handsome hall of 86 ft. by 31 ft., and is seated for 400 persons. From this hall the patients may pass to the consulting rooms, each of which has two suitable dressing rooms attached. The medical and surgical consulting rooms are 24 ft. by 24 ft., and have each gallery accommodation for 50 students, and are well lighted from the north. There is an excellent operating theatre with all the necessary dressing and recovery rooms. There are also specially fitted-up rooms for ear, nose, and throat departments and for gynaecology. Excellent arrangements are made for the dispensing of the patients' medicines, a hall seated for 70 persons being connected with the dispensing room and the exit vestibule. The students also have a special entrance for themselves, from which they can reach the galleries of the various consulting rooms. The electrical department of the infirmary is also housed now in excellent quarters in the dispensary buildings.

PRESENTATION TO DR. R. WILSON BRUCE.

On the occasion of his retirement after twenty years' service on the Glasgow Parish Council, Dr. R. Wilson Bruce, of Glasgow, was entertained at dinner on January 20th by a number of friends, and presented with an illuminated address expressing appreciation and high admiration of his public and philanthropic work. In presenting the address the Chairman, Mr. Henry E. Clark, C.M.G., President of the Faculty of Physicians and Surgeons of Glasgow, spoke of the increasing necessity for medical men on public councils and Boards where questions of education and municipal administration affecting the health of the community required to be dealt with. Dr. Bruce, in responding, gave an interesting reminiscent account of his work as a parish councillor.

Ireland.

ULSTER MEDICAL SOCIETY.

THE fourth general meeting of the Society was held in the Medical Institute on the evening of January 19th. The President, Dr. Calwell, occupied the chair. A resolution of regret on the death of Dr. Praeger was passed.

Cases.

Mr. Mitchell showed a very successful result in a difficult case of hare-lip and cleft palate. He showed also a female patient who had suffered from an oesophageal stricture of about ten years' standing, treated by Symonds's tube, which had not been changed for the last six months. Dr. Rankin showed a large number of cases of lupus vulgaris and some of rodent ulcer treated by the Roentgen rays in the Royal Victoria Hospital. He also read a paper on the result of the application of the rays to carcinoma, sarcoma, rodent ulcer, lupus vulgaris, and lupus erythematosus in the hospital. No lupus case was made worse, and some improved rapidly; of the ten rodent ulcers, some showed excellent results; the carcinomata were very disappointing, but there was some effect on the sarcomata, evidenced by a temporary shrivelling and general paralysis. Dr. McQuitty read notes of a case of general paralysis, which first showed signs some fourteen years ago, and remained of the "tabes type" till lately, when the ordinary brain symptoms developed. A short discussion took place on the unity or duality of tabes and general paralysis, in which Drs. Lindsay, McKisack, Graham, and the President joined.

Cold in Pneumonia.

Dr. McKisack read a short paper on the treatment of acute lobar pneumonia by the application of ice externally, illustrated by a large chart and notes of eight consecutive cases; the average duration was shorter, and the temperature, if anything, a little lower: the patients expressed themselves relieved, and liked the application; there was one death: a patient of poor physique, in whom double pneumonia developed. Dr. McKisack said that on the whole he was favourable impressed with the result. Dr. Lindsay pointed out that cases with a fairly high temperature seemed to do well, and he would be cautious as to the beneficial effect of any treatment tending to lower temperature. Dr. Dempsey advocated an expectant plan of treatment guided by symptoms. Mr. Cecil Shaw remarked that the application of cold to the eye, where the result could be closely watched, did good as long as it was

grateful; but if causing trouble or pain, did harm. Drs. McQuitty, MacElwaine, Mitchell, and the President also spoke.

OVERCROWDING IN THE BELFAST WORKHOUSE.

The report of Mr. Agnew, Local Government Board Inspector, which was laid before the last meeting of the Belfast Board of Guardians, showed overcrowding in both the healthy male and healthy female sleeping departments; there was deficient ventilation, and great danger in case of fire. There were 1,500 inmates classified as infirm, being 200 more than the number complained of in his last report when he showed that even then there was deficient accommodation. Although more room would be available when the lunatics were removed to the new asylum, and fever cases to the new fever hospital, still he urged some immediate provision. He was of opinion that a permanent kindergarten teacher should be appointed; the influence of the last teacher had been excellent.

THE TEACHING OF HYGIENE IN SCHOOLS.

No. VII.—FATIGUE.

IN mapping out the day of the children attending elementary schools the object sought should be to make the wisest disposition of the hours of work, play, and rest, so as to cultivate the *mens sana in corpore sano* rather than to cram the time-table with subjects so numerous that even the healthiest child must be fatigued and in time overstrained.

There are two factors in fatigue—the muscular and the nervous. The former has been much more completely studied than the latter, although from the educational point of view the nervous factor is the more important. Muscular fatigue is produced by toxic bodies, which are the products of muscular activity, and it may be presumed that nervous fatigue is produced in an analogous manner. Just as muscular toxins are eliminated during rest after exercise, in like manner the effete bodies which come into existence during nervous exertion are removed when the nervous system rests. Though it is true that the principal way in which the nervous system obtains rest is by sleep, yet the mere changing of the direction in which the nervous energy flows is in itself a form of repose. Within reasonable limits of exertion—that is to say, short of excessive fatigue or exhaustion—the nervous and muscular activities are, as it were, complimentary. By changing from mental to physical work one set of centres is thrown out of action and another set called into activity. The brain, in fact, rests in some of its parts when physical exercise is being taken. Moreover, exercise, if taken in the open air or in a well-ventilated room, by quickening respiration and circulation, hastens the elimination of the toxic products of activity of the mental centres.

In considering fatigue in relation to the actual time spent at school we must take into account not only the total number of hours of work in a day, but also the duration of each lesson. Chadwick pointed out many years ago that the length of time during which the attention can be fixed on a lesson is very short in early childhood and gradually increases:

At 6 years the attention can be fixed for 15 minutes.
At 7 to 10 years the attention can be fixed for 20 minutes.
At 10 to 12 ,, ,, ,, ,, 25 ,,
At 12 to 16 ,, ,, ,, ,, 30 ,,

Many investigations have been made by subsequent observers, but they all tend to confirm the correctness of Chadwick's conclusions, and it is now generally agreed by all authorities that lessons should be short and followed by periods during which the children take physical exercise, either stated exercise for a few minutes in the class-room standing by their desks, or by free play in the school yard.

This principle is not sufficiently recognized, lessons lasting three-quarters of an hour being usual, and intervals too few. Even in classes of infants, aged 3 to 4, twenty-five minutes' recreation only is given during the five and a half hours that the children are in class.

A healthy infant spends a very large part of the twenty-four hours asleep; its longest continuous sleep is for eight or nine hours at night, but it will sleep also for an hour or so several times in the course of the day. Down to the age of 4 or even 5 years a healthy child, if given the chance, will sleep for an hour or two in the middle of the day, and for ten or eleven hours by night. As the child grows older the midday sleep is given up, but the time spent in bed at night should not at first be curtailed. In fact, a child of 11 or 12 ought to have eleven or at least ten hours in bed, and it is certain that many children of the poorest classes suffer from insufficient sleep, tting up perhaps till midnight, and trailing about the streets till their parents come home after the public-houses are closed; as school begins at 9 they must be up by 8, and are often awakened by their elders before this.

The following table founded on Key's elaborate studies may serve to give an idea of how a child's day should be spent at various ages:

Age, under	Sleep.	Dressing, etc.	Meals and Rest.	Free Time.	School	
					Lessons.	Play.
4	11	1	3	3½	2⅔	2½
5	11	1	3	3½	2½	2½
6	11	1	3	3½	3	2½
7	11	1	3	3⅓	3	2⅔
8	11	1	3	3⅓	3½	2
9	11	1	3	3⅓	3½	2
10	10½	1	3	3½	4	2
11	10½	1	3	3½	4	2
12	10	1	3	3	5	2
13	10	1	3	3	5	2
14	9½	1	3	2	6	2

The children confined for many hours a day in an elementary school are deprived at once of all the elements necessary to a healthy and normal nervous system—exercise, rest, sleep, fresh air, nourishing food—and this at a great growing period of their life, when all suffer more or less even under the best conditions. We hear every day of children outgrowing their strength; by this is meant that the body shoots up so rapidly that there is no time for filling out and fattening, and the child is left thin, and probably mentally as well as physically weakened, at any rate for the time being. This physical feebleness predisposes to disease, such as diseases of the joints (tuberculosis) and phthisis, diseases of the nervous, digestive, and circulatory systems; and without a sound body a healthy mind is impossible. It will be easily seen that excessive expenditure of energy in mental work during this growing period is doubly dangerous. In our opinion twenty-five minutes' recreation during five and a half hours' work is insufficient. All the authorities who have studied this subject are agreed that the best method of getting good work from scholars is to give them short and varied lessons. After twenty minutes or half an hour at one subject the attention wanders, and the child loses interest. Half an hour should be the outside limit for the duration of a lesson, and after each two lessons of half an hour a quarter of an hour's play should follow. Time thus apparently wasted is really gained, for if children are forced to concentrate their mental faculties for too long a period at a time they are unable, even after recreation, to recover, and the effect shows itself in their work all that day.

Dr. Kemsies, the head master of a large German school,[1] has found from personal experience that the best work of the week is done on Monday and Tuesday (after the Sunday holiday). On Tuesday afternoon the work has already begun to deteriorate. He strongly advises a holiday on Wednesday, in order to check the mental exhaustion, and so raise the standard of work for the second half of the week. The first two hours of the day produce the best work; after the midday meal there is a marked falling off. If a lesson lasts too long, the greater part of the class suffers from fatigue; a recreation interval after each lesson is recommended before the next lesson begins. After the holidays (which never last longer than four weeks) the quality and quantity of work are markedly increased. Kemsies gives what he calls the fatigue value of different subjects. Gymnastics produce so much fatigue that the work done afterwards is almost useless. Of the school lessons mathematics comes first in the list, followed by foreign languages and religious instruction. History, German, and natural history are bracketed as producing the least fatigue; singing and drawing are very fatiguing to some, but not to others. The connexion between the age limit and the fatigue value of the different subjects is, however, not given, which rather detracts from the value of the conclusions.

Mr. Thorndike[2] has brought forward evidence against what we suppose to be the usual opinion, that by the end of the afternoon school children show a certain amount of exhaustion which lessens their power to work. He devised four tests: (1) A set of multiplication examples to be done in a given time; (2) a page of printed matter full of misspelled

[1] *Deut. med. Woch.*, January 20th, 1898.
[2] *Science*, 1899.

words which were to be marked in a given time; (3) sets of nonsense syllables to be written from memory after a ten seconds' look at them; (4) two sets of figures and one set of simple forms to be written from memory in the same way. The first and third were to be given to one set of children early and to another set late. The second and fourth were given to the first set early and to the second set late. The experiment was made in two towns on 594 children altogether, and precautions were taken to discount excitement from novelty, while since the tests were never twice the same for the same child, there was no error from practice. The results were so nearly even as to lead to the conclusion that "the mental work of the school day does not produce any decrease in the ability to do mental work." Mental standards used by German observers give evidence as to the production of fatigue during school hours. The inference to be drawn from this conflict of opinion is that the American system of teaching is superior to the German. No details are given by Mr. Thorndike either as to the total hours of the school day or to the way they are apportioned. In these probably lies the key to the difference in the results. It is very remarkable that Dr. Kemsies found that of all the lessons the most tiring was the gymnastic. If, instead of testing muscular fatigue, he had used some direct test of mental power, the results would have been perhaps more valuable on this point.

There is a great deal of common sense in Dr. Kemsies's conclusions with regard to holidays, and it would be very wise to give two half-holidays a week, on Wednesday and Saturday, instead of the whole holiday on Saturday. In families where the parents go out to work the children spend Saturday in the street, and where the parents are at home they are forced probably to work indoors in unventilated rooms.

Insufficient proper rest after meals is a common cause of fatigue, and no brain work should be allowed for at least half an hour after eating. A sense of tiredness is also engendered by impure air, and this probably helps to account for the conclusions which experts have come to that the best work is done during the early part of the day. With the present happy-go-lucky manner of ventilating schoolrooms the state of the air in them after a short time must have a depressing and harmful effect.

We have in a previous article discussed the effects of eye-strain upon the brain; this should be watched for and prevented. An experienced teacher knows the signs of fatigue, the most common of which are:

The attitude of the hand (as described by Dr. Warner).
The attitude of the head.
Lolling attitudes.
Failure of attention.
Yawning.
Sleeping in class.

It should be part of the training of every teacher to learn to look out for such signs and to regard them as warnings that there is something wrong in the way the class is being managed. It may be that the room is badly ventilated or insufficiently lighted, that the lessons are too long and the periods of recreation too short, or, in individual cases, that the child comes to school already fatigued from want of sleep, fresh air, or food. In our opinion a good deal of what is set down to overpressure is really due to the neglect of the common rules of hygiene. It is only by maintaining a proper balance between the intellectual and physical faculties that complete and harmonious development can be attained.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on January 19th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

CHARGE AGAINST A MIDWIFE OF SIGNING FALSE CERTIFICATES.

Some considerable time was occupied in hearing the charges alleged against Miss Edith Gregory, a certified midwife on the Midwives' Roll, of signing false certificates in connexion with the training of candidates for the examinations of the London Obstetrical Society.

The case first came under the notice of the Board on September 29th last, when a letter was read from the Secretary of the London Obstetrical Society, informing the Board that, after consideration of the case of Miss Edith Gregory, a certified midwife, the Council of the Society had resolved that her L.O.S. certificate should be forfeited.

The facts of the case were stated to the Board by its secretary, Mr. Duncan. The Obstetrical Society of London wrote to Miss Gregory, inviting her to attend the meeting of the Council of the Obstetrical Society on August 3rd, when the Council was prepared to hear and consider any statement Miss Gregory wished to make concerning a charge against her of signing false certificates, signed by her as midwife in entire charge of the Winchester Lying-in Charity on behalf of certain nurses about to submit themselves to the Society's examination of midwives. The usual printed forms of certificates were signed by Miss Gregory in each case to the effect: (1) That the candidate had truly and to her satisfaction attended and watched the course of not fewer than 20 labours by means of personal observation, including abdominal and vaginal examinations, and that under competent supervision she had personally delivered at least 5 of those cases; and (2) that the candidate had attended to her satisfaction 20 cases during the ten days following labour and had been in personal charge of at least 5 of those as nurse. From evidence furnished to the Obstetrical Society it was contended that the certificates were untrue, the candidates having, in fact, seen less than the number of cases of labour mentioned in the certificates.

Miss Gregory replied in writing that she was sorry she could not come up to the meeting of the Council of the Obstetrical Society, and admitted that she had been in the habit of signing the certificates if pupils were satisfactory in their practical work and had fulfilled the required conditions. In case the number of births seen was not quite complete, Miss Gregory signed the certificates provided there were more cases coming on for the pupils to see, so that the number was completed before the written examination of the Obstetrical Society took place. She was sorry if the course she followed had been wrong, but in some cases had she not signed the certificates the pupils would have completed their number of cases before the examination, and yet would have had to wait another three months to be examined. Miss Gregory further explained that if she had done anything wrong it had been done quite unintentionally. The Council of the Obstetrical Society decided that Miss Gregory was, in their opinion, unfit to hold the certificate of the Society, and requested her to return the certificate granted to her by the Obstetrical Society.

In the course of the evidence submitted to the Central Midwives Board it transpired that some years ago the Obstetrical Society was aware that candidates were admitted to its examinations who at the time of the signing of the certificates required before admission to their examination had not attended the minimum number of cases of labour.

Mr. C. E. Godwin, of the firm of Godwin and Co., solicitors, Winchester, addressed the Board on behalf of Miss Gregory. He contended that there was no real justification for the charge of misconduct against Miss Gregory, because there was no intention on her part to do anything wrong. He reminded the Board that the training for nurses for the examination of the Obstetrical Society lasted several months and the certificates had to be sent in a month before the examination. It was very hard on the nurses that they should be obliged to complete their training a month prior to the examination and then have to sit down and do nothing for a month. Who did they expect would board and lodge these nurses for a month for nothing? He admitted that Miss Gregory had signed the certificates, but they must make allowances and remember the lax way in which certificates were given for purposes of entering examinations. There was no question of deceit or fraud in the matter, and from the facts before them he did not think the Council could deprive Miss Gregory of her certificate as a midwife on the roll issued by the Central Midwives Board.

The Board then considered the case *in camera*.

Strangers having been readmitted, the Chairman, addressing Miss Gregory, informed her that the Board had found her guilty of misconduct, but had taken a merciful view of the case and had not directed her name to be removed from the Roll of Midwives. The Chairman also cautioned Miss Gregory as to her future conduct in signing certificates.

THE annual meeting of the German Association of Scientists and Medical Practitioners is to be held this year at Meran from September 24th to 30th.

A REPORT ON THE CARE OF THE INSANE POOR.

[BY OUR SPECIAL COMMISSIONER.]

IV.—SCOTLAND.

THE Scottish system of the family care of the insane poor differs in many particulars from that of Gheel. In Scotland the patients are not collected within a defined and comparatively limited area surrounding a central institution, as at Gheel and many other places, but are distributed over the whole country, in many cases in remote crofts and hamlets. They are not in touch with any asylum, and in only a few places form anything approaching colonies. From this there necessarily follow differences both in the class of patients considered suitable for family care and in the machinery of administration and medical supervision.

In Scotland, as indeed in every other country, family care preceded for ages the establishment of special houses for the custody of lunatics; but here the modern system is not the direct development of places of resort for miraculous healing —though these existed at Strathfillan in Perthshire and other places for many hundreds of years—but is of comparatively recent origin, being the natural outcome of the Lunacy Act (Scotland) of 1857. Prior to the enactment of this law the State supervision of both lunatic and ordinary poor, and the administration of the laws for their relief, were committed to a "Board of Supervision for Relief of the Poor," now (since 1894) known as the Local Government Board for Scotland. The report of a Commission, however, appointed in 1855, to inquire into the state of lunatics and lunatic asylums in Scotland, disclosed a state of affairs so unsatisfactory that in 1857 a law was passed giving the control of all matters relating to the insane poor, the supervision of all establishments for lunatics in Scotland—with the exception of insane prisoners and those maintained in private dwellings from private sources, and even these if they should be subjected to compulsory confinement or harsh treatment—to a General Board of Commissioners in Lunacy created by that Act. The defects in the arrangements for the care and supervision of the insane, which the Board of Lunacy were appointed to reform, were not, Mr. Spence[1] points out, owing to any failure of duty on the part of the Board of Supervision itself, but were due, on the one hand, to a want of statutory powers and adequate staff; and, on the other, to a widespread lack of enlightenment in public opinion, not confined to Scotland, regarding the obligations of the community to the insane poor. Under this law it became the duty of the General Board of Lunacy to see that every insane person in receipt of parochial relief was provided with adequate care and treatment. "At that time," says Sir John Sibbald,[2] "it was a widespread belief that the best place for every insane person was a well-managed asylum, and the law provided for the erection of asylums in every district of the country where no public asylum already existed. Some years, however, necessarily elapsed before these asylums could be erected, and during this preliminary period a large number of the insane poor were without available accommodation.

"Some of them were placed in poor-houses, and the rest had to be kept in the houses of relatives or boarded in the houses of strangers. In these circumstances the General Board of Lunacy endeavoured, by a careful system of inspection, to make the treatment of those who were left in private dwellings as satisfactory as possible. The experience gained during this period was very useful. The annual reports of the General Board show that the Board soon became convinced that a large number of the insane poor could, under proper regulations, be even more satisfactorily provided for in private dwellings than they could be in asylums. In this opinion the members of the Board were fortified by a study of the results obtained in other parts of the world, such as Gheel in Belgium. The consideration which the Board gave to the matter made it continue to regard asylums as necessary for the treatment of most cases of insanity, especially for cases in which special medical treatment and nursing are required, and for those in which the patients are dangerous to themselves and others. But it also arrived at the opinion, which it has never seen reason to change, that under efficiently organized supervision the boarding of a considerable number of patients in private dwellings ought to form an integral part of any complete system of providing for the insane."

Such was the beginning of the modern system of boarding out in Scotland, a system which after forty-six years' experience continues to receive the greatest support from the Commissioners in Lunacy, and which is to-day applied with marked benefit, both to the patients and the community, to 19 per cent. of Scotland's insane poor.



Crofters' Houses, Upper Sound, Shetland.

It will be of advantage to consider here the machinery of administration and supervision. All matters relating to the insane in Scotland are in the hands of the General Board of Lunacy, which consists of a Chairman and two legal Commissioners who are unpaid, two medical Commissioners, and also two medical Deputy Commissioners, whose duties consist, in the main, of visiting and reporting to the Board upon the insane in private dwellings, both private and pauper. For local administrative purposes Scotland is divided into parishes, numbering 874, in each of which the administration of official assistance is committed to a popularly elected parish council, which is under the control of the Local Government Board, and, in respect to the insane, under the control of the General Board of Lunacy. Scotland is also divided into lunacy districts, to each of which there is a District Lunacy Board, which is responsible for the erection and subsequent management of asylums. These two bodies —the parish councils and the District Lunacy Boards—are entirely separate organizations, the District Lunacy Boards having control over, and being responsible for, insane persons resident in asylums solely, and having no responsibility whatever in regard to the insane, pauper or private, who are not in asylums. Both, however, are, in regard to the insane, under the control of the General Board of Lunacy.

Each parish council has as its principal executive officer a paid official called the Inspector of Poor. This official has important duties, and is directly responsible to the council and to the Local Government Board. He is appointed by the council, but cannot be removed from office except by the Local Government Board. In large parishes he has the assistance of a staff of clerks and subinspectors. He, or his assistants, investigate all applications for relief, visit periodically all persons, including the boarded-out insane who are in receipt of parochial assistance, and consider the applications of all who wish to become the guardians of boarded-out cases. These guardians are selected with the greatest care as the result of personal investigation, and when

a patient is placed in a private dwelling the condition of the patient, the character of the guardian, the persons forming the household, and the accommodation offered by the house must be reported by the inspector to the General Board of Lunacy, who, in all doubtful cases, do not sanction the arrangements until they have been satisfied by the inquiries of their own officers as to the fitness of both patient and guardian.

Each parish council has also one or more parochial medical officers who are responsible for the medical care of the poor, sane and insane, within the parish, who are bound to pay periodic visits to each insane person boarded out in their district, and who also act as advisers to the council on medical matters.

Inspection.

The insane under family care are visited and reported upon to the Board by the Deputy Commissioners at least once, but generally twice, a year. The inspector of poor must visit at least twice a year every case in his district, and the parish medical officer four times anuually and also as occasion may require. In some parishes also a committee of the Council is appointed to make additional domiciliary visits.

Compared with the frequent visitation by the sectional medical officers and *gardes* at Gheel, this amount of inspection appears little enough, but it must be remembered that the inspector and medical officer in going on their rounds see many others besides the special objects of their visit, and that in country parishes the knowledge of a medical officer of the inhabitants is of so intimate a kind that it is certain that he would soon become aware of any case of ill treatment, carelessness, or neglect. The adequacy of the inspection, however, is best shown by the fact that the method of supervision employed is found to work well. This, of course, evidences a very careful selection of cases for family treatment, but the good results obtained under this comparatively small amount of official inspection show that for a considerable number of the insane continual inspection is unnecessary and may, very possibly, by giving too much of an institutional character to the methods of treatment employed, be harmful to the patient. There should be nothing to occasion surprise in this statement—combated as it may be by some who regard every insane person as potentially dangerous, or by others who consider the closed asylum with its modern scientific equipment and specially-trained personnel to be the only fitting domicile for a lunatic—for the essence of the family care of the insane is to provide for those of the mentally deranged who are neither harmful to themselves nor to others, an environment to which they are by nature, by calling, and by memorial and emotional ties accustomed, and with which they are likely to be in harmony. That over-inspection would, in many cases, militate against this ideal seems likely, and there can be no doubt that for a large number of these cases it is the adequate minimum rather than the maximum of official inspection which should be aimed at.



A Street in Balfron, showing Class of House Inhabited by Patients.

On the other hand, an increased supervision would permit of a much more extended application of family care with its soothing and healthful influences than is possible under the present Scottish system. We saw many cases, for instance, in Gheel whose family treatment was attended with entirely satisfactory results who would not have been accorded these advantages in Scotland; and it is possible, and would indeed only be in harmony with common sense, that a more elastic system of supervision, with a graduated inspection according to the nature of the case, would meet more exactly the requirements of the situation.

Distribution.

On January 1st, 1904, there were 14,309 insane persons in receipt of relief in Scotland. Of these, 977, or 6.82 per cent., were treated at home in their own dwellings, 1,681, or 11.74 per cent., were boarded out in private dwellings with strangers, and 11,651, or 81.42 per cent., were resident in asylums, poor-houses, and training schools. Thus 19 per cent. were under family care, and these, whether living with relations or strangers, are subject in every case to the same official inspection and control. We have already said that in Scotland the boarded-out cases are not congregated into colonies, but are, generally speaking, scattered in small groups or units over the whole country, from Wigton in the extreme south to the beautiful windswept islands of Orkney and Shetland in the far north. Only in one or two places—at Markinch and Kennoway in Fifeshire, at Balfron in Stirlingshire, and at Lanark—do the insane residents form a noticeable element of the population, and there for special reasons. This dispersion of patients is advised by the Commissioners, lest the giving of a special character to any village should arouse public feeling in the neighbourhood adverse to the system. No such feeling, however, Mr. Spence says, has manifested itself, except in the case of a few individual persons who in no instance have had the support of the public sentiment of the locality. The objection is largely a sentimental one, and the experience of Continental colonies goes to show that the presence of the mentally afflicted in the midst of the sane inhabitants has no bad effect on the general population, and that, in so far as their spectacle excites commiseration and their sympathetic treatment stimulates interest and a desire to help, they have, on the contrary, a decided educative influence. The patients are housed, in numbers from one to four, in the homes of villagers, small farmers, and others, who, having for the most part houses possessing sufficient accommodation and spare time to devote to the care of patients, find the work done by the patients and the money paid to them by the parochial authorities of great help in the ekeing out of limited private incomes.

Classes of Houses Specially Licensed for Pauper Patients containing at December 31st, 1903.	Number of Specially Licensed Houses in each Class.	Sex of Patients in each Class. M.	F.	Total Number of Patients in each Class.
Two patients	329	245	369	614
Three ,, ...	102	68	214	282
Four ,, ...	52	49	152	201
Totals	483	362	735	1,097

Prior to 1862 it was illegal for any guardian to receive more than one insane boarder, except under certain stringent conditions, coupled with a heavy fee, but in that year the Lunacy Board obtained an alteration of the law permitting a guardian to receive, with the sanction of the Board and without the payment of a fee, patients up to four in number. This per-

mission, however, to receive the full number of four patients, as the table on page 211 will show, is not often granted, for experience, both here and abroad, has shown that when more than two are received into any one house there is a distinct tendency to the formation of a line of separation between the guardians and the patients, and thus the assimilation of the patients into the family life of the home is to some extent defeated. For this reason permission to receive more than two patients is never given to an inexperienced guardian, and additional patients can be received only as the result of the recommendation of the Deputy Commissioner who visits the house.

The extent to which this system is carried out depends to a very large extent upon the diligence and earnestness of the individual inspectors of poor, and naturally varies in the different counties. The parochial authorities of Glasgow, Edinburgh, Dundee, Paisley, and Inverness show particular and commendable zeal in this matter, thus securing to the patients greater happiness and liberty and to the taxpayer considerable economy. To a certain extent also this variation is due to a lack of co-operation—inherent in the Scottish system, and forming a main point of departure from the family-colony system of Gheel—between the parochial and the asylum authorities, which, as we have already said, are entirely separate and distinct bodies, having their only point of union in the General Board of Lunacy. To counteract this want of co-operation and to quicken the interest of the parochial authorities Dr. Sutherland, in the last report of the General Board of Commissioners in Lunacy (Scotland)[3] suggests the appointment of officials, each of whom would give his whole time to the supervision of the patients and guardians in any parish, or, in the case of small parishes, to a group of parishes. The matter is of considerable importance, and whilst the giving of an institutional character to the treatment of many of the cases is to be deprecated, it is eminently desirable that there should be the closest co-operation between the asylum authorities and those supervising the boarded-out cases.

Accommodation, Diet, Clothing, etc.

In these particulars, again, Scotland differs from most Continental colonies, and the difference is again entirely in the direction of greater freedom and absence of restrictions which might result in a separation of the patients from the other inmates of the house. No rule is laid down as to cubic air-space per patient, area of windows, etc., as at Gheel; and, in regard to food and clothing, no distinction is made between the patients and the sane members of the household. Sir Arthur Mitchell says: "As a rule, it is regarded as sufficient if a lunatic's condition shows a reasonable approach as regards substantial comforts to that of the poor but respectable portion of the general community." That standard of 1864 is, Mr. Spence says, the standard of to-day. That this standard is in every way satisfactory, that the food and clothing supplied to the patients is wholesome and abundant, and that the general physical condition of the patients is excellent, we can testify from personal inspection. Thanks to the courtesy and kindness of Sir John Sibbald and Dr. John Macpherson, every facility was put in our way for the visitation of numbers of cases, and we take this opportunity of thanking these gentlemen, and also Mr. Spence, Secretary to the General Board of Lunacy, and Dr. Charles Macpherson, who kindly conducted us to a large number of cases in Balfron and the surrounding country, for much help and valuable information as to the working of this system. We also beg to thank Mr. Cairns, of the Glasgow Parish Council, for kindly taking us over the cases boarded out in Lanark and its environs and for his care in explaining the details of inspection of patients, guardians, and candidates for guardianship. We saw altogether hundreds of cases, and although our visit was entirely unexpected, in every single case the houses were thoroughly clean and wholesome, the bedding and personal clothing adequate and in good condition, and the patients thoroughly contented. In not one case did the patient wish to return to the asylums, though several cases wished to return to their own homes, as is usual in asylums. The accommodation is very variable, both in the different districts and in any particular district, thus permitting of a wide choice of a home suitable to any individual case. We were surprised to find in many of the houses a degree of comfort, and other evidences of refinement in domestic menage, which could not be provided in any asylum for this class of patient, whilst in others the conditions which obtained—except for unusual cleanliness and absence of disorder—were such as may be found in any labourer's cottage in England. Further north the homes are in numerous instances characterized by a still hardier simplicity, and the patients are boarded in houses which to southern eyes would appear wretched beyond habitation. This is, however, entirely a matter of the standard of comfort of the locality. In Shetland, for instance, we found the ordinary small crofters and fishermen living in houses frequently of only two rooms, whose floors of pressed earth, bare walls, and rafters blackened by peat reek, and primitive and scanty furnishings would be scorned by the southern working man as mean and beggarly. Yet these same brave and hardy folk possess abundant plain and wholesome food, live in an air swept by health-giving breezes from sea and moor, and, so far as the necessary conditions for health and happiness are concerned, have an environment immeasurably superior to that of their southern compeers.

Speaking on this point, Dr. Charles Macpherson[4] says: "I know many homes in the north where the patients are healthy, robust, and thoroughly contented, yet their house accommodation would be regarded as almost unfit for habitation in other parts of the country, and their dietary contains a much smaller proportion of butcher meat than they would get in an ordinary poorhouse ward. Yet, for all that, I could point to many patients there who are healthy and happy, and have much improved in bodily condition since their discharge from the asylum, where they undoubtedly were better housed and fed. But while these patients do well, it is because it is the life and the diet to which they had formerly been accustomed, and I doubt much if patients, say from the mining districts, or even from the southern agricultural districts, would thrive under such circumstances. It is all a matter of what one has been accustomed to—of the standard of living and house accommodation of the district in which the patient has been brought up—and, consequently, what is comfort in one district might be very far removed from the idea of comfort in another." The great majority of the homes we visited were intermediate between the extremes we have mentioned above and produced a thoroughly favourable impression. Many of the patients were engaged at their various employments, working in the fields on the strawberry farms which abound in Lanark, employed in domestic offices, or, in the case of pronounced dements, imbeciles, or senile cases, sitting quietly at home. We were very much struck by the thoroughly capable and trustworthy appearance of the guardians, many of whom have had the care of patients, in some cases of the same patients, for as much as twenty years. In conversation they evinced an intelligent interest in their patients, and on every hand good feeling between patient and guardian was apparent. In only one or two cases did the amount of air-space in the bedrooms seem somewhat limited, and in these cases the patients were engaged in outside work, were only in the house for eating and sleeping, and proved on inspection to be in robust physical health. Separate beds must be provided for each patient, and in the case of male patients separate occupation of the beds is insisted upon, but in the case of females no objection is made to sleeping together if they both desire to do so. In two cases which we saw the patients did not seem to the Deputy Commissioner entirely suitable for family care—one, a bed-ridden old woman in need of hospital nursing, and the other a young imbecile girl—and these were noted for early transfer to the asylum. During 1903 105 such cases were removed to asylums for various reasons, bodily diseases, exacerbation of the mental condition, faulty habits, etc., and in twenty-eight instances, or 1.05 per cent. of the whole boarded-out cases, for bad or indifferent guardianship. It must be admitted that this is a very low percentage, and justifies Dr. Sutherland[5] in saying that the paucity of the defects of the system has a significance as favourable as its more positive and assuring features. We have the authority of Deputy Commissioner Macpherson also for saying that almost every case of bad or indifferent guardianship occurs amongst those cases in which the patients are boarded out with their own relatives. The cases living with their own families are mostly imbeciles and are most numerous in the poorer and more remote parts of the country, whereas those patients boarded out with strangers are for the most part dements and mild cases of mania and melancholia, who have been removed from asylums as suitable for family care. It is found in practice that the treatment of patients in their own homes is on the whole less satisfactory than when under the care of strangers, as, naturally, many parents do not possess the necessary qualifications for guardianship, and as the

following table giving the fluctuation in the numbers of boarded-out cases since 1881 will show, the proportion of cases treated in the houses of relatives has fallen steadily since 1891, and it is extremely probable that this proportion will undergo still further diminution.

Years.	Resident with Relatives	Resident with Strangers	Totals.
1881 ...	906	610	1,516
1886 ...	967	1,091	2,058
1891 ...	1,043	1,446	2,489
1896 ...	1,009	1,691	2,700
1897 ...	1,009	1,658	2,667
1898 ...	1,009	1,645	2,654
1899 ...	1,036	1,663	2,702
1900 ...	1,020	1,683	2,703
1901 ...	987	1,682	2,669
1902 ...	954	1,677	2,631
1903 ...	977	1,681	2,658

An equally important change has occurred in the manner in which the patients are boarded out. As we have already indicated, when the General Board in Lunacy was first constituted the patients came on the official roll by being left in private dwellings on admission to public relief, and during the next twenty years the majority of the cases boarded out were of this kind; but since that time the proportion of cases which have been discharged to family care has steadily increased, so that to-day more than two-thirds of the patients are admitted by this channel. This increase in the removals from asylums arose, Mr. Spence[6] says, not so much from a recognition of the sound administrative principle on which this system rests as from necessity, owing to the overcrowded condition of asylums of large cities like Edinburgh and Glasgow, and has given rise to a misconception of the term "boarded out." This term does not predicate a system whose essence lies in the removal of patients from asylums. "What the system aims at, and attains, is that no insane person in Scotland who receives parochial relief while under private care shall receive such relief unless under conditions prescribed by the State through the Board, and under Governmental inspection ensuring the fulfilment of these conditions." The system thus does not exist for the relief of congested asylums, considerable as this benefit may be, but is a means—a satisfactory method—of dealing with a large proportion of the insane in itself.

Recoveries, Deaths, etc.

The cases boarded out in Scotland are, in the main, imbeciles, dements, and other chronic incurable cases discharged from asylums. Of 134 cases admitted during 1903 in the counties over which Dr. Sutherland has supervision, 41 were imbeciles and 47 were dements, that is, in the proportion of 73.1 per cent. of his total admissions. With such a class of admissions recoveries are hardly to be expected. Nevertheless recoveries do occur, in some cases after many years of asylum treatment. In the year 1903 27 recoveries were recorded, giving a recovery rate on the total number of admissions of 9 per cent. One of these cases was a woman who had been residing in an asylum for six years and whose removal to family care was strongly opposed by the medical superintendent, but who recovered within ten months of removal. Unexpected recoveries of this kind form a constant feature of all systems of family care and are of too regular occurrence to be dismissed as insignificant or fortuitous. Turning to the deaths, we find that for the year 1903 the death-rate amongst the insane poor in private dwellings was 4.4 per cent., whilst the death-rate amongst pauper patients resident in asylums was 9.9 per cent. for the same period. Here, as at Gheel, the death-rate is less than half of that in closed institutions, and this amongst patients 73 per cent. of whom were either imbecile or dements. These figures speak for themselves.

The Cost of Maintenance.

There is no fixed rate of board in Scotland, nor are the patients classified according to their capacity for work or the amount of care and attention required, though these are taken in consideration in fixing the sums paid to the guardians. These sums vary in the different districts, and range from the 7s. per week of large urban and burghal parishes to 3s. 9½d. in the case of Shetland. Those patients—mostly cases of imbecility—who live with relatives cost the parish council much less than those boarded with strangers. Clothing of which each patient must have two complete outfits and medical attendance have to be provided in addition. Altogether the average weekly cost per patient for the whole of the boarded-out cases in Scotland is about 8s. 5d., and that for patients in establishments 9s. 11d. The asylum rates, however, do not include the cost of land and buildings, which in Scotland is paid for by a special local rate levied by District Boards of Lunacy, and amounts to 6s. 10¾d. per patient per week. The cost of maintenance, therefore, in private dwellings is just one-half of that in asylums, and the boarding out of these 2 658 patients, whilst securing to them greater health and happiness, results in an economy to the taxpayer in Scotland of between £46,000 and £50,000 per annum. Nor is this all, for there are other benefits which escape mathematical calculation but are none the less real. In our account of the Gheel Colony we mentioned the fact that the conversion of the former barren lands of the Campine into the present fruitful fields and gardens was largely due to patient-labour, and in the same way in Scotland, the work of the patients has been of inestimable benefit in many districts. Whole villages in Fifeshire, which had been the seat of a prosperous hand-loom weaving were saved from extinction, when their trade died out as the result of the introduction of power-loom weaving, by the settlement of patients in their district, and there are many places of decaying industries in England, and still more in Ireland, where the prospects of the agriculturist grow worse year by year, and where the maintenance of the insane is an ever-increasing tax—at present over half a million annually—upon the poverty-stricken ratepayers, where similar advantages would accrue from the introduction of this method. The gentleman to whom we are indebted for the photographs of Balfron told us that a guardian said he "had to pay dafter men than them he was paid for keeping," and it is only necessary to see these poor patients working contentedly in the fields and gardens of Scotland, Belgium, and other colonies to realize the immense amount of useful energy which is not merely wasted, but is injuriously "cabin'd and confined" within the wards of our asylums.

Casualties and other Possible Dangers.

The possibility of dangerous occurrences, lax or exigeant guardianship, or breaches of moral code by the patients or their co-dwellers has undoubtedly weighed heavily in the minds of many who, without personal acquaintance with its actual working, regard the system as risky and impracticable. Dr. Conolly Norman,[7] an enthusiastic advocate of its adoption in Ireland, and to whose efforts we wish all success, admits that he had said to himself—though many years ago—that Gheel was inimitable, having been founded in the piety of primitive ages amongst a population whose care for the insane approached an hereditary tact; and there are probably very few—including the writer—whose thoughts on the question have not been tinctured with some misgivings under this head. The result of investigation, however, proves that these apprehensions are entirely without justification. That unfavourable occurrences should have to be recorded from time to time in the history of this or any other system is inevitable so long as human nature remains what it is at present. Whether in or out of an asylum, there are always some who will take a surreptitious advantage of their weaker brethren, and who appear impervious to a true conception of their responsibility to the insane under their care.

Showing Relative Frequency of Major Accidents amongst the Boarded-out Cases and Insane in Asylums in Scotland during 1903.

	Patients.	Casualties.	Fatal Casualties.	Casualties per 1,000	Fatal Casualties per 1,000.
Boarded-out cases (Scotland) ..	2,658	7	3	2.6	1.1
Scottish asylums etc.... ..	11,651	181	16	15.5	1.4

Fortunately, cases of this kind are comparatively rare, but are certainly more numerous inside asylums than out of them. Charges, generally imaginary, but in some cases only too well grounded, are frequently brought against attendants in asylums, but in not one case of all those we saw was the patient willing to return to the asylum, which would certainly not have been the case had there been in any case harsh treatment by their guardians. With regard to accidents there is, as might be expected from the class of patient selected for

family care, a striking difference between the proportion of major casualties amongst the boarded-out cases and those in asylums in favour of the former. As the table on page 213 shows, the proportion of major casualties per 1,000 patients is in the case of the boarded-out 2 6, as against 15 5 for Scottish establishments, and as we shall see later, from a comparison of the statistics of England and Wales and other countries, this remarkable comparative infrequency of unfortunate occurrences is maintained elsewhere.

There is still another possibility which is mentioned by almost every one who discusses this question, and which has undoubtedly prejudiced many with regard to the family care of the insane, and that is the risk of pregnancy. There have been isolated occurrences of this kind, but these have been so rare that years have intervened between the cases recorded, which have, in almost all cases, been found amongst those under the care of their own parents or natural guardians. The cases in which the risk is greatest are often, Dr. Spence says, those of young imbecile girls under the care of their parents who would refuse public relief and would thus withdraw their daughter from the Board's jurisdiction, rather than consent to her removal to an asylum or to more capable guardianship, and as refusal of sanction on the part of the Board would only result in depriving the young woman of the protection arising from inspection, the Board sometimes acquiesce, for the patient's good, in arrangements which otherwise they would not be willing to sanction. So far, therefore, from this system increasing the possibility of pregnancy in this class of patient, the danger is decidedly diminished. The writer is acquainted with more than one case in England, where imbecile girls, not certified as insane, have given birth to illegitimate children, in one particular case becoming pregnant no less than six times, and doubtless there are few medical men of extensive practice amongst the poor who have not met with similar cases. This, which constitutes a grave public scandal, and which should be the subject of criminal proceedings, is very much less liable to occur under the Scottish system than that of England. The advantages offered by this method of treatment of a considerable percentage of the insane poor, are so striking that they do not call for wider enumeration or higher encomium. The facts which we have given speak for themselves: increased happiness, liberty, and health to the sufferers, a lowered death-rate, a relief to overcrowded asylums which would be of great benefit to acute and curable asylum patients, and an economy to the taxpayers, which, if England moved in line with Scotland would amount to £400,000 per annum. We have no desire to dwell upon the financial side of this question, important as it is, and would rather repeat with Sir Arthur Mitchell,[8] "if happiness can be increased in the private dwelling, the State has no right to deprive him of that blessing, even if it cost a little more instead of less."

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[1] Spence, *The Present Position of the Insane Poor under Private Care in Scotland*; N. Adshead and Sons, Glasgow, 1902. [2] Sibbald, *The Relief of the Poor in Edinburgh*; N. Adshead and Sons, Glasgow, 1904. [3] XLVIth Report of the General Board of Commissioners in Lunacy for Scotland; Hedderwick and Sons, Glasgow, 1904. [4] Ibid. [5] Ibid. [6] Ibid. [7] Conolly Norman, *Gossip about Gheel*; Adlard and Sons, London, 1904. [8] Mitchell, *The Insane in Private Dwellings*; Edinburgh: Edmonston and Douglas, 1864 (out of print).

CORRECTION.—In the introduction to this series of articles, published on January 7th, 1905, p. 36, second column, line 41, for Drs. Sutherland and J. Macpherson, Commissioners in Lunacy, read Drs. Sutherland and C. Macpherson, Deputy Commissioners.

BEQUESTS TO HOSPITALS.—Under the will of the late Mr. Bernard Cohen, of Bradford, the following legacies are bequeathed: £500 to the Bradford Royal Infirmary, £400 to the Bradford Eye and Ear Hospital and £300 to the Bradford Children's Hospital. The late Mr. Alfred Stevens, of Newport, I.W., left £2,000 on certain conditions to the Royal Isle of Wight County Hospital at Ryde and £1,500 to the Royal National Consumption Hospital at Ventnor.

AN INEBRIATES' HOME IN NEW YORK.—A Bill providing for the establishment in New York of a home in which persons suffering from alcoholism and narcomania will be treated free of charge, is to be presented to the New York State Legislature. The home will be built from money received from the excise law—an appropriate exemplification of Napoleon's plan of making war support war. There will be no lack of candidates for admission, as it is estimated that about 1,000 suitable cases could be found at once. The management will be in the hands of the Mayor, who will have the assistance of a Board of medical advisers.

"A SIGN OF DEATH."

UNDER this heading there appeared in the BRITISH MEDICAL JOURNAL of December 31st, 1904, a note in which a brief account of Dr. Icard's fluorescin test of death was given. Dr. Percy Newell, of Bexhill, has called our attention to the fact that the test was originally described by Dr. Icard in 1897. On the general subject of premature burial a correspondent who describes himself as "Amused" informs us, with a nice derangement of epitaphs, that he was "under the impression that this bogey had been thrashed out long ago," and he is accordingly surprised at its being "revived in the pages of a paper like the BRITISH MEDICAL JOURNAL." He airily suggests that Dr. Icard "must be very far left to himself if he is unable to be sure that death has occurred without making an injection of fluorescin or any other substance." He recommends him to study some simple book giving the signs of death and to attend a poorhouse, asylum, or large hospital for a short period. "Amused" may possibly, in the phrase made classic by the late Lord Coleridge, be surprised to learn that Dr. Icard is the author of a book of some authority, entitled *La Mort Réelle et la Mort Apparente*, which by an interesting coincidence was published in the very year that witnessed the birth of our correspondent into the medical profession. His fluorescin test is deemed by Professor Dixon Mann of sufficient importance to be mentioned in his *Forensic Medicine and Toxicology*. Our correspondent thinks it "a great pity that a journal like the BRITISH MEDICAL JOURNAL should actually 'air' the discovery and opinions of a medical man who is evidently on his own showing an ignorant crank." We venture to hope that the facts above submitted will produce a more charitable frame of mind.

We would further humbly suggest that our correspondent might read Brouardel's book *La Mort et la Mort Subite*, in which he will find some twenty pages devoted to the description and discussion of the signs of death. It is there admitted that even a medical practitioner may in rare cases feel some doubt, and it is recommended that in such circumstances he should use all available tests, and if need be wait till he is absolutely certain before he definitively pronounces that the person is dead. We do not know whether Professor Brouardel has attended a poorhouse or an asylum for a short period, but he has had considerable experience as a medical expert, and this fact lends special significance to his adoption of the conclusion of the Académie de Médecine that this part of science (the verification of death) is too much neglected, and that the attention of medical men is not called with sufficient insistence to this branch of diagnosis. In the vast majority of cases, of course, no doubt can arise, but the words of our correspondent's own authority, Taylor, when he speaks of the verification of death as "a problem seldom involving any difficulty," show that he admits that difficulty may sometimes be met with. Dr. F. J. Smith, who, we believe, is preparing a new edition of Taylor's work, in his *Lectures on Medical Jurisprudence and Toxicology* (London, 1900, p. 73), while expressing the conviction that premature burial is absolutely impossible in this country, owing to the length of time that is allowed to elapse before interment is carried out, says that in tropical countries and places where life is held much cheaper than it is here, he can conceive that the accident is possible. That it is "possible" even in this country is shown by the case of the woman at Accrington (referred to by our Manchester Correspondent, p. 218), who the other day was resuscitated by the undertaker who came to measure the supposed corpse for its coffin.

In saying this we are not actuated by any desire to make people's flesh creep. We only wish to impress on the public the necessity of careful verification in all cases of the fact of death. Apparently there are not a few doctors who do not share our correspondent's happy confidence, for Dr. Icard's test has been described in several medical and scientific journals. Why are so many tests given in the text-books if the diagnosis of death is always and in all places easy and certain? It may be true, as stated by a contemporary, on the authority of a scientific medical man not named, that "no single instance of incontrovertible proof of live burial" exists. Indeed, it is difficult to see how incontrovertible proof of the fact could be forthcoming. But this does not make it any the less important that such an occurrence should, as far as this can be done, be made impossible. The public is much more likely to be scared by the light-hearted dismissal of the

whole question as unworthy the attention of the profession than by the suggestion of means of avoiding the accident. We have received a communication from Dr. J. Stenson Hooker, Honorary Medical Secretary of the Association for the Prevention of Live Burial, pointing out that beyond the central idea of the prevention of premature burial, there are several side issues, to the consideration of which that Association applies itself. These he enumerates as follows: "(1) The advocacy of 'waiting mortuaries' where the deceased person can be watched until there is absolutely no question as to the fact of death; this system obtains in many towns in Germany. (2) Better system of death certification, which should, indeed, include death verification. (3) We maintain the study of trance, coma, and other death counterfeits is most inadequately taught in the medical curriculum, and that this deficiency should at once be rectified." While fully believing that with ordinary precautions premature burial is in this country practically impossible, we do not feel justified in declaring the Association for the Prevention of Premature Burial to be a manifestation of the eccentricity which is associated with the names of some of its members. On the other hand, we think it right to express our conviction that the gruesome tales of live burial which have been gathered together from all kinds of sources by Mr. Tebb are for the most part mythical.

PREVENTION OF CONSUMPTION.

THE WINSLEY SANATORIUM FOR CONSUMPTIVES.

IT is now about five years since, at a meeting of the Bristol and Bath Medical Association, it was decided to form a branch of the National Association for the Prevention of Consumption for the three counties of Wiltshire, Somerset, and Gloucestershire. Amongst the objects which the branch when formed set itself to perform was the erection of a sanatorium for the consumptives of the three counties. After many and exceptional initial difficulties, the Committee which undertook this portion of the work has at length so far succeeded in its efforts that the institution is almost completed and is already at work. On January 17th representatives of the press were invited to visit the sanatorium, where they were conducted over the institution by members of the Committee and staff, and were afterwards entertained at luncheon.

The sanatorium stands in its own grounds of some 50 acres, on the high land overlooking the valley of the Frome, and near the village of Winsley, about a mile from the railway station. Facing south, the view from the edge of the cliff on which the institution is placed, looks across the valley towards Limpley Stoke. The main or administrative block, a two-storied building in which is accommodation for 26 patients, is already completed, and No. 2 block, not yet finished, will provide another 34 beds. Dining-room, kitchen, and offices form a separate block in rear. Shelters in the grounds allow of the patients resting in the open. The total cost of the institution is £26,000, of which about £6,000 remains to be obtained. Already 16 patients have been in residence since the middle of December, and all have improved to a most satisfactory extent in this short time.

Dr. Lionel Weatherly, to whose untiring interest in the work the erection of the sanatorium is so largely due, presided at the luncheon, and made a statement describing their early difficulties, and how these were at length successfully overcome. The demands made by the war on the pockets of the philanthropic, followed so quickly by the subscription lists for memorials to the memory of Queen Victoria, made it almost impossible to collect the necessary funds for the building of a sanatorium. The Committee therefore turned to the various local authorities, and to bodies of working men, where they met with most gratifying success, except from the local authorities in Somerset, from the greater part of which county they had received no help whatever. The working men of Swindon had given most generous and valuable assistance, and had agreed to maintain two beds. Bristol would maintain 20 beds, and with Bath and other contributing authorities 36 out of 40 free beds were already provided for. If the public would contribute £900 a year out of the total estimated annual cost of £4,000 for maintenance, 20 beds could be set aside for patients who would pay 6s. a week each. The scheme which the Committee had laid down was to have an institution which should be built and maintained on the principle of philanthropy, by the principle of State (or rate) aid, and by the principle of self-government. They had an institution which for its situation, its construction, and almost every detail might be called an ideal sanatorium.

Dr. Thurnam of Nordrach-on-Mendip stated that, having himself been a patient at a German sanatorium and having visited many similar institutions in various parts of the Continent, he was able to say that the Winsley Sanatorium was the most perfectly-constructed sanatorium he had seen in any country.

Amongst those present were Dr. Wintle (Chairman of the Bristol Health Committee), Dr. Shingleton Smith, Dr. Harrison, Mr. Dobson, Dr. Roxburgh, Dr. Ferguson (Calne), Dr. Thurnam (Nordrach-on-Mendip), Dr. Briscoe, Dr. T. W. Locket (Melksham), Dr. J. M. Martin, Dr. Harvey, and Dr. Salmond (Resident Medical Officer).

We congratulate Dr. Weatherly and the members of the Committee, who have worked so energetically and persistently, on the successful accomplishment of their labours; for the sanatorium, though not yet completely finished, has at length actually commenced its beneficent work.

THE SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual meeting of the Scottish Poor-law Medical Officers' Association was held at St. Enoch Station Hotel, Glasgow, on January 20th.

ANNUAL REPORT.

The annual report stated that the amount of business brought under the notice of the Committee had been less than in former years, and that it appeared from letters received that the action of the Association had had the effect of causing parish councils to be more careful in their treatment of medical officers.

The report expressed regret that the Bill for a more secure tenure of office had been blocked in the last session of the House of Commons; there was, however, reason to believe that a new Bill had been drafted giving effect to the recommendations of the Departmental Committee of the Local Government Board in Scotland. The hope was expressed that all members of the Scottish Poor-law medical service would use their individual influence with members of Parliament to put pressure on the Government to have this Bill introduced as early in the coming session as possible.

The report stated that every member of the Poor-law medical service in Scotland was under a great debt of gratitude to the Local Government Board for the findings of the Departmental Committee, which were summarized as follows:

(1) That medical officers be put in the same statutory position as medical officers of health—namely, only dismissable by or with the consent of the Local Government Board.

(2) That drugs, etc., prescribed for parochial patients are not to be included in the salary, or compounded for by a lump sum; but, where practicable, are to be dispensed by a druggist. In places where there is no druggist within a reasonable distance, then the medical officer will dispense the drugs, and will be paid for the same by the parish council at the same rate as if the prescription had been dispensed by a druggist.

(3) *Official Residence.*—Parish councils are authorized to use the parochial funds in building a suitable house for the medical officer.

(4) Medical officers still to have the privilege of recommending invalid diet, etc., subject as before to the veto of the inspector; but where the inspector does not carry out the recommendation of the medical officer, then he must give his reasons in writing.

The further claims put forward by the Association which had not been accepted by the Local Government Board were:

(1) That special fees be paid for attendance on midwifery, fractures, etc., the same as in England and Ireland.

(2) That a uniform fee of 21s. be paid for lunacy cases, and not as at present—some parish councils paying 21s., others 10s. 6d., while some pay nothing, those latter not forgetting, in cases of lunacy not belonging to their own parish, to charge the outside parish 21s. for each certificate, which money is put into the coffers of the council, thus making a profit out of the work of their medical officers.

(3) That in those cases where a medical officer's income consists chiefly of his official salary, then the parish council shall be bound to grant a suitable annual holiday at the expense of the rates the same as in Ireland.

The number of vacant appointments reported to the Committee during the year had been smaller than usual, and they were nearly all in the Highlands and Islands. In the instance of certain parishes the cause of the vacancy had been overbearing conduct on the part of the parish council

and the inability of medical officers to make a living wage. It was the rule of the Committee always to apply to the outgoing medical officer for full information, which had always been willingly given.

The financial report showed a small balance in the hands of the Treasurer. The report was adopted unanimously.

DISCUSSION.

A discussion took place on the advisability of the Association holding meetings in other towns in Scotland, but the matter was left to the discretion of the Council. Great satisfaction was expressed at the support given to the Association by the Medico Political Committee of the British Medical Association and the medical journals. The officers were re-elected, and a vote of thanks to the Chairman (Dr. Cullen) brought the proceedings to a close.

LITERARY NOTES.

IT is not so easy as might at first sight appear to determine the exact age of a medical journal. The journal is, of course, born on the day when its first number is published; it may have been in the incubation stage for weeks and even months anterior to that date, but it is not legally alive till it is published. If it survive its third year—a very fatal time, it may be remarked, for young journals—it is then three years old and no more; for the incubation stage, however long, is not counted. So far all is easy reckoning; but with increasing years come vicissitudes. The journal may change its shape, or its colour, or its opinions; it may begin a new series; it may absorb another journal, and either retain its own name or take that of the other journal, or it may have a new name different from both. When, therefore, a hundred years of such chequered experiences have passed over its head, it may justly celebrate a centenary, but it may be difficult to say whose centenary is being commemorated. These reflections are suggested by the centenary number of the *Edinburgh Medical Journal* just published. The following are the facts: In 1805 the *Edinburgh Medical and Surgical Journal* was born, and lived till 1855; in 1826 the *Edinburgh Journal of Medical Science* came into being and had a short—we do not know if it was sad or merry—life of three years; in 1841 the *Edinburgh Monthly Journal of Medical Science* appeared, very soon (in 1845) changing its name to that of *Monthly Journal of Medical Science, London and Edinburgh*, and absorbing in 1846 the *Northern Journal of Medicine, Edinburgh*: finally it united in 1855 with the *Edinburgh Medical and Surgical Journal* to form the present *Edinburgh Medical Journal*. It is in virtue, therefore, of its descent from the *Edinburgh Medical and Surgical Journal* that the *Edinburgh Medical Journal* is this month celebrating its centenary, for it is obvious that if we go by names the *Edinburgh Medical Journal* is fifty and not a hundred years old. But supposing it is descent and not name that proves continuity of journalistic life the next question that arises is whether the *Edinburgh Medical Journal* may not be older than the century. It would almost seem as if it were more than a centenarian, for in 1805, when the *Edinburgh Medical and Surgical Journal* was inaugurated, the *Medical and Physical Journal* (of London), in commenting on its appearance, says: "The public seems disposed to consider it as a continuation of the *Annals of Medicine* in a different and, in our opinion, in a better form." Now, the *Annals of Medicine* began in 1796; it was a continuation of the *Medical Commentaries* begun in 1780; and this again was the continuation of the *Medical and Philosophical Commentaries*, commenced in 1774. From the standpoint of continuity of descent, therefore, the *Edinburgh Medical Journal* is more than thirty years over the hundred, and ought to have celebrated its centenary in 1874, about which time, by the way, the Aesculapian Club did so. Whatever may be its real age—fifty, a hundred, or a hundred and thirty-one—we offer congratulations and many happy returns of the century to the *Edinburgh Medical Journal*.

In the König Mathias-Haus Museum at Kolozsvar in Hungary there is now what is said to be a unique copy of the famous Anatomical Atlas of Bernhard Siegfreid Weisz, better known by his Latinized name of Albinus. It is set in a movable frame about 2 metres in breadth, and the plates, which are very beautiful, are of life-size. The preparation of them is said to have cost Albinus 80,000 Dutch guilden. For forty years the work was in the possession of Dr. Stefan Mulis, Honorary Physikus or Medical Officer of the city of Kolozsvar, into whose hands it had come in payment of a debt for professional services.

In the first annual lecture arranged by the Committee of the Long Fox Memorial, which is published in the December number of the *Bristol Medico-Chirurgical Journal*, Dr. John Beddoe relates a touching story of Dr. Alison of Edinburgh, not less deservedly famous for his philanthropy than for his medical skill. Dr. Beddoe says he can recollect when age and infirmity—of body but not of mind—made him resign the posts of Physician and Clinical Professor at the Edinburgh Royal Infirmary. "An interesting and amiable patient of his was just then struggling doubtfully through an attack of typhoid, but after his departure disappointed our hopes by dying suddenly from an imprudent exertion, undertaken against orders, to save trouble to the nurse. A few weeks afterwards I met Dr. Alison painfully dragging his large but feeble frame up the infirmary stair. 'Dr. Beddoe,' he said, 'you can save me this labour. I only want to know how Monro has got on.' I told him the mournful facts. His countenance fell, and without a word he turned and hobbled down the stair. I never saw him again; I doubt whether he ever again left his house."

In describing the rings worn by Gargantua, Rabelais speaks of those on the "medical finger" of each hand. Again, in describing the signs made by Nazdecabre to Panurge, he used the same expression. The commentators of the seventeenth and eighteenth centuries throw no light on the matter, probably for the simple reason that they considered the expression familiar to every one, and, therefore, needing no elucidation. Dr. Antoine Sabatier, who discusses the subject with much erudition in the *Lyon Médical*, says that modern commentators have been puzzled by the expression, the meaning of which has been lost. Some say that the medical finger is the middle, others the ring, finger. Dr. F. Brémond in his *Rabelais Médecin* agrees with the latter interpretation. The expression "medical finger" was not invented by Rabelais, but is found in Macrobius, who flourished in the fifth century, and in many writers of the Middle Ages. Ducange in his *Glossarium*, cites a number of passages in which it occurs. Originally it was used only of the ring finger of the left hand. Dr. Sabatier holds that the epithet "medical" is to be interpreted strictly as pertaining to physic, not to surgery, and that the ring finger of the left was so designated because in the ceremony of graduation a gold ring was placed on the finger in token of the nobility of the profession of medicine as distinct from the handicraft of surgery. This was a very ancient custom in the University of Montpellier, where Rabelais took the degrees of Bachelor, Licentiate, and finally Doctor of Medicine. Dr. Sabatier is inclined to think that the custom was peculiar to the universities of the centre and south of France, no mention of a ring being found in the ceremonial of graduation at those of the north, such as Paris and Nancy. Dr. Sabatier traces the custom back to the time of the Emperor Augustus, who, to show his gratitude to his physician, Antonius Musa, who cured him of a dangerous illness, is said to have given him a large sum of money and the right for him and all physicians after him to wear the gold ring which in ancient Rome was a mark of nobility. This is the explanation of the words used in the graduation ceremony at Montpellier when the ring was placed on the candidate's finger: *Accipe annulum aureum in signum nobilitatis ab Augusto et Senatu Romano Medicis concesso.* So closely identified was the symbolism of the gold ring identified with the profession of physic that when the rite was borrowed by Faculties of Law the expression "medical finger" was also adopted. This is shown by the following passage in the official report of the admission of a candidate to the degree of Doctor of Laws in the University of Bourges in the year 1584:

"Et a fait led. sieur Mercier docteur-régent, à l'excuse dud. sieur Cujas, doyen en lad. Université, la harangue pour la réception d'iceluy et l'a receu et installé en lad. dignité de docteur-régent en la faculté de droict civil en l'université de Bourges aux lieu et place de deffunct Messire Nicolas Bouguyer, et luy a ceint une ceinture d'or, mis un anneau dans le *doigt médical*, vestu la robe doctorale, et prins de luy le serment en tel cas requis," etc.

The Philadelphia *Medical Book News* for December contains an interesting description of the famous library of the Surgeon-General's office at Washington. The library is housed in the same building as the Medical Museum of the United States Army. The building is a large and commodious structure, standing in open ground, and adequately suited to the purposes to which it is put. The quarters assigned for the uses of the library comprise a suite of rooms on the second floor. The library room proper, in which the bound volumes are kept, is an immense apartment at the extreme south end of the building. This is lined with shelves, tier

upon tier, ascending from floor to ceiling. The library contains—exclusive of journals and pamphlets, bound and unbound—upwards of 150 000 medical books. Among these are many of priceless value, as, for instance, the first English *Black Letter of Gerome Brunswick*, with its quaint imprint as follows: "Noble Experyence of the Vertuous Handiweark of Surgeri Practissyed by the most Experte Mayster Jherome of Bruynswyke, London, 1525." One may observe also a well-preserved copy of Gerardus Cremonensis, *De Medicinâ*, Venice, 1482. The collection includes complete editions of Galen and Hippocrates; early prints; rare and ancient folios; reports of learned societies; and many volumes of anatomical plates, these latter including the massive woodcuts of Mascagni. A curious collection comprises a complete set of portraits, in mezzotints, lithographs, wood and copper engravings, of famous doctors, ancient and modern. The literary equipment of the Surgeon-General's library is maintained at the expense of many hundreds of agents acting for the library authorities in all parts of the world. In fact, wherever there is a publishing centre, there is located some representative of the Washington institution. The orders given to these agents are not limited by questions of expense or expediency. Whatever is new is food for the library. The library's representatives in England and France, in Germany and Holland, in Spain and Portugal—wherever medicine is practised and medical books are produced—have standing instructions to send to Washington everything new in the shape of a medical book that sees the light and is catalogued upon a foreign list. An interesting section of the library is the periodical room, which adjoins the larger apartment, in which the bound volumes are shelved. The periodical room also serves as a reading-room. Long blotter-covered tables, with comfortable chairs ranged along either side, bisect the apartment from side to side. The walls are covered by a framework of lattice-like shelves, affording file-space for upwards of 14 000 periodicals, which the library authorities keep serially complete at all times. The periodicals are bound up in durable form as the volumes are completed, and these bound volumes represent no small part of the library as a whole. It is claimed by the library authorities that its files include every medical periodical known in the world. There is no doubt that this is true. All the periodicals are kept serially complete. There is no break in the files for years back. Any of them, bound or in numbers, may be consulted freely by those who visit the library. The rarest may be had at will, and only for the asking. And this is the case with all the papers and books in the Surgeon-General's vast collection. Nor is distance a bar. A compiler, author, or reader residing far from Washington may enjoy the use of the library as freely as any one living within easy reach. The aim is to make the collection generally available to the medical profession of the country, these facilities being limited only by the number of copies of each book or periodical which the library may contain. The collection includes reports of learned societies and institutions of foreign lands. Books are lent to individuals on the application of recognized libraries, assuming responsibility for their return, or, if no library is available, the loan is made subject to a money deposit to cover possible loss. There is a restriction in the case of old and very rare books, but the great mass of literature in the library is put within the reach of the medical profession—those who are reading, writing, or prosecuting research in any direction. Every medical writer has heard of the great *Index Catalogue*, the publication of which represents an important function in the Surgeon-General's library. The publication was begun in 1880, and reached the completion of its first series, to "Z," in 1895. The second series has now proceeded to "L." In all, twenty-five volumes have been published. The *Index* is printed in all languages and affords an exhaustive catalogue of medical literature and every branch of general literature connected with medicine. The compilation of the great index is in general charge of the librarian, Major W. D. McCaw, but the direct preparation of the text falls to the lot of Dr. Robert Fletcher, LL.D., who has the reputation of being the best medical bibliographist in the United States. Dr. Fletcher has a large staff of assistants.

THE PLAGUE.

INDIA.

THE deaths from plague in India during the weeks ending December 17th, 24th, and 31st, numbered 18,284, 19,465, and 22,645 respectively. In the principal centres the distribution was as follows: Bombay city, 99, 110, and 114; Bombay districts, 4,995, 4,154, and 3,774; Calcutta, 15, 18, and 18; Bengal 1,617, 2,005 and 2,496; North-West Provinces and Oudh, 6,186, 6,822, and 9,574; Punjab, 2,989, 3,940, and 4,673; Rajputana, 409, 334, and 314; Kashmir, 10, 8, and 10; Central Provinces, 382, 387, and 379; Central India, 193, 150, and 121; Hyderabad State, 610, 809, and 516; Mysore State, 374, 319, and 352; Madras Presidency, 492, 353, and 367.

SOUTH AFRICA.

Port Elizabeth.—No case of plague during the week ending December 24th. Two cases remain under treatment.

East London.—One case, one death during week ending December 24th. Rats and mice continue to be found in both places with plague.

MAURITIUS.

During the weeks ending January 13th and 19th the fresh cases of plague numbered 8 and 10, and the deaths from the disease 8 and 8 respectively.

HONG KONG.

During the weeks ending January 7th and 14th the fresh cases of plague numbered 1 and 3, and the deaths 1 and 3 respectively.

SPECIAL CORRESPONDENCE.

BERLIN.

Epidemiological Investigation of Tuberculosis.—Fatal Imported Case of Small-pox.—Winter Day Sanatorium.—The Administration of the Rudolf Virchow Hospital.—Ankylostomiasis among Miners.

THE Prussian Government does not rest in its efforts to sift to the bottom the question of bovine and human tuberculosis. Thus, a rescript, newly issued by the Ministers of Agriculture and of Home Affairs (Medical Department) jointly, sets going an inquiry which is to be carried out all over the country by official veterinary surgeons in concert with district medical officers. Wherever a cow is found to be suffering from tuberculosis of the udder, careful inquiries are to be made as to how long the disease may have existed, as to whether the cow has been regularly milked, and milked from the diseased teats, and the milk drunk unboiled by adults or children. The material thus collected by the veterinary surgeon is then to be submitted to the district medical officer, whose work it must then be to find out the effect produced by this tuberculous milk on those who have drunk it raw. Any cases of human tuberculosis are to be communicated to the Imperial Board of Health in Berlin. The rescript adds that this inquiry will present fewest difficulties in districts where cows are periodically subjected to examination for tuberculosis (the provinces of Pomerania, Brandenburg, Saxony, and Schleswig-Holstein). But, even in districts where these obligatory examinations do not take place, it will be possible to find out cases here and there, especially by the examination of butcher's meat. Finally, the circular expresses the hope that private practitioners and veterinary surgeons, too, will assist the inquiry.

A fatal case of small-pox has occurred in Berlin. Not an indigenous case, but one brought across the Russian frontier. A Belgian artisan—on his way home from Russia—was taken out of the train ill on arrival in Berlin. As the case was suspicious from the first, the man was isolated in one of the Special Charité pavilions, and there after a few days' illness he succumbed to the disease. Needless to say, all precautions against spread of the disease have been taken.

On January 18th, Frau Studt, wife of the Prussian Minister for Home Affairs, was able to open the first German Winter-daysanatorium ("Wintererholungstätte") at Eichkamp in the Grünwald, the great pine forest close to Berlin. As the unfamiliar name shows, this sanatorium represents a new departure in the great crusade against tuberculosis, for though no less than eight such rural health resorts are open to the Berlin working classes all the summer through, the Eichkamp establishment is the first that has been fitted up for the reception of patients in winter. All the arrangements are of the simplest and most practical description; kitchen and offices, dining and sitting rooms are well heated, and there are open verandahs and sheds for couches and reclining chairs, warm bags for lying out in, etc. Seventeen patients attended on the first day, but room is provided for as many as fifty, and if the results prove satisfactory, no doubt other winter day sanatoriums on similar lines will follow. In acknowledgement of Frau Studt's unwearying efforts in the sanatorium movement, this first establishment of the kind is to bear the name "Luise-Studt-Erholungstätte."

At the last meeting of the Berlin City Council, as the estimates for the Rudolf Virchow Hospital were being finally passed, an almost violent altercation suddenly arose on the question whether the general administration of the entire

large establishment should be entrusted to the chief physician or be made a separate office and given to a layman of special ability and training. The Estimates Committees, after weighing all the *pros* and *cons.*, had decided on the latter course, and the fierce opposition it encountered at the last moment from two medical members of the City Council evidently came as a complete surprise. Rudolf Virchow's memory was invoked and his opinion on the subject of laymen-directors quoted by both sides in support of their views. The discussion was on the verge of becoming disagreeably personal, when Oberbürgermeister Kirschner (the Berlin "Lord Mayor"), in a calm and masterly little speech, summed up the situation, and showed that the divergent opinions on this one administrative question had nothing whatever to do with the veneration for Rudolf Virchow, which all who had had the privilege of sitting in the council with him must and did feel equally. The estimates were then passed without further opposition—that is, the question of a layman managing director was decided in the sense advocated by the Committee.

A short time ago two Bills asking for better obligatory prophylactic measures for the prevention of miners' worm disease were laid before the German Reichstag by private members. In the course of the debate, Count Posadowsky, Secretary of State for the Interior, reported on the research which is being carried out in the Imperial Board of Health with a view to finding out the course run by the disease, that is to say, the point of ingress of the ovum and the subsequent development of the worm. Formerly the opinion was held that the only possible point of ingress was the mouth, but—said Count Posadowsky—experiments made on monkeys have now proved conclusively that infection takes places through the skin as well as the mouth. This fact explains why all the prophylactic measures hitherto considered so important should have had so little success. Miners in deep pits, where the temperature is high are generally partially naked, and thus the danger of infection is very great. The research has brought another fact to light, continued Count Posadowsky—dry surroundings are unfavourable to the spread of the disease. Though the inquiry has not yet been brought to a close, the following two points may, even now, be taken as established: (1) The pits should be kept as dry as possible; (2) time and money should not be wasted on large schemes of disinfection, but all care should not be wasted on large schemes of disinfection, but all care should be taken to seek the parasite in its host, that is, to examine the bodies of the miners. An English investigator had established the important fact that worm disease can be recognized by means of blood examination at a very early stage, before the appearance of any clinical symptoms, and that the diagnosis can be made far more rapidly by these blood examinations than by the complicated feeding experiments at present in use. As soon as the inquiry is brought to a close a detailed report will be submitted to the Reichstag.

MANCHESTER.

Honour to Local Medical Men.—Coroners' Inquests and Causes of Death.—Case of Catalepsy.—Proposed Central Medical Institution and Club.—One Hundred and Fiftieth Anniversary of the Infirmary.

MR. WALTER WHITEHEAD has been elected a member of the Court of Governors of the University of Manchester. The Manchester Edinburgh University Club has elected Professor A. H. Young, of Manchester, President for the year. It is expected that Sir William Turner, K.C.B., Principal of the University of Edinburgh, will be the guest of the club at the next annual dinner.

During 1904 the Coroner of Manchester was called upon to inquire into the deaths of 1,116 persons, but continuing the policy of not holding inquests in cases where the cause of death was obvious, inquests were not held in 394. During the year a large number of deaths due to burns occurred, especially among children clothed in flannelette, a matter which Mr. Gibson, the coroner, some time ago brought before the Coroners' Society. A resolution passed by the members of that society was forwarded to the Home Secretary, who directed that all coroners must make a return of cases of burning in which flannelette had been a contributory cause of death. In Manchester at least 60 per cent. of the burning cases were due to flannelette. There were 56 cases of "suicide while temporarily insane," and 2 where the verdict was "felo de se." Accidents, including burning fatalities and misadventure, accounted for 336 cases. The admirable working of the Factory Acts have done something to diminish the number of accidents in recent years. Even with the introduction of electric cars and motors, accidents do not show an increase on previous years. Natural causes account for another 261, "drink" for 62 cases, manslaughter 4, murder 1. There were 39 open verdicts. During the year 95 inquests were held on children who had been found dead in bed, and the majority of these cases happened during Saturday and Sunday.

A remarkable instance of the perils of what is alleged to have been a cataleptic state is offered by the case of a woman named Holden, who lived with her husband in an isolated farmhouse near Accrington. Mrs. Holden, who had been ill, told her husband she was dying, and by-and-by relapsed into unconsciousness. The husband, after feeling her pulse, concluded that his wife was dead. He carried out the "laying-out" process himself, carried the body upstairs, laying it on a mattress, where it lay for eight hours covered with a sheet. Holden reported the matter to a medical man, who gave a certificate of death, but, learning more about the history of the case, immediately instructed the registrar to stop the certificate, and then communicated with the police. Meantime the husband had ordered the coffin. The undertaker, when measuring the body, noticed a twitching of the eyes, and ultimately succeeded in restoring animation. It appears that the patient had had cataleptic seizures on two previous occasions, and each time preparations were made for her funeral.

Professor Dreschfeld presided on Thursday last in the Mayor's parlour over a meeting at which it was proposed to found a medical institution and club in Manchester. A Committee was appointed to carry out the project. The city has five medical societies, while other medical societies frequently meet in the town. The desire is to have a central institute which would serve as a meeting place for the various societies. During the discussion emphasis was laid on the necessity of securing the support of the various medical societies if the scheme were to be successful.

This year is the 150th anniversary of the Manchester Royal Infirmary. The original building cost about £4,000, and consisted of a central block, with two smaller wings. A clock turret was added in 1780, and the dome and clock were added in 1853. It is hoped that the new buildings will be opened in three years' time.

SOUTH WALES.

Infectious Diseases.—Proposed Legislation.—A Proposed New Urban District.—University of Wales: Guild of Graduates.

WITH the exception of the presence of diphtheria in certain parts of the Penybont Rural District the whole of the county of Glamorgan is at present exceedingly free from any of the notifiable diseases. Epidemic influenza and pneumonia are, however, very prevalent and fatal in many of the districts of South Wales. In some districts whooping-cough also prevails to an unusual extent. The epidemic of typhoid fever at Trealaw and Ystrad, in the Rhondda district, is practically over, but with disastrous results. It is calculated by the medical officer of health that the epidemic, with its 361 cases, proved fatal in 20 instances—a mortality of 5.5 per cent.—up to the end of December.

The Rhondda District Council are promoting an interesting Bill in the forthcoming session of Parliament to extend the time for the purchase of land, construction of waterworks, tramways, street widenings, etc., and to construct new gasworks. The Aberdare Tramways Bill proposes to make provision for electric tramways and lighting and for refuse destructors.

A short time ago a petition was made to the Glamorgan County Council by owners and ratepayers in the Merthyr Vale Ward of the Urban District of Merthyr Tydfil and in certain portions of the rural district of Gelligaer and Rhigos for the creation of a new urban district. It was decided that a prima facie case had been made out, and the inquiry, which is looked forward to with unusual interest, has been fixed for January 26th.

A special meeting of the Guild of Graduates of the University of Wales, postponed from November, is summoned for January 27th, when the Warden, Sir T. Marchant Williams, will preside. The Mayor of Cardiff will give a reception to the guild at the town-hall. At 7.30 p.m. the general meeting of the guild will take place, when Sir W. H. Preece, K.C.B., F.R.S., will deliver an address on the teaching of science in

secondary schools. On the same day Sir W. H. Preece will open the new electro-therapeutic department recently added to the Cardiff Infirmary.

CORRESPONDENCE.

THE PATHOLOGICAL MUSEUM OF THE ANNUAL MEETING, 1905.

SIR,—May I be allowed to draw attention to the fact that the Local Committee appointed to organize the Pathological Museum in connexion with the Annual Meeting of the Association at Leicester in July next have issued a circular to the officers of Sections requesting their co-operation, and asking them to inform members proposing to read papers or take part in discussions that the Pathological Museum Committee will be glad to take charge of and place in the Museum for exhibition any specimens, diagrams, photographs, microscopical slides, or other material when not required at the Sectional meetings?

We hope by this means not only to add to the interest of the Museum but also by offering facilities for the actual inspection and demonstration of specimens, etc., to induce members to supply such demonstrations where possible of the subjects under discussion, and so to further the practical side of the Sectional work.

It is hardly necessary to add that we are not limiting the exhibition to the work of the Sections, but hope to receive exhibits or specimens from any one having material of interest, especially such as illustrate recent clinical, pathological, bacteriological, or research work.

The Honorary Secretary, Dr. Sevestre, London Road, Leicester, will be glad to forward further information to any one if invited.—I am, etc.,

C. J. BOND,

Leicester, Jan. 24th. Chairman of Pathological Museum Committee.

A SIDELIGHT ON MEDICAL EDUCATION.

SIR,—Possibly your correspondents writing upon this subject have failed to notice that the whole matter of the returns which form the basis of your editorial has been referred by the General Medical Council to its Examination Committee for consideration and report.

Meantime, may I say that I think we want a good deal more than mere statistical statements in order to arrive at a fair estimate of the responsibility for results of the various teaching bodies? I am given to understand that many of the men who take the highest places are holding, at the time of the examination, or have held resident hospital appointments; the significance of which, as a preparation for a clinical examination in surgery, is sufficiently obvious.

Hence it may well be that the length of the course of education (especially in its practical departments) rather than its quality which is the determining factor.

Furthermore, the public medical services of the country are not in favour with the young graduates of the Scottish universities. I can speak with assurance for Aberdeen at least, from which the men who have taken the highest places in the university examinations rarely proceed to competition for navy or army appointments.

I might add that the total numbers in some of your columns seem to me to be so small as to be practically worthless for statistical purposes.—I am, etc.

Aberdeen University, Jan. 24th. DAVID W. FINLAY.

INSANITY AND MURDER.

SIR,—As I have for many years given a great deal of attention to this concatenation of calamities, and as you do me the honour to quote—incorrectly, by the way—an opinion of mine upon the matter, perhaps you will allow me space to express my regret that, in some respects, I cannot see quite eye to eye with you. The subject has always been a very controversial one, and has aroused feelings of bitterness, that are to be lamented, between two learned professions which deserve each other's respect. It is therefore incumbent upon every one who deals with it to state his case with self-restraint, suavity, and moderation. I hold that it is practicable to express dissent, even emphatic dissent, without querulousness or impatience, and without throwing out insinuations of ignorance or fatuity against one's opponent; and, in accordance with this tenet, all I will say with respect to your leading article upon this subject,[1] is that I doubt, demur to, contest, renounce, repudiate, deny and contradict the statements of fact that it contains; and dispute, traverse, oppose, object to, contest and controvert its opinions, suggestions, doctrines, implications, propositions, judgements and conclusions. To say more might seem needlessly emphatic; to say less would be to understate my dissent.

The analogy that you draw, between nautical cases and criminal cases in which the plea of insanity is raised, seems to me a false analogy, but I should exceed the brevity I have set myself to observe if I were to give my reasons. The statement that the judge is the unaided arbiter of the most difficult problems of psychological medicine, comes upon me with surprise. I am under the impression that the judge does not decide criminal cases. To do this is, I think, the function of the jury. But if the judge is the arbiter, is he unaided? Has he not the guidance of expert witnesses? And if, perchance, their opinions are contradictory, would he obtain surer guidance if these opinions were delivered from the bench, or in his private room, than when they are delivered from the witness box? Sir, I doubt it.

Is it quite fair, is it quite justifiable, to call medical experts generally "partisan witnesses"? There have been cases, no doubt, in which medical witnesses have strongly expressed strong opinions; but my own belief is that, though they are sometimes mistaken, it would be too much to say that, as a rule, the judgement of medical witnesses is clouded by a prejudiced adherence to their own side. So far from the witnesses being partisan, it is quite frequent for the prosecution to put its medical witnesses into the box, and, after a purely formal examination in chief, to leave them to be cross-examined by the defence, for the purpose of bringing out their opinion that the prisoner is insane. Is it correct to say that the witnesses for the defence are "practically confronted by the prison surgeon?" Confrontation is a part of the French procedure, but I do not think it has been adopted, either formally or practically, in English courts. I have many times given evidence in the same case with the prison surgeon, but I have never been confronted with him, nor witnessed the proceeding. And is there necessarily a conflict of evidence? I have been reporting trials for many years for the *Journal of Mental Science*, and my recollection is that the prison surgeon frequently agrees with the Treasury experts and with the medical witnesses for the defence.

If the verdict is adverse, the Government experts examine the state of the prisoner's mind, and "the question why this inquiry is not made before the trial, and how the farce of convicting a man only that he may be reprieved shall be avoided" (which seems to me to be two questions), may be thus answered:—In most cases, the inquiry *is* made before the trial, and the conviction is due to the fact that the jury accept the view of the Government experts founded on this inquiry. The examination subsequent to the trial is to make assurance doubly sure—it is not always easy to be certain about the sanity or insanity of a person—to see whether the prisoner exhibits any new evidence of insanity since his conviction; or to test new facts which have become known at or since the trial. A man is not convicted only that he may be reprieved; but if, after his conviction, new facts come to light, or if there is a lingering doubt in the mind of the judge as to the propriety of the verdict, which, it is repeated, is not given by him, a further examination is ordered. If the result of this examination is not such as to remove the doubt, the prisoner is reprieved. The only way that seems practicable to avoid this "farce" is to secure that all the facts referring to the insanity of the prisoner shall be known to, and adduced by, the defence at the trial; and to arrange that the verdict shall be given by the judge. It is now given by the jury.

The view that you take of the medical mind, and the legal mind, puts me in a deplorable position, for it shows that I am so destitute of both that I have no *locus standi* in this discussion, and must not venture into it. On the one hand, it seems to me no "work of supererogation to try a man who is insane, except in so far as a legal inquiry is necessary to establish his insanity and to direct what shall be done with him." These are important subjects of inquiry, no doubt, but it does not appear to me profitless to determine whether he has done the act with which he is charged; neither can I confess myself "indifferent as to whether he did or did not do it." I have not, therefore, the medical mind. On the other hand, I cannot say that "the presence of insanity is merely an incident which has nothing to do with the fact of whether the prisoner is guilty or not"; nor am I "indifferent as to whether the prisoner is insane or not." I have not, therefore,

[1] BRITISH MEDICAL JOURNAL, January 21st, 1905, p. 142.

the legal mind. Alas! perhaps my mind is ecclesiastical—perhaps military!

"Why if the prisoner is insane should he in any case be allowed to plead?" Why should he not? To make the condition, "if the prisoner is insane," is to beg the question. The trial is held to determine *inter alia* whether he is insane or no. Whatever the result, the trial is justified. If he is so manifestly insane that he ought not to be allowed to plead, he is not allowed to plead. But the privilege is not withdrawn from him, and, as I venture to think, is rightfully not withdrawn from him, without open trial in open court. Criminal trials *in camerâ*, conducted by medical experts, who act in the joint capacity of judge, jury, counsel and witnesses, are not yet instituted, and would not, I think, be popular. Rightly or wrongly, the public is prejudiced in favour of trial by jury in criminal cases. It is the jury that give the verdict.

To stop a trial "if in the opinion of legally-constituted assessors a prisoner brought up on a charge of murder is insane, and if this is shown to the satisfaction of the judge," would not be so easy as it sounds. For my own part, if I were one of the assessors, and the judge were of the calibre of say, the late Lord Russell, or the retired Lord Brampton, I should get my fellow assessor to make the announcement, and I should take care to be out of court and in the next parish when it was made. The proposal is based upon the assumption that insanity and irresponsibility are convertible terms. I venture to assert that they are not, and that nothing is better established than that they are not. A person may be insane and responsible; sane and irresponsible.

Yes, it is, I fear, utopian that the court should have "the fullest information as to the prisoner's mental condition in murder trials"; but that it should have the fullest available information is not utopian, but is the actual practice. When the experts for the prosecution and the experts for the defence are examined and cross-examined; when the life-history of the prisoner is recounted; when the records of the family history are rummaged; and when every instance of insanity, or even of eccentricity, in his parents, brothers, sisters uncles, and aunts can be adduced at the trial; it seems as if the fullest available information is already at the service of the court.

I will not discuss here the abstruse psychological problem of the nature of a voluntary act, further than to record my dissent from the view you take; but I cannot pass without remark the complaint that a prisoner is "treated on the assumption that he is responsible whilst all the time no trustworthy evidence has been adduced that he is fit to plead, or that at the time when he committed the offence he was *compos mentis*." Is it seriously contended that the presumption of law,—that a man is to be considered sane until he is proved to be insane,—should be reversed, and that he should in future be presumed to be insane until his sanity is proved? Is every prisoner to be tried, first as to whether he is fit to plead; then as to whether he is sane; and lastly as to whether he committed the offence with which he is charged? Such a procedure might obtain in the courts of Laputa or Erewhon, but surely it is not seriously proposed for adoption by the Central Criminal Court!

"The spectacle so often seen of medical expert opinion tending in diametrically opposite directions on questions referring to the same facts," is not confined to medical expert opinion. I seem to have some recollection of a question termed "fiscal"; and legal decisions have been known to be reversed; so that it does not seem certain that the elevation of medical experts from the witness-box to the Bench would extinguish their differences. Differences of opinion are not unknown in a place to the physician more sacred than either—the bedside of the patient. No, Sir, as long as men's minds are differently constituted, and as long as their respective experiences are diverse, so long will they continue to take different views of the same evidence, and to form different opinions on the same facts. After watching closely for many years the course of procedure, and the results of criminal trials of persons alleged to be insane; and after myself taking part in no small number; I am convinced that, on the whole, and in the long run, justice is done. If a case occasionally occurs in which it seems to me that the result might with advantage have been different, this is in consequence of no defect in the mode of procedure, but from the inherent difficulty of the case, which allows of that diversity of opinion which no mode of procedure could abolish. You allow that under the present system justice is satisfied, but you assert that the system should be altered because it is the converse of what it should be. My own opinion would be that a system under which justice is satisfied may well content us. So long as my watch preserves a regular rate, I shall not alter its construction because the escapement is unsymmetrical.—I am, etc.,

Catford, Jan. 21st. CHAS. MERCIER.

NON SIBI, SED PATRIAE.

SIR,—I am wondering whether any of your readers can enlighten me as to the meaning of a mysterious document that was delivered here last Saturday, January 21st. The envelope, which was addressed as follows: "Dr. Berkeley, 53, Wimpole Street, ~~Marylebone~~, W.," the erasure being doubtless due to the fact that the writer rather shied at the orthography, has on it the Peterborough post-mark and also the following pencilled note: "Posted at Earlsfield, Wandsworth, London, S.W., under cover to the postmaster of Holbeach." This envelope contained a circular, which is headed "Wake up," and which—like Topsy apparently—has no origin, since the name and address of the sender and date of its dispatch are conspicuously absent.

This circular contains full directions for making the Central Council a very perfect body, and as a means of ensuring this suggests that among other things the chairmen and secretaries of Divisions shall discuss the ages of their nominees on the Council, whilst it ends with a request that if the addressee is working for the advancement of the Association and thinks his representative on the Council has failed in his duties he should say unto him "Tekel." Now, I cannot help thinking that this incitement to a breach of the peace is very naughty and is the probable cause of the anonymity of the circular; yet what puzzles me the most is why my circular should have been sent all the way to Holbeach for posting when I am told that there are quite a number of post-offices and pillar-boxes in the neighbourhood of Wandsworth.—I am, etc,

London, W., Jan. 24th. COMYNS BERKELEY.

SIR,—To-day I have received a circular which on the cover states it has been posted in the area of this Division, and inside implies all Divisional Secretaries will be receiving copies.

May I at once say neither I nor the Committee of this Division should be considered as having been responsible for it?—I am, etc.,

E. ROWLAND FOTHERGILL,
Honorary Secretary, Wandsworth Division.

Southfields, S.W., Jan. 21st.

THE DISCIPLINE OF THE MEDICAL PROFESSION.

SIR,—The following cases are not exceptional within the medical profession:

1. Principal in a country district needs an assistant to carry on an out-practice. He applies to a London agency, and gets an assistant. The gentleman takes over the out-practice, and in one week is found unfit for duty, with *delirium tremens*. What penalty does such offence entail?

2. A civil medical practitioner temporarily employed in charge of troops is found at 9 a.m. dead drunk while eighteen artillery guns are in action with shot and shell. He is dismissed from employment. What penalty, in addition, does the offence entail to safeguard the discipline of medicine?

3. *Opinion of General Medical Council.*—I addressed the Registrar, General Medical Council, as to what action this body took in such matters. I regard the reply as perfectly new to me, most far-reaching and important, and here it is:

299, Oxford Street, London,
January 19th, 1905.

No. 14866.

Surgeon-General Evatt.

Dear Sir,—In reply to your letter of the 18th instant, I have to say in all cases of conviction for drunkenness, which are reported officially to the Council, the practitioner is called on for an explanation, and if considered advisable, is summoned to appear before the Council.

I think, moreover, that any case of drunkenness that was privately reported and properly substantiated by means of a statutory declaration would receive very serious consideration.

Yours faithfully,
(Signed) H. E. ALLEN,
Registrar.

All who have the interest of the profession of medicine at heart will rejoice that even the above amount of attention is

given to offences such as I report, and it shows how much has still to be done to tighten up procedure in the interests of discipline.—I am, etc.,

Southsea, Jan. 20th. G. J. H. EVATT.

THE NEW *ASSOCIATION YEAR BOOK.*

SIR,—Whilst welcoming the additions to the new *Year Book*, I might be allowed to point out an important omission, namely, the lists of members of the Council of each Branch; but, for this year, this could be rectified by publishing them in the BRITISH MEDICAL JOURNAL. I consider it important that this should be done soon, so that members of Branches may see who are on their respective Councils, as this is their only opportunity of doing so, as the names of those elected are not usually published in the Branches.

The compilers of the *Year Book* are certainly to be congratulated on the result of their work in making the list of all members, and giving their Branches and Divisions. It is not surprising that such an obvious misprint of "Div." being given instead of "Br." on p. 247 after "Elliott, G. F.," although a careful reader might have detected it.

It is certainly very gratifying that suggestions made at the Representatives' Meeting at Oxford have so quickly been carried out, and even extended.

Another year, probably, in the List of Members more detail will be given after each name, such as C. C. Central Council, C. Br. Council of Branch, P. Br. President of Branch, R. Representative, etc., if thought desirable.—I am, etc.,

Manchester, Jan. 23rd. G. H. BROADBENT.

INFLUENCE OF PREVAILING WINDS IN PHTHISIS.

SIR,—In reply to Dr. Chapman, I may point out that his explanation is untenable. In Table IX of my paper only one of the sheltered streets (Hoopern Street) has its houses exposed at the back to the rainy winds, and if this street is excluded the death-rate becomes 0·28, instead of 0·33. Further, if the sheltered streets are taken, half of whose houses are exposed either at the back or partly in front at their upper stories (excluding streets on made soil) practically the same low death-rate is found, as shown in this table:

	Population.	Female Phthisis Death-rate in Terms of Total Population.
Haldon Road	1,224	0·32
Bear Street		
Well Street		
Hoopern Street		
Belmont Road		

Hitherto my conclusions, drawn from undisputed facts, have been rejected by some people on the ground that *exposure* of houses tends to cause phthisis. Now, Dr. Chapman rejects my conclusions on the ground that *shelter* of houses tends to cause phthisis. Is not this a *reductio ad absurdum?* The fact is, some people cannot see that abundance of fresh air and exposure to strong, rainy wind are different things. I am sorry for them.—I am, etc.,

Exeter, Jan. 24th. W. GORDON.

SCOTTISH POOR LAW MEDICAL SERVICE.

SIR,—In reply to "Antibumbledom" and "Practical." I got the *Scotsman* of May 7th and also the Departmental Committee's report on medical relief. As the letter in the *Scotsman* is an exposure of the absurdity of the Local Government's method of getting over objection, no further remarks are required from me.

I certainly agree with the opinion that the Departmental report reads like a novel, but whose hero comes to grief instead of being awarded success in life. This report clearly proves the statement that "the medical officers have no one to blame but themselves," and a splendid opportunity for rectifying their position was opened to them, of which advantage was not taken.

Not so with the Association of Inspectors of Poor and Governors of Poorhouses. They met, discussed, pressed home their views on the Act; have met again since then to press further their views, and have succeeded in maintaining them.

A Lowland doctor who is dismissed by his parish has in a great number of cases, as in the Highlands, to leave the place, as he is ruined if he stays; the parish cannot support two, just as in the Highlands.

My whole contention is that parish councils are bound to pay for work done under the Lunacy and Vaccination, as well as the Poor-law Acts; and such payment is conceded when the writers agree with me that if we had fixity of tenure medical officers could enforce such payments in the Law Courts.

At present the "Bell the Cat' would find some councils would endeavour to dismiss him for his temerity. Not every Council, however, would be guilty of such a heinous offence, because I know of some—and I am sure there are many all over the country—the members of which would be only too glad to prove their honesty, as being equal to those members of other honest Boards who pay without any trouble.

How would it do to make out a black list for private circulation among our own members and members of parish councils?

Why do so many councils refuse to pay these fees? Is it not because those responsible for the management of public funds wish to pose as economists by keeping down the rates? It must be by the connivance of the Local Government Board that these parish councils are able to act in this manner.

At whose expense is this done if not at the expense of the Parliamentary grant, and by also cheating the honest parish out of its fair share of the grant? Take an example: A parish pays £60 as a salary and the medical officer has ten lunacy certificates in the year and ten boarded-out lunatics to visit, eight of them belonging to another parish. His council make a claim on the grant from the Local Government Board for medical relief of £30, thereby leaving £30 to be met by the rates. Do they do this? No. The certificates and visits come to £18 10s., which leaves only £11 10s. to be met by the rates. That is the present mode of financing. Has the Local Government Board no power over the council which sends in a claim for more grant than it is entitled to? Parliament should be asked to answer if no other power will.

I have such faith in our parish councils that I make bold to say that if all their members understood this financial arrangement the Poor-law medical officers' position would be righted and this grievance would be ended.

In conclusion, I think that now is our time to drive home the grievances when all are more or less willing to assist.

The Local Government Board's expression of sympathy as to our grievances, and its desire to see our medicals get a holiday is evidence that it is in a mood to help. It has power to settle this matter in the easiest manner, as it can keep back the grant from any parish which makes a wrong claim. There is not the slightest doubt that the doctors would get their fees if the Board just said so.

The army and navy got so much concession simply by pressing home their views, aided by the British Medical Association and the BRITISH MEDICAL JOURNAL. I am sure the profession can rely upon the Association doing all that lies in its power to assist parish doctors, and place its JOURNAL at their disposal in the future as in the past, and so earn their gratitude—I am, etc.,

January 17th. FAIR PLAY.

OPERATIVE METHODS—NEW AND OLD—IN TUBERCULOSIS OF THE KNEE-JOINT.

SIR,—I need not say that I read with great interest Sir William Thomson's address delivered in Birmingham, and published in the BRITISH MEDICAL JOURNAL of January 14th, p. 68. In view of his most kind and generous references to my share of work on the question of tuberculous disease of the knee, I would rather have thanked him and kept silence, but I feel that I may perhaps be reasonably expected to defend what I still hold to be the best method we have of treating many—not all, but many—cases of advanced disease. I will therefore ask you to allow me space to consider some of Sir W. Thomson's arguments. I propose to take them in the order in which they occur in the address.

1. Shortening: I will not give figures, for without elaboration they will not fairly give the facts of the case, and they may be found in the number of the JOURNAL which reports the sectional meeting at Swansea, 1903. Shortening undoubtedly occurs in a certain number of cases of erasion, but the percentage is not large, and is dependent mainly upon unusually extensive disease or upon secondary operations. In erasion shortening is the exception; in excision it is the rule, with few exceptions. I say this subject to correction by Sir William Thomson after measurement of his cases.

2. Stability: I fully admit that after erasion a knee-joint will become flexed if it is neglected, and a stiff apparatus discarded. In children the supporting splint must be worn for years—probably two years, at least, with certain exceptions. But I maintain that in the same class of case flexion also occurs after excision. We cannot condemn an operation because the after-treatment is neglected. I have seen quite as bad deformity after excision as after erasion.

3. Extent of disease: I do not quite follow the argument. The extent of disease is, in all but very exceptional cases, revealed by erasion as fully as by excision. The number of instances in which a "latent focus" is laid bare by a section but would not have been discovered by examination without section is so small that it ought not to affect the main argument, and there is a great difference between gouging out a local focus and sawing off the end of a bone.

4. Complete removal of disease: In discussing the "advantages of excision," I think Sir William's picture is rather too glowing. I do not at all admit that an excised knee is free from anxiety as to a further outbreak of disease. If erasion is properly done there is nothing to choose between the two in this matter, for in both all disease ought to be removed and the difference, so far as this point goes, is simply that in excision healthy bone is unnecessarily removed also. I say unnecessarily advisedly, for Sir William removes it whether "infected or not."

5. Relapses: It is clear, from the address, that even after excision sinuses and recurrence of disease are not unknown in Dublin; and, though amputation is seldom resorted to, I should like to suggest that erasion, failing this excision, and failing excision, amputation is a better course than omission of the first stage of the sequence.

6. Conclusions: I cannot admit that "excision is definite, comparatively short in treatment, very free from serious after-complications, and quickly restores a patient to active life," while erasion is all the other way. I say that erasion, *properly performed*—this is the crux—has all the advantages of excision without the drawback of shortening, except that it does not in adults give rise to bony ankylosis so speedily; and that its advantages more than counterbalance its drawbacks.

In conclusion, I should like to again thank Sir William Thomson for his kindly words, and for his disapproval of the heresy of amputation which has been preached by my friend Mr. Edmund Owen.—I am, etc.,

Manchester, Jan. 16th. GEO. A. WRIGHT.

THE STUMP IN APPENDICECTOMY.

SIR,—In the interesting series of articles upon appendicitis in the BRITISH MEDICAL JOURNAL of January 21st, Mr. Rushton Parker and Mr. Mayo Robson respectively describe their methods of performing appendicectomy. Mr. Parker states:

> The appendix is squeezed . . . . about an inch from its base, tied at the squeezed spot and cut off, and the stump invaginated. . . .

Surely, it is not necessary, nor even advisable, to leave behind, buried in the caecal wall, one inch of appendix; this is considerably more than the general idea of a "stump," and in several cases I have seen to have left such a "stump" would have meant leaving the whole appendix. Apart from the site of crushing of the appendix, Mr. Parker's and Mr. Mayo Robson's procedures appear to be identical.—I am, etc.,

Manchester, Jan. 21st. ARTHUR H. BURGESS.

SIR,—The method given by Mr. Mayo Robson of performing appendicectomy and specially of treating the stump of the appendix is so complete and satisfactory that perhaps I am over-zealous in saying any more on the subject. Yet the fact that this method differs so much in details from that given by Mr. Bowreman Jessett perhaps warrants me in adding my quota. I may briefly say that, in the first place, the less the crushed insertion of the appendix into the caecum merits the name stump the more nearly does it reach the ideal result. Next, that the crushing agent should have a deep face, so that the divided mucous coats are pressed wide apart and a good neck of peritoneum is left for ligature and division beyond this. Finally, that the purse-string ligature is not as accurate as interrupted or continuous sutures, and causes unnecessary tension. These are perhaps minute criticisms of the method of Mr. Mayo Robson, but I hope they may not be considered trifling.—I am, etc.

Wolverhampton, Jan. 21st. FREDERICK EDGE.

ARTERIO-SCLEROSIS.

SIR,—In his address on Arterio sclerosis, published in the BRITISH MEDICAL JOURNAL, of January 14th Dr. James Barr remarks of peripheral resistance that "perhaps the majority would locate it in the capillaries," though he himself does not appear to do so. May I say that the arguments against the view that the capillaries offer any but an infinitesimal resistance to the blood flow seem to me to be overwhelming? To mention two of them only: How, if the capillaries offer a substantial resistance, would it be possible for the blood suddenly to rush into the splanchnic veins when the splanchnic arterioles dilate, as happens in shock? How, again, on this assumption would it be possible for the blood in the portal vein, flowing under so low a pressure as 10 mm. Hg, to be driven through the complex capillary meshwork of the liver? I think we may conclude, once for all, that capillary resistance is to all intents and purposes a negligible quantity.

Dr. Barr's statement to the effect that "the contraction of the arterioles gives rise to high tension in all the proximal vessels, but the lateral pressure in the contracted arterioles is lessened and partly converted into velocity" appears to me to require some reservation. Is this proposition true of a generalized arteriolar contraction?—I am, etc.,

London, W., Jan. 22nd. HARRY CAMPBELL.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

SIR,—I have read with much interest Dr. Ransom's paper on the sanatorium treatment of phthisis, and also the consequent correspondence. Dr. Marriott, whose letters are always stimulating, even if one cannot always agree with them, seems to imply that sanatorium treatment is not worth while, and talks of it as beginning at the wrong end. But who, I should like to ask, wishes to begin, or, rather, go on only at one end? The problem of the abolition of tuberculosis is one of the most crying problems of our day, and needs attacking at every point, at the beginning, at the middle, and at the end. At the beginning from the point of view of general sanitation, in the middle by the open-air treatment of hopeful cases, and at the end by the isolation of advanced cases in wards or homes for the dying.

I should say, from personal experience and despite many disappointments, that the open air treatment is undoubtedly worth while even for the poor. I have in my mind several cases treated at the Northampton General Hospital, who have remained well and in full or fair work for from one to two and a half years, and many more whose health has been enormously improved, even if only temporarily, and who have learned their duty towards their neighbours by the discipline of the sanatorium.

It is to my mind extraordinary that so many members of the medical profession should be found to raise their voices against the treatment of the unfortunate consumptive. Every other form of sickness amongst the poor has its place of refuge. There are fever hospitals for the more serious infectious fevers, there are asylums for the insane, and there are the general hospitals for all the other diseases, but the unfortunate consumptive can too often find no place of refuge, though he seek it carefully with tears.

I know few things sadder than to be surrounded day after day in one's out-patient department by consumptives, and to be unable to lift a finger to help them adequately.

It is deplorable to see the incipient cases and realize that they must be allowed to sink slowly into the advanced stages, and it is equally deplorable to send back the advanced cases to their miserable homes, where they cannot even die in peace, and where they will in all probability infect their neighbours and relatives.

From the philanthropic point of view, such a condition of affairs is outrageous. I believe it is no less outrageous from the industrial and economic point of view; and, after all, there is no reason why the remedy should be so hugely expensive.

If every Poor-law infirmary and general hospital suitably situated were to have a special pavilion or special wards for open-air patients, much might be done at comparatively little cost, and I believe the results of treatment will be found little if at all inferior to those obtained in isolated sanatoriums.

The sanatoriums should be constructed in the simplest possible way. The raising of palatial buildings is entirely unnecessary, and a deplorable waste of money. If more sanatoriums were constructed on the simple and excellent

plans adopted at the Kelling Sanatorium, a number could be raised about the country at a surprisingly small cost.

Isolation wards for the dying could be constructed in connexion with existing hospitals and Poor-law infirmaries.

If only all the members of the community—the doctors included—would resolutely attack the problem of tuberculosis in some such way as has been outlined here from the three points of view of hygiene, cure, and isolation, I am sufficiently sanguine to believe that the scourge might be practically abolished in the present century, but when I have ventured to promulgate such views I have been astounded to find that the most virulent opposition has come from members of my own profession.—I am, etc.,

Northampton, Jan. 22nd. PEVERILL S. HICHENS.

SIR,—When I read in a letter in the BRITISH MEDICAL JOURNAL of January 21st, 1905, p. 162, the following words I could not repress a slight start, and I decided to enter a mild protest in the most friendly spirit possible. These are the words over the signature of Mr. T. Blanchard Sellors: "Here we have a man . . . . bound to die in a year or two if not treated by the open-air system." I contend that the man is not yet created who can say this reasonably of any early case of phthisis. I have seen numerous cases of healed cavities in the dead bodies of persons who died of non-phthisical disease, and this twenty years ago, before the great sanatorium cure was boomed upon us. I know some cases of phthisis die and some recover, but whether because of, or in spite of, sanatoriums I know not, nor does any other man. Cures are not limited to open-air homes. As to air, I lived three years in tropical Brazil, and I saw phthisis raging among the blacks, who practically lived, and had lived since their birth, out-of-doors. Let us be reasonable. Again, my friend—if I may call him so—speaks of wives catching the disease from their husbands. Now, does this really often happen? Is not catching phthisis mostly a matter of blood relationship—for example, brother and sister? One other point. If the germ is so important, how can sanatoriums be healthy, for are they not full of germs? "Happy is the man who knows the causes of anything." Fortunately the *vis medicatrix naturae* sometimes cures phthisis.—I am, etc.,

Bath, Jan. 21st. WM. A. DAY.

"SICK NURSING IN FRANCE."

SIR,—In your article on Dr. Marc Blatin's recent book on medical nursing and nurses in France, in your issue of January 14th, you express the hope that, what you entitle his "painfully realistic and pitifully gruesome" description of a busy operating day, is a "picture overdrawn."

When studying medicine in France, less than ten years ago, I commonly saw patients when being anaesthetized held down by six or eight students while struggling not against the anaesthetic, but against simple suffocation. My impression at Montpelier was that patients were not given enough air, and, if they tried to get it, the mask was clapped on tight, and they were forcibly held down till, exhausted by struggling and suffocation, no further trouble was experienced or possible. Dr. Blatin does not overpaint his picture as regards the giving of anaesthetics.

The nursing inefficiency in France can be judged from the following: In 1896 when "walking the hospitals" in Paris, I asked a patient whom I was examining in a surgical ward of no less a hospital than the "Hôtel Dieu," when he was washed last. He replied, "I have not been washed." I then asked him how long he had been in the hospital. He replied, "Two months." "Do you mean to tell me," said I, "that you have been in this ward two months, and not been washed?" He answered, "I cannot go to the bath myself, and unless you can you don't get washed." I then went to a patient lying opposite to him with a fractured femur, and asked him to let me see his splint. As I lifted the bed clothes he said, "Take care, sir, it's all alive."

The nursing staff is usually utterly inadequate for proper nursing in a French hospital, and no scientific training for nurses involving attention to detail is possible.

It is the habit of English people to think most things are better abroad. In the matter of hospitals, at least, England is miles ahead of France. The surgery is as good and the after-treatment infinitely superior.

One other point is very striking—that is, the relative economy of our hospital system. Half the patients in a Paris hospital would be treated as out-patients in London. The upkeep of hospitals in Paris, being dependent on external grants (Government or municipal), any injured man has a claim to be received, and the hospital authorities have little economic interest in refusing him admission; hence a bed is given to an applicant having a broken arm or suffering from a mild horse kick—a class of in-patient one never sees in London.

I heartily endorse the opinion you express "that if those in authority in France would but read his (Dr. Marc Blatin's) excellent book and follow its precepts they would confer on their country an incalculable boon and gain from their suffering poor an everlasting gratitude."—I am, etc.,

Mentone, Jan. 18th. D. W. SAMWAYS, M.D.Paris, etc.

HEALTH IN WEST AFRICA.

SIR,—I would be much obliged if you would be good enough to contradict a report attributed to me that West Africa is likely to become a health resort. The health of Europeans in many of the coast towns now shows a marked improvement, and will no doubt continue to improve. This is attributed to increased sanitation, including antimosquito measures, new residences in selected quarters, and more careful selection of those who go out, and who in consequence realize how to live in a tropical climate and to avoid infection from malaria and other diseases; but it was very contrary to my wishes to imply that the improvement in health in West Africa is likely to be so rapid as is suggested by the remarks wrongly attributed to me.—I am, etc.,

RUBERT BOYCE.

Thompson-Yates Laboratories,
University of Liverpool, Jan 24th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A JURY'S PROTEST.

LAYMAN sends us the following cutting from the *Sun* newspaper (London) of January 23rd:

An inquest was held at the Lambeth coroner's court to-day by Mr Troutbeck concerning the death of a 5-months-old child from suffocation whilst sleeping in bed with its parents.

Dr. Reed, who had been called in when the child was found dead, gave evidence, and Dr. Ludwig Freyberger, pathologist, was called to state the cause of death

A Juryman said: I should like to ask, Mr. Coroner, why a second doctor was called in in this case?

The Coroner: Because I chose.

The Juryman: I think it is most unfair.

The Coroner: It has nothing to do with you, sir.

The Juryman: As a ratepayer, I think it has everything to do with me.

The Coroner: I can't discuss it. Resume your seat, please. It is a question of policy that lies with me.

The Foreman (to the Coroner): No doubt some cases you have to deal with require special skill, but this was a perfectly straightforward case, and in this, as in other cases I think the doctors who devote their lives to the service of the people should be called.

The Jury: Hear, hear.

The Coroner said that certain cases needed careful and skilful examination.

ACCIDENT ASSURANCE: FEE FOR CONSULTATION.

WHEN a medical man is going to report upon an accident case for an insurance company it is certainly right to let the injured person know of the proposed visit, and also to inform the doctor in charge of the case, either directly or through the patient. It is then usual for the doctor in attendance to be present at the interview, but he is not entitled to charge the insurance company a fee for doing so, as he is there in the interests of the patient, and the latter should pay a consultation fee if the amount involved is large, or if the patient's circumstances permit it. It is always better for the medical attendant to be present, and to give the referee of the insurance company all necessary information. When a consultation fee cannot be paid by the patient he should at least pay the fee for an ordinary visit, even where the medical attendance is provided for by contract.

SIGHT-TESTING BY OPTICIANS.

M.R.C.S.—The matter has been repeatedly noticed in the BRITISH MEDICAL JOURNAL and these examinations have been started by the Spectacle Makers' Company in opposition to medical opinion. No qualified medical practitioner should take part in the examinations or recognize the pretensions of the company's diplomates. The cutting sent by our correspondent cannot, perhaps, be considered an advertisement, as similar paragraphs are only too commonly seen in provincial newspapers when any local person passes an examination. We should, however, be glad to receive copies of any regular advertisements by diplomates of the Spectacle Makers' Company, as the company has professed its intention to stop misleading advertisements.

FEES TO MEDICAL WITNESSES AT ASSIZES.

H. S. B., M.D.Lond., asks what fee he should charge for attending the assizes, fifty-six miles away, to give evidence in an accident case.

*** Five guineas a day, with first-class railway fares. It is not safe to assume that there will be only one day's detention. A definite arrangement about the fee should be made with the solicitor in the case before leaving home.

ANAESTHETISTS' FEES.

R. F. dissents from the opinion expressed in the BRITISH MEDICAL JOURNAL of January 14th, p. 106, in answer to "Astonished." "R. F." considers that when calling in an anaesthetist a practitioner is only acting as agent for the patient, in the same manner as when calling in a consultant.

*** This depends on the facts of the case. If Dr. A. writes to Dr. B., requesting him to give an anaesthetic to, or to meet him in consultation about, a patient, there is no implied agency at law, and Dr. A. and not necessarily the patient would be liable to Dr B. Of course it would be otherwise if Dr. A., when writing to Dr. B., specially informed him that he was only acting as agent for the patient, and that the latter must look to the patient for his fee. Generally speaking, medical practitioners, when calling in an anaesthetist or consultant, really pledge their own credit, and, according to the etiquette of the profession, they are expected to do their best to see that the practitioner they call to their aid is paid. If they have done so, but, owing to the dishonesty of the patient, a fee is not forthcoming, it would not be in accordance with the ethics of the profession for the anaesthetist or consultant to endeavour to obtain it from his professional brethren.

A MATTER FOR ARBITRATION.

(1) FROM B.'s point of view: A. and B. agree to do work for each other when away, each retaining their own fees A railway accident occurs at B.'s station B is sent for, but, being away, A. gets the case, as he happens to have just arrived at the station by train on his way to the town to do B.'s work. A. came to the town solely for that purpose. There is only one other medical man in the place who was sent for before B., but was out. Is A. or B. entitled to the fee?

(2) From A.'s point of view: A. arrived at B.'s station to do his work for him. The train ran over a man in the station. A. informed the officials that he was a medical man, and was then requested to look after the injured man. He heard directions given to send for C., the other medical man in the place. He never heard at the time that B. was sent for, but learned later that he had been sent for also. The question is, is A. to consider the case in the light of a pure emergency, as at the time the accident occurred he had not yet reached B.'s house, or is he to consider he was acting in the matter as B.'s deputy, and hand B. the fee received from the railway company for his services, as well as his fee for attending a coroner's inquest on the man who died from his injuries.

*** A. was on the spot as B.'s deputy; he had no business there except in that capacity, and consequently the case was B.'s. If there was anything exceptional about the incident, B. should offer to share the fees with A., for we assume the basis of the reciprocal arrangement to be that what B. does for A. to-day, A. will do for B. at some future time; if the person obliged cannot reasonably expect to return the obligation, he ought to make up for the service in some way.

INSURANCE FEES.

LLANGAN.—Our correspondent examined a case for life insurance, but as the specific gravity of the urine which was otherwise normal, was only 1003, the company required a fresh examination. He asks whether he is not entitled to a further fee for his extra work.

*** Undoubtedly he is, but it may not be to his interest to quarrel with the insurance company, as might be the case if he insisted on his rights. He should endeavour to come to an understanding as to the fee to be paid for re-examination in the future.

CIRCULARS TO PATIENTS ON THE SALE OF A PRACTICE

T. G. A.—There is no objection to a circular announcing the sale of the practice being sent to each bona-fide patient who was on the books at the time of the sale.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

SAMUEL SYNGE, M.B.—We are much obliged for our correspondent's efforts. The matter has been referred to the Ethical Committee, which is doing its best to stop the publication of testimonials from medical practitioners in trade advertisements.

THE DOOR-PLATE AGAIN.

SO-AND-SO writes: Men with all kinds of qualifications other than M.D. describe themselves on their door-plates as "so-and-So, Physician and Surgeon," or "Dr So-and-So." I am M.R.C.S., L.S.A.; may I put either of the above on my door-plate?

*** Strictly speaking, our correspondent should style himself "Surgeon" or "Surgeon and Apothecary."

HOSPITAL AND DISPENSARY MANAGEMENT.

FRENCH HOSPITAL CONVALESCENT HOME.

ON January 12th an annexe to the Convalescent Home at Brighton, connected with the French Hospital in London, was opened by the French Ambassador, M. Paul Cambon, in the presence of Dr. George Ogilvie, Senior Physician, Mr Edmund Owen, Senior Surgeon, and the majority of the members of the General Committee of the hospital. The annexe, which is intended for the reception of tuberculous patients, has accommodation for some twenty patients. The home itself was established ten years ago, and contains thirty-six beds, of which eighteen are reserved for aged persons.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE MILITARY OPERATIONS IN NIGERIA.

THE *London Gazette* of January 24th contains a report from Colonel Morland, C.B., Commandant, Northern Nigeria Regiment, West African Frontier Force, relating to the military operations in Northern Nigeria in 1903, and also a covering dispatch from Mr W. Wallace, C.M.G., the then Acting High Commissioner. In the latter Mr. Wallace writes: "The medical staff consisted of Dr H. P. Lobb and Dr. W. J. Healey, who were devoted to the care of the sick and wounded. I consider them both deserving of much credit."

ROYAL NAVY MEDICAL SERVICE.

PRIZES OPEN TO MEDICAL OFFICERS.

B. S asks where he can find a list, with regulations, of prizes, medals, etc., open for competition for medical officers, R.N. Is any book published on the subject?

*** (1) Medals and prizes are awarded at the end of the Haslar course of instruction to surgeons who obtain the highest marks in the various subjects. (2) The Gilbert Blane Medal and the Chadwick Naval Prize are also awarded to naval medical officers. The regulations concerning these are to be found in the Quarterly Navy List, under the heading "Prizes, Testimonials, etc." (3) There is also a prize open to officers of Navy, Army, and Indian Medical Services (Parkes Prize). Regulations to be obtained from the Army Medical Department (4) No book is published on the subject of prizes, etc., to naval medical officers.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

The Reader in Pathology.

DR. JAMES RITCHIE, M.A., B.Sc., Reader in Pathology, has been elected to an Ordinary Fellowship at New College.

Degree Days.

Degree days for the present term are: Thursday, January 26th; Thursday, February 16th; Thursday, March 16th.

Radcliffe Travelling Scholarship.

The examination for a Radcliffe Travelling Scholarship will commence on Tuesday, February 28th. Names must be sent in, on, or before Saturday, February 11th (full particulars will be found in the University *Gazette* for December 6th, 1904).

UNIVERSITY OF CAMBRIDGE.

Appointments.

T. L. TUCKETT, of Trinity College, has been appointed additional Demonstrator in Physiology; A. E. Shipley, of Christ College, has been appointed a Member of the Board for Biology and Geology.

Diploma in Tropical Medicine and Hygiene.

The following have satisfied the examiners: D. H. Amslie, J. M. Buist, J. F. Cornwall, D. Alexander, J. H. Cook, W. A. Densham, C. A. Bentley, T. G. D. Cooper, C. E. Williams.

Degrees.

The following degrees were conferred on January 19th: *M.D.*: R. H. Marten, Gonv. and Cai. *M.B.*: F. L. Woods, Gonv. and Cai. *B.C.*: G. F. Bird, Trin.; M. F. Grant, Trin.; C. D. Matthias, Trin.; S. A. Owen, Trin.; O. V. Payne, Joh.; C. M. Stevenson, Joh.; H. M. Clarke, Cla.; G. T. Western, Pemb.; W. R. Higgins, Gonv. and Cai.; W. Lowe, Gonv. and Cai.; W. H. Thresher, Gonv. and Cai.; F. L. Woods, Gonv. and Cai.; F. W. M. Palmer, Jes.; R. F. Moore, Christ's; R. Puttock, Emm.; E. W. Sheaf, Down.

THE UNIVERSITY OF MANCHESTER.

Degrees in Dentistry

A MEETING of the University Court, held on January 18th, approved of a recommendation sent to it by the medical faculty and the Senate to establish degrees in Dentistry—a degree of Bachelor of Dental Surgery (B.D.S.) and a degree of Master of Dental Surgery (M.D.S.). They also passed an ordinance to establish a diploma in Dentistry. The ordinances were directed to be forwarded to the General Medical Council. Before the proposed diploma can become a registrable qualification the approval of the General Medical Council is required under Clause 18 and Clause 11, Section VI, of the Dentists Act.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1905.—The following candidates passed in:

Surgery.—T. H. Jones (Sections I and II), King's College Hospital; R. C. Richards (Section I), University College Hospital; A. M. Walker (Sections I and II), Manchester; J. M. Wall (Sections I and II), Westminster and St. Thomas's Hospitals.

Medicine.—J. B. Bradley (Section I), Birmingham; P. F. Howden, Bristol; T. H. Jones (Sections I and II), King's College Hospital; T. R. Roberts (Section II), London Hospital; J. H. K. Sykes (Sections I and II), Leeds; M. C. Vivian (Section I), Royal Free Hospital.

Forensic Medicine.—A. B. Gosse, Royal Free Hospital; M. E. Jeremy, Royal Free Hospital; T. H. Jones, King's College Hospital; J. H. K. Sykes, Leeds.

Midwifery.—C. G. Grey, St. Bartholomew's Hospital; M. E. Jeremy, Royal Free Hospital; T. H. Jones, King's College Hospital; A. M. Walker, Manchester; P. C. West, St. Thomas's Hospital.

The diploma of the Society was granted to P. F. Howden, M. E. Jeremy, T. H. Jones, and A. M. Walker.

OBITUARY.

AMBROSE BIRMINGHAM, M.D., F.R.C.S.I.,

Professor of Anatomy, Catholic University Medical School, Dublin.

WE record to-day, with very sincere regret, the death of Professor Birmingham, of Dublin, which took place on Monday evening last in that city. He has died in his 41st year, just when his brilliant work since he graduated had established for him a high reputation, and given hope of a still more successful career.

It is just twenty-two years ago since he became a student in the Catholic University Medical School, and his great industry and high intelligence enabled him always to secure first place in his examinations at the Royal University. Sir Christopher Nixon, who was at the time Professor of Anatomy in the School, and was deeply concerned in the effort to re-establish its fallen fortunes, chose Birmingham as his assistant; sent him to Edinburgh to study under Sir William Turner, and finally recommended his appointment as successor when Sir Christopher himself became Professor of Medicine. Young Birmingham rose to the demands of the occasion. He at once proved an attractive teacher, and he had the power of inspiring his pupils with a great enthusiasm. He was a ceaseless worker. He set himself to master all branches which would help him to be more competent and useful as an instructor. He practically took over the management of the school; he largely influenced the selections for the various Chairs; and he surrounded himself with a group of young men, some of whom were as energetic and nearly as brilliant as himself. The result was that he came to see the school entirely resuscitated, and exercising a powerful influence on medical education.

He was soon selected as an Examiner in the Royal University and was made a Fellow, and for some years he had also acted as Examiner under the Conjoint Board of Ireland.

Two years ago he began to suffer from severe neuralgia and diplopia. Rest and change did not improve his condition, and it was then discovered that he was suffering from general sclerosis of the arteries. He faced his inevitable fate with the bravery that was characteristic of him, and bore his sufferings with great fortitude.

He was a constant investigator, and had written many articles on anatomy for textbooks and various journals. All of them are good, and several are of quite exceptional merit.

Personally Ambrose Birmingham was a most attractive man. Every one who knew him liked him and admired his restless energy and enthusiasm. His death is a grievous loss to his University, and also to the science of anatomy.

D. G. PEARCE THOMSON, M.D.,

Penrith.

WE regret to record the death of Dr. Thomson, of Penrith, Cumberland, at the early age of 44 years.

Daniel Gibson Pearce Thomson was born at Leith in 1860. He was educated at George Watson's College, in Edinburgh, and received his medical training at the University of Edinburgh, where he graduated M.B. and C.M. in 1883 and M.D. in 1897.

In 1887 Dr. Thomson became assistant to the late Dr. Robertson, of Penrith, and entered into partnership with that gentleman in 1889, succeeding to the entire practice on Dr. Robertson's death a few years later. Dr. Thomson carried on an extensive general practice with marked ability and success. His special enthusiasm was for surgery. This dated from the time when he was Dresser and Clinical Clerk to Mr. Joseph Bell at the Edinburgh Royal Infirmary. He possessed a high degree of manipulative skill and became a bold and resourceful operator.

He was Medical Officer of Health for the Urban District of Penrith, and, on at least two occasions, his prompt and decisive action was conspicuously effective in stamping out a threatened epidemic of small-pox in that town.

The dominant feature of Dr. Thomson's personality was his abounding energy. This was manifest in his every word, thought, and action. More than most men, he lived a full and strenuous life. He never spared himself, but gave freely of the best that was in him, placing always the welfare of those under his care first, and his own comfort, and, it is to be feared, his own health, second. The demands of practice, large though they were, were insufficient to occupy fully his ever active mind. He took part in most local affairs, and, in particular, in the movement that led to the establishment of a Cottage Hospital in Penrith as a memorial of the Diamond Jubilee of Queen Victoria.

He was an active member of the British Medical Association, and frequently read papers and originated discussions of much value and interest at the meetings of the Border Counties Branch.

He was a keen and enthusiastic Volunteer officer, and held the rank of Major in his battalion of the Border Regiment. In his earlier day he excelled at football, being selected to play for his county on several occasions. In more recent years he turned to cricket, and "Dr. Thomson's Eleven" became well known locally. He was also a good horseman and a fair shot.

In August last, at a social function in the neighbourhood of Penrith, Dr. Thomson had an attack of haemoptysis. After a period of rest he was advised to winter at Algiers. On his arrival there, however, he contracted influenza, followed by meningitis, which terminated fatally on November 21st last. The funeral took place at Penrith on December 23rd, and, by special desire of the officers of the battalion, was of a military character, being attended by his brother-officers and a large number of the men, along with the battalion band and a firing party. There were also present representatives of the Border Counties Branch of the British Medical Association, of the Penrith Urban Council, the Druids' and Foresters' Societies, and a large concourse of private friends and neighbours.

Dr. Thomson's early death is deplored by his many friends and patients and by a wide circle of his professional brethren, who will miss his stimulating and genial presence and will long cherish his memory. He leaves a widow and six children—five sons and one daughter. His eldest son is destined for the medical profession, while another son is at the Royal Naval College at Osborne.

OWEN MAURICE PRAEGER, M.B., R.U.I.,

Union Hospital, Belfast.

THE sudden and unexpected death of Dr. Praeger early last week has caused very deep regret. Those in immediate contact with him were aware that he had not been quite in robust health for the last year or so. The loss of an eye through an accident about twelve months ago was felt keenly. He had been absent from the hospital for a short time on sick leave, and returned on January 16th, but did not go round the wards at the usual time. A porter of the institution having occasion to speak to him, found him lying across his bed; help was at once obtained, but he was dead; and from the fact that a bottle of prussic acid was discovered, and from the result of a *post-mortem* examination, there was no doubt of the most unhappy cause of death as given at the inquest.

Dr. Praeger was in his 31st year. He took the M.B., B.Ch., and B.A.O. degrees of the Royal University in Ireland in 1900, and was most popular as a student; he displayed very active energies in organizing the Students' Representative Council. After graduating he was Resident Physician to the Forster Green Consumption Hospital, and subsequently Resident Medical Officer to the Belfast Poor-law Infirmary, to the Small-pox Hospital, Purdysburn, and, at the time of his death, to the Fever Hospital.

With excellent abilities, of a kindly, sympathetic, and sensitive nature, Dr. Praeger, although with every promise of success in life, seemed not to have been able to bear the strain of modern life with such depressing surroundings. The deepest sympathy is felt with his relatives, and the deepest regret at such an unforeseen loss.

At the subsequent meeting of the Board of Guardians, the Chairman and many members spoke of Dr. Praeger's many good qualities, and passed a resolution of sympathy with his relatives.

At the meeting of the Ulster Medical Society on January 19th, the President (Dr. Calwell) spoke of Dr. Praeger's death, and the sadness and grief which every one must feel at such a promising life being cut short. He proposed that:

> We, the Fellows and Members of the Ulster Medical Society, desire to place on record our sincere regret and sorrow at the death of our late member, Dr. O. M. Praeger; and our appreciation of his talents, and of his kindly, genial, sympathetic nature, and the strong interest he always evinced in matters pertaining to his college and medical school. We also desire to express our deepest sympathy with his relatives in their affliction.

This was seconded by Dr. Donnan (Holywood), and passed unanimously in silence.

JAMES MUNRO, M.D., J.P.,
Barnard Castle.

DR. MUNRO was a distinguished student of Edinburgh University during the years 1855 to 1859, when he graduated. At the professorial lectures he was, like nearly all the best men of that day, a great note-taker. He always carried a huge note-book, and nothing of importance escaped him.

Immediately after graduation he began practice in Barnard Castle, and remained there through life, thus differing from most men, who prefer practical experience in another district before finally settling in the country. His success was so marked and rapid that no opportunity occurred for contributions to the medical journals. The Edinburgh men always expected Simpson's gold medallist to make his mark in medicine. No doubt he would have done so had his lines fallen in a large city, with a hospital appointment. Country life had a great charm for him. What was Medicine's loss was Barnard Castle's gain.

Every honour that the town and district could bestow was showered upon him. He was, as early as 1884, President of the North of England Branch of the British Medical Association; he was Surgeon-Lieutenant-Colonel to the Durham Militia, Chairman of the Barnard Castle Division of the North Riding and Durham County Bench, and Chairman or Vice-Chairman of the Conservative party in his own town; the latter frequently entailed speeches of nearly a column in length in the provincial newspapers. In later years he had a large and valuable county practice, which left him little time for recreation, except on his holiday, which was generally spent on the Continent. The writer believes, from considerable knowledge, that he was greatly overtaxed.

At one period he suffered much from internal ear trouble, for which he placed himself under the care of Dr. McBride of Edinburgh. He enjoyed a tour in 1902 through South-West France, and another in 1903 through the favourite resorts in Italy. His leisure hours were occupied in studying the languages of Germany, France, Italy, and Spain. He died suddenly of paralysis. Like Gladstone, "the only rest he ever knew was change of effort."—J. H.

WE regret to record the death of Dr. HENRY WILSON, a highly esteemed practitioner, which took place quite suddenly, of heart failure, on New Year's Day, at his residence, Wavertree, Liverpool. He was in his 65th year, and was descended from an old Cumberland family belonging to the Society of Friends. He received his medical education at Anderson's College, Glasgow, and qualified M.R.C.S.Eng. in 1863, and L.S.A. the following year. He became M.D.St.And. in 1890. He first started practice in London, whence he removed to Marske-by-the-Sea, where he was appointed Medical Officer to the Earl of Zetland's Ironworks. About twenty-five years ago he purchased the practice of the late Dr. Swindon, of Wavertree, Liverpool, where he continued to practise until the day of his death. He was a man of commanding presence, and was much beloved by his friends and patients. He leaves a widow and one daughter.

IT is with regret that we announce the death of Mr. THOMAS PERCIVAL, M.R.C.S., of Knottingley, Yorks, which occurred after a few days' illness. He received his medical education at the Leeds School, and obtained the diploma of M.R.C.S. in 1866, and that of L.S.A. in 1867. For the first two years after qualification he practised at Riccall, a village near York, and in 1869 removed to Knottingley, in which district he carried on an extensive private practice, and at the same time took his share in the active life of the place during the 36 years he practised there. He held the appointments of Medical Officer of Health to the Pontefract Rural District Council and to the Knottingley Urban Council, Medical Officer of the Knottingley District of the Pontefract Poor-law Union, and Public Vaccinator of the Nos. 3 and 5 districts of the Pontefract Union. He was one of the Vice-Presidents of the Yorkshire Branch of the Incorporated Society of Medical Officers of Health. The following local opinion expresses the high esteem in which he was held by all around him: "His disinterested and friendly advice, his generous and open-handed liberality, and his strenuous conscientious work will live long after him. The good he did by stealth the world can never know; but those of Knottingley, as well as a very large circle of friends outside, will regretfully remember a man of strong yet kindly personality, and one of unswerving principle." He has left a widow, four sons, and one daughter with whom much sympathy is felt.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS FOR ENGLAND AND WALES.

WE are indebted to the Registrar-General for the following rates, which have been compiled for the convenience of medical officers of health. The figures are subject to revision, but may be accepted as in all probability correct.

ENGLAND AND WALES, 1904.
Annual Birth-rates and Death-rates from the Seven Chief Epidemic Diseases.

	Annual Rates per 1,000 Living.			Infant Mortality—Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births.	Deaths from all Causes	Deaths from Seven Chief Epidemic Diseases.	
England and Wales ...	27.9	16.2	1.94	146
Rural England and Wales	26.8	15.3	1.28	125
76 great towns	29.1	17.2	2.49	160
142 smaller towns	27.5	15.6	2.02	154

SMALL-POX HOSPITAL INFLUENCE.

THERE has just been issued a report by Dr. G. S. Buchanan to the Local Government Board on small-pox in Gateshead and Felling in 1903-4 in relation to Sheriff Hill Hospital. The report bears on the important question of the influence of small pox hospitals in spreading the disease in the surrounding population. In the present case attention appears to have been first directed to the matter by Dr. Eustace Hill, the County Medical Officer, who reported that the portion of the Felling district which had suffered most was that lying nearest to the Sheriff Hill Hospital, and that

the prevailing winds blow direct from the hospital to the Felling district, and in the opinion of the District Medical Officer of Health (Dr. W. E. Peacock) and myself there is little doubt that many of the cases of small pox in Felling are the result of infection having been carried, probably by the wind, from the Gateshead Hospital.

Dr. Buchanan's investigation has led him rather to favour the view of the county medical officer. From April 15th, 1903, to May 31st, 1904, the total number of small-pox cases in Gateshead county borough and Felling urban district was 665, and the total number of dwellings invaded was 422. The facts are tabulated for four subdivisions of this period. Sheriff Hill Hospital stands at the southern extremity of the borough of Gateshead, and close to the Felling urban district. It receives patients only from Gateshead, and not from Felling. Within half a mile of the hospital there are 836 dwellings in Gateshead and 461 dwellings in Felling. As in previous investigations of the same question elsewhere, special attention is attached, not to the number of cases occurring around the hospital, but to the number of dwellings invaded. In Gateshead, exclusive of the area within half a mile of the hospital, the proportion of dwellings invaded in the course of the epidemic was 12.7 per 1,000, and in the half-mile area 44.1 per 1,000. In Felling the incidence on dwellings more than half a mile distant from Sheriff Hill Hospital was 19.4 per 1,000, whilst within half a mile of the hospital it was 52.1 per 1,000. Taking Gateshead and Felling jointly, the corresponding figures are 13.7 and 47.

If the epidemic be divided into four periods, it is found that with one trifling exception the hospital area exhibits in all the periods a greater prevalence of the disease than the outside area, both in Gateshead and in Felling, though it is pointed out that this uniformity is not found if the four periods are broken up into fortnights or even into months. For further comparison between the half-mile area and the rest of Gateshead and Felling, it appeared desirable to contrast a series of subareas situated more than half a mile from the hospital and containing about the same number of dwellings. For this purpose the several wards in each district were taken, there being nine such wards in Gateshead and three in Felling outside of the half-mile area. When the figures of the epidemic

are examined in quarterly periods there appears a notable contrast between the half-mile area and the outside wards, and when the whole epidemic is taken it is seen that not one of the twelve wards had a small-pox incidence nearly as severe as the half-mile area. A section of the report is devoted to the consideration of causes of spread, other than aërial convection, near Sheriff Hill Hospital, and it is held that, looking to the facts as a whole, there is nothing in such causes to account for the excessive and sustained incidence of the disease in the half-mile area. Dr. Peacock, the Medical Officer of Felling, stated that in his district, though many cases could be traced to some source or other, there remained 65 in which no history of contact could be found, and that a great many of these were in the village of Windy Nook, within the half-mile area. In discussing the atmospheric conditions which prevailed, it is noted that as the Sheriff Hill Hospital occupies a high situation, the calm, foggy days and nights which have been suspected to favour aërial convection in London are comparatively rare. The most prevalent light winds are from the south-west and south. The area all round the south of the hospital is practically uninhabited, but gentle winds from the south and south-west would blow from the hospital towards a good part of the more populated district within the half-mile area. Dr. Buchanan holds that the wind conditions accord with Dr. Hill's report that the carriage of infection from the hospital into Felling may be associated with the direction of the most prevalent winds.

His own conclusion is as follows:

On review of the data above given there can be no doubt that the isolation of small-pox cases in Sheriff Hill Hospital has been attended by a conspicuous prevalence of small-pox in the inhabited areas in its vicinity, both in the borough of Gateshead and in Felling. In my judgement the use of this hospital has been responsible, directly or indirectly, for a material portion of the epidemic which has occurred during 1903-4 in these two administrative districts. I have no hesitation, therefore, in recommending that Sheriff Hill Hospital should no longer be used for the isolation of small-pox.

The last part of the report consists of an additional note as to Felling Small-pox Hospital. Felling cases were not sent to Sheriff Hill Hospital but to a temporary building in the North Ward of Felling. Round this temporary building there appears to have been no exceptional spread of small-pox attributed to hospital influence. The fact is noteworthy, in view of the propinquity of the two hospitals. In explanation it is stated that the number of acute cases under treatment did not at any time approach the number in Sheriff Hill Hospital; that there are fewer dwellings near Felling Hospital; that a large proportion of the dwellings within its half-mile area lie in deep narrow gullies screened from light winds from the direction of the hospital; that light winds from the south and south-west would carry any infected air from Felling Hospital across the Tyne and clear of any considerably-inhabited area in Felling; that on the other side of the Tyne here there are few inhabited houses; and that in Felling Hospital it has been the custom to apply carbolic oil all over the body surface—a practice which Dr. Niven holds to be more or less preventive of risks of aërial convection.

Dr. Buchanan's report is very interesting, and the facts he adduces are a useful addition to the material available for the controversy which exists on the very important question of small-pox hospital influence.

WEST BROMWICH BOARD OF GUARDIANS AND THEIR DISTRICT MEDICAL OFFICERS.

WE learn from the *West Bromwich Free Press* that at a recent meeting of the Guardians of that Union the Board discussed the terms which should be offered in order to get the present vacant medical appointment for the Handsworth District filled up. A committee had previously been appointed to consider this question and to report to the Board upon it. It appears that hitherto one medical officer has had charge of the whole of this district, which now has, we believe, a population of about 60,000 and an area of nearly 8,000 acres. The salary paid for medical attendance in the past was £110 per annum.

The committee recommended that the district should now be divided and that two medical officers should be appointed, each with a salary of £70 per annum, to include payment for midwifery cases, as well as for operations, dislocations, and fractures. We gather that this report of the committee did not meet with general approval, that there was some opposition to any division of the district, and still greater objection to any increase of salary being sanctioned by the Board.

After many speeches for and against the report an amendment was proposed to refer the matter back to the committee. When the amendment was voted on there were eleven in favour of it and the same number against it, and only the casting vote of the chairman prevented it being carried. The report of the committee was subsequently adopted.

As the division of the district into two, as recommended by the sub-committee and now sanctioned by the West Bromwich Board, has to be confirmed by the Local Government Board before it can be brought into operation, we are anxious to see how this last-mentioned body will deal with the case.

It is evident to us that the division of this Handsworth District has become necessary, and this mainly owing to the great increase of population within its area. Though a large percentage of this population may not be paupers, yet it necessarily follows that the medical work of the district must also have increased, and if, as is probably the case, the paupers within it, whatever may be their number, are spread more or less over the whole of it, the duties must have become too onerous to be undertaken by one man if he should be engaged in any other professional work whatever. The salary should then be £350 to £400.

We apprehend that as a resolution to divide this district has been passed by the guardians, the Local Government Board will at once sanction it; in fact, we are at a loss to understand how it is that so populous a district should have been allowed to remain as one for so long a time, especially as the Local Government Board has for many years past disapproved (except in very special cases, and this is not one) of medical districts having a greater population than 15,000. In this case the large population is compensated by smallness of area, as some of the paupers have to procure their medical attendance and medicines at a distance of five miles from their own residence. We are further at a loss to understand how it is that, so far as the West Bromwich Union is concerned, Article 177 of the Consolidated Order of July, 1847 (which is to the effect that certain operations and fractures, etc., are to be paid for as extras), should have been allowed to become and remain a complete nullity. The same may be said of midwifery cases, which the district medical officers of West Bromwich have to attend without extra fees, notwithstanding Articles 182 and 183 of the same Order, which appear to prohibit this.

Unless some alteration is made in reference to these points, and the usual extra medical fees are allowed in the West Bromwich Union, we can only regard the slight increase of salary proposed for the future as being no remuneration to the medical officers. Midwives are more and more frequently requiring the services of district medical officers in their urgent or difficult cases, where relieving officers, when applied to for medical orders, grant them in many districts much too freely, on the ground that by a refusal to do this they may find themselves in a position too perilous to face.

DISTRICT MEDICAL APPOINTMENTS IN LEICESTERSHIRE.

THE *Leicester Advertiser* of January 14th gives an account of the proceedings at a recent meeting of the Blaby Guardians, when the Board of that Union had before them an application from one of the district medical officers for an increase of salary from £12 to £24 per annum, on the ground that since the present salary was fixed, thirty years back, the population of the district had increased three-fold.

We should have expected that such a reasonable request as that of Dr. Garfit, the medical officer in question, would have been acceded to without any opposition, but the very reverse of this appears to have happened. After a motion in favour of the increase of salary applied for had been formally proposed and seconded, one member of the Board appears to have given it his most determined opposition, though he himself advocated an increase of £3 per annum. His reasons for opposing the original motion were that though the population of the district had increased the work of its medical officer had not increased, and further, that he received fees for vaccination and for notifying cases of infectious diseases. This same guardian appears to have supplied himself with some figures which caused him to dispute the accuracy of the reports made to the Board by Dr Garfit in reference to the number of visits he had occasion to make to his pauper patients. Notwithstanding this very grave statement, that question was soon set at rest by another guardian, who did not hesitate to say that he himself knew of one case to which alone Dr Garfit had paid as many visits in a year as the previous speaker made out he had paid for the whole district. After prolonged discussion, an amendment for an increase of salary up to £15 when put to the vote was lost by ten votes to sixteen, and a further amendment, that the salary be increased to £20, carried by seventeen to seven, and afterwards passed as a substantive motion.

It is very satisfactory to find that the majority of the guardians present when Dr. Garfit's application was considered showed a desire to do justice to their medical officer. It was evident that the reasons given against the increase of salary on the ground that the applicant received fees for duties other than for medical attendance on the paupers of his district, could have no bearing on the question whatever, these fees being fixed by higher authorities than Boards of Guardians—Parliament being one of them. What reason the opponent of the original motion could have for himself proposing an increase of salary, even to £3, if, as he contended, the medical work of the district had actually decreased, we are at a loss to comprehend. It would have been more satisfactory to have seen the original motion carried, and that with less ill-judged opposition. But notwithstanding this, we consider that Dr. Garfit is to be congratulated on the final decision of the Blaby Board.

CANVASSING FOR POOR-LAW MEDICAL APPOINTMENTS.

FAIR PLAY asks for our opinion on the following case: A. holds two Poor-law appointments, B., his junior partner, canvasses the guardians, so that when A resigns his appointments C., who wishes to apply for one of the posts, finds that B. has already obtained promises of support even from C.'s private patients before they knew their own doctor was a candidate. Is it usual to canvass for such appointments before the vacancy is publicly announced, and in doing so to call on the patients of another practitioner?

*** As B. was A.'s junior partner he naturally wished to retain as much of A.'s practice (public and private) as possible on the latter's resignation of his appointments, and to these he would by many be considered to have a prior claim. We are not, therefore, inclined to think that under the circumstances described he committed any great error in canvassing guardians for their support, even if they were patients of another practitioner.

ATTENDANCE ON SMALL-POX.

E. C.—The diagnosis of a case of small-pox in consultation with the patient's medical attendant, the attendance of the patient to the small-pox hospital, and the superintendence of the disinfection of the patient's house, are duties which might be carried out by the medical officer of health. Unless, therefore, there was some special reason not indicated in the communication for calling in another practitioner, it does not appear reasonable to expect the district council to pay for services which might have been rendered by their own paid officer.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PERPLEXED asks for advice as to diagnosis and treatment in the following case: A land agent aged 30 has complained for two months of lassitude, dizziness in the head in the morning, and is easily tired after exertion. Arterial tension is slightly raised, and he passes on an average 3½ pt. of pale urine in the twenty-four hours, having to get up at night. He takes plenty of outdoor exercise.

RELAPSING IRITIS.

PERSEVERANCE asks for suggestions in treating a middle-aged gentleman of previous and present perfect general health, but who suffers from constant relapses of conjunctivitis accompanied by iritis (leaving adhesions), and cloudiness of the aqueous. The attacks themselves readily respond to treatment, but nothing affects subsequent relapse. The following lines of treatment have been very fully and adequately tried: Rest in nursing home (three weeks), holiday (away from home), generous feeding, milk diet only; drugs: salicylates, potassium iodide, colchicum, colchi-sal, mist. rhei co., aspirin; locally: boracic, silver and zinc lotions, ung. atropinae, fomentations (two hourly), blisters, artificial leeches. An eye shade has been worn for the last six months.

ANSWERS.

E. R.—A patch of black hair in a person otherwise white haired may be decolorized by hydrogen peroxide, which will give it a pale flaxen appearance. The patch could then be powdered white in the old-fashioned way (the powdered wig of the eighteenth century) when appearing in public.

E. E. N.—Probably one of the following would suit our correspondent's requirements: *Textbook of Pharmacology and Therapeutics*. By W. Hale White, M.D. London: Young J. Pentland. 1901. (21s.) *Elements of Pharmacy, Materia Medica, and Therapeutics*. By W. Whitla, M.D. London: Henry Renshaw. 1903. (10s. 6d.) *A System of Practical Therapeutics*. Edited by H. A. Hare, M.D. Second edition. In three volumes. London: Williams and Norgate. 1903. (63s.)

IRREGULAR HEART ACTION.

DR. LESLIE THORNE THORNE (London) writes, in answer to "M.B.'s" query: I have found the Nauheim treatment of very great benefit to somewhat similar cases. It would be worth "M.B.'s" while to try it, as all other treatment has failed, and the patient is getting worse.

LETTERS, NOTES, Etc.

MEDICAL PRACTICE IN BUSSORAH.

WE have received from Dr. W. R. Scroggie a letter from Bussorah, under date December 23rd, 1904, too long for publication, in the course of which he says: "With reference to my letter which appeared under the heading of "Private Practice in Bussorah" in the BRITISH MEDICAL JOURNAL of September 26th, 1903, page 762, and in reply to which a conjoint letter from four of the firms in Bussorah appeared in the JOURNAL of June 25th, 1904, page 1517, I noted that they characterized my letter as misleading, and alluded to my application for a two years' extension of my agreement to support their statement that life in Bussorah, from a social point of view, is much more healthy and bearable than in a majority of Indian and other Eastern stations. When I wrote about Bussorah and its private practice I had not the remotest idea that it would prevent or deter any doctor from coming to serve the firms here, but I was informed that it did have that effect, and that one who was actually engaged had, after reading the letter, declined to come out, as he had taken up another more congenial appointment, and that a few others withdrew their applications. It was with some surprise that I heard that the firms had failed to secure a doctor, though I had given six months' notice of my resignation. My intention was simply to allow my successor to have a fair idea of Bussorah and to endeavour to secure a better salary from the firms. . . . . As my letter was considered misleading I must, in justification, enter into an explanation and inquire in what manner it was misleading."

Dr Scroggie then proceeds to allude to the matters he wishes to make clear. One is that an £80 a year alleged to be due from the British Consulate, and stated or implied in the letter from the firms to form a part of the incoming medical officer's prospective stipend, is not a certainty; another point is that a fee of two guineas to which it was suggested he was entitled for every steamer coming into port to load is also an uncertainty, inasmuch as it is a matter of arrangement with each individual captain, and, as a matter of fact, a neighbouring medical man, connected with an American mission in the district, had done a part of this work and had received the emoluments accruing at this rate. Thus, of 52 ships coming into port the previous year, Dr. Scroggie had attended only 45, and 1903 was, moreover, an exceptional year, the 25 up to December 23rd, 1904, more nearly representing the ordinary annual number. Among other drawbacks of the post to which he felt it his duty to the profession to allude was the personal risk involved in the daily visits to the ships in port; the fact that the medical officer of the mission competed in private practice and had sundry advantages which he enumerates; and the difficulty he has experienced in finding a house at all suitable or convenient. After prolonged residence in India he cannot agree with the statement that Bussorah is more healthy and bearable than the majority of Indian stations, and he gives some facts bearing on the unhealthiness of Bussorah, especially that cholera is more or less epidemic there, but we are bound to add he includes in this indictment that "an engineer was drowned; and a lady suffering from enteric fever was brought here, and died very shortly after." The doctor, moreover, he says, has no claim for a change made desirable from sickness, and if on this account he leaves before the expiration of his Bussorah contract, he forfeits his passage money. Dr. Scroggie explains that his renewal of the contract, which had been brought up against him, was subject to the proviso that effort should be made to provide a successor, and he points out that his present letter was only written after his successor had been actually appointed.

LACTATION IN A MALE INFANT.

MR. H. J. GODWIN, M.B., B.S., F.R.C.S.E., M.R.C.S., L.R.C.P. (Winchester), writes: I was recently called to see a male infant, a week old, on account of swelling of both breasts, first noticed by the nurse three days after birth. On examination and slight pressure milk flowed freely from both nipples. The following day I easily collected half a test-tube of this fluid, which microscopically had the characteristic appearances of milk; it also reduced Fehling's solution. The treatment adopted was a small belladonna plaster to each breast, applied without strapping; the condition cleared up in a fortnight.

*** Some enlargement of the mammary glands two or three days after birth is so frequent, in the male infant especially, that it may be considered normal. Milk often escapes spontaneously. Rough handling may lead to suppuration.

A CONDITION OF THE LOWER LIMBS OFTEN MISTAKEN FOR PHLEBITIS.

DR THEODORE FISHER (Clifton) writes: In a letter on the above subject, reference was made to some cases of venous thrombosis in typhoid fever recorded by Thayer. Instead of the word "swelling" the word "oedema" should have been used by me in connexion with them. The reports of 39 cases of venous thrombosis were examined. Oedema was absent in 7 and not mentioned in another 15—that is to say, it was only definitely stated to have been present in less than half the cases. "Swelling," however, was present in all (*Johns Hopkins Bulletin*, October, 1904).

SYPHILIS AT THE CAPE.

DR JAMES DAVEY (Seröwe, Northern Bechuanaland Protectorate, S.A.) writes: Following up Dr. Gregory's report (noticed in the BRITISH MEDICAL JOURNAL of November 19th, 1904, p. 1423), I am of the opinion that syphilis is also on the increase in this locality. I have been practising here for the last seven months, and fully 50 per cent. of the cases I have treated have been suffering from this disease. Further, I consider that at least 70 per cent. of the natives suffering from syphilis never come for treatment, being too poor to pay for the medicines. I have also been told by a trader that in most of the outlying districts the disease is rife.

A PLEA FOR THE STUDY OF DIETETICS.

DR. THOMAS DUTTON (London, W.) writes: Under the title The Treatment of Disease by Dietetics: A Plea for Systematic Teaching, I wrote an article in the *Provincial Medical Monthly* in 1893. I advocate the teaching of dietetics in nearly similar words to Dr. J. Haddon (BRITISH MEDICAL JOURNAL, January 21st, 1905, p. 162). I also wrote a letter to the JOURNAL, The Treatment of Disease by Dietetics, in 1901; besides other communications I made on the same subject. There can be no doubt that a sound technical knowledge of dietetics is of equal importance to the medical students as a sound knowledge of therapeutics. I venture to add many drugs would give far more satisfactory results if given with a carefully regulated diet.

INTRANASAL IRRITATION CAUSING ACNE ROSACEA.

DR. PERCY NEWELL (Bexhill) writes: In the BRITISH MEDICAL JOURNAL of January 14th, p. 74, Mr William Lloyd describes cases of "acne rosacea" caused by intranasal irritation. He says he cannot find such a cause for acne rosacea mentioned in the textbooks on skin disease. If he will refer to an *Index of Symptoms* by Leitwich he will find, under the subject "Red Nose," that chronic hypertrophic rhinitis and rhinophyma are given as causes.

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A Clinical Lecture

ON

SOME POINTS IN THE DIFFERENTIAL DIAGNOSIS OF SCARLET FEVER, GERMAN MEASLES, AND MEASLES.

Delivered at the Hospital for Sick Children, Great Ormond Street.

By F. J. POYNTON, M.D., F.R.C.P.Lond.,
Assistant Physician to the Hospital and to University College Hospital.

A demonstration on the subject of infectious diseases is by no means easy to undertake in a children's hospital. It is not possible to show you examples of them brought here for the purpose, and it is at best a very difficult problem, and one in no way suited to dogmatic assertion. This lecture must for these reasons lack definition, and, further, it makes no pretensions to throw new light upon the diseases with which it deals. On the other hand, it is very necessary to be continually refreshing our memories of even the common ailments, and the infectious diseases are not so often undertaken by the general physician as are some of the other ailments of childhood.

The group that I have chosen comprises scarlet fever; rubella, or German measles; and measles. It is the diagnosis of these diseases with which I shall be principally occupied, although, without hesitation, I shall touch upon some other points which will help to keep in prominence the practical importance of our subject. Indeed, the Easter term at the innumerable schools perennially reminds us of their importance.

These are diseases which force us from that great refuge of the doctor—a maze of words—and pin us down to an opinion, as a butterfly is impaled upon a piece of cork.

A mistake, nevertheless, in either direction may be a cause of considerable damage to the patients, the institutions, and ourselves, and yet it is difficult to keep a clear head. Personal reputation and outside pressure from parents or authorities are, we know well enough, real difficulties which are not emphasized in the textbooks. It is, in fact, far more pleasant to allow someone else to put the name on the label, than to put it on oneself.

We all see clearly enough why the subject is so difficult. It is chiefly because we are ignorant of the actual causes of these infectious fevers, and so we are driven back upon clinical symptoms, and upon standard types which are based upon a study of these symptoms. Unfortunately for us, like castles built upon the sand, these standard types are liable to be swept away by some wave of epidemic unusual either in its severity or nature, and then with the loss of our standard type we get into difficulties.

Let us, for example, take scarlet fever. From 1799 to 1822 Bretonneau, a teacher of the illustrious Trousseau, had never met with a single fatal case of the disease, and, naturally enough, he taught that it was not a serious malady. In 1824, two years later, he looked upon it as a rival of typhus or cholera. What a change in a standard this must have meant!

Now in England to-day how does the matter stand? In every direction we hear that scarlet fever has altered its type, and is now almost a trivial ailment. Thirty years ago, however, the story was a different one.

Although the causation of these diseases is so obscure, it is a subject which has been steadily looked at in recent years. All honour to those who have struggled with a subject so difficult. It appears to me that in any such research one point must be kept well in mind, and that is the contagiousness of these diseases. Personally, I should not be content until, in addition to producing the cardinal lesions, I was also able to produce an epidemic in the susceptible animals—one which had spread from an inoculated animal.

Doubtless you are aware of the particular researches upon the etiology of scarlet fever, and of the investigations both in this country and on the Continent upon a diplo-streptococcus, which has been repeatedly isolated from the throat and elsewhere in this disease.

Among the investigators of this micro-organism, Class, of Chicago, stated in the *Lancet* on September 29th, 1900, that he had produced by this micrococcus a condition resembling scarlet fever in white pigs. These animals within twenty-four hours became ill, a red eruption appeared upon the third day, and desquamation after two or three weeks. He also remarked that both he and another investigator, Jaques, had observed cases arise in these pigs by contagion. Such a remarkable phenomenon as this I should have liked to have seen described in more detail. It deserves most accurate record, for the contagious nature of these diseases is a very puzzling and remarkable fact.

My reason for thus turning aside to speak of the etiology is to impress the importance of the recognition of the fact that we are so much in the dark on this question. With this gloom there comes necessarily great uncertainty as to the limitation of the diseases. What are we to take as evidence, sure and acceptable, of scarlet fever, measles, or rubella? We have no sure test. Accordingly we find ourselves in this state of mind: Sometimes we are convinced they are specific diseases, at other times we think there may be all sorts of scarlet fever, and that it is only a name for a particular phase of many diseases, in which phase they are, among other things, highly infectious.

We have these thoughts when we see mysterious and sporadic cases; or when in an outbreak of influenza we note the frequent appearance of a scarlatiniform eruption with desquamation; or when in a surgical ward mysterious rashes, at first unlike scarlet fever in distribution, become later indistinguishable from it; or lastly, when we find rubella drifting into a scarlatiniform type. We cannot help noting also, with interest, that the curious antitoxin rashes which follow the injections for diphtheria are scarlatiniform, especially when they come early, and morbilliform when they appear later. Yet on the other hand, when we see a large and characteristic outbreak of any of these three diseases we feel convinced that they must each be specific.

The Variability of Scarlet Fever.

All writers upon scarlet fever have directed attention to the great variability of its epidemics. Whenever we approach the problem of diagnosis we ought to remember this: that unusual and mysterious cases of scarlet fever are no new discovery; they have not originated, for example, since this recent wave of influenza. Trousseau, in fact, makes a very clear allusion to it in his lectures.

As a result of experience in all such diseases as these we recognize three types: the classical one—that is the most usual, the most easily diagnosed, and most accurately described form of the disease—the malignant type, and the mild type. In scarlet fever the malignancy may be terrible. Thus, for example, Dr. Hilton Fagge, in 1883, described the case of a boy who was taken ill in the morning with headache, vomiting, and prostration, who was comatose in the afternoon and dead in the evening. There was no exanthem, but his nurse sickened with scarlet fever. It will be clear to you that the diagnosis of some of the most malignant cases can only be a rational surmise from the knowledge of a prevailing epidemic.

At the present time, however, our great difficulty lies with the mild type of scarlet fever. Yet, in order to prevent confusion, it will be, perhaps, best to give first some of the cardinal features of the classical case of scarlet fever.

The incubation is short—usually less than seven days, often only two or three. The onset is abrupt, with vomiting, headache, and sore throat, and not infrequently delirium. The temperature runs up quickly to 103° to 105°. The pulse is strangely rapid and excited, the skin curiously burning. The rash appears on the second day, starting on the front of the neck and chest, and spreading in the next two or three days downward over the trunk and extremities, upward to the face, where it gives that bright colour to the cheek which is sometimes called the stage blush, but leaves a pale circle around the mouth. There are two elements in the rash—a vivid blush and punctiform macules. The tongue is at first coated with a creamy fur, and then it begins to peel. When the red-topped papillae emerge from the white surface the appearance is that of an unripe strawberry. Later, when the tongue becomes red and succulent, it resembles, we are told, a ripe strawberry. Much importance is attached by some to this peculiar tongue, for you may see in scarlet fever a rare combination—a clean, desquamated tongue and a very unhealthy throat. The early sore throat is really very characteristic in its vivid redness.

Lastly, the desquamation, which will probably begin about a week after the first appearance of the rash, is not proportionate to the severity of the rash. It is a lamellar desquamation, and often gives a worm-eaten appearance to the skin as the process begins to make headway. The duration of

desquamation is variable, but not infrequently it lasts six weeks, and sometimes on the hands and feet much longer than this. The sequelae and complications are of first importance. I emphasize here nasal and aural discharges, for they have attracted much attention by reason of the numerous and important statements recently made upon "return cases" of scarlet fever. You need hardly be reminded of nephritis, albuminuria, and rheumatism.

These are the chief features of classical scarlet fever. The malignant cases, even if they are difficult of diagnosis, are so serious that there is no danger of underrating them. When, however, we come to the mild cases, there are great difficulties. It can never be forgotten that among a series of cases, the majority of which are mild, some may be exceedingly severe, and yet, as I have already pointed out, there is much to make one strive to minimize the importance of the disease.

I can give no better illustration of the mild nature of the recent epidemics of scarlet fever than that given by Dr. Bertram Thornton in the British Medical Journal for June 18th 1904: In a school of 300 boarders 96 children were attacked but only 31 showed a rash. The first case was discovered, as is not uncommon, by the detection of desquamation in an apparently healthy child. Dr. Thornton divided these 96 cases into three classes:

Class No. 1 (31 cases) showed a rash, a sore throat, and pyrexia usually to the extent of 1° or 2°, and desquamation.

Class No. 2 (19 cases) showed no rash, but a slight sore throat, fever, and desquamation.

Class No. 3 (46 cases) showed desquamation only.

In Class 1, the most typical class, few of the children were really ill. This point is noteworthy. Nearly all Class 1 and many of Classes 2 and 3 were sent to the local fever hospital, and only one boy developed scarlet fever. He clearly had a relapse, as you would see on reference to the original paper. There can be no reasonable doubt, I imagine, then, that this was scarlet fever, unless we suppose that the fever hospital had only within its walls cases of a similar nature. An objector might possibly suggest, then, that none of these cases were scarlet fever, but were something else. You see from this account how mild the disease may be, and Dr. Thornton brings out very clearly the grave expense and inconvenience caused by it.

It is in considering this side of the question that the old difficulty crops up, as to how long the patient is infectious and as to what is the danger of the desquamation. If the following be authentic, desquamation may be very dangerous:

In the spring of 1900 a family in Texas suffered from severe scarlet fever, and during desquamation whole casts of fingers and toes came away. The mother collected these and put them in a cardboard box. The family then moved from the neighbourhood, and in February, 1901, was visited by another family, consisting of father, mother, and a little boy of 3. The mothers fell a-talking, and the hostess produced the box of scales as a trophy. Four days after this the little boy sickened with scarlet fever and died. His aunt and her three children came to see him when he was ill, and also an uncle with his little boy. All these children died from scarlet fever. There was no other case of scarlet fever and none in the neighbourhood. I cannot vouch for this, but it was reported by Dr. Fowler, of Pottsville, Texas, and attention drawn to it by Dr. Gresham, in the *Lancet*, June 11th, 1904. Its importance is clear, for whenever nowadays an attempt is made to show that peeling in the late stages is a source of danger, it must be shown also that there are no nasal or aural discharges. The cardboard box had neither nose nor ears.

Again, Dr. Rotch, in the last edition of his treatise on children, gives the following case:

A boy of 6 and a girl of 4 slept with their beds touching. On May 1st the boy was taken ill, but remained in the same room with his sister during the next twenty-four hours. The girl—as the boy was found to have scarlet fever—was then sent away into the country, and all lines of communication were cut. Until June 1st all went well, and at that time the boy was desquamating freely. On June 1st the little girl sickened with scarlet fever, and Dr. Rotch found that the little boy had written to her, and that she had put his letter under her pillow. Dr. Rotch adds: "A careful study of this case led to but one conclusion—that the boy during the period of his desquamation had infected his sister at a distance of twenty miles by enclosing the contagion of scarlet fever in an envelope." An unromantic comment upon such a touching tale.

These are two interesting cases, for it is a most difficult matter to get any evidence for or against the danger of the desquamation in scarlet fever.

Dr. Millard, who is not a believer in the danger of the condition—at least, in its later stages—has made a determined attempt to obtain reliable evidence to support him. His important paper is published in the *Transactions of the Epidemiological Society for 1902*. Yet I do not feel myself quite convinced. I admit that in his paper—which is a most valuable contribution to our knowledge—some well-known authorities answered certain of his questions and supported his attitude, but the majority gave general answers and general expressions of opinion. Now that this subject of desquamation has been raised, I should prefer to wait some years for particular instances which exemplify the danger or innocuousness of the peeling of scarlet fever, and such instances are most likely to be supplied by those in charge of large schools or in general practice.

In settling this question we must beware of our reasoning and keep it logical. Thus, for example, there are cases on record in which the presence of a child dequamating from scarlet fever has given to other children the disease; and again, there are other cases when a child who has had scarlet fever and is not desquamating has given scarlet fever to others. We must not conclude from those two facts that desquamation is not a source of danger. We can only say that a child need not of necessity be desquamating to be a source of danger.

Many cases in which desquamation was thought to be the danger have now been clearly shown to be cases with aural and nasal discharges, and these discharges are allowed to be infectious. Yet we cannot deny that in any particular case the desquamation also may have been a source of danger. If scarlet fever is the result of an infection with a micro-organism, until we are quite certain as to the nature of the microbe, it is as possible to believe it might be present in the scales of the peeling skin as in a nasal discharge.

Nor does it seem to me that, until either the cause of scarlet fever is known or chance cases have proved the harmlessness of desquamation, we are justified in experimenting upon this point. Suppose, however confident we may feel to the contrary, desquamation does prove to be real danger even late in the illness, and we infect other children by our over-confidence, we cannot be sure that some of these infected children will not get nephritis, a grievous thing at any age—in a child most lamentable.

I have digressed for a while on to the subject of desquamation, and I did so purposely, for desquamation is an occurrence which always comes to the front whenever there are mild or doubtful cases of scarlet fever abroad. Moreover, I speak about its significance with great caution, although I am aware that some of our leading authorities believe us to be at present over-cautious in dealing with it. Yet one feels that as we do not know the real cause of scarlet fever, we must abandon this landmark very, very slowly and reluctantly, and let us in any case be guided by sure evidence rather than any general expression of a conviction upon the subject.

To return now to these mild cases described by Dr. Thornton. You will remember how exceedingly difficult the diagnosis must have been in some of these cases had there not been an epidemic to guide him. That is the point I want to make. Mild scarlet fever is most difficult of diagnosis, and in some cases it resolves itself into a matter of opinion.

These cases make a good introduction to the further difficulties into which I shall now proceed to plunge.

Let me next quote you verbatim from a memorandum in the British Medical Journal, March 12, 1904, p. 603, by Dr. James Hamilton upon another type of epidemic. The heading of the memorandum is "Erythema Scarlatiniforme (Influenzal)."

I have recently had a number of cases characterized by slight fever, sore throat, and painful glands in neck, and accompanied by a scarlatiniform rash, both in children and adults, during the influenza epidemic which has lately visited this district. Some of these cases caused me much anxiety as to whether I should notify them as scarlet fever or not, and I can conceive that a young practitioner might have had his future career very much damaged by forthwith notifying such cases as scarlet fever, etc.

He proceeds to give a very interesting example in a child (who had suffered from scarlet fever seven months before) of such a rash followed by a branny desquamation; the mother developed influenza without any rash. Dr. Hamilton expressed himself very definitely upon this outbreak as influenzal. In various books also there are passing allusions to a scarlatiniform eruption with influenza, although this allusion is often exceedingly vague.

In 1901 I saw at a large school some very mysterious rashes which had appeared independently of one another. They appeared, that is to say, among boys who had not been in contact with one another. Six of these boys came to my notice. The symptoms were remarkably slight. A little sore throat, a coated tongue, such as one meets with in influenza, and a temperature rising to about 101.5°. Their pulses were not excited, and they none of them really seemed to be ill. In spite of this a most profuse scarlatiniform rash appeared on the first or second day, followed by a rapid and profuse

desquamation. The outlines of these rashes were more clearly defined than is usual in scarlet fever, and the rash in some ways reminded me of an antitoxin rash. The posterior cervical glands were not enlarged. These rashes were breaking out not only in the school among the boys but among adults, including sober matrons who should have risen far superior to scarlet fever.

Now for the point of this. Influenza was raging in school and town, and the question that arose was whether influenza was responsible for the condition or whether it was in reality scarlet fever. At that time, too, German measles was very prevalent in London, but this school was many miles away from this city.

I have also heard that elsewhere the same difficulty arose over the occurrence of scarlatiniform rashes at a time when a town was under the scourge of influenza.

To Dr. J. B. Maurice, of Marlborough, I am indebted for a very interesting note. One of his patients who developed influenza remarked that it reminded him exactly of the dengue fever. I have never seen dengue fever, but we know that it is a disease which resembles influenza in the intensity of the pains in the limbs and eyes. In this disease there may be an eruption in appearance something between scarlet fever and measles, which is followed by a branny and sometimes profuse desquamation.

The second point, then, upon which I want to lay stress is this: That there is an opinion among some physicians that an outbreak of influenza may be associated with rashes resembling closely those of scarlet fever, and it may possibly be comparable to the rash of dengue fever. The question is an important one in practical medicine, for the old difficulty at once arises as to how long the desquamation in such cases as these should be regarded as a danger. Six weeks is a long time to give as an average, if one is not dealing with scarlet fever at all, but with influenza.

Rubella.

Let me introduce my next point with a few words upon rubella, or German measles. Unless one happens to meet with rubella or German measles in an epidemic, it is not easy to recognize it; in epidemics, however, it becomes very characteristic. The incubation period is longer than that of scarlet fever (two to three weeks). As a rule the stage of invasion is mild, although it was apparently severe in the earlier days of its history. The early symptoms are slight fever, catarrh, and sore throat. The eruption is frequently the first warning. It is a disease which is highly infectious, especially about the age of puberty. The lymphatic glands in the posterior triangles and over the mastoid are often enlarged, and when there is an epidemic in a school it frequently happens that for a day or two before there is any exanthem, boys may be walking about with these enlarged glands. Another symptom is suffusion of the eyes.

There are two types of exanthem: the morbilliform, which appears to me the more common and characteristic, and the scarlatiniform.

The morbilliform rash when fully developed is seldom so discrete and raised as that of measles, and some of the areas may resemble an artificial eruption; in the early stage, however, the papules are more discrete than in measles. It frequently itches. The distribution naturally differs in detail in different outbreaks, but spreading from above down, is generally very distinct on the neck, and under the chin, less so on the forehead, more again on the cheeks. Favourite spots for a profuse eruption are the external aspects of the thighs and the buttocks. The colour is a rose pink, and this colour is also noticeable in the scarlatiniform type of eruption.

The scarlatiniform eruption may be very extensive, but just as the morbilliform, if not as frequently, has areas which resemble an urticarial eruption. It, too, may itch.

These eruptions last two or three days, and in some cases are followed by a fine desquamation. The desquamation is, as a rule, slight and mealy, and often only the face shows some slight powdery desquamation.

The most constant sequelae—and they are very few—is the occurrence of a secondary sore throat which appears about the fifth day. This was first emphasized by Dr. Eustace Smith.

The puzzling feature about rubella is the occurrence of the two forms of eruption. They may both occur in the same patient:

In 1891, for example, at one of the large public schools 61 cases of rubella occurred in the spring term, and in 8 of these cases a morbilliform rash was followed in one to three days by a scarlatiniform one. In five others there was no previous morbilliform eruption, and all these 13 boys desquamated.

Dr. Fyffe recorded these in the *Bristol Medico-Chirurgical Transactions*, January, 1892, and at the same time alluded to another outbreak in a public school in 1884 in which the same events occurred. In this case five of the boys who suffered from the scarlatiniform rash had previously passed through an attack of scarlet fever, and two years later another outbreak of rubella occurred in the same school, and none of the boys who had suffered from the two rashes in 1884 were infected in 1886.

This evidence of protection from rubella has clearly very close bearing on the reality of the two types of eruption in rubella.

More recently still, in the British Medical Journal for December, 1901, there is a valuable paper by Dr. Watson Williams on rubella, scarlatina and fourth disease. In this he mentions an outbreak at a public school in which both eruptions occurred. Thirty-two boys were attacked, and in some instances the diagnosis between rubella and mild scarlatina was all but impossible. In these cases there was a mealy desquamation.

In the spring of 1904 I had an opportunity of testing these observations. There was a considerable outbreak of rubella in a large school, but no scarlet fever either there or in the neighbourhood. The great majority of the boys who were attacked showed the more usual morbilliform eruption, but some of them three days after the first attack developed fresh headache and sore throat, and then a profuse scarlatiniform rash. The eruption appeared in large rosy patches, the tongue coated but did not peel; the cervical glands were enlarged, and the throats were red and sticky. As a rule the temperature was only slightly raised, though on some occasions 103° was noted. The pulse was not excited but feeble and rapid. In one case there was vomiting at the outset, and in one a trace of albumen in the urine. The number of cases slightly increased but never reached a large number. Several of them desquamated, the desquamations being furfuraceous; the skin was irritable.

To the Medical Officer of Marlborough College, Dr. Penny, a most acute observer, I am indebted for this brief account of a case in which the interval between the two rashes was a longer one. I will quote sufficient to show you how such cases are suddenly thrust upon you.

"A convalescent from German measles—by this Dr. Penny meant the ordinary morbilliform type running through the school—had been out for a walk in the afternoon. In answer to a leading question from me he said his throat was sore. I lifted his shirt and found his body covered with a red punctiform rash, rather coarse, inclining to leave white patches of skin here and there, and evidently irritable, for he had scratched himself where the rash seemed coarsest. His temperature was normal." His temperature, I may add, remained normal during the three days the rash remained out.

This is an excellent illustration of the difficult nature of these cases. Let me add that the converse may also occur and the morbilliform rash follow the scarlatiniform, as happened in two of Dr. Penny's cases.

Lastly, the abortive rashes in rubella are worth a passing mention. A boy comes to you in a scare because he has rubella and a faint tinge of red; a budding eruption is detected, the boy is isolated, and in a few hours this rash has entirely disappeared, and he is apparently quite well. A few days later the true eruption of German measles comes out. It naturally occurs to one to compare the rash to the prodromal rashes of other infections.

A very natural question when dealing with these mysterious infections is the nature of the sequelae. The sequelae of scarlet fever I have touched upon; but we must not lose sight of the fact that pains in joints have been recorded after German measles. Dr. Douglas, in 1883, noted two cases of arthritis, and Sir Thomas Barlow and Dr. Penny have also met with pains in the joints. As to albuminuria, it must be recognized that in schoolboys who are not suffering from an infectious illness some albuminuria, presumably orthostatic, is very frequent.

There is on the whole a general agreement that two types of exanthem in German measles should be recognized; yet I hardly think it is sufficiently insisted upon in teaching the student. Certainly this fact makes German measles a very perplexing disease, and no better illustration of that can be given than the example furnished by Dr. Watson Williams in the paper to which I have already alluded. Among a number of boys there broke out a contagious disease, characterized by the presence of a scarlatiniform rash and enlarged posterior cervical glands and the absence of constitutional disturbance. It was without high fever and the pulse-rate was low.

This clearly resembled the scarlatiniform type of German measles. Dr. Williams, however, expressly stated that the desquamation resembled that of scarlet fever, as being lamellar and not mealy, and scarlet fever they proved to be, the infection being traced to an infected milk supply.

It is conflicting evidences such as these which have led some careful physicians to hold that German measles is a hybrid disease between measles and scarlet fever, and it does no harm if, without accepting this, we recognize how difficult the distinction may be. This is, at any rate, certain: no medical man lightly makes mistakes over the disease I am dealing with, and the opinions and evidence put forward on every side of the subject are always interesting.

Second Attacks of Scarlet Fever.

Recent literature has also produced numerous instances to prove that one attack of scarlet fever does not necessarily protect the patient from another. Several attacks, indeed, have been recorded as occurring in one individual—attacks which must be sharply distinguished from relapses which occur before desquamation from the first illness is finished.

These occurrences are so important because they weaken one of our strongest fortresses, which protects us by the assertion that one attack of these infectious diseases protects against another. All experienced doctors, however, know how measles fails to obey this rule.

The Fourth Disease.

It is difficult enough to distinguish sometimes between rubella and scarlet fever, and yet there is a belief among some physicians that there is even another infectious disease to be reckoned with in addition to scarlet fever, rubella, and measles. We have, that is to say, somehow or other to fit in among them another special infectious disease—an epidemic roseola which breeds true.

This belief was crystallized by Dr. Clement Dukes in a paper published in the *Lancet*, July, 1900, under the title "On the confusion of two different diseases under the name of rubella." His experience had led him to suspect its existence for some years, but an outbreak of an epidemic in a public school in April, 1900, finally convinced him of the existence of this disease, which he has termed provisionally the fourth disease. The disease as outlined by Dr. Dukes has these characters:

It is infectious. The first symptom may be the rash, though in some cases there is decided malaise. It occurs most frequently in the spring and autumn. The probable incubation period is 9 to 21 days (note this in comparing it to scarlet fever).

The eruption is scarlatiniform in type. It is, however, rather more raised from the surface than is the rash in genuine scarlet fever; it may cover the entire body in a few hours. The fauces are red and swollen, the conjunctivae pink and suffused.

The lymphatic glands are universally enlarged, more especially the posterior cervical, axillary, and inguinal. There is usually desquamation, which does not bear any relation to the intensity of infection. This desquamation may be as profuse and prolonged as in scarlet fever. The kidneys are rarely affected, and it is remarkable how often it occurs that the patient does not feel really ill. The tongue is clean or furred, but does not peel as in scarlet fever. The pulse is not greatly quickened. The temperature ranges from 98° to 104°.

The course of the illness is run in a few days, and it is not very infectious, nor is it very probable that the infection lasts beyond two or three weeks after proper disinfection. An attack does not protect against scarlet fever or rubella. Save for some enlargement of the submaxillary glands there are no sequelae and recovery is complete in a fortnight. If we accept this entity, many of the curious cases to which I have already alluded should find their explanation as examples of the disease.

I am not going to discuss the validity of the position of the fourth disease, but bring it to your notice in the same spirit in which it was originally brought to the notice of the profession. We cannot disguise the fact that, as a profession, we have been greatly puzzled by recent scarlatiniform epidemics, and this paper of Dr. Dukes brought the problem before our notice very clearly and very decidedly. Moreover, he has on his side distinguished clinical observers.

The keenest criticism of his paper was that which was made by Dr. Millard in the *Lancet* in December, 1901, in which he distrusts the foundations upon which Dr. Dukes rests his belief. You will find, on reference to the original paper by Dr. Dukes, that it is based upon three different epidemics: one that he believed on retrospection to be the fourth disease only, another that he believed to be scarlet fever and the fourth disease, and the third which he believed to have been the fourth disease only.

It is not difficult to summarize the views of the opponents to Dr. Dukes. They maintain that some of his cases may have been rubella, and some may have been a mild form of scarlet fever, and, though not prepared to deny the possibility of a fourth disease, they hold that its existence has not yet been proved. I am of that opinion myself.

There is, however, this great and real lesson to be learnt from this problem. We cannot content ourselves with dismissing all cases of desquamation after a scarlatiniform rash as scarlet fever, without a careful consideration of them. However careful we must be in practical life, there is nothing to be lost by a judicial study of all such cases. Then, again, if we decide that an outbreak is not scarlet fever in spite of desquamation, this in no way saves us from the necessity of disinfecting such patients most carefully, not because of a half-expressed fear that we may be wrong in our diagnosis, but because whatever name we give it we are dealing with an infectious disease. However mild this disease may be, it may have, for all we know, the same possibilities of acquiring virulence as have the other infectious diseases.

The Prodromal Rashes of Variola.

The prodromal rashes of variola are sometimes a cause of confusion, for they may be either scarlatiniform or morbilliform. Small-pox is now an exceptional occurrence, and the differential diagnosis is for this reason one we have rarely to make. These prodromal rashes, as they are termed, are very variable, but they can be divided roughly into the general and the partial rashes, both of which may be either scarlatiniform or morbilliform.

In making a differential diagnosis between small-pox and scarlet fever, much stress is laid upon the sore throat and "strawberry" tongue in scarlet fever, and the absence in that disease of the severe backache of variola. The general erythema of small-pox usually lacks the punctate character of the rash of scarlet fever. Maccombie states in Allbutt's *System of Medicine* that the initial scarlatiniform rashes do not occur in children under 10. The partial rashes are rarely seen on the upper part of the chest and neck in variola. This is the usual starting point of the rash in scarlet fever. Always remember the importance of the throat in the differential diagnosis between scarlet fever and variola.

In making a diagnosis between measles and variola importance is attached to the coryza of measles and to Koplik spots. The morbilliform eruption of variola, if it is general, has covered the body in the time that the true measles eruption takes to appear on the neck and face, and it leaves no stain.

The temperature rises as the eruption of true measles comes out. The temperature falls as the prodromal rash of variola disappears, and the true rash comes out. The papule of the true variola rash is shotty, of measles velvety.

Rötheln, in its absence of severe symptoms and presence of enlarged posterior cervical glands, is hardly to be confused with any form of variola.

Measles.

The time is too short to do more than mention measles. The classical case of measles is one of the best known of all diseases. I wish, however, to give you one example of a less common yet very important type of case. In 1895 a little boy, aged 6, came under my notice with dyspnoea and laryngeal stridor, and he had been apparently ailing for some days with headache, fever, and sore throat. The dyspnoea was urgent. I examined the throat and found no sign of membrane, only redness and catarrh of the fauces. We know from experience that such a condition of laryngeal stridor without a trace of diphtheritic membrane in the fauces may be diphtheritic and the membrane entirely confined to the larynx. If the child is urgently ill with such symptoms it is most tempting to send it to a diphtheria ward, where everything is at hand for dealing with laryngeal obstruction. Yet such a course would in this case have meant disaster, for it proved to be a manifestation of measles. There was, however, no trace of a rash until the sixth day, and then it was ill-developed and quickly faded. The child died of broncho pneumonia. These cases of measles, which commence with laryngitis, are highly dangerous. While on the subject of

measles, I cannot help pointing out to you how greatly the measles of the poor differs from the measles of the rich in its severity, and warning you also of the great danger of crowding cases of measles. If you are compelled to do so by circumstances, then pick out from among them the cases with bronchopneumonia, for, like the rot in an apple, this will spread from one to the other. Measles and influenza are an ugly combination, and if you are in charge of a school you will probably need all the accommodation you can possibly get for these cases, and bronchopneumonia is then much to be dreaded.

Finally let me refer you to a very interesting paper by Mr. Balme in the *Practitioner* for October, 1899 in which he gives a valuable contribution to the literature of Koplik spots. In an outbreak of 227 cases he found them present in 209 out of 214 cases in which they were looked for, that is, in 97.77 per cent. Spots were seen in 93 out of 95 patients who were seen before the rash had commenced.

In this country they have to use a colloquialism rather, "hung fire," and the careful observations of Mr. Balme will go far to convince us of their real utility. He reminds us they are very minute, and should be especially looked for upon the buccal mucous membrane opposite the last molar tooth. It is, I imagine, very possible that they are more frequent in some epidemics than in others.

The conclusions to be drawn from this lecture are few; but the most important is, I think, that these common infectious diseases require to be studied in an inquiring frame of mind. So well known, yet so little understood, they are of all diseases particularly likely to be treated with a rigidity of thought which is detrimental to all advance in our knowledge of their causation and to the discovery of the most successful and economical treatment.

THE PRODROMAL RASHES OF MEASLES.

By J. D. ROLLESTON, M.A., M.D.Oxon.,
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While prodromal rashes in small-pox* have long been recognized, the existence of similar eruptions in measles is by no means so well known. Reference to them, indeed, is to be found only in isolated articles in literature,[1] no account of them being met with in the ordinary textbooks of medicine. Their frequency and diagnostic value, however, entitle them to a wider recognition than they have at present received.

The specific measles eruption is so characteristic and so little subject to variation—in this respect so unlike scarlet fever—that it needs very little experience to recognize it when it is fully developed. On the other hand, few diseases are so deceitful as measles in its earliest stage. Though the existence of a non-catarrhal measles—rubeola sine catarrho of Willan—is more than problematical, not a few cases of measles have a distinctly precatarrhal stage, in which pyrexia and Koplik's spots may or may not be present. This is the period of predilection for the appearance of the prodromal rashes.

Frequency.

So few authorities have dealt with the subject that large statistics are not available. Adkins records their occurrence in 25 out of 80 cases—a percentage of 31.25. Comby regards their occurrence as exceptional. My own figures are based on 70 cases of measles that were admitted to hospital suffering from the disease or who developed it subsequently. Prodromal rashes were met with among them in 30 cases—that is, 42.8 per cent. If 10 cases be subtracted, in which the specific eruption had already appeared when the case first came under observation, the percentage rises to 50.0.

Relation to Age.

The average age of 30 patients who showed a prodromal rash was 3.5 years, the youngest being 1 year and the oldest 8¾ years. This is sufficient to prove that the eruption was not a mere roseola infantilis, such as is usually attributed to dentition or the presence of worms.

Day of Disease of Appearance of Prodromal Rash.

In the great majority of my cases—namely, in 22 out of 30—the prodromal rash appeared on the first day of the disease. In 3 of these the specific eruption followed on the second day, in 4 on the third day, in 9 on the fourth, in 3 on the fifth, in 2 on the sixth, and in 1 it was delayed till the eighth day (Case IV). In 7 cases the prodromal rash appeared on the second day, among which 3 were followed by the specific eruption on the fourth day, 3 on the third, fifth, and sixth respectively, and in 1, which I regarded as a case of morbilli sine morbillis,* no specific eruption appeared. In the remaining cases the prodromal rash was first seen on admission to hospital on the fifth day, and was followed by the specific eruption on the sixth day.

Relation to Catarrhal Symptoms.

In 10 cases the prodromal eruption preceded the catarrhal symptoms by intervals ranging from one to six days. In 18 cases the two phenomena appeared on the same day, but in 11 instances the catarrhal symptoms, although present, were ill-developed for a period of one to three days after the first appearance of the prodromal rash. In only two cases did the prodromal rash appear subsequent to the catarrhal symptoms, in each case the interval being only one day.

Relation in Time of Appearance to Koplik's Spots.

In 12 out of 24 cases in which Koplik's spots were noted the prodromal rashes preceded the buccal enanthem by periods varying from half a day to five days. In the remaining 12 cases the two phenomena were first observed on the same day.

Varieties.

Table I shows the following varieties of prodromal rash met with. From a perusal of the Cases II, III, IV, IX it will be seen that several of these varieties may be found in a single patient.

Table I.

Isolated macules	14
Blotchy erythema	10
Isolated papules	9
Urticaria	8
Scarlatiniform rash	9
Circinate erythema	1

In point of time the macules and papules were the first to appear (see Cases II, III, V). Urticaria was the latest, being sometimes coexistent with the specific eruption (see Cases II, III, VII, IX). The isolated papules were frequently of the size and shape, and sometimes of the same distribution, as the rose spots of enteric fever. Sometimes they would suggest the eruption of rötheln. Of the prodromal rashes the scarlatiniform are of the greatest interest and importance.

The mistaken diagnosis of scarlet fever results in a removal of a large number of cases of measles annually to a fever hospital, thereby entailing not only considerable discomfort on the household and subsequent discredit on the practitioner, but frequently throwing a considerable strain on the hospital accommodation.†

The frequent appearance of scarlatiniform rashes on the second day of the disease before the development of catarrhal symptoms, the accompanying injection of soft palate and fauces, and occasional deposit on the tonsils (amygdalite pultacée of Comby), with submaxillary adenopathy, add to the difficulties of the diagnosis (see Cases III, VI. VIII). Adkins says that they may be distinguished from the true eruption of scarlet fever by the absence of decided punctation and of a history of vomiting. Neither of these distinctions, however, in my experience, holds good. In some epidemics of measles vomiting may be met with in a large percentage of the cases.‡ The erythema may sometimes be decidedly punctate. The diagnosis is rather to be made by the transient nature of the eruption and the association of Koplik's spots, stomatitis, and catarrhal symptoms.

Table II.

Trunk	28
Behind the ears	15
Limbs	14
Face	4
Neck	2

* Prodromal rashes in chicken-pox have also recently been described (v Guinon, loc. cit.). Probably many cases said to be suffering from concurrent scarlet fever and varicella are instances of this kind. Since 1900 an annual average of 16.25 cases of varicella has been admitted to the Metropolitan Asylums Board hospitals, which had been certified to be suffering from scarlet fever, probably on account of the prodromal scarlatiniform rash.

* I have reported the case at length in the *Lancet*, December 10th, 1904.

† Since 1896 an annual average of 76.3 cases of measles has been admitted to the Metropolitan Asylums Board hospitals certified to be suffering from scarlet fever.

‡ H. Balme, *Practitioner*, October, 1904, says it occurred in 65.5 per cent. of his cases.

Sites.

Table II shows that the trunk is the favourite site, no special area of the thorax or abdomen being selected.

The post-auricular region is the next more frequent spot. It is true that the specific eruption of measles first makes its appearance here, but in all the cases noted the prodromal eruption had faded from the part before the efflorescence of the former in that position. The upper and lower limbs are affected with equal frequency. The face and neck, where the specific eruption appears at an early date, are least frequently involved.

General Characteristics of Prodromal Rashes.

The characters common to the prodromal rashes of measles may be summed up under the following eight heads:

1. *Early Appearance.*—The great majority of prodromal rashes appear within the first two days of the disease. Frequently, as is shown in Cases I, II, IV, V, VIII, they precede the catarrhal symptoms, Koplik's spots, and the characteristic stomatitis.*

Occasionally, though much less frequently, they may be seen before any rise of temperature or other signs of constitutional disturbance (see Cases II, V).

2. *Transient Nature.*—The short-lived existence of most of these rashes serves in a certain degree to account for the scanty attention they have received. Some, indeed, are less fugitive than others. Thus, whereas urticaria and blotchy erythema last only a few hours, the scarlatiniform eruptions may last for a day and a night, and the isolated macules and papules even longer.

3. *Localization.*—Closely associated with their transient existence is the tendency shown by these rashes to be localized. Even the scarlatiniform rashes, which are more widely diffused than the rest, seldom occupy the same extent as the fully-developed eruption of scarlet fever, to which they bear, as a rule, but a faint and abortive resemblance.

4. *Capricious Distribution.*—The prodromal rashes of measles do not affect any special situation, such as the abdomino-femoral region, which is the site of election for the initial rashes of small-pox. They may be met with in any part of the trunk or limbs.

5. *Polymorphism.*—Highly characteristic, as is illustrated by Cases II, III, IV, is the simultaneous association of several varieties of eruption. Accidental eruptions, such as urticaria, are by no means unknown in the other acute exanthemata—for example, in scarlet fever—but coexist or follow, instead of preceding, the specific efflorescence.

6. *Absence of Local Irritation.*—The characteristic eruption of measles, like that of scarlet fever, varicella, and small-pox is occasionally attended with considerable cutaneous irritation. The prodromal eruptions of measles, however, are strikingly free from any symptoms of the kind. There is no pain or pruritus to attract the patient's attention, nor is there any subsequent desquamation.

7. *Absence of Prognostic Value.*—With the exception of the petechial eruptions in haemorrhagic cases, the occurrence of initial rashes in small-pox is most frequent in mild forms of the disease. In measles, however, initial rashes appear to be of no aid in prognosis. The course of the disease in which they were noted in no way differed from that of the cases in which they were absent.

8. *Great Diagnostic Value.*—The occurrence of rashes, such as those enumerated in Table I, in an epidemic focus, should alone arouse suspicion of infection, and prompt examination of the buccal mucosa for Koplik's spots and the characteristic stomatitis, and instigate a close watch for any catarrhal symptoms.

CASE I.

D. H., female, aged 2, admitted August 29th, 1902, with a typical attack of mild scarlet fever. Temperature, 101° on admission, became normal on September 1st, and remained so till October 16th, when it was 100.6° at 4 p.m. Nothing else was noted then.

October 17th. Patches of blotchy erythema were seen on the front and sides of the neck and chest, passing up into the scalp. There were no Koplik's spots, and no catarrhal symptoms. Morning temperature, 97°; evening temperature, 100.6°. The temperature kept normal till October 24th; a faint macular rash was seen in the morning of that day on the thorax, upper part of abdomen and neck. There were many Koplik's spots; coryza, lachrymation, and cough were present. At 11.30 p.m. the rash had not developed. Temperature, 100.6°.

October 25th (1.15 p.m.). The rash was more distinct on the upper part of the back, hypogastrium, and behind the ears. The face and limbs were free. The catarrhal symptoms and Koplik's spots were as before. Temperature, 99°. At 4.5 p.m. a large scrolled blotchy erythema was seen on the chest and abdomen, which had disappeared by 11 p.m., when the rash noted at 1.15 p.m. was also less distinct. Temperature, 102.4°.

October 26th. Typical generalized measles rash.

CASE II.

C. P., male, aged 1½. Admitted September 15th, 1902, with typical scarlet fever.

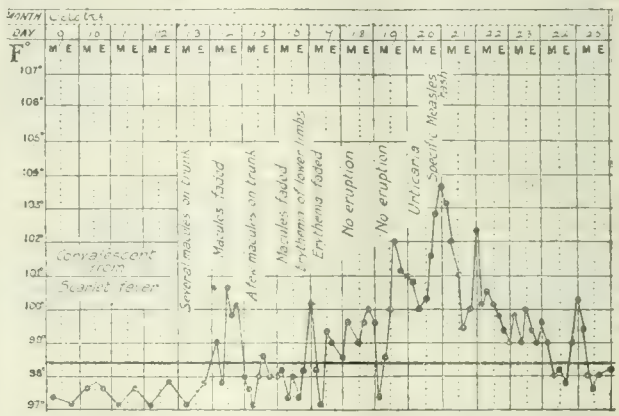
October 13th. Several faint macules on trunk. Temperature, normal.

October 14th. Rash faded. Temperature, 4 a.m., 99°; noon, 100.6°; 4 p.m., 99.8°.

October 15th. Very faint discrete macules scattered over trunk. Slight cough. A few Koplik's spots. Temperature, normal.

October 16th (morning). Rash fading. Temperature, normal; 11.45 p.m., 100.2°. Bright erythema of lower limbs. Fauces injected.

October 17th. Erythema faded. Morning temperature, 91°; evening temperature, 99°.



October 18th and 19th. Temperature, 99° to 100°. No fresh phenomena.

October 20th (noon). Cough, lachrymation, coryza. Buccal mucosa full of Koplik's spots. Large urticarial wheals in both deltoid regions. Small wheals on thighs, sacrum, and buttocks. 3.15 p.m. Urticaria over deltoids faded. Fresh patches in front of thighs. Characteristic measles eruption appearing behind ears and on trunk. 5.45 p.m. Urticaria on front of thighs faded. Fresh wheals on back of thighs. 8.15 p.m. Fresh wheals on buttocks and on front and back of both thighs. Those noted at 5.45 p.m. have faded. 11.15 p.m. Characteristic measles eruption thickly set on face, trunk, and proximal ends of limbs. Urticaria faded. In the course of the night seven more wheals were seen in various parts of trunk, and disappeared within an hour.

October 21st. Measles rash bright and general.

CASE III.

W. B., male, aged 2½, admitted July 7th, 1903, with scarlet fever. Temperature 101.4° on admission, reached normal on July 9th and remained so till September 28th, except on September 1st and 2nd, when it was raised owing to cervical adenitis.

September 28th. Morning temperature, 101.4°: evening temperature, 99.2°. Coughing and sneezing. Papular eruption on face and behind ears. One possible Koplik's spot on buccal mucosa.

September 29th (morning). Coarse papular rash on cheek; fine macular rash behind ears. Coryza. Numerous Koplik's spots. Temperature, 98.4°. 10 p.m. a few fine macules on the upper part of the chest, and on the back between the scapulae. Temperature, 99.8°.

September 30th. More fine macules on face, behind ears, on upper part of chest, inner side of arms and thighs. Slight cough. Thick nasal discharge. Numerous Koplik's spots still present. Specks on both tonsils. Morning temperature, 98.4°; evening temperature, 100.6°.

October 1st (11 a.m.). Punctate rash on chest and upper arms. Large urticarial wheal at bend of left elbow. Smaller wheals on right elbow, right forearm, left cheek, on both scapulae, and inner side of right knee. Fauces much injected. Still specks on tonsils. Tongue peeled at tip, peeled posteriorly, papillae prominent. Still profuse nasal discharge and numerous Koplik's spots. Temperature, 99.4°. 5.30 p.m. Urticaria present this morning has gone. Fresh wheals on inner side of right knee, on upper and inner side of right thigh, round umbilicus and on left side of chin. Characteristic measles rash beginning to appear on face and trunk. Temperature, 100.4°. 11 p.m. Urticaria noted at 5.30 p.m. has gone, but several wheals have appeared since. Temperature, 101°.

October 2nd. Measles rash general and well marked. Morning temperature, 102°; evening temperature, 103°.

CASE IV.

Q. M., female, aged 8½, admitted August 22nd, with scarlet fever. The temperature became normal on August 30th, and remained so till midday on September 25th, when it was 100.4°. A faint erythema was then seen on chest and back. The fauces were injected. There were no Koplik's spots and no catarrhal symptoms.

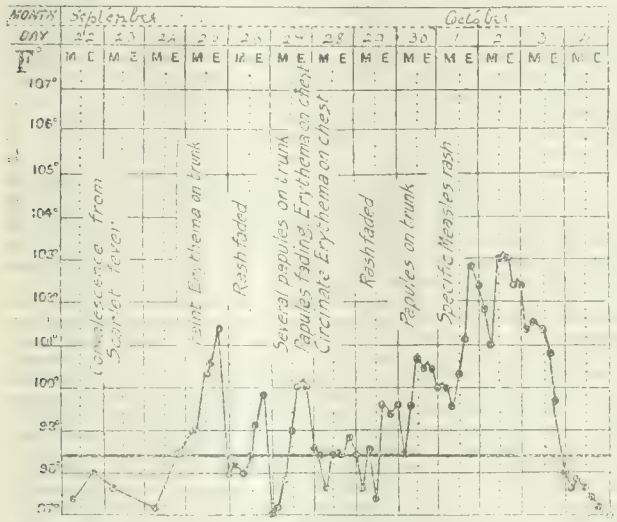
* The stomatitis of measles described by Ringer (Reynolds's *System of Medicine* vol. i, 1866), and more recently by Comby (*Maladies de l'Enfance*, 1904, Tome 1), is often mistaken for Koplik's spots.

September 26th. The rash had almost gone. The fauces were normal. Morning temperature, 98.4°; evening temperature, 99.8°.

September 27th (1.15 p.m.). Several faint papules were seen scattered over the trunk. No Koplik's spots. No catarrh. Temperature, 98.4°. 10 p.m. Temperature, 100°. Papules fading. Patches of erythema on chest.

September 28th. Several fresh patches of erythema on trunk, definitely circinate on inner wall of left axilla. Fauces injected. Morning temperature, 98.4°; evening temperature, 98 8°.

September 29th. Rash faded. Morning temperature, 97°; evening temperature, 99 6°. No catarrh. No Koplik's spots.



September 30th. Several minute papules on trunk. Buccal mucosa injected. No Koplik's spots. No catarrhal symptoms. Morning temperature, 98°; evening temperature, 100.6°.

October 1st. Sneezing and lachrymation. Several Koplik's spots. Characteristic measles rash beginning to appear behind ears and on trunk. Morning temperature, 99 6°; evening temperature, 102.8°.

October 2nd. Measles rash, bright and general. Catarrhal symptoms well marked. Morning temperature, 101°; evening temperature, 103°.

CASE V.

A. H., female, aged 4, was admitted September 7th, 1904, with typical scarlet fever. Characteristic desquamation followed. The temperature, which was 101.4° on admission, became normal, and remained so till September 14th inclusive.

September 14th, 11 a.m. A few rose-coloured papules were seen scattered over the trunk. No pyrexia; no catarrhal symptoms. 10.30 p.m. No development of the eruption.

September 15th, 11 a.m. Papules fading; several macules on trunk; temperature normal. 10.15 p.m. Faint erythema of trunk; fauces injected; temperature 102.2°.

September 16th. Rash fading; cough frequent, sometimes croupy. During the next two days several fresh papules appeared on the chest and abdomen. The temperature ranged between 101° and 102.8°. There were no other symptoms beyond a frequent cough.

September 19th. Lachrymation and coryza, in addition to cough. Numerous Koplik's spots. Appearance of characteristic measles rash.

CASE VI.

W. T., male, aged 3, admitted September 29th, 1904, certified to be suffering from diphtheria.

On September 27th profuse nasal discharge had been noted, and the following day the child had suffered from headache, sore throat, had a croupy cough, and the glands of its neck became swollen. On admission at 1 p.m. small grey patches were seen on the tonsils, uvula, hard and soft palate. The buccal mucosa presented several Koplik's spots and similar patches of stomatitis to those in the fauces. There was profuse nasal discharge, croupy cough, lachrymation, and sneezing. A faint macular eruption was seen behind the ears and on the neck. Temperature, 99.4°. By 10 p.m. the eruption had almost entirely faded. The following day, two faint macules were seen on the neck, but no other eruption. The catarrhal symptoms and buccal phenomena were the same as before.

October 1st. Typical generalized measles eruption.

CASE VII.

D. T., female, aged 3, admitted October 3rd, 1904, certified to be suffering from scarlet fever.

On September 29th she suffered from headache, sore throat, vomiting, and had discharge from the nose.

September 30th. She vomited several times.

On October 2nd the glands of her neck became swollen, and the following day a rash was first seen on the chest.

On admission the patient had a scarlatiniform rash well marked behind the ears, less distinct on the trunk and proximal ends of the limbs. On the right arm there was an urticarial wheal. The face was puffy, the eyes were suffused, and there was a frequent short cough. There was no running from the nose. The buccal mucosa was injected and crowded with Koplik's spots. Temperature, 102°.

October 4th. Typical measles rash appearing on face, trunk, and proximal ends of limbs. Urticaria gone: lachrymation and cough: Koplik's spots fading.

October 5th. Measles rash general and well marked; lachrymation, cough, and bronchitic sounds in chest.

CASE VIII.

E. P., female, aged 6, admitted November 22nd, 1904, certified to be suffering from scarlet fever. On the 20th she had had sore throat, and on the 21st she vomited, and a rash appeared on the trunk. On admission a fine punctate eruption was seen on the chest and back. The fauces were injected, and dirty deposit was seen on both tonsils. Temperature, 103 6°.

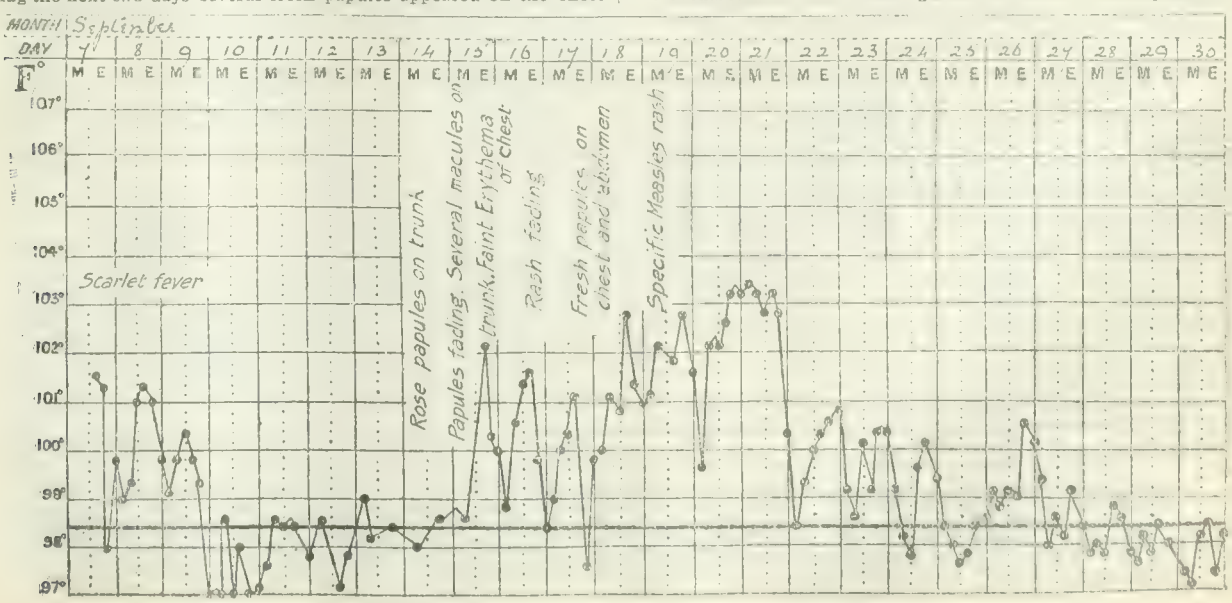
The next day nothing fresh was noted beyond some cough. Morning temperature, 99°; evening temperature, 102.6°.

November 24th. The cough increased, lachrymation was present; the buccal mucosa was injected, and showed several Koplik's spots, and the characteristic measles rash appeared on the face, trunk, and limbs. Morning temperature, 100 4°; evening temperature, 102.6°.

CASE IX.

E. W., female, aged 5, admitted October 26th, 1904, for scarlet fever on the fourth day of the disease. The temperature reached normal on November 4th, and kept so till November 19th, when it rose to 100° at 8 p.m. and 100.4° at midnight.

November 20th. Some running from the nose. The temperature kept



normal, and nothing fresh was noted till November 22nd, when the eyes were suffused, sneezing occurred, and several Koplik's spots were seen; temperature, 98°. 9.30 p.m. Several faint macules on the cheeks and behind the ears; streaks of deposit on the tonsils; temperature, 103°.

November 23rd, 11.45 a.m. Rash gone; no catarrhal symptoms beyond suffusion of eyes, Koplik's spots, and stomatitis; temperature, 97°. 7.15 p.m. Face puffy and dotted over with macular eruption; urticarial wheals on thighs and knees; scarlatiniform rash on inner side of thighs; erythematous patch on right calf; temperature, 101°. 10.30 p.m. Urticaria and scarlatiniform rash gone; eruption on face and erythema on calf fainter; temperature, 101.6°.

November 24th. Typical measles rash.

I am indebted to Dr. J. E. Beggs, Medical Superintendent of the Grove Hospital, for permission to publish these cases.

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[1] Adkins, Prodromal Rashes of Measles, Metropolitan Asylums Board Reports, 1899; Comby, *Maladies de l'Enfance*, vol. i, 1904; Deschamps, *Soc. de Ped.*, 1899; Guinon in Charcot, Bouchard and Brissaud, *Traité de Médecine*, art. Rougeole; Thursfield, *Lancet*, August 18th, 1900; Goodall and Washbourn *Manual of Infectious Diseases*, 1896.

A CASE OF "FIBROID PNEUMONIA."

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IN 1890-1 the writer described the anatomical features of a peculiar form of pulmonary induration which succeeded to a disease presenting the characters of acute pneumonia. Other cases were also described having a similar anatomical lesion, but beginning as a subacute affection. It seemed imperative to regard these affections as constituting a distinct class, having in their inception and subsequent course little or nothing in common with the ordinary forms of what is described as "chronic pneumonia." About the same time at least one case of the subacute variety referred to was reported by Dr. P. Kidd under the designation "subacute indurative pneumonia." The term "fibroid pneumonia" was used by the writer to designate both the acute and subacute varieties of this affection.[1]

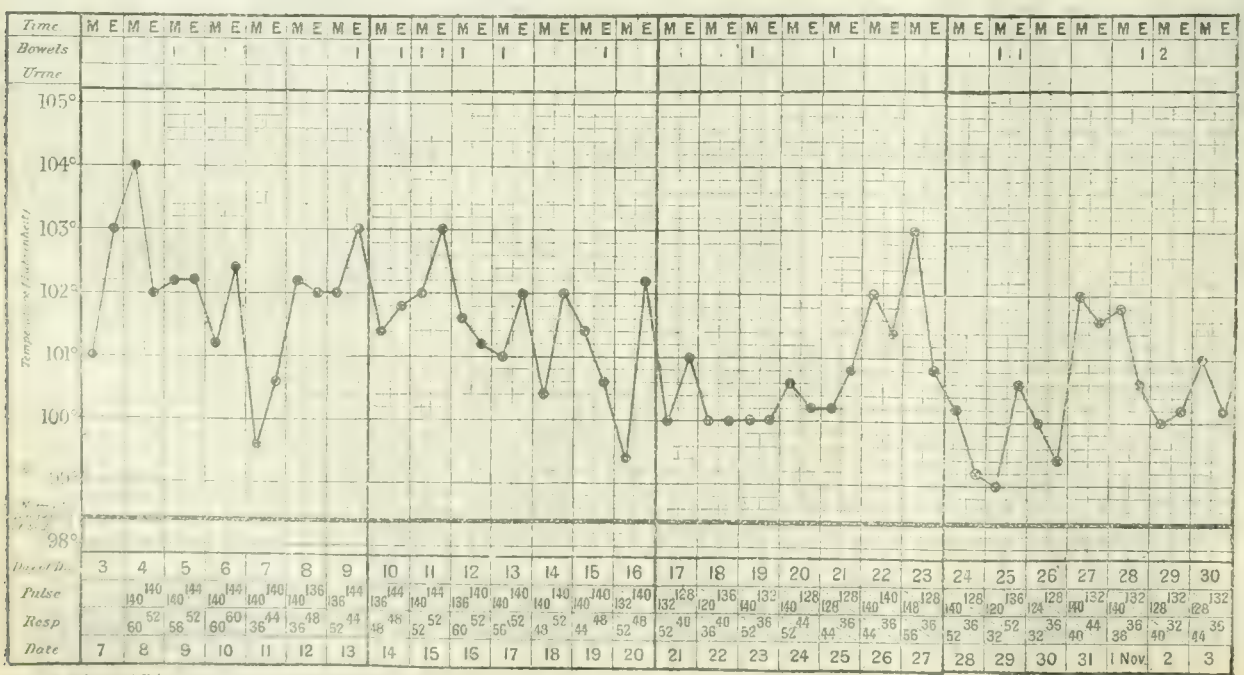
The issue of acute pneumonia in induration of the lung is denied by many eminent authorities, and on examining the records of the cases which have been adduced in support of such a sequence it will be found that many of them present a history of some antecedent pulmonary affection, such as chronic bronchitis, emphysema, or tubercle. It would therefore, perhaps, be more correct to say that it is questionable if a pneumonia attacking a perfectly healthy lung—implanted on a virgin soil, so to speak—ever issues in induration, as here can be little doubt that the organism is in either case the same. The difference lies in the soil and what it may contain.

When some definite lesion of chronic inflammatory character already exists in the lung it is not difficult to understand that this would impose a more stable and resistant character on the pneumonic inflammation itself, but when (as in the case about to be recorded) such an antecedent lesion is wanting, the modifying influences which render the pulmonary inflammation atypical, namely, of a prolonged and fibroid character, can only be guessed at. Two considerations may be advanced. One is that certain other toxins are locally present; the other, that the antibacterial and antitoxic bodies are insufficiently produced, or, when produced, are modified or disturbed in action. It might, perhaps, be legitimate also to consider the possibility of infection by a special variety of the pneumococcus, but this is unlikely. It is evident that in the subacute variety of this affection the action of the modifying influences must be largely augmented.

In view of the rarity of these cases and the interest attaching to the clinical and pathological problems which invest them, it is of high importance that careful records be made of them wherever possible. In the following case the clinical aspects alone have been the subject of investigation, as opportunities were lacking on the pathological side.

It is that of a little girl, aged 8 years. Her parents, brother, and sister are all healthy. The patient had been professionally known to the writer for a considerable time prior to her illness, as she occasionally got "run down," and was sent to the country, but she never presented any signs of active disease, and her chest had been frequently examined. In October, 1903, she returned from the country apparently in perfect health. On the sixth day of that month, while at play with other children, she, in the words of her mother, "suddenly became sick and vomited, complained of headache, and got very hot." She was put to bed, but the fever continued, and that night she became delirious. Next morning Dr. Jefferiss, then house-surgeon at the Westminster Dispensary, was sent for. He diagnosed acute pneumonia of the right lung and prescribed accordingly. The delirium continued, and the consolidation invaded nearly the entire lung. On the third day an experienced nurse was brought in attendance, to whose care and devotion the excellent and complete charts of the case are due. It will be seen that on the fourth day of the disease the morning temperature rose to 104°.

That the highest-recorded temperature should be a morning one is not so very unusual in such cases. On the seventh day it fell to 99.6°, as though a pseudo-crisis had been attempted. It may be said that the chart from the third to the seventh days is quite in keeping with an ordinary acute pneumonia occurring in a child. The fall of temperature on the seventh day was accompanied, as the chart shows, with a fall in the respirations from 60 to 36. During this week there was also obstinate constipation. Instead of resolving, the fever continued, presenting for weeks the characters, more or less, of a continuous fever. It is noteworthy that a rather abrupt rise of temperature occurred in the third week.



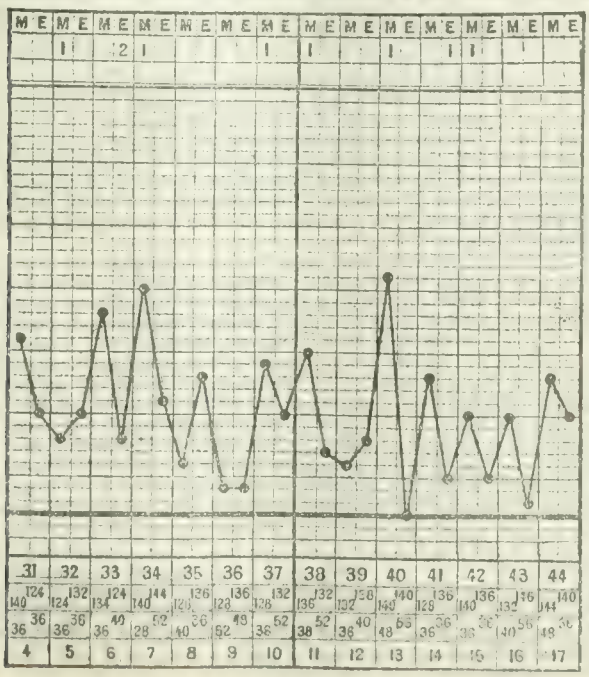
Finding after a lapse of a week no amelioration of the symptoms, Dr. Jefferiss asked the writer to see the case with him, and here is what was found: the child lay on her back, the breathing was frequent and shallow, and the cheeks had a pink flush; the skin was hot and dry. Inspection showed the right side to be motionless. The heart's apex was in the normal position. Vocal fremitus was increased all over the right lung, and the percussion note was so dull from apex to base as almost to warrant the designation of "flat." The dullness below was indistinguishable from the liver dullness. There was very high pitched tubular breathing over the entire lung, with whispering pectoriloquy. No *râles* of any kind. The left lung was normal throughout, the breathing therein was puerile, and for some distance outside the vertebral column the tubular breathing and voice sounds from the opposite lung were conducted. Mensuration at the level of the nipples showed the right lung to be expanded as compared with the left to the extent of three-fourths of an inch. There was very slight expectoration of a rusty character, which had been present all along. Exploratory punctures were there and then made in two different places, but not a drop of fluid was obtained.

These signs remained quite stationary for four weeks, when some moist *râles* developed in the apex and the dullness and tubular breathing became less marked there; the latter becoming more bronchial in character. The chest was again explored for fluid, but not a drop could be obtained. The course of the disease as to temperature, pulse, respirations, etc., during the first six weeks of the illness is graphically depicted in the accompanying charts. Thereafter the temperature gradually fell until it became practically normal in the tenth week, and in the eleventh week it was slightly subnormal. Nevertheless the pulse-rate continued about 140 per minute and the respirations about 40.

The child was now up and about, her temperature continued normal, and there was no cough or expectoration. But the pulmonary condition remained absolutely unchanged, except that the high-pitched tubular breathing was replaced by lower-pitched bronchial breathing, and at the extreme apex some percussion resonance was obtained.

Early in January, 1904, the child was sent to a convalescent home in Norwood. On the fourth day of her residence there the evening temperature rose to 100°, and this diurnal rise continued. She was attended by Dr. A. Rose of South Norwood, who kindly wrote to me afterwards as follows: "I inserted an exploring needle into the child B.'s chest in two different places on January 23rd, but got no fluid whatever. When I first saw her, the whole side of her chest was dull and no breath sounds could be heard [2] Vocal fremitus and resonance were absent or almost so,[3] so I thought there must be a lot of fluid in it. Later on there was faint bronchial breathing over the greater part of the lung, but no moist sounds were heard. There was no expectoration, or it was swallowed." During the last four weeks of her stay at Norwood the temperatures were taken morning and evening, and show the former to have been either normal or 99° and the latter 100° to 100.4°.

The patient returned from Norwood in April, and on examination the lower three-fourths of the right lung presented no change whatsoever. The extreme apex, however, had become fairly resonant, and was the seat of moist *râles*. The breath sounds in this situation were also bronchial. Dr. McKenzie Davidson now kindly consented to *x* ray the chest. The right lung was in uniform deep shadow, with the exception of the extreme apex, which showed a mottling of light and shade. The shadow was, if anything, rather less dense along the thoracic wall, and the outlines of the ribs could be seen. It was indistinguishable below from the liver shadow in respect of density, but the diaphragm was seen to be deeply depressed as compared with the left side, and presented the appearance of an irregular, more or less horizontal, line, which at its outer aspect turned rather sharply downwards and outwards to the lowest ribs, leaving a triangular-shaped dark interval against the chest wall. These features are extremely well seen in the excellent photograph which Dr. Davidson took the trouble to print. Dr. Davidson, without any hesitation, expressed the opinion that the shadow was entirely due to consolidated lung, and that no fluid was present in the pleural cavity. Mensuration of the chest at the nipple level at this time showed both sides to be equal, indicating a slight retraction of the right side since the early part of the illness.



The patient when next seen had developed considerable cough with expectoration. Numerous tubercle bacilli were found in the sputum. It was evident that the right apex had become extensively invaded by tubercle; the rest of the lung was unaltered. This state of matters continued for several months, but in the autumn of 1904 an improvement set in, the expectoration diminished, the child gained in weight, and the apex showed signs of healing. This improvement has been maintained, and at present (January, 1905) the child is residing in the country enjoying very good health, gaining in weight, and her temperature has become normal.

It seems fairly certain that this tuberculous infection of the apex was an accident of the disease occurring, so far as the symptoms indicated, about the third month. It was at this time that the temperature, after being normal for some weeks, began to show an evening rise. When it is considered that the apex in question sustained such a grave initial injury, that it only partially recovered, and that it was permanently thrown out of action by the condition of the remaining portions of the lung, it would be rather a matter for surprise if it should escape.

The personal history, symptoms, and physical signs in this case leave little room for doubt that the initial lesion was an acute pneumonia, and that it invaded a lung which contained no gross lesion of appreciable character. As already indicated, we can only guess at the nature of the recondite element operating in the direction of fibrosis. The writer is inclined to the belief that this element is not imported at a certain stage of the disease, but that it is present from the very beginning. Hence the disease, though beginning acutely, may in reality be chronic in nature from the very first day. Histologically, however, this merely amounts to saying that the inflammation extended to the fixed corpuscles of the alveolar walls, causing them to divide and migrate into the fibrinous exudation. In this way the alveolar cavities would become filled with organized deposit. This must occur early, as only the "red" or fibrinous exudation is capable of organization. Thus it is seen how this form of fibroid lung is a large lung, permanently large, and is indeed the only large fibroid lung.

The disease is febrile, it is pneumonic, and it is fibroid; hence it is a fibroid pneumonia. It may begin very acutely, like an ordinary acute pneumonia, or subacutely; and though always rare, is more liable to attack lungs already injured. It is a disease which, in its bolder features, is unusually clear and definite. It is, perhaps, still customary to apply the generic terms "chronic pneumonia" and "interstitial pneumonia" indiscriminately to all forms of fibrosis of the lung. But the advance of our knowledge has proved that the several varieties of contracted lung, chronic from the commencement, whether the dominant fibrous invasion be of pleural or pulmonary origin, are due to tubercle. They are included under the term "fibroid phthisis," and the writer would respectfully suggest the propriety of adopting a nomenclature expressive of the distinction between the tuberculous affections and an affection differing entirely in respect of its origin, in respect of its anatomical evolution, in its independence of specific neoplasm, and in the radius and degree of its local effects.

REFERENCES.

[1] A full account will be found in the writer's *Pathology of Bronchial Affections and Pneumonia*. London: Churchill. [2] The writer had never failed to hear bronchial breathing. [3] The child had an extremely weak voice.

NOTE ON LOBAR PNEUMONIA FOLLOWING MEASLES.

By F. C. BOTTOMLEY, M.D.Camb.,
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Bronchopneumonia following measles in children is well recognized, but mention is not made in the textbooks of the fact that lobar pneumonia is a frequent complication; yet it has occurred much more frequently than bronchopneumonia

in the cases of measles which have come under the writer's notice.

The cases of lobar pneumonia following measles to which this paper refers were marked by the same characteristics as are present in ordinary lobar pneumonia in children—(1) sudden onset without preliminary bronchitis; (2) a generally favourable termination.

The cases occurred during two epidemics of measles in 1900 and 1902. They were 13 in number. The ages of the children varied from 1 year to 5 years (10 out of the 13 being under 3 years); the pneumonia began in 7 of the cases at the time the rash appeared, and in several of these it was possible on first seeing the child and noticing its rapid breathing to suspect that pneumonia was beginning. In all the cases the pneumonia appeared before the rash had died away.

One or both lower lobes were in all cases affected. In 5 cases one side only was involved, and the duration of the disease was in these from five to eight days; in the eight others both bases were affected, either simultaneously or consecutively, the duration being from eight days to three weeks. The disease terminated in some instances suddenly, in others gradually. The temperature rarely exceeded 102° F., and was, as a rule, fairly evenly raised throughout the attack. The physical signs consisted in diminution of resonance on percussion, and the presence of crepitations, which persisted to the end of the attack, and were not replaced by tubular breathing, though this was heard with the crepitations in one case. The persistent crepitations are such as are generally found in lobar pneumonia in young children. In one child they were present for six weeks, although the general health was quite good for the latter half of the time. Slow resolution of this kind is not very unusual in the lobar pneumonia of children.

All the cases recovered except one boy of 18 months, who died of convulsions two days after the crisis. Bronchitis was not present in any case. Two babies in one house had measles; both had pneumonia, possibly owing to infection. During the period in which the 13 cases occurred, only 3 cases of bronchopneumonia following measles were seen, and they all died, thus showing the very different severity of the two affections. The proportion of 3 cases of bronchopneumonia to 13 of lobar pneumonia coincides very closely in the writer's experience with the proportion obtaining between these affections when not following measles. In hospital practice bronchopneumonia seems to be of more frequent occurrence, and this is probably to be explained by its greater severity.

Measles may, therefore, be accompanied by lobar pneumonia, having its onset about the time at which the rash appears. Such cases nearly always recover, hence it is important to recognize the affection, to distinguish it from bronchopneumonia, and thus to be enabled to give a favourable prognosis.

THE VARIOUS PHASES OF A HOSPITAL'S WORK.*

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[AFTER giving a detailed account of the progress of the Mater Misericordiae Hospital since its foundation, its intern and extern work, and its various special departments, the lecturer proceeded as follows:]

The aspect which I have put before you of the work that is being done in the hospital represents what may be considered as its primary function. There are, indeed, some who would regard it as its exclusive function, that the object of a hospital should be to have its patients comfortably housed, fed, nursed, supplied with skilled medical and surgical advice, whilst scant, if any, encouragement should be given to what is spoken of as experimentation in the wards, the teaching of students, or the carrying on of the work of scientific research. On the other hand, the professional view with regard to hospital work is, that whilst its primary and fundamental object should be the well-being of the patient, the nature of the professional work undertaken in the wards, the giving of clinical instruction, and the employment of all the scientific methods elaborated in our time for the purposes of investigation and research, were so far from being antagonistic to the welfare of the patient that they should be regarded as important adjuncts in ministering to his wants. A few words will justify the professional claim. It must be freely admitted that the treatment of every case in hospital is more or less experimental in its nature. Just as no two individuals are exactly alike, so likewise is there a dissimilarity in cases of disease and of surgical injury. In other words, in every case there exists a factor of uncertainty, in some cases so insignificant that the treatment is carried on along routine lines, but in others the uncertainty is so great that to save the life of the patient a leap in the dark must be taken—a choice exercised between two evils—with the most satisfactory result, a result which is chronicled for future use. How many cases are there in which the arcana of the *Pharmacopoeia* have to be explored to bring relief to suffering, to arrest the progress of disease, or to avert impending death! It may, indeed, be said that the art of medicine consists in trying by repeated experiments to diminish as much as possible the condition of uncertainty so as to make our practice sure and effective. We may put it that the increment of knowledge gained by each experiment is a decrement of human suffering and pain.

With regard to clinical teaching it is not difficult to see how, quite apart from its absolute necessity for the training of students, the stimulus of a class, carefully noting the physician's prognostications, his analysis of symptoms and physical signs, and the effects of his treatment, must largely tell to the advantage of the patient. The interest taken in the case cannot be perfunctory. The teacher is exposed to the fierce light of the students' criticism, and, apart from considerations of humanity, of which the members of my profession can, I think, claim their share, it is not merely the duty, but the obvious advantage, of those in charge of the sick that they should be successful in their efforts. The hospital is not to be regarded as an asylum or a lazar-house. It is rather a sanctuary in which we all, students and teachers alike, learn to pity and bring succour to the distressed. The extent of that relief is measured by its efficiency, and this efficiency is, I maintain, materially stimulated by clinical teaching.

But it is with regard to the last point—the utilization of the hospital for the purposes of research—that I am specially concerned to-day, and I have to ask you to bear with me for a few moments whilst I endeavour to put forward this claim as strongly as I am able. The progress of hospital work in its relation to the prevention and treatment of disease may be said to have been slow and uneventful until the time of Lister. It is true that physicians like Addison and Jenner made record discoveries by pursuing cases of disease from the clinical standpoint to the *post-mortem* room, and no doubt many interesting problems in the biology of disease were made clear by these and other observers. But the stimulus to laboratory investigation dates from the discovery of Lister, who utilized to the fullest extent the labours of Pasteur. That discovery was altogether the result of his observations in hospital, for nowhere except in a large general hospital could he have found materials for that method of treatment which has revolutionized not merely surgery but the medicine of our day. As an illustration of the effect of the Listerian treatment of wounds I believe I am correct in stating that the mortality after major operations has been reduced from forty to three per cent.

Who can estimate the gain to humanity of the result of this one instance of hospital research work? It is almost entirely to research work undertaken in the laboratory that pathology may be said to have attained its present position. A comparatively few years ago the work of the pathologist was left to the assistant medical officers—indeed largely to the senior students. There existed, no doubt in an imperfectly organized form, the machinery for recording notes, and compiling facts in connexion with the biology of disease, of comparing these with conditions found after death, and for making generalizations from both data. But there were no means of pursuing inquiries into the modes of origin of disease, nor was any attempt made to determine the nature of obscure conditions which could be investigated only by the use of instruments of precision not then employed. In Dublin in 1894 the first step was taken in the United Kingdom to place pathology in its legitimate position. The Royal University, at the instigation of Sir William Thomson and myself, made the regulation that pathology and bacteriology should be made a special subject of the medical curriculum, and, at the same time, a professorship was

* Being part of an address delivered at the Mater Misericordiae Hospital introductory to the Winter Session, 1904-5.

created in the Medical School of the Catholic University, and the professor was appointed pathologist to the hospital. Since then the clinical physician and surgeon have had the advantage of his services. Those who are familiar with the work of the clinician can fully appreciate how much it is bound up with that of the pathologist. In many cases not merely does the diagnosis of the existing morbid condition depend upon the report furnished from the laboratory—a report most frequently made as a result of some bacteriological or chemical investigation—but the line of treatment to be pursued is based upon the conditions which this investigation has determined. There is no difficulty in realizing why this should be. The physician studies the disease almost exclusively from its biological aspect; the pathologist, in addition, investigates it, with all the modern instruments of precision at his hand, from the physical, chemical, and bacteriological standpoint. In many, if not most, cases it is impossible to divorce the two methods of observation; hence the clinician and the pathologist may be regarded as the complement of each other. Let me illustrate my meaning by an example. There is frequently considerable difficulty in diagnosticating between two severe forms of anaemia, a profound chlorosis, and progressive pernicious anaemia. There are no special signs or symptoms by which the physician can distinguish one from the other, and it is only when the blood has been subjected to a physical and chemical examination that a correct conception of the existing condition can be formed—a conception which carries with it the knowledge of the death of the patient or of his recovery.

But the work of the physician and pathologist does not stop here. The case of chlorosis is quite clear. Employing the known remedies, the patient, almost as a matter of certainty, recovers. But quite different is the case of pernicious anaemia, in which the accuracy of the diagnosis is attested by the inevitable death of the patient. Since Addison and Biermer drew attention to the condition in 1867 a great deal has been learned in connexion with the life-history of the disease and with the changes produced by it in the various organs and tissues of the body. But as yet the primary condition which produces the blood change is unknown. We are unable to say whether it is caused by some chemical disturbance which interferes with cell nutrition and so disturbs the uniform composition of the blood, or by some ferment or toxin which affects the vitality of the blood cells and leads to their excessive destruction. How are these obscure points to be cleared up? As yet every form of treatment of the disease has proved futile because of our ignorance of the primary disturbance of health. It is only by carefully noting each case under observation, observing every sign indicative of functional and organic disturbance, experimenting with medicines that favourably affect the course of the affection, but, above all, by employing the physical, chemical, and bacteriological methods of investigation at our disposal, that we shall be able to solve the mystery that at present envelops the origin of the disease. Such a condition is quite as hopeful for solution as was myxoedema but a few years ago. The clinical investigation of this disease led us to recognize a blood state which reduced the patient to almost a state of imbecility; it was capable of being produced by removal of the thyroid gland, whilst further investigation established the identity of the disease with cretinism, the condition represented by those deformed and stunted specimens of humanity which the traveller meets with amongst the inhabitants of Switzerland and northern Italy. After a certain stage the steps of inquiry passed beyond the domain of the clinical observer, and the work of investigation was undertaken by the chemist and experimental pathologist. The brilliant results obtained by Horsley by removing the thyroid gland in monkeys, and the adoption of a line of treatment suggested by him and Murray of supplying thyroid gland substance to animals and human beings in which the gland was absent, is perhaps an instance of as great a triumph of the art of medicine as it is possible to record. Not alone is the cretinoid condition removed in adults, but even cretins, those creatures who seemed so little removed from mere animal existence, became bright and intelligent, and, if treated at an early age, had their bodily growth and normal configuration restored. I dwell upon this condition because it affords an illustration of what the experimental mode of investigation is likely to lead to. It would be altogether beyond the scope of this address to advert at any length to what has been achieved by experimental research, or to state in detail how much mankind owes to it in connexion with the treatment of diphtheria, tetanus, rabies, and in the investigations of the various diseases caused by parasitic micro-organisms. It is this method which, in the study of immunity, has led to the artificial production in the blood of those substances, toxins, which will, without doubt, protect the individual against the poison of typhoid fever, pneumonia, the deadly tubercle bacillus, and, perhaps, from that dread disease, cancer. When we consider how many morbid conditions there are which the physician comes across daily in his wards, in which there is the most intimate knowledge of the functional disturbance and organic changes which exist—where the biological history is carefully compared with the changes noted after death, and where only one link is wanted to explain the disturbed mechanism—one can realize how limited in usefulness would the clinical observer be if he were content merely to register his failures, and make no attempt to solve the riddles that daily present themselves. Let me mention some common instances of disease the obscurity of whose origin still remains to be solved. We are all familiar with the symptoms and signs of diabetes mellitus, of the pathological changes produced by it, but we are yet in absolute ignorance of the initial point of departure from normal function. A similar difficulty presents itself in exophthalmic goitre, every symptom-complex of which has been made the subject of detailed and elaborate investigation. Subtle nervous conditions like paralysis agitans, chorea, and epilepsy are yet inexplicable as to their mode of origination. We cannot presume to more than theorize upon their etiology. In pneumonia and acute rheumatism we are equally in doubt. We do not know the conditions which in the one disease make the individual a suitable host for the pathogenic micro-organism, whilst in the other we are unable to determine whether a chemical agent or a microbe sets in motion the morbid state. It would be easy to multiply instances of disease, of the common forms of disease, in which we physicians have to play the rôle of empirics as regards treatment, and in which this humiliating position of empiricism must largely predominate until some advanced degree of certainty is reached by an accurate knowledge of the true nature of the morbid condition. But until that time comes I am afraid we must in many cases be content to accept humbly the old definition of a physician—that he is a satisfaction to the mind of a patient. The public are not given, even granting their mental capacity, to analyse the methods of investigation and treatment employed in any case of disease. An individual has some particular ailment, and he wants to get cured of it. There is not much use explaining to him that we are not as yet certain of the way in which the disturbance of his health is set up, and that his condition can be dealt with only symptomatically. We may talk to him very learnedly, and look wiser than even a physician could really be, but the patient tells you he came to be cured, and he expects you to work a miracle on his behalf. Such an instance is an answer to the distinguished physicist who some days ago addressed the students of a London hospital. He very truly pointed out that the fundamental studies of medicine were of a strictly materialistic nature, that they belonged to a different world from that which constituted the main object of a student of medicine, and that we should not deal with living men and women as if they represented a mere physical mechanism, as mere laboratory or chemical specimens. But unfortunately, as we know nothing of the problem which constitutes life, we have no other methods of analysis of processes of disease except those of noting physical and chemical phenomena, and comparing these in any given case with a normal standard, and that normal standard is one which is conditioned by the principle of life. What is meant to be conveyed by the lesson is, that we are not to regard our patients as merely a piece of very fine mechanism, constructed by a skilled artificer, which will not bear rough or unintelligent interference, but as a type of the most supreme specimen of delicate structure endowed with the unknown principle of life, and therefore to be dealt with on a plane apart from ordinary physical and chemical methods of investigation. I venture to think this line of argument may be considered to be what is known as a schiomachy—a battle with a shadow. Where, I ask, is there the slightest ground for believing that a single thought or act in connexion with the sufferer in any hospital is not associated with his well-being, and in what instance is there any advance of knowledge that is not utilized for his benefit? In all obscure cases it is our duty to unravel

the web, and in doing this by the finite means at our disposal we are steadily pressing onward to the goal which marks the limit of human progress in medicine. It is only in this way we may hope to satisfy those who come to us for relief.

And here I think it my duty to freely acknowledge the thoroughly progressive spirit in which the Sisters of Mercy have administered the affairs of this hospital, their readiness at all times to accede to the recommendations of the Medical Board in all matters which are essential to the welfare of the patients and of the institution generally, and to their never-failing consideration and courtesy towards both the staff and the students.

It was this spirit of progress which impelled those responsible for the management of the hospital to provide the necessary facilities for carrying on those researches which will lead to our more accurate knowledge of disease and its treatment. They have provided us with a laboratory which, under the direction of the Pathologist of the hospital, Professor McWeeney, will be utilized for the progress of the science and art of medicine.

The encouragement given by the managers of the hospital to the employment of scientific methods of investigation of disease necessitated an encroachment upon its slender resources. But the enlightened spirit which provided those facilities for research is bound to have its reward in perfecting our means of combating disease and alleviating human suffering. To me, personally, the opening of the new laboratory is an occasion of extreme interest. I have been connected with the hospital for thirty-six years; I have noticed its steady development and progress, and now, in the forty-third year of its existence, it may be said to be entering upon a new career of usefulness. It has, as you are all aware, an intimate connexion with the Catholic University School of Medicine, and I venture to express a hope that the bond between the two institutions will be even more strongly cemented in the future. A great school of medicine—and the Catholic University School, with all its drawbacks as to position, structural proportions, and lack of endowment, can claim to be by far the largest school in Ireland—a distinction which many will regard as of some importance—should be in the closest relation with a great hospital, so that the research work of each will be facilitated and augumented. In this way the tone and status of medicine in Ireland will gradually reach the level of that attained by the great Continental schools. There should be no hesitation in accepting this view. Before the introduction of the modern methods of precision in the diagnosis of disease the Dublin school was, in many instances, in advance of the great schools in Germany, France, and Austria. Graves, Colles, Corrigan, Stokes, and Adams constitute a quintette of original observers, each one of whom is handed down to posterity as the discoverer of the special disease which bears his name. But just as the sister country has fallen so much behind in scientific work, and as her industries have been to a large extent monopolized by America and Germany, so medicine in Ireland has not held its own in the domain of research. Yet it may be asked, Is there any quality of brain power in Ireland which, under favourable conditions, would prevent it from successfully competing with that of the Germans or the French? To have signal results I hold you must have a combination of a great hospital with a great school. Given a completely-equipped school of medicine, having each department thoroughly organized, manned by a competent staff of professors and assistants, and collaborating its work with a great hospital, which the spirit of the time has made ideal in all its departments, then, I do not say I believe, but I feel confident, the genius of Irishmen will make their country a home for scientific progress in medicine. It is scarcely possible to conceive, with the encouragement that is being given to the various conditions bound up with industrial and agricultural life in Ireland, and with such indications as are presented of the dawning of prosperity and progress, that no consideration will be given by the State to a profession from which it extracts so much profit. I say this notwithstanding that the opportunity which was recently afforded to the Government of settling the University question in such a way as would provide a school of medicine commensurate with the requirements of students of the country at large was not, unfortunately, availed of. The report of the Royal Commission on University Education in Ireland appears likely to share the fate of most Royal Commissions, the reports of which, so far as Ireland is concerned, result in vitalizing the conditions they were appointed to remedy. It is stated that the present Government has fallen back no less than 34 times on Royal Commissions, at a cost to the country of £392,000. In Ireland we have had several, and in most of them the outcome was uniform—no result. Indeed, in connexion with higher education in this country one would feel inclined to urge the friends of the University of Dublin to demand the appointment of a Commission to consider the present condition of the higher, general, and technical education available in Ireland inside Trinity College, Dublin. No matter what the Commissioners report it is almost a certainty that the *status quo* will be maintained, and the University will be able to repeat MacMahon's response at Malakoff—"*J'y suis, j'y reste.*" Still, if a comment may be made upon the recent report on University education presented to His Majesty, it is to say that, prepared as we may be for the policy of *laissez faire* which, in regard to Ireland, appears to be a characteristic of our Government, still one would hope there is a limit which no self-respecting Government would outstep in dealing with a country which it professes to govern, and with a body of men to whom it entrusted an almost sacred mission. The condemnations and recommendations of the Commissioners are so destructive in their nature that, in face of them, to maintain an institution which, in the words of the Act establishing it, was to promote the advancement of learning in Ireland, appears to be "a mockery, a delusion, and a snare." The three main findings of the Commission were that the Royal University lowered the ideal of University education, that its system of making appointments to the Senate and officers of the University was indefensible, and that the system adopted by it of indirectly endowing certain colleges must be condemned. It is scarcely conceivable that no action would be taken upon this report, coming from a body of experts appointed by practically the same Government which abolished the Queen's University and substituted in its place the Royal University, or that any Government would be so inconsiderate, to say the least, as to continue to impose upon the members of the Senate the duty of administering the affairs of an educational body which was the subject of so strong a censure. Or is its policy to be represented by the lines—

> I see the right; and I approve it too;
> Condemn the wrong, and yet the wrong pursue?

There must be some change effected, and with the change I hope will come the realization of my ideal—a great and thoroughly-equipped school and hospital bound together by the closest bonds of union, and working for the common object, the progress of our profession.

I have only to add a few words to the students of what I am justified in calling a national institution. This hospital, if developed on the lines indicated in my address, cannot but be ultimately associated with the progress of medicine in Ireland. It may be that some of those whom I have the pleasure of addressing may play an active part in rendering it a pioneer in the advancement of that knowledge which is essential to the well-being of our race. With the most striking evidences presented to us of the almost illimitable power of man's productiveness in every department of physical science, especially during the latter half of the century just passed, in which the record of wonders appears to have been reached, it is not likely that the science of medicine will stand still. There are indications that we are moving in the direction of some great discoveries in connexion with the prevention and treatment of disease which will be no less startling than those of the physicist and chemist, with this distinction, that whilst they deal with material substances, our lot concerns alone the well-being of our own species—man. Our profession is not one that brings either ease or wealth in its train. To the vast majority of those who embrace it as a calling there is but little beyond a well-earned competence. But with its many drawbacks, it has within it elements of human interests which contrast favourably with the sordid and debasing elements of other pursuits. We certainly, in our profession, have a great incentive to live up to Sydney Smith's noble ideal—Let every man be occupied, and occupied in the highest employment of which he is capable, and die with the consciousness that he has done his best.

The late Dr. James Burn Russell, M.D., LL.D., medical member of the Local Government Board for Scotland, and sometime Medical Officer of Health for Glasgow, has left estate valued at £10,675.

THE RELATIONS OF MEDICAL MEN TO EACH OTHER:

AN INTRODUCTION TO A DISCUSSION ON MEDICAL ETHICS.*

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ETHICS is defined as "the science which treats of the nature and grounds of moral obligation, which teaches men their duty and the reasons of it." Medical ethics is a limitation of this to the conduct of medical men in their professional capacity. It does not deal with their actions as members of the community at large, as citizens or as items of any social plane, but solely with what is incumbent on them as medical practitioners. A full consideration of the subject would involve a discussion of the relations of medical men to each other, of their position in regard to the body politic, to the various governing authorities of the land, and finally of the various relations and obligations as between patient and doctor. For the present, however, I purpose only to attempt an outline of the first, intra-professional ethics.

It has been said that this should be nothing more than an observance of the golden rule, Whatsoever ye would that men should do to you, do ye even so to them. While it is undoubtedly true that all correct intra-professional conduct ought to conform to this rule, it would be a very partial view of the subject which was limited to this statement. For in the multiform and complex relations of a well-evolved society it is often a most difficult question to answer, what men should do unto you, and conflicting conclusions may be reached by men equally anxious to do right.

It is undoubtedly to the advantage of the public as well as of this special occupation that the mutual relations of medical men should be such as to promote peace and friendliness, and that there should be no obstacle in the shape of distrust or jealousy to prevent them helping each other in grave cases and emergencies. There have existed such strained relations between practitioners that the expression of an opinion by one was certain to be followed by the assertion of a diametrically opposite view by the other, apart altogether from the merits of the case—a state of tension very apt to lead to disastrous results in actual practice. There is, therefore, good reason to have certain lines of conduct laid down as proper under given circumstances, both as guides to action and barriers against disagreement.

The public have the idea that medical men are bound hard and fast by certain rules which cannot be understood, and that these determine conduct differing in principle from that of other people. These supposed rules they call medical etiquette. No doubt, this idea has been fostered by men who have found it convenient to avoid disagreeable explanation by sheltering themselves behind a statement that some line of action was in accordance with or contrary to medical etiquette. As a fact, rules are few and lines of conduct generally accepted are simple. They are the outcome of experience and designed to prevent disagreement. It may be claimed for all of them that they are only what right-minded men in any occupation would consider reasonable, and consistent with honourable behaviour.

Medical men get the credit of being an irritable set, of being unduly sensitive and easily offended. If these things are so, is it to be wondered at, when the personal and intimate nature of their work is taken into consideration? for their patients' feelings and well-being must become of intense individual concern to them. The necessary relations between doctor and patients are peculiar and confidential. He is told of their joys and sorrows and sins. He gets interested in them as human beings, they afford him studies of marvellous complexity and endless variety. Interest often grows into affection. He may have to deal with their mental and moral states as well as their physical condition. Often enough his apparent measures do not reveal his true motives, and some carefully thought-out scheme of treatment may be spoilt by an interfering irresponsible friend, or even when not spoilt may be rendered much more difficult by one who has neither the knowledge nor insight of the attending practitioner. It is perhaps inevitable from such conditions that medical men should be somewhat impatient of the shadow of interference; that they do not well tolerate the fussy, meddlesome man, especially he who professes to have the good of the whole human race as the object for which he lives.

This state of matters, inseparable from the conditions of their life, should—and, I believe, does—bring home to every medical man the great necessity for watchfulness in speech and action, lest some careless remark, some little-heeded act, bring unintended trouble on the shoulders of a professional brother. On the other hand, it makes an unhappy life to be thin-skinned, to be always on the look-out for a personal application, or for slights in whatever is said and done by those around us. Happy is the man who can just go straight on to his goal regardless of what is to right or left of him, heeding little what others do or say so long as he satisfies his own mind and conscience, and convinced that so acting his object will be attained. Valuable as this spirit is in every condition of life which necessitates much intercourse with fellow men, in no profession—I think I may say in no occupation—does it more conduce to a happy life than in medicine.

It is essential that every medical man, even more than other men, should carefully restrain whatever has the slightest appearance of meddling in the concerns of others. He does well to avoid inquiry about other men's patients beyond what ordinary politeness or neighbourly friendship requires, and nothing should ever be said in conversation which can be construed into suggestion or criticism.

So also after consultations. It is a wise regulation which limits interest to professional contact. When pre-existing friendship, when social mingling intervenes, it is often difficult to steer a course which avoids on the one hand a cold, unfeeling aloofness, or on the other a friendliness and familiarity which is capable of misinterpretation.

One of the most common relations between medical men is that between consultants and practitioners. Consultations occur under two considerably differing conditions. In the one set the consultant does this kind of work and this only. He does not undertake the treatment of patients without the intervention of the family practitioner. In these circumstances the line which separates the consultant from the practitioner is a distinct and well-defined one, and few difficulties are met with. There is little impelling motive for either to trespass on the field of the other. The consultant sees the patient, who is generally a stranger to him, either with the ordinary attendant or, if the case is sent from a distance, in concert with and after hearing from him. An examination is made, an opinion formed and discussed, a treatment is decided on, and the consultant's connexion, for the time being, there ends.

Simple and straightforward as this story seems, there are yet a few ways in which a consultant may act in violation of ethical principles. He may suggest to the patient to come again, or he may see the patient without communicating with the usual attendant. Both practices are much to be deprecated. The former opens the way to the self-interested making of fees, and the latter is unjust to the medical attendant who is in the position of being the introducer of the patient to the consultant. If there is anything in the ailment which time alone will evolve, if it is advisable to re-discuss the effects of treatment, making it reasonable that the consultant should again see the patient, the suggestion should be made through the ordinary attendant, thus giving him the knowledge of what is proposed, the reason for it, and the power to carry it out should he see fit.

Consultants are almost universally an honourable and upright body of men whose conduct is beyond question, but there have existed, and probably always will exist, a few of whom this cannot be said, and who will not hesitate to adopt such practices as the above named, or even descend to acts less honourable still. I know of an instance in which a Fellow of a College of Surgeons, a man of wide repute in his speciality, saw a patient at his consulting rooms for which he received the usual fee; he also sold him apparatus for which he charged him a sum larger than the fee, and much larger than a dealer's price. He gave as his reason that he kept these things so as to ensure that they were all right and what he wished. Such practices need only be named to be condemned.

The other form in which consultations occur is when the consultant is not in consulting practice solely. Except in large cities, this must be; unless there exist a great or wealthy population the amount of consultation work required will not give a pure consultant a reasonable living. Sometimes the consultation is between men of strictly equal position, but

* Read before the annual meeting of the North Cumberland Division of the Border Counties Branch.

most frequently the consultant has or is supposed to have some special fitness. He may be physician or surgeon to a hospital, or he may have devoted himself largely to and gained experience in one branch of medicine. And yet he may not have debarred himself from acting as a general practitioner. Such consultations obviously contain elements which may give rise to positions of considerable difficulty. The same rules are binding on the consultant practitioner as on the pure consultant. He should consider himself as introduced by the attending practitioner. Prudence and equity alike enjoin that he do not supersede him. His connexion with the case should terminate with the consultation. It would manifestly be unfair to the ordinary medical attendant that he should call in another man for the good of his patient with the possibility of being displaced by the newcomer. It seems to me to speak well for the common sense and forbearance of doctors that breaches of this practice are so rare. The consulting practitioner is often sorely pressed to take over a case where there is a real or imaginary grievance, and it is often hard to convince patients or their friends that they are asking for a dishonourable act. We must also allow that there are limitations and exceptions to the application of the rule. We may agree that the obligation does not last for ever. After a lapse of time, differing according to circumstances, as men of sense we should hold that the influence of the introduction has worn out and that it should not be considered a breach of professional decency for a practitioner to become the ordinary medical attendant, because he has at some distant period acted as a consultant to the same patient. The interval should be long and the circumstances such as justify a reasonable man in changing his medical adviser. I have known the very recollection of a consultation fade from memory after the lapse of years. So after the interval of years it would be an undue interference with human liberty to forbid such a relationship. A recent work on medical ethics limits the period of exclusion to the illness. But in justice to the attending practitioner, this is too short. It might be thought to hold out an inducement to the consultant to act so that he should soon become the regular medical attendant.

It is sometimes laid down in medical journals and by writers on this subject that a practitioner should never refuse to meet a legally qualified medical brother in consultation, whatever be their respective ages or attainments. I do not accept this view. For though it is extremely unusual for circumstances to occur which justify refusal, yet they do occur; and while the solace and satisfaction of a consultation should never be withheld from a patient, it is undoubtedly nothing but just to the attendant that he should have a voice in the choice of the consultant. It is not difficult to conceive of circumstances in which the request to meet some individual amounts to an insult, and it should be dealt with as any such occurrence would be in ordinary social life. A temperate statement of the reasons should be given. The patient should be offered a choice of suitable consultants, and, failing acceptance, the ordinary attendant is justified in withdrawing from the case.

Troublesome complications may arise where the consulting medical man has been the ordinary attendant in former times, and is asked again to become so. There is no ethical reason that I know of to prevent him if he likes; nevertheless, he does wisely to decline. It is difficult cordially to resume interrupted relations under such circumstances, and the practitioner who is superseded can hardly do otherwise than feel aggrieved. But what reason can be given to a patient or friends for so doing? Well, this is just one of the conditions in which it is best not to give any reason. It saves much trouble to announce your decision as final, and there let the matter rest. We are too chary of exercising our right to select our patients, which is just as definite as a patient's to select his medical attendant. The assertion of such a right is often received with incredulity, not only by the public generally, but even by medical men themselves. We might stand better with the public if we as a body showed a little less eagerness to acquire patients. The natural man values and runs after what it gives him some trouble to attain, more than what can be picked up without trouble.

It is not a very uncommon occurrence for a consulting practitioner to be asked to attend some near relative of a patient seen in consultation, and honourable and straightwalking men have often much difficulty in knowing how to act. The simplest rule that I can offer you is that the obligation of non-attendance should extend to the heads of the house—say husband and wife, and those who may be presumed to be dependent on them, those whose age or standing makes it reasonable to assume that they do not act for themselves.

Patients and their doctors quarrel sometimes. When such an event happens and a consulting practitioner is asked to attend, what should he do? I think, agree to attend if asked by the displaced attendant, not otherwise. It seems to me that the latter alone can release the consultant from the customary obligation. Very often he would prefer to have his patient in the care of a friendly consultant rather than under the charge of a stranger or active opponent. I am assuming, of course, that the difference has been of such a nature as not to admit of patching up. For many a time it happens that a judicious consultant succeeds in restoring confidence and harmony when both have been shaken. Temper, real or supposed neglect, assumed or actual incompetence may be the reasons alleged for a medical man and his patient to part company, and all call for the strongest possible efforts to find a remedy or prevent a rupture. Alcoholism, on the other hand, stands by itself, and I assert that the medical man who drinks deserves no consideration at anybody's hands. He voluntarily renders himself incapable of fitly fulfilling the moral obligation which he has accepted, and indulges in a vice which may make him a danger rather than a help to the community. Consequently the higher obligation of protecting the weak and helpless supersedes the lower one of protecting or helping a professional brother.

If a medical man drinks and does wrong, let him bear the penalty. Fortunately, medicine is a sober profession.

It has ever been the kindly custom of the medical occupation for its practitioners to help each other to the utmost limits of their ability: to attend not only each other but also their families in illness without fee or reward; to do each other's work in emergencies and during incapacity from sickness, and for the juniors to take the work of seniors at holiday times, or when pressure of work produces some temporary difficulty; nothing has a greater influence in promoting friendliness than the will and capacity to be helpful freely and generously. There is no ethical obligation which should be more fully recognized and acted on, than this one. Called to an emergency, the first duty of the medical man is to relieve; the second is to find out the ordinary medical attendant's name and the reason why he is not present, and, should no obstacle intervene, to hand over the case to him. I am aware that this is not a view universally accepted, and that there are men who hold and act on the belief that the first comer is the man to take charge of the case. I think, however, that the course which I have submitted to you as right is approved by the greatest number and the best practitioners. It is in accord with the feeling that medicine is a liberal profession and not a mere self-aggrandising occupation. Of course, the right of the patient to change his doctor must always be borne in mind and his wishes consulted. But in no way should any medical man supersede the usual attendant if he can help it. A man in choosing his medical attendant pays the chosen one a compliment when it is done deliberately; it implies an opinion that he is in some way better than others; and the choice should be respected accordingly. But it is no compliment to be called in on an emergency as the nearest.

Of the obligation to come to the help of a brother practitioner whenever he asks such, I say nothing, for the reason that it is universally admitted, and that neither absence of reward nor the existence of less pressing engagements ever stands in the way of such an appeal being responded to. Right feeling requires that for work done in this way there should follow the same exclusion as after a consultation. A patient seen for a brother practitioner should not be attended by the helping friend, lest the feeling or imputation arise that in apparently doing a kindness, really an injury is inflicted. Some people change their doctors very lightly, and it happens to most men when acting for another to be asked to continue an attendance for themselves; to do so would be a breach of good faith towards the man for whom he acts, who has trusted him as a friend to take his work or otherwise help him. A friend cannot honourably supplant him.

In fairness to each other, medical men should always discourage patients to change. There is no right or title to interfere with any man's freedom to select his own doctor, provided that no obligation has arisen which bars some particular individual medical man; but it is well to use such gentle persuasion as we may, to prevent a passing feeling of irritation resulting in a permanent separation. In this spirit should the members of a liberal profession deal with each

other and put away from them all effort at keen business competition. There should be no seeking of personal aggrandisement, regardless of the feelings and interests of others. Competition there ought to be, but it should be the emulation of knowing and doing our business as well as or better than our neighbours—of being as kindly and sympathetic to our patients as we can, and of sparing no effort for their comfort and recovery. In an occupation which numbers in the United Kingdom more than 30,000 there will always be some whose code of morality is a loose one, who will go as near the verge of breaking laws as they think they safely can; some with whom moral obliquity is part of their nature; and yet others who, by original disposition or by cultivation, are cantankerous and ill-conditioned fellows. As sensible men we must recognize the fact that so long as the present constitution of humanity remains the same we cannot eliminate them; indeed, perhaps we should not long to do so even if we could. They are stimulative. This being so, how shall they be dealt with? I say, leave them alone as much as possible; let them fulfil their destiny by themselves. In no respect yield to them because they are objectionable; equally, and above all things, do not imitate them—it would be degrading. They carry within them their punishment, which develops as inevitably as the planets follow their courses. If we had this choice put before us—the alternative of a life of peace and comfort, with an equable mind and the esteem of our friends and brethren; or, on the other hand, a life of perpetual disagreement, always a position of offence or defence, with the knowledge that the goodwill and friendship of those of our own occupation are withheld from us, would any sensible man hesitate for a moment which to accept? Yet a man may so order his life that the latter is the result he attains—often, it may be, by slow and insensible degrees and not of deliberate aforethought.

Is a medical practitioner morally bound to conform his fees to any given standard? It is an opinion largely held that he is. Anyone deviating, either by falling short of or exceeding the custom of his locality, is sure to be subjected to active criticism. I submit to you, however, that every man has a right to value his services. If he fixes his fees above those of his neighbours it is a question between him and his patients whether or not they will accept his estimate of what his professional knowledge and skill are worth; his fellow practitioners have no claim to any voice in the matter. We may doubt the wisdom of the man who charges smaller fees than his brethren, and thereby proclaims his opinion that he is worth less. Yet he is equally within his rights, and it would be unjust to submit either to ostracism for what they have elected to do. I would willingly see more inequality of fees than exists, certainly the value of the work of different men varies out of proportion to the difference of reward. Take consultants, for instance: the conventional fee is the same for the struggling youth as for the man of great experience and knowledge. There is no gradation. I think there is a somewhat general feeling that a change would be to the advantage of everybody. Among general practitioners, again, it would not be an unfair arrangement if it were customary and usual to double fees at a certain age. There are undoubtedly difficulties in the way of introducing such changes; most changes are difficult. It could be applied only to a limited extent in country practices where the fees are often as much as the people can afford. It probably, also, would involve something less of the personal attachment which usually exists between practitioners and their patients. I am not, however, without hope that an alteration may yet be made in the direction I have indicated, and perhaps rather by slow evolution than by a rapid revolution. But I trust that the members of the medical profession will never take the false step of attempting to dictate to any one what his fees must be or of refusing recognition to those who may deviate from ordinary custom.

Are there circumstances which ought to prohibit a medical practitioner from competing for a vacant paid appointment? A medical man leaves a locality or dies, and his practice is bought by another; a partner holds appointments and resigns them: is there any reason why any one else should not compete with the successor to the practice? I venture to assert that there is not. There is no property in such posts. It would be alike contrary to public interest and to the best traditions of he profession that an effort should be made to have it created, even by custom. We ought not to think badly of any man who elects to contest any such vacancy because he does so. Even in the case of a necessitous widow who has sold a practice and receives payment for appointments, it must be held as an act of goodwill and charity on the part of an eligible candidate if he declines to compete for vacancies. Again, the same question arises in the event of a man being unjustly dismissed. A Board or committee may seek to impose terms or remuneration which are manifestly inequitable. Do these circumstances imply any moral claim to such support from his brethren as is implied in a refusal to endeavour to supersede him? I assert that they do. None of us should aid or abet the doing of injustice. While the quarrelsome or injudicious man has no reason to expect to be supported in opposition to the powers that be, the man who has been dismissed because he has conscientiously done his duty, or the man who resists an effort to reduce his remuneration below what is just recompense for his labour, has the strongest possible grounds for expecting active sympathy and support. I hold that any one disregarding this obligation and acting in a manner contrary to the sense of honourable men has voluntarily renounced his right to be treated as their equal.

It is well for the future of medicine as a profession that its governing body, the General Medical Council, is taking cognisance of breaches of good conduct by those whom it has registered. The Council now punishes and censures acts of which it formerly took no notice. There is hope that it may one day feel able to extend its powers a little further. But even if it does there will still remain minor lapses—acts which may be classed as ungentlemanly, and personal disagreements which it cannot be expected to regulate. For such, we now have admirable tribunals in the Ethical Committees of the Branches and Divisions, to which we may look to maintain in the future a high standard of professional honour. We need not desire for them any more extended powers than they now possess, for a deliberate and ordered expression of opinion is a sufficiently powerful agent for the object in view.

In concluding these remarks there come to me the words of the Psalmist: "Behold how good and how pleasant it is for brethren to dwell together in unity." And if I have in any way directed your thoughts to the means which tend to amity and to good fellowship and to that kindly charity which thinketh no evil, I shall feel that my purpose has been attained.

THE CALCULATION OF THE DATE OF DELIVERY IN PREGNANCY.

By W. J. CAIE, M.A., M.B., B.Ch.,
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Though authorities differ somewhat as to the average duration of pregnancy in woman, the amount of divergence is small, and it is generally agreed that there is no absolutely sure method of calculating the exact date of delivery, the causes of this being mainly the impossibility of determining the date of fruitful coitus, combined with our ignorance of the factors which go to induce the occurrence of labour at term. Added to this is the prevailing inaccuracy of the woman regarding the date of the last menstrual epoch.

The length of gestation is given by Matthews Duncan[1] as 278 days, Schlichting[2] 273.2 days, Ahlfeld[3] 281.6 days, Löwenhardt[4] 279.8 days, Hasler[5] 280 days, Montgomery[6] 276 days, Edgar[7] 280 days, giving an average of 278.3 days.

The simplest calculation is, perhaps, that by Naegeli's method, which consists in counting three months back from the date of the onset of the last menstrual period, adding seven days (in Leap Year six days if February be included), and counting a year forward from the resulting date.

I have kept by Naegeli's method a record of 200 cases which were under my own observation, only those being recorded in which, on inquiry, the woman herself gave an exact date for the onset of the last menstrual epoch, and the results are as follows:

A. Labour occurred before the estimated date... 53.70 per cent.
B. ,, ,, after ,, ,, ... 24.50 ,,
C. The estimated date was exactly correct ... 16.04 ,,

The remaining percentage is accounted for by immature and premature labours.

In A. labour occurred on an average 3.4 days before the estimated date.

In B. labour occurred on an average 1.8 days after the estimated date.

There are, therefore, two points about this analysis which should be noted:

1. The percentage of labours occurring before the estimated date is far in excess of those occurring after it.

2. In Class A the average number of days is greater than in Class B, or, in other words, those in which the date of delivery is after the estimated date are nearer the latter than those in Class A.

I argue, then, from these facts that, in Naegeli's method, the number of days added on is too great, and that by adding fewer days a still nearer approximation to the date of delivery might be got, and this conclusion comes into line with the average length of gestation arrived at from the authorities quoted above, which is less than that given by Naegeli. If two days less be added the result corresponds both to the average length of pregnancy which I have quoted, and with the average (practically) in Class A.

Where available—which, unfortunately, is seldom—Löwenhardt's method will be found to be more accurate than Naegeli's, and the two will be found to correspond almost exactly, provided two days fewer are added to the latter. In fifty other cases which I calculated by Löwenhardt's method, the date of delivery was in all within 1.6 days of the estimated date. Löwenhardt's method consists in counting the number of days between the last menstrual period and the one preceding that and multiplying by ten. The date can then be got by tables.

References.

[1] *Arch. f. Gynäk.*, Bd. iii, 456. [2] Ibid., Bd. xvi, 210. [3] *Beobachtungen über die Dauer der Schwangerschaft.* [4] *Die Berechnung und die Dauer der Schwangerschaft.* [5] *Arch. f. Gynäk.* [6] *Signs of Pregnancy.* Second edition. [7] *Practice of Obstetrics.*

SCROFULOUS ULCERS OF THE LEGS (BAZIN'S MALADY)

SUCCESSFULLY TREATED BY HIGH-FREQUENCY CURRENTS.

By W. F. SOMERVILLE, M.A., B.Sc., M.D., F.F.P.S.Glasg., Glasgow.

Mr. Jonathan Hutchinson, in his *Archives of Surgery*, vol. v, p. 113, referring to Bazin's malady, says: "It is a name given to a manifestation of scrofula occurring mostly in young women, in which multiple ulcers, the consequence of a subcutaneous and self-infective inflammation occur on the legs, such ulcers being difficult of cure, prone to relapse, and presenting appearances very likely to be mistaken for syphilis." He further quotes in the same volume, p. 32, a translation by Dr. Colcott Fox of Bazin's description of the disease associated with his name.

The case now to be related must, I believe, be regarded as an example of Bazin's disease. It is true that the ulcers were present only on one leg, and that the symmetry, which has been a prominent feature of most of the cases recorded, was therefore lacking. But in view of the physical character of the ulcers, of their recurrence, and of the age and constitutional tendencies of the patient, this absence of bilateral distribution can hardly affect the diagnosis, and support for this position can be found in the fact that Mr. Hutchinson includes among his records at least two instances in which a similar limited manifestation of the disease existed.

The patient, a young lady aged 16, who had spent the greater part of her life in Eastern Europe, was brought to me by Dr. Alexander Thomson of Glasgow early in January, 1904. She was tall, of dark complexion, and somewhat phlegmatic disposition. With the exception of a number of ulcers on her left leg, and some evidence of anaemia, she appeared to be free from definite signs of disease. There was, however, a degree of coldness of the extremities, and at various times, it was said, she suffered from enlargement of the glands in the submaxillary region, facts which may be quoted in favour of the diagnosis here suggested. Neither in the family history nor in the physiognomy of the patient was there anything to suggest the possibility of a syphilitic taint. There is no history of tubercle in the family. The more recent history of the patient is included in the following note by Dr. Thomson:

History.

In April, 1897, I was called to attend Miss K. T., a young girl of 11 years of age, suffering from chicken-pox. The attack was a very severe one, the eruption being very copious, and the fever running high and lasting long; and a considerable degree of debility followed. The patient's home was in the Balkan States, and she was in this country merely on a visit. The coldness of the climate here made her always feel uncomfortable. Her personal history was free from any serious illness, but she had never been robust, and was always of a lethargic, indolent temperament.

After recovering from the attack of chicken-pox, she went to the coast for the month of July. On her return to town I was sent for to see her on account of the condition of her left leg. On the outer aspect of the middle third of that limb were six or seven punched-out ulcers of various shapes and sizes. The largest was about ⅔ in. in diameter, and the smallest about ¼ in. across. The ulcers presented a grey, unhealthy surface, and were discharging a thin, serous fluid. The skin in their neighbourhood was of a livid blue colour, and was much infiltrated.

The history given was that within a few days of going to the coast nodules were observed on the leg in the affected region. These were not painful, but gradually rose above the surface and then slowly broke down to form ulcers. Under complete rest in bed for several weeks, the use of cod-liver oil and iron, and local application of lotions of boracic acid, etc., the ulcers gradually healed.

In September, 1897, the patient returned to her home in the East and remained there until September, 1902, when she once more came to Glasgow. During these five years she enjoyed fairly good health, and the leg gave her no trouble. For some months after coming here she continued well, but in June, 1903, nodules began to form in the region that had been affected six years previously. The stages through which these nodules passed were an exact repetition of what had taken place in 1897—namely, slow formation and elevation, breaking down, and ultimate formation of ulcers. The main difference noticeable was that the edges of the ulcers were on this occasion hard, white, and callous. They were seven in number, and the condition of the surrounding skin was as it had been during the former attack. The blue colour was, if anything, more deep, and the scars of the old ulcers were sharply defined as white patches. The new ulcers partly encroached upon the scars of the former ones.

On this occasion the treatment adopted in the former attack proved quite useless. The patient remained in bed for two or three months, and took malt, hypophosphites, syrup of iodide of iron, and cod liver oil. Locally the ulcers were treated with a great variety of dressings, including sulphate of zinc, black wash, compound tincture of benzoin, antiphlogistine, etc., but they utterly refused to heal. The only improvement noticeable was that the surrounding induration lessened and the ulcers had a cleaner and healthier appearance after being dressed for some weeks with antiphlogistine. Thorough scraping of the ulcers was also tried on two separate occasions, but without benefit. Seeing no improvement was being made, I requested my friend Dr. Somerville to try upon my patient's leg the effects of the high-frequency currents. I shall leave him to describe his treatment, the results of which proved highly satisfactory, and shall only add that I have seen the patient on several occasions since the electrical treatment was stopped, and that the ulcers continue soundly healed. With the exception of a temporary attack of acne she has, indeed, enjoyed her usual measure of health.

Comparing the facts of the case with the descriptions of Bazin's malady, I have no doubt that it is an example of that disease, though it must be placed among the rarer members of the group in consequence of the ulceration affecting only one of the lower limbs.

When the young lady came to me I found on the anterior aspect of the left leg seven punched-out ulcers ranging in size from a threepenny-bit to a florin. The ulcers had undermined irregular edges resembling markedly the ulcers produced by specific disease to which, as Mr. Hutchinson points out, cases of Bazin's malady are apt to be referred. The skin in the immediate neighbourhood of each ulcer had the dark-red "violaceous" character described by Bazin, and was free from irritability and tenderness.

Dr. Thomson has noted the treatment adopted by him. The high-frequency currents were first applied by me on January 12th, 1904, and were continued till March 28th, 1904, forty-one applications in all being employed. The patient sat for about eight minutes on the auto-condensation couch; thereafter the limb was treated by the spray effleuve and also with a flat glass electrode of high vacuum connected with the top of the Oudin-Dean resonator. Very shortly after treatment was commenced the ulcers began to take on a more healthy appearance; they gradually filled up, and the usual healing line was soon noticeable, till finally they were covered entirely with healthy skin.

I saw the patient at the end of January of this year, when I found the ulcers perfectly healed, the skin of the limb quite smooth, free from induration, and was surprised to learn that a short time previously the young lady had walked no less than thirty miles in one day without any evil effect, and had been climbing hills during the summer holidays.

THE CORNEAL REFLEX THE MOST RELIABLE GUIDE IN ANAESTHESIA.

By H. BELLAMY GARDNER, M.R.C.S., L.R.C.P.Lond., Anaesthetist and Instructor in Anaesthetics, Charing Cross Hospital.

The number of signs of anaesthesia which students are now supposed to take into consideration is altogether beyond the grasp of many men in moments of doubt. In addition to this, I believe that the common resort to the evidence of pupillary variations which are also produced by partial asphyxia, strong light and operative influence, quite

as much as by the anaesthetic, is liable to render indecision and nervousness in administration more profound. I desire, even at the risk of being considered dogmatic, to lay down two principles for guidance in the administration of chloroform and ether and mixtures of the same, which have been of inestimable value to me in my own practice:

1. Keep the airway clear.
2. Never completely abolish the corneal reflex.

First, the airway must be kept clear throughout anaesthesia, because if the jaw is allowed to fall back at all, carrying the base of the tongue over the epiglottis and producing even moderate stertor, an element of asphyxia is introduced which more than doubles the dangers of the anaesthetic state. I mean by this that it is the administrator's duty to relieve all forms of stertor directly they arise.

Secondly, when an anaesthetic drug is in course of administration we require to know how deeply the patient is affected by its paralysing action at every given moment after loss of consciousness and during surgical manipulation.

It is known and admitted by all that primary reflex actions are paralysed gradually one after another before (always before and never after) the truly automatic reflex actions, examples of the latter being the respiratory and cardiac movements.

The corneal reflex, which is produced by touching the centre of the patient's cornea, and both watching and feeling the responsive closure of the upper eyelid, is one of the last primary reflex actions to become paralysed. When this has been abolished, the fourth stage of dangerous anaesthesia has been entered, because the next centres to become paralysed will be those automatically controlling respiratory and cardiac action. Therefore, whilst some degree of corneal reflex can be elicited, a condition of overdosage is impossible.

What can be more simple than always to retain a trace of corneal reflex? To constantly test it in both the patient's eyes, and to give more or less anaesthetic respectively according to the brisk or slow response elicited from the upper eyelids.

The proper method of eliciting the corneal reflex in the anaesthetized subject is to stand behind the patient and raise the margin of one of the upper eyelids by gently inserting the pulp of one finger only between the lids, then drawing the upper lid upwards with it till the cornea is well exposed to brush definitely against the centre of the cornea and edge of the upper lid with that finger and let go suddenly. Both by feeling and watching the brisk, moderately rapid, or slow responsive closure of the upper eyelid the presence of the first, second, and third stage of narcosis is demonstrated.

There is often a difference in the activity of the two upper eyelids, and if the more active of the two is always taken as the true test it may be trusted to as a sheet anchor for keeping the patient in the harbour of safety.

The principle which this involves is never to abolish the corneal reflex completely—that is, if the drug be pushed unduly till it does disappear, to withhold it until the corneal reflex returns in a slight degree, and to endeavour then so to adjust the subsequent dosage that this condition of a dulled, but not absent, reflex is maintained.

SOME POINTS IN THE TREATMENT OF BRACHIALGIA AND SCIATICA.*

By J. E. HARBURN, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Buxton.

Judging from the large and increasing number of cases which are sent to health resorts year by year for special treatment, it would seem that painful affections of the cervico-brachial and sciatic nerves in many instances tend to assume a chronic course, and thus exert a most debilitating and depressing effect on the health of the patients. During the past seven years over 700 cases have been treated by my partner, Dr. Armstrong, and myself at Buxton.

Although in some cases of sciatica and brachialgia the pain is purely neuralgic, in the majority there is an inflammatory condition of the nerves or of their sheaths, and it is desirable to classify them as—

(*a*) *Sciatic or Cervico-brachial Neuralgia.*—It is frequently of a very temporary character, and may be simply functional, probably showing no change whatever in the sheath or in the nerve. When the general health of the patient is low, however, it is often of considerable duration. The pain is generally intermittent in character, and is not usually confined to one part of the nerve as it generally is when the condition is due to inflammation.

(*b*) *Perineuritis.*—It is probable that the majority of cases of sciatica and brachialgia are due to this condition. This pain is of a peculiarly "toothachy" character, and there is tenderness over the roots of the affected nerves as they emerge from the spine and also at various points in their course. In sciatic perineuritis the patellar reflex may be intensified. There is often some degree of tingling and numbness of the extremities.

(*c*) *Neuritis.*—This is infinitely the most serious and intractable condition with which we have to deal. There is great tenderness of the nerve itself, and sometimes over the parts to which it is distributed. The temperature of the limb is reduced, there are areas of anaesthesia, tingling, and numbness of the extremities, and in the later stages muscular atrophy.

The causes of these affections are in some cases difficult to trace. The great majority of patients have a gouty taint, and many are rheumatic. We found that in a striking number of instances the patients had been subjected to great worry and over-pressure, which had lowered the general nerve tone, thus inducing defective metabolism and tardy excretion of body waste. A large number of these cases occurred in overworked business men. The exciting causes of sciatica and brachialgia are cold, damp, and traumatism. Pressure from tumours or aneurysms, and in sciatica from constipation and uterine displacement must be borne in mind. Neuritis is often caused by the action of such poisons as lead, arsenic, and alcohol, and it should be remembered that the subjects of glycosuria and diabetes are very liable to this affection of the nerves. In not a few cases neuritis occurs as a sequel of influenza.

Treatment.

In the acute stage, whatever variety of the disease is present, rest is absolutely essential. The leg may be placed on a well-padded splint, or the arm in a sling. Dry heat applied by means of the Greville or Dowsing apparatus, or, if these are not available, by indiarubber hot-water bottles, will be found most effective.

With regard to drugs no combination has, in our experience, been found so effective as the following: Aspirin 6 gr., phenacetin 5 gr., salicylate of quinine 2 gr., and codeiae $\frac{1}{4}$ to $\frac{1}{2}$ gr. The bowels should be well cleared with small doses of calomel followed by salines. In those cases in which the pain is not relieved an occasional injection of morphine with atropine may be necessary, but this is a remedy which should be used with great caution and not too frequently repeated, as it tends to interfere with the excretion of body waste, and may also lead to the establishment of the morphine habit.

Subacute Stage.

It is in this stage, which is often so protracted and troublesome, that the various spas become of service. In sciatica we have found nothing so serviceable as the half-combined bath. The patient sits in a vapour bath which comes up to the waist line only; this, while not exhausting the patient as much as the full vapour bath, allows a higher temperature to be borne by the affected parts. Thus, a temperature of 115° F. can be tolerated with advantage from ten to fifteen minutes. At the end of this time the patient sits in a bath of the Buxton thermal mineral water heated to a temperature of 95° F. for eight minutes, and during the last three minutes a hot undercurrent douche at 102° to 110° F. is applied to the affected limb.

In affections of the brachial nerves the full combined bath is used, or if the patient is too weak for this, the arm alone is placed in the vapour box before he goes into the immersion bath. In this stage also electricity in various forms is used with excellent results. The sinusoidal electric water bath (200 alternations per second) or the high frequency currents of d'Arsonval are the most useful, as they have a distinctly anaesthetic effect upon the nerve whilst improving its nutrition. Acupuncture has often been found beneficial at this stage, as has also the application of a blister over the head of the affected nerve or the use of the thermo-cautery. The administration of fairly large doses of potassium iodide three times a day for three or four days is sometimes beneficial, as is also the application of a menthol liniment or plaster.

Chronic Forms.

In the treatment of the chronic forms of sciatica and brachialgia it is essential that distinction should, as far as possible, be made between true neuritis and other forms of these complaints. Where neuritis is not present the Aix massage bath with the douch applied to the painful part is of great value, as are also dry and electric massage, followed by gentle stretching of the nerve in cases where adhesions are

* Communicated to the Derby Division of the British Medical Association.

present. The Buxton swimming bath at the natural temperature of 82° F. is one of the most valuable remedies at our disposal. In true neuritis, however, massage is as a rule not beneficial and nerve stretching is quite contraindicated. The combined bath, alternating with the natural swimming bath and the application of electricity in the form of the constant current (5 to 15 milliampères), ascending and descending over the affected nerve, or in the form of the constant current bath, are of much service. The affected limb should be kept warm by the wearing of double-sleeves or double-legged pants of wool. The injection of ¼ gr. of pilocarpin nitrate on alternate days for two or three weeks, except in cases where there is organic heart mischief, has been highly praised by Dr. Farquhar of Marlborough.

CASE OF PRECOCIOUS PUBERTY IN A FEMALE CRETIN.

By F. WELLESLEY KENDLE, M.R.C.S.,
Honorary Secretary of the Barnstaple Division of the British Medical Association.

The case was exhibited and described before a recent meeting of the Division.

B. H., aged 9, is the youngest of seven children. The father is robust, but intemperate; the mother died at 39, of acute pulmonary phthisis; the mother's sister died at 25, of acute phthisis; an elder brother, a cretin, lived fifteen years; other brothers, sisters, and relatives healthy. In past generations there has been much intermarrying of near relations on both sides.

The district in which the patient resides is loose shillet and compact limestone, rich in mineral; both parents were reared near a large manganese mine; both cretins were born within a mile of it.

The child showed signs of backwardness about the time she was weaned; the fontanelles remained open. She had no teeth, was unintelligent, and had an unmistakable cretinous appearance. She was treated with freshly-made glycerine extract of sheep's thyroid with marked success for two years. As her mother died when the child was about 3 years old, and she was left in the charge of a sister who was only 11, treatment became fitful and was gradually discontinued. I lost sight of her for six years.

She next came under treatment in April, 1904. I found that not only had she not grown since I last saw her, but that she had retrograded both mentally and physically, until she presented the appearance of a confirmed cretin. Her height was 36 in., weight 47 lb., girth 25 in., and chest 26 in. Her expression was dull and vacuous, but she brightened up a little when addressed; she had lack-lustre eyes, short broken lashes, heavy drooping lids, scant eyebrows, wrinkled forehead, depressed bridge of nose, protruding tongue, dribbling mouth, with thick lower lip. She had twelve teeth, all decayed; none had been shed nor had molars been cut. The head was large, the fontanelles and median sutures both depressed The hair was straight, coarse, dull and brittle, the neck short and fat, the sternum misshapen, the belly full and pendulous, the back broad, hunched, fat, and covered with silky down; the shoulders rounded, marked lordosis, the pelvis tilted, the buttocks ill-developed, the legs short but the bones too thick for their length. The patellae were remarkably small. There was considerable genu valgus, causing the child to walk on the inside of the foot, though there was no true talipes; the gait was jerky and unsteady, with frequent stumbling. She did not play about like other children, but sat still for hours together, as if hypnotized. She had not been able to learn much, understood and spoke but few words, and uttered these indistinctly in a deep, harsh, unchildlike voice. The urine was offensive (phosphatic), and she wetted the bed. The bowels were constipated, and the appetite very capricious; she objected to animal food and sweets, but liked condiments and pickles.

Thus far she presented the appearance of a typical cretin, but in one particular she was distinguished from every other recorded case of female cretinism—she was a remarkable example of precocious puberty. The breasts were fully developed, each with a diameter of 3½ in., with well-shaped, prominent nipples; there was coarse hair in the axillae and pubes. Menstruation commenced at 5 years and 2 months of age, and continued at irregular intervals of from two to four months; the discharge was abundant, quite equal to that of a mature woman, lasting from three to five days, occasionally offensive on the last day, with dysmenorrhoea the first day. The urine was particularly offensive during the whole period.

October 26th, 1904. She has now been on thyroid extract for six months, and has made immense progress; she has grown nearly 5 in., and has lost 7 lb. in weight; she is much more intelligent, plays, laughs, sings, runs about, and is in constant mischief. She has cut four double teeth and is shedding her decayed incisors. She no longer wets the bed, and the urine has ceased to be offensive; the bowels are regular and the appetite good. Her expression has so completely changed for the better that she is quite unrecognizable even by her nearest relatives who have not seen her for a few months. The coarse hair has been replaced by a much finer growth; that on the back has disappeared; the skin is soft and natural—indeed, the improvement in every respect is most remarkable.

Strange to say, she has not menstruated since she resumed the thyroid extract; the breasts are much smaller, the nipples less prominent; the hair has disappeared from the axillae and pubes; the voice is less deep, and her whole organism seems to have reverted to a more childlike type. This is the more astonishing, since it is a well-known fact that puberty is invariably delayed in cretins, and that treatment tends to ripen the uterine functions in those cases in which puberty has not run *pari passu* with adolescence. It almost seems as if the energy of growth initiated by the earlier treatment had become monopolized by the generative organs when the thyroid extract was intermitted, and that on its resumption this has been again diverted for the purposes of bodily and mental growth. So far as I have been able to discover, the case is unique.

January, 1905. Progress still continues; menstruation has not returned. Has grown another 2 in.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SLOUGHING OF INTUSSUSCEPTED GUT: SPONTANEOUS RECOVERY.

On August 23rd, 1904, I saw a child aged 4 years, the history of whose case was as follows:

History.—On Friday and Saturday, August 19th and 20th, the child had suffered with what appeared to be an ordinary attack of diarrhoea attended with slight vomiting. On the evening of the 20th it for the first time passed a little blood per rectum. After this the child passed at intervals small quantities of blood and mucus per rectum, but, as the mother expressed it, the diarrhoea stopped, but the child vomited everything it took by the mouth. This condition lasted until the time of my visit on August 23rd.

State on Examination.—The child was looking extremely pinched and ill, the pulse small and very rapid, the eyes hollow and sunken, and the mouth almost dry. The abdomen was very much distended and highly tympanitic. The outline of the coils of the small intestine were most markedly visible on inspection. The napkins which the child had worn were all stained with blood and mucus. There was nothing to be felt on rectal examination. In the upper part of the right iliac region I could detect slight resistance on palpation, but no definite sausage-shaped tumour.

Treatment.—I diagnosed ileo-caecal intussusception, and decided to try injection of the colon with warm water. With a stomach-tube passed well into the rectum I poured in about three pints of warm water, having the child practically inverted and allowing about 3 ft. of pressure on the water. This manœuvre seemed to cause the child some pain. After retaining the child for about ten minutes in the inverted position, I allowed the water to be returned, when I found that the last portion to be expelled was bloodstained and extremely evil-smelling, having exactly the aroma of gangrenous tissue.

Progress.—On my visit some two hours later I found that the symptoms of obstruction were still entirely unrelieved, so I asked my friend Dr. Mathews to see the case with me. We decided that in the child's bad condition an abdominal section would probably be fatal in its result, and that, seeing that the gut was probably gangrenous, and that further attempts at reduction by injection would be almost equally dangerous, the only thing to do was to make the child as comfortable as possible, and to hope that Nature might effect a cure. I accordingly ordered the child 1-minim doses of liq. morph. hydrochlor., to be given every hour until sleep was obtained.

Result.—During the next day, August 24th, the patient's condition was very grave; the vomiting was persistent and the distension very pronounced; nothing whatever had passed per rectum. On the morning of the 25th the condition was still the same, and I thought the child's end was near. In the evening of the 25th I again saw the patient, when I was

informed that he had not vomited since 2 p.m., and that he seemed better. I found the pulse considerably improved and the abdominal distension much less. While I was examining the abdomen, some extremely offensive gas was passed per rectum. The smell of this gas was exactly like that noticed when the water was returned after injection. I formed the opinion that the intussusception had relieved itself by sloughing, and gave instructions for any motion passed to be saved for my inspection. On my visit the next day I found that all the symptoms of obstruction had cleared up and that flatus had been freely passed by the bowel. On the evening of this day (August 26th) a motion of a semi-solid character was passed, and in the first portion of this I found a piece of gangrenous tissue, which evidently consisted of about 2 in. of small intestine. Since that time the child has made an uninterrupted recovery, and is now to all appearance perfectly well.

Nantwich. R. T. TURNER, M.D., Ch.B.Vict.

VAGITUS UTERINUS.

IN the EPITOME of the BRITISH MEDICAL JOURNAL for August 24th, 1904, I notice a case of vagitus uterinus, reported from a German source. The following case from my own practice may prove of interest:

Mrs. R., a multipara, aged 40, youngest child 10 years old, was seen by me at 6 a.m., having been in strong labour for some hours. On examination, the head was above the brim, the os fairly dilated, pains were good, but the progress being made was not proportionate to the length of the labour and the strength of the pains. The woman's condition was good, but it was felt that some explanation was needed for the detention of the head above the brim.

A colleague was called in to give chloroform, and on examination a hand was found lying on the back of the neck behind the head. As some difficulty was found in replacing it, it was decided to turn. While feeling for the knee, the child was twice distinctly heard to cry—by my colleague, the nurse, and myself. Again, when the foot was brought down, while preparing some tape to tie round the ankle, the child cried distinctly. This was at about 8.30 a.m. Labour was now allowed to take its course, and in three hours the child was born—assisted, as it proved an extra large one, by slight traction on the breech. It was somewhat asphyxiated, but was easily revived with the usual measures. It gave no further trouble, and now, twelve months later, is a flourishing infant.

The parts at the time of turning were not sufficiently dilated to admit of rapid delivery, which would suggest itself as being the indication in the interests of the child under such circumstances. And I was as surprised as pleased at being fortunate enough to obtain a living infant.

Charters Towers. E. TEMPLE SMITH, M.B., M.R.C.S.Eng.

GREEN MILK.

I WAS called to see a baby, 12 months old, that seemed to have bronchitis symptoms complicating or as a consequence of teething. The state of the gums was such as in my opinion to require lancing. The nervous state of the mother, aggravated by her anxiety for the child, resulted in a hysterical attack as soon as I set about to perform the operation.

The mother, contrary to my advice, had continued to nurse her baby up to the time it was taken ill. On my visiting the child the next morning the mother informed me that she had had to wean the baby, as her milk had turned green. She showed me a sample that she had drawn off with a breast pump; this, which I showed subsequently at a meeting of the Swansea Medical Society, seemed very rich in fat, and was of a duck's egg green colour; the first lot drawn off was, as I was informed, of a much darker shade of green—"like a leaf." I examined the breast pump to see if the green colour was due to contact with any green colouring matter on the pump, but I came to the conclusion that this was not so. On testing with nitric acid I was not surprised to find that I did not get the display of colours characteristic of this test for bile pigment. A sample of cow's milk tinted with ox-bile to the same degree of coloration also did not give Gmelin's test. The mother was taking no medicine, nor was a belladonna plaster or paint applied to the breast. The milk was green as it came away from the breast, and not as a result of changes produced whilst standing.

The interesting question is, What was the cause of this sudden change in the milk?

Swansea. G. ARBOUR STEPHENS, M.D.Lond.

TWO CASES OF EXFOLIATIVE DERMATITIS.

THE following cases are interesting, because they are not examples of pityriasis rubra or ordinary exfoliative dermatitis, but are evidently what Féréol describes as "desquamative scarlatiniform erythema."

CASE I.—Z., a gentleman, aged 30 years, noticed a rash on the upper part of his legs and body on Saturday, September 17th, 1904, and felt slightly feverish. However, he thought nothing of it, and having taken a hot bath he drove in an open trap to the theatre. He felt quite well all Sunday, but the rash increased in intensity and was accompanied by severe itching. I first saw him on Monday morning, when I found him with an intense, uniform red, scarlatiniform eruption all over the body, legs, and arms. His skin was hot, and, as he expressed it, "When he held his hand 1 ft. from his body he could feel the blaze from it." His temperature was 99° F., pulse normal, tongue rather foul; no sore throat, no albuminuria. I sent him to bed, and ordered him the ordinary "mist. alba" and a cooling dusting powder. On the following day the rash was more intense, if possible, and had extended to the forehead and face. The eruption on his forehead was not as uniform or red as that on his body, but was more punctate. He felt quite well and wanted to get up. The rash began to fade on the 24th, when, as he still complained of great irritation, I ordered him warm baths with resinol soap, and allowed him up in his room. On September 25th, before the rash had faded, a fine branny desquamation commenced all over the chest, body, and forehead, and by October 1st he was pulling large pieces of skin off his hands. On October 4th he came to me complaining that he had some other kind of rash on the outer side of his right hand and lower arm. This, however, proved to be a slight herpetic eruption along the cutaneous branches of the radial nerve, and disappeared with treatment in a few days. Desquamation had entirely ceased in four weeks' time from the commencement of the illness. The feet never peeled, and the tongue never showed that glazy appearance so typical of scarlet fever. There has been no relapse. His health has been robust ever since, and his skin is quite healthy.

CASE II.—X., a married woman aged 30 years, had had several recurrent attacks of jaundice. Towards the end of her last attack she came to see me complaining of a rash. I found her with a bright scarlatiniform eruption on the chest and body, and a sore throat. Her temperature was 101° F.; pulse quickened. Her tongue was coated and foul, with enlargement of the papillae. There was no albuminuria. She complained of itching. In a few days the rash began to fade, and desquamation immediately started. In about a week's time another eruption appeared, followed by further desquamation. The hands and feet were still peeling from the first eruption, whilst the second eruption was out on the chest and body. This process continued alternately for several months. There was very little constitutional disturbance all through.

REMARKS.—The first of these cases is remarkable by the entire absence of constitutional symptoms, the intensity of the eruption and the completeness of the desquamation; the second, by the general severity of the attack and the frequent alternate recurrence of the erythema and desquamation. In neither was there any falling out of the hair or exfoliation of the nails. In both the desquamation started before the rash had faded. I found the treatment by warm baths and resinol soap very useful. The irritation was checked and the skin became soft and smooth. The cases are worthy of note, as they differ so markedly from pityriasis rubra, and are so difficult to diagnose from scarlet fever in the early stage.

Leeds. PERCY SANDYS BIRD, M.D.

HERNIA OF THE UMBILICAL CORD.

ON December 8th, 1904, I delivered Mrs. W. of a well-developed male child, with a hernia of the umbilical cord the size of a very large apple. The child appeared to thrive well, the bowels moving naturally, and the breast being well taken. The cord dropped off at the usual time and the amnion with it, leaving the peritoneal sac exposed, which was carefully dressed antiseptically. I advised non-interference, but as the parents were anxious that something should be done, the child was sent into the Falkirk Infirmary on December 23rd, and with some reluctance Dr. Griffiths, the surgeon to the Infirmary, decided to attempt a plastic operation. With the able assistance of Dr. J. G. Duncan, an elliptical incision was made round the base of the tumour, and it was found to contain a portion of the intestines and the whole of the liver, which was so firmly adherent to the apex of the sac that separation was impossible. The practical point which I should like to emphasize is that some of the textbooks I have consulted take a somewhat rosy view of this condition.

Hirst, in his *Textbook of Obstetrics*, p. 812, states that "an immediate plastic operation is indicated, even if the mass of protruding intestines is as large as an apple. The results of the operation have been excellent," and as it is impossible to be absolutely sure of the contents of the sac, a much more favourable prognosis might be given than the condition of affairs found at the operation warranted.

Falkirk. G. C. STEWART, M.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HULL SANATORIUM.

A CASE OF TYPHOID FEVER WITH RIGORS.

(Reported by R. Raines, M.R.C.S., L.R.C.P.Lond., D.P.H.)

X., a young man of 22 years of age and a plasterer by trade, was admitted to hospital on August 20th, 1904, on the ninth day, according to the history obtained, of an attack of typhoid fever.

State on Admission.—The abdomen was tense, spleen not palpable; there were a few rose spots; temperature 103.6°; pulse 96. There was no diarrhoea.

Progress.—During his stay in hospital he had eleven rigors scattered over a period of seventeen days. The dates and times of occurrence with the temperature recorded after the rigor are given below. The rigors lasted a variable time, from five minutes on August 24th and September 3rd up to thirty minutes on September 1st and thirty-three minutes on August 25th, the majority lasting about fifteen minutes.

Date.	Time.	Temperature Recorded.
August 24th...	8.27 p.m.	106.8°
August 25th...	2.30 a.m.	106.6°
August 25th...	noon	104°
August 29th...	4 p.m	105°
August 31st...	6.25 a.m.	103°
August 31st...	4.15 p.m.	103.3°
September 1st	2.25 a.m.	104.4°
September 1st	7 p.m.	103.4°
September 3rd	3 a.m.	102.4°
September 5th	6.30 a.m.	105.4°
September 9th	midnight	102°

The attacks commenced with a subjective feeling of cold, and were followed by profuse sweating. The pulse became rapid and feeble, necessitating the administration of stimulants.

Diarrhoea commenced on August 22nd, two days before the rigor period, and continued up till September 6th. From August 25th to 29th inclusive the diarrhoea was excessive, there being six and seven stools per diem.

On September 2nd there was pain, and a friction rub was heard on the left side of the chest. This quickly subsided under poultices.

On October 2nd a small abscess was incised on the left buttock. There were no other complications apart from the two just mentioned.

Result.—The temperature reached normal on September 20th, the thirty-ninth day of disease, and convalescence progressed uninterruptedly except by slight irregularity of temperature, possibly connected with the abscess formation previously mentioned.

Remarks.—This patient showed no signs of phthisis, and there was no history of malaria; he had never been out of England. It may be remarked that he was of a very nervous and excitable temperament. In a paper appearing in the *Practitioner* special number, January, 1904, Dr. Charles Bolton has collected a large amount of information from the literature bearing on the subject of rigors in typhoid fever. Various theories are held as to the causes giving rise to this condition. Amongst others may be mentioned intestinal irritation, the use of antipyretics, mental worry or emotion. The "rigor period" in the present case very nearly coincided with the period during which diarrhoea was present, so that it appears to lend support to the theory of intestinal irritation acting as an exciting cause. No antipyretics were administered at any time. The ultimate recovery of the patient bears out the view generally held that these rigors do not unfavourably affect the prognosis.

GOVERNMENT HOSPITAL, LAGOS.

A CASE OF TRYPANOSOMIASIS.

(Under the care of W. I. Taylor, M.D., and John Currie, M.D.)

In view of the very general interest which is being taken in this disease at the present time, the following notes on a case of trypanosomiasis now under observation in the Colonial Hospital, Lagos, will be of interest, and the principal medical officer of the colony, Dr. Strachan, C.M.G., has kindly given his consent to their publication.

O. I., male, aged 32, of no occupation, was brought to the Government Hospital, Lagos, on the night of November 7th, 1904, by the police, as he was apparently unable to take care of himself. He appeared ill and was at once admitted. At the time of his admission his gait was staggering, like that of a drunken man, but there was no smell of alcohol. His mental condition was stupid; he answered questions but in a childish manner, and he accused the nurse of assaulting him.

Condition on Admission.

The patient was carefully examined on November 8th. He was able to tell us that he was a native of Ibadan, a large town 120 miles inland; that he went to Calabar in 1901, where he enlisted in the police force, and that he was never out of that neighbourhood until he returned to Lagos. He also said that he had sleeping sickness, and that he had been in hospital in Calabar, where his blood had been examined.

General Condition.—The patient is a fairly well-nourished man; his expression is dull and stupid; the breath is very fetid; he makes no complaint of pain.

Respiratory System.—Normal.

Circulatory System.—Normal.

Alimentary System.—Appetite normal, bowels regular, digestion good.

Abdomen.—There is slight enlargement of the liver to about one fingerbreadth below the edge of the ribs; the upper limit of dullness is normal. The spleen is enlarged, being easily felt below the ribs.

Nervous System.—There is general weakness of muscles but no muscular wasting. The electrical reactions were not tried. Sensation normal. Reflexes: knee-jerk and toe (flexor) reflex are somewhat exaggerated; there is no ankle clonus. Pupils are contracted, and react sluggishly. Gait is uncertain, but not ataxic; there is no inco-ordination of movements.

Skin.—There is no oedema, nor is there any cutaneous eruption. The skin feels normal to the touch.

Lymphatic glands are not markedly enlarged.

After-History.

November 20th. The patient's general condition has decidedly improved. The breath has lost the fetid smell, and the mental condition is somewhat less dull than on admission. He has slept a good deal, but there has been no difficulty in rousing him, and he has taken his food well. There has been no fever, no oedema, and no cutaneous eruptions.

December 15th. The patient remains in much the same condition. He is still somewhat drowsy, but is easily waked. His face is a little puffy and expressionless. There is some wasting now, and the lymphatic glands are very distinctly enlarged, especially in the cervical region. There is a circinate patch of scaly eruption on the skin of the left side of the neck. There has been no fever.

Microscopical Examinations.

November 10th. Trypanosomes present in film of finger blood, four to the film.

November 10th. No trypanosomes observed. Filaria perstans present. Blood count: Red corpuscles 2,530,000 per c.mm.; some slight degree of poikilocytosis. White corpuscles 6,000 per c.mm., lymphocytes 36.8 per cent., large mononuclear 11.2 per cent., polymorphonuclear 40.8 per cent., transitional 2.8 per cent., eosinophile 8.4 per cent. Haemoglobin 32 per cent.

November 16th. Lumbar puncture was performed. No trypanosomes were found in the cerebro-spinal fluid. The spleen and liver were also punctured and films prepared from the fluid withdrawn from them, and stained with Leishman's stain. These showed bodies of clear, pale-blue stained protoplasm, containing red staining spots, generally two in number, sometimes three or four. These were found sometimes enclosed in cells, at other times embedded in a finely granular matrix, but most frequently lying free among the remains of spleen cells and corpuscles. They closely resembled the bodies described by Rose Bradford and Plimmer in their work on trypanosoma brucei, and shown by them in their dawings.[1]

December 15th. No trypanosomes in finger blood. Filaria diurna and filaria perstans present.

[1] *Quart. Jour. Micr. Sci.*, vol. xlv, N.S., Pl. 24, Figs. 32 and 33.

December 19th. No trypanosomes in finger blood. Filaria perstans present.

December 21st. Lumbar puncture was again performed. The cerebrospinal fluid contained trypanosomes.

Remarks.

The absence of fever is an interesting point in the case. The patient is still in hospital under observation. Sleeping sickness is not endemic in this colony. All the cases observed here have been imported from elsewhere.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

Bath and Bristol Branch.—A meeting of this Branch was held at Bristol on January 25th, Dr. Barclay J. Baron in the chair. The meeting was devoted to the exhibition of lantern slides.—Dr. George Parker showed photographs of two cases of paralysis.—Mr. Lansdown showed a case of rickets, demonstrating by photographs the production of various unusual curves, also some skiagraphs and pathological specimens.—Dr. Fisher showed microphotographs of fatty degeneration of the heart in acute rheumatism.—Mr. G. Monro Smith showed by means of a large number of diagrams and embryological sections the embryological form of karyokinesis adopted by cancer cells.—Dr. J. Michell Clarke exhibited a valuable series of sections of the spinal cord from 3 cases of severe anaemia showing the change in the posterior columns, etc.; also other sections of a pathological nature.—Mr. Paul Bush showed a number of skiagraphs of bone disease and several photographs of surgical cases.—Dr. Symes showed three slides showing aids to the diagnosis of tuberculous pleurisy.—Dr. James Taylor exhibited a numerous series of skiagraphs showing diseased bones and malformations.—Dr. Cotton also showed diagrams to illustrate the methods used to make skiagraphs accurately determine the position of foreign bodies.—Dr. Newman Neild showed various clinical and pathological slides.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, January 27th, 1905.

Syphilitic Necrosis of Skull.

Mr. J. Hutchinson, jun., exhibited a man, aged about 32, who had contracted syphilis fourteen years previously, and was treated for a short while. Ten years ago he had rupia and iritis, and treatment was resumed. In September, 1904, a lump formed on the vertex, the scalp sloughed, and the skull became necrosed and was removed by trephining, a large abscess being found between the skull and dura mater. But the man had no headache, giddiness, nor other cerebral symptoms. At the opening fetid pus welled up with each cerebral pulsation. In answer to questions, Mr. Hutchinson said that no operation was to be done at present.

Uretero-lithotomy for Calculus.

Mr. C. H. Fagge showed a girl, aged 7, from whom in September last he removed a calculus situated in the right ureter, about an inch below the kidney, which appeared to be normal. The ureter and the abdominal wall were sutured, and the urine became normal a week after the operation.

Mr. Douglas Drew thought it advisable in such cases to explore the kidney, not only to see if any calculus was there, but also to drain the kidney in view of any septic material collecting there after the operation.

Localized Flushing and Sweating on Eating.

Dr. Parkes Weber showed a man in whom the symptoms followed appendicitis, and had persisted for ten years. When he began to chew solids a patch of redness appeared on the left cheek and the skin sweated; occasionally a similar patch appeared in front of the right ear. After ceasing to chew, the sweating first disappeared and then the redness. The patient also had striae patellares, attributable to the flexed position of the knees during the long illness which attended the appendicitis, when the patient, then aged 16, was growing rapidly.

Sir Dyce Duckworth said that the striae had been likened to lineae albicantes gravidarum; but the latter appeared also in people in robust health.

Recklinghausen's Disease.

Mr. C. R. Keyser showed a man, aged 38, who had had all his life numerous small rounded subcutaneous tumours, now increasing in number. His mother and one brother had been similarly affected. The tumours were soft and painless, and there were no signs of mali nancy nor of nervous disease. The patient suffered from chronic bronchitis and emphysema.

Mr. McGavin referred to a case at Guy's Hospital in which a tumour of the thigh was removed from the sheath of the sciatic nerve, and turned out to be a fibro-sarcoma, similar to the skin tumours.

Dr. Batty Shaw remarked that in true Recklinghausen's disease the tumours developed on the nerves and were painful, whereas the tumours in the case exhibited, although numerous, were not painful.

Sir Dyce Duckworth said that all the cases he could recall had defective mental development.

Mr. Keyser, in reply, said that there were six varieties of Rechlinghausen's neuro-fibromatosis. It was unwise to attempt removal, as an operation on one of the tumours was often followed by rapid sarcomatous degeneration of the other tumours, and death after a short interval.

Cystic Adenoma of Left Kidney.

Mr. W. G. Spencer showed a boy, aged 15, from whom three years ago he had removed a large cystic adenoma of the left kidney by a T shaped abdominal incision. The boy was now in good health. The specimen was also exhibited, and showed that the upper half of the kidney was quite healthy.

Mr. J. Hutchinson, jun., said that in another case of the kind he had removed only the diseased part of the kidney (partial nephrectomy), and the patient had completely recovered.

Recovery from Infantile Paralysis of the Deltoid.

Mr. W. G. Spencer said that in October, 1904, the child, whom he showed, could not raise the arm from the side at all. Since then the arm had been rubbed and electricity used. She could now raise it easily above the head, and seemed to be recovering well.

Mr. C. H. Fagge raised the question how long the condition of paralysis persisted before recovery began.

Dr. Wilfred Harris suggested that the condition was caused by the child being forcibly pulled up after a fall.

Mr. Spencer, in reply, said the child began to recover about a month ago.

Xanthoma Diabeticorum.

Sir Dyce Duckworth exhibited a clerk, aged 23, admitted to St. Bartholomew's Hospital in December, 1904, and who then had no eruption of the skin. On Christmas Eve a large number of small papules appeared over both elbows; the papules were hard and shotty, and a small amount of yellowish material could be pressed out. The papules had since grown in size, and fresh ones had appeared over the back, buttocks, knees, and scantily on the face. The amount of urine averaged 100 oz. per diem, of specific gravity 1034. The sugar had fallen from 25 gr. to 12 gr. per oz.; the patient's body weight had decreased from 8 st. 6 lb. to 7 st. 8 lb. Sir Dyce Duckworth said he had also seen one case which occurred in diabetes insipidus.

Other Exhibits.

Mr. C. R. Keyser: Goitre in a boy, aged 5, who had always lived in London, and whose relatives were healthy. The tumour had rapidly diminished under treatment by iodine and iodide internally, and mercury iodide externally.—Dr. Batty Shaw: (1) Acromegaly in a man aged 36; (2) acromegaly in a woman, the subject of chronic disease of the left lung, who was a patient in the Brompton Hospital for Consumption: photographs and radiographs illustrated the case, and distinguished it from pulmonary hypertrophic osteo-arthropathy; (3) a boy, aged 10, affected with bilateral wasting of the subcutaneous tissues of the face without other symptoms of disease.—Dr. F. E. Batten: A girl, aged 10, with Graves's disease and myxoedema.—Mr. E. M. Corner: A young man who, eighteen months ago, suffered fracture of the scaphoid, semilunar, and cuneiform bones of the carpus, with some dislocation of the carpus backward, caused by the hand being caught in a printing machine. A skiagraph accompanied the case.—Mr. P. Lockhart Mummery: A modified Strauss's sigmoidoscope for examining the rectum and sigmoid flexure for purposes of diagnosis, so avoiding exploratory laparotomy.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, January 26th, 1905.

MALIGNANT DISEASE OF CONJUNCTIVA.

DR. FREELAND FERGUS, in a paper read in the absence of the author by Dr. F. R. HILL (Carlisle) related a case of malignant disease of the conjunctiva. The patient was a girl, aged 9, who was sent to him by Dr. Hill in November, 1903. On the lower part of the bulbar conjunctiva were some sprouting vegetations, with an appearance not unlike that seen in spring catarrh. The limbus and palpebral conjunctiva were unaffected. It had first been noted six months previously. The vision was $\frac{6}{9}$, and a portion was removed for examination. The pathological report was indefinite. Shortly after the rest was removed, and the patient was sent back to Carlisle under Dr. Hill's care. The pathological reports of Professor Muir and Mr. Devereux Marshall showed the growth to be of an unusual character, but probably a sarcoma, but its appearance left no doubt as to its being malignant. On March 21st, owing to its rapid extension, the whole contents of the orbit were removed, and the patient was sent back on April 14th. On May 23rd she was again seen, but the recurrence was so extensive that no operation was possible. The neighbouring glands were also involved, and even at this time there were cerebral symptoms. The child died in October with the tumour of enormous size. The *post-mortem* examination showed extensive involvement of the brain. The growth was apparently a leucosarcoma.

Mr. PARSONS, who had examined the growth, said it appeared to him to be one of those rare cases when some naevoid tissue takes on malignant growth, and he looked upon it as being probably an epithelial growth rather than a connective-tissue one.

QUININE IN THE TREATMENT OF CORNEAL ULCERS.

Mr. ARNOLD LAWSON read a paper on the treatment of corneal ulcers by quinine. He said that up to the present time the use of quinine in ophthalmology had been restricted to a very limited class of conjunctival and corneal affections, but his observations, which had extended over four years, showed that it was a very powerful curative agent in a large variety of corneal ulcers not amenable to ordinary routine treatment, to which much more drastic measures were commonly applied. The sulphate of quinine dissolved carefully in just sufficient sulphuric acid to hold the salt in solution was preferable to either the hydrochloride or the acid sulphate, both of which were soluble in water; and it was recommended to be used in a 1 per cent. solution. The eyes should be soaked in the solution for five minutes four or five times a day, and in addition a thorough irrigation daily by an undine filled with the solution was advised. It caused very little discomfort, and patients used it readily, but stronger solutions gave rise to pain, and had no advantage. When the treatment was going to be successful improvement showed itself within a few days, and if no manifest benefit was effected within a week it might be discontinued. The rapidity of healing under this treatment was at times remarkable, and the author had seen many formidable-looking ulcers heal by this treatment alone within a week. A list of several cases of corneal ulceration treated by this method within the last three years was appended to the paper.

THE NOTATION OF PRISMS.

Mr. CLAUD WORTH read a paper on the notation of prisms. He said that when one ordered a spherical or cylindrical lens, one did not concern oneself with the refractive index of the glass of which it was made. One specified that it should have a certain definite effect upon a pencil of light, and bring it to a focus at a certain specified distance. But prisms were numbered by most opticians according to the geometrical angle, so that if one wanted a prism which should deflect a pencil of light say 4 degrees, one had to order a prism of 8 degrees geometrical angle. The optician then supplied a prism whose actual deflecting power was somewhere between 3 degrees and 5 degrees, according to the kind of glass of which it was made. It was much more convenient and accurate to number a prism according to the number of degrees which it deflected a pencil of light. Although this matter had been discussed before, yet he brought it forward in the hope that the Society would make some definite pronouncement which would be accepted by spectacle makers in this country; much inconvenience would thus be avoided.

DETACHMENT OF RETINA.

Dr. D. J. WOOD (Capetown), after referring to a case of detachment of the retina recorded by him in vol. xii of the *Transactions*, described another case which he had recently seen which bore a strong likeness to the previous one. The patient was a bucolic Dutchman, aged 35, whose right eye had been lost five years before from perforating ulcer, and the eye had been removed. Since that time, the sight of the left had been failing, but had rapidly deteriorated during the last five weeks. His vision was P. L., and he could just see large objects moving below. The pupil was active, and the tension was normal. The ophthalmoscope showed two rounded detachments meeting and widening out above. The vitreous was clear, and one could just see below the disc, but the striking feature was the swelling and tortuosity of the vessels, which at once recalled the former case to mind. The vessels were more than double their natural size, and were tortuous to a degree. Both arteries were constricted at frequent intervals, so that the arteries looked like beads, while the veins had the appearance of strings of sausages. The constricting bands were retinal in origin, and looked as if they were stitches holding the vessels down. In both cases it was difficult to follow the vessels, not only on account of the tortuosity, but also because the colour of the arteries and veins was so similar. There were no recent haemorrhages, but some patches that were seen probably represented old ones. The question was whether it was a proliferation of inflammatory material in the retina or a primary disease of the vessels. Probably serous exudation caused detachment of the retina, but it was difficult to account for the lightness of colour of the veins which was seen in both cases.

Mr. LOUIS WERNER showed a sketch of a case of neuro-retinitis of a severe type which occurred in one eye of an anaemic girl, aged 24. There was neither headache nor vomiting, the only symptom being a feeling of lassitude and, for a time, excessive thirst. There was no albumen present, but the sugar reaction was doubtful. The left eye failed suddenly one morning, and the vision was reduced to hand movement. The field of vision was greatly contracted, but the colour perception was good. The upper part of the disc was greatly swollen, with large corkscrew-like vessels spreading out from it, while the lower part was white and atrophic but indistinct. In less than three days a perfect star of white lines appeared at the macula. Under iron the swelling disappeared in three months and the vision improved to $\frac{6}{12}$. The author referred to a case reported by Gowers, in which retinal changes resembling those of albuminuric retinitis occurred in a chlorotic patient.

EXHIBITS.

DR. L. COLE-BAKER showed a needle holder for use with either straight or curved needles, and a modification of Clark's eye speculum.—Mr. BISHOP HARMAN showed a case in which there was congenital absence of the internal and external rectus muscles.—Mr. SECKER WALKER showed a radiograph of a case of gunshot wound in which two shots had entered the eye at the same hole and had lodged at the back of the orbit.—Mr. PATON showed a case of neuro-retinitis.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

DAVID NEWMAN, M.D., President, in the Chair.

Friday, January 20th, 1905.

OPERATIVE TREATMENT OF PERFORATED GASTRIC ULCER.

DR. ALFRED A. YOUNG showed two patients who had been operated upon for ruptured gastric ulcer and read the notes of other 2 cases. The two patients were operated on within six hours of the rupture. In both cases the stomach was empty at the time of the perforation. The ulcers were situated about the middle of the lesser curvature, one on the posterior and the other on the anterior surface. In neither case was there much fluid in the peritoneal cavity at the time of the operation, and this was washed out and the abdomen closed without drainage. In neither case was the ulcer excised. The patients made good recovery. In both cases the patients were going about their work and there was no suspicion of ulceration until the onset of perforation. A third patient was operated upon twenty-four hours after perforation when the whole of the abdomen was distended and full of brownish septic fluid. There was a history of an attack six days previously, which seemed to point to a perforation which had been recovered from. A large perforation was present on the anterior wall, with adhesions around it, and a smaller one a little distance off. The peritoneum was much inflamed. The perforations were closed, and the abdomen washed out as well as possible. The

abdominal wound was stitched without leaving any opening for a drainage tube. The patient went on very well for nearly a month, but then slight fever set in, which was followed by a left sided pleurisy, and a large left-sided subdiaphragmatic abscess was evacuated shortly after. The patient, however, died on the fifth day after the second operation. A fourth case was that of a young woman subject to indigestion, who was suddenly seized with violent pain in the epigastrium, with severe collapse and symptoms of perforation, though there was no general peritonitis. With rectal feeding and rest the patient made a good recovery. This was taken to be a case of perforation limited in its effect by adhesions.

Riedel's Operation for Chronic Osteomyelitis.

Dr. MacLennan showed two patients upon whom he had performed Riedel's operation for chronic osteomyelitis of the tibia. A number of *x*-ray plates were shown, to illustrate the regeneration of bone. The operation consists of chiselling, gouging, or scraping the anterior part of the tibia away till only a strip connects the two cancellous ends. If the disease started originally in the epiphysis it is cleared out, the epiphysial cartilage being carefully protected. After some months the adherent scar is excised, and a linear cicatrix movable upon the tibia results. Dr. MacLennan was strongly of opinion that more bone lesions which resisted less drastic treatment ought to be treated as if the medulla were infected, and the shaft of the bone mostly removed. The method was applicable to other bones. The results were invariably good. Dead bone ought never to be waited upon for separation, but the open method of treatment was to be preferred.

Scarlet Fever.

Dr. William Watson read a paper on the etiology and pathology of scarlet fever.

Hunterian Society.—A pathological meeting was held on January 25th, Mr. John Poland in the chair, when the following specimens were shown and discussed: Mr. John Poland exhibited (1) a lipoma the size of half a crown, which he had removed from the centre of the forehead of a man; it was beneath the occipito-frontalis, but superficial to the pericranium; (2) a Fallopian tube removed from a femoral hernia; the ovary was not seen.—Mr. W. H. Kelson showed a very extensive carcinoma of the larynx obtained from a patient shown at the Society a year ago. Tracheotomy had been performed, and later, when the growth spread back to the oesophagus, recourse was had to nasal feeding. The patient suffered very little pain, and died of asthenia.—Mr. Hugh M. Rigby showed (1) a specimen of a tuberculous stricture, the size of a cedar pencil, about the middle of the jejunum; just above the stricture was an ulcer which had perforated and produced general peritonitis; the perforation was sutured and invaginated; a lateral anastomosis had been performed 4 in. above the stricture; the patient had experienced no symptoms from the stricture until perforation occurred; he died the day after the operation from the peritonitis due to the perforation; (2) a specimen of a carcinoma immediately below the duodeno-jejunal flexure in an old man; the lumen of the gut was increased; a perforation was seen on the anterior surface of the specimen which had led to a fatal peritonitis.—Dr. Overy (introduced by Dr. Langdon Brown) exhibited (1) a very well-marked example of congenital syphilitic liver cleft into many lobules by deep fissures; several large gummata were also present in the liver; the microscopic sections showed perilobular and intercellular cirrhosis; the spleen was much enlarged and cirrhosed; the kidneys were lardaceous; (2) two kidneys taken from the same patient; the one was small and studded with many cysts the size of hazel nuts; the other was large and fibrous; sections of the two kidneys were identical in showing chronic interstitial nephritis. The patient was 53 years old. Mr. Targett expressed the opinion that this was a case of congenital cystic kidney. Mr. H. L. Barnard thought that these kidneys showed an intermediate stage in the formation of acquired general cystic disease of the kidneys. He did not think the adult form was in any way congenital or connected with the Wolffian body, but was simply an exaggerated form of the small cysts so generally seen in granular kidneys. Intermediate forms between cysts the size of peas and that of golf balls were frequently seen, and the specimen shown was a case in point. The clinical symptoms of the disease were simply those of granular kidney, and he had seen several cases which had died of chronic uraemia without the cystic disease being suspected.—Dr. Overy also showed a tumour of the right kidney, probably adrenal in origin, and many secondary deposits in the liver, lungs, etc.—Dr. Russell Andrews exhibited a specimen of fibroids of a double uterus which he had removed by abdominal hysterectomy.

Society for the Study of Disease in Children.—At a meeting held on January 20th, Dr. Percy Lewis (Brighton) in the chair, Mr. F. Jaffrey showed two cases of Volkmann's contracture in girls aged 2 and 7 years. In each instance the right forearm was affected as a result of fracture, and pressure sores had resulted from the splints.—Dr. W. H. Kelson showed a boy, aged 6, from whom he had successfully removed a fibroid growth on the right vocal cord. He also showed a boy, aged 12 years, whom he had treated by the galvano-cautery for lupus of the epiglottis and left vocal cord, the voice returning.—Dr. L. Guthrie showed a girl whom he had previously shown in 1903 as a case of aortic stenosis; he still thought the murmur was due to an aortic lesion, probably some congenital malformation. As on the former occasion, various opinions were expressed on the nature of the case.—Dr. A. Morison showed a marked instance of double aortic disease and mitral regurgitation in a girl.—Dr. G. Carpenter showed a girl with congenital pulmonary stenosis, and probably a patent septum ventriculorum. The child had come under his care for catarrhal jaundice.—Mr. Donald Armour brought forward a boy, aged 4 years, with a peno-scrotal form of hypospadias, in order to elicit the views of other surgeons as to the best kind of operation and the best age to undertake it.—Dr. E. Pritchard showed a girl, aged 6 years, to illustrate haemophilia, hereditary in the male line for two generations, and evidenced in the third in a severe form in a female. He also exhibited a boy, aged 14 years, with congenital ptosis of the left eyelid.—Mr. George Pernet showed a case of generalized lichen planus in a boy of 6 years, of three months' duration. In addition the boy presented a tower skull, ptosis with absence of the upward movements of the eyes, and a highly-arched palate. He also showed a child, aged 4 months, recently vaccinated, with a circinate gyrate erythema multiforme.—Dr. J. G. Emanuel (Birmingham) showed a specimen of congenital multiple occlusions of the small intestines removed from a seven-months' infant who had lived nine days. At the duodeno-jejunal juncture there was a complete atresia of the gut, with great dilatation of the duodenum. In two other places the jejunum was completely absent for about half an inch of its length. In five more places there were annular bands round the gut, jejunum, and upper part of the ileum, completely occluding the lumen.—Mr. A. T. Marshall showed a specimen of a collar stud impacted in the oesophagus and ulcerating into the trachea. It had been removed from a girl of 7 months.

Liverpool Medical Institution.—At the annual meeting, held on January 12th, the following list of office-bearers and members of Council was adopted. Those marked (*) did not hold the same office last year. *President:* James Barr. *Vice-Presidents:* J. R. Logan, J. Wiglesworth, *J. H. Abram, *George C. Walker. *Treasurer:* T. H. Bickerton. *General Secretary:* F. Charles Larkin. *Secretary of Ordinary Meetings:* R. W. Murray. *Secretary of Pathological Meetings:* W. B. Warrington. *Librarian:* *W. Fingland. *Editor of the Journal:* F. H. Barendt. *Council:* A. G. Gullan, John Hay, *David Morgan, K. W. Monsarrat, Rushton Parker, E. Stevenson, *R. C. Dun, *R. Thacker King, *John Masson, *W. McClelland, S. J. Palmer, *James Taylor. *Auditors:* *J. R. Logan, *J. Tawse Nisbet. *General Committee:* The President and General Secretary, T. H. Bickerton, J. R. Logan, R. W. Murray, *S. J. Palmer, and Rushton Parker. *Library Committee:* *J. H. Abram, John Hay, *R. C. Dun, F. H. Barendt, and K. W. Monsarrat.

Bristol Medico-Chirurgical Society.—The fourth meeting of the session was held in the Medical Library, University College, on Wednesday, January 11th, at 8.15 p.m. Present: Dr. Reginald Eager (in the chair), Professor Clifford Allbutt, and 80 members and visitors. Professor Allbutt delivered an address on the prevention of apoplexy. At the conclusion a vote of thanks to Professor Allbutt for his able address was proposed by Dr. Shingleton Smith, seconded by Mr. Dacre, and carried by acclamation. Several of the physicians present then discussed the address, and Professor Allbutt replied to the various comments and questions.

REVIEWS.

THE ORIGIN AND CHARACTER OF THE BRITISH PEOPLE.

We owe both Mr. Macnamara and our readers an apology for the long delay which has occurred in noticing his most interesting book on the *Origin and Character of the British People*.[1] Starting from the fact that there is an admitted difference in character between the natives of various parts of these islands, he endeavours to explain the difference, and to trace to their source the hereditary characteristics of each type. He believes that the shape of the human skull is the best and only reliable test of race, and relies mainly on the evidence afforded by craniology in support of the conclusions drawn by him from an examination of the anatomical remains of prehistoric man that have come down to us. He shows that the aboriginal inhabitants of these islands belonged to a primitive Africo-European, long-skulled race that peopled the whole of the West of Europe before the glacial period. They were a people of small stature and great muscular development. Their cranial capacity varied from 960 c.cm. to 1,220 c.cm., as compared with the 1,540 c.cm. of an average-sized inhabitant of Western Europe at the present time. As the climate grew colder and the ice spread southwards man was either driven by the glaciers to warmer latitudes, or compelled to use his brains in order to find means of resisting the cold. With brain use came brain development and the first stages of mental progress. Many of the inhabitants of Western Europe were by the same cold induced to seek the shelter of caves, and thus led to group themselves into social units. In spite of this, Mr. Macnamara believes that until the close of the glacial epoch man's progress towards civilization was extremely slow; a fact which he attributes to the closing of the suture in the frontal bone of the skull at an early age, and the consequent prevention of any subsequent brain expansion. When the extreme cold passed away, the Africo-Europeans—or Iberians, as they are more commonly called—spread northwards again, the people who followed up the retreating glaciers being directly descended from the inhabitants of pre-glacial Western Europe. The close of the ice age marks the commencement of a definite advance towards civilization, which has continued without any material interruption down to historic times. Its primary cause was the coming of a tall, energetic, and warlike people from the east, who appeared in Europe in the early neolithic age, bringing with them domestic animals, some religious customs new to Europe, such as the burial of the dead, and weapons of bronze. These tall invaders were the first of the Aryans, whose influence in the formation of British racial characteristics has been so powerful. Themselves a robust and masterful people, they imposed their race and religion on the aborigines, and soon became the dominant race in Europe. During the neolithic period the northern branch of the Turanian or Mongolian race spread from Northern Asia into Finland and the islands of Denmark, whence some of them passed into Britain, intermarrying with the Ibero-Aryan population, and forming a mixed race of men, above the average height, with fair skins and grey-blue eyes, and a cranial index ranging from 80 upwards. They exist as a pure race at the present day only in Finland, where they still flourish. With the gradual introduction of bronze into Europe came a short, brachycephalic, brunette race, the bronze manufacturers and traders of the later neolithic and bronze periods. They were a branch of the southern family of the Mongolian race, differing from the northern branch in their dark colour and small stature. They made their way into Europe as traders, sellers of metal implements and ornaments. The Burmese of to-day are the direct descendants of these people, and possess many of the characteristics of the race. From various causes these three races—the Iberian, Aryan, and Mongolian—although settling in our islands, did not spread evenly over the whole country, and hence the descendants of each remain, almost as a pure race, in some part of Britain. The Celtic Aryans are met with in the south-west of England; in North Bedfordshire there are to be found representatives of the aboriginal Iberian race; whilst in some western towns—as Devizes and Malmesbury—are people evidently descended from the Mongolian stock. The existing inhabitants of this country are mainly Aryans, and trace their origin to the Anglo-Saxon invader of 1,500 years ago; but the other races have left their mark on the population, and in certain districts they constitute the prevailing type. In the correct understanding of these racial characteristics Mr. Macnamara sees the means of guiding aright our destinies in the future; for he concludes that the racial character of the Anglo-Saxon people has had more influence on their present position in the world than their environment or any other cause. In attempting to give a practical turn to his conclusions, he points out the interesting fact that dwellers in large cities, weakened by the comparatively unhealthy and artificial conditions of life, tend to revert to the short-statured, dark-haired, Iberian type, at the expense of the tall and powerful Teutonic (Aryan) element. The conditions which lead to this deterioration have, however, lasted but a short time, and the results have so far been but small; but the mere suggestion that such a tendency exists, and operates in the direction indicated, opens up a wide field of speculation and investigation for the anthropologist. Mr. Macnamara's book is one that deserves a place on the shelves of every practitioner who takes anything more than a superficial interest in the being whose physical and mental welfare is the object of his professional existence; and as many of the crania to which the author refers in support of his theories are preserved in the Museum of the Royal College of Surgeons, the evidence is available for the study and examination of every one who desires to test it.

[1] *Origin and Character of the British People*, by Nottidge Charles Macnamara, author of *Story of an Irish Sept*, *History of Asiatic Cholera*, etc. London: Smith, Elder, and Co. 1900. (242 pages. 4s. 6d., cash.)

THE NEW SYDENHAM SOCIETY *ATLAS*.

The last three fasciculi[2] of the *Atlas* issued by the New Sydenham Society contain many subjects of interest. Fasciculus XVIII is devoted to eruptions and morbid conditions caused by arsenic, in continuation of what appeared on this subject in the previous fasciculus; urticaria pigmentosa: and illustrations of the phenomena of leprosy. As to the first-named, the zoster due to arsenic is touched upon. The symptom is important, and was, indeed, the danger signal which put Dr. Reynolds of Manchester on the track of the arsenical beer poisoning. In this fasciculus the plates (A to G) relating to arsenical intoxication are reproduced by permission from the interesting account of the epidemic published by Dr. E. Reynolds. Arsenical cancer is also alluded to, and reference made to fourteen cases, among them the one reported in the British Medical Journal (1901) by Mr. Pernet. Eight plates give representations of urticaria pigmentosa. The view that urticaria papulosa is due to insect bites (fleas) is not confirmed by clinical observation generally. In the portion dealing with leprosy the writer of the text assumes "that the lepra bacillus is the final cause of leprosy." There can be no doubt at this time of day that the bacillus is the essential cause of the disease, other factors playing a part, of course, in the development. The illustrations are taken from various sources, including Danielssen and Boeck's well-known *Atlas* published in 1847, and Leloir's beautiful monograph on *Leprosy*.

In Fasciculus XIX will be found a number of illustrations of the condition known as "morphoea"—that is, localized sclerodermia; it includes representations of hemiatrophy of the face. The differential diagnosis from leprosy does not appear to be touched upon in the text, yet morphoea has been diagnosed as leprosy. The remainder of the fasciculus is given up to a detailed examination of Colles's fracture, the masterly account of which, by Abraham Colles himself, should be read by all practitioners. It will be found in the volume published by the New Sydenham Society in 1881. A number of radiographs are appended, which should prove most useful for the proper understanding of this injury and the results of its treatment.

Fasciculus XX contains a varied assortment of interesting conditions such as Sprengel's shoulder, paralysis of the serratus magnus, cretinism and albinism, and many radiographs of fractures of various bones. In addition there is a good illustration of nodular leprosy occurring at Gibraltar in the person of a Spaniard. Of course, the patient being a Roman Catholic, had eaten cod and dried cod. According to the text, leprosy is never met with far inland in Spain. In the first place, "never" is a little too absolute, to say the least of it. In the second place, as all Spaniards who can get it will eat dried cod, how is it that leprosy does not prevail inland as well as near the coast? In a previous fasciculus, as has been

[2] *An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology*. Compiled for the New Sydenham Society. Fasciculi XVIII, XIX, and XX. London: New Sydenham Society. Agent: Mr. H. K. Lewis. (Fcap., 93 plates, 21s. each to non-members.)

pointed out, the same writer assumes that the lepra bacillus is the final cause of leprosy; why, therefore, should the disease not be contagious as is tuberculosis? At the recent Dermatological Congress at Berlin (September, 1904) the fish theory was dismissed in a very few words. No one present defended it. In North Africa (Algeria) the immigrated leprous Spaniards are forming foci of the disease. This has been insisted on by the late Professor Gémy and by Dr. Raynaud, of Algiers. The fasciculus also contains some further illustrations of syphilis, among them a case of "malignant syphilis of framboesial type" in a native of some sort, observed in Calcutta. To conclude from this, however, that yaws and framboesia tropica are syphilis is quite another matter. It is well known that framboesiform appearances may occur in syphilis. At present it is generally conceded that yaws and syphilis are two different diseases. Plate J is referred to as "syphilitic serpiginous lupus," but there is no justification for such a term in the case depicted and described. As to the term "lupoid," it is meaningless, and is much better avoided.

ANATOMY.

Dr. Dujarier's work upon the anatomy of the limbs[3] is most complete in detail, and the illustrations are bold and striking representations of what must have been beautiful dissections. The author has not hesitated to incorporate in his figures certain deviations from the usual arrangement of parts which are not uncommonly met with in the dissecting room, and on this he is to be congratulated, for it will prevent the students falling into the common error of belief that all bodies are, or should be, exactly the same. The descriptions of the steps to be taken by the dissector who wishes to reproduce the various dissections are clear, and the general plan is excellent and well adapted for the use of junior students, for whom the book is evidently intended. From the student's point of view, however, the book has one very serious drawback which will militate against its adoption, at all events in this country: it is too large, that is, it is so large that it cannot conveniently be carried about, and practically this is the only point that can be urged against what otherwise would be an extremely useful book for students' use in the dissecting room. We are afraid, however, that the size will be a fatal objection to its use, for the dissections are of such a character that they have little or no value to the surgeon or physician.

The sixth and last volume of Professor Toldt's *Atlas of Human Anatomy*[4] deals with the nervous system and the organs of the special senses; looked at from a teaching standpoint, the illustrations are very unequal in value. The schemata and figures of surface and sectional views of the central nervous system are excellent, both in idea and execution, with the exception of Fig. 1,237, in which the branches of the middle meningeal artery appear to be perforating the dura mater from within outwards. On the other hand, some of the figures illustrating the peripheral nervous system, and more especially some of those dealing with the cranial nerves have a far smaller educational value, on account of the peculiar positions in which the dissected parts have been placed. Many of the dissections are so elaborate that all their practical value is lost, and here and there want of detail in the accompanying descriptions, particularly with regard to the muscular branches of the nerves, is to be noted. The representations of preparations and dissections of the organs of the special senses are very valuable, and, taken as a whole, this last volume is fully equal to its predecessors. There cannot be any doubt that it will prove of great service to those who use it as an aid to their study of human anatomy, and those who so use it will find the translator's notes and explanations of great service.

THERAPEUTICS.

In bringing together into a book of moderate size descriptions of *New Methods of Treatment*,[5] Dr. Laumonier has performed a distinct service to those practitioners who have not the necessary leisure or opportunities for consulting the original papers dealing with such subjects. In many instances it is a question of new remedies rather than of new methods, and it is quite evident, even on a superficial perusal, that the greater number of these will not survive the trying tests of time and experience. Nevertheless, at the present time many of them are attracting very considerable attention, and some have more than a passing interest. A special chapter is devoted to each class of remedial substances, and the author has in each case given a readable, but far from exhaustive or convincing, account of the special physiological and pathological principles which underlie the treatment described. The first chapter is headed "Nutritive Alterants," and, after a short discussion on the disorders of nutrition, the author proceeds to describe some of the various peptones and albumoses which have been employed in medical practice as foods—the phosphorus compounds such as lecithins, nucleins, glycerophosphates and phosphoric acid, cacodylic acid compounds, vanadium derivatives, persulphates, and some other bodies which have been supposed to exert a profound beneficial effect on nutrition. The whole, however, does not produce a very convincing impression. In the chapter on blood alterants the copper, zinc, and manganese sulphates are mentioned as substitutes for iron, but no explanation or proof of this alleged action is given. Under the title of "Mineralization and Demineralization" an account is given of saline infusions, and on the therapeutical withholding of the salts of the food. Organotherapy and serum-therapeutics are dealt with in some detail, and the newer sedatives, expectorants, and diuretics are sufficiently noticed, although many have been omitted owing doubtless to considerations of space. Many other matters relating to treatment are discussed, and on the whole the volume may be described as an interesting, but somewhat slight and superficial, account of various therapeutical methods and new drugs which are at present undergoing trial.

M. Catillon,[6] whose published researches on the physiological and medicinal actions of glycerine have extended over a period of nearly thirty years, has collected the results of his research and reading into a single volume, which forms a monograph on all the medical aspects of the subject. Beginning with its discovery by Scheele in 1779, he traces its chemical history, including its synthesis by Wertz in 1857, down to the present day, following with a very complete account of its manufacture, chemistry, physical properties, tests, and its technical applications in medicine, pharmacy, and the allied arts. Its physiological action on nutrition, on urea excretion, its oxidation in the body, its detection in the urine, and similar matters are exhaustively discussed, along with the effect of small and large doses. Its laxative action, its employment in diabetes, and as a vehicle and adjuvant to other drugs are all considered very fully, and a bibliography is appended. The volume is of value and of interest as a monograph on glycerine by an author who has devoted a large amount of time and labour to a practical and scientific study of the subject.

NOTES ON BOOKS.

It would be difficult to imagine a more delightful holiday than one spent in exploring the wonders of the two "natural parks," so generously set aside by the Government of the United States for the benefit of the public, and so ably described by Dr. Nicholas Senn in his recent work entitled *Our National Recreation Parks*.[7] The two referred to are the Yellowstone Park, situated in the most romantic part of the Rocky Mountains, and the Yosemite Valley of the Sierras. The author describes the scenery of Yellowstone as vast, awe-inspiring, with its mysterious geysers, only equalled by those of Iceland and New Zealand, its grand Canyon—a huge cleft some 2,000 ft. deep, through which flows the Yellowstone River—snow-capped mountains on all sides and vast forests, rivers, lakes, giving sanctuary to birds and beasts of many descriptions. In utter contrast to Yellowstone, but equally wonderful, is the Yosemite Valley, small, peaceful, quiet, with its "bewitching Mirror Lake," so still that every outline of surrounding mountain and forest is reflected in its depths.

[3] *Anatomie des Membres.* By Dr. Ch. Dujarier. Paris: G. Steinheil. 1905. (Demy 4to, pp. 304, 58 plates. Fr.15.)

[4] *An Atlas of Human Anatomy.* By Professor Carl Toldt, M.D., and Professor Alois Dalla Rossa, M.D. Sixth Section. G. Neurology. H. The Organs of the Senses. Translated by M. Eden Paul, M.D. Brux. London: Rebman, Limited. 1904. (Demy 4to, pp. 238. 381 illustrations. 16s. 6d. net.)

[5] *New Methods of Treatment.* By Dr. Laumonier. Translated and edited from the second French edition by H. W. Syers, M.A., M.D. Cantab. London: Constable and Co. 1904. (Crown 8vo, pp. 321. 7s. 6d. net.)

[6] *De la Glycérine: Physiologie Thérapeutique, Pharmacologie.* Par A. Catillon. Paris: C. Naud. (Demy 8vo, pp. 184. Fr. 4.)

[7] *Our National Recreation Parks.* By Nicholas Senn, M.D., Ph.D., LL.D., Chicago: W. B. Conkey Company. 1904. (Crown 8vo, pp. 147. 50 illustrations.)

The trees here are of immense size and beauty, and of innumerable variety, and the whole valley, judging from the author's admirable descriptions, is worth going many miles to see. The illustrations, some fifty in number, are very good.

Mr. Watch, Pawnbroker,[8] is a clever story of intrigue, by Dr. GEORGE H. R. DABBS. Its pages teem with interest and excitement, and one follows keenly the adventures and narrow escapes of Pansy, "little Miss Pancake," and her friends, who are so jealously guarded by the big dog "Beans." Any one wishing for an hour's distraction cannot fail to find pleasure in its pages.

COUNT YOUR INSTRUMENTS!

The idea which has prompted the production of Mr. A. C. S. WATERS'S *A B C Instrument Check Book*[9] is sound; almost all surgeons of large experience have had the necessity of counting certain instruments before and after operation impressed on them by personal experience. The booklet consists of twelve forms for recording the number of instruments before and after operation, to be signed by the dresser or nurse in charge. Pressure forceps, swabs, and gauze pads should always be counted; the list here given is, perhaps, needlessly extensive, but the error is on the side of caution. For those who are not satisfied with their present arrangements in this matter, the use of these forms would offer a convenient solution of their difficulty.

"THE TRANSACTIONS OF THE SOUTH INDIAN BRANCH."

The *Transactions* of the South Indian Branch of the British Medical Association, at present edited by Major F. J. CRAWFORD, M.D., I.M.S., had reached its eleventh volume in 1904, and the second number of that volume is now before us. It contains a presidential address by Surgeon-General W. R. Browne, M.D., I.M.S., dealing with matters of special interest to the Branch; a paper on public health entitled The Paternal *versus* the Common-sense Plague Policy; and a valuable clinical paper by Major C. Donovan, I.M.S., entitled Short Notes on Piroplasmosis, which accompanied the exhibition of four cases of the disease. There is good hope that through the Colonial Branches of the Association valuable papers on tropical and subtropical medicine may be rescued from oblivion.

"THE JOURNAL OF THE CEYLON BRANCH."

The first number of the first volume of the *Journal of the Ceylon Branch of the British Medical Association* covers the first six months of 1904. About three years ago an attempt was made to publish the minutes of the meetings of the Ceylon Branch, with short abstracts of the papers read before it, in sheet form. The meetings of the Branch were then held only two or three times in the year, and it was with difficulty that sufficient material for a meeting was gathered together. During the last two years, however, the meetings have been numerous and papers easily forthcoming, and as a result the publication of sheets has been stopped and the present journal started. The contents are to be arranged under the three heads—papers, clinical memoranda, and minutes of meetings. The present issue is a magazine of 42 pages, containing an inaugural address by the President of the Branch, the Hon. W. G. Rockwood; two papers by Professor Castellani, Director of the Bacteriological Institute, Colombo, one on sleeping sickness and the other on dysentery in Ceylon. Both are illustrated with full-page blocks, and were read before the Branch. There are also two papers on obstetrical subjects by Dr. M. Sinnetamby and Dr. J. Homer. Not only does the new journal present a substantial appearance, but its matter is of a high order, and its publication is an augury of much medical progress in Ceylon.

[8] *Mr. Watch, Pawnbroker.* By George H. R. Dabbs, M.D. London: Partridge and Cooper. (Crown 8vo, pp. 133. 1s.)

[9] *The A B C Instrument Check Book.* Designed by A. C. S. Waters, M.R.C.S., L.R.C.P. March: Sharman and Co. (Demy 8vo, pp. 12. 4d. net.)

AN exhibition of meteorological instruments will be arranged by the Royal Meteorological Society at the Institution of Civil Engineers, Great George Street, Westminster, from March 14th to 17th. It will be devoted chiefly to recording instruments, but will include also new meteorological apparatus invented or first constructed since the Society's last exhibition, as well as photographs, drawings, and other objects possessing meteorological interest.

INCORPORATED SOCIETY FOR THE PROMOTION OF HIGHER EDUCATION AND TRAINING OF NURSES.

WE are informed that application has been made to the Board of Trade for the incorporation of a Society for Promoting the Higher Education and Training of Nurses. Those who have promoted the scheme believe that legislation for the State registration of nurses cannot be looked for in the next session of Parliament, and that under the most favourable circumstances much time must elapse before a nurses' registration Bill is passed. They hold that in the meantime it is important to improve the organization of nursing. They point out that a council of nursing and an independent examination are the most useful features of the proposed Bill; they believe that reform initiated from within, with the co-operation of the existing organizations, will do much towards working out the various difficulties which at present assail the calling of nurses and gradually find a practical solution for them.

The applicants for incorporation and the signatories of the memorandum of association are Lords Rothschild and Revelstoke and Messrs. E. A. Hambro, S. Hope, Morley, C. H. Goschen, C. Hugh Smith, and H. Cosmo Bonsor. The objects of the association as set out in the memorandum are:

(*a*) To promote the higher education and training of nurses.
(*b*) To promote unity of curriculum in the training of persons intended for the nursing profession.
(*c*) To recognize approved nursing schools.
(*d*) To grant certificates of proficiency in nursing to persons who may pass prescribed examinations after training, and to grant certificates of training and proficiency in nursing to persons who have been trained in recognized nursing schools, and have passed prescribed examinations. Provided that the Society shall not grant titles or diplomas.

The succeeding Articles of Association deal with the curriculum, the Register of those certified, and removal of names from the same, the maintenance of examination and lecture halls properly equipped for lectures and demonstrations, details of finance, and the holding of property.

The Council of Management.

A council, called the Council of Management, will be the administrative body, and will be elected by the members of the Society. It will consist of not less than nine and not more than twelve members, and the constitution suggested is three men, of whom two at least shall be members of the medical profession and nine women nurses. The council will have power to co-opt additional members, but the total number of the council must not exceed twelve; the first members of the council will hold office for three years.

Consultative Board.

The constitution also provides for a Consultative Board, intended to embrace a large representation of the nurses and to provide an opportunity for ventilating and focussing their opinions. Its members will be unlimited, and its rights, duties, and privileges will be determined from time to time by the council. It will have the power of initiating for discussion and report to the council any topic which comes within the scope of the memorandum. Further, it will be empowered to report on the curriculum and on the conditions under which recognition may be extended to training schools. The council, before coming to a determination on these two points, must invite and receive a report from the Consultative Board.

Examination Board.

An Examination Board, containing not more than twelve members, will be appointed by the Council of Management. Its powers will be determined by the council, which it will advise on all questions concerning the subjects and conditions of examination. It will report to the council on the scheme of examination and on questions involving the acceptance in part, or in whole, of examinations held in nursing schools recognized by the Society; it will also appoint examiners. The council will be unable to act without consulting it on these points.

Local Management.

Power is given to the council to provide for the management of the affairs of the Society in any specified locality by establishing a local board or agency. It may appoint persons to be

members of such board, and fix their remuneration, and may delegate any of its power or authority to this local board.

Members.

The first members are to be the signatories of the memorandum of association and the members of the Council of Management, the consultative board and the examination board.

LITERARY NOTES.

The Religious Tract Society announces the publication of a new paper for boys, especially for those of our elementary schools, which is intended to counteract "the effect of the literary garbage still so largely circulated amongst lads." The new periodical will be conducted by Mr. G. A. Hutchinson, who projected and has edited from the first, now over twenty-six years ago, the well-known *Boys' Own Paper*, and will be entitled *Every Boy's Monthly*. The first number will appear on February 14th. It will contain the opening chapters of a story by Sir A. Conan Doyle entitled "An Exciting Christmas Eve, or My Lecture on Dynamite," which promises well; an article by Sir Frederick Treves with the somewhat misleading title of "The Fortunate Islands," the islands of which the distinguished surgeon writes being not the Canaries, the *Insulae Beatorum* or *Fortunatae* of the ancients, but the Scilly Islands, which used to be regarded as the Cassiterides of antiquity. But what's in a name? Certainly Sir Frederick Treves's readers will care little whether the Scilly Islands should be called "fortunate" or not provided they justify his description of them as "a paradise for boys." We hope that *Every Boy's Monthly* will gain the wide popularity which it deserves.

We are informed that the copyright of Dr. Edwin Lankester's *Half Hours with the Microscope*, formerly published by Messrs. W. H. Allen and Co., has been acquired by Messrs. C. Arthur Pearson, Limited, who have also purchased the companion volume by Thomas Davies, on the *Preparation and Mounting of Microscopic Objects*. The latter has been out of print for some time, but a new and cheaper edition will be published very shortly.

Mr. Moncure D. Conway, in his recently-published *Autobiography*, gives a curious illustration of the manner in which the purport of an expression may be distorted by one who has not the clue to its true meaning. Once when Froude and he were passing an evening with Carlyle, Mr. Conway told the Sage of a visit which he had paid to George Catlin, the American artist, who lived among the Red Indians in the West and made pictures of them. Carlyle was thus led to mention an early pamphlet by Catlin bearing the startling title "Shut your Mouth!" Catlin there stated that the Mandan Indians believed that diseases entered by the mouth, and that the squaws accordingly took care to close the mouths of their sleeping children, who consequently never had measles, scarlatina, etc. Catlin was an enthusiastic disciple of the Indians in this matter, as any one who has ever looked at his pamphlet with its grotesquely vivid illustrations will remember. Carlyle said he had read it with interest. Thereupon Mrs. Carlyle told the company that once, when more ill than usual, she hid the fact from Carlyle, who was much pressed by work at the time. One evening, just after tea, Carlyle began to read, and she lay on the sofa gasping, when he turned and said, "Hadn't you better shut your mouth?" She said she felt inclined to throw the teacup at him. It turned out, however, that Carlyle had perceived the trouble she was trying to conceal, and in his anxiety it had occurred to him that Catlin's prescription, "Keep your mouth shut," might help her. Froude relates this incident, but having forgotten or misunderstood the point of the story, gave it as an example of Carlyle's rudeness to his wife! Mr. Conway further testifies that Carlyle was never rude to his wife. Even if she made a provoking remark he took it meekly. "When he stormed about anything it was about some large question; he was gentle and submissive in simply personal matters."

Dr. Henry Richter of New York states in *American Medicine* that in translating a medical work he was astonished to find that he was unable to render the German word "Scheintod" into English except by a periphrasis. "Apparent death," with its attendant derivative "apparently dead," do not, he contends, even cover the meaning in each instance. "Take," he says, "the sentence: 'after the accident the man was taken from the débris apparently dead.' This man was only 'scheinbar todt,' but not 'scheintodt'; he would not have been buried on the assumption that he was really dead, while 'scheintodte' might be, and are supposed to have been so buried. Surely, here is a fundamental distinction which the language ought to be able to express. Even 'suspended animation' (which again requires two words) conveys the meaning that, although the person appears to be dead, the physician knows perfectly well that he is not." Dr. Richter therefore suggests the following series of words, which also include the state of persons feigning death, who in our present vocabulary, are likewise comprised in the category of the "apparently dead": Mortisemblance or mortisemblancy, mortisemblant; mortisimulance, mortisimulant. For the last two words, he says, even the German language has no exact equivalent.

In the *Mémoires Secrets* of Bachaumont, under date February 2nd, 1762—a reference for which we are indebted to the *Journal de Médecine de Paris*—mention is made of the death (from retention of urine) of M. Falconnet, Doctor of the Faculties of Paris and Montpellier, Consulting Physician to the King, Member of the Académie Royale de Inscriptions et Belles Lettres. M. Falconnet, who was 91 years of age, was one of the most learned men in Europe. He was better known, however, as a laborious compiler and a translator than as an author. He seems to have been a predecessor of our modern collector of anecdotes, Sir Mount Stuart Elphinstone Grant Duff. Throughout his life he followed Cap'n Cuttle's advice and made a note of every good story he found in the course of his reading or heard in society. His notes were made on separate cards, of which he left more than 150,000. He left this enormous collection of anecdotes to M. de Sainte-Palaye, another Member of the Académie de Belles Lettres. What has become of it? If it could be recovered, it would be an inexhaustible storehouse of conversational material for diners-out. M. Falconnet also left a library of some 40,000 volumes, mostly rare books. Of these, all that were not in the royal library were bequeathed to the King of France.

The *Liverpool Medico-Chirurgical Journal* for January contains an interesting article by Dr. A. Cassels Brown, entitled, "A Student's Notes on Clinical Medicine, 1749." The notebook, which belongs to Sir Alexander Christison, was that of a student who was a pupil of Professor John Rutherford. It contains a carefully compiled index, which gives the names, diseases, and "fate" of 58 patients. Owing to the bad state of preservation of the pages of the index it is possible to discover the issue in only 46 of the cases. Of these, 22 were cured, 14 were discharged much relieved, 3 are put down as incurable, and 7 died (2 of dropsy, 2 of phthisis, 1 of peripneumonia vera, 1 of a huge ulcerating sinus in the thigh, and 1 of hydrophobia). From these figures the death-rate works out at about 15.5 per cent. The professor is credited with the startling statement that very few people in Scotland live to the age of 40 or 50 without their pleural membranes becoming adherent. In the following remarks on a bad case of pulmonary phthisis we have a premonition of the open-air treatment:

> If it were a proper season of the year and he was removed to the country where he might enjoy fresh air, a milk diet, and exercise, he might have some chance.

As, however, something had to be done, Rutherford prescribed the following as a palliative:

> ℞. Bals. locatelli (a preparation of olive oil, Venice turpentine, yellow wax and Pterocarpi lignum or red sandal wood) ʒss.
> Conserv. rosae rub., ʒj.
> M. Capiat magnitudinem nucis moschatae bis die.

The patient was also ordered a gill of tar-water two or three times a day, as his stomach could bear it. At bedtime, instead of the laudanum or paregorick he had been taking, he was ordered—

> ℞. Caput. papav. alb., ʒj; coq. lent. ign. ex aq font., Lb. ij, ad L j. Sub finem coctionis, adde Rad. Iridis Florent., ʒss; Colatur. Adde Syr Diacod., ʒ ss. Let him take ʒiij or more, according to the dose of laudanum he got.

The next day it is scarcely surprising to find the Professor saying:

> He's dead sooner than I expected, tho' I had no hopes of his recovery His dying so soon, however, I impute to mismanagement wholly. After leaving you, as I went through the ward, I saw him at stool, quite naked, with his bare feet upon the cold stones. He had the colliquative diarrhoea and sweat, so that he could not miss to catch cold, as the patients told me he had done the same thing upwards of a dozen times that day.

What a picture of hospital life when nursing was not! The following account of the *post-mortem* examination of a case of hydrophobia is interesting:

> This disease seems to be more spasmodick than inflammatory. It

affects especially the trunk of the body more than the limbs. When he was opened his guts were much inflated with air, but no appearance of mortification. The abdominal viscera were much more tossed out of their places than ordinary. . . . If I had another patient I would be at a loss how to treat him. Dr. Mead has tried all the Nervous medicines, and has found little effect from them. I should go on in the way as the state of the blood required. However, I don't know whether it be in the blood or not. I imagine it is as much in the nerves and animal spirits. Dr. Mead says (tho' I could not observe it in our patient) that the person's senses were very lively. It is likewise observed that the pulmonary artery of them that die of this disease is as much obstructed as if the patient had died of a peri-pneumony. As we don't know what the animal spirits are, we can't endeavour to cure them, but I would begin with nervous medicines. Dr. Mead says his specifick won't have any effect after the Hydrophobia comes on. As the disease is mostly Nervous, I don't wonder that no remedy has been found out, as all nervous disorders are what we call a sort of *res incognita !*

Dr. Cassels Brown quotes from the article Hydrophobia in the *Cyclopaedia of Practical Medicine*, edited by Forbes, Tweedie, and Conolly, a passage which seems to prove that this *post-mortem* examination was made by the famous anatomist, Munro.

The *Revue Internationale de la Tuberculose* is the title of "a special journal which," we are informed, "gathers all notions concerning tuberculosis which are published not only in England, but all over the world." The periodical, which is now in the fourth year of its existence, is published monthly in French, Italian, Spanish, and English. The Editor-in-Chief is Dr. Samuel Bernheim; the English and American editor is Count Ivan Tolniewski, M.D., of London. Among the "principal collaborators," whose names appear on the wrapper, we note the names of Dr. Francis J. Allan and Dr. A. Latham of London, and Dr. Arthur Ransome of Bournemouth. The last-named gentleman contributes to the January number, a specimen copy of which has been sent to us, a paper entitled The Public-house as a source of Phthisis.

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount already acknowledged	22	15	6
Sir R. Douglas Powell	2	2	0
Dr. Howell Rees (additional)	0	16	0
Dr. M. H. Greener	1	1	0
Dr. W. Edmund Thomas	2	2	0
Dr. B. W. Broad	1	1	0
Dr. Percy W. Griffiths	1	1	0

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

MEDICAL NEWS.

The estate of the late Mr. A. Quarry Silcock is returned as £10,955 11s.

The Committee of the Infants' Hospital has received from the Trustee of the Jessie Alice Palmer Charitable Fund the sum of £500 to endow a cot in memory of the late Jessie Alice Palmer.

The inaugural dinner of the Association of Medical Diplomates of Scotland will take place at the Trocadero Restaurant, London, on Tuesday, February 14th, at 7 for 7.30. All who hold a diploma of a Scottish college, including ladies, are invited to attend. Tickets, price 10s. 6d. not including wine, may be obtained from the Honorary Secretary, Dr. David Walsh, 18A, Hanover Square, London, W.

The British Child-Study Association has arranged for a meeting at the Parkes Museum, Margaret Street, W., on Thursday, February 9th, at 8 p.m., when Dr. G. Shuttleworth will read a paper on some physiological problems in education, which will be followed by a discussion. Other meetings under the auspices of the Childhood Society and the Association mentioned will be held on succeeding Thursdays at the same hour.

Bequests and Donations to Hospitals.—The following bequests to hospitals were made by the late Mr. Lionel Van Oven: £1,000 to the London Hospital, £500 to St. Mary's Hospital, £100 to the Royal Hospital for Consumption, Ventnor, £50 each to the Mount Vernon Consumption Hospital, Queen Charlotte's Lying-in Hospital, and the Spanish and Portugese Beth Holim Hospital, Mile-end, and £250 to the Jewish Home and Hospital for Incurables. King Edward's Hospital Fund for London has received a contribution of £500 from the Worshipful Company of Fishmongers.

Sanitation of Cuba.—The Cuban Congress has passed a Bill appropriating a sum of £65,200 for the immediate sanitation of the cities of the island. The Special Committee of the Senate on Sanitation recommended measures granting all municipalities 2 dol. 16⅔ cents per inhabitant for city cleansing and sanitation, with an additional 10 or 20 per cent. for the larger towns, according to population and importance. The Appropriation Bill was passed by the House by a vote of 23 to 15, and the recommendation of the Senate Committee for a grant to the several cities was informally approved.

Leamington Medical Society.—The annual meeting of the Leamington Medical Society was held at the house of the President, Dr. Harold Mason, on January 14th. The accounts for the year were examined and passed. The President then retired, and Mr. R. F. Bury was unanimously elected President for the ensuing year. Mr. J. F. Clark was re-elected Secretary for the twenty-fourth time. Hearty votes of thanks were accorded to the retiring President and to the Honorary Secretary. The reference library of modern medical literature was reported to contain 360 volumes.

Paris Centenarians.—Madame Robineau, who lately entered on her 105th year, is said to be living in perfect health in the quarter of the Etoile, Paris. She was recently visited by Professor Metchnikoff, in reply to whom she said she had no secret: she lived in the ordinary way, and had never thought of adopting any special diet, not even the "sour milk" which the Russian scientist looks upon as the elixir of life. We also gather that the old lady has contrived to overpass her century of years without parting with her colon. May it be long before she comes to a full stop! The most recent municipal statistics, coming down to the end of 1904, show that there are now in Paris two men and three women more than a 100 years old. There are no fewer than 530 over 95.

Medical Students in Switzerland.—According to official returns the total number of matriculated students of medicine in the Universities of Switzerland during the summer semester of 1904 was 1,724. Of these, 958, considerably more than half, were women, all but 27 of whom were foreign. Of the male students 214 were foreigners. The students were distributed in the several universities as follows: Bale, 129, of whom 113 were Swiss and 16 foreign (6 of the number were women, 15 Swiss, and 1 foreigner); Berne, 594, of whom 133 were Swiss and 461 foreign (of the female students 2 were Swiss and 405 foreign); Geneva, 288, of whom 82 were Swiss and 206 foreign (the number of female students was 144, of whom 3 were Swiss); Lausanne, 326, of whom 74 were Swiss (the female students numbered 223, of whom 2 were Swiss); Zurich, 387, of whom 177 were Swiss (there were 178 women, of whom 15 were Swiss). In addition to the matriculated students there were some entered for special courses. These were distributed as follows: Berne, 12, of whom 4 were women; Geneva, 29, of whom 2 were women; Lausanne, 2, of whom 1 was a woman; Zurich, 15, of whom 12 were women.

French Congress of Climatotherapy and Urban Hygiene.—The second meeting of the French Congress of Climatotherapy and Urban Hygiene will be held at Arcachon, in the Department of the Gironde, France, April 24th to 28th, 1905, under the presidency of Professor Renaut, of Lyons. The Vice-Presidents are Professor Calmette, of Lille; Professor Grasset, of Montpellier; Dr. Balestre, *Professeur agrégé* at Montpellier; Professor Pitres, Dean of the Medical Faculty of Bordeaux; and Dr. Lalesque, of Arcachon. It will close at Pau on April 29th. The railway companies will grant members of the Congress a reduction of 50 per cent., available for Arcachon, Biarritz, and Pau, during the last fortnight of April. Wives and children of members travelling with them may benefit by the reduction. Excursions will be made on the bay and in the forest of Arcachon, as well as the Bearn and Basque countries. A copy of the programme will be forwarded to each member at least ten days before the opening of the Congress to enable all who intend to take part in the discussions to prepare themselves. Members who wish to make communications to the Congress are requested to send the title and a brief summary before March 20th to the General Secretary, Dr. A. Festal, Villa David, Arcachon, who will supply any further information that may be required. The General Treasurer is Dr. Dechamp, Villa Tibur, Arcachon.

British Medical Journal.

SATURDAY, FEBRUARY 4TH, 1905.

THE JUBILEE OF LARYNGOLOGY.

The approaching centenary of Señor Manuel Garcia recalls the fact that laryngology, of which he is indirectly the founder, will at the same time celebrate its jubilee. It was in 1855 that the Spanish singing master presented to the Royal Society the communication in which he described the success of his persevering efforts to discover a method of making the action of the vocal apparatus visible to the eye by means of reflected light. The paper, which marks an epoch in the history of medicine, seems to have been received with Olympian indifference by the august body to which it was submitted, and for some time excited little interest in the scientific world outside. For years the laryngoscope was scoffed at by superior persons as a "physiological toy," and its application to medical practice was treated as a vain thing, and even looked at askance by self-constituted keepers of the professional conscience. Had it not been, indeed, for the proselytizing zeal of the distinguished physiologist, Czermak of Buda-Pesth, who visited the chief scientific centres of Europe as a missionary eager to spread what was in the literal as well as in the figurative sense a new light, there can be little doubt that Garcia's invention, like those of Bozzini, Babington, and Avery before it, would have been allowed to perish of neglect.

Like most progressive developments, laryngology had in its early days many difficulties to encounter. If its hot youth was marked by a somewhat defiant independence, that must in fairness be attributed as much to the unintelligent hostility of a section of the profession as to the manners and methods of some of its first champions. Slowly but surely, by its own inherent force, the new speciality won for itself a recognized place in the domain of scientific medicine. Its success has been largely helped by the enlightened spirit of some of its representatives who have striven consistently and strenuously to keep laryngology in intimate union with the parent stem of general medicine. Their efforts are all the more praiseworthy since, to speak frankly, so far from being aided in their endeavour by the representatives of general medicine, they too often were hindered and discouraged.

A striking illustration of this retrograde policy is afforded by the attitude towards laryngology which has been taken up by the International Medical Congress. At the London meeting in 1881, while an independent section was assigned to otology, its sister speciality received a grudging recognition in the humble form of a subsection of the Section of Medicine. Certain personal considerations may have seemed at the time to afford at least a partial justification for that arrangement, but no such excuse can be found for the indignity with which it has been treated by the Organizing Committee of every subsequent Congress. At Copenhagen, Washington, Moscow, Rome, Paris, and Madrid, laryngology was in the original programme either assigned a subordinate position or combined with otology. In every single instance the arrangement had to be abandoned in deference to the strong remonstrances of representatives of both specialities. At the Paris Congress the feeling thus caused found expression at a meeting attended by nearly two hundred specialists, representing eleven of the principal laryngological and otological societies throughout the world, when resolutions were passed that each speciality was entitled to a full section, and that it was undesirable that they should ever be combined in one section. So great, in fact, has been the expansion of these provinces of the healing art that their combination on these occasions must necessarily paralyse both by making any real work a physical impossibility.

It might have been thought that with this record before them the Organizing Committee of the forthcoming meeting at Lisbon would have seen the inexpediency of a line of policy which has proved at once so irritating to all concerned and so futile. Instead of learning wisdom by the experience of those who had gone before them, however, they hit on a new plan, more impracticable and more offensive than any previous one, by lumping together in one section laryngology, rhinology, otology, and stomatology. As the idea underlying this mechanical combination of disparate subjects seems to be grouping according to region, it is surprising that ophthalmology and brain surgery were not thrown in to make up a section of the head and neck. Quite recently, indeed, some dim notion of the incongruity of putting "stomatology"—which in plain English means dentistry—in the same category with purely medical subjects, seems to have occurred to the Organizing Committee, for they have divided the many-headed section into two subsections, to one of which the dentists have been relegated. This arrangement is evidently regarded by them as a triumph of organization, for they call special attention to it in an official bulletin lately issued as "a matter that cannot fail to be of interest to many doctors." We regret that we cannot share their satisfaction. The laryngologists and otologists will doubtless be glad to have got rid of the dentists; but the combination of diseases of the throat, nose, and ear is a forced and unnatural union, the objectionable character of which cannot be disguised by massing them together under the many-jointed title of "laryngo-rhino-otology." A strong protest against the proposed arrangement, addressed by Sir Felix Semon to Dr. Pavy, Chairman of the British Preparatory Committee of the Congress, appears in the January number of the *Internationales Centralblatt für Laryngologie, Rhinologie und verwandte Wissenschaften*. It is there pointed out that the plan of the Organizing Committee will in fact have the effect of giving both otology and laryngology a lower status at the International Congress than they have held for twenty years. At the London Congress held in 1881 otology was given the rank of a section, while laryngology, although nominally a subsection, was in regard to its own special concerns practically autonomous. The caprice which seems to sway the counsels of the Organizing Committee is made more conspicuous by the fact that the comparatively narrow speciality of urinary diseases enjoys the dignity of a full section.

It is easy to understand how exasperating the inconsistency, not to say perversity, displayed in such arrangements must be to self-respecting laryngologists and otologists. The indignation

excited among the former by the apparently deliberate attempt of the Lisbon committee to put a slight upon them and their position in the commonwealth of medicine, found expression at the Annual Meeting of the Laryngological Society of London held on January 13th, when the following motion, proposed by Sir Felix Semon, was passed unanimously:

> The Laryngological Society of London reaffirms its resolution of February, 1902, namely—that at all international medical congresses a full and separate section should be formed for laryngology and otology, and that laryngology should not on these occasions be combined with otology. It views with deep regret the fact that, in spite of the wishes of both laryngologists and otologists having been clearly expressed at the International Medical Congress of Paris in 1900, attempts have been made at Madrid in 1903, and are now again renewed on the occasion of the forthcoming International Medical Congress at Lisbon, to assign to laryngology a position inferior to that of other recognized specialities, and to combine it with otology in one subsection.
>
> The Laryngological Society of London, in its corporate capacity, declines to assent to any arrangement derogatory to the dignity of laryngology and to the position held by it at all International Medical Congresses ever since the International Congress of Copenhagen in 1884.

From the practical point of view the chief advantage of the study of history is that knowledge of the past often supplies a basis for framing a forecast as to the future. It may pretty safely be prophesied that what happened at the previous congresses will happen again at Lisbon. The Organizing Committee will, like its predecessors, have to withdraw from an untenable position. But it is in every way deplorable that with the example of previous congresses before them they should have placed themselves in a false position.

Whether the scant respect shown for laryngology and otology in the present instance has been dictated by a mere policy of pin-pricks, or by the fact that Portugal has no representatives of those special branches of sufficiently commanding position to make their presidency acceptable, it would be unprofitable to inquire. The regular recurrence of the difficulty, however, suggests certain reflections as to the organization of international congresses. The Congress is, at least in theory, a permanent body, and therefore there should be continuity in administration. The representatives of the profession in the country where the Congress is held are merely temporary officials. While having full power to make all local arrangements, their functions as the executive of the general policy of the Congress should be confined to carrying out the mandates of the preceding meeting. In the particular instance here considered, that mandate is so clear, and carries with it such a cumulative force from the numerous previous resolutions in the same sense, that there can be no excuse whatever for ignorance or evasion. We earnestly hope, therefore, that the Organizing Committee will satisfy the natural and legitimate feeling of two important specialities by assigning to each of them an independent section. The organization of the International Medical Congress, from its unwieldy size, its heterogeneous composition and the confusion of tongues, is becoming more and more difficult as time goes on. This being admittedly the case, it is surely unwise for the Organizing Committee to make the chaos with which they have to deal worse by the creation of needless and purely artificial difficulties. It would be a great misfortune for the art and science of healing if the specialities cast out from the paradise of general medicine were driven to follow the advice said to have been given to a certain politician, and make small Sheols of their own.

SCHOOLS AND EYESIGHT.

IN the course of the articles on hygiene in schools now being published in the BRITISH MEDICAL JOURNAL, attention has been directed to the injurious influence which unsuitable methods of teaching may have on vision and on the development of the eye. Investigations made in schools in Germany, in France, and in this country put it beyond doubt that the proportion of children suffering from myopia steadily increases as we pass from the lower to the higher classes. This is not a condition of things which can be contemplated with equanimity. A young person suffering from myopia is altogether debarred from certain occupations, and is seriously handicapped in gaining a living in many directions, not to speak of the risk of progressive myopia. Since the articles to which we have referred were printed Dr. Maximilian Bondi, first assistant in the eye clinic of the University of Vienna, has published[1] the text of his report to the last Congress of German Scientists and Physicians on the eyesight of school children. It is founded upon the examination of 949 pupils of various ages from 8 to 19 attending four different classes of schools. The ages of the children examined are not stated with sufficient exactness, and this omission detracts from the value of the report.

In the Volksschule 273 children between the ages of 9 and 12 were examined; 4 per cent. had myopia, 5 per cent. hypermetropia, and 6 per cent. astigmatism. These were the youngest children examined, and showed the lowest percentage of myopia found in any of the schools: among them the percentage of myopia is greater in the higher (7 per cent.) than in the lower forms (2 per cent.). The number of children examined in the Bürgerschule, where the ages ranged from 12 to 14, was 181, and the percentage of refraction errors was: Myopia, 11 per cent., hypermetropia 5 per cent., astigmatism 6 per cent. Here also a steady rise was found in the percentage of myopia from the lowest form, in which it was 7 per cent., to the highest, in which it was 15 per cent. In the Realschule 270 pupils between the ages of 11 and 18 were examined, and the percentage of myopia in the upper school was 22 per cent., exactly twice as much as in the lower school. Among the pupils of all ages 9 per cent. were hypermetropic, and 8 per cent. astigmatic. Among the 225 pupils attending the Gymnasium, the difference between the higher and the lower was even more marked; the average of myopia for all ages was 22.5 per cent., but it was 31.5 among the elder pupils, and 14 per cent. among the younger. Hypermetropia and astigmatism were both present in 6 per cent. at all ages.

The general result as to myopia is strikingly shown by Dr. Bondi's classification: Volksschule 4 per cent., Bürgerschule 11 per cent., lower Realschule 11 per cent., lower Gymnasium 14 per cent., upper Realschule 22 per cent., upper Gymnasium 31 per cent. The numerical importance of myopia is further shown by the fact that it was present in 16.5 per cent. of all the pupils examined, whereas hypermetropia and astigmatism were each present in 6.5 per cent. Again, the grade of the myopia was found to increase from the lower to the upper school. In the Volksschule it was 1 to 2 D, in the Bürgerschule it was 1 to 3 D, in the Realschule 1 to 4 D, in the Gymnasium 1 to 6 D, and the higher grades were observed more frequently in the upper forms in each school.

[1] *Wiener Klinik*, January, 1905.

Dr. Bondi's results with regard to visual acuity are in somewhat remarkable contrast with those as to errors of refraction; he found good vision in 76 per cent. in the lowest and youngest form, and in 91.5 per cent. in the highest and oldest form. There was, in fact, a fairly regular improvement from the lower to the higher schools; this was due in part to the good vision obtained by myopes when wearing suitable glasses. The percentage of pupils wearing spectacles increase from *nil* in the Volksschule and 0.5 per cent. in the Bürger schools to 13 per cent. in the Gymnasium.

Dr. Bondi failed to find any cause for the impaired vision in no less than 4 per cent. of all the cases in which it was observed, and he does not seem to have been acquainted with the results of the inquiry made by Miss Sayer for Dr. Kerr in London.[2] Dr. Bondi used Schnabel's test types, which he considers to be more difficult to read than Snellen's. There was, therefore, all the more necessity for taking the psychic element into account—that is to say, of making sure that the younger children could interpret what was shown to them. He does not seem to have been aware of this pitfall, and his results as to visual acuity cannot be accepted without reservation. This opinion is rather confirmed by the irregularity of the statistics as to defective colour vision; in the two lowest classes in the Volksschule he found it in 3 per cent., but in the upper class in these schools in 10 per cent.—an almost incredible proportion; in the Bürgerschule it was present in 7 per cent. in the lowest form and in 9 per cent. in the highest, but no case was observed in the intermediate class.

Dr. Bondi also seems rather disposed to make his figures prove too much in other directions. He insists, for instance, on the fact that he did not find a case of pernicious myopia among the pupils examined; but this does not prove that no such cases existed among those who had been attending school; they would probably be withdrawn on this account. However this may be it is impossible to get over the fact that Dr. Bondi's results confirm those of other observers, who have invariably found that myopia is more frequent and on the whole more severe the older the children in a school class. If we are prepared to accept the despairing view that the progress of civilization implies that children and young people must strain their eyes to do fine work and read badly printed books in ill-lighted schools, and that therefore myopia must increase, we shall perhaps believe that everything is for the best in the best possible school system, and that the man of the future will be unable to see beyond his nose without spectacles. We confess, however, to regarding these speculations with some suspicion. After all, the eye, so far as it is an optical apparatus, must be governed by the immutable laws of optics, and the normal eye must always be the eye in which parallel rays are brought to a focus on the retina. Dr. Bondi's statistics are so far encouraging that they show how defective vision due to errors of refraction may be completely corrected by suitable glasses; but we cannot sympathize with the jubilant tone in which this result is set out.

THE JAPANESE ART OF JU-JITSU.

A MOST interesting exhibition of Ju-jitsu[1] was given at Chelsea Barracks on January 27th. The programme included demonstrations in the art of falling, of how to upset an opponent by disturbing his balance, of how to throw an opponent, and concluded by bouts between the Japanese teachers and some young soldiers trained in wrestling.

So little is known in this country of the art of Ju-jitsu, the Japanese method of physical training, that this practical demonstration could not fail to be of deep interest. In England, Ju-jitsu is commonly believed to be wrestling pure and simple. In reality, although its literal meaning is "muscle-breaking," it is the art of defeating brute strength by stratagem—an art which enables the smallest and lightest weight men or women to protect themselves from an opponent possessing twice or three times their strength, provided he is ignorant of this science of self-defence. The Japanese have studied the problem of defeating brute strength by art for some hundreds of years. To save one's own strength, to defend oneself by sleight of body while drawing from one's opponent all his strength: this is the art of Ju-jitsu.

Much time and thought have been given in this country to the consideration of the wisest methods of physical culture. We have studied the French, the German, the Danish, the Swiss, and, above all, the Swedish methods; but we have completely passed over the Japanese. Yet those who have lived in Japan, and who by experience are entitled to be heard, maintain that a few weeks' training in Ju-jitsu will yield better results in muscle development, power of endurance, and suppleness of body than ten times the amount of work done in an English or German gymnasium. Mr. H. Irving Hancock, who has studied Ju-jitsu for eight or nine years, says:[2] "Six weeks of instruction, the preliminary strength-producing training of Ju-jitsu, will yield better results in muscle, endurance, and agility than will the same amount of time per week spent in a gymnasium throughout a whole school year. And the same six weeks of drilling in Ju-jitsu exercises will accomplish more than may be looked for from years spent at the light calisthenics taught in many of our schools." He goes on to remind us that if this statement should seem exaggerated, in 1900, when the allied armies of the civilized Powers marched against Pekin, the Japanese were the first among all the troops in point of endurance in the field, and day after day outmarched our troops (which were second) by 50 per cent. In the early part of the present war with Russia the Japanese marched twenty-five miles a day through most bitter weather; under the same circumstances our men would consider fifteen miles a day a satisfactory average. The conclusion drawn is that Ju-jitsu is responsible for this splendid endurance and toughness, seeing that it is the only physical training which the Japanese receive.

The real secret of the perfection of the physique attained by the Japanese is that they are not content, as we are in this country, to go through a course of physical culture which takes place twice a week for half an hour, and which lasts at most a few years. The Japanese begin physical training at the very earliest age, and it is continued pretty well every day all through life. Long illnesses and physical weakness are considered to belong only to old age, and those wanting in strength are looked upon as freaks. The main object of a student of Ju-jitsu is by stratagem to render an antagonist helpless without using up his own strength. By this it must not be supposed that it consists of tricks merely. It includes a thorough knowledge of anatomy, of internal and external hydropathy, of diet and the vital principles of proper living. The Japanese place diet above

[2] BRITISH MEDICAL JOURNAL, 1904, vol. i, p. 1418.

[1] Pronounced "jow-jitss."

[2] *Physical Training for Children by Japanese Methods.* By H. Irving Hancock. New York and London: G. Putnam's Sons.

every other consideration, and argue that to do physical exercises and to live in an unwholesome manner is useless. They eat hardly any meat, and live chiefly upon rice, fish, vegetables, and fruit, while they drink much water. They treat their bodies as a drain, and consequently regard the drinking of water as an absolute necessity. The great value of water has been recognized by the Samurai, and the student of Ju-jitsu drinks on an average a gallon of water in twenty-four hours. If he feels ill he increases the dose of water, and finds this such an excellent medicine that he seldom consults a physician. Regular bathing is also one of the first principles of their physical training, in order that external impurities may be constantly removed.

The Japanese also thoroughly realize the importance of open air. They go out in the early morning and breathe in long draughts of fresh air. Their windows consist of thin porous oiled paper, through which the air penetrates, arranged to slide back, and night and day they are open, so that the ventilation is perfect. It is said that they do not suffer from the ordinary diseases of so-called civilized nations, such as phthisis and rheumatism, that insomnia is unknown, and that they are the healthiest people in the world.

In the actual application of Ju-jitsu the aim seems to be to manœuvre to get the opponent into some position in which advantage can be taken of some simple fact in anatomy to paralyse resistance. The schoolboy trick of suddenly twisting another boy's arm behind his back and thus disabling him may be compared to some of their sleights of hand. But they have elaborated a complete system, and work not only with their hands, but with their arms, their feet, and their legs. They have also made a study of the balance of the body, and can take advantage of the momentary failure of poise in an opponent to lift him from the ground and literally throw him over their head. This is, of course, not altogether free from danger to limb and even to life, so that the art of falling and the art of throwing are two of the most important things to be learnt. It is easy to see that training in Ju-jitsu not only develops intelligence, alertness, and quickness of eye, but makes the body supple and strong. It is for these reasons that in a contest they can get the better of men twice their strength and weight. This was demonstrated at the Chelsea Barracks where young English, Irish, and Scotch soldiers of fine physique and plenty of pluck were disposed of one after the other by the Japanese featherweights.

THE PROFESSIONAL RELATIONS OF MEDICAL PRACTITIONERS.

We publish in another column an instructive and valuable address by Dr. Roderick Maclaren of Carlisle, delivered before the North Cumberland Division of the Northern Counties Branch, as an introduction to a discussion on Medical Ethics. While it may be doubted how far so wide a subject can be profitably discussed at a general meeting, we have no doubt at all that carefully thought-out conclusions such as are contained in this address are of the utmost value in helping to build up that sound body of professional opinion which must be the basis of medical ethics, and we are glad to find that Dr. Maclaren's views are such as we believe commend themselves generally to those who have given attention to the subject, and are in accordance with the principle which animate the Central Ethical Committee of the Association and the work of those who are endeavouring to guide the efforts now being made throughout the Association to establish an organization which can regulate the relations of medical practitioners with one another, and act as a court of appeal in the disputes and differences which are apt to arise between them.

Necessarily, Dr. Maclaren was able to deal only with a limited part of this very wide subject—chiefly with that of consultation as between specialized consultants and the general practitioner on the one hand, and on the other between general practitioners who have to consult with one another from time to time in smaller centres, and in whose case misunderstandings are particularly liable to occur. On this branch of the subject we note that Dr. Maclaren, while agreeing that a general practitioner called in to consult with a colleague must on no account supersede him in the care of the patient, and recognizing that such a prohibition cannot last for ever, thinks the rule which has been laid down that the prohibition should only extend to the particular illness is too short, although he does not say what the length of time should be. In dealing practically with cases of this sort it is necessary to have a definite rule unless each is to be considered upon its merits, in which case there would have to be a permanent arbitrator, or each man will do what seems right in his own eyes. It might be desirable to make the rule cover the "present illness or within two years," after seeing a case in consultation.

Another point raised is how far a medical practitioner is justified in refusing to meet another in consultation on account of age or supposed attainments. If a consultation is proposed, the practitioner in charge of the case has the right to suggest a consultant in whom he has confidence, as patients or their friends often make mistakes, as, for instance, in asking an operating surgeon to see a medical case. But it must also be admitted that the principle that it is open to a practitioner to refuse to meet a suggested consultant on the ground that he is younger or holds lower professional qualifications, is open to abuse. Most readers will agree with Dr. Maclaren's temperate statement of the right of each man to fix his own fees, and we may say that although we have occasionally heard complaints of individuals charging too much or too little, we know of no case where there has been an organized attempt to impose a definite tariff for patients' fees. The real difficulty arises in connexion with contract practice, where there is much to be said for fixing a rate, and for asking all the practitioners in the district to adhere to it.

All will agree with Dr. Maclaren in his appeal to members of the profession to be united in supporting each other against injustice, especially from Boards of Guardians and similar public bodies, which are too apt to treat their medical officers in an oppressive manner. All will heartily join in his desire that the result of the improved ethical organization of the profession will be to promote amity, good fellowship, and charity amongst us.

THE PRINCESS VICTORIA.

The announcement that Her Royal Highness the Princess Victoria had undergone an operation for appendicitis on Tuesday has caused some natural anxiety, which has been relieved by the official bulletins stating that the operation performed by Sir Frederick Treves had been free from any complication, and that Her Royal Highness had afterwards

made satisfactory progress. We are authorized to state that the Princess developed some time ago, when in her usual good health, evidences of trouble in the appendix. After an attack of influenza early in January, these manifestations became more acute, and it was considered desirable that the appendix should be removed at as early an opportunity as possible. The operation was simple and without complications, and there is every reason to anticipate that Her Royal Highness will make a good recovery. Sir Francis Laking and Sir Frederick Treves are residing in the Palace. The nurses are Nurse Fletcher—who nursed the King at the time of his operation—and Nurse Isaacs, both from Miss McCaul's Home in Welbeck Street. The equipment for the operation was provided by Miss McCaul.

MEDICAL VISIT TO PARIS.

As already announced, a committee was formed in Paris a short time ago, with Professor Bouchard as President and M. Lucas-Championnière as Vice-President, to invite a party of British medical men to pay a visit to Paris. The visit paid to London last October by a party of French physicians and surgeons was very successful, and the members of the party saw a great deal of the hospitals and other medical institutions in the short time at their disposal. It is understood that the Paris Committee will make similar arrangements, and that opportunities will be afforded to the British visitors to see the working of the principal hospitals and laboratories of Paris. Some correspondence has passed between the Committee in London, of which Sir William Broadbent is chairman, and the Paris Committee as to the date which would be most convenient, and after several possible dates had been discussed it was made plain that the profession in Paris was strongly in favour of May next. An invitation has now been definitely received from Paris for Thursday, May 11th, Friday, May 12th, and Saturday, May 13th, and has been accepted by the London Committee. A circular letter has been addressed to all those gentlemen who contributed to the fund for the reception of the French party last October, and they have been requested to state at an early date whether they wish to take part in the return visit. Many of them have not yet replied, and it would greatly facilitate the arrangements for the party next May if answers are returned at an early date, in order that vacancies in the party may be filled up by the London Committee.

THE RESULTS OF SANATORIUM TREATMENT OF CONSUMPTION.

At the present time, when the utility of the sanatorium treatment of tuberculosis is being discussed, the experience at the Heswall Poor-law Sanatorium is of peculiar interest. It is the joint property of the guardians of Liverpool, West Derby, and Toxteth Park, and has been in operation for two years. Reports on the results for the year 1904 have just been presented by the medical officers of the three unions, Dr. Nevins, Dr. Nathan Raw, and Dr. David Smart. It appears that 78 cases were admitted from the three unions during the year, and that the annual expenditure was £2,554. As to the amount of benefit derived from the treatment, the medical officers seem to be not altogether unanimous, and having regard to the great uncertainty in the prognosis of cases of tubercle, it must be very difficult to estimate the value of any kind of treatment. Dr. Raw reports that 34 cases were under treatment from West Derby, that "the disease had been arrested" in 10, that improvement had been shown in 12, that 2 had not improved, and that 10 remained in the sanatorium. This is satisfactory as far as it goes, though it is not clear what was considered to constitute "arrest of the disease." As to whether the restored health or the improvement was maintained when the patients returned to their homes and occupations we are not informed, and it is clearly too soon to claim complete recovery for any of them. The report of Dr. Nevins is of more value in this respect, since it takes notice of the after-history of the 38 patients from the Liverpool Union who have left the sanatorium during the whole two years of its existence. Eight of these have been lost sight of, but of the 30 who have been traced the subsequent history is as follows: One has died of Bright's disease, 1 is a chronic invalid from a non-tuberculous illness, and 2 are well enough to work and are believed to be in good health and free from the bacilli of tubercle. Of the remaining 26, 8 have died of tuberculosis, and the rest are either inmates of the parish hospital suffering from tuberculosis or are in failing health outside from the same cause. It thus appears that out of 30 patients who have undergone the treatment during the past two years only 2 are in good health at the present time. Dr. Nevins attributes these disappointing results to the fact, among others, that few patients of the parish class apply for treatment in the early stage. Of those who did few were able or willing to submit to the restrictions of sanatorium life with the necessary long absence from their families. On discharge from the sanatorium, also, they were obliged to return to their conditions of poverty, bad sanitation, and unsuitable occupation from which they came. It may be hoped that with the growth of knowledge of the nature and treatment of consumption sufferers will come under treatment at an earlier period of the disease, and that with improved sanitation the risk of relapses on returning to their homes will be reduced. So far the unions in question are the only ones in the kingdom that have seriously undertaken the treatment of consumption on the most approved lines. The Toxteth guardians have agreed to admit outdoor cases direct to the sanatorium without preliminary treatment in the hospital.

THE SURGERY OF GASTRIC TUMOURS.

Operations for true cancer of the stomach are so commonly performed that the practical surgeon should now take some interest in the diagnosis and treatment of sarcoma of that organ. Lecène and Petit[1] have prepared a valuable monograph on the disease in question with reports of 24 cases, 1 under the authors' own observation. Sarcoma is much rarer than carcinoma, and usually forms a bulky tumour, regular, limited to a distinct area of the stomach, and sometimes pedunculated. It tends to grow in the direction of the gastric and not of the peritoneal cavity. There are, however, other varieties, and occasionally sarcoma infiltrates a limited tract of the walls of the stomach, setting up clinical symptoms before it has developed into a big tumour, as occurs so often in carcinoma of the same organ. Hence clinical evidence shows that diagnosis is often impossible, save that sarcoma has been noted in one child aged 3 years, in 5 subjects in their teens, and in 6 between 20 and 30 years. In the more typical form of sarcoma there may be absolutely no symptom beyond the presence of the tumour itself, which may be of large size. An exploratory incision is always needed, except when extension of the disease is evident. Stenosis of the pylorus is not nearly so frequent as in carcinoma, hence gastro-enterostomy is rarely needed. But free excision of the tumour and adjacent parts of the healthy gastric walls is practicable in a relatively large number of cases, then the breach in the walls can be repaired by suture. Statistics show 10 deaths in 24 operations for sarcoma of the stomach, but the disease and the type of operation varied so much that these results remain uninstructive. Only 1 out of 7 cases where resection of the gastric walls around a large circumscribed tumour of the class described above was practised, proved fatal. Adhesions and infection of glands are not met with so frequently as in carcinoma. After-histories of operation for circumscribed gastric sarcoma ought to prove relatively satisfactory, as metastatic deposits do not develop early in the course of the disease. Kocher[2] publishes a report of 97 excisions of the stomach performed by him for true cancer of that organ. The first of the series was under-

[1] Le Sarcome Primitif de l'Estomac, *Rev. de Gyn. et de Chir. Abd.*, November-December, 1904, p. 965.

[2] Résultats Définitifs de l'Excision de l'Estomac. Report of the XVIIth Congrès de l'Association Française de Chirurgie, 1904. *Rev. de Gyn. et de Chir. Abd.*, November-December, 1904, p. 1009.

taken in 1881. Twenty of the patients were living in the summer of 1904: in 3, the operation was recent; in 1, ten months past; in 6, from one year to one year and seven months; in 2, from two years to two years and eight months; in 1, three years and eight months; in 3, five years; in 1, six years; in 1, seven years; in 1, eleven years; and, lastly, in 1 case, sixteen years and seven months had elapsed since the operation, which in every case was his variety of posterior gastro-duodenostomy. Diagnosis was confirmed in all cases by the microscope. Kocher attributes his brilliant results to early operation and reminds us that it is the physician who can do so much good to humanity by an early diagnosis allowing of timely surgical interference.

POISONING BY WOOD ALCOHOL.

IN a paper read at the fifty-fifth annual session of the American Medical Association (Section on Ophthalmology) Drs. F. Buller and C. A. Wood have collected a large number of cases, many of them hitherto unpublished, in which blindness or death have resulted from the drinking of methyl alcohol in Canada and the United States. These cases have increased to an alarming extent during recent years, since a cheap "deodorized" methyl alcohol has been put upon the market at a retail price of 50 cents a gallon. It is known as "Columbian spirits," "Cologne spirits," "eagle spirits," and by a variety of other names. It is used as a substitute for grain alcohol in cheap whisky, and is found in Jamaica ginger, lemon extract, and many other essences and flavouring fluids. Methyl alcohol is also used in the preparation of many patent medicines and domestic liniments, as well as in bay rum, Cologne water, Florida water, and other perfumes. The seriousness of this form of intoxication is indicated by the fact that among the 275 cases collected there were 122 deaths. The symptoms of poisoning are gastro-intestinal disturbances, accompanied by abdominal pain, general weakness, vomiting, vertigo, headache, dilated pupils, and blindness. In fatal cases important clinical features are cardiac depression, sighing respiration, cold sweats, delirium and unconsciousness, followed by coma and death. The injury to the ocular apparatus consists chiefly of a destructive inflammation of the optic nerve fibres or retinal elements, or both, followed by their atrophy. The blindness is bilateral, and may set in a few hours after drinking the poison or may be delayed for several days. It is generally complete at first; then some improvement occurs, and finally there is a relapse into total blindness. The diagnosis of this form of poisoning is generally made without difficulty, as the typical symptoms—acute abdominal distress followed by blindness—are not likely to be met with in other kinds of intoxication. The treatment consists chiefly in getting rid of the poison from the stomach and intestines by means of the stomach-pump and rectal injections; the use of stimulants, especially ethyl, alcohol, strychnine, and coffee; and the application of heat to the body and extremities. The treatment of the amaurosis is unsatisfactory. In the early stages pilocarpine and potassium iodide are indicated; and in the later stages strychnine, hypodermically and by the mouth. Drs. Buller and Wood are of opinion that the only way in which the prevention of poisoning by this insidious drug can be brought about is by prohibiting the sale of "deodorized" wood alcohol in all its forms.

THE INTRUSION OF LAYMEN INTO MEDICAL PRACTICE.

IN the January number of *Medical Electrology and Radiology* there is a letter from the radiographer to Guy's Hospital, complaining that an appointment recently made with him to confirm a diagnosis of mediastinal tumour by means of an *x*-ray examination was cancelled and the patient taken to the establishment of a well-known firm of chemists, who, it was understood, undertook the case for a lower fee. In an article published last year (May 17th, p. 1090) we drew attention to this question, which had been raised by Dr. Lewis Jones, who expressly complained that those medical men who took up electro-therapeutics are not supported as they should be by their colleagues. This complaint is further illustrated in this instance, where the altered arrangements seem to have been due to the patient's brother, himself a medical practitioner; and Mr. Shenton, the writer of the letter, speaks of a patient being sent to him lately, with instructions that, if he was not in, the patient was to try Messrs. ——. In our former article we pointed out that the main reason for the difficulty experienced by medical practitioners in competing for this work is, apart from the want of support received from their brethren, the fact that the fees they charge are considerably higher than those of their unqualified rivals, and an instance was given of a case within our knowledge where a patient sent by a physician to a medical electrician for treatment by high-frequency currents left him after two or three visits to go to an establishment where he got for 5s. treatment which he believed to be the same as that for which he had been charged a guinea. The remedy we ventured to suggest was that medical men should reduce their fees, and that in order to do this they should, while carefully supervising all that is done, employ nurses or other trained but unregistered persons to do the actual work. This, of course, only applies to some departments of the work of the medical electrologist. Undoubtedly when it comes to the interpretation of what can be seen through a screen, medical knowledge and experience are at their highest value, and it is folly to suppose that the assistance of a mere operator can give the diagnostic help that is looked for. It is possible that the patient's brother intended to rely upon his own observation of what could be seen through the screen, and from this point of view it is of course legitimate for medical men to make use of the apparatus placed at their disposal by a business firm.

COLOUR BLINDNESS ON THE FOOTBALL FIELD.

WHEN George Wilson of Edinburgh gave an account of the mistakes made by colour-blind persons, including medical students who were unable to distinguish the colour of certain precipitates, of engine-drivers, and of sailors who mistook signal lights or flags, of tailors who matched red with green, and bookbinders who did the same for coloured leathers and papers, and when Jeffries in America added to an already long list the mistakes made by colour-blind Government officials who sold postage stamps, to neither of them does it seem to have occurred that this question touched the great realm of sport. The Referees Committee of the Lancashire Football Association have decided in consequence of numerous complaints that certain referees are shortsighted or colour blind, that prior to next season all referees on the junior list shall come up for examination, in order that their acuity of vision and their colour sense may be properly tested.

THE BISHOPS AND THE DOCTOR.

A CORRESPONDENT of *The Record* states that his family doctor having asserted that "not a single bishop on the Bench to-day believes in the miraculous in religion," he wrote to all the bishops asking whether the statement was true. The unanimity of bishops when they do agree is wonderful, and they hastened to repudiate the want of faith attributed to them. The question of episcopal belief does not, of course, concern us here. But we note that one or two of the right reverend fathers in God were so much carried away by virtuous indignation as to suggest that the medical inspirer of the question is professionally incompetent. Thus the Bishop of Chichester advises his correspondent at once to change his family doctor, "for," he adds, "if this gentleman is capable of putting such pernicious and harmful statements into your *head*, I tremble to think what unauthorized concoctions he might not introduce into other parts of your astonished body." It is plain that his lordship would be glad, if he dared, to hurl at the head of the presumptuous doctor all the curses of the Athanasian Creed. Such an anathema

would, at any rate, leave the victim not a penny the worse. But the bishop, being unable to curse openly, does his best to injure the object of his wrath both in his professional character and his material interests. He is of course free to advise any one who will listen to his admonition to change his doctor. It is, however, going beyond the bounds even of ecclesiastical anger to suggest that a medical practitioner is likely to introduce "unauthorized concoctions" into a patient's body. What, by the way, are "unauthorized concoctions"? We do not know; neither, we suspect, does the bishop. But the words have a sound suggestive of heresy and recalcitrancy, and therefore come readily to clerical lips. By those, however, who accept such deliverances as authoritative, they may easily be taken as conveying a charge of quackery. Another bishop is good enough to express the hope that the family doctor is better informed on matters that concern his own profession than he is as to the attitude of the bishops towards the miraculous. We hope the clergy of all sects and denominations will take unto themselves the lesson implied in these episcopal utterances. They are fond of dabbling in physic, and as a class they are often patrons and sometimes prophets of quackery. Let them reflect seriously how little meddling with matters which they do not understand can help to make their teaching on their own proper subjects acceptable to persons of intelligence.

JAPANESE SICK AND WOUNDED.

A telegram from Reuter's correspondent with General Oku's army despatched from Tientsin on Sunday last states that, according to returns made by the chief medical officer, there have been only 40 deaths from disease in General Oku's entire command since it landed on May 6th. The casualties sustained by this army from May 6th to December 19th were: Killed, 5,127 (officers 210, men 4,917); wounded, 21,080 (officers 743, men 20,337); missing, 406 (officers 4, men 402). Of the wounded 19 per cent. recovered on the field and 65 per cent. were sent to Japan, so that the deaths apparently amounted to 16 per cent.; 85 per cent. of the wounds were caused by rifle bullets, 8 per cent. by shells, and 7 per cent. by bayonet or sword thrusts. The largest percentage of recoveries were from chest wounds, while as regards other wounds, the percentage of recoveries was larger from wounds in the head and abdomen than from injuries to other organs. This is attributed to the small calibre of modern rifles, the percentages in the other Japanese armies being, it is believed, about the same. There were only 193 cases of typhoid fever and 342 cases of dysentery—a very remarkable record affording a striking proof of the efficiency of the precautions recommended by the Japanese medical department, and accepted by the commanders in the field for the protection of the men from waterborne disease. Some description of these arrangements was quoted in the British Medical Journal of December 10th, 1904, p. 1576, from the account given by Miss McCaul, where a photograph of the water boiler in use for drinking-water was reproduced.

THE JUBILEE OF THE DISCOVERY OF ANKYLOSTOMIASIS.

It was towards the last days of January that Professor Perroncito, now Director of the Veterinary School and Professor of Parasitology in the University of Turin, discovered the presence of ankylostoma duodenale in the small intestine of the miners—chiefly Italians who were digging those magnificent galleries through the St. Gothard that ultimately brought by devious yet direct route the frigid north into railway communication with the sunny south. Perroncito found in the presence of ankylostomata the cause of the severe and even fatal anaemia that afflicted so many of the workers in the St. Gothard Tunnel, in the mines of Chemnitz in Saxony, and in those of St. Etienne in France. It was particularly appropriate that on the twenty-fifth anniversary of his great discovery he should be the recipient of an honorary degree from the University of Manchester. Perroncito first published his results early in February, so that the issue of British Medical Journal of this week coincides with the anniversary of the publication of the discovery.

SIR SHIRLEY MURPHY.

Sir Shirley and Lady Murphy were the guests of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health at the annual dinner on January 27th at the Holborn Restaurant. Over ninety ladies and gentlemen were present. The toast of the evening, that of "Sir Shirley and Lady Murphy," was proposed by Dr. Whitelegge, and acknowledged by Sir Shirley Murphy, who said that the honour of knighthood recently conferred upon him was less a personal honour than a recognition of the whole public health service to which he was proud to belong. He spoke strongly of the help he had at all times received from the Local Government Board, the Registrar-General, and especially from the local medical officers throughout the metropolis, whose co-operation had helped forward the work of public health reform. He trusted that such co-operation would always continue, as the aims of the central metropolitan authority were in every way the same as those of the several metropolitan boroughs and cities. A united effort would ensure success and a maximum amount of good work. Sometimes there might be a difference of opinion as to whether the local authorities or the central authority should carry out any particular duty imposed by the Legislature, but this difference after all was but a small matter, and ought not to be allowed to interfere with that unity of action which was so important for London as a whole. The toast of "The Metropolitan Branch of the Society of Medical Officers of Health" was proposed by Dr. Sykes, and responded to by Dr. H. W. Roberts, that of "The Ladies," proposed by Dr. Kenwood, was acknowledged by Miss Church, and that of "The Honorary Secretary" proposed by Sir Shirley Murphy and responded to by Dr. Priestley.

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The following are the arrangements for lectures at the Royal College of Physicians of London during the present session: The Milroy Lectures, on industrial anthrax, will be given by Dr. T. M. Legge, on March 7th, 9th and 14th; the Goulstonian Lectures, on some considerations on the nature of diabetes mellitus, by Dr. W. C. Bosanquet, on March 16th, 21st, and 23rd; the Lumleian Lectures, on some aspects of malnutrition, by Dr. W. H. Allchin, on March 28th, 30th, and April 4th; the Oliver-Sharpey Lecture will be given on April 6th, by Dr. L. E Hill, who has selected as his subject the influence of atmospheric pressure on man. The lectures will be delivered at the College on each day at 5 p.m.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Hunterian lectures before the Royal College of Surgeons will be given by Professor Stephen Mayou on February 27th, March 1st, and March 3rd, the subject being the changes produced by inflammation in the conjunctiva. A course of lectures on the bacteriological study of peritonitis will be given on February 20th, 22nd, and 24th, the first two by Mr. L. S. Dudgeon and the last by Mr. Percy W. G. Sargent. Mr. J. P. L. Mummery will give a course of three lectures on the physiology and treatment of surgical shock and collapse on March 6th, 8th, and 10th. On March 13th, 15th, and 17th, Mr. W. S. Handley will give lectures on the dissemination of mammary carcinoma. On March 20th, 22nd, and 24th, Mr. Clinton T. Dent will lecture on congenital hypertrophic stenosis of the pylorus and some other rarer disorders of children, and the Arris and Gale lectures on the anatomy, physiology, pathology, and surgery of Gasserian ganglion will be given by Mr. Donald J. Armour on March 27th, 29th, and 31st.

MEDICAL MINISTERS IN FRANCE.

M. Combes, the head of the late French Government, was, till he took to politics, a general practitioner at Pons, where, it is said, his brass plate is still affixed to his door. The new Premier, M. Rouvier, has included no fewer than three members of the medical profession in his Cabinet. The Minister of Commerce, M. Fernand Dubief, took the degree of Doctor of Medicine in 1875, and from 1886 to 1893 was Medical Director of the lunatic asylum of Saint-Pierre at Marseilles; later he was Superintendent of the Rhone Asylum. He is the Chairman of the Extreme Left (Radical-Socialist). He represented Macon in the Chamber of Deputies, and is President of the Commission du Travail, and is regarded as an authority on labour questions. M. Armand Elzéar Gauthier, the Minister of Public Works, has been a member of the Senate since 1894. As Mayor of Sijean, where he practised medicine, he showed great devotion during an epidemic of cholera in 1885. M. Pierre Merlou, Financial Under-Secretary of State, graduated in 1877, and practised at Saint-Sauveur in the Yonne Department, becoming Mayor of the town, and a member of the General Council of the Canton in 1880. He has sat in the Chamber of Deputies for Auxerre since 1889. He is President of the Fiscal Commission and general reporter of the Budget. He is recognized as an authority on statistics, and in all questions of finance he will be M. Rouvier's right-hand man. It may be added that the new Under-Secretary of the Department of Fine Arts, M. Dujardin-Beaumetz, bears a name which used to be familiar to physicians as that of a highly distinguished brother in Paris.

CLINICAL TEACHING IN SPAIN.

In opening his course of lectures at the University of Valencia not long ago, Professor Moliner spoke strongly of the want of adequate provision for clinical teaching in that school, and declared that unless thoroughgoing reforms were made he would decline to carry out a system which was virtually a sham. Professor Moliner is not, we believe, the first or the only teacher in Spain who has made the same complaint. But his vigorous deliverance has served to call public attention to the subject, and it has been taken up by the lay press, which is pressing on the Government the need of reform in this most important branch of medical teaching. A recent number of *El Heraldo de Madrid* contains a report of an interview with Professor Ramon y Cajal whose name is familiar as a household word on the lips of the medical profession throughout the world. The distinguished histologist expressed the opinion that clinical teaching, particularly in Madrid, was not so bad as it had been represented to be. More patients are now available for demonstration than was the case a few years ago. The Professor said his opinion on the matter had been asked by the Minister of Public Instruction two years ago, and he then urged the necessity of the Professor of Medicine in the University being at the same time a hospital teacher. All the Professors at Zaragoza, where Dr. Ramon y Cajal taught before his translation to Madrid, had been hospital physicians, and but for circumstances which made the two functions incompatible, he thought the clinical teaching at Zaragoza would be the best in Spain. His representations to the Minister, however, had not quite the effect which the Professor wished. The problem was solved by making all the hospital physicians professors, which, as he pointed out, is not altogether the same thing; the prestige of the Chair of Medicine was lowered without any compensating advantage to the students. Most of the physicians transformed by the official magician's wand into professors have already, while retaining the title, given up any pretence of teaching.

MENSTRUATION IN CHILDHOOD: OVARIAN DISEASE.

Precocious puberty is rare. Ploss, in his work *Das Weib in der Natur und Völkerkunde*, has collected 62 distinct cases; in 3 ovarian tumour was present. Riedl[1] reports another instance with the same complication: A child began to menstruate at the age of 4; the period appeared every three months and lasted for three or four days; at first it was very painful. At the age of 6 it ceased; then an abdominal tumour developed and grew rapidly. There was great pain and vomiting with obstruction. The child was much emaciated yet over-developed for her age; she measured 3 ft. 11 in. in height; the limbs were long, the muscles were flabby, and fat almost absent. The breasts, very flaccid, measured 3 in. in circumference. The pubes and vulva were covered with hair, the labia large, the hymen intact. Bienner of Linz operated, removing a cystic sarcoma of the size of an adult head and over 4¾ lb. in weight. It had developed in the left ovary; the right was slightly cystic. The uterus was as large as in a healthy subject of 17. Signs of obstruction persisted for several days, then the child recovered. Four months later a tumour of the size of a goose's egg was detected behind the pubes to the left; the child was at that time 6 years and 7 months old; recurrence was only too clear. This was a well-marked case of precocious puberty, as the special signs—enlargement of the mammae, development of pubic hair, and establishment of the catamenia—were coincident. The relative frequency of ovarian tumour in these cases—4 in 63, or 6.3 per cent.—is of interest, and deserves the consideration of the physiologist.

[1] Menstruatio praecox und Ovarialsarcom, *Wien. klin. Woch.*, 1904, p. 942.

CANCER IN AMERICA.

Carefully-compiled statistics are said to show a great increase of cancer in the large American cities in recent years. The computation is made on the basis of 100,000 of the population. San Francisco stands highest on the list with a total of 103.6, compared with 16.5 forty years ago, being an increase of 600 per cent. Boston comes next, with 85 deaths per 100,000 population in 1903, as against 28 forty years ago, showing a threefold increase. The figures for the other cities are: 32 for New York in 1864 and 66 in 1903; Philadelphia, 34 in 1864 and 70 at present; Baltimore, 18 in 1864 and 63 in 1903; New Orleans, 15 in 1864 and 82 in 1903.

THE FREEMAN MEMORIAL.

As already announced, a local committee at San Remo is raising a fund to commemorate the memory of Dr. Freeman, who so long practised in that town. It is intended to use the money received partly for the purpose of endowing a bed in the Italian Hospital for necessitous English subjects, and partly for the erection of a stained-glass window in All Saints' Church, San Remo. The Honorary Treasurer of the fund is Mr. Meysey Turton, British Vice-Consul, San Remo, and subscriptions will also be received by Dr. C. J. Cullingworth, 14, Manchester Square, London, W.

Dr. W. H. Hamer, Medical Officer (General Purposes) to the London County Council, has been appointed to deliver the Milroy lectures before the Royal College of Physicians of London in 1906.

The Hunterian Oration before the Royal College of Surgeons of England will be delivered by the President, Mr. John Tweedy, on Tuesday, February 14th, at 4 p.m. Members and Fellows of the College are invited to attend, and any member of the medical profession will be admitted on the presentation of his ordinary visiting card.

A course of lectures on medical ethics will be given at the University of Birmingham by Professor Robert Saundby during the summer term. The dates will be announced later, but we understand that all medical practitioners will be invited to attend.

The Supplement for this week contains a Memorandum on the relations of the medical profession to ambulance work submitted by the Medico-Political Committee for the consideration of the Divisions. It also contains the vital statistics of London for the fourth quarter of 1904, in addition to reports of meetings of Branches and Divisions, lists of medical vacancies and appointments, the diary of the week, and the Association Calendar.

Scotland.

Variation in its Relation to the Origin of Insanity and the Allied Neuroses.

The first lecture of the second course of the Morison Lectures was delivered before the Royal College of Physicians of Edinburgh by Dr. John Macpherson, Commissioner in Lunacy, on January 30th. Insanity was described as a complex of several different diseases which have as their result or accompaniment a more or less grave disturbance of the manifestations of normal mental processes. A clinical classification of insanity was held to be the only possible one, for otherwise the study of insanity could not be brought into line with that of other diseases; besides, pathology is not sufficiently advanced to afford a basis of division, and etiological or symptomatological factors can never be more than adjuncts to a clinical classification. The two great divisions of insanity which were dealt with were the confusional and the recurrent types. The type of the confusional insanities is the delirium of fevers. Delirium was divided into two kinds—febrile and subfebrile. The febrile is that which accompanies various acute infectious diseases such as the exanthemata or pneumonia. The subfebrile occurs as a sequela to many fevers, as a result of various intoxications, after trauma and shocks, and as a consequence of exhaustion. The chief symptoms of the confusional insanities are delirium, confusion, and stupor. Their chief clinical forms are alcoholism of various kinds, dementia praecox, and general paralysis. The confusional insanities were held to be the result of the action of toxines upon the nervous system which exercised a rapid and deleterious effect upon the delicate cells of the brain cortex. The presence of the toxins might be inferred from the course of the maladies and from their pathological results. There are, however, unmistakeable clinical proofs of its presence. These are found in the high blood pressure, the hyperleucocytosis, the rise in the percentage of the polymorphonuclear cells, and the irregular pyrexia. Reference was made to the work of Dr. Lewis Bruce, and charts illustrating pyrexia, leucocytosis, the rise of the polymorphonuclear cells and other clinical facts symptomatic of toxaemia were shown. The intense destruction of the finer elements of the brain cortex was illustrated by means of microscopic slides. A sharp clinical distinction separates the confusional from the recurrent insanities. Like that of the general neurosis the origin of the latter insanities is obscure. Neither mania, melancholia, nor paranoia ever results from infections, intoxications, or visceral diseases. To speak of a delirium as a mania because it happens to be attended by excitement is a misuse of terms. To designate a confusional insanity as a melancholia merely because the delusions are distressing is unscientific. To say that a melancholia is caused by typhoid fever or acute mania by the abuse of alcohol is to utter nonsense. There is, however, a hyperleucocytosis present in the recurrent insanities and in certain of the neuroses, such as epilepsy; but it is of an essentially different nature from that found in the confusional insanities. It disappears after the attack and reappears with the next attack. The toxaemia exercises a comparatively slight injurious effect upon the cortical cells. Various microscopic slides were exhibited on the screen to show the anatomical intactness of the cortex after repeated attacks of recurrent insanity and after prolonged systematized delusional insanity or paranoia.

The second lecture, delivered on Wednesday, February 1st, was devoted to the subject of the distribution of insanity. It was an error to suppose that savage and barbarous tribes were less affected by insanity and nervous disease than civilized peoples. Numerous instances of the prevalence of insanity among uncivilized nations was given. It was also pointed out that the undoubted prevalence of neuropathy as evidenced by the presence of epilepsy and hysteria among savages was in itself a proof of the existence of insanity. As a rule, the forms of mental disease differed considerably according to the type of the race, and according to their manner of reacting to their surroundings. Reference was made to Kraepelin's investigation into the forms of insanity among the natives of Java. The prevailing form of insanity in that country was short acute attacks of mania, rapidly recovered from, and similar to the disease called "latah," which is so common among the Malays. Similar forms of mania are described by Wilson and Felkin among the Soudanese, and by Emin Pasha as prevailing among the inhabitants of Central Africa. Turning to the statistics of insanity among civilized people, the lecturer showed that the figures generally interpreted to mean an increase of insanity were merely an index of the increasing ethical attitude of the community towards diseases of all kinds and towards insanity in particular. As an illustration, it was shown that in Scotland the official figures fifty years ago fell far short of the actual truth, and even now, with a decrease of prejudice and a much higher standard of diagnosis and of appreciation of mental abnormality, we were far from the possibility of being able to estimate the actual amount of mental unsoundness in the community. Until such an estimate could be arrived at it was manifestly absurd to speak of insanity as increasing. The proportion of insanity in Scotland, based upon the census returns for 1901, showed that the northern and north-western counties had a much higher rate per 1,000 than the midland and southern counties. It was also seen from the same returns that in this respect the urban populations were in a more favourable position than the rural. Thus, grouping the populations of the counties of Argyll, Caithness, and Inverness on the one hand, and the populations of the cities of Edinburgh, Dundee, and Aberdeen on the other, it was found that while the population of the three cities is more than three times as great as that of the three counties, yet the pauper lunatics in the counties are more than half as numerous as those in the cities. Even when correction is made for age and sex distribution the proportion of pauper lunatics in the counties is found to be 4.86 per 1,000, as against 3.06 per 1,000 in the cities named. But it is a mistake to suppose that the whole areas of the counties in question have an equally high rate of insanity. From the statistics of the county of Argyll it was shown that in twenty-four parishes the pauper lunacy rate is not only much above the Scottish average but above that of the county itself, while in fifteen parishes it is much below the county average, and about the same as the Scottish average. The fifteen parishes with a low lunacy rate show an increasing population, immigration from other districts, and various industrial activities which conduce towards prosperity and an increasing population. The twenty-four parishes, on the other hand, show a stagnant and dwindling population and no immigration. Consequently, the age distribution of their population is peculiarly favourable to a high lunacy-rate, for the number of persons living under 20 years of age is smaller, and the proportion living over 50 years much higher than in the group of fifteen parishes. The number of the insane living under 20 years of age is so small that it may be neglected, but the number living over 50 is very considerable, and so markedly modifies statistics that in the matter of age distribution the larger group of parishes is at a distinct disadvantage. Exactly the same facts were shown to hold good in the parishes forming the counties of Caithness and Inverness. From the foregoing statements it appears that a stagnant or dwindling population is at a disadvantage in regard to statistical insanity: (1) Because its age distribution is abnormal; (2) because emigration removes, chiefly, young adults who are not at the age when insanity is most prevalent; while as a rule the weak, the diseased, and the imbecile are left behind; (3) because if insanity should be present in such a community it tends to become inbred, for in a district that is being depleted of its population there are no inducements, industrial or otherwise, for the immigration into it of young adults capable of introducing a newer and healthier strain.

Royal Medical Society, Edinburgh.

The annual dinner of the Royal Medical Society will be held on Tuesday, February 14th, when Professor Ronald Ross, C.B., F.R.S., will be the guest of the evening.

The Parliamentary Representation of Glasgow and Aberdeen Universities.

A meeting of the members of the general councils of the Glasgow and Aberdeen Universities resident in or near London was held on January 26th at Caxton Hall, Westminster. Dr. J. Mitchell Bruce, who was called to the chair, said that although it was at first desired that a representative of medicine and science should be the next candidate for the University, the University Conservative and Liberal Unionist Associations at Aberdeen and Glasgow, and the London Committee, having failed to find such a candidate, had last June turned to Sir Henry Craik as a suitable candidate at a time when education was so prominent a question. Sir Henry Craik said that he stood as a member by conviction of the

Conservative party, and as representing views held by the Universities' Conservative and Liberal Unionist Association. Dr. G. A. Heron, in moving a vote of thanks to Sir Henry Craik, said that although not in agreement with his political views, he felt that it would be a misfortune for the universities if he were not returned. The motion was seconded by Sir James Reid and carried by acclamation.

Glasgow and District Branch of the National Association for the Prevention of Consumption.

An influential meeting was held last week in the Banqueting Hall of the City Chambers, Glasgow, to further the interests of the Glasgow and District Branch of the National Association for the Prevention of Consumption, and especially to draw attention to the need of funds for the new Bellefield Sanatorium at Lanark. There are thirty beds in this institution at present and all fully occupied, so that a considerable annual income is required for maintenance, while it is hoped that the Association will soon be in the position to considerably increase the number of the beds. Moreover, the Association spends £300 or £400 a year in expenses other than those of the sanatorium, expenses connected with the work of educating the public in the knowledge of what consumption is and how it may be prevented. A gratifying sum is being at present paid by friends of the patients or by the patients themselves—on an average about 10s. a week per patient—while the estimated cost per patient is about 30s. per week.

Sir John Ure Primrose presided over the meeting, and interesting addresses were given by Professor McCall Anderson, Dr. Beatson, Professor Stockman, and Mr. Henry E. Clark. Sir Hector Cameron and Dr. Philip, of Edinburgh, also took part in the meeting, and resolutions were passed approving of the establishment of sanatoriums, and of the formation of a ladies' auxiliary to collect funds for the Bellefield Sanatorium. No doubt the necessary funds will thus be provided, not only for the work already undertaken, but for a very considerable extension of that and at no distant date.

Aberdeen Medico-Chirurgical Society.

On January 12th a clinical meeting of this Society was held under the chairmanship of Dr. George Rose, President. Cases were exhibited and demonstrated as follows:—Dr. Edmond: Case of dilatation of the stomach in a boy; case of nervous disease. Dr. D. W. Finlay: Case of pyopneumothorax. Dr. John Gordon: Case of aneurysm, etc. Mr. H. M. W. Gray: Case after excision of part of ileum and ascending colon, etc., for tuberculous disease; case of enterectomy for sarcoma; case after bloodless reposition of congenital dislocation of hip joint; case of fracture dislocation of ankle joint. Mr. Marnoch: Two cases four and fourteen months respectively after suprapubic prostatectomy; case after colectomy for carcinoma. Mr. Scott Riddell: Case of phantom tumour; case after nephrotomy for gonorrhoeal infection of kidney; case of carcinoma of larynx, etc. Dr. Rose: Case of syphilitic synovitis: case after reduction of congenital dislocation of hip (Lorenz); Dr. J. F. Christie: Case of skin disease.

Aberdeen University Anatomical and Anthropological Society.

On January 28th, under the auspices of this Society, Captain A. W. Cook Young, I.M.S., delivered a most interesting lecture, entitled With the Thibet Mission Force to Lhassa. Professor Reid presided over a very large audience and introduced the lecturer, a graduate of the University. In the course of the lecture the geographical features of the country through which the expedition passed were vividly described, and beautiful illustrations were afforded by lantern slides prepared from many valuable photographs taken on the journey. Captain Cook Young also described at length and in a most interesting manner the characteristics of the people, their manners and customs, showing a fine collection of native work and weapons, including swords, guns, praying bone carpets, decorations in brass, etc. At the close the lecturer, on the motion of Brigade-Surgeon-Lieutenant-Colonel Maconochie, I.M.S. (retired), was heartily thanked.

Lieutenant-Colonel O. T. Duke, late Honorary Secretary of the Lads' Drill Association, will give an address on the physical advantages of universal naval and military training at Caxton Hall, Westminster, on Tuesday, February 7th, at 5.30 p.m. The lecture has been arranged by the National Service League, Dacre House, Victoria Street, S.W., and the chair will be taken by Sir William Church.

Ireland.

Surgeon-Lieutenant-Colonel Edgar Flinn, V.D., who has recently resigned his commission in the Army Medical Reserve and Volunteer Medical Staff, has been granted the honorary rank of Surgeon-Colonel, with permission to retain his rank and uniform. He has completed 25 years' service, having served in the 2nd V.B. South Staffordshire Regiment and 5th V.B. the King's Liverpool Regiment, and held the rank of Surgeon-Lieutenant-Colonel in the Army Medical Reserve, and received the Volunteer Officers' Decoration for long and efficient service. Surgeon-Colonel Flinn is one of the Medical Inspectors of the Local Government Board for Ireland.

The High Sheriff for Belfast.

It was with much pleasure that the profession in Belfast heard that Dr. Henry O'Neill had been nominated as High Sheriff for Belfast by the City Corporation. Dr. O'Neill is Consulting Surgeon to the Royal Victoria Hospital, and a City Councillor. He has for many years consistently advocated three main sanitary reforms, and never wearies in urging their importance. After visiting Paris, Berlin, and several other large cities, he brought in a report as to the necessity of doing away with private abattoirs and supplying first-class public abattoirs with the necessary scientific inspection, and the stamping of all meat for human use. He also endeavoured to get the Corporation to obtain control, by means of licensing, of all sale of milk in the city, so that the dairies, byres, cows, means of collection and of transport of milk might be inspected by the City Council's officers, no matter where the dairy may be. Failing the pure supply of milk from known sources, he advocates sterilization. His third great reform is to prevent the building of houses on slob-lands, refuse heaps, and filled-in hollows where rubbish is shot, till such time as the ground may be considered safe by a sanitary expert. Some may not wholly approve the ways and means by which Dr. O'Neill seeks to accomplish his ends, but the sanitary and hygienic reforms he advocates cannot but command the warm approval of every educated man and woman.

Royal Victoria Hospital, Belfast.

At the last meeting of the Board of Management, the Honorary Treasurer was able to state that there would be a balance at the end of the year's working to the credit of the hospital of something over £700; at the same time he announced that an agreement to let the old hospital for £400 a year was nearly completed. Both these statements were received with much pleasure, as it will probably enable the Board to open a new unit, the approximate cost of which is calculated at about £1,000 per annum; each unit contains thirty-four beds. It is satisfactory that the original contention of not living beyond the income has been faithfully observed.

Belfast Hospital for Sick Children.

The report presented to the annual meeting of this charity on January 27th showed an increase in the number of patients from 826 in 1903, to 879 in 1904. There had been 345 operations, and in the out-patient department 5,272 new cases were treated, with a total attendance of 16,473. The average expenditure on in-patients was 2s. 3d. a day, against 2s. 8d. in 1903. The balance sheet unfortunately showed an income of £1,447 to meet an expenditure of £2,210, leaving a deficit of £763.

Proposed Fixed Salaries for Dispensary Medical Officers.

At the last meeting of the Belfast Board of Guardians it was suggested that, as vacancies arise among dispensary medical officers, appointments be made at a fixed salary, and that private practice be absolutely prohibited. After some discussion it was decided to refer the whole finance report to a Committee of the whole Board.

New Coroner for Belfast.

Dr. James Graham, Belfast, ex-alderman of the City Council, and formerly for many years Chairman of the Health Committee, has been appointed coroner in the room of the late Mr. E. S. Finnigan. The profession in Belfast will congratutate Dr. Graham and have every confidence in him that the duties will be discharged with all his accustomed ability and straightforwardness.

HOSPITAL ADMINISTRATION AND FINANCE IN LONDON.

Sir Henry Burdett has published in the *Times* a study of the resources and requirements of the voluntary hospitals of London, which contains some remarkable statistics.

The Possible Hospital Population.

With the assistance of the Registrar-General's department he has made an estimate of the number of persons in London who, judging by their occupations, can be expected in any circumstances to persuade themselves to apply for free medical relief at a London hospital. On a very liberal interpretation they amount to 52 per cent. of the whole, but from this paupers resident in institutions, who numbered over 75,000, must be deducted, the net result is a population of 2,323,624 persons of all ages and both sexes, including some half a million children under 10 years of age.

Number of Patients treated at Hospitals.

He estimates that the number of patients in London who in 1903 received free medical relief was as follows:

In-Patients.		
At voluntary hospitals	112,523	
At infectious hospitals (mostly free cases)	21,925	
At Poor-law infirmaries (approximate) ...	81,835	
Total		216,283
Out-Patients.		
At voluntary hospitals	1,646,976	
At dispensaries (free)	207,549	
At dispensaries (provident)	77,065	
Poor-law dispensary and home cases ...	122,129	
Truss, etc., societies	32,561	
		2,086,280
Grand total ...		2,302,563

It thus appears that the actual number of persons returned as receiving medical relief at institutions in the County of London in 1903 was equal to the total number estimated to be under any circumstances eligible to be hospital patients, with the exception of (in round numbers) 20,000 persons.

Relation of Increase of Patients to Increase of Population.

Sir Henry Burdett then points out that the increase in the population of the County of London in the ten years 1894-1903—that is, that of 1903 compared with 1894—was 6 per cent., or 264,646 persons, and the increase in the voluntary hospital population alone during the same period was upwards of 23 per cent., or 330,466 patients, as the following table shows:

Beds and Patients Treated by the Ninety-Four Voluntary Hospitals in the County of London in the Years 1894 and 1903.

	1894.	1903.	Percentage of Increase.
Beds	9,110	9,771	7·25
In-patients	92,517	112,523	21.62
Out-patients	1,336,516	1,646,976	23.22
Total Patients	1,429,033	1,759,499	23.12

That is to say, that while in the ten years ending 1903 the patients treated increased by upwards of 23 per cent., the population of London increased by only 6 per cent. As the best-managed hospitals have in recent years exercised more care in returning the number of out-patients, he concludes that the number in 1894 is more likely to have been overestimated than in 1903, and he continues: "In my view, every thoughtful person who studies these figures must be convinced that the hospital needs of London's population are at present more than provided for in the matter of free medical relief. There is a very real necessity for the enforcement of economy and control in regard to the admission of free patients to the London hospitals to-day. Out of this army of free patients a considerable proportion must be able to pay for most or all of the medical treatment they require. If this be so—and who that knows the facts can doubt it?—it follows that the hospitals must largely cut down the admission of free cases by forcing the majority to obtain medical relief in the ordinary way."

The Total Cost of the Work done by the London Voluntary Hospitals.

Sir Henry Burdett estimates that the money expended by the 94 voluntary hospitals in the County of London in 1894, on the maintenance of 9,110 beds and the treatment of 92,517 in-patients and 1,336,516 out-patients—that is, a total of 1,429 033 patients—was £837,725. At the end of the ten years we find that these hospitals in 1903 expended no less than £1,341,641 on the maintenance of 9,771 beds and the treatment of 112,523 in-patients and 1,646,976 out-patients, making together a total of 1,759,499 patients treated in 1903. The following table gives the expenditure of the 94 hospitals during each of the ten years, the total ordinary expenditure having increased from £703,635 in 1894 to £914,373 in 1903, and the extraordinary expenditure from £134,090 in 1894 to £427,268 in 1903. There was, then, an increase in the total expenditure under all heads in 1903, compared with 1894, of upwards of £500,000, or over 60 per cent.

Expenditure of the Ninety-four Voluntary Hospitals in the County of London During the Ten Years, 1894-1903.

Year.	Ordinary Expenditure.	Extraordinary Expenditure.	Tota's.
1894	£703,605	£134,090	£837,725
1895	705,246	144,401	849,647
1896	706,877	131,911	838,788
1897	743,617	112,724	856,341
1898	757,588	166,128	923,716
1899	761,940	228,812	930,752
1900	819,155	255,001	1,074,156
1901	864,523	247,680	1,112,203
1902	882,793	415,421	1,298,214
1903	914,373	427,268	1,341,641
Totals for ten years ...	£7,859,747	£2,263,436	£10,123,183

In commenting on this table, Sir Henry Burdett expresses the opinion that it tends to prove (1) that the great efforts put forward to finance the hospitals have been directly followed by an increase, by leaps and bounds, in hospital expenditure, and (2) that the managers of hospitals have the power, if they have the will, to control their expenditure year by year.

Income of the London Voluntary Hospitals.

In another table he gives the income of the 94 voluntary hospitals in the County of London during the ten years 1894-1903; he finds that the total receipts for the ten years, £10,429 844, exceeded the total expenditure, £10 123,183, of the 94 hospitals by £306,661. It will thus be seen that the 94 hospitals received collectively, but directly, an average of £30 600 a year more than they expended year by year, a fact which we hope will dispose once and for all of the wild statements that the voluntary system of support has broken down, and that the financial position is so grave as to call for rate-support or Governmental aid.

Economy.

Sir Henry Burdett asserts that at the present time hospitals in London are expending more money than they need for the maintenance of the highest efficiency through (1) an absence of effective control over expenditure, and (2) the admission of a host of patients, especially in the out-patient department, who ought never to be admitted to free hospital treatment at all. If these defects were remedied, the present contributions to the London hospitals would, he believes, be adequate to pay for all the work that they can properly and usefully undertake.

Paying Wards.

One other suggestion Sir Henry Burdett makes which we feel is very open to criticism. He considers that it is incumbent upon the hospitals, in defence of their subscribers and in the best interests of the people of London of all classes, to bring the accommodation they afford to sick people up to the requirements of modern times by opening pay wards under conditions which will be adequate to protect and meet the reasonable claims of all the interests concerned.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 88

A REPORT ON THE CARE OF THE INSANE POOR.

[BY OUR SPECIAL COMMISSIONER.]

V.—LIERNEUX, BELGIUM.

Historical.

AT the beginning of 1884 there were no less than 500 patients in Gheel, who had been sent thither from the provinces of Hainaut, Liége, Namur, and Luxembourg. Now, it is necessary to recall the fact that the Belgian people are of two distinct stocks—Germanic and Celtic, the former, the Belgians proper, speaking a *Plattdeutsch* (Flemish) tongue, and the latter, the Walloons, speaking dialects of the French language. These patients, then, from the Southern provinces—many of them from the beautiful hill country of the Ardennes—found themselves in the flat lands of the Campine, surrounded by people of another race, speaking another tongue and with other customs than their own, practically in exile. This fact, together with the crowded condition of the various provincial asylums, forced upon the administration the desirability of forming a colony, similar to that at Gheel, for the Walloon patients. At this time—that is, at the end of 1884—there were 8,986 patients within the asylums of the kingdom, and it was calculated that of these some 2,000 might be considered suitable for treatment within a family colony. At length, after considerable opposition, and owing largely to the intelligent initiative of M. Pety de Thozée, Provincial Governor, the colony at Lierneux became an accomplished fact. At first some local resistance was encountered, but the people of the place finding that so far from being a public danger the patients were harmless and of profit to their guardians, the demand for patients became greater than the number which the authorities deemed advisable to supply.



Home inhabited by one patient at Lansival, near Lierneux.

The placing of the patients amongst the people of Lierneux was initiated very gradually, but after ten months of experimental boarding out the new institution was definitely and legally organized, and on February 11th, 1885, the constitution of the colony and the laws elaborated by the permanent deputation were at the same time approved by Royal warrant.

Administration.

The Commune of Lierneux, situated in the south of the Province of Liége, extends over a considerable tract (6,325 hectares) of country, hilly, picturesque, well watered by streams abounding in trout, and clothed with pine and birch. The inhabitants—between 2,000 and 3,000 in number—are for the most part farmers or agricultural labourers, and, notwithstanding the evil reputation which the dwellers in this region appear to have earned in the time of its occupation by the Romans, who named it Ladernacum (haunt of brigands), they are to-day a kindly, honest, and hardy folk, hospitable to strangers, and well-disposed to the patients of the Colony. The village itself is composed of straggling, detached houses, many of them of considerable antiquity, and it possesses a fine church, occupying the site of an original structure erected about 660 A.D. The village lies some 6½ miles east of the station of Vielsalm, which is 2¾ hours' journey by rail from Liége, and is reached by a local railway running between Vielsalm and Lierneux.

The colony is placed under the control of a Permanent Committee, composed of the Governor of Liége as President, the *Procureur du Roi* of the district of Verviers, a Justice of the Peace of the Canton, one medical man named by the Permanent Deputation, the Mayor of the Commune, and two other members, one nominated by the Permanent Deputation and the other by the Minister of Justice; but, as at Gheel, for all practical purposes the Medical Director, Dr. Deperon, is the sole responsible head. Dr. Deperon, who lives at the infirmary, is assisted by one medicin-adjoint, Dr. le Jeune. The infirmary, an imposing stone structure of modern construction and design, stands at the east end of the village, and contained at the time of our visit fifty patients, who, for various reasons—somatic illness, mental observation, or temporary excitement had been brought in from the outside colony. The infirmary is exceedingly well-appointed, has wards for male and female patients, numerous day rooms, isolation wards which are only in infrequent use, excellent bath rooms, a pathological laboratory, and all the usual appurtenances of a modern asylum.

The patients on their arrival are received into the infirmary, where they remain for a short time, as a rule five days, for mental observation and the decision of the medical officers as to their fitness for family care. They are then placed under the care of the guardian considered most suitable for the individual cases. The colony contained at the time of our visit 500 patients, of whom 112 were placed with families in the village of Lierneux, 50 were in the infirmary, and the remaining 338 were distributed over the surrounding country in outlying farms and hamlets. The growth of the colony since its inception has been, as the chart (page 270) for the past decade shows, remarkably steady, and is capable of extension to quite twice the present numbers. The district is divided into four sections, over each of which an *infirmier-garde* is placed, who is required to make daily a house-to-house visitation of the patients in his district, and to report upon the condition of the home, the care exercised by the guardians, etc., to the medical director. These *infirmier-gardes* are placed under a *chef-garde*, who has the supervision also of the patients in the village, and who reports daily to the medical director or his assistant. The patients are further visited once weekly in all curable cases, and at least once a month in incurable cases, by the doctors of the colony, and, as we have said, they are also subject to the monthly inspection of the delegates from the Permanent Committee. As at Gheel, and, in fact, at all other family colonies, each patient has a book in which are entered particulars relating to the patient, his age, birth-place, etc., an inventory of the clothing supplied to him, whose number and condition must be checked by the *gardes* in their rounds; his weight, which must be entered once monthly; the dates of bathing, and a copy of the rules of the colony, etc. This book is stamped at each visit by the *gardes* and signed by the visiting medical officer, and has probably some influence on both *gardes* and *nourriciers*, whilst at the same time it furnishes information to the medical officer. The inspection and care, medical and lay, are thus entirely on a par with the Gheel colony and do not require more extended mention.

The Homes.

At the end of last year the names of nearly 500 *nourriciers* were upon the books, and between 600 and 700 rooms were set apart for the use of the patients. The general impression derived from our visit to Lierneux was decidedly favourable, not so much on account of the comfort and cleanliness of the

dwellings—though these were everywhere apparent—as because of the happy and well-nourished aspect of the patients and the evident good feeling which existed between patient and guardian. Wherever we went we found the same intimate amalgamation of the patients with the work and pleasures of the family. Many we found at work threshing corn, chopping wood, or engaged in work of a domestic kind. We questioned most of the patients whom we saw in our three days' stay as to their work and as to whether they preferred family to asylum life, and in every case we received answers expressive of the utmost satisfaction. Occasionally a patient is dissatisfied with his guardian and solicits a change, but always to another guardian—never a change to a closed asylum. It is sometimes found advisable to accede to this request, and the patient is brought back for a short time to the infirmary and then sent to another *nourricier*. This has been found to exert a beneficial influence on both guardian and patient, as it impresses upon the guardian the need for the exercise of the greatest care with regard to the patient, and it is sometimes only after considerable tentative groping that the most suitable home for a patient is found. The advantages of an elastic system of this kind, which permits of a wide choice of *milieu* for any individual case, are so obvious, that they hardly call for repetition. Like Gheel, there is considerable difference in the comfort and elegance of the different houses, and, as at Gheel, the country homes which we visited in the hamlets of Odrimont, Hierlot, and Lansival, exceeded in homely comfort those in the central village. There is a certain similarity in the bedrooms of the patients, which are, as a rule, somewhat superior to the bedrooms of the other members of the household. The flooring is of wood, scrupulously clean; the bedstead also is as a rule of wood, with a straw mattress and above that the bed of loose hay in common use amongst the people of these parts. The bed-clothing was in all cases warm and in good condition, and the personal clothing of the patients of good quality and sufficient in amount. The patients' clothing does not differ in appearance from that worn by the family, although it is supplied from the institution. Each patient also must have a wardrobe of some kind, often a large chest, and the usual articles of bedroom furniture. Many of the rooms were decorated with pictures, flowers, and plants, and all had window blinds and curtains. In many of the houses we noticed that the doors of the bedrooms were pierced with a *lucarne*—an inspection window—which appeared to be superfluous, and in certain cases undesirable. No more than two patients are allowed to any one guardian, and in the country houses we found as a rule only one. Many of the houses which we saw in the country were of great age, and from the point of view of modern house construction, were lacking both in air and window space; but the patients in these cases were working out-of-doors most of the day, and only inhabited their rooms in the night, and appeared contented and in robust health.



Home inhabited by two patients at Odrimont, near Lierneux.

Forms of Disorder.

We were unfortunately unable to obtain exact information as to the proportional amounts of the various forms of mental disorder amongst the patients, as the statistics for the year were in process of preparation, but from what we saw the class of patient differs slightly from those in Gheel, and is composed preponderatingly of imbeciles and secondary dements, with a considerable number of cases of chronic delusional insanity and a very small proportion of the acute psychoses.

Admissions, Discharges, and Deaths.

During the year 1903 there were 97 admissions, and 22 were discharged as recovered, 44 were returned to their parents or transferred into an asylum as unfit for family life, there was 1 escape, and there were 21 deaths. These figures are extremely interesting, as they show that even with the very unfavourable class of admissions recoveries occur in the proportion of 22.6 per cent. calculated on the admissions, and that with a class of people notoriously short-lived deaths occur in the surprisingly low proportion of 4.53 per cent. of the patient population, which for the year 1903 was 465.

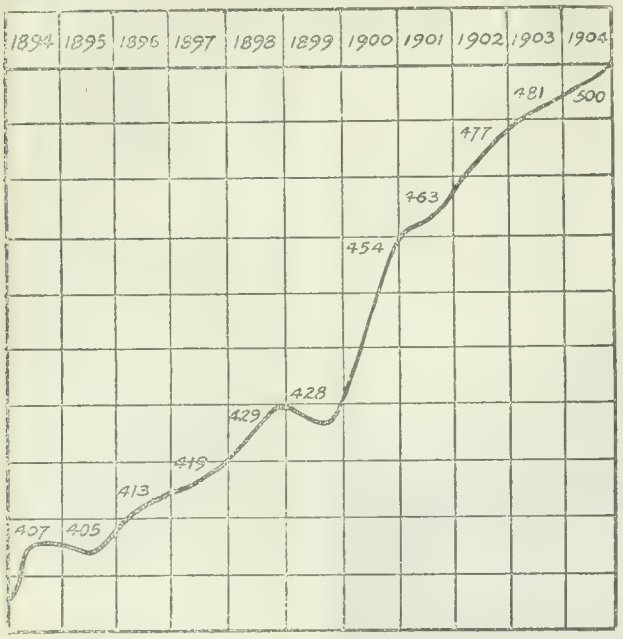


The Infirmary, Lierneux.

Possible Dangers of Family Care.

Another significant fact brought out by the annual report for 1903 is that with the utmost freedom only one patient made a successful attempt to escape. To a certain extent this is attributable to a very thorough system of surveillance, but it is much more due to the contentment of the patients with their lot, evidences of which abound on every hand. Of major accidents not one had to be recorded for the year, and during the whole history of the colony we were able to hear of but two cases of sexual impropriety. There can be no question that the risk of accidents of this nature only requires careful selection of cases and efficient supervision to be wholly eliminated, that the advantages of greater happiness and freedom to the patients far outweigh this possible danger, and that it has pressed too heavily

upon the minds of many who have considered this question.



Finance.

The financial side of this question, however uninteresting it may be to medical men, is of growing importance to the tax paying community, and although the actual economy is somewhat difficult to estimate, it is incontestable that the application of this method results in a considerable saving of public money in Belgium. The question is complicated by the fact that the removal from asylums of a considerable proportion of the well-behaved and hard-working patients necessarily results in an increased proportional expenditure on the patients who remain, but, on the other hand, the benefit to the *nourricier* is to be considered. In speaking of Gheel, we mentioned the fact that to a large extent the conversion of the waste moors of the Campine into the present highly cultivated lands had been the result of patient labour, and here also the colony has been, Dr. Deperon says, of great benefit to the locality. Merely considering the cost of erecting asylums for the patients at present treated in families, a saving has been effected for Belgium of millions of francs, but, turning to the average cost per day per patient, it is found everywhere that this method is the more economical. The cost per patient varies in the different colonies, and the cost in the colonies of some countries exceeds that in the asylums of other countries, but comparing the asylum expenditure of any one country with that of its family colonies, the saving is always on the side of the family care. For purposes of comparison, we reproduce here from Dr. Deperon's annual report for 1903 the following figures showing the total cost per patient per day:

	Francs.
A l'hôpital des Anglais a Liége	2.77
A l'hôpital de Baviere a Liége	2.79
A la sanatorium de Borgonmont	3.50
A l'hôpital de Verviers	1.92
A la Colonie de Lierneux	1.50

We have no desire to press the financial side of this question, important as it may be. One has but to visit these quiet colonies, to see the patients happily engaged in manual labour, mingling freely with their fellow men and entering into the pleasures of the family, to recognize that this system is one capable of application to a certain proportion of the insane in every country, and to realize that the question to be answered is not why should these people be set at liberty, but why should they be confined in asylums.

At the recent *soirée* of the Lancashire County Constabulary (Manchester Division), Dr. G. H. Darwin of West Didsbury was presented by the Chief Constable of Lancashire, on behalf of the Division, with a large gold medal, suitably engraved, as an acknowledgement of his services as medical officer and ambulance instructor.

THE TEACHING OF HYGIENE IN SCHOOLS.

VIII.—Adenoid Growths and Deafness.

We have considered some of the causes of fatigue and the indications by which it may be recognized; now it will be well to examine the conditions for which it may be mistaken. One of the first of these is the state to which Dr. Guye[1] of Amsterdam applied the term "aprosexia," and which he describes as inability to fix the attention on any definite more or less abstract subject. In viewing the physiological interpretation of the symptoms of aprosexia one particularly notices inability to fix the attention on a particular subject. This may be attributed to fatigue; but as this condition exists in a marked degree when there can be no question of fatigue, logically it is a mistake to put it down to that. The inability to fix the attention is naturally put down by teachers to every cause rather than the real one, and no one can blame them for being ignorant of the fact that slackness and inattention are in a great many cases due to adenoid vegetations. Czermak, by means of the rhinoscope, first discovered certain groups of tumours in the naso-pharynx, which interfered most seriously with the nasal functions as well as affecting the middle ear and the nasal cavities. But it was Wilhelm Meyer, of Copenhagen, who first called the serious attention of the profession to adenoid vegetations. In 1873 he embodied the results of his observations in Danish schools in a monograph.[2] He found that of 175 cases of these vegetations in the naso-pharynx, 130 were complicated by affections of the middle ear. Adenoid tumours of the naso-pharynx are common among children under the age of 14 or 15. Arrived at that age they seem to disappear of their own accord, although their outward effects on the expression of the face is never entirely lost, and in all probability the child's education has suffered considerably in consequence of their existence. Children suffering from adenoids are usually called mouth breathers; the naso-pharynx is obstructed and breathing has to take place through the mouth, which remains open day and night. This gives the subject a characteristic appearance of dullness and stupidity. Indeed, once the nasal passage and the Eustachian tube become insufficient for the functions of breathing, pronouncing and hearing, the outward signs are so marked on the face that the complaint can be surely diagnosed without further examination. Dr. StClair Thomson[3] has given a good description of the appearance presented in a well-marked case: "The physiognomy indicative of naso-pharyngeal obstruction consists in the habitually open mouth, the laterally compressed nose, resulting from the permanent inactivity of the alae, and a sort of veiled look about the eyes, due chiefly to an elevation of the under lid. This 'veiled look' is thus accounted for: From the circular muscle of the eye to the orbicularis oris there pass bands of small muscles, which when the mouth is kept closed, hold the lower lid downwards in a slight degree of tension. When the mouth is habitually kept open, however, this tension is relaxed, and the lower lid tends to move a little upwards. Another objective symptom of the affection, and one that forces itself on even the most unobservant of the laity, is the altered tone of the voice, the so-called 'dead' speech, the absence of resonance, and the faulty enunciation of the letters *m* and *n*."

The hearing is affected, which intensifies this appearance, the general health usually suffers too; the work of the heart and the circulation generally is carried on under a disadvantage; in severe cases the adenoid tumours hang down like a curtain behind the posterior nares into the naso-pharynx and block the opening completely.

If the obstruction to free nasal respiration is allowed to continue serious deformities of the chest are produced. Owing to the strong action of the diaphragm in the effort to fill the chest, the lower and lateral parts are retracted so that a horizontal groove is produced at about the level of the upper surface of the liver, while the sternum is thrust forward and often bent at the junction of the manubrium with the body. This deformity is only seen in its most extreme form in children who also suffer from rickets. In other cases the continued obstruction produces a long and narrow chest, which is not only flattened in the upper part but diminished in its transverse diameter in the lower—deformities which undoubtedly predispose to consumption. Finally, if the obstruction occurs in children, otherwise robust, who have passed the age of 9 or 10 years, a certain amount of emphysema

[1] British Medical Journal, 1889, vol. ii, p. 709.
[2] W. Meyer: *Ueber adenoide Wucherungen in d. Nasenrachenhoehle.*
[3] *The Practitioner*, 1896, page 83.

may be produced in time, with a tendency towards the barrel-chest typical of that condition.

The obstruction produced by adenoids causes great depression and discomfort to the children who suffer from them. Their cause has not been clearly traced, but some specialists think that climate may have something to do with it. It is certain that adenoid vegetations are much more common in northern than in southern countries; they are not confined to any particular class. Children of the middle and upper classes suffer from them quite as much as the poorer ones. Dr. Loewenberg observed that adenoids chiefly existed among children of the lymphatic temperament, and thinks this natural in view of the close affinity of the adenoid tissue with that of lymphatic glands; he also considers that heredity is in a great measure responsible, and quotes cases in support of this view. All are agreed that children with adenoids suffer in health and are retarded in their education. The affection is usually accompanied by headache, permanent or intermittent; sometimes it is there regularly in the morning after rising, at other times it appears at school-time as the result of the slightest mental exertion. Dr. Guye says: "If it were known generally how many cases of chronic headache, of inability to learn or to perform any mental work, are due to chronic disease of the nose, many of these cases would be easily cured, and the number of children victims of the so-called overpressure in education would, I firmly believe, be notably reduced." He quotes the following characteristic case: "The first case which struck my attention was that of a boy whose sister was under my treatment for ear disease in connexion with nasal obstruction. The father asked leave to bring me his boy, who had no ear disease, but who could not breathe through the nose, and could not learn anything. I found an absolute nasal obstruction, and the boy, who had been to school for a year had not been able to learn more than the first letters of the alphabet. I removed a mass of adenoid tumours from the naso-pharyngeal cavity, and when his father brought him again, a week later, he told me that his son had learnt the whole alphabet in that week, and that he thought him all right now." This case is typical of many which occur every day in our schools in a working-class district. The medical officer of the Bradford School Board inspected a large number of children aged from 6 to 10 last June, and 10.8 per cent. were found by a first rough inspection to be mouth breathers. Subsequently 47 per cent. were found to have obstruction in one or both nostrils, and 14.3 per cent. to be suffering from discharge of one or both ears. Of the remaining children (89.2 per cent. of the whole) only 15 per cent. presented any obvious nasal obstruction, and (0.9) less than 1 per cent. were noticed with aural discharge. This examination was done in the summer to eliminate catarrhal conditions of a transient nature. With the "forced whisper" in a quiet playground, there was 68 per cent. excellent hearing (18 metres distance or more) and only 5 7 per cent. bad hearing, that is, less than 12 metres distance.

In connexion with the influence of adenoid vegetations on the bodily and mental development of children Wilbert[4] examined 375 boys, whose ages ranged between 6½ and 12½ years; 231 of them showed some hypertrophy of the post-nasal tonsil, giving a percentage of 62; 33 per cent. of the boys showed some pathological changes referable to the vegetations, 5 per cent. showed nervous disturbances, and 27 per cent. were affected in their hearing. In summarizing these results, he points out that in about half of the cases of hypertrophy of the posterior tonsil he could find definite changes. The number of children affected nervously he believes is too low, as only the more severe forms would be detected. He goes on to deal more minutely with the ear cases, and finds that 16 per cent. of the boys could not hear whispered speech at a distance of 1 metre. With regard to the mental condition, he finds that of the 26 children who were described as bad scholars 22 had adenoids, and that of the 84 boys forming the bottom 12 in each class, 65 suffered in this way.

A few years ago Mr. A. H. Cheatle examined the ears of 1,000 school children, between the ages of 3 and 16 years, in the Hanwell district school, which receives the children of the poorest class from Southwark and the City of London, and the ophthalmic school, to which children suffering from eye disorders are sent from all the metropolitan Poor-law schools.[5] He found that in no less than 434 adenoid vegetations were present, although slight in amount in 39; they were associated with enlargement of tonsils in 174 instances, and some aural trouble was present in 394; in 40 only were the ears normal. As the total number of cases in which hearing was more or less deficient was 520, the important part which adenoid vegetations played in producing deafness may be inferred. Mr. George Murray, who examined the ears of 400 school children in the parochial schools in Greenwich,[6] found that 43 children were deaf, and that no less than 30 of these had adenoids, 20 boys and 10 girls; in thirteen of these cases there were large tonsils as well. The children examined by Mr. Cheatle belonged to the very poorest and most neglected class; but the proportion found by Mr. Murray in the ordinary parochial schools of Greenwich, 107½ per 1,000, is in close agreement with the proportion, 117 per 1,000, found by Dr. Röhrer among 108,297 children in the canton of Zurich who had reached the age for compulsory education.

As has been pointed out in the last article, cerebral activity produces waste products, which must be continuously removed if premature fatigue is to be avoided. There can be no doubt that this removal is, in part at least, carried out by means of the lymphatics. Large lymph vessels pass out of the cranial cavity with the olfactory nerves, and it is highly probable that structural changes in the nasal mucous membrane, by exerting pressure on these lymph vessels, will impede the current, lead to the retention of the waste products, and so produce a feeling of fatigue.

The causes of adenoid vegetations do not seem to be definitely known. The fact that they occur much more frequently in temperate than in hot climates supports the theory that repeated attacks of post-nasal catarrh are among the chief causes of the disorder. Further than this it is impossible at present to go. In many of these patients the naso-pharynx is narrow and the arch of the palate high. Some specialists believe that these conditions are congenital, others that they are the consequences of the nasal obstruction produced by the adenoid growths. However this may be, it is clear that a smaller amount of growth will produce more complete obstruction in a narrow than in a roomy naso-pharynx. Practically, therefore, the treatment under either hypothesis must be the same. At present adenoid vegetations are treated almost exclusively by operation. It is worth considering whether preventive measures are possible: whether, when the infant first goes to school at 3 or 4 years of age, carefully-taught breathing exercises—and all proper breathing exercises are through the nose—might not, by keeping the nose healthy, prevent these unhealthy growths, or minimize their bad effects. The breathing exercises should take place several times a day with the windows thrown wide open. Most careful examination of the infants should be made: if an operation has to be performed, it is likely to be much less severe than when the child and the growth had grown bigger. It would, of course, still be necessary to look out for adenoid growths in the older children, but the earlier the mischief is checked the less grave will be the consequences for the child's education and physique. If dealt with at once there is nothing alarming in the affection, but the matter becomes grave when—as happens every day—it is mistaken by teachers for stupidity and dullness; when children who, free from adenoids, would be quite intelligent are punished by teachers and disliked by their fellow pupils. To the teachers they are constant source of worry or discouragement; their heavy, unintelligent expression irritates a teacher, who mistakes their dullness for perversity, while it produces a sense of personal failure in those who are sensitive and conscientious. In consequence, these unfortunate children are sometimes neglected for more attractive scholars; sometimes, it is to be feared, unjustly punished for a lack of attention and alertness due not to moral but to physical defect. To their schoolfellows, who find their heavy faces, indistinct speech, and lethargic temperament uncongenial, they too often become butts to be ridiculed and bullied. These moral considerations alone make it imperative that these children should receive proper medical treatment in the earliest stages. As we have said before, when the disease is allowed to develop unchecked, even if cured later, it is apt to leave deafness, and the face for ever stamped with an unpleasant appearance of vacancy and sullenness which is likely sorely to handicap a human being when the question of finding employment has to be faced.

Everything points, then, to the importance of early prophylactic measures and prompt treatment, when necessary, in cases of naso-pharyngeal adenoid growths. To temporize, in the optimistic hope that the children will "grow out" of the affection, is too often to doom them to lifelong unfitness.

[4] *Deut. med. Woch.*, February 5th, 1903.

[5] *Journal of Laryngology*, 1902, p. 2[illegible].

[6] Ibid, p. 293.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on January 26th at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

POOR-LAW INFIRMARIES AS TRAINING SCHOOLS.

Memorials from the guardians of the Bradford Union, the Eccleshall Bierlow Union, the Blackburn Union, the Leeds Union, and the Bath Union were received, praying the Board to reconsider their decision not to recognize Poor-law training schools as such. Resolutions were received in support of the Bradford Memorial from the guardians of Portsmouth Parish, the Epsom Union, the Swindon and Highworth Union, the Chorlton Union, the Sculcoates Union, the South Shields Union, the Wolverhampton Union, and the Derby Union.

Mr. DUNCAN (the Secretary of the Central Midwives Board) stated that the Chairman of the Guardians of the Bradford Union had called upon him. Mr. Duncan told the Chairman that the memorial to the Central Midwives Board was based on erroneous information. The Board had not refused to recognize Poor-law infirmaries as training schools for midwives merely because they were Poor-law infirmaries, and it was therefore incorrect to assert that the refusal of the Board was an injustice to the Poor-law training schools, and would result in an inferior class of nurses applying for work in Poor-law institutions.

The CHAIRMAN pointed out that a certain number of Poor-law training schools had been recognized by the Board, and in the course of the discussion expressed his opinion that it would be a great pity if somehow or other the Poor-law training institutions were not utilized.

Dr. PARKER YOUNG said that, as the Central Midwives Board had received a memorial in identical terms from certain Boards of Guardians, primarily from Bradford, the duty of the Board was to answer the Bradford guardians; he suggested that the guardians of the Bradford Union should be informed that the Central Midwives Board had not passed any resolution refusing to recognize Poor-law infirmaries as training schools for midwives. As a matter of fact, the Board had already recognized four such institutions.

This course was, after further discussion, agreed to by the Board.

Miss WILSON moved:

That the question of Poor-law training schools should be considered at a special meeting of the Board.

She observed that to take up individual cases and approve one Poor-law institution here and another there without having first had a preliminary discussion would in the end make the subject more complicated.

In seconding this resolution Dr. CULLINGWORTH said that the question ought to be discussed, because much feeling had arisen on the subject, and a great amount of detail was involved.

Dr. PARKER YOUNG urged that every case ought to be taken on its own merits; he deprecated the Board making fixed rules, and pointed out that it appeared from Miss Wilson's remarks that these Poor-law institutions were different from other institutions applying to be approved as training schools for midwives.

Dr. WARD COUSINS contended that there should be a common ground on which all training schools should be treated by the Board. In the end Miss Wilson's resolution was carried.

APPLICATIONS FOR THE CERTIFICATE OF THE BOARD.

In the case of a woman who was stated to have been incapable when attending a labour, the Board directed that, before deciding on the granting of a certificate to her, the woman should be invited to send an explanation of the circumstances in writing.

In the case of a woman who was alleged to have had three deaths in her practice in one month from puerperal fever, the Board decided to ask the woman for a written explanation of the circumstances before deciding on the question.

In the case of a woman who had continued to attend cases of labour after having been warned by a medical man that she ought not to do so because she had had a case of puerperal fever, the Board decided to request the woman to supply a written explanation.

In the case of a woman who had been fined for having been drunk, for having used provoking language in the street, and for having by shouting caused a crowd to collect, the Board decided not to grant her a certificate under Section II of the Act.

NUMBER OF WOMEN ON THE MIDWIVES ROLL.

After consideration of applications for certificates, the names of 1,614 women were passed under Section II of the Act, and ordered for entry on the Roll. The following table shows the numbers of the various qualifications at present appearing on the Roll:

Royal College of Physicians of Ireland ...	6
Obstetrical Society of London	4,396
Rotunda Hospital	252
Coombe Hospital	61
Queen Charlotte's Hospital	248
Liverpool Lying-in Hospital	189
British Lying-in Hospital	7
Glasgow Maternity Hospital	157
St. Mary's Hospital, Manchester	148
Manchester Maternity Hospital	29
City of London Lying-in Hospital ...	70
Royal Maternity Hospital, Edinburgh ...	55
Salvation Army Maternity Hospital ...	19
National Maternity Hospital, Dublin ...	14
Limerick Lying-in Hospital	9
Cork Lying-in Hospital	10
Eden Hospital, Calcutta	3
Newcastle-on-Tyne Lying-in Hospital ...	7
Dundee Maternity Hospital	7
Aberdeen Maternity Hospital	1
Women in bona-fide practice, July, 1901 ...	7,402
Total enrolled... ...	15,090

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

RETURN OF THE THIRTEENTH EXPEDITION: PROGRESS OF SANITATION ON THE WEST COAST.

THE thirteenth expedition of the Liverpool School of Tropical Medicine returned from the West Coast of Africa on January 23rd, and Professor Boyce, Dr. Arthur Evans, and Dr. H. H. Clarke, members of the expedition, were on January 30th entertained at a luncheon in the Exchange Station Hotel by Sir ALFRED JONES, K.C.M.G., Chairman of the School.

The CHAIRMAN, in submitting the toast of "The Members of the Expedition," said that the efforts of the Liverpool and other Schools of Tropical Medicine had resulted in a great improvement in the health of West Africa. The improvement of the health conditions of our colonies was a matter of imperial moment. He felt that Liverpool deserved to be congratulated upon its efforts in the direction indicated. The world would be the better off for the work the Liverpool school was doing. He announced that a telegram had been received from Her Royal Highness Princess Christian intimating that she would be pleased to become an honorary president of the school, and that she would be glad to be kept informed from time to time of the progress of the work.

Professor BOYCE, in replying, said the expedition went out as a part of a general scheme for keeping in touch with West Africa. Their efforts had been directed to the health problems in Bathurst, Conakry, and Freetown. At Bathurst they found that vigorous antimosquito measures had been undertaken, dating from Dr. Dutton's visit in 1902. The result was a very material improvement in the health of both Europeans and natives in that place. With regard to Conakry, which was under French rule, despite a splendid system of general sanitation and an excellent water supply, malaria was, if anything, on the increase, simply because the authorities had forgotten to shut the old wells in which the mosquitos bred. Thus the mosquitos were not kept under, and malaria continued to increase. As regards Freetown, the measures adopted had within the last few years resulted in a great improvement in the health of the people. A great deal of the cleanliness noticed at Bathurst, which had undoubtedly resulted in enhancing the health conditions of the town, was due to the efforts of the various expeditions which had been sent from Liverpool. All along the coast the contest against the mosquito had made people think, and many had acted upon the theories with great resultant good. The people in Bathurst were fully alive to the importance of following out the antimalarial measures first laid down by Professor Ross. A point which he wished to emphasize as having been responsible for reducing malaria amongst Europeans in Freetown was the removal of the living quarters from the seat of infection. Inasmuch as the mosquito committed its greatest ravages in spreading the dread disease at night, it was obvious that the greatest immunity could only be secured by the residents sleeping in those districts which were the least frequented

by the mosquitos. He advocated the inauguration of an effort to enable the natives to take equal advantage of this precautionary measure. At the same time works of sanitation, drainage, and water supply would have to be undertaken in Freetown before the place could be made really healthy, and he appealed to merchants to co-operate with the officials to achieve this result. Europeans in these malaria-stricken towns could do a great deal for the native by setting him an example in the matter of the healthiest way of living.

The Chairman, in acknowledging the toast of his health, proposed by Professor Boyce, suggested that the work should be invested with more of an international character. If they could get France, Germany, and other countries interested in West Africa to join in the work the results would be surprising.

SPECIAL CORRESPONDENCE.

VIENNA.

The Austro-Hungarian Society for the Relief of Chest Diseases.—The Abatement of the Dust Nuisance.—"Lungs" for Vienna.—Influenza.—The Pasteur Institute.

The Austro-Hungarian Society for the Relief of Chest Diseases began its work recently by opening a sanatorium for tuberculous patients of the poorest classes in one of the densely populated districts of Vienna. It is only a small house, a modest beginning, as the means of the society are not yet very large. But its chief object is to diffuse a knowledge of elementary hygiene. Attached to the sanatorium is a home where children of infected families will be cared for. The institution consists of two large and two small wards, one large airy sitting room, washing and bathing rooms, a chemical and bacteriological laboratory, and a dark chamber for laryngological and *x*-ray work. A number of university professors and medical practitioners are amongst the members and governors of the association.

With a similar object extensive experiments are now being made in certain streets as to the best means of suppressing the dust nuisance. Following the examples set by Swiss communities, the authorities have ordered seven streets in the suburbs of Vienna to be impregnated by a tar preparation said to fix any dust falling on it, while itself producing hardly any débris by the friction of hoof and wheel, and, being nearly noiseless; the experiments have given satisfactory results, and Professor Weichselbaum, whose name is associated with many sanitary institutions, and who has taken a leading part in the fight against consumption, is at the head of the movement. It is proposed to cover all the streets of Vienna with the dust-free pavement. Microscopical examination of the air taken from various parts show that the wood pavement is worst of all, next comes asphalt, then comes large flat stone, and finally tar, if the number of solid particles is taken into account without paying attention to the number and virulence of bacteria found therein.

Another scheme for the supply of pure air to Vienna has lately been brought forward. The Lord Mayor has reported on the proposal of the Municipal Garden Committee to form a ring of forest, meadow, and parkland around Vienna, the average width of which would be three-quarters of a mile. The length would be 25 miles (40 kilometres), and no houses would be allowed to be built on this area. This air reservoir, which already exists in the south and west, is intended at the same time to serve as a recreation ground for school children, as a park and riding avenue; one small area will be reserved for the purpose of a convalescent home. The plan has been received with unanimous approval, in spite of the enormous cost of keeping in order an estate of 18 square miles.

Influenza is again rife in Vienna. It is as yet of a very mild type, affecting chiefly the alimentary and respiratory organs; but already the occurrence of unpleasant cardiac and ear complications is reported. The hospitals are quite full; on a single day the General Hospital took in 186 new patients, the highest number of admissions recorded for one day for fifty years. The disease chiefly attacks men between 20 and 50 years of age. More than 5,000 cases have been notified since December 15th, 1904, and doubtless a large number do not come to the notice of the sanitary authorities.

The annual report of the Vienna Pasteur Institute for 1902-3 shows that 536 persons (105 men, 120 women, and 221 children) were treated during that period. Of these, 215 were treated as out-patients. There were only 2 deaths. The total number of persons treated since the foundation of the Institute ten years ago is 2,146 persons (836 men, 406 women, 904 children). By the death of Dr. Ullmann the Institute has lost a most able Director. Dr. Sternberg, who, like Dr. Ullmann, has been connected with the Institute since its foundation, has been requested to act as Director.

MANCHESTER.

Should Ankylostomiasis be made a Notifiable Disease?—Small-pox in Lancashire during Last Quarter.—Annual Meeting of the Royal Eye Hospital.

Dr. Sergeant, the Medical Officer of Health for the Lancashire County Council, stated that on January 10th he saw a man suffering from ankylostomiasis, who had been in South-west Africa, and was treated in a Liverpool hospital. He left, however, before the treatment had been completed. The man was not a miner, but some miners, knowing the peril of this disease, made an attempt to get the man treated in a Wigan hospital. The mother would not consent, saying that "if it was such a valuable worm her son was suffering from let him keep it." As ankylostomiasis is not in the legal sense an infectious disease the local authorities could not interfere, and the man was at liberty to infect the county with the ankylostoma, which under circumstances favourable to it might become endemic. The Public Health Committee have intimated to the Local Government Board that in their opinion ankylostomiasis should be made a notifiable disease.

In their report the Public Health Committee of the County Council of Lancashire state that during the past quarter there were in the county 111 cases of small-pox with 7 deaths, as compared with 98 cases and 3 deaths in the preceding quarter, and 77 cases and 5 deaths in the corresponding quarter of 1903.

At the annual meeting of the Royal Eye Hospital it was stated that the out-patients numbered 14,654 at Oxford Road, an increase of 1,348, and 12,965 at John Street, an increase of 71 as compared with the previous year. The in-patients at Oxford Road numbered 1,544, an increase of 137; while the average duration of their stay in hospital was 21.28 days. The number of accidents treated at the two hospitals was 5 874, an average of 18.76 per day. The growth of the out-patients by 80 per cent., and that of the in patients by 25 per cent., had compelled the managers to increase their accommodation. They have acquired from the Royal Infirmary trustees a plot of land 1,600 square yards in extent, adjoining the present Eye Hospital, for the erection of new wards and an operating theatre. The excess of expenditure over income was £506, but this has been more than compensated for by legacies, and the hospital was better off to the extent of £300 than at the corresponding period last year. There still remains, however, the question of how to raise the funds for the erection and maintenance of the proposed extension. The hospital has received £1,000 from the Gledhill trustees. This sum will be devoted to the endowment of a cot to be named after the late Manasseh Gledhill, under whose will the hospital had already received £1,000. Miss Beswick, who died recently, also left £1,000 to the hospital.

SHEFFIELD.

The Sheffield University Bill.—Daily Notes of the Condition of Fever Pain.—Burnt Children.—Hospital Sunday.

The Sheffield University Bill, authorizing the dissolution of the University College of Sheffield and the transfer of its property and liabilities to the University of Sheffield, has complied with the standing orders and will be sent for first reading. It was an unopposed measure as far as the examination stage was concerned, and it is not apprehended that the future stages will be less fortunate. In the meantime the endowment fund is slowly accumulating. There have been many interesting features in the University movement. Among these may be mentioned the pecuniary assistance that has been forthcoming from the working classes. Their action has shown considerable civic patriotism. Convinced that it must be for the public benefit for a university to be established in the city, they have generously contributed to the fund for the new buildings and endowment. A large number of meetings have been held at the different works, and each has been followed by the men taking steps to raise money in support of the movement. The men have shown, in many instances, a keen interest in the matter, and have attended the meetings in

numbers varying from 100 to about 700. The sum already paid over exceeds £1,000, and the returns are completed.

A new system of reporting the daily condition of patients in the various hospitals under the control of the City Corporation has recently been inaugurated. Every patient is given an identification number, and his condition each afternoon is telephoned by the hospital authorities to the central police offices by number. This information is in turn distributed to the divisional stations and substations, where the office clerk will insert on sheets provided for the purpose a note of the condition of the patient. For the successful working of this plan it is necessary that the friends of the patient make themselves acquainted, in advance, with the proper identification number. Plain numbers, as 267, 145, signify scarlet fever cases; numbers with the addition of the letter A, as 27A, 32A, signify diphtheria patients; and numbers with X added, as 21X, 39X, signify those suffering from typhoid fever. For the more serious cases, a special time is, in addition, specified for inquiry by telephone or otherwise. The evening paper is at present publishing under numbers the condition of patients each day.

There has been more than the usual crop of burning cases, especially among children, recently. At a recent inquest the jury subscribed for a wreath for one of these little victims. The evidence showed the absence of a fire guard. A writer in a local paper immediately pointed out with much force that as there were still three children in the same family the jury would, with more wisdom, have subscribed for a fire guard and possibly in this way prevented other inquests.

Hospital Sunday was held on January 29th in beautiful weather and the amount collected is likely to be in excess of last year's amount.

LEEDS.

Annual Meeting of Hospital for Women and Children.—Dental Department, Leeds Public Dispensary.—Appointment of Pathologist at the Dispensary.—Training of Nurses at Leeds Union Infirmary.—Influence of the Fog on the Death-rate.

THE annual meeting of the Hospital for Women and Children was held on January 26th, and was attended with especial interest, as during the year 1904 the work has been carried on in the new buildings, and the maternity department has been in operation for about six months. As was to be expected, there has been a considerable increase in the amount of work done. Apart from the maternity cases, 466 women suffering from diseases peculiar to them were admitted, as against 387 during the previous year. No children above the age of 6 years are admitted; the number for 1904 was 73, as compared with 31 in 1903. A similar increase is seen in the out-patient department, there having been 2 883 new patients in the women's department, as against 2,571, and 2,570 in the children's department, as against 2,132. In all 649 operations have been performed in 1904, as against 415 in 1903. Previous to last year the acting staff consisted of three honorary surgeons. For some time, however, it had been found that there was a risk of an adequate development of of the children's department not being assured, as the work in the women's department was increasing and was becoming more specialized, while it was felt that the establishment of a maternity department would make further inroads on the time of the honorary surgeons. An assistant physician was accordingly appointed in March, and the hospital was fortunate in securing the services of Dr. Telling, who deals with the medical cases. It is now found that special arrangements must be made for dealing with the surgical ailments of young children, and it has been arranged to appoint an assistant surgeon for children. The work of the assistant physician and of the assistant surgeon for children will thus be confined to the children's department. There are five cots for children in the hospital; and though these two officers have no official charge of in-patients, they may, by the courtesy of the honorary surgeons, retain under their care children who are admitted by them to their cots. It has also been arranged that on a vacancy occurring in the full staff the honorary surgeons shall in future be two in number and that an assistant surgeon shall be appointed, whose duties will be entirely in the women's department. He will act as assistant and deputy to the surgeons, and will see a proportion of the out-patients. Two members on the full staff would appear under new conditions to be enough, as the total number of beds available for women is forty-five, exclusive of the maternity department. By this arrangement of the work, which has been the subject of much thought, it is felt that the selection of candidates for appointment will be simplified. The assistant physician and the "assistant surgeon for children" may now be selected purely for excellence in the knowledge of the medical and the surgical diseases of children, while in the appointment of the "assistant surgeon," who will be likely to succeed to any vacancy on the full staff, a knowledge of gynaecology and obstetrics will be the main consideration. Retirement from the honorary staff is regulated by an age limit, which is fixed at 60 in the case of all officers appointed after January 29th, 1903. On retirement the officer becomes a consulting surgeon, and retains the right to use two beds in the hospital. The institution of the lying-in department is an important addition to the charities of Leeds. In 1885 an extern maternity department was started in connexion with the General Infirmary, and this deals with a large area of the township. The annual number of confinements amounts to more than 600, and Leeds students have no difficulty in getting a large obstetrical experience. Very few cases, however—and these only very exceptional ones—are ever admitted into the wards; and thus, apart from the lying-in wards at the Union Infirmary—which would not be suitable for the class of patient under consideration—there has been no provision for maternity cases. The department at the new hospital has been specially adapted and fitted for its purpose. It occupies a self-contained suite of rooms, with the necessary offices, lavatory, ward kitchen, etc. There are four wards, one of which will be used as a labour ward, and the remaining three wards will accommodate five patients, which represents the full complement at present. As already said, the maternity work has been in operation six months, and during that time thirty-two confinements have taken place.

In accordance with the new regulations which were detailed in this column on January 7th the following appointments have been made: Mr. Frederick Sherburn, who has held the post of Honorary Dental Surgeon for the last twenty years, has been appointed Consulting Dental Surgeon. The following six, who are placed in order of seniority, were elected as Honorary Dental Surgeons, namely: Messrs. J. H. Carter, W. E. Margetson, J. E. Greaves, P. T. Leigh, W. Marston of Leeds, and A. G. G. Plumley of Wakefield. As Honorary Assistant Dental Surgeons the following were elected: Messrs. Stephen D. Hey, James N. Nicol, Henry Perkin, Cecil C. Riddett, David Saville, and R. Littlewood Young. These officers will form the Dental Committee. They will be represented on the Board of Management by three of their number, and the Dental Committee will supervise and regulate the dental work of the charity—subject, of course, to the control of the Board—in the same way as the medical and surgical staff have for many years supervised the medical and surgical work. The furnishing and equipment of the department will now be rapidly pushed on.

In the block plans which were drawn up by the staff of the dispensary for the guidance of the architects there was included a clinical laboratory. A spacious room, convenient of access from the residential and working part of the building, has been provided, and, chiefly under the direction of Dr. Trevelyan, this has been suitably furnished as a laboratory. The question of apparatus, microscopes, reagents, etc., has been left over until the appointment of an honorary pathologist is made. This important step was decided on at a general meeting. The new officer will be a member of the faculty of the dispensary and, as is happily the case both at the infirmary and at the dispensary, in virtue of this, a member of the Board of Management as well.

For the last ten years the Leeds Board of Guardians have very wisely been endeavouring to improve the status and efficiency of their nursing staff at the workhouse infirmary by providing a systematic course of training. The hospital, which consists of several blocks, is certified for 650 cases, about 120 imbecile patients, and the pressure on the beds is so great that a substantial increase of accommodation has been arranged for in the new buildings, which are shortly to be erected. A large number of the cases are, as elsewhere, bedridden people and incurables, but there is also a fair proportion of acute cases, and of cases requiring surgical treatment, so that there is an adequate amount of clinical material for the instruction of the nurses. During the year 1904 there were 2,474 patients admitted. There were 441 deaths and 88 births. A nursing home was built in 1894 with accommodation for 50 nurses, and, when the

extensions which are now being carried out are completed, there will be accommodation for a staff of 80. At present the staff consists of a matron at a salary of £100, an assistant matron and a home sister whose duties are mainly in the nursing home, a night superintendent, and of ward sisters at salaries of £32 to £35, assistant nurses, and probationers undergoing a course of training, and these amount at present in all to 60, exclusive of those in charge of the imbecile department. The probationers are selected by the matron from candidates, who have to provide a medical certificate of good health, and come in the first instance on two months' trial. They are paid at the rate of £10, 14, and £18 during their three years of training. At the end of their two months' trial they are examined physically, and, if found fit and reported as otherwise suitable, they sign on for three years and three months. During their first year they attend lectures and practical classes, which are given by the matron. During their second and third year they are instructed by lectures, practical classes, and frequent examinations, which are conducted by the medical superintendent. They have access to a library of medical books and are provided with a skeleton, specimens, and diagrams. The lectures deal with elementary anatomy and physiology, and as much in the way of medical and surgical instruction as it is considered wise to try to impart. Some instruction in sick cooking is also given, and this is to be further developed. At the end of their three years of training they are examined by means of written papers, and a careful viva voce examination by an independent external examiner, and upon his report, coupled with the report of the medical superintendent and the matron, depends the giving or withholding of the certificate of proficiency; they are then eligible for promotion to the post of assistant nurse or sister as vacancies occur. Since 1895 certificates have been given to 93 nurses, and the standard of efficiency has been well maintained; of these, 26 have remained for various periods as sisters and assistant nurses, 34 have joined the staff of private hospitals and nursing institutes, 14 have got posts in other unions as charge nurses, or in fever hospitals and sanatoriums, while 5 left at the end of their training to be married, and of the remaining 14 some gave up nursing, and of others no record is forthcoming. The results are regarded as eminently satisfactory, and the greatest credit is due to Dr. Allan, the medical superintendent, who amidst his varied duties finds time to give such a thorough course of instruction.

The influence of the fog on the death-rate during the last few weeks is striking. This fog, which will long be remembered even in Leeds as of a singularly penetrating and disagreeable variety, began on Monday, December 19th, and lasted, with varying degrees of intensity, for nearly a fort night. The death-rate for the week ending December 3rd was 17, and this fell to 15 and 13 for the two following weeks. For the week ending December 24th it rose to 20, and in the following week to 23, falling to 21 for the week ending January 7th, while for the week ending January 27th it again stood as low as 16.

SOUTH WALES.

County Council Inquiry at Treharris.—Honour to Sir W. T. Lewis.—Opening of the Electrical Pavilion at Cardiff Infirmary.—Guild of Graduates.—Sanitary Inspectors' Association.

At the Public Hall, Treharris, on January 26th, Alderman W. H. Mathias and Councillors O. H. Jones and T. Morris held an inquiry on behalf of the Glamorgan County Council into the application for the creation of a new urban district council, to comprise the Merthyr Vale Ward of the Merthyr District Council, and a great portion of the Bedlinog Ward in the Taff Bargoed district of Gelligaer. There was a good attendance, and great interest was taken in the matter. At the end of the inquiry the Chairman stated that the Commissioners would report in due course to the County Council.

By a resolution which was passed at a special meeting of the Cardiff Council on January 25th it was resolved to present Sir William Thomas Lewis, Bart., with the honorary freedom of the Borough of Cardiff. Sir William has closely identified himself for many years with all matters pertaining to the welfare of the borough of Cardiff, the College and Infirmary, and the Merthyr Hospital, etc., and the honour it is intended to confer on him by the Corporation of Cardiff will be hailed with delight by his numerous friends.

The new electrical pavilion of the Cardiff Infirmary was formally opened on Thursday last by Sir William Preece, K.C.B., F.R.S., in the presence of a large and influential audience. The building, which has cost £2,300, was mainly the gift of Mrs. E. Martin, the widow of the late Lieutenant-Colonel W. H. Martin, and the cost of the electrical equipment and furniture (£500) was defrayed by voluntary subscriptions. It is a separate block placed in a central position on the main corridors, and, although entered from this corridor, it has also a separate entrance from the Newport Road. The building is of stone with a slate roof; its architecture is in harmony with the surrounding buildings. The walls of the rooms are lined with pale olive-green crystopal tiles. The rooms are ventilated with inlets of fresh air passing through radiators with extract ventilators in the roof. The whole of the floors are paved with terrazzo and the woodwork throughout is of teak. The system of heating is by radiators supplied with steam from the main boilers. The pavilion includes the following rooms: (1) Finsen light room with dressing room attached; (2) waiting room; (3) *x*-ray photographic room; (4) room for general electrical treatment; (5) photographic room with developing room attached for keeping records, plates and instruments. The installation of appliances is very complete in the matter of Roentgen apparatus. It is unsurpassed by anything in this or any other country. It includes the d'Arsonval-Gaiffe apparatus for *x* rays and high frequency, the newest and most complete type of electrical medical apparatus. It works directly without any interruptor from the town mains (voltage 200, periodicity of 40). There is also a 16 in. induction coil with adjustable primary winding (Dr. Walter's method) with Wehnelt interruptor. A motor generator with voltage 65 connected with the different wards and also with the Eye Department where there is a powerful magnet, a Finsen's ray lamp, a Bartholomew Hospital lamp, a faradization galvanization apparatus, appliances for stereoscopic and localizing apparatus. Among the accessories are a Schönberg's compression cylinder and apparatus for the proper illumination of *x*-ray plates. The department is in charge of Dr. William Martin, Honorary Assistant Surgeon to the Infirmary—the inventor of lead glass shields fitting on to focus tubes—and he has made ample provision for the protection of operator and patient from the deleterious effect of the *x* rays by means of a large lead screen to protect the whole body of the radiographer, a lead box with adjustable diaphragm for screen examinations and lead glass shields. Arrangements have also been made for the erection in the future of electrical and light baths. The acquisition by the Infirmary of this pavilion and its equipment is due to the initiative and energy of Colonel Bruce Vaughan, F.R.I.B.A., the Chairman of the House Committee.

On January 27th a meeting of the Guild of Graduates of the University of Wales was held at the Town Hall, Cardiff, and in the evening, under the auspices of the Guild, Sir T. Marchant Williams occupying the chair, Sir W. H. Preece addressed a large company of members of the scholastic profession on "The Teaching of Science in Secondary Schools." The address was listened to with rapt attention.

On January 28th the eighth annual meeting of the Sanitary Inspectors' Association of South Wales and Monmouthshire was held at the Town Hall, Cardiff. Afterwards, the Mayor (Alderman Robert Hughes, J.P.) entertained the members to luncheon. In the absence of the Mayor owing to an attack of influenza, the Deputy Mayor, Councillor L. Yorath, occupied the chair. A large number of Councillors and Aldermen were present, together with Dr. E. Walford, Medical Officer of Health of the Borough, Dr. W. Williams, Medical Officer of Health for Glamorgan, and President of the Association, and Dr. D. J. Thomas (Merthyr Tydfil). The toast of the Association was proposed in most felicitous terms by the Chairman, and responded to by Messrs. Warren and Lambert. Dr. Williams returned thanks for the hearty reception accorded to the Association.

A paper on the control of hospital expenditure with efficiency will be read at the Hospitals Association to be held at the Hospital Building, 28, Southampton Street, Strand, London, W.C., on Friday, March 3rd, by Mr. G. G. Mackintosh, M.V.O., Medical Superintendent of the Glasgow Western Infirmary. Tickets of admission may be obtained on application to the Honorary Secretary of the Hospitals Association, 28, Southampton Street, Strand, W.C.

CORRESPONDENCE.

"INSANITY AND MURDER."

Sir,—On reading the opening of Dr. Mercier's comments on the above article which appeared in the British Medical Journal of January 21st, I pictured the writer sitting down with an open volume of Rabelais before him, moulding his somewhat tiring string of repudiations on the model of that master of redintegration. It seemed as if he had started with the purpose of lashing me with scorpions, but in the end I was relieved to find that he "smote me friendly," and that the frenzied terms of his indictment resolved themselves into a categorical comment on some of the propositions, enlivened by light touches upon his mode and plan of retreat if he had the bad luck to be appointed an assessor, and by a rather unworkmanlike view of the mechanism of his chronometer. I hope that Dr. Mercier will not impute to me either the "ignorance or fatuity" (his own words) of supposing that the judge decides criminal cases. Of course the jury has the actual finding of the verdict, but the trend rests practically on the instructions of the judge, and that is what was intended to be conveyed.

The gravamen of my complaint was that in only some cases, and not in all, was a medical examination made by independent experts in murder trials before the prisoner was allowed to plead, and Dr. Mercier is quite wrong in stating that "the inquiry is made before the trial." The actual fact is that *only if the case appears to present any particular difficulty* is a mental specialist sent by the Crown authorities, and he is for the purpose furnished with copies of the depositions, police reports, and other available information concerning the prisoner's antecedents, etc. The case of every prisoner sentenced to death is very fully inquired into by the Home Office authorities, and my contention was that this rather illogical procedure should be corrected. During the ten years, 1893 to 1902, 128 murderers were found "guilty but insane." Is it too much to maintain that the fact of the insanity should have been stated before the proceedings commenced, and the judge and jury placed in a correct position for appreciating the circumstances?

Dr. Mercier has apparently solved his own *γνῶθι σεαυτὸν*—he has declared himself to have neither the legal nor the medical mind. May I suggest that I know him better, and that his apparent diffidence in defining his own status arises from the difficulty in trying to weld into a coherent whole the divergent views which at present animate the legal and medical aspects of many of the problems on responsibility?

I cannot pass over the assertion that "nothing is better established than that a person may be insane and responsible, sane and irresponsible." This is a special tenet of Dr. Mercier's, just as is his recently exploited one that insanity is a functional affair, but that nothing is "better established" than is the general truth of this, is an assertion only and is not generally accepted. The patients whom Dr. Mercier detains in his asylum are, of course, insane, and no doubt he may allow them a limited responsibility in minor matters—but where does he draw the line? Would he hold his patient responsible for settling a small account for sweets at the village confectioner's, but irresponsible for a murderous assault committed upon another during his walk? No one can know better than a man of Dr. Mercier's practical experience that with an insane person the unexpected only too frequently occurs, and that whatever the real nature of insanity may be the results are such as no sane mind can forecast or explain. Responsibility is a state or condition which is the result of the normal action of certain processes, and if it can be shown that some acts are due to processes which are not normal, the result must be repudiated—that is, irresponsibility must be allowed, inasmuch as the conditions upon which responsibility depends are changed. Murder is (very occasionally) purposely committed by persons who, as far as we can tell, are sane; but the comparative rarity of so dreadful an act in the face of the many temptations which lead to it points to two things—first, that the repressive measures of the law have a strong inhibitory influence on the sane; and, secondly, that when it is committed there is prima facie ground for thinking that a morbid mental process has been at work.

I think that I can call to mind at least one case in which Dr. Mercier's evidence as to the insanity of the prisoner was set aside, and conviction with penal results followed. Was he, I wonder, satisfied with the verdict, or has he, in despair, come to the conclusion that we have arrived at an *impasse* where the *force majeure* of the legal phalanx is to Petersburg us into submission to things as they are?

If one desires to go to America from this country, the shortest way is to go westward; but the same point may be gained by a long route eastwards round the world. Which is the more convenient? Are those to be blamed who recommend for promptness, economy, and certitude the direct route?

What I have advocated is that in murder cases (and in these alone) the purely medical aspect should be primarily ascertained, and the "farce" (*pace* Dr. Mercier) of applying elaborate methods which all the time beg the question (by supposing that the prisoner is sane) should be done away with, but in a manner which deprives neither the judge nor the jury of their legitimate functions.—I am, etc.,

February 1st. The Writer of the Article.

THE STUMP IN APPENDICECTOMY.

Sir,—The operation published by Mr. Mayo Robson in the British Medical Journal of January 21st is an attractive and a good one, but I do not think it ought to be described in terms of pure laudation. It should be recommended only with a strong note of warning. I am writing with considerable practical experience of its individual steps used both separately and together. In the "some hundreds of times" Mr. Robson has performed it, he must have come across many in which neither the appendix nor the caecum could be brought out until extensive and sometimes tough adhesions had been separated; and the process of separating these adhesions will not infrequently have disclosed the cheesy or even purulent remains of abscesses. Grave dangers of several kinds, especially of tuberculous and septic infection of the peritoneum, attend the separation of such adhesions out of sight. Some are quite unfit for separation by the finger at all.

Now, a surgeon of Mr. Robson's experience and ability recognizes such cases as soon as the fingers have entered the peritoneal cavity, often before, and adapts his procedure to them. But his paper will be read by many gentlemen of less attainments.

I believe that the most experienced surgeon ought rarely, and the inexperienced surgeon never, to separate adhesions of the appendix and adjacent parts of the caecum without seeing what he is doing. Even the common adhesions of the omentum with the caecum and abdominal wall not infrequently hide cheesy material which should be cut away when exposed. There is also the question of haemorrhage. Abdominal cases predisposed to bleed are not very rare.

A second question is that of the real value of separating the fibres of the deeper muscles instead of cutting them across. I follow the former practice myself when I expect to find a free, or nearly free, caecum and appendix, just as I follow it on the other side of the body to get out a normal sigmoid for inguinal colotomy, as I believe also do many other surgeons. It saves a little time—very little—but I do not delude myself into thinking it is any real protection against hernia. The only trustworthy safeguard against hernia is careful and correct suture of the aponeurotic layers, of which in this situation there are two—those of the external oblique and the transversalis. For purposes of retraction the wound I am criticizing is inconvenient. And it cannot be usefully enlarged without, after all, cutting muscle fibres across and making an irregular wound. In fact, the operation in question is admirably fitted for the removal of appendices which have nothing the matter with them, or whose troubles have not affected neighbouring parts, or which spring from a free caecum. But when more room is likely to be required in order to deal with possible and serious adhesions, I prefer to cut the deeper muscles in a line with the skin wound. A 2-inch incision suffices for exploration unless the patient is very stout, and the wound can afterwards be enlarged either upwards or downwards as may be required without altering its character. The internal oblique muscle fibres cut are terminal, therefore no permanent harm is done to the muscle. The risk of injury to the nerve supply of the rectus does not arise in a practical form in any case in which mere separation of the fibres could be employed as an alternative.

Crushing the base of the appendix is better done with a large pair of Spencer Wells's (pedicle) forceps, which should be at hand, as it is useful for crushing omentum before ligaturing. Messrs. Battle and Cornish describe a special clamp in their new book on the *Appendix*. I feel sure that both they and Mr. Robson are mistaken in thinking the muscular coat is cut in two by the crushing, nor do the

segments of the mucosa retract and separate. Indeed, I suspect it is the ligature rather than the clamp or forceps which divides the mucosa. The division is always exactly opposite the ligature. I generally begin by reflecting the usual coat-sleeve of peritoneum, then apply the heavy forceps—first gently to press faeces or mucus out, then very strongly to crush. Next, close to it distally, I put on a small pair of Wells's forceps. Next the ligature—rather fine catgut—is cast round proximately to the forceps, as in Mr. Robson's sketch. Then the heavy forceps are removed, the ligature well tightened and tied, and the scissors applied close to the small forceps, which comes away with the appendix, closing it. Beyond the ligature there now remains a short piece of crushed but firm muscularis hiding a little cylinder of mucosa. I touch this piece of mucosa with a red-hot needle end. It adheres and comes away. A second application of the reheated needle sears the inside of the muscularis, and the result, I think, is an aseptic stump of the smallest possible size. The coat-sleeve is then sutured over it. This procedure is simple and quick to do, though rather long to describe accurately.

No sealing of the stump takes place except what is brought about in the course of a few hours by reparative processes. How speedy and powerful these processes are may often be observed on bowel outside the abdomen in cases of colotomy. They are a great but not infallible protection to the patient when his appendix is amputated carelessly.—I am, etc.,

London, W., Jan. 28th. C. B. Keetley.

Sir,—In the issue of the British Medical Journal for January 21st there is an article by Mr. Mayo Robson on "a method of appendicectomy," which conveys the impression that there is something new or original in the proceedings advocated by him for the removal of the appendix. If you will permit me I should like to criticize some of the conclusions.

1. The method of entering the abdominal wall is practically, as Mr. Robson admits, that suggested by Dr. McBurney; and it yields most excellent results if the case is an uncomplicated one, or the surgeon does not wish to examine other abdominal contents. If there are complications, such as dense fibrous adhesions, or the appendix is not in its usual situation, the opening thus made is not large enough to permit of safe manipulation of the parts, and cannot be extended without division of muscular fibres. Those who are much engaged in the removal of diseased appendices know how frequently firm adhesions are met with, although there may be nothing in the case to point to their existence. I venture to suggest, therefore, that it is advisable as a routine practice to employ the method of operation which Mr. Robson advises, "where the diagnosis is doubtful, and it may be necessary to examine the abdominal contents more thoroughly"—that of temporary displacement of the rectus and incision of its sheath. The results of this operation are as satisfactory as the other; it is not more severe, whilst the opening can be made of any size, and it is agreed that any complication can be most readily dealt with.

2. The removal of the appendix by means of a clamp, such as Spencer Wells forceps. My friend, Mr. C. B. Keetley, has also practised this for years, and speaks well of it. Theoretically, the serrated blades of the forceps are likely to cause some laceration of the peritoneum grasped, and therefore afford a possible way for organisms to pass out of the stump into the peritoneum around. Although this is perhaps a very small danger, Mr. Corner and I have advocated[1] a special clamp which possesses a smooth surface and a stronger hold, and is more ideally correct. In practical experience I do not think that any of the accepted methods of removing the appendix itself give bad results in careful and practised hands, provided the system of asepsis or antisepsis be properly carried out, and the right time selected.

3. The imbedding of the stump of the appendix in the caecal wall by means of a circular purse-string suture is really the method of Dawbarn. In an ordinary case which presents no complication this is a satisfactory suture, but where there is thickening of the caecum it does not answer, and recourse must be had to sutures inserted after Lembert's method.

As regards the removal of the appendix in acute cases after a catgut ligature only has been applied, this cannot be considered satisfactory. To begin with, these cases are septic, and a catgut ligature very rapidly disappears in such a wound; even a silk ligature is not secure. I have seen faecal fistula follow in such cases. There are instances when the state of the patient and the position of the stump make it imperative that some risk should be run in order to escape the greater risk of prolongation of operation, but they are few. Simple ligature of the stump has long been abandoned in operations during the quiet period, when there is far less risk in the individual case of failure through sepsis.—I am, etc.,

London, W., Jan. 24th. William H. Battle.

[1] *Surgical Diseases of the Appendix Vermiformis and their Complications*, p. 84. Battle and Corner. 1904.

Sir,—In response to the remarks of Mr. Frederick Edge and Mr. Arthur H. Burgess in the British Medical Journal of January 28th on the above subject, in reference to my paper on An Operation for Appendicectomy, published in the Journal for January 21st, I fully agree with what Mr. Edge says, "the less the crushed insertion of the appendix into the caecum merits the name stump the more nearly does it reach the ideal result." This is one of the points that I wished to emphasize in the operation I perform in which the appendix is removed flush with the surface of the caecum.

I also agree with Mr. Burgess that it is not advisable "to leave behind in the caecal wall 1 in. of appendix," which he states is the method suggested by another surgeon. While the crushing may be done with special instruments, I find that the ordinary pressure forceps answer equally well. I cannot agree with Mr. Edge with regard to the purse-string ligature, which is a most convenient and efficient form of suture, whether employed to occlude an opening in the stomach or intestine, or, as in the case in question, to bury the small tag of peritoneum and submucous tissue, all that is left of the crushed base of the appendix. I have employed both the method of interrupted Lembert sutures and the continuous peritoneal suture, but have finally come to prefer the purse-string suture as being both efficient and safe. This I have proved by ample experience.—I am, etc.,

London, Jan. 27th. A. W. Mayo Robson.

Sir,—I have great pleasure in bearing my testimony to the value of Professor Mayo Robson's method of dealing with the appendix. Since he showed it to me I have used it in 80 cases operated on during the quiescent period. During the last year I have used a crusher, made for me by Downes, twice the breadth of Spencer Wells's forceps, and with this I have been thoroughly satisfied, as it allows with greater ease a larger space for tying and cutting off the appendix. I sometimes use the purse-string suture, but if there is thickening of the caecum I use interrupted stitches. I have always admired Professor Mayo Robson's great dexterity, but I hope he sometimes has difficulty in removing the appendix, as in Scotland we find the adhesions in many cases so troublesome that the operation may occupy from twenty minutes to three-quarters of an hour.—I am, etc.,

Glasgow, W., Jan. 29th. J. Crawford Renton.

R.A.M.C. MILITIA.

Sir,—An article having appeared a short time since in a contemporary on the advantages of young medical men joining the R.A.M.C. Volunteers, I should like, through the medium of the British Medical Journal, to bring to notice the R.A.M.C. Militia, about which, I fancy, little is known.

There are certain bodies—medical bodies, if I may so call them—each working towards the same end, sanitation, prevention of disease, and the succour of the sick and wounded in war; but at present they rather remind us of Æsop's fable of the bundle of sticks. They are all working independently of one another; there is no rope to tie them together, hence their strength and usefulness is greatly wasted.

These bodies are: The R.A.M.C., the R.A.M.C. Militia, the R.A.M.C. Volunteers, military organizations as their names imply, and the St. John Ambulance and St. Andrew Ambulance Associations, etc., represented in the Central British Red Cross Council, representing the civil element.

What is required is a system by which each body shall in times of emergency fall naturally into its proper place with its allotted duties. To ensure this, its training in times of peace must be on defined lines having this object in view. A *rapprochement* between the various bodies concerned, with a view to elaborating a workable scheme, is essential, and I can confidently assert that such *rapprochement* would be welcomed at the head quarters of the Army Medical Corps.

The R.A.M.C. Militia is at present trained on these lines. The post assigned to it in times of emergency is the replacing

of the R.A.M.C. in the military hospitals at home so far as its strength will allow. The companies of which it is composed are attached to military hospitals, and are trained in these hospitals with a view of taking them over when called on.

This is considered the first object of the R.A.M.C. Militia. But, as men trained on medical military lines are of the utmost value at the seat of war, it is hoped that each company may be able to provide a contingent—drawn from officers and men volunteering for service abroad—which could serve as a section of a field ambulance in the field.

The R.A.M.C. Militia is not a new creation. It was first raised in 1892 as the Militia Medical Staff Corps, and consisted of some three companies, all training together at Aldershot as a battalion. In 1902 the strength of the corps was twelve companies—its present strength, though it is hoped in time to increase it to at least twenty companies—and in recognition of its services during the late Boer war, both at home and at the seat of the war, it was granted the title of the R.A.M.C. Militia. The rôle it is to play in times of emergency was decided and the companies, instead of coming to Aldershot for their annual training, were distributed amongst the larger military hospitals in the United Kingdom. They became territorial companies raised in the district of, and having their head quarters and being trained at, the hospitals to which they were severally attached, and which in times of emergency they were to take over. This is the condition at present existing.

The establishment of each company consists of two officers, four sergeants, six corporals, and one bugler, the privates making up a total of one hundred, and two staff sergeants of the R.A.M.C. as permanent staff. An honorary colonel—Sir Frederick Treves has honoured the corps by accepting this post—a lieutenant-colonel commanding and a major as second in command, with a staff sergeant, two sergeants, two corporals, and a private, for the training of recruits at head quarters, complete the establishment of the corps.

The head quarters of the corps as a whole are at Aldershot. The head quarters of companies as follows: Aldershot, Belfast, Chatham, Colchester, Dublin, Edinburgh, Lichfield, Portsmouth, Woolwich, and York.

Medical men, qualified and registered to practise medicine and surgery in the United Kingdom, and not more than 30 years of age, are eligible for commissions. It is hoped to obtain gentlemen practising in the immediate neighbourhood of the head quarters of companies as company officers, for the reason that when up for training, or when embodied, their practices would not suffer to the extent they might if they had to join companies long distances away. They would also possibly be able to induce suitable men to join their company, and so create a bond of union favourable to its welfare and efficiency. Residence in or about the neighbourhood, however, is not an essential qualification for commission.

Officers on being gazetted have to attend a class of instruction of about a month's duration at Aldershot. They are required to train with their companies for twenty-seven days annually, and are liable to be called up in times of emergency, unless excused under special circumstances, for so long as such emergency continues. They are eligible for employment, if they desire it, by the military authorities should there be a dearth of R.A.M.C. officers in their district. Their pay, if so employed, would be under either military or civil rates, according to the work required of them.

After three and a half years' service, officers are eligible, if they pass the required examination, and are favourably reported on, for promotion to the rank of captain, and after twelve years' service, under similar conditions, to the rank of major.

The rate of pay and allowances during annual training, embodiment, or employment under military rates, are the same as for officers of corresponding rank of the R.A.M.C. Their service is home service, and they would not be sent abroad in time of emergency unless they volunteered for such service.

It is impossible to keep up a standing Royal Army Medical Corps of sufficient strength to meet the requirements of a big war. In times of emergency help must be sought from outside, and in order that such help may be efficient it must be trained help, which at a moment's notice is capable of taking its place in the general scheme and carrying out its allotted task efficiently.

As true patriots we all owe a debt to our country which, it is to be feared, very few of us realize, namely, to fit ourselves to take some part in the great scheme of defence which may at any moment be forced upon us, and it is with this view that the present letter is written, and with the hope that some of the younger generation of medical men may be influenced to join the R.A.M.C. Militia.

I shall always be glad to answer any questions that intending applicants for commissions may desire to obtain an answer to.

There are vacancies at present existing in the companies whose head quarters are at—

Aldershot	Colchester	Chatham.
Dublin	Edinburgh	

A list is kept of the names and addresses of all gentlemen applying for commissions in the corps for reference as vacancies occur. Such applications and inquiries respecting the corps should be addressed to me as below.—I am, etc.,

JAMES R. ANDREW CLARK.
(Lieut.-Colonel R.A.M.C., Militia.)

Tidmarsh Manor, Pangbourne, Berks, Jan. 26th.

THE PROPOSAL FOR AN ASSOCIATION COAT OF ARMS.

SIR,—In October last Surgeon-General Evatt proposed that the Association should apply for a coat of arms, and the Central Council appointed a Committee to report on the subject. That Committee reported favourably, but none the less the Council on January 18th vetoed the application, preferring rather to utilize the seal of the Association as a badge. This seal contains a portrait of our founder, the late Sir Charles Hastings.

I do not wish for one moment to impugn the Council's decision, which probably represents the opinion of members generally, but I do wish to state that some of the arguments against a coat of arms, which have been sent to me in writing, or advanced in conversation, are not in accordance with the facts.

One is, that the acquirement of a modern coat of arms is a purely commercial transaction, the truth being that every English grant of the kind is national and from the Crown, with the direct assent—by no means always accorded—in every case, of the Earl Marshal, who represents the King.[1]

Another adverse argument is, that old arms are so infinitely more honourable as to render new ones quite valueless; the truth being that the authority, being national, is the same in both cases. The only difference is the difference of date. That the authority is national is proved by the appointment of new Kings of Arms by the Parliament and Cromwell during the Commonwealth; from which it follows that a coat of arms is national and honourable. It is thought by some that the old grants were obtained without fees; but this is not so, as there were always fees for revision and registration to be paid to the Heralds. In the time of Henry VIII, these fees varied from £5 to £10, which is probably equivalent to the sums now charged, of which the Treasury gets a portion, as well as the Earl Marshal, the Kings of Arms and the corporation of the College for its upkeep.[2] I do not really suppose that there are many members who will sorrow over the Council's decision, or refuse to be comforted by what seems to me the very inadequate substitute of a self-granted badge. On the other hand, there will certainly be some who, like the writer, will regret the want of favour accorded to the attractive and appropriate design of Somerset Herald, which was a red cross of St. George on an argent field, with its quarters occupied by respectively a Rose for England, a Thistle for Scotland, a Shamrock for Ireland, and a red Dragon for Wales. The Colonies were represented by one supporter and India by the other. The crest was a golden Roman Lamp, in front of two caducei of Mercury, in Saltire, and the finally selected and absolutely original motto was, "*Medicas accingimur artes*," of which the best translation is, "We gird around us the arts of medicine." The question, however, is now settled for the present, not but that I am hopeful of a future change of sentiment regarding it. When the great cities and colonies, the old and new universities, corporations, colleges, and companies all hold themselves honoured by their nationally-granted and recognized arms and emblems, why should we, who are greater than many of them, not hope to enrol ourselves also at some future time on the legitimate list of "Honour Civil"?—I am, etc.,

G. B. FERGUSON,
Late Chairman of the Coat of Arms Committee.

Cheltenham, Jan. 28th.

[1] *The Right to bear Arms*, by X, 1st edition, p. 228; also Guillim's *Display of Heraldry*, 6th edition, *ad finem*, Duke of Norfolk's order in the tenth year of Queen Elizabeth.

[2] See Noble's *History of the College of Arms*, p. 106.

THE TREATMENT OF POST-NASAL ADENOIDS.

Sir,—Under the above title, in the British Medical Journal of January 28th, Dr. Ward Cousins recommends the sterilized finger nail as the best instrument for removing adenoid growths in children. Such a reactionary step calls for some comment, particularly as the incautious opinion is given that "the removal of these growths can be undertaken without any risk, provided there is no active disorder or any impairment of the health."

I have, many years ago, attempted the removal of adenoids with the finger nail. In slight cases or in soft growths it may prove sufficient; part of the growth is removed, involution takes place in what is left, and symptoms are relieved. But in London, where we have such good opportunities of becoming, as Judge Bowen said, so conscious of one another's imperfections, it was long ago recognized that most of the "return cases" of adenoids came from the hands of practitioners who employed the "finger-nail" operation. Nearly all these surgeons have now given this up for the more rapid, thorough, and certain curette, particularly the one furnished with a cage, which gives both the operator and the patient's friends the satisfaction of seeing the removed mass.

The discredited finger-nail operation revived by Dr. Ward Cousins does not avoid the use of a general anaesthetic; and, as he recommends the hanging-head position, all the usual risks of the operation are not only still existent, but even increased by a slower procedure, greater haemorrhage, and the presence of loose pieces of growth in the pharynx.

It is difficult to understand what are the indications for the roughened metal probes which are passed through the nose and "freely applied around the posterior orifices and rubbed over the inferior nasal passages." Adenoid growths may overhang the roof of the choanae, but do not grow around them. The nasal passages are frequently infected with a secondary catarrh from suppurating adenoids; this clears up promptly in children on removal of the primary source, aided by hygienic and simple cleansing measures. In certain cases, chiefly in older patients, secondary hypertrophic changes do occur in the nasal mucosa. But this calls for appropriate local after-treatment, applied under the control of the eye to the points required.

Any general acceptation of the finger-nail operation would, I fear, discredit the removal of adenoid growths, a proceeding which at present is one of the most satisfactory in its results in suitable cases, and one of the most frequent in surgery.

As for the nasal probes which are to be blindly "rubbed over the inferior nasal passages," it is difficult to treat such a recommendation seriously! In the narrow and delicate nasal chambers of children such a measure is not free from danger, is quite uncalled for in the majority of cases of adenoids, and at the present day has been superseded by more precise and safer measures.—I am, etc.,

London, W., Jan. 30th. StClair Thomson, M.D.

Sir,—I think that many medical men in general practice will have read Dr. Cousins's article on the treatment of adenoids with great interest, for it is a subject the details of which, both as regards the operation and after-treatment, are not given fully in the ordinary textbooks.

Not long ago there was an extensive correspondence in the British Medical Journal on the causation of adenoids, and many theories were put forward to account for their serious consequences and the wonderful results which follow their removal. After all, it is only what is seen in Nature on every hand, a weed-like growth blocking up a channel which has become disused. An ordinary ditch will remain free from weeds so long as the water flows along it. Divert the water and the channel will quickly become obstructed; restore the flow of water before the obstruction is complete and the channel will become again clear; but each time the water ceases to flow the weeds get the upper hand. So with adenoids, breathing exercises are all that are required for the slighter cases; but once the obstruction is complete the child must be given a fresh start by having the adenoids removed. A child comes into the world able to breathe through its nose, it develops a nasal catarrh, and has to—or rather, finds out that it can—breathe through its mouth. The habit is started, and in many cases is never given up; the post-nasal space becomes blocked with adenoids, and the nasal passages become narrow and contracted. But these conditions are not the cause of the adenoids, they are the result of them. The enlargement of the tonsils is practically always secondary to the nasal obstruction. Consisting as they do of lymphoid tissue, with a number of crypts and follicles, the tonsils are ready to act as receptacles for any dust, micro-organisms, fungi, etc., which may be inhaled; these excite a chronic inflammation and consequent enlargement.

As regards the method of operating, I prefer the Mason gag to the wooden rod of Dr. Cousins. This gag uses very little space, it need not be shifted from one side to the other, there is very little risk of having the fingers nipped, and it is not likely to disturb or break a child's delicate teeth. When the patient is under the anaesthetic, and before there is any haemorrhage, the nasal passages should be dilated. An ordinary gum-elastic catheter—No. 12 to 14—answers admirably, and, being uniformly cylindrical, causes dilatation along its whole course. It should be well lubricated with vaseline and passed through first one nostril and then the other, on to the finger of the left hand held in the naso-pharynx. This dilatation of the nasal passages is very important, for however thoroughly the adenoids are removed, if the effort to draw the air through the nose is not diminished no advantage will be taken of the freedom of the post-nasal space.

Dr. Cousins clears away the adenoids and then excises the tonsils, but it seems to me that the order usually followed is better. The tonsil guillotine is much simpler to use when there is no haemorrhage, whereas the finger in the post-nasal space is not interfered with by haemorrhage at all. There is always, too, more bleeding from the adenoids than the tonsils.

The important points in excising the tonsils are worth going into. Having guided the ring of the guillotine by the finger on to the tonsil, the instrument should be held, not parallel with the cheek, as shown in some illustrations, but right across the mouth. With the patient on the table, a right-handed person should stand on the right side for the left tonsil and behind the patient's head and a little to the left for the right. This latter position is very similar to that adopted by the dentist for extracting lower teeth with hawksbill forceps, and is very much more convenient than changing hands and removing both tonsils from the front.

The after-treatment of a case can be said to be completed when the child sleeps at night with the mouth shut without attention. This requires constant care on the part of the nurse and parents. Tying up the chin in conjunction with a tilting down of the head will generally close the mouth, and keeping the child off its back is a valuable help. With intelligent children much may be done by impressing them at the last moment when in bed with the importance of keeping the mouth shut, for it is well known that ideas to which attention is directed just before going to sleep have great influence even during sleep itself. In the day time simple breathing exercises should be carried out regularly three or four times a day for at least two months.—I am, etc.,

Gerald S. Hovenden, M.D., B.S.Lond.

Barnes, S.W., Jan. 30th.

COMPULSORY GREEK.

Sir,—I regret to learn, from your leading article on January 28th, that, while apparently recognizing the advantages of a knowledge of Greek, you suggest that the medical graduates of Cambridge shall help in its abolition as a compulsory subject. As regards the opinion of the Association of Assistant Masters, I certainly regard the fact that 98 per cent. of them do not teach Greek as discounting their opinion. And I believe that Cambridge will do very well without opening its portals to the mass of students you mention, whose idea is that nothing is of educational value unless it can be directly applied to the trade or business they propose ultimately to adopt. To my mind it is those who intend to study science or medicine, who require to have their education widened to the greatest extent possible, in order to avoid the evils of specializing. I am afraid that I cannot agree with you that Greek as generally taught is of no educative value whatever, although you regard the opposite opinion as cant. You say that the majority of boys do not *learn* Greek at all. I might ask, Do the majority of boys *learn* anything at all? It seems to me that in arguing about education most people insist on assuming that all boys are highly-intelligent creatures thirsting for knowledge. This is almost absolutely contrary to fact, and education should be regarded as a mental training, and not as the learning of something that is to be "useful" in after-life. Does any one in his senses suppose that the average boy will take any more interest in learning French than he now does in learning Greek? Why substitute French

"vocables" for the Greek variety? Living languages are much better acquired elsewhere than at school; while by the majority Greek can be learnt only during the education period, and even in small quantities gives some insight into the life of the most cultured race that ever existed. If in after-years a man's recollection of Greek is shadowy, what shall we say of a medical man's recollection of physics or botany, to say nothing of Euclid and other earlier studies? I may ask with you, Is it worth while to go through so much to learn so little? Only, unlike you, I believe that it is.

I fear that I consider the outcry against Greek as a part of the cant of modern commercialism. We think we are being cut out by that most commercial of nations, the German. We suppose this to be due to the education of our youth being deficient in what we call "useful" things. We forget altogether that we may not be quite of the same nature as the German, and that our boys are not all myopic large-headed students.

I believe that one of the fallacies underlying the arguments of the anti-Greek party is that all boys are intelligent animals; and I strongly suspect that another fallacy lies in the word "useful." My contentions are that:

1. Greek is an excellent educational study even in small quantities.

2. It broadens the mind, and gives an insight into the life of a cultured race.

3. The study of Greek debars no one from succeeding in the work of his life.

4. The wider the curriculum of education the better.

5. The proposed substitutes practically amount to French, chiefly for commercial purposes.

6. Modern languages are much better learnt elsewhere than at school.

I cannot expect you to open your columns to a discussion on what is not a medical subject. But I am sorry you think it a foregone conclusion that the medical graduates of Cambridge will necessarily assist in the abolition of Greek as a compulsory subject.—I am, etc.,

London, W., Feb. 1st. CHARLES BUTTAR.

THE CERTIFICATES REQUIRED BY THE OBSTETRICAL SOCIETY.

SIR,—In your issue of January 28th there is a report of an inquiry held by the Central Midwives Board into a charge against a certified midwife of signing false certificates.

As there is a passage in that report which is in danger of creating an impression contrary to fact and detrimental to the reputation of the Obstetrical Society of London, may I, as the witness whose evidence is concerned, be allowed a word or two by way of explanation?

The statement that I made was to the effect that the Obstetrical Society of London some ten years ago was in the habit of occasionally accepting a certificate of attendance upon a smaller number of cases than the regulations required, on the understanding that a supplementary certificate would be furnished before the day of examination, showing that the candidate had by that time completed the required number. This is, of course, a very different thing from conniving at a false certificate, which is what your readers would naturally suppose from your report to be what the Obstetrical Society did.—I am, etc.,

A. HANNAM,

London, W., Jan. 30th. Secretary and Librarian of the Obstetrical Society of London.

MODE OF INFECTION IN HUMAN TICK FEVER.

SIR,—Your readers may be interested to hear that we have received the following cable from Drs. Dutton and Todd, who are now carrying on researches in the Congo Free State: "Spirilla cause human tick fever; naturally infected Ornithodorus infect monkey."—I am, etc.,

R. ROSS,

January 31st. Liverpool School of Tropical Medicine.

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNREGISTERED MIDWIFE.

AT a recent inquest on a case of sudden death during childbirth a lamentable state of ignorance was found in the midwife who attended to the deceased. The medical evidence was to the effect that life might have been saved in the hands of a more competent practitioner. When asked by the coroner if she used a clinical thermometer, the midwife replied, "I don't understand what you say, sir." It may be surmised that if this instrument had been shown to her she would not have known what it was. That such ignorance has a humorous element was shown by the laughter elicited in court by the answer; but it is a very serious matter when we find that the lives of poor lying-in women may, even now, be placed in the hands of persons of this kind. It was hoped that the Midwives Act would make cases of this kind impossible, and it is disappointing to find that they have not been prevented. The foreman of the jury remarked on the inadequacy of the midwife's payment (7s. 6d.), but it does not seem to have been less than many registered midwives are willing to accept.

MEDICAL WITNESSES IN THE COUNTY COURT.

ALPHA has certainly been very badly treated. He travelled over 350 miles to give evidence in a county court case in which a patient of his was suing for damages after an accident. He was kept away from home for three days, after which the case was postponed, and he had to attend again, travelling 150 miles for the purpose, and being detained two days from home. He received third-class fare for the first journey, and first-class for the second; nothing more, no fees nor expenses. His patient won the case, being allowed a small sum and costs, but the solicitor tells him that as his client is in poor circumstances, he cannot pay our correspondent any more. "Alpha" asks what he is entitled to for the five days, and to what authority he could apply for payment?

*** Under the county court regulations he is entitled to one guinea for each day that he attended the court, and as his client won, the solicitor should have claimed this for him, and it would have been paid by the losing party. He had better write to the clerk to the county court and ask if this was done, and if he finds that the solicitor has received the money, and not paid it over, represent the matter to the Incorporated Law Society, Chancery Lane, W.C. If the fees have not been paid by the other side, his only remedy is, if he thinks it worth while, to proceed against his patient in the county court.

SALE OF PRACTICE: THE DUTY OF A VENDOR.

ALPHA writes that he has sold his practice, and has entered into a bond not to practise. One of his old patients has refused to be attended by his successor, and has written to ask "Alpha" to write or see a practitioner whom she has called in in order to give an account of her previous health. He asks to be told what he should do.

*** We should recommend our correspondent to give the lady in writing a statement of her case, placed in a closed envelope, which she may hand to any practitioner she chooses to call in.

PUFFING PARAGRAPHS IN THE LAY PRESS.

A CORRESPONDENT sends us the following extract, which he says has appeared in a local newspaper, the names being suppressed: "Mr. A.'s army of friends will learn with pleasure that the game old gentleman has, under the skilful treatment of Dr. B. of S., so far recovered from his attack of appendicitis as to be pronounced out of danger. At one time Mr. A.'s life was despaired of, and it became necessary to call in Mr. C., of L. Happily no operation was necessary, and the toughness of the 'Old Governor,' combined with Dr. B.'s cleverness, has pulled him through."

*** The Ethical Committee has undertaken to send letters of remonstrance to the editors of newspapers publishing paragraphs which have the appearance of puffing medical practitioners; but, in order that the Committee may do this, the newspaper, or at least a portion of the newspaper sufficient for authentication, should be sent.

THE OBLIGATIONS OF A SUBSTITUTE.

H. G. F. writes: A. fell ill and asked B. to attend Mrs. C. in her confinement, as his own patient, taking the fees. During the time A. was away the baby of C. was very bad, and B. attended practically the whole time. When A. returned B. was still attending and continued to do so, saying nothing to A. What is the etiquette in such cases? Should B. have mentioned to C. that her doctor had returned and have offered to hand the case over, or should B. have communicated with A. and offered to give up the case? B. says that as the case was handed to him unconditionally, he was at liberty to continue the attendance until it was over without saying anything to A. Is that right? B. at first offered to attend for nothing or for half-fees, but A. insisted upon B. taking all the fees, therefore practically constituting C. B.'s own patient, or so B. says.

*** B. was acting as A.'s substitute, and therefore should have offered to give up the case on A.'s return. If, however, a case is handed over to a friend to look after, he acting as a substitute, it is undesirable that he should be allowed to collect the fees, although an arrangement may be made to pay him the fees when they are received. If he is allowed to collect the fees, his position as a substitute is reduced to very shadowy proportions, and may be expected to give rise to such a misunderstanding as this.

THE BLOODLESS SURGEON.

ALCIBIADES sends two cuttings from the *Liverpool Evening Express* announcing that Mr. H. A. Barker, the "bloodless surgeon," offers to forfeit £1,000 to any deserving cause if he fails to prove the value of his method in twenty cases of flat foot. Our correspondent complains that the press should advertise this man, giving him the title of surgeon, which, if he assumed it for himself, would be an infringement of the Medical Acts.

*** Unfortunately the proprietors of the class of newspaper from which these notices are derived are not very likely to be influenced by protests on the part of the profession. So long as the letter of the law is not clearly infringed, the experience of the Medical Defence Union shows that prosecutions are not only useless, but even serve as an advertisement to the person prosecuted. The profession must look to a change in public opinion, which is at present curiously favourable to unqualified pretenders to special knowledge and skill.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF MANCHESTER.

New Public Health Laboratories.

The new University Public Health Laboratories were opened by Mr. W. J. Crossley on January 27th.

Earl Spencer was in the chair, and Lord Lister, who was unable to be present, wrote: "I feel deep interest in this enterprise, calculated as it is to do immense service to Manchester and its neighbourhood, and also to bring additional renown to the University of Manchester. I cordially hope that generous benefactors will be forthcoming to provide the funds still required for the complete development of the usefulness of the institution."

The New Laboratories.

High praise was given to the Director, Professor Delépine, who in 1890 began as a pioneer the association of science at universities with Public Health, and the decentralization of such work hitherto confined to the Local Government Board. The pioneer work of the laboratory was done from 1891 to 1894. From 1895 the progress was so rapid that it was evident that a laboratory independent of the Pathological Laboratories of Owens College was needed, and a building was accordingly erected on the Stanley Grove Estate in 1902. When it was determined to erect the new infirmary on this estate, a new site had to be found for the new laboratory.

This new laboratory, planned by Professor Delépine, has been built close to the Stanley Grove Estate. The total cost for site and building was £13,000; the infirmary authorities paid £6,000 compensation for the old laboratory, and an anonymous donor gave £2,000, leaving a debt of £5 000. The income from fees barely meets the working expenditure.

The laboratory is one of the largest of its kind, and its predominant characteristic is unlimited good light for experiments and airy rooms. It is an oblong building, facing north and south, 160 ft. long and 60 ft. wide, with out-buildings 136 ft. by 16 ft. It consists of two stories, and is plain and unpretentious. Every room has a range of windows running along its whole length. Opening off the entrance hall—which is at the east end—there are on the left hand the caretaker's quarters, and on the right the clinical pathological laboratory to be used in connexion with the Royal Infirmary. Beyond and on the north side of the main corridor are the bacteriological classroom, a series of special research "cubicles," a general research room for the use of public authorities and a preparation room. On the south side are a large chemical laboratory, a dissecting room, experiment and store rooms. On the first floor are rooms for the Director, his secretary, and the staff, together with a library and a large public health museum. At the present time the staff is kept engaged in reporting on morbid products for sanitary authorities and for medical men, with the object of assisting public health administration and the diagnosis of disease. During the past five years the number of official reports issued exceeded 20,000, and they have been made to the sanitary authorities of Manchester, Salford, the counties of Lancashire and Cheshire, and nearly 100 municipal or urban districts. With the Director there is a staff of thirteen qualified assistants.

Mr. Crossley, in declaring the laboratories open, said that "prevention is better than cure," and that the great object was to prevent what had been called "the accidents of disease." As showing the value of the investigation, the Director in his report stated that "in half their cases the disease was shown to be other than that suspected." It seemed strange that in this country, which spent vast sums against visible foes which might never attack, the exchequer should spare so little for this other warfare—a warfare against those invisible foes which struck before we know of their presence.

Professor Calmette of Lille made a short speech in French, in which he humorously suggested that it would be rather a disadvantage for the laboratory to be self-supporting, as that would imply a greater prevalence of diseases requiring investigation. Professor Calmette was the representative of the Pasteur Institute of Paris and that of Lille.

Honorary Degrees.

After the ceremony at the Public Health Laboratory there was a special assembly at the Whitworth Hall of the University for the purpose of conferring honorary degrees.

Earl Spencer presided, and said that he stood before his University for the first time as its Chancellor. He felt sure that the citizens of Manchester would come forward with enthusiasm and with earnestness, and with that liberality which had been so remarkable among them, to cherish and foster that noble institution which the wisdom and generosity of their ancestors had set up amongst them.

All the honorary graduands received the degree of Doctor of Science. Professor Delépine, in presenting Professor Calmette of Lille, referred to the fact that the name of Calmette was as well known in the east as in the west on account of his discovery of an antidote to snake poison. He also referred to the study of the nature of fermentation by moulds.

Professor Stirling in presenting Professor Perroncito, Professor of Parasitology in the University of Turin, recalled the fact that in the seventeenth century a physician, philosopher, and a man endowed with great poetic genius—Francesco Redi, Physician to Ferdinand II., and a member of the celebrated literary Accademia della Crusca—made an epoch-making and fruitful experiment when he covered fresh meat with gauze, thus excluding the blow fly. He also referred to the work of Spallanzani in the cognate directions, and claimed that Professor Perroncito was the scientific descendant of both these illustrious Italians. To Perroncito also was due the discovery that ankylostoma duodenale was the cause of so-called miner's disease, a fact first established in 1880, in connexion with the St. Gothard Tunnel.

Professor Lorrain Smith presented Professor Carl J. Salamonsen of Copenhagen, and dwelt in terms of eulogy on the pioneer work of Salamonsen in connexion with the cause of tubercle.

Professor Schuster presented Captain Scott, R.N., who commanded the Antarctic exploring vessel *Discovery*.

Sir William Church and Professor Woodhead also spoke on State medicine and public health. State medicine, Sir William declared, was the highest branch of the medical art, and added that it is with very great satisfaction that every one had seen that the newer universities had accorded to it in their curricula a most honoured position.

Professor Perroncito presented a congratulatory address from the University of Turin.

UNIVERSITY OF OXFORD.

Scholarships in Natural Science.

Scholarships in Natural Science are offered for competition on March 14th at Keble College, and on May 2nd at Merton College and New College.

Chair of Pathology.

At a meeting of the Hebdominal Council, held on Monday, January 23rd, it was resolved that the hearty thanks of the University be accorded to Mr. Edward Whitley, B.A., Trinity College, for his generous and timely gift of £1,000 towards the permanent endowment of the Chair of Pathology.

The Vice-Chancellor has published a letter received from Sir William Selby Church, Bart., K.C.B., D.M., D.Sc.Oxon., F.R.C.P.Lond., informing him of a meeting of medical graduates held in London on December 20th, 1904, at which it was determined: "That, with a view to show the strong feeling that the medical graduates have on the necessity for promoting the study and teaching of pathology, a fund be started for the purpose of assisting in this object; and the primary object of this be the establishment and endowment of a Professorship in Pathology."

UNIVERSITY OF LONDON.

King's College.

Readjustment of Medical Classes.

With a view to preparing the way for the removal of the hospital to Camberwell, and the separation of Preliminary and Intermediate Medical Studies, the Council of King's College has dissolved the Medical Board, and has created a Board, and has created a Board for Advanced Medical Studies which will superintend the teaching work of the hospital and be organized as a separate department. The Preliminary and Intermediate Studies have been transferred to the Faculty of Science under a separate Board.

UNIVERSITY OF BIRMINGHAM.

Appointments.

Professor Gilbert Barling, M.B., F.R.C.S., Professor of Surgery in the University, has been appointed Dean of the Faculty of Medicine in succession to Dr. Bertram Windle.

Dr. A. J. Ewart has been appointed Special Lecturer in Vegetable Physiology.

Dr. Stanley Barnes, Mr. J. T. Hewetson, and Dr. Thomas Wilson have been reappointed Honorary Assistant Curators in the Pathological Museum for a further period of three years.

Sir Thomas Browne.

Professor Churton Collins will give a fortnightly series of interpretative recitals from the poets and prose writers of the seventeenth century in the large theatre of the University on alternative Mondays at 5.30, beginning February 13th. The first will be from the writings of Sir Thomas Browne. Friends of the University, as well as students, are invited to attend.

UNIVERSITY OF LEEDS

Annual Grant from Education Committee

The Higher Education Subcommittee of the Leeds Education Committee have made the customary annual grants out of funds provided for the purpose by the Local Taxation (Customs and Excise) Act, 1890. The total amount available was £6,225, and of this £1,550 was allotted to the

University. This grant is in addition to the sum of £4,000 which was previously voted by the City Council.

Foundation Fund.

The Duke of Devonshire has contributed £1,000 to the Foundation Fund, which now amounts to £66,477.

The Mosely Education Commission.

Arrangements have been made to hold a dinner of the Court of the University on Monday, February 6th, in the University Buildings. Mr. Alfred Mosely, C.M.G., will be the principal guest, and it is hoped that there will be a large attendance. Earlier in the day Mr. Mosely is to give an address on Some Lessons learned by the Recent Mosely Commission of Educationalists in the United States.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary quarterly comitia was held at the College on Thursday, January 26th, the President, Sir William S. Church, in the chair.

Bradshaw Lecture.

The President announced that the subject of the Bradshaw Lecture, by Dr. G. R. Murray, would be exophthalmic goitre.

Membership.

The following gentlemen were admitted Members of the College: Henry Willoughby Gardner, M.D.Lond., L.R.C.P.; Charles John Nepean Longridge, M.D.Viet., L.R.C.P.; William Henry Willcox, M.D.Lond.

Diplomates in Public Health.

In conjunction with the Royal College of Surgeons, Diplomas in Public Health were granted to the following gentlemen:

Arthur Reginald Baukart (M.V.O.), M.B., C.M.Edin.; John Cullen, M.D., Ch.B.Glasgow; George Alfred Edsell, M.D.Durham, L.R.C.P., M.R.C.S., L.S.A.; William Lloyd Edwards, L.R.C.P., M.R.C.S.; Edward Haines, L.R.C.P., M.R.C.S.; Oswald Horrocks, L.M.and S. Madras, L.R.C.P.and S., F.R.C.S.E.; Oliver Richard Archer Julian (C.M.G., Major R.A.M.C.), L.R.C.P., M.R.C.S., L.S.A.; Charles Randolph Kilkelly (C.M.G., Surgeon-Major Grenadier Guards), M.B., B.Ch.Dub., L.R.C.S.I.; Frederick Norton Menzies, M.D., B.S. and M.R.C.P.Edin; Robert Macfarlane Mitchell, M.B., Ch.B.Edin., F.R.C.S.Edin.; Arthur Hugh Morris (Captain R.A.M.C.), L.R.C.P., M.R.C.S.; Albert Pearse (Major R.A.M.C.), L.R.C.P., M.R.C.S.; John Richards, L.R.C.P., M.R.C.S.; Frank Edward Scrase, F.R.C.S., L.R.C.P.; Harold Weightman Sinclair, M.D.Lond., L.R.C.P., M.R.C.S.; Robert Small, L.R.C.P., M.R.C.S.; Frederick Robert Elliston Wright, M.B.Lond., L.R.C.P., M.R.C.S.

Licences.

Licences were granted to 101 gentlemen.

Communications.

Communications were received from:

1. The Secretary of Queen Victoria's Jubilee Institute for Nurses, asking the College to nominate a representative for a term of three years, from the end of February next, in place of Sir Dyce Duckworth, who retires by rotation, but is eligible for re-election. Sir Dyce Duckworth was re-elected.

2. The Secretary of the College of Surgeons, reporting certain proceedings of their Council on December 8th, 1904, and conveying the hope of the Council that this College might see its way to repeal By-law 177, forbidding its licentiates to assume the title of "Doctor." The matter was referred to the Council for consideration and report.

3. From the Secretary of the Royal College of Surgeons, reporting certain proceedings of their Council on January 12th, 1905.

4. From Colonel C. W. Long, M.P. (Chairman of an Association formed in 1903), moving the College to memorialize the Government to give effect to Recommendation 50 of the Interdepartmental Committee on Physical Deterioration, by appointing a Commission of Inquiry into the prevalence and effects of syphilis on the national health. The question was referred to the Council for consideration and report.

5. The Registrar of the General Medical Council, forwarding a resolution of the Council of November 29th, 1904, on the teaching of elementary biology, being an addition (No. 9) to the resolutions of May 27th. This was referred to the Committee of Management.

6. From the Secretary of the Central Midwives Board (January 18th) requesting the College to appoint a Representative on the Board, by April 1st, in place of Dr. Champneys, who retired by rotation, but was eligible for re-election. Dr. Champneys was unanimously re-elected.

Elections.

On the nomination of the Council, Dr. Thomas Buzzard, Dr. Watt Black, Dr. Clifford Allbutt, and Dr. Hale White were elected Councillors in the room of Dr. Gee, Sir Thomas Stevenson, Dr. Champneys, and Dr. Sharkey, who retired by rotation, and Dr. Percy Smith and Dr. de Havilland Hall were elected a fifth Councillor for one year and a member of the Finance Committee respectively in the place of Sir Isambard Owen, who has resigned these offices.

Reports.

The following reports were received:

(1) From the Conjoint Finance Committee, dated December 14th, 1904.

(2) From the College Finance Committee, dated January 12th, 1905.

(3) From the Committee of Management, recommending (*a*) that the Liverpool Stanley Hospital be added to the list of general hospitals recognized by the Examining Board in England. (*b*) That the Grimsby Municipal College be added to the list of institutions recognized by the Examining Board in England for instruction in chemistry, physics, and practical chemistry. Both recommendations were agreed to.

(4) From the Laboratories Committee, reporting (*a*) that during the three months ending December 1st 7,548 doses of diphtheria antitoxin, each containing 3,000 units, have been supplied to the hospitals of the Metropolitan Asylums Board, making a total of 2,644,000 units. (*b*) That during the quarter further batches of antitoxin supplied by Messrs. Parke, Davis, and Co. have been tested in the laboratory, and a certificate granted showing its strength, sterility, and freedom from excess of antiseptic. (*c*) That the Committee will meet once more in January to terminate the arrangements with the Metropolitan Asylums Board,

Membership.

An application from Dr. Robert Batho was considered for the second time, and the membership which he resigned in 1890 was restored to him.

Library.

Books and other publications presented to the Library during the past quarter were received, and thanks returned to the donors.

Examination for Licence.

The annual return by the examiners of the results of the examinations for the Licence in the year 1904 was received.

CONJOINT BOARD IN SCOTLAND.

THE examinations, concluded on January 28th, have resulted in the success of the following candidates:

First Examination (four years' course).—A. D. Roberts and G. Harrison.

First Examination (five years' course).—J. McCall, A. C. Ashworth, P. M. Tolmie, J. N. Robson, A. O'Flaherty, H. W. Powell, V. S. Sanzgiri, and J. C. Hawkes.

Five passed in Physics, six in Biology, and one in Chemistry.

Second Examination (four years' course).—One candidate passed in Anatomy and Materia Medica

Second Examination (five years' course).—G. Smith, E. F. Nivin, Mary Caroline Hamilton, W. Taylor, F. B. Elwood, J. Ferguson, P. T. Rutherford, and T. J. Vaughan.

One passed in Physiology.

Third Examination (five years' course).—J. B. Engineer, V. A. Vijayakar, E. A. Williams, G. L. Baker, Mary Caroline Hamilton, Mary Deborah Hancock, C. I. McFarlane, W. A. Huston, W. M. Chambers, F. W. March, H. P. Margetts, G. C. Grundy, W. Damms, and J. W. Skelley.

Two passed in Materia Medica.

Final Examination.—A. R. MacI. MacIlraith, J. M. G. Ewing, W. MacL. MacIlraith, J. Roberts, A. G. M. Middleton, J. G. McLeod, A. L. Johnston, J. A. Brown, I. David, J. H. Heddle, F. N. Hughes, P. J. F. Houston, Mary Brice Carr, G. C. Grundy, M. A. Gibbs, G. Abeyesinhe, Anna Mary Mulholland, S. K. Engineer, N. J. Rodrigues, J. J. Lawton, D. Smith, N. D. Sweetnam, J. S. Nelson, J. L. Power, A. D. Edwards, J. F. Webster, R. W. Telford, E. T. MacIntyre, E. H. E. Coghlan, F. Baillie, D. F. Mullan-Feroze, W. F. H. Ives, E. A. King, and W. Aralis de Silva.

Five passed in Medicine and Therapeutics, two in Surgery and Surgical Anatomy, five in Midwifery, and five in Medical Jurisprudence.

CONJOINT EXAMINATIONS IN IRELAND.

THE following candidates have passed the Supplemental Final Examination, January, 1905: F. L. Bradish, E. A. Bernard, C. P. O'B. Butler, F. J. Cairns, D. E. Crosbie, J. S. Dunne, Jennette Carroll Hargrave, Patrick Mary Moore, R. A. Murphy, De C. O'Grady, M. O'Keefe, W. Sheehan, A. E. S. Irvine.

INDIA AND THE COLONIES.

INDIA.

Anti-malaria Campaign in Madras.

The Madras Government has begun a vigorous campaign against malaria in that Presidency. A few localities were selected where certain experimental operations having for their object the suppression of malaria, could be carried out, and local bodies concerned were invited to allot funds for the purpose. The scheme of the operations comprised: (1) The filling up, or draining, of pools, or the killing of mosquito-larvae by kerosene oil; (2) the treatment of the inhabitants with quinine, and microscopic observations of the result of the treatment, and (3) the undertaking of drainage works which would permanently relieve subsoil and surface water obstacles. For the carrying out of the experiments in the places selected, the Sanitary Commissioner, Lieutenant-Colonel King, requested that the services of a commissioned medical officer as well as of an engineer subordinate might be placed at his disposal for a period of six months. From a published minute it appears that the Government is prepared to see effect given at once to the scheme as a practical portion of the regular sanitary programme in every municipality and throughout the jurisdiction of every Local Board in the Presidency. The necessity for including in their sanitary programmes provision for the execution, under the guidance and advice of the district medical and sanitary officer, of operations of the three classes indicated will be inculcated upon all local bodies. It is pointed out that the scheme can be applied only gradually, as funds permit, but some operations should be prosecuted every year, and suitable provision made in the budget for that purpose.

BEQUESTS TO HOSPITALS.—The Rev. Stephen Nottidge Tebbs, of Henbury, Gloucester, Fellow of St. John's College, Oxford, bequeathed £1,000 to the Bristol Eye Hospital, and left the residue of his estate (probably about £20,000) to six charitable institutions, including the Cancer Hospital, Brompton, the Royal Hospital for Incurables, Putney, and the Dispensary, Royal Infirmary, and General Hospital at Bristol.

OBITUARY.

Major Alexander Samuel Faulkner, late of the Indian Medical Service, Bombay Establishment, died on January 13th, at Westgate-on-Sea, aged 50. He was appointed Surgeon September 30th, 1878, and made Surgeon-Major September 30th, 1890, retiring from the service in 1896. He served in the Afghan war in 1879 80 with the Southern Afghanistan Field Force, and received the medal for the campaign.

Dr. Henry Martyn Wells, formerly Medical Director of the United States Navy, died at New York on January 12th, at the age of 69. He was born at Northampton, in Massachusetts, and entered the navy in 1857. He was commissioned Surgeon in 1886. He was promoted to the position of Medical Inspector in 1884, and later was placed in charge of the Museum of Hygiene at Washington. Up to the time of his retirement, in 1897 Dr. Wells was Medical Director and Member of the Medical Examining Board.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Julius Scriba, for many years professor of surgery in the University of Tokio and author of numerous writings not only on surgical but on anthropological and botanical subjects, aged 55; Professor Ernest Abbe of Jena, whose improvements on the mechanism of the microscope have been of great importance to medical research, aged 64; and Dr. J. C. van Aubel, sometime professor of pharmacodynamics and forensic medicine in the University of Liége.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS.[1]

The second part of the Annual Report of the Chief Inspector of Factories for the year 1903 has been issued recently. It contains statistical tables showing the number of places inspected, the accidents reported, prosecutions, etc.

Works Inspected.

The number of works visited by inspectors in 1903 was 253,866, or 1,013 more than in the previous year. During 1903, 27,027 new works were added to the register and 26,302 were removed. It will be remembered that a few years ago the Home Office insisted upon a certain degree of humidity in the atmosphere of textile factories. During 1903 the records of humidity received numbered 30,575, or 922 more than in 1902. These reports disclosed 1,181 instances of irregularity, but many of the excesses recorded were apparent only, and due to neglect of the hygrometers or to errors in reading them.

Employment of Children and Young Persons.

For the last few years the reports of the Factory Department have shown considerable diminution in the number of children and young persons employed in factories, especially in England. So far as half-timers under 14 years of age are concerned, Lancashire and Yorkshire show a declension of 1,057 and 323 respectively, while Ireland shows an increase of 1,324. Lancashire and Yorkshire also disclose a diminution of full-timers between the ages of 13 and 14 and 14 to 16. Taking all the children and young persons examined by factory surgeons in the United Kingdom for employment in factories, it is noteworthy that while in 1900 406 594 were examined, in 1903 the number had fallen to 359,275. It is interesting to note, in view of the question of "racial deterioration," that the number of young persons rejected on medical grounds as unfit for factory employment shows a still further but very slight increase. It is 0 57 per cent. for the year. The principal causes of rejection were imperfect growth, defective sight, and anaemia. If "want of cleanliness" be removed from the list of medical reasons, the increase under this heading would be diminished.

Lead Poisoning.

As regards lead poisoning, the number of reported cases fell from 629 in 1902 to 614 in 1903. The diminution is seen most in the white-lead industry. Formerly this industry was a prolific source of lead poisoning, and not a year passed without several deaths being attributed to it. Recently this has not been the case. Coach painters and workers in china and earthenware show a slight increase in the number of cases of plumbism reported, and house painters, who do not come within the Act, exhibit, unfortunately, a still larger increase. Over all the industries, lead poisoning was the cause of 19 deaths, or of 5 more than in 1902.

Phosphorus Poisoning: Anthrax.

No case of industrial phosphorus poisoning was reported in 1903 but there were 12 fatal cases of anthrax as against 9 for the previous year.

Accidents.

A slight increase in the number of accidents is reported—namely, 1.4 per cent. as against an increase of 2.8 for 1902. As an indication of the change that is creeping over the industrial conditions of the country the number of accidents due to electric shock increased 37 per cent. The amount of overtime used in factories was less in 1903 than in 1902. Prosecutions for neglect as to fencing, etc., causing death or injury were more numerous than in 1902, and the penalties were heavier.

The statistical tables are clear and concise, and give at a glance information that is most useful from an industrial and legislative point of view.

RURAL MIDWIVES' ASSOCIATION.

A meeting under the auspices of this Association was held on January 20th under the presidency of Lord Edmund Talbot. Among other members of the profession present were Sir Michael Foster, Dr. Handfield Jones, Dr. Downes, Dr. Savage, Dr. Bostock Hill, and Dr. Boxall. There were also present considerable numbers of the laity, including many ladies.

Mrs. Heywood Johnstone explained that the object of the meeting was to discuss the best means of carrying out the Midwives Act, especially in sparsely inhabited districts, the aim of the Act being the stamping out of puerperal fever, with better nursing of the mother and child. The points advanced for discussion were the proper authorities to carry out the Act, the questions of inspectors and inspection, of disinfection, of the best type of midwife for rural districts, the question of combination with nursing associations, of midwives acting independently, and the financial and other difficulties attending the matter.

Dr. Foote said that in view of the desirability of uniform control, the county councils or some body delegated by them were the proper authorities, not the district councils.

Dr. Boxall thought that the inspection of midwives would be best carried out by a local authority, and Dr. Savage, representing the Warwick County Council, said that it had put the matter into the hands of its sanitary committee which had recommended that two additional lady health visitors should be appointed for the purpose.

Dr. Handfield Jones considered that inspection was the crux of the whole question.

Sir Michael Foster expressed the opinion that the best type of midwife was one who had practical knowledge of the poor and would be accepted by them.

Dr. Reid (Stafford) thought that if societies working on the same lines would combine their forces the financial difficulty would be met.

Dr. Downes spoke of the need for more trained midwives, there being 3 000 only at present for the 500 000 cases annually not attended by medical men, and suggested that the Poor-law infirmaries should be recognized as training places.

The following resolutions were carried:

That a Committee appointed by the County Council would be the best authority to carry out the Act.

That inspection would be best carried out by or under the supervision of a County Medical Officer of Health or a fully-trained nurse midwife under medical supervision, and not connected with local nursing associations.

That the best form of rural midwife is a woman with an intimate and practical knowledge of the life of the working class.

STOCKPORT WATER SUPPLY.

The position of Stockport in regard to its water supply has become somewhat serious. Owing to the dry summer and the small rainfall during the past few months, the supply in the reservoirs is only 40,000,000 gallons, as against 140,000,000 gallons at the corresponding period last year.

[1] *Annual Report of the Chief Inspector of Factories and Workshops for the Year 1903.* Part II. Tables. London: Eyre and Spottiswoode. 1904. Price 6d. The first part of the report was noticed in the British Medical Journal of August 13th, 1904, p. 350.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TRACHEOTOMY IN LARYNGEAL OBSTRUCTION IN CHILDREN—DIPHTHERIAL OR TRAUMATIC.

DR. CORAM JAMES (Willesden Green) writes: In performing tracheotomy for the conditions mentioned, I suppose there is no doubt as to the convenience to the operator of having the patient anaesthetized, it being obviously less difficult to find the trachea and insert a tube in a passive than in a struggling patient, even if securely held; but I should be glad of answers from those whose opinions, based on large personal experience, would go far to settle the following questions:—(1) In hospital practice is an anaesthetic usual? (2) In private practice is an anaesthetic usual? (3) Is the risk or the operation increased by the use of an anaesthetic administered with care? (4) Is there greater shock subsequent to the operation with or without an anaesthetic?

TREATMENT OF TERTIARY SYPHILIS.

CHRONIC asks for suggestions as to treatment for the following: A case of tertiary syphilis, twenty-two years since contracted; excellent general health. Locally: At angles of mouth, cracks, fissures, and small ulcers; dry lips with consequent exfoliation; inside the lips, the under lip especially and the cheeks, denudation of parts of mucous membrane, leaving raw surfaces of various sizes. All of these are cured *pro tem.* by the application of solid silver nitrate, without internal treatment, the patient being intolerant of potassium iodide in any dose, small or large. Is there any less severe but efficacious treatment? The patient has had this treatment off and on for the last eight years, and is tired of it. He also suffers from a large patch of eczema on the extensor surface of the left leg, which has never been affected by any treatment, notably red oxide of mercury ointment and iodoform ointment.

ANSWERS.

TREATMENT OF PSORIASIS.

P. M. writes: Apomorphine would do well to limit his patient's diet to 12 oz. or less of solid food per diem in two meals. Milk to be counted as containing 3 oz. of solids to the pint. I have found the best results from this treatment. Liquids may be allowed freely, especially between meals.

GREEN OYSTERS.

L.K. occasionally receives oysters collected from a bed on the river Fal, and finds that about half of them are green. He wants to know if these are fit to eat. There are various kind of green oysters. Those obtained from the Fal owe their colour to copper. Chemical analyses have shown that the amount of copper per oyster is only a very small fraction of a grain. The consumption of a reasonably moderate number would, therefore, not be likely to lead to any injurious consequences.

WHAT IS DIABENE?

G. G.—Diabene is the nostrum supplied by the Diabetic Institute. It is said to consist essentially of a preparation of jambul, a drug which has been well-known in the treatment of diabetes for the last twenty years. This preparation was referred to in the BRITISH MEDICAL JOURNAL for 1904, vol. i, p. 708. Jambul has been frequently recommended, but the results have been very uncertain, and on the whole disappointing.

OPHTHALMOSCOPY.

W. J. M.—(1) In most ophthalmoscopes both mirrors are concave, but the small tilted one is the more curved of the two, and so has the shorter focus. A concave mirror is at once apparent if one looks into it and sees any near object, such as one's eye or nose magnified, while the object increases in size as the mirror is moved away, and until the principal focus is reached, after which all objects seen in it are inverted. In this respect it resembles a convex lens. The focus can be easily found by reflecting and focussing the image of a candle flame on a piece of paper and measuring the distance, the more curved the mirror the shorter will be the focus. (2) Any good duplex or circular wick lamp does for retinoscopy, though if it can be moved up and down it is much more convenient. A rather elaborate one for this purpose is supplied by Messrs. J. Weiss and Sons, 287, Oxford Street, W.

TRADE WINDS.

E. B. D.—There are but two "trade winds"—the north-east, blowing from that quarter to the northward of the equator and the south-east, blowing from that direction to the southward of the equator. Various circumstances, however, modify their direction and force. Their causation is not difficult to understand. Heated air rises. Where the earth is hottest—that is, in the neighbourhood of the line—it rises quickest, and hence, since the vacuum of this upward rush of air must be filled, a steady current sets in from the north and south to fill it. Thus the winds, if nothing interfered, would blow due north and south. As a matter of fact, however, they do not, for something does interfere—to wit, the rotation of the earth, which deflects them to the westward, so that north of the line they blow from N.E., and south of it from S.E. They blow in all the oceans save and except in the northern part of the Indian Ocean, where (for reasons which would take too long to explain here, but mainly owing to the influence of the tremendous heats of the plains of India) we get the monsoons, as we do also through a great part of Malaysia, where, however, they are in many places of irregular character. The trades would, of course, likewise blow on land (and, indeed, do so in many cases) but for the fact that many things, such as the unevenness of the land, the altitude and physical characters of it, forests, rivers, and numerous other factors, combine to prevent them.

RELAPSING IRITIS.

OPHTHALMIC SURGEON writes: In answer to "Perseverance," if there are adhesions and cloudiness of the aqueous the only treatment to put the eye in a safe condition as regards future complications is to do an iridectomy. The position and size of this iridectomy must be carefully chosen, both as regards the situation and extent of any of the adhesions, and also so as to give the best pupil for visual purposes.

S. states that an iridectomy is often called for in such a case. Peritomy is also of service, and he refers "Perseverance" to the *Lancet* for May 30th, 1903, for a description of the latter operation.

LETTERS, NOTES, Etc.

DEATH OF A FAMOUS FROG.

PHYSIOLOGISTS will hear with interest the news of the decease of the decerebrized frog of the Cornell University. Dr. Wilber, head of the Physiological Department at Cornell, maintained that in animals the cerebrum was the seat of consciousness and volition. To prove his theory, in 1899 he chose a green frog and removed both its cerebral hemispheres. The operation was successful, and the wound healed rapidly. The decerebrized frog was put into a large open jar, where it remained for five years, until its death quite recently. During all that period the animal never showed signs of any initiative, its only movements being very slight and attributed to muscular weariness, like that of persons asleep. The eyes, optic nerves, and optic lobes of the brain were uninjured, and the animal could evidently see, but without understanding. The most attractive frog food put before it was absolutely unnoticed, and it was fed every day of its brainless life by an attendant, who would open its mouth and with forceps push a bit of fresh meat or fish far enough back into the throat to arouse the reflex mechanism of swallowing. If touched, the body would move or leap; if placed in water, it would swim until some support was reached; if turned upon its back, it would promptly and vigorously right itself—but it would never move of its own accord. The animal has served to impress upon many successive classes in physiology the functions of the cerebrum, of which it was deprived, as well as the functions of the other parts of the brain which it retained. It was exhibited at the meeting of the American Physiological Association in Washington, and has long attracted attention among physiologists.

A SCRIPTURAL JUSTIFICATION OF FEES.

J. W. (Lake Vyrnwy) writes: Referring to the paragraph with the above heading in the BRITISH MEDICAL JOURNAL of January 28th, you will, perhaps, allow a clerical quondam medical student in the Fifties to call attention to a striking and interesting passage in the Greek (Septuagint) version of Exodus xxi, 18-19. The English text runs thus: "If men strive together, and one smite another with a stone, or with his fist, and he die not, but keepeth his bed; if he rise again and walk abroad upon his staff, *then shall he that smote him be quit: only he shall pay for the loss of his time and shall cause him to be thoroughly healed.*" The words which I have put in italics are, in the Septuagint, thus expressed: "He that smote him shall be acquitted except that he shall pay for his loss αἰεμπλοϒμεντ *and the physician's fees* (αποτισει τα ἰατρεια).

TOO LITERAL BUT TOO TRUE.

THE following may find a place in any collection of "howlers" of medical interest. A French boy translated the well known Biblical text which in the Vulgate version runs—*Honora medicum propter necessitatem* as follows:—*Donné des honoraires au médecin parce qu'il est nécessiteux.* If that boy had small Latin he had much knowledge of the facts of professional life. Perhaps he was a doctor's son.

ERRATUM.—In the list of contents published last week Professor Finlay was described as F.R.S., instead of F.R.S.E. In the thirteenth line of his letter on The Sidelight of Medical Education, published on page 219 after "in" the words "medicine or" were accidentally omitted.

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A Lecture

ON

REMOVAL OF THE CONTENTS OF THE ANTERIOR TRIANGLE OF THE NECK IN CASES OF MALIGNANT DISEASE OF THE TONGUE.

Delivered at St. Bartholomew's Hospital.

By HENRY T. BUTLIN, D.C.L., F.R.C.S.,
Consulting Surgeon to the Hospital.

[DEDICATED TO PROFESSOR POIRIER OF PARIS.]

Gentlemen,—When the French physicians and surgeons visited London in the course of October, 1904, Professor Poirier wrote to ask whether, if I performed an operation on the tongue, he might be present. It so happened that on the Wednesday morning of that week I had to operate upon a gentleman for the removal of some disease—not malignant disease—in which I had to make a considerable dissection and remodel the tongue, and to perform a preliminary laryngotomy. Professor Poirier was present, and with him Professor Cunéo and Professor Faure, distinguished members of the Paris Faculty of Medicine. They expressed themselves as very interested, and they wanted to know what happened about the laryngotomy wound, and what about the healing of the tongue. It chanced that I had a patient in the nursing home, on whom, within a fortnight, I had performed an operation for the removal of the tongue preceded by laryngotomy, and I had taken out, a few days later, the contents of the anterior triangle of the neck, and I took these gentlemen to the patient's room. They saw what was left by the laryngotomy—a very small scar; but Professor Poirier's attention was particularly directed to the scars of the just-recently-healed wound in the neck, and I noticed at once that he took a great deal more interest in that than he had done in the operation on the tongue or the preliminary laryngotomy. He saw the large scars, and he said to me, "Do you always perform that operation for the removal of the glands in cases of cancer of the tongue?" I said, "Yes." And he said, "Is it generally done?" I said, "I do not think it is at present, but that has been my own operation for a long time past." Professor Poirier has, you must know, studied and published an admirable description of the lymphatics of the tongue, amongst his other anatomical works, and he was pleased to find that the operation was such as he himself would approve.

He asked me if I had published an account of this operation, and I said I had given a clinical lecture at this hospital on it about six years ago, and the lecture was published, if I remembered rightly, in the British Medical Journal of that time.[1] I thought I had described the operation in detail, and said I would send him a copy of the Journal of that date. But when I came to look up the report of the lecture I found that, so far from giving a detailed description, I had only given an outline of it. I had then been performing it for about two years, and I had apparently not made up my mind as to the best method of performing it; and more than that, I was not at that date so confident as I am now of the desirability of performing so large an operation as a routine measure in all cases of cancer of the tongue, whether the glands are enlarged or not. I found I had promised to give a lecture upon the same subject at a later period to this class, and to describe the operation in detail, and also to tell what I could of the results of such operations. I do not know that I should even now have selected this particular subject for this particular lecture but for two circumstances. In the first place, I was recently present at an operation for the removal of affected glands in the neck secondary to a successful operation for the removal of cancer of the tongue. I found that the method of performing the operation was such as I should have used myself eight or ten years ago, but such as I have not used for the last eight years at least. The glands were cut down upon, and were removed as they were found to be enlarged, and any smaller glands which were discovered when the incision had been made were taken away, but there was no attempt at methodical removal.

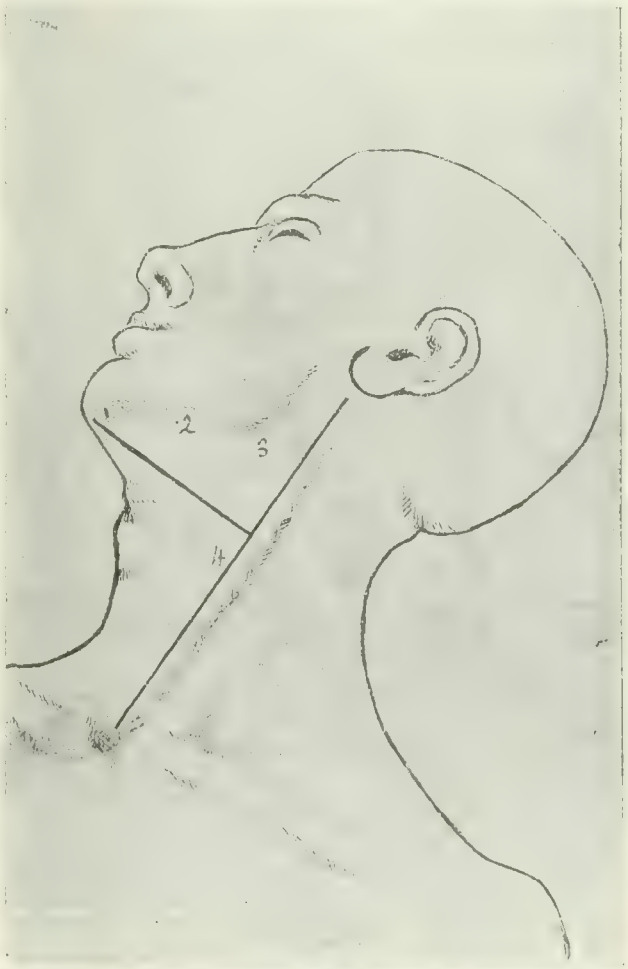


Fig. 1.—Showing the situation of the groups of glands, and the incisions: (1) submental group, (2) submaxillary, (3) parotid, (4) carotid group, particularly the gland over the bulb of the carotid. A chain of glands extends down to the apex of the triangle and must be removed. (From a drawing by Dr. Leonard Mark.)

The other circumstance was a case of very great interest, one of the most interesting cases I have ever seen in tongue surgery, which has occurred also within the last few weeks. I venture to tell it to you in detail, because it has a considerable bearing on the necessity of performing this operation in *all* cases of cancer of the tongue.

About four years ago I was asked by a surgeon to see a gentleman who had two little plaques on the under surface of his tongue on one side, just under the border; and one of these was a little thicker than the other. I did not like the look of it, and I felt sure that at some time or other it would become the seat of cancer, as surely as one can foretell such a result. I advised that the case should be put upon treatment for a month, and if, at the end of that time, these plaques were not completely well, they should be cut out and the edges of the wound brought together, and I felt justified in guaranteeing that within five or six days of the operation the wound would be well, because wounds of the tongue heal very quickly. Neither the surgeon nor the patient were much inclined to an operation. I saw the patient at intervals during the winter, from November to February, when the plaque which I had suspected had become thicker, and a little sore had formed in the centre. I was informed that this had happened on previous occasions, and that too much weight need not be attached to it. Nevertheless, I felt quite sure now that not only was the disease likely at some time to become cancerous, but I felt sure that it was on the border-line of cancer, although I hoped it had not passed it. In February, after mature consideration, the patient allowed me to operate. I cut out, by a very small operation indeed, these plaques of thickened tongue, and, as usual, I had sections cut of the disease. When

I came to examine them I felt quite sure in my own mind that this had already become epithelioma. And as I have seen so large a number of patients die with affection of the lymphatic glands after most successful removal of malignant disease of the tongue, even in the early stages, I did my best at that time to urge the necessity of removing all the contents of the anterior triangle. However, I was over-ruled in this matter, and was told that I should be quite sure to see the patient at intervals of six weeks or two months, and that the supervision of a surgeon would be given to him as far as would be necessary. I was obliged to content myself with that. I did see that man from time to time, and when he ceased to come I used to meet him occasionally while I was riding or walking, and he seemed to be in the rudest and best of health. It was not until October of this year (1904)—that is to say three years and eight months after the operation on his tongue—that his family medical man came and said he had a lump under the sterno-mastoid muscle, that he had had it since the previous June, and he wished me to see him to give an opinion as to the nature of it. He said he had been in June to consult the surgeon who first called me in, but that he had been transferred by him to his family attendant, who had been attending him ever since. I said, "Did not he tell you about the operation?" He said: "No; and not only that, but he took the greatest trouble to conceal from me the fact that he had ever had anything the matter with his mouth. The portion of tongue which had been removed was so small, that I did not suspect he had had an operation for malignant disease." There was a great mass of malignant disease at the angle of the jaw in the parotid region, adherent to almost everything except the spine. It had involved the muscle to a considerable extent, and I removed it by an extensive operation, which lasted about three hours, in which I removed the contents of the anterior triangle, including a great piece of internal jugular vein, the sheath of the internal carotid artery, of the pneumogastric nerve, and almost all the contents of the posterior triangle. In the posterior triangle there were two or three enlarged cancerous glands. I was greatly interested in this case, because the patient's first observation of the enlargement of the glands was in June of this year (1904), that is to say, three years and four months after the removal of what you might consider a trivial condition of epithelioma, if such an expression is ever permissible in regard to epithelioma of the tongue. I cannot recollect any instance in which affection of the glands has been deferred for more than two years after the successful removal of cancer of the tongue; and if I had been asked at the end of two and a half years whether the cancer was likely to recur in the glands I should have said it was most unlikely, and that that man might be considered to be perfectly safe.

I took the slides of the original little cancer of the tongue to Dr. Bashford, who is Director of the Cancer Research, and to Dr. Murray, his assistant, who is a most accomplished microscopist. I thought I would like to see whether they held the same opinion of the microscopical characters of the primary disease as I had done. I took down also the slides of the disease of the gland which had just been made. I did not relate any more of the case than to say, "I want your opinion as to whether this is epithelioma of the tongue or not." I told them what the condition of the tongue was, but I did not say it related to a patient who had been operated upon between three and four years previously. They examined the slide. One said, "I do not know, but I think that it is epithelioma." The other examined it and said, "Yes, I think that is the very earliest condition of epithelioma. It is very early indeed."

I said, "Now I want to ask you a question. Perhaps you do not understand what a surgeon may have to do under these circumstances. Am I to say to that patient 'You must have the contents of the anterior triangle removed'? It is a big operation, and lasts one hour and twenty minutes, perhaps one hour and a half, and will lay him up for a fortnight or longer, and it is not entirely devoid of danger, though I do not think he would be likely to die of it." This strikes them from a new point of view. They are accustomed to specimens and microscopic slides, but not as they directly affect the lives and estates of citizens. One said, "I scarcely think we are called on to express an opinion on that question." The other said: "If it were mine I would have my glands taken out; I would not have one gland left." Then I told them the whole story, and showed the slide of the gland recently removed; it is typical epithelioma, just like a squamous-celled epithelioma of the tongue. I am the more impressed with this case because, if I had ventured to use it as a case of cancer of the tongue in which there was no local recurrence after operation, and the slide had been submitted to pathological examination, some, if not many, persons would have thought I was stretching the licence of statistics very far in claiming such a case as epithelioma.

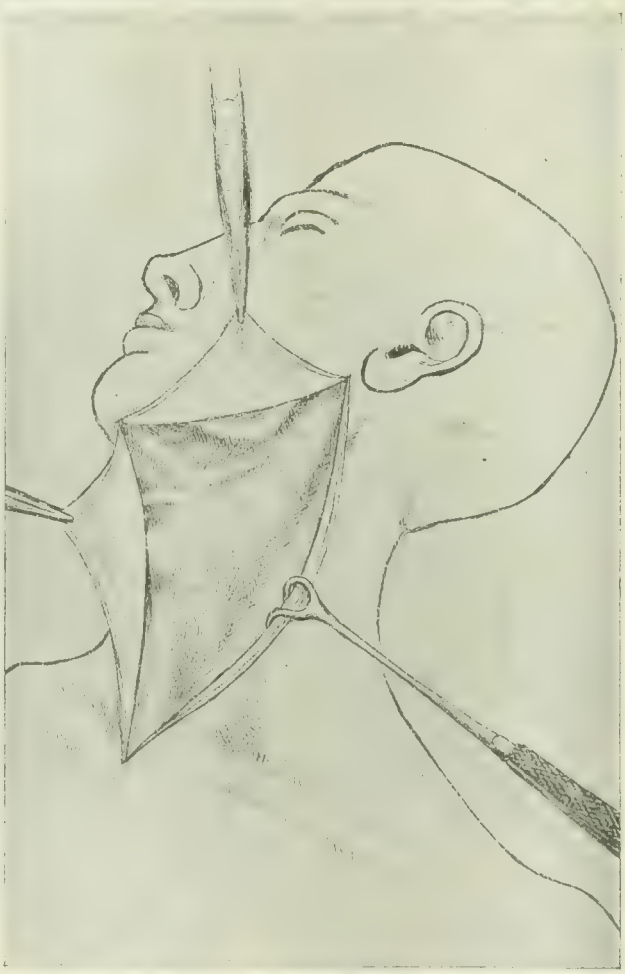


Fig. 2.—Showing the flaps turned back. (From a drawing by Dr. Leonard Mark.)

Well, gentlemen, these two circumstances led me to select to-day for my lecture the subject of operation for removal, not of the glands of the neck, mind, but of the contents of the anterior triangle of the neck, on the same lines as nowadays we clear out the contents of the axilla in a case of cancer of the breast. I have been in the habit of performing this operation for some years, and have reduced it to a sort of routine. Before I describe the details of it I would draw your attention to the groups of glands. Here is the diagram which I used in this theatre six years ago, which shows the situation, from a clinical point of view, where glands are likely to be found diseased. Here is the submental group; here the submaxillary group, for the most part beneath or embedded in the salivary gland; but, remember, one gland lies in the subcutaneous tissue over the salivary gland, and you may sometimes draw it up over the border of the jaw. Here is the inferior carotid group, and there is one gland particularly which is shown just above the bifurcation, on the bulb of the carotid before it divides into internal and external carotid. And here is a very important group which I call, for my own purpose, the parotid group, which is really the superior carotid group. It lies deep down behind the angle of the jaw, rather more behind the vessels than in front,

between the vessels and the parotid gland. In order to remove it properly it is almost always necessary to cut away a portion of the parotid salivary gland itself. In cancer of the forepart of the tongue and the tip the submental group is most likely to be affected; in cancer on the border of the tongue further back, the submaxillary group is liable to be affected; in cancer still further back, the parotid group. And either directly or through one or other of these three groups the gland about the bifurcation of the carotid becomes affected, and is often the first gland to be felt by the patient, because it is not hidden deep down under the jaw as the others are. Unfortunately, you cannot rely upon only one group of glands being affected by cancer of a particular part of the tongue. A very small cancer of the tongue about the middle of the border, or even right at the tip, may affect all these groups of glands. So it comes to this—that to remove the glands of the neck with success after an operation for cancer of the tongue, you must be prepared to remove all those groups of glands. The operation is performed thus: A long incision is made from the mastoid process or just below it to the sterno-clavicular joint, along the anterior border of the sterno-mastoid muscle. Another incision is carried from the symphysis menti, across the side of the neck to meet the first incision about the upper border of the thyroid cartilage. It is nearly at a right angle to the first incision. That divides the skin into two large triangular flaps—a lower with its apex backwards which is turned forwards, an upper flap with its apex downwards which is turned up over the jaw. These flaps should be of skin alone or of very little more than skin, because, in addition to the gland over the submaxillary salivary gland, there is another gland in the submental region, which also lies in the subcutaneous fat. The dissection begins at the lowest part, and the sterno-cleido-mastoid muscle is drawn a little back. Its border is cleaned so that the muscle is bare. The dissection is carried down in front of it until the great vessels are exposed. The tissues between the sterno-mastoid and the muscles attached to the larynx, which contain a long chain of glands, are raised from below upwards off the great vessels, which are left quite bare at the bottom of the wound. The muscles are cleaned of fascia and fat; the dissection is carried up along the line of the vessels, and quite close to the vessels themselves, otherwise glands will be left behind. It is carried deep down around the vessels, in front and behind, particularly between the parotid gland and the vessels. The digastric triangle is completely cleared out, including the submaxillary salivary gland, and the muscles are left quite bare. The submental region is treated in like manner, and search is made between the genio-hyoid muscles, lest a gland there should be overlooked. A very clean dissection can be made in about one hour and twenty minutes to one hour and three-quarters. The internal jugular vein and the carotid arteries are exposed for many inches of their course. But it is not a difficult operation. A considerable number of vessels must be tied, and I advise you most strongly to take up and clamp and tie every vessel you possibly can before you divide it. If you do not you will have considerable bleeding from the veins in the neck and from arteries like the lingual and the facial—a matter of considerable importance, particularly in old people.

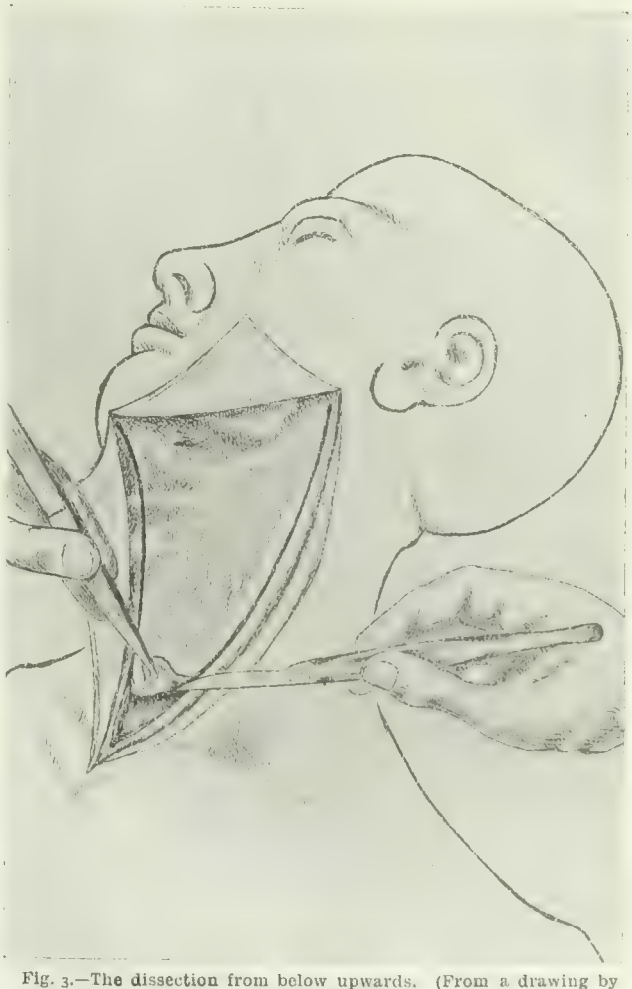


Fig. 3.—The dissection from below upwards. (From a drawing by Dr. Leonard Mark.)

After the dissection is over the remaining vessels are tied, the wound is cleansed of blood, a long strip of gauze is thrust up beneath the jaw in the submaxillary triangle, and another is placed between the parotid gland and the vessels, and the ends of both these pieces are carried out at the lowest part of the wound. This is done to check the oozing of blood, which is sure to occur afterwards, because in this situation pressure cannot be applied on the outside to arrest the haemorrhage. In addition, a drainage tube is inserted by the side of the gauze to carry off the blood-stained serum and saliva, for gauze more often acts as a plug than as a drain. On the day following the operation these strips of gauze are taken out. The tube is left in, because very often for a good many days there takes place a considerable flow, not merely of serum, but of saliva, owing to the fact that the parotid gland is almost invariably wounded. From the cut surface of the parotid saliva oozes for some days, and at first, when that happened in my operations, I was troubled, because I thought I should establish a salivary fistula. My impression now is that it would be very difficult to do so. The wound is almost always healed within three weeks of the time the operation was performed, and often it is well in nine or ten days. In this operation for the removal of the contents of the anterior triangle, the contents mean the lymphatic glands, the submaxillary salivary gland, fat, connective tissue, a portion of the omo-hyoid muscle, the platysma muscle, quantities of veins, small and large, sometimes a great piece of the internal jugular vein if the glands are adherent to it, sometimes a portion of the external carotid artery. I tell you plainly that I think it ought to be done in every case of cancer of the tongue, where the disease is limited to one side of the tongue, unless there is some strong contraindication. Now comes the important question as to when it should be done. I need scarcely say that if this operation could be performed at the same time as the operation on the tongue, there would be great advantages. In the first place the patient would not have to look forward, after the first operation, to a second. Again, the operation might be performed after Kocher's method, removing the tongue through the neck, first tying the lingual or the external carotid artery. But there are also disadvantages which, to my mind, outweigh the advantages. The double operation is too much for old people and for bad subjects. The wound becomes septic throughout. The patient is not able to take food by the mouth with comfort for several or many days, and may therefore sink from exhaustion if matters go badly. In proof of the greater danger of the double operation at a single sitting, take my own experience.

I began to perform this operation in December, 1895. Between that time and three years ago* I performed it on 28 people. In 15 cases I performed the two operations at two separate sittings, and in 13 cases both were performed at a

* I have not included the operations of the last three years, because I could not speak of the final results.

single sitting. In the first series of 15, only 1 died of the operation; of the second series, 13, 3 died of the operation. That is, less than 7 per cent. on the first series, and more than 23 per cent. on the second series. Of course, these percentages must be modified by admitting that some of the cases in which the two operations were performed at a single sitting were exceptionally severe, because the glands were badly affected and required immediate removal.

Both in public and in private practice I adopt the practice of performing the operation on the tongue first, for that is what the patient comes about—he wants the operation performed on his tongue, and often he does not trouble about the glands at all. Even if his glands are enlarged, he thinks that, as soon as the disease has gone from his mouth, it is only necessary to paint his neck with that popular material, tincture of iodine. Therefore, he does not desire an operation on the neck. I used to allow the patients to leave the hospital or nursing home, and at the end of a month from the first operation they were to come back for the operation on the neck. I am sorry to say that many shirked the second operation. Unless the glands were very obviously enlarged, they would not undergo it. Therefore I could not do what I believed to be right and desirable for these people. And I was quite in despair until at length I hit upon a course which seemed to meet the difficulty. I operate on the tongue first, and as soon as the patient is fit for the second operation I perform it. By "fit for the second operation" I mean this: that he should be able to take his food quite comfortably by the mouth; liquid food in sufficient quantity to enable him to fight through the second operation. At the end of a few days the wound in the mouth is usually so far healed that it is far less liable to infect the wound in the neck than if the cancer of the mouth were removed at the same time as the glands in the neck. I now operate at the end of about nine days; that is the average time. And I do not tell the patient, as a rule, that he will have to undergo a second operation; I say to the friends, "I shall begin this operation on Tuesday, and about Thursday week I shall hope to complete it." They are quite satisfied and content that I should do anything I think proper, provided the patient recovers, and the best has been done for him; and I assure you that the two operations, even in men of 70 years of age and over, are recovered from perfectly well in about three weeks. I have come to the conclusion that this is the most prudent course, and should be pursued as a routine practice. Of course, the routine must be broken from time to time for special reasons.

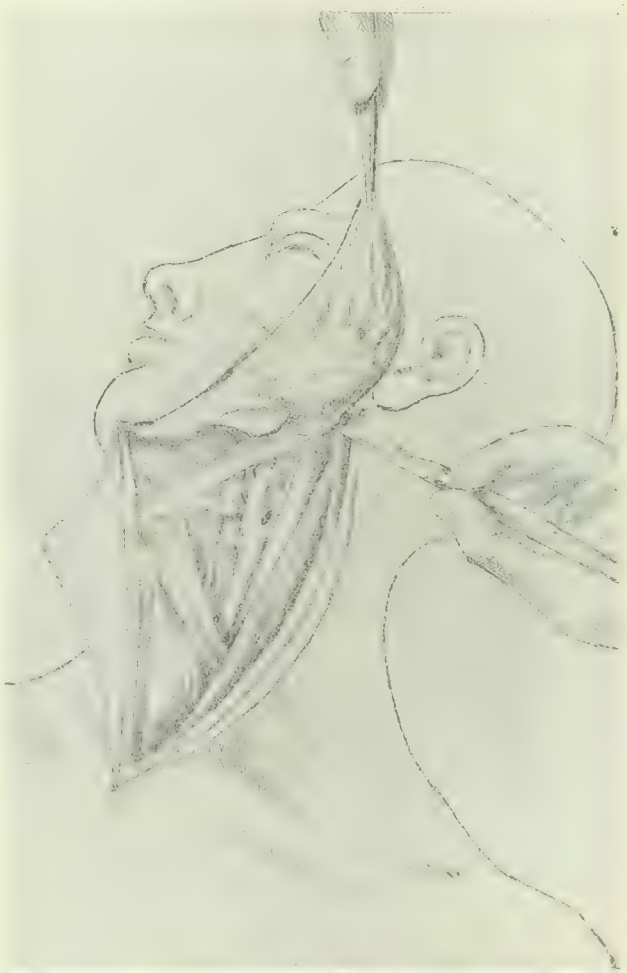


Fig. 4.—The condition of the triangle when the dissection is completed. The omo-hyoid anterior belly is sometimes removed, sometimes drawn aside, while the deep vessels are cleaned. (From a drawing by Dr. Leonard Mark.)

Now for results. I began to perform the operation for the complete removal of the contents of the anterior triangle of the neck in December, 1895, or January, 1896. Between that period and December, 1901, there were twenty-eight of these operations; and, in order to make the issues as simple as possible, I will merely take the number of persons who died of affection of the glands without recurrence in the mouth and the number of successful cases—that is, of persons who were alive and well three or more years after the operation, or who died of some other disease than cancer more than three years after the operation:

Twenty-eight Cases of Removal of the Contents of the Anterior Triangle of the Neck from January, 1896, to December, 1901.

Died of affection of glands without recurrence in the mouth	4
Successful cases	10

Compare with these the results of the old operation, in which glands which could be felt to be enlarged were taken out, but no more than this was done. Up to January, 1896, I performed this operation thirty-one times:

Thirty-one Cases of Removal of Enlarged Glands before January, 1896.

Died of affection of glands without recurrence in the mouth	8
Successful cases	5

Again, take another series of cases to compare with the first series. Between January, 1896, and December, 1901, I operated on thirty-four patients for the removal of cancer of the tongue without removing the glands in the neck:

Thirty-four Cases of Removal of Cancer of the Tongue without Removal of the Glands between January, 1896, and December, 1901.

Died of affection of the glands without recurrence in the mouth	9
Successful cases	9

It will be seen at a glance that by far the most successful results are those which were procured by the removal of the contents of the anterior triangle. But the mere statement of numbers does not tell everything. Allowance has to be made for certain conditions which were present or which were absent in each of these three series of cases. In the first series there were 18 patients in whom the glands were perceptible to touch at the time they were removed, 7 in whom they were not perceptible, and 3 of whom there was no note on this important point. By far the best results were obtained in the 7 cases in which the glands were not perceptible to touch. For 4 of these patients are amongst the 10 successful cases. Of course, in the second series the glands were perceptible in every one of the 31 patients, and that was why they were removed. So far from thinking the results bad, I am surprised to find they are so good. For it is quite a remarkable circumstance that five persons, under such conditions, should have been cured by so incomplete an operation. In more than 1 of these 5 cases the glands were proved by microscopical examination to contain epithelioma. Yet 1 of these patients was alive and well nearly twenty years after the operation.

Probably no corrections are required in the third series of 34 cases. For if, on the one hand, it may be said that these 34 cases comprise the lightest and most favourable of all the cases (which is, of course, quite true), there were, on the other hand, some of them in which the glands were not removed, because they were beyond reach of removal, and the operation on the tongue was merely palliative.

There are two or three matters to which particular reference must be made. In the first place, with regard to the necessity for the removal of the submaxillary salivary gland. The

removal of that gland increases the severity of the operation, and there is a deep depression left under the jaw, which is slightly disfiguring; and in removing it some of the fibres of the facial nerve which go up to the angle of the mouth are sometimes cut, so that control of that angle of the mouth may be slightly affected. About three years ago it occurred to me that I might turn up the submaxillary salivary gland from below, and clear out the contents of the submaxillary triangle from beneath it, and the gland or glands which lie embedded in the salivary gland, then lay the salivary gland back in its place once more. I did that in three instances and those cases gave me the greatest anxiety. One of the patients is dead, and I think he died from having had his salivary gland left, because, a year after the operation, he came back with a big mass growing from the lower part of the gland almost into the pharynx. And although I made a very large operation for the removal of it he died of recurrence of the disease a few months afterwards. In both the other cases I have been disappointed at the result from what may be termed a cosmetic point of view; the gland bulges a little, and there is a prominence instead of a depression. I think the patients are safe, because it is some time since I operated on them. I do not recommend you to take this course, for the advantages are not nearly great enough to justify the risk.

You will see that four of the first series of twenty-eight patients died of affection of the glands without recurrence in the mouth, which seems a large number after removal of the contents of the anterior triangle. But, in two of them, the glandular disease was so extensive that there was rapid recurrence in the neck itself. In the other two unusual events occurred, and I direct your attention to these particularly. In one of the patients, although the primary disease was but a kind of button quite on the border of the tongue, and apparently not going far into the tongue, and although I removed it and the glands on that side successfully so that it never recurred in the tongue or in the glands on that side, he died of diseased glands on the other side of the neck. And that occurred about a year after the first operations. It grew very rapidly. I tried to remove the disease, but it was absolutely inoperable. You must take into account that in a certain number of cases—I cannot give you an idea of the proportion, but I think it must be small—the patient is liable, even with disease limited to one border of the tongue, to affection of the glands on the other side of the neck. And this has led certain surgeons to recommend—though I do not think it has been done in this country—that the glands on both sides of the neck should be removed in every case of cancer of the tongue. I have not got to that stage yet. I doubt if I shall ever do so. I have removed the glands of the neck on both sides for cancer of the tongue, but not when the tongue cancer was limited to one side. I do not think at the present time circumstances warrant so large an operation as that, and I do not think the patients would submit to it.

The remaining patient died of disease of the glands of the posterior triangle of the neck, and again the question arises, Is it necessary, or desirable, to remove the contents of the posterior triangle of the neck when the contents of the anterior triangle are removed? I reply that experience has not taught me that this is necessary in the ordinary cases. That patient was the first person on whom I performed this operation of clearing out the anterior triangle. He had a bad cancer far back in his tongue, implicating the anterior half arch of the palate, and with that a great cancerous gland under the mastoid muscle, in the parotid region; and I performed a large operation on the tongue and glands at one sitting; I fully expected that in a few months he would have recurrence of the disease. But to my great surprise he remained well for a year and a half, when he came to show me an enlargement of the glands in the posterior triangle, which he had recently discovered. I attempted to remove them, but they were matted in with nerves and vessels, and it was impossible. I made use of that experience in the case which I related at the beginning of the lecture. There was a large mass breaking down at the angle of the jaw beneath the sterno-mastoid muscle; I therefore cleared out the contents of the posterior triangle, where I found absolutely malignant glands. I think where the disease of the glands is only slight and not adherent, and where they are not badly diseased in the parotid region you need not remove the contents of the posterior triangle; but if there is severe glandular disease in the parotid region, and beneath the sterno-mastoid, I feel sure you should not be content with removal of the contents of the anterior triangle, but should remove also the contents of the posterior triangle down to the brachial plexus.

I have, naturally, been speaking of disease on only one side of the tongue. If the disease is in the middle line, as it sometimes is, or if it has spread from one side to the other, I am sorry to say you will have to take your courage into your hands, and remove the contents of the triangle on both sides of the neck. I have done so on several occasions, and the patients have made very good recoveries. That is an absolute necessity if you want to save your patient from recurrence and death from the disease.

And now let me finally say that I am only giving you what I believe to be the best advice, on my experience, up to this time. It is possible I may have to modify my opinions on some of these points, but I am not likely to modify them in the direction of making a smaller operation than I have demonstrated to-day. I advise you, in every case of cancer of the tongue, even in the very earliest period, to recommend your patient most strongly to have not only the disease of the tongue removed, but if the disease is on one side to have the anterior triangle completely dissected out, and if the disease of the tongue is in the middle line to have the contents of both triangles taken out.

REFERENCE.
1 British Medical Journal, 1898, i, 541.

ON THE THALAMUS.*

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For some years I have been teaching that the central nervous system may be divided into two regions—one lying in front and the other lying behind the plane of the posterior commissure. The anterior or cephalic portion is the thalamus, while the posterior or caudal segment forms the cord. The central nervous system consists therefore, according to my view, of a thalamic and a post-thalamic division.

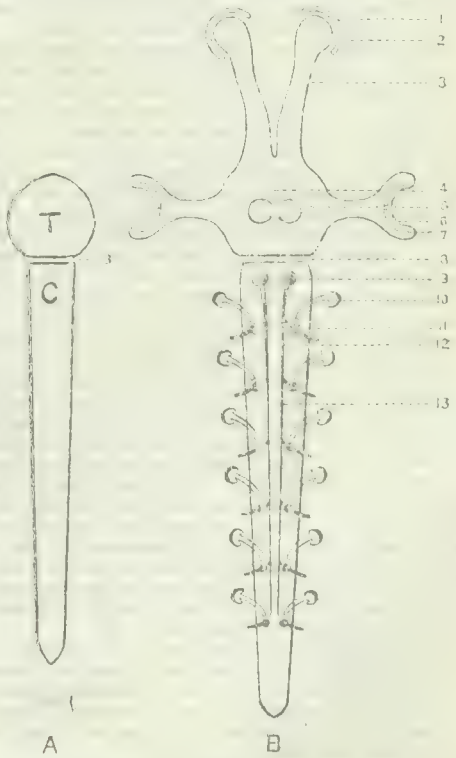


Fig. 1.

A.—The central nervous system, consisting of a thalamic, T, and a post-thalamic, C, portion. The plane of the posterior commissure is indicated by 8.

B.—1, The olfactory mucous membrane; 2, the olfactory bulb; 3, the olfactory tract; 4, thalamus; 5, the two pineal eyes; 6, the optic cup; 7, the layer of rods and cones; 8, the plane of the posterior commissure; 9, the red nucleus; 10, a spinal ganglion; 11, a motor nucleus; 12, cord; 13, the rubrospinal tract. (For simplicity's sake decussations have not been represented.)

*Read in the Section of Anatomy at the annual meeting of the British Medical Association, Oxford, July, 1904.

The thalamus gives rise to the corpus striatum, comprising the caudate, lenticular and amygdaloid nuclei; the claustrum, and the cerebral hemispheres, while the post-thalamus or cord includes the midbrain or corpora quadrigemina; the rhombencephalon including the cerebellum, pons and medulla, and the spinal cord.

In Fig. 1, A, the thalamus, T, and the cord, C, are separated by the plane of the posterior commissure, S.

While the cord is built up of segments, each of which possesses from the very commencement, firstly, sensory nuclei developed in connexion with the spinal and the sympathetic ganglia, and, secondly, motor nuclei developed partly in direct connexion with the axons of cells situated in the spinal and the sympathetic ganglia, and partly in relation to the sensory nuclei inside the cord, we find in the thalamus originally only sensory nuclei. As the function of all afferent (sensory) nerves is to produce movement, it will be seen that the thalamus must either become connected up with motor cells of the cord or develop a motor mechanism of its own. Anatomy and physiology teach us that the thalamus at first was content with employing the motor cells of the cord, but that later it developed its own motor mechanism.

Three distinct stages may be traced in the evolution of the thalamus:

The primitive, as distinct from the evolved, thalamus contains centres developed only in connexion with the chemical sense of smell and the physical sense of sight, while the cord arises originally in response to tactile or mechanical stimulation. The thalamus reacts thus to quick vibrations, while the cord responds to slow vibrations, and it is curious that the motor nuclei should first appear in relation to such slow stimuli as are called forth by mechanical disturbances of the eighth nerve, and of the various kinds of touch corpuscles met with in the skin, in muscles, tendons, joints, and viscera.

I believe that pain plays no part in the evolution of the nervous system, and that the capacity of reacting to chemical stimuli has been acquired by the cord only secondarily, as, for example, in the sense of taste.

If from one point of view the nervous system is divisible into a thalamic and a post-thalamic region, it is from another standpoint also divisible into a peripheral and a central portion. In vertebrates, all sensory cells, with the exception of those subserving the sense of smell, are removed from the surface of the body, and are aggregated, except in the sense of sight, into special ganglionic masses—namely, the spinal and sympathetic ganglia. When we study the development of the two latter we find that they form at one time the edges of the medullary plate, which is only what one would expect, because when the medullary plate is converted into a deep groove the edges of the canal will be those portions which remain longest in direct communication with the environment. While, now, in the post-thalamic nervous system the sensory edge of the medullary groove soon separates off from the neural canal proper, and gets to lie along the dorsum of the neural canal, between the latter and the skin, we find in the thalamic region quite a different arrangement.

The sensory cells, which ultimately will subserve smell (see Fig. 1, B, 1), never form part of the medullary groove, but lie at its anterior end, and they never sever their connexion with the surface of the body. This fact, probably coupled with their inability to form long-axis cylinders, has led to the thalamus retaining from the very first its connexion with the olfactory skin area. Thus, a communication with the thalamus is brought about by the latter growing apparently outwards towards the olfactory region, and giving rise thereby to what in the adult brain is known as the olfactory bulbs and the olfactory tracts (see Fig. 1, B, 2, 3).

In the case of sight, the sensory cells lie partly along the edge of the medullary groove, and are brought, through the conversion of the groove into the thalamic canal, into a dorsal position, developing later into the two bilateral pineal eyes, as is well seen in the early stages of development in fishes and amphibians (see Fig. 1, B, 5).*

It would therefore seem that the very rapid vibrations caused by smell and sight cannot be propagated over long distances. That also in the fully-formed retina of vertebrates the rods and cones lie in reality on the surface of the body is shown by the accompanying diagram (Fig. 2) of a nearly completed, hypothetically double-layered neural canal, and, budding out from the latter, an optic stalk terminating in an invaginated optic vesicle. The non-invaginated part of the optic cup forms the retinal pigment layer, while the invaginated portion represents the retina.

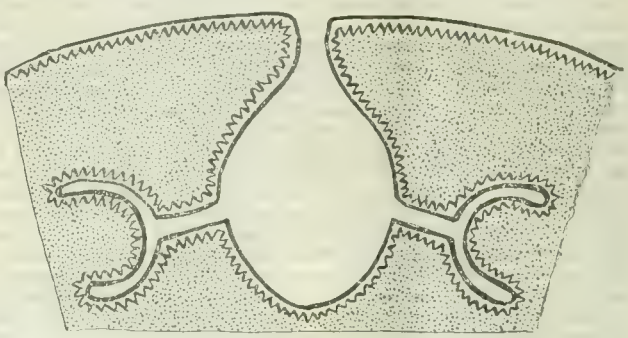


Fig. 2.

As low down as the petromyzon, the sensory nuclei and tracts developed in connexion with the sense of smell are the olfactory bulbs, the taeniae thalami, the ganglia habenulae, with their two subdivisions, the fasciculi retroflexi of Meynert, and the interpeduncular ganglia of v. Gudden, which latter send fibres to the tegmental ganglia situated immediately behind the midbrain. In animals with a cerebrum we find in addition the fornix, developed in connexion with the sense of smell, going to the ventro-lateral portion of the mesial nucleus of the corpora mammillaria.

The sense of smell is originally in all animals the most essential; without it none of the lower vertebrates are able to find food, and in those animals, such as man, in which the sense of sight has usurped the place which once was occupied by smell, there is evidence, as Professor Flechsig has told me, of the olfactory sense-organs being more strongly developed in the fetus than at birth. How essential the smell is to the rabbit was brought home to me by the following experiments: Engaged in making a systematic investigation of atrophic changes induced in the thalamus by removal of various afferent tracts in newly-born animals according to v. Gudden's method, I also removed one or both olfactory bulbs. While all the rabbits with only one bulb removed made a speedy recovery, none of those survived in which both bulbs had been removed. My experience bears out that of v. Gudden when he experimented on newly-born animals. I had hoped to be more successful by placing the animals periodically against the teats, but with no better result. I thought the fifth nerve and the nerve of taste not sufficiently educated during the first few days to respond sufficiently to the sense of touch and taste; I therefore waited eight, ten, fifteen, and twenty days after birth. After the animals could see and could run about I tried to train their eyes by giving the food always at definite times and letting the animals see the food first, but again I failed. Then I hoped that if an animal could not find its food by sight alone, as long as it was kept by itself, that it might do so by being taught to watch other animals of its own age feed, and therefore two rabbits had to watch others eat on each of seven successive days before they were given food themselves. Again I failed in keeping the animals alive after removing both olfactory bulbs. It appears, then, that rabbits are as dependent on their sense of smell as are the smell-hunting fishes to which Steiner first drew attention.

As a successful removal of both olfactory bulbs would throw much light on the thalamus I shall repeat the experiments, using artificial feeding, and also changing the breed of rabbits.

The sense of sight is comparatively a much simpler sense and of much less importance to the rabbit, for if both eyes be enucleated on the second day after birth it soon learns to educate its senses of touch and hearing to an enormous extent. The increase in the sensitiveness of the whiskers is particularly noticeable, for while a rabbit which can see takes little or no notice if the whiskers are touched with a straw, a blind rabbit will jump away forcibly under the same conditions. In this respect rabbits resemble the nocturnal rats.

While the tracts of the olfactory sense are complicated, those of sight are comparatively simple. The thalamic

* In addition to the pineal eyes, which now have no function, there are developed from the thalamus the two lateral eyes. What is so interesting is the fact that, as in the case of the sense of smell, so here a portion of the thalamus grows out with the true, light-perceiving cells—namely, the rods and cones (see Fig. 1, B, 6).

portion of the retina sends its fibres to the anterior corpora quadrigemina, the external geniculate bodies, and to the posterior portions of the thalamus. In the rabbit the anterior corpora quadrigemina obtain their maximal development, while in the marmoset monkey the pulvinar and the external geniculate bodies are most developed. Finally, a tract between the retina and the corpora mammillaria—the transverse peduncular tract of v. Gudden—is the analogue of the olfactory mammillary tract above referred to.

The second stage in the evolution of the thalamus took place when amongst our remote ancestors all-powerful variation first produced a type in which a special area was set apart for the mutual interaction of the senses of smell, of sight, and of touch. While during the first stage the sense of smell played through the ganglion habenulae on the sense of sight, and perhaps also directly on the motor cells of the red nucleus situated in the most anterior part of the cord (see Fig. 1, B, 9), and while the thalamic retina certainly controlled body movements through the red nucleus, there existed as yet no sensory nucleus in the thalamus for the reception of tactile impressions, but then there arose two distinct centres—one, probably the older one, situated quite anteriorly, called the anterior tubercle, or, by Ramon y Cajal, the dorsal nucleus; and, secondly, a ventral nucleus, which may again be divided into at least a mesial and a lateral portion.

Three distinct tracts have been described as passing from the spinal cord to the thalamus: First, the spino-thalamic tract of Horsley, Boyce, and Edinger, the cells of which are said to be situated in the cord, and the axis cylinders of which, after decussating, are said to occupy a ventro-lateral position in the cord and medulla, and then to run forwards, to terminate in the lateral portion of the ventral nucleus; this bundle I do not know personally; secondly, the fillet coming from the cuneate and, to a slight extent, from the gracile nuclei, and terminating in the anterior reaches of the mesial portion of the ventral nucleus; and, thirdly, the bulbo-mammillary tract of Wallenberg, coming from the region of the gracile nucleus and going to the mammillary bodies. From the corpora mammillaria, a new tract arises—namely, v. Gudden's tegmental tract, the collaterals of which are aggregated to form Vicq d'Azyr's bundle, destined for the anterior tubercle of the thalamus, and partly for the anterior portions of the middle nucleus.

Tracts, which arise in connexion with the cranial nerves, particularly the trigeminus, are the homologues of the spinal or mesial fillet, and terminate likewise in the ventral nucleus of the thalamus.

During the third stage of evolution the thalamus developed its own motor mechanism by giving rise, first, to the corpus striatum, consisting of the lenticular and caudate nuclei, and then to the cerebrum. With the development of these structures goes hand in hand a reciprocal development of the original thalamus, inasmuch as the original nuclei send fibres to the corpus striatum and to the cerebrum, and also receive fibres from these regions. The exact delimitation of the nuclei, depending primarily on the peripheral sense organs and arising primarily in connexion with the corpus striatum and the cerebrum, is the research I have in hand.

From what has been said above it will be seen that during no part of its existence was the thalamus connected only with the visual apparatus, and therefore it is best not to use the expression "optic" thalamus.

In a mammalian brain fixed *in situ* by the injection of 20 per cent. formalin in 0.75 per cent. sodium chloride solution, the thalamus appears as two oblong masses, which meet one another in the middle line at almost a right angle. For descriptive purposes it is convenient to divide each thalamus into eighteen segments according to the following plan (Fig. 3).

The thalamus is divided naturally into a dorsal and into a ventral portion by the falciform nucleus of Ramón y Cajal.[1] This nucleus corresponds to Nissl's winglike projection of his "nucleus of the middle line," the latter in reality consisting of two portions—namely, the central grey matter and the falciform nucleus proper. This division into a dorsal and a ventral part is especially well marked in the middle regions of the thalamus.

The dorsal half of each thalamic half may again be redivided for descriptive purposes into a dorsal and a ventral area, but this division is not indicated in Fig. 3. The surface looking towards the middle line, following a suggestion of Professor Gotch, I have called the "ventricular" third, and the lateral aspect of the thalamus the "lateral" third; between these two thirds is the "subventricular" third, which term is preferable to the term "central." The central portion of the thalamus lies between its right and left halves in the middle line, and corresponds to the central grey matter and to the ganglion habenulae (see later).

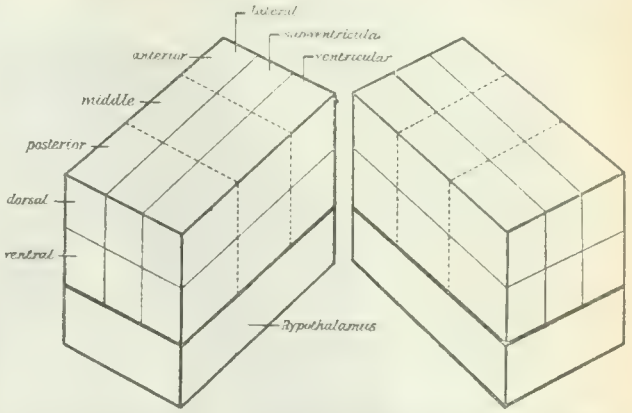


Fig. 3.—Representing the right and left halves of the thalamus resting on the hypothalamus.

The anterior surface of the thalamus is partly also ventricular throughout the antero-ventricular, subventricular, and lateral thirds; but with the term antero-subventricular I mean to express the middle third of the anterior reaches of the thalamus.

The hypothalamus includes all structures lying beneath the ventral nucleus, in which the fillet terminates, with the exception of the external and internal geniculate bodies, which, because of their enormous development in the higher vertebrates, have come to lie partially in the hypothalamic plane. The hypothalamus is not dealt with here.

The relation of the thalamus to the other parts of the brain in the marmoset monkey is shown by Fig. 4, which represents a horizontal section passing through the posterior commissure. The thalamus, *Th.*, is surrounded by the following parts: (1) Frontal lobe of cerebrum, (2) genu of corpus callosum, (3) lateral ventricle anterior horn, (4) head of caudate nucleus, (5) anterior genu of internal capsule, (6) septum lucidum, (7) claustrum, (8) fornix, (9) Sylvian fissure, (10) stria cornea or taenia semicircularis, (11) taenia thalami, (12) central grey matter, (13) lenticular nucleus, (14) posterior genu of internal capsule, (15) internal lamina of thalamus, (16) fasciculus retroflexus of Meynert, (17) ventral portion of pulvinar, (18) posterior commissure, (19) stria cornea, (20) fimbria, (21) tail of caudate nucleus, (22) fascia dentata, (23) anterior corpora quadrigemina, (24) hippocampus major or cornu ammonis, (25) posterior horn of lateral ventricle, (26) posterior corpora quadrigemina, (27) cerebellum, (28) occipital lobe of cerebrum.

The minute structure of the thalamus corresponding to Fig. 4 is given in the diagram (Fig. 13). In the figures 5 to 17 are represented successive horizontal planes through the thalamus of the marmoset monkey, an animal which Sir Victor Horsley was kind enough to suggest to me as being probably especially suitable for the purpose of investigating the thalamus.

Its thalamus is composed of the following nuclei:

1. *The anterior nucleus* (No. 1, *a*, *b*, in Figs. 5 to 13).—It lies dorsally in the subventricular zone, and is composed of two parts, namely, a large-celled dorsal ventricular (1, *a*) and a small-celled, ventral and subventricular part (1, *b*). The portion 1, *a* corresponds to Nissl's anterior dorsal nucleus and to v. Monakow's *ant.-c.* Ramón y Cajal homologizes his "angular nucleus" with Nissl's lateral anterior nucleus, but Ramón y Cajal's nucleus seems to correspond to my anterior nucleus 1, *a*. The portion 1, *b* corresponds to Nissl's anterior ventral nucleus and to v. Monakow's *ant.-a.* or Ramón y Cajal's dorsal nucleus. The anterior nucleus receives its impulses from Vicq d'Azyr's bundle.

2. *The ventricular nucleus* (No. 2 in Figs. 5 to 14).—It lies dorsally in the ventricular zone, and extends more or less into the subventricular zone according to the level of the transverse plane under examination. On its subventricular side it is bounded by the internal medullary lamina, No. 11 (Figs. 7 to 13); on its ventricular side it is in contact with the central grey matter, No. 12. Within certain reaches it develops a distinct intranuclear lamina, No. 13 (Fig. 8), which

divides it into a ventricular portion, No. 2, *a*, and a subventricular part, No. 2, *b*. Both the ventricular and the subventricular subnuclei are redivided into at least one anterior and one posterior division. On its anterior dorsal surface it passes into "the large-celled nucleus" No. 2, *c*. This large-celled nucleus, or nucleus magnocellularis of Nissl, lies at the anterior and dorsal end of my No. 2, *b*, which is known generally as "the centre of Luys (centre médian)." This centre corresponds to the posterior nucleus of Nissl's mesial-posterior nucleus and to v. Monakow's *med. b*. If the large-celled nucleus, 2, *c*, belongs to the centre of Luys, we are dealing here again, as throughout the remainder of the thalamus, with a small-celled receiving, and a large-celled emitting, subnucleus in each thalamic nucleus. The ventricular portion of the ventricular nucleus, No. 2, *a*, corresponds to Nissl's mesial posterior nucleus and to v. Monakow's

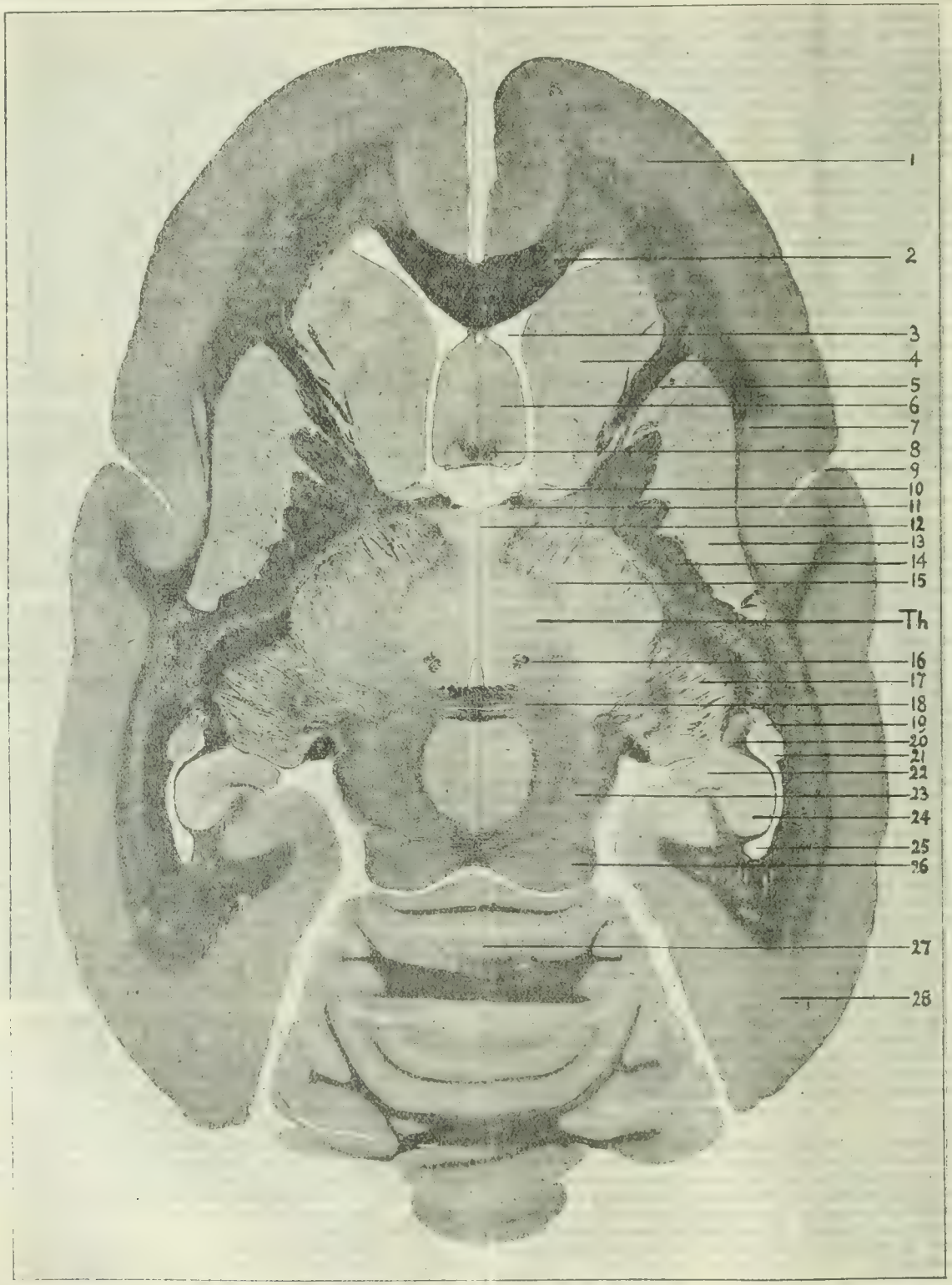
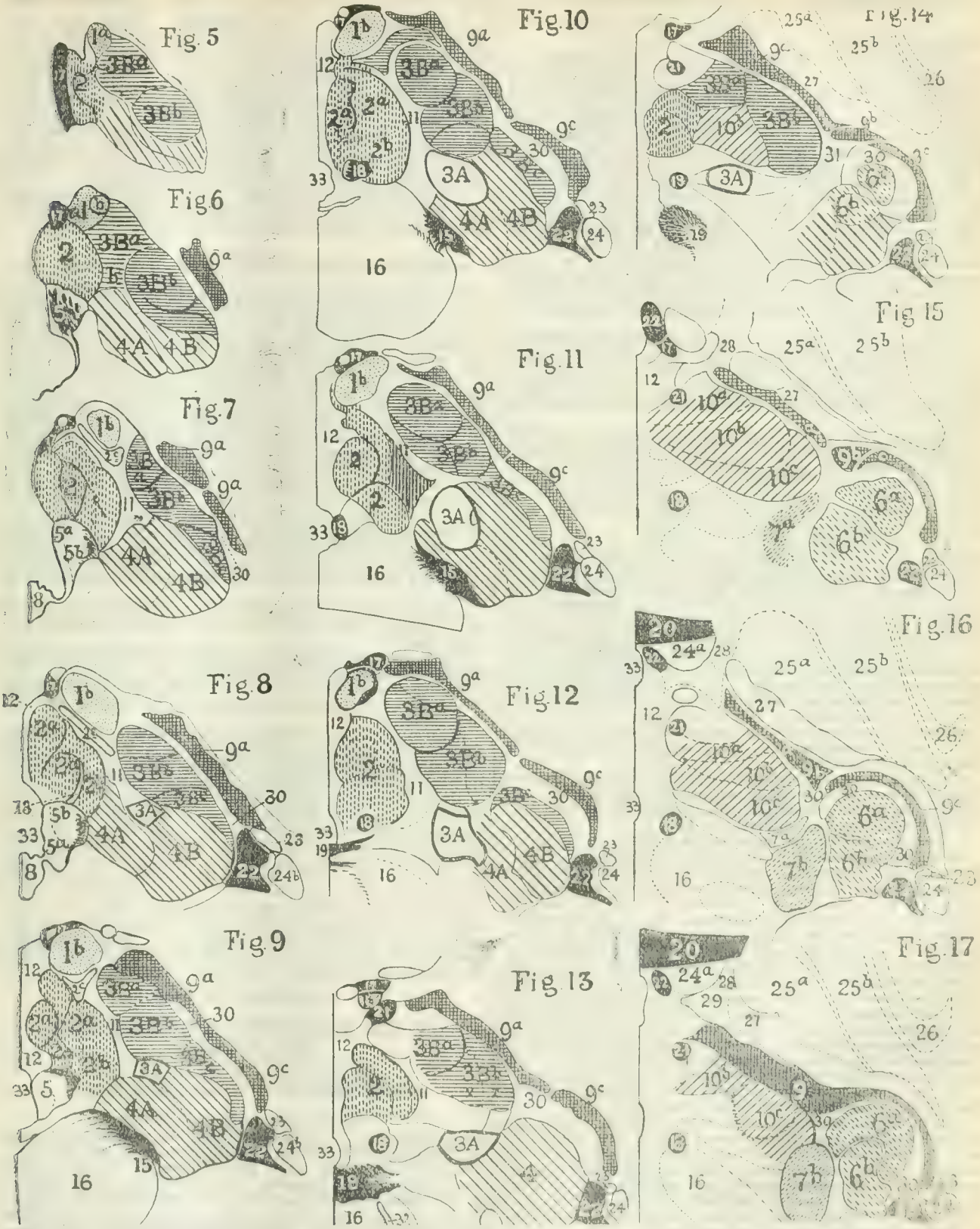


Fig. 4.



Figs. 5 to 17.—Successive sections in a horizontal plane through the right half of the thalamus of the marmoset monkey, viewed from above. No. 1, *a*, *b*, the anterior nucleus; 2, ventricular nucleus; 3, lateral nucleus; 4, posterior nucleus; 5, ganglion habenulae; 6, external geniculate body; 7, internal geniculate body; 8, pineal body; 9, reticular nuclei, A, tactile (?) portion; B, auditory portion; C, optic portion; D, dorsal reticular nucleus; 10, ventral nucleus; 11, internal medullary lamina; 12, central grey matter; 13, intranuclear lamina of the ventricular nucleus; 15, optic nerve; 16, anterior corpora quadrigemina; 17, taenia thalami; 18, fasciculus retroflexus of Meynert; 19, posterior commissure; 20, anterior commissure; 21, Vicq d'Azyr's bundle; 22, fornix; 23, taenia semicircularis or stria cornea; 24, caudate nucleus, (*a*, portion lying behind the anterior commissure forming a definite nucleus; *b*, tail of the caudate nucleus); 25, lenticular nucleus (*a*, globus pallidus; *b*, putamen); 26, claustrum; 27, internal capsule; 28, anterior peduncles of thalamus; 29, Forel's lenticular bundle; 30, external medullary lamina; 31, auditory radiation forming part of external medullary lamina; 32, mesoncephalic root of fifth nerve; 33, third ventricle.

med. a. It has many finer subdivisions, which I have not as yet fully worked out.

3. *The lateral nucleus* (No. 3, Figs. 5 to 14).—It is situated for the greater part in the lateral zone, but it extends also into the subventricular zone. Its subventricular portion, No. 3 A, is bounded by the internal medullary lamina, No. 11, and corresponds to "the semilunar nucleus of Flechsig," which lies, therefore, mesially to the lateral portion of the lateral nucleus, No. 3 B, and in front of the pulvinar, No. 4. The lateral nucleus proper, No. 3 B (Figs. 5 to 16), is divisible into a lateral anterior, 3 B *a*, and a lateral middle, 3 B *b*, and a lateral posterior, 3 B *c*, part. It corresponds to Nissl's lateral anterior and lateral posterior portions and to v. Monakow's *lat. a* and *lat. b*. Anteriorly the lateral nucleus extends almost as far forwards as does the anterior nucleus; laterally it is separated from the reticular layer, No. 9, by the external medullary lamina, No. 30. The middle portion of the lateral nucleus shows usually a well-marked division into a lateral, No. 3 B *b, z*, and a subventricular region, 3 B *b, x* (see Figs. 11 to 13).

As far as it is possible to tell by histological methods, No. 3 B consists of a distinct dorsal and a distinct ventral portion; the former 3 B *a* is seen in Figs. 5 to 12, while the ventral division is seen in Figs. 13 to 14. These divisions, not being quite definitely established, have been numbered in the same way.

4. *The posterior nucleus* (No. 4 in Figs. 5 to 14).—It consists of a more mesial portion, No. 4 A, on the ventricular side and a lateral division, No. 4 B. The mesial portion abuts in the more ventral regions on the optic nerve, No. 15, which separates it from the anterior corpora quadrigemina, No. 16. The lateral division is the pulvinar proper and is much more developed in the monkey than in the rabbit.

5. *The ganglion habenulae* (No. 5 in Figs. 6 to 9).—This ganglion may be called, with Edinger, the epithalamus. It is not included in the schematic figure of the thalamus, Fig. 3. In all animals from the frog to man it runs parallel to the middle line from before backwards. It is composed of a small-celled ventricular, No. 5*a*, and a large-celled lateral subventricular part, No. 5*b*. It receives its impressions from the taenia thalami, No. 17, and sends its impulses by the fasciculus retroflexus of Meynert, No. 18, to the interpeduncular ganglion of v. Gudden. It is comparatively feebly developed in the monkey while it is large in the rabbit.

6. *The external geniculate body* (No. 6, Figs. 14 to 20).—It is composed of two very distinct subnuclei, namely, a dorsal, No. 6*a*, and a ventral one, No. 6*b*. It receives its impressions through the optic tract.

7. *The internal geniculate body* (No. 7, Figs. 15 to 17).—It may consist of two parts, namely, an anterior portion (No. 7*a*, Fig. 15) and a posterior portion (No. 7*b*, Figs. 16 and 17).

8. *The pineal body* (No. 8, Figs. 7 and 8).

9. *The retinae*, not represented in the figures.

10. *The reticular nuclei* (No. 9, A, B, C, Figs. 6 to 17).—These nuclei are but subnuclei; thus No. 9. *a* is developed in connexion with the external geniculate body subserving sight, while No. 9*b* is developed in connexion with the internal geniculate body subserving hearing. No. 9*c* is intimately related to the ventral nucleus No. 10, in which the fillet terminates, and in its more dorsal reaches it seems to be developed in connexion with the lateral nucleus, No. 3. The dorsal reticular nucleus of Nissl, lying between 1, *b* and 3 B, *a* in Fig. 10, possesses cells of a motor type and is probably the emitting nucleus of the mesial nucleus, with the exception of the centre of Luys, the emitting nucleus of which is the nucleus magnocellularis of Nissl. Till the exact function of these nuclei has been determined experimentally it is best to put them under a separate heading as I have done here.

All the nuclei enumerated above lie in the dorsal half of the thalamus, while the ventral half contains:

11. *The ventral nucleus* (No. 10, Figs. 14 to 17).—It shows a distinct division into three zones, *a*, *b*, *c*. It receives its stimuli from the fillet arising from the caudate and lenticular nuclei; from the homologous nuclei developed in connexion with the sensory cranial nuclei, and perhaps from the cord directly. Its exact extent was studied by me in the rabbit by Marchi's method, and is now being investigated by v. Gudden's method.

In the discussion a complete series of sixty accurate drawings of transverse sections of the thalamus of the rabbit were used for elucidating the various points mentioned above. Inasmuch as without these figures a description of the nuclei would be of little value to the reader, a full description of the nuclei will be published as soon as the wax models of the thalamic nuclei have been completed. There were also shown the actual specimens of the rabbit series and of the monkey series, reproduced in Figs. 4 to 21, as well as stereoscopic slides of the rabbit's thalamus. The following experimental work bearing directly on the structure and function of the thalamus has been done in rabbits one to three days old: complete removal of the sacral, the lumbar, and the lumbosacral cords, the cerebellum, the eyes, the middle ear, and one olfactory bulb. These animals were killed after three months, and injected by my picro-corrosive method. The results of these experiments I hope to be able to publish soon.

A complete historical account, dealing with the literature, and particularly with the work of v. Monakow, Nissl, Probst, Prus, Edinger, and his pupils, will be given later.

REFERENCE.

1 S. Ramón y Cajal, *Textura del Sistema Nervioso*, Tomo ii, fig. 604. 1904.

Sir VICTOR HORSLEY, speaking from the degeneration point of view, agreed very fully with the morphological conclusions of Dr. Mann—namely, as to the possibility of dividing the thalamus, according to the original view of Burdach, into dorsal and ventral portions. He also agreed that the ventral division of the external geniculate nucleus had different pallial relations from the dorsal division. Further, he discussed the minute structure of the ventral division of the thalamus, and showed that the extremely restricted termination of the fillet axones as localized by the degeneration method was now amply confirmed by the most recent publication by Ramon y Cajal. Both methods tended to show that the "fillet nucleus" consisted of three parts, a central globular portion to the opposite (antero-posterior) halves of which semilunar nuclei were applied. Further, he proposed that morphologically the plexuses of fibres should not be dwelt upon for subdivision of the thalamus, but that the true morphological point was the cell, and that neurologists needed for the analysis of function the most minute description of the nuclear collections of cells.

Professor GOTCH thought that the most important side of the thalamus was afferent, and that the efferent was superadded.

Dr. WARRINGTON first of all referred to Probst's work, and agreed that the fillet terminates in the thalamus. The thalamus was, he thought, a great relay centre receiving the terminations of the nerve fibres from the pallium and the cerebellum.

Dr. MAY said that as illustrating the results of lesions in the thalamus in monkeys, and the symptoms resulting therefrom, the following observations might be recorded: In a large number of cases there was hemianaesthesia and hemianopsia of the opposite side of the body, confirming the observations made by Hughlings Jackson in man in 1874. Moreover, there was, in about half the cases, a most interesting symptom, which consisted in a deviation of the face and head, so that the face was directed to the side of the lesion, and the opposite ear was drawn down to the shoulder. In 15 out of 16 monkeys there was paralysis of the opposite side, due to implication of the fibres of the pyramidal tract; in 9 there was definite hemianopsia; in 8 there was turning of the head, and in 4 the pupils were unequal. In many cases the centrilateral pupil was larger than the pupil on the side of the lesion, and nystagmus was occasionally present.

ON THE PATHOLOGY AND TREATMENT OF LEPROSY.*

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THE PREPARATION OF LEPROLIN.

IN January, 1903, I read a paper at a meeting of this Branch on the antagonism between micro-organisms, and showed a theory, which I now again place before you, which I called the periodic law of diseases. In August, 1903, while working at the antagonism between micro-organisms in the direction of the bacillus tuberculosus, I hit on the way of cultivating this bacillus rapidly. The bacillus tuberculosus grows very slowly on glycerinized media, and as this slow rate of growth was fatal to the experiments that were being performed, research was made into a way of cultivating it more

* Read before the Burmah Branch of the British Medical Association. First and second communications in the *Indian Medical Gazette* for May and June, 1904.

rapidly. Passing a current of sterile air over glycerinized media in shallow flasks was tried to no effect, and I then turned to this table of the periodic law of diseases, and noticed that as there was a column in which there were all the anaërobic bacilli, and this column was headed by the element oxygen, on the corresponding theory of Mendeleiff of the periodicity of the elements, so I thought that the corresponding element to the column of the acid-fast group of bacteria might be the element most interfering with the growth of these acid-fast organisms. This element is chlorine.

The thing was, then, to try to remove the salts of chlorine from nutrient media, and the universal distribution of these salts showed that the matter was not a simple one. Trying to remove them by chemical means failed, as the nutrient medium was always rendered useless in the process. I then tried distilling beef extract, and found that it was possible to obtain a fluid smelling strongly of beef, and containing only the volatile substances in beef; in this medium the bacillus tuberculosus grew with the greatest ease, and so did the bacillus leprae and the bacillus of Lustgarten. But the fluid was of low nutrient value, at any rate I was satisfied that it was owing to the absence of salts that these bacilli grew in this medium, as the addition of the slightest trace of salt (NaCl) prevented the growth altogether.

The nutrient medium was then improved by passing a current of superheated steam from the autoclave over boiling beef extract, and lately it had been further improved by passing superheated steam over the beef extract soaked in pumice stone in bottles inside the autoclave.

In this medium one can obtain a growth of the bacillus tuberculosus in from one to three days, and the bacillus leprae in from three to five days, as well as the other acid-fast organisms. The characteristic appearance is a curly white, stringy heavy deposit at the bottom of the tubes, which is hard to shake up, but when shaken up appears as a curly white, stringy shred in the tubes. Both the bacillus tuberculosus and the bacillus of leprosy are very much alike in this respect, except that the former is more easily shaken up.

Of these cultivations there were made hundreds of removes, and the bacillus of leprosy was obtained from a great many different cases, and each time showed the same characteristics.

The next thing to do was to grow the bacillus on solid media in order to obtain a pure culture, and in this we had great difficulty, as agar contains quite a large amount of salt; however, the difficulty was afterwards got over by dialysis. By dialyzing nutrient agar in frequently-changed warm distilled agar, a nutrient agar was obtained entirely free from sodium chloride, and on the surface of this medium the acid-fast group of bacteria grow with the greatest ease. The bacillus of leprosy grows at first as a white, and later as a yellow or brick red, curly, thick growth on the surface of the agar, very much like the bacillus tuberculosus grows on the surface of glycerinized nutrient agar.

Staining Reactions.

These are very important, not only as a means of diagnosing the disease, but also in the examination of cultures for the preparation of leprolin. The bacillus of leprosy, like all the other acid-fast bacteria, retains the stain of acid dyes after immersion in acids, and the bacillus of leprosy does this more than any of the other bacteria of this group.

The bacillus of leprosy when stained may be differentially diagnosed from other acid-fast bacteria as follows:

1. As already stated, it retains the stain of acid dyes much more than any of the other bacteria of this class. It retains the stain of carbol-fuchsin even after decolorization in 25 per cent. nitric acid.

2. It is more irregular than the tubercle bacillus, and not curved, and is somewhat smaller.

3. It contains small oval spores within itself, which are highly refractile, and the end of the bacillus may be open where some have presumably escaped.

4. It has a beady appearance due to the presence of these oval spores.

5. Like the bacillus tuberculosus it may grow out into cultures into long, branching filaments, but there are often oval spores separate in the cultures, and these may be alone visible at times.

6. In the body it is found in great numbers inside epithelial cells, generally in the middle of the cells, whereas the bacillus tuberculosus is found in small numbers inside giant cells at the polar ends.

Cultivation.

As already stated, the bar to the cultivation of this bacillus has been salt. The fresh granulations of the ulcers of a case of leprosy are scraped and examined for the bacilli by the method of staining for the bacilli, and if they are found a tube of the medium prepared as already stated is inoculated with a piece of tissue, and is incubated at 100° F. in the incubator, and is examined after from three to five days. There is then found a thick deposit, which on being shaken up in the tube, forms a curly white stringy fluff. This, on being examined in the usual way, shows the bacilli of leprosy, with usually some contamination. This tube is then plated into a warm Petri dish of the dialyzed medium prepared as stated above, and after from three to five days the Petri dish is examined, and the colonies of the bacillus leprae isolated in the usual way by means of stabbing with a platinum needle, and inoculating into other dishes of the medium. The Petri dishes present the same appearance as those of the bacillus tuberculosus, except that the colour of the colonies changes to yellow or to a brick red.

Pasteur flask cultivations become cloudy after from one to two weeks, and when the culture is getting near the time for it to be examined to see if it is ready for making into leprolin, it should present a milky appearance on being shaken up. Usually after six weeks the culture is ready to be made into leprolin.

I have lately been making stock cultures in the medium reduced over sulphuric acid in a vacuum to one quarter its bulk, as the nutrient value of the medium is thus increased.

Manufacture of Leprolin.

The toxin of the cultivation of the bacillus leprae I call leprolin, and this is prepared on similar lines to the preparation of tuberculin. There are a great many different ways of preparing tuberculin, but Koch's original method was to grow the bacillus tuberculosus for six weeks in Pasteur flasks, and to heat the flasks to 100° C., and then filter the culture through a Pasteur filter, and reduce the fluid to one-tenth the original bulk, and add glycerine. This is practically the method I employ, except that I do not sterilize the cultures at all; I merely filter the cultures through sterile Pasteur candles several times, and then reduce the fluid to one-tenth the original bulk, and then refilter the fluid through resterilized Pasteur filters, the filters being previously tested.

Such a leprolin will produce a powerful reaction in a case of leprosy, which may last for three days or more.

I have now manufactured over 500 doses of this leprolin and injected it into 120 cases of leprosy, and in each case there has been the same reaction. The leprolin is now being used in thirty different places in India, and in order to meet the demands it is now being manufactured in large quantities, but, owing to the difficulty of preparation, not more than twenty doses can be turned out a day with the present arrangements. I hope before long to increase this to double. One dose of the leprolin is equivolent to 50 c.cm. of culture.

Action and Uses of Leprolin.

A case of leprosy, after the first injection of leprolin, will get a severe reaction, which may come on very soon after the injection, the temperature running up to 104° F. or higher, the anaesthetic areas becoming red, hot, and swollen, and the pulse and respiration rate going up very soon after injection. The fever may come down a little on the second day, but usually rises again to 102° or 103°, and then gradually falls to normal on the third or fourth day, the redness and swelling gradually subsiding, and with this subsidence the sensation may return in some of the anaesthetic areas to a large or small extent according to the case.

There is a good deal of smarting at first at the site of injection, due to the glycerine with which the leprolin is preserved, but this soon goes away. When I first made this material I used to inject large amounts. That was before I had procured the necessary apparatus for concentration. Now the dose is 10 c.cm., injected into the muscles of the arms or buttock.

The most remarkable effect of leprolin on lepers is the suddenness with which the sensation returns in the anaesthetic patches. I know that it is hard sometimes to say that some low-class Indians have anaesthesia or not, but the majority of my patients have been intelligent Burmans, and some Eurasians, and only the minority jungle folk. I have made absolutely certain before injection that the patient could not feel the prick of a pin in certain areas, and I am glad to say

that in almost every case injected with this material there has at least been some obvious return of sensation in some anaesthetic area.

The next thing that leprolin does in alleviating the symptoms of this disease is: it relieves the shooting pains in the limbs and joints that these patients suffer so badly from, and causes the heavy sensation in the limbs to disappear. It changes slowly the white anaesthetic patches by commencing in the centre and edges of the patch to change the colour of the skin to normal. It causes the rough furfuraceous skin to become smooth. After injection the anaesthetic patches will show redness in their centres, which gradually assume the natural colour of the skin, and these patches, which may have been anaesthetic before, become tender to the touch. It causes the nodules in the subcutaneous tissue to subside, and this in some cases has been a very marked feature of the improvement. It causes the ulcers to heal up, and this it does rapidly; some cases had had ulceration for years, and after only one injection the ulcers healed up. Even parts that are gangrenous slough away and leave a healthy granulating sore. Such a case—a man who came to hospital with gangrenous feet and loss of sensation in the entire legs—after four injections of leprolin was so much improved and almost healed up, with return of sensation completely in the legs, that he was able to walk about.

I showed you last month a Burman who, after the short space of ten days, lost all signs of the disease after one injection of leprolin. He had had ulceration of the foot for four years, and loss of sensation in both legs and feet. The ulcer completely healed and all sensation returned, and he went out apparently cured; he turned up again to-day, and I therefore show him to you again.

The same leprolin and the same preparation of the same culture of the bacillus will not always produce the same effect in all cases of leprosy. In some it may cause a slight reaction, in some it may cause a very severe reaction. As a rule, the severity of the reaction may be taken as an index of the benefit that is likely to occur, and this in itself is a good sign of the beneficial action of this material in this disease. I have been injecting only once a fortnight, but in some bad cases I have injected at intervals of only a few days.

If the injection is given at the interval of only a few days, or before the temperature of the first injection has reached normal, then it generally occurs that the temperature of the second injection will be prolonged.

I have now injected this material over four hundred times, and in every case there have been no bad symptoms, and in every case the disease has ceased to advance.

The action of leprolin, then, appears to be very similar to that of tuberculin, when the latter is applied in cases of lupus. There is a marked reaction in the affected area, and cases of lupus have been reported which have greatly benefited by the injection of tuberculin. As is well known, however, its action is dangerous, as it is liable to loosen the bacilli from the deeper tissues and cause a general infection of the disease. There appears to be no such danger with regard to the action of leprolin.

Tuberculosis is a disease which affects the hypoblastic tissues, while leprosy is a disease which affects the epiblastic tissues.

Treatment of Leprosy.

Of the total cases of leprosy now treated by this method, four have been cured; at least there remains no sign of the original disease; two of these cases I showed at the last meeting and two I showed this time.

The number of cases now under treatment in Burmah is about one hundred, and in the great majority of these there has been very marked improvement, and it is now being tried in thirty different places in India, by I.M.S. men and others, and I have heard from two of these gentlemen that the leprolin is causing very good results, and they have wired for more of the material.

Some of these cases are well worth seeing as showing how the anaesthetic patches gradually assume the natural colour of the skin, commencing from the edges and the centres of the patches, which later become invisible. As already stated, the principal sign of improvement is the return of sensation and the rapidity with which it causes this is difficult to explain.

Rapid improvement cannot be expected in such a chronic disease, but one case has been apparently cured after one injection of leprolin, while some cases have had as many as eight injections.

The difficulty of manufacture of this material, has prevented me from treating my cases as regularly as I should have liked, as most of my spare time has been spent in my laboratory, but I hope soon to be able to produce enough culture to make sufficient leprolin for the injection of 300 cases a month. Since publishing my reports in the *Indian Medical Gazette* for May and June, I have been inundated with applications for this material, only some of which I have been able to supply.

Theory.

As to how the organism enters the body and causes the disease, it would appear from the method of growth of this bacillus that the theory recently brought forward that the disease is caused by the consumption of badly-cured fish is erroneous.

I have examined several samples of badly-cured fish, some very bad, so much so that one did not care to go too close to them; I found in all a large amount of salt, and moreover salt in certain amounts is not a preventive of putrefaction. I tried to grow acid-fast bacteria from these bad samples of cured fish in my medium, but failed.

In all kinds of fish and meat the amount of salt is considerable, and is certainly sufficient to prevent the growth of a bacillus that has such a marked aversion to salt as the bacillus leprae.

There are two views that may be taken as to the manner in which this leprolin acts beneficially in cases of leprosy. One is the autotoxic view, and the other is the antautotoxic view; the former is that all cultures of bacteria eventually die out by poisoning themselves by their own excreta, and that, therefore, if one injects the toxins from the cultivation of the leprosy bacillus and injects them in large amount into the body the bacillus leprae is killed off before it has time to progenerate its species, as it is very slow in growing in the body. The antautotoxic theory is that if a bacterial poison is injected into the body, the body reacts to it in such a way that an antitoxin is eventually formed in the body which acts as an antitoxin and kills off the bacilli, so that when leprolin is injected into the body an antitoxin is formed in the body and acts as an antidote to the bacilli and their poisons.

In support of the first theory we have the fact that the action of leprolin in causing the sensation in the anaesthetic patches to return is most sudden, and therefore it would not be likely to be due to an antitoxin, as it would not have time to be formed in the body, to cause this sudden return of sensation.

A SECOND CASE OF CUTANEOUS ANTHRAX SUCCESSFULLY TREATED BY SCLAVO'S SERUM WITHOUT EXCISION.

BY ANTHONY BOWLBY, C.M.G., F.R.C.S., Surgeon to and Lecturer on Surgery at St. Bartholomew's Hospital.

and F. W. ANDREWES, M.D., F.R.C.P., Lecturer on Pathology, St. Bartholomew's Hospital.

A FEW weeks ago one of us, in conjunction with Mr. C. B. Lockwood, recorded in the BRITISH MEDICAL JOURNAL a case of anthrax of the face successfully treated at St. Bartholomew's Hospital without excision, by the use of Sclavo's serum. A second and equally successful case has now to be recorded.

On January 17th, 1905, a man, aged 30 years, a horsehair dresser, presented himself at St. Bartholomew's Hospital with a characteristic anthrax lesion on the forehead. He gave the following history: On January 9th he had fallen, striking his forehead against a fender, bruising it but not breaking the skin. Four days later he noticed some watery fluid exuding from the bruise, and on January 14th, a small black slough was present in the centre of the bruise, which was more defined and evidently inflamed. The neck became a little stiff, and on January 15th an enlarged gland was felt at the left angle of the jaw. His general health was scarcely impaired and there was little pain. On admission to the hospital, under the care of Mr. Bowlby, the patient showed on the left side of the forehead, near the roots of the hair, a black slough about the size of a sixpence with a ring of vesicles around it from which a clear fluid exuded. There was not much inflammation or oedema around, but a large hard gland could be felt at the angle of the jaw. The temperature was 99.6° F. and the pulse 100. The fluid from the vesicles showed numerous characteristic anthrax bacilli, and cultures yielded, next day, a profuse growth of the bacillus practically unmixed with any other organisms. The bacillus was fully virulent when tested upon a mouse. In view of the success which had attended the use of Sclavo's serum in the previous case above referred to, the sole treatment adopted was the injection beneath the skin of the abdomen of 40 c.cm. of the serum, which was kindly furnished by Dr. Legge, of the Home Office. The slough was kept covered by a piece of lint, coated with boracic ointment. No rise of temperature followed the injection, which

was given at 4 p.m. on the day of admission (January 17th). During the night the temperature fell to 98.4° F., and thenceforward remained normal. Next day the pulse was 76, and there were no constitutional symptoms; there was less local discomfort, and the gland at the angle of the jaw had diminished in size, but more oedema was present. This oedema still further increased on January 19th, but was never enough to close the eye; it was not associated with any increase in the size of the slough or with the formation of any fresh vesicles; the slough became, however, more prominent from the increased swelling and inflammation. The gland continuously diminished in size from the first. The oedema then grew less, and was gone by January 21st. The patient's convalescence was uninterrupted, and the slough separated on January 31st, fourteen days after the administration of the serum; on this day the man left the hospital with a superficial granulating wound which seemed likely to leave hardly any scar.

A very striking observation was made on the case. We have said that on the patient's admission to the hospital cultivations from the fluid of the vesicles yielded abundant colonies of anthrax bacilli. On the following day, only nineteen hours after the serum had been injected, precisely similar cultures were made, clear fluid being still present in the vesicles. Not a single colony of anthrax could be obtained on this second occasion; only staphylococci grew in the cultures. The cultures were repeated on the third day, again with negative result. The fluid from the vesicles was on this third occasion patiently searched under the microscope; only a very few disintegrating bacilli were found, mostly enclosed in leucocytes. It seems legitimate to infer that the serum exerted a powerfully bactericidal action. It may be suggested that the notable increase in the oedema which occurred after the bacilli had apparently been destroyed, depended upon the liberation of an intracellular toxin from the disintegrated bodies of the bacilli.

We would draw special attention to this increase in the oedema after the use of Sclavo's serum. It was seen to an even more marked degree in the previously reported case, and might easily give rise to the idea that the serum was not doing its work. In the present case, the daily bacteriological examinations helped to allay any undue anxiety on this score, but in both cases the increased oedema was associated with an improvement in all other respects, and was not attended with any new development of vesicles or other indication of an extension of the infective process.

The two cases, taken together, confirm the favourable results which have been obtained in Italy by the use of Professor Sclavo's serum. They seem to indicate that, at least in moderately early cases of cutaneous anthrax, excision may safely be dispensed with where an initial dose of 40 c.cm. of the serum is employed. So far as we are aware the present case is the second in Great Britain in which reliance has been placed on the serum alone. It has been used in a number of other cases, but always in combination with excision.

An Address

ON THE

MEDICAL WORTHIES OF CUMBERLAND.

By HENRY BARNES, M.D., LL D., F.R.S.E.,

Vice-President of the British Medical Association; President of the Border Counties Branch.*

My first duty is to thank you most cordially for the honour you have conferred upon me by electing me a second time to the Presidency of this Branch. It is just twenty-eight years ago since I entered upon my first term of office as your President, but for more than forty years I have taken an active interest in the work of the British Medical Association, and have been a regular reader of the British Medical Journal. During my student days in Edinburgh, I had week by week a copy of the Journal sent to me, and soon after my graduation in 1864 I had during more than a year's residence in Manchester an opportunity of becoming practically acquainted with the organization and working of the Lancashire and Cheshire Branch, which was at that time and still is one of the largest and most active Branches in the Association. On settling in Carlisle in 1866, I found to my regret that only some half-dozen members of the medical profession in Cumberland and Westmorland had seen the advantage of becoming members of the Association. After two years, however, the Cumberland and Westmorland Branch was established, and I became its first Secretary. Its success was never a matter of doubt. In three years we were able to boast that 63 per cent. of the medical profession resiling in the two counties were enrolled as members of the Branch—a greater proportion than any other Branch could claim in those days.

After seven years' work as secretary the area of the Branch was extended, its title was changed, and it became the Border Counties Branch. I had the honour to be nominated as President elect, and duly filled the office of President in the years 1876-7. In the year 1895 the Association was invited to hold its annual meeting in 1896 in Carlisle, and by your unanimous vote the further great distinction was conferred upon me of being nominated for the office of President. The success of that meeting has been generally acknowledged. One of its results was to give definite shape to the agitation which has resulted in the recent change in the constitution of the Association which came into force at Swansea last year. For some years it had become apparent that the influence of the Association was not so great as might have been expected from the number of its members. At the time when this Branch was formed the Association, which had existed for thirty-six years, numbered about 3,500 members. During the next thirty-six years its increase was rapid and progressive. For more than two-thirds of this latter period I was a member of the Central Council. A spirit of reform rose up within the Association, and gradually the new constitution was elaborated. The future is full of promise. New members have already been attracted to our ranks, and the time, I hope, is not far distant when we can boast that we have enrolled in our ranks every respectable member of the medical profession.

During the past year the Branch has lost by death one of its most distinguished members. Two years ago Dr. Fray Ormrod gave us in his presidential address a very forcible and practical account of some of the extraordinary duties of the general medical practitioner. He had been for many years an active member of the Association, and he had a high ideal of the position and responsibilities of a medical practitioner. In 1888 it was my duty as the representative of this Branch to bring before the Council of the Association the heroic conduct of Dr. Ormrod in connexion with a disastrous colliery explosion near Workington, and I proposed that the gold medal for distinguished merit be awarded to him. This was seconded by Sir Walter Foster, M.P., and carried. In due course the medal was presented at the Glasgow meeting by Sir William Gairdner, K.C.B., and the magnificent reception then accorded to Dr. Ormrod has only been equalled in my experience of annual meetings by that accorded to Surgeon-Captain Whitchurch, V.C., the hero of Chitral, to whom I presented a similar medal at the Carlisle meeting in 1896, when a scene of enthusiasm occurred which, I think, will be fresh in the memories of many of you.

Having thus briefly sketched the history of our Branch, I now come to the main part of my address. I propose to give you a short account of the life and work of some of the more eminent members of our profession who, by descent or residence, have been connected with Cumberland, in the earnest hope that the record of their labours may stimulate all of us to increased exertions in promoting the science and art to which we have devoted our lives. Taking them in chronological order, the first name that claims attention is John Radcliffe, M.D. (1650-1714), who was born at Wakefield, in Yorkshire, and was not a little proud of his Cumbrian descent. Sir Francis Radcliffe, Earl of Derwentwater, acknowledged him as a kinsman, and suffered him to bear the family arms on his coach, which none of the college belonging to the Earl Marshal thought fit to animadvert upon during his life. As a physician Radcliffe was an acute observer of symptoms, and in many cases was peculiarly happy in his treatment. Dr. Mead, who succeeded to much of his practice, wrote of him that "he was deservedly at the head of his profession on account of his great medical penetration and experience." He died from apoplexy in 1714, and left a large fortune by which the University of Oxford, St. Bartholomew's Hospital, and the medical profession largely profited. There is a portrait of him, two biographies, and many particulars of his life in the Radcliffe papers in the Jackson Library, Tullie House, Carlisle. Here also is to be found a copy of the *Gold Headed Cane*, a work describing various adventures in the lives of several great physicians. The gold headed cane is now one of the treasured possessions of the College of Physicians in London. Its first owner was Radcliffe, who bequeathed it to Mead. It then became the property of Askew, a famous Westmorland medical worthy. By Askew it was bequeathed to Pitcairn, who in his turn left it to

* Read at the annual meeting of the Branch, June 30th, 1904.

Baillie, and by the widow of the latter it was presented to the College.

A notable man in his day was Caleb Threlkeld (1676-1728), who was born at Keibergh, now known as Caber, in the parish of Kirkoswald. In 1698 he graduated as M.A. in the University of Glasgow, and soon afterwards became a Nonconformist preacher. After a few years he began his medical studies and graduated M.D. of Edinburgh on January 26th, 1712-13. Settling in Dublin he preached in a conventicle on Sundays and acted as a physician week days. On becoming reconciled to the Established Church he devoted himself entirely to medicine, and especially to the study of botany. In 1727 he published a work entitled *Synopsis Stirpium Hybernicarum*, a copy of which is in the Jackson Library. He died in 1728. Of Addison Hutton, M.D., I can trace few particulars. He was the last heir (male) of an ancient Cumberland family, the Huttons of Gale and Hutton Hall, Penrith, who trace back to Adam de Hoton in the reign of Edward I. He studied at Queen's College, Oxford, taking his A.B. in 1731, M.B. in 1734, M.D. in 1737, and became a Fellow of the College of Physicians in 1738. He was appointed Physician to St. George's Hospital in 1736, and died in 1742.

John Coningham, M.D. (1696-1749), had a somewhat similar record. He was a native of Cumberland, educated at Leyden, and graduated M.D. at Rheims in 1719. He was created a Doctor of Medicine at Cambridge in 1728, and admitted as a Fellow of the College of Physicians in 1729. He practised in London, was appointed Physician Extraordinary to the London Hospital in 1742, and died in 1749.

The next Cumbrian worthy to whom I wish to call your attention is John Leake, M.D. (1729-92), who was born at Ainstable, in this county, of which place his father was curate. He took his M.D. degree at Rheims in 1763. He practised at Lisbon apparently about the time of the great earthquake, but afterwards settled in London, where he especially devoted himself to midwifery. He was the founder and first physician of the Westminster Lying-in Hospital. Between 1767 and 1792 he was the author of many works mainly dealing with midwifery and the diseases of women. He died in 1792, and was buried in the North Cloister of Westminster Abbey.

Of John Relph, a native of Cumberland, who took his M.D. degree at Leyden in 1778, I can obtain few particulars. He practised in London, became physician to Guy's Hospital in 1789, and died in 1804. He was the author of *An Inquiry into the Efficacy of Yellow Peruvian Bark*, published in 1794.

William Woodville, M.D. (1747-1805), was one of the most famous botanists of the eighteenth century. He was born at Cockermouth in 1747, and educated at Edinburgh, where he became a favourite pupil of Cullen. He graduated M.D. in 1775, and after practising a few years at Papcastle, in this county, and Denbigh, North Wales, he settled in London in 1782, and in 1791 he was elected physician to the Small-pox and Inoculation Hospitals. At the former institution there were about two acres of ground belonging to the hospital which he appropriated as a botanical garden and maintained at his own expense. This gave him abundant opportunity of cultivating his favourite science. He was the author of a work on medical botany in three volumes, published in 1792, a supplementary volume of the same in 1794, and he also wrote *The History of the Inoculation of Small-pox in Great Britain*, as well as other works on cow-pox inoculations and cow-pox. He died in 1805 from a chronic pulmonary complaint. Another native of Cockermouth, born a few years after Woodville, became prominently identified with public vaccination. This was John Walker, M.D. (1759-1830), the son of an ironmonger and smith. After following his father's trade for some time he became a schoolmaster, and published *The Elements of Geography* and *The Universal Gazetteer*. He then began his medical studies at Guy's Hospital, and after studying at Paris and Leyden he graduated M.D. at the latter place in 1799. In 1800 he was associated with his friend, Dr. Marshall, as the bearer of vaccine lymph to Naples at the request of the Neapolitan government. Subsequently he devoted his life to promote the cause of public vaccination, and he was accustomed to boast that he had personally vaccinated over 100,000 persons. His life, by Epps, is in the Jackson Library. He died on June 23rd, 1830. Christopher Stanger (1759-1834) was a contemporary of Walker. He was born at Whitehaven, and was the son of a merchant. His family had for centuries owned estates near Keswick. After an apprenticeship at Newcastle-upon-Tyne he studied at Edinburgh, graduating M.D. in 1783. He then visited the chief medical schools of the Continent, including Paris, Vienna, Montpellier, Gottingen, and Leyden. On his return in 1789 he was admitted L.R.C.P.Lond., and in the following year became Professor of Medicine in Gresham College. In 1792 he was appointed Physician to the Foundling Hospital. He was an active leader in the agitation waged for many years against the College of Physicians, which ultimately resulted in the Fellowship being thrown open to graduates of other universities besides those of Oxford and Cambridge, and in 1798 he published *A Justification* on this subject, a copy of which is in the Jackson Library. He also wrote on the suppression of contagious fevers in the metropolis. He died in 1834.

In the presidential address which I delivered before the annual meeting of the Association in Carlisle in 1896 I referred at some length to Wm. Brownrigg, M.D., F.R.S. (1711-1800), physician and chemist; to John Heysham, M.D. (1753-1834), physician and naturalist, the author of the *Carlisle Tables of Mortality;* to Thomas Addison, M.D. (1793-1860), the well-known physician of Guy's Hospital; and to Francis Sibson, M.D., F.R.S. (1814-1876), physician to St. Mary's Hospital; and I need not here recapitulate their claims to distinction. Probably the most distinguished surgeon which this county has produced was Joseph Hodgson (1788-1869). He was born at Penrith and was educated at Birmingham, becoming a pupil of Mr. Freer at the General Hospital. He afterwards entered St. Bartholomew's Hospital, where he was a co-worker with Travers, Brodie, and Lawrence. Qualifying as M.R.C.S.Eng. in 1811, he secured in the same year the Jacksonian Prize Essay for a paper on wounds and diseases of arteries and veins. He began practice in Cheapside, and became editor of the *London Medical Review;* but in 1819 he removed to Birmingham, was speedily appointed surgeon to the General Hospital, and took an active part in founding the Birmingham Eye Infirmary. For thirty years he was engaged in one of the largest and most important practices perhaps ever engaged in by a provincial surgeon. He was a successful operator, especially as a lithotomist, and it is recorded that he cut 84 patients and only lost 4—a remarkable achievement in the pre-antiseptic days. He was the first to suggest the addition of the screw to the lithotrite. In 1849, having accumulated a handsome fortune, he returned to London, was at once elected on the Council of the College of Surgeons, having been appointed a Fellow by the charter of 1843. He delivered the Hunterian Oration in 1855. In 1856 he was appointed examiner, and to his courtesy and fairness in this capacity I can bear testimony from personal experience in 1863. He was elected F.R.S., President of the Royal Medical and Chirurgical Society, and President of the College of Surgeons. He died on February 7th, 1869.

Thomas Barnes, M.D. (1793-1872), was born near Wigton in this county, and served his medical apprenticeship with Dr. Joshua Rigg, at that time the only medical practitioner in the district. In those days the lot of doctor's apprentice was a hard one. Work began at six in the morning and ended at ten at night. After the usual apprenticeship period he went to Edinburgh, and after spending two winters there and one in London, he studied for some months on the Continent, visiting the chief hospitals both in France and Germany, and had the good fortune to be present at the latter part of the battle of Waterloo. After his return he went again to Edinburgh, and graduated M.D. in 1817. Settling in Carlisle, he was soon appointed Physician to the Carlisle Dispensary, and in 1820 he founded the Carlisle Fever Hospital. Subsequently he founded the Cumberland Infirmary, which was opened in 1842, and he was appointed its first Physician. He contributed many articles to the *Edinburgh Medical Journal*, read a paper on Abscess of the Lung before the British Association at Newcastle in 1838, and contributed a Biography of Dr. Jackson, Inspector-General of Hospitals, to the third meeting of the Provincial Medical Association. He was the author of two papers "On the Meteorology of Carlisle," which were read before the Royal Society of Edinburgh, the first of which procured for him the distinction of election as a Fellow. The topography of Cumberland and Dumfriesshire in the *English Cyclopaedia* was from his pen. He also published a work entitled *Observations on Establishing Infirmaries*, which passed through two editions. He held for many years a leading position as a consultant in the Northern Counties. He took a prominent part in the public life of this district, and was an active county magistrate for many years after his retirement from practice. He was the first president of this Branch, and in his inaugural address he gave us a forcible exposition of the waves of thought which had passed within the

scope of his recollection of medical practice. He died on March 31st, 1872. There is one obligation which I owe to him. He was my uncle, and it was due to his persuasion that I was induced to adopt the medical profession, and in the earlier years of my practice his wise counsel and judicious guidance were most helpful. From him I heard much of the physicians and surgeons of the first half of last century who lived and worked in this county. These included Dr. Thomas Blamire, six times Mayor of Carlisle, Dr. Hugh James, the blind physician, Dr. Robert Harrington, a prolific writer on chemistry and natural philosophy, Sir Joseph Dacre Appleby Gilpin, a distinguished army surgeon and four times Mayor of Carlisle, and Sir Simon Steward, F.S.A., who served his country with great distinction in India. I am tempted to linger over the stories of the achievements of some of these worthies, but time will not permit. I have still to record the labours of some who have lived and worked within the memory of many of those who are still with us.

Henry Thompson, M.D. (1815-1897), was born at Workington and received his early education at Shrewsbury. He then proceeded to St. John's College, Cambridge, took his degree in 1838, and was seventh in the first class of the classical tripos. He was elected a Fellow of his college, and at the time of his death was the senior Fellow. He studied medicine at St. George's Hospital, and graduating M.D. at Cambridge he settled in London, became a Fellow of the College of Physicians, was appointed Assistant Physician to Middlesex Hospital in 1855, and in 1860 became Physician. He retired in 1879 and was appointed Consulting Physician. He took an active part in preparing the first volume of the *Nomenclature of Diseases* for the College of Physicians, and he published a volume of clinical lectures, an extremely able and valuable production.

Joseph Dickinson (1812-1865) was born at Red How, near Cockermouth. He was educated at Dublin, graduating M.B. in 1837, and as M.A. and M.D. in 1843. He settled in Liverpool, became Physician to the Royal Infirmary and Lecturer on Materia Medica and Botany in the Liverpool Medical School. His researches in botany procured for him his election as F.R.S. in 1854. He published *A Flora of Liverpool* in 1854. He was a Fellow of the Linnaean Society, a member of the Royal Irish Academy, and also a Corresponding Member of the French "Académie des Sciences." He was well known as an able practitioner and consultant, and had an extensive practice. When the British Medical Association met in Liverpool in 1859 he was selected to deliver the address on medicine, but unfortunately at the last moment severe illness prevented him from fulfilling this congenial duty. He died in 1865.

Robley Dunglison (1798-1869) was born at Keswick, and was the son of a woollen manufacturer. After a medical apprenticeship in his native town, he studied in London, Edinburgh, and Paris. Having qualified as a surgeon and apothecary, he started practice in London; but having ambition to rise higher in the profession, he obtained the M.D. of Erlangen. Shortly after this he was selected to fill one of the medical chairs in the University of Virginia. Most of the professors in this institution were foreigners, and Dr. Gross of Philadelphia, who afterwards wrote the biography of Dunglison for the College of Physicians of Philadelphia, says that no appointment proved so advantageous to the United States as that of Dr. Dunglison. In 1833 Dunglison became Professor of Materia Medica, Therapeutics, and Medical Jurisprudence in the University of Maryland. Three years later he was appointed Professor of the Institutes of Medicine in the Jefferson Medical College at Philadelphia, a chair expressly created for him, and which he held until 1868, when ill-health compelled him to resign. In his literary labours he engaged upon a great variety of subjects, professional, scientific, and miscellaneous. His *Human Physiology* passed through eight editions, *Medical Dictionary* twenty editions, *Materia Medica* six editions, *New Remedies* seven editions, and *Practice of Medicine* three editions. He died April 1st, 1869.

Henry Lonsdale (1816-1876) was born at Carlisle, and at the age of 15 became apprentice to Messrs. Anderson and Hodgson, surgeons in this city. He afterwards studied in Edinburgh, became assistant to Knox, the famous anatomist, and, after some time spent in Paris, obtained his M.R.C.S. and L.S.A. in 1838. He began to practise at Raughton Head, where he witnessed an epidemic of diphtheria, at that time a disease rarely known in Great Britain. In 1840 he moved to Edinburgh, took his M.D. degree, and began practice as a physician. In 1841 he became a Fellow of the Edinburgh College of Physicians and read a paper before the College on the Terminal Loops of the Nerves in the Brain and the Spinal Cord. His discovery of these loops was obtained from a dissection of a monstrosity, the report being published in the *Edinburgh Medical Journal*. He was President of the Royal Medical Society, and for two years President of the Hunterian Medical Society. In 1841 he was appointed Physician to the Royal Public Dispensary. He lectured on anatomy for several sessions in conjunction with Spence and Handyside. In 1845, in consequence of an increasing tendency to bronchitis, he relinquished his brilliant prospects in Edinburgh, and settled in Carlisle. In 1846 he succeeded Dr. Goodfellow as Physician to the Cumberland Infirmary, an office he held for twenty-two years. To the deficiency of vegetable food, consequent on the potato blight in 1846, Lonsdale, after a thorough investigation, attributed an epidemic of scurvy then prevailing in a district north of Carlisle. In 1847, in view of cholera spreading westward, he established a sanitary association in Carlisle. After his marriage in 1851 he withdrew himself from public affairs and professional work to a large extent and devoted himself to the writing of biographies, his first being that of Musgrave L. Watson, the sculptor. Subsequently he wrote the lives of John Goodsir and Robert Knox, anatomists; John Heysham and Thomas Addison, physicians; William Woodville, botanist; Sir James Graham, statesman, and many other Cumberland worthies. Of his life of Watson the *Saturday Review* said: "He has had a worthy biographer, whose book is almost the only one relating to art or its professors in our language worth reading, except the lectures of Flaxman." Of his life of Goodsir the *Edinburgh Medical Journal* says it is "a valuable memoir," and expresses its gratitude to the biographer for his meritorious labour. Lonsdale was never a member of this Branch, but he viewed its foundation with favour. He died July 26th, 1876.

If time had permitted I should have liked to have given you a fuller account of a few of the earlier members of this Branch, but I must content myself with a brief notice. There was David Ross Leitch, M.D. (1809-81), poet and critic, an able reviewer, and a contributor to Wilson's *Tales of the Border*. He practised for many years at Keswick, was a keen supporter of the Volunteer movement, and an ardent sanitary reformer. Robert Elliott, M.D. (1811-82), was the fourth President of this Branch. He was formerly Lecturer on Materia Medica and Hygiene in the Newcastle Medical School, but settled in Carlisle in 1848. He was unceasing in his advocacy of sanitary reform, and actively promoted all movements for the amelioration of the physical and moral condition of the working classes. He was Mayor for the City in 1855, and subsequently held the offices of Justice of the Peace, Coroner for the City (in 1873), and first Medical Officer of Health. He was Physician to the Dispensary, and in 1873 was elected Fellow of the Royal College of Physicians. William Bousfield Page (1817-86) was the first Surgeon of Cumberland Infirmary, and was well known as a bold and successful surgeon. He took his M.R.C.S. in 1841, and became F.R.C.S. in 1846. He reported his first success as an ovariotomist in 1845, and in 1846 he reported two cases of complete success in excision of the knee-joint. He was one of the first British surgeons to perform the operation of excision of the os calcis as a substitute for amputation. He held many important offices; was a justice of the peace for both the city and county and a D.L. for Cumberland. Michael Waistell Taylor, M.D. (1824-92), practised for many years at Penrith, and was the second President of this Branch. On graduating he obtained a gold medal for his thesis on the Pathology of the Urinary Secretion. He was one of the founders and an early President of the Hunterian Medical Society. In 1845 he settled in Penrith. In 1858 he achieved distinction by the discovery that scarlet fever might be caused by the contamination of the milk supply. He was the second President of this Branch, and contributed many valuable papers to our meetings. He was a keen archaeologist and made many important local discoveries, including "Vestiges of Celtic occupation of Ullswater," "The star-fish cairns of Moor Divock," and "The Croglin moulds for casting spear heads in bronze." He prepared an important monograph *On the Castles and Manorial Halls of Cumberland and Westmorland*. He was elected F.S.A. in 1886. Dr. Taylor was a good example of the best type of general practitioner, fully conversant with his work, and ever ready to help a professional brother. He was succeeded in the presidency of this Branch by another notable general practitioner, Thomas Francis I'Anson, M.D. (1825-98), who

for more than fifty years held a leading position and took an active part in the public life of Whitehaven. Dr. I'Anson was a man of great culture, and kept up the knowledge of French literature which he had gained in his student days. He was the founder of the Whitehaven Scientific Association and of the West Cumberland Medical Society. For some years he represented this Branch on the Council of the Association, and he was President of the Ethical Section at the Carlisle meeting.

It would have been an easy matter to have extended this list of medical worthies, but I have, I think, said enough to show you that the medical profession in Cumberland inherits traditions of which any county may well feel proud. I have told you of men who have distinguished themselves by their original discoveries and investigations and by their devotion to their country's service. Each one of us may learn something from their example. In the Divisional and Branch meetings there are opportunities for each one of us to make known to our brethren the results of original investigations or individual experience. But the Association has other advantages.

It is doing a great work for the profession and for the State by encouraging investigations into the cause and prevention of diseases. Its object is not merely to promote medical science, but to promote and maintain the honour and interests of the profession. This can be done speedily and effectively if we are united. We are powerless if our efforts be isolated; we must consolidate and utilize our influence if we are to produce any effect upon the public and upon the Legislature. The recent change in the constitution of the Association has already had the effect of attracting members who previously held aloof; but in the area of this Branch we only number 55 per cent. of the profession, whereas when the Branch was only three years old it numbered 63 per cent. I would therefore earnestly impress upon those who have not already joined that they are incurring a serious responsibility in not aiding in a great work.

It cannot be denied that the advancement of medical science tends to the good of the general community. A great Roman orator has wisely said that "man never so nearly approaches the character of the divine as when giving health to men." Let each one of us, therefore, do what he can. My great object has been to show you that in the life-work of those who have preceded us in this county there has been much to encourage and stimulate us. The golden words of Hippocrates should always be in our minds: "Life is short and the art long, the occasion fleeting." Let us work, therefore, while we can, for it is assuredly true that "the night cometh when no man can work."

An Address ON ERGOPHOBIA.*

BY W. D. SPANTON, F.R.C.S.,
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THE Workmen's Compensation Act was designed to protect the working man who, in the course of his legitimate work, meets with an injury which incapacitates him from working, temporarily or permanently. Before this Act was passed most men worthy of the name made some effort to provide for themselves and for their families by some sort of self-denial or thrift. And a very useful stimulus was afforded by the fact that loss of work usually meant loss of bread and butter, except so far as he might have made some provision by joining a Friendly Society of some sort.

The working man had then no sufficient motive to do other than work—if not at what he had been accustomed to, at least some other work. But since the introduction of this beneficent piece of legislation quite a new factor has arisen. The average working man has discovered that our grandmotherly Government has now undertaken not only to provide him with free education, freedom from Imperial taxes, cheap food and clothing, free libraries and means of recreation in the way of parks and gardens and so on, but has undertaken to make the employer liable to maintain his workmen when unable or, as I intend to show, unwilling to work. He has discovered that it often pays better to idle and loaf about than to work, and the consequence is that a new disease has been engendered, which I have termed "ergophobia."

Every one who has watched the working of the Workmen's Compensation Act must have observed what I am about to describe. In making these remarks it is distinctly to be understood that I am not speaking of true workers; for them, especially when disabled, we all, I am sure, entertain respect. But there are others, unfortunately, who bring discredit on their fellows, who become the victims of this new disease, and who will eventually, if permitted to develop and increase, prove a curse to the community at large. They are in fact as obnoxious as if they were lepers.

You meet with a case of this kind. A man or a boy in the course of his employment—whether rightly or wrongly need not concern us medically—receives a trivial injury, such as a crushed finger. Suppose he is a collier, that is, not a skilled mechanic. He gets his finger treated, and at the end of many weeks it is stiff, perhaps permanently flexed or extended. It in no way prevents him from doing his work, but he thinks it does. You test him carefully, see him at the work, and you find he can do it perfectly well. Taking his own view that the stiff joint is in his way, you suggest removal as a safe and certain way out of the difficulty. The man objects—refuses any treatment to remedy it—and if any surgeon has the temerity to go into the court and tell the judge this is the best thing for the man, he meets with ridicule, or worse. You explain that the man or boy is perfectly well able to do other work which is offered to him, but he will not. Who is to compel him? Nobody, so far as I make out. Then what happens? He finds himself quite happy in the possession of half his former wages—he can go to football matches, loaf about, manage to live, and does not care. He by degrees finds this existence so pleasant that he comes to dislike work—he becomes afflicted, in other words, with the new disease, ergophobia.

I ought to explain the word, perhaps, as being taken from *ergon* (work) and *phobos* (aversion), and it will one day rank with hydrophobia and other phobias, no doubt. One is disposed to place it among the epidemic diseases, for it is surprising to find how it spreads among certain communities. And, inasmuch as it has been found necessary to legislate for such affections to protect the public, so it may be needful for the State to provide a remedy for the new state of things.

Apart altogether from the question of compensation pure and simple, it is a very serious matter if the State should encourage the idea among any class, more especially working men, that labour is whenever possible to be shirked. Where would a professional man be who became so afflicted? He would become very soon a burden to the ratepayers, and a curse to himself. Luckily for him he cannot afford to do anything of the kind, and it ought to be made impossible for others also to live a willing loafing life.

This is a question which has been considered by some of those well qualified to speak, such as Mr. W. Crooks, M.P., who told the House of Commons that he had the utmost contempt for the man who was "born tired," and the man who could never get enough rest. He told the story of a man who went to the foreman and asked for a job. The foreman said they had hardly enough to keep the men going. "That don't matter, guv'nor," replied the man, "anything I do won't make much difference." Then there was the man who was called by his wife at 6 a.m. "Is it raining?" he would call out. "No," the wife replied. "Is there not a drop of rain?" "No." "Does it look like rain?" "No." And the sluggard murmured "I wish it was Sunday."

Such men as Mr. Crooks are, no doubt, those best able to suggest a remedy; but so long as the tyrannical power of the trades unions is permitted to be exercised over their members little good can be done. It is within the knowledge of many of you, as of myself, that instances constantly occur where a disabled man is not permitted (or, in other words, is forbidden) to take up any kind of work other than that to which he was previously accustomed; nor, under this rule of oppression, is a fellow-workman allowed to lend a helping hand by exchanging some of his work which the injured man could easily do for that of the latter which some trivial injury prevents his doing. The master and the ratepayers must bear the whole burden, because, perhaps, the man in question has a crooked finger or a twisted toe.

Then another point arises. I am assuming, for the sake of argument, a trivial injury, because it is the most common cause of ergophobia. This may be lifelong; and, under

* Delivered before the Staffordshire Branch of the British Medical Association.

existing conditions, the employer may be held liable to pay such a man half-wages for the term of his natural life. It seems to me that we shall see, in the not distant future, a repetition of the old practice of self-mutilation to prevent enlistment. It is the next step, and who is to prove that the injury was not inflicted according to law? There is far too much sentiment mixed up with this subject. A man or a boy thinks he has been very badly used because some machinery gave way. It was the master's fault, of course. Another careless one gets his finger caught in a saw while turning round to talk to some one or look about him. Again, there is a grievance against the employer, and this sense of resentment is an important factor afterwards in endeavouring to come to an amicable settlement in the matter of compensation and arrangement for future work. It may seem natural, but is entirely unreasonable.

The Workmen's Compensation Act was never intended to do more than protect workmen in their legitimate employment; it was not meant to engender careless habits and a spirit of recklessness on the part of the worker, knowing that if he got hurt, he would still have enough wages to keep him going. In plain English, there is a lack of honesty about the thing; the offer made on behalf of the employer to effect a settlement is often ludicrously disproportionate to the injury; and the "tall" notions of the worker, sometimes prompted by those who ought to know better, render any just settlement impossible.

The Friendly Societies are beginning to discover that the Workmen's Compensation Act is likely to prove a serious drain on their resources. Formerly, according to one authority, men who met with slight accidents, soon resumed work, but now they must stay at home until thoroughly recovered, proving a serious matter for their funds. Men are found to be coming on the sick funds because nobody would employ them, and no doubt compensation of half-wages and the club pay suited many of them far better than work. If this should lead to more rigid investigation on the part of the Friendly Societies, irrespective of what transpires in the Law Courts, some good may result no doubt.

It is more often on questions of medical or surgical injury that a wide divergence of opinion arises, and I cannot help thinking that, in such cases, a conference between the medical man on each side in conjunction with the respective solicitors, would result in a more equitable and sensible conclusion than is usually arrived at in the Law Courts. That is, however, a counsel of perfection which we are not likely to see just yet.

As for the medical referees appointed under the Workmen's Compensation Act, so far as I am concerned, I have never yet been called upon to act. Possibly an alteration in the Act to give power to the employer, as well as to the workman, to refer a dispute to the medical referee, would go far towards remedying the present state of things. But even then, I am not sure that beyond settling the point of the extent of the injury and its future consequences, much good would result. For it would still be left to the judge to make any award he thinks fit—and this would probably be done very much as it is now—more in accordance with the man's own statement and the judge's predilections, than with a view to cure him of his ergophobia.

There is only one remedy for it. If suitable work is found for any one which the medical evidence proves he can do quite well, his pay ought to be decidedly and finally stopped.

Now for a few words respecting the accidents which most commonly lead to what I have described.

If we take as example of workmen, cabmen, and others who do not belong to trade unions, and who honestly strive to work for a living, what do we find? It is a common sight to see a cabman with one arm doing his work as well as a man who has both; or another who has lost a leg, and with his wooden peg mounts his cab and is almost as active as any other cabman; another who, with his artificial arm, can do all the heavy work of a railway out-door porter; a clerk who has lost the use of the fingers of his right hand, and learns to use his left as efficiently as he previously used his right. It is affirmed that 90 per cent. of the railway flagmen in the United States are one-legged men; and that a similar proportion of the men who sweep out the curves on street railway lines are also one-legged men. I need not multiply such instances, they are sufficiently familiar to us all, but mostly, I ought to add, among the older men, and those who have not lost all their self-respect in the matter of earning an honest livelihood by some means or other.

If some can do these things, why cannot others? Many would, no doubt, if they were not compelled or encouraged to do otherwise; and, as the old apostolic doctrine concerning a man who will not work being deprived concurrently of his food seems now a dead letter, the outlook for the future is favourable, I fear, to the further spread of the pestilence I have described.

How is it to be remedied? you will ask. Until our judges take a different view of the position of workmen and until the men themselves adopt a more reasonable attitude I do no see what can be done. Some judges, fortunately, do take a sensible view, as in a case reported about a month ago, where a miner met with an accident, causing an injury to the calf of one leg which totally disabled him for some time. The full amount of compensation was paid up to date. It was alleged, and the medical evidence showed, that if he would undergo a simple operation which was neither difficult nor dangerous to set free the muscles he would be well able to work as before. The judge was asked to decide whether the man should not submit himself to this operation before being entitled to what would be in effect a lifelong annuity. His Honour held that the man's condition had improved and that he was capable of doing some work.

The respondent must not look on the pay as an annuity; and, if he refused to act on medical advice, he must do so at the risk of having the payment reduced or stopped altogether.

Such a decision as this seems as sensible as it is exceptional.

What, however, concerns us most is the question of real and supposed disablement for work. Surgeons take a different view to those who represent the injured workman, and they cannot see in a trivial injury any just cause or impediment why a man should not work. What will probably happen will be before very long that it will become imperative for the employers to have every workman examined before engaging him, and the slightly halt, the one-eyed, the crooked-fingered, and weak-kneed will be rejected. What is to become of all these persons when nobody will have them? Surely such an extreme measure would react far more harshly on the workman than the terrorism of the trades unions does now, and it will in the future be very difficult for any except those able to pass a medical examination to procure work. At present the number of such persons whom the recruiting sergeants would gladly enlist who are found physically unfit, even in the pressure of war time, is sufficiently serious, and they already appear to be on the increase.

Should ergophobia become more general, it is quite clear that the tendency to it will become enhanced in their progeny, and the English race will tend to degenerate from a hard-working, sturdy people, to a pampered and invertebrate one.

Some may think I am speaking rather strongly, but I would remind those that already other nations are discovering the same tendency, and we find in such terms as "work shyness" and "chronic inertia" only ergophobia under other names. It is a fact to be dealt with, not to be ignored. Sentiment is all very well in its proper place; hitherto it has been too much one-sided to have any value in relation to what is after all a matter of bargain between master and man; and the more that is realized the better it will be for the community generally.

Another aspect of the matter, which has a more serious bearing on our profession, is the hostile attitude assumed by some judges with regard to medical evidence. I will quote some cases to prove this. So long as the evidence is in favour of the injured man it is acceptable enough. We find, for example, a professional witness coming forward to swear in the most elaborate and technical manner how one man had his pleura adherent to his heart, which was the chief reason of his disablement! The evidence on the other side, which revealed the absolute absurdity of the plaintiff's witness, was ignored, and a verdict entered for the injured innocent.

Another case is even more glaring. A man is said to have had a strangulated hernia caused by a fall, and an operation was performed for its cure by a hospital surgeon, who allowed the man to go home about a month afterwards, to all intents and purposes well, but weak. Nine months afterwards an action is brought by the man to claim a continuance of his pay under the Workmen's Compensation Act, alleging that he is not fit, and never will be fit, to work again. He had been receiving pay not only from his employers, but also from a relief society until a short time before. This pay had been stopped by that society, on the authority of the surgeon, as he considered the man able to work. At the trial two

medical men were called on the man's behalf—one of whom probably never has operated and never will operate on a case of hernia, who can have no special surgical knowledge of such matters; and the other a young and inexperienced beginner who never held any responsible surgical appointment, and whose opinion on such matters in any medical assembly would be entirely ignored. This is what the first witness deposed, and the second corroborated:

There was an operation scar, and on one side of the lower part of the abdomen was a rigidity of the muscle, although the leg was flexed. It was suggested that the injury produced local peritonitis, which caused adhesions between bowel and bowel, and all this caused the man great pain nine months after the injury, so that he was incapable of doing any kind of work. It was further stated that "the atrophied muscles might wear away if he could use the muscles and keep himself erect."

To me this is slightly ambiguous, but then I am only a surgeon. Then after this we find the evidence of the surgeon who operated, who has had a large experience of such cases of his own, and whose opinion on such matters is authoritative, and he tells the Court that—

He had operated on the man for hernia, and he was in due time discharged as cured. He found recently no reason for the alleged pains; the abdomen was soft, and he had no reason to think there were adhesions or peritonitis. There was a wasting of the muscles from having done no work so long. There was no peritonitis at the time of the operation, and none since.

After hearing both sides, the learned judge (having refused to entertain the idea of a medical assessor or referee) sums the matter up by saying he "preferred" the evidence of the doctors for the plaintiff; he "considered the surgeon for the defendant might have overlooked the peritonitis; it was not his business to find it out," and so on. Surely this is little less than an insult to surgical common sense, and a premium on ignorance. What can be the good of surgical knowledge and experience if it is to be kicked aside by a judge, however eminent, in order to make the case fit in with his own views of it? Unless he happens to have a hernia himself, I do not suppose a judge knows any more about it than the advertisements in the papers describe; and, if he is so innocent as to accept a man's statement as to pain when no physical cause is apparent for it, then it seems to me that every one who gets a headache or a bellyache, or any other ache, provided he has had some previous injury, will always meet with a sympathetic hearing, and we shall proceed by degrees to engender a class of workers more and more effeminate. Perhaps I ought not to use this word "effeminate." It is unfair to women, for they are, as a rule, much more brave than men with regard to physical pain—indeed, I cannot recall the case of a woman whose claim to exemption from her work has rested on the "pain" which men are so fond of trotting out as an excuse for their ergophobia.

Some very pleasing contrasts to the cases I have alluded to sometimes crop up, such as a man aged 56, whom I saw some time ago with a stiff shoulder-joint following dislocation. The arm was useless, but the man took the advice offered him, had the joint freed under an anaesthetic, and began work almost immediately. What would have happened to me if I had ventured to offer such advice in the county court, I leave you to imagine—probably this paper might never have been written.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A NOTE ON THE ACTION OF PHENOL-PHTHALEIN (DIHYDROXYPHTHALOPHENONE).

THIS synthetic product is the latest addition to the class of hydragogue purgatives, and has been put on the market under various fancy names. It has been widely advertised, and has received some attention in the columns of medical journals, but I do not remember to have seen a single contra-indication to its use mentioned. It has the advantage over the salines that it need not be given fasting, that it is palatable, and if given in a sufficient dose produces one, or at most two, copious fluid motions, generally about four or six hours after being taken. Compared with other hydragogues such as colocynth, it has the advantage that it rarely gripes, and it is not absorbed to any appreciable extent, and may therefore be given to nursing women. I have, however, noticed one great drawback to its use which is the reason for this communication. If given to patients subject to piles a very few doses will generally provoke an attack, and a single dose often causes some irritation, while if the piles are troublesome at the time of administration they are made much worse, and often bleed freely.

I have given the drug now in a great many cases, and did not at first connect this effect with its action, but further observation has placed it beyond a doubt, and I am now careful to inquire as to the existence of piles or of a predisposition thereto before prescribing it, and I get much more uniformly satisfactory results. It seems probable that the effect is due to an irritant action on the mucous membrane of the rectum, which in ordinary circumstances merely produces a desire for evacuation, but, where the membrane is abnormally sensitive, causes the results I have described. In one case where there were symptoms pointing to an abnormal state of the mucous membrane of the whole of the large bowel but no piles, pain in the region of the sigmoid flexure appeared to follow its administration.

If this one drawback be borne in mind I am of opinion that this new synthetic product will be found a most useful addition to the group of hydragogue cathartics, though other contraindications may yet be found.

It would be of great advantage if medical men using new remedies would carefully note and place on record their drawbacks as well as their merits. Too often the remedy is allowed to drop if found unsatisfactory at first, and the eulogistic circulars of the manufacturing chemist are the only record of its pharmacology, though it must be admitted that perhaps the majority of new drugs which are nowadays produced in such bewildering variety deserve no better fate than to be forgotten, while much of their vogue is undoubtedly due to the defective teaching of the principles of treatment to the senior student, who is thus, in the earlier years of practice at any rate, led to rely on the principles of therapeutics which he gathers from the copious "literature" so generously supplied by the drug companies, which appear to thrive especially in America.

Buxton. CHARLES W. BUCKLEY, M.D.Lond.

A CASE OF ABSENCE OR RUDIMENTARY CONDITION OF THE UTERUS.

A SINGLE young lady of attractive appearance, aged 22 years, came complaining of never having menstruated. She showed none of the common signs which generally accompany that condition. Of average height and slender build, with plenty of hair, and not obviously anaemic, one had to fall back on "debility" as a possible cause and a temporary diagnosis. She denied morning sickness, and there was no reason to doubt her chastity. She was therefore advised to take plenty of good food, and was put on iron.

After the second or third visit it was suggested that she should be examined, and after some little while had elapsed an examination was made. The abdomen was natural; there was no distension. No pain on pressure was elicited from any part of it.

On vaginal examination the forefinger passed into a passage which was smaller in all proportions than the vagina of a healthy and well-formed virgin usually is. It was narrower and shorter, but took the forefinger easily, and its distal extremity could easily be reached. The cervix uteri was nowhere to be found, nor could one detect by the forefinger any depression, or mark where it should have been. The vagina formed a *cul-de-sac*, the distal end of which was dome-shaped, and the whole organ appeared like the finger of a glove.

On bimanual examination, the bladder being empty and the forefinger still in the vagina, nothing could be made out. The finger was then withdrawn from the vagina and passed into the rectum. In this cavity bimanual examination failed to discover the uterus; the forefinger in the rectum and the left hand on the abdomen could with ease be approximated quite closely, the abdominal wall only intervening. The hypogastric and both iliac regions were investigated in this manner, and by approaching quite closely to the symphysis pubis nothing like the uterus or any other body could be found. I was unable to palpate either ovary.

The vulva was of small size and of infantile proportions. The clitoris was present, though small. Both large and small labia were otherwise natural, as was the hymen. The mons veneris was not well-developed, and was devoid of hair; there were only a very few hairs—about half a dozen—scattered on either side of the vulva.

The breasts were large—larger than generally found in a virgin—pendulous, and appeared to consist mostly of fat. The nipples were ill-developed and small, as were the areolae.

The patient in features appeared her age, had all the appearances of femininity, was lively, quick, and sharp, and attractive both in manner and looks. There was no growth of hair on her face.

She gave no evidence of having experienced sensations or pains which, designated by the term "molimina," accompany ordinary menstruation; or, in the absence of blood appearing, afford the only evidence to the individual of her monthly times. Nor was there any so-called vicarious menstruation, such as bleeding from the nose or other parts.

The patient was the third of six children, all of whom are healthy, and her parents are alive and healthy too.

Dr. Herman, in his book on *Diseases of Women*, says:

The uterus may be absent, or its situation only indicated by some V-shaped bundles of muscular and connective tissue. Such extreme want of development as this is very rare, except in monsters, where it co-exists with other defects. Descriptions of cases in which the uterus is said to have been absent are common, but remember that when the uterus is very small and thin it is difficult to identify it by bimanual examination. It has been overlooked in *post-mortem* examination.

R. H. Paramore,
London, W.C. M.B.Lond., M.R.C.S.Eng.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CANCER HOSPITAL, BROMPTON.

EPITHELIOMA OF SOFT PALATE, ETC.

(Under the care of Dr. Herbert Snow, Senior Surgeon.)

Case I. *Epithelioma of Soft Palate, Tonsil, and Both Alveoli: Excision: Recovery.*—T. W., aged 52, a hale, sturdy-looking man, was admitted on August 10th, 1904. A typical epitheliomatous ulcer occupied the left side of the soft palate and the internal aspect of the cheek. The alveolar processes of both upper and lower jaw were infiltrated for about ½ in., and the tonsil was slightly involved. The tongue appeared free. No enlarged glands could be detected. Lancinating pain was felt. On August 19th a 3-in. incision was made around the left angle of the mandible and the bone exposed. From the centre of this another, splitting the cheek, was carried to the corner of the mouth. The lower jaw was sawn through above the angle and again between the sockets of the first and second molars, the latter having been previously extracted. This portion of the bone was removed. Next the diseased part of the soft palate with the left tonsil was excised with the thermo-cautery, working from its attachment to the tongue upwards to the infiltrated alveolar process of the maxilla. Lastly, the latter also was pinched off with pincer-shaped callipers, the last two molars being still embedded. There was no appreciable haemorrhage. An excellent exposure had been secured by the incisions. The wounds were accurately sutured with silkworm gut and united by first intention. The patient made a favourable recovery. His highest temperature was 100° F., on the fifth day. On August 27th it was subnormal, and so continued until discharged from hospital on September 26th. On January 9th last the man attended in the out-patient department with the operation wounds firmly cicatrized, with no trace of disease, and with no outward sign of the extensive operation, the scar being well covered by his beard. He has remained well to the present time.

Case II. *Epithelioma of the Uvula: Excision: Recovery.*—J. P., aged 61, was admitted on October 26th, 1904, on the recommendation of Dr. J. Orr, of Chelsea. There was a history of four months' difficulty in swallowing, with burning pain in the throat. The patient denied syphilis and alcoholism. He drinks claret moderately, smokes, has had much recent trouble. An inspection of the fauces showed the uvula to be entirely wanting. Its usual position was occupied by a characteristic epitheliomatous ulceration, with raised, hard edges, exactly in the middle line. Its outer border just touched the anterior faucial pillars. There was slight tenderness of a deep cervical lymph-gland on the left side, but no appreciable enlargement.

On November 4th the patient was anaesthetized, his head drawn well over the edge of the table, and two gags inserted. The growth was then excised with the thermo-cautery, including a fair margin of uninfiltrated tissue as far as the edge of each tonsil. The cutting edge of the thermo-cautery was first passed across the soft palate in front, so as to make a crescent-shaped fissure. Then the diseased tissue was grasped by the vulsella, pulled downwards, and divided from behind forwards. The disease was found to extend deeply into the posterior faucial pillars. There was some haemorrhage, which promptly yielded to the application of iron-lint, tied around a dry stick-sponge, and firmly pressed on the raw surface. The residual slough separated without any bleeding in ten days, and the wound cicatrized. A small papillary growth was then found on the left side, and this was again shaved off with the cautery. The man was discharged, free from any trace of cancer, on January 3rd, 1905.

LIVERPOOL ROYAL INFIRMARY.

PYLOROPLASTY AND GASTRO-ENTEROSTOMY FOR CHRONIC GASTRIC ULCERATION: RECOVERY AND GOOD HEALTH FOR OVER TWO AND A HALF YEARS.

(Under the care of Mr. Rushton Parker.)

R. L., aged 51, a varnish maker, patient of Mr. C. W. Dean of Lancaster, consulted Dr. T. R. Glynn of Liverpool in December, 1901, on account of pain in the stomach after food, with occasional vomiting of four or five hours' duration. The patient had been previously treated by washing out the stomach with some relief, but in spite of all was steadily losing flesh. Dr. Glynn sent him to Mr. Parker for operation in the Liverpool Royal Infirmary. This was done on December 12th, 1901, by opening the abdomen in the middle line of the epigastric region and examining the stomach. The organ was much dilated and marked by a few external cicatrices, such as are not unfrequently found in cases of internal ulceration. The pylorus was incised and found to be the seat of ulcer, while another was found in the stomach about 1½ in. to the left on the anterior surface.

Pyloroplasty was first done to relieve the tension on the ulcer in that situation and to provide a margin for the contraction that must follow its healing. Gastro-enterostomy was then done to provide an additional way out and relieve the diseased pylorus. A loop of jejunum was attached to the front of the stomach, and the patient made an uneventful and sound recovery in a month. He began work in less than six weeks after operation, and wrote several times between February, 1902, and January, 1904, always reporting his health and digestion as excellent.

Some months later his former medical attendant was again suddenly called to him, and the unusual pathological features of his case deserve to be recorded, and are stated in the following interesting letter:

Lancaster, August 17th, 1904.

Dear Mr. Rushton Parker,—About two and a half years ago—I cannot give exact dates—you operated on a man named L— , a patient of mine. I think he first consulted Dr. Glynn, who sent him on to you. His symptoms were those of gastric ulcer. You performed gastro-enterostomy, and the result was perfect. From being a wreck, the man regained absolute health and strength, and worked in the usual manner until last Saturday, the 13th. On that day he was moving some object—I don't know what, but it was not a heavy weight—when he felt a sharp pain in the abdomen, and became collapsed. This was at 7.30 a.m. A doctor was sent for, and he gave him a hypodermic of morphine. With the usual delay of the British workman, he was not removed home until about 11, and I did not see him until about 5 p.m. He was then pulseless, quite conscious, abdomen tympanitic and tender all over, and in a generally bad condition. He was removed carefully in an ambulance to the Infirmary, where I had a consultation with my colleagues; but we all considered him to be too ill to operate upon. He died some hours afterwards, and I felt sure you would like to hear the result of the *post-mortem* examination after so long an interval since the operation.

The intestines were all adherent, covered with lymph, and the cavity was full of fluid. The operation had evidently been an anterior gastro-jejunostomy, and at the base of the triangle formed by the jejunum was a large perforation about the size of a shilling.

The ulcer was an old one with thickened edges. On slitting up the stomach the pylorus would hardly admit the tip of the scissors, and was as hard as cartilage. Two pieces of twisted silk came away, absorbed at the ends, but perfect in the middle portion. We could not find any evidence of previous ulceration in the stomach, but no doubt such ulceration had existed. It seemed curious to me that the process which had previously caused ulceration of the stomach walls should cease in that organ, and attack by preference the attached gut.

I am, yours sincerely,
C. W. Dean.

Successful Vaccination.—Mr. John J. Huey, Public Vaccinator for the Mexborough, Adwick, and Bamboro' districts of the Doncaster Union, has received the Government grant.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Pathological and Clinical Section.

Birmingham, Friday, January 27th, 1905.

Arthur Foxwell, M.D., in the Chair.

Transposition of Viscera.—Dr. Short showed a skiagraph of a man, aged 27 (unfortunately unable to be present himself on account of a recent attack of pleurisy), which showed transposition of the heart and liver. The spleen was also transposed, but this was not clear in the skiagraph. Dr. Short hoped to show the man himself at a future meeting.

Chronic Ulcer of Stomach with Perforation.—Dr. Short also showed the stomach, liver, and pancreas from a man, aged 55, who had died somewhat suddenly from perforation of a chronic ulcer of the stomach. He had had pain and vomiting for about nine months before coming under observation. The stomach was dilated, but the pylorus, which was much thickened, had not been constricted sufficiently to prevent the passage of food from the stomach into the duodenum. There was absence of free hydrochloric acid in the vomit. The most interesting point about the case was that for sixteen days before the perforation occurred he had been quite free from pain and vomiting, was taking a middle diet with fish, and getting about comfortably. At the same time he was gradually losing flesh. The base of the ulcer was formed by pancreatic tissue. As no microscopical section had been made it was impossible to say whether the extreme thickening about the pylorus was cancerous or not.

Nasal Diseases.—Dr. Lamb showed two cases of nasal disease: (1) A boy of 13, in whom the left nostril was almost completely blocked by bony growth. The lower and middle spongy bones were very greatly enlarged, the space between the eyes was very much increased, especially on the left side, and that part of the frontal bone which overhangs the inner canthus was markedly thickened and convex. The process affected chiefly the left ethmoid and the left inferior spongy bone, but the frontal bone was affected to some extent on both sides of the middle line. The right nostril was normal to inspection. The patient suffered no discomfort whatever, and was even able to sleep quietly with his mouth shut, the right nostril being roomy. The process had lasted at least three or four years, but its beginning was unnoticed. Messrs. Billington, Lucas and Heaton discussed the case, and suggested that its main features agreed with those of leontiasis ossea. (2) A woman aged 48, with bony overgrowth in the right nostril. The enlargement affected chiefly the lower spongy bone and the unciform process, but the lateral mass of the ethmoid was also affected to some extent, as the space between the eyes was increased. The posterior part of the unciform process was apparently inseparably blended with the middle turbinated body. Large masses of moriform hypertrophy had been removed from the lower spongy bone. The nostril was very roomy. Bony enlargement of the unciform process was unusual in the absence of suppuration, and it was also rare to have the lower spongy bone affected simultaneously.

Rodent Ulcer.—Mr. Barnes showed a case of rodent ulcer in a woman which had existed for five years and had once been unsuccessfully treated with *x* rays. The ulcer healed after about eighteen applications, with the exception of two small areas, which involved bone in the one case and cartilage in the other. Altogether about forty applications of the rays had been used, but the spots remained intractable. They show the necessity of some surgical aid where a rodent ulcer is deep, such as scraping, treatment with acid nitrate of mercury, etc., before proceeding to the treatment by *x* rays.

Sarcoma of Cranial Bones.—Dr. Sydenham showed a boy, aged 16, who came under his notice two months before on account of sudden loss of sight in the right eye and nose bleeding. Examination showed undue prominence of the right maxillary antral region, and the left eye became blind subsequently. The pupil reflex was lost in each, but there were no changes to be found on ophthalmoscopic examination. Dr. Sydenham believed the case to be sarcoma involving the bones in the neighbourhood of the sphenoid.

Raynaud's Disease and Rheumatoid Arthritis.—Dr. Douglas Stanley showed a child, aged 10, admitted under his care at the Children's Hospital on account of pains in the hands and arms. She was underdeveloped and wasted, and had been treated a year previously at the same institution for Raynaud's disease. The lesions present now were deformity of the hands of the type of rheumatoid arthritis, abnormal firmness of the skin resembling sclerema, and undue hardness of the limb muscles. Dr. Stanley discussed a possible relationship between these conditions and Raynaud's disease.

Specimens.

Dr. Foxwell showed cystic kidneys. They weighed 20 and 22 oz. each, and were taken from a man of 44, who up to the time of his admission to the Queen's Hospital, two months prior to his death, had never had any illness, though he had spent ten years of his life as a soldier in India, and had drunk heavily. For the last twelve years he had been a bricklayer's labourer. The urine resembled that of granular kidney, except that it had a larger quantity of albumen, and the diagnosis made was mixed small kidney. Neither organ was felt during life, and, *post mortem*, they were found unusually fixed and high up, so that their lower extremities barely came below the margin of the ribs. Dr. Foxwell also showed a specimen of alcoholic heart. The patient was a cook, aged 30, who came into the Queen's Hospital, under Dr. Foxwell's care, for painful palpitation and dyspnoea, with anasarca below the diaphragm. Throughout his stay in hospital palpitation and dyspnoea were the chief symptoms, and the whole precordium showed a somewhat powerful pulsation of an irregular, wave-like character. There were no murmurs, except an occasional functional mitral. The diagnosis never got beyond the main fact of myocardial failure. It was thought on the whole that the condition was a mixed one of fatty and fibroid change. *Post mortem*, osmic acid gave no sign of fat, nor was there any definite fibroid degeneration seen under the microscope, but transverse striation was almost absent, though the longitudinal was distinct; in places the fibrillae were swollen, and then showed constrictions resembling imperfect transverse striation. Macroscopically, the wall section was pale but of good consistence, and in no other way abnormal.

ULSTER BRANCH.

Belfast, Wednesday, February 1st, 1905.

Professor Lindsay, M.D., President, in the Chair.

Nephrectomy.—Mr. A. B. Mitchell (Belfast) gave a brief account of a case of nephrectomy for the relief of persistent haematuria, under the care of Dr. Martin (Portrush) and himself. The patient and specimen were shown, as was also Luys's urine separator, used in this case.—Dr. John Campbell (Belfast), who made some remarks on the case, agreed with Mr. Mitchell as to the great value of this instrument.

Malignant Disease of Lung.—The President contributed a note on the diagnosis of malignant disease of the lung, based on a record of 7 cases. The ages were 21, 42, 44, 46, 56, 61, and 64. Three were males and 4 females, and there was a necropsy in 4 cases. As regards previous history, he had found a history of excision of the mammae for scirrhus six weeks before the advent of pulmonary symptoms in one case, and two years before in another. In a third case there had been amputation of the leg for sarcoma five years before, and in two other cases the disease began in the mediastinal glands, while in the last two there was apparently a primary carcinoma of the lung. The symptoms were persistent intrathoracic pain, increasing dyspnoea, and cough in all cases; haemoptysis in 5 cases, and pyrexia in 5, night sweating in 2, and emaciation in 4. The physical signs were very variable, but a pleuritic rub and *râles* were frequent, and dullness on percussion, weak breathing, and diminished vocal fremitus were present over the seat of deposit. In the cases where *post-mortem* examination was made, the growth proved to be an encephaloid carcinoma in one, a lympho-sarcoma in a second, a squamous-celled carcinoma in a third, and doubtful in the last. The duration of the cases was from three to eight months. The chief difficulty, Dr. Lindsay said, was in diagnosing these cases from tuberculosis. The main points he relied on were the prominence of pain as a symptom in the malignant cases, with no relief from it, and the steady downhill course, with no ups and downs such as occurred in tubercle. The paper was discussed by Dr. E. C. Thompson, Dr. Cunningham (Derry), and Dr. Fleming (Omagh).

Surgery of the Alimentary Canal.—Dr. John Campbell (Belfast) read a paper on the surgery of the alimentary canal, illustrated by the following recent cases: 1. Stomach. (*a*) Three cases of perforated gastric ulcer successfully operated on from nine to twenty-nine hours after perforation. Remarks on the question of flushing and drainage. (*b*) A successful case of gastro-jejunostomy for cancer of the pylorus. 2. Small intestine. (*a*) A successful case of operation for obstruction by a band. Remarks on the advantages of infolding doubtful portions of bowel in such cases. (*b*) A successful case of removal of a gall stone causing acute obstruction (stone

shown). (*c*) A successful case of excision of a fibrous stricture causing subacute obstruction. Remarks on the advantages of preliminary lateral anastomosis and subsequent excision of stricture and end-to-end junction (specimen shown). (*d*) An unsuccessful case of resection of gangrenous bowel after femoral hernia. 3. Large intestine. (*a*) Successful removal of right tube and appendix in a case of salpingitis. Remarks on simulation of appendicitis by right-side salpingitis, and precautions necessary in operating on such cases. (*b*) A successful operation for volvulus of the sigmoid flexure. Remarks on the advantage of evacuating the volvulus by incision. (*c*) An unsuccessful case of resection for cancer of the sigmoid (specimen shown). He also showed a large solid tumour of the ovary, complicated by ascites and pleural effusion, successfully removed.—The paper was discussed by Dr. Darling, Dr. Mitchell, and Dr. Walter Bernard (Derry).

Cases, etc.—Dr. J. G. Cooke (Derry) showed a patient suffering from disease of the bones of the skull, in which there had been considerable difficulty in making a diagnosis.—Dr. Calwell (Belfast) read short notes on tapping pleural effusions, with illustrative cases. Mr. Mitchell, Dr. Cooke, and Dr. Fleming criticized the paper.—Dr. Darling (Lurgan) read notes of a case of malignant disease of the uterus, simulating deciduoma malignum, successfully removed by hysterectomy.—Dr. E. C. Thompson (Omagh) gave a short analysis of two years' work in the Tyrone County Hospital, in the course of which he discussed the training of nurses in Ireland. Drs. Calwell, Campbell, and Mitchell made remarks.—Dr. McMordie (Omagh) read notes of (1) a case of sporadic cretinism, aged 40, treated with thyroid extract, and showed photographs of the patient, and (2) a case of proptosis of one eyeball in a young woman otherwise healthy, in which no diagnosis had been arrived at. Remarks were made on the first case by Dr. Calwell, and on the second by Dr. Cecil Shaw and Dr. Nelson (Belfast).

A paper by Professor Anderson (Newry) on some biological considerations with reference to the alimentary canal, and the bearing of the facts on practice, was taken as read, as the time for members leaving by train had expired.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, February 1st, 1905.

Recurring Torsion of the Spermatic Cord.

Mr. Dowden read a paper, in which he said that he regarded the fact that the testicle, epididymis, and part of the cord covered entirely by visceral tunica vaginalis hung free in the serous sac as the main predisposing factor in causing torsion. The exciting cause of torsion was indefinite, strain or position, or both, tending to produce it. The history of such cases was usually as follows: Recurrent attacks of sudden pain in the testicle, with collapse, vomiting, and great local tenderness, and in a few hours swelling of the part. Sudden disappearance of the severe symptoms was often observed, and the swelling vanished within twenty-four hours. Such attacks might recur for years. Diagnosis has to be made from epididymo-orchitis, but the onset was much more rapid in torsion of the cord, and the collapse was more marked, while the history of the case was of great importance in differential diagnosis. After swelling had occurred in the scrotum strangulated hernia might be simulated, but pain, followed in some hours by swelling, was the main distinctive sign of torsion. The condition might arise even in infants. From the study of changes produced by acute torsion recurring attacks caused obliteration of the veins, with associated congestion of the parts below the twist. Those changes might end in fibrosis and some atrophy of the testicle. Prognosis: Attacks tended to continue, and would probably end in atrophy of the part. The treatment should be directed to perform detorsion, and it should be noted here that in seven out of eight of Mr. Dowden's cases the twist was from without inwards, and varied from one-half to two turns. If detorsion could not be effected immediate operation should be advised. The scrotum should be opened; portion of the parietal tunica vaginalis was then clipped away, and the testicle sutured to the scrotum.—The paper was discussed by Mr. Wallace and Mr. Miles.

Bradycardia (with Lantern Demonstration).

Dr. George Gibson read a paper, illustrated by lantern demonstration, on bradycardia. He divided the condition into two classes—(1) exoteric, which arose from idiosyncrasy, nervous causes, organic causes (such as tumour of the brain, sinus thrombosis, etc.), reflex (which may arise from heart, stomach, renal lesions), functional (melancholia, hypochondriasis), toxic (lead poisoning, etc.), microbic (diphtheria and typhoid), metabolic (as in uraemia and the puerperium), circulatory (cardiac and arterial degeneration); and (2) esoteric, where the heart was involved, the ventricular beat was feeble, and apparently a blockage occurs at Gaskel's bridge. Dr. Gibson subdivided the esoteric group into four subdivisions—(*a*) chronotropic, (*b*) dromotropic, (*c*) bathinotropic, (*d*) inotropic. In some cases the condition was permanent, and in others paroxysmal, the latter often accompanied by syncopal or apoplectiform seizures. Dr. Gibson then dealt with the various views which have been advanced in explanation of the condition. As regards the esoteric group, rest, massage, and exercises were of importance in its treatment. Of medicinal measures he had found the exhibition of the iodides, nitrites, digitalis, and strophanthus give the best results. Atropine he had found useless.

Dr. Mackenzie (Burnley) discussed the paper at some length.

Massage in Cardiac Dilatation.

A paper on massage, passive movements, and modified resisted exercises in the treatment of advanced cardiac dilatation was communicated to the society by Dr. R. A. Fleming. He had tried those methods with a large measure of success in cases where the heart was greatly dilated, associated or unassociated with a pre-existing valvular lesion where compensation was barely maintained, and in which rest and cardiac tonics had failed to yield any further benefit. He referred to the views held by various authorities as to the probable effect of massage and exercises on the heart. In the majority of his cases he had observed that dilatation of both sides of the heart diminished under the treatment. The action of the organ became more regular, more complete contractions of the ventricles occurred, dyspnoea diminished, oedema disappeared, and lastly, digestion improved, and the patient experienced a general sense of well-being. The method was, briefly, as follows: Movements of the arms and legs are limited to those which can be carried out by the patient while in bed. The series of exercises as prescribed by Schott are not employed, and, in fact, no particular movements are ordered. At no time is fatigue to be permitted. When the period of resisted-exercise treatment is over the patient is permitted to arise, and a few minutes' slow walking replaces the exercises. The period of time occupied each day with the successive methods of treatment varied with each individual case. Dr. Fleming then described the results in detail obtained in 2 of his series of cases. In the first, before treatment began, the right side of the heart extended 2½ in. beyond the right lateral sternal line, and the left border lay 7 in. to the left of the mid-sternal line. The pulse was extremely irregular both in force and character. The slightest effort brought on all the phenomena of loss of compensation. The patient was massaged for ten days; this was followed by periods, first of passive and subsequently of resisted exercises. On the twenty-first day from the commencement of the treatment the patient was allowed to rise, and the size of the heart rapidly diminished. The patient is now able to be out of bed for the greater part of the day, can take a moderate amount of exercise, and is able to employ herself in domestic duties. During the treatment all medical remedies were abandoned. Almost equally good results were obtained in the treatment of 7 other cases out of a total of 10 who were submitted to massage and resistance exercises. Dr. Fleming is of opinion that the results warrant the systematic trial of this line of treatment in cases of severe cardiac dilatation.

The paper was discussed by Drs. Gibson and Russell.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Sir John William Moore, M.D., in the Chair.

Friday, January 20th, 1905.

Paratyphoid Fever.

Dr. Parsons read notes of three cases of continued fever in which for some time the diagnosis was obscure. They all occurred in the same building and about the same time. The first proved to be a severe case of typhoid fever, and gave a

definite Widal reaction with Eberth's bacillus typhosus on the twelfth day of the illness. The pyrexia lasted for fifty days. Case II, though tested on three separate occasions by different strains of bacillus typhosus, gave no reaction, but gave very definite clumping with Gaertner's bacillus enteritidis on two occasions, and with different strains. The pyrexia lasted twenty-one days. Case III was also negative with bacillus typhosus, but positive with Gaertner. The pyrexia lasted fourteen days. In all the cases the subjective phenomena were headache and *malaise*. The objective signs were temperatures of 102° to 104° F., while the average pulse was only 90. In none of the cases was the spleen palpable, and only in No. I were any spots visible. Cultures were made from the urine and faeces in the latter cases, but the bacillus enteritidis was not isolated. Dr. Parsons referred to cases of paratyphoid reported in the *American Journal of Medical Science*, and pointed out the necessity for isolating various strains of paratyphoid bacilli against which the blood of obscure cases of continued pyrexia might be tested. Owing to the general absence of ulceration in paratyphoid fever, he was of the opinion that the diet need not be quite so rigid as in typhoid fever.

Dr. Craig described a fatal case of paratyphoid which he had seen. He admitted the man from his dispensary; the case then looked very like typhoid.

His temperature was 103 2°, pulse 100, and respirations 24. He had three liquid yellow motions, and developed a rash, which at first consisted of rose spots, but later became dark, like typhus. The tongue was thickly coated, cerebration slow, and he refused food. The abdomen was distended. He became delirious, and seventeen days after the rigor which had ushered in the illness he died. The pulse averaged 95 to 100, and respirations 24. The spleen was easily noted to be enlarged. *Post mortem* there was no evidence of enlargement or ulceration of Peyer's patches; the greater part of the ileum was in a state of acute inflammation. Dr. White examined the blood on the fourth day after admission. He tried a Widal, and got clumping with a dilution of 1 in 25.

There was no evidence of Eberth's bacillus, but one of the forms of bacillus enteritidis had caused the illness. In a number of cases haemorrhage from the bowel had been observed.

Dr. Travers Smith had seen two cases which he thought were paratyphoid.

One patient was a woman, aged 32. On admission her temperature was 103°, the pulse not markedly quick, no diarrhoea, enlarged spleen, nor rose spots; but there was great abdominal distension, and she was rather livid. The blood was negative to Widal. She died in about a week, and *post mortem* no trace of disease was discoverable in Peyer's patches, nor was the spleen enlarged. In the other case the tongue was coated, the spleen a little enlarged, the pulse rather quick, and the temperature raised. The blood was negative to Widal. The fever gradually subsided; but for ten days the spleen remained large, then it subsided, and she got perfectly well. He suspected paratyphoid, but had no proof of it, as the special blood reaction had not been tested for.

Dr. Meldon thought that in paratyphoid one should be just as careful with regard to diet as in typhoid, as in some cases there had been haemorrhages, showing disease of the intestine. The presence of a large ulcer had been reported in one case.

Dr. Fannin had had a case of a boy, aged 17, who had a continued fever, the characters and course of which were the same as typhoid.

There were no rose spots, nor enlarged spleen. He had acute laryngitis. At that time Widal was negative. Ten days after the temperature had become normal a relapse occurred. It followed a typhoid course, the laryngeal symptoms were renewed, rose spots appeared, and the spleen became palpable. He became very ill, and was removed to hospital. Two or three days afterwards symptoms of perforation occurred. An operation was performed, and a perforated ulcer discovered, but the patient did not recover. Dr. Thompson was satisfied that the ulcer was like an ordinary typhoid one. In that case, then, repeated examinations of the blood had failed to give the Widal reaction.

The course of the illness resembled typhoid, and a fatal result occurred after perforation, therefore it was possible that some forms of paratyphoid could have the definite ulceration of Peyer's patches.

Dr. Kirkpatrick asked whether any differentiation had been made in the clinical history of the fevers which were due to the different groups of paratyphoid bacilli.

Dr. McWeeney discussed the cases from a pathological point of view. He said that one would be inclined to call Dr. Parsons's second and third cases, cases of Gaertner infection. It had been mentioned that the blood serum failed to agglutinate typhoid, but did Gaertner's bacillus. That carried an indication of Gaertner infection, which was not quite the same thing as paratyphoid. The Gaertner bacillus was not quite the same type as the alpha and beta groups of paratyphoid, but presented certain differences. It was quite possible that the second and third cases were paratyphoid, but the bacilli would have had to be isolated and their characters fully tested. What he found lacking in the pathological description was a statement of the different dilutions which were employed.

Dr. Parsons, in reply, said that intestinal lesions had been mostly found to be in abeyance during paratyphoid, and thought it was not so necessary to restrict the diet as in typhoid. There was no difference in the clinical course of the fevers produced by the alpha and beta groups. In his communication he had used the term "paratyphoid" in its widest sense, and had included Gaertner's bacillus in the term, although he was aware that there was a tendency to restrict the term to a small group of bacilli.

Large White Kidney.

Dr. Peacocke described the clinical history of two cases recently under his care. The symptoms of each case were very similar, and were briefly—anaemia, universal dropsy, diarrhoea, and scanty, highly-albuminous urine, containing numerous casts. The kidneys were found to be macroscopically large white kidneys; but microscopically, while both showed some increase in connective tissue, one was found also to show commencing amyloid degeneration. He discussed the causation of chronic parenchymatous nephritis, and was in favour of regarding the disease as originating always in a previous attack of acute nephritis. The cases described as chronic from the beginning were either cases in which the acute attack had been overlooked or were examples of lardaceous degeneration. He considered the best classification of diseases of the kidney associated with albuminuria was as follows: (1) Nephritis, acute and chronic; (2) granular kidney; (3) the kidney of lardaceous disease.

Dr. McWeeney said that in the second case the section showed hyaline change of portion of the glomeruli, but there was no differential staining to show whether there was also amyloid change. The question might have been answered by seeing whether the middle coat of some of the smaller arteries was affected in the same way, but he had failed to see this change. Therefore he was inclined to think it was hyaline degeneration. The other section also showed hyaline changes in the glomeruli, but not to the same extent. A pathologist would diagnosticate the second case as early chronic interstitial nephritis.

Dr. Travers Smith said that his experience went to show that chronic parenchymatous nephritis was insidious in onset. The history of the onset was often misleading. One saw a good many cases of acute nephritis occurring during scarlatina; he had never seen these cases return suffering from chronic parenchymatous nephritis, and he did not think it could be common. One of Dr. Peacocke's cases exemplified the difficulty of diagnosticating a mild acute case from chronic parenchymatous nephritis, and this was a serious question from a prognostic point of view. In both there might be extensive dropsy, diminished quantity of urine, hyaline and epithelial casts, blood—all this made it very difficult to come to a diagnosis, particularly in those cases where there was no antecedent cause, such as scarlatina.

Dr. Kirkpatrick thought that any classification based on histology alone was unsatisfactory. All these diseases were more or less of the nature of inflammations, and the effect of the inflammation was evident in one in the parenchyma, in another in the interstitial substance. There were many cases where the differences were so pronounced that one was justified in putting them into different classes; but when one examined further the changes were completely progressive, and from the most typical acute nephritis to the most well-marked chronic case there was no distinct breach of continuity on microscopic examination.

Dr. White, who had had an opportunity of applying the special tests for amyloid substance to the sections, said he found that a small portion was really amyloid, though the major portion was hyaline.

Dr. Drury thought that Dr. Peacocke was inclined to lay too much stress on amyloid change as being the primary cause of many chronic tubular cases.

The Chairman agreed that chronic parenchymatous nephritis seldom followed on scarlatinal nephritis, which was usually followed by complete recovery. With regard to causes, he did not hesitate to assign alcohol as of prime importance, though various causes co-operated, as cold and damp. He also thought the mode of death was important in these cases. The toxaemia was comparatively infrequent in

very dropsical cases, whereas in the other cases it was very likely to cause death. The heart was really the crucial point in the management of nephritis, for as long as it could compensate there was some chance of the patient getting on.

Dr. Peacocke, in reply, said that the cause of death in both cases was nothing very definite. Asthenia was the best term to use for it. In acute cases which developed into chronic there was often an interval of some months before the latter symptoms came on. He did not agree that the symptoms of amyloid disease were so apparent that one could always come to a diagnosis. He believed that amyloid change did occur even when there was not much suppuration. There was no doubt that very often in those cases which were described as chronic parenchymatous nephritis and large white kidney there was marked amyloid change.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, February 2nd, 1905.

Case.

Mr. F. T. Paul exhibited a patient suffering from popliteal aneurysmal varix which had resulted from a bullet wound.

Specimen.

Dr. M. Loewenthal demonstrated a specimen of bothriocephalus latus, and mentioned the treatment he had adopted in the case from which it was obtained.

Enterectomy for Cancer of Colon.

Mr. F. T. Paul read a note on enterectomy for cancer of the colon. Three recent cases were mentioned, and the portions of the bowel removed were exhibited. Special attention was directed to the importance and difficulty of making an early diagnosis, many cases of cancer of the caecum being confounded with appendicitis. As regarded malignancy, these cases gave the best permanent results in the surgical treatment of cancer, and, as regarding the dangers of the operation, he had not lost a single case, except when intestinal obstruction was present, since he had brought the ends of the bowel outside at the time of the operation. He would very much like to know what the real mortality was after primary end-to-end anastomosis of the large bowel. As a palliative operation he advised short-circuiting whenever it was possible, rather than performing colotomy.

Mr. Thelwall Thomas had taken advantage of the method of operating described by Mr. Paul, in several cases of colectomy, and considered it a valuable advance. Cases being so often seen when marked obstruction had supervened, he had found it impossible to unite the markedly dilated proximal end of the divided gut to the atrophied and collapsed peripheral portion.

Dr. E. M. Stockdale, Mr. G. P. Newbolt, Dr. J. Hill Abram, Dr. G. C. Walker, Dr. W. Blair Bell, Dr. W. Carter, Dr. R. Humphreys, and the President also took part in the discussion.

Haemorrhagic Pancreatitis.

Mr. T. C. Litler Jones related a case of acute haemorrhagic pancreatitis. The patient was a healthy woman, aged 26, subject to constipation. She was suddenly seized with severe abdominal pain and vomiting forty-six hours before admission to hospital. Laparotomy was performed, and there was found to be fat necrosis and about 3 pints of blood and serum in the peritoneal cavity. This fluid was removed and the pancreas incised in its long axis, with a view to prevent further tissue necrosis due to the action of the ferment. The incision in the pancreas was packed with gauze, which was removed thirty-six hours later. Except for some trouble with the abdominal incision owing to the digestive action of the pancreatic discharge, the patient made an uninterrupted recovery.

Compression Paraplegia.

Dr. W. B. Warrington read a paper on compression paraplegia, with especial reference to tumour of the spinal cord, and an account of a case of endothelioma removed from the cauda equina. He pointed out that in any case of paraplegia the possibility of compression of the cord was to be considered. Tumours of the spinal cord were about ten times less frequent than cerebral tumours, but about half could be successfully removed, as against 4 per cent. of cases of cerebral tumour. The symptoms were progressive pain, motor paralysis, and sensory paralysis. The clinical picture of total block of conduction between the cord and the brain was described, and reference was made to the splanchnic and somatic symptoms in these cases. Cases were quoted to show that this "block" might be physiological and remediable, calling in selected cases for operative interference. In the case of the patient with a tumour of the cauda equina, there were symptoms of symmetrical affection of the sacral roots—pain, paralysis of the muscles moving the feet, loss of sensation in all the sacral and last lumbar area, disturbance of bladder and rectum and loss of the bulbo and ischio cavernosi reflex. The tumour, which was removed by Mr. R. W. Murray, proved to be a malignant endothelioma, and though marked relief occurred for some months the symptoms then reappeared and the case could only end fatally. The importance of differential diagnosis between lesions of the last part of the cord (conus medullaris) and the cauda equina was emphasized, as in the latter case the surgeon could often satisfactorily operate. A brief account of the diagnostic features of the different lesions and their distinction from each other, was given. In many cases of nervous disease the co-operation of physician and surgeon was most desirable.

The President, Professor Sherrington, Mr. Damer Harrisson, Dr. Nathan Raw, Mr. R. W. Murray and Dr. Hill Abram took part in the discussion.

CLINICAL SOCIETY OF MANCHESTER.

E. S. Reynolds, M.D., President, in the Chair.

Tuesday, January 10th, 1905.

The Surgical Aspect of Biliary Calculi.

Mr. E. Stanmore Bishop read a paper on the surgical aspect of biliary calculi, illustrated by patients and specimens. He said the progress of abdominal surgery had been great since asepsis had permitted surgeons to substitute *ante-mortem* for *post-mortem* examinations of the viscera therein contained, and both diagnosis and treatment of biliary calculi had shared in the general advance. The diagnosis of these conditions had become much clearer since greater stress had been laid upon the fact that gall stones as such had no existence for the surgeon. It was only when associated with inflammatory conditions in the channel containing them that they became appreciable both by patient and surgeon. Just in the same way the stercolitis in an appendix had no pathological significance until associated with some inflammatory change in the appendix itself. Such a combination necessitated the existence of certain symptoms which were pathognomonic: Rise of temperature in a certain manner—the steeple chart of Moynihan and the cholangic angle of Murphy—pain of a definite kind and radiating in a definite way, followed by tenderness of the affected region, appreciable by Murphy's test, and certain reflexes. Murphy's test was described. In regard to treatment, the advances in technique were illustrated by the different operations practised in 22 cases and their results. The necessity of at least temporary drainage in all cases was shown to be a consequence of the conditions present. Operation *à deux temps*, as formerly practised by himself in common with other operators, was shown to be wrong in principle, and the difficulties necessarily dependent upon such a method were illustrated by cases. Preliminary dosing with calcium chloride after the method of Robson was strongly supported by his experience. The patient separation and ligature of all adhesions before any attempt at removal of calculi was emphasized. Various methods of drainage were discussed. The two main incisions of Robson and Rutherford Morison were described and illustrated by cases in which they had been used. Amongst the patients shown was one in which operation had been carried out at the fifth month of pregnancy, without disturbance, and the child, born at full term, was also shown. Mr. Stanmore Bishop expressed his obligation to Dr. Paton of Harpurhey, and Dr. Harold Moon of Levenshulme, by whose courtesy these patients were shown.

Harveian Society.—At a clinical meeting held on January 26th, Dr. J. J. Perkins showed a man suffering from Addison's disease. There were pigmented spots on the skin and in the mouth. There had been faintness on micturition; no vomiting attacks.—Dr. Winslow Hall remarked on the asymmetry of the thorax which he had observed in another case. This was thought to be only a coincidence.—Dr. J. J. Perkins also showed a young man suffering from bronchiectasis, who had been much improved by tracheal injection of creosote in oil. He had gained in weight. Dullness was extensive at the left base; the heart was displaced. Only a few *râles* were now heard. Clubbing of fingers. Mr. Jaffrey remarked upon drainage in these cases. Dr. Perkins thought

it was of use only where there existed a large basal cavity, and not in the presence of several small cavities.—Mr. BATTY SHAW showed a patient with Recklinghausen's disease associated with dilated and dropped stomach:

W. G., aged 27, a french polisher, for the last three to four years has been troubled with some attacks of pains in the right groin, radiating round the back to the right testicle. In the twelve months previous to February of last year he had lost a stone in weight. When first seen (1904) he had very bad appetite, pain and vomiting, and a slight increase of the stomach note was noted in the left axilla and a slight splash was noticed in the left hypochondrium; the skin was somewhat pigmented, and some small flat moles were noticed in the abdomen and near the axilla; the radiographic examination for renal calculus was negative; the urine was quite normal; examination under an anaesthetic revealed nothing. Mr. Godlee then saw the patient and discovered on the body and head twenty to thirty small subcutaneous masses which caused pain on pressure; two were excised, and found to be fibromata lying in close relation to nerves. A few days ago the patient was again examined; the pigmentation and flat warts had increased. In addition, the stomach was found to be lying in the suprapubic region; it was greatly distended, and when in peristalsis caused severe colicky pain. No tumour could be felt.

—Mr. LAMING EVANS showed a case of severe multiple deformity in a girl, aged 14, following infantile paralysis at 14 months which had received no treatment. Besides a severe lateral deviation with rotation of the spine a bulging of the anterior abdominal muscles, and a double calcaneo cavus, all of paralytic origin, there was a contracture at the hip-joints of 135 degrees. As a compensatory curve the degree of lordosis was extreme. As the ilio-psoas on the right side was active, it was hoped that the child would be able to walk after the deformities had been corrected and a suitable appliance fitted. Dr. GUTHRIE thought this was the most severe case he had seen after infantile paralysis. He was not sanguine that any beneficial results would follow from the use of electricity.—Mr. LAMING EVANS also showed a man, aged 60, with a rupture between the long head of the biceps cubiti and its tendon.—Dr. MAURICE SQUIRE showed a dustman, aged 31.

History.—Right otorrhoea all his life. Gonorrhoea and sores but no secondary symptoms. Two weeks before Christmas, 1904, he commenced vomiting, which has continued intermittently ever since with headache. Vomiting is occasional. Mentally dull. No alteration of sensation or movement. No inco-ordination. No localized tenderness. Doubtful flattening of left face. Eyes: normal movements but marked right optic neuritis. Ears: an old, dry perforation in left ear, and a large polypus removed from right ear, where there is a slight discharge. A few days ago he had some retraction of the head.

The case was rather improved since the removal of the polypus, but the symptoms and physical signs suggest the question of cerebral or cerebellar abscess.—Mr. PERCY PATON showed a man, aged 55, who first began to notice a swelling on the right side of his neck nine months ago. This had steadily increased in size. The main mass lay under the sterno-mastoid muscle, to which it was fixed, and it also has firm deep connexions. Its outline was rounded, its consistency firm; there are also several outlying masses similar in nature. One or two similar masses could now be felt in front of the sterno-mastoid on the left side. The man had lost some flesh and had a good deal of pain. He thought the masses malignant and inoperable, and also that the growth was primary in the neck, either being sarcomatous and commencing in the glands or carotid body, or possibly epitheliomatous in connexion with the remains of one of the branchial clefts. His impression was that it was an endothelioma beginning in the lymphatic glands or the carotid body. Mr. LOCKHART MUMMERY remarked on the possibility of the tumour being in connexion with the branchial cleft.—Mr. E. PERCY PATON showed a boy aged 16, who first came under his care in August, 1903, with the history that for several years he had been troubled with some increased frequency of micturition and pain, which had recently given him greater trouble. On examination he was found to have a large quantity of urine in his bladder, which, through a full-sized catheter, he was unable voluntarily to pass, the amount being just under 4 pints. The bladder wall had practically no contractile power. His urine was normal. He was put under an anaesthetic, but careful examination of the rectum and abdomen revealed nothing, and sounding gave a negative result. He was then treated by tying in a catheter for some weeks, but without doing him any good. A suprapubic opening was made and the interior of the bladder as far as it could be reached examined, it seeming in every way normal except for its great size; a tube was then tied in and the cavity drained for from three to four weeks; the tube was then removed and the opening allowed to heal, which it did very slowly. It remained closed for five months, but has since reopened. The bladder, however, has not been at all relieved. Careful investigation of his history threw no light on the cause.—Mr. JAFFREY and Mr. PARDOE discussed the case.—Dr. LEONARD GUTHRIE showed a man, aged 52, who had for seven or eight years complained of increasing difficulty in walking. The pupils were equal and the reaction normal. There were defective upward movements of both eyes, imperfect convergence and nystagmus on all ocular excursions. The optic discs were excavated, the cribriform plates exposed. Vision was only slightly impaired. His gait was typically cerebellar with a strong tendency to swerve or fall to the left. The knee-jerks were exaggerated. Ankle-clonus absent. Sensation was normal and there were no lightning pains. No other abnormality. There was no history of syphilis. The condition was probably one of steady progressive degeneration in the neighbourhood of the corpora quadrigemina and perhaps of the left cerebellum or its peduncles.—Dr. ALEXANDER MORISON showed a case of bilharzia haematobia in a man, aged about 30, who had been a cavalry soldier in the South African war. Some bleeding on defaecation. The patient was anaemic and the microscope revealed blood-cells and the ova of bilharzia haematobia. Treatment was of little avail. Mr. JAFFREY, Mr. PATON, and Mr. PARDOE discussed the case.—Dr. ALEXANDER MORISON showed a case of regurgitation through the aortic valves in a man 49 years of age associated with cardiac pains commencing in the precordium and radiating into the left arm. The patient had suffered with rheumatic fever when a child 9 years of age, had had small-pox when 22 years of age, and had worked hard as a builder's labourer. He was not aware that he had disease of the heart until two years ago, when he began to suffer from cardiac pains. Dr. Morison ascribed the aortic lesion to the early rheumatism, and considered the case of some interest from a prognostic point of view. Dr. SUTHERLAND doubted whether the aortic lesion dated from childhood. He thought it more probably to be attributed to atheroma.—Mr. LOCKHART MUMMERY showed a sigmoidoscope, a modification of Strauss's, it was to be passed in the genupectoral or in the Sims's position. The instrument was 30 cm. long. The instrument need not touch the bowel wall on introduction, but should be guided by sight. It could reach the middle of the sigmoid flexure. It was a useful substitute to exploratory laparotomy where the finger could not reach the site of the disease. (Drawings to illustrate cases diagnosed by its means (papilloma, etc.) were shown.)

PATHOLOGICAL SOCIETY OF LONDON.—A laboratory meeting was held at St. Mary's Hospital Medical School on Tuesday, February 7th, Professor A. E. WRIGHT in the chair, when the following communications were made:—Dr. W. BULLOCH and Dr. J. H. SEQUEIRA: The relation of the adrenals to external sexual characters.—Dr. WILCOX: The chemical estimation of active hydrochloric acid in the gastric contents.—Dr. C. GREEN: Observations upon pancreatic secretion.—Professor A. E. WRIGHT: Effects of tuberculin inoculation in cases of tuberculosis.

REVIEWS.

TREATMENT OF PULMONARY TUBERCULOSIS.

DR. TRUDEAU'S volume of studies from the Saranac laboratory for the treatment of tuberculosis[1] deals with various investigations carried out during the past four years by Dr. Trudeau himself, and by Drs. E. R. Baldwin, H. M. Kinghorn, and P. A. Levene. A large portion of the report is concerned with studies on tuberculin and on tuberculous serums, but it contains also investigations on the production of haemolytic serums, on the antihaemolytic action of some cell and tissue constituents, on the biochemistry of the bacillus tuberculosus and other subjects. The studies on the tuberculin reaction consists in inquiries on the following subjects: (1) Can the diagnostic use of tuberculin scatter the disease and produce new tuberculous foci? (2) The relation of healed or eradicated tuberculosis to the reaction. (3) The dependence of the reaction upon the presence of specific tubercles. (4) The relation of the alleged reactions from other substances to the true tuberculin reaction. (5) The length of time after tuberculous infection when reaction susceptibility commences; and (6) what constituent of the tubercle bacillus induces reaction susceptibility in the animal? The effect of the tuberculin reaction on corneal tuberculosis after inocula-

[1] *Studies from the Saranac Laboratory for the Study of Tuberculosis.* E. Trudeau, M.D., Director. 1900-1904.

tion in the anterior chamber of the eye in rabbits led to the conclusion that no spread of the disease in the cornea could be observed after the use of the injections. Extirpation of a tuberculous focus was found to be followed in a rabbit by loss of reaction susceptibility, and other experiments also tended towards the conclusion that the presence of specific tubercles was essential for the production of a reaction. A very interesting series of experiments were carried out with bacilli enclosed in capsules, through the walls of which their poisons, but not the bacteria, may permeate. After various trials satisfactory capsules were found in small sections of Berkefeld filter bougies, the ends of which were plugged with the same material (*Kieselgühr*) of which the bougies are made and fixed with Justis's insoluble (dental) cement. It was found that when the capsules were thus perfectly sealed no local reactions occurred in their neighbourhood. It is also interesting to note that rise of temperature and local reactions may occasionally result from injections of other substances besides tuberculin—such as trypsin, peptone, and sodium cinnamate. It is not possible to describe the many very interesting investigations included in this report, nor even to detail the conclusions arrived at from the different experiments. An appendix gives a description of the various cultures used and referred to in the text. Amongst these the following is interesting:

"XIa" (from Professor Theobald Smith) isolated February, 1902, from the mesenteric gland of a child. Produced extensive lesions in a steer, and kills young cattle in three weeks from intravenous inoculation of 0.020 gram. Has all the characteristics of the bovine bacillus.

Dr. Ostrovsky has written an interesting report on the treatment of phthisis by Menzer's antistreptococcus serum. The book[2] is divided into four chapters, and discusses the part played by the streptococcus in phthisis, the merits of the different forms of serum, the results obtained by the use of Menzer's serum in 24 cases of phthisis, and the method of action of this serum. In the first chapter extracts from the writings of workers in clinical medicine, in pathology, bacteriology and experimental medicine are brought together to prove that at every stage in the evolution of phthisis mixed and secondary infections due to micro-organisms, and especially to the streptococcus, play an important part. Special emphasis is laid on the fact that such micro-organisms, and not the tubercle bacillus, are often found in those affections of the upper air passages which are common in the initial stage of phthisis, and Dr. Ostrovsky would begin to use the serum from the earliest period of the illness. The chapter on the different forms of serum brings out clearly the difficulty of producing a serum to act effectively in all the streptococcal infections met with clinically, and the experiments of van de Velde and of J. Courmont are described to show that as late as 1898 the so-called polyvalent serums gave a probability merely of a successful combat with different infections. On the subject of Marmorek's serum, Dr. Ostrovsky quotes Courmont, who found that while the serum protected rabbits against Marmorek's streptococcus it helped the development of the streptococcus of erysipelas. Dr. Ostrovsky holds that Marmorek's streptococcus is of a special type, leading to a general septicaemia rather than to a local lesion. He states that Menzer, in preparing his serum, takes some streptococcus from a streptococcal infection in man and immunizes a horse against it in the ordinary way, but that he never increases the virulence of the streptococcus by passage through animals, lest in this way the micro-organism should be further separated from the human type. Menzer does not hold that the protective power of a serum with respect to man can be estimated by the amount of protection it affords to the smaller animals, and he defines his normal serum as being one which when injected to the amount of a cubic centimetre in a chronic streptococcal infection in man gives rise to a local and general reaction. He maintains that the practice of testing the strength of the serum on the patient does not give rise to inconvenience. In choosing the cases in which it may be given one of Menzer's fundamental principles is that it should never be used when pus has formed or is likely to form unless a free outlet for the pus exists or can be provided, and thus the serum is not given in the last stages of phthisis. In the early stages he administers it in large doses unless there is a tendency to rapid softening. Its use is specially indicated in chronic cases, in which the general and local condition is such that the organism can struggle actively with the inflammatory products. The observations on the cases treated are most complete and the routine examination of patients included examination with the help of Roentgen rays. The results given are as follows: Of the 15 patients in the first stage, 11 recovered (in the clinical sense) in an average time of three and one-fifth months; two of these patients put on 12 livres in weight. The remaining three cases had been under treatment for periods varying from one to four months, and all showed marked improvement. Of three cases in the second stage, 1 was cured after three months' treatment, 2 improved greatly, and went up in weight, one by 17½ livres, the other by 5 livres. Of the patients in the third stage, 5 had greatly improved, and 2 showed no improvement. The author maintains that these results compare favourably with those obtained by ordinary sanatorium treatment or by combined sanatorium and tuberculin treatment, especially in view of the fact that his patients were treated in a town hospital, and that two of them recovered during the winter months. The signs of reaction to the serum are headache, *malaise*, and increase in the cough and expectoration, in which a great number of leucocytes appear; the micro-organisms in the sputum are often found to be degenerated. The pulmonary condition is said to change temporarily, *râles* appear for the first time or become more noticeable; the temperature rises from 0.2° to 0.5° C. The intensity of the reaction was not found to vary with the amount of the serum administered. Two cases are described, in which treatment was discontinued because of cardiac symptoms, especially tachycardia, and one in which haemoptysis set in twenty days after the last injection of serum, but in all probability not as a result of its use. The author holds that the serum has a specific action against both the streptococcus and its toxins, and that it has a tonic action on the nutrition in general. The subject is still in an experimental stage, but theoretically the use of such a serum would seem desirable, and a full report of the results obtained by the method is therefore of considerable interest.

[2] *Du Traitement de la Phtisie Pulmonaire.* Par le Sérum Antistreptococcique de Menzer. Pp. 151. Oscar Rothacker (Urban and Schwarzenberg).

DISEASES OF CHILDREN.

Dr. Hutchison has done well to put his *Lectures on the Diseases of Children*,[3] delivered at the London Hospital, into a permanent form, and his book should prove exceedingly useful. In the preface he is careful to define the aim and scope of the work, and states that it is not intended in any sense to be an exhaustive treatise on the diseases of children, nor to compete with the many textbooks already in existence. As an introduction to these larger works, Dr. Hutchison's book is excellent. After a careful perusal we can find few important points omitted in the complaints of which it treats. The author has made himself an authority on diet, and it is comforting to read that, in his opinion, much of the voluminous writing on infant feeding only serves to darken counsel, and is of very little use in practice. The elaborate schemes of Rotch and his school have been productive only of confusion, and there is no evidence forthcoming of any advantage accruing from them over the extremely simple methods that Dr. Hutchison advocates. He advises the use of condensed milk when fresh cow's milk cannot be retained. It is, of course, not claimed that such a milk is an ideal food, but still, as a temporary substitute for fresh milk in emergencies, it is possible that its value is underrated by the present race of practitioners. At the same time the author seems to go too far in recommending a particular brand. The analysis, too, that he furnishes of its composition after dilution with water is obviously incorrect, and, as it might be gravely misleading, we would advise its correction when future editions of the work are called for. Apart from this, we notice little to call for adverse comment. Recoveries in cases of post-basic meningitis are, however, placed as high as 50 per cent., and here we cannot but think Dr. Hutchison's experience of that complaint somewhat exceptional and favourable. Apropos of an assumption in the section on night terrors, Dr. Hutchison may be assured that just as Mrs. Vincent Crummles was not a Prussian, having been born in Chelsea, so Coutts is not an "American writer," but one claiming the same nationality as the author himself. The numerous photographs with which the book is garnished seem well chosen to illustrate the complaints with which they deal. Dr. Hutchison writes clearly and tersely, and with just the amount of dogmatism that is so necessary

[3] *Lectures on the Diseases of Children.* By Robert Hutchison, M.D., F.R.C.P., Assistant Physician to the London Hospital and to the Hospital for Sick Children, Great Ormond Street. London: Edward Arnold. 1904. (Crown 8vo, pp. 350. 8s. 6d.)

for the making of a successful teacher. His book is to be commended.

The third edition of Dr. ROTCH'S *Pediatrics*[4] was only published in 1901, and that this has been exhausted and a new edition called for in the short space of two years is evidence of a continued appreciation of it on the part of many. In the new edition the work has been revised, and portions of the former text have been omitted and replaced by new material which recent investigations have brought into prominence. In spite of this the work is still far from being entirely satisfactory. The author would seem lacking in a sense of proportion, for whilst infant feeding and some other subjects are treated of at great length, and in a most elaborate and intricate manner, the description given of many complaints is so meagre and scanty as to fall short of even an adequate definition. Many of the very numerous cases, too, introduced into the text would seem merely to add to the bulk of the volume without elucidating any important or special points. The same inequality is exhibited in the illustrations; whilst many are excellent, others are pointless, and without interest, and it is difficult to imagine the reason why they have been introduced. The author's deservedly high reputation and the many admirable portions of his book render it a pity that its value should be detracted from by the same defects we before pointed out in a review of the third edition.

The small book on *Health in Infancy*,[5] by Dr. T. M. ALLISON, is intended for the lay public. Whilst much of the advice given is sound enough, if not very original, its value is discounted by numerous statements and precepts that are difficult to accept. The lay public is, surely, sufficiently acquainted with the superiority of maternal suckling over the artificial feeding of infants not to need the laboured exposition on the point by the author, and we consider the charge that "the medical man has no views one way or the other" on the matter unjustifiable. The author's experience with hand-fed infants must indeed have been unfortunate and exceptional, for he writes: "I do not think there ever has been, or will be, a woman distinguished amongst women for beauty, or a man distinguished among men for staying power, who was not naturally fed in infancy." Although many would doubt the wisdom of the advice that "every male child, on moral and medical grounds, should be circumcised," few would cavil at its addendum that "it would be a good practice if every child, at the end of the first fortnight, were medically examined for rupture or phimosis." The treatment advocated for colic, too, "rub bowels with warm oil," might be efficacious, but difficult of accomplishment, even by the profession, let alone the lay public. The quotations we have given, and we could have supplemented them by numerous others of like quality, are sufficient to show that this small work is not a trustworthy guide to the subject of which it treats.

DERMATOLOGY.

THE second edition of Dr. NORMAN WALKER'S *Introduction to Dermatology*[6] was reviewed in these columns in 1902 (vol. ii, p. 793). In the third edition, issued recently, the practical character of the work is preserved. In fact, the omission of a good deal of argumentative matter has enabled the author to find room to introduce fresh details, especially as regards electrotherapy, thus enhancing the value of the book from the practical point of view. The information is conveyed in a clear manner, and the fact that a new edition has been called for shows that the work appeals to the medical reading public. The photographic reproductions are better on the whole than the coloured illustrations. The figures representing the histology of the various conditions should prove of value and interest, especially to the student, as should also those of Rhus toxicodendron and Primula obconica, the addition of which is a happy idea. In a future edition it would be advisable to correct one or two errors, such as "Tiefen wirkung," on page 26, and "gumi Arabici," on page 138. In conclusion, the work may be strongly commended to students and practitioners as a useful introduction to a difficult subject.

The second and third editions of Dr. STELWAGON'S *Treatise on Diseases of the Skin*[7] have followed so rapidly on the original issue of the work, which was reviewed in the BRITISH MEDICAL JOURNAL, vol. i, 1903, p. 1324, that there is little to be said with regard to the third edition. Apart from the correction of some typographical errors, and a reference to the *x* rays, high frequency currents, and phototherapy, the treatise is to all intents and purposes the same book. The favourable opinion of the work originally expressed has been confirmed by a practical use of it since it first appeared.

NOTES ON BOOKS.

PROFESSOR OSCAR HERTWIG'S address on heredity,[8] which was delivered at St. Louis, U.S.A., last September, before the International Congress for Art and Science, has been issued in pamphlet form. It contains a brief historical survey of important work which has been done on the subject of cell fertilization, discusses the significance of the reduction of the chromosomes in germ cells, and concludes with some speculations as to the ultimate composition of chromatin.

PATHOLOGY IN COLUMBIA UNIVERSITY.

The Pathological Department of the College of Physicians and Surgeons of Columbia University has issued a volume of reprints[9] of the more important studies published by workers in that department during the collegiate year 1903-4. The collection includes a lengthy and interesting article by Dr. C. Norris on the bacterial precipitins, a discussion of cytolysis and immunity by Dr. T. M. Prudden, and a record of some work on dysentery bacilli by Drs. Hiss and Russell. Amongst the articles on morbid anatomy and histology there is a valuable study by Dr. F. C. Wood of the mixed humours of the salivary glands. The same author also discusses the prognostic value of the diazo reaction in pulmonary tuberculosis, and is of opinion that when the urine continuously gives a well-marked reaction the prognosis is very grave, death being probable within six months.

NEW REMEDIES.

SODIUM PERBORATE.

JAUBERT (*L'Union Pharm.*, 1905, S. 1) has succeeded in preparing a sodium perborate of the formula $NaBO_3 4H_2O$. This interesting substance will no doubt attract considerable attention, and will probably come to be used in medicine. It is a crystalline body, and possesses the property of yielding hydrogen peroxide when simply dissolved in cold water. The instability of hydrogen peroxide solutions has always been a drawback, particularly in remote districts where fresh supplies cannot be constantly obtained; this instability has led to the use of mineral acids as preservatives, an addition undoubtedly objectionable in many instances. By dissolving the perborate in water an alkaline solution, corresponding to a hydrogen peroxide solution of four to five volumes, may be obtained; to effect this 25 grams (about 1 oz.) of the perborate and 1 litre (37½ oz.) of water at 35° C. are required. Stronger solutions may be prepared through the addition of citric acid. Thus, to prepare a ten to twelve volume solution (corresponding to liq. hydrogen perox. *B.P.*), 170 grams of perborate, 60 grams of citric acid, and 1 litre of water are mixed, and for an eighteen to twenty volume solution, 210 grams perborate, 105 grams citric acid, and 700 c.cm. of water. The solutions can be rapidly prepared as required.

ANTHRASOL.

Anthrasol (Knoll) is a pale-yellow tar, which has been freed from pitch and colouring matter. Its therapeutic action is similar to that of common tar, but it possesses the great advantage of staining neither the linen nor the skin. It may be prescribed in the treatment of eczema as an ointment with soft paraffin, 10 to 20 per cent. of the medicament being employed. For pruritus a 10 per cent. ointment, made with

[4] *Pediatrics: The Hygiene and Medical Treatment of Children.* By Thomas Morgan Rotch, M.D., Professor of Pediatrics, Harvard University. Fourth edition. London: J. B. Lippincott Co. 1903. (Demy 8vo, pp. 1021. 25s.)

[5] *Health in Infancy.* By T. M. Allison, M.D., Honorary Physician to the Hospital for Women, Newcastle-on-Tyne. London: Simpkin, Marshall, and Co. 1904. (8vo, pp. 41; 10 illustrations. 1s. net.)

[6] *An Introduction to Dermatology.* By Norman Walker, M.D. Third Edition. Bristol: John Wright and Co. 1904. (Demy 8vo, pp. 284, 49 plates, 50 illustrations. 9s. 6d.)

[7] *Treatise on Diseases of the Skin for the use of Advanced Students and Practitioners.* By Henry W. Stelwagon, M.D., Ph.D. Third Edition. Philadelphia, New York, and London: Saunders and Co. 1904. (Royal 8vo, pp. 1115. 220 illustrations and 26 plates. 25s.)

[8] *Ergebnisse und Probleme der Zeugungs- und Vererbungslehre.* Jena: Gustav Fischer. 1905. (Demy 8vo, pp. 30. M. 1.)

[9] New York: Columbia University. (Demy 8vo, pp. 215.)

a basis of glycerin of starch and anhydrous wool fat, is claimed to be of value. It is also employed, mixed with sulphur and soft soap, in parasitic affections of the skin.

Styptol.

Styptol (Knoll), or cotarnine phthalate, is claimed to be a valuable uterine haemostatic. A similar substance—stypticin, or cotarnine hydrochloride—has been in use for some time, but in styptol the cotarnine is combined with phthalic acid, which is also an active haemostatic. It is supplied in sugar-coated tablets, each containing ¾ gr., the dose being one tablet three to five times a day. Three grains dissolved in 35 minims of water can be injected subcutaneously in order rapidly to arrest serious haemorrhages.

Styracol.

Styracol (Knoll), the cinnamic ester of guaiacol, is the latest recruit to the ranks of the tasteless preparations of guaiacol. Pharmacological experiments are said to demonstrate that it splits into guaiacol and cinnamic acid in the intestine; both these bodies undergo further changes, as a result of which the former appears in the urine combined with ethyl-sulphonic acid and glycuronic acid, and the latter as glycocoll. Styracol is used in a similar way to guaiacol carbonate as an intestinal disinfectant, and also in the treatment of phthisis. It is practically insoluble in water, but fairly soluble in organic solvents, and is best prescribed in powders, cachets, or tablets. The usual dose is 15 gr. (1 gram) three times a day.

LITERARY NOTES.

The late Dr. Samuel Smiles is said to have left an autobiography. It is, we learn, being edited by Mr. Thomas Mackay, author of a life of Sir John Fowler. The autobiography will be published by Mr. John Murray, with whose firm Samuel Smiles, as a writer, was so long associated.

The Walter Scott Publishing Company will shortly issue a translation of *Science and Hypothesis*, by the distinguished French mathematician and scientist, Mons. Poincaré. He discusses the validity of the methods and ideas upon which modern theories are based, and shows how they affect new theories concerning the interaction of matter and ether. A preface is contributed by Professor Joseph Larmor, F.R.S., Secretary of the Royal Society.

Mark Twain, who is an opponent of vivisection, recently wrote a story on the subject. It is about to be published in a small volume, here and in America, by Messrs. Harper. The title of it is *A Dog's Tale*, and it purports to relate a dog's experiences of vivisection.

Mark Twain's booklet comes opportunely at a moment when, as we gather, antivivisectionists are feeling the want of a story pointing an antivivisectionist moral. In their monthly organ, the *Animals' Guardian*, a prize of £50 is offered for the best antivivisectionist novel sent by next June. The want, it appears, is not a new one, and it would seem, further, that it is not altogether an easy one to supply. The editor of the *Animals' Guardian* is reported to have complained that Wilkie Collins and James Payn, who were both antivivisectionists, essayed the task, but found it difficult, owing to their knowledge of the subject being limited. In this they are by no means singular among their brethren of the "anti" persuasion. Ouida, Marie Corelli, and Miss Arabella Kenealy have all written on vivisection in a manner at once uninspiring and unilluminating, and it is a little unkind of the editor to make no mention of their well-meant efforts. Although naturally somewhat depressed, he tries to find comfort in the thought that knowledge of the meaning of vivisection is more diffused, and a number of eminent literary men are in sympathy with the movement. Some very "eminent hands" have touched vivisection without adorning either the subject or their reputation. Tennyson, we believe, lived to be ashamed of *In a Children's Hospital:* if he was not, he certainly had cause to be.

The January number of the *Practitioner* contains an interesting account of John Frederick Struensee, the German doctor who, in the eighteenth century, became the lover of Queen Matilda of Denmark, sister of our own George the Third, and the virtual dictator of that country. Born at Halle in 1737, he took his doctor's degree at the University of that city before he had completed his 20th year. He practised for several years at Altona, but got into debt and was thinking of seeking his fortune in the East Indies when destiny brought him in the way of Christian the Seventh of Denmark, who attached him to his person as his body physician. This gave the ambitious doctor a chance of which he was not slow to avail himself. He insinuated himself into the good graces of the Queen, and through her ruled Denmark in the name of the King. He was a man of large ideas, but without political knowledge or training in statecraft. Hence, although the reforms which he introduced were for the most part good in themselves, the Danish people was not ripe for them. Struensee made enemies of every order in the State, and was overthrown by a conspiracy in which the leading spirit was the King's mother. He was put to death in 1772. The most wonderful part of his strange story is that the whole period of his rise and fall covered not more than two years, and he was only 34 when he died.

We have received the first number of the *Annals of Psychical Science*, "a monthly journal devoted to critical and experimental research." The directors are Dr. Dariex and Professor Charles Richet, the editor M. Caesar de Vesmes. Among the committee we note the names of Sir William Crookes, Professor Lombroso, Professor Enrico Morselli, Dr. Ochorowicz, and Dr. Albert von Schrenk-Notzing. Among the contents the *pièce de résistance* is a paper, or rather a short treatise, by Professor Richet entitled "Should spiritism be seriously studied?" Speaking of mediums, he says that in spite of all that has been said and written on the trickery of mediums: (1) There are some who have never cheated. (2) There are many who, although suspected of fraud, have never been caught in the act and convicted of having made fraudulent preparations. (3) It is possible to experiment under test conditions which render fraud impossible. We give his conclusions in his own words:

> Instead of seeming to ignore spiritism, scientists should study it. Physicians, chemists, physiologists, philosophers ought to take the trouble to know and understand the facts affirmed by spiritists. A long and diligent study of the subject is necessary. It will certainly be fruitful, for, however absurd the theories may be, these do not alter the facts. And if there are many errors and illusions in the assertions of spiritists, there are probably—nay, certainly—many truths, truths which for us are still enveloped in mystery. These truths, when they are better understood, will profoundly modify the puny notions we at present entertain concerning man and the universe.

THE PLAGUE.

Prevalence of the Disease.

India.

During the week ending January 7th, the deaths from plague in India numbered 24,385, compared with 22,645 during the last week of 1904. The principal figures are: Bombay City, 115; Bombay Districts, 3,176; Calcutta, 31; Bengal Districts, 3,067; North-West Provinces and Oudh (United Provinces), 10,817; Punjab, 5,017; Kashmir, 5; Rajputana, 416; Karachi, 54; Central Provinces, 409; Central India, 99; Hyderabad, 566; Mysore State, 277; Madras, 361.

It will be observed that the increase of plague in the United Provinces and in the Punjab is marked, being 10,817 against 9,574 in the week ending December 31st in the United Provinces, and 5,017 against 4,643 in the Punjab. In the Bengal Districts the mortality from plague is higher, but in the Bombay District it is considerably lower.

South Africa.

Port Elizabeth.—During the weeks ending December 31st, 1904, and January 7th and 14th, 1905, the fresh cases of plague numbered 0, 1, and 0; the deaths during these periods amounted to 0, 1, and 0. One case remains under treatment.

East London.—During the weeks ending December 31st, 1904, and January 7th and 14th, 1905, the fresh cases of plague numbered 7, 1, and 2; and the deaths during the three weeks amounted to 3, 2, and 0. Three cases remain under treatment. Rats and mice infected by plague continue to be found at Port Elizabeth and at East London.

Mauritius.

During the weeks ending January 26th and February 2nd the fresh cases of plague in Mauritius numbered 8 and 9, and the deaths from the disease 6 and 7.

Hong Kong.

During the weeks ending January 21st and 28th the fresh cases of plague in Hong Kong numbered 3 and 3, and the deaths from the disease 3 and 3 respectively.

Burmah.

Rangoon.—According to a telegram dated February 7th 4 cases of plague have occurred in the native quarters of Rangoon. Other cases under observation.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 87.

MEDICAL NEWS.

A case of typhus fever in a girl, aged 12, was notified in Stepney on January 28th.

The following have been added to the honorary medical staff of King Edward VII's Hospital for Officers: Mr. Watson Cheyne, C.B., Mr. Pearce Gould, and Dr. Bruce Porter.

At a meeting of the Pharmaceutical Society to be held at 17, Bloomsbury Square, W.C., on Tuesday next, Mr. W. S. Glyn-Jones will open a discussion on a comparison of the methods in the United States and in England to secure the purity of foods and drugs. The chair will be taken at 8 p.m. by the President.

At the next meeting of the Royal Medical and Chirurgical Society on Tuesday next, a paper will be read by Dr. Aldren Turner on the influence of stigmata of degeneration upon the prognosis of epilepsy; and a joint paper by Dr. Garrod and Dr. Wynne Davies on a group of congenital malformations, including almost complete absence of the abdominal wall, and abnormalities of the genito-urinary apparatus. At the meeting on February 28th there will be a discussion, introduced by Sir Frederick Treves, upon the subsequent course and later history of cases of appendicitis after operation.

A severe epidemic of typhoid fever prevails at Lincoln. The first case was notified on December 2nd, 1904, and the second on December 22nd, 1904; by January 10th the number had risen to 18; since then the increase has been rapid, and down to February 8th the total number of notifications was over 500, and they were coming in at the rate of over 30 a day. It has been ascertained that the water supply is contaminated by sewage, and an investigation is being conducted by Dr. Reece and Dr. Klein, F.R.S., for the Local Government Board.

Dr. Charles A. L. Reed, of Cincinnati, has been appointed by President Roosevelt one of the two United States representatives on the Joint Commission to which is entrusted the settlement of the dispute between the United States and the Republic of Panama as to certain property rights. Mr. T. T. Gaff, of Washington, is the other. The duties of the Commissioners will be to assess the value of property in the canal zone which is to be used in the construction of the canal. Two Commissioners have been appointed by Panama, and this country is represented by the British Consul.

Leprosy in the Philippines.—A recent report of the Board of Health for the Philippine Islands shows that there are 3,628 lepers now living in the islands. The cases are distributed very unequally among the various provinces. The province of Cebu heads the list with 675 cases; Mindanao comes second, with 143. Only one province is wholly free from the disease.

Sanitary Inspectors' Examination Board.—At the examination for sanitary inspectors under the Public Health (London) Act, 1891, held last month by the Sanitary Inspectors' Examination Board, 15 candidates passed, of whom 8 received instruction at the Royal Sanitary Institute, 3 at the Bedford College for Women, 2 each at the National Health Society and King's College.

Methylated Spirit as a "Drink" in Manxland.—It appears that methylated spirit is largely consumed as a "drink" in the Isle of Man. Several deaths have recently been attributed to indulgence in this "fiery drink," while the police frequently arrest persons under its influence, particularly in Douglas and Ramsey. There is a probability of a Bill being submitted to the Manx Legislature, having for its object the placing of restrictions upon the sale of this spirit. At present it can be purchased at a cheap rate in all chemists' shops.

German Surgical Congress.—The German Surgical Society will hold its thirty-fourth congress in the Langenbeckhaus, Berlin, on April 26th, and three following days under the presidency of Professor R. U. Kroenlein, of Zurich. The following are the questions proposed for discussion: (1) The amount of bad results of bloodless and cutting treatment of subcutaneous transverse fracture of the patella; (2) the question of perityphlitis: the most favourable time for operative intervention; (3) the occurrence, causes, and prevention of post-operative pneumonia after abdominal operations; (4) what are the indications and contraindications respectively of nephrectomy, especially in renal tuberculosis, considered on the basis of recent researches as to the diagnosis of the functional activity of the kidneys?

German Balneological Congress.—The twenty-sixth congress of the German Balneological Society will be held at Berlin from March 9th to 13th, under the presidency of Professor Oscar Liebreich. Among the communications promised are the following: Professor Heubner—watering-place "cures" in childhood; Professor Ewald—diseases of the stomach and balneology; Professor Eulenburg—balneotherapy in nerve diseases; Professor F. Krause—balneology and surgery; Professor Grawitz—balneology and blood diseases; Professor Posner—balneotherapy of the uropoietic apparatus; Professor Koblank—hydrotherapy and diseases of women; Professor Passow—balneology and diseases of the ear; Professor Winternitz—failures of water cures; Professor Dunbar—etiology and specific treatment of hay fever.

Sanitary Inspectors' Association.—The twenty-second annual dinner of the Sanitary Inspectors' Association was held at the Holborn Restaurant on February 4th under the Presidency of Sir Hugh Gilzean Reid. Alderman Francis, ex-Mayor of Southend, proposed the toast of "Local Government," and Sir Shirley Murphy, in responding, spoke of the enormous development of local government during recent years, and attributed much of its success to the medical officer of health and the sanitary inspector. The Chairman, in proposing the toast of "The Association," acknowledged the services of the President. Sir James Crichton-Browne. In responding, Mr. Young, Chairman of the Council, said that the Association had 1,000 members, and he anticipated an increase of 300 or 400 before the next annual meeting. The toast of "Science and Art," proposed by Dr. Sykes, was responded to by Sir Lauder Brunton and Mr. Andrew Clark, Chairman of Council of the British Medical Association. Mr. Clark said that the British Medical Association would be pleased to give all the assistance in its power in obtaining for sanitary inspectors security of tenure of office.

Medical Sickness and Accident Society.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held on January 27th, at 429, Strand, London; Dr. de Havilland Hall in the chair. There was an unusually long list of current sickness claims. More than half the claims recently sent in were due to influenza, and there seemed at one time some reason to fear that an epidemic had set in. The number of new claims had, however, considerably decreased. The greater part of the time of the Committee was occupied in examining the special reports furnished at the beginning of each year by those members who are on what is called the chronic list, cases in which the sickness pay has been continuously drawn for more than twelve months; they now number twenty-nine. In such cases the sickness pay allowed is practically an annuity, amounting usually to 100 guineas a year. The Society now disburses rather over £10 000 per annum in sickness pay, and of this a little over one-quarter goes to members permanently incapacitated. Prospectuses and all other particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Children's Protection League.—This Society will hold its annual meeting at the Kensington Town Hall on Tuesday, February 21st, at 7.30 p.m. The objects of the League are to enforce and extend the Child Messenger Act and the Inebriates Bill as it affects the children, to keep children out of public-houses, and to promote scientific teaching on the properties of alcohol in schools. Important work has been carried out by the League during the past year. Lord Dunboyne, the chairman, carried his Bill, Sale of Intoxicating Liquors to Children (Amendment) Bill, through the House of Lords, twenty cases of inebriate parents have been dealt with, and committees have been formed and meetings held to further the teaching of temperance and other matters of hygiene in elementary schools. Special efforts have been made to raise funds in support of the objects of the League, and several important contributions have been made to the literature of the subject, notably by Mr. John Newton, Lady Biddulph, Lord Dunboyne, and Mr. R. A. Jameson. An increase in the number of regular subscribers would enable the League to extend its work, and in many cases to rescue children from perilous conditions. The treasurer of the Society is Mr. Matthew Hodgson, Morton House, Kingsworthy, Winchester.

British Medical Journal.

SATURDAY, FEBRUARY 11TH, 1905.

CANCER OF THE TONGUE.

That the cardinal point of the morbid anatomy of carcinoma, in all situations and in its earliest stages, is a spreading infection of lymphatic spaces, vessels, and glands, is a fact the full truth of which cannot even yet be said to have been practically admitted by surgeons. Its recognition has, of course, a very definite influence on operations for the removal of these new growths, but it is curious to observe in how partial and unequal a manner this influence has acted in the development of operative procedure.

The treatment of one local type—cancer of the breast—has been elaborated in this respect up to the limit of practicable surgery, but the frequency with which vaginal hysterectomy for uterine cancer and the perineal operation for rectal cancer are practised to-day, proves that many surgeons do not admit, in practice, that all operations for the disease should invariably include removal of the primary lymphatic area. The question is not, of course, purely anatomical, but has been largely influenced, as it must and should be, by a clinical consideration, namely, that patients should not be submitted to a more serious operation than is absolutely necessary. This consideration is, of course, absolutely sound, and it remains to inquire what limits to operation are indicated by ascertained pathological facts.

The successes of what may be called the local operations share the fate of all successes—they remain in the memory—while the failures are liable to be made less distressing by the thought that cancer is a disease for the control of which the surgeon can be held only partially responsible. Yet pathological facts and statistics have accumulated to form an enormous mass of evidence against the purely local operation, and surgeons must admit their responsibility in the face of this evidence.

We publish elsewhere a lecture by Mr. H. T. Butlin on the removal of the contents of the anterior triangle of the neck in cases of malignant disease of the tongue, which marks a distinct advance in the elaboration of the removal of the disease as it affects this organ. We are not concerned here with questions of priority in the practice of this operation; as Mr. Butlin himself notes, Professor Poirier practises a similar method, and other surgeons have recommended procedures which more or less resemble it. It is an undoubted fact, however, that the operation for tongue cancer, as usually practised to-day, is much less extensive than that advocated in this lecture. The majority of surgeons expose and remove the group of glands which are judged to be probably infected from the situation of the growth, but the advisability of doing more than this has now been demonstrated beyond argument. The tongue cannot be divided up into different areas corresponding to definite groups of lymph glands with more than approximate accuracy; no surgeon is able to assure himself that in a given case lymphatic extension has taken a certain course towards a certain gland group and towards that only. If, therefore, the necessity for removing glands in all cases be admitted, it must also be admitted that this removal should extend to all the groups primarily connected with the tongue.

To the question whether lymphatic glands should be removed in all cases there is only one proper answer, and Mr. Butlin is able to support the affirmative by relating a clinical history which illustrates in a striking manner how early is the stage at which cancer may commence its lymphatic progress here and elsewhere.

The normal operation for cancer of the tongue must therefore be held to include removal of all the gland groups with which the organ is primarily connected, and an operation which stops short of this can only be justified by some extraordinary circumstance. This is the lesson which the pioneer work of Mr. Butlin teaches. The operation is severe, and must in all cases be attended by a considerable degree of shock, but if this is anticipated by proper measures it should rarely be necessary to advise against it from fear of death from this cause. Mr. Butlin's figures give four deaths in twenty-eight cases, but three of these occurred when the operation on the neck was combined with the removal of the tongue at the same sitting, a practice which he does not now recommend.

Different types of carcinoma behave differently in respect of lymphatic extension, and much more information is required on this point than is at present available, but on the general principle, if the pessimistic view taken by many of the operative treatment of cancer has during the last ten years been to some extent upset, this is due to the recognition of the fact that the only operation which gives anything like a fair result is the one which anticipates extension a stage beyond the limits of visible disease. Mr. Butlin's interesting statistics illustrate the truth of this statement, and in particular his experience that by far the best results were obtained in the cases in which the anterior triangle was cleared of its glands although none were enlarged perceptibly to the touch.

INDUSTRIAL POISONING AND EDUCATION OF WORKMEN.

How to improve the conditions of the workers employed in dangerous trades formed, a short while ago, the theme of an address by Professor L. Lewin, of Berlin. He holds that no trades so threaten the health of the workers as those in which poisonous dust is prevalent. Risks from machinery can be avoided to a large extent, but the absorption of a poison into the system when a person is working is usually slow and the effects for a time unfelt, until all at once symptoms of an alarming nature may appear. Ignorance of the dangers incidental to harmful trades is widespread. Not only do the partially-educated workmen not know of the dangers, but experienced chemists are not always alive to them. For men who have to work in a factory from morning to night, month after month, exposed to harmful dust there can be little hope of escape from poisoning.

The workmen do not always know the whole truth. They are often not aware of the composition of the substances they are handling. Although it is true that many workpeople are careless and needlessly expose themselves to danger, M. Leclerc de Pulligny tells us tha

outside the Syndicate of House Painters in Paris the working men know hardly anything of the poisonous character of lead and its compounds. An almost similar remark is made by Sternberg of Vienna, who finds in the fact of so many robust and previously healthy men suffering severely from industrial lead-poisoning proof that these workmen were not always fully cognizant of the dangers to which their calling exposed them. Lewin is of the opinion, therefore, that while workmen are not altogether ignorant of the dangers yet they know nothing of the manner in which the poisons act. They may know, for example, that lead causes colic, and that mercury and phosphorus affect the gums, but they have not the slightest idea of the conditions under which the poisons are absorbed, nor are they aware of the fact that metallic compounds when soluble are often more dangerous than the metals themselves. Managers of chemical works and of factories where dangerous compounds are employed, ought to do something more than simply draw out rules and regulations. If they put new chemicals upon the market, or manufacture compounds of an extremely subtle nature, they should secure the best advice possible from experts before undertaking production upon a large scale. In many of the lead works in Germany instruction is given to the workmen in regard to the dangers they may encounter. While in many British factories, also, this is done, the rule ought to become general in all dangerous trades. Professor Lewin, in his desire to extend this instruction, recommends that the information should be imparted, not only to the workers, but should be given also in the schools, so that the children should be taught the risks to health attendant upon all kinds of employment.

We hardly think that this suggestion will commend itself—helpful to young people as it might be—to British employers; nor do we believe that the public would like to see the time of the children taken up by talks from their teachers upon subjects necessarily beyond them. It is recommended that the Government should undertake the instruction, but on the Continent the State is, and does, everything. To us in this, as indeed in every, country the choice of a trade or profession for a youth is a complex question. The lad does not always choose for himself. He may follow in his father's footseps, or family necessity may dictate what the immediate occupation shall be. Without in any way, therefore, minimizing the advantages that might flow from informing youths as to the dangers incidental to certain occupations, we scarcely think the elementary school is the only place where this knowledge should be gained. Fortunately, the Home Office, by improving the conditions under which work is carried on, has transformed a few hitherto admittedly dangerous trades into healthy ones. There is much still to be done in this direction. Industrial lead poisoning is not the scourge in the country it was a few years ago. Plumbism in the Potteries is nothing to what it was when Professor Thorpe, the Government Analyst, and Dr. Thomas Oliver, of Newcastle, undertook to report to the Home Secretary upon the industry. Since their report on lucifer match making the trade has practically become a healthy occupation. In other trades the recommendations of Dr. T. M. Legge have been equally fruitful of good results. Educate the workman by all means, but let us not neglect to make his occupation free from danger by improved sanitation, and the substitution, where possible, of non-poisonous for poisonous compounds.

AXIAL TORSION OF THE UTERUS.

GYNAECOLOGISTS have long been well acquainted with instances of torsion of the pedicle of an ovarian or, less frequently, of a uterine neoplasm; but torsion of the uterus itself is a comparatively recent addition to the long list of accidents that may happen to the woman who carries a uterine fibroid or an ovarian cyst. So many now are the known risks that accompany these growths that operators, instead of hesitating to remove them, are chary of leaving them alone even for a few months; the risks of operation are probably less than those of non-operation.

Knowledge of axial torsion of the uterus is founded upon some 50 recorded cases, and of these Dr. Barozzi has recently given a useful summary.[1] Schultze, however, in 1898, was the first to bring the morbid state prominently before the notice of gynaecologists. The body of the uterus is so twisted that its anterior surface tends to become posterior and its right side tends to take the place of the left. Women of all ages are liable to it, but it would appear to occur specially between the years 38 and 58; pregnancy plays its part in producing this form of uterine torsion, but is less important as a factor than was at first supposed; but the chief cause is the presence of a tumour, and more particularly of a uterine fibromyoma.

In 50 recorded cases there was a uterine growth in 28 and an ovarian cyst in 22. In several instances in which there was an ovarian cyst, the torsion of the uterus was accompanied by twisting of the pedicle of the cyst. Th fibroid is generally situated near the fundus of the uterus, and is usually widely inserted into the organ (interstitial or sessile subserous); and the torsion takes place just below the neoplasm, most often in the region of the isthmus or supravaginal part of the cervix. The twist is generally from left to right; there may be one, one and a half, or two turns, and the thickness of the uterus may be reduced to that of the little finger.

From the clinical standpoint there are two types of cases: those in which the torsion occurs suddenly, and those in which the twisting is developed slowly. In the former the symptoms come on with great suddenness and severity, in the latter the suffering may be slight and the signs ill-defined. In the former class of cases there is excruciating pain in the hypogastric region, with syncope, vomiting, a small rapid pulse, in a word the symptoms of acute peritonitis. On account of the distension of the abdomen it is almost impossible to make a satisfactory physical examination. After some hours the severity of the symptoms may diminish, and a more complete investigation may then be made. The condition tends to grow worse, and generally ends in death after a variable number of days. In the slowly-developed form the symptoms do not arrest the attention, and, indeed, the condition may be discovered only after the abdomen has been opened; but the physical examination may be more easily made. The detection of a tumour, especially if that tumour be fixed, is of great help in making a diagnosis. There is, however, no pathognomonic sign pointing to the occurrence of axial torsion of the uterus. The condition is liable to be confused with appendicitis, with ectopic pregnancy, and with intestinal strangulation. It is impossible, without opening the abdomen, to distinguish between torsion of the uterus and torsion of the pedicle of an ovarian or of a uterine neo-

[1] Barozzi, *La Gynécologie*, December, 1904, ANN. IX, p. 481.

plasm. The only hope of saving the patient lies in operation, and even with this the mortality has been about 12 per cent.

The operation of choice is, of course, laparotomy; when the torsion is due to an ovarian cyst, the removal of the cyst and the untwisting of the uterus may be sufficient; when, however, the cause of the torsion is a fibroid, then hysterectomy, usually supravaginal but sometimes total, is most commonly required, although myomectomy has occasionally sufficed. A case is on record in which pregnancy was present; the removal of the ovarian cyst and the untwisting of the uterus allowed pregnancy to go on to the full term.

THE CAIRO MEDICAL SCHOOL.

The annual dinner of the Cairo School of Medicine was held on January 26th, when opportunity was taken to present Dr. Symmers with a handsome silver bowl on the occasion of his leaving Cairo for Belfast to take up the duties of Professor of Pathology in the Queen's University. The toast was proposed by Dr. Keatinge, the Director of the School, who referred to the valuable services Dr. Symmers had rendered, and the regret they felt at losing him. In an excellent speech, combining pathos with humour, which was much appreciated, Dr. Symmers spoke at some length of the great and varied interest Egypt presented for pathological work generally, and for research in tropical disease in particular. His life there had been very happy, and he hoped useful. He should always look back with much satisfaction to his association with the Cairo School of Medicine. The toast of "The Visitors" was acknowledged by Mr. Reginald Harrison, who expressed his great pleasure at being present for the second time at an anniversary dinner. He thought the important English-speaking school and hospital for medical and surgical work, as well as for tropical diseases (so far as students and teachers were concerned), might with advantage be brought into closer touch with the educational and licensing bodies of Great Britain. In the case of tropical disorders, institutions where these diseases could be studied on a large scale in their acuter forms during life, as well as from museum specimens and other sources, presented many advantages to the student, particularly in the case of naval and military surgeons and others contemplating practising abroad. Increased facilities for travelling were now rendering these advantages more accessible. Cairo was only six days' journey from England, and the Egyptian medical student had already found his way to Great Britain. In conclusion, Mr. Harrison said that, as a passing guest on his way home, he felt greatly privileged at being invited to join in the congratulations now offered to Dr. Symmers. He was sure he might truly say that the breezy atmosphere of the Western Isle would prove none the less exhilarating and attractive for some of the Eastern sunshine which Dr. Symmers would carry with him along with the hearty good wishes of the Cairo School of Medicine for his happiness and further usefulness.

BLOOD PRESSURE IN MAN.

On February 3rd, at the Royal Institution, Professor Clifford Allbutt, assisted by Dr. Dixon, Demonstrator of Pharmacology at Cambridge, gave a lecture on blood pressures in man. The first part of the lecture was occupied by a sketch of the physiology of the subject. It was pointed out that as fluids are incompressible, elasticity is obtained by the structure of the arteries, and that the aorta, being larger in proportion than other arteries, acts the part of a reservoir, as does the air bag of the bagpipes, to equalize the pressures. The construction of the arterial tree is such as to facilitate the distribution of the blood with the least disturbance of pressures. Nevertheless, he showed by the effects of muscular exertion, cold baths, etc., that the variation of pressures in man is large, and herein differs from the stability of the temperature of the body. But a small fraction of the heart's energy is expended upon the velocity of the blood, the chief expenditure being in overcoming friction. The friction depends on two factors—the dimensions of the vessels, and the viscosity of the blood, which is about four times that of water. Dr. Dixon exhibited with the lantern a rabbit's heart, under artificial circulation, attached to a lever and registering its curves upon a smoked glass. To this heart drugs were applied—adrenalin, atropine, pilocarpine, nicotine, etc.—by which the pressures were modified. The various instruments for registering pressures in man were then exhibited—three of them in action—and projected upon the screen. The lecturer then proceeded to the pathological applications of these principles, illustrating them in shock and collapse, under chloroform, hydrocyanic acid poisoning, the nitrites, and so forth. Dr. Dixon showed the action of such changes on the screen. Diagrams were exhibited of the remarkable observations of Kocher and Cushing on the enormous increase of pressures set up during compression of the brain, in order to counteract the emptying of the vessels of the medulla by the intracranial pressure, and thus the danger of bleeding in apoplexy had been made manifest by those observers. Finally, the importance of integrity of the arterial mechanism was insisted upon and the effect of toxic matters, of hard labour, and of senile changes illustrated. The tendency in many persons to rise of arterial pressures in middle life was shown and the injury done to the vessels thereby. As these rises, if taken in time, may be counteracted, the lecturer urged upon all persons between 45 and 55 to have their arterial pressures estimated by their physicians every four or five years in order that this peril to health and life may be averted. Such rises may occur also in old persons in whom the arteries have undergone senile degeneration, and in them are the more perilous, but in most cases, if discovered in time, they can be readily counteracted.

THE CULTIVATION OF THE BACILLUS OF LEPROSY.

We publish in this issue an interesting paper on the pathology and treatment of leprosy. Captain Rost, I.M.S., the author, claims to have at last cultivated the bacillus of this disease, attaining this end by extracting all the salts of chlorine from his media. From his cultures he has prepared a substance called leprolin, and has tried inoculations of this for the cure of those affected. Some cases are reported to have been benefited, if not actually cured, by this treatment, and naturally such a statement has raised high hopes in India and other places, that a real cure may have been found for this loathsome disease. Without wishing to throw cold water on Captain Rost's work, it is nevertheless of the greatest importance that confirmation of the growth of the bacillus leprae should be forthcoming quickly by some competent bacteriologists. It is well known that Hansen and many others have failed signally in their attempts to cultivate this germ, and it is possible that Captain Rost has obtained only an acid-fast bacillus, not necessarily the leprosy bacillus. Before, then, holding up hopes of cure to countless lepers, it should be determined whether the leprosy bacillus has actually been cultivated, and if so, whether the leprolin made from it has any curative effect on the disease. We are informed by the Mission to Lepers in India and the East that leprolin is being tried in several of the Indian asylums of the mission. At Purulia in Bengal, where the Society supports 600 lepers, 3 cases have been declared by the Deputy Sanitary Commissioner to be "to all intents and purposes completely cured." These hopeful cases will be isolated and observed for six months before a final opinion is expressed. In other cases the results were less favourable. Having regard to the importance of the subject, both from the scientific and from the administrative point of view, we think that the Government of India ought to lose no time in appointing a committee of experts to inquire into the whole subject.

THE FUTURE OF THE RACE IN CANADA.

In an address recently delivered to the Canadian Club, Professor Osler spoke of the "incessant dribbling" of their young men into the United States. A million Canadians, he said, were in the States, many in prominent positions in finance and in the professions, particularly medicine and theology. There they have been successful by reason of industry and thoroughness, "the only qualities worth anything in the make-up of a young man." It is not only the young men, however, that are being drained away; what Professor Osler regards as a more serious loss is that of the young women. He had as a patient once a neurasthenic man of 30 or thereabouts whom he asked why he did not get married. "Because," was the reply, "all the girls I wanted have gone to the States." It appears that of 651 women in six of the great eastern hospitals in the States 196, or almost a third, are Canadians. To check this migration of possible mothers, Professor Osler suggested a tax on bachelors over 25 or 26, or, as an alternative, an export tax of £20 on every girl leaving Canada. He admitted that she was worth more than that, a statement which was received with approval by his audience, who seemed to agree with him that she was worth £200, and that it would pay to give her family that amount to keep her at home. He went on to say that it is sane and reasonable of Canadians to think of themselves as a strong race; they are satisfactorily situated for the development of one strong in body. Rarely has a strong nation appeared elsewhere than in the north. The cold and rigour of winter are much to their advantage, and will produce a stronger type than any other on the continent. Waxing prophetic, Professor Osler foretells that in our generation by far the most virile nation will dwell north of the Great Lakes. The amalgamation and commingling of the heterogeneous elements of English, Irish, and Scotch is, in his opinion, the best mixture the world had ever seen. If he had his way he would have an Act of Parliament passed that every fourth Upper Canadian should marry a French-Canadian girl, because in that way the future of the race would be assured. To grow a strong race mentally, elementary education should be fostered by well-equipped schools and teachers. It is not good for boys to be brought up under women; the Canadian people must pay better salaries, and make their teachers feel that they are doing useful and honourable work for their country, with a prospect of provision for age and for their families. Professor Osler holds that the most important thing is to grow a strong race morally, and that is the hardest of all. He does not think Canada immoral. Homicides are less frequent than in certain other countries, and drunkenness not so prevalent, though some of them with Scotch fathers might have a little tissue thirst. Illegitimacy is rare, and divorce is not common. Morally, the country has made a good start, but there is, he thinks, far too much evil speaking, lying, and slandering in connexion with political life. This is entirely superfluous and unnecessary. Young men in this atmosphere of slander and hostility towards opponents suffer great harm. Dr. Osler regards it as an infinitely worse vice than drunkenness. The only way to meet it is to deal with political opponents in an everyday Christian spirit, or, if not in the character of St. Paul's noble Christian, at least in that of Aristotle's true gentleman.

THE MEDICAL SERVICE OF THE ARMY.

The appointment of Surgeon-General Keogh to be Director-General of the Army Medical Service was a conspicuous example of the working of the principle of selection, and as such it might have been expected that *it* would be viewed with doubt and dislike by the army, which is conservative by tradition and by training. We have been at considerable pains to discover how the appointment has been received, and the evidence which we have been able to obtain goes to show that the appointment is regarded with satisfaction by the great body of the officers of the Royal Army Medical Corps. It is no secret that it is approved in the highest quarters, and the feeling of the profession, as far as it has found expression in the medical press, has been strongly and unanimously favourable. Our own opinion was uttered with no uncertain sound in the British Medical Journal of December 31st, 1904. The *Lancet*, in its issue of January 7th, declared its belief in the policy of promotion by selection, and "honestly and consistently" congratulated Surgeon-General Keogh on his appointment—"an appointment," our contemporary went on to say, "which represents the adoption of a new and, as we believe, sound principle in this respect." The *Practitioner*, in its February number, says that "the appointment of Surgeon-General A. H. Keogh . . . . has been hailed with profound satisfaction by all who are sufficiently enlightened and patriotic to place the efficiency of the service above merely personal considerations." It adds that "the army and the nation are to be congratulated on an appointment which marks a new epoch in the history of the Army Medical Service." The *Scottish Medical and Surgical Journal* for February points out that "the main aim of this Committee [the Advisory Board] was increased efficiency, and in selecting a comparatively young man for the post of head of the Medical Service they have, it appears to us, only done their duty." The only note of opposition that has reached us comes from *Truth* and one or two other lay papers of no particular importance. It is amusing to see the Sage of Queen Anne's Gate, who is nothing if not "progressive," made to come forward as the champion of vested rights and fossilism. He says that the appointment "has been very strongly condemned in professional quarters;" he has not, however, stopped to inquire what these "professional quarters" are, or he would probably have discovered the true inwardness of the condemnation pronounced by them. From such "professional quarters," doubtless, have emanated the very few protests against Surgeon-General Keogh's appointment that have appeared in the lay press. In one of these the British Medical Journal is threatened with "the resentment of army medical officers at their service being depreciated and decried in the eyes of the profession, the public, and the army at large," and the use of that peculiarly Hibernian weapon, the boycott, is hinted at not obscurely. The occasion calls for plain speaking, and we therefore must be allowed to say that it is simply untrue that the service has been decried or insulted in the Journal. The Journal has in season and out of season advocated the cause of the service against the oppressor's wrong and the insolence of office, and without its help, constantly and unstintingly given, medical officers would not be in the position which they now hold in the army. As for the boycott, we commend to those whom it may concern the following story of a famous American editor, whose views had offended some one An acquaintance met Horace Greeley one day, and said "Mr. Greeley, I've stopped your paper." "Have you?" said Greeley; "well, that's too bad," and the old white hat went its way. The next morning Greeley met his subscriber again, and said: "I thought you had stopped the *Tribune?*" "So I did." "Then there must be some mistake," said Greeley, "for I just came from the office and the presses were running, the clerks were as busy as ever, the compositors were hard at work, and the business was going on the same as yesterday and the day before." "Oh!" said the subscriber, "I didn't mean that I had stopped the paper; I stopped only my copy of it because I didn't like your editorials." "Pshaw!" retorted Greeley; "It wasn't worth taking up my time to tell me such a trifle as that. My dear sir, if you expect to control the utterance of the *Tribune* by the purchase of one copy a day, or if you think to find any newspaper worth reading that will never express convictions at right angles with your own, you are doomed to disappointment." The moral of which story lies, as Jack Bunsby says, in the application of it.

AMERICAN DOCTORS AND THE HALL OF FAME.

At the first meeting of the Council of the Hall of Fame, in connexion with the University of New York, held in 1900, only 29 of the names submitted received the required

majority (51) of votes. Among the persons selected on that occasion for a place in the national Valhalla there was no representative of medical science. The second regular election will take place in the course of the present year, when 26 will be added to the list of immortals already enshrined. Only persons born in the United States who have been dead ten years or more are eligible for a niche, or, to speak by the card, a panel in the Hall of Fame. The names of the following members of the medical profession have been put forward as worthy of the honour: Benjamin Rush, of whom at the time of his death it was said that his "name gave a splendour to the American character and greatly added to its reputation throughout the republic of letters"—he was one of the signatories of the Declaration of Independence; David Ramsay, a historian of repute as well as a physician of considerable note in his day, and a patriot who took a share in establishing the American Republic; John Collins Warren, first professor of anatomy and surgery in the Harvard Medical School, who performed the first surgical operation on a patient anaesthetized with ether, and founded the *Boston Medical and Surgical Journal*; J. Marion Sims, the gynaecological surgeon; and Oliver Wendell Holmes, who as a physician did great service to humanity by calling attention to the contagiousness of puerperal fever, and whose graceful verse and delightful prose are known to all lovers of literature.

AN ANTIQUACKERY CONGRESS IN FRANCE.

A CONGRESS "for the repression of illegal medical practice" is to be held in Paris in May next under the presidency of Professor Brouardel. Among the questions to be debated the Organizing Committee has decided that special prominence shall be given to illegal practice by non-medical persons, lay or clerical, with a charitable purpose or under pretext of charity. A report on the subject will be presented by Maître Bruno-Dubron, Doctor of Law, Advocate of the Court of Paris, and sometime Secretary of the Conference of Advocates. He will deal with the illegal practice of medicine by ministers of religion, teachers, benevolent associations, etc. He will consider the measures of repression that can be employed against them, and the measures that can be adopted for the prevention of such abuses, notably the regulation of medical assistance given in educational establishments and in factories, and the legal sanctions to be enforced in case of failure to apply the law. Communications relative to the Congress should be addressed to M. le Secrétaire Général du Congrès pour la répression de l'exercice illégal de la Médecine, Hotel des Sociétés Savantes, rue Serpente 28, Paris.

RURAL INSANITY.

THE steady increase of insanity throughout the kingdom has led to widely-diffused feelings of apprehension regarding the future, and it is only natural that the county authorities of Wiltshire, which occupies an unenviably high position in this respect amongst other counties of England and Wales, should view with concern the frequent calls upon the county to provide further accommodation for the insane. Wiltshire, in fact, stands fourth upon the list of counties in the number of certified lunatics as compared with the general population, and has at present one lunatic for every 244 sane persons, as against one to every 288 for the whole of England and Wales. The ratio of insanity in Wiltshire has increased on the last census to the extent of 7.0 per 10,000, and stood in 1901 at 41.0 per 10,000, as compared with 33.09 per 10,000 for the whole of England and Wales. In these circumstances, Dr. J. Ireland Bowes, the Medical Superintendent of the Wiltshire County Asylum, undertook to prepare and submit to the Committee a special report[1] on "the apparent increase of lunacy in the County of Wiltshire, and the actual increase in the numbers at the asylum, showing, as far as ascertainable, the principal causes of lunacy in the case of the patients resident." This report, prepared on the lines of a previous report made in 1898, though in no way minimizing the real gravity of the situation, should tend to allay alarmist views as to a general decline. Dr. Bowes shows that the increase in the asylum numbers is not so much due to an increase in fresh cases as, in the first place, to a change in the type of admissions, the admissions having been for some years of a less hopeful and more incurable form, and containing an increasing proportion of demented and weak-minded patients and general paralytics; and, in the second place, to their accumulation within the asylum owing to increasing longevity and a diminishing recoverability. This is borne out by a table giving the principal causes amongst the admissions for the past fifteen years in quinquennial periods, which shows that in this time the percentage of admissions with a history of previous attacks has risen from 13.9 to 19.2, and those in whom hereditary influences were assigned as cause from 16.6 to 28.4 per cent. A third factor, which is undoubtedly operative all over the country, is the greater readiness with which people are certified as insane, with the result that many mentally defective and senile cases are, quite unnecessarily, sent to institutions because their relatives are unwilling to be burdened with the trouble and expense of their maintenance. But a still more productive factor in the growth of the asylum is, Dr. Bowes says, the transference of the weak-minded from workhouses and from relatives to asylums. Thus in the last thirty years the percentage of lunatics in the Wiltshire County Asylum has risen from 54.6 to 80.9, whilst that in workhouses has dropped from 19.0 to 11.1, and of those with relatives from 24.7 to 7.5. This removal of the insane from workhouses has, Dr. Bowes says, been carried out to an unnecessary extent; and, "judging from the cases sent to the asylum and those from the asylum to workhouses and subsequently returned, there is evidence of a want of patience and disinclination on the part of workhouse officials to be troubled." There can be no question that Dr. Bowes's remarks on this point are only too well founded, and that a considerable percentage of the cases at present sent to asylums might be treated outside asylums, and in many cases outside institutions, with advantage both to the taxpaying community and the patients themselves.

[1] Report as to the Apparent Increase of Lunacy in the County of Wilts. By Dr. J. Ireland Bowes, Medical Superintendent, Wilts County Asylum. 1904. *Gazette* Office, Devizes. (Pp. 12.)

THE CULTIVATION OF LIQUORICE IN MESOPOTAMIA.

MAJOR NEWMARCH, Political Resident in Turkish Arabia, and British Consul-General at Baghdad, has just transmitted to the Foreign Office a special dispatch containing many particulars of interest on the liquorice-growing industry in Mesopotamia. The glycyrrhiza from which the commercial article is obtained grows wild throughout the country, and especially on the banks of the Euphrates and the Tigris, extending on the former river from the neighbourhood of Hierapolis down to Diwaniyeh, and on the Tigris from Mosul to Kut-el-Amara. It is also found on the Khabur river, and on the northern branch of the Gharraf or Shatt-el-Hai. The specific name of the plant is not given, but it seems probable that it is a form of *G. glabra*. It is said to occur only on the inside curves of the banks of rivers with a very slow current, requiring a good deal of moisture, and benefiting by occasional floods. The plants are rarely found to extend more than a mile back from the bank and never as much as two miles, and they prefer a more or less rich and heavy soil; the reason that the species does not extend south of Diwaniyeh and Kut-el-Amara being that the region is too sandy. Under ordinary conditions the height of the liquorice plant does not exceed four or five feet, but in favourable soil it will reach twice this height, and its stems are much used for fuel in Baghdad and other towns. About 5,000 Arabs are at the present time engaged in digging liquorice root. It is generally only the fellahin Arabs who undertake the work, for the Bedawin do not condescend to any manual labour, though the women-folk of some of the less nomadic tribes will occasionally earn a little money in this way, and Kurds are available on the

Upper Tigris. The root, on being brought to the receiving station, is weighed and cured, and is then forwarded to Basra to be pressed into bales for export. This part of the journey is not a very easy matter, for navigation in the Lower Euphrates presents such obstacles that the root is generally sent by camel to the Tigris, and even on this river navigation during the low-water season from July to November is difficult. The root is said to contain most juice when the plant is in gardening parlance "down," and hence the collecting of it is chiefly carried on in the winter months when the leaves have fallen. About 10,000 tons are annually exported, the average value being £5 per ton. The industry appears to be largely controlled by Americans, and was first organized on an important scale some ten years ago. In addition to its medicinal uses liquorice is now a good deal employed in sweetening manufactured tobacco.

PARK MANSIONS IN LONDON.

WE are pleased to notice that at the meeting of the London County Council last Tuesday the question of the purpose to which the house at Golder's Hill, formerly occupied by the late Sir Spencer Wells, should be put, again came under consideration, and that the Parks Committee's reiterated proposal to use a portion of the house for the residence of a parks constable was rejected by a large majority. We have repeatedly drawn attention in these columns to the possible public uses to which these mansions in the London parks might be usefully devoted. We have shown how advantageously they might be used as convalescent homes for London slum children. We are glad to think that the Council is not prepared to consider the housing of its constables in the late Sir Spencer Wells's beautiful mansion a "public purpose" within the meaning of the Act of Parliament.

MORE NEWSPAPER MEDICINE.

IN explaining to its readers "what appendicitis is" the *Daily News*, with that fine air of Sir Oracle which marks its lightest utterances, says:

> Perityphlitis, or, as it is better known, appendicitis, is, according to an eminent physician, inflammation of the tissues surrounding the kidney—round about the kidney in contradistinction to inflammation of the kidneys—and it is extremely difficult to say until an operation has been performed whether the case is appendicitis or inflammation of the kidney itself. The little appendage to the large intestine is a small canal in itself, and is apt to get blocked by seeds, fruit, or something that can give rise to inflammation round about the kidneys. Sometimes an abscess is formed around the appendix. The operation consists in making an incision through a line down to the kidney, relieving matter and pus, if such were found outside the kidney, and finally extending the wound or extending part of the wound to the kidney itself, to ascertain if there be any stone in the kidney which might be found to be the cause of the inflammation.

The insistent manner in which the disease is referred to "the tissues surrounding the kidney" shows that the absurd blunder is not an accident, but a laborious misconstruction of ill-digested reading. The *obiter dictum* that "sometimes an abscess is formed around the appendix" is particularly delicious. The perverse ingenuity of the description is made more remarkable by the fact that just below the passage we have quoted is a portion of the article of Sir Frederick Treves and Dr. Allchin in *Quain's Dictionary of Medicine*, which might have put a person of the most moderate intelligence on the right track. But for the satisfaction of our thought, as Iago says, we should like to know the name of the "eminent physician" who, we are invited to believe, confused perityphlitis with perinephritis. When will able editors take some trouble to ensure that the medical information vouchsafed to their readers is fairly accurate?

THE EPIDEMIOLOGY OF PLAGUE.

MR. E. H. HANKIN, Chemical Examiner and Bacteriologist to the United Provinces and to the Central Provinces, India, has contributed to the first number of the *Journal of Hygiene* for 1905, an excellent article on the epidemiology of plague. The information he relies upon has been gathered from observations made by himself in India. In areas in which plague has been epidemic Mr. Hankin states that no definite relation has been observed between intensity of plague (apart from its peristence) and badness of sanitation of dwellings. Where, however, plague has prevailed endemically, as in Garhwal, Yunnan, Beni-Cheir, and Transbaikalia, unsatisfactory sanitary conditions exist. Where endemicity prevails it is probable that a latent state of plague exists during which neither human beings nor rats are affected. The spread of plague from such centres as Garhwal is probably due to fakirs travelling thence on pilgrimages to festivals in distant parts of the country, and it was probably from Garhwal and Kumaon and not from Hong Kong that infection reached Bombay in 1896. Plague, he contends, shows no tendency to spread along trade routes as such, and he maintains that the maximum virulence has occurred in villages rather than in towns. When plague is introduced into a town or village the history of the subsequent outbreak is fairly constant. The person originally infected quickly communicates the disease to those who come in contact with him. A period of quiescence succeeds lasting from about ten or twenty days to three or more months. The first sign of local activity may be the death of rats, human beings contracting the disease later; or man and rats may be attacked simultaneously; or it may happen that man only and not the rats develop the disease. The long quiescent period between the first isolated group of cases and the subsequent attack indicates not a simple contagion from man to man but a deep-seated and perhaps complicated method of transmission. Rats are not regarded by Hankin as a necessary cause or agent in the spread of plague, nor is it likely that the dejecta of human beings suffering from plague are important sources of infection. Plague in all probability belongs to the group of "miasmatico-contagious" diseases of which cholera and enteric are examples. The part played by rats in the epidemiology of plague is fully discussed, and the conclusion is reached that if rats play a part in spreading the infection, they must do so to very different degrees at different periods of the epidemic. There is, moreover, no apparent quantitative relation between rat and human mortality, and plague is not apparently conveyed directly from the dejecta of infected rats to men. Biting insects do not seem to play a direct part in the spread of plague, for attendants in plague hospitals for the most part escape infection, a contingency which would be unlikely were bugs, fleas, or mosquitos capable of conveying the disease. If this is true in regard to human beings it is probably also true in the case of transmission of the disease from rats. Hankin suggests that the only view of the matter that appears likely to lead to an explanation of the facts is that the true "nidus" of the plague infection is some species of flea in which the microbe causes a slowly-developing infection, that at length becomes capable of transmitting the disease, and that in this insect the virus can retain or regain its virulence. In proof of the assertion that the plague microbe develops within the body of the flea, Hankin refers to observations he made upon this subject in April, 1901, at Agra. On a dead rat in which no traces of plague bacilli were found, a living flea was captured. Embedded in the tissues of the stomach of the flea were visible bacilli with rounded ends identical in appearance with those of plague. These were arranged in clusters of about a dozen individuals each and this arrangement of the bacilli obviously suggests that they were engaged in reproduction *in situ*. This observation would appear to account for the latency of plague which occurs at times, to be followed by serious outbreaks.

THE LOGIC OF THE COLOUR-ELEMENT THEORY.

AT every period in the history of science there are certain prevailing "forms of thought" which furnish criteria of scientific thinking and mould the form of expression. Thomas Young was the first to propose a positive theory of colour, a theory restated later by Helmholtz, and now bearing the name of both. Thanks to Darwin and Spencer the hypothesis of evolution in organic processes and phenomena has replaced the old mathematical con-

ceptions, and indeed through it biology has reached the rank of a science. Every colour-theory deals with an organic process, and might therefore be regarded from the evolutionary rather than from the mathematical point of view. Even to-day colour theories still retain their mathematical form, for both the theory of Young-Helmholtz with its three primitive colour elements and that of Hering with its red-green and yellow-blue "Sehstoff"—four elements—presuppose definite constants. If these are to play their part as elements, they must be fixed and invariable. The three photo-chemical substances of Helmholtz must be of definite and invariable composition, while equally must the three processes of decomposition and recomposition of Hering be invariable. Long ago W. Wundt of Leipzig raised the question whether the conception of elements and compounds, or of primary and mixed colours, which underlie most of the prevailing colour theories, is really appropriate to the subject-matter. Mr. Warner Fite of the University of Texas again raises the same subject, and asks—Is this conception an essential factor in the colour theory suggested by the phenomena of colour mixture? He comes to the conclusion that on the basis of mixture alone there is no justification for the elements-compound conception. In the colour triangle, provided the three primaries be chosen in proper relations, any colour may be primary. An element cannot be indifferently an element or a compound, and even Helmholtz admits that the choice of primaries is largely arbitrary. There are no gaps between normal and abnormal vision, but just those differences that would arise if colour perception were treated as an organic process, for in organic processes there are no fixed conditions upon which the conception of elements can rest. What is required, Fite maintains, is "not to analyse colours into their elements, but to trace the order followed in the development of the process of colour perception." We should find many stages as features of a continuous individual process. Recent theories of colour vision have been in the direction of the evolutionary hypothesis. The theory of Mrs. C. L. Franklin assumes that the conditions of colour blindness present in the peripheral field of vision represents a state of affairs universally present at earlier stages of colour perception. So far so good, but the theory also retains the four-element feature of Hering's hypothesis, which gives a sudden spring from one set of sensations to those of another. At first we have black, grey, white, then to these are added blue and yellow and then green and red. From the evolutionary point of view "development takes place through the gradual and constant differentiation and reconstruction of an earlier content." Having regard to these views, Mr. Fite suggests that colour vision should be studied with the evolutionary hypothesis in view, that is to say, in the hope of discovering a lengthened and unbroken developmental process.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The American Public Health Association held its thirty-second annual meeting recently at Havana, Cuba, under the presidency of Dr. Carlos J. Finlay. The presidential address was chiefly devoted to a history of the study of yellow fever in Havana. Dr. Finlay said that the suppression of yellow fever in that city was the direct outcome of the labours of two American commissions, the first of which worked under the direction of Surgeon-General Sternberg a quarter of a century ago; the second twenty years later, under the late Major Reed. The second of these commissions definitively established the true etiology of yellow fever. Two of its members were attacked by the disease, and one of them—Dr. Jesse Lazear—died a martyr to his scientific zeal. Dr. Finlay praised the work of Major Gorgas, chief health officer under General Wood, who, by taking action on the researches of the commission, succeeded within seven months in ridding Havana of a disease which had been endemic there for a century. With reference to the two cases of yellow fever which occurred last October in the province of Santiago, Dr. Finlay said that presumably they were transmitted by mosquitos from a quarantined ship. These had been the only cases of fever since 1901. The President's address was received with enthusiastic applause. Several speakers dwelt on the large share which he himself had had in the work, and full credit was accorded him for the keen scientific insight which had led him to the discovery of the part played by the mosquito in transmitting yellow fever, a discovery which had been so fully confirmed by later investigations.

THE HIGHER EDUCATION OF WOMEN AND RACE SUICIDE.

The President of the American National Federation of Women's Clubs has, we learn from *American Medicine*, arranged for a meeting of a representative body of club-women and the presidents of women's colleges, with the idea of bringing about a union of purpose between the club women and college women on educational matters. The club women will endeavour to prove in opposition to the view widely held, that the college girls are those who marry, make the best mothers, and have the largest families. According to statistics to be brought forward by the President, the children of the average college women are an eighth more numerous than those of her sister who never attended college. The college women intend to prove that they not only have large families, but that their children have a higher average standard of intellectual development. The meeting also will discuss plans for changes in the studies at women's colleges to conform to their ideas.

CANCER RESEARCH IN GERMANY.

Professors Czerny, Erb, Hegar, Baumler, and other distinguished representatives of medical science have lately, with the sanction of the Government of the Grand Duchy of Baden, formed a committee at Karlsruhe with the object of discovering means of effectively combating the increase of cancer. On the proposal of Professor Czerny, who is the Chairman of the Committee, it has been decided to issue a circular to medical practitioners for the purpose of collecting complete statistics as to cancer cases occurring within the Duchy. The cases will then be fully investigated. Special attention will be given to the question of the possible connexion of cancer with local causes, its regional distribution, and the relative frequency of its occurrence among persons of various occupations. On the basis of information thus obtained it is hoped that it may be possible to devise measures which may check the spread of the disease.

ATTENDANCE ON CASUALTIES AT HOSPITALS.

The senior house surgeon at the Ancoats Hospital, Manchester, is reported in the local papers to have made rather surprising statements at a recent inquest. The deceased was a young woman who had scratched her hand while cleaning her frame at a mill on December 23rd. The next day she had some pain in her arm, and on December 26th she went to the Ancoats Hospital where she was seen by a nurse, who, after treating the injury, told her to come again next day at 9 a.m. Eventually the woman underwent an operation in the hospital, but died from blood poisoning. The senior house surgeon to the hospital said it was the practice, in apparently trivial cases of accident, for the nurse to treat the wound temporarily without referring to the house surgeon. He added that it was impossible for himself and the junior house surgeon to see all the casualties on the same day. The jury found a verdict of accidental death, and, while exonerating the nurse, expressed the opinion that all cases of accident taken to the hospital should be seen by a medical man. With this opinion we imagine that the great body of the profession will agree. According to Burdett's *Hospitals and Charities, 1905*, the Ancoats Hospital provided last year for 10,764 casualties and 2,036 home patients; this would be an average of 28 casualties a day, and we can very well understand that, having regard to other duties, the time of the resident staff must be very fully occupied. The house-surgeon undertook to bring the jury's recommendation before the governing body; the matter certainly appears to call for

inquiry. From our present information the moral appears to be either that the Ancoats Hospital is trying to attend to too many patients or that it has not an adequate resident medical staff.

THE FIFTEENTH INTERNATIONAL MEDICAL CONGRESS.

A MEETING of the National Committee of Great Britain and Ireland of the Fifteenth International Congress to be held at Lisbon, April 19th to 26th, 1906, was held at the rooms of the Medical Society of London on February 3rd, Dr. Pavy, F.R.S., President of the National Committee, in the chair. It was announced that the following gentlemen had undertaken to act as Reporters at the forthcoming Congress, as it was the wish of the Lisbon Committee to make the Reports a special feature of the meeting: Dr. Stanley B. Atkinson (Honorary Secretary of the Medico-Legal Society and barrister-at-law), spontaneous and criminal abortion from in its medico-legal aspect; Dr. Chalmers (Medical Officer of Health for the City of Glasgow), the administrative control and the technique of public disinfection; Mr. Treacher Collins, ocular tuberculosis; Professor Ferrier, the nature and pathological physiology of tabes; Mr. Goadby (Lecturer on Bacteriology at the Dental Hospital), the treatment of pyorrhoea alveolaris; Dr. Gulland, the classification, origin, and probable rôle of leucocytes, *Mastzellen*, and plasma cells; Sir Patrick Manson will open a discussion on tropical medicine; Dr. Mott, cerebral lesions in psychoses of toxic origin; Mr. D'Arcy Power, recent advances in the surgery of the arteries and veins; Dr. Still, the spastic affections of childhood, their classification and pathogeny; Dr. Sutherland (Deputy Commissioner in Lunacy for Scotland), the prophylaxis and treatment of habitual criminals; Mr. C. E. West (Chief Assistant in the Aural Department at St. Bartholomew's Hospital), study of the epileptogenous action of foreign bodies in the ear and of post-nasal growths. The subjects for the Reports were selected in every case by the Executive Committee at Lisbon. A letter was read from Messrs. Cook containing a proposition to charter a first-class passenger ship to convey visitors to and from Lisbon, calling at Oporto, Vigo, and Corunna, and acting as a floating hotel during the Congress week. The suggestion was approved by the Committee, but Messrs. Cook were desired to ascertain the exact position of the anchorage in the Tagus that inquiries might be made locally as to its suitability both from the point of view of the hygienic surroundings and of distance from the seat of the meetings of the Congress. Letters were read from Dr. Ogilvie Will and from Dr. J. F. Sutherland giving the results of certain inquiries which they had made in regard to the housing of those who did not wish to go by sea and remain on the boat. It appeared from these inquiries that the rooms could now be obtained at a moderate price at Cintra, about forty minutes by train from Lisbon. The hotel is well spoken of, and the proprietor says that, at present, he has sixteen bedrooms, most of which can be used by two persons. It appears imperative, therefore, that those who intend to go to the Congress and do not wish to depend on the efforts of the Local Committee to obtain lodgings, should at once take the opportunity of reserving rooms. Delay is likely to lead to the same disastrous consequences as at Madrid. The Honorary Secretaries of the English Committee are Dr. Clive Riviere, 19, Devonshire Street, Portland Place, London, W., and Mr. D'Arcy Power, F.R.C.S., 10A, Chandos Street, Cavendish Square, London, W.

THE POSSIBILITIES OF TUBAL PREGNANCY.

AN instructive discussion recently took place at a meeting of the Obstetrical Society of Vienna[1] on the varieties and possibilities of pregnancy in the Fallopian tube, considered entirely from a clinical and surgical standpoint. The question of haemorrhage was too well known to excite special discussion on this occasion; two other important questions were brought forward the varieties of this abnormal type of pregnancy and, graver still, the prophylaxis of the patient against recurrence in the opposite tube. Professor Schauta related how three distinct varieties had been established by surgical experience, in all of which the pregnancy was double and simultaneous; these varieties not including a subsequent pregnancy in the opposite tube. In the first variety there was simultaneous tubal and normal uterine pregnancy; thirty-seven authentic cases were collected by Patellani nine years ago. The second class consisted of cases of twin pregnancy in one Fallopian tube; Dr. Schauta adds a twentieth example to nineteen which he has found already recorded. In his patient two characteristic attacks of hypogastric pain occurred at an interval of a month; the first set in during the eighth week. At the operation two ova were found in the right Fallopian tube, one much less developed than its fellow, and it was clear that the former had been killed during the first attack of pain. In the rarest variety of double pregnancy the right and left tubes were the seat of gestation; only three cases have as yet been recorded, but a fourth was related on the present occasion by Professor Weinlechner. Both tubes in this instance burst at the end of the first month. A large corpus luteum was detected in each ovary, the right tubal sac was of some size and full of dark clot, there was a small hole in its wall, the left sac was a little smaller. Dr. Weinlechner observed that he had removed a tubal sac in a case where Dr. Schauta had previously performed the same operation on the opposite tube; recurrence of this type was frequent, and therefore it seemed advisable to remove a normal tube, as a prophylactic measure, when its fellow had to be amputated for tubal gestation. An active discussion followed this proposition. Schauta and von Erlach admitted the frequency of recurrent tubal gestation, but denied that prophylactic amputation of the normal tube was justified, and Wertheim showed that recurrence certainly occurred, according to published records, in about 6 per cent. of tubal pregnancies, yet that was not a large enough proportion to justify removal of a sound tube, for, as Schauta and von Erlach could testify, normal uterine pregnancy not rarely followed the removal of one tube for ectopic gestation, and so it was not right to sterilize a patient on account of a risk which was not high. Wertheim, in conclusion, remarked that simultaneous tubal and normal uterine pregnancy was by no means uncommon. Since 1896 quite 100 cases had been collected, and he suspected that others had been misinterpreted, a small uterine ovum being taken for decidua, or more probably overlooked entirely.

[1] *Zentralbl. f. Gynäk.*, No. 2, 1905, p. 45.

METROPOLITAN STREET AMBULANCES.

WE understand that the London County Council have informed the Metropolitan Asylums Board that the arrangements proposed by the latter body for the improvement of their ambulance system have so different an object in view to the provision of an ambulance service for street accidents to which the London County Council have been giving their attention that no useful purpose is likely to be served by any conference between the two bodies such as has been proposed by the Local Government Board.

THE Prussian Academy of Science has awarded its Helmholtz medal to Professor Ramon y Cajal of Madrid.

THE annual general meeting of the Neurological Society of the United Kingdom will be held at 11, Chandos Street, W., on February 16th, at 8.30 p.m., when the presidential address will be delivered by Sir John Batty Tuke. The subject of the address is the relation of the lunacy laws to the treatment of insanity. By an accident the meeting was included in the diary published last week of events to take place last Thursday.

THE medical graduates of the University of Pennsylvania who studied under Dr. Osler when he occupied the chair of medicine there, have decided to present to the University a life-size portrait of their former teacher. The work will be entrusted to an American artist to whom Dr. Osler will give sittings before his departure for England.

Scotland.

The Morison Lectures at the Royal College of Physicians of Edinburgh.

Variation in its Relation to the Origin of Insanity and the Allied Neuroses.

The third of the present series of Morison Lectures was delivered on February 3rd. In this, the last lecture, the causes, the prognosis, and the methods of treating insanity were dealt with. After pointing out that recovery from recurrent insanity must in the majority of cases be regarded as merely recovery from the individual attacks, Dr. John Macpherson went on to discuss the methods of treating the confusional insanities, to which, he held, all the medical energies of the future must be directed. These diseases ought to be brought under early treatment, for the destructive processes acting on the delicate nerve cells of the cortex are so rapid that time is everything. The only way to advance our knowledge of the nature of these diseases, and ultimately to save the patients, is by hospitalizing their treatment in exactly the same way as is done by the study and treatment of ordinary patients in general hospitals. At present a person suffering from any form of mental affection of an acute type must, if he cannot be treated in his own home, be certified and removed to an asylum without the opportunity of being examined, observed or treated in the same way as if he had pneumonia or a broken leg. The existing lunacy laws were framed, among other reasons, with a view to securing the liberty of the subject, and—for a long time to come, probably—that safeguard must be retained; but in this one particular we have outgrown these laws, which, so far from securing the liberty of the subject, actually conduce to the opposite effect by compelling him to be certified and sent to an asylum before he can obtain medical opinion or advice. It is essential that in every large city—and especially in every university city—there should be hospital wards for the treatment of acute insanity open to the public and to medical students, in the same way as are the other wards of a general hospital. To these wards should be attached an out-patient department to which persons suffering from insanity and the neuroses could come for advice. The want of such an establishment in every great urban centre in this country is an expression of passive cruelty and indifference which can only be described as a blot upon our much-vaunted civilization. In this respect Germany, Austria, Switzerland, and some of the States of the American Union are far ahead of this country. Each of the twenty universities of Germany possesses such a hospital in connexion with its medical school.

The lecturer next proceeded to discuss the question of the best way of dealing with the increasing numbers of weak-minded offenders, inebriates, and epileptics, for whom no adequate provision is at present made. Referring to the last number of the Judicial Statistics for Scotland, he showed that 1,300 persons convicted for petty offences in the year 1903 had had upwards of fifty previous convictions each. The standard of fifty previous convictions was taken as a presumptive index of the mental unsoundness of the larger proportion of these 1,300 persons. Reference was made to the work of Dr. Crawford Dunlop, who is engaged in the task of examining the individual mental condition of these frequent offenders as supporting the contention that a person who has had upwards of fifty convictions for any cause is a fit subject for investigation as to his mental responsibility. Illustrations of the mental state of unselected examples of these offenders were given. It was urged that punishment was useless, and that reform in most cases was impossible because of the mental weakness of the subjects.

The failure of the recent legislation for inebriates was instanced as an example of the mistaken lines of reform and reclamation upon which it was based. It was strongly urged that in the interests of decency and order, as well as for the welfare of the subjects themselves, they should be committed under indeterminate sentences to institutions erected and controlled by the State, but in which the cost of maintenance should be borne by the various communities of which those individuals are members. These institutions should be as far as possible medical in their management and should not in any sense be penal. For that reason they should, in Scotland at any rate, be under the charge of the lunacy authority in the same way as are lunatic asylums. Not only are the traditions of the lunacy system in Scotland the most suitable for dealing with the classes in question, but the construction of the modern asylum of the "village" type is the best form of institution for their detention, for it combines the advantage of the hospital system with that of the "home" and the labour colony. An appeal was made for the establishment of a national institution for epileptics somewhat on the lines of the great colony for epileptics at Bielefield in Germany. There is at the present time in Scotland no provision for the treatment of epileptics, except ordinary asylums which in too many instances are unsuitable for the purpose.

Aberdeen Medico-Chirurgical Society.

This Society met in the rooms, 29, King Street, on the evening of February 2nd. Dr. George Rose occupied the chair. Dr. Lawson, Senior Physician, Nordrach-on-Dee Sanatorium, Banchory, read a paper on the application of Roentgen rays in the diagnosis of chest affections. The subject is one to which Dr. Lawson has devoted a great deal of time and attention, and his paper was very exhaustive, and was illustrated by many excellent lantern slides. On the card of business was also a paper by Mr. J. Scott Riddell, Senior Surgeon, Aberdeen Royal Infirmary, on Ten Abdominal Sections for Abnormal Pregnancies and Obstructed Labours, but on account of the length of Dr. Lawson's paper, and the time taken up by the discussion which followed, Mr. Riddell's paper was postponed. The following is a list of Mr. Riddell's cases:

1. Dermoid cyst obstructing labour, removed during subsequent pregnancy. Recovery.
2. Dermoid cyst obstructing labour. Reposition. Operation during puerperium. Recovery.
3. Uterine fibroid obstructing labour. Reposition by coeliotomy. Recovery.
4. Pregnancy with large fibroid and adhesions. Porro-Caesarean section. Recovery.
5. Ruptured tubal gestation. Laparotomy. Death on fourth day from haemorrhage or embolism.
6. Right intraligamentary pregnancy of five months. Operation. Recovery.
7. Left pseudo-ligamentary pregnancy of five months. Laparotomy. Severe haemorrhage. Second operation per vaginam. Recovery.
8. Left extraligamentary pregnancy of three months. Operation. Recovery.
9. Chondroma(?) of pelvis narrowing outlet. Caesarean section. Recovery.
10. Coeliotomy for painful adhesions during pregnancy. Recovery.

Ireland.

The Collon and Drumconrath Case.

The Irish Court of Appeal was last week engaged in hearing the case of the King (Keelan) *v.* the Local Government Board. The case arose out of the order of the respondents amalgamating Collon Dispensary No. 1 and Drumconrath Dispensary, the proceedings against the Board being instituted by Drs. Keelan and Caraher, with the support of the Irish Medical Association. The case had already been heard by Lord Chief Baron Palles, who decided in favour of the Local Government Board, and from that decision the appeal was taken.

The Lord Chancellor, in delivering judgement, said the conditional order had been granted practically upon three grounds—first, that the order of the Local Government Board had been made *ultra vires:* secondly, that it had been made *mala fide*, or on indirect motives, not legally entitled to be taken into consideration; and thirdly, that the order was opposed to natural justice. The grounds upon which the controversy arose might be shortly stated. It appeared that in the Ardee Union there had been originally three dispensary districts. In the opinion of the Local Government Board it became necessary to reconsider the partition of the Union. It appeared that on the resignation of the medical officer of Drumcondra, one of the three districts, there was considerable difficulty in obtaining a successor to him. Advertisements were put in the newspapers unsuccessfully several times. The guardians then proposed to give a larger initial salary than had heretofore been given. This, it was pointed out by the Local Government Board, would be inconvenient. The guardians desisted from advertising. The Local Government Board then made this order with a view of providing relief for the poor. They left the two doctors to administer to the larger districts. He (the Lord Chancellor) thought he was doing no injustice to the forcible arguments addressed to him by Mr. Matheson and Mr. Healy in saying that the main

point of them was directed to show, first, that the Board had no jurisdiction. The court had heard very little as to the motives—Mr. Matheson had repudiated distinctly that he had ever meant to attribute fraud or *mala fides*. The appellants' argument turned substantially on the repealing portion of Section VI of the Medical Charities Act. Under this he (the Lord Chancellor) was of opinion that the Board retained the power of altering the districts as they had done in this case. As to the effect of the action of the Board on the medical officers they (the Court) could say nothing, as they were not a court of appeal in such matters. What they had to do here was to see whether the Board had exceeded their jurisdiction. In his opinion, they had not. The judgement of the King's Bench was right; the appeal failed, and it, therefore, must be dismissed, with costs. The other members of the Court concurred.

A Shooting Affair.

The Lord Chief Justice of Ireland and a special jury have been engaged for several days in trying an action in which £2,000 damages are claimed by a farmer named James Bannon from Dr. Patrick Helion Fox, formerly a Major in the Royal Army Medical Corps. The defendant had already been tried at the assizes, and had been sentenced to a short term of imprisonment for a common assault. It appeared that he had bought a farm adjoining the plaintiff's, and in March last, when putting some cattle upon it, it was alleged that the plaintiff and others assumed a threatening attitude; called him a grabber and an emergency man, shouted and yelled, and generally behaved in such a manner as to alarm him. He warned them to keep off, then fired two shots in the air, and finally fired at the plaintiff, hitting him in the arm, which was subsequently amputated.

The Chief Justice, in charging the jury, referred to the criminal prosecution of the defendant. If he was at all responsible he was responsible for a terrible injury to the plaintiff, and yet the jury brought in the absurd verdict of a common assault. They ought to have acquitted him altogether, or convicted him of having inflicted grievous bodily harm. If now there was to be a verdict for the plaintiff it must be a substantial one. The jury had heard the evidence of the plaintiff, his brothers, and others. They declared that they were as quiet on that day as was their demeanour in court. It was for the jury to say whether they believed them in that.

The jury disagreed, and were discharged.

The Case of Dr. Holmes, late Medical Officer at Limerick Female Prison.

The methods of the Irish Government in dealing with medical officers employed under it are not distinguished by justice or indeed ordinary consideration. It appears that Dr. J. Holmes, F.R.C.S.I., of Limerick, held the appointment of medical officer of the female prison of that city for thirteen consecutive years, and was never absent save when ill, and then always provided a *locum tenens* at his own expense. It is true that the appointment was never officially confirmed as permanent, but still a tenure of thirteen years' unbroken service is practically a permanency. Quite unexpectedly Dr. Holmes received a letter from the Prisons Board in Dublin stating that a successor was appointed, and offering him a month's pay (£5) in lieu of notice. Against this decision Dr. Holmes appealed without success, and we think the sympathy of the medical profession will be with him in the harsh treatment he received. Dr. Holmes could have served thirteen years longer so far as age conditions were concerned and would then have earned a permanent pension. A £5 note and an abrupt termination of service is harsh in the extreme.

Belfast Consumptive Hospital.

The medical report read by Dr. Howard Sinclair to the annual meeting of the Forster Green Consumptive Hospital stated that 193 patients were treated in the hospital and 601 new cases seen in the out-patient department. The medical staff expressed regret that the beds at the low rate are so few in number, and that consequently so many hopeful cases had to be turned away. Only 12 per cent. of the admissions were slightly affected and 31 per cent. moderately affected; the remainder were seriously affected. An appeal is made to all to urge patients to apply early; 46 per cent. were much improved, and 35 improved. Although the Medical Committee do not put down any "cures," certainly many of these would be returned as "cured" in many institutions; many of the patients consider themselves cured. A most interesting and instructive speech was made by Mr. Samuel Young, M.P., in seconding the adoption of the report. Mr. Young has been interested for very many years in the subject of consumption, and no member of the profession could have summed up more clearly or impartially the present position of the war against tubercle and the hope of the future. "About thirty-five years ago," Mr. Young said, in illustration of the infectivity of the disease, a cow died of "lung disease." The milk of this cow was supplied to Mr. Young's family till immediately before its death. Shortly afterwards one of his children was attacked with phthisis and then another. The pestilence continued in his home till it carried off five persons between the ages of 15 and 32. During this time they were in complete ignorance of the precaution of separation and the absolute necessity of fresh air.

Health of Belfast.

The Medical Superintendent Officer of Health reported to the monthly meeting of the City Council on February 1st the notification of 210 cases of zymotic disease, the registration of 1,086 births, and of 766 deaths, 103 being due to zymotic disease, figures that require some explanation; deaths from phthisis numbered exactly 103. The annual death-rate from all causes was 22·2. There were 26 cases of small-pox, with 1 death, that of a man who had never been vaccinated. The insanitary condition of certain areas was reported and recommendations made; this, however, was deferred till a joint report of the City Surveyor and Executive Sanitary Officer had been received.

Hygienic Competition.

The Public Health Committee of Belfast are considering a scheme, which owes its origin to Mr. R. Meyer, chief clerk of the City Council, offering prizes for the best kept and cleanest house, of a weekly rent not exceeding 4s. Three awards would be offered to those competitors who keep their houses, yards, and windows in the cleanest and most sanitary condition from March 1st till December 31st. The winner of the first award would enjoy a year's tenancy free; of the second, half a year's tenancy; and of the third, a quarter's. There must be one family in the house, and the number of occupants not less than five; the house must be open to inspection, except on Sundays, from 8 a.m. to 8 p.m.; a monthly surprise inspection would be made and the report filled up.

Sanatorium for Consumption in Cork.

The monthly meeting of the Hospital Committee which is concerned with all matters connected with the erection of a sanatorium for consumption in the county of Cork was held on February 4th in the county courthouse. A secretary was appointed, and a legal adviser to the Committee. Dr. Cremen and Dr. Donovan, Medical Officer of Health for the city, have been asked to become consulting medical officers to the Committee. The question of a site is at present the all-important point for decision. The cordial thanks of the members were passed to Mr. Barter, St. Anne's, Blansey, for his generous offer of a site or £500 towards the maintenance of a sanatorium for consumption. It was decided that the medical consultants should be asked to meet the legal adviser and Professor Corby, and that a suitable advertisement for a site should be drawn up and inserted.

A Disbeliever in Microbes.

Fortunately for the benefit of his fellow-citizens, Mr. Simon Punch did not receive sufficient support to place him on the Town Council of Cork at the recent municipal elections. Mr. Punch appealed to his constituents mainly on four grounds. First, he claimed to be "a determined opponent of machinery of every class of description used for any purpose whatever." Secondly, he "was never an advocate of public baths, and would recommend their conversion into a municipal free lodging-house." Thirdly, he was opposed to the building of a public abattoir, because it would prevent butchers from "carrying out their business in that privacy which is so essential to its success." Fourthly, he disbelieves in microbes. "I deny," he says, "emphatically the existence of such things as microbes. The people are gulled too long with such rubbish, which was originally invented purely and simply in the interests of doctors, sanitary officers, etc.; and I'll knock all that on the head when I am elected."

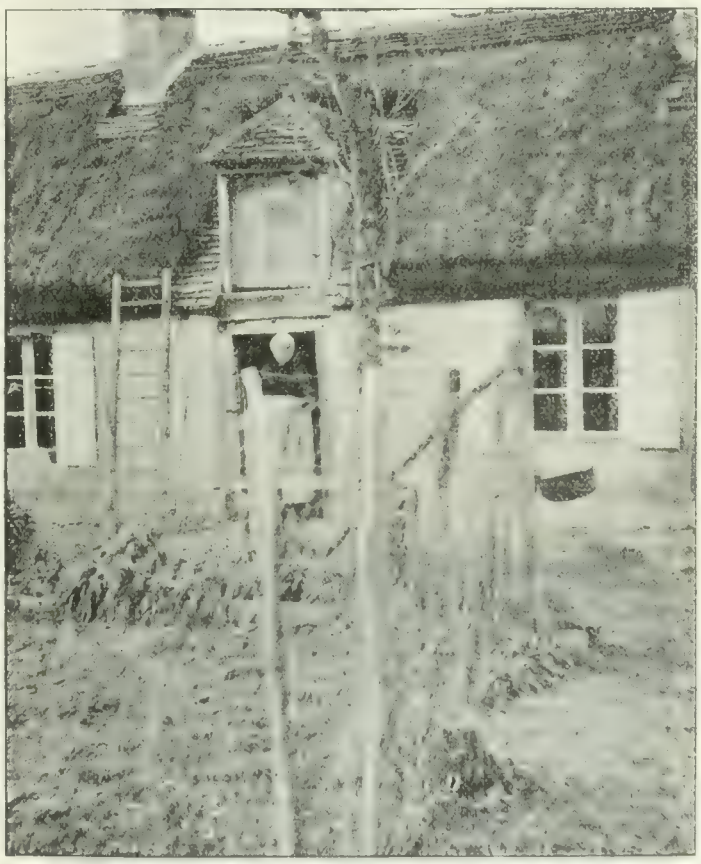
In recognition of his merits in connexion with materia medica the University of Halle-Wittenberg has resolved to confer the degree of M.D. *honoris causa* upon Dr. Willy Merck, a member of the firm of E. Merck, of Darmstadt and Jewry Street, E.C.

A REPORT ON THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

VI.—FRANCE.

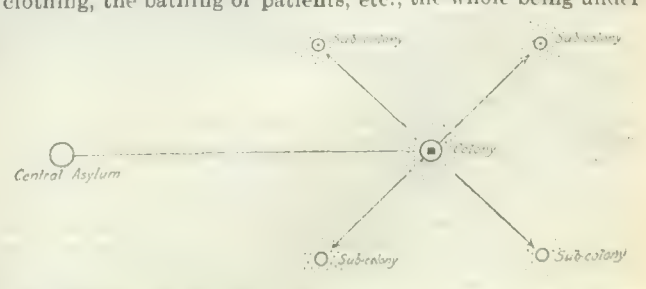
In France, the birthplace of so many illustrious alienists, the treatment of insanity, administrative and therapeutical, has always aroused the keenest interest. In France, too, perhaps more than in any other country, the accumulation of the incurably insane within the utterly inadequate bounds of their asylums has been felt as a burden on the administration and as a hindrance to the effective treatment of acute cases; and although it would be untrue to-day to repeat the pessimistic utterance of Calmeil, "Les murs de l'asile sont déjà à eux seuls le remède contre la folie," too many superintendents of asylums in France, as in England, still feel the force of the statement made in 1837 by Roger du Loiret: "En introduisant au milieu d'une troupe d'aliénés incurables un malade atteint de folie récente ou passagère, vous compromettez la guérison, vous la rendez à jamais impossible, il n'y aura bientôt plus dans l'asile qu'un incurable de plus." It was only natural, then, that many eyes should have been turned to Gheel in the hope of profiting by the experience of the Belgian colony, and it is somewhat remarkable that, although the first administrative organization of Gheel was made under the French prefects of Pontécoulant and Herbouville, the reports of French visitors were all unfavourable to the adoption of the family-colony system. Esquirol, who visited Gheel, described it as a curiosity, and considered it the work of centuries, and as such inimitable, and when, twenty years after the establishment of district asylums, members of learned societies of France visited Gheel, similar impressions were recorded. Not so, however, in the case of the Commissioners from Scotland, and in that of Baron Mundy from Austria; and whilst the French Commissioners—forgetting that Gheel, in its modern practical aspect, dated really from the French occupation in 1860—declared the system impracticable and the work of ages, the Scottish Commissioners resolved to apply the system of family care in their country, with what results we have already seen. It is indisputable that the success of the application of this system in Scotland was largely instrumental in removing doubts from the minds of many alienists in France, and that the formation of the first family colony in France at Dun-sur-Auron is to some extent attributable to the favourable opinion which Dr. Marie, the first Director of the colony and the present Medical Superintendent of the asylum at Villejuif in Paris, derived from his study of the Scottish system.



A Patient's Home in Osmery, near Dun.

Formation of the Colony.

Dr. Marie was nominated by an order of October 5th, 1892, of the Minister of the Interior to undertake the organization of the first colony, and at the end of that year 82 female patients were placed at Dun. Here Dr. Marie had already selected a list of 50 *nourriciers* for the reception of the patients, and had made arrangements for the use of 8 beds in the municipal hospital; and further, in February, 1893, a special agreement was made with the Asile du Cher under which patients who should be found unsuitable for family life might be transferred thither instead of being returned to the Paris asylums. At this time also the first central infirmary, consisting of 30 beds, was constructed. At the outset the system of family care was instituted explicitly for the disencumbrance of the asylums of the Seine Department, and, conformably to the ministerial instructions of Mons. Loubet, the cases selected for transfer to Dun were "aged people certified as insane, but in whom the condition of dementia, incurable but tranquil, and the senile enfeeblement of their faculties hardly justified their detention in an asylum." The earliest cases settled in the colony thus did not correspond to the cases boarded out in Scotland, a large proportion of whom were, and still are, young imbeciles, nor to the *mélange* of acute and chronic cases of all kinds met with in Gheel. In other and important directions also the French system differed from that of Scotland, and to a less extent from that of Gheel. It was felt that the wide dispersion of the patients in Scotland, the absence of local infirmaries, and the committal of patients to the care of medical men who were not specially qualified alienists, were features which it was undesirable to imitate, and the direct admission of some patients to the colony, without previously having been inmates of an asylum, which obtained at Gheel, was rightly considered a possible source of danger. The conception which guided Dr. Marie in the construction of his colony, and which still furnishes the plan of additional groups, was that of placing the incurable and inoffensive elements of the asylums of the Seine Department in a rural and agricultural district removed from Paris, when the patients might be received into the already existent houses of the inhabitants, sufficiently discrete to ensure the incorporation of the patients into the family life, and yet near enough to permit of regular and frequent surveillance. The colony must possess a central infirmary for the observation of patients on reception and treatment of temporary mental exacerbation, serious somatic illnesses, and for the distribution of clothing, the bathing of patients, etc., the whole being under the charge of a medical director. The scheme further provided for the formation of additional subcolonies or groups,



in outlying villages, surrounding the central colony, each of which should possess a small cottage hospital or lazarette for the use of its patients, with communication between it and the central colony, the subcolonies being, according to their size and importance, under the care of a *médecin-adjoint*, a medical assistant, or a *garde*.

The Colony.

Since 1892 the numbers placed under family care have so increased year by year that to-day there are over 1,500 patients, almost entirely from the large asylums of Paris, treated in this way. It is true that this number does not amount to 10 per cent. of the asylum population of the Département de la Seine, the number of whose patients treated in 1903 amounted to 18,323, but the proportion increases yearly, and should shortly relieve the overcrowded asylums of this Department of 15 per cent. of their total population. The numbers in Dun itself have increased since 1892 from 82 to 660. In 1896 the dependent colony at Levet, situated between Dun and Bourges, was opened, and has, under the charge of a medical assistant, 86 patients, of whom 80 live with *nourriciers*, and the remainder, at the time of writing, are in the small hospital of Levet. Between the villages of Bussy, which is connected by telephone with Dun, Osmery, under the charge of a *surveillante*, and Ouronet les Bourdelins, where there is a small infirmary with bathing establishment and reading room, etc., also under the care of a *surveillante*, there are divided 200 patients, whilst at Ainay-le-Chateau, distant some 16 miles from Dun-sur-Auron, a colony for male patients opened still more recently, there were, at the time of our visit, 438. The colonies, moreover, which are rapidly extending, are capable of accommodating at least twice their present numbers, and arrangements are being made for future settlements at Lantan, St. Germain, Blet, Charly, Neroudes, and other villages near Dun.



Pavillon des Gateuses.

The Hospital at Dun.

Dun-sur-Auron, an ancient, picturesque market town, one and a half hour's journey by rail from Bourges, the chief town of the Department of Cher, contains the remnant of a once large porcelain industry, and is surrounded by wide agricultural lands, not over-thickly populated by a farming peasantry, who are sober, industrious, and well-disposed to strangers. The infirmary of the colony, at the west end of the town, is reached from the station or from the principal hotel, the Hôtel Margot, by an avenue of fine elm trees, the Promenade des Ormes, and is not at all imposing in appearance. From the Place Publique, in fact, there is nothing to suggest that it differs from the other houses in the Rue de l'Ermitage, of which it forms part. Here are the residences of the Medical Director, Dr. Truelle, and the *médecin-adjoint*, Dr. Ameline; the bureau, consulting rooms, dispensary, stores, Salle des Réunions for the use of the patients living in the town, and in two long annexed pavilions running at right angles to the front elevation are in the one twelve beds for patients with ordinary intercurrent affections, and in the other sixteen beds for the mental observation of cases of mental relapse. At some distance behind this, separated from the old infirmary by ornamental grounds, is a hospital for feeble, senile patients, who, on account of the difficulty of keeping them clean, have been returned from the families. This was erected in 1899, and is built in the form of a right angle with a kitchen, refectory, consulting-rooms, and day-room at the angle, and in each wing a ward for twenty-four beds. At the end of each wing are bath-rooms, the usual sanitary services, and a room for an attendant. The form of the building facilitates inspection and service, and, as the angle opens to the south, a covered-in glazed verandah has been constructed along the whole length of the building, which constitutes a sunny winter promenade much appreciated by the patients. The whole hospital is clean, airy, and well-lighted, and made a very favourable impression. The hospital is efficiently staffed, and the patients were clean and well-clothed, and had every appearance of being well cared for. At the time of our visit the patient population in the infirmary and the *pavillon des gâteuses* numbered sixty.



Patients' House in Osmery with Surveillante (on left) and Nourricier (on right).

The Homes.

In Dun or its immediate vicinity there are 600 patients, living for the most part in the houses of the town. We encountered many of them in the street, unmistakably demented, but attracting no attention whatever from the ordinary inhabitants. We made a house-to-house visitation, and found them occasionally at work, but for the most part employing themselves in very desultory fashion or at their meals with the family. We examined their bedding and clothing, and spoke with the patients and *nourriciers*. The streets of Dun were not at the time of our visit—January, 1905—particularly clean, but the interiors of the houses were certainly above the average in point of cleanliness and order. The personal clothing and bedding were exceedingly good, and the patients were contented. As a rule there were two patients in each house, and in a smaller number of cases only one patient. Exceptionally more are permitted, but here, as in every other colony, it has been found that this is unsatisfactory for many reasons—that it leads to a division between the patients and the family and is a frequent cause of complaint amongst the *nourriciers* who have the smaller number of patients. Each patient has a book, which is kept by the *nourricier*, in which is inscribed information regarding the patient, the domicile, the payments to the *nourricier*, the visits paid by the medical and lay officers, an inventory of clothing supplied to the patient from the institution, and a copy of the regulations of the colony. These rules prohibit any *nourricier* from having more than one patient without special authorization. The *nourricier* is forbidden to employ any method of coercion or restraint whatever. The rules stipulate that the food supplied to the patient must be the same as that of the family, wholesome and abundant, and that at least $3\frac{1}{2}$ kilograms of bread, 1 litre of wine per week, and four days a week fresh meat, must be supplied independently of other foods. The rules also define the size of the chamber occupied by the patient (at least 20 cubic metres per person); the kind of bed and bedding, which the *nourriciers* supply at their own cost; the dates of renewal, etc. The *nourricier* is also forbidden to receive presents from the patients or their friends, or to convey money to the patients from their family. In all cases the money sent to patients from home must be trans-

mitted through the Director. Any infraction of these rules is punished by removal of the patients, and in the case of abuse of a patient, by trial before the public tribunal. Dr. Truelle was absent at the time of our visit, but Dr. Ameline, the *médecin-adjoint*, kindly gave us every assistance in his power, took us to see the town patients, and drove us to Osmery and Bussy to see the patients there, and we take this opportunity of expressing our obligation to him for the great pains he took to explain the working of the system. Here, as at every other colony, the country houses impressed us more favourably than those in the town, and although the contentment of the patients was equally marked in the town as in the country, the opportunities for pleasant manual work are greater in these small farms and the dwellings, if more primitive, wear a homelier air, and the people strike one as of a heartier and more kindly stock.

Inspection.

Naturally, for the efficient enforcement of these rules, careful inspection is required. At Dun, excluding Levet, there are two medical officers (one *médecin directeur* and one *médecin-adjoint*) and one medical assistant. Unlike Gheel, the frequency of the visits paid by the medical men is not defined, and without doubt the medical supervision of these patients must be a severe tax upon their energies, for so many other factors indispensable for the success of this system must come under consideration regarding the temperament, likings and dislikings of the patients, and equally those of the guardians, that the individual attention required by each case is much greater than in the case of a closed asylum. This fact is dwelt upon by Dr. Truelle in his annual report of 1901, where he deprecates the placing of more patients in Dun, and recommends the formation of small autonomous colonies of not more than 300 patients. The medical men are assisted by the *surveillants des placements*, two in number, for the town of Dun, who make regular and frequent visits.

The Patients.

As we have already said, the first contingent of patients sent to Dun was composed of *vieillards*, quiet senile dements. Dr. Marie, however, relates that, without infringing the ministerial restrictions, he has obtained, little by little, a progressive extension of the categories of patients likely to benefit by family treatment, so that to-day one finds not only senile dements, though these preponderate, but many cases of delusional insanity with delusions of persecution, chronic maniacs, melancholics, and cases of dementia praecox. As the following table, for which we are indebted to Dr. Marie, will show, a striking feature of the patients at Dun is the small number of imbeciles, as compared with the large proportion of cases of this kind boarded out in Scotland.

Forms of Mental Disorder in the Admissions to the Colony of Dun-sur-Auron in 1902.

Mélancholie	8
Manie chronique	2
Délire chronique à évolution systématique	3
Dégénérescence mentale avec délire de persécution ...	27
,, ,, ,, ,, mélancolique ...	6
,, ,, ,, ,, excitation maniaque	2
Débilité mentale	12
,, ,, avec délire de persécution ...	17
,, ,, mélancolique	3
,, ,, avec excitation	8
Folie intermittente	4
Imbécillité	13
Idiotie	1
Hystérie	2
Epilepsie	2
Chorée	3
Démence vésanique	13
Alcoolisme	8
Démence simple (sénile)	12
,, avec mélancolie	12
,, ,, idées de persécution	24
,, ,, agitation	13
,, organique	19
Paralysie générale	13
	227

This table shows that of the admissions for one year, 32 were melancholics, either simple or combined with other forms of mental disorder, and that no less than 69 were the subjects of delusions of persecution. Considering the proneness of melancholics to commit suicide, and the tendency of the victims of delusions of persecution to retaliate upon their imagined assailants, these figures are very remarkable. Dr. Marie, in an interesting paper in *l'Assistance Familiale*,[1] discusses this subject at considerable length, and shows, with regard to the question of suicide, that melancholics may be divided into two classes—one, in which the tendency to suicide depends to a large extent on their recognition of their plight in the struggle for existence or on some domestic blow or loss which they have suffered, the *melancholia a miseria*; and another, in which their fatal tendency is due to persistent delusions, or coenesthetic affections. In the first class there are many who whilst in an asylum remain persistently suicidal, but who on being brought under the pleasant domestic influences of family life cease to make any active attempt on their lives. He relates many interesting cases of patients who have made frequent and determined attempts to end their lives in the asylum, but who have become tranquil and comparatively happy under family care. With regard to the subjects of delusions of persecutions, he recalls Magnan's aphorism: that they first avoid, then defend, and finally attack. This evolution, however, is, Dr. Marie says, not inevitable; a certain number stop at the second stage, to which there succeeds a period of resignation. Many of these cases have been sent to the colony and have done well, and the result of experience has shown, both in regard to suicides and major casualties, that the number of these accidents is much less in the colonies than in closed asylums. We were much surprised, both here and in Belgium, to meet paranoiacs, who had been for years resident in the colony, with stable delusions of persecution which we had no difficulty in eliciting, going quietly about their work. We have discussed this point at some length, because the evolution of this colony, and the gradual extension of the categories of patients considered suitable for family care which has taken place, has successfully demonstrated, in the first place, that this method of treatment is not only a method of disencumbering overcrowded asylums in an economical fashion, but is a valuable therapeutical measure of fairly wide application; and, in the second, that in the selection of a patient for family care it is not so much the form of disease as the kind of individual which has to be considered. The questions of comparative mortality, cost of maintenance, etc., will be more appropriately considered after describing the colony at Ainay-le-Chateau.

Reference.

1 Marie, Dr. A., Note Historique sur la Colonisation Familiale de la Seine, *L'Assistance Familiale*, February, 1903.

THE TEACHING OF HYGIENE IN SCHOOLS.

IX.—Breathing Exercises.

In the last article of this series, incidental reference was made to the importance of breathing exercises for all children, but especially for those in whom, owing to adenoid vegetations or frequent attacks of catarrh, the nasal passages were often more or less completely blocked. Such children, who are usually of low vitality and feeble muscular development, soon abandon the effort to breathe through the nose. The many risks of mouth-breathing are well-known, and respiration can only be properly carried out when the air enters through the nose.

A great deal has been written about breathing exercises, and the discussion has sometimes become rather heated. The truth seems to be that while some have been inclined to depreciate them unduly, others have expected from them results which are really impossible when actual disease, causing permanent nasal obstruction, is present. When this condition of things exists, breathing exercises can have little or no effect on the naso-pharynx, and no scolding and no mechanical appliance can make the child obey Wilhelm Meyer's injunction, "Shut your mouth; keep your mouth shut."

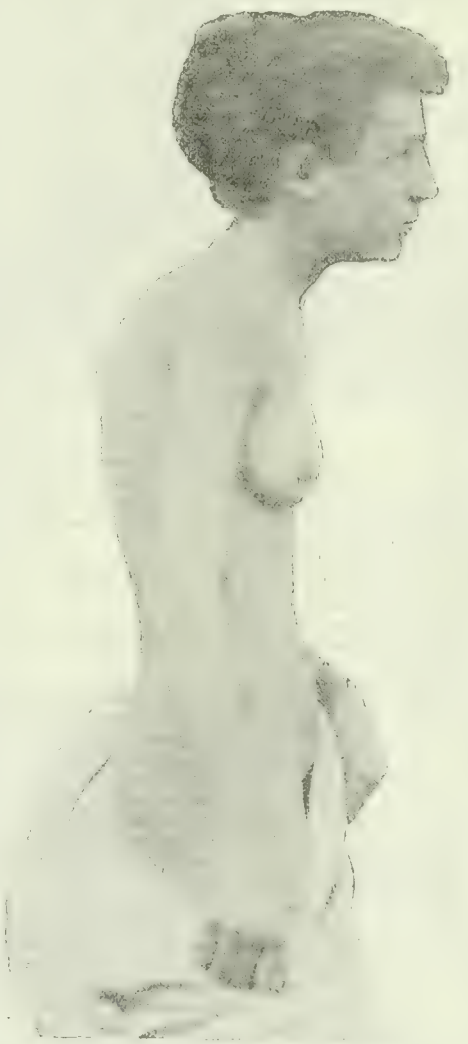
On the other hand, when no complete obstruction exists, when it is partial and, perhaps, occasional only, then breathing exercises may do a great deal of good. Further, after an operation for adenoids they ought undoubtedly to be practised regularly, not only to maintain the patency and encourage the fuller development of the nasal passages, but also to correct the tendency to deformity of the chest which is nearly always to be observed in habitual mouth-breathers.

That organs develop by use is one of those truisms very apt to be forgotten in many instances where it might with advantage be remembered and applied. Everybody recognizes its truth in the case of muscles, but it is true also of every part of the growing organism of the child, and of none more than of the organs of respiration.

The upper jaw enters into the formation of the nose, and the degree of its development, determined in part at least by

the extent to which it is used, influences the capacity of the nasal passages. Dr. Harry Campbell is not tired of asking us to contrast the broad flat palate and well-worn teeth the capacious nasal passages and naso-pharynx of primitive man, with the same parts in the patients who flock to the hospitals, or with the casts of the jaws in a modern dental workshop. The assertion that in these respects modern man shows a great falling off from his ancestors may be admitted, without accepting as a complete explanation the suggestion that it is because our simple ancestors lived on harder food, and, therefore, used their jaws more in mastication. The main function of the nose is respiratory, and if it is not used in breathing the nasal passages will not grow with the growth of the child, and the development of the respiratory system as a whole will suffer. That it does suffer from this cause there can be no manner of doubt. A debilitated child, with low vitality, impaired energy, and lax tissues, will, if nasal obstruction be added to the other defects by which it is handicapped, find it too much trouble to breathe fully. It gives up running or playing games which would compel it to expand its chest; it muddles through its life at a low level of respiratory exchange. The diaphragm is the most powerful muscle of respiration, and in repose it alone is able to produce sufficient aëration to carry on life. Weakly children adapt their activities to this low standard; the other muscles of respiration are seldom called into play and the ribs move but little. The consequences are many and serious; circulation and nutrition suffer, and certain deformities of the chest are produced to which attention will more particularly be directed here. In order that there may be no suspicion that facts are being twisted to fit a theory, the description of the action of the diaphragm, given by Professor Starling in Schäfer's *Textbook of Physiology*, will be quoted:[1]

> In consequence of the attachments of the diaphragm to the six lower ribs, contraction of the diaphragm will tend to pull the ends of the upper three of these downwards and inwards, of the lower three upwards and inwards. Under normal circumstances this tendency is counteracted by the simultaneous expansion of the rib cage effected by the inspiratory muscles, and the fixation of the lower ribs by the serratus posticus inferior, quadratus lumborum, and the lower portions of the sacro-lumbalis. In cases of paralysis of the muscles which receive their innervation from the cord below the origin of the phrenic nerves, and much more frequently in children where the ribs are wanting in rigidity, the contraction of the diaphragm may cause a well-marked depression, running downwards and outwards on each side in front of the chest, corresponding to the costal origins of this muscle. This groove is frequently seen in rickety children, where the softness of the bones has been combined with respiratory troubles.



Fixation of the symmetrical resting posture of the trunk (after a photograph belonging to Mr Arbuthnot Lane, which we owe to the courtesy of the Editor of the *Clinical Journal*).

In a child who, owing to nasal obstruction or mere debility, breathes feebly, the tendency of the diaphragm to pull inwards the lower part of the chest is not counteracted by "the simultaneous expansion of the rib cage" by the upper respiratory muscles; the rib cage moves little if at all, and consequently the chest becomes long, narrow, and flat. Further, the head is bent forward and the upper part of the back is curved outwards, producing what Mr. Lane has called "the symmetrical resting posture of the trunk" often described as dorsal excurvation. If adequate means are not taken to correct this deformity it becomes fixed and the pulmonary aëration is permanently diminished, with the result that the individual constantly suffers from an insufficient supply of oxygen and an inadequate elimination of effete products.

[1] *Textbook of Physiology*, vol. ii, p. 276.

Enough has been said to show the importance of developing the chest by suitable exercises. In breathing exercises it is of fundamental importance to give attention to the position of the shoulder bones. The child should be taught to force the shoulder blades downwards towards the waist and inwards towards each other; in this way the shoulders are braced and a fixed point provided for the action of the upper muscles of respiration, which can then act at an advantage upon the upper part of the chest. In this way the chest is expanded, while at the same time the tendency to rounding of the back is done away with. The child is helped to acquire a good position for breathing by being taught to hold the hands firmly on the hips so as to steady the body and fix the shoulder-blades; this may be done not only when standing, but when sitting. A correct position having been assumed, the child should be taught to take deep breaths through the nose, keeping the shoulders steady and breathing by raising the chest; it may be asked to imagine that a string is attached to the thorax, and that by this the chest is being lifted as high as possible. This mode of breathing should be practised frequently, never for long at a time, and stopped at once if there are signs of giddiness. After some practice it will become a natural habit, and a marked difference will soon be seen in the figure, in the circulation, and in the general health, so that the child will gain strength to resist such diseases as consumption, and will get rid of indigestion and anaemia. A wrong way of breathing leads to the assumption of bad attitudes, and teachers and scholars who have to do much desk work will find that it is in fact much less fatiguing to sit upright than to loll or slouch. A correct mode of breathing and upright attitude at work acquired at school will be of value throughout life in counteracting the dangers attending many sedentary occupations. Shortness of breath in a child should always be heeded; it is usually a sign of insufficient supply of oxygen and an accumulation of carbon dioxide. If a child becomes breathless during physical exercises a few moments' rest should be allowed, but breathing exercises properly taught will do much to prevent its occurrence. If performed between lessons they will be found very efficacious in restoring the energy and attention of children, it being of course understood that the windows are opened and that the air they inhale is fresh. The following breathing exercises will be found valuable:

1. Extend the hands and stretch the arms forward from the shoulders, leaving about a foot between the hands, which should be turned with the palms inwards and fingers stretched out straight. Slowly move the arms backwards as far as they will go, and slowly bring them forwards until they are in the same position as at starting. Repeat this from three to six times.

2. Hold the hands down with the palms against the legs. Raise them with palms inward, and when they are immediately above the head turn the palms outward and slowly bring them down to the sides. Repeat from three to six times.

3. Hold the hands against the thorax with the fingers pointing inwards and touching back to back. Then with a swift movement swing the arms out as far as they will go

with the palms facing outwards. Begin again and repeat half a dozen times.

4. Keep the arms down, the palms touching the sides, slowly turn the palms outwards as far as they will go, and slowly bring them back to the sides. This may be done six or eight times. This exercise, apparently so simple, expands the chest and presses together the shoulder blades.

The report[2] of the Interdepartmental Committee on the model course of physical exercises presented to Parliament last year fully recognized the importance of breathing exercises, and the following passages from the syallabus drawn up by the Committee may be quoted:

The object of such exercises is the healthy functioning of the lungs, not merely increase of chest capacity. The vital measurement is not that of chest capacity simply, but of the difference between the full and the empty chest. Hence breathing exercises—which may, however, be conjoined with the exercises of the upper limbs already referred to—are the more important, and the power of emptying the chest should be cultivated.

The breathing exercises as mere imitative movements may be begun on the child's first admission to school, the formation of habits of correct nasal breathing being a matter of as great importance as any other department of infant school work.

It may be useful to reproduce here the syllabus of breathing exercises recommended by the Committee.

Deep Breathing Exercises.

These exercises are of great value, and should form part of the daily training of every scholar. It is of great importance that the correct method of nasal breathing should be taught from the beginning of school life.

1. *For Infants*, a simple imitative exercise is the most easily acquired.

The infants, standing or sitting, and watching the teacher, place the left hand over the pit of the stomach and breathe in as she does, noticing the hand rise during inhalation. The child then breathes out slowly, the hand at the same time sinking. On each occasion the teacher must watch the class carefully, and note that all the mouths are firmly closed, and that all breathing is through the nostrils only.

This exercise should be repeated about six times at least twice daily.

2. *For Older Pupils.*

The teacher, starting from the position of attention, should see that all the mouths are firmly shut; then on the command *Breathe—In* (slowly given) instruct the pupils to breathe in slowly and deeply through the nostrils only, until the chest is fully expanded; then on the command *Breathe—Out* (slowly given) to breathe out quietly and steadily; this exercise should be repeated about ten times at least twice daily. When the exercise is repeated the commands *In*, *Out* only should be used.

Note.—Care must be taken that during inhalation the head and chest are not thrown too far back, nor the abdomen thrust forward.

When the exercise has been thoroughly acquired, it can be gradually combined with the slow arm movements, which bring into play the auxiliary muscles of respiration.

3. *Combined Breathing and Slow Arm Exercises.*

When a combined movement is used, the caution, *With Deep Breathing*, should always precede the command for the arm movements—for example, *With Deep Breathing, Arms Sideways Raise*. The arm movements employed should follow the rhythm of normal respiration (inhalation, exhalation—pause; inhalation, exhalation—pause), etc, and the breathing act must not be made to follow any artificial or arbitrary rhythm like that of music. It is also impossible that all members of a class should do the movements in absolute unison, for no two persons breathe naturally exactly alike.

The most suitable arm movements to combine with the deep breathing exercises are:

With Deep Breathing—Arms Sideways Raising.

With Deep Breathing, Arms Sideways—Raise (One).—Raise the arms as in 50, and at the same time breathe in slowly through the nostrils until the chest is fully expanded.

Lower (Two).—Breathe out naturally, and at the same time lower the arms to the sides.

(a) This exercise may also be combined with *Heels Raising*, the commands being *With Deep Breathing, Arms Sideways Raising, Heels and Arms—Raise (One); Lower (Two)*.

With Deep Breathing—Arms Sideways and Upward Raising.

(To be done as a continuous movement.)

With Deep Breathing, Arms Sideways and Upward—Raise (One).—Raise the arms as in 53, and at the same time breathe in slowly through the nostrils until the chest is fully expanded.

Lower (Two).—Breathe out naturally, and at the same time lower the arms sideways and downward.

(a) This exercise may also be combined with *Heels Raising*, the commands being *With Deep Breathing, Arms Sideways and Upward, Heels and Arms—Raise (One); Lower (Two)*.

With Deep Breathing—Arms Circling.

With Deep Breathing, Arms Circling—Raise (One).—Raise the arms as in 52, and, at the same time, breathe in slowly through the nostrils until the chest is fully expanded.

Lower (Two).—Breathe out naturally, and at the same time lower the arms to the sides as in 54.

(a) This exercise may also be combined with *Heels Raising*, the commands being *With Deep Breathing, Arms Circling, Heels and Arms—Raise (One); Lower (Two)*.

N.B. Breathing Exercises should always be taken at the end of a physical training lesson, in order to prepare for rest, and also to aid in the elimination of the carbonic acid accumulated by the repeated contractions of the muscles during the lesson. They may also with advantage be taken in the course of physical training lessons or other school work.

The following are the Exercises 50, 52, 53, 54 referred to above:

50.—*Arms Sideways Raising.*

Arms Sideways—Raise (One).—Raise the arms sideways in line with the shoulders, fingers extended, and palms downward.

Downward—Lower (Two).—Lower the arms to the sides.

(a) Heels Raising at *One* and *Lowering* at *Two* may be added later, the commands then being *With Heels Raising, Arms Sideways—Raise; Downward—Lower*.

52.—*Arms Forward and Upward Raising.*

Arms Forward and Upward—Raise (One).—Raise the arms forward and continue the movement upward till the arms are in the *Upward Stretch* position.

Forward and Downward—Lower (Two).—Lower the arms forward and downward to the sides, keeping the arms parallel and the palms inward.

53.—*Arms Sideways and Upward Raising.*

Arms Sideways—Raise (One).—As in 50.

Upward—Raise (Two).—Keeping the arms straight and well back, turn the palms smartly upward and immediately raise the arms until they are vertical above the shoulders.

Sideways—Lower (Three).—Lower the arms sideways to the level of the shoulders, keeping the palms upward and arms well drawn back.

Downward—Lower (Four).—Turn the palms smartly downward and lower the arms to the sides.

After some practice the *Sideways and Upward Raising* should be done in one continuous movement on the command *Arms Sideways and Upward—Raise (One)* the palms being turned upward on passing the level of the shoulder. On the command *Sideways and Downward—Lower (Two)* the arms should be brought to the position of *Attention* by reversing the movement.

(a) Heels Raising at *One* and *Lowering* at *Two* may be added later, the commands then being *With Heels Raising, Arms Sideways and Upward—Raise; Sideways and Downward—Lower*.

54.—*Arms Circling.*

Arms Forward and Upward—Raise (One).—Raise the arms slowly forward and upward as in 52.

Sideways and Downward—Lower (Two).—Keeping the arms well back, lower them sideways and downward as in 53.

(a) Heels Raising at *One* and *Lowering* at *Two* may be added later, the commands then being *With Heels Raising, Arms Forward and Upward—Raise; Sideways and Downward—Lower*.

[2] London: Wyman and Sons; Edinburgh: Oliver and Boyd; and Dublin: E. Ponsonby. 1904. [Bd. 2032]. 6d. The report was noticed in the British Medical Journal, April 30th, 1904, p. 1026.

SYPHILIS AND INSANITY.

A Correction.

In the article on the Prevalence and Prevention of Syphilis, published in the British Medical Journal of January 14th, 1905, page 97, it was stated that Dr. Mott, when questioned as to the relation of syphilis in insanity, said that syphilis was the cause in between 25 and 45 per cent. of the men admitted. As this may give an erroneous impression of the view expressed by Dr. Mott, we quote the question and answer from the *Minutes of Evidence*:

10,479. You trace syphilis as one of the causes of most of the organic diseases of the nervous system?—I would not say most, but I find in a great many of the cases of men between 25 and 45 coming into the hospitals, syphilis is the cause.

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	30	18	6
Dr. L. H. Viellett	0	10	0
Dr. W. C. Humphreys	1	1	0
Dr. Hastings Torney...	0	10	6
Dr. T. D. Griffiths	2	2	0
Dr. Evan Jones	0	10	6
Dr. J. D. M.	0	10	6
Dr. J. Michell Clarke	1	1	0

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

CONFERENCE ON SCHOOL HYGIENE.

Inaugural Meeting.

The Conference of School Hygiene organized by the Royal Sanitary Institute, with the object of maintaining interest and paving the way for the International Congress which is to be held in London in 1907, was opened on Tuesday evening, February 7th, in the great hall of the University of London. After the reception of delegates the Duke of Northumberland, as President of the Royal Sanitary Institute, installed Sir Arthur W. Rücker, Principal of the University of London, as President of the Conference.

Sir Arthur Rücker, in delivering his opening address on the co-ordination of the teaching of hygiene, said that amid the welter of conflicting opinions with regard to education, hygiene was steadily making its way to a position of great importance. He believed that the claim of hygiene to form a part of elementary school education was being widely recognized, but pointed to a curious difference between the official theory of the Board of Education as to what was desirable in elementary schools and the practice followed in the education of the richer classes. He believed that the study of the elements of science, including hygiene, should be carried on side by side with the study of language and arithmetic from a very early age. He expressed approval of the Government regulations for training teachers in hygiene, and said that the magnificent gift of the Goldsmiths' Company to the University of London would be utilized in part for the training of teachers for elementary schools, and in the scheme of education to be adopted hygiene would form an essential feature. The University would insist that the elements of education should include not merely the study of other forms of living, but some knowledge of the dangers by which mankind was surrounded and of the means to keep them at bay. It would require that those to whom young lives were entrusted should learn as part of their business the main outlines of hygiene.

On the motion of the Bishop of Wakefield, seconded by Sir Aston Webb, thanks were voted to the President; and on the motion of Sir William Church, seconded by Mr. W. Whitaker, Chairman of the Conference Committee, a similar compliment was paid to the Duke of Northumberland.

Physical and Mental Development during School Life.

On Wednesday morning the Conference met under the presidency of Sir Lauder Brunton, and a discussion on physical and mental development during school life was opened by Miss A. J. Cooper (Oxford), who said that a body of ordered knowledge on the hygiene of education existed in the works of specialists, and that it should be the task of the Conference to make it available for all engaged in school work. After some remarks from Sir John Cockburn on the importance of the cultivation of character, and from Mr. Eugene Sully on the value of gymnastics as a training, Mr. J. G. Legge, H.M. Inspector of Industrial and Reformatory Schools, said that to worry a child too much about thinking while it was at drill or at exercise was as wrong as not to make it think at all. Drill and exercise should be recreative, and he considered that it was a mistake to condemn music all together. It should be used for certain concerted movements, particularly running or club exercises. Part of the value of well-designed exercises lay in the rhythmic, graceful and therefore easy movements they encouraged, and music was the audible expression of rhythm. Miss Macmillan dwelt on the nervous system and brain of children, and condemned over-strain through long hours of sitting and over-exercising of the small muscles before perfect control was gained over the large. Dr. Clement Dukes dwelt on the importance of sleep, and presented a table of the hours of work and sleep adapted to the various ages of children. Mr. Arthur Acland referred to the need for specially-trained teachers in physical exercises, and expressed the hope that men from the universities would take up the scientific teaching of physical exercises as their career. He also condemned the multiplication of examinations, and said that if he could succeed in striking out examinations he would have done more for education than he had ever done in his life before. Mrs. Woodhouse advocated the necessity for adapting the mental work of pupils to their physical endurance, so as to prevent failure and disappointment to those who are physically less fit than the majority. Dr. Collier, President of the British Medical Association, said there must clearly be some cause at work within the last hundred years tending to produce eye defects. In 1812 Mr. Warre, a distinguished oculist, communicated to the Royal Society the results of some investigations he had made with reference to the sights of different classes of people. Among the poor he argued that short sight was almost unknown. During twenty years, where records had been kept among 10,000 soldiers, not half-a-dozen had been discharged for defective vision, and not half-a-dozen recruits had been rejected on account of it. At the Military School at Chelsea, among 1,300 children, only three were found to be suffering from short sight. Dr. Acland considered the hours of rest in schools far too short. In children aged from 13 to 16 not less than nine and a-half to ten hours' sleep in winter and nine to nine and a-half in summer were essential.

At the conclusion of the meeting a resolution was adopted asking the Council of the Sanitary Institute to bring the following propositions to the notice of education authorities:

(*a*) That for younger scholars, at all events, there should be no home lessons after school hours.

(*b*) That the periods for school lessons should be short (twenty to fifty minutes), and that there should be increasing intervals of not less than five minutes between successive lessons, for recreation, taken if possible in the open air.

(*c*) That suitable breathing exercises should be practised at least once during each school session, in the open air or in well-ventilated rooms.

(*d*) That organized drill should be regularly practised by the pupils in every school.

(*e*) That the acquisition of swimming should be encouraged in every school, and should be taught to the pupils wherever practicable.

(*f*) That an efficient system of fire drill should be compulsory in every school (and in each "house" of boarding schools conducted on the house system), and should be practised at least three times in the course of each school term.

(*g*) That in the opinion of this meeting of the Conference on School Hygiene ample hours of sleep, according to age, are essential to the wellbeing of growing boys.

Physical Inspection of School Children.

At the afternoon meeting Lord Reay presided. He considered that it was the duty of school authorities to watch over the physical development of children, and in order to do this efficiently it was necessary to take the parents of the children into their counsel. At Chicago, in the Kindergarten College, there is a mothers' department, where mothers are trained as well as the teachers, and for those who live at a distance there are correspondence classes. In Philadelphia a register is kept of every child with peculiarities and defects, so that when a child passes into the next standard the record is followed up by the teacher, who knows at once how to deal with the child. Lord Reay urged that as much latitude as possible should be given to the teachers, so that they should be able to impress their own individuality and personality on the children. The training of the teacher was therefore of the utmost importance.

Dr. A. K. Chalmers said that while the primary object of physical inspection was to discover the fitness or unfitness of the child for school life, and to devise means for lessening unfitness, its importance did not end there, for the child physically unfit for elementary education would be unfit also for industrial education. He gave statistics of the physical condition of school children according to the economic position of the family, and drew the following conclusions:

1. That in all communities a section of the population fails to participate in the hygienic advance of recent years, and that associated therewith there is much impaired health and defective physique, which means industrial inefficiency.

2. That the limited measurements of school children, presently available, appear to indicate:

(*a*) That their physical development is related to an economic standard of the family life, which may readily be expressed.

(*b*) That their nutrition is similarly graded, and

(*c*) That their mental efficiency, as estimated by the masters, falls into line with both.

3. That this lowering of the mental and physical condition of childhood tends to the production of inefficiency in the adult, from which again the vicious cycle is begun.

4. That much educational energy is meanwhile misspent in endeavouring to educate children who are physically unfit, as evidenced by the small proportion of underfed children who reach a reasonable standard of proficiency, according to the masters' estimate.

5. That in order to assist in preventing the production of industrial inefficients, food, and by implication the organized feeding of school children, in certain districts is essential.

6. That the most reliable way of ascertaining the distribution of underfed children is by a systematic inspection of schools in some such manner as has been described.

Dr. Kerr said that the question of nutrition went far back into the life-history of a child; it was not merely a question of feeding. Overcrowding was an important factor. A child living in a one-roomed tenement might, by good food, be fattened and rendered big and heavy, but good educational results would not be obtained. With regard to infectious diseases, he said that all were agreed that the system of school closure had failed—medical inspection was required and careful training in hygiene of the school teacher, who would be a valuable coadjutor to the school doctor. Dr. Newsholme considered that nurses should be employed to make preliminary inquiries, and that the doctor's province was in organizing and supervising. Dr. Lutoslawski said that at the Warsaw Hygienic Institute for Children there was a staff of physicians and trained nurses who gave to the children every day a glass of milk, a bath, and one hour's physical exercises; they also gave medical advice to the children and parents. The chief aim was to encourage cleanliness, but the milk proved a great attraction. Medical inspection in Russia was quite nominal. In Poland youths formed groups to ask the medical officers to examine them and give them advice. The initiative of the youths was very striking. In Russia it would be considered high treason, but in England it would be well to interest the children themselves, as they could influence their parents. Dr. Hayward said that as a local practitioner he had undertaken to inspect elementary schools at Wimbledon, and had a staff of nurses working under him. It was essential to interest teachers in the health of the children in their classes. They should be encouraged to record freely their observations on the physical condition of the children in a book kept for the purpose. A nurse should visit each school once a week, and money was needed to send children to convalescent homes, to provide spectacles, and so on; it might be got in one of two ways: from State or private aid.

Lord Reay briefly summed up the discussion, and put the following resolutions, which were unanimously adopted:

That H.M. Inspectors of Schools should be qualified in hygiene and sanitation, and familiar with the development of child life. This meeting, therefore, urges the Council of the Royal Sanitary Institute to memorialize the Board of Education to protect health in school life by appointing at least some men and women inspectors who are specialists in school hygiene.

That the Council of the Royal Sanitary Institute be asked to direct the attention of the Board of Education to the results of an inquiry made in both urban and rural schools, among inspectors and teachers, which indicates the great importance of appointing suitable and properly qualified *women* inspectors for infants' and girls' schools of all grades, for pupil teachers' centres, and for training colleges; also that the inspection of domestic subjects should be entrusted to women.

That having regard to the greater risk of susceptibility to infectious diseases amongst young children, no child should be permitted to begin formal instruction in school classes under the age of six years.

That it is the opinion of this meeting that there should be regular and systematic medical inspection of children in schools of all grades, and it requests that the Council of the Royal Sanitary Institute will bring this important matter before the educational authorities of the country.

SPECIAL CORRESPONDENCE.

MANCHESTER.

The City Council and the Infirmary Site.—The Hospital for Skin Disease.—Physical Exercise in Schools.—Proposed New Ear Hospital.—Bequests to Medical Charities.—Manchester Aberdeen University Club Dinner.

The Special Infirmary Committee of the City Council has communicated the following resolution to the Board of Management of the Royal Infirmary:

That as the Corporation find it necessary to consider the arrangements to be made by them for building upon the site of the Royal Infirmary, a communication be forwarded to the Board of the Royal Infirmary by the Town Clerk, under the direction of the Chairman and the Deputy-Chairman, calling the attention of the Infirmary authorities to the provision in the Manchester Corporation Act, 1903, whereby the period of three years named will expire in August, 1906, and stating that it therefore devolves upon them to make ready for the accommodation of 300 patients and the necessary medical, nursing, and administrative staffs, and that the Corporation will be glad to hear at an early date what steps the Infirmary Board are taking in the matter.

It was agreed to leave the matter in the hands of the Chairman of the Board and the Chairman of the Building Committee. The architects are of opinion that no time will be saved by building a portion and not the whole of the hospital. It does not appear that the infirmary authorities are bound to give possession within three years, as an Act of Parliament states that "the authorities are to retain possession" until the expiration of three years after the passing of the Act, or until such later time as the proposed new hospital or hospitals . . . shall be ready for the accommodation of 300 patients and the necessary medical, nursing, and administrative staffs."

From the annual report of the Manchester and Salford Hospital for Skin Diseases, which has just been issued, we learn that the attendances of patients were 57,159. Of these 22,665 were in connexion with "light" treatment, and the results have been highly satisfactory, 86 patients having been discharged healed during the year, many of which were severe and obstinate cases. The *x* rays, the Finsen, and the Finsen-Reyn lamps "have been chiefly in demand, while radium, of which twelve months ago we had great expectations, has been of comparatively little use for our class of cases."

Since 1900 the Macclesfield and District Patriotic Association has been physically training about 4,000 of the children in the elementary schools. The funds came from voluntary contributors. The Association applied for a grant from the County Education Committee of Cheshire, but it appears it has no power to make a grant to the Association. The county authority will, however, in future provide for the instruction of teachers in physical exercises and the inspection of schools to see that the work is carried out. This is a move in the right direction.

In consequence of the increase in the number of patients the Manchester Ear Hospital contemplate erecting a new hospital, and it has been suggested that Oxford Road would be a suitable site, possibly near the new infirmary. A conference between the infirmary authorities and that of the ear hospital has been arranged.

The late Mr. Abraham Crompton, J.P., a former Mayor of Oldham, has made the following bequests: Oldham Infirmary, £5,000; Oldham Lyceum, £2,000; Home Teaching Society for the Blind, £250; Workshop for the Blind, £250; Oldham Deaf and Dumb Society, £250; Oldham Mission, £250. All free from death duties.

The annual dinner of the Manchester Aberdeen University Club was held in Manchester on January 27th. The chief guest was Sir William Sinclair, the founder of the club. The Chairman, Dr. J. Scott, expressed the gratification of the club at the honour conferred on their guest. Sir William, in reply, referred to Professor Alexander Bain and Sir John Struthers as the two most inspiring influences that had influenced his college career, while he attributed the success of Aberdeen University to the fact that it could draw upon such intellectual material as was provided for it by the hard-headed population of the north-east of Scotland.

LIVERPOOL.

The Liverpool Guardians and Sanatorium Treatment.—The Infirmary for Children.—Liverpool School of Tropical Medicine.

At the last meeting of the Liverpool Select Vestry, Mr. Horrigan, one of the members, said, referring to the Heswall Poor-law Sanatorium, that the laudable attempt of the guardians to cure tuberculosis among the poor by the sanatorium treatment was a dismal failure. At the outset he was a warm advocate for the scheme to give the poor the benefit of a treatment formerly open only to the rich, but after two years' experience his opinion had changed. Liverpool had ten beds in the hospital, and if they were occupied all the year round the cost would be £3 a week for each patient, or £1,560 a year. Dr. Nevins's fearless report showed that in the two years' work of the hospital 38 Liverpool patients had been discharged. Of these 3 only were known to have had disease arrested. Of the rest 9 had died, 16 had been readmitted to the infirmary, 2 were in failing health outside, and 8 had not reported. They could not get cases in the curable stage to submit to the treatment, and if they did, any improvement would be undone by the sufferers having to return to the poverty and squalor from which they had come. The other speeches showed that there was a difference of opinion among the members as to whether it was worth while continuing to send patients to the sanatorium, but the opinion

embodied in the report of the hospital was not disputed, namely, that the cost was high and the results disappointing. One of the difficulties in inducing sufferers in the early stage of phthisis to enter the sanatorium is due to the fact that they have to qualify by entering the workhouse as paupers, which the more respectable poor are unwilling to do so long as they are able to earn a mere pittance. The Toxteth guardians, as announced last week in the BRITISH MEDICAL JOURNAL, have agreed to admit cases direct from their homes without passing through the workhouse. It is to be hoped that the other unions will see their way to adopt this plan before abandoning the treatment altogether. The other difficulty is not so easy to surmount. It might, however, be possible to form tuberculous colonies in the country which would be at least partly self-supporting.

The Lord Mayor presided over the annual meeting of the Liverpool Infirmary for Children. The report showed a considerable falling-off in the in-patients owing to the closure of the old building and removal to inadequate premises. There is also a small reduction in the attendance of out-patients, which may be due to the migration of the working classes to the outskirts. The sum of £19,000 is still required for the building fund.

A telegram has been received from Paris from the Chairman of the Liverpool School of Tropical Medicine (Sir Alfred Jones), in which he states that he has had an interview with the French Colonial Secretary and those responsible for the administration of the French Colonies, and has called their attention to the work that the Liverpool School of Tropical Medicine is doing. Sir Alfred Jones states that the authorities in Paris appreciate very much the operations of the School, and have expressed their willingness to assist by every means in their power. The School has already sent an expedition to French Senegambia, and the latest expedition spent a short time at Conakry.

NEWCASTLE-UPON-TYNE.

German versus Greek.—Banquet of Past and Present Students.—New Infirmary: Progress of Buildings.—Royal Infirmary, Annual Court of Governors.—Caisson Disease.—Royal Sanitary Institute Provincial Sessional Meeting.

FOR years past urgent representations have been made to the authorities of the University of Durham in the hope of securing a concession as regards compulsory Greek in the educational examinations preparatory to degrees in medicine and surgery. It will come as welcome news to many that the Senate of the University has decided to accept German as an alternative for Greek in these examinations. As the arrangements at present in force will continue for another year the concession will not become actual until September, 1906.

The banquet of the past and present students of the College of Medicine this year was characterized by a few innovations, in regard to which opinions are divided. The dinner was held on Friday evening, February 3rd, in the spacious Examination Hall of the College of Medicine, and was attended by 204 gentlemen. The chair was occupied by a well-known and much-respected general practitioner—Dr. R. S. Peart, of North Shields—one of the oldest students of the College; while the vice-chair was occupied by Mr. J. C. Pearce, President of the Students' Representative Council, and many old friends, some of whom had come a considerable distance, met. The Chairman was supported by Lord Armstrong, the Mayor and the Sheriff of Newcastle-upon-Tyne, Sir Isambard Owen, Mr. Edmund Owen, Sir Walter Plummer, M.P., Sir G. H. Philipson, Mr. H. T. Herring, F.R.C.S., Dr. Outterson Wood, the Professors and Lecturers of the College of Medicine, and the honorary staff of the Royal Infirmary. The following toasts were submitted, some of which were more than heartily received, while all were fittingly responded to. "The King," by the Chairman; "The Corporation of Newcastle," proposed by Professor Page, and responded to by the Mayor and also by the Sheriff of Newcastle. The toast of "Our Guests" was entrusted to Dr. S. Fielden, and was acknowledged in felicitous terms by Sir Isambard Owen and Mr. Edmund Owen. Dr. Cromie of Blyth, in a very happy speech, proposed "The University of Durham and College of Medicine," to which the President of the College of Medicine (Sir G. H. Philipson) responded. "The Royal Infirmary" was proposed by Mr. H. T. Herring, and acknowledged by Lord Armstrong. "The Health of the Chairman" was proposed by Professor G. R. Murray. Songs were rendered during the evening by Mr. T. Dunn, Clerk to the College of Medicine, and by Dr. de Lacy. The dinner was admittedly a great success.

While the Building Committee complains in the annual report of the slow progress of the new infirmary, there has yet been considerable advance made during the last few months. The pavilions are now all roofed in. The central or administrative block is an extremely handsome building. It is hoped that the infirmary will be completed by next year and that Royalty will be present at the opening. The Nurses' Home will probably be ready for occupation this spring.

At the Annual Court of Governors of the Royal Infirmary on February 2nd, the Mayor of Newcastle in the chair, the Right Hon. Viscount Ridley was appointed a Vice-President of the institution. It is pleasing to know that for more than a century and a half the Ridley family has been connected with this infirmary and other medical institutions of Newcastle-upon-Tyne. The expenditure of the Royal Infirmary for last year was fully £5,000 in excess of income, notwithstanding all efforts to be economical. The income for the year was a little over £13,000, and to this the working men of the district contributed £4 762. In 1904 the number of in-patients treated was 4,542, out-patients numbered 36,606, and casuals 14,566.

During the last two years 12 patients suffering from caisson disease have been admitted into the Royal Infirmary. Although in some of the patients the symptoms were severe there have been no deaths. One man who is still in the infirmary has been paraplegic for the last four months, and is suffering in addition from pyelocystitis. As the foundations of the New High Level Bridge, which is to span the Tyne, are now completed, all caisson work has ceased. For the present, therefore, no more patients suffering from this disease are likely to be admitted into the Infirmary. Since reference has been made to the New High Level Railway Bridge allusion may also be made to the considerable encroachment that has taken place upon the garden of the Royal Infirmary in consequence of the North-Eastern Railway extensions. Already the airing ground is very much curtailed so that patients who are allowed out of doors in fine weather can no longer take the lengthened strolls of their predecessors.

The Royal Sanitary Institute is arranging to hold a sessional meeting in Newcastle in the first week of March when important matters will be submitted for discussion.

SOUTH WALES.

Infectious Diseases.—Inspection of Schools.—School of Hygiene.—Water of the Wye.

A LARGE number of persons are still suffering from influenza and pneumonia. Diphtheria is prevalent in a few districts in Glamorgan, and so is whooping-cough. Twenty-six cases of scarlet fever were notified from Aberdare during the week ended February 4th. The county of Glamorgan is particularly free, and has been for some time, from enteric fever. No cases of small-pox has been notified for some weeks.

On January 31st Sir J. E. Gorst, M.P., visited the Intermediate Schools and St. Woollos Schools, Newport; he was accompanied by Miss E. P. Hughes, late Principal of Girton College, Cambridge, and member of the Glamorgan Education Committee. At the Intermediate Schools for Girls Sir John addressed the students, and laid great stress on the importance of study of the rules of health, as the health of the nation largely depended on the health of the women of the nation. At the St. Woollos Schools Sir John expressed himself well pleased with the structure of the building, the bright and happy appearance of the children, and the intelligent interest they displayed in their work. In the boys' department some of the scholars were put through physical drill.

The course of lectures to teachers at the University College, Cardiff, is well attended, and there were present last Saturday some one hundred teachers. Great interest is taken in this important subject, and teachers greatly appreciate the efforts of the College authorities and the county councils of Cardiff and Glamorgan in so promptly establishing a course of lectures in school hygiene.

Considerable indignation has been roused at the action contemplated by the Board of Conservators of the Wye in entering into an agreement with the Birmingham Corporation to abstract from the Wye some seven million gallons of water a day. At the quarterly meeting of the Breconshire County Council it was resolved to petition against the Birmingham Water Bill on the grounds that it would affect the rateable value of the county, and that the reduction of the compensation water proposed to be abstracted would deleteriously affect the rivers.

CORRESPONDENCE.

THE TEACHING OF HYGIENE IN SCHOOLS.

Sir,—In the able article on Adenoid Growths and Deafness, published in the British Medical Journal of February 4th, the writer observes that "the causes of adenoid vegetations do not seem to be definitely known," though he admits the force of the theory "that repeated attacks of post-nasal catarrh are among the chief causes of the disorder." I have in more than one place stated my conviction, and I trust you will allow me to repeat it here, that the disease in question arises from a faulty system of dieting, which leads to a highly septic state of the digestive tract. This begets toxaemia, and the tissues, being thus chronically saturated with poisons, display a morbid tendency to inflame. Especially is this the case with the mucous membranes: rhinitis, retro-nasal pharyngitis, bronchitis, are readily contracted. On the other hand, a child who properly digests his food seldom, if ever, suffers in this way.

Improper feeding may thus promote adenoids by predisposing to inflammation of the nasal and retro-nasal mucous membrane. There is another way in which it may help to cause the disease: the great error in the modern system of feeding children—one which is responsible for an untold amount of suffering—is the giving of most of the food in a form which does not necessitate adequate use of the jaws and teeth. In consequence of this, not only the jaws but the nasal apparatus and the naso-pharynx fail to attain their normal dimensions, and the latter chambers are on this account predisposed to disease. Further, with insufficient mastication the flow of blood and lymph in the mucous membrane lining these chambers is not adequately stimulated, and hence tends to be sluggish and the membrane itself liable to disease. It does not seem to be fully realized how close is the relation of the pterygoid muscles to the naso-pharynx, and how vigorously their rhythmic contraction stimulates the flow of blood and lymph in the neighbouring structures.

Given, then, diminutive nasal and naso-pharyngeal cavities, through whose lining membrane there chronically flows a sluggish stream of poisoned blood and lymph—given these conditions, is there any wonder that adenoid disease should occur?

I am convinced that by properly regulating the diet of children we have it in our power to render both this disease and dental caries as rare as they are now unfortunately common.—I am, etc.,

London, W., Feb. 5th. Harry Campbell.

INSANITY AND MURDER.

Sir,—It is pleasant to know that the writer of your article takes my opposition in good part. We differ so widely in fundamental principles, as well as in the meanings that we respectively attach to words, that I fear we are doomed to differ perpetually. He says the doctrine that a person may be insane and yet responsible is not established; but then, by "responsibility" he means "a state or condition which is the result of certain processes," while by the same term I mean "rightly punishable." He says that the presumption of law, that an accused person is sane until he is proved insane, begs the question of his sanity; and he wishes the presumption reversed, and the accused presumed insane until his sanity is proved. I should have thought that if the one presumption begs the question, so does the other. He asks if it is "too much to maintain that the fact of the insanity should have been stated before the proceedings commenced." I think it is too much. The "fact" of the insanity is precisely what the jury has to determine. It is alleged as early in the proceedings as is convenient or useful. If it is stated before the proceedings commence, to whom is it to be stated? To the jury? The jury is not yet empannelled. To the judge? The judge knows from the depositions that the "fact," which is not yet a proved fact, but a plea, will be pleaded in due course.

The gravamen of the complaint of my friendly antagonist is "that in only some cases, and not in all, was a medical examination made by independent experts in murder trials before the prisoner was allowed to plead, and Dr. Mercier is quite wrong in stating that the inquiry is made before the trial. The actual fact is that *only if the case appears to present any particular difficulty* is a mental specialist sent by the Crown authorities." Sir, your spokesman should have verified his authority before accusing me of a misstatement of fact. I did not say that inquiry is made in all cases. My words were: "In most cases the inquiry *is* made before the trial;" and I now give chapter and verse for my statement. It is well that your leader-writer has given me the opportunity, for, in maintaining my own accuracy, I am able to demonstrate what is much more important,—the fairness and justice and consideration that are shown towards the prisoner, from the beginning to the end of the proceedings. In 1884 the Home Office complained that it "had found great difficulty in dealing with cases of alleged insanity, in consequence of the facts not being brought before the jury, and being only suggested after the trial." On receiving this complaint, the then Attorney-General, Sir Henry James, now Lord James of Hereford, determined "to take steps to ensure that all evidence bearing on the case, whether tending to prove the guilt or innocence of the prisoner, should be placed before the jury;" and, with this object, he gave to the Director of Public Prosecutions certain instructions which are still in force. These instructions provide, not only that in every capital case, the evidence, whether tending to prove the guilt or innocence of the prisoner, shall be fully brought before the jury, but that "in those cases where insanity in the accused is alleged, full inquiry shall be made, and in the absence of his or his friends' ability to produce witnesses, the Treasury Soliciter shall secure their attendance." In practice, the inquiry is not limited to capital cases, but is extended to all cases in which insanity in the accused is alleged. Nothing in these instructions warrants the statement, italicized by your spokesman, that inquiry is to be held "only if the case appears to present any particular difficulty," nor is the inquiry limited even to those which present general difficulty. It is held in all cases in which insanity in the accused is alleged. If your leader-writer has knowledge of any case in which these instructions have been violated or neglected, he has only to bring it to the knowledge of the Attorney-General, and the matter will be put right. It is not the case that "if the prisoner is in poor financial position it may be impossible to procure expert evidence at the trial." It is not I who have made a misstatement of fact.

I find myself unable to identify "the principle for which we are contending" or to be certain to which of several reforms your spokesman pins his faith. Is it the abolition of public trial by jury, and the substitution of private trial by medical experts? Or is it the addition of medical assessors to the Bench? Or is it the abolition of examination after conviction? Or any two of these three? Or all? Well, Sir, it is possible that private trial by medical experts would secure greater "promptness, economy and certitude" than the present system, though as, under this system, medical men are partisan witnesses; the evidence in favour of the accused is found for him by the Crown if he cannot produce it himself; and justice is satisfied; it does not appear certain that these consequences would be ensured. If the insanity of the prisoner is to be determined before trial, and he is to come into court as an insane person, so stigmatized by medical experts, are these experts then to take their seats upon the Bench, and try an issue that they have already predetermined? If medical experts are partisan witnesses in the box, would it be seemly to elevate them to the Bench? At any rate, the "farce" of examination after trial must be abolished. On that, your spokesman is emphatic. Then if, after conviction and sentence, the prisoner shows signs of insanity which had not been apparent before, must he still be hanged? No doubt it is within the competence of His Majesty, by and with the advice of the Lords Spiritual, the Lords Temporal, and the Commons House of Parliament, to renounce and surrender his prerogative of mercy; and if anything could persuade him to do so, it would be the advocacy of the British Medical Journal; but even your persuasiveness would scarcely induce him, as long as he retains his prerogative, to exercise it without investigation, without counsel or advice, without even knowledge of material facts. What, in such a case would be the position, what would be the feelings, of the Lord High Chancellor, the official keeper of His Majesty's conscience? Sir, I appeal to you, even if you abandon the insane convict to the gallows, not to take a course which, as you will find too late, will have given that worthy man grounds for great uneasiness.—I am, etc.,

Catford, Feb. 4th. Chas. Mercier.

Sir,—So far from agreeing with Dr. Mercier's letter which appears in the British Medical Journal, January 28th, may I be allowed to "demur, contest, renounce, repudiate,

and deny" his astonishing doctrine that a person may be at once insane and responsible.

The proposition that insanity and irresponsibility are not convertible terms may commend itself to Dr. Mercier, but I shall be surprised if the majority of his brother alienists do not emphatically repudiate it, while it is one which is hardly likely to commend itself to the humanitarianism of the present day. As is well known, some of the most enlightened jurists have propounded the precisely opposite doctrine, namely, "that no man is responsible for an act which is the product of mental disease," and it is hardly too much to say that this is in fact the principle adopted (in capital cases) by our own Home Office authorities, though not, unfortunately, by our Courts of Law. The fact that this divergence exists is, I venture to think, abundant justification for your recent article.

That it should be possible to deal with a person purely as a criminal, when competent medical evidence has been adduced at the trial to the effect that such person was insane at the time of committing the act and that the verdict and its consequences has subsequently to be disregarded by the Home Office in order that substantial justice should be done, is a proceeding that indicates that our present system is far from satisfactory.

A case occurred during the past year at the Central Criminal Court, in which the prisoner, though declared insane by competent medical evidence, was sentenced to death. Dr. Mercier may regard this as perfectly satisfactory (especially as the Home Office fortunately interfered and sent the case to Broadmoor); I do not.

It is clearly of the utmost importance that criminal proceedings should coincide with that sense of justice which is innate in mankind. If an insane person is dealt with by the Court as a criminal, that sense of justice is shocked, the law is not respected, and the main object of punishment in securing obedience to that law is not attained.

My own view remains now what it has been for some time past, that the question of sanity or insanity is purely a question for competent medical evidence, and that the question of the allocation of responsibility is one for the Court unhampered by the dicta of 1843; but whatever may be thought of this proposition, few, I venture to think, will agree with Dr. Mercier that those who are afflicted with the saddest of all afflictions that can befall a suffering humanity should be treated as felons, still less that they should be consigned to a shameful death.—I am, etc.,

A. Douglas Cowburn.
Of the Middle Temple and Central Criminal Court,
London, S.W., Feb. 6th. Barrister-at-Law.

PAUPERISM AND THE DEATH-RATE.

Sir,—It is evident that considerable changes will soon be made in connexion with the Poor Law. The difficulty as to the unemployed has become too apparent to be left to the guardians to solve or leave unsolved; and, apart from this, the administration of relief, in some unions at all events, needs system and improvement. It has been suggested that the whole administration of the Poor Law should be handed over to committees of the sanitary authorities, that is, to the borough councils in London, and the town and urban district councils in the provinces.

There is much to be said for this. The health of the entire community depends on the earliest possible notice to the sanitary authorities of all infectious disease, and on all infectious cases having prompt medical attendance. For the safety of the public it is wise to give every encouragement to the poor to seek medical advice on the occurrence of any suspicious symptom in a child.

Again, with a view of diminishing the enormous and scandalous infant mortality in our large towns, the councils are issuing leaflets urging parents, when infants begin to be ill, to seek medical advice. Some tell them to go to the doctor as soon as the child ceases to thrive. It is now amply established that high infant mortality occurs chiefly from digestive diseases, which may be prevented or cured by prompt medical care, cleanliness, and food. The same may be said as to child mortality from measles and many other diseases. In a large number of these cases the poor have no money to pay a doctor, and moreover cannot afford the proper food; and though the sanitary authority may give both food and medical attendance inside a hospital, it may not give medical attendance or milk to children ill with measles or diarrhoea, etc., in their own homes.

But the Board of Guardians may do both; and here comes in the weakness of the present Boards. The object of too many guardians is not to heal the sick, prevent death, or improve the public health, but to diminish pauperism, that is, the number of poor persons relieved by the Poor Law. "Medical relief," said one well-known expert lecturing at Birmingham, "is a growing evil." Mr. W. L. Brett, writing in the *Times* on January 28th, says:

> The borough councils and not the guardians are the health authorities in London, and therefore it is scarcely fair to impugn their administration on the ground of public health.

Some Boards cut down medical relief by making all parents who apply for medical relief debtors to the Board in the first instance; others drag them before the Board or a committee; some do both. All this prevents the parents from applying until the disease, infectious or otherwise, has had a good start. The sick child is not isolated from the rest who go to school and spreads infection all over. Perhaps the doctor is called in in time to save the inquest though not to save life.

Much of the evil might be prevented if the guardians were abolished and their work transferred to the town councils; but for several reasons I should regret this, and I should much prefer to see a hearty co-operation on the part of the guardians with the sanitary authorities.

Suggested Remedies.

1. I think the Local Government Board should issue a circular calling the attention of the guardians to the importance of reducing high infant mortality and of speedy help in sickness (especially where infection is suspected), and both by circular and by the personal advice of the inspectors deprecate this indiscriminate system of making the parents of sick children debtors and requiring their attendance.

2. A wide distinction should be made between medical and ordinary out-relief. Medical relief ought not to make a man a "pauper" for any purpose, and the statistics of medical relief should be kept and published separately from those of out-relief.

3. The cost of medical relief should not fall on the individual union, but be treated as a common charge or taken from the "Exchequer Contribution" account.

4. The sanitary authorities ought to be allowed to elect from their own body a small number of guardians.

Sir Walter Foster's Return.

May I, while on this subject of infant mortality, call attention to the Local Government Board return (No. 364) recently obtained by Sir W. Foster for the ten years 1891-1900. It shows in many of the unions in London a lower general death-rate since 1891, with at the same time a rise in infant mortality. This is the case in Paddington, Kensington, St. George's (Hanover Square), St. Pancras, Hackney, Shoreditch, Whitechapel, Stepney, Mile End Old Town, Camberwell, Greenwich, Woolwich. What is the cause of this? I find, on comparing the statistics of out-relief in this return with the figures in Mr. Long's return of June 14th, 1892, No. 266, that in all these unions (except Mile End and Greenwich) the numbers in receipt of out-relief had largely diminished. Is this purely a coincidence? In Whitechapel, with an infant mortality rising from 169 in 1891 to 189 in 1900, the numbers in receipt of out-relief have enormously diminished. These figures, when we remember the low infant mortality and high birth-rate of the Jews, who constitute the majority of the population in Whitechapel, are remarkable. The Stepney infant mortality is very high, and has risen from 210 to 266. Of course I do not suggest that indiscriminate or high out-relief necessarily means low infant mortality. This return itself shows instances of unions where infant mortality and out-relief have both increased.

I am inclined to think that the important practical point is to secure a thoroughly effective system of medical out-relief, and gladly welcome the endeavour of the Lambeth guardians in this direction.—I am, etc.,

J. Theodore Dodd,
January 30th. Guardian and Councillor for the City of Oxford.

COMPULSORY GREEK.

Sir,—Dr. Charles Buttar's prop in the British Medical Journal of February 4th affords but weak support to "compulsory Greek," and makes it more than ever a matter of wonderment that we should have come to this present year of grace and find that no one can take a degree at Oxford or Cambridge without having made a pretence at studying this ancient language.

Dr. Buttar studied Greek, and got beyond the crammed-up smattering necessary for the "little-go," but in looking

through his six contentions in favour of continuing to make Greek a compulsory subject, one is inclined to think that Greek might with advantage give place to logic as a preliminary subject.

The universities say to all prospective students you *shall* pretend to know Greek. If any one should mildly ask, Why? the answer appears to be, first, because we say so; secondly, because the pretence of knowing Greek maintains that "culture" for which we are famous, and assists our alumni in that just and lawful claim of superiority which is due to those who have been to the university; thirdly, for those reasons put forward in the six contentions of Dr. Buttar. Let us then take these six contentions *seriatim:*

1. "Greek is an excellent educational study even in small quantities."

This begs the question, since nobody suggested that Greek was not an excellent study; but there are at least fifty studies that are equal to Greek as a means of exercising and developing the mind. The complaint is that every student *must* take up Greek, whatever his natural predilections and weaknesses, if he would take a degree at Oxford or Cambridge. Dr. Buttar may have been to the classical school, I to the modern school. He is great at Greek; Greek is impossible for me, natural science is my *forte*. The university smiles on him and frowns on me.

2. "It broadens the mind and gives an insight into the life of a cultured race."

This contention is based on the false presumption that the learning of Greek is carried so far as to enable the student to read Greek with facility, and that the ordinary student who is forced to take up Greek not only acquires this facility, but applies himself to an extensive study of Greek literature in Greek. This contention also fails to take cognizance of the fact that all the objects of the contention can be obtained from translated Greek books in one-hundredth of the time required to learn Greek and read the same books in the original tongue.

3. "The study of Greek debars no one from succeeding in the work of his life."

In this it exactly resembles any other study of limited extent, and this statement is no argument in favour of compulsory Greek. It would not debar one from succeeding in the work of one's life to learn Arabic, but the hardship lies in being compelled to learn Greek or Arabic when there is another sort of subject which one could apply oneself to with much greater advantage.

4. "The wider the curriculum of education the better."

Dr. Buttar has given himself away here. He fails to see that to make Greek compulsory is not a widening, but a limiting influence. No one complains of Greek as a subject of education, and let those who have time and taste for it extend their education into Greek by all means; but let the man who wants to learn Hindustani have a chance. In fact, let the number of subjects be increased, if you like, but let there be a choice of subjects.

5. "The proposed substitutes practically amount to French, chiefly for commercial purposes."

I did not know that French was the only alternative proposed, and think that Dr. Buttar must be mistaken in this; but better French for commercial purposes, than a pretence of Greek for no purpose at all. In modern life one feels the want of French often, of Greek never.

6. "Modern languages are much better learnt elsewhere than at school."

So far as the construction of the language goes, and ability to read it, the answer to this contention must be negative. You can learn as much of a modern language at school as you can of Greek anyhow. The question of the difficulty of learning to speak a modern language at school is gratuitously introduced, for it can hardly be said to have a bearing upon the subject of compelling candidates for the universities to learn Greek.

The classical education has been the leading kind of education for a very long time, but with the recent acquisition of of an immense volume of fresh knowledge, the term "education" has come to have a much wider meaning. Classical education is in the throes of being deposed from its high place, and opposition is to be expected from those educated after the classical mode. Their objections must be discounted by the proper percentage of personal bias. The old universities are showing themselves very conservative, and there are doubtless many members like Dr. Buttar, who are inclined to compel the coming generation of students to enter the universities through the same well-worn channels that gave them entrance. There possibly are, however, a few leading spirits, who are determined to exert themselves in rescuing Oxford and Cambridge from the stigma of remaining "mediaeval institutions" in the twentieth century.—I am, etc.,

Cheltenham, Feb. 7th. J. H. Garrett.

THE STUMP IN APPENDICECTOMY.

Sir,—As several correspondents have already pointed out, the method of appendicectomy described by Mr. Mayo Robson is hardly one to be followed in all instances.

There is no doubt that when an appendix is not bound down by adhesions in the pelvis, and if it can be brought up to the surface of the abdominal wall without difficulty this method of muscle splitting leaves behind it an excellent scar, though I am inclined to think that its advantages are overrated

It is unfortunately impossible in all cases to determine beforehand what will be the condition of the appendix one has decided to operate on, and the problem the surgeon is called on to face is how to modify his procedure, which was designed for a simple case, so as to suit one in which the adhesions are firm and difficult to detach, and the appendix suppurating and possibly gangrenous.

The experienced surgeon grasps, no doubt, what he has before him as soon as his fingers enter the peritoneum, and only too often realizes that his abdominal wound must be increased in size and the neighbourhood of the appendix packed with pads and sponges, if he is to prevent dissemination of the intensely septic material, which for the moment is imprisoned by the adhesions. He may even feel that the danger of disturbing these adhesions is so great that he elects to insert a drain and await future events. Anyhow, if he proceeds further the problem before him is first how to save his patient's life, and, secondly, how best to enlarge his wound, having regard to the future dangers of hernia if his patient survives.

Looking to these factors of the case, whenever there is any question of suppuration, I prefer to cut muscular fibres across, and have had occasion even to sever the rectus, in order to give free access to the pelvis and its contents. I can recall several instances in which by so doing I have been enabled to remove all traces of a gangrenous appendix, have closed over the cavity in which the appendix lay, and brought out a drain into the ischio-rectal fossa with perfect success, but the patient must be placed in Trendelenburg's position to do this satisfactorily. It is important, too, to remember that even when so extensive an operation is demanded that a perfect union of the abdominal wall may be accomplished.

The method I usually adopt is: (1) To pass some salmon-gut sutures through the abdominal wall as a whole; (2) to suture the various layers separately, employing for the purpose catgut preferably prepared by the Moschowitz plan; (3) taking care to provide a separate opening for the drainage tube wherever it is brought out.

It is no doubt of great importance to close over the stump with a peritoneal flap, and I would add to sear the infected mucous membrane with the actual cautery; but unless the points to which I have just referred are ever present as possibilities in the operator's mind, the results will not be satisfactory.

My friend, Mr. Mayo Robson, will possibly reply that he was only referring to a straightforward case. Well and good; the danger is not with these cases. What we all want to know is how best to treat the difficult ones.—I am, etc.,

London, W., Feb. 6th. W. Bruce Clarke.

Sir,—If Mr. Battle will refer to my paper he will nowhere find the term "new" applied to the operation I described, and in fact such a term would be a misnomer if used for an operation that I myself have been performing for many years, and that others may have been adopting unknown to me, as shown by Dr. Crawford Renton's letter; but the facts nevertheless remain, that the combination of methods I gave in my paper is not generally known, has proved very successful both in my hands and in the hands of others who have adopted it, and is not described in any of the ordinary text-books to which I have had access; nor is the operation described by Mr. Keetley in his letter, and referred to by Mr. Battle the same procedure that I adopt, as any one who cares to read the two accounts will see. The access obtained by splitting instead of dividing the muscles gives much better exposure than Mr. Keetley appears to grant; and as to this

method being a preventive of hernia, that is an absolute fact, for I have yet to see my first ventral hernia following on the operation performed by splitting the muscles, though I cannot say the same of appendix operations, where the muscles have been divided either by myself or others.

The method of treatment of the stump described by Dawbarn in Gould and Warren's textbook differs entirely from the one I adopt, so that in this respect Mr. Battle is mistaken. Dawbarn divides the appendix half an inch away from the base, dilates the lumen of the stump, and invaginates it.

If Mr. Keetley will carefully examine the stump of a removed appendix that has been crushed in its entirety by the method I have described, he will find that the crushing forceps only leave the peritoneum, and that the soft muscular coat and mucous lining have been divided as if by a ligature.

As to the serrations of the forceps tearing the peritoneum, that is quite an imaginary difficulty, as I have amply proved, and I consider that the clamp employed by Mr. Battle is an unnecessary addition to the simple instruments required for an appendix operation.

I always try to localize the appendix before operating, and if it is in its usual position, even though adherent, McBurney's incision is quite adequate. Where the diagnosis is doubtful, and it may be necessary to examine the abdominal contents more thoroughly, a vertical incision through the outer part of the rectus sheath is employed, and the muscle is displaced inwards, when the posterior sheath of the rectus and the peritoneum are divided together in a vertical direction; in this way a free opening can be made large enough to admit the fingers or even the hand without dividing any muscle. When the operation is finished the posterior and anterior parts of the rectus sheath are united separately, thus leaving a strong abdominal wall. Through this incision, which is made in all cases where it is suspected that the appendix is hanging over the brim of the pelvis, or where there is much thickening or induration leading to a suspicion of extensive adhesions, not only the appendix, but also the pelvic organs, the right kidney and gall bladder regions can be readily explored, and if needful the incision can be extended without division of muscle or serious subsequent weakening of the abdominal wall.—I am, etc.,

London, W., Feb. 7th. A. W. MAYO ROBSON.

THE BISHOPS AND THE DOCTOR.

SIR,—Few people, it is to be hoped, will be found to agree with your remarks on the above subject in the BRITISH MEDICAL JOURNAL of February 4th.

In my opinion the family doctor, whoever he may be, deserves all he got from the bishops, and a great deal more besides.

A man who makes such a preposterous statement as that "not a single bishop on the Bench to-day believes in the miraculous in religion" deserves no quarter, and it would have been far more to the point if the correspondent of the *Record*, instead of writing to the bishops, had asked the family doctor to produce proofs of his statement.

In my judgement the Bishop of Chichester was perfectly justified in advising his correspondent to change his family doctor, whose gross inaccuracy—to use a mild word—is certainly not a desirable or safe qualification for a man who is called in to be the trusted adviser of the family in matters medical or surgical. Your injunction to the clergy of all sects and denominations applies also with equal force to many members of the medical profession who are fond of ventilating their opinions on matters of theology—a subject on which as a rule they are very imperfectly informed, and which they had far better leave to those who by training, learning, and experience are really qualified to speak on that most wonderful and important of all the sciences.—I am, etc.,

February 6th. M.D.DURH.

*** We have received one or two other letters on the subject referred to by our correspondent. We certainly do not justify the family doctor, whom we hold to have been guilty of that kind of blunder which in a certain sense is worse than a crime. He made a sweeping charge of a serious character, apparently without taking the trouble to "verify his references." We admit that gratuitous assertion is especially out of place in the mouths of men who have received a scientific training, but it is not our experience that doctors are more fond than the average Briton of ventilating their views on theology. With regard to the particular episcopical utterance to which we ventured to take exception, we can only say that we do not agree with our correspondent that the offending family doctor "deserves all he got from the bishops and a great deal more besides." Does our correspondent mean that our erring brother should be handed over to the secular power as in the old days?

UNIVERSITY OF MANCHESTER NEW PUBLIC HEALTH LABORATORIES.

SIR,—Although gratified to find in the BRITISH MEDICAL JOURNAL of February 4th a notice of the opening of our new laboratories, I feel compelled to attract your attention to two statements which may create a false impression, and although the matter is of little practical importance I do not wish to get the benefit of exaggerations which your informant has unconsciously committed. First of all, I would be the last one to claim the credit of having brought about the "association of science at universities with public health." All I have done was to show how an association of the work done by sanitary authorities and of the research work carried out in university bacteriological laboratories would be beneficial to the advancement of public health. This I began in 1892, before there was any question of work being done for corporations in university laboratories, or, in fact, of any municipal laboratories in England. Secondly, we cannot claim to have in our Public Health Laboratory a staff of thirteen qualified assistants. Including myself, there are only six qualified workers who carry out investigations for sanitary authorities. Four of us deal specially with pathological and bacteriological matters, and two with chemical questions. In addition to this qualified staff, there is my secretary, who gives much assistance, but not in a professional capacity. I have also a technical assistant, whose services are also of great importance. The regular staff does not therefore consist of more than eight persons. There are usually about five research workers in the laboratory, but these work for themselves, and have no share in the official work. The arrangements for teaching are entirely under the control of the Senate, and the members of the teaching staff cannot be included among the regular assistants, some of whom, however, are also teachers.—I am, etc.,

SHERIDAN DELÉPINE.

Public Health Laboratory, Manchester, Feb. 7th.

AMBIDEXTERITY.

SIR,—Dr. Frederick P. Hearder in his criticism[1] of my recent paper[2] on this subject makes remarks on two points to which I should like to be permitted to rejoin. He states:

1. That the professional boxer or prize-fighter does not use the right arm as his fighting arm, but as his shield arm, and that the left arm is his fighting arm.

2. That infants have no choice in the use of their forelimbs until taught to prefer their right arm as the active worker by their mothers.

1. On the first point, I agree with Dr. Hearder's description of the practice of the prize-fighter. My description of the distribution of the work done by the forelimbs—right fighting arm, left shield arm—applied to the primitive man or savage, and not to the cultivated tactician. If Dr. Hearder will watch a couple of untrained schoolboys having a "set to," he will find they fight just as I suggested did primitive man; the one idea of the boy is to rain in blows on his opponent, and so the right more active limb does the whacking, whilst the left is relatively passive on guard. With cultivation tactics are learned, and it is found better to have a strong and quick defence than to rush headlong into the fight, so the right more active arm does the part which now becomes of prime importance; only when the prizefighter has succeeded in wearing down his opponent's defence does the right arm return to its primitive habit by swinging in a few deadly knock-out blows. An exact parallel can be found in warfare. The one idea of our savage foes—the Zulus and Dervishes—was to come on in the open straight at our soldiers and to slay; but our more cultivated foes, the Boers, had developed tactics, and fought behind defences. I well remember the "primitive savage" expression of contempt with which an officer friend in South Africa described this "crawling-on-the-belly kind of fighting." The highest art in this tactical development of defence is now shown in the great war in the East. The apparent change of use in the forelimbs by the prize-fighter is but a development of the distribution of work between the limbs I described in my paper.

[1] BRITISH MEDICAL JOURNAL, January 21st, 1905, p. 163.
[2] Ibid, January 7th, 1905, p. 14.

2. On the second point. Suppose I grant, for the sake of argument, that the righthandedness of a child is a direct result of the teaching of the mother—what then? Well, we must learn who taught the mother the habit. The reply follows—her mother taught her. And so on, *ad infinitum*, through a million of mothers! This is no argument. It brings us no nearer the primitive causes which determine the more active use of the right arm. The argument I gave—from evolution: the assumption of the upright position causing a change in the shape of the trunk, an assymetry of the viscera, and the shifting of the heart from the median line to a relatively-exposed position on the left side, gives a reasonable clue to the factors which govern the distribution of work between the limbs, and allows the development of that exquisitely-adjusted association in the working of the forelimbs which the ordinary trained man is now possessed of.—I am, etc.,

London, W., Jan. 30th. N. Bishop Harman.

THE MEDICAL SERVICE EXAMINATION STATISTICS AND COLLEGE REFORMS.

Sir,—To support the reform necessary to adjust the near equality of the London medical college qualifications with those of other degrees, must, I think, be the chief claim for the comparisons of the statistics of the medical service examinations. It has been left to the British Medical Journal to impartially and temporarily test these figures; but certainly a comparison of some of the figures has been available a long time, and was previously so used, though unevenly and from opposite points of view. I quoted them in the Journal of March 18th, 1899, together with Dr. Fowler's statistics, and, again, in a short paper before the Members and Licentiates Society in March, 1903, for the purpose of showing the superiority of the London college standing over that of many of the graduates from other universities at a time when it was the usual habit to deny this.

I should like to bring forward, as an addition to your very valuable tables, a series of index numbers readily showing the relative position of the chief competing bodies, drawn from the twelve recent competitions. The index numbers were obtained by adding the "pass" and "qualified" groups together. They broaden the issue and give an account of the qualification capacity. They allow some slight preponderance to the value of the London University degrees. But that only proves that the University has succeeded in ousting the Colleges from their old pre-eminent position, and indicates that a university teaching basis for the science of medicine is the only practical standard to adopt in our times.

A Table giving a Relative "Index Number" for each of the Positions of the Principal Bodies Competing in Twelve of the Medical Service Examinations, and Arranged in their Order.

1. University of London	90	5. University of Dublin	65
2. English Colleges...	84	6. ,, ,, Edinburgh ...	61
3. University of Durham... ...	80	7. Irish Colleges	52
4. ,, ,, Cambridge ...	78	8. Scotch ,, ...	47

A second important comparison is annexed to show that in the first six places of the passed candidates the College men still maintain a high position, and equal to 50 per cent. above all the other competitors combined for the first place.

A Table giving the "Place" Distribution out of Twelve Medical Service Competitions.

Qualifying Body.	1st.	2nd.	3rd.	4th.	5th.	6th.
Conjoint of London	6	7	5	5	7	6
Conjoint with University of London	1	2	1	2	—	—
Conjoint with L.S.A.	1	—	—	—	—	—
Conjoint with University of Cambridge	—	1	—	—	1	1
Conjoint with University of Durham	—	—	1	—	—	—
Conjoint with University of Edinburgh	—	—	—	1	—	1
University of London	—	—	—	—	—	—
University of Victoria and London...	1	—	—	—	—	—
University of Edinburgh	1	—	—	3	1	—
University of Durham	—	1	1	—	—	2
University of Dublin	—	1	—	—	—	—
Conjoint of Ireland	—	—	—	1	—	1
Royal University of Ireland	1	—	2	—	—	1
Others...	1	—	2	—	3	—

These service statistics, I think, bear eloquent testimony to the fact that the College men would be a feasible and valuable addition, and a credit and an advantage to the University of London, if they would in the consummating event of the future admit them and their Colleges as part of the enlarged University. Curiously enough the Royal College of Surgeons, whom these tables mostly concern, have deferred any mention of them till their last annual report. At the eleventh hour they included some of the old figures in an inferential fashion, and in a form liable to constant variation, and they were not represented in the usual positive assemblage adopted with statistics. The Council of the College of Surgeons served up these tables in that piecemeal way, but they have entirely failed to formulate the slightest policy thereon, or to reform, or to attempt to alleviate, the obvious disadvantages of their members. The disappointment in this must be largely felt to be the greater because they hesitate to arrange a degreed course in, and for an equality of status in the London University scheme. They seem, to me at all events, to exist for themselves, and to forget that we have been forced to look to the Council for a due consideration of our position as members, on account of the government of the College having been arbitrarily abrogated and wrested from the large body politic with no compensating change of advantage for the members.

The members, if they had had the power, would undoubtedly have herebefore introduced and ratified some such arrangement. We have been the cause in measure of university reform, and ought to be rewarded by inclusion therein. Finally, the Medical Council goes a good way towards imposing approximately the level of a degree in qualifying subjects, both in and out of the universities, so that the facilities for university teaching become more and more imperative, and they only require to just improve the arts and science preliminaries slightly to remove the last vestiges of the boasted differences. In face of the tardy adoption by the Royal Colleges of Surgeons and Physicians of London of the elastic opportunity to enter into the scheme for a single university type for the London medical curriculum, it must be borne in mind that the science teachers, as well as the medical men of the world, are properly formed from a university standard; and since that wide adoption by all European capitals, London alone halts in that respect.—I am, etc.,

Bognor, Jan. 24th. H. Elliot-Blake.

THE TREATMENT OF POST-NASAL ADENOIDS.

Sir,—I had thought that the so-called finger-nail operation for the removal of post-nasal adenoids had long before this been discredited. It is, therefore, somewhat surprising to find a surgeon of the high standing of Dr. Ward Cousins proposing to revive this method (*vide* British Medical Journal, January 28th). Gottstein's curette or some of its modifications have, in competent hands, produced brilliant results, and I fail to see in the method suggested by Dr. Cousins that there is any advantage to be expected either in increased safety or expedition, or in greater simplicity or thoroughness. On the other hand the finger nail has been tried by many surgeons and found wanting. The bleeding which it produces causes improvement in the symptoms, often only of a temporary nature, but it fails to remove thoroughly the mass of adenoids, and hence before long we often find a patient as bad as ever.

Whatever results Dr. Ward Cousins may obtain himself, I feel confident that, in less expert hands, his method will tend to bring a most valuable and beneficial operation into disrepute, and hence I desire to protest against its acceptance as a recognized method of treatment in such cases.

It is not quite clear what purpose the probes are to serve, which he recommends are to be "rubbed over the inferior nasal passages." Are they used for massage or much as Meyer's ring knife is used?

In a letter on this subject (February 4th) Dr. Hovenden recommends dilatation of the nasal passages by means of a No. 12 bougie passed through the inferior meatus. Erectile swelling of the turbinals generally disappears after the adenoids are successfully removed, and if there is true hypertrophy it can hardly be contended that this will be removed by the passage of a bougie. Then why pass a bougie?—I am, etc.,

R. McKenzie Johnston, M.D., F.R.C.S.Edin.

Edinburgh, Feb. 6th.

A VERY GRAVE MOVEMENT.

Sir,—The Secretary of the East Suffolk Hospital has been appealing to all the Boards of Guardians for a subsidy, strenuously pointing to their power in return to send cases to the hospital. Many, if not all, have assented.

The Boards are under contracts to the medical officers at a

certain salary and extra fees; they now propose to send cases entitling their medical officers to extra fees to be done for at the hospital for nothing. This is most unfair to the existing medical officers unless compensation is given for their loss.

What can the medical men working for the governors of the hospital say in excuse for this flagrant underselling, that is, doing for nothing work which the law and contracts have provided medical officers with extra fees to do? The prestige of the medical men working for hospital governors is being steadily diminished by the underselling.

The movement must be most seriously considered before it extends. Awake before too late!—I am, etc.,

Framlingham, Jan. 30th. GEO. E. JEAFFRESON.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE BOGEY OF MEDICAL ETIQUETTE.

QUESTIONS of medical etiquette have recently come before the public somewhat prominently in two cases. The first of these is recorded in the *Eastbourne Chronicle* for January 21st, which gives a long account of the inquest upon the body of an old labourer who cut his throat and died within twenty-four hours of his injuries. The nearest medical practitioner was under the circumstances very naturally sent for, and he dressed the wound; but the man's own medical attendant, who had looked after him for two years, on learning what had occurred, went to the house and took charge of the case and visited the patient on the afternoon and evening of the same day, calling again the following day half an hour after death had occurred. At the inquest the jury seem to have been unduly concerned about the change of medical attendant, and it was suggested that "medical etiquette" had in some way interfered with the proper treatment. There had evidently been some outside comment, as both medical men attended the inquest, and one was accompanied by his legal adviser. So far as we understand the story the sequence of events was that the first medical man to arrive—whom we call Dr. A.—attended in an emergency a case belonging to Dr. B., who was afterwards summoned and took over the case. Dr. B. saw Dr. A. and thanked him for his attendance, and explained at the inquest that had he not met Dr. A. he should have written to do so. As both medical men appear to have done their duty there is nothing more to be said, and there was no breach of medical etiquette on either side. If any ill feeling arose out of the case, we can only express our regret that so trivial an incident should be allowed to interrupt the friendly relations which ought to exist between neighbouring practitioners.

Such a reflection, however, must be emphasized in the minds of all who have read the libel action which engaged the attention of Mr. Justice Phillimore and a special jury for several days in the Court of King's Bench. An action for libel and slander was brought by Mr. James Henry Peet against Mr. T. G. Lithgow, who pleaded that the words complained of were privileged and were not published. Both parties practised at Farnborough, Hants, where the defendant is medical officer of Hartley Wintley Union, and was attending in March, 1904, an old man named Hoare who was 72 years of age. The vicar of the parish was a Mr. Bowen, and the plaintiff, Mr. J. H. Peet, had within the last few years come to practise in the neighbourhood. The plaintiff in his evidence said that he received a message from Mr. Bowen "to come at once to see old Hoare, he is very ill and in great agony; Mr. Lithgow has been in attendance upon him, but his people are so dissatisfied that they would like to call in another doctor." He visited Hoare in response to this request, and found the old man in great agony and pain. He was only half conscious, and with the friends' consent the plaintiff passed a catheter and drew away over a quart of water. The following day he went again, and although he heard that Mr. Lithgow had been in the meantime, he passed the catheter a second time and drew off about a quart of water with a few drops of blood. He did not call after this, but suggested that the old man should be removed to the infirmary in order to have proper attendance. The patient died the following night. In consequence of this interference Mr. Lithgow addressed a letter to the Clerk of the Hartley Wintley Board of Guardians which contained the alleged libel, in which he accused Mr. Peet of having passed the catheter "in spite of the patient's refusal, protestations, and cries," and having repeated this "uncalled-for torture" on Thursday morning. The letter further stated that the patient sank quickly after the second catheterization. The plaintiff's account was borne out by the evidence of the Rev. J. Bowen and by two daughters of the old man. Mr. Hurry Fenwick and Mr. Pepper were called for the plaintiff, but their evidence as reported was only to the effect that it was an obviously proper course to relieve a distended bladder, and that such a condition is sufficiently urgent to override any consideration of medical etiquette.

For the defence it was urged that the letter was privileged, and that there was no evidencee of malice. The defendant in his evidence seems to have denied that there was any occasion to pass a catheter. Unfortunately the defendant's letter also attacked the vicar, imputing to him neglect of the spiritual care of his parishioner and making other charges which he was unable to substantiate, which we have no doubt helped to prejudice his case in the eyes of the jury. The judge, in summing-up, said that the letter was privileged, as it was the duty of the defendant to report to the guardians, and that the jury, before giving damages, must be satisfied that it was written with malicious intent. The jury found a verdict for the plaintiff, and awarded him £50 damages.

The questions of medical ethics or so-called medical etiquette which arise out of this case are somewhat complicated. If Dr. A. receives an urgent summons to a case under the care of Dr. B., and is told that the patient's friends are dissatisfied with Dr. B., and desire his attendance, he is justified in going and in rendering any relief in his power, but he ought to take care that the medical man originally in attendance is duly notified that his services are no longer required. In this case Mr. Peel, by continuing to visit the case while Mr. Lithgow was in attendance, undoubtedly transgressed a most salutary rule. It may be said on his behalf that the recommended that the patient should be removed to the infirmary, but, having interfered in the case, it was his duty to do something more or nothing less than he did. It may also be questioned how far the summons coming from a third person is sufficient to justify a medical man in visiting a patient under the care of another practitioner. Under ordinary circumstances it would not be sufficient, but the relations of the clergy to their poorer parishioners is undoubtedly very intimate, and apparently in this case the interference of the vicar was concurred in by the patient's two daughters, and we think it must be admitted that there are circumstances in which the parish clergyman must be regarded as the interpreter of the needs of the female relatives of a patient in this position of life. The verdict of the jury has shown their opinion of the letter which Mr. Lithgow addressed to the Clerk of the Board of Guardians, and in that verdict we concur, for any breach of medical etiquette of which Mr. Peet may have been guilty does not justify the charges made against him, and could have been much better dealt with by a reference to some professional tribunal, if a satisfactory explanation could not have been arrived at directly or through the intermediary of a mutual friend.

UNAUTHORIZED NOTICES OF MEDICAL PRACTIONERS IN THE LAY PRESS.

WE have received from a correspondent a cutting from the *South Bucks Free Press*, drawing our attention to an advertisement in which a patient thanks all inquirers for their kind sympathy, and expresses her appreciation of the kindness she has received at the hands of her medical adviser, whose name is given. At the same time we have had a letter from the practitioner in question to say that this notice appeared without his knowledge and consent, and that he has sent to the editor of the local paper a disclaimer, which he hopes will be published in the next weekly issue. We do not think he could do any more. As the paragraph is marked "Advt.," and was no doubt paid for, the editor may disclaim responsibility for it, but we sympathize with the gentleman whose name appeared, and we think this case illustrates the need there is for placing a charitable construction upon such notices, for which the medical practitioners mentioned are rarely, if ever, responsible. We have also received a letter from another correspondent, complaining of the publication in a Society paper of what he describes as an unauthorized, inaccurate, and partly fictitious account of an interview with him, and asks what redress he can obtain. We would suggest that he should write a letter of protest to the editor of the paper in question, pointing out those parts which are inaccurate or fictitious.

POLICE SURGEONS AND MEDICAL ETIQUETTE.

V. V. V. having, in the absence of the divisional surgeon of police, been called to the police-station to attend to a man who had been injured in a quarrel, and having had his fee paid by the man's employer, asks whether he will be doing right in retaining the fee, or should he send it, or half of it, to the divisional surgeon?

*** We know of no rule of etiquette which would oblige our correspondent to send the fee, or any portion thereof, to the divisional surgeon. It makes no difference whether, as in this case, the fee was paid by the man's employer or by the police. In any case, the fee belongs to the man who has done the work, and we believe that most divisional surgeons will be found to be of our opinion.

FEE FOR POLICE CALL.

IGNOTUS writes: I was called out by a police constable some four months since in the middle of the night to view the body of a suicide in a field more than a mile from my house. I subsequently gave evidence at the inquest, and received the usual fee for attending. Am I not right in claiming a fee of 7s. 6d. from the police for this midnight summons, which I contend was quite distinct from the coroner's fee?

*** Yes. The fees are quite distinct.

FEES RECEIVED BY ASSISTANTS.

DOUBTFUL writes: A. is a principal, and B. his assistant; C. is a dentist practising in the same neighbourhood, C. asks B. to administer anaesthetics to his patients when required, and agrees to divide the fees with him. A. claims that the fees paid to B. belong to him, while B. maintains that A. is only entitled to such as are paid by patients of A.

*** B. is in error. While he is A.'s assistant, he can claim no fees for professional work of any kind, and is only entitled to his salary from A. A principal would hardly keep an assistant to administer anaesthetics for a neighbouring dentist, if the fees paid for such work were to go into the assistant's pocket.

WORKMEN'S COMPENSATION.

MED. REF.—Willis's Workmen's Compensation Act, 1897, Sixth Edition, 3s. 6d. net, is one of the best books obtainable. Our correspondent will probably not have much to do.

VALUE OF A PRACTICE.

X. Y. Z.—A correspondent inquires as to the value of a practice at a southern seaport, where there is a good deal of opposition. The total receipts from practice average £650, and the visiting fees are from 2s. 6d. to 5s., and midwifery fees (about a dozen annually) from one to two guineas. There are appointments to the value of £200 per annum. The practice has been established twelve years, and a six months' introduction is offered.

*** From the particulars given the value of the practice may be estimated to be about a year's purchase, that is, £650.

THE RELATIONS OF REGISTERED MEDICAL PRACTITIONERS TO CHEMISTS.

QUERY.—It is obviously not desirable that a medical practitioner should have his consulting rooms at a chemist's shop, but there is no positive rule against it; therefore if our correspondent has a room for seeing patients at the address in question, there is no further objection to his putting the address and his hours of consultation upon his prescription papers

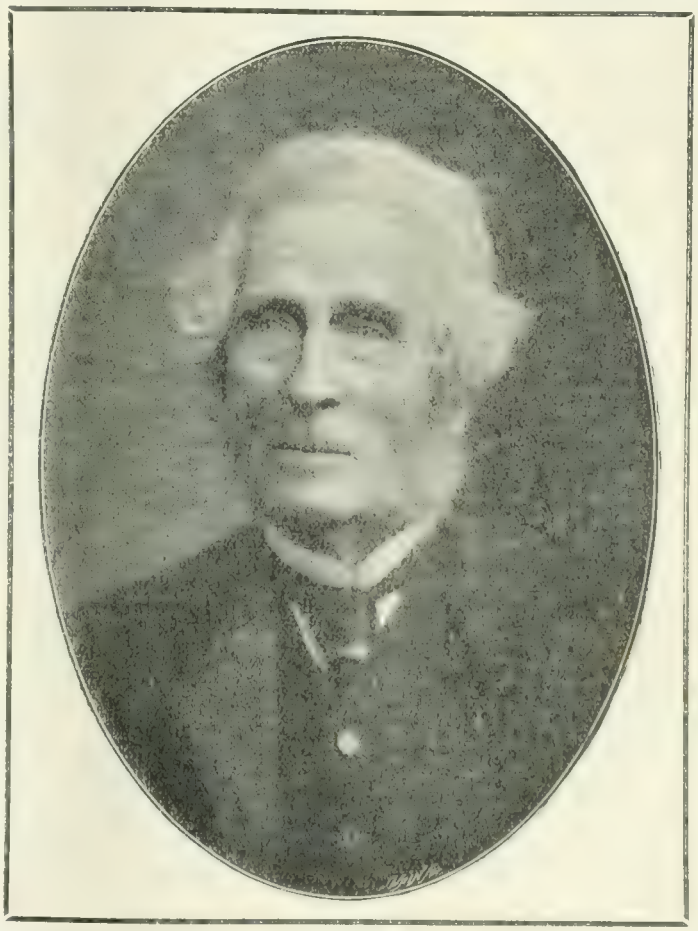
OBITUARY.

LUTHER HOLDEN, F.R.C.S.,

Consulting Surgeon, St. Bartholomew's Hospital.

THIS eminent surgeon and anatomist, so well known to two generations of students at St. Bartholomew's Hospital, died at Putney on Monday morning, February 6th, in his 90th year.

Luther Holden's family can trace their ancestry to a William Holden of Wednesbury, who flourished at the end of the seventeenth century, and married the daughter of a Monmouthshire gentleman named Hyla. Fourth in descent came Luther's father, the Rev. Henry Augustus Holden, who was born in 1784 and brought up at Daventry. He began life as a lieutenant in the army, but after being stationed in India for a short time left the service and studied at Worcester College, Oxford. When an undergraduate he married his cousin Mary, daughter of Hyla Holden of Wednesbury. They had eight children, of whom three were daughters. Of the five sons, the first and fourth went into the Church, the third settled in Canada, and the fifth died young, a midshipman in the Royal Navy.



The second son, Luther, was born in Birmingham on December 19th, 1815. His father took Holy Orders after graduating as M.A., and held a curacy at Wolstanton in Shropshire, where he undertook the education of his son, Luther, who never went to a boarding school. Afterwards Holden's father was a curate at Warmington, near Banbury, but never held a living. Coming into a small fortune, he moved to Brighton, and ultimately to London, residing in the Addison Road, Kensington, for many years until his death in December, 1870. Being genial and hospitable, his house was the resort of many persons well known fifty years since, so that Luther and his brothers were brought up amidst divines and wits.[1]

When barely 17 years of age, Luther Holden was apprenticed to Stanley, Surgeon to St. Bartholomew's Hospital, and resided for five years in Stanley's house in Lincoln's Inn Fields. His master was the author of a once authoritative *Treatise on Diseases of the Bones*, illustrated by a fine atlas. The privilege of preference as a candidate to appointments on the hospital staff had been abolished before the date of Holden's apprenticeship; but Stanley, who in 1826 had written a *Manual of Practical Anatomy for the Use of Students Engaged in Dissections*, admired his pupil's skill as a dissector and zeal as a teacher, and always befriended him in consequence. Luther Holden also studied for a year in Berlin, and for another twelve months in Paris, and became an accomplished French and German scholar. Though, relatively speaking, hospital management was more satisfactory in this country, anatomy was far better taught in France in those days, and Holden profited by the methods of clear demonstration for which the French anatomists were already famed in the days of Louis Philippe, and was instrumental in bringing them into fashion in our own schools of anatomy.

Luther Holden became a Member of the College in 1838. He gave instruction to students non-officially in the dissecting room for several years, and soon gained a high reputation as a teacher, so that at a comparatively early age he was able to earn a fair income. He used to declare that none of his private pupils was ever rejected except Palmer, the Rugeley poisoner, who was executed in 1856. Holden was destined to be the last survivor of the candidates who passed the first examination ever held for the diploma of Fellow of the College of Surgeons. It was held in December, 1844, when twenty-four candidates were awarded the diploma, among them being, in addition to Luther Holden, Holmes Coote, Henry Lee, George Critchett, and Henry Wyldbore Rumsey. The first set of Fellows by election, among whom were Paget, and G. Viner Ellis the anatomist, had received their diplomas just a year previously.

School appointments were irregularly made and registered when Holden was young. But by 1846 he was a Demonstrator of Anatomy in the Medical School of St. Bartholomew's Hospital, and entered his name as such in the *Medical Directory*. He held the office, which he discharged with great satisfaction to his seniors and profit to his pupils for over fifteen years. He had rooms in 1843 in the Old Jewry; a year later he was elected Surgeon to the Metropolitan Dispensary, Fore Street, Cripplegate, and retained the appointment for many years; it gave him some experience in the management of out-patients, but did not involve much operative practice. In 1848 he had apartments at 39, Ely Place, Holborn, where he remained for about six years; it was in that street, so conveniently near to his hospital, that he held his tutorial classes on their largest scale. In the middle of the Fifties he moved to Gower Street and remained there, changing his house once, until he relinquished practice.

On June 14th, 1859, Luther Holden was elected lecturer on descriptive and surgical anatomy conjointly with Skey. He resigned in June, 1871. He had for years desired to come on the surgical staff, and undoubtedly was a loser through being so long kept away from the operating theatre. At length, in July, 1860, he was, to his great satisfaction, elected assistant surgeon when 45 years of age. But, owing to several compulsory retirements, based on a new age limit,[2] Holden became full surgeon in August, 1865—only five years later. As a clinical surgeon he was excellent, though not up to the level of Paget. For kindness to patients and delicacy in minor surgery he set the best of examples to his house-surgeons, his dressers, and his classes. It is not likely, however, that, had he been appointed surgeon to his hospital at 25 or 30, he would have forestalled the bold operators of the last quarter of the nineteenth century. He had not antiseptics and aseptic methods at his disposal, and he was,

[1] The writer of this notice, himself a friend of the family, obtained the above information from the Rev. H. Holden, D.D., elder brother of Luther Holden, from his niece, Mrs. Miller, from Mr Alfred Willett, his colleague, and from Bagnell's *History of Wednesbury* (Wolverhampton, 1854).

[2] Stanley, Lloyd, and Lawrence had retained their appointments until they became quite aged men.

psychically, rather timid, though physically bold. He far preferred clearing a five-barred gate in the hunting field to doing a major operation. Herniotomy and a few other surgical procedures, however, he understood and could do well. He was pre-eminent, not as a Lister, nor as a Spencer Wells, nor as a Paget, but rather as one of the apostles of regional and clinical surgical anatomy, in which field he had but one rival—the more scientific, though less genial, John Hilton. These two surgeons—men of their time—rendered incalculable services to medical education.

The opinion said to be prevalent amongst many of Luther Holden's pupils that he was never, strictly speaking, a scientific anatomist is not quite accurate. His work was chiefly educational, partly because, like Leigh Hunt, who did well-paid journalistic work when he would rather have devoted years of study to the preparation of a standard treatise, Holden had to earn his bread; and partly, if not mainly, because he loved teaching and felt that he was fitted for it. Yet Holden sometimes worked on scientific lines. In November, 1850, he read before the Abernethian Society of St. Bartholomew's Hospital a paper on the mechanism of the hip-joint.[3] It treated of the influence of atmospheric pressure in retaining the ball within the socket, and the importance of the anterior part of the capsular ligament in the erect attitude. Sir William Turner considered that this paper was of distinct scientific merit. As a result of his labours in the dissecting room he prepared three educational works of high repute in their time. His *Manual of the Dissection of the Human Body* appeared, in modest proportions, in 1851; in a more enlarged form it became widely used; the latter issues were brought out with the assistance of Mr. Langton. His greatest work, however, was *Human Osteology*; the first edition appeared in 1855. It was remarkable for the fine drawings of bones by the author and for his then new system of marking the attachments of the muscles. Henry Gray, in his also celebrated *Anatomy—Descriptive and Surgical*, issued three years later, gave full credit in his preface to Mr. Holden as the originator of this method. It has undergone wide developments; thus, Sir William Flower, when Conservator to the College of Surgeons, adopted it for the marking of mounted specimens. The *Osteology* was extremely simple in style and in its general educational plan. Teachers now consider it as "too easy," but many admit that it can teach about as much as an average student can hold in his memory with profit after passing his examination, which should be a means not an end. As a remarkable fact we must add that a much later surgeon of a totally different type to Luther Holden—namely, Mr. Lawson Tait held that a minute knowledge of anatomy crammed into a student's mind within two winter sessions was worse than useless. "If he knows his *Holden* that's quite enough for him" was the great operator's verdict on anatomical education.

Besides the marking in colours of the origins and attachments of muscles on drawings of bones, Luther Holden acted on another good original notion when he prepared his well-known treatise, *Medical and Surgical Landmarks*, which was committed to print in 1866 as an article in the second volume of the *Saint Bartholomew's Hospital Reports*, a further instalment appearing in 1870 in the sixth volume. In 1876 it was published as a separate book. *Landmarks* was the result of Holden's demonstrations at lectures and in the dissecting-rooms on the surface of the undissected body; he also worked at the relations of the surface of the body to deeper structures in the *post-mortem* room with several of his pupils, who likewise assisted him in preparing new editions of his larger works.

To the last, Luther Holden loved teaching; he did not resign the lectureship on anatomy until June, 1871, eleven years after he had been appointed as a medical officer to the hospital. For ten years longer he remained Surgeon, retiring in 1881. He never really cared for private practice, and when his duties as a teacher and hospital surgeon came to an end, and he was made Consulting-Surgeon, he left London and lived in retirement with his second wife on an estate in Rushmere, near Ipswich. When quite an old man he took long ocean journeys to Australia and the Cape; in 1898 he was hospitably received by the profession in Johannesburg. Of late years he remained chiefly at home, occasionally visiting friends in Putney; he came up frequently to elections at the College of Surgeons and the Athenaeum Club, and not rarely to professional dinners. Luther Holden was closely associated with the College of Surgeons. He was elected a member of Council in 1868, and served two full terms on that illustrious Board, retiring in 1884. From 1873 to 1883 he was a member of the Court of Examiners. In 1881 he delivered the Hunterian Oration. Holden was President of the College in 1879, having held the position of Vice-President during the two immediately previous years. He was a highly popular examiner, and if perhaps inclined to be too lenient on certain occasions, he, as a rule, applied a very fair test to each candidate, and knew how to distinguish nervousness from ignorance. About the time that he was appointed Assistant Surgeon Luther Holden married a Miss Sterry, who died very suddenly, to his great distress, a few years later. In 1868 he married a lady of the same family, who survives him, well known in certain philanthropic and humanitarian circles. He had no children.

Luther Holden had naturally the tastes of a country gentleman, and excelled in the hunting field. He was a tall and conspicuously handsome member of a handsome family. Those who attended his lectures must well remember how at the end of the osteology course he eloquently spoke of the majesty of the human skeleton as compared with that of quadrupeds, and how proudly he drew himself up to his full length and recited the—in his case at least—most appropriate lines of Ovid:

> Pronaque cum spectent animalia cactera terram,
> Os homini sublime dedit: coelumque tueri
> Jussit, et erectos ad sidera tollere vultus.

[3] Previously his written work was limited to a few clinical surgical reports in the *Medical Gazette* and the *Medical Times*.

At a meeting of the Berlin Medical Society held on January 18th Professor von Bergmann was elected first president by 243 out of 250 votes.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Proposed Abolition.

The following paragraph, which appeared in the *Western Morning News* of January 30th, and has been copied in several naval and military journals, crystallizes a rumour which has been in circulation for some time:

Additional important changes in the navy affecting the officers will, we are informed, soon be announced by the Admiralty. It is fully recognized that a naval surgeon, after some years in the service, not only deteriorates, professionally speaking, through no fault of his own, but is also unable to keep up with the almost daily advances in medical science. A scheme is, therefore, in process of formation by which civil surgeons will entirely supplant the present branch, without, however, entailing any hardship whatever on those now serving, who will, in some cases, be able to requalify under the new scheme, while others will either serve out the remainder of their time or be offered extra compensation for immediate retirement. The new plan has not yet been fully formulated, but it has been decided that an appointment will be for one commission only, it being compulsory after that to spend a certain period at some hospital, and receive specified recommendations before further employment.

We do not know upon what foundations this very positive statement rests, but we suspect that they are not very substantial. At the same time, it must be recognized that there is a certain school in the navy, army, and India who have long been known to hold views with which this alleged scheme for the abolition of the Royal Navy Medical Service would be in harmony. We live in a time when no scheme is too wild for so-called reformers, who reorganize in haste and leave other people to repent at leisure. The aim of the reorganizers is no doubt efficiency, but we do not pretend to understand the mental process by which they arrive at the conclusion that the best way to promote efficiency is to destroy the work of years and put nothing in its place.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degrees in Medicine.

The following Degrees in Medicine were conferred in a congregation held on Thursday, January 26th:

Bachelors of Medicine and Surgery (B.M., B Ch.)—R. H. Sankey, Christ Church; J. Freeman, University College; J. A. Vlasto, New College; E. M. Smith, Queen's College; E. H. White, University College; A. W. Brodribb, University College; A. H. Hogarth, Christ Church.

UNIVERSITY OF CAMBRIDGE.

Lectureship in Pathology.

The Senate recommend that a University Lectureship, to be called the Huddersfield Lectureship in Special Pathology, be established at a yearly stipend of £50.

Degrees.

The following degrees were conferred on February 2nd:

M.D.—S. H. Nathan, Trin.; A. T. Hall, Gonv. and Cai.; S. W. Curl, Down.

Inceptor in Surgery.—A. R. Brailey, Down.

M.B.—J. C. Lucas, Cla.; C. W. Cunnington, non-coll.

B.C.—L. Dukes, Trin.; R. C. Mott, Trin.; C. W. Cunnington, non-coll.

UNIVERSITY OF LONDON.

Representation in Parliament

Sir Michael Foster has consented to offer himself for re-election to the next Parliament as member for the University of London. He seeks re-election as a representative of science and higher education; if re-elected he will take his seat as a member of the Liberal party. A Committee, with Sir Thomas Barlow as chairman, has been formed to promote his election. This Committee comprises graduates belonging to different political parties who are supporting Sir M. Foster on the ground of his many public services and in the belief that his special knowledge will continue to prove of great value to the House of Commons.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A quarterly meeting of the Royal Colleges of Physicians of Edinburgh was held on Tuesday, February 7th, Dr. Playfair, President, in the chair.

Fellowship.

Alexander Goodall, M.D., F.R.C.P.E., was introduced, and took his seat as a Fellow of the College. David Duncan Main, M.R.C.P.E., L.R.C.S.E., Shanghai, China, was admitted by ballot to the Fellowship of the College.

Membership.

Patrick Hehir, L.R.C.P.E., F.R.C.S.E., Manipur, Assam, was admitted by ballot to the membership of the College after examination.

Licence.

The Registrar reported that since the last quarterly meeting forty-four persons had obtained the licence of the College by examination.

UNIVERSITY OF DURHAM.

Faculty of Medicine.

Degrees of Doctor in Medicine and Master in Surgery.

The Senate of the University of Durham has decided that German may be offered as an alternative subject for Greek in the Preliminary Examination for these degrees. This concession will come into force in September, 1906.

Appointment of Examiners.

The following have been appointed Extern Examiners for 1905: *Medicine*, Sir Isambard Owen; *Surgery*, Dr. G. H. Hume; *Midwifery*, Dr. G. E. Herman; *Physiology*, Professor Stirling; *Anatomy*, Professor Arthur Thomson.

UNIVERSITY OF MANCHESTER.

The following have satisfied the Examiners in the Diploma in Public Health Examinations: F. B. Blandy, M.B.Lond., M.R.C.S., L.R.C.P.Lond.; B. K. Goldsmith, M.B., Ch.B.Edin.; E. B. Leech, M.B., B.C.Camb., M.R.C.S., L.R.C.P.Lond.; R. Lawrence, M.D.Manc.; A. H. Radcliffe, M.B., Ch.B.Manc.

At a meeting of Convocation held on February 1st, it was stated that in future the Registrar of the University Court will communicate to the Clerk of the Convocation all recommendations of the Senate which, if adopted, would involve a change in the ordinances of the University, and that such recommendations are to be communicated as soon as passed by the Senate, unless the Senate otherwise direct. A resolution was carried "that until otherwise determined by Convocation graduates of the University shall become qualified for registration immediately upon the conferring upon them of their degrees." At present three years must elapse between a graduate receiving his degree and becoming qualified for registration as a member of Convocation.

Appointment of Examiner.

Professor Edward Mellns, M.Sc., M.D.Edin., F.R.C.P., Professor of Midwifery in the University of Birmingham, has been appointed Examiner in Midwifery and Diseases of Women.

ROYAL UNIVERSITY OF IRELAND.

Appointment of Examiner.

Professor John W. Byers has been reappointed Examiner in Obstetric Medicine.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Charter Dinner.

The annual dinner of the Royal College of Surgeons in Ireland will take place this (Saturday) evening at Dublin. The President (Mr. Arthur Chance) will be in the chair, and His Excellency the Lord Lieutenant will be the guest of the evening.

General Medical Council.

The Council of the Royal College of Surgeons in Ireland has elected Sir Thomas Myles to be its representative on the General Medical Council in room of Sir Charles Ball, resigned.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At a stated business meeting of the College held on January 13th, Dr. Henry Jellett, F.R.C.P.I., was unanimously elected an Additional Examiner in Midwifery, to take the place of an absent censor or examiner.

TRINITY COLLEGE, DUBLIN.

The following candidates have passed the examinations mentioned:

Final Examination.—Section A.

G. W. Thompson, W. Hutchinson, R. A. Connell, M. K. Acheson, A. L. Robinson, T. C. Somerville, C. G. Sherlock, H. D. Woodroffe, W. L. Hogan, L. V. Hunt, H. J. Wright, F. O'B. Kennedy.

Previous Medical Examination.

Anatomy and Institutes of Medicine.—A. L. Robinson, G. H. Stack, Eleanor E. Finegan, J. W. Lane, W. D. Mitchell.

Physics and Chemistry.—*J. G. W. Pouton, S. Swinburne, C. O'Brien.

Botany and Zoology.—H. E. M'Cready, J. Murdoch, C. H. O'Rorke, R. D. Fitzgerald, W. R. Allen.

Previous Dental Examination.

Materia Medica.—A. K. M'Donald.

* Passed on high marks.

SOCIETY OF APOTHECARIES OF LONDON.

The Gillson Scholarship in Pathology.

This scholarship, of the annual value of £90, is open to competition by Licentiates of the Society or candidates for its diploma, under conditions which can be obtained on application to Mr. Frank Haydon, Secretary to the Court of Examiners. The scholarship is awarded for the encouragement of original research in connexion with any branch of pathology. Candidates must send in their names with two testimonials by February 28.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

STOCKPORT UNION.

In the Stockport Union in 1903 there were 588 cases of lunacy; in 1904, 604; at present there are 621. The County Borough of Stockport, with a population of 92,732, contributed 416 cases, and the other townships in the Union, with a population of 64,310, contributed 205 cases. There are 432 of the patients in asylums, 148 in the workhouse, and 41 are taken care of by friends. The cost of maintenance in asylums is 9s. 4d. per head per week, and in the workhouse 7s. 4d.

ANTHRAX IN BRADFORD.

Not for a long time have so many cases of anthrax occurred in Bradford. Already there have been five cases this year, and three have been notified within the last ten days. In some of the cases injection of serum was employed, but it is too soon to give a just opinion as to the efficacy or otherwise of the treatment.

DUTIES OF THE MEDICAL OFFICER OF A WORKHOUSE.

Cam asks the following: Is the visiting medical officer to a workhouse who dispenses his own medicine supposed, *under the orders of the Local Government Board*, to keep a dispenser's drug account on exactly similar lines to those which would exist when there is a dispenser?

*** We know of no regulation of the Local Government Board which throws this duty on the medical officer of a workhouse.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

INCOME TAX.

D. F. writes: (1) Am I bound to pay income tax on the year 1904-5 before April, when the fiscal year ends? (2) Am I bound to pay on my life insurance premiums? An imperative note has been served threatening proceedings unless I pay the amount claimed, which includes tax on my life premiums, within ten days. What should I do?

*** (1) The tax is due on January 1st, and can be distrained for at any time after that date. (2) An allowance can be claimed for the tax on the premiums. To obtain this the receipts for all premiums paid during the past twelve months should be at once sent to the district surveyor of taxes, with a request that the necessary adjustment may be made.

ANSWERS.

TERTIARY SYPHILIS.

T. C. D. writes: I have a patient, whom I early found to be intolerant of pot. iod. He suffered from psoriasis on the elbows. I always find the following prescription does him good: R. Liq. arsenicalis 5j; liq. hydrarg. perchlor. 3vj; aq. chlorof. ad 3vj; ft. mist. 3ss t. d. s. ex aquâ et post cibos.

TREATMENT OF GLEET.

DR. JOHN F. ELLIOTT (Verulam, Natal) writes: An answer to J. W.'s query in the BRITISH MEDICAL JOURNAL, December 17th, 1904, may be somewhat belated, but, perhaps, will come in useful. I have found in the treatment of convalescent gonorrhoea and gleet that tinct. ferri perchlor. is very efficacious given in not less than 30-minim doses in plenty of water four or five times a day. It need not necessarily be given after meals, for, if a tumblerful of water be used to dilute, it will not tend to cause constipation. If mixed with chloroform water and drunk with soda water it forms an extremely pleasant drink; indeed, with "Sparklet" it bears a very close resemblance in taste to champagne.

LETTERS, NOTES, ETC.

PNEUMONIA FOLLOWING MEASLES.

DR. ROBERT HUGH ALLEN (Forest Gate) writes: Dr. Bottomley would have enhanced the value of his note on lobar pneumonia following measles, published in the BRITISH MEDICAL JOURNAL of February 4th, if he had been more explicit as regards the use of the terms "broncho-pneumonia" and "lobar pneumonia"; also if he had furnished a bacteriological result of the examination of the sputum. The term "lobar" is vague. It might refer to a bronchopneumonia which had taken a lobar distribution, or to a pneumonia caused by Fraenkel's diplococcus. If the term "catarrhal" be substituted for "broncho" and "croupous" for "lobar," no confusion would arise. The former to embrace the pathological conditions which start in the bronchioles, the latter to include those lesions which begin in the lung alveoli. Croupous pneumonia would therefore be synonymous with the pneumonia arising from Fraenkel's diplococcus, whether it had a lobar distribution or simulated the catarrhal form, and catarrhal pneumonia would include those pneumonias caused by the staphylococcus, streptococcus, the influenza bacillus, and others, whether the pneumonia took a lobar or lobular distribution. When Dr. Bottomley says that "lobar pneumonia is a frequent complication," does he refer to lobar pneumonia as synonymous with croupous, or does he mean a catarrhal (broncho) which has taken a lobar distribution? I conclude the former is Dr. Bottomley's contention. The clinical signs adduced are not sufficient to warrant a diagnosis of croupous (lobar) pneumonia. The same signs might quite well be recognized in a catarrhal pneumonia. I have seen a number of specimens of measles, but never met with a case of genuine croupous pneumonia following measles in children. The examination of the sputum in Dr. Bottomley's cases would have been of great value. The presence of Fraenkel's diplococcus would have made his diagnosis unassailable; but if other organisms—such as the staphylococcus, streptococcus, or the influenza bacillus—had revealed themselves, even with a history and clinical signs strongly pointing in favour of croupous (lobar) pneumonia, then a diagnosis of catarrhal (broncho) pneumonia would need to be given. It is well known that in the absence of an examination of the sputum a diagnosis between catarrhal and croupous pneumonia is sometimes well nigh impossible.

PREMATURE BURIAL.

W. writes: I was pleased to see in the BRITISH MEDICAL JOURNAL a reference by your Manchester correspondent to the affair at Accrington, where a woman is stated to have been measured for a coffin while in a "cataleptic state." I had intended asking that a true account of the above might be given in the JOURNAL, for I am probably not the only medical attendant who has had the matter mentioned to him by patients and who has wished for a more accurate account than could be found in the daily press. All editors are surely not aware of the mental suffering caused to many of their readers by the often exaggerated and detailed description of such occurrences. Only this week a lady who has been bravely facing a death she knows well is not far off, has been greatly unnerved by reading of this very affair. I am enclosing for your perusal a brief report, taken from the *Daily Chronicle* of January 27th, of an address given by a medical man at a public meeting of the London Association for the Prevention of Premature Burial. In "an address full of startling announcements"—for example, "Medical men know nothing more, as a rule, on the subject than the layman"—Dr. Walter Hadwen, of Gloucester, is reported to have said, "An old woman who was formerly caretaker at the cholera hospital in Gloucester had told of the haste made to dispose of the bodies of patients who died from cholera. Sometimes," she said, "we used to hear them kicking after the lid was screwed down, but we never opened it again, because we knew they had got to die anyhow." It is surprising that any medical man can believe and repeat such a horrible story.

CONSTANT PATIENTS.

WE learn from the New York *Medical Record* that Dr. James H. Payne of Boston, who graduated at the University of the City of New York in 1848, has now on his visiting list the names of three persons who have been his patients for upwards of fifty years. He has another patient from whom he removed an ovarian tumour thirty-two years ago. The lady is 91 years of age and is said to be in good health. Patients even of the masculine gender too often exhibit the *varium et mutabile* which, according to the Roman poet, is the characteristic of the fair sex. It is pleasant, therefore, to read of so long an association of doctor and patients.

THE POETRY OF THE PILE.

THE *St. James's Gazette* of December 30th, 1904, contained the following remarkable statement: "It is too much to say that in the pile about to be treated there is no poetry." We had not previously thought of the pile, either before or after treatment, as offering a promising subject for those who, like Mr. Silas Wegg, have a tendency to "drop into poetry." Perhaps some young bard may be grateful to our contemporary for the hint.

AN OBSTETRICAL EPITAPH.

THE following epitaph is said to be inscribed on the tomb of a famous obstetrician of a bygone day:

Prospicite virgines; retrospicite matronæ et lugete.

POPULAR ANATOMY.

PEREGRINUS writes: At the present time, when the advisability of giving instruction on things medical in schools is being discussed on various sides, the following utterances overheard but a little while ago on 'Change may be worth recording, as illustrative of an average Englishman's ideas regarding certain parts of his anatomy. *Sage* (*loq.*): "You know, sardines are very dangerous things to eat because the little bones you swallow with them get into the caecum and cause appendicitis. If they passed through the stomach first, they would be digested and dissolved, and do no harm. But as they get into the caecum first, and only later on into the stomach, you have to be very careful. I never eat sardines myself in consequence."

THE CURE OF AN ERUPTION.

IN Sir Mount-Stuart Elphinstone Grant Duff's *Notes from a Diary* (1886-88), the following is recorded: "Brown (the Chief Justice) mentioned yesterday that a barrister of his acquaintance met in Switzerland an American of the ultra-patriotic kind who assured him that the King of Italy had sent across the Atlantic to engage the services of a leading doctor in the United States. 'To cure the eruption of Vesuvius, I suppose,' observed the Englishman." The American is said to have been pleased with the reply.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s	d
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	0	0
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

The Hunterian Oration.

DELIVERED BEFORE THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, FEBRUARY 14TH, 1905.

By JOHN TWEEDY, F.R.C.S.,
President of the College.

Mr. Vice-President and Gentlemen,—As the history of philosophy, considered from one point of view, is the record of the development and growth of ideas and of the formation of beliefs and doctrines respecting man and the universe accomplished through the thinking of a few great *minds*, so the history of medicine is a record of the observations, thoughts, and achievements of a few great *personalities*—Hippocrates, Celsus, Galen, Paré, Harvey, and John Hunter, to name only the greatest. John Hunter is the theme which has been assigned to me.

Hunter, the anniversary of whose birth we celebrate to-day, did not leave behind him a systematic collection of medical and surgical writings such as the first four writers I have named, nor did he make any capital discovery such as Harvey's respecting the circulation of the blood; but the influence which he exercised upon biology and upon surgery was perhaps more immediate and more penetrating than that of any of his predecessors, and it has been more continuous and more progressive.

Harvey's discovery was *sui generis*, and well deserves the eloquent characterization of Haeser as "the most brilliant triumph of experimental physiology." In all essential respects it was definitive and final. "A demonstrated truth," says Aristotle, "is an eternal truth," and such was Harvey's. It changed the conceptions of physiologists and physicians as completely as Kopernik's heliocentric theory changed those of astronomers; and it became the starting point of modern progress in physiology, medicine, and surgery. Thanks to the labours of Harvey, supplemented and completed by the discovery of the capillary blood vessels by Malpighi and the discovery of the chyliferous vessels by Aselli and Pecquet, physicians and philosophers were enabled to look upon man and his organization, upon structure and function, upon nutrition and growth, and upon the problems of health and of disease from a new point of view.

The Foundations of Physical Science.

Throughout the ages of civilization the growth of knowledge has been slow and often irregular, but it has been continuous and it has been sure. How slow and yet how sure we may realize by comparing the dialectic notions of Aristotle respecting weight and motion with the direct appeals to the evidences of the senses afforded by the demonstrations of Galilei, whereby it was shown that, so far from there being in Nature bodies possessing positive levity, all matter is equally affected by gravity, irrespective of its form, magnitude, or texture. By the simple experiment of dropping objects from the Tower of Pisa, Galilei, who began life as a medical student, laid the foundation of modern physical science, and especially of dynamics. This expedient was one of the first appeals, at least in modern times, to the use of direct experiment in physical science, and the truth thereby established became a determining factor in Newton's great discovery of the law of gravitation. From Aristotle to Galilei an interval of more than eighteen centuries had elapsed. Galilei and Harvey were contemporaries. John Hunter was born exactly a century after the publication of Harvey's *Exercitatio De Motu Cordis*. It is one hundred and eleven years since John Hunter died. Yet how modern Hunter is! Inventions and discoveries now crowd upon us so thick and fast that we are apt to forget how recently modern physical science began, and especially modern medicine. In the order of time medicine, in its rudest and simplest forms, must have been one of the first of the empirical arts, but in the order of ideas it was one of the last to enter into the hierarchy of the sciences. As a system of organized knowledge medicine presupposes and requires not only centuries of clinical observation and a complete logical apparatus, but it also requires an advanced state of all the other natural sciences. It concerns itself with the recondite problems of life in the most complex and the most highly differentiated of its manifestations, whether under the conditions of health or under those of disease. Until physics and chemistry had advanced from the conjectural and the aprioristic to the scientific stage, medicine could only be conjectural and aprioristic too, however useful it may have been as a practical art. The thoughts and labours, the experiments and discoveries of the great pioneers of modern knowledge in the physical sciences were the necessary prelude to a scientific progress in biology, which, in its turn, was a condition precedent to any real advance in the science of medicine, surgery, and pathology. Harvey, in the order of time and of thought, was the necessary antecedent of Hunter.

The Two Hunters.

The history of John Hunter's birth and parentage is well known. I may, however, remind you that he was born on February 13th or 14th in the year 1728. He came to London at the age of 20 years. He learned and studied anatomy in the school of his brother William; he studied surgery under Cheselden at the Chelsea Hospital, and under Percivall Pott at St. Bartholomew's. Subsequently he became a student at St. George's Hospital. In 1761 he was appointed a surgeon in the army, and in the year 1768 he was appointed Surgeon to St. George's Hospital, having in the previous year been elected a Fellow of the Royal Society. After a strenuous life devoted to the study of anatomy and biology and to the practice of surgery, he died at St. George's Hospital in the year 1793. He was buried in the vaults of St. Martin's-in-the-Fields. In the year 1859, when the coffins in the vaults were moved for reinterment, the late Frank Buckland undertook to find Hunter's coffin. Buckland searched for sixteen days and viewed 3,063 coffins, and found Hunter's among the three last. Hunter's body was reinterred by the Royal College of Surgeons in the north aisle of Westminster Abbey on March 28th, 1859.

The starting-point of John Hunter's career as anatomist, biologist, and surgeon was in the year 1748, when he came to London with a receptive and intelligent mind, a quick and observant eye, and a well-trained hand, to collaborate with his brother William in the anatomical school which had been started two or three years before. It has been alleged that John Hunter had little or no school education and that he was a wayward and careless youth; and it has been argued that his lack of scholastic training hampered him in after-life, more particularly with reference to his powers of verbal description and exposition. I suspect, however, that the defects of Hunter's general education have been exaggerated. It is certain they had no detrimental effect upon the vigour of his intellect or upon the correctness of his methods of work. John Hunter probably knew little, perhaps he knew nothing, of formal logic or of the history of ideas or of scientific methods, but with the instinct of true genius he soon found the only path that leads to genuine knowledge, and he kept it undeviatingly to the end. Contrasts have often been drawn between John Hunter and his brother William, and the differences between the two men have usually been ascribed to a difference in education. This, I believe, is not the correct, and certainly it is not the only, explanation. There was a difference between the two brothers, but it was a difference of temperament and disposition, a difference which was only indirectly, if at all, determined by education. Be this as it may, the differences were subdued to a great purpose. The qualities of the two brothers became complementary one of the other. The manipulative skill and the tireless research of John furnished ample materials for the display of William's splendid powers of exposition; and so each, in his own way, contributed to the success and fame of the first and greatest school of anatomy in England.

The Study of Anatomy.

Considering the important part that human anatomy now plays in medical education, it is difficult to conceive that there was no systematic teaching of anatomy in England before the middle of the eighteenth century. During the many centuries which elapsed between, say, the time of Hippocrates and the middle of the sixteenth century, the dissection of the human cadaver was almost unknown. Forbidden alike by the laws and customs and religion of the ancient Greeks, and by the creed of Mohammed, the study of human anatomy was placed under a civil and religious ban until the end of the thirteenth century. In ancient Greece the laws relating to immediate burial were very stringent. Even victorious generals had been condemned to death because they neglected to bury the slain. The pathos of Sophocles' tragedy of *Antigone* turns, it will be remembered, upon the sacredness

of the dead, and of the necessity, higher than imperial commands, of immediate burial.

When the tradition of Greek medicine passed—in the seventh and eighth centuries—into the hands of the Mohammedans, human anatomy was equally neglected, the practice of dissection being implicitly forbidden by the Qurân. Albucasis, the only surgeon of first rank in the Graeco-Arabian school, writing at the end of the eleventh century, deploring the decadence of surgery, says: "The reason why there is now no dexterous operator is this: The medical art demands time. He who wishes to practise it ought first of all to study anatomy as it is described by Galen." Albucasis cites several instances within his own knowledge of patients dying from haemorrhage under the hands of men who had undertaken to operate without knowing where the large blood vessels lay or how to arrest the bleeding when these vessels were divided.

Even after the dissection of the human cadaver received the sanction of the civil authorities in Southern Europe, the teaching of anatomy was cursory and occasional, and merely descriptive. Mundino of Bologna, in the fourteenth century, who was the first in modern times to dissect the human cadaver, seems to have dissected only two bodies. So little was known of human anatomy, and so strong was the tyranny of tradition, that when Vesalius, in the middle of the sixteenth century, alleged that the anatomical descriptions of Galen could not be adapted to man, there were not a few who, in their zeal to repel the accusation that Galen had used animals in dissection, did not hesitate to maintain that the human organization had changed since Galen's time.

William Hunter's Work.

In England, notwithstanding Harvey lectures on anatomy in the first quarter of the seventeenth century, there was no organized teaching of anatomy before William Hunter's time. In this matter William Hunter has not received all the credit he deserves. He came to London in the year 1741, at a critical period in the history of English surgery. In the year 1745 the union which had existed between the Surgeons of London and the Barbers of London for over 200 years was dissolved by Act of Parliament. The surgeons were incorporated by the name of the Masters, Governors, and Commonalty of the Art and Science of Surgeons, and from this incorporation our College took its rise. During the union of the two companies there had been lecturers or readers on anatomy in the Barber-Surgeons' Hall, the readers being nearly all physicians, but the teaching of anatomy seems to have been for the most part only descriptive and demonstrative. Upon the formation of the new Company of Surgeons provisions were made for the teaching of anatomy, but the first masters were not elected until eight years later. There seems to have been throughout the greatest difficulty in getting the stewards of anatomy to perform their duties; and partly in consequence of this, and partly in consequence of the difficulty of obtaining "bodies," the attempt to teach anatomy was abandoned by the Surgeons' Company.

In the winter of 1745-6, William Hunter undertook for a Society of Naval Surgeons the delivery of a series of lectures on surgery. This he did so satisfactorily that he was asked to include anatomy in his course. He accordingly advertised his first course of anatomical lectures to begin on February 1st, 1746, and added that "the operations of surgery with the application of bandages" would be included in the course, and also that "gentlemen may have an opportunity of learning the art of dissecting during the whole winter season, in the same manner as at Paris." Had William Hunter's ambition been realized, he would, nearly a century and a half ago, have solved a problem in early medical education in London which is still perplexing the minds of many thoughtful persons. He desired to establish an anatomical school in London upon an extensive scale. With this object in view, he offered to erect a building at the cost of £7,000 for the study and teaching of anatomy provided the Government would grant him a piece of ground to build upon. It was also his intention to give to this institution all his preparations and his books. With a lamentable lack of sympathy which British Governments have too often manifested in their dealings with science and education, William Hunter's offer was declined. Smarting under a keen sense of disappointment and full of resentment, he determined to transfer his favours to Glasgow, which now enjoys the possession of his priceless museum and his library. *Beati possidentes.*

William Hunter's memory deserves at least this passing tribute of our respect: he attempted to place medical education in London on a sound and permanent basis. But we of this College owe his memory a further debt of gratitude, for he was John Hunter's early patron and protector, and took every occasion and opportunity to advance John's worldly interests and to promote his reputation in the surgical and the scientific worlds.

John Hunter as a Philosopher.

After John Hunter had worked at human anatomy for ten years, he manifested his intellectual growth by directing his thoughts to the higher and more scientific discipline of comparative anatomy and physiology. He realized that human anatomy alone was an insufficient guide to pathology and surgery. He collected all manner of animals at his house and grounds at Earl's Court in order to study their ways and habits, and from every available source he acquired animals, living or dead, for the purposes of observation, experimentation, or dissection. In his use of the lower animals for the elucidation of physiological problems he followed while amplifying the practice of Harvey, who in his turn adduces the authority of Aristotle. There was, however, a striking and characteristic difference between the use which Aristotle made of the dissection of animals with reference to human anatomy and that of Hunter. There is no trustworthy evidence that Aristotle or Hippocrates or even Galen dissected the human body, certainly not in the sense we understand by the term "dissection." They dissected the bodies of animals *instead of* those of man, and transferred their observations of animals to the corporeal organization of man. Hunter, on the other hand, practised the dissection of lower animals *in addition to* that of man, and transferred his observations to the embryology and morphology of man and to the elucidation of the problems of human and comparative physiology and pathology.

John Hunter was a philosopher in the strict and primary sense of the word. He had a passion for knowledge. "Let no man presume to call himself wise," says Pythagoras; "God alone is wise. Man can never get beyond the passion for wisdom." John Hunter had this passion. He devoted himself to the pursuit of knowledge, searching for it in every department of the organic world, animal and vegetable. In one of his letters to Jenner he says: "I have but one order to send you, which is, to send everything you can get, either animal, vegetable, or mineral, and the compound of the two, either animal or vegetable mineralized." And, again: "Have you any large trees of different kinds that you can make free with? If you have, I will put you upon a set of experiments with regard to the heat of vegetables." With respect to the observations and experiments which he directs Jenner to make, he says, "Be as particular as you possibly can." These sentences express briefly and in epitome, as it were, Hunter's habits of mind and his attitude towards the problems of organic life.

John Hunter may have lacked the power of clear exposition, and he may have disliked routine teaching. He was, however, full and overflowing with ideas, new and original, to which he often found it difficult to give distinct shape and utterance. In contrast with William Hunter's didactic powers, John had the suggestive, the constructive, the creative faculty, the faculty of discovery, of co-ordinating knowledge, and he had the art of stimulating thought and calling forth effort from others. He taught by example rather than by precept. It is clear evidence of the value of John Hunter's method of teaching that he attracted to his classes the best students and surgeons of his day, men who afterwards rose to the highest eminence—Edward Jenner the vaccinator, Dr. Physick of Philadelphia, Abernethy, Cline, James Earle, Astley Cooper, Lynn, and Anthony Carlisle. These men in after-life repeatedly expressed their indebtedness to Hunter and to his personal influence as a teacher.

What, then, did Hunter do? The ready answer comes that he made one of the largest and most instructive collections of anatomical and biological specimens known to history—his famous museum, which is now lodged within the walls of this College, and which it is our pride and privilege to protect, to preserve, and, so far as may be possible, to perfect. But I venture to think that, however great, notable, and precious Hunter's museum may be, it represents only the material part of him. The spirit which animated him, the germinative character of his method, the impulse which he gave to the operation of mind in the pursuit of biological knowledge, were infinitely greater and infinitely more precious. *That*, amid the accidents and mischances of time

may pass away, but *these* will abide as long as civilization on this earth endures. What Hunter did from the material side is sufficiently well known. His contributions to surgery and biology have been repeatedly enumerated, expounded, and eulogized in this place and elsewhere. I shall, therefore, not attempt to repeat what has been already done so often and so well; but I desire rather to draw attention to Hunter's method, to consider not so much *what* he did as *how* he did it.

John Hunter and Inductive Reasoning.

Ottley, the first and one of the best of Hunter's biographers, remarks that in pursuing his researches Hunter strove, not like many of his more learned and less philosophical predecessors, to unravel the mysteries of Nature by taking up principles *a priori* and seeking for facts to support his theory, but that, on the contrary, he followed in the strictest manner the inductive method laid down by Bacon as the only sure though arduous road to knowledge; and Babington, in his Hunterian Oration, remarks of him: "He had never read Bacon, but his mode of studying Nature was as strictly Baconian as if he had." Other critics and historians of Hunter's work, and not a few Hunterian orators, have written or spoken in a similar strain. In my judgement this view is entirely erroneous with respect to Hunter's method, and it is a complete misinterpretation of the Baconian system. Bacon's eloquence and influence undoubtedly did much to attract men to the observation and study of natural phenomena. He called attention to the necessity of studying the powers and forces of the world as a means of subjecting the world to the human mind, and so far his message was appropriate and opportune. The significance of that message is probably greater now than at the time he delivered it. The future belongs to the nation which understands best the forces of Nature, and which can most skilfully and economically employ them. But Bacon himself neither knew nor understood the physical sciences. His spirit was essentially mediaeval, and much less modern than that of his illustrious namesake Roger Bacon, who lived three hundred years before him. Francis Bacon's aim was purely utilitarian. He had no idea of knowledge for its own sake, and he cherished the hope that by increasing our knowledge of Nature the secret of the transmutation of substances would be learnt, and probably the knowledge of the making of gold. He not only had no practical acquaintance with natural science, but he lacked insight into the true methods of its investigation. He understood very imperfectly the value of experiment, and he assigned quite a subordinate position to quantitative determination, the precise quality which is the most striking characteristic of modern science, and which constituted the most original and perhaps most brilliant of the reasonings which Harvey employed in his famous induction. So far from being the founder of the modern scientific method, Bacon's writings were themselves one of the products of the intellectual awakening which began at the end of the sixteenth century. Notwithstanding his affectation of scientific knowledge and scientific methods, Bacon had an unscientific weakness for superstitions. He believed in natural and judicial astrology, though not without some hestitation and discrimination. He believed in the transmutability of elements and of the metals, in charms and signatures as remedies, and so completely did he ignore Harvey's discovery of the circulation of the blood that in one of the latest of his writings he ascribes the pulsation of the heart and arteries to the dilatation and contraction of the spirits. Well might Harvey say, in disparagement of Bacon's scientific writings: "He writes philosophy like a Lord Chancellor."

The Baconian Method.

Bacon's ruling idea was the collection of masses of facts and then the employment of processes of arrangement, and separation, and exclusion, so artificially contrived that a man of common intelligence should be able to announce the truth sought for. This method has been slightingly described as a kind of scientific bookkeeping. "It is difficult," says Stanley Jevons, "to imagine a less likely way of arriving at great discoveries. The greater the array of facts the less is the probability that they will by any routine system of classification disclose the laws of Nature." The answer to the claim that Bacon was the philosophic father of modern methods of scientific investigation, is that none of the scientific truths established by the great masters of science can be made even to *appear* in correspondence with Bacon's methods. Whether we look to Copernicus, who preceded him, or to Kepler, Galilei, Torricelli, Pascal, Gilbert, and Harvey, or to Newton, Descartes, or Huygens, or to Thomas Young, or to the chemists Black, Priestley, Scheele, and Lavoisier, we find that discovery was achieved by a method quite different to that advocated by Bacon. So dispassionate a critic of philosophy as John Grote remarks: "I have not the smallest belief in Bacon's having reformed the method of discovery, believing rather that if he had *had* any success in that way, in the manner he wished, it would have been most calamitous for science." And even with regard to the claim of Bacon to be the founder of inductive philosophy, Ellis, one of the ablest of his editors, asserts that the nature of the act of induction is as clearly stated by Aristotle as by any later writer, while Aristotle himself ascribes the credit to Socrates. Perhaps the Baconian claim has never been more convincingly refuted than by Augustus De Morgan, at once one of the profoundest and subtlest thinkers of the nineteenth century. "Modern discoveries," he says, "have not been made by large collections of facts, with subsequent discussion, separation, and resulting deduction of a truth thus rendered perceptible. A few facts have suggested an *hypothesis* which means a *supposition* proper to explain them. The necessary results of this supposition are worked out, and then, and not till then, other facts are examined to see if these ulterior results are found in nature. . . . Wrong hypotheses rightly worked from have produced more useful results than unguided observation. But this is not the Baconian plan. . . . What are large collections of facts for? 'To make theories *from*,' says Bacon; 'To try ready-made theories *by*,' says the history of discovery."

Bacon's plan was purely mechanical. He ignored the work of the mind in the constitution of knowledge. He imagined that he had discovered a method by which scientific truth might be determined with absolute certainty, and by a mechanical mode of procedure such that all men were capable of employing it. "Our method of discovering the sciences is," he says, "one which leaves not much to sharpness and strength of wit, but nearly levels all wits and intellects." And this opinion is endorsed by most writers of the empiricist school in complete disregard of the teaching of history. Those who imagine that science requires nothing but the registering and classification of facts forget that the facts observed can only be connected and related by the mind, and that the laws of nature are after all mental products from given data.

John Hunter's Method.

Not only did John Hunter not follow the mechanical methods of Francis Bacon, but it is the work of the mind which is the peculiar characteristic of his method and its chief glory. Others could do as well as he the more mechanical part of his task—indeed, much of it was done by others; but the suggesting, controlling, co-ordinating mind was Hunter's, which, amidst the multiplicity of phenomena and of data apparently conflicting, discovered unity amidst multiformity, which is the special function of science.

John Hunter's constant aim was to arrive at principles, and he was distrustful of so-called facts. "The principles of our art," he said, "are not less necessary to be understood than the principles of other sciences; unless, indeed, the surgeon should wish to resemble the Chinese philosopher whose knowledge consisted only in facts. In that case the science must remain unimproved until new facts arise. In Europe philosophers reason from principles, and thus account for facts before they arise."

Hunter possessed every moral and intellectual qualification necessary for useful scientific research. He had a large knowledge of facts based on an intimate acquaintance with the phenomena of organic nature. He had a fertile imagination ready to suggest possible relations of those facts. He had openness of mind, and a conscientious scientific spirit which submitted every hypothesis to the test of observation and experiment. Scepticism is the first condition of reasoned knowledge. Hunter was not only observant, but he was rationally sceptical and critical, and he himself ascribed his success as a scientific investigator to the sceptical qualities of his mind. He took nothing on trust. He was always careful to distinguish between mere conjecture and reality, and drew a sharp distinction between the actual results of an experiment physically performed and what might have been mentally anticipated. "In pursuing any subject," he says, "most things come to light as it were by accident, that is, many things arise out of investigation that were not at first conceived, and even misfortunes in experiments have brought things to our knowledge that were not, and probably could not have been previously conceived; on the other hand, I

have often devised experiments by the fireside or in my carriage, and have also conceived the result; but when I tried the experiment, the result was different, or I found that the experiment could not be attended with all the circumstances that were suggested." Here, in a sentence, we note the wide difference between the modern and the mediaeval spirit in science. The alchemists performed experiments innumerable, but with them theory ranked above experiment, and if experiment gave an unexpected result, this was forced into an artificial conformity with the aprioristic theory. It was therefore, says Lange in his *History of Materialism*, "essentially directed to the production of this previously anticipated result rather than to free investigation."

John Hunter and Chance Discovery.

Many of Hunter's discoveries may be said to have been accidental, but they were such accidents as happen only to those who deserve them, as Lagrange remarked of Newton. Chance may sometimes put us in the right way, but chance alone does not take us far. It was chance that showed to Ambrose Paré in the sixteenth century that gunshot wounds did not need the application of boiling oil, as he had learned from his masters and as he himself at one time believed. Paré states that when he went to the wars in 1536 he had neither seen war nor gunshot wounds, and only knew what he had read in John of Vigo, who taught that gunshot wounds were envenomed, and that the effect of the poison was only to be counteracted by pouring boiling oil into the wound. Paré, relating his later experiences, states that on one occasion there was not enough boiling oil to cauterize all the wounded, and he used instead for some of the cases a digestive made of yellow of egg, oil of roses, and turpentine. The shortage of the boiling oil caused Paré great distress of mind, as he feared that those who had not had the application of the oil would die of poisoning. After a sleepless night he rose early in the morning, and was surprised and rejoiced to find that those who had had the milder application had not only not died, but that they were suffering but little pain, and the wounds were free from swelling, whereas those who had had the orthodox cauterization were suffering severely from pain and swelling of the limb, and from fever. Henceforth he decided to abandon the barbarous use of boiling oil; but, not content with the accidental experience, he proceeded, in the true scientific spirit, to test the alleged venomous quality of gunpowder, and proved that not only was it non-poisonous, but that it might be used with good effect to ulcers in order to dry them.

In a sense it was chance that disclosed to Hunter the establishment of collateral circulation after the ligature of a main artery. In July, 1785, Hunter tied one of the external carotid arteries of a stag with a view of studying its effects upon the growth of the corresponding antler. He observed that the pulsations of the vessels of the "velvet" ceased, and that the antler, which was only half-grown, became cold to the touch. Hunter debated within himself whether the antler would be shed or be retained longer than usual. On examining it a week or two later, when the wound had healed, he found that the antler had become warm and was increasing in size. The question was—Had his operation in some way been faulty? The buck was killed, and on examination it was found that the artery had been duly tied, and was completely obliterated, but that the circulation was carried on by vessels above and below the ligature, which had, under the new conditions, become enlarged, and by their anastomoses had restored the blood supply of the growing part. The knowledge of the establishment of collateral circulation was not new in the history of surgery. Blood vessels had often been divided and tied in continuity, and the nutrition of the limb had not been permanently impaired. Indeed, Celsus, writing in the first century of our era, distinctly states that after a division of a large artery the two ends should be tied, and that repair takes place by anastomosis. But Hunter now saw, from a new point of view, the establishment of collateral circulation after the ligature of a large artery. He readjusted his conceptions. His sagacious insight discovered a deeper meaning in this chance observation; and he conceived its applicability to the cure of, at least, popliteal aneurysm.

It so happened that there was a patient under his care in St. George's Hospital with popliteal aneurysm who had consented to undergo amputation. Hunter argued that if the anastomosing vessels in man would carry on the circulation after ligature of the femoral artery, as it had done in the artery of the stag, he could cure the patient's aneurysm and save the limb. Hunter performed the operation, and in six weeks the patient left the hospital cured and with a sound limb. This operation, which has ever since borne Hunter's name, has been instrumental in saving hundreds of limbs and lives.

His Mental Attitude.

While the principle underlying this operation was originally suggested by a chance observation, its elaboration and perfection were only possible by a mind stored with clinical experience and emboldened by assurance gained through experiments on living animals. Hunter constantly submitted his observations to verification, and, whenever practicable, to the test of experimentation, which Cossa describes as "observation carried to a greater degree of perfection." But Hunter did not unnecessarily repeat experiments. It was an axiom with him "that experiments should not be often repeated which tend merely to establish a principle already known and admitted, but that the next step should be the application of that principle to useful purposes."

While Hunter was intolerant of a state of doubt in small things as in great, if by any means decision was possible, he ever held his judgement in suspense if certainty was not attainable. Like all strong characters, he cared little for systems or consistencies of opinion. He followed wherever Truth should lead, and by his very nature was always open to new and higher knowledge. To a pupil who asked with surprise whether he had not the year before stated an opinion on some point directly at variance with one he had just put forth, he boldly replied: "Very likely I did; I hope I grow wiser every year." And again, "Never ask me what I have said, or what I have written; but if you will ask me what my present opinions are I will tell you."

In all his relations of life John Hunter manifested courage, candour, and tenacity of purpose. Truth he believed to be preferable to friendship, and at the most painful crisis in his life did not shrink from putting into practice this Aristotelian maxim. Indeed, Hunter possessed not a few qualities in common with the great Stageirite. Hunter was not, of course, Aristotle's equal either in range of knowledge or in intellectual power. Aristotle did, indeed, take all knowledge to his province. Hunter had not the sweep of thought, nor the largeness of view, nor the grasp of logical and philosophical principles, nor the cyclopaedic learning which distinguished Aristotle; but, within his range, Hunter's insight was as penetrating and as clear, and his zeal for knowledge was as ardent and as untiring, and his methods were sounder, more critical, and more exact.

Ordinary men are to be measured by the standard of their contemporaries, but the greatest men are estimated by the influence they exert upon the thoughts and activities of those who follow them. Judged by either or both of these criteria John Hunter ranks amongst the greatest. The time in which he lived was a period of great intellectual and scientific achievement. He had for contemporaries amongst his countrymen Priestley and Black, Cavendish and Davy, Dalton and Thomas Young, Wollaston and William Herschell; and Hunter ranked high among the highest.

The Purposes of Nature.

In attempting an appreciation of John Hunter's method I have suggested rather than explained the development and growth of the modern knowledge of physics, chemistry, and biology under the influence of the experimental method; but it has not been my purpose or intention to offer any defence of this method. To defend the use of experiment in physics and in chemistry would be manifestly absurd, and I assume that in this place and before this audience it is equally unnecessary to offer an apology for its use in physiology and pathology. I opine, however, that it is within my province as Hunterian Orator to anticipate the possible censure of some who would not hesitate in the sacred name of Religion to traduce the memory of Hunter because he practised experiments in physiology. John Hunter did employ the method of experiment. He employed it with no less zeal than with intelligence. He employed it not from idle curiosity, not from the promptings of vainglory, nor for the purposes of worldly advancement; all that he had he gave to science. He employed it in the service of humanity and in the study of the nature and laws of life; and the knowledge which he thereby acquired he transferred to the domain of medicine and surgery, and applied to the alleviation of sickness and suffering among animals no less than among men.

I pretend not either impiously to affirm or not less impiously to deny all the purposes of Infinite Wisdom in

giving man dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth; but we do know that throughout historic time man has not hesitated to capture, to subjugate, and to slay, beast, and bird, and fish, for his pleasure, his sustenance, and his service. Was the lordship over the animals given to man only for the satisfying of his physical and sensuous needs? Is not the life more than food? Was it only with reference to man's bodily well-being that the question was asked: Are ye not of much more value than the birds of the heaven? Does the mind need no aliment? And is the veto to be applied only when animals are to be used for the purposes of elucidating the kindly functions of physiology, or of disclosing the baneful secrets of disease?

The vicarious suffering and sacrifice of animals for the service and the salvation of man have obtained throughout the ages, and constituted the basis of the elaborate ceremonial system of the ancient Israelites. In anticipation of the great Passover, Moses directed the Israelites each to kill a lamb according to their families, and to sprinkle its blood upon the lintel and the two side posts. "For the Lord will pass through to smite the Egyptians; and when He seeth the blood upon the lintel, and on the two side posts, the Lord will pass over the door, and will not suffer the destroyer to come into your houses to smite you." The complete purification of *one* leper and his reception back into society involved not only the slaughter of three lambs, but the convalescent had to appear with two living clean birds, one of which was slain, while the other, still living, was baptized in the dead bird's blood, and then allowed to fly away free. The principle of substitution was actualized in the ceremony of the scapegoat. At the annual Feast of Expiation, a young bullock, two kids, and one ram were slain; and two goats were taken upon which lots were cast, one lot for Yahwè, the other for Azazel. The goat on which the lot fell for Yahwè was sacrificed for a sin offering; but the goat upon which the lot fell for Azazel was presented alive, and when the high priest had symbolically placed upon its head the sins and transgressions of all the people, the goat was led into the desert, there to become the victim of hunger and thirst, and the prey of ravenous bird and beast.

Are these hecatombs to be regarded as of Divine origin and sanction, while the inoculation of a cat or dog, or it may be a rat, is to be denounced as a desecration and a violation of the purposes and will of God? Who will say but that in our day, as the Angel of Death passes through the land, seeing upon us the sprinkling of the immunizing blood, takes that for a token, and is not suffered to come into our houses to smite us? "Dipt in his fellow's blood the living bird went free"; and so we, dipped in blood, aye, the blood of our fellow-man, as the annals of medical martyrology bear witness, we enjoy a growing freedom from plague and pestilence and noisome disease, and in the fullness of knowledge the measure of our freedom will be full.

A Clinical Lecture

ON

VISCEROPTOSIS: ITS SYMPTOMS AND TREATMENT.

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Visceroptosis, or "dropping of the viscera," is a condition combined with chronic invalidism. The disease is often called after the organ most markedly prolapsed, for example, gastroptosis, nephroptosis, etc. Clinically, these cases usually seek relief from gastric, nervous, or uterine symptoms, and are usually dealt with by the gastrologist, neurologist, or the gynaecologist. The displacement downward of any of the viscera is without symptoms so long as the patient is in good physical condition—in other words, the disease comes to our notice in association with neurasthenia, and no mechanical replacement of the prolapsed organ or organs can cure the neurasthenia. On the contrary, a cure of the neurasthenia goes far to make a symptomatic cure of the visceroptosis. Occasionally local symptoms may arise from an organ, as Dietl's crisis or intermittent hydronephrosis in a movable or floating kidney, dilatation of the stomach secondary to prolapse, constipation from a prolapsed colon, and local bladder, rectal or ovarian irritation from uterine prolapse. But when symptoms associate themselves with prolapsed viscera they are, in the vast majority of cases, those of neurasthenia, and are never cured by mechanical replacement of the offending organs. Such associated cases require the treatment of neurasthenia, and as far as possible it should be a full or modified Weir Mitchell treatment of rest, free feeding, massage, and training of mind and body. There are certain adjuncts or agencies that, carefully pursued, make for an anatomical replacement in addition to a symptomatic cure.

Etiology.

The frequency of these ailments is most startling. Over 90 per cent. of the cases of neurasthenia in the female are victims of visceroptosis. This disease is less prevalent in the male neurasthenics.

Clinically, the etiological factors of importance are bad standing posture, badly-fitting garments, imperfect use of the lower zone of the thorax, the absence of fat, and the want of tonicity in the abdominal musculature leading to defective intra-abdominal pressure.

Dr. John Madison Taylor of Philadelphia and Keith of England were the two first, so far as I know, to point out that the origin of this disease begins in a faulty position and use of the thorax. Indeed, it would seem as if the muscles of the spine were the prime offenders.

Symptoms.

The symptoms of this disease, when well marked, are practically those of neurasthenia with or without direct local distress. Of the local symptoms, some form of gastric disturbance is usually complained of. Pain or tenderness is variable in its situation. It may be in the right renal region or over McBurney's point, simulating appendicitis, or extending down the right leg to the heel. It may be felt at a point over the eighth or ninth left costal cartilage, or in the chest, or in the median line over the left lobe of the liver, even when the upper border of the stomach lies below the navel. Occasionally the pain may be complained of at or below the navel. The situation to which pain is most frequently referred, however, is the small of the back. The crisis of movable kidney has been mistaken for appendicitis, and intermittent hydronephrosis for ovarian tumour. On account of the backache and pelvic dragging, women with general visceroptosis frequently seek relief at the hands of the gynaecologist. Gynaecologists, as a rule, are coming to realize that prolapse and displacement of the uterus is but part of the general visceroptosis, and that the whole picture has lurking behind it "the American disease"—neurasthenia.

When discussing the question of treatment, I shall point out to you that the muscular tone of the levator ani is an immense factor in bringing the pelvic viscera to their normal position, and that the tone of this muscle is largely dependent upon the tonus of the lower half of the abdominal wall. It is not infrequent to meet with patients who have had their uterus suspended for displacement and prolapse, in whom the upper border of the stomach is found but little above the navel. It is needless to say these patients obtain no results from gynaecological operations. To return to the signs and symptoms: There is usually a mild, but occasionally a severe, form of secondary anaemia associated with this disease. A condition of presenility is occasionally found, and this may be attended with early arterio-sclerosis. One of my patients, upon reaching the age of 28, had passed the climacteric.

The most constant symptom is emaciation or malnutrition, for, if these patients are fairly well nourished, they are flabby and their muscular development is defective. On stripping such a patient we notice the emaciation and atrophy of the skin. It is free from fat, and noticeably devoid of elasticity. The flushings brought out by handling would enable one to write a name easily upon the skin. This dermography is a stigma of neurasthenia. The lower zone of the thorax in this woman has fallen in so that the right prolapsed kidney can hardly be pushed back into its natural bed without bending the ribs outward. I want to impress upon you that the shape of that thorax suggests at once the condition we have to deal with. When this patient stands up, the abdominal wall is a double plane, but its apex is well below the navel. The same condition obtains on laying the patient down. The abdominal musculature is atrophied and flaccid, and of such a quality that you can easily see that the intra-abdominal tension is greatly below what it should be in a healthy person. I am in the habit of thinking of the

abdominal cavity as a joint. Did you ever see a surgeon whose eye would not steal away from a diseased joint on an inspection of the muscles that move that joint to determine the extent of the disease in the joint? Clinically, when the joint is diseased, the muscles passing over, or moving that joint, waste, and this wasting of the muscles of the joint has been a clinical phenomenon known from the beginning of time. Now, I hold that the abdominal cavity can be considered as a joint, and the health of that cavity can be fairly well gauged by the tone of the muscular covering of that cavity. I wish to say, further, that, if the abdominal wall is strong, the muscles that oppose the walls are strong. The lower zone of the abdomen is opposed by the levator ani, and the upper zone by the diaphragm and the lower intercostal muscles. As a physical sign of this disease, I attach considerable importance to the absence of the stomach resonance in Traube's semilunar space. You will notice in this case there is flatness on percussion. I shall show you that a similar flatness is obtained in the other two patients to be examined during this clinic. I cannot say that I have had experience enough to determine how much importance should be attached to the fact that the tenth rib floats. In a considerable number, though not in all, of these cases it does. On asking this patient to take a deep breath, you can see on close inspection here two shadows apart travelling when the patient expires. These are the upper and lower borders of the prolapsed stomach, and these can be frequently seen in patients as emaciated as the one under inspection to-day. The position of the solid organs, of course, must be determined by palpation. The spleen, the liver, and the kidneys each has its special method of being palpated, and I know no higher test of a good practical diagnostician than his ability to palpate solid organs.

The inflation of the hollow viscera like the stomach and colon is necessary to complete the examination. Stomach inflation can be done with a tube or with tartaric acid and soda bicarb. solutions. In using the latter method the patient should be instructed that if he has any difficulty in getting the gas up he should pass his finger down his throat as if to provoke vomiting. This simple measure invariably brings relief.

In this third case of gastric prolapse the stomach has a vertical position, the pyloric portion descending much lower than in either of the other two. She is not anaemic like the others, and her complaint is largely limited to gastric disturbances.

TREATMENT.

Now, I wish to speak of the treatment of these cases. It would be idle to bring them before you if I could not say something in the way of cure. My friend, Dr. Meek, says this cure should begin before they are born; but, being badly born, it will be your duty to lure them out of their bad inheritance.

When you see, gentlemen, the physical deformity of this thorax, which is a type of thousands and thousands of young growing chests, you feel that you could see compulsory military service introduced into your native land without protest.

To prevent the occurrence of this condition, the early training in habits of living, the exercise of breathing, the posture of the body in standing, proper state of nutrition, regulation and wearing of garments, especially in the female, and great care after pregnancy to see that restoration of the abdominal wall to its proper place and tonus takes place, are essential. The obstetrician who does not carefully examine to see that the overstretched abdominal wall has fully recovered itself after pregnancy, has failed in one of his chief functions as obstetrician.

It is known that intercurrent conditions that confine patients for long periods in bed will cure mild cases of gastroptosis. Weir Mitchell long ago said that the most prevalent forms of gastric disturbances could be cured by his rest treatment. Certainly all cases of visceroptosis can obtain a symptomatic cure by a thorough course of Weir Mitchell treatment, in which care is taken that the abdominal wall is thoroughly built up, and the lower zone of the thorax expanded. For the relief of Dietl's crises a belt may be demanded, but I frequently say to these patients the best belt in the market is a thoroughly restored abdominal wall.

Weir Mitchell Treatment.

The Weir Mitchell treatment, when applied to visceroptosis, is curative, and if properly carried out will not only leave the patient free from complaint, but will return and restore to a marvellous degree the prolapsed viscera. As we practise the treatment here for visceroptosis, it has the following features:

a. Recumbent postures on a bed, as far as possible without pillows, from four to eight weeks.

b. Some form of cool bath one hour before massage to get muscular relaxation.

c. General massage, with an attempt to build up the abdominal wall, at first by massage alone, later by associated exercises.

d. Raising the thorax up. Expanding the lower zone of it several inches, to enable the viscera to find room upward. Great attention should be given to the proper position of the chest and spine, and when the patients are brought to the erect posture they are to be constantly reminded to maintain it.

e. Feeding of the patient for the relief of the anaemia present, and to cushion the viscera in the abdomen with fat. This is particularly effective in the male.

f. Train the mind and body. The mind should be trained to cease complaining, to disregard objective conditions, and the body should be trained by passive movements, resistance movements, and long walks, to a thorough state of vigour. The success that will attend your efforts will depend largely upon how far you have control over the patient and the character of the nurse, her skill as a masseuse, her ability to repress grumbling and to lead the patient into a higher moral atmosphere. Solomon said: "As a man thinketh in his heart, so is he," and these patients must be brought to think themselves on the sure road to a complete restoration of former health, for no neurasthenic can ever hope to obtain perfectly his former health until one or two years have passed over his head after the beginning of treatment. The nurse must put into the patient's head sane courage. She must have experience in dealing with the variable mental phases of this ailment. Even in the manipulative part or the physical part there is a difference in masseuses. Some are mere rubbers, others have that something which enables them to build up muscles almost like magic. I might say that my experience in muscle building is in favour of massage being done without ointment, oil, powder, and always in a relaxed state. If the masseuse fails to build up the abdominal wall and expand the lower zone of the thorax, she fails to help the patient. Ten weeks is the shortest period to be given for abdominal wall building.

Feeding.

We have been careful here to make observations on the effect of feeding in a correction of the anaemia in this condition. Dr. Macgregor, the pathologist, has been kind enough to make weekly observations on the day on which the weighing of the patients took place. The erythrocytes increase more or less in proportion with the increase of body weight. The haemoglobin increases progressively with body weight, until it may reach 110 or 115 per cent. (Gowers's instrument). The leucocytes show marked increase during the first week, reaching their maximum during the second week. This varies between 9,000 and 16,000. These observations have been carried on for the last seven or eight weeks on fourteen or fifteen patients, and they show that Weir Mitchell was perfectly justified in designating his first little monograph, *Fat and Blood and how to make them.*

It may be said that fat is no good, but neurasthenia associated with the visceroptosis is practically the cause of complaint, and as such must be considered from the standpoint of treatment. The superabundance of alimentation means the superabundance of materials that build up the nervous system, and the scales from week to week give you, in a way, all the increased weight, which is an index of the degree of superalimentation.

The greatest care is to be observed in seeing that the fat goes on in a proper way. The adult male type of fat and the adult female type of fat are two different conditions. Both have departed from that of the child, who has a subcutaneous deposition of fat all over the body, the adult male carrying his fat on the shoulders, neck, and down the back and in the abdominal cavity, the adult female carrying her fat in the breast, buttocks, and thighs. Any departure from this type in the putting on of fat should at once arouse a suspicion of arterio-sclerosis. It is true that the fat is not finally warehoused where it is first deposited. The female patient, when discharged from the institution, may carry considerable fat in the abdominal cavity, which will be ultimately warehoused in its proper locality. I must not be led too far in the discussion

of fat, for I have many other things to talk to you about, and one of them is massage.

As you know, from two to three times as much lymph as blood exists in the human body. Massage promotes the stripping of the connective tissues of their lymph and the renewing of it, and thus makes the lymph (which is the sewerage and nutritive agent) pure and nutritious. By this interchange and removal of waste products from muscles, connective tissues and skin, and their daily discharge into the blood circulation, the external organs of excretion are enabled to keep the flow of lymph and blood in a higher state of purity. Massage will build muscles; and the abdominal wall, in this disease, must be built up, and, as I pointed out before, if you build up the abdominal wall the levator ani and the diaphragm will bring themselves up to a state of tone to oppose the lower and upper zone of this muscle respectively.

I believe that massage helps the patients not only to get control of the lower neurons of the body, but likewise of the upper neurons. Indeed, it would appear as if some of the higher moral faculties were improved by massage. You, gentlemen, who are fresh from the physiological class, know that the nerve muscle preparation is regarded as if the nerves and the muscles went as one, and I believe they do, and I further believe that the lymph born from muscle is pabulum, not only for the lower neuron, but for the higher one as well. It may contain an internal secretion which goes to both the brain and spinal cord.

The fact that Cohnheim has found that muscle juice combined with the pancreatic secretion is required to prevent diabetes points out that the lymph born of muscle and cast into the circulation, both in exercises and massage, contains other things than waste products.

Some of these cases of visceroptosis have albumin and casts in the urine. We have paid no attention to their presence unless the clinical history otherwise pointed to chronic Bright's disease. The clearing up of the urine and disappearance of the casts by the Weir Mitchell treatment in many of these cases show these conditions to be due to the "twisting" of the vessels of the floating kidney, and has fully justified a disregard for the albumin in the urine. I sometimes think there are many cases of Bright's disease and arterio-sclerosis which are dependent on malnutrition. The cry that we eat too much may be true from one portion of our population, but there are two other sections of mankind—one that eats just enough and one that eats too little. I am inclined to think that it is not that we eat too much as that we have too much to eat that is the matter with the over-fed element of the race. If we could live like savages—glut ourselves ten months of the year and nearly starve for the remaining two months—there would be no disease due to overfeeding.

These patients with visceral prolapses cannot be successfully fed unless in a recumbent posture. In most cases the stomach is prolapsed, with the pyloric end more or less anchored to its normal position. The result is that the stomach contents are not properly emptied into the duodenum except at night when the patient goes to bed. This causes gastric dilatation, and as a result they tell you they cannot take milk; but the difficulty at once disappears when the patients take to the recumbent posture, then they take milk as readily as any other patient. The trouble from which they suffer is that they have difficulty in getting the milk curds out of their stomach in the erect posture.

That leads me to a new phase of gastric prolapse, and it is this: that phthisis and gastric prolapse are not an infrequent combination; on the contrary, my experience leads me to believe they are combined in nearly 50 per cent. of the cases of phthisis. The patient with gastric prolapse and phthisis is handicapped in the battle for life unless the recumbent posture of the Weir Mitchell treatment is undertaken at the start out. There is much sense in the usage of the ancient Romans, who fed when reclining upon couches.

Examination of the stomach contents in cases of gastric prolapse gave very variable amounts of acidity. The one thing that seemed fairly clear was this: that HCl was very much diminished in dilatation (secondary to the prolapse), and in two such cases there was an entire absence of the mineral acid after the test breakfast. In both of these cases the degree of secondary anaemia was striking, and since one finds occasionally neurasthenia with marked secondary anaemia in which there is neither prolapse nor dilatation, giving similar results, we have looked on the test-breakfast results as constitutional rather than local.

Action of the Abdominal Wall.

In conclusion, there are a few more words to be said on abdominal wall action and building. In the normal position of the stomach one looks upon the abdominal wall contractions as having very little to do with the onward progress of the food, but when the stomach is at the navel or below, the muscular contractions of the abdominal wall are factors of the highest importance in emptying the stomach contents into the duodenum. This reason alone should lead you to maintain vigorous abdominal walls. There is no necessity for direct massage of the levator ani. All forms of intrapelvic massage are unnecessary and abominable. Those who have given a study to physical culture recognize that one cannot develop the right arm, no matter how unilateral the exercises may be, without developing the left arm simultaneously. If one develops the triceps, the biceps, which is the opposing muscle, keeps pace in the process of hypertrophy. All one needs to do to develop the power of the levator ani is to produce hypertrophy of the abdominal wall. Several patients who have complained of relaxed vaginal and anal outlets before treatment have remarked with pleasant surprise at the complete control after. Gynaecologists will tell you that lacerations of the vaginal outlet can be considerably compensated for by a vigorous levator ani. In the last five years the female pelvis has been passing over from surgery to medicine. Indeed, it is not too much to say that the vast majority of operations for displacement and prolapse are both unscientific and unnecessary. What is said of ptosis in the pelvis can be said with more emphasis of operations on movable kidneys and gastric prolapse.

My experience with automassage of the abdominal wall, as recommended by A. Abrams, is only partially satisfactory.

In conclusion I wish to say that there is no age with visceroptosis barred from the benefits of this treatment. One patient, aged 58 years, has done as well as those under 30 years.

RECURRENT VOMITING IN CHILDREN.

BY

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This malady is also known as cyclical, fitful, or periodic vomiting. The features are so remarkable and the difficulties of diagnosis so great that this disorder deserves close consideration both by the clinician and pathologist.

Crozer Griffith[1] finds that vomiting of a recurrent type is met with in various disorders—for example, in the adult it forms a feature of the so-called "gastric crises" of tabes dorsalis. "Gastric crises"[2] have, however, been described independent of this disease, occurring in adults and characterized by vomiting and great abdominal pain, which may or may not persist after the act of vomiting; the attacks may occur at regular intervals, or this feature may not be present; as a rule the individual is free from fever. Boas[3] has spoken of this group as examples of so-called "gastric neurosis," and subdivides them according as to whether there is a reduction or increase of hydrochloric acid in the gastric juice.

Under the name of "gastric" attacks Langford Symes[4] describes the occurrence of constipation, vomiting, and even collapse, the vomiting often seeming to relieve the attack; these cases occur in children only, and, as a rule, there is discoverable some antecedent error in the dietary.

In 1882 Dr. Gee[5] described 9 cases of "fitful" vomiting; in some there was considerable abdominal pain; in others none. Of recent years an effort has been made to describe as a separate group of cases occurring in children those in which the recurrent attacks of vomiting occur independently of dietetic errors, and are unaccompanied by pain, or only by so much as might be explained by the strain put upon the abdominal muscles by repeated acts of vomiting; such cases may, however, complain of slight headaches. Since this group has been differentiated in this way a number of cases have been described, more especially by American and French writers.

Briefly stated, "recurrent vomiting of children" begins generally after the first year of life, though it may occur at the second month (Rachford),[6] and may persist to the eleventh year; in many cases the symptoms pass off altogether, or they may develop into migrainous attacks; in three cases

described by Marcy,[7] Griffith (loc. cit.), and one by Holt,[8] death has resulted. Very frequently, but by no means always, a prodromal stage has been noticed, lasting a few hours or days, in which the child, previously quite well, may show malaise, coated tongue, loss of appetite, headache, and as a rule constipation; the temperature may rise during this period; after the prodromal stage has passed away vomiting begins: whatever food is taken is returned, and this is succeeded by the ejection of mucus, bile, and even blood. The attacks of vomiting may last several days or a few hours, or, as in the case described by us, several weeks off and on; once the vomiting has ceased, the child rapidly regains its health and strength, until the next attack, which may occur within a few months or only yearly; retching has also been noticed, and in some cases the hydrochloric acid secretion has been present; in others it has not been found at all. Constipation is common and may resist all treatment; relief of the constipation does not relieve the vomiting. Pain is almost entirely absent, or, as already stated, there may be a little tenderness in the epigastrium and slight headache. Thirst is very common and very intense; the appetite is quite lost, the tongue coated, the breath of a peculiar odour attributable to acetone, and the urine may contain acetone and indican. The abdomen is usually greatly retracted or flattened in prolonged cases, the loss of flesh is very extreme (cf. Figs. 1 and 2). The attack of vomiting may cease as suddenly as it began, and the child soon resumes its former condition. There may be fever during the attack of vomiting.



Fig. 1. Appearance on admission to the hospital.

Pepper[9] in 1890 gave a description of cases somewhat similar to the above, but his description applies also to cases in which abdominal pain was an important characteristic. In speaking of one of the cases described by Holt (loc. cit.), Pepper refers to Herter's observation—namely, that the toxicity of the urine was found to be greatly increased.

Rachford (loc. cit.), 1897-8, describes these cases as examples of "migrainous gastric neurosis," and has observed in such cases that the urine may contain albumin, hyaline casts, etc., and that as the attack passes off these disturbances of the urine subside; in some cases the albuminuria persists after the subsidence of symptoms. Rachford has found a considerable amount of alloxur bases in the urine in such cases, and is disposed to consider the whole group of symptoms as due to toxic agents belonging to the xanthin group; the same bases were found in ordinary cases of migrainous attacks in adults. Whitney[10] (1898) describes another case of this disorder, in which the recurrences were remarkably regular, occurring almost to a day regularly every three months, the only exception was when the interval was two months.

In 1900 Crozer Griffith (loc. cit.), whose paper has already been referred to, published a report on 4 cases, 2 of which—also described by Marcy (quod vide)—ended fatally, and one of these (No. 4) was examined *post mortem*. In view of the observations made by later writers it is important to observe that in this fourth case, during the prodromal stage of one of the attacks there was neither indicanuria nor acetonuria, though on the second day after an attack began both were observed. At the autopsy of this case almost complete necrosis was found of the mucosa of the stomach and intestines. Kelly, who performed the autopsy, says that, in view of the fact that the *post-mortem* examination was done within less than a day after death, the changes found in the alimentary tract were not due merely to *post-mortem* decomposition. Slight parenchymatous changes were found in the pancreas, spleen, and kidneys, and there was some fatty infiltration of the liver.

Marcy (loc. cit.), 1900, describes 3 cases, 2 of which (2 and 3), however, have also been described by Crozer Griffith (loc. cit., 3 and 4). The other case presented the unusual feature of violent and almost constant choreiform movements of the muscles of the face, neck, and upper extremities occurring during an attack of vomiting.

Marfan[11] (1901) refers to 25 cases of the malady. In some cases it was noticed that the vomiting abated somewhat, and recurred as violently a little later on. Acetone was found to be present in the breath, urine, and vomit two days after occurrence of the crisis. Several children of the same family had been noticed previously to be affected. Marfan considers that there is some nutritional disturbance which is either the cause or effect of an intoxication; the index of the severity of this nutritional disturbance was the degree of acetonaemia as shown by the presence of acetone in the vomit, urine, and breath; this was noticed quite early in the attack of vomiting—that is, before vomiting could itself have been the cause of the acetonaemia.

H. L. K. Shaw[12] (1902) describes four cases, and says that Holt, Pepper, Griffith, and Valagussa[13] found an excess of uric acid in the urine either before or during an attack.

Edsall[14] (1903) has considered this disorder from the point of view of its association with "acidosis" or "acid-intoxication." By this term is meant the reduction of the alkalinity of the fluids of the body by the intervention of acid bodies. The coma met with in diabetes mellitus is considered by some to be due to the presence in the body of β-oxybutyric acid—a substance considered to be a precursor of diacetic acid and acetone. It is not certainly known how this acid is produced, nor is it universally admitted that β-oxybutyric acid is responsible for the coma, for this body does not produce the symptoms of diabetic coma (Martin[15]), though β-amido-butyric acid and dilute mineral acids may do so. Possibly the precursors of β-oxybutyric acid produce the effects, but the nature of these bodies is not known. It is generally held that β-oxybutyric acid, diacetic acid, and acetone occurring in the urine are indices of the decomposition of tissue proteids. Besides occurring in excess in diabetes mellitus, acetone may be present in abnormal amounts in other conditions, such as inanition, chronic tuberculous disease of the lungs, cancer, poisoning, gastro-enteritis, grave anaemia, infectious diseases, and prolonged vomiting. Edsall, in discussing acid intoxication and its relation to "recurrent vomiting," insists that acidosis may be due not only to primary disturbance of metabolism, but also to metabolic disturbances which are secondary to digestive disorders; much of the support for his views is derived from the nature of the relationship of

acetonuria to the vomiting; despite the contrary observation already noted (Crozer Griffith, loc. cit.) that in the prodromal period acetone was absent from the urine in one case and yet was found in the second day of an attack, Edsall is able to report as a result of Pierson's observation,[16] that acetone in very small quantity occurred in a prodromal period *before* vomiting began; in three cases acetone was present as observed by Marfan at the beginning of the attacks of vomiting. When it is remembered (1) that probably in all cases, β-oxybutyric acid and its allies, diacetic acid and acetone, are the result of the disintegration of body proteid; (2) that observations in these cases of recurrent vomiting deal rather with the qualitative than with the quantitative estimation of acetone, and (3) that acetone occurs in health in the urine to the extent of 0.01 gram in twenty-four hours, then the discordant and incomplete observations of various writers and the failure of some cases to react favourably to the intensive alkaline treatment recommended by Edsall can be easily understood. One of Edsall's cases failed to react to the alkaline treatment, and he closes his article by stating that it is possible that some of the cases of recurrent vomiting are due to an agency other than acidosis. Marfan and others doubt that acetonaemia indicates acid intoxication. So marked are the changes in certain cases of recurrent vomiting after the administration of massive doses of alkalies that it cannot be doubted that this remedy is responsible in these cases for the improved condition, but that the change is due to neutralization of acid bodies does not follow. Stadelmann[17] found that large doses of alkalies lessened the amount of the output of uric acid in the urine, but there is no evidence to show that this resulted from any process of neutralization of toxic acid bodies; the more probable explanation is that alkalies check oxidation. Pierson (loc. cit.), 1903, found that acetone and diacetic acid were present in the urine in very early stages of the attacks of vomiting, and, as already stated, it was his observation that has been made use of by Edsall to support the theory of acid intoxication, namely, that acetone occurred prior to the onset of vomiting.



Fig. 2. Appearance shortly before discharge from the hospital.

The immediate cause of these attacks is still unknown; in many cases such predisposing factors as neuroses occurring in various other members of the same family are considered of great importance. Whitney (loc. cit.) and others are disposed to consider the attacks as forms of neurosis; others, especially Rachford, consider them expressions of the "lithaemic" state due particularly to leucomaines, and closely allied to various gouty manifestations such as migraine. Much support is given by Griffith, Pepper, and others to a toxic causation, and this is supported by the occurrence of albuminuria and the presence of casts; pruritus has also been noticed in our own case and in others, and in one of Griffith's cases diffuse articular pains were a marked feature. Little or no support is given to the view that the attacks are due to recurrent gastric catarrh.

Diagnosis.

When the first attacks occur, the greatest difficulty may be experienced in excluding acute gastritis, meningitis, appendicitis, and intussusception, or any other form of intestinal obstruction in the early stage. By reason of the pigmentation which was so marked a feature in this case, Addison's disease must be added to the list.

The following report of a case under our observation is of interest because of the severity and long duration of each attack of vomiting, and because of the persistence of these attacks from 3 to 11 years of age.

A girl, N. F., aged 11 years, was brought to the Brompton Hospital because of the parents' suspicions that she was consumptive. No signs of this disease were discovered, and as she was so very ill she was admitted to University College Hospital under the care of Dr. J. Rose Bradford in April, 1904. Ever since the age of three years she had suffered from periodic attacks of severe vomiting, seven attacks in all, coming on apparently without any cause or warning. The vomiting lasted on and off for a month on each occasion, producing extreme loss of flesh and weakness. The attacks passed off rapidly when improvement once began, and weight and strength were quickly restored. The attack from which she was suffering on admission had lasted longer than usual. The child was usually very constipated. The family history was a good one and the child had been singularly free from any other illnesses.

On admission, she was found to be extremely wasted (Fig. 1), weighing 1 st. 10½ lb.; she was very listless, taking no notice of her surroundings and replying to questions very unwillingly. Nothing abnormal was found in any system beyond the fact that the teeth were carious and that the neck and body were very much pigmented and the abdomen markedly hollowed. The urine was free from albumen and blood: acetone was present in a large amount and diacetic and β-oxybutyric acids were also detected. The temperature during the first twenty-four days was subnormal; after the administration of bicarbonate of soda the temperature became normal, and once or twice it rose to 101° F.; the pulse at first was slow but with improvement rose to normal and even to 144 per minute. The blood examination showed erythrocytes 4,988,000 per c.mm.: haemoglobin, 82 per cent.; colour index, 0.75; leucocytes, 16,100 per c.mm.; small lymphocytes, 9.5 per cent.; large lymphocytes, 7.0 per cent.; hyaline cells, 4.0 per cent.; neutrophiles, 79.0 per cent.; oxyphiles, 0.5 per cent. On admission, vomiting occurred three to four times daily, indeed, after each attempt at a meal.

The rectal feeding carried out was of the ordinary character, and was combined with rectal lavage; the mouth feeding consisted of minced meat, chicken, potatoes, etc. The sodium bicarbonate was administered in large doses—90 to 120 gr. daily, as recommended by Edsall (loc. cit.). It will be noticed that whatever line of treatment was carried out the weight increased, even when mouth feeding was resumed without any special treatment, though we must admit that the subsequent history shows that when the child returned home all her former wasting and vomiting recurred. Rectal feeding alone produced marked improvement, but the development of considerable local irritation led to our abandoning this form of treatment. It will be noticed that the child vomited more frequently during the period in which sodium bicarbonate was being administered, though, as already mentioned, gain in weight was progressive, but not at the same rate as in other periods.

Our observations support the view that some cases of recurrent vomiting are quite different to others, in that they fail to respond to treatment with massive doses of alkalies—even rectal feeding in our case produced better results than any other form of treatment. It remains to be said that the child's general condition improved *pari passu* with the increase of weight, and that the pigmentation of the abdomen largely disappeared.

Table I.—*Showing Results of Treatment.*

Period.	Treatment.	Number of Times Vomited.	Average Frequency.	Weight at End of Each Period.
First 2 to 3 days	Nothing special	3 to 4 times a day	Every 3 to 4 hours	1 st. 10 lb. 6 oz.
2nd period, 11 days	Rectal feeding only	4 times in 11 days	Once every $2\frac{3}{4}$ days	1 st. 12 lb. 7 oz. / Gain 2 lb. 1 oz.
3rd ,, 14 ,,	Rectal and mouth feeding	8 ,, 14 ,,	,, $1\frac{3}{4}$,,	1 st. 13 lb. 12 oz. / Gain 1 lb. 5 oz.
4th ,, 17 ,,	Mouth feeding and sod. bicarb.; no rectal feeding	11 ,, 17 ,,	,, $1\frac{6}{11}$,,	2 st. 1 lb. 1 oz. / Gain 1 lb. 5 oz.
5th ,, 10 ,,	Mouth feeding; no sod. bicarb; no rectal feeding	17 ,, 10 ,,	,, $\frac{10}{17}$,,	2 st. 2 lb. 5 oz. / Gain 1 lb. 4 oz.

We are indebted to Dr. Bradford for the use of the notes of this case, to Dr. Thiele for the observations on the urine, and to Mr. E. S. Worrall for the photographs.

Analysis of 55 Reported Cases.

This analysis is made from the following reports, including the present case. Gee (1882), 5 cases (Nos. II, III, IV, V, and VII); Rachford (1897 and 1898), 2 cases; Whitney (1898), 1 case; Marcy (1900), 3 cases; Griffith (1900), 2 cases; Marfan (1901), 25 cases; H. L. K. Shaw (1902), 4 cases; Valagussa (1902), 4 cases; Edsall (1903), 2 cases; Pierson (1903), 3 cases; Rotch[18] (1903), 2 cases; Holt (1904), 1 case.

Age.—The attacks of recurrent vomiting may begin in babyhood—one case began at 2 months; they may recur to the eleventh year. In a considerable number of cases the vomiting did not begin till the third year of life.

Prodromal Period.—In 16 of the 54 cases prodromal periods were recorded as occurring before the onset of the vomiting.

Duration of Vomiting.—The period during which vomiting occurs may be of short duration—twelve hours—or may last a month or several weeks. The more common duration is from three to fourteen days, with an average of five to six days.

Frequency of Attacks.—This is very variable; in extreme cases the attacks have occurred every three weeks, or the interval between the attacks may be a year. A common interval is three months.

Character of Vomit.—This consists usually of food mixed with mucus and, in some cases, with bile. Blood is reported in five cases, and Marfan records the smell of acetone in the vomit.

Free Hydrochloric Acid.—H. L. K. Shaw found free hydrochloric acid in one of three cases examined; it was absent in the other two. Holt also found free hydrochloric acid in his case.

Acetone.—Acetone was detected in the urine, breath, and vomit of the cases reported in this paper. Marfan speaks of acetonaemia occurring in his cases. Marcy found acetone in the urine and breath of his three cases. H. L. K. Shaw suggests the presence of acetone in the urine of his second case; no odour of acetone was noticed in the vomit of his fourth case. Edsall's first case showed a marked acetone odour shortly after the beginning of the vomiting; his second case showed acetone, diacetic acid and β-oxybutyric acid in the urine shortly after the commencement of an attack of vomiting; the same substances were found in the urine of the present case. Pierson observed a sweetish smell of the breath in two of his cases, and acetone and diacetic acid in the urine of all three cases.

Wasting.—This was very marked in twelve cases and great hollowing of the abdomen is reported in two cases.

Thirst.—This is not a very common symptom, but is reported in nine cases.

Urine.—This is frequently scanty in the attacks; in one of Griffith's cases it was reduced before the attack; Rachford observed in one case albumin and hyaline casts; Marcy reports suppression of urine in the last attack of his second case, blood casts were also found in this case. Holt found a trace of albumin, casts, and blood in his case. H. L. K. Shaw found indican in one case. Marcy, on the other hand, found that indican disappeared from the urine.

Uric Acid.—Holt reports that the proportion of uric acid to urea in his case, before the attacks of vomiting, was 1 to 54; during the attack 1 to 157 or 1 to 132. Marcy says that in his cases uric acid was not in excess and not below the average. Griffith noticed a large deposit of uric-acid crystals before the attacks in his first case, and there was an abundant deposit of ammonium urate in one of H. L. K. Shaw's cases.

Constipation was sufficiently marked as to be commented on in twelve cases. Intestinal obstruction was feared in one of Griffith's cases.

Temperature.—Marfan found that the temperature was rarely more than 38° C. (100° F.), and Rotch reports the temperature subnormal; it is the rule for fever to occur during the attacks of vomiting (the "fitful" fever of Gee), and it may reach 103.5°; frequently fever of less marked character occurs in the prodromal period.

Various other Phenomena Observed.—The symptoms of the prodromal period include offensiveness of the breath, dyspnoea, and sighing respiration, choreic movements, and general restlessness. Rotch observes that migrainous attacks are likely to develop in after-life, and Marcy found marked pruritus after the attacks in each of his three cases. Faecal vomiting has never been observed.

Prognosis.

The tendency is for the attacks to disappear as puberty is reached. Three of the 55 cases were fatal (Marcy, Holt); a *post-mortem* examination was obtainable in one case only (Marcy).

Treatment.

Before Attack.—The general rule followed has been to administer mild aperients, to give easily digestible food, and administer bromides and febrifuges.

In Attacks.—It is advisable to exclude all food except barley water and broths, etc. In some cases morphine combined with atropine may be necessary, but infusion of normal saline per rectum or subcutaneously is probably more useful. Marfan gave fractional doses of magnesia—20 cg. five times in twenty-four hours—ordered simple lavage of the rectum daily, and in severe cases infusion of 40 to 60 c.cm. of normal saline night and morning. Edsall strongly recommends the use of large doses of sodium bicarbonate—180 gr. in twenty-four hours—and Pierson states that if given when the prodromal period occurs the attack may be warded off. Rotch confirms Edsall's views: to some extent sodium bicarbonate was of use in our case.

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ON RECURRENT VOMITING OF CHILDHOOD (CYCLICAL VOMITING), WITH THE REPORTS OF TWO CASES.

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Under the title recurrent, cyclical or periodic vomiting has been described a condition which is confined to children and in which the chief symptom is attacks of vomiting without abdominal pain, occurring at varied intervals, between which there is generally perfect health, and which have no relation to diet. If we may judge by the paucity of English literature on the subject, it is one which has received little attention on this side of the water. Dr. Holt,[1] of New York,

however, claims to have seen over 20 cases, so that it cannot be a condition of very great rarity.

A short summary of what is known about it, therefore, will not be out of place.

One of the first articles on this subject is by Dr. Gee and appears in *St. Bartholomew's Hospital Reports* for 1882. Under the heading "Fitful Vomiting" are here described 9 cases, of which 5 are certainly of this type. Since then by far the greatest part of the work has been done in America.

Symptoms.

Vomiting.

The most constant and dangerous symptom is vomiting. This is very frequent, perhaps every quarter or half hour for twelve hours. It is vomiting of a very distressing type and easily started. Nothing can be retained, and even the suggestion of food is sufficient to produce it. The vomit is at first food, later mucus, and perhaps bile and traces of blood. In the few cases in which the vomit has been chemically examined, in some free HCl has been found, in others none. Severe retching accompanies, and may replace the vomiting. The attacks of vomiting cannot properly be called periodic or cyclical, since these terms indicate a constant interval between them. They are irregular in their appearance and inconstant in their duration. Holt gives the commonest frequency as three or four a year. The duration of an attack varies from a few hours up to seven weeks (the longest recorded). These vomiting attacks are not as a rule traceable to any error in diet and give little warning of their advent, the prodromal symptoms being merely lassitude, headache, anorexia, perhaps constipation and a furred tongue, and in a few recorded cases a rise of temperature. Snow, however, describes one with a temperature of 105° F. which was associated with convulsions. Such vomiting as this naturally produces a condition of extreme exhaustion. Emaciation is very rapid from practical starvation.

Thirst.

Loss of fluid gives rise to another symptom which is usually much in evidence—namely, thirst. In the cases recorded by Griffith[2] the thirst is mentioned as "intense," the lips are dry and parched, the tongue cracked, and the skin harsh. In the cases about to be described the only occasions on which the patients spoke were those on which they asked for drink.

Odour of Breath.

In the earlier cases (Griffith) the breath is described as foul; more recently the characteristic sweet musty odour has been ascribed to the presence of acetone (Marfan,[3] Guinon,[4] Edsall[5]).

Acid Poisoning.

Edsall was the first to clearly show how similar was the state of some of the worst of these cases to that of a fatal case of diabetes. Respiratory difficulty of the "air hunger" type occurs, drowsiness deepens into coma, there is much dryness and thirst, the breath reeks of acetone, and the urine differs only from that of diabetes mellitus in the absence of sugar—acetone, diacetic acid, and oxy-β-butyric acid being present.

Urine.

Besides the group mentioned above, other abnormal urinary constituents have been found. Indican has in a few cases, and so also have albumen and casts. Holt says that there is a deficiency of uric acid during the attack. He quotes a case of his own in which the proportion of uric acid to urea excreted was as 1 to 54 before the attack, but became as 1 to 157 during it.

Digestive System.

Anorexia occurs in spite of the great thirst. There is slight if any abdominal pain.

Constipation is variable, and although usually present is not essential.

The abdominal appearance may be either one of distension or retraction, and is generally simply a falling-in from emptiness.

Prognosis.

The prognosis is as a rule favourable. I can only find records of three deaths, to which I now add another. Convalescence is abrupt, vomiting ceases suddenly, and subsequently the appetite returns, and the building up occurs as rapidly as did the previous wasting.

Etiology.

About one point in the etiology authorities seem to come into general agreement—namely, the influence of an hereditary neurotic tendency. Beyond this there is much uncertainty, and consequently many various opinions are held. In some cases a history of gout in the parents can be obtained, and this has led to the suggestion that a lithaemic state is the cause. Holt has taken this view, and evidences his case, in which less uric acid was excreted during an attack, to support it. Rachford,[6] in a recent article, attributes the vomiting to an autointoxication due to incompetence of the liver. He believes that this organ is temporarily unable to perform its proper function of urea production. Either purin bodies or toxins allied to them are consequently poured into the blood, and there accumulating, produce a lithaemic state. In support of the close relationship between gout and recurrent vomiting, he states that the latter occurs with much greater frequency among the "hereditary rich." He lays stress, too, upon its close association with migraine, and was able to trace the transition in four instances of attacks of vomiting into attacks of migraine.

The recognition of acetone in the breath by Marfan has led to its detection in many subsequent cases in both the breath and urine. Marfan himself believes that acetone is the toxic factor, and thinks that the vomiting is due to acetonaemia, while Griffith looks upon acetone as simply a guide to altered tissue metabolism, which he thinks produces toxins which are stored up until the retention limit is reached and vomiting ensues. Edsall has brought forward the suggestion that the vomiting results from acid poisoning. In favour of this view he mentions the presence of acetone, diacetic acid, and oxy-β-butyric acid in the urine, the characteristic air hunger, and the general similarity of the more severe cases of this disease to diabetic poisoning.

He says also that he has detected acetone very early in the attack. The strongest argument in support of this view is the success which he has attained by treating such cases with bicarbonate of soda in large doses. Pierson[7] records three cases in which he was able to anticipate and avoid crises by the same means.

That acid poisoning occurs there can be but little doubt, but that it is the cause of the vomiting seems to me to be far from proven. It has long been recognized with what readiness acetone and diacetic acid appear in the urine in conditions of rapid tissue waste, and in gastro-intestinal and febrile disorders, especially in children. Their occurrence in large quantities was therefore to be expected in this condition, associated as it is with very active proteid katabolism and with gastric disturbance.

I have examined the urines of a large number of children at the Hospital for Sick Children with a view to determine the relation between vomiting and acetonuria. This has led to a wider field of investigation than properly comes within the limits of this article. It is sufficient for present purposes to say that I have found both acetone and diacetic acid in very evident quantities in the urine of several patients during whose illness no vomiting has occurred, and in those in whom this symptom was present I could never detect the acetonuria first. The very frequency of the presence of these products in the urine is against their ability of themselves to cause a comparatively rare condition, such as is recurrent vomiting. In diabetes, too, in which acid poisoning often leads to a fatal issue, vomiting is a symptom little in evidence. The probable explanation would seem, therefore, to be found in some antecedent condition, causing the vomiting, and directly or indirectly the acid poisoning, which plays so prominent a part in the symptomatology of the severer cases.

Treatment.

About no attribute of recurrent vomiting is there such complete agreement as about the difficulty in treating an attack. Holt says nothing stops it. Rotch[8] recommends starvation for twenty-four hours, advising against the giving of anything at all by the mouth. Griffith found no treatment which could be depended upon to alter the course of the symptoms. The recognition of the acid-poisoning element has provided an argument for the administration of large doses of bicarbonate of soda. Doses varying from 120 to 150 gr. per diem are required. It is claimed that by this means an attack may be cut short or even avoided. At any rate, it is directly antagonistic to a very serious part of the symptoms.

Cases.

The following cases have been under treatment at the Hospital for Sick Children, Great Ormond Street, during the last few months.

CASE I.

A girl, the only child, was admitted on April 10th, under the care of Dr. Lees, to whom I am indebted for leave to publish this account. There was a history of four previous attacks, during the preceding eight months, similar to the one she then suffered from. The first attack was in August, 1903, when she vomited everything she took for a fortnight, and wasted rapidly. Afterwards she ate ravenously and regained good health, which remained until the second attack three months later. On that occasion great thirst and vomiting lasted again for a fortnight. The third attack was two months later—in January, 1904—and lasted about the same time. Two days before admission the fourth attack had started, preceded by watery diarrhoea for twelve hours. Since then she had been constipated. Before all these attacks the mother had noticed that she was languid for several hours. On each occasion the vomiting had been almost incessant, and she had been very drowsy and thirsty. The bowels were said to have been regular and the urine scanty. The breath was always rather offensive, especially in the morning. After each attack she had been mottled by a "measly rash," and on one occasion had developed a boil on her finger. She had always been a very fretful child. There was nothing of importance in the family history.

On admission, she was found to be fairly well nourished, but looking extremely ill. The eyes were heavy and sunken, the breath was very offensive and smelt strongly of acetone. The tongue was coated and dry. The temperature was 99°, the pulse 160, and the respirations 32. She took little notice of her surroundings except to cry continually for water, which she was quite unable to retain. The abdomen was moderately distended, but nothing abnormal could be felt by it except that the liver edge reached two fingerbreadths below the costal margin. The urine was acid and contained no sugar; it was not tested for acetone on this occasion.

Four ounces of saline were injected three-hourly by the rectum, and the stomach washed out. She continued to vomit, and collapsed. The temperature dropped to 96° F., and later in the day she became very restless and was given morphine hypodermically. After the injection she became drowsy. Next day she began to recover: convalescence was rapid, and seven days later she was discharged. On one occasion a faint trace of albumen had been found in the urine. During convalescence she developed a morbilliform rash, for which she was isolated.

Six weeks later she was readmitted for her fifth attack. This began as before with watery diarrhoea, and there was some abdominal pain and headache. She then vomited once and seemed ill, but diarrhoea and vomiting ceased for twelve hours. Vomiting then restarted, and became almost incessant. Diarrhoea gave place to absolute constipation. Since her last attack she had been quite well except for a boil in her nose.

When examined after admission she was found to be in much the same condition as before. The breath was sweet, the cheeks flushed, the eyes sunken, the tongue coated, and she was very thirsty. The temperature was 100.4°, the respirations 24, and pulse 145. The abdomen was flaccid and easily allowed the liver edge to be felt, 2½ fingerbreadths below the costal margin. The urine contained acetone and a cloud of albumen, but no sugar. Vomiting continued, and the next day she became drowsy, which deepened into complete loss of consciousness. The urine was now tested for acetic acid which was found in great quantity. About sixty hours after the onset, the temperature began to rise, the respirations became like those of diabetic coma, the pulse became very feeble, she had five general convulsions and died with a temperature of 110° F. She had again been treated by rectal salines and brandy. Sodium bicarbonate had been tried but could not be retained.

Post-mortem Examination.

The liver was large and in a condition of advanced fatty degeneration. The kidneys were also fatty. There was no nephritis. The left suprarenal body contained a small wedge-shaped haemorrhagic focus. The mucous membrane of the posterior wall of the stomach was mottled also by dark red areas of haemorrhage. Beyond this nothing abnormal was found macroscopically. I must thank Dr. Forbes for the following histological report:

Microscopically, the appearance of the liver confirmed the opinion arrived at by the naked eye that fatty degeneration was advanced. The kidney section showed only fatty degeneration and a few interstitial haemorrhages. The left suprarenal was much congested and contained haemorrhages and altered blood pigment. The gastric glands were degenerate, and here also small haemorrhages were seen among the gland tubules. There was slight increase of fibrous tissue in the pancreas.

There was nothing, then, definite *post mortem* which could not be attributed to inanition and fever and to the terminal convulsions. The large size of the liver and its extreme fatty change were, however, very suggestive.

CASE II.

A boy, aged 6½ years, in whom recurrent vomiting was associated with mental deficiency. He was admitted to the Hospital for Sick Children on October 10th, 1904, under the care of Dr. Penrose, who has kindly allowed me to use the notes. There was a history of ten or twelve attacks of vomiting similar to the one he then had. These had occurred at irregular intervals since infancy. The chief symptoms noticed had been vomiting, irritability, restlessness, and drowsiness. The duration of attack had been about a week. When vomiting had ceased he had appeared quite well, and ate voraciously. The attack for which he was then admitted had started four days previously, with vomiting and restlessness, which had continued up to his admission. The vomit was described as yellow and green at first, and later brown, and as having a sickly odour. It had been ejected with much distressing retching. The bowels had not been moved since the onset, but before had been regular. The day before admission he lay "quiet and exhausted," and complained of headache. There was insanity in the family history.

When examined after admission he was found to be semiconscious, with flushed face and sunken eyes. There was double ptosis. With great difficulty he could be roused, and then always asked for water. The lips and tongue were dry. The abdomen was retracted. The liver and spleen were not enlarged. Nothing abnormal was found in the chest, and there was no evidence of a nervous lesion.

The urine was strongly acid, and contained abundance of acetone and diacetic acid, but no albumen or sugar. Acetone could also be detected in the breath. The temperature was 101° F., the pulse 156, regular, but small, the respirations were deep and sighing. During the first twenty-four hours he vomited everything he took by the mouth. The next day vomiting had almost ceased and he was less drowsy. The quantity of acetone and diacetic acid in the urine was less. The breath was, however, still sweet. The bowels were opened naturally. In another twenty-four hours the abnormal urinary products had disappeared: he was no longer drowsy, and was taking food. This was the beginning of a convalescence during which he rapidly returned to his normal state. In this case no specific treatment had been used.

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A CASE OF HAEMATEMESIS AND MELAENA IN AN INFANT 2 DAYS OLD: RECOVERY.

BY

B. MORRIS, M.D.Dorpat, L.R.C.P.&S.E., F.P.&S.Glasg. and M. FELDMAN, M.R.C.S., L.R.C.P.

CASES of true melaena neonatorum being so extremely rare, we venture to publish the following case which recently occurred in our practice, and which presents several points of interest.

On December 4th, 1904, about 10 p.m., we were called to see a male Hebrew child, K., for the first time. It had been born on the previous day, about 11 p.m. The labour, which was attended by a midwife, was in every way normal. There was no history of any injury received by the mother during pregnancy or delivery, or by the child after it was born. The cord, as far as we could ascertain, was tied a considerable time after the birth of the child.

About 5 p.m. on the day on which we were called the child was suddenly attacked by severe vomiting of blood. He brought up, according to the mother's statement, about a tablespoonful of blood almost every hour, the attack being provoked by feeding. In the first attack the blood was of a chocolate colour and partly coagulated. In the following attacks which we had the opportunity to witness, the blood was of a bright red colour, and contained no air bubbles. The colour of the stools was at first that of meconium, but was afterwards altered by the appearance of blood, which latter also stained the napkins. The child was fairly well developed, weighed over 6 lb., and but for the subnormal temperature (97° F.) did not at the time appear very much the worse for the loss of blood. The fontanelle was not depressed, and the heart beats were regular. The mucous membranes did not look pale, and did not bleed. There was no icterus and no history of syphilis, phthisis, or haemophilia. The pharynx and tonsils were of normal appearance. There was no epistaxis, and there were no fissures in the mother's nipples.

We prescribed alum in ½-gr. doses and lime water (the latter was approved of by Sir Lauder Brunton). The improvement was only slight, and, taking into consideration the unfavourable surroundings and the inability of the parents to procure a nurse, we referred the case to the London Hospital, where it was taken in under the care of Dr. L. A. Smith, who was kind enough to inform us that he treated it with bism. subcarb. gr. v and calcium chloride gr. j three times a day. The child was discharged cured on December 11th, 1904, after a stay at the hospital of six days.

Circumcision, which should have taken place on the seventh day after birth, was, by our orders, indefinitely postponed. We have seen the child on several occasions since then—the last time on January 20th, 1905—and we are glad to say it is doing very well, although it now looks somewhat pale.

The suggestions as to the causes of melaena neonatorum are numerous. Kiwisch attributes it to hyperaemia of the

mucous membrane of the alimentary canal, due to sudden occlusion of the umbilical arteries, brought about by too early ligature of the umbilical cord. As, however, in the above case the cord was tied a good many minutes after the child was born this hypothesis is evidently untenable here.

Landau's theory, which is similarly excluded here, is that the condition is brought about by thrombosis of the umbilical vein caused by ligature of the cord before respiration has been fully established; emboli are thus set free into the vena cava inferior, and, passing through the right heart and the pulmonary artery, find their way through the ductus arteriosus into the pancreatico-duodenal artery. Wickham Legge suggests congenital absence of the common bile duct, but as there was no icterus in our case, this cause must also be excluded.

We can further exclude the probability of the child having swallowed blood from the maternal passages during parturition by the fact that the quantity of blood was very large and the stools also contained blood.

According to Epstein and Klebs, and Townsend, the condition is one of infectious origin; but the absence of fever in the above case is not in harmony with this suggestion. Düsser, who collected reports of 24 fatal cases, found ulcers of the stomach in 9 and of the intestines in 4. Gastric ulcer seems to be the most probable cause of the mischief in this particular case, as the attacks followed immediately after feeding, and the condition has also yielded to the ordinary treatment for gastric ulcer.

The recovery in this case is highly gratifying, as infants do not stand great loss of blood at all well. Rilliet records 50 per cent. of fatal issue. According to Eichhorst the mortality is still higher, and he is even of opinion that in cases in which the haemorrhage lasts longer than thirty-six hours recovery is exceptional. We may mention here that in our case the haemorrhage extended over three days.

As regards treatment, whilst there is a difference of opinion concerning the temperature of external applications—Eichhorst suggesting cold, and Alfred Vogel, in common with English authorities, recommending hot poultices—all agree as to the drug treatment, which should be of a styptic character—for example, iron perchloride, calcium chloride, suprarenal extract, and other haemostatics.

A CASE OF LONG-STANDING CONSTIPATION.

By HARRY GREY, M.D.Edin.,
Kingsbridge.

The patient came under my observation at the age of 13½, and for eleven of these years he had been accustomed to have his bowels relieved only at intervals of three to six weeks.

On one occasion two months elapsed between the acts, and the mother of the boy fixes this time by the fact that she had taken him to a seaside resort, where she stayed that period, and she was quite positive that no action of the bowels had taken place the whole time they were there. A significant incident of that sojourn was a visit paid to a local doctor, who quite flatly disbelieved the mother's story and told her to give the boy a dose of castor-oil, which had no effect. I got a hint for treatment from a question by the mother as to whether alcohol acted as a cathartic, as on one occasion when the boy was very poorly she had given him half a glassful of whisky, which was followed by a copious evacuation.

An interesting point in this case is the age at which the trouble began. At 2 years of age the sigmoid flexure of the colon is still much longer than in later life, and, as I found, this redundancy had persisted in the patient and aggravated his condition. It is surprising, however, how little the boy suffered from it. Occasional colic and vomiting, faintness, and headaches were his main symptoms. Latterly he had complained of pain in the front of the thighs, caused partly by pressure of the faecal accumulation on the anterior crural nerve and partly by the stretching of the fascia and skin over Poupart's ligament. More severe damage had been done to his physical and mental development. Though nearly 14 years of age he is still a child in manners, and though his stature is about normal (4 ft. 10 in.) he weighs only 4 st. 8 lb., as against the average at that age of 6 st. 4 lb.

The appearance of the abdomen is shown in the photograph, taken before treatment was begun, and any doubt as to the truth of the facts narrated above was dispelled by a palpation of the enormous tumour, which felt like a full-term fetus *in utero*.

Verification, if such had been needed, was afforded by the result of treatment, as in the first week I removed 26¼ lb. of nearly solid faecal matter, one day's record being 7¾ lb. in four movements. These weights were carefully noted by the matron in charge of the Cottage Hospital, to which, for convenience of initial treatment, the boy was removed. Dr. Webb, of Kingsbridge, also saw the patient frequently, and can corroborate the facts of the case, incredible as they appear.



I have referred to the infantile condition of the descending colon; altogether 29¾ lb. of retained faeces was passed in nine days; and the course of the bowel could be traced by the movement of the last solid lump; it felt like a 16-lb. cannon ball under the fingers, and just before evacuation was found in the right iliac fossa; from there one could move it down into the pelvis, up again into the left iliac fossa, and thence into the rectum. I mentioned the failure of castor oil to produce catharsis, and of course purgatives of every sort and size had, without success, been tried at the recommendation of both friends and doctors.

On rectal examination I found the sphincter ani firmly contracted, so much so that at the first attempt I failed to pass my finger, and I think it is quite likely that the whisky given on one occasion by the mother, was really the producer of the evacuation which followed, owing to its sedative and analgesic action upon the sphincter muscle. Acting upon this hypothesis, I administered ½ gr. of cocaine by suppository, and was able thereafter to pass the finger into the rectum, which was distended with a huge faecal mass, very hard and firm. I then put the boy on morphine, administered in the form of ½ gr. suppository three and four times a day, and proceeded to remove the faeces by enemata of hot olive oil, 30 oz. twice a day. These continued for nine days, until the colour of the faecal matter began to change from slaty blue to more normal brown, by which time 29¾ lb. had been voided.

Thereafter a suitable dietary, with Kepler emulsion, a pill of aloes and iron four times a day, massage to the whole body, and especially the abdominal muscles, and gymnastic exercises were ordered. The aloes-and-iron pills were gradually reduced in number until after three months only one a day was taken. In three weeks, again, this also was dropped, and now for two months no medicine of any kind has been taken, the boy has had an evacuation every day to the minute, he weighs 6 st. 4½ lb. (an increase of 24 lb. in six months), has lost the peculiar facial appearance and

protuberance of the abdomen shown in the photograph, eats well and sleeps well, and is making great progress in his studies, in which, owing to his ill-health, he was very backward.

In recorded cases of constipation the fortnightly evacuation is almost common, and longer periods not unknown, as instance a case recorded by Oliver in the BRITISH MEDICAL JOURNAL in 1896 (vol. ii, p. 839), where there was complete closure of the bowels for two months, and an extreme one, quoted by Eustace Smith, of three months.

This case owes its interest rather to the duration of the condition of constipation, the enormous amount of the retained material—practically a third of the body weight—and the satisfactory result of treatment.

ERGOT AND ARSENIC IN CHOREA.

By CLIVE RIVIERE, M.D., M.R.C.P.,
Assistant Physician, East London Hospital for Children, Shadwell; Physician, Out-patients, City of London Chest Hospital, Victoria Park.

IN the BRITISH MEDICAL JOURNAL of July 18th, 1903, Dr. Eustace Smith introduced to general notice the value of ergot in the treatment of chorea. Dr. Smith had used this treatment in his wards at the Shadwell Children's Hospital for a long period previous to that communication, and, having been favourably impressed with what I saw of it, I determined to give it a systematic trial among out-patients, where the favourable surroundings of in-patient treatment are not present to throw doubt on the action of the drug. Accordingly, between December, 1902, and May, 1903, I made notes of some 35 such cases coming under my care in the out-patient department at St. Bartholomew's Hospital, and have since treated a number of cases both there and at the Shadwell Children's Hospital. It is the result of this treatment that I now desire to record.

It will be seen that the determination of drug action on out-patients has certain advantages and certain disadvantages. The chief advantage is that the patient remains in the same general surroundings, so that whatever changes arise may more fairly be attributed to the effects of drug treatment. The main disadvantages are the risk that the medicine is not administered (not a serious one, I think), and the difficulty of giving sufficiently powerful doses without fear of poisoning. With certain diseases, and especially with chorea, comes in besides the fallacy of spontaneous temporary or permanent improvement, and the various changes to be observed from week to week in all such cases, apart from treatment. In consequence of these sources of error, and the great variety in the types of cases treated, I have decided that a statistical table of the results of treatment would be valueless, a general statement of results and impressions being more likely to prove reliable. The ergot was given in doses of ℥j or ℥jss of the liquid extract thrice daily, with 2 minims of liquor strychninae as recommended by Dr. Eustace Smith. These doses gave rise to no symptoms of poisoning, nor, indeed, to any physiological effects that were appreciable to myself. Among such out-patients I have found no signs of arterial spasm as indicated by slowing of pulse, increase of pulse-tension to palpation, or accentuation of the aortic second sound. The slowing of pulse, perhaps the most delicate sign, is of course valueless among child out-patients owing to the disturbing effects of temporary excitement or exertion.

My early conviction was that the ergot mixture had a marked curative effect on certain cases of chorea, and that in other cases the disease remained unchanged or became worse. My results show that about half of the cases were rapidly improved or cured by this means, and that most of the remainder improved when arsenic was substituted. I have endeavoured, but with negative results, to separate by some clinical features the type of case which responds to treatment by ergot. Several divisions of choreics may be made, all more or less arbitrary. Thus, cases may be divided into rheumatic and non-rheumatic, into those with much and those with little voluntary control, into those with little or much movement, into first attacks and later attacks, etc. To none of these divisions do the ergot-cured cases belong; examples of such may be found in all these classes. That it is the drug treatment which acts in these cases there is no doubt, since often if it is stopped the case relapses, and is again cured or improved by its readministration.

When the ergot treatment was found to have failed, arsenic was given, and in many cases improvement dated from that moment and progressed slowly to cure. These may have been cases where arsenic would have benefited from the first. On the other hand, in two cases a curious thing happened. Their first ergot treatment was ineffectual, arsenic made them worse, but, on returning to ergot after arsenic had been tried, they were immediately improved or cured. This suggested to me the advisability of trying ergot and arsenic in combination. This I did with a mixture containing ℥j of extract of ergot and 3 minims of liquor arsenicalis, these doses being increased as seemed desirable. I have used this mixed treatment for the past year, and have had such desirable results with it that I have been tempted to make this communication for the purpose of recommending it. Its good effects embrace, no doubt, three kinds of cases: (1) Those that are benefited by ergot; (2) those that are susceptible to arsenic; and (3) those, perhaps few in number, where, as in the two cases already mentioned, the one drug seems to supplement the other. I may say that among out-patients there are few cases which remain unbenefited by this treatment, and I confess to a feeling of great helplessness when I meet with such. In the majority the improvement begins at once.

The unbenefited cases consist mainly of those violent choreas for which so little beyond isolation can be done. Ergot and arsenic, given in such doses as one dares prescribe for out-patients, have no beneficial effect, and admission to hospital soon becomes imperative. The effect of ergot on those violent and protracted cases which gain admission to the hospital wards has been already described by Dr. Eustace Smith in the article to which I gave reference at the beginning of this communication.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE PETECHIAL RASH OF VOMITING.

IN certain cases of whooping-cough a petechial rash has been described as occurring on the patient's brow and temples;[1] and in certain cases of epilepsy a similar petechial rash (known as Trousseau's) has been described as occurring on the patient's brow and neck. In both cases the rash is obviously due to a sudden rise of intrathoracic pressure caused respectively by prolonged and violent coughing and by the violence of an epileptic fit. This pressure is transmitted against the hydraulic stream back along the superior vena cava and its tributary veins to the capillaries of the face and neck. Where those capillaries are least effectively supported, that is commonly in the skin wall, rupture may take place and a petechial rash be formed.

But there is another petechial rash, of which I have found no description in any textbook; nor have I ever heard of it except in the oral teaching of Dr. Graham Steell, whose clerk and house-physician it was in turn my privilege to be. This is the petechial rash of vomiting, which, I think, deserves a few lines in our textbooks.

A year ago I was consulted by a domestic servant, aged about 22, concerning a rash on her face. She was not alarmed about it, because she had had it once before, and believed it to be due to the common aperient pills which on both occasions she had taken a few hours before the rash came out. Her fellow-servants feared it was "something catching," and she had failed to reassure them. I found the pulse, respiration, and temperature normal, the tongue moist, but slightly furred. The patient declared that she felt well. Two days before she had suffered from acute indigestion; the previous day she had taken an aperient pill, and had vomited with great violence, standing up and leaning over a basin. Then she found the rash had appeared, and she consulted me on the morrow. The rash consisted of petechiae of various size, from a pin's head to a shirt button, irregular in shape, and often confluent, not disappearing on pressure; it extended thickly all over the areas of the temporal fossae and the brow between them, most marked in front, and fading away till it vanished on its upper and outer limits almost exactly where the hair normally begins, and at its lower limit, more suddenly, at the line of the eyebrows. Epilepsy, pertussis, and the violent onset of a haemorrhagic form of one of the exanthemata

[1] "During the extensive venous congestion, haemorrhages are very apt to occur in the form of petechiae," Osler's *Principles and Practice of Medicine*. Third edition, p. 93. See also p. 1097 for Trousseau's petechiae in the case of epilepsy.

were easily eliminated, and I confidently made the diagnosis of the petechial rash of vomiting. The sequence of events was evidently: acute indigestion, followed by the administration of a pill; before the pill could remove the disturbing cause per rectum, the stomach tried to remove it by the mouth; there was violent vomiting, accompanied with such strain on the capillaries of the brow as to cause their rupture and the appearance of the petechial rash. Treatment: milk diet, bismuth mixture, cascara pills. The rash gradually faded, and was almost imperceptible in five days.

Several years before this I had seen a precisely similar rash on the face of a middle-aged man, who on waking one morning felt a desire to vomit. Wishing to throw up all at the first attempt, he put a basin on the floor, and, keeping his body and legs still in bed, placed the palms of his hands on the floor, one each side of the basin, and in this position, with his mouth a foot lower than his stomach, vomited with one effort into the basin. This lowering of the head increased the tension of blood in the temples, and predisposed him to the haemorrhages which occurred.

Those who have in many short sea voyages gained a great experience of the act of vomiting, perhaps may be allowed to testify that the sudden congestion of the skin of the brow is commonly a very startling sensation; so acute is the frontal flush which is felt that, even though their capillaries may have always thus far stood the strain, they would never be at all surprised to see in the mirror the petechial rash of vomiting after one of their evil hours at sea. Far from being surprised at the occurrence of this rash, I am surprised at having seen it so seldom, in view of the violent strain to which, by the act of vomiting, the capillaries of the brow are subjected. So great may that strain be that I have once known it cause a deadly intracranial frontal haemorrhage in a youth of 19.

Birmingham. CHARLES GASKELL HIGGINSON.

THE INFECTION OF SCARLET FEVER.

REFERRING to Dr. Poynton's very interesting lecture reported in the BRITISH MEDICAL JOURNAL of February 4th, p. 229, the following case, which has recently come under my notice, is remarkable as showing the persistence of infection after the lapse of twelve weeks:

H. T., aged 6, developed a typical attack of scarlet fever and was sent to the Isolation Hospital on 29th October. She remained there nine weeks—longer than usual on account of the persistence of nasal discharge. Both this and the desquamation had, however, entirely ceased on her discharge, nor had she any recurrence of it. Her brother, E. T., aged 14 months, who remained perfectly well in the interval, in order, as was thought, to obviate any possibility of infection, was sent away before her return to the home of a sister—who had herself three children—and remained there three more weeks.

H. T. and E. T., therefore, did not come into contact for twelve weeks after the beginning of H. T.'s illness.

A family reunion now took place at the home of H. T.'s parents, when the baby was brought back home accompanied by the three cousins. The house had, of course, undergone the usual disinfection at the hands of the sanitary authorities.

This reunion took place on a Sunday. The following Wednesday two of the cousins sickened with scarlet fever and were sent to hospital, and the third had a sore throat but no rash. On the Friday the baby developed a typical rash but no sore throat to speak of, and a day or two later acute otitis media with discharge.

Careful inquiry shows that there was no other source of infection as far as can be ascertained.

Southport. R. M. LITTLER, F.R.C.S., etc.

THE DIAGNOSIS OF SCARLATINA.

I HAVE never seen any reference to a remarkable cutaneous reaction I have observed at times during the past twelve years, and which appears to have some diagnostic value. I first observed it accidentally when in charge of the male venereal ward of a workhouse. The patient had a brilliant red skin eruption, perhaps due to copaiba, and also a bubo threatening to suppurate. I marked on his skin an area to be painted with iodine, by drawing round it lightly the vulcanite end of a fountain pen, and was surprised to see a brilliant white line form twelve or fifteen seconds later, exactly corresponding to the track of the penholder. This white line gradually disappeared during the succeeding twenty or thirty seconds. I repeated the experiment several times, with the same result, on that patient, and I have been in the habit since then of testing erythematous or scarlatiniform rashes in the same way. In scarlet fever I have never seen a good white line form, but only some slight fading in patches of the erythematous blush, on which the punctiform rash stands out rather more boldly, and this result I think I have always been able to obtain on the first day of the rash, though not always later.

Of the diagnostic value of this sign I cannot say much, as I have not had the opportunity of testing it on more than a very few cases of drug rashes, erythema, and similar conditions. In cases of simple hyperaemia, such as may be seen in the early stage of feverish states, I have found this reaction to occur. To produce it, sufficient pressure should be used to leave a momentary blanching of the skin, and a smooth instrument which does not scratch or irritate the skin is required, so that the end of a fountain pen does much better than a finger-nail. After the initial blanching has disappeared, no further change is visible for more than ten seconds, but in fifteen seconds the white line is vividly marked in good cases, and it always fades in less than one minute from the initial stimulus. It seems very strange that so long a period as nearly fifteen seconds should elapse between a stimulus and an apparently reflex contraction. It would be interesting to have the test tried on the scarlatiniform prodromal rashes mentioned in the BRITISH MEDICAL JOURNAL of February 4th, as I think they might give results differing from that obtained in scarlet fever.

Nottingham. G. A. FERRABY, L.R.C.P., M.R.C.S.

ANTISTREPTOCOCCUS SERUM IN TOXIC SCARLET FEVER.

THE heavy fatality from toxic scarlet fever, and the comparative helplessness of the ordinary methods of treatment to reduce this condition, induce me to call your readers' attention to a remedy which I have had the opportunity of using during the last nine months in a series of six cases of toxic scarlet fever treated by me in our borough isolation hospital.

The remedy I refer to is the polyvalent antistreptococcus serum prepared by Messrs. Burroughs and Wellcome. My attention was first called to it by Dr. Gordon, of the Manchester Fever Hospital, and it was on his suggestion that I gave it a trial.

All the cases occurred in children under 8 years of age, and three out of the six recovered. Two of the cases which ended fatally were not received into hospital until the third day of the disease, the anomalous appearance of the rash coupled with the dusky cyanosis having rendered diagnosis difficult. In all cases there was high fever, delirium, vomiting, rapid pulse rate, and signs of cardiac failure; 10 c.cm. of the serum was administered every four hours during the first two days, and subsequently at gradually-increasing intervals.

In the cases which recovered there was slight fall of temperature after each injection and marked improvement in the general condition.

Hyperpyrexia was treated by cold sponging done slowly and deliberately, plenty of cold water being used. In all cases the throat and fauces were thoroughly douched with a mild alkaline antiseptic, the nose being thoroughly washed out at the same time.

Although in these toxic cases it would seem as if the blood provided the site for the manufacture of the poison rather than the throat and fauces, still the beneficial results which follow vigorous local treatment of the throat, nose, and fauces in the commoner form of septic scarlet fever points to the necessity of not neglecting local treatment in this more generalized toxaemia.

I am well aware that from so few cases it is not possible to draw many positive conclusions, but still the results are striking to those who have dealt with this type of disease on the ordinary lines. I am informed that this serum is prepared from horses immuned against ten varieties of streptococci.

J. HEDLEY MARSH,
Macclesfield. Medical Officer of Health, Macclesfield.

LARGE VESICAL CALCULUS.

I SEE in the BRITISH MEDICAL JOURNAL of January 7th a case of vesical calculus reported by Mr. Pike, of St. Vincent. A stone of 13½ oz. in weight was removed by him by suprapubic operation, and Mr. Pike remarks that he can only find one instance of a stone exceeding this in size having been removed during life by lithotomy.

I may mention that some years ago I operated on a male patient in Bombay, and removed entire by suprapubic lithotomy a calculus weighing 17 oz., which I sent to the King's College Museum (London). As I went on leave to England shortly afterwards, I assisted Dr. Playfair, then Curator of the museum, to unpack the box, and found to my disappointment that the stone had been broken into fragments. To the best of my belief the stone is still in the King's College Museum.

W. K. Hatch, F.R.C.S.,
Lieut.-Col. I.M.S. (retired).

Norwich.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HOSPITAL FOR WOMEN AND CHILDREN, SWATOW.

CASE OF LARGE URINARY CALCULUS FORMING ROUND FOREIGN BODY INTRODUCED INTO THE BLADDER.

(Reported by Tina M. Blaikie, M.B., Ch.B., English Presbyterian Mission, Medical Officer to the Hospital.)

The following case of cystic calculus presents certain points of interest: X. Y., a Chinese woman, was admitted to hospital on June 20th, 1904, complaining of pain on micturition.

State on Admission.—She had a temperature of 103° F., and was in a very debilitated condition. The urine was scanty, ammoniacal, and pus-laden. The bowels had not moved for twelve days.

Treatment and Progress.—The bladder was washed out with warm boracic and the bowels opened with purgatives, and in two days the patient felt greatly relieved. On the third day after admission she had sudden and violent vesical pain on attempting to micturate, only a few drops of pus being passed. On passing a sound I found a large stone pressing down and blocking the urethra. An attempt to remove the stone per urethram proved unsuccessful, owing to the stone being very large and embedded in the bladder wall. Chloroform was therefore administered and a suprapubic cystotomy performed, when the stone was successfully removed. The wound was left open and free drainage established; a silver catheter was also fastened into the urethra, but for three weeks much foul pus was discharged from the bladder though it was washed out twice daily. Urotropine was pushed and antipyretics, chiefly quinine, administered. The main points during convalescence were as follows:—Constipation was very intractable; her temperature occasionally ran up to 105° F. in a most unaccountable way, and on one occasion, five weeks after operation, the patient suffered for several days from intractable vomiting and great prostration, so that rectal feeding was resorted to for forty-eight hours.

Result.—After this convalescence was steady, the bladder wall and abdominal wound healing quickly. From the twelfth day onwards attempts had been made to remove the catheter for a few hours but always with unfavourable results to the abdominal wound. Only after six weeks was the catheter altogether dispensed with, and in two more days the patient had complete control of the bladder. A week later, July 29th, she was discharged well, bowels regular, urine normal, appetite good.

Remarks.—The annexed illustration is a photograph of the stone removed. It was a phosphatic calculus measuring $2\frac{3}{4}$ in. by $1\frac{1}{2}$ in., and weighed 11 drachms. It had formed round a piece of stick. After the discovery of the stone in



hospital the patient informed us that twenty-eight months before a man by whom she had wrongfully become pregnant used a piece of wood steeped in some native medicine in hope of procuring abortion, but passed it by mistake into the bladder. The pregnancy continued and a live child was born. Pain in the bladder soon commenced and gradually became very intense, until finally she was forced to come to the hospital for relief.

Medical Magistrate.—Dr. W. E. St. Lawrence Finny has been appointed to the Commission of the Peace for the Borough of Kingston.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, Bart., M.D., F.R.C.P., K.C.V.O., President, in the Chair.

Tuesday, February 14th, 1905.

Influence of Stigmata of Degeneration on the Prognosis of Epilepsy.

Dr. W. A. Turner read this paper, which was based on 100 consecutive cases of confirmed epilepsy in the Chalfont Colony. The stigmata were facial deformity and asymmetry, deformities of the hard palate, of the external ears, and dental anomalies and displacements. Of 100 epileptics, 62 were males and 38 were females. Stigmata occurred in 52 males and 23 females, being 75 per cent. of the total number of cases. The greater freedom of females from stigmata was in relationship to the greater exemption from mental deterioration in the female. Direct parental heredity to epilepsy or insanity was usually associated with more pronounced stigmata than collateral heredity. Those cases in which the disease commenced between birth and 5 years of age showed a larger percentage of stigmata than at other ages. The absence of stigmata did not necessarily imply an early or favourable termination of the disease. The purely *petit mal* type did not exhibit marked evidence of hereditary degenerative disposition. Of those in whom there was marked mental enfeeblement, 53 per cent. exhibited, and only 7 per cent. were free from stigmata. Hence there would appear to be a close association between degrees of mental impairment and the presence of neuropathic stigmata, a fact which was in favour of the view that the interparoxysmal mental condition was a part of the disease.

Dr. C. H. Bond emphasized the importance of grouping cases of epilepsy into age-periods for statistical purposes. Stigmata might be used as a basis for distinguishing spurious from real mental defect.

Mr. S. Paget doubted if the stigmata had any special reference to epilepsy except as a part of a wide neuropathic degeneration; the proportion of their occurrence in the cases of epilepsy corresponded fairly closely with that in the London poor in general. Facial asymmetry was practically universal.

Dr. G. Shuttleworth thought a single stigma occurring alone had little importance. Facial asymmetry, as shown by the experience of hatters, was especially frequent in distinguished people. The mental defect in the presence of stigmata was probably a developmental defect, and not due to the epilepsy.

Dr. Fletcher Beach referred to the effect of structural brain disease on cranial deformity, and on the presence of webbed fingers as a stigma.

Dr. Turner replied.

Congenital Defect of Abdominal Wall and of the Genito-Urinary Apparatus.

Dr. A. E. Garrod and Dr. Wynne-Davies communicated this paper, in which they described the clinical features and *post-mortem* appearances observed in the case of a male infant which presented almost complete absence of the muscles of the abdominal walls, hypertrophy and dilatation of the urinary bladder (which had in similar instances been attached to the umbilicus either directly or by a urachus), a linear scar-like umbilicus, and undescended testicles. Microscopical examination of the spinal cord and muscle excluded intrauterine poliomyelitis and atrophy as against non-development of the muscle. The authors leaned to the view, advocated by Stumme in his monograph, that of the three possible theories—namely, (1) that the condition of the bladder was due to the non-development or atrophy of the muscles, (2) that the two malformations had a common cause, or (3) that the non-development or atrophy of the muscles was secondary to a temporary obstruction of the escape of urine occurring during intrauterine life—the last was the most likely to be correct.

Dr. L. Guthrie suggested as an alternative theory of causation a primary defect of the abdominal wall, which was supported by Dr. E. F. Buzzard, who, with Dr. Newton Pitt, discussed the paper; and Dr. Garrod replied.

North of England Obstetrical and Gynaecological Society.—The annual general meeting of this Society was held at Owens College, Manchester, on January 20th, when the following office-bearers were elected:—*President:* D. Lloyd

Roberts (Manchester). *Vice-Presidents:* Sir W. J. Sinclair and W. Walter (Manchester), Owen Bowen and A. J. Wallace (Liverpool), J. B. Hellier and A. C. F. Rabagliati (Leeds), J. W. Martin and P. E. Barber (Sheffield). *Treasurer:* E. O. Croft (Leeds). *Secretary:* W. E. Fothergill (Manchester).

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, February 10th, 1905.

Soft-valve Mitral Stenosis without Audible Murmur.

Dr. W. Ewart described this case, which occurred in a woman, aged 45. The existence of mitral stenosis was not suspected until it was found in the heart, which was exhibited. Various observers, during a long period of hospital treatment, heard no murmurs. The case showed that the characteristic *bruits* might sometimes be in abeyance for prolonged periods at an advanced stage, though more often in abeyance for short intervals only at an early stage. The lesion was one of "soft-valve stenosis," a type of lesion in which the early fibrous changes did not develop into progressive thickenings and indurations as in "heart-valve stenosis," and the chordae tendineae and the papillary muscles were quite free from stiffness, shortening, or fibrosis.

Dr. Seymour Taylor said mitral stenosis was the most interesting of cardiac lesions. Its murmur was most difficult to time, and its mode of production was not yet settled; though its frequency since Gairdner's paper was well recognized. Its timbre depended on the strength of the heart wall. The absence of the murmur was probably due to the left auricle being dilated, and its wall fatty. The thinness of the valve was possibly due to acute inflammation softening the endothelium. Had pyrexia been observed? Rheumatism causing endocarditis before puberty caused mitral stenosis; endocarditis in adults rather produced regurgitant disease.

Dr. Parkes Weber referred to a case of a hard stenosed valve, from which also the murmur had disappeared for a time before death.

Dr. Pasteur inquired whether alteration of rhythm had been observed, and whether the first sound at the apex suggested stenosis.

Dr. Essex Wynter thought that mitral stenosis did not occur in children before the age of 7, and very rarely between 7 and 14 years of age; also that stenosis in adults was due to persistence of the infantile size of the ring. A large proportion of the cases of mitral stenosis gave no history of rheumatism in early life. Thickening of the valve was due to repeated attacks of rheumatism; possibly its thinness in Dr. Ewart's case was due to the absence of more than one attack.

Dr. F. Hawkins (Reading) referred to the case of a woman who died suddenly from thrombosis of the abdominal aorta, and who was found, *post mortem*, to have mitral stenosis, but in whom no murmur had been heard whilst she was, a month before death, under treatment in hospital.

The President considered the murmurs varied with the power of the driving force in the heart and the kind of obstruction, and the absence of the murmur in Dr. Ewart's case was probably due to weakness in the driving force. This frequently occurred in the last stage of mitral stenosis, and in such cases he had found *post mortem* both soft valves and hard valves.

Dr. Ewart, in reply, said there had been no pyrexia in his case. The heart muscle was probably not up to its work, and was unable to produce a murmur. But he thought the softness of the valve was also a factor in causing absence of the murmur. He did not consider that adult stenosis was due to a persistent infantile ring.

Accessory Thyroid.

Mr. E. P. Paton described the case of a girl, aged 16, who had noticed a swelling in the right submaxillary region for some months. It gave no pain, but was increasing in size. It could be felt from inside as well as from outside the mouth. After removal it was shown to consist of thyroid tissue. Some points were then referred to as to the usual seats of accessory thyroids.

Mr. Walter Spencer said that the late Professor His had shown in his monograph on the subject how that special form of accessory thyroid originated. This accessory thyroid might be the only piece of thyroid tissue present in the body; in such cases it should not be entirely removed, otherwise myxoedema ensued.

Mr. Paton, in reply, remarked that if only part of the growth were removed the tumour might recur, and a bigger operation be necessary. These growths often bled largely, and might thereby imperil the child's life.

Extraperitoneal Uretero-Lithotomy in a Child.

Mr. H. Betham Robinson described this case.

The child, aged 3, had an impacted calculus in the urethra. After this stone had been extracted there was felt bimanually a small hard lump on the left side of the pelvis just below its brim, which was diagnosed as an impacted calculus in the ureter. After waiting a few days for the urethral wound to heal and to see if the stone was making its way to the bladder, which it did not do, uretero-lithotomy was performed and a small oval calculus removed. A fine catgut stitch was put through the outer part of the ureter and a wick drain left in the wound. There was very slight leaking for three days; after that the wound healed rapidly. There was no blood in the urine after the operation.

From an experience of 3 cases, this child's and two in adults, Mr. Robinson considered this to be an easier operation in the child for the following reasons: The small quantity of fat in the abdominal wall and subperitoneal connective tissue, and the shallow pelvis with the abdominal position of the bladder; the latter enabled the finger in the rectum to push the ureter with the impacted stone well up into the wound.

Calculous Anuria in a Child.

Mr. Douglas Drew described an interesting case of a male child, aged 4, who had stone in the bladder, for which suprapubic cystotomy was performed. Four months later a stone was found impacted in the meatus and was removed. The daily quantity of urine diminished, and frequent vomiting occurred; a calculus was removed from the left kidney and another from the left ureter. The child's condition did not permit of exploring the right kidney. The sickness persisted, drowsiness increased, and only 2½ oz. of urine were passed daily. *Post mortem*, a stone was found in the lower end of the right ureter.

Mr. Paton referred to the case of a child who had, after an operation for cleft palate, anuria for two days and died. A stone, blocking one ureter, was found.

Mr. Robinson, in reply, said that the experience of all operators was against closing the wound after uretero-lithotomy without drainage, as there was usually a slight leakage.

OBSTETRICAL SOCIETY OF LONDON.

Annual Meeting.

Edward Malins, M.D., F.R.C.P., President, in the Chair.

Wednesday, February 1st, 1905.

The Cure of Vaginal Cystocele.

Dr. Hey Groves read a paper on a new operation for the cure of vaginal cystocele. After pointing out that the condition was one of hernia of the bladder through the interval between the levatores ani, he proceeded to describe the anatomy of these muscles, and to show how they formed the floor of the pelvis through the median gap in which the urethra and vagina passed. Cystocele was accompanied by a divarication of the adjacent edges of the levatores ani. He suggested that the unsatisfactory results of all operations hitherto performed for this condition depended on the fact that they relied solely on the removal of the vaginal wall. He therefore proposed the following operation: A transverse incision through the vaginal wall was made 3 cm. behind the urethral orifice. The vagina was separated from the urethra and bladder and the inner edges of the levatores, and defined in each angle of the wound. The muscles were drawn together and stitched by two rows of suture. The vagina was united in the line of the original incision. He stated that the first case in which he had performed the operation was two years ago, and that the patient had since borne a full-term child, and that the cystocele showed no signs of recurrence.

Dr. Cullingworth said the profession would welcome any suggestion towards a more radical and scientific treatment than that hitherto adopted. The principles upon which the operation described were based appeared to be sound. But he wished to know whether separation of the vaginal wall from the urethra and the lower part of the bladder was usually as easy as had been described in the paper. He was also inclined to think that, in the class of patient suffering from cystocele, and at the age when relief was usually sought, it would not be very easy to find the separated borders of the levatores ani. He hoped that, in order to judge of the value of the operation described, an account of the case would be given as to the then condition of the patient some few years hence.

Dr. Hey Groves, in reply, stated that the patient's age was 35, but that he anticipated that the operation would be even more serviceable in old women, because in them the levatores ani could be stitched together for a greater extent regardless of encroachment on the vaginal outlet. He had not found any difficulty in separating the anterior vaginal wall from the urethra and bladder.

Wandering Spleen Forming Pelvic Tumour.

Dr. Frank E. Taylor showed a wandering spleen which had simulated an ovarian tumour and had caused retroversion of the uterus. It was completely contained within the pelvis and so had not given rise to any abdominal enlargement or tumour. Dr. Victor Bonney removed it by operation from a married nullipara, aged 29, who had complained of pain in the left side, back, and legs.

The President said that the difficulty in making an accurate diagnosis between an enlarged spleen and ovarian tumour was sometimes greater than would appear. He called to mind a patient he had seen some years ago with Sir Spencer Wells. A diagnosis of ovarian cystic tumour was made, but on operation it turned out to be a much enlarged spleen. He remembered a similar case of a spleen mistaken for ovarian tumour, where the spleen was much displaced and the pedicle axially rotated. He removed it with complete success.

Dr. Heywood Smith said that a similar case was sent up to him from the country as an ovarian tumour. He made out that the tumour was a spleen displaced. Mr. Bland-Sutton removed it at his request. The case did very well and remained so.

Tuberculous Disease of the Body of the Uterus (Probably Primary).

Mr. J. Bland-Sutton showed a specimen removed by operation from a spinster, aged 46. She had suffered from menorrhagia for two years. A rounded body inseparable from the uterus could be felt in the hypogastrium. Owing to increasing haemorrhage and febrile symptoms, degeneration of a fibroid was diagnosed. Abdominal hysterectomy was decided on. The ovaries and tubes were left, but, with the exception of a small portion of the cervix, the uterus was removed. On opening the uterus, a rounded, sessile, non-encapsuled tumour was found growing from the endometrium of the anterior wall. On section the tumour showed patches of caseation, and on microscopic examination tubercle bacilli were seen. The most important clinical feature of the case was its similarity to a degenerating submucous fibroid.

Dr. Peter Horrocks had seen several cases of tubercle of the lining membrane of the uterus, but in all the cases the endometrium of the cervical canal and of the corporeal portion was affected. The clinical features more resembled cancer than fibroid.

Annual Address.

The President (Dr. Malins) then delivered the annual address.

Officers and Council.

The following list of officers and Council for 1905 was read: *President:* W. R. Dakin, M.D. *Vice-Presidents:* A. H. Freeland Barbour, M.D. (Edinburgh); Amand Routh, M.D., B.S.; Sir William Japp Sinclair, M.D. (Manchester); Albert C. Butler-Smythe. *Treasurer:* George Ernest Herman, M.D. *Chairman of the Board for the Examination of Midwives:* John Phillips M.D. *Editor of "Transactions":* Herbert R. Spencer, M.D. *Honorary Secretaries:* Montagu Handfield-Jones, M.D.; Robert Boxall, M.D. *Honorary Librarian:* Arthur H. N. Lewers, M.D. *Other Members of Council:* Henry Russell Andrews, M.D.; Murdoch Cameron, M.D. (Glasgow); Charles James Cullingworth, M.D.; Ernest Rumley Dawson; Thomas W. Eden, M.D.; John Henry Ewart (Eastbourne); John Shields Fairbairn, M.D., B.Ch.; Charles Arthur Goullet; William Sampson Handley, M.S., F.R.C.S.; David Berry Hart, M.D. (Edinburgh); Arnold W. W. Lea, M.D. (Manchester); Cuthbert Lockyer, M.D., B.S.; Charles Hubert Roberts, M.D.; David W. Roberts, M.D.; Frank Rushworth, M.D.; Mary Ann Dacomb Scharlieb, M.D.; Walter C. Swayne, M.D. (Bristol); Charles J. Wright (Leeds).

Bradford Medico-Chirurgical Society.—At a meeting held on January 17th, Mr. Althorp, President, in the chair, Mr. Vaughan Bateson showed photographs of a case of sarcoma of the scapula, and magnified finger prints, as used for personal identification under the new system of classification adopted by the Government. He then read a paper on a case of granuloma fungoides. The clinical history was given and the remarkable deformity produced illustrated by photographs, the great changes of the facial condition at different stages of the disease being well shown. A full history of the case was given together with a pathologist's report. The connexion, causative or otherwise, of a flagellated bacillus found in the tumour masses was discussed. The case was discussed by Mr. Basil Hall, the Chairman, and Dr. Eurich.—Dr. Bronner read a paper on the local use of orthoform in the treatment of painful ulcers, with special reference to tuberculous laryngitis. Used with boric acid powder 1 in 10, in these cases it was surprising how complete and immediate the relief was. Dr. Bronner also said that its use was equally beneficial in cases of burns, fissure of the anus, and gastric ulcer. Drs. Campbell and Heilborn and Mr. Althorp and Mr. Hall took part in the discussion. Dr. Bronner replied.

ULSTER MEDICAL SOCIETY.

W. Calwell, M.D., President, in the Chair.

Thursday, February 2nd, 1905.

Fractures at the Lower End of the Radius.

Mr. A. Fullerton read a paper on Colles's fracture and other fractures and disjunctions at the lower end of the radius and ulna. It was profusely illustrated by lantern slides, skiagraphs, photographs, museum specimens, and splints. The term "Colles's fracture" ought, he said, to be confined to those fractures of the radius close to the wrist-joint in which displacement backward of the lower fragment occurred. It had, however, been loosely applied to all fractures in the vicinity of the joint. The researches of Gordon, formerly Professor of Surgery at Belfast, were largely referred to, and some points which the *x* rays had revealed specially mentioned. The cases upon which the paper was based were 69 in number, and of these 11 were disjunctions of the lower epiphysis of the radius. The ordinary Colles's fracture was usually produced by falling on the hand in the three-quarters pronated position, and not as usually stated in the fully pronated. The causation of the fracture was discussed, and it was suggested that, while cross strain as described by Gordon and others was responsible for some cases, other causes—as fracture by penetration, by crushing, or by decomposition of the force, with yielding at the weakest part—were more frequent. It was usually stated that the accident was more frequent in women of an advanced age. In the series 54 per cent. occurred between the ages of 30 and 50, and 38 per cent. after 50. The largest number in any decade (17) occurred between 30 and 40, and 12 of them were males. although taking all the cases together the numbers were 28 males and 29 females. About 50 per cent. of the women were over 50 years, while only 25 per cent. of the males were over that age. In the men, therefore, 75 per cent. of the fractures occurred before 50. The side affected was mentioned in 47 cases; 27 were in the left and 20 in the right. The injury was in most of the cases within the last inch of the bone. A series of sections of bone sawn from side to side and from before backward were exhibited, showing that the compact layer ceased about 1 in. from the lower end on the outer side, and about three-eighths of an inch from the lower end on the inner side. Behind, the compact layer descended to within half an inch of the joint, and a line or two further down the front. This accounted for the obliquity from above downwards and without inwards, seen in a large number of the skiagraphs. The presence of a spike of bone running up the shaft on the outer side was a marked feature in many cases. Skiagraphs of fracture of the radial styloid process alone, extending into the joint on the inner side, were shown, and other skiagraphs illustrating more unusual forms of fracture. The ulna was implicated in over 50 per cent. of the cases, and skiagraphs were shown to illustrate the ultimate results of treatment in fractures of the styloid process. In some the process united again, in others it became thickened, in others it remained distinct, and in others it disappeared altogether. In several of the cases fracture of the ulna at the same level as the fracture of the radius was found. Skiagraphs were shown to illustrate the complete separation of the radius and ulna with probable rupture of the triangular fibro-cartilage, which took place in many cases. It was shown that fracture of the styloid process of the ulna alone might take place in injuries about the joint, as in a case of dislocation of the carpus backwards. The presence or absence of impaction was noted in 45 cases. In 12 there was marked impaction, 2 of

these being fracture of both bones at the same level, and in others there was probably some posterior impaction and some crushing of the fragments. In all these cases a good result was obtained by manipulation and splints. Comminution, as seen by skiagraph, was present in 5 cases out of 47. It might have occurred in others, but was not diagnosed by skiagraphs or symptoms. The displacement of the fragments and consequent deformity was carefully noted in all the cases. They were classified under three heads: (1) Those in which the lower radial fragment was displaced backwards (this was by far the most frequent form); (2) those in which radial displacement of the lower fragment was the most marked feature (in these cases it was suggested that a fall on the ulnar border of the hand was the cause); (3) those in which forward displacement occurred—a very rare form. Exception was taken to the description of textbooks in which abduction of the hand was described as a sign of these fractures. In most cases the fingers were either normal or slightly flexed to the ulnar side, so that adduction of the fingers and radial displacement of the wrist would be a more suitable description. The cases in which there was narrowing of the interosseous space between the radius and ulna must be vary rare. In several of the series the space was actually widened, due to comminution of the lower fragment of the radius, with separation of the radius from the ulna. In the cases with displacement to the radial side the wrist was broadened from side to side, suggesting a line of treatment different from that usually employed. The complications that occurred in the series were—fracture of the ulna at the same level, 3 cases; fracture of the styloid process of ulna, 52 per cent. of the cases; rupture of the triangular fibro-cartilage, allowing of separation of the radius from the ulna, comminutions which occurred in 5 cases; injury to the median nerve, 2 cases; laceration of the tendon of the extensor secundi internodii pollicis by the ragged edge of the lower fragment was found in 1 case; fracture of the anatomical neck of the humerus occurred on the same side in 1 case; fracture of the carpal bones (scaphoid) was present in 1 case. In dealing with treatment, a special point was made in favour of subdividing the fractures according to the displacement. In the dorsal form two splints were recommended—the anterior not to come below the fracture, and the posterior to be so padded that the hand was flexed to an angle of 45 degrees. In all cases the impaction, if present, was first broken down if possible, and the parts firmly pushed into position before splints were applied. The method suggested recently of making no attempt to break down impaction or treat by splints was condemned, and cases were mentioned where good results had followed the more active plan. Splints should not be kept on for longer than a fortnight, except in very exceptional cases. The patients were seen every second day, and were encouraged to move the fingers. Stiffness of the wrist was absent in the large majority of the cases, and when present was believed to be due to fracture into the joint or injury to the carpal bones. In many cases the patients were able to return to their work in four weeks from the date of receiving the injury. A new splint was suggested for those cases in which radial displacement was the principal deformity. The splint was a piece of wood hollowed out to fit the ulnar border of the hand and forearm, and having the metacarpal end made at a slight angle to the rest of the splint. The splint when applied fitted the forearm and ulnar border of the hand, and the latter was neither abducted nor adducted. The radial fragment was drawn or pushed into position and kept there by a pad, which was secured in position by a strap and buckle which passed round the lower end of the splint. The idea was to keep the lower end of the radius close to the ulna by the pressure of the pad and strap. The splint was a little broader than the ulnar margin of the limb, so as to leave room for blood and lymph circulation. Dorsal and palmar splints were useless to correct the radial deformity. The eleven disjunctions of the lower epiphysis of the radius were all in boys. A skiagraph was shown of a Colles's fracture in a boy aged 11 years—an accident which was much rarer than disjunction of the epiphysis. The ages varied from 7 to 18 years. The cause was indirect violence, such as falling from a height upon the outstretched hand, or falling in the street on the palm or ulnar border. Fracture of the tip of the styloid was seen in one of five skiagraphs taken. In 1 case the epiphyses of both radius and ulna were displaced slightly inwards as well as backwards. The opinion was expressed that the ulnar epiphysis frequently suffered as well as the radial. This was shown by the swelling which, a few days later, frequently took place at the spot, due to a loosening, probably, of the ulnar head and consequent epiphysitis. Permanent deformity or arrest of growth was quite exceptional in these cases.

Mr. Mitchell, Mr. Robert Campbell, Professor Byers, Drs. O'Connell, Moore, Rankin, Lowry, and Kevin criticized the paper, and Mr. Fullerton replied.

Medical Society of London.—At a clinical meeting on February 13th, Mr. John Langton, F.R.C.S., President, in the chair, Drs. T. R. and E. E. Glynn showed a case with all the classical symptoms of intracranial tumour following an injury to the head, and six years later with a spontaneous and persistent escape of cerebro-spinal fluid. The patient made a complete recovery, commencing almost at once after the rhinorrhoea. The case was looked upon as one of acute internal hydrocephalus, depending on occlusion of the foramen Magendie.—Mr. Bruce Clarke showed a case of cancer of the stomach one year after pylorectomy. The bulk of the growth removed was due to fibrous thickening round an old ulcer, but a small patch of columnar-celled carcinoma was found near the pylorus. He also showed a case of oöphorectomy for cancer of the breast five years after operation.—Mr. H. J. Waring showed a case of oöphorectomy for carcinoma of the breast, with relief of pain and shrinking of the growth.—Dr. F. J. Poynton showed two cases of probable exophthalmic goître, in one of which, a young man, the exophthalmos was one-sided, and in which there was some nasal affection, but no tachycardia, although the heart was easily excited to palpitation.—Dr. Brunton showed a case of aneurysm of the descending arch of the aorta appearing externally to the left of the spinal column.—Dr. W. Ewart showed two cases of diabetes one with acetonaemia and one without.—Dr. W. Essex Wynter showed a patient believed to be suffering from tumour of the left lobe of the cerebellum.

Glasgow Medico-Chirurgical Society.—At a meeting held on January 27th, Dr. Knox in the chair, Dr. J. H. Nicoll by means of a lantern demonstrated the steps of an operation for the radical cure of inguinal hernia. He also showed specimens from a series of cases of hernia of the ovary.—Dr. Freeland Fergus read a paper entitled Some Practical Aspects of Bacteriological Investigations of the Conjunctiva.—Dr. Inglis Pollock gave a lantern demonstration of the more common organisms found in the conjunctival sac.—Dr. Walker Downie showed (1) a microscopic section of a large nasal mucous polypus removed from an infant 8 weeks old; (2) a grain of oats which had been impacted in the larynx of a child who had pneumonia; (3) a sharp piece of bone which had been impacted in the subglottic region of the larynx in a child of 8 months. The bodies were removed from the larynx of each child by opening the trachea and passing a narrow strip of gauze through the larynx into the pharynx. The end in the pharynx was caught by forceps and the gauze gently pulled upwards. The foreign bodies were dislodged and entangled in the meshes of the loose gauze.

REVIEWS.

PHYSIOLOGY.

Professor Halliburton's *Handbook of Physiology*[1] appears with a somewhat larger page and alteration of type. It remains substantially what it was, and the chief additions are to be found in the chapters on the circulating and nervous systems. Haemodynamics has been specially treated with the help of Dr. Brodie. We still find in some parts adherence to the English units instead of the metrical, for example, the diameter of a cell is given in parts of an inch. There is no objection to this, but it should be supplemented with the equivalent in the metrical scale, as is done later on. It would have been well to explain what is meant by a "mast" cell of Ehrlich (p. 39). An account of the recent work of Mott and the author on degeneration of nerves is introduced. Perhaps good drawings would have been more serviceable to the student than photomicrographs. There is a good account of the general chemistry of nerve tissue, and of that of nerve degeneration. Did Malpighi in 1661 first observe the capillaries in the tail of a tadpole (p. 227)? was it not rather in the

[1] *Handbook of Physiology.* By W. D. Halliburton, M.D., F.R.S. Sixth edition, being the nineteenth edition of Kirke's *Physiology.* London: John Murray. 1904. (Demy 8vo, pp. 962. 15s.)

dried lung of a frog? The famous second epistle to Borelli records the observation. We are glad to see the introduction of a chapter on the important subject of osmotic phenomena (pp. 321-327). Some new tracings have been introduced under "Respiration," and one of these is very instructive, because it shows the changes in the pressure in the vascular system during asphyxia. The chapters on digestion have been considerably altered to bring them up to date, having regard to the now well-known researches of Pawlow on the activity of the digestive glands, and also those of Starling and Bayliss on the secretin of the pancreas, but we do not find the name of Delezenne in this connexion. We have also an account of Cohnheim's work on erepsin. In the histology of the kidney some of the older figures might well give way to others showing the recent discoveries in the structure of these organs. The same is true of other figures which linger like veterans on the stage. The newer views on brain function are well set forth, and a short chapter based on Donaldson's work on the comparative physiology of the brain has been introduced. A suggestive short chapter on "trophic nerves" is followed by one on the physiology of the reproductive organs, and there are some chapters on development and embryology. Just because this work is so popular, and because in the past it has met the requirements of the average student, we have ventured to refer to certain points which might be worthy of consideration when the author is called upon—as no doubt he will be ere long—to inscribe on the title-page "twentieth edition" and "seventh edition"—the latter in large type. We are sure that it will prove one of the most useful handbooks of physiology, perhaps because it strikes the happy mean.

HERMANN'S *Textbook of Physiology*[2] remains the standard student's textbook in the German language. Since we published our last review of this well-known work in 1896 the volume has increased in size by nearly a hundred pages, and the number of illustrations has been almost doubled. It has been brought up to date, and that means that a large amount of material has been added and a great deal of the old matter rewritten. A specially useful new section, entitled "Physical Introduction," brings before the student at the outset the importance of a preliminary acquaintance with various branches of physics, and points out their physiological application. The chemical introduction which follows deals in a similar way with the applications of chemical knowledge to physiological problems; but, as we said in our previous review, any extended notice concerning the contents of such a standard work is uncalled for. The book is now in the forty-second year of its age, and we congratulate the veteran author on his continued power of work and in his undiminished faculty of assimilating new ideas and putting them in such clear language that others may be also able to grasp them.

In the latest and fifth edition of his *Essentials of Chemical Physiology*[3] Professor HALLIBURTON has added a new first lesson on the detection of the elements contained in substances of physiological interest. In this he has followed the example of Milroy, who recently published an extremely well-arranged book on practical exercises in physiological chemistry. Professor Halliburton has also amplified the lesson on fats, has inserted several new exercises, and rewritten some of the advanced lessons on milk, pancreatic digestion, muscle, and Kjeldahl's method. To the chapter on the blood he has added a clearly-written summary of the theory of immunity, introducing a short account of haemolysins and of the precipitin test for human blood. In the section on the chemistry of respiration we must take exception to the following statement: "The amount of gas dissolved in a liquid varies with the pressure of a gas. . . . Now, this does not occur in the case of oxygen and blood; very nearly the same amount of oxygen is dissolved whatever be the pressure." The gas dissolved in the blood surely follows the law of partial pressure.

Mr. JOHN THORNTON'S *Elementary Practical Physiology*[4] is designed to meet all the requirements of the elementary stage as set forth in the syllabus of the Board of Education (Science and Art Department). It is hardly, however, a practical physiology in the sense in which the word "practical" is applied. It is written on the usual lines so far as the arrangement of the subject matter is concerned: General build of the body, framework, joints, muscles, blood and circulation, and ending with the nervous system and organs of sense. It is well illustrated. Few of the illustrations are original; nearly all are taken from well-known textbooks. At the end there is a glossary giving the pronunciation and origin of many of the technical words, and an appendix of examination questions, and also specific questions on the subjects of each of the twenty-two chapters which make up the text. There is one matter to which we invite the author's attention, and that is the necessity for giving the magnification when microscopical illustrations or diagrams are used. In Fig. 2, showing cells "highly magnified," fat cells are represented as smaller than epithelial cells—in fact, they are shown as the smallest of the composite group of cells, whilst in reality they are the largest.

There is no fluid of the body, with the exception of blood and urine, that has formed the subject of so many monographs as that in the cerebro-spinal cavity. Interest in this important fluid has been recently accentuated by the introduction of the operation of lumbar puncture, and the methods of cyto-diagnosis. The volume by Dr. MILIAN on the cerebro-spinal fluid[5] is an interesting summary of our knowledge of the subject. It deals with the question first from the historical and physiological points of view, and then with its clinical aspects. The bibliography given is extensive, but is mainly confined to French writers. We, for instance, find no reference to Dr. StClair Thomson's work in connexion with his well-known and almost unique case where cerebro-spinal fluid dropped from the nostril. This case was important, not only from the clinician's point of view, but because it furnished physiologists with an unusual opportunity of investigating some of the hitherto doubtful points in the way in which the fluid originates and varies under different conditions. The subject of cyto-diagnosis is fully treated, but the work of Mott, Halliburton, Donath, and others on the importance of a chemical examination of the fluid for purposes of differential diagnosis is altogether lost sight of. The book is written in a lucid style, and will well repay perusal, but the author's attention has been directed so much to one aspect of the subject, evidently because he has himself performed work in that direction only, that he has failed in producing a work of general interest.

The literature on milk is very extensive; it will perhaps be a surprise to some readers to find that on colostrum[6] so abundant also. Dr. HANS BAB has certainly the gift of industry, and has unearthed writings both ancient and modern from the days of Hippocrates downwards; his own researches lead to the conclusion that colostrum formation is the physiological analogue of the pathological process of inflammation; and that the colostrum corpuscles are phagocytes. These corpuscles are very carefully described, modern methods of staining being used. In parenthesis there is also given a very good description of the varieties of leucocytes. The phagocytosis of the colostrum corpuscles is not limited to the milk fat, but extends also to the albuminous constituents of the milk. This limits the amount of these nutritive constituents which the infant takes in the first few days of lactation and this is considered to be of physiological importance. The pamphlet will amply repay careful perusal.

Contributions to Scientific Medicine and Chemistry[7] illustrates the pleasing German custom of celebrating an important event, in this case a birthday, in the life of an honoured teacher, by publishing a collection of original papers by his present and former pupils. Professor Ernst Salkowski, of Berlin, is well known as one of the pioneers in chemical physiology and pathology, and the present *Festschrift* contains as many as forty-six communications dealing for the most part with various aspects of that important branch of

[2] *Lehrbuch der Physiologie.* By L. Hermann. Thirteenth Edition. Berlin: A. Hirschwald. 1905. (Demy 8vo, pp. 762, 245 illustrations. M 16.)

[3] *The Essentials of Chemical Physiology.* By W. D. Halliburton, M.D., F.R.S. Fifth edition. London: Longmans, Green and Co. 1904. (Demy 8vo, pp. 248, 83 illustrations. 4s. 6d.)

[4] *Elementary Practical Physiology.* By John Thornton. M.A. London: Longmans, Green and Co. 1904. (Crown 8vo, pp. 324, 178 illustrations. 3s. 6d.)

[5] *Le Liquide Céphalo-rachidien.* (The Cerebro-spinal Fluid.) By Dr. Milian. Paris: G. Steinheil. 1904. (Demy 8vo. pp. 272. Fr. 6.)

[6] *Die Colostrum bildung.* By Dr. Hans Bab. Berlin: A. Hirschwald. 1904. (Demy 8vo, pp. 98. M. 6.)

[7] *Beiträge zur wissenschaftlichen Medicin und Chemie. Festschrift zu Ehren des sechszigsten Geburtstages von Ernst Salkowski.* (Contributions to scientific medicine and chemistry. Memorial volume in honour of Ernst Salkowski's sixtieth birthday.) Berlin: A. Hirschwald. 1904. (Demy 8vo, pp. 480, with portrait of E. Salkowski; 2 plates. M 12.)

science. We join in congratulating Professor Salkowski not only on having reached the age of 60 and of maintaining his output of original research, but also on the fact that he can point to at least forty-six other investigators who have benefited by his teaching and are following his example.

MEDICAL GEOGRAPHY.

The interdependence of climate and disease, and the distribution of the various maladies affecting mankind over the earth's surface, are subjects of peculiar interest, and as such have attracted the attention of various writers in many countries. During the last two decades or so attempts to collect such data as should serve for a general pathological climatology of the world have been made with more or less success. To Hirsch we are indebted for a most useful *Handbook of Geographical Pathology*, and Dr. Lombard's *Traité de Climatologie Médicale*, though perhaps now somewhat out of date, is not without its value. Dr. Andrew Davidson's *Geographical Pathology* carried our knowledge a step further on its way, and in 1903 was published the admirable *Geography of Disease*, in which Dr. Clemow brings our information on the subject up to date, as far as this is possible amid the daily discoveries of parasitology. In Dr. Emile Laurent's book on medical geography,[8] now before us, we have the latest addition to this class of medical literature. In his preface Dr. Laurent tells his readers that his aim has been to furnish concise, yet at the same time complete, medical information upon any part of the world, so that the physician called upon to send a patient abroad may at once be able to make himself acquainted with the climatology of the country needed, its prevalent diseases, its seasons, advantages and drawbacks, spas, thermal springs, and so forth. It has often occurred to us that there is a distinct opening for a volume (or volumes) of this kind—a sort of medical Baedeker, where full and trustworthy information concerning any country or place should be immediately available, and with the author's promising "foreword" we hoped that we had at last succeeded in finding it. The hope, however, has not been fulfilled. Dr. Laurent's book may astonish the reader in some places, will certainly amuse him in others, but it will not be of much use to him in the way he requires. After a short excursus on climatology in general, the author takes the various diseases in order, and treats of their distribution. Whether he is unaware of the means by which malaria is conveyed or whether he declines to accept the facts does not appear, but the mosquito is not even distantly alluded to, and we are given an account of the "malarial emanations" and "pestilential miasmata" of the countries wherein the disease prevails. A little further on occurs the remarkable statement that ankylostomiasis is only found in hot or tropical countries ("ne se rencontre que dans les régions chaudes ou tropicales"), but this information is scarcely so astonishing as that on a later page, where we read that "since the commencement of the nineteenth century plague has not made its appearance in Europe." Beri-beri, too, is stated to be rare in China, and it is not even mentioned as occurring in Japan, one of its most important centres. The remainder of the book, in other words practically the whole of it, is devoted to a consideration of the countries of the world in detail. France heads the list, as is only to be expected, and about 120 pages are devoted to this section, which is, perhaps, not without a certain value so far as regards climatology, though it must be admitted that here, as elsewhere, the author has no scruple about borrowing wholesale from Reclus—taking, indeed, whole pages from that excellent geographer if occasion requires. From France he goes to England, "where rules a race at once proud and crafty, selfish and cruel, a race celebrated throughout the world for haughtiness and tenacity of purpose and for the astonishing ugliness of its women." It is, therefore, not remarkable that he devotes only about a dozen pages to a country whose climate has produced such unhappy results, though he finds space to notice a few of the more important watering places, among which we remark "Saints Léonard's," "Weymout," and "Whitley." Whether at home or abroad, however, he equally disapproves of the English, who swarm, he tells us, at Boulogne, "lamentably comic figures, the men waxed, brushed, and red-faced, the long, thin misses with faces like calves and the gait of camels." It is almost unnecessary to follow our author further, but we notice that Madeira has only three-quarters of a page allotted to it and Davos not a line, as far as we can discover. The whole nosography of the former island is summed up in the remark that while malaria is unknown, herpes, eczema, and the itch are common. Malta occupies a dozen lines and Gibraltar rather less, and in neither notice is there any mention of Mediterranean fever. Altogether, Dr. Laurent's work cannot be looked upon as affording any aid to the student of the subject with which it professes to deal.

[8] *Géographie Médicale* [Medical Geography]. Par le Dr. Emile Laurent. Paris: A. Maloine. 1905. (Crown 8vo, pp. 830. Fr. 7 50.)

RADIOTHERAPY.

In *Elements of General Radiotherapy*[9] Dr. Leopold Freund passes in review the work that has been done during the past years in electrotherapeutics, and the colossal nature of the task he has accomplished may be estimated by the fact that the researches of more than 700 observers have been consulted. Until quite recently the difficulty of collating information has been great, owing to the fact that, as must necessarily occur in any comparatively new branch of science, the pages of current literature must be examined to obtain the results of a sufficient number of cases to render the conclusions drawn therefrom reliable. The book is divided into five parts. The first deals with physics, and is sufficiently full to render the subsequent parts intelligible to the beginner. The second part deals with the high-frequency currents; full details of careful experimental work are given, but the general conclusion drawn is that their therapeutic value is limited mainly to their action on affections of the skin and mucous membranes. The third section of the book, dealing with treatment by x rays, contains a good description of the different types of apparatus and tubes that can be employed, and experimental work is quoted in detail. A survey is given of the different conditions in which this form of treatment has been employed and the results obtained. The author's special researches in dermatology are particularly valuable, especially in the diseases of the hairy skin, and he discusses the different techniques, and gives the following as the method he prefers: The tube, which is fairly high, is excited by a 12-in. coil working from the main or accumulators, the current being from $1\frac{1}{2}$ to 2 ampères, with the interruptions averaging 16 per second. The distance of the tube from the skin is at first 6 in. and is gradually reduced to 2 in., and the sittings prolonged from five to ten minutes. He discusses briefly the use of radiochrometers, but not in any detail, and the newer methods of radiometry have developed since the book was published. Experiments are quoted to show that the therapeutic action of the excited tube is due to the x rays exclusively, and this section concludes with a discussion on the subject of x-ray dermatitis. The fourth part deals with the Becquerel rays, and is a useful summary of the limited knowledge of this subject. The fifth and last section deals with phototherapy, including heat and light-ray treatment, and deals with physics, physiological and bacteriological effects and the apparatus employed; the indications for the treatment, and the sensitization of the tissues by administering fluorescent drugs before treatment by radiotherapy is dealt with in brief. The appendix gives descriptions of the main types of apparatus and accessories used. The book may be thoroughly recommended to all who are interested in this branch of medical work. The translator is to be congratulated on his satisfactory accomplishment of what must have been a somewhat difficult task.

The second edition of *The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis*,[10] by Dr. Pusey and Mr. Caldwell, though the arrangement is practically the same as in the first, has been carefully revised and brought up to date. The first part is devoted to the full description of the various types of apparatus used in the production of the x rays and the best methods of employing them. The chapter on marking, indexing, and storing negatives will be found most useful to those who are in charge of hospital departments where reference to previous skiagraphs is often necessary. A good description is also given of the details of practical radiography with regard to the particular part required to obtain the best result, which will be read with advantage by those who are about to take up this branch. The second part of the book is devoted to the therapeutic action of the rays, and its value is enhanced by the records of cases previously men-

[9] *Elements of General Radiotherapy.* By Dr. Leopold Freund. Translated by G. H. Lancashire, M.D.Brux., M.R.C.S., L.R.C.P. London: Rebman, Limited. 1904. (Demy 8vo, pp. 598, 260 illustrations. 21s.)

[10] *The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis.* By W. A. Pusey, A.M., M.D., and E. W. Caldwell, B.S. Second Edition. London: W. B. Saunders and Co. 1904. (Demy 8vo, pp. 690; 182 illustrations. 21s. net.)

tioned being brought up to date. There is a full description of the course and treatment of *x*-ray dermatitis and idiosyncrasy is fully discussed. For treatment the authors prefer to use an induction coil with an interrupter at 1,000 per second, and a moderately low tube. They start with an exposure of five minutes at a distance of 15 cm., and give a week's interval to eliminate any idiosyncrasy. The tube is gradually brought nearer (5 cm.) and the time increased to fifteen minutes. No system of accurate radiometry which is now becoming general is recommended. The technique of other workers is discussed, and that of Kienbock—which consists of giving a single sitting of thirty minutes with a low tube and awaiting reaction—is condemned as dangerous. The results in the treatment of different conditions are described, and the large number treated adds to the value of the evidence. A tabulated description of 69 cases of cutaneous carcinoma, with results up to January, 1904, is of interest, but the detailed description shows that the majority are cases of rodent ulcer, so that the percentage of symptomatic cure —84 per cent.—must not be taken to indicate that epitheliomata, in the sense the term is understood in this country, are readily amenable to this form of treatment; the results are, in fact, far from satisfactory. Improvement and symptomatic cure are noted in recurrent carcinoma of breast and carcinoma of the cervix uteri, to which condition more attention is now being paid; while many cases of sarcoma are recorded in which *x*-ray treatment has been employed with marked good effect. The prophylactic use of the rays after operation is advocated in doubtful cases, and should certainly be given an exhaustive trial, though it is necessarily difficult to prove its efficacy. The illustrations throughout the book are excellent.

CANCER IN BRITISH COLONIES.

A Blue Book has just been issued[1] containing papers relating to cancer research in the Colonies. In May, 1903, Mr. Chamberlain, then Colonial Secretary, sent a circular to Governors and High Commissioners of all Colonies and Protectorates inviting the co-operation of Government medical officers and private practitioners in the Colonies in the work being carried out under the auspices of the Cancer Research Fund.

Distribution of Cancer.

The replies disclose the interesting fact that in not a few of the Colonies cancer is rare, and in some practically unknown among the indigenous population.

The Governor of Natal states that Mr. Samuelson, Under-Secretary for Native Affairs, who is intimately acquainted with native life, has never known a case of cancer among natives of the Colony.

The Governor of Gambia says that the Senior Medical Officer had gone carefully through all the past records of patients treated in the Colonial Office at Bathurst, and could not trace a single case of cancer among them. Dr. Forde's own experience, extending to nearly nine years in the colony, confirms this, and, as far as he is aware, cancer is unknown among West African natives.

With regard to Gibraltar, Dr. William Turner, Surgeon to the Colonial Hospital, says that in a community like that of the "Rock," with a native population of a little over 20,000, statistics with regard to cancer are practically valueless for purposes of scientific research. The total number of persons living in Gibraltar at the date of the letter (February 8th, 1904) at the cancerous age—that is to say, 35 years and upwards—was 8,363; the number of deaths attributed to the disease in 1903 was 5. The organs chiefly affected in natives of Gibraltar and in Spaniards residing in the neighbourhood are stated to be in males the lips and the tongue, in females the uterus and the breast. Probably three-fourths of all the cases of cancer met with in the Colonial Hospital have their seat in one or other of these organs. The predisposing causes appear to Dr. Turner to be in males excessive smoking, leading to irritation of the lips and tongue, and in females premature childbearing and lactation. "The Spaniard's cigarette or cigar is never absent from his lips if he can help it, and he allows them to burn so close that the actual fire must frequently char the epithelium of his mouth. Again, in females, the generative organs come to maturity at a relatively early period as compared with the general development of the frame, and consequently early sexual relations and childbearing are frequent. This results in undue irritation and injury of the genital tract at a stage when its component tissues are as yet immature, and a condition of cell proliferation is set up which at some future time predisposes to cancer formation."

From British Honduras, the Colonial Surgeon, Dr. C. H. Eyles, reports that cancer occurs in the Colony, but he points out that, with a population of less than forty thousand, of whom, perhaps, one-half do not regularly consult medical practitioners, there are few opportunities of making observations.

From British Central Africa the Commissioner reports that, as a result of inquiries made by him, he had come to the conclusion that cancer, although it exists, is a rare disease in that part of Africa. Dr. Scott, of the Zomba Mission, who had been in the country some fifteen years, had never seen a case, and Dr. Morris, late of the Blantyre Mission, had in four years seen only one case of supposed cancer. Dr. J. E. S. Old, Acting Principal Medical Officer, states that during a period of between three or four years spent in the country he had seen only 2 cases of malignant disease—one, a sarcoma of the upper jaw, at North Nyassa; the other, a sarcoma arising from the bone of the forearm, in the Lower Shire district. He adds, however, that natives are very backward in coming for treatment when they think a surgical operation may be required.

The Governor of the Leeward Islands states that cases of cancer are not there met with in private practice so frequently as in England, and the number of patients in hospital suffering from the disease is not high.

At Wei-hai-wei, the Medical Officer of Health, Dr. H. J. Hickin, states that no case of cancer had come under his notice. He adds that "the small number of residents here and the extreme salubrity of the climate render it unlikely that any case will be brought under notice for years."

Of St. Helena the Colonial Surgeon reports that "cases occur and deaths are recorded yearly, perhaps to the extent of 3 or 4 out of a population of 3 000 to 4 000."

With regard to the East African Protectorate, there is a general unanimity of opinion among the medical officers serving there that cancer is rare among the aboriginal tribes. Dr. R. A. Moffat, the Principal Medical Officer, says this corresponds with his own experience, which covers over ten years in East Africa.

In Mauritius, according to the acting Medical Director, Dr. H. Lorans, the vital statistics are not sufficiently accurate to enable him to estimate in what proportion cancer is met with in the heterogeneous population of the Colony, but judging from the mortality returns of the Estate Hospitals and the annual statistics of cases treated in the General Hospitals, cancer is much less prevalent in Mauritius than in England.

Somewhat elaborate statistics are supplied by the Governor of Ceylon, the results of which are summarized as follows: The number of cases per annum is about 220; that cancer is a comparatively slight disease in Ceylon; that it is more common in males than in females; that the average age is over 40 years; that the most common sites of cancer are the oral cavity and the generative organs; that relatively cancer is most common in the Northern Province of Ceylon; that sarcoma is much rarer than cancer.

In Southern Nigeria, according to the testimony of the medical officers, the occurrence of malignant growths is rare.

In the Gold Coast Colony and Protectorates it is also very rare; in Ashanti and the Northern Territories not a single case has been discovered. Dr. W. R. Henderson, Principal Medical Officer, states that during the time he has been in the Colony—nearly ten years—he has never observed a single case.

In Grenada very few cases have hitherto come under the notice of the medical officers.

In British New Guinea, according to Sir William MacGregor, M.D., the disease is rare. In an experience of ten years he saw only one case of the disease in a native.

As to Queensland, Dr. Walter E. Roth, Chief Protector of Aborigines, states that in ten years' experience among North Queensland aborigines he had not observed a single case of definite malignant disease. Mr. J. O'N. Brennan, of the Department of Immigration (Labour Branch) Pacific Islands, says that during the last eleven years he could not remember having seen or heard of a case of cancer among the Pacific Islanders in Queensland. His testimony is confirmed by that of several medical men.

[1] London: Printed for His Majesty's Stationery Office by Darling and Son, Limited, 34-40 Bacon Street, E. And to be purchased, either directly or through any Bookseller, from Wyman and Sons, Limited, Fetter Lane, E.C., and 32, Abingdon Street, Westminster, S.W.; or Oliver and Boyd, Edinburgh; or E. Ponsonby, 116, Grafton Street, Dublin. 1905. Price 10½d.

Alleged Remedies.

With regard to alleged remedies for cancer, Dr. Bashford reports on certain evidence collected by the Officer Administering the Government of Natal as to the "Dutch cure" used in different parts of Cape Colony, Natal, and the Orange River Colony. The nature of that evidence, says the General Superintendent of the Cancer Research Fund, does not, in its present form, suffice to establish the claims made on behalf of the alleged cure, nor is the medical evidence, advanced in support of the statement that the tumour from which a patient suffered was cancer, of a kind which carries conviction with it. No microscopical examination of the tumour was made. Dr. Bashford further states, in regard to three "cancer cures" forwarded from South Africa, investigations into the nature of the remedies had shown that their alleged efficacy was based on grounds which could not be established on scientific examination. In a fourth instance pieces of tissue removed from what was stated to be a case of cancer of the breast undergoing the "Dutch cure" have been examined and have been found not to be cancerous.

As to alleged cures of cancer by means of molasses reported to the Governor of New South Wales, Dr. Bashford states that the nature of the evidence submitted does not suffice to establish the claims made, neither is the medical evidence advanced in support of the statements made that the cases treated were cancer of a convincing character. No microscopic examination of the tumours had been made. Dr. Bashford adds that at the request of the Executive Committee, Mr. Henry Morris has investigated the alleged curative value of molasses in cases of cancer. Mr. Morris, in the first place, used molasses obtained from a firm in London; subsequently a large quantity of genuine molasses was obtained from Queensland through the courtesy of the Agent-General. The molasses were employed according to the instructions of Dr. Henzell, the medical officer in charge of the Mackay Hospital, Queensland. Several patients with carcinoma in different situations were treated—namely, 7 of the uterus, 7 or 8 of the breast, 2 of the rectum, 1 of the inside of the mouth, with sarcoma of the neck. The treatment was local and internal. Some of the cases were under treatment for over two months, and after that time there was practically no improvement. The treatment was, nevertheless, continued, even after its negative effects had been recorded in the second series of the Middlesex Hospital Cancer Research Reports. The more prolonged treatment yielded no better results. The patients thus treated were all suffering from true cancer, and the nature of the various tumours was established by microscopical examination.

Summary of Reports.

In a circular to Governors and High Commissioners, dated November 18th, 1904, Mr. Lyttelton, summing up the reports so far as they have been received, says they fall into two categories for statistical purposes. The first of these includes tabular summaries of numerous cases of cancer which have been sent in or promised—for example, in the case of New Zealand, Queensland, Tasmania, Montreal General Hospital, Malta, Transvaal, Gibraltar, Egypt, etc. These reports are mainly based upon cases occurring in the white population in hospitals or among the native population of the West Indian Colonies. With regard to reports of this class, it appears that many cases of cancer among the white population have been investigated quite as thoroughly as in the large London hospitals. The reports included in the second category relate to isolated cases of cancer discovered by the Colonial medical officers among aboriginal races more or less removed from contact with civilization. Such reports are sent from the Gambia, Gold Coast, Northern and Southern Nigeria, the British East Africa Protectorate, the British Central Africa Protectorate, etc. The Colonial Secretary points out that the Committee earnestly desire that the cause of the apparent rarity may be more fully investigated, and they wish, in the first place, that attention may be particularly directed to the endeavour to ascertain the ages of such natives as may be found suffering from cancer, and also the average age attained by native men and women. From the information at present collected it is not yet possible to conclude whether certain native races are or are not relatively exempt from cancer, because the apparent rarity of cancer may be due to various as yet unascertained causes, and, in the absence of definite information to the contrary, may be explained solely by the hypothesis that a very small percentage of aboriginal men and women attain or exceed the age of 45 years, below which age cancer is also rare in civilized peoples.

A REPORT ON
THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

VII.—AINAY-LE-CHATEAU.

The ancient village of Ainay-le-Chateau, distant 24 kilometres (about 16 miles) from Dun-sur-Auron, in the Department of Allier, lies close to the town of Laugère. The colony established here was, at first, merely an annex to that of Dun. A small provisional infirmary of five beds, connected by telephone with the sub colony of Levet, was established and placed under the care of a *surveillante* transferred from Levet, from which colony also were transferred the first patients. These were selected female cases who had been for some time in residence in Levet and had proved their suitability for family life. For many years the asylums of Paris had disencumbered themselves of a considerable proportion of their incurable and inoffensive patients by evacuating them upon distant provincial asylums, to such an extent, in fact, that in 1899, Dr. Marie writes, no less than 8,000 lunatics belonging to Paris asylums were scattered to the four corners of France. Amongst others, the asylum of Moulins, in the neighbourhood of Ainay, contained many patients chargeable

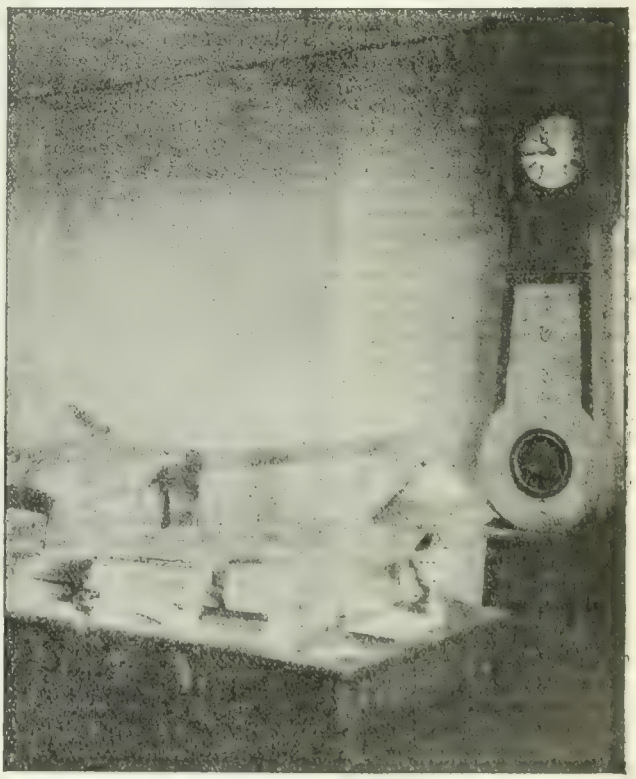


Fig. 1.

to the Seine Department, and many of these, mainly senile tranquil dements, were now transferred to the colony of Ainay. These additions were so considerable that the necessity for its organization as an autonomous colony with an independent budget and staff soon became evident, and its separate organization became an accomplished fact in 1900. Since then its development has been uninterrupted. A modern asylum containing twenty beds has been erected, small subcolonies have been formed in the neighbouring villages, and the whole placed under the care of a medical director resident at the infirmary at Ainay. The patients, who numbered 100 at the end of 1900, reached 354 at the end of 1902, 371 at the end of 1903, and at the end of 1904 numbered 474, almost entirely male patients.

The Colony.

The infirmary, which stands in extensive grounds at the edge of the rambling, picturesque village, is a small but very complete establishment, and was erected on the site of a disused porcelain factory, under the able supervision of its former director, Dr. Lwoff. It is a simple two-story building, in one block, and has, in addition to the beds for twenty

patients and the usual isolation wards, baths, laboratory, etc., a large adjoining *salle de réunion*, where the patients resident in the town congregate for reading, conversation, and games. The isolation cells were, at the time of our visit, unfinished, and are not likely to be in frequent use. The wards are simple and admirable in construction. The *salle de réunion* is a distinct feature of the French colonies, and is regarded with great favour by the administration; but at our visit this hall—a large, bare, plainly-furnished room, resembling in every way the day-rooms of our own asylums—was packed with patients, restless, talkative, and, in some few cases, a little agitated; and, although in no case was there any evidence of a truculent or offensive attitude, the *ensemble* was too reminiscent of the crowded day-rooms of an ordinary asylum to be entirely favourable. The contrast, indeed, between the demeanour of the patients in this meeting-place and that of the same patients visited subsequently in their homes was striking and suggestive. Dr. Trénel, the *Médecin-directeur* at that time—now Superintendent of the asylum of Moiselles—received us most kindly in his residence adjoining the asylum, and placed himself entirely at our disposal during the time we spent at Ainay.

The Patients.

The patients, with the exception of nineteen women, who, in the early days of this colony, had been transferred from Levet, and who, on account of their length of residence or their usefulness to the colony, have remained undisturbed, are men. Ainay is, in fact, the only colony for male lunatics in France. The great majority of these, as the following tables for the years 1902 and 1904, and for which we are indebted to Drs. Marie and Trénel, will show, are of advanced years, the largest number falling within the vicennium 50 to 70 years:

	1902.	1904.
70 to 90	21	48
50 to 70	189	241
30 to 50	80	105
30 and under	64	80
Totals	354	474

Dr. Marie has further furnished us with an interesting table showing the length of time which the patients had been resident in an asylum before transference to the colony, and which requires no apology for reproduction here, as it shows graphically the extreme chronicity of the mental maladies in the patients at Ainay:

Less than 1 year	13
From 1 to 2 years	56
From 2 to 5 years	53
From 5 to 10 years	87
From 10 to 20 years	47
	354

The class of patients at Ainay, both in respect to age and the forms of mental disorder, does not differ perceptibly from those of Dun, and is composed very largely of cases of senile dementia and the chronic psychoses. The subjoined table, showing the forms of mental disorder amongst the 474 patients resident in the colony during 1904, gives a considerable proportion (17 per cent.) of cases of imbecility, which, though still far below the proportion obtaining in either Gheel or Scotland, is an evidence of the inclusion of fresh categories of patients put under family care in the French colonies. No class of patient enters more readily into the life of the family than the imbecile, or is more readily welcomed by the *nourricier*, and without traversing in any way the undoubted advantages of institutional training in cases of "high-grade" imbecility, experience has shown that family care, under efficiently organized inspection and control, is a most valuable, if not the most valuable, method of treatment of such cases. The small proportion of these cases and the preponderating number of senile cases, long past any possibility of useful employment, have been for long prominent features of the application of this method of treatment in France, but is now undergoing amelioration.

Forms of Disorder amongst the Patients at Ainay, 1904.

Mélancolie	23	Délires systématisés	70
Manie	2	Paralysie générale	12
Folie périodique	35	Tabes	2
Démence	130	Epilepsies	14
Débilité mentale	61	Alcoolisme	32
Imbécillité	81		
Idiotie	12		474

The Homes.

The patients are distributed for the most part in the village itself or in its immediate vicinity, but a number (about 50) are collected in the village of St. Bonney and the remainder, in small groups of from six to twelve, live in the hamlets of Braize, Valigny, Charenton, and Isle Bardais. Under the kind guidance of Dr. Trénel we visited many homes in St. Bonney, Valigny, and the district, and received on the whole a favourable impression of the care exercised over the patients and of their maintenance generally. The houses are as a rule exceedingly comfortable, the clothing of the patients excellent, the patients' rooms affording plenty of air and sunlight space, and the beds comfortable and clean. The accompanying photograph of the bedroom of a patient in St. Bonney is typical of most of the patients' rooms. The regulations defining the air-space of bedrooms, the furniture and bedding, the diet of the patients, etc., are the same as those in force at Dun and do not require repetition.



Fig. 2.—Small infirmary, with group of patients, at St. Bonney, near Ainay.

In the majority of cases two patients are maintained in one house, and have a chamber in common. The beds are either of wood or iron (out of 281 beds 194 were of wood) and are furnished in almost all cases with a straw mattress and a feather bed. Only 30 out of 281 had flock beds. We found many of the patients at meals, and though meat appeared to figure but sparingly in their menu, the food was good and abundant, and the patients were well nourished. All whom we questioned affirmed that they were content and had no desire to go back to the asylum, though some wished to leave the colony and return to Paris. At St. Bonney we found some 20 patients smoking and talking in the day rooms of the small infirmary, shown in the accompanying photograph. This has four beds for patients and is in the charge of a *surveillant* and his wife, who attend to patients in the infirmary and supervise those in the village. At the time of our visit no patients were resident in the infirmary; but one case was admitted whilst we were in the infirmary, a young patient who had apparently been treated to wine by some one under the expansive influence of the *fêtes du jour de l'an*, which were in progress at our visit, and had fallen on the ice and received a small scalp wound. The patient was much more alarmed than hurt, and

had not apparently imbibed much alcohol; but incidents such as these, whose occurrence in the French colonies has been commented on by other writers, produce an unfavourable impression which might, conceivably, prejudice many against the whole system, and illustrate the necessity for much more stringent regulations regarding the supplying of patients with alcoholic drink. In Belgium it is expressly forbidden for any *cabaretier* or inhabitant to give strong liquors to any patient, and constitutes a punishable offence, and it would be well if some regulation of this kind were inserted in the *carnet de nourricier* of the French colonies. With this exception and one other whom we encountered on our way to the station of Laugère when leaving Ainay, the patients were quiet and well-behaved, which, considering the class of patient placed under family care and the perfect freedom permitted them in this time of general holiday, was not a little remarkable.



Fig. 3.—Patients with Nourriciers at Etang de Pirot, near the Foret de Troncais, Ainay.

The *nourriciers*, as a class, we found to be intelligent, and clearly interested in and anxious to do their best for their patients. These, however, come in the main from Paris or its environs, and have been accustomed to many small comforts and refinements which have no place in the Spartan simplicity of the homes in this neighbourhood. They are, as a rule, too old to adapt themselves to a changed environment, or to benefit either themselves or their guardians by their labour, and the perfect assimilation of the patient into the family life, which is the end of the system, is not so apparent here as in the other colonies we have visited. The French colonies have resulted in a considerable relief to the congested asylums of the Seine Department, and have thus permitted a closer concentration of expert attention on acute and curable cases. This, which is of immense benefit to practical psychiatry, is likely to undergo marked development, and may ultimately result in the formation of small, specially-equipped mental hospitals, as advocated by Esquirol, for acute and curable cases. The colonies have brought about a considerable economy to the administration, and they have, further, conclusively demonstrated that the family treatment of the insane is applicable, and is more beneficial than asylum treatment, to a considerable proportion of the alienated, outside the senile classes for whom the colonies were at first designed. But they have also, in our opinion, shown and this we say with the utmost diffidence and the greatest respect for Dr. Marie's devoted and untiring furtherance of this beneficent system that it is inadvisable to transfer aged persons, habituated town dwellers, to a distant colony, where they are out of the possible reach of their relatives or friends, and where they are placed amongst a people who, however well disposed, have ways other than their own.



Fig. 4.—The Infirmary at Ainay-le-Chateau.

Statistical, Recovery, and Death Rates.

During the year 1904, there were 10 cases discharged from Ainay as recovered. This gives a percentage recovery-rate on the 103 admissions which occurred during the year of 9.7. The annual report for 1904 for Dun not having been completed, we are unable to give the recovery-rate on the total number of patients admitted to the colonies, but the reports from previous years of Dun show that the recovery-rate above mentioned may be accepted as an average for the colonies as a whole. This appears little enough, but taking into consideration the class of patient and the numbers of years which the majority have spent in asylums, the presence of a recovery-rate at all is remarkable, and becomes still more striking on reading the clinical records of the individual cases. No less than 42 patients were returned to the asylums from the colony of Ainay or transferred to provincial asylums. This gives a percentage of "reintegrations" on admission of 40.7. This is, however, an entirely abnormal number, the average number of patients returned to closed asylums from the colonies, calculated on the returns of several years for Dun-sur-Auron working out at 19 per cent. of the admissions. During the year there were 14 deaths at Ainay, giving a death-rate of the total numbers treated of 3.1 per cent. The death-rate for the previous year was 2.9 per cent. of the numbers treated, and in 1902 it was 6.2, giving an average death-rate for the three years of 4.04 per cent. This, added to the average death-rate of Dun-sur-Auron of 8.5, gives an average death-rate of 6.47 per cent. calculated on the numbers treated during the year. The calculation of the death-rate on the numbers treated during the year is not free from error, and renders it invalid for purposes of comparison with the death-rate of England and Wales and Scotland, but it suffices for purposes of comparison with the death-rate of the total asylum population of the Seine Department, which for 1903 was 9.5 per cent. Thus, notwithstanding the high average age of the patients of these colonies, the death-rate is lower than that of the closed asylums, and approximates to those of the other family colonies we have already reviewed.

Finance.

The sum paid to the *nourricier* for the housing, feeding, and attendance on the patient is 1 fr. 10 c. per day. The personal clothing, as we have already said, is provided from the institution, and this, added to the expenses of the infirmaries, medical service, and administration, etc., raises the daily cost per patient to 1 fr. 40 c. in the case of Ainay, and to

1 fr. 60 c. in that of Dun. The average cost is thus a little over 1 fr. 50 c. per day per each patient, as contrasted with the daily average cost of maintenance, cost of service and administration, etc., of 2 fr. 57 c. of the asylum of the Seine Department.

The saving thus effected is very considerable, calculated merely on current expenditure as regards maintenance and cost of administration and medical service; and if to this be added the avoiding the cost of erecting fresh asylums, the economy to the Seine Department is enormous. The adoption of this system, whose initiation and success in France are due mainly to the untiring energy and devotion of Dr. Marie, has proved of great benefit to the patients and to the central asylums; and, still further, steps have been taken to make this organization of service in a sphere to which we have not as yet alluded. This is the after-care of discharged patients. In nearly all countries, when a patient is discharged as recovered from an asylum, nothing is done to safeguard him from a return of the conditions which were instrumental in causing his insanity. In the case of friendless patients this is clearly a lamentable want, and in many other cases—for instance, in insanities of alcoholic origin—the advantages of an organization which would help him on his discharge from an asylum by advice, by judicious help and inspection, and by the spread of enlightened views as to the nature and causes of insanity, must be obvious to every one. The expense would in all probability be more than compensated for by the prevention of recurring insanity, and, in any case, the establishment of societies is a philanthropic duty. It is evident that the system of family care provides an organization ready at hand for the furtherance of such benevolent work, and this is now in process of elaboration in France. Here we must leave France; but, before passing on to Holland, we desire to express our deep sense of obligation to Dr. Marie, to Dr. Ameline, and to Dr. Trénel for their great kindness and the ready help that they have afforded us at all times.

THE TEACHING OF HYGIENE IN SCHOOLS.

X.—TEETH.

THE question of the teeth of children in elementary schools is one of the most vexing within the province of hygiene. It is only fair to say that something is being done here and there for the children's teeth, but so little when the subject is broadly viewed, and with such want of co-ordination, that it really counts for very little.

The history of the teeth has always been one of interest; but since it has been proved that the poison conveyed into the system by oral sepsis may set up such diseases as pneumonia, diphtheria, and septic and pyaemic conditions, it becomes one of the deepest gravity, and points to the great importance of systematic attention to the teeth of children in elementary schools.

As to the prevalence of dental caries among children, the most trustworthy statistics are those collected by the British Dental Association. The examination of the teeth of school children in a number of schools—mainly reformatories, industrial schools, training ships, orphanages, National and Board schools—throughout the country was conducted by dental practitioners approved by the Committee of the British Dental Association in order to obtain statistics for the following purposes:

"1. To acquire a more exact knowledge of the condition of children's teeth at various ages.

"2. To show, by means of the facts thus acquired, the disabilities under which children frequently suffer in their growth and development, and the important bearing of those disabilities upon the future health of the individual."

The most important result of the inquiry is the general conclusion that out of the 10,517 children's mouths inspected, there were only about 1,500 which required neither fillings nor extractions, or a little over 14 per cent.; and that in all the others some conditions existed which necessitated special attention, in order to procure, as nearly as possible, a healthy mouth. The following table shows the results in detail:

Table showing the results of an examination of the mouths of 10,517 boys and girls in English and Scotch schools, with an average age of about 12 years.

Number of children examined	10,517	
Temporary teeth requiring filling	9,573	18,009
Temporary teeth requiring extraction	8,436	
Permanent teeth requiring filling	13,017	19,096
Permanent teeth requiring extraction	6,079	
Total unsound teeth		37,105
Teeth already extracted		2,174
Sets of teeth free from decay	1,503 = 14.2 per cent.	

The next table shows the early age at which decay begins, and the rapid increase in the decayed sets with each year of life:

Age Period.	4–6	7–9	10–12	13–14	16–18	Quality.
Number Examined.	744	1,716	3,071	2,376	268	8,175
Sound (no decay)	23.8	14.2	16.1	14.1	6.4	Good.
Defective temporary teeth only	67.4	43.3	18.3	5.1	0.1	Uncertain.
Defective permanent teeth, 1–4	8.8	41.5	55.9	51.9	37.3	Fair.
" " " 5–8	—	1.9	8.5	22.9	32.6	Bad.
" " " 9 or more	—	—	1.2	6.0	23.6	Very bad.
	100	100	100	100	100	

These statistics indicate the urgent necessity for treatment in the early years of childhood.

The Hygiene Committee of the British Dental Association found from an examination of the British skulls in the Museum of the Royal College of Surgeons, that in skulls of ancient date caries was almost entirely absent, and when present trifling in extent. A circular letter was addressed to certain dental surgeons able to speak from over fifty years' experience, who all agreed that dental caries had increased. Hospital statistics showed that a largely increasing number of patients required to be referred to the dental department. The Committee strongly emphasized the importance of instructing children in public elementary schools in the value and care of their teeth.

Miller made experiments with a view of finding out which foods are most injurious to the teeth—starchy, saccharine, albuminous, or fatty. He placed sound natural teeth in a mixture of human saliva and bread or sugar, and kept them in an incubator at body temperature for a prolonged period, with the result that the mixture became strongly acid and the teeth carious, with exactly the same appearance as carious teeth in the mouth. This was due to the fermentation of carbohydrates in the mouth giving rise to the production of lactic acid, which decalcifies dentine. He found that if sound teeth were placed in a mixture of saliva with albuminous and fatty food from which carbohydrates had been excluded the result was decomposition and a strongly alkaline reaction, but the teeth were not attacked by caries; the alkalinity was due to the decomposition of albumen. Lactic acid alone will not produce caries, and it is to be inferred that the micro-organisms in the saliva and the lactic acid together do the mischief, for Miller has shown that many bacteria found in the mouth can dissolve albuminous substances. The decay of teeth, therefore, takes place in two distinct stages: (1) Decalcification of the dentine, and (2) dissolution of the softened animal basis.

In considering the subject of the disorders of the mouth generally, it is necessary to go back to the period of infancy. The causes of caries may be classified into predisposing and determining. The chief predisposing causes are heredity and malnutrition; the determining cause is the general neglect of the mouth, but especially the allowing of food to accumulate about the teeth. These conditions apply to both sets of teeth, and some experts consider that the good or bad condition of children's teeth is determined before they are born, and that improper feeding in infancy on patent foods instead of on milk affects the teeth very seriously. Some interesting comparisons were made by Dr. William Hall of Leeds, between the children of Jewish and Gentile parents at various ages, from which he deducted that the Jewish child was not only better developed physically, but suffered less from bad teeth. We quote from Mrs. Watt Smyth's book *Physical Deterioration*:

"Comparing a Gentile school in a good district with a Jews' school in a similar district, he found that among the Gentiles 8 per cent. had rickets, 38 per cent. had bad or backward teeth, while among the Jews 5 per cent. had rickets and 11 per cent. defective teeth. In a Gentile school in a poor district he found rickets in 50 per cent. and bad or backward teeth in 60 per cent. of the children; among Jewish school children in a school in a similar district 7 per cent. had rickets and 25 per cent. bad or backward teeth. The percentage in the Jewish poor district town school was better even than in a country school, where 7 per cent. of the

children had rickets and 33 per cent. bad or backward teeth. Evidence that this condition of the teeth is, at least, associated with better physical development, is shown by Dr. Hall's observation that the Jewish child, aged 7 years, weighed on the average 4 lb. more than his Gentile neighbour, at 9 years 7 lb. more. The difference he is disposed to attribute mainly to the fact that Jewish women are better nourished during pregnancy, are more anxious to suckle their children, are more attentive to them in early childhood, and feed them with more intelligence. It would therefore seem not impossible that defective nutrition during infancy and early childhood may have some effect upon the regular progress of calcification in permanent teeth."

Once a tooth is formed nothing will change it for the better, so that the effects of imperfect nutrition will only influence the portion of the teeth then being calcified. Damage done to the teeth in process of calcification can never be undone. An acute illness will mark teeth by a line, just as the nails become similarly marked, in fact the nutrition of the teeth is checked for the time being. Mischief may be much increased by neglecting to brush first teeth. This unfortunately seems to be little realized, even among the most enlightened mothers, who do not seem to understand that a carious milk tooth can cause the permanent tooth beside it to become carious also.

The determining cause of dental caries is to be found in the activities of microbes commonly present in the mouth. Mr. William Hern, in his introductory address (1903) to the students at the Middlesex Hospital, says: "In dealing with oral sepsis, I do not propose to dwell at length on the anatomical and physiological relations of the mouth to the gastro-intestinal tract, of which it may be said to form the antechamber. Being a mucous cavity, enjoying an equable temperature of about 99° F., with a plentiful supply of air and moisture, and with an abundant store of bacterial pabulum, it obviously presents all the conditions of environment which conduce to growth and proliferation of micro-organisms. It is, in effect, a most efficient incubating chamber." Miller was able to isolate more than a hundred different kinds of bacteria in the juices and deposits in the mouth. It will be sufficient for our purpose to thoroughly realize that the two chief kinds of bacteria to be looked out for are those which attack and destroy the teeth, and the microbes which produce disease, not only of the mouth but of the other organs. These are pyogenic organisms and the specific bacteria, such as those of diphtheria and pneumonia. As Mr. Hern says, when we consider the rapidity of growth of these organisms under favourable conditions it is not surprising to find that the neglected mouth is a veritable warren of microbic life. They produce inflammation of the gums, and affections not only of the throat and tonsils, but what is infinitely more important, serious disorders of the gastro-intestinal tract, and general systemic infections. Hunter has enumerated among the latter, streptococcal and staphylococcal pleurisy and empyema, nephritis, perinephric abscess, pyelitis, cholecystitis, ulcerative endocarditis, and osteomyelitis. He has shown also good reason for believing that severe types of anaemia, including the so-called pernicious anaemia, are due more or less directly to septic conditions of the mouth. This question does not seem to have been much studied in children, and it is of the first importance that investigation should be made in early years, but the facts observed in adults make it certain that the continual swallowing of septic and purulent material from the mouth has a most injurious effect on the general health. Mr. Walter Whitehead in his recent address at the Victoria Dental Hospital, Manchester, said: "Let us consider for a moment what bad teeth mean in their effect on the economy of the body. Carious teeth mean pain, constantly recurring pain of a most wearing and aggravating character, with loss of rest and the consequent impaired usefulness not only to the sufferer but to others as well. This, bad enough for an adult, in a growing child is still more serious. It leads in both cases to imperfect mastication of food, imperfect digestion, defective nutrition, and stunting of growth in young subjects.

"A number of carious teeth means that the individual carries about everywhere an incubator for bacteria of all kinds, and an ideal cultivating medium for noxious bacilli. To drain, trap, and ventilate a house for such a man is waste of money, for he pollutes the purest air as he breathes it, and contaminates the most wholesome food as he eats it. He, in effect, lives in a sewer, and his mouth, to use a quotation, is 'Like unto a cage of unclean birds.'

"What the individual suffers himself he in part inflicts on others, as his exhaled breath is even worse than that which reaches his lungs. This is a very important aspect of the case, especially as regards those who come in contact with the sick, for wounds can be infected by foul breath almost as readily as by dirty fingers. All nurses and medical men should consequently be scrupulously careful about the condition of their own teeth.

"As regards the remote effects of dental caries, they are almost too well known to need mentioning. We have enlarged and suppurating glands in the neck, disease of the accessory cavities of the jaws, and other troubles, including amongst them cancer of the tongue."

Caries nearly always occurs at the side of teeth where they come in contact, and in pits or depressions which are commonly not lined by enamel, seldom on the smooth exposed surface. It is, therefore, obvious that the accumulation and fermentation of food containing organisms is in great part responsible for it. This points to the urgent necessity of brushing the teeth carefully night and morning, night being the more important, for in the daytime the movements of the tongue and lips in a measure remove the food. We may take it that children in the elementary schools never use a toothbrush, and we would go so far as to recommend that each child should keep a toothbrush at school, together with some simple antiseptic tooth powder, which the State would provide if it could only be persuaded to look upon it as an investment (49.26 per 1,000 recruits were, in 1902, rejected on account of bad teeth). These brushes could be kept in little compartments in the dressing rooms, as are those of every boy in the Duke of York's School, Chelsea, and each child obliged to brush its teeth on arrival at school, and, if possible, again before leaving. In view of the large proportion of squalid homes it would be futile to expect the parents of the present generation to be responsible for the brushing of their children's teeth. Hard toothbrushes should be employed and the gums brushed as well as the teeth, cold water being used. The practical value of a toothbrush depends upon its thoroughness in removing food embedded between the teeth; the antiquated idea of a soft camel's hair brush is happily relegated to the past.

The ignorance that prevails about the teeth among the labouring classes is appalling. Mr. Hern justly remarks: "The majority of the poor appear to be utterly oblivious of the consequences to themselves of the loss of structures so essential to comfort and well-being as the teeth, and to be quite unaware that carious teeth are saveable organs. Does not such a condition of things constitute a reproach to preventive medicine, if not to the State? . . . At least there should be some national provision for giving such instruction to the young, preferably at the Board schools, as would teach them the value of their teeth and the means of preserving them more effectually than at present." Here lie two of the most striking points. Among the poorest of the labouring population no man or woman dreams of having a tooth stopped; he waits until it is absolutely decayed, and then if it is very painful he gets it extracted. The only drastic remedy is to teach children in elementary schools the importance of saving their teeth, and the simple prophylactic measures which will effect this. This subject should be one of the most dwelt upon in hygienic teaching. Into it must enter the subject of food, the effect of nutrition on the teeth being very simply and clearly explained. We suggest that dental surgeons interested in the matter should give short lectures to students at the training colleges, pointing out to them the chief points which it is necessary that they should know, so as to enable them intelligently to teach the hygienic aspect of it in their schools. The State should provide clean milk, the natural food of the young, and should establish universal dental inspection of schools, so that early steps may be taken to arrest the mischief instead of employing the usual British policy of waiting to close the stable door until the horse has bolted.

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	37	4	0
Dr. G. Cawardine	1	1	0
Dr. S. Hamilton	0	10	0

Dr. Viellett in last week's announcement should have been Dr. Kellett.

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

MEDICAL NEWS.

Mr. Malcolm Morris will deliver the Harveian Lecture before the Harveian Society of London on March 9th at 8.30 p.m. The subject will be some modern therapeutic methods in dermatology, with exhibition of cases treated by the *x* and Finsen rays.

The annual general meeting of the supporters of St. Mark's Hospital for Fistula was held on February 9th. It was stated in the report presented and adopted that £113 18s. had been received from out-patients, while the two paying wards opened last March had given a return of £154 16s.

At a provincial sessional meeting of the Royal Sanitary Institute, to be held at the Town Hall, Newcastle-upon-Tyne, on Saturday, March 4th, at 11 a.m., a discussion on the aërial dissemination of small-pox round hospitals will be opened by Dr. H. E. Armstrong, M.O.H. Newcastle-upon-Tyne.

A somewhat belated but unusually successful Christmas entertainment was given this week to the patients in St. Peter's Hospital for Stone by Mr. Stanley Brett, of the Vaudeville Theatre, who enlisted as his voluntary assistants for the occasion several of the principal performers at the Lyric and Vaudeville Theatres.

A Sanatorium at Madeira.—The first of the German sanatoriums founded by Prince Hohenlohe in the island of Madeira has lately been opened. It is situated at a height of 300 metres above the sea level and has accommodation for sixty patients.

A Medical Prelate.—Mgr. George H. Doane, Vicar-General of the Roman Catholic Diocese of Newark, New Jersey, who died on January 20th, was a graduate of the Jefferson Medical College. Though a regular member of the profession, he seems never to have practised medicine.

Bequests to Hospitals.—The late Mr. Wingfield-Digby, M.P., bequeathed £500 to Yeatman Hospital, Sherborne, and the late Mrs. Emily Wilson, of Tapton Hall, Sheffield, bequeathed £200 to the Jessop Hospital for Women, and £100 each to the Royal Hospital and Royal Infirmary, all in Sheffield.

The Puffing Paragraph.—The County Medical Society of Otero, California, some time ago requested the newspapers of the county to refrain from mentioning in any way the name of any member of the Society in news items relative to illness or accident. In *La Junta* the request has been complied with, and the editor has promised not to offend again in the same way.

The University of Chicago and Pure Water.—The report of Dr. Charles P. Small, Physician to the University of Chicago, for the last quarter of 1904 has recently been issued. It shows that of the 3,000 students in residence at the University last year only 355 (240 men and 113 women) sought counsel of him. During the last quarter there was not a single case of typhoid, and in the summer there were only three. This is the best record ever reported at the University. The good health of the students is attributed to the improvement in the supply of drinking water, which is the outcome of an energetic agitation carried on for a year.

West London Medico-Chirurgical Society.—The annual dinner of the West London Medico-Chirurgical Society was held on February 8th at the Hotel Great Central, London, with Dr. C. M. Tuke, the President of the Society, in the chair. After the Royal toasts had been duly honoured, Mr. A. Doran, in proposing the toast of the "Imperial Forces," referred to the work done by the officers in the Royal Navy and Army Medical Services, not only as scientists but as soldiers and administrators. After this toast had been responded to by the Director-General of the Medical Department of the Royal Navy, Lieutenant-Colonel Wilson replied on behalf of the Army Medical Service and observed that the men in that service were very keen on their work, and the best men were being picked out for special work and given opportunities for study and practice. Dr. Seymour Taylor was entrusted with the toast of "The Kindred Societies and Guests," which was acknowledged by Sir W. Church and Mr. Langton. Dr. Savage, in proposing the toast of "The Society and its President," gave particulars of the increase in the number of the members of the Society, and commented on the excellent clinical evenings, and complimented those responsible for the interesting cases shown. In the course of the evening Dr. Elliot, the Senior Honorary Secretary to the Society, received many congratulations on the success of the dinner, which was a record one, covers being laid for over 120 guests.

International Antialcohol Congress.—The programme of the tenth International Antialcohol Congress which is to be held at Buda-Pesth from September 12th to 16th has just been published. Among the questions proposed for discussion are: The influence of alcohol on the resisting power of the human and animal organism; is alcohol a food? alcohol and sexual life; alcohol and the penal law; alcohol and physical fitness, with special reference to military training; the organization of the temperance movement; school and education in the struggle against alcoholism; the reform of the liquor trade; and the corrupting influence of the trade in spirituous liquors on the natives of Africa. Among the reporters we observe the names of Dr. Malins (Birmingham), Professor Lombroso (Turin), Dr. Legrain (Paris), and Professor Gruber (Munich). Communications should be addressed to the Executive Committee of the Congress, IV Kosponti-varoshaza, Buda-Pesth.

American Medical Association.—A Bill to incorporate the American Medical Association was introduced in the House of Representatives on January 9th, 1905. The Bill was referred to the Committee on the judiciary, and was ordered to be printed. It provides that Drs. Robert M. O'Reilly, Presley M. Rixey and Walter Wyman, of Washington; Dr. E. H. Gregory, of St. Louis; Dr. Henry O. Marcy, of Boston; Dr. Nicholas Senn, of Chicago; Dr. George M. Sternberg, of Washington; Dr. J. M. Mathews, of Louisville; Dr. W. W. Keen, of Philadelphia; Dr. Charles A. L. Reed, of Cincinnati; Dr. J. A. Wyeth, of New York; Dr. Frank Billings, of Philadelphia; Dr. T. J. Happel, of Trenton; Dr. Miles F. Porter, of Ft. Wayne; Dr. E. E. Montgomery, of Philadelphia; Dr. W. W. Grant, of Denver; Dr. H. L. E. Johnson, of Washington; Dr. A. L. Wright, of Carroll; Dr. William H. Welch, of Baltimore; Dr. M. L. Harris, of Chicago; Dr. Philip Marvel, of Atlantic City; and Dr. Lewis S. McMurty, of Louisville, and their successors, and those who may be associated with them, shall be "made and constituted a body politic and corporate by the name American Medical Association, with perpetual succession and power to take, for the purposes of its incorporation, by devise, bequest, grant, gift, purchase, or otherwise, and hold or convey, both real and personal property and transact business anywhere within the United States." The object and purpose of such corporation are declared to be to promote the science and art of medicine and the public health throughout the United States.

Midland Medical Union.—The fourth annual meeting of the Midland Medical Union was held at the Hotel Portland, Chesterfield, on January 26th, Dr. George Booth, the retiring President, in the chair. The annual report was printed, and on the proposition of Dr. Macdonald, seconded by Dr. Brownlow Smith, was adopted. In the absence of the Honorary Treasurer, Dr. F. R. Mutch, of Nottingham, the General Secretary presented the account of income and expenditure which showed a balance in hand of £29 15s. 3d. The accounts were approved and adopted, and on the proposition of the President, seconded by Dr. Favell Edmunds, Dr. G. G. Macdonald, of Crich, was elected President, and took the chair. The officers for the ensuing year were then elected as follows:—*Vice-President:* Mr. R. G. Allen, of Belper. *Honorary Treasurer:* Dr. F. R. Mutch, of Nottingham. *The Council:* representing the Nottingham Branch—Dr. A. Fulton, Nottingham Road, Basford; Dr. J. H. Thompson, Arkwright Street, Nottingham; Mr. J. H. Cox, Alfreton Road, Nottingham, and Dr. J. W. Noble, Burns Street, Nottingham (Honorary Secretaries). Representing the Mansfield Branch—Dr. T. Tate, J.P., Mansfield; Dr. E. H. Houfton, Mansfield; Mr. J. C. Palmer, Mansfield Woodhouse (Secretary). Representing the Belper Branch—Mr. R. G. Allen, Belper; Dr. G. G. Macdonald, Crich, near Matlock Bath; Dr. W. B. A. Smith, Belper (Honorary Secretary). Representing the Chesterfield Branch—Dr. J. G. Shea, J.P., Chesterfield; Dr. George Booth, J.P., Chesterfield; W. Duncan, Clay Cross (Honorary Secretary). *Honorary Auditors:* Mr. J. H. Cox and Dr. A. Fulton. *General Secretary:* George S. O'Rourke, M.A., LL.D., Albion Chambers, King Street, Nottingham. The General Secretary was instructed to add a list of members of the union to the report. The annual dinner will be held on March 9th.

British Medical Journal.

SATURDAY, FEBRUARY 18TH, 1905.

JOHN HUNTER'S METHODS.

In his Hunterian oration, delivered at the Royal College of Surgeons on Tuesday last, Mr. Tweedy, the President of the College, took the opportunity to emphasize certain of John Hunter's characteristics, which are well worthy of consideration, not only by members of the medical profession, but by all who are engaged in the search for knowledge and truth.

Many appreciations of John Hunter have been written, and, in spite of his greatness, he has not escaped criticism, but neither in the appreciations nor in the criticisms have the main features of the man's mind and methods been more clearly set forth than in Mr. Tweedy's sympathetic oration. John Hunter's general history and the disputes regarding his early scholastic training are so well known that Mr. Tweedy dealt but lightly with them in his introductory sentences; yet even in this introductory sketch he touched upon two points which are frequently lost sight of by those who have to provide the proper means for the education of medical students, although they are points of paramount importance, and stand boldly out in the history of Hunter's career. The first is that even the best of observers and experimenters is not necessarily a good teacher of large numbers of men; for there is reason for believing, though Mr. Tweedy was loth to admit it, that John Hunter had not great powers of exposition, and that he was not fond of routine teaching; the magnificent results of his splendid investigative powers could not have appealed to so large a number of his contemporaries had it not been for the great expository powers of his brother, William Hunter. It is clear that, as Mr. Tweedy points out, the two men were complementary to each other, but the better investigator was not the better teacher, and no more striking example could be shown for the necessity of combining the two classes of men in every teaching body. John Hunter's personal influence was powerful, and is attested by several of his pupils, who gained distinction in medicine or surgery, but at the best personal influence is limited, and it is well that all who have to deal with teaching problems should bear in mind that investigative power is not necessarily a criterion of teaching power.

The second point only arises incidentally in Mr. Tweedy's oration, but as it bears upon the teaching of anatomy to medical students, it is worthy of note. At the present day it is quite common both in this country and in Germany to hear the cry that anatomy should be the handmaid of medicine and surgery; in other words, that the student of medicine should only have his attention directed to those features of human anatomy which may be of direct use in what may be called the technical parts of his profession. This may have been Hunter's earlier opinion, though we have no proof that it was so, but after ten years' work at human anatomy he found a knowledge of correlated forms absolutely necessary for the proper comprehension of the highest outcome of mammalian development, and the history of his mental evolution in this direction gives a clear indication of the course which should be followed by those who are to understand the human organism in its various conditions of health and disease.

Perhaps the greatest interest of Mr. Tweedy's oration lies in his clear demonstration of the character of John Hunter's mind and his critical repudiation of the often-repeated suggestion that Hunter followed Baconian methods of investigation. As regards the latter suggestion, nothing, in Mr. Tweedy's opinion, could be further from the truth, for, although Hunter had "a passion for knowledge," his range was not even equal to that of some of his predecessors who have not attained so prominent a place in the temple of Fame. He certainly did not arrive at his discoveries by the Baconian method of accumulation and study of large numbers of data—a method which seems to have regained some favour in these latter days, more especially in association with the study of cancer. The mind has not yet arisen which, within the space of an ordinary lifetime, can grasp and sort the huge numbers of statements which have been made with regard to any conceivable subject. Hunter's mind, like the minds of all great discoverers, had no inclination for such statistical work; it did not move regularly from point to point, but was rather of the kaleidoscopic type. His brain was replete with intercommunications between the cellular storehouses of his knowledge, so that a new view of an old fact or the acquirement of a new piece of knowledge naturally resulted in new combinations of ideas. In short, he possessed a most fertile brain. Such brains are not uncommon; they tend to dreams and vain imaginings, and are only valuable to the race if they also possess strong restraining power. Brains of this type, without the restraining power, are a common trouble to-day; indeed, they are an almost necessary result of our faulty methods of distributing large amounts of information. They are responsible for the numerous ill-digested ideas which so readily find their way into the press, where they play the part of the *ignis fatuus*. Hunter, however, possessed the necessary restraining power; he put his thoughts to the proof, and rejected those which failed to withstand the test. At times he was misled, the means at his disposal for the proper solution of the problem being deficient; but he cannot be accused of the attempt to make facts fit his theories, or of the attempt to sustain a theory merely because he had originated it. He is a splendid example of well-regulated, imaginative, and adaptive brain-power, and we agree with Mr. Tweedy that it is the kind of power to which all important discoveries have been due. Unfortunately, it appears to be a power that we cannot cultivate. It arises now and again as the result of some combination which we cannot foresee and are impotent to control; indeed we are happy if we recognize it in time, and place it in a position to produce its utmost results.

In putting his ideas to the test, Hunter did not hesitate to utilize and sacrifice living animals. He lived in a less sentimental age than his successors, for the conditions of life were harder, and as a result of one of his experiments on one deer he saved many human lives. But he was not an advocate for the repetition of experiments which lead to no new conclusions or which demonstrate no new facts; he was therefore in agreement with those who still hold that

the life and happiness of the lower forms are not to be held sacred if their sacrifice results in advantage to the higher forms, but that they should not be wantonly exploited for the mere purpose of demonstrating well-established conclusions.

TRIUMPHANT ANTIVACCINATION.

At page 382 in our present issue a digest is given of a remarkable report by Dr. Wheaton, of the Local Government Board, on small-pox in the Dewsbury Union. Dewsbury has long been notorious as a centre of anti-vaccination. It is now also a centre of small-pox, and it has been so repeatedly in the past. Its neglect of vaccination was prominently brought before the Royal Commission by a representative of the Board of Guardians, than whom, said the *Vaccination Inquirer*, it would have been difficult to find a stronger witness to the depth and intensity of the local love of freedom. Indeed, the Dewsbury witness was even sounder in the antivaccination faith than the League itself appears to be in these degenerate days. He declared to the Commission that they had no Leicester system in Dewsbury. They had done away with vaccination, and had provided nothing in its place, and he did not think that was a very risky thing to do. Evidently he fully agreed with the doctrine laid down long ago in the official tracts of the old Antivaccination Society, that small-pox "is one of the least contagious of diseases," and that "the true policy" is "to let each case lie where it falls." Official antivaccination has never definitely repudiated that creed, but now sedulously keeps it in the background, and even by implication admits that small-pox is a very infectious disease, and that all cases ought to be treated in hospital, which really amounts to a confession that compulsion is, after all, permissible in small-pox prevention. Nevertheless, a great part of the Dewsbury Union has, as Dr. Wheaton's report shows, stuck staunchly to the simple faith that hospitals and isolation and vaccination are alike unnecessary, and not long ago the Union received, on account of its neglect of vaccination amounting to over 40 per cent., the honour of being included in a Roll of Merit instituted by the *Vaccination Inquirer*.

How Dewsbury has suffered for its antivaccinal folly Dr. Wheaton's report shows. As it carries the story only to the end of October, we have supplemented it by the statistics of cases up to the end of the year, and the facts are terrible enough even although the full tale has not yet been told. All over the Union small-pox has been doing its dreadful work, and some of the local authorities appear to be in a condition of panic, others in a condition of paralysis. Hospitals intended for other diseases have been crammed full of small-pox. One of them was found by Dr. Wheaton to be in an almost incredible condition. Fetor, dirt, and flies abounded within and without; but all the hospitals available even for other purposes, and even overcrowded as described, have been quite insufficient to meet the results of past defiance of vaccination. Scores of small-pox patients are described as lying in their own homes, where the conditions seem to be even worse than in the hospitals. The earliest attacked when partially convalescent have had to crawl out of bed to nurse the rest of the family in the acuter stages of the disease, and to perform necessary household duties. The Council in one township has been spending £50 a week for maintenance of the sick in their own houses. Men were employed to carry food to them, and to keep them under watch to prevent their escape into the general population, but these men themselves were not being vaccinated and were falling victims to the infection. In one instance, even in presence of such horrible conditions, a small-pox stricken father rejected vaccination for a child yet unattacked, who was in due time seized by variola. That, however, seems to have been an exceptional occurrence, as in most parts of the Union people have been rushing to medical men for the protection which they had so long omitted or derided, and hundreds were being operated on daily or weekly.

But in the midst of all this the Board of Guardians under the malign guidance of antivaccination has remained obdurate, and has refused to carry out its statutory duties. In these circumstances the Local Government Board has in three of the districts, including the borough of Dewsbury, issued an Order, not depriving the guardians of the powers which they refuse to exercise, but enabling the urban councils to establish vaccination stations, and to pay for vaccination and revaccination of persons in danger of small-pox, which must mean practically the whole unvaccinated population of the Union. This order, we observe, has been girded at as *ultra vires* not merely by the organ of the League, but by one or two newspapers. Into the question of law we do not enter. The Local Government Board is quite able to justify itself in that direction, but as to the urgent and absolute necessity of promoting vaccination there can be no doubt whatever in any mind not warped and twisted by falsehood and fallacy, and not given over to a vengeful desire to see antivaccination still further suffering its natural punishment. Surely that phase of the matter has already been sufficiently illustrated in Dr. Wheaton's report, and in an article which we published recently[1] on a school outbreak in one of the districts. These people have scorned vaccination in the past, but it would be a shame to let more of them suffer and die for the want of it now. They must be saved against themselves, even if in the future they may be found crying out against the succour which came to them in their need.

When small-pox visited unvaccinated Gloucester, some 35,000 in a population of about 40,000 proceeded to receive vaccination or revaccination, and the plague was stayed, but afterwards Gloucester, unrepentant, returned to its wallowing in the antivaccination mire. Whether that may be so in Dewsbury we know not. In the meantime the duty of the central authority is clear, and even if there were any validity in the assertion that the Local Government Board had technically overstepped its functions, the facts furnish far more than a mere justification of its action. In the interests of humanity the Board dared not have done otherwise. But what does His Majesty's Government think of it all? Does it not yet see the urgent necessity for introducing and passing its long expected Revaccination Bill? Have even the existing Acts been enforced in the Dewsbury Union? Is the cry of the afflicted for protection against small-pox to be for ever unheeded? Is not in this matter the Government even more to blame than the Antivaccination League?

[1] Some Recent and Definite Figures for Antivaccinators, British Medical Journal, January 14th, 1905, p. 98.

Professor Saundby (Birmingham) has accepted the post of Reporter in the Section of Medicine of the International Medical Congress at Lisbon on the subject of treatment of cirrhoses of the liver.

HYGIENIC MOONSHINE.

The Conference on School Hygiene, held under the direction of the Royal Sanitary Institute at the University of London last week, has probably served its primary purpose of awakening or sustaining interest on the subject and preparing the way for the International Congress in 1907, but it cannot be said that it has added much to our knowledge of the subject. The speakers generally insisted on the importance of teaching the simple laws of health to elementary school children, and therefore to their teachers, but there was noticeable a certain undercurrent of hostility to the medical profession which was ungracious and tactless, seeing how largely the profession was represented among the speakers, and how greatly the success of any scheme of hygienic teaching depends upon their co-operation. Although this hostility was shown in certain quarters, it was gratifying to find that the teachers appeared to be practically unanimous in considering that hygiene should be taught in every school. This is only what might have been expected, seeing how much teachers are struggling by individual effort to teach their pupils habits of cleanliness, though perhaps not always in the best way, because they have not been themselves educated for the task. While giving them all credit for this disinterested work, the time has come when something more is wanted; a co-ordinated system of teaching hygiene from training college to school should be instituted. We cannot see in Lord Londonderry's utterances, or in the published documents of the Board of Education, any distinct appreciation of this necessity, and it is to be regretted that the Conference should have missed the opportunity of drawing out a definite scheme.

Two things are required: a syllabus for training colleges and a programme for elementary schools. The syllabus issued last summer for training colleges is quite inadequate, and would not, in fact, lead to the kind of instruction required being given. It is directed solely to school hygiene, whereas the first essential is that the teacher should be given a real comprehension of the principles of general hygiene, for if these are once grasped their application to the special conditions of school administration is a comparatively simple matter, and, indeed, quickly becomes second nature.

The second point is equally urgent; delay now means an indefinite postponement of reform. It must be remembered that the educational year begins after the summer holidays. At that time children are promoted to the senior department and all new schemes of instruction are put into force. If a hygienic programme is not soon issued every head teacher in London, for instance, will have written out his or her scheme for the next working year, and they would very naturally strongly resent any fresh programme being suddenly thrust upon them.

While recognizing that there is much room for further scientific investigation into the matter, we believe that the large amount of information already collected would afford a basis for inquiry by a small subcommittee of experts, who would hear evidence and prepare a definite working scheme.

As to the Conference itself, most of the speakers indulged in generalities, and there was a certain monotony about the proceedings, which might have been prevented had the speakers been drawn from a wider field. The dullness of the meetings was intensified by the fact that the papers were printed beforehand in a pamphlet. This was done with a view to encourage general discussion, and in a few instances speakers agreed that their papers should be taken as read, and merely made a few remarks indicating their general bearing. As a rule, however, the speaker plodded through the full text until called to order by the Chairman's gong. It seemed to try the patience of the audience to breaking point to ask them to sit through the good or bad reading of a long paper which they had in their hands, and might have read through themselves in half the time.

THE SUPPLEMENT FOR THIS WEEK.

The Supplement for this week contains a report prepared by the Ethical Committee for submission to the Annual Representative Meeting next July on the advertising of the names of medical practitioners in connexion with hydropathic and other similar establishments. The report is now submitted for the consideration of the Divisions, which are asked to state whether they are of opinion that the Representative Meeting should make a definite pronouncement to the effect that members of the profession who act as medical officers to hydropathic and like establishments should make it a condition of their engagement that their names shall not be inserted in any advertisement of such institutions except in advertisements in medical journals. The suggestion of certain Divisions that the practice of hydropathic establishments should be thrown open to all practitioners in the district in which they are situated raises quite a different issue from that submitted by the Committee, and may perhaps be made the subject of a separate inquiry when professional opinion shall appear to be ripe for a pronouncement thereon. It is hoped that every member will preserve this issue of the Supplement until the report has been considered by the Division to which he belongs. Notices of certain changes in the boundaries of Divisions, sanctioned in accordance with local requirements, are also published in the Supplement, which contains in addition a report of the last meeting of the Central Midwives Board, when it was decided that, before a Poor-law institution is recognized as a training school for midwives, a report shall be received from the medical officer and local supervising authority. Reports of meetings of Divisions of the Association, lists of medical vacancies and appointments, notes on the vital statistics of the three kingdoms, and a Calendar of the Association to the end of April will also be found in the Supplement.

THE ROYAL COLLEGE OF SURGEONS AND HOSPITAL REFORM.

Every second year the delivery of the Hunterian Oration before the Royal College of Surgeons of England is followed by a banquet in the Library. On the evening of the day on which the President, Mr. Tweedy, delivered the eloquent and thoughtful address, published elsewhere in our columns, he, along with the Vice-Presidents, Mr. Mayo Robson and Mr. Butlin, welcomed a large number of guests, including the Duke of Abercorn, K.G., the Bishop of Oxford (Dr. Paget), Major-General Lord Cheylesmore, Mayor of Westminster, Mr. Justice Buckley, and Mr. Justice Lawrence, the Presidents of the Royal College of Physicians of London and of the General Medical Council, the Vice-Chancellors of the Universities of Cambridge and of London, Sir Herbert Maxwell, Bart., M.P., Sir W. T. Thiselton-Dyer, Sir Norman Lockyer, and Sir Harry Johnston. At the end of dinner the President, in proposing "The Health of the King," referred at some length to the interest which His Majesty took in hospitals, and especially to the establishment of King Edward's Hospital Fund for London. The spirit of inquiry and intelligence brought to bear by that Fund would, Mr. Tweedy believed, have most beneficial effects, ethical, moral, and financial on the hospitals of London, and would

eventually result in the evolution of a rational system for their management and administration. The President, in giving the toast of "The Queen, the Prince and Princess of Wales, and the other Members of the Royal Family," referred to the interest which the Prince of Wales also had displayed in the hospitals of London and in King Edward's Hospital Fund. After this the toast of the memory of John Hunter was drunk in silence. The toast of "The Guests" was proposed by Mr. Mayo Robson, who referred to the part taken by members of the medical profession in the political and public life of this and other countries; the toast was acknowledged by the Duke of Abercorn and Vice-Admiral W. H. Henderson. "The Health of the President," proposed by Sir William Ramsay, K.C.B., F.R.S., who eulogised Mr. Tweedy's breadth of view and administrative ability, was received with enthusiasm. After a brief acknowledgement, the company adjourned to the Council room, where some literary and artistic curiosities, including a seventeenth-century apothecary's sign, were displayed. Before delivering the Oration in the afternoon Mr. Tweedy referred to the recent death of Mr. Luther Holden, and recalled the fact that twenty-four years ago Mr. Holden had delivered the Hunterian Oration. Those who were present would recall the gentle and genial spirit which pervaded his speech, and its learning and eloquence. Mr. Tweedy added that within seven months the College has lost three of its Past-Presidents—John Birket, John Simon, and Luther Holden, each being in turn senior Fellow of the College. Great and varied as were the abilities and attainments of these distinguished men, and different as were the manifestations of their intellectual and professional activity, they had at least one great quality in common. Called upon to occupy exalted positions in the surgical profession and elected to the highest office in the College, they, each and all, in an age of wealth and luxury, lived simple and unostentatious lives: careful only for the faithful discharge of their various duties. In this way they set a worthy example to their professional brethren, and in the nineteenth century maintained the high ideal embodied in the Hippocratic oath: "In purity and in righteousness I will pass my life and practise my art."

THE TYPHOID OUTBURST AT LINCOLN.

THE report by our Special Commissioner on the severe epidemic of typhoid fever from which the City of Lincoln is now suffering leads inevitably to the conclusion that the infection was distributed through the water supply. The history of the outbreak agrees in its general features with other examples of water-borne typhoid: First a few cases at comparatively long intervals, then a series of apparently isolated cases extending over two or three weeks, and finally a sudden outburst or explosion, affecting a large number of cases almost simultaneously. The number of cases in the first three weeks of January was only about 14, but on January 24th the number rapidly increased, and no fewer than 268 were notified in the week ending February 4th. Altogether over 550 persons are now suffering from typhoid fever out of a population of 48,784. The number of cases happily showed a very considerable diminution last week, but it still reached the total of 154; the returns for this week will, it is hoped, show a still further diminution. Excellent arrangements for receiving patients in temporary hospitals have been improvised, so that the risks of personal contagion have been very much diminished, and the Corporation is taking other precautions. It is, however, not possible to acquit this body of blame. It has known for twenty years that its water supply was open to contamination, and some years ago it acquired the waterworks. It was still content to rely on sand filtration, while taking very little trouble to safeguard the sources from pollution. It is in the highest degree probable that early in January, owing perhaps to frost, the filters broke down, and that the specific infection passing through was delivered with the drinking water. It is only fair to add that serious difficulties have been encountered in finding an adequate source of supply above suspicion, and a few years ago it was resolved to sink a deep well into the new red sandstone. This undertaking was unfortunately brought to a standstill by an accident to the boring machinery, and has apparently not been resumed.

AUTOMOBILES FOR MEDICAL MEN.

THE Motor Exhibition, which has been open at Olympia throughout the past week, was certainly a remarkable sight, but covered too broad a field of automobile enterprise for any detailed account of it to be possible in this JOURNAL. Among the passenger vehicles there were not wanting a number of cars of the purely pleasure and racing order, and of correspondingly high price; but, taken as a whole, this part of the exhibition afforded ample proof of the correctness of the prediction which we once made, that the whole body of manufacturers, and not a few individual firms only, would before long look for support to the many rather than to the few. As has been indicated, some very expensive cars were open to view, but the majority of these were marked as having been built to special order. On the other hand, the number of cars of adequate horse-power and seating accommodation offered at prices within reach of the average medical pocket was so great, that those who visited the exhibition with a general idea of selecting a car, but with no fixed views as to what they required, must have been embarrassed by the extent of the choice open to them. Readers, however, who have studied the articles on automobiles for medical men which have appeared from time to time in this JOURNAL, and who visited the West Kensington building, were in better case, for the cars more specially suited to their needs have from time to time received notice in connexion with the Automobile Club reliability trials. They were thus already familiar with the general merits of cars such as the De Dion, Wolseley, Swift, Siddeley, Croxted, Alldays, and some others which have figured specially well in the trials noticed, and had an excellent opportunity of seeing them for themselves and comparing their, so to speak, naked-eye qualities. Many of the manufacturers, too, had trial cars at the doors and were prepared to take possible clients for short spins. These, of course, were not long enough to make any real appreciation of the more serious merits or defects of a car possible, but they were nevertheless useful. Comparative noiselessness, freedom from excessive vibration, and plenty of knee room are all points of considerable moment to the man who expects to occupy a car for several hours a day, week in and week out, and of course the relative merits of a car in these directions can be very quickly learned. In addition to the cars already named, there were a good many others likely to attract attention from medical men, some of them being of already established reputation, such as those put upon the market by the C. S. Rolls Company, and others which are either entirely new or have yet to become popular as far as England is concerned. Among the former was the Adams-Hewitt car, which in many essential respects is of novel construction, and of which a good deal more seems likely to be heard, and among the latter the Hurtu *coupé*. This resembles a miniature brougham, and is driven from inside, a second seat being provided for a passenger, and a third seat at the back outside for an attendant. Of its running powers we have no knowledge, but in external appearance, initial comfort when at rest, and in price it is comparable with the already well-known and popular medical *coupé* sold by the De Dion Bouton Company. The number of cars, indeed, marked as having been constructed especially with a view to professional use is so considerable that it is obvious that the trade is alive to the possible value of the medical market. From the number of cars which were placarded as already sold to medical men it was equally obvious that professional men are prepared to buy. We noticed, however, that a certain number of these cars were sold at a higher price than most men would be prepared to give, and certainly at one higher than it is in any way necessary now to pay in order to obtain an automobile carriage in every way fitted for professional use. In addition to the cars themselves there was a good deal to study in the galleries in the way of motor accessories, and it was particularly

interesting to compare sections of different makes of tyre. The construction of some of them, such as the Palmer corded tyre, is curiously ingenious. As in the case of multiple remedies for certain diseases, the variety of tyre contrivances is evidence of the difficulties to be overcome, and the last word on the matter probably remains to be said. It seems indeed to be already accepted that for certain forms of work solid tyres are in every way preferable, and it may very well be that for medical work some modified form of solid tyre such as the De Nevers will eventually hold the field.

EPIDEMICS IN PERSIA.

In the British Medical Journal of December 31st, 1904, allusion was made to some interesting details concerning the ravages of cholera in Persia, which were published by our Consul-General in his last Foreign Office report, and also to the minutes of a meeting of the Conseil Sanitaire of Persia, which, from the exceedingly elementary sanitary precautions recommended, gave a more vivid picture of the conditions actually prevailing in that country than whole pages of description. We have now received a report of the fourth meeting of the Conseil Sanitaire, which took place on November 7th last. From this it is plain that in some parts of the empire cholera was causing great havoc, while plague and typhus were also rife in other, and in some instances the same, localities. As a consequence, probably, of the intensity with which the first-named disease was raging in Baghdad, and of an unexpected spell of hot weather, it appeared in a formidable form at Tabriz in the middle of October. The history of its development in this city was communicated to the Conseil by Dr. Coppin, who, writing from Barik near Tabriz, stated that in the beginning of September a few cases made their appearance at Maragha, a town lying about forty miles south of Tabriz. It spread like wildfire, and on September 10th the first case was seen in the latter city. On September 20th there were 12 cases in the suburbs, and thenceforward the disease rapidly spread, until at the end of the second week of October there were 400 deaths a day, increasing a few days later to 500. At Meshed-issar, described as a *petite localité*, cholera appeared at about the same time, and was remarkably fatal. An epidemic of typhus of a very grave type coexisted with it, and on November 1st it was reported officially that numberless cases of *choléra foudroyant* were daily occurring, "the place is turned into a regular cemetery, the corpses being hastily buried anywhere." It would seem that at this date the disease was decreasing in the south, at all events at Basra and Shiraz, but at the latter city it had claimed the lives of over 6,000 persons. Accompanying the report is a very useful table in pedigree form showing the development and spread of the present epidemic of cholera from its first origin in Mecca on February 20th, 1902. From this city it took a land route and a sea route. The land route was by three main paths: (1) Through Medina to Yambo; (2) south-east to Asir and Yemen, becoming eventually stopped by the desert; (3) northward to the Jebel Shammar oasis, and also stopped by the desert. The sea route was also in three sections: (1) To the southern shore of Persia, to Gwadar, Jashak, and Bandar-Abbas, stopped by the mountains; (2) to the Danakil Coast on the west side of the Red Sea, similarly stopped; (3) to Egypt (July 19th, 1902), where it went through the entire country, causing the death of 33,000 persons. From Egypt it reached Gaza on October 14th, and spread over the south of Palestine, visiting Jerusalem and Jaffa, and establishing itself in Damascus in December, only to break out again with renewed violence in the spring of 1903. Still continuing northward it came via Tripoli to Aleppo, whence it descended both the Euphrates and the Tigris, to converge at Baghdad, where the first cases broke out in January, 1904. From Baghdad the epidemic developed along two paths, one going directly eastward by Kirmanshah and Hamadan to Teheran, while the other descended the river to Basra and likewise bifurcated, one line of infection ravaging the Arabian ports of the Persian Gulf, and the other turning back through Persia, to pass through Bushire, Shiraz, and Isfahan, and reinforce at Teheran the previous stream of the epidemic. The capital now acted as a second centre of infection, the disease spreading north via Kaswin to Resht, Baku, and the Caspian-Volga, and north-westwards to Maragha and Tabriz. Another route passed due east to Astrabad and Meshed, from which latter place the east and south-east of Persia became infected, as well as the Transcaspian region to the northward.

FOREIGN MEDICAL PRACTITIONERS IN ITALY.

In the Italian Chamber of Deputies, Signor Santini on February 2nd interpellated the Minister of the Interior as to the steps taken by the Government to regulate the practice of medicine by foreign doctors in Italy. He pointed out that besides the questions of legality and of the interests of the native profession, the matter affected the Treasury, inasmuch as foreign practitioners either did not contribute to the revenue of the country, or were not taxed in a degree proportionate to their earnings. Signor Onofrio, Under Secretary of State, after expressing admiration of the persistency with which Signor Santini brought the question before the Chamber, pointed out that the practice of foreign doctors in Italy was regulated by the public health law of 1888, which afforded sufficient protection to the public. An endeavour to secure reciprocity on the scale urged by Signor Santini would, said Signor Onofrio, make fresh legislation necessary. He added that the existing law must be interpreted in a liberal spirit, as many foreign invalids would not go to Italy in search of health unless they could be ministered to by doctors of their own nationality. The Minister for Foreign Affairs, Signor Tottoni, informed the Chamber that negotiations had been entered into with various foreign Governments with the object of securing full reciprocity, but they were not completed. Such negotiations, he added, were neither easy nor brief. These replies are evidently extremely distasteful to a section of the medical profession in Italy. *Il Policlinico* of February 7th contains a vehement protest against the apathy of the Government which declines to help the medical profession of Italy in what it calls a struggle against "cosmopolitan quackery." The statement that unless foreign doctors are allowed to practise in Italy foreign invalids will seek some more accommodating clime is met with a fine example of the "retort courteous": "Pray, where would these foreign gentlemen go to get their spleen cured if no other nation but this poor Italy allows these worthy M.D.'s with diplomas not of native growth to practise?" From the reference to the "spleen," and from other graceful allusions to "the most delicate nervous system of English misses," and to "Anglo-Saxon tourists," we gather that it is British and American practitioners that are chiefly objected to; and this, it would seem, in the name of the dignity of the Italian profession. May we hint that the dignity of the Italian profession would not be hurt by a somewhat stricter adherence to known facts on the part of those who constitute themselves its spokesmen? When we read that the demand for monopoly in favour of native talent is justified by the fact that "no graduate of Bologna or Naples can practise in the countries whence come to us so many foreign doctors," we can only ask whether the accomplished writer has but now awakened from a sleep like unto that of Rip van Winkle. If he will look at the *Medical Register* for 1904 he will find therein the names of two graduates of Bologna and one of Naples, not to mention two doctors of Padua, two of Pisa, one of Turin, and one of Genoa, all of whom have the right to practise their profession in this country on the strength of purely Italian diplomas. What further reciprocity is wanted by our contemporary?

PATENT MEDICINES IN NEW ZEALAND.

The Government of New Zealand by virtue of powers contained in the Public Health Act (N.Z.), 1900, has issued regulations requiring that after June 30th, 1905, the labels of "patent medicines" imported into or sold, or offered for

sale in the colony must state the ingredients of which the preparations are composed together with the exact proportions in which they are present. For the purpose of these regulations the term "patent medicines" includes, *inter alia*, a specified list of some 150 preparations. In this list proprietary articles made by well-known pharmaceutical firms are jumbled up with quack remedies of the ordinary type. The list as published by the *Chemist and Druggist* from the best available sources contains some careless errors of spelling and description, which will, it is to be feared, invalidate the entries. We doubt also the policy of putting in the same list the names of preparations the composition of which is already fully disclosed by the manufacturers. With regard, however, to the secret quack remedies the move is entirely in the right direction, and we should be glad to see a similar regulation enforced in this country. In such cases there can be no doubt as to the necessity for disclosure, and we have already helped in this direction by publishing some formulae obtained by analysis; indeed, the formula of one of the examples mentioned in the New Zealand list (Osborne's epilepsy cure) was disclosed along with others in the British Medical Journal of December 10th, 1904, page 1586. The section of the New Zealand Public Health Act under which the regulations are issued authorizes the Governor to make regulations "requiring the ingredients of patent medicines to be disclosed at or prior to the sale thereof," but it is unfortunate that the term "patent medicines" has been used, since it does not correctly describe secret remedies. A patent medicine is really one which is the subject of letters patent, and a specification describing its composition is open to the world. It would have been far better to have employed the term secret remedies. The Act is obviously directed against the secrecy of the maker, upon which are founded the absurd claims put forward for their preparations by quacks.

QUACKS IN AMERICA.

The *Medical News* of New York, in a recent number, published a chapter from a forthcoming work entitled *As a Chinaman Saw Us*, in which the Celestial deals with American quacks. We are inclined to suspect that the Chinaman has a merely literary existence like the Chinese philosopher, Lien Chi Altangi, who is Goldsmith's mouthpiece in *The Citizen of the World*, where also a good deal is said about quacks. But that does not make him less amusing or instructive. He begins by admitting that the Americans have made rapid advances in medicine and surgery, and that they have some extraordinary physicians. Whether the epithet is to be taken as altogether complimentary appears doubtful in the light of a remark which almost immediately follows, to the effect that "in no other field does ignorance, superstition, credulity, and lack of real education display itself as among the American doctors and healers." The Chinaman thinks he could fill a volume by the mere enumeration of "the diabolical and absurd nostrums offered by knaves to heal men who profess to hold in ridicule the Chinese doctors." In proof of this he mentions the significant fact that "Christian Science doctors have a following of tens of thousands." In illustration of their methods he tells a story of an Eddyite healer who had been treating a sick woman in a distant town. The woman died, and when the bill was presented to the husband he pointed out that the healer had charged for treatment two weeks after the patient died. The healer was, however, equal to the occasion, for she at once replied, "I thought I noticed a vacancy." The manifold forms of quackery pass before the Chinaman's mental vision like Banquo's issue before Macbeth. After the Christian Scientists "come the musical curists who listen to thrills of sound, a big organ being the doctor. Then there is the psychometric doctor who cures by spirits. The spirit doctor cures in the same way. The palmist professes to point out how to avoid the ills of life. Magnetic healers have hundreds of victims in every city. The advertisements in the journals of all sorts are of countless kinds. Some cure at short hand, some miles distant from the patient. They are equalled in number by the hypnotists or hypnotic doctors, who profess to throw their patients into a trance and cure them by suggestion." Some cure people by making them lie in an open grave, and persuading them that this is a "return to nature"; others bury their patients in hot mud or hot sand. Plain water has thousands of devotees with hospitals and infirmaries where the Pindaric saying that "water is the best" is exemplified in every possible way. It is estimated that there are over fifty thousand masseurs and osteopaths in the States who cure by baths and rubbing. There are vegetarians who eat no meat, and meat eaters who eat no vegetables. There are colour doctors who treat their patients by exposure to blue and other tints. Of electric cures the name is legion. But more amazing to the Celestial mind than the quacks are the patent medicine men, who advertise remedies not only in newspapers, but on every wall, stone, or cliff in America; in one case which he investigated a sum of £200,000 a year was spent on advertising one remedy. There are itinerant doctors who go about professing to cure "while you wait"; in nine cases out of ten the nostrum is an alcoholic drink disguised. "In no land under the sun," says the Chinaman, with a command of racy American which might be envied by many to the manner born, "are there so many ignorant, blatant fakers preying on the people, and in no land do you find so credulous a throng as in America, yet claiming to represent the cream of the intelligence of the world; they are so easily led that the most impossible person, if he be a good talker, can go abroad and by the use of money and audacity secure a following to drink his salt water, paying a dollar a bottle for it and singing his praises. Such a doctor can secure the names and pictures of judges, Governors of States, Senators, Congressmen, prominent men and women, officers of the Volunteer army, artists, actors, singers—in fact prominent people of all kinds will provide their pictures and give testimonials which are blazonly (*sic*) published." The Chinaman admits that America has a body of physicians and surgeons who are a credit to the world, but he says they are as a dragon's tooth in the multitude to the "quacks" who prey upon the people, and in so doing are in many cases protected by the law.

PAN-AMERICAN MEDICAL CONGRESS.

The fourth meeting of the Pan-American Medical Congress was held in the city of Panama on January 3rd, 4th, 5th, and 6th. It was formally opened by a reception given by Dr. Amador, President of the Republic of Panama. An address was then delivered by Mr. John F. Wallace, Chief Engineer of the Canal Commission. He said the problems with which they had to deal, while, from the engineering point of view, difficult, were not insurmountable. The most difficult one was that of sanitation and the care of the health of the men brought to the isthmus to construct the canal. It was thought that not more than 15,000 men would be needed. Possibly 10,000 of these would be common labourers, perhaps 2,000 to 2,500 would be labourers more or less skilled. Of these 10,000 men practically all would be natives of the towns and country adjacent, unless it were found necessary to bring labour from China and Japan to supply additional force which could not be obtained on the isthmus. Some 4,000 men would be skilled mechanics. Possibly 1,000 educated Americans would be required as engineers, clerks, etc. The task of preserving the health of this army of men was in the hands of Colonel Gorgas. Dr. José E. Calvo, Secretary-General of the Congress, stated that Mexico, Guatemala, the United States, Honduras, Santo Domingo, Cuba, Peru, and Porto Rico, had sent official delegates to the Congress, as had the Medical Faculty of Costa Rica and the Academy of Sciences of Havana. About 200 members were expected from the United States. Eighty-six papers had been received. Colonel Gorgas gave an account of the sanitary conditions encountered in Cuba and Panama, and what was being done to render the canal zone healthy. Abstracts of the more important scientific papers read will appear in due course in the Epitome. An amusing incident of the Congress was the delay of the

Athos which sailed from Baltimore with a party of some thirty American physicians, but owing to fogs and bad weather arrived too late to allow its passengers to take part in the proceedings. It turned out, however, that they had done their best to temper their misfortune by holding a little congress of their own on board. A motion that the papers read on board ship should be included in the official proceedings of the Congress was, after some discussion, adopted. It was decided that the next Congress should be held in 1908 in the City of Guatemala, the capital of the Republic of Guatemala.

THE SEAMEN'S HOSPITAL SOCIETY.

On February 9th Captain Sir George R. Vyvyan, K.C.M.G., the Deputy-Master of Trinity House, unveiled a new tablet over the Trinity House Bed in the Branch Hospital of the Seamen's Hospital Society, to which is attached the London School of Tropical Medicine. Among those present were: Mr. Perceval A. Nairne, Chairman, and Admiral Sir Richard Tracey, K.C.B., Deputy-Chairman, of the Committee of Management; Lady Tracey, Sir Patrick and Lady Manson, Lady Vyvyan, Sir Francis Lovell, C.M.G., and Captains Barlow, Bell, and Clark, Elder Brethren of Trinity House, and a number of ladies and gentlemen interested in the Society and School. In welcoming Sir George Vyvyan, Mr. Nairne recalled the close association which had existed for the last eighty years between the premier Marine Corporation of the world, Trinity House, and the Seamen's Hospital Society, and spoke of the advantage accruing to the Charity from the consistent support of the Brethren of Trinity House, many of whom had represented the Corporation upon the Committee of Management of the Society. Sir George Vyvyan having unveiled the tablet, Sir Patrick Manson referred to the great advantage of a knowledge of tropical medicine to surgeons in the navy and mercantile marine. The hospital and the school combined had, he said, done an enormous work for the benefit of the seafaring members of the community and for the empire at large. Sir George Vyvyan in reply said it would be strange indeed if there did not exist an intimate union between Trinity House and the Seamen's Hospital Society. Trinity House was the greatest contributor to its funds, and had already given about £16,000. He was very glad to know that that terrible scourge of the seaman—scurvy—had been almost extirpated, and that the old system on the tramp sailing vessels of the carpenter, the mate, or the captain acting as medical man was undergoing a much-needed change. The connexion between the Seamen's Hospital and the Tropical School was appropriate in itself and invaluable in its results. The operations of the Tropical School could not be carried on without money, and he trusted that the banquet over which Mr. Chamberlain was to preside in May next would not only clear off the debt which had arisen but do something towards providing a permanent endowment. The proceedings were brought to a close by a vote of thanks to Sir George Vyvyan, moved by Admiral Sir Richard Tracey.

THE HISTORY OF APPENDICITIS AFTER OPERATION.

A discussion on the subsequent course and later history of cases of appendicitis after operation will be opened by Sir Frederick Treves at the meeting of the Royal Medical and Chirurgical Society, which is to take place on Tuesday, February 28th, at 8.30 p.m. Sir William Broadbent will speak next, and it is expected that the discussion will be of unusual interest. Special attention will be directed to the following subjects: (1) The frequency with which complications, such as the following, occur during convalescence: femoral thrombosis, pulmonary embolism, pylephlebitis and suppuration of the liver, emphysema and septic bronchopneumonia, acute intestinal obstruction, residual abscesses, pyosalpinx and suppurating ovaries, faecal fistula; (2) the after-results in cases where the appendix has not been removed; (3) what proportion of cases are there in which the symptoms are not relieved by operation, or in which recovery is imperfect? We are informed that statistical tables giving information on these points will be furnished from several hospitals. It is probable that the debate will be adjourned, but those wishing to take part in the discussion are asked to send their names as soon as possible to the Honorary Secretaries, at the Society's House, 20, Hanover Square, W.

THE HISTOLOGY OF THE HYDATID MOLE.

After touching upon the possible connexion between increased production of lutein in the corpus luteum of the ovary and the stimulated overgrowth of chorionic epithelium to form the molar pregnancy, Luigi Frassi[1] proceeds to consider some vexed questions in connexion with the histology of the hydatid mole. His conclusions are based upon the examination of nine specimens. With regard to Sfameni's view that the vesicles are not degenerated chorionic villi but buds of syncytium which have begun to undergo retrogressive changes in the centre, Frassi is convinced, from his histological researches, that the vesicles consist of two parts—a stroma which in every way resembles connective tissue and an epithelial covering. The constituent parts of the villi are, therefore, present, and so he holds what may be called the orthodox opinion that the vesicles are degenerated villi. Further, in the stroma retrogressive changes alone are to be seen, while the epithelial investment shows both proliferative and retrogressive phenomena. The hydatid mole is what it is, anatomically and clinically, by reason of the epithelial portion of it. The process begins in budding from the syncytium of the villi, and in later stages the syncytium and the cells of Langhans's layer constitute cellular masses, visible sometimes to the naked eye, which lie between the villi, from which they take origin. These masses increase at the periphery and degenerate at the centre, where they form vacuoles. These changes led Sfameni to regard all the vesicles as formed in this manner, but such masses with vacuoles can be distinguished by their histological characters from villi with a true connective-tissue core. For unknown reasons the epithelial proliferation may be arrested, or may reach only moderate dimensions. This fact, when observed, to some extent enables the clinician to form a favourable prognosis regarding the sequelae of the mole. Chorion-epithelioma and hydatid mole are so similar that they might be regarded as identical if it were not for the relative rarity with which a chorion-epithelioma follows a molar pregnancy.

PROGRESS OF CREMATION.

Particulars were given in a recent number of the British Medical Journal of the progress of cremation in this country. The following facts as to other European countries supplement the information there given. In France not much headway has been made. The number of cremations during 1904 was only 350, almost all of them in Paris. A crematorium at Rheims has been in working order for more than two years, but not a single application has been made for cremation. In Germany the record of cremations for 1903 was something under 1,100. In Italy there were 400 cremations, and about the same number in Sweden. In the Argentine Republic there were 300.

MEDICAL PRACTICE IN NEWFOUNDLAND.

From statements which have recently appeared in several American journals, there appears to be a dearth of medical practitioners in the small settlements along the remote stretches of the Newfoundland coast. It is said to be not uncommon for a practitioner to travel 100 miles by boat—there are no roads—to attend a patient. In many places the duties ordinarily fulfilled by a doctor are performed by some man or woman who has picked up a little medical knowledge. The result is a large increase in the death-rate. The Government of Newfoundland is endeavouring to remedy this state of things by appointing medical practitioners to the magistracies in the different townships. In the sparsely-settled districts an allowance of £100 a year is offered to a medical man who will settle there, on

[1] *Annali di Ostet. e Ginec.*, xxvii, p. 57, January, 1905.

condition that he will undertake the discharge of magisterial functions in addition to his professional duties. The former are not very onerous, being mostly concerned with fishery disputes, settlements, and the like, for serious crime is unknown.

THE adjourned meeting of the Council of the British Medical Association was held on Wednesday last. The amount of business transacted was large, and the Council, which met at 2 p.m., did not conclude until 6.30 p.m.

IT is announced that the King has consented to open next year the new wing which is to complete the Armstrong College of Science in Newcastle-on-Tyne. It is hoped that His Majesty will at the same time inaugurate the new infirmary built to commemorate Queen Victoria's jubilee, the foundation stone of which he laid when he was Prince of Wales.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Session of 1905 opened on Tuesday under circumstances of unusual interest. Up to the last moment there was doubt as to the character of the King's Speech and the amount of work in the Government programme. The reading of the Speech from the Throne in the House of Lords settled all doubts, and showed that the Prime Minister and his colleagues have ample material for the session's work. Even a larger portion of the Speech than last year was devoted to foreign affairs. The visit of the King of Portugal, the condition of the Balkan Peninsula, the war in the Far East, the Baltic Fleet's attack on the fishing boats in the North Sea, the expedition to Tibet, the affairs of India and Afghanistan, the Anglo-French Convention, and arbitration, all came in for comment. The legislative programme contained little of interest to the medical profession beyond the reference to proposals for the reconstitution of the Local Government Board, and this will turn out most probably much more a matter of organization and status than any development of a well-defined department of public health. The little Public Health Bill of last year's speech was not named this year, but nevertheless an opportunity may be found for introducing it again. The Aliens Bill and Redistribution had early mention, and so did legislation for dealing with the unemployed. The other Bills named had no medical interest except one promised to deal with the adulteration of butter. The House of Lords presented an unusually brilliant appearance. The mourning colours had given place to brighter hues, and so the Peeresses in all their diamonds and finery, and the Peers and Judges in their robes made a brave and beautiful display. The King and Queen looked better than usual, and His Majesty surpassed himself in his delivery of the Royal speech. His tones rang out strong and clear and reached the furthest limits of the chamber. The delivery was a really fine piece of elocution.

The House of Commons met a little before two o'clock on Tuesday, and there was a large attendance of members. As the Chamber only seats about half the number of representatives of the constituencies, there is always much competition on the first day of the session to secure certain coveted and familiar seats. A score or more of legislators secured places before midnight on Monday. The earliest to arrive was Mr. Macdona, who secured his place almost directly behind the Prime Minister's seat about 11 p.m., and many arrived very early on Tuesday morning, and so the process went on till after midday, when the great bulk of members came to St. Stephen's. After the Speaker had taken the chair the Commons were summoned to the Bar of the House of Lords to hear the King's Speech, and after that ceremony the sitting was suspended till four o'clock. Then the standing orders were read and adopted and two divisions were taken with reference to Lord Alington's interference in the recent by-election in Dorset. It was admittedly a breach of privilege and there voted some 450 members, but the Government had a large majority in favour of taking no official notice of the offence against the orders of the House. The address in reply to the King's speech was then moved by Mr. Mount, and seconded by Mr. Roberts, and the business of the session began. During the earlier part of the day the gossip in the Lobby mainly turned on the prospects of the session, and the opinion was general that apart from some accident there was no prospect of an early dissolution. Much amusement was caused by the delivery from the Post Office of a tin of toffee to each member, the gift of an enterprising manufacturer anxious to sweeten the labours of legislation and lessen the acrimony of debate at the beginning of the session.

Government Bills.—It is usual on the first day for the Government to give notice of their chief Bills, or at least those to which they give priority. In accordance with this custom, Mr. Akers-Douglas gave notice that he would on an early day ask leave to introduce the Aliens Bill, which will no doubt be a modification of the Bill lost last year. Mr. Walter Long gave notice of the Bill to deal with the unemployed. It is understood that this measure will propose to set up in all populous centres permanent committees composed of members of the local authority and Poor-law guardians, to deal with the unemployed wherever want of work may arise. The less populous localities will be grouped together in districts by the Local Government Board, and committees appointed on the same lines. Both will be endowed with small but sufficient powers of rating to deal with the out-of-works in times of trade depression. The third Bill announced was that for amending the laws relating to Education in Scotland, which will be the Bill of last year, as it was described in the King's Speech as having been partially considered.

The Course of Business.—The debate on the address, which is the first business of the session, opened on Tuesday with general discussion. This was by mutual consent closed on the same evening in order that the official amendment of the Opposition might come on as the first business on Wednesday. There are altogether forty-two amendments to the address on the paper, but only a few of these can be reached, as the Government are not likely to allow the address to occupy more than ten or twelve days of the time of the House. On Friday some part of the sitting must be given up to the introduction of private members' Bills, and although the first regular day of the session, Wednesday, found only five questions on the paper, later days are sure to provide numerous questions to fill to the full the three-quarters of an hour allotted to inquirers at the commencement of each sitting.

Private Members' Bills always occupy a good deal of attention on the first days of the session. All the great ideas for the benefit of the world which have been hatched during the recess naturally take the form of Bills introduced by private members. It is really in this way that most of our best social legislation has begun. It is not often the lot of the private member to succeed—and, indeed, under the new rules he has less chance than ever. If his Bills fail, his ideas survive, and some day or other a Government takes up the question which the private member has originated. There has been perhaps less talk than usual this year about new Bills; the prospect of a possible dissolution has probably checked some, and then the strength of the groups of members who ballot for particular Bills makes the chances of drawing a good place by any individual very remote. Still there are plenty of aspirants for legislative opportunities, and no less than 207 names were put down on the first day. The ballot is taken on the third day, and the Bills introduced on Friday. The first dozen names drawn will have practically the only chances. There are no Bills this year of much medical interest. At least, there is no great activity in favour of any Bills specially interesting to the profession. A Bill for giving security of tenure to medical officers of health and sanitary officers is talked about, and there is some talk of taking steps by motion, if not by Bill, in connexion with the registration by the Board of Trade, of companies trading for medical purposes. The Bills which are backed by the greatest number are those dealing with labour questions, women's suffrage, and Bills dealing with housing, Irish questions, and matters relating to agriculture. The Revaccination Bill is sure to be introduced in due course, as are also the Bills promoted by antivaccinators. There is some curiosity among members as to the intentions of the Government to renew the Vaccination Act. The King's Speech referred to the renewal of the Agricultural Rating Act, and the question is whether the Government will have the courage at the same time to permanently establish the conscientious objector.

Ireland.

The Leinster Branch.

The annual meeting of the Leinster Branch of the British Medical Association will be held in the Royal College of Physicians, Dublin, on February 25th, when the incoming President, Sir Thomas Myles, will deliver an address. The members of the Branch will dine together in the evening.

Sewage Scheme of the Purdysburn Infectious Diseases Hospital, Belfast.

Several years ago the City Council decided to build the new city fever hospital at Purdysburn. A very large majority of the profession thought the site most undesirable, and more than one deputation pointed out the disadvantages, and warned the council of the probability of an institution at such a distance turning out a white elephant on their hands. The scheme has, however, been carried out at considerable expense, and the profession were settling down and prepared loyally to make the best of what was offered. On January 30th a large meeting of ratepayers of one of the wards was held to protest against the proposed sewage scheme. It would bring the whole sewage of the hospital and of the adjoining asylum back through the intervening country, across the River Lagan, and then, by means of force pumps, raise it to the level of one of the best residential districts in Belfast, and empty it into the beginning of the city sewers, by which it would travel across the whole town for about four miles before passing into the Lough. Objection is taken not only on account of the danger and the apparent Gilbertian method of removing typhoid patients three to eight miles, according to where they live, from home, and then carrying their excreta back again, and diffusing it throughout the city sewers from one end to the other; but also to the heavy capital and annual expenditure involved in a high-pressure iron pumping main and pumping station.

A deputation laid these views before the monthly meeting of the City Council on February 1st. A very objectionable feature in the whole case was brought out by the deputation that the representatives of the ward chiefly affected said they knew nothing about the scheme, and that the newspapers referred to it in such a way that it was unintelligible to the ordinary reader; and although passed on June 1st last it did not become publicly known till a ratepayer accidentally asked the meaning of the laying down of the pipes. In explanation the Chairman of the Health Committee stated that the sewerage would be all disinfected before being emptied into the city drains.

There is a very general feeling that the citizens have lost faith in the City Council. The revelations brought out by the Local Government Board inspector as to the expense of the new City Hall have intensified this mistrust; the electric lighting, estimated originally to cost £500,—much too small a sum—has already cost over £5,000. The total cost of the building at the beginning was said to be £150,000; already £300,000 has been spent. It is not finished, and there are potentialities for any amount of litigation. It is said in this huge building there is no sanitary department or department for public health. This is in keeping with the facts that the town clerk gets something like £3,000 a year, and the medical superintendent officer of health £500 a year; it is also in keeping with the death-rate, which is amongst the highest of the large towns of the kingdom, and with the fact that the mortality from phthisis exceeds that of Whitechapel.

LITERARY NOTES.

Sir H. A. Blake, Governor of Ceylon, is said to have stated at a recent meeting of the Asiatic Society at Colombo that Sinhalese medical books of the sixth century described 67 varieties of mosquitos and 424 kinds of malarial fever caused by mosquitos.

The Pope has conferred on Sir Francis Cruise, M.D., D.L., Honorary Physician in Ordinary to the King in Ireland, the Knighthood of the Order of St. Gregory the Great, together with the star, or decoration of that order, in recognition of his researches on the *Imitation of Christ* and its author. Sir Francis Cruise's earlier work concerning the authorship of the *Imitation* has been translated into French and German, and so great is the influence of the German version that it has led the Municipality of Kempen to name a new street after Sir Francis Cruise, as the champion of their famous townsman, Thomas à Kempis. A new translation by him of the *Imitation*, with an outline of the author's life, has recently been published.

The *Index Medicus Hispanus*, of which the first number (January-April, 1904) appeared during the course of last year, is published under the auspices of the Colegio de Medicos of Gerona. It is intended to supply a bibliography of current Spanish medical literature, of which, for want of a publication of the kind, comparatively little has hitherto been known in other countries.

A new periodical entitled *Medical Notes and Queries* is to appear at Philadelphia. Ten numbers will be issued in the year. The journal, which will be edited by Dr. Henry W. Cattell, is to be devoted to the "practical side of medicine, but from a scientific point of view."

The Committee on Historical Pharmacy of the American Pharmaceutical Association has undertaken to collate data bearing on the military and naval pharmacy of the Civil War, and has issued an appeal for information from all who have any knowledge of this subject.

In the British Medical Journal of July 2nd, 1904, it was stated that the Peniarth (previously known as the Hengwrt) Library, which was described by Dr. Gwenogvryn Evans as "undoubtedly the premier collection of Welsh MSS. both in extent and in quality," had been acquired by Sir John Williams, M.D., who in 1899 also purchased the Welsh portion of the Shirbum Castle Library. It was added that Sir John had made definite provision for the eventual transfer of these as well as his own private collection to a Welsh national library if it were established at Aberystwyth, or if not to the library attached to the University College of Wales in that town. In the *Court Circular* of February 12th it was announced that the Treasury having agreed to make a contribution from public funds towards the cost of establishing and maintaining a national museum and a national library, on condition that sufficient public support is forthcoming, the Lord President of the Council has appointed Lord Balfour of Burleigh, the Earl of Jersey, and Lord Justice Cozens-Hardy, a Committee to consider the place at which each of the two institutions should be established, the probable cost of erecting and maintaining them, the contributions which may be expected from local sources towards such cost, and the constitution of the trust or governing body which should be appointed to manage the institutions if established. Lord Balfour of Burleigh is the Chairman of the Committee.

M. Henri Meige, in a recent number of the *France Médicale*, gives an account of two French saints whose speciality was the cure of madness. One of these was St. Menoux, whose tomb is still to be seen behind the high altar of the fine old church of a village, near Bourbon-l'Archambault, which bears his name. One of the walls of the stone sarcophagus is pierced with a hole large enough to let a human head pass through. Patients suffering from headache or from mental derangement put their heads through this hole and recite a special prayer. A similar practice is found in the cult of St. Dizier, whose shrine still exists in the neighbourhood of Delle, in Alsace. He was Bishop of Rennes in the seventh century, and was held in great veneration through Alsace, Franche-Comté, a part of Switzerland, and Champagne. The sarcophagus of St. Dizier, like that of St. Menoux, has a hole in it, through which the patient's head is thrust. At both shrines bathing is a part of the treatment. A particularly interesting point about St. Dizier, however, is that he seems to have established a colony in which lunatics were treated on the boarding-out system. M. Tallon, who has investigated the matter historically, says that when a patient was brought to St. Dizier two respectable men of firm character and irreproachable conduct were chosen to be his guardians. They first put him to bed in a room off the church set apart for the purpose. If he did not appear to be dangerous he was taken into the house of one of the appointed custodians, and the treatment consisted of amusements, walking, manual labour, and during the winter social assemblies. The village was, in fact, a large asylum, or rather a large family, of which the *curé*, at once priest and physician, was the head.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 87.

THE EPIDEMIC OF TYPHOID FEVER AT LINCOLN.

[By Our Special Commissioner.]

The epidemic of typhoid fever, which at present prevails in Lincoln, began at the end of last year with a few dropping cases in the month of December. There had been no cases notified between that time and the preceding September.

Course of the Epidemic.

The first case was notified on December 2nd, 1904, in a house in the highest part of the town. On December 22nd, three weeks after the first case, the second occurred about three quarters of a mile distant. Nine cases followed at intervals in the last week of December in various parts of the city.

Since the beginning of this year the weekly incidence has been as follows:

	Cases.	Total since December 31st, 1904.
Week ending January 7th	7	18
,, ,, ,, 14th	3	21
,, ,, ,, 21st	4	25
,, ,, ,, 28th	125	150
,, ,, February 4th	268	418
,, ,, ,, 11th	154	572

The number of cases became suddenly and largely increased on January 24th.

Allowing for the interval of time required for incubation and diagnosis, between actual infection and date of notification, these figures indicate that the agencies of infection, which were more or less limited in the last weeks of 1904, became more generally diffused in the second, third, and fourth weeks of January. On reference to a spot map showing the distribution of the cases in the city, it is seen that the cases notified are not confined to any special section of the city or streets, but are scattered very uniformly over the highest levels, the slopes, and low-lying districts, excepting that they are most thickly clustered together in the southern part of the city, in the lowest area.

It has not yet been discovered how or where the infection was first introduced, but the facts recorded above all point to one common cause, restricted either in virulence or in distribution at the outset, and subsequently becoming more commonly diffused, and spreading with explosive violence about January 10th.

The City of Lincoln, with a population of over 50,000, is built partly on an oolitic eminence, from which an escarpment descends in steep slopes to the river level below, partly on these sloping sides, and partly on the alluvial levels which surround the base of the escarpment. The highest level of the city is some 200 feet above the lowest.

There is nothing in the geological contour and formation to suggest that the infectious material could be distributed throughout the city through the medium of the soil, excepting perhaps in the lowest and southern part of the city mentioned above, where the houses are built on a very porous and loose sand.

Milk Supplies.

More than usual attention has of late years been given to the milk supplies of the city, owing to the fact that epidemics of infectious disease have occurred, the origin of which was traced to certain milk supplies.

It is inconceivable that the present great outbreak could have been caused by polluted milk, for the typhoid cases which have occurred are most impartially distributed throughout the city. There is no aggregation of cases in the same house; in fact, there are few instances of more than one case occurring in one and the same house.

Drainage.

For similar reasons it cannot be supposed that the infectious agent can have been conveyed through the sewers and drains.

The main drainage of the city, which had been very defective up to 1880, was carried out very completely at that date. The house drains are said to have been carefully connected with the sewers, generally untrapped, and carried as ventilators up to the roofs.

The Water Supply.

For more than twenty years the city has had to face exceptional difficulty in finding sufficient quantities of safe water for its inhabitants.

Sources.

The only sources of water at present available are the river Witham with its tributaries, and the subsoil water, streams, dykes, and "ditches" of the extensive tracts of low-lying land to the south-west of the city, together with a small supply, the "conduit" supply, derived from springs on the south-east slopes of the city. The only alternative to using these sources apparently is to seek for water by deep boring down to the New Red Sandstone, more than 2,000 feet below the surface.

In 1871 the Corporation purchased the undertaking of the Waterworks Company, which drew its water supply from various sources:

1. The Pike drain, at a point close to its junction with the river Witham.
2. The Catchwater drain, at a point some 150 yards from its junction with the same river.
3. The Hartsholme reservoir, formed in 1847 by impounding the Prial drains.
4. The "Ballast Pits," consisting of extensive excavations made in the porous soil adjoining the Midland Railway.

Of these four the two last have yielded but little supply for some time past.

The "Drains."

These "drains" are fed by springs, subsoil water and surface washings from land part of which has been officially reported to be "highly cultivated, and at times manured with night soil and town refuse," and generally speaking they must be liable to pollution from the adjacent dwellings and villages.

A short inspection of the Catchwater and Pike drains at no great distance from the waterworks was sufficient to show how open these waters are to dangerous pollution in numerous ways. They are also unprotected from access of man and beast. A much-frequented footpath borders the Catchwater drain, and in illustration of one of the possible means of dangerous pollution, it was noted that some liquid human faeces had recently been excreted and deposited on the bank of the drain within a few yards of the waterworks intake.

These two intakes of the Catchwater and Pike drains, however, are supplied by the river Witham as well as by the drains.

The Pike intake is within a few yards of and on a level with the Witham water. The intake from the Catchwater is about 150 yards from the river, but it was easy to demonstrate by stirring the mud at the bottom of the water that the river water was flowing steadily along the drain channel to the waterworks intake.

Pollution of the River Witham.

In a report to the City Council on April 1st, 1885—nearly twenty years ago—Dr. Harrison, the City Medical Officer of Health, stated:

The sewage of Grantham, which has a population of 17,000 and a water supply of 4,000,000 gallons weekly, is taken to land at Marston, the effluent from which passes into the river Witham.

It is true that the river must undergo very considerable self-purification during its flow of over 30 miles from the sewage farm at Marston to the waterworks intake close to Lincoln. On the other hand, the river is small and of slow current, so that the amount contributed by this sewage effluent at Marston must form a considerable proportion of the stream. In the same report Dr. Harrison also calls attention to the fact that the "river in its course receives drainage from manured lands at many points and from large villages." In addition, on October 2nd, 1888, Dr. Harrison reminded the Sanitary Committee that the effluent from the irrigation sewage farm of the County Asylum at Bracebridge discharged into the Witham at a little more than half a mile above the Pike drain inlet. This effluent runs for about a quarter of a mile underground into a small pond—very foul when recently inspected. Up to January 31st, when the epidemic had fully developed, the outflow from this pond flowed direct into the river about half a mile above the Pike drain intake. On that date it was connected with the sewer close at hand.

General Considerations.

From the above account of the surroundings and condition of the Lincoln water supply it is obvious that the river Witham from Marston downwards must be constantly contaminated with sewage and other manurial matter, whilst the intakes from which the drinking water is chiefly drawn are subject to the same contamination through their free communication with the river, and are also liable to contamination with human and other excreta contributed from manured

land, cottages, etc., adjacent to the drains themselves. The evidence of such contamination may be more convincingly and effectually obtained by local inspection and common-sense observation than by chemical and bacteriological analyses. For, though the contamination of the river by the effluents from Grantham and from the County Asylum must be constant, the contributions of contamination from other sources are more or less intermittent, being dependent on rainfall and other circumstances.

Plenty of analyses, however, were forthcoming, and during the last twenty years the medical officer of health has frequently called attention to the fact that the water of the river Witham in many places has been shown by chemical analysis to be "a second-class water containing excess of organic matter, and unfit for domestic purposes—even after filtration."

The waterworks water at Lincoln is submitted to sand filtration before distribution, two new filter-beds having been added last year to the four previously in use.

Unfortunately, the idea prevails that a water which has been polluted, or is liable to pollution, may be rendered absolutely safe by the process of sand filtration. It is true that such filtration, if conducted under certain well-defined conditions, will render an infective water reasonably safe, since it removes nearly all (97 to 99 per cent.) of the germs contained in the water; but even then it is conceivable that from a highly-contaminated water a sufficient number of infectious germs may pass through to give rise to disease.

Unfortunately, also, the efficiency of the filter is liable to be completely destroyed under certain conditions; more especially if the filter be brought into use before the protective "biological filter" is formed; or if this has been broken up mechanically by frost or other means; or if the water has been filtered through beyond a certain rate.

Taking into consideration the history of the nature and conditions of the Lincoln water supply during the last twenty years, it might have safely been predicted that—sooner or later—an epidemic of typhoid fever would occur in the city with extensive and sudden violence. During the last twenty years typhoid germs must frequently have been contributed to the waters which form the drinking supply of the city. Some of the inhabitants may have been infected from this source, but not many; for the death-rate from typhoid, during the last ten years at any rate, has been comparatively low. The inhabitants have been protected, owing either to the absence of extensive infection of the water; or by dilution, subsidence, or destruction of the living poison; or by the protective action of filtration.

Such a prolonged immunity from infection naturally begets a false sense of security in the uninformed, who do not recognize that the infective germs may be in the unfiltered water, and that the protective barriers may at any time be broken through owing to unforeseen circumstances, or to neglect of any of the precautions essential to safe filtration. A sudden onset of frost, for instance, or an undue hastening of the filtration process may completely break down the defences against the invading germs.

In the present instance the waterworks authorities themselves indicated that the filtration process had been carried on at a rate beyond the limits of safety. Owing to the onset of severe frost many of the inhabitants had left their taps running in order to prevent bursting of the pipes. The Waterworks Committee therefore published a notice in the last week of January requesting that all possible care should be taken for the prevention of waste. "The large quantity required to meet the increased demand caused the water to pass through the filters more rapidly than should be the case."

Evidently recognizing the danger thus incurred by the inhabitants, the Committee also urged them to boil all water used for domestic purposes. This warning, however, was issued too late to prevent the infection which produced the great outbreaks which occurred in the third and fourth weeks of January.

Probable Cause of the Outbreak.

Seeing that the manner of distribution and spread of the fever, with regard to time and locality, is quite out of keeping with the supposition that the outbreak is due to infection through the soil or milk or drainage, but quite in harmony with the supposition that the infection is conveyed in the drinking water; seeing also that the possibilities of infection of the water supply are numerous and constant, and that the protection afforded by filtration became impaired about the time when the infection of a large number of individuals first took place, there is every indication that this epidemic is due to infection from the water.

If it is found that the filter surfaces were frozen in the latter half of December, and still more if they were frozen in the first two or three weeks of January, such evidence may be regarded as corroborating the water-borne theory.

The investigation of the conditions of the water supply has been placed in the hands of representatives of the Local Government Board. If they succeed in detecting the germs of typhoid fever in any of the water which contributes to the supply for the city, no room will be left for doubt as to the cause of the epidemic. It is highly improbable, however, that these germs can be detected so long after the date of infection, unless they have been introduced into the water persistently and in gross quantities. The almost insuperable difficulties in the way of detecting the typhoid germ in infected water are well-known.

The Action of the Corporation.

It is difficult to understand how the Corporation of Lincoln can have ignored for so many years the obvious and continuous risks to which the citizens have been exposed through using a water supply constantly liable to dangerous contamination. They have turned a deaf ear to the repeated warnings given to them by their medical adviser, by the experts who corroborated his views, and by the Medical Society of the city. From time to time some of the better-informed members have striven to obtain the necessary reforms, but their proposals have either been talked out or outvoted.

It can hardly be believed that up to the time of this epidemic the effluent from a sewage irrigation farm has been allowed to pass directly into the river only about half a mile above the principal intake of the waterworks, although a convenient sewer was close at hand. The medical officer has also warned them of the danger of trusting to the purifying effects of filtration on a water known to be polluted or liable to pollution, and this prophetic warning has apparently been verified by the failure of the filters to protect the consumers of water in the present instance.

The above history, involving so much suffering and loss of health, life, and money, is all the more sad in that it is the repetition of many similar disasters which have gone before, and that it will probably be repeated again and again before the people of this country realize how much care, forethought, common sense, and wise expenditure are required in order to ensure a community against invasion by destructive epidemics.

It is a relief to learn that in 1899 the Council began seriously to consider the advisability of seeking for a safe water supply for the city by boring down into the new red sandstone at a depth of over 2,000 feet, in accordance with the advice of the experts consulted. The construction of such a bore-hole is a great undertaking. It will be the deepest in England. In 1902 the boring was commenced. Unfortunately the boring tool was lost in the following year, and has not yet been recovered.

Whatever the shortcomings of the Corporation may have been in past years, it must be admitted that they have risen to the occasion in the present emergency. Notices have been issued throughout the city warning inhabitants of the outbreak, advising them with regard to sanitary precautions, and urging them to boil water and milk before drinking them. A special staff of officials has been organized. Dr. Rees Jones (Assistant Medical Officer of Health for Nottingham) has been appointed Deputy Medical Officer owing to the unfortunate indisposition of Dr. Harrison. Acting under Dr. Harrison, Dr. Jones has carried on the organization of temporary hospitals and provided over 200 beds, so that there are 67 to spare at the present time. Notification and the transport of the sick to the hospitals are carried out rapidly, and a large staff of trained nurses has been engaged. Disinfectants are constantly supplied for a small price to all who will come for them; special disinfecting pails are supplied at private houses for the removal and disinfection of excreta; the drains, sewers, etc., have been well flushed and disinfected; and the water mains, etc., are to be disinfected. Notification and transport of the sick are carried out without delay. By means of these remedial and preventive measures, systematically and thoroughly carried out, it may well be hoped that the epidemic will in a short time be brought to an end.

In the earliest stage of the epidemic application was made

to the Local Government Board, who have deputed Dr. Reece and Dr. Houston to inquire into the origin of the outbreak, and advise as to some of the remedial measures.

CONFERENCE ON SCHOOL HYGIENE.

(*Continued from page 329.*)

Building and Equipment of Schools.

SIR WILLIAM ANSON, M.P., Parliamentary Secretary to the Board of Education, took the chair on Thursday morning, February 9th, when the subject for discussion was the building and equipment of schools.

Sir WILLIAM ANSON said he was glad to show by his presence the importance attached by the Board of Education to school hygiene. The subject had many aspects, one of which had been brought before the Board by a deputation of very distinguished members of the medical profession last summer. School hygiene included not merely the building and the apparatus of schools, but the effect of the studies on the general mode of life and health of the scholars. The importance of teaching the laws of health in some form in schools had been much impressed upon the Board of Education during the last few months. The Board, however, had to consider what, in the present state of their instruction in the subjects, teachers could be expected to teach and children to learn. In teaching children the fact that strange ideas had to be conveyed in unaccustomed language must be remembered, and the teaching should be of the simplest possible description, expressed in the simplest words. The discussion was to be on school buildings and school apparatus, and he trusted that it would deal not only with the ideal, but with the practical, and that it would bear not only on what school buildings ought to be, but what under present conditions, financial and others, they could be made by local authorities. The building rules of the Board of Education were said by some people not to be ideal, while others would maintain that they suggested requirements which the financial position of local authorities would not permit them to adopt. He felt, however, that the Board of Education could not do too much in the way of comparing notes with those actually taking part in the work of education.

Sir ASTON WEBB, R.A., F.R.I.B.A., who then opened the discussion, said that the two great desiderata were sun on all the rooms and free circulation of air round all the buildings. Schools should no longer be built round a cloistered quadrangle, and the aesthetic surroundings, which had so much to do with health and happiness, ought not to be overlooked.

Mr. J. OSBORNE SMITH, F.R.I.B.A., reviewed the defects commonly found in both old and new school buildings, and criticized the rule of the Education Department, which prescribed for children in elementary schools only a trifle more than half the floor space and air space given to children of similar age in secondary schools. He concluded by enumerating the following defects in elementary school buildings: Inefficiency of adapted buildings, insufficient floor space in elementary schools, excessive size of classes, absence of direct sunlight in class rooms, insufficient size of cloak rooms, unsuitable floor surfaces, inconvenient access to and faulty construction of sanitary conveniences, unintelligent use of open windows, defective arrangements for warming and admitting fresh air, inadequate extent of covered playgrounds.

Mr. A. F. SOMERVILLE dealt with ventilation of schools, and contended that such questions, as well as those of sanitation generally, should be left to properly qualified persons.

The subject of school furniture was discussed by Mr. JAMES GRAHAM, Inspector of Schools, West Riding County Council, who described certain experiments with desks of Swiss pattern from which a type, regarded by him as satisfactory, had been evolved.

Dr. J. R. KAYE, Medical Officer to the West Riding County Council, discussed the type and printing of school books, and laid it down that the ink should be black, the type clear and well leaded vertically, the width of the page should not be too great, and the longer the line the greater should be the vertical distance between the lines; the longest line permissible was from 3½ to 4 in., and double column should not be allowed. The paper should not have a glossy surface, and its colour should be cream. He also referred to the difficulty of disinfecting books, and suggested that its solution might be found if it were possible for each book to be reserved for one particular scholar; coupled with a system of notification of sickness and examination of absentees, it might be possible then to destroy the books which had been used by infected children.

The following resolutions were adopted:

That H.M. inspectors of schools should be qualified in hygiene and sanitation, and familiar with the development of child life. This meeting, therefore, urges the Council of the Royal Sanitary Institute to memorialize the Board of Education to protect health in school life by appointing at least some men and women inspectors who are specialists in school hygiene.

That the Council of the Royal Sanitary Institute be asked to direct the attention of the Board of Education to the results of an inquiry made in both urban and rural schools, among inspectors and teachers, which indicates the great importance of appointing suitable and properly qualified women inspectors for infants' and girls' schools of all grades, for pupil teachers' centres, and for training colleges; also that the inspection of domestic subjects should be entrusted to women.

That, having regard to the greater risk of susceptibility to infectious diseases amongst young children, no child should be permitted to begin formal instruction in school classes under the age of 6 years.

That it is the opinion of this meeting that there should be regular and systematic medical inspection of children in schools of all grades, and it requests that the Council of the Royal Sanitary Institute will bring this important matter before the educational authorities of the country.

Sanitary Inspection of Schools.

At the afternoon sitting on this day the chair was taken by Mr. W. WHITAKER, Chairman of Council of the Royal Sanitary Institute, in the absence of Sir James Crichton-Browne.

The discussion was opened by Dr. F. J. SYKES, President of the Society of Medical Officers of Health, who laid stress upon the two last resolutions passed by the Society of Medical Officers of Health—that the medical officer of health of every district should be required to record the action taken by his department in regard to schools and to forward annually to the Board of Education such portions of his report as related to this subject, following the precedent in regard to workshops and the Home Office—and that the Board of Education should secure a skilled medical adviser to co-ordinate the sanitary regulations of schools, and to organize a code of preventive measures applicable to schools. He desired also to quote the reply of the Board of Education to the representations made by the Society of Medical Officers of Health; it was to the following effect: "That the Board, as at present advised, consider that the recently-revised building rules, the periodical visits and reports of inspectors, and the submission of all plans of new buildings and enlargements to the Board for approval before they can be carried out, provide sufficient security for the sanitary state of the premises of elementary schools; while the Public Health Acts, together with Article 88 of the Code, give the medical officers of health ample power of preventing the spread of infectious diseases through the medium of those schools." He directed attention to the words "as at present advised" which were very significant. The resolution proposed for adoption by the meeting:

That all private houses and other similar premises used as day or boarding schools, and conducted by private individuals, should be placed under the control of the sanitary authority, who should be empowered to prescribe from to time to time the number of children permitted to occupy the various rooms used as class-rooms, and in the case of boarding schools, the number of children permitted to occupy each dormitory or bedroom, and that the Council of the Royal Sanitary Institute be requested to bring this resolution under the notice of the proper authorities,

led to the inference that the sanitary authority and the medical officer of health should be excluded from all but private schools. Against such an expression of opinion or such an inference he raised his protest, and was of opinion that the Board of Education ought to be anxious to enlist the services of medical officers of health to conduct the hygienic and sanitary inspection of all schools, and assist in the administration of the Education Acts. He moved that the words "private houses and other similar" and the words "and conducted by private individuals" be omitted.

Dr. GROVES said that, as a delegate to the Conference from the British Medical Association, which expected from its members the fulfilment of their professional obligations, he had pleasure in seconding Dr. Sykes's amendment, for it was already the duty of the medical officer of health to concern himself about the sanitary state of every public and private school and every other house in his district, and the hygienic well-being of their occupiers.

Dr. Meredith Richards pointed out that the necessity for the systematic inspection of school buildings was not yet sufficiently realized. Little assistance was received from head quarters. Though the code attempted to saddle H.M. inspectors with responsibility for the healthy condition of the premises this enactment was inoperative in practice. This work should be done by an expert, but he deprecated any controversy as to the particular officer to whom it should be delegated. The important thing was to convince public authorities of the necessity for such inspections. He then proceeded to point out the chief duties of the inspector. These included not only a structural survey but instruction of the teachers, who ought to be shown how to make the best of the buildings at their disposal. He then tabulated the chief items which would be dealt with in a report, and emphasized the more important matters, such as insufficient cubic space, want of light, and neglected cupboards.

Dr. James Kerr (Medical Officer, London Education Committee) said that the resolution indicated a present necessity in that there was no control over the sanitary condition of the places mentioned in it. When, however, Dr. Sykes proposed to amend it by leaving out "private houses and other similar," he made it into a resolution which gave the entire control of educational hygiene to the sanitary inspector and the authority he represented. Desirable as school inspectors might be, to carry the resolution would mean the arrest of progress in school hygiene for twenty years. Most medical officers were quite ignorant of the time required for the work, and nine-tenths of the school doctor's work had no affinity with the medical officer of health's duties. At present, where there were no school doctors, medical oversight of the schools was non-existent. The reason was that the Board of Education had always held all control of schools, and had never had any means of inspecting or regulating the sanitary conditions. The Board's sanitary requirements in regard to ventilation, for instance, were ludicrous. The only way to effect such hygienic improvement as was wanted in the schools was for the Board of Education to have a medical department which could lay down conditions to be required of local authorities, and inspect the methods being adopted to comply with these conditions. Such central provision would only cost the country between £10,000 and £20,000 per annum. Desirable as school inspection was, it would be preferable at present to reject the resolution altogether than to carry it with the amendment suggested.

After some further discussion both the amendment and resolution was set aside, and the following resolution adopted:

> That the question of the control of schools, private or otherwise, from a sanitary point of view, be referred to the Council of the Royal Sanitary Institute for consideration, with a view of such representation being made in the proper quarter as the Council may think fit.

Training of Teachers.

Sir William Collins, Chairman of the London Education Committee, who took the chair at the meeting on February 10th, referred in his opening remarks to the trend of public opinion with regard to education matters. It was, perhaps, too soon to make a trustworthy estimate of the real value of the means now used instead of examinations for testing the knowledge of candidates for honours and degrees. He sympathized fully with the desire for a closer association between medicine and teaching, and believed that municipal control of education, with the improved sanitation it would bring about, would confer great benefits on teachers and taught alike.

Lady Londonderry maintained that if teachers were to teach hygiene they must be thoroughly well trained, and this would take time. It was unreasonable for the medical profession to expect that the teaching should begin at once. There were two schools of thought as to the way in which the subject should be taught; the one recommended that specialists should be engaged, the other that ordinary teachers should teach these domestic subjects. In the latter case the teaching would be of a lower level, but it might be better than to divorce the teaching of hygiene from that of other subjects. In any case it should be practical rather than theoretical.

Professor Sherrington said that a teacher equipped with some apt knowledge of chemistry, physics, and biology was ready to understand the working of the human body. The Board of Education now urged that the teacher should not only go through some syllabus of natural study, but should, by first-hand acquaintance with some form of natural science, fit himself for work in some field of Nature actually open to him. Such a field, and one particularly open to the teacher, lay in the physiology and natural history of the child itself. From it proceeded school hygiene—the science and practice of the laws of health as related to the scholar and the school. It would be well if this physiology and this hygiene could be taught together. Physiology gave the basis and hygiene the application. Hygiene had two aspects in school life. One was personal to the scholar: the phases of development of the child, its seasonal and periodic growth, the influence on its health of cleanliness, clothing, habits of posture, free respiration, due adjustment of work and exercise and rest, the care of eye and ear, the training of the muscles, the avoidance of over-strain of muscle and of nervous system. The other aspect of hygiene for the teacher was concerned with general conditions in the school: ventilation and lighting, natural and artificial, of class-rooms; school furniture and its effect on posture; drinking water, filters and drinking vessels; drainage, sanitation, and, not least, the print of lesson books, etc. Boarding schools, accepting as they did responsibility for the child's twenty-four hours' round, involved themselves especially heavily in hygiene. With them arose questions of food, its quality and preparation, its variety, the meal time in relation to the school day, the length of the school day, questions of the dormitory, and of the hours of rest required for different ages. Hygiene was, in fact, an applied study taking source from several sciences. It was concerned with the cultivation of health at no period more fruitful than during school life.

Dr. Kenwood said that it had been proposed that those who were to teach teachers should be medical men, but it was necessary to select a person who had experience, and the power of imparting knowledge. A young man would not be qualified to do this merely because he had had a medical training. A teacher must be taught how to teach and also what he should himself know and practise. There was a tendency to teach hygiene and physiology separately, but the two subjects could not be taught intelligibly apart. The physiology taught should be elementary, and strictly confined to those facts upon which the simple laws of health are based. Existing textbooks did not meet the need, for three-fourths of the matter they contained was non-essential. A teacher should know what constituted healthy school premises and how to keep them hygienic, and it was necessary also to enlist the co-operation of parents. The teaching before the age of 7 should be an object lesson of proper environment. Only after 7 would it be desirable gradually to commence teaching from books, endeavouring to give the child instruction on the broadest and simplest lines.

Professor Edgar, Professor of Education, St. Andrews University, also insisted that it was impossible to think of physiology and hygiene as separate subjects. The student in a training college must be taught by his professor of education the importance of the physical and hygienic aspects of the subject; he must receive special instruction in hygiene and physiology, and practical instruction in a large school as to the way in which he should apply his knowledge to various types of children.

Miss S. Young (Home and Colonial Training College) said that at present such instruction in school hygiene as pupils in the training colleges received had to be gathered indirectly from courses of lectures on different subjects; much that should be included was omitted, and those parts of the subject which were dealt with were not co-ordinated.

A paper on the training of teachers in hygiene was contributed by Mrs. Eddison, after which a general discussion took place, in the course of which Dr. Davies Roberts, Registrar of the University of London Board for the Extension of University Teaching, gave an account of the courses already organized at University College. They dealt with biology and the physical development of children, and extended over three years. Over a hundred teachers were at present attending, and courses on these lines, but for shorter periods if necessary, could be arranged at any centre in the London area.

After some remarks by Miss Hurlbut and Dr. Warner, Miss Miyakawa made a speech, which was listened to with the deepest interest. She said that Japan was much behind England in the matter of drainage, and not much improvement in that respect was to be expected while such expensive fireworks were going on in Manchuria. But though Japan was a poor country it had certain customs which might be useful in the poorer quarters in England. One of these was the custom of taking a daily hot

bath. At the Liverpool truant schools the boys were given hot baths, but the water was changed only after it had been used by twenty boys; the same system was allowed in the girls' school, and there, too, the water was very black before it was changed. A bath which would cost 9d. to a 1s. in England could be had for two farthings in Japan. There the bather was required to wash himself first of all from a small tub on a wooden floor with plenty of soap. He then again washed himself on the platform near the bath, and after pouring many tubs of hot water over himself, he finally jumped into the swimming bath containing hot water. Towels were included in the charge of two farthings. All Japanese women were taught dressmaking, and twice a year regularly they picked their dresses to pieces, washed them, and remade them. Miss Miyakawa remarked that in this country poor people wore their dresses until they were worn out without ever washing them.

Professor BOSTOCK HILL said that for a good many years lectures had been given in Warwickshire under a Teachers' Trust; first of all by the late Professor Corfield, and subsequently by himself. Seeing how hard-pressed the teachers were, it was necessary to keep to essentials, and he found it best to give seven or eight lectures on physiology and about eighteen on hygiene, healthy living in homes, and the healthy conduct of a child in school.

At the conclusion of the discussion the following resolution was adopted:

That the question of the control of schools, private or otherwise, from a sanitary point of view, be referred to the Council of the Royal Sanitary Institute for consideration, with the view of such representation being made in the proper quarter as the Council may think fit.

That in view of the great responsibility thrown upon teachers of all grades in respect of the hygienic management of schools, and the growing demand that they should be qualified to introduce some elementary instruction in the general principles of hygiene into the curriculum of their schools, this meeting earnestly requests the Council of the Royal Sanitary Institute to lay the following points for consideration before the President of the Board of Education:

(*a*) The fragmentary and incomplete character of the five syllabuses in school hygiene, set out in Appendix C of the Board of Education regulations for the training of teachers, 1904.

(*b*) The great importance of emphasizing officially the need for some general provision for the instruction in hygiene of those teachers in both secondary and elementary schools who desire to obtain such instruction, whose period of training is past, or who have never entered a training college or taken a diploma in education.

(*c*) The opinion expressed by a Special Committee of the British Association in two successive years that the Board of Education should be memorialized to adopt or to recognize a thorough and practical test of a teacher's knowledge and experience of the applications of health principles in school life.

Training of Scholars.

The BISHOP OF HEREFORD, who was in the chair at the final meeting of the Conference on Friday afternoon, thanked the medical profession for publicly and in combination instructing the public. The information they were spreading tended to illuminate the public mind and to raise the standard of national life in all matters of health. The profession was helping the country to realize how its resources were being wasted, especially by letting education stop at 13. He considered that attendance at continuation schools should be made obligatory. Another source of waste was neglect of the conditions of health; private efforts were not sufficient, and the time had come for efficient scientifically-conducted supervision. While saying this he fully recognized that it was necessary to go behind the schools to the homes, and this raised the question of the housing of the poor both in town and country. It was very pathetic to think that we were only now coming to realize what Plato said 2,300 years ago: "that the young should be brought up in good pastures." The most important fact was the personality of the teacher, who should be able to impress upon the children high ideals, so as to turn out a race of a higher type than ever before.

Professor FINDLAY (Professor of Education, University of Manchester) considered that instruction in hygiene should be given by the ordinary class teachers. They should be capable of doing this except on special points, when they should be advised by the M.O.H. The children should be taught right living, such as the value of cleanliness and fresh air. In England what was most required was the cult of the open window.

Dr. GROVES, on being introduced as a medical officer of health, remarked that he was present as a delegate from the British Medical Association, the great imperial association of medical men who had constantly before them the awful wreckage of human life which in a large measure depended upon imperfect early training and ignorance of natural law. School hygiene was not simply a matter of pure air, pure water, and good drainage; it had to do with the healthy condition of the whole human body. To do all which was necessary to the end in view ethics should be taught in our schools. Ethics was the dominant subject of the Japanese educational system. As one of the results of this the Japanese were the most altruistic and patriotic people on earth. If he were asked what he meant by teaching ethics he would say, summarizing the principles of the ethical teaching in the schools and colleges of Japan, every child should be trained to love his God with all his heart and to manifest his love by implicit obedience to his physical as well as his moral laws, and to love his neighbour as himself.

Dr. BOOBBYER (M.O.H. Nottingham) agreed that the teaching should be given by the school teachers, who should themselves be so taught that they would not give a physiology lesson wearing themselves at the same time tight stays and high heels.

Dr. LUTOSLAWSKI said that we were only at the beginning of the study of the principles of personal hygiene, and scientific investigation must be organized if the problem was to be solved in less than the seventy years which it had taken to bring public sanitation to its present advanced state.

Dr. HERBERT JONES (Hereford) said that he had introduced into schools in his district printed cards giving practical advice on certain things likely to aid in securing a healthful existence, such as that open windows could do no harm, the benefits of damp cleaning, etc. The influence of the Bishop of Hereford had been very beneficial; he mentioned two examples; the Bishop considered that each cottage ought to be labelled with the name of its landlord in large letters, and also that the medical officer of health should be fixed, and not removable at the caprice of the local authorities, and should live far away from the possible influence of friends and patrons.

ANTIVACCINATION AND SMALL-POX IN THE DEWSBURY UNION.

THE Local Government Board have issued a Report by Dr. S. W. Wheaton on small-pox in the Dewsbury Union.

The union contained in 1901 a population of 167,643 persons aggregated chiefly in boroughs, the town of Dewsbury being in the centre and surrounded by various urban districts, one of which—Ravensthorpe—is practically continuous with Dewsbury. Woollen trade and clothing manufacture are the chief occupations. The place has for very long been a centre of antivaccination. The Dewsbury Guardians have for many years past neglected their duties in this connexion, and when, in April, 1904, they were asked by the Local Government Board to promote vaccination on account of a small-pox outbreak, they refused. They were again written to in September, and again refused, though at this time, as small-pox was well established, a great amount of panic vaccination and revaccination was being performed independently of the guardians.

Dr. Wheaton records the conditions which existed up to nearly the end of October, 1904. A Joint Hospital Board for Dewsbury and certain neighbouring areas was formed in 1893, but had made no provision for small-pox so late as September, 1904, the understanding apparently being that the Dewsbury Town Council would admit outside cases to their borough hospital. But when a temporary additional building which they had erected in presence of small-pox was destroyed by fire, and cases of the disease were increasing in the town, the Borough Council refused any longer to accept outsiders, and the Local Government Board's sanction was asked to treat small-pox in an ordinary fever hospital, with a large surrounding population. This they declined, and at the end of October the Joint Hospital Board had still failed to provide small-pox accommodation.

BOROUGH OF DEWSBURY.

For many years past small-pox outbreaks have occurred in the ill-vaccinated borough, and the 1904 outbreak had by the middle of September amounted to 260 cases, all of which, along with 48 outsiders, had been taken into the hospital. The Local Government Board's inspector found that the Town Council's administration and hospital management were defective in various respects. Invaded rooms and contacts' clothing were not efficiently disinfected. The hospital had not been put in proper repair; its windows were broken,

heaps of refuse lay around it; and the wards were overcrowded, dirty and ill-smelling. Some of the nurses slept in a building quite apart from the hospital, and there had been undue incidence of the disease both in Dewsbury and Ravensthorpe within a quarter of a mile of the hospital. On September 25th a new temporary ward for sixteen beds was burned down when on the point of completion. Dr. Wheaton pointed out the Town Council's various shortcomings, and found when he returned on October 3rd that most of his recommendations had been carried out, so that in the actual presence of small-pox the Town Council seems to have been more amenable to reason than the Board of Guardians, and as the latter body was still recalcitrant, the Local Government Board issued an Order, not superseding the guardians, but requiring the Town Council to provide a centre or centres for free vaccination and revaccination, and empowering the medical officer of health to perform vaccination or revaccination, and sanctioning the appointment of a medical visitor to inquire into small-pox and to report suspected cases. Up to this date (October 21st) 152 more cases of small-pox had occurred, making the total then 412 cases.

Thornhill Urban District.

In Thornhill Urban District, with a census population of 10,290, small-pox appeared in May, and by September 15th there had been 59 cases, the infection being attributed to Dewsbury, where many of the Thornhill residents are employed. A small-pox hospital had been provided in a favourable situation, but without an administrative building, and the female side was found overcrowded, though the hospital was cleanly. Disinfection of dwellings was being imperfectly carried out, contacts were not being kept under observation, and several small-pox cases had been left at home. Dr. Wheaton's recommendations, made in these circumstances, were very inefficiently carried out, and by October 13th the total cases of the outbreak had mounted to 84. But in presence of small-pox this district, which had formerly been keenly opposed to vaccination, had to a great extent changed its views, a large number of persons having sought protection, and there being little difficulty in securing the vaccination of contacts.

Ravensthorpe Urban District.

Ravensthorpe Urban District had a census population of 5,699. By September 16th there had been 46 cases of small-pox, 30 of which had been removed to the Dewsbury Corporation's Hospital; but, as already stated, Dewsbury had ceased receiving outside cases, and 16 were being kept at home. Infection was attributed to Dewsbury. Here also antivaccination had long prevailed, and here also many persons were now seeking protection, though not necessarily those who were most exposed to infection. There was no disinfecting apparatus, and, small-pox being treated at home, the dwellings could not be disinfected. Working members of infected families sought lodgings elsewhere, and for houses where cases existed the Council provided food and firing, and employed men to keep watch in the interests of isolation. But the men so employed were not themselves all protected by vaccination and revaccination. By October 15th the conditions had greatly altered for the worse, other 92 cases having occurred—making a total of 138—of whom 52 were not in hospital.

Notwithstanding Dr. Wheaton's advice, the Council had not insisted on the vaccination of the men employed by them, and 3 had already taken the disease. The Council were spending £50 a week in food and requisites for contacts. Nurses had not been provided, and in some homes small-pox patients only just recovering were attending to others in the acute stages of the disease, the women also having to perform their ordinary household duties. In many instances healthy people were sleeping with small-pox patients, and many parents were still refusing to allow vaccination of their children who were being recklessly exposed to infection. In one family there were 6 small-pox cases, and in another 7. In one dwelling an unvaccinated girl of 14 only convalescing from small-pox was nursing three others; two children had so far escaped, one having been vaccinated and the other not. The father was urged to allow vaccination of this child, and it was pointed out to him that the medical men going in and out among small-pox remained immune. He replied that they were protected by a charm which they would not divulge, and refused to permit vaccination of the child, who afterwards took small-pox, while the vaccinated child remained healthy. In view of all the facts and of the refusal of the Board of Guardians to perform its duties, the central authority issued in regard to Ravensthorpe an Order similar to that proclaimed in Dewsbury.

Liversedge Urban District.

Liversedge Urban District had a census population of 13,980. In 1903 there had been 16 cases of small-pox, and early in January 30 cases occurred. Some hospital accommodation had been obtained, but in July the disease again broke out and cases had to be treated at home. Between July 8th and October 4th there were 34 cases. A hospital was not provided until October, and then it was unsatisfactory both in situation and in structure. Fortunately, vaccination and revaccination were in large measure being accepted.

Soot Hill Upper Urban District.

Soot Hill Upper Urban District had a census population of 6,104. In 1903 it had 18 cases of small-pox, and the disease recurred in September, 1904, there having been by October 29th 28 cases. Nearly all had to remain at home, and the Council's administration was very faulty, but the opposition to vaccination was less than in the rest of the Dewsbury Union, and protection was being largely sought.

Soot Hill Nether Urban District.

Soot Hill Nether Urban District had a census population of 5,552, and adjoins Dewsbury. In 1903 there were 15 known small-pox cases, and from August to October 4th, 1904, there had been 23 cases. Latterly they were treated at home. Disinfection was unsatisfactory, and, as hospital provision was not forthcoming and the guardians were doing nothing, the Board issued an Order to the Urban Council for facilitating vaccination and revaccination.

Borough of Ossett.

The borough of Ossett had a census population of 12,903. In 1903 there were 15 cases of small-pox and the disease broke out again in March, 1904, from which time until October 5th there had been 62 cases. A permanent hospital of 12 beds had been provided, with a laundry and disinfecting apparatus. There had been some overcrowding of the hospital, and within half a mile of it the population was estimated as above 1,000. The Town Council's administration was unsatisfactory as regards disinfection, and the local opposition to vaccination was very great. Contacts, however, had nearly all accepted revaccination and the public vaccinator had performed 500 operations in one week.

Statistics to End of 1904.

As already stated, Dr. Wheaton's report brings the history down to nearly the end of October only. The total then (excluding the Liversedge cases of January) amounted to 781. We have obtained the figures up to the close of the year, and the additional cases were then 521, making a total up to that time of 1,302. To its 412 cases reported by Dr. Wheaton, Dewsbury Borough had added 141, making 553; Thornhill had added 32 to its 84, making 116; Ravensthorpe had added 159 to its 138, making 297; Liversedge had added 17 to its 34, making 51; Soot Hill Upper had added 10 to its 28, making 38; Soot Hill Nether had added 60 to its 23, making 83; and Ossett had added 102 to its 62, making 164. The whole story is commented on elsewhere (p. 370) in our present issue.

THE PLAGUE.

A Case of Bubonic Plague on a Vessel Arriving in the Mersey.

The steamship *Crewe Hall* arrived in the Mersey on January 30th from Rangoon. She was cleared by the Customs officers at 6 15 p.m. on that date, the captain answering the usual questions, and stating that they were "all well" on board.

The ship was rummaged in the river on January 31st, the water being too low (14 ft.) for the ship to dock. On the morning of February 1st one of the Customs officers noticed a Lascar sick in his bunk, and apparently dying. On inquiry the officer was informed that he had had a severe cold for the previous seven days. The officer at once notified the Port Sanitary Authority by special messenger, and by telephone. This was the first notification the Port Sanitary Authority received that there was any one ill on board.

Dr. Hanna, the Assistant Medical Officer, visited the ship at once. He interviewed the captain and chief steward, the latter having attended and treated the Lascar for the previous seven days. They stated that the man had had high fever, and that they thought it was malaria; they also mentioned that the man had a painful swelling in the femoral region. The native serang also stated that the man complained of fever and a painful lump in the groin. The Assistant Medical Officer found the man dead and laid out, and examined the body in the native sailors' forecastle. All that could be found on examination at the time was a large bubo in the left femoral region.

On reporting the matter to the Port Medical Officer, Dr. Hope, the conclusion was arrived at that there was a suspicion of plague in the case, and that it would be advisable to regard it as such. Accordingly the native crew was cleared out of the forecastle, the body removed, and the places and all effects of the native crew disinfected. The contacts, 15 in number, after bathing and putting on disinfected clothing, were removed to the Port Sanitary Hospital for isolation. The ratcatchers for the authority were at once notified, and visited the vessel, but found no dead or sick rats. They set their traps at once, and as a result only eleven rats were caught on the vessel; these were forwarded to the Corporation bacteriologist, Professor Boyce. A further disinfection of all suspected quarters of the ship was undertaken on February 2nd, and they have now been repainted. The cargo was discharged under strict supervision, and a careful watch was kept for dead rats. Fumigation of the holds to destroy rats was carried out before the vessel sailed.

On February 2nd a *post-mortem* examination of the body of the lascar was made by Drs. Hanna and Mussen. There was marked discoloration of the skin over the bubo. The latter was found to be of large size, very haemorrhagic on section, and with much periglandular inflammation. There were also evidences of a septicaemic condition with a considerable amount of pneumonia.

Material for bacteriological and microscopical examination was taken, and Dr. Hanna's report was later confirmed by Professor Boyce and Dr. E. Klein. Microscopically the gland juice showed very numerous bacilli resembling the bacillus pestis. On culture (twenty-four hours) a growth typical of the plague bacillus appeared, and the organisms as regards appearances and staining reactions answered all the characters of this bacillus.

The source of infection in the case of this lascar has up to the present time not been traced, but the medical authorities consider the chances of spreading to be very remote.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine and Société de Chirurgie: Discussion on Various Apparatus for the Administration of Chloroform.—Election of Professor Poirier as a Member of the Académie de Médecine.

During the visit of French physicians and surgeons to London in October last, many of the latter were impressed with the careful and methodical way in which chloroform was administered by trained anaesthetists, and some of them brought back with them the apparatus of Vernon Harcourt, which allows of the administration of an exact percentage of chloroform. The subject of apparatus for the more exact administration of chloroform has latterly been quite the question of the day in the medical press, and has been especially discussed before the Société de Chirurgie and the Académie de Médecine. Before the latter Society it was introduced by Mr. Paul Regnier, who exhibited a new apparatus invented by himself and one of his pupils, M. Dupont, their inspiration being the principles laid down by Paul Bert in 1885 as those essential in an ideal apparatus. M. Regnier claimed that it was not cumbersome and that the mixture of chloroform and air could be dosed exactly and mechanically; there was no valve, and no accident could lead to an overdose of chloroform. It is provided with a thermometer, since the temperature of the chloroform plays a very important rôle if constant results are desired, because chloroform by evaporation falls in temperature, and for the same volume of air the quantity of chloroform varies 1 per cent. for every 2°C. of temperature. During the entire period of chloroform administration the temperature of the chloroform must be between 15°C. and 16°C. M. Paul Regnier has already used his apparatus in 125 operations of varied kinds, and reported that he had never had the slightest cause for alarm, the patients going under without fright, the phase of excitement being very short and often entirely absent; in more than two-thirds of the cases, indeed, anaesthesia was established without any sort of movement on the part of the patient. With a mixture containing 12 per cent. of chloroform insensibility was complete and anaesthesia being obtained in ten to twelve minutes. Anaesthesia could then be maintained with a mixture of 5 or 6 per cent. of chloroform. In England the quantity is calculated by the volumes of chloroform vapour contained in any volume of air. In France, according to the estimate of Paul Bert, 8 per cent. or 6 per cent. corresponds to 8 grams or 6 grams of chloroform evaporating in 100 litres of air. Eight grams of chloroform give 2 per 100 of vapour. M. Regnier also stated that vomiting was rare, and only occurred in two or three cases during the anaesthesia, and was often entirely absent after the operation. The return to consciousness was rapid and free from agitation. He considered, however, the most striking point to be that whatever the length or gravity of the operation, there was almost no shock. He attributed this to the small amount of chloroform used, 45 grams being sufficient for an operation lasting two and a half hours, and to the system being thus less affected than by the massive doses given by the compress method. Professor Lucas-Championnière objected that in man the "manageable zone" could not be marked out precisely; its lower limit especially varied within wide limits according to individual susceptibilities which it was impossible to foresee, and which contraindicated the use of a method which had as its basis the use of a mixture of fixed strength. There were also very great differences in the activity of chloroform, depending on its purity, etc. Whatever apparatus were used the *rôle* of the anaesthetist must remain considerable, and the sureness of the anaesthesia depended largely on his personal qualities. He thought that the apparatus of Roth-Guglielminetti offered the advantage of not giving a fixed and constant mixture of air and chloroform. The dose employed could always be modified at any moment by the anaesthetist. Moreover, the addition of oxygen to the mixture seemed to realize a very important progress. It was to this combination of qualities, and especially to the use of oxygen, that the good results from this apparatus should be attributed, and in particular to easy return to consciousness. M. Ricard recently presented to the Société de Chirurgie an apparatus of his invention for the administration of chloroform mixed with air in varying proportions as the anaesthetist may wish. He said he had used his apparatus more than 200 times with good results both as regarded economy in chloroform and regularity and tranquillity of the narcosis. M. Regnier condemned this apparatus on account of the valves, which might stick, deteriorate, and give rise to accidents; they might, moreover, give rise to a certain amount of difficulty during expiration. MM. Jalaguier, Quenu, Delbet, Kirmisson, and others took part in the discussion. In reply, M. Ricard said that, whether we used an apparatus with a mixture of chloroform and oxygen, as in that of Roth-Draeger, or an apparatus with a mixture of chloroform and air, such as those of Vernon Harcourt, Regnier, and his own, all of them gave exactly the same good results; but the apparatus with air were less complicated than those with oxygen. He considered the apparatus of Vernon Harcourt somewhat delicate in structure and manipulation and the resulting anaesthesia rather slow. The apparatus of Regnier contained a useless complication, the thermometer, which rendered it more fragile. He regarded the valve in his own instrument as of special value, since the operator could from a distance hear the respirations of his patient, and thus know how the anaesthesia was progressing.

Dr. Paul Poirier, Professor of Anatomy, was recently elected a member of the Académie de Médecine, in the Section of Anatomy and Physiology, taking the place of the late M. Marey.

BERLIN.

Genius and Hydrocephalus.—Railway Ambulance Carriages.—Alcoholism.—Infant Food Dépôts.

PROFESSOR V. HANSEMANN has made a *post-mortem* examination of the body of Adolf v. Menzel, the great German painter, who died of influenza on February 9th, at the ripe age of 89, and this examination has revealed two interesting facts: First, that Menzel, like Helmholtz, was hydrocephalic, and, secondly, that he had at one time suffered from tuberculosis, traces of completely healed tubercles having been found.

Forty new railway carriages, with their compartments built and arranged in such a way that they can be easily transformed into ambulance or hospital compartments for the transport of sick passengers, have been distributed among the chief express routes in Prussia. On each line the new carriages are in charge of special officials, who must previously have been trained in the theory and practice of disinfection.

The Central Committee has arranged popular scientific courses on subjects connected with alcoholism, which are to be held gratuitously during Easter week in Berlin. Professor Rubner will be the chief lecturer, with a staff of assistant lecturers to support him. The subjects selected are: History of alcoholism in Scandinavia, alcohol and the people's budget, alcoholism and mental disease, alcoholism and nervousness, alcoholism and prostitution, alcoholism and the working classes, alcoholism and aid to the poor, alcohol and childhood, the school and its duties as regards alcoholism, alcohol and general traffic.

Four municipal policlinical establishments for aid to mothers suckling their infants are to be opened shortly in Berlin. Besides medical advice, milk and special food pre-

parations will be obtainable free of charge for a certain period, which can be extended at discretion. The central management is to be in the hands of the Municipal Infants' Home (*Kinderasyl*). The magistrates have opened a credit of 40,000 marks (£2,000) for the first year's expenses.

MANCHESTER.

The Coroner on Deaths under Chloroform.—A Judge on Bailiffs.—Skin Hospital.—Free Meals for Hungry Children and their Cost.—Annual Meeting of Infirmary Trustees and probable Cost of New Infirmary.—A Year's Inquests.

At an inquest held on February 8th on the body of a man who had died in a workhouse while under an anaesthetic, the city coroner expressed the opinion that it was unfortunate that an inquiry should have to be held respecting such causes. Publicity, he thought, had a tendency to make other patients nervous. If a person, he said, expired during a surgical operation when an anaesthetic had not been administered, the medical man had power to grant a certificate, but when chloroform was given it came under the head of poisoning, and an inquest was necessary.

Judge Parry, at the county court, had refused to renew the licence of a bailiff for several months. It appears that the bailiff distrained upon goods in a house where there was a patient suffering from diphtheria, and had removed them contrary to the express wishes of the sanitary inspector. His Honour stated that he rightly regarded this as a serious and grave offence, and expressed the hope that the punishment inflicted would be a lesson to others.

Towards the cost of the new Skin Hospital £31,961 has been promised, and of this £26,801 has been received. This sum includes a second cheque for £1,000 sent by Mr. James Dawson.

The provision of free meals for destitute and hungry children seems to be a corollary of compulsory education. For the week ending February 4th 5 028 free meals were given in the municipal schools of Manchester, and 265 were provided at a cost of one penny each. In the non-provided schools the figures were 5,703 and 474 respectively, giving a total for the week of 11,470. In the corresponding week last year the total was 23,063. Last year all the meals were free; this year a charge is being made where it is thought it ought to be imposed. The meals are given in 23 municipal and 18 non-provided schools. Last year the total number of free dinners was 275,085. A "poverty scale" has been laid down. Attendance officers make inquiries as to the circumstances of the parents of the children. The scale may be described: (1) Where a family consists of two persons and the weekly income, after allowing for rent, does not exceed 4s. per head per week; (2) three or more persons, and the weekly income does not exceed 3s. 6d. per week; (3) where it does not exceed 3s. per head per week, when the family consists of five or six persons. The dinners consist of soup and bread, prepared by the caretakers of the schools, and served by the teachers. The total expenditure last year was £1,007; of this amount £830 went in provisions.

At the annual meeting of the Trustees of the Royal Infirmary it was announced that the surface of the site for the new infirmary was ready for the commencement of the laying of the foundations. The receiving-house scheme in the city is incorporated in the general scheme, and provision in money has also been made for this part of the scheme. The instructions to the architects for the new plans were approved in July, 1903, and the selected plans in March, 1904. One member of the Board resigned office because he disapproved of the "unit" system as being costly in construction and adding greatly to the maintainence per bed. One other member resigned "because he looked forward with alarm to the future financial position of the charity." The original view of the Board was to erect a hospital containing 500 beds at a cost of £250,000, that is, £500 per bed. The plans selected were estimated to cost £324,000 with a margin for extras not to exceed 10 per cent., which if put down at 7.5 per cent. makes a total of £350,000—£100,000 more than the point from which the Board started. When, therefore, the other expenses in connexion with the new building are taken into consideration the total cost seems likely to equal half-a-million of money.

The County Coroner for the Manchester County District reports for the past year that there were held 376 inquiries. In addition to the inquests there were 517 deaths reported, and in these cases a preliminary inquiry by the Coroner was found to be sufficient. There were 16 inquests on children who had been suffocated in bed by their parents.

LEEDS.

Court Dinner of the University.—A Large Bequest to the General Infirmary.—District Nursing Association.

The first dinner of the Court of the University was held in the University Hall on February 6th. The chair was taken by the Pro-Chancellor, Mr. A. G. Lupton, and the guest of the evening was Mr. Alfred Mosely, C.M.G. There were also present the Lord Mayor of Leeds, Sir F. S. Powell, the Vice-Chancellor, Sir Alfred Gelder, the mayors of many of the surrounding townships, the heads of various educational institutions, including Mr. Fred. Kinder (Chairman of the Leeds Education Committee), and a strong representative body of the professorial and teaching staff of the University, the total number of the guests being about 110. In proposing "The University of Leeds," Mr. Mosely, talking as a business man, commented on the progress of Germany and the United States, and expressed his conviction that their success had been due to the soundness of their scientific education. "I feel," he said, "and feel strongly that this country is only at the beginning of her opportunities. In establishing this University you have done an exceedingly wise thing. You are laying the foundation stone of the greatness of your children and of your children's children." In replying, the Pro-Chancellor stated that thirty years ago, when the Yorkshire College was started, its capital was £11,000, while the number of its students was modestly stated to be "small." Now the University had a staff of 80 professors and lecturers, assets worth £300,000, over 800 day students, and over 300 evening students. In responding to the toast of "The Local Authorities," which was proposed by the Vice-Chancellor, the Mayor of Bradford (Alderman W. E. B. Priestley) drew a very high ideal of true university education. It was desired by those in Bradford that the University should be able to supply the best possible education in science, and not necessarily in applied science and technicology, but also in medicine and in Arts.

The finances of the General Infirmary at Leeds have received a substantial augmentation under the will of one of the wealthy citizens. Mr. Christopher Charles Weatherill, who died in 1902, directed by his will that subject to the payment to his sister of an annuity of £300 for life, the residue of his estate should, together with the interest thereon during her life, pass on her death to the treasurer of the infirmary. By the death of Miss Weatherill on February 10th the infirmary will benefit to the extent of about £116,000. The authorities of the infirmary are directed to devote the fund as follows: First, to found and sufficiently equip and endow a ward in the infirmary for accident cases, to be called the "Weatherill Accident Ward." Secondly, to erect in the ward a white marble monument of the testator with a suitable inscription. Thirdly, to apply the surplus of such moneys to the general surgical purposes of the infirmary. It is also provided by the testator that the treasurer of the infirmary shall cause a copy of the will to be placed once every year in a conspicuous position, so that every one entering the infirmary may see it. This addition to the funds of the infirmary is especially welcome at the present time, for the Board of Management have for years been viewing with anxiety the increasing and unavoidable growth of the annual expenditure, a growth which has not been associated with a corresponding increase of income. There was, indeed, a time when it was seriously feared that some curtailment of the work would have to be considered, which, as the infirmary is the only general hospital in Leeds, would have been nothing short of a disaster. It is, of course, unavoidable that, in spite of all reasonable efforts towards economy, there must be an increase in the annual expenditure of an institution like the General Infirmary at Leeds, which has long been looked on as one of the leading of the provincial hospitals. The maintenance of the new Arthington Hospital will involve an additional expenditure of £2,000 at least, and the Board have under their consideration the development of the clinical laboratory, which has been brought before their notice by the staff. To put the institution on a thoroughly satisfactory financial basis it is felt that the income should be increased by £10,000 to £15,000 per annum, and it is earnestly to be hoped that Mr. Weatherill's example will be an incentive to the public of the West Riding and of Leeds to

support the institution by an increase in the number and in the amount of their annual subscriptions.

The growing usefulness of the District Nursing Association is shown by the figures presented at the annual meeting. It was started in the year 1882 on quite a small scale, and now has a staff of twenty nurses and two superintendents. The central home, where most of the nurses reside, was purchased some years ago and adapted to present requirements, while at five other centres in the busier and poorer districts nurses live either in branch homes or in lodgings. At one of these centres facilities are afforded to patients to attend for the dressing of wounds, etc., and in this way 1,908 visits were made last year; but the Committee have a strict rule that, neither in this department nor in home nursing, will any case be attended to that is not under the care of a medical man. The Association enjoys the full confidence of the medical men who are in practice in the areas embraced by the work of the nursing staff. During the past year 3,362 patients have been visited in their own homes, and 76,589 visits have been paid. It is impossible to overestimate the value of this kind of work, for not only are surgical cases dressed for medical men, and surgeons provided with nurses during operations, but medical cases get an amount of attention otherwise unattainable, while the educational value of visits from a well-trained and sympathetic nurse is far-reaching and in all ways beneficial. Many nursing requisites which are far beyond the means of the poor to secure are lent, and it is certain that the Association frequently stands between the family and the workhouse in many cases of illness. The four Boards of Guardians in the district dealt with recognize this, and contribute between them the sum of 80 guineas annually. The figures showing the various channels by which the cases have come under the Association are not available as yet for this year, but in 1903, of 2,811 new cases, 1,745 were attended at the request of private medical practitioners, and 263 at that of the visiting staff of the public dispensary. Arrangements have also been made with the public dispensary, which now contributes £100 annually to the Association, for a nurse to devote all her time to the work of assisting the honorary and resident staff at the dispensary in the dressing of patients and during examinations in the out-patient rooms. She may also be called on to attend at operations both at the dispensary and at the homes of patients. The Association is now affiliated with the Queen Victoria Jubilee Institute for Nurses.

SOUTH WALES.

Instruction in Midwifery.—Barry Medical Officer's Report.—Measles at Merthyr.—Cardiff Infirmary.

The Education Committee of Cardiff are about to award three free studentships, which will cover the fees for the course of lectures compulsory in the theoretical training of midwives for the course of instruction during the summer term extending from April to June, 1905. These studentships will be tenable at the Cardiff Medical School.

Dr. George Neale, J.P., M.O.H. Barry District Council, has just issued his annual report for 1904. The census returns showed that in 1901 there were 27,030 inhabitants, but in the middle of 1904 there were 29,728, or an increase of 2,698 in three years, the present density of population being 7.2 persons per acre. Vacant houses had decreased in one year from 959 to 772. The excess of births over deaths numbered 602. The general and zymotic death-rate was lower than in the previous year. Schools were chiefly responsible for the spread of infectious diseases among children, measles and whooping-cough being generally prevalent the greater part of the year, and children commencing school life were more likely to contract those diseases. "The question is," he continued, "whether children should be sent to school before they are 5 years old considering their great susceptibility to contract infectious disease, and the great mortality among children under 5 years of age. Medical opinion is strongly against early school attendance."

At a meeting of the Merthyr School Management Committee held on February 8th, the Medical Officer of Health, Dr. Thomas, reported that the Penydarren, Gellifaelog, and Roman Catholic Schools, Dowlais, had been closed for ten days in consequence of measles being very prevalent in the district.

At the last meeting of the Cardiff Infirmary Board copies of the draft of the annual report of the Board of Management were issued to the members. The report showed that during the year there had been 2,144 in-patients, of whom 1,164 were surgical cases, 303 medical, 428 ophthalmic, and 249 gynaecological. Of these 716 were discharged cured or convalescent; 698 discharged relieved or transferred to the out-patient department, 179 left the institution for various reasons, 119 died, and 159 were still in the institution on December 31st, 1904. Out-patients numbered 19,525, as against 18,381 in the preceding year. There were 39,906 prescriptions dispensed, being 6,935 more than in the previous year. The average cost per occupied bed was £64 17s. 6¼d., as against £65 5s. 4d. in 1903, and the average daily cost per head was 9.4d., against 9.65d. in 1903. The Chairman (General Lee) remarked that the report of the work accomplished would do credit to any infirmary or hospital in Great Britain. The Secretary reported that he had received a cheque for £250 on behalf of the Havannah School towards the funds of the Infirmary, and also one for £57 13s., the result of an Infirmary benefit concert held in October last at Pontypridd.

CORRESPONDENCE.

ERGOPHOBIA.

Sir,—The communication of Mr. Spanton will be read with interest by medical referees throughout the country, and I venture to think that the experiences of other referees of the Workmen's Compensation Act would be of general interest. While fully acknowledging the efforts of Dr. Langley Browne to improve the position of the referees, I should like to hear the expression of opinion of different referees on the administration of the Act by the county court judges and its effect on the workmen.

In this district the judge early indicated the cases to be referred to the medical referees. All cases in which the opinions of the medical witnesses on the two sides were in direct contradiction were referred to the referee for a medical opinion. Usually three or four questions were suggested to guide this decision, as for example:

1. Does the injury incapacitate him at the present time from doing his usual work or light work? If so, how long will this incapacity continue, and to what extent?
2. Is his life likely to be shortened by the injury?
3. Ought the weekly payment to be stopped, lessened, or a lump sum given in compensation?

The evidence of both medical witnesses is enclosed, and the claimant attends for examination. The Act also gives power to the judge to call the referee to sit in court as medical assessor, but this has not, to my knowledge, been done in this district. In fact, it seems undesirable for this reason: The assessor must give his opinion from the medical evidence of the opposing witnesses without the opportunity of carefully examining the claimant himself, or time to consider his decision.

In most cases the medical evidence is accurate and reasonable as regards the facts of the case, but the medical witness on one side gives what we might call a very gloomy prognosis, while the other doctor makes too light of the consequences of the injury.

My experience of the workman is usually this: The injury is first attended in hospital until nearly well; then the private or club doctor attends for some weeks or months, and finally the patient's visits to the doctor become very infrequent, and the case lapses into a chronic uncured condition for lack of active treatment. For example, the ankle-joint after a fractured leg remains somewhat stiff, causing the patient to limp. The injured hand remains wasted and the fingers stiff—conditions which might be easily improved by passive movement under an anaesthetic, or massaged until the part regains its natural condition. Meanwhile, the insurance company has paid the half wages for months, and the case is referred to the county court. The medical witness on one side says with perfect truth that the man cannot work with a stiff joint, while the opposing medical witness asserts that the work will relieve and cure the stiffness. In such cases the need of further appropriate treatment has been indicated by the referee, and the judge has decided that, unless the man submits to this treatment, the payment will be stopped. In my opinion, there is usually too much delay in submitting cases for decision. In some few instances I have found the fear of work described by Mr. Spanton, and in such cases the duty of the referee is clear. But apart from laziness, a workman who has sustained a severe injury deserves some sympathy if he hesitates a little to take on his full daily work, at least my personal experience makes me more lenient than Mr. Spanton.

Lastly, I must protest in a friendly way against the new word. Fancy the dismay of some future candidate confronted by the question, "What is ergophobia (Spanton), causes, treatment, and results?"

I think we are indebted to Mr. Spanton for his communication, which I hope will be followed by others.—I am, etc.,

Bradford, Feb. 13th. WILLIAM H. HORROCKS.

SIR,—Would you allow me to endorse in emphatic terms all that Mr. Spanton says in his paper on ergophobia? I have practised now for fourteen years amongst colliers, and have treated hundreds of cases of minor injury incurred while at work in several different collieries. I can truthfully say that by far the greater majority of those injured remained "on compensation" very much longer than they would have done had they been dependent only on their "lodges." In this county it is quite a common saying among colliery surgeons that it is almost hopeless to get a man off "the club" if he receive compensation payment in addition to what he gets from two lodges, and also that it is almost equally hopeless to expect a verdict from a county court judge other than against the employer, no matter how slight the injury or how doubtful the point whether the disablement was due to an accident while at work. The secretary of a "club" told me a few weeks ago that more than half the amount issued during 1904 (which included illness as well as accident) was to men who were on compensation. The fact of so many firms being insured against claims for compensation render them very tardy about going to the county court, knowing how great the chances are against them, which in another way tends to increase "ergophobia."

There is one point in favour of those few permanently injured ones who are willing to try other work and are not prevented by "trades unions" which Mr. Spanton omits, which is that there is no opportunity allowed them to learn a new trade. Directly they try to practise anything fresh, if found out, their pay is stopped, which naturally deters them from attempting anything.—I am, etc.,

February 13th. A COLLIERY SURGEON.

"OVARIAN PAIN:" A PLEA FOR MORE ACCURATE CLINICAL OBSERVATION.

SIR,—The subject of pain in visceral disease has engaged my attention for many years, and I have endeavoured to note the relationship of the sensory phenomena to the various organs. In regard to the female pelvic organs, I have not been able to obtain satisfactory results, partly due to my lack of opportunity for verifying accurately the nature of any given disease, and partly from my want of diagnostic skill. It was therefore with high expectations that I saw in the BRITISH MEDICAL JOURNAL of October 22nd that a discussion on ovarian pain was given in which quite a galaxy of gynaecological talent had participated. After perusal of the discussion, I was keenly disappointed, for the speakers, who have had splendid opportunities for observing and verifying the most salient points, had one and all failed to make the best use of their opportunities, and in place of real solid facts we get a series of imperfect observations and hasty incorrect deductions.

In the first place, not a single word is mentioned of the most characteristic, most diagnostic, and most constant symptom in affections of the ovary as of other viscera—namely, the hardness of the abdominal wall due to reflex muscular contraction—the viscero-muscular reflex. Even the hyperaesthesia of the muscles of the abdominal wall is never mentioned, though it is a more frequent phenomenon than the cutaneous hyperaesthesia. The cutaneous hyperaesthesia, though mentioned, has never been accurately observed, and one speaker reckoned to be able to map out a so-called tenth dorsal segment—a feat impossible to accomplish, for the borders of any hyperaesthetic area, whether due to visceral or spinal diseases, are too ill-defined to permit of accurate delimitation. Besides the hyperaesthesia is of two kinds: a superficial, evoked by light stimulation of the surface, and a deep-rooted, by lightly pinching the skin. The first may be, and often is, absent, and when present occupies a much smaller area than the deep hyperaesthetic area.

I have been searching for years for the proofs of "peritoneal pain," and so far have found none. Assertions there are and to spare. Dr. Herman says, "The peritoneum contains abundance of Pacinian bodies, and when it is inflamed it becomes painful. The pain is local; it is felt in the inflamed spot and not in the back." Here you observe plenty of assertion, but of proof not a syllable. I have examined numerous cases where the peritoneum was exposed in the conscious subject. I have stimulated the serous surface when the peritoneum was healthy and when it was red and inflamed, I have broken down old and recent adhesions and in not a single instance could the symptom of pain be elicited. In operating under cocaine (as in hernias) I have found that while the skin and muscles can easily be rendered insensitive, when the connective tissue outside the peritoneum was torn through the patients have complained of severe pain. After this the peritoneum itself could be cut and stitched without pain. It may be that in tearing through the subperitoneal tissues the nerve supply of the incised peritoneum was destroyed, but I am only citing the fact. Dr. Herman imagines that because there are Pacinian bodies in the peritoneum, that pain arises when the peritoneum is inflamed. Does he know the functions of these bodies? Sympathetic nerves sometimes end in them, and can he or anybody else point to a single fact proving that sympathetic nerves are sensory? I am not denying the sensitiveness of the peritoneum, only stating that the grounds on which this statement has been based are utterly untrustworthy.

My object in writing this letter is to make an appeal for more accurate clinical observation. It is most aggravating to wade through ponderous textbooks and elaborate articles in search of facts and find merely erroneous assumptions and imperfect observations. Most of the symptoms arising from affections of the viscera are reflex in their nature, in which sensory, motor, and secretory nerves are implicated. By the careful observation of each individual symptom and the intelligent grouping of all a clue can be obtained to the seat of many an obscure lesion. Practically little of importance has been done on this subject, as few attempts have been made to distinguish the exact nature of the various reflexes.—I am, etc.,

Burnley. J. MACKENZIE.

COMPULSORY GREEK.

SIR,—The abolition of compulsory Greek at Cambridge, being a subject of great interest to the intending medical student at this University, perhaps you may allow me to make a few observations on Dr. Buttar's letter of February 1st.

In the first case, work for any good modern entrance examination should include a broad study of English. In the branch of etymology sufficient Greek roots should be learned to make further philological efforts of interest without the study of Greek itself. Again, there are now such excellent translations of all important Greek writers that it seems to me rather a waste of energy to study Greek in order to gain "an insight into the life of a cultured race."

Boys as a general rule are far from being "intelligent animals," and therefore few are able to appreciate Greek, especially from the slight taste necessarily required for such an examination.

I thoroughly agree, too, with Dr. Buttar in saying that "the wider the curriculum of education the better." But when one remembers that at present the greater number of medical students at Cambridge include anatomy, with embryology and anthropology, physiology, and two of such subjects as geology, botany, chemistry, and physics amongst their work for the Tripos, it must be acknowledged that with this wide range there are but few—those only whose brains are specially adapted to such studies—who can benefit by and carry on to any appreciable extent the little Greek they imbibed at school. While school French and German have been of great assistance and interest to me ever since, the only result of my own study of Greek was to cause me to waste eight valuable months, and this is by no means a singular experience.

I do not expect to change the views of a classical honourman on this subject, and we must agree to differ. But may I express the hope that all others will endeavour to relieve the medical student of a study which has so little educative influence, that to him, as the average future practitioner, it means simply so much loss of priceless time.—I am, etc.,

Histon, Feb. 4th. FRANCIS I. M. JUPE, M.A., L.S.A.

SIR,—There are two good reasons for rejecting the proposed changes:

1. It is much to be desired that Cambridge should act in harmony with Oxford.

Some of the innovators suggest that it would be well for Cambridge to withdraw deliberately from co-operation with

her venerable partner, in order to become assimilated to the "newer universities."

But it may well be doubted whether all these recently-established institutions will ever do as much for higher education as Oxford has done and is doing.

2. The abolition of compulsory Greek for the Little-go would tend directly to narrow—not to widen—the basis of education.

In Utopia, even the smallest school might command the services of a body of professors in every known art and science. The child who heard the "East a-callin'" would naturally turn to Arabic, Hindustani, or Chinese; the born scientist would be entrusted to the professor of seismology, or of invertebrate morphology; the budding humanist would become the nursling of the professor of Hellenic literature. Very likely, no two youths would be engaged in the same pursuit, but each one would grow in beauty, as a flower, in accordance with the inner law of his being.

But experience has shown us that, in the British Islands to-day, when Greek is omitted from the school curriculum, no efficient substitute is provided. Latin is not learned better, but worse, for the omission of Greek.

The general standard of attainment is usually lower on the modern side than on the classical side: and the schools in which Greek is not taught at all are, almost invariably, of an inferior type to those in which it is taught.

The experience of Germany, according to reports of recent tests, coincides with our own.

Many head masters have stated their views as to the effect of the proposed changes. Most of them anticipate that Greek, within a few years, will be banished from all except a few of the richer and larger schools. As a non-Greek school has been found by experience to be an inferior educational force, let us resist a change which threatens to convert nearly all schools from a higher to a lower type.—I am, etc.,

London, N., Feb. 10th. O. E. HIGGENS.

SIR,—As forcible expression, combined with the use of the mystic word "logic," may seem unduly impressive, I crave your permission for space to answer Dr. Garrett.

I gather from his letter that Dr. Garrett considers the average schoolboy to be an intelligent being, eager for knowledge, and especially for the knowledge that will be directly "useful" to him in after-life. He thinks it a hardship to some boys to learn anything contrary to their predilections, or to what they imagine to be to their advantage. For others he regards Greek as impossible. To all he would give a choice of subjects. To Dr. Garrett the main object of studying Greek at school is to be able to read the language with facility. But although he considers this impossible for the average boy, he seems to think that facility in reading French is easily acquired. Finally, he thinks that in these progressive days we should get rid of anything suggestive of "mediaeval institutions."

Now all these positions seem to me untenable, but some are hardly worth attacking. Dr. Garrett does not mention what limit he would put to a boy's choice of subjects; but as he appears to think that Arabic and Hindustani might be included, why not athletics and bridge? Both are very "useful" to some members of the community. I am afraid that any form of Little-go, except that of free choice, will lead to hardship. And the free choice of any subject or set of subjects will render examination impossible. I remember that I found it a great hardship at first to learn Euclid. Although I cannot say that Euclid is directly useful to me, I am no more sorry that I learnt a little Euclid than I am that I dabbled in Greek.

I do not find in Dr. Garrett's letter any statement of the age at which he would give free choice of subjects to schoolboys. It is possible that a boy who at 14 wishes to study natural science, would incline at 17 to theology.

I am afraid that I cannot consider the amount of Greek required for the Little-go as more impossible to a boy than the amount of knowledge required in any other subject. The object of teaching Greek is certainly not limited to acquiring facility in reading the language. In all subjects studied at school we should look to the educative value and not to the usefulness. And I do not think that the proposed substitutes for Greek are more valuable, or even *so* valuable as to make a change necessary. The average boy is no more likely to acquire facility in reading French than he is in reading Greek. In fact he is not very likely to acquire facility in anything unless it appeals to his taste. And I have already shown that for examination purposes he cannot be allowed to be guided entirely by his tastes. I think it quite right that modern languages and natural science should be taught at schools; they were in my day. But if a classical side boy is required to pass in some mathematics, and consequently has to keep up that subject at school, why should not a modern side boy continue to keep up a little Greek? He already keeps up Latin, although there is as much argument for abolishing this as for abolishing Greek. And considering that few men can take up Greek after their school days, while any one can take up modern languages or science, why not retain a study of considerable educative value, that can only be learnt by the majority during their life at school?

That Greek is entirely useless to the man of science, I deny. I have been told by some who have never learnt Greek and Latin that the dry bones of anatomy are even drier from the fact that the readers do not understand the meaning of a single name they read.

Finally, the abolition of Greek as a compulsory subject will increase largely the number of schools where Greek is not taught. Holding as I do that it is impossible to turn education either into the cramming of a hotchpotch of knowledge that may be useful in after-life, or into freedom for boys to select whatever subjects they have a bent for, to the exclusion of everything they dislike, I regard the increase in non-Greek schools as a calamity. To one of these schools Dr. Garrett apparently had the misfortune to belong: yet I venture to maintain that had he been to a school in which Greek was a part of the educative course, his attainment in science and his profession would have been no less eminent than at present: nor would he have failed to find time for those studies in logic, wherein he thinks me so deficient.—I am, etc.,

London, W., Feb. 14th. CHARLES BUTTAR.

SIR,—A horde of barbarians are battering the gates of our ancient seats of learning, desirous to "rescue"—save the mark!—the citizens from the fetters of "mediaeval superstition." But the guardians of the twin citadels refuse to admit the invaders, and have no wish to be rescued on any such terms. Theirs the high privilege, the sacred duty to guard "the golden key that can unlock the treasures of antiquity; the musical and prolific language, that gives a soul to the objects of sense, and a body to the abstractions of philosophy." Over their portals is inscribed the legend ΜΗΔΕΙΣ ΑΓΡΑΜΜΑΤΟΣ ΕΙΣΙΤΩ, and the gates cannot be opened by those who would fain enter to sign the burgher-roll save by a turn of the golden key. And what is the grievance of the barbarians? Other citadels have capitulated to them. If they desire to reap the fruits of a purely mercantile education, there are other establishments having the name of university where resonant titles and gorgeous hoods are given away with a pound of tea. But if nothing short of an Oxford or Cambridge degree will serve their turn let them obey Alma Mater, not dictate to her the terms of sonship. And, if reasons must needs be rendered for resisting the invading hordes, may it not suffice—waiving all arguments derived from the wealth of Greek literature and culture, the surpassing beauty of the language, and its unique value as an educational instrument—may it not suffice for the disciple of Aesculapius to say that, since the revival of Learning, men of science throughout Europe have thought in Greek, and that the student of medicine must needs learn to think in Greek, or he will labour throughout his career under a painful disability. For from the purely utilitarian standpoint consider how steep and rugged must seem the road to the youth for whom such words as anaemia and dystocia are not self-explanatory the first time they are heard or seen, for whom for any meaning the words convey a thermometer might be a broomstick, brachycephalic a synonym for red-haired, and gynaecology the study of marine shellfish.

Let all loyal citizens rally to the defence of the shrines in which the torch of ancient learning is kept alive. The Greek portal is the present point of attack, but already parallels are being laid for the attack on the Latin portal which must follow, and the barbarian chiefs are wrangling in their tents over the plans of the new universities which are to rise on the ruins of the old, and over the fees to be charged for diplomas in dancing and degrees in scientific dresscutting.—I am, etc.,

February 15th. R. A. F., M.D.Oxon.

OPERATIVE METHODS—NEW AND OLD—IN TUBERCULOSIS OF THE KNEE-JOINT.

Sir,—Circumstances have prevented me from replying earlier to Professor Wright's courteous criticisms of certain views which I urged in my Birmingham address on this subject.

I am unable to admit that in excision shortening "is the rule, with few exceptions," if by that Mr. Wright means a shortening due to want of development depending upon damage to the epiphyses, or to their removal. I try to avoid encroachment upon these structures, and, to use Mr. Wright's phrase, if the operation is "properly performed," there ought usually to be no encroachment. The shortening that occurs is proportionate to the removal of bone. I have no doubt that in some cases the epiphysis is damaged, but I have not seen them.

I am sorry that I cannot submit the measurements in so many cases spread over so many years. The poor people in our towns are very migratory as to their abodes, and it would be impossible to find the majority of them for such an inspection. But occasionally one turns up for some other trouble, and I have a chance of seeing the result. Last year I saw a very bad case which I had operated on ten years ago, when the patient was aged 12. There was no other shortening than that resulting from the removal of bone, and the patient walked with the greatest comfort.

The other points which Mr. Wright discusses are matters upon which each must form his own judgement. But with reference to "relapses" after excision, if he means readmission after discharge from hospital, allow me to say that this has not occurred three times in my experience, and then only for the scraping out of a sinus.

If Mr. Wright could by erasion always produce a movable joint as a natural result, then erasion ought always to be practised. But when he admits that a stiff joint is aimed at, I must express my own strong opinion that that is secured more surely by the apposition of bone surfaces which have been divided with a saw rather than by the apposition of two articular surfaces. The risk to life is very small, and the rapid union, security, and stability which follow easily eclipse any erasion method of which I have heard.

I am sorry Mr. Wright thinks my advocacy "rather too glowing." I have only sought to record experiences, and to claim for excision of the knee the foremost operative position when compared with erasion, or the amputation of the thigh, which some now advocate.—I am, etc.,

Dublin, Feb. 6th. William Thomson.

THE EFFECT OF SALTS OF POTASSIUM, AMMONIUM, AND BILE SALTS UPON BLOOD PRESSURE.

Sir,—In the British Medical Journal of January 14th Mr. Edmunds has published a paper on the effects of salts, etc., upon blood pressure, in which he shows that the physiological effect of chloride of potassium and ammonium and bile salts is fundamentally different from that of choline—in fact, that weak solutions of these substances have no influence on the blood pressure.

Professor Halliburton supplied the paper with a preface, in which he points out that "though cursory inspection of the crystals of the platinochlorides may lead to confusion between these various substances and choline, there can be no confusion if the simple physiological test is performed also." Professor Halliburton further remarks: "Certain investigators, like Vincent and Cramer and Mansfield, have questioned these results, and allege that the methods employed do not exclude contamination with chloride of potassium and ammonium."

Neither our experiments nor the conclusions which we have drawn from them bear this interpretation. The fallacies inherent in the "chemical test," which are due to the presence of the chlorides above referred to, differ essentially from the objections which we have also raised to the "physiological test." We have stated distinctly that inorganic salts are not responsible for the physiological effect of tissue extracts.

Professor Halliburton has failed to appreciate our standpoint. I may, therefore, be allowed to restate concisely the results which have led us to criticize Professor Hallibuton's methods and conclusions.

After Vincent and Sheen had found that watery extracts of many animal tissues affect the blood pressure, we tried to identify more exactly the nature of the depressor substances present in extracts of nervous tissue. We showed (*Journ. of Physiol.*, vol. xxx, p. 143):

1. That a substance allied to choline is normally present in brain in small quantities.

2. That in extracts of nervous tissue several other substances are present, which have a much more powerful effect on the blood pressure than choline or its ally, and completely mask the presence of this base.

3. "We have satisfied ourselves that the depressor effect is not due to inorganic salts" (p. 152). This statement has been fully confirmed by the more detailed paper of Mr. Edmunds.

4. With extracts of normal blood we have frequently obtained a fall as great as figured by Halliburton for pathological blood.

We continued (pp. 152-3): "It seems reasonable to conclude from these experiments that the substance present in the pathological blood, which gave a fall of blood pressure in Halliburton's experiments, was not choline, nor indeed anything arising from morbid processes, but some substance common to normal blood and to all animal tissues."

Until our actual conclusions are shown to be unwarranted they constitute a crucial objection to the practical value of the test for choline, and at the same time invalidate the conclusions of investigations based upon the "choline tests."—I am, etc.,

W. Cramer, Ph.D.

Laboratory of the Imperial Cancer Research Fund, Examination Hall, W.C.

NEGRO IMMUNITY FROM MALARIA AND YELLOW FEVER.

Sir,—I beg to thank Dr. H. D. McCulloch of Bournemouth for his courteous and interesting reply to my queries on the above subject, which does not however seem to me to solve the problem I have stated.

He attributes negro exemption from malaria in Africa to "an endemic-acquired immunity, in consequence of the aboriginal African having survived accidental inoculation in childhood in his native environment, the period of exemption lasting so long as he remains in his natural environment and under its influences, and disappearing as he migrates elsewhere to altered climatic and dietetic influences."

But is this theory consistent with our experience? Does an Englishman by settling in the Faroë or Fiji islands lose his comparative immunity from measles when the natives begin to die off around him from that disease like rotten sheep? Would a child removed from England, where measles are endemic, and placed under different dietetic and climatic conditions in France, have in consequence measles of a more virulent type than the French children among whom he was placed? Does not immunity induced, as here suggested, by infantile inoculation, protect its subject from similar disease in another country just as long and to the same extent as it would at home?

How is it, also, that the American negro in the United States does not acquire the same endemic immunity from malaria while he remains in his native American malarial environment as his African brother does while in his, if this theory be a correct answer to my query? Yet, so far from the American negro in the United States having a smaller tendency to malaria than his white brother (as is the case with the African negro compared to the white man in Africa), the opposite is the case, as shown by the following figures extracted from the United States census returns of 1901 (for which I am indebted to the courtesy of Dr. W. Roger Williams of Clifton).

The general death-rate in the United States from malarial fever was ten times as great among negroes as among white men (namely, negroes 59.8 per 100,000; whites, 6.5 per 100,000) and this was the case at all ages:

Ages.	White Death-rate per 100,000.	Negro Death-rate per 100,000.
15 to 24	4.2	48.7
25 to 34	3.2	42.6
35 to 44	3.0	34.3
45 and upwards	8.2	77.4

That the American negro when repatriated (if I may use the term) to Africa has no immunity whatever from malaria is shown by the following quotation from Mary Kingsley's *West African Studies* (1899), chap. ii, pp. 53-54:

"The second reason (against the repatriation of American negroes in Africa) is that the descendants of the exported Africans have seemingly lost their power of resistance to the malarial West Coast climate. This is a most interesting subject, which some scientific gentleman ought to attend to, for there is a sufficient quantity of evidence ready for his investigation. The mortality among the Africans sent to Sierra Leone and Liberia has been excessive, and so also has that among the West Indians who went to Congo Belge, while the original settlement of the United Presbyterian Mission at Calabar had to be abandoned for the same cause. In fact it looks as if the second and third generation of deported Africans had no greater power of resistance to West Africa than the pure white races, and such being the case it seems to me a pity they should go there."

I have no wish to enter into controversy on this interesting subject; I merely seek for knowledge, or for some theory at least which will meet all the factors of the problem. These are:

In Africa, negroes in malarial regions infinitely more immune from malaria than whites.

In America, negroes apparently more prone to malaria than whites.

In Africa, imported American negroes as prone to malaria as whites.

Is not an artificial protective environment of the aboriginal African negro (as I suggest) the only solution which satisfies the terms of the problem?—I am, etc.,

Paignton. WILLIAM SYKES, M.D., F.S.A.

THE STUMP IN APPENDICECTOMY.

SIR,—I shall be obliged if you will permit me to say a few words in reply to Mr. Robson's criticism on my letter. I am pleased to find that he does not claim the series of procedures described in his contribution as a new operation. I am sorry that I misread his paper, but as I find that other surgeons have made a similar mistake there must be some excuse for it. I am well acquainted with the description of Dawbarn's operation, and only claimed for him the method of "purse-string" suture of the caecum over the invaginated stump.

I have said that any of the accepted methods of amputating the appendix will answer, and am careful to teach this to students; but I do think that the use of the special clamp enables one to treat the appendix in a way which is nearer the ideal at which we should aim than any other. It is somewhat the same with a bobbin, button, or plates in intestinal resection or anastomosis; the surgeon should be able to do without them. Mr. Robson speaks well of the operation through the sheath of the rectus with displacement of the muscle, which I have advocated and practised for years, but I cannot understand why he does not use it in all cases, for he admits that it is always satisfactory, whilst the other is not.—I am, etc.,

London, W. WILLIAM HY. BATTLE.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

SIR,—I am led, from a practical and impartial study of this question, to answer definitely in the negative when it applies to Great Britain. My experience is that of Dr. Collier, the learned President of the Association, who wrote last year in the BRITISH MEDICAL JOURNAL that he had never seen a case cured by residence in a sanatorium, and if the patient returned home apparently benefited he soon relapsed to his old condition.

The open-air cure cannot be carried out in this country for more than three months in the year with any benefit to consumptive patients. The disease requires a dry, warm, equable climate, free from dust-laden particles, and impregnated with ozone. Where can you find such a climate in Great Britain? An ideal climate, with all these qualities, can be found in the desert, the West Indies, some parts of New Zealand, the Canary Islands, etc., where the open-air treatment could be carried out with certain benefit. I have no doubt a cold equable climate might also be equally beneficial, but my observations lead me to prefer warmth.

From the letters which reach me I can only conclude that in a great number of cases the treatment does serious mischief, and many deaths can be traced solely to it. I think the time has arrived when a careful inquiry should be made into the treatment of phthisis in open-air sanatoriums, for the amount of money spent upon them is enormous, and the public look to the medical profession for guidance. Unfortunately, most of the men who write on the treatment are those interested in sanatoriums. I was much struck, when visiting a foreign sanatorium which is boomed by certain English newspapers, to find the head physician sitting in a very small stuffy room reeking of tobacco smoke, while he was pointing out to me a herd of miserable-looking creatures walking about barefooted. I feel certain these places could not be kept open without the bang of the advertising drum. Time will prove which is the correct opinion, but unfortunately if something is not done at once large sums of public money will be squandered and much injury done to consumptive patients whose sufferings are always great. I think we must all agree that if a consumptive is placed in one of these sanatoriums he should never be sent back to his former residence, work, and mode of living. Either some outdoor occupation should be found for him or he should be pensioned for life.—I am, etc.,

London, W. THOMAS DUTTON.

PROPORTION OF FAT IN CONDENSED MILK WHEN DILUTED.

SIR,—In the very kind notice of my lectures on the diseases of children, which appeared in the BRITISH MEDICAL JOURNAL of February 11th, your reviewer states that the analysis which I furnish of condensed milk after dilution with water is "obviously incorrect." To this criticism I must beg to be allowed to take exception. It is true that the brand of condensed milk which I recommend contains only 13.9 per cent. of fat, and at first sight it seems impossible that a dilution of 1 in 24 (which is what I suggest) could yield a mixture containing anything like 1.6 per cent. of fat, which is the amount given in my analysis. But the cause of the apparent error is obvious. The dilution is made, for purposes of convenience, by volume, but had one made it by weight it would be found that a teaspoonful of the condensed milk weighs about 12 grams, and will therefore contain about 1.6 grams of fat, and when mixed with 3 oz of water will yield a solution containing at least 1.3 per cent. of fat, which is very little below the amount actually found in my analysis.

I do not doubt that this source of fallacy escaped your reviewer, but I thought it right to call attention to it in order to clear myself of the charge of running the risk of being "gravely misleading."—I am, etc.,

London, W., Feb. 11th. ROBERT HUTCHISON.

OBITUARY.

PROFESSOR ABBE,

Jena.

PROFESSOR ERNST ABBE, of Jena, whose death has already been announced in the BRITISH MEDICAL JOURNAL, was born in 1840, and studied at Jena and Goettingen. In 1863 he qualified at Jena as *Privatdocent* in mathematics, physics, and astronomy. In 1870 he was appointed Extraordinary Professor. In 1866 he became associated with Carl Zeiss, a manufacturer of optical instruments, and thenceforward he devoted himself to the improvement of the microscope. How well he succeeded is known to all who use that instrument, and to none more than to those engaged in medical research. On the death of Zeiss in 1888 Abbe became sole proprietor of the optical works which by that time he had made famous. In 1891 he created a kind of trust known as the Carl Zeiss Stiftung to which he ceded all his proprietary rights. The works are a great co-operative concern. According to Professor Auerbach (quoted in *Nature*) "to provide a large number of people with the most favourable opportunities for labour is both the means and the end of the Stiftung. The individuals who benefit by it are at the same time those who maintain and increase it. The officials and workmen employed at the optical works, the community and the university, contribute their share towards the increase of the value of the property, and these therefore are entitled to participate in the benefits." The University alone will shortly have received £100,000 from the scheme. Abbe remained an active member of the Board of Management till 1903, when he retired owing to failing health. In addition to his purely technical work he gave the world a conspicuous example of what can be done by the organized application of science to industry and manufactures.

ON February 9th one of the oldest members if not the senior of the medical profession passed away in the person of

Dr. Nathaniel Davidson, who was born in 1805 and would have completed his century in March. Dr. Davidson was educated at Edinburgh and took the licence of the Edinburgh College of Surgeons in 1828. He obtained the licence of the Apothecaries' Society of London in 1829, and practised for many years in George Street, Portman Square. In 1861 he obtained the licence of the Royal College of Physicians, which at that time conferred the brevet rank of "doctor," and retired about twenty-five years ago.

Dr. Robson Roose, at one time a "Society doctor" of considerable note, died on February 12th at the age of 56. He studied at Guy's Hospital, and obtained his first qualification in 1870. He was a Member of the Royal College of Surgeons of England, a Licentiate of the sister College of Edinburgh, a Fellow of the Royal College of Physicians of Edinburgh, and a Doctor of Medicine of Brussels. He practised for some years at Brighton, where, among the aristocratic and fashionable invalids sent to that health resort to recuperate, he laid the foundation of a practice which in time became very large, and included leaders in politics and society, and still more exalted personages. When he felt his position secure he transferred his base of operations to the metropolis, where for a long time he flourished exceedingly. He was a noted Amphitryon, and at his table might be found potentates, peers, and politicians of different parties who found his house a convenient neutral territory where they could meet without attracting public attention. Society journalists vied with each other in singing the praise of the hospitable physician in the lay press. There must have been something beyond the common in a man who was able to win and retain the confidence of men so shrewd and so experienced in the world's ways as Randolph Churchill, Montagu Williams, Edmund Yates, the Duke of Devonshire, Mr. Labouchere, and Mr. Chamberlain, to mention only a few of the first names that come to mind. Yet Dr. Roose held no hospital appointment, and although his name was attached to a book or two and to a few magazine articles, he added nothing to the sum of knowledge, and his position in the profession scarcely accorded with that which he held in the eyes of the public. His knowledge of medicine was considerable, but his knowledge of men was still greater, and he had to a consummate degree the art of managing patients. Some years ago Dr. Roose became involved in a lawsuit brought against a company of which he was a director. Although he was acquitted of all blame, the result of the trial caused him not only heavy financial loss, but much vexation of spirit. He retired to East Grinstead, retaining only consulting rooms in London. He was a man of kindly disposition and found legitimate satisfaction in the fact that he had risen from the position of assistant to a parish doctor to an important place in the social life of London.

We announce with much regret the death from appendicitis on February 1st, of Dr. Maurice E. Ling. The deceased was born at Saxmundham in 1855, and was the son of a medical man much respected and esteemed. Dr. Ling, who was educated at the London Hospital, qualified as L.S.A. in 1877, M.R.C.S.Eng. in 1878, and took the degree of M.D.Durham in 1900. He was in practice for some years at his home in Suffolk, and came to London in 1894, where he practised first in West Halkin Street and subsequently in Harley Street. Dr. Ling was a man of wide experience, and even in the short time that he followed his profession in London obtained support from several distinguished physicians and surgeons. He was greatly esteemed by all his friends for his practical and thorough knowledge of his profession and for his genial presence and courteous conduct to all with whom he came in contact. A charming companion, an accomplished and exceptionally well-read and resourceful practitioner, his death is deeply regretted by all his friends. It is quite certain that if he had lived he would have obtained a very high position and would have made his mark among the many distinguished and brilliant general practitioners in London. One who knew him intimately writes: "It is a matter to me of deep sorrow and regret that an able and accomplished practitioner should have been thus cut off in the prime of life, on the verge of supreme success. I can only say that I profoundly feel his loss." Dr. Ling leaves a widow and three children.

Dr. Geoffrey Hett of Westbourne Park Road, who died on January 25th, in his 61st year, received his medical training at King's College Hospital, where he was a prizeman in anatomy. He afterwards studied at Edinburgh University, where he graduated M.D. in 1871. Previously to settling in practice Dr. Hett travelled, and acted as House Surgeon to the Lincoln County Hospital, and after at Weston-super-Mare. Thirty years ago he was elected to the staff of the Westbourne Provident Dispensary. To that institution, which was subsequently affiliated with the Metropolitan Provident Medical Association, he gave unstinted service. It was no unusual thing for him to see as many as sixty or seventy out-patients on the day of his attendance. For about twelve years past Dr. Hett, with the help of skilful amateurs, gave yearly a dramatic entertainment for the benefit of the members of the dispensary. Indeed, he devoted himself so much to the poor that he sacrificed much practice among the richer classes. Possessed of an excellent constitution, Dr. Hett enjoyed long walks, and he celebrated his 50th birthday by walking to Brighton from London. He was for many years a member of the Harveian Society and London Lincolnshire Society. Dr. Hett leaves a widow, one daughter, and three sons, the eldest of whom is a member of the medical profession.

It is with regret that we announce the death of Mr. Alfred Vavasour Griffiths, M.R.C.S., L.S.A., which occurred at his residence in Fenton, Staffordshire, on January 27th, at the age of 56, from pneumonia following influenza. After receiving his medical education at Queen's College, Birmingham, Mr. Griffiths took the diploma of M.R.C.S. in 1872 and that of L.S.A. in 1873. He for many years filled a large and important place in the town life of Fenton. In his public capacity he was Medical Officer of Health for Fenton and held many other appointments. The position he took in the estimation of his fellow-townsmen as a medical man was well expressed by the Vicar of Fenton, the Rev. the Hon. H. L. Tyrwhitt, in an obituary notice: Dr. Griffiths, he said, was a martyr to duty, a willing slave to conscience, who but for that splendid trait would, he believed, have been with them still. During the many years of his high, honourable profession in the midst of the sick and suffering and the poor he won the affection and gratitude of thousands of human hearts. Quiet, reserved, with no ostentation, and generous just where generosity was most needed, they honoured him in death as they reverenced him in life. It seemed as though not only a man, a person, had gone, but as if an institution had been removed. With him, of course, it was well; Dr. Griffiths died in the act of duty as much as any soldier of the King on the battlefield.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Professor L. Jacobson, a well-known otologist of Berlin, aged 52; Professor Karl Klein, head of the third Surgical Clinic at St. Petersburg; Dr. Otis Eugene Hunt, of Newtonville, Massachusetts, one of the physicians present at the first public use of ether as an anaesthetic, aged 82; Dr. Beugnies-Corbeau, of Gidet, a man of great erudition, author of a treatise on the medical archaeology of Egypt and Judaea, aged 52; Dr. Baudon, of Mouy in the Oise Department, author of important works on palaeontology, aged 84; Dr. Nicolai Jaklakoff, Director of the St. Sophia Children's Hospital, Moscow, and sometime President of the Russian Medical Society, aged 60; Dr. J. Felix of Bucharest, sometime Director-General of the Roumanian Public Health Department; Dr. Cordelia A. Greene of New York, one of the oldest medical women in the United States, aged 74; Dr. Edward Linzee Cunningham, the second oldest graduate of Harvard, where he was in the same class as Oliver Wendell Holmes, and the oldest graduate of its Medical School, aged 95; Dr. Béraud, representative of the Vaucluse in the French Senate; Dr. Theodor Roschtschinin, Physician to the Czar, aged 63; Dr. Hugo Huppert, Professor of Chemistry in the German University of Prague from 1872 to 1902, author of a treatise on urine analysis and many other works, aged 72; Dr. Gustav Ludwig, who was a long time on the staff of the German Hospital in London, well known as a collector of art treasures and antiquarian curios and a recognized authority on the history of Venice; and Dr. August Falco, Director of the Sanct Gilgenberg Lunatic Asylum, near Bayreuth, aged 74.

Surgeon-Major-General Thomas Walsh died at Booterstown, co. Dublin, on February 5th, in his 67th year. He was appointed Assistant Surgeon, May 25th, 1858; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; Brigade-Surgeon, July 16th, 1884; Surgeon-Colonel, October 28th, 1889; and Surgeon-Major-General, July 18th, 1894; retiring

from the service May 29th, 1898. He served in the Jowaki Afridi expedition in 1877-8 (medal with clasp), in the Afghan war in 1879-80, when he was Senior Medical Officer during the advance on Kabul in December, 1879 (mentioned in dispatches, medal with clasp); and in the Egyptian war in 1882, including the actions at Tel-el-Mahuta, Kassassin (September 9th), and Tel-el-Kebir (medal with clasp and Khedive's bronze star).

Brigade-Surgeon James Dow Sainter, retired pay, Army Medical Department, died at Craigellachie on January 3rd. He was appointed Assistant Surgeon, March 1st, 1859; made Surgeon-Major, April 1st, 1874; and retired from the service with the honorary rank of Brigade-Surgeon, February 13th, 1880. He served with the Cavalry Division throughout the China war in 1860, receiving a medal.

Donald MacIver, M.D., Fleet Surgeon, R.N. (retired), died at 3, Arundel Gardens, W., on February 8th, aged 86. He was appointed Surgeon, June 10th, 1863; Staff Surgeon, April 14th, 1877; and Fleet Surgeon, July 5th, 1884; retiring from the service, August 5th, 1884.

Captain Edward John Dobbin, Royal Army Medical Corps, died at Tunbridge Wells, suddenly, on January 27th, aged 33. He joined the department as Lieutenant, July 27th, 1898, and was made Captain three years thereafter.

The late Mr. Luther Holden.—The funeral of Mr. Luther Holden took place in the cemetery of the parish church, Upminster, Essex, on Friday, February 10th. The service was conducted by the Rev. Hyla N. Holden, Rector. The Royal College of Surgeons was represented by Mr. John Langton, and St. Bartholomew's Hospital by Sir Dyce Duckworth and Mr. W. Harrison Cripps. There were present also two of Mr. Holden's former house-surgeons, Mr. T. Brittin Archer and Mr. Alban Doran, also Dr. J. H. Stowers, Dr. George Holden, of Reading, and many friends and relatives of the deceased.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MEDAL FOR THE TIBET MISSION.

The King has approved the grant of a medal to the members of the Tibet Mission and accompanying force who served at or beyond Siliguri from December 13th, 1903, and September 23rd, 1904, both dates inclusive, provided the claims are approved by the Government of India. A clasp, inscribed "Gyantse," will also be granted to those present during the operations at and around Gyantse from May 5th to July 6th, 1904, both dates inclusive. The grant of the medal will be confined to those who had official sanction to be present.

ROYAL ARMY MEDICAL CORPS.

Pay and Expenses.

A Junior Officer of the Royal Army Medical Corps sends us the following memorandum:

I believe that, until the claims made below are granted, the R.A.M.C. should not in any way be regarded by young medical men as a "career," and they should be warned not to join it. No reasonable system has been followed in calculating Indian pay. The Indian tentage and horse allowances have been ignored. British pay and allowances have been turned into rupees, and a small sum added which is said to be a *quid pro quo* for tropical service. But the Indian Government lays down in its Regulations (Vol. X, I think), the following: "In order that officers may be prepared at all times to move at the shortest notice, an allowance out of which they are required to provide and keep the camp equipage of their rank, carriage for its conveyance, and the requisite establishments is included in the pay, and Indian allowances of the several ranks as follows: Colonel, Rs.200; lieutenant-colonel, Rs.150; major, Rs.120; captain, Rs.75; lieutenant, Rs.50."

Now, in England or the Colonies, officers are not required to be ready to move, and they are provided with tents, servants, and, above all, with transport at Government expense. They get field allowance as well, but in India when officers go into camp (and nearly all do go into camp for one or two months) all expenses must be paid by them, for they are told they get consolidated Indian pay, in which "tentage" is included! This is untrue, as I will presently show. Again, as regards horse allowance, in England officers over the rank of captain are not compelled to keep horses. If they do they get extra allowances for stabling, forage, groom, etc. In India, however, they are compelled to keep horses and to show the regulation saddlery, etc., because horse allowance is said to be included in their consolidated pay. This is also untrue. A major's consolidated Indian pay does not exceed his English pay and allowances by the amount of horse allowance (Rs. 30 a month or £24 a year) and the tentage of his rank (Rs. 120 a month or £96 a year). The following is the most glaring example:

Major of Fifteen Years' Service.

Home pay and allowances	£633
Horse allowance	24
Tentage	96
Total	£753

This is the legal equivalent of his home pay and Indian allowances. Were he employed by a private company instead of by Government he could successfully bring an action to recover this amount. Now £753 a year = Rs. 940 a month, but his present Indian income, including exchange compensation allowance, is Rs. 876 a month. He therefore loses Rs.65 a month, or £52 a year, while in India. A tour of 5 years costs him £260. In addition he loses the field allowance while under canvas, buys and keeps up his own tent, horse, etc., and pays for the transport of himself, tent, and servants while on the line of march and in camp. Had I lived as long under canvas in England as in India I should have been paid £90 in field allowance alone.

No further argument is needed: but it may be asked is Rs.940 a month an excessive amount for a senior major, R.A.M.C., to draw? It is Rs. 20 a month (£16 a year) more than that drawn by the most junior major of the Royal Garrison Artillery, whose pay and allowances in England are a little more than those of a junior captain, R.A.M.C. The pay and allowances of the latter are about £400 a year, those of a Major, R.G.A., about £430 to £440. If both sailed to Bombay on the same ship, the captain, R.A.M.C., would draw Rs. 560 a month and the major, R.G.A., Rs. 930! Is a claim to be paid at about the same rate as the Royal Artillery unreasonable? The Indian pay of the Artillery is much less than that of the Royal Engineers.

Passages for Families.—In "Regulations for the Allowances of the Army," paragraph 426, it is laid down that passages are granted to the families of (*a*) generals, surgeon-generals, etc; (*b*) officers of the Army Veterinary Department; (*c*) surveyors, etc.; (*d*) quartermasters, etc. The families of all other officers of the army, except those actually on duty with troops on board, get indulgence passages only. These are now a thing of the past. Up till a year ago all medical officers on a transport were on duty—that is, they had a certain number of beds told off to them, and they took their turn at orderly duty, etc. Now, one or more medical officers are put in medical charge of the troops; the remainder are not on duty, and must arrange for passages for their families at their own expense. Regimental officers almost invariably travel with their men, and are therefore on duty; the officers of departments—for example, Pay, Army Service Corps, etc.—have tours of very many years at home, and are seldom called on to pay for passages; veterinary officers have passages provided for their families, but the unfortunate medical officers have a tour abroad of five or three years and a tour in England of less than two years—that is, in every five or seven years they must pay two passages outward and one homeward, or vice versa, for every member of their families. It is unjust for some medical officers to receive passages worth £50 to £150 simply because they travel with troops, while others, equally deserving, must pay those sums out of their own pockets. As the roster for service is in the hands of one man, this plan also opens the way for favouritism.

In addition to these expenses, medical officers must provide for frequent changes of station and for double establishments during camps, manœuvres, residence of families in the hills in India, and passages out and home for them if ill.

I consider that the profession should secure the following reforms at once in order to relieve the monetary difficulties of the officers now in the R.A.M.C.

1. Passages for families under Paragraph 426, Regulations for allowances of the army.
2. Consolidated Indian pay to equal home pay and allowances plus (*a* horse allowances. N.B. [Captains and Lieutenants are inefficient without horses, and all do keep horses, because they cannot do their duty without them], (*b*) tentage, (*c*) an allowance for serving abroad.
3. Travelling expenses for families on change of station.

At present the R.A.M.C. does not offer a career for any one who wishes to marry. It is avoided by "service families" and by relations of officers of the corps, because they know the above facts. Let those who are joining now on the advice of outsiders, look to those outsiders for sympathy when they find their private resources, if they have any, wasted in travelling expenses and removals—there will be no sympathy for them in the corps.

INDIAN MEDICAL SERVICE.

The New Pension Rules.

Lieut.-Col. I.M.S. writes: The result of one of the clauses of the new Indian Medical Service pension rules will be to retard and not to accelerate promotion.

I allude to the clause which states that a man may remain on in the service after he has attained the age of 55, long enough to enable him to complete thirty years' service.

It is true that such a man cannot be promoted to the administrative grade or obtain the extra pension of £100 per annum after he is 55, but he is allowed to retain his appointment, and thereby keeps another man out of that appointment, and he also, I gather (since nothing is said in the rules about his being seconded after he is 55), keeps another man out of the selected list of lieutenant-colonels.

Now the seconded list, besides eligibility for promotion to the administrative grade, carries with it two other advantages—namely, (*a*) increased pay, (*b*) eligibility for the extra £100 a year pension.

What was required, and what would, in the opinion of all Indian Medical Service lieutenant-colonels whom I have spoken to, have been much fairer and more popular than allowing men to stay on after they are 55, would have been to have given a pension of £40 per annum for every year over twenty-five years' service. If this were done a man who attained the age of 55 after, say, twenty-eight years' service could then retire on a pension of £620 or, if he got the extra £100 per annum, of £720. Now such a man must either retire on a pension of £500, or, if he got the extra £100 pension, of £600, or he must serve on for two years longer (keeping another man out of a good appointment and out of the selected list for that period) and then retire on £700 per annum—he cannot possibly get more.

Many men would retire during the years between twenty-five and thirty years' service if they could get a pension of £40 for every year over twenty-five years' service. As the rules now are, men hang on, though often physically and mentally more or less unfit for work, so as to put in their full thirty years, as there are no intermediate pensions between twenty-five and thirty years' service.

I believe I am right in saying that the Council of the British Medical Association recommended such graduated pensions as I have suggested, if so, is it too late to hope that the rules may be modified accordingly?

I have stated above that promotion to the selected list carries with it increased pay. This is, at present, true only of the Indian Medical

Service in military employ. However, we are led to expect that when the long-deferred Indian Medical Service civil pay rules are published, we shall find that we have been treated "with justice tempered with liberality." Justice, I take it, means that the Indian Medical Staff in civil employ will get the same increase in pay as has been given to the Indian Medical Staff in military employ; liberality, that the new rules will be given retrospective effect.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHEMISTS AS OPTICIANS AND DENTISTS.

An Irish correspondent sends us an advertisement cut from a local paper which shows that in Ireland the advertising chemist who desires to poach upon medical and dental practice does so with considerable ingenuity. He calls his establishment a "Medical Hall"; he advertises his willingness to "supply artificial teeth," also to "extract them painlessly by cocaine," and to "fill them carefully with the newest class of fillings." He announces that "eye-sight is tested free of charge," and that as he holds a "diploma by examination" of the "School of Optics, London," customers can "depend upon being fitted with proper glasses." He advertises a "stomatic" powder; this is not a tooth powder as might be supposed, but something which "gives instant relief and affects permanent cure to all forms of indigestion and affections of the digestive organs." These are only a few of the advantages he offers to the public.

THE ETHICS OF SUPERSESSION.

Supersession.—Our correspondent is wrong in thinking that no one must supersede another practitioner during an illness unless the case has been given up, as this would be a denial of the absolute right of a patient to change his medical adviser. The rules regulating the conduct of the superseding practitioner have been frequently explained, (See British Medical Journal, January 7th, 1905, p. 51; January 14th, 1905, p. 104.)

THE OBLIGATIONS OF A SUBSTITUTE.

Santander writes: A. and B. are in practice in the same town. Nine years ago A. gave up his partner C., and asked B. whether he were willing to do his (A.'s) work during his absence on holidays, and also any odd work he might be unable or not desirous of doing himself during the rest of the year. B. consented, and the arrangement made was that he should receive half fees. A. is now selling his practice to a stranger, with the intention of doing consulting work only. Is B., on account of the past arrangement, which now comes to an end, debarred from taking any of A.'s patients, or is it legitimate for him to take any that may choose to come to him?

*** It would seem to be A.'s duty to inform the purchaser of his practice of the position which B. has occupied, but there is nothing to prevent B. taking such patients as may come to him.

THE ETHICS OF CONSULTATION.

C. S. asks for answers to the following questions: (1) A. is attending a patient and calls B., a brother practitioner, in consultation. The friends are quite satisfied, but A. has got no help in the case, and wants the opinion of still another local man. What should be his attitude towards B.? If he invites him to be present, what about his fee? (2) A., a senior man in the town, is asked by a patient to have B., a young man and comparative newcomer, in consultation. A. refuses and offers to hand the case over to B., explaining that he does not care to call in a junior and untried man whose opinion would, he thinks, be of no assistance. Has B. been treated fairly? A. says B. has no reason to be annoyed, as he offered him the case.

*** (1) A. may call in another practitioner in consultation without asking B. to be present; if B. is asked to attend, he would of course have to be paid a consulting fee. (2) As a general rule, youth is not a sufficient ground upon which to object to a suggested consultation, but if A. believes that B. has no special knowledge which could be of any service, he should suggest the name of some one of undoubted capacity, and express his willingness to meet him in consultation as an alternative.

Country Practitioner writes that a patient of his consulted a physician in a neighbouring city, who prescribed for her, and asked her to give him weekly reports of the progress of her case. Our correspondent wrote courteously to the physician telling him that he had heard of what had taken place, and adding: "She tells me that she informed you that she was up to then under my care; under these circumstances, as I understand the professional code and the usual courtesies of one professional brother towards another, I would naturally have expected to hear from you. I am sorry to see that you should think me beneath your notice." To this he received the following reply from the physician: "By my code of ethics I have seen a patient who wishes to obtain an independent opinion (and she) is entitled to do so. Miss not having brought a letter from you I naturally concluded she wished her visit to me kept private." He asks our opinion upon the point.

*** When the physician learnt that the patient had been under the care of "Country Practitioner," he should have asked the patient whether she wished him to write to her medical attendant or not, and should have pointed out the advantages of doing so. If she had refused to allow him to write he could have done no more. The correctness of the conduct of the physician entirely depends upon whether he did or did not offer to write such a letter.

MEDICAL EXAMINATION OF DEFECTIVE CHILDREN.

Beta.—There is no fee fixed by statute for the medical examination of defective and epileptic children under the Act of 1899. The Education Committees make their own arrangements with their medical examiners. In one instance a fee is paid of 5s. for each case primarily examined, with 2s. 6d. per child for subsequent inspection in the special class; in others the payment is by salary or by fee for attendance during the school session; in one instance three guineas for the day's work. But much depends upon distance and the standing of the medical examiner. As in many cases the examination of a defective child requires expert knowledge, the acceptance of fees such as those quoted can only be justified in consideration of the number to be examined, and a higher fee would be reasonable in a single case.

ACCOUNT FORMS.

J. T. asks whether there would be any objection, when sending in bills to patients, to charge the highest rate, and then to deduct a certain portion, according to circumstances, styling the reduction "special discount," and at the same time to intimate to slow payers that this discount would only be allowed where there was prompt payment. He also inquires what is the best style to make out accounts, and whether only a lump sum should be put down or details given.

*** We know of no rule to prevent our correspondent adopting this plan if he thinks fit, but we should not recommend him to do so. Many patients who object to pay large fees would resent a "special discount" of this nature. It would often give rise to dissatisfaction, and its disadvantages would probably outweigh its advantages. The billhead used by our correspondent is one very usually employed by medical practitioners, and could hardly be improved on. It is usual to put down a lump sum for the whole attendance, and to give items only when requested.

NOTICE TO PATIENTS ON TRANSFER OF PRACTICE.

Perplexed writes that he has recently purchased a practice, and that he stipulated with the solicitor, who acted for the widow, that a notice should be sent to all the patients intimating that he had bought the practice. This was done, and he has since received a bill from the solicitor for the expense incurred in sending out the above notices. He wishes to know who is properly liable for this expense.

*** The expense of sending out such notices ought to be defrayed by the vendor, not the purchaser. The latter pays for the goodwill of the practice, and it is the duty of the vendor in return for the purchase money to transfer this goodwill, and the sending out notices to patients is one of the means by which the goodwill is transferred.

THE RIGHTS OF A FAMILY DOCTOR.

R. S. C.—When there is a regular medical officer to a boarding school we think the family doctor has no ground for complaint should a boy whose family he attends be looked after by the school doctor, and as we read the correspondence we think he does the family and the school doctor injustice by accusing them of desiring to slight him or to treat him with discourtesy. The letter from the boy's mother proves this. We should advise "R. S. C." to allow the incident to pass, and we have no doubt he will find that he has suffered neither in reputation nor in the respect and confidence of the family, but that they will regard it as an additional proof of his friendship for them.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

GUARDIANS AND THEIR MEDICAL OFFICERS.

We learn from the *Hampshire Advertiser* and other local papers that the guardians of the South Stoneham Union are at variance with one of their district medical officers, mainly owing to his having declined to visit a patient at 4 o'clock in the morning, on the ground that he had been out for several previous nights, and required rest, and that no parish order had been granted. A further request for his attendance was met by a promise to attend if his fee was paid before he left the patient's house. This was not promised, and the applicant left, as the medical man thought, to procure attendance elsewhere. The patient died an hour or two later without medical aid. An inquest was held, at which a verdict was returned to the effect that the death was due to heart failure, accelerated by chronic bronchitis and alcohol; a rider was added to the effect that "the jury thought the doctor should attend persons dangerously ill without waiting for a parish order."

At the request of the jury, the coroner subsequently communicated the result of the inquest to the Board of Guardians, but at the same time added "that he informed the jury that the doctor was within his rights in acting as he did."

As a consequence of this communication from the coroner, the question of Dr. Stevenson's action in not having attended deceased when requested to do so was discussed in a somewhat irregular manner at the next following meeting of the guardians. Several guardians seemed disposed to criticize Dr. Stevenson's action adversely without clearly understanding on what ground they would be justified in doing so, and this though the Chairman had explained that whatever the doctor did or did not do he was within his legal rights; the clerk to the guardians also expressed an opinion to the same effect.

After prolonged discussion, one guardian raised the important point whether they were not discussing a question which was, so far as they were concerned *ultra vires*, as it would be if this was not a pauper case. The whole matter would have been much shortened if the Chairman had given a ruling on this point, or had taken a division of the Board upon it. In our opinion, the pauperism of the deceased had not been legally established, and consequently Dr. Stevenson was strictly correct in regarding the application for medical attendance upon him as emanating from a private patient.

The guardians, under such circumstances, could have had nothing whatever to do with the case, and any censure passed by them on their medical officer could only be a serious error. Eventually the Board passed a resolution to the effect that the Board inform Dr. Stevenson

that they regret he did not, under the circumstances, attend the man and obtain an order from the relieving officer afterwards.

This resolution of the Board which reflects on Dr. Stevenson cannot be justified, since it must be admitted that the application for medical attendance was not made for a pauper patient, and that Dr. Stevenson was quite at liberty to decline attending, if he thought fit to do so. Poor-law medical officers are, as one guardian observed, only "human after all," and cannot, or more correctly, ought not to be at the beck and call by night and day of any and every one professing to be poor without having formally established their right to gratuitous medical attendance. These officials have their rights as well as their duties, and one of these rights is to be able to decline to attend patients without an order if they think proper to do so.

If, as one of the Stoneham guardians stated at the Board meeting, it would not be humane to call upon a relieving officer at night to write an order for medical attendance—which could be done in his own house—we fail to see how it could be humane for any individual, whoever he might be, to claim the right to drag a Poor-law medical officer about the country for miles at night without possessing any authority whatever so to do.

THE PRESENTATION OF VITAL STATISTICS.

AT a recent meeting of the Royal Statistical Society Dr. Reginald Dudfield, M.O.H. Paddington, read a paper entitled, "A Critical Examination of the Methods of Recording and Publishing Statistical Data bearing on Public Health, with Suggestions for the Improvement of such Methods." The subject was discussed under the heads of (*a*) methods of registration and collection, and (*b*) the form of presentation of recorded data. The data selected as "vital statistics" were those relating to population, births, vaccination, sickness, marriages, deaths, and pauperism. The chief criticisms under these several heads made by Dr. Dudfield were directed to the confusion at present existing between the registration districts and sanitary districts, the complicated system of tabulation of the census returns, the fallacies owing to incomplete returns as to migration, the defects in the registration of births and the omission of stillbirths, the method of returning vaccination statistics, etc. Dr. Dudfield also discussed at length the forms used by the Registrar-General. Among suggestions put forward for an improvement of these matters were (*a*) unification of sanitary and registration districts and the transference to sanitary authorities of registration of births, deaths, etc., (*b*) the registration of stillbirths, (*c*) the compilation of complete national returns of sickness from local returns, and (*d*) the formation of a central statistical office with authority to co-ordinate the work of all those engaged in the preparation of vital statistics, including the anthropometric survey and the register of sickness recommended by the Physical Deterioration Committee.

SHORT METHODS OF CONSTRUCTING LIFE TABLES.

AFTER numerous experiments Dr. T. E. Hayward has formulated a short method of constructing shortened life tables for public health comparative purposes, the results of which are quite accurate when compared with the more detailed methods of constructing life tables. The details of this short method are given in the *Journal of Hygiene* for January, 1905. There can be little doubt that the shortened method will eventually become a favourite with medical officers of health, who are usually much restricted as to time for such a purpose as the construction of a life table for their districts. Incidentally Dr. Hayward draws attention to the fact that until about the age of 65 the results of the graphic method correspond closely with those obtainable by the most minutely-accurate analytical method, though Dr. Hayward suggests after this age, and certainly not later than age 75, abandonment of this method.

THE NOTIFICATION OF TUBERCULOSIS.

THE Philadelphia Bureau of Health has sent out letters, containing forms, to medical practitioners who are invited to report cases of tuberculosis occurring in their practice. The Bureau, it is said, has no intention of placarding the houses in which tuberculosis occurs; it merely wishes to superintend the work that is being done and to give assistance where it may be needed.

QUARTERLY RETURN OF VISITS PAID TO UNION CASES.

P. L. U. asks if it is necessary to comply with a request of a Board of Guardians for a quarterly return of the number of visits paid to P.L.U. cases. He says the return asked for has not been made for the past twenty years.

*** We are not aware of any regulation which enables a Board of Guardians to call upon their medical officer for a quarterly return of visits paid to union cases, but if all these visits are regularly recorded (as they should be) in the weekly or fortnightly return made to the guardians, they can then instruct their clerk to make a summary, and so get the information they wish without calling on their medical officer for it.

ALLEGED NEGLECT BY PUBLIC VACCINATOR.

R. W. T. C.—It is the duty of a public vaccinator (under General Orders, Vaccination Acts, Art. vii. Sect. 2), when requested to vaccinate a child, to do so within two weeks, whatever its age may be. If the public vaccinator has neglected to do this after several requests, our correspondent would be quite right in vaccinating the child. The public vaccinator, unless there has been "sufficient reason for delay," in the words of the Act, has committed a breach of his contract and of the Act in neglecting to obey the summons to vaccinate, but we would not advise "R. W. T. C." to take any notice of this. If on any special grounds it is desirable to draw attention to the matter, the Local Government Board would be the authority to whom application should be made.

NOTIFICATION BY MILITARY MEDICAL OFFICERS.

D.P.H.—Section xv of the Infectious Disease (Notification) Act, 1889, exempts Crown buildings and their inmates from the provisions of the Act; it is not correct, therefore, to say that under the Act it is the duty of a member of the R.A.M.C. to notify cases of small-pox, enteric fever, or scarlet fever to a sanitary authority. The Urban District Council is right in refusing to pay the notification fees. We understand that in some of the commands instructions have been issued that members of R.A.M.C. who are sanitary officers should place themselves in communication with and keep in touch with the civilian medical officers of health, and that they should give to the latter information as to the occurrence of infectious cases either amongst troops or their families in barracks, and it is hoped that medical officers of health will on their part inform the military sanitary officers of health of cases of infectious disease occurring in the neighbourhood. This intercommunication is actually taking place at several stations, and with the greatest advantage, but the question of payment ought hardly to be raised either from the military or from the civil side.

THE DUTIES OF A MEDICAL OFFICER TO AN ISOLATION HOSPITAL.

YORKSHIRE writes: I am a medical officer to a small isolation hospital in a town, and have in consequence under my care the patients of other medical men who may be sent for treatment to the hospital. A case, let us say, of diphtheria is certified and sent to hospital; after observation it is very evident that an error in diagnosis has been made. May I ask what is my duty as medical officer (1) to the patient, (2) to the medical man who certified the case? As the case has been duly certified prior to admission, is it my duty, even where I am certain a mistake has been made, to keep the case for a definite period? If so, is the medical officer relieved of all responsibility as to the consequences of the patient catching any infection while in hospital? I am anxious to do what is right to the patient and also to the doctor who sent the case.

*** Doubtful cases should be admitted to an observation ward, and if they prove not to be cases of diphtheria they should be discharged. If cases are sent in early it is impossible to avoid occasional mistakes. If any record of cases so admitted and discharged owing to error of diagnosis comes before the lay committee "Yorkshire" should explain that such mistakes are unavoidable and involve no reflection upon the competence of the medical practitioners concerned.

INDIA AND THE COLONIES.

CYPRUS.

Public Health.

FROM the High Commissioner's recently-published report on the present condition of Cyprus it appears that, though surrounded on all sides by adverse, and, indeed, distinctly threatening, health conditions, the general state of the public health during the year was good, most stringent measures having been enforced by the Chief Medical Officer and his staff. Cholera and plague were epidemic in a virulent form in Asia Minor, Syria, and Egypt, and small-pox was rife on the opposite coasts, but, with the exception of a few cases of the latter, the island escaped the introduction of these diseases. Quarantine duties are especially arduous, owing to the great number of pilgrims of various religions and nationalities passing to and fro between Cyprus and the mainland. The utmost vigilance, it is stated, is necessary to prevent the introduction of "sacred water" from the different shrines, which is one of the commonest means of spreading cholera. Great attention, too, was paid to keeping up the rigorous measures instituted to prevent the introduction of plague-infected rats. The most favourable feature of this part of the report, however, is undoubtedly that which records the gratifying fact that the people are themselves beginning to show some signs of interest in sanitary matters. They have seen the stamping out of diphtheria and small-pox, and are gradually awakening to the fact that the spread of ophthalmia, one of the greatest curses of the East, can be checked by reasonable care and precaution, and that it is also necessary to have an unpolluted water supply.

Some interesting particulars are given concerning the lepers on the island. These are segregated upon a *chiftlik* or farm near Nicosia, isolation from the general public being maintained as far as is possible. They are housed in separate cottages, and Sir W. Haynes Smith speaks of them as more contented with their lot than sufferers from this malady in any asylum in any colony he has visited, an opinion which from personal experience of this institution we are inclined to corroborate. This is doubtless in great measure due to the methods adopted for giving the patients some interest in life. They are permitted, among other things, to have some choice in their diet, each person being allowed 300 drachms of bread and 2½ piastres to lay out in food according to his fancy. The system, Sir William Haynes Smith states, works well, and the little excitement of arranging and choosing the food apparently lessens the monotony felt in leper asylums, where the patients have a stereotyped diet day after day and week after week. Suitable occupation is also found for the inmates when they are capable of undertaking it, and provision is made for the children born in the asylum of poor parents, while every precaution is taken to preserve them from the risk of contracting the disease.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Board of Faculty of Medicine.

THE following have been elected members of the Board of Faculty of Medicine, and will hold office until February, 1907: Sir William Selby Church, Bart., D.M., Christ Church, Honorary Fellow of University College; Walter Ramsden, D.M., Fellow of Pembroke College; Ernest William Ainley Walker, D.M., Fellow of University College; Walter William Fisher, M.A., Corpus Christi College; Samuel Hatch West, D.M., Christ Church; William Bruce Clarke, B.M., Pembroke College.

UNIVERSITY OF CAMBRIDGE.

ERRATUM.—In the list published last week of gentlemen upon whom the degree of M.D.Camb. was conferred on February 2nd the initials of Dr. A. J. Hall were incorrectly given.

The third examination for medical and surgical degrees will begin on Tuesday, May 2nd, and the examination for the M.C. degree on Thursday, May 4th. The names of candidates should be sent to the Registrar on or before Monday, April 17th. Liverpool United Hospitals has been added to the list of hospitals recognized for the purposes of the regulations for medical degrees.

UNIVERSITY OF LONDON.

INTERMEDIATE EXAMINATION IN MEDICINE.

THE following candidates satisfied the Examiners at the January examination:

S. H. C. Air, C. E. Anderson, C. J. Armstrong-Dash, Muriel C. Bywaters, Hilda Clark, P. C. Conran, Eleanor Davies-Colley, Bella Dawson, E. J. De Verteuil, M. R. Dobson, Clara Eglington, E. D. Ellis, J. H. Farbstein, F. P. Fisher, Margaret Fisher, N. K. Foster, A. Fothergill, †C. H. S. Frankau, Gertrude Gazdar, F. Gooding, H. L. Grabham, Ethel R. Griffiths, H. Hawker, C. T. Hawkins, J. A. B. Hicks, F. N. S. Hitchcock, F. G. Hodder-Williams, E. H. Hugo, A. E. Iles, W. A. M. Jack, G. G. James, J. P. Johnson, E. J. G. Jones, E. R. Jones, A. J. Kendrew, ‡E. H. Kettle, A. J. Lee, *‡B. A. Lloyd, C. Lovell, E. L. W. Mandel, H. L. Morgan, J. G. Morgan, H. P. Orchard, R. C. Paris, B. T. Parsons-Smith, E. H. A. Pask, A. M. Pollard, P. J. Probyn, D. Ranken, M. J. Rattray, A. H. Rich, *C. F. Robertson, T. G. S. Smith, E. W. Squire, R. Y. Stones, A. A. Straton, J. J. Suckling, A. J. Symes, R. E. Todd, R. S. Townsend, C. W. Vining, C. F. Walker, P. I. Watkin, H. O. Williams, C. McM. Wilson, E. M. Woodman.

*Distinguished in Anatomy. †Distinguished in Physiology.
‡Distinguished in Pharmacology.

MEETING OF THE SENATE.

A MEETING of the Senate was held on January 25th.

Chair of Physiology at University College.

It having been reported that the Worshipful Company of Mercers had voted a sum of £1,000 to the University for the promotion of the study of physiology at University College, it was resolved that the thanks of the Senate be conveyed to the Company for their munificent donation.

Recognition of Graduates of other Universities.

It was reported that during the year 1904 twenty graduates of other Universities and other persons similarly qualified under Statute 113 had been admitted as candidates for the Doctorate in one or other of the faculties. Of these, four had come from Oxford, four from Cambridge, and others from Bombay, Durham, Heidelberg, the Royal University of Ireland, Madras, Melbourne, Sydney, the Victoria University of Manchester, and the University of Wales.

Mutual Recognition of Certificates by the Universities of Oxford, Cambridge and London.

The negotiations which have been carried on during the past few months between the Universities of Oxford, Cambridge, and London, for the mutual recognition of matriculation and other certificates, have now resulted in a definite agreement by which, under certain conditions, the Cambridge Previous Examination and the Cambridge Senior Local Examination will be accepted in lieu of the London Matriculation Examination, and the London Matriculation Examination, whether taken in its ordinary form or in the form of the School Examination (Matriculation Standard) for the school leaving certificate, will give exemption from the Cambridge Previous Examination.

The negotiations are still in progress for a corresponding mutual recognition of certificates between the Universities of Oxford and London.

The Senate resolved to interpret retrospectively the agreement with the University of Cambridge and that with the University of Oxford when concluded.

Appointment of Francis Galton Research Fellowship.

Mr. Edgar Schuster of New College, Oxford, has been appointed to the Francis Galton Research Fellowship in national eugenics. Under the scheme for the Fellowship, national eugenics is defined as "the study of the agencies under social control that may improve or impair the racial qualities of future generations either physically or mentally." Mr. Schuster will in particular carry out investigations into the history of classes and families. The office of Mr. Schuster will, for the present, be at University College.

Appointments.

Dr. A. D. Waller, F.R.S., and Dr. T. L. Mears were re-elected Director and Treasurer of the Physiological Laboratory respectively.

King's College.

Dr. D. Somerville has been appointed Lecturer in Public Health.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on February 9th, with Mr. John Tweedy, President, in the chair.

Diplomas.

Diplomas of Membership were issued to 99 candidates found qualified at the recent examination. Diplomas for the Licence in Dental Surgery were issued to 9 candidates, and 17 diplomas in Public Health (in conjunction with the Royal College of Physicians) were granted to successful candidates.

Examiners in Surgery.

Mr. W. H. A. Jacobson was re-elected. Mr. Bilton Pollard was elected in the vacancy occasioned by the death of the late Mr. A. Q. Silcock.

The Queen Victoria's Jubilee Institute for Nurses.

Mr. Thomas Bryant was re-elected as the College representative on the Council of this Institute.

School for the Teaching of Earlier Subjects.

A Committee was appointed, on the motion of Mr. Makins, to consider and report upon the practicability of the institution by the College of a school for the teaching of the early and intermediate subjects of the medical curriculum and advanced pathology.

Central Midwives Board.

Mr. Ward Cousins was re-elected to represent the College on this Board.

The late Mr. Luther Holden.

A resolution was passed in appreciation of the late Mr. Luther Holden, past President of the College, who died on Monday, February 6th, at the age of 90; and a vote of sympathy with Mrs. Holden.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Charter Dinner.

THE Charter Day dinner at the Royal College of Surgeons, which was to have taken place on Saturday evening, February 11th, was postponed owing to the illness of His Excellency the Lord Lieutenant, who had accepted an invitation to be present. The new date has not yet been fixed.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL INFIRMARY, LIVERPOOL.

THE annual meeting of the Royal Infirmary was held on January 26th, Mr. E. R. Bickersteth, F.R.C.S., Consulting Surgeon, who has held the office of President during the past year, being in the chair. The Honorary Treasurer, in his report, stated that the average number of beds occupied was ten more than last year, in fact the number was the largest on record. A member of the Committee had generously provided means for reorganizing the Pathological Department, which was now equipped with a cold storage room and the necessary plant for maintaining a low temperature. As a memorial of the late John Lawrence, a most valued member of the Committee, a bed had been endowed by his friends, and his place on the Committee had been filled by the election of Mr. A. F. Warr, M.P. A bed has been endowed by the retiring president, Mr. Bickersteth, in memory of his father, the late Mr. Robert Bickersteth, for many years surgeon to the Infirmary. After tributes to the late Dr. Alexander Davidson and Sir William Mitchell Banks, the report showed that the cost of the year's work had been £15,269. To meet this there had been received £12,985 of comparatively assured income. The total expenditure had been £20,102, in which was included the investment of specially appropriated donations, £3,000. To adjust the figures £2,659 had been transferred from the maintenance fund. From legacies only £575 had been received. From the Hospital Sunday and Saturday Fund £3,152 was granted. There had been 3,795 persons treated in the wards, and 20,033 out-patients, involving some 76,000 attendances.

The President, in moving the adoption of the report, said that he was the first medical man who had held the office of president. He had been associated with the infirmary considerably over fifty years. When he thought of the improvements made during that period he was wonderstruck, but they were yet far from perfection. When a special call had been made it had often been met by a generous individual, and generally great philanthropy was displayed. The time had come for extending the out-patients' department. He would therefore make an appeal to the public for liberal funds. The infirmary had an additional claim on popular generosity because of its association with the University, and the part it had long played in completing the training of young medical men.

Mr. Edward Kewley, Chairman of the Committee, in seconding, paid a tribute to all the officers and staff, and said the Committee had hesitated, because of other pressing claims, to bring before the public the necessity of enlarging the out-patient department; but the association of the proposal with a memorial to the late Sir W. M. Banks had facilitated the matter, and to a certain extent forced the hands of the Committee. The Committee felt they must make up their minds to appeal for money. It might be some years before building operations could be commenced.

Mr. Bickersteth, on retiring from the office of president, has made a donation of 100 guineas to the Infirmary. His successor is Mr. Robert Gladstone, Chairman to the Dock Board.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MR. PRANGLEY (Tudor House, Anerley, S.E.) is looking out for a very light four-wheeled carriage with hood, and would be grateful if any member could give him any information of such a carriage. He is especially anxious to obtain the opinion of members as to the value, utility, and wearing capacity of American carriages.

ROUGH-RIDING MOTOR CARS.

NATALIAN asks any readers who have had experience of motoring in a very hilly country, intersected by numerous streams or spruits of varying depth, and fairly bad roads, to advise as to the kind of motor car (two-seated) which would be useful and reliable in a similar place in South Africa, at a distance of fifty miles from a repair shop, if mechanism, etc., went wrong. He would be glad of an opinion as to the annual expense of such a car, and also as to the cheapest and best method of obtaining petrol for use in South Africa.

SOCIAL AND CRIMINAL ANTHROPOLOGY.

R. W. M. asks for references on social and criminal anthropology.

*** The literature is enormous, but the following selection will, we hope, be of service:—Social and General: Bagehot, *Physics and Politics:* Benedikt, *Kraniographie*, 1885; W. K. Brooks, *Laws of Heredity*, Baltimore, 1883; Clodd, *Myths and Dreams:* Gerland, *Anthropologie der Naturvölker*, vols. v and vi, 1866-71; Haeckel, *Natürliche Schöpfungsgeschichte*, English edition, *The History of Creation*, 1876; Haeckel, *Anthropogenie:* Henle, *Anthropologische Vorträge*, 1876; Huxley, *Man's Place in Nature;* Lang, *Customs and Myth:* Lang, *Myth, Ritual and Religion;* Letourneau, *Sociology*, English translation of, 1877; Lubbock, *Prehistoric Times:* Lubbock, *Origins of Civilization:* Petersen, *Cephalic Measurements, Medical Record*, 1888; Prichard, *History of Mankind:* Quetelet, *Anthropométrie*, Brussels, 1871; G. Elliot Smith, Papers in the *Journal of Anatomy and Physiology;* Rieger, *Kraniographie*, 1885; Spencer, *Principles of Sociology:* Spencer, *Descriptive Sociology*, classified and arranged by H. S., compiled and abstracted by Duncan, Scheppig, and Collier; Topinard, *Eléments d'Anthropologie Générale:* Tylor, *Researches into the Early History of Mankind*, 1865; Tylor, *Primitive Culture*, 1871; Tylor, *Anthropology*, 1887; Waitz, *Anthropologie der Naturvölker*, vols. i to iv, 1859-65; Wiederschein, *Der Bau des Menschen*, 1887; Virchow, *Die Entwicklung des Schädelgrundes*, 1887; Vogt, *Vorlesungen über den Menschen*, 1864; and also the following publications: *Biometrika, Journal of the Anthropological Society, Transactions of the Ethnological Society, Zeitschr. f. Ethnol., Zeitschr. f. Morph. u. Anthropol., Revue d'Anthropol., Dictionnaire des Science Anthropol.* Criminal: G. Angiolella, *Manuale di Antropologia Criminale*, Milano, 1898; Ardù, *Archiv. di Psich.;* Andronico, *Archiv. di Psich.;* Bär, *Der Verbrecher in anthropologischer Beziehung*, Leipzig, 1893; Havelock Ellis, *The Criminal*, Contemp. Sc. Series; Del Greco, *I fattori biologici della individualità somato-psichica*, Il Manicomio, xix, No. 1; Garofalo, *Criminologie*, Paris, 1890; Lombroso, *Uomo Deliquente*, Rome, 1884; Lombroso, *The Female Offender*, English translation, 1895; Lombroso, Papers in the *Archiv. di Psich.:* Mendes Martins, *Sociologia Criminal*, Lisbon, 1903; Marro, *I caratteri dei deliquenti*, Rome, 1889. Tarde, *La Criminalité Comparée*, Paris, 1898; Tarnowsky, *Etude anthropométrique sur les prostitues et les voleuses*, Paris, 1887; Variot, *Les tatouages et les peintures de la peau, Rev. Scientif.*, III. See also the *Archiv. d'Anthrop. Crimin.*, and the *Rev. Scientif.*, in which latter will be found, amongst others, articles by Lacassagne.

ANSWERS.

DIET IN DIABETES.

DIET.—Poole's *Cookery for the Diabetic* (Third edition. London: Longmans, Green, and Co. 1898. 2s. 6d.) contains a number of receipts; see also the dietetic directions in Saundby's *Lectures on Renal and Urinary Diseases* (Fourth edition. Bristol: John Wright and Co. 1900. 10s. 6d.). Most of the vendors of diabetic foods supply booklets containing cookery receipts. Mrs. Hart's book, *Diet in Sickness and in Health* (London: The Scientific Press, Ltd. 1895. 3s. 6d.) contains her menu.

H. C. G.—The boy described by our correspondent as 4 years old, unmanageable, and mischievous would be admissible into the Annex for Imbecile Children, etc., in connexion with the Middlesex County Asylum, Tooting. The parents would have to apply for admission through the parish authorities, who would arrange for them to pay such a contribution as they could afford to the child's maintenance.

LETTERS, NOTES, ETC.

A GOITROUS CENTRE IN NORTHERN NIGERIA.

DR. T. J. TONKIN (London) writes: I was much interested by the note in the BRITISH MEDICAL JOURNAL of January 7th with reference to a goitrous centre in Turkestan. Some years ago, in crossing the tract of West Central Africa now known as Northern Nigeria, I came across a place with a similar peculiarity. It was a small pagan village called Gigata, perched on a rocky ridge, at an elevation, if my memory serves me, of something between 900 and 1,100 ft. In the valleys on either side I saw no signs of the disease, but the largeness of the proportion of affected persons among the inhabitants of the village was immediately evident, and a rough count of the people on the market place gave a goitrous percentage of over twenty. Many of the swellings were of very large size, and what with emaciation, nudity, and the custom of hanging all kinds of trifles in the hair, they gave some of the sufferers an extremely odd, and, if I might be allowed the simile, plucked-fowl-like appearance. If the tide of slave-raiding, the currents of which were running very strongly about the place at the time of my visit, has not swept it out of existence, it should repay the attention of the Protectorate's medical officers. It is on the direct trade route between Loko, on the River Binue, and Zaria, to the immediate north of Kaffi, and within comfortable reach of that town. Its exact position is laid down in the itinerary of the Hausa Association's Expedition.

SERUM PER RECTUM.

DR. ALBERT I. GARLAND, Oamaru, New Zealand, writes: In the discussion on serum therapeutics in the BRITISH MEDICAL JOURNAL, October 8th, 1904, Dr. Goodall, in referring to the mode of administration, says: "It has been suggested, chiefly by individuals who have little familiarity with the subject, that serums can be given with good effect by the mouth or rectum, but of this no valid clinical proof has so far been announced with which I am acquainted, and experimental evidence is entirely against this method." As I believe I published the first paper on this subject in the English language in the *New Zealand Medical Journal* of July 31st, 1901, I should like to direct Dr. Goodall's attention to it, as he will find there cases quoted in which it was successfully used per rectum. I never use it otherwise now, and in a further note of cases in the *New Zealand Medical Journal* of April 30th, 1904, is a case of pulmonary abscess cured by antistreptococcus serum per rectum, and a case of aortic aneurysm treated with gelatine per rectum, in which the constitution of the aneurysm was complete, the man being now at work as a cook two and a half years after treatment. As the application of gelatine per rectum avoids the terrible risk of tetanus so frequently quoted as following the subcutaneous method, it seems a distinct advance, if it proves equally satisfactory in other cases, which I have not had the opportunity of trying. These cases seem to show that we possess in the rectum an absorbent surface which may be utilized to an extent which at present is not realized by the profession.

PNEUMONIA FOLLOWING MEASLES.

DR. F. C. BOTTOMLEY (Bournemouth) writes: In reply to Dr. Allen, may I say that by "lobar" pneumonia I mean croupous pneumonia, a disease which does not follow bronchitis, runs a more or less definite course, and is confined to a particular part of the lung? This disease in children ends in recovery in a large percentage of cases, hence one of the difficulties in determining its exact pathology. My communication was intended to show that a primary pneumonia—that is, one not following bronchitis or not "beginning in the bronchioles," as Dr. Allen puts it—was of frequent occurrence in measles. I find it difficult to distinguish between lobar pneumonia and primary bronchopneumonia of a lobar type, and think it would be better if the terms bronchopneumonia and catarrhal pneumonia were confined to cases secondary to bronchitis. My cases did not belong to the secondary group. Sputum could not be obtained in the cases as the children were so young; but, with regard to the bacteriology, many observers have found the pneumococcus in catarrhal as well as in lobar pneumonia, and it occurs in a large proportion of the sputa one examines, including the sputum of bronchitis; hence I cannot think it feasible to distinguish the various clinical forms of pneumonia by examination of the sputum.

A TOO APPROPRIATE MOTTO.

IT may be remembered that some years ago the authorities of the University of London were much exercised in trying to find an appropriate motto for that body. They invited suggestions, and among those received was the Virgilian one, "Uno avulso, non deficit alter" (When one candidate is plucked, there is another ready). This was probably considered likely to discourage candidates; at any rate, it may be surmised that its frankness as well as its flippancy led to its rejection.

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A Clinical Lecture

ON A

CASE OF MULTIPLE DISEASE OF JOINTS IN A YOUNG CHILD.

Delivered at Guy's Hospital.

By W. HALE WHITE, M.D., F.R.C.P.,
Physician to the Hospital.

Gentlemen,—This afternoon we are going to discuss the case of this little boy whom you see before you, and I hope that he will prove to be of some interest. I have here the report about him made by Mr. Mollison; and he tells us that the boy is 5 years old, and that he has come into the hospital on account of swelling of many joints and enlarged lymphatic glands. The family history is unimportant. He is one of eight children. He is said to have had jaundice two and a half years ago following an attack of diarrhoea and vomiting. He walked at the age of 10 months. He had an attack like the present, the history tells us, three years ago. His mother says that then the ankles first enlarged, then the knees, and at that time the glands were also enlarged and painful. The present attack began at the end of March, 1904, and it was similar to the previous one. The swelling of the joints began this time in the ankles and knees, the affection of the knees preceding the ankles by a very short time. The joints swelled and became painful; and after the knees and ankles were involved the fingers were affected, and after this the neck became stiff; he cannot turn his head properly even now. Then other joints in the body, which I will show you presently, became enlarged and painful, as well as various glands. I think the best thing I can do next is to show you the boy, and then we will go over what are the possible causes of the condition in which you see him.

From any part of the theatre you will be able to see that many of the joints of his hands are enlarged. The interphalangeal joints of all the fingers of this hand are affected. The joints in the thumb are affected, and you can see that his wrist is swollen. On looking at his other hand you will perceive the same state of affairs, the interphalangeal joints being most enlarged. The wrist is considerably swollen. I will now show you the feet and the knees. The moment his stocking is pulled down you can see how very much enlarged the knee is, and he cannot bend it; the ankle, too, is considerably swollen, and the same is true of the knee and ankle of the other leg, and some of the toe joints in each foot are enlarged. Coming back to the upper extremity, you will notice that that elbow is very considerably enlarged, and so is its fellow. We are not sure whether the shoulders are diseased; we have not detected any affection of the jaw, and we do not think that the sterno-clavicular articulations or the articulation of the clavicle and the scapula are enlarged. You see that he cannot move his head freely, and the mother is certain that the neck has become stiff. Lastly, we believe, judging from the position he takes up in the bed, that the hips are affected, although we cannot tell that there is any enlargement of them. The other thing which was noticed about him when he came in was that he has enlargement of many of the lymphatic glands. In the neck here, if you feel him afterwards, you will notice some enlarged glands in both anterior triangles, especially the left. The glands in both axillae are strikingly enlarged, and they are quite discrete. You can slip them about and move them freely under your finger, and separate them one from the other. When he came in one epitrochlear grand was enlarged, but recently we have not been able to find that. It is easy to detect the enlargement of the glands in the groin, and also in Scarpa's triangle. The glands there have the same characteristics as in the other parts of the body—that is to say, they are considerably enlarged and discrete, and at times a little tender. Those are the only glands which appear to be affected, but you will see that they amount to a good many. Another point which on some days we can make out is that the spleen is two-fingerbreadths below the edge of the ribs. It is important to note that we found the boy's heart perfectly healthy.

We will now consider what might be the disease which would cause the state of joints which you see in our patient. I suppose every one of you would first of all say the boy may be suffering from osteo-arthritis. But before you say that you should consider precisely what you mean by it, because unless you do, your employment of the word will be perfectly useless. I think everybody ought to mean by osteo-arthritis, a chronic disease of joints in which the synovial membrane, the bone and the cartilage are all affected. Clearly osteo-arthritis becomes a misnomer unless the bones are affected. You know what happens. It is a very common disease. Gradually the cartilage gets worn away, the bone underneath becomes eburnated, new bony growths take place at the side of the joint, there is a good deal of lipping, and finally the joints are more or less fixed and also there is bony grating detected when you move the joint. The first question you will ask yourselves is, does this disease, which is so commonly found in elderly women, occur in children? It undoubtedly does, but it is so rare that many of the largest textbooks omit mention of it altogether. And even Dr. Goodhart, with his very large experience, in the last edition of his book on children's diseases, only refers to having seen five cases, and in four of those five the joints were described as pulpy. In none of the children was a necropsy obtained, and the term "pulpy" rather suggests the possibility of some of these five cases having been tuberculous. At any rate, there was not a necropsy in a single one, so it is at all events possible that some of those five cases were not osteo-arthritis after all, and Dr. Goodhart's experience, I think, shows you how excessively rare osteo-arthritis must be in children. The best account I know of the disease as occurring in children is given by Dr. Donkin, and he does distinctly say in his book that he has seen osteo-arthritis in young children. He describes an insidious disease coming on in them, affecting, as it does in adults, the hands first, and other small joints, and then the larger joints. And Dr. Donkin mentions that there is a swelling and displacement of the bones, and grating and creaking and ankylosis and erosion of the cartilages, and bony outgrowths, and lipping of bones. So you see he alludes to all the features that we have said were essential to a definition of osteo-arthritis. But, as I have said, although it is described as occurring in children, you must remember it is so rare that many of the best textbooks do not even mention it. However, we thought we would see whether this child was an instance of such a very rare disease.

The first thing, therefore, which occurred to us on looking at these joints was to determine whether there was any bony enlargement. You see the knee is large, and shows up quite plainly even at a distance. On looking at the report which Mr. Mollison made when the child came in, we learn that some bony enlargement of the femur and tibia was described. And so large does the knee look that I must confess when I first examined it it seemed to me that these bones were enlarged. But my belief in that was shaken by having some prints of *x*-ray appearances taken, and these prints I will pass round, and you will see there is no evidence of any bony enlargement whatever round about the knee. Here are also *x* ray photographs of the hands, and you will see there is no evidence of any bony enlargement in connexion with those enlarged joints. The very day on which these prints came back from the *x*-ray department Mr. Golding-Bird was in the ward, and we asked him to look at these joints, and he unhesitatingly gave the opinion that there was no bony enlargement at all. So the appearance of bony enlargement is deceptive, and I think we must accept Mr. Golding-Bird's opinion, which is confirmed by these photographs, that there is no enlargement of the bones. Now, the illness of this child began two or three years ago, and it would be unusual to have such a severe case of osteo-arthritis as this is, having lasted two or three years with no detectable bony outgrowths anywhere in any of the affected joints. Then I would point out to you another thing—that although there is a good deal of enlargement about the joints, in all of them it is such a symmetrical enlargement that it does not suggest bony outgrowths; it suggests more an enlargement of the soft tissues round the joints. And then again, another point is that we cannot detect, although the disease has lasted all this time, any locking on account of bony outgrowths, nor can we find any bony grating indicating that cartilage has become eburnated, so that clinical examination of these joints does not point to the fact that they are an ordinary instance of osteo-arthritis. Further, you must remember that the diagnosis of osteo-arthritis would fail to explain what is so strikingly shown—the enlargement of the glands which you can see in various parts of the body. And perhaps I ought to have told you earlier that when osteo-arthritis does affect young subjects it

is nearly always confined to children who have passed their second dentition, so it would be almost unknown to get it in so young a subject as this. I think you will therefore agree that we must put aside osteo-arthritis as a cause of this child's condition.

I think the next suggestion you should make to yourselves is, could this state of joints in any way be connected with rheumatic fever or the rheumatic state? You all know, because it is so continually drummed into you in the wards, that the rheumatic state in children is different from the rheumatic state in adults; that rheumatic fever—that is to say, a disease with sweating and pain flying about from joint to joint, with some swelling of the joints and fever—is very rarely seen in children. It has been described, I believe, in a child as young as $3\frac{1}{2}$ months, but it is quite exceptional. Rheumatic fever such as we see in adults, is very, very rarely seen in children. You further know that, even in adults, in whom rheumatic fever is common, it is in the highest degree exceptional to find any permanent damage left in the joint. You know if you go up to any examination, and are shown a case of chronic joint disease, and you suggest that it is a sequel of rheumatic fever as a first suggestion, it would tell against you, and I think rightly so, for such a condition is very rare. So that, inasmuch as striking rheumatic fever in children is very rare, and, further, as even in adults severe chronic disease of the joints following upon rheumatic affection of the joints is almost unknown, it would be in the highest degree exceptional to get a post-rheumatic fever chronic disease of the joints in a child. Nevertheless, this is an uncommon case which we have before us, and therefore we are bound to consider that possibility. Now, as this condition is so very rare, we ought, if it exists in this child, to find some evidence of the rheumatic state. But please remember I told you that the child's heart is perfectly healthy, he has never had chorea, does not suffer from any subcutaneous rheumatic nodules, has never had erythema, nor suffered from tonsillitis. In fact, he has not got a single one of the conditions which are grouped together under the head of rheumatic conditions. So that there is absolutely no evidence of a previous rheumatic state, and it is admitted that it would be very exceptional even if there were, for this chronic affection of the joints to follow. Therefore we must, for want of evidence, put that possibility out of court. I do not want to leave this subject without assuring you that, rare as it is, chronic disease of the joints after rheumatic fever does exist in children. Fortunately a child with the affection was under my care, and I can show you photographs of him. He was a child, aged 12, who came under me many years ago. He had been in the hospital at the age of 5 with chorea; at the age of 7 with pain and swelling in several joints, endocarditis and pyrexia, and at 8 with erythema, fresh endocarditis, pain and swelling in several joints, and the condition was relieved by salicylates—a perfectly typical rheumatic history. When he came in at the age of 12 there was much muscular atrophy, with fixation of all the joints of the four limbs, fixation in the position of flexion, and the movements of the neck and jaw were impaired. It is true that some of his lymphatic glands were enlarged, and it was suggested that the patient was an example of the disease of children associated with the name of Dr. Still. Against this view was the fact that the chronic inflammation of the scalp would explain the enlargement of the glands of the neck, and that they were the only ones strikingly enlarged. The patient died at the age of twenty at his home, and Dr. H. J. Starling, who was my house physician at the time, was good enough to go and make a *post-mortem* examination. The child was in the hospital at twelve years of age, so you see we kept an eye on him for eight years. Dr. Starling found that the boy had mitral disease, and that justified us in assuming that this severe condition of joints was a post-rheumatic state of affairs. You can see at a distance the great enlargement of the joints shown in the photograph of this boy. That is the only instance I have come across of that very rare affection—a chronic disease of the joints in children supervening upon rheumatic fever. Authors refer to it. Heubner refers to cases quite as severe as that just mentioned—one in particular in which the spinal column was affected: the neck was stiff, and the joints rigid, and most of the joints in the body were implicated, and in addition the child had a mitral murmur. And he describes other cases which he has seen in which the temporo-maxillary joint was affected and the small joints of the hands and feet were involved. But you must never diagnose the condition unless you have some evidence of the possibility of a rheumatic strain in the patient.

I think I may now point out to you that it is an excellent rule in clinical medicine, whenever you have any disease at all out of the way, always to have the possibility of syphilis in your mind. You will in this way save yourself from many mistakes, and I think we should consider whether the condition you see in this child can be due to syphilis. Exceptional cases in which syphilis has been acquired by young children have been recorded, but such an event must be so rare that, as there is no evidence for it, we may put it out of court and come to the fact that if the disease is syphilitic the syphilis is congenital. That raises the question, What can congenital syphilis do to joints? Every one of you knows that one striking thing which it can do is to produce epiphysitis—a condition in which the epiphysis becomes very loose and the patient cannot move the affected limb; and for this reason such cases are frequently called cases of pseudo-paralysis, because, although there is no real paralysis of muscles, the condition of the joint, due to the separation of the epiphysis, leading to immobility of the limb, gives rise to the belief that the child is the subject of some paralysis. This is such a striking thing that you cannot overlook it; and any of you who have seen it in the out-patients department in little children can bear me out that there is nothing like it here; and, furthermore, the separation of the epiphysis which occurs in congenital syphilis is one of the earliest signs of congenital syphilis, and almost invariably occurs under the age of six months. This child is six years old, so his illness clearly does not fit in with that. A symmetrical synovitis is described as occurring in congenital syphilis. It is very rare, but it is worth bearing in mind, still it would not affect a number of joints like this, and it is a more acute affection. Some authors have described, apparently with justice, a third very unusual syphilitic affection of joints which occurs in rather older children from 5 to 12 years of age, an affection which is indistinguishable from osteo-arthritis. There is in this disease destruction of cartilage, lipping of bones, grating, and ultimate fibrosis. The objection to believing this case to be an example of this disorder is that we have looked at this boy and there is no evidence of his having had congenital syphilis, nor is there any grating, nor any bony outgrowth nor fibrous adhesion about the joints. So that the condition of these joints does not in any way conform to the suggestion that they may be the result of congenital syphilis, therefore that we may put aside congenital syphilis as a cause of this illness.

I do not think that in such a chronic case as this acute or subacute pyaemia need worry you much. I only mention it because whenever you are seeing anybody with joint disease let such a possibility pass through your mind, and you will prevent fatal mistakes in the more acute cases. It is no uncommon thing—as I am often pointing out to you in the wards—for cases to be believed to be examples of rheumatic fever when in reality they are pyaemic, and for the mistake not to be discovered until too late and the patient dies, when, had the mistake been recognized earlier, the source of the pyaemia might have been dealt with and the patient might have recovered. Although it hardly bears on our present case, this is such a serious mistake that I feel you will excuse me if I tell you of one or two cases we have had in the wards.

There was a man I remember who was transferred from the surgical wards because he was thought to have rheumatic fever. We found that he had pneumonia, which is a rare complication of rheumatic fever, so that made us examine him very carefully, and we found that he had a prostatic abscess. We thus learnt that his trouble was pyaemic, but too late. The abscess was opened, but he died of pyaemia. A man was admitted under me with supposed rheumatic fever, but really he had pyaemia from a sore on the heel. I recall another case which was thought to be rheumatic, but it was pyaemia originating in suppurative ear disease. And with all these three cases I am sorry to say the diagnosis of pyaemia was confirmed by *post-mortem* examination. Remember, too, that the mistake is not infrequently made between rheumatic fever and the acute epiphysitis that young children often get, which is a pyaemic condition. However, I only mention these things because they are so important, but they cannot bear on a chronic case like this.

It has, of late years, been said that some cases of chronic joint disease, vaguely spoken of as rheumatic, are really in-

stances of chronic infective arthritis. I think that is so, but I also think that the number of such cases is exaggerated. Some time ago a woman suffering from chronic osteo-arthritis was in the hospital; it was suggested that really she had chronic infective arthritis, and consequently, as they were much diseased, all her teeth were cleared out and several suppurative foci removed. I wrote to her a year after she left the hospital, and I found that her chronic rheumatic condition had persisted. So you must not assume because there is a focus of chronic suppuration that every case of chronic joint disease associated with chronic suppuration is an example of chronic pyaemia. A few are, but the majority are not. Here is one which, for instance, I think is. An old lady who had pyuria was said also to have chronic articular rheumatism. On going into the case I found that the joints had only been affected since the pyuria began. The shoulders, ankles, and right knee were implicated, the shoulders being nearly fixed; there was grating in the right ankle, the knees were swollen and tender; there was no affection of the hands and feet, which are so commonly diseased in chronic articular rheumatism. I think that was an instance of chronic infection of joints following upon pyuria. These observations are not relevant to the case of this boy, for he has no source which could infect him with chronic pyaemia.

I am always telling you that gonorrhoeal arthritis is a malady which is frequently overlooked in adults. That hardly applies here. It is true that at this age infection by gonorrhoea has been known, but such a case would be a curiosity. But please never forget, when examining adults with chronic disease of joints, to think of the possibility of its being gonorrhoeal. I never knew gout affect a child of this age, and we can put that aside. Haemophilia is a disease which you should never forget when thinking of joint disease, because if you fail to do so the results may be so disastrous; the joint may be opened and the patient bleed to death. But haemophilia never affects thirty or forty joints, as is the case here. I have known a case of cerebro-spinal meningitis give rise to difficulty, but that is an acute state of affairs. It is ushered in, it is true, by pain in the joints and stiffness in the back of the neck; but, as I have said, it is an acute condition and not chronic, so we can put that aside.

Up to this point you may say this is a very unsatisfactory discussion, because we have learnt so many things that the case cannot be. But I hope we have now reached a stage at which I may point out that it conforms admirably to an account of a joint disease which was given by Dr. Still, and in order that there should be no doubt about the matter I brought down the very words of his own account. He says: "The disease may be defined as a chronic progressive enlargement of joints associated with a general enlargement of the glands and spleen." You see that fits the case of our boy. "The onset is insidious," as in this child, "and it almost always occurs before the second dentition"; this began at the age of 3. "The child complains of stiffness in the joints which slowly become enlarged and subsequently other joints become affected." That obviously fits this case. "I wish to lay some stress on the character of the enlargement of the joints. It reels and looks more like a general thickening of tissues found the joint than a bony enlargement, and is correspondingly smooth and fusiform, with none of the bony irregularity of the osteo-arthritis." You see our case exactly conforms to that description. "The absence of osteal growth and anything like bony lipping, even after years have elapsed since the onset, is very striking. There is never any bony grating, although creaking of tendon or cartilage is frequently present. The absence of pain is very striking, and limitation of movement—chiefly of extension—is almost always present." You see there is in our patient an inability to extend the joints, there has been no pain since the first onset, and there is no bony grating. "The child may be completely bedridden, owing to the affection of the joints." In Still's case the earliest joints affected were the knees, and that was so in our case. "Subsequently the wrists, the cervical spine, the ankles, the ribs, and the fingers. The affection is symmetrical." That is another striking thing about it. You can see in this boy's two hands how symmetrical the change is. "There is no tendency to suppuration or ankylosis." You can examine his limbs afterwards for yourselves to see the truth of this. "The muscles which move the joints show early chronic wasting." Look at the wasting here and round the femurs and you will agree that the wasting is extreme. "Perhaps one of the most distinctive features is the enlargement of lymphatic glands. The enlargement is general, but affects primarily and chiefly those related to the joint affected. The glands are separate, rather hard than soft, and not tender, and show no tendency to break down." If you will examine the glands in the axilla and other parts afterwards you will find that in every point they conform to the description given here. These enlarged glands have been present for many months, but they have not broken down. "More often they do not become larger than a hazel nut. The glands most affected are the supratrochlear—those along the brachial artery, those in the axilla, those in Scarpa's triangle, those deep in the iliac fossa, those in the deep angle of the neck." All those are affected in this case except the iliac glands. Still mentions enlargement of the spleen, which we have seen exist in this patient; and then he goes on to emphasize again the character of the enlargement of the joints. He says: "There is marked thickening of the capsule and connective tissue just outside it; there is also thickening and vascularization of the synovial membranes"; and if you will examine this patient you will see that you can detect thickened synovial membrane between the tibia and the femur, "and in many of these joints the uniformity of enlargement suggests a general thickening of the synovial membrane." He is speaking next of the *post-mortem* appearances as confirming the suggestion that the disease is not osteo-arthritis. He says the cartilage may be perfectly normal. "A case in which the disorder had lasted three years showed pitting of the surface of the cartilage from pressure, very marked processes of synovial membrane fitting into the pits, no fibrillation, no osteophytic change, no exposure or eburnation of bone." It is, you see, a synovial and not a bone or cartilage disease. "The enlarged glands appear normal on section"; and I think that that completes the description of the disease. So you will agree with me, I am sure, that this child conforms very accurately to that description.

Now, that description was given in 1896, and the only important work in connexion with the disease which has been done since, as far as I know, is that bearing on the suggestion which has been put forward that this disease is really a form of chronic tuberculosis. The suggestion was originally made that many cases of chronic osteo-arthritis are really chronic forms of tubercle; and I have here a paper in which the attempt was made to solve that question by Dr. Edsell and Dr. Lavenson. It is a paper which was published in the *American Journal of Medical Sciences*. The way they set out to investigate the question was to give the patients injections of tuberculin to see whether they reacted. The experiment, of course, is not conclusive, because the patient may react, having tubercle elsewhere, and yet the joint disease may not necessarily be tuberculous; but it is a striking thing that of a number of cases here recorded of osteo-arthritis so-called, in some enlarged glands were present, and in some they were not, and almost without exception it was the people with no enlarged glands who failed to react to tuberculin injections, and it was the people with enlarged glands that did react to tuberculin.

But that is not really the matter which concerns us this afternoon. Our concern is as to whether the disease in this little boy, which is exactly like the disease described by Dr. Still, can possibly be a form of chronic tuberculosis. One of the cases of Dr. Edsell and Dr. Lavenson was an example of this disease, and very briefly I will give you the points about it. The patient was a little boy who was 11 years of age when he was admitted into a hospital, and he had trouble in all the joints, much as our patient here has, and his axillary glands, and also his epitrochlear and inguinal glands were enlarged, and the splenic dullness was increased. He was sent out of the hospital and came to a home for incurables two years later. The glandular enlargement was much more striking; many of the glands were affected and many of the joints were involved. It would be tedious to read to you the full description of the condition of each joint, but the point of the case is that he was given tuberculin injections, and the result was that after injecting 3 mg. the temperature rose, the boy felt miserable, and his joints, which had been free from pain for many months, became painful again, and he begged that the massage be omitted. Tuberculin was given again, and again the temperature rose and the joints became painful. Several of the enlarged glands were removed, and they did not appear to the naked eye to be tuberculous. Sections were examined for tubercle bacilli, but none were found. Inoculations were made from an emulsion of several of the largest glands, and the emulsion contained organisms having the perfectly typical appearance

of tubercle bacilli, but the authors say they were surprised to find that the inoculation of this material into guinea-pigs was entirely negative. So their case does not prove anything, but at the same time it is suggestive of the possibility that these children affected with multiple chronic affections of the joints and enlarged glands and a large spleen may be suffering from a chronic form of tuberculosis.

There are only two other points that the case raises to which I should like to direct your attention. The first is the extreme degree of arthritic atrophy. I would like to point out to you, what you are often forgetting, that that atrophy has nothing whatever to do with the disuse of the joints; it is much too extreme for that. It has, in some obscure way, a nervous origin. The growth of muscle and the activity of the joints are co-ordinated probably in the spinal cord, so that if the joints become useless the muscles rapidly waste. Wasting of muscles following arthritis does not occur in animals if the posterior roots of the cord are cut.

And the last point, which we have not time to go into thoroughly now, is to remind you that I have throughout the lecture used the word "osteo-arthritis" as distinct from rheumatoid arthritis, because I am constantly showing you in the wards that the diseases lumped together as one under the names arthritis deformans, osteo-arthritis, chronic rheumatoid arthritis, chronic rheumatic arthritis, comprehend several diseases—at least three—namely, an acute, or a subacute disease if you like, of which we have had many instances in the hospital, one of which has only recently gone out from Mary Ward, in which the bones are not affected. It is a disease solely of synovial membranes, and is accompanied by slight pyrexia: the name rheumatoid arthritis should be kept for it. Secondly, there is osteo-arthritis, which is a disease in which there are bony outgrowths, and the cartilages become worn away. And finally there is the arthritis of old people, usually confined to a single joint.

ON A CASE OF ACUTE LYMPHAEMIA IN A CHILD.

BY

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and

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IN view of the great theoretical interest attaching to leukaemic blood conditions, especially those of acute nature, we think the following case worth recording. Unfortunately it was only a few days under observation and the only blood count done was made on the day the patient was removed from the hospital by the parents. Its condition at this time was almost moribund, and we have since learned that the child died on the day following removal from hospital. An autopsy would have been of great value in determining the marrow changes, etc., yet even in its absence the nature of the case seems to us to be fairly clear.

Clinical History.

Female child, aged 3, admitted on August 1st, 1904, to the Children's Hospital, Temple Street, Dublin. The history given by her mother was: Healthy until January, 1904, when she contracted whooping-cough, since which she had not been strong. In June, 1904, she was ill, and the doctor in attendance said her kidneys were affected. Three weeks before admission she got a fall on her left side and from this the mother seemed to date the onset of the present attack.

Condition on Admission.

The child was well nourished, the skin of a characteristic tawny tint. A few spots of subcutaneous haemorrhage were present in the ileo-sacral region, and during the few days she was under observation these increased very much in size and number, though confined to the same area. The left thigh was flexed, and movement caused great pain; this was attributed to the fall, but no injury was present to account for it.

Pressure over lower third of both tibiae showed great tenderness, slight tenderness on pressing sternum.

None of the skeletal changes of rickets were present. The child was fairly bright at times, but seemed to lapse occasionally into a stuporose condition, lying with mouth open, eyes half closed, and indifferent to slight stimuli.

Temperature varied from 100° to 102° F.; pulse on day of admission was 100, but showed tendency to increased rate (160 on day of removal from hospital). This, with other symptoms, would perhaps indicate the progressive nature of the case, a similar progressive change being observed in films of blood taken at an interval of two days.

Epistaxis and melaena were present, the former practically constant, as was the latter on relief of the obstinate constipation which had persisted during the course of the illness. There was no swelling or bleeding of gums, but there was a very disagreeable fetor from the mouth.

The lymphatic glands in posterior triangle of neck, axillae, and groins were moderately enlarged and soft. The abdomen was prominent; spleen was palpable, extending 2½ in. below margin of ribs; the edge was observed to be distinctly sharp. The liver was apparently not enlarged. Slight ascites was present. Neither the lungs nor the heart showed anything of interest. Urine was pale in colour, specific gravity 1020, free from albumen, but containing a large quantity of indican.

An interesting fact was the passage of a worm (ascaris) on the morning patient left hospital.

Blood Count.

The following is the result of the blood count made on August 6th: Reds, 1,540,000; whites (counted on the same preparation as the reds), 131,000. With the pipette giving a dilution of 1 in 10 and the leucocyte counting fluid the figure was 136,400.

Films were prepared on slides, fixed by immersion for one hour in equal parts of alcohol and ether, and stained by three standard methods, namely, Ehrlich's haematoxylin and eosin, Jenner's compound of methylene blue and eosin, and Ehrlich's triacid.

Between 500 and 600 leucocytes were differentially counted on a film stained by each of the three mixtures, making a total of about 1,700, and the results now given are based on an average struck between the percentages given by each method. They are as follows:

	Per cent.
Large hyaline mononuclears	65.0
Smaller hyaline mononuclears (lymphocytes) ...	32.0
Polynuclear neutrophiles	1.3
Polynuclear eosinophiles	0.5
Neutrophile myelocytes	0.6
Eosinophile myelocytes	0.6
	100.0

The red corpuscles were for the most part large. (Several which were measured gave results between 8 and 9 μ.) They appeared to contain an average amount of haemoglobin, judging from the depth of their tint with eosin. (The haemoglobin was not estimated.) Despite the severe anaemia nucleated reds were remarkably few. Not a single megaloblast was seen, and only two ordinary normoblasts. Two other nucleated reds of very remarkable aspect were seen. Their protoplasm was more deeply stained with eosin (in the Jenner preparation) than that of their neighbours, whilst their size was somewhat smaller (7.2 μ). Their nucleus was not so deeply stained as that of the ordinary normoblasts, and was surrounded by a wide, colourless zone, as though contained in a vacuole. In the cell that was measured this vacuole was 4.8 μ in diameter, and the contained nucleus 3 μ. One of us who has had the opportunity of closely studying the blood of many leukaemic cases, does not recollect to have ever seen anything resembling these two objects. In counting 1,700 leucocytes these four were the only nucleated red cells encountered. Granular degeneration and basophilia of the reds were not seen though closely looked for.

In connexion with the leucocytes we would lay stress on the following points of interest:

1. *The Extreme Rarity of Ordinary Polynuclear Neutrophiles.*

In the haematoxylin-eosin preparation many cells with polymorphous and diversely-lobed nuclei could be seen which might have readily passed as such on superficial inspection. Careful examination showed, however, that the nuclei of these cells were distinctly paler, and their reticulum less distinct than those of true polynuclear neutrophiles. They were also somewhat larger, and their nuclei more bluntly and usually less deeply lobed. Comparison with the two other staining methods showed that these apparently polynuclear cells were devoid of neutrophilic granulations. In a very few of these a very fine basophilic granulation was seen.

2. *The Character of the Mononuclear Cells which Made up 97 per cent. of the Leucocytes.*

The great majority of these were large (up to 22 or 23 μ) perfectly hyaline cells with faintly staining nucleus and more or less basophile protoplasm. Neutrophilic granules were present in a very small proportion, and even amongst these few possessed them in such numbers as are met with in the ordinary myelocytes of myelogenous leukaemia. The fine acidophile granules which were occasionally present were dotted over the cell at wide intervals.

In about the same number (0.6 per cent. of all leucocytes) there were present coarse acidophile granulations. Even these were not so closely packed as in the typical eosinophile myelocytes of myelaemia. The large mononuclear cells in this blood belonged to all the varieties recently defined by Pappenheim[1]—namely, the large lymphocytes, large mononuclear (*sensu stricto*), and transitional forms. Their nucleus presented every grade of lobulation, from a scarcely visible hilus or infolding, to two, and occasionally three, completely separate masses of nuclear substance. These cells with

divided nuclei were always quite distinguishable by the characters given above from the ordinary polynuclear leucocyte; a coarse finger-like or amoeboid-looking lobulation was the commonest condition. Many of these large cells seemed very labile, and had been traumatized in the act of making the film. This was evidenced by the loss of the protoplasm of some, and by the spreading out of others into a delicate reticulated or vacuolated layer of basophilic matter very irregular in shape. A considerable number of these possessed protoplasm with a greater amount of basophilia than the nucleus, which was then discernible with difficulty as a clear, almost hyaline, mass embedded in or seemingly apposed to the darkly-stained protoplasm. No evidence of mitotic activity was observed in any of the leucocytes in this blood.

3. The second variety of mononuclear cell comprising 32 per cent. was smaller, and its nucleus took the basic stain much more deeply. It was sometimes round, sometimes reniform. In triacid preparations the so-called "perinuclear granules of Neisser," now regarded as artefacts, showed a peculiar predilection for these lymphocytic nuclei. The protoplasm was usually quite scanty, occasionally more abundant, and decidedly basophilic, so that when the bulk of the cell was larger than normal, and its nucleus a little less basophilic, a difficulty arose in the distinction of this from the larger variety of mononuclear cell.

4 Most cells were not specially stained for, and no undoubted specimen was seen in the Jenner preparation.

5. Glycogen in finely granular form was readily detected in many of the leucocytes.

This case agrees with the clinical pictures of acute leukaemia in its sudden onset, rapid course, moderate enlargement of lymph glands, enlargement of spleen, haemorrhages in skin and mucous membranes, and oral fetor. It agrees with the haemocytic picture of acute leukaemia in the following points: (1) Enormous preponderance of hyaline mononuclear cells, the larger variety preponderating as it is said by Ewing[2] and others to do in acute cases and in children; (2) rarity of polynuclear neutrophiles, and, indeed, of all forms of granule cells; (3) presence of myelocytes in very small numbers; (4) rarity of both varieties of nucleated red corpuscles, as was first pointed out by A. Fraenkel.[3] We have no hesitation in diagnosing the case as acute leukaemia. A discussion of the significance of the blood changes in this interesting case, and of their relation to changes in the blood-forming organs, would, we consider, be lacking in objectivity unless accompanied by the results of autopsy, which we unfortunately have not at our disposal. We therefore abstain from entering on so difficult a task, merely referring to the recent papers of Glinski,[4] Lustgarten,[5] Januschkiewicz,[6] and Parkes Weber,[7] as well as to Pappenheim's complete survey of the current theories as to the origin of the blood corpuscles.

References.

[1] *Zeit. f. klin. Med.*, Bd. 47, 1902, p. 217. [2] *Clin. Path. of Blood*, Ed. 1904, p. 245. [3] *Deut. med. Woch.*, 1895, 4. [4] *Virch. Arch.*, Bd. 171, H. 1. [5] *Inaug. Diss.*, Budapest, April, 1903. [6] *Virch. Arch.*, Bd. 173, H. 2. [7] *Virch. Arch.*, Bd. 174. [8] Loc. cit.

A CASE OF ACUTE LYMPHAEMIA.*

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A boy, B. F., aged 9, was admitted to the Mater Hospital on October 1st, 1904, under the care of Dr. John Murphy. He had swellings on both sides of the neck, breathlessness, and bleeding from the nose.

Family History.—His father, a tailor, hurt his leg when 4 years old, and subsequently developed hip disease, for which amputation through the hip joint had to be performed. The mother, who was described as having been always very pale, died in February, 1903, about a fortnight after the birth of a child, from what cause I was unable to ascertain. Patient's elder sister, aged 10, was ill with pneumonia when patient was admitted to hospital, and her life was despaired of, but she recovered. His younger sister, aged 5, was described as suffering from swellings in the neck. I had her brought to the hospital and found her to be a ruddy, healthy child, with perfectly normal blood. In the upper cervical and suboccipital regions there were a few enlarged glands, which were obviously associated with irritation of the scalp, due to pediculi.

Personal History.—Six weeks before admission lumps were first noticed in the neck, armpits, and groins. For a week prior to admission he had been suffering from epistaxis and bleeding from the gums. The swellings under the left arm were painful.

Condition on Admission.—A good-looking, well-nourished, fair-haired boy, the lower part of whose face presented a peculiar square outline owing to the large glandular swellings beneath the jaw on each side. The face and mucous membranes were very pale. The tonsils were enlarged, and post-nasal adenoids evidently present and large. Tongue dry, and coated at the side; lips cracked on the inside. The skin of the abdomen and legs is mottled with dozens of small petechiae, which are said to have appeared before the glands began to swell. Masses of enlarged glands are seen and felt at the sides and back of the neck, in the submaxillary region, in both axillae and groins. The glands are moderately hard, discrete, and freely movable. One gland in the left axilla is both painful and tender, and the glands in the right are somewhat tender. Pressure over the other glands causes no pain; no glands palpable in the antecubital or popliteal fossa. The spleen is decidedly enlarged, its edge being felt about midway between the lower border of the ribs and the umbilicus. Temperature on admission 99° (100° the same evening), pulse 120, respirations 26. The patient was very dull and apathetic. The urine deposited an abundant sediment of uric acid crystals, and contained a distinct trace of albumen.

Blood Examination.

At the first glance the case might have been taken for Hodgkin's disease, but the fresh blood preparation at once settled the diagnosis. On the day after admission the blood count was R. 1,898,000, W. 212,000, the proportion being as 8.9 to 1. The stained preparation showed hardly any other form of leucocyte save lymphocytes—large, faintly staining, and evidently degenerating forms being very numerous. The diagnosis was therefore lymphatic leukaemia, and in view of the rapid development of the symptoms, temperature, haemorrhages, and general condition, the case had to be classed as an acute form of the disease. The haemoglobin was about 40 per cent., specific gravity 1.0435 (Roy-Hammerschlag). The fresh blood showed much fine molecular matter floating in the plasma, and displaying remarkably active motility, probably Brownian.

The first differential leucocyte count was made on a triacid preparation three days after admission, and showed that no less than 98 per cent. of all leucocytes were mononuclear. Polymorphs were only 0.5, transitionals 1.1 per cent., whilst out of several hundred cells examined, only a couple of doubtful myelocytes were detected.

Characters of the Mononuclears.—Somewhat less than half of them (42 per cent.) were of medium size, about as big as a red corpuscle or a shade larger. Their nucleus was strongly basophile, often delicately incurved or reniform, and sometimes double, with the apposed sides of the nuclei flattened as though direct division had recently occurred. The protoplasm of these lymphocytes was scanty and hyaline. It was often more basophile than the nucleus, and in Jenner and triacid preparations there was little distinction. A certain number (about 0.6 per cent.) had the same sort of nucleus, but a much larger amount of protoplasm. These might be described as large mononuclears. The other kind of lymphocyte was present in larger numbers (56 per cent.). It was larger, more faintly stained, and so easily broken down that most of them looked like mere irregular bluish expansions, about twice as big as a red disc, and scarcely showing any difference between nucleus and protoplasm. Their margins were often fringed with irregular protuberances. Subsequent observation showed that there was no fundamental difference between these two classes of mononuclear leucocyte, their relative proportions seeming to vary with the amount of pressure used in making the film. The large faint variety I consider to consist of the more labile, degenerating, or necrotic individuals.

A very few large mononuclears appeared to contain very fine granulations of acidophile character—possibly myelocytes. In others there were basophilic granules of various sizes. Polymorphs were remarkably few and hard to find, whilst eosinophiles and typical mast-cells were absent altogether. The red corpuscles were also labile, readily deformed, apt to run together in clumps, and did not stain well, being evidently poor in haemoglobin. With few exceptions, they did not display any basophilic tendency. Nucleated forms were, considering the profound anaemia, surprisingly uncommon, and all that I came across were of normoblastic character.

Progress of the Case.—On October 6th a bluish patch of ecchymosis, 2½ in. by 3½ in. in diameter, appeared in front of the left elbow round the vein from which blood had been taken for bacteriological examination. Another large ecchymosis appeared spontaneously over Poupart's ligament, on the same side. The temperature fluctuated between 99° and 101°, the pulse was between 130 and 140, respirations about 24.

* Being portion of a paper read at the Pathological Section of the Royal Academy of Medicine in Ireland.

The sensorium was generally dull, with occasional revivals of interest in his surroundings—on one or two days he even played with his toys. Towards the middle of the month he became steadily weaker, and moaned continually with pain, which he referred to the ears, teeth, neck, and right arm and hand. The glands increased in size, and there was almost continual weeping of blood in small quantity from the nose and mouth. On the 18th he vomited twice. On the 19th I examined his blood for the last time. He was then quite conscious, but the respirations were hurried and gasping. Death took place shortly afterwards.

Development of the Blood Condition.

On October 7th the reds were 1,648,000 and the whites 310,000, the relation being 5·3 : 1. On October 11th the count was reds 1,444,000, whites 245 000, or nearly 6 to 1. The last count was done on the 19th, when the little patient was moribund. It yielded the remarkable figures, reds 820,000, whites 783,000, or nearly 1 : 1. The blood looked decidedly milky, and in the fresh preparation most of the field was occupied by the leucocytes, patches of pale, degenerate-looking, coherent, red discs being visible here and there. Stained preparations showed practically nothing but large lymphocytes of the two varieties described above. Polymorphs were very few—perhaps 1 for every 200 or 300 lymphocytes. An occasional myelocyte was seen, the fine acidophile granules being few and faint. Both Jenner and triacid preparations showed a few small cells with haemoglobin-containing protoplasm of basophilic tendency, a nucleus of normoblastic type and coarse basophilic granules. Normoblasts were fairly abundant, but megaloblasts were absent. Despite the enormous numbers of lymphocytes which must have been the products of active proliferation, I could find very few mitotic figures, and these were not well preserved. The nuclei rather gave the idea of multiplying by direct division. The films were dry ones, however, fixed by heat or alcohol and ether, *not* with Flemming's solution.

Bacteriological Examination of the Blood.

On October 6th, rather more than 5 c.cm. of blood was obtained aseptically from a vein in front of the elbow, and at once introduced into 500 c.cm. of sterile bouillon which was then placed in the incubator at 37° C. No growth whatever occurred, and at the end of a few days the corpuscles, both red and white, appeared quite unaltered in the sediment. Stained films of this showed nothing resembling protozoa.

Effect of Stains on the Fresh Blood.

On October 6th the patient's finger was punctured through a drop of Unna's polychrome methylene blue, and the mixture of blood and staining fluid examined at once. The nuclei of the lymphocytes were then seen to have become deep violet, whilst those of the polymorphs remained colourless. After the lapse of a few minutes, the protoplasm of the polymorphs began to present a fine violet granulation—evidently due to staining of the neutrophile granules by the red constituent of the polychrome blue. Control preparations with healthy blood showed no staining of any leucocyte nuclei, though a similar tinging of the neutrophilic granules appeared after a time. The rapid penetration of the stain into the lymphocyte-nuclei of this patient I am inclined to ascribe to their being in a necrotic, devitalized condition.

Necropsy.

This was done a few hours after death. The body was still warm and the blood only partially coagulated. Its volume seemed much increased, and that contained in the heart looked exactly like anchovy sauce. On standing in a jar it deposited a layer of red corpuscles about an inch thick, whilst the supernatant fluid was cream coloured.* The coagula in the heart resembled lumps of fat. Charcot-Leyden crystals never formed.

Heart much distended with discoloured blood, its surface thickly sprinkled with petechiae. Endocardium normal. No valvular lesion. Muscle seemed unaltered. The pericardium contained about 2 oz. of turbid serum. On its apex was an enormously enlarged *thymus*, consisting of two well defined triangular lobes and a connecting central part. Its colour was pale pink without, white within, its consistency quite soft, almost brain-like. Behind it a mass of enlarged glands adhered to the innominate veins and seemed almost to penetrate them.

Lungs.—These showed no sign of tubercle. They were sprinkled over with large subpleural petechiae, and contained many small haemorrhagic nodules like small infarctions. Bronchial glands enlarged to the size of good-sized beans, pinkish-grey on section. Glands in the posterior mediastinum moderately enlarged. Tonsils much enlarged.

The *peritoneum* was studded over with petechiae. It contained no fluid. The great omentum contained many glands as large as peas and bright red in hue.

Spleen moderately enlarged (12 oz.), pale-red without and within, consistency normal. The trabeculae and follicles were quite visible on the cut surface, which did not differ markedly from the normal. One small white infarct 6 by 2 mm. was seen.

Liver enlarged and hyperaemic, colour pale, with yellow dots as though fatty. Lobular marking obliterated. Gall bladder small; contained dark-green bile. A chain of enlarged lymphatics occupied the portal fissure and accompanied the vessels to the duodenum.

Suprarenals small, pale, flat.

Kidneys rather large; capsule stripped easily, leaving smooth, pale surface; cortex rather wide, pinkish, with large irregular, ill-defined pale patches; boundary layer distinct, bright red, a millimetre wide. Pyramids pink with white streaks. Weight of both organs 10 oz.

Stomach small, very pale externally; lesser curvature and posterior surface thickly studded with enlarged lymphatic glands. Mucous membrane cream-colour, mottled with petechiae.

Intestines.—Peyer's patches and solitary glands raised about a millimetre above the surface, swollen, grey, and pulpy; no ulcers.

Mesenteric glands as big as hazel-nuts, very red. The largest (size of a pigeon's egg) were at the ileo-caecal valve.

Coeliac and lumbar glands moderately enlarged, soft, bright red on section, hyperaemic.

Marrow of the long bones was dark-red in hue, and resembled spleen pulp.

C. N. S. and external lymph glands, in deference to request of the friends, were not examined.

MINUTE ANATOMY.

The tissues selected at the autopsy (which was done whilst the body was still warm) were fixed, some in Flemming's strong mixture, others in saturated sublimate, and the remainder in 10 per cent. formalin. Smear preparations of the organs were also made.

Marrow (of Femur).

(*a*) *Smears.*—These showed practically only one sort of leucocyte, namely, large mononuclear cells which at first sight appeared to consist entirely of a large, faintly-stained nucleus. On closer examination, a zone of protoplasm could be made out, of approximately the same affinity for basic dyes as the nucleus, and, therefore, inconspicuous. It was non-granular. The margins of these cells (or nuclei) were often peculiarly fringed or crenate. They took the stain in a patchy manner, and altogether gave one the idea of being labile, degenerate structures. Here and there one of their nuclei, more darkly stained than its neighbours, looked twisted or contorted as though undergoing mitotic change. But in none of the films (alcohol and ether fixation, staining with Ehrlich's haematoxylin) did I observe a genuine mitosis. On the other hand, many of these cells rather gave one the idea of multiplying by fission or budding, and this impression was still further increased by the frequent occurrence of masses of these nuclei lying close-packed together in an ill-defined protoplasmic mass, the whole structure closely resembling an immature giant-cell. The films also showed many red corpuscles, a large proportion being nucleated, and of normoblastic type. Their nuclei were, as usual, opaque black with haematoxylin, and many were rosette-shape or otherwise fragmented, but no genuine mitoses were found on the films. Megaloblasts were not seen. Here and there was a very large cell (macrophage) with single or lobed, vesicular, faintly-staining nucleus, and an abundance of strongly acidophile protoplasm, in which were embedded irregular masses of deeply-stained chromatin, evidently nuclear débris undergoing intracellular digestion.

(*b*) Sections of sublimate-fixed marrow presented an aspect which at first sight differed widely from that of the films. This was because the cells looked so much smaller in sections than in the spread films. Closer examination, however, showed that the prevailing type of cell was the same—large lymphocytes with round or lobulated nuclei and scanty protoplasm. The fringed and crenate appearance of the cell borders met with in the films was not seen on the sections. The cells were supported on a very delicate stroma, through which coursed many wide vessels, the walls of which were composed of a single layer of endothelial plates. The cells within these vessels were the same as those without—namely, mononuclear leucocytes similar to those in the peripheral blood. Some of the larger vessels in the marrow were literally packed with them. Scattered through the mass of lymphocytes of which the marrow was composed were very large masses of protoplasm with single or lobulated vesicular nucleus and acidophile protoplasm (megacaryocytes).

The most remarkable feature about the marrow was that it contained no granule cells of any sort. The absence of neutro-

* The coloured illustrations which accompany this paper will appear in the next volume of the *Transactions of the Royal Academy of Medicine in Ireland.*

phile myelocytes was proved by the treatment not only with Ehrlich's triacid, but also with Dominici's eosin-orange-toluidin blue. It also contained very little fat.

With regard to evidences of mitotic division, the only preparations that yielded satisfactory results were those stained with Heidenhain's iron haematoxylin, after Flemming or sublimate fixation. In these, plenty of mitoses were seen, both within and without the vessels. It must, however, be remarked that the chromatin loops were mostly more or less "lumped," and that good di-asters seemed unusually hard to find as compared with, for example, a rapidly-growing epithelioma.

Lymph Glands.—These were packed with large mononuclear cells with vesicular nucleus, containing several nucleoli. The protoplasm was often reduced to a narrow rim. These cells were evidently the same large lymphocytes which swarmed in the blood and marrow to the almost complete exclusion of almost every other sort of cell. Not only was the capsule of the lymph glands infiltrated with these cells, but also the fat-cells which occurred in the vicinity. The glands also contained large endothelial plates belonging to the reticulum, and large mononuclear elements with acidophile protoplasm often containing deeply-stained fragments of chromatin or vacuoles (macrophages). No distinction between germ centres and ordinary lymphoid tissue could be made out, nor could the lymph sinuses be distinguished. The only channels seen were large or small thin-walled blood vessels crammed with red discs and lymphocytes. A remarkable character of these blood vessels was that they contained many macrophages.

Mitoses were very numerous in preparations stained with iron haematoxylin, as many as twenty being seen in a single oil-immersion field, whilst as many as 17 were counted in the cross section of a blood vessel 0.06 mm. in diameter. In many cases the daughter nuclei seemed to be again dividing without going through a resting stage. The fat outside the capsule of some of the lymphatic glands was also infiltrated with proliferating lymphocytes.

The *thymus* presented, so far as examined, appearances identical with the lymph glands. Some concentrically whorled structures (Hassall's corpuscles) could be made out among the swarming lymphocytes. Mitotic figures were readily demonstrable.

The *spleen* presented the same minute structure as the lymph glands plus patches of extravasated red discs. Mitoses were, however, not so readily found in it. The distinction between pulp and follicles had disappeared.

Heart.—There were large perivascular accumulations of lymphocytes, which seemed to be forcing their way in between the muscle fibres and to be compressing or eroding them. Similar accumulations were seen beneath the epicardium and pericardium. Many of these extravascular lymphocytes were dividing.

The *nodules in the lungs* proved to be due to the occupation of superficially-placed groups of air cells by (1) oedema, (2) haemorrhage, and (3) lymphocytic accumulations. The vessels in the vicinity were stuffed with lymphocytes, which were dividing both within and without the vessels.

The *liver sections* presented an appearance all the more remarkable because the naked-eye characters were not strikingly altered. There was most extensive infiltration of the lobules with large lymphocytes which distended the capillaries and in places so compressed the liver cells as to cause them to atrophy and melt away. Whole groups of lobules were thus converted into lymphoid tissue, through which coursed strands of atrophic hepatic cells forming a scarcely visible network. The infiltration was not confined to any one region, both the centre and the periphery of the lobules as well as the portal canals seeming to suffer equally from the lymphoid intrusion. In places the capillaries were plugged in a very remarkable manner with large ovoid, oblong, or linear nuclei, hyperchromatic and degenerate, and seemingly devoid of protoplasm. These peculiar nuclei were often twisted together like cords, and seemed as though dividing by transverse direct division. Mitotic figures could not be seen in them even in iron haematoxylin preparations. There were transitions between these and accumulations of ordinary round lymphocytes more closely packed than usual, and of course, between these and less closely-packed individuals.

The capsule was intensely infiltrated, and cord-like masses of lymphocytes penetrated from it into the body of the organ. Mitoses were readily discoverable in all these accumulations by appropriate staining.

In the less deeply infiltrated parts the liver cells seemed healthy, and in iron preparations showed the intercellular and intracellular bile capillaries with great distinctness. Giant cells were not seen in the liver, nor did the capillary endothelium seem to share in the proliferative process.

The *kidneys* showed, *mutatis mutandis*, precisely the same minute appearances as the liver. Proliferating lymphocytes seemed to have actually found their way, here and there, into the tubules. Mitoses were readily found.

Sections of the swollen intestinal lymphoid apparatus showed appearances similar to those already described in the lymphatic glands.

Summary.

This case was typical of the acute form of the disease in the following characters:

1. The youth of the patient (9 years).
2. The duration (nine weeks).
3. The moderate enlargement of spleen and glands.
4. The clinical course, characterized by fever, haemorrhages, and increased uric acid excretion.
5. The predominance in the blood of the large mononuclear cell with hyaline basophile protoplasm. At no time were these less than 95 per cent. of all leucocytes.
6. The complete destruction or suppression of the myeloid element in the marrow, and the consequent total absence of granule-cells from the blood.

The following characters seem to me, from a study of such already recorded cases as are accessible to me, exceptional:

1. The severe and rapidly progressive anaemia, the reds falling from 2,000 000 to 820 000 within three weeks. The total absence of megaloblasts is highly interesting, as showing that the production of these elements is no part of the normal regenerative process, but takes place under the influence of some special stimulus which was absent in this case. (There were plenty of normoblasts in the marrow.)
2. The large proportion of leucocytes to erythrocytes. Osler states that it is never as great in the lymphatic as in the myelogenous form of leukaemia, and regards 1 white to 10 reds as quite excessive. In this case the first count yielded 1 white to 8.9 reds, and the ratio at the end was practically 1 to 1.
3. The absolute number of lymphocytes—over 700,000 at the end—was also higher than is usually met with in acute cases. Dominici says in his article in the second volume of the new edition (1902) of Cornil and Ranvier's *Pathological Histology*, p. 674, "le nombre des mononucléaires mis en circulation, ne dépasse guère quarante ou cinquante mille." It is only fair, however, to add that higher numbers than those mentioned by Dominici are given in some recent observations of the acute form of the disease—one by Januskiewicz[1] with 165,000 whites, of which 87 per cent. were large mononuclear, and the others by Kelly[2] with 119,000, 567,000, and 378,000 leucocytes respectively, nearly all being lymphocytes.
4. The great enlargement of the thymus.

Concluding Remarks.

1. The essential feature of the morbid state in this case is the abnormal activity of the lymphoid tissues throughout the body and the flooding of the blood and tissues with their products, the lymphocytes.

2. This activity in the recognized seats of lymphoid tissue is accompanied by a rejuvenescence of that tissue in places where only traces of it persist during adult life—for example, the marrow of the long bones, the liver and kidneys. In the bone marrow, this revival takes place with such revolutionary energy as to invade and completely suppress the other variety of haematopoietic tissue—the myelogenous; hence the profound oligocythaemia, and absence of granule-cells from the blood.

3. The behaviour of the lymphoid tissue in this case strongly resembles that of malignant new-growths, and the resemblance is still further accentuated by the fact that the stimulus, whatever it may be, does not appear to be of bacterial nature (cf. the negative result of the culture experiment). Like the cells of a malignant tumour, the proliferating lymphoid cells show a tendency to spread in all directions round their focus of origin, whether that focus be a lymphatic gland or a blood-vessel (cf. the appearances described in the heart).

4. The proliferating cells in this acute case are of distinctly *embryonic* type, resembling the *mother-cells* from which both varieties of blood-forming tissue spring, rather than *differentiated* lymphocytes. This feature still further accentuates the resemblance to malignant tumours in which the malignancy is the more pronounced the more *anaplastic* (to use Hansemann's expression) or undifferentiated are its cellular constituents. On these lines, one might compare a case of chronic

lymphaemia with typical medium-sized or small lymphocytes, to a benign or histioid tumour—the lymphocytes being fully developed; whilst the present acute case would resemble a tumour process of sarcomatous nature affecting the lymphoid tissue throughout the body.

5. As regards the seat of origin of the disease: looking at the remarkable condition of the marrow alone, one might be inclined, with Benda, to regard the large lymphocytic cells, of which it was almost exclusively composed, as primitive marrow cells, his myelogonia, the "indifferent lymphoid cells" of A. Wolff,[3] and to regard the disease as one primarily affecting the bone marrow. Morphology alone can hardly help us here, for it is not possible to distinguish undifferentiated embryonic cells of one kind of tissue (myeloid) from those of another kind (lymphoid). The objection to Benda's view is that it leaves the intensely active participation of the lymph-glands unexplained. It seems more natural to regard acute leukaemia as a primary disease of lymphoid tissue wherever situate—a disease with distinct affinities to the malignant tumours.

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ACUTE LYMPHATIC LEUKAEMIA,

WITH THE REPORT OF FIVE CASES.

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[*From the Clinic of Professor Osler.*]

IN the fifteen years since the opening of the Johns Hopkins Hospital, among 17,100 medical admissions there were 37 cases of leukaemia. Of these, 24 were of the splenomyelogenous type and all chronic. Among the 13 cases of lymphatic leukaemia 5 were acute. The histories of these cases are as follows:

1. A. H., male, white, tailor, aged 15 years, was admitted on November 28th, 1897, complaining of headache and weakness. The family history was negative. From the age of 2 to 4 years he was sickly, but since then strong and well. He had measles at 5, but no other infectious disease. He had not had tonsillitis, but had been subject to attacks of epistaxis.

The present illness began on November 18th, 1897, with headache and general *malaise*. He kept at work until November 23rd, when, on account of weakness, he had to go to bed. His throat was sore and he had some difficulty in swallowing. He felt feverish. The next day there was nose-bleed, which was severe and lasted for four hours. He grew progressively weaker and had severe headache.

On admission the patient looked very ill. There was dyspnoea and cyanosis. Pallor was marked. The tongue was brown and dry. The throat was injected. The tonsils were enlarged; on the right there were several white points and on the left a patch of membrane 3 cm. in diameter. Large numbers of cocci and bacilli, but no diphtheria bacilli, were found. There was an abundant herpetic eruption on the lips. The lungs were clear. The heart was not enlarged. There was a soft systolic murmur at the apex and over the body. The pulse was 120, of small volume and collapsing. The abdomen was enlarged, tense and tympanitic. The edge of the liver could be felt 7 cm. below the costal margin. The spleen was readily palpable. There was general glandular enlargement. The glands of the neck were enlarged, discrete, but not specially tender. The epitrochlears were very large and tender. There was a petechial eruption on the neck and arms.

The blood showed haemoglobin 45 per cent., red cells 2,445,000, and leucocytes 326,000 per c.mm. The red cells showed some poikilocytosis. An accurately-classified differential count of the leucocytes was impossible, as there were a large number of mononuclear cells difficult to classify. They varied from small lymphocytes to large cells with a pale-staining nucleus with homogeneous protoplasm for the most part, although a few were more or less granular. The predominant mononuclear was small, probably about 90 per cent. In some the granules were distinct, taking a slight purplish tint with the Ehrlich stain. Many of the nuclei of the mononuclears took a greenish stain. The count of 1,000 leucocytes showed: Lymphocytes, 94.2 per cent.; polymorphonuclears, 4.0 per cent.; eosinophiles, 0.8 per cent. In counting these two nucleated reds were seen, both normoblasts. The coagulation time was ten minutes.

The temperature averaged 104° to 105°; the pulse was 120. Blood cultures showed a very abundant growth of streptococci. There was no Widal reaction. The urine had a specific gravity of about 1020, contained a very faint trace of albumen, but no casts were found. The diazo reaction was given. There was a marked acetone reaction. An enormous quantity of leucin spherules, and tyrosin crystals was obtained from the urine passed shortly before death. In the last eight hours of life 1,900 c.cm. of urine were passed, which contained 1.7 grams of uric acid.

On November 29th there was severe epistaxis, partially controlled by plugging the posterior nares. The patient died the following day, November 30th. The temperature continued elevated, averaging 105°. An autopsy was not obtained.

In this case the whole course was thirteen days. The rapid course and repeated severe haemorrhages were the principal features. The presence of acetone and leucin and tyrosin crystals in the urine is to be noted. In regard to the blood condition, it is of interest that although this was a rapid course with haemorrhages, the large majority of the lymphocytes were of the small type.

2. J. L., male, aged 3 years. Anaemia; fever; purpuric rash; blood picture of leukaemia; haemorrhages; convulsions; death; duration about one month. (This case was reported in full in the *Johns Hopkins Bulletin*, No. 110, May, 1900, p. 102. Only a short summary is given here.)

J. L. was admitted on May 11th, 1898. There is nothing of moment in his history, and he did not complain of any serious symptoms. He had been troubled with adenoids, and for a few days had seemed rather easily tired. On examination he was found to be very pale; there was marked swelling of the tonsils and large adenoids. The thorax was clear; liver and spleen were enlarged; there was no glandular enlargement. He had slight irregular fever; the pulse and respirations were rapid. The blood examination showed 35 per cent. of haemoglobin, 1,680,000 red cells and 26,000 white cells per c.mm. The differential count of 1,000 leucocytes showed 13 per cent. of polymorphonuclears, 86.5 per cent. of lymphocytes (of which 45 per cent. were large, 41.5 per cent. small). The red cells showed no special changes; no nucleated reds were found. The lymphocytes showed all variations in size, from the smallest to some which were 15 microns in diameter. The general staining was pale. There were, however, a few small lymphocytes with a typical deeply-staining nucleus. Subsequent counts showed an increasing percentage of small lymphocytes. On May 19th the lymphocytes were 99.2 per cent., of which 96 6 per cent. were small, and only 2.6 per cent. large. Death occurred on May 30th, following convulsions. The duration of the attack was probably about four weeks.

3. J. A., male, white, farmer, aged 20 years, was admitted on August 2nd, 1899, complaining of weakness. A point of interest in the family history was that his father and his three brothers are all subject to frequent attacks of bleeding from the nose. He had been very healthy. Measles was the only infectious disease he had.

Two months before admission his nose began to bleed spontaneously and he lost a great deal of blood. There was much difficulty in stopping the haemorrhage. He bled frequently after this, but for a week before admission there had not been any bleeding. He has gradually become weak and lost some weight. Otherwise he has no special complaint.

The patient was very anaemic. The skin had a yellow tint. There were some petechiae on the thorax. The lungs were clear throughout. Over the upper sternum the percussion note was dull; this was most marked opposite the second interspace. The heart was not enlarged. There was a soft systolic murmur heard everywhere over the heart and over the carotid and subclavian arteries. There was a venous hum over the neck. The pulse was soft and of low tension. It could be well felt in the tips of the fingers and there was a slight visible capillary pulse. The liver was enlarged, the edge being felt 5 cm. below the costal margin in the nipple line. The spleen was large and easily felt. Its edge was 5 cm. below the costal margin. There was general glandular enlargement.

The blood showed: Haemoglobin, 35 per cent.; red cells, 1,230,000; and leucocytes, 12,000 per c.mm. The differential count showed: Lymphocytes, small, 93 3 per cent.; lymphocytes, large, 0 9 per cent.; polymorphonuclears, 4.9 per cent.; eosinophiles, 0.9 per cent. The great majority of the mono-

nuclears were of the small type. In counting 500 leucocytes 155 nucleated reds were seen; of these, 70 were normoblasts, 75 intermediate forms, and 10 megaloblasts.

The urine had a specific gravity of 1012, contained a small amount of albumen, but no casts were found. The course was rapid; the temperature varied from 100° to 104°. He grew rapidly weaker, and died on August 5th, 1899.

Autopsy (Dr. W. G. MacCallum).—Anatomical diagnosis: Lymphatic leukaemia; general glandular enlargement; splenic tumour; anaemic infarction of spleen; lymphoid nodules in the kidneys; anaemia of all the viscera, with fatty and parenchymatous degeneration; lymphoid bone marrow; enlarged persistent thymus. There was general enlargement of the glands; the lymph glands of the omentum were large and firm. The abdomen was clear. On opening the thorax the thymus was found to measure 13 cm. vertically and 4 cm. transversely. On section it was oedematous and very pale. Its upper margin was just above the sternal notch. The pericardium was clear; there were a few ecchymoses on the right ventricle. No thrombi were found in the heart. The endocardium and muscle were very pale; the heart weighed 370 grams. The valves were normal; there were a few small areas of fatty degeneration in the aortic and coronary arteries. The lungs on section were clear. The spleen, weighing 320 grams, measured 17 × 11 × 6 cm., and was soft and flabby. The veins were very apparent on the surface. Over the upper and lower surfaces there were fine, translucent nodules to be seen which were apparently in the lymphatics. These were about the size of a pin-point. At the lower end there was a small anaemic infarct. On section the trabeculae stood out prominently; the pulp seemed increased in amount. The Malpighian bodies were irregular in size and shape, but not excessively enlarged. The liver weighed 1,900 grams, and measured 25 × 19 × 11 cm. On section the lobes were rather indistinctly marked; the general colour was rather greyish, the surface homogeneous. The gall bladder and gall ducts were normal; the periportal lymph glands were enlarged. The stomach and pancreas were normal. The mesenteric and retroperitoneal lymph glands were considerably enlarged. The kidneys were exceedingly pale and showed numerous small ecchymoses over the surface. On section the kidney was very pale; there were a number of irregular white areas which seemed to be somewhat elevated from the surface. These extended a short distance into the cortex. The axillary glands were much enlarged, and on section presented a mottled, whitish-pink colour. The thyroid was somewhat enlarged and seemed normal on section. The intestines showed general hyperplasia of the lymphoid tissue, especially in the ileum just above the ileo-sacral valve. In the upper part of the ileum there were a few small superficial ulcers which were apparently undergoing healing and for the most part covered in.

Histological Report.—The heart muscle seemed normal. The small vessels with a single line of endothelial cells were often accompanied by a heading of small rounded cells on either side. These seemed to be in the lymphatic sheath if so small a vessel could be said to have one. The epicardium was densely infiltrated with such cells. The pancreas was normal. The capillaries of the liver contained abundant cells with large round vesicular nuclei, somewhat larger than those described in the lymph glands, but the differences were slight and they are probably the same cells. The tissues about the vessels were thickly infiltrated with these cells. In the spleen the Malpighian bodies were not enlarged; the splenic pulp was somewhat oedematous and there were definitely-walled tubercles throughout it which resemble what are generally called blood spaces. These were filled with large lymphoid cells and between them was the blood. In the intestines the Peyer's patches were much enlarged and presented the same histological features as the lymph glands. The adrenal glands showed no special change. The adjacent fat seemed to contain many small rounded cells with relatively large vesicular nuclei. These were also seen in the blood in the vessels. The kidney showed extensive infiltration with cells lying about the tubules. They were apparently in the small lymphatics which accompany the lymphatics between the tubules and which were thus so distended as to compress the capillaries. The testicles showed much the same condition. The tubules were widely separated. The blood vessels were compressed and empty of cells except a few red-blood corpuscles, but the lymphatic tissue about was widely distended with cells. The thyroid was normal except that the sheaths of the vessels were filled with the previously described cells. The protoplasm of these was in very small amount and took but a feeble stain. The structure of the inguinal lymph gland was altogether destroyed. There did not seem to be any nodules in the lymph sinuses. The whole was a mass of rounded cells of the type described but without any definite arrangement. Through these ran delicate endothelial vessels and also fibrils of substance resembling fibrin (stained by Weigert). The blood vessels contained these same cells.

Bone Marrow.—This was extremely rich in cells, chiefly of small size. The crowding of the blood vessels with small nucleated cells was a particularly striking feature. There were many megalocaryocytes; there were relatively few myelocytes. Typical myelocytes did occur in groups, but they were greatly outnumbered by the other cells. Eosinophilic myelocytes occurred in typical form, but were even less numerous. Polymorphonuclear leucocytes were only rarely found. There were a few large lymphocytes with large palely-staining nuclei. On the other hand, there were enormous numbers of small cells about the size of a red corpuscle or slightly larger, with relatively large round vesicular, deeply-staining nuclei, sometimes appearing almost solid, surrounded by scanty protoplasm, which was clear or very faintly granular. In some of these the nuclei were nicked. These cells formed the great bulk of the cells seen in the blood vessels. The marrow was not especially rich in red corpuscles, but normoblasts and megaloblasts, as in normal marrow, were found here and there. The predominant cells were evidently the forming and well-formed lymphoid cells of the marrow, and suggested a proliferative change in that particular sort of lymphoid tissue which one finds in the bone marrow. The bacteriological examination was negative.

It is difficult to determine the duration of this case. If the severe haemorrhage be considered as the onset the course was eight weeks. A striking feature in the blood picture is the large number of nucleated red cells. There were 3,720 per c.mm., of which 45 per cent. were normoblasts, 48 per cent. intermediate forms, and 7 per cent megaloblasts.

4. T. W., male, white, clerk, aged 21 years, was admitted on April 25th, 1903, complaining of sore throat and bleeding from the nose. His family history was negative. There was a history of an attack of gonorrhoea three years before, otherwise he had been healthy. He had been in the Philippine Islands for three years previous to October, 1902. There he had suffered from a severe attack of tonsillitis for which he was admitted to the hospital.

The present illness began in the middle of March, 1903, when he had a severe attack of tonsillitis. With this there was fever and *malaise*. The throat condition persisted and he lost strength. On April 18th he had a severe haemorrhage from the nose which lasted for several hours. There was bleeding at intervals up to admission. He had lost 30 lb.

On admission he looked ill; his colour was sallow. The mucous membranes were very pale. There was no jaundice. The teeth were in good condition. The gums were not spongy. Both tonsils were enlarged. There was an area of ulceration on the left. There were areas of haemorrhage over the soft palate. The neck was swollen, due principally to the enlarged glands. Over the trunk, arms, and legs was an abundant purpuric eruption. Many of the areas were fresh, others were old. There was general glandular enlargement. The lungs were clear. The heart was not enlarged. There was a soft systolic murmur at the base. The pulse was 96 and slightly dicrotic. No pulsation was made out in the veins. The abdomen was natural. The liver was not felt. The spleen was just palpable. The temperature varied from 101° to 103 5°. The urine contained a trace of albumen with some granular casts.

Blood.—The haemoglobin was 45 per cent., red cells, 3,000,000 and white cells 133,000 per c mm. The coagulation time was five minutes. In the fresh blood there were many large mononuclear cells, which showed fairly active motility. There were clear areas in these cells, which showed rapid variation in size and number. The differential count showed: Polymorphonuclears, 5.8 per cent; small lymphocytes, 10.8 per cent.; large lymphocytes, 70 per cent.; medium lymphocytes, 13 per cent.; large mononuclears and transitionals, 0.4 per cent. The red cells showed little change. There were some small cells, and a few larger than the average. There was very slight poikilocytosis. In counting 1,000 leucocytes two normoblasts were seen. The specimens were stained with difficulty. There were all gradations in the size of the lymphocytes. The prevailing form was large. The rim of protoplasm sometimes took a faint granular stain. No definite granules could be seen in the large mononuclears, whose

nuclei took a pale-blue stain. The neutrophilic granules also stained very faintly and irregularly. Many of the granules were very small.

At times, with both the Ehrlich and Wright stains, some of the large mononuclears showed red-staining bodies in the cytoplasm. These were at times rodlike, again broken up into smaller fragments, with rounded ends, and some formed only a red granular mass.

The differential counts for several days showed little alteration. On May 7th the haemoglobin was 35 per cent., red cells 1,850 000, and leucocytes 118 000. The mononuclear cells showed some amoeboid movements which were very sluggish. The same red-staining bodies were found in various shapes.

Nosebleed occurred often. During this time there were frequent fresh areas of purpura. There were large retinal haemorrhages. The temperature was irregular, varying from 99° to 103°.

The course was progressively downward. The blood showed on May 13th the small red staining rods in nearly every large mononuclear and in some of the small mononuclears. The differential count showed much the same percentages as noted before. There were all sizes of mononuclears. On May 14th 6 nucleated reds were found in counting 1,000 leucocytes. They were normoblasts.

Haemorrhages and fresh petechiae were frequent. Oedema appeared. Several times the nose was plugged to stop the bleeding. There was haematemesis. No blood was found in the urine. Cultures from the tonsils gave streptococci and staphylococci. Blood cultures were negative. Fever was constant. The patient died on May 16th. An autopsy was not obtained.

A point of special interest in this case is the occurrence of amoeboid movements in the large lymphocytes. These were quite active at times. The duration of the disease was about eight weeks.

5. S. J., male, white, schoolboy, aged 16 years, was admitted in coma on September 21st, 1903. The history was obtained from his mother. His family history was negative. As a young child he had been fat and apparently robust, but never very strong. His testicles did not descend until the 10th year. He had at times suffered from boils. The last time was four months before admission. He had been at school and working on the farm until the present illness.

In July, 1903, he had a shaking chill followed by a sweat. After this he was apparently not very well. He seemed to lose strength and weight, and it was noticed that he passed large amounts of urine. This was examined and found to contain sugar. He was not put on any special diet, but gradually improved until the latter part of August, when the sugar was found to have decreased in amount. There was never any excessive thirst. During the latter part of August he was much better and gained strength. It was noted that he was often very drowsy, and would fall asleep even when driving. About this time he cut his face while shaving, and following this there was quite an extensive abscess which required lancing. In the early part of September he had severe diarrhoea. There was never any blood in the stools. On September 16th he complained of severe pain in the lower jaw, while the gums became swollen and bled when touched. Fever also was noted of an intermittent type, the temperature rising in the evening. He became weaker, and on September 20th he brought up blood thought to come from the lungs. There was some numbness of the hands and feet. There had been some dyspnoea and palpitation of the heart.

On examination there was an extensive pallor. The lips were dry. The gums were dry and bled readily. The respirations were 60 and very shallow. The breath had a sweetish odour. The breath sounds were everywhere harsh and accompanied by many *râles*. The heart was not enlarged; there was a soft systolic murmur at the base. The pulse was 140 and of fairly good volume. The abdomen was full; the walls were held rigidly. Neither the liver nor the spleen could be felt. The glands generally were enlarged, but not tender. No urine could be obtained. The temperature was 106° on admission.

The patient's condition was desperate; he improved for a time with stimulation, but soon became worse and died nine hours after admission. An autopsy was not obtained.

The blood showed haemoglobin 16 per cent., red cells 748,000, and leucocytes 57,800 per c.mm. The differential count of 1 000 leucocytes was: Polymorphonuclears, 0.3 per cent.; small lymphocytes, 88 2 per cent.; medium lymphocytes, 5.3 per cent.; large lymphocytes, 6.2 per cent. No large mononuclears, eosinophiles, or myelocytes were seen in counting these or in subsequent search. In counting 1,000 leucocytes two nucleated red cells were seen, one a normoblast and one an intermediate.

SUMMARY.

All the patients were white males, their ages varying from 3 to 21 years. The only point of interest in the family history was in Case III. There was a history of several of the family having been subject to attacks of haemorrhage. There was no tuberculous family history in any case. The previous history was rather unimportant. One patient had adenoids, and then had been subject to attacks of tonsillitis, while a third gave a history of attacks of epistaxis for some years.

Onset.—In studying the reported cases of leukaemia one is impressed by a group in which the onset is rather difficult to determine. Of this series, in three the onset was abrupt, in two more gradual. The prominent symptom at onset was weakness in two; haemorrhages, tonsillitis, and abscesses in one each.

Symptoms.—The symptoms during the course showed much similarity. There was fever, weakness, haemorrhages, either externally or into the skin, and a rapidly progressive downward course. Loss of weight was a marked feature in three, and throat symptoms were present in two. Marked changes in the gums were only seen in one case. Glycosuria was present once.

The main conditions found on physical examination was as follows: Pallor was a striking feature in all, and with this marked weakness. The tonsils were swollen and covered by a membrane in one, a tonsillar ulcer was present in one, and in a third the tonsils were only slightly enlarged. Herpes of the lips occurred once. Purpura was seen in three cases and bleeding in four, in three from the nose and in one from the gums. Haemorrhages into the retina were noted once. General glandular enlargement was noted in four, but was not present in the fifth. The spleen was enlarged in four and the liver in three cases. Dullness over the sternum was noted once, and found at autopsy to be due to a persistent thymus. A systolic murmur over the heart was heard in all but one.

The urine was clear in two cases. Albumen was present in three, and sugar in one. The diazo reaction was given in one, and in the same case acetone and large numbers of leucin spherules and tyrosin crystals were present.

In all there was fever reaching above 103° F. In two the temperature rose to 106° F. The course was usually irregular. The pulse was rapid, varying from 120 to 140.

Blood cultures were positive in two instances (Cases I and III). In one streptococci and in the other streptococci and staphylococci were found.

Course.—The average duration was six weeks. The most rapid course was twelve days; one was four weeks and three eight weeks. Treatment did not seem to have any influence. Large doses of arsenic were given, but otherwise the only treatment was symptomatic.

Blood.—The average count of the five cases on admission was haemoglobin 35.4 per cent., red cells 1,822,000, and leucocytes 104,000 per c.cm. If, however, Case I with the high white count of 326,000 be omitted, the average leucocyte count for the others is 48,500. The highest count was in Case IV, with haemoglobin 45 per cent. and red cells 3 000,000. The lowest was in Case V, in which before death the haemoglobin was 16 per cent., and the red cells 748 000. The most rapid fall in the count was in Case IV, where in fifteen days the haemoglobin fell from 45 to 20 per cent., and the red cells from 3,000,000 to 1,450,000. A point to which special attention is directed is the high colour index in the average of the counts. It equals 0.97. The colour index in the cases is 0 93, 1, 1.4, 0.75, and 1.1. In only one is the colour index below 0 9, and in three it is 1 or over. This seems of some importance, and reference will be made to it again.

It will be noted that in every case the lymphocytes were over 90 per cent. of the total leucocytes. The highest percentage was 99.4, in Case II, the lowest 94 2, in Cases I and III. In three the prevailing cell was the small lymphocyte. This is unusual, for taking the cases in the literature, only in about 20 per cent. of the acute cases is the small lymphocyte the prevailing cell. Of special interest is the fact that in Case I, with profuse haemorrhages and a course of less than two weeks, 90 per cent. of the lymphocytes were of the small type. As a rule the rapid cases with haemorrhages show a predominating lymphocyte of the large type. In Case IV there were many of the large lymphocytes which showed active motility in the fresh specimen. There were also various

rod-shaped bodies in the leucocytes and red cells which took a deep-red stain with eosin. These were probably the same bodies which Dorothy Reed[1] describes in the case reported by her as being found in the lymphoid cells of the bone marrow. They will be dealt with more fully in an article by Dr. John Auer. In the later cases frequent examinations were made for parasites after the methods described by Löwit, but none were found.

The differential counts showed:

Case.	Leucocytes.	Polymorphonuclears.	Lymphocytes.		Eosinophiles.	Large Mononuclears and Transitionals.	Myelocytes.	Nucleated Reds per 1,000 Leucocytes.
			Small.	Large.				
... ..	326,000	4.0	90 0	2.2	0.8	0.2	0 0	2
II ... {	26,000	13 2	41 5	45.0	0 0	0.2	0.1	[illegible]
	60,800	0.3	96 6	2.2	0.1	0.2	0 0	[illegible]
III	12,000	5 0	93 3	0.9	0 9	0.0	0.0	310
IV	133,000	5.8	10.8	70.0	0 0	0.4	0.0	2
V	57,800	0.3	88 [illegible]	6.2	0.0	0 0	0 0	2

There is no necessity for any discussion of the general problems connected with acute leukaemia. There have been a number of recent articles[2] which have taken up the whole question of our present knowledge of the disease.

While our clinical knowledge of acute leukaemia is fairly definite we are still far from any exact explanation of its etiology. Recent work has continued to prove the truth of Neumann's contention that the bone marrow is always involved, and the study of acute cases without glandular enlargement has thrown some light on the disease. It seems well established that the primary condition is one affecting bone marrow and other lymphatic structures are involved secondarily. The normal formation is disturbed and we find cells in the peripheral blood which are usually only present in the bone marrow. Are these cells attracted into the blood stream by chemiotactic agency or are they "pushed out" from he bone marrow? As Dorothy Reed[3] points out, there are two important types of cells: (1) Smaller than a red cell and with a densely-staining protoplasm, and (2) small and large lymphocytes with a proportionately large mucleus. Both types proliferate rapidly by direct division, but only in the bone marrow.

Parkes Weber[4] has suggested that acute leukaemia is probably a "more primitive or less differentiated type of disease than the more chronic forms of lymphatic leukaemia." As he points out, there may be intermediate types, and this it is well to keep in mind. In going over the cases in the literature one is impressed by the various differences in details.

While the attention of students of the disease has been specially directed to the condition of the leucocytes, it may be that there is another factor perhaps equally important, namely, the condition of the red blood cells. In noting the blood counts of these five cases it was pointed out that the average colour index was 0 97, and that in only one did it fall below 0.9. For purposes of comparison the blood counts of 40 cases[5] from the literature were gone over, and the average colour index for the series was found to be 0.94. In 15 of these the colour index was over 1, in 20 under 1, and in 5 approximately 1. In these 40 cases the red count was over 2,500 000 in 8, from 1,500,000 to 2 500 000 in 11, from 1,000 000 to 1.500,000 in 11, and below 1,000,000 in 9. Adding the cases of the present series, we have in 24 out of 45 cases a red count below 1,500,000, and in 38 out of 45 cases below 2,500 000. Such a proportion of low counts with a high colour index we find in only one other disease, namely, pernicious anaemia. Does such a finding not suggest that we have with the special leukaemic features also a very rapid severe anaemia of the primary type? Further, does not such a condition strengthen the view that certainly a very essential part of the process is situated in the bone marrow? The cases of acute myelogenous leukaemia reported by Billings and Capps[6] give an average colour index of 0.82 for 7 cases with full counts.

Regarding the condition of the red cells, the usual report is that they showed little change. There is generally no more than very slight variation in size, shape, and staining. There is a marked quantitative with little qualitative change. Nucleated red cells are not common in the majority of the cases. This is in agreement with the blood condition in very rapid cases of pernicious anaemia. In these the nucleated red cells are usually few. Yet in some cases of acute leukaemia the nucleated red cells are numerous. Thus, Herrick,[7] in one acute case with a red count below one million, found 1,800 nucleated red cells per c.mm., of which a few were megaloblasts. He also refers to another case which he had seen, in which nucleated red cells were common. In the case reported by Miller and Hess,[8] there is no note of the exact number of nucleated reds. They are said to be numerous, and chiefly megaloblasts. In Case III of this series there were 3,720 nucleated red cells per c.mm., or one to every 330 red cells. Of these 45 per cent. were normoblasts, 48 per cent. intermediate forms, and 7 per cent. megaloblasts. This was a rapid case with severe haemorrhages.

A curious case, with somewhat similar findings, is reported by von Leube.[9] This was a child, aged 10 years, who came under observation with a blood count of haemoglobin 10 per cent., red cells 256,000, and leucocytes 10,500 per c mm. There were 225 nucleated red cells per c.mm., of which 75 were normoblasts and 150 megaloblasts. Of the leucocytes, 14 per cent. were myelocytes, 40 per cent. polymorphonuclears, and 40 per cent. lymphocytes. Death occurred in four days after she was first seen. There was no glandular enlargement, the spleen was enlarged, and the liver showed amyloid change. Such a case is difficult to classify.

The drop in the red count may be very rapid. Thus in Case IV there was a drop of 10 per cent. of haemoglobin and 1,150,000 red cells in twelve days. In Churchill's[10] case, in four weeks the haemoglobin fell from 60 to 15 per cent., and the red cells from 3,500,000 to 1,280,000 per c.mm. In Arneth's[11] case, after an illness of three weeks, the haemoglobin was only 10 per cent., and the red cells 256,000 per c.cm. Such figures emphasize the rapid blood destruction. It is a point of interest that so many of the patients come under observation with a very low count.

It may be suggested that the frequent severe haemorrhages are largely responsible for the low red counts. But this is not a probable explanation. In certain of the acute cases, especially in the younger patients, haemorrhage does not occur, and, besides, the type of anaemia is not that which we find after bleeding, although doubtless it contributes to the result.

It seems reasonable to consider that in acute leukaemia we have to recognize, in addition to what may be called the specific leukaemic features, also very severe changes in the red cells. As to the exact factors at work in causing these changes we can only conjecture. It is tempting to consider that if all the blood cells be derived from a common source, we must look for the essential cause of this disease as something affecting the primary lymphoid type of cell. If we regard the atypical lymphocytes found in the circulating blood as immature cells swept out from the bone marrow, it might be reasonable to expect that large numbers of immature reds should also be found. This is not the case as a rule, but as already noted, neither is it the case in rapid cases of pernicious anaemia. In connexion with the similarity of the anaemia in these cases to that of pernicious anaemia, we ought also to keep in mind the increased number of lymphocytes so frequently found in the latter disease. This is both a relative and an absolute increase.

The disease in all its features suggests a severe toxic process, and it may be quite a different process from the chronic forms of leukaemia. The work of Flexner and his pupils on lymphotoxic and myelotoxic intoxications seems most important along the possible lines of explanation.

Leube has suggested the term "leukanaemia" to describe cases with features both of severe anaemia and leukaemia. It would seem that many of the cases of acute leukaemia might be described as coming under such a heading. This name has, however, no pathological basis, and can only be used as a convenient clinical term to designate a certain group. There are probably cases which it is difficult to classify under any fixed rules. That such a complicated structure as the bone marrow when diseased should give many different conditions does not seem strange. It is possible that we may be able to separate certain of these cases as they are better understood.

Diagnosis.

This can rarely be made without a blood examination.

The increasing number of cases reported is due undoubtedly to the greater frequency of routine blood work. The cases usually suggest an acute infection. If the throat symptoms be severe at onset there seems enough to explain the condition, and there may be no suspicion of the grave malady. In the cases with swelling and bleeding of the gums scurvy may be suggested. If there be many haemorrhages, either externally or into the skin, purpura naturally seems a proper diagnosis. As Kelly suggests, many of the cases have probably been mistaken for typhoid fever.

There are some cases which suggest features of the group suggested by Leube. Future work is necessary to determine their exact classification. Some may give difficulty in diagnosis between pernicious anaemia and leukaemia.

ETIOLOGY.

Discussion on this must be more or less theoretical. Neither hereditary conditions nor the previous health of the patient can be said to have any definite influence. The association of severe throat and mouth lesions may be causal or secondary. In some instances an etiological influence is strongly suggested. The frequent finding of streptococci and staphylococci may be regarded as perhaps of significance, but it seems more reasonable to regard these as terminal infections. The whole clinical picture suggests a severe infection, and also the possibility that acute leukaemia may be quite a distinct process from the chronic type. The observations of Löwit are as yet unconfirmed.

In conclusion, the following points may be emphasized:

1. That in the majority of the cases of acute leukaemia there is a rapid destruction of the red cells with the blood features of a severe primary anaemia.

2. That the essential changes in acute leukaemia are in the bone marrow.

3. That certain cases seem to justify the term of "leukanaemia" suggested by Leube.

4. That in the study of future cases more attention should be paid to the changes in the red cells and the probable similarity to pernicious anaemia definitely decided.

5. That the clinical features of acute leukaemia suggest its being an acute infection, and perhaps a distinct disease from chronic leukaemia.

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A CASE OF ACUTE LYMPHATIC LEUKAEMIA.

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THE subject of this note was a boy, aged 12 years, as fine a sample of coming manhood as one could wish to see. He had always enjoyed good health, and I would only note in passing that he was an old man's child, his father being now nearly 90 years of age, although in vigorous health.

The boy was at a public school in England, and when he returned home for the Easter holidays last year his mother noticed a spotty rash on his chest, which he attributed to forcing his way through a hedge during a paper chase. It had also been observed that he was a little more languid than usual, and became rather short of breath after any exercise. As he was to return to school next day, I was called to see him on April 28th, 1903.

He expressed himself as quite well. There was distinct anaemia, showing especially in the mucous membrane of the lips and palate. The tongue was coated. A petechial rash was present on the chest and trunk, and particularly well marked on the legs. The heart appeared normal. The spleen could just be felt under the costal margin at the end of a deep inspiration.

For a fortnight he remained in bed with a slight rise of temperature, not exceeding 100°. He had some pain and swelling in one knee, and the petechiae came out in crops, each set fading in a few days. The tongue remained coated, and constipation was present.

As the anaemia appeared to be deepening and the parents were dissatisfied with the slow progress of the patient, I recommended a blood count, and on May 12th Dr. Houston kindly came down. The result of the count was as follows:

Red cells	1,600,000 per c.mm.
White cells	40,000 ,,
Haemoglobin	30 per cent.
Differential count of white cells:	
Polymorphonuclears	0.8 per cent.
Small lymphocytes	7.4 ,,
Large lymphocytes	91.5 ,,
Transitionals	0.3 ,,

That is, 99 per cent. of the leucocytes were lymphocytes. This at once revealed the true nature of the malady, and only too clearly resolved our doubts. I am much indebted to Dr. Houston for his promptitude in completing the examination. He only got home after 8 p.m., and telephoned the result by 10.30 the same evening. I immediately put the boy on Fowler's solution (mv).

On May 14th he was seen in consultation with Sir William Whitla. The spleen was distinctly larger and could be felt easily well under the costal arch. There was no lymphatic enlargement. A fresh crop of petechiae had come out. Arsenic increased to mvijss.

The after-history of the case was as follows:

May 15th.—Temperature 101°, pulse 128. The rise of pulse and temperature evidently portend fresh developments, and this was borne out by the occurrence of a sharp attack of epistaxis in the afternoon, recurring again in the evening.

May 16th.—Morning temperature 100.4°, pulse 136. Bleeding from nostril continues; right nostril packed with lint saturated in solution of adrenalin (1 in 1,000). Apparently as the result of the haemorrhage the spleen is much reduced in size, and can just be felt under the costal region. Has had intense pain in left ear, for which one-eighth of a grain of morphine given hypodermically. Put on 15 gr. of calcium chloride, and 10 minims of adrenalin every three hours. Evening temperature 103.4°, pulse 152. Slept several hours after morphine.

May 17th.—Morning temperature 101.6°, pulse 156. Bleeding again when plug removed. Evening temperature 103.4°, pulse 164. Fairly well all day; no return of bleeding, and has taken food well.

May 18th.—Morning temperature 101.5°, pulse 160. Fresh bleeding from nose. Seen again with Sir William Whitla. Ol. terebinth., mv in capsule, ordered. Evening temperature 103°, pulse 168. Some mental confusion. Breathing slightly stertorous. Respirations 24.

May 19th.—Morning temperature 98.8°, pulse 176. Delirious. Pil. morph. ½ gr. In afternoon wildly delirious for a time, but quieted by another ½ gr. of morphine. Bleeding again when plug removed. Nostril packed with puff ball.

May 20th.—Temperature subnormal, pulse 180, and very feeble. Respirations 40. Had a fairly quiet night. Evacuations involuntary. Died at 3.15 p.m.

REMARKS.

The points of interest in this case are:

1. The age of the patient—namely, 12 years.

2. The complete absence of any palpable lymphatic enlargement, coupled with a moderate amount of splenic hyperplasia. The considerable increase in the size of the spleen only lasted a few days, and was reduced again rapidly by the nasal haemorrhage. The non-involvement of the glands appears to be rather the rule in the very acute cases, and is explained by the fact that the bone marrow is first invaded by lymphoid tissue, and the patient dies before the glands have time to react. The absence of this sign adds greatly to the difficulties of diagnosis.

3. Its exceedingly rapid course, so that one cannot help comparing it to a specific fever or septicaemic process. If we date its onset from three weeks before he was seen, the fell malady ran its course in six weeks, and the symptoms were only acute from the first epistaxis—that is, six days before death. As his mother remarked, she absolutely refused to believe the contents of my note, informing her of the result of the blood count and of the fatal nature of the disease, when she looked at him sitting up in bed chattering to his brothers and sisters, and yet he was dead eight days later.

4. The absolute necessity for a blood count in every case where anaemia is a feature and the symptoms obscure. As Ehrlich says, "the microscopic examination of the blood alone, on dry preparations, without the assistance of any other clinical method, can decide whether a patient suffers from leukaemia, and whether it belongs to the lymphatic or myelogenic variety."

5. The profound anaemia, even before the onset of the epistaxis.

6. Although the case became critical from the time the nasal haemorrhage set in, still the patient did not appear to

die from loss of blood, but rather from an acute septicaemia, with high temperature and a steadily-increasing pulse. The epistaxis could always be controlled by plugging.

7. The presence of a purpuric eruption on the body, as virtually the only sign for several weeks.

8. As is usual in the acute lymphatic cases, the white cells were almost exclusively large lymphocytes.

We thus see that acute leukaemia is generally of the lymphatic type, occurs in young subjects, is generally fatal in from two to four months, and is uninfluenced by treatment.

NOTES ON THE MICROSCOPICAL EXAMINATION OF BONE MARROW.

(Method and Classification.)[1]

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[From the Bacteriological Laboratories, Guy's Hospital.]

The interest attaching to the red bone marrow as a probable factor in the causation of the so-called blood diseases, and as an agent controlling the course of many other diseases not specially regarded as blood diseases, has created a demand for a more thorough knowledge of the sources and causes of variation of the different blood cells, and for a more systematic examination and study of the cytology of the red bone marrow.

The subject is complicated by several technical difficulties arising from the readiness with which the marrow cells undergo *post-mortem* changes; from the unsatisfactory results obtained by the smear preparation and sections now generally employed, whereby the true appearance of the cells is most liable to be destroyed or masked by artifacts; and also from the absence of a suitable scheme for classifying the varieties of cells. The method of preparing and the system of classification to be described in the following notes, and which have been adopted in the examination of a very large number of specimens of bone marrow obtained from various sources, including besides those taken at human *post-mortem* examinations, those prepared from freshly killed dogs, cats, kittens, rats, rabbits, guinea-pigs, mice, chickens, pigeons, frogs, etc., in both adult and fetal states, have been found, in great measure, to overcome these difficulties and to establish the study of the bone marrow on a basis comparable with that of the cytology of the blood.

Method.

Marrow is obtained as soon as possible after death, from a rib or vertebra, by squeezing it out of the bone by means of strong forceps or scissors; in the animals above mentioned it was obtained from the femur. It is conveniently collected on a platinum loop, and transferred at once to a watch-glass containing the dissociating reagent. There results a more or less complete emulsion, and the cellular elements of the marrow are dissociated.

To obtain this result repeated trials were made with a number of different solutions, including distilled water, salt solution, various strengths of alcohol, formalin, Eau de Javelle, solutions of urea, etc., but owing either to their insufficient dissociating action or to the production of chemical changes that interfered with the subsequent fixing and staining of the cells, these were all discarded in favour of a 10 per cent. solution of neutral glycerine.

This dissociating reagent is prepared by diluting glycerine with ammonia-free distilled water to form a 10 per cent. solution, and titrating this against decinormal sodium hydrate, using phenolphthalein as an indicator. The initial reaction of this solution varies from +0.1 to +0.5 (Eyre's scale). This reagent has a specific gravity of 1029 at 15.7° C.

A loopful of 10 per cent. glycerine is then placed on a clean cover slip, and to this a loopful of the marrow emulsion is added and very gently spread over the surface of the slip. The film thus prepared is allowed to dry in the air, without heating, until a uniform ground-glass appearance is produced; this usually results within five minutes, unless the film is too thick. The film is then fixed and stained with a combined eosin and methylene-blue solution (Jenner's blood stain), for two and a half minutes, washed with ammonia-free distilled water, dried thoroughly and mounted in xylol balsam. It is in fact treated exactly as a blood film.

On microscopical examination the various cells should be seen well separated from each other, so that they can be individually studied and classified. A field showing eight to ten cells is to be aimed for: experience soon enables one to judge on this point. Care must be taken to avoid making the emulsion too concentrated or the films too thick, lest the cells are crowded together and the object of the film be defeated.

Classification.

Red bone marrow consists of connective tissue, fat, blood vessels, lymphatics, nerves, and particular cell elements characterized by a peculiar transitional nature and a tendency to produce atypical forms. This atypical transitional constitution is the great obstacle to the satisfactory classification of the marrow cells, since it is frequently very difficult to decide into what class the various intermediate cell forms should be placed.

In film preparations the cells to be classified are the myelocytes or marrow cells proper, and those cells that belong to the blood. There are two chief divisions into red cells and white cells.

Red Cells.

The red cells comprise (*a*) the non-nucleated red cells of the blood, (*b*) the nucleated red cells of the marrow. The varieties of these cells will not be discussed in these notes, but it may be mentioned that the nucleated red cells in normal marrows number about 10 to every 100 of the white cells, though this proportion is often considerably increased in diseased conditions.

White Cells.

The white cells are classed into two divisions, the non-granular and the granular.

The non-granular group comprises:

(*a*) Giant or mother cells.
(*b*) Lymphoid or primitive cells.

The granular group comprises:

(*c*) Coarse oxyphile cells.
(*d*) Fine oxyphile or neutrophile cells.
(*e*) Amphiphile cells.
(*f*) Coarse basophile cells.
(*g*) Fine basophile cells.
(*h*) Polymorphonuclear leucocytes.

Without entering upon the question of the functional and developmental nature of these cells it is desirable to shortly describe the appearances relied upon for purposes of recognition:

(*a*) *The giant or mother cells* have the appearance of zoogloeic masses with rounded, irregular, bulging margins. They vary in diameter from 20 to 50 μ. The protoplasm appears to be indistinctly granular and stains faintly neutrophile. In the depth of the cell are three to five or more nuclear bodies about 4 μ in diameter, staining faintly basophile, and containing one or two small deeper staining nucleolar-like bodies. These cells constitute about 1 per cent. of all the white cells.

(*b*) *The lymphoid or primitive cells* exhibit many varieties of transitional forms. Commonly they closely resemble the above-mentioned nuclear bodies of the giant cells, being round, homogeneous masses about the size of a red-blood cell, staining faintly basophile, showing no distinction of nucleus and surrounding cell substance, and containing one or two nucleolar-like bodies that stain more deeply basophile. Transitional forms extend in several directions. On the one hand, they present all grades of cells, from those showing a scarcely perceptible rim of differentiated cell substance to the fully developed cell with deep-stained margin of hyaline protoplasm, indistinguishable from the lymphocyte found in the blood. On the other hand, this early differentiating rim of cell substance takes a faintly oxyphile stain, and all grades can be observed between this and cells that are not to be distinguished from the nucleated red cells. A third series shows oxyphile granules in the fine rim of early differentiated cell substance and all the subsequent grades from this to the fully-developed granular cell. This lymphoid or primitive cell is the most important of the white cells, and constitutes about 50 to 60 per cent. of all the myelocytes. An examination of marrow taken from a new-born infant shows over 70 per cent. of these cells, and in fetal marrow the proportion is very much greater.

(*c*) *The coarse oxyphile granular cells* have pale basophile staining nuclei resembling the primitive cell, surrounded by a varying amount of reticular cell substance in the meshes of which are coarse oxyphile staining granules. Apart from variations in size of the nucleus and in the number of the granules, these cells are the most constant and typical cells found in the marrow. They constitute about 5 per cent. of all the white cells. Clinically they are known as eosinophile myelocytes. It may be noted that these cells appear very

early in embryonic life; and they were found to be very constantly present in the marrow of all the various animals referred to above.

(*d*) *The fine oxyphile or neutrophile granular cells* differ from the preceding by the much greater size of their nuclei, which are often notched or reniform or tending to divide, and by the much smaller size of their granules. These granules vary extremely in their number; occasionally no granules can be detected, the reticular protoplasm of the cell substance is stained faintly neutrophile, and the cell is only recognizable by its general similarity in size and nuclear characters to those cells that possess granules. This variety constitutes about 30 to 40 per cent. of all the white cells. It is the "myelocyte" of the clinicians. It is regarded as the prototype of the polymorphonuclear leucocyte of the blood. In man the granules take a neutrophile stain.

(*e*) *The amphiphile granular cells* contain two kinds of granules; some that stain oxyphile and others that stain basophile. These granules are coarser than those of the fine oxyphile cells, but finer than those of the coarse granular cells. This variety has not been met with in human marrow examined by this method.

(*f*) *The coarse basophile cells* resemble the coarse oxyphile cells, but the granules, which vary greatly in size in the same cell, take a basophile stain. This variety has not been met with in human marrow examined by this method.

(*g*) *The fine basophile granular cells* resemble the coarsely-granular oxphile cells in the character of their nuclei, but the granules are of the fine variety, and stain deeply basophile. This variety constitutes about 1.5 per cent. of all the white cells.

(*h*) *The polymorphonuclear leucocytes* are mostly brought to the marrow by the blood, and should not be regarded as true myelocytes. They comprise the neutrophile and eosinophile leucocytes of the blood, and need no description here.

It is to be noted that the large mononuclear hyaline cells of the blood have never been observed in any specimen of marrow examined by this method. The same remark also applies to the mast cell.

Results of Differential Counts.

The subjoined table exhibits examples of differential percentage counts of the cells of red bone marrow, prepared and classified according to the method that has been detailed above.

Source.	Giant Cells.	Lymphoid Cells.	Coarse Oxyphile Cells.	Fine Oxyphile or Neutrophile Cells.	Amphiphile Cells.	Coarse Basophile Cells.	Fine Basophile Cells.	Polymorphonuclear Cells.	Nucleated Red Cells.
Man,* healthy ...	0.2	50.2	3.3	39.3	0	0	0.2	6 7	8 8
Newborn infant ..	1.5	70 7	6.7	10 2	0	0	0	10.7	57 25
Rabbit, healthy ...	0.3	55.6	0	32.8	0.9	0.6	2.1	7.2	10.0
Dog, healthy ...	0.16	45.8	2.0	22.6	0.16	0.16	0.66	29.9	22.0

* This man died from internal haemorrhage, the result of a carriage accident.

Note.

[1] A short description of the above method was given, and microscopical specimens were shown, at a laboratory meeting of the Pathological Society of London, held at Guy's Hospital, in May, 1904.

CLINICAL METHODS OF ENUMERATING LEUCOCYTES.

By EDWARD TURTON, M.D., B.Sc., M.R.C.P.,
Hull.

The methods of estimating the number of leucocytes in the blood, which are described in nearly all the medical text-books and even in the excellent treatises on the blood, are generally very lengthy and tedious, and in most cases involve the use of complicated calculations. Now that the custom of making careful blood counts is becoming more common I am convinced, after a lengthy study of the procedures usually described, that some of the simpler methods which are available for quickly and easily performing a leucocyte count are deserving of more universal practice. Rapidity, simplicity, absence of involved calculation, combined with sufficient accuracy, are the essentials of good bedside clinical examinations.

The first practical point to consider is, whether it is advisable to count the red corpuscles and leucocytes in the same preparation, or to make two slides and count the two varieties of cells separately. Haematologists seem about equally divided on the subject. It is certainly a great convenience, as well as a great saving of time, to require only one drop of blood, and to have to clean only one mixing pipette and slide. But with blood in which the ratio of red cells to leucocytes approaches to 500 to 1 or so, it is almost impossible by using one slide to avoid overcrowding of red cells on the one hand or a big margin of error, due to too few leucocytes, on the other. Cabot[1] says there should be at least a hundred leucocytes actually counted, to use as a basis for calculating the number present in unit volume of blood. Employing the method I shall describe later, I prefer to count the two varieties of cells in different slides, using the "white" Thoma-Zeiss pipette for the leucocytes with a dilution of 1 in 20, and the other pipette for the red cells with a dilution of 1 in 200. In any case where the leucocytes are increased to 25,000 or more per cubic millimetre, and especially when the red cells are also reduced, it is easy to count both varieties of cell in one preparation, using a dilution of 1 in 100. Sherrington[2] in his investigations used a dilution of 1 in 50, and emphasizes the importance of counting the two kinds of cells together.

With regard to the diluting fluid, when counting both red cells and leucocytes on one slide, a 3 per cent. solution of common salt deeply coloured with gentian violet is usually quite sufficient, though Toisson's or Sherrington's fluids may be used. The stained nuclei of the leucocytes render counting easy, and help is given by the suggestion of Gowers[3] of raising the objective slightly out of focus when the white cells are distinguished by their greater refracting power.

When counting leucocytes alone, with the "white" pipette, I use a fluid containing 1 c.cm. of glacial acetic acid, or 3 c.cm. of the acidum aceticum *B.P.* in 100 c.cm. of water, which gives a solution containing 0.99 per cent. of hydrogen acetate. This is stronger than Thoma's fluid, which is 0.3 to 0.5 per cent., but it serves to dissolve the red cells in half a minute, and leaves the leucocytes deeply stained by the gentian violet. Stronger solutions are liable to affect the white as well as the red cells. It is possible with this fluid to distinguish roughly the relative proportions of mononuclear and polynuclear cells, though for a proper differential count fixed and stained blood slides only are of any use. I have been unable to obtain properly stained specimens using Ehrlich's triacid or Leishman's Romanowski stain with fresh blood films, nor do I consider the enumeration of fresh eosinophile cells as done by Zappert[4] or Elzholz[5] a satisfactory clinical procedure.

The Thoma-Abbé Zeiss instrument, or one of the many modifications of it, as those of Zappert and Türck, is that which is now almost universally employed in this country as well as in America and on the Continent, and I shall in consequence confine my remarks to this apparatus. The procedures adopted in counting leucocytes may be divided into two classes—(1) the method of "squares," and (2) the method of "fields."

1. *The Method of "Squares."*

On the Thoma-Zeiss instrument, as is well known, an area of 1 sq. mm. is divided into 400 small squares, each with a side of $\frac{1}{20}$ mm. and an area of $\frac{1}{400}$ sq. mm. These small cells are arranged by additional lines into 16 groups each of 16 small cells. By means of a cover glass a chamber of $\frac{1}{10}$ mm. is formed. The cubic content of the space above each square is thus $\frac{1}{4000}$ of a c.mm. If, then, the leucocytes be counted in a number of cells and the average found, it is necessary to multiply the number thus obtained by 4,000 and by the dilution (whatever this may be); this gives the total number per c.mm. To facilitate matters it is better to count the cells in groups of sixteen squares, but even so this is a long and tedious method, and involves some eye strain.

In the Prague clinic it is customary to count the leucocytes in the whole 400 squares; this, though taking a good deal of time, involves no calculation, as with a 1 in 10 dilution you multiply by 100 by simply adding two terminal cyphers to the number obtained.

Ewing[6] counts both the red and white corpuscles in one specimen, using Toisson's fluid with a dilution of 1 in 100 and a modified Zappert chamber, which is ruled so that the cells in an area of 9 sq. mm. can be counted.

Preitetschensky[7] describes a modified Zeiss slide, on which

there are ruled 100 large squares subdivided into 1,600 small ones. In counting leucocytes he multiplies the number found in the 100 large squares by 50 when the blood is diluted 1 in 20, and by 25 when it is diluted 1 in 10; this gives the cells in 1 c.mm. of blood.

Türck's[8] modification has nine large squares ruled on the slide, each being 1 sq. mm. in area.

2. The Method of "Fields."

Here, instead of laboriously counting the leucocytes in the ruled squares on the floor of the counting chamber, the squares are ignored and the stained cells counted in a certain area, which may consist of the whole field of the microscope or some portion specially demarcated.

The simplest method is that ascribed by Cabot[9] to Dr. Franklin White of Boston. A circular piece of paper or cardboard just fitting into the eyepiece of the microscope has a square hole cut out of the middle. This square aperture is of such a size as to admit a view of a portion of the field equal to 100 small squares, or $\frac{1}{4}$ sq. mm. Using a $\frac{1}{6}$-in. objective, I have found it convenient to cut the square aperture equal to a group of sixteen small squares. The necessary calculation in these cases is very much simplified. Methods allowing the use of the whole circular field of the microscope are to be preferred to the above, as they allow a larger field for search with the same magnification. The area of the microscopic field, and hence the volume of blood in sight, can be determined by a simple measurement of the diameter of the field. By using the same combination of eyepiece and objective and the same length of tube this diameter remains a constant. Having obtained this, we can estimate the cubic contents of the cylindrical volume of blood from the formula:

Cubic content of cylinder $= r^2\pi h$ or $\frac{d^2}{4}\pi h$, where r = radius, d = diameter, and h = the height of the cylinder, which in the Thoma-Zeiss counting diameter is $\frac{1}{10}$ mm.

The diameter of the field may be conveniently measured by means of the ruled lines of the Thoma-Zeiss instrument, the lines being $\frac{1}{20}$ mm. apart. The draw-tube of the microscope can be moved up and down until the sides of the field exactly correspond to a certain number of squares. In the first method described by Stengel[10] the sides of the field are made to correspond exactly to eight small squares, as in Fig. 1.

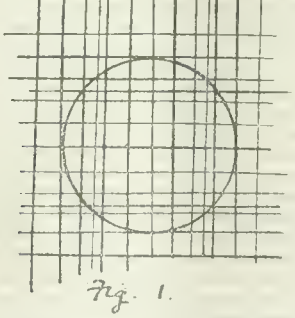


Fig. 1.

The diameter of the field is then $8 \times \frac{1}{20}$ mm. and the radius $\frac{8}{40}$ mm. The *area* of the circle then is $r^2 = \pi = (\frac{8}{10})^2 \times 3.1416$ sq. mm., and the *cubic* contents of the space $= \frac{1}{10} \times (\frac{8}{10})^2 \times 3.1416$ c.mm.
$= \frac{1}{10} \times \frac{2}{5} \times 3.1416$ c.mm.

If, now, 25 of these fields be counted, the total cubic space will be $\frac{1}{10} \times 3.1416$ c.mm. $= 0.31416$ c.mm. With a dilution of 1 in 10 the volume of the blood containing the leucocytes will be $\frac{0.31416}{10}$ c.mm. $= 0.031416$ c.mm.

Therefore, to obtain the number of leucocytes present in 1 c.mm. of blood it will be necessary to divide the number in 25 fields by 0.031416, or multiply by 31.838.

Butler[11] applies this method by employing the following factors (Ostheimer), which may be used to multiply the total number of white cells in 25 fields according to the number of squares contained in the diameters of the field employed, the dilution in these cases being 1 in 20.

Diameter of field	5	squares	multiply by	162.96
,,	,,	6	,,	,,	113.16
,,	,,	7	,,	,,	83.12
,,	,,	8	,,	,,	63.54
,,	,,	9	,,	,,	50.2
,,	,,	10	,,	,,	40.74

Another method described by Stengel is carried out as follows:

The tube of the microscope is moved up and down, altering the magnification until the corners of a square group of the small squares just touch the circumference of the field of vision at four points. The area of the field of vision may be readily determined by its relation to the area of the enclosed square. Thus in Fig. 2, the radius of the circle $A\ B$ will be

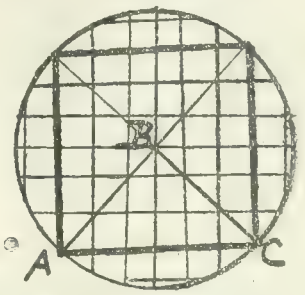


Fig. 2.

equal $\frac{A\ C}{\sqrt{2}}$, this being so the area of the field will be $=\left(\frac{A\ C}{\sqrt{2}}\right)^2 \times 11$.

This method, however, again involves the use of a long calculation.

Professor A. E. Wright[12] has described a method by which only a plain cell of known depth—as that provided with Gowers's or the Thoma-Zeiss haemocytometer—is required for the enumeration of the blood corpuscles. The diameter of the field is estimated by a micrometer scale. Professor Wright manufactures his own mixing pipette from drawn-out glass tubing, which he calibrates by a simple method, or uses an air bubble index as in diluting serum in Widal's reaction. The application of these methods might be useful with a class of students where economy is necessary, but the ordinary mixing pipettes, after the original of Potain, are more useful in clinical work.

The above methods involving the use of somewhat complicated calculations may well be replaced by one of the following, which involve no calculation, after the size of the field has once been determined and a mark made on the draw-tube of the microscope.

Professor O. Grünbaum[13] finds the exact diameter of the field by basing his calculation on the length of the tube of the microscope.

If the diameter of the field be 8 divisions of the Thoma counting chamber the radius will be 0.2 mm., and by using the formula $r^2\pi h$ the volume of the mixture seen at one time is $(0.2)^2 \times \pi \times \frac{1}{10} = \frac{1}{7951}$. Therefore, with a dilution of 1 in 100 the average number per field must be multiplied by 7951 in order to ascertain how many leucocytes there are in a cubic millimetre of blood. As the number 7951 is obviously inconvenient, it is arranged that the size of the field be diminished until this is increased to 10,000. The diameter of the field must be such that $r^2\pi h = \frac{1}{10000}$, that is, $r = 0.1785$ mm., or the diameter $= 0.357$ mm. This may be contrived in the following way: Suppose, with a 1 in. objective, No. 4 compensating ocular, and 175 mm. tube, the diameter of the field is 8 squares, or 0.4 mm., on extending the tube to 200 mm the diameter of the field becomes 7 squares, or 0.35 mm. Since the diameter of the field varies inversely as the length of the tube, and an increase of 25 mm. in the latter causes a diminution of 0.05 mm. in the former, it follows that an increase of 21.5 mm. will reduce the diameter of the field from 0.4 mm. to 0.357 mm. Therefore, with a tube length of 196.5 mm. the average number of white cells per field must be diluted by 10,000, with a dilution of 1 in 100, or by 1,000 with a dilution of 1 in 10.

The method I have used for some time is similar to that recently described by Dr. A. E. Jones.[14] I endeavour to find a field of such diameter that the cubic contents shall be equal to $\frac{1}{10000}$th of a c.mm. With a field of such dimensions it will be readily seen that, using a 1 in 20 dilution of blood and counting 20 of these fields, it will be necessary only to multiply the number of leucocytes in these 20 fields by 100, or simply add 2 cyphers to the end. The method is one of great simplicity, and the 20 fields are counted in a minute or two.

The cubic capacity of the cylinder with the required diameter is

$\frac{1}{10000}$ c.mm., but this $=\frac{d^2}{4} \times \pi \times h$ c.mm. $=\frac{d^2}{4} \times 3.1416 \times \frac{1}{10}$ c.mm.

$\therefore \frac{1}{10000} = \frac{d^2}{4} \times 3.1416 \times \frac{1}{10}$, from which it will be found that $d = 7.136$ squares on the Thoma-Zeiss scale; this is equal, roughly, to $7\frac{1}{5}$ squares. As every fifth square on the slide is divided in two by another ruled line, we have thus to take only a quarter of a half-square thus marked off, which with

seven whole squares will give the diameter of the field required (see Fig. 3). By a suitable eyepiece and a ⅛ in. objective, it is quite easy, by moving

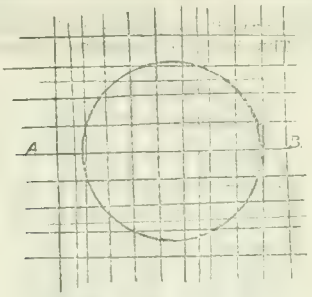


Fig. 3.

the draw-tube up and down, to arrange a field with a diameter of just 7⅛ squares; this having been found, it is only necessary to make a mark on the draw-tube, and the arrangement can be used without any further calculation beyond counting twenty fields, with a dilution of 1 in 20, and adding two ciphers to the number so obtained.

Dr. A. E. Jones uses a field with a diameter of 6⅔ squares, the capacity of which is $\frac{1}{12\frac{1}{5}}$ c.mm. Twenty-five fields are counted, and with a dilution of 1 in 20 it is only necessary to multiply the number obtained by 100.

Arrangements suitable for any number of fields or any dilution of blood can be contrived on the above plan, or that described by Professor Grünbaum; these methods are much more quickly performed than those involving the use of squares, and require no complicated calculations. As it is not necessary to restrict the count to the ruled spaces, a much larger area can be searched than by any other method.

In cases of marked leucocytosis, when the red cells and leucocytes are counted in the same slide, the red cells are counted by using the ruled squares, and the leucocytes by the "field" method.

Now that easier and more rapid methods of enumerating leucocytes are available, it is to be hoped that in all diseases of the blood leucocyte counts will be more frequently repeated than has previously been the case, for the results of isolated examination are most misleading.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OVARIOTOMY IN A CHILD.

THE unusually early age of the patient—she was only 11½ years old—impels me to report this case, to which I was called in consultation by Dr. McCandless, of Rathfriland. She had a temperature of 101° F., and was suffering from colic in the lower part of the abdomen with gastro-intestinal disturbance. These symptoms she had complained of more or less for the previous five months, but they had become much aggravated during the last few days with the elevation of the temperature. There was an obvious fullness of the hypogastrium and a tumour was plainly felt extending above the umbilicus, dull, fluctuating, very tense, and with clearly defined outlines. There was no dullness in the flanks, and the tumour was unaltered on evacuating the bladder. There was a tuberculous family history, and it was only this fact, coupled with the youth of the patient, who had shown no signs of early puberty, that cast any doubt upon the diagnosis of a frank ovarian cyst. I urged an immediate operation, as the patient was in a serious condition, but it was impossible to secure an experienced surgeon, as her people were of very humble means and lived far away from the hospital, so that I had to undertake it myself. I did so with some diffidence, as neither the surroundings nor our equipment were ideal; but I had the advantage of valuable assistance from my friend, Dr. Radcliffe; and Dr. McCandless gave chloroform.

On opening the abdomen the tumour was found beneath the omentum; it had a smooth surface, was very tense, and filled the lower half of the abdominal cavity. On puncturing with a trocar about 1½ pints of slightly blood-stained fluid escaped. The cyst was then found to spring from the left ovary; a few recent adhesions to the intestines were easily separated by the fingers. The appendages on the left side were removed along with the tumour. The right ovary appeared healthy and was left. On opening the tumour a mass of hair presented, revealing a dermoid cyst, this, I suppose, accounting for its development at so early an age.

The patient stood the operation well, although it was rather prolonged (one hour and a half), and made a good recovery. I removed the stitches ten days later, and the wound was quite healed. The little girl is now running about and seems perfectly well.

Banbridge, co. Down. J. HOPE REFORD, M.D.

SUCCESSFUL HERNIOTOMY IN A WOMAN AGED 86.

I HAVE read in the BRITISH MEDICAL JOURNAL of January 28th, p. 183, the case related by Mr. James A. Watts. Perhaps the following would interest your readers.

When I was *interne* at St. Antoine Hospital, Paris, on July 7th, 1899, I performed a radical cure of strangulated inguinal hernia in a woman aged more than 86. The hernia had been irreducible for two days, and the patient was in very low condition. Cocaine was injected locally and the operation performed rapidly; all was done in thirteen minutes, stricture divided, sac opened, ligatured, and cut off, and the inguinal ring and skin sutured. The cicatrization was perfect eight days after without complication.

I insist upon the necessity to operate rapidly, and to use cocaine in such cases when patients are in a precarious condition.

Nice. JACQUES VAILLANT, M.D.Paris.

INCUBATION PERIOD OF MUMPS.

I AM induced to publish the following note, because, in that valuable publication *Code of Rules for Prevention of Infecticus and Contagious Diseases in Schools*, the quarantine period of mumps is given as twenty-four days. No doubt there are many practitioners, like myself, who have regarded the periods of isolation and incubation of infectious diseases therein contained as authoritative and reliable:

On December 9th Miss E. L. was exposed to the infection of mumps by a child. On December 29th her brother was at breakfast with her. He left the house, and did not return till December 31st, and saw her no more, for on the former date she went to bed with an attack of mumps, for which she was isolated. On January 23rd, in the evening, at a theatre, the brother felt slightly ill with a little headache. He was expecting the disease, but as he had no pain at the side of the jaw he concluded he had a "chill," which, in the form of influenza, was prevalent at the time. On January 24th he had slight pain and tenderness on the right side, which developed into a typical attack of mumps. This history shows that at the extreme end of twenty-five days the attack commenced, though it could not be recognized as mumps till the twenty-sixth day. I have looked up the length of the incubation period in such books as I have at hand and find that in Bain's *Textbook* and Holt's *Diseases of Children* it is given as twenty-five days; while Donkin's, Money's, Jacobi's, and Thomson's treatises give three weeks as the limit.

Sevenoaks. JAMES E. BLOMFIELD, M.A., M.B.Oxon.

ILLNESS FOLLOWING A TICK BITE.

SHORTLY after my arrival in East London in 1903 I noticed a very painful mark on my upper right arm. It resembled a flea bite, but was bigger, and was excessively tender. A friend told me it was a tick bite. A day or so later the glands in my right axilla became very painful—excruciatingly so. Examination showed no redness of the skin, but enlargement and excessive tenderness of the glands. Two days later I felt very ill. My temperature was 102°. For about a week I was indisposed. My illness was somewhat peculiar. Every morning on waking, and up till about 2 p.m., I felt splendid. Then my temperature went up to 101° or 102°, and I felt wretched. By evening, in addition to temperature, I had an excessively stiff, sore neck. The pain in the neck radiated from enlarged painful post-cervical glands. I made an excellent recovery, and have not since suffered in a similar fashion. Occasionally

I have noticed headache, which I can trace to painful enlarged glands behind the sterno mastoid muscle.

I have seen several such cases since in my practice. It is recognized here that newcomers are liable to this form of sickness, and they are warned accordingly.

The treatment seems to be that the bite be kept as clean and aseptic as possible. If this be not done severe suppuration may follow in the inflamed glands.

I have laid emphasis on the excessive tenderness of the bite and of the enlarged glands.

East London, Cape Colony. CHAS. J. HILL AITKEN, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GOVAN FEVER HOSPITAL.

PERFORATED ULCER IN A CHILD AGED 7: OPERATION TWENTY-THREE HOURS LATER: PNEUMONIA: RECOVERY.

(Under the care of JOHN PATON, M.D., late Resident.)

M. W., a girl aged 7, was admitted on September 13th, 1904, suffering from enteric fever. On admission temperature was 103° F., pulse 110 ap., and tongue was furred. There were no spots nor apparent splenic enlargement. The abdomen was slightly distended, tympanitic. The heart and lungs were normal.

History.—The patient had been feverish for about a week before admission, and had suffered from diarrhoea for three days.

Progress of Case.—After admission the temperature came down to 101°, and looseness of the bowels did not continue. At 1 p.m. on September 16th the nurse in charge reported that the child had just had a rigor, and was complaining of abdominal pain. On examination the rigor had passed off and the pain was not severe. There was, however, a slightly pinched look; the pulse had risen to 130, and the temperature to 103°. There was general tenderness of the abdomen, and slight rigidity of the muscles to palpation in the hypogastrium. Moreover, the nurse stated that she had administered a teaspoonful of castor oil the previous evening, as the bowels had not moved for a day, and that the bowels had moved four times just before the rigor occurred. From these circumstances I considered that perforation had occurred, but as there was no absence of liver dullness, opinion on the subject was divided. In the evening the pulse varied from 130 to 140, and there was slight encroachment on the liver dullness. Operation was still delayed. On the morning of September 17th the pulse was 150, and the temperature about 100° F. Constant vomiting had set in about 8 a.m., and the vomit examined about 9 a.m. was thin, yellow, and of feculent appearance, but without odour. The abdomen was markedly distended and tympanitic, and the liver dullness completely obliterated. The patient looked collapsed, and, as the bowels had not moved, enemata were administered, without, however, producing any result.

Operation.—I operated at noon, Dr. Allan giving chloroform. On making a small incision into the abdominal cavity a large quantity of free semipurulent fluid escaped; the intestines were covered with lymph. A perforation of small size was found about a foot from the termination of the ileum, which was markedly congested and somewhat collapsed. The perforation was single, on the free border, and readily found. As it appeared to be a perforation of a small follicle it was tucked in with a few Lembert sutures. The intestines and abdominal cavity were cleansed with salt solution as thoroughly as possible and drainage tubes inserted to the pelvis. The abdominal wound was closed with two rows of sutures. The operation lasted about half an hour, and by that time the patient was almost pulseless.

After-history.—The change in the patient's condition after rallying was marked. Vomiting ceased and the pulse improved, being in the evening 120 and of good volume. Rectal feeding every two hours was resorted to, with sips of lukewarm water by the mouth. Vomiting occurred once, twelve hours after the operation, and on two occasions on September 23rd, six days later. Recovery was interrupted by a severe attack of acute lobar pneumonia, the first symptom of which appeared on September 28th, eleven days after the operation. This rapidly spread from base to apex of the left lung, sending the pulse up to over 140, and for some days the patient's condition was desperate. There was no symptom, however, of pleural effusion, and the patient gradually pulled through, although the lung resonance was impaired and the left lung did not expand so well as the right for several weeks. After the operation rectal feeding alone was kept up for ten days, and the pelvic drain could not be removed for nearly a fortnight.

REMARKS.—The case is remarkable for the extreme youth of the child and her tenacity to life, bearing out the fact that recovery after perforation is more likely in young patients than in old. Perforation in children is very rare, and at the time of operation no hope of recovery was entertained. I am indebted to Dr. Allan for permission to publish the case.

British Medical Association.
CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH: COVENTRY DIVISION.

Coventry, January 5th, 1905.

T. WEBB FOWLER, M.B., in the Chair.

Specimens.—Mr. W. E. BENNETT showed three appendices removed by operation, and detailed the peculiarities of the cases.—Dr. HARMAN BROWN exhibited a specimen from a case of placenta praevia in which the fetus came through a rent in the centre of the placenta.—Dr. HAWLEY showed a specimen of large multiple fibroids of the uterus.—Drs. WEBB FOWLER, MILNER MOORE, DAVIDSON, and WEBSTER took part in the discussion of the specimens.

The Diagnosis and Treatment of Typhoid Fever.—Dr. J. ORTON read a paper on this subject. Having explained the scope of his paper, and passing on to the history and definition of the disease, he expressed his opinion that each case arose from infection proceeding from a pre-existing one, although it might be impossible with the means at our command to establish the direct connexion. He enumerated the various diseases with which enteric fever might be confounded, mentioning meningitis, cerebro spinal meningitis, acute general tuberculosis, tuberculous peritonitis, pneumonia, pyaemia, septicaemia, malignant endocarditis, and trichinosis. Widal's reaction was fully described, and Dr. Orton stated that he had rather unfortunate experiences of the method. After explaining the way the reaction was carried out, he said that theoretically the reaction should always be positive with a young typhoid culture and the serum of a patient whose blood had been sufficiently immunized by the typhoid virus, but many fallacies were possible. The reaction might not develop until the relapse, often not before the tenth day, so that two, three, or even four tests should be made at intervals of a few days before one could be sure of a true negative reaction. Again, if the case was a very severe one, and the blood had not become immune, one got a negative reaction. On the other hand, a positive reaction might be given when the patient had not got enteric, but had had it many years previously. Osler said "it may be present even twenty or thirty years subsequent to an attack of fever." So Dr. Orton took it they were faced with the following summary. Reaction negative meant: (1) The patient had not got enteric, or (2) he had got it, but reaction had not had time to develop; (3) he had got it, but was probably going to die. Reaction positive meant either that the patient had got it or he had had it some time in his life. The various distinctive symptoms of enteric were then briefly noticed: early epistaxis, the ascending fever, dicrotic pulse, and especially the rash—the most valuable single sign; bronchitis was mentioned as a very frequent sign; the absence of diarrhoea in whole epidemics was remarked, and, in regard to prognosis, the presence of numerous sudamina which occurred irrespective of any tendency to perspiration, Dr. Orton had known of good omen in many a severe case where the chances seemed against the patient. Various differential symptoms between enteric and the other diseases enumerated were run over, the difficulties of discriminating between tuberculous meningitis and enteric being especially insisted upon, also those cases of pneumonia which persisted beyond the time when the crisis was expected, and doubt was entertained whether the disease was not after all enteric. In treatment, general management and diet were first spoken of. Under the head of the former,

infectivity of the urine was insisted upon, Dr. Orton relating his experiences of a small epidemic, which was caused by the disinfection of the urine being neglected, whilst every care was taken with the bowel excreta. In speaking of medication, oil of cinnamon given by the method of Dr. Caiger was stated to be the drug worth trial in the future. The various methods of hydrotherapy were described, and the partial pack—that is, of limbs individually—was recommended in private cases, tepid being used in place of cold water. The treatment of special symptoms—as abdominal pain, meteorism, and intestinal haemorrhage—was considered; for the latter turpentine internally, an iced compress to the abdomen, ice by the mouth, and hypodermic injection of strychnine were recommended. Diarrhoea and constipation were also dealt with, and the paper concluded by the old warning against letting patients attain their general desire to get up too soon and to take solid food too early, and the principles as to advisability of operation for suspected perforation.

Notes on Treatment.—Dr. E. H. SNELL read a paper, entitled Notes on the Treatment of Typhoid Fever, as exemplified in a series of 100 cases with 1 death. The notes were from a consecutive series of 100 cases admitted into the Coventry City Hospital since September 15th, 1899—a period covering five years. All cases admitted as typhoid fever and afterwards not considered to be typhoid fever were excluded. In 74 of the 100 cases typical typhoid spots were noticed; in 19 cases an enlarged spleen could be felt under the ribs; in 33 cases there was a history of infection from a previously ascertained case, which was sufficiently well known to be an aid in forming an opinion; a Widal reaction was looked for in 26 of the included cases; in 25 of these it was present. Fatality: Murchison gave a table of 5,988 cases admitted to the London Fever Hospital from 1848 to 1859; the fatality per cent. was 17.26. The number of cases admitted to the hospitals of the Metropolitan Asylums Board from 1871 to 1902 was 190,688; the fatality per cent. was 16.82. From 16 to 17 per cent. might therefore be regarded as the normal death-rate among cases of typhoid fever. Exceptional series of cases in the hands of individual physicians had had a lower death-rate. A series of 172 cases with one death had been recorded and used as an argument in favour of the use of sulphurous acid. The undetermined question in regard to treatment was whether there was any remedy which could cut short the length of the illness or be regarded as in any sense a cure. Many had answered the question in the negative, and had adopted the so-called "expectant treatment"—the illness being left to run its course and symptoms being treated as they arose. Watson, in 1848, wrote that Cullen inculcated the necessity of "obviating the tendency to death." To do so, said Watson, we must ascertain the direction of that tendency. We do not so much cure these exanthematous maladies as keep our patients alive while they recover. Although severely criticizing what he called "mischievous activity," he went on to say that "the tendency to recovery which manifests itself under different modes of treatment, and even in spite of opposite modes, has induced in some minds a degree of scepticism as to the utility of any remedies, that may easily be carried too far." He quoted Pitcairn, who said: "You may *guide* a fever; you cannot *cure* it." Murchison, in 1873, wrote: "There is no specific for enteric fever," but "although we cannot *cure* the disease, we must *treat* it; and with increasing experience scepticism gives way to the belief that many lives are saved by medical interference at the proper time and in the proper way." These older views probably corresponded very nearly with the views held at the present day. Yet, although symptomatic treatment of typhoid fever was regarded as of the first importance, the drugs employed varied with the medical practitioner; probably most had some favourite method of dealing with their cases in the hope that some beneficial influence might be exerted on the course of the disease. Dr. Snell confined himself to recounting the principal drugs which he had used in his own cases. *Urotropin:* Formerly he used this systematically in most cases. It had been observed that it caused the typhoid bacilli, when present in the urine, to disappear sooner than they otherwise would. Fourteen of the earlier cases in the series were treated with it. He was not able to convince himself that it had any influence on the course of the illness itself, and he discontinued its use. He had resorted to *turpentine* only when there had been any moderate or considerable amount of haemorrhage. He used it only in 8 cases, either per rectum, or by the mouth, or in both ways. In one case as much as ½ drachm was given every hour by the mouth as well as turpentine enemata; in that case there had been profuse haemorrhage by the bowel on several occasions. The value of turpentine as a styptic in typhoid fever had been questioned. He could only say that, in the absence of a better remedy, he thought it should be used; it had been his invariable custom to do so. Although he had had several cases of profuse haemorrhage among about 200 cases, it was now fourteen years since he saw a death from haemorrhage in typhoid fever. Apart from any effect it might have in arresting haemorrhage he had thought that it had a beneficial influence on the condition of the patient. It was an antiseptic and a cardiac tonic and had been recommended as a general remedy in typhoid fever. Dr. Simon, of Birmingham, writing in 1896, stated that he had used it in 36 cases without a death, and seemed favourably disposed towards it. In his recent Bradshaw lecture on the Treatment of Typhoid Fever, Dr. Caiger spoke favourably of turpentine as an intestinal antiseptic and diffusible stimulant. It was contraindicated in cases which had inflammation of either the kidneys or the bladder. *Olive oil:* The drug which he had latterly systematically used more than any other was olive oil. In 57 of the series of 100 cases this had been given either by the mouth or per rectum or both. His attention was first drawn to the drug in this connexion by a paper which appeared in the *Lancet* in 1897, written by Dr. Owen Paget, of Fremantle, Western Australia. He spoke of it as a specific; he had treated over 100 cases with it without a death; he regarded its use in typhoid fever as "a perfect boon to the general practitioner. He can leave his patient fearing neither high temperature, delirium, insomnia, heart failure or tympanites." In the same journal he wrote in 1900, after detailing his method of using it, "patients treated in the above manner, in my opinion, cannot die"; and, further, "its only drawback occurred in private practice, where patients get well so easily that no credit accrues to the physician"! Dr. Paget's method at first consisted of the administration, as an injection by the bowel, of a breakfastcupful of the oil for the first four or five days at intervals of twelve to twenty-four hours, and subsequently every second day. In some cases he also gave the oil by the mouth, giving a breakfastcupful at a time. In 1900, he wrote that he found its administration by the mouth, "too nauseating for better class patients," and he then gave it only per rectum. In his own experience, Dr. Snell had not ventured on any such heroic doses by the mouth, but by using the very best sublimed olive oil, which was practically tasteless, in doses of from ½ to 1 oz. every four hours, very few patients complained of its being nauseating; it was best given on the top of a little soda water. He had generally combined with this the daily giving of enemata of olive oil of 8 to 10 oz; he had not found slight diarrhoea a contraindication to its use. Whether there was constipation or diarrhoea, it seemed to promote a regular daily action of the bowels. Formerly he used ball syringes for the enemata; the oil, however, soon caused the indiarubber to rot, and the enema was liable to be given more rapidly than was desirable. He now used an apparatus (shown) which was described in the *Lancet* by Dr. George Herschell. The enema was in this way given slowly; the patient hardly noticed it and it was retained for a longer time. So far as his limited experience went he had been led to suppose that olive oil exerted a beneficial influence on the course of the illness. A portion of that consumed probably acted as a food, and it was conceivable that its presence in the intestine might be of advantage to inflamed or ulcerated glands. However this might be, he thought that it was worthy of a more extended trial. In cases of high temperature he had practically no experience with antipyretic drugs, but had relied solely on tepid or cold sponging for reducing the temperature. His rule was that, whenever the temperature reached 104°, the patient was sponged, and the process was repeated as often as was necessary to reduce the temperature; this had been occasionally supplemented by leaving the patient exposed after the sponging, covered only by a sheet for a short time; in none of the cases dealt with in the paper had more drastic antipyretic measures been adopted. All cases, until they were sufficiently recovered to be allowed to get up, were sponged with warm water twice a day. Alcoholic stimulants: In the majority of the 100 cases no alcoholic stimulants were administered throughout the illness. In some cases he was fully assured that they were necessary; when he considered them necessary, he gave them freely, in one case up to 12 oz. of whisky in the twenty-four hours. He was quite in accord

with those who wished to discountenance the popular prejudice that stimulants were necessarily desirable for fever patients. He could not, however, admit that they were not sometimes called for. He was fully convinced that he had seen the lives of typhoid-fever patients saved by the timely administration of alcoholic stimulants. Medicinal stimulants, such as strychnine and digitalis, he had recourse to in 21 instances. Opium was a valuable drug in typhoid fever on occasions; he had, however, used it only in 5 instances; calomel on 2 occasions, salol in 1 case, salicin in 2 cases, perchloride of mercury in 1, and chlorinated soda in 2 cases. Other drugs had, of course, been used; but these were called for by the special circumstances of individual cases. He was here confining himself to the mention of those which had at different times been spoken of as especially useful in this disease. Diet: The only feature of the dieting which he had adopted calling for comment was the fact that he allowed a larger quantity of milk than many of those who spoke with authority in this disease permitted; for adults he gave from four to six pints of milk daily; this was given in small quantities frequently repeated; in only a few cases had he found this quantity appear to be too much; in these cases he peptonized the milk and gave it in the same quantities. Whenever there was no diarrhoea he gave beef-tea. He followed those who advocated early solid feeding; as soon as the patient's temperature had been down to the normal for about two days he was put on sopped breadcrumbs, and if the temperature remained normal for about a couple of days he was allowed boiled sole. The number of relapses which followed were not, in his experience, more frequent than where the dieting had been of a more cautious nature. Probably these notes of the treatment of 100 particular cases would not be complete without some reference to the complications that had been met with; these indicated that the cases had not been of an unusually mild character. In 19 instances haemorrhage, either slight or considerable, had been met with. Phlebitis occurred in 7 cases. In 9 cases the temperature went up to 105° or more; in 3 of these to 106°, and in 1 of these to 106.4°; in one case the temperature remained above the normal for eleven and a half weeks. In 4 cases there were rigors; in 1 acute nephritis followed by uraemic convulsions. In 1 case (an absolutely undoubted case of typhoid fever) an abdominal abscess, the origin of which was obscure, was opened during convalescence by Mr. W. E. Bennett, and recovery rapidly followed. One case suffered from phthisis; 1 case had a bedsore on admission, and 2 subsequently developed bedsores; 1 had pleuropneumonia, haemorrhage from the bowel on 19 occasions, jaundice, albuminuria, and a temperature of 105°; 1 had melaena, also profuse haematemesis, and a temperature of 105.8°, and also suffered from scarlet fever and diphtheria; 1 was prematurely confined at seven months. The day before this occurred she had a heart beating at the rate of 204 per minute and an uncountable pulse; after delivery the heart was beating at 120 per minute; she had considerable melaena, and was one of those who subsequently developed a bedsore. The average length of stay in hospital had been sixty-one days. The one case of death which occurred was that of a girl aged 9; she was ill eight days before admission, and died on the twelfth day after admission after being in a moribund condition for several days. The death appeared to be due to heart failure from toxaemia. He wished to add that he believed that a hospital presented many advantages in the treatment of typhoid fever which were absent in most private houses. Hospital treatment was, however, handicapped by the period which often elapsed before the case was notified and admitted to hospital. The average duration of the illness before admission in the cases under consideration had been fourteen days. If this period could be shortened, he believed that hospital mortality could be still further reduced. This could be done by notifying doubtful cases as soon as the doubt arose, without waiting for some development which rendered the doubt a certainty.—The discussion which followed was joined in by the Chairman, Drs. Milner Moore, Davidson, Hawley, Webster, and Mr. Bennett.

BIRMINGHAM BRANCH.

The fifth ordinary meeting of this Branch was held on Thursday, February 9th, at the Medical Institute, at 3.30 p.m. In the unavoidable absence of the President, the President-elect (Mr. T. F. Chavasse) took the chair. There were twenty-nine members present.—Mr. George Heaton read a paper entitled Appendicitis during Pregnancy, and Some Peculiarities of the Disease in the Female Sex, which will be published. The paper was discussed by the President, Drs. Taylor, Kirby, and Lydall; and Mr. Heaton replied.—Dr. Carter read a paper entitled An Unusual Type of Fever resulting from Animal Bites, illustrated by two cases. Mr. Leedham Green, Drs. Kauffmann, Melson, and Heath discussed the paper; and Dr. Carter replied.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

R. J. Godlee, M.B., B.S., Vice-President, in the Chair.

Tuesday, February 21st, 1905.

Blood Glands as Pathogenic Factors in the Production of Diabetes and Obesity.

Dr. Arnold Lorand read a communication on the above subject. After general remarks dealing with the importance of the subject of internal secretion and the inter-relations between the blood and ductless glands, which often worked together, the speaker referred to his own investigations. He had discovered that if the pancreas was extirpated in dogs the thyroid was found to show an abnormal amount of colloid in its spaces; this had been carried out on four animals. If, in the next place, in such dogs the thyroid was afterwards extirpated, the sugar in the urine (appearing after the removal of the pancreas) was no longer present. The dogs without pancreas and thyroid lived only three or four days. He thought that the functions of these glands were therefore interdependent. Glycosuria occurred after feeding with thyroid tabloids, showing that the excess of thyroid secretion acts as a toxic agent; the occurrence of glycosuria in exophthalmic goitre was explicable on the same grounds. Much meat increased the function of the thyroid, and so led to glycosuria; this had been proved experimentally on dogs. Degeneration of the thyroid led to obesity, as seen in myxoedema, diminished oxidation being its explanation. In exophthalmic goitre a degeneration of the gland at times followed its increased function, and myxoedema thus ensued. The obesity following castration in either sex was a well-known phenomenon of a similar kind. Atrophy of the pituitary might likewise be followed by obesity, apart from acromegaly. Such different forms of obesity differed from that due to overfeeding.

Dr. Pavy regarded the function of the pancreas in the production of diabetes as of a more direct character than that this function simply held in restraint the action of the thyroid gland. The speaker cited two cases which had been reported in Philadelphia in which myxoedema coexisted with diabetes; the cases were in the same family, and occurred in children.

Dr. Lorand, in reply, stated that in face of the large amount of evidence that myxoedema was never associated with diabetes, the cases of the two children referred to had to be taken with caution, the age being itself a suspicious circumstance; moreover, the fact that they were treated with thyroid extract rendered any inference impossible, since the extract would have supplied the want of thyroid secretion.

Leucocythaemia, with Change of Type from Spleno-medullary to Lymphatic.

Dr. C. H. Melland gave a demonstration of a case on which the above interpretation might be put, although he adopted another view which he thought was borne out by the histology. He held that the two forms of disease were distinct, but that in certain cases difficulty arose from the fact that the bone marrow furnished cells resembling large lymphocytes. The cells in question were really non-granular myelocytes. In the case which the author recounted, a "mixed" diagnosis was arrived at in the first instance, but after death no enlargement of the lymphatic glands was found. Microscopic examination of the bone marrow and spleen showed cells of the "lymphoid" kind. The cells suggesting large lymphocytes were, in short, imperfectly-developed myelocytes without neutrophil granules, the proof being that the transitional forms could be traced.

Mr. L. S. Dudgeon observed that the part taken by the haemolymph glands must not be ignored; the ordinary lymphatic gland was probably of little account in lymphatic leukaemia. In children, too, the thymus played a part in the production of the cells. He thought the existence of non-granular myelocytes difficult to establish. The preferable terms for the two classes of disease were myelaemia and lymphocythaemia.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Monday, February 6th, 1905.

THOMAS BARR, M D, President, in the Chair.

PRESIDENT'S ADDRESS.

AFTER thanking the members for the honour they had done him by electing him President for a second year, Dr. BARR recalled the fact that at the annual dinner, in replying to the toast of "The Society," he had given utterance to certain aspirations which, if not capable of immediate realization, were, in his opinion, worthy of further consideration. As only a comparatively small number of members were present at the dinner he thought it well to put on record and somewhat amplify these in a short address. His first aspiration was the institution of organized and systematic research in connexion with the Society. He would ask, Was there any part of the body which presented problems so eminently demanding research as that with which they had to do—difficult problems, complicated problems, they were sometimes apt to think insoluble problems? By means of organized and systematic research they could grapple more closely with these difficulties, and hope to solve at least some of them. As one subject well worthy of research he would suggest the further elucidation of the pathological conditions present in ear disease, especially in the dry, non-purulent middle-ear forms, by more thorough clinico-pathological methods, so as to help in differentiating their varieties more accurately, this differentiation being, he thought, one of the main conditions of advance in treatment. He thought he was correct in saying that since the time of Toynbee the pathological anatomy of the ear had not received adequate attention in this country. There was probably no region of the human body so habitually ignored by the pathologist in the *post-mortem* room, and yet there was probably no part where it was so important in the interest of progress that such an examination should be made thoroughly. The difficulty of the processes involved in both the macroscopic and microscopic examination of the ear and the apparent lack of any practical result commensurate with the trouble had, he feared, deterred many. It might be held that the otologist himself should see to the examination of any specimen coming into his hands, but this was for most of them impracticable, as the thorough examination of the temporal bone and organ of hearing required more time and technical experience than fully-occupied otologists could usually command; while the operative work which now fell to the otologist rendered it perhaps undesirable that he should engage in *post-mortem* work. Might it not, therefore, be possible to make arrangements with gentlemen at important centres, say young men having in view the practice of otology, and duly qualified by pathological training for the work, by which temporal bones, sent by any member of this Society, might be examined anatomically and pathologically and reported upon? Instructions might be issued to members how to prepare such specimens for safe transmission, forms of questions might be furnished to elicit the clinical history of the person from whom the specimen was removed, when that was possible. Their dissections and specimens had hitherto lost much of their value owing to the frequent absence of such clinical records, and, if such an investigation were to be profitable, this lack must in future be supplied. With the knowledge that specimens would be thoroughly utilized, members would be more on the outlook for suitable prospective cases, perhaps putting themselves in communication with physicians in general hospitals or in parochial or workhouse infirmaries. In this way members might become aware of appropriate cases in such institutions, such as patients suffering from fatal diseases and at the same time the subjects of deafness or ear trouble. These, when known, might be carefully examined clinically, so far as the ear and hearing were concerned, with the expectation that, if brought to the *post-mortem* room, the temporal bone or other implicated parts might be removed and subjected to careful examination in the light of the clinical records. No doubt it might be difficult to find young pathologists fitted for the work. Such a pathologist must be specially interested in otology, and all the better if engaged in clinical work with the intention of following up the speciality. What a splendid foundation would a year or two of this work form for the life-work of the future practical otologist! He was afraid, however, that such a scheme to be successful would involve the expenditure of money. They had, unfortunately, no research fund, such as was possessed by the Odontological Society, but he believed there were sources from which funds could be obtained to aid in such research if any of the members, or even suitable gentlemen outside the Society, were willing to undertake the work under the supervision and co-operation of the Society. His second aspiration was the formation of a permanent museum of anatomical and pathological specimens, including also instruments, models, and appliances for the teaching of otology, a place in which members might resort for leisurely inspection and study. Speaking as a member hailing from the distant provinces, such a museum would prove specially attractive. Those who lived at a distance from London had sometimes a few hours to spare on the day of the meeting, as he had lately, when, having no museum to inspect, he placed himself under the courteous guidance of Mr. Bethell, and surveyed the premises of the Medical Society. He was conducted for the first time to their library, which, he was bound to say, presented a very modest appearance, "cabin'd, cribb'd, confin'd" within the limits of a few feet of shelving. In looking at its very limited proportions, however, he reflected that many great things sprang from small beginnings, and that these meagre shelves might present the "promise and potency" of a future great library. He confessed, however, that he did not keenly feel the lack of a great library, because, after all, most of them had very little difficulty in procuring, wherever they were, any book they might desire. He felt that the contents of a museum were the books he should have liked to peruse during his hours of waiting. There was no doubt that their department lent itself to the production of anatomical and pathological specimens both microscopic and macroscopic. The temporal bone itself was a perfect mine of possible specimens, without taking into account the neighbouring cranial, nasal, and pharyngeal cavities. They saw what could be done in the splendid collection of the memorable museum of 1899, a valuable and permanent souvenir of which was to be seen in the volume prepared by Mr. Arthur Cheatle and Dr. Jobson Horne. The only pity was that such a unique collection, gathered together with so much labour, was open to inspection for only one short week. He was confident that, if they had a place for their reception, they would soon have a collection forming a great attraction to members. There were many sources from which they might draw. For example, if research work were set agoing the museum would naturally become the home of the specimens resulting from research. Each of them, he was sure, would contribute something from time to time. Donations from outside workers would no doubt be forthcoming when it became known that this was a feature of the Society. Legacies from private museums might also be looked for in time. It was even conceivable that the Royal College of Surgeons might hand over Toynbee's historical specimens, which would form a grand nucleus, as well as a stimulus to future workers. In such a museum he would look forward to a department for instruments, into which every member of the Society, who might devise something new, would be expected to place a duplicate. Other otologists, not members of the Society, might be disposed to do the same. Instrument makers, both at home and abroad, would, he believed, contribute to such a collection, and would, no doubt, if invited, be willing to show from time to time, perhaps on days of meetings, new instruments or appliances bearing upon their department. This would especially prove a boon to country members, who would thus be saved the trouble of visiting instrument makers' establishments in search of new and improved instruments. Even models, diagrams, casts, etc., might appropriately find a place in such a collection, and be helpful, especially to those who were engaged in teaching. The possibilities of usefulness connected with such a scheme are almost limitless. He hoped that this idea would soon take a concrete form, and that a room, or even a part of one, might be procured in the Medical Society buildings, where they held their meetings, or in the neighbourhood, and that a beginning might soon be made, even in a small way. If the gentlemen who did so much to make the London Museum of 1899 so striking a success would take this matter in hand their museum would soon become an accomplished fact, and from a small beginning it would ere long expand, and he would not be surprised were it ultimately to reach the dimensions of that of 1899—a permanent source of interest and education to all otologists. He invited members to think over his suggestions, and it might happen that at a future meeting more definite proposals might be laid before them. Mr. Hugh E. Jones, the

enior Secretary, had already drawn out some excellent suggestions as to the collection, distribution, and examination of specimens, and he hoped that these might be considered by the Council at an early date.

The Restoration of Hearing after Removal of the Drum and Ossicles.

The discussion upon Mr. Charles Heath's paper on the restoration of hearing after removal of the drum and ossicles by a modification of the radical mastoid operation for suppurative ear disease was resumed. Messrs. Chichele Nourse, Fred. Spicer, and Pegler spoke favourably of the paper, while it met with criticism at the hands of Messrs. Urban Pritchard, Macleod Yearsley, Milligan, Ballance, and Macnaughton-Jones.

Labyrinthine Suppuration.

Dr. Milligan read notes of two cases of labyrinthine suppuration recently operated on, with special reference to the path of infection. Dr. Tilley showed a case of acute labyrinthine suppuration in a male patient. The two papers were discussed by Messrs. Hugh Jones, Whitehead, Pritchard, and the President.

Cases and Specimens.

Mr. Lawrence showed a patient in whom the mere touching of either tympanic membrane produced marked and rapidly-extending hyperaemia. Some remarks were made upon the case by Dr. Law.—Mr. Cheatle showed 250 temporal bones of all ages, sectioned vertically through the antrum and mastoid process, and Dr Kelson read notes of an operation performed for atresia of the meatus.—Mr. Waggett exhibited the patient, macroscopic and microscopic specimens and drawings of a case of endothelioma of the external meatus. The specimen was referred to the Morbid Growths Committee.—Mr. Lake read short notes of two cases of deafness secondary to mumps, and specimens of acute suppurative otitis in a child and chronic suppurative otitis in an adult. The discussion was sustained by Messrs. Cheatle, Milligan, Macleod Yearsley, and the President.—Mr. Hunter Tod showed a case of hernia cerebri et cerebelli, the result of acute encephalitis, and remarks were made upon the exhibit by Messrs. Milligan, Fagge, Waggett, Lake, and Horne.—Other exhibits were made by Dr. Peters and Dr. Macnaughton-Jones.

Midland Medical Society.—At a meeting held at Birmingham on February 1st, Dr. Wood White, President, in the chair, Dr. Emanuel showed a case of spina bifida occulta in a child aged 2 years. In the dorso-lumbar region of the spine there was a diffuse overgrowth of long hair. The vertebrae covered by the hair seemed in no way defective, but lower down the spine, at the juncture of the coccyx with the sacrum, there was evidence of incomplete closure of the primitive medullary groove in the form of a well-marked dimple in the middle line. The child, otherwise perfectly well developed, suffered from incontinence of urine, but this was held not to point to any defect in the cord, as there were no other signs, such as talipes, altered knee-jerks, etc.—Mr. George Heaton showed a sarcoma of the epididymis, removed from a man, aged 28. The patient had noticed a tumour at the back of his right testicle for eight weeks. It increased rapidly in size at first, but latterly had not enlarged much. The testes could be felt in front of the lower part of the swelling. The tumour on removal was about the size of a large orange. The testis, normal in size and appearance, was situated at its front part and uninvolved in the growth. There was no enlargement of either the vas deferens or other constituents of the cord. Microscopically the tumour was a mixed round-celled and spindle-celled sarcoma.—Dr. Stanley Barnes showed specimens from a case of cerebral tumour, in which there was secondary growth in the spinal pia mater. The patient was a boy, 11 years of age, who two years previously had suffered from morning vomiting, slight headache, and progressive loss of sight. After an illness lasting about six weeks, all the symptoms abated, and his eyesight improved sufficiently for him to be able to read large print. The symptoms recurred two months before admission to the Queen's Hospital, the patient having been practically well during the interval. In hospital he grew gradually worse, his main symptoms being headache, vomiting, loss of sight (due to post-neuritic atrophy), wasting, and convulsions. All the reflexes were lost several weeks before death. *Post mortem*, there was found a large sarcoma of the frontal lobe, apparently growing from the ependyma of the anterior cornu of the lateral ventricle. The floor of the fourth ventricle and parts of the other ventricles showed secondary growths, and at the base of the brain and around the spinal cord the pia mater (and to a less extent the arachnoid) were enormously thickened to form an almost continuous mass of sarcomatous growth, forming a sheath for the spinal cord. The posterior root ganglia, and some of the roots of the cauda equina were greatly enlarged by growth. The secondary affection of the ventricular walls and pia mater probably occurred as a result of rupture of the tumour.—Dr. Douglas Stanley read a paper on syphilitic disease of some viscera.

British Electro-Therapeutic Society.—The annual meeting of this Society was held on January 27th, when the following were elected officers for the ensuing year: *President:* Dr. Donald Baynes. *Vice-Presidents:* Dr. Dawson Turner and Mr. Chisholm Williams. *Council:* Drs. J. Allan, D. Arthur, G. B. Batten, John Berry, J. A. Cadd, R. H. Cooper, Hall-Edwards, G. H. Graham, W. S. Haughton, G. Herschell, J. Donald Pollock, A. D. Reid, S. Sloan, Septimus Sunderland, and C. A. Wright. *Treasurer:* Dr. H. McClure. *Assistant Treasurer:* Dr. H. Lewis Jones. *Honorary Secretaries:* Drs. H. E. Gamlen (West Hartlepool) and R. Morton (London).—The annual address by Dr. Macintyre of Glasgow was read by the Retiring President (Dr. Lewis Jones), Dr. Macintyre being unavoidably absent through illness.—At the annual conversazione which followed new instruments and apparatus were shown by Messrs. Smith and Wade, the Medical Supply Association, H. Watson and Sons, K. Schall, Newton and Co., H. W. Cox, Limited, the Sanitas Electrical Company, A. E. Dean, Leslie Miller, and A. C. Cossor. There was a full attendance of members. Among the novelties shown was an arrangement of an induction coil and electrolytic break for heating cauteries from the continuous current main. It was shown by Mr. A. C. Cossor. The temperature of the burner is under perfect control, and its consumption of current is very small. Messrs. Watson and Sons showed a glove for use by *x*-ray workers as a protection against dermatitis, and also a new form of *x*-ray tube. Mr. Leslie Miller showed the apparatus for winding his jointless section induction coils, and also instruments for measuring the current passing through the *x*-ray tube. Equally interesting and novel apparatus were shown by other exhibitors.

British Balneological and Climatological Society.—At a meeting held on January 18th, Dr. W. V. Snow (Bournemouth) in the chair, Dr. Chas. W. Buckley (Buxton) read a paper entitled Climatology from a Medical Standport. He said that the study must be subjective rather than objective. Meteorological observations were of value only as interpreting our sensations of weather which were composed of a very complex association of climatic factors, and had not been sufficiently studied from this aspect. Even the subjective sense of atmospheric temperature was a complex of temperature, humidity, and wind, while such climatic characters as bracingness were made up of these factors together with pressure and, to less extent, sunshine. He discussed in detail the effect of each factor on the system and briefly indicated the combinations they entered into in producing their conjoint effects. Reference was made to a series of observations taken in Shanghai under the direction of Mr. W. F. Tyler, and by means of charts the important influence of the absolute humidity on the bracingness of a climate was indicated, and also the fact that the readings of the wet bulb thermometer were a more reliable guide to the subjective temperature than the dry bulb. In conclusion, he pointed out the desirability of the Society undertaking the systematic study of English climates from the subjective aspect and of endeavouring to discover definite relations between this aspect and the meteorological readings.—Dr. Bagshawe (St. Leonards) said that in some municipalities provided with a staff of official observers meteorological records were looked for from that source only, and thus individual observers were few and local societies unfortunately dropped through.—Dr. Wm. Ewart expressed an opinion that the chief reasons why the relatively warm temperature registered at many English health resorts did not obtain for them the same popularity as that enjoyed by foreign stations were to be found in the greater variability of the climate, and especially in its greater humidity. Plants were less sensitive to these influences, but for most patients a drier atmosphere was desirable and often indispensable.—Dr. Rufenacht Walters referred to the value of weather observations between 9 a.m. and 9 p.m.—Dr. Parkes Weber remarked that great caution was needed in accepting sensations as an index of atmospheric conditions. The sources of error were enormous. The state of the digestive organs had

much to do with a person's appreciation of the weather. To overcome the sources of error immense numbers of reports would be required and many years would have to pass before any valuable statistics could be obtained by the method of noting effects on the subjective condition of individuals.—After some remarks from Dr. TYSON (Folkestone) and Dr. LEONARD WILLIAMS, Dr. CLIPPINGDALE combated the view that the most bracing wind that reached this country came from the north-west. He considered the north-west wind lost its salt in coming over the land, and was therefore colder and seemed more bracing. He adhered to the common belief that the most bracing wind was the north-east wind, which was not only cold but salt.—Dr. BUCKLEY, in reply, quite agreed that meteorological statistics of rainfall and rainy days were no indication of the number of days fine enough for an invalid to go out, and pointed out that although the subjective method of recording variations of weather was open to fallacy, probably equal fallacies arose from the present method of estimating climate from records of one or two meteorological factors. He was glad that the opinion that absolute humidity was of more importance than relative from a medical standpoint had received so much support.

KIDDERMINSTER MEDICAL SOCIETY.—At a meeting held on February 3rd, Mr. J. L. STRETTON, who was in the chair, showed: (1) A man aged 42, whose wrist he had excised for tuberculous disease. The whole of the carpus, the ends of the metacarpal bones, and the ends of the radius and ulna were removed through a single dorsal incision. The result was satisfactory within two months of the operation; the man was able to use a spade. (2) A man aged 75, who fractured his patella transversely. It was brought together with wire after the method of Mr. Barker, and he was able to walk about in ten days. (3) A woman aged 35, treated successfully with Professor Sclavo's serum for anthrax. (4) A dermoid cyst of the right ovary removed from a maiden lady aged 53. It contained a large mass of hair, and fixed to the upper end of the cyst wall was a portion of bone resembling an upper jaw with a row of six teeth.—Dr. BERTRAM ADDENBROOKE showed: (1) Temperature charts of three cases of pneumonia under his care in one week, all following influenza. One subsided by lysis and two by crisis. (2) An aural polypus. (3) A large cancerous tumour removed from the abdominal wall. (4) A large mushroom-shaped phosphatic vesical calculus which had formed in a vesico-vaginal fistula which resulted from the operation for vaginal hysterectomy.—Mr. A. C. OLDHAM read a paper on peripheral neuritis. He described at considerable length a case he had had under his care, complicating pregnancy. The child was born at full time and was healthy, and the mother made a good recovery. Some new ethical rules having been adopted, the meeting terminated.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on January 27th, Dr. BRONNER in the chair, Dr. HELLIER read a paper on secondary *post-partum* haemorrhage, and described a recent case. The patient was a young married woman, who was treated for partial placenta praevia at the seventh month by podalic version. For ten days she progressed without a bad symptom, there being no sign of sepsis and no lochial excess. On the tenth day she had very severe flooding. This occurred on the seventeenth day, after a further interval, in which no bad symptoms were present. There was no further haemorrhage, and she made a good recovery. Dr. Hellier was certain that no part of the secundines were retained in this case.—Mr. H. COLLINSON made remarks on a case of fibroid polypus of the bladder. The patient, a man aged 33, was admitted, under the care of Mr. Littlewood, in a semi-conscious condition, with dribbling of foul, blood-stained urine. He had suffered from occasional haematuria for twelve months, and great frequency of micturition and pain at the end of the penis for the last nine months. He died on the fifth day after admission from septic pyelonephritis. The autopsy showed a polypus of the bladder, 2 in. in length, springing from the upper and outer margin of the right ureteral orifice. This had obstructed the flow of urine from the right ureter, producing dilatation of it and the pelvis of the kidney. The tip of the polypus also obstructed the internal meatus of the urethra. Attention was drawn to the prominence, amongst the symptoms, of pain and frequency of micturition, and the physical characteristics of the tumour were cited as explanation.—Dr. JOHNSTONE CAMPBELL read a paper on the treatment of croupous pneumonia, making reference to the fact that in recent years the mortality from croupous pneumonia had considerably increased, in spite of all the advances made in treatment and in the case-mortality of most other diseases. He insisted on the necessity, in the matter of treatment, of recognizing that pneumonia was a general disease with a local manifestation. He considered the main indications were to take off pressure upon the heart, and so to lessen the work it had to perform, rather than by stimulating it; to try to increase its motive power; to keep the kidneys well flushed by the administration of abundance of water, and to avoid overloading the stomach with food. He deprecated the routine use of drugs like digitalis and strychnine, and recommended the use of potassium iodide as a vasodilator, and in suitable cases creosote to prevent fermentation in and consequent distension of the stomach. He further dwelt upon the necessity of avoiding any disturbance of the patient that could possibly be avoided, and especially thought that examination of the lung should be made to the smallest possible extent when once the diagnosis had been established. Drs. BARRS and EDDISON discussed the paper, and Dr. CAMPBELL replied.

REVIEWS.

SURGERY OF THE ANTERIOR MEDIASTINUM.

THE surgery of the anterior mediastinum[1] is the subject of a valuable study by Professor MAURICE AUVRAY of the operative procedures undertaken for the relief of affections of this region, and of the published clinical records of these operations. The surgery of the heart and pericardium is not included. Various methods for exposing the anterior mediastinum have been devised and employed by surgeons, and this variety will of course continue in practice on account of the differences in location and extent of the lesions for which this exposure is undertaken. Extensive resection of the sternum, and of the adjoining costal cartilages, ribs, and clavicles, is possible without risk of embarrassment of the circulation or respiration, or of interference with the movements of the upper limbs. The surgeon is thus able to place first in importance the consideration of providing a sufficient exposure of the operation field, and in this respect several of the procedures which have been adopted from time to time have proved ill adapted to their purpose. Professor Auvray agrees with other surgeons in considering Milton's operation of splitting the sternum unsatisfactory for this reason. When an extensive exposure is called for he recommends section of the sternum at the level of the third interspace, of the three upper costal cartilages on each side, and of the clavicles just inside the insertions of the clavicular heads of the sterno-mastoids. The chief complications of operations in this region are haemorrhage from the internal mammary arteries, wounding of the large vessels, and opening of the pleura or the pericardium. Accidental opening of the pleura has not as a rule been attended with serious consequences, and is best met by tamponing. Exposure of the anterior mediastinum for the purpose of extracting foreign bodies from the trachea or bronchi has been attended by unhappy results, and access to these parts of the respiratory tract is more readily obtained from the posterior mediastinum, but the number of cases operated on for this purpose is small. The cases of Milton and Ricard are well known; Milton successfully removed a cannula from the right bronchus from the front, but the patient succumbed to acute mediastinitis. Ricard abandoned his attempt to find the cannula, and the patient died from pulmonary gangrene.

Operations for mediastinal abscess, acute and chronic, have given a high percentage of successes; of thirty-six acute cases three only ended fatally, and of eleven chronic cases recorded all survived the operation.

For retro-sternal goître, sternal resection gives the only satisfactory route of access, and the same is necessary in dealing with mediastinal new growths. Up to the present favourable results appear to have been obtained only in the case of benign growths, but sometimes sternal resection is justifiable as a palliative measure when a malignant growth is causing much distress from compression.

The chapter in which Dr. Auvray discusses the subject of

[1] *La Chirurgie du Médiastin Antérieur (Cœur et péricarde exceptés).* Par Le Dr. Maurice Auvray, Professeur agrégé à la Faculté de Médecine de Paris. Paris: J. B. Baillière et Fils. 1904. (Demy 8vo, pp. 224, 23 plates. Fr. 6.)

aneurysm of the large vessels is most interesting and valuable. Statistics show one point clearly: that in all cases where careful medical treatment has proved unsatisfactory, the surgeon may recommend without hesitation the distal ligature of the carotid and subclavian arteries. Of 91 cases in which this procedure was undertaken for aneurysms of the aorta and innominate or for aneurysms situated at the origin of the carotid or subclavian, 46 were attended with a considerable degree of clinical success. In the remainder death was rarely attributable to the operation. Extirpation of aneurysms in this region has never been successfully carried out, and attempts of this character should be abandoned unless some exceptional circumstance seems to indicate the likelihood of success.

Such are the chief conclusions to which the author's studies have led; he has collected the clinical records with much care, and his analysis leaves nothing to be desired. In one respect the book is defective: the chapter on the anatomy of the anterior mediastinum is sketchy and lacking in detail. The illustrations are throughout excellent.

PATHOLOGICAL HANDBOOKS.

In the third edition of Mallory and Wright's *Pathological Technique*[2] the high standard of the earlier editions is fully maintained; the addition of some forty pages of letterpress and the introduction of nearly a score of new illustrations, beyond making the present volume slightly thicker than its immediate predecessor, have not materially affected the general appearance of a textbook which is rapidly becoming as popular on this side of the Atlantic as it is in America. The reason of this popularity is not far to seek, for between the two covers of one book is collected the necessary instructions for the methodical and scientific performance of autopsies, together with the practical details for the prosecution of those bacteriological and histo-pathological investigations that are now considered inseparable from such *post-mortem* examinations. Part I, occupying just over fifty pages, deals with the methods of reaching the various viscera and of removing them from the body for subsequent examination. The instructions though brief are sound and to the point and do not differ materially from those detailed in the previous editions. This section we believe could, with advantage, be expanded somewhat, particularly in the direction of instructions for the removal of one or more organs through small incisions or even by way of such a natural aperture as that of the anus, for it frequently falls to the lot of the medical man to be refused a necropsy in private cases, unless he will be content with such a limited examination as can be performed without "external disfigurement" of the cadaver. Part II is devoted to brief directions for the demonstration of bacteria in tissues, etc., and in cultivations by various staining methods (and here we note that Muir's modification of Pitfield's method for staining flagella is attributed to J. Blackburn Smith), for the preparation of nutrient media and for the collection of pathological material for investigation. Then follows a short description of the generally accepted "specific" bacteria, together with one or two organisms possessed of small claims to such recognition, with details special to each which serve for their isolation and identification. The reproductions of photomicrographs illustrating this portion of the book are particularly striking but often unfamiliar as a magnification of 2,000 diameters is frequently employed. The third part deals with histological methods, the preparation of sections of tissues, either after freezing or after imbedding in paraffin or celloidin, being adequately treated and the various special methods of staining such sections very fully and completely described. The demonstration of pathogenic protozoa and the differentiation of intestinal parasites are clearly set out and, incidentally, well illustrated with photomicrographs. A few pages on the examination of clinical material conclude what we consider a reliable and practical guide not only for the practitioner but also for the student, and particularly for the newly-appointed *post-mortem* clerk who intends to derive the utmost possible benefit from his post.

Professor McFarland's *Textbook of Pathology*[3] is intended to meet the requirements of students preparing for medical examinations. From his many years' experience as a teacher the author is well fitted to produce a work of this kind, and it may be said that he has succeeded in putting together a book which, though not likely to rank as one of the best of its class, is useful, comprehensive, and fairly sound. But it is hardly correct, in contrasting cancer with known infectious diseases, to say that "all productive infectious processes are characterized by proliferation of one tissue only—the fibrillar connective tissue." In tuberculosis, for example, it would be obviously inaccurate to say that connective tissue fibres are the only parts which proliferate; and on turning to the author's account of the histology of this disease, we do not find his descriptions very satisfactory or very lucid. Baumgarten's work is mentioned, but his view of the part played by the parenchymatous cells in the formation of the tubercle is not made clear, nor is the antithesis properly brought out between the rival doctrines of Baumgarten and Metchnikoff. We might quote many other instances in which it would have been possible to state matters more precisely and comprehensively, without encumbering the general student with a mass of controversial detail; and we cannot help feeling that the work would have been much improved if more attention had been paid to literary style. We do not wish to adopt the hypercritical standard of academic purists, nor do we care to carp at any trivial irregularities of expression, but we must say that the author's disregard for literary conventionalities of expression is at times so marked that we find it difficult to interpret his meaning.

[2] *Pathological Technique.* By Frank Burr Mallory, A.M., M.D., Associate Professor of Pathology, Harvard University, and James Homer Wright, A.M., M.D., Instructor in Pathology, Harvard University Medical School. Third edition. Philadelphia and London: W. B. Saunders and Co. 1904. (Demy 8vo, pp. 469; 156 illustrations. 13s.)

[3] *A Textbook of Pathology.* By Joseph McFarland, M.D. London: W. B. Saunders and Co. 1904. (Demy 8vo, pp. 818; 350 illustrations. 21s.)

SURFACE ANATOMY.

Mr. L. B. Rawling has undertaken the writing of a handbook on *Landmarks and Surface Markings of the Human Body*,[4] to fill what his personal experience of teaching has convinced him is a gap in the series of textbooks offered to the medical student. His book will certainly be a help and convenience to the student in learning a chapter on anatomy which is in reality one of great practical importance and value. This aspect of anatomy is, after all, that from which the subject is commonly presented to the practitioner, and we are glad to welcome the publication of this book as a sign that this fact is receiving due recognition. Mr. Rawling has been well advised in keeping strictly to the subject matter which his title indicates; he has not confused his text by clinical references such as are sometimes interpolated in books of this kind. The feature of the book is its illustrations; these form a complete atlas of surface anatomy, and are excellent in every way; in one, that facing page 47, colon and duodenum are drawn in a manner that might give an erroneous idea of their relationships. With the exception of the abdominal landmarks, the text follows recognized lines, and is accurate and concise. With regard to the abdomen there is, of course, much difference of opinion as to the best method of defining its regions. The nine regions are accepted by all, but the lines which bound them are very variously given, and it is to be hoped that anatomists will soon come to some agreement on the matter; at present the student has about a dozen different methods to choose from. There are considerable variations in the position of the abdominal organs within normal limits, and these variations are governed by the capacity and dimensions of the cavity in its various planes and the contour of its skeletal boundaries. Space does not permit of an adequate discussion of the matter, but we may express the view that the abdominal lines should be drawn in positions determined by *well marked bony landmarks of the abdominal skeleton.* If this principle be accepted, the one difficulty that remains is the superior horizontal plane, and the landmark which seems most suitable for this is the junction of the eighth rib with its cartilage on each side. In an appendix the author gives a useful table of the weights and measurements of the various organs and channels.

[4] *Landmarks and Surface Markings of the Human Body.* By Louis Bathe Rawling, M.B., F.R.C.S. London: H. K. Lewis. 1904. (Demy 8vo, pp. 82, 29 illustrations. 5s.)

The Passing of the Poultice.—The Surgeon-General of the United States Army has notified the Army Medical Department that poultices have no place in modern therapeutics, all the good results claimed for their use being obtained in a more cleanly way by the employment of hot wet compresses. He has accordingly issued an order that linseed and linseed meal are no longer to be included in the list of army medicines.

NOTES ON BOOKS.

PHYSIOLOGICAL CHEMISTRY.

PROFESSOR JOHN A. MANDEL is again the translator of the new edition of Hammarsten's *Textbook of Physiological Chemistry*,[1] and again he is to be congratulated on the excellent version of this well-known textbook which he presents to the English-speaking students of, and workers in, this branch of physiological learning. The book has undergone the inevitable increase of size which follows increase of knowledge; but even now it is not unwieldy, and it would be difficult to point out many other books which contain so much good material between the covers. To praise Hammarsten's textbook at this period of its existence is, however, a duty that a reviewer may well be excused; he can only commend it once more to the rising generation of students, and may safely leave the eulogy to them.

Exercises in Practical Physiological Chemistry[2] represents the Cambridge course of practical exercises in physiological chemistry. It is clearly and tersely written. There is internal evidence that each exercise has been worked through before being committed to print. Mr. Cole is well qualified, on both physiological and chemical grounds, to compile such a work; he is already well known by his published researches in this branch of science. We may recommend his book as a trustworthy laboratory guide for elementary students, and teachers also will find many useful hints for the conduct of their practical classes.

The *British Guiana Medical Annual*[3] for 1904, jointly edited by Drs. OZZARD and KENNARD, keeps up its usual high standard. The production of such a work speaks highly for the energy of the medical staff in that colony, and its lead might well be followed with advantage in more of our colonial possessions. In the limited space at our disposal it is impossible to give an account of all the interesting papers that are to be found in it; a few only can be noted. The opening article by the Hon. J. E. Godfrey, Surgeon-General of British Guiana, deals with the regulations passed by the recent quarantine conference held at Barbados. A revision of the old regulations was urgently required to keep up with the advance of recent science, and it is to be hoped that the new laws will be successful in preventing epidemics in the future. A short report on the recent epidemic of small-pox by Dr. Texeira is interesting; it shows that the peculiar type of small-pox associated with an excessively low mortality, which started in Barbados and then spread to Trinidad and the other islands, was also present in British Guiana. It is unfortunate that in Dr. Kennard's paper, on what he terms acute anaemia, no accurate blood counts nor differential leucocyte counts were made; it is difficult to agree with the author in his conclusions that ankylostomiasis is to be excluded. The paper by Dr. Ozzard on the tropical diseases of British Guiana gives a good idea of what one may meet with there; it will be interesting to see if kala-azar will be found in the future. In his paper on mosquitos the same author falls into some serious errors. *Stegomyia fasciata* is not an intermediate host for filaria nocturna. The common intermediate host is *Culex fatigans*, and it is strange that no mention is made of this common mosquito in the paper at all. Dr. De Freitas contributes an interesting article on the classification of malarial fever cases treated in the public hospital of Georgetown. The *Transactions* of the British Guiana Branch of the British Medical Association are incorporated in the volume. The editors are to be congratulated on the excellence of their *Annual*.

The arrangement of Captain THIMM'S booklet, *Dutch Self-Taught*,[4] is right enough, but the pity of it is that apparently he does not know sufficient Dutch, while on the other hand, Miss Klinkert, of Amsterdam who revised the proofs, does not seem to know sufficient English. The consequence is a number of ridiculous mistakes, calculated to make the Dutch sneer at our philological attempts. The mistakes clearly were made when Captain Thimm was at a loss for some Dutch word. He did then what we all should do, and looked it up in a dictionary. But at the same time he displays an unhappy knack of taking the wrong word, whenever there were two spelt in the same way, but having an entirely different meaning. A few instances may make this clear. He translates shingle (gravel) by the Dutch equivalent for wooden roofplate, tide by the Dutch time, lime (chalk) by glue, cod (fish) by pod, lemon by melon, pine-apple by fir-cone (the Dutch eat "ananas"). Christmas Eve he calls Boxing-day Eve (if such a word may be coined), bush he translates by forest, bachelor by youth, brain by mind, accident by fit, blister by pimple. He mentions a dog's collar as an article of human dress, and tries to make us believe that in Holland only sailors wear trousers. It is not certain what he means by his Dutch for a siphon of soda water; the word he chooses means either a lever or a handspike, and by giving the Dutch word for plants he seems to wish us understand that they don't cook their vegetables over there. For cupboard he gives the obsolete equivalent of sideboard, and landing he explains as if there were a place in Dutch houses where they alight from their boats. He seems to think that in that country they do not put coals on the fire by means of a shovel, but with a sort of weeding tool. Why he should call matches "sulphur chips" one cannot understand; the word and the thing are both obsolete. The Dutch is "lucifer," a word also used in England, though not generally. They have no sacrifices in the Dutch churches, but the offertory is a collection there as here; nor does a Dutch court of justice dismiss an innocent man, but acquits him; and no Dutchman speaks of his darling or pet shares, meaning preference shares. The little book is full of such things; the best the publishers can do is to have it revised by somebody who knows both languages, and issue at once a second edition, for on the whole it is a useful little thing, and it is a pity it should be spoilt in this manner.

THE *Transactions of the Hunterian Society*[5] for its 85th session—1903-4—contain, in addition to notes of clinical cases and pathological specimens described or shown, a full report of a lecture by Dr. W. Hale White on some clinical considerations concerning certain of the rarer forms of enlargement of the heart; an abstract of one by Mr. A. Bowlby, C.M.G., on pain: its importance in diagnosis and tendency to mislead, and a paper in full by Dr. P. C. Franze on the physiological action of the Nauheim baths and the indications for their use, chiefly in circulatory disorders.

THE SUPPLY OF MIDWIVES.—The Association for Promoting the Training and Supply of Midwives held its annual meeting on February 14th, when the report of the Council for the year 1904 was presented and adopted. It recorded the acceptance of the position of patroness by Her Majesty the Queen, a fact which was deemed to emphasize the national character of the Association's undertaking, and stated that among the accessions to the Council were the medical officers of health for several counties. Propaganda work throughout the country had been actively carried on, and twenty-three pupil midwives had been trained, the fees of eight being paid for by the Association. In return for free or assisted training the pupils bound themselves to do district midwifery for not less than two years, the Council retaining their certificates meanwhile. Steps were being taken which it was hoped would result in the Educational Authority for London adding lectures for midwives to its technical courses. It was stated that to carry on and extend the work further financial aid from the public would be necessary. The Secretary of the Association is Miss Gill, Dacre House, New Tothill Street, Westminster.

THE PREVENTION OF MALARIA.—At the request of the Society for the Study of Malaria, the Italian Minister of Public Instruction has sanctioned the distribution among the teachers of evening and holiday schools for illiterate adults of pamphlets containing simple explanations of the mode of origin and spread of the disease, and instructions for the use of the quinine supplied by the State for prophylactic purposes. The object is to secure the co-operation of the teachers in the work of prevention.

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[1] *A Textbook of Physiological Chemistry.* By Olof Hammarsten, of Upsala. Authorized translation from the fifth German edition. By John A. Mandel, Sc.D., of New York. Fourth edition. New York: John Wiley and Sons; and London: Chapman and Hall. 1904. (Demy 8vo, pp. 703. 17s.)

[2] *Exercises in Practical Physiological Chemistry.* By Sydney W. Cole, M.A. Cambridge: W. Heffer and Sons; and London: Simpkin, Marshall, and Co. 1904. (Fcap 8vo, pp. 152. 5s.)

[3] *The British Guiana Medical Annual.* Edited by A. T. Ozzard, M.R.C.S., L.S.A., Resident Surgeon, Public Hospital, Suddie, and C. P. Kennard, M.D.Edin., M.R.C.S., Government Medical Officer. Thirteenth year of issue. Georgetown, Demerara: Baldwin and Co. 1904. (Demy 8vo, pp. 124. 5s.)

[4] *Dutch Self-Taught, with Phonetic Pronunciation, Vocabularies, Grammar, Idiomatic Phrases, etc.* By Captain A. Thimm. London: E. Marlborough and Co. 1904. (Crown 8vo, pp. 120. 2s. 6d.)

[5] London: Published by the Society, 1904 (demy 8vo, pp. 85. 5s.)

HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

We have received from the Honorary Secretary of the King Edward's Hospital Fund for London a copy of the report of the Committee appointed to inquire into the financial relations between hospitals and medical schools in London. Appended to the report are a copy of the form of return, minutes of evidence, and particulars relating to the expenditure of twelve London hospitals on medical schools, laboratories, museums, libraries etc. The report to the Prince of Wales as President is as follows:

Sir,—1. In October last your Royal Highness, as President of King Edward's Hospital Fund, was pleased to request us to undertake the inquiries indicated in the following Terms of Reference and Instruction:

To consider and report—

1. Whether any, and if any how much, money given or subscribed for the relief of the sick poor to the twelve London hospitals having medical schools is contributed, directly or indirectly, by those hospitals, or any of them, for the maintenance of medical education.

2. Whether any direct or indirect return for such contributions (if any) is received by the hospitals from their medical schools, and, if so, whether such return is equivalent to the amount of the contributions.

3. Whether, in the event of the Committee finding that any hospital contributes to its medical school a sum in excess of the return it receives from the medical school, there are any special considerations advanced in justification of such expenditure, or any general considerations which would apply to all hospitals having medical schools.

It is an instruction to the Committee to deal with the subject on the basis of the existing arrangements, and to accept from the hospitals as existing arrangements any such as they may advise the Committee will be in operation on January 1st, 1905.

2. We have the honour respectfully to submit the following report of our proceedings and of the result of our inquiries under the foregoing reference.

3. At our first meeting, on the 4th November, 1904, we settled a form of return, which we addressed to the twelve London hospitals which have schools in connexion with them. A copy of this form will be found in the First Appendix to this our Report.

4. On the 7th, 8th, and 10th days of December, 1904, and on the 17th day of January, 1905, we heard the oral statements of witnesses, a shorthand note of whose evidence appears in the Second Appendix to this our Report. Furthermore, we have also met on the 9th December, 1904, and received and considered the replies of the twelve hospitals to the forms of return, a statement laid before us by the Hon. Stephen Coleridge, and a summary which has been prepared of the reports of the ordinary expenditure of the sixteen largest London general hospitals for the year 1903.

5. The replies of the hospitals to the forms of return have undergone a close examination, and have been the subject of interviews between certain of the authorities of the hospitals and the Committee, and of correspondence between our Honorary Secretary and some of these authorities, and the original replies have in several cases been modified. The best results of this examination which we are able to supply will be found in the Third Appendix to this our report.

6. We find it impossible to answer the first head of inquiry in the terms in which it is addressed to us for the following reasons: That in the case of several of the hospitals (as St. Mary's) the hospital and school were founded together, and the school as well as the hospital appears to have been an object of bounty in the minds of the founders; that in some cases (as University College Hospital) the hospital was founded as an aid to the school; that in some cases (as Charing Cross and Westminster Hospitals) the school buildings were provided, or partly provided, by money subscribed for the specific purpose, or for a joint purpose of which the provision of school buildings formed a part; that in other cases sums have been contributed to hospitals, subsequent to the foundation, of which, to the knowledge of the donors, a portion was applied to the school—as, for example, in the case of the London Hospital, where a contribution to the school has been made yearly under resolutions passed at meetings of the subscribers entitled to vote under the rules; and that, where the hospital and school form a single conjoint institution (as in the case of the Middlesex Hospital) and contributions have been made to that institution, it is obviously impossible to say how much was given for the relief of the sick poor, and how much for the promotion of medical education.

7. In our investigation of the matters arising under the first inquiry, we have therefore, but of course merely for purposes of convenience, treated the question as if modified by the deletion of the words "for the relief of the sick poor," and as if all the moneys contributed to the hospitals were properly applicable to the hospital only, and not to any extent to the school.

8. But, even after eliminating this difficulty, we have found that the very intimate and complex relations which have grown up between the hospitals and the schools present insuperable difficulties to the preparation of a statement showing the actual cash value of the balance between contributions in money or kind made by the hospitals to the schools and by the schools to the hospitals; and this altogether apart from considerations as to the value of the work done by the schools for the hospitals. Frequently the ground on which the school buildings stand is the property of the hospital, but the buildings have been erected by the school. In some cases parts of the buildings of the hospital are used conjointly for the purposes of hospital and school, especially in the case of pathological and bacteriological laboratories, and the apportionment of charges between two departments of the single institution would be a proper subject for the decision of experts. Another difficulty arises in connexion with capital expenditure by the hospitals on account of the schools. In the case of St. Bartholomew's Hospital, records of considerable debts, said to have been incurred by the school as far back as 1843, and still remaining undischarged, are extant; and it must be obvious that the yearly cost to the hospital of such debts, which appear to have borne no interest, could only be accurately estimated after an elaborate inquiry involving questions as to the constitution of the body it is sought to make liable, and the admission of any liability by such body, if it actually exists, whether legal or otherwise. The question of the value of land is also important and can only be satisfactorily dealt with by competent surveyors, as we find that the rateable value in the case of hospitals is an untrustworthy guide, even if the school buildings were capable of being separately rated, which in some instances is scarcely the case.

9. We have, therefore, thought it better to confine ourselves to statements of fact in regard to each hospital, and these will be found in the Third Appendix, which we adopt as part of our report. We believe the facts fairly cover the ground of inquiry, but the assessments of the money values which should be set against considerations which do not take the form of money payments must be left to professional valuers, should it be thought desirable to further prosecute these inquiries.

10. We have, however, no hesitation in reporting that, in the cases of King's College Hospital and University College Hospital, it may fairly be said that no money given or subscribed to those hospitals was, in the year 1903 (the last year for which the accounts are complete), contributed directly or indirectly by the hospitals for the maintenance of medical education.

11. In the cases of Guy's Hospital and the Royal Free Hospital, we doubt whether, on consideration of all the circumstances (and especially, in the case of Guy's Hospital, to the facts stated by the Dean of the Medical School, see Appendix III), the schools can be considered as deriving any pecuniary benefit from the hospitals.

12. In the case of all the other hospitals—namely, Charing Cross, the London, the Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, and the Westminster, we report that, in our judgement, contributions, either direct or indirect or both, were made in the year 1903 to the schools out of the funds of the hospitals.

13. With reference to the first part of the second head of inquiry—namely, whether any direct or indirect return for the contributions made by the hospitals to the schools is received by the hospitals from the medical schools—we have come to the following conclusions:

14. (A) We find that, in some cases, the fact that a large body of students and of medical men are being, or have been, educated in a hospital, diffuses a wide interest in that institution and thus tends to aid the finances of the hospital.

15. (B) We find that the presence of a body of eager young men watching the proceedings of their teacher has the tendency to keep the medical man on the alert and to counteract the effects of the daily routine of duties; and that the opportunity for teaching a large number of pupils attracts to hospitals with schools the gratuitous services of the most eminent men in the profession.

16. (C) We think that the publicity which attends the work of a hospital where there is a body of young men in attend-

ance, also tends to maintain at a high level the whole work of the institution.

17. (D) It has been urged before us that the great amount of work done without payment, or with inadequate payment, by students, in the character of medical clerks and dressers, and in connexion with the out-patients and the casualty cases, constitutes a pecuniary advantage received by the hospital from the school; but the evidence satisfies us that the expenses incurred in hospitals with schools are generally in excess of those in hospitals without schools, and we are of opinion that no saving of expense can be attributed to the presence of medical students. On the contrary, some of the evidence before us, together with a study of the accounts of the various hospitals, has brought to our attention remarkable variations in the expenses incurred by the several hospitals, and raises the important question whether, in the case of some of the hospitals to which schools are attached, there is not considerable extravagance and waste in the expenditure.

18. (E) With regard to the welfare of the patients, this depends so largely on the character of the individual medical men and nurses concerned with each case that it is difficult to draw any line between the two classes of hospitals. Probably, in cases of great obscurity and difficulty, the presence of a large number of students may at times be useful; but, on the other hand, we think that the quiet of a hospital without students must often be a comfort to patients, and, on the whole, we do not think that the hospitals with schools can substantiate any superiority, in this respect, over other hospitals.

19. (F) As regards the advancement of medical science and the consequent benefit to the public, the existence of a medical school is in our opinion of the highest value. London probably offers the greatest facilities of any city in the world for clinical teaching and for surgical and medical research, and we regard it as of the highest importance that the greatest use should be made of these facilities. In making this statement, however, we feel bound to call attention to what we have said in a subsequent paragraph of our report (paragraph 25).

20. We cannot doubt that the presence of a medical school has a tendency to give to the management of a hospital a progressive character, as well as an interest in experiments tending to the advancement of medical and surgical science. But it seems to follow as a consequence in such cases that the real administration of the hospital will be placed mainly under the control of the medical staff, and that the expenditure of the hospital will thereby tend to increase. On the other hand, though the absence of a school may have a tendency to give to the management of the hospital a stationary character and to leave the administration mainly in the hands of a lay body of managers, the evidence before us shows that some hospitals without schools are excellently conducted and can compare favourably with some hospitals with schools.

21. By the second part of the second head of reference we are asked to ascertain in each case whether the direct and indirect return received by the hospital from its medical school is equivalent to the amount of the contribution made by the hospital to the school. Inasmuch as the returns, whether direct or indirect, are of a general kind and cannot be reduced to definite figures in money value, we find it impossible to give a categorical reply to this inquiry. But the general conclusion at which we have arrived is the following:—The schools confer certain considerable benefits on the hospitals, and the hospitals, by opening their doors to the students, provide a clinical laboratory and allow the students of the school to work there; this confers on them a very great benefit, because without the admission to the hospital the students could obtain little or no clinical teaching. These mutual benefits may, we think, be fairly set off the one against the other.

22. If that be done, as we think it fairly may be, it follows that, in the case of the schools which last year received benefits in money or money's worth from the hospitals over and above the benefits last alluded to, there is no return made by the schools to the hospitals which can be treated as recouping this expenditure of the hospitals, and that (subject always to the observation made in paragraph 7) the schools still remain debtors to the hospitals in respect of the pecuniary contributions made to them.

23. We answer the third specific head of inquiry by saying that, beyond the matters to which we have already referred, we do not find that any special considerations have been advanced in justification of the expenditure by the hospitals on the schools, or any general considerations which would apply to all hospitals having medical schools.

24. Such are our replies to the specific matters referred to us; but we desire to add that, in the course of our inquiries with a view to these replies, certain matters have come before us so closely connected with the subjects of the reference that we think it desirable to lay before your Royal Highness the impressions produced on our minds.

25. We have formed the opinion that a broad line of distinction ought to be drawn between the studies of the first three years of a medical student's curriculum and the studies of the last two years, or, in other words, between the preliminary and intermediate studies on the one hand and the final studies on the other; and that whilst the latter studies can only be pursued with advantage within the walls of a hospital, and nowhere in the world with more advantage than in London, the earlier studies have no real relation with a hospital, and are therefore more properly to be pursued in an institution of a university character; and, further, that the attempt of many of the hospitals to associate with themselves schools teaching the preliminary and intermediate subjects is a great, if not the chief, source of the exhausted condition of the funds of many of the schools and the consequent demand of the schools on the funds of the hospital.

26. It is therefore with great satisfaction that we find that the Statutes of the University of London (paragraph 80) direct the Senate to "use its best endeavours whenever practicable to secure such common courses of instruction for Internal Medical Students in the preliminary and intermediate portion of their studies under appointed or recognized teachers at one or more centres"; and if this object can be carried into effect we believe that it will free some of the schools from burdens which they find it difficult to bear.

27. The great uncertainty which, in many or all cases, attends any attempt to ascertain the intentions of the original founders of the hospitals and medical schools, the impossibility of knowing what were, from time to time, the exact motives in the minds of the subsequent donors and subscribers, and the complexity of the relations which have existed between hospitals and schools, seem to render any attempt to open up the transactions in the past between the hospitals and schools very undesirable, even if it were possible. But for the future the matter is different; and we venture to submit that the distinction between the hospital and the school should in every case be drawn, not only definitely and exactly, but with such clearness that it may be understood by the general public, and so that no question may arise as to the destination and application of moneys contributed, whether by the King's Fund or from any other source.

28. Finally, we cannot conclude this report without thanking our Honorary Secretary for the great aid which he has afforded us throughout the course of our inquiries.

We have the honour to be, Sir,

Your Royal Highness's most obedient Servants,

EDW. FRY,
C. G. STEPNEY,
WELBY.

J. Danvers Power, Honorary Secretary,
February 8th, 1905.

APPENDIX I *contains copies of the form of return sent to the hospitals.*

APPENDIX II *consists of the minutes of evidence.*

APPENDIX III, *containing particulars relating to the expenditure of twelve London hospitals on medical schools, laboratories, museums, libraries, etc., is as follows:*

FINANCES OF MEDICAL SCHOOLS AND HOSPITALS.

As stated in the Report (paragraph 8), it has been found impossible to reduce all the relations of the hospitals to the schools, and of the schools to the hospitals, to money value, and the following particulars, therefore, purport to state facts only:

Where direct money payments have been reported to be made on either side, they are given as supplied officially by the hospital authorities; where such sums are the result of estimates similarly supplied, the Committee have accepted such estimates without further inquiry. Where payments are made on account of the schools, out of the general funds of the hospitals, in respect of items—such, for instance, as repairs, which are not subdivided in the accounts as between the hospitals and the schools, and for which no estimates

have been supplied—the fact that a payment is made is stated without giving any amount.

In regard to school buildings and land, where rent or interest is paid, and where the original cost is known, the figures are given; in other cases only such facts as are ascertainable, and believed to be undisputed, are stated.

It has been thought better to include in the following particulars the sums paid by the hospitals on account of all laboratories, museums, and libraries which are maintained, or partly maintained, by the hospitals. Each of the twelve hospitals referred to has a medical school, and seeing that the departments in question are necessary to medical education, as well as, in some cases and to a greater or less extent, to the work of the hospitals, the expenses paid by the hospitals, when ascertainable, have been stated, without making the attempt to assess the amounts fairly payable by the schools and the hospitals respectively. This, in case of necessity, would be more properly dealt with by experts, and, therefore, it is not to be inferred that the whole, or even any part, of these charges are necessarily contributions by the hospitals to the schools.* Where nothing is said about laboratories, museums or libraries among the expenses returned as being paid by the hospital, it may be taken that none are maintained by the hospitals; and, as all sums paid on these accounts by the hospitals are given, it follows that all other expenses (if any) in connexion with these departments are defrayed by the schools.

The following notes take no account of general services rendered by the schools to the hospitals. But it must be remembered that, apart from these, which are separately dealt with in the Report (paragraph 21), the schools, in most cases, undertake many specific laboratory examinations solely for the purpose of helping the physicians and surgeons to form correct diagnoses in the exclusive interests of the patients, and that these would have to be paid for by the hospitals in any case. Where such examinations are made in a laboratory entirely maintained by a school, it is obvious that, in any exact assessment of the payments and receipts on either side, they would have to be taken into account.

It may, therefore, be taken that the following notes, while supplying a basis for apportionment by those competent to make the necessary valuations, do not provide the material for definite conclusions, except in those cases which are specifically mentioned in paragraph 10 of the report:

CHARING CROSS HOSPITAL.

Direct Cash Payments to School.

The Hospital paid on account of the School in 1903:

Rates, taxes, and ground rent ...	£632 4 0
Repairs	326 15 2
Insurance	20 5 [illegible]
Prizes	5 5 0
Museum, pathological and clinical laboratories ...	134 12 10
Electric light installation	37 15 [illegible]
	£1,156 17 0

School Buildings and Land.

The Hospital was incorporated in 1883 by Royal Charter, in Clause 5 of which it is stated that the scheme of the founders embraced the foundation and maintenance (in connexion therewith as a necessary part thereof) of a Medical School, the students of which, while still students, might assist the medical and surgical Staff of the Hospital in their labours.

The buildings occupied by the School cost £21,818 10s. 5d., and stand on land leased by the Hospital for 55¼ years unexpired on December 31st, 1903, at a ground rent of £298, included in the sum of £632 4s. mentioned above. The Committee are informed that appeals were made for funds towards the cost of erecting that part of the School building which was completed in 1881 at a cost of £13,165 12s. 0d., thus releasing and converting to Hospital purposes the space previously occupied by the School. The result of these appeals was a sum of £8,117 19s. 11d.

Maintenance of Laboratories and Museum.

The Hospital paid the following salaries in 1903:

Curator and Pathologist	£100 0 0
Bacteriologist	100 0 0

Payments by School to Hospital in 1903.

The School pays to the Hospital one-fifth of the gross fees it receives, which one-fifth, in 1903, amounted to £626 8s. 1d.

* It may, for instance, be mentioned as an example that, in the case of the clinical laboratory at the Westminster Hospital, the cost of which in 1903 was £523 1s. 4d., the authorities desire to call special attention to the fact that it "was not provided, nor is it all used, for the purposes of medical education."

GUY'S HOSPITAL.

Direct Cash Payments to School.

The Hospital contributed to the School in 1903:

For rates and taxes on old museum block ...	£89 10 0
For external repairs on old museum block ...	16 5 5
For insurance of School buildings	47 8 0
For library books (being the last payment under an old standing arrangement)	31 16 11
Half-share of annual garden party and prize-giving expenses	69 13 8
	£255 4 0

The Hospital keeps all the School buildings, with the exception of the Residential College, in external repair. The expense of these external repairs is in addition to the amount stated above as paid for external repairs of the old museum block, and is included in the general account for repairs of the Hospital.

The Hospital pays the rates and taxes of all the School buiidings with the exception of the Residential College. The expense of these rates and taxes is in addition to the amount stated above as paid for rates and taxes of the old museum block, and is included in the general account for rates and taxes of the Hospital.

School Buildings and Land other than Residential College.

All the School buildings belong to the Hospital and stand on Hospital land; but all those erected during the past 25 years have been, or are in course of being, paid for by the School. (See below—Payments by School to Hospital.)

Residential College.

The Residential College was erected by the School on a piece of land originally purchased by the Hospital for £5,500. The capital sum required for the building was raised by the School by means of debentures (£20,000) issued on the security of the students' fees. The ground lease of the land expires in 1935. (For rent see below—Payments by School to Hospital.)

Maintenance of Laboratories by Hospital.

The Hospital pays to the School as its contribution for the entire laboratory and post-mortem work of the Hospital, which is undertaken by the School, the following sums:

For bacteriological laboratory	£214 14 0
For clinical laboratory	50 0 0
For pathological department	150 0 0
	£414 14 0

Payments by School to Hospital in 1903.

In 1892 a sum of money was expended by the Governors of the Hospital for the erection of buildings, parts of which were to be occupied by the Medical School. It was agreed that the cost of those parts of these buildings which are used by the School should be repaid by the Medical School, as to principal and interest, by 14 annual instalments of £300, which have been duly paid to date.

In lieu of ground rent for the land on which the Residential College has been built, the Governors of the Hospital arranged with the College Committee that four resident House Physicians, four resident House Surgeons, and two Obstetric residents should be lodged and served, including the cost of fuel, light, and attendance, without charge.

NOTE.—The Dean of the Medical School states in a memorandum forwarded to the Committee:—"As at present arranged the Medical "School has no corporate existence, and has no property, and the "questions, therefore, as to financial transactions as between the "Hospital and Medical School can only be answered with limitation.

"For many years now the Medical School Fund has been solvent, "whilst the Hospital has been heavily in debt. Improvements in the "methods of treating patients, which have been much desired by the "Staff for the advantage of the Charity as well as of the School, have "constantly been charged to the School account. Even an increase in "the number of the Resident Staff was only secured by the School fund "making itself responsible for any additional expense it might entail. "The enormous dental department . . . although partly supported by "the Hospital now, was in the first instance started at the sole cost and "charge of the Medical School Fund."

KING'S COLLEGE HOSPITAL.

School Accommodation in Hospital.

The Hospital provides a sitting-room for the clinical students who are working in the Hospital.

Maintenance of Laboratories by Hospital.

The Hospital maintains a clinical laboratory, the expenses of which are included in the general expenses of the Hospital. The salary of the Clinical Pathologist is £250 per annum.

The Hospital provides the Pathological Registrar with a private working room in the Hospital, the heating, lighting, and cleaning of which are charged to the general funds of the Hospital. The Hospital pays the Pathologist's salary of £50 per annum, and provides certain materials.

Payment by School to Hospital in 1903—Nil.

LONDON HOSPITAL.

Direct Cash Payments to School.

Amount contributed to the general funds of the

School in 1903	£2,500 0 0
For rates and taxes	88 1 6
	£2,588 1 6

School Buildings and Land.

The School buildings stand on Hospital land, and were built by the Hospital. The original cost was £15,494. (For rent payable see below—Payments by School to Hospital.)

The Hospital has made loans to the School, for particulars of which see below—Payments by School to Hospital.

The Hospital pays the cost of the external repairs of all school buildings.

The Hospital purchased, in 1900, about 8 acres of freehold land in Walthamstow at £400 per acre. The land has been laid out, drained and fenced, and a pavilion built. The total amount expended, including the cost of the freehold, has been £6,170 18s. 11d. The land and pavilion are let to a club, consisting of the medical students of the School and members of the Staff of the Hospital. (For rent payable see below—Payments by School to Hospital.)

Laboratories, etc., Maintained by Hospital.

The Hospital maintains the clinical laboratory, the expenses of which are included among the general expenses of the Hospital. The salaries paid in respect of this laboratory amounted in 1903 to £136 10s.

The pathological laboratory is in the Hospital, but is maintained out of a fund of £1,500, called the Morrison Grant, which is not referred to in the annual report and accounts. The fund was established by Mr. Charles Morrison for pathological research, and the capital is expended on the current expenses of this laboratory, which is worked in connexion with the post-mortem room. The post-mortem room is maintained by the Hospital, and the Director of the pathological laboratory does post-mortem work for the Hospital in the absence of the Hospital pathologists. The four Hospital pathologists are paid by the Hospital and work in the post-mortem room; their salaries for part time amount in all to £150 per annum.

Payments by School to Hospital.

The School pays to the Hospital £464 16s. 10d. as rent for the original Medical School buildings. But these buildings were added to in the years 1898 and 1899 at a cost of £3,990 7s. 5d., on which sum the School duly pays 3 per cent interest and 1½ per cent. sinking fund for the repayment of the capital sum. The capital amount now outstanding on this loan amounts to £8,433 4s. 7d. The Hospital has also, from time to time, lent to the School, for enlargement and equipment of the School, further sums amounting in all to £2,711 11s. 3d. on which no interest is paid, but on which the School pays 2 per cent. as repayment. This loan now stands at £2,575 10s. 7d.

The Club above referred to duly pays a rent for the sports ground of 4 per cent. on the total outlay of £6,170 18s. 11d., viz., £246 16s. 10d., and does ordinary repairs, the Hospital attending to drainage.

MIDDLESEX HOSPITAL.

Direct Cash Payments to School.

The Hospital pays the difference between the receipts and expenditure of the School for each year. This sum, in 1903, amounted to £701 10s. 7d.

School Buildings and Land.

On October 1st, 1896, the Hospital took over the buildings and property of the School. The School buildings were originally erected on property belonging to the Hospital, the cost being defrayed partly by private subscription and partly by money advanced for the purpose by the Hospital. At the time of the amalgamation of the School with the Hospital the sum still due to the Hospital on this account was £8,200 0 0

Since that time the Hospital has expended on the School buildings the following sums:

In 1898	...	...	8,500 0 0
,, 1899	...	...	8,000 0 0
,, 1900	...	...	3,000 0 0
,, 1901	...	...	196 1 10
			£27,896 1 10

The land on which the School buildings stand either belongs to, or is rented by, the Hospital, and on part of it the Hospital pays a ground rent of £168 per annum.

Laboratories Maintained by Hospital.

The pathological, bacteriological, and clinical laboratories are maintained out of the general funds of the Hospital, but the expenses are not separately ascertained. It may be mentioned, however, that the salary of the pathologist is £70 per annum, and the salaries of the director of the clinical and bacteriological laboratories and his assistants amount to £650 per annum.

Payments by School to Hospital in 1903—Nil.

THE ROYAL FREE HOSPITAL.

School Accommodation in Hospital.

The Hospital provides the School with certain accommodation rent free. The cost to the Hospital is estimated at from £120 to £150 per annum.

Maintenance of Museum and Laboratories by Hospital.

The Hospital maintains its own laboratories, the expenses of which, including salaries of the Pathologist and assistants and cost of museum, are estimated to have cost the Hospital, in 1903, £520 9s. 10d.

Payments by School to Hospital in 1903.

The School pays to the Hospital 5 per cent. of all fees (exclusive of clinical fees) received by the School from its students. The amount so paid in 1903 was £147 18s.

ST. BARTHOLOMEW'S HOSPITAL.

Direct Cash Payments to School.

The Hospital paid for the School in 1903:

For fuel and lighting	...	...	£390 16 6
,, rates and taxes	...	...	236 7 4
,, repairs ...	...	...	305 0 0
,, insurance ...	...	...	42 0 0
,, water (estimated)	...	...	65 0 0
,, tradesmen's bills	...	...	82 19 4
			£1,122 2 8

School Buildings and Land.

Since the year 1865, the Hospital has expended on the School buildings and fittings the sum of £59 649 18s. 6d.

The land occupied by the above-mentioned buildings belongs to the Hospital.

The Residential College occupied by the students of the School belongs to, and is maintained by, the Hospital. The Committee are informed that the Hospital has incurred a loss under this head averaging £86 13s. per annum during the last 34 years, without taking into consideration the letting value of the premises.

Maintenance of Laboratory by Hospital.

The Hospital pays £300 to the pathologist, who also works for the School. The Hospital pays the cost of materials used by the pathologist in work done for the Hospital.

Payments by School to Hospital in 1903.

The School pays to the Hospital £750 interest in respect of a sum of £50,787 expended by the Hospital on the School from 1878 to 1881, and £28 19s. 9d. in respect of £996 similarly expended in 1891-2, making a total payment of £778 19s. 9d.

ST. GEORGE'S HOSPITAL.

Direct Cash Payments to School.

The Hospital contributed to the School in 1903:

For general purposes ...	...	...	£1,200 0 0
Towards library	...	...	25 0 0
			£1,225 0 0

School Buildings and Land.

The Hospital is the owner of the School Buildings and has advanced, or expended, various funds on additions and improvements. The annual rent and interest due from the School amounts to £359 17s. 1d., which was remitted in 1903.

Maintenance of Museum, Laboratories, etc., by Hospital.

The Hospital paid, in 1903, £226 5s. 10d. for the Museum, the remainder of the expenses being paid by the School.

The Hospital pays the following salaries:—

Bacteriologist	...	£350 per annum.
Assistant Bacteriologist	...	200 ,,
Pathologist ...	...	150 ,,

The following retaining fees are paid by the Hospital for examinations and reports to Physicians and Surgeons:—

To the School Lecturer on Chemistry	...	£75 per annum.
To the School Lecturer on Physiology	...	75 ,,

Payments by School to Hospital in 1903—Nil.

ST. MARY'S HOSPITAL.

Direct Cash Payments to School.

The Hospital contributed to the School in 1903:

Towards cost of maintaining the pathological and the pathological chemistry departments of the School, and to the salary of the Curator of the School Museum	...	£450 0 0
For the rates and taxes of the School	...	202 1 3
		£652 1 3

School Buildings and Land.

The original accommodation provided in the Hospital for the School was paid for by the founders of the Hospital, who, as stated in the first annual report of the Hospital in 1852, were apprised that one of the objects of the founders was to provide a "theatre for the study and improvement of medical knowledge and practice, and a School for the education of youth in a profession of the highest utility to man." Since that time the accommodation originally provided by the School—or part of it—has been retaken by the Hospital, and a sum of £11,000 advanced to the School for new buildings. Up to, and including, the year 1900, the School paid interest on this sum at the rate of 4 per cent., and in 1901 and 1902 interest at the rate of about 3½ per cent.; in 1903 no interest was received.

Maintenance of Laboratory by Hospital.

The Hospital pays £250 to the Pathologist, acting in his capacity as an official of the Hospital; but he receives payment in addition from the School as a Bacteriologist, so that only a part of his time is given to the Hospital as Pathologist.

Payments by School to Hospital in 1903.

The Hospital has advanced to the Medical School, for the purpose of purchasing the furniture and fittings of the club, a sum of £700 at 4 per cent., the interest on which is duly paid.

ST. THOMAS'S HOSPITAL.

Direct Cash Payments to School.

The Hospital paid for the School in 1903:

For fuel and lighting	£567	8	7
For repairs	220	17	4
	£788	5	11

The Hospital also paid the rates and taxes of the School buildings, which are included among the general rates and taxes of the Hospital and are not separately assessed.

School Buildings and Land.

The buildings originally allotted to the School, and which the School occupies rent free, belong to the Hospital.

The Hospital pays the cost of keeping the School buildings in repair.

Museum, Library, and Laboratory Maintained by Hospital.

The Hospital maintains a museum which is housed in the Medical School buildings and which, with its contents, is the property of the Hospital. The cost of maintaining this museum, including salaries, was, in 1903, £344 18s.

The Hospital partly maintains a library, which is housed in the Medical School buildings, but which, with its contents, is the property of the Hospital. The cost to the Hospital of this library was, in 1903, £120.

NOTE.—New books are bought by the Medical School with School funds and put in the library; they then become the property of the Governors.

The Hospital maintains a pathological laboratory to complete the work done in the post-mortem room. The expenses of this laboratory (apart from the post-mortem room itself) including the salary of the pathologist, amounted, in 1903, to £344 3s. 11d.

NOTE.—The post-mortem room is provided in the School building.

Payments by School to Hospital.

Additions to the original buildings allotted to the School by the Hospital have been made, and stand on land belonging to the Hospital. The cost of these buildings amounted to £15,656 17s. 2d. This sum was lent to the School by the Hospital, and the School pays to the Hospital interest at the rate of 3 per cent. on the above-mentioned sum, namely, £469 14s. 0d.

In addition, the School also pays a sum of £320 per annum as a sinking fund, established with a view to repaying to the Hospital the above-mentioned capital sum of £15,656 17s. 2d., so that if this sinking fund is maintained until the capital sum is paid off, the School, at its own expense, will have paid for the new buildings, which, being on Hospital land, are the property of the Hospital.

UNIVERSITY COLLEGE HOSPITAL.

School Accommodation in Hospital.

The Hospital provides a lecture theatre which is used by students and nurses working in the Hospital; also a common room and cloak room for clerks and dressers. The expense of this accommodation is not separately ascertained.

Laboratories, etc., Maintained by Hospital.

The Hospital maintains a clinical chemical laboratory and a clinical bacteriological laboratory for completing the investigation of cases in the Hospital. The expenses of these laboratories are not separately ascertained. The salary of the pathologist is £150 per annum.

Payments by School to Hospital in 1903.

The pharmacy fees of students are paid over by the School to the Hospital, and the amount is divided equally between the Hospital and the pharmacist who instructs the students in the Hospital. These fees in 1903 amounted to £70 7s.

WESTMINSTER HOSPITAL.

Direct Cash Payments to Schools.

The Hospital contributed to the School in 1903:

For general purposes	£400	0	0
For museum	52	10	0
For prizes	20	0	0
	£472	10	0

School Buildings and Land.

See below—Payments by School to Hospital.

Maintenance of Laboratory by Hospital.

The cost, including salaries, of the clinical laboratory, was, in 1903, £523 18s. 4d.

Payments by School to Hospital.

The School buildings, which, with the land on which they stand, cost the sum of £13 856 0s 7d., were built in part with the proceeds of an appeal to the public to provide money for building a new school and for adapting the space previously occupied by the old school in the Hospital to the purposes of the Hospital, and in part by the money of the Hospital. They are the property of the Hospital. The Committee are informed by the authorities of the Hospital that a rent of £160 per annum is paid by the School to the Hospital, such rent having been fixed by the Governors as a fair and just arrangement having regard to all the circumstances.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE deaths from plague in India during the weeks ending January 14th and 21st amounted to 24,385 and 28,104 respectively. The principal figures during the two weeks in question were: Bombay, 192 and 261; Bombay Districts, 2,886 and 2,952; Calcutta, 33 and 64; Bengal Districts, 3,318 and 3,808; North-West Provinces and Oudh, 11,777 and 12,435; Punjab, 5,569 and 5,606; Rajputana, 352 and 633; Central Provinces, 444 and 498; Hyderabad State, 399 and 507; Madras Districts, 341 and 509.

Complaints of scarcity of labour in the Punjab, which have lately been heard of, speak forcibly of the ravages committed by plague in that district.

SOUTH AFRICA.

No fresh cases of plague and no deaths from the disease are reported from any part of Cape Colony for the week ending January 21st. At Port Elizabeth the plague hospital is empty; at East London 3 cases of plague remained under treatment on January 21st. Rats and mice suffering from plague continued to be found in Port Elizabeth and East London.

MAURITIUS.

During the weeks ending February 9th and 16th the fresh cases of plague numbered 5 and 6, and the deaths from the disease 2 and 5 respectively.

HONG KONG.

During the weeks ending February 4th and 11th the fresh cases of plague numbered 4 and 3, and the deaths from the disease 4 and 3 respectively.

RUSSIA.

Between January 5th and 11th 14 cases of plague occurred in the Province of Viatka. The plague has disappeared from the Western Cossack Province.

SIAM.

Between December 2nd and February 3rd 2 fresh cases of plague are reported from Bangkok.

BURMAH.

According to a telegram dated Rangoon, February 11th, there are 4 cases of plague in that city.

ADEN.

During the week ending January 21st 110 new cases of plague were reported at Aden, with 83 deaths.

BRITISH EAST AFRICA.

Between January 5th and 12th 9 fresh cases of plague and 8 deaths from the disease are reported from Port Florence.

EGYPT.

During the week ending January 28th 2 fresh cases of plague occurred at Suez.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 91.

THE GRIFFITHS TESTIMONIAL FUND.

DR. A. P. FIDDIAN (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	38	15	0
Dr. W. M. Harman	1	1	0
Dr. Edward L. N. Hopkins	0	10	6

Dr. Harman, in sending his cheque, added: "I think this is an additional reason for all the Divisions instructing their Representatives to vote at the annual meeting in Leicester for the British Medical Association taking up medical defence."

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

MEDICAL SOCIOLOGY.—A Society for the study of questions of social medicine and hygiene and medical statistics was formally constituted in Berlin on February 16th at a meeting attended by a large number of medical practitioners, political economists and sociologists. Professor Mayer, of the Imperial Statistical Bureau, Dr. Dietrich, of the Russian Cultus-Ministry, and Professor Lassar were elected Presidents. Dr. Rudolf Lennhoff, editor of the *Medizinische Reform*, and Dr. A. Grotjahn, medical editor of the *Jahresberichte für soziale Hygiene und Demographie*, were appointed Secretaries; and Dr. Georg Heimann, of the Statistical Office of the City of Berlin, Treasurer. The membership of the new Society already amounts to eighty-nine, and includes medical practitioners, official statisticians, and persons interested in social politics.

MEDICAL NEWS.

Influenza has been rife for some time in Rome. Among the sufferers is the Prime Minister, Signor Giolitti, and so many legislators are ill that the Chamber of Deputies has suspended its sittings.

The late Mrs. Mary Worthington, formerly Vice-President of the Union of Manchester University Women Students, left the sum of £1,000 to Owens College, and a similar amount to the Manchester College, Oxford.

French Congress of Medicine.—In order to avoid clashing with the International Tuberculosis Congress, which is to be held this year in Paris from October 2nd to 7th, the Organizing Committee of the French Congress of Medicine has decided to change the date of meeting from October 2nd, 3rd, and 4th, to September 25th, 26th, and 27th.

Typhoid Fever at Lincoln.—There seems good reason to hope that the epidemic of typhoid fever in Lincoln is coming to an end. The number of notifications last week fell to 106; no case was notified on February 19th, but a few notifications were received on February 20th. The number of deaths down to midday on February 20th amounted to 55. In the table of cases published in last week, page 378, the heading of a third column should have read, "Total since December 1st" and not "December 31st" as printed.

Society of Medical Phonographers. — The January number of the *Phonographic Record of Clinical Teaching and Medical Science*, which is now issued quarterly instead of monthly as formerly, contains a paper by Mr. C. W. Cathcart dealing with the subject of recent methods of diagnosing the relative conditions of the two kidneys in surgery, which is well worth study, and one by Sir William Gowers on syphilitic disease of the brain. The number also contains the annual report of the Honorary Secretary, Dr. Fletcher Beach, of the Society of Medical Phonographers, which shows that, although the Society is doing good work, it is in want of new members, who may be either qualified medical men or students.

The Colony Treatment of Epileptics.—A Bill has been introduced into the New York Legislature, making an appropriation of £18,000 for additional cottages for patients in the Craig Colony for Epileptics. The number of epileptics in the colony at present exceeds 1,000, and there are more than 700 applicants on the waiting list who cannot be admitted for want of room. If the amount asked for is granted, accommodation for 200 additional patients can be provided. The per capita cost of instruction is fixed by law not to exceed £90 A new feature of the work at Sonyea that is about to be established is a special building for epileptic children under 5 years of age.

Russian Universities.—The festal celebration arranged in honour of the one hundred and fiftieth anniversary of the foundation of the University of Moscow, which fell on January 25th, was postponed on account of the disturbed state of the political atmosphere. At the beginning of the present year the total number of students was 5,489; of these 1,349 belonged to the Faculty of Medicine. The teaching staff comprised 72 ordinary and 17 extraordinary professors; of the former category 25, and of the latter 9, belonged to the medical faculty. The University of Charkoff completed its first century of existence on January 27th, but, as at Moscow, the anniversary was allowed to pass without formal celebration. The number of students is 1,486.

Cremation in France.—The report recently presented by MM. Georges Salomon and Bourneville to the Société pour la Propagation de l'Incinération states that the number of bodies cremated in France increases year by year. The total number of cremations carried out in Paris from August 5th, 1889, when the method first came into use in France, to December 31st, 1903, is given as 67,286. Whilst the total for 1890 was 3,388 that for 1903 was 6,654. It must be pointed out, however, that these figures, taken at their face value, give a very misleading impression as to the progress of cremation in France. In one-half of the total number of cases, the remains cremated were limbs and other fragments of humanity from the hospitals, and of the other half a large proportion consisted of stillborn children and fetuses. Of cremations in the proper sense the total number was 3,151; the number of dead persons whose bodies were disposed of in this manner, which was 46 in 1889, rose in 1903 to 306.

Nurses' Co-operation.—From the report of the committee of management of the Nurses' Co-operation, 8, New Cavendish Street, W., for the year 1904, we gather that the number of members who now receive their own earnings less only 5 per cent. for the expenses of administration is 337; the rest, 177 in number, pay 7½ per cent. The balance of the income of the general fund over expenditure was £854. The committee has adhered to its resolution merely to fill up vacancies caused by resignations and not to add to the total membership.

An Island for Chronic Diseases.—Dr. William T. Councilman, of Harvard Medical School, has recently suggested that Long Island, in Boston Harbour, should be devoted exclusively to the care of chronic cases of disease. There is at present on the island a hospital of 300 beds. By removing the paupers now housed on the island their dormitories could, it is pointed out, readily be remodelled into wards providing accommodation for 400 other chronic invalids, and additional buildings could be erected and maintained at moderate expense. The main purpose of this change would be to furnish some adequate care for tuberculous patients, a class said to be now almost wholly neglected by the authorities of Boston City.

Bequests to Hospitals.—The late Mr. F. D. Mocatta, of Connaught Place, Hyde Park, has left nearly £30,000 to charitable institutions, including several hospitals, but excluding such of them as employ the system of electing those to be benefited who obtain the votes of subscribers, and not according to the merits of each case. Among other bequests are £500, with a further £1,000 subject to a life interest, to the London Hospital; £500, and a further £500 subject to a life interest, to the Metropolitan Hospital; £300 to the Mount Vernon Consumption Hospital; £200 each to University College Hospital, Middlesex Hospital, Poplar Hospital, London Fever Hospital, City of London Hospital for Diseases of the Chest, and the Chalfont Colony for Epileptics; £100 each to St. Mary's Hospital, St. George's Hospital, St. Thomas's Hospital, East London Hospital for Sick Children, and the Ventnor Consumption Hospital; and £50 to the Queen Charlotte's Lying-in Hospital.

Association of Medical Diplomates of Scotland.—The inaugural dinner of the Association of the Medical Diplomates of Scotland was held at the Trocadero Restaurant, London, on February 14th, with the President of the Association (Dr. C. St. Aubyn Farrar) in the chair. After the toast of "The King, Queen, and Royal Family" had been duly honoured, Sir J. A. Clark, in responding to the toast of "The Navy, Army, and Auxiliary Forces," proposed by Mr. Noble Smith, suggested that the medical profession might help the Army Medical Services by organizing in time of peace some system by which the civilian medical element might the more readily help the military element, so that in time of war efficient help would be available. Colonel J. Anderson, I.M.S., and Brigade-Surgeon-Lieutenant-Colonel E. J. Hunter, V.I.B., also acknowledged the toast. The Chairman then proposed the toast of "The Association of Medical Diplomates of Scotland." He said the idea of forming the Association only occurred some months ago, but it had met with a ready response. The authorities at Edinburgh and Glasgow welcomed the formation of the Association; the number of members was increasing rapidly, and the Association was prospering. One of its objects was the redress of grievances, and the authorities at Edinburgh and Glasgow had promised that anything reasonable that was put before them would be granted. The Royal College of Surgeons of Edinburgh had authorized its licentiates to wear the gown which he, the chairman, was wearing, and he explained that it was the first time the gown had been seen in public. Dr. Euphemia Stoker responded to the toast, as did also the honorary secretary of the Association, Dr. David Walsh. He announced that 138 members of the Association were already enrolled. It was estimated that in London there were 830 medical diplomates of Scotland; in the rest of England, 3,280; in Wales, 298; in Scotland, 600; and in Ireland, 500. He hoped by the influence of the Association that the Royal College of Surgeons of Edinburgh would change the name of licentiate to that of member. The toast of "The Visitors" was proposed by Dr. F. Powell, and acknowledged by Dr. E. Snape and Dr. F. J. Waldo. Dr. C. O. Hawthorne proposed the toast of "The Council and Officers of the Association," and Mr. Sydney Stephenson responded.

British Medical Journal.

SATURDAY, FEBRUARY 25TH, 1905.

THE FINANCES OF LONDON MEDICAL SCHOOLS AND HOSPITALS.

THE report of the Committee appointed by King Edward's Hospital Fund for London on the financial relations between hospitals and medical schools in London is so important to the medical profession from many points of view that it has been deemed advisable to print it in full in our columns, together with the appendix containing the detailed statement of each of the twelve hospitals. The Committee was instructed to inquire whether money given to the twelve London hospitals having medical schools is contributed by them directly or indirectly for the maintenance of medical education, and if so whether any direct or indirect return is received by the hospitals, and whether such return was equivalent to the amount of the contributions. The Committee consisted of Sir Edward Fry, the Bishop of Stepney, and Lord Welby. They report that it has been established to their satisfaction that in the case of all the London hospitals except two (University College and King's College) contributions are made out of the general funds of the hospital to make up the deficit on the working of the medical schools; and that, in addition, in some instances considerable sums have been advanced on capital account for the erection of buildings, that these buildings have usually been erected on land belonging to the hospital, and that though interest has been paid on the capital loans, the site has usually been given rent free. This is a system which we would not only admit, but assert to be indefensible, and the facts will come as a surprise to most members of the profession. On the second point, whether the hospitals received a *quid pro quo*, the Committee considers that, while the actual value of the give-and-take is difficult to estimate in money, on the whole the *quid* must be held to be about equal to the *quo*. "The schools," the Committee says, "confer certain considerable benefits on the hospitals, and the hospitals, by opening their doors to the students, provide a clinical laboratory and allow the students of the schools to work there. This confers on them a very great benefit, because without the admission to the hospital the students could obtain little or no clinical teaching. These mutual benefits may, we think, be fairly set off the one against the other." The conclusion drawn that the schools still remain debtors to the hospitals in respect of the actual pecuniary contributions made to them is of course inevitable, if the argument as to equivalence of benefit is accepted as sound. While we believe that the Committee has underestimated the advantage which a hospital derives from the possession of a medical school in increased efficiency, it must be admitted that if the matter is to be decided on a strict pecuniary basis it would be difficult to bring an estimate into a balance sheet.

It may be asked how these payments ever came to be made, and the answer brings us to the all-important point in the report—all-important to the schools, and all-important, we venture to assert, to the public. The question whether medical education in London is efficient transcends enormously in importance the question whether a few thousand pounds have been allotted by the hospitals to their medical schools in excess of the amount to which on a rigid financial estimate they may have been entitled. The answer was well given in the evidence of the President of the Royal College of Surgeons, who pointed out that thirty-eight or forty years ago a large number of men still entered the profession by way of apprenticeship, and came to London for twelve months, eighteen months, or two years to the hospitals. The chief part of a medical student's education in London was in clinical medicine, surgery, and midwifery; this was what was called "walking the hospitals," a phrase still sometimes heard in the mouth of laymen. Since that period a very great extension of early medical study in physics, biology, and chemistry has taken place. The hospital medical schools ought never to have attempted to teach these preliminary sciences. It is now generally recognized that that duty belongs to university colleges in whose science faculties students preparing for all callings in which a knowledge of these sciences is required can be taught together. It is significant that the two exceptions to the general rule in London are University and King's Colleges, both of them colleges which have many faculties. The appeal for money to erect and maintain suitable laboratories, and for the endowment of chairs can be made with much greater hope of success by university colleges than by special schools offering instruction for one profession only.

The medical schools of London have understood this for some years, and more recently it has been realized that the present system of teaching the intermediate subjects (anatomy and physiology) in twelve centres in London is at once costly and inefficient. The experience of most of the medical schools in London—certainly of all the smaller schools—is that the fees paid by students provide an annual income totally insufficient to defray the annual expenses, much less to form a fund to justify capital expenditure on new buildings and improved equipment. The greater part of the annual income from fees for the whole course goes in many schools to defray the cost of instruction in the preliminary and intermediate subjects; even so, the teachers of these subjects receive very inadequate salaries, while the teachers of clinical subjects receive little or nothing. As Sir Victor Horsley said in his address at Birmingham eighteen months ago, the teachers of the University of London are most of them miserably underpaid or practically have to return all the slender income they derive to the particular school to which they belong. New buildings have been provided at many schools, the capital being raised by means of debentures held by the medical staff, though in some instances the hospitals have assisted either by giving a site or making a loan to the school, or in both ways. The results are not, and could not be expected to be, satisfactory, and, in spite of the expenditure of sums of money which, in the aggregate, have been very considerable, the London medical schools have had to realize that they no longer attract students as in the past. The Dean of the Faculty of Medicine of the University of London has stated that the annual entry of new students for the full curriculum in all the London schools has declined from an average of 679 in the

quinquennium 1879-1883, to an average of 424 in the quinquennium 1900-4.

The Committee of the King Edward's Hospital Fund, in its report, draws attention to the statute of the University of London, which directs the Senate to use its best endeavours whenever practicable to secure common courses of instruction for internal—that is to say, London—medical students in the preliminary and intermediate portion of their studies under appointed or recognized teachers at one or more centres.

University College will be incorporated in the University of London this year if the Bill promoted for this purpose is passed by Parliament. The Bill provides that in future the Senate of the University shall make statutory regulations for the management of the College, and will bring into existence a body corporate for the purpose of carrying on the hospital and a school for advanced medical studies. Sir Donald Currie last year gave a sum of £80,000 for the building and equipment of this school. The plans prepared by Mr. Paul Waterhouse have been approved, and the building, it is expected, will be completed within two years. It is surely a very significant fact that University College has been able to raise £183,000 for the purpose of its amalgamation with the University of London over and above the sum collected for the school of advanced medical studies. The University will thus before long have one centre, where medical students who intend to prosecute their clinical studies at any hospital in London can receive training in the preliminary and intermediate subjects and then revert to the hospital of their election. King's College is in a position to provide another centre, and the Senate of the University has recently appointed a Committee to confer with representatives of University and King's Colleges and the medical schools as to the practicability of securing common courses of instruction in the preliminary and intermediate subjects of medical studies at University and King's Colleges. We believe that these two Colleges could provide accommodation for a number of students in the preliminary and intermediate medical subjects very much in excess of those who now attend, that they could, in fact, provide for the students of, at any rate, all the smaller schools. If the conference committee gets to work without delay, there ought to be no difficulty in making the arrangements in time for the next winter session.

It is, however, felt that two centres would not be sufficient, and that the University itself ought to possess a medical institute, and a timely statement put out by the Dean of the Faculty of Medicine recalls the fact that the University recently issued an appeal for funds to build and endow an institute of medical sciences under the control of the University in which the preliminary and intermediate subjects could be taught. The response to that appeal has been, we believe, hitherto altogether inadequate, but owing probably to the fact that University College was also appealing to the public the University scheme has not been pushed. It is proposed that the Institute should be established at South Kensington, and we gather from Dr. Fowler's statement that a serious effort will shortly be made to raise the money required. There is, then, good reason to hope that the ultimate result of the report of the Committee of King Edward's Fund will be to give a great impetus to the movement for improving existing arrangements for medical education in London. It is, perhaps, not quite the result which Mr. Stephen Coleridge had in view when he raised the question; Dogberry said that "to be a well-favoured man is the gift of fortune, but to write and read comes by nature," and Mr. Coleridge probably holds a similar opinion about medical skill and knowledge. Nevertheless we are free to admit that he has scored a point, but we see good reason to believe that its establishment will eventually lead to real progress in medical education.

Meanwhile, it is clear that many of the medical schools are placed in a very embarrassing position, and it is clear King Edward's Hospital Fund cannot, after this report, go on making grants any part of which is devoted to relieving the pecuniary necessities of the medical schools.

THE MEDICAL OFFICER IN THE FIELD.

Among the lessons of the present war none is more striking than the illustrations which it affords of the capital importance of the medical service to an army in the field. Unlike Lord Wolseley, who, with the ignorant contempt for "non-combatants" characteristic of a certain type of military mind, said that medical advice was a good thing—when it was asked for, the Japanese commanders have from the first realized that

> A wise physician skill'd our wounds to heal
> Is more than armies to the public weal.

They have given their medical officers a free hand, and supported their action with all the weight of their authority. The result of this intelligent appreciation of the value of preventive medicine is seen in the remarkable mortality statistics of General Oku's force which were quoted in the British Medical Journal of February 4th. In a total number of 24,643 cases of illness occurring between May 6th and December 1st, there were 18,578 recoveries in the field hospitals and 5,609 cases were sent home. There were only 40 deaths from disease. The cases of typhoid fever were less than 200, those of dysentery less than 400 in number. This record is probably unprecedented in the history of war.

The contrast between the Japanese methods of warfare and those of nations which consider themselves more civilized is seen on comparing their mortality statistics with the 13,000 or 14,000 deaths from disease in our army in South Africa, amounting to half the total loss suffered in the war, and with the 4,965 cases of death from disease—nearly 70 per cent. of the cases—in the American army from May 1st to December 31st, in the war with Spain. As regards the Russian army, it has been estimated that the total number of sick and wounded down to the time of the great battle on the Sha-Ho was 150,000, or about 30 per cent. of the total force in Manchuria. Of the 32,000 sick and wounded registered at the Central Board in Kharbin from June 15th to August 15th, only about one-fifth were wounded. During the first six months of the war the most common diseases were dysentery and rheumatic fever. Several severe outbreaks of dysentery occurred among the younger soldiers of certain regiments, but their illness was generally attributed to the drinking of river water. Preventive measures were prescribed by army orders, but no trouble was taken to see that they were carried out. After the month of July typhoid fever increased rapidly, and caused much sickness and disability. Preparations for treating the sick and wounded had been made on a very large scale, not only by the War Office but by the Russian Red Cross Society and by the Zemstvos or county councils; in addition, twenty-four hospital trains,

most of them well, and some of them luxuriously equipped, were provided by private generosity. Owing to the large number of sick and wounded, however, the hospital accommodation was often inadequate, and this evil was intensified by imperfect organization and a failure to provide an adequate number of beds at places where they were most wanted.

The medical staff of the Russian army is very insufficiently paid and is numerically quite incapable of grappling with such emergencies as have had to be met in the present campaign; not only have the hospitals been overcrowded and the food supply frequently insufficient, but necessary dressings have even been wanting.

A graphic description of the state of things which is sure to occur when medical advice is neither asked for nor taken when offered is given by a Russian medical officer serving in Manchuria. Writing in July, he complains bitterly of the bread supply on which the soldier is largely dependent for his sustenance. There were days when no bread was served out, or when only ¾ lb. was given to each man instead of the regulation allowance of 2½ lb. The bread brought from a distance, at a hot-house temperature, was delivered in an altogether impossible condition; it was covered with a thick pile of velvety moulds of many colours and countless species. Although the doctor's horse refused this bread, it was eaten by the men. It is not surprising that very soon after this 900 men had to be sent to hospital suffering from acute gastro-enteritis, dysentery, typhoid fever, fevers of malarial type, but especially anaemia and debility. Russian admirals, as we know, have a preternaturally keen eye for torpedo boats; but Russian generals can be conveniently blind to the existence of dysentery. Interrogated by "high authority" as to the causes of the prevalence of illness, the medical officer frankly spoke his mind. His remarks were listened to quietly till he mentioned dysentery, when he was told that it was a crime to speak of dysentery when there was none, and when there ought not to be any, in the army. After this authoritative pronouncement that dysentery "ought not to be," it naturally disappeared from the returns, its place being taken by "col. ac." (colitis acuta). The sickness was peremptorily attributed to the want of cholera belts, which, it appeared, the soldiers had thrown away.

All this is in accordance with that sort of military tradition which fortunately for themselves does not yet oppress the Japanese. It is not so long ago since typhoid fever was not officially recognized in India and the appearance of its name in a return might cost a medical officer his promotion. It is well known, too, that in at least one of our Egyptian campaigns medical officers were expressly ordered by the military authorities to make no mention of typhoid fever, but to return it as "simple continued fever." We, therefore, have no cause for pharisaic complacency if we compare ourselves with the Russians. Of all forms of that disastrous disease, official blindness, the worst is that which afflicts military authorities when they meddle with medical matters. But the object lesson given to the world by Japan is so clear and demonstrative that we venture to hope it may make some impression even on the obtuse sensorium of the War Office. At least, it is to be hoped that it may stimulate the Secretary of State for War to carry into execution the schemes for the better training of army medical officers which the dilatoriness of the War Office and the obstructiveness of the Treasury have kept in a state of suspended animation for several years. As Sir Walter Foster well said in the debate on the Address, it is the adaptation of science to the prevention of disease which renders an army most efficient. This is the great lesson of the present war, and this is the lesson which both our Government and our army authorities need to have strongly and constantly impressed upon them.

THE ADVERTISING OF MEDICAL PRACTITIONERS IN CONNEXION WITH HYDROPATHIC AND SIMILAR ESTABLISHMENTS.

As is well known, the Ethical Committee has been content to proceed with measured steps along the road of reform in professional conduct, to render such assistance as it could in individual cases, and to collect information before attempting to frame general rules. A report from the Committee to the Annual Representative Meeting was published in the last issue of the SUPPLEMENT, February 18th, p. 49, and the question which, with the consent of the Council, will be submitted to the Representative Meeting at Leicester, has for its object to lay down a rule which will be binding upon all members of the Association, and will establish a precedent for the making of further rules which may in time constitute an ethical code. It is therefore worth while to review the steps which have been taken by the Ethical Committee before it has ventured to ask the Representative Meeting to decide whether or not such a rule should be made.

We may remark, parenthetically, that it would not be an unmixed blessing to have a large number of rules which every prospective member or the Association would have to scan carefully before he consented to join, and most members will be grateful to the Ethical Committee for the caution they have shown in desiring to ascertain the general current of professional opinion before aspiring to be its exponent.

The abuse of the advertisements issued by hydropathic establishments is not an old grievance. It has never been questioned that medical men should not advertise for practice, and yet an exception seems to have been made in the case of the medical practitioners who are proprietors or directors of hydropathic establishments, as they have advertised these institutions together with their names in large framed and glazed pictorially illustrated posters at railway stations, in the columns of *Bradshaw* and other railway guides, and generally in the lay press. But so long as these institutions were comparatively few and isolated, and their medical directors did not come into direct competition with other members of the profession, this altogether unusual and inexcusable state of things was at least tolerated, and as it was nobody's business to take action against them the abuse continued. In course of time, however, as these institutions multiplied, many of them were not on a sufficiently large scale to keep a medical officer, and it became customary to obtain the services of one of the local practitioners whose name appeared in the advertisements, and as these were regularly published in the local newspapers, exception was taken to them by his local colleagues, and complaints became so numerous that the Ethical Committee felt obliged to take action. This it did by drawing up a brief memorandum which recapitulated these facts; a copy was sent to each Division, with a request for an expression of opinion upon the desirability of continuing to tolerate the publication of the names of medical practitioners in connexion with the advertise-

ments of hydropathic establishments in the lay press or in other ways which appeal directly to the public. The response was not doubtful; 95 Divisions condemned the practice without qualification, and only one was of opinion that it called for no interference, the last being perhaps only an illustration of the fact that it is in this world impossible to secure complete unanimity of opinion on any question.

The Committee has therefore decided, with the approval of the Council, to ask for a definite pronouncement from the Representative Meeting on behalf of the Association, and the meeting at Leicester will have an opportunity of voting for or against the proposition—"That members of the profession who act as medical officers of hydropathic and similar establishments should make it a condition of their engagement that their names shall not be inserted in any advertisement of such institutions except in advertisements in medical journals."

THE CONFERENCE ARRANGED BY THE HOSPITALS COMMITTEE.

THE Hospitals Committee of the British Medical Association, after a series of meetings during which the question of hospital reform was very fully discussed in its various aspects, held a meeting on January 26th, under the chairmanship of the President of the Association, which was attended by the President of the Royal College of Physicians of London, Mr. A. W. Mayo Robson (Vice-President of the Royal College of Surgeons of England), Mr. Timothy Holmes, Dr. L. E. Shaw, of Guy's Hospital, Dr. W. Knowsley Sibley, and Dr. Mary Scharlieb. The memorandum of principles of hospital management, which had been adopted by the Committee at a previous meeting, was discussed, and certain verbal alterations made. The text as amended will be found in the SUPPLEMENT of this issue, page 65. The Committee has arranged to hold a conference, on Thursday next, at 3 p.m., with lay representatives of hospitals, when it is hoped that, in addition to the Committee itself, other representative medical men will be present. The memorandum of principles has been referred by the Council to this Conference, and, as will be seen, many important points upon which the united action by hospital Boards and the medical profession is necessary if reforms are to be brought about, will come under discussion. The Chairman of the Committee desires us to express the hope that any member of the Council of the Association, who may be able to do so, will attend the Conference, which will be held in the Board Room of the Metropolitan Asylums Board, Victoria Embankment, near Blackfriars Bridge.

THE SUPPLEMENT FOR THIS WEEK.

THE notices of motion so far received for the Representative Meeting at Leicester on Monday, July 24th, and the following days, are published in the SUPPLEMENT for this week. The SUPPLEMENT also contains a report of the proceedings of the Council of the Association at its adjourned meeting on February 15th; reports are also published of the proceedings of the Medico-Political Committee at its meetings on November 16th, December 21st, 1904, and February 15th, 1905, together with a memorandum to the Board of Education concerning the circular issued by the Board in July last on the proposed institution of a Government certificate of secondary education. We are also enabled to publish in the SUPPLEMENT reports of the meetings of the Royal Naval and Military Committee on November 15th, 1904, of the Hospitals Committee on December 1st, 1904, and January 26th, 1905, and of the Annual Meeting (Sections) Committee on December 16th, 1904. We are compelled to hold over reports of certain other committees, which it is hoped may be ready for publication next week. The report of the meeting of the Central Midwives Board on February 16th shows that that body has resolved not to recognize a Poor-law infirmary as a training school for midwives unless the average number of deliveries is sufficient to ensure the necessary number of cases for training at least three pupils. It will be remembered that at the previous meeting the Board had resolved that before recognizing any Poor-law infirmary reports should be asked for from the chief medical officer and from the local supervizing authority. The SUPPLEMENT also contains lists of naval and military appointments and changes of stations in the Royal Army Medical Corps, notes on the vital statistics of the three countries, lists of vacancies and appointments, the diary of the week, and the calendar of the Association.

PROPOSED CONVALESCENT HOMES ASSOCIATION.

A CONFERENCE of delegates representing the chief convalescent institutions which receive patients from London hospitals will be held at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, London, W., at 4 p.m. on Thursday next, March 2nd. It is felt by those who are promoting this movement that the advances which have taken place in medicine and surgery during the last generation call for an alteration in the rules of convalescent institutions, and in the character of the relief afforded. The number of cases treated by operation in hospitals has enormously increased, and in very many cases patients might be sent to a convalescent home at the seaside very much earlier than is at present the case, if only it were made possible for them to continue to receive suitable surgical treatment. At present convalescent charities partake too much of the character of a holiday home; most of them refuse to receive patients requiring medical or surgical treatment, while others will return a patient to hospital if some even very trifling complication arises. The idea of a conference originated with the Committee of the Mrs. Gladstone Free Convalescent Home. Dr. Habershon suggested that the moment was ripe for raising the whole question of the administration and scope of these institutions, and the President of the Metropolitan Convalescent Association, Mr. Fitzgerald, took steps to promote the conference now about to be held. Among medical men who have promised to attend are the Presidents of the Royal Colleges of Physicians and Surgeons, and the Dean of the Faculty of Medicine of the University of London; delegates will be present from King Edward's Hospital Fund for London, and from the Metropolitan Sunday and Saturday Funds. Members of the profession who are interested in the movement can obtain further information and tickets of admission to the meeting by applying to Dr. Habershon, 88, Harley Street, W. We hope that the conference may result in some practical scheme for organizing and coordinating the work of the many scattered and independent institutions which now exist. Though the idea of reform has been for some time in the air this fact may possibly not have been known to the promoters of a new scheme for a home of recovery of which an account was furnished in these columns some months ago.[1] In support of their plan they held a dinner in London last week which was attended by a large number of persons of high rank and social influence, and speeches were delivered by the Duke of Portland, Earl Lytton, and Sir Frederick Treves. Stress was laid upon the facts to which we have already referred, namely, that the usefulness of hospitals is diminished owing to the block brought about by the absence of convalescent homes so staffed as to be capable of receiving patients still in need or surgical attendance and nursing. Admitting as we do to the full the existence of the difficulty, we are yet quite certain that the best way of solving it would not be to spend £35,000 on a new institution of twenty-one beds, but to bring about a general levelling up of convalescent work to the requirements of modern hospital conditions. At the dinner mentioned it was especially stated that the idea of a home of recovery was as yet but in the germ, and

[1] BRITISH MEDICAL JOURNAL, 1904, vol. ii, p. 1262.

this being the case it seems all the more reasonable to hope that the promoters will abandon their present project and join hands with the promoters of general reform, devoting what capital they have been able to collect so far to the general fund, which will certainly be required. Their previous exertions will not have been wasted, for they have already succeeded in drawing the attention of a very influential if limited section of society to a real need and a very important question.

THE IRISH MEDICAL ASSOCIATION.

Certain extracts from a report which Surgeon-General Evatt had sent in to the Irish Medical Association have found their way into the Irish newspapers. From a letter published elsewhere, and from other communications which reach us, we gather that these extracts have caused much dissatisfaction in Ireland, owing to the wide character of the criticism, which appears to be directed to matters outside the position and claims of the dispensary medical officers. We understand that the Council of the Royal College of Surgeons of Ireland has drawn the attention of the Council of the Irish Medical Association to certain statements in the document, and that the Committee of the latter body has unanimously expressed its disapproval. The position brought about by the leakage which has occurred is very unfortunate, and will, it is to be feared, injure the cause of the persons most interested. The report has not, we understand, been adopted by the Irish Medical Association, and the publication of extracts from it while still practically in draft is very much to be regretted.

THE GARCIA CENTENARY.

Some details of the celebration which is now being organized to do honour to Señor Manuel Garcia, the true begetter of laryngology, on the occasion of his attainment of the age of 100 years, were given in the British Medical Journal of January 28th. Although the programme for the day is not yet complete, we are in a position to give some further particulars of the proposed arrangements. Congratulatory addresses will be presented to the famous master by the Royal Society and various other learned bodies, by his old pupils, by the Royal College of Music, the Royal Academy of Music, and by the leading laryngological societies. The Berlin, Vienna, French, Dutch, Belgian, and South and West German Laryngological Societies will send special deputations. The presentation of addresses will take place at mid-day on Friday, March 17th, in the rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W. In order not to overtax the strength of the distinguished centenarian, it has been decided that this part of the celebration shall not exceed an hour in length. Most of the addresses will, therefore, be taken as read, and the proceedings will conclude with the presentation of a portrait of Señor Garcia, painted by Mr. John Sargent, R.A., together with an album containing the names of all the subscribers. The portrait is said to be an excellent likeness, as well as an artistic masterpiece. In the afternoon the Laryngological Society of London will hold a special meeting in the same place, which will be attended by the foreign delegates, who will have opportunities of seeing what is being done by their British brethren in the cultivation of their common field of knowledge. In the evening a banquet will take place at 7 for 7.30 p.m. at the Hotel Cecil, at which it is hoped that Señor Garcia himself will be present. Members of the profession who have subscribed to the portrait and who wish to attend the banquet are requested to communicate with Mr. Philip de Santi, F.R.C.S., etc., 15, Stratford Place, W., one of the Honorary Secretaries of the Garcia Committee, who has been entrusted with the arrangements for the dinner. The banquet will be attended by ladies, and it is desirable that applicants, when writing to the Honorary Secretary, should state whether they will be accompanied by ladies and how many tickets they will require. The price of the tickets will be 10s. 6d., exclusive of wine.

THE JENNER SOCIETY.

How much good work can be done on a very small income is indicated in the Jenner Society's recently issued report. The document covers a period of eighteen months, and the total income during that time was less than one hundred pounds. The prime and almost the sole object of the Society is the education of the public in the truth about vaccination. The means by which this work is carried on include the writing of letters to the newspapers, a duty performed with tireless energy by Dr. Bond, the Honorary Secretary; the furnishing of information to medical men and others who desire to familiarize themselves with statistical and other evidence in support of vaccination, or to get material for exposure of antivaccination fictions and fallacies as published in lectures, or in letters to the press; and the issue of pamphlets and leaflets stating crisply and succinctly the benefits of the Jennerian prophylaxis. Any one who wishes to learn the character of the Society's literature should write to Dr. Bond for a few specimens of the pamphlets, and especially, we think, for a copy of a sheet of photographic object lessons, which has been recently added. It depicts, in very striking fashion, an unvaccinated small-pox patient, by whose side stands his revaccinated doctor; another such patient being attended to by a revaccinated nurse; a nurse who had never been revaccinated, and who is covered with the eruption of small-pox; an unvaccinated Gloucester child blinded by small-pox; a part of the Gloucester cemetery in which 279 unvaccinated children who died from small-pox are buried, and several other similarly effective scenes and cases. The Jenner Society appeals for more funds to allow it to extend its operations. It is an appeal which we heartily and unhesitatingly endorse. Not one farthing of the money sent will be misspent, and there is abundant room for further valuable work. The Antivaccination League spends about £1,000 a year in its mischievous propagandism, and the Jenner Society only about £100 in a year and a half. The bare statement of these figures ought to be enough to work a change. Subscriptions should be sent to Mr. G. E. Lloyd-Baker, Treasurer, Jenner Society, Gloucester.

HERBALISTS AND DEATH CERTIFICATES.

Mr. S. Brighouse, Coroner for West Lancashire, held an inquest at Southport on February 21st on the body of an unmarried woman, aged 40. In opening the proceedings, the coroner said that he had ordered the inquest because the only certificate tendered as to death was one signed by a medical herbalist in the town, and this had very properly been refused by the registrar. From the evidence given it appears that the deceased had been in bad health for upwards of a year, having had a stroke of paralysis fourteen months ago, which left her right limbs slightly affected. She had been under the care of several medical men at one time and another, but more recently had been treated by a man named Webb. The latter had a shop in the town and a number of letters after his name. He gave the deceased medicines and prescribed boiled slippery elm bark as food. While still under his treatment the patient died, and apparently after only a very brief final illness. Before death Webb was summoned and advised that a medical man in the locality should be fetched. Meantime, however, the patient died, and eventually Webb gave a certificate himself to the effect that death was due primarily to paralysis, and secondarily to epilepsy. A good deal of evidence, expert and other, was given in regard to the surroundings of the case, and eventually the jury returned a verdict of death from natural causes, adding a rider to the effect that they considered that the man Webb was very unwise in assuming that he had a right to give a certificate. In the course of the proceedings the coroner said he did not think life was sufficiently protected and that he hoped Parliament would make it impossible for a registrar to accept a death certificate from any one but a regular medical practitioner or a coroner. At present registrars were liable to be offered certificates such as that then under consideration, and they might be

led to accept them without the circumstances becoming known either to the coroner or the police. He did not suppose that such a thing would happen in a large town, but it was possible in rural localities where salaries were small and the same class of men could not be secured for registration work In conclusion, he warned the man Webb that if he attended other people, and attempted to diagnose their complaints, and gave certificates in the event of their death, an inquest would be held in every case.

QUACKERY AND LEGISLATION.

Quacks of various kinds are making a vigorous effort to get their position "regularized" in New York. On February 2nd a Bill was introduced in the State Legislature, which is intended to secure State recognition for the practice of "kinesipathy," a system of treating disease by the method applied to bottles of medicine which are "well shaken." The Bill defines kinesipathy as including "massage, therapeutic gymnastics, Swedish movements, mechanoneural therapy, somotopathy, seismotherapy, vibration, and vibrassage." It provides that thirty days after its passage "the New York Medico-Gymnastic and Massage Society, the Therapeutic Society for the Physical Education of Greater New York, and the Trepsis Association of Greater New York shall meet and select a board of three examiners in kinesipathy. This board, when confirmed by the State Board of Regents, shall have the power to make rules and regulations for the practice of the kinesipathic art." The Bill has been vigorously denounced by the Committee on Legislation of the Medical Society of the State of New York. The opticians are also clamouring for legislation in their favour, and the osteopaths have for the seventh or eighth time renewed their appeal for recognition. The new Bill provides that there shall be a Board of Osteopathic Examiners, consisting of five persons, selected by the Regents from ten nominees named by the New York Osteopathic Society. Those who pass the examinations are to be licensed, and have the privilege of attaching the initials "D.O.," meaning Doctor o Osteopathy, to their names.

CHRISTIAN SCIENCE.

A Bill is now before the Nebraska State Legislature which forbids the practice of Christian Science. The adherents of the cult have, however, succeeded in delaying its passage until they have had an opportunity of demonstrating their power to cure. The test proposed is the restoration of the hearing of an employé of the State Senate by their methods. The fate of the Bill apparently depends on the result of this experiment. In another part of the United States a conspicuous failure of Christian Science has led to an interesting deliverance by a judicial authority. The Supreme Court of New Hampshire has decided that persons who knowingly submit themselves to treatment by "healers" must not expect to recover money damages for any injurious consequences of their folly. The case was one in which a healer endeavoured to dismiss the thought of a recurrent attack of appendicitis. The patient was a woman who had had an attack from which she recovered under medical treatment. When a recurrence took place she engaged the services of a "healer" to conjure away the delusion of disease by sitting in front of her and making assertions while she read Mother Eddy's book. As she grew steadily worse, she finally became alarmed, called in a doctor, was operated upon, and recovered. She then tried to recover damages from the healer who had not healed. The judge, however, declared that the dupe was just as guilty as the duper; and that, if it was illegal for the defendant to treat the plaintiff as he did, it was equally illegal for her either knowingly to employ him to give her such treatment, or to consent to be so treated. Clearly the judge is one who does not suffer fools gladly, but we think his ruling a trifle hard on the silly woman who brought the action. After all, folly is not a crime, and it is surely the function of the law to protect fools and weaklings from knaves and impostors. If folly is to be treated as a legal offence, there will be plenty of work for the courts.

SOME CASES OF TYPHUS FEVER.

What is believed to be a small outbreak of typhus fever was reported in the borough of Stepney at the end of last week, and though there is nothing in the circumstances which seems in any way alarming the facts are worth recording. For our precise knowledge of them we are indebted to the courtesy of Dr. L Thomas, the medical officer of health for the borough. A family named Greenbaum, consisting of a father, mother, and six children, occupy in Stepney four rooms of a six-roomed house, the remaining rooms being let to another family. The house is in good condition, having been cleansed, lime-washed, and repapered only some three months ago, and just before any of its present inhabitants entered it. The father of the Greenbaum family, a tailors' presser, had a job in a country town, and was absent from home for some months; just before Christmas, however, he returned home for a holiday, and immediately fell ill. He was seen once by a medical man, who thought he detected slight pleurisy, but after some days' illness he gradually got better, and returned to his work in the country. He found himself, however, too weak to work, and a few days later he again returned home. Five days after his arrival a daughter of 12 fell sick; she had headache, vomiting, and fever, and after attending once at the London Hospital she was treated for a week by a medical man at her own home. At the end of that time the medical man in question came to the conclusion that the case was one of typhoid fever, and reported it as such to the medical officer of health. The latter in consequence had the child removed at once to the Fever Hospital at Homerton, the medical superintendent of which informed him a few days later that the disease was typhus and not typhoid fever. Some days after the removal of this child from the house one of her brothers also fell ill and was taken to the London Hospital. There he was admitted as suffering from rheumatism, but three days later a diagnosis of typhoid fever was made. Subsequently, however, an alternative suggestion of typhus was made, and this upon removal of the case to the Fever Hospital received confirmation. It will be observed that so far we have recounted three cases of acute illness in this family: the first can scarcely be said to have been under medical observation at all, and no definite diagnosis was made; the second was put down as typhoid fever by the medical man in attendance, but was subsequently diagnosed as typhus at Homerton Fever Hospital; the third, an in-patient at the London Hospital, was there at first deemed to be one of typhoid also, but being recognized as open to suspicion was sent to the same fever hospital, and there admitted as one of typhus. The history of the illnesses in this family is not as yet completed, for about a week after the removal of the last related case two other children, aged respectively 9 and 10, fell ill; they were both sent straight to the Fever Hospital, and in both cases a diagnosis of typhus was at once made. All these children are understood to be doing well, and the history of this family is for the present at an end. Unfortunately, however, there is another circumstance to be mentioned, and this, whatever its precise import, must to medical men at least be one of special interest. Dr. Crawford, the medical man who attended the first child, himself fell ill a few days after it had left his hands. He became an in-patient at the London Hospital; he was supposed to be suffering from influenza, but grew rapidly very ill, mental symptoms being very marked, and he died in about a fortnight. The precise cause of death being obscure, a *post-mortem* examination was made. The spleen was found enlarged, and the lungs congested, while the blood presented the characters common in acute pyrexial disorders. Dr. Thomas believes this case also to have been one of typhus, but the certificate of death given at the London Hospital ascribed the death to influenza and toxaemia.

THE HYGIENE OF THE DUEL.

Doctors play a prominent part in French duels, and there are several leaders of the profession who take a serious scientific interest in that generally harmless form of exercise. A consultation is said to have been held not long ago in Paris, in which MM. Pozzi, Quénu, and Doyen discussed how duels could be fought under antiseptic precautions. The outcome of the deliberations of these luminaries of science was the formulation of a complete code of duelling hygiene which may be useful to future Sir Lucius O'Triggers. It is solemnly recommended that every man who has an affair of honour on hand should take a purge overnight and disinfect his intestinal tract after the method of Professor Bouchard. He must go to the ground fasting, and there his whole body must be thoroughly rubbed down and soaped, then cleared of fatty matters with alcohol, and finally asepticized with sublimate. He must next don a suit of clothes just taken from a disinfecting oven, and he is then ready to face, with the traditional courage of his race, the chance of a prick or a scratch from his adversary's sword. The hygiene of the duel may be summed up in the famous formula of Molière's candidate, *Purgare, ensuita seignare*, with the trifling difference that the duellist purges himself and tries to bleed his opponent. The surgery of the duel is one of the latest specialities in the healing art, and there are one or two of its professors who enjoy great credit and renown among the swashbucklers of Paris. With such a practitioner, and an ambulance equipped with every appliance and application required for the exclusion or destruction of microbes at hand, French duellists may satisfy their honour with even less risk than heretofore. The doctor, indeed, sometimes runs more danger than the combatants. In a recent encounter a too zealous practitioner seeing that his client had suffered a scratch rushed forward to his assistance, only to be scratched in turn by an "instinctive lunge" delivered by the excited combatant. In view of the possibility of such an accident, it might be prudent for the doctors, like the duellists, to purge and disinfect themselves beforehand. As showing the serious attention given by French doctors to matters connected with the duel, it may be mentioned that M. Doyen has lately invented a sword handle made, like certain boots, "on anatomical principles," and Dr. Devillers, a well-known practitioner of Paris, some months ago founded a "Société de l'Assaut au Pistolet," the object of which is described as the systematic and scientific preparation of men for the "serious duel." It might be gathered from this expression that Dr. Devillers looks upon the ordinary French duel with swords as a farce, but of course he only means that his method is a preparation for the real thing. He makes his pupils fire at each other with balls made of wax and fat, a plan which we are asked to believe gives them the sensation of an exchange of shots, without exposing them to any more serious damage than a black eye.

THE QUEEN'S JUBILEE HOSPITAL.

The Medical Committee of the Queen's Jubilee Hospital, Earl's Court, W., at a meeting on February 6th, passed unanimously two resolutions, the first of which read as follows: "The disorganization in the nursing staff is due to the action of the Board of Management in retaining nurses who had been unfavourably reported on by the medical staff and the matron." The second stated that "the undersigned members of the medical staff, having watched the management of the hospital during some years, think that there is no prospect of improvement under the present influences, and are therefore unable to continue their connexion with the institution, but are willing to continue to attend patients pending the appointment of successors." These resolutions were signed by the whole of the medical and surgical staff of the hospital, with the exception of the officer in charge of the dental work of the institution and of one of the surgeons; neither of these gentlemen was present at the meeting. We understand that the resignations thus tendered were accepted, and that the board of management is now seeking to fill the vacancies, the work meanwhile being carried on as before. An extension of this hospital is in view, and it had been arranged that the foundation stone of the new building should be laid in the early part of next month. As a consequence, however, of the condition of things which may be inferred from the resolutions quoted, H.R.H. Princess Louise has, we learn, cancelled her previous consent to take part in the proceedings. Events such as these would be disastrous in the history of any institution; in the case of a hospital which has obtained, so to speak, official recognition only within a comparatively recent period, they constitute something very like a catastrophe. For the moment we make no comment upon them, except to remark that hearty co-operation between the lay and professional officers of a hospital is essential to success, and further, that in view of the past history of this institution, and the condition of things which at present prevail, it would be unwise for any medical man either to seek or accept appointment to the prospective vacancies until matters have been put right.

AN ANCIENT STRIKE.

Last Sunday the *Observer*, which is printing paragraphs extracted from its issue for the corresponding week a hundred years ago, published the following taken from its issue of Sunday, February 17th, 1805: "A dispute has arisen between the physicians and surgeons of Worcester, in consequence of which the former have written to the apothecaries that they shall decline acting as consulting surgeons, and that they *will not* meet the surgeons on medical cases. 'Who shall decide, when doctors disagree.'" We should like to know a little more about this dispute, how it arose, and how it ended. Apparently the question must have been raised by the surgeons, for the notification given by the physicians, although it was evidently intended as a snub to the surgeons, was in effect a self-denying ordinance. It looks as though the surgeons had objected to the physicians being consulted in surgical cases, and that the physicians, feeling themselves compelled to agree to this, tried to cover their retreat by professing their intention not to meet the surgeons in consultations on medical cases. It was obviously an unwise notification, and we suspect that the plan was soon found to be unworkable.

A ROYAL GIFT.

Messrs. Allen and Hanburys have constructed for the King an operating table, which is fitted with all the latest improvements and made entirely of phosphor bronze, with the exception of the douching funnel, which is made of zinc. The angle of the head rest is altered by simply turning a lever at the top to the left, and the angle is fixed as soon as the lever is released at any point, hence it may be manipulated with the greatest ease, even by the anaesthetist. The foot rests are altered in the same manner. All racks and screws have been done away with throughout the whole. The Trendelenburg position is obtained by depressing a lever, and the angle of this position can be automatically fixed at any point. The body can again be lowered by throwing out of action the eccentrics which govern the tooth or pawl fitting into the ratchet wheels. The leg rests are removable, which is a great convenience in perineal operations; as soon as they are detached, the douching funnel is left free. The body of the table is slightly concave, with the idea of collecting all fluids, particularly the saline solutions used in flushing the peritoneum, and it is also slightly sloped from the shoulders to the knees. There are three removable hot water containers in the body of the table, which are arranged in such a manner that they can be raised with the body, while the danger of burning the patient is guarded against. At the head of the table is a wheel on ball bearings, which allows the table to be moved to any position; by moving the lever upwards the wheel is thrown out of action, and the table made perfectly stationary. The table was selected by Sir Frederick Treves at His Majesty's command. An inscription plate in metal is

fixed to the frame of the table bearing the following inscription: "Presented to the Devonshire Hospital by His Majesty King Edward VII, in commemoration of His Majesty's visit to the Hospital, January 7th, 1905."

CORONERS' JURIES AND RIDERS.

FROM a report in one of the local papers sent by a correspondent we notice that at a recent inquest the jury, under the guidance and direction of the coroner, passed a rider to their verdict reflecting upon the conduct of a highly-respected and esteemed medical practitioner in the neighbourhood who had attended the deceased before he was admitted into the workhouse. The man died the next day, somewhat suddenly and unexpectedly, from meningitis, while suffering from influenza. It appears that when the practitioner in question was sent for to see the deceased in his lodgings, he found him ill and suggested that he should procure an order from the relieving officer for admittance to the workhouse hospital. This was done, and the deceased refused to accept the cab offered to take him, deciding to go by train. He arrived, and was admitted the same evening. The nurse stated that his temperature gradually rose; he became delirious, and died unexpectedly the next day, before the workhouse medical officer had seen him. The *post-mortem* examination showed that death arose from meningitis and influenza. The deceased, who was 48 years of age, was a rag-gatherer, and had served as a soldier in the South African war. The medical practitioner who had attended the deceased wrote a certificate of the cause of death as from influenza, and he attended the inquest and explained the part he had taken in the matter. This did not satisfy the coroner, who censured the doctor for giving the certificate, although he was legally justified in so doing. On the advice of the coroner the jury stated in their verdict that the death was accelerated by the removal, but of this there was no evidence. Our correspondent asks if there is any redress for strictures of this kind passed by coroners and juries on medical witnesses who, in the opinion of their professional brethren, have acted in the interest of the patient, and who, therefore, should not be held accountable for unforeseen and unexpected consequences. We regret to say that occasionally our attention is drawn to such cases, and as there is practically no redress in such matters the only course to adopt is to request the publication of a plain statement of facts in the next issue of the newspaper in which the report appears, unless the aggrieved party decides to treat the incident with contempt.

TREATMENT OF INEBRIATES IN NEW YORK.

A BILL introduced into the New York State Legislature on January 16th provides for the treatment of persons rendered mentally or physically incompetent by the excessive use of alcoholic liquors, opiates, or narcotics. It enacts that New York shall provide a hospital and a competent medical staff to deal with such cases. The hospital is to be supported out of money collected for excise taxes. Commitment to the hospital is to be made on the sworn application of a father, mother, or some other relative or friend of the person affected, or by a city magistrate. The new hospital is designed to take the place of the present alcoholic ward at Bellevue Hospital.

IN the discussion on the subsequent course of cases of appendicitis after operation, which is to be opened by Sir Frederick Treves at the meeting of the Royal Medical and Chirurgical Society next Tuesday evening, the following speakers in addition to Sir William Broadbent, will take part:—Mr. Charters Symonds, Sir Lauder Brunton, Mr. Pearce Gould, and Sir William Bennett. The debate will then be adjourned to Tuesday, March 7th. We are informed that records and statistics of cases collected and arranged by surgical registrars and other members of the staffs of some of the chief hospitals in London will be printed for the use of members of the profession who may wish to attend the meeting. The annual general meeting of the Society, at which the President, Sir R. Douglas Powell, Bart., will deliver an address, will be held on Wednesday, March 1st, at 5 p.m.

THE interest taken by members in some of the subjects now under discussion in the BRITISH MEDICAL JOURNAL is shown by the number of letters and other communications received during the last few weeks. Their number is so large that it is unfortunately impossible to publish all, and we must therefore appeal to the consideration of members who find the publication of their communications delayed.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Ballot for Private Members' Bills this session interested no less than 358 members against 362 who put their names down last year. Only 80 names were drawn, as this was considered more than enough for the few good chances possible. An Irish member (Captain Donelan) drew the first place, and used it for a notice for Wednesday evening, March 1st, for a debate on the failure of the Government to legislate respecting the condition of the labourers in Ireland. Sir Harry Samuel, who drew second place, introduced a Bill "to enlarge the remedies of persons injured by the negligence of shipowners," and this is put down for the first private members' day, March 3rd. Mr. Whittaker, who drew third place, introduced the Trades Unions and Trades Disputes Bill, and put it down for second reading on March 10th. On that day week Mr. Jacoby will move the second reading of the Coal Mines Employment Bill, which deals more especially with the hours of labour of young persons employed in coal mines. The following week an Irish Bill will be considered, and then on successive Fridays will come the Coal Mines (Weighing) Bill, the Deceased Wife's Sister's Marriage Bill, and one dealing with the taxation of land values. There was introduced also on Friday a Local Veto Bill for Scotland, which is put down for second reading on May 5th, and on the following Friday the Vehicles' Lights Bill has its place. In all 42 Bills were introduced by private members, but the only one having much medical interest was General Laurie's Medical Act (1886) Amendment Bill. This is the Bill of last year, which seeks to facilitate the admission of Colonially-trained registered medical men to practise in Great Britain and to hold appointments in the Imperial services. The Bill is backed by Sir Walter Foster, Sir John Tuke, Mr. Rothschild, Sir Howard Vincent, Mr. Middlemore, and Sir Menderjee Bhownaggree. It is second on the list for April 14th, but it is not likely to be reached on that day. The Pharmacy Bill has been introduced again by Mr. Lough, and put down for March 24th, when two important Bills have priority. There is also a Bill "to allow Metropolitan Borough Councils to establish and maintain milk dépôts," introduced by Mr. Lough, and put down fourth on the paper for May 12th. Such Bills as the Revaccination Bill and the Bills promoted by antivaccinators, as well as others relating to public health officers and sanitary questions may be introduced later, but have little chance of any effective consideration this session.

The Debate on the Address in answer to the King's Speech will go on till next week. It is an occasion for ventilating grievances at the beginning of the session and with some forty amendments in the paper is certain to last many days. It will probably not be closed before February 28th, as on that day there is an awkward resolution down on the Taxation of Food, and the Government will naturally be glad to avoid another fiscal discussion. So far little of medical interest has cropped up in the speeches. Sir John Gorst called attention last week to the report on Physical Deterioration and uttered some severe criticisms on the ignorance of modern mothers as regards the feeding of children. It would have been better, he said, if they had been taught less grammar and geography and more about the laws of health. He referred to a school in Lambeth in which the Medical Inspector of the Board of Education found 90 per cent. of the children were unfit to receive the education provided. He

argued in favour of State interference to see that parents fed and cared for their children properly, and for State feeding in cases of necessity. In the debate on the amendment dealing with Chinese labour in the Transvaal it was pointed out that the mortality among the miners had gone down from 72 to 32 per 1,000 in one year, which meant a saving of 3,000 lives. Mr. H. Samuel attributed this lessened death-rate to the effect of criticism in the House of Commons, but Sir Gilbert Parker rather thought it was due to the lessened importation of natives from the tropical regions of Africa who were ill fitted for the severer climate of the Rand. The Colonial Secretary, while he gave credit to honorable members of the Opposition for their part in reducing the mortality, said it was partly due to the means taken and the money spent by the authorities and to the fact that the Chinese were hardier than many of the Kaffirs.

The Army Medical Department.—On Wednesday afternoon, in the course of the debate on Captain's Norton's Amendment to the Address on War Office changes, Sir Walter Foster introduced the subject of the present condition of the Army Medical Service. Recalling a number of the lessons of the South African war, he asked what had been done to apply them. One of the lessons of the war was that steps should be taken to prevent unnecessary losses from disease. We sustained great losses from a single disease, which was of all diseases the most preventable. He laid it down as a canon for War Ministers that, whilst amongst the civil population death from enteric fever was a scandal to the local authority, every death from enteric fever in the course of a war was a crime on the part of a Government department. He believed, however, that we were still without adequate medical equipment. What progress had been made with the scheme for a school or college in London in which the medical officers of the army could be taught the latest scientific methods of preserving the efficiency of a military force, and for a large hospital where they could learn the latest methods of treating and possibly preventing disease? A large hospital had been completed, but it was still empty. Where, however, was the medical school or college? It was the adaptation of science to the prevention of disease which rendered an army most efficient. As a rule, four men died from disease for every soldier who was killed. The Japanese had grappled with this problem, and the result was that their percentage of men disabled by disease had fallen from 10 to 20 per cent., as it was in some cases, to 1 per cent. of their forces. That was an achievement which the right hon. gentleman ought to try to imitate. During the first five or six months of their campaign the Japanese had only 193 cases of enteric fever and 342 cases of dysentery. In South Africa in the first year of the war there were no less than 3,744 deaths from typhoid out of some 12,000 cases. And so it was in the case of other diseases. The only disease the Japanese had in great numbers was beri-beri, and even that disease had been overcome by their precautions. That science has done all this was shown by the fact that in the Russian army, following the old methods, at one time at Harbin there were no less than 150,000 men in hospital sick and wounded, four-fifths of whom were there on account of disease. The Japanese had set an example which in the interests of humanity and efficiency ought to be followed by every Power in the world, and he wanted the Secretary for War to try to teach our medical officers that their chief duty was the prevention of disease among the soldiers; for, after all, guns would not save us, and rifles, long or short, would not save us, but men, healthy, strong, and vigorous, and able to face their foes, were the best defence of a civilized nation.

Indian Medical Officers in Burmah.—On Friday last week Mr. Hemphill asked the Secretary of State for India whether his attention had been called to a memorial presented over three years ago on behalf of the officers of the Indian Medical Service in civil employ in Burmah, praying for the grant of compensation allowance for the extra expense of serving in that province, on the same footing as such allowance made to the officers of the public works, telegraph, forest, and postal departments; and whether any steps were about to be taken to grant the prayer of such memorial. Mr. Secretary Brodrick answered that officers of the Indian Medical Service in civil employ in Burmah were placed upon the same footing as officers in other departments in respect of local allowance in December, 1903.

The Salaries of Medical Officers in Strabane Union.—Mr. Hemphill also asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to the recent resolutions of the Board of Guardians of the Strabane Union increasing the salary of Dr. Trimble, the medical officer of the Strabane dispensary district, from £120 to £150 a year, in consideration of his length of service and the heavy duties which he has to discharge; and, if so, whether he could state on what grounds such resolution had been disregarded by the Local Government Board; and whether effect would now be given to same. Mr. Wyndham replied that the Local Government Board had not disregarded the resolutions. With a view to carrying out the proposal of the guardians, the Board suggested that a scale fixing minimum and maximum salaries with interim incremental additions should be formulated and made applicable to the entire dispensary medical staff of the union. The Board considered that this alternative was preferable to increasing individual salaries at irregular intervals. In September last the guardians decided to prepare and submit a scale which, however, had not yet been received.

Mortality in South African Mines.—Mr. Thomas Bayley asked the Secretary of State for the Colonies if he would state the number of Chinese indentured labourers employed at the South African gold mines up to January 31st last, together with the numbers in hospital, and the death-rate prevailing among them each month for the six months ending on that date; and also the death-rate prevailing among the natives employed at the South African gold mines during the same period. Mr. Secretary Lyttelton said he was not able to give the numbers in hospital, but the numbers employed at the end of each month were as follows: July, 1,388; August, 4,945; September, 9,020; October, 12,965; November, 17,469; December, 20,885. For the months for which he was able to give the comparative death-rate per 1,000, the figures showed a much smaller mortality among the Chinese than among the natives:—1904: August, 37 natives, 14 Chinese; September, 40 natives, 25 Chinese; October, 51 natives, 22 Chinese; November, 56 natives, 28 Chinese; December, 53 natives, 27 Chinese.

The Belfast Constabulary Medical Officers.—Mr. Sloan asked the Chief Secretary to the Lord Lieutenant of Ireland on Monday if he would explain why the position of constabulary doctor recently vacant in one of the divisions of Belfast had not been filled in the usual manner; and if he would give the names of the doctors to whom the work had been allocated. Mr. Wyndham replied that it had not been considered necessary to fill up the vacancy. The work had been formerly done by five doctors, and was now being done by four.

The Prevention of Cancer in India.—In answer to a question by Mr. Weir as to the provision of statistics in regard to the prevalence of cancer in the provinces of India, Mr. Secretary Brodrick said that the medical officers of the Indian Government were now required to record every case of cancer coming under their observation, and to send a copy of the record to the Cancer Research Fund. The data so collected would show the prevalence of the disease in the different provinces.

Juvenile Smoking and Physical Deterioration.—Dr. Macnamara asked the Secretary of State for the Home Department on Tuesday whether his attention had been called to the recommendation of the Physical Deterioration (1904) Committee to the effect that a Bill should be brought before Parliament at an early date having for its object the prohibition of the sale of tobacco and cigarettes to children below a certain age; and whether he was now in a position to say that this recommendation would be acted upon in the present session. Mr. Secretary Akers-Douglas replied that he was aware of the recommendation, and had given it careful consideration, but he did not see his way to bring in a Bill this session. In answer to a second question on the recommendation in favour of enabling local authorities to provide food for underfed children, the Secretary of the Board of Education said that it was not intended to make any proposals for adding to the powers of local authorities in the matter referred to.

Ireland.

Injunction against a "Surgeon Dentist" (Limited).

Last week the Master of the Rolls had before him an application from the Attorney-General regarding the action of Mr. Kevin O'Duffy *v.* Appleton and others.

The defendants, according to the statement of counsel, carried on business as "Mr. Appleton, Surgeon-Dentist (Limited)," at 5, Dufferin Crescent, Bangor, co. Down, and, although they had entered an appearance, they had not put in a defence The plaintiff sought for an injunction to restrain the defendants from carrying on business, from advertising for custom under the name of "Mr. Appleton, Surgeon-Dentist," or any style containing the word "dentist," either alone or in combination with any other word or words, or any name, title, addition, or description implying or reasonably calculated to induce the public to believe that the business carried on by the company was conducted or carried on by a person or persons registered under the Dentists Act, 1878, or specially to practise dentistry. He also applied to restrain the directors and other members of the "company" from allowing the company to remain registered under its present name. The defendants having having entered no appearance the case now came up for judgement by default, except in the case of Martha Stuart, and of the defendants, whose whereabouts could not be discovered, and who had not been served. Every averment in the statement of claim was admitted, and although Appleton and his wife had put in an affidavit seeking to be excused from costs, they offered no explanation of the circumstances under which they concocted this company. The attention of Parliament had been directed to these fraudulent companies, and representations had been made, particularly by the Irish Branch of the Dental Association, and afterwards by the English Branch, to the Board of Trade to deal with the matter, and stop the systematic issue of certificates to these companies without notice being served upon the Association. Recently a person named Rowell sought to turn himself into a company. The Registrar refused to incorporate the company without notice, and accordingly notice was served upon Mr. O'Duffy, and the matter came before the King's Bench Division last year, when the cause shown by the Association was allowed. Counsel mentioned that there were 70 companies apparently formed for dental purposes alone in England, but very few of them had assumed in such a blatant way as in Ireland this title, "Surgeon Dentist, Limited." Absolutely unqualified persons undertook to administer chloroform and gas, and the danger of the public, apart from the fraud, was very considerable. Quite recently a number of companies had been started in Ireland which had assumed the title "Dentist" or "Surgeon Dentist," so that it had become absolutely essential in the interest of the profession and of the public to put an end to the fraud. The defendant company in this case had been extensively advertised in the name of Mr. Appleton, and the public had been led to believe that the business was being carried on by persons specially qualified to practise dentistry and registered as dentists under the Act of 1878, which was a false representation.

The Master of the Rolls, giving judgement, said that there was an averment in the statement of claim that this company had been formed "to injure and defraud persons registered under the Dentists Act, 1878," and also "for the purpose of imposing upon and deceiving the public." The defendants admitted that averment by not denying it. They had violated the law. The averment of fraud had been distinctly admitted, nor, indeed, could it be questioned upon the facts. The language by Mr. Samuels that this was an audacious fraud was not a bit too strong, for it was an audacious fraud. The Act of 1878 was passed for the purpose of preventing unqualified persons from holding themselves out as being qualified to practise dentistry. At one time, no doubt, dentistry was looked upon as rather a low branch of science, an inferior profession, if it could be called a profession at all, but increasing knowledge had shown that it was an art capable of the highest development and extension. This was a case in which a fraud had been discovered. The Attorney-General said it was a matter affecting the whole public. It was not an answer to an application for an injunction to say that the offence was an indictable misdemeanour. The Attorney-General was entitled to apply to stop the misdemeanour, and he was entitled to succeed. The injunction would be granted, with costs against the defendants.

The Orthopaedic Hospital of Ireland.

His Excellency Earl Dudley opened the new Orthopaedic Hospital of Ireland on February 15th, when a very large company assembled to receive him and the Countess of Dudley. The hospital has now been established in Upper Merrion Street, a fine house having been secured and admirably fitted up for the special work to be carried out. His Excellency congratulated the governors upon their enterprise, and hoped that the public would treat them with the generosity they deserved. The staff was represented on the occasion by Mr. R. L. Swan, Senior Surgeon; Mr. A. Chance, President Royal College of Surgeons; Dr. Denham, Dr. Evans, Dr. Langford Symes, and Miss Shelley, matron.

Dental Hospital of Ireland.

The annual meeting of the Dental Hospital of Ireland was held on February 16th under the presidency of Mr. W. C. Stubbs, chairman of the Board. The report of the hospital and the school, submitted by Mr. Murray, Honorary Treasurer, showed that 40,725 cases had been treated in the year, as compared with 33 528 in 1903. "Fillings" had advanced from 4 265 to 5,123; cases in which anaesthetics were administered had risen from 2,429 to 2 609. A few students who were present wished to bring before the meeting some alleged grievances, but were informed by the chairman that these should be submitted to the Governors, who would deal with them. A general meeting of friends was not the occasion for such a discussion. The adoption of the report was moved by Sir William Thomson, seconded by Dr. Cronin, and carried. Mr. Goldie, Mr. O'Duffey, Major Fielding, and Mr. Earle Bland also spoke.

Scotland.

Scottish Poor-law Medical Officers' Association.

At a meeting of the Executive Council of the Scottish Poor-law Medical Officers' Association, held on February 15th, Dr. William Cullen, Vice-President, presented Dr. W. L. Muir with several very handsome pieces of silver plate in appreciation of his indefatigable services as Secretary of the Association. The presentation was made by the unanimous wish of the Association.

Dr. John Malcolm, University Assistant to the Professor of Physiology in the University of Edinburgh and University Lecturer on Chemical Physiology, has been appointed to the Chair of Physiology in Otago University, Dunedin, New Zealand.

Edinburgh City Hospital.

The Staff at the City Hospital at Colinton Mains held their annual "at home" on Thursday, February 16th. The evening was given up to music and dancing, and was greatly enjoyed by those present.

Royal Medical Society.

Annual Dinner.

The annual dinner of the Royal Medical Society was held in the Society's Hall, 7, Melbourne Place, Edinburgh, on the evening of Tuesday, February 14th, Dr. H. W. Fletcher, the Senior President, in the chair. A company of eighty was present. The guests included the Lord Provost of Edinburgh, the Lord Justice Clerk, the Bishop of Edinburgh, the Presidents of the Royal Colleges of Physicians and Surgeons, Professors Chiene, Greenfield, Simpson, and Cunningham, Drs. Underhill, Gibson, P. H. M'Laren, etc., Lieutenant-Colonel Scrase-Dickens, commanding the 2nd Highland Light Infantry, and Fleet-Surgeon Foott, R.N. Dr. Fletcher gave the toasts of "The King, the Queen, and the other members of the Royal Family," and "The Imperial Forces." Reply to the last toast was made by Fleet Surgeon Foott, Lieutenant-Colonel Scrase-Dickens, and Colonel Sir Robert Cranston. The senior President, in proposing the toast of "The Guest," Professor Ronald Ross, C.B., F.R.S., said that it had been left to that gentleman to establish the absolute connexion between the mosquito and malaria, and they all admired the splendid determination with which he tackled his work. He believed that the day would yet come when our tropical possessions would spring into a time of unexampled and unknown prosperity. Professor Ross, in reply, said that much of the progress which he thought was unjustly attributed to him was due largely to the number of young men who had gone out to the tropics during the last few years to carry out their work, and he was very proud to think that these young men were their fellow countrymen. The scientific side of tropical medicine was advancing very fast just now, but he did not think that the practical side of sanitation was quite as up to date as they might expect. He did not think that the British authorities had taken up that matter with appropriate energy. Professor Ross concluded by giving the toast of "The Royal Medical Society," and Dr. Campbell Geddes replied. The toast of "Sister Professions" was given by Dr. E. A. Gibson, and responded to by the Bishop of Edinburgh and the Lord Justice Clerk.

Honours to Scottish Practitioners in Spain.

Messrs. W. A. Mackay, M.D., F.R.C.S.Edin., and Ian Macdonald, M.D.Edin. and M.D.Paris, both of whom practise in Huelva, Andalusia, Spain, have been elected Corresponding Members of the Academy of Medicine and Surgery of Seville. Dr. Macdonald, in an open competition for a surgical essay on gastro-enterostomy, has been awarded the prize of the Academy of Medicine and Surgery of Saragossa. The clinical material was furnished by the Huelva Hospital and the *clinica particular* of Drs. Mackay and Macdonald.

Canada.

The Ontario Medical Library.

The new building of the Ontario Medical Library, situated at No. 9 Queen's Park, was opened on December 28th by Dr. Osler in the presence of a large number of the profession of Toronto and other cities. In his opening address Dr. Osler referred to the importance of preserving the relics that pertained to the history of the profession in a young country, and to the advantages of creating and maintaining a spirit of fraternity among the members of the profession, and to the value such a permanent meeting place would have in this regard. The officers of the Library Association whose efforts have given this valuable asset to the profession in Ontario are: President, Dr. J. F. W. Ross; Vice-President, Dr. R. A. Reeve; Librarian, Dr. N. A. Powell; Treasurer, Dr. H. A. Bruce; Secretary, Dr. H. Hamilton. Large donations have been given by Mr. Chester Massey, Dr. Osler, Mr. E. B. Osler, and Mr. Timothy Eaton, and the Association has now a ten-thousand-dollar building paid for, a lot under lease, and a cash surplus. There is a large room for meetings, a room for new books and visitors, a coffee room, and various annexes.

Secret Commission.

A rather remarkable example of "commission" in the medical profession has been ventilated in the Toronto newspapers and medical journals recently. A specialist who had been asked by a parent to attend a pupil of one of the largest girls' colleges was asked by the college to give a rebate of 10 per cent. of the fee to the college, and was informed upon his refusing to do so that if he did not pay this commission he would receive no further patronage from them, and he was given reason to infer that certain specialists did this to retain their relation to the institution. The correspondence has been published, and shows the authorities of the school and those who have given such commission in no very enviable light; doubtless it will have a deterrent effect on such unprofessional arrangements for the future.

Resignation of Dr. Sullivan.

The Hon. Dr. Sullivan has resigned his position as Professor of Surgery in Queen's College, Kingston, just fifty years after he entered the medical school as one of its first students. Ever since that time he has been connected with it as tutor, lecturer, and professor. His jubilee will be formally celebrated next spring during the college convocation week, when he will be honoured by being appointed Honorary Professor of Surgery and being given the degree of LL.D. for his long and faithful service. Dr. Sullivan has had a varied and brilliant career. He was Kingston's leading surgeon for many years. In 1885 he served as Purveyor-General during the North-West Rebellion, and was thanked by the Parliament for the splendid service he performed. He is the member of the Dominion Senate for his district.

Ancient and Modern Medicine.

At the recent meeting of the Canadian Medical Association held at Vancouver, the President, Dr. Tunstall, in his opening address, and Dr. McKechnie, who delivered the address in medicine, both called attention to the fact that it was only fifty years since the sole representatives of the healing art in the Province were the Indian medicine men; these were still to be found in attendance on their native patients at no great distance from a city in which the work and writings of those who represented the latest achievements of science and civilization were then being discussed by them. It was noted that the British Columbia Indians, in common with other North-American tribes, depended to a large extent upon the practice of hypnotism for the cure of disease, and that their practitioners were not fraudulent fakirs but had a firm belief in their ability to drive out the evil spirits who possessed their patients.

LITERARY NOTES.

The New York *Publishers' Weekly* gives the total number of new books produced in 1904 as 6,971; of these 186 dealt with medicine or hygiene. This shows a considerable falling off in the output of medical books on 1903, when the number of new publications was 257. On the other hand the number of new editions showed a slight decrease, being 92 in 1904, as against 97 in 1903.

We are indebted to Mr. Victor Plarr for a copy of the following letter which was addressed to Bransby Cooper, nephew of the great Sir Astley, by Dr. Francis Thackeray of Bath, a first cousin of the famous novelist. He dates from Cambridge, where another of the Thackerays was Provost of King's College.

To Bransby Cooper, Esq. Cambridge, Sept. 20, 1843.

Dear Sir,—I was reading your Life of your good Uncle and excellent Surgeon last night, and was disappointed that no notice was taken of a circumstance that occur'd whilst he was in Paris during the disastrous period of the 12th of August in the year 1792. We were then together, I to finish my studies and your Uncle to see the French practice: at this time Hunter's method of operating for the *Popliteal Aneurism* had never been performed in France; in the Hospital "La Charité" there was a case which was to be operated upon in the old way, but we urged so strongly the new method to the surgeon, that at our request, it was agreed that, on the morrow, Hunter's plan should be tried, "if either of you will do it"; your uncle turning to me said, "My friend is a pupil of John Hunter, and has held the leg whilst he operated, and he shall do it." As your uncle was much my senior and had already got a high name as an operator, I was determined that he should do it, as the National character was involved in the event. On the following day most of the great surgeons in Paris met to witness the operation, but in the morning they agreed that it should be done by one of their own body and M. Chapart was fixed upon. He made an incision not more than two inches long over the artery, as it passes on the inside of the thigh, and without detaching the artery, he passed a blunt hook and inclosed artery, vein, nerve and part of the muscle, and when the man was put to bed, he said, "He must die, you see," and when we told him that it was not the way we did it in England, the surgeons expressed their astonishment; for in fact they did not at that time understand the principle on which that operation was founded. The man died in the evening, and we were permitted to dissect the limb and your uncle brought away the parts involved in the disease and operation.

Well do I remember standing for three successive mornings with your uncle and aunt at Petion's office, waiting for our passports: your aunt was then visibly *enceinte*, and her situation gained for her courtesies which were hardly to be expected at that time, and if I recollect right, your uncle got his passport, which was the last given that morning, and your aunt did not get hers. I know not whether there is anything interesting to you in the above communication, but to recall that period of my life brings pleasure in its remembrance to yours.

Faithfully and sincerely,

Frederic Thackeray, M.D.

The writer's allusion to the "disastrous period of the 12th of August" will be understood when it is remembered that between August 10th and 13th, the Tuileries were attacked by the Parisians who massacred the Swiss Guards and took prisoners the King and Queen. Petion, as Mayor of Paris, was responsible for the issue of passports to travellers. Astley Cooper is said, in his published *Lives*, to have been detained by the Revolutionary authorities, who set him free only at the instance of his father-in-law, Cline, the great surgeon and violent Whig. This letter, however, probably represents the true account of the matter. The ultimate fate of Petion was horrible, for he and Buzot were eaten by wolves in 1794, after the escape of the Girondins across Brittany. At the time of Chapart's unsuccessful operation John Hunter was still alive. One could wish that Dr. Thackeray had written more such letters about his Paris visit, or that more such reminiscences were preserved.

In the January number of the *English Illustrated Magazine* Dr. L. Elkind gives an account of scientific methods of detecting criminals. He describes the Bertillon system of anthropometry, but believes that although it will always remain to a certain extent in use as a means of identification, the finger-print method is the system of the future. He says that although new to Europe, the method has long been practised in India. The Turks, also, have for many years made use of the facts underlying it. The Turk who is unable to write does not sign a document by making his mark in the shape of a cross, but he produces a small box which contains a sponge moistened with a dark liquid colour, and having damped the tip of his finger, presses it on the document. That is his signature, and it can never be mistaken for that of any one else. The article is illustrated by photographs of various forms of the human ear, and profile casts of some noted criminals preserved for identification.

A REPORT ON THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

VIII.—HOLLAND.

For many years there has been a regular and considerable contingent of Dutch patients across the borders into Gheel, and even to-day, when Holland is applying the family care of the insane with most satisfactory results in her own country, there are hundreds of Dutch patients in this Belgian foster-mother of so many other colonies. In Holland, always an enlightened country with regard to the treatment of the insane, and where for many years the system of the "open door" has been in beneficent operation, the family-colony system has attracted much interest, both medical and lay; but it was not until 1884 that this system was inaugurated. It is true that for many years prior to this time the treatment of lunatics in private houses had been occasionally resorted to; but it was not until that year that the asylum authorities were permitted by law to place suitable cases in private houses in connexion with the asylum and under Government inspection. At first it was only permitted to board the patients within the families of attendants at the asylum or other servants of the institution; but later this restriction was found to be unnecessary, and patients were allowed to live in the homes of the ordinary inhabitants. Even yet, however, the majority of the boarded-out patients are under the care of attendants or ex-attendants. The family-colony system in Holland is thus one of quite recent origin, and was, further, not adopted, as in France and Scotland, as a means of relief to over-burdened asylums, but was the natural extension of a pre-existing "open-door" system, and as a therapeutic measure of established and approved value. The work was initiated by a remarkable philanthropic institution, the Christian Association for the Treatment of Insanity and Nervous Diseases (de Vereeniging tot Christelijke Verzorging van Krankzinnigen en Zenuwlijders), founded in 1884. This Association, which is essentially religious in foundation and character, and was established for the treatment of paying patients, is not a State institution, but is supported by voluntary contributions, and has to-day three asylums—those of Veldwijk (at Ermelo), Bloemendal (at Loosduinen), and Dennenoord (at Zuid-Laren)—which have at present, with their dependent colonies, a total insane population of over 1,500 patients. The introduction of this system into Holland was, however, very largely the work of the present able and enlightened medical director of the institution at Veldwijk, Dr. Van Dale: he has an unswerving belief that this system should be an integral part of every complete scheme of treating the insane, and the favourable reports of his experience with it have brought about its further extension in Holland. This extension was considerably hampered for some years by the tardiness of the Government in recognizing the need for subsidies for the maintenance of the indigent insane who were not in asylums, but in 1900 3,000 florins were set aside in the budget for the maintenance of pauper lunatics under family care, the royal decree of November 24th, 1900, providing a Government subsidy of 40 florins per year for each such patient maintained at the cost of the commune under family care. Amongst other regulations, the law stipulated that the patients selected for boarding out must have been resident at least half a year in an asylum for medical observation as to their mental condition and general suitability for family life, and that the medical director must in no case dispose of more than one tenth of the asylum population in this way.



Fig. 1.—Home of Patients of First Class, Veldwijk.

The question of the family-care system has been discussed at several meetings of the Vereeniging voor Psychiatrie en Neurologie, and there appears, from the report published in an interesting account of the development of the family-care system in Holland, written by Dr. Van Dale,[1] a unanimous verdict in favour of its widespread adoption in Holland.[2] The system has been applied since 1889 at the State asylum of Medemblik, since 1900 at Grave, since 1892 at the asylum of Meerenberg, and at many other asylums, and there can be no doubt that its extension up to the limits laid down by law will shortly be accomplished.

The Asylum at Veldwijk.

This large and important institution stands in very extensive grounds adjoining the small station of Ermelo-Veldwijk, which lies on the main line between Zwolle and Utrecht at no great distance from the sea coast. The institution is composed of a central administrative block surrounded by large and handsome pavilions of modern construction, for three classes of patients. These are in some cases at considerable distance from the administrative block, have each an independent service as regards nursing, cooking, etc., and are models of the most up-to-date design. They are excellently and appropriately furnished, whether for first or third class patients. Restraint is unknown, and the patients are encountered in the beautiful woods which surround the asylum, in many cases without being under the charge of an attendant. The institution is complete in every way, both from the administrative and the psychiatric points of view. The whole is fitted with electric light, the separate establishments are connected by telephone, and the laundry, kitchen, and workshops, including a small cigar manufactory, are of the most modern and approved patterns.

The Colony.

Within the grounds of the asylum there are, in addition to the large pavilion, one or two villas surrounded by their own gardens, fenced off from the common grounds of the asylum. They are, as it were, private houses under the aegis of the institution, *imperia in imperio*, and have been built for from two to four patients of the first or second class under the care of specially-appointed asylum attendants. There are also within the asylum grounds four houses built by the asylum authorities for the accommodation of four patients of the third class in each, but in no way differing from the ordinary houses of the village. This lies on the other side of the railway line, and is, properly speaking, a colony of asylum patients in fairly close connexion with the central institution. The connexion between the colony and the institution is closer than in any other of the colonies we have described. The patients are for the most part placed in the families of asylum attendants who do their daily duty in the asylum; many of the patients of the third class live in the colony, but work in some department of the institution during the day, and the asylum is only separated by the railway from the colony. The main road runs at right angles from the railway, and has on either side pleasant detached houses of varying size and architecture, each standing in its own garden. It is a little garden city, a paradise for the insane. The houses for the first and second classes, which are the most numerous, are pleasant villas, comfortably—even sumptuously—furnished, and were for the most part of the type shown in the accompanying photograph (Fig. 1). The houses of the third class (Fig. 2) are superior, both inside and out, to anything we have seen in any other of the colonies. This in no way reflects upon the management of the other colonies, but is the result of the very high standard of domestic comfort which is general throughout this part of

Holland. The sitting-rooms and bedrooms of these poor patients were spotlessly clean, well appointed, and in point of essential comfort and simple elegance fell little short of those of the wealthy patients.

As the following table shows, there has been a gradual but steady increase in the number of patients under family care at Veldwijk since 1894.

Numbers of Insane under Family Care at Veldwijk.

During	1894	17 patients
,,	1896	31 ,,
,,	1897	35 ,,
,,	1898	33 ,,
,,	1899	37 ,,
,,	1900	44 ,,
,,	1901	48 ,,
,,	1902	63 ,,
,,	1903	81 ,,

These are the total numbers under treatment during the year. The actual number under treatment at any one time during the year 1903 would be between 60 and 70.

The actual number under family care on December 31st, 1903, was 60, that is, about 10 per cent. of the total number present at Veldwijk on that date. A comparison of the figures in the annual report for 1903 shows that the method has not as yet attained at Bloemendal and Dennenoord the proportion which obtains at Veldwijk, but each year these show a progressive increase. The patients at Veldwijk are fairly evenly divided as to sex, are in the majority at a time of life capable of being benefited by out-of-door occupation, and are very diverse as to their form of mental disorder. The patients are chosen with less reference to the forms of mental disorder than their individual peculiarities and temperament, and are placed among families, with the object, in the first place, of lightening the burden of their lot in the case of quiet melancholiacs, dements, and the subjects of delusional insanity; and, in the second, as a preparatory stage to discharge in the case of convalescents. This latter is a most valuable means of ascertaining the fitness of a patient for the resumption of his old place in society, and as such must commend itself to every alienist. Under the kind guidance of Dr. Keuchenius and Dr. Stab, we visited most of the patients of all classes, and were more than satisfied with the evidences of the most careful selection of cases, the comfort of the homes, the contentment of the patients, and the adequacy of the supervision. After what we have said, it is almost supererogatory to allude to the clothing and bodily condition of the patients. The clothing of the third class is excellent in quality and amount, and the food, as one would expect in Holland, is abundant and wholesome.



Fig. 2.—House of Patients of Third Class, Veldwijk.

Inspection.

As at most other colonies, each patient has a book containing a copy of the regulations of the institution, and also the extracts from the Law of April 27th, 1884, information regarding the patient and the observations of the visiting medical officer. The patients must come weekly to the asylum for bathing, and examination by the medical director, or to lay any complaints or requests before him. Each patient is visited at least once a week by the medical director or one of the medical officers, of whom there are now three at Veldwijk; he is visited frequently by a lay *beamter*, or *garde*, and twice yearly by the Government Inspector of Lunatics and Lunatic Asylums. The house of the guardian, or *huisvader*, also must at all times be open to the inspection of the Officer of Justice and other officers. The inspection is thus very thorough; compared with Scotland it may appear too thorough, but doubtless as experience grows, the application of this system to a proportion of the boarded-out cases will acquire a less institutional character.

Recoveries, Discharges, and Deaths.

At the time of our visit the statistical tables relating to the year 1904 had not been compiled, but through the kindness of Dr. Van Dale we were able to obtain the tables for the year 1903, from which we have prepared the following table showing at a glance the results of the work of the year. This table shows, particularly at Veldwijk where the family-colony system is most developed, a high recovery-rate and a low death-rate, and cannot be regarded as other than highly satisfactory.

Table showing the Recoveries, Discharges, and Deaths, 1903.

	Numbers Resident on Jan. 1st, 1903.	Admissions during 1903.	Discharged as Recovered, 1903.	Discharged Unimproved.	Deaths.	Percentage Recovery-rate on Admissions.	Percentage Death-rate on Total Numbers Treated.	Total Numbers Treated in 1903.
Veldwijk ..	512	122	57	53	23	47.0	3.60	634
Bloemendal ..	531	104	37	24	52	35.5	8.18	635
Dennenoord ..	433	188	59	23	37	31.3	5.90	621
Totals ..	1,476	414	153	100	112	42.2	5.89	1,890

Finance.

The sister asylums of Veldwijk, Bloemendal, and Dennenoord are, as we have said, asylums for paying patients; and though the large majority of them belong to the third or lowest paying class of patient, and although a certain number of these belong to the indigent insane, and reside at Veldwijk or in one of the affiliated asylums at the expense of the commune to which they are properly chargeable, no distinction is made between this State-aided section and the remainder of the third class. Further, the connexion between the colony and the institution is so intimate that the published financial statements of the institution do not contain figures from which any comparison may be drawn between the cost of the asylum and that of the colony. We have been informed, however, that the cost of maintenance in the families is slightly less than that in the institutions; but when it is considered that the withdrawal of the quieter and more hard-working inmates of the asylum entails greater cost per patient on those who remain, it will be found, Dr. Van Dale says, that in Holland the up-keep of a patient in the colony is almost equal to that in an institution. Dr. Van Dale's experience, however, is not borne out by that of other colonies, and it is probable that the relatively greater expenditure of the Dutch colonies is attributable in part to the small number boarded out, and in part to other restrictions imposed by law. The experience of Veldwijk is all the more valuable for this reason, that the family-care system has not been adopted in Holland as a relief to over-crowded asylums, or from financial considerations, but entirely as a valuable therapeutic measure.

References.

1 J. H. A. Van Dale. *Ontwikkeling, tegenwoordige stand en toekomst der gezinsverpleging van krankzinnigen in Nederland.* Antwerp. 1902.
2 *Psychiatrische en Neurologische bladen.* 1902. Blz. 240-272.

Successful Vaccination.—Dr. Philip E. Hill, Public Vaccinator for the Crickhowell District of the Crickhowell Union, has received for the fourteenth time in succession the Government grant for efficient vaccination.

THE TEACHING OF HYGIENE IN SCHOOLS.

XI.—TUBERCULOSIS.

IN dealing with the question of tuberculosis in elementary schools it is well to understand that there are two distinct sides of the question to be kept in view: the recognition and isolation of particular cases and, what is still more important, the instruction to be given for the prevention of the disease.

That tuberculosis exists in these schools as a general rule may be taken for granted: in some districts it is much more prevalent than in others. This is accounted for when it is remembered what a large part overcrowding, want of fresh air, bad nutrition, and general ignorance of the causes which conduce to tuberculosis play in the spread of the disease.

For practical purposes it is necessary to distinguish sharply between tuberculosis of the skin, glands, joints and bones, lungs, and brain. Tuberculosis of the skin is a disfiguring but comparatively mild disorder; of the glands more serious; of the bones and joints still more so; of the intestines or lungs still more severe and dangerous to life, while when it attacks the brain it is almost rapidly fatal.

Children are liable to all forms of tuberculosis, but particularly to that of the glands, bones, and brain, organs which usually are not attacked in the adult. They suffer also from tuberculosis of the lungs (consumption), but in a relatively small proportion; it must, however, be recollected that a single child affected with consumption may infect many others, and that in children so infected the disease may not be localized in the lungs, but may settle on glands, bones, lungs or brain, according to the susceptibility of the individual child exposed to infection. Here comes in the great necessity that tuberculosis should be treated as an infectious disease as regards elementary school children. This opens up three distinct questions: (1) That children suffering from consumption should for their own sakes and that of others not be admitted into the schools; (2) that there should be proper sanatoriums to send them to when they are discovered to be suffering from the disease; (3) that the children being educated by the State, should by hygienic measures such as sufficient food, adequate ventilation, physical exercise, sitting in a hygienic position at their desks during lessons, and other precautions, be rendered as little susceptible as possible to the risk of contracting the infection; it is well recognized that an unhealthy weakly subject is more prone to infection than a healthy one. In the case of tuberculosis especially there are variations both in the susceptibility of the individual and in the virulence of the tubercle bacillus, and these two factors account in part for the very varying severity of the affections produced by the bacillus under different circumstances.

In the London County Council School Management Code for April, 1904, under Article III (Sanitary Condition of Schools: Cleanliness of Children: Infectious Diseases: Notification: Symptoms), Clause C. (IX), we read: "Consumption is to be regarded as dangerous, and sufferers, therefore, must be excluded if this disease is accompanied by coughing or spitting." That this rule is disregarded by teachers is evident to any one who visits an elementary school. The teacher will quite cheerfully point out case after case considered by her to be consumptive. This may appear surprising to anybody not acquainted with the system of grants for a certain average of school attendance in schools. But can the entire blame be laid on the teacher when there is no system of medical examination, and, even if there were, no organized plan for treating these children under suitable conditions? At present the alternative is to send them back to the home in which they have probably contracted the infection. It will be necessary to deal with such questions in another article.

The statistics published by the Registrar-General for England and Wales indicate that there has been a considerable diminution in the number of deaths attributed to tuberculosis, and that this diminution has shown itself in all forms of the disease except, perhaps, in general tuberculosis and tuberculosis of bones and joints. This improvement must be attributed in part to the betterment of the general sanitary conditions, and in part, perhaps, to the organized efforts which have been made in recent years to disseminate information as to the means which should be taken to prevent infection. In spite of all, tuberculosis still deserves its name of the white plague, for in 1902, the last year for which statistics are available, it was the cause of rather more than one death in ten from all causes (10·7 per cent.). It is more deadly in town than in country, as is shown by the following corrected death-rates taken from the Registrar-General's report for 1902:

	Average 1897-1901.	Year 1902.
England and Wales	1,323	1,233
Urban Counties	1,433	1,322
Rural Counties	1,197	1,136

It is a significant fact, illustrating the truth of the doctrine that an open-air life is the best prophylactic of phthisis, that, whereas the average phthisis rate among males was much greater in the urban than in the rural counties, among females—who, in country districts, spend so much more of their time indoors than men—the rate was nearly as high in the rural as in the urban counties.

The deaths from tuberculous meningitis are diminishing, but in 1902 still numbered nearly 6,000 (5,961). Of this total no fewer than 4,056, or 68 per cent., were those of children under the age of 5 years. Very much the same story is to be told of tuberculous peritonitis; the total (5,303) was much below the average for the previous ten years, but 3,815, or 72 per cent. of the deaths, were those of children under 5 years of age. There has also been a decrease in the number of deaths from tuberculosis of other organs and general tuberculosis, but, so far as can be judged, it has been less conspicuous. However this may be, the number is certainly large; 4,048 deaths were attributed to general tuberculosis, over half the victims being children under the age of 5 years: the deaths from tuberculosis of bones and joints and other specified organs numbered 1,413.

The importance of tuberculosis as a cause of death in childhood may perhaps best be gauged from the fact that the death-rate it produced among children under 5 years of age in the year 1902 was 3.06 per 1,000 living, the death-rate from all causes being 49.07. In other words, of every 50 children who died 3 at least died of tuberculous disease in one of its forms.

But the death-rate is very far from giving a true criterion of the prevalence of tuberculosis in childhood. Tuberculous disease of the glands, especially of the glands of the neck, is very common in childhood causing much ill-health and leaving ugly scars, but not often ending in death. Tuberculous disease of bones and joints is also far more common in children and adults and many of its victims survive permanently crippled.

In warring against tuberculosis it is again necessary to go back to the training colleges and to impress upon future teachers the importance of understanding the predisposing and determining causes of consumption, so that they may know not only how to detect already existing cases, but what means should be taken in the school to remove the causes which predispose children to contract the disease.

NATIONAL EUGENICS.

IN a paper read before the Sociological Society on February 14th Dr. Francis Galton, F.R.S., stated that now an appointment had been made by the University of London to the Francis Galton Research Fellowship in National Eugenics founded by him, it seemed desirable to publish a provisional list of subjects for eugenic inquiry. The object of his paper was to indicate in general outline what points, according to his present views, require careful investigation, not all at once, but step by step, at possibly long intervals.

I. Estimation of the average quality of the offspring of married couples, from their personal and ancestral data. This includes questions of fertility, and the determination of the "probable error" of the estimate for individuals, according to the data employed.

(*a*) *A Biographical Index to Gifted Families*, modern and recent, for publication. It might be drawn up on the same principle as my *Index to Achievements of Near Kinfolk of Some of the Fellows of the Royal Society* (see *Sociological Papers*, vol. i, p. 85). The *Index* should refer only to facts creditable to the family, and to such of these as have already appeared in publications, which are quoted as authority for the statements. Other biographical facts may be collected concerning these families but should be preserved for statistical use only.

(*b*) Biographies of capable families, who do not rank as "gifted," are to be collected, and kept in MS. for statistical use, but with option of publication.

(*c*) Biographies of families, who, as a whole, are distinctly below the average in health, mind, or physique, are to be collected. These include

the families of persons in asylums of all kinds, hospitals, and prisons. To be kept for statistical use only.

(*d*) Parentage and progeny of representatives of each of the social classes of the community, to determine how far each class is derived from, and contributes to, its own and the other classes. This inquiry must be carefully planned beforehand.

(*e*) Insurance office data. An attempt to be made to carry out the suggestions of Mr. Palin Egerton (*Sociological Papers*, vol. i, p. 62) of obtaining material that the authorities would not object to give, and whose discussion might be advantageous to the authorities themselves as well as to Eugenics. The matter is now under consideration, so more cannot be said.

II. Effects of action by the State and by public institutions.

(*f*) Habitual criminals. Public opinion is beginning to regard with favour the project of a prolonged segregation of habitual criminals, for the purpose of restricting their opportunities for (1) continuing their depredations, and (2) producing low-class offspring. The inquiries spoken of above (see *c*) will measure the importance of the latter object.

(*g*) Feeble-minded. Aid given to institutions for the feeble-minded are open to the suspicions that they may eventually promote their marriage and the production of offspring like themselves. Inquiries are needed to test the truth of this suspicion.

(*h*) Grants towards higher education. Money spent in the higher education of those who are intellectually unable to profit by it lessens the sum available for those who can do so. It might be expected that aid systematically given on a large scale to the more capable would have considerable eugenic effect, but the subject is complex and needs investigation.

(*i*) Indiscriminate charity, including out-door relief. There is good reason to believe that the effects of indiscriminate charity are notably non-eugenic. This topic affords a wide field for inquiry.

III. Other influences that further or restrain particular classes of marriage:

The instances are numerous in recent times in which social influences have restrained or furthered freedom of marriage. A judicious selection of these would be useful, and might be undertaken as time admits. I have myself just communicated to the Sociological Society a memoir entitled "Restrictions in Marriage," in which remarkable instances are given of the dominant power of religion, law, and custom. This will suggest the sort of work now in view, where less powerful influences have produced statistical effects of appreciable amount.

IV. Heredity.

The facts after being collected are to be discussed, for improving our knowledge of the laws both of actuarial and of physiological heredity, the recent methods of advanced statistics being of course used. It is possible that a study of the effect on the offspring of differences in the parental qualities may prove important.

It is to be considered whether a study of Eurasians, that is, of the descendants of Hindu and English parents, might not be advocated in proper quarters, both on its merits as a topic of national importance and as a test of the applicability of the Mendelian hypotheses to men. Eurasians have by this time intermarried during three consecutive generations in sufficient numbers to yield trustworthy results.

V. Literature.

A vast amount of material that bears on Eugenics exists in print, much of which is valuable and should be hunted out and catalogued. Many scientific societies, medical, actuarial, and others, publish such material from time to time. The experiences of breeders of stock of all kinds, and those of horticulturists, fall within this category.

VI. Co-operation.

After good work shall have been done and become widely recognized, the influence of Eugenic students in stimulating others to contribute to their inquiries may become powerful. It is too soon to speculate on this, but every good opportunity should be seized to further co-operation, as well as the knowledge and application of Eugenics.

VII. Certificates.

In some future time, dependent on circumstances, I look forward to a suitable authority issuing Eugenic certificates to candidates for them. They would imply a more than an average share of the several qualities of at least goodness of constitution, of physique, and of mental capacity. Examinations upon which such certificates might be granted are already carried on but separately; some by the medical advisers of insurance offices, some by medical men as to physical fitness for the army, navy, and Indian services, and others in the ordinary scholastic examinations. Supposing constitution, physique, and intellect to be three independent variables (which they are not), the men who rank among the upper third of each group would form only one-twenty-seventh part of the population. Even allowing largely for the correlation of those qualities, it follows that a moderate severity of selection in each of a few particulars would lead to a severe all-round selection. It is not necessary to pursue this further.

In conclusion Mr. Galton said that this brief memorandum did not profess to deal with more than the pressing problems in eugenics. As that science became better known, and the bases on which it rested more soundly established, new problems would arise, especially such as related to its practical application. All this must bide its time, but useful suggestions in the present embryonic condition of eugenic study would be timely, and might prove very helpful to students.

THEORIES OF THE HEREDITARY PROCESS.

Professor W. F. R. Weldon, F.R.S., Linacre Professor of Anatomy at Oxford, has delivered during the past few weeks a series of eight lectures on Current Theories of the Hereditary Process. The medico-biological importance of these lectures and the large audiences they have drawn showed that the subject of heredity as expounded by Professor Weldon commanded interest and attention.

Data of Heredity.

Starting from the thesis that the study of successive generations of individuals shows, first, that the average character attained by most of the members of one generation was, with slight variation, like that of the preceding generation—a generally constant rule in the phenomena of heredity, and secondly, that average persons were descended from average parents and exceptional persons from exceptional parents, it was argued that such facts accurately collected formed the necessary data of the science of heredity. When, however, explanations were sought of the *modus operandi* of heredity, they had to pass into the region of hypothesis, and picture to themselves the invisible and little-known organic processes accompanying the growth and reproduction of animals and plants. Even unicellular organisms like the protozoa—for example, stentor—were not homogeneous units, but showed morphological differentiation into cuticle, endoplasm, motile organs (cilia and flagella), nucleus and micronucleus, mouth, contractile vacuole (excretory organ), and pigmented (sensory) organs sensitive to light.

Growth and Reproduction.

In the process of growth each part of the body exhibited increase of its special structure. A stentor cut into slices $\frac{1}{2}$ mm. thick reproduced a fresh and complete animal from each slice. In the natural process of reproduction the stentor became elongated and constricted in the middle of the body, the separate organs (ciliated band, nucleus, and contractile vacuole) underwent fission or doubling, and one set of each passed into the dividing halves of the body, which then separated, forming two miniature stentors. The occasional temporary adhesion of two stentors and their separation after partial exchange of body materials was a phenomenon of rejuvenescence necessary for their well-being, but had nothing to do with reproduction. The common *Hydra viridis*, an organism higher in the scale of life (Metazoa Coelentera), showed phenomena of growth and regeneration similar to the stentor. Reproduction in hydra occurred in two ways, first by local budding of the ectoderm or of the body wall into hydra buds which grew and separated from the parent, and, secondly, by production of a large somatic cell (ovum) situated beneath the ectoderm. Other somatic cells gave rise to minute flagellate cells. After the impregnation of the ovum by the liberated flagellate cells (spermatozoa), a young planula (embryo) arose which grew up into a hydra like the parent.

Embryonic Development.

The second lecture dealt with the phenomena of reproduction in the sea urchin, an organism higher than hydra in the animal world (Metazoa Coelomata). The spherical egg of the sea urchin (Echinus) was marked by a characteristic pigment band between the equator and lower pole. The micropyle was situated at the upper pole. The cell cleavages after fertilization followed with great regularity; the first and second cleavages at right angles to one another, and in vertical planes gave rise to four blastomeres. An equatorial division followed, producing eight cells, the lower four of which were pigmented, the upper four clear. The clear upper cells gave rise to the ectoderm of the future embryo or larva, the pigmented cells gave rise to the endoderm (alimentary canal), coelomic epithelial walls, and gonads, while a special ingrowth of "micronuclear" cells derived from the pigmented group gave rise to the mesamoeboid (mesoblastic (cells. Radial symmetry of the young gastrula of Echinus was succeeded, owing to inequality of growth, by bilateral symmetry, a ventral and a dorsal aspect being recognizable in the free swimming larva or pluteus, which moved about by the aid of ciliated bands of the ectoderm. Driesch found that individual blastomeres of the two, four, and eight-celled stage, when isolated, grew into miniature but perfect gastrulae and larvae of Echinus. Moreover, excised segments of the mass of blastomeres, prior o gastrulation, also grew and produced perfect larvae. The cells were, in other words, equipotential.

Preformation and Epigenesis.

Professor Weldon pointed out that the future function of cells thus essentially equipotential (in the mass of blastomeres) was largely determined by their position in the growing embryonic mass, and referred to the experiments of Hans Driesch, Hertwig, Roux, and Morgan, which showed that this was true for echinoderms, nemertine worms, the tunicata, amphioxus, and certain teleostean fishes and amphibians. On the other hand, the egg of Nereis (a polychaete worm) and of Beröe (a ctenophore) showed a high degree of "preformation," and the early blastomeres of these eggs were not equipotential, epigenesis and preformation thus playing varying parts in the phenomena of heredity in various classes of animals.

Regeneration of Lost Parts.

In the third lecture the subject of regeneration of lost parts was dealt with. Special reference was made to the researches of Morgan on regeneration in planarian worms, and of Herbst on the crustacea. The common earth worm could regenerate a new head, including brain and gullet, when its five anterior segments had been cut off. The amphibia showed little power of regeneration, the mammalia least of all. The nuclei of the germ and sperm cell did not constitute the sole or exclusive vehicle of heredity; the entire cells (male and female germ cells) were the bearers of hereditary properties, modified, however, and modifiable by the environment in which they lived and matured. Hereditary traits were transmissible through both parents, although the character of one might be dominant over that of the other.

Special Environmental Action.

In the fourth lecture the special action of constituents of the environment (salts in sea water in the case of echinoderms, and the effects of light and colours in the case of developing pupae of butterflies) were discussed. The conclusion reached was that many of the salts in sea water, by absence or defect, will produce abnormal and monstrous development of echinoderm embryos, and that lights and colours profoundly affect the patterns and coloration of pupae. The environment has its critical effects, concludes Professor Weldon, especially at particular periods of embryonic and larval life.

(To be concluded.)

DR. SCHAUDINN'S WORK ON BLOOD PARASITES.[1]

DR. SCHAUDINN, after briefly alluding to the work of previous investigators on the blood parasites known as haematozoa, urges the importance of studying trypanosoma from a medical and biological point of view. He further points out that birds are very suitable subjects for investigation, owing to the ease with which they can be kept in captivity, and to the fact that there is already standard literature[2] with regard to the trypanosomae found in their blood.

The stone owl (*Athene noctua*) was used in the experiments of which the results are given, and in the blood of this bird, besides proteosoma (which is not dwelt on by Dr. Schaudinn), the halteridia and leucocytozoa found by Danilewsky and described by Ziemann are also found.

TRYPANOSOMA NOCTUAE (CELLI AND SAN FELICE).[3]

The Halteridia prove to be a sex-phase of a trypanosoma which multiplies in the gnat (*Culex pipiens*), and the following is a brief description of its life-cycle. The sexual stages correspond morphologically down to the smallest detail with those already known from the pioneer discoveries of MacCallum[4] in the blood of the crow, and of other investigators in other birds.

It was known that, after entering the stomach of the gnat, the microgametocytes (in this case pale coloured and distinguished by the presence of large pigment granules) produce microgametes, one of which enters the macrogamete (containing darker and finer pigment granules), which then becomes the oökinete. From this point Dr. Schaudinn follows the development of the vermicule stage of the cökinete resulting after certain changes in form have taken place, which moves in a similar fashion to the malaria parasite. The time taken after bloodsucking before this condition is reached varies, according to the temperature, from eight to thirty-six hours. The oökinetes gradually collect in the front part of the gnat's stomach, and on the way, throw off superfluous matter, chiefly pigment granules (Fig. 1, *b*). The male and female



Fig. 1.

nuclei slowly combine, forming the synkaryon. Dr. Schaudinn says, with reference to the nuclei, that they have a constant number of chromosomes. These are normally eight, but before fertilization the number in both sexes is reduced to four, so that in the newly-formed oökinete there are to be found two groups of four chromosomes, which together form the fertilization spindle already described in so many sporozoa. Near this spindle lies a complicated structure, which Dr. Schaudinn calls the "karyosome," without desiring to express its homology. It contains eight chromatin elements surrounded by a coloured plastin-like substance, and, entering the hollow nuclear spindle, it becomes the centre of the spherical synkaryon.

Oökinetes differ greatly as regards the relative masses of nucleus and plasm as well as in the amount of reserve material, owing to many complicated reasons which are not gone into. They show, moreover, from the very beginning that they are differentiated as to sex, and they develop into one of the three following forms, all of which can reproduce themselves vegetatively:

1. "Indifferent": Under certain unknown circumstances these may become male or female.
2. Female: Which can parthenogenetically reproduce the three forms again.
3. Male: If after ordinary division the cells (which are ready to fertilize) do not meet with a female they perish.

"INDIFFERENT" FORM IN THE GNAT.

Some striking nuclear changes are to be seen during the conversion of the oökinete into an "indifferent" trypanosoma which Dr. Schaudinn describes in considerable detail (Fig. 1). A heteropole spindle is formed, which results in the production of a para-nucleus (blepharoplast) (Fig. 1, *d*) This gives rise in similar fashion to a third nucleus lying right at the edge of the cell (Fig. 1, *e*), and a third spindle appears which, instead of producing a fourth nucleus, transforms itself into the locomotive apparatus of trypanosoma, which thereby becomes a flagellate (Fig. 1, *h*). Movements alternate with periods of rest: The organism previous to one of the latter, burrows with the help of the point of its flagellum into an epithelial cell of the intestine of the gnat and contracts itself. The reproduction of the "indifferent" form is effected by longitudinal fission.

FEMALE FORM IN THE GNAT.

In the cökinete with female characters the nucleus is smaller proportionately than in the last case. The plasm is

[1] Fritz Schaudinn. *Generations- und Wirtswechsel bei Trypanosoma und Spirochaete.* Arbeiten aus dem Kaiserlichen Gesundheitsamte. Band XX, Heft. 3, 1904.

[2] Danilewsky, *Parasitologie comparée du sang*, I, Kharkoff, 1899. This work deals so exhaustively with the trypanosomes of birds that Dr Schaudinn expresses surprise that it has not encouraged further investigations. Sacharoff, in fact, appears to be the only one who has made use of Danilewsky's work on the spirochaete of relap-ing fever. H Ziemann, *Ueber Malaria- und andere Blutparasiten nebst Anhang: Eine wirksame Methode der Chromatin- und Blutfarbung*, Jena, 1895. Independently of Danilewsky, Ziemann worked at the parasites (the so called leucocytozoa) of the stone owl. The work of the latter inspired Dr. Schaudinn to study that of the former, which it confirmed (as it did also Sacharoff's), especially as regards the behaviour of the nucleus.

[3] Celli and San Felice Ueber die parasiten des roten Blut-Körperchens im Menschen und in Tieren. *Fortschritte der Medizin*, 1891, Nr. 12-14. These authors describe this species under the name *Haemoproteus noctuae*, and the latter name must stand.

[4] W. G. MacCallum, On the Haematozoan Infection of Birds, *Journ. Exper. Med.*, Baltimore, vol. iii, 1899.

denser, and is filled with dark-coloured bodies, which may represent reserve material. The changes gone through are the same as in the "indifferent" form, but the movements of the resulting trypanosoma are more sluggish, and it soon settles to rest; moreover, during its growth it hoards up more reserve stuff and may become three times as big. The likeness to Gregarines in this stage is most marked.

During periods when the gnat is left to hunger the "indifferent" forms and males die, not being provided with reserve material. The female Gregarine-like forms can, after nuclear changes, parthenogenetically produce—exactly as does the oökinete after conjugation—the three forms. This process causes a relapse of fever in the owl.

Male Form in the Gnat.

The male forms are lighter in colour than the "indifferent" ones, and have no reserve material like the females. Their nuclei are of greater proportionate volume than in either of the others. Eight pairs of nuclei are formed, and after the



Fig. 2.

rounding of the oökinete (Fig. 2, *e*) these go to its margin and form part of eight flagellate microgametes.

Behaviour of Trypanosoma in the Blood of the Owl.

All three forms are introduced into the blood of the owl by the bite of the infected gnat, but the "indifferent" forms are then in the ascendant. They all live at the expense of the red corpuscles of the bird, and contain pigment which was absent from them when in the gnat. The "indifferent" forms penetrate the corpuscle and get nourishment from it during the day (Fig. 3), while they wander about in the blood during

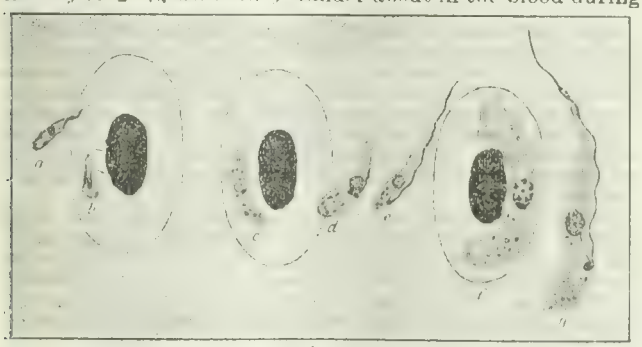


Fig. 3.

the night. The full size is attained in six days, and by their repeated fission the blood swarms with the parasites. "Indifferent" forms do not cause discoloration or a change of shape in the corpuscles.

Female trypanosomae rarely change their host corpuscle. Instead, they continue to hoard up reserve material, thus causing the corpuscle to lose haemoglobin, and in the end they are only surrounded by a pale fragment of the structure.

Microgametes seldom come from the gnat, but are produced from the "indifferent" form, and the process is similar to that observed in the malaria parasite.

Dr. Schaudinn gives an exhaustive account of the structure of the gnat, the wanderings of the parasites on its body, as well as the way in which it bites and causes infection. The trypanosomae may get into the eggs and rest during the development of the young gnat, becoming active when the latter is adult and begins to suck blood. The researches have not yet shown whether a gnat that has hibernated can convey infection, or whether the parasites remain alive in its ovaries. These matters have considerable bearing upon the subject of malaria, and Dr. Schaudinn has come to the conclusion (contrary to his original opinion) that in the development of the tertian parasite its transmission to another generation of the gnat (*Anopheles*) can take place in the way indicated. Other cases are also given where propagation by heredity is as common as by direct transmission. Dr. Schaudinn instances a case of a mite and the squirrel which he has investigated, while, with regard to Texas fever, he states that infection is apparently only conveyed by heredity.

Spirochaete ziemanni (Laveran).

The other parasites found in the blood of the owl and alluded to as leucocytozoa have a life-history very similar to that of the trypanosoma just described. An important difference between the two organisms is that the nucleus of the former has normally sixteen chromosomes instead of eight; the formation of the paranucleus is exactly the same in both.

Starting with an oökinete as in the case of trypanosoma Dr. Schaudinn proceeds to contrast the development of the two. In spirochaete there is a period of growth principally in the direction of the longer axis and the organism rolls itself together in a ball (Fig. 4, *b, c*). The number of nuclei

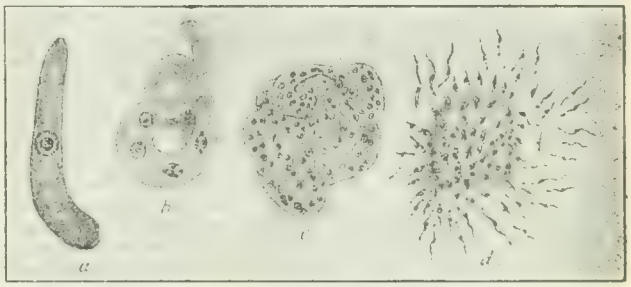


Fig. 4.

produced is large and varies according as "indifferent," female or male characters were possessed by the original oökinete. Each nucleus is provided with a share of the plasm (Fig. 4, *d*) and the resulting cellules (or trypanosomae) likewise follow the tendencies of the original oökinete. They develop into typical spirochaetes by coiling themselves spirally and when they are magnified they show all the characters of a trypanosoma.

When fission takes place, the daughter cells remain attached by their ends until each has itself divided again. In the gnat the "indifferent" spirochaetes are so small as only to be visible when a number have agglomerated and they can pass through a Chamberland filter. The eggs of the gnat are also to be found infected as in trypanosoma.

Spirochaete ziemanni (and *anserina* also) live at the expense of colourless corpuscles (Fig. 5), though Dr. Schaudinn has

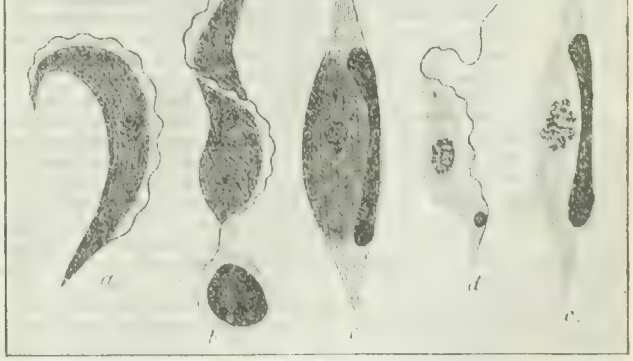


Fig. 5.

come to the conclusion that red corpuscles when young and still free from haemoglobin may exceptionally represent the host cell of the latter parasite.

Males and females are much larger than the "indifferent" forms; they grow bigger than the corpuscles, which when they enter into a resting stage they take into their bodies.

When fertilization is to take place after the gnat's body is reached, the ectoplasm of the female or macrogamete (with the remains of the corpuscle) is stripped off. Parthenogenesis of the female takes place in the same manner as in trypanosoma and causes relapsing fever.

Application of the Results.

Further investigations into this group of blood parasites

should determine the life history of nearly-related forms in man and bird. The second host in relapsing fever must be found, and Dr. Schaudinn suggests experiments on blood-sucking insects, beginning with bugs. Spirochaete, he also says, may be the cause of yellow fever, and here, as the second host is known, its Malphigian tubules should be examined to see if in the infected gnat there is any deviation from the normal as regards its epithelial cells. If the parasite should be so small that the individuals are indistinguishable it might be possible, judging from the spirochaete of birds, to cause the tiny organisms to agglomerate so that they become optically perceptible.

CLASSIFICATION.

In conclusion Dr. Schaudinn deals with the phylogenetic side of the question, and derives all Haemosporidia from Flagellata. He shows how trypanosoma and spirochaete have deviated from a primal haemoflagellate, and alludes to an intermediate form found in one of the Siphonophora between the latter and spirochaete, at the same time pointing out that the known trypanosomae of mammals are nearer in their relationship to spirochaete than those of birds, as both agglomerate by the end away from the flagellum.

JAPANESE MILITARY SURGERY.

THE *Journal of the Association of Military Surgeons of the United States* in its January number publishes the full text of the paper read by Major Louis Livingston Seaman, late Surgeon in the United States Volunteer Engineers, at the recent Congress of Military Surgeons at St. Louis, to which reference has already been made in the BRITISH MEDICAL JOURNAL. Attention was there directed to his account of the hygiene of the Japanese troops. Some of our readers may be interested to learn the American surgeon's experience of the surgery which he saw in a Japanese military hospital.

Arriving at Tokio on June 20th, he found the Military, Red Cross, and University Hospitals conducted on broad, up-to-date principles, the operating rooms being supplied and fitted up with the latest devices for antiseptic procedure. Fresh air is appreciated at its full value, and liberal facilities are afforded for sunshine and outdoor recreation. The latrine system is somewhat antiquated (mostly earth closets), but this drawback is to a large extent neutralized by "the exquisite cleanliness for which the nation is so justly noted."

Up to July 1st, only about 1,100 wounded and no medical cases had reached Tokio, mostly from the base hospital at Hiroshima, which was continually sending large numbers to other divisional hospitals to make room for fresh ones from the front. They were mainly from the Yalu, Nansban, and Telissu fights, and included many severely wounded by shell fragments, bullets, shrapnel, sabre cuts, and explosions. The little Red Cross Nurses smilingly perform their duties with admirable celerity and precision. The physical condition of the patients was remarkably good considering the severity of their wounds and the hardships which they had undergone. Their faces showed little evidence of illness or suffering; of more than 1,000 wounded received at Tokio before July 1st not one had died, and in all the cases left in hospital the prognosis was favourable. It is the rule of the Japanese surgeons at the front to do little or no operating, except in cases of extreme emergency or where haemorrhage threatens immediate death. All cases are treated by the application of the first aid dressing, and then sent to the rear as quickly as possible, thence by hospital boat or transport to the base hospitals in Japan.

The Tokio surgeons were complaining of having so little to do, for by the time the wounded arrived the vast majority of wounds had cicatrized by first intention, and further interference was unnecessary. Major Seaman was allowed to visit all the military and naval hospitals of Japan, and the Russian wounded and prisoners at Matsuyama. He went first to Hiroshima on the Inland Sea, where are the base reserve hospitals. These institutions comprise six divisions, in different parts of the city, each division having its own administrative building, behind which a long open hall-way runs between ten corridor wards. Each ward is capable of accommodating fifty patients in ordinary times; but such is the elasticity of the hospital, that in the emergency of war 500 extra beds can find temporary space in each division. Fifteen Buddhist temples had recently been requisitioned to form an additional division, their beautiful and spacious interiors giving ample accommodation for another 1,000 patients. Hundreds of wounded arrived every few days from the field hospitals around Port Arthur.

Of the thousands of casualties there the most interesting from the surgeon's standpoint were the cases of spurious and traumatic aneurysm, of which Major Seaman saw twenty-six. These cases were comparatively rare before the introduction of the modern small-bore metal-jacketed bullet of high velocity, the theory of their causation being that they result from the initial energy imparted to the soft structures near the injured vessel (or to the vessel itself) at the instant of the impact of the bullet. This force or energy—*vis a tergo*, as it might, according to Seaman, be termed—lacerating and contusing the adjacent soft structures in its course, also injures the elastic layer of the arterial wall, so that, sometimes weeks after the original wounds of entrance and exit have healed, a small pulsating tumour is discovered, near the track of the bullet, which, distending gradually, soon becomes an aneurysm requiring operative interference. He saw cases in which bullets had passed directly through the great cavities—seven through the cranial, nine through the thoracic, eight through the abdominal, and so many through the extremities that their exact number could not be ascertained. Cauterizing their course, and healing both entrance and exit wounds by first intention after first-aid dressings, they were so numerous as to leave no doubt as to the asepsis of the modern ball when the lesion is uncomplicated. Suppuration, of course, followed where balls ricocheted, carrying with them foreign matter, bits of clothing, dirt or splinters, but these instances were comparatively rare, and only served to emphasize the wisdom of the principle of non-(operative) interference on the field or afterwards, except under strict aseptic conditions—a principle the Japanese fully appreciate, and the adoption of which has saved many valuable lives.

Conspicuous by their absence were cases requiring operations for appendicitis, hernia, floating kidneys, choledectomies, etc. During the whole summer Major Seaman did not see a single case of hernia or laparotomy. The Japanese soldier has been taught how to treat his intestines, and consequently his intestines are now treating him with equal consideration. His plain rational diet is digested—metabolized and assimilated. It is not an irritating, indigestible, fermenting mess, acting as a local irritant and producing gastritis, duodenitis, enteritis, colitis, hepatitis, and the long list of inflammatory intestinal processes with which American medical officers were so familiar in the hospital wards at Camp Alger, Chattanooga, Tampa, Cuba, Porto Rico, Montauk Point, etc., in 1898. The average Japanese soldier is either less sensitive or more of a stoic than the rest of humanity. On the entrance of a surgeon, if able to stand, he is instantly at "attention"; if too ill, he crosses his legs in his cot in the graceful pose of his Buddha, and remains in that attitude until the visit is over.

In the chief naval base hospital at Shimonoseki the cases were of distinctly more severe a character. According to Seaman, casualties in naval engagements differ radically from those in land battles, in that bullets are rarely a causative factor in one, whilst in the other they are the predominating cause. Fragments of shell, ragged and twisted bits of metal and splinters, causing fearful lacerations, contusions, with compound and compound comminuted fractures, abrasions, burns from explosives, scalds from escaping steam, penetrating or perforating wounds of the cranial, thoracic, or abdominal cavities predominate here. These were all largely represented in the wards of the naval hospital, and, as at Hiroshima, the most approved methods of treatment are in vogue, and with the most flattering results. Major Seaman saw the effect of some of the famous Shimose powder. This compound is not used for killing, that is, for loading cartridges, but for its explosive qualities in blowing up ships and in loading shells. As an evidence of its power of fragmentation, he cites the case of a Russian bluejacket. He was on the cruiser *Variag* in the Chemulpo fight when a Shimose shell burst near him. An examination of his body disclosed the presence of 161 distinct wounds.

LEPERS IN THE UNITED STATES.—Two Bills relative to lepers are now under consideration by the American House Committee on Interstate and Foreign Commerce. One Bill provides for the establishment of a sanatorium for the care of the 275 persons who are said to be lepers in the United States, the institution to be situated in the arid region of the north-west. The other Bill provides for the appropriation of £30,000 for the scientific study of leprosy in Hawaii.

SPECIAL CORRESPONDENCE.

PARIS.

Société de Chirurgie: M. Terrier on Scopolamine as a General Anaesthetic in Surgery.—Académie de Médecine: MM. Lannelongue and Achard on the Relationship between Tubercle and Traumatism.—M. Moussu on the Milk from Tuberculous Cows.—Inauguration of New Antituberculous Dispensary at Beaujon Hospital.—Dr. François-Franck succeeds Professor Marey in the Chair at the Collège de France.

At the last meeting of the Société de Chirurgie, M. Terrier read a report on a communication made to the Society by M. Abel Desjardins at the end of last year on the use of scopolamine as a general anaesthetic in surgery. M. Terrier enumerated the chemical and physiological properties of scopolamine, especially calling attention to one most valuable quality it possessed, namely, that of producing an anaesthesia persisting for twenty-four to forty hours after the return to consciousness, with the result that the patient does not feel any pain during the day following the operation. The drug was administered by M. Desjardins at the Pitié Hospital according to the technique of Professor Bloch of Fribourg-en-Brisgau; this consists of three hypodermic injections, given with an ordinary hypodermic syringe four hours, two hours, and one hour respectively before the operation. The following solution is used: Scopolamine bromohydrate 0.0012 dmg., morphine hydrochlorate 0.012 mg. in 1 c.cm. of distilled water. The patient thus receives in all 0,0036 decimilligrams of scopolamine and 0,036 milligrams of morphine. M. Terrier's description of the clinical aspect of a scopolamized patient is as follows: It is the aspect of a man sleeping a natural sleep, snoring hard. The pulse is quickened and beats 90 to 120 per minute, while the respirations are slowed to 16 or 14. There is a slight venous congestion of the face, which is coloured and at times covered with perspiration; the pupils are dilated. It is important to avoid making any noise or shaking the patient in order that he may not be awakened, for sensibility is completely abolished while the cerebral functions persist. It is sometimes necessary to give a little chloroform to complete the anaesthesia if the latter be insufficient, but then from the first inhalations the patient sleeps profoundly without any period of excitement. The patient wakes up four or five hours after the operation, calmly, without headache, nausea, or vomiting, so that he can be fed immediately; the pain and discomfort which always follow an operation are suppressed. Even in the cases in which it has been necessary to give chloroform the patients have no recollection of the operation and are delighted with this method of producing anaesthesia. In comparison with these advantages, scopolamine has the following drawbacks: the variability of its action—at times the sleep is complete and sufficient, at others a few drops of chloroform must be given in addition (from 6 to 10 c.cm. for an hour's anaesthesia); the superficial vasodilatation necessitates very careful attention to bleeding points; the contraction of the abdominal wall is an impediment in laparotomy. M. Terrier insisted on the harmlessness of scopolamine, and protested against an anonymous article which appeared in *Semaine Médicale*, and mentioned 12 deaths as having occurred in 1,189 cases. In reality, he said, 1,489 cases were recorded, and those 12 cases of death were a wilful exaggeration, for on looking up the original notes of the authors there was but one death, and this a debateable one. It was impossible, for instance, to fix the responsibility for death on scopolamine in the case of patients operated on at the age of 69, 73, and 76 years respectively, suffering from cancer of the intestine with general peritonitis and in a hopeless state, according to the surgeon who operated; or in that of a patient, with cancer of the uterus which had spread throughout the lower part of the pelvis and involved both ureters, who succumbed five days after the operation. M. Terrier concluded his report by describing 26 personal observations, which he claimed as conclusive proof of the value of this new method of obtaining anaesthesia.

At the last meeting of the Académie de Médecine MM. Lannelongue and Achard made an interesting communication on the relationship between tubercle and traumatism. They carried out again the classical experiments of Max Schuller, who produced arthritis by making a traumatism of the joint in guinea-pigs, and inoculating it with tuberculous débris. The mixture inoculated was complex, containing pus in addition to the tubercle bacilli. With pure cultures of the bacillus of tubercle, they said, the experiments failed, and they pointed out that in phthisical patients traumatisms of the most varied kind were but rarely followed by a tuberculous lesion. The *rôle* of the traumatism, they thought, was very limited in ratio to the *rôle* of the local inoculation; movement they found aggravated the conditions, the evolution being much more rapid than when the inoculated joint was kept still.

M. Moussu, Professor at Alfort, has by carefully conducted experiments pointed out the danger of milk drawn from tuberculous cows. It is a question of capital importance, and, contrary to classical opinion, M. Moussu thinks that danger exists even when the cow is but slightly affected with tubercle, and while the mammary glands are still free from disease. If the milk from such cows is centifugalized, the resulting deposit shows, he says, the presence of bacilli, and, inoculated into animals, renders them tuberculous. Calves nourished upon this milk by M. Moussu became tuberculous in the proportion of two out of five. Sanitary regulations should therefore, he thinks, be modified from this point of view.

A new antituberculous dispensary was recently inaugurated at the Beaujon Hospital, thanks to the generous initiative of M. Jacques Siegfried and Dr. Albert Robin. The consultations take place every evening at 5 p.m., and are alternately for men and for women. The patients return once a week and receive their medicines gratuitously. Certain ladies and gentlemen assist in turn at the consultation, and note the names and addresses of new patients, visiting them in their homes on the following day. They are then able to give pecuniary help to the needy, and, what is more important still, give good advice as to hygienic and precautionary measures for the cleanliness of the patient's surroundings, and the prevention of the spread of the disease among the members of the family; they thus conduct a regular antituberculous educational crusade.

Dr. François-Franck, by a vote of the Académie des Sciences, has been appointed to fill the chair of "Natural History of Organized Bodies" at the Collège de France, which was left vacant by the death of the late Professor Marey.

LIVERPOOL.

The Case of Plague on a Vessel in the Mersey: Prosecution of the Captain.—Recent Appointments in Liverpool.

In connexion with the case of plague on the ss. *Crew Hall*, reported in the British Medical Journal of February 18th, Wilfred James Houghton, the master, was summoned at the Liverpool Police Court on February 16th, before Mr. W. J. Stewart, stipendiary, charged with having contravened the 23rd section of the Public Health Act, 1896, by neglecting to answer truly questions put to him by a customs officer as to the health of all on board during the voyage of the vessel. The defence was that the ship had a clean bill of health from Rangoon and Suez, and that the captain believed the man had merely a feverish cold and was getting better, that, in fact, his temperature was normal on the day in question, and that there was no intention to deceive. Mr. Stewart, in giving his decision, said he came to the conclusion that the captain took upon himself very unwisely to state that there was no illness on board his ship, when, as a matter of fact, there was a man whose condition was sufficiently serious, as indicated by his temperature. It would have been wise to say that the man was in such a condition, probably then there would have been an examination. Unfortunately, the captain took the whole responsibility of ignoring the case. He took upon himself to say that there was no illness on board. The answer was incorrect to his knowledge. There were facts in his mind which he ought to have disclosed, and which were certainly material. He (Mr. Stewart) thought he had committed an offence. He quite agreed that there had not been a deliberate suppression of facts in order that the vessel might get into dock to discharge cargo and passengers without any trouble, but it was important that the captain of a ship should not take the responsibility of being the judge himself. He must be fined £10 and costs. It is to be borne in mind that a statement by a captain that there is no illness on board is enough to enable the customs officer to clear the ship, and that the consequent avoidance of any further inspection or delay saves a great deal of time and expense. It is therefore of the highest importance that captains of vessels should be above suspicion even of carelessness in this matter: the penalty inflicted, therefore, cannot be considered excessive.

Mr. D. Douglas-Crawford, F.R.C.S., Surgeon to Stanley Hospital and Lecturer on Surgical Anatomy in the University of Liverpool, has been appointed Consulting Surgeon to the Dental Hospital in succession to Mr. F. T. Paul, F.R.C.S., who has resigned. Mr. C. W. Paget Moffat, M.A., M.B., M.R.C.S., a former student of the Royal Infirmary and of the Universities of Cambridge, London and Liverpool, has been appointed Senior Surgeon to the North Dispensary.

MANCHESTER.

Measles in Mid-Cheshire.—Board of Education and Temperance Teaching in Schools.—The Corporation and the Infirmary Site.—Should Corporations Provide Nurseries?—Nursing for Threepence per Day.—Sanitary Inspectors Support Public Health Bill.—Minstrels, Music, and Charities.—Cold Storage of Milk in Transit.—Southport Infirmary and Alcohol as a Medicine.

The Winsford Urban Council in Mid-Cheshire has decided to close the schools under its control, as there is a serious epidemic of measles. It is stated that 700 children in the district are affected with measles. A similar state of affairs obtains in outlying districts.

The question of the syllabus for temperance lectures in elementary schools has been the subject of communications between the Cheshire Education Committee and the Board of Education. The Board pointed out that such instruction should be on scientific lines; and, having in view the fact that instruction of this kind has two sides—the scientific and moral or religious—it was important that the local authority should see that the syllabus which was to be used for voluntary schools did not trench on those subjects of instruction which were especially reserved for the control of the managers of such schools. The Board further expressed the view that such lectures should be given by a teacher of the school. It also hoped the Committee might be able to submit a revised syllabus which it would be possible to approve, as, until this was done, the Board would not consent to such lectures being given during school hours. A resolution was carried expressing regret that the Board of Education, while disapproving of the Cheshire syllabus of temperance science teaching, had not been able to specify any point in the syllabus to which they took objection. The Committee was of opinion that these lectures—which had been given in Cheshire for many years—should be continued. A deputation was appointed to wait upon the Board.

It is a trite saying that "Time is money." There has been some correspondence between the Town Clerk and the lay Board of the Infirmary as to the time when the Corporation shall obtain practical possession of the present infirmary site. The Corporation find it necessary to consider the arrangements to be made by them for building upon the site of the infirmary, and desire to obtain information as to the date when they may expect possession. One at least of the Corporation representatives, it is stated, regards three years as the legal limit of the Infirmary Board's occupation of the Piccadilly site, and holds that it would be a contravention of the spirit of the Act of Parliament to assume that the Act enables the infirmary authorities to retain possession as long after the end of the three years as may seem necessary to them. The three years' limit will expire on August 11th, 1906. The contention of the Infirmary Board is that the Corporation Act enables the Board to retain possession of the land, not only for three years, but "until such later time as the proposed new hospital or hospitals shall be ready for the accommodation of 300 patients and the necessary medical, nursing, and administrative staff." It is on this point that it is feared friction may arise. It appears that the colossal Midland Hotel was built in three and a-half years, and from this it is argued that the infirmary may, by exercise of "due diligence," be completed within three years or thereabouts.

The Hulme Day Nursery has been in existence for twelve years, and in it children are washed, fed, and taken care of from 6 a.m. to 6 p.m. daily (Sundays excepted) for 3d. per head. In the annual report of this institution it is stated that the number of children attended to last year was 3,050, as compared with 2,358 in 1903. The Committee, while fully alive to the necessity of strengthening family ties, call attention to the necessity of such an institution. They in no way encourage mothers to go out of their homes for work when the husband's wages are sufficient to support the family. In Hulme, it appears, there are many mothers placed in unfortunate circumstances which compelled them to take up some employment away from home. The lady (Miss Pankhurst) who seconded the adoption of the annual report, said there existed a great deal of prejudice against these institutions. Nevertheless, it was a fact that hundreds and thousands of mothers were obliged, for the sake of their children, to go out into the world to earn a little money.

At a meeting of the inspectors forming the North-Western District of the Sanitary Association held in Manchester on February 17th, it was resolved to accede to the proposal of the Association's Central Committee to do all in their power to support the Public Health Bill drafted by the British Medical Association, a Bill which is drawn to ensure that none but properly-qualified men shall be appointed as medical officers of health or as sanitary inspectors, and that these officials shall have similar security of tenure of office to that of Poor-law officers.

Of few voluntary associations of amateur minstrels can it be said that during a period of a quarter of a century by the giving of charity performances a sum of £20,000 has been raised for local charities. This is the extraordinarily successful result achieved by the unpaid Minnehaha Amateur Minstrels, who have been giving performances in and around Manchester for five-and-twenty years.

The Manchester and District Dairyman's Association have been able to make a most satisfactory arrangement with the London and North-Western Railway Company, whereby supervision of milk in transit will be ensured. A cold storage will be provided so that the milk can be delivered to the purchaser almost in the condition in which it was received from the farmers. Both the Midland Company and North Staffordshire are about to do likewise.

At the annual meeting of the Court of Governors of the Southport Infirmary, held on February 18th, it was stated that the deficit was only £22, as against £403 last year. The total income was £4,577, and the total expenses £4,123, or £283 less than in the previous year. The following resolution was moved by the Rev. D. Porter:

> As it is desirable to discourage in the treatment of disease the employment of alcohol, and to furnish evidence of its use or disabuse, it should be incumbent on the prescribing medical officer in any case where alcohol in any form is ordered for a patient to enter in a book kept for that purpose the full particulars of the prescription, including the time, quantity, and reasons for its administration. The effect of the dose also should subsequently be noted. A record of all such cases in each year should be included in the following annual report.

At the outset Dr. Porter congratulated the medical staff on the fact that the drink bill was only £7 12s. 6d. for wine and spirits and £1 16s. for malt liquor, or but a fourth of what it was in the previous year. An amendment was moved that the medical staff be encouraged to proceed on the present lines of gradually eliminating alcohol. Dr. Baildon spoke in favour of the existing state of affairs, and deprecated the theories of Sir Victor Horsley, Professor Sims Woodhead, and others who had entirely condemned the use of alcohol. Dr. Lloyd Snape, Director of Education for the County of Lancashire, speaking as a chemist, said he approved of the scientific method of administering alcohol. Dr. Harris and Sir George Pilkington urged that the medical staff should be allowed full discretion in the administration of alcohol. The latter said that as a medical man he would not be bound by any resolution, but would administer alcohol when necessary. The amendment was first carried, but the previous question was finally adopted.

SOUTH WALES.

Health of Newcastle Emlyn District.—Abertillery Urban District Water.—Gift to Cardiff Infirmary.—National Museum for Wales.—Tenby Medical Officer's Report.

Dr. Lloyd, Medical Officer of Health to the Newcastle Emlyn Rural District Council, has just issued his annual report for 1904, in which he states that the death-rate for the year was the lowest since he was appointed, twenty-five years ago. Of the deaths recorded during the year 26 were those of persons 65 years of age and upwards, 21 were of those of persons of 70 years, 9 were of those upwards of 80, and one attained the age of 90. The births registered were 165, as against 163 during 1903. The water supplies were fairly good, being derived from springs or wells protected from pollution. The flannel mills, nearly a dozen in number, are all well built, and all workshops and workplaces are kept in a cleanly state.

Petitions have been deposited in the Private Bill Office of

the House of Lords by Lord Tredegar and others asking to be heard by counsel, when the Committee stage is reached, against the Abertillery District Water Bill.

Dr. F. S. Lock, of Torquay, an old friend of the Cardiff Infirmary, has sent a cheque for £150 to be used by the Committee at their discretion. He has also largely increased his annual subscription.

Swansea's claims for the honour of selection as the site for the proposed National Museum of Wales are strongly supported by Sir J. T. D. Llewelyn, Bart, and Sir Griffith Thomas, each of whom has promised £1,000 in the event of the Welsh National Library or Museum, or both, being secured for that town. It is understood that Newport will support the application of Cardiff.

Dr. Reed, Tenby, in his annual report for 1904 as medical officer of health, reported that there had been 96 births, giving a birth-rate of 21.7 per 1,000 and 62 deaths, giving a death-rate of 14 05. Three persons attained ages exceeding 90 years. On the medical officer's recommendation it was decided to request the Town Council to make phthisis one of the notifiable diseases.

SYDNEY.

Bubonic Plague.—Decrease in the Death-rate of Sydney.—A New Coroners Act.—Women Doctors and the General Hospitals.—The New Dental Hospital.

After the lapse of about three months since the last cases of bubonic plague in Sydney, a fresh outbreak of the disease has occurred at a township on the Clarence River, in the northern part of the State of New South Wales, between 300 and 400 miles from Sydney. Two deaths occurred apparently before the disease was recognized. Immediately on information being received by the Board of Health, one of the medical officers, Dr. Millard, and a staff of assistants, was despatched to the scene of the outbreak. He confirmed the diagnosis, and at once set to work to endeavour to trace the cause of the outbreak. It was ascertained that a large number of rats had been dying on some farms adjacent to the town. A large number of plague-infected rats have been found in the town, but infected rats do not appear to have spread from this immediate neighbourhood. So far only one other case has occurred in a human being. The exact cause of the outbreak in this district has not been ascertained. It is somewhat significant, however, that almost simultaneously with this outbreak another fatal case of the disease was reported from Brisbane, and as there is a good deal of traffic between Brisbane and the Clarence River in fodder and produce, it is surmised that infected rats from Brisbane have thus been conveyed to the Clarence River.

In response to inquiries by the late Lord Mayor of Sydney prior to his retirement from office, Dr. W. G. Armstrong, the city health officer, reported that the death-rate experienced in the City of Sydney during the first eleven months of last year equalled 12.00 per 1,000 of the population. During the first eleven months of the year 1903 the death-rate of the city equalled 13 87 per 1 000, so that the rate for the year 1904 is 13 per cent. lower than for the corresponding eleven months of 1903. Comparing last year's death-rate with the annual death-rate of previous years, it appears to be the lowest experienced in the city during at least seven years. The infantile mortality-rate is also very favourable. Calculated on the number of births, the infantile mortality-rate for the first eleven months of last year is equal to 118 deaths per 1,000, while the infantile mortality-rate for the first eleven months of 1903 was 143 per 1,000 births, and the annual rates during the past seven years have never been lower than 129 per 1,000.

During the last session of the Parliament of this State a new Coroners Act was passed. This Act provides that all inquiries, which were formerly required to be held by a coroner and a jury, are now to be taken by the coroner sitting alone, with the following three exceptions—namely, that a jury is to be summoned at the request of a relative of the deceased, or of the secretary of any society of which the deceased was a member, or by order of the Minister for Justice. Further, by this Act, the same powers are vested in the coroner when sitting alone as when he sits with a jury; increased responsibility is thus imposed upon the coroner. Under this Act the number of the coroner's jury is reduced from twelve to six men.

At the recent annual election of resident medical officers for the Sydney Hospital, one of the applicants was Dr. Susie O'Reilly, daughter of Dr. W. W. J. O'Reilly, who is one of the honorary consulting physicians of the institution. The question of her appointment or otherwise gave rise to a very warm discussion amongst the directors. As Dr. O'Reilly had acquitted herself with distinction in her university career, no exception was taken to her appointment on the score of ability. It was pointed out that under present arrangements there was no accommodation available for her as a resident in the hospital. Some members of the Board were also very emphatic in their assertions that the experience of other hospitals which had had a mixed male and female resident medical staff had not been very favourable. Eventually, by a small majority, the Board decided not to appoint Dr. O'Reilly. This action has led to correspondence in the lay press, in which the medical women have taken a prominent part. It is, however, quite certain that the Board of Directors by their decision have acted in the best interests of the other resident medical officers and also of the patients, for a medical woman is obviously hardly fitted to deal with all kinds of accidents and diseases which are likely to be met with in the practice of a general public hospital.

One of the last Acts of the last session of this State's Parliament was the Dental Hospitals Union Act, which provides for the amalgamation of the two dental hospitals. The Dental Hospital was established some three years ago for providing free surgical aid to the poor suffering from dental troubles, and during this period has treated over 42,000 patients absolutely free of charge. The University Dental Hospital was established for the purpose of providing hospital experience for the students of dentistry at the University. Early last year the Committees of the two institutions met in conference and decided that an amalgamation of the two hospitals would lead to increased efficiency and diminished expenditure. They accordingly sought legislative sanction to their proposal. The new hospital is to be known as the Dental Hospital of Sydney, and will be under the management of a council comprising six members appointed by the Senate of the University, and six appointed by the council of the Dental Hospital. The advice and all treatment is to be entirely free, and clinical instruction is to be given only to university dental undergraduates. Students of the University are to have access to the new hospital in every way as to the present University Hospital, but the fees paid by them, instead of going to the University funds, are to be credited to the new hospital, which is to provide lecture rooms for the University lecturers in dental subjects, and arrange for the necessary apparatus and maintenance of a laboratory.

CORRESPONDENCE.

IRISH DISPENSARY DOCTORS: A SERIOUS INDISCRETION.

Sir,—Some months ago the Irish Medical Association decided upon employing Surgeon-General Ewatt to visit the country districts of Ireland, to give a further report on the condition of the Irish dispensary doctors, and to suggest remedies. In doing this, I believe, it was understood that he was to address the local authorities, to make the grievances of the service more intelligible to them, and thus to try to bring about an amelioration of the existing conditions. The project was viewed with some doubt by many; but I think it was commendable and likely to be attended with some satisfactory results.

The report has been duly presented to the Council of the Association, and one meeting has been held to consider it. Unfortunately, although marked "confidential," some one has supplied a copy to the press. As it extends to some seventy or eighty pages it was not to be expected that a morning newspaper would give very much of its contents. But the editor has found in it sufficient to excite the interest of his readers—not as to the real question at issue, but in the shape of an attack upon the two corporate licensing bodies in Dublin.

It is, of course, asserted that "a great sensation" has been caused, but this does not truly describe the effect. The profession at large in Ireland feel sorry that Surgeon-General Ewatt does not appear to have quite grasped the scope of his mission, and that the statements in this report are likely to damage the cause which they were intended to serve. Surgeon-General Ewatt states:

> I maintain that the neglect of the Metropolitan Medical Corporations has been marked, and still remains so. . . . The want of sympathy

has been marked. And, while the profession in Ireland is surely perishing of apathy and neglect, these two Colleges bask in the comparative but dubious sunlight of Dublin life and forget their comrades scattered over the country, and through this neglect contribute to the death of Ireland, which is surely taking place.

I have heard this described as offensive rubbish. But, at all events, it is the kind of thing that does not go to establish the writer's position as an accurate observer or reporter. If the cause of the dispensary doctor has been kept in the forefront of professional questions in Ireland during fifty years, it is largely due to the work of Dublin men and Dublin colleges, in collaboration with the Irish Medical and British Medical Associations—that is a matter of common knowledge.

But the reporter is not a destructive critic only. He sets about construction, and this is the result:

> In my opinion the Irish Medical Association ought and must become an important national faculty of medicine, and be the controlling force over the medical profession in Ireland, and so strengthen itself that all existing medical bodies in Ireland must bow the knee to it and accept it as the organized voice of the medical democracy in Ireland.

This is a new function of which the Irish Medical Association has never dreamed, even in its most hopeful moments. Not being a member of Council, I have not of course seen the report. But if there are no suggestions less wild than this I do not think the dispensary medical officer is likely to reap much advantage. I think it is a pity that in a report of this kind, instead of trying to unify forces, an entirely unjustifiable attack should be made on any branch of the profession. What we want are some reasonable recommendations that are likely to be accepted and to do good. So far as the morning newspaper has helped us to know, we have got only some sneers and pointless rhetoric.—I am, etc.,

Dublin, Feb. 21st. WILLIAM THOMSON.

THE SANATORIUM TREATMENT OF PHTHISIS—IS IT WORTH WHILE?

SIR,—I very much wish that Dr. Dutton had re-read my letter before quoting it, as he has unwittingly entirely misrepresented my views. The letter to which he refers was, I find, printed in the BRITISH MEDICAL JOURNAL of July 20th, 1901, nearly four years ago, instead of last year. In it I stated that I thought very few of our hospital patients were being cured of pulmonary tuberculosis; they came into our hands usually with the disease well marked, and although we might send them to Ventnor or to a convalescent home for two or three months, where the improvement was often most marked and satisfactory, when they returned to their unhealthy, overcrowded, and badly-ventilated houses, and had often to content themselves with an insufficient diet, the old trouble, in my experience, always very quickly broke out again, and progressed with renewed vigour. I based these assertions on the observations I had made on a large number of patients attending the Radcliffe Infirmary, whose histories I had followed out. In the very next sentence I added that, in the case of those patients who could afford to winter abroad, or to go to an English health resort for a time, and who returned to healthy homes and got the best food, the results, as we knew, were often extremely satisfactory.

The following week my letter was quoted *in extenso*, and with approval, by Dr. J. Kingston Fowler in the discussion on sanatorium treatment at the British Congress on Tuberculosis, and he stated that some time previously Dr. Walther's experience was exactly similar to my own. Had I time, I could give Dr. Dutton several examples among the well-to-do in my own experience, in which the disease had been completely arrested by sanatorium treatment. I feel sure that in many cases among those who are fairly well off, that after a short stay in a really good sanatorium the treatment can well be carried out at the patient's own home. It is well to remember that sanatorium treatment has at least taught us the extreme value of pure air, and it is to be hoped that in time we shall be able to impress on the general public the lesson we have ourselves learnt.—I am, etc.,

Oxford, Feb. 20th. W. COLLIER.

SIR,—The question raised by Dr. Ransome's article is one which undoubtedly demands careful consideration, and there should now be sufficient material and experience to make the discussion of the subject advantageous.

I would give to the question an emphatic answer in the affirmative. But the treatment to be worth while must, like all treatment of disease, be employed with knowledge and discrimination. We might as well expect to cure all cases of vomiting by the administration of bismuth as to cure all cases of consumption by sanatorium treatment. What is much needed is a more general appreciation of the limitations of the treatment: the kind of cases in which benefit may reasonably be expected—and cases of pulmonary tuberculosis are not alike as some would seem to suppose; the length of time which is necessary for cure or arrest in the various conditions of the disease, and what constitute the essentials of sanatorium treatment.

The letter of Dr. Dutton calls, I think, for some comment from some one with extended experience of this treatment, but unprejudiced by personal interest in any sanatorium. Dr. Dutton is unfortunate in never having seen a case of consumption cured by sanatorium treatment in Great Britain. Let me assure him that there are such cases.

Dr. Dutton is hardly in accord with the results of experience when he says that the open-air treatment cannot be carried out in this country for more than three months in the year with any benefit to consumptive patients.

It is, I believe, the common experience that the patients under open-air treatment generally improve most during the colder months, and perhaps it is the three winter months that Dr. Dutton refers to as the only beneficial period; but the treatment can be and is carried out in this country with benefit to the patients during the rest of the year also.

No one, I presume, would suggest that ours is the most perfect climate for the treatment of consumptives, but it will serve for want of a better.

As to the treatment doing harm, I cannot say that I have ever seen positive ill-effects from the open-air treatment. Unsuitable cases may not improve, and patients may thus lose valuable time in undergoing a treatment which could not be expected to do any permanent good when they might have been getting benefit from some other form of treatment. There may be, however, some positive disadvantage, under certain circumstances which I propose to indicate, in commencing open-air treatment if this cannot be continued until quiescence or arrest is established; and in this connexion Dr. Dutton has, I think, mentioned a matter which requires consideration. Every one has been led to deplore the not infrequent cases of relapse or recrudescence of the disease in patients who, after improvement during sanatorium treatment, have returned to the conditions of life and work under which they broke down. It has appeared to me that sometimes the disease lights up with increased virulence under unhygienic conditions after patients have been living for a short time under good hygienic conditions. In this way the illusionary "six weeks' cure" may do more harm than good. It takes more than six weeks to cure even an early case of pulmonary tuberculosis, and I am disposed to think that there is a somewhat general want of appreciation of the time necessary for the cure or arrest of the disease.

But there is a much wider view of the value of sanatorium treatment than the cure of a few hundred patients—important as this is. The instruction given to the patients as to the precautionary measures necessary to prevent them infecting others undoubtedly tends to diminish the prevalence of tuberculosis. To send patients to the Desert, the West Indies, etc., without first imparting to them the knowledge which they may obtain by residence in a sanatorium tends to the dissemination of tuberculosis. This is exemplified in the condition of South Africa, where tuberculosis has increased during the last few years whilst it has been steadily decreasing at home. As to the essentials of sanatorium treatment, it must be borne in mind that the details of management in certain foreign sanatoriums such as that referred to by Dr. Dutton, and which appear to have been imported *en bloc* into some English institutions, go beyond essentials. Let us hold fast to the essentials, but let us discriminate between these and such details as represent the "bang of the advertising drum."

The complaint one hears from sanatoriums in all parts of the country is that so many unsuitable cases are sent in, and my own experience endorses this. I do not, of course, expect every practitioner to be able to classify cases of pulmonary tuberculosis with the precision of the expert in lung diseases, but at least we might ask that subacute cases of three or four years' duration, with cavities, should not be led to expect to be cured with three months' sanatorium treatment. It is largely due to the inevitable disappointment which ensues when unsuitable cases are recommended to undergo sanatorium treatment that the public has begun to ask: Is it worth while?—I am, etc.,

London, W., Feb. 18th. J. EDWARD SQUIRE.

Sir,—It is a pity that Dr. Dutton did not take the trouble to get first-hand information concerning British sanatoriums of repute, before he ventured to publish the surprising letter in the British Medical Journal of February 18th. Had he done so, he could have been furnished with a long list of those who not only recovered as a result of sanatorium treatment, but have since retained their good health. He would have been told of others admitted with high fever and extensive disease, who made a good recovery up to a certain point, and retain their health on conditions which are quite compatible with a happy, useful existence. To take an instance: there were in 1900-1 (eighteen months) 70 cases under treatment here. Of these, all the early-stage cases made a good recovery, and many of them are known to be in good health and at work. Even of severe and complicated cases, over one-third improved in health, and many of these are known to be still in fairly good condition.

Dr. Dutton asserts, without a particle of proof, that "the open-air treatment cannot be carried out in this country for more than three months in the year with any benefit to consumptive patients." Had he taken the trouble to inquire, he would have found that equally good results (perhaps better) are obtained in the winter six months as in summer time.

I have visited a very large number of sanatoriums, both in this country and abroad, and have never met with a "herd of miserable-looking creatures walking about barefoot." Indeed, such a description is so ludicrously inaccurate that it would be interesting to know which institution is referred to. In my experience, in all well-conducted sanatoriums the patients are a very happy, cheerful family party, looking in far better health than any chance visitor. It is to be feared that among the large number of sanatoriums started of late in this country, there are some in which treatment is inadequate, because they attempt an unwise economy. I agree with Dr. Dutton that "the time has arrived when a careful inquiry should be made into the treatment of phthisis in open-air sanatoriums," and would suggest that he should himself visit a few, before he again ventures to write about them.—I am, etc.,

F. Rufenacht Walters.

Crooksbury Sanatorium, Feb. 21st.

Sir,—In reply to Dr. Dutton's letter in the British Medical Journal of February 18th, may I say that it is necessarily those who are interested in sanatoriums who are able to write on the subject, because they have watched the progress patients make?

If every doctor were to visit a properly-conducted sanatorium weekly for one year, I think he would believe in the results too.

I have worked in connexion with Rudgwick Sanatorium, Sussex, for over six years, and have had the following results: Out of a total of 212 patients treated, 142 are now doing well, 36 are dead, and 32 cannot be traced. Thus, that two-thirds are doing well of those who were suffering from a disease generally considered fatal, is to my mind no bad record.

If only doctors would diagnose the disease early and urge patients to wholly reform their mode of life either in their own homes or in a sanatorium, we should hear of fewer cases treated in vain at sanatoriums. I quite agree that education in hygienic matters is of the first importance, and I believe every sanatorium would double its value were it definitely to teach its patients how to conduct their after-life.—I am, etc.,

Annie McCall, M.D.,
London, S.W., Feb. 21st. Director Clapham Maternity Hospital.

Sir,—Although of the number of those "interested in sanatoriums," may I venture to "write on the treatment," at least in so far as to comment on one or two points in Dr. Dutton's letter appearing in the British Medical Journal of February 18th?

And, first, I cannot help taking exception to the statement that a patient returning home "apparently benefited" soon relapses to his old condition. Is this the general experience of sanatorium physicians? And, indeed, if a patient remain in good health for a year or even six months after leaving a sanatorium, is he only "apparently benefited"? Next, Dr. Dutton asserts that the open-air cure cannot be carried out in this country for more than three months in the year with any benefit to consumptive patients, and, further, *that from letters which reach him*, he concludes that in a great number of the cases the treatment does serious mischief, and many deaths can be traced solely to it. In spite of this unfavourable conclusion, arrived at after the perusal of letters (whether from medical men or laymen is not stated), I can assert that during the seventeen months of my residence at a sanatorium where patients are received at all times of the year, and also in all stages of the disease, I have not only never seen a death which could, scientifically, be attributed to the open-air treatment, but I have never seen a patient whose condition after admission deteriorated to any abnormal extent; and, indeed, surpassingly incredible though it may appear, I have actually seen patient after patient improve in every respect during the worst months of an English winter.

I am convinced, from the correspondence on this subject so far, that the majority of medical men who have had practical experience in the treatment answer this question in the affirmative; but, then, "unfortunately," as Dr. Dutton expresses it, these gentlemen are "interested in sanatoriums."

Whose opinion on the open-air cure would he have—that of a Harley Street consulting surgeon or that of a gynaecologist? Of course, as in any other treatment, skilled supervision and regulation are essential in order to secure real benefit; and it is a generally-accepted fact among sanatorium physicians that, while the general principle of the treatment remains the same, each case has to be treated on its merits and due caution and regulation observed.

Even supposing, for the sake of argument, that the patients themselves are not permanently benefited, it is a fact, I think, that the vast majority of patients become enthusiastic evangelists of the gospel of open-air life, and do their utmost to persuade their friends to let light and air abundantly into their homes, and to take precautions against the spread of infection by those unfortunately afflicted with the disease. And seemeth it but a small thing that this is so? Does it not rather lay a foundation for a more rational and more hygienic life in the succeeding generations of Britishers, and form a stepping-stone to the successful prophylactic treatment of pulmonary tuberculosis?

In conclusion, may I assure Dr. Dutton that I have written this letter in a study with a window wide open facing due east, there is snow on the ground and half a gale blowing from the north-east, the fire in the grate is a small one, my last pipe was smoked three hours ago, and that the equipment of my patients includes woollen vests, overcoats, *and* boots.—I am, etc.,

Mendip Hills Sanatorium, Wells, Feb. 20th. A. A. Myers.

Sir,—A very extensive experience of the results of all sorts of "cures" for phthisis does not place the sanatorium, or open-air cure, above the level of cod-liver oil, sea voyages, Madeira, high altitudes, inhalations, hypophosphites, formaldehydes, cinnamate of soda, or urea. I mention very few of the phantom procession of cures which has passed our eyes in recent years. Urea seemed very rational, but a python was presented to the Museum of the Royal College of Surgeons about two years ago which had died of tuberculosis, and, above all creatures, that snake possesses a plethora of urea. Yet he died of tuberculosis! During the past three years it has been my unhappy experience to have seen over 50 cases of phthisis, 38 of which had been "cured" by the open-air system, and 14 had been treated for some months. All of them were either dying or in too far advanced a stage of the disease to be benefited by treatment.

The direct treatment by intratracheal injections is rational and reasonable. It is certainly difficult in practice, but certainly no more difficult than numbers of other methods of cure which are daily practised. After thirteen years of work at it, I can assure my brethren that the system is "worth while." I have found it eminently so, but I do not publish statistics, inasmuch as they are impossible to prove.—I am, etc.,

Southport, Feb. 21st. Colin Campbell.

*** We have received a number of other letters on this subject, for which we are unable to find space.

PHTHISIS AND CONTAGION.

Sir,—About twenty years ago, in answer to the inquiry about the spread of phthisis started by the Collective Investigation Committee, I made careful search as follows:

The counterfoils of death certificates for 20 or 25 years for a population of about 4,000, were examined for instances of phthisis contagion. In one case only could I trace this: a man suffered a long time and his wife later on. As he was a policeman he had abundant open air in his early stages. It is noticeable that my consumptive patients, who were

children in the same family, have suffered at long intervals, not in quick succession, as would be probable if phthisis were contagious.—I am, etc.,

Castle Carey, Somerset, Jan. 30th. CAREY COOMBS, M.D.

INSANITY AND MURDER.

SIR,—I regret that I did not read Dr. Mercier's second letter until too late to reply in your issue of last week, but I hope that he will not therefore consider me done with. Dr. Mercier must kindly excuse my not naming my authority for saying that

> Prisoners charged with murder are not always examined by Home Office mental experts before trial. If the case appears to present any particular difficulty, a mental specialist is sent by the Crown authorities to examine the prisoner, and he, as well as the prison medical officer, has to report to the Director of Public Prosecutions and to give evidence at the trial,

but my statement is that of the actual method as it exists, and I adhere to it, and even Dr. Mercier's quotation from Sir Henry James actually confirms what I said, since it runs that only "in the absence of the friends' ability to produce witnesses, the Secretary of the Treasury shall secure their attendance," referring, of course, to alleged insanity. As to Dr. Mercier's questions about the proposed medical assessors, and where they are to sit, I must object to be "drawn." I stated that this should form the subject of a later article, and, if you, sir, are desirous of pursuing the subject further, Dr. Mercier shall have then another opportunity for tilting at me.

I cannot understand by what process Dr. Mercier arrives at his query that "if after conviction and sentence the prisoner shows signs of insanity which had not been apparent before, is he still to be hanged?" In the rare event of such a thing occurring he would, of course, be reprieved. It is to obviate the chance of his mental state being improperly estimated before or at the trial that I have suggested what I still maintain is the logical preventive; and I traverse the statement that "the fact of the insanity is what the jury has to determine." That is precisely what a jury is not always competent to determine, and which I contend they should not have the responsibility of determining.

On both the medical and the legal sides Dr. Mercier's views are original but, I venture to think, dangerous. He makes insanity and responsibility interchangeable terms, and, therefore, it seems hardly necessary to have any medical opinion at all as to the state of the prisoner's mind.

If the jury think the prisoner insane they may, if they choose, return him as guilty but insane; or if they accept Dr. Mercier's dictum about responsibility they will ignore altogether the state of the prisoner's mind, and give him a short shrift—a plan which has the merit of brevity and simplicity.—I am, etc.,

February 20th. THE WRITER OF THE ARTICLE.

*** This correspondence must now close.

INQUEST FEES TO HOSPITAL OFFICERS.

SIR,—The relations between coroners and medical practitioners in certain instances being somewhat strained, it is well that when fees can be legally claimed under the Coroners Act, steps should be taken to enforce payment, and so uphold the rights of the medical profession.

For a long time medical officers attached to hospitals, county and other lunatic asylums, infirmaries, and other medical institutions, have been refused payment of fees after giving medical evidence and making *post-mortem* examinations when directed to do so by coroners, the refusal to pay such fees being based upon Section XXII of the Coroners Act, 1887. This refusal can, however, only be justified legally when the inquest has been held in such hospital, infirmary, or medical institution, or in a building or place belonging thereto, and can in no instance obtain when the inquest is held in any place, such as a coroner's court, apart from such building as specified in the Act referred to above. It would be advisable, therefore, for medical officers summoned to attend an inquest held upon the bodies of patients who have died in hospitals, etc., such inquest not being held within the precincts of the said hospital, to claim payment of their fees, and to take such steps as may be necessary to enforce payment if refused.

The Act clearly was never intended to debar payment in cases where surgeons had to leave the hospital in order to go to another place where the inquest was being held, and if the section referred to be read carefully, it will be recognized that payment can only legally be withheld when the inquest, as often happens, is held at such hospital or institution. *Verb. sap.*—I am, etc.,

London, W., Feb. 20th. A. G. BATEMAN.

COMPULSORY GREEK.

"Φίλος μέν Πλάτων
Φιλτάτη δε ἡ ἀλήθεια."

SIR,—We have read arguments arranged seriatim in defence of "compulsory Greek" and direct refutations in the same order. Of late, though the discussion appears to have been derailed, I need only quote a letter written in pure *Mollah* spirit under shelter of M.D.Oxon. which appeared in the BRITISH MEDICAL JOURNAL of February 18th. I will not attempt to criticize that gentleman's attitude in the present discussion. I can never agree with a Γραμματικός who generally speaking is a man of fixed, preconceived unalterable ideas, intolerant and aggressive. But will ask permission, as a Greek medical man, to make a few remarks on general lines.

In the first place I do not like the word "compulsory." It is a word not in accordance with true Grecian spirit. The advocates of Greek culture do great harm to their cause by insisting on "compulsory" study. There are many who feel heavily pressure of such a yoke and within just reason revolt against the—what they consider to be—imposed mental tyranny. Such natures, let "compulsory Greek" aside, would not even have "compulsory" heaven.

It is, therefore, idle to annoy their minds with a subject in which they do not have an interest and less sympathy. They will not learn Greek, they may "cram" for an "exam.," utter a few psittacisms and soon after let everything evaporate. I do not see where is the educational value of such a system.

They speak of the charm and attractiveness of Greek, of its divine and "surpassing" beauty, musical harmoniousness, sublime expressiveness, richness of form, of its delicacy and grace. That is all true; the Greek language possesses these and many other virtues still; but these are known only to the initiated, to those who are steeped deeply at "stygian waters" of classic literature. How many do attain that degree of culture to fully appreciate the deep value of Greek? I am sure some of those who speak most loudly about the beauty of Greek do not themselves know of what that beauty consists.

But they all do not grant us the "beauty of Greek"; they beg to differ, and if they don't they do not put its value so high. The Greeks, who undoubtedly had cultivated the taste of the beautiful to a fine "edge," used to say, "περί ὄρέξεος οὐδείς λόγος." The Latins were not much behind with their "de gustibus non est disputandum," or, as the French have it, "chacun à son goût mauvaise." So men of younger generation do not feel ashamed to give preference to the study of German or French instead of "compulsory Greek." What do our "Schule Meisters" propose to do against this independent attitude—whip them to order with "knouts" of obsolete grammatical rules?

As regards educational value of Greek, they all agree that study of Greek is a good way of culture; but not the only way, the "wrangling barbarian chiefs" are all in accord, in maintaining this "schismatic" opinion "heretic" or "heterodox," if you please.

We are not living in dark mediæval ages, smothered with dense fogs of superstition and palpable ignorance. The Greek played its great part in paving the way for Reformation. Happily our times are altered times; people do not stand in pressing need of Greek. Intelligent "barbarians" take a broader view; they do not put at naught study of Greek, but they wish to consider other subjects which may be more serviceable to coming men.

To men who exaggerate the training value of Greek, I have only to say that we modern Greeks study our classics with more or less thoroughness; our students spend more time for study of Greek than students of any other nation. Well, then, how do we Greek youth compare with English or American youth? Theoretically we ought to be "pages" of Graces and ministers of Muses, but practically where do we stand? Simple study of Greek is not the whole of an education, less of culture. I have met many a student of Greek whose mental radius hardly contained the tip of his nose. I have known men who, after long study of Greek, had remained reactionary, narrow-minded, and intolerant.

I say to you, do not abolish the study of Greek, but neither do you force it; encourage it as a liberal study and make it elective. There are other classics besides Greek entombing a world of rich literature; cultivate their study as well, if you

choose to do so. But do not lose sight of modern languages. I will particularly name French and German; consider them well. The study of living languages is of much more interest than that of "dead" ones, therefore are more attractive for young students. Besides, they are of immense practical utility. Personally speaking, my knowledge of Greek is of little practical value, while my ignorance of German is a great loss.—I am, etc.,

Paris, Feb. 21st. M. H. Savva.

THE RIVIERA WATER SUPPLY.

Sir,—Several false reports concerning the inadequacy of the water supply of the Riviera, and particularly of Mentone and Monte Carlo, having been published by certain irresponsible papers widely read in England, it would save a good deal of trouble and misapprehension if you would kindly publish the following facts:

1. The breakdown in the water supply of Mentone and Monte Carlo for two days lately was entirely due to the bursting of the water main which supplies these towns.

2. The water itself comes from the mountains of the Maritime Alps about 40 miles away, and is unaffected, except as regards consumption, by the local (Riviera) rainfall, just as the water supply of Liverpool is independent of the local rainfall of that city.

3. There is no indication of any inadequacy in the amount of water available, and no measures of economy are being adopted or regarded as necessary.

4. There is an abundant local supply of excellent water and innumerable pumps which, but for the labour involved, would be used as heretofore, and which lately easily supplied all ordinary needs till repairs of the main were affected. The statement of the *Daily Mail* of February 8th that "some of the best establishments have been left without enough to make a cup of tea," has no more foundation in fact than the innumerable new cures of consumption and cancer with which that paper wearies and misleads its readers.

5. Rain having fallen in Mentone on only four days during the last eight months naturally caused the uninitiated, including especially the average newspaper correspondent, to jump to the conclusion that the stoppage of water was due to a failing supply, and hundreds of letters and telegrams from prospective visitors anxiously seeking information on the question have been the consequence.—I am, etc.,

Mentone, Feb. 18th. D. W. Samways.

THEORIES OF COLOUR VISION.

Sir,—I have been accustomed for many years to find my facts and conclusions on colour vision appearing in books as new, particularly in Germany. I have regarded this as useful confirmatory evidence, but I notice a writer on colour vision in the British Medical Journal, of February 11th, 1905, p. 318, has given my theory without mentioning my name, and he attributes the original conception to Wundt. As a matter of fact, Wundt assumed the existence of separate substances for light and colour sensations. I have shown in my book on *Colour Blindness* and in my articles on the evolution of the colour sense, that there is a complete series from total colour blindness to normal colour vision and that some have a colour perception which is as much above the normal as the normal is above the slighter degrees of colour blindness. I have shown that there are great possibilities for future development. I could very easily demonstrate that no form of an elemental hypothesis can explain the facts, and the unsatisfactory nature of these hypotheses is shown by the way in which they are continually altered by their supporters.

I have just been reading a reprint of a paper read by A. Guttmann in 1904, in which he states that the colour perception of those cases which I have designated trichromic is diminished as a whole and that they can pass Holmgren's test; both of these facts are in my book. I should like to have an explanation of these facts on the colour element theory. How can the defect of one hypothetical element affect the colour vision as a whole? He also states as new: "7. Sie haben einen erheblich starkeren Simultankontrast als die Normalen."

The following will be found on page 147 of my book:

"In examining the three unit we notice how the effects of contrast are exaggerated. The psycho-physical colour units are larger than in the normal sighted; and so, if a change be produced by contrasting two colours, it is evident that the change will be greater than it is for the normal sighted. It will be noticed that marked changes in colour are produced by contrast to the three unit when no change is evident to the normal sighted."

I have shown that shortening of the spectrum is independent of defective difference perception, and I find that this fact has been rediscovered in Germany. In this connexion I may mention that shortening of the spectrum is of two kinds: the spectrum may be abruptly shortened, the individual being as sensitive to the remaining red and violet rays as a normal-sighted person, or a considerable portion of the red or violet may be perceived imperfectly. It is stated that a completely red-green blind person is quite unable to match a yellow with red and green with Rayleigh's apparatus, but I have demonstrated a dichromic with considerable shortening of the spectrum who was able not only to make a match with Rayleigh's apparatus, but who used exactly the same proportions of red and green as the normal sighted.—I am, etc.,

Cambridge, Feb. 18th. F. W. Edridge-Green.

SCARLATINA AND CHRONIC NEPHRITIS.

Sir,—I have read with great interest Dr. Poynton's lecture on some points in the diagnosis of the exanthemata, and there is one on which I must join issue with him. He says. "We cannot be sure that some of these infected children will not get nephritis, a grievous thing at any age—in a child most lamentable."

Now, this description is not at all too strong if an ordinary (catarrhal, or tubal, or parenchymatous) nephritis is meant, but, I take it, Dr. Poynton is here referring to a scarlatinal nephritis, unless he suggests that an attack of scarlet fever predisposes to, or is the actual cause of, a tubal nephritis. But—and in this I think I am supported by the experience of the superintendents of other large isolation hospitals—scarlatinal nephritis is not so severe a disease. It runs a very definite course, very few cases are fatal, uraemia is rare, and—the most remarkable point of all—the cases that recover, recover completely, and leave hospital with normal urine, heart and pulse tension within one to three months from the onset. Speaking from memory, I cannot recall out of very many cases a single instance of chronic albuminuria resulting.

Moreover, if we except the rare instances of contracted granular kidney in young adults, which may possibly have originated in an attack of scarlet fever, there is, I think, very little evidence for the popular belief that scarlet fever is a cause of chronic nephritis or that scarlatinal nephritis runs on, so to speak, into a tubal nephritis. All the evidence at our disposal tends, I believe, to show that both clinically and pathologically the nephritis of scarlatina is due to a lesion which bears but little relation to the catarrhal or tubal form of that disease.—I am, etc.,

Manchester, Feb. 6th. A. Knyvett Gordon,
Medical Superintendent, Monsall Hospital, Manchester.

THE EFFECT OF POTASSIUM AND AMMONIUM SALTS ON BLOOD PRESSURE.

Sir,—In reference to Dr. Cramer's letter to you on the above subject in the British Medical Journal for February 18th, I find in the prefatory note I wrote for Mr. Edmunds's paper[1] the following sentence:

Certain investigators like Vincent, Cramer, and Mansfeld have questioned the results of Mott and myself, and allege that the methods employed do not exclude contamination with chlorides of potassium and ammonium.

I ought to have inserted the words "some of these critics" before the word "allege." I am glad to find that Dr. Cramer and I are in substantial agreement on one point at any rate. The more general questions raised in the last part of his letter I propose to deal with when the re-investigation of the chemical properties of choline in progress in my laboratory is completed.—I am, etc.,

London, Feb. 18th. W. D. Halliburton.

QUININE IN THE TREATMENT OF CORNEAL ULCERS.

Sir,—Reading your report of the last meeting of the Ophthalmological Society (British Medical Journal, February 4th, 1905, p. 250) I notice some remarks by Mr. Arnold Lawson on the treatment of corneal ulcers by quinine. He says:

Up to the present the use of quinine in ophthalmology has been restricted to a very limited class of conjunctival and corneal affections.

Possibly Mr. Lawson means to limit his remarks to the

[1] British Medical Journal, January 14th, p. 57.

usage of London ophthalmic surgeons, for quinine sulphate has been in almost daily employment at the Liverpool Eye and Ear Infirmary in just such cases as he describes for upwards of the last twenty years.

For its introduction into practice we are indebted to one of our consulting surgeons, Mr. Richard Williams, who, if I mistake not, read a paper on the subject at one of the annual meetings of the annual meetings of the British Medical Association.

The following formulae are extracted from the *Pharmacopoeia* of the Liverpool Eye and Ear Infirmary printed in 1892: (1) Sulphate of atropine 4 gr., neutral sulphate of quinine 4 gr., distilled water 1 oz. (2) Sulphate of eserine 1 gr., neutral sulphate of quinine 4 gr., distilled water 1 oz.—I am, etc.,

Liverpool, Feb. 6th. CHARLES G. LEE,
Senior Surgeon Liverpool Eye and Ear Infirmary.

OBITUARY.

ROBERT STEVENSON THOMSON, M.D., D.Sc., F.F.P.S.G. F.R.S.EDIN.,

Dean and Professor of the Practice of Medicine in Anderson's College Medical School, Glasgow.

By the death, after a prolonged illness at the comparatively early age of 47, of Robert S. Thomson, the Medical School of Glasgow has suffered the loss of one of the ablest and most popular amongst her teachers of medicine, and at the same time of one of her leading physicians. Indeed, it may be said that in certain respects it will be difficult to find one at once capable of adequately filling the various posts held by him.

Of Scotch parentage, Dr. Thomson was born at Southampton, his earlier years, including those devoted to school training, being spent in St. Petersburg, where his father practised as a civil engineer. During this period he became thoroughly conversant with the Russian and German languages—a knowledge which, throughout his career, was of great service to him, enabling him to render greater professional service to many able to describe their symptoms to him only in these languages. During his earlier years in practice, moreover, he utilized this knowledge in contributing to the *Glasgow Medical Journal* many translations of articles published in the Russian journals.

After leaving St. Petersburg, his general education was completed at the Glasgow Academy, from which he passed to the study of medicine in the University of Glasgow. After a distinguished undergraduate career, he obtained the degree of B.Sc. in 1880, and in 1882 the degrees of M.B. and C.M. with "high commendation."

After a term spent in the Western Infirmary as one of the resident staff, he served as Resident Medical Officer in the City of Glasgow Fever Hospital, Belvidere. Thereafter he engaged in a course of post-graduate study in Vienna, coming under the influence of the best-known teachers of that school.

On his return to Glasgow he became attached to the clinique of Dr. James Finlayson, in whose wards he had previously served as House-Physician, and with whom during his whole subsequent career he enjoyed a close association enriched by friendship and regard. For the past twenty-one years he has been engaged in practice in Glasgow, during the later period of which his services as a Consulting Physician were sought with increasing frequency.

Seventeen years ago he was appointed by the Corporation of Glasgow Visiting Physician to the City Small-pox Hospital, Belvidere—a position which he occupied till the time of his death. The duties of this post, frequently arduous and always responsible in their nature, were discharged by him with exemplary conscientiousness; indeed, there were periods during the progress of more than one epidemic of this disease in Glasgow during which the high ideal which dominated his entire work led him to pursue it with a degree of self-sacrifice which frequently gave his friends cause for concern on his behalf. Many of the younger graduates associated with him in the hospital management of small-pox—during the epidemic of 1901-2, for example—still recall with wonder—mingled now with regret—his unwearied efforts in personally visiting and directing the treatment of every one of the numerous cases admitted daily at that time.

With him, to do a thing at all was to do it whole-heartedly and thoroughly, and this ideal of performance he brought to every kind of work which engaged him. Thus it was that very often after a busy day spent in clinical teaching, and in attention to the demands of private practice, he proceeded to his evening visit at the Small-pox Hospital at a time when many would naturally have sought rest. At such times it was apparent to those of us in intimate association with him that his body and its needs were made subservient to the purpose of his will, which only relaxed its demands when his work was accomplished.

The name of R. S. Thomson is, however, inseparably linked with his widely-recognized ability and popularity as a teacher of medicine amongst those whose student days were passed in the Western Infirmary or in Anderson's College Medical School. His connexion with the latter institution extended over many years, during the earlier of which he acted as Assistant to Professor Samson Gemmell, and in this position he laid the foundation of his reputation as an attractive lecturer.

On the appointment of Dr. Gemmell, six years ago, to the Chair of Clinical Medicine in the University of Glasgow, Dr. Thomson succeeded him as Professor of Systematic Medicine in Anderson's College. His reputation as a teacher, already secure by that time, ensured an immediate success, his classes being of very large size. In all he did for students, he was actuated by a warm interest in their welfare, which won for him their loyalty and regard.

Elected by his colleagues on the staff of the college to the position of dean, he devoted himself with characteristic enthusiasm to the task of advancing the efficiency of the college as an important extramural school, and in doing so was actuated by the belief that its welfare and success were to be sought in establishing closer bonds than had hitherto existed between the University and the building which nestled at her feet. To his exertions also was mainly due the inauguration of a scheme of financial endowment for the various subjects taught in the college—an aim the desirability of which will, it is hoped, ensure its realization.

Amid all the demands on his time, Dr. Thomson devoted himself for more than fifteen years to the teaching of nurses in the Western Infirmary, and only quite recently had he been persuaded to relinquish a portion of this work.

Dr. Thomson's contributions to the literature of medicine were not merely numerous but of a high order of scientific value. It is only possible here to mention the more important of these, but it must be said that the value of all his writings lies in the scrupulous care which he always took to present facts accurately, and with regard to deductions from scientific observations made by him, in the care with which such observations were repeated and verified.

One of his earliest and most important papers, dealing with scarlatinal albuminuria and the pre-albuminuric stage as studied by frequent testing, appeared in 1886 in the *Transactions of the Medico-Chirurgical Society*, London. His work on Pertussal Glycosuria and the reduction of Fehling's solution by urine in childhood (*Glasgow Hospital Reports*, 1900) affords a prominent example of the pains taken by him to sift facts thoroughly. His later contributions were in connexion with the subjects of small-pox, varicella, and vaccination. His prolonged and wide experience of small-pox fitted him in an unusual degree for writing on the subject, and it is therefore to be the more regretted that an exhaustive account of the pre-variolar eruptions and other aspects of the disease, designed to form part of a larger work on the infectious diseases, is left uncompleted by his premature death. The preparation of this was carried out along with an able colleague, and we may thus hope that the results of his work may yet become accessible to the profession. In 1897 his graduation thesis obtained the degree of M.D., with honours and the Bellahouston gold medal; and in 1901 the University conferred upon him the degree of Doctor of Science.

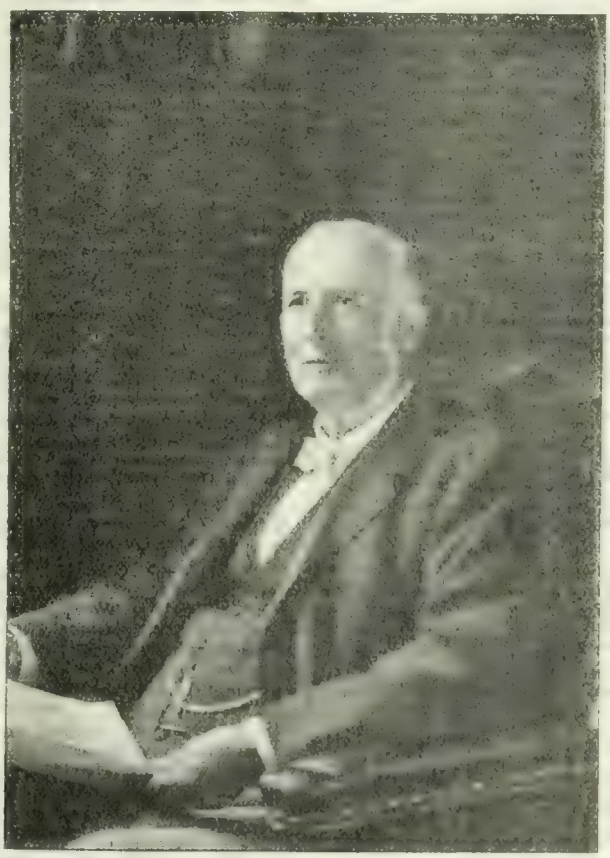
Dr. Thomson leaves no family, but with his widow the deepest sympathy is felt. In a more public sense, his loss is acutely felt by a wide circle of patients, to a large number of whom he was much more than a valued physician; by the school in which he was a foremost teacher, and by a large number of former pupils in this country and abroad.

It is difficult for those who enjoyed the privilege of his friendship to speak of him, so recently taken away, as they could desire. There are many, however, amongst his professional colleagues and others in Glasgow by whom his name will long be cherished, as that of one ever ready to extend help, sympathy or encouragement, and his many acts of kindness will long occupy a treasured place in their memories.

SAMUEL HOLLINGSWORTH AGAR, L.R.C.P., L.R.C.S.I.,
Henley-in-Arden.

We have to record with regret the death, after a short illness, of Dr. S. H. Agar, of Henley-in-Arden, who was one of the best known, and we may add one of the best liked, country medical practitioners in Warwickshire. Dr. Agar, for as a Licentiate of what was formerly the King and Queen's College of Physicians in Ireland he claimed to be and always was so styled, was born in 1829 in County Carlow, Ireland, of a family most of whose members were clergy of the Protestant Church of Ireland. He settled in Henley-in-Arden in 1853, and ultimately became the proprietor of a small private house licensed for the reception of lunatics, called Burman House, which he carried on while still engaged in general practice. He was so successful in this department of his work that about thirty years ago he built Glendossill, a large well-equipped asylum, to which he subsequently mainly devoted his attention, his general practice being taken up by his son and namesake, Mr. S. H. Agar.

Dr. Agar was an active member of the British Medical Association, and for many years a regular attendant at the meetings of the Birmingham and Midland Counties Branch, of which he was President in 1886; he represented the Branch on the Parliamentary Bills Committee for many years. He also showed great interest in the work of the Medical Benevolent Society, and was its President as long ago as 1875; an excellent man of business, he was able to render good services in the management of all those societies to which he devoted some part of his time. He was a Justice of the Peace for the County, and was for three years a member of the Warwickshire County Council. The work of his life was undoubtedly the creation of Glendossill, an institution which holds a high rank among private asylums and bears enduring testimony to the administrative ability of its founder.



Samuel Hollingsworth Agar, L.R.C.P., L.R.C.S.I.

The excellent photograph which we are able to reproduce will remind many members of their old friend, and will show those who had not the pleasure of his acquaintance the kind of man he was. In his character he united many of the best qualities of the two races from which he was descended; he possessed in an eminent degree the sober English common sense, but he had, in addition, the geniality and brightness, of the Irishman, which made him a courteous and delightful host—a capacity in which he will perhaps be most pleasantly remembered by many of his friends. He was very fond of the country and all country sports, and continued to preserve and shoot pheasants up to the last; but of late years he had suffered frequently from gouty troubles, which interfered with his power of walking, and much reduced his activity. Four or five years ago he had a dangerous attack of pneumonia, following influenza, and, although he recovered, he was never afterwards the same man. He had, however, attained a ripe age, and had the supreme satisfaction of seeing the successful accomplishment of the work of his life.

Dr. Agar was married, but lost his wife a few years ago. He leaves behind him several sons and a daughter; Miss Agar and two of his sons have been associated with him in the management of Glendossill.

The funeral took place at Beaudesert Church, Henley-in-Arden, on February 16th.

Dr. William Cobden Rowlands, of Maesteg, Glamorganshire, who died on January 19th at the early age of 37, was the eldest son of Principal Rowlands of the Memorial College, Brecon, and received his early education at Christ's College, Brecon, and Cardiff University College. While still a student at the latter institution he passed both the matriculation and preliminary scientific examinations of the University of London, but for his medical training he went to Edinburgh, and in 1897 received the degrees of M.B. and C.M. from the university in that city. His career as an undergraduate was one of unusual activity and success both in and out of the schools. At Cardiff he was president of the debating society and captain of the College eleven, and at Edinburgh he won several class medals, and was President of the University Welsh Students' Union, and a member of the Students' Representation Council; he was also a Demonstrator of Pathology at the Royal College of Surgeons. He began private practice as assistant to the late Dr. James, of Aberamman, but before long he became connected with Dr. John Davies of Maesteg, and upon the retirement of that gentleman two years later he took over his work in conjunction with Dr. Harris Jones. He won his way in the district with great rapidity, and at the time of his death was carrying on a practice which included the surgeoncy of the Great Western Railway and necessitated the employment of several assistants. It was, in fact, one of the largest in the neighbourhood. In addition to medical work Dr. Rowlands took much interest in politics, and played a larger part in the public affairs of the locality than is common with busy practitioners of medicine. His pleasant, cheerful manners were true evidence of the kindliness of his disposition, and the deep regret which was expressed by all classes at his untimely decease was but the natural outcome of the esteem in which he was held. His death was due to pneumonia, which attacked him when in a condition of depressed vitality; a severe outbreak of influenza in the neighbourhood had caused him to overexert himself in the interest of his patients, and he died somewhat suddenly from heart failure. He leaves a widow, who is the daughter of Mr. Thomas Pritchard, C.C., of Abergavenny, and one little girl, a child some four years of age. He was a member of the Cardiff Division of the British Medical Association.

The Roentgen Congress in Berlin.—As already stated, the Berlin Roentgen Society is organizing a Congress in commemoration of the first decennial anniversary of Professor Roentgen's discovery. His Excellency Professor von Bergmann is Honorary President, and the Congress will be held under the auspices of an Honorary Committee headed by the Prussian Minister of Instruction and the Surgeon-General of the Prussian Army, and including the President of the Third Congress of Electrology and Radiology. The meetings will take place in the rooms of the "Ressource" in the Latin quarter of Berlin (N. 24, Oranienburgerstrasse 18) on the four days following Easter week (April 30th to May 3rd). An exhibition of apparatus, radiographs, etc., will be held at the same time. The Secretary is Dr. Immelmann, Lutzowstrasse 72, Berlin, W., and the Treasurer, Dr. Cowl, Gleditschstrasse, 6, Berlin, W., to whom communications in English relative to the Congress and exhibition should be addressed.

UNIVERSITIES AND COLLEGES.

CAMBRIDGE UNIVERSITY.

DR. A. HILL, Master of Downing College, has been appointed a Representative Member of Girton College for three years.

Candidates for the Huddersfield Lectureship in Special Pathology are requested to send in their applications, with statements of their qualifications and testimonials, to the Vice-Chancellor not later than Tuesday, March 7th.

J. J. H. Teall, M.A., of St. John's College, has been approved for the degree of Sc.D.

The following degrees were conferred on Thursday, February 16th:—*M.D.*: T. W. Parry, Joh. *M.B.*: F. S. Kidd, Trin.; A. G. Harvey, Joh.; R. G. Wills, Joh.; E. M. Brown, Pemb. *B.C.*: L. Courtauld, Trin.; A. G. Harvey, Joh.; R. G. Wills, Joh.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

THE Court of the Worshipful Company of Fishmongers has granted a sum of £1,000 towards the funds necessary for the incorporation of University College in the University of London. By this grant the amount still required to complete the funds necessary for incorporation is reduced to £17,000, a total of £183,000 having now been raised for this purpose.

The Bill for the transfer of the College to the University was approved at the annual general meeting of the College on February 22nd.

The Chair of Pharmacology.

The Council have appointed Dr. A. R. Cushny, of the University of Michigan, United States of America, to the Chair of Pharmacology and Materia Medica. Towards the institution of this Chair, Mr. H. S. Wellcome has subscribed the sum of 100 guineas and Mr. Michael Carteighe £300. Further funds are required for the complete endowment of the Chair.

The Holme Professorship.

The Council having received Dr. F. T. Roberts's resignation of the Holme Professorship of Clinical Medicine and of the office of Physician to the hospital, adopted a resolution placing on record their high appreciation of the services he has rendered to the college and hospital during his long connexion with them, and of the distinction he has conferred upon the Chair he has held.

UNIVERSITY OF LIVERPOOL.

Post-Graduate Course.

SIX demonstrations in Ophthalmology and four in Otology will be given by the members of the staff of the Liverpool Eye and Ear Infirmary, commencing on February 24th, at 8 p.m. Further particulars can be obtained on application to the Secretary of the Medical Board, Liverpool Eye and Ear Infirmary, Myrtle Street, Liverpool.

UNIVERSITY OF GLASGOW.

THE list of Honorary Degrees to be conferred at the graduation ceremony on April 18th has just been published. Among the recipients of the degree of Doctor of Laws (LL.D.) are: Alex. Crum Brown, M.D., D.Sc., F.R.S., the Professor of Chemistry in Edinburgh University, and Sir William Whitla, M.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

TRINITY COLLEGE, DUBLIN.

Final Examination in Medicine—Section B.—The following candidates were approved at the Hilary Term examination:

W. F. Samuels, Madeleine S. Baker, W. C. MacFetridge, J. H. Waterhouse, T. T. H. Robinson, G. S. Walton, C. H. M'Comas, E. D. Atwell, C. A. Boyd, J. B. B. Whelan.

Midwifery.—R. Magill, M. J. M'Auliffe, G. E. Nesbitt, C. Scaife, E. G. Scroope, J. A. Pringle, J. W. Burns, J. W. Houston, R. Kelly, R. A. Askins.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Charter Dinner.

THE Charter Day dinner of the Royal College of Surgeons, postponed owing to the temporary indisposition of His Excellency the Lord Lieutenant, will take place this (Saturday) evening in the new hall of the College.

SOCIETY OF APOTHECARIES OF LONDON.

FEBRUARY, 1905.

THE following candidates have been approved in the subjects indicated:

Surgery.—*H. H. R. Bayley, †A. Beeley, J. A. Davies, †L. Sells, ‡R. W. Taylor, †I. C. Thorburn, †P. L. Vawdrey.

Medicine.—‡A. Beeley, *J. B. Bradley.

Forensic Medicine.—A. Beeley, H. A. Browning, C. F. Kernot, P. C. W. Laws, W. A. T. Lloyd, J. A. R. Wells.

Midwifery.—A. Beeley, A. J. K. Brayton, O. P. N. Pearn, I. C. Thorburn, J. H. Wolfe.

The diploma of the Society was granted to the following: H. H. R. Bayley, R. W. Taylor, and J. H. Wolfe.

* Section II. † Section I. ‡ Section I and II.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL CERTIFICATES FOR SCHOOL CHILDREN.

A CASE was heard at Tunstall before MR. Harold Wright, the Stipendary for the Potteries, which is of some general interest as raising the question of the circumstances under which medical practitioners should give certificates which are likely to be used as evidence in Courts of Law. Isaac Bailey was charged with not sending his step-daughter, aged 13, to school; the girl had been absent from school 111 times between October and January and had been employed as a domestic servant, but on October 30th she was examined by a medical practitioner who found her to be suffering from anaemia, and on November 11th she was examined by another doctor who certified that she was unable to attend school as she was suffering from a slight fever. Eight days after she went into domestic service and had been there since. On January 19th the former of the two doctors issued a certificate that she was unable to go to school and another on February 8th in which he stated that he had examined the child on October 30th and found her to be suffering from anaemia, adding that the certificate was issued in the place of one that had been lost. The case had been adjourned for the attendance of the medical man who, on being called as a witness, said that he had examined the girl on October 30th and in January in consequence of what had been said to him by the mother he gave the certificate referred to, thinking he was justified in doing so as the condition of the girl would not have been likely to change; he had given the certificate without seeing the girl. In reply to the stipendiary the witness said that he knew that such certificates were accepted by magistrates as meaning that the doctor had seen the child at the time he gave the certificate. Stipendiary: You knew the certificate would make me believe that you saw the child when you wrote it? Witness: I did not think there would be any bother over it, I thought the child was as the mother told me. The Stipendiary said the case was serious. With regard to these certificates he relied absolutely upon the medical profession and he had never before had his trust upset in any way by a member of that profession. He had taken these certificates as an absolute defence to any charge of not attending school because he took it for granted that the medical man had seen the child. Therefore it was shocking to him to find a medical witness who acknowledged that there were two certificates issued by him containing what he did not know was true of the health of the child when the certificates were granted.

BIOGRAPHIES AND PORTRAITS OF MEDICAL MEN IN THE LAY PRESS.

MEMBER FOR OVER THIRTY YEARS asks whether it would be strictly in accordance with etiquette if he acceded to the request of the Editor of the *First Aid* monthly journal to publish his portrait, together with a short biography?

*** The publication of biographical notices and portraits of medical men in the lay press is objectionable as savouring of advertisement.

IS IT RIGHT TO APPLY FOR AN APPOINTMENT WHICH IS NOT VACANT?

ETHICS.—It is a general rule that no one should apply for an appointment until the vacancy is declared.

ATTENDANCE UPON THE RELATIVES OF MEDICAL MEN.

BONANZES asks whether he would be justified in charging for attendance upon the wife of the rector of his parish, the lady being the daughter of a neighbouring medical practitioner?

*** As the fee would presumably be paid by her husband, our correspondent would be quite justified in charging for his services.

S. B. M.—(1) A medical practitioner has only a reasonable claim to gratuitous attendance when the fees would come out of his own pocket. As in this case the father left more than sufficient property to pay all his debts, our correspondent is quite entitled to be paid his account. (2) The request of the executors to be furnished with particulars of the account is, however, quite reasonable.

DENTISTS AND ANAESTHETISTS.

M.B., C.M. asks whether dentists can legally administer any anaesthetic?

*** It is very common for dentists to administer gas, which is relatively safe. Our correspondent should come to an understanding with the dentist, and give each patient a letter of introduction. If he has not done this, it is quite possible the dentist did not know who had sent him the cases.

VALUE OF A PRACTICE.

MR. PERCIVAL TURNER writes with regard to an answer in our columns of last week as to the value of a practice, that such a practice would easily sell at about two years' purchase, as hundreds of well-qualified men with capital are vainly seeking good investments.

*** If the last fact be true, the purchase value of all practices would tend to rise, and, as an expert in negotiating such sales, Mr. Turner's opinion is of considerable value. In the practice referred to it is to be noted that the gross income is no more than £650 per annum, of which £200 is derived from an appointment. If the sale were to be conditional on the transfer of this appointment, a two years' purchase might be reasonable enough: but taking into consideration the possible loss of this appointment, and that the purchaser then would be buying a practice of only £450 per annum, in a locality where there is a good deal of opposition; and not forgetting the fact that the inquirer says nothing as to the expenses involved in carrying on the practice, it is by no means certain that the answer we gave is an unreasonable one.

THE PATIENT'S CHOICE OF MEDICAL ATTENDANT.

DUBIOUS writes: While Dr. A. is away from home, having met with an accident, a patient of his sends for him, and being told he is away, instead of asking Dr. A.'s *locum* to go, sends for Dr. C. When Dr. A. comes home he finds Dr. C. is still in attendance. What should Dr. A. and Dr. C. respectively do?

*** C. should suggest to the patient that he should retire in favour of A., but if the patient desires him to continue his attendance he should do so to the end of the case. C. was not A.'s substitute, and is under no ethical obligation to retire. A. should wait until he hears from the patient.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

London Companies.

On Saturday, February 18th, the prizes won by the London Companies during the Volunteer year 1903-4, were presented to the successful competitors by Mrs. Keogh, the wife of the Director-General, Army Medical Service.

Lieutenant Colonel Matthews welcomed Surgeon-General Keogh to the first public function of his director-generalship, saying that he and his corps felt this fact to be a great honour and compliment to them. He also mentioned the fact that this was the first prize-giving at which he had officiated in the capacity of commanding officer. He regretted that the numbers of the corps were not yet as he would like to see them; in fact, they were now the lowest they had been for three years, the corps having sustained a net loss of 50 of all ranks since last year. In endeavouring to account for this he stated that the compulsory camp clause seemed to be keeping men from joining. Camp was always very very much better attended before it was made compulsory. He also regretted that more medical students were not recruited, as they were the best of all possible material for the corps, and were particularly keen workers when in camp. Moreover, the training was of more value to the medical student in after-life than to any other man, more particularly if he passed into one of the Services. Very many men did pass into the Services from the corps. Two members of the corps had obtained commissions in the Royal Army Medical Corps at the last examination (Messrs. Hoare and Churchill). Thanks to Major Gibbard, whom he was extremely sorry they were soon to lose, the corps had had the most instructive year's training they had ever had. Many classes—notably the nursing classes and courses of practical instruction in nursing duties—have been held for the first time and well and efficiently attended. The thanks of the corps were due to the Royal Free Hospital, and especially to Sisters Calthorpe and Milne, for having afforded them opportunities of practical instruction. The riding and driving instruction for the transport section had been reorganized, and a cyclist section had been formed. The last instalment of the mortgage on the head quarters buildings had been paid, and two new cups had been presented to the corps—one by Countess Howe and the other by Mr. D'Arcy Power, a former officer; a billiard table had also been provided.

The prizes having been presented, Colonel Cantlie, Honorary Colonel, moved a vote of thanks to Mrs. Keogh, and referred to the great difficulties of the Director-General's position and the enormously wide range of his jurisdiction and responsibilities, especially in war time. Major Harper, in an amusing speech, seconded the vote, which was carried with acclamation.

Surgeon-General Keogh, in replying, said that he was very pleased to meet the R.A.M.C. Volunteers, and as he was, perhaps, expected to make a "confession of faith" on such an occasion he would do so. He had recently had a meeting of commanding officers of the R.A.M.C. Volunteers, at which various views were expressed. He saw no reason why volunteer R.A.M.C. men should not be as good and as efficient as regulars; his experience was that they were quite so in South Africa. A common fallacy in regard to R.A.M.C. officers was to think that first-aid and nursing were their only functions. They had other most important functions in the prevention of disease. But where the R.A.M.C. was of the highest importance to the army with which it was serving was in the maintenance of the fighting strength, and this could only be done by a strictly military body; and here was where it differed from first aid and nursing, which could, to a great extent, be done by civilian bodies. Field units must be soldiers, and must know every detail of the duties and requirements of each arm if they were to be efficient in maintaining their fighting strength. In two respects the volunteers were better than the regular R.A.M.C. One was that they were permanently instead of temporarily constituted units, and the other was that they had more thorough field training in peace time. He would have no hesitation whatever in employing the R.A.M.C. Volunteers, not merely as individuals, as was done in South Africa, but as self-contained units.

The ceremony having been thus concluded, the large Drill Hall was cleared of all chairs, etc., and within less than half an hour a most enjoyable dance was in progress, which seemed to be thoroughly appreciated by all ranks and by their guests, the music of Mr. Crudge's band being commented upon as specially excellent.

THE ADEN BOUNDARY COMMISSION.

The *London Gazette* of February 17th contains a report from the General Officer Commanding Aden District, dated June 22nd, 1904, bringing to notice the services rendered by officers attached to the force employed in the protection of the Aden Boundary Commission. In it the General writes: "Lieutenant J. Macpherson, Indian Medical Service, was Medical Officer with the advanced force during the expedition against the Kotaibis. He is a hardworking and skilful medical officer, and his arrangements for the care of the wounded and sick were very good."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

PROHIBITED PRESERVATIVES.

A Bill has been introduced into the Legislature of the State of Pennsylvania making it a misdemeanour to manufacture, sell, consign, offer for sale or have in possession with intent to sell, any article of food or drink which contains formaldehyde, sulphurous acid or sulphites, boric acid or borates, salicylic acid or salicylates, saccharin, dulcin, glucin, beta-naphthol, abrastol, asaprol, fluorides, fluorborates, fluorsilicates, or other fluorine compounds, and all other preservatives injurious to health. The Bill does not prohibit the use of common salt, saltpetre, wood smoke, vinegar, and the condimental preservatives, such as turmeric, mustard, pepper, and other spices. The penalty for violation of the Act is a fine of not less than £10 nor more than £20, with costs, or imprisonment not exceeding sixty days, or both.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Original Articles and Letters *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the Editor of the British Medical Journal is *Aitiology, London.* The telegraphic address of the Manager of the British Medical Journal is *Articulate, London.*

Telephone (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Treatment of Chorea.

Dr. H. B. Donkin (London) writes: May I ask Dr. Clive Riviere to be kind enough to state in the Journal the average duration from first symptoms to complete recovery of the cases of chorea which he treated with ergot and arsenic?

Treatment of Sessile Warts.

Warts asks for advice in the treatment of sessile warts, which gradually, in the past three years, have covered his head, and now number some 200. Acetic acid, carbolic, hamamelis, adrenalin, tar, soda, mercury, and special soap locally; arsenic, mag. sulph., calcium chloride internally, have been tried, but nothing stops their spread.

The Thermal Death Point of Micro-organisms.

Inquirer writes to ask: What is the maximum temperature compatible with microbic life?

*** Organisms are known which are capable of growing in as high a temperature as 70° C., but these are exceptions. As a rule bacteria are unable to live for long in a temperature as high as 56° C. For most bacteriological purposes the most suitable temperature for the warm incubator is 37° C. or 38° C.

Income Tax.

R. P. (Belfast) writes: I have just received a "return for assessment" to be made for the year ending April 5th, 1905. What is the meaning of this early notice? Hitherto the returns were sent out in April, and were for the ensuing year—for example, the return would be for the year ending April, 1906, and not for 1905.

*** It is not an early but a late return form that our correspondent has received, since it relates to the year ending April 5th, 1905. The explanation of its being sent out at this time of the year is either that "R. P." has not yet been assessed to income-tax, or that the surveyor thinks there is additional liability not covered by the charge already made. If our correspondent made a return of the whole of his liability last spring he should return the form with a note to that effect; but if, since April last, he has taken up a new appointment or practice, or come into the possession of income on which an assessment has not yet been made, he should give particulars, so that an additional charge may be made upon him.

Infectivity in German Measles.

H. J. D. would be glad of authoritative information on the following points of German measles: (1) Period of greatest infectivity. (2) Period at which infection ceases after appearance of the rash. (3) When the house may be regarded as "free"—that is, for others to visit the house without fear of infection, and when the child may return to school. In the Code of Rules for the Prevention of Infectious and Contagious Diseases by Medical Officers of Schools, the period of infection is stated to cease in about ten days after the appearance of the rash, and several leading textbooks agree with this. Is it safe in all ordinary cases to allow a return to school after disinfection in a fortnight from the rash?

*** The conclusions of the report of the Committee of the Clinical Society were as follows: (1) The incubation period of rubeola is, as a rule—to which there are many exceptions—some period more than two and less than three weeks. Eighteen days is probably the usual period. In a considerable number of cases it is a day or two less than two weeks, in a few it is only eight or nine days, and it is possible that in a small number it may be as short as six or five. (2) A susceptible person who has been exposed to the infection of rubeola may not develop the disease for twenty-one days, possibly even a day or two longer, and therefore, if it be desired to isolate such a person until all risk is passed the period of quarantine should be two days more than three weeks. (3) A patient who has contracted rubeola is capable of conveying the infection to others for two or three days before the rash has appeared, and also while the rash is out, but this capability rapidly declines, and has probably disappeared in a week in mild cases, and by the time desquamation is over in the most severe.

ANSWERS.

H. S. F. would probably gain the information he requires by applying to Miss Kirby, Secretary, National Association for the Welfare of the Feeble minded, 53, Victoria Street, S.W.

H. H.—Hebra's *Atlas* is not readily obtainable, and would probably be worth about £25, more or less. For Hebra and Kaposi's *Lehrbuch der Hautkrankheiten* (three vols.) 25s. to 30s. would be about the price. A foreign bookseller would try to procure it, or German secondhand book catalogues might be searched. The English edition of Hebra and Kaposi's *Textbook* (Sydenham Society) can be picked up in secondhand bookshops, or the Sydenham Society's publisher, Mr. H. K. Lewis, 136, Gower Street, London, W.C., might be applied to.

EUCALYPTUS TREES AND MALARIA.

M. C. B.—The planting of eucalyptus trees was tried largely in Italy some years ago in the hope that it might prevent malaria. Their action was supposed to be twofold, namely, drying up the swampy ground, and in some manner or other combating the malarial miasm. Since the discovery that the mosquito is the intermediate host and spreader of malaria, it is now known that the eucalyptus tree is useless, the Italians even believing that the mosquitos hide in them by day. The only good then that could accrue from planting eucalyptus trees would be a drying up of the soil, due to the rapid growth of the tree and its large absorption of water. We are not aware that the experiment was ever tried in England, but we believe that the tree will not stand a hard frost. Our correspondent might obtain further information from the authorities at Kew.

LETTERS, NOTES, Etc.

ERRATUM.—In Dr. Henry Barnes's address on the Medical Worthies of Cumberland, published in the BRITISH MEDICAL JOURNAL of February 11th, the name printed in line 13, left-hand column, p. 299, "Steward" (Sir Simon) should be "Heward."

A DELICATE EUPHEMISM.

IN Sir M. E. Grant Duff's *Notes from a Diary* (1886-88) there occurs the following entry: "To this visit [to Heath's Court], too, I owe a delightful formula for expressing the very minimum of confidence in a medical man: 'Oh! I don't think the presence of —— would interfere with the curative processes of nature.'" The practitioner referred to may at least be held to have fulfilled the first requirement of the art of healing, *Primum non nocere*.

TEETH OF SCHOOL CHILDREN.

MR. C. EDWARD WALLIS (Assistant Dental Surgeon, King's College Hospital), writes: I do not think the writer of the article on the teaching of hygiene in schools calls sufficient attention to the fact that "dental hygiene" has formed a part of the instruction in the evening continuation schools of the London County Council for nearly two years. As I was the person who introduced the subject into the hygiene syllabus, it may be interesting to your readers to know that not only is verbal instruction given, but that special models and diagrams were prepared by me and are in constant use in these classes.

*** The article dealt with elementary schools; the mischief is often done before the child reaches the continuation school.

CHEAP DOCTORING AND EASY SHAVING.

A CHICAGO practitioner relates that he was recently told by an independent citizen, who clearly had a highly-developed sense of values, that he could get his family "doctored cheaper than he could get shaved." In explanation of this remarkable statement he stated that he paid to his barber a dollar a month, for which he got a ticket entitling him to three shaves a week and one hair-cut a month. On the other hand, he paid to the contract doctor seventy-five cents per month, in return for which he received for himself and the whole of his family all the medical attention and medicine that might be needed. Clubs and friendly societies must regret the good old days when the twin arts of shaving and doctoring were united in one practitioner and might have been covered by one ticket.

A NEW APPLICATION OF THE LARYNGOSCOPE.

IN the February number of the *St. Thomas's Hospital Gazette* it is stated that in the notes of a case in one of the medical wards of that institution the following interesting statement occurs: "Patient's throat was examined to-day, left ovary was found to be much enlarged." In the early days of laryngology a physician is said to have been provoked by a too-modest lady, who asked how far down the little lamp threw its rays, to tell her he could see she was sitting on a cane bottomed chair. But the laryngoscope has not yet, we believe, found a place in the instrumental outfit of the gynaecologist. Does the observation recorded at St. Thomas's mark the opening up of a new field of usefulness for Manuel Garcia's invention?

DICHOTOMY.

DICHOTOMY is practically unknown in this country, but it is not easy to get the man of tradesman-like instincts to believe this. We have never seen the true professional as opposed to the commercial view of the matter more sharply defined than in the following story which we find in the February number of the *St. Thomas's Hospital Gazette*. In a seaside town there is a club which holds an annual dinner. A general practitioner was sitting next the local banker, who is a cute man of business. In the course of conversation he asked the practitioner: "When you call a consultant down from town, how much commission does he give you out of his large fee?" When he was told nothing, he at first refused to believe it, and then asked the reason why no commission was given. The practitioner replied that he had never thought of it before, but said he would ask a consultant who was staying in the town, and who happened to be dining on the opposite side of the table. Accordingly he said when an opportunity occurred, "Mr. Blank, here, has been asking me why it is when we call you in to consult with us from town, you don't give us a commission out of your fee, he says that he cannot understand it." "No," answered the consultant looking straight across the table, "a damned little tradesman like him wouldn't."

SERUM PER RECTUM.

DR. W. CAMPBELL M'BONNELL (Stoke Newington) writes: In a letter to the BRITISH MEDICAL JOURNAL of February 18th, 1905, Dr. Albert J. Garland quotes Dr. Goodall as to the latter not knowing reliable evidence of the rectal or oral giving of antidiphtheritic serum usefully. Dr. Garland quotes his record. Mine is earlier—*Lancet*, February 9th, 1901. Probably "reliable" evidence means "my own." As to *a priori* opinion and experiment *in vitro*, could not these go with the other valuable disproofs of achievements?

CLIMATE OF SANTA CRUZ, TENERIFFE.

DR. A. W. W. DOWDING (Santa Cruz, Teneriffe) writes: Will you allow me to draw the attention of your readers to the claims of Santa Cruz, Teneriffe, as a health resort? I refer more particularly to the new suburbs above the English Church (200 ft. to 300 ft. above sea level), where there are now a number of good hotels and pleasant gardens amidst salubrious and picturesque surroundings. The average mean temperature of the winter and spring months is about 65°; relative humidity, 65; rainfall, 11.50 in. per annum. There are no sudden changes of weather; there is a great abundance of bright sunshine, and the nights are warm, with very little dewfall. There is generally a pleasant breeze from the sea, and altogether may be considered one of the finest climates in the world, and only five days out from England. Many chest cases, gout, rheumatism, asthma, etc., do well here. The electric tramway from Santa Cruz to La Laguna and on to Tacoronte (a rise of nearly 2,000 ft.) is a great boon to visitors. The city is most interesting and the most lively in the archipelago. If desired I shall be glad to give any further information.

ARTERIO-SCLEROSIS.

A MIDDLE-AGED PRACTITIONER writes: We are constantly being told that "a man is as old as his arteries," and, judging by the frequent references to the subject of late, its importance is being more and more recognized. Dr. Barr's recent lecture was most illuminating and instructive up to a certain point, but it appeared to presuppose a knowledge of the pathology and symptoms which is only possible to meet with in an audience of students. As a country practitioner having no access to a library of reference, and with no time to hunt through innumerable books and periodicals if I had such access, I think it is much to be regretted there is no modern, up-to-date treatise which, in comparatively small bulk, teaches the symptoms and premonitory, clinical indications of the disease. At present one whose physiology and pathology have somewhat rusted has little chance of warning his patients of impending danger or of treating the condition scientifically if he is lucky enough to diagnose it.

*** We have communicated with Dr. Barr, who informs us that he intends to deal with the subject at some future time. He recommends our correspondent to peruse Sir Hermann Weber's lecture on Means for the Prolongation of Life, published in the BRITISH MEDICAL JOURNAL of December 5th, 1903, p. 1445. Dr. Barr also recommends *A Plea for a Simpler Life* and *Fads of an Old Physician*, by Dr. George Skene Keith, adding that though it is not necessary to follow all Dr. Keith has written, his writings will repay perusal.

VISCEROPTOSIS.

W. A. H. writes: I usually read your ably edited JOURNAL with pleasure and advantage, but I feel that I must modestly protest against the introduction of this awful word on this side of the herring pond. I felt a shock throughout my system, especially at McBurney's spot, when I read it repeatedly in your columns on February 18th. Surely this dumping of uncanny words does not foreshadow what we may expect if those who advocate colonial preferential tariffs get their way. I bow to your judgement (backed as you inform us by Dr. Murray in his great dictionary) as regards the spelling of certain English words, but that does not apply to the novel, not to call them "mongrel" terms observable in some medical writings. Visceroptosis is bad in its derivation, in its manufacture, and in its meaning.

*** We cannot say, with Bardolph, that we have heard the word; nor will we maintain it to be "a word of exceeding good command." We leave the responsibility for it to the author. When a writer puts his name to a contribution we consider that the editorial discretion is limited to the correction (when the need exists) of what the great Master of Trinity would have called "grosser errors." We do not regard the minor graces of style in signed articles as being within our jurisdiction. But we cannot help wondering why such wrath should be engendered in celestial souls by mongrel vocables, or by a letter more or less in the spelling of a word. Is there not an element of philological hyperaesthesia in a critic who is seriously distressed by such trifles? Our language is largely built up of barbarisms, and a superfluous hybrid is really not worth troubling about. If it be useless as well as ugly it is surely doomed to extinction.

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THE PROSPECTS AND VICISSITUDES OF APPENDICITIS AFTER OPERATION.

Read before the Royal Medical and Chirurgical Society, February 28th, 1905,

BY

SIR FREDERICK TREVES, BART., K.C.V.O., C.B., LL.D.,
Sergeant-Surgeon to His Majesty the King.

THE matters, Mr. President, which you have done me the honour to ask me to discuss arrange themselves under two heads:

1. The degree of imperfect relief, or of imperfect recovery after operation.

2. The complications which may attend operation, and which may be regarded as accidental or independent of the direct surgical results of the case.

I have based the comments upon these two topics, for the most part, on the records in my private case-books. The lamentable deficiencies in these records are, I hope, compensated for by the admirable series of statistics very kindly prepared for me by Mr. Hugh Lett from the registers of the London Hospital. These statistics cover a consecutive period and embrace 1,000 cases of operation for appendicitis. In addition to the colossal labour of transcribing the notes of these cases, Mr. Lett has addressed no less than 797 letters to discharged patients in order that the after-history should be, in each instance, complete.

I believe that these particulars, collected with so much patience and care, will form the most important contribution which has yet been made to the statistics of this common malady.

In the account which follows I have kept the records of my own cases distinct from those collected by Mr. Lett, which latter are set out in a coherent whole.

I. IMPERFECT RELIEF OR IMPERFECT RECOVERY AFTER OPERATION.

In order that the issues may not be scattered over too wide an area it will be well to consider this question from the point of view of the operation performed during the quiescent period and that carried out for the relief of suppuration during the acute or active stage.

A. Imperfect Results After the Operation of Removing the Appendix During the Quiescent Period.

It is as long ago as 1887 that I ventured to suggest—in a paper read before this Society—that cases of recurrent appendicitis should be treated by removal of the appendix during the period of quiescence. My proposal was not very enthusiastically received at the time, but of later years I have no ground for complaint on this head. The procedure is one of the most common of abdominal operations, and certainly one of the most satisfactory. It is attended with but trifling risk and with but little distress to the patient, while in the vast majority of instances it is followed by a complete and unconditional cure.

I find, however, in my case-books the records of 45 patients who consulted me, and in whom the operation had—from their point of view—more or less completely failed. Had I been the operator in all these examples it would be possible to express the dissatisfied patient in the form of a percentage, but I am responsible for but the minority of them. The collection, therefore, from a statistical point of view, is almost valueless. It is natural that a patient who feels that an operation has failed should pour his woes into the ears of other than the operator. Thus it is that we all have to search for many of our failures without the walls of our own consulting rooms.

The relative frequency of these cases of failure may be gathered from the London Hospital statistics. From these it would appear that among 231 patients in whom the appendix was removed during the quiescent period, no less than 21 complained that since the operation they had had "attacks like those they had before it."

I have excluded from my 45 cases all examples of trouble in the healing of the wound and of ventral hernia. Ventral hernia is comparatively rare, but I have noticed that it does not exempt cases performed by methods which are considered to render a yielding of the scar impossible. I have met with only two instances of persisting sinus after this operation. In both cases the sinus had been open from eight to nine months when I first saw the patients, and in both fragments of silk ligature had escaped. Of one of these operations I have no knowledge, but in the other case it was reported that the procedure had been very difficult, and that a gauze drain was necessary.

TABLE A.

Patients who complained of Imperfect Relief after the Removal of the Appendix in the Quiescent Period.

	No. of Cases.
Appendix imperfectly removed	2
Ovarian trouble coexisting	9
Persisting or relapsing colitis	8
Persisting local pain	7
Neurasthenia or hypochondriasis	5
Continued attacks due to gall stones	3
,, ,, colic	2
,, ,, movable kidney	2
,, ,, stone in kidney	1
,, ,, an unexplained cause ...	1
Tender mass in the right iliac fossa	5
	45

The 45 cases of which I have notes represent patients who came complaining that "they were no better for the operation," or that "they were nearly as bad as, or perhaps even worse than, they were before." They also include examples in which "attacks" have continued unabated after the removal of the appendix.

As will be seen from the following summary, the degree of failure claimed to be manifest varies greatly.

A man of 60 from South America consulted me for persisting sinuses in the right iliac region with continued pain and discomfort in that part. The trouble had followed upon a large perityphlitic abscess which had been opened five years previously. The sinuses had been dealt with and counter openings made, but without benefit. Finally, the abdomen had been opened and the appendix removed. A well healed scar in the usual situation indicated the site of this operation. Still no improvement followed. Thinking that a loose concretion may have been overlooked I reopened the abdomen. Buried among many adhesions I came upon an undisturbed but diseased appendix, which I removed. In seven months all the sinuses were healed. I have no explanation to offer for this case, beyond recalling the fact that the statements of patients, even when given emphatically and in perfect faith, are not always to be relied upon.

A second case of this kind was in the person of a youth of 20. His appendix had been removed by an eminent surgeon, during the quiescent period, after the third attack. The appendix is said to have been strictured, to have contained no pus, and to have been surrounded by few adhesions. The operation was in August. In the following October the patient had another attack of appendicitis with fever, and was in bed ten days. In December he had another attack of some gravity. He had hardly recovered from this when he was again laid up for the third time after the operation. The attacks which followed the operation differed in no essential from those which had preceded it, except in this, that in the second of the early attacks a small abscess was evacuated, which gave no further trouble, nor did suppuration supervene in any of the subsequent outbreaks. As soon as the last attack had subsided—now two years ago—I opened the abdomen in the iliac fossa. The stump of the amputated appendix was swollen, hard and tense. It measured ¾ in. Its distal end was well closed in by sutures which were still in evidence. The little tube was distended by muco-pus, and it was strictured at the very point where it opened into the caecum. It was removed, and the patient has had no trouble since. This case suggests the wisdom of always removing the appendix close to the caecum. A stricture at the actual caecal orifice is not common. It would appear to be always so placed in mucocele of the appendix in those strange examples where the organ is translucent and is distended with a perfectly clear white jelly. In connexion with this matter I may mention that in one operation after I had removed the appendix—as I thought—close to the caecum I found that the proximal end of the tube had been invaginated into the caput coli. The little intussusception was therefore at once reduced and the appendix re-excised.

Two cases, allied to the above, were found by Mr. Lett among the London Hospital records. In one the appendix was removed after the third attack. It was described as "half an inch long and very adherent." The patient subsequently had two more attacks. After the second outbreak the remainder of the appendix was discovered and removed. In the other instances an abscess was opened and "the appendix removed."

The patient had another attack with suppuration, when a considerable portion of appendix was found and excised.

I find among the series now under notice no less than 9 cases in which continued trouble after the operation was due to *mischief in the right ovary*. In some of these examples an inflamed, prolapsed, or adherent ovary had been noted at the time of the operation, but had not been removed. In others a second abdominal section was performed for continued distress, and a diseased ovary discovered and removed. In nearly all these cases the condition before operation would be described as chronic appendicitis supervening on acute or subacute attacks.

The following is a typical example: A married lady, aged 30, had an attack of appendicitis in 1893, for which she was confined to bed for ten days, and a second attack in 1896, which laid her up for three weeks. After this attack she was never well. There was continued pain in the right iliac fossa, tenderness there, occasional fever, irregular bowels, dyspepsia, wasting, and a condition of chronic invalidism. In 1897 her appendix was removed. It was free, was much thickened, and was full of muco-pus. The state of the ovary was not noted. She was practically none the better for the operation; her old symptoms persisted, and she remained a chronic invalid. A year later a second abdominal section was made and an adherent, chronically-inflamed ovary discovered and removed, to the patient's complete relief.

It is needless to point out how close is the anatomical association between the vermiform appendix and the right ovary, especially in the matter of their lymphatic vessels. It is very common indeed to find both organs simultaneously inflamed, and the evidence most usually suggests that the ovary was infected from the appendix. In many instances after the appendix has been removed the ovary recovers, or at least gives the patient no further trouble. The surgeon's prejudice will be, naturally, in favour of leaving the ovary unremoved, but I am sure most operators will agree that there is often great difficulty in deciding when this can be done with the confidence that no further inconvenience will follow.

I hope I am not uttering a heresy when I say that it is often almost impossible to distinguish clinically between chronic appendicitis and chronic ovaritis. I have found the appendix sound and the ovary diseased in instances in which competent authorities have stated beforehand that the ovary had no part in the matter, and I have, on the other hand, found a perfectly healthy ovary accredited with mischief-making for which a diseased appendix was in reality answerable.

In operations upon women I think it is very desirable that the right ovary should be systematically examined when the appendix is being removed. If it be found to be entirely healthy, the knowledge is useful should the patient complain—after the operation—of any persistence of her pains.

The small opening made in the abdomen in that operation in which the muscular fibres are split and drawn aside has much to commend it, but it has the objection that it is not always easy to examine the ovary through such a gap, nor to remove the organ should it be found to be diseased, adherent, and deeply placed.

Eight patients out of this collection of those who expressed themselves as unbenefited by the operation were the subjects of *colitis*. The following is a typical instance: A married lady, aged 27, developed severe colitis during residence in India. This was followed in due course—and after her return to England—by an attack of appendicitis, for which the appendix was removed. The colitis much improved for a while. Some little time after the operation this catarrh of the colon returned. The patient became nervous and despondent, and more or less of an invalid. She had persisting discomfort in the right iliac fossa, tenderness in that region, occasional slight rise of temperature, irregular bowels, flatulence, and an inability to do anything. She maintained that she was in no way better for the operation. After many months the trouble in the colon subsided, and the patient made a good recovery.

The association of colitis and appendicitis is common. In certain cases—especially in those which develop in the tropics—I am under the impression that it is the trouble in the colon that leads, by extension, to the inflammation of the appendix. In other cases the relation is reversed, and the colitis seems to be due to chronic appendicitis. The appendix in such instances is little more than a culture tube for bacteria, the contents of which are emptied from time to time into the caecum. Those individuals who have not had really acute attacks of appendicitis are often justified in maintaining that, for a time at least, they appear to be unrelieved by the operation.

Seven patients in the present series complained of the partial failure of the operation on the grounds of *persistent pain in the right iliac fossa*. For this pain there was no apparent cause. Of the seven patients three were men and four women, and the ages were between 20 and 33. The following cases will serve as illustrations: A lady, aged 33, had her appendix removed during the quiescent period by a distinguished provincial surgeon. I saw her one year and eight months after the operation. She maintained that she was no better. She complained of abiding and severe pain in the right iliac fossa, and was more or less of an invalid. She was nervous, irritable, and full of troubles. The wound was perfect, and nothing abnormal could be found in the abdomen. She had very defective teeth, ate much meat, and suffered greatly from dyspepsia and constipation. It is customary to ascribe all obscure abdominal pains after operation to adhesions, but in this case I was assured that there were no adhesions, that the procedure was most simple, and that the ovaries were normal.

The second case is that of a military officer, aged 32. He was the reverse of neurotic, was active, and most eager to be well. His appendix had been removed two and a half years previously. The wound was sound, the abdomen revealed nothing abnormal, and the patient had the aspect of perfect health. Ever since the operation, however, he had been troubled with pain in the iliac fossa, which varied in intensity, was of neuralgic type, and occasionally rendered him unfit to do his duty. I could suggest no explanation of the trouble, and sought refuge in those vague neuralgias which occasionally follow any operation. After many months the pain entirely left him.

In five cases out of the series the only explanation of the patient's persisting trouble was the inadequate one that they were *neurotic*. This, I am aware, is no explanation, for the term "neurotic" is little more than a cloak to cover ignorance. Three of the patients were men and two were women. Their ages ranged from 32 to 49. They all were chronic invalids and all maintained that they were none the better for the operation. The chief complaint was of persisting pain in the appendix area and a sense of abiding illness. There was not lacking the environment of sympathetic relatives and much pampering. One patient was haunted by the dread of cancer and was sure that his pain was due to it. Another—a gentleman of 43—was exceedingly gouty, and to gout some of his trouble may have been due. One patient had had his abdomen opened twice already and was searching for a surgeon who would open it a third time.

As a typical example may be mentioned the case of a lady of 32, whose appendix had been removed for chronic appendicitis with subacute attacks. Four years later she maintained that she was "as bad as ever." She was severe in her judgement of the surgeon who had operated upon her. She had constant dyspepsia, with flatulence and irregularity of the bowels, constant pain in the appendix region, where she could feel swellings and tumours which were apparent to no other fingers than her own. She was quite an invalid, and had moved from one health resort to another without benefit. Medical treatment, as a rule, made her worse. The simple measures I suggested did her much harm. Finally she fell in with a "Nature cure," which led to her speedy and complete recovery and to the deepening of her contempt for orthodox medicine.

In 9 instances in the present series *attacks* were reported to have continued without improvement after the operation. The patient in each instance maintained that the attacks which followed the removal of the appendix were identical with those which preceded it. In 3 examples the attacks were proved, in course of time, to be due to gall stones, in 2 to colic, in 2 to movable kidney, and in 1 to renal calculus. In the remaining instance no explanation of the attacks was forthcoming. In this case, during the first five months after the operation, the patient, a spinster of 37, had four attacks of pain, with a temperature of 100° to 103° F. These attacks laid her up for from three to seven days. They ceased and never reappeared again. From the patient's account it would appear that the operation wound had suppurated.

In the cases of hepatic colic there is no doubt but that gall stones and a diseased appendix coexisted. On two occasions I have removed the appendix and evacuated the gall bladder at one operation, but through two incisions. It is not always easy to diagnose hepatic colic from certain acute disturbances in the appendix. That an operation in certain of these

instances may fail to relieve the patient is not improbable. One must remember, also, in connexion with these cases what extensive disease may be found in an appendix which has never given the patient the least trouble.

It is easy to imagine a case in which the attacks are due to gall stones, but in which marked tenderness in the iliac fossa leads to the diagnosis of mischief in the appendix. The appendix is removed, its walls are thickened, and its mucous membrane is ulcerated. It has caused no symptoms except the one of local tenderness, and the patient continues to have attacks as badly as before.

The case associated with renal calculus was as follows: A young man of 22 had for two years been liable to attacks of pain in the right iliac fossa, with vomiting and fever. On the last attack, which was one of definite appendicitis, a tender swelling developed in the region of the appendix. The appendix was removed. It was adherent, was bent acutely upon itself, and was full of muco-pus. After the operation, the patient continued to have precisely similar attacks to the number of eight or nine in the year. In these outbreaks there was no fever and no iliac swelling. It was not until these attacks had persisted for four years that the kidney was suspected to be the seat of the trouble. The gland was cut down upon, a calculus discovered and removed. The attacks, which had now lasted for seven years, at once ceased. The two operations were therefore unavoidable.

A case, given by Messrs. Battle and Corner,[1] may here be quoted in illustration of this point: "A boy was said to have had twenty attacks of appendicitis, and when operated on the appendix was normal, but there was an oxalate of lime calculus, the size of a marble, in the pelvis of the right kidney."

In the two examples in which the "attacks" were of the nature of colic, there is little doubt but that the paroxysms of pain were due to adhesions.

In the present series are five cases in which a *tender mass appeared in the right iliac fossa* some time after the operation. It occasioned great alarm, and led to the complaint that the patient was none the better for the removal of the appendix. In one instance the mass was simply inflammatory and appeared as a very tender lump, the size of a hen's egg. It was supposed to be due to thickening about a ligature or ligatures. After a few weeks it vanished, but while it lasted the patient was quite an invalid. In three instances the tender lump was a faecal mass, and the patients were so troubled, at the same time, with colic, flatulence and dyspepsia that they maintained that they were no better for the operation. They were both confined to bed for some days. In the fifth example the mass was due to tuberculous glands and there followed upon their appearance tuberculous disease within the abdomen, of which the patient finally died.

B. Imperfect Results after the Evacuation of a Perityphlitic Abscess.

After these operations ventral hernias are quite common, as are also instances of tardy, imperfect, and irregular healing of the wound. Such cases need not now be considered, as they present features of no especial interest.

I find from the records of my case-books that the following imperfect results may follow upon the evacuation of a perityphlitic abscess. They are arranged in percentages, but the figures are of little value, since they do not represent the experience in practice of any one operating surgeon:

TABLE B.

Persistent sinuses	40 per cent.
Recurring abscesses	24 ,,
Recurring attacks of appendicitis ...	16 ,,
Faecal fistulae...	12 ,,
Inflammatory deposits in the iliac fossa...	8 ,,
	100

With regard to the *sinuses*, the persistence in the minority of the examples was due to the ordinary conditions which render a sinus obstinate. In some the suppurating tract was long and irregular, or there were many openings, or the main collection of pus was so placed as to be incapable of efficient drainage. In other instances the canal passed through a narrowed strait in a deep fascia or was so placed that it was exposed to constant movement. Many of these sinuses healed spontaneously after many months or yielded to simple treatment. The persisting sinus, in the majority of the examples, is due to a diseased appendix, or, as commonly, to a retained concretion.

With the removal of the offending substance the sinus closes. I have seen one instance in which the sinus closed spontaneously, without operation, after it had discharged for seven years; others have closed, under like conditions, after two or three years. To effectually treat the persisting sinus which will not yield to simple measures the area of the appendix must be exposed, that structure removed, and a careful search made for an escaped concretion.

The *recurring abscesses* show great variation in the manner of their appearing. The original collection of pus is evacuated and drained; the wound heals; after a varying period of time, the patient has pain and tenderness in the part with fever and constipation; a second abscess appears, and is promptly opened.

In a few examples the trouble entirely ends with the healing of the second abscess. In the majority of instances the abscesses are frequently repeated. I have known the abscess appear ten times before the patient was dealt with by a radical operation. The second abscess may appear within a week or so of the first, or, on the other hand, it may not become evident for months.

The following example will show the uncertain progress of these cases. A gentleman aged 46 had his first attack of appendicitis in June, 1895. An abscess formed and was incised. The wound closed in five months, and the patient made a good recovery. In June, 1896, a second abscess appeared. It was opened, and the wound closed in fourteen days. A third abscess appeared in July, 1897, and here again the incision closed in fourteen days. On no occasion was the appendix or a concretion met with. With the exception of a ventral hernia the patient now remained well and, so far as I know, had no further trouble in the iliac fossa.

There can be little doubt but that the relapsing abscess is due almost without exception to the retention of a diseased appendix or a concretion, and that the condition can only be satisfactorily treated by removing these causes of offence.

In a few instances there is no apparent abscess, but in its place a troublesome *inflammatory mass in the iliac fossa* or pelvis. One example of this will suffice: A man, aged 28, had his first attack of appendicitis when he was 20. During his second attack, eight years later, a large abscess formed and burst into the rectum. The patient made a good recovery and remained perfectly well for five months. He then began to complain of a dull pain in the right iliac fossa and rectum, with fever and constipation. He became very ill and wasted. The pelvis was found to be almost filled with a hard inflammatory mass. In four weeks this slowly subsided, and with it the fever vanished. Although a careful look-out was kept, no matter was known to escape per rectum. Three months after the disappearance of the swelling I removed the appendix. It was behind the caecum in the iliac fossa, was very adherent, was bent upon itself, and full of pus. Nothing abnormal was to be discovered in the pelvis or about the rectum.

Into the very wide subject of *faecal fistula* after the evacuation of a perityphlitic abscess it is impossible to enter on this occasion. I may be allowed to mention the following points which have impressed themselves upon my mind: (1) That while the faecal fistula exists another attack of appendicitis is exceedingly uncommon. (2) That the fistula, unless due to an actual cutting or tearing of the bowel, has a tendency to close spontaneously. This process may involve months, sometimes many months, but healing takes place in the end. (3) That those fistulae which appear some days after the evacuation of the abscess do better than those which are evident at the time of the operation. (4) That a still diseased appendix or a retained concretion is often the cause of the persistence of the fistula.

From the London Hospital statistics it would appear that a faecal fistula may be expected in a little less than 6 per cent. of those cases of abscess which are treated by operation, and that the great majority of such fistulae close spontaneously.

In connexion with the sequelae now under discussion the greatest interest attaches to the occurrence of *fresh attacks of appendicitis after the abscess has healed*. These outbreaks are definite attacks of appendicitis which must be clearly distinguished from those relapsing troubles which may attend an imperfectly-healed abscess cavity. These attacks need not be attended by suppuration, and, indeed, usually are not so associated.

I was at one time disposed to think that the patient who had had a perityphlitic abscess was, *ipso facto*, cured of his malady, and that although he might have further trouble with the abscess, he need fear no other attack of definite appendicitis. Longer experience has proved that this assumption is not correct. I am of opinion, however, that the number of patients who have definite attacks of appendicitis after a

perityphlitic abscess has been evacuated are very few, and that the examples of such relapse in cases in which a concretion is evacuated with the discharge are quite rare. The escape of a concretion is an evidence that the appendix is extensively ruptured. As a result of this rupture it does not necessarily shrink up, as some suppose, but it seldom gives further trouble. Unfortunately, there are cases in which there are two or more concretions, one of which only may be discharged. The patient then has "attacks" until the remaining substance is evacuated, and an apparent exception is made to what is very nearly a rule.

The interest in this matter centres around the question whether the appendix should be removed during the quiescent period in any case in which an abscess has been opened, but in which the appendix has not been dealt with. Mr. Battle, in his able and interesting work on the *Surgery of the Diseases of the Vermiform Appendix*, answers this question in the affirmative.

In each such case as has been named he would advise the removal of the appendix. His opinion would appear to be largely based upon the case of a young woman who had an appendix abscess evacuated. Six months later she died of diffused septic peritonitis. The appendix was found to be in a state of acute inflammation and sloughing. There was no concretion present.

Mr. Battle further contends that, even if there be no second attack, the retained appendix may be the seat of chronic trouble and so greatly damage the patient's health.

The first point to be determined in this discussion is the frequency with which further attacks of appendicitis occur in cases of local abscess in which the appendix has not been removed. Dr. Miles Porter considers that such relapses may be expected in 13 per cent. of the cases. Mr. Lett, in his London Hospital statistics, places the number of such relapses at 17.2 per cent. (see Table F). I think that this percentage may be unduly high, since the decision that "the attack since the operation is like that the patient had before the operation" depends, in most cases, solely upon the patient himself. Some of such "attacks" might well be due to trouble associated with an imperfectly-healed abscess.

The appearance of the subsequent attack in these abscess cases shows remarkable variations. For example, among my own cases I notice that in one instance the second attack appeared four weeks after the abscess was evacuated, while in another the patient did not have an attack until two and a half years had elapsed. One individual had only one further attack, while another had five outbreaks in the first eighteen months after the operation. In a third example there were several attacks during the first twelve months, and after that they ceased—or, at least, the patient when he saw me had been free from trouble for five years.

While I think that the appendix should be without doubt removed in any case in which the least trouble is experienced, it appears to me that the following arguments may be urged against the establishment of a rule that in every example of abscess (in which the appendix has been unremoved) it should be excised at the first convenient opportunity.

1. Upon the most liberal estimate it is evident that 83 patients out of every 100 will never have another attack.

2. The risk of a second attack is comparatively small. Thus, Mr. Battle, while he places the mortality of a first attack at 25 per cent., gives the mortality of a second attack as 7 per cent., and that of a further attack as 2 per cent.

3. In those cases in which an abscess has formed, although the operation is often unexpectedly easy, it is often not only very difficult but distinctly dangerous. In certain cases in which the adhesions have proved to be very extensive and dense, and in which the appendix is buried deep in the pelvis, I have failed to remove the offending body or even to find it. I cannot help thinking, therefore, that if Mr. Battle's rule became absolute the surgeon would find himself engaged in not a few operations which were attended with considerable risk to life. In the face of the facts above stated—and keeping in mind the fatal case Mr. Battle mentions—I do not consider that such risk is justified.

4. It may not be unfair to state the belief that the evidence that an abscess has burst into the bowel is not always conclusive. The passage of a quantity of decomposed and long-retained mucus might well give a nurse the impression that pus is being evacuated.

II.—The Complications which may Attend Operations for Appendicitis.

The length to which this paper has already extended will forbid any but a very superficial discussion of this subject.

With the exception of faecal fistula, intestinal obstruction and the persisting or extending abscess, the principal complications are those only of septic infection. They are such complications as may occur in connexion with any septic wound. The fact that the wound is within the range of the portal system permits of the limited blood infection known as pylephlebitis.

With this exception the most conspicuous complications differ in no essential from those which may attend a suppurating stump left after an amputation of the thigh.

Certain of the pleurisies and of the empyemata are due to direct local extension of inflammation from the original seat of infection.

The parotitis is probably due to that septic condition of the mouth which is common in this and in other abdominal disorders.

The common thrombosis of the left femoral vein is not open to a ready explanation. If movement be in any way concerned in this localization it may be noted that while the right thigh is kept at rest the left lower limb is much, and often severely, used in the necessary movements of the patient in bed.

Mr. Lett's statistics (Table E) show the complications which have occurred in 1,000 consecutive cases of operation. In the detailed appendix to that table will be found particulars of the circumstances under which these complications have occurred, as well as of the period at which they have become manifest. It cannot be claimed that these details reveal any novelty in the familiar history of the infected wound.

STATISTICS COMPILED FROM THE LONDON HOSPITAL RECORDS, JULY 1ST, 1900, TO AUGUST 15TH, 1904, BY MR. HUGH LETT, F.R.C.S., LATE SURGICAL REGISTRAR TO THE HOSPITAL.

TABLE C.—*Table Showing the Local Condition in 1,000 Cases of Appendicitis at the Time of the Operation, Compiled from the London Hospital Records, July 1st, 1900, to August 15th, 1904.*

Date.	Total Number of Cases Operated upon.	Operation During Quiescent Period.		Operation During Attack. Local Peritonitis. No Pus.		Operation in Cases with Abscess.		Operation in Cases with General Peritonitis with or without Abscess.	
		Recovered	Died	Recovered	Died	Recovered	Died	Recovered	Died
July 1st to December 31st, 1900	86 (males, 59, females 27)	33	0	0	0	39	1	1	12
1901	189 (males 130, females 59)	75	2	6	0	60	1	10	35
1902	230 (males 162, females 68)	75	0	11	3	96	9	8	28
1903	299 (males 203, females 99)	100	1	12	1	124	20	7	34
January 1st to August 15th, 1904	196 (males 130, females 66)	77	1	5	1	77	4	13	18
Grand Total	1,000	360	4	34	5	396	35	39	127

During the above period 290 other patients with appendicitis were admitted into the Hospital, but were not subjected to operation, either because the attacks were so slight or because they declined to submit to surgical measures.

If a patient has several attacks of appendicitis the later attacks are less severe, and less likely to be accompanied by the formation of an abscess than the earlier ones. This is confirmed by the following table, which includes all the cases of abscess and of general peritonitis in this series. Cases of abscess with general peritonitis are included under the heading of abscess.

Table D.—*(London Hospital Series.)*

	Number of Cases.	Number of Previous Attacks of Appendicitis.				
		Not Stated.	None.	One.	Two.	Three or More.
Abscess	499	200	187	67	19	26
General peritonitis without abscess	101	66	31	3	1	0
Total	600	266	218	70	20	26

Table E.—*(London Hospital Series.)*

Table to show the Complications met with in the 1,000 Cases.

Complications.	Number of Cases.
Faecal fistula	49
Thrombosis of the femoral vein	12
Intestinal obstruction	10
Bronchopneumonia	17
Pleurisy with effusion	14
Pleurisy without effusion	2
Empyema	7
Acute bronchitis	4
Pulmonary embolism	1
Parotitis, non-suppurative	4
Pylephlebitis	4
Residual abscess	11
Secondary abscess...	12

In six of the 1,000 cases the appendicitis was associated with pregnancy.

Faecal Fistula.

A faecal fistula developed in 49 cases, or in a little less than 6 per cent. of the cases which recovered. In 35 the fistula closed spontaneously. In 2 cases the fistula was closed by operation after it had persisted for seven months in one case, and two and three-quarter years in the other, and in two it still exists. Of the other 10 cases, 5 died soon after the operation, 4 in twelve days or less, and 1 in three weeks with pylephlebitis. In the majority of the cases in which spontaneous healing took place the sinus closed within two months. In one case the fistula closed spontaneously after eight months. Two fistulae are still open two years and eighteen months respectively after their appearance.

Three of the fistulae appeared in ten, fifteen and twenty-four days respectively after the operation; sixteen others appeared within a week of the operation, and twelve of this number appeared within three days.

Thrombosis of the Femoral Vein.

Of the 12 patients who suffered from this complication, 7 were men and 5 were women. The left vein was affected in 11 cases, the right in 1 case only.

In 11 of the cases the average date at which evidence of thrombosis appeared was twenty-four days after the beginning of the illness. In the remaining case the appendix was removed thirty-six hours after the onset of the attack, and thrombosis took place eleven days later.

With regard to the circumstances of the operation, the appendix had been removed during a quiescent period in three cases. Two of these healed by first intention, but in the third a faecal fistula developed. Of the remaining cases there was in one general peritonitis, while in all the others an abscess was present.

The above particulars precisely coincide with my own experience of this complication. I have noticed no common factor in the circumstances of the patients who have become the subjects of thrombosis, nor have I any explanation to offer of the fact that the trouble nearly always occurs in the left vein and not in the right.

Acute Intestinal Obstruction.

Ten patients who were the subjects of appendicitis were operated upon for acute intestinal obstruction; 4 recovered, 6 died.

One patient had been ill for five days, and had had symptoms of obstruction for two days. At the operation the appendix was inflamed and adherent to the mesentery, forming a band which caused the obstruction; 4 in. of gangrenous gut was resected.

Another patient had been ill for ten days, and had had symptoms of obstruction for four days. At the operation, in addition to an abscess in the right iliac fossa and general peritonitis, 14 in. of paralyzed gut were found and resected.

In the other patients the obstruction was due to adhesions or to kinking of the gut, while in one there was a volvulus of the small intestine.

Pulmonary Complications.

There were 45 cases in which pulmonary complications supervened. In 17 there was broncho-pneumonia, in 14 pleurisy with effusion, in 2 pleurisy without effusion, in 7 there was an empyema, in 4 acute bronchitis, and in 1 pulmonary embolism.

All the examples of broncho-pneumonia occurred in cases of abscess or of general peritonitis, with the exception of two. In these 2 the appendix had been removed after the attack had subsided. As these were aseptic cases, and as signs of broncho-pneumonia were present on the day following the operation, they were probably examples of ether-pneumonia.

Pleurisy with effusion occurred in 14 cases. In 2 instances there was pleurisy without effusion. In 11 the right side was affected, in 5 the left. In 1 case only in this series was the appendix removed during a quiescent period.

Of the 7 cases of empyema 6 were on the right side and 1 on the left. The 1 on the left occurred with a left subdiaphragmatic abscess. Three of those on the right side were associated with a right subdiaphragmatic abscess, 2 with general peritonitis (in 1 of which the empyema communicated with the general peritoneal cavity through a hole in the diaphragm 1 in. in diameter), and the remaining case appeared four weeks after an abscess in the right iliac fossa had been opened.

There were 4 cases of acute bronchitis. In 1 instance the patient was admitted with acute bronchitis; in 1 case it appeared six days after an operation for an appendix abscess, and in 2 cases it came on after an interim operation.

Parotitis.

Four cases are noted, in none of which did the gland suppurate. The right side was affected in 3 patients, the left in 1. Two cases occurred one and two days respectively after an interim operation, the third case after a large abscess had been opened, while the fourth case followed a laparotomy for general peritonitis two weeks after an abscess had been evacuated.

Pylephlebitis.

There were four instances of pylephlebitis among the thousand cases. One patient, a man aged 30, had been ill for seventeen days before the operation; he had had no previous attack. The temperature was irregular and varied between 100° and 98°, with very occasional rises to 102° or 103°. The local signs were slight, but he had several rigors. At the operation the appendix was found to be ulcerated, inflamed, considerably thickened and occupied by an opaque fluid. It was adherent to the caecum and was not perforated. Surgical emphysema developed round the wound. At the *post-mortem* there was pylephlebitis, with many abscesses in the pancreas, and broncho-pneumonia in the right lung.

The second case was a woman 25 years old, who was admitted with an abscess in the right iliac fossa. She had had no previous appendix attacks. The abscess was evacuated, and ten days later it was necessary to open up the wound again to let out more pus. An opening was then found in the caecum, from which faeces escaped. Twelve days after the first operation she had an attack of acute intestinal obstruction, for the relief of which an artificial anus was made. Twelve weeks after the first operation the fistula leading to the caecum was explored, and an attempt was made to close it. The artificial anus ceased to discharge on several occasions, but was still open at the time of her death, twenty-one weeks after the primary operation. At the *post-mortem* examination there were signs of early lardaceous disease,

TABLE F.—*Table to Show the Frequency of Further "Attacks" after Various Operations for Appendicitis. (London Hospital Series.)*

Year.	Sex.	Abscess or General Peritonitis.							Interim Operations.		
		Number of Cases.	Appendix Removed.		Not Removed.		Not Stated.		Number of Cases.	+	o
			+	o	+	o	+	o			
1900	M.	11	0	4	0	6	0	1	12	1	11
1900	F.	6	0	3	0	3	0	■	5	0	5
1901	M.	23	0	4	1	14	0	4	30	0	30
1901	F.	14	1	3	4	6	0	■	5	0	5
1902	M.	49	0	13	6	29		1	30	1	29
1902	F.	16	0	5	0	10	■	1	20	3	17
1903	M.	49	1	23	5	18	0	2	45	3	42
1903	F.	30	1	16	2	11	0	0	32	2	30
1904	M.	41	2	21	1	13	0	4	43	0	43
1904	F.	25	1	9	2	12	0	1	20	1	19
Total ...		264	6	101	21	122	0	14	242	11	231

The sign + at the head of a column indicates the number of patients who had further "attacks"; the sign o indicates the number of patients who had no further "attacks."

pylephlebitis with many abscesses in the liver, and pelvic peritonitis with pus between the coils of the small intestine.

The third case was that of a boy, aged 12, who had been ill four days. The appendix, which was gangrenous, was removed. He died three weeks later. At the *post-mortem* examination there was a little local peritonitis round the caecum, otherwise the peritoneum was healthy. The superior mesenteric and portal veins were thrombosed and filled with pus; the splenic vein contained blood and pus.

The fourth case was that of a man, aged 26. He was admitted with jaundice and an enlarged liver. He had had frequent rigors. At the *post-mortem* examination a loculated perityphlitic abscess was found, together with pylephlebitis and abscesses in the liver.

It is to be noted that none of these patients had had a previous attack of appendicitis.

Abscess.

After an appendix abscess has been opened and drained, other abscesses immediately or remotely connected with the appendix may form in various parts of the abdomen. These arrange themselves into three groups:

1. The residual abscess, in which a reaccumulation of pus takes place underneath or close to the operation scar, in the position of the original abscess. Such reaccumulation of pus is not accompanied by signs of another attack of appendicitis.

2. The secondary abscess, which is the result of the direct extension of the inflammatory process from the primary abscess to other parts of the abdomen.

3. The abscess which accompanies subsequent attacks of appendicitis.

Among the 499 cases of appendix abscess there were 11 cases of residual abscess which were opened at intervals after the operation varying from ten days to seven weeks.

There were 12 cases of secondary abscess. Six of these were subdiaphragmatic (4 being on the right side and 2 on the left). Two were opened three weeks after the primary abscess had been drained, 3 two weeks after, and 1 nine days after.

Five of the secondary abscesses were situated in the pelvis while the remaining one pointed at the external abdominal ring. These were opened from twelve to twenty-one days after the primary operation, with the exception of one pelvic abscess which was opened seven days after.

Finally, in 14 of the cases in which there were further attacks of appendicitis, the attacks were again accompanied by abscess formation. Three of them returned a third time with another attack of appendicitis and another abscess.

Pregnancy.

Among the 1,000 cases of operation were six women who were pregnant. Of three patients who were operated upon for general peritonitis, two were six months pregnant, and one was four months pregnant. Abortion took place three to five days after the operation in each case, and all the patients died; one on the fifth day, one on the thirteenth, and the third on the eighteenth day (after an attack of secondary haemorrhage from a vessel in the pelvis).

Of 3 cases who were admitted with an appendix abscess 2 were six months pregnant, and 1 was four months pregnant. One patient aborted ten days after the operation, and another four and a half weeks after the operation; they both recovered. In the third case pregnancy was undisturbed.

The above table shows the result of the investigation into the frequency of further attacks of reputed appendicitis after abscess formation or general peritonitis. It also gives the number of patients who stated that they had attacks of pain subsequently to the removal of the appendix during the quiescent period, "similar to those they had before the operation."

Letters were sent to 797 patients, and replies were received from 506.

Of 264 cases of abscess or general peritonitis, further "attacks" were complained of in 27 cases, or 10·2 per cent.

Of 242 cases of operation during the quiescent period, further "attacks" were complained of in 4·5 per cent.

It will be seen from the table that, of 107 cases of abscess or general peritonitis in which the appendix was said to have been removed, only 6 complained of further "attacks."

In 122 cases in which the appendix was not removed, 21 patients complained of further "attacks."

REFERENCE.

[1] *Surgery of the Diseases of the Vermiform Appendix.* London, 1904.

THE SPITTING NUISANCE.—Further proof of the more drastic enforcement of the law against spitting in New York, to which attention was called in the BRITISH MEDICAL JOURNAL a week or two ago, is afforded by the following incident which we quote from the New York correspondent of the *Daily Chronicle*. On February 9th several men in evening dress, who were attending the grand opera performance at the Metropolitan Opera House, were arrested in the lobby between the acts, charged with spitting. The men were all taken to the police station despite their vigorous protests. At the station house they were permitted to get into communication with their friends, and were bailed out. The following morning the prisoners appeared in court, and after being severely lectured by the judge were fined. The men were all members of well-to-do families, and the police believe that by compelling strict obedience of the law on the part of affluent persons the objectionable habit will soon be broken in New York.

SOME PECULIARITIES OF APPENDICITIS IN THE FEMALE SEX,

WITH SPECIAL REFERENCE TO APPENDICITIS OCCURRING DURING PREGNANCY.*

By GEORGE HEATON, M.B., B.Ch.Oxon., F.R.C.S.,
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Inflammation of the vermiform appendix is without doubt much commoner in men than in women. Out of 170 cases of appendicitis upon which I have operated, only 55 have occurred in women. This gives a percentage of 32.4 of my cases as having occurred in women, as against 67.6 in men. These figures agree closely with the experience of other observers; and we may take it that the disease is about three times as common in the male sex as in the female.

Various causes have been assigned to explain this fact. Differences in women's habits of life, in their food, or in their surroundings have all been given; but it is more probable that a developmental or anatomical difference is the real cause.

It has been suggested that the vascular anastomoses which exist in women between the blood vessels of the appendix and the ovarian vessels on the right side may have an important bearing on this comparative immunity. These anastomosing channels would serve to relieve congestions and inflammations of the appendix by carrying off some of its blood into the systemic circulation.

But when such inflammation does occur, in addition to the other complications which may ensue, whatever be the sex of the patient, we may have in women a peculiar train of symptoms or set of complications due to the near presence in their pelvis of their special organs of generation. I do not think that sufficient importance, at any rate in this country, has been paid to these special complications. The close association of the appendix vermiformis with the uterus and the uterine appendages is apt to be overlooked, and we are perhaps too prone to look upon inflammatory troubles in the uterine appendages as essentially primary in character; whereas they may, often at any rate on the right side, be in reality secondary to disease in appendix caeci.

During the past few years, as my experience in cases of appendicitis has grown larger, I have seen a number of cases in which both the appendix caeci and the uterine appendages have been simultaneously involved, and have had to deal with a few cases of appendicitis occurring in pregnancy. It is on this subject that I now wish to make a few observations.

Appendicitis during Pregnancy.

Pregnancy does not seem to predispose to a primary attack of appendicitis; but if a patient have previously suffered from the complaint, and afterwards becomes pregnant, the pregnancy may light up another attack. This it does probably by stretching or breaking down old inflammatory adhesions as the uterus enlarges and rises out of the pelvis.

During the past year I have had under my care 3 cases of appendicitis during pregnancy, and have had the opportunity afforded me of closely observing a fourth case.

Pregnancy is a complication which greatly increases the risks and dangers of the disease. The danger to life depends partly upon the stage of the pregnancy, and partly upon the severity of the attack of inflammation. The further advanced the pregnancy is, the worse is the prognosis, particularly if pus has formed.

In mild attacks, during the early months of pregnancy, the inflammation may completely subside, and pregnancy go on uninterruptedly to term. But if suppuration takes place, the risk to life increases enormously. Abrahams states that the mortality of cases of perforative appendicitis (during pregnancy), even when operated upon without delay, is as high as 58 per cent., and that the fetus is born dead in 90 per cent. of the cases.

When pus forms in the later months of pregnancy, miscarriage almost invariably takes place, whether operation be performed or not, and in cases where the pregnant uterus forms part of this abscess wall, must occur. When the uterus is thus suddenly emptied, the risk of general septic peritonitis is extremely grave, for limiting adhesions are almost necessarily broken down, and the peritoneum thus flooded with septic material. Even after drainage of the abscess cavity, in the later stages of pregnancy or in cases where miscarriage has taken place already, the risks to life are by no means small, as a septic salpingitis and endometritis may be set up by direct extension.

Occasionally in less severe cases, after labour at full term or miscarriage in the later months of pregnancy, a right-sided pelvic inflammation follows delivery, and frequently goes on to suppuration. This is due to direct extension of the inflammation from the diseased appendix along the appendiculo-ovarian ligament to the connective tissue of the broad ligaments. Such cases resemble very closely the ordinary cases of pelvic parametritis occasionally seen after delivery, and pursue a very similar course but almost always end in suppuration. The abscess tends to point in the groin above Poupart's ligament, and may be opened there without its appendicular origin being suspected. This was done in Case IV. It was not until some years afterwards that a faecal concretion in a residual abscess which formed, gave the clue to its real nature. The prognosis in these cases seems to be much more favourable.

Turning now to the clinical aspect of these cases, there are several points of interest in the symptoms and course of the disease which demand attention, and which will considerably modify the course of treatment we pursue, as compared with the treatment of non-pregnant cases.

The attack may occur at any stage of pregnancy. I have myself seen one in the sixth week of pregnancy and as late as the eighth month. It may be a primary attack, the patient never to her knowledge having had any trouble previously. But on careful questioning it will often be found that there have been one, or several, previous attacks, though in some cases they have been of so mild a character as to have been almost disregarded.

The illness may be of all degrees of severity, from the transient appendicular colic to the acute fulminating appendicitis which proves fatal in a few hours. In the mild cases the sickness which ushers in the illness is liable to be mistaken by both patient and practitioner for the ordinary vomiting of pregnancy. The use of the clinical thermometer in a doubtful case should prevent mistake, for the vomiting of pregnancy is "apyrexial," and the presence of fever, however slight, should always put us on our guard and lead us to make a careful examination of the right iliac region.

Owing possibly to the increased blood supply, and to the congestion of the parts due to the pressure of the enlarging uterus, cases of appendicitis in pregnancy seem to run an unusually rapid course. Though some subside, the majority, if left, seem to go on to suppuration. The prognosis will depend upon the intensity of the inflammation, the presence or absence of actual suppuration, and upon the stage to which the pregnancy has advanced.

Bearing in mind the extreme gravity of the case when suppuration has once taken place, and the small risk, to the mother at any rate, of removal of the organ in the non-suppurating stage, it should, in my opinion, be an almost invariable rule in cases of pregnancy, to remove the appendix almost as soon as the diagnosis has been made, without waiting for a subsidence of the symptoms, or for distinct evidence, on the other hand, that pus has actually formed. If only the *fons et origo mali* can be removed before suppuration has occurred, the prognosis should be but little if any worse than in cases where pregnancy does not exist.

Some surgeons would go further, and would in every case remove the appendix in women immediately after an attack of appendicitis, if they be of a child-bearing age.

In the more acute cases not a moment should be lost in opening and draining the collection of pus. The appendix should be removed in such cases if it can be done without much disturbance of the parts. But the uterus and pelvic viscera are to be disturbed as little as possible, and should be protected as much as possible from coming in contact with the inflamed area by interposing intestine, or preferably omentum, between them.

Where general septic peritonitis already exists at the time of operation—whether miscarriage has already taken place or not—the prognosis is almost hopeless. My only case proved fatal a very few hours after my operation.

It has been suggested that in these cases the uterus should be at once emptied, and the pregnancy brought to a termination. Such a proceeding is to my mind utterly unscientific. The pregnant uterus may form part of the actual abscess wall, and its sudden emptying will almost certainly cause the peritonitis to become a general one.

Nor is it necessary or advisable to empty the uterus after opening the appendicular abscess. Unfortunately abortion, premature delivery, or death of the fetus takes place in 86 per

* Read before the Birmingham Branch of the British Medical Association.

cent. of all cases where suppuration has actually occurred when the abdomen is opened.

Before leaving the subject it remains to mention two points which follow from a study of it.

First, in all cases of appendicitis in married women we should invariably ascertain at once whether pregnancy coexists or not, as the prognosis and the treatment will be materially altered by its coexistence.

And, conversely, in cases of pregnancy where miscarriage occurs, if the symptoms have previously pointed to any abdominal or pelvic complication a careful examination should always be made, lest an appendicitis coexist, and have actually caused the miscarriage. For in this case the suppuration will frequently have become general, and require immediate operative interference if the mother's life is to be saved.

I give a brief clinical history of four cases of appendicitis during pregnancy which have occurred in my own practice.

Case I.—*Acute Non-Suppurative Appendicitis: no Operation: Recovery: Delivery at Term.*

E. R., a young married woman, aged 26, was seen in consultation. She was three months pregnant, when she was seized with an attack of acute appendicitis. When a girl she had had several slight attacks of pain in the right iliac fossa, which had been thought to be ovarian, as the attacks always coincided with her menstrual periods.

The attack of appendicitis was a typical one, with a hard, tender, inflammatory mass in the right iliac fossa. Under medical measures it rapidly subsided, and with prolonged rest in bed she went to term, and had a normal and easy confinement. I advised removal of the appendix after confinement, but at present she has not had it done.

Case II.—*Acute Suppurative Appendicitis in the Second Month of Pregnancy: Abdominal Section and Drainage: Recovery with Continuance of Pregnancy.*

S. S., aged 26, was seen in consultation with Dr. Gibb. She had been married two years, and had once before been pregnant. During almost the whole of that pregnancy she suffered intensely from morning sickness. She had never had a previous attack of appendicitis.

When seen on November 2nd she was nearly two months pregnant, and since the beginning of her pregnancy had suffered from morning sickness. Five days previously she had been suddenly seized with violent abdominal pain and sickness. The pain was at first all over the abdomen, but has gradually become fixed in the right lower quadrant of the abdomen. The sickness has been incessant. She was admitted into the General Hospital on November 3rd.

On admission her pulse was 124; temperature 103.2°. There was an extremely tender mass to be felt in the right iliac fossa. No general peritonitis. A vaginal examination revealed the uterus enlarged about the size of a two-months' pregnancy. A hard, tender, convex mass could be felt on the right side of the abscess behind.

Abdominal section was performed. A localized abscess was opened to the outer side and below the caecum, containing several ounces of faeculent pus. It was carefully evacuated and drained, the main abdominal cavity being protected by gauze packing.

She made an uneventful recovery. The temperature never rose above 99° F. The abscess cavity gradually closed. Morning sickness was occasionally very troublesome, and during the whole of her stay in hospital her pulse was somewhat rapid, ranging between 80 and 90.

She is now more than five months pregnant, and Dr. Gibb reports that she has put on flesh and strength to a striking extent, and that there seems not the slightest indication that she will not go to full term. The vomiting has also entirely ceased.

Case III.—*Appendicitis During Pregnancy: Miscarriage at Five Months: General Septic Peritonitis: Death.*

A. W., a young married woman, was sent up to the General Hospital on November 1st with general peritonitis and appendicitis.

The history of her illness was as follows: She had been married two years, and twelve months previously had miscarried when two and a-half months pregnant. Five months ago she again became pregnant.

On October 25th last, after previously being in good health, she was suddenly taken ill with pain in the right iliac fossa. She had a severe rigor and was sick; the temperature was 101°. There was no uterine haemorrhage, and the external os was then closed. She was kept in bed, given a milk diet and opium, and the symptoms all subsided in four days, the temperature then being normal.

On October 30th she was seized with sudden pain in the lower half of the abdomen with collapse; temperature subnormal; pulse 140 to 150, very weak and thready; the os uteri was found dilated, and a 5-months fetus with placenta was delivered; she did not improve, however, and symptoms of general peritonitis supervened.

On admission, her temperature was 101°, pulse 128. Her face was flushed, mouth dry, eyes sunken with dark areolae; she was vomiting up dark coffee-ground material. The abdomen was very distended, tympanitic in front, dull on the flanks; it was almost motionless on respiration; it was uniformly tender, but the tenderness was most marked on the right side. The liver dullness was present. There was a blood-stained vaginal discharge, not offensive. Per vaginam, the uterus was soft and flaccid, about the size of a cocoanut. Douglas's pouch was distended, and a hard tender mass could be felt high up on the right side of the pelvis. General peritonitis, probably due to appendicitis, was diagnosed, and abdominal section was performed as giving her the only chance of recovery, though a very slender one.

On opening the abdomen, the peritoneal cavity was found full of bloody fluid, the intestinal coils distended and glued to each other by recent lymph. The peritonitis was most intense in the pelvis and right lower quadrant. The right ovary and tube were very greatly swollen and intensely injected, and were removed. Behind and to the outer side of the caecum and colon there was a large thin-walled abscess cavity containing faeculent, foul-smelling pus, and in it a loose faecal concretion.

The abdominal cavity was thoroughly flushed with large quantities of saline fluid. A large drainage tube was left in Douglas's pouch, and a second one in the right loin, and brought out through an opening made in a dependent position in the loin. The patient's condition steadily became worse, and she died some thirteen hours after the operation.

At the autopsy general suppurative peritonitis, with pockets of pus between the coils of intestine, was present everywhere. The appendix vermiformis was gangrenous and perforated at its extremity. The lumen of the non-gangrenous portion was very small. The uterus was subinvoluted and measured 8 in. in length. The lining membrane along its posterior wall was in a gangrenous condition. The left Fallopian tube was very oedematous; the left ovary was small and contained three abscesses. The right tube and ovary had been removed.

Case IV.—*Pregnancy with Appendicitis: Miscarriage: Abscess in Right Side of Pelvis: Abdominal Sections: Eventual Recovery.*

H. P., a multipara, was first seen in March, 1897. She gave the following history:

As a girl she used to have occasional attacks of abdominal pain, chiefly on the right side. Since her marriage she has had eleven children, the labours usually being easy and natural.

Her present illness began when she was seven months pregnant. She was seized with violent abdominal pain in the right iliac region, with shivering and vomiting. At the end of a week labour was induced and a dead fetus was delivered. After delivery she remained extremely ill for nearly three months, with high fever, shivers, and vomiting. An

Appendicitis during Pregnancy.

No.	Type of Disease.	Period of Pregnancy.	Operation.	Effect on Pregnancy.	Result.	Observer.
1	Non-suppurative appendicitis	9 months	None	Labour at term	R.	Crutcher, *Med. Record.*
2	" "	9 months	"	" "	R.	Abrahams, *Amer. Jour. Obstet.*, 1897.
3	" "	9 months	"	—	R.	" " "
4	" "	—	"	Miscarriage at 7½ months	R.	" " "
5	" "	—	"	" 5 "	R.	" " "
6	" "	4 months	"	Labour at term	R.	My own case.
7	Gangrenous appendicitis ...	9 weeks	Abdominal section	Abortion	D.	Abrahams, *Med. Record*, 1895.
8	" "	8 months	" "	"	D.	Crutcher, *Med. Record*, 1896.
9	Perforative appendicitis ...	3 months	No operation		D.	Wiggin, *Med. Record*, 1892.
10	Suppurative " (?)	4 months	Abdominal section	Labour at term	R.	Gerster.
11	" "	4 months	" "	" " "	R.	Mitchie, *Brit. Gynaecol. Jour.*, 1895.
12	" "	4½ months	" "	" " "	R.	Hirst, *Med. News Phil.*, 1894.
13	" "	4½ months	" "	" " "	D.	Merx, *Med. Record*, 1898.
14	" "	4½ months	" "	Abortion	D.	McArthur, *Amer. Jour. Obstet.*, vol. xxxi.
15	" "	5 months	" "	—	D.	Monde, *Med. Record*, 1895.
16	" "	5 months	" "	Miscarriage	R.	Harrison, *Med Record*, 1895.
17	" "	6 months	" "	"	R.	Lidiard and Sedgwick, *Lancet*, 1904.
18	" "	7 months	" "	Premature labour	R.	Merx, *Med. Record*, 1898.
19	" "	8 months	" "	Miscarriage	R.	Monde, *Med. Record*, 1895.
20	" "	9 months	" "	Confinement at term	D.	" " " "
21	" "	—	No operation	—	D.	Godson, *Brit. Gynaecol Jour*, 1898.
22	" "	4 months	Abdominal section	Pregnancy continues	R.	My own.
23	" "	5 months	" "	Miscarriage	D.	"
24	" "	7 months	" "	"	R.	"

abscess burst into the bowel and a large quantity of pus was discharged per rectum.

On admission into hospital under me, the case was diagnosed as probably a right-sided parametric abscess. Abdominal section was performed and a large abscess opened in the pelvis. The abscess lay behind the uterus and to its right side. The pus was foul-smelling.

She made a good recovery and was sent home in two and a half months. Two years later, a second abscess formed and was opening through the old scar. The sinus very slowly healed and she was again discharged apparently well.

In November last she was admitted under my care a third time with a large abscess in the right iliac fossa. This was opened and a large quantity of faeculent pus evacuated. The diagnosis this time was made by the escape of a faecal concretion from the abscess cavity. The abscess gradually filled up and she was discharged well in December, 1904.

The table has been drawn up from the published cases of various surgeons, and gives a fair idea of the risks attending the mother if appendicitis occur during pregnancy.

Including my own 4 cases it comprises 24 in all. Of these 6 were non-suppurative cases. All these recovered without operation, though in several the appendicitis brought about a miscarriage. In the remaining 18 suppuration occurred. In some it was a localized abscess, in others a general peritonitis, following a gangrenous appendicitis, or a burst appendicular abscess. Of these cases 9 recovered and 9 died, giving a mortality of 50 per cent., which is indeed a very high mortality; but is probably even then below the actual mortality-rate, as so many unsuccessful cases remain unreported. In only 4 cases was the pregnancy not interrupted, giving a percentage of 78 per cent. of cases in which abortion or miscarriage took place after the formation of pus.

These figures speak for themselves, and show the urgent necessity for operation in all cases before pus has actually formed if the patient's life is to be saved.

Appendicitis simulating Ovarian Disease.

But it is not during pregnancy only that the symptoms due to an acute appendicitis in women may be misread, and be thought to be due to other causes.

The appendix vermiformis is probably responsible for a very large proportion of so-called attacks of right-sided pelvic peritonitis in women. Salpingitis and ovaritis are undoubtedly more common on the right side than on the left, and the explanation at once becomes obvious when it is realized that in many cases the inflammation of the tube or ovary is an extensive form of a diseased or disordered appendix vermiformis.

When inflammation starts in the appendix it may spread in one of two ways to the uterine appendages on the same side. In cases where the appendix lies over the brim of the true pelvis, an extension of the peritoneal inflammation may spread by direct continuity from the appendix to the ovary and tube. Appendix, ovary, tube and omentum are frequently found at operation adherent to one another. These adhesions may indeed be so extensive and firm as to necessitate the removal of both tube and ovary in the removal of the appendix. This I have twice had to do. In other cases the extension is probably by means of the lymphatics of the appendix and those of the broad ligament.

It has been shown (Clado) that there is a direct communication between the lymphatics of the appendix and those of the uterus, ovary, and Fallopian tube by means of the appendiculo-ovarian ligament. Septic troubles in the former organ may thus give rise to a lymphatic infection which may spread to the broad ligament and ovary without the peritoneal covering being involved. Bland-Sutton[1] calls attention to this fact of appendicitis simulating right-sided pelvic cellulitis, and records a case operated upon three weeks after delivery as a case of pelvic cellulitis. A knowledge of these pathological facts throws considerable light on some of the clinical phenomena of appendicitis in young girls and women.

In cases of relapsing appendicitis in young women the attacks of pain frequently occur just before or at the menstrual period. The relapses in these cases are determined by the congestion of the tube and ovary at each menstrual period, and which may quickly spread to the adjacent appendix, particularly if it have previously been inflamed, and is adherent to any of the pelvic viscera.

I have in my own practice seen several such cases, and the diagnosis previously made in some cases has been a right-sided salpingitis or ovaritis. In fact, in all cases of so-called right-sided ovarian pain the possibility of appendicitis should be raised. I give the short notes of two or three typical cases of this kind.

Case v.—*Appendicitis simulating Ovaritis: Appendix adherent to Ovary.*

The first was a nurse, aged 23, who the day before her expected period had an acute attack of pain in the right inguinal region. The temperature rose to 103·5°, and she had a slight shivering fit. There was tenderness on deep palpation, in both iliac regions, but it was more marked on the right side. No tumour could be felt. The attack subsided with the onset of the menstrual flow, and in a week she was well. Similar attacks occurred at varying intervals, but each attack coincided with the onset of a menstrual period. The case was diagnosed as one of right-sided ovaritis with salpingitis. She was advised to have a prolonged rest in bed.

On opening the abdomen I found the appendix vermiformis lying in the true pelvis. It was permanently twisted upon itself by old adhesions, was distended into a sac at its distal end, and was firmly adherent to the right ovary. The appendix was dissected off the ovary and removed. The patient made a good recovery, and has been quite well since.

Case vi.—*Appendicitis and Cystic Ovarian Disease.*

The second case was a young lady, aged 22, seen in consultation with Dr. Quirke, of Handsworth. She had had two previous attacks of appendicitis. The attacks occurred at the onset of her menstrual periods, and were accompanied by frequent and painful micturition. The last attack was the most severe. The temperature rose to 103°, and there was much sickness. A diagnosis was made of appendicitis in an appendix in the true pelvis with a probable extension to the right uterine appendages. At the operation the appendix was found surrounded by much matted and adherent omentum fixed to the wall of the pelvis. It was removed with some difficulty. The right ovary and tube were also adherent to the omentum and side of the pelvis, and bounded a cavity containing muco-pus. As the ovary was cystic and it was impossible to separate the adhesions, it was removed with the Fallopian tube on the same side. She has since her operation, now nearly two years ago, had excellent health.

Case vii.—*Appendicitis: Appendix Adherent to Ovary.*

A nurse, aged 25, had repeated attacks of pain and tenderness in the right iliac fossa. The attacks were all of a mild character, and almost without exception began two days before the menstrual periods. The temperature never rose above 100° in any of the attacks, and she was generally able to return to her duties—that of private nursing—in three or four days. The diagnosis lay between appendicitis and some right-sided pelvic perimetritis. In favour of the latter view was the fact that the attacks were always coincident with the menstrual period. No tumour was ever felt in the iliac fossa. Per rectum a distinct tender swelling could be felt high up on the right side of the pelvis. Abdominal section was performed in the right linea semilunaris, the patient was put in the Trendelenburg position, and the appendix and right uterine annexa examined. The appendix was entirely intrapelvic; it was elongated, somewhat bulbous at its distal extremity, and adherent to the right ovary and omentum. It was easily separated from the latter. The omentum was ligatured off, and the appendix removed. She made a good recovery, and has had no more trouble of any kind since.

In operating upon such cases it is useful to have the patient in the Trendelenburg position, and to make the incision a vertical one at the right linea semilunaris. If it is found that the uterine appendages are involved in the disease, and adherent to the appendix, by slightly prolonging the incision downwards one can get a good view of the pelvic viscera, and deal with such adhesions as one finds. The appendages should of course be separated and left whenever it is possible, but it may occasionally be necessary to remove the right tube and ovary with the appendix, as was done in the case I have just related. If before opening the posterior sheath of the rectus that muscle be drawn to the inner side, the incision be made rather towards the middle line, there is practically no risk of a ventral hernia occurring at the site of the operation scar.

Lastly, it should always be a rule in removing the appendix in women, in cases where no suppuration is present, to examine the right uterine appendages before closing the abdomen.

References.

[1] *St. Bart.'s Hospital Reports*, 1903.

Miss Emily Perrin has examined statistics gathered from the *Dictionary of National Biography*, and from *Who's Who*, in the hope of determining how far ancestral bent and how far environmental conditions influence a man in his choice of an occupation in life. Her results were published in a recent number of *Biometrika*. The general conclusion is that in the choice of a profession inherited taste accounts for about two-thirds, and environmental conditions for about one-third. The figures refer to Great Britain. The authoress suggests that it would be interesting to compare these results with those for a new country like America, where it would be reasonable to expect a greater freedom from environmental influences, and more chance of choice for the son, and thus a nearer approach to pure inheritance of taste.

THE RELATIONSHIPS BETWEEN COLITIS AND APPENDICITIS FROM A SURGICAL POINT OF VIEW.*

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I PROPOSE to discuss some of the forms of colitis from a surgical point of view, and especially in their relation to appendicitis. Hitherto colitis has only been of surgical importance when the question of curing it by typhlotomy or colotomy has been raised. But, although Dr. Hale White, Mr. Golding Bird, and others have published good immediate results, nevertheless that procedure can hardly be said to have become established as an assured success. Inasmuch as I have no personal experience of typhlotomy or of colotomy for colitis I do not propose to pursue that branch of the subject. On the other hand, I shall soon tell you of cases of colitis which have got well after removal of the vermiform appendix; of others which have not got well; and of others which have been left alone and transferred to the physician.

But at the outset it is right to own that one's thoughts about colitis are far from clear. To begin with, it is obvious that the group embraces several diseases. Mucous colitis is quite different from membranous colitis, although some would say these two had a connecting link in muco-membranous colitis. But, furthermore, none of the foregoing are at all like the different kinds of ulcerative colitis, whether acute or chronic. Furthermore, all of these different varieties owe their origin in all probability to a number of different causes, and the discovery of the cause often leads to the cure of the colitis.

But, whether all this be true or not, it is not open to doubt that any form of colitis may be associated with appendicitis, and that it is of the very highest importance that we should try to learn their relations to each other. Now, to begin with, there can be no doubt whatever but that appendicitis may cause colitis. Every one who has done many operations for the removal of the vermiform appendix has seen cases in which the end of the ileum, the caecum, and the right colon were obviously inflamed. In addition there is tenderness along the course of the right colon, and rigidity of the abdominal wall; and evidence has been forthcoming to show that the inflammation seen upon the outside of the colon must also have involved its mucous coat, because mucus, or mucus mingled with blood, is seen in the evacuations.

There is no difficulty in understanding the relationship of this kind of mucous colitis to appendicitis. It is a mere question of extension by proximity, facilitated, perhaps, by identity of vascular supply. In cases of this kind the bowels soon recover when the appendicitis has ceased. The presence of this kind of colitis excites no surprise, nor does its subsidence. Also we can easily realize that the inflammation sometimes spreads into the transverse colon, and onwards as far as the left colon, and even into the sigmoid flexure. Indeed, judging from the way in which the tenderness and rigidity follow the course of the large intestine, this extension is not infrequent. In practice a case of this kind would not be difficult because, as I have premised, the appendicitis is obviously present, and is the forerunner of the colitis. The appendicitis is the dominant note.

But now I wish to show that the colitis may be the prominent feature, and so much in the forefront that the appendicitis may be obscured and overlooked; for instance, at the age of 20 a young gentleman began to have attacks of diarrhoea, alternating with constipation. At times he had severe attacks of pain and vomiting. The pain was in the middle of the abdomen, and low down and across to the right side; also pain was felt at the beginning of micturition. He said that he occasionally passed matter and blood with his motions. He saw a well-known authority on appendicitis, who told him that his illness was due to colitis; but before receiving this opinion he was not placed under observation. The clinical examination showed that there was tenderness and rigidity all along the course of the colon. The right iliac fossa was not more tender than the left. The rectal examination showed that the pain at the beginning of micturition was associated with tenderness in the recto-vesical pouch. Thus the pain in the middle of the abdomen, the pain on micturition, and the tenderness in the recto-vesical pouch were indicative of a pelvic inflammation, and an inflamed appendix hanging into the pelvis was obviously the almost certain cause of the pelvic inflammation. At the operation the base of the appendix was fastened down in the iliac fossa, but its distal end was adherent within the pelvis, behind the bladder. A microscopical examination—and statements made about the condition of the appendix without a microscopical examination are worthless—showed ulceration of the mucosa, which in some places had reached the muscular coat, whilst in others granulation tissue had grown into the lumen. A very few cocci, encapsuled diplococci, and bacilli were present. The removal of the appendix restored the patient to health after he had been ill off and on for eight years. Now it is easy to understand how the inflamed appendix had been overlooked. The pelvic position of the appendix is always difficult to diagnose, especially in chronic cases. But why should the chronic appendicitis with ulceration of the mucosa have caused the colitis?—for I think we must agree that the patient really had colitis. Well, a point in the clinical history throws light upon this question. Whilst the patient was under observation before the operation enemata were given and brought away quantities of hardened faeces from the sigmoid flexure, and from the rest of the colon and the caecum. It is unnecessary to say that when old and hardened faeces remain long in contact with the mucous membrane of the large intestine they excite an inflammation which may end in ulceration. In their progress the inflammation and ulceration are accompanied by painful attacks of colic, by tenderness and rigidity along the course of the large intestine, and by mucus and perhaps blood in the stools. But how does appendicitis cause coprostasis? Probably in several ways. It is easy to understand that in severe cases in which the end of the ileum, the ileo-caecal valve, the caecum and colon are inflamed, the muscular action may be so much at fault that the bowels simply cannot propel their faecal contents. But similar cases of appendicitis may have diarrhoea, and others may have hardly any disturbance of the bowels. Indeed, appendicitis has not got a single invariable symptom. Doubtless, it is quite possible that the appendicitis may cause coprostasis by interfering in some way with the nervous mechanism of the bowels. This is suggested by other things that I have seen.

Thus we have cases of appendicitis associated with a form of mucous colitis due to coprostasis. But every one is familiar with mucous colitis associated with coprostasis, and in which there is no evidence whatever of appendicitis. The patient is nearly always a female; the abdomen is slightly distended, and very tender along the whole course of the large intestine. The tenderness is often greatest at the sigmoid flexure and at the caecum. The temperature is a little raised. The bowels act after aperients, and the stools contain mucus and oftentimes membrane. The subjective symptoms I need not attempt to give. Obviously with such a train of symptoms as these, one cannot hastily dismiss the possibility of the whole being caused by appendicitis. Indeed the patient has probably come under the notice of the surgeon because appendicitis has been suspected, and reasonably suspected. But the long duration of the illness, the absence of clear attacks of appendicitis, and the extent of the tenderness tell us to be cautious. Patients of this kind should be examined under an anaesthetic. The faecal lumps are then felt. After they have been got rid of by energetic measures the intestine recovers, the tenderness goes, and the patient is well. The above is not an imaginary sketch, but is founded upon experience. Clearly the examination under an anaesthetic is a very important step in the diagnosis.

I now come to an even more deceptive association of colitis with appendicitis. Perhaps my point will be made clearer by telling you about the cases. For many years a public school boy, aged 15, had suffered from severe abdominal pain and so-called "bilious attacks." The attacks were accompanied with elevation of temperature (100° F.), shivering, and constipation. The pain was always on the left side of the abdomen, never upon the right. During an attack which had just subsided the pain was felt under the left costal margin, The clinical examination threw but little light upon the case. The region of the left colon was decidedly tender on pressure, and the muscles rigid there. The stools were constipated and mixed with a good deal of mucus, and some shreds of membrane. The pulse was rather rapid, and the temperature slightly raised. Obviously the boy had colitis, and Sir Thomas Barlow concurred in this opinion, and likewise Dr. John Harold, who was associated with me in the case. Being

* Communicated to the Hampstead Medical Society on February 9th.

quite sceptical as to the existence of colitis apart from a cause, I kept the patient in bed and under observation. In about a month's time he complained of pain at McBurney's point, and was tender there. The appendix was removed, and with some difficulty, because it ran up behind the colon in the ileo-caecal pouch. It was kinked near the caecum, and its distal end was bulged out by concretions. The naked-eye evidences of inflammation were abundant. The microscopical examination confirmed the presence of inflammation, and that it had extended to all the coats; also, that the mucosa had lost its epithelial covering, most of its glandular epithelium, and was in places ulcerated almost down to the muscular coat. But, in addition, at the distended distal end there was an unusual amount of purulent and bacterial infiltration of the remains of the mucosa. This fully explained the heightened temperature and the shiverings, always an ominous sign in abdominal disease. The operation had a most happy effect. The general health became excellent, and the abdominal pain soon began to get well.

I will now narrate another case of appendicitis with pain upon the left side of the abdomen, and none in the right iliac fossa. In July, 1903, I saw a man aged 36, a patient of Dr. Gully's. When I saw him he had pain and tenderness in the left side of the abdomen along the course of the colon, but none in the right iliac fossa. However, he had been sent to me because he was supposed to be recovering from a recent attack of appendicitis. Here the chances of error were obviously less than in the former instance. But all doubt was set at rest when, after a week in bed, the pain and tenderness settled in the right iliac fossa and along the right colon. The pain in the left side of the abdomen was clearly caused by colitis, because it followed the course of the left colon and the evacuations contained a good deal of pinkish mucus. At the operation the appendix was difficult to find and to remove, because it lay behind the right colon, concealed, I believe, in the retro-colic fossa. It was constricted in two places and dilated beyond the strictures. Microscopically the dilatations were full of muco-purulent contents mixed with moderate quantities of bacteria. This septic fluid had infiltrated the mucosa at places where superficial ulceration was in progress. Moreover, some of the septic fluid had forced its way into the sockets of a certain number of the tubular glands in the manner depicted in my book on appendicitis (Fig. 13, p. 58). Clearly a dangerous state of affairs, and quite enough to explain the severe illness from which the man had just recovered.

Here we have two cases of appendicitis with left-sided pain—one a schoolboy, the other a grown-up man—both most difficult to diagnose, because of the absence of pain and tenderness about the site of the appendix. The man was the least puzzling, because of the previous history derived from Dr. Gully. In both the cause of the left-sided pain was clearly colitis. But why was there, for a season at all events, no pain or tenderness at the site of the obviously inflamed appendix? Now, the two cases had one feature in common: in both the inflamed appendix was hidden away behind the right colon. Is it possible that the colon when distended affords some sort of protection? At all events, in both instances the tenderness was elicited after successful steps had been taken to clear the colon of its gaseous and faecal contents.

Lastly, it is to be noted how the difficulties of these cases cleared themselves up after a probationary period of rest in bed, careful dieting, and enemas. These three are, in my opinion, essential measures for the diagnosis of any doubtful case of appendicitis, especially the first.

I now come to that most embarrassing combination of muco-membranous colitis and appendicitis. That strange disease, muco-membranous colitis, seldom comes under the notice of the surgeon, but, nevertheless, it is highly necessary that he should be familiar with it. I do not know whether appendicitis can cause muco-membranous colitis; but, on the other hand, I do know that muco-membranous colitis can cause appendicitis. For instance, about three years ago a lady came under my observation who was undoubtedly suffering from muco-membranous colitis. She had all the general and local signs. When the constipated bowels acted after aperients mucus and mucous casts of the intestine were present. These casts were seen under the microscope to consist of mucus and epithelium, but without any trace of blood. Now, although the whole course of the colon was tender, nevertheless the tenderest spot was at McBurney's point, and there she felt the greatest pain. This had led two able physicians to diagnose chronic appendicitis and advise removal. In addition a surgeon had rather heedlessly spoken of the possibility of malignant growth. It was not easy for me to decide whether the appendix ought to be removed. Whilst the muco-membranous colitis was not at all dangerous to life, clearly the inflamed appendix might be. The removal of the appendix would at all events obviate this danger, and might at the same time have a favourable influence upon the muco-membranous colitis; a favourable influence such as the operation is known to have on mucous colitis. The question of malignant disease would also be laid at rest. So, with a perfectly clear understanding that the colitis might not be cured, the appendix was removed through the rectus incision. It was about 4 in. long, distended, congested, and lay upon the pelvic brim beneath a capacious caecum. As far as could be seen and felt the abdominal contents were perfectly healthy. The microscope showed that the coats of the appendix, especially the muscular, had been thinned by distension, that the mucosa and submucosa were slightly inflamed, with much dilatation of their lymphatics; also that much of the lining epithelium had been shed into the lumen, which contained, in addition to the shed epithelium, bacterial, faecal, and mucous contents. It is reasonable to assume that we have here a picture of what would have been seen if the intestine itself could have been microscopically examined. With the exception of the thinning of the coats the changes would have been the same. But to my mind the appendix did not seem to be in a particularly dangerous state. We know perfectly well that this form of muco-membranous colitis may continue for years without jeopardizing the life of the sufferer; nevertheless, its progress and dangers may be different when it spreads into a narrow, easily occluded canal, such as is the lumen of the appendix, especially when that lumen loses much of its epithelial lining, and harbours bacteria of various kinds.

I have tried to find out what good was done by the removal of this appendix. The patient herself is convinced that her condition has been decidedly improved. I doubt myself whether the colitis is really much better, but the abdominal pain and discomfort are much less, except when she allows herself to become constipated. Also the violent headaches and incapacity for any mental exertion are better. Putting aside the gain in safety from a serious attack of appendicitis, she herself is quite sure that she has made decided improvement since the operation, and is hopeful of complete recovery.

The literature I have read has not given me much information concerning the relationship between muco-membranous colitis and appendicitis. One author says: "It has been asserted that pathogenetic relations exist between appendicitis and enteritis membranacea, but this does not brook criticism at all."[1] There is a fine air of didactic finality about this sentence. Doubtless the incessant use of the microscope would show that, as in the case I have just given, the appendix may be inflamed in muco-membranous colitis.

I now narrate a case of quite a different kind of colitis, and in which the appendix was inflamed and ulcerated. A man, aged 35, was admitted into St. Bartholomew's Hospital under my care on May 3rd, 1902, and died a month later. In December of 1901 he began to have diarrhoea. At first the bowels acted from two to four times in the twenty-four hours, but latterly from six to twelve times. The motions contained soft faecal material, undigested food, much blood, and muco-purulent material. Many patches of ulceration could be seen in the rectum. They oozed blood freely. The abdomen was tender, but no pain was complained of except when the bowels acted. At first the temperature was 98.4° F. and the pulse 90. During the last days the temperature ran up to 103° F. and the pulse to 140, and he became exceedingly emaciated.

The examination showed that the body was healthy throughout, with the exception of the large intestine. That "was congested, with some ulceration, and with many well-defined, dark, raised nodules." The presence of the dark, raised nodules led the morbid anatomists to label the case as one of colitis polyposa. Mr. Ernest Shaw saved a portion of the intestine and the appendix.

In the intestine the whole depth of the mucosa was ulcerated away, so that no trace of the tubular glands remained. The submucous, muscular, and peritoneal coats were much inflamed, with dilatation of their blood vessels and lymphatics. There was marked proliferation of the endothelial lining of many of the blood vessels. The

base of the ulcers had in them numbers of intestinal bacteria. We had no reason to suspect that the appendix had suffered, but microscopically it was ulcerated exactly the same as the intestine. Its mucosa had disappeared, and its lumen contained pus cells, epithelial cells, red blood corpuscles, and a few bacteria. The endothelial plates of many of the blood vessels and lymphatics were swollen and detached.

The impression left upon my mind by the histological examination of this intestine and appendix is that bacteria had little to do directly with this condition. In other severe kinds of ulceration of the appendix the invasion of the coats by bacteria is almost an invariable feature. On the other hand, the alterations in the endothelial linings of the vessels of the intestine and appendix suggest very strongly that they at all events were at fault. Many possibilities suggest themselves—were they inflamed by something which had entered them from the ulcerated surface, or were they altered by something conveyed by the circulation? The high temperature and the accelerated pulse show that some poison had entered the circulation, and that that entrance was synchronous with an aggravation of the intestinal disease.

We do not know, but it seems probable that the ulceration of the appendix began after that in the intestine, also it was obviously due to the same cause. I regret that this case has not been more scientifically worked up. We are quite in the dark as to the state of the splanchnic nervous system. Many things were tried to avert the fatal ending. The rectum and as much as possible of the colon were lavaged with weak solutions of nitrate of silver. The rectum was systematically drained with rubber tubing. Colotomy or typhlotomy were not tried although often discussed. Perhaps it would have been better to have tried one of these expedients. Clearly the removal of the appendix was out of the question.

REFERENCE.

[1] *The Diseases of the Intestines and Peritoneum.* Nothnagel; edited with additions by H. D. Rolleston, 1904. p. 228. This excellent work, which Dr. Rolleston has so ably edited, is most helpful.

An Address

ON

THE OPERATIVE TREATMENT OF CERTAIN SEVERE CASES OF INDIGESTION.

Delivered before the Oxford Medical Society.

BY W. BRUCE CLARKE, F.R.C.S.,

Surgeon, St. Bartholomew's Hospital; Examiner in Surgery, University of Oxford, etc.

WHEN I was asked to read a paper before the Oxford Medical Society it seemed to me, on reflection, that there was no subject which could be of wider general interest than that of severe indigestion. It is interesting to the physician as well as to the general practitioner, because the number of cases of this condition which they are called on to treat must necessarily be numerous, and demand the exercise of much patience and skill in their management. This subject is also at the present time especially of great interest to the surgeon, because he is being called upon to supplement medical measures by surgical when drugs fail to alleviate severe conditions of this nature. I feel, therefore, that I may reasonably hope from the discussion, to which this is a prelude, to elicit some new facts—and I hope, too, some new indications—by which we may be enabled to learn more accurately how long it is justifiable to trust in medical treatment, and at what period the aid of the surgeon should be called for.

Without more ado, therefore, I will briefly put before you my own views on the indications for operative treatment, so that you may at once determine whether you agree with me or not.

The cases in which surgical interference is called for may be divided into acute and chronic. I will deal with the acute varieties to start with, because I do not think you will differ much with me in the propositions which I shall lay down about them.

1. Ruptured gastric and duodenal ulcers should always be treated surgically without delay.

2. Severe cases of haemorrhage which threaten life should likewise be treated by opening the belly and securing the bleeding point or points.

3. When chronic ulcers of the stomach and duodenum cease to improve under medical treatment, surgical interference is indicated and is capable of affording much relief.

In order to enable me to devote the bulk of my time this evening to the consideration of this third proposition, I will merely allude briefly to ruptured ulcers and the surgical treatment of haemorrhage from the stomach. The symptoms of a ruptured ulcer are generally characteristic. The patient who has usually suffered for some time previously from chronic dyspepsia, is suddenly seized with an attack of severe pain in the region of the stomach and duodenum, and becomes collapsed, usually before many minutes have elapsed. Sometimes he vomits the contents of his stomach. His pulse-rate speedily falls, and in severe cases the pulse is soon scarcely perceptible. If he is placed quietly in bed and kept warm with blankets and hot bottles, the general condition will speedily improve especially if a small amount of morphine is administered. This temporary improvement is often very deceptive. It is important to recognize the fact that it occurs, or the medical attendant may be liable to defer summoning the surgeon until the period for operative interference has well-nigh passed away.

If the diagnosis of this condition is unattended with much difficulty in those cases in which the symptoms are well marked, it is in some cases hedged round with considerable difficulty, and a great responsibility will always rest on the doctor's shoulders whether an operation be suggested at once or expectant treatment is decided on, at least for a time.

But even if an operation is decided on, no prudent surgeon would state that it should be undertaken on the spur of the moment. It is rare to find the patient's condition so grave within an hour or two of his seizure as to demand immediate interference. The more favourable moment to seize is shortly after the temporary improvement which I have just referred to has taken place, and if the warmth of bed and hot bottles is not sufficient to induce temporary abatement of the more urgent symptoms, an injection of a pint or more of hot saline solution, at about 100° F., into the rectum is usually attended by a very beneficial effect. It is certainly not easy, and probably not possible in all cases, to distinguish between a ruptured gastric and a ruptured duodenal ulcer, but when once the peritoneal cavity has been opened the distinction is not usually a difficult one. The fluid which issues from an ulcer of the duodenum is clear and limpid, and reminds one of the contents of an ovarian cyst, and at first is usually confined to the right side of the abdominal cavity, to which it is limited by the attachment of the mesentery. It is on this account that some of these cases are recorded as being mistaken for an attack of appendicitis, for the effused fluid finds its way into the right iliac fossa and gives rise to pain in that region. The sudden bursting of an abscess in this region of the abdomen, the rupture of a gall bladder, or plugging of the mesenteric veins may be mistaken for this condition, and so also may a ruptured tubal gestation. Errors in diagnosis have been recorded by various observers, but in most, if not all of them, an operation was urgently called for in order to save the life of the patient.

The fluid which issues from a ruptured gastric ulcer is usual greater in amount than that which finds its way out of a duodenal ulcer, mainly, I believe, because the stomach holds more than the duodenum, and also because stomach perforations are usually of considerable size and thus permit the easy escape of stomach contents. The character of the fluid which is poured out from the stomach when an ulcer ruptures varies much more in character and consistency than does that which comes from the duodenum, and this depends mainly on the stage of digestion at which the rupture occurs. It would appear from the observations of various surgeons that the ulcers which rupture are more commonly found on the front surface of the stomach or on the back of the first part of the duodenum. These regions, therefore, should be first searched by the operator. The search will be much assisted by a momentary inspection of the abdominal cavity as soon as it is opened. The direction from which the effused liquid is flowing forms a valuable guide to the position which the ulcer occupies.

The method which I usually adopt is to make an incision about 3 in. in length, parallel with the fibres of the right rectus muscle above the umbilicus, because an incision in this position gives good access to the part affected, and generally results in a good sound scar when it is healed. If the ulcer be not within reach from this incision it must be extended, and occasionally the whole rectus muscle will have to be cut across before it can be satisfactorily dealt with.

Assuming, however, that the stomach and duodenum are not bound down by adhesions, which is rarely the case in perforating ulcers, it is generally possible to bring up into the wound the aperture through which the contents have made their escape. When once the surgeon is face to face with the ulcer, several methods are open for its treatment. It may be excised, and its edges brought together by a fine silk suture, or the edges of the ulcer may be brought together without excision, and the peritoneal surfaces slightly inverted. Neither plan is easy of performance on account of the hardening of the neighbouring tissues, which is generally an accompaniment of these ulcers. Time is usually an important factor in the operation if the patient's life is to be saved. Latterly I have contented myself with simply drawing the edges together with sutures, and then covering the ulcer, if possible, with an omental flap. This method has, in my hands, succeeded better than any other.

When the sutures are inserted and tied, the stomach or duodenum, as the case may be, is returned into the abdominal cavity; and a glass drain is inserted through a fresh incision into that portion of the abdomen where the largest amount of fluid is found, the original wound being closed with sutures. This seems to me to be a better plan than placing a drain in the operation wound, as it leaves the wound free to heal, and, if suppuration occur, there is less chance of a hernia later.



Fig. 1.

The propriety of surgical interference in gastric haemorrhage is by no means so well established as in cases of ruptured ulcer, nor do I for one moment wish to suggest that it is likely to be called for in any large number of cases of gastric ulceration. If, however, so large an amount of blood has been lost suddenly as to threaten the patient's life, or if by repeated haemorrhages of smaller amount such a condition of weakness and anaemia is induced as to suggest the likelihood of a fatal issue, a good case has, it seems to me, been made out for the treatment of this condition by surgical rather than medical measures.

There are several preparations in the museum of St. Bartholomew's Hospital of gastric ulcers, in which the walls of the splenic artery have been attacked by the extension of a gastric ulcer, and death has resulted from severe and, one might almost say, sudden haemorrhage. Such cases are often quoted as indications of the need of surgical interference. But even if we admit—as, no doubt, we all should—that they are indications of the need of surgery, it by no means follows that the surgeon's efforts would be likely to meet with success in all such cases. I was once a witness some years back of a death which occurred from this cause. The patient in question was a young woman who had been suffering for some time from symptoms of gastric ulcer, but I have no recollection that there was anything in her symptoms which would have led one to suppose that her death would take place from haemorrhage. She was suddenly seized with a violent pain in the stomach, and vomited, I think I may say, several pints of almost pure blood. In less than an hour she had breathed her last. Ulceration had taken place into one of the arteries of the pancreas. I doubt if any surgical interference could have been prompt enough to save her. It is difficult to obtain a record of the length of time that elapses between the onset of the bleeding and the death of the patient in these cases of sudden haemorrhage. The cases which in all probability will yield better results are those which do not exist in museums, for the simple reason that if they did they would show no morbid change that would be visible to the naked eye. I cannot do better than relate one which came under my care a short time back.

I was asked by one of my medical colleagues to see a young woman who had suffered for several months from the usual symptoms of gastric ulcer. Several severe attacks of bleeding had occurred, and as the last attack had left her all but

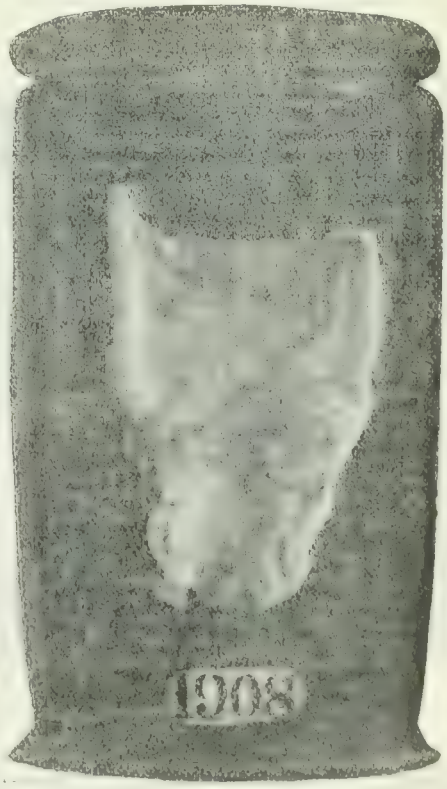


Fig. 2.

pulseless, surgical interference was suggested. I opened her abdomen, and incised the stomach. I introduced my finger into its interior, and could find no evidence whatever of ulceration. There was, however, one spot from which blood was oozing. I passed a stitch of fine silk round it and arrested the bleeding without difficulty. I took care to transfix some of the mucous membrane, so as to prevent my ligature from slipping. After careful search I found one or two more bleeding points and treated them in the same manner. The opening in the stomach was closed in the ordinary way, and the organ returned into the abdomen. A good recovery resulted, and I understand the patient has remained in good health since.

Cases of this kind have been recorded by other surgeons, and they open up a vista of future success. So far as one can judge from published cases, a fine ligature, which transfixes the mucous membrane, offers the best chance of success. A cautery has been tried in some cases, and has, I believe, resulted in failure in every instance.

But, as I told you when I began my remarks, my object is to draw your attention rather to chronic cases of ulceration, which have not, I think, received the full amount of surgical attention which they deserve, and, in order that I may emphasize the class of case to which I am now referring, I have here a series of lantern slides of stomachs with ulcers to which I should like to direct your attention for a few minutes. They are taken from specimens in the Museum of St. Bartholomew's Hospital.

Fig. 1 shows a portion of the front wall of the stomach of a girl, aged 20, who was brought into the hospital some years ago. She was seized with sudden pain, became collapsed, and died just twenty hours after the onset of her attack. The clinical records state that no history whatever could be obtained of previous gastric trouble, beyond possibly slight pain occasionally after food. This had not been severe enough to lead her to seek medical aid.

The specimen represented in Fig. 2 consists of a portion of the stomach and duodenum, which displays a well-marked and deeply-cut ulcer situated just at the pylorus. It can hardly be said to belong either to the stomach or duodenum, as it invades both of them equally. It was taken from a man, aged 45, who had suffered for many years from severe pain after food. He had been unable to earn his living for some time. He appears to have suffered from haematemesis and constantly vomited his food. His death was due to exhaustion, and he was supposed during life to have suffered from cancer, but the microscopic examination of the specimen does not support that view.



Fig. 3.

Fig. 3 exhibits a large ulcer close to the pylorus situated on the back wall of the stomach. This specimen was taken from a man, aged 36, who had suffered from pain after food for three years. One week before his death he was admitted into hospital in consequence of copious haematemesis, which continued, and was accompanied by melaena until death took place, which was caused by the weakness induced by repeated bleeding, and did not result from a large and violent attack of haemorrhage. The base of the ulcer was found after death to be in direct communication with an aneurysm of the splenic artery, which was closely attached to the ulcer. The pancreas is stated to have been hard and thickened.

Fig. 4 is a dilated stomach in which the pylorus and commencement of the duodenum are affected by cancer. The interest which attaches to this specimen is largely enhanced by the fact that it is stated that there was no infection of the surrounding parts.*

It is only by a careful study of the various specimens which have been preserved in our museums to illustrate the diseased conditions that affect the region of this body, coupled with the clinical histories of these cases, that we can form any idea of the onset and progress of the diseases in question, and of the steps that must be taken to treat them by surgical measures when medical treatment has done all that it can for them.

What can be more striking than the first of these cases? A large ulcer, which must have taken some time to form, and in its centre a smaller one which perforated and caused death in less than twenty-four hours. There can be no doubt of the propriety of surgical interference in such a case.

Two of these preparations display marked ulceration just at the pylorus; in one the disease was innocent in character and in the other malignant, but in both cases the pain is stated to have been excruciating. Whenever the pain is severe in these cases it is almost absolutely certain that the ulceration is situated close to the pyloric orifice. In all probability the pain is due to the squeezing of the food over the ulcerated surface during its passage from the stomach to the duodenum, which process gives rise to much of the pain that is complained of. The preparation in which the ulceration is innocent in character displays another point of importance. It proves very clearly that if the ulcer had been healed completely during life, the only possible result would have been to block the pylorus and prevent the contents of the stomach from finding their way into the duodenum. It is difficult to see what plastic operation on the pylorus could possibly have remedied this state of affairs. It is equally certain that no plastic operation on the pylorus could have been of any avail in the case of cancer. Though both of these cases were diagnosed as cancer during life, in only one of them was the diagnosis confirmed at the autopsy. An accurate diagnosis in an early stage of this disease always presents a difficulty.



Fig. 4.

The other case in which an aneurysm of the splenic artery exists is only one of many preparations, which all illustrate the possibility of invasion of an adjacent artery by the process of ulceration.

I think, then, we may fairly say, after an examination of these specimens, that chronic ulceration of the stomach which is not amenable to medical treatment, especially when such ulceration is situated in the neighbourhood of the pylorus, demands surgical interference.

The next question to ask ourselves is, What are the means available for treating this condition surgically? The earlier attempts of surgeons were directed towards enlarging the pylorus either by forcible dilatation (Loreta's operation) or by pyloroplasty. Neither of these plans are much in favour at the present time, because, even if they are successful at first, subsequent experience has shown that cases treated by either of these plans are liable to relapse. An examination of the specimens of pyloric obstruction which are preserved in our museums shows that whether the ulcerative process is innocent or malignant in character it is liable to spread some distance from the spot where it began, and that is is often so situated as to preclude any possibility of restoring a suitable outlet for the stomach in the natural position. The larger one's experience in these cases and the more often one is called upon to treat them by operative interference the more important does this view of the case become, and hence it is that gastrojejunostomy, in which two healthy portions of gut

* A large series of lantern slides of other specimens, in addition to those which are here figured, were displayed in order to demonstrate the actual conditions that are met with in the ulcerative affections which attack this region of the body. For the photographs from which these illustrations are taken I am indebted to Mr. Glenny.

are selected for union, has come to be regarded as the form of operation best suited to the majority of these cases.

A portion of the jejunum situated about 5 in. or 6 in. from its commencement is now usually selected as the most suitable point for connexion with the stomach. The jejunum is very movable at this spot, so that union can easily be effected without any undue tension on the surrounding parts. The tranverse mesocolon is scratched through with some blunt instrument and a portion of the lower and back wall of the stomach selected which is fairly free from blood vessels, and it is here that an opening is made and the stomach united to the jejunum.

The general principle of the method which is employed will be rendered perfectly clear by a reference to the accompanying diagram (Fig. 5); but it cannot be denied that there are disadvantages in an operation thus performed. The bile and pancreatic fluids must, it is clear, follow the course which is indicated by the arrows, and these fluids are liable to pass back into the stomach before they reach the lower parts of the small intestine. Though in many instances this does not appear to influence the future progress of the case, this is not always so by any means. A few days after the operation the patient may begin to vomit quantities of dark-brown material, which speedily results in a fatal issue, owing to what is known

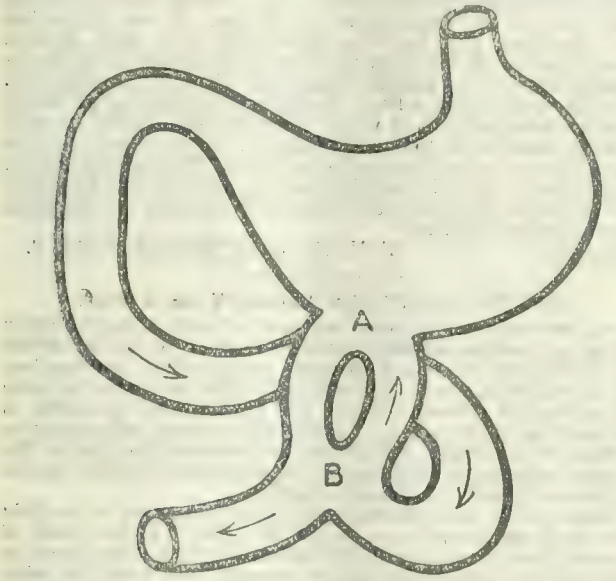


Fig. 5.

as the vicious circle being set up. Various methods of operation have been devised with a view to preventing the passage of the bile and pancreatic fluids into the stomach. The simplest method of effecting this object is to make a second junction between two adjacent loops of jejunum. (See Fig. 5, *B*.) The effect of this plan, which was, I believe, first suggested by Lauenstein, is to carry the bile and pancreatic fluids direct into the intestine just below the gastrojejunostomy opening, and thus obviate any chance of the vicious circle supervening. Since I have adopted this method of operation I have not been troubled by the occurrence of the vicious circle after these operations.

There can be but little doubt that the ideal operation for the relief of pyloric obstruction is pylorectomy, inasmuch as the natural relationship of the parts is preserved, there is no vicious circle to be feared, and the occurrence of a peptic ulcer in the duodenum has, so far as I am aware, never been described as a sequel to pylorectomy.

Quite recently Finney has described a new method of pyloroplasty as he terms it, which is in reality a gastroduodenostomy which includes the pyloric orifice. Armour has discussed the possibilities of the operation in a paper which has appeared in a recent issue of the BRITISH MEDICAL JOURNAL,[1] and amongst other remarks states, "active ulceration would appear to be possibly the only objection to this operation."

Few surgeons would differ from this statement, but it must equally be borne in mind that it is in order to stem the progress and minimize the effects of active ulceration that the operation of gastrojejunostomy is usually undertaken, and as will be seen by the details of the cases which I am about to narrate, gastrojejunostomy is often the only method of gastrointestinal anastomosis that can be safely performed in these cases.

CASE I (Abstract).

A. G., aged 54. Had suffered from severe indigestion for several years before I saw him. He could rarely keep a meal down, and was quite prevented from earning his living by pain and the weakness which it produced. He had at times suffered from haematemesis. Before I saw him he had been under treatment both as out-patient and in-patient at various hospitals, and had been taught to wash out his stomach. With great care he managed to get along, but obtained no permanent relief from his symptoms.

His abdomen was carefully examined both with and without an anaesthetic, but nothing abnormal could be detected, except that he always complained of some pain on pressure in the epigastric region. An exploratory operation with a view to treatment was decided on, and an incision was made through the right rectus muscle just above the level of the umbilicus. The stomach was found to be drawn up towards the liver by adhesions, and the pylorus was hard and thickened. The adhesions were so dense that it seemed futile to make any attempt to break them down. A gastrojejunostomy was therefore performed by the retrocolic route, and the two adjacent loops of jejunum were united in the manner I have just described. Recovery was uneventful, and before the patient left the hospital he was able to take solid food with ease and said he felt perfectly well.

CASE II (Abstract).

E. T., aged 38, was under my care in St. Bartholomew's, and the following history was obtained of his condition:

Vomiting and haematemesis during the previous six months; admitted he had drunk a good deal. On the morning of the day on which I saw him was seized with a severe pain whilst driving his cab. As the pain got worse and he felt very ill he was brought to the hospital and admitted, as he was evidently seriously ill. After he had been put to bed and carefully examined his condition was as follows: The right half of his abdomen, especially at the upper part, was tender to touch, and scarcely moved at all with respiration. Inspiration was painful.

I saw him for the first time about six hours after his seizure. His general condition had improved somewhat, and he felt fairly comfortable as long as he was fairly still. Temperature, 101.2°; pulse, 90. The tenderness in the upper part of the abdomen had increased somewhat, and the whole of this area was dull to percussion. The intense tenderness, coupled with the previous history of sickness after food and haematemesis, seemed to point to a leaking gastric or duodenal ulcer. The abdomen was opened through the right rectus. There were abundant adhesions. On reaching the pylorus some turbid serum welled up, accompanied by a small amount of gas. The pylorus itself, together with the stomach and duodenum for about an inch on either side of it, was firmly bound down to the surrounding parts. The condition was an exceedingly difficult one to deal with. The patient was in no fit condition to stand a pylorectomy, and it seemed impossible to get at the ulcer to close it. Moreover, it was clear that there was considerable pyloric obstruction.

As far as possible the extravasated stomach contents were sponged out. A considerable amount had leaked into the right half of the abdomen. A glass drain was inserted midway between the ribs and the crest of the ilium. I closed over the ulcer with an omental flap, and performed a posterior gastrojejunostomy, so as to ensure a free passage for the stomach contents. The immediate result was perfectly successful so far as his life was concerned. More radical measures may possibly be considered later if it is deemed necessary.

CASE III (Abstract).

E. W., 59, who had suffered from severe attacks of indigestion for some years past, first came under my care in January, 1904, with what appeared to be an attack of chronic intestinal obstruction, which was relieved by rest in bed, enemata, and careful feeding. A month or two later he returned evidently much worse, thin and emaciated, and a lump could be felt in the region of his pylorus. After being suitably prepared for a few days he was submitted to operation. An incision was made, as in the two previous cases, through the right rectus. The diseased mass, which involved the pylorus, came up easily into the wound. There were no enlarged glands along the lesser curvature of the stomach.

A clamp was placed on the duodenum, which was severed about half an inch beyond the limits of the growth. The stomach was cut across about three inches from the pylorus. The upper part of the stomach wound was closed, and the lower part united to the duodenum by end-to-end anastomosis. Catgut was employed for the mucous membrane, and a continuous silk suture for the peritoneal and muscular coats. An excellent recovery resulted and the man is now perfectly well more than a year after the operation.

At the time when this growth was removed little doubt existed in my own mind that the case was one of cancer, and so it turned out to be. But a careful microscopic examination demonstrated that a cancerous growth was to be seen only in a small portion of the mass that I had removed, and it belonged to the columnar-celled variety.

These three cases are excellent illustrations of types of disease that give rise to severe indigestion, and yet are amenable to surgical treatment only.

The first case was one that had been under various physicians, and, though benefited for awhile during the time that treatment by dieting, rest in bed, and washing out was being

carried on, he speedily reverted to his former condition as soon as these methods could no longer be pursued. When the stomach was explored the explanation of this state of affairs was obvious. The pylorus was so contracted that food could only with great difficulty be made to pass through it.

The second case, when it was explored, exhibited much the same condition as the first, but illustrates in addition the possibility of rupture in these long-standing cases of ulceration, and the dangers to life which such patients may encounter in addition to the pain and inconvenience which they suffer.

The third case is especially instructive, as it affords evidence of a simple ulcer with surrounding inflammatory trouble becoming the seat later on of malignant disease, and emphasizes the great difficulty which must always exist in deciding from mere inspection and touch whether such a case is innocent or malignant in character.

It is undoubtedly difficult at the present time to speak with certainty on the indications for operative treatment in these cases of severe indigestion. The class of case to which I am referring owes its symptoms to the fact that the stomach is crippled and the pylorus obstructed. When this is the case, whether the obstruction is due to cancer or not, the stomach should be explored and the pyloric obstruction, if possible, removed. If removal of the mass is impossible an almost immediate relief can be obtained by having recourse to gastrojejunostomy.

REFERENCE.

[1] Vol. i, 1905, p. 123.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OTOLITH REMOVED FROM THE EXTERNAL AUDITORY MEATUS.

A. L., aged 30, female, consulted me on account of extreme tinnitus aurium and deafness. She stated that she had been slightly deaf since a child, but during the last two years the deafness had become very much worse and the noises in her head unbearable. Two years ago she consulted a medical man about her ears and underwent treatment for a month; since then she has received no treatment. She has had slight discharge at times from the left ear.

On the right side the external auditory meatus was quite clear; the membrana tympani was opaque, thickened, and retracted, but there was no discharge.

On the left side the external auditory meatus was entirely blocked, so that the speculum could not be used. With a probe a hard substance was felt, filling the meatus. Repeated syringing failed to move it. After separating it all round the meatal margin with a thin probe I extracted with forceps a cone-shaped foreign body. All that could be seen after removal was a bed of granulations, which bled freely. I sent this specimen to the Clinical Research Association and received the following report:

> The otolith was found by microchemical methods of analysis to consist of epithelium and waxy material, with calcium phosphate and carbonate and traces of triple phosphate. No nucleus of any foreign material could be found. The otolith weighed 4½ gr.

The patient came to see me a few days after removal of the otolith; the granulations were discharging a little pus. She stated that the noises in the head were much better, but there was no alteration in her hearing. She also stated that she had no idea that there was anything in her ear before coming to see me.

Unless I am mistaken, this is a unique case, as I have never seen any publication on otoliths.

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Winchester.

BREECH PRESENTATION COMPLICATED BY SPINA BIFIDA AND HYDROCEPHALUS.

ON February 1st I was called to see Mrs. C., aged 41, in labour. She had previously been delivered of four healthy children, both the labours and presentations being normal in all respects. The last confinement took place seven years ago. I found the os about three-quarters dilated. The membranes had ruptured some hours previously. The breech was presenting. All went on well till the breech and legs had been born. A few weak pains sufficed to expel the body of the child another few inches—sufficient, at all events, to bring to view the commencement of a spina bifida. Then the pains ceased altogether. I waited in vain for three-quarters of an hour for another. I then examined the abdomen, and found that the uterus had not diminished in size to any appreciable extent. My first thought was that it was a case of twins, and that the second child was obstructing the delivery of the first.

I gave chloroform, and introduced my hand and arm into the vagina and uterus, and found the latter occupied by an enormous hydrocephalic head. I had no perforator with me, but determined to try ordinary domestic sharp-pointed scissors. The head was high up, and the vagina, being already obstructed by the body of the child, and the scissors rather short, it was a very difficult business to direct the scissors with the left hand and puncture with the right. After many attempts I succeeded in perforating at the nearest possible point, and with my left hand in the uterus squeezed as much fluid as possible out of the hydrocephalic head. I then inserted my left forefinger in the mouth, and, with my right index and middle finger on the shoulders of the child, pulled hard and delivered. The uterus contracted at once and very soon expelled the placenta. The spina bifida was of the syringomyelocele variety. It was covered not by skin but by a thin translucent membrane. It was quite flat and bleeding, and had the appearance of a large broken blood blister. It involved practically the whole of the dorso-lumbar region. In length it measured 4½ in., in breadth 2 in. The appearance of the head was that of a large bag of bones. I took a measurement of where the maximum vertico-mental measurement ought to be and found it 10 in. In other respects the child was normal and well developed. The mother, so far, is doing well. It is interesting perhaps to note that five years ago I had to perforate the after-coming head for the same reason (hydrocephalus).

Alfreton. F. M. BINGHAM, M.R.C.S., L.R.C.P.

THE TUBERCULOUS MONKEY AS A PET.

A POSSIBLE and unsuspected source of tubercle infection came under my notice recently in Sierra Leone. A soldier asked my laboratory attendant to make away with a pet monkey which had been a long time sick and which he wished to have put out of its misery. I took the opportunity of making a *post-mortem* examination. I found the monkey suffering from disease of the lungs, intestines, and mesenteric glands, the disease being most advanced in the abdominal parts. Staining showed plenty of tubercle bacilli.

Monkeys are not common enough at home to make this matter of any importance, except in "Zoos," where many of these animals I understand die of consumption; but barracks and private houses abroad are always well supplied with monkeys. It is evident that they may be a source of danger to man. This particular monkey had been a station hospital pet. There were tuberculous cases in the hospital. It is quite possible the monkey contracted the disease from one of them. Obviously the precautions which were taken to disinfect sputum, etc., of the men were not of much utility while the monkey was shedding bacilli around. We are more nearly related to the monkey than to the cow, and there can be little doubt that human and monkey tuberculosis are identical.

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Woolston, Hants. D.P.H.Durh., D.S.O., Major, R.A.M.C.

SURFACE MARKING OF THE CHEST.

I QUITE agree with Dr. J. L. Rentoul[1] that the old regional divisions of the chest are almost useless, and I would like to draw his attention to a new regional chart which will be found illustrated in the third edition of my *Index of Symptoms*. I was struck by the resemblance of the ribs and spaces to degrees of latitude, and I proceeded to form degrees of longitude by adapting the columns between well-known vertical lines such as the mammary, the sternal, and the parasternal. Each rib bears its number, each space its number with an "x" added. On the other hand, the vertical columns are *lettered*: thus, that between the mammary and the parasternal line is the "internal mammary column" (I.M.). The intersection of column and zone forms the new region, each region having the number and letter of its congeners—for example, the normal position of the heart's apex is I.M. 5x left, since it is in the fifth interspace and within the internal mammary column. I claim that these new regions are small enough to

[1] BRITISH MEDICAL JOURNAL, January 28th, 1905, p. 184.

be really useful, and, since they can be expressed by a formula, are handy for note-taking and easy to remember.

London, S.W. R. W. Leftwich, M.D.

THE TWISTING OF THE FUNIS.

The memorandum by Dr. Dukes in the British Medical Journal of January 14th ends by a query whether the child is not injured by the twisting of the funis. The following case bears somewhat on the subject.

In December, 1897, I attended a young woman prematurely confined at about six and a half months. It proved to be a case of twins, and I was struck by the great difference in the appearance of the cords. That of the first showed little sign of twisting, whilst that of the second child, born about an hour later, was twisted to a very marked degree. Both children survived their birth only a few hours, but the first—that is, the one with slight twisting of the cord—lived nearly twice as long as the second.

At the time I asked a senior fellow practitioner if there was any connexion between the degree of twisting of the funis and the duration of the extrauterine life, but he could not tell me.

Belfast. Victor G. L. Fielden, M.B., B.Ch.

THE GUAIAC TEST.

Two methods of applying this test for haemoglobinuria are usually taught. In one the tincture of guaiacum is shaken up with the urine and then the ozonic ether is layered on top. In the other, ozonic ether is first shaken up with the urine, then the guaiacum is added and mixed by further shaking. I have found a combination of these two methods more delicate and more rapid than either of them alone. A few drops of ozonic ether are shaken up with a drachm or so of urine to dissolve out the haemoglobin, then a few drops of guaiacum tincture added and the urine again shaken, and finally, if no blue colour appears immediately, ozonic ether is layered on top. A blue ring appears, as in the first method, and indicates a trace of haemoglobin.

Glasgow. Lewis McMillan, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HULL ROYAL INFIRMARY.

A CASE OF HOUR-GLASS CONTRACTION OF THE STOMACH: GASTRO-ENTEROSTOMOSIS ANTECOLICA INFERIOR: RECOVERY.

(Recorded by Edward Harrison, M.A., M.D., F.R.C.S., Honorary Surgeon to the Infirmary.)

C. N., aged 17, the son of a farmer, was admitted into the Hull Royal Infirmary on November 11th, 1904.

History.—He was of a healthy stock, and there was no evidence of tubercle or of carcinoma in the family. For the past two years he had been suffering from dyspeptic trouble, and had gradually lost ground. He had had pain after meals and constipation, but no vomiting. In spite of medical treatment he gradually had to reduce his diet on account of the pain experienced after taking food.

State on Examination.—He was first seen by me on the day before his admission to the infirmary. His condition was then as follows: He was extremely emaciated, had risus sardonicus strongly marked. His ribs stood out prominently, and his abdomen was retracted. His limbs were apparently skin and bone, and he had a pulse of only 40. In spite of this he was able to walk feebly about the room, and was not confined to his bed. On palpating the abdomen a splashing sound was easily elicited in the epigastrium. His diet at this time consisted only of fluids, Benger's food, milk, and raw eggs. Anything else gave him great discomfort and an indescribable sensation in the abdomen. But there was no vomiting.

Diagnosis.—A diagnosis of gastric obstruction was made, and his removal to the infirmary advised.

Progress.—His condition on admission was too unsatisfactory for any immediate operation. He was, therefore, kept in bed and fed carefully on fluids, and his bowels attended to. In the course of three weeks he improved considerably; he gained 3 lb. in weight; his weight on admission was 6 st. 13 lb. The risus sardonicus was much less pronounced, and his abdomen and chest showed a gain in weight. Repeated examinations showed that the stomach was often very much distended, the stomach note frequently reaching as high as, and to the left of, the nipple. A splashing sound could always be detected after meals. On one occasion 2 pints of water were passed into the stomach and then siphoned out. Exactly the same amount was returned, and still the splashing sound was present in the epigastrium (Jaworski's sign). A diagnosis of hour-glass contraction of the stomach was made. During this period, too, his general condition improved, and his pulse came up to 70, and his temperature, which had been subnormal, reached the normal. On December 9th he was again commencing to lose weight, so it was decided to operate.

Operation.—On December 14th, after having had a sterilized diet for a few days, and having used his toothbrush freely, his abdomen was opened. There were no adhesions, and the stomach could be pulled out easily. As expected, there was a constriction not far from the pylorus. The constricted part was about the diameter of the small intestine. The pyloric pouch was the smaller of the two sacs. Kocher's gastro-enterostomosis antecolica inferior was done according to the author's directions, with the exception that a decalcified bone bobbin was inserted. The patient bore the operation well, and at the conclusion had an injection of 10 minims of liq strych.

Result.—On the day following the operation he had a good deal of pain, and had a morphine injection. He was fed by nutrient enemata, and had sips of hot water. His shoulders were kept raised, so that any fluid taken by the mouth might readily enter the intestine. On the second day he had a great deal of pain, so that a morphine injection was given at night. On the third day he was much more comfortable, and was able to take a small quantity of fluid food. On the fourth day he was able to take 5 oz. of fluid food at a time, and there was no vomiting. On the fifth day he had a dose of castor oil, and the bowels were relieved. The subsequent progress was uneventful, and on Christmas day, twelve days after the operation, he had a little chicken and plum pudding. The sutures were removed on the eighth day, when the wound was found to be healed by first intention. He was discharged from the infirmary on January 6th, 1905, taking ordinary diet, and having a good appetite. On his discharge his weight was 7 st. 1½ lb. On January 24th he looked a different boy. He had filled out immensely, and his weight was 9 st. 1½ lb. This was, however, in his ordinary clothes, while his weight in hospital was taken in dressing-gown and slippers. On February 3rd he weighed exactly 10 st., and was doing full day's work at the plough.

Remarks.—A peculiar feature in the history of this case is the absence of vomiting, which is usually one of the most constant symptoms. The stricture was produced most probably by a circular ulcer of the stomach, though at the operation there was nothing to see except the stenosis. There were no adhesions, and the stomach walls were not thickened at the site of the stricture. The diagnosis was made from the presence of Jaworski's sign, and it was considered unnecessary to subject the patient to the discomfort of distension by gas. The rapid increase in weight, too, is to be noted, as he added a third of his weight in the month following the operation.

CASHEL UNION HOSPITAL.

SOME CASES OF FRACTURE.

(By Thomas Laffan, M R.C.P.I., M.R.C.S.Eng.)

Since the date of Dr. Bennett's paper in 1900 many cases of fracture have been under my care, and the results under passive motion treatment have been so satisfactory that it seems to me useful to publish a note on the subject. Two of them may be quoted here. One was that of a man aged 60, who was admitted to the Cashel Union Hospital in January, 1902, with comminuted fracture of the bones entering into the knee-joint with the exception of the patella. The other was that of a man aged 27, who was admitted in January, 1903, with comminuted fracture of the upper end of the tibia. The first patient sustained the fractures by falling from the top of an electric lamp-post. The other sustained his fractures from the kicking of a vicious horse. Both seemed typical cases for the old fixation treatment, for in both the knee-joint was involved. The joint mischief was serious in the case of the elderly man, but slight only in that of the younger. Appropriate local treatment was, of course, employed for the joint mischief, yet on the tenth day in the minor case and the fourteenth in the major the splints were for the moment removed, and gentle passive motion employed with knee and ankle, and this was repeated on every eighth day. The results in these unpromising cases were most satisfactory. The patients had not to be detained longer in hospital than those treated under the old system. The union of the broken bones was complete and the deformity, despite the gravity of the breaks, was trifling, and certainly would compare advantageously with that under the ancient practice. Both patients left hospital with a slight lameness, which disappeared in the course of a little time, but were entirely free from that ankylosis which I found, as most others have found, to be the opprobrium of our art. It often struck me before Dr. Bennett's paper appeared that it was strange that we never gave due weight to the certainty and rapidity with

which broken ribs became united, though the broken members were moved no less than eighteen times in the minute.

Several other cases have been under my care, in which the results were equally fortunate, and I have merely selected these two for quotation because at first sight they seemed less promising cases for this system of treatment than any others. It is not pretended that the latter is suitable for universal application. Cases will doubtless occur where, for various reasons, it may have to be abandoned or not even tried. These, however, can only be differentiated by wide publication of cases. In the meantime the foregoing note is submitted to encourage their publication, for since Dr. Bennett's paper in the second volume of the British Medical Journal for 1900 I do not recollect having read of any trials of the treatment therein recommended. Indeed, within the last month I have seen an article in a leading medical paper, in which the writer, while deploring the stiff joints which are the invariable result of the ancient treatment, had nothing better to recommend than the employment of some new steel traction apparatus.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

PERTH BRANCH.

Clinical Meeting.

Perth, February 10th, 1905.

P. G. Borrowman, M.D., in the Chair.

Molar Pregnancy.—Dr. Paton showed a case. The patient, a primapara, aged 20, was admitted to the infirmary on January 8th, 1905, with severe vomiting, and rapid emaciation (lost 5 st. in three months). The pain was referred to the abdomen, and there was occasional slight flooding, followed by yellowish watery discharge. She was five months pregnant. Abdominal palpation showed the uterus to be enlarged, about 2 in. above the umbilicus; it had a doughy feel and lateral bulging; no fetal heart or movement, though the patient asserted that she felt movement. Vaginal examination gave a boggy feel, associated with placenta praevia. On January 18th the patient had rhythmic pains all day, and at 10 p.m. there was severe haemorrhage. On examination the os was soft, but could not admit the finger. The vagina was plugged, but at 11 p.m. another severe haemorrhage occurred, expelling the plug. The os could then admit the finger. The condition being very serious, chloroform was administered, and the os rapidly dilated by the fingers, the hand was plunged through the mass, and the contents evacuated. The placenta was adherent at the left cornu of uterus. This and the whole of the walls of the uterus were gently scraped by the finger-nails. The wall of the uterus felt very thin and friable. A douche of boiled water was given; saline transfusion and hypodermic of strychnine. The pulse was 100, but increased to 130 for three days. Troublesome diarrhoea occurred, which was controlled by opium. The temperature on the third day was 104° F. No offensive lochia. Antistreptococcic serum was given by the mouth. Thereafter recovery was gradual and complete. The contents of the uterus would about have filled a gallon jar. In appearance it looked like white currants floating in red-currant jelly, only the currants were gummatous. The placenta was about 3 in. in circumference. There was no trace of a fetus. Microscopical examination showed the usual degeneration of the villi of the chorion.

Disseminated or Insular Sclerosis.—Dr. Paton also showed the following case: The patient was a woman aged 33. She was admitted on January 13th. She had been ill for six years. At first there had been weakness of the right arm and leg, next slight jerking of the head; condition improved a little, and until two years ago she was able to work and could walk and use her arm better. She dated her relapse to two years ago, when she had domestic worry. On admission to the infirmary, there was marked weakness in the right arm and leg, and the patient could not walk without assistance. The arm was extended with difficulty, and there were fine muscular tremors. Some slight spasticity of the leg and rhythmic jerking of the head were noticed. There was decided nystagmus and the tendon reflexes all over the body were markedly exaggerated; double ankle and knee clonus and double extensor response of great toe. It could not be said that there was scanning speech, but it was somewhat deliberate. The bladder and other sphincters were normal. Treatment: High-frequency current (650 milliampères) ten minutes daily. The limbs felt stronger and the reflexes not nearly so exaggerated, otherwise *in statu quo*.

Cases.—Dr. Robert Stirling showed: (1) A case after excision of the shoulder-joint in a boy, in which movement was wonderfully good but still defective; he said it was difficult to know how far to go; it was best to strip off the periosteum and remove bone very freely, and not to lay too much stress on mobility of the shoulder-joint; otherwise the boy was well. (2) Osteomyelitis: The disease developed in a boy two weeks after an injury—simply a slight crush; there were few symptoms, but on operating half the tibia was found necrosed and had to be removed. (3) Mycosis fungoides: The patient was a boy; the condition began in the head and became a fungating mass, which yielded to treatment; later it started in the arms, legs, and back, breaking down and leaving huge ulcers; eventually the patient died of erysipelas, the duration of the disease lasting five months.

Paper.—Dr. Stirling also read a short paper on appendicitis, especially in regard to the symptoms and time for operation.

Bath and Bristol Branch.—The fourth ordinary meeting of the session was held at Bath on February 22nd, Mr. R. J. Scott, President, in the chair.—Dr. Charles Begg read a paper on sprue, and in the discussion which followed the President, Dr. Shingleton Smith, Dr. Harrison, Dr. Michell Clarke, Dr. Locket, and Mr. Tubb Thomas took part.—Dr. E. J. Cave read notes of a case of acute pneumococcic nephritis, and Dr. Neild and Dr. Markham Skerritt commented upon them.—Dr. Wilson Smith gave details of a case of thrombosis of the left common carotid, and remarks were made by Dr. Michell Clarke and Dr. Norburn.—Dr. R. Llewellyn Jones related a case of slow pulse with epileptiform convulsions, and comments were made by Drs. Skerritt and Cave.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Douglas Powell, Bart., K.C.V.O., President, in the Chair.

Tuesday, February 28th, 1905.

Discussion on the Prospects and Vicissitudes of Appendicitis after Operation.

Sir Frederick Treves introduced the discussion by the paper published at page 457.

Sir William Broadbent said that the paper by Sir Frederick Treves turned so entirely on surgical questions that he did not see where the physician came in. The consulting physician was in a particularly unfavourable position in regard to this subject. Patients were brought to him, and perhaps the existence of recurrent appendicitis was recognized, whereupon the patient was handed over to some surgeon, and the consulting physician heard later on whether the result was favourable or unfavourable, but was not supplied with any details. At other times the consulting physician was called in to assist in deciding whether an operation for appendicitis was necessary or not. The best advice was given, and the probability was that a surgeon was called in, operation performed, and the consulting physician heard nothing more about the case. For those reasons Sir William Broadbent thought it would be absurd in him to attempt to contribute in any way to the discussion.

Mr. Charters Symonds said that in a series of 72 private cases, as far as he had been able to obtain the information, the following after-results had been observed: In 1 case there was thrombosis of the left femoral vein; in 1 case there was cardiac embolism with death on the fourth day; in 1 case there was mild pyrexia for fourteen days followed by slight haemoptysis; in 1 case there was a pelvic abscess which discharged into the rectum. Of these 72 cases, 71 were known at the present time to remain in perfect health. In another series of 50 cases from his hospital records, there was no case of thrombosis. Concerning the after-history of these 50 cases, he had been able to trace 4 cases with after-results. In 1, the attacks diminished in severity, but still continued, the pain probably being due to a renal cause; in another case, a surgical operation for fixation of the kidney gave relief, and in another recurrent attacks occurred, but he had not been able to secure the subsequent

history. In another case death occurred from acute peritonitis. In addition to the 4 cases he had mentioned, he had had 3 other cases under his care in which operations had been performed by other surgeons. In 1 of these 3 cases the attack recurred before the patient left the nursing home. Subsequently fixation of the kidney was performed, and he hoped the pain would be cured. The second case was a man of 30, in whom the pain continued after the appendix had been removed; the pain became localized to the region of the loin, and relief was obtained by removing a stone from the kidney. In the third case the patient was neurotic. In his experience, when recurrent abscess occurred, some part of the appendix had been left, or there was some concretion at the bottom of the abscess. In regard to the question of thrombosis, he was interested to hear Sir Frederick Treves state that it was more common on the left side. It occurred in cases where the wound ran a perfectly healthy course. In looking over his cases other than appendicitis, Mr. Symonds said that he found it had occurred after radical cure of hernia in a woman, after suturing a patella, after compound fracture of an ankle in the opposite leg and after fracture of the femur. Thrombosis had taken place in those cases after perfect union had occurred, and some explanation of the disaster must be sought for. In a certain number of cases where there were septic changes in the wound thrombosis was the result of the septic process, but when thrombosis occurred while the wound was running a healthy course he thought there must be a degree of septic poisoning present, although there were no means of measuring it; in other words, a condition of the blood must exist which tended towards thrombosis. No case, however, of a thrombosis of the femoral vein had come under his notice in a child. Some common factor must exist in these conditions, and he submitted that that common factor was the enforced rest which followed all operations on the abdomen. He advocated movement in his abdominal cases, and he dispensed with pillows placed under the knees; in fact, he directed his patients to move their legs after abdominal operations quite freely. In his hospital cases there was no record of thrombosis after appendicitis; it was more common in private practice because of the greater care and the more stringent rest imposed. Referring to the removal of the appendix in acute conditions, he advocated one rule which was perfectly clear, and that was that when the patient was septic, when the temperature was raised, the appendix must be removed, otherwise the source of the infection was left. In cases where there was no septic infection nor elevation of temperature it was justifiable to lay open the abscess, clean it carefully, and drain. The best results were obtained if flushing out was avoided, and the operator was contented with dry mopping.

Sir Lauder Brunton observed that in a certain number of cases where pain recurred after the removal of the appendix it was found that the patients were suffering from chronic colitis. In these cases the chronic colitis continued after the removal of the appendix, and the symptoms of discomfort and the pain were so like those produced by appendicitis that the patient usually said that the operation had done little or no good. Many of those cases were benefited, and recovery took place simply by subjecting them to irrigation carried out either at home or at Plombières. Many suffered from a condition of the nervous system which was found commonly associated with colitis; they complained of aches and pains when no definite evidence of anything wrong in the appendix or in the colon could be found. It seemed as if the pain were fixed in their sensorium.

Mr. Pearce Gould said that it was impossible to deal adequately with the mass of statistical matter that had been furnished. He had looked up the records of just over 300 consecutive cases of appendicitis, about half being cases in private practice and about half hospital patients. In the main they conformed very closely indeed to the statements made by Sir Frederick Treves. He could confirm what Sir Frederick Treves said about the difficulty in some cases of removing the appendix and also about the importance of removing the whole of the appendix and how disastrous it might be to leave even a small fragment behind. As to the best course to follow after the patient had recovered from an appendix abscess, whether a second operation should necessarily be advised, he found in his own cases that of 41 hospital cases there was a subsequent return of the disease necessitating an operation in 4. Out of 30 private cases he had only known one. If he took the hospital cases, which he thought afforded safer ground on which to make a statement, they showed that just 10 per cent. of cases of abscess that recover after operation were liable to have a return of the disease. Therefore it was better to wait and see if mischief returned before deciding the question of a second operation. In regard to complications, he mentioned that out of over 300 cases there were 7 with sinuses, 4 with faecal fistula, 1 with femoral thrombosis which affected both veins, and 1 with thrombosis of the internal saphena vein. Another complication was the formation of a second abscess before the patient had recovered from the first. He had seen 8 cases in which that had occurred. He thought that it was an important complication. In 1 case cerebral softening occurred, the patient being hemiplegic the day after the operation. In 1 case there was intestinal obstruction, and in another both ovaries had to be removed for suppuration. In 2 patients he found and dealt with double pyosalpinx at the time of the operation. There were 2 cases of parotid bubo, 1 case of acute swelling of the thyroid, 3 of colitis, and 2 cases of marked neurasthenia. One point that had struck him was the glib use of the words "the operation for appendicitis," as if there were but one single and simple operation for appendicitis, whereas there were still three distinct practices. One of these was the removal of the appendix, as in 214 out of his cases. The second was that concerned with the treatment of a localized abscess, of which there were 70 examples in his list. The third was concerned with perforation of the appendix, general infection of the peritoneum, and no limiting adhesions. Studying these three groups separately, he found that among the 214 operations for the removal of the appendix in the quiescent stage, or in the early stages of acute appendicitis, there were 3 deaths. One death was due to cardiac disease in a patient whom it was known had grave and serious cardiac trouble; he had had three attacks of appendicitis, and still had a swelling over the caecum, and it seemed to those in charge of the case that he should run the risk of having the appendix removed. That patient, however, died from cardiac disease. The second death was in a patient who was suffering from septicaemia at the time of the operation. In the third case acute peritonitis ensued shortly after the operation. In these 214 cases there was a mortality of under 2 per cent. In the cases of abscess and general peritonitis the mortality was 26 per cent. The statistics of the London Hospital, dealing with a much larger series, gave a mortality of 27 per cent. in cases of abscess and general peritonitis. He emphasized the point that if the case was such that it could be treated by simple removal of the appendix, the mortality was 2 per cent. But if patients were allowed to reach the point where an abscess had formed, there was general peritonitis, a mortality of 26 or 27 per cent. was reached. Sir Frederick Treves had referred to the fact that in 1887 he first of all before that Society had suggested the removal of the appendix during the quiescent stage. He had mentioned that that proposal was not well received, as Mr. Pearce Gould remembered. If in the treatment of acute appendicitis a general toxaemia was allowed to occur, and if a surgeon was not called in till that had occurred, it ought to be regarded as a reflection on whomever was in charge. Now it was a question whether an abscess of the appendix should be drained, or flushed, or wiped out, and whether the appendix should be removed then or later, but he looked forward to the time when abscess would be presented, and all would be interested in the more precise diagnosis of appendicitis in the early stages. There was hardly a parallel, so far as the condition was concerned, with what was seen in appendicitis; all agreed to call the disease by that name, and it was in the appendix that the mischief brewed. All were agreed that the appendix could be removed without any detriment to the patient. They were not mutilating their patients by removing the appendix, and the morbid material which led to such grave conditions was limited at first to the appendix itself. He did not think it was an exaggeration to say that it was as much an error for a surgeon to allow an abscess to develop about a diseased appendix as it was for a dentist to allow an abscess to develop about the fang of a tooth. The mortality of 27 per cent. in the cases of abscess and peritonitis ought to be reduced to the minimum of 2 per cent. by early operation.

The debate was then adjourned to Tuesday, March 7th, at 5 p.m.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, February 24th, 1905.

Anaemia Splenica.

Dr. J. H. Bryant showed a man aged 48, who in July, 1876, severely struck the left side of his abdomen, and in 1900 had acute abdominal pain, also an enlarged spleen, whilst in 1904 he had the pain with haematemesis. Now there was a yellowish-brown complexion; the fingers were markedly clubbed, as they had been for years; the spleen extended 2 in. below the umbilicus, liver not enlarged, the skin over the dorsum of the foot and front of the legs had dark brown patches of pigmentation; the red corpuscles were 4,350,000 per c.mm., haemoglobin 70 per cent., colour index 0.8, white blood corpuscles 4,375 per c.mm.

Dr. Wilfred Harris asked whether cases without pigmentation and clubbing were differentiated clinically from those not presenting those symptoms.

Dr. Phear asked why the case was called anaemia splenica, no anaemia being present.

Mr. W. Spencer said that cases of splenomegaly were oftener seen in other countries, and were cured by excision of the spleen—at any rate, in cases where no adhesions were present.

Dr. Parkes Weber thought the primary lesion was vascular, as the coloration was haemorrhagic. In some of these cases the splenic vein had been found, after death, thrombosed or otherwise constricted.

Dr. Bryant, in reply, justified his use of the term anaemia. Banti's disease had been shown by Osler to be a late stage of splenic anaemia. He had not advised splenectomy, as the patient was liable to sharp attacks of haemorrhage.

Narcolepsy and Hysterical Blindness.

Dr. Purves Stewart exhibited a man, aged 22, who, since an attack of influenza six weeks ago, had had insomnia for four or five nights, and after 15 gr. of sulphonal slept for nineteen hours continuously. Since then (ten days ago) he had had attacks of sudden sleep, lasting several hours, and occurring at any time. For three days, too, he had been practically blind. The optic discs, pupils, and cranial nerves were normal.

Dr. A. Morison thought hypnolepsy a better term for this condition. Some degree of cyanosis was usually present. The cases often terminated fatally. He described one seen by himself some fourteen years ago.

Dr. Stewart, in reply, said the term narcolepsy was coined by Charcot. The blindness was peculiar in that the patient kept his eyes directed habitually straight forward and not towards the person speaking to him.

Muscle grafting for Paralysis of Left Upper Extremity.

Mr. A. H. Tubby showed a boy, aged 14, who in 1901 had infantile spastic paralysis of the left upper extremity, the forearm and hand being excessively pronated. The pronator radii teres was then detached, passed behind the radius, and reattached so as to act as a supinator, the palmaris longus and other flexor tendons at the wrist being divided. The patient had since regained extension at the elbow, supination of the forearm, and flexion and extension of the fingers.

Dr. Farquhar Buzzard said that supination was still only to the mid position; the extension of the fingers was imperfect, and there was no flexion of the wrist. The case was disappointing.

Dr. Wilfred Harris asked if massage had been tried before the operation. It had been employed since, which might account for much of the improvement.

Mr. Tubby, in reply, said that the limb had been much improved since the operation.

Primary Sore on Eyelid of a Child.

Mr. William Turner exhibited a girl, aged 3, in whom a pimple appeared on the lower lid in January, 1905, and had since steadily enlarged. The glands of that side below the jaw became enlarged a month subsequently. The child had slept with its mother, who had had secondary lesions in 1904.

Mr. Campbell Williams said that acquired syphilis in children was more severe than in adults. The best treatment for such a case was inunction of mercury under a flannel bandage, using care to see that no salivation occurred. Extragenital chancres were usually atypical.

Mr. Turner said he intended to use hyd. c. cret. internally; if that failed he would try inunction.

Lymphatic Leukaemia.

Dr. J. G. Slade exhibited this case, together with microscopic specimens of the blood. The patient was a house painter, aged 49; ill for two and a half years, with enlarged glands and enlargement of liver and spleen and a trace of albuminuria. The blood examination showed red corpuscles, 2,430,000; haemoglobin, 24 per cent.; white corpuscles, 1,300,000; small, 96 per cent.; large, 3 per cent.; polymorphic, 1 per cent.; of the polymorphic, 5 corpuscles were finely granular to 1 coarsely granular; blood platelets scanty.

Dr. Phear said that polymorphonuclears were apparently lessened, but absolutely increased nearly three-fold.

The President said the question was as to when the leucocythaemia started—how soon after the enlargement of the glands? The majority of writers agreed not to call these cases "Hodgkin's disease" if leucocythaemia were present.

Dr. Slade replied.

Arthrectomy of Knee-joint.

Mr. Douglas Drew exhibited a girl, aged 7, for whom he had done arthrectomy for tuberculous synovitis in September, 1904. The child had now complete restoration of movement of the joint, and was able to run about.

Mr. Kellock said the result was so exceptionally good that he was tempted to doubt the original diagnosis. He had some reason to think the case was one of congenital syphilis.

Mr. Drew, in reply, justified his diagnosis.

Sarcoma of Fibula.

Mr. J. Hutchinson (jun.) showed a man, aged 35, who had for two years observed a tumour in his calf. The radiograph showed that it grew from the fibula alone.

Mr. Eastes alluded to this latter fact, and said that clinical examination, on the contrary, seemed to show that the growth originated from the tibia.

Mr. Kellock thought the point immaterial; amputation of the limb alone offered chance of successful treatment.

Mr. Douglas Drew said that even with amputation the prognosis was very bad, death usually occurring under a year.

Other Exhibits.

Mr. E. M. Corner: Dislocation of atlas from axis, with fracture of anterior arch of atlas.—Mr. Battle: Swollen knee-joints in a man, the diagnosis being doubtful.—Mr. Douglas Drew: A girl, after excision of the navicular bone for tuberculous disease.

MEDICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Monday, February 27th, 1905.

Analysis of 300 Consecutive Cases of Gynaecological Laparotomies.

Dr. Arthur Lewers made this communication, giving details of illustrative cases. The 300 cases showed 100 ovariotomies without mortality; 73 abdominal hysterectomies for fibroids with 4 deaths; 47 cases of removal of inflamed appendages with 4 deaths; 33 laparotomies for ectopic pregnancy with 1 death; 17 abdominal hysterectomies for conditions other than fibroids, of which 6 died; 14 exploratory laparotomies with 5 deaths, 2 of which were from malignant disease; 8 cases of Caesarean section with 1 death, and this in a patient who had been in labour four days; 3 myomectomies without any death; and 5 cases of hysteropexy, all of which recovered, the general mortality for the whole series being exactly 7 per cent.

Caesarean Section.

Dr. W. J. Gow read a paper on this subject, limiting his remarks to the rôle this operation filled in modern midwifery. In regard to the safety of the operation, he alluded to a series of 26 cases with no maternal death, and with 3 deaths among the children occurring during the first month. The best time of performing the operation was either before labour or during the first stage. There was some risk from infection of the liquor amnii in long-standing cases. The indications were mainly pelvic contraction, with a child at or near full term and in a vigorous state. A 4-in. uterine incision was advocated. The anterior position of the placenta did not add materially to the risk of the operation. The rapidity of the heart's action was the indication of whether the child was doing well. Artificial respiration was not re-

quired, but merely the employment of a hot bath. The uterus should be speedily returned into the abdomen to obviate its relaxation. Putrefaction of the liquor amnii infected from an antepartum purulent vaginal discharge was described. The tubes he more usually now left untied. The risk of the formation of serious adhesions was trivial. The after-course of the cases was usually uneventful. Symphysiotomy he disapproved of as less certainly preserving the life of the child. Amputation of the uterus was not recommended. Caesarean section was by far the best and safest of all the alternative operations, and there was considerable scope for increase in the frequency with which this operation was performed.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

Dr. A. J. Smith, President, in the Chair.

Friday, February 3rd, 1905.

Physometric Uterus.

Dr. Alfred J. Smith showed a large physometric uterus.

The patient was delivered early last October of twins (at the sixth month), both dead, and beginning to decompose. On the fourth day after delivery she had a severe rigor, with temperature of 106° F. Her local doctor washed out the uterus with a weak corrosive sublimate solution. Notwithstanding this, her condition went from bad to worse. On admission to St. Vincent's Gynaecological Department she was in evident distress from distension—temp., 102 6°; pulse, 120. Examination under ether was unsatisfactory, as nothing could be mapped out. The diagnosis was not made until abdomen was opened.

A hysterectomy was performed, fortunately without rupture. Examination of the contents was postponed, as Dr. Smith wished to show the large uterus in its distended condition. Recovery was uninterrupted.

Dr. Kidd said the only similar case he had seen was an accumulation of gas inside an extrauterine gestation sac. The patient came into hospital three months pregnant, with symptoms of threatened abortion. The symptoms abated, and she went out. He saw her again when she was thirteen months pregnant. The whole of the front of the abdomen was perfectly dull. A rectal examination was made, and next day her temperature was 104° and the abdomen very resonant. On operation there was an escape of very offensive gas from the sac. The only explanation he had for the formation of the gas was that the bacillus coli communis had got into the gestation sac on account of the rectal examination.

Dr. Purefoy said that most of them had seen the condition termed physometric in connexion with malignant disease, or in cases of delayed or neglected labour, where air had got into the uterus. Dr. Smith's case was remarkable on account of the gas having remained in the uterine cavity.

Cystic Endometritis.

Dr. Purefoy read a paper on two cases of this disease.

Dr. Hastings Tweedy said that cystic endometritis was a disease he did not know personally, and of which he could find no account. He objected to fresh nomenclature, and thought they should stick to the term glandular. As for treatment, a few years ago every case was curetted, but of late there had been a reaction against this, and many now preferred to use intrauterine douches, caustics, etc. He protested against this, and believed that in his study practice the surgeon had little right, and rarely necessity, to pass anything into the uterus. It was impossible to be aseptic in study practice. The vast majority of cases of endometritis, especially the hypertrophic form, were cured by one cleanly curetting. He left his cases alone after curetting, and did not use medications subsequently. He could not understand the rationale of taking a patient in every third day to inject iodised phenol after curetting; it seemed to him unnecessary and dangerous. The less often the uterus was entered the better.

The President said he divided endometritis into glandular and interstitial. His practice was to curette and wash out once, and wash out again on the third and fourth day to see that nothing was left behind. He used hot sterilized saline solution, and did not employ any intrauterine medications.

Dr. Purefoy, in replying, said he did not believe the condition he had described was a very advanced stage of glandular endometritis, but one of great rarity. As for treatment, he thought it was in the patient's interest to use a mild caustic four or five days after curetting, and its subsequent use was to be determined by the amount of discharge, condition of cervix, character of first menstruation, etc.

Observations on Bossi's Dilator.

Dr. Alfred J. Smith set out the views of the rival schools which indicated that Bossi's dilator had not met with universal approval or adoption, and described 4 cases in which he had used it—3 for eclampsia and 1 for placenta praevia; all were successful; the entire time between the introduction of the dilator and the end of the third stage did not exceed one hour. He considered the dilator dangerous when the cervix was long, especially in cases of placenta praevia.

Dr. Kidd preferred the four-bladed instrument to the other varieties. Where mechanical dilatation was used for placenta praevia the risks of laceration were greatly increased, but in eclampsia its use would give happy results.

Dr. FitzGibbon said he had used Bossi's dilator in a case in which he had induced labour at seven and a half months. It seemed to him to have brought about the desired uterine action.

Dr. Hastings Tweedy said he had treated within the last fifteen months 10 cases of puerperal convulsions in the Rotunda Hospital with 1 death, and in this case the diagnosis of eclampsia was doubtful. In a large number of these it was observed that convulsions became severe after the birth of the child, so that the emptying of the uterus could not be considered a save-all and cure-all. In but one of the successful cases was delivery accelerated even by forceps, in the others labour was allowed to go on naturally and finish. Even in placenta praevia he was opposed to the use of forced dilatation, since the treatment would never compare favourably with the plan of bringing down the leg and leaving the case to nature.

Dr. Purefoy thought the range of utility of a dilator was not at all as wide as they had been led to believe. The utmost caution was necessary in its use, and the cervix was often found lacerated without it having been noticed.

The President, in replying, said he had tried the dilator, having heard and read so much about it. He thought that it was in places like Dublin that the principles of new inventions should be tested, as they had to report on them to country practitioners. As to its use in eclampsia, he thought that certain cases would get well no matter what form of treatment was used.

EDINBURGH OBSTETRICAL SOCIETY.

Sir Halliday Croom in the Chair.

Wednesday, February 8th, 1905.

Abdominal Hysterectomy for Uterine Fibromyomata.

Dr. F. W. N. Haultain read a paper in which he gave a clinical and pathological analysis of 120 consecutive abdominal hysterectomies for uterine fibromyomata. The indications for operation were: (1) In 85 cases, haemorrhage; (2) in 15, size of tumour; (3) in 13, pressure symptoms; (4) in 2, reflex conditions; (5) in 3, dysmenorrhoea; (6) in 2, constant pain. The ages of the patients were as follows: (1) Between 20 and 30 years, 2 cases; (2) 30 and 40 years, 28 cases; (3) 40 and 50 years, 80 cases; (4) 50 and 60 years, 8 cases; (5) over 60 years, 2 cases. He pointed out that the tables showed that haemorrhage was the chief symptom which called for relief, and only after years of invalidism was succour demanded. Pressure symptoms were very rare in uterine fibromyomata, except when the growths arose from the lower part of the organ and became incarcerated. The cervical tumours were mainly associated with symptoms of intrapelvic pressure. In Dr. Haultain's series of cases pain was rarely the cause of the patient seeking operative interference. Reflex neuroses were also rare; in one case a persistent laryngeal cough was cured by removal of a uterus, the seat of multiple fibroid tumours; in another, persistent vomiting ceased after hysterectomy. Of the 120 patients 71 were married; of these, 42 were absolutely sterile, and the remaining 29 had a total of 78 children. The average age of the youngest child before the mother came under treatment was 9 years. Heart and kidney complications were rarely met with. The author then entered into the cases pathologically. He classified the cases as follows: (1) Fibromyomata of the uterine body—(*a*) simple, 63 cases; of those, in 54 the tumours were multiple, and in 9 single; (*b*) degenerated; oedema was present in 12 cases, infarction in 1, cystic degeneration in 2, the tumour was calcified in 1 case, sarcomatous degeneration was present in 2, 1 was telangiectatic, and diffuse nodular fibrosis was found in 1 case; (*c*) fibromyomata complicated with other growths; adeno-

carcinoma of the body was found associated in 5 cases, mucous polypi in 9, cystic ovarian tumours in 6, solid ovarian tumour in 1, broad ligament cysts in 3; (*d*) complicated with pregnancy, 3 cases; (*e*) marked ascites in 1 case. (2) Of the cervix.—In 6 cases the condition was limited to one tumour, and in 1 multiple fibromyomata were present. (3) Of uterine body and cervix 2 cases occurred. Of all these cases, perhaps the rarest was that designated as "diffuse nodular fibrosis." The uterus was found to be uniformly enlarged to the size of a six months pregnancy. On section the cavity of the uterus was seen to be of the normal triangular shape. Its wall was greatly thickened owing to the presence of innumerable small white, hard non-capsulated nodules, many of which protruded into the uterine cavity in polypoidal form, but were enclosed by a definite uniform layer of uterine muscle externally, which preserved the smooth regular contour of the uterus as a whole. Microscopically, the nodules were of white fibrous tissue, with a few muscle fibres. In the 120 cases three deaths occurred. One patient, who was reduced to an extreme degree of anaemia, never rallied from the effects of the operation. In another, from whom a cervical fibromyoma was removed, infection of the bed of the tumour occurred by the bacillus coli, through the bared rectum from which the large posterior cervical fibroid had been separated. In the other case death was due to peritoneal infection from a sloughing growth, involving both cervix and body of the uterus. In concluding his paper, the author emphasized the advantages of hysterectomy in cases which required treatment. To operate simply on account of the presence of a fibromyomatous growth he considered inexcusable, but where haemorrhage, etc., had reduced patients to a condition of invalidism the results following operation were in most cases admirable. As regarded the mental disturbances said to follow hysterectomy, he had met with none himself, and as a result of inquiries from a number of medical superintendents of private and public asylums, he had found only one insane patient on whom hysterectomy had been performed. The results indeed of radical operation were so good that it should be undertaken in any case in which the presence of a fibromyoma really interfered with a woman's health and happiness and utility in the world.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, February 9th, 1905.

EXOSTOSIS OF THE ORBIT.

MR. EDGAR STEVENSON read a paper on a case of orbital exostosis.

The patient, a girl aged 22, was seen on November 20th last with proptosis, well marked downwards and outwards, in the left eye. It had been first noticed six months previously, and its increase had been rather rapid. She had no pain except an occasional neuralgic twinge, the eye movements were unimpaired, the vision was normal and there was no diplopia. Under chloroform a small hard mass was felt lying under the outer and upper margin of the orbit. Upon operation it was found to be much larger than was expected; attached to the inner angle of the orbit, with its base in the frontal sinus, it extended right across the roof of the orbit. It was of cancellous tissue with a shell so hard that two drills were broken in an attempt to get into it; however, a small piece was removed with a chisel and showed its structure. The attached base was not very broad and the growth was wrenched away without difficulty. It was of an irregular pear-shape, weighing 351 gr., and measuring 1½ in. in its largest diameter. The patient made an excellent recovery; no eye affection remaining.

MR. A. OGILVY related notes of a case of large exostosis of the orbit. The patient, a healthy man aged 24, had no history of any ailment, and a good family history. When first seen, in November, he complained of epiphora, but on examination a large hard mass was felt in the right orbit, evidently attached to the nasal side. The tumour was causing myopia and some choroidal changes. It had two pedicles, and its removal by operation proved difficult. The patient made an uninterrupted recovery, but diplopia was present; this, however, passed off in two weeks. The questions which the case raised were these:—(1) What was to be done with his disorganized lachrymal apparatus? (2) Did the tumour cause the myopia which had now disappeared? (3) Were these due to hereditary syphilis, as stated by Charles Stedman Bull? It was curious that so large a tumour could exist in such a small space as the orbit without causing more damage and discomfort than it did.

THE TREATMENT OF TOBACCO AMBLYOPIA.

MR. WRAY read a paper on the treatment of tobacco amblyopia. He divided the cases into three groups: (1) Those with amblyopia only; (2) those with amblyopia and tachycardia; and (3) those with tachycardia only. He urged that in view of the tendency to cardiac failure the pulse should always be examined. He had recently seen cases where the pulse ranged from 96 to 135, and patients suffering from tobacco poisoning should be warned that tachycardia might develop. The amblyopia usually disappeared if taken early, but by all the recognized treatments recovery was a slow process. As regards the tachycardia, he had seen several cases where it had persisted even after tobacco had been given up for years. He alluded to the toxic breath which was always present with amblyopia, but never when tachycardia was the sole symptom. He ascribed the amblyopia as probably due to saturation of the blood with tobacco alkaloids, and the tachycardia as due to injury or destruction of the cardio-inhibitory neurons of the trachea and bronchi, while bad teeth and a catarrhal condition of the alimentary and respiratory tracts aided the absorption of the poisons. Being much dissatisfied with the orthodox treatment with pot. iod. and strychnine, and considering that nicotine was freely soluble in water, he had suggested the following treatment. The patients were directed to dress warmly and drink a pint of water at 7 a.m., and walk briskly for thirty minutes in the open air. Then to drink a second pint and go for a similar walk. Then rest for a few minutes and take breakfast. A third pint was to be taken in the middle of the morning, and a fourth in the middle of the afternoon. Some had even continued to smoke as much as ¼ oz. a day, and in three cases practically normal vision was restored in fourteen days. As regards the effect of the water treatment on the heart, the author had not had the opportunity of trying it on the new cases he had lately seen, for this had not been a marked symptom in them, but unquestionably the accelerated beat he had noticed had not disappeared in the same way as the amblyopia. There was a considerable doubt as to the method in which nicotine was eliminated, but he thought that it was mostly by the kidneys, though the lungs and skin probably bore a share. The water treatment had the advantage of utilizing all three ways.

NEURO-FIBROMA OF THE EYEBALL AND ITS APPENDAGES.

MESSRS. E. TREACHER COLLINS and RAYNER D. BATTEN read a paper on neuro-fibroma of the eyeball and its appendages. The case which formed the basis of this paper was a girl aged 14, who had been under Mr. Batten's observation for three years. The right eye was buphthalmic with vision of $\frac{6}{60}$. There was also much hypertrophy of the upper lid. There was a doughy swelling over the right temporal fossa. The condition dated from birth. This unsightly eye was excised together with a wedge-shaped piece of the upper lid. The microscopical condition of the lid showed it to be a case of congenital elephantiasis associated with plexiform neuroma. The chief interest centred in the eye, for it was the fourth case recorded in which neuro-fibroma of the eyelid had been associated with a buphthalmic eyeball. This condition, however, did not seem to be due to fibromatosis of the ciliary nerves, but to increase of tension due, as in another case recorded by Mr. Collins, to congenital adhesion of the root of the iris to the back of the cornea. The terminal nerves in the cornea were, however, thickened. The condition seen in the choroid had not before been noted. Throughout its structure was denser than normal, and in parts it was considerably thickened. It was chiefly composed of fibrous tissue, highly nucleated, with pigment cells present, and very few blood vessels. Numerous small oval bodies presented the appearance of enlarged nerve ends. By comparison with the other cases recorded it was shown that all portions of the ciliary nerves supplying the eye might be affected with congenital fibromatosis, and that the uveal tract, like the skin, might be affected with a general hyperplasia of its fibrous tissue, though the extent of the affection varied. In some only the terminal filaments and end organs were involved, and in others the larger trunks were also affected.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on February 16th, Dr. JAMES BARR, President, Dr. A. G. GULLAN read notes of 2 cases of Addison's disease in which he had administered suprarenal extract. In the first case, that of a young man, in whom the symptoms of the disease were well marked, 15 gr. of the extract was given thrice daily, but with only temporary relief, the patient dying seven weeks later.

At the *post-mortem* examination no signs of tubercle were found except in the suprarenal bodies, which were both enlarged and destroyed by caseous masses evidently of a tuberculous nature. In the second case, that of a woman, the symptoms were less severe, and she had greatly benefited by taking 20 gr. of the extract thrice daily.—MR. DAMER HARRISSON opened a discussion on the union of nerves after division. He gave a short history of the subject physiological and surgical. The more recent histological observations which support the theory of coalescence and the process of regeneration in the peripheral end of a divided nerve were described, together with the criticisms of Mott, Halliburton, and Edmunds. On the physiological side he maintained that the weight of evidence was on the side of the outgrowth theory, and brought forward a series of observations made by himself and Professor Gotch, after division and suture of the sciatic nerve in the rabbit: these proved that sensation reflexes appeared first in the peripheral end nearest the point of suture, and at later periods, at the more distant points in the peripheral end. With regard to the motor response, this appeared at an earlier date in proportion to the nearness of the division and suture to the muscles. These facts were difficult to explain by means of the coalescence theory, and strongly supported the outgrowth theory. Dr. ROBERT KENNEDY said there was a well-established clinical observation which the central theory of regeneration of nerves could not explain—namely, the early return of sensation after secondary suture of a divided nerve. In cases of suture of a nerve immediately after section it was natural that sensation should return more slowly, since time was required for regeneration of the new fibres in the distal segment. When suture was performed at a time remote from section the distal segment had had time to form its new nerve fibres. The very early passage of impulses across the plane of suture was probably brought about by the junction of neurilemma cells newly formed from the central and peripheral ends, the gap being thus bridged. Motion recovered later than sensation owing to the rapid degeneration of the muscles after nerve section; time for their regeneration was necessary, but he was of opinion that muscular tissue never completely degenerated even though separated from the nerve centres for long periods. Professor SHERRINGTON said he favoured the peripheral rather than the central theory of nerve regeneration; after removal of a spinal ganglion delicate nerve fibres could be found in the portion of the root attached to the cord. Dr. W. B. WARRINGTON called attention to the fact that after section of a nerve axone the cells assumed the embryological form in preparation for renewed activity, but only when the section was made on the peripheral side, and not at all when the posterior root was divided; in the former case the nerve fibres regenerated, but not in the latter. It was submitted that these and other experiments furnished evidence of the important part taken by the cell in the regeneration of a nerve fibre.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on February 7th Dr. JANE WALKER read a paper on the treatment of pulmonary tuberculosis. Ancient methods of treating phthisis, she said, differed from modern in that the ancient were palliative while the modern were curative. Modern treatment dated from the establishment of Dr. Bochener's Sanatorium in 1859. The sanatorium method included dietetic, climatic, and therapeutic methods. The reader emphasized the utility of careful dieting and more or less compulsory feeding, and held that few and large meals were better than many meals and small ones. She had used many drugs, and amongst them intravenous injections of formalin and rectal injections of carbon dioxide; all of them proved useless or harmful; she had found, however, inhalations of thorium emanations beneficial in many cases of tuberculous laryngitis. Strapping the affected side of the chest and slinging the arm had given good results. It was also pointed out that sea voyages were dangerous for consumptive patients owing to sea-sickness and stuffy cabins. In advanced cases, moreover, there was the added anxiety of possible death away from home and friends. In foreign sanatoriums there were no nurses, and attendance was left to servants. In addition to the consideration of climate, it was necessary to remember the accessories of life, such as food and servants, which might add greatly to the discomfort and expense of the illness, as in South Africa. Change of climate and scenery were useful in some cases, especially where every luxury and care could be provided, but in most cases the régime and rest of sanatorium treatment were more beneficial.—Dr. ANNIE MCCALL said that her methods differed from those of Dr. Walker, as she used smaller and more frequent meals, and employed cold sponging every morning. She found greater improvement when the patients understood the uses of the various methods of treatment employed, and considered the time of sojourn in a sanatorium could in most cases only be a time of education. With this in view, she was in the habit of giving short popular lectures to the patients, impressing upon them the reasons and importance of the various hygienic measures insisted upon in their treatment.

HARVEIAN SOCIETY OF LONDON.—At a meeting held on February 9th Dr. G. A. SUTHERLAND read a paper on lobar pneumonia in children, referring, amongst other matters, to the valuable information to be obtained by a study of the child's expression and breathing. The expression of the face was much more placid in lobar pneumonia than in catarrhal pneumonia, owing to the obstruction conditions present in the latter. The breathing in lobar pneumonia was rapid, superficial, and often of inverted respiratory type. The increased movement of the alae nasi usually consisted of an expiratory and not an inspiratory dilatation, and was due to forcible expiration. Dr. GUTHRIE thought that in lobar pneumonia the facies was anxious, not apathetic and placid. He believed central pneumonia with distant tubular breathing occasionally occurred. Dr. JAMES TAYLOR also thought the expression was mostly anxious.—Mr. LAMING EVANS read a paper on anterior metatarsalgia, and drew attention to the fact that Morton and Bradford had described the disease in feet otherwise normal, whereas R. Jones had found flatfoot also in twelve out of fifteen cases; Morton and Jones had resected in the majority of the cases, whereas Bradford, Gibney, and Goldthwait stated that the operation was never necessary. An analysis of seven cases of his own showed that the fourth metatarso-phalangeal joint was affected in all and the third in two cases. All occurred in women. Neither injury, nor sudden onset, nor rupture of the transverse ligament was present. The longitudinal arch was depressed in three cases, and the transverse arch in three. The fashionable narrow-pointed toe was considered responsible for an aggravation of the mischief, if not as the actual cause of it. Five of these cases had been dealt with by palliative measures, with partial relief of symptoms, and two by excision of the head and neck of the fourth metatarsal bone with complete removal of the pain, and with a sound functional foot, without any weakening. He advocated that palliative measures should be tried in the first instance, but if these failed, that removal of the head of the metatarsal bone should be performed; there was a good chance of curing the disease, and no fear of weakening the foot.—Mr. JACKSON CLARKE had not operated on these cases during the last five years. The general health should be improved, and much attention paid to shoes. He advocated the use of steel plates in the boots, carefully made after taking a plaster mould or model of the foot. Metatarsalgia was often a symptom of flatfoot. Patients were often markedly irritable with this condition.

MANCHESTER MEDICAL SOCIETY.—At a meeting on February 1st, Mr. W. THORBURN, President, in the chair, Dr. R. T. WILLIAMSON made a communication in which he recorded observations on the sense of vibration as tested by placing the foot of a tuning fork on bony prominences of the limbs. At the points tested—over the styloid process of the ulna, the internal malleolus, and the middle of the inner surface of the tibia—the vibrating sensation was always present in health. It was lost at the two points last mentioned, though other forms of sensation were not affected, in some cases of early locomotor ataxia, in some cases of diabetes and glycosuria, and in two cases of spastic paraplegia (probably due to spinal syphilis).—Mr. J. HOWSON RAY read notes of a case which occurred in a woman aged 30, admitted to the Salford Royal Hospital on December 1st, 1904 suffering from acute intussusception of the colon with complete intestinal obstruction, and the protrusion of a subserous polypoid lipoma at the anus. The case was seen by Dr. J. Staveley Dick two days previously, and gave a history of abdominal pain in the left lumbar and iliac regions for the past six months—pain noticed chiefly at and after defaecation. On November 29th, 1904, she had very severe pain after defaecation, and was somewhat collapsed. Complete intestinal obstruction occurred on this day, and vomiting was frequent and excessive. An enema given on December 1st was followed by a violent expulsive effort during which a polyp, as large as a medium-

sized orange, protruded through the anus. On admission to hospital, operation was performed forthwith, and an incision about 4 in. long, slightly to left of middle line, opened the peritoneal cavity, and allowed the whole length of the intussusception to be made out. This was about 12 in. long, the neck was over the left sacro-iliac synchondrosis, and the pelvic cavity contained much blood-stained fluid. By the aid of an assistant's finger, the apex of the intussusception was raised to the level of Douglas's pouch, and from this point reduction was fairly easy. The last part to unfold was at the junction of the middle and outer thirds of the omega loop; this was brought out of the laparotomy wound, and found to contain a tumour that completely blocked the lumen of this part of the colon. The colon was incised, the tumour exposed, and found to be the same mass that had protruded through the anus. The tumour was removed, and it was necessary to cut through the wall of the bowel completely to effect removal, thus opening into the mesocolic angle. The wounds in bowel were sutured with celloidin thread, and the abdominal wall closed in four layers, leaving a small drainage tube at the lower angle of the wound, so as to reach the bottom of the pelvic cavity. The after-treatment was simple and progress uneventful. The tumour proved to be a circumscribed subserous lipoma, apparently growing from the mesocolic angle, and producing an inverted diverticulum into the colon. It measured $2\frac{3}{4}$ in. by $2\frac{1}{4}$ in. by 1 in. in the three chief diameters, and was ovoid in shape, weighing about 2 oz. $5\frac{1}{2}$ dr. The mucous membrane over the tumour showed marked evidence of circulatory obstruction.

Midland Medical Society.—At a meeting on February 15th, Mr. Wood White, President, in the chair, Dr. Emanuel showed an infant, aged 6 weeks, suffering from paralysis of both arms caused at birth. The mother was a primipara, aged 32 years, the child was full term, the pelvis a little contracted, and the head presented. The accoucheur failing to deliver with forceps, turned and delivered the trunk, shoulders, and arms without difficulty. The after-coming head, however, became impacted, and great force was expended in its delivery by pulling on the trunk with the help of a towel wrapped round the shoulders. The day after birth complete paralysis of both upper limbs was noted. Two weeks later movements in the fingers of the left hand were observed. A month later the left arm showed typically the condition seen in Duchenne's birth paralysis as a result of rupture of the fifth and sixth cords of the brachial plexus, but the right extremity had undergone no improvement, and evidently the brachial plexus on that side was severely damaged.—Mr. Gamgee proposed to wait till the infant was two months old, and then, if the right arm still showed no improvement, to attempt suture of the divided cords of the plexus.

Dermatological Society of London.—At a meeting on February 8th, Dr. J. J. Pringle in the chair, the following were some of the cases exhibited:—Dr. T. Colcott Fox: (1) A man, aged 50 years, who had lived all his life in India, and who, six months after his return, had developed a generalized pruriginous eruption all over the body and limbs. There were to be seen small, infiltrated, obtuse papules situated rather deeply in the skin, showing no grouping and not developing into vesicles. The case resembled both the prurigo of Hebra and the eruption described under the name of pseudo-leukaemic prurigo, but there were no enlarged glands nor any signs of lymphadenoma. (2) A man suffering from an attack of ordinary eczema affecting the lumbar region, but in whom were found accidentally, on stripping the back to view the eczema, many large nodes situated deeply in the hypoderm over the last two ribs on the left side. The question was, were these gummata or some form of true tumour formation? They had been in existence for six years. The majority of members thought they were probably gummata.—Dr. J. J. Pringle: A man, aged 64 years, with extensive symmetrical sclerodermia of seven years' duration. The patches extended over almost the whole of the legs below the knee, on the thighs over the areas roughly corresponding to that of the second lumbar segment according to Head, and from the styloid processes of the ulnae to the tips of olecrana, thus corresponding to the first dorsal nerve areas.—Dr. H. Stowers: A case of mixed sclerodermia. The disease had started eight years before with the appearance of a patch on the left breast, and subsequently two more patches appeared in the neighbourhood of this. Two years ago the left arm began to waste, and when shown there was extensive sclerodermia, with rigidity and partial immobility of the elbow-joint from the contraction of the skin. Most of the patches showed the characteristic ivory-white appearance, but in some situations there was marked telangiectasis.—Dr. Parkes Weber: A well-marked case of Kaposi's idiopathic pigmented sarcoma in an elderly man, with section from one of the growths. The usual marked oedema and almost purple coloration of the limb were present.

Laryngological Society of London.—At a meeting on February 3rd, Mr. Charters Symonds in the chair, the following cases and specimens were among those shown:—Mr. C. Parker: Tuberculosis of the larynx in a woman aged 31. The disease commenced during her fourth pregnancy, since which she had been pregnant five times. On three occasions the child was born alive, and on two occasions she had miscarriages.—Dr. Edward Law: A man aged 69, from whom a laryngeal growth was removed from the right vocal cord twenty-one years ago by the late Dr. Whistler. Views as to the present condition were invited. Some members were of opinion that the case was malignant, but the general feeling was that this was not so.—Mr. de Santi: A woman aged 39, shown at the last meeting, with a laryngeal swelling which was thought to be tuberculous, but a microscopical slide since made showed that it was undoubtedly squamous-celled carcinoma.

Bombay Medical and Physical Society.—We have received a report of the proceedings of a meeting of the Bombay Medical and Physical Society, held on July 14th, 1904, Dr. Temuljee Bhikajee Nariman in the chair.—Major C. H. L. Meyer showed a case of syphilitic myelitis with peripheral neuritis and glycosuria.—Lieutenant-Colonel W. H. Burke showed a case of rodent ulcer treated with radium.—Miss Meakin, M.D., showed a case of ectopic gestation, possibly ovarian, and Dr. N. F. Surveyor two cases of nervous disease, one resembling Adams-Stokes disease and the other possibly a case of plague paralysis.

REVIEWS.

DISEASES OF THE HEART.

All who are familiar with Dr. Gibson's large work on diseases of the heart and aorta will be prepared to find an interesting and scholarly account of the special subject dealt with in his book—*Nervous Affections of the Heart.*[1] They will not be disappointed. Although the lectures have already seen the light in the pages of the *Edinburgh Medical Journal*, their author has done good service in putting them forth in book form for the perusal of a larger circle of readers. Nervous affections of the heart are among the commonest of all clinical phenomena that have to be dealt with in practice, and in this work they are discussed in regular order, the disturbances of sensation being first considered in their clinical, pathological, and therapeutic aspects, while the disturbances of movement are examined in order as to rate, rhythm, and force. Each section is prefaced by a short historical summary of the growth of knowledge in the subject of which it treats. The phenomena of angina pectoris naturally loom large in the discussion of cardiac pain. The association of superficial tenderness to visceral disease, so perseveringly worked out by Dr. Head and others, the discoveries of Gaskell as to the sensory paths, and the work done by Morison and others to prove the existence of vasomotor nerve supply to minute vessels, are all laid under contribution in discussing the clinical symptoms of the painful affections of the heart. The outcome of a very careful examination of the subject leads to the inevitable conclusion that the group of symptoms classed as angina pectoris may be associated with a great variety of morbid changes; and while pain is the one constant symptom, it is only possible to class the causation of it under the rough headings of "organic" and "inorganic." The author expresses clear and definite views as to treatment, and although his recommendations have not the charm of novelty they are marked by strong common sense. He has great faith in iodides and advocates the use of large doses of colchicum where cardiac pain is assumed to be caused by "gout." In dealing with motor disturbances, Dr. Gibson enlarges on the subject of bradycardia, and examines somewhat closely

[1] *The Nervous Affections of the Heart.* By George Alexander Gibson, M.D., D.Sc., F.R.C.P.Ed., F.R.S.E., being the Morison Lectures delivered before the Royal College of Physicians of Edinburgh in 1902 and 1903. Edinburgh and London: Young J. Pentland. 1904. (Demy 8vo. pp. 108. 5s.)

the theory that it is occasionally associated with a disturbed cycle of heart movements, the auricular pulsations not being immediately followed by the ventricular contractions, as evidenced by the occurrence of venous pulsations in the jugular veins without any corresponding pulsation of systemic arteries. The phenomena of varying pulse-rate are very closely considered. Quotations from the works of previous students of the subject are numerous, and the author's comments upon them are interesting. The lectures, dealing with a most complex and difficult subject, are by no means "dry." They are enlivened by apt allusions and anecdotes, and should prove of practical value to any one wishing to work out a difficult cardiac problem, presenting the matter as they do, in a form at once interesting and convincing.

Dr. BABCOCK[2] in his book on *Diseases of the Heart and Arterial System* has succeeded in placing before the reader a serviceable volume embracing most of the more modern methods of diagnosis and treatment. It is arranged in the usual way, beginning with diseases of the coverings of the heart, of the myocardium, and of the endocardium; then follow a discussion on functional cardiac disorders, an instructive section on arterio-sclerosis, and another on aneurysm. The volume is designed for the use of students and practitioners; as the writer implies, there is considerable risk of the reader being wearied by rather tedious clinical records of cases; invaluable as are well chosen cases in such treatises, we must admit that the author has exceeded the usual limits in this direction. Dr. Babcock has drawn largely from the works of Huchard, Naunyn, and other Continental writers, but he also refers frequently in eulogistic terms to the works of British writers; indeed, the volume is written much after the pattern set by our own contemporary authorities. Though careful not to overburden the book with long theoretical discussions the author very wisely gives short accounts of the more modern views as to the origin of murmurs and the genesis of pulmonary systolic murmurs. The application by Chauveau of Savart's views as to origin of murmurs from fluid veins or eddies is discounted by Geigel's observations, that such small eddies as were possible would be quite incapable of producing sounds of the same pitch as murmurs; more probably the vibration of the walls of enclosing chambers of vessels in which blood is moving is responsible for the murmur, such vibration being transverse to the stream of blood and being induced by the impact of the fluid veins. We are glad to see that Dr. Babcock pays considerable attention to the description of what is known as functional or relative pulmonary regurgitation occurring in cases of double mitral disease or obstruction in the pulmonary circuit: the difficulty caused by the existence of a murmur due to a leakage, diastolic in time, and to the left of the sternum, is fully discussed, and the writer insists upon the importance, on occasions when it is difficult to diagnose between aortic and pulmonary regurgitation, of examining for the existence of a diastolic murmur in the femoral artery which may occur in aortic regurgitation, but not in pulmonary regurgitation. Treatment is fully discussed, and detailed accounts are given of the methods of treating cardiac disease by medicated baths and graduated exercises.

PATHOLOGY.

PROFESSOR LUDOLF KREHL has carefully revised his book on pathological physiology[3] and incorporated in the new edition a summary of the more important literature on the subject which has appeared since 1897. The object of the book is to elucidate the conditions which govern the morbid processes of the bodily organs in the same way as physiology investigates the functions of these organs when in a normal state. In the chapter on the circulatory system there is a very full and interesting discussion of the cardiac lesions; but the arteries, veins, and lymphatics are dismissed with disappointing brevity. Diseases of the blood are dealt with in a fairly comprehensive and satisfactory manner. The chapter which follows, on infection and immunity, can hardly be regarded as adequate; it is short, scrappy, and, in places, distinctly feeble. The pathology of the respiratory and digestive systems, nutrition, and metabolism is all very carefully treated, and the discussion of febrile conditions is particularly thorough and useful. Though all portions of the book are not equally good, Professor Krehl's very painstaking and conscientious work has resulted in the production of a valuable contribution to medical science, which is sure to interest all practitioners who retain the true scientific spirit in their clinical observations and endeavour to interpret them in the light of physiological principles.

Dr. COLES has put together a small book on *Clinical Diagnostic Bacteriology*[4] with the object of meeting the needs of practitioners who have not had the opportunity of taking a laboratory course in bacteriology, but are still anxious to avail themselves of some of the advantages to be derived from bacteriological investigations. Dr. Coles appears to attach special importance to the differentiation of the tubercle bacillus from other acid-fast bacteria, and has devoted nearly one-half of the entire book to a discussion of this subject. Amongst the bacilli which he considers it especially important to discriminate from the tubercle bacillus are the smegma bacillus, the Petri-Rabinowitch butter bacillus, and Moeller's timothy grass bacillus, and manure bacilli. The resistance of most of these organisms to the decolorizing effects of acid or of alcohol is, according to the author, much greater than is usually supposed, though the resisting capacity of the tubercle bacillus is greater than any of them. He finds, for example, that "tubercle bacilli can resist 25 per cent. sulphuric acid for at least, in some cases, seventy-two hours, but that all the pseudo-tubercle bacilli are decolorized at the end of sixteen hours, many before that time." A somewhat elaborate differential staining method is recommended, based on the relative time required for the decolorization of tubercle bacilli and other acid-fast organisms. Before pronouncing an opinion upon the practical value of these recommendations, we should like to wait and see if Dr. Coles's experiences are corroborated from other sources. The rest of the book deals in an interesting manner with many other of the commoner infective micro-organisms, and contains brief chapters on parasitic fungi of the skin and hair, serum diagnosis, and cyto-diagnosis. With regard to the main purport of the book, we wish Dr. Coles every success in his endeavour to interest the general practitioner and induce him to become something of a bacteriologist; but the practitioner ought to be reminded that though bacteriological diagnosis is sometimes easy, it is always serious and often difficult; the requisite skill cannot be acquired by the practice of a few simple tests and stains; in important cases requiring bacteriological diagnosis the opinion of an expert, based on prolonged laboratory experience, ought to be obtained.

The seventh edition of the *Handbook of Pathological Anatomy and Histology*,[5] by Drs. DELAFIELD and PRUDDEN, has been brought up to date by the incorporation of many new and important discoveries, including what is somewhat quaintly described as "the new lore" on the subject of cytolysis. As a student's textbook the attractiveness of the volume is, in many respects, above the average. It is profusely illustrated, and the reproductions from photographs are extremely good; the abundant references to the more important and recent literature upon each department of the subject are well calculated to stimulate and widen the reader's interests; and in comprising within one volume an unusually wide range of topics, the authors have succeeded in imparting a good deal of useful and varied information in a form which will easily impress itself upon the student's memory. But, as we pointed out in our review of the last edition (BRITISH MEDICAL JOURNAL, July 26th, 1902, p. 252), the consequence of endeavouring to embrace so wide a field is that the treatment of many subjects suffers from a lack of thoroughness. The matter relating to forensic medicine, immunity, and bacteriology might with advantage have been omitted. Each of these subjects requires a textbook for itself; they are very imperfectly dealt with in the present volume, and the space they occupy would have been better filled by an expansion of that part of the book which is devoted to "special pathology."

[2] *Diseases of the Heart and Arterial System.* By Robert H. Babcock, A.M., M.D. New York and London: D. Appleton and Co. 1903. (Demy 8vo, pp. 853; 142 illustrations. 25s.)

[3] *Pathologische Physiologie.* Von Dr. Ludolf Krehl. Dritte Auflage. Leipzig: F. C. W. Vogel. 1904. (Demy 8vo, pp. 620. M. 15.)

[4] *Clinical Diagnostic Bacteriology.* By Alfred C. Coles, M.D., D.Sc., F.R.S.Edin. London: J. and A. Churchill. 1904. (Demy 8vo, pp. 237, coloured plates. 8s.)

[5] *A Handbook of Pathological Anatomy and Histology.* By Francis Delafield, M.D., LL.D., and T. Mitchell Prudden, M.D., LL.D. Seventh edition. London: Bailliere, Tindall, and Cox. 1904. (Royal 8vo, pp. 907, 13 plates and 545 illustrations. 25s.)

Dr. ZILGEIN's book on the *Theory and Practice of Autopsies*[6] finds its *raison d'être* in an examination syllabus. The French student of medicine must now be prepared to show familiarity with the details of *post-mortem* inspection. He is here told, well and minutely, what must be looked for, but it is beyond the reach of a few hundred little pages to teach him how to recognize what is seen. Morbid anatomy must be demonstrated, but the manual justifies its existence, since it implies the importance of the now somewhat neglected study of macroscopic appearances.

MORPHOLOGY AND ANTHROPOLOGY.

MR. DUCKWORTH's book on *Morphology and Anthropology*[7] is admirably adapted for its purpose of a handbook for students. It proceeds step by step in a definite and orderly way considering events and facts in their proper sequence, educating as well as informing the reader. The mass of evidence which has been collected for the purposes of the study is grouped into four sections and these are followed by a chapter devoted to the conclusions which can be drawn, from the evidence put forward, regarding man's relations to the mammals nearest to him in the scale of development and the path along which his ancestors have travelled in their ascent. The first section is devoted to the consideration of the general anatomy of eutherian mammals. It deals with the classification of mammals, the members of the order of primates, the general anatomy of the primates, their crania, and their teeth. The second section deals with the evidence of embryology. The third with the variations of the various parts of the body, with craniometry, and with the comparative morphology of the nervous system. The fourth and last section deals with the evidence of palaeontology. The author has collected a very large amount of evidence and compressed it into a relatively small space; he weighs it carefully, giving each well-supported view due consideration, and he reaches his conclusions by means of an admirable method and in a logical manner. He makes no attempt to hide the fact that much evidence is still wanting and he does not allow easy and specious but insecurely-based explanations to run away with his judgement. His general conclusions as to man's relations to his neighbours are that the modern Simiidae did not figure in man's ancestry, and that the Simiidae are in many ways more specialized than the Hominidae and more specialized than their own ancestors. He is of the opinion that men are traceable to an ancestor common to them and to the lemurs who existed in the Pliocene period and who was probably so lemuroid that it would be difficult to recognize his true nature. We heartily congratulate the author upon his success in dealing, in so clear and impressive a manner, with a most interesting but intricate and difficult subject.

When we welcomed the first edition of Dr. KEITH's *Human Embryology and Morphology*[8] we pointed out what we thought were weak points in its construction, and we hoped that the second edition would avoid the errors and weaknesses of the first. We regret to admit that we are disappointed. We do not think that the subject matter is well arranged. Apparently contradictory statements are present in the text, and authors' names are sometimes used not in association with their published opinions, but with modifications of those opinions. Dr. Keith will find it difficult to prove some of his assertions, and in at least one instance the opinion expressed on one page is negatived by a statement on the adjacent page. Thus on page 27 it is asserted that:

> The development of the frontal sinuses and the supraorbital ridges leads to a marked change in the face at puberty. By the formation of the frontal sinuses the basal area of the skull to which the face is attached is largely increased in extent. Such an increase is necessary to support the palate, which grows rapidly in size at puberty. Up to the fifth year the upper jaw has to carry only ten milk teeth; in the adult it has to carry sixteen permanent teeth. To support these the face and palate grow rapidly in size. The formation of the frontal sinus gives the necessary increase in the area of the base of the skull for their support.

On the opposite page to that on which this somewhat extraordinary statement appears we are told that the frontal sinus may be altogether absent, and no explanation is given as to what happens when the *necessary support* for the face and palate is not forthcoming. Other examples of somewhat similar methods of reasoning are not absent, and until the book has received a thorough common-sense revision, it will not attain its full value in spite of its many good points.

[6] *Manuel Théorique et Pratique des Autopsies* (Theory and Practice of Autopsies). Par Dr. Zilgein. Paris: A. Maloine. 1905. (Fcap. 8vo, pp. 382. Fr. 3.50.)

[7] *Morphology and Anthropology.* By W. L. H. Duckworth, M.A. Cambridge: University Press. 1904. (Demy 8vo, pp. 564; 333 illustrations. 15s.)

[8] *Human Embryology and Morphology.* By Arthur Keith, M.D., F.R.C.S. Second Edition. London: Edwin Arnold. 1904. (Demy 8vo, pp. 402; 316 illustrations. 12s. 6d.)

NOTES ON BOOKS.

PUBLIC HEALTH.

DR. BURNETT HAM has issued a third edition of his *Handbook of Sanitary Law*[1] for the use of candidates for public health qualifications. It has been revised and brought up to date, but otherwise remains substantially similar to the second edition. The chief addition is, of course, the Factory and Workshop Act, 1901. The plan of the book is to classify under subject headings the chief points in public health law, and the whole is introduced by a preface on the general purport of sanitary legislation and the means of administration. We favourably reviewed the previous editions of this little handbook and we believe it may continue to fill a useful purpose.

Dr. H. CRITCHLEY has produced a little book for examination candidates on some of the chief Public Health Acts, entitled *Aids to the Study of Sanitary Law*.[2] But reliance must not be placed in it, for the omissions are numerous and many important points are altogether ignored. The writer evidently lacks experience of the subject upon which he writes. What is to be said of a guide for students in sanitary law which omits even to mention such enactments as the Public Health (London) Act, the Factory and Workshop Act, 1901, the Housing of the Working Classes Act, 1903, and many other statutes absolutely essential, not only to the medical officer of health, but to the student? We regret that we cannot recommend the book.

MR. A. TAYLOR ALLEN'S little book on *New Streets: Laying-out and Making-up*[3] has been written for surveyors and others working under the Public Health Act, 1875, and the Private Streets Act of 1892. It contains in condensed form a great deal of useful information concerning the subject. The first part deals with laying out and general construction of new streets, the second comprises the points requiring attention in the making-up of private streets, and the third consists of plans, specifications, estimates, specimen notices, etc. The book appears to be of a kind likely to prove useful to surveyors and students of surveying.

Progressive Medicine,[4] for the first, second, third, and fourth quarters of 1904, hardly seems to reach the level of its former excellence; but if that be really so, it is probably due to causes over which its contributors have little control. The individual abstracts of the original papers seem to be on the whole shorter; and, supposing the papers to be of minor importance, that is, doubtless, as it should be. Whatever be the explanation, the volumes are about one-third smaller than in 1903. The editorial comments are also perhaps rather less happy than in previous years. In discussing the occurrence of tetanus in the course of gelatine injections the editorial statement is made that although it is somewhat frequent among patients treated for haemorrhage by this method, yet, as far as the writer knows, it has never occurred in the treatment of aneurysm. We can readily recall at least 2 fatal cases in patients suffering from aneurysm treated by this method in the neighbourhood of London. The injunction to thoroughly sterilize the gelatine to be injected is very properly given, and it is accompanied with the advice that the gelatine should not be heated too much, lest its coagulating power be destroyed. We should like to have seen set forth the evidence of this implied statement; it has been denied, as a matter of fact. The sections on abdominal surgery are interesting, and there is a noteworthy section on puerperal infection; there is also a valuable article on bone

[1] *A Handbook of Sanitary Law, for use of Candidates for Public Health Qualifications.* By B. Burnett Ham, D.P.H.Camb., M.D., M.R.C.S., L.R.C.P. Third edition. London: Ash and Co. 1903. (Fcap. 8vo, pp. 165. 2s. 6d.)

[2] *Aids to the Study of Sanitary Law.* By Harry Critchley, M.A., M.D., D.P.H. London: Baillière, Tindall and Cox. 1904. (Fcap. 8vo, pp. 82. 2s. 6d.)

[3] *New Streets: Laying-out and Making-up.* By A. Taylor Allen, C.E. London: The Sanitary Publishing Company. (Crown 8vo, pp. 180. 3s.)

[4] *Progressive Medicine.* A Quarterly Digest of Advances, etc., in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. Vols. i, ii, iii, and iv. London: Rebman, Limited. 1904. (Demy 8vo, pp. 1329. 12s. 6d. each.)

tumours, and one of interest, without much conclusiveness, on therapeutics.

MEDICAL AND SURGICAL APPLIANCES AND DIETETIC PREPARATIONS.

A Convenient Test Tube for Pouring.—Mr. James H. Hunter, M.D., B.S., Assistant Surgeon, Ingham Infirmary, South Shields, sends a sample test tube, which, as shown by the accompanying diagram, has a sloping ovato-acuminate mouth. Mr. Hunter has found it specially useful for pouring



from one test tube to another, as in performing the cold nitric-acid test for albumen in urine. Messrs. J. L. Hatrich and Co., Clerkenwell, E.C., supply the tubes.

Diabetic Spice Buns.—The new diabetic spice buns manufactured by Messrs. Callard and Co. are quite free from starch and sugar, and are very light and palatable. Whether the peculiar aromatic flavour to which they owe their name will be appreciated by all patients must be determined by experience, but they can be recommended without hesitation to patients suffering from diabetes as entirely free from carbohydrates.

Sparklet Siphons.—Aërators Limited (Angel Road, Edmonton), the makers of sparklet bottles and siphons, have made some minor modifications in the apparatus of their siphons which they consider to be considerable improvements. The chief of these is the introduction of a valve in the piercing pin. It was found that a minute drop of water sometimes found its way up the tube, past the pin to the steel bulb, thus forming a point of rust. This was apt to be carried down into the tumbler at the next discharge, and imparted an iron taste to the water. The valve obviates this. Sparklets are too well known to call for any elaborate description. After some years' experience we can say that the bottles are well made, and that this method of aërating water is efficient and not costly. It will be found, we apprehend, particularly convenient in the country and in the Colonies, where aërated waters made by trustworthy manufacturers are not always easily obtained. The water used for filling the siphon or bottle may be boiled and cooled, and when aërated will be found palatable; in this way the risks of a doubtful water supply may be avoided. The conception of the apparatus is highly ingenious, and it has been carried out in a thoroughly practical way.

THE QUEEN'S JUBILEE HOSPITAL.

We are informed by the Chairman of the Queen's Jubilee Hospital, Earl's Court—to the affairs of which we had occasion to refer last week—that the vacancies on the honorary staff have now been filled, and he has supplied us for publication with a list of the gentlemen who have sought and secured appointment. He also requests us to note that all of them have accepted their new positions with a full knowledge of the recent facts connected with the hospital. We have no hesitation in saying that the action of these gentlemen, and of those who appointed them, seems to us to have been something more than precipitate. The simultaneous resignation of the staff of a hospital and its acceptance by the Committee is a rare and remarkable event; and when this is quickly followed up by the selection by that same Committee of a new staff *en bloc* it looks uncommonly like an attempt to smother up a scandal. We by no means assert that this has been the object in view, and prefer to believe that the whole thing is merely a piece of profound *gaucherie*. Nevertheless the former is the interpretation which will certainly be put upon the action in many quarters; and in adopting it the Committee has shown such a lack of discretion as in itself to suggest that the resigning staff must have had very good ground for complaint against it. In another case in which the whole of a staff of a hospital in London threatened to resign, this fact was thought sufficient ground for referring the whole of the matters in dispute between it and the Managing Committee to the judgement of an outside body. If this was thought desirable in the interests of a long-established hospital with a great reputation behind it, such as the National Hospital for the Paralysed and Epileptic, and at a time when the machinery for such reference was not ready to hand, still more should it be deemed essential at the present date, and in the case of a hospital of the calibre of the Queen's Jubilee Hospital. For, after all, what is this institution? One which was founded not so very many years ago in a way which evoked a good deal of criticism, and which but comparatively recently has been accorded full recognition as a public charity. If the governing body of the institution has its interests really at heart and has nothing to conceal, it will, we think, hold all appointments in abeyance and court inquiry, preferably at the hands of the Council of King Edward's Fund. Unless and until it adopts some such course we do not think it is entitled to expect much support from the more discerning portion of the hospital-supporting public.

BRITISH ASSOCIATION.

A meeting of representatives of the public bodies of Johannesburg convened by the Mayor was held on January 18th to consider the formation of a Reception Committee in connexion with the visit of the British Association for the Advancement of Science to that place in August next. Mr. Reunert, President of the South African Association for the Advancement of Science, explained the preliminary arrangements in connexion with the visit of the Association to South Africa, and stated that the Association had asked the South African Association to appoint vice-presidents and secretaries for each of the eleven sections. In the Section of Physiology, Sir Kendal Franks was appointed Vice-President, and Dr. A. Mackenzie, Secretary; in that of Anthropology, Dr. Schonland was appointed Vice-President, and Mr. A. von Dessauer, Secretary; in that of Zoology, Dr. Gunning, Vice-President, and Dr. Pakes, Secretary. A number of public lectures will be given during the week of the meeting; among them may be mentioned one by Mr. F. Soddy, on radio-activity, and one by Mr. A. E. Shipley of Cambridge, on a zoological subject. Sir David Gill, Chairman of the Central Executive Committee, stated that the Governments of the Cape Colony, Transvaal, Orange River Colony, and Natal had subscribed the sum of £6,000 towards the expenses of the visit of the British Association. He further pointed out that some half a dozen gentlemen would be appointed by the British Association to go out to South Africa some months in advance, and make special studies there in connexion with their own subjects; and the results of those investigations would be made known at the meeting to be held in South Africa. Sir David Gill added that he had inspected the Transvaal Technical Institute, and was agreeably surprised to find that it possessed almost, if not altogether, all that was required for the sectional meetings.

Among those present at the recent dedication of the new Lutheran Cathedral in Berlin was Dr. Luther, a physician practising at Luckenwalde, who is said to be a direct descendant of Martin Luther.

At the recent supplementary elections in Italy, Dr. Giovanni Battista Queirolo, Professor of Clinical Medicine in the University of Pisa, obtained a seat in the Chamber of Deputies. Professor Queirolo is one of the leading physicians in Italy.

Medical Study Tour in Germany.—The medical study tour in Germany this year will start from Munich on September 13th. The tour will comprise visits to the following watering places and health resorts: Ischl, Reichenhall, Berchtesgaden, Gastein, Gossensass, Levico, Roncegno, Riva, Gardone, Solo, Arco, and Meran, where the tourists will arrive in time for the meeting of the German Association of Scientists and Physicians which is to be held there this year.

THE EPIDEMIC OF TYPHOID FEVER AT LINCOLN.

[By Our Special Commissioner.]

II.

The total number of notifications for the week ending Friday, February 24th, amounted to 63, showing a continued decrease as compared with the notifications of the three preceding weeks, which were 284, 174, and 116 respectively.

The total number of cases notified since the beginning of the outbreak amounted on February 24th to 733. Up to the same date 61 deaths had been recorded, showing a case-mortality of 8 32 per cent.

Causes of the Decline of the Epidemic.

At the present time it would be premature to form any definite conclusion with regard to the relations between the course of the epidemic and the measures which have been adopted with a view to preventing further infection. Nevertheless, it will be instructive and important to note whether any marked decrease in the number of notifications has followed since the time when the disinfection of the suspected water by boiling, or its replacement by other supplies, became general throughout the city.

It was in the third week of January apparently that the Corporation began to issue and distribute notices warning the inhabitants of the dangerous character of the water, and urging them to boil it (as also milk) before using it for domestic purposes. The alarm caused by these notices seems to have been so widespread that probably very little of the Corporation water was drunk without being boiled after that third week. Since that time a large proportion of the inhabitants have avoided the suspected Corporation water, and made use of the "conduit springs," and of the supplies generously contributed by Newark, Sleaford, and Nottingham, in addition to some from neighbouring villages.

If, then, the suspected water supply has been the only or the chief cause of the epidemic, it might be expected that there would be a marked decrease in the number of infections after the third week of January, and a consequent marked decrease in the number of notifications from about February 5th to 11th and afterwards. The marked decrease set in on February 7th.

Up to the present time, in fact, the course of the epidemic accords with the supposition that the suspected water has been the infective agent, and that the extent of infection has been reduced by boiling the water before consumption or by substitution of drinking water from other sources.

A certain number of cases are sure to occur for some time to come owing to neglect of the precautions mentioned above or to secondary infections derived from the first cases, either direct—from person to person—or through their surroundings, drains, sewers, etc., having become contaminated by the typhoid excreta.

Making allowance for these secondary cases, the epidemic ought to be brought to an end or reduced to a very small compass by the present time, if the supposition that the suspected water was the sole cause is a true one. This achievement should be all the more sure if the disinfection of the water mains and the more perfect filtration, which it is understood were arranged for in the early part of February, have been carried out efficiently and thoroughly. On the other hand, it must be noted that it is possible that the reduction of the epidemic may be only temporary, and also that it may be due to other causes than those suggested—for example, the cessation of active infection of the water and the natural extermination of the typhoid germs.

It is interesting to note that up to the present time the public institutions of the city have escaped infection, with the exception of the barracks (in which there have been 3 cases) and also the county asylum at Bracebridge (where there has recently been 1 case).

It is important that inquiry should be made as to how the inmates of these institutions differ from their neighbours with regard to water and milk supply, drainage, proximity to notified cases, etc. The workhouse, for instance, is near the various houses in which the first 4 cases were notified, and to other houses in which infection has occurred. The water is supplied to this institution (according to the statements made at a recent meeting of the Board of Guardians) not from the waterworks but from a pump on the premises. Moreover, early in December the medical officer ordered all water used for drinking purposes at this institution to be boiled. The advanced age of a considerable proportion of the inmates will hardly account for the immunity enjoyed by all of them.

The Proposed New Water Supplies.

The Corporation had done their best to prevent the further spread of infection by organizing arrangements for the prompt notification and removal to hospital of notified cases and for domestic disinfection, by cautioning citizens to boil their water, by wholesale disinfection of drains and sewers, and by entrusting the disinfection of the water mains and the more effective filtration of the water supply to the experts commissioned by the Local Government Board.

These were the remedial and preventive measures which called for their first care and attention.

Many of the inhabitants complain that the water "continuously treated by experts" is unpalatable and nauseous. They have lost confidence in the alacrity and trustworthiness of the Corporation, and it is not surprising that they clamour impatiently for the provision of pure water, sufficient to meet the present emergency, and to be provided until the permanent water supply sought for by deep boring is established. The action of the Corporation, however, from the time when they fully realized the seriousness of the outbreak ought to bring reassurance. Little time was lost in applying for the best expert advice available for detecting the sources of the epidemic, and for preventing further infection.

The provision of a safe supply of water for a population of 50,000 cannot be sanctioned and arranged without careful investigation beforehand, even if the supply is to be only temporary and small in quantity. Such an investigation requires time, and cannot safely be carried out without the aid of expert observation.

On February 15th the Corporation appointed a Subcommittee "to make such inquiries and retain such expert assistance as they may think fit, with a view to providing an early supply of pure water, in addition to that expected from the present bore." As a result of the action of this Subcommittee the services of Mr. G. H. Hill, the eminent engineer, who devised the Thirlmere-Manchester Waterworks, have been retained as the expert water engineer of the Corporation, and Mr. W. Whittaker, F.R.S., the eminent geologist, and one of the highest authorities on the underground water supplies of the kingdom, has been called into consultation.

It should be noted that, in any case, a safe water supply yielding about 500,000 gallons in the twenty-four hours will eventually be required in addition to that expected from the deep bore well at present under construction. For the city with its increasing population will need at least 1,500,000 gallons in the twenty-four hours; and Professor Edward Hull, who advised the Council with regard to their water supply in 1898, calculated that a supply of only 1,000,000 gallons a day should be anticipated from this source. The deficit, he suggested, might be made up by mixing this with the existing supply of the River Witham. As, however, it has been revealed that the waters of this river are liable to pollution from numerous sources, no scheme involving their use for domestic purposes (mixed or unmixed) is likely to be tolerated by the people of Lincoln. It is obvious that a further safe supply must be sought for in order to supplement that yielded by the deep boring.

THE ANNUAL REPORT OF THE REGISTRAR-GENERAL FOR ENGLAND AND WALES.

The sixty-sixth annual report of the Registrar-General, on the births, marriages, and deaths registered in England and Wales during 1903, has just been issued. Although the earlier publication of quarterly returns somewhat discounts the interest attaching to the more general statistical facts of the year, the report now published contains, besides much other additional information, a detailed analysis of the causes of death which allows of a better appreciation of the significance of the various death-rates.

Marriage-rate.

The number of persons married during 1903 was 522,206, being equal to 15.6 per 1,000 of the estimated population this is the lowest rate recorded since 1895, and is slightly lower than the average rate for the ten years 1893-1902.

Birth-rate.

The births registered in England and Wales during the year under notice numbered 948,271, and were equal to an annual rate of 28.4 per 1,000 of the total population, or 1.0 per 1,000 below the average rate in the preceding ten years. Since

1895 the birth-rate has shown a continuous decrease, the rate in 1903 being the lowest recorded since the establishment of civil registration. Among counties with populations exceeding 100,000 persons, those with the lowest birth-rates were Sussex, Cornwall, Devonshire, Oxfordshire, Bedfordshire, and Somersetshire; while the highest rates were recorded in Nottinghamshire, Northumberland, Staffordshire, Monmouthshire, Glamorganshire, and Durham. There were on an average 1,035 male births to 1,000 female births, the proportion in the ten preceding years averaging 1,036 to 1,000.

DEATH-RATE.

The 514,628 deaths registered in England and Wales during 1903 were equal to an annual rate of 15.4 per 1,000, or 2.2 per 1,000 below the corrected average rate. In each of the three years 1901-2-3 the death-rate was less than 17 per 1,000; in no previous triennial period has so low a rate of mortality obtained, and in no year has the recorded rate been lower than in 1903. The lowest county death-rates, after correction for differences of sex and age-constitution of the populations, were 11.4 in Hertfordshire and in Wiltshire, 11.5 in Dorsetshire, and 11.7 in Sussex and in Somersetshire; the highest rates were 17.3 in Glamorganshire, 17.5 in Yorkshire (West Riding), 18.1 in Northumberland, 18.3 in Durham, and 19.5 in Lancashire.

With regard to the mortality at different age-periods, it appears that the death-rates for 1903 were below the average at all age-groups in both sexes. Among males at all age-groups below 45 years, and among females below 65 years, the rates were the lowest hitherto recorded. The proportion of deaths among children under 1 year of age to registered births was equal to 132 per 1,000, against an average proportion of 152 per 1,000 in the preceding ten years.

The rate of mortality in the group of counties taken to represent the urban population was equal to 17.0 per 1,000, while in the group of rural counties the rate was 12.9 per 1,000; these rates were respectively 2.2 and 1.4 per 1,000 lower than the averages for the preceding five years.

CAUSES OF DEATH.

The various causes of death specified in the present report are grouped under two principal headings, namely, "General Diseases" and "Diseases of Special Organs." This grouping is, however, provisional, and is liable to modification from time to time as the result of further research. The aggregate mortality from the seven principal epidemic diseases was considerably below the average; the mortality from small-pox was slightly in excess, but that from measles, scarlet fever, diphtheria, whooping-cough, enteric fever, and diarrhoea showed a decline. Influenza was proportionally less fatal than it had been in the preceding year, the rate being 195 per million, against 223 in 1902; the rate in the rural counties was 299 per million, as compared with 159 in the urban group. The mortality from phthisis among males was equal to a rate of 1,427 per million, and among females to 993 per million; the mortality among males was therefore nearly 44 per cent. greater than among females, but for both sexes the rates were lower than the average for the preceding five years. The deaths attributed to cancer, or malignant disease, numbered 29,089, being 2,795 in excess of the corrected average number for the preceding five years; among males the death-rate from this disease was equal to 732 per million living, and among females the rate was equal to 1,003 per million. Both of these rates are the highest yet recorded. The mortality directly ascribed to alcoholism during the year under notice was equal to 91 per million among men and to 62 per million among women, both rates being below the average for the preceding quinquennium.

INADEQUATE CERTIFICATION.

The causes of many of the deaths are still stated so indefinitely as to be practically useless for statistical purposes. During 1903, the deaths of 49,455 persons were attributed to such indefinite causes, and a very much larger number would have appeared in the report but for the systematic inquiries addressed to medical practitioners respecting deaths certified as due to dropsy, tumour, haemorrhage, and certain other indefinite conditions. In respect of the deaths during 1903, there were 4,021 replies which in most cases led to a more accurate classification of the cause of death. For example, 439 deaths from malignant disease, 143 from puerperal septic diseases, 54 from venereal diseases, 55 from intemperance, and 395 from tuberculous diseases, were transferred to these headings, although originally returned as due to such ill-defined causes as tumour, ovarian disease, disease of liver, etc.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE quarterly meeting was held at the North Riding Asylum, Clifton, near York, on Thursday, February 23rd, under the Presidency of Dr. PERCY SMITH. The proceedings opened with a resolution moved by Dr. CARLYLE JOHNSTON of Melrose and seconded by Dr. E. B. WHITCOMBE of Birmingham:

> That the period of training of nurses in an institution for the treatment of mental disorders prescribed for nurses by the regulations of the Medico-Psychological Association must be served in one such institution.

This motion provoked a considerable discussion. Drs. HYSLOP and CLOUSTON spoke against it as being an unjust measure. It kept a nurse tied too long to one institution at the outset of her career, and if she wished to change from an institution where training was inadequate and inefficient to a better institution, the time spent at the former was to be counted as lost. The long period of three years was also too exacting.

Dr. ERNEST WHITE, late President of the Association, also spoke of the defects in the proposed scheme, while Dr. ROBERTSON of Larbert Asylum defended it.

The discussion was carried on by Dr. YELLOWLEES of Glasgow, Dr. HAYES NEWINGTON of Essex, Dr. T. OUTTERSON WOOD, Dr. HEARDER of Clifton Asylum, and others.

Dr. WOOD proposed as an amendment that the period of education and training of the nurses for the certificate of the Association should be two years, and that it should not be spent in more than two asylums.

The question being put to the meeting, the amendment was carried by 21 votes to 10; it was then adopted as a substantive motion.

Dr. T. B. HYSLOP, of Bethlem Hospital, read a paper entitled the "Problem of the Insane in its Relationship to Overcrowding and Poverty." He argued that the Medico-Psychological Association should consider and appoint a committee to report on the subject of insanity in its relation to pauperism, overcrowding, slum life, alcohol, and collateral etiological factors. The Association by its position and status in the profession, its special knowledge and facility for obtaining the facts in such an enquiry, was peculiarly fitted for such a task as he had suggested. The investigation would bring to light facts on the sociological side of the question, and on matters such as physical degeneration, tramps and slum life, alcohol, heredity, alien immigration, migration, and depopulation. Nations rose and decayed according to the inevitable laws of evolution, but a wise intelligence should anticipate and avert dangers which were avoidable.

The discussion was continued by Dr. CHARLES MERCIER, who thought the scheme propounded was full of ideas of the nature of "bogies"; by Dr. ROBERT JONES, who agreed partly, but differed from Dr. Hyslop in regard to the problem of alien immigration; by Dr. CLOUSTON, who laid stress on inquiry into alcoholism as an increasing cause of insanity in Scotland, and by Drs. SEYMOUR TUKE, OUTTERSON WOOD, and others. The meeting then adjourned for the next quarter.

MEDICAL MEN AND WORKMEN IN RUSSIA.—At a conference of medical men in the Government of Moscow held on February 10th it was decided to present to the Moscow Zemstvo a resolution declaring their sympathy with the demands of the St. Petersburg workmen as formulated on January 22nd, and expressing their deep regret for the victims whose blood was shed in the streets of that city. They also express indignation at the methods of the bureaucracy, "whose aim is the suppression by violence of all attempts on the part of society to secure political liberty." The doctors go on to say that they cannot leave the population of Moscow without medical aid, and for this reason they do not abandon the practice of their profession; but they consider it their duty to join the Liberal movement and to aid with all their strength those struggling to gain political liberty. They protest against the continuance of the war, and urge that the Zemstvos should grant no more money to the medical detachments in the Far East. The students of the Military School of Medicine have followed the example of the civil universities and have "struck," on the ground that the meddling of the police in academic matters makes scientific study impossible.

MEDICAL NEWS.

ON the occasion of Dr. F. T. Roberts's resignation of the post of Physician to University College Hospital, which he has held for more than a quarter of a century, his former house-physicians are arranging to entertain him to dinner. Dr. Mott will take the chair, and twenty-five of Dr. Roberts's old residents, including Mr. Stonham, Dr. Walter Tate, Mr. Percy Flemming, Dr. Blaxall, and Dr. T. Wilson of Birmingham, have already signified their intention to be present. The dinner will take place on March 29th. Further information will be gladly given by Dr. Bertram Abrahams, 14, Welbeck Street, W., or Dr. R. G. Eiwell, University College Hospital, W.C.

Two of the wards at the London Hospital, which were placed in quarantine in connexion with the cases of reputed typhus fever in Stepney, reverted to ordinary use at the beginning of this week. The third, provided there be no untoward occurrence in the interval, will be opened on Saturday evening. Of the four cases admitted from this district to the Homerton Fever Hospital and diagnosed to be typhus, one has now been discharged and the rest are doing well. A case was also notified in St. Pancras on February 21st.

A SMOKING concert was given on Monday last at the Criterion Restaurant by the Students' Union of St. Bartholomew's Hospital, Mr. A. Bowlby, C.M.G., F.R.C.S., being in the chair. In addition to the new Treasurer (Lord Ludlow) the large audience included so many well-known medical men that the concert, apart from its direct success, may be considered thoroughly to have fulfilled the desire of the promoters to bring together old students of the hospital and foster *esprit de corps*.

AT the annual meeting of the Moorfields Eye Hospital (Royal London Ophthalmic Hospital, City Road, E.C.) it was stated that twenty beds still had to remain closed on account of lack of funds, and that it had again been necessary to treat legacies accruing during the year as current income instead of as additions to capital. It is of this hospital, it may be noted, that the Council of King Edward's Hospital Fund has remarked in two consecutive annual reports that the financial support accorded to it by the public falls short of its merits.

INFLUENZA IN ITALY.—There were 1,134 deaths from influenza in Italy in January, 1904. It is estimated that the mortality from the same cause in January of the present year was three times that number.

INTERNATIONAL ASSOCIATION OF THE MEDICAL PRESS.—The conference of delegates of the International Medical Press Association will be held this year at Bern on April 27th and following days, under the presidency of Professor Cortezo, of Madrid.

BEQUESTS TO HOSPITALS.—The late Mr. A. G. Hubbuck of Chislehurst bequeathed £2,000 to the East London Hospital for Children, and £1,000 to the Chelsea Hospital for Women. Miss Ellen Peel of Dorking left £500 each to the Dorking and Tamworth Cottage Hospitals.

CHELSEA CLINICAL SOCIETY.—The annual clinical debate on chronic constipation and its medical and surgical treatment will take place on March 14th and March 21st, at 8.30, in the Chelsea Dispensary, Manor Street, King's Road, S.W. The debate will be opened by Mr. W. A. Lane, and amongst the speakers will be: Dr. W. Collier of Oxford, the President of the British Medical Association; Dr. F. J. Smith, Dr. Campbell Thomson, Dr. V. Dickinson, and Dr. Goddard.

INTERNATIONAL MEDICAL CONGRESS AT LISBON.—In connexion with the Fifteenth International Medical Congress to be held at Lisbon in April, 1906, Thomas Cook and Son have chartered a first-class ocean passenger steamer to convey members of the Congress and their friends from London. The vessel will be moored near the Quay, and in view of the pressure on hotel accommodation usual on such occasions, will be used as a floating hotel during the period of the Congress—April 19th to 26th.

A BELGIAN MEDICO-POLITICAL CONGRESS.—A congress of professional medicine, or, as we should say, medical politics, is being organized in Belgium. It is to be held this year at Liège, on August 13th, 14th, and 15th. The questions to be discussed are: (1) The position of the medical practitioner in regard to the law of December 24th, 1903, on compensation for accidents to workmen; (2) the reform of the law of November 27th, 1891, relative to medical charities and gratuitous medical assistance; (3) medical inspection of schools; (4) medical provident organizations; (5) the social work of the doctor.

HYGIENE OF SPANISH CHURCHES.—The Alcalde of Madrid, who, at least in sanitary matters, is decidedly progressive, has issued an order for the disinfection of churches. This order, which is based on a report from the director of the municipal laboratory, prescribes that all the churches of the Spanish capital are to be swept out daily with sawdust moistened with a solution of copper sulphate. All the fittings and furniture of the churches—chairs, benches, confessional, holy water fonts, etc., are to be disinfected every day.

THE FIRST FEMALE AMBULANCE SURGEON.—Dr. Emily Dunning, the first woman in the United States who served as a regularly-appointed ambulance surgeon, was recently married to Dr. Benjamin S. Barringer, formerly house-surgeon of the New York Hospital. Dr. Dunning recently finished her term as house-surgeon of Gouverneur Hospital. When ambulance surgeon, her first call was to a longshoreman with an injured foot. So much comment did her appearance as an ambulance surgeon excite that the police had to call out the reserves of the Oak Street Station to handle the crowd, whose curiosity to see Dr. Dunning work wa causing inconvenience.

AMALGAMATION OF HOSPITALS.—What is probably the last annual meeting of the Governors of the National Orthopaedic Hospital took place on February 28th, the Duke of Marlborough presiding. The charter from the King, which will consummate the amalgamation of this institution with the Royal Orthopaedic Hospital, is expected to be issued very shortly, and thereafter the joint hospital will be known as the Royal National Orthopaedic Hospital. In the course of the proceedings it was mentioned that owing to the nearly-completed fusion of work, there were now six surgeons upon the staff instead of four, and that it had been necessary to provide an additional operating theatre. Reference was also made to the system introduced of employing the leisure time of the crippled children in the wards by teaching them some trade. The London County Council was now supplying the teacher.

INTERNATIONAL CONGRESS ON ACCIDENTS TO WORKMEN.—It has already been announced in the BRITISH MEDICAL JOURNAL that an International Congress on Accidents to Working Men is to be held at Liège from May 29th to June 4th, under the patronage of the Belgian Government. The President is Dr. Moeller, member of the Belgian Royal Academy of Medicine; the Vice-Presidents, Dr. Glibert, Principal Medical Inspector of Labour, and Dr. Van Keerberghen, delegate of the Minister of Belgian State Railways. The General Secretary is Dr. Poels, Marie-Thérèse 2, Brussels. The opening of the Congress will coincide with the coming into force in Belgium of the new law as to compensation for accidents to working men. The following is the programme of discussions which was recently published: 1. Definition of industrial accidents in relation to the legislative enactments of various countries. Indication in regard to each of those countries of the advantages and possible disadvantages of such definition, considered exclusively from the medical point of view. 2. Investigation of the extent to which it is possible to assimilate professional diseases to accidents in the strict sense of the term, account to be taken of existing laws. 3. Are there cases in which hernia can be regarded as an industrial accident? If so, such cases to be described. 4. Study of the organization of (*a*) first-aid in accidents to workmen; (*b*) institutions already existing or to be established for the purpose of effecting definitive cure of the sequels of such accidents. Describe and criticize existing organizations having regard to (1) the different nature of industries and trades; (2) the greater or lesser importance of industrial establishments; (3) the situation of these establishments in centres of population or in rural districts. 5. The consequences of injuries (traumatic neuroses, permanent disabilities, etc.). 6. Malingering and voluntary aggravation of the results of accidents. 2. The ability of an international system of medical statistics as to accidents to workmen, and the basis on which it might be established. A programme of entertainments will be published later.

British Medical Journal.

SATURDAY, MARCH 4TH, 1905.

THE AFTER-HISTORY OF APPENDICECTOMY.

The discussion at the Royal Medical and Chirurgical Society upon the subject of appendicitis comes at a most opportune time. The circumstances of the debate are the most favourable that could be desired, and it promises to add much to our knowledge.

In connexion with the subject of appendicitis—as, indeed, with many other abdominal diseases—history has been made apace during the last twenty years. It was in 1887 that Sir Frederick Treves first made the suggestion that the appendix vermiformis should be removed in cases of recurring appendicitis in the quiescent stage following an acute outburst of inflammation. The suggestion fell at first upon unheeding ears, but in the recent years surgical enthusiasm upon the subject has been second only to that exhibited by the lay public. Operations have been recorded by more than one surgeon in series of one thousand cases, and every surgeon in active practice has had to deal with patients numbered at the least in scores. With so many observers actively at work, it is only natural that our knowledge of the various types of appendicitis has been increasing by leaps and bounds. In so rapidly-moving a matter, opinions held tenaciously to-day may to-morrow be acknowledged to be untenable. And of matured opinions it is hardly possible to conceive two more widely divergent than those held respectively by Ochsner and by Deaver, both surgeons of great experience in this matter. The need, therefore, for a full discussion by those upon whose opinions we are accustomed to rely is urgent. Some safe anchorage is wanted when the currents are many, and strong, and baffling.

There is a special fitness in the selection of Sir Frederick Treves to open this discussion, and the paper which we publish to-day will be generally acknowledged to be of the sound character and high distinction which experience has led us to expect from him.

The points to which attention will thus be drawn are precisely those in need of further elucidation. The statistics of 1,000 cases collected by Mr. Hugh Lett, and the statistics which have been specially prepared for the discussion by members of other hospital staffs, will furnish most important material upon which opinions can be based.

The removal of the appendix "in the interval"—the operation *à froid* of the French—is one of little risk, one which is, in the great majority of cases, attended by instant and abiding success. There are, however, cases, as is implied in the qualification just made, in which, though the patient recovers uneventfully from the operation, there is no relief from the symptoms which made the operation necessary. In some of these instances the diagnosis may have been wrong, and the disease is left untouched by the removal of the appendix. An explanation of the symptoms has then been found in the discovery of gall-stone disease of a stone in the kidney or ureter, of disease in the ovary or broad ligament, of inflammation in the caecum or colon, to name only the most frequent. No fewer than forty-three cases of this kind are mentioned by Sir Frederick Treves, and it is not to be supposed that his personal experience in this matter has been unusual; the point is indeed illustrated in an interesting way by Mr. Heaton's paper, also published in this issue. The lesson to be drawn is that a diagnosis of appendicitis should not be made too hastily there are other conditions with which appendicitis may well be confused.

In two of Sir Frederick Treves's cases a continuance of the symptoms was found to be due to incomplete removal of the appendix. This number, we confess, is smaller than we had expected to see. In a recent number of the Journal a surgeon of experience described the operation of removal of the appendix, and clearly gave forth to the world a method in which an inch of the appendix was allowed to remain. Sir F. Treves has shown that the stricture in the appendix may lie at the very point of opening into the caecum, and therefore, when any stump is left, attacks may continue to occur.

One cause of subsequent trouble to the patients is undoubtedly the formation, or persistence, of adhesions around the appendix, involving the termination of the ileum and giving rise to symptoms of partial intestinal obstruction. In such circumstances, or as the result of ulceration in and around the base of the appendix, an actual mechanical obstruction in the vicinity of the ileo-caecal valve may be found, and an entero-anastomosis may be necessary. Such cases, though not related by Sir Frederick Treves, are, of course, encountered.

In connexion with abscess associated with disease of the appendix one point has long been a source of anxiety, and upon it surgeons of equal experience have pronounced different opinions. It concerns the removal of the appendix at the time of the evacuation of the abscess. There are those, with whom Sir Frederick Treves was at one time numbered, who hold that no attempt should be made to discover the whereabouts of the appendix, in the belief that a patient by the fact of an attack of appendicitis is debarred from future troubles; there are those also who consider that an operation is incomplete unless the appendix is sought for and removed. The one obvious need in arriving at a satisfactory solution of this problem is to know in what proportion of cases a subsequent attack may be expected. In Mr. Lett's tables, the number of cases in which further attacks are recorded number 17.2 per cent., and though this estimate may be, as Sir Frederick Treves thinks, "unduly high," it would have to undergo a considerable diminution before it could form the basis of a sound argument in favour of deliberate non-interference with the appendix. A further question is the necessity for the removal of the appendix in the quiescent period after the abscess has healed, in those cases in which it had not been dealt with at the original operation. In these cases it has been shown that when subsequent attacks occur they do not often lead to suppuration. Authorities are quoted who are in favour of such an operation, but Sir Frederick Treves argues, we think rightly, against the establishment of a rule that the removal of the appendix in such circumstances should always be advised.

These are only some of the many interesting points

which are fully dealt with in this able and most timely article. There are few surgeons who have enriched the literature of our profession by contributions at once so informing, so scholarly and so scrupulous in their scientific accuracy as those of Sir Frederick Treves; we hope that many more contributions as valuable may be looked for from him. To the discussion which this paper has raised some important contributions have already been made, as will be seen by reference to the report published elsewhere. The debate will be resumed next Tuesday, and we shall hope to publish a full report next week.

AN AGE-LIMIT OF INTELLECTUAL WORK.

Professor Osler is taking leave of America in a storm of newspaper criticism. It is not altogether easy to understand why the views which he is reported to have expressed on the intellectual unprofitableness of middle age should have so startled the world. Were it true that a man of 56 about to enter on a new and larger field of intellectual activity had taken the opportunity of suggesting that men on reaching the age of 60 should be painlessly eliminated from this sublunary sphere by means of chloroform, the humour of the situation would explain the wide publicity which has been given to the winged words spoken by him in his farewell address to the Johns Hopkins University. But he said nothing of the kind; and that he is annoyed by the misrepresentation is shown by the fact that he has thought it worth while to send us a cablegram asking us to "deny newspaper canard about chloroform at 60." He appears, indeed, to have stated it as his conviction that the commercial, political, and professional world would derive great benefit if men stopped work at 60; but the proposal that chloroform should be used, like Dick Turpin's bullet, as a means of persuading them to stop, originated not with him but with Anthony Trollope. Our American cousins, who are obsessed by the fixed idea that the Britisher is impervious to humour, seem to have taken the matter too seriously; if the English novelist could have foreseen what was to happen, he would doubtless have followed the considerate example of Artemus Ward and guarded against misunderstanding by adding, "This is a goak."

On the general question we agree with Dr. Osler that in the case of physicians and surgeons to hospitals, military and naval officers, heads of administrative departments and officials of all kinds, a limit of age is as a general rule beneficial. If we consider only the individual, nothing is more pathetic than the veteran who lags superfluous on the stage; but regarded from the wider outlook of the public interest, nothing can be more mischievous than the retention of positions of authority by men whose minds have become fixed by long habit in a mould of routine and tradition. It would be well if the example of the French professor who preferred to leave his chair rather than fall out of it were more widely followed. But if the arbitrary limit fixed by Professor Osler were adopted as a hard and fast rule of public life, the realm of intellectual achievement would be incalculably the poorer. The world, in the spiritual as well as the political spheres, is largely governed by men who, under Professor Osler's rule, should have been compulsorily retired long ago, and in all departments of literature, art, and science work of the highest value has been and is being done by men whose tale of years exceeds three-score.

Professor Osler's statement that all the best intellectual work is done by men under forty is not by any means borne out by facts. Goethe, indeed, said that no man got a new idea after forty, but this hard saying is absolutely contradicted by experience. To Dr. Osler's dogmatic assertion we oppose an equally positive statement by an oracle of at least equal authority. In his speech on copyright delivered in the House of Commons in 1841, Macaulay said: "It is the law of our nature that the mind shall attain its full power by slow degrees; and this is especially true of the most vigorous minds. Young men, no doubt, have often produced works of great merit; but it would be impossible to name any writer of the first order whose juvenile performances were his best. That all the most valuable books of history, of philology, of physical and metaphysical science, of divinity, of political economy, have been produced by men of mature years, will hardly be disputed. The case may not be quite so clear as respects works of the imagination. And yet I know no work of the imagination of the very highest class that was ever, in any age or country, produced by a man under thirty-five. Whatever powers a youth may have received from nature, it is impossible that his taste and judgement can be ripe, that his mind can be richly stored with images, that he can have observed the vicissitudes of life, that he can have studied the nicer shades of character. How, as Marmontel very sensibly said, is a person to paint portraits who has never seen faces? On the whole, I believe that I may, without fear of contradiction, affirm this, that of the good books now extant in the world more than nineteen-twentieths were published after the writers had attained the age of forty."

This is in accord with the fact—which can scarcely be denied except by those who love paradox more than sober truth—that the intellectual powers do not reach the stable equilibrium of full and harmonious development till the age of 40 or even later.

THE NEW PRISON RULES.

The new Prison Rules, which were published in the *Times* of February 25th, seem to show that the Home Office recognizes that the reformation of criminals is the duty of the State towards society. There is no reason why the treatment of prisoners should be made pleasant, but if a prisoner can be made to feel that he is being punished without necessarily coming into contact with those whose society may debase and degrade him, his reformation may not be an impossibility.

The first group of new regulations relates to the treatment of convicts sentenced to penal servitude, who, on conviction, are under the age of 21 years. Such convicts are to be placed in a class by themselves. Prisoners of this class are to be subclassified as soon as possible after full inquiry into their general character and antecedents. The subclasses are to consist of: (*a*) Selected convicts under 18 years of age, who are to be sent to a specially-selected prison under the rules for juvenile-adult prisoners; (*b*) first offenders or persons not habitually criminal or of corrupt habits, and who are considered eligible for the "star" class; (*c*) ordinary convicts not so eligible (for example, convicts under 21 who are habitual criminals). Special provision is to be made for keeping these classes separate, and it is to be the duty of the governor and chaplain to devote special attention to the members of these classes with a view to acquiring personal influence over them. Should it appear to the governor or chaplain that the habit and character of any convict under 21 are

not suitable for special treatment, the directors may remove him from this class. Special attention is to be given to education; the convicts are to hear lectures and addresses, and are to be provided with books and useful literature, which they are to be encouraged to read. Finally, with a view to the supervision of convicts of this class after discharge special arrangements are to be made with Discharged Prisoners' Aid Societies.

The new regulations above described relate only to convicts under the age of 21. The main object of the rules is to give such convicts every chance of reformation before they are brought into contact with the hardened criminal. But the rules pertaining to older convicts have also been revised. In future (that is, after April 1st, 1905) there are to be two divisions of penal servitude, (*a*) the Ordinary Division, and (*b*) the Long Sentence Division, which is for selected convicts who are sentenced to more than ten years and who have served more than seven and a half years. Upon conviction and sentence to a term of less than ten years every penal convict will go into the Ordinary Division. If sentenced to more than ten years, as soon as he has earned the marks representing that period, the directors will consider whether he is to be placed in the Long Sentence Division or not. This will depend upon his offence, his general character and antecedents, and his conduct and industry in prison. Convicts in the Ordinary class are to be subdivided into three classes, for example, (*a*) the Star class, which is to comprise first offenders and persons shown not to be habitually criminal; these convicts are to have not more than three months' solitary confinement; (*b*) the Intermediate class, which is to comprise persons who, owing to their general character and antecedents, are not considered to be suitable to the Star class, and persons who have been reconvicted, but not of such serious crime as to justify their being placed in the Recidivist class; these convicts are to have not more than six months' solitary confinement; (*c*) the Recidivist class, which is to comprise habitual criminals or criminals whose ticket-of-leave has been revoked or forfeited; they are to have not more than nine months' solitary confinement. Convicts in the Intermediate class may be promoted or reduced according to their conduct. The term of solitary confinement may be reduced on the recommendation of the medical officer. Convicts of each class shall, as far as practicable, be kept apart by themselves, and not allowed to associate with convicts of the other classes. Convicts in the Long Sentence Division must, when practicable, be kept in a prison, or part of a prison, set apart for them. They are to wear a distinctive dress, may have their meals in association, and may converse during meals. They may be allowed to earn, by special industry, a gratuity, a portion of which may be devoted to certain articles of comfort or relaxation prescribed by the directors from time to time. The remainder may be applied for the benefit of the convict in such manner as the directors may appoint. A convict in this division may be degraded to the Ordinary Division if he misbehave.

HOSPITAL REFORM.

The conference convened by the British Medical Association, at which the Hospitals Committee of the Association and other representatives of the medical profession met laymen interested in hospital administration for the purpose of discussing reforms in hospital administration, especially with reference to the admission of unsuitable patients to out-patient and casualty departments, took place on Thursday afternoon too late for us to publish any note of the proceedings in the present issue. We published in the British Medical Journal of February 4th the statistics given by Sir Henry Burdett with regard to the increase in the number of patients in the London hospitals. Accepting his statistics as correct, which we believe may safely be done, it appears that in the ten years ending 1903, while the increase in the population of London was 6 per cent., the increase in the number of in-patients and out-patients taken together was 23.12 per cent. Dr. Fowler, the Dean of the Medical Faculty of the University of London, in speaking at the annual meeting of the Middlesex Hospital last week, said that the Central Hospital Council was considering the means which might be taken to extend in London the provident dispensary system which was carried out with great success in the provinces. He thought that what London had to do was to place the poor in the position of having to show good reason for not having joined the provident dispensary in their district. The principle would not apply to accidents and the majority of surgical cases, but would apply to a large number of medical casualties; an effort should be made to utilize the out-patient departments of hospitals as consulting rooms for the poor. Upon the first point the Hospitals Committee has not yet formulated any proposals, but it has expressed its readiness at an early date to discuss the question of the relationship between hospitals, the Poor-law service, and provident dispensaries. The second point is one in which we believe the vast majority of members of the British Medical Association will thoroughly agree with Dr. Fowler, and there is reason to hope that the negotiations between the representatives of practitioners in the South of London and the authorities of the new King's College Hospital may result in some scheme which will have this effect. If this can be brought about, a valuable object lesson will be given to the whole country.

THE DANGERS OF PRIVATE BILL LEGISLATION.

The Honorary Secretary of one of the Divisions of the British Medical Association recently drew the attention of the Medico-Political Committee to a clause in a Bill promoted in the present session of Parliament by a town council in the area of the Division. This clause proposed to forbid the performance of a *post-mortem* examination in any private dwelling-house without the written authority of the medical officer of health, subject to a penalty not exceeding £10. On receipt of this information, the Medical Secretary, on the instruction of the Chairman of the Medico-Political Committee, placed the matter in the hands of Parliamentary agents, with a view to opposing the enactment of such a clause. The Honorary Secretary of the Division was informed of this action, and notified the fact to the town council, at the same time presenting to it a petition initiated by the Division and signed by almost all the medical practitioners in the district. The central office of the Association brought the matter under the notice of members of the Public Health Committee of the House of Commons, and Sir John Tuke and Sir Walter Foster put down notices of objection to the second reading of the Bill. The action taken has been effectual, for the town council has given a formal undertaking to withdraw the objectionable clause during the Committee stage of the Bill. It is hardly necessary to discuss the objections to the enactments of such a clause. On grounds of public policy, not less than in the interest of medical science, it is obviously advantageous that in many cases occurring in medical practice information should be obtained which *post-mortem* examinations alone can give; the obstacles to such investigations already existing, owing to the reluctance of relatives of deceased persons to give the necessary consent, are sufficiently formidable without the unnecessary addition of formalities such as the proposed clause would have imposed. The only possible justification for the provision suggested would be on sanitary grounds, and in this respect sufficient protection is given by existing legislation. The case furnishes a useful example of the kind of co-operation between the

Divisions and central office of the Association which recent changes in the organization of the Association were intended to facilitate, and the Division is to be congratulated on the service which it has been able to render to the profession by its energetic resistance to so undesirable a proposal.

THE TRAINING AND REGISTRATION OF NURSES.

IN the BRITISH MEDICAL JOURNAL of February 4th, p. 254, an account was given of an application which had been made to the Board of Trade for the incorporation of a society for promoting the higher education and training of nurses. The application was signed by Lords Rothschild and Revelstoke, and Messrs. E. A. Hambro, S. Hope Morley, C. H. Goschen, C. Hugh Smith, and H. Cosmo Bonsor. The declared object of the society was to promote the higher education and training of nurses by bringing about a unity of curriculum. It would also grant certificates of proficiency after prescribed courses of examination and training in nursing schools recognized by it. The proposal has been strongly opposed by some representatives of nursing, and the Council of the British Medical Association, at its last meeting, appointed a small subcommittee to watch the matter. Last week a meeting, convened by the Matrons' Council for Great Britain and Ireland, and the Society for the State Registration of Trained Nurses was held at 20, Hanover Square, W., under the chairmanship of Lady Helen Munro Ferguson. The meeting unanimously adopted a resolution protesting against the incorporation of the society, and expressing the opinion that the organization of the education of trained nurses and the exercise of disciplinary powers over them could only be usefully or successfully carried out by a body composed of professional persons upon which trained nurses had direct and sufficient representation. The meeting also adopted a resolution in favour of the Bill reintroduced into the House of Commons this year by Mr. Munro Ferguson. A meeting of the Irish Nurses' Association, held in Dublin on February 24th, also condemned the scheme of the society on the ground that there were no medical or nursing representatives among the signatories. It was resolved to petition the Board of Trade against the incorporation of the proposed society, and to ask the Royal Colleges of Physicians and Surgeons in Ireland to take the matter into consideration. It was further resolved to furnish full information to Irish members of Parliament.

A COLONIAL TRIBUTE TO THE ASSOCIATION.

AT the dinner which followed the annual meeting of the Victorian Branch of the British Medical Association, held at Melbourne on December 15th, under the presidency of Dr. R. E. Weigall, Surgeon-General W. D. C. Williams, C.B., Director-General of the Army Medical Service, Commonwealth Defence, in proposing "The British Medical Association," said that during the last thirty years the Association had spread all over the Empire. At the present time in England, Scotland, and Ireland there were 39 distinct main Branches, which were split up into many Divisions; in India there were seven distinct main branches; in the Colonial Dependencies there were 20 Branches, making 66 Branches of the British Medical Association, all working on the same lines, imbued with the same aims and aspirations. What had this Association done? Brought all right-thinking medical men together, all striving and endeavouring to obtain the best for humanity and science, and to disseminate knowledge through all its branches. The British Medical Association, by uniting the profession and organizing it, had thus been of great service, and in his capacity as head of the Army Medical Services he had to thank the Association. The scheme by which the profession would come to the aid of the Empire in an emergency embraced the consultants of hospitals, the executive staffs, and the general practitioners, and these would constitute a large reserve at the base in their own hospitals. The military system would cause very little inconvenience, and would not interfere with their hospital duties. He referred to many points in the organization of the Medical Services, drew attention to General Ian Hamilton's remarks on the position of the British Empire at the present time, and finally declared that the general organization and binding together of the profession was the only way to combat the many malign influences that were at work to the detriment of medical practice.

PRELIMINARY AND INTERMEDIATE TEACHING IN LONDON.

DR. J. KINGSTON FOWLER, Senior Physician to the Hospital and Dean of the Faculty of Medicine in the University of London, speaking last week at the annual Court of Governors of the Middlesex Hospital, said that the medical schools were in a critical condition. In consequence of the action which the Committee of King Edward's Hospital Fund for London would probably take owing to the report of the Committee appointed to inquire into the financial relations between hospitals and medical schools in London, the subsidies hitherto paid in many instances by the hospitals to the medical schools could not be continued. As regarded their own hospital, they had found no difficulty in showing that, taking as a basis the salaries paid to the medical officers of the Poor-law Asylums Board, the increased cost of the staff which would be necessary in order to carry on the work now done gratuitously by the house-physicians and surgeons would be far more than the hospital had ever given to the medical school. He believed that the schools could be extricated from their present position if they had confidence in the University of London. A scheme of concentration at King's College and University College in the preliminary and intermediate subjects was now in process of being carried out as part of the complete scheme of the University of London; the Institute of Medical Sciences to be founded at South Kensington would form the third "centre." He believed that the lines on which the promoters of that scheme had been working were those on which the schools could best be relieved from their present difficulties. The steady decrease in the number of medical students in the London schools continued. The metropolis could compete with the provinces, where the schools had the advantage of large endowments, only by obtaining the assistance and support of the University of London. If the hospitals gave up teaching the preliminary and intermediate subjects he hoped that the teaching of the advanced subjects would be much improved. Incidentally he referred to the excellent work done in the clinical laboratories of the Middlesex Hospital; he thought that old students of the hospital and the medical practitioners in the neighbourhood might with advantage be allowed to use these laboratories, as was already done at St. George's Hospital. Experience showed that in this way the cost of the laboratories to the hospital might be considerably diminished. In conclusion he said that the *Archives of the Middlesex Hospital*, a scientific publication recording the work done in the wards, laboratories, and special departments of the hospital, was steadily growing in the good opinion of the profession.

THE UNION OF MEDICAL SOCIETIES IN LONDON.

THE Royal Medical and Chirurgical Society, at its annual general meeting on March 1st, appointed a Committee to consider a plan for the union of medical societies in London. This is not by any means the first time that such a proposal has been made. In 1808 the Medical Society proposed union with the Medical and Chirurgical Society, then only three years old. In 1850, the Pathological Society did the same. In 1860, the Medical and Chirurgical Society proposed union with the Pathological, Obstetrical, and Epidemiological Societies. In 1868-70, it again proposed union with these Societies and with the Clinical and Medico-Psychological Societies. In 1893, the proposal was made a third time, and might have been

carried into effect, but for the sudden death of Sir Andrew Clark, then President of the Medical and Chirurgical Society. Now, in its centenary year, that Society once more makes the same proposal—that there shall be a new society, a Royal Society of Medicine, with sections for each branch. Again and again, this one Society, catholic in its work, wide in its influences, reconciling in itself all rivalry, and having diversities of gifts but the same spirit, has been hoped for. Why, when this good scheme has so often failed, should it now succeed? Why, being so good, has it always failed? In 1808 the Medical Society could not bring itself to give up its proper style and title. In 1850 the Medical and Chirurgical Society was stiff-necked, and unable to see far ahead. In 1860 time and trouble were wasted over a difficulty, imagined not real, as to the need of a supplemental charter. In 1868-1870, after innumerable discussions and conferences, the final failure came out of a difficulty that was purely academic and fugitive: the societies could not decide whether medicine and surgery were one and indivisible, or two and divisible. In 1893 death was the difficulty: the hope of unity had been dear to Sir Andrew Clark, and when he died it failed. Doubtless, there were also, at one or another period, feuds or jealousies, pulling this way and that. And, to end all, it does not appear that all these past hopes of unity were always founded on strictly business principles. If the union of medical societies in London can now be achieved with a lightening of the weight of subscriptions, which is for many heavy, then there is at least one good reason for wishing it success. But there are other reasons. No observant man will deny that among so many societies there is a serious dissipation of time, trouble, and zeal. The business of getting audiences for so many papers, and papers for so many audiences, is uphill work. Often a good paper is read to benches that are mostly empty, and is discussed in a languid, spiritless, conventional way, or not at all. That weary phrase from the chair—"If no other gentleman has any remarks to offer on this most interesting paper"—falls flat on a silent little group of hearers who are not really keen. The societies—many of them—were founded when the habits of professional life in London were different from what they are now. It is possible, even, that the rule of meeting at 8 or 8.30 is out of date, and that all the Societies would do well to meet at 5. Again, some of them were founded in a time when the medical journals were yet unborn or undeveloped. On the other hand, it is urged that rivalry and competition are the salt and the soul of medical societies; that the societies thrive on opposition. But signs are not wanting that they do not thrive on this meagre fare. Even if they did, they might yet thrive even better on unity than on diversity. Of course, each society would have to make its sacrifice for the good of all. There must be one name, and it must be a new name. Financial affairs will be difficult to arrange; questions of procedure will need delicate handling; much patient work will have to be spent over the constitution, by-laws, and standing orders of the new society. But it is certain that the desire for unity does indeed exist everywhere. Men are tired of subscribing to so many societies; tired of listless, ill-attended meetings: tired of the old customs, formalities, and conventions of the days of the Georges. The days are gone when competition was held as of Divine origin; we value unity in these latter days more than diversity. Room, then, and a fair hearing for this hope of a new Royal Society of Medicine in London! Let us take our chance of watching the old order changing—"Giving place to new, Lest one good custom should corrupt the world."

THE ARMY MEDICAL COLLEGE.

In the debate on the Address on February 22nd, Sir Walter Foster asked the Secretary of State for War for information about the proposed Army Medical College. Mr. Arnold-Forster replied that the work of building the College had already been begun. This statement, though not strictly accurate, may perhaps be justified as being an intelligent forecast of coming events. We understand that a sum of £100,000 has been assigned for the purpose, and the preliminary contracts were signed on February 24th. The work will now, it is to be hoped, proceed without further delay. It is estimated that three years will be required for its completion. The establishment of a military hospital and a medical staff college for the training of officers of the Royal Army Medical Corps was recommended by the Committee appointed by Mr. Brodrick to consider the reorganization of the army medical services, the report of which was published in the British Medical Journal of October 5th, 1901. It was further recommended that "immediate steps be taken by the Advisory Board to present a detailed scheme for the establishment of such a hospital and staff college for the consideration of the Secretary of State." The scheme was duly drawn up and approved. The hospital has been built and stands ready for occupation, but in regard to the college, difficulties arose on every side. The War Office was obstructive, the Treasury reluctant; moreover, the project had, it is whispered, enemies in the house of its friends. When the Advisory Board, like the inquiring visitor to the Circumlocution Office, "wanted to know," they were reproved for their "impetuosity." In the name of the army and the nation we thank the impetuous body which has succeeeded in inducing the military authorities to take the first steps towards carrying into effect a scheme approved only three years ago. To those accustomed to the tedious ways of military officialdom that must seem a trifling delay. The country would be fortunate if such impetuosity could more frequently be brought to bear in overcoming the inertia of the War Office.

THE FRESH-AIR TREATMENT OF SURGICAL TUBERCULOSIS.

During the past few years we have on several occasions taken the opportunity of calling attention to certain unsatisfactory features in the customary methods of treating surgical tuberculosis, and, in a special article published last June (p. 1375) an account was given of a number of seaside and country institutions which exist in France mainly for the reception of children suffering from tuberculosis of bones, joints, and glands. We find, from a paper read by Dr. Linsley R. Williams before the New York Academy of Medicine last month, that this subject is attracting attention in the United States. Dr. Williams stated that there are very few hospitals in New York which have country homes to which such cases can be sent. In the summer of 1903 Mr. John Seely Ward, a member of the Board of Managers, during a visit to Europe, undertook, at the request of the Board, to inspect various French hospitals for the treatment of tuberculosis. On his return he reported that, while in the treatment of children suffering from tuberculosis of the lungs American methods were quite as advanced as those in France, the same could not be said of the treatment of children suffering from non-pulmonary forms of tuberculosis. This seemed all the more remarkable if it was remembered than when tuberculosis attacked children it was more frequently in the bones or lymph glands or skin or abdominal organs, etc., rarely in the lungs. The American treatment of these cases differed from that of French seaside hospitals, in that in America the efforts of the practitioner were directed to the arrest of the tuberculous process by operations, braces, and indoor treatment. The French seaside sanatoriums, on the other hand, treated the little patients by salt air, ample nourishment, and outdoor life. French experts maintain that for this treatment there should be one bed at the seashore for every thousand population. Of such beds it appears America has none. In Mr. Ward's opinion New York should have at least 3,500. On June 6th, 1904, with the co-operation of a Medical Advisory Board, composed of Drs. Walter B. James, Herman M. Biggs, John Winters Brannan, Lawrence F. Flick, V. P. Gibney, E. G. Janeway, Newton M. Shaffer, and E. L. Trudeau,

for hospitals, settlements, and dispensaries, the Board of Managers established an experimental Seaside Tent Camp for the Salt Air Treatment of Children suffering from tuberculosis of the bones and glands. During the summer the tents were always open. The children took daily baths in the sea when the weather permitted, and were kept outdoors except at meal time. A teacher gave them instruction in a bright and airy room for two hours on five days a week. Much stress is laid upon the care of the teeth and the mouth, and cleanliness of the skin. The food is of the best. During winter the children are warmly clad, and at night their heads are protected by hoods and they sleep in rooms with flaps of the tents raised. Sufficient time has not yet elapsed for a definite statement to be made, but some of the results obtained are remarkable. Dr. John Winters Brannan said he had watched these cases very carefully during the past summer, and any one who had visited and seen what he did could not fail to be impressed by the results obtained in the tent camp and hospital of the Association at Coney Island. The windows at Sea Breeze were wide open at night; and the patients developed such a power of resistance, that they could stand exposures to fresh air better than healthy adults. The seashore afforded opportunities for amusements; all the children in the camp were occupied on the beach, were interested in passing ships, and played in the sand and in the snow. Dr. Charlton Wallace, Visiting Orthopaedist to the Experimental Seaside Tent Camp for Tuberculous Children, spoke of his experience in attending to the orthopaedic cases and of the many instances of remarkable improvement. He had taken ten weights of ten children at the Hospital for Ruptured and Crippled, with similar lesions, who remained in that hospital the same length of time as ten children at the Seaside Camp. In making his comparisons he found that the average difference in weight was 7½ lb. This proved that the children at the seashore had a greater chance of ultimate recovery than those at the inland hospital, although at the latter they had the best care and food that could be obtained. For thirty years or more he had one treatment which was of much service to him, and for fifteen years he had an internal treatment which he added. In 1869 and 1870 Wagner of Berlin proved that fractures of the limbs would unite in a shorter time if the animals upon which he was experimenting were given phosphorus (not the phosphates, which were inert). Therefore, in cases of subacute or chronic osteitis—that is, of tuberculous character—he always gave phosphorus, and they all got better and showed a marked improvement. The cases not so treated did not improve so rapidly. For the last fourteen or fifteen years he had given guaiacol as a routine measure in tuberculosis of any kind.

THE IMPORTANCE OF TRUTHFUL ANSWERS BY APPLICANTS FOR LIFE ASSURANCE.

The result of the appeal in the case of Jewsbury *v.* the British Natural Premium Life Assurance Association has settled the disputed question in a manner satisfactory to the insurance companies and to the medical profession, although it is one which our readers may be surprised that any lawyer had the hardihood to raise. The plaintiff, Mrs. Jewsbury, was the widow of John Jewsbury, who effected a policy of insurance with the defendant company, dated September 30th, 1903, and died on November 31st of the same year, the amount insured being £1,000, payable at death. The defendants refused to pay on the ground that the insured's answers to the questions put to him by the company's medical officer were untrue. As is usual, the insured had signed a declaration that the "above answers and each of them are and is true," and that "the statements and answers shall be the basis of the contract" between him and the company. But in answer to the question, "Have you ever met with an accident?" he said, "No." Asked whether he had consulted or been attended by any consultant or medical practitioner concerning his health during the past five years, he said, "No," and when asked whether any facts regarding his past health or physical or mental condition or that of any members of his family had been omitted, he again said, "No"; yet it was proved that in the month immediately preceding that in which he made these statements he had met with an accident by falling, for which he was attended by Dr. Drury, who gave evidence at the trial; and on account of this accident he had made a claim against an accidental insurance company, which had been paid. At the trial, held before the Lord Chief Justice and a special jury in Birmingham at the last summer assizes, the Lord Chief Justice put the question to the jury whether in their opinion the questions quoted referred to such an accident as that for which the insured had consulted Dr. Drury? His Lordship said that there were all sorts of accidents—for instance, "we may spill a teacup, and that is an accident," and this summing-up apparently upset the minds of the jury so that they brought in a verdict that the injury received was not of sufficient importance to need mentioning, and that the answers were in effect proper and true answers to the questions put. While the jury were out of court the Lord Chief Justice caused some surprise by informing Mr. Hugo Young, K.C., who appeared for the defendant company, that if the jury found against him on the point left to them he should not deliver judgement that day but would appoint a day in London when he would again hear counsel and give his decision. It looked, therefore, as if he anticipated that the jury might be led astray by the language he had used. When the case came before him in London he said that he had been wrong in leaving the question to the jury, and that he must give a verdict for the defendant company with costs. Upon this the plaintiff appealed, and the case was heard on February 21st in the Court of Appeal before Lords Justices Vaughan Williams, Romer, and Stirling, where the facts above stated were recited. Mr. Vachell, the plaintiff's counsel, urged that the accident not disclosed by the plaintiff was of such a trivial nature as not to affect the risk which the company was taking. In giving judgement, Lord Justice Williams pointed out that a proper and true answer to the questions was the basis of the contract, and, without calling upon the counsel for the respondents, the Lords Justices dismissed the appeal with costs. As already remarked, this result is highly satisfactory, but it is extremely probable that no serious doubt would ever have been thrown upon the importance of truthful answers to the questions put by the examining medical officer but for the rather unguarded remarks of the Lord Chief Justice. No non-medical person can estimate correctly the value of the inferences to be derived from the answers to the questions put by the medical examiner, and yet the jury at Birmingham were asked to state whether, in their opinion, the answers given were sufficient for the purposes of the medical examiner, who obviously uses them as part of the basis of facts from which he draws his conclusion. It is astonishing that it should have been thought for a moment that even a special jury could be competent to express an opinion upon the question, and if the action of the Lord Chief Justice in leaving it to the jury had not been reconsidered, it might have called for a reviewal of the conditions of medical examination for life assurance. By the ultimate decision of the Lord Chief Justice, which has been so unhesitatingly confirmed by the Court of Appeal, the sufficiency of the present plan has been upheld.

MILK SUPPLY.

The case of Frost *v.* Aylesbury Dairy Company, Limited, which was decided in the Court of Appeal on February 24th, was discussed in the Journal at the time when it was heard in the court below.[1] The action, as will be remembered, was brought by the plaintiff, who formerly resided at West Ealing, to recover damages owing to the illness and death of his wife from typhoid fever, caused, as he alleged, by the milk which was supplied to him by the defendants being contaminated with the germs of typhoid fever. The jury found a verdict for the plaintiff for £106,

[1] British Medical Journal, 1904, vol. ii, pp. 1265, 1329.

the expenses to which the plaintiff had been put in consequence of the death of his wife. Judgement was entered for him accordingly. The defendants appealed on the ground (*a*) that there was no implied warranty that the milk was free from typhoid germs; (*b*) that the learned judge had not asked the jury whether the buyer, in purchasing the milk, had relied upon the defendant's skill or judgement. The Court of Appeal refused to disturb the verdict. The Master of the Rolls said: "The purpose for which the milk was supplied was obviously for consumption as an article of food. It did not require any evidence to prove the particular purpose for which the milk was supplied. Moreover, the seller had informed the mind of a buyer of his special care as a seller. The book—which had been called the pass book—which was supplied to the plaintiff was full of particulars of the defendant's skill and knowledge in the matter. It contained paragraphs headed, "Milk in relation to tuberculosis and other diseases," stating the precautions to be taken to ensure that only pure milk free from all germs of disease and free from adulteration was supplied. One paragraph related to "medical inspection," another to "milk analysis," another to veterinary surgeon. The buyer could not escape being permeated with the sense that he was secure against the possibility of danger if he bought the defendant's milk. Milk, therefore, for supply of the plaintiff and his family was tendered by the plaintiff with all this knowledge and skill. Having referred to the fact that if an article is sold for a specific purpose there is an implied warranty that it is fit for that purpose, his Lordship said the appeal must be dismissed. Seeing that nearly every milk vendor in the country supplies milk on terms very similar to those mentioned in the above case, the importance of this case can hardly be overrated; but the knowledge that a purveyor of milk may be held liable for an outbreak of typhoid fever may lead to still more important consequences. Suppose the water supply of a town becomes contaminated in the same way, might not the water company be held responsible? The obligation of a water company is "to provide and keep in the pipes to be laid down by them a supply of pure and wholesome water sufficient for the domestic use of all the inhabitants of the town or district within the limits of the special Act." Refusal to supply water as above described may be visited with penalties. A case arose in 1886 in which the corporation of a town were sued for damages on the ground that water otherwise pure and wholesome became contaminated by passing through leaden service pipes. The suit was successfully defended on the ground that by a section in their special Act the corporation were entitled to use lead service pipes. It was decided in the House of Lords that the obligation upon the company was to supply water which was pure and wholesome in the mains, and that having complied with that obligation the undertakers were not (negligence being out of the case) liable to the plaintiff in the action. It is interesting to notice, however, that two members of the House of Lords dissented from this judgement on the ground that there must have been some substance in the water which rendered it capable of dissolving lead. As will be seen, the absence of negligence was the *ratio decidendi* of this case. But assuming that a water company allowed its reservoir to become contaminated with sewage, would not that of itself be sufficient evidence of negligence? Their obligation is to supply "pure and wholesome water." If it were once proved that the water supplied is not pure and wholesome, would not the onus of proving that every precaution has been taken be shifted to the company or other body supplying water? The milk case above referred to appears to show that the water company may be taken to be fixed with knowledge that the water which they supply is to be used for human consumption.

ENTERIC FEVER AND SCHOOL CHILDREN.

We have received a copy of Dr. Deane Sweeting's report to the Local Government Board on the recent outbreak of enteric fever at the villages of Edlesborough and Eaton Bray, which form one long straggling hamlet situated between Leighton Buzzard and Dunstable, partly in Buckinghamshire and partly in Bedfordshire. At the end of July last 5 cases of enteric were notified. Subsequently 21 other cases were certified, and Dr. Sweeting found 7 others which had been looked upon as "influenza." The sum total of undoubted cases appeared to be 33, of whom 27 were school children. There was no community of the milk supply or other food. Attention was therefore directed to school influence, and particularly to the question of water supply. The latter was obtained from a shallow well which showed signs of pollution from the surrounding surface, upon which, within 2 ft. of the well, was found a considerable heap of decomposing excrement mixed with a few ashes, which had been accumulating there for some weeks prior to the outbreak. This excrement was derived from four pail closets, the contents of which were thus deposited for farmers' use. Although Dr. Sweeting was unable to ascertain the source of the specific contagion, he considers the pollution of the well water as the probable cause of the outbreak. Previous to the outbreak there had been a number of cases of ill-defined illness which may have been ambulant typhoid. There is, further, the fact of the endemicity of enteric in the district. Indeed the record of the past is not good. Since 1897 the inspectors of the Local Government Board and the Bedfordshire County Council have continually drawn the attention of the local authority to the neglected condition of things, and particularly the matter of sewerage. Eventually the Board applied to the High Court for a writ of mandamus and an order nisi was granted in March, 1902. But it is astonishing to learn from Dr. Sweeting's report that even then the case was allowed to stand over six months, and further time given to the district council. The order was never made absolute. Much the same abortive negotiations took place with regard to the water supply, and the local authority has apparently failed in its duties in a very marked degree. Dr. Sweeting states that no isolation hospital provision was provided, disinfection of wearing apparel and bedding was not carried out, and there appears to have been some dislocation of proper relations between the medical officer of health and the inspectors of nuisances.

COMPULSORY GREEK.

The battle on the question of compulsory Greek will be fought out at Cambridge on Friday, March 3rd, and Saturday, March 4th. From a letter from the Committee in Support of the Recommendations of the Studies and Examinations Syndicate, which reached us too late for insertion in last week's issue, we gather that it is believed that the majority of resident members of the Senate will vote in favour of the removal of Greek from the list of compulsory subjects at the Little-go. As already stated, however, the decision is largely in the hands of non-resident voters. The representatives of the Faculty of Medicine—Professors Clifford Allbutt, Howard Marsh, Sims Woodhead, J. N. Langley, and Alex. Macalister, together with Dr. W. H. Gaskell, University Lecturer on advanced physiology, and Dr. Donald MacAlister, President of the General Medical Council—have issued an appeal to non-resident supporters of the proposed reform, without whose co-operation, it is said, the issue cannot be favourable. It is pointed out that "the present system of compulsory linguistic training in two classical languages unprofitably diverts during months or even years from their real education a large and growing body of students, who desire to be educated under standards certainly no lower and no narrower than at present, but by methods which will offer more scope for variety of natural talent and of professional calling." The voting will take place in the Senate House from 1 p.m. to 3 p.m. and from 5 p.m. to 7 p.m. on both the days above mentioned. Of the merits of the question to be decided, our readers have probably heard enough from both sides; for ourselves, we are content to rest the case for the abolition of compulsion on the arguments set forth in a leading article which appeared in the British Medical Journal

of January 28th. We agree with Charles Darwin who in 1867 wrote that he "would have classics to be learnt by those alone who have sufficient zeal and the high taste requisite for their appreciation." We may further be allowed to quote a passage from the recently-published *Life* of Lord Dufferin, in which, speaking of the education of his son, he says: "I am quite determined, so far as care and forethought can do so, that the ten best years of my boy's life shall not be spent in nominally learning two dead languages, without being able to translate an ordinary paragraph from either without the aid of a dictionary, when at 19 or 20 he presents himself for matriculation at the university. Yet the Commissioners say that nine-tenths of the young men who come up to Oxford and Cambridge can scarcely do this much in spite of all that parents, tutors, private and public schools have been able to do for them since they were eight years old." Can it be seriously contended that it is worth while to waste the best years of a lad's life in sowing a field that yields so poor a harvest?

AMBULANCE WORK.

The Metropolitan Asylums Board has, we observe, issued an advertisement inviting tenders for the supply on hire, with the option of purchase, of a chassis for an ambulance carriage. It is a circumstance worthy of note as evidence of the rapid extension of the use of automobile vehicles in all branches of modern business. If the Board finds the motor ambulance satisfactory, it intends, we understand, gradually to adopt this form for all its work in the removal of the sick. Meanwhile, the whole question of ambulance provision for London remains hung up in a most regrettable fashion. Allusions to the lack of any efficient means of removing cases of accident from the streets have become chronic in coroners' court, while the transport from place to place of ordinary cases of physical or mental sickness remains likewise a not too easy and distinctly too costly a proceeding. The former class of work should be taken up by the London County Council. The further suggestion that an ambulance street accident system should be organized in connexion with the Fire Brigade, which at first found much favour with the Council, has now, we believe, been definitely abandoned, and steps are being taken to see in what other way a service can be provided by the Council. Even if this part of the general need may be regarded as prospectively met it still remains a question whether some official body should not undertake the removal of ordinary cases of sickness from private houses. A scheme to meet the requirements of the public in this direction was prepared by the Metropolitan Asylums Board some eighteen months ago, but it cannot be put into action without the permission of the Local Government Board. Up to the present this has not been forthcoming; should the scheme eventually be authorized the ambulance requirements of the Asylums Board will naturally be materially increased. That the motor trade will rise to the occasion and supply what is desired there is little reason to doubt. Indeed, a very excellent ambulance was shown at the recent exhibition at Olympia by the Electromobile Company. It had two stretchers, plenty of room for attendants, a first-aid case, and a thirty-mile storage battery; while it could travel, it was stated, at any rate up to twenty-five miles an hour. Its price was £520.

ST. BARTHOLOMEW'S HOSPITAL.

With the acceptance last January by Lord Ludlow of the office of Treasurer, and the selection on February 23rd of Mr. Thomas Hayes for the post of clerk to the Governors, the anticipated changes in the administrative *personnel* of St. Bartholomew's Hospital may be considered complete. The new treasurer has been, and, indeed, still is, a member of the weekly board or executive committee of the Middlesex Hospital, one which has been remarkable for its successful administration of late years, and it is satisfactory to be able to note that in addition to other qualifications he enjoys the reputation of being what is commonly known as a strong man. The new clerk has been for some eleven years Secretary of the East London Hospital for Children, Shadwell, and before that we believe was connected with the administration of a large asylum. He was selected by the governing body of St. Bartholomew's Hospital out of a list of some two hundred candidates, and this being the case it seems scarcely necessary to add that he brings with him an excellent reputation. He is to take up office early in April. About the same date the preparation of the specifications for the new buildings—a necessarily lengthy and laborious task—is likely to be completed and contracts issued for tender.

THE SUPPLEMENT FOR THIS WEEK.

In addition to the formal or official notifications, to the appearance of which in the Supplement readers are, we hope, becoming habituated, the Supplement for this week contains further notices of motion for the Annual Representative Meeting at Leicester next July. The publication of proceedings of standing committees is continued, and those reported include the Organization Committee, the Ethical Committee, the Public Health Committee, the Scientific Co-ordination Committee, the Colonial Committee, the Colonial (Joint) Constitution Committee, and the Scottish Committee. The report of the Medico-Political Committee to the Annual Representative Meeting on death registration and coroner's law amendment will, it is hoped, be published next week. We may draw the attention of Honorary Secretaries of Branches to the reminder in the Calendar that the by-laws of the Association require the annual report and financial statement of every Branch to be furnished to the General Secretary, 429, Strand, not later than March 15th.

Professor E. A. Minchin, Jodrell Professor of Zoology in University College, London, has undertaken to conduct—on the spot—further investigations, under the auspices of the Royal Society's Committee, into the causation of sleeping sickness in the Uganda Protectorate.

Among the list of those elected this year to the Royal Society are Dr. J. G. Adami, Professor of Pathology in McGill University, Montreal; Mr. E. W. MacBride, Professor of Zoology in the same University; Dr. F. G. Hopkins, Reader in Chemical Physiology at Cambridge University, and Lieutenant-Colonel D. Prain, I.M.S.

On Saturday, March 4th, at 4.30 p.m., a meeting will be held in the Library of the Royal College of Physicians of Edinburgh, to commemorate the fiftieth anniversary of Dr. W. W. Ireland's graduation, and to show the respect and admiration in which he is held by his professional brethren in this country and America. Dr. Clouston will preside, and an address of congratulation will be presented to Dr. Ireland.

The adjourned discussion at the Royal Medical and Chirurgical Society on the subsequent course and later history of cases of appendicitis after operation will be resumed by the President, Sir R. Douglas Powell, on Tuesday next, at 5 p.m. Among the speakers on this occasion will be Dr. Hawkins, Mr. Lockwood, Mr. Battle, Sir William Bennett and Mr. Mayo Robson. Tea and coffee will be served at 4.45 p.m.

A medical conference on the teaching of hygiene and temperance will be held at the Examination Hall, Victoria Embankment, on Friday, March 24th, at 5 p.m. Sir William Broadbent will preside. Sir Victor Horsley will speak on the present position of the scheme for education in hygiene and temperance; Dr. Robert Jones on the report of the Inter-Departmental Committee on Physical Deterioration; Sir Thomas Barlow on the present position of the medical profession in relation to alcohol; and Mr. W. McAdam Eccles, M.S., on the teaching in medical schools of the pharmacological and toxic properties of alcohol.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Army Reform Debate, which arose on the amendment to the Address moved by Captain Norton, occupied Wednesday and Thursday in last week, and ended by a division in which the Government had a majority of 47. In answer to Sir Walter Foster's speech on the Army Medical Department and the lessons of the Japanese war, the Secretary of State said that progress had been made with the Medical Service; that careful observers had made themselves acquainted with developments during the Russo-Japanese war, and that the erection of the Medical College had at last been commenced. He considered this a good record. Later on he said that the Army Medical Corps had been increased by 462 officers and 1,210 men. There was nothing further of medical interest in the course of the debate.

The Irish Poor-law Reform Commission. Last week, in reply to questions asking when the publication of the report might be expected, Mr. Wyndham said that inquiries had been held in every county in Ireland except Cork. The Commissioners hoped to complete their inquiries in that county early in April. It was not at present possible to state even approximately when the report would be issued.

Vivisection.—Last week Mr. Tomkinson asked the Secretary of State for the Home Department whether his attention had been called to the cases tried in Bedford police-court on February 9th last, in which fines were imposed for the stealing of cats, and in which evidence was given that large consignments of cats had been sent by one of the defendants to a house in a London suburb alleged to be visited by medical gentlemen, and whether he would order the publication of the address of the house in question and an investigation into the practices carried on in it. Mr. Secretary Akers-Douglas replied that he had made inquiry into the matter. The name of the house in question (Brockwell Hall, Herne Hill) was given in the newspaper reports of the proceedings. The premises were registered as a place where experiments could be performed under the Act 39 and 40 Vict, cap. 77, and were under inspection. The experiments there were carried on in strict conformity with the law. The director of these laboratories informed him that the cats were purchased in the ordinary way from a dealer in cats and dogs, and that neither he (the director) nor any one else connected with the institution had the slightest suspicion that this dealer was other than a perfectly honest man. The director further informed him that on reading the reports in the press he communicated with the head constable of the Bedford police, and sent to him the cats which had been received from Bedford, in order that they might be inspected by any persons who had lost cats. If animals were obtained in an improper manner the offenders were amenable to the ordinary law, and in the present case a conviction had been obtained. In answer to a further question by Sir F. Banbury suggesting that the Home Secretary should make inquiries as to the source from which animals were generally obtained by vivisectors, Mr. Secretary Akers-Douglas said that it would be beyond the functions of the Secretary of State, under the Act 39 and 40 Vict., cap. 77, to institute such general inquiries as were suggested; but he was always ready, as in the present instance, to investigate any particular case in which alleged abuses were brought to his notice.

The Ventilation of the House of Commons.—Mr. Wylie asked the honourable member for Chorley last week, as representing the First Commissioner of Works, what had been done during the recess for improving the ventilation and sanitary arrangements of the House of Commons buildings; and what, if anything, still remained to be done to fulfil the recommendations of the Committee's report on this subject. Lord Balcarres replied that during the recess the recommendations of the Select Committee of the House of Commons with reference to the ventilation had been carried into effect, with the exception of the completion of the extract fan. This had been delayed by reason of structural difficulties incidental to the floor of the Commons Lobby Chamber, but it was expected that this fan would be running within a month from date. The principal improvements already effected were: (1) The complete washing of the air by means of a new type of water screen; (2) the erection of a much more powerful intake fan; (3) the more effective isolation of passages joining the main airways. This would be followed by experimental tests having in view the better distribution of air to the chamber, and also by tests of the air so distributed. It was hoped that the works already completed would result in a very considerable improvement in the quantity and quality of the air supply.

Trained Midwife for Ballyhaunis.—This matter was the subject of questions last week, and Mr. John O'Donnell asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that the Local Government Board had issued a sealed order compelling the Claremorris Board of Guardians to elect a trained maternity nurse for the Ballyhaunis dispensary district, that the medical officer and other representative men from the district swore there was no necessity for the appointment of such a nurse, that there were two medical doctors and two trained maternity nurses already practising in that district, and that the evidence of the relieving officer of the district showed that there was an average of only three or four applications from the poor each year for assistance; that some of the parties whose names were put to a memorial praying for a nurse have repudiated all knowledge of the matter; and, if so, whether he would give instructions to have the sealed order withdrawn. Mr. Wyndham answered that the evidence of the medical officer at the local inquiry was not to the effect alleged. His evidence clearly showed that no provision existed for the skilled nursing of midwifery cases amongst the poor, and that the appointment of a midwife for the purpose was essential. He stated that the births during the past three years averaged 282; that two deaths had occurred in the same period, one of which, in his opinion, was preventable if the services of a trained midwife had been available; and that there had been a number of stillbirths in the district attributable largely to the absence of a skilled attendant. The relieving officer stated he had been obliged to requisition the assistance of a midwife on four occasions during the year. It was understood that there was a midwife resident at Ballyhaunis, but she was not an officer of the union, and her services were not, therefore, available for the poor free of charge. It was not proposed to withdraw the sealed order.

Public Health in the Highlands and Islands.—Mr. Weir put questions to the Lord Advocate on Monday respecting the increase of medical officers of health and the medical inspection by the Local Government Board of the Island of Lewis. The Lord Advocate replied that the Local Government Board had long advocated the appointment of a separate medical officer for the islands pertaining to the counties of Inverness and Ross, and had reason to believe that the proposal was favourably regarded by the county councils concerned. The views of the Board regarding Poor-law relief in the Highlands and Islands were fully set forth in the report of the Board's Departmental Committee issued a year ago. As regards the medical inspection of the Island of Lewis, the Board would endeavour to arrange for the inspection, and a report thereon to be made by one of their staff as soon as his other duties permitted.

Pupil Teachers and Vaccination.—On Monday Mr. Weir drew attention by question to the refusal of the Scottish Education Department to allow the Renfrew Landward School Board to engage a pupil teacher who had not been vaccinated. The Lord Advocate said it was the fact that the Department had refused to recognize the girl as a pupil teacher on the ground that she had not been vaccinated. The rule on which this decision was based was a general one imposed in the interests of the health of the children. No case of a pupil teacher who had had small-pox, but had not been vaccinated, had as yet called for the Department's decision.

An Auxiliary Lunatic Asylum in Ireland.—Mr. Sloan asked the Chief Secretary to the Lord Lieutenant of Ireland if he was aware that Dr. Kelly, Roman Catholic Bishop of Cloyne, had been permitted by the Lord Lieutenant, and contrary to the advice and remonstrance of the Inspectors of Lunatic Asylums, to detach 350 lunatics from the County Asylum in Cork and lodge them in an unused industrial school at Youghal, which he had prepared for this purpose, that the bishop received a capitation grant for each patient, that there was no resident doctor to take charge of these patients nor any qualified nurses in charge of them, that the house, built

and arranged for a doctor, had been handed over to the chaplain, and that the Resident Medical Superintendent of the Cork Asylum had been refused permission to visit the auxiliary asylum; and, if so, would he say what steps, if any, he intended to take in the matter. The Chief Secretary replied that in 1901 the Lord Lieutenant under the Local Government Act, 1898, signified his approval of the plans for the conversion of an industrial school building at Youghal into an auxiliary asylum, established for about 400 patients, under Section LXXVI of that Act. The plans, which were submitted in 1900 by the Cork District Asylum Committee, of which Dr. Kelly, Lord Bishop of Ross, was a member, were recommended for his Excellency's approval by the Inspectors of Lunatic Asylums. A capitation grant of 2s. per week was payable for each patient in the auxiliary asylums under Sections LVIII and LXXVI of the Act. There was no resident doctor, as the Committee decided to appoint a visiting medical officer instead, but the consent of the Lord Lieutenant to the appointment of a visiting medical officer had only been given as a tentative measure, which would be open to reconsideration in the event of the arrangement being found defective. The institution had been placed in charge of a community of nuns, who were assisted by ordinary asylum attendants. It is understood that only Catholic patients were to be sent to the auxiliary asylums. The house built for the doctor had been handed over as a residence for the chaplain. The Resident Medical Superintendent of the Cork Asylum had not been refused permission to visit the auxiliary, but the Committee of Management had passed resolutions taking away from the Resident Medical Superintendent all responsibility for the discipline and domestic management of the auxiliary. The committee had been informed that these resolutions were illegal, and had been called upon to correct such illegality. In answer to a further question the Chief Secretary said the inmates were harmless lunatics gathered out of the workhouses and from the wayside and given a comfortable home, that could not be given them in a regular asylum except at the cost of the rates.

Physical Deterioration.—A series of questions were put on Monday to Ministers by Sir John Gorst to elicit the intentions of the Home Office, the Local Government Board, and the Education Department with respect to the recommendations of the Committee on Physical Deterioration. Mr. Akers-Douglas said that he feared he could not undertake to answer in detail as to those of the Committee's proposals in which his Department was concerned. Some of these proposals appeared to be put forward as suggestions for further consideration rather than as definite recommendations, and he could not take steps to give effect to them without first collecting more information than had been obtained by the Committee. Perhaps he might be allowed to say, briefly, that the Committee's recommendations, several of which were engaging his attention, would not be lost sight of. The important subject of defective children, to which the Committee referred in recommendation No. 53, was now under the consideration of a Royal Commission. Mr. Long said that the recommendations made by the committee were very numerous, and so far as they related to matters within the province of his Department effect could not be given to many of them without legislation. A committee which he had appointed after consultation with the Home Secretary was inquiring into one important matter referred to by the Committee—namely, vagrancy—and he was giving consideration to the other subjects referred to in the report. Sir W. Anson said that the recommendations which would appear to fall within the existing administrative powers of the Board of Education were recommendations 17, 18, 20, 37. The Board had had under their consideration for some time the subjects of these recommendations, and had taken, and were taking, steps which they hoped might be of some practical utility on the lines indicated in the report. They were also taking steps, so far as legislation was not involved, to give some effect to recommendation 35.

The Nurses Registration Bill.—Mr. Munro Ferguson has introduced this Bill and put down the second reading for March 17th. It will not have any chance of being reached on that day. The Bill is backed by Dr. Farquharson, Mr. Haldane, Sir Thomas Wrightson, Sir James Joicey, Mr. H. C. Smith, Mr. Black, Mr. Eve, and Dr. Thompson. It is practically the same Bill as that introduced by Dr. Farquharson last year.

Canada.

Canadian Medical Association.

The Canadian Medical Association will hold its thirty-eighth annual meeting this year in Halifax, N.S., on August 22nd and three following days, under the presidency of Dr. John Stewart, the General Secretary being Dr. George Elliott of Toronto. The Medical Society of Nova Scotia has decided not to hold its annual meeting, and will act as host to the Canadian Medical Association. Mr. Francis Caird, of the Royal Infirmary of Edinburgh, will deliver the address in surgery. The address in gynaecology will be delivered by Dr. Howard Kelly of Baltimore, and there will also be an address in ophthalmology by Dr. J. W. Stirling of Montreal.

Forcible Police Search in a Hospital.

The action of Deputy High Constable Lambert, in forcibly entering the wards of the Montreal Maternity Hospital, has aroused the indignation of the medical men of the city, and called forth scathing rebukes from the daily press. The Governors of the institution are determined not to let the matter rest until just punishment has been administered to the offender. At a meeting of the Board the following resolution was passed:

> That the hospital's solicitor be instructed to draw up a complaint to the Attorney-General, asking for the dismissal of Deputy High Constable Lambert and Special Constable Pratt, and asking, further, for some assurance from the Government that such unauthorized and outrageous action shall not be repeated.

It appears that a man was arrested some time ago on a charge of seduction at the instance of the parents of a young woman. The girl could not be found, and a warrant was issued for her as a material witness. It was rumoured that she was in the Montreal Maternity Hospital, and the Deputy High Constable went to look for her. The circumstances of his visit to the institution and of his unwarrantable conduct while there are told in affidavits sworn before a Commissioner of the Supreme Court by Miss F. S. Gage, Lady Superintendent of the Hospital, Dr. D. J. Evans, and Dr. J. C. Cameron.

Miss Gage states that Lambert came to the hospital accompanied by a special constable named George Pratt, about 4 p.m. on January 24th. They stated that they had a search warrant for a girl named Lucia Beaupré, and exhibited a paper, but in such a way that it was impossible for her to read it. Miss Gage informed the men that the young woman was not in the house, but they insisted on searching the premises. They refused even to wait until the patients had been warned of their approach, but insisted upon forcing their way into the wards at once. The men went through every room in the house, including the nurses' quarters and Miss Gage's private rooms, keeping their hats and coats on, using abusive language, and otherwise behaving in a very offensive manner. They forced themselves into wards in which were lying patients who were not in a condition to see any but medical men, going up to the beds, peering into the faces of the patients and looking under the beds. They did the same thing in the nurses' apartments, where night nurses were asleep.

The case against the young man came up before Judge Desnoyers, and Dr. Evans, who was called as witness, denounced Lambert, and stated that by his actions he had endangered the lives of a number of the inmates of the hospital. He had forced his way into a private ward in charge of Dr. Evans, in which lay a patient whose confinement had taken place but a few hours before. Lambert's reply was that he had simply done his duty, but admitted that he had no search warrant.

In spite of telegrams to the Attorney-General, Lambert, who was on his way to Switzerland with a prisoner, could not be stopped, because he had a special warrant from Ottawa. Arrest was useless, because bail would at once have been forthcoming. This, however, will make little difference eventually, as the governors of the hospital intend to push the matter to the end.

The Prevention of Venereal Diseases.—The Second Congress of the German Society for the Prevention of Venereal Diseases will be held at Munich on March 17th and 18th. Among the questions proposed for discussion is professional secrecy and venereal diseases, to be introduced by Professor Neisser of Breslau, from the medical, and by Dr. Bernstein, from the legal, point of view.

Scotland.

Hospital Reform.

At the usual weekly meeting of the managers of the Edinburgh Royal Infirmary on February 27th consideration was given to a communication from the British Medical Association inviting the managers to send a representative to a conference to be held in London on Thursday, at which certain resolutions bearing on hospital administration are to be discussed. Dr. P. H. McLaren said that Resolutions Nos. 1, 2, 3, and 12, were already in force in the Edinburgh Royal Infirmary, and that the others were inconsistent with the charter and constitution of the infirmary. The meeting decided not to send a representative to the conference. This resolution was moved by Dr. P. H. McLaren, and seconded by Mr. Campbell, K.C. Dr. Underhill thought it would be only courteous on the part of a great hospital like theirs to send a representative. He thought that while it did not affect them to the same extent as many other hospitals, it was yet a big and important question. He moved that a representative be sent. Dr. James Ritchie seconded, but the amendment was lost by 12 to 3. Some of the speakers appeared to have somewhat hazy notions as to the object of the conference. In the medical profession in Edinburgh there is considerable surprise and regret that one of the greatest hospitals of the kingdom should thus refuse its aid in a matter of the last importance to many other hospitals, and, to a greater extent than is supposed, also to the Edinburgh Royal Infirmary. It is felt to be a very short-sighted policy, which cannot fail to be prejudicial to the best interests of the hospital. This will doubtless, and very soon, be impressed on the managers.

The Carnegie Trust for the Universities of Scotland.

The fourth annual meeting of the Carnegie Trust for the Universities of Scotland was held on February 27th, when the report for 1904 was presented. During the year £38,114 12s. has been claimed and handed over to the four Universities, making for the two years ending December 31st, 1904, a total expenditure of £58,479 12s. 4d. The grants for library purposes and for provisional assistance in teaching, amounting in all to £6,400, have been fully paid. The grants for buildings and permanent equipment available for 1904, including a balance of £12,635 unexpended in 1903, amount to £33,035. Of these, the sum of £20,146 8s. 6d. has been claimed. Claims for grants toward teaching endowments amount for the year to £11,568 3s. 10d. In the case of the University of Edinburgh the scheme of allocation included an annual grant of £2,000 for the five years towards the endowment of teaching, and until now the accumulations of this grant have remained in the hands of the Committee. But Sir Donald Currie's recent munificence, the report stated, had placed this grant on a new footing. In intimating his gift of £25,000 to the University of Edinburgh, he had laid down the condition that at least £20,000 of the gift should be applied to the establishment of a "Lectureship Endowment Fund"; and he had also expressed the hope that, in thus assisting the Executive Committee of the Carnegie Trust in carrying out its objects, he would have their further support in the allocation of the funds at their disposal. The Committee were in full sympathy with, and entirely concur in, the view that the strengthening of the teaching staff was of the highest importance. The Committee hoped to find, at their next quinquennial distribution, that the more clamant needs for new buildings have been satisfied, and they looked forward to the courts of the universities giving a foremost place to teaching among their claims upon the Trust.

Grants for buildings and permanent equipment to the extramural schools had been considered for the period till December 31st, 1907. These were allocated, among others, to the Medical School of the Royal Colleges of Edinburgh, the Edinburgh Medical College for Women, and Anderson's College Medical School, Glasgow. Under the head of provisional assistance in teaching grants amounting to £635 had been offered to these schools for the academic year 1904-5.

The scheme of endowment of post-graduate study and research had now entered upon its second year, and was being carried out on the lines previously reported. Appointments were made to ten Fellowships and to twenty-four scholarships, and grants of varying amount were assigned to thirty-eight applicants.

In the Research Laboratory of the Royal College of Physicians the Superintendent reported that the past year had been one of steady and satisfactory work in all departments. Thirty-five workers had held places, and had been engaged in 47 investigations. Of these, 29 were graduates of Edinburgh University. Twenty-two papers had been published. The total expenditure upon staff, maintenance, and upkeep of the laboratory during the period from November 11th, 1903, to December 31st, 1904, amounted to £1,538 2s. 6d., towards which, under agreement with the Trust, the College of Physicians and the College of Surgeons had contributed for the past year £750 and £200 respectively.

The number of beneficiaries for winter session 1904-5 (class fees) was 3 075, an increase of 43 over the previous year. The sum was £30,871 13s.

New regulations as to the preliminary examination in medicine come into operation at the beginning of winter session 1905 6.

During 1904 six graduates had refunded the class fees paid to them by the Trust to the amount of £84 2s.

Small-pox in Scotland.

During the period from February 1st to 15th, eighteen cases of small-pox were intimated to the Local Government Board. The City of Glasgow is now absolutely free from small-pox.

Ireland.

Charter Dinner at the Royal College of Surgeons.

The annual Charter Dinner of the Royal College of Surgeons took place on Saturday, February 25th, when 200 Fellows and their guests dined in the new hall. The date had been altered in order to secure the presence of his Excellency the Earl of Dudley, but unfortunately at a late hour he informed the President that he was obliged to leave for London by the night mail.

The occasion was, however, one of interest and importance, because of the distinction of some of the guests, and the conferring of the honorary fellowship upon Dr. Anthony Traill, Provost of Trinity College.

This ceremony was performed in the Board Room by the President immediately before dinner.

The Provost having been presented, Sir C. Cameron read the resolution of the Council.

Mr. Arthur Chance, President, said it now devolved upon him to carry out the resolution which had just been read by Sir Charles Cameron. More than 120 years ago, when this College was incorporated, they had certain privileges conferred upon them, among others that of admitted distinguished men to their list of Honorary Fellows. That privilege had been scantily exercised, but although the list was a small one, it contained the names of no man save those with whom it was an honour to be associated. The Provost was the head of a great college. He had attained to that dignity because of his learning—learning as varied as it was profound, and learning which he had most happily applied to the practical affairs of life. As a medical corporation, they must of necessity take a more limited view of the qualifications which entitled him (the Provost) to the highest honour they were entitled to bestow. It was because he was the first member of their profession who had held the office of Provost of Trinity College that they asked him to share with them the honour he possessed so fully and merited so well. The addition of his name to their roll would go far to promote the reputation, the honour, and the dignity of this College. By virtue of his office as President he admitted the Provost to the Honorary Fellowship of this College, and he asked him to accept this diploma and to place his name on their roll.

The Provost then subscribed his name to the roll.

At the dinner the principal guests were the Right Hon. Lord Grenfell, Commander of the Forces, Right Hon. Sir Antony MacDonnell, G.C.S.I., Under Secretary, the President of the Royal College of Physicians (Dr. Smyly), the Provost of Trinity College, Right Hon. Mr. Justice Andrews, and Lord Castlemaine. The toasts of "The King" and "The Lord Lieutenant of Ireland" were proposed by the President in graceful speeches. Mr. H. R. Swanzy, Vice-President, in proposing the health of "The New Honorary Fellow, Dr. Traill, Provost of Trinity College," said they might well congratulate themselves and they might well congratulate Trinity College. They might rely upon it that the good relations which ever subsisted between Trinity College and the Royal College of

Surgeons would not only be maintained but encouraged under the auspices of their new Honorary Fellow. The Provost of Trinity College, in acknowledging the compliment, gave a brief history of the abolition of the old requirement that Fellows of Trinity should take holy orders. When he had personally succeeded in obtaining this permission, Dr. Todd, who had opposed his desires, met him and said: "Now, remember, Traill, the conditions on which you hold this lay Fellowship. If you misbehave in any way you are to be shaven and ordained on the spot." There had been thirty-five provosts since Queen Elizabeth, of whom the first was Adam Loftus, who combined with the office the appointments of Lord Chancellor of Ireland and Archbishop of Dublin. They understood pluralities in those days. There had been four lay provosts, of whom he (Dr. Traill) was the fourth. They had all lived long, which he hoped was a favourable omen in regard to his own career. Sir C. Cameron proposed "The Guests," which was responded to by Lord Grenfell, Mr. Justice Andrews, Sir Antony MacDonnell, Dr. Smyly, and Admiral Tudor. Sir Antony MacDonnell received a marked ovation. In acknowledging the toast, he mentioned that he had at one time hoped to be admitted to the medical profession, "which in its Dublin branch contained his oldest friend." He was almost afraid to speak in public, and in that state he thought of how he could satisfy his hosts and yet save himself. Sir James Paget, at a great public entertainment, when his health was proposed by Mr. Gladstone, reminded them that if speech was silvern silence was golden, and said, "Gentlemen, you shall have the gold." With renewed expressions of thanks he (Sir Antony) would follow that golden example. Lord Grenfell proposed the health of the President in eulogistic terms. Mr. Chance, in replying, said when he once more stepped down from his position and went again before the mast, he would bear as a talisman the memory of their great kindness to him on all occasions.

THE IRISH MEDICAL ASSOCIATION.

A special meeting of the Council of the Irish Medical Association was held in Dublin on March 1st, when it was decided not to circulate or publish Surgeon-General Evatt's report. The Council disassociated itself from the views on the Colleges and the profession generally expressed in that report, but decided to consider the suggestions as to the reorganization of the Association.

THE LEINSTER BRANCH AND SURGEON-GENERAL EVATT, C.B.

The annual meeting of the Leinster Branch of the British Medical Association was held in the Royal College of Physicians, Dublin, on Saturday, February 25th, when a vote of thanks was presented to the retiring President, Dr. J. O'Carroll, on the motion of Sir J. W. Moore, seconded by Dr. Craig, supported by Dr. Donnelly.

The following officers were elected for the ensuing year: President, Sir Thomas Myles, F.R.C.S.; President-elect, Dr. James Craig; Vice-Presidents, Mr. J. Lentaigne, F.R.C.S., and Dr. J. Wallace Boyce, M.B. (Blackrock); Honorary Secretary and Treasurer, Professor White.

Sir Thomas Myles delivered an address, in the course of which he said the subject in which they were most interested was the report of Surgeon-General Evatt, of which a scanty *précis* had been published. He was sure that when he was speaking frankly on the subject no one would think he intended to cast any personal imputation against Surgeon-General Evatt, or, for the sake of being offensive, give utterance to an expression that might cause pain to a distinguished man. Such intent was far from his desire, but it would be necessary for him to speak plainly so as to remove from the minds of some of their brethren in the country the false and misleading impression that Surgeon-General Evatt's report must have produced as to the part played by the Royal Colleges of Surgeons and Physicians in the efforts now being made to improve the conditions under which the dispensary doctors live and work. His statement displayed an ignorance of the functions of the College of Surgeons that could be described as colossal. The College was incorporated by Royal Charter, under which its powers and functions were strictly defined and limited. Briefly, these were to regulate the education of medical students, to confer diplomas after due and proper examination, and to withdraw its diplomas from such of its licentiates as may have been proved guilty of misconduct. As a corporate body it had no power whatever to influence the terms upon which medical men throughout the country might be employed. It could at meetings of its Fellows pass strong resolutions, and send them to the authorities for consideration. But all this the College had done over and over again, and through the mouths of its successive Presidents it had, with almost wearisome reiteration, brought the hard case of the dispensary doctor before the authorities and the public. That the College of Surgeons should, of its own motion, establish branch societies throughout the country was a suggestion so preposterous that only the most profound ignorance could explain, and nothing justify. The College of Surgeons was not a trade guild, as the Surgeon-General seemed to imagine; it did not undertake, and could not undertake, to protect its licentiates against the injurious consequences of what was, after all, their own free action. For it could not be forgotten that in all these dispensary appointments there were three parties to the contract—first, the Board of Guardians or their successors under the Local Government Act; secondly, the Local Government Board; and thirdly, the medical candidates. In many cases the difficulties that now existed were often due to the guardians and not to the much-abused Local Government Board. Questions such as leave, annual holiday, payment of a *locum tenens*, and superannuation, were as much in the hands of the local authorities as in those of the Central Board in Dublin. How were local authorities to be influenced by the College of Surgeons, a body of which they had no official cognizance? Even at the risk of giving offence, he thought the third parties to the contract—the medical candidates themselves—had a great deal to answer for in the present deplorable position of affairs. They were under no compulsion to enter the dispensary service. When they did enter under certain conditions, so long as these conditions were not altered to their detriment, they had not the right to complain. He had, as President of the College, missed no opportunity of pointing out to the younger men the inadvisability of their offering themselves for these appointments. The remedy, he had shown, lay in their own hands. So long as three or four men were competing vigorously for such vacancies the electors to those positions were justified in their contention that there was no need for improvement in the terms when they had an abundance of well-qualified candidates seeking their appointments. Even the well-meant labours of the Irish Medical Association had been rendered futile by the action of some of the candidates. This showed that the members of the medical profession were as much to blame for the present condition as were the other two parties to the contract, and they must be prepared to bear their share of that responsibility. The most extraordinary part of that extraordinary manifesto was the reference to the position of the Irish Medical Association, and the sketches that were drawn of its immense potentialities. It was first described as a struggling association, whose membership only embraced one-third of the profession; towards the end it was described as a sort of Jacobin Club, which was to terrorize the Colleges as its prototype did the National Convention. It was to be the controlling force, and all "surgical, medical, and sanitary work was to be carried out under its control, and in complete sympathy with its aim." What did this all mean? He had not yet met anyone who appeared to understand Surgeon-General Evatt's meaning, or to help them to an understanding of it. The Surgeon-General, as far as the published extracts of the report showed, had not offered one single practical suggestion for the improvement of the dispensary doctor's lot. He had, however, succeeded in offending many people, and had he his way he would put the Colleges and the general body of rural practitioners in an attitude of bitter hostility to each other.

Sir William Thomson moved a vote of thanks to the President, which was seconded by Dr. O'Carroll. Dr. Donnelly, Secretary of the Irish Medical Association, said he was sure the Association would not adopt the report. Surgeon-General Evatt had entirely misunderstood the object with which he was brought to Ireland. The motion was carried. Dr. Craig moved, and Dr. Walsh seconded, the appointment of an Irish Committee on the same lines as the Scottish Committee. Carried. Resolutions were also carried relating to the inadequate fees paid by the Admiralty for attendance on coastguards' families, and by the Board of Irish Lights for attendance on lighthouse men and their families. On the motion of Dr. Donnelly, seconded by Sir J. W. Moore, a motion was passed urging that steps should be taken to secure the amendment of Section CXVIII of the Local Government (Ireland) Act.

A REPORT ON THE CARE OF THE INSANE POOR.

[By Our Special Commissioner.]

IX.—GERMANY.

Historical.

The early pages in the history of the insane in Germany, like those of the rest of Europe, are stained by the records of all manner of cruelties; and though the unfortunate beings may not, as in sixteenth-century England, have been hunted as werewolves, they were burnt as witches, imprisoned in dungeons, and, later, immured, heavily laden with chains, in mad-houses. It is, in fact, somewhat remarkable how completely the teaching of Hippocrates, that mental diseases were conditioned by bodily disturbances, and the later views of Celsus, Aretaeus, Caelius Aurelianus, and others, were displaced by the crassest superstition and the belief in demoniacal possession of mediaeval Christianity. Even in the last quarter of the eighteenth century practically nothing was done for the cure of insanity, and treatment consisted solely in incarceration. Since then the development of psychiatry has been extraordinarily rapid, and in no country has the amelioration in the treatment of lunatics and the scientific knowledge and treatment of mental diseases attained a higher pitch than in Germany. The dissemination of more humane views regarding insanity in this period has been coincident with a general advance in other domains of science, and has been widely diffused, but the initiation of far-sweeping reforms has been due to the genius, the courage, foresight, and humanity of a few men. When Pinel in 1798 released forty-nine patients from their chains in the Bicêtre in Paris he struck the fetters from thousands of their unfortunate successors, and the reforms instituted by William Tuke at the Retreat, York, during the first decade of the nineteenth century are still operative for good. In the same way the great changes which have taken place in Germany in the treatment of insanity—the abolition of restraint, the increased liberty accorded to the insane, the establishment of colonies and the subsequent development of family care—are to a very large extent attributable, and historically directly traceable, not to Griesinger, but to Conolly, who on September 21st, 1837, abandoned mechanical restraint in Hanwell Asylum. The "non-restraint" system was advocated, Dr. Paetz says,[1] at the Naturforscher-Versammlung held at Karlsruhe in 1858, by Brosius, who also translated Conolly's work on the *Treatment of the Insane without Restraint* into German. This had no immediate effect, but shortly after (1861-3) this system was introduced by Ludwig Meyer into his asylum at Hamburg, and by Griesinger and Westphal (1867) at the Charité at Berlin. The adoption of this system resulted in a marked improvement in the demeanour of the patients, and proved that many were capable of management in comparative freedom, and produced an alteration in the structure of the asylums; pavilions, and later "open-door" pavilions, largely taking the place of the old "closed" institutions. Many of the asylums were, however, still composed of closed blocks or pavilions, but the writings of Roller (1858), Damerow (1862), and, most of all, Griesinger (1868), were instrumental in spreading the opinion that for a large part of the insane simpler and cheaper establishments, combining a greatly-increased freedom and opportunities for agricultural labour, would be of greater benefit than ordinary asylums to the patients.



Fig. 1.—Patients' Home at Rockwinkel.
Dr. Engelkin with Patients in the Background.

Agricolous Colonies.

This eventuated in the formation of agricolous colonies, first at Göppingen, Württemberg, from the private asylum of Christophsbad, then at Einum from the asylum of Hildesheim, next from the asylum at Jena, and later at many other asylums who were encouraged by the earlier experiments. These colonies, which were not colonies for the *family* care of the insane, were formed at some distance from the asylum by taking over in most cases a manor house for occupancy by the patients, and the surrounding farm lands for their labour, and gave very satisfactory results. Their extension, however, was hindered by the fact that many patients who would have benefited by living in the colony were—in the absence of an infirmary at the colony—considered unsuitable for transfer from the asylums, owing to their being subject to transitory excitement or attacks of acute depression or to some other condition requiring a temporary return to the asylum.

These considerations evoked a masterly review of the whole question by Koeppe,[2] and led to the formation, under his direction and with the co-operation of Westphal, in the province of Saxony, of the large and complete asylum and agricolous colony of Alt-Scherbitz, which has been described by Baron Mundy as forming the shibboleth of the entire question of lunacy reform. The example of Alt-Scherbitz has been followed in centres too numerous to mention all over Germany, with entirely favourable results. Alt-Scherbitz, with its more recently-constructed sister establishment of Uchtspringe, are indeed models of lunacy administration, not only in regard to institutional treatment and the management of agricolous colonies, but, at Uchtspringe, in regard to the family care of the insane.

The System of Family Care.

In Germany there was already, towards the end of the Middle Ages, Dr. Alt relates,[3] a sort of family care of the insane. Thus in 1529, in the town of Nürnberg, a certain insane glazier who had murdered his mother was removed from the lock-up by order of the magistrate and placed under family care and visited by the doctor. Cases of this sort, however, were of so rare occurrence that they cannot be said to have had any bearing on the origin of the modern system.

The first real family colony in Germany was established at Rockwinkel, near Bremen, in the year 1764, by a Dr. Engelkin, in the neighbourhood of his small private asylum. This colony still exists, and as we have had the pleasure of visiting it, its interesting history will be more appropriately considered with the description of its present management. In the rest of Germany the family care of the insane is of quite recent origin. Roller,[4] after a visit to Gheel in 1858, and Güntz[5] both warmly recommended this form of assistance, and, independently of these, Brosius and Lähr in 1861 made some attempts at the formation of family care, but without permanent results, and practically the same fate befell the experimental placing of patients in families from the asylum of Marsberg in Westphalia and Hofheim in the Grand Duchy of Hesse. With the exception of these unimportant and fugitive experiments, and that of the colony at Rockwinkel, this mode of treatment was not adopted in Germany, and the feeling of most alienists in Germany at this time was summed up in Landerer's words at the meeting of the *Verein der Südwestdeutschen Irrenärzte* in 1870: "The family care of the

[1] Paetz, *Die Kolonisirung der Geisteskranken.* Berlin: Julius Springer. 1893.

[2] Koeppe, Ueber die Landwirthschaft in der Psychiatrie. *Allg. Ztschr. f. Psych.*, Bd. 34, S. 91. 1876.

[3] Alt, *Die familiäre Verpflegung der Krankstunigen in Deutschland.* Halle a S.: Carl Marhold. 1903.

[4] Roller, Die Irrencolonie Gheel, *Allg. Ztschr. f. Psych.*, Bd. 24, S. 237.

[5] Güntz, *Ein Beitrag zur Frage über Irrencolonien. f. Psych.*, Bd. 18, S. 329.

insane is impracticable under our modern conditions." How completely in error Landerer was has been convincingly demonstrated all over Germany, and to-day Germany is dotted all over with most admirably conducted family-care colonies. The initiator of the modern system in Germany, the "Vater der Deutschen Familienpflege," as Dr. Alt names him, was Wahrendorff, who at the end of the Seventies established in the neighbourhood of his asylum at Ilten, after a prolonged personal study of Gheel, and as an extension and completion of the agricolous colony already existing at Ilten, the family care system. This colony, which in 1880 had patients in only three families, grew rapidly under the able administration of Dr. Wahrendorff and his son-in-law, Dr. Hesse, and gave such uniformly good results that an entire change was produced in contemporary medical opinion, resulting in the rapid formation of many other colonies. Berlin, whose insane poor had grown from 228 in 1861 to 1,631 in 1883, and whose proportion to the general population had increased in the same period from 43 per 100,000 to 136 per 100,000, established in 1883 a family-care colony at Dalldorf under the direction of Dr. Sander, and had in 1903, at Dalldorf and at Herzberge, a more recently-formed colony—382 patients under family care. Many other colonies have been formed since then at Bunzlau, at Eichberg, at Kortu and Allenberg in East Prussia, at Zwiefalten and Weissenau in Württemburg, and many other places; and finally in 1904 at the large modern asylum colony of Uchtspringe (Altmark), which has annexed for the extension of family colonies Gardelegen, with some adjacent villages, and, on the other side of the Elbe, the small town of Jerichow. In 1903 there were no less than thirty-three distinct family colonies in Germany, and others are in process of formation. These colonies vary within wide limits in the mode of administration, medical service and inspection, and range from the somewhat primitive and patriarchal simplicity of Rockwinkel to the elaborate and complete systems to be found at Uchtspringe and Jerichow, though the large majority have been modelled on the lines of these modern exemplars of the treatment of insanity.

Rockwinkel.

In the year 1764 there settled in Rockwinkel, near Bremen, a Dr. Engelkin, a retired medical officer of high rank in the Dutch army, who had for many years been stationed in the Dutch East Indies. He had brought back with him opium, to which he attached considerable importance in the treatment of mental diseases, particularly in the treatment of states of excitement and in the subjects of the various phobias. He was very successful in his practice, which was mainly amongst cases of mental and nervous disease, and was fortunate enough to cure a patient suffering from acute melancholia, the daughter of a neighbouring landowner. The latter, in token of his gratitude, settled upon Dr. Engelkin a considerable piece of land, on which he erected a private asylum, and on which the present asylum now stands. From that time to this there has always been a Dr. Engelkin at Rockwinkel, the eldest son being trained in medicine, and inheriting the practice and property. The present Dr. Engelkin is the fifth of his line. The patients of the first Dr. Engelkin came from far and near, and in such numbers that they had to be placed within the homes of the surrounding inhabitants, where they were visited and treated by the doctor. In this way the first family-care colony in Germany was instituted, at first as a means of disposal of the excess of patients, but later, under the successive directors of the colony, as a necessary therapeutic adjunct to asylum treatment. In the beginning of the nineteenth century the colony was taken over by the Free State of Bremen for the disencumbering of their asylums of many of their indigent insane. They appear, however, to have had an eye to economy rather than to effective and humane treatment; and Dr. Engelkin described the condition of these patients, for whose maintenance their guardians were paid the munificent sum of twopence a day, in such forcible and faithful terms at the *Jahresversammlung* of 1878, that essential reforms were instituted, regulations as to inspection, clothing, feeding, and medical attendance drawn up, the price paid to the guardians raised to 1 mark a day, and Dr. Engelkin appointed honorary medical director.

The Colony.

Dr. Engelkin's private asylum at Rockwinkel is situated within pleasant grounds, about one mile from the station of Oberneuland on the outskirts of Bremen. It has no connexion with the colony, which receives its patients from the neighbouring State asylum of St. Jürgens. Dr. Engelkin is a strong opponent of the establishment of large asylums, and maintains that the closest individual attention to the patients is a *sine qua non* for the successful treatment of insanity. Although he admits that, in many cases, it is an unrealizable ideal, he maintains that the care of the insane should extend to the most minute occurrences in their lives and surroundings, and to the preparatory education of the patients' own families before, and to the care of the patients after, discharge as recovered. This high ideal he carries out in his practice, and has limited his private asylum to the reception of some twenty-five patients. With these patients and the hundred odd patients under family care, he finds his time fully occupied, and it is due to his great personal interest in, and devotion to, his patients both in the asylum and the colony that the latter, notwithstanding the obvious lack of many of the essential desiderata of a modern family colony, gives most satisfactory results.

The surrounding country is flat, well-wooded, intersected with ditches, and in many ways strongly reminiscent of Holland. The people of the district of Rockwinkel, mostly small peasant farmers, have a considerable Dutch strain in their Wendish and Saxon ancestry, and are simple kindly honest folk, and, from what we saw, make ideal guardians of the imbecile and demented people entrusted to their care. The colony itself is fairly compact, and lies within a square of between 4 and 5 kilometres long.

The Homes.

Most of the houses are grouped about the middle of this square, and are many of them of great age and most picturesque appearance. Many are whitewashed, thatched houses, surrounded by smaller outbuildings and pleasant gardens, with a few acres of meadow and arable land; a few are of still earlier date, and are surmounted by the crossed wooden horses which, according to their position, denote their Wendish or Saxon origin, and there is a sprinkling of homesteads of more modern construction. All, however, are built on the old *diele* plan, handed down from early Saxon times. They are single-story buildings with low walls and high-pitched, thatched, and ornamented roofs. A main door, usually large enough to admit a horse and cart, and surmounted often by a biblical quotation, opens immediately into a large central chamber or *diele*, with rafters open to the roof. On the right of the *diele*,

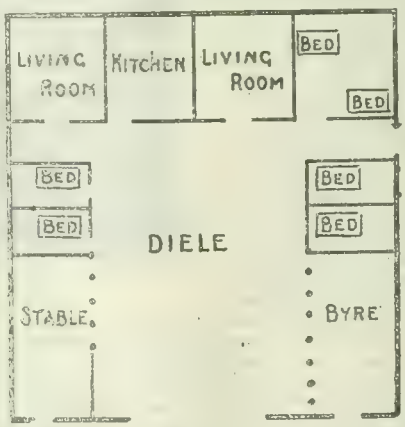


Fig. 2.—Ground Plan of Homes in Rockwinkel.

and separated from it merely by upright beams, is the cow-byre; and on the left, also open to the *diele*, the stable. Beyond these, on the two sides, are one or two bedrooms, tiny cubicles scantily furnished, often mere box-beds, for the workers, the patients, or the members of the family. Facing the entrance are doors leading into the kitchen, the sitting room, a bed room, and perhaps a "best" room for state occasions. The *diele* is, however, the centre of the house, the scene of most manifold activities. It is at once toilet-room and threshing-floor, and well-worn oak settles attest the frequency of family councils held here, heedless of the lowing kine. It contains the most heterogeneous assortment of farming implements and household goods, from ploughshares to linen chests, and is the storehouse for the whole household, man and beast.

Notwithstanding this medley of incongruous goods and furnishings, a certain orderly harmony is observable in every home, and, although the bedrooms are obviously insufficient

in air and light space, the *ensemble* is one of the greatest comfort.

The Patients.

The patients, who all appeared to be in robust health, were in the main imbeciles and chronic dements of a mild character. It was apparent in all cases that the patients had become thoroughly incorporated into the family life, and in none of the colonies we visited was the good feeling between guardian and patient more evident. The patients were all capable of useful employment, and were of great assistance to their guardians. Dr. Engelkin related to us the interesting history of one patient we visited who had been for over twenty years in one family. The subject of delusional insanity, she became much more tranquil under domestic influences and helped in all the work of the house. The wife of the guardian died, leaving the husband with a young family. The children, who had been taught to regard the patient as their aunt—the female patients are generally spoken of as *tante* in the Rockwinkel homes—were educated and trained in domestic work by the patient, who is now, when the eldest son and his wife manage the household, the most esteemed person in the house. This is merely one of many instances given to us by Dr. Engelkin of the intimate relationship which exists between the patients and the families in this colony. The patients are boarded out to the number of two or three in each family, and, unlike any other colony, are occasionally of different sexes. This, which would be impossible in larger colonies, has so far been unattended with any bad results.

The patients enter the colony from the asylum by the Medical Superintendent of the State Asylum notifying Dr. Engelkin that he has a patient whom he considers fit for family care. The patient is then examined by Dr. Engelkin, and if considered suitable is placed experimentally in one of the homes, and returned if he is found not to benefit by this form of treatment. In the same way cases which are the subject of grave somatic illnesses are returned to the institution.

Administration and Inspection.

The colony is for all practical purposes under the entire control of the Medical Director, Dr. Engelkin, but there is an official inspection every three months by a Committee appointed for the purpose by the State of Bremen, composed of one administrator of the department for the care of the poor (*Administrator der Landarmenpflege*), one senator, and the clerk to the bureau. These meet at the asylum at Rockwinkel, and, with Dr. Engelkin, form a Committee for purposes of jurisdiction. There is no fixed medical inspection, as this lies entirely at the discretion of the medical director. There is only one overseer for the whole colony, who visits each patient at least once a month. There are no published rules regarding the care and maintenance of the patients, and the patients do not have books in which the visits of the overseer and other information may be recorded, as at other colonies. There are no regulations regarding the condition of the homes, air and light space, etc., diet, or the bathing of the patients—these latter being treated in every way as proper members of the family in which they are placed. The guardians are paid at the rate of one mark per patient per day, and at the quarterly inspection the patients receive presents of tobacco and cigars and a small monetary gratuity. The whole system is thus paternal and non-institutional to a degree which exists in no other colony; and although the omissions mentioned above render this mode of assistance incapable of adoption on a large scale in any other place, and at present prevent its further extension at Rockwinkel, the favourable results of Dr. Engelkin's experience demonstrate more convincingly than many colonies characterized by a more rigorous inspection the ability of many insane persons, who would otherwise be confined in asylums, to partake of family life, and to benefit both themselves and others by their labour. Our visit to this small and beautiful colony was most instructive, and we cannot express too warmly our indebtedness to Dr. Engelkin for his kind guidance and hospitality. The artistic value of these beautiful and primitive homes and their historical associations, the intrinsic merit of this mode of assistance as shown by the intimate union of patient and family, and the striking contrast between this colony and the modern colonies of the rest of Germany, endow it with an interest second only to that of Gheel.

Medical Legislators in Portugal.—Among the successful candidates for seats in the Portuguese Chamber of Deputies at the recent election in Portugal were eleven members of the medical profession.

THE TREATMENT OF INCIPIENT INSANITY.

The annual meeting of the Neurological Society of Great Britain and Ireland was held in London on February 16th, under the presidency of Sir John Batty Tuke, M.P., who delivered an address on the relation of the law to the treatment of insanity, and the disabilities under which the medical profession lay in that respect.

He said that he believed that he was justified in stating that there was a widespread feeling as to the need for improvements of the existing lunacy laws. The medical profession desired this for professional, the public for fiscal, reasons. Their whole conception of the nature and causes of acute insanity had been modified—he might almost say revolutionized—by the advance in the knowledge of the action of toxins upon the structure and functions of the nerve cell, and especially the cortical cell. There was the strongest evidence of toxaemia in certain forms of acute insanity, and of the rapid implication of structure as a result of the action of those poisonous agents. They were being forced to the conclusion that the mental symptoms in the acute psychoses were manifestations of a toxic physical condition, just as the delirium of fever was a symptom of certain phases of intoxication of the nervous system. The question arose what bearing that change of view had on the treatment of the various conditions comprised under the generic term insanity. Sir John Batty Tuke held that it furnished a reason for the belief that the insanities must be submitted to treatment in their early stages. This was, of course, true of all diseases, but, in regard to the insanities, the position was complicated by the false conception of their nature still to some extent existent, and accordingly the public and the Legislature did not regard them as the symptoms of corporeal disease. Rough asylum statistics showing the relation of recoveries to the period of incidence of symptoms had not carried conviction to the general public, and accordingly the tenor of their laws was towards the protection of those mentally afflicted, rather than towards measures calculated to procure the cure of sick persons. On these general grounds he had urged on the Government the appointment of a Royal Commission to inquire into the subject in all its relations, and to consider whether a change in the lunacy laws was or was not demanded in the public interest. The law under which they now worked in England was strictly a lawyer's Act. It was constructed without reference to any medical authority whatever. Neither Medical Commissioner in Lunacy nor Chancery Visitor was consulted. The leading idea was the protection of the public and the lunatic. No provision was made for the early treatment of patients. The certificate of emergency was certainly allowed, but it was grudgingly admitted, and in at least one if not two Lunacy Amendment Bills it was proposed that the term should be shortened. Sir John proceeded to contrast the English with the Scottish system, which made provision for adequate inspection and gave liberty to medical practitioners to treat incipient and early cases without certification. Such liberty could not, however, be accorded in a country where the inspecting power was ludicrously insufficient. The first step towards lunacy reform in England was a considerable increase in the number of Commissioners. The Scottish system, however, mainly applied to the moneyed classes. What was to be done for the poor and for those of moderate means? They all knew that incipient cases derived from this class could not be submitted to treatment till symptoms were so pronounced as to warrant certification; that is to say, till such time as morbid action had made such advance as to retard recovery or prevent it altogether. To the accumulation of unrecovered insane persons the numerical increase of lunatics was mainly due. The experience of many present would confirm the statement that recovery was not difficult to obtain if treatment was applied during the initial stage, and that such treatment was most satisfactory in a large proportion of cases, inasmuch as not only was recovery from the immediate attack effected, but the tendency to recurrence was weakened. In fact, the cure often became complete, in that morbid action on the tissues having been arrested, and full opportunity having been given for their regeneration, no permanent solution of continuity remained.

Hospitals for the Insane.

Could analogous methods of treatment be provided for the insane of the poorer classes? That it could, in the opinion of those best able to judge, was amply set forth in the report of the Committee of the London County Council appointed in

1890, at the instance of Mr. Brudenell Carter, to consider the propriety of erecting a hospital for the insane. The principal finding of the Committee, founded on "the opinion of the most eminent and most experienced members of the medical profession," was to the effect that it was desirable that "an adequately equipped hospital, containing 100 beds, for the study and curative treatment of insanity, should be established in the metropolis." Why and wherefore, and under whose influence, this modest scheme was not carried into effect, Sir John said he did not care to consider at present. As a matter of fact, the report was pigeon-holed, and had not affected in any way the policy of the Council, except to the extent that powers to erect "reception wards" were asked for in a Bill which never reached the second reading.

The Experience of Glasgow.

Glasgow had the honour of being the first city in Great Britain to carry such a scheme into effect. In 1890 one parish, the Barony, instituted what were termed observation wards for the reception of so-called "nervous cases." The building was by no means well adapted for the purpose, and the general arrangements were not satisfactory from a hospital point of view. Nevertheless, the results of the experiment were generally satisfactory. The second stage of the experiment was undertaken in 1899, when two of the largest parishes of Glasgow were amalgamated under the Parish Council, which was also the Lunacy Board, and had the supervision of all lunatics within its area. It was conducted under somewhat improved conditions in wards set aside for the purpose in one of the city hospitals. Between 1899 and June of 1904, 1,345 persons were admitted, of whom 183 were sent to asylums, 86 died, and 1,052 were discharged "recovered" or "relieved." Satisfied with these results, in June, 1904, the Parish Council proceeded to the third stage of the scheme. It erected wards for the special purpose, a pavilion attached to one of its general hospitals. This institution was situated in one of the most populous parts of the city. It contained 50 beds, equally divided between the sexes. These wards were simple in structure and furnishings; they were, in fact, ordinary hospital wards with a few side rooms. They had no special appliances, such as padded rooms. They had been in operation since June of last year, and between that date and December, 1904, 260 persons were admitted, of whom 13 died, 62 were at once sent to asylums, and 155 were discharged "recovered" or "relieved." Sir John Batty Tuke said he could not submit any statement as to the cost of erection or of maintenance, as the accounts for the current year were not yet closed. Those were the bare figures. But he was never content with bare figures, and accordingly he recently paid two prolonged visits to those wards under the guidance of Dr. Carswell, the certifying officer of the Parish Council, under whose charge the institution was placed. On both occasions he found 40 patients under treatment. With one or two exceptions they were evidently drawn from the poorest class, such as one finds in pauper asylums. Of these, one-fourth were suffering from alcoholism in one or other of its phases; one man was convalescent from violent alcoholic mania; the remainder were the subjects of more or less intense delirium, whose treatment in an asylum or general hospital would have been necessary had the reception wards not been in existence. Sir John emphasized this fact because it had been loosely stated that these wards were chiefly devoted to "drunks." That was not so, for of the total number admitted since 1890 only 28 per cent. were alcoholics. The symptoms of the other cases in hospital at the dates of his visits were referred to the usual classes of insanity as set forth in asylum reports. The average length of residence was twenty-five days, but it might be extended to six weeks. In a word, the class of cases was, allowing for social position, of the same type as they met with in private practice, and which they treated either to a successful termination at their own homes, or in private dwellings, or relegated to asylums if unfitted for such treatment. That hospital provided for the poor a method of early curative treatment which elsewhere could only be vouchsafed to the rich. He had gone thus far into details in order to show that the feasibility of a system for the curative treatment of the insane poor during the earlier stage of the condition had been reduced to demonstration. It was the only institution of the kind in Great Britain. The only subject for regret was that it was not so fully utilized as it should be as a clinic for the students of the Medical School of Glasgow, for in its wards the insanities could be demonstrated as they occurred in practice, at the period when the practitioner had to deal with them. Clinical instruction in an asylum was all very well in its way, but it was not worth argument to show the infinitely greater advantage that would accrue to all students were such wards open to them.

The Experience of Foreign Countries.

Sir John Batty Tuke proceeded to describe what was being done abroad. He said that to each one of the twenty universities of Germany a psychiatric clinic was attached, under the superintendence of the Professor of Psychiatry. The buildings were either independent in the neighbourhood of a general hospital, or they were wards specially devoted to the purpose. In many instances they had been in existence for some time; the clinic at Heidelberg, for instance, was established in 1878. They varied in size. Würzburg had 60 beds; Tübingen, perhaps the most perfect institution of the kind, held 120 beds. All alleged to be mentally unsound passed through these hospitals; if the nature of the case demanded certification it was passed on to the asylum; the rest, consisting of early or mild cases of insanity, neurasthenia, the subjects of delirium due to fever or consequent on such diseases as pneumonia, or post-operation cases, or neurasthenics—in fact, all members of the class which demanded observation and treatment—were retained without certification, and treated to a termination without being reported to the State Office. Those clinics were exactly on the same footing as the other clinics, medical and surgical, existing in all German universities. If not to such a full extent as in Germany, similar provision was made in Austria, Italy, Switzerland, and the United States.

Recommendations.

If we were to learn anything from the experiment conducted in Glasgow, it was to the effect that it was highly desirable that all cases reported to the authorities as presenting mental symptoms should pass through the sieve of such an institution as there exists. The medical officer in charge could discriminate during a longer or shorter period of observation between those requiring transmission to an asylum, those who could be relegated to a general hospital, those who could be boarded out in private dwellings, and those who could be treated in the special hospital. He went on to say that the public must be brought to see that the medical was closely connected with the fiscal question. If they could force it on the public mind that early treatment meant economy they would soon gain sympathy and support. In all probability an amending Bill would be introduced that session, and if the members of that Society independently and collectively made their views known to the Legislature, the first step towards reform would have been taken. There existed a substantial number of members of Parliament who would support the demand for a Commission to inquire into the whole subject, and not a few who would generally interest themselves in lunacy administration. But the application must be supported by the leading members of the medical profession, by the leading scientific societies, and if possible by the Royal Colleges of Physicians and Surgeons. In the event of a Commission not being acceded to by the Government, on the introduction of an amending Bill pressure should be applied in order to obtain provisions: (*a*) For the increase of medical Commissioners; (*b*) for the introduction of Clause 13 of the Scottish Act of 1866; (*c*) for the granting of power to county councils to erect institutions for the early treatment of patients of the poorer classes, either in connexion with or independent of general hospitals; (*d*) for the granting of power to county councils or parish councils to make provision for the after-treatment of patients discharged from asylums recovered or improved. The last suggested provision would reduce the liability of such persons to recurrence of the attack. He suggested the appointment of a Committee to watch legislation, and with powers to enlist the collaboration of bodies or persons interested in the question.

Considerable discussion followed, the opinions expressed being generally favourable to the suggestion of the President.

Food and Meat Inspection.—A special course of practical training in food and meat inspection for commissioned officers and professional men preparing for the examination of inspectors of meat and other foods, conducted by the Royal Sanitary Institute, will commence on Monday, April 10th, at 5 p.m. Further particulars can be obtained on application to the Secretary of the Institute, Margaret Street, London, W.

THE TEACHING OF HYGIENE IN SCHOOLS.

XII.—The Prevention of Tuberculosis.

In the last article it was pointed out that in the prevention of tuberculosis three distinct duties lie before the reformer (1) to ensure that children suffering from consumption should, for their own sakes and that of others, not be admitted into the schools; (2) that there should be proper sanatoriums to send them to when they are discovered to be suffering from the disease; (3) that children being educated by the State should, by the observance of hygienic measures, be rendered as little susceptible as possible to the risk of contracting the infection.

In considering the matter from a general point of view, it must be remembered that heredity, overcrowding, insanitary dwellings, want of light and fresh air, and unhealthy employments all predispose to tuberculosis. As determining causes we recognize the danger of the inhalation in dust of the dried expectoration of consumptive patients and the presence of the tubercle bacillus in milk.

That general insanitary conditions play a great part in the problem of the prevention of tuberculosis is proved by the lessening of the death-rate from that disease since better sanitary legislation has been in force in this country. We say the death-rate advisedly, for the fact must not be lost sight of that countless tuberculous patients who escape death are left maimed for life by this disease, or die of something else owing to the unsatisfactory physical condition to which they have been reduced.

The importance of the hereditary factor in the production of tuberculosis is perhaps nowadays rather apt to be overlooked. According to the statistics of Drs. C. J. B. and Theodore Williams family predisposition to consumption existed in 48 per cent. of their private patients suffering from the disease; that is to say, such patients had parents, grandparents, uncles, aunts, brothers, sisters, or cousins who were suffering or had died from the disease. If parents and brothers and sisters only are taken into account, the same authorities would put the percentage at about 33. The report just issued of the Royal National Hospital for Consumption for Ireland puts it at 37.6 per cent. Men and women who themselves suffer from tuberculosis marry and produce delicate children predisposed to all forms of tuberculosis, whether of the lungs, joints, glands, or brain. These are usually fed on impure milk, perhaps specifically infected, and are brought up under indifferent health conditions, not the least important of which is the schoolroom. Here they are kept for hours at a time in cramped positions, in impure air, and in many cases with insufficient food. Small wonder if their physique grows steadily worse.

A teacher who is clever at recognizing diseases may know that cases of consumption exist in the class. But—and here we come to our second difficulty—even supposing the teacher to be too conscientious to allow the school attendance grant to prevent the exclusion of the child from school, what is to be done with the patient? There is no systematized medical inspection of schools, and, above all, there are no sanatoriums to send the children to. The child itself is therefore probably better cared for at school than at home. Here arises the great responsibility as regards other children thrown in contact with the sick, for, as has been said, a single child affected with consumption of the lungs may infect many others, and in those so infected the disease may not attack the lungs, but may settle on glands, brain, or bones. The importance of prophylactic measures is perhaps to be more accentuated in tuberculosis than in almost any other disease. A great deal has been done in England to combat the disease, but we have, as usual, not employed effective early methods. Sanatoriums have sprung up for the treatment of phthisis, but while in no way depreciating the importance of isolating bad cases likely to spread contamination, it must be admitted that, as far as the eradication of consumption goes, the great sums of money spent upon these homes have not hitherto yielded commensurate results. Reference was made recently to the reports of Dr. Nevins, Dr. Nathan Raw, and Dr. David Smart on the consumptive patients sent to the Heswall Poor-law Sanatorium maintained by the guardians of Liverpool, West Derby, and Toxteth Park; 78 cases were admitted, and the expenditure for one year was £2,554. Dr. Raw, who reports on 34 cases from the West Derby Union, states that the disease had been arrested in 10, that improvement had been shown in 12, that 2 had not improved, and that 10 remained in the sanatorium; it was not clear what was considered to constitute arrest of the disease. Dr. Nevins, who reports on the cases sent from the Liverpool Union, states that 38 patients had left the sanatorium during the two years of its existence, and he has been able to trace the after-history of 30 of them. One has died of Bright's disease, 1 is a chronic invalid from a non-tuberculous illness, and 2 are well enough to work and are believed to be in good health and free from the bacilli of tubercle. Of the remaining 26, 8 have died of tuberculosis, and the rest are either inmates of the parish hospital suffering from tuberculosis or are in failing health outside from the same cause. It thus appears that out of 30 patients who have undergone the treatment during the past two years only 2 are in good health at the present time.

Dr. Nevins attributes this disappointing result to three causes—(1) that few patients of the parish class applied for treatment in the early stage; (2) that few who did apply were able or willing to submit to the restrictions of sanatorium life with the necessary long absence from their families; (3) that the patients, on discharge from the sanatorium, were obliged to return to the poverty, bad sanitation, and unsuitable occupation from which they came. More encouraging statistics were given by Drs. F. Rufenacht Walters and Annie McCall in the British Medical Journal of February 25th, but they are less complete than those of Dr. Nevins, which must for the present be accepted as giving the clearest indication of the final result of sanatorium treatment of the poor under existing conditions.

In this country the vital importance of the treatment of tuberculosis in its earliest stages has not begun to be understood. In France, where, as in England, the population is decimated by this disease, the medical profession has realized the importance of the fact that young children are attacked by the tubercle bacillus, and there special sanatoriums exist where children are admitted and treated from the age of 2 years. A detailed description of the French sanatoriums by our Special Commissioner was given in the British Medical Journal of June 11th, 1904, and subsequently reprinted as a pamphlet.[1] All the French specialists are in agreement that the earlier the child can be taken in hand the greater the chance of recovery. Dr. Ménard, whose great experience enables him to speak with authority, considers that a period of three years' systematic treatment by good food and fresh air is necessary for the cure of a case of tuberculosis of bones or joints, and that every large city with slums, such as exist in London and Paris, ought to have a thousand beds for children at seaside hospitals for every million of population.

In England the only institution of the kind is the Seabathing Hospital at Margate, and even in this institution half the patients are men and women. Children are too often admitted at such an advanced stage that recovery cannot be expected. The hospital authorities are handicapped by the beds being taken up by a large proportion of chronic and unbenefitable cases, who have to be admitted, thanks to the letter system. The hospital does not receive children under 6 years; at that age a child with tuberculous disease is often past cure. As in France they are received at 2, many children with tuberculous disease of the joints are saved permanent deformity by speedy operation and after-treatment in good surroundings. When a case of tuberculosis is recognized in a school, or even when a predisposition to phthisis is remarked, the child is packed off at once to one of the sanatoriums maintained by the Assistance Publique or by charitable agencies. There it leads a healthy, open-air life; it is well fed, and allowed to sleep twelve or fourteen hours out of the twenty-four. Very often, even in declared cases, these simple measures cause a speedy and permanent cure, and in those in which only a predisposition exists the children, being physically strengthened, outgrow their delicacy. Another valuable means of preventing tuberculosis is to be found in holiday colonies, which exist in Germany, Switzerland, and Austria for children anaemic and predisposed to tuberculosis, in order that by breathing pure air for a long period the power of resistance may be increased. These institutions are of three types:

1. Institutions in which children are received and boarded on the same plan as English general convalescent homes.
2. Boarding out in peasants' houses.
3. "Milk stations," where children are given milk and bread at stated times, and spend many hours out-of-doors.

In Denmark there is a curious system of exchange of children between people living in town and country; the advantage claimed is that the town children spend some time in

[1] Copies can be obtained from the Editor by those interested in the question.

the fresh air of the country during summer, while the country children have their minds opened by seeing the sights of the towns. The number so sent from Copenhagen is about 10,000, an equal number of country children being received.

If suitable institutions existed in this country for the reception of children suffering from or predisposed to tuberculosis, and systematic medical inspection of schools were the rule, the risk of the spread of consumption in schools would be overcome. The difficulty, fully recognized by French medical men, is that the home surroundings to which the children return may undo the good of the sanatorium treatment. This, of course, is possible, and no ideal standard of health will be obtained until all the schools in large towns are gradually removed to the country, and the children received as boarders. There will doubtless be the cry of home ties, but what about the home ties in countless cases of middle and upper class children who are educated at boarding schools? At any rate, there might be special boarding schools in the country for delicate children with very unsuitable homes, to which they might go on leaving the sanatoriums. In France they are allowed to remain on practically indefinitely at the sanatoriums, as it is recognized that if they are hurried away the good effects would not be likely to be permanent.

We now come to the third point—that children being educated by the State should, by hygienic measures, be rendered as little susceptible as possible to the risk of contracting the infection. Here again it is necessary to go to the root, and that means general medical inspection of every school by a medical practitioner, sound practical teaching of future teachers in training schools as to how the disease may be prevented, and finally the instruction, by these qualified teachers, of the children themselves.

The question of medical inspection has already been discussed in our columns and will be dealt with again. We come, then, to the training of teachers. One of the greatest factors in their education on this subject must be in the hygiene of the schoolroom. They must be taught the value of properly cleaned schoolrooms, the danger of dust as a germ disseminator, and the vital importance of open windows and fresh air. They must be made to understand that children suffering from anaemia, listlessness, and general debility are likely to be attacked by tuberculosis, and they should seek the advice of the medical officer and get permission for these children to do fewer lessons and have more time in the playground. They should be made to realize the importance of the strengthening of the body by muscular exercise, such as games, gymnastics, singing, and swimming; thus would the body become able to resist disease. The feeding problem of course crops up, as bodily and mental exercise on a poorly-nourished body would do more harm than good. Breathing exercises done in the school yard, and properly done, have a most beneficial effect upon the lungs and circulation, and should be practised several times a day. Bad positions at desks should be carefully looked out for and corrected. In Burgerstein and Netolitzky's *Handbuch der Schulhygiene* much stress is laid upon many of these points. They insist that one of the causes contributing to produce predisposition to tuberculosis in school children is bad seating for writing and drawing, leading to insufficient breathing, loss of weight, malnutrition, and anaemia, conditions of the body which predispose to consumption. The importance of free ventilation is obvious; the dust-laden atmosphere of a crowded, ill-ventilated school-room irritates the air passages and lungs, and if there are school children suffering from phthisis in the class, the dust may actually contain tubercle bacilli. The following habits are also to be numbered among the causes which may favour the production of tuberculosis—sucking the fingers, biting the nails, sucking toys and penholders, picking the mouth and nose with the fingers, and playing on the floor. Tuberculosis of the lungs is often grafted upon catarrh, the school-rooms, therefore, though well ventilated, should be free from draughts, and kept at a proper temperature, the children should wear clothes suitable for the time of year, they should do breathing exercises methodically, general physical exercises and games in properly-ventilated places free from dust. The importance of impressing all these points upon the teachers is obvious. They should understand that the expectoration of children suffering from consumption, if allowed to dry on the floor, the walls, or the slates or handkerchiefs, is soon pulverized, and infects the air; as long as it is moist there is little danger. The discharges from tuberculous disease of bones and joints may also infect the air, but only after drying.

Simple instruction should be given the children, and habits of cleanliness should be impressed upon them. In London many of them will be familiar with the by-law of the London County Council which is placarded on omnibuses, and in many public places.

> No person shall spit on the floor, side, or wall of any public carriage or any public hall, public waiting room, or place of public entertainment, whether admission thereto be obtained by payment or not.

The teacher should take the opportunity of explaining the object and reasonableness, for no child is too young to learn the danger and the disgrace of spitting.

This article cannot be concluded without expression of the regret which must be felt by those who are acquainted with what is being done by the city of Paris, at the failure of the London County Council, so far, to accept the proposal so ably supported by such distinguished members of that body as Sir William Collins, Sir John MacDougall, and Mr. Crooks, M.P., to utilize the mansions in the parks recently acquired by the Council as prophylactic homes for London children. At present these houses are for the most part altogether useless; they could be converted at a relatively trifling expense into homes in which anaemic and debilitated slum children might be fortified against disease, and where children who have suffered from surgical tuberculosis in its more limited and curable forms might be restored to health.

NURSING IN THE ARMY.

Queen Alexandra's Imperial Military Nursing Service.

One important step towards army medical efficiency—an outcome of the experience obtained in the South African war—was the recognition of the desirability of extending the scope of the duties of the woman nurse in the hospitals of the Royal Army Medical Corps. It is not necessary to insist upon the paramount importance of the male nurse in time of war, and consequently on his efficient training in time of peace. It became apparent, however, that a more extended organization of nursing by trained women in the army must in every way increase the efficiency of the medical service, and elevate the general standard of nursing under the conditions both of peace and war.

The organization of a new nursing service was accordingly taken in hand by Her Majesty, and it has been designed upon lines materially different from those upon which the old service was constructed.

Her Majesty not only took an immense personal interest in the movement, but became President of the Nursing Board, reserving the right of nominating two members of the Board. In order to maintain a definite connexion with civil hospitals two civil matrons were also appointed, who ensure the maintenance of principles obtaining in the most up-to-date nursing institutions.

If "Queen Alexandra's Imperial Military Nursing Service" replaces the "Army Nursing Service," the change is not one of name only. The conditions of service, the numerical increase, the formation of grades as in civil institutions, and the greater responsibility imposed upon all its members combine to make the service practically a new one. It is needless to say that such a revolution in so important a Branch as army nursing demands attention, not only from the medical profession but from the public. The details of the present scheme were formulated by a Committee appointed and presided over by Mr. Brodrick, when Secretary of State for War.

The newly-published "Regulations for Admission to the Queen Alexandra's Imperial Military Nursing Service," copies of which can be obtained on application to the Matron-in-Chief, Queen Alexandra's Imperial Military Nursing Service, 68, Victoria Street, London, S.W., contains specific information as to the mode of admission, terms of appointment, conditions relating to pay, pension, allowances, etc.

There are three grades in the service—matrons, sisters, and staff nurses. A candidate for the position of staff nurse or sister must be between the ages of 25 and 35 years and possess a certificate of not less than three years' training and service in medical and surgical nursing in a civil hospital recognized by the Advisory Board. The pay of a staff nurse is £40 a year, rising by annual increments of £2 10s. to £45; of a sister, £50 a year, rising by annual increments of £5 to £65; of a matron, £75 a year, rising by annual increments of £10 to £150 a year. A principal matron receives on appoint-

ment £175, and the pay rises by annual increments of £10 to £205. At the head of the service is a matron-in-chief, whose pay is £300 a year, rising by annual increments of £10 to £350. All grades receive in addition certain allowances; charge pay is granted to a matron or sister in charge of a hospital containing more than 100 beds; all members of the nursing service are entitled to pension on attaining the age of 50. The regulations should, of course, be carefully studied by every intending candidate, but there are other considerations, which cannot be set out in an official document, which are of importance to a nurse about to make a choice of her career.

Queen Alexandra's nurses are employed in all military hospitals at home and abroad of 100 beds and upwards. Service abroad is limited in duration to from three to five years according to climate, and is taken in rotation in the several grades of matrons, sisters, and staff nurses. The foreign stations in which military nurses work are Egypt, Gibraltar, Malta, South Africa, Canada, Bermuda, Ceylon, Hong Kong, and Singapore.

Under the new organization matrons are responsible not only for the nursing efficiency of their staffs, but also for their training in nursing technique. This provision has enabled the training of male nurses to be undertaken under a methodical system extending over a three years' course as in civil nursing schools. Opportunity has also been taken to delegate to sisters and staff nurses administrative ward duties similar to those which obtain in civil hospitals. The part played by the army nurse in a military hospital has therefore been extended, and the degree of responsibility for the well-being of the sick, and for the training of the orderlies, enlarged. The medical branch of the army has indeed profited by its experience, and we may reasonably expect that far-reaching results will follow the introduction of radical alterations in nursing policy. Changes such as these, combined with substantial advantages in pay and pension go far to add to the inducements which the career of military nursing already holds forth.

A lady on appointment is usually graded as "staff nurse," and proceeds in turn, if selected, to the grade of sister, and thereafter to matron. Although the service is, normally, only employed in the larger hospitals, we understand that when the proposed military nursing home has been established in London special sisters and nurses will be available for temporary work in the smaller institutions.

As in civil institutions, the members of the nursing staff of a military hospital live together in quarters provided by the State, and wear a distinctive uniform indicating their rank, with a badge approved by Her Majesty. There is a special annual grant for uniform, and a special weekly allowance for board, the arrangements of the mess being undertaken by the head of the nursing staff, and not, as provided in civil hospitals, as part of the hospital administration.

In addition to the charge of wards by day and by night under conditions similar to those of civil institutions, matrons and sisters have imposed upon them the important duty of giving lectures and practical demonstrations to those men of the Royal Army Medical Corps, who are specially selected for training in nursing.

The Queen Alexandra's Imperial Military Nursing Service undoubtedly offers a career of variety and interest and great usefulness to ladies who have completed their training in a civil hospital. There is no other career, indeed, which offers so much variety and so many opportunities to a well-trained, energetic, and competent woman; she undertakes a work of great public utility by throwing in her lot with the British army; she has many opportunities for travel, of gaining experience of the world, and of gaining a knowledge of those tropical diseases which are of so much medical interest and are growing every day in practical importance in proportion to the extension of civilization in British Colonies and dependencies. The interest of the work which the army nurse will be called upon to do is equalled only by the importance of the services which she can render to the soldier and to the State. She is called upon not only to be a nurse herself and to organize the nursing of her ward as it would be organized in a good civil hospital, but also by instructing the orderlies, and by her example inculcating the inestimable value of sympathy. If she takes her duties in the proper spirit she will be a unit in a great body which is working for greater army medical efficiency, and we feel certain that her presence and her influence will be welcomed by the medical officers of the army.

The expert knowledge placed at the disposal of the War Office by the Nursing Board has, we believe, enabled the authorities to devise a scheme in accord with modern ideas, and the constitution of the Board is a sufficient guarantee that a progressive spirit will be maintained.

THEORIES OF THE HEREDITARY PROCESS.

Chromosomes and Heredity.

In the fifth lecture on current theories of the hereditary process, delivered at University College, London, Professor Weldon dealt with the phenomena of nuclear division and the cleavage of the chromosomes, in so far as the appearances present had a bearing on the process of heredity. The nucleus was believed by Weismann to be the basis and bearer of the hereditary substance or germ plasma, the cell body being merely regarded as the nutritive substance accompanying the germ plasma and serving for its immediate needs. The nucleus has a lining network beset with chromatic granules, and a capsule or nuclear membrane. During the "resting" stage the chromatin forms a network, but during the active stage particles continually pass to and fro between nucleus and cell protoplasm. The centrosome, a clear protoplasmic corpuscle provided with a central dot (centriole), divides into two parts before nuclear division begins. Each part passes to opposite sides of the nucleus and develops a system of "rays" or protoplasmic threads. The nuclear membrane then disappears, the nuclear chromatin skein breaks up into a number of thick short pieces (chromosomes), and these at first equatorially arranged in the region between the centrosomes are drawn by the "rays" of the latter towards the poles of the dividing cell, one half the chromatin segments passing to each centrosome, where they are reconstituted into new nuclei. In various species of animals and cells the chromosomes occur in definite numbers in the somatic cells; thus the sea urchin has thirty-six chromosomes and the nematode worm, ascaris, two chromosomes in its cells.

Doctrine of Determinants.

In the process of cell division each chromosome in a parent-cell divided quantitatively and exactly into halves, but whether this division is also qualitative is not certain. Roux and Weismann have propounded a theory of variation based on the appearances observed in the process of division of the chromosomes, to the effect that the male and female chromosomes of dividing somatic or tissue cells are equally distributed to the daughter-cells so that properties of both parents are evenhandedly distributed in the various bodily organs. In the early stages of cleavage of the fertilized germ-cell into two, four, eight, sixteen, etc., blastomeres, a process of "sorting out of determinants" occurs, says Weismann, within the chromosomes at each cell division, so that gradual differentiation into primordial tissue cells (neuroblasts, myoblasts, epithelial cells) is affected. This view, says Professor Weldon, is not now held by the best observers, as the most careful and skilful histological study of somatic cell development has shown that the nuclear division is equal, and even both quantitatively and qualitatively, and that appearances indicating a "sorting" of determinants are not shown.

Mendelism.

In the sixth lecture Professor Weldon dealt with the theory of heredity published by Mendel in 1865, forgotten for a time, and since rediscovered in 1902. Mendel's work consisted of a laborious and long-continued investigation, chiefly carried out on certain varieties or "races" of peas. They formed an advance in biological inquiry, and threw much light especially on the subject of hybrids, and they were the first attempt to elucidate from the systematic study of inheritance in definite races, a formula of inheritance of characters. Mendel crossed peas having special differential characters as regards colour of cotyledons, smoothness or wrinkled character of contour and shape. Thus, when green-seeded plants were crossed with the yellow-seeded variety there uniformly resulted a yellow-seeded hybrid progeny. Here only the "yellow" property was dominant in the hybrid issue. The generation, resulting from the intercrossing of these yellow hybrids, gave a mixed progeny of yellow and green-seeded plants in the proportion of three yellow to one green. The yellow property was thus dominant, the green recessive in the third generation. These last green-seeded plants when bred *inter se* always reproduced their type true—the offspring were all green. The yellow-seeded plants of the third generation, however, when intercrossed produced varied or mixed offspring, namely, true yellow plants which reproduced only the yellow kind, and

other yellow plants which produced both kinds of seeds. To account for these facts Mendel postulated a theory of heredity in which the colour, form, and outline of the seeds were made to depend each on specific "determinants" supposed to be present in the ovules and pollen.

Theory of Segregation.

These mixed determinants in fertilization showed (it was postulated) some repulsion or segregation *inter se*, and in one generation certain determinants grew potent while others became latent. By showing that union of the various determinants occurred according to the law of probability, Mendel was able to account for some of the actual facts and numerical proportions obtained by interbreeding various races. Similar results occurred with long smooth peas crossed with deeply-wrinkled peas. Roundness was dominant in the hybrids of the first generation, and the issue of these hybrids in the third generation were a mixed progeny in which there were three long smooth to one wrinkled pea. These conditions of colour and shape are independent in transmission, and therefore complex segregations may occur in the hybrid issue. Mendel postulated a theory of "gametic purity" to account for the facts.

Theory of Gametic Purity.

In the seventh lecture Professor Weldon referred to the Mendelian theory of gametic purity, which could not be reconciled with the facts of heredity in human races and families as formulated by Galton and Pearson. "The more we know of the ancestry of men, dogs, plants," said Professor Weldon, "the more accurate would be our prediction of what the progeny would be." Dominance of each individual blastomere, producing a perfect larva, occurred when the two cells of a pair of equipotential blastomeres were separated. The power of reproduction became similarly and locally dominant in lower animals when a limb or organ was lost. Dominance and its reversal did not always follow Mendel's formula—an extensive series of experiments carried out by Czermak of Vienna, and confirmed by Professor Weldon, on Austrian and English peas of various kinds showing facts of segregation of characters contrary to and irreconcilable with Mendel's law. Ancestral characters long latent in a race may become dominant (reversion or atavism) by the "shock" of crossing with another race.

Galton's Theory of Heredity.

In the eighth lecture Professor Weldon referred to another long series of experiments by Czermak, parts of which were repeated and confirmed by himself, which dealt with *Pisum sativum*, a white-flowered, and *P. arvense*, a red or purple-flowered pea, carried over six or seven generations, with results as regards dominance, frequency, and segregation of characters, explicable only on Galton's theory of ancestral heredity, which he (Professor Weldon) therefore accepted as the present nearest approximation to the facts of heredity.

THE MIDWIVES ACT.

The Training of Midwives.

Boards of Guardians.

The Local Government Board has issued a circular to all Boards of Guardians calling attention to Section C. of the rules of the Central Midwives Board which regulate the course of training of midwives. The circular also points out that no application for admission to the Roll of Midwives under Section II of the Midwives Act can be received by the Central Midwives Board after March 31st next. The Board requests the guardians to acquaint any officer in the guardians' service whom it may concern with the effect of the Section referred to, pointing out that no person will be admitted to the Roll of Midwives after the above-mentioned date unless she possesses the qualifications laid down in the rules of the Central Midwives Board.

London.

It is proposed by the Education Committee of the London County Council to open classes in hygiene for the instruction of women engaged as midwives provided that not less than twenty applications are received from persons willing to attend. It is stated that under Section II of the Midwives Act, 1902, any woman who has been for at least one year in bona-fide practice as a midwife prior to July 31st, 1902, may claim certification under the Act. Thus a large number of unqualified women, who hold no certificate of proficiency from any examining body, are now claiming admission to the Midwives' Roll. The admission of these untrained women to the Roll ceases on March 31st, 1905. A rough census of the midwives now practising in London who may avail themselves of Section II of the Act places the number at 500.

East Sussex Council.

A report placed before the Committee of the East Sussex County Council by the County Medical Officer of Health stated that up to the end of November 72 midwives resident in East Sussex had been certified and enrolled. It was probable that the number of certified midwives resident in the county by March 31st would not exceed 100. For the needs of the poorer classes that number was insufficient. The Committee resolved that a woman be immediately employed to visit and explain to persons practising or proposing to practise as midwives, and who had not yet been certified under the Act, the necessity, if they proposed to practise as midwives after March 31st, of being certified before that date. It was also resolved that it was expedient to delegate the powers and duties of the County Council under the Midwives Act, 1902, to district councils. The Committee recommended that a woman inspector be appointed to assist in the administration of the Act throughout the administrative county, at a salary not exceeding £100 per annum, payable quarterly, with travelling expenses not exceeding £30 per annum.

Councillor Thornton reminded the Council that at the last meeting the Committee recommended that the powers under the Act should be delegated permanently to the Committee. A statement was made by a member that he believed the district authorities were willing to do the work for nothing, provided the powers were delegated to them. In consequence, inquiries were made of the district authorities, with the result that of the 26 authorities 15 were unwilling to undertake the duties, six would do so provided the county bore the expense, three would do so for nothing on condition that they did not pay anything to the county rate, and only one was willing to administer the Act for nothing. He contended that it was time the Act was adopted, and pointed out that East Sussex was the only county which had not come to a decision. He also showed that the vast majority of counties in England and Wales had decided to retain the powers in their own hands, and then reminded the Council that at the last meeting it was suggested that if the powers were retained it would be necessary for the county medical officer to interfere in the work of the district medical officers; but he suggested that there was no need for that.

The Obstetrical Society's Examination for Midwives.

The last examination of midwives held by the Board established by the Obstetrical Society of London for the purpose was held last week, concluding with the oral examinations on February 23rd and 24th. There were 674 candidates, the largest number ever present in the records of the Board; 559 passed, and will receive the Society's certificate. Since the institution of the Board in 1872 the grand total of candidates amounts to 12,805, out of which 10,581 have received certificates.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Annual Meeting.

The annual general meeting of the Royal Medical and Chirurgical Society was held in the Society's Hall on March 1st, Sir Douglas Powell, Bart., President, being in the chair.

Annual Report.

According to the report of Council, which was read by the Senior Secretary (Dr. Newton Pitt), the last financial year of the Society's first century found its affairs in a more flourishing condition than ever before. In respect of attendance at the meetings alone were the conditions unsatisfactory, and in order to improve this it had been decided to issue abstracts of papers in advance to any Fellows who asked to have them; that authors should be invited to supply list of persons interested in their papers, who should receive abstracts and official invitations to be present; and that at least one special discussion should be held each session. In connexion with the centenary celebrations, a special meeting was to be held on the centenary day, May 22nd, when the President would deliver a special address and welcome in the name of the Society the new honorary Fellows. The Marshall Hall Prizeman, Dr. Head, would give an address on the afferent nerves under a new aspect, on May 23rd, at 5 p.m.; at a banquet to be held on May 22nd at the Hotel Cecil, the

Society would entertain His Royal Highness the Prince of Wales and a number of distinguished guests; a *conversazione* would be held on the evening of May 24th; and during the week an exhibition illustrating medical matters of 100 years ago would be held.

According to the report of the Hon. Treasurers the income during the past year had exceeded the expenditure by £604. According to the report of the Hon. Librarians a card catalogue of the books in the library had been completed.

Annual Address.

The PRESIDENT delivered the annual address, in which he made biographical reference to those Fellows of the Society who had died during the past year; among others to Sir Edward Sieveking, a former President; Sir Henry Thompson, Sir John Simon, Dr. Gilbart Smith, Sir William Banks, Dr. G. V. Poore, and Mr. Luther Holden. After referring to the scientific status and work of the Society, he brought forward suggestions for adapting its machinery to present-day needs, and foreshadowed, in view of present overlapping and waste in the isolated working of the various medical societies in London, their possible and desirable amalgamation. The influence of the comparatively large subscription required by the Society in excluding particularly the younger members of the profession from participating in the benefits of the library was alluded to, as also the loss in the matter of attendance from similar subjects being discussed in several different societies. Co-ordination of the activities of the societies was therefore advocated; there might be three or four conjoint meetings each year for the discussion of questions considered ripe for it. It was suggested that the Transactions of the different sections might appear in monthly fasciculi rather than in annual volumes, and that a medical and chirurgical review might appear once or twice a year. The present time seemed highly suitable for bringing forward, not for the first time, the question of the possible federation of existing societies.

Dr. POLLOCK and Sir WILLIAM BROADBENT, in proposing and seconding a vote of thanks to the President for his address, supported his suggestions; and Sir THOMAS SMITH, Dr. THEODORE WILLIAMS, and Mr. TIMOTHY HOLMES spoke in the same sense.

Sir THOMAS SMITH proposed:

> That the Council of the Society be requested, with as little delay as possible, to invite the leading medical societies of London to arrange for a joint meeting, for the purpose of considering the advisability of amalgamating, and to take the necessary preliminary steps for that purpose.

The motion was seconded by Mr. GOODSALL, supported by Dr. ALLCHIN, and unanimously carried.

New Officers and Council.

The following were newly elected to office in the Society: Sir William Broadbent and Dr. T. Buzzard as Vice-Presidents, and Dr. H. H. Tooth, C.M.G., Dr. Dawson Williams, Mr. Clinton Dent, Mr. Marmaduke Sheild, and Mr. Thomas Wakley, jun., as Members of Council. The thanks of the Society were voted to the retiring officers.

PREVENTION OF CONSUMPTION.

THE WESTMORLAND CONSUMPTION SANATORIUM.

AT the annual meeting of the subscribers to the Westmorland Consumption Sanatorium, held at Kendal, the Earl of Derby presiding, the fifth annual report was presented. The Chairman, whilst congratulating all concerned on the very satisfactory results shown in the five years' work of the Sanatorium, pointed out the need for a separate institution for the reception of advanced cases of consumption. This was also endorsed by Dr. Parker, who moved the adoption of the report, and by Dr. Paget-Tomlinson, the treasurer. The annual report showed that an average number of twenty-three patients had been in residence throughout the year, and with a larger number of paying patients and a diminution in the weekly cost of maintenance from 36s. to 30s., the credit balance of the Institution had been increased from £40 to £400.

The record of the five years' work, as shown by the after-history of such patients as can be traced, compares favourably with that of similar institutions. Out of 224 such cases, 19 had complications which rendered them beyond profitable consideration; 21 died soon after coming under observation; 67 were advanced and almost hopeless cases, and of 46 of these admitted up to two years ago, only 9 still survive. Coming to the more hopeful cases, 62 were in "that mature stage of consumption in which the efficacy of sanatorium treatment is best tested;" they remained in the sanatorium on the average five months, 10 have died, 9 others are not satisfactory, and over 30 are fairly or quite well. Of 55 cases in the "nascent stage of consumption," all but 1 are practically well. The report contains a tabulated record of 230 patients with the history after their discharge from the Sanatorium.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 92.

AUCKLAND, NEW ZEALAND.

THE General Secretary has received from the President of the New Zealand Branch a telegram to the effect that the clubs in Auckland, New Zealand, are seeking for a surgeon in England. Any medical man who may be approached on the subject is recommended to communicate with Dr. E. Robertson, Auckland, New Zealand, either directly or through the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

THE GRIFFITHS TESTIMONIAL FUND.

DR. A. P. FIDDIAN (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.		£	s.	d.
Amount previously acknowledged	40	6	6	Dr. Valantine Rees	0	10	0
Dr. G. Baynton Forge ...	1	1	0	Dr. Griff Griffiths	0	10	0
Dr. D. Cargill Martin ...	1	1	0	Dr. T. J. Webster	0	10	6
Dr. H. Bevan	1	1	0	Dr. E. Rice Morgan	0	10	6
Dr. Frank G. Thomas ...	1	1	0	Dr. W. F. Brook	0	10	6
Dr. B. Dayman...	1	1	0	Dr. G. Arthur Brown ...	0	10	6
Dr. Pierce Nagle Creagh ...	0	10	6	Dr. H. T. Evans	0	10	6
Dr. W. W. Leigh	0	10	6	Dr. J. F. Neville	0	10	6
Dr. J. D. Jenkins	0	10	6	Dr. J. D. O'sullivan	0	5	0
Dr. J. S. H. Roberts	0	10	6	Dr. W. D. Steel	0	5	0
Dr. W. Wilson	0	10	6	Dr. Thomas Evans	0	5	0
				Dr. William Morgan... ...	0	5	0

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

LITERARY NOTES.

THE title of a thesis for the degree of doctor of medicine recently presented to the University of Bordeaux by M. Rachou is *Le football rugby et ses accidents*. Who shall say that English is not the language of the future?

It is announced that a new medical journal in Esperanto will shortly appear in St. Petersburg. It is entitled *Kuracisto, antenacia medicina Revuo*.

A new monthly journal entitled *Zeitschrift für Eisenbahnhygiene*, has recently appeared in Vienna. The editor is Herr Hans Becker. As its name imports the journal is devoted to railway hygiene.

The Samuel D. Gross Prize, of the Philadelphia Academy of Surgery for 1905, amounting to £240, has been awarded to Dr. James Homer Wright, Boston, for an essay on the biology of the micro-organism of actinomycosis.

The medical profession, as represented by the Colegio Medico of the Province of Madrid, is to take part in the national celebration of the tercentenary of the publication of *Don Quixote*, which will take place in May next. On a day in that month, to be decided upon later, the Colegio will hold a solemn sitting in the amphitheatre of the university, under the presidency of the Prime Minister. The programme includes an address by Professor Calleja, President of the Colegio, and discourses by Señor Salillas on the ingenious *hidalgo*; by Dr. Cajal, on the psychology of Quixote and quixotism; by Dr. Oloriz, on his physical anthropometry; by Dr. Gomez Ocaña, on the hygienic habits of the Spaniard in the seventeenth century; by Señor Lazaro, on Spanish botany in the seventeenth century; by Dr. Pulido, on the expulsion of the Moors; and by the Premier, on the aptitude of Sancho for the post of governor of the island of Barataria.

Messrs. Baillière, Tindall and Cox have the following among other new books in the press: *Medical Diagnosis*, by Dr. A. J. Whiting, and *Surgical Diagnosis*, by H. W. Carson,

F.R.C.S. (Aids Series); a *Manual of Anatomy*, by Professor A. M. Buchanan, and a *Manual of Midwifery*, by Dr. H. Jellett (University Series); *Lectures on Clinical Surgery*, by Dr. H. C. Hinder; *Diseases of the Foot of the Horse*, by H. Caulton Reeks, F.R.C.V.S.; *Coroners' Duties*, by Dr. R. H. Wellington; *Conjunctivitis*, by Mr. N. Bishop Harman; and *Lectures on Appendicitis, Hernia, and Perforating Ulcers*, by Mr. G. R. Turner.

In the February number of the *Fortnightly Review* Dr. Louis Elkind deals with the German troubles in South-West Africa. The rising of the Hereros is attributed partly to the mismanagement of the German Government, partly to the missionaries, who teach the blacks the doctrine of human equality and thus inflame their vanity to danger point.

The following prizes are offered by the Belgian Academy of Medicine: (1) £40 for the determination by original researches of the significance of neuronophagia in the different parts of the nervous system; the essays must be sent in by December 15th, 1905; (2) £40 for the best essay on malingering from the medico-legal point of view with reference to traumatisms and neuroses and the means of detection, to be sent in by July 1st, 1906; (3) £40 for an investigation of the normal poisons (toxins) of the human intestine from the pathogenic point of view, and the means of defence in the organism against these poisons, to be sent in by September 15th, 1906; (4) the Alvarenga de Piauhy Prize (£32) for the best paper or unpublished book on any branch of medicine selected by the candidate, to be sent in by January 15th, 1906; (5) £400 for the best elucidation by clinical facts, and if necessary by experiments, of the pathogeny and treatment of diseases of the nerve centres, principally epilepsy, to be sent in by December 15th, 1905. Papers, which may be in French, Latin, or Flemish, must be legibly written, and addressed post free to the Secretary of the Académie Royale de Médecine, Palais des Académies, Bruxelles. They must be certified as previously unpublished, and should be authenticated by a motto corresponding to one in a sealed envelope containing the author's name. All essays are the property of the Academy.

Dr. E. J. Kempf, who has made a careful study of the North American Aborigines, says (in the New York *Medical Record*) that undoubtedly the Indian in his primeval state was a fine specimen of physical manhood. Before the Indians were contaminated by the white race they were never afflicted with small-pox, measles, tuberculosis, gout, scurvy, insanity, nervous ailments, or any other of the diseases which have in late years made such terrible havoc among the red men. The only bodily affliction of which he found records among the aborigines were fevers and diseases produced by cold, such as pleurisy, pneumonia, rheumatism, dysentery, and wounds from accidents or received in battle. Their remedies were few and simple. When sick an Indian refused all kinds of stimulating food, but drank cold water freely. In suitable cases recourse was had to sweating, purging, vomiting, and bleeding; finally, when all remedies seemed to be ineffectual, the medicine man was called in to try the effect of his amulets and incantations. These therapeutic methods are still resorted to by the "blanket Indians" who are removed from the influences of civilization. Dr. Kempf recommends his countrymen, before smiling at such practices, to consider our own history. Only a few generations ago, he says, their ideas of medicine were almost as crude as those of the Indians. The more intelligent of the white people did not resort to magic or incantations, but they used unspeakable concoctions for the cure of disease. Oliver Wendell Holmes, in his *Medical History of Massachusetts*, recorded some of the practices prevailing among the early colonists. Governor Winthorp was a devout believer in the efficacy of sow-bugs, while Rev. Cotton Mather used upon his sick friends such absurd and foul pellets and medicaments as were undreamt-of by the Indians.

In an article on French doctors before Molière, which appears in the *Practitioner* for February, it is stated that the practice of wholesale bleeding was introduced in the fifteenth century by Leonardo Botalli, who was physician to Charles IX and Henry III. If a man was ill he was bled to let out the evil humours; if he was well, to prevent their formation. It was an accepted dogma of the medicine of the day that the human body contained 24 lb. of blood, of which 20 lb. could be withdrawn without causing death. Botalli being asked whether the removal of so much blood did not weaken people, replied that the more stagnant water was withdrawn from a well the more fresh pure water came up; the more a nurse suckled a child the more milk she had. Even so, he held, was it in regard to the blood. Strong young men were bled every month, old people from four to six times a year. Ambroise Paré bled a man of 28 twenty-seven times in four days, and records the fact "to encourage the young surgeon not to be timid in drawing blood in cases of acute inflammation." Louis XIII was bled forty-seven times in one year by his physician Bouvard, and in the reign of Louis XIV that "sanguinary pedant" Gui Patin, boasts in his correspondence of his exploits with the lancet. He calls bleeding "one of the principal mysteries of our art." He showed the strength of his faith in the mystery by ordering his wife to be bled twelve times in the course of a pneumonia and his son twenty times during a continued fever. He bled an infant three days old and a child of 7 years thirteen times in a fortnight. Patin had himself bled seven times for a common cold, and he relates like things of other physicians. He records with indignation that a physician—Guy de Labrosse—died without having been bled. Venesection had been suggested, but the dying man preferred to die unbled. For this Patin treats him as a blasphemer—and worse. "The Devil," he says, "will bleed him in the other world as he deserves to be—the scoundrel, the atheist!"

SPECIAL CORRESPONDENCE.

VIENNA.

Transmission of Syphilis to Non-anthropoid Monkeys.—The Street Ambulance Service.—The Medical Profession and the Government.—The Breath of Consumptives.—A Total Abstinence Students' Club.

AT a recent meeting of the Pathological Society of Vienna Dr. Kraus read a report of experiments made by him on the transmission of syphilis to non-anthropoid monkeys. Roux and Metchnikoff were (1903) the first to produce a syphilitic sore in the chimpanzee, and succeeded also in examining it anatomically; the secondary and tertiary manifestations, however, were not distinct, although other experimenters were more successful in this respect. Dr. Kraus claims to have shown that apes of the Macacus class are also liable to syphilis. He rubbed a probe, which had been previously dipped in the discharge from a syphilitic sore on the penis of a soldier, on an open wound above the monkey's right eyebrow. The animal developed a typical syphilitic hard swelling after forty-three days, but the ulceration was quite insignificant. The fact that syphilis had obtained a firm hold on the system was proved by the fact that later inoculations of the virus had no effect; the animal was immune, just like man, against "reinfection." Pus taken from the monkey's chancre proved very little infective for other monkeys of the same family, whilst it made them also immune. Dr. Kraus intends to make further experiments on immunization by the use of "monkey" serum.

The report of the Vienna Voluntary Street Ambulance Corps for the year 1904 shows that the last year has been the most busy one. Since its foundation in 1881, 18,976 casualties, including 458 suicides, were attended to. A remarkable feature is the number of accidents caused by the electric street cars (172), of which 40 per cent. proved fatal. Alcohol was responsible for 562 accidents. The risk of workmen in factories, at engines, and at house-building is shown by 7,487 cases of accident. The income of the ambulance corps in 1904 was £24,000, the expenditure £6,000. An electric motor-car, with arrangements for the conveyances of patients without much moving about, and containing a chest of remedies for emergency use, was added to the stock of the brigade by the munificence of a motor-car factory. A new central station for the western districts is in course of erection. Sixty lectures on first aid were delivered to about 340 pupils, 58 of whom were ladies, the remainder police officers, factory hands, and the like. It may be mentioned that the institution is a strictly private one, having no connexion with the local authorities and charging nothing for its work, but relying on voluntary contributions.

The General Medical Council (*Aztekammer*) has fined ten practitioners £20 each for offering their services to a local Friendly Society, although the Council had announced that it was regarded as an offence against medical ethics to apply for the post. The penalized doctors went to law, and the decision of the Council is likely to be quashed. This will probably lead to the resignation of the Council, just as happened two years ago, and the result may be a serious conflict with the State.

To the old question, Whether the air breathed out by consumptives is infectious or not? a partial answer has lately been furnished by Dr. Holzer. He made a number of patients taken from an open-air sanatorium breathe quietly on to glass dishes covered with sterilized gelatine, and kept at a distance of 2 to 3 in. from the mouth. After some time this gelatine was injected into the abdomen, the peritoneum, and the eyes of thirty guinea-pigs. Only one animal died of general phthisis; it had received the gelatine charged with the breath of a patients uffering from laryngeal tuberculosis. None of the other animals was affected in every way. The experiment, therefore, seems to prove that air breathed quietly is not a potent agent in transmitting phthisis. The same does not hold good of expectorated mucous membrane scattered about by coughing. Experiments carried out in the same way proved that the gelatine taken from dishes at a distance of even 5 ft. was contaminated. Guinea-pigs inoculated with this gelatine developed general tuberculosis. In conclusion, Dr. Holzer says that except possibly in the case of laryngeal tuberculosis the breath need not be deemed dangerous; coughing, however, without applying a handkerchief to the mouth should be stopped as absolutely as promiscuous spitting.

The antialcoholic movement is spreading, even in classes of the population where this would scarcely be looked for. As is well known, students of all faculties form clubs, which have for their object not only social intercourse, but also—perhaps chiefly—drinking. Some time ago a club of abstaining students was founded, and was naturally ridiculed by a section of the press. Nevertheless, the club is prospering, and admitted its hundredth member a few days ago. It is worth mentioning that the members must pledge their word to abstain wholly from alcohol in every form. The university authorities also endeavour to promote the objects of the club by placing several rooms at the disposal of the members for the purposes of a reading and lending library, and for debates and lectures on the effects of alcohol on the human body.

MANCHESTER.

Provision for the Blind by the State.—The Corporation and the Infirmary Site.—Northern Hospital Annual Meeting.—Division of the Assets of the Old Victoria University.—Children's Hospital, Pendlebury.—Victoria Dental Hospital.—News.

MR. BEN PURSE, who himself is a blind man and an official of the National League of the Blind, has recently made a strong appeal in support of making the provision for the blind a national duty. Under the new Education Act blind children are fairly well cared for, yet for those over 16 no provision is offered except that furnished by Boards of Guardians. For the blind, he maintained, sound technical education was even more important than elementary education; and it would be wise, therefore, to extend the education age up to the age of 21. The real difficulties of the blind began when they left educational and other institutions and had to earn their own living. Of 5,556 blind in London only 250 were employed in workshops and about 150 in professions. Out of the 3,363 blind in Lancashire only 900 were employed. In Manchester alone there were, he said, 473 blind persons; no more than 70 of these were permanently employed, and their wages were miserably small. Although, he said, there were over forty pension societies in this country, their usefulness was hindered by overlapping and by expenditure of funds in the maintenance of unnecessary machinery. Of 62 blind in Manchester earning their living in the streets, the average weekly earning was less than 9s.

The correspondence which has passed between the Corporation and the Board of Management of the Infirmary relative to obtaining "vacant possession" by the city of the present infirmary site has now been published. It appears that the Corporation is advised that the Act contemplates that the transfer of the existing infirmary from Piccadilly to Stanley Grove should take place before complete effect is given to the scheme. The infirmary authorities, however, do not seem prepared to accept the view which the Corporation take of the Act of 1903, and contend that "the Act gives the infirmary liberty to retain the possession and use of the existing site and buildings until the proposed new infirmary is ready for the accommodation of 300 patients." The architects of the new infirmary report that, with the exception of the laundry, east surgical block, and some subways, all the working drawings for the foundation contracts are in the hands of the quantity surveyor, and that it is hoped to have the last drawings finished in two or three weeks. The first bills of quantities will be sent to the competing contractors in a few days, and they expect that the whole of the bills of quantities will be in the contractors' hands by the end of March, and that tenders will be in by the middle of April.

At the annual meeting of subscribers to the Northern Hospital it was stated that at the beginning of 1904 the debit balance was £2,206, and by the end of the year it had increased to £2,957. Unless assistance be forthcoming, the committee state that they will be compelled, as they were in 1902, to realize some of their invested funds. The average deficiency for the last four years has been £1,000 per annum.

A satisfactory arrangement has now been concluded between the Universities of Manchester, Liverpool, and Leeds as to the division of the assets of the Victoria University under its old constitution.

At the annual meeting of the Governors of the Children's Hospital, Pendlebury, held on February 24th, it was stated that the number of out-patients at the Gartside Dispensary in 1904 was 22,608, an increase of 4,168 cases. In the hospital itself 1,663 children had been received, or 293 more than in 1903. The cost of the out-patients was 1s. 5¾d., compared with 1s. 4⅞d. per head in the previous year. The total cost of the in-patients discharged was £5 12s. 11½d. per head, compared with £6 13s. 10⅜d. in the previous year. Mention was also made of the great need for improved and adequate accommodation at the out patient department in Gartside Street, thirty-six years having elapsed since it was built. Sir Lauder Brunton was present at the meeting, and spoke at length on the proposed National League for Physical Education and Improvement.

From the annual report of the Victoria Dental Hospital we gather that since its opening in 1884 the number of patients treated is 247,633, and the operations performed 333,063. There is an increased indebtedness to the Bank, the adverse balance now being £539 as against £518 last year. The number of cases treated during the past year was 26,690, being 2,911 more than the previous year. The committee record with regret the death of Mr. Henry Campion, who was actively associated with the establishment of the hospital. Under his will the building fund, which now amounts to £6,573, is increased by £100. Mrs. Christie contributed £100, and the executors of Mrs. Eleanor Shepherd a bequest of £45. There are now thirty-two dental students attending the hospital, and during the year ten completed the examination for the L.D.S. diploma.

Mr. Alexander Wilson, Senior Anaesthetist of the Royal Infirmary, has been appointed a member of the Medical Board, and Dr. W. B. Anderton, Pathological Registrar.

It was stated in error last week that the number of cases of measles in the Winsford district was 700; the real number on February 22nd was 153.

LIVERPOOL.

The New Director of the Cancer Research.—Women Medical Students at the Royal Infirmary.—The Skeleton of Ambush II.

PROFESSOR JOHN EDWARD SHORROCK MOORE, A.R.C.S., F.L.S., has been appointed Director of the Cancer Research. Professor Moore is at present acting as Professor of Natural History in the London Royal College of Science and is well known as an investigator in cancer, having been associated in the work with Messrs. Farmer and Walker. Besides his investigations as a cytologist he has distinguished himself by his travels in Central Africa where he has made two expeditions, and has explored the Mountains of the Moon. In accordance with the terms of the donation for the research, which are to the effect that the work should be carried out in connexion with the Royal Infirmary, Professor Moore has been appointed a member of the hospital staff by the Committee of the Infirmary.

The Committee of the Royal Infirmary have agreed to the principle of admitting female medical students on the same conditions as apply to male students. This decision, which is made subject to an annual revision, has been arrived at on the recommendation of the Medical Board, and is the logical outcome of the conditions of the charter of the University of Liverpool, under which all degrees and offices are open to women.

In connexion with the newly-created School of Veterinary Medicine at the University it is interesting to note that His Majesty the King has graciously acceded to a suggestion that the skeleton of Ambush II, the famous steeplechaser from the

Royal stables, the winner of the Liverpool cup, should find a place in the Museum of Veterinary Anatomy. His Majesty was approached on the subject by Mr. J. T. Share-Jones, veterinary anatomist at the University, who pointed out in his communication that steps were now being taken to establish an anatomical museum at the University, and that it was the ambition of those at the head of the department to secure objects of historical as well as of anatomical interest.

SOUTH WALES.

Sewerage Schemes.—Death of Dr. T. R. Hamlen-Williams.—Cancer at Swansea.—Aberystwith College.—Underfed School Children.—Temperance Teaching in Schools.—Midwives Act, 1902.

The Brynmawr District Council held a special meeting on February 20th, when an engineer described the septic tank-system of sewage disposal. He had inspected the proposed site at Brynmawr, and thought it admirable. The total cost of the works would be under £1 per head of the population (£7,000). The meeting was adjourned. Councillor F. Davies presided over a meeting of the Dinas Powis Parish Council on February 20th. The Llandaff and Dinas Powis District Council wrote, stating that they intended to effect improvements, and that everything possible was being done to hasten the completion of the sewage works.

Dr. T. R. Hamlen-Williams, J.P., died suddenly on February 18th, at Shrublands, Kingsland, near Leominster, his Herefordshire residence. He was 45 years of age, and he had been Justice of the Peace for Glamorganshire during the last 20 years. The deceased gentleman was educated at the Proprietary School, Cardiff, and afterwards at Middlesex Hospital. He obtained the diplomas of M.R.C.S. and L.R.C.P. in 1892. He was a wealthy man, and relinquished practice some years ago.

Returns of the Swansea Medical Officer of Health show that between 1866 and 1875 there were 150 deaths from cancer, or 2.88 per 10,000 of the population; between 1876 and 1885, 285 deaths, or at the rate of 4 30 per 10,000; between 1886 and 1895, 497 deaths, or at the rate of 6.50 per 10,000: between 1896 and 1904, 636 deaths, or at the rate of 7.3 per 10,000. Dr. Davies regards this progressive increase as very startling, unless it be due to the more exact diagnosis of recent years, which has resulted probably in the classifying of deaths, which now come under the head of "malignant disease," whatever the organ or structure affected.

The Council of the University College of Wales, Aberystwith, met on February 24th in London, under the presidency of Sir Lewis Morris, when a large number of members were present. Reports received from the Senate, the Building, Finance, and Agricultural Committees were discussed and adopted. The appointment of and the terms of reference submitted to the Committee of the Privy Council selected to report on the claims for the Welsh National Library and Welsh National Museum were considered, and a committee was appointed to draw up a case for the National Library on behalf of Aberystwith. A special committee was also named to consider suggestions with a view to a closer connexion between university graduates and business careers, and to bring about, if possible, a common understanding on this matter between the constituent colleges of the University of Wales.

At a meeting of the General Purposes Committee of the Cardiff Council on February 23rd, the Mayor (Alderman R. Hughes), the ex-Mayor (Alderman John Jenkins), and Councillor Sidney Robinson were appointed to represent the Council on a representative committee formed to consider the problem of underfed school children in Cardiff. It is understood that three more representatives will be appointed by the Cardiff Education Committee.

At a meeting of the Cardiff Education Committee held last week a communication was read from the secretary of the local branch of the Church of England Temperance Society, suggesting certain temperance readers and textbooks as suitable for use in elementary schools. The Committee, however, considered that they were already doing enough as regards the teaching of temperance. The Director of Education said that in some schools in the town temperance teaching was not given, there being no uniformity in the matter. Eventually it was decided to refer the question back for the Committee to decide on some satisfactory method of temperance teaching for the schools. If the Cardiff Education Committee are anxious to assist their medical officer of health in combating the ravages of tuberculosis, there is no surer way of doing so than by the introduction into their schools of the teaching of the principles of hygiene and temperance.

At last the Monmouthshire County Council are making arrangements for the certification of midwives. The County Council, which, strange to say, has no medical officer of health of its own, is advertising for a female executive officer whose duties will be to exercise general supervision over all midwives practising in the county, and also to investigate charges of malpractice, or negligence, etc., on the part of any practising midwife. Evidently the post will be no sinecure. As to the training of midwives, the County Council, in conjunction with the Newport Borough Council, have followed the example of Glamorgan in establishing a training centre at the Newport County Hospital. Lecturers have been appointed. The Newport Borough Council has appointed its medical officer of health as executive officer under the Act. At the Shire Hall, Brecon, on February 23rd, a conference of representatives of the General Purposes Committee of the Breconshire County Council and the various urban and rural district councils within the county was held to consider the question of bringing the Midwives Act of 1902 into operation. The conference was convened in accordance with the resolution of the County Council, which had delegated its powers under the Act to the urban and rural district councils, with authority to spend a sum not exceeding £100 if desirable to bring the Act into operation. The conference unanimously decided, however, that the Act could be best administered by the General Purposes Committee of the County Council, with power to add to their number. Recommendations to this Committee were also considered, including (1) co-operation with the Rural Midwives Association; (2) co-operation with Radnorshire; (3) appointment of Inspectress of Midwives; (4) offering facilities for the training of midwives for the county.

CORRESPONDENCE.

LONDON UNIVERSITY AND MEDICAL EDUCATION.

Sir,—Dr. Fowler's letter in the *Times* of February 22nd would lead his readers to think that the question of centralization of the medical schools is unanimously approved by all London medical teachers. This is far from the case. The larger number of the teachers of the preliminary medical sciences were not placed upon the Faculty of Medicine by the University Commissioners, and had no voice in the matter when the resolution in favour of centralization was passed. They were afterwards invited to consider the method of their own abolition. Many thoughtful men among the teachers have grave doubts upon this scheme of centralization, and consider that an alternative and far simpler plan has much to recommend it—to wit, that some of the smaller and more contiguous schools should fuse with others, as they will under the struggle for existence—while the University of London should endeavour to raise funds to support the larger and most efficient schools by grants in aid.

At the same time the University should carry out its real high function of promoting research and higher education by seeking to endow research laboratories such as the physiological laboratory already established in the University by the energy of Dr. Waller and the other London physiologists. Such laboratories would complete the work of the constituent colleges, train and co-ordinate the teachers.

The members of the Centralization Committee suggest that the falling-off in number of the medical students in London is due to the inefficiency of teaching, and of lack of equipment on the scientific side of the medical schools. Charges of inefficiency might with greater justice be brought against eminent consultants, who having to divide their energies between enormous private practices, hospital practice, and teaching, not infrequently fail to keep in touch with the rapid advances of medical research.

The greater decrease in the number of medical students in London has, however, nothing to do with the teaching. It has resulted from the establishment of local universities, whereby students who formerly had to seek London can now live at home, and carry out their education at Liverpool, Manchester, Cardiff, or Birmingham, and their parents are saved the expenses and risks of their lodging in London. No centralization scheme will attract back these students. Great laboratories, high salaries, expensive equipments, and professors with well-advertised names neither lead to more

research nor to more efficient teaching. A plain room, rubber tubing, glass and wire, and the man may make a Faraday.

Medical students require the individual attention and personal influence of their teachers, as exerted in small classes, and the *esprit de corps* of a hospital; they would not benefit by being herded into vast central lecture halls.

The medical research work published year by year from the laboratories of the London hospitals exceeds in value and amount that put forth by any of the universities of this country, and yet those in favour of centralization constantly speak of the teachers and laboratories as inefficient. That the teachers are ill paid is true enough, but that has not prevented many men of marked ability and of scholarly tastes from enthusiastically following their science with great advantage both to their students and to the progress of medicine.

To many of us it seems useless to dissociate the preliminary sciences from the hospitals, because we recognize that practical medicine is, with astonishing rapidity, becoming every day more and more a matter of laboratory inquiry and less of clinical experience.

The biologist, physical chemist, chemist, and physiologist are constantly required to aid the inquiries of the pathologist in the elucidation of disease, and it would be a great loss to hospital patients and patients at large—a loss rapidly becoming ever greater—to remove these scientific *confrères* from daily contact with the clinicians and pathologists. Not only these teachers but the students require continually to imbibe the principles of chemical and physiological science, and for the student this is especially needful when in his last years of study he applies his science to disease.

I understand that in Sweden the opinion is now freely expressed that the bedside study of disease should come first, and the scientific training later in the curriculum: that the empirical study of disease should excite the student to unravel by science both the cause and cure. There is much to be said for this view.

The vastness of the London area from which medical students come precludes the possibility of one central institute from considerations of time and space. University and King's College show every sign of intending to remain institutes for the teaching of the preliminary medical subjects, and there is much to be said for the retention of both these and those other schools which have shown by their virility and progress that they are efficient. These schools are conveniently placed north, south, east, and west, and have slowly been evolved to meet the needs of London. Let us improve and not destroy their evolution. If the friends of the medical schools and the University could raise between them enough to contribute £2,000 a year to each efficient school to complete its maintenance, the whole question would be solved, and at a far less expense than the building and endowing of a new central institute.—I am, etc.,

LEONARD HILL, M.B., F.R.S.,
Lecturer on Physiology, London Hospital Medical College; Examiner to the University of Oxford, Royal College of Surgeons, etc.
The London Hospital Medical College, Feb. 27th.

THE FINANCES OF LONDON MEDICAL SCHOOLS AND HOSPITALS.

SIR,—In your editorial article last week, entitled "The Finances of London Medical Schools and Hospitals," certain facts with reference to the Medical Schools of Guy's Hospital and the Royal Free Hospital appear to have been overlooked.

To quote from your article:

They (the committee appointed by King Edward's Hospital Fund) report that it has been established to their satisfaction that in the case of all the London hospitals except two (University College and King's College) contributions are made out of the general funds of the hospital to make up the deficit on the working of the medical schools.

May I call attention to paragraph 11 of the Report of the Committee:

In the cases of Guy's Hospital and the Royal Free Hospital we doubt whether, on consideration of all the circumstances (and especially in the case of Guy's Hospital to the facts stated by the Dean of the Medical School, see Appendix III), the schools can be considered as deriving any pecuniary benefit from the hospitals.

The finding of the Committee does not therefore countenance the too general conclusions drawn in your article, and I can only repeat the words quoted by the Committee in the Appendix:

For many years now the Medical School Fund has been solvent, whilst the Hospital has been heavily in debt. Improvements in the methods of treating patients, which have been much desired by the Staff for the advantage of the Charity as well as of the School, have constantly been charged to the School account. Even an increase in the number of the Resident Staff was only secured by the School fund making itself responsible for any additional expense it might entail. The enormous dental department . . . although partly supported by the Hospital now, was in the first instance started at the sole cost and charge of the Medical School Fund.

—I am, etc.,

HERBERT L. EASON,
Dean of the Medical and Dental Schools, Guy's Hospital.
London, S.E., March 1st.

COLLIERY DISPUTE AMICABLY ADJUSTED.

SIR,—In the belief that it will be of interest to Divisional Secretaries—and, it may be, to members generally—I venture to outline a recent experience in the Cardiff Division of the operation of certain ethical rules which were drafted by the Medical Secretary and adopted in the autumn of last year by all five Divisions of the South Wales and Monmouthshire Branch.

A fortnight since I received from the Medical Secretary a copy of a communication which he in turn had received from a member of the Association resident in the area of this Division. This communication stated that the post of principal surgeon to a certain colliery in his (the member's) district had been declared vacant, was being duly advertised in the local press, and that certain conditions were attached to the tenure of the post. With regard to these conditions, the member inquired as to whether the Association could not do something to obtain their withdrawal, and so to prevent the institution of another example of exploitation of the profession. It will be agreed that the term is not too strong when it is added that the conditions alluded to included the following: "No private practice allowed. The general public residing in the district will be at liberty to join the society by paying the same rate of subscriptions as is paid by the colliery workmen (4d. weekly per man), and will be entitled to the services of the doctor. Out of the amount received from this source (general public) the principal doctor will be allowed 12½ per cent. in addition to his salary (£400 per annum), the surgeon to pay his own rent and household expenses. No fee will be allowed for midwifery or miscarriage and the doctors will have to attend to these cases if called upon." It was understood, further, that the public appointments of M.O.H., Medical Officer and Public Vaccinator for the district which hitherto had been held by the principal surgeon would be regarded as "private practice" and accordingly the salaries accruing therefrom would be forfeited to the Workmen's Fund Committee less 12½ per cent. returnable to the said principal surgeon.

It was at once evident that such conditions were "detrimental to the honour and interests of the medical profession" within the meaning of the ethical rules.

At the suggestion of the Medical Secretary an advertisement was promptly inserted in the local press asking intending applications to apply for information to the Divisional Secretary or to the Medical Secretary and a similar announcement appeared in the next issue of the BRITISH MEDICAL JOURNAL.

In accordance with the instructions of my Ethical Committee a circular was sent to the members and medical non-members in the Division area, enumerating the conditions to which exception was taken and intimating that under the circumstances it would not be competent for a member of the Association to accept the post.

These lines of action were approved by a special general meeting of the Division and also by a Branch Council meeting, and at the latter the secretaries of the sister Divisions of the Branch were instructed to circularize their respective Divisions in the same sense provided that the conditions alluded to were not withdrawn.

Meanwhile, a courteous letter of inquiry had been received from the Secretary of the Workmen's Fund Committee as to the conditions to which objection had been raised. This information was supplied to him with an explanatory note as to the effect of the operation of the ethical rules in respect of any medical man who might accept the post in question, stress being laid on rule (F)—Refusal of Professional Recognition. It was added that a special meeting of the Division had been summoned for a certain date to authorize, if need be, further action, and the hope was expressed that the conditions referred to would be withdrawn and the fact reported to the special meeting.

A letter was duly received from the workmen's Secretary "that the rules of the Association (British Medical) would be observed in the appointment of the principal doctor," and

this the special meeting accepted in good faith and instructed the Honorary Secretary to circularize the Division members, the non-members in the Division area, and the medical men in various parts of the British Isles who had made inquiries in response to the counter advertisements, intimating the decision of the workmen's committee, and stating that on the understanding that the conditions already notified had been rescinded, no further action would be taken by the Division under the ethical rules with regard to this particular appointment.

The special meeting also unanimously adopted the following resolution:

> That, with regard to this matter, this meeting of the Cardiff Division records its appreciation of the value of the services of the Medical Secretary (Mr. Smith Whitaker) and of those of the Medico-Political Committee, operating through the new organization of the Association.

It is gratifying thus to be able to report that the operation of the ethical rules up to the intradivisional limit has sufficed to secure this satisfactory result; and, if I were asked to enumerate the principal contributory factors thereto, I would say:

(*a*) A member of the Association in the district immediately concerned who has resolution and fortitude enough to withstand the "exploitation" of his profession.

(*b*) An organization of the Association which readily lends itself to the operation of well-conceived ethical rules.

(*c*) An able and energetic Medical Secretary who, with a full knowledge of the conditions of medical practice, is capable of initiating and guiding the operation of the ethical rules.

(*d*) An energetic Divisional and Branch executive.—I am, etc.,

Ewen J. Maclean,
Cardiff, Feb. 28th. Honorary Secretary, Cardiff Division.

INQUEST FEES TO HOSPITAL OFFICERS.

Sir,—In the British Medical Journal of last week is published a letter from Dr. A. G. Bateman, in which he intimates to the medical officers attached to hospitals, lunatic asylums, infirmaries, etc., that if an inquest concerning the death of a person who has died in such institution is held elsewhere than in the institution itself or in a building or place belonging thereto, the medical witness can claim the fees payable by statute law, despite Section xx of the Coroners Act, 1887. By subsection ii of that section it is expressly provided that:

> When an inquest is held on the body of a person who has died in a county or other lunatic asylum, or in a public hospital, infirmary, or other medical institution, or in a building or place belonging thereto, or used for the reception of the patients thereof, whether the same be supported by endowments or by voluntary subscriptions, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid, shall not be entitled to such fee or remuneration.

There is no intimation in the Act that to render the subsection valid and effective the inquest is to be held in the institution.

The point in question has to my knowledge been raised on previous occasions, but no alteration in the usual interpretation of the law has yet prevailed, and from experience I may say that if the county or borough auditors were aware that the coroner paid such fees as suggested by Dr. Bateman he would be surcharged for the same.

If Dr. Bateman is satisfied that he is right in his interpretation of the law, doubtless he will have no difficulty in testing the point, backed up by the Medical Defence Union.

I would observe that in some hospitals there is no accommodation for the holding of inquests, and where a public court has been provided all inquests should be held there in preference to any other place.—I am, etc.,

Walter Schröder,
Honorary Secretary, Coroners' Society of England and Wales.
London, N.W., Feb. 28th.

EDUCATION COMMITTEES AND MEDICAL CERTIFICATES.

Sir,—The accompanying circular letter is interesting as showing the value put upon medical education by the Surrey Education Committee.

The examination of a child as to fitness for school, with a certificate, which may be used as evidence in court, is considered to be worth one shilling; if a visit has to be paid to the patient's house (no notice is taken of such a petty detail as distance), then the loss of time involved is valued at a further sum of eighteen pence; and the letter concludes with a polite intimation that if I, for instance, do not feel inclined to attend and certify for these munificent fees, another medical man (if such an one can be found) will receive "an order" to see my patients!

Had it been a "medical aid" club that had done me this dishonour—well, then I could have borne it, or at least I should have known what to do with the letter; but it is sent by a Committee which may probably number among its members some of mine own familiar friends.

However, I am consoled by the thought that not one of the medical men in this town is likely to accept the terms fixed, and I sincerely trust the same unanimity of opinion will prevail elsewhere.

The letter has apparently been sent to all medical practitioners in the Petty Sessional Divisions of Croydon, Epsom, and Wimbledon.—I am, etc.,

Epsom, Feb. 20th. C. G. Beaumont.

Surrey Education Committee.

School Attendance Subcommittee for the Petty Sessional Divisions of Croydon, Epsom, and Wimbledon.

4, Grove Road, Epsom,
January 25th, 1905.

Medical Certificate.

Sir,—I am directed to inform you that the above Committee, with the sanction of the Surrey Education Committee, have resolved that, in cases coming before them in which they deem it advisable to have a medical certificate, an order shall be issued under the hands of any two members of the Committee and addressed to any medical practitioner that may be selected by the parents of the child.

The Divisional Committee have fixed the payment for such medical certificates as follows:

For examination of child, at doctor's residence or surgery, of fitness, or otherwise, to attend school..... 1s. 0d.
For examination of child at parent's residence and certificate..... 2s. 6d.

Printed form of certificate will accompany the order in each case, and accounts should be rendered to me at the end of each quarter.

If for any reason you are unwilling to give such certificate, I shall be obliged if you will kindly write me accordingly, that the orders may be otherwise addressed.—Yours faithfully,

F. Le Gassick, Superintendent.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

Sir,—My experience of pulmonary phthisis has been gained chiefly in private practice among the working classes of a large city; such an experience, coinciding as it doubtless does with that of a very large number of practitioners, may perhaps be worth publishing at the present juncture.

The first and most notable impression made on my mind is that individual resisting power, natural immunity, or by whatever name it is known, is beyond all comparison the most important factor in the arrest of this disease.

I select the following short clinical histories in support of this thesis, out of those which have come under my observation:

Case i.—A youth, aged 18, developed what I supposed at first to be typhoid fever; failure on two occasions to obtain Widal's reaction combined with enlarged submaxillary glands aroused a suspicion of tuberculosis; this was strengthened a few weeks later by a copious haemoptysis and more marked pulmonary symptoms, signs of active pulmonary lesion for four months, gradual subsidence, eventual arrest, flesh regained, resumed light work. During this illness, in spite of my earnest entreaties, the windows of his room were not once opened. They were not made to open! Continued at work about two years, then developed a somewhat similar attack and died a few months later. He occupied the same unventilated room during his two years of immunity, and never left this city for a week at a time from first to last.

Case ii.—A man, now aged 30; haemoptysis, cough, emaciation, twelve years ago; arrested; remained well for five years; then haemoptysis, fever, night sweats, cough, etc., for several months; gradually got better; resumed work. About two years later, a similar attack followed by arrest, and, except for several slight febrile attacks, none of which incapacitated him for more than a fortnight or so, he remained well and at work up to a few weeks ago. He now suffers from cough, night sweats, fever, and a very well-marked pulmonary lesion, but is recovering again apparently. The window of the adjoining room is kept open, and the doors of both rooms: that is the best attainable. He has worked in a warehouse in this city for the last fifteen years.

Case iii.—A man aged 25; severe haemoptysis, cough, loss of weight to 1½ st., night sweats. Active morbid process for about three months, gradually subsiding and eventually quiescent. He resumed work, and has continued at work as a clerk in an office for the last four years. He appears in perfect health.

Case iv.—This is one with which I am personally familiar though not one of my own patients. Two brothers died from pulmonary phthisis. At about the age of 20 he had recurring haemoptysis, cough, night sweats, and loss of flesh. He was living in the country during his illness, from which he eventually recovered. He then removed into a city, and has lived there in good health for the last twenty-five

years. It is, perhaps, worth mentioning that his father lived to be over 96.

The first three cases were treated in a large city, and they obviously recovered not because of, but in spite of, their surroundings. The factors probably contributing to these results, other than natural resisting power, were (1) absolute rest while fever continued, (2) creosote, (3) arsenic and cod-liver oil. I am convinced, however, from observation that these patients are more comfortable as a rule and do better when their windows are kept wide open winter or summer, though of course I have come across exceptions.

But I venture to reassert that arrest of active pulmonary tuberculous lesions is mainly the result of a gradually increased and self-acquired immunity, and that in consequence the best results obtainable are not infrequently seen even when the environment is very unfavourable. If that be so (and who can doubt it?), then it is evident that sanatoriums cannot claim as "cures" all cases of "arrest" which occur in their practice; but merely the excess of their "arrests" over the "arrests" obtained in private practice. Suppose 50 per cent. "arrests" occur in private practice, and 70 per cent. in sanatorium practice, then the difference, or 20 per cent., is all that sanatoriums can claim as "cures." What this difference is appears to me the crux of the whole question, but at present there are no data for even approximately determining it. I suggest, however, that if the notification of pulmonary phthisis were universally enforced by sanitary authorities, and the information thus obtained properly utilized, data for determining this difference would be available in a few years; and sanitary authorities would be in a position to decide whether a large expenditure on sanatoriums is desirable or not. In the meantime, whatever their precise therapeutic position may be, sanatoriums are of the greatest value to men in general practice in overcoming the prejudices of their patients against fresh air and sunlight.—I am, etc.,

Manchester, Feb. 27th. J. STAVELEY DICK, M.B.R.U.I.

SIR,—In the articles and letters which have recently appeared in the BRITISH MEDICAL JOURNAL about the new treatment of pulmonary tuberculosis, there is no reference to the faulty construction of sanatoriums.

The aggregation of a number of persons suffering from a malignant infectious disease in one block of building is surely a sin against sanitation. All sanatoriums seem to be built on the same plan. Tiers of bedrooms placed vertically above each other; mild cases are placed in the lowest tier, the worst cases in the highest, and intermediate cases in the middle.

Ventilation of the bedrooms is as nearly perfect as possible under the circumstances. The rooms are warmed by heated pipes, and foul air is got rid of by the windows, which open horizontally, and large outside venetian blinds admit of the windows being open in all weathers.

Air in bedrooms, being heated, is of less specific gravity than outside. There is therefore an inrush of cold air, which expels the warm air with all its impurities through the open window. The expelled air being more rarefied than the unexpired air outside ascends and mingles with the inrush of air into the bedroom immediately above. The patient has therefore to inspire foul air from the lower bedroom, and patient in tier three has to inspire the noxious exhalations from bedrooms in tiers one and two. Air from the bedrooms is no doubt purified to some extent on getting outside the windows, but still contains enough noxious matter to be injurious.

I am consequently of opinion that patients in tier one may recover, the chance of patients in tier two is not so good, and that patients in tier three are better almost anywhere than in a sanatorium.—I am, etc.,

Bowmore, Islay. JAMES ROSS, M.D.

SIR,—Dr. Dutton's letter in your issue of February 18th will, I fear, do very great harm, and will, I hope, be answered by weightier pens than mine. Meanwhile, I cannot forbear to enter my protest. His experience of universal failure of permanent results from sanatorium treatment seems to me simply incomprehensible, so directly is it opposed to my own. To say that he has never seen a case cured by residence in a sanatorium suggests to my mind that his "practical" study must have been of a very limited description. Has he never seen a case "cured" under any circumstances? and, if so, does he suggest that sanatorium treatment is universally detrimental?

I myself had a private sanatorium from 1899 to 1903, and I frequently hear from or of old patients who are now as well as ever they were in their lives. Certainly all these patients belong to the "comfortable" classes and are able to continue the "healthy life"; but if Dr. Dutton's remarks are intended to be restricted to the working classes he should, I think, have made that clear.

Surely, Sir, there is enough accumulated experience to prove that sanatorium treatment can be carried on almost anywhere in this country with advantage, although not with equal advantage, to the patients. My sanatorium was in a somewhat windy place, but I never found the wind any detriment except in so far as it interfered with the comfort of my patients, who, moreover, did best in the winter months; so that, instead of finding only three months in the year suitable for the treatment, I would rather say I found the three warmest, driest, and most equable months the least so.

I can emphatically say that I never saw any patient, in whatever stage, the worse for the treatment, and I think I might add that the very worst benefited to some extent, and this without in the least claiming to have had more success than is to be had in any properly-managed institution.

My sanatorium is now permanently closed, so that I am quite disinterested in advocating sanatorium treatment. During the time it was open, and since, I have had a considerable number of cases under my care as private patients, and I do not hesitate to say that, given the same climate, the same sanitary surroundings, equally good rooms, and everything else, the patient will do better in a sanatorium than in his own house, and I believe every one who has had practical experience of sanatorium work and private cases simultaneously will agree with this.—I am, etc.,

Bexhill-on-Sea, Feb. 20th. J. P. WILLS.

SIR,—Having many years' experience of the treatment of phthisis and some experience of the sanatorium treatment thereof, I fear I cannot agree with Dr. Dutton, for undoubtedly the open-air treatment is the only rational and proper means of dealing with consumptives, no matter what the stage of the disease; of course, the earlier the disease is treated the greater is the chance of its being arrested. I think it a mistake to speak of "cures," as the lay mind is not apt to look upon a cure in its relative sense, and the consequence is that many patients on returning home grow careless, and the disease lights up again.—I am, etc.,

February 28th. M.D.

SIR,—I deeply regret even unwittingly having misrepresented Dr. Collier's views. I quoted from memory and the note of the letter I found in my last year's diary.

I have seen many cases apparently cured by the open-air principles of treatment, especially in Auckland, New Zealand. I had a letter last year from the West Indies, where a gentleman, after being made much worse by the open-air treatment in England, went there to save his life, with the result he is cured so far as symptoms go.

No one can advocate pure air at proper times more than I do, but in consumptive cases the air must be warm, dry, and of a nearly equable temperature day and night for open-air treatment to do any good. I would not have stated my opinion so definitely if I did not know it is endorsed by a large number of practitioners.

I consider Dr. Squire's letter is very impartial and interesting, but Dr. Myers seems to throw doubt about the letters mentioned in my letter in the BRITISH MEDICAL JOURNAL (February 18th). I shall be glad, Mr. Editor, to send you the originals. Dr. Colin Campbell's 38 cases shows the condition of patients treated in this manner. I trust Dr. Myers has insured himself against sickness, because a medical colleague who took similar open-window treatment cost the funds of the Medical Sickness Society some twenty pounds. I hesitated to sign his certificates, as I told him the complaint was brought about through his *own carelessness*.

I can assure Dr. Waters his apparent anxiety for my knowledge of sanatoriums and consumption is not at all warranted.

In conclusion, I may say personally I go to the other extreme and follow the instincts of the doormouse. I believe that fresh cold air is not inducive to sleep; a little carbon acts as a narcotic. I am, etc.,

London, W., Feb. 25th. THOMAS DUTTON.

THE TREATMENT OF POST-NASAL ADENOIDS.

SIR,—Kindly permit me briefly to reply to the criticisms of Dr. StClair Thomson.[1]

There are three well-recognized ways of removing post-nasal adenoids:

1. By the sterilized finger.
2. With the curette, followed by the sterilized finger.
3. By the aid of the curette or forceps.

In my paper, which appeared in the BRITISH MEDICAL JOURNAL of January 28th, I stated that in my opinion the sterilized finger is the best instrument for young children, and with it the little operation can be rapidly, safely, and successfully performed by any practitioner who possesses ordinary dexterity. In dealing with the firmer adenoids which occur in adults, attended with thickening of the naso-pharyngeal mucosa, the curette and forceps are often necessary; but for cases in which deafness is a prominent trouble I strongly advocate that after the application of the curette the clearing of the surface around the orifice of the Eustachian tube should be done with the sterilized finger.

"It is difficult to understand," my kindly critic remarks, "what are the indications for the roughened metal probes which are passed into the nose . . . rubbed blindly over the inferior nasal passages . . . such a measure is not free from danger." Now this question has often arisen before, but after a trial with these little instruments all difficulty and timidity have quickly passed away. The posterior nasal space of my little patients is often seriously obstructed by adenoids, and soft gelatinous masses surround the posterior apertures; at the same time the nasal mucous membrane is thickened and infiltrated, and the passages are blocked with thick tenacious mucus. The nasal probes are very useful guides in clearing the contracted and congested posterior orifices, and they can also with perfect safety be manipulated as dilators of the "narrow and delicate nasal chambers of young children."

Many years ago Dr. StClair Thomson often practised the "finger-nail operation," and he found it quite sufficient for the treatment of slight cases. He now considers it "a reactionary step," and appears to lament over the number of "return cases" which he partly attributes to the practice of this method. Still, I admire his touching candour when he frankly admits that "we have in London such good opportunities of becoming conscious of one another's imperfections." It is true in every surgical department that our failures cannot fairly be ascribed to the imperfection of our instruments, but rather to the faulty manipulation with which they are applied.

In the removal of post-nasal growths Dr. StClair Thomson appears to depend wholly on instrumental means. He employs a "certain curette, and one furnished with a cage," in which he skilfully entangles the detached fragments, mingled, no doubt, with blood and pharyngeal mucus, and then proceeds to give the friends "the satisfaction of seeing the removed mass." Now this appears to be a very curious way of giving satisfaction, for, although it may be a simple method of exciting wonder, it is scarcely adapted to remove anxiety. For my own part, I am quite satisfied with the ordinary procedure of clearing the throat and mouth with a sterilized swab, and then leaving the remnants to be ejected in the usual way.

With reference to any proof of the benefit to be anticipated from the operation, it is an excellent plan to leave the friends to recognize the marked improvement in the respiration, articulation, hearing power, and general condition of the little patient, and this will turn out to be a more satisfying and a far more agreeable demonstration than the scanty evidence obtained by exhibiting in the cage of a curette the fragments removed from the naso-pharynx.—I am, etc.,

Portsmouth, Feb. 7th. JOHN WARD COUSINS.

IRISH DISPENSARY DOCTORS.

SIR,—I am sure that all Irish medical men will dissociate themselves from the hasty attack made by Sir William Thomson in the BRITISH MEDICAL JOURNAL of February 25th, on Surgeon-General Evatt. That the "confidential" document to which your correspondent refers should have been given prematurely to the press obviously was not the Surgeon-General's fault and that he should have stated in his report what he believed to be facts was only carrying out the duty he had undertaken.

Surgeon-General Evatt, as your commissioner, rendered splendid service to the Poor-law medical officers and his exhaustive report which the Association published is evidence if such were required, that the interests of the Poor-law Service were safe in his hands in any second or subsequent investigation.

That the Direct Representative for Ireland on the General Medical Council should have taken up the cause of the Colleges is, doubtless, due to the fact of his being an ex-President of the Royal College of Surgeons in Ireland as well as a present member of its Council.

At the same time it might have been more desirable for Sir William Thomson to have reserved his criticism till he had been in a position personally to consult the "confidential" report which he so utterly discredits from reading disjointed extracts.

The Irish Poor-Law Service has had very few real friends in the past and it can ill afford to lose the interests of so genuine a benefactor as Surgeon-General Evatt has proved himself to be. I trust that that able writer will not be discouraged or intimidated by such criticism as Sir William Thomson's from the course he thinks proper to pursue in the interests of the Irish dispensary doctors.—I am, etc.,

London, Feb. 25th. S. WESLEY WILSON.

SIR,—As you have given such ready insertion to the letter of one of the caste who are responsible for nineteen-twentieths of the ills of our profession, I trust you will give an equally-ready insertion to this my letter approving of every word which has so far appeared of the Surgeon-General's report. We have to thank the Dublin doctor-making shops for so flooding the profession that a successful fight with the local bodies for a living wage seems next to impossible. We have to thank them next for running away with our well-to-do patients through the medium of their hospitals and their annexes, which were originally intended for the poor, but which they have converted into hotels for the rich. Lastly, they have deprived us of all share whatsoever in the training of the candidates for our profession, thus robbing our sons of that property in their father's calling which enabled the struggling provincial doctor of former times to give his profession to them for a moiety of the cost which outsiders would have to pay. I entirely approve of his attack on the Colleges, but I am sorry that he did not level his shafts at the examinations, and particularly the special examinations of the Surgical College. Dr. Wesley Wilson and the writer, not forgetting your own JOURNAL of many years back, have done such justice, not merely to the individual examinations of this College, but the combined ones of both Colleges, that it surprises me that so accurate an observer and so careful a reporter should not have included them in his comment. All special examinations should be abolished, and every registered practitioner should be entitled to be present at, and take notes of, every oral, while the written answers should be preserved, and be open to inspection for a period of six months. We would be then less flooded than we are at present, and our betterment would be easier of attainment than now.—I am, etc.,

Cashel, Feb. 21st. THOMAS LAFFAN.

LAWS REGULATING SALE OF PROPRIETARY MEDICINES.

SIR,—If any of your readers can give me information with regard to the regulations of the sale of patent and proprietary medicines on the Continent and in America I should feel obliged.

I may say that I have in my possession the law affecting the sale of such medicines in France, Germany, and Italy.—I am, etc.,

Cardiff, Feb. 23rd. T. GARRETT HORDER.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

R.A.M.C. COLOURS.

COLONEL A. T. SLOGGETT, Chairman, R.A.M.C. Colours Committee, informs us that patterns of the proposed new R.A.M.C. colours are now on view in the waiting-room at 68, Victoria Street. All officers who have not yet seen them, and are passing through London, are requested to call there and record their votes.

THE GILBERT BLANE MEDAL.

THE gold medal founded by the late Sir Gilbert Blane, Bart., to be given biennially, has been awarded by the Medical Director-General of the Navy, and the Presidents of the Royal College of Physicians and the Royal College of Surgeons, to Surgeon S. T. Reid, R.N., for his Journal of H.M.S. *Vestal*, 1901-2, and to Surgeon R. W. G. Stewart, M.B., R.N., for his Journals of H.M. ships *Latona* and *Thames*, 1903.

[1] BRITISH MEDICAL JOURNAL, February 4th.

OBITUARY.

CHARLES BROWNE, F.R.C.P.Ed., M.R.C.S.Eng.

The sudden death of Dr. Charles Browne, at the age of 72, from heart failure, on February 21st, has snapped a link with the past and has caused wide and profound regret.

Having a large circle of friends, both professional and lay, Charles Browne was specially known to and valued by St. Thomas's and Guy's men; and in his earlier associations was a marked professional figure in South London.

The son of Dr. Tobias Browne, a leading South London practitioner in the earlier part of the last century, he represented the third generation in the same practice; and it was only in later years, when desirous of the greater restfulness afforded by general consulting work, up to which his previous busy life had led, that he went to live away from Camberwell, daily visiting his consulting rooms in Moorgate Street.

To the members of the old "United" or "Boro'" Hospitals, of St. Thomas's and Guy's, he was particularly well known, and by them peculiarly valued, not only for himself, but for the associations of his life. A Guy's man himself, his father hailed from the united schools before their academic separation in 1826; and for thirty-nine years Charles Browne was Honorary Secretary of the United Hospitals Club, which was founded in 1828 to strengthen the bonds of mutual friendship between the members of the two hospitals that had for the moment suffered an all but breaking strain. Through him had been handed down, in a peculiarly perfect manner, the traditions of the past; for of the club above mentioned, whose great pride is the maintenance of past memories, there have been but two secretaries—Tiffin Iliff (1828-1866) and Charles Browne (1866-1905).

A tall, upright, almost military figure, his personality was very noticeable; but the expression of humanity and kindness that was stamped on his features, and shone in his smile, and which his daily actions did not belie, was what at once attracted people to him. Whilst in active practice in Camberwell he was both successful and highly valued, not to say loved, by all his patients; and when, after twenty years of city practice, he retired but a year ago to Kew, his old patients could not and would not leave him in peace, and he himself was ever seeking to assist some one or other from pure kindness of heart and love of his old profession. He has left a memory that will always be green, and a vacancy that never can be filled.

For many years joint physician to the Equitable (London) Insurance Society, he like his father, had had a lifelong connexion with the Apothecaries' Society, of which his father was Master in 1865, and himself in 1901, whilst up to the time of his death he was still acting as the Society's visitor at the professional examinations held in their Hall.

He was buried at Brockwood on February 25th, a large gathering of friends paying tribute, by their presence, to his memory.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Beit Professorship of Colonial History.

In a Convocation held on Tuesday, February 21st, the University formally accepted the offer of Mr. Alfred Beit to found a Professorship, Lectureships, and a Prize for an Essay in Colonial History; and recorded its deep gratitude to him for his munificence.

M.B. Examinations.

The examinations for the degrees of B.M., B.Ch., will commence on Thursday, June 22nd, and will be held in accordance with a time table published in the *University Gazette* of February 21st.

Scholarships in Natural Science.

Natural Science Scholarships are announced for competition as follows: March 14th, Keble College; May 2nd, Merton College and New College; July 4th, Brasenose College.

UNIVERSITY OF CAMBRIDGE.

Compulsory Greek.

The voting on the Greek question will take place in the Senate House on Friday, March 3rd, and Saturday, March 4th, between 1 and 3 or 5 and 7 p.m.

Appointments.

Sir M. Foster has been appointed an elector to the Chair of Physiology, Professor W. F. R. Weldon an elector to the Chair of Zoology and Comparative Anatomy, Professor D. J. Cunningham an elector to the Chair of Anatomy, Dr. J. Mitchell Bruce an elector to the Downing Professorship of Medicine, Dr. Allbutt an elector to the Chair of Surgery, and Dr. D. MacAlister an elector to the Chair of Pathology.

Dr. L. Humphry has been appointed Secretary to the Special Board of Medicine, vice Dr. D. MacAlister, resigned.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ANAESTHETISTS' FEES.

O. T. writes: I would like to have your opinion, also that of "Astonished," and may be also that of "R. F.," who dissent from yours in the first case quoted in the British Medical Journal of January 14th, upon my case. In May, 1902, I was twice in the course of about a week asked, once by wire and once by letter, to give chloroform for a neighbour. The neighbour himself sent for me. Neither case was urgent: one was a case of curetting the uterus, the other scraping some necrosed bone. Both cases were in the houses of well-to-do farmers, who would pay a decent fee for what was done. In one case I had to drive close upon nine miles to the place, in the other I had about six miles to drive, and a large portion of the day was taken up on both occasions. Nothing was said about any fee; I naturally expected a guinea for each. I waited (knowing well how we men in the country have to wait for fees) until Christmas, 1904, or two and a half years; and, having got no fee and no communication of any kind, I wrote my neighbour a kind letter of inquiry. He did not answer it; he did not acknowledge it. I waited three weeks, and wrote asking him if he had received my first letter, and if so, what reply he had to give. Still no answer. I waited a couple of weeks and wrote again, almost imploring him to answer me, yes or no. Up to now I have not received one line in reply. I may say I have only once besides the twice mentioned met this neighbour in consultation in a case of my own, and I got him his fee very soon after. Now, sir, I feel very much inclined to follow your advice to "Astonished" and sue. His conduct is wholly inexcusable, to my way of thinking. It is useless my writing any more to him. What would you do? I feel grossly insulted, not because he has not paid any fees, but because of his discourtesy. I don't think he ought to be let off "scot free," but what can I do short of legal proceedings?

THE CONDUCT OF SOME CONSULTANTS.

Agricola writes: Some time ago a patient of mine suffered from a more or less obscure form of illness. It was deemed advisable for a specialist to see the case. One was brought from a neighbouring city; he agreed with the opinions formed and with the treatment in every detail. The case came out much as had been outlined, and after some time the journey to London could be made. It was suggested that the case should be seen by a consultant in town whom I named. This opinion was taken; without very much hesitation the case was said to be merely trivial and a line of treatment suggested. The consultant was then told the opinion I had expressed and that the case had been under treatment for some time; as a result I was asked to furnish a history of the case, which I believe proved of some use when a second and more careful examination was made and a much more guarded prognosis given. Up to the present time—eight months after—that consultant is, as he thinks unknown to me, still in attendance on that patient through the post office! Further comment is needless. One thing is certain; I shall never allow a patient of mine to go to that consultant again, and I am already carrying out my intention.

*** It is much to be regretted that when suggesting a consultant every general practitioner does not invariably write a letter of introduction for the patient to take to him. By so doing he makes his position more secure, and has definite ground of complaint against the consultant if he is ignored. It often happens that when a patient is sent without a letter he omits to mention the fact that he was recommended to the consultant by his own doctor, or it may only be elicited by the consultant asking for the name of the patient's medical adviser in order to write to him. As in the present case the consultant subsequently became aware that our correspondent was in attendance there can be no excuse for his continuing to treat the patient independently. The best check upon such conduct is the knowledge that it is known to and resented by general practitioners.

MEDICAL FEES IN LEGAL CASES.

Nux.—The first case referred to by our correspondent is of an exceptional character and outside the ordinary table of fees. The Procurator-Fiscal is controlled in such matters by the Exchequer, and he would probably consult the Exchequer before paying the fees. In our view a fee of four or five guineas should be asked for the examination of the bodies and report. In the case of a public inquiry, the fees for medical witnesses are fixed, and the Procurator-Fiscal has no option. The fee in such cases is two guineas per diem, with first-class fares.

Vater asks what are the legal fees allowed for giving evidence at petty sessions and the assize court?

*** Under the new rules there may be allowed to a medical witness who attends to give professional evidence in the town or place where he resides or practises not more than one guinea a day; if he resides or practises three miles from the court, two guineas a day. But unless he is detained four hours from home only half the above fees are allowed.

MEDICAL ADVERTISING IN THE LAY PRESS.

Larkfield.—It is desirable to confine advertisements of homes for inebriates and similar institutions to the medical press.

A MISUNDERSTANDING.

J. J. S. L.—(1) As we understand our correspondent's story, when first called to the child he found that it had been taken to B.; therefore when he was called again later he might have known [illegible] taken the treatment, and it was his duty to see that B. was informed that his services would no longer be required [illegible] to the hospital. (2) It was not B.'s duty to communicate with A. unless A. had been previously in attendance upon the case, which we do not understand was so. (3) The conduct of B.'s wife was of course inexcusable, but no further notice should be taken of it.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London: those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 42, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. HUBBERSTY (Sunderland) asks for a convalescent home for the treatment of after-results of acute rheumatism by baths, massage, etc. The patient is a working man from whom small payment only would be forthcoming.

INVERSION OF TASTE.

T. O. (Hamilton) asks for suggestions as to the meaning of the symptoms in a case thus described: A middle-aged man, about the end of November of last year, met with a cycle accident, when he fell on the back of his head. Beyond being a little dazed he felt nothing wrong, and was able to continue his journey and also perform his day's work. Two days later he developed a perversion of his taste. The relation to the accident is supposed. This perversion came on quite suddenly while partaking of sweet tea—at least, it was only then noticed. When the patient took anything sweet it tasted very salt, and this saltness was only perceived on the point of swallowing at the base of the tongue, and not at all on the anterior part. This has continued till now, neither having increased nor decreased since its onset. On examination I find that the appearance of the buccal cavity is normal. Tactile sensation of the tongue, palate, and tonsils is normal, but there is a small part on the left side of the posterior wall of the pharynx which is super-sensitive to touch. Reflex of palate, pupils, hearing, and smell are normal. The sense of taste on the tongue and palate, tested at different parts with solutions of sugar, salt, citric acid, and picric acid, is found to be normal. It is found that the left side of the posterior wall of the pharynx is the part which is affected. When salt solution is applied it tastes more intense than on the right side. When sugar solution is applied to the same spot an intense salt taste is perceived. Acid solution is the same as on right side, but bitter is felt more intense. There is also hyperaesthesia at this part, but there is no pain felt, even on swallowing. The appearance of the posterior wall of the pharynx is perfectly normal. The part can be clearly defined, both by the tenderness and by the sense of taste, and its extent is about the size of a shilling, and is just below the level of the soft palate. The area does not extend beyond the middle line to the right side. The patient otherwise is in perfect health.

*** Although neither the central nor the peripheral course of the taste fibres is yet known with certainty, yet it has been established that the fibres which supply the posterior wall of the pharynx come from the glosso-pharyngeal nerve, as do also those that supply it with common sensibility. In cases of loss of taste in the buccal mucous membrane the loss is sometimes in islets, as in this case, and parageusia or perverrsion of taste is not infrequently associated with hypergeusia o increased acuity of taste, and often also with perversions of common sensibility. A recognized inversion, for example, is that sweet things appear bitter or metallic. In this particular case the tenderness with inversion of taste over a limited area could hardly be due to anything but an affection of one of the smaller peripheral branches of the glosso-pharyngeal nerve, and this is probably of the nature of a mild traumatic or other neuritis.

ANSWERS.

INCOME TAX.

S. B. R.—Before last year no allowance could be claimed for premiums paid to foreign or colonial assurance societies. The Finance Act, 1904, however, authorizes an allowance from income tax assessments in respect of premiums paid to colonial societies, and a rebate can, therefore, be claimed on all premiums paid to such societies since the Act came into force.

TREATMENT OF SESSILE WARTS.

DR. J. F. C. MEYLER (Dublin) writes: "Inquirer" might try concentrated liquid extract of thuja occidentalis, applied to the growths with a small brush once a day. About three years ago a gentleman, aged about 55, consulted me, having about forty or fifty of these growths on his head; he mentioned having been under the care of a physician in Edinburgh who had tried various remedies, some of them very painful, without success. After about a month's treatment the growths disappeared, and he had no return of the trouble up to the time of his death about a year later.

DR. T. A. RICHARDSON (Combe Martin) writes: Let "Warts" try an ointment of ac. salicylic., or paint the place with salicylic collodion, and I think he will find an improvement. I should also advise thyroid extract internally; it has certainly appeared to have had a beneficial influence in a most severe case which came under my care some years ago. Here, in addition to pendent masses of warts in the armpit and elsewhere, there was a general hypertrophy of the papillae on face and backs of the hands, and even the tongue, which was so enlarged as to prevent distinct articulation. The vulva, too, seemed transformed, if I may say so, into ropes of warts. Salicylic ointment and a dusting powder of the same, with talc and starch, improved the condition, and whether in consequence, or coincidently only, the alteration in the condition of the skin after she had been put on thyroid extract was most marked. The abnormal state almost entirely disappeared, and though I should hesitate to argue from a single case, the improvement seemed to be due very largely to the thyroid, and I should certainly give it a trial before searching for any other remedy. The salicylic acid was of undoubted benefit, but I cannot help crediting thyroid extract with being the chief agent in the improvement. I have not had another opportunity of testing the value of this method of treatment, so if "Warts" tries it I should be obliged to him if he would let me hear the result.

ACUTE SEPTIC SORE THROAT.

J. W. J.—The following bibliography will put our correspondent in the way of commencing a full study of acute septic sore throat: Senator, Landgraf and Barasch, *Annales des Mal. de l'Oreille et au Larynx*, 1889, XV, p. 421. Semon, Septic Pharyngitis, *Med.-Chir. Trans.*, vol. LXXVIII, 1895. Prieur and Clavue, *Rev. de Laryngol.*, 1899, No. 36, p. 312, and *Soc. Franç. de Laryn.*, 1899 (streptococcic phlegmon; sudden death; an explanation). Lombard and Cabocle, *Ann. des Mal. de l'Oreille*, XXVI, 1900, No. 5 (2 p.m.s). Angina Ludovici, J. G. Ross, *Annals of Surgery*, June, 1901, and the *Laryngoscope* (abst.), 1901, October, p. 317. P. de Santi, *Méd.-Chir. Trans.*, 1903, February 10th, and *Journ. of Laryngol.*, XVIII, April, 1903, p. 178. Schlech, *Archiv. Internat. de Laryngol.*, XIV, No. 5, 1901, p. 353. M. N. A. Skvorzer, *Rev. hebd. de Laryngol.*, No. 27, 1904, II, p. 20 (with general osteomyelitis). J. J. Kaz, *Rev. hebd. de Laryngol.*, XXV, 1904, I, No. 3, p. 89 (with thrombosis of cavernous sinus and meningitis). C. Tollens, *Rev. hebd. de Laryngol.*, XXV, 1904, I, No. 15, p. 429 (cured with anti-streptococcic serum). Ivanov, *Rev. hebd. de Laryngol.*, XXIV, June 13, 1903, No. 24, p. 711.

LETTERS, NOTES, ETC.

WE are asked to state that the Secretary of the Hospital for Mothers and Babies and Training School for District Midwives at Woolwich is Miss Alice Gregory.

THE PUBLICATION OF THE FINANCIAL RETURNS OF THE GENERAL MEDICAL COUNCIL.

ERINENSIS writes to suggest that the General Medical Council should resume the practice of incorporating its financial returns in the annual volume of the *Medical Register*.

*** We understand from inquiries which we have made that the publication of these returns in the *Medical Register* was given up because it was considered that they did not properly form any part of this volume, and that their appropriate place was in the *Minutes* of the Council. The reports of the meetings of the Council published in the BRITISH MEDICAL JOURNAL give, we believe, an adequate account of the financial position of the Council.

POPULAR MEDICINE.

NOTTS writes: I daresay many members of the profession find comfort on their rounds in chuckling over the remarks made by their patients, and a list of such, if recorded in the final pages of the BRITISH MEDICAL JOURNAL (how many of us start reading the JOURNAL at the end and read backwards towards the beginning!) would add, if not to the "gaiety of nations," at least to the gaiety of the "healers of nations."

Yesterday an old woman consulted me about one of her eyes. I examined it, and told her there was a cataract in it. She replied, "Then that's why there's allus sich a lot o' watter streamin' from that eye and the nose."

A short time ago I had a woman with a broken leg. Her mother said one day to me that she was rather impatient about the rate of healing, but that she (the mother) had explained to her that she must expect the leg to be longer in "knitting" on the left side, as a doctor with whom once she lived had explained to her that the jugular vein ran from the crown of the head to the sole of the foot on the left side, and that the presence of the jugular vein would naturally delay the healing of the leg, which in this case was the left.

An old countryman said to me, when I ordered him milk diet, that "he couldn't take milk," the reason being that "when he was a baby he was one of twins, and his mate died, and he had to have all the milk, so he got stalled o' milk, and never could abide it since."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage-stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Clinical Lecture
ON
MYASTHENIA GRAVIS.

Delivered at the National Hospital for the Paralysed and Epileptic, Queen Square.

By JAMES TAYLOR, M.D., F.R.C.P.,
Physician for Out-Patients to the Hospital; Physician, North-Eastern Children's Hospital, and Moorfields Eye Hospital.

Gentlemen,—I shall first of all show you two cases which are characteristic examples of this disease, and then I shall say a few words about the broad general features which characterize its course, its symptomatology, and, so far as we know, its pathology and morbid anatomy. Unfortunately, there is little to say about its treatment.

Two Typical Cases.

The first patient is a girl of 25, under Dr. Beevor's care, who until May last was in perfectly good health. She then found that she had some difficulty in speaking, and that after she had talked for a little while her articulation became indistinct, and much more difficult than it usually was. This peculiarity was strikingly illustrated when she tried to read aloud, for after even a few minutes of such reading she became not only inarticulate but actually voiceless. This weakness persisted, and to it was presently added a certain degree of difficulty in using the hands, especially for fine movements, such as picking up a pin, or buttoning her dress. The arms, apparently, at this time were fairly strong, but they also became weak, so that she had difficulty in doing her hair in the morning. The weakness of the hands increased, so that in doing needlework, at which she worked for her livelihood, she constantly found that she was unable to thrust the needle through the piece of cloth which she was sewing, or unable to extract it from the cloth. The lower limbs also began to show a certain weakness, so that she staggered when she walked, and could not walk so far as she used to. She also noticed that she occasionally saw double, and she had a heavy feeling about the eyelids, although it was never noticed that there was any actual drooping of them. Her condition now is one of very considerable weakness in the lower limbs, weakness in the upper limbs, slight difficulty in carrying out extreme movements of the eyes, and marked impairment of articulation, becoming much more obvious after she has spoken for a few minutes. There is no wasting, no visceral disease can be discovered, there is little, if any, difficulty in swallowing, and all the other reflexes are normal.

The second case is that of a patient whom some of you may have seen before; a man who has had, for nearly ten years, a varying degree of weakness in the arms and legs, and also in the ocular movements. Apparently the weakness in this case displayed itself first in the ocular muscles. Then the arms became very easily tired, so that he became quite unable to work with his hands at a higher level than his head, and as he was a house-painter, this soon became a very real and practical inconvenience. He also had very great difficulty with the lower limbs, so that, for example, in going along the street he was only just able to make his way from one lamp-post to another, and when he gained the support of one lamp-post, he had to stop in order that he might recover sufficient muscular force and energy to carry him to the next lamp-post. During the past ten years these different weaknesses have been variable. Sometimes the weakness of the legs was very great, sometimes it was less; and at the present time he is able to get about with a fair amount of comfort. His arms he is still unable to use freely; he has almost complete paralysis of all the ocular movements, and there is very marked double ptosis. He has little if any difficulty in articulating, but he has occasionally suffered from difficulty in swallowing. He has in certain muscles the characteristic myasthenic reaction of which I shall say a little more presently. Otherwise his condition is quite normal; there is no wasting, there is no visceral disease, so far as we can discover, and, as already remarked, the reflexes are quite normal.

These, then, are two characteristic cases of the disease of which I wish to speak to-day.

Symptoms and Clinical History.

This disease, usually known as myasthenia, although the full name is myasthenia gravis pseudo-paralytica, has only come into prominence in the last few years. It is characterized, broadly speaking, by great muscular weakness, affecting most strikingly, in the majority of cases, the muscles which are supplied from the medulla oblongata, and are therefore closely related to the maintenance of the vital functions. The muscles, however, of the limbs, both upper and lower, and of the trunk are affected, and in some cases there is reason to suppose that they are affected before the muscles which are supplied from the bulb. So far no definite changes in the nervous structures from which the affected muscles are supplied have been found; and it is interesting to note that so long ago as the Seventies Dr. (now Sir Samuel) Wilks published a case of bulbar paralysis without any anatomical changes, a case which in all probability is to be regarded as the earliest case of myasthenia gravis of which there is any record. A very interesting series of cases apparently of this disease is also to be found at the end of Dr. Beevor's article on bulbar paralysis in Allbutt's *System of Medicine*.

The first sign of weakness in this disease usually occurs in the levatores palpebrarum, giving rise to ptosis. Sometimes this ptosis is equal on the two sides; occasionally it is more marked on one side than on the other. It is frequently associated with weakness of the ocular muscles, and the effort to overcome the ptosis by means of the action of the frontales manifests also some weakness in those muscles. Diplopia, of varying character, is often present, the variation depending on the weakness of different ocular muscles. This weakness varies very much at different times. On some days the patient has no obvious signs of weakness either of the external ocular muscles or of the levatores; on another day there is very marked impairment in the actions of all these muscles. Nystagmoid movements are occasionally present, these also being evidence of weak muscular action. Although the external ocular muscles are so frequently and almost constantly affected, it is extremely rare to have any pupil changes. Difficulty in masticating is also frequently present, the masseter muscles especially becoming easily tired, and the patient not uncommonly during eating supporting his lower jaw with one or other hand. This difficulty in masticating is often more marked in the later part of the day, and it may be said that this is a feature of the muscular weakness generally. The muscles about the mouth are also weak, so that there is difficulty in whistling or in blowing out a candle. Dribbling may occur, swallowing is difficult, fluids being more easily taken than solids, although there may be occasional regurgitation, and the pharyngeal reflex is often absent. Palate weakness is also frequent, giving rise to a nasal voice and inability to blow out the cheeks, frequently associated with the articulatory difficulty which is a marked feature in the first case I referred to. The laryngeal muscles themselves are rarely affected, but aching or stiffness of the tongue is frequently complained of, and it may be impossible for the patient to protrude the tongue, or to move it freely from side to side. One very striking feature related to the weakness of those structures about the mouth or connected with articulation is the character of the speech. When the patient begins to speak, articulation may be clear and the voice good. As he proceeds the weakness becomes marked, the tone becomes lower, a nasal character is imparted to the articulation, and the patient finally becomes both breathless and voiceless.

The respiratory muscles may also be affected, so that there is interference with the amplitude of movements during respiration. There is dyspnoea on the slightest exertion, and, as has already been said, when the patient speaks for a little time there is marked breathlessness associated with the voicelessness already referred to. This dyspnoea constitutes an element of considerable danger, because weakness of the structures which are associated with breathing gives rise to actual crises of dyspnoea, in which the patient may die; and in several of the cases in which death has occurred it has supervened, apparently as the result of an acute crisis of dyspnoea. Besides the trunk muscles, those of the extremities may also be affected. Thus, the arms may become easily tired, and a female patient—as our first patient actually did—frequently complains of an increasing difficulty in carrying out the movements which are necessary in doing her hair in the morning. In the lower extremities the quadriceps and the ilio-psoas group seem to suffer most. Walking far, as a rule, is impossible, and going up more than a few steps of stairs is quite beyond the patient's power. A sudden giving way of the legs, causing somewhat severe falls, is not unusual.

There are various conditions which seem to exercise considerable influence upon this myasthenic weakness. Thus, emotional conditions undoubtedly intensify the weakness in a very marked way. Cold, in some cases, acts similarly, and women affected with the disease are always worst at the menstrual period. Persistence in a movement soon exhausts a muscle, yet even with regard to this point it must be remembered that there are very great variations in muscular weakness, and that a movement which can be repeated only two or three times on one occasion can be repeated as often as twenty or thirty times on another. It is also noteworthy that the patient is frequently very much better and stronger in the early morning, but becomes gradually worse and weaker as the day proceeds, so that movements which can be carried out with ease and facility in the morning are quite impossible in the evening.

The electrical reactions in a case of myasthenia are of very great interest, and the reaction of such cases to faradism is characteristic. It is found that after repeated stimulation of muscles by such a current, the response becomes more and more feeble, so that in time it disappears entirely. With galvanism, however, this phenomenon is not observed. Atrophy of muscles has sometimes been present, but it is by no means the rule. The reflexes are usually very active, but in some cases, probably those in which the weakness has reached an extreme degree, it has been possible after a few taps to completely exhaust the knee-jerk, the muscles thus reacting to mechanical stimuli in the same way as they do to stimulation by faradism.

Etiology.

Males and females are found to suffer with almost equal frequency, and enough cases have now been published to permit of such statistical evidence being regarded as approximately accurate. The oldest case so far published is 55 years, the youngest 12; but I have at present a patient under my care, apparently suffering from this condition, who is only 8; and it is not improbable that as our knowledge and observation of the condition extend, the limit of age may be increased in both directions. The occupation seems to have no distinct connexion with the disease, although the majority of cases described have occurred in manual workers. In many instances the symptoms have followed some acute illness, such as influenza, scarlet fever, typhoid, or severe diarrhoea; and pregnancy, menstruation, emotional strain, cold baths, and over-exertion have been invoked in different cases as exciting causes. In some instances more than one member of a family has suffered, and occasionally the condition has been superinduced upon some form of weakness already existing, such as lead palsy.

Morbid Anatomy and Pathology.

As regards morbid anatomy, so far the cases examined have shown no definite signs of changes in the nervous structures which supply the affected muscles. Nor have the muscles themselves shown any material alteration, except in rare cases, in which a slight degree of atrophy has been present. In some cases, however, very definite enlargement of the thymus gland has been present, in one a condition of lymphosarcoma, in others lymphoid tissue has been present in the muscles themselves, or multiple tumours have been present distributed throughout different organs of the body in such a way as to give possibly some clue to the real nature of the disease. From all that we can gather in the symptomatology of the disease and the condition of the structures generally, it would seem as if the terminal parts of the lower motor neuron were the parts whose function is interfered with. From the nature of the weakness, its variability, and its distribution, it would seem as if we must invoke the presence of some toxic substance to give rise to this interference with the terminal nervous structures; and the presence, in some cases at all events, of the enlarged thymus gland and of the lymphoid tissue in the muscles and other structures already referred to, perhaps give us a clue to the origin of such toxic substance. It seems possible that this tissue is the source of the poison, and that the discovery of its presence may be the means of throwing much light on the origin of the disease. We cannot help thinking in this relation of myxoedema. We know that myxoedema is a disease which is caused by the absence of a certain glandular secretion from the blood, and that by replacing this secretion artificially the disease can be cured. It is possible that in myasthenia we are dealing with a disease which is, in a certain sense, the converse of myxoedema; that in myasthenia we are dealing with a diseased condition, the result of the presence of a poison in the blood, this toxic substance being produced by an overgrown or modified thymus, or by the abnormal lymphoid tissue present throughout the body, and even in the muscles themselves. And if this is so, our efforts in regard to treatment will necessarily be directed to the discovery of some substance which will be antagonistic to the poisonous substance secreted from such tissue.

Diagnosis.

The diagnosis of the condition, when one has become familiar with the type of disease, is not very difficult. Undoubtedly the closest analogy which is offered is to those cases of nuclear palsy in which the cells of the nuclei related to the bulbar and the ocular muscles undergo gradual, and in time complete, wasting. In many cases it may be impossible to say to which class of cases a given one belongs. It can only be by careful and repeated examination, by noticing the variation of the conditions, by recognizing the associated weakness and easy exhaustion of the trunk muscles and those of the extremities, that we can be convinced that the condition is one of myasthenia and not one of nuclear disease. In reference to diphtheritic paralysis, as will at once be recognized, the analogy is very close. Similar structures are affected, and they are affected in a similar way; and often in myasthenia the onset of the trouble is almost as rapid as it is in diphtheritic paralysis. In the latter disease, however, there will usually be a history of sore throat, etc., to go upon; there will be an absence of the knee-jerk as contrasted with its activity in myasthenia, and there will be the comparatively early clearing up of the condition under appropriate treatment. Polioencephalitis of a chronic character, which is really the degenerative nuclear palsy to which we have referred already, may also, of course, simulate the condition. An acute polioencephalitis is scarcely likely to be mistaken, the onset being so much more sudden. Hysteria is a name which has frequently been given to cases of myasthenia, and the curious variation in the condition, especially in the earlier stages, when the patient is sometimes apparently quite well, and at other times, even on the same day, profoundly weak and ill, may seem to some extent to justify the mistake. An interesting but tragic example of this error is related in the article in Allbutt's *System*, already alluded to. But careful examination of the weakness of muscles, especially the weakness of ocular muscles, which it is almost impossible for a patient to simulate, will usually convince an observer that the condition is not a functional one.

Prognosis.

The prognosis in this disease is always somewhat grave. It is no doubt true that many cases persist in the same curiously variable condition during many years. The second patient referred to to-day has been in a similar condition to that which he occupies at present for about ten years. I recently saw a man in a similar condition in whom symptoms had been present for at least fourteen years. Yet in other cases there is very little doubt that the disease is a very serious one, is very rapidly progressive, and may lead to sudden and somewhat unexpected death. The danger usually lies in an affection of the respiratory apparatus, and patients have frequently died from what may be described as a respiratory crisis. In one instance the patient was admitted to hospital one afternoon about 3 o'clock; she became suddenly dyspnoeic by 8, tracheotomy was done without affording her any relief, and she died at 2 o'clock next morning. The sudden and tragic changes in a patient apparently well a few hours before stamp the disease as one to be looked upon always as possibly serious. Yet in some cases recovery apparently takes place, and it is possible that this is occasionally permanent.

Treatment.

Treatment so far has not resulted definitely in any modification of the diseased condition. Strychnine, no doubt, especially if given hypodermically, seems to have a good influence. Thyroid treatment, and various other forms of treatment by organic extracts, have been tried without any benefit. Yet if the suggestion which the recent pathological findings seem to point to be correct, it is to be hoped that some form of antitoxin may be discovered which will have the effect of antagonizing the poison which is possibly formed by the lymphoid tissue which has been found present in certain cases.

NEW METHODS OF STUDYING AFFECTIONS OF THE HEART.

By JAMES MACKENZIE, M.D.,
Burnley.

I.—AFFECTIONS OF THE FUNCTION OF CONDUCTIVITY.

I propose to endeavour to apply some of the results of recent experimental and clinical discoveries to the explanation of certain phenomena observed in the clinical examination of the human heart. Although, in the main, these papers are explanatory and indicate how certain signs may be recognized, I have accumulated sufficient evidence to show how these signs may profoundly modify our conception of many affections of the heart, and how the views here set forth may have a very practical bearing on the treatment of a great variety of cases of heart disease.

1. The Functions of the Heart Muscle Fibres.

Gaskell[1] describes the functions of the muscular fibres of the heart as rhythmicity, excitability, contractility, conductivity, and tonicity—that is to say, the muscular fibres of the heart possess the power of rhythmically creating a stimulus, of being able to receive a stimulus, of responding to the stimulus by contracting, of conveying the stimulus from muscle fibre to muscle fibre, and of maintaining a certain ill-defined condition called "tone." By virtue of these inherent functions the heart is able to beat and to keep up the circulation of the blood independent of any nervous assistance. In the ordinary sense of the term the heart possesses no motor nerves, the vagus and sympathetic nerves having only a moderating influence upon these varied functions of the heart muscle fibres.

2. Arrhythmias due to Affections of these Functions.

While the nature of these functions has been abundantly demonstrated experimentally, little has been done so far to apply the "myogenic" doctrine to the study of heart affections in man. The difficulty has lain in the absence of any facts showing how modifications of these functions would exhibit themselves in the movements of the heart, or in modifying the blood flow in arteries and veins. Engelmann,[2] in a minute and detailed inquiry into the nature of these functions, demonstrated, among other things, that the first four of these functions may each be affected independently of the others. Wenckebach,[3] who had made himself familiar with the most minute details of Engelmann's experiments, conceived the idea that where one of these functions became depressed an arrhythmia peculiar to that function would be manifested. He was able to detect such arrhythmias in the experiments of Engelmann and Hoffman, and afterwards was able to recognize similar types of arrhythmia in certain forms of irregularity in the human heart. His method consisted mainly in taking sphygmographic tracings of the radial pulse and minutely analysing the variations in rhythm. As Engelmann's results were obtained from the dying heart of the frog, it seemed rather a far cry to compare these with those of a fairly healthy human heart. On these grounds objections were plentifully raised against Wenckebach's views, and as his observations depended on inferences only, his position seemed somewhat untenable, particularly as arrhythmias bearing a superficial resemblance to some of his special types could be referred with certainty to other conditions. As I had pursued the study of heart irregularities by a different and more complicated method whereby I could frequently demonstrate the parts played by both auricles and ventricles, I was able to demonstrate the correctness of Wenckebach's interpretations in many of the most striking arrhythmias.

3. Nature and Functions of the Muscle Fibres connecting Auricle and Ventricle.

While the functions that have been cited are inherent in all muscle fibres, some of these functions are more highly developed in certain portions of the heart muscle than in other portions. The muscle fibres at the mouth of the great veins and adjoining portion of the right auricle (remains of the sinus venosus) possess the greatest power of automatically creating the stimulus for contraction, and because of this the wave of contraction normally starts here, and passes in a peristaltic manner over the rest of the heart "with varying speed, quickest over the tissue which has become modified so as to approach more nearly in its properties to ordinary striated muscle—namely, the reticulated bulged portion of the auricle and ventricle—more slowly over those parts which retain a more embryonic character—namely, the auriculo-ventricular muscular ring and the bulbus arteriosus."

Gaskell further points out that the muscular tissue joining the auricle and ventricle (canalis auricularis) shows a less-developed type of muscle fibre, being less striated, a condition which has been verified to exist in the mammalian heart by Kent, His, jun., and others. This muscle tissue is distinct in its functions from the more striated muscle fibres in that the wave of conductivity passes more slowly over its fibres, and it possesses a greater power of automatically creating a stimulus for contraction. In the human subject these peculiarities can be recognized, and their recognition explains satisfactorily a great number of obscure actions of the heart some of which have hitherto escaped attention, while others have been completely misunderstood. In this paper I shall deal only with the evidence of the first of these peculiarities—that is, the nature of the conducting power, whereby the stimulus is conveyed from auricle to ventricle, leaving for a subsequent communication the description of the results of over-excitability of these fibres.

4. Method of Estimating the Condition of the Conductivity.

This function is recognized by the time that elapses between the auricular systole and the ventricular. The method of studying the movements of the heart by taking simultaneous tracings of the radial and jugular pulses affords an exceedingly simple and readily demonstrable method for observing the conductivity in man. To obtain a tracing of the jugular pulse a shallow, open cup is placed over the lower end of the relaxed sterno-mastoid muscle. This cup (a receiver) is connected by means of a tube with a tambour, which is fitted on a Dudgeon or von Jacquet sphygmograph in such a manner that the lever of the tambour can be made to write on the same paper and at the same time as the sphygmograph lever inscribes the movements of the radial pulse. It is frequently impossible to get tracings of the jugular pulse without some movement due to the carotid. With the radial pulse as a standard one can with certainty assign the part of the tracing due to the carotid and the part due to the jugular. It often happens that the only influence exerted by the carotid is a jerk of the lever due to the sudden tension of the carotid at the beginning of the ventricular systole and manifested in the jugular tracing by a short, sharp wave (*c* in all the tracings), as in Fig. 1.

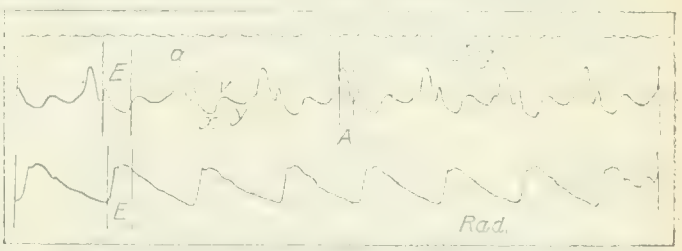


Fig. 1.—The space E represents the time of the ventricular systole. The wave *a* is due to the right auricle, and the wave *c* to the carotid impact. The space A represents the *a*–*c* interval. The time marked in all these tracings equals one-fifth of a second.

At other times the jugular pulse is so faint that only a slight elevation is obtained, and the tracing from the neck is otherwise entirely due to the carotid as in Fig. 2.

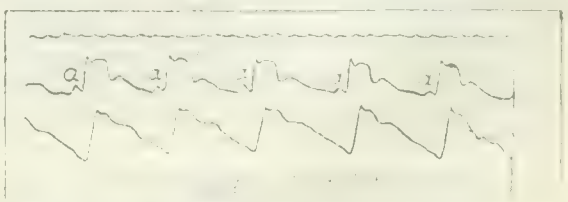


Fig. 2.—The upper tracing is from the neck and shows a small wave (*a*) from the jugular vein, and due to the right auricle, preceding the large carotid wave.

For the special purposes of studying affections of conductivity this interference by the carotid is a fortunate circumstance, inasmuch as it provides a readily recognizable point

in the cardiac cycle from which to gauge the interval between the auricular and ventricular systoles.

5. THE INTERSYSTOLIC PERIOD *(a–c interval)*.

This interval is occupied by three events—namely (1) the systole of the auricle; (2) the transmission of the stimulus from auricle to ventricle; (3) a minute portion of time taken up by the interval during which the ventricular pressure is rising before opening the semilunar valves (*Anspannungszeit* or presphygmic interval). As 1 and 3 are practically constant, they may for the purpose of this inquiry be ignored, any variation in the length of the *a–c* interval being due to variation of the rate of stimulus conduction.

In normal hearts I have found that the *a–c* interval is fairly constant, lasting usually one-fifth of a second (Fig. 1). Sometimes it appears a little shorter. The rapidity with which the tracing paper moves does not separate the events widely enough to enable me to measure the changes with sufficient minuteness. Still the differences can be appreciated readily by the eye.

6. DEPRESSION OF CONDUCTIVITY WITHOUT ARRHYTHMIA.

While the *a–c* interval may be considered normal when it does not exceed one-fifth of a second, as in Fig. 1, considerable increase of this interval may take place with no manifestation in the rhythm of the heart. The recognition of this

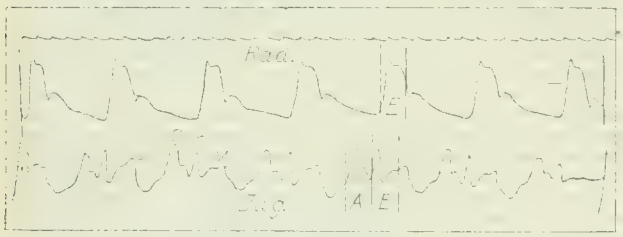


Fig. 3.—The *a–c* interval (space A) is twice the normal period, lasting two-fifths of a second in place of one-fifth as in Fig. 1, indicating a delay in the stimulus passing from auricle to ventricle (taken in 1904).

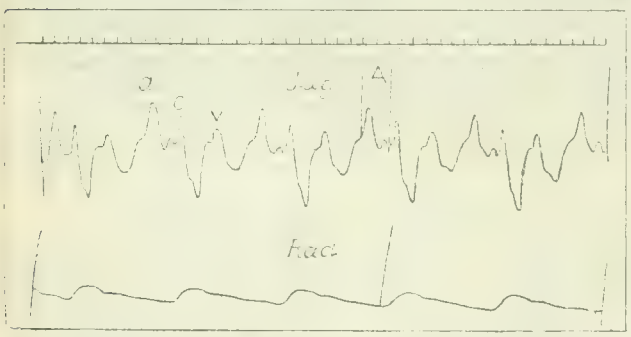


Fig. 4.—The *a–c* interval (space A) equals two-fifths of a second. (Taken in 1892 from the same patient as gave Fig. 3.)

depression of conductivity can only be afforded when we have evidence of the contraction of the auricles.

In Fig. 3 there is a tracing of the jugular and the carotid pulses taken at the same time as the radial pulse. The radial shows a perfectly regular rhythm, while the neck tracing shows a great increase in the *a–c* interval equal to two-fifths of a second (space A). The heart may continue to beat perfectly regularly for years with the conductivity affected to this extent. Thus Fig. 4 was taken from the same patient as gave Fig. 3 in 1892, and the jugular tracing shows a like increase of the *a–c* interval to two-fifths of a second. Except for a short period in 1898 (Figs. 8 and 9) this patient's pulse was quite regular up to 1904.

7. INFLUENCE OF REST UPON CONDUCTIVITY.

With each contraction all the functions of the muscle fibres are for the time being abolished. During diastole these functions are gradually restored. Normally their recovery is simultaneous, so that when the rhythmical stimulus arises at the auricle or great veins it passes over the whole heart, and the muscular fibres respond at a uniform time. When one of these functions is depressed, its recovery does not take place as speedily as the others, therefore the relationship of the action of these functions is not uniform, and an interference with the regular sequence of events results. Certain variations in the rate of conduction can frequently be detected, not only when conductivity is depressed, but also when it is presumably normal, such variations apparently depending on the time required for recovery after the previous exhaustion.

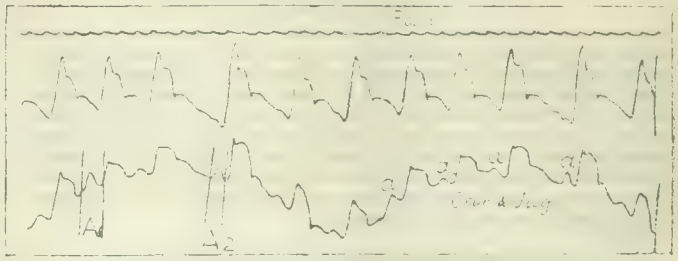


Fig. 5.—The carotid and jugular tracing shows a shortening of the *a–c* interval (space A_2) after the long diastolic periods and a lengthening (space A_1) after the short diastolic periods of the cardiac cycle.

One has little difficulty in illustrating this in a variety of ways in certain forms of heart irregularity. In a patient aged 24, and pregnant with her first child, suffering from mitral disease, I had noted an increase in the *a–c* interval for some years. During labour it frequently happens that the pulse becomes irregular, the irregularity often being of a respiratory type. The radial tracing in Fig. 5 shows such an irregularity.

The tracing of the carotid and jugular shows a rise and a fall due to the movements of respiration—the rise in the tracing corresponding with expiration, and the fall during inspiration. It will be noted that there is a distinct lengthening of the radial pulse periods at the beginning of inspiration. It will be seen that the *a–c* interval during the short pulse period (space A_1) is nearly double the duration of the *a–c* interval during the long pulse period (space A_2). The reason for this variation in the *a–c* interval is that the conductivity is continually depressed, but when the heart beats at a slower rate the conductivity has time to recover, so that the stimulus is conveyed from auricle to ventricle at about the normal rate (A_2). Here the arrhythmia is not originally due to the depressed conductivity, but evidently starts at the auricle, for the auricular wave, *a*, appears at irregular intervals. The modifying effect on the ventricular rhythm of the variable condition of the conductivity can be illustrated in a variety of ways. If we examine minutely the incidents where an occasional premature or extra systole occurs, sometimes very curious variations in conductivity can be detected.

When a stimulus arises prematurely in the auricle, the conductivity has not yet been completely restored, therefore the stimulus takes a longer time in passing to the ventricle, and as a consequence there is an increase of the *a–c* interval.

The patient from whom Fig. 6 was taken always showed a slight but distinct depression of the conductivity, as can be observed by the slight and varying length of the *a–c* interval (spaces A_1 and A_2). The radial pulse shows two premature pulse beats (x x) with corresponding premature beats (*c'*) in the jugular tracing. These premature beats are due to extra systoles of auricular origin, for it will be observed that in the jugular tracing the waves *a'* occur too soon. The interval (A_3) between *a'* and *c'* is greater than the average *a–c* interval (A_2) and is very markedly greater than the *a–c* interval (A_1) following the premature contraction. The shortening of the

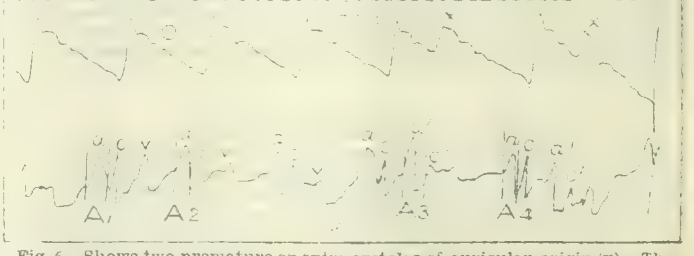


Fig. 6.—Shows two premature or extra systoles of auricular origin (x). The waves *c'* in the jugular tracing occur at the same time as the small premature beats (x) in the radial tracing, and are therefore due to the carotid. These are preceded by premature waves *a'* due to the auricle. The interval *a'–c'* (space A_3) is greater than the average *a–c* interval (A_2), and is much greater than the following *a–c* interval (A_4).

a–c interval (A_1) is due to the more complete restoration of the function of conductivity in consequence of the longer pause after the auricular systole *a'*. Good illustrations of the shortening of the *a–c* interval after periods of longer rest is to be seen in Figs. 11 and 12.

It may seem an unnecessary refinement to dwell upon such minute changes, but I trust to show later that the recognition of these facts affords the evidence for determining with certainty some changes of the utmost significance in a large class of cases of heart disease.

8. ARRHYTHMIA DUE TO DEPRESSION OF CONDUCTIVITY.

Slight arryhthmia may be due to variations of conductivity. Thus the short space o in the radial in Fig. 6 is seen to be due to an increase of the preceding *a–c* interval (space A_1), that is, to a delay in the ventricular systole.

Arrhythmia of a more marked character arises when the conductivity is so grievously depressed that the stimulus occasionally or frequently fails to cross the auriculo-ventricular junction. How this occurs is well seen in Fig. 7.

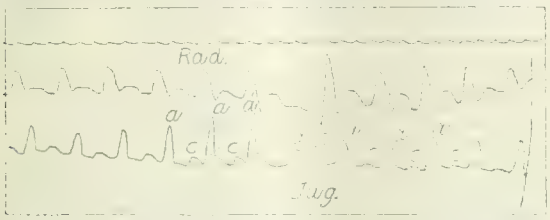


Fig. 7.—Shows a gradual lengthening of the *a–c* interval till a radial and carotid pulse beat drops out after the auricular wave *a'*. The following *a–c* interval is shortened.

There is a constant delay in the conduction of the stimulus here, the *a–c* interval being unduly prolonged. Before the intermission there is a slight but gradual increase of the *a–c* interval. After the auricular wave *a'* there is no carotid wave (*c*) nor pulse beat in the radial. The reason for this is manifestly that the auricular systole *a'* occurred so soon after the previous ventricular systole (as evidenced by the carotid wave *c* immediately before *a'*) that there was not sufficient time for the recovery of the function of stimulus conduction in these fibres, and hence no stimulus reached the ventricle and a beat dropped out. By this means a longer rest was procured for these fibres, and when the next stimulus comes down from the auricle the longer rest has so restored the function of conductivity that the *a–c* interval following the pause is shorter than the average. In Fig. 8 there is a dropping out of ventricular beats at regular intervals.

Fig. 8 was taken in 1898 from the patient from whom Figs. 3 and 4 were taken. For many years tracings from this patient showed constant though slight depression of the conductivity. For some reason in 1898 this conductivity became further depressed so that at regular intervals a ventricular

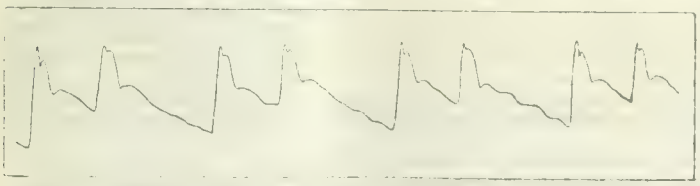


Fig. 8.—Regularly intermittent pulse due to depression of conductivity.

beat dropped out (Fig. 8). The true nature of this arrhythmia is shown in the jugular tracing (Fig. 9), where the auricle is shown to contract regularly (wave *a*), while the ventricle fails to respond to every third auricular systole. To demonstrate this more clearly I reconstruct Fig. 9 in the form of a diagram

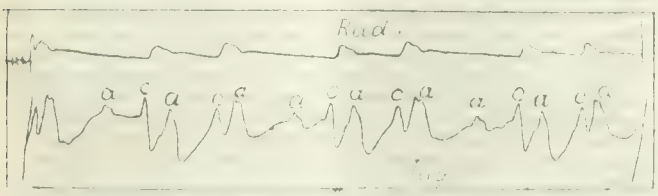


Fig. 9.—Taken at the same visit as Fig. 8, and shows the venous pulse during the arrhythmia. The wave *a* is quite regular in its appearance.

(Fig. 10), after the manner of Wenckebach, modifying it so as to show the actual site of delay at the fibres joining auricle and ventricle. The down strokes in the upper division re-

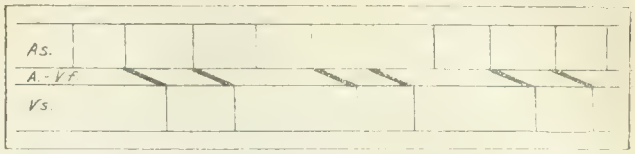


Fig. 10.—Diagram constructed to show that the arrhythmia in Figs. 8 and 9 is due to a blocking of the conductivity at the fibres joining auricle and ventricle (A-V*f*).

present the auricular systoles (A_3). The down strokes in the lower division represent the ventricular systoles (V_3), and correspond with the radial and carotid pulses in Figs. 8 and 9. The thick, slanting lines represent the conduction at the fibres joining auricle and ventricle (A-V*f*). It will be seen that a ventricular beat drops out regularly after every third auricular systole.

This form of arrhythmia has been described by Wenckebach and its cause inferred from the manner in which the radial pulse varied. His proof rested on similar variations in the movement of the frog's heart described by Engelmann, and it affords me much pleasure to be able to verify the interpretation of this shrewd observer.

9. BRADYCARDIA DUE TO DEPRESSION OF CONDUCTIVITY.

Gaskell states that on applying a screw clamp around the auriculo-ventricular groove of a frog's heart, "according to the tightness of the clamp the ventricle can be made to beat synchronously with the auricles, to respond to every second contraction of the auricle, to respond to every third, fourth,

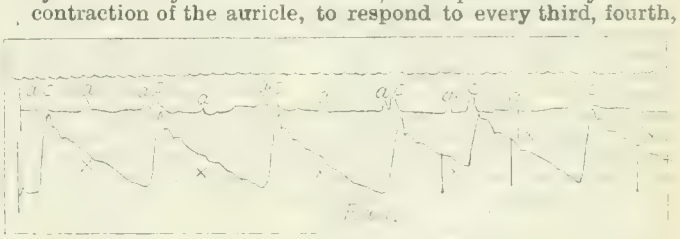


Fig. 11.—From a slow irregular pulse after influenza. The jugular tracing shows that the bradycardia was due to the ventricle failing to respond to every auricular systole. Note that after the short pulse period in the radial the *a–c* interval is much longer than after the other periods. Note also at x a slight depression in the radial tracing due to the action of the left auricle affecting the arterial column.

or other contraction, or to remain quiescent." All these varying results can be demonstrated to occur in the human heart.

In Fig. 11 there is one short pulse period and the *a–c* interval here is much longer than the *a–c* period after the longer periods, the lengthening being an evidence that the conducting power of the fibres at the auriculo-ventricular groove have not had time to recover as effectually as after the longer pulse periods. In Fig. 12 there are three auricular contractions to one ventricular, except during the last arterial pulse period, when there are but two auricular waves, and after the second of these the *a–c* interval is longer than the other *a–c* intervals in this tracing.

In an excellent tracing published recently by Gibson[1] there are four auricular beats to one ventricular. This blocking may be so extreme that the auricle may beat ten or twelve times and the ventricle stand still. When this occurs anaemia of the brain induces syncopal and epileptiform seizures (Adams-Stokes syndrome). I have seen a few such cases, but unfortunately I was not able to take tracings during the attacks, but the classical case so remarkably well recorded by Webster[2] demonstrates these points most conclusively.

10. INDEPENDENT VENTRICULAR RHYTHM DUE TO HEART BLOCK.

In the tracings I have given so far it could be shown that when the ventricle does contract it is in response to a stimulus from the auricle. When a ligature is applied in the auriculo-ventricular groove of the frog's heart, so that the stimulus can no longer be conveyed from auricle to ventricle, after a time the ventricle will beat with a rhythm different from, and independent of, that of the auricle (heart block).

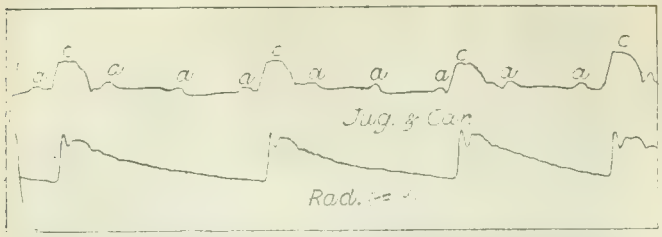


Fig. 12.—Shows a more extreme form of bradycardia, where the ventricle responds to every third auricular systole. The large wave (c) is due to the carotid. In the last period there are but two auricular waves and the *a–c* interval is longer than after the period with three auricular waves.

This independent rhythm can be demonstrated as the cause of certain forms of bradycardia in the human subject. Fig. 13 is a tracing of the radial taken at the same time as the pulsation in the neck due to the jugular and carotid. The small waves, *a*, are due to the right auricle, and there are two of these auricular waves to one carotid or radial pulse beat. But when one carefully analyses their relationship it is found that the two auricular periods are less than one ventricular period, so that the relationship of the auricular systole to the ventricular systole is a constantly varying one, sometimes at a distance, then gradually approaching till they are synchronous. Whatever relationship the *a* has to *c* no variation takes place in the rate. The same thing is shown in Fig. 14, where the apex beat is recorded at the same time as the radial. Here there is a small wave, *a*, due to the systole of the left auricle, and the same maintenance of the independent rhythms is manifest here. One can infer with certainty that the auricle contracted at the same time as the ventricular systole during the first four or five of the ventricular apex beats, but that the evidence of this simultaneous contraction is obscured by the large ventricular wave, for we can see in Fig. 13 how the wave, *a*, occurred at the same time as the carotid pulse. I have taken a large number of tracings from this patient at various times and under various circumstances, and I have invariably found the independence of rhythm between the auricle and ventricle.

Another peculiar feature present in this case was the remarkable manner in which this patient's pulse seemed shut off from the effects of external stimulation. The pulse-rate was almost invariably 30 to 32 beats per minute whether she was working or lying in bed. Even when undergoing a surgical operation, observations before, during, and after the administration of chloroform showed the same uniform pulse-rate. Professor Wenckebach informs me that in a similar case a glass of port wine considerably quickened the rate of the auricular contractions, while the ventricular rate was unaffected. To demonstrate the evidence of affections of the functions of the heart muscle fibres I will describe in some further papers the effects of digitalis on the human heart, as this drug has a remarkable effect on the individual functions.

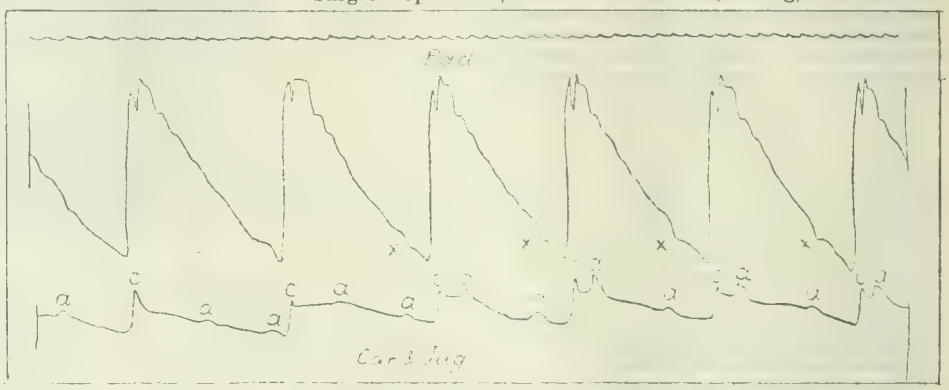


Fig. 13.—Shows in the tracing from the neck that the auricle, *a*, beats regularly and at more than twice the ventricular rate. The varying length of the *a–c* intervals showed that the ventricle pursued a rhythm of its own independent of the auricle. Note the small dips, x, in the radial tracing, due to the movement of the left auricle affecting the arterial column.

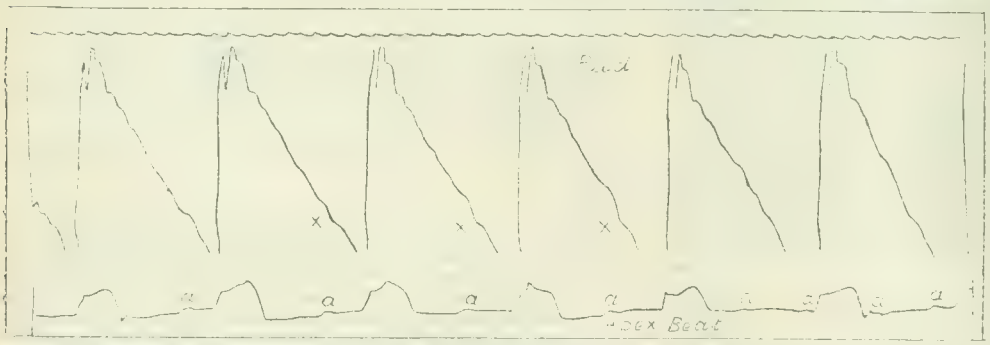


Fig. 14.—From the same case as Fig. 13. Shows the influence of the left auricle on the apex tracing (waves *a*). In the radial tracing the dips x due to left auricle are found to occur immediately after the auricular waves in the apex tracing.

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SOME PRACTICAL ASPECTS OF CONJUNCTIVAL BACTERIOLOGY.

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I DESIRE to say something as to the necessity and utility of daily bacteriological work in the modern eye clinic. The science of pathology and the science of therapeutics are sisters. The problem to be solved is the treatment of disease. The object of pathology is to explain the origin of disease, and the ideal object of rational therapeutics is to apply the teachings of pathology to its cure or to its alleviation. In all its departments medicine is in many respects more of an art than a science, and probably to a large extent must remain so; but, unquestionably, recent pathological advances have done a great deal to illumine the work of the practitioner, and to bring his efforts more into line with the biological sciences.

Thanks to the pathologists, we now have clearer ideas as to the nature of the many forms of inflammation of the conjunctiva, which in days gone by were all classed together as catarrhal ophthalmia, and were for the most part put down to exposure to cold, or to other indefinite causes. Some considerable number of years ago it came under my notice that a number of persons, who all lived in the same tenement in High Street, Glasgow, were suffering from acute catarrhal conjunctivitis.

I investigated the matter at the time, and found that no fewer than forty persons were thus affected in this one tenement. It seemed to me, then, that we here had to deal with something which was epidemic, and to some extent analogous to one of the specific fevers. Some time later I read a very interesting paper by Dr. Weeks, which seemed to afford a complete explanation of such occurrences. In that paper he described his bacillus and the contagious catarrh to which it gives rise.

Many changes have taken place since then, and thanks to the labours of several distinguished pathologists we now know a considerable amount about the bacteriology of the conjunc

tiva. Indeed, attempts have even been made to form a bacteriological classification of conjunctival diseases. No doubt the picture is not complete, for the micro-organism to which granular ophthalmia is due has not been discovered, nor has it as yet been determined what is the condition in phlyctenular conjunctivitis; much work, however, which is of great practical importance has already been done.

There are few conjunctival sacs which appear to outward observation to be normal in which micro-organisms are not found. It is only occasionally on taking a scraping from the conjunctival sac and putting it on a culture medium in an incubator, that no growth occurs. Some of the micro-organisms which are thus found are in no sense pathogenic—for example, the bacillus xerosis. On the other hand, most of them are, under suitable circumstances, capable of doing harm. These latter may be divided into two definite groups. The members of one group do not appear to be capable of doing mischief so long as there is no want of continuity in the protecting epithelium. Amongst these must be included staphylococcus albus and aureus, streptococcus, possibly also pneumococcus, and various forms of bacilli. Amongst these I personally have observed the bacillus pyocyaneus. The members of the other group seem never to be present without setting up inflammation. Typical examples of these are found in Weeks's bacillus and in the gonococcus. Probably Morax's diplobacillus is seldom present without causing a conjunctivitis, although, as a rule, not of a severe type.

Bacteriology should be in daily use in every eye clinic; first, because it is an important aid to diagnosis; secondly, because it is a guide in determining the safety of any operation; thirdly, because it materially influences our views of treatment.

1. As already stated, the classification of conjunctival inflammations becomes more and more a bacteriological one. By no other process can we absolutely determine in the early stages whether a given case of inflammation of the conjunctiva is due to the gonococcus, to Morax's diplobacillus, or to Weeks's bacillus. Nor is this differential diagnosis an altogether unimportant matter. Take, for example, a case in which a patient comes with an acute conjunctivitis. You make a cover-glass preparation and stain it with methylene blue, and find small diplococci, for the most part enclosed in the cellular elements of the discharge. If, in addition to this, you find that these micro-organisms decolour by Gram's method, there is the strongest proof that you are dealing with a case of acute purulent ophthalmia of gonorrhoeal origin, and therefore with a patient who will require all skill and attention if a favourable determination of his malady is to be obtained. In the early stages ordinary clinical observation entirely fails to differentiate between these various forms of acute ophthalmia. It can only be done by bacteriological observation, and hence the importance that it should be resorted to at the earliest possible moment. In a case similar to the supposed one just described, it would be the duty of a surgeon immediately to shut out the healthy eye from all risk of contagion by the application of some such apparatus as Buller's shield.

2. In the next place, I wish specially to make some remarks as to the necessity of bacteriological investigations of the conjunctiva prior to operative procedure. This is an aspect of the subject of the importance of which I have long been aware. Some cases were published by me in 1897, and for several years prior to that date I had investigations made on this subject. Even as a student one was struck with the fact that many of the operations on the eyeball which seemed to have been performed with the greatest skill and dexterity by several surgeons gave unsatisfactory results. Many of them were followed by irido-cyclitis, and not a few by acute suppuration. Unquestionably the introduction of so-called antiseptic treatment eliminated a great number of these, but still left many disappointing cases. Patients after operation continued to have acute catarrhal conditions, sometimes severe iritis, and sometimes even suppuration. Nothing can be more distressing to a surgeon who has used every care than to find a case operated on with proper precautions going wrong. I have no doubt whatever that disaster can often be prevented by a thorough bacteriological investigation before attempting to operate, yet, odd to say, so far as I have perused the ordinary text-books, there is not one of them which mentions anything of the kind. We are given abundance of directions as to how to prepare patients, what sort of diet they are to have, what medicine is to be given them the night before. Full and explicit directions are sometimes given, even as to the special form of knife to be used, as if that in the hands of a good operator were a matter of much importance; and yet none of the textbooks with which I am acquainted advise the operator to look carefully before he leaps, and to make bacteriological investigations before operating on any eye. I therefore think that this practice, the adoption of which I urged many years ago, has not yet found favour. It may be stated as a general rule that no operation should be performed until such investigations have been made by a reliable observer.

The only exception to this rule which I remember at present is in cases of glaucoma. Many of these cases do not admit of the possibility of delay and the risk of an infection must be run.

Let me illustrate my meaning by a few concrete examples, and, in the first place, let me take some cases in which bacteriological investigation showed the presence of streptococcus. In my own experience I have known this parasite to cause the loss of three eyes after cataract extractions. About the year 1896, a patient was sent to me from the South of Ayrshire. One eye had already undergone the operation of cataract extraction, but the result had been an intense suppuration with the destruction of the eyeball. She was sent to me to see if I would undertake the other eye. The first step was to have the conjunctival fluid from both eyes examined, and at once there came a report that the fluid on each side contained streptococcus. That was to my mind an ample and full explanation of this melancholy occurrence. With a good deal of difficulty the streptococcus was got rid of in the remaining eye, which was then operated upon, and good vision obtained.

The second case of failure due to streptococcus was in my own clinic. I had a suspicion in this case that the lachrymal sac and the conjunctiva were not altogether healthy. When the patient was admitted to the ward there was a certain amount of discharge. She was kept for a considerable time under what I believed in those days to be suitable treatment, till the house-surgeon informed me that the eyelids were perfectly free from all discharge, and the lens was then extracted. In that case there was a severe suppuration, and in the discharge streptococci were found.

The third case which I wish to mention in this connexion has been seen by me quite recently, and is very instructive. A senile cataract in the right eye was extracted by a surgeon residing in another town. The night after the operation she was seized with violent pain in the eye, which ultimately became an atrophic stump, either from acute suppuration or from irido-cyclitis. She happened to be admitted under my care at the Eye Infirmary to have the other eye done, and, following my usual plan, thorough investigations were made.

It was then discovered that there was plenty of streptococcus in the conjunctival fluid of the remaining eye. That afforded an ample explanation of the disaster to the first eye, and gave warning as to the treatment of the second. Had an operation been at once performed there is every probability that the second eye would also have been lost. A period of a fortnight passed before the condition of the conjunctiva warranted an operation. This was done in the usual manner by combined extraction, a large conjunctival flap being cut. For the first ten days the patient was absolutely free of all pain, and the wound healed rapidly and well. At the end of that time, however, she complained one night of a good deal of pain, and on examining her next day I found the lids somewhat swollen and all the other evidences of an acute catarrhal conjunctivitis present. On making cover-glass preparations it was observed that streptococci were abundant in the discharge. It was a streptococcic conjunctivitis—a reinfection of the conjunctiva, probably from the nasal cavities. Fortunately the wound was firmly united, and the eye was beyond risk so far as vision was concerned.

Take another example out of many which I could give: At present there are in the hospital 3 children who are all affected with very similar injuries. In each there has been a penetrating wound of the cornea followed by traumatic cataract. One of these eyes is as quiet and free from irritation as in the most healthy condition. In this case there are no micro-organisms in the conjunctival fluid, or only those which are perfectly innocuous. Both of the others are extremely irritable, and in each there is an acute catarrhal condition of the conjunctiva. In the discharge from one of these cases pneumococci are abundant. In that of the other there are numerous micro-organisms which at present are undergoing the process of being identified.*

* The eye which had the pneumococci subsequently developed a hypopyon with irido-cyclitis, and had to be enucleated. The other made an excellent recovery, and in this respect it is interesting to note that the micro-organism turned out to be the staphylococcus albus.

It will not do in instances such as these to say that the difference depends upon a different amount of swelling of the lens. A swollen lens will not *per se* determine any external irritation. Such a lens, if not properly treated, may and very likely will give rise to a traumatic glaucoma, but it will not give rise to a catarrhal condition of the conjunctiva or to an iritis. Again and again I have needled lenses both for congenital cataract and for high myopia so as to nearly fill the anterior chamber with lens débris, but I have never seen apart from micro-organic life any acute condition. Cases such as have been described might be almost indefinitely multiplied, but these instances must suffice for the present. To sum up this part of the subject: No operation which involves the opening of the ball should be undertaken if bacteriological investigations reveal the presence of staphylococcus aureus, streptococcus, pneumococcus, or any other well-defined pathogenic micro-organism. As regards staphylococcus albus, my experience shows that it will not cause a suppuration or an iritis or an irido-cyclitis, but at the same time if present in any considerable quantity it will almost invariably give a form of conjunctivitis, which, however, is of no importance as regards the ultimate success of the operation.

If the conjunctival secretion gives no growth on culture media, then the conjunctiva will, with an exception to be presently mentioned, maintain an almost normal whiteness during the process of recovery. The exception referred to is when the patient is the subject of gout or of chronic rheumatism. I think that sometimes such patients are difficult to heal, and that we may in them have iritis of a modified type without any micro-organisms which have as yet been identified. This, however, just opens up the question as to what is the etiology of these diseases.

3. Bacteriological investigations are of use as regards treatment. Pathological research, however important and interesting from a biological point of view, cannot be regarded by the practitioner as an end in itself. Whatever it may have of intrinsic value to the man of pure science, to any one who is studying disease with a view to its cure or amelioration it is only a means to an end, and that end is rational treatment.

In the first place, it is to be observed that the newer views of etiology of conjunctival diseases have caused their treatment to be regarded from two separate aspects. On the one hand, there is the actual treatment of the case, and on the other the prevention of the spread of contagion. In other words, prophylaxis is here, as in the department of public health, a matter of the first importance.

A contagious ophthalmia, such as that caused by Weeks's bacillus or by the gonococcus, must run its natural length, just as a case of small-pox or of scarlet fever does. I am not sure that anything will cut it short. No doubt treatment may to some extent modify its virulence, or, at any rate, give the patient some degree of comfort, but I feel inclined to deny totally that any form of treatment will at once stop the progress of the disease. For example, I have never, either in my own or in any other clinic—and I have carefully watched a good number of patients in other clinics—seen any remedy cut short a case of purulent conjunctivitis.

It invariably runs its usual course for some weeks in which a contest seems to be waged between the virulence of the infective material and the resisting powers of the tissues. Let me again quote from my own personal experience a case which is typical of many others which I could give. A patient came under my care for the purpose of having a cataractous lens removed. I found on investigation that he had undoubtedly staphylococcus aureus in his conjunctiva. The question came to be how this parasite was to be got rid of. He was prescribed a lotion of 1 to 8,000 of mercuric bichloride and was sent home to use it for three weeks. At the end of that time he returned with the parasite as abundant as ever. The lotion had effected nothing. He was then put to bed and pledgets of cotton-wool well soaked with 1 to 8,000 of mercuric bichloride were kept on the eyelids tolerably constantly, and that for a period of ten days, at the end of which time the parasite was still found in considerable quantities. The next attempt that was made to get rid of it was by using strong silver nitrate solutions such as were then employed for purulent conjunctivitis. I speak of a period of ten years ago, before protargol had come into use. The result of the nitrate of silver treatment was most disappointing. At the end of a week the conjunctiva had become much inflamed and the parasite was as abundant as ever. It seemed to me that the only thing which I had effected by the nitrate of silver treatment was the destruction of the projecting epithelium of the conjunctiva, and hence the acute conjunctivitis. As a last resource I visited the patient twice or thrice daily and thoroughly mopped out the whole conjunctival sac with sterilized cotton-wool moistened with a little sterilized water. What the so-called remedies had not done this line of treatment did in a few days. It removed the parasite and rendered the conjunctiva safe for operation purposes. That is only one example out of very many that could be given. That there is no substance which we can apply to the conjunctiva in a strength sufficient to be germicidal without destroying the membrane can scarcely be gainsaid. A lotion, if properly used, may largely effect the mechanical removal of septic organisms, but proof is altogether wanting that it will destroy them.

What proof exists is entirely contrary to the view that anything we have, so far as the human conjunctiva is concerned, can be, in the strict sense of the word, an antiseptic. I even go the length of expressing a doubt as to whether lotions or drops have any inhibitory influence on the development of the micro-organisms in the conjunctival sac. To begin with, I do not think the applications are sufficiently long in the sac to be of much service. Put a few drops of a solution of argyrol on the conjunctiva, immediately there is a copious secretion of tears, which practically prevent it having any contact with the conjunctival structure. I am given to understand that many eminent surgeons in the treatment of gonorrhoea have entirely abandoned as useless the old so-called astringent injections. I am not at all sure that caustic solutions are of any more use when applied to the conjunctiva than they are when applied to the urethra, and I think it may fairly be argued that their power of destroying the conjunctival epithelium makes their application of very doubtful utility in the treatment of conjunctivitis.

If this view be adopted it makes the question of the method in which the lotion is to be applied a matter of primary importance, while the actual contents of the lotion is an affair of comparatively little moment. Till a few years ago the all-important thing was considered to be the ingredients of the lotion. Nothing could better illustrate that view of the case than the directions drawn up by so eminent a man as the late Dr. Mackenzie for the use of his well-known lotion. To his mind it mattered greatly that the eye was bathed with a solution of a mercuric salt. He did not find it at all incompatible with his ideas of prescribing to order the patient to bathe his eyes with a mixture of the lotion and the discharge removed from the conjunctiva at previous washings. Some surgeons will still tell you that excellent results are obtained by the use of lotions containing such substances as boroglyceride, boracic acid, and so on. To that our reply is that excellent results are also obtained by the use of sterilized water. The presence of such inert substances as those just mentioned cannot be imagined to exert any influence.

Before passing from this part of the subject, it is only right to mention that my colleague, Dr. McMillan, than whom I know of no more cautious or accurate observer, tells me that in cases of blenorrhoea of the lachrymal sac much good is often done by filling the sac with a solution of argyrol. There exists, however, a great difference between the lachrymal sac and the conjunctival sac, and it is, that in the former the solution of the salt remains in contact with the membrane lining the sac for a considerable period, whereas in the conjunctival sac contact is maintained only for a few seconds. This leads me to remark that where we have an old standing blenorrhoea of the sac which does not yield readily to treatment it should be removed. Certainly this ought to be done where there is blenorrhoea of the sac prior to a cataract operation.

Five years ago I saw a patient from Paisley to whom a surgeon very justifiably refused operation because there was an old-standing dacryo-cystitis and the other eye was only in the incipient stage. It occurred to me that the extraction might easily and safely be performed if, as a preliminary operation, the lachrymal sac was removed. I accordingly excised it, and subsequently operated on the cataract successfully. Since that time, in common with many other surgeons, I have removed the lachrymal sac for suppuration. It is not a very difficult operation, and I think it may be rendered still easier by previously filling the sac either with paraffin or with soft wax.

As regards prophylaxis of acute conjunctivitis, it concerns in the first place the patient's other eye, if it be not affected by the morbid process. As already remarked, in such a serious form of conjunctivitis as that due to gonococcus, if one eye is not involved it must be at once put beyond the reach of

contagion by being hermetically sealed, either by such an apparatus as Buller's shield or by a carefully adjusted bandage. Care must be taken in every case of conjunctivitis, whatever its nature, that the friends and attendants of the patient are not infected. The methods by which this can be done are now so well known and, I hope, so generally practised, that there is no need to insist upon them here.

I shall just refer very briefly to one other point, and it is that the teachings of modern bacteriology give us important indications as to when an eye should be bandaged, or rather as to when it should not be bandaged. Formerly it was the custom to apply a compress and bandage in the treatment of almost every case of corneal ulceration. The bandage was supposed to do good first by keeping the eye at rest, secondly by excluding cold, and thirdly by giving the ulcerated surface a certain amount of support. It is obvious on the slightest consideration that a bandage applied only to one eye will not keep it at rest, for, notwithstanding its application, the eyeball will move freely along with its fellow; all that the bandage does in this respect is to subject the eye in its movement to a greater amount of friction. A bandage may or may not keep out cold; I have never tested the difference of temperature between the skin under such a bandage and the same part of the skin without it, but one thing it certainly does is to retain any septic secretions, and consequently it simply foments the organ with its own septic discharges. I admit that sometimes a bandage is of use in preventing an ulcer from becoming ectatic, but apart from this limited use bandages seem to me to be quite inadmissible in the treatment of corneal ulceration. In most instances they are productive of harm. If the eye must be protected, then let it be by a shade or by a pair of smoked glasses. If dark glasses are to be used for the purpose of diminishing the amount of light which enters the eye, they should be of London smoked glass and not blue. These latter allow the actinic rays to pass freely, and hence, if it be desired to keep the chemically strong rays out of the eye, it is a mistake to tint the glass with blue or purple. At the same time, cobalt-blue glass, or the more recent amethyst glass, while allowing the light of short wave length to pass, will largely exclude the heating portions of the spectrum. London smoked glass diminishes both sets of rays.

It would therefore seem that the former practice of fomenting eyes should be discarded; presumably nothing more aids the development of micro-organisms than a moist heat, and I have seen corneal ulcers made very much worse by the applications of fomentations. So far as my own practice is concerned, I employ them only for two purposes, one of which is to promote suppuration in the early stages of panophthalmitis, and the other to relieve the pain of rheumatic iritis.

A CASE OF ACUTE ENDOCARDITIS DUE TO THE MICROCOCCUS GONORRHOEAE.

BY WILLIAM HUNTER, M.B., C.M.ABERD.,
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THAT endocarditis might occur in the course of gonorrhoea has been known for years. It is only within recent times, however, that it has been possible to determine the exact relation of the two affections. Many investigators regarded the occurrence of acute endocarditis during or shortly after an attack of gonorrhoea as a secondary infection—the result of the entrance of staphylococci or streptococci into the circulation through the urethral lesion. The improvement in bacteriological technique has resulted in more definite information regarding such cases of endocarditis. It has shown that the endocardium may become infected directly by gonococci themselves.

The determination of this fact is of great moment in regard to the infectious nature of the micrococcus gonorrhoeae. A few years ago it was almost entirely associated with infective urethritis. To-day, however, with a more complete knowledge of this micro-organism and the effects which it may call forth in the human body, our ideas have altered considerably. Hitherto the gonococcus has been generally regarded as a micro-organism limiting itself to mucous membranes. It was only under exceptional circumstances that it penetrated into the deeper-lying connective tissue structures. Within recent years many proofs have been forthcoming establishing the possibility of the gonococcus reaching the lymph channels or the blood vessels and thereby being transported to other parts of the body, and capable of setting up metastatic disease. Its presence in the lymph apparatus has been shown by Columbini,[1] Uysing,[2] and others, while its demonstration in the blood stream has been accomplished by several observers, notably Wertheim,[3] Thayer and Blumer,[4] Unger and Proschaska.[5]

The affection of the heart by the gonococcus has been a subject of much discussion. Since its demonstration by Lenhartz,[6] Thayer and Blumer,[7] and Unger[8] but few cases have been reported. Recently papers on this subject have been published by Finger,[9] Leyden,[10] Michaelis,[11] Carageorgiadés,[12] and others, amplifying the earlier investigations. In view of the small number of cases so far reported I feel justified in putting my case on record, and all the more so owing to the fact that the condition was only discovered *post mortem* in a perfectly fresh cadaver. The following is a brief record of the case:

The patient was an unknown Chinese female, aged 38 years; she had been a prostitute. No *ante-mortem* history of the case was ascertainable.

The body was brought to the public mortuary, Hong Kong, about two hours after death, and an autopsy was performed at once. *Post-mortem* lividity was pronounced on all dependent parts and rigor mortis was severe. There was no evidence of eruption or haemorrhagic extravasation into the skin. The pericardium was normal. The sac contained ½ oz. of clear serous fluid. The epicardium was studded with numerous small haemorrhages. These were specially abundant along the course of the main coronary arteries and on the posterior aspect of the left ventricle.

On opening the heart the aortic valve was found diseased. It was studded with delicate granulations, especially on its ventricular aspect. The process extended for a short distance over the neighbouring endocardium. The granulations were most pronounced along the line of maximum contact where there had been the greatest friction. They were pinhead in size, extremely soft, greyish-pink in colour, and translucent. In one or two small areas the proliferation of tissue was more extensive, and covering this was a considerable amount of necrotic tissue admixed with blood coagulum. The valve itself was considerably thickened, owing to the great amount of round-celled infiltration and the activity of the connective tissue. The endocardium surrounding the focus of disease was opaque and slightly rough in patches. The other valves were competent. The other organs, especially the spleen and kidneys, were deeply congested.

So far as the genital apparatus is concerned, the vagina was thickened and hard, and its squamous surface rough and covered with patches of papillary thickenings of connective tissue. There was papillary erosion of the cervix uteri, with the presence of a thin pyoid secretion. The endometrium was thickened and warty, and the cavity practically in a condition of pyometra.

Bacteriological Examination.

Microscopic preparations made from the aortic valve showed countless oval-shaped diplococci, which did not retain the stain by Gram's method. Suspecting, therefore, the presence of gonococci, cultures were made with fluid and solid blood serum, human blood agar, ordinary agar, gelatine, and bouillon. Petri plates were also made. A coccus morphologically identical with the gonococcus was obtained from the cultures on blood serum and blood agar. Nothing definite was obtained from the inoculated tubes containing ordinary nutrient media. The coccus isolated from the serum cultures did not stain by Gram's method. This micro-organism was absolutely non-pathogenic for small animals.

A similar bacteriological examination was made of the genital tract. Microscopic preparations showed hoards of micro-organisms, many of which stained by Gram's method. Plate cultivations were resorted to, but with no definite result.

Clinically and pathologically, however, the condition of the genital tract was diagnostic of the effects of gonorrhoea. The negative result obtained from the genital organs was due to duration of the infection and the presence of innumerable other micro-organisms, the growth of which rapidly masks the true bacteriological nature of the lesions. The gonococcus was not recovered from any other organ or tissue. Histologically the aortic valve showed the usual inflammatory changes and necroses.

This case is of interest from several points of view. It is an additional proof of a direct infection of the endocardium by the gonococcus. The subject of the disease was an old prostitute, presenting well-marked pathological changes throughout the genital tract. The lesions were clinically very suggestive of old gonorrhoeal infection. As is frequently the case in such conditions, the specific micrococcus could not be demonstrated owing to the presence of many other micro-organisms. Again, the aortic valve of the heart was the seat of the endocarditis, and the inflammatory process was of a distinctly malignant character. Such a condition of affairs would appear to be the most frequent in gonorrhoeal endocarditis. Stengel has reported fifteen cases of the disease; all were of the malignant type, and in eleven of the cases the lesions found were in the aortic valves.

With the repeated publication of cases illustrating the powers of the micrococcus gonorrhoeae of setting up

metastatic disease, the older views in regard to the infective powers of the micro organism must be set aside. The gonococcus must be regarded as a micro-organism capable under certain conditions of setting up widespread disease in the human body. It may be regarded as an occasional exciting agent of septicaemia, but, just as in the case of other micro-organisms, the gonococcus in the production of disease shows preference for certain parts of the body—for example, the synovial membranes of joints, tendon sheaths, and the valvular apparatus of the heart. The affection of the heart by the gonococcus has been the subject of much discussion, more particularly in regard to the frequency of its occurrence. Clinically the condition is regarded as rare, and even *post mortem* the exciting agent may be lost sight of. It is true that the demonstration of the gonococcus is difficult in many cases, but with the routine examination of the blood in all cases of endocarditis *ante mortem*, as well as the bacteriological examination of the valvular lesion *post mortem*, cases due to the micrococcus gonorrhoeae ought to be brought to light in greater abundance in the future.

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An Address

ENTITLED

AFTER TWENTY YEARS.

Delivered before the Walthamstow Division of the Metropolitan Counties Branch of the British Medical Association.

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After twenty years or more spent in the practice of a profession such as ours, and after having passed what our dear old friend Oliver Wendell Holmes calls "the five-barred gate," one gets into the habit of spending more time than formerly in looking backward. The younger man when he meditates generally looks forward. It is good, no doubt, to keep an eye in both directions, but belonging as I do to the former class I am getting to think that, on the whole, looking backwards is the more profitable, and one reason is because I believe that it adds so largely to one's experience; for experience, I may perhaps remind you, does not only consist in receiving impressions from without and recording them; not only in being acted on and in acting; but largely in reflecting, comparing, and judging of the effect of those impressions and actions.

The life of the family doctor has in it undoubtedly much which cannot enter into the lives of those who follow other callings than ours, and the first thing I have to say about that life is, that it has brought me, as I am sure it has brought you, much pleasure and enjoyment, much satisfaction and reward, not of the material kind alone but of that kind which is more honourable and in the end more valuable, the assurance that one is doing something (little enough it may be, but still something) to relieve suffering, and to increase the general fund of happiness in the world.

The pathway has not all been smooth. It never is, we must have our disappointments and periods of depression, for life at all times, and especially a life like ours, is a continual conflict, of good with evil, of health with disease, of truth with falsehood, and there are times when, in spite of our best endeavours, the enemy seems to be getting the upper hand—times when our mistakes are only too well remembered, when our sense of failure is hardly counterbalanced by the feeling of having done one's best, the awful feeling that one has not done the right thing in some particular circumstance—such experiences come to us all. But, looking over these twenty years, it can certainly be said that on the whole we are advancing. Our knowledge of disease and our power to cope with it has increased immensely; indeed, our whole conception of some diseases has entirely changed, and our methods of treatment, preventive as well as curative, based upon our increased knowledge, have altered for the better.

But not only this—there is an advance all round. The scientific spirit—that spirit of careful, patient observation, of induction of principles from facts, which pervades all our work—is more widespread; it more and more influences every phase and method of life—sanitary, social, educational, and even political.

It is more generally recognized that a spirit of inquiry, a healthy scepticism, necessarily precedes increased knowledge. Hence there is more toleration; people are less under the influence of dogma and superstition; there is a greater inclination to explain things on natural rather than on supernatural grounds. This is largely due to the spread of education; and I do not wish to claim more than is our due in that direction. But I venture to think that our profession, mixing as it does closely with all classes of the community, has had a not inconsiderable share in bringing it about. It is part of our work to do this—to advance in any way we can the knowledge of the truth in all things; our duty, in short, is not only to try to make the world healthier but better. Better, because healthier.

One of the great men of our profession, who died only last year (Sir John Simon), was said to have been the means of saving more lives than were lost by us in all the wars of the last century; but his aim, like ours, was not only to save, but to improve the conditions of, life. And that this aim has to some extent been attained—that the conditions of life generally, and especially of the great masses of the people, have improved during the last twenty years, no one can deny. And, moreover, may we not say that the nature of our work is such that there is no room for anything that is unreal or untrue in our own lives, and that if we do our work properly and live our life well, we are not only doing some good to our fellow creatures, but we are raising ourselves to a higher level, getting a firmer grasp of the truths of Nature and of human life, and while mixing, as we necessarily must, with much that is bad, vicious, and unclean, we are learning that there is always in every thing and every body something that is good, and we appreciate that it is that something which it is most worth our while to seek out and cultivate, because it is only by encouraging the development of the good that we can hope to counteract the bad.

We are sometimes told that our race is dying out, that the family physician is becoming extinct, that he is being gradually elbowed out by the consultant, the specialist, or the club doctor. This would mean, if it were true, an entire alteration in the general feeling of the public towards the great mass of our profession. I do not believe that it is true; but the fact that such an idea may be even mooted should make us consider if there may not be an element of truth in it. In a book published last year called *Doctors and Their Work*, Mr. Brudenell Carter remarks that "the medical profession, apart from a few distinguished individuals, does not hold, in the estimation of the public anything like so good a position as that which it held fifty years ago." Such a statement is obviously difficult to prove or disprove. I cannot believe it, but I doubt if it is worth while to spend time in discussing it now.

There can be no doubt, however, that the conditions of life and of private practice at the present time in and around London, and I presume other large towns, do tend to make the bonds between doctor and patient less close, more easily severed than was formerly the case. Whether, among other things, this is due to the sceptical habit of mind to which I alluded, or to the spread of education, or rather that which goes by that name, I cannot say. I am disposed to think that there is less inclination to be ruled by authority in matters of health, as in other matters, than used to be the case; people do not put themselves so unreservedly in the hands of the doctor as they did. They wish to judge for themselves. They have no conception of what is meant by a medical training. They do not understand that such a training is necessary to enable them to enter fully into the consideration of medical questions, questions some of which are amongst the most difficult that the human mind has to deal with. This is part of one side of this question, but there is the other side, and it is possible that the fault is to some extent at least our own. That the reason why doctors and patients are less united than they used to be may be because we have not done our best to cultivate in ourselves the good traits of the old family physician, his tact and patience, his kindness of heart and broad intelligence, his humility in the face of difficult questions, combined with the sagacity, readiness of resource and decision of character for which he was noted, all of which enabled him to enter into the troubles of his patient from every side, and to treat him not only by the light of science with which

he was far less well-equipped than we are, but by the light of his knowledge of human nature by studying the whole man, his character and idiosyncrasies, with the help of what he knew of his family history and development.

No doubt you can all recall cases in which your knowledge of the life and tendencies of your patient have helped you in your treatment of him when he was ill. And as we who are older look back we are reminded that it is not only our knowledge of disease which has increased as the years go on, but our knowledge of human nature also, and we realize how much it has helped us, how important it is that we should study our patients, not only as cases but as individuals, noting their likenesses and their differences, their tendencies and their peculiarities, their sympathies and their antipathies, their habits of mind as well as of body; and to do this, to understand a man fully, we must, as Carlyle puts it, not only endeavour to look into him and view him from our own standpoint, but we must do our best to look out of him, see things as he sees them, and see him as he sees himself, remembering always to do as he is pretty sure to do, that is, take particular notice of the good points and not only of the bad ones. And is not this especially true in illness? In making a prognosis do we not sometimes forget, when we go over the symptoms, to take sufficient note of the good points? A good rhythm of the heart, sound kidneys, a generally good digestion, a mind that habitually works smoothly, all of these are, as we know, of far more importance in a case of pneumonia, for instance, than the amount of consolidation or the height of the temperature, and the same thing is, of course, true of many other diseases. I repeat that, just as in judging of a man's character, if we only notice his failings and omit to take note of what is good in him we generally come to a wrong conclusion concerning him; so in judging of his physical condition, if we only study, or perhaps I should say, pay too much attention to, the symptoms which indicate disease, we often miss that which is most essential in the case. For our treatment should be directed, not to the disease alone, but to the patient who is suffering from it.

Health is a comparative thing—there are various degrees of it; a great many people go through life, especially the latter half of it, with something that is not far removed from disease always with them. Very few of us wear out like the "one-hoss shay," all over alike; there is a little too much friction here or there which produces the inevitable result, and many people either inherit or acquire something that will always be for them a "thorn in the flesh"—something that makes their life more or less that of an invalid, but does not necessarily tend to shorten it, and these people, as you know, require careful handling. Their system has learnt to bear with their disease, and it does not do to treat them too vigorously; by so doing one may make them really ill. A strong purgative given to a person with a sensitive stomach and digestion may upset him for a week; a strict diet for a man who after middle life passes sugar in his urine sometimes does more harm than good; a continuance of bromide of potash in some cases of epilepsy makes the patient worse. It is wrong to be too mechanical in our methods of treating disease, for what with one person may be disease may in another be a state of health. I am sure that I have often done the patient more harm than good by the drugs I have given him. It is not always easy to see this, for the effects of the drugs are often masked by the symptoms of the disease. I think I used to give too much alcohol in typhoid; I am sure I have given both too much alcohol and too much food in pneumonia. I am not sure that I have not hastened the end of some old people by being too anxious about the regularity of their hearts. And in the treatment of pain how much easier it is sometimes to administer a sedative than to abstain from giving relief in that way!

Pain is often more or less of a mystery in spite of the physiologists, who tell us that it is merely a matter of vibrations. There is a good side to pain as to everything else, and it is as well to try and see this good side and learn what we can from it, before proceeding blindly to abolish it. We all know how true this is in acute abdominal cases, and yet it is still forgotten. It is, as you know, also true in many other conditions, and there is some pain which morphine does not relieve, as of course there is much for which it is not necessary. I remember that in one of my own illnesses I had what I thought was pretty severe pain, and was probably making more fuss about it than was needful; the nurse came along and said, "Are you sure that the pain is as bad as you seem to think?" I thought her rather unsympathetic, but the suggestion was certainly good, it made me consider the matter, and the pain soon became quite bearable instead of occupying all my attention. Suggestion undoubtedly often helps us, though we may not always use it in a way that would be called scientific; we are not always even conscious when we do use it, it is a part of our art. I have never practised hypnotism, but I had one case in which I made use of it by the help of a friend. It was a case of a boy with a huge sarcoma, he suffered excruciating pain during the later stages, and we gave him large quantities of morphine and other sedatives, without appreciable benefit, so I asked my friend to come and hypnotize him, which with some difficulty he did. In about half an hour the boy was sleeping quietly, and remained without pain for some hours, a thing he had not done for many days. That boy had immense doses of morphine, and yet his pain was unrelieved. There was what for want of a better term I will call a subjective element in his pain. Long-continued pain produces a state of the nervous system which makes one more susceptible to pain. Indeed, one is in the habit of thinking of pain as of two kinds—the objective and the subjective; the one, as it were, starting from below, the other from above. The latter appears to be sometimes a relic of the former; it is more susceptible to the influence of suggestion, and it is often unrelieved by ordinary sedatives, such as morphine, except in large doses.

Yes; you will agree that there is still much that is mysterious about pain, but it is always our duty to try to solve the mystery, to fathom its meaning, to find out its good side; for

> There is some soul of goodness in things evil,
> Would men observingly distil it out.

It is curious how one loses the memory of pain; I suppose it is because we cannot put it into words. We as a class have more opportunity of observing this fact than other people. Many say the same thing about pleasure. Burns wrote:

> Pleasures are like poppies spread;
> You seize the flower, the bloom is shed.

He might have written in a similar strain about pain, though I fancy the pain which he experienced was chiefly mental, and its effects seem to be more lasting than the physical.

I have said that mechanical methods in treating disease are to be avoided, still more must the mechanical habit of mind in viewing disease be guarded against, and as I look back I am reminded that I am less in the habit of labelling my patients, and treating them according to the label, than I used to do. In our early days, when our acquaintance with disease was less close than it has since become, we did this; it was inevitable, and I suppose it is always the method of the purely scientific physician. He classifies each case according to the group of symptoms it presents, and prescribes the appropriate remedy; he is careful to have a good reason for the administration of every drug he prescribes. I fear that we do not keep up to that standard of excellence, and if we have good reasons we do not trouble to put them into words. Our time is largely taken up in the management and treatment of what are called minor ailments, in dealing with the beginnings of disease, in noting how healthy growth and development are interfered with in the young, and in marking the various ways in which people begin to get old. Many of these problems which we have to face are complex, they cannot be solved offhand, they must take time to unravel, and as time goes on other factors may enter into them, which delays their solution, and consequently our methods are perhaps less definite and precise than they should be; but the truth in such cases is not always easy to arrive at, and it is better to sacrifice precision rather than truth. Let me illustrate my meaning by a class of case with which all of us are familiar, which are labelled functional or cyclical albuminuria. I need not describe them, but I will say that the symptom which gives them their name is only a part, sometimes but a small part, of their condition. This is, of course, well known, but, as far as I know, is not generally stated in the ordinary description of the disease. Besides the cyclical albuminuria, which may be only temporary, or may last for years without appearing to cause any definite harm, there is in many of them a general condition which may be described as want of tone—the heart and the stomach often do their work badly, and either or both may be considerably, though perhaps temporarily, dilated: the muscles are generally

flabby, and the nervous system hypersensitive and easily over-fatigued; all of these symptoms may be important, and either may require more consideration than the albuminuria in arriving at the truth of the case; and I fancy it is because we are apt to label them instead of trying to understand them fully, that they so frequently go on for such a long time.

The thought comes to me sometimes when I am going round from one sick person to another—What good am I doing for all these unfortunate people? Some, I may feel sure, are or will be the better for my visit and advice; some, doubtless, would have got on fairly well without either; I trust that none are the worse for them, though that is, I fear, possible. At any rate, it is possible that I might have done them more good than I have done by my visit. The thought suggests the question—What is the good, what is the value to the patient of the doctor's visit? Some would say that its value varies from sixpence to two or more guineas, according to the depth of the patient's pocket. That is one sort of value. There is another sort which I am anxious to learn how to estimate; to do so we must, I think, consider the matter from more than one side, for there is something more than diagnosing the disease, and prescribing the remedy, for which we visit our patients. There is not only the practical, material advice which we give, that which is based upon sensible, reasonable, reasoning knowledge and experience; that is one thing, and the most important thing. But there is the imponderable, insensible, more or less unconscious influence which we may exercise on him, which is another. The value to the patient of the doctor's visit depends on the influence as well as on the advice. A person who is ill is ill at ease, his outlook on the world is altered, his psychological condition is modified by his illness, his mind seldom works smoothly, he finds it difficult to be at rest. The visit of the doctor should tend to put him into a condition of rest. By rest I do not mean doing nothing, torpidity of mind and body, the condition which is allied to that kind of rest which all come to when functions cease. The rest I speak of is living, life-giving. It has been called "easy working," which is perhaps the best definition. Harmonious actions of all the vital functions is another. To produce it, energy is required, the energy of control, and it is this controlling energy which the visit of the doctor helps to develop in the patient.

One of the most remarkable powers of which our physical body is capable is the tendency to return to what may be called the rhythm of health, after that rhythm has in any way been disturbed, provided that the cause of the disturbance is removed, and that the mind does not interfere with the natural forces and so hinder the return. Our duty is (1) to find out and if possible remove this disturbing cause, (2) to watch over and assist in any way we can the natural forces in their efforts, and (3) to do nothing that can in any way interfere with those efforts. And one of the most important ways in which we can assist the natural forces, is in helping them to get fair play, by so influencing the mind of the patient that it does not interfere and so hamper their action. How this is to be done each man must find out for himself; there are some things which we cannot communicate by means of words, and this is one. As we all know, it is not only the amount of knowledge we have of his case, or the experience we have had of his disease, which gives confidence to our patient, there is something more. I will only mention two things—the power of real sympathy, and the power of hope. Of the former I have already spoken, and with regard to hope I will read a saying of Carlyle's which I think conveys all that need be said about it. "Man," writes Carlyle, "is, properly speaking, based upon hope, he has no other possession but hope; this world of his is emphatically the 'place of hope.'" This is Carlylean, and it is essentially true. "We live by hope," and it is right that we should always endeavour to convey a feeling of hope to our patients, not by words alone so much as by our general attitude. To discuss too much the grounds of hope often suggests grounds for despair. But I need not emphasize that. We, as a profession, are always, as we should be, careful of words, and the same care is needed as to our general demeanour in the sick room.

And now I must stop. I have said nothing, I know quite well, that has not been said better many times before. Many of my remarks have, I fear, been mere platitudes, but I may comfort myself with the thought that platitudes are, after all, truths, even though they may be stale and obvious. I hope their age and obviousness have not been too apparent. I should like to finish by reading some verses from a medical poem by Dr. O. W. Holmes. You have probably all read it, but you will not mind hearing it again. It conveys in beautiful language the idea that has been uppermost in my mind. That with all the progress we have made in our knowledge of disease, with all the improvements that have taken place in our means of diagnosis and treatment, we must never lose sight of the human and higher element in our cases.

The morning's visit—not till sickness falls
In the charmed circles of your own safe walls;
Till fever's throb and pain's relentless rack
Stretch you all helpless on your aching back
Not till you play the patient in your turn,
The morning visit's mystery shall you learn.

'Tis a small matter in your neighbour's case,
To charge your fee for showing him your face;
You skip upstairs, inquire, inspect, and touch,
Prescribe, take leave, and off to twenty such.
But when at length, by fate's transferred decree,
The visitor becomes the visitee,
Oh, then, indeed, it pulls another string;
Your ox is gored, and that's a different thing!

Of all the ills that suffering man endures,
The largest fraction liberal Nature cures;
Of those remaining, 'tis the smallest part
Yields to the efforts of judicious Art;
But simple *Kindness*, kneeling by the bed
To shift the pillow for the sick man's head,
Give the fresh draught to cool the lips that burn,
Fan the hot brow, the weary frame to turn—
Kindness, untutored by our grave M.D.'s,
But Nature's graduate, when she schools to please,
Wins back more sufferers with her voice and smile
Than all the trumpery in the druggist's pile.

Once more, be *quiet*: coming up the stair,
Don't be a plantigrade, a human bear,
But, stealing softly on the silent toe,
Reach the sick chamber ere you're heard below.
Whatever changes there may greet your eyes,
Let not your looks proclaim the least surprise;
It's not your business by your face to show
All that your patient does not want to know;
Nay, use your optics with considerate care,
And don't abuse your privilege to stare;
But if your eyes may probe him overmuch,
Beware still further how you rudely touch:
Don't clutch his carpus in your icy fist,
But warm your fingers ere you take the wrist,
If the poor victim needs must be percussed,
Don't make an anvil of his aching bust;
(Doctors exist within a hundred miles
Who thump a thorax as they'd hammer piles;)
If you must listen to his doubtful chest,
Catch the essentials, and ignore the rest.
Spare him; the sufferer wants of you and art
A track to steer by, not a finished chart.
So of your questions: don't, in mercy, try
To pump your patient absolutely dry:
He's not a mollusc squirming in a dish,
You're not Agassiz, and he's not a fish.

And last, not least, in each perplexing case,
Learn the sweet magic of a *cheerful face:*
Not always smiling, but at least serene.
When grief and anguish cloud the anxious scene.
Each look, each movement, every word and tone,
Should tell your patient you are all his own;
Not the mere artist, purchased to attend,
But the warm, ready, self-forgetting friend,
Whose genial visit in itself combines
The best of cordials, tonics, anodynes.

Expert Testimony.—A Bill has been introduced into the Senate of the State of Massachusetts which is intended to regulate expert testimony. The necessity of legislation in respect to expert witnesses in the courts of the State is urged on the ground of expense to the State, of biassed testimony, and of the unnecessary number of experts employed. The Bill provides that expert witnesses shall not be paid amounts in excess of the ordinary witness fee unless the court awards a larger sum. The number of expert witnesses is also limited, except in special cases. Attempts have been made from time to time to improve the quality of expert testimony, but hitherto without success.

The fifth Italian Congress of Pediatrics will be held in Rome on April 26th and four following days, under the presidency of Dr. Luigi Concetti, Professor of Pediatrics in the University of Rome.

The Milroy Lectures
ON
INDUSTRIAL ANTHRAX.

Delivered before the Royal College of Physicians of London.

By T. M. LEGGE, M.D.Oxon.,
H.M. Medical Inspector of Factories.

LECTURE I.

[Abstract.]

Under the Factory and Workshop Act all cases of anthrax contracted in connexion with various industries have to be reported to the Home Office, and I intend to deal with the cases—261 in number—which were thus notified during the six years 1899-1904 inclusive. These are classified in the following table:

Industry.	Males.	Females.	Total.	Fatal.	Per Cent.
Worsted and wool	70	18	88	23	26.1
Horsehair and bristles ...	53	17	70	17	24.3
Hides and skins	86	—	86	21	24.4
Other industries	15	2	17	6	35.3
	224	37	261	67	25.6

The bulk of the wool cases occurred in the processes of wool sorting, wool combing, and spinning; those in the horsehair trade principally among hair curlers and brush makers. In the hide and skin industry they occurred at the docks, in warehouses, and tanyards, isolated cases having also been noted in the making of leather articles. The cases included under other industries are interesting. This heading includes isolated cases among workers of horn and persons employed in rag sorting, porterage, etc.

The total number of persons employed in wool, worsted and shoddy manufacture in the United Kingdom in the year 1901 is stated to have been 259,909. Of these, however, only 4,264 were engaged in combing or sorting the classes of wool recognized to be specially dangerous.

Of the total cases 64 at least occurred among such persons, and this gives attack-rate of 1.3 per cent., or 0.21 per cent. per annum.

In horsehair, in all processes, the total number employed in the year 1901 was 2,206, and the number of cases at least 40, even when from this figure cases occurring in brush factories are excluded. The attack-rate is thus 1.8 per cent., or 0.3 per cent. per annum, or greater than in wool, even when the figures for the latter are limited to those manipulating the scheduled dangerous classes of wool. For particular factories, both of wool and horsehair, a very much higher attack-rate could be given.

Incidence of anthrax on persons employed in wool is centred almost entirely round the Bradford district of the West Riding (66 cases among 187,204 persons) and in Worcestershire (12 cases among 7,263 persons). This is explained by the fact that the use of the dangerous classes of wool is practically confined to these counties; elsewhere colonial wools are handled. The distribution of horsehair cases is more regular, and suggests that the dangerous classes of hair from China, Russia, and Siberia are more generally used. In the hide trade the incidence is mainly confined to the ports of London and Liverpool, and thus is comparable to that in the wool industry.

The mortality among the reported cases—25.6 per cent.—is probably higher than would be expected by medical men having knowledge only of cases treated in hospital, and less than that expected by the general lay public, which believes it hardly possible for recovery from anthrax to take place. It seems, however, to be that which is to be anticipated in anthrax when all cases are included, and when the type is mainly external. Thus, in Italy,[1] where anthrax is notifiable, in the eleven years 1880 to 1890 there were recorded 34,052 cases with 5,812, or 24.1 per cent., deaths. In 1,473 cases collected by Wilhelm Koch the rate was 32 per cent. He added, however, that these figures appeared to him to cover many cases where diagnosis was not made until late; treatment, therefore, deferred.

In the 261 cases now under consideration, the situation of the pustule was reported in 248 and these are here tabulated. Six other cases, all from Bradford, appear to have been of the internal variety; they were all fatal.

Situation.	Number.	Per Cent.
Head and face	100	43.5
Neck	103	41.5
Upper extremity	31	12.5
Lower extremity...	3	1.2
Trunk	3	1.2

The situation of the pustule appears to vary in a measure with the occupation of the patient, and is certainly of considerable moment in determining the severity of the disease. Thus, in the cases under review, of 13 on the upper eyelid 6, or 46 0 per cent., were fatal; of 103 on the neck, 31, or 30.0 per cent.; of 19 on the forehead, 2, or 10.5 per cent.; and of 31 on the upper extremity (including the shoulder), 4, or 12.9 per cent.

The figures which I have given for this country exclude the cases which have occurred to the numerous class of persons who come into contact with animals infected with anthrax during life, or have taken part in their slaughter and disposal of the carcasses. Unfortunately in no country can more than a guess be made at the number thus engaged who suffer. In Great Britain, however, the annual returns of the causes of death published by the Registrar-General are of material help.

The following table shows the number of registered deaths from anthrax since 1882, and since 1899 the large share of them borne by those due to factory and workshop conditions:

Registered Deaths from Anthrax since 1882.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.	Deaths Due to Factory or Workshop Conditions.
1882	10	5	15	1893	6	1	7	—
1883	5	3	8	1894	7	3	10	—
1884	13	5	18	1895	11	2	13	—
1885	7	4	11	1896	8	1	9	—
1886	8	3	11	1897	16	2	18	—
1887	10	1	11	1898	16	2	18	—
1888	11	1	12	1899	16	5	21	17
1889	6	1	7	1900	10	—	10	7
1890	3	1	4	1901	11	1	12	10
1891	1	2	3	1902	12	1	13	9
1892	5	1	6	1903	15	1	16	12

In 1901 deaths not due to factory conditions were those of a butcher and a fireman in the merchant service; in 1902 of two farmers, a shepherd, and an auctioneer and valuer (the latter had assisted in dressing a dead carcass); and in 1903 of a grocer's assistant, a farm labourer (contracted from bone manure), a butcher, and a gamekeeper.

The figures show a marked increase in the decade 1894-1903 (140 deaths) as compared with the previous one (90 cases).

Complete comparison with other countries is not possible, but from such information as is obtainable it would appear that in other countries anthrax in the human subject is derived much more from contact with the carcass of a dead animal than from the spores contained in the wool, horsehair, hides and skins of animals imported from afar. This being the case, it is of all the greater interest to consider the source and comparative value and quantity of the material which gave origin to the 261 cases now under review. No single case has with certainty been traced in the six years to wool from Australia and New Zealand, which in the year 1902 was valued at £13,537,457. On the other hand, at least 30 cases with certainty, and possibly 40, have occurred from use of Persian wool, valued in 1902 at £13,159. At least 21 cases, again, have occurred from use of mohair and van mohair imported from European and Asiatic Turkey, the value of which in the same year was £746,818.

In horsehair at least 22 cases are traceable to material from China valued in the year in question at £40,758, or, if bristles be added, at £188,650, and several cases also to Russian material valued at £266,497, whereas suspicion only attached to £421,235 worth of material imported from all the other countries in 1902.

To hides and skins imported in the wet condition (mainly from Italy and South America through the ports of

Germany, France, Holland, and Belgium) only 2 cases could with any certainty be traced, although the value of such material in 1902 was valued at £1,595,109. To dry hides, on the other hand, 19 cases were due during manipulation of material from China valued in 1902 at £87,989, and a similar number to Bombay and East Indian raw dry hides valued at £265,422.

The part played by the introduction of raw foreign material having thus been shown, the conditions which favour the occurrence of anthrax amongst the animals in the countries whence these materials come may be considered, especially in Asia. These appear to be conditions of soil, and of climate, and the primitive nomadic life of many of the inhabitants which takes no thought of rational preventive measures. Anthrax in animals is common in all parts of the world. Official figures[2] showing the gross number attacked in a few countries are set down in the following table for the years 1901 to 1903:

Country.	Cases of Anthrax in Animals.		
	1903	1902.	1901.
Great Britain	1,143	1,032	971
Germany	4 626	4,852	5,843
Italy	3.959	6,099	2,604
European Russia and the Caucasus ..	47,300	42.423	54,731
Asiatic Russia	4,209	6,802	6,888

For one country in Asia statistics of the prevalence of cattle diseases may given, namely, India:

India.	1899.	1900.	1901.	1902.	1903.
All animal diseases ...	343,906	304,931	249,691	228,606	258,419
Anthrax	33,667	36,070	25,997	28,081	30,715

Whether these Indian figures be regarded as absolutely accurate or otherwise, the statement remains in the report[3] from which they have been derived that rinderpest and anthrax are the "two most prevalent fatal diseases of Indian cattle"; while it is to be noted that in the recent Thibetan mission[4] it is stated that it was chiefly anthrax which reduced the number of yaks which accompanied the force from 3,000 to 1,450.

Too much stress must not be laid on the greater number attacked in one country over another, in the absence of knowledge of the number of animals in each country. The actual incidence of the disease in proportion to the number of animals I can only give for Germany and Great Britain:

Incidence of Anthrax per 10,000 of Each Class of Animal.

Country.	Year.	Horses.	Cattle.	Sheep.	Goats.	Swine.
Germany	1902	0.32	2.11	c.64	0.02	0.05
..	1903	0.36	2.11	0.35	0.03	0 08
Great Britain	1904	Not stated	1.2	0.02	Not stated	0.8

Although this is the average for the whole of the countries named, incidence in particular districts is far greater. Thus among cattle in the district of Düsseldorf it was 11.15 per 10,000, in Zwickau in Saxony 8.8, in Chemnitz, also in Germany, 8.5, and in Anhalt 6.6. In this country in 1903 in Haddington it was 15 4 per 10,000, and in Aberdeenshire 4.9. Interest for us centres round the large figures obtained from Russia. Their importance in establishing the law underlying the whole question of the incidence of anthrax among animals in Asia and in man in this country is brought out by distributing the cases month by month over a period of years as has been done in the following table.

Until March of each year there is practically no change in the incidence; there is then an enormous development of the disease, reaching its maximum in July and August, followed by a rapid fall in September and October; in November and December is reached the same figure as that for the early months of the year.

In contrast to this, figures taken quarterly in Great Britain show least incidence of anthrax in the third quarter of the year. Thus, of a total of 4,250 outbreaks in the six years 1899-1904, there occurred in the first quarter 1,114, in the second 1,166, in the third 850, and in the fourth 1,120.

Monthly Return of the Total Number of Animals attacked by Anthrax in European Russia, Asiatic Russia, the North Caucasus, and Transcaucasia from January, 1899, to September 1904.

	1899.	1900.	1901.	1902.	1903.	1904.
January ..	554	669	522	853	784	997
February ..	1,348	655	542	800	748	952
March	1,032	690	994	881	1,089	982
April	811	1,191	1,240	1,212	1,287	1,387
May	1,165	3,109	4.738	3,657	3.249	2,462
June	3,852	5 891	16,665	9,647	11,406	5,269
July	6,463	10 892	17.192	14 014	17,681	5,940
August... ..	12,996	8.521	11,300	10,556	7,133	5,377
September ..	6,395	2,341	2,913	2,729	4,203	2,473
October	3,861	1,210	1,328	1,640	2,278	—
November ..	1,292	747	1,021	971	1,640	—
December ...	952	663	651	795	1,075	—

The simplest explanation of the facts stated is seasonal variation in temperature and all that this means in changes in the soil and vegetation. Greatest development of the anthrax bacillus takes place at a temperature of 35° C.; multiplication is arrested below 12° C. and above 45° C.; and cooling below the freezing point does not kill it. Spores are most readily produced at a temperature of 32° C. Below 18° C. and above 42° C. the capacity for sporulation ceases. In studying the possible saprophytic growth of the bacillus, Koch[5] found that excellent media for its growth could be obtained from emulsions of seeds rich in starch, such as barley, wheat, pease, and grass, and from the fresh juice of potatoes, turnips, etc. Living plant cells did not form a suitable soil, but water in which hay and straw had been allowed to decay, if neutralized and made slightly alkaline, became a suitable medium.

The characteristic of anthrax specially to infect certain districts has been known for centuries. Long before the bacillus anthracis was discovered as the *causa causans*, the epidemiology of anthrax had been studied in many different countries by Hevsinger,[6] especially in Siberia and Germany, with results which led him to the conclusion that the conditions of climate and soil which favoured the development of anthrax in animals were the same as those which favoured the development of malaria in man. In Siberia it was most commonly met with on the salt grass steppes, in the river valleys, and round the bitter lakes. Wilhelm Koch,[7] from consideration of the principal anthrax districts in France, Germany, and Russia, concluded that the favouring conditions of soil for the development of the disease as an epizoötic were:

1. Fairly impervious soils of chalk, marl, clay.
2. Sandy soil, but only when the sand lies in a thin layer on impervious ground and when it is intimately mixed with decomposing animal and vegetable matter.
3. Peaty soils, rich in organic and mineral substances such as prairies, steppes, moor, and marsh land.

Height above the level of the sea matters little, but a definite temperature must be reached at which the growth of the bacillus and formation of spores can take place—that is, between 18° and 40° C. For a typical anthrax district is required only, in addition to the bacillus, a degree of moisture in the soil greater than that of the surrounding country, periodical high temperatures, and profuse vegetation.

In the Bavarian Alps, in Switzerland, Billings says: "The people know almost to a day how long they dare let cattle graze on the anthrax districts before they must remove them."

Factors which must not be left out of consideration, as they form important links in the chain of the creation of anthrax districts, are the insect, bird, and animal life, and the occurrence of dust storms. Marchoux and Salimbeni,[9] for example, have shown the part played by vultures in South America in the spread of anthrax—first, by observing them devouring the carcass of an animal which had died of anthrax and subsequently by finding the bacilli in their excreta.

The number of recorded instances in which the presence of anthrax bacilli has been demonstrated in imported material is not large, but only because search has not often been made. Andrewes[10] has cultivated bacilli from the dust shaken from a few strands taken at random out of a hydraulically-packed bale weighing 5 cwt. Andrewes,[10] again, found them in Siberian hair used for brushmaking in a blind asylum in Glasgow, and Balfour Stewart[11] in a piece of Kurachi hide in Liverpool. Other in-

stances are given by Silberschmidt,[12] Gruber,[13] Frank,[14] and Burka[15] in horsehair, and by Heim[16] in goat hair. The most important, however, of such experiments are those of Webb and Duncan made at the factory of the former in Worcester. Of eight cases of China mane hair four contained anthrax, of four bales of the same material all were infected, as were also both of two samples of dust taken from large bulk quantities. From these experiments they drew the conclusion that all bales of China mane hair must be regarded as infected. Whether further development of bacilli occurs inside a bale after it has been packed has never been determined. Since the conditions of soil, temperature, moisture, and decomposing vegetable matter play so prominent a part in the development of outbreaks of anthrax among animals, any theory of direct contagion from animal to animal and dead animal to man may be readily abandoned. Dirt and sand adhering to the fleeces of healthy Bagdad sheep and mohair goats may contain spores picked up in anthrax districts. In many outbreaks from manipulation of wool, horsehair and hides, no evidence of a fallen fleece or of damaged material is forthcoming. The view expressed is, too, further supported by the fact, well known in the trade, that mane hair is considered much more likely to be infected than tail hair, inasmuch as the mane hair comes most in contact with the earth. It explains also most readily the remarkable conclusion of Webb and Duncan that it would be unsafe to assume that a single bale of horsehair from China was free from risk.

Several outbreaks of anthrax in animals have been directly traced to spores which have escaped from factories in which raw animal products are dealt with, either through pollution of streams or through refuse dust used as manure on fields. Sometimes, however, infection is even more direct. Thus, two horses at grass in a field, on to which dust from Persian wool used in the manufacture of blankets was blown, died of the disease in 1901 in Yorkshire. In a series of outbreaks near Zurich[17] eight out of twenty-two animals were infected by dust blown from the chimney of a horsehair factory, and at least 7 other cases were due in one way or another to conditions in this factory. Almost the first recorded outbreak (1858) of splenic apoplexy in cattle,[18] as the disease was then called, occurred in the valley of the Yeo in Somerset. The existence of a considerable glove industry at Yeovil suggests that the outbreak had relationship with factory conditions. I mention this outbreak because recently Houston[19] has demonstrated the presence of anthrax (1) in the general effluent from the final catchpit in a hide factory in Yeovil, (2) in the septic tank liquor, the sludge, and the washings of coke from primary and second coke beds, and (3) in mud from the banks of the river Yeo and Yeo brook.

On the corporation sewage farm at Kidderminster, where incidence on the workers from the use of Persian wool during the same period has been high, there have been eleven outbreaks since 1897. An outbreak on the sewage farm at Market Harborough in October, 1904, synchronized with the occurrence of 3 cases of malignant pustule in men employed at a tannery, where previously no case had been known to have occurred. Illustrative outbreaks of a similar nature have been described by Mr. Spear,[20] and are reported from Germany[21] and the United States.

While, however, in some cases the association of outbreaks of anthrax in animals with factory and workshop conditions is clear, the evidence, when closely examined in this country, fails to show that incidence of outbreaks of anthrax in cattle is greatest in counties where industries connected with wool, or with raw animal products, are mostly carried on. This point has been treated by me elsewhere.[22] Indeed, incidence on animals appears to be greatest in counties where danger from factory conditions appears most remote; for instance, incidence of anthrax on animals is twice as great in Scotland as it is in England; yet incidence on the human subject from wool is negligible in Scotland as compared with England. No doubt the direct influence of a particular factory in causing anthrax in animals operates over an extremely limited area, but the use made of refuse dust from wool and horsehair factories as manure is an unknown quantity, and may be the cause of many outbreaks the origin of which cannot be traced. Most cases are rightly attributed to the consumption by cattle of infected fodder, either from direct grazing on fields where previously cattle had died from the disease, or from grass which has been cut from places where animals have died, or where the carcasses have been buried at an insufficient depth.

As showing the probable relation of the bacillus to the soil, I would cite as instructive the tracing of outbreaks in 1903 and 1902[23] to the feeding of cattle on turnips grown near the place where an animal had been slaughtered from anthrax, and of the death of six oxen out of a shed containing 100 animals from consumption of raw potato skins to which the spores of anthrax must have been attached, as only the six oxen thus fed succumbed.

But neither recital of such cases as these nor those resulting from insufficient disinfection in the disposal of the carcass, nor from industrial conditions, explains sufficiently all the outbreaks, especially the erratic ones which occur on farms where never before has an outbreak been known to have occurred. To account for these MacFadyean[24] suggests two possible sources: (1) artificial manure, and (2) imported feeding stuffs. Against the view that artificial manure can be the cause he cites "the erratic way in which outbreaks occur throughout the country apparently quite unconnected with the more or less liberal employment of artificial manure." In analysing 39 consecutive outbreaks, in 29 of which there was no previous history of anthrax having been known on the farm, he found that in 26 of the 39 outbreaks the animals were receiving a diet into which artificial food in different forms entered, he says:

> The circumstances connected with the series of outbreaks deepens the suspicion which already existed that a considerable number of cases of the disease in this country have an extraneous source of infection, and that the vehicle of infection is not infrequently some artificial foodstuff of which the raw material is derived from a foreign country.

In one outbreak on cattle, causing the death of six valuable shorthorn cattle, he isolated the bacillus from linseed cake, and in this outbreak, as soon as the linseed meal was stopped, the outbreak ceased. In another outbreak among horses in London similarly the bacillus was isolated from the oats.

Of the outbreaks in Germany in 1903 Russian bran was believed to have been the cause in several instances. Five outbreaks from this cause have been cited in farms where anthrax had never occurred before. In 1902, fodder consisting either of bran, barley, or hay from Russia is cited as having been believed to be the cause of the outbreaks in seven instances. In 1901, in addition to fodder imported from Russia, reference is made to two farms believed to have been infected from fodder grown in the tropics.

In the light of these statements the explanation of the attack mentioned in the commencement of this paper of a man unloading corn, of a corn dealer, and of a person carrying sacks of potatoes is easy. If the soil under certain conditions is recognized as a suitable medium for the growth of the bacillus, it becomes no longer necessary always to seek for the material cause in raw animal products alone.

References.

1 *Sullo Stato presente della Sieroterapia Anticarbonchiosa.* By A. Sclavo, Turin, 1903, p. 27. 2 Taken from *Jahresberichte iiber die Verbreitung von Tierseuchen.* 3 Annual Administration Report of Civil Veterinary Department in India. 4 Report on the Working of the Army Veterinary Department with the Sikkim Tibet Mission. By Lieutenant-Colonel R. Moore, Simla, 1904. 5 *Mittheilungen aus dem kais. Gesundheitsamte,* i. p. 77, 1881. 6 *Die Milzbrand Krankheiten der Thiere und des Menschen.* Erlangen, 1850. 7 Loc. cit., p. 91, *et seq.* 8 *Annales de l'Institut Pasteur,* 1903, p. 564. 9 Annual Report of Chief Inspector of Factories, 1899, p. 263. 10 Ibid, 1900, p. 471. 11 Ibid, 1901, p. 239. 12 *Zeitschrift fiir Hygiene,* vol. 20, p. 455. 13 *Oesterr. Sanitätswesen,* 1896, p. 160. 14 *Münch. med. Woch.* 1890, No. 9. 15 *Wiener klin. Woch.,* 1904, No. 13. 16 *Arbeiten aus dem kais. Gesundheitsamte,* 1901, vol. xviii. 17 W. Silberschmidt, *Zeit. fiir Hygiene,* vol. xx, p. 455. 18 Duguid, *Trans. Seventh Int. Cong. Hygiene,* vol. iii, p. 213. 19 A. C. Houston, *Anthrax in Yeovil Sewage, Second Report of Commission on Sewage Disposal,* 1902, p. 31. 20 Tenth and twelfth reports of the Medical Officer of the Local Government Board, 1881 and 1883. 21 *Jahresberichte der Tierseuchen im deutschen Reiche.* 22 *Transactions Epidemiological Society,* vol. xxiii, p. 181. 23 *Jahresberichte von Thierseuchen.* 24 Extraneous Sources of Infection in Outbreaks of Anthrax. *Journal of Comparative Pathology and Therapeutics,* vol. xv, p. 346.

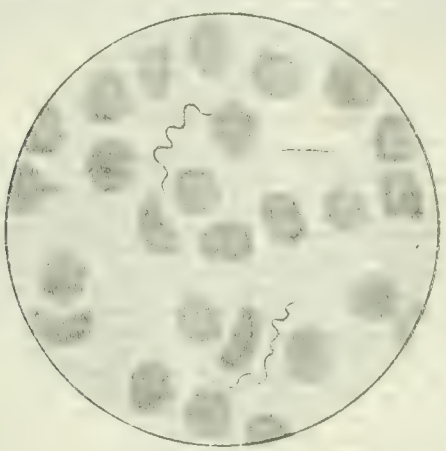
Fevers in India.—A special report on the prevalence of fevers in the Dinapur district in Bengal has recently been published by the Government of India. The death-rate attributed to "fevers" having risen considerably, Captain Rogers, I.M.S., was specially sent to inquire into the matter. He found that chronic malaria—the chronic fever produced by Leishman's parasite—dysentery, pneumonia, phthisis, enteric, and other diseases were responsible for this large death-rate. The distribution and varieties of *Anopheles* in the district selected were also studied, and *A. fuliginosus*, *A. rossii*, and *A. listoni* were found to be the common species. The latter is probably the only one that spreads malaria in natives, and Rogers points out that, in dealing with the question of prophylaxis, it is important to direct attention to the destruction of the harmful species in particular. He further believes that great circumspection is required in recommending measures for destroying *Anopheles* in Lower Bengal, and looks more to the general distribution of quinine as the main factor in the reduction of malaria.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE SHOWING SPIRILLA IN BLOOD SIMULATING MALARIAL FEVER.

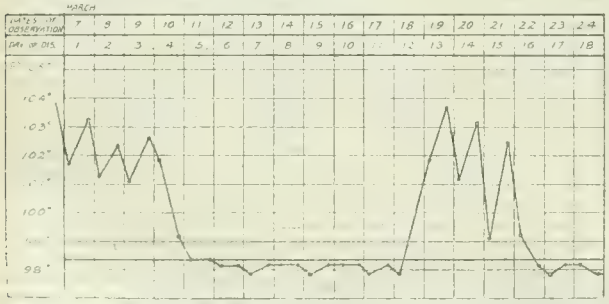
THIS case seems to be of interest, as in many particulars it differs from ordinary relapsing fever, and had it not been for the accidental discovery of spirilla whilst searching for the malarial parasite it would have been considered a case of the latter disease, and in this respect is somewhat analogous to the case reported by Sir Patrick Manson in the BRITISH



MEDICAL JOURNAL of March 5th, 1904. The following are the notes on the case:

Sowar, J. K., aged 24, service four years, 23rd Cavalry, admitted March 7th, 1904. A strong, well nourished man, previous health good. No prodromal symptoms to speak of.

Condition on Admission.—Temperature 104.0° F., pulse 129. Respirations 31; complains of headache and usual febrile symptoms. Spleen enlarged and rather soft, reaching nearly to umbilicus. Diagnosed as "malarial fever with enlargement of spleen." Temperature remained high (101° to 103° F.) until March 10th (fourth day), when it fell by crisis, all his symptoms rapidly abating, and he felt quite fit by March 16th. On March 19th (thirteenth day) his temperature rose to over 103.0° F., with the usual febrile symptoms, but nothing out of the common. It remained between 101° and 103° F. till March 21st (fifteenth day), when it fell by crisis to normal, with rapid amelioration of all symptoms. From this date onwards he made an uninterrupted recovery, his spleen getting steadily smaller. It is now at date of writing (April 12th) only just palpable.



On examination for malaria no parasites were seen in his blood, but spirilla were discovered in small numbers. They seem longer than the spirillum obermeyeri and there are very few, no field containing more than two, and they take some time to find at all. He was not a broken-down and badly-nourished man, in fact quite the reverse, and he has not been away from the station this year. The regimental lines are new and commodious and well situated and the general health of the regiment is very good. No other cases have, as far as is known, occurred either in this regiment or in the rest of the station, which is a very healthy one.

The case was exactly like many cases one sees in the Punjab which are diagnosed as malarial, as this one was until the spirilla were accidentally discovered.

The attached drawing is considered fairly correct as regards the general appearance and comparative size of the spirilla. I had no means of obtaining a photomicrograph. (I discovered the above before the BRITISH MEDICAL JOURNAL containing Sir Patrick Manson's case had reached me.)

Nowshera, Punjab. G. BROWSE, B.C.Cantab., Captain, I.M.S., 23rd Cavalry F.F.

THE CALCULATION OF THE DATE OF DELIVERY IN PREGNANCY.

HAVING read Dr. Caie's communication in the BRITISH MEDICAL JOURNAL of February 4th, and being interested in the subject, I venture to point out a reason why he has found Naegeli's method unsatisfactory in its results.

The method is really only a rough-and-ready one giving the approximate date of delivery which is, I suppose, good enough for everyday work, as according to the highest authorities the length of pregnancy may vary from 240 to 320 days, though the general rule is about 280 days (Winckel states the duration of pregnancy is over 300 days in 6·8 per cent. of all cases). At any rate, if we test Naegeli's method we find that when pregnancy dates from five out of the twelve months the calculation gives us 281 to 283 days. While starting from the other seven months we get 280 days in each case. Taking the average of the different months we find that Naegeli's method would give 280.75 days as the average period of pregnancy. This alone is 2.45 days longer than what Dr. Caie calculates the average, while in a pregnancy beginning in the month of May we get 283 days or 4.7 days above that average.

When a method is so inaccurate for five out of the twelve months I cannot understand why it was considered necessary to make the special rule for Leap Year.

It seems to me, if we wish to make accurate calculations as to the probable date of delivery, we must discard these "simple" methods, such as those of Naegeli and Matthews Duncan. I have worked out the following table for accurately calculating 280 days, which according to Winckel is the average duration of pregnancy, and I see Löwenhardt's average is 279.8, which is practically the same thing.

As in the method under discussion, count three months back from the first day of the last menstruation (in the cases of May 29th to 31st, July 31st, December 31st, where there is no such date in the third month previous count the necessary number of days into the second month previous, that is, May 31st less three months = May 28th less three months + three days = March 3rd) then add the following number of days according to the month of last menstruation:

January	...	...	add 7 days.
February	...	...	,, 7 ,,
March	...	...	,, 5 ,,
April	...	...	,, 5 ,,
May	...	...	,, 4 ,,
June	...	...	,, 7 ,,
July	...	...	,, 6 ,,
August	...	...	,, 7 ,,
September	...	...	,, 7 ,,
October	...	...	,, 7 ,,
November	...	...	,, 7 ,,
December	...	...	,, 6 ,,

and count a year forward to get probable date.

In Leap Year, where February 29th is included in the period, it will be necessary to add 1 day less than usual. This may look difficult to remember, but it would be very easy to note the exceptions to Naegeli's rule—namely, where pregnancy dates from March and April add only 5, from May only 4, and from July and December only 6. I have tried this calculation for pregnancy, beginning the first and last day of each month, and in every case it gives the exact 280 days.

It would be interesting to know how Dr. Caie's analysis of his cases would be affected by deducting 3 days from the expected date of delivery in cases where pregnancy started in May—2 in March and April, and 1 in July and December. I believe he would find it make them approximate to the results he obtained by Löwenhardt's method.

I don't see how his suggestion of uniformly adding 2 days fewer to Naegeli's average will greatly improve it, for in this way he would only alter the centre of gravity, so to speak—that is, in A. labour would have occurred, on the average, 1.4 days before expected date, and in B. labour would have occurred, on the average, 3.8 days after.

Debenham, Suffolk. HOWARD HENRY, M.B.Dubl.

DESQUAMATION IN SCARLET FEVER.

APROPOS of Dr. Poynton's article in the BRITISH MEDICAL JOURNAL of February 4th, I have lately witnessed an unintentional experiment bearing on the two points of "the danger or innocuousness of the peeling in scarlet fever."

A. H., aged 9, was seen by me on October 17th. He had been taken ill the day before with vomiting and slight feverishness; at night a scarlet rash was noticed on his chest. He complained of a sore throat and feeling ill. His face was flushed, the fauces were red, and tongue furred: the temperature 101° F. On the front of the chest and abdomen there was a punctiform red rash; it had been brighter the night before. On the thighs and arms it was bright scarlet, of the same character, but in some places coarsely papular. There were no enlarged posterior cervical glands and no catarrhal symptoms. I formed the opinion that the case was one of mild scarlet fever, and notified it accordingly. As isolation was impossible at home I had the boy removed to the Fever Hospital.

On the eleventh day after this I saw the case again. Desquamation on the neck was then in full swing; it was coarse and profuse. The skin on the hands and feet in time came off in large flakes, and desquamation was completed between the sixth and seventh weeks. I could not trace the infection, but I learned afterwards that several cases of the disease were notified by different practitioners to the authorities just before mine.

Thus far I have described what most physicians would consider an ordinary case of mild scarlet fever. From our present point of view the further relation is full of interest. The boy was dismissed from the hospital after ten days' detention (the superintendent taking the view that it was not a case of scarlet fever). At home he mixed with his brothers and sisters, none of whom had had the disease. They all escaped the infection. During the fifth week, and while the peeling of the hands and feet was not complete, he went back to a large Board School without conveying the disease to his fellow scholars. In his case there were no nasal or aural discharges.

St. Andrews, Fife. D. Hamilton Kyle, M.B.Glasg.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

KETTERING AND DISTRICT GENERAL HOSPITAL.

A CASE OF PERFORATED GASTRIC ULCER.

(Reported by Mr. J. P. Roughton, Honorary Surgeon.)

T. S., a male, aged 26, was admitted December 29th, 1904, at 12.30 p.m., complaining of acute abdominal pain, with frequent vomiting of green fluid.

History and State on Examination.—He stated that he had breakfast at 6 a.m., and felt fairly well except for indigestion, which he had had frequently during the past three months. At 9 a.m., while at his work (that of an ironstone labourer), he was suddenly seized with violent pain in the abdomen, shortly followed by vomiting. Since then pain had been constant, and it had not diminished in severity, while the vomiting continued. He had felt pain in the stomach for three months, always in the same area. The abdomen, on examination, gave signs and symptoms of free fluid in its cavity, with commencing peritonitis, and a diagnosis of perforated gastric ulcer having been made, preparations for operation were at once commenced.

Operation.—On opening the peritoneal cavity it was found to contain a large amount of fluid, while the serous membrane showed signs of inflammation. A perforation of the stomach wall was found on the posterior surface, near the lesser curvature; this was closed in by invaginating a portion of the stomach wall; all fluid was removed from the peritoneal cavity, and lymph from peritoneum as far as possible, and the wound closed, the section being sutured by silver wire.

Progress and Result.—There was some suppuration round the silver-wire sutures, which necessitated their removal, but apart from this the case progressed well up to January 24th, on which day at 6 a.m. the patient ate his usual breakfast of bread and butter and milk; at 10 a.m. that day he was suddenly seized with violent abdominal pain, and vomiting of green fluid, with all the accompanying signs of general peritonitis, and died collapsed before any further operation could be attempted.

Remarks.—At the necropsy, on opening the abdomen about 1 pint of sero-purulent foul-smelling fluid was found, but the stomach was healthy; no breaking down of sutures had occurred. The great omentum was found running diagonally across the abdomen from the colico-splenic ligament to the right iliac region, where it was adherent to the posterior layer of peritoneum, and formed a tightly constricting band across the intestines; all those portions of bowel above it were widely distended, and those below collapsed. The cause of death thus appeared to be general peritonitis from obstruction to the bowel. On the relapse taking place the appearances suggested a recurrence of the gastric perforation, and had an operation been undertaken the true condition could only have been ascertained by tracing downwards the signs of inflammation in the omentum and bowel, which were most marked at the site of the lower attachment of omentum. The explanation of the condition is no doubt that the omentum had become attached to the inflamed peritoneum after operation, had gradually been dragged down by adhesions.

British Medical Association.
CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Pathological and Clinical Section.

Birmingham, Friday, February 24th, 1905.

W. F. Haslam, F.R.C.S., in the Chair.

Dry Gangrene of Lower Limb.—Mr. Gamgee showed a man, aged 27, who contracted syphilis six years ago. He was treated with mercury for twelve months. In August, 1904, he began to suffer from a feeling of "pins and needles" in the right foot. In the middle of December the right leg and foot began to "feel dead." On January 11th, 1905, the right foot and lower half of the leg became affected with dry gangrene. On January 16th the foot was black and shrivelling. There was then no pulsation to be felt in the right femoral artery and very feeble pulsation in the left, while the radial arteries felt hard and small. On January 31st a line of demarcation had formed, and so the limb was amputated through the middle of the thigh. The femoral artery and vein were both thrombosed, and further examination proved that the popliteal and both tibial arteries were also thrombosed. Microscopic examination showed thickening of the inner coats of the arteries.

Hereditary Syphilis.—Mr. Lucas showed a woman, aged between 50 and 60, and her grandchild, a boy, aged 5 years. The grandmother had been under his care for several years past suffering from gummata of the upper parts of both legs. Her daughter, when 16 years old, was treated by him for a congenital gumma in the popliteal space, and later, when 20 years old, for ulceration of the pharynx, followed by an almost complete stricture of the naso-pharynx. The child was born when the mother was 22 years old, and soon after developed ulceration of the scalp and a discharge from the nose; this entirely cleared up in a fortnight under an anti-syphilitic treatment. The child now appeared perfectly healthy except for having rather prominent frontal eminences, and a depressed bridge of the nose.

Chronic Syphilitic Nephritis.—Dr. Emanuel showed a girl, aged 15½ years, suffering from chronic syphilitic nephritis. The patient showed well-marked stigmata of hereditary syphilis, including Hutchinson's teeth, a depressed nasal bridge, a large square forehead with prominent frontal eminences, and disseminated choroiditis. About eight months ago she began to suffer from oedema of the face, albuminuria, and increased frequency of micturition at night. There was no history of any infectious disease, and indeed she had never been ill before in her life. She underwent the ordinary dietetic and drug treatment of Bright's disease for two months without any improvement; she was then given potassium iodide, and was permitted an unrestricted diet, and from that time the oedema and albuminuria began to disappear, and the patient gradually recovered her usual health.

Syphilis of the Lungs.—Dr. Douglas Stanley showed a woman, aged 37, who came under his care at Queen's Hospital two years ago on account of swelling and pain in the left knee. There was a distinct syphilitic history. Physical examination of the chest showed deficient expansion on the left side; the note above and below the right clavicle was resonant, but at the level of the third rib showed impairment of resonance. Posteriorly the note over the right apex was resonant, but became impaired in the interscapular area. On the left side anteriorly the percussion note was resonant down to the second space, posteriorly to almost the whole extent, showing only some impairment at the base. The breath sounds were distant over the right lung anteriorly and posteriorly, and a few medium crepitations were present.

In the course of inquiry it turned out that the patient had previously been under treatment in hospital for "phthisis." The diagnosis was syphilitic arthritis of the left knee and chronic syphilitic pneumonia. About ten days after coming under observation the patient had haemoptysis, the expectoration being dark red and glairy. This lasted for several weeks. The sputum was examined frequently for tubercle bacilli, but none were ever found. The lung signs rapidly improved under iodide, and the patient put on weight.

Lupus of Upper Air Passages.—Dr. WILFRID GLEGG showed a girl, aged 19, with lupus of the upper respiratory passages. She had one small patch, under $\frac{1}{4}$ in. in extent, on the left side of her face. The inferior turbinals and parts of the nasal septum, and the palate, pharynx, and larynx were involved, but the epiglottis did not show signs of the disease. There was an entire absence of general constitutional symptoms, and there were no physical signs in the lungs. The duration of the disease was about three years.

Syphilitic Ophthalmoplegia.—Dr. DOUGLAS STANLEY showed (for Mr. WILFRID ALLPORT) a man, aged 44, who attended hospital as an out-patient on June 17th, 1904. Seven weeks previously he had severe facial neuralgia, for which he had several decayed teeth extracted. He then noticed that the left side of the face felt numb, and that he had double vision. On examination he was found to have complete paralysis of the external rectus muscle of the left eye, with the usual homonymous diplopia. There was no definite history of rheumatism or syphilis, but the presumption was in favour of the latter. His vision at that time was full in both eyes, and the fundi were perfectly normal. He was treated with potassium iodide, and later with that drug combined with mercury, and had the galvanic current applied daily, until the end of July, when he developed ptosis of the left eyelid, and remained in this condition until September, when he displayed complete ophthalmoplegia externa, but with no defect of vision. His knee-jerks were normal. Following this his sight began to fail rapidly until October, when, in addition to the former symptoms, he was found to have ophthalmoplegia interna. At this time there was no marked change in the fundus. In November he had some anaesthesia in the left supraorbital region, but in no other area. During this time he was treated with mercury in various forms—by the mouth and by inunction—but no improvement resulted; he was perfectly blind in the left eye, and regained no muscular power in the eye muscles until recently, when the external rectus became slightly active, and the ptosis began to gradually recover. At the present time he had a fair amount of power in the external rectus; he could raise the lid a little, and his condition was certainly improving, though his sight was gone, and the optic nerve showed marked atrophy. The case was apparently one of gummatous infiltration at the back of the orbit, involving the third, fourth, sixth, and optic nerves.

Charcot's Ankle.—Mr. BILLINGTON showed a case of Charcot's ankle in early general paralysis of the insane. The patient was a man, aged 37, who had led a dissipated life for many years. Ten years ago he had had gonorrhoea, and two years ago he was treated for syphilis at a skin and lock hospital. So far as could be ascertained he then had a primary sore. Until the last six months—during which time he had been a teetotaler—for years he consumed upwards of a pint of spirit a day. Four years ago an attack of cerebral thrombosis left him partly paralysed down the right side. The paralysis lasted several months, and right-sided movements were still performed slowly and awkwardly. The grip on the right side was distinctly weaker than on the left. For two or three years he had had lightning pains in both legs. Six months ago his memory began to fail, and for two or three months he had complained of precipitate micturition and occasional incontinence of urine. Two months ago the left ankle suddenly and without trauma became swollen; at first there was some pain, but this soon subsided. The ankle had remained swollen and felt weak when weight was put upon the foot. The face was rather expressionless and apathetic, but not asymmetrical. The eyes were a little unsteady, but there was no nystagmus and no diplopia. The pupils were equal and reacted to accommodation but not to light. The tongue was tremulous and protruded a little to the right side. The arm jerks and knee jerks were exaggerated on both sides; the plantar reflex on the right side was extensor and on the left side flexor. On both legs were considerable areas of analgesia. No ataxia and no Romberg's sign. The left ankle was much swollen and the foot was displaced outwards and everted, so that the patient walked on the inner border. There was excess of fluid in the joint, and considerable bony thickening around. It was not painful or tender.

NORTH OF ENGLAND BRANCH: TYNESIDE DIVISION.

North Shields, February 21st, 1905.

R. S. PEART, M.D., President, in the Chair.

Panophthalmoplegia.—Dr. W. H. BROWN showed an example of this condition occurring in the right eye of a woman aged 60. All the ocular muscles were paralysed; there was well-marked ptosis and some proptosis was present. The fundus was normal and there was no disturbance of the fields of vision. It had come on very suddenly, accompanied by intense pain in the temporal region about a month ago. The case led to some discussion, most of the members agreeing with Dr. Brown that the lesion was probably a gumma in the region of the sphenoidal fissure.

Raynaud's Disease.—Dr. W. H. BROWN showed a man of 65 with Raynaud's disease of both feet. Both feet showed well-marked venous stasis and almost symmetrical trophic changes in the form of ulceration over the inner aspects of both tibiae.

Ulcer of Epiglottis.—Dr. PEART showed a case of tuberculous ulcer of the epiglottis of some months' duration, occurring in a young woman. The ulcer was U-shaped and had completely destroyed the centre of the epiglottis, through which a good view of the larynx could be obtained.

Retroversion of Uterus.—Dr. LACHLAN FRASER showed two cases, in one of which Alexander Adam's operation had been performed; while in the other ventrifixation had been performed for the condition. Some discussion ensued on the relative value of the operations, and on the indications for giving up pessaries in favour of operation.

Thiersch Grafting from the Rabbit.—Dr. LACHLAN FRASER showed a child with scald of the chest. The wound had been covered in with Thiersch grafts from the rabbit, and the result was satisfactory.

SPECIMENS.

Dr. E. P. GOFTON showed the following specimens: (1) Some very large gall stones that had been passed per vias naturales; (2) specimens of salivary calculus from the submaxillary gland; (3) two very pretty specimens of superficial necrosis of bone; (4) a collection of strange foreign bodies removed from a man's leg.

STAFFORDSHIRE BRANCH.—The second ordinary meeting of the Branch was held at the North-Western Hotel, Stafford, on Thursday, February 23rd; Mr. W. D. SPANTON in the chair.—*Case.*—Dr. HUNT showed a case of functional tachycardia after influenza. An adult male had an attack of influenza four years ago. After it he continued to have a very rapid pulse for some months; it was then much as it is now, about 160. He was kept away from work, and the heart gradually quieted down, and the pulse-rate became normal. He appeared to have recently had a mild attack of influenza again, and it had left him with a pulse-rate of 160, and fifteen beats less when recumbent. The cardiac area was enlarged, and the apex beat in the nipple line. There is no cardiac murmur. Drs. EDGE, MALET, LOWE, and CODD discussed the case. *Paper.*—Mr. H. M. MORGAN read a paper on reminiscences of forty-five years of general practice. After referring to the advantages of the old apprenticeship training, he pointed out the great change, not entirely for the better, that had taken place in midwifery practice; the long patient wait at confinements being now replaced by the short and somewhat sharp use of the forceps. He touched upon the change in the practice of consultants, and alluded also to the introduction of the clinical thermometer, binaural stethoscope, pneumatic aspirator, electric lamps, carbolic spray, etc. Mr. SPANTON, Mr. CLARE, and Drs. LOWE, EDGE, and BAILEY took part in the discussion of the paper. *Specimens.*—Dr. EDGE showed the uteri and appendages removed by supravaginal hysterectomy in two cases for myomata with excessive haemorrhage.—Mr. SHAW showed: (1) A specimen of primary nodular carcinoma of the liver; (2) a specimen of ruptured heart—the left ventricle ruptured in two places—from a man, aged 68, who had during life the usual symptoms of fatty degeneration of the heart.

M. ROUX communicated to the Paris Académie des Sciences, at a meeting on February 20th, a note from M. Nicolle, Director of the Pasteur Institute at Tunis, announcing that he had succeeded in inoculating two monkeys of the Macacus genus with leprosy. Sixty-two days after the inoculation well-marked leprotic lesions were visible behind the ears.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir DOUGLAS POWELL, Bart., K.C.V.O., President, in the Chair.

Tuesday, March 7th, 1905.

THE PROSPECTS AND VICISSITUDES OF APPENDICITIS AFTER OPERATION.

(*Adjourned Discussion.*)

THE PRESIDENT said that he would only allude to one particular class of accident after operations for appendicitis, and that was embolism of the pulmonary artery. The majority of the cases of such embolism in his own experience had been after operations for appendicitis, and the larger percentage of them occurred in acute cases of appendicitis attended with suppuration in which immediate operation was imperative. Statistics of the frequency of this complication as given by Oppenheimer were more nearly in accord with his own experience than those more favourable statistics quoted at the present meeting. He had always advocated the importance in chronic cases of appendicitis of carefully preparing the patient for operation by a few days' rest, appropriate diet, and the administration of suitable intestinal disinfectants.

Dr. H. P. HAWKINS observed that the point which struck him in regard to complications was the lateness of their onset, and also the probability that many could be prevented by earlier operation. At St. Thomas's Hospital the mortality from appendicitis in the last five years had been 3 per cent. higher than it was ten years ago. All would allow that the disease itself was greatly on the increase, and he believed that the apparent rise in the mortality was due to the fact that the number of severe cases with general peritonitis and abscess had increased likewise, when contrasted with the number of cases which were comparable with the older descriptions of localized appendicitis. He regarded a mucous colitis as consisting of two parts, motor and secretory, and in some instances the symptoms simulated an attack of appendicitis. They were uncommon cases, but he had had a certain number to deal with.

Sir WILLIAM BENNETT said it was obvious that any speaker engaging in a discussion concerning a condition which was so much a matter of common knowledge as that now under consideration was unlikely to be able to add anything to what had been already said upon the subject by such experienced persons as those who had already spoken. His only excuse, therefore, for encroaching upon the time of the meeting must be that unavoidable circumstances prevented his taking advantage of the opportunity of speaking earlier which was kindly offered to him, and that he rather felt it was the duty of those to whom the mere accident of seniority had provided an experience which justified their formulating definite views to give them for what they were worth. Under some circumstances the real value of statistics must rather depend upon a relative than an absolute application of the information which they provided, and that was especially apt to be so in statistics dealing with appendicitis, a condition which was met with in practice in such variable relations to the collateral circumstances of the patient and to the conditions under which its treatment had to be undertaken. Taking for an example the admirable statistics relating to the London Hospital series at their face value they would, large as the numbers were, in his opinion give a somewhat too serious aspect to the prospects following generally upon operation in that disease; on the other hand, if the same precise details of a similar number of successive cases drawn from the higher middle and upper classes of society only were provided, the result would, so far as his experience enabled him to judge, give in a general way too favourable an impression; for the value of the information in either instance was, as he had said, relative rather than absolute so far as the general question was concerned. The disadvantage on the side of the hospital patients was primary neglect owing to their inability or disinclination to obtain proper treatment immediately upon the onset of symptoms, contrasted in the case of the well-to-do with easy accessibility to the best of advice and an intelligent appreciation of the necessity of securing it at once. One of the most important points had always appeared to him to be, in relation to future complications, that concerned with the treatment of the appendix in abscess cases—should it be removed as a routine measure, or should it not? Personally he thought not. According to the St. George's Hospital cases the mortality was practically the same whether it was removed or not. He had never had reason to regret having left the appendix untouched in cases of that kind; he could not say the same with regard to its removal. As Sir Frederick Treves had observed, about 83 per cent. of patients were free from all subsequent trouble after mere evacuation of the abscess, his experience would place the circumstances even more favourably than that. Although he followed as quickly as he could upon Sir Frederick Treves's heels in freely operating upon cases of appendicitis, he had only once had to remove the appendix which had been left untouched after the evacuation of an abscess. On two occasions he had scooped concretions out of recurring sinuses with a perfect result in cases in which he had no doubt some people would have done, or endeavoured to do, a formal resection. So far as the original abscess was concerned, if it was small and the situation of the appendix was obvious, he removed the appendix; but, having regard to the good results of mere evacuation, he doubted the wisdom of a prolonged search if the cavity were large and the patient's condition bad. With regard to the routine removal of the appendix after the healing of an evacuated abscess, his experience led him to be strongly opposed to it unless, of course, signs of trouble developed. As to the complications following upon operation, setting aside those which arose from the septic condition of the patient at the time of operation or septic conditions arising from unexplained reasons later, he could not help feeling that a large percentage were due to inadequate operation. The question then arose as to what an adequate operation was. Until he recently read in the JOURNAL some letters and papers dealing with that matter he was under the impression that the first essential in an ordinary case of appendicitis was the removal of the appendix flush with the caecum; it seemed, however, that that was not the universal view, since it was recommended by some that an interval should be left between the caecum and the point of removal of the appendix varying from $\frac{1}{5}$ in. to even 1 in. It was not, therefore, remarkable that the relief at times given by the operation was disappointing, seeing that any diverticulum left must have potentialities of recurrent trouble, whether the stump were "buried" or not. He had himself removed from the caecal wall the stump of an appendix distended to the size of a cherry by muco-pus which had accumulated on the distal side of a stricture at the point of junction of the appendix with the caecum. But the mere removal of the appendix did not complete the perfect operation; there still remained the examination of the ovary and tube in the female, and the ureter in all cases—a point to which, so far as he knew, no reference had yet been made in the discussion, although it was one which had a very definite relation to certain cases in which the removal of an appendix had been followed by no relief. The following instance would afford an example. A young middle-aged man had suffered from eight attacks of pain presumably due to appendicitis with the characteristic symptoms. The appendix was removed, but attacks occurred subsequently of an absolutely identical kind. During one of the attacks the symptoms subsided very suddenly and rapidly, and on the following day a small calculus was passed by the urethra. No further attack had occurred. Stone in the ureter was more common than some of them supposed, and although a stone might rest for a long time in the ureter without giving trouble at any point between the renal pelvis and the pelvic brim, yet when it reached the latter point it might cause symptoms identical with those of certain cases of appendicitis. An *x*-ray photograph in some of the obscurer cases of pain, etc., would sometimes prevent errors—a fact of which he had had personal experience. His memoranda of patients complaining of imperfect relief after removal of appendix in the quiescent state gave the following result: In a total number of 18 cases there was irritation about the stump of the appendix in 3, and co-existing ovarian disease in 5; relapsing attacks indistinguishable from those before operation occurred in 2 cases of colitis, in 1 case of stone in the ureter, in 2 cases of movable kidney with calculus, in 1 with band-like adhesions, in 2 with an inflammatory mass behind the caecum, and in 2 cases of persistent local pain, of which the cause was not discovered. In addition to these there were 3 very interesting cases in which he had removed the appendix, which was obviously and grossly diseased, without any immediate benefit at all. Attacks of constipation, followed by the usual fever, etc., occurred after the operation as they had before. In two cases the attacks became less frequent, and finally disappeared within eighteen months; the other patient still remained incapacitated. In each of those cases there was old-standing malaria, and in two there

had been dysentery. The caecum in each case was thinned and of huge dimensions. The recurrent attacks were clearly due to the faulty condition of the bowel. A very distressing pain about the region of the operation, frequently continuing for six or seven weeks afterwards, which he at one time occasionally met, he had seen nothing of since he had ceased applying ligatures round undivided peritoneum. With regard to faecal fistulae after abscess, he found in his own cases it had occurred in 5 per cent. In the St. George's series it was 11.2, in the London 6. He thought the term faecal fistulae was too loosely used in those cases. Faecal discharge would be much more appropriate for those cases healed in less than two months, retaining the term fistula for the more permanent cases. He had had experience of only one faecal fistula which did not heal spontaneously either in his own cases or in those of other surgeons which had come under his observation. His experience of persistent or recurring sinuses was comparatively small, excluding those which came under the head of faecal fistulae, and such cases as he had seen had been after operation by other surgeons. One was worth recording: A female patient, aged about 30, had the appendix removed for the usual train of symptoms without relief; the ovary was consequently removed by another surgeon, again without improvement. She was now the subject of a relapsing sinus which at every menstrual period opened up, and through it she menstruated freely, about a quarter of the catamenia coming by the adventitious passage, the remainder by the ordinary way. She had on several occasions expressed a decided opinion that the results of operation for appendicitis were worse than the disease.

Mr. Lockwood said that the time allotted was brief, and therefore he would not give any of it to mere criticism of what had been said by others. He believed that one of the main objects of that discussion was to learn what happened to those who had had the appendix removed. As he continued, it would be clear that the method of proceeding by clinical statistics alone was incomplete and fallacious, mainly because so many possibilities were ignored and so much was omitted. The future of the patient must in a large measure depend upon the disease which existed in the appendix itself at the time of its removal. Many of its conditions were favourable but others most unfavourable. For instance, some were tuberculous, some cancerous, some actinomycotic. He ventured to say that although they could in ninety-five out of one hundred cases correctly infer from the clinical history and signs that the appendix was diseased, yet they could not infer the nature of that disease. Next, it was certain that correct conclusions could not be arrived at by examining the appendix with the naked eye. Some which looked perfectly healthy were dangerously ulcerated or infected, and he would narrate instances in which a naked-eye inspection had failed to detect carcinoma of the appendix, and had also failed in cases of tubercle, both being diseases which had a profound influence upon the subsequent fate of the patient. For those and other reasons it was clear that clinical evidence ought, in a scientific inquiry such as that, to be supported by microscopical evidence, and, if possible, by bacteriological. Some of those requirements had been fulfilled in the synopsis of 200 cases which he had provided, and which were all operated upon and afterwards examined by himself. He regretted not to have had sufficient time to work up additional ones of which he possessed microscropical specimens, or, indeed, to mention a tithe of what they showed. He would not pause to comment upon one particular case in which the part removed could not be microscopically identified as an appendix. But the possibility of the operator being deluded by a sham appendix might explain cases such as the one mentioned by the opener of the discussion. Doubtless in that the first operator honestly thought that he had removed the appendix, although that organ was actually removed on another occasion. He possessed another specimen which could not be identified as an appendix. He showed them on the screen a microscopical specimen of carcinoma of the appendix, probably primary columnar-celled carcinoma. The patient had the ordinary clinical signs of appendicitis. The disease was unrecognizable by the naked eye. Although the caecum and end of the ileum were removed the disease continued to grow slowly in the pelvic glands, and ultimately killed the patient. He showed on the screen another variety of carcinoma of the appendix, namely, columnar-celled carcinoma undergoing colloid change. The appendix had been removed four years before he performed exploratory laparotomy, and he had seen a tumour behind the right colon and meso-colon, with nodules in the peritoneum, and enlargement of lymphatic glands. The disease of the appendix had not been recognized at the time of its removal. Finally, he placed another specimen before them of what was probably the ordinary type of carcinoma of the appendix. It was given to him by his colleague, Mr. McAdam Eccles, who told him that when he removed the appendix he thought the two nodules on it were tuberculous. The patient was a gentleman, 18 years old, and had the ordinary symptoms of appendicitis. Finally, he ought to mention that an appendix in his list of cases looked very like a cancerous one. Opinions were divided as to its real nature. The patient was well a year after its removal. He did not think there was anything exceptional about his own experience, for cases of carcinoma of the appendix had not infrequently been recorded by others who had realized the necessity of microscopical examinations, and a certain proportion—say 1 in 250—were likely to be met with when every appendix was systematically examined. Next as regards tubercle: since he began that investigation about nine years ago, he had always looked for tubercle and expected to find it frequently. Fortunately, it was rare and only four instances were included in the list. He said fortunately because the subsequent history was unfavourable. In a boy the wall of an empyema of the appendix was tuberculous when microscopically examined. The patient died about a year later of tubercle. In another case the patient was known to be tuberculous, and a tuberculous appendix was removed, but the disease progressed within the abdomen. Five years after they could detect no sign of tubercle in a third case, although she had a cough and was not well. The ultimate fate of one who went to Australia was unknown. Once he diagnosed tubercle of the appendix with the naked eye when the microscope showed that the nodules were merely inflammatory. The patient was well more than two years after. Next the microscopical examination had revealed another and undescribed condition which had a profound influence upon the subsequent fate of the patient, and which had not yet been included in clinical statistics. The question had been raised of the propriety of attempting to remove the appendix after an appendicular abscess had been evacuated. He was accustomed to decide each case on its merits, and after the abscess had been opened, but his bias was strongly in favour of removing the appendix, provided the general and local conditions did not forbid. He had not time to go into all the reasons by which he was guided, but he showed them on the screen the conditions of an appendix six months after an abscess containing a faecal concretion had been opened. The mucous membrane was extruded through the perforation, so as to form an intra-abdominal appendicular fistula. No wonder a second abscess formed. In 3 other cases of delayed removal of the appendix after abscess one exhibited slight inflammatory changes, but two others were in a state of active inflammation and ulceration. Besides those conditions the appendix left after the opening of an abscess might, as he had seen himself, contain concretions or foreign bodies. The sinus which persisted after an appendicular abscess had hardly been mentioned, although it might necessitate an operation quite apart from a fresh attack of appendicitis. Faecal fistulae were another complication, but fortunately got well unless tuberculous or carcinomatous. He next showed the commonest disease of the appendix (123 in 200), namely, ulceration of the mucosa with the penetration of bacteria into the tissues of the mucosa and into the lymphatics and onwards through the hiatus muscularis into the peritoneum. That dangerous class was the one which gave such perfect results after operation. The ulceration of the mucosa was associated with septic, mucopurulent, or faecal contents, and the latter with concretion (23 in 200). As regards the latter a point in practice arose. When operating for other abdominal diseases the appendix was sometimes found to have a concretion in its interior. When that was the case the condition of the appendix was one of danger, and it ought to be removed. In the specimen shown the mucosa was ulcerated, the faecal and bacterial contents of the lumen had penetrated the lymphoid tissue, and could be seen making their way along the lymphatics. Almost the same condition as that was seen in an appendix which he had taken away whilst engaged in removing an inflamed ovary and Fallopian tube of the left side. The appendix was removed simply because it contained a concretion. It was not known to have caused any trouble. Such contents as glass, hair, threadworms, and so forth, had been met with during microscopical examination, but had no

particular bearing upon the ultimate fate of the patient. The immediate clinical complications of appendicitis had been given so fully by others that he would pass them over, merely calling their attention to two of mesenteric thrombosis. The patients were suffering from acute intestinal obstruction, but he examined the appendix because he had long thought that appendicitis might be one of the causes of the thrombosis. Lastly, as regards eight cases which were not cured, one had an appendix distended with faeces. Distension was a cause of appendicular pain. But she had also a Riedel's lobe of the liver, which he afterwards removed. Another had muco-membranous colitis; another mucous colitis, and might have got well ultimately; two had very large movable caecums which fell into the pelvis. One had prolapse of the hepatic flexure of the colon—in one he could never find a reason for the non-relief of discomfort—and finally, a chronic invalid had an extraordinary melanosis of the appendix. He showed the specimen on the screen. Were they in the presence of a new disease of the intestines similar to the bronzing of the skin in Addison's disease? The mucosa was intact, with columns of deeply-pigmented cells in the tissues between the tubular glands. The ring of pigment was easily visible to the naked eye. He had met with similar pigmentation in a less degree in four or five other cases, and began to associate it with a chronic abdominal disease, and one which might not be cured by removal of the appendix. In conclusion, two more patients had spurious relapse about six months after removal of the appendix. Each had enormous dilatation of the caecum, which was also unduly movable. In spite of warnings, they had both been careless about their diet and the action of their bowels, and in consequence their caecums had become loaded with faeces. They were quickly cured by enemata. It was not without interest to speculate as to what would have happened had they gone to one who was unfamiliar with their anatomical peculiarity. That brought to an end a brief reference to the causes within the appendix and some of the causes outside the appendix which militated against the success of the operation. He might seem to have placed appendicitis in an unfavourable light as regarded its dangers and complications, for he had not alluded to the question of cure. In that an obvious difficulty arose, because they were not yet agreed upon a time when a cure should have been supposed to have become established. Inasmuch as some of the patients with dilatation of the caecum, and those with colitis, were slow in deriving the full benefit of the operation he would suggest that a year's probation should be adopted. If that were accepted the curative results of appendicectomy would compare most favourably with all the other major operations in surgery.

Mr. W. H. Battle expressed his opinion that an operation for the evacuation of the original abscess should be done as soon as possible, unless the abscess was deeply seated, the abdomen much distended, and the patient an unfavourable subject. He considered that an appendix which was so seriously diseased that it could cause suppuration would, in the majority of instances, not recover, and would be a source of anxiety and danger to its possessor. Surgeons should not be deterred by the possibility of a difficult operation, for the results were satisfactory and the mortality small. He observed that although a concretion might come away from an abscess, that in itself was no guarantee that the patient would have no more trouble, for there might be another concretion left behind or the appendix might be strictured or irrevocably injured by the attack. The best time, in his opinion, for operation was soon after the closure of the abscess, when the adhesions of the appendix to surrounding parts were comparatively recent and yet the tone of the bowel wall had been regained. At that time also any recent intestinal adhesions could be rectified and obstruction prevented.

Mr. G. R. Turner said that unless an acute case was going on for convalescence he operated as soon as he could. He hoped with Mr. Pearce Gould that the mortality might be reduced to as low as 2 per cent. in acute cases if it became the rule to operate early. His friend, Mr. Pendlebury, had put together the cases at St. George's Hospital of appendicitis between the years 1892 and 1898. Out of the 156 cases 51 had been operated upon; of the 16 cases operated on in the quiescent stage all recovered; taking those operated upon in the acute stage, the percentage mortality during those years was almost 30 per cent. With regard to complications and sequelae, he thought that they would hear less of them if the cases were subjected to operation earlier. He trusted that when Sir Frederick Treves replied, he would add to the great benefits he had bestowed on surgery by avoiding saying anything too crushing against early operation in acute appendicitis.

Mr. H. F. Waterhouse agreed with what Mr. Turner had said in the main, and entered a strong protest against the practice of operating for the removal of an appendix subsequent to an operation for the evacuation of an appendicular abscess.

Mr. P. Lockhart Mummery said that in his own analysis of 100 consecutive cases the percentage of complications occurring after the operation was 37 per cent. He had worked out the percentage of complications occurring soon after the operation from the statistics which had been provided, and, taking the total of 3,225 operations, the percentage of complications was, with the deaths included, 27 per cent., but leaving out the deaths it was 18 per cent. He believed those figures were too low, and that if all the complications were included the percentage would be higher. The percentage of cases in which symptoms due to adhesions were present some considerable time after the operation were about 12 per cent. out of 100 cases he had written to. The symptoms in those cases were great difficulty in getting the bowels to act, difficulty in holding the urine for any length of time, painful micturition, and pain in the abdomen after standing or walking relieved by lying down. In regard to the time after the operation at which the patient was able to resume his ordinary occupation, it was found on the average to be thirteen weeks.

The discussion was then further adjourned to Tuesday, March 14th, at 8.30 p.m.

ROYAL ACADEMY OF MEDICINE IN IRELAND

Section of State Medicine.

Sir John W. Moore, M.D., President, in the Chair.

Friday, February 10th, 1905.

Earth Temperature and Diarrhoeal Diseases.

The President read a paper on this topic, basing his remarks upon the records of earth temperature and diarrhoeal disease in Dublin during 1904. He showed by diagrams that in 1904 diarrhoeal mortality was trifling till the week ending August 6th—that is, the third week after the subsoil temperature at 4 ft. had passed above 56° F. The mortality increased week by week, until 35 deaths from diarrhoeal diseases were registered in the week ended August 27th—that is, about 10 per cent. of all the deaths from those diseases (339) registered in the course of the whole year 1904. This maximum of mortality followed the maximum of warmth of the soil at 4 ft. (58.5° F.) by an interval of just a fortnight. He thought that such a coincidence was at least remarkable.

Dr. Kirkpatrick did not think there was sufficient evidence to show that the rise of the temperature to the critical line and the summer diarrhoea were connected causally. It was more probable that the earth temperature reached a certain height only during conditions when epidemic diarrhoea was liable to arise also, and there was probably an organism which could develop when the earth temperature had been a sufficient height for a certain length of time. Epidemic diarrhoea was probably caused by organisms capable of producing decomposition in food stuffs and not by any specific bacillus.

Dr. Craig was sure that Sir John W. Moore did not mean to convey that the earth temperature alone caused epidemic diarrhoea. In his own opinion the heightened temperature tended to increase putrefaction, and probably flies had a great deal to do with carrying about infection.

Dr. M'Vittie thought the statement that diarrhoeal diseases were more marked in those districts where the houses were closely built than where there was an excess of population indicated that the earth temperature could not be the main factor, because a large portion of earth covered by closely-built houses could not rise to the same temperature as in places where there was much open space between the houses. There must, he thought, be a number of other factors.

Dr. Langford Symes agreed that the causation was probably multiple, and quoted bacteriological and other observations which seemed to him to indicate that epidemic diarrhoea might sometimes be waterborne.

Dr. Matson asked Sir John William Moore if he thought the nature of the soil had anything to do with these diseases. He himself had witnessed epidemics in places underlain by soils of materially different character.

Dr. Winter said that Sir John spoke of a heavy rainfall seeming to have been followed by a decline in the death-rate, and quoted facts which, if correctly observed, seemed to him

to indicate that these diarrhoeal diseases were not water-borne, but were carried through the air, contaminating the food.

Sir John William Moore, in replying to Dr. Kirkpatrick, said that last year the observations made had been used to give warning of the probable onset of diarrhoeal diseases. He had been careful in his paper not to commit himself to saying that the earth temperature was the absolute cause, and agreed that various organisms might cause the diarrhoea. The symptoms of the latter pointed to poisoning of the centres in the medulla oblongata. Much and far-reaching mischief might certainly be caused by flies and the infection of food. He did not think that the mere placing of houses over the soil would very materially interfere with the rise of the subsoil temperature. Clayey soil always warmed up more slowly than gravel or sand, so that diarrhoeal diseases might be expected earlier in the latter case. He thought that the mortality had been checked last year by heavy rains, and this was an argument in favour of contamination by dust or flies.

PATHOLOGICAL SOCIETY OF LONDON.

Professor W. D. Halliburton, F.R.S., Vice-President, in the Chair.

Tuesday, March 7th, 1905.

Recent Work on Proteid Chemistry and Proteid Diet. Professor Halliburton, in a communication upon this subject, observed that with the disappearance of Kühne's doctrine as to the constitution of the albuminous molecule, interest centred around the final decomposition products, such as were obtainable as the result of prolonged proteolysis. Before a synthesis was possible a correct knowledge of these cleavage-products was a preliminary necessity. These might be classified into the mono-amino acids, like leucine and glycine; the diamino acids, or hexone bases; the aromatic amino acids, like tyrosine and tryptophane, members of the pyramidine and pyrrolidine groups; the sulphur-containing substance cystin, and ammonia. Particular attention was directed to the groups of amino acids called polypeptides, which occurred as an intermediate stage in proteolysis between the peptones and the final products, and the fact that Emil Fischer had synthesized some of these was an indication that such work may culminate in the actual synthesis of the proteid molecule. In connexion with proteid absorption, the trend of recent research was to show that a much more complete proteolysis occurred in the alimentary canal than was formerly supposed to be the case. The tissue proteids must therefore be constructed from the simple cleavage-products, and proteids were thus brought into line with fats and carbohydrates. This new theory assumed a complete breakdown of the food stuffs previous to their being built up into the living tissue. It was thus less difficult to understand how the living organism could construct from the fragments the tissues peculiar to itself, and maintain its chemical integrity although the food taken might vary widely in composition. If foreign proteids were introduced directly into the blood stream they appeared to be largely retained in the body, and if they were really utilized and preliminary cleavage was necessary, this must be accomplished by the tissue erepsins and similar intracellular enzymes. The activity now manifested by so many workers on the subject of autolysis was warranted. The part played by the tissue enzymes during life could only be elucidated by allowing them full scope after death. The discovery of the urea-forming ferment, argenase, had already been one important outcome of such study. Professor Halliburton concluded with a reference to the work of Chittenden on physiological economy in nutrition, and showed that possibly our views concerning what constitutes a normal dietary and a normal urine may need revision. Chittenden and his co-workers had lived for prolonged periods on diets in which the amount of proteid was reduced to half of that laid down in the accepted Voit standard. This they had done without apparent detriment to health, and maintained their nitrogenous equilibrium. Whether such persons had the reserve power to withstand privation and disease must be left to the future to be seen. This work might also modify our ideas regarding the feeding of infants and invalids.

Remarks upon the communication were made by Dr. Hutchison, Professor Starling, F.R.S., Dr. C. J. Martin, F.R.S., Mr. C. G. Seligmann, and Dr. Lazarus-Barlow.

Therapeutical Society.—At a meeting on January 24th Dr. W. E. Dixon of Cambridge read a paper on the action of alcohol on the heart. He said that in small quantities and concentrated form alcohol decidedly quickened the pulse at first, but had no effect if much diluted; in very large doses it slowed the pulse. Its quickening action depended on its irritating effects on the mouth and stomach, like that of ammonia, or even burnt feathers in fainting, but concentrated alcohol was more powerful than either. In too great a quantity it depressed the medulla. If chloroform was first given the stimulating effect was prevented. The heart was caused to contract more powerfully by alcohol at first, though if much chloroform were first administered the heart became fatigued and did not respond to the similar stimulation of alcohol. The vessels were constricted, as might be shown by the oncometer, the arm shrinking in bulk fifteen or twenty minutes after the use of alcohol. This constriction drove the blood to the superficial vessels, and caused the flushing of the face. The blood pressure was increased owing to alcohol stimulating the heart and constricting the vessels. Dr. Dixon drew the following conclusions: Alcohol in small concentrated doses increases the rate of the pulse, the systole of the heart, constricts the deeper vessels, and increases the blood pressure, especially when the heart's action is feeble; it is therefore of great service in fainting. If much diluted it has little effect on the heart, but acts as a food, replacing starch in maintaining the heat of the body. In too large doses it depresses the heart.—Dr. H. A. Caley read a paper on some points in the actions and uses of bismuth salts, referring principally to the three insoluble salts in common use—the subnitrate, salicylate, and carbonate. The local action on the stomach was first considered—their mechanical, astringent, and antiseptic properties discussed, and reasons adduced for regarding the local action on the mucous membrane as the most important factor, their special usefulness in gastritis and ulcer being emphasized. Of the three, the carbonate was the most generally useful as a gastric sedative. In dealing with the action of bismuth salts in intestinal disorders, Dr. Caley brought forward experimental evidence bearing on the antiseptic action of the three salts: the subnitrate had definite germicidal action on cultures of the bacillus coli, the salicylate a similar but much weaker effect, while the carbonate was inert as a germicide. Under laboratory conditions this antiseptic action of the first two salts was destroyed by alkalies; on the other hand, therapeutic experience showed that an alkaline medium did not destroy their efficacy. For this and other reasons it was inferred that the principal action of bismuth in the intestines was a local action on the mucous membrane, and that the presence of catarrhal inflammation was one of the chief indications for its employment. If given in sufficiently large doses bismuth was potent in many intestinal disorders, and was capable to a large extent of replacing the more direct intestinal antiseptics, strong astringents, and opiates. Of these three salts the subnitrate was the most efficacious in irritant lesions of the intestines, and where a more marked astringent effect was desired the author preferred a combination of this salt with catechu or other vegetable astringents to the more recently-introduced subgallate of bismuth.

Society for the Study of Disease in Children.—At a meeting held on February 17th, Dr. Edmund Hobhouse (Brighton), in the chair, Mr. N. Bishop Harman showed a case of unilateral paralysis of the third and fourth cranial nerves which might, he thought, be ascribed to an inflammation of the nature of poliomyelitis.—Mr. S. Stephenson referred to the hereditary history in similar cases.—Dr. E. Hobhouse showed a child, aged 5, with hemiplegic spasticity and incoordination on the right side. Weakness was noticed in the right arm six months after a fit and was followed a year later by incoordinate movements of the leg. Intelligence was unimpaired and there was no optic atrophy. There was considerable spasticity on the right side and the knee-jerks could hardly be obtained.—Dr. F. Parkes Weber showed a girl, aged 12, with chronic joint disease, splenomegaly, and enlarged axillary glands. There had been a definite general reaction to tuberculin.—Dr. F. J. Poynton showed a boy, aged 8, with chronic arthritis of three years' duration and no apparent cause. It was most marked in the hands and feet, and the appearance of the hands was that of rheumatoid arthritis. Relapses, with fever and local pain, had occurred. The axillary glands were enlarged, but not the spleen.—Dr. Edmund Cautley showed a boy, aged 9, with early osteomyelitis of the upper end of the femur, or an epiphysitis of the great

trochanter, spreading to the neck of the bone. A skiagraph showed that the neck, upper part of shaft, and both trochanters were involved. The symptoms were fever, anaemia, leucocytosis, unduly frequent pulse, pain and swelling of the upper part of the left thigh. The course was chronic and mild.—Mr. ARTHUR EDMUNDS showed a boy, aged 7 years, with syphilitic arthritis of the right knee, forming a painless swelling, of two years' duration, which had decreased under antisyphilitic treatment.—Dr. G. A. SUTHERLAND showed a boy, aged 12, with syphilitic arthritis of both knees, of a month's duration and quite painless. There was no other evidence of disease. He thought that drugs were of little value, that the disease ran a chronic course, and ended in spontaneous recovery.—Mr. DOUGLAS DREW showed a case of excision of both hip-joints for tuberculous disease and one of acquired club-foot with marked hereditary tendency.—Dr. E. PRITCHARD showed a child, aged 2, with spastic diplegia and optic atrophy. Labour at its birth had been difficult and prolonged. A fit occurred on the third day, and fits had been frequent since. Intelligence was very deficient, the head was microcephalic, and there was much spasticity. He regarded the case as one of congenital microcephalic idiocy due to arrested or perverted development of the nervous system.—Dr. HOBHOUSE showed a specimen of congenital absence of the gall bladder and bile ducts from a girl who died jaundiced at 8 months, weighing 9 lb. The liver weighed 8 oz., and showed marked interlobular cirrhosis. He also read a paper on a case of chronic interstitial nephritis with extensive renal retinitis in a girl, aged 6. The eye symptoms appeared two months before death, and were very intense. The child had had scarlet fever three years before. There was no evidence of congenital syphilis.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 17th Dr. DAVID NEWMAN delivered a presidential address on the subject of cystoscopy and its value in the diagnosis of renal disease. The paper was accompanied by a lantern demonstration and the following conclusions were drawn: (1) When one ureter orifice is altered while the other is normal, the renal lesion is on the side of the morbid ureter. (2) When the urinary shoots are more frequent on one side than on the other: (*a*) greater functional activity is indicated by the shoots being uniform in size and regular in rhythm; (*b*) undue irritation of the kidney is to be inferred when the shoots, while more frequent than normal, are irregular in rhythm, unequal, and small in size; (*c*) stricture, stone, or chronic ureteritis should be suspected when the shoots are disturbed in form or irregular in amount. (3) When the urine does not escape in distinct jets: (*a*) dilatation of the ureter without paralysis of the sphincter is indicated when the urine dribbles into the bladder at intervals; (*b*) destruction of the sphincter action is shown by the urine flowing into the bladder almost continually. (4) The character of the morbid fluids escaping from the ureters, or of clots, etc., occupying the opening, denote the morbid changes taking place in the corresponding kidney. The deformity of the orifice also indicates the character of the renal disease: (*a*) Pin-head contraction (chronic inflammation or impacted calculus); (*b*) elongated and distorted (distension of renal pelvis or infective nephritis); (*c*) swollen or pouting prolonged (prolonged but not acute inflammation of renal parenchyma); (*d*) dilated (advanced tuberculous or calculous pyonephrosis); (*e*) U-shaped (significance doubtful usually denotes prolonged irritation of renal pelvis).

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—At a pathological meeting on February 17th, Dr. BRONNER in the chair, amongst the cases shown were two described by Messrs. LAWFORD KNAGGS and O. C. GRUNER, in which there had been two malignant tumours of the intestines. In the second case, upon which there had been a *post-mortem* examination, there was found a columnar carcinoma producing stenosis at the commencement of the rectum. Below this growth the mucous membrane was covered with polypoid projections (adenomata) until a second and larger growth was reached close to and involving the anus. This growth was also a columnar carcinoma, and the microscopic appearances confirmed the general inference that the lower growth was of later origin than the higher one. In the stomach a large polypoid mass occupied the pyloric region. This was an adenoma, and showed no trace of malignancy. Both in the stomach close to the polypoid mass and in the rectum between the two growths the mucous membrane showed inflammatory infiltration. There were numerous secondary growths in the liver. It was thought that the two rectal growths were independent, and that neither could be regarded as of metastatic origin; that the polypoid condition of the rectum had developed malignant features at the points of greatest irritation. The stomach condition was regarded as "precancerous."—Mr. J. F. DOBSON showed a specimen of meso-colic hernia. The hernial sac lay to the left of the duodeno-jejunal flexure extending between the layers of the transverse meso-colon towards the splenic flexure. It contained portions of two coils of the upper jejunum. In the margin of the peritoneal fold forming the anterior wall of the sac was seen the ascending branch of the left colic artery, while the inferior mesenteric vein ran upward behind the parietal peritoneum at some little distance from the orifice of the sac. Reference was made to the usual forms of hernia arising in this neighbourhood, and the difference between the specimen shown and the ordinary forms of left duodenal hernia was emphasized. The specimen was considered to be similar to the one described by Sir Astley Cooper as a meso-colic hernia. Mr. MOYNIHAN, in discussing the paper, said that this was an example of an hitherto undescribed form of hernia, unless the one described by Sir Astley Cooper was an instance of the same condition, which was not certain.—Dr. MAXWELL TELLING showed a case of phthisis, with extensive basal cavitation, in an infant of sixteen months.

CHELSEA CLINICAL SOCIETY.—At a meeting on February 21st, Dr. VINCENT DICKINSON, President, in the chair, Mr. J. FOSTER PALMER read a paper on pre-appendicectomy appendicitis, and from a review of the statistical history of the disease drew the conclusion that the prevalence of the disease at the present time was not to be accounted for entirely by mechanical causes, but that certain cyclical or quasi-epidemic influences might be at work which were not at present fully understood.—Mr. C. EDWARD WALLIS read a paper on dental caries, with lantern slides illustrating the pathological changes that take place. He expressed the opinion that to improve the teeth of future generations it would be necessary not only to improve the diet and hygiene of children, but also to make certain that mothers during the period of their pregnancy included in their dietary such calcium and other salts as would enable the teeth of the offspring to be properly calcified. Investigations, he thought, had shown that breast-fed children possessed far better dentitions than those brought up upon cow's milk and its many derivatives.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting in Sheffield on February 17th, Dr. LLOYD ROBERTS, President, in the chair, Dr. A. J. WALLACE, of Liverpool, showed three uteri removed from patients aged respectively 50, 51, and 53, in whom the chief symptom had been haemorrhage. In the course of his remarks upon them he said that he found it impossible to avoid suppuration when Schuchardt's para-vaginal incision had been practised, and that in two cases he had had the malignant disease recurred very rapidly in the scar. Dr. GEMMELL said that he had seen suppuration in four cases in which para-vaginal section was done, and in one malignant disease implanted in the scar appeared within three months.—Dr. A. DONALD described a case in which a soft fibromyoma growing from the front and left side of the uterus was enucleated from the broad ligament. The tumour was the size of a large cocoanut, and was removed without opening the uterine cavity. About two years later the patient became pregnant, and was delivered of a female child at term. He reported the case as an illustration of the superiority of myomectomy over hysterectomy in cases of large solitary fibroids in women of child-bearing age. Dr. GEMMELL referred to a case of the same character. Dr. WALLACE thought recurrence was likely to occur, and that it was difficult to be sure that small fibroids were not left after myomectomy. Dr. DONALD, in reply, said that he had often begun by enucleating and gone on to hysterectomy on finding a condition of multiple fibroids. He had never, however, had recurrence in a case in which he had been content with myomectomy.—Dr. GEMMELL related two cases of sarcoma of the ovary in girls aged 17 and 20. The removal of the growths was followed by extremely rapid recurrence in the omentum, mesentery, and pelvic tissues. It was surprising that recurrence should be so rapid and so generalized in cases in which the pedicle was so small and thin as to demand only a single ligature.

REVIEWS.

BRIGHT'S DISEASE AND DIABETES.

Professor Tyson is so well known to the medical profession in this country, that general interest will be felt in the publication of the second edition of his *Treatise on Bright's Disease and Diabetes*,[1] which represents his matured opinions upon the questions on which he first delivered himself twenty-four years ago. It is therefore somewhat disappointing to find that, while the book contains a good summary of what other people have been writing and saying, it is by no means easy to discover Professor Tyson's opinions on many points. As as example of this singular reticence, we may give the absence of any reference to the surgical treatment of chronic nephritis, although Professor Tyson has on more than one occasion joined in the discussions that have taken place respecting the work of Edebohls, and his personal experience of the results of these operations is probably greater than that of any physician on this side of the Atlantic. So far as the author reveals himself, he seems to maintain the old position respecting the pathology of Bright's disease, but in treatment, especially in dietetic treatment, he concurs in the more liberal views now generally entertained regarding the use of albuminous diet.

In the section on diabetes, he gives interesting tables showing the rapid increase in diabetes in the United States during the last twenty years. Not long ago American writers used to congratulate themselves upon the comparative immunity of their countrymen from this disease, but from the tables supplied by Dr. Hermann M. Biggs, Health Officer of New York City, the death-rate from diabetes per 100,000 of population has risen from 5.16 in 1883 to 17.13 in 1901—a figure as high as that now obtaining in Paris, which has been supposed to stand at the head of European capitals for its unenviable mortality from diabetes. While the account given of diabetes is clear, it is hardly adequate in its description of the complications or in the discussion of the diagnosis and prognosis of the disease. For example, there is no hint to the reader that glycosuria may occur as a transient condition or under circumstances which do not warrant the diagnosis of diabetes; there is no description of alimentary glycosuria; there is no reference to the prognostic importance of the ferric-chloride reaction, which is merely described under "Diagnosis"; and finally, under "Treatment," the importance of quantitative restrictions in diet is altogether overlooked. In the discussion of diabetes insipidus the secondary changes in the kidneys are mentioned but not explained, and the prognosis is stated to be uniformly good, although if the kidneys are sacculated and their substance destroyed, the life of the patient cannot be prolonged. The description which Professor Tyson gives of diabetic retinitis implies that it is identical with that seen in Bright's disease, although in the special chapter contributed by Dr. de Schweinitz its forms and distinctions are correctly given. It is evident from numerous quotations that Professor Tyson has been much indebted to Dr. R. T. Williamson in compiling the section upon diabetes; nevertheless, in discussing the relation of alcohol to that disease he says that "of modern observers he knows no one who agrees with Harley," yet Dr. Williamson considered alcohol an important factor in 17 per cent. of his cases of diabetes.

There are several coloured plates, but the best illustration is a beautiful process reproduction of a photograph of a contracted kidney. American orthography is of course to be expected in a work by an American physician; but surely anuria is preferable to "anurea;" Ebstein's bread substitute is made from aleuronat, not "aleuronot;" "Le Noble" should be "Le Nobel," and "Begbig" "Begbie."

DENTAL SURGERY.

Dr. Zierler's pamphlet[2] on the treatment of septic roots of teeth by means of weak galvanic currents appears to be based upon some considerable experience, for he has used it for several years, although he does not give the number of cases upon which it has been employed. The method is of considerable interest, inasmuch as the author claims that by this means the roots of exceedingly septic teeth, even when they are so tortuous or so small as to be inaccessible to ordinary methods of cleansing and medication, may be effectually sterilized at one short sitting. The apparatus employed is a Leclanché battery of 30 elements, with a rheostat and galvanometer, the current therefore being of comparatively high voltage, but the quantity is only small, not more than 1 to 3 milliampères. A platino-iridium needle is attached to the positive pole, and the negative terminates in an oval plate applied to the neighbouring gum or other convenient spot, the needle being passed as far up the root as possible. After the passage of a 3-milliampère current for ten minutes, the needle when withdrawn is found to be absolutely sterile, as is also the wall of the root canal; other portions of the root, and especially its exterior, may remain septic. This would appear to be in some sense a failure, but in practice it is seldom that the septicity of a root extends much beyond its canal and the soft parts immediately about its apex. Some patients cannot tolerate this amount of current, but the same results may be attained by a proportionately longer application of a weaker current. Salt solution is introduced into the root canal as far as it will go, but it may be doubted whether much of it will reach far down a small canal. If all that Dr. Zierler claims for this method—namely, that a very septic root can be sterilized in ten minutes, and filled at the same sitting—be substantiated by further experience, it will be a valuable addition to the resources of the dentist. But we cannot help remembering all that was claimed for cataphoresis (a method of carrying medicaments where they would not otherwise go by the help of an electric current), and that that much-vaunted method is now extinct.

The intention of Mr. Grayston's book, *Notes on the Treatment and Filling of Teeth*,[3] is avowedly to allude only to certain practical points, leaving for the most part untouched the principles which underlie these methods of treatment. This task the author has fairly fulfilled, and a good many useful hints are to be gleaned from his pages. At the same time, this course gives to the book a certain incompleteness, which has evidently been felt by the writer, as he occasionally departs from his scheme to some slight extent when giving his reasons for the methods which he advocates; indeed this was almost inevitable. But the outlines of principles so given are too slight to be of much value, so that the book cannot be taken as much more than notes, useful in their way, but fragmentary and only valuable to the student who has already mastered the principles of the subject. Within its self-imposed limitations, it will, however, prove useful to many practitioners.

CLINICAL HANDBOOKS.

M. Guilleminot has written an excellent book on medical electricity.[4] The plan of the work is as follows: The first part deals exclusively with the physics of electricity and cognate technical questions; the second part treats of the physiological effects of the different forms of electricity; and the third constitutes the medical or applied portion, and includes electro-diagnosis, radio-diagnosis, and electro-therapeutics, the whole being divided into paragraphs, each with a descriptive headline in striking type. The first part takes up not only the ordinary subjects of the galvanic and faradic currents and statical electricity, but also among other subjects the sinusoidal current, the high-frequency current, x rays, galvano-cauterization, and the principles of phototherapy. The second part includes the effect of the stabile continuous current leading up to the physico-chemical effects of electrolysis and cataphoresis, and the physiological currents of living muscle and nerve; also the effect of the labile continuous current with the faradic, galvano-faradic, and the sinusoidal currents. The physiological effects of high-frequency currents of statical electricity and of light are also discussed. The third part includes the applications of electricity in diseases of the different systems, in disorders of nutrition, in disorders of the special senses, and in many other morbid conditions. There follows a series of charts of the motor points of the body which represent very well their average position, although it is recognized that they vary in different individuals, and even in the same individual under different conditions. Those belonging to the territories of

[1] *A Treatise on Bright's Disease and Diabetes.* By James Tyson, M.D. Second edition. Including a section on the Ocular Changes in Bright's Disease and in Diabetes. By George E. de Schweinitz, M.D. London: Kebman Limited. 1904. (Demy 8vo, pp. 381 178. 6d.)

[2] *Beiträge zur Behandlung putrider Zahnwurzeln unter specieller Berücksichtigung der Anwendung schwacher galvanischer Ströme (Elektrosterilization).* Von Fr. E. Zierler. Würzburg: A. Stuber. 1905. (Demy 8vo, pp. 53. M. 1.80.)

[3] *Notes on the Treatment and Filling of Teeth.* By W. Cass Grayston, L.D.S. Second edition. London: The Dental Manufacturing Co. 1904. (Crown 8vo. pp. 254. 5s.)

[4] *Electricité Médicale.* Par le Docteur H. Guilleminot. Paris: G. Steinheil. 1905. (Cr. 8vo, pp. 656; 76 illustrations. Fr.10.)

different nerve trunks are in distinctive colours, a device not peculiar to this book but one which might well be universally adopted. The mathematics of the subject, which are sound, are more fully gone into than is customary in English books; the physical part is, perhaps, the best where all is good; the medical part, almost of necessity, is the least satisfactory, it is very good as far as it can carry us in the present state of knowledge, which must be admitted is not very far. It is questionable whether the diagnosis of disease should find a place in such a book; a description of the characters of lupus and an enumeration of the causes of uterine haemorrhage and similar matters might, perhaps with material advantage, have been omitted. The book, we repeat, is excellent; we know none of its size on the subject better, and its value is increased by the possession of a full table of contents and a good index.

Drs. Oestreich and de la Camp by modestly styling their book on anatomy and methods of physical investigation[5] a "study" have to some extent disarmed criticism. At the same time it seems almost a pity to have published this accumulation of careful observations merely as such, and without diagrams or figures. In its present state it is difficult to see to what considerable body of readers, in this country at any rate, the book can appeal. It has just missed being a very useful volume, and leaves the impression that its contents are the data for some work of more definite purpose. A general section comprises a chapter on elementary applied acoustics; a fragmentary account of flow through cylindrical channels of different characters—rigid, as might be met in calcified arteries, elastic, as normal vessels, and contractile canals such as the intestine; in a third chapter Roentgen-ray procedure is briefly discussed; then follows a catalogue of the deformities and alterations of body-form resulting from pathological processes, and finally a critical examination of the methods of physical examination when applied to the cadaver. In this last chapter two points among many of interest are notable; one, the verification of the great value of light or palpatory percussion, and the other the sufficiently-obvious but often-forgotten fact that the area of superficial dullness of an organ—such as the spleen, for example—is greater than the true projection area. The special section treating in detail the thoracic and abdominal organs gives an excellent account of the commonly-accepted terms and fixed points used in relation to auscultation, percussion, and inspection, with a little pathology interpolated. Fortunately the space devoted to the radiography of the thorax and abdomen is generous, and should form a very useful guide to the interpretation of screen-views and photographs; there is, however, not detail enough to make the pages valuable to a radiographer. The administration of bismuth to aid the investigations by screen observations of the motor function of the stomach and intestines is a device which has been employed by Cannon, whose results have been recorded in the *American Journal of Physiology*. The confidence expressed by the authors in the practicability of localizing disease foci in the lungs foreshadows an advance in the surgical treatment of abscesses and cavities.

NEUROLOGY.

A degree of monotony in receiving and noticing new editions of an important work may be taken as the inverted image of the excellence of the book in question. There are few, we imagine, of those who are thoroughly competent to judge who would not gladly admit that the textbook on diseases of the nervous system,[6] by Professor Oppenheim, is one of the best on the subject. The fourth edition, according to its title page, is enlarged and improved. Without a doubt it is improved, but that we are inclined to think, is in spite of its enlargement. The work now appears, for the first time, in the form of two comparatively slim volumes, which in itself is a good thing, but the 1220 pages of the third edition have been increased to 1447, and the price has been correspondingly raised. Both of these alterations could have been foregone without disappointment or loss by its prospective readers. The increase in size depends, as will be anticipated, not so much on the addition of subjects entirely new to the book, as on the accumulation of confirmatory evidence of old positions. Such evidence is mainly derived from more or less recent numbers of the neurological journals of all countries. But the enlargement is also partly due to the material amplification of what may be called the teaching portion of the book, those parts, to wit, in which ascertained facts, new and old, are arranged and elaborated. Besides all this, the number of illustrations has been increased from 369 to 393 in the two volumes. In reference to the inclusion of advances in current knowledge, we may be allowed to point out that some prominence is given to British work; for example, the researches of Sherrington and Grünbaum on motor representation in the cortex cerebri, locating the so-called motor centres in front of the fissure of Rolando, and putting the centres for the eye movements in the prefrontal region (a location, by the way, long ago foretold by Dr. Hughlings Jackson), receive satisfactory description and illustration. The book not only faithfully reflects current neurology, but contains, also, original matter by Professor Oppenheim not elsewhere published. The third edition, which has had a great vogue in Germany, has already been translated into English by Dr. E. E. Mayer of Pittsburg, and it is to be hoped that the fourth edition will soon receive similar treatment.

Dr. J. F. Burkholder has written and compiled a small manual and atlas of the *Anatomy of the Brain*[7] for students and practitioners of medicine based on the brain of the sheep, which he selected for description and illustration on account of its availability. The medical student with no more than ordinary opportunities often finds it difficult to obtain a brain in a fair state of preservation for his own dissection. A cordial welcome may therefore be extended to Dr. Burkholder's little book. The book is a useful laboratory guide. The points in which the sheep's brain differs from the human brain, which are, perhaps, mostly on its surface, are pointed out, and special stress is laid on the dissection of its deeper structures. The descriptions in the text are confined to such of these as can be easily indentified with the naked eye, or at most with the help of a small hand lens. The plates, of which there are 35, all being full-page, are, with the exception of two photographs, reproductions of original drawings by the author. Although they are certainly diagrammatic in the sense that they show only what is intended to be demonstrated, yet, from the student's point of view, they are probably all the more valuable on that account, and we venture to think that they afford a good working compromise between detail and clearness. Directions are given for the removal and preparation of the brain, including details of the Kaiserling method of hardening it for sectioning and jar preparation. The terminology is founded on that known as the Basel association nomenclature, which, if still strange to English eyes and English ears, has no doubt many and great advantages. In addition, such terms as cephalad and caudad, ventrad and dorsad, mediad and laterad, which sufficiently explain themselves, are consistently used. Set demonstrations on the brain to whole classes of students are in many cases a delusion and a snare, and such a method of study as that plotted out by Dr. Burkholder is to be encouraged. His book may well be adopted as giving a useful outline of a complex subject—an outline in good proportion, readily lending itself to subsequent amplification at any point.

NOTES ON BOOKS.

The authoress, already favourably known by her *Invalid Cookery*, has in the two little books, *Cold Sweets, Jellies and Creams*, and *Entrées of Meat, Game, and Poultry*,[8] catered for the epicure to a greater extent than in her previous work, though we are inclined to think that even the invalid might sometimes be allowed to range over some of these recipes. The directions given are brief but precise, and could be followed by any cook of ordinary capacity, while the few dishes which we have tested have proved very successful. The vice of making up sauces with ready-made purchased relishes has been largely avoided; it is a canon of good foreign cookery that sauces

[5] *Anatomie und physikalische Untersuchungsmethoden* [Anatomy and Methods of Physical Investigation]. Von Dr. R. Oestreich und Dr. O. de la Camp. Berlin: S. Karger; and London: Williams and Norgate. 1905. (Demy 8vo, pp. 266. 7s. 6d. net.)

[6] *Lehrbuch der Nervenkrankheiten für Aerzte und Studierende* [Textbook of Nervous Diseases for Physicians and Students]. Von Prof. Dr. H. Oppenheim. Erster und zweiter Bände. Vierte Auflage. Berlin: S. Karger; and London: Williams and Norgate. 1905. (Demy 8vo, pp. 1447. 30s.)

[7] *The Anatomy of the Brain.* By J. F. Burkholder, M.D., Professor of Anatomy in the Illinois Medical College. Chicago: G. P. Engelhard and Co. 1904. (Demy 8vo, pp. 175; 32 illustrations. 2 dols.)

[8] *Cold Sweets, Jellies, and Creams.* By Florence M. Jack. London and Edinburgh: T. C. and E. C. Jack. 1904. (Crown 8vo, pp. 116. 1s.) *Entrées of Meat, Game, and Poultry, with Sauces.* By Florence M. Jack. London and Edinburgh: T. C. and E. C. Jack. 1904. (Crown 8vo, pp. 131. 1s.)

should be made from fresh stock and with fresh herbs and other ingredients for the occasion, but few English cooks will give themselves the trouble to do so when a bottle of ready-made material is at hand. We should have been grateful had the writer given some hints as to the methods of dealing with materials not of the best, such as the older denizens of the poultry yard, old partridges, and the like, which must be served up sometimes by the frugal housekeeper.

Mr. R. HENSLOWE WELLINGTON has recently published in pamphlet form a paper read by him before the Medico-Legal Society in June last, entitled "*Suicide whilst Temporarily Insane*": *A Legal Contradiction*.[9] Starting from the contrast between the teaching of the Pagan philosophers that "death is a law and not a punishment," and that of the Christian Fathers that it is "a penal infliction introduced into the world on account of the sin of Adam," the author traces the effect of philosophy and theology upon suicide in mediaeval Europe. He rejects the common derivation of the word from the Latin *suicidium*, and connects it with "the queer words *sust*, a selfish man, and *suicism*, selfishness," which were used by Whitlock in 1654. It is generally agreed that the term had not established itself in our language till the middle of the seventeenth century, "self-homicide" being the expression used before that time. Mr. Wellington deduces from the *dicta* of judges that suicide is self-murder, and not merely self-killing; and concludes that to commit suicide "the person must be a responsible agent, a reasonable and sane being." Hence the verdict "suicide whilst temporarily insane" is of necessity a contradiction in terms, a "pious perjury on the part of the jury" to save the reputation of the family of the deceased. The author would have the word "suicide" expunged from our vocabulary, and suggests that the Coroner's Court should record a verdict "that the said A. B. did feloniously kill himself," in all cases except where incapacity to distinguish right from wrong was proved, when the verdict should be "that the said C. D., not being of sound mind, did kill himself." He would, in fact, introduce just that criterion which to many of us seems so illogical when applied to alleged murder. Moreover, even if the suggested formulae were adopted, the more charitable verdict would probably be used in as large a percentage of cases as at present.

MAJOR EDYE'S *Guide to Medical Officers on Field Service*[10] is prepared more especially for civilian medical officers and junior officers of the Royal Army Medical Corps, but it is probable that even the more senior officers of the corps would find it most useful, for the multitude of forms and documents which have to be prepared on mobilizing a field hospital, for example, make a short guide to the requirements almost indispensable. The principal army forms and books in use are mentioned in connexion with the circumstances under which they are required, and the reader is told when to send them in, and to whom to address them. The various medical units with their equipment are described, and the pay of the R.A.M.C., and of any regimental men attached, and the army forms required are given. We might suggest that a slight alteration in the arrangement of the details under the various headings might be an improvement; for instance, under the heading, "A Field Hospital and Sick Convoy," the first paragraph says that the quartermaster draws the equipment, whilst the list of equipment comes at the end of the section three pages further on. There are some useful hints for camp and the march, though the wording of some of the paragraphs is rather involved. However, the important thing is the matter, and this guide should prove invaluable to those for whom it is compiled.

Dr. ARTHUIS[11] considers that he has found in ammonium carbonate a valuable agent for the curative treatment of pulmonary tuberculosis. Ammonia, in his opinion, has some specific or at least direct curative action upon the tuberculous process in the lung, and is best and most conveniently administered in the form of the carbonate. According to Dr. Arthuis, ammonia produces its effect in two ways: first, by its antitoxic properties and in virtue of some special intrinsic quality, it renders the tissues capable of resisting the attack of the bacilli; and, secondly, being eliminated by the lungs, it disinfects these organs and the air passages. In the absence of any records of observations supporting these assertions, it is difficult to offer any criticism on the pamphlet, which seems little, if at all, more useful than the many which abound on all sides advocating some special treatment of consumption.

[9] *The Verdict of "Suicide whilst Temporarily Insane": A Legal Contradiction*. By R. Henslowe Wellington, Barrister-at-law. London: William Clowes and Sons. 1904. (Demy 8vo, pp. 18 and appendix. 1s.)

[10] *A Guide to Medical Officers on Field Service*. By Major J. S. Edye, R.A.M.C. London and Aldershot: Gale and Polden. (Cr. 8vo, pp. 35. 1s.)

[11] *Un Traitement curatif de la Tuberculose pulmonaire*. Par le Docteur A. Arthuis, Chevalier de la Légion d'Honneur. Paris: A. Maloine. 1905. Crown 8vo, pp. 45. Fr. 1.

CANCER SERUMS.

THE *Medical News* of New York for January 14th contains a preliminary report by Harvey R. Gaylord, M.D., G. H. A. Clowes, Ph.D., and F. W. Baeslack, B.A., of Buffalo, on the Presence of an Immune Body in the Blood of Mice spontaneously recovered from Cancer (adeno-carcinoma of Jensen) and the effect of this Immune Serum upon Growing Tumours in Mice infected with the same material. In the latter part of February, 1904, Dr. Gaylord visited Copenhagen, where, through the courtesy of Professor C. O. Jensen, he procured two white mice with actively growing tumours, inoculated from a strain of mice infected with adeno-carcinoma, as described by Jensen in the *Centralblatt für Bacteriologie*, Erste Alt., vol. xxxiv. These mice were brought successfully as far as New York, but between New York and Buffalo both died. One of them was used on the day following death for the inoculation of twelve mice. The second mouse was placed on ice, and on the third day following death the tumour was used to inoculate twenty-five white mice obtained from a source outside of Buffalo. The inoculations from the first mouse gave negative results. Of the inoculations from the second mouse 60 per cent. were successful.

In further transplantations the percentage of successes varied from 20 to 70 per cent. In September and October, 1904, they noticed for the first time in a number of mice that the tumours which had grown to a demonstrable size underwent a form of spontaneous retrogression which ended in the disappearance of the tumour without recurrence. Later they succeeded in getting a large number of mice in which the transplanted tumour grew with unusual rapidity and great virulence, showing no tendency to retrogression. By a series of experiments it was found that the blood serum of the mice which had recovered spontaneously from tumours possessed, when injected into mice infected with growing tumours, a power of inhibiting the growth of large tumours and causing the retrogression of smaller ones, leaving the animal possessed of an immunity which prevented recurrence of the growth. The degree of this immunity varied within considerable limits. All the experiments were controlled by means of mice inoculated at the same time, the tumours of which were smaller than those of the mice treated with the immunizing serum. The control mice received doses of normal mouse serum equal in volume to the doses of immunizing serum, but in every case the tumours developed rapidly in these animals, causing death within three or four weeks.

Further experiments showed that the serum of mice treated with immunizing serum possessed active immunizing qualities capable of causing the disappearance of small tumours and checking the growth of larger ones. The test-tube experiments carried out to determine the nature of this serum, and the information as to the mechanism of its activity obtained from sections of tumours inhibited and cured, have led Dr. Gaylord and his associates to the conclusion that in all probability they are not dealing with a cytolytic serum. On this point, however, they reserve their opinion until they have accumulated more data. Sections of tumours which have undergone partial spontaneous retrogression show that the changes in the epithelium are closely allied to simple atrophy. The connective tissue stroma of the tumour increases greatly in amount, and in the last stage nothing is found but a connective tissue nodule with occasional pseudo-giant cells produced by coalescence of the remaining nests of epithelium, similar to those described by Becker and Petersen as evidence of spontaneous healing at the margin of cancer in human beings. The changes found in spontaneously cured tumours and in those checked or cured with the immunizing serum correspond to the changes described by several authors as an attempt at spontaneous cure in human cancers. Clinical records show that authentic cases of spontaneous cure of cancer in human beings are not unknown, and the correlation of the histological findings of the Buffalo investigators with those already noted in man lead them to the conclusion that a similar immunity undoubtedly exists against human cancer.

The *Petit Journal* announces that Dr. Doyen is about to

publish an account of his researches on cancer, in regard to which, as far as they have been made known, we have done our best to keep our readers informed. It is noteworthy that the lay press has from the first been better informed than the medical journals as to the progress of M. Doyen's researches. We are not surprised, therefore, that our popular contemporary should be privileged to publish what purports to be the concluding passage of the work which it announces. It runs as follows:

It must not be believed that my cancer treatment can cure patients who have but a few more days to live, and whose vital organs have been almost entirely destroyed by the ravages of generalization. It should be applied to patients whose powers of resistance are still sufficient to enable them to struggle against the progress of the malady.

I recommend an operation in all cases wherein it is feasible without danger to the patient, as it is the quickest means of ridding the organism of cancerous growths of a certain size. But it is necessary to bear in mind the danger of reinoculation, which so often occurs in the wound of an operation for cancer. This reinoculation seems to be obviated by anticancerous vaccination. I consider, therefore, that no surgical operation for cancer—even for a cancer that is superficial and easily operable—should be performed before the patient has undergone several anticancerous injections.

In cases that are absolutely inoperable the treatment presents no disadvantages. It cannot aggravate the patient's condition; consequently, it should be tried, though it may be abandoned at the end of five or six weeks if the disease is so far advanced that no other resource remains.

According to the same authority, Dr. Doyen adds that in 50 per cent. of cancerous cases the patients can be benefited by the serum treatment, and that in 25 per cent. of the cases the results obtained are equivalent to a cure. We have not felt called upon to take notice of various statements published in French newspapers in which opinions favourable to M. Doyen's contentions have been attributed to certain members of the Committee appointed to investigate his claims to have discovered both the cause and the cure of cancer. The profession will suspend its judgement till it has before it the report of that Committee; and, if that be favourable, it will welcome the pronouncement not as necessarily final, but as warranting a hope that a problem of the highest importance to mankind is at last on a fair way towards solution.

A like attitude of unbiassed expectancy is desirable in regard to the researches of the Buffalo investigators. They must be considered in connexion with a further report of the Harvard Cancer Commission lately issued, in which the opinion is expressed that cancer is not hereditary, and that it can be best cured by the knife. The members of the Commission were Dr. E. Nichols, Dr. F. B. Mallory, Dr. Edwin A. Locke, Dr. Charles J. White, Dr. W. H. Robey, jun., Roxbury; Dr. Tyzzer and Dr. Weis, now of New Orleans. Dr. Nichols, under whose direction the laboratory work, which was done at Harvard Medical College and Massachusetts General Hospital, was carried out, is reported to have said:

"Our work thus far has been to find the cause or origin of cancer, and we have been unable to do so, although we have exploded popular theories. When we know what life is I think we will then know what cancer is. No more is known about its origin now than at the beginning of the Christian era. It is a supreme mystery. On present lines of investigation the cause of true cancer will never be learned. Our only hope is in some new method. No discovery has been made which offers any hope of cure of cancer which begins to compare with the surgeon's knife.

Ruskin says somewhere that he never thought he was getting near the truth about anything till he had contradicted himself half a dozen times. If truth is indeed evolved from contradiction, we should be coming near the elucidation of the mystery of cancer.

THE EPIDEMIC OF TYPHOID FEVER IN LINCOLN.

III.

THE total number of notifications for the week ending Friday, March 3rd, was 37, showing that the epidemic has steadily decreased, the notifications of the four preceding weeks having been 284, 174, 116, and 63 respectively.

The total number of cases notified since the beginning of the outbreak amounted on March 3rd to 769. Up to the same date 77 deaths had been recorded, showing a case-mortality of 10 per cent.

The control and prevention of the "secondary cases," which continue to occur, depend upon detailed precautions, in addition to the general purification of water supply and of drains and sewers,—for example, the provision of facilities for cleansing and disinfection of dwellings and their surroundings, and of clothing, bedding, etc.; the instruction of the uninformed of all classes with regard to the risks of typhoid infection, and the ways in which those risks may be obviated; the special instruction of those engaged in nursing or attending upon the typhoid patients; the careful supervision of convalescent patients, and provision for disinfection and removal of their excreta until those excreta may reasonably be regarded as free from infectious germs.

It is difficult to ascertain to what extent these detailed precautions are being carried out; but it is satisfactory to note that the Corporation have succeeded in the difficult task of securing a free convalescent home for some 60 of the more needy class of patients, and are still engaged in seeking for further accommodation.

On February 28th Drs. Houston and MacGowan submitted their report on the methods used for the purification of the waterworks' supply, and on the results obtained. They express their belief in

the innocuous character of the water now sent into consumption on the facts that (1) in all the ten analyses of the reservoir waters, after treatment, no B. coli have been found in as much as 100 c.cm. of the water; (2) a similar result has been obtained in our later analyses of the water passing into consumption from the waterworks.

On this very important question with regard to the purification of water, Dr. Houston is well known as one of our highest authorities. The report continues:

Until a new and more satisfactory supply of water has been obtained we are of opinion that the above treatment—that is, with sodium hypochlorite—should be continued under constant supervision, and controlled by periodical analyses. . . . We do not at this stage feel justified in saying that this additional precaution (boiling) should be discontinued.

Meanwhile, every effort is being made, under the skilled guidance of Mr. Hill and Mr. Whitaker, to find a safe water supply sufficient to meet the needs of the city.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

FOURTH CENTENARY CELEBRATION.

By JOHN SMITH, M.D., LL.D., F.R.C.S.Edin.,
And President, 1884.

[*Written by Request.*]

IT has been already intimated in the BRITISH MEDICAL JOURNAL that the fourth centenary of the Royal College of Surgeons of Edinburgh is proposed to be celebrated by that ancient and distinguished body during the month of July, 1905.

Four hundred years ago the Barber Surgeons of Edinburgh resolved to petition the civic authorities of the burgh that in the interests of medical reform they should be incorporated and invested with such powers and privileges as would enable them to organize and arrange a system of teaching, examining, and certifying the professional fitness of all persons entering upon the practice of surgery within the town. The status and qualifications proposed to be made imperative on such candidates, were in this petition definitely set forth, as were also the penalties to be incurred by the infringement of such regulations; while the powers and privileges sought to be conferred upon the new incorporation were at the same time fully and explicitly detailed. The "Bill of Supplication," as this petition was called, was presented to the Provost, Baillies and Council of the Burgh by the Barber Surgeons through their "kirkmaister," from which it may be inferred that there already existed some kind of association of the craft, although evidently without the legislative powers and the constitution they now advocated and desired.

The terms of this petition met with the unqualified approval of the authorities appealed to, and in their opinion were acknowledged to be of a reasonable and beneficial nature. They were accordingly granted, and "confirmed, ratified, and approved" by the "Seal of Cause" of the Provost, Baillies, and Council of the Burgh, July 1st, 1505, while they received the Royal Charter of King James IV in the month of March of the following year. In this way the College of Surgeons of Edinburgh must be regarded as the senior surgical corporation in the United Kingdom. During its long existence its roll of membership has been adorned with many of the most illustrious names in the medical history of Great Britain. Like all other great institutions, it has had many difficulties to meet and overcome, but its influence and its efforts have ever been directed towards promoting the best interests and welfare of the medical profession, and it may now certainly be congratulated upon the success of many important measures which, during its honourable career, it has either supported or achieved.

Subsequently to its original Charter, the College has received many other Royal concessions and grants in its

favour. In 1567 its members were exempted by Mary Queen of Scots from serving on juries, or as combatants in war, or in keeping watch and ward within the city. In 1613 its charter as conferred by James IV was reconfirmed by James VI. In 1657 the Town Council instituted a "brotherhood" of the Apothecaries, which at a somewhat anxious crisis in its history in 1695 was annexed to the surgeons, while by a decision of the Court of Session, February, 1722, after considerable discussion and some litigation, the surgeons ceased to be connected with the barbers further than for some time subsequently keeping a record of their being licensed for that special calling. About this period also, the College was intimately associated with the development of the far-famed Edinburgh Royal Infirmary. In 1778 the College obtained an altogether new charter from George III, by which its designation became "The Royal College of Surgeons of the City of Edinburgh." According to this charter it still remained as it had been from its formation—a civic as well as a medical incorporation, and it was not till another charter was received so late as in 1851 that the government of the College was entirely separated from the Town Council's jurisdiction, at which date its name was again altered to "The Royal College of Surgeons of Edinburgh." Another addition to the grants it secured was that of the 27th year of the reign of George III, empowering it to institute what was known as the Widows Fund, a scheme which is now in abeyance.

The original licence for practice issued by the College was a Single diploma, the examination for which embraced the subjects both of medicine and surgery. This qualification was held in high estimation, and many distinguished physicians as well as surgeons possessed no other. In 1859, however, the College of Surgeons along with the College of Physicians instituted what was called the Double qualification, which consisted of the combined licence of both colleges, conferred after a single examination. This diploma superseded the single qualification of the College of Surgeons, and continued to be conferred in its stead until 1884, when it again gave place to still another licence which has been the only general qualification granted by these bodies since that date and now in conjunction with the Faculty of Physicians and Surgeons of Glasgow. In this way the new licence is known as the Triple qualification, under which there are granted the three diplomas of the two colleges of Edinburgh and that of the Faculty of Glasgow, conferred after a single conjoint examination.

Besides these general qualifications, other special diplomas are granted by the College. Subsequently to the passing of the Dentists Act in 1878 the College instituted its Diploma in Dental Surgery; and in conjunction with the Royal College of Physicians and the Faculty of Glasgow also established the Diploma in Public Health. For the Fellowship of the College a comprehensive and exacting examination requires to be passed previous to being admitted to the ballot for election as a Fellow.

The Royal College of Surgeons occupies as its head quarters the handsome edifice known as Surgeons' Hall, situated in Nicolson Street, a southern district of Edinburgh—the "Quartier Latin," in fact, of that ancient city. The previously existing old Chirurgeons' Hall—the birthplace of the Edinburgh Medical School—was for a long period situated in Surgeon Square, for ages a well-known medical centre of the town, and where some remnants of the old hall still remain. In the new building the ground floor is occupied by the large meeting room, containing the interesting collection of portraits belonging to the College, the examination and committee rooms, the library, and the lofty vestibule containing the celebrated original cast of the cadaver by John Goodsir, along with several busts. The upper floor is wholly devoted to the accommodation of the great museum.

It is proposed that the celebration of the fourth centenary of the College should take place in July, and extend over at least two days of that month. It will include a service in the old Cathedral of St. Giles, a reception and address by the President, a ceremony at which a number of honorary fellowships of the College will be conferred, a banquet given by the President and Fellows, a reception and *conversazione* by the Lord Provost and magistrates, and probably a garden party, with several other entertainments.

The Municipal Council of Paris resumed its sittings on March 8th, when it proceeded to the election of officers. The choice of a president fell this year to the Socialist group, which chose as its candidate a member of the medical profession, Dr. Brousse.

METROPOLITAN CONVALESCENT HOMES ASSOCIATION.

An important and influential meeting to consider the establishment of a Convalescent Homes Association was held on March 2nd, under the chairmanship of Sir E. Hay Currie, in the rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square. Amongst those present were: Lord Lytton, Sir W. Church, Mr. J. Tweedy, Sir T. Smith, Sir R. D. Powell, Sir D. Duckworth, Sir H. Burdett, Dr. J. K. Fowler, Dr. S. H. Habershon, Mr. T. Bryant, Lady Frederick Cavendish and others. The conference was attended by delegates from all the chief convalescent institutions which supply charitable relief to London patients, and was convened to obtain some form of union and co-operation between the various convalescent homes. The advances in medicine and surgery necessarily entailed from time to time changes in the character of relief which can be afforded by convalescent homes, and it was considered that such changes could best be initiated and carried out through a central association in immediate touch with the hospitals on the one hand and the homes on the other. It was further hoped that the Association would prove beneficial in centralizing and combining effort, in the exchange of administrative experience, and in promoting economy.

The proceedings commenced with the reading of letters of regret at inability to be present and expressing sympathy with the movement from Sir William Broadbent, Sir Victor Horsley, Sir Lauder Brunton, Sir Thomas Barlow, and Mr. Anthony Bowlby, C.M.G.

The Chairman said that it would be a great satisfaction to all if, when the proposed Executive Committee was appointed, they could see their way by co-ordination and co-operation to make the existing homes and institutions meet the want that existed. The very last thing that ought to be done was to go in for bricks and mortar and build new convalescent buildings. It was wrong, in his opinion, to divert money to pay for new buildings till it was perfectly clear that the existing institutions were in a position to carry on their work.

Sir William Church (President of the Royal College of Physicians of London) moved the following resolution:

> That the increasing needs of medicine and surgery require some alteration in the character of relief afforded by convalescent homes to the poor of London.

He said that the purpose of those attending that meeting was not to criticize but to see by what means greater good might accrue to hospital patients. Many of the patients in the present convalescent homes were not people who had been ill but persons of weak and feeble health who might very well be accommodated in homes of rest. There were about thirteen general hospitals in the metropolis with convalescent institutions of their own, or closely connected with them, but there were about seventeen that had no such homes. The reason why some change was desirable in convalescent homes was connected with the method of their management. The patients were supposed to be able to attend to themselves, and there was only one scale of diet. It would be an enormous advantage to the hospital population in London if that were not the case. Many patients would be far better off if treated in the pure air of the country, but could not be sent because they were not fit to take the same diet as people who had not been ill, such as cases after enteric fever and diseases of the stomach. Sir W. Church also deprecated the strict rule obtaining in convalescent homes that no person with an open wound could be admitted. There were a great number of those cases that required merely simple dressing, and they were the very cases that would get on quickly in a country atmosphere. He thought the proposed Committee would be able to find some method which would deal satisfactorily with these cases. He did not, however, wish it to be thought that he advocated in any way changing convalescent homes into country hospitals. Only a few nurses would be wanted who understood simple dressing, and the patients would require little attention. In regard to rest homes, he suggested that it would be better to have some organization by means of which patients for these homes could be boarded out amongst people of their own class in the various districts where it would be advisable to send them.

Mr. Tweedy (President of the Royal College of Surgeons of England), in seconding the resolution, said that the increasing need for alteration in the character of the relief of convalescing patients was due to the improvements in recent times in medicine and surgery. Those who recollected the hospitals

about thirty years ago would remember the tedious after-treatment of open wounds required in most of the surgical cases; but at the present time patients, after the most formidable surgical operations, were practically healed in regard to their wounds in about ten days so far as the skill of the surgeon and the resources of the hospital were concerned. If such patients could be taken to homes such as Sir William Church had indicated, they could complete their convalescence under trained supervision, and would be restored to their work with the permanence of their cure ensured.

Sir Thomas Smith described how the number of operations had increased in the London hospitals, and explained how it came about that such a large number of people required the after-treatment and care which was the subject of the conference. In the year 1879 there were 360 operations at St. Bartholomew's Hospital, and in 1903 the number had reached 3,007.

Sir Douglas Powell said that convalescent institutions were of course useful to a certain class of people who were merely tired and wanted refreshment and rest; but there was another large class of cases of real convalescence, for the accommodation of whom the convalescent institutions were not fully up to the mark, being wanting in sufficient capacity for varying their diet to the requirements of special cases. He did not think the want could be met by building new homes, but advocated enlightenment of those responsible for the guidance of the present institutions by means of suitable co-operation.

After Colonel Montefiore had described how the Charity Organization Society had felt the need of some alteration in the existing arrangements, the resolution was put to the meeting and carried unanimously.

Mr. Gruning (President of the Seaford Convalescent Home) moved the following resolution, which was seconded by Lady Frederick Cavendish, supported by Mr. Fitzgerald (Chairman of the Metropolitan Convalescent Institution), and carried unanimously:

> That an association be formed, to be called "The Convalescent Homes Association," which shall consist of convalescent institutions supplying charitable relief to London patients. The object of this association is to form a representative council to centralize effort and to promote efficiency and economy.

Lord Lytton proposed the following resolution, which was seconded by Dr. J. K. Fowler, and carried unanimously:

> That the council consist of one representative from each convalescent institution and one representative from each of the great general hospitals of London, and of such other lay and medical representatives whom it may be considered advisable to invite. The following to be *ex-officio* members of council: The Presidents of the Royal Colleges of Physicians and Surgeons, the Dean of the Faculty of Medicine of the University of London, the President of the Central Hospital Council, and one representative from each of the great Hospital Funds.

On the proposal of Sir H. Burdett, seconded by Dr. Habershon, it was resolved that a small Executive Council should be elected from the General Council, and it was also decided that Dr. Habershon and Mr. Fitzgerald should be the Honorary Secretaries.

After a hearty vote of thanks to the Chairman the proceedings terminated.

MEDICAL DEFENCE.

The annual general meeting of the London and Counties Medical Protection Society was held at 31, Craven Street, Strand, on March 3rd, when the chair was taken by Dr. J. W. J. Oswald.

The annual report of the Council stated that the subject of medical defence had been occupying the attention of the medical profession more than usual during the past year. That was in part due to the movement in the British Medical Association in reference to proposals whereby that Association might undertake duties similar to those already discharged by the London and Counties Medical Protection Society. Although the matter had been vigorously discussed in the British Medical Association during the past year no definite decision had been arrived at, and beyond inviting representatives of the London and Counties Medical Protection Society to take part in a conference on medical defence, —an invitation accepted by the Council of that Society—no proposal had been made to them by the British Medical Association. The attitude adopted by the Council of the London and Counties Medical Protection Society, as reported to the Society at its last annual meeting, had consequently been maintained, that is to say, the Council had waited for some definite proposal to be made before binding itself to any definite course of action. One result of the increased attention directed to medical protection had been satisfactory—namely, an influx of new members. During 1904, 579 new members were elected, 21 died, and 39 resigned —the total membership at the end of the year being 3,201. Medical men were frequently called upon to make reports on matters which very readily led to charges of breach of confidence, actions for libel, and so on, and the officers of the Society were always ready to advise members on the wording of such reports if submitted to them before they were presented. In cases where a member found it necessary to make a complaint of misconduct against a fellow practitioner or a nurse or other person he should in all cases submit such complaint in writing to the Society before lodging it with those concerned. The pitfalls connected with the laws of libel and slander were so many that very great care was necessary in making any statements which might be regarded as imputing discredit to any one however deserving of blame. During 1904 the Society dealt with 13 claims made against members for damages for alleged negligence or unskilful treatment. In most instances the claims were unjust and were successfully resisted by the Society. Thirty-three cases of alleged libel and slander had been dealt with by the Society during the year and the results obtained had on the whole been fairly satisfactory. The Society had had occasion to deal with instances of false assumption of medical titles, in one case by a registered medical man and in other cases by unqualified persons. There were only 4 cases during the year in which members complained in regard to coroners' inquests, excepting those in reference to Mr. Coroner Troutbeck. In regard to Mr. Troutbeck the liveliest indignation continued to be manifested by medical men practising in his district, and cases had constantly been brought under the notice of the Society in which Mr. Troutbeck departed from the recognized usage of coroners. A Committee appointed by the Society had been acting in conjunction with the British Medical Association, the Medical Defence Union and the South-West London Medical Society, and had joined in a protest to the Lord Chancellor on the subject of Mr. Troutbeck's methods. A satisfactory solution of the difficulty had not yet been reached and the question was receiving the close attention of the Society. A considerable number of cases had been undertaken during the year on behalf of dental members, and there had been a large increase in the number of dental members. In view of the steady increase in the amount of the reserve fund which represented £2,402 8s. 4d. in cash and investments in stock, the Council had decided to impose an entrance fee of ten shillings on new members joining the Society.

The Chairman, in moving the reception and adoption of the annual report and balance-sheet, explained that he did so in the absence of Dr. Heron, the Treasurer of the Society.

Mr. Andrew Clark, in seconding the motion, observed that the Society had been doing good work during the last year.

After Mr. A. G. R. Foulerton (Financial Secretary) had explained that two heavy law cases had caused the legal expenditure to be heavier last year than formerly, the resolution was put to the meeting and carried unanimously.

The President, the Vice-Presidents, the Council, the officers, and the auditors of the Society were duly re-elected, and the proceedings terminated with a vote of thanks to the Chairman.

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	53	8	0
Dr. Lewis Wayne Morgan	5	0	0
Dr. J. Lyon Thomas, C.B.	2	2	0
Dr. Herbert G. Cook	1	1	0
Dr. R. W. Jones	1	1	0
Dr. Edward J. Parry	1	1	0
Dr. W. B. Woodley	1	1	0
Dr. Daniel T. Edwards	0	10	6
Dr. L. Roberts	0	10	6
Dr. D. E. Thomas	0	5	0

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

MEDICAL NEWS.

DR. MACNAUGHTON-JONES, M.A.O.(Hon.)R.U.I., formerly University Professor of Midwifery in the Queen's University, has been elected Honorary Member of the Obstetrical Society of Leipzig.

DR. S. WEIR MITCHELL of Philadelphia, who has won equal distinction in the diverse provinces of practical medicine, scientific research, and what used to be called "polite letters," celebrated his seventy-fifth birthday on February 15th.

DR. ANITA NEWCOMB MCGEE, who served as an acting assistant surgeon in the war between the United States and Spain, has been elected a member of the United Spanish War Veterans. She is said to be the only woman who has the privilege to belong to that body.

THE Royal Meteorological Society has arranged to hold an exhibition of meteorological instruments in the library of the Institution of Civil Engineers, Great George Street, Westminster, next week. The exhibition will be opened on Tuesday afternoon, and will remain open for the three following days.

THE special meeting of the Laryngological Society, in connexion with the celebration of Signor Garcia's centenary, has been fixed for Friday next, at 3 p.m., when many foreign laryngologists of eminence are expected to be present. On the following day, at 2 p.m., it has been arranged that Professor Gluck of Berlin shall give a demonstration of his method of removing the entire larynx, and all surgeons specially interested in the subject are invited to attend. Both meetings will take place at 20, Hanover Square, W.

THE annual Court of the Governors of the Royal Free Hospital, Gray's Inn Road, W.C., is to be held on Wednesday next at 3.30 p.m., H.R.H. Princess Christian in the chair. The report which is to be presented thereat contains, we understand, a further account of the interesting habitation census which the authorities have taken for the last few years in respect of the patients under treatment in the wards. Like its predecessors it is believed to prove that the institution is well situated for its work among the sick poor, and that it receives the majority of its patients from the parishes in its immediate neighbourhood.

PRESENTATION.—Lieutenant-Colonel Alfred Clarke, M.D., has been presented by the past and present officers of the Royal Military College, Sandhurst, with a silver salver, suitably inscribed, on the occasion of his leaving the College after twenty-two years' service as surgeon. Mrs. Clarke was at the same time presented with an opal and diamond ring.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—At the twenty-eighth annual meeting of the above Association, to be held on March 18th, Surgeon-General Sibthorpe, C.B., will resign the Presidential chair to Sir William Whitla, who will preside at the festival dinner to take place the same evening (Saturday) at the Hotel Cecil. Tickets may be obtained from Mr. E. Canny Ryall, Hon. Secretary, 30, Harley Street, W.

BEQUESTS TO MEDICAL CHARITIES.—Under the will of the late Mr. Augustus George Hubbuck, of Chislehurst, the East London Hospital for Women receives £2,000, and the Chelsea Hospital for Women half that sum. The Dorking Cottage Hospital and the Tamworth Cottage Hospital each receive the sum of £500 under the will of the late Miss Ellen Peel, of Dorking. The Manchester and Salford Sick Poor and Private Nursing Institution has been left £1,000 under the will of the late Mrs. Mary Worthington, of Chester.

MILLFIELD CONVALESCENT HOME AND CONSUMPTIVE CHILDREN.—At a meeting of the Metropolitan Asylums Board on March 5th the Children's Committee submitted a report by Sir William Broadbent as to the suitability and value of the Millfield Convalescent Home in the treatment of children suffering from pulmonary tuberculosis. After some discussion the Board agreed to instruct the Works Committee to submit plans for carrying out the alterations at Millfield outlined by Sir William Broadbent, with an estimate of the cost.

CHRIST'S HOSPITAL.—Consequent on a munificent gift of £20,000 for the maintenance and education in the Girls' School of Christ's Hospital of an additional number of girls, the Council of Almoners are prepared to consider application, on behalf of orphan daughters of commissioned officers in the naval or military services of the Crown, civil servants, clergymen of the Church of England, and members of the legal and medical professions. Candidates can only be admitted between 9 and 11 years of age, must be of good character, and in sufficient bodily health, and the guardians must be in need of assistance. Forms of application may be had from the Clerk of Christ's Hospital, London, E.C.

DENTISTRY IN THE ARMY.—A weak point seems to have been discovered in the plan, of which an account was given in the BRITISH MEDICAL JOURNAL of November 12th, p. 1334, and by which the War Office hoped to avoid the necessity of rejecting on account of deficient teeth so many otherwise suitable recruits. It would appear that large numbers of men have been accepted upon a promise that they would allow themselves to be fitted with the dentures necessary to proper mastication, but they have afterwards declined to carry the promise out, and the authorities do not see their way to enforcing the agreement.

VANITY FAIR CARTOONS.—The proprietors of *Vanity Fair* (Essex Street, Strand, W.C.) by way, it would appear, of extending the list of their medical subscribers, are offering in return for a year's subscription of 28s. to supply their publication weekly for a year and together with it sixteen cartoons of medical men who in one way or another have become public characters. These are to be sent framed and glazed ready for hanging and may be selected from a list of the thirty-four members of the profession whose portraits have up to the present appeared in *Vanity Fair*. Many of those represented, such as James Paget, William MacCormac, and Gull, are now dead, and to those who have been associated with the originals this fact may lend the collection additional attraction. All the drawings are keen, if kindly, facial character studies, and in many instances give, perhaps, a better idea of the man in his habit as he lived than more formal portraits.

THE annual general meeting of the London Medical Graduates College and Polyclinic will be held at the College, 22, Chenies Street, W.C., on March 24th, at 5 p.m., when the chair will be taken by Dr. C. Theodore Williams. The register shows that the number of members, including life members, is now 184, and of subscribers, including temporary subscribers, 687. The number of cases of disease, many of extreme rarity and interesting, shown during the year was 1,225, and the number of attendances of medical practitioners 13,471. There were four sessions of practical classes, each of six weeks' duration, and a vacation course of three weeks in September. The number of clinical investigations carried out in the laboratories was 347, and this department of the college work is, it is stated, receiving increased support from subscribers and members. Many additions have been made to the Hutchinson Museum, and the collection has been classified and arranged. The financial position of the college is not satisfactory, and, but for increased annual subscriptions and donations from subscribers and their friends, it would have been impossible to avoid a serious deficit on the year's working; as it is, however, it has been possible to reduce the debt by £200.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on February 24th. The records of the early part of 1905 show as usual a large number of sickness claims, arising from exposure to weather chiefly, received from members of the Society engaged in country practice. Influenza also has produced a considerable number of claims, but all danger of a serious epidemic seems to have passed away. At the last cash division of the surplus made in 1899 those members who had not been in the Society for three years received no allotment. The necessary amount was reserved, and the Committee has now resolved: "That those members of the Society who, on December 31st, 1898, had been for less than three years in sickness benefit, and accordingly did not participate in the division of surplus made in the following year, should now be paid a bonus of 10 per cent. on every full annual sickness premium paid by them on or before December 31st, 1898." The payment will be taken in hand as soon as the pressure of the spring work makes it possible to do so, and it is hoped that the cheques will be sent to the members before the annual general meeting to be held in May. Prospectuses and all information on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

British Medical Journal.

SATURDAY, MARCH 11TH, 1905.

HOSPITAL REFORM.

THE Conference which took place on March 2nd between the Hospitals Committee and other members of the British Medical Association and representatives of the boards of management of hospitals, metropolitan and provincial, was, as may be judged from the report published in the SUPPLEMENT this week, a very interesting occasion, and one which there is good reason to hope will prove memorable. Nearly all the principal hospitals in London, and many of those in the Provinces were represented, and the Conference was attended also by delegates of the Metropolitan Hospital Saturday Fund and of one Scottish hospital, as well as by several gentlemen well known for the interest they have taken in the administration of metropolitan hospitals. The contributions to the discussion made by Sir Riley Lord of Newcastle, Mr. Lupton of Leeds, and Alderman Richardson of Sunderland, contained some very valuable lessons for London. The managers of hospitals in London seem apt to get into a groove, and to believe that their way of doing things is not only the best, but the only conceivable way. The Chairman of the London Hospital laughed at the suggestion that patients ought not to be charged for drugs and bandages, but his breezy scorn was met by the serious reply from the chairman of the Sunderland Infirmary that that institution had long observed every one of the principles laid down by the Hospitals Committee, and that it flourished exceedingly, being strongly supported by the best of the working classes, who were definitely opposed to hospital abuse. Mr. Lupton was able to say that at Leeds also there was growing up among the working classes a strong feeling that those who could pay should go to private practitioners, and that the hospitals were provided only for those who required free treatment. All the resolutions proposed by the British Medical Association were passed, with one exception. The exception was the proposal that no charge for the treatment of any patient shall be made; this was rejected by a considerable majority, but as the Conference appointed a strong mixed committee, we may hope that the matter will be thoroughly threshed out, and a solution which can be approved both by the medical profession and hospital subscribers arrived at. The resolution declaring that the production of subscribers' letters should cease to be compulsory, and that where possible the system should be abolished—a proposal to which much exception has been taken by the managers of some hospitals—was accepted with only four dissentients.

The Hospitals Committee of the Association and its energetic Chairman, Dr. Beverley of Norwich, are to be congratulated on having achieved a great deal in the way of clearing the ground for future and common action between the profession and the lay managers of hospitals. The principle that inability to pay for adequate treatment is the consideration for the admission of patients to hospital treatment has been unanimously accepted; the system of subscribers' letters has been condemned; the principle that inquiries should be made by a skilled agent into the circumstances of the applicants for relief at medical charities, and the principle that cases of serious accident or severe sudden illness should be attended on their first application, but if ineligible for hospital treatment then referred elsewhere, were both accepted unanimously without discussion; the principle that the number of new cases to be seen on any day by an honorary medical officer shall be limited was also accepted, and if adopted at those hospitals where it is not yet in force would remove one of the objections which can now legitimately be made to the out-patient system.

Last, but not least, the Conference acceded to the suggestion to appoint a mixed lay and medical committee, with the view of bringing the results of the Conference and the principles adopted by it to the notice of the boards of management of metropolitan and provincial hospitals. The lay members nominated are twelve in number—six metropolitan and six provincial; they will meet to deliberate with the Hospitals Committee of the British Medical Association, and there is good reason to look for important results from the labours of this mixed committee.

ERRORS IN OBSERVATION.

BAGLIVI'S aphorism that the healing art rests wholly on observations is unquestionably true, but it must be admitted that the foundation thus formed may have as little stability as the tortoise suspended in space which in the Hindu mythology supports the world. How much of our laboriously-piled observations can be trusted to stand firm through the coming ages? The short life of theories is proverbial; but have the majority of observations a much longer span? Are not the records of "facts" collected by shrewd and learned men of bygone days too often mere rubbish heaps in which the most diligent scraping is seldom rewarded by the recovery of anything of value? Systems which rest on erroneous observations are like houses built on sand; and the power of accurate observation is almost as rare as genius. Observation is something more than the use of the eyes, however careful; it is a highly complex intellectual act. In order to observe a man must be able to see the thing before him clearly and objectively, not through the refracting medium of *a priori* conception. Goethe said that for most men the difficulty is to think; to many it is just as difficult to observe. For many centuries physicians saw everything in Hippocrates and Galen as Malebranche saw everything in God; with the book of Nature before them to read for themselves, they preferred to take their facts as well as their deductions on the mere authority of men like unto themselves. The result was that medicine was transformed from the living art which the Greeks had made it into the "bookish theorick" justly scoffed at by Molière. It would have been surprising had it been otherwise, for if we may apply the words of the Scottish Reformation song,

> When the blind the blind doth guide
> Nae wonder baith gae wrang.

The truth is that man, at least in his civilized state, is an unobservant animal. How little cultivated is the faculty of observation in the ordinary matters of life, and how untrustworthy are its results, may be gathered from some experiments recently reported in the Berlin *Blätter für Volksgesund-*

heitspflege by Dr. W. Stern, Privatdocent of Psychology in the University of Breslau. His experiments consisted of an "examination in reference to a locality" and "expressions of opinion with reference to an event." In the first experiment the "locality" was a lecture-room of the University, in which twenty-four students of various classes had assembled eight days before. Ten questions were asked, such as "How many windows were in the room?" "Were the windows barred?" "What was the external arrangement of the entrance door?" "Was there any other door except the entrance door?" "How many desks were in the room?" The replies, as might have been expected, differed widely in point of accuracy. On the average, every fifth statement was positively false. It is noteworthy that the percentage of faults in the case of law students was 27, whereas in the other cases it was 18. In statements made upon oath the law students had 10 per cent. of error and the others 8. This diminution of inaccuracy under oath goes to prove that in ordinary circumstances carelessness of statement has to be taken into account as well as defective observation.

The influence of a third factor in the making of human error, namely, failure of memory, is brought out in another experiment. The students were tested as to a series of simple events which occurred during a meeting of the class. A man entered the room and asked to speak to Dr. Stern; he handed the teacher a manuscript, at the same time speaking to the Professor; he next asked permission to go to a book-case in the room, took from this case a book which he read for five minutes, and left the room with the book in his possession; as he went out he was requested by Dr. Stern to wait outside till the class rose. Eight days later those before whom this scene was enacted were asked to describe it exactly. The result was "such a chaos of contradictory statements that if a judge had nothing more on which to form an opinion he could not possibly arrive at any conclusion." Of the statements as to what was done, one-fourth, and of those as to what was said, one-third, were utterly wrong. A remarkable feature in the experiment is that the want of attention in the students showed itself not so much in incomplete observation as in downright misstatements. This suggests some uncomfortable reflections as to the trustworthiness of human testimony. Medical practitioners well know how little reliance is to be placed on the statement of the ordinary patient as to the history of his case and as to the opinions expressed and the treatment pursued by other practitioners under whose care he may have been.

It would be rash, however, to rush to the conclusion that men in general are like the Reverend Charles Honeyman, as to whom his friend expressed the belief that he would rather lie than not. The true moral of Dr. Stern's experiments is that it is difficult for the average man to speak the truth even when he wishes to do so, and has no motive for lying. He misrepresents things in the first place, because he does not, in the words of the poet, see them steadily and see them whole; and in the second because he is apt to make his imagination supply the want of observation.

It may be said that Dr. Stern's experiments merely show the tendency of ordinary mankind to fall into errors against which the trained observer is careful to guard himself. But even the trained observer, if we are to believe Professor Karl Pearson, is not much better than the average man. He thinks that "at least 50 per cent. of the observations made and the data collected are worthless, and no man, however able, could deduce any result from them at all. In engineer's language, we need to 'scrap' about 50 per cent. of the products of nineteenth-century science." He adds that the scientific journals teem with papers which are of no real value whatever, recording observations that cannot be of service to any one, because they have not been safeguarded by the strict precautions against error taken by a man who makes observations with a view to testing a theory of his own. According to the same authority, in other cases the collector or observer is hopelessly ignorant of the conditions under which alone accurate work can be done; such a man piles up observations and data because he sees other men doing it, and because that is supposed to be scientific research.

These opinions are set forth in a reply sent by Professor Pearson by way of comment on a scheme for the systematization of research submitted by Professor Simon Newcomb to a number of leading scientific men for criticism. Professor Pearson groups medical with meteorological statistics as notoriously inaccurate. In a prefatory essay to one of the supplementary volumes of the *Encyclopaedia Britannica* he had previously expressed, in no ambiguous terms, the poor opinion which he holds of what we fondly call medical "science." This we must bear with fortitude derived from the reflection that the value of medicine—apart from the "imponderables" which have an important place therein—is not exactly measurable by mathematics. It is to a large extent built on probability, which Bishop Butler says may safely be taken as our guide in the practical affairs of life.

As far as we can apply exact methods let us, in the words of John Goodsir, have "God's own truth in the measurements." If, however, we cannot always, or even often, be accurate to the degree of mathematical certainty, we can do our best to diminish errors of observation as near as possible to vanishing point. Sir William Gull used to say that more mistakes were made through failure to observe than through ignorance. Clinical observation offers a field in which every one however limited his sphere of activity, can help in the expansion of the empire of medicine. Let each one strive to increase his power of seeing things as they are, not as they are described in textbooks, and let him record his observations while they are fresh in his memory. The writing up of notes when the impression is more or less faded is a fertile source of erroneous observation. From the want of faithful records, made, so speak, on the spot, what priceless treasures of observations and practical wisdom are every day buried in the graves of men who have seen the most various forms of disease in every phase of their evolution from the first beginning till the last scene of all! The mere accumulation of what is called "experience," without the correcting and vivifying influence of constantly-renewed observation, tends not to the increase of knowledge but to the perpetuation of error.

MEDICAL CERTIFICATES.

THE British Medical Association brought to the notice of the General Medical Council during its last session the question whether certificates as to the health of individuals required by public authorities could legally be given by persons other than registered medical practitioners. The Association expressed the opinion that the issue of such a certificate by a person not registered as a medical practi-

tioner is an infringement of those privileges of registered medical practitioners which Parliament by the Medical Acts created for the protection of the public. The question arose in connexion with a certificate given by a person in Bootle who had been acting as a chemist and druggist, although, according to the Secretary of the Pharmaceutical Society, his name did not appear on its official register. The certificate had been given in respect of a child who had been absent from an elementary school under the control of the Bootle Education Committee. A report of the discussion on this matter in the General Medical Council will be found in the Supplement to the British Medical Journal of December 3rd, 1904, pp. 207-8. Eventually, at the instance of Sir Victor Horsley, the legal point was referred to Mr. Muir Mackenzie, standing counsel to the General Medical Council.

Mr. Muir Mackenzie accordingly submitted an opinion, which will be found on page 212 of the same issue of the Supplement; the conclusions which he reached cannot be regarded with much satisfaction, for it appears that those Acts of Parliament which lay down that certain public bodies shall for prescribed purposes require medical certificates signed by registered medical practitioners, and shall accept no other, stop short of mentioning any penalty for non-compliance with this ordinance. According to Mr. Mackenzie, there is therefore no remedy in the ordinary course of law against a public authority which may fail in its duty in this respect. It might be possible, were neglect systematic and habitual, for the Attorney-General to take action against it, but there is no direct precedent, and it is at least doubtful whether he would take such action.

Further, it appears that many bodies to which in the exercise of their routine duties certificates of illness are submitted, are not required by law to accept certificates only from registered medical practitioners; they would seem, therefore, to be at liberty to accept any evidence which they deem sufficient. The Local Educational Authorities are in this position, and, as a consequence, there is no uniformity in their requirements. Indeed, there is no uniformity in the course adopted even by the same educational committees, the decision being left to the discretion of those members who happen to be sitting for the purpose at the moment.

Mr. Muir Mackenzie holds, further, that a person who, not being a registered medical practitioner, writes a document which purports to be a medical certificate, incurs no liability, unless, by the assumption of a medical title, he has placed himself within the purview of Section xl of the Medical Act. Surely it is time that the law was amended in this particular, and that all bodies which, in the nature of things, have to receive evidence of illness, should also, except perhaps in the case of trivial and very temporary indisposition, be required under penalty to accept none but a medical certificate signed by a registered medical practitioner. The punishment of unqualified persons who give what is intended to pass as a medical certificate is a little more difficult, and would require to be guarded by exceptions in favour of parents or persons acting *in loco parentis* in cases of temporary illness; but these difficulties should not be insuperable, and the giving of a document intended to convey a false impression might very properly be made punishable.

On March 7th Sir Frederick Treves, Bart., was invested by His Majesty the King with the Insignia of a Knight Grand Cross of the Royal Victorian Order.

THE SUPPLEMENT FOR THIS WEEK.

The Supplement for this week contains a report from the Medico-Political Committee on Death Registration and Amendment of Coroners' Law to be presented to the Annual Representative Meeting in July next. There will also be found in it correspondence which has passed between the Medico-Political Committee and the National Deposit Friendly Society with reference to a report on the working of the Society presented to the Annual Representative Meeting at Oxford, and a note by the Committee explanatory of questions raised by the correspondence. In addition to formal and official notifications, vital statistics, notices of Branch and Division meetings to be held, and the Association calendar, the Supplement further contains a full report of the conference on hospital administration held in London on March 2nd between representatives of the British Medical Association and the medical profession on the one hand, and representatives of hospital Boards and others interested in the question on the other. Owing to the pressure on our space caused by this exceptional abundance of matter, we have been compelled to hold over the publication of reports of meetings of Branches and Divisions.

SHOW INFANTS.

The cruelty that may be associated with pseudo-scientific exhibitions is well shown in the just-issued report of the State Board of Charities of Massachusetts. Last year the attention of the State Board was called to an exhibition of so-called incubators for the rearing of premature infants. The authorities at once directed a thorough investigation, with the result that only one of the five infants exhibited showed any evidence of premature birth, one of the children was "emaciated to a skeleton and moribund," and lived only a very few days after removal, but all the other so-called premature infants when placed in respectable homes did well. Every one of the children bore unmistakable evidence of a lack of proper nourishment and ordinary care. The last thing the proprietor of the show appears to have thought about was humanity; the whole affair was an attempt to make money by pandering to the gratification of an unwholesome curiosity of a sensation-loving public. The case shows the necessity for stringent laws for the protection of children. This necessity is further illustrated by the statistics given in the report. The Massachusetts authorities, wiser than our own, insist upon a house being licensed for the reception of a single child, and the necessity for this regulation is well shown by the fact that of 309 applications received 24 were refused, and 2 others were revoked for neglect of the children. It is to be hoped that the British Parliament will shortly place all children boarded out either by Boards of Guardians or by their parents under the inspection of the State authorites, and provide an adequate staff of lady inspectors; the present staff is not large enough to give the necessary supervision to the unfortunate children.

PROPOSED HAMPSTEAD GARDEN SUBURB.

The late Dr. Poore, who lived perhaps before his time and who certainly died too soon, preached consistently for twenty years or more the doctrine that as the increased population in towns compelled the absorption of suburbs, an effort should be made to build workmen's suburbs upon a definite plan, and to provide each house with a curtilage. Ideas involving large financial considerations and bricks and mortar always make their way slowly, but during recent years there has been evidence that Dr. Poore's are spreading. We may point to the village of Bourneville erected by Messrs. Cadbury, and to the workmen's village now in course of construction near York by Messrs. Rowntree, and no doubt there are other efforts being made in the same direction which we do not at the moment recall. We are glad, then, to receive an appeal signed by Lord Crewe, the Bishop of London, and others for public support to enable the Garden Suburb Trust, of which Mrs. Barnett, the Warden's Lodge, Toynbee Hall, Whitechapel, is the Honorary Secretary, to carry out the purchase from

the Eton College trustees of 240 acres of land sloping towards the north-west, and surrounding the new extension of the Heath. The intention is to create a suburb convenient for city workers where each family should have a cottage with a garden at moderate rent.

AMBIDEXTERITY.

A LECTURE on ambidexterity from some points of view of a physician was given on March 2nd by Sir James Sawyer at the rooms of the Royal Statistical Society, Strand, under the auspices of the Ambidextral Culture Society. Sir James Sawyer, in the course of his remarks, said that man was not of necessity unidextral: he enjoyed ambidexterity early in his development and lost it in his later culture, especially in his fighting and in his handwriting. Man became right-handed in his fighting because he needed his left hand to shield his heart and to seize his enemy. Perhaps no one could help having a preferred hand but every one could help having a neglected hand. To attain ambidexterity the best exercise was writing with the neglected hand. If a man learned to write well with either hand almost all other unimanual graces would be added. Other activities in which ambidexterity might conveniently be cultivated were in fencing with a foil, carrying a stick or umbrella, counting money, in changing the watchpocket from side to side, in the use of a spoon in eating soup, and in domestic carpentry. Ambidexterity was restful and otherwise useful—as in reaching places with one hand which were difficult of access to the other—to house painters, carpenters, surgeons, and certainly to physicians. An ambidextrous physician never felt on the wrong side of his patient, and he found his ambidexterity useful in percussion, palpation, laryngoscopy, ophthalmoscopy, and in many other of his manual duties. Ambidexterity was of striking use when injury or disease had impaired or destroyed the writing power of the preferred hand, especially, perhaps, in writer's cramp and other occupation neuroses. It was possibly preventive of some forms of brain disease, such as cerebral haemorrhage, by distributing the wear and tear of brain activity over a wider area than when only one hand was employed. In his view, ambidexterity as to handwriting should be taught in all schools, and be required by examination for certificates of fitness in many employments. It might be that by becoming ambidextrous the speech centre might become dualized, and having one on each side of the brain the loss of speech from brain disease might cease to be. Sir James Sawyer's interesting lecture is a welcome contribution to the question of whether or not ambdexterity is a desirable, or, in the last analysis, a possible, acquisition from the physiological side. It seems somewhat doubtful whether the true explanation of unidexterity has been as yet forthcoming. That there is a deeper and anterior reason than mere individual training certain evidence seems to indicate. No "fighting" hypothesis would account for its acquisition by children, and, besides being doubtful whether the left arm could be relied on to shield the heart, the constant use by certain successful fighting tribes of their left hand as a weapon hand seems to contraindicate this. There is much to show that the location of the speech centre in the left half of the brain seems to depend on the use of the right hand in preference to the left for infantile mechanical exercises, if both location and preference are not dependent on a more remote cause. At any rate, a right hemiplegia is not associated with aphasia in left-handed persons, although a left hemiplegia is. And, more than this, if, as happens in a few cases, left hemiplegia is associated with aphasia in right-handed persons, it will usually be found that a near ancestor has been left-handed. Whether the same degree of skill is possible for the two hands simultaneously has doubts cast upon it by, among other things, the phenomena of mirror-writing, which, occurring as an isolated sign, is looked upon as evidence of mental degeneracy, and is more common in left-handed persons. For ordinary persons it is, with a little practice, quite easy of accomplishment if two pencils, one in each hand, are used to trace the same letters synchronously. The right hand writes in the ordinary way, and the left hand in mirror fashion, and much more easily than it would write the ordinary characters. This would seem to suggest that the impulses from the right brain to the left hand that take expression in mirror symbols might, by interfering or conflicting with the ordinary symbols, tend to lower the level of possible mechanical development.

STERILIZATION BY X RAYS.

IN the BRITISH MEDICAL JOURNAL of August 13th, 1904, a short account was given of certain experiments made by Drs. Albers-Schönberg and Friedel, which seemed to show that rabbits exposed for a period of fifteen to twenty-five minutes to rays from Crookes's tubes lost all sexual desire and power of copulation, and in fact became completely sterile. More recently Halberstaedter[1] has published the results of a series of observations made by him in the clinic of Professor Neisser at Breslau. By a careful experimental study of the effects of the Roentgen rays on the ovaries of rabbits, he found that under their influence the Graafian follicles entirely disappeared in about fifteen days. Whether the loss is permanent or whether regeneration takes place after a time remains to be determined. What appears to be a confirmation of this effect of the *x* rays in man has lately been announced in the United States. We learn from the *Medical News* of January 28th that at the January meeting of the Section of Genito-Urinary Diseases of the New York Academy of Medicine a series of observations as to the sexual condition of medical practitioners and patients who have been exposed to the action of the *x* rays was communicated by Dr. F. Tilden Brown. That physician stated that men by their mere presence in an *x*-ray atmosphere, incidental to radiography or the therapeutic uses of the rays, are after a period of time as yet undetermined rendered sterile. He added that within the ten days preceding the date of his communication ten men who had devoted more or less time to the work during the last three years, none of whom had had any venereal disease or had suffered from injury to the genital tract, had been found to be the subjects of absolute azoospermia. None of them, however, is conscious of any change or deterioration in regard to potency. Our contemporary adds that in one reported case a patient treated by the *x* rays for pruritus ani, was known to have active spermatozoa before exposure to the rays, but these disappeared after the treatment, and for some three months none could be detected. Then a gradual return to the normal condition took place. These observations will of course require confirmation from many sides before they can be definitively accepted. But if it is finally established that the *x* rays have the remarkable property here attributed to them, the problem of preventing the propagation of the unfit will be brought within the sphere of practical politics. It seems to us that there could be no valid objection to a method which, while bringing about the euthanasia of the procreative power, leaves the individual physically perfect. The fact that the effect is not permanent would doubtless help to remove scruples about its adoption.

AN INTERNATIONAL CONGRESS OF NEUROLOGY.

AT the last meeting of the Paris Société de Neurologie the General Secretary, Dr. Pierre Marie, read a communication from Professor Pick of Prague containing a suggestion that the Society should take the initiative in organizing periodical international congresses of neurology. The Society, after some discussion, arrived at the conclusion that, while recognizing the advantages of such meetings, it did not think it possible to carry the scheme into immediate execution. The Society proposes to study the question again after the International Medical Congress, which is to be held at Lisbon in 1906. The proposal is not new, for in 1897 an international congress of neurology was held at Brussels. The Congress was to have held its

[1] *Berl. klin. Wochenschrift*, January 16th.

second meeting in Paris in 1900, but it was merged in the neurological section of the International Medical Congress. At the close of the proceedings of the Section a somewhat heated discussion took place between the neurologists and the psychiatrists as to the expediency or otherwise of amalgamating their respective specialities. It was finally decided that the Neurological Section of the International Medical Congress should continue to serve the purpose of a special Congress.

DEATHS DURING THE PUERPERIUM.

In the Medico-Legal column this week will be found an account of a rather remarkable inquest recently held at Yarmouth on the body of a woman whose death, though certified to be due primarily to influenza, chill, and secondarily to exhaustion and syncope, was in the event proved to have been caused by puerperal peritonitis. Among the matters which came under review was the conduct of the midwife, and to the public the circumstances revealed will supply further proof, if such be required, of the need for adequate supervision of all persons practising in this capacity. To professional readers, however, the special interest of the case lies elsewhere. Exhumations are not common, and when ordered notwithstanding the fact that the cause of death has been formally certified by a registered medical practitioner they must be rare; still more rare must it be for the death to be thus proved to have been due to a cause detectable during life, but one to which the certificate given in no way pointed. In the case under consideration it is possible that an inquiry might have been ordered under any circumstances, but it is scarcely probable that it would have led to exhumation if the certificate of death given had stated that death occurred during the puerperium. As was pointed out by the coroner to the medical man who attended the deceased and who signed the certificate, a very clear request is contained in all books of death certificate forms in regard to fatalities occurring within a month of childbirth or miscarriage. It is worded as follows: "Whenever parturition or miscarriage has occurred within one month before the death of the patient the fact should be certified, even though childbirth may not have contributed to the fatal issue." The object, of course, is to secure accuracy in statistical distributions of causes of death and to enable inquiry to be made in any doubtful case. Attention to this, among other instructions to those whose duty it may be to fill up forms, is drawn by a red ink notice on the outside cover, and the Registrar-General, in his annual reports, has not failed from time to time to insist on the importance of complying with it. In the case of a woman falling ill and dying within the month, but still a considerable number of days after attendance on the case as one of confinement had ceased, an omission to note the fact of parturition having occurred might not perhaps be remarkable. It is far otherwise, however, when, as in the case at Yarmouth, death occurred within four days of what appears to have been in itself a perfectly normal labour and as a consequence of conditions which arose within twenty-four hours thereof. It is true that the medical man who attended the case seems to have associated these conditions in his mind with a hypothetical and precedent attack of influenza, and not with the confinement at all, but this in itself is one of the remarkable features of the whole matter. The patient had had a cold, but as far as can be gathered had neither been confined to bed nor under medical care at all up to the day of her confinement. Why, therefore, a diagnosis of influenza should have been made by him is by no means clear, and it is still less clear why it should have been held by him sufficient to explain a rapidly-fatal illness in which the leading symptoms were, according to his evidence, fever, vomiting, abdominal pain, and insomnia. At the *post-mortem* examination, though this was held a considerable number of days after death, it was abundantly evident that the illness from which the patient died was puerperal peritonitis, and we regret to say that there is nothing in the evidence as it has come before us which makes it comprehensible why any other conclusion was ever reached. Of the manner in which the case was treated we have no precise knowledge, but if, as is presumable from the evidence, the treatment was merely of the kind indicated by the diagnosis, the whole circumstances appear still more regrettable and unfortunate.

DIAGNOSIS AND EXPERIENCE.

The fortieth volume of the *St. Bartholomew's Hospital Reports*, just published, begins with a very suggestive article by Sir Dyce Duckworth on some diseases which may present misleading or seemingly unimportant symptoms. He warns young medical men against neglecting vague and uninteresting cases, and confining their studies to patients who are gravely ill and present prominent symptoms and well-defined physical signs. The truth is, that cases with no obvious physical signs are for that very fact interesting. A wholesome clinical task is involved in the diagnosis, which may be impossible at the outset. Measures of relief may, however, be prescribed long before the true nature of a disorder is disclosed. Shrewd practitioners often meet the necessities of such cases in the absence of a certain diagnosis, acting seemingly by a kind of intuition derived from long experience and familiarity with disease. To acquire such an experience, however, it is necessary to have employed exact and careful methods as a professional habit, and to have diligently pondered over the difficulties of professional cases as they have been encountered. As to diagnosis in general, the most distinct physical signs may mislead. It is not always safe, Sir Dyce Duckworth reminds us, even for those of large experience to arrive too rapidly at a diagnosis. As has been well said, "large experience is not all experience." Some practitioners are apt to be discomfited if they cannot arrive promptly at a definite opinion, yet it is often a wiser proceeding to leave the matter unsettled, to reflect upon it, and to wait. It is sometimes as hard to say, "I do not know" as to say "No," but it is well to be ready to say on occasion both the one and the other. Delay, if safe, commonly renders it less difficult to establish a diagnosis; hence it sometimes happens that the last advisers summoned to form an opinion on a difficult case find it easier to decide on its nature than those who were first consulted, and thereby secure more credit than is altogether their due.

SANITARY SALUTATION.

Kissing was among the ancients largely a mode of salutation akin to the rubbing of noses which is the formal greeting of some savage tribes. The practice was formerly much more common in this country than it is in our more fastidious day; Erasmus, indeed, complains of the indiscriminate kissing on the part of his English male friends to which he had to submit. Kissing has been denounced by austere sanitarians as a sin against the laws of hygiene; on the other hand, it has found defenders who see in the practice a means of supplying dyspeptics with beneficent microbes that will act as aids to digestion. The suggestion, which has lately been revived, is by no means new; but unluckily science cannot yet tell us how the good bacilli are to be separated from the bad as they pass into the mouth of the recipient. On the whole, it must be said that from the merely sanitary point of view the dangers of kissing outweigh its possible therapeutic benefits. A formidable list of the diseases which may be transmitted in this way is given by Dr. Ch. Féré in a paper which appeared in the *Revue de Médecine* some time ago. The list includes, besides syphilis and tuberculosis, diphtheria, exanthematous fevers, and various forms of skin eruption. It is obvious, therefore, that the social custom which sanctions the kissing of young children by family friends, and even casual acquaintances, is extremely reprehensible. Even the perfunctory kiss of feminine friendship has its dangers. In France we believe the embrace between men, which used to serve the purpose of handshaking in our colder clime, has largely died out during the last few years. Now the kissing of hands has

come under the ban of hygiene. Professor Dührssen gives a vivid account of the dangers of the practice: "M. X. has influenza. He goes out, for he is invited to dine with M. Y. He arrives first, and kisses the hand of Madame Y. The other guests do the like; one after the other they gather from the hand of Madame Y. the bacilli left there by M. X., to convey them later to the hands of the other ladies. The ladies during dinner carry these bacilli to their mouths without its being necessary to suppose that they eat with their fingers; it is enough that the back of the hand should have touched the napkin. After dinner, the children—ornaments of the hearth—make their appearance in the drawing-room; being well brought up they kiss the ladies' hands, and there catch such bacilli as the ladies have not kept for their personal use. In this way is brought about an epidemic of influenza." Tuberculosis may, according to the same authority, be spread in the same way. In view of this teaching may we with all respect congratulate the present Pope on having abolished the kissing of his slipper by the faithful? Even handshaking is condemned by some as promoting the exchange of undesirable microbes which, in spite of the most careful ablutions, have their dwelling place on the hands. The most dangerous people to shake hands with, we are told, are medical practitioners, nurses, hairdressers, butchers, sausage makers, tripe merchants, tanners, and leather dressers. On the other hand, it is comparatively safe to shake hands with workers in metals, the reason given being that "the metal sets up an oxidation, which acts as an antiseptic." It will be passing strange if science, by condemning our accepted modes of salutation, should force us to seek a sanitary refuge in the tapping of the epigastrium, or striking the arm, which are fashionable among certain uncivilized peoples.

LIABILITY FOR THE BITES OF ANIMALS.

A case which recently came before Mr. Justice Jelf and a common jury in the King's Bench Division raised a somewhat unusual question as to the liability of those who keep wild animals in confinement. It appeared that during an interval in the performance at a circus the plaintiff went behind the scenes. The offending monkey, which was mounted on a pony, caught the plaintiff's hand and bit it. It appeared that a notice was posted up to the effect that visitors were allowed to visit the animals after but not during a performance. There was also a notice in the following terms: "Visitors must not go too near or touch the animals; the proprietors cannot accept responsibility for any injury sustained." The learned judge told the jury that the mere fact of having dangerous beasts in exhibition was no reason why the person who kept them should, as a matter of course, be liable for injury caused by them. The question was, Had the defendant done anything which a reasonable man would not have done? The jury found for the defendant, and the verdict appears to accord with common sense. There can be no doubt, however, that a person who keeps a mischievous animal with knowledge of its propensities is bound to keep it secure at his peril; and, if it does mischief, negligence is presumed with express averment. In this connexion it is well to note that a dog who has "had his bite" becomes a mischievous animal and must be kept in safe custody. The doctrine that a dog is entitled to his first bite is founded on the fact that a dog is not presumed to be of a ferocious disposition until he loses his character by biting mankind.

SLUMS AND THE LAW.

A short time ago it was recorded in the newspaper press that Judge Bacon, after spending some time over a disputed builder's account, decided to visit the premises in question, to wit, a common lodging-house in Whitechapel. Giving his decision after his return to the county court, he is reported to have said: "How such premises can be tolerated in a civilized country I cannot understand. . . . I thought there were sanitary inspectors who looked, or should look, after these things, and saw that these houses were fit for human beings to live in." This is a most suggestive criticism. Doubtless sanitary inspectors are frequently at fault, though as a rule they are blamed rather for excess of zeal than for inactivity. But here is a county court judge finding that sanitary inspection is not sufficiently strict. We wonder whether it occurred to the judge that not infrequently the apparent laxity of sanitary inspection is due to the lack of support such inspectors receive from the magistrates. Certainly such is the case more frequently than the reverse, particularly in regard to insanitary property. At this present time one of the metropolitan medical officers is urging, through his council, that each police-court shall have a sanitary assessor to aid the magistrate in adjudicating on sanitary matters, in which his knowledge is generally limited. Again and again has it happened that cases which were flagrant departures from good sanitation have been dismissed or so feebly dealt with as to put a premium upon insanitation. It cannot be too clearly understood that the responsibility for the existence of insanitary property rests at least partly with magistrates and judges, and not wholly with sanitary authorities. We trust that the feeling represented by the utterance quoted above will become more general, and that sanitary inspectors will receive more support from the bench in the future than they have sometimes received in the past.

MOSQUITOS AND YELLOW FEVER.

At the fourth Pan-American Medical Congress recently held at Panama, Dr. Carlos J. Finlay of Havana presented a paper on sanitary conditions in Cuba since the proclamation of the Republic. Speaking of special sanitation against yellow fever, he stated that the *Stegomyia fasciata* was the only means through which yellow fever could be propagated, and that the only way of stamping out the disease was to keep yellow fever patients from being bitten. He referred in the highest terms to the noble work done by the late Major Walter Reed, and said that Dr. Gorgas, who was the chief sanitary officer of Cuba until May 20th, 1902, first drove the infection from the island, and since that time up to December, 1904, notwithstanding the importation of 22 cases of yellow fever from foreign ports, not a single case of the disease had occurred in Havana, nor until some two months before in any other part of Cuban territory. The acute quarantinable diseases with which the Island of Cuba was particularly concerned were yellow fever, small-pox, cholera, and plague. No case of cholera or plague had occurred, and there had been only one case of small-pox due to an accidental contagion, which did not spread. Against small-pox they trusted to isolation and vaccination; against diphtheria isolation and antidiphtherial serum prepared in Havana had given excellent results. Cases of infectious diseases were isolated at home or in some special hospital. Dr. Purnell, Acting Assistant-Surgeon in the Marine Hospital Service at New Orleans, stated that although he accepted the mosquito theory, he thought that fomites had undoubtedly something to do with the spread of yellow fever. Dr. H. R. Carter, of Panama, said that he had assisted in stamping out epidemics by methods not necessarily directed against the mosquitos alone, such as isolation and fumigation, but he knew that they had destroyed the mosquito incidentally. Sulphur was a good insecticide but nothing else. Dr. Stern of Jamaica and Panama, and Dr. C. H. Hughes of St. Louis, agreed with Dr. Purnell in not accepting the mosquito as the only medium of conveyance of yellow fever. Dr. Chassaignac, of New Orleans, said that the Havana experiments had furnished positive proof of the truth of the mosquito theory, and did not think there was any other means of transmitting or conveying the disease. Colonel Gorgas said he thought at one time fomites were the only means of transmission of the disease, but Major Reed soon convinced him to the contrary. The harmlessness of baggage was observed in Havana, where people from the suburbs were constantly moving back and forth but never brought infection with them. Dr. Lewis Balch, in referring to fumigation, said that 2 lb. of pyrethrum powder to 1,000 cubic feet, with two hours' exposure, gave

absolute results in killing the *Stegomyia fasciata*. Dr. Thomas had used pyrethrum, but had found it without value, and said that sulphur was now used exclusively in Louisiana. Dr. Echeverria, of Costa Rica, said that yellow fever had never been known to occur where the *Stegomyia* could not be found. Dr. Martinez said that to explain isolated outbreaks, it was assumed that children preserved the organism in the blood, as in the case of malaria, and this offered a source of supply to the mosquito. The study of the development of the parasite in the mosquito showed that an intermediate host was necessary. The United states Army Commission had studied the question of fomites very thoroughly. In its report, one instance was cited where the blankets, clothing, and bedding of patients ill or dead from yellow fever had been stored in a room, and used by two sets of non-immune fresh arrivals in Cuba, and yet no single instance of infection from this clothing had occurred. Dr. Charles Chassaignac, of New Orleans, proposed a resolution to the following effect:

> That owing to the suffering and to the serious danger to health and life for which the mosquito is known to be chiefly if not solely responsible, it is the imperative duty of all communities and governments to use all the means in their power for the destruction and gradual annihilation of the pestiferous insect in question.

The resolution was carried unanimously.

THE CONSUMPTION OF SPIRITS IN BELGIUM.

THE Foreign Office report on the finances of Belgium furnishes some instructive figures which show graphically the results achieved by recent legislation in reducing the consumption of spirits in that country. Not long since the steady increase in the amount of spirits drunk offered a serious problem for the consideration of statesmen. In 1895 some 677,225,000 litres of alcohol—apart from that used for manufactures—were thus consumed, representing over 10½ litres a head of the entire population. In 1898 an Alcohol Law was passed, which raised the duty from 64 fr. to 100 fr. per hectolitre. This, however, only reduced the annual consumption by a little over 1 litre a head. In 1903 the duty was increased to 150 fr. per hectolitre. It now appears, from the statement of the Minister of Finance, that this measure has had the effect of reducing the consumption to 5.37 litres a head in the course of the first year of its operation. It is pointed out, however, that these figures may be somewhat misleading, as the dealers would be naturally disinclined to replenish their stock at the higher rate of duty, and have therefore probably been trading on the abundant stock they had in hand, in which case the consumption for the last two years has most likely been underestimated, as it is calculated from the amount of duty paid. Count Smet de Nayer accordingly anticipates that, now that the temporary effects of the new law have come to an end, the rate of consumption will be found to be about 7 litres a head for the future, and this he regards as satisfactory progress, although meaning a very considerable financial loss—placed at over £200,000 in the estimates for the year—to the revenue. The chief object of the law, as His Excellency pointed out at the time, was to check the excessive drinking of spirits, which threatened serious deterioration both to the health and morals of the people, and the loss to revenue will be more than compensated by the gain to health and industry resulting from the increase in temperance. Though aided by private enterprise and benevolent societies, it is claimed that the satisfactory result obtained is due almost entirely to legislation. The hectolitre contains 22 gal.; the duty on spirits in the United Kingdom is 11s. a proof gallon.

THE SICK AND WOUNDED OF THE RUSSIAN ARMY.

DR. MARCOU, Physician to the Troitzky Hospital, St. Petersburg, says in an article contributed to the *Archives Générales de Médecine* that after a year of war it is still impossible for the ordinary citizen to learn the truth as to the health of the Russian army. Official statements paint the situation in rosy colours. But private letters and men invalided from the front tell a different tale. Although only fifteen hundred cases of dysentery are officially admitted to have occurred among the troops in Manchuria, many thousands have been disguised under the vague phrase "intestinal disorders." Typhoid fever is rife; in October last even the official returns showed 5,000 cases. Officially the soldier is well clad and well fed; in reality he is neither. The provision for the removal of the sick and wounded is utterly inadequate. There are 29 trains for the purpose, 14 between Kharbin and the front, 6 between Kharbin and the Baikal lake, 9 between that and European Russia. These trains are well equipped, and each of them can accommodate from 150 to 250 men; but the total number which they can carry is only a twentieth of the whole that has to be dealt with. Hence the vast majority of the sick and wounded have to be conveyed in ordinary trains, too often in goods wagons. As there is no provision for cooking on these trains, the invalids can get food only at the few intermediate stations; for the most part they have nothing but bread and water, with a little tea or coffee, and sometimes they go whole days without nourishment of any kind. The poor men when put in the train are nearly naked, for there is neither clothing nor linen to give them; the supply of medicines is quite insufficient. The patients lie on the bare and dirty floor, and there are no sanitary arrangements. The condition of the wagons may be imagined, but the suffering caused by the jolting on the hard boards of human bodies torn by shells or racked by disease is incalculable. The wretched journey lasts several weeks, and as might be expected the few survivors reach Europe in the most deplorable condition. The field ambulances provided by the Red Cross Society, as to the usefulness of which glowing statements have been made, have done little real good to the wounded; indeed, according to Dr. Marcou the most notable result of their employment has been that not a few of the medical officers in charge of them have been killed in action.

ACUTE INTRAPERITONEAL HAEMORRHAGES IN WOMEN.

OUR knowledge of tubal gestation has increased so rapidly during the past twenty years that gynaecologists now incline to believe that all pelvic haematoceles and all intraperitoneal haemorrhages, not evidently caused by rupture of vessels and tumours or wounds of arteries and veins, are due to the yielding of an ectopic fetal sac or to the phenomenon known as tubal abortion. Extrauterine gestation, like normal pregnancy, may be a grave matter for the patient on grounds other than medical. Hence it is advisable to call attention to a case recently reported by MM. Bender and Marcille.[1] A woman, aged 26, was admitted into hospital with all the signs of acute peritoneal haemorrhage. There had been a delay in the appearance of the catamenia for a few days three months earlier, but after that date they became free and regular and what is important to bear in mind, there were intermenstrual atypical haemorrhages, rendering a suspicion of tubal pregnancy more than reasonable. The uterus was in normal position and there was slight resistance in the left fornix. Professor Tillaux operated and found two pints and a half of blood in the peritoneum. The right appendages were normal, the bleeding came from the left ovary, which was removed with the corresponding Fallopian tube. There was not a trace of disease in the tube; the ovary contained a cyst as big as a cob-nut which had ruptured. The cyst was an apoplectic follicle. It was examined with the greatest care and submitted to Professor Cornil's inspection; all who were concerned in the investigation admitted that no chorionic villi, decidual tissue or relics of an embryo could be discovered. Apoplectic ovary is a recognized condition; sometimes it may attain a considerable size, as in one case described by Mr. Doran,[2] where the affected organ was removed before rupture, indeed the large clot was enclosed in a cystic cavity, associated with a corpus luteum, but

[1] *Bull. et Mém. de la Soc. Anat. de Paris.* July, 1904, p. 569.
[2] *Trans. Obstet. Soc.*, vol. xxxii, 1890, p. 119.

rupture had not taken place. Mr. Targett, then Pathological Curator to the Museum of the Royal College of Surgeons, carefully examined the cyst and clot, and no signs of ovarian gestation, nor even of organization of the coagulum could be detected. Pozzi believes, on sound evidence, that rupture of apoplectic follicles in the ovary is not rare, but that the bleeding soon stops in the majority of instances. Matthews Duncan once observed a case of burst ovarian cyst no bigger than an orange, but it is not clear that the cyst was follicular. Alexander Thomson's case resembled Bender and Marcille's, as far as can be judged by description. Fatal intraperitoneal haemorrhage followed three weeks after abortion, and was traced to the right ovary, which was not increased in size, but had "sustained a linear rupture through its entire length." MM. Bender and Marcille's case, however, is more reliable, and appears to prove a truth important on medico-legal grounds—namely, that dangerous intraperitoneal haemorrhage may follow rupture of an apoplectic ovarian follicle independent of ovarian pregnancy.

MEDICAL ORIENTALISTS.

LIEUTENANT-COLONEL G. S. A. RANKING, of the Indian Medical Service, has been appointed Professor of Arabic, Persian, and Hindustani in Trinity College, Dublin. The new professor, who is a Doctor of Medicine of Cambridge, gained the Herbert prize at Netley in 1875, and was formerly Chemical Examiner to the Indian Government and Professor of Chemistry in the Medical College, Calcutta. He is a member of the Royal Asiatic Society and author of *Arabic and Persian Prosody*, a *Guide to Hindustani* (army textbook), a *Pocket Book of Colloquial Urdu*, and the editor and translator of the *Tárikh-i-Badáoni*, and the *Descriptio Imperii Moslemici* of Al-Mugaddasi. Colonel Ranking has contributed papers on the Mecca Pilgrimage and other medical subjects to our own columns. It is an interesting coincidence that the Professor of Arabic in the University of Cambridge—Dr. E. G. Browne—is a Bachelor of Medicine. Several members of the medical profession have won distinction in Oriental scholarship; among them may be mentioned John Leyden and Hermann Bicknell, both of whom were in the service of John Company.

INFANTILE MORTALITY IN NORWAY.

ACCORDING to Dr. A. Johannsen, who writes on the subject in *Janus*, infantile mortality is lower in Norway than in any other country, the general average being 95 per mille. In the towns the rate is 130 and in rural districts 86 per mille. As in every other country it is higher among boys than among girls (106 to 89) and among natural than legitimate children (150 to 93). North of the Arctic Circle the death-rate among young children is 150 per mille. The chief cause of the lowness of the rate in Norway is the fact that there is no rise in the mortality rate in summer.

INTESTINAL OBSTRUCTION IN NEWBORN CHILDREN

LAST January Messrs. Grosse and Le Lorier read a paper before the Obstetrical Society of Paris[1] on a case in which the latter writer operated on an infant seven days old, establishing intestinal anastomosis; unfortunately the result was death. The mother's husband was tuberculous: when bearing the child she suffered from marked hydramnion. The child was delivered spontaneously in the eighth month, and during its expulsion great quantities of greenish amniotic fluid came away. The cause of the discoloration was soon made evident. The cord, 29 in. in length, was twisted round the neck and body, but the child was living; it was a female, 5¾ lb. in weight. On the next day it vomited much green fluid, resembling the liquor amnii in colour, yet typical meconium passed from the bowel. The sickness continued. The abdomen did not become distended until the fifth day, but then complete obstruction was evident. On the seventh day Le Lorier operated. The stomach and nearly 6 in. of small intestine were distended; the lower part of the intestinal tract was empty; there was volvulus of the distended bowel held down by two coils of empty gut. All the signs of general peritonitis were present. The distended intestine was opened and emptied, then closed. Some very tough bands of adhesions were cut through, then the volvulus was reduced. Enlarged mesenteric glands were detected. The intestine was found to be completely divided at the seat of obstruction, the blind ends of the upper and lower portions were united by a short band of fibro-adipose tissue. This band was divided and lateral anastomosis established between the two ends two-fifths of an inch from the blind extremity of each. The child died two hours later; it had become emaciated during the latter days of its existence. This case was an instance of intrauterine tuberculous peritonitis: the adhesions must have developed several weeks before birth and the pressure of one of them had completely severed the bowel. The presence of peritonitis shows, as Ballantyne and others have pointed out, that teratological conditions are often traceable to the pathological changes of a kind familiar in extrauterine life. The discoloration of the liquor amnii appeared to be due to the vomiting of meconium. It is interesting to note that on the other hand there were no further inconveniences from the total severance of the small intestine until a few days after birth. Intestinal surgery offers the sole chance of relief in such a case. The infant in this instance was weak and premature, but a similar operation on a strong full-term child would be more likely to prove successful.

[1] "Péritonite datant de la vie intra-utérine chez un nouveau-né. Oblitération consécutive de l'intestin grêle avec séparation complète des deux bouts fermés en cul-de-sac. Hydramnios chez la mère." *Comptes Rendus de la Soc. d'Obstét. de Gynéc. et de Pédiat. de Paris.* Vol. III. January, 1905.

DR. JAMES CRAUFURD DUNLOP, of Edinburgh, has been appointed an additional member of the Royal Commission on the Care and Control of Defective and Feeble-minded Persons.

THE Vienna Laryngological Society has elected Señor Manuel Garcia an honorary member of the Society. Professor Chiari, the president, will personally hand the diploma of honorary membership to Señor Garcia at the celebration in London on the occasion of the inventor of the laryngoscope completing his hundredth year on March 17th.

IT is with the deepest regret that we have to announce the death of Mr. Edward Atkinson of Leeds, who was honorary surgeon to the General Infirmary for twenty years. It is impossible to do more this week than mention the loss Mr. Atkinson's large circle of professional friends and acquaintances has sustained. An obituary notice will appear in an early issue.

SIR PATRICK MANSON will take the chair at a dinner to be given on Wednesday, April 5th, to Mr. Johnson Smith, F.R.C.S., by the medical staff of the Seamen's Hospital Society. Mr. Johnson Smith is retiring after thirty-six years' service, and it is hoped that most of his old friends and colleagues will be able to be present on this occasion. Dinner tickets and all information respecting the dinner can be had from the Honorary Secretary to the Dinner Committee, at the offices of the Seamen's Hospital Society, 13A, Cockspur Street, S.W.

THE discussion at the Royal Medico-Chirurgical Society on the after-results of operations for appendicitis was resumed last Tuesday, when Mr. C. B. Lockwood gave a particularly interesting summary of an inquiry into the precise etiology of a number of cases which had come under his own observation, and showed how difference in etiology must necessarily invalidate any statistical verdict on final results. A full report of the proceedings will be found at page 535. Further discussion is to take place on Tuesday next, March 14th, at 8.30 p.m.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Local Government (Scotland) Act Amendment Bill.—Mr. Cathcart Wason has introduced his Bill to amend the Local Government Act, 1894, so as to give the out-door medical officers in Scotland the same rights as the medical officers of poorhouses. At present out-door medical officers can be dismissed at short notice by their respective parish councils, without reason assigned. The Act of 1894 protected them as regards interference with their duties and emoluments, but did not make the consent of the Local Government Board necessary for their dismissal. The Bill proposes to remedy this. It is backed by Sir Wm. Arrol, Mr. Weir, Sir Andrew Agnew, Mr. Eugene Wason, Mr. Alex Cross, Mr. Harmsworth, Colonel Denny, Mr. Ainsworth, Mr. James Reid, Mr. John Dewar, and Sir J. Batty Tuke.

Vaccination.—Mr. Stanhope has introduced a Bill to amend the law in respect to the procedure of officers and Justices of the Peace administering the several Vaccination Acts. It is a short Bill of three clauses, in the first of which it gives its title as the Vaccination Acts Amendment Act, 1905. The second clause forbids any officer of a Board of Guardians or local authority to institute proceedings against defaulters under any Vaccination Act without the authority of the Board given by resolution and an endorsed copy of the resolution of the Board. In the third clause it forbids the justices to catechize any application for exemption from vaccination, and substitutes a declaration on oath as the only necessary process. The cost of the exemption certificate is not to exceed one shilling. The Bill is backed by Mr. Broadbent, Mr. Channing, Mr. Maurice Levy, and Sir Charles McLaren, all Leicestershire members.

The Metropolitan Ambulance Service.—Last week Sir Thomas Dewar asked the Secretary of State for the Home Department whether his attention had been called to the remarks made at the Lambeth Coroner's Court last autumn by Mr. Troutbeck, the coroner, relative to the inefficiency of the metropolitan ambulance service; and could he see his way to introduce such legislation as might be necessary to enable metropolitan boroughs to provide an efficient service. Mr. Secretary Akers-Douglas replied that he had not been able to trace the remarks of Mr. Troutbeck to which the honourable member referred. There was at present no general metropolitan ambulance service. Such a service, if provided at all, ought to be provided for the whole of London by a single authority, and not by the various borough councils. He understood that the London County Council had the matter at present under their consideration. Cases of illness and accidents that occur in the streets were dealt with by the metropolitan police ambulances.

The Outcome of the Report of the Arsenical Poisoning Commission.—Sir Cuthbert Quilter asked the President of the Local Government Board last week whether he was now able to announce the course it was proposed to adopt with a view to giving effect to the large and important recommendations of the Royal Commission on Arsenical Poisoning, more especially with regard to the appointment of a special expert officer to inquire into and advise upon all questions affecting the purity of manufactured, preserved, or prepared foods, whether of home or foreign origin. Mr. Long replied that he had given consideration to this subject, and he was making arrangements with regard to the matter referred to in the latter part of the question, which he hoped would take effect at the commencement of the ensuing financial year.

The Cost of Death Certificates—Colonel Sadler asked the President of the Local Government Board whether, in view of the fact that the charge made for certificates of deaths for members of trade unions was 2s. 7d. each, while the charge made for a member of a friendly society was 1s., he would consider the advisability of making the charge uniformly 1s. in both cases. Mr. Long said that he would take note of this suggestion, but legislation would be necessary in order to give effect to it.

Medical Inspection in Scotland.—On Monday Mr. Weir asked the Lord Advocate whether he was aware that, although the population of Scotland was slightly in excess of that of Ireland, there was only one medical inspector provided under the Local Government Board Vote for the whole of Scotland, whilst seven such inspectors were provided for Ireland under the Irish Vote; and, seeing that it was quite impossible for one medical inspector to visit the various districts in Scotland requiring his presence, would the question of appointing additional medical inspectors be considered. In reply, the Lord Advocate admitted the facts stated in the question, but added that no proposals could be made at present.

Physical Deterioration.—Mr. Weir also asked the Lord Advocate if the Secretary for Scotland would consider the expediency of issuing to parochial medical officers, sanitary inspectors, and inspectors of poor leaflets containing the opinions of the Committee on Physical Deterioration relative to ventilation and the bringing up of young children, with a view to the dissemination of information on these subjects. The Lord Advocate replied that he would consider whether any official communications could advisedly be made to the local authorities.

The Maternity Nurse at Ballyhaunis.—This matter was raised again last week by questions put by Mr. John O'Donnell, who urged that the appointment was not justified by the results of the inquiry, or by the public opinion of the district. Mr. Atkinson, replying for the Chief Secretary, said that representations were made to the Local Government Board by ratepayers urging the necessity for the appointment of a midwife in this district. The guardians failed to take any action in the matter, and the Board thereupon directed a local inquiry to be held in order to ascertain the facts. The Board's decision was based, not upon the inspector's report, but upon the sworn evidence adduced at the inquiry. A copy of the evidence had already been supplied to the Board of Guardians. The evidence of individual guardians was opposed to the appointment, but it was to be borne in mind that as a body they had persistently declined to make such an appointment. On the other hand, the expert testimony of the medical officer of the district was strongly in favour of the employment of a trained midwife. There was but one medical officer resident in the district whose duty it was to attend on medical relief tickets, and but one midwife, whose services, moreover, were not available for the sick poor free of charge. The Chief Secretary had stated on February 23rd that it was not proposed to withdraw the sealed order.

The Public Health Bill is a Bill introduced by Sir Alfred Hickman to amend the Public Health Acts. It attempts to bring into a single general Act the many powers which have from time to time been granted to different local authorities in private Acts of Parliament. These provisions are numerous, but as they have all received the sanction of Parliament, their collection in a single statute will be convenient and will stimulate backward local authorities in their sanitary duties. It is understood that the Government view the Bill with favour, and so, in spite of a bad position on the list of Bills, it may possibly become law this session. It is backed by Sir Albert Rollit, Sir Thomas Wrightson, and Sir James Heath. It is down for second reading on March 15th.

Vaccination Fees.—Mr. Runciman asked the President of the Local Government Board on Tuesday when the report of the Departmental Committee on Vaccination Fees would be presented to Parliament; and when a revision of the fees in question would come into force. Mr. Long replied that he proposed to present the report at once. The subject to which it referred is receiving attention, but he could not say when a new Order would be issued. He might, however, observe that effect could not be given to some of the recommendations contained in it without legislation.

Medical Inspection of Elementary Schools.—Sir John Gorst asked the Secretary to the Board of Education, on Monday, whether a provision would be inserted in the new code making the payment of Parliamentary grants to public elementary schools conditional upon the Board of Education being satisfied by medical inspection or otherwise that the children in respect of whom the grant was made were physically fit to receive the instruction for which the grant was paid. Sir William Anson replied that it was extremely doubtful if the Board had the legal power to require the medical inspection of children in public elementary schools. Even if they

did possess such power, the right honourable member hardly seemed to have realized what the effect of their putting it into operation would be. The organization of any such system as was suggested in the question must take some time to complete, and in the meanwhile the public elementary schools throughout the country would be deprived of Government grant. The Board did not propose to insert any such provision in the new code.

The Police and Sanitary Committee, to which all private Bills promoted by municipal and other local authorities dealing with powers relating to police or sanitary regulations are referred, has been set up. The Committee for this session will consist of Captain Balfour, Mr. Bill, Mr. Graham, Mr. Corrie Grant, Mr. Leyland-Barratt, Mr. Lowe, Mr. Pemberton, Mr. Luke White, Mr. Whitley, Mr. John Wilson (Glasgow), and Mr. T. W. Wilson (Worcestershire).

Scotland.

Edinburgh Royal Infirmary and the London Hospital.

At the usual weekly meeting of the Managers on Monday, March 6th, Colonel Warburton, the Superintendent of the Edinburgh Royal Infirmary, submitted the following report:

A deputation from the London Hospital, consisting of the Secretary, Steward, and Assistant Matron, paid the Royal Infirmary a visit on January 19th, 1905, to inquire into our arrangements, and to discover if possible the secret of the economy practised here in connexion with the question of administration recently raised by the Committee of the King's Hospital Fund. I need scarcely say that no effort on our part was spared to help them in their quest. On February 4th an annotation appeared in the *British Journal of Nursing*, in which the Secretary of the London Hospital was credited with the opinion that the secret of the economy practised in the Scottish hospitals is fully explained by the nationality of the patients. The Scotsman will take porridge. The beef is boiled so that there is an abundance of soup. The Londoner being more fastidious, will have none of these, and must have his beef roasted. As the above appeared to me to convey the incorrect impression that patients in Scottish hospitals are only given porridge and boiled beef made into soup, I wrote to the Secretary of the London Hospital drawing his attention to the annotation in question, which I quoted, and asked him if it was a fair summary of his opinion. He replied that the quotation from the *Journal of Nursing* was not correctly reported, or rather it was part but not all the truth. In acknowledging his letter I suggested that he should see the article in the *Journal of Nursing*, and send a disclaimer to the journal if it did not represent his views. I have till now neither received any further communication from this gentleman, nor have I seen any contradiction from him in the *British Journal of Nursing*. But in the London *Morning Post* of March 2nd there was a notice of a meeting on the previous day of the Governors of the London Hospital, presided over by Mr. Sydney Holland, who reported the result of the deputation which had visited certain northern hospitals with a view to seeing how it was that they were able to carry out their work at a lower cost per bed. He indicated a few items from one of the hospitals visited, which he named, which had a great advantage over the London Hospital. Meat in this hospital cost 3¾d. per lb., whereas in London it cost 4¾d. or 5d. They gave no medicines to their patients. Window cleaning cost £20 a year, against £300 in London, and no pensions were paid. As regards the question of the cost per bed for provisions, I was especially interested in the price paid for meat in the London Hospital, from which I had already obtained reliable information regarding five other articles of food—namely, milk, tea, coffee, sugar, and butter—as it has enabled me to compare the cost of provisions per bed in the Royal Infirmary of Edinburgh with that of the London Hospital. Meat in 1904 cost us a fraction over 6½d. per lb. for home-fed Scottish meat and mutton, as compared with 4¾d. or 5d. per lb. for foreign or colonial meat in the London Hospital. With us the difference of one farthing per lb. in 1904 meant £194 6s. 2d. for the year, so that if we could have purchased our meat at 5d. instead of 6½d., there would have been a saving of £1,165 17s. For milk we paid 10¼d. per gallon in 1904, against 8¾d. paid by the London Hospital. The difference of one farthing per gallon in 1904 was equal to £80 18s. 9d. for the year, so that if we could have purchased it at 8¾d., we should have saved £485 12s. 6d. We give our patients tea, coffee, sugar and butter; the London Hospital does not. The above six named articles represent £11,152 18s. 2d., or 69 per cent. of the £16,157 13s. 5d. of our food expenditure in 1904, while poultry, fish, and eggs form an additional 14 per cent. On four days of the week patients who can eat it get roast meat (beef or mutton). On the other three days the meat is boiled, but the quantity issued is the same as on roast meat days, and the fact that it is converted into Scottish broth means that there is a bigger equivalent of nourishment on those days. The cost of provisions per bed in the London Hospital was £31 5s. for 1903. In the Royal Infirmary for the same year it was £20 11s. 8¼d., and in 1904 it was £19 16s. 3d. I may here mention that our diet scale was made up and approved of by a committee of medical men, and that economy has been practised without in any way affecting efficiency. In 1904 we paid £273 5s. 7d. on account of pensions, and the wages of our window-cleaning staff amounted to £226 12s. 8d. In 1901 we paid £365 4s. We give medicines to all our in-patients, and supply dressings to all our surgical out-patients, who form 78 per cent. of the out-patients treated in this hospital in 1904. If investigations into the management of hospitals are considered necessary for the purposes of comparison, I venture to suggest that they should be made by independent parties, who, by comparing each item of expenditure in a number of London and provincial hospitals, would be in a position to judge where economies could be effected.

The Lord Provost thought the matter should go further. The statement of which complaint was made was rather unfair to Scottish hospitals. There was no doubt that Scottish hospitals, as far as he knew—and he had considerable experience—were better managed all over than the London hospitals. There had been a great cry of money being wanted for the London hospitals, and His Majesty the King had taken an interest in the matter. He suggested that a copy of the report should be sent to the King through Lord Knollys. His Majesty ought to be informed how things were managed in Scotland. The report should be made public.

At this meeting George Lyon, M.D., M.R.C.P.E., was appointed one of the assistant pathologists for one year from April 1st next, in succession to Dr. J. M. Beattie, resigned.

Jubilee Testimonial to Dr. W. W. Ireland.

In the New Library of the Royal College of Physicians on Saturday afternoon, March 4th, Dr. William W. Ireland was presented by his professional brethren with an illuminated address and a purse of money on the occasion of the fiftieth anniversary of his medical graduation, and in recognition of his outstanding services to medicine. The President of the Royal College of Physicians, Dr. John Playfair, presided, and there was a large attendance of medical men, many of whom had come long distances. Among those present were Dr. Clouston, who made the presentation: Dr. Yellowlees (Glasgow), Dr. Alex. Robertson (Glasgow), Dr. Urquhart (Perth), Dr. Carlyle Johnston (Melrose), Dr. Easterbrook (Ayr), Dr. Parker (Gartcosh), Dr. Marr (Lenzie), Dr. Neil T. Kerr (Shotts), Dr. Turnbull (Cupar), Dr. Oswald (Glasgow), Dr. G. M. Robertson (Larbert), Dr. Clarkson (Falkirk), Surgeon-General Wm. Watson, Professor A. R. Simpson, Dr. Joseph Bell, Dr. Underhill, Dr. A. James, Dr. Byrom Bramwell, Dr. Alex. Bruce, Dr. John Fraser, Dr. John Macpherson, Dr. William Russell, Dr. John Thomson, etc.

Apologies were announced by Dr. John Thomson from Sir William T. Gairdner, K.C.B., Dr. Needham (London), Dr. Shuttleworth (London), Professor Cleland (Glasgow), Dr. Fletcher Beach, Professor John Wyllie, Professor John Chiene, etc.

In making the presentation, Dr. Clouston said Dr. Ireland was one of the most industrious men in the medical profession, and by his work on the developmental defects of the brain he had built up a world-wide reputation. This subject attracted little attention in this country till Dr. Ireland took it up, and by his continuous hard work, his intellectual power, and his extensive knowledge of the subject in every land he had advanced its boundaries and put it on a far higher scientific basis than ever before. Dr. Clouston then read the address, which began in these terms:

"On the occasion of the fiftieth anniversary of your medical graduation, and in token of our admiration."

After Dr. Clouston had read the address, which was a very fine piece of illumination by Mr. Home of Edinburgh, he handed it to Dr. Ireland, along with a purse of sovereigns. In his reply, Dr. Ireland said the address said much of his good qualities, but nothing of his faults, and in particular it said nothing of his oratorical powers. He took up medico-psychology because, after his trying experience in the Indian Mutiny, it presented an opening for him, and he had tried to do his best. After his wound in the Siege of Delhi it was three years before he was able to come home, and it was ten years before he was able to do much. When he was able to set to work, he found those who had been his fellow-graduates in various positions of influence, and that he was left behind. He was deeply grateful for this testimony from his professional brethren of their appreciation of his work.

On the motion of Dr. Yellowlees (Glasgow), a vote of thanks was given to the Committee and Dr. John Thomson, the Secretary, for their labours in arranging the testimonial.

On the motion of Dr. Underhill, the President of the Royal College of Physicians was thanked for presiding.

The Legislature of Indiana has made an appropriation of £30,000 for the establishment of a State colony for epileptics.

Ireland.

A Lunacy Commission.

A lunacy commission of some interest was held at Ballinasloe on February 8th, the object being to determine whether a certain patient in the public asylum, a farmer of the neighbourhood, ought or ought not to be discharged as being capable of managing both his own affairs and himself. The jury decided that he should be released, whereas two out of the three medical witnesses considered that he should be detained. He had been a patient in the asylum upon two or more occasions, and these gentlemen who were its medical officers had therefore had him under their observation for more or less prolonged periods, while the third medical witness, who held that he should be released, had seen him only for two hours. It was suggested that the patient's abnormal conduct when out of the asylum was due to alcoholism, but the two medical witnesses mentioned deemed that he was the subject of progressive though intermittent insanity only slightly connected with drink. The Commissioner seems to have impressed upon the jury in his initial speech that if they decided to release the man, and were subsequently proved to be wrong, this would not matter, as he could be sent back again. It is a view of matters which is not without interest in the case of a patient stated rightly or wrongly to have conducted himself in a way dangerous both to himself and others.

National Hospital for Consumption, Ireland.

The thirteenth meeting of the National Hospital for Consumption was held in the Royal College of Physicians, Dublin, on Friday, February 24th, Mr. R. O'B. Furlong, C.B., presiding.

The report stated that pending the completion of the new block, two large tents had been used. Two new ranges of shelters for 30 patients had been erected. With the new block they would have accommodation for 100 patients at a total capital expenditure of £25 000. Three hundred patients were treated and discharged during the year, and 64 remained on December 31st last; 244 were improved, many leaving without a trace of disease; 89 per cent. increased in weight, the average gain being 8 lb. 12 oz.; 24 showed a gain of over a stone. The Board acknowledged the services of the staff, including the medical officers, Dr. C. Parsons and Dr. Coleman, C.M.G., and Dr. Steele, resident medical officer.

The speakers were the Chairman, the President of the Royal College of Physicians, the Registrar-General, Dr. James Craig, Dr. Lumsden, Dr. J. Magee Finny, Sir John Moore, and Dr. Parsons.

Sanitary Inspection of Schools.

An interesting law point was raised before the Castlemartyr Guardians, co. Cork, in an action taken by Dr. O'Connell, the medical officer of health for the district, against Mr. Whyte, national school teacher of Ballintotas, for unlawfully obstructing him in the discharge of his duties, and for conduct calculated to provoke a breach of the peace. It appears that Dr. O'Connell visited the defendant's school for the purpose of investigating a case of alleged infectious disease. The defendant interrupted his conversation with a pupil, prevented any further inquiries, and slammed the schoolroom door in his face, making use of angry and offensive language. It was pleaded in defence that the plaintiff had no legal power to enter a schoolroom, and that consequently the defendant acted within his right. The case was adjourned to decide the legal point raised, and at a recent sitting of the court Dr. O'Connell handed the Bench the following letter, which was read:

Local Government Board, Dublin,
February 18th, 1905.

Sir,—The Local Government Board for Ireland have had before them your letter of the 1st inst. respecting a visit made by you on December 5th to the Ballintotas National School, in the Midleton rural district, and in reply the Board desire to state that there appears to be no statutory enactment giving you, as medical officer of health, the right to enter the school for the purpose of investigating an alleged case of infectious fever.

I am, Sir,
Your obedient servant,
H. M. Swaine, Secretary.

The magistrates dismissed the case on its merits, and refused costs to defendant under the circumstances, the doctor being under the impression he was within his rights in visiting the school.

Canada.

Report of the National Sanatorium Association.

The reports presented at the seventh annual meeting of this Association were of a gratifying character, both as regards results obtained and support received. In the Muskoka Cottage Sanatorium the number of patients under treatment during the year was 218; of these, 125 were between 15 and 40 years of age. A training school for nurses has been established, and is found to be of great value to the institution. Dr. Elliott, the physician in charge, reports that of 12 patients discharged in 1897-8, 10 are in perfect health after the lapse of six years; the other 2 could not be traced. In the same year 23 were discharged with the disease arrested; 4 had not been traced, 4 have died of consumption, 1 has died from other cause, the remaining 14 are as well as or better than on discharge, and almost all are at work. In the year 1898 9, 21 were discharged apparently cured: 1 has not been heard from, 1 lapsed and died, the remaining 19 are in good health, and with one exception are at work. Summarizing cases discharged five or six years ago: Of cases apparently cured, 95 per cent. are perfectly well; of arrested cases, 55 per cent. are as well as on discharge, and 19 per cent. are in perfect health. In the Muskoka Free Hospital for Consumptives 197 patients were treated during the year, the majority of these did not contribute to their own support, and 45 were maintained absolutely free. Altogether 387 cases have been treated here, but the period since inauguration is too short to give useful statistics. Muskoka, the district where these institutions are situated, lies on the eastern shore of the Georgian Bay, and is crossed by the 45th parallel, N. lat., and the 80th meridian, W. long. The elevation is moderate, varying from 600 ft. to 1 400 ft. above the sea; it covers an area of 1,500 square miles, and has a population of 21,000. The greater part of this extent is thickly wooded with pine and hemlock, while among deciduous trees are found maple, beech, birch, and aspen. The flora of the district is a very rich one, while a great variety of animals and fishes await the sportsman. The following statistics are given: The mean daily maximum for June, July, and August is 77 4°, and mean daily minimum 53.3°. In September it becomes colder—maximum 69.3°, minimum 48.0°. The mean temperature, December to March, is 19.1°—maximum 26°, and minimum 9 5°. Mean monthly maximum 45.2°, mean monthly minimum 20 3°. April and May have a mean temperature of 47.9° and a rainfall of 4 08 in. For the year the rainfall is 25 74 in. on 88 days, the snowfall 99.4 in. on 58 days, the mean humidity 74°, the mean of sunshine 0 44. There is absolute freedom from dust, and fogs very rarely occur. The water supply is excellent.

Sundry Hospitals.

The authorities of the St. Boniface Hospital, Winnipeg, have completed the erection of a fine new wing, which is now being equipped with an up-to date system of heating and ventilation by an American firm; all the air supplied to the wards will be heated to the required degree, and supplied with a fixed amount of aqueous vapour before being delivered to the different rooms.

The report for the Toronto General Hospital for the year 1904 shows that there were a total of 3 875 patients admitted. Of these 2,191 were males, and the balance females; 276 remained under treatment at the close of the year.

The City Hospital, Hamilton, Ontario, is to be improved by the expenditure of $50 000 in the erection of a new wing and the addition of a new laundry, heating system, and morgue.

The destruction by fire of the Parry Sound Hospital, Parry Sound, Ontario, in November is a serious calamity to the district. The patients were all removed without injury. It was the only hospital in a part of the province in which lumbering is the chief form of activity, and afforded many facilities to the men living far from home in the lumber camps.

American-Indian Girls as Nurses.—The United States Congress has been asked for an appropriation of £4 000 for a new hospital at Carlisle, Pennsylvania, where sick Indian students may receive treatment and where Indian girls may be trained as nurses. They are said to be excellently suited for work of this kind, for, though kind, they are not sentimentally sympathetic, and will obey implicitly the orders given by the physicians and surgeons under whom they serve.

LITERARY NOTES.

At a meeting of the Académie des Sciences on February 27th, M. Lannelongue presented a work entitled, *Malgaigne, sa vie et ses idées*, by M. Pilastre, son-in-law of the great surgeon.

A work by Dr. Archdall Reid entitled, *The Principles of Heredity*, will shortly be published by Messrs. Chapman.

The March issue of the *Practitioner* is a special number devoted to puerperal fever. Dr. Herman deals with the clinical aspects of the disease, Dr. Galabin with its treatment, Dr. Berry Hart and Dr. Gow with its prevention, and Mr. A. G. R. Foulerton with its pathology. The Midwives Act, 1902, is discussed by Dr. Cullingworth and Dr. J. G. Glover, and Mr. C. E. Paget has something to say on the control of midwives. Other points are treated by Drs. Knyvett Gordon, Hastings Tweedy, W. Williams, and D'Este Emery. An account of an epidemic of puerperal fever a century ago is contributed by Dr. J. B. Hellier.

Metapsychic Phenomena is the title of a work by Dr. Joseph Maxwell of Bordeaux, which has been translated by Mrs. Finch, and will be published by Messrs. Duckworth. It is said to present a kind of interim report of a series of experiments extending over several years, undertaken by the author in a spirit of pure investigation and unbiassed by preliminary hypothesis. Dr. Maxwell states his belief in the existence of physical forces as yet unrecognized by official science. Prefaces are contributed by Professor Ch. Richet and Sir Oliver Lodge.

In a communication read before the Société Normande d'Hygiène, Dr. Hélot adduced evidence to show that several centuries ago epidemics of various kinds in the North of France were attributed to oysters. As malaria, dysentery, typhoid fever and many other affections were confounded together, it is not easy to say in each instance whether in any given case the disease caused by eating oysters was typhoid fever; but the fact that the "succulent bivalve" was suspected of such a power for mischief is interesting in itself. In the fourteenth century an outbreak of plague was traced to oysters; in 1585 the police authorities consulted the Medical Faculty of Paris on the question whether the use of oysters as an article of food should be allowed or forbidden in view of the fact that "plague" had been raging in Paris for five years, and for a much longer period in Normandy. The Faculty answered that, so far from being harmful, oysters were wholesome if they were eaten while fresh. In February, 1776, Lepecq de la Clôture was sent to Dieppe to inquire into the cause of an epidemic of "putrid peripneumonic fever." He came to the conclusion that it was due to influenza and to oysters which some of the sick had eaten in a frozen state. The memory of this epidemic and the causation assigned to it seems to have persisted for a long time, for in the year 9 of the Republic one and indivisible, we find the inhabitants of Dieppe still uneasy about oysters. They were comforted with the assurance that it was not the oysters themselves that were dangerous, but the foul air which they inhaled during their transport in dirty boats.

To the January number of the *Johns Hopkins Hospital Bulletin* Dr. Walter B. Platt contributes an account of Fabricius Guilhelmus Hildanus. The Father of German Surgery was born at Hilden, not far from Düsseldorf, on June 25th, 1560. His patronymic was Fabry, which, Latinized after the fashion of the day, became Fabricius. To distinguish him from Fabricius ab Aquapendente he was generally styled "Hildanus," from the place of his birth. He got some schooling at Cologne, and at the age of fifteen he entered the service of a surgeon, with whom he remained four years, when he attached himself to the surgeon to the Duke of Cleve. He next wandered from place to place, doubtless everywhere picking up such crumbs of knowledge as fell in his way. We hear of him operating for hernia at Geneva about 1585, and he seems to have remained some years in Switzerland. Afterwards we find him practising at Cologne, where his treatise *De Gangrena et Sphacelo* appeared in 1593. In 1596 he can be traced to Switzerland again, working hard at anatomy and making many *post-mortem* examinations. He was back again in Cologne in the following year, but he did not stay long in any place. All his children but one fell victims to the plague, but in his wife he had a helpmeet fit for a surgeon, as the following story shows:

> It so befell me at Paterniam when I was about to cut off the thigh of a man of forty yeares of age, and ready to use the saw and cauteries. For the sick man no sooner began to roare out, but all ranne away except onely my eldest sonne, who was then but little and to whom I had committed the holding of the thigh for forme onely; and but that my wife, then great with child, came running out of the next chamber and clapt hold of the Patient's Thorax, both she and myself had been in extreme danger.

Among his works, in addition to the customary "centuries" of cases which every clinician of those days compiled as a modern cricketer "compiles" runs, are treatises on burns, on stone, on "a Christian manner of eating" and on the preservation of health by the use of hot springs; the last was the outcome of his own experience as a sufferer from gout and nephritis. Hildanus was a deeply religious man and conscientious in his professional work, chary of operating unless there was a good prospect of cure. He is said to have corresponded with 150 physicians and learned men. How in his wandering life he found time to do and write so much is a mystery, more especially as he must have spent a considerable part of his time in educating himself. He died in 1634, aged 74 years, and a man of substance, thus falsifying the proverb about the rolling stone.

The medical and allied charities of London, as is well known, receive their main support from a comparatively limited number of persons, and the object of the new contemporary *Our Hospitals and Charities*, which we introduced some time ago to our readers, is to set forth the work of charitable institutions in a fashion likely to arouse the interest of persons not specially given to good works. Those responsible for the production of this magazine are to be congratulated upon the contents of the first completed year's volume. The articles are brightly written and excellently illustrated and though points of popular interest are naturally given the most conspicuous position business-like statements of fact are not lacking. Among the more notable articles in the first or February number of the second volume are: The London Medical Schools, The Problem of the Consumptive Poor, and the Rational Treatment of Epilepsy. The first of these is a kind of leader and contains a curiously correct forecast of the conclusions since published by the special Committee of the King's Hospital Fund.

THE PLAGUE.

Prevalence of the Disease.

India.

During the week ending January 28th the deaths from plague numbered 33,087, compared with 28,104 for the week preceding. The principal figures during the week in question were: Bombay city 386, against 261 in the preceding week; Bombay Districts, 3,225, against 2,932; Calcutta, 58, against 64; Bengal Districts, 3,647, against 3,808; North-West Provinces and Oudh (United Provinces), 14,704, against 12,435; Punjab, 8,738, against 5,606; Central Provinces, 505, against 498; Hyderabad State, 854, against 597; Mysore State, 313, against 293. Compared with the corresponding week of 1904, the total mortality from plague was about 1,000 more during the week ending January 28th, 1905.

South Africa.

During the weeks ending January 28th and February 4th and 11th no fresh cases of plague occurred in South Africa. Two cases of plague remain under treatment at East London. Rats and mice continue to show plague infection, but the numbers are declining to very minute proportions.

Mauritius.

During the weeks ending February 23rd and March 2nd the fresh cases of plague numbered 1 and 2, and the deaths from the disease 1 and 2 respectively.

Hong Kong.

During the weeks ending February 18th and 25th and March 4th the fresh cases numbered 2, 2 and 2, and the deaths from the disease 2, 2 and 2 respectively.

Australia.

Queensland, Brisbane.—During the weeks ending January 7th, 14th, 21st, and 28th, the fresh cases of plague numbered 1, 0, 0, and 1; deaths 1, 0, 0, and 0 respectively. One case remained under treatment on January 28th. No case of plague had occurred in the district since September 15th, 1904. Since last bulletin on October 22nd, 1904, a gang of twenty men has been employed in rat destruction. Bacteriological examinations have been regularly conducted, and from time to time rats have been found to be plague-infected. No fewer than 4,034 rats were examined between October 22nd, 1904, and January 6th, 1905.

Siam.

Bangkok.—A telegram dated March 6th states that Bangkok is declared to be free from plague.

Chili.

Tarapaca.—In the Chilian province of Tarapaca plague is reported to be spreading seriously.

A Risk of Anaesthetics.—At the recent Sussex Assizes Mr. Justice Channell called attention to the danger in which both dentists and female patients placed themselves when an anaesthetic was administered without the presence of a third person. It was, he said, a very imprudent proceeding, and in cases where females could not afford to have a doctor present they should take a friend with them. The dentist, also, was in a dangerous position, for the patient might imagine things which never occurred.

A REPORT ON THE CARE OF THE INSANE POOR.

[BY OUR SPECIAL COMMISSIONER.]

X.—GERMANY.—*(Continued).*

Uchtspringe.

IN sharp contrast with the archaic, if idyllic, state of the colony of Rockwinkel whose paternal government, absence of fixed regulations, and quaint, picturesque dwellings carry one back to the beginning of last century, stands the modern and perfectly-equipped establishment of Uchtspringe, which, with its dependent colonies of Gardelegen and Jerichow, forms an enduring monument to the enterprise, forethought, and unremitting labour of their constructor and present medical director, Dr. Konrad Alt. The asylum of Uchtspringe, in the province of Saxony, was erected under the supervision and according to the design of Dr. Alt, as a sister asylum to that of Alt-Scherbitz, and was opened in 1894 for the accommodation of 1,000 patients. Shortly after its opening some difficulty in obtaining a sufficient number of reliable attendants was encountered, and Dr. Alt, who had for long been convinced of the advantages of the family-care system, decided to erect in the neighbourhood of his asylum some small and simple constructed dwellings for the occupancy of married attendants and patients. By this means he offered an additional inducement to attendants to enter the asylum service, and he hoped also to effect a monetary saving and to awaken at the same time an interest in the family-care system amongst the surrounding inhabitants. In the years 1895 and 1896, with the hearty approval of the Governor of the Province, seven double-houses (some of which are shown in Fig. 1) were erected, each single house being for the accommodation of an attendant and his family and three patients. The attendant paid 50 marks (£2 9s.) a year in rent to the institution, and was paid at the rate of 60 pf. (8d.) a day per patient by the institution, which also furnished the patients' rooms and provided their clothing. Dr. Alt's expectations were fully realized, and the extension of this system on a large scale, this time, however, amongst the ordinary inhabitants, was begun. Some few patients were placed in houses in the neighbourhood of the asylum, and still remain, but as Dr. Alt feared that the interest in patients placed in families close to the asylum might be submerged in that of so large an institution, the formation of an autonomous colony, at some distance from the asylum, was decided upon. In 1898, therefore, four female patients were placed in the homes of the ordinary inhabitant in the county town of Gardelegen, distant some 14 kilometres from Uchtspringe. The numbers quickly rose to 71 in 1903, and at the beginning of 1905 there were 163 patients in this town or its immediate vicinity under the direction of a specially-appointed medical man. The results were most encouraging, and, together with numerous publications dealing with this system, in particular one from Dr. Alt's pen,[1] they had the effect of stirring the interest of the provincial government, who perceived in this, not only a means of saving considerable public money, but of promoting the happiness and well-being of many of their poor insane. It was therefore decided, after the most extensive and careful examination of colonies in France and Belgium, and of those of Ilten and Rockwinkel in Germany, and after the feeling of the magistrates of the whole province had been elicited by means of a circular letter which was sent to each of them, to introduce this system on a large scale. At a meeting of the Provincial Diet it was resolved to apply the system of family care to those of the idiot and insane pauper population who should be considered fit cases for such treatment, the adoption of this method to date from January 1st, 1900. It was further decided to erect two asylums, as reception or central institutions for the patients of the colonies, of 150 beds each, and the necessary funds for their erection and upkeep were voted at the same time.



Fig. 1.—Two of the Seven Double Houses built by the Asylum Authorities at Wilhelmseich.

This decision of the Provincial Diet forms an important landmark in the path of reform in lunacy administration in Germany, and will in all probability furnish a guide-post on the same lines to many other kingdoms. The views of the provincial Committee appointed for the consideration of this question—subsequently adopted, and now put in practice—are so important, both as exemplifying points of departure from the procedure of other countries—for example, that of Scotland—and as giving succinctly the German policy, that they must not be omitted here.

(*a*) The system of family care is a system of "free" (no-restraint) treatment, which offers a good substitute for asylum treatment for a not inconsiderable proportion of the patients whose maintenance falls upon the unions (*Armenverbänden*).



Fig. 2.—Homes of Two Patients at Kloster Neuendorf.

(*b*) The establishment of a good family-care system and the acquisition of good guardianship do not require centuries of previous training—as has been maintained by those who oppose the adoption of this system—but may, with proper care, be gained in a comparatively short time.

(*c*) The establishment of family care can be successful, and, in general, allowed, only if properly and completely organized from the psychiatric point of view. The appointment of medical men who are not trained alienists is objectionable. In particular, the director and his deputy should be expert alienists.

(*d*) The central institution of the colony should not be so large as to prevent by its administrative and clerical duties the adequate supervision of the guardians, and, above all, of the patients, by the director.

(*e*) In any one family there should not be placed, as a rule, more than two patients, and these must be of the same sex.

(*f*) The payment of the guardians should be adequate, but should not, except in particular cases recommended by the medical men, exceed 1 mark per head per day, and the total cost, including cost of administration, etc., should not exceed 1 mark 30 pf.

The above injunctions, which constitute the rubric of this, the most modern phase of the family-care system, differ entirely from the Scottish system, with its wide dispersion of

[1] Alt, Beitrag zur Wärterfrage mit besonderer Berücksichtigung der familiären Irrenpflege, *Monatschr. f. Psych. u. Neur.*, Bd. 1.

patients, absence of expert supervision and care, and lack of continuity with the asylum administration, and to a less extent also from the system in operation in Gheel and Lierneux, where the colony replaces instead of supplementing the asylum. It approximates closely to the system of the Seine colonies, and whilst ensuring the most thorough inspection of the patients and the control of their guardians, it yet permits to the patients "that which," as Griesinger has said [2] "the most magnificent and best-equipped asylum in the world can never grant, a complete life amongst the sane, a return from an artificial and monotonous existence to that of a natural social environment, the boon of family life." In pursuance of this policy Jerichow, a small town in the neighbourhood of Bismarck's birthplace, Schönhausen, and distant about two hours by rail from Uchtspringe, was chosen as the site of the first new colony, and in October, 1900, the first contingents of patients were placed in homes in Jerichow, Schönhausen, Ferchland, and other villages in the neighbourhood, and a small provisional asylum of twenty beds established in Jerichow for use during the erection of the new asylum which is now in occupation.

The Asylum, Uchtspringe.

The important Landes-heil-und-Pflegeanstalt of Uchtspringe, an immense establishment, is on the main line about halfway between Hanover and Berlin. It stands in the midst of wide, flat, forest lands, which have a light sandy soil, a bracing climate, and are in every way suitable for the location of such an asylum. It is composed of large pavilions and villa residences surrounding a central administrative block, all of which are "open" houses, with the exception of two pavilions, one on each side, for agitated or restless male or female patients.

It would be impossible in brief space to describe adequately this most modern and thoroughly-equipped institution. Suffice it to say that it is one of the most admirably-constructed and managed asylums in existence. It has electric light and power, central heating, and telephonic communication everywhere, and there are laboratories for special work, electrical and Roentgen ray treatment, chemical and pathological research under specially-qualified medical men. There are, including the medical director, twelve medical officers, each of whom has his own separate department. In addition to the medical officers and the large staff of attendants, there is a schoolmaster who attends to the education of the imbecile children, of whom there are large numbers in two pavilions, and for whom there is a separate staff and medical service, and there are also instructors in connexion with the numerous workshops and farmlands of the asylum.

The almost entire absence of restraint both within and without the asylum, the presence of many patients walking freely about the grounds of the asylum, and the extreme busyness of the different departments, confer upon this establishment much more the appearance of an active social community than of an ordinary asylum, with this difference, however, that the members of this community are better housed, better fed, and better attended to than in any ordinary industrial centre of sane people. The housing, feeding, and clothing of the patients is on a par with the rest of the organization, and leaves nothing to be desired. The organization and co-ordination of these numerous departments and the direction of so many diverse activities must entail an enormous amount of labour on the part of the Director, and it is remarkable that he has been able to do not only this, and to carry out scientific investigations like his experiments on the relation between diet and epileptic attacks,[3] but to initiate, organize, and develop the family-care system in Saxony.

The Colonies.

As we have already said, Dr. Alt was unwilling to extend the family-care system in the vicinity of the asylum beyond the fourteen experimental houses of Wilhelmseich above described, and which contained at the time of our visit some forty patients. These were male patients, three in each home, and were composed of one adult able-bodied worker, one adult patient unable to work, and one imbecile boy. This combination of adult and juvenile patients we found repeated in many homes in the other colonies of Gardelegen and Jerichow, and is of advantage both to the guardians and to the patients. These houses, which were built according to the plans of Dr. Alt, stand in large gardens and contain on the ground floor a large sitting-room, a kitchen and two bedrooms, and in the upper story a large bedroom for two patients, a smaller bedroom for a single patient, a spare room and an extensive drying loft.

We found the houses to be clean and comfortably furnished and the patients contented and well nourished. The total cost of maintenance of these patients amounts to 1 mark a day per patient as contrasted with the 1 mark 70 pf. of the asylum proper. The patients, in addition to being under the care of the attendant with whom they reside and who performs his daily duty in the institution, are visited regularly by one of the medical officers of the asylum, and go monthly to the asylum for bathing and examination. This Wilhelmseich group of patients is so small that it hardly calls for more than passing mention, though considerable interest attaches to its origin: in the first place as the means of obtaining a better class of attendant—a much more difficult matter in Germany than in England—and, secondly, as a half-way house between the asylum and the family-care colony, a probative measure which offers obvious advantages to any country in which it is proposed to adopt the family-care system.

Gardelegen.

The extension of the family-care system from the placing of the patients in the care of attendants to that of the guardianship of the ordinary inhabitants was begun in 1898, and was necessarily accompanied by the application of rules for the guidance of the guardian or *pfleger*. These rules are 16 in number, and whilst permitting a fair amount of latitude to the guardians will be found sufficiently precise on all essential matters.

1. By the family care is understood the lodging of a suitable patient for adequate compensation in an appropriate family, which places itself voluntarily at the service of the asylum and its doctors.

2. The patients after being placed in a family still belong to the asylum, and are still under the care and supervision of the director as well as those of the specially-appointed doctors and overseers, and they may at any time be taken back into the asylum.

3. There may not, as a rule, be at any one time in a family more than two patients, and these must be of the same sex.

4. The furnishing and repair of the bedroom set apart for the patients, which must be freshly painted once yearly and thoroughly cleaned once a week, is the duty of the guardians, as is also the heating of the room, when required. For each patient the room must possess at least 15 cubic metres of air space.

5. The articles of furniture (including the bed linen) of the room may, if desired, be supplied on account by the asylum. Clothing and underclothing is supplied by the asylum; which also undertakes the repair of footgear. On the other hand, the cleaning and keeping in repair of the clothing and bedclothes of the patients are the duty of the guardians. The underclothing must be changed once a week and the bedclothing once a month.

6. The guardians must see that the patients are quietly and properly clothed, and that they are thoroughly washed every morning, or oftener if required.

7. The guardians must bring the patients once monthly to the asylum for bathing, weighing, and bodily examination on the days ordered for that purpose.

8. The patients belong to the family, and must at all times partake of the family life and share their table. A proper maintenance of the chief meals is essential, and the food must be good and wholesome fare.

9. A benevolent and friendly treatment of the patient is at once the duty and the honour of the guardian, who should never permit himself to use an angry word or action to the patients. Bad or careless treatment will be punished by the withdrawal of the patients, and, when required, will be followed by informing the police.

10. The appropriate occupation of the patient is to be taken into consideration. Their labour must never be enforced by punishments, menaces, or harsh treatment. The employment of the patients by other people is not allowed except with the written permission of the director, and any moneys earned in this way must be added to the patient's savings.

11. The guardian must bestow due care and supervision on the patients entrusted to him, and particularly with regard to their moral relations. He must carry out punctually and scrupulously the orders of the director or overseer, retaining his right of appeal to the director.

12. The patients are allowed free access to religious services or usages, unless medically interdicted, only, however, in company with a responsible member of the family.

13. It is required that the book which is given with each patient should be produced at each visit of the doctor or overseer, and that all observations made should be faithfully reported. Particular occurrences, such as great changes in the bodily or mental states of the patients, escapes or attempts at escape, states of excitement, refractoriness, etc., should be immediately reported without waiting for the visit

[2] Griesinger. Uber die familiale Verpflegung, *Allg. Ztschr. f. Psych.*, Bd. 22, S. 390.

[3] Alt. Die diätetisches Behandlung der Epileptiker in Vergangenheit und Gegenwart. *Ztschr. f. klinische Medicin.* Bd. 53. Sonder-Abdruck, Berlin. 1904 L. Schumacher.

of the doctor or overseer. In the case of escape the guardians are required to take immediate steps for the recovery of the patient. In the case of casualties appropriate first aid must be rendered, conformably with the medical directions given to the guardian.

14. The guardian must give immediate and circumstantial notice of any illness of or injury to a patient to the asylum doctor. Medicines and dressings are supplied free, and also any particular expense borne by the guardian will be repaid.

15. The ordinary remuneration for the care of each patient is from 70 pf. to 90 pf. per day, the whole sum being paid up at the end of each month from the asylum treasury.

16. Presents or monetary compensation must not be received from the relatives of the patients. In general the guardian is not allowed to be in correspondence with the patients' friends or relations without the knowledge and consent of the director, through whose hands all letters must pass.

A printed copy of these rules is given to each guardian, at Gardelegen and the other colonies, and each patient also has a book containing an inventory of his clothing, information as to the patient himself, and pages for the recording of his weight, dates of bathing, visits of the doctor or overseer, and, in the case of female patients, the menstrual periods. Gardelegen, which is an exceedingly quaint and quiet old town of much historical importance, lies on the main line between Hanover and Berlin, and is a stopping place for fast trains. It has a population of some 8,000 inhabitants, and contained at the time of our visit, in January of this year, 133 patients under family care, of whom 127 were women. There were also, placed in families in the outlying villages of Järzhal, Trüstadt, and Kloster-Neuendorf 30 male patients. These are all under the direction of a medical man, Dr. Stamm, appointed to the charge of this colony from the asylum of Alt-Scherbitz. He is assisted in the work of supervision by a male overseer or *Oberpfleger* and a female overseer or *Oberpflegerin*, who are required to visit each patient at least twice a week. The patients in the town are each seen twice weekly by Dr. Stamm, and those in the country twice a month or oftener as occasion requires. There is a small hospital of recent construction in Gardelegen, which is under the care of the *Oberpfleger* and his wife, who have their residence in the building. Owing to the proximity of Gardelegen to Uchtspringe, and the ease with which patients can be conveyed to the large asylum, the hospital at Gardelegen is of quite small dimensions, and contained at the time of our visit only nine patients, four of whom had been found to be unsuited for family care, and the remainder for temporary excitement or intercurrent illness. The hospital, however, though small, is of great use, as, in addition to the wards for the accommodation of patients, single rooms for agitated cases, bureau, and consulting rooms, it has most excellent bath-houses for the patients of the colony. We visited several of the homes in Gardelegen, and also those in the village of Kloster-Neuendorf, and were thoroughly satisfied with the condition of the dwellings, the interest in the patients evinced by their guardians, and the good bodily state of the former. The houses in construction and interior furnishing do not differ materially from those of the working classes in England. Most of those we visited were of the plain and uninteresting type shown in Fig. 2, though a few, both here in Kloster-Neuendorf and in the villages around Jerichow, were of the old and beautiful, though doubtless less sanitary, kind. The further extension of the colony at Gardelegen is not at present contemplated, for although it has abundantly demonstrated that the family care system does not require centuries for its acclimatization, and that no hereditarily acquired tact on the part of the guardians is necessary for its successful management, it is considered more desirable to develop the more perfect system of an autonomous colony surrounding its own central asylum, as existing at Jerichow.

Jerichow.

The small country town of Jerichow lies about halfway between Schönhausen (on the Hanover-Berlin line) and Genthin (on the Magdeburg-Berlin line), and is reached by a small local railway which connects these two towns. It lies in the middle of wide and somewhat sparsely-populated agricultural lands to the east of the river Elbe, has a population of about 2,000 people, and is a good deal visited on account of the interesting and well-preserved church (*Klosterkirche*) belonging to a Premonstratensian convent, founded in 1144, which is one of the few churches of that date which have been built of brick. The surrounding country is flat, well forested with pine and fir, and has a dry and bracing climate. On account of its healthy climate, its remoteness from any large town, and the honest and kindly character of the farming people who inhabit it, it is eminently well fitted for the formation of a family colony. The small provincial asylum of 20 beds was opened on October 15th, 1900, and in the following week 5 patients were placed in families in Jerichow, and at the end of 1901 there were 37 female and 8 male patients living in families in Jerichow, Schönhausen, and the outlying hamlets of Ferchland, Wust, Nelkow, and Zollekow. Since then the development of this colony has been very rapid, and in January, 1905, there were 329 patients in Jerichow and its neighbouring villages, either in families or in the asylum, or *landesasyl*, at Jerichow.

The Asylum.

The asylum of the colony, or *landesasyl*, at Jerichow, completed only last year, stands in extensive grounds close to the little railway station of Jerichow, and was constructed on the pavilion system after the plans, with some slight modifications, drawn up by Dr. Alt for an asylum of 150 beds. As the accompanying sketch shows, the plan of construction, when

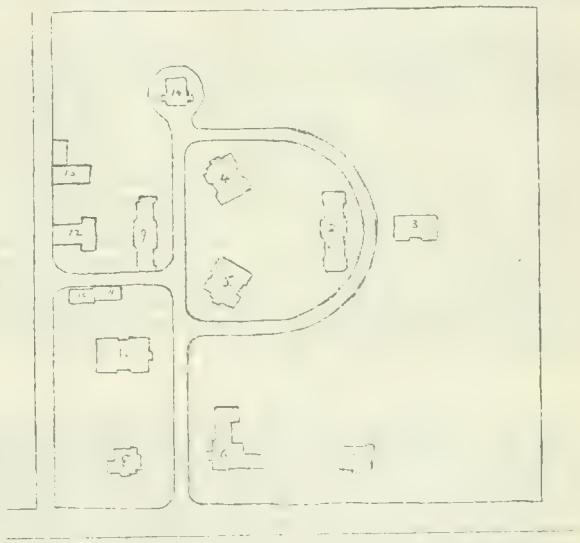


Fig. 3.—Ground Plan of the Landesasyl at Jerichow.

the class of patient selected for family care is considered, is very complete. The buildings are of simpler and cheaper construction than the main asylum at Uchtspringe, and cost, with the internal furnishing, 3,000 marks per bed, or between £146 and £147, which is about one-half the cost of construction of an ordinary county asylum in England. The electric-light installation had not been completed at our visit, but in every other particular, and especially with regard to the arrangements made for the bathing of the patients and the cooking of their food, we were impressed with the excellence of this asylum. The asylum, which was originally intended to be limited to 150 patients, is actually built to accommodate 200, and there were at the time of our visit 180 patients residing in the asylum. Some of these patients are permanent inmates of this asylum, but the great majority were in the asylum either as a temporary halting-place on their way to the outside colony or for treatment during transitory excitement or intercurrent somatic illnesses. In addition to this asylum, the small original asylum of 20 beds in Jerichow is still in use.

The Patients.

The patients, who are entirely of the third or State-aided class, are sent to Jerichow from the asylums of Uchtspringe, Alt-Scherbitz, and Nietleben near Halle, and were composed of 164 males and 165 females. No less than 45 per cent. of these are idiots or imbeciles, mostly young or adolescent imbeciles. These juvenile cases have been discharged to family care after they have proved themselves incapable of benefiting by institutional training, and no cases blend more willingly with the family and receive greater consideration from their guardians than these young imbecile children. They are of great use to their guardians; in some cases which we saw they had been gratefully received by guardians who had lost their own children, and in all cases they give the happiest results. There is a small proportion—about 5 per cent.—of paralytic and epileptic cases, and the remaining 50 per cent. are composed of diverse forms of mental alienation.

The selection of the patients is accompanied in Germany with the greatest care, and very few of the patients were of such age as to be unable to enter into all the pursuits of the family. They are distributed in Jerichow itself and in the surrounding villages, hamlets, and detached farms over an area which might roughly be enclosed in a circle with a radius of 10 kilometres with Jerichow as its centre. We visited in the few days which we spent at Jerichow most of the homes in the town, and also those in the outlying villages of Ferchland and Klietznieck, and were everywhere impressed by the healthy appearance and the obvious contentment of the patients and the hearty goodwill which existed between the guardians and patients. The intimate incorporation of the patient into the family life was manifest everywhere, and that this should have been accomplished in so short a time proves conclusively that the successful working of this system does not, as has been wrongly maintained by many, require ages of previous training, but depends on the omnipresent ties of human sympathy.

The Homes

The houses inhabited by patients are, as a rule, small comfortable cottage homes of one or two stories, each standing in its own garden. The patients' bedrooms are simply but adequately furnished and floored as a rule with wood, but occasionally, if on the ground floor, with tiles. The beds are mostly of wood, and are provided invariably with a straw mattress and a feather bed, and, as the sole covering, the *feder-kleid*, which is ubiquitous in Germany. The patients' rooms are as a rule somewhat superior to those of the family proper, owing to the regulation regarding air-space imposed by the directorate. In one or two cases we found the patients' rooms had a separate entrance from the outside and had no inside connexion with the house, giving an increased freedom to suitable cases. Speaking generally, the comfort of the houses, the hearty co-operation of the patients in the work of the guardians, and the benefit to both guardian and patient, equalled the high standard which is attained in Scotland.

Inspection.

The whole colony of Jerichow is under the direction of a medical superintendent or *Oberarzt*, Dr. Lange, who is assisted in his duties by two specially-appointed and qualified medical men. Dr. Lange has his residence within the asylum grounds, but conformably with Rule D of the Provincial Committee, and unlike the custom of the Belgian colonies, he takes his regular share in the supervision and care of the patients in the families. The total number of attendants and overseers for the asylum and the supervision of the families is 30, and each patient is visited at least twice a week by the overseer appointed to his district. The patients are also visited by one of the doctors every week, or oftener if required.

Possible Dangers.

Few colonies, and possibly no asylums, can show such a clean sheet with regard to mishaps as this colony. Since its inauguration no serious casualty, no dangerous or unlawful occurrence of any kind has been recorded, and this must be attributed to the extraordinary care in the selection of cases and to the thorough system of supervision which characterizes the German colonies.

Death-rate.

Like that of all other family colonies, the death-rate is surprisingly low, and has averaged since its commencement between 4 and 5 per cent. of the numbers under treatment, and it must be remembered that these figures are not factitiously lowered by a removal of patients from the colony to the main asylum when they become dangerously ill, as is the case in a colony possessing no special asylum for the colony, but are absolute figures.

Cost.

The average cost per patient per day—including in that the sums paid to the guardians, and the cost of supervision, medical care, and administration—works out at 1 m. 30 pf. per day. This is a saving of 40 pf. per day per patient on the asylum cost of 1 m. 70 pf. At the end of 1904 there were, roughly, 4,000 insane in the province of Saxony, of whom there were 563, that is, 14 per cent., living in the family-care colonies which we have described. The saving to the community, therefore, leaving entirely out of count the saving on the erection of new structures which would have been required to accommodate the boarded-out patients, and disregarding the benefit to the guardians, amounts to over 287,000 marks for one year. The adoption of the family-care system in Germany thus has already been the means of effecting a considerable economy to the community. But it has been much more than this. It has relieved to an appreciable extent the crowding of the asylums, and has thus facilitated the recovery of the acute and curable cases; it has succeeded in dispelling from the public mind the idea that all lunatics are potentially dangerous and must be kept under lock and key; it has proved a material benefit to the guardians; and, above all, it has been of immense benefit to the unfortunate beings themselves. The German system is one which offers every grade of freedom in proper proportion to the patient's ability to enjoy and benefit by it, from the confines of a closed ward to the liberty of a village home; it admits no divided responsibility, but is a coherent system which safeguards the interests of both patient and public, and it makes such careful provision for all possible contingencies that it may be adopted without fear by any other country.

THE LEEDS WORKPEOPLE'S HOSPITAL FUND.

[From our Special Correspondent.]

That the workpeople of large towns should subscribe to the various medical charities from which they derive so much benefit, is very natural; and the results obtained in Leeds show what can be done by careful organization in the way of developing and increasing the interest of the working classes. At one time the voluntary subscriptions of the workpeople in the various workshops of the city were paid directly to the Treasurer of the Infirmary, and smaller sums in the same way reached the treasurers of the smaller charities.

History.

In 1887, owing chiefly to the advocacy of Mr. Fred. R. Spark, a member of the Board of the General Infirmary, it was arranged that all the subscriptions should be paid into a central fund, the distribution and management of which should be in the hands of a committee. This arrangement, which was made to apply only to the workshops within the borough, has, with some modifications, prevailed until the present time. In the first instance the amount available after payment of expenses was divided between the General Infirmary, which received 82 per cent., and the Dispensary and the Women and Children's Hospital, which received 10 per cent. and 8 per cent. respectively. The demands made on the fund has necessitated certain modifications in the division, which will appear from what follows. In 1900 the fund was incorporated.

Organization.

The organization is very carefully planned. The executive consists of the Chairman, Mr. Fred. R. Spark, to whose energy the great success of the fund is mainly due, the two Honorary Secretaries, and the Chairmen and Honorary Secretaries of the various wards and ward districts. Of these wards and ward districts there are nineteen, and each has a Committee which in some cases is a very numerous one, with female as well as male workers. The money is collected in various ways. The chief source of income is of course the workshop collections. The object aimed at is that every working man should contribute one penny per week to the fund, and that every working woman, girl, and boy should contribute one halfpenny. It is the constant endeavour of the executive to bring all the workshops of the city under this voluntary arrangement. The method that is adopted is that the employers are, in the first instance, interviewed, and then permission obtained for a meeting of all their workpeople, at which the matter is laid before them. With a gratifying degree of unanimity, the scheme is in most cases adopted, and then the workpeople decide as to how their subscriptions shall be collected. In some works they appoint one or more of their number to make the weekly collections, but the usual plan is that they authorize their employers to pay the amount of their weekly subscriptions out of their wages. At one time it was feared that this would prove contrary to the conditions of the Truck Act, and some correspondence took place on the subject with the Home Office. It was pointed out that the payment by the workpeople or by any individual workman was purely voluntary, and that the arrangement was at any time revocable by either the employers or the workpeople, when the Home Office decided that there was no infringement of the Act. In one large works each man has arranged to do half an hour's extra work per month on behalf of the fund. This practically amounts to one penny a week. In the case

of one firm employing 1,100 hands not one refusal to subscribe to the fund was experienced.

AMOUNT RAISED.

A considerable sum of money is obtained from ward carnivals, Sunday concerts, galas, school collections, etc., which are all organized by the various Committees, and from the numerous collecting boxes fixed in the many public-houses in the city. For the year 1904 the amounts obtained from these various sources were as follows:

Workshop collections	£7,832
Public houses...	1,078
Ward carnivals	425
Sunday concerts	354
Gala	1,039
Club collections, socials, etc.	152
School collections	133
Music hall benefits, football matches, etc. ...	212
Total	11,225

The total income for 1904 reached £11,225, which with the balance brought forward from last year has placed £12,551 at the disposal of the Committee.

This large sum has more demands on it than when the fund was started in 1887, as will be seen from the list of institutions given below to which grants are made.

CONVALESCENT HOMES.

A new and important departure was also made some few years ago, when it was decided that a legitimate expenditure was incurred in the purchase, equipment, and maintenance of convalescent homes, and in the purchase of recommendations for patients to be admitted to existing homes. In this way £11,000 has been expended in the acquisition of the two convalescent homes for men and women respectively at Horsforth and Ilkley, the former of which was opened in 1898 and the latter in 1900. Since the opening of these homes 4,283 Leeds workpeople have enjoyed their benefit. The amount expended in their maintenance during 1904 was £2,138. As evidence that the establishment of these homes has not diverted money from the primary objects for which the fund was started the officials of the fund are able to point to the fact that the amount divided among the charities is now £1,000 greater in amount than it was just before the homes were opened, and that these, which are now freehold, have been purchased out of income.

EXPENSES.

The general expenses, including office rent, salaries, etc., amounted to £707, and the balance dealt with by the Committee at their annual meeting held on February 22nd amounted to £9,346.

GRANTS.

The following grants were made:

Leeds General Infirmary	£5,000
Leeds Public Dispensary	750
Leeds Hospital for Women and Children ...	750
Tuberculosis Association	280
Leeds District Nursing Association	225
Bramley District Nursing Association	50
Stanningley District Nursing Association ...	50
Leeds New Maternity Hospital	100
Meanwood Convalescent Home	40
Total	£7,245

Towards the reserve fund for the new convalescent home a sum of £2,500 was carried forward.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 91

GERMAN OTOLOGICAL SOCIETY.—The German Otological Society will hold its fourteenth annual meeting this year on June 9th and 10th at Homburg, under the presidency of Dr. F. Kretschmann, of Magdeburg. The principal subject proposed for discussion is deafness in school children, on which reports will be presented by Professors Arthur Hartmann and Passow, of Berlin.

THE TEACHING OF HYGIENE IN SCHOOLS.

XIII.—PERSONAL CLEANLINESS: DRESS.

ON entering the schoolroom of an elementary school, the first things any hygienically-instructed person looks at are the windows to see if they are open, and then the heads of the children to see if they are brushed and tidy. To hear the grandiose way those in power speak of a free country and the rights of the citizen, one would imagine that the hair of these unfortunate children was their most precious possession. As a matter of fact, the heads are a sure index to the sort of district the children come from. The lower and the poorer in the social scale the more ragged and neglected the hair, until among the dregs one comes to the proverbial three hairs of Cadet Roussel, tied tight with a bootlace and standing straight out at the back of the skull. Knowing the homes they come from, who can blame these poor creatures? But one can blame the State for its feebleness in not taking drastic measures to secure the self-respect of the children and the comfort of the teachers. Dr. Kerr's admirable cleansing scheme is too well known to require repetition; but what an infinity of trouble—and only those behind the scenes know what friction there is, not only of heads, but with certain of the teachers and with the majority of parents—would be saved if only there was a universal cropping of hair in the elementary schools, as in France and other countries! It must naturally be a grievance to respectable clean parents to see their children contaminated by filthy schoolmates. Hairdressers recommend keeping the hair short to thicken it; all the girls leave school at 13; where is the grievance?

What speaks badly for the beneficial effects of school training is that the older the girl the more slovenly, as a rule, she becomes; the smaller the child, the less neglected it is. It is apparent how difficult the problem of personal cleanliness is to tackle, when it is realized what kind of homes many of the children come from. Until the houses of the labouring poor can be built with bath rooms, it is too much to expect the children to be spotless. It is to be hoped that some philanthropic engineer will come forward and suggest the manner by which those poor unable to pay more than a meagre house rent may be enabled to have the means of bathing their children in their homes. Practically all that the teachers can insist upon is that children should appear with clean faces and hands. If they fail to do this, they are obliged to wash them in the school lavatories. Dr. Kerr has pointed out that the supply of towels is insufficient in most of the London schools, and he has suggested that a clean towel should be supplied daily, or at least on alternate days, for each 100 children in attendance.

The following table, compiled from the reports made by the nurses as to washing arrangements at London schools, is of interest:

Schools.	Number of Departments Noted.	Average Attendance of Schools.	Number of Wash-Basins.	Weekly Supply of Clean Towels.
Infants...	192	68,437	1,304	411
Girls	175	59,215	1,434	452
Boys	163	55,090	902	352
Mixed and special...	49	14,435	382	147

The system to employ would be to exclude the child and then prosecute the parents, if, after due notice, they refused to send him to school in a fit state. In the article on the teeth the question of tooth-brushes has been dealt with. As one may conclude that few children have parents conscientious or hygienic enough to keep tooth-brushes at home for them, the London Education Committee should supply each London child with a tooth-brush, which would be kept at school and used twice a day; and the same rule would apply to the provinces. It would be a good thing to allow a special time each day for the inspection of children. Teachers should keep a record noting their cleanliness, so as to see if any good effect is being produced upon them by talking to them. It is just to say that splendid work is being done in some schools where the mistresses talk to them about personal cleanliness, neat clothes, and general cleanliness. And it is only right to add that the teachers themselves are almost always particularly neat, and thus set a good example to their class. There should be parents' meetings at

the schools from time to time, where parents and teachers might talk about the children, and the parents gradually be taught their duty to their children, and the disgrace of sending them with torn clothes to school. If the sewing taught during the last thirty years is ever to bear fruit, surely it is time now that it should. But in spite of needlework taught to girls many and many of them go to school with torn clothes. Why? Because the needlework taught is not of the practical kind required by these poor souls. They do not require to master back-stitching, taking perhaps several hours to do a few stitches, when the same work can be accomplished by a sewing machine in the same number of seconds. What they require is to be taught to darn their stockings, to mend, and to patch their clothes. And here we would say that the squalor and filth and untidiness of the class to which we are referring is in greatest part due to that vile institution the pawnshop. To the pawnshop must be put down most of the squalor and down-at-the-heelness which exists among the thriftless poor. To it is also due the sinking of the individual and the spread of disease and vermin, and until pawnshops are put down and a regular school uniform made compulsory a great battle will have to be waged against untidy, ragged, dirty children. Put the cleanest child in the world into torn, soiled, cheap finery, what will it look like? Put the same child into a neat blue serge hygienically-made frock, and it will look a different human being.

Children attending elementary schools should be required to wear a neat hygienic dress. There might be opposition at first from the parents, but they would be gradually convinced that for the health and appearance of their children, as well as for economical reasons, a neat dress of blue serge would be more becoming than the miscellaneous rags in which they are at present clothed.

Each girl should wear a flannel chemise, blue serge knickerbockers fitted to the waist with an elastic band, and no stays of any kind. The parents who at present put children of tender years into ill-fitting, steel-boned corsets, ignoring that at the growing period of their life their limbs and chest should be free to expand, would raise an outcry, but they would come round in time. Next, we would suggest a woollen jersey, and an overdress with shoulder straps fastened into the waist, with a loose belt. In summer the jersey might be left off and a cotton blouse substituted. For out-of-doors why should they not have flannel capelines in winter, the ordinary head-dress of the French school child, while in summer they need no head covering in our climate?

Such a dress as this would not only be neater and healthier, but by its smartness would raise the tone of the school and help the teachers. It would also morally raise the children themselves, and help to give them the self-respect in which at present they are naturally lacking. We all know how much more enjoyable life is and how much more we respect ourselves if we are immaculately neat and tidy in our clothes. Besides the moral side of the question there is the unhealthiness. What plant flourishes under bad conditions? And the same applies to growing children. If the outer garments are dirty one shudders to think of what the hidden ones must be like. Teachers should be firm in refusing to admit to their classes untidy and dirty children, and should point out as examples to their companions those deserving of praise. A few words of encouragement often do more than oceans of punishment, and in schools where this is understood the results are far better than in the others.

PREVENTION OF CONSUMPTION.

United States.

Pennsylvania.—A Bill has been introduced in the State Legislature for the selection of a site and the erection of a State hospital for the treatment of incipient tuberculosis. The institution is to be situated within the limits of the State forestry reservation in Franklin County. From 500 to 1,000 acres are to be set aside for its use. The Bill provides for an appropriation of £40,000 for the purposes of the hospital. Patients who can pay for treatment will be required to do so; those who cannot pay are to be admitted on the recommendation of county commissioners, directors of the poor, or the department of charities of countries and cities.

The Irish Medical Schools' and Graduates' Association will hold a dinner at the Hotel Cecil, Strand, W.C., on March 18th, at 7.30 p.m.

THE MIDWIVES ACT.

Payment of Medical Men Called in to Assist Midwives.

An anomalous state of things has been brought about by the rule made by the Central Midwives Board as to the payment of medical men called in by midwives. The rule E, 17, directs that:

> In all cases of abortion, of illness of the patient or child, or of any abnormality occurring during pregnancy, labour, or lying-in, a midwife must decline to attend alone, and must advise that a registered medical practitioner be sent for.

The rule then enumerates a number of conditions which are taken as examples of circumstances under which a midwife would be bound to send for a registered medical practitioner. This rule is made under Section 3, I (*e*), which directs the Board to frame rules "regulating, supervising, and restricting within due limits the practice of midwives."

It seems abundantly clear that the Central Midwives Board had no alternative but to make some such rule as that which we have quoted; but the Act makes no provision for remunerating medical men thus summoned by a midwife, although there is a statutory obligation upon her to send for a registered medical practitioner under any circumstance of difficulty. Last year a number of suggestions were received from correspondents of the British Medical Journal. These were carefully considered by the Medico-Political Committee, which presented to the Representative Meeting a memorandum in which it set out that two main proposals had been made for the payment of medical men called in to assist midwives. The first was that county councils should undertake to arrange that there shall be in every district some medical man or medical men on whom midwives could rely to attend when summoned, and that the county council should make themselves responsible for their remuneration. The alternative suggestion was that the medical practitioner should look for payment direct to his patient, except in the case of those who may be suitable objects for medical relief, and with regard to these he should look to the Board of Guardians for payment. At the Representative Meeting it was pointed out that the question of payment or non-payment by a local supervising authority might depend upon whether it had a Local Government Board auditor or not, if there were a Local Government Board auditor he would probably surcharge any fee paid; if not, it would probably be allowed. The following resolution was eventually adopted:

> That, as the Midwives Act, 1902, contains no provision for the payment of medical practitioners, it be an instruction to the Medico-Political Committee to take steps for the amendment of the Act by the introduction of a section, or otherwise, in order to provide just remuneration for medical men when called in to assist midwives in cases of danger or difficulty.

On considering the foregoing instruction the Medico-Political Committee considered that before approaching Parliament it was necessary to ascertain the opinion of the Association as to the method in which it was most expedient that statutory provision for the payment of medical practitioners should be made. To this end inquiries were circulated to all the Divisions of the Association and as soon as the Divisions have replied, or a sufficient number of them, to enable the Medico-Political Committee to infer the opinion of the Association, definite proposals will be formulated.

While taking the matter into consideration, the Medico-Political Committee also instructed the Medical Secretary to transmit to the Divisions a report on the replies received from county and county borough councils to a circular which the Committee had issued on the subject, and pointing out that at present the practitioner must look to the patient for his fee.

We have now received from Dr. J. H. Taylor, Honorary Secretary of the Manchester Medical Guild, a communication transmitting a letter received by the Guild from the Local Government Board. Dr. Taylor informs us that the question arose from the fact that the Health Committee of the Salford Corporation informed the Guild that "they have no statutory power to pay fees to medical men in attendance upon midwifery cases." At the same time the Guild had already confirmed the fact that the Liverpool Corporation actually pays a fee of a guinea in such cases. Dr. Taylor was therefore instructed to write to the Central Midwives Board to inquire whether the Midwives Act, or any other Act, empowers local authorities to pay such a fee. The Board was unable to give an official declaration, "though it had been informed by the Privy Council that there is no such power under the Midwives Act."

The Medical Guild, however, was not satisfied that local authorities are entirely without power, in spite of the admitted absence of any such provision in the Midwives Act. The Honorary Secretary was therefore instructed to inquire from the Local Government Board whether the Public Health Act or any other Act authorizes local authorities to pay fees to medical men when summoned according to the Midwives Act to the assistance of midwives. The Guild has received the subjoined reply.

Local Government Board,
Whitehall, S.W.,
28th February, 1905.

Sir,

I am directed by the Local Government Board to advert to your letter of the 14th instant as to the payment of remuneration to a medical practitioner called in to assist a midwife under Article 17 of the rules of the Central Midwives Board regulating, supervising, and restricting within due limits the practice of midwives.

In reply, I am directed to state that it seems to the Board that if a Town Council or other local authority for the execution of the Public Health Act, 1875, are willing to pay for the medical assistance required, the provision in Section 133 of that Act might possibly be available.

On the other hand, a case of the kind might conceivably come within Section 2 of the Poor Law Amendment Act, 1848 (11 and 12 Vict., cap. 110), and the Guardians might then, if they wished, pay for the medical assistance required.

I am, Sir,
Your obedient Servant,
H. C. MONRO,
Assistant Secretary.

J. H. Taylor, Esq., M.B.,
Salford.

The section of the Public Health Act referred to above is as follows:

Power to Provide Temporary Supply of Medicine.

133. Any local authority may, with the sanction of the Local Government Board, themselves provide or contract with any person to provide a temporary supply of medicine and medical assistance for the poorer inhabitants of their district.

The section of the Poor-law Amendment Act 1848 concludes as follows:

Section 11. . . . it shall be lawful for the guardians of any union, if they think proper, to pay for any medical or other assistance which shall be rendered to any poor person on the happening of any accident, bodily casualty, or sudden illness, although no order shall have been given for the same by them or any of their officers, or by the overseers, and to charge the same to some one parish in the union, or to the common fund of the union, according as such parish or union would have been liable for the ordinary relief of such poor person; provided that nothing herein contained shall exempt the guardians of the union or parish, or their officers, or the overseers of the parish in which such poor person shall require relief by reason of such accident, bodily casualty, or sudden illness, from their liability to supply the requisite relief to such poor person whilst in such union or parish.

It should be added that the subject of payment of a registered medical practitioner sent for by a midwife was considered at the meeting of the Central Midwives Board held on February 25th, 1904, when the following resolution was unanimously adopted, and the Secretary was directed to send a copy to the Privy Council:

That inasmuch as no provision is made in the Midwives Act, 1902, for the payment of legally-qualified medical practitioners, the Government be requested to take the necessary steps for amending the Act, by introducing a section, or otherwise, to provide for the payment of legally-qualified medical practitioners when called in by midwives in difficult cases.

The opinion given by the Local Government Board in the letter printed above is expressed in very guarded terms; but it would seem to indicate that the Board will be ready to instruct their auditors to pass accounts of local authorities containing items for the fees of medical men summoned by midwives, chargeable under either of the Acts referred to.

EAST SUSSEX COUNCIL.

In an abstract of the proceedings of the East Sussex County Council under the Midwives Act, 1902, published in the JOURNAL of March 4th, p. 506, it was stated that the Committee resolved "that it was expedient to delegate the powers and duties of the county council under the Midwives Act, 1902, to district councils." From information which we have since received from an authoritative source, it appears that this recommendation was not adopted by the council, which has decided not to delegate its powers as local supervising authority for East Sussex to the district councils. All such powers have been delegated to the Public Health Committee of the county council. The County Medical Officer of Health, Mr. Alexander G. R. Foulerton, has been appointed Executive Officer to the local supervising authority, and Miss Whittock, M.B.Lond., has been appointed to assist him in the inspection of midwives.

ALCOHOL AND COMMERCIAL EFFICIENCY.

A CONFERENCE of business men upon the subject of alcohol in relation to commercial efficiency, arranged by the National Temperance League, was held on March 8th at the Mansion House. The LORD MAYOR presided, supported by the Sheriffs, and there were also present, among others, Lord Lytton, Lord Monkswell, Sir Victor Horsley, Dr. Theo. B. Hyslop (of Bethlem Hospital), Mr. J. W. Benn, M.P. (Chairman of the London County Council), Mr. T. F. Blackwell (President, London Chamber of Commerce), and the representatives of a large number of banks, shipping companies, and other commercial bodies. In the list of gentlemen who expressed their intention to support the objects of the meeting were the following members of the medical profession, in addition to those above named: Dr. Fletcher Beach, Dr. Harry Campell, Mr. A. B. Day (Master of the Apothecaries' Society), Mr. W. McAdam Eccles, Mr. Pearce Gould, Dr. Charles F. Harford, Dr. Robert Jones, Dr. T. N. Kelynack, Dr. A. E. T. Longhurst, Mr. Vickerman H. Rutherford, Dr. T. Claye Shaw, Dr. E. Claude Taylor, Dr. A. J. Whiting, Dr. H. W. Williams, and Professor G. Sims Woodhead.

Mr. BENN said that the abolition of alcoholic drink in the asylums under the administration of the London County Council had largely promoted the percentage of discharges from those places. Some people thought that Parliament could do a great deal in this matter; but without a strong public opinion and personal example the law would not have very much effect. He put the temperance cause at the very top of our social reforms.

Sir VICTOR HORSLEY remarked that there was no other thing which was not an essential to life upon which so much money was spent as alcohol. The medical profession held that alcohol was one of the greatest evils to the nation, and he suggested to them that it was a far greater evil than the medical profession had considered it to be. The late Chancellor of the Exchequer, speaking in the House of Commons, said that alcohol was the commonest cause of poverty and crime. The time had surely come for London to review the situation from the commercial or economic standpoint. From that standpoint he submitted that they had no moral right to support the continued use of a thing which, on the whole, was a source of loss and not of profit to the nation at large.

Dr. HYSLOP referred to the growing percentage of inefficients, and stated that 1 in 288 were in asylums, 1 in 40 incapable of supporting themselves, and 1 in 20 incapable of adding to the vital energies and efficiency of the race. Under the present conditions of life in towns and cities people had to use their brains more and more and their bodies less and less. If people to-day were to drink as their forefathers did, most of them would soon find themselves in the wards of an asylum.

Mr. BLACKWELL and Mr. ALDERMAN and Sheriff VEZEY STRONG also spoke of the advantage of abstinence from alcoholic drinks.

Lord LYTTON, in moving a vote of thanks to the Lord Mayor, said that in summoning that Conference and presiding over it he had done a great service to the cause of temperance.

BEQUESTS TO MEDICAL CHARITIES.—Under the will of the late Mr. James Patterson Traill, of Hampstead, the following bequests to medical charities are directed to be paid upon the death or marriage of his widow: £1,000 to the London Hospital; £500 to each of the following—the East London Hospital for Children, Great Ormond Street Hospital for Sick Children, City of London Hospital for Diseases of the Chest, North-Eastern Hospital for Children, Great Northern Central, Middlesex, Royal Free, Guy's, Westminster, Brompton, and Cancer Hospitals, and the Royal Hospital for Incurables; £250 each to the Poplar Hospital for Accidents, National Hospital for the Paralysed and Epileptic, Hampstead General Hospital, Charing Cross, London Ophthalmic and City of London Orthopaedic Hospitals and the Dental Hospital, Leicester Square.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Professor Fournier on Syphilitic General Paralysis: Report of Special Commission to Select a Site for a Hospital for Incurable Tuberculous Patients from Paris.

Professor Fournier, at the last two meetings of the Académie de Médecine, made a very important communication on the subject of syphilitic general paralysis, his conclusions being drawn from 112 cases in his private practice, in all of which the dates of the primary chancre and of the cerebral affection could be accurately determined. The following is an abstract of the paper.

I. *When does General Paralysis make its Appearance in the Course of the Syphilitic Affection?*—It is unknown during the first two years, and is very rare before the sixth year. It is commonest from the sixth to the twelfth year, the maximum in Professor Fournier's cases being in the tenth year; it then decreases progressively. The exact percentage is as follows:

From third to sixth year	3·5
From sixth to twelfth year...	65·4
From thirteenth to twentieth year ...	28·5
Over twentieth year	2·6

Thus in the great majority of cases it is a manifestation of the middle tertiary period. Cerebral syphilis, beginning with hemiplegia, shows a very different incidence, for in 223 cases seen by Professor Fournier it made its appearance from the very first year of infection, attaining its maximum in the third year, while two-thirds of the total number of cases were furnished during the first five years of the disease.

II. *Etiology.*—A nearly constant factor was insufficiency of antisyphilitic treatment. In only 15 cases were there any predisposing or accessory causes—that is, in 8 cases nervous strain or excitement, business anxieties, sorrow, or other moral causes; 5 cases, alcoholism; 3 cases, great venereal excesses; 2 cases only had well-marked nervous heredity. A remarkable point is that general paralysis occurred almost exclusively in cases of syphilis which initially were of a mild type. Out of 82 cases which Professor Fournier was able to follow from the commencement of the infection, in 79 cases the disease was of a mild type. He is of opinion that tertiary syphilis is in a way the ransom demanded for an insufficient treatment of the disease, a treatment sufficient certainly to keep the symptoms mild in the secondary period, but insufficient to prevent the tertiary discharge. The mild cases attract but slight attention from the patient, while the patient who has bad symptoms from the first treats himself energetically. From 79 observations in which Professor Fournier possessed all the exact details as to treatment followed, he found that the percentage was as follows:

5 per cent. occurred when syphilis had been treated for a prolonged period (three to four years).

15 per cent. were consecutive to syphilis with an average mean treatment, certainly insufficient, of eighteen months to two years.

80 per cent. in patients who had had but short treatment, under one year in duration.

Thus, in only five of the cases did general paralysis follow on syphilis which had been given a thoroughly serious treatment. This is both consoling and sad; consoling, because if syphilis is well treated, there will be but few cases of general paralysis; sad, because after lengthy and correct antisyphilitic treatment mercury is not absolutely certain to prevent subsequent general paralysis. When general paralysis has made its appearance mercurial treatment is an absolute failure.

III. *Indications for Prevention of General Paralysis by Series of Mercurial Treatment at later Intervals.*—The only guarantee a syphilitic patient has against an eventual general paralysis is methodical mercurial treatment over a long period; potassium iodide having but little preventive action, the mercury should predominate. The average duration of the treatment is actually about four years. After due consideration of the above statistics, he is of opinion that probably a stronger preventive against general paralysis would be to spread out this treatment over a greater length of time, as in the following scheme:

1. To start with, intensive treatment by vigorous mercurial courses during the first two years of the infection, with periods of rest between.

2. Then stop all treatment for two years; and approximately at the beginning of the fifth year start a second course of mercury of one year's duration.

3. Then stop all treatment for a few years, and give a third course of mercury during the seventh or eighth year of the infection.

Professor Fournier gives his reasons for the above plans of treatment, for, as he says, the older he grows in the dual society of syphilis and mercury, the more is he convinced that it is with mercury as with vaccine. It is preventive but provisionally, and the patient must be remercurialized to be protected from subsequent assaults of his syphilis. A good proof of this is the clinical fact that if a woman affected with recent syphilis becomes pregnant is properly treated she gives birth at term to a living child, which continues to live and at least appears exempt for syphilis. If she then stops treatment, and again becomes pregnant, she aborts or else gives birth to a syphilitic infant who generally dies. She again treats herself and her third pregnancy produces a healthy offspring. The influence of mercury is so powerful on the product of conception, and this influence disappears so rapidly that Professor Fournier would willingly guarantee, were not the experiment immoral, to make a syphilitic woman alternately give birth to healthy and syphilitic children, according to whether he did or did not give antisyphilitic treatment. The chimpanzees of M. Metchnikoff may one day prove the truth of this. Professor Fournier advises the fifth and seventh or eighth years of the infection for his second and third periods of mercurial treatment from the fact, as shown in the above statistics, that general paralysis, which is a manifestation of middle tertiary symptoms, begins to make its appearance during the sixth year, and that it is in full swing from the sixth to the twelfth year, with a maximum of cases in the tenth year.

IV. *Preventive Hygienic Measures: Antinervous Therapeutics: Extraordinary Predominance of Nervous Complications in the Tertiary Period.*—The mercurial treatment must be assisted by other measures, judged from the state of the nervous system of the patient, who should avoid overwork and excesses in alcohol and of the table, emotions in business or at play. A calm regular life, if possible in the country, or in any case frequent rest cures are indicated. Bromides are useful, but hydrotheraputics, with cold or warm water douches, have an important tonic effect on the nervous system, and may be started at the same time as the specific treatment and kept up for many years. The nervous system is the usual victim of syphilis, and is subject to the gravest and largest number of dangers. From a total of 5,749 tertiary affections seen in 4,400 patients, Professor Fournier found no less than 1,857 cases affecting the brain, the spinal cord, or the nerves, that is, about one nervous out of three tertiary affections. After the skin, the brain is the organ most frequently affected by syphilis, and the same statistics show that the total of syphilitic or parasyphilitic nervous affections exceeds by hundreds the total of syphilides which are commonly considered the most usual tertiary sign.

In November last the Director of the Assistance Publique asked the Académie de Médecine to advise him as to the best site for the erection of a hospital for incurable tuberculous patients, giving the choice of three sites—Bondy, Ivry, and Vaucresson—in the suburbs. A special commission, composed of Professor Brouardel (Chairman), Drs. Chauffard, Josias, Netter, Roux, Vallin, with Professor Landouzy as reporter, has just handed in its report. The interests of the whole population of Paris are bound up with the erection, as quickly as possible, of a large, healthy, and comfortable establishment to house chronic tuberculous patients. The hospital wards which are meant for acute and curable diseases are overcrowded with these cases, and the need of such a home for these incurables is imperative, both from the humanitarian point of view and as a prophylactic measure. The new hospital will be rather a home for the incurable than a sanatorium, and will not require all the special features of a sanatorium. The special commission, after visiting the three sites, and taking into consideration the geological conditions, water supply, and facility of access, so that the patients may not be cut off from the visits of their relatives, unanimously decided in favour of the site at Ivry, which is easy of access from the Orleans Railway Station by two sets of tramways and by the river steamers. The new hospital will be close to the existing hospital for incurables, and for administrative purposes this offers many advantages. Water is easily obtainable from the city supply. On this site a hospital could be built containing 1,120 beds, separated in five pavilions, at the same cost as one of 700 beds at Vaucresson. The report of the commission was unanimously adopted.

VIENNA.

Statistics of Vienna.—A New Medical Society.—The Workmen's Act from a Medical Point of View.

SOME remarkable figures have been published in the Statistical Yearbook of the City of Vienna for 1903. The population on December 31st, 1903, numbered exactly 1,718,000, and the average increase was estimated at 2.1 per cent., giving an expected total of 1,754,000, or an increase of 36,000, for 1904. The main reason for the increase is the excess of births over deaths, not the influx of countryfolk, as in London, Paris, and New York. Amongst each 10,000 of inhabitants there were 337 births as against 208 deaths, or a net increase of 129. Immigration brought into Vienna only 12,060 persons. The death-rate was almost 20 per cent., and chiefly due to tuberculosis in its different forms, this malady accounting for fully 13 per cent. of all deaths (4,500 out of a total of 32,300). Compared with the statistics of other capitals with populations over a million, this is fairly good, although only St. Petersburg, New York, and Constantinople show higher figures. Typhoid fever, enteric, and catarrhal and infectious diseases of the bowels are markedly lower than—for instance—in Berlin and London or Paris. The high standard of the water supply in Vienna—the water, which comes a distance of 90 miles, is derived from springs and enormous snowfields in the Alps—is chiefly responsible for this very satisfactory condition. Only two cases of small-pox were recorded. Both were imported from abroad, and both proved fatal.

The first meeting of a new medical society took place on December 15th, 1904, when 178 practitioners of the smaller towns and villages of Lower Austria met to discuss the possibility of inducing the Government to pay them for their services on a more liberal scale. On the shoulders of these practitioners rests the bulk of all sanitary work in the country: they have to see to the proper working of the Compulsory Vaccination Act; they have to notify epidemics to the proper authorities, and they have to provide medical help for the poor of the parish. The remuneration is hardly worth speaking of, the fees amounting in the large majority of cases to hardly more than £25 or £30 a year. The meeting passed resolutions asking that all country practitioners holding Government or county appointments shall be entitled: (1) To a pension of 100 per cent. of their salary after thirty years' service, of 75 per cent. after twenty-five years, and 60 per cent. after twenty years. Permanent disablement or illness to count five years more. (2) To four weeks' holiday every year without loss of salary, and without paying for a *locum tenens*. (3) Free post-graduate courses at the University of Vienna after ten years' service. (4) The election of a member from their body as a member of the Central Board of Hygiene. (5) Free lodging or an equivalent. (6) Provision for their widows and orphans by the Government. These demands are not likely to be granted at present, but it is fairly certain that part of them must be conceded, and the remainder will follow in a few years.

Some of the regulations of the Workmen's Act submitted to the House of Parliament have an interest for the medical profession. Thus the old-age pensions, paid partly out of Government grants, partly by the employers, will be very useful for the prevention of poverty and its consequences. The employment of labourers with lung disease is forbidden in dust-producing industries, and a medical examination must be made regularly every half year. Night work amongst tailors, especially female, is made an offence, unless it be proved that eight hours are allowed for rest afterwards. There are clauses relating to miners which provide for cleanliness and the regulation of overtime. The regular employment of boys under 14 years in manual labour is forbidden. These regulations will, if passed, apply only to Austria, Hungary already having a special law dealing with such matters. The conditions in that country are not entirely satisfactory.

MANCHESTER.

Crossley Sanatorium.—Municipal Authorities and School Restaurants.—Housing Reform in Towns.—Provident Dispensaries.—Case Under Workmen's Compensation Act.—Port Sanitary Authority.—Death of Dr. Cornelius O'Doherty.

THE Crossley Sanatorium, erected in Delamere Forest through the munificence of Mr. W. J. Crossley, will be ready to receive patients by the end of this month. An endowment fund of £100,000 for maintenance is needed, and up to the present time only £56,293 have been received in donations and subscriptions.

The Independent Labour Party has requested the Manchester and Salford Corporation to take immediate steps to establish permanent school restaurants in connexion with the elementary schools of the city and borough, in which meals shall be supplied at a minimum charge, and to supply free meals when necessary. The requests have been referred to the respective Education Committees for report.

Mr. T. C. Horsfall, who is an acknowledged authority in connexion with municipal sanitation, in addressing a conference on housing reform in towns held at York, urged that if any great improvement in housing reform was to be effected, it must be effected in directions which would apply to all towns, and not only in isolated cases. The first necessity was to discover what was wrong, and the result of the inquiry should be made known and pressed on the attention of the educated classes. The municipal authorities must be forced to use the powers they already possessed. It was not the rates which should be looked to as a means of defraying the expense of making towns more wholesome. As in Germany and America, the land should be rated on its selling value. Continuous inspection of houses of the working classes, powers for the preparation of building plans, and a long tenure of office for some capable man, who would elaborate and carry out a policy of housing reform, were also advocated.

The Manchester and Salford Provident Dispensaries Association at the end of 1904 had 16,324 paying members, as against 18,620 at the close of the previous year. Of the nine branch dispensaries, eight had incomes in excess of their expenditure, but there was a net deficit of £63. Investigations made into the circumstances of applicants for medical relief at various hospitals had shown that the percentage ineligible for gratuitous relief was 4.51, as compared with 42.32 in 1875, when the Association was founded.

At the Salford County Court Judge Parry tried a workmen's compensation case of unusual interest. The action was brought by the widow and children of a man who met with an accident on February 7th, 1903, in the course of his employment as a mill sawyer. The deceased met with a serious injury to the right eye and a slight injury to the left eye, and ultimately became blind. A few months before his death his mind became affected, and he subsequently died in November last from "softening of the brain." The point at issue was whether death resulted from the injury. In the judge's view it was a case that came within the provisions of the Act, and he decided in favour of the applicant, assessing the damages at a little over £200, but gave leave to appeal.

The Manchester Port Sanitary Authority inspected 188 vessels during the month of February, and defects were found on 92 of them. One case of small-pox was discovered in a vessel in the Ship Canal, and this necessitated the revaccination of the crew of 52, 11 passengers, 3 Custom House officers, together with the pilot and his assistant.

Dr. Cornelius O'Doherty died on March 4th, after a very short illness, and thus a very well-known figure disappears from Manchester. He settled in the city some twenty years ago, and soon became not only a busy practitioner, but threw himself into active municipal life. For ten years he was a member of the Chorlton Board of Guardians, and for long acted as its Vice-Chairman. He sat for eight years as a representative of St. Luke's Ward on the Manchester City Council. He was a member of several of the most important Council Committees, to which he rendered excellent service. He was a genial, kindly, and very popular man, whose loss will be much felt by many people.

LIVERPOOL.

The Stanley Hospital: Annual Meeting: Growth of the Institution: The Need of Improved Quarters for the Residents.—The Banks Memorial: Infirmary Out-patient Department.

THE annual meeting of the Stanley Hospital was held in the Town Hall on March 3rd, the Lord Mayor presiding over a numerous attendance. The report stated that a valuable extension of the out-patient department, consisting of a surgeons' consulting room, dressing rooms, operating theatre, and recovery rooms, had, by the generosity of an anonymous donor been added to the institution. During the year the hospital had, for the first time in its history, been opened to its fullest extent, a considerable amount of bed space having remained unused for twenty years owing to want of funds.

Much was still needed. A steam laundry was required and new kitchens were an absolute necessity; 1,361 persons were treated in the hospital during the year, and the number of persons attending the out-patient department was 17,989. The Stanley Hospital was founded thirty-eight years ago by two medical men and for a long time was carried on almost solely by the efforts of the founders and their friends. By steady perseverance on the part of the staff and a few others the confidence of the public in the work done by the institution was secured and a strong Committee was formed. It is matter for regret that there is no proposal in the report to improve the accommodation of the resident medical officers which is lamentably deficient. Three residents share a sitting-room which was only intended for two, and it is impossible for them to obtain the privacy necessary for study.

The subscriptions promised to the fund for creating a memorial to the late Sir William Banks amount to nearly £5,500, and it is hoped that they will reach the sum of £7,000. The memorial is one which will not only perpetuate the name of a distinguished surgeon but will also add materially to the usefulness of the University of Liverpool and of the Royal Infirmary. In the first place, £1,500 is to be set aside to found a Mitchell Banks Memorial Lectureship, and under this scheme every year one of the most distinguished physicians or surgeons of the day will lecture in Liverpool on the latest discoveries in medical science. The second part of the scheme is to provide a fund for a new out-patient department at the Royal Infirmary. The need for the latter is pressing, the accommodation provided, when the infirmary was built nearly fifteen years ago, being inadequate for present requirements.

SOUTH WALES.

Swansea Hospital Finances.—Cardiff Infirmary.—Health of Llandaff.—Rhymney Urban District Council.—Cardiff's New Mortuary.—Glamorgan Education and Sanitary Committees.

At a meeting of the works governors of the Swansea Hospital Principal Salmon explained the financial position of that institution which had led to a proposal to close the Studt Ward. An adverse balance of £1,077 in June had increased to £2,335 at the present moment. The Chairman congratulated the works on the support they gave, but he pointed out that if each working man subscribed a penny a week the revenue would be sufficient to support five hospitals. It was agreed that no wards ought to be closed, and a resolution was passed inviting all works to contribute a penny a man.

The annual meeting of the governors of the Cardiff Infirmary was held on February 28th. Mr. J. B. Ferrier, in moving the adoption of the annual report and statement of accounts, pointed out that the real deficiency was £8,394; the expenditure had increased from £8,000 to £13,000 a year. A vote of thanks was accorded to the Chairman and Board of Management. Major-General Lee, in responding, said that the institution dealt with 1,444 more out-patients and 255 more in-patients last year than the year before, and the cost had actually been reduced by 12s. a-head, which spoke well for the management. Colonel Bruce Vaughan proposed, and the Mayor seconded, a vote of thanks to the working men and the colliers of the district and their representatives for their contributions. He said that in Cardiff the workmen individually subscribed more than the colliers, but the latter sent in a larger sum in the aggregate. The workmen's representatives on the Board of Management had rendered invaluable work. A high tribute was paid to the Secretary for his devotion and zeal.

Dr. R. Pritchard, Medical Officer of Health to the Llandaff and Dinas Powis Rural District Council, in his annual report, states that the births registered in the district during 1904 numbered 740, equivalent to an annual rate of 29.91 per 1,000, while the deaths totalled 342, or 13.82 per 1,000. The infantile mortality was 114 per 1,000 births. These rates compare favourably with those for rural England and Wales.

At a meeting of the Rhymney Urban District Council the medical officer of health reported that sickness generally had been very heavy, especially in the upper district and the outlying parts. Owing to an outbreak of measles at Princetown, it was decided, on the recommendation of the medical officer of health, to close the Rhymney Bridge Schools for a fortnight.

The new mortuary and *post-mortem* room built by the Cardiff Corporation in Trade Street, Penarth Road, is now ready for use. The mortuary is divided into two sections, one being large enough for seven bodies; the other, in which three bodies can be placed, is so arranged that jurymen and persons who attend to identify corpses can do so through a plate-glass window. The *post-mortem* room is fitted with Doulton's revolving table and all appliances for washing, etc. Adjoining is a room for medical men. The whole of the building, the cost of which was £1,500, is lighted with electricity.

At a meeting of the Elementary Teachers Work and Salaries Subcommittee of the Education Committee of the Glamorgan County Council held at the County Offices on March 2nd, the question of the introduction of a scheme of instruction in temperance and laws of health was discussed, and a report submitted by the Director of Education and the county medical officer. A temperance instruction scheme embodying some of the following points was adopted:

I. In the lower standards teachers should endeavour to arouse in their pupils an abhorrence of all intoxicants by occasionally calling attention to the evil thereof, and to the palpable advantages of sobriety. II. In the upper standards, the Scripture lesson on the last Friday in each month should be substituted by a lesson on temperance, including thrift and hygiene as far as they relate to this subject. A series of lessons to be drawn up to include—the nature and method of preparation of alcohol; the drinks that contain alcohol; construction of the human body, its principal organs, and the food and drink it needs; effects of alcohol on the human body, to be illustrated by diagrams; testimony of eminent medical men (Sir William Gull, etc.): poverty as the result of intemperance, etc. The use of temperance readers in the upper standards is recommended.

It was recommended that the temperance lecturers of the United Kingdom Band of Hope Union should be given facilities for delivering lectures in the schools of the county. At the Sanitary Committee meeting of the Glamorgan County Council several matters of importance—such as the provision of isolation hospital accommodation for some districts up to the present without any, the administration of the Midwives Act, and other matters of importance were discussed. A report was submitted by the County Medical Officer on a proposed trunk sewerage scheme for the Afan Valley. This is much needed, and when carried out will doubtless put an end to the pollution by sewage of the river which has been going on for some time. Some insanitary houses at Pontardawe were reported upon, and it was resolved that if no action were taken by the Rural Council the matter be dealt with by the County Council. It was recommended to call the attention of the Swansea District Council to the want of accommodation for small-pox cases in their district. Some remarks that were made about the sewerage scheme now approaching completion at Dinas Powis created considerable discussion, but no resolution was passed.

CORRESPONDENCE.

THE CORONERS ACT AND HOSPITAL SURGEONS.

Sir,—The letter from Mr. Schroder, the able and courteous Honorary Secretary of the Coroners Society, is not conclusive, and I note that as a proof of this he suggests a test action. To show that my contention is founded upon a legal opinion I beg to quote from a work on the *Law Relating to the Payment of Coroners*, written by a well-known barrister-at-law, Mr. Herbert, of the Inner Temple, McMahon Law Scholar, author of the *Law of Prescription*. He writes:

It is further provided, however, that where a patient dies in hospital and an inquest is held in the hospital no fee shall be claimed by the medical witness. It appears further that it was the practice of certain coroners, at any rate in London, to hold such inquests in the hospital, but that that practice has now been changed and the inquests in such cases held elsewhere. And a doubt has been expressed by the doctors who went from the hospital to give evidence in such cases as to whether they were entitled to claim their fee. There can be no doubt that the fee is payable.

You will see by this that I did not "speak without my book." As this question involves the whole profession more or less in England, Wales, and Ireland, it becomes a matter of collective defence, and would be an excellent one for the British Medical Association, with its "large funds," to take up. It is true that should the proposed amendment to the Coroners Act lately drafted by the Medico-Legal Committee of the Association become law, the grievous wrong which the profession has suffered for so many years in this respect would be no longer in existence, but whether we shall be fortunate enough to secure the desired legislation in Parliament is another story. It is easier to draft Bills than to get them passed, and the old legal maxim that "every injury has its remedy" is more theoretical than practical.

In the meantime, until this question has been settled let

every medical man called from his hospital to give evidence in respect of an inquest held upon the body of a patient, in a place apart from the hospital, claim and obtain at least his "expenses."—I am, etc.,

London, W., March 7th. A. G. Bateman.

THE TREATMENT OF INCIPIENT INSANITY.

Sir,—In the address delivered by Sir John Batty Tuke to the Neurological Society there is much with which all must agree, yet there are statements to which exception may be taken; for instance, he implies, though he does not distinctly say so, that what for brevity I may call the toxaemic theory is quite a thing of yesterday, never heard of until the last few years. Yet here is a passage from a book published in 1884:

> The symptoms and morbid anatomy show that the disease consists in a morbid state of the blood.[1]

The name "toxaemia" was not invented, but the fact seems to be there.

Again, the statement that the first step towards lunacy reform is a considerable increase in the number of commissioners is open to doubt; especially as he informs us himself in the same paper that in the framing of the present Lunacy Act the Medical Commissioner was not even consulted, which is a fact one can well believe, judging from the amount of needless work thrown on the commissioner.

That there is a need for an increase in the number of commissioners is no doubt true, and I hope that when it comes the licensed houses will be represented on the Board, for we are doing some part of the work of treatment, and are not so represented at present.—I am, etc.,

Shrewsbury, March 7th. E. H. O. Sankey.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

Sir,—As Dr. Staveley Dick claims, his experience undoubtedly coincides with that of a very large number of practitioners. The sanatorium physician and the out-patient physician are not, in the very nature of things, in a position to judge of the natural history of phthisis in its habitat—the "homes of the people." We general practitioners get to know our people "body and soul."

Dr. Dick has gained his experience in a large city. My experience is complementary, having been gained during three years' practice in a small country town in an agricultural district. My casebooks show 54 cases of tuberculous disease, of which 50 were pulmonary phthisis. In such a small community as this it has been possible for me to keep in touch with all the cases. In these three years I have signed four death certificates of persons infected with tubercle, two of long-standing bone disease—one died of pneumonia, the other of lardaceous disease—the remaining two were a cirrhotic and a diabetic; not one single case of uncomplicated pulmonary phthisis. I know that two have died away from here, but one—an elderly man—had kidney trouble in addition. There were 21 cases in the age-period 40 to 70. Five of these cases were by their histories of over twenty years' standing. A sixth was an old hip-disease case of forty years' history. Others had started ten years or more previously. Thirty cases occurred in the 20 to 40 age-period; only one has died of uncomplicated phthisis; with a single exception—a servant maid—all are at work. Four are cases of pulpy disease of bone without lung affection. I have included these non-phthisical cases, as the sanatorium treatment is so widely lauded for them.

If general practitioners had the time or energy to go thoroughly into the histories and to examine the chests of most of their patients, they would be astonished at the extraordinary prevalence of tuberculosis. Dr. McCall writes "that two-thirds are doing well of those suffering from a disease generally considered fatal is to my mind no bad record." The record is not confined to sanatoriums. A wider experience in the habitat of the disease would, I think, teach Dr. McCall that it is erroneous to consider that the disease is "generally fatal." The death-rate in the British Isles is 1.4 per mille for tuberculous diseases. It is obvious that if my practice represents the general experience—and the conditions here are in no way exceptional—quite a small proportion of my cases will appear under these headings in the Registrar's returns in the next few years unless the tuberculous death-rate makes a great upward leap. I do not wish to maintain that any large proportion of the 50 cases of phthisis are "cured," but a much larger proportion than two-thirds are leading useful lives. It would be as easy to stem the tide with a mop as to hope to cope with the vast armies of consumptives in these islands by means of sanatoriums. I agree with Dr. Dick that under fairly favourable conditions—at times under very unfavourable—the great majority of consumptives "get along well." The patients do seem to acquire a resistance to the bacilli, and when this resistance breaks down from time to time, it is as a rule rapidly restored by a little care and administration of a petroleum emulsion containing the hypophosphites.

In conclusion, I suggest that the severity of type has become modified, as has occurred in most other endemic microbic diseases, but that the proportion of the population infected by tuberculosis is insufficiently appreciated by our profession.—I am, etc.,

Buckingham, March 6th. Vaughan Pendred, M.D., F.R.C.S.

[1] *Lectures on Mental Disease*, Sankey.

Sir,—May I express entire agreement with Dr. Staveley Dick's letter of February 27th, or rather with his opinion that "individual resisting power . . . is beyond all comparison the most important factor in the arrest of this disease"? If the possibility of infection by strains of bacilli of varying virulence be left out of consideration (and, after all, the two sets of conditions have an identical clinical significance) the axiom just quoted seems to me to be an important generalization of the course of pulmonary tuberculous processes in all their varieties, from the common case only detected *post mortem* by the discovery of scars, to the clinical "galloping consumption." It affords, indeed, the thousandth illustration of the old proverb that "breed is stronger than pasture." Before discounting open-air treatment, however, as fully as at first sight these considerations seems to warrant, there is perhaps the probability to be first considered that, of the infinite range of resistances just noticed, sanatorium cases occupy most commonly the lower degrees. For

1. Some amount (perhaps considerable, if physical signs continue absent and sputum analysis negative) of symptomatic and tonic treatment generally precedes a patient's admission, sufficient, it may be, to cure a high resistant, for the man who is rich enough or has friends rich and benevolent enough to enable him to take a holiday for open-air treatment, can generally secure a little rest when he is ailing.

2. Lay reluctance to enter a sanatorium is more likely to be overcome by obstinacy of the disease and persistence of grave symptoms.

Cases illustrative of the second point I have observed while staying recently at three sanatoriums.

These institutions may be also commended, somewhat fancifully perhaps, on the grounds that even genius, in the shape of high-resistance, is not altogether independent of the aid of improved general health, regulated exercise, and relatively aseptic air—factors which may turn the scale in the case of struggling talent, and certainly alleviate, if they do no more for, disability. At all events, such conceptions rise very readily in the mind of an observer in a sanatorium. For such as have not this opportunity, and in particular for lay authorities, I agree with Dr. Dick that the fullest possible statistical evidence is desirable. For the profession, what is seen dimly at present from the clinical point of view may become quite evident in the light shed by bacteriological advance. It is to be hoped that an easy means of testing individual resistance to tubercle by Wright's or other methods may soon come as widely into use as sputum analysis.

Let me conclude by diluting overmuch theory with the quotation of a case, the early stages of which, though the resistance observed is not so high, may corroborate Dr. Dick's very instructive series; the later, which I have closely observed, give evidence, which of course gets rarer as time goes on, of recovery from pulmonary tubercle under old and new methods of treatment. I have been able to get a trustworthy history:

> F. P., youth, aged 18, had night sweats, cough; tubercle bacilli in spit soon after beginning city life. Treatment: Fortnight at seaside, cod liver oil, etc. Recovery immediate and permanent after resumption of former life. Four and a half years later, after depressing conditions, had cough, dry pleurisy, tubercle bacilli in spit. Treatment Sea voyage, tonics, etc. Recovery, but all expectoration did not cease for a year; subsequently passed life assurance. Five and a half years from end of second attack, again after depressing conditions, had cough dry pleurisy, fairly plentiful tubercle bacilli; moist sounds at apex, 3 in. below clavicle; says he was "worse than the other times". entered sanatorium, and did better than any patient of his time; at present (three months' treatment) he has no physical signs, and only a trace of expectoration.

It seems doubtful whether this patient, even with his good

resistance, would have recovered so readily outside a sanatorium.—I am, etc.,

March 7th. W. C. RIVERS, R.A.M.C.

AN INQUIRY BUREAU.

SIR,—I venture to draw attention to a need which it seems to me the resources of the British Medical Association could easily meet. It is the establishment of a bureau in connexion with its London office, at which inquiries could be made on all subjects connected with medical knowledge.

The enormous progress which medicine, in common with all other sciences, is making, renders it increasingly difficult for any one, however encyclopaedic his reading, to keep pace with the advance even in limited sections of it.

If a busy practitioner can afford to purchase the numerous works which are constantly appearing on only the leading branches of medicine he cannot find time to consult them. Hence the need for an organized co-ordination of knowledge, which shall do for him in this respect what he cannot do for himself.

Take a concrete illustration. I want at the present moment information on a special point connected with the subject of leprosy, upon which I do not know how conveniently and expeditiously to put my hand. I might write to the BRITISH MEDICAL JOURNAL and feel certain that, with your usual courtesy, you would give my query a place in the inquiry column. But even to get my query into the JOURNAL involves the loss of some time; to get an answer would involve more; and after waiting for a fortnight or three weeks I might get none at all. Not because there is no answer forthcoming to it, but because the man or men who could answer my question do not happen to have seen it.

Now what happens to me in this way must also happen to scores, hundreds, perhaps to thousands of my medical brethren. We are constantly wanting information upon some point or other of a professional kind with which we could be, in most cases, easily provided if there were any organized centre for the collection, classification, and distribution of medical knowledge. A competent director, a small clerical staff, an office and the means of access to all the new literature of the day through the great professional libraries, and the whole machinery would be complete. It need not entail any serious charge on the funds of the Association, possibly no charge at all; for by charging a small fee, say sixpence for each inquiry the Bureau might probably be made self-supporting. Could not such a bureau be combined with the library of the Association?

Commending this proposal to all those members of the Association whom it may concern—and they must be legion—I am, etc.,

Gloucester, March 1st. FRANCIS T. BOND, M.D.

PROPOSED ACADEMY OF MEDICINE IN LONDON.

SIR,—I have read with interest the article on "The Union of Medical Societies in London" appearing in the BRITISH MEDICAL JOURNAL of March 4th, and feel sure that the majority of the profession in London is in full agreement with the opinions therein expressed. For some years I have thought that what is required is the establishment of an academy of medicine in London, for which I trust the prefix royal could be obtained.

In this academy the various societies could be grouped in sections dealing with the different branches of medicine, surgery, and obstetrics. The members of the societies would become *ipso facto* members of the Academy of Medicine, but the Fellowship of the Academy should be conferred as a mark of distinction on those members who were, in the opinion of the executive, worthy of that honour. Further, by amalgamating the funds of the different societies it might be possible to acquire additional property in Hanover Square, and so increase the library and other accommodation.

It has always seemed to me that this proposal would be less hurtful to the older societies, who might with dignity acquiesce in such a change whilst objecting to be incorporated in another "society" as has been suggested.

I hope, however, an opportunity may arise for discussing this proposal at the meeting of the representatives of the various societies.—I am, etc.,

F. J. MCCANN, M.D., F.R.C.S., M.R.C.P.

London, W., March 5th.

HOSPITAL ABUSE.

SIR,—A patient of mine told me last week that he was going into Bart's. As he lives some 200 miles from London, and has good specialist advice (it is an eye case) within easy reach, and a good infirmary, if need be, as well, I was surprised to hear his statement, and asked, Why? He said he had received a recommend from his uncle, who lives in London, and is a tradesman, and who thought that his nephew would be better there. As I was unaware that Bart's used recommends, I asked to see it, and found it was one of the usual green surgery papers which the house-surgeons and dressers of that hospital use. It had been initialled in blank by the ophthalmic house-surgeon, and filled in—as evidenced by the uneducated writing—by the patient's friends, with his name and an order to admit on a certain day. It came to this, then: the ophthalmic house-surgeon had given a blank admission paper to a patient's friends for a case about which he knew nothing either as to the professional or financial position of the patient. As they could pay their return fares to London at a total cost of £4 2s. 6d. alone, it is evident that they could have gone to our nearest town, and paid £2 2s. for expert advice, or have even had our local eye man to the house—a course which I had already offered them, and which they had declined.

I cannot call this anything but a gross case of hospital abuse, and I think most general practitioners will agree. I will say nothing about the grave breach of professional etiquette on the part of the ophthalmic house-surgeon.—I am, etc.,

Winterton, via Doncaster, Jan. 30th. T. SANDERS WORBOYS.

DR. SCHAUDINN'S WORK ON BLOOD PARASITES.

SIR,—Having read at the last meeting of the Epidemiological Society, under the title of The Relationship of the Parasitic Protozoa to Each Other and to Disease, a paper which was largely concerned with the recent work of Schaudinn, may I be permitted to offer a few remarks with regard to the investigations of that distinguished observer, and to the account given of them in the current number of the BRITISH MEDICAL JOURNAL?

In the first place, the account you give of Schaudinn's work, whilst in the main accurate, contains certain minor errors, such, for example, as the rendering of *Eidechse* (lizard) by "squirrel," and the statement that the immature red corpuscle is "exceptionally" the host of the spirochaete-trypanosome, whereas the author means "exclusively" (*ausschliesslich*). More important is the fact that, owing doubtless to the effort at condensation, your contributor fails to convey a clear idea of Schaudinn's views as to the phylogenesis of the haemosporidia. He derives existing forms from a primal type of Flagellate with two equal and similar flagella, one "anterior," the other "posterior." These in the course of development become unequal, as in "Trypanoplasma," the trypanosome of the red-eye (fish) described by Laveran and Mesnil. Ultimately one flagellum becomes completely atrophied, *but not always the same one.*

The extremity by which the parasite attaches itself to the host-cell, and by which it becomes agglutinated with its fellows is morphologically "anterior." In the case of Trypanosoma (Halteridium) noctuae the parasite adheres and coheres with its flagellated extremity, and the persistent flagellum is therefore the *anterior* one. In Trypanosoma (Spirochaete) ziemanni it is the non-flagellated extremity which adheres and coheres, and the persistent flagellum is therefore the *posterior* one. The trypanosomes of the mammalia become agglutinated by their non-flagellated ends, and stand, therefore, closer, morphologically, to the spirochaete.

My remaining remarks have reference to the difficulties which oppose themselves to a complete acceptance of Schaudinn's attractive theories. At the very outset one is confronted by the fact that he ascribes sexuality to ookinets which are themselves the immediate products of the fusion of the sex-elements, and might therefore by analogy be expected to give rise first to a number of asexual generations before again exhibiting sexual differentiation. Another difficulty is that his views which, most assuredly, by reason of their startling character, need confirmation, have failed to find it at the hands of the two American observers, Novy and MacNeal, who were the first to cultivate trypanosomes on artificial media, and are therefore entitled to speak with authority on the subject. They find that trypanosomes often coexist with intracellular parasites (cytozoa) in the blood of birds. They have cultivated several sorts of these bird trypanosomes, and have injected them into birds and produced trypansome infection, but never cytozoa. On the other hand, birds' blood may be rich in intracorpuscular parasites and yet contain no trypano-

gomes. Furthermore, they have always found the Halteridium parasite (which they term Haemoproteus) incapable of being transmitted from one bird to another by direct inoculation of infected blood. In this they are in agreement with Koch, but in sharp conflict with Schaudinn, who expressly states that inoculation was successful in his hands, and apparently in those of others also, as he adds the words "*was ja schon lange bekannt ist.*" For the reference to this important paper of Novy and MacNeal[1] I desire to express my indebtedness to Sir Patrick Manson. Until their results have been carefully and fully compared with those of Schaudinn, it will be well to keep an open mind on this fascinating question of parasitology.—I am, etc.,

E. J. McWeeney,
Professor of Pathology, C. U. Med. School, Dublin.

Dublin, March 1st.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL MEN AND THE DISPENSING OF MEDICINES CONTAINING POISONS.

We have received several letters from correspondents respecting the answer given in the medico-ethical column of the British Medical Journal, December 24th, 1904, p. 1730. They express surprise at the opinion there expressed and quote long personal experience against it. One wishes to know how long the Act referred to has been the law of the land? Another asks whether "we are all contravening the Act and laying ourselves open to grave penalties, or is the Act practically dead and to be ignored with impunity?" "Ajax" asks whether it is really incumbent on a general practitioner dispensing his own medicines or having them dispensed in his own surgery by a qualified dispenser, to place his name and address upon medicines so dispensed for patients under his care? Secondly, to what poisons does the Pharmacy Act refer when it directs that this shall be done?

The answer to the first question is thirty-six years. (The Pharmacy Act of 1868, 31, 32 Vict., cap. 121, and an Act to Amend the Pharmacy Act of 1868, 32, 33 Vict., cap. 117.)

The answer to the second question is that in 1902 a medical practitioner was fined at Miltown-Malbay £5 in each of three cases for selling a poison without the package bearing the name and address of the seller. "Ajax" will note that it is only medicines containing poisons to which the Act refers: the reply to his second question is to be found in the scheduled list of poisons within the meaning of the Act which may be found printed in the Calendar of the Pharmaceutical Society. Section xvii of the Pharmacy Act makes it illegal to sell any poison unless labelled with the name and address of the seller, and illegal to sell any poison in the first part of Schedule A of the Act to any person unknown to the seller unless introduced by some person known to the seller, while every sale must be entered in a book kept for the purpose; the penalties are £5 for the first offence and £10 for the second or subsequent offences: the responsibility is placed upon the employer and not upon the apprentice or servant actually selling the poison. This Section is modified in the Act to Amend the Pharmacy Act, 1868, by the following words in Section iii: "Nothing contained in Section xvii of the said recited Act shall apply to any medicines supplied by a legally-qualified medical practitioner to his patient or dispensed by any person registered under the said Act, *provided such medicine be distinctly labelled with the name and address of the seller, and the ingredients thereof be entered with the name of the person to whom it is sold or delivered, in a book to be kept by the seller for that purpose.*" This is the only exempting clause in favour of medical practitioners who dispense medicines.

We would point out that this question appears to have arisen because the terms of the Pharmacy Act are not generally known to the medical profession. We were asked to condemn the practice of placing the name and address of the practitioner dispersing medicines upon his labels. While considering that this practice in ordinary dispensing ought to be condemned, we feel bound to draw attention to the fact that certain cases must be excepted in which a strict interpretation of the law appears to require it. The question might be brought before the Divisions or raised by a Division at the next Representative Meeting, or the advice of the Medico-Political Committee might be asked as to the best course to take and the probability of obtaining any modification of the law.

A SOLICITOR'S VIEWS ON CHARITABLE MEDICAL EVIDENCE.

A correspondence has been forwarded to us which shows that while, as medical men are well aware, most solicitors value highly, and are quite prepared to pay fairly for, expert medical evidence, there are legal firms in existence in dealing with whom medical men have to be on their guard. It appears that at one of our metropolitan hospitals a case had been treated which subsequently formed the basis of an action for damages. The solicitor for the plaintiff, not content with the evidence of one of the resident staff, desired to secure also that of one of the visiting physicians as a medical expert, and agreed with him that for the fee of 5 guineas, over and above the guinea paid with his subpoena, he was to hold himself ready at any time on one of four successive days to attend court and give evidence in the case. After four days the case was settled out of court, the plaintiff getting £150 and costs. The firm of solicitors then, apparently oblivious of their arrangement with the medical expert, sent him a cheque for 3 guineas; this, they said, with the guinea paid with his subpoena, made the 4 guineas allowed by the Taxing Master for his fees, and they asked the medical expert to accept this fee and return them the receipt, to be shown to the Taxing Master. This he did to save the trouble of objecting, though it was 2 guineas less than the sum agreed upon, but two days later he had another letter from the solicitors, saying they regretted to find they had made a mistake in sending 3 guineas, as that was the total amount allowed by the Taxing Master, and asking for the return of the guinea paid with the subpoena. This was very properly refused, and thereupon the solicitor wrote that as hospitals are charitable institutions for the poor, he could not understand why their help in accident cases should not be extended beyond curing the body to curing the financial loss by giving the necessary medical help in a court of law. To this it was aptly replied that it would be just as logical to ask the legal profession occasionally to do some of their work for nothing. While making all due allowance for the irritated letter of a baffled solicitor, we cannot think his suggestion is one that would seriously commend itself to any portion of his own profession, except that which is known to habitually undertake speculative actions, while we feel quite sure that the medical profession as a whole would decidedly object to this proposed enlargement of the unwritten contract between hospital staffs and their patients. One moral stands out clear from this case: that where the firm of solicitors is not known to a medical expert, he will do wisely to insist on the payment of the agreed fee before consenting to give evidence.

[1] Abstract in *American Medicine*, vol. viii, No. 22, pp. 932-34, November 26th, 1904.

PATIENT'S CHOICE OF MEDICAL ATTENDANT.

J. R.—If C. may reasonably expect that A. will reciprocate and do him an equally good turn in the future, he may regard himself as A.'s substitute, and hand over the case; but as he was not actually asked to attend by A., he is not under any absolute obligation to do so.

A Correspondent writes objecting to the opinion expressed under this same heading on February 25th, p. 454. He considers that it does not go far enough, and that C. is bound to consider himself as A.'s substitute, and to hand over to A. at least half the fees. The reason he gives for this is the desirability of men being induced to help one another, and the reciprocal advantages of being able to rely upon one another for these kindly offices during absence. Another correspondent, writing under the name of "Golden Rule," also objects to the opinion. He thinks that the words used, "C. should suggest to the patient that he should retire," are not strong enough, and that C. should simply say that he was withdrawing and would fully explain the case to A. He suggests that C. might otherwise take advantage of the patient's courteous reply to continue the case to A.'s detriment. He further suggests the formulation of the absolute rule that when a practitioner is ill or absent from home, and a patient wishes to have a medical man of his own choice rather than the officiating friend or *locum tenens*, the practitioner so selected should, on the return of the attendant-in-ordinary, resign the case to the latter, or only continue in attendance in consultation with him.

*** We entirely agree as to the desirability of practitioners taking this view of the position, but it seems to us more applicable to practice in small places than in large towns. In small places the local practitioners are necessarily dependent upon one another; they are personally known to one another, and they are more or less acquainted with all the people whom they may have to attend, either as their own patients or as another practitioner's; but in large towns this is not so, and the same reciprocal advantages cannot be looked for quite in the same way. We pointed out that C. should offer to retire in favour of A., and if he may expect that A. will reciprocate it is obviously to his advantage to do so, but we hesitate to express a more absolute opinion regardless of circumstances.

CORONERS AND DEATHS IN LUNATIC ASYLUMS.

Enquirer asks: Is it customary for a coroner to send a constable to examine in the mortuary the bodies of dead insane persons, male and female, for injuries, etc. And this after a written report on a prescribed form filled in by a medical man who has himself made the examination?

*** In every case of death occurring in a lunatic asylum the authorities are required by law to forward a report of the same to the coroner to which is added remarks of the medical officer in answer to questions on a printed form. Upon receipt of this document it is within the province of the coroner to make any further inquiries he may think necessary, to satisfy himself as to the necessity or otherwise of holding an inquest; and it is policy on the part of the authorities and medical attendants to afford him every facility for so doing, even to the viewing of the body by himself or his appointed officer. The action of the coroner in desiring to verify reports he may receive previous to his decision as to the holding of an inquest should not be considered as suggesting doubts as to the veracity or correctness of reports made to him, but that they are made in the best interests of the institution and the public, and sometimes after interview with the relatives of the deceased.

VALUE OF SHARE.

A Correspondent asks: What are the usual terms for the purchase of a partnership in an old-established practice, based on the gross average receipts of three years—say £1,650?

*** Such a partnership should be worth about two years' purchase, but circumstances might easily be imagined which would lower or possible increase its value.

A SURGERY AT A PUBLIC-HOUSE.

Biceps writes: A., living at a village X., is parish doctor for a village K. some miles away. He holds a surgery in the public-house of village K., where he sees patients at a certain hour and puts up medicine for those he visits in the neighbourhood. Would the General Medical Council or the Local Government Board object to patients, patients or otherwise, being forced to call at the public-house for their medicine and advice?

*** It is obviously a most undesirable arrangement, and if complaint were made the Local Government Board would be very likely to interfere, but we do not think the General Medical Council would consider such a matter as coming within its jurisdiction.

THE ETHICS OF CONSULTATION.

ENDROIT.—A medical man called in consultation by another practitioner is ethically forbidden to take the case over to treat it alone. Such a case should be referred to the Ethical Committee of the local Branch of the British Medical Association.

ANAESTHETISTS' FEES.

DR. H. RAINSFORD (Billinghay) writes: "O. T.'s" experience (BRITISH MEDICAL JOURNAL, March 4th, 1905, p. 515) must be unusual. I always receive my fee before leaving the patient's house in such cases and, of course, when I call in a neighbour as consultant or anaesthetist always see that he gets his fee at the time. If fee is not forthcoming it is alluded to at the time and some arrangement made. Could not "O. T." sue the patients?

PEET *V.* LITHGOW.

DR. MAJOR GREENWOOD (Barrister-at-Law, Member of Central Council of London and Counties Medical Protection Society) writes: In your remarks on Peet *v.* Lithgow in the BRITISH MEDICAL JOURNAL of February 11th, 1905, p. 336, you say that you concur in the verdict. As the case was decided in due course of law, we must all properly bow to the decision, but as a member of the Council of the Medical Society that defended Dr. Lithgow—and in so doing I am only echoing the unanimous opinion of that body—I must express my dissent from your view, and I further think that had you heard the summing-up of Mr. Justice Phillimore, who tried the case, you would have worded your criticism somewhat differently. The following are extracts from his summing-up: "I am not upon the question of etiquette for the moment, but do you not think if Dr. Peet had been in a reasonably humble frame of mind he would have said this: 'It looks to me as if the old man ought to have his urine drawn off. It is not a case of Dr. Lithgow not coming or not troubling. Why has he not come? Is it because he is so lazy that he did not care to bring his catheter, or is it that he and I are not at one about the matter?' Is not this what an ordinary man not over-possessed would say: 'Had I not better see Dr. Lithgow first; the old man cannot be so bad, because I took his water away, and had I not better communicate with Dr. Lithgow now that I know he is in charge? Yesterday I heard that he was not in charge, but now I know he is in charge; therefore had I not better *communicate with him and see what his opinion is*?' Now, just as you have two commanders in the field, one man acts one day, and one man acts the next day, each without regard to the other; so if you have two doctors in charge of one patient, neither acting with regard to the other, and one man applies his remedy one day and the other applies his remedy the next day, so surely will the patient die. What I am asking you to consider is whether it was not an act of extreme imprudence, in the interests of the old man, on the part of Dr. Peet to do that which he ought to have supposed Dr. Lithgow had been doing."

DEATH FROM PUERPERAL FEVER.

AN inquest was held at Yarmouth on February 27th on the body of Ethel May Garner, who died on February 13th. The cause of her death had been certified by Dr. R. Rendall, of the same town, to be as follows: Primary, influenza chill; secondary, exhaustion, syncope. Duration of disease, fourteen days. Owing, however, to circumstances which came to his knowledge, the Coroner ordered the body to be exhumed in order that a *post-mortem* examination might be held.

The evidence given at the inquiry, as reported in the *Yarmouth Independent* of March 4th, was to the following effect:

The deceased, a strong young woman of 21 years of age, was confined on February 8th. Previous to that date she had had a bad cold, but had not stopped in bed. She was attended during her confinement by a midwife, Mrs. George, a woman of 72, who arrived at the house for the first time about 9.30 a.m. and made a brief examination. Dr. Rendall came about 11.30 a.m., this being his first attendance, and having made a short examination, went away again for about twenty minutes. He then returned and completed the delivery soon after 12 o'clock the same morning. No instrument was used by either of them. It was noticed by a witness present that the midwife had a "cot" or whitlow on her finger. Nothing abnormal was noticed for the rest of the day, but the morning afterwards the patient had a rigor, and complained of headache and pains in the back. Two days later vomiting set in, together with insomnia, and soon after midnight on the fourth day (February 12th), the patient died.

Dr. RENDALL said that he had "prescribed the usual remedies," but they did not stop the vomiting and only slightly abated the headache. He came to the conclusion that the case was serious, but not hopeless, the second day after the confinement, and warned the friends. It was, he admitted, unusual for a young woman to die a few days after her first confinement, but it did not strike him as necessary to call in a further opinion. He had the usual book of death certificate forms, but did not know that it was directed therein that when the death of a woman took place within a month of her confinement the occurrence of the latter must be mentioned, even if it appeared to be unconnected with the death. The certificate which he had given represented his opinion as to the cause of death at the time that it was given, and the persistent vomiting did not suggest anything else to him. He had been present at the *post-mortem* examination, and agreed now that the death was due to puerperal septicaemia. He had noticed that the midwife had a suppurating whitlow on her left hand, but not until the fourth day after the delivery. If he had noticed this earlier he would not have allowed her to attend the deceased. He had used antiseptic precautions at the confinement. The abdominal pain of which complaint was made he had ascribed to the vomiting.

Dr. S. H. LONG, of Norwich, who conducted the *post-mortem* examination, stated that the abdomen contained pus and lymph; the cause of death was septic peritonitis; there was a laceration which might have been due to natural causes; there was no other lesion which he could associate with the cause of death: a suppurating whitlow on the hand of an attendant would cause danger of blood poisoning to the patient. He had confirmed his opinion by microscopic and bacterioscopic examination.

Dr. BLAKE, of Yarmouth, stated that he had assisted at the necropsy and had formed the same opinion as Dr. Long regarding the cause of death. A rising temperature after confinement was one of the first signs of septicaemic peritonitis, and vomiting was also a symptom.

Mrs. GEORGE said she had been attending confinements for forty years. What she had on her finger was only a prick, and not a whitlow. Before touching the deceased she washed her hands in Condy's fluid as usual. She had attended a woman who died on January 28th of puerperal fever, and after that Dr. Beach, the Medical Officer of Health, sent for her and gave her some papers about the Midwives Act, but she did not admit that he had specifically ordered her not to attend other confinements. She did not think it was risky to attend the second case; she had fumigated the things which she was wearing when she attended the woman who first died of puerperal fever.

Dr. BEACH said that when he received notification of the death of the deceased he received notice also of the death of a child of the same name, and consequently went to make inquiries. He found there the midwife, Mrs. George. After the first death he had sent for her, and believed that he had specifically warned her not to attend any case for at least a month. In the face, however, of her sworn denial, he was not prepared to say positively that he had done so. He had asked her to register as a midwife, but understood her to say that as she was 72 she did not intend to practise any more. As a result of his inquiries he thought it his duty to call the Coroner's attention to the case.

The jury, after a short consultation, brought in a verdict of death from puerperal septicaemia, the source of which they were unable to determine. Dr. Beach had acted wisely in reporting what he learned to the Coroner.

The CORONER, in terminating the proceedings, warned the midwife that she must be more careful in the future, and added remarks upon the desirability of all women who attended confinements being qualified midwives and registered under the Act, which the jury adopted as a rider. Finally, upon the suggestion of Dr. Beach, he ordered Mrs. George not to attend another confinement for at least a month.

CAVEAT EMPTOR.

AN action recently tried before Mr. Justice Lawrance and a special jury illustrates the extreme need there is for circumspection in purchasing a practice. According to a report published in the *Western Morning News* of February 7th and 8th, the plaintiff, Mr. Ellis Pearson, F.R.C.S.Edin., sued Dr. Alexander Lane, M.D.Durh., F.R.C.S., for damages for fraud in connexion with the sale of a practice. The learned Judge, in summing up, said the question the jury had to decide was whether there was a substantial business carried on by defendant, or was that business built up simply and solely for the purpose of making a good appearance on a rotten foundation for the purpose of selling it? The jury found that the business was built up for sale and assessed damages at £200. It was stated that the plaintiff employed neither a solicitor nor an accountant when buying the practice, which he understood was worth £800 a year, and for which he was asked to pay £1,000. He seems to have received the usual introduction, but after he was left to carry on the practice the patients fell off and it only brought him in about £185 a year. The contention of the plaintiff was that the defendant had swollen his apparent receipts by making a large number of unnecessary visits and by charging excessive fees in many instances to people totally unable to pay them. It was stated that bills had been sent out for £400, of which only £5 had been paid. Dr. Lane had an *x* ray apparatus, and it was said that he applied it to a fifth or sixth of his patients, and charged special fees, which Mr. Pearson did not feel justified in doing.

Although the Judge did not regard them as relevant—and therefore it seems a pity they were introduced—the most unpleasant feature of the case was the serious imputations made by the plaintiff against the defendant in the course of his evidence. We cannot express any opinion as to whether the charges were founded or not, but there is no rule or standard by which to determine whether a given number of visits is excessive, or what can be regarded as reasonable charges for special treatment, nor when we consider how little is known of the applicability and value of the *x*-ray treatment is it possible without undue dogmatism to assert at present what are its limitations, and to define as rigidly as one has to define in a court of law the extent to which its use may be regarded as legitimate, and where the abuse of it begins. We know too well that all novel means of treatment are liable to be abused, and we have all heard charges made from time to time against this man or that of performing an excessive number of operations for which it is quite possible there may have been some foundation, but it would be a very difficult matter to prove. It may be that there are individuals who do abuse the trust the public necessarily reposes in us, but we should be careful not to afford ground for a distrust that would be harmful alike to the public and the profession, by imputing to any medical man a want of good faith in the application of a particular kind of treatment. In the opinion of the jury, the plaintiff established his case that the defendant had cooked up a practice for sale.

OBITUARY.

IT was with very keen regret that the news of the untimely death of Dr. JOHN M'CLATCHEY was received. Dr. M'Clatchey studied in the Queen's College, Belfast, and for several years was a distinguished teacher in mathematics and natural philosophy; he was a Sullivan Scholar of the College and an Honourman of the Royal University in Ireland. Turning to medicine, he attended the Royal Victoria Hospital at Belfast, and took the degrees of M.B., B.Ch., and B.A.O. in the Royal University in 1903. Subsequently he gained experience as an assistant an in asylum work in England. He started practice last October in Dunmurry, became Honorary Anaesthetist to the Queen Street Hospital, and was already rapidly gaining ground when most unfortunately he contracted influenza. Pneumonia supervened on February 27th, and he passed away on March 5th. Dr. M'Clatchey was a man of the finest and most lovable character; optimistic, ever ready to help another, cheery, strictly honourable, never heard to say an ill word about another, with common sense and high ability; he was more than liked by his contemporaries, and most highly

thought of by his seniors. His was a personality that it was good to know, and a large circle of junior medical men feel deeply the loss. Much sympathy is felt with his mother and family.

Lieutenant-Colonel Edward Denham Tomlinson, M.D., late of the Royal Army Medical Corps and the York and Lancaster Regiment, died at Folkestone on February 17th, in his 69th year. He entered the service as Assistant Surgeon, January 19th, 1860; became Surgeon-Major, April 1st, 1873; and retired with the honorary rank of Brigade Surgeon, July 7th, 1880. He served in the New Zealand war in 1860-6, and was present at the capture of the redoubt at Katikara, and of the pahs at Manutihi, Mataitawa, Te Arei, Waikoukow, and Warea, at the action of Poutoko, and the ambuscades at Tapuai and Waran (medal). After his retirement he held a half-pay appointment at Beverley for some six years. Later on he interested himself in the work of the St. John Ambulance Association, lecturing and examining on its behalf as long as his health lasted. The funeral took place on February 22nd.

Deputy-Surgeon-General William Perry, late Royal Artillery, died at Hereford, on February 21st, in his 80th year. He was appointed Assistant Surgeon October 23rd, 1849; Surgeon, July 20th, 1855; Surgeon-Major, September 13th, 1869; and Honorary Deputy-Surgeon-General on retirement, October 15th, 1876. He served with the Royal Artillery throughout the Eastern campaign of 1854-5, including the battles of Alma and Inkerman, the siege and fall of Sebastopol, and the sortie of October 26th, 1854. He had received the Crimean medal with three clasps, the Sardinian and Turkish medals, and the 5th class of the order of the Medjidie.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Alberti, Director of the Hospital of St. Joseph at Potsdam, well known as a surgeon and gynaecologist, aged 56; Dr. A. Rezzonico, a leading practitioner of Milan, and President of the Medical Mutual Aid Society of Lombardy; Staff-Surgeon Major Mally, Austro-Hungarian Delegate in the International Sanitary Council and physician to the Austro-Hungarian Embassy, Constantinople; Dr. Frederic Quintin, Honorary President of the Belgian Medical Federation; and Professor Bastian, Director of the Berlin Museum of Ethnology, originally a naval surgeon, and author of works on the Peoples of Furthest Asia, the civilized peoples of ancient America, Buddhism, etc., founder and editor of the *Review of Ethnology*, aged 78.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SANITARY CONDITION OF CUBA.

We have received from Senor Luis M. Garzon y Duany, the Consul attached to the Cuban Legation in London, an extract from the last annual report of Mr. Frank Steinheart, United States Consul-General at Havana, which was published by the American Department of Commerce and Labour on January 5th. The report states that the extremely healthful condition of Cuba is due largely to the efforts of the chief sanitary officer for the island, Dr. Carlos J. Finlay, and his able corps of assistants, and of the maritime sanitary service under the charge of Dr. Hugo Roberts and to the constant vigilance of the department of immigration, under charge of Dr. Frank Menocal. The last two departments are enabled to inform the superior Board of Health of the island of the approach of danger along the Cuban coast, or the development of an infectious disease imported from foreign ports while an immigrant is still at the detention camp or quarantine station. The more important causes of death during the past year have been tuberculosis, diseases of the circulatory system, enteritis (under two years), bronchitis and pneumonia, tetanus, meningitis, and malaria. Not a single case of yellow fever has developed on the island during the past year or the two preceding years, nor, with a single exception has there been any small-pox. Malaria, too, has lost the prominent place formerly occupied among the causes of death, and is evidence of the constant and thorough prosecution of sanitary work. The annual death-rate per 1,000 inhabitants is 16·37. The cleanliness inculcated and enforced during the period of military intervention is faithfully adhered to, and street brooms and disinfection spray pumps have attacked the enemy and paralyzed his activity. Educated Cubans have become convinced that by proper sanitation alone, rigorously and intelligently enforced, the island can be made as safe to inhabit as any part of our own country, and in that knowledge lies the assurance that their weight of influence and means will be thrown into the scale for good government and the continued enforcement of sanitary measures.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

The Royal Commission on the Care of the Feeble-minded resumed its sittings on Monday last, March 6th, when Dr. James Craufurd Dunlop, of Edinburgh, who has been appointed an additional member, took his seat for the first time.

Evidence was given by Mr. C. E. Troup, Under-Secretary at the Home Office, as to the law respecting criminal lunatics. He thought that juries ought to have some other course open to them besides those of finding a prisoner simply guilty, and finding him insane upon the ground that he did not know the nature of the act he was committing, or did not know that he was doing wrong. If a criminal adjudged by the jury to be insane were sentenced to a definite term of imprisonment he passed out of control upon its termination. Otherwise he might be detained indefinitely or discharged conditionally.

Mr. Shadwell, a Commissioner in Lunacy, also gave evidence. There was, he said, a tendency, which he regretted, to remove harmless lunatics from workhouses to asylums. Anybody could receive a single patient without a licence or subsequent inspection, but in each case a Reception Order was necessary, and this could only be granted by a judge of the High Court or magistrate, and after due inquiry.

The Commission then adjourned.

VACCINATION IN GLOUCESTERSHIRE.

It is curious to note how greatly the prevalence of infantile vaccination varies in nearly-adjoining districts. In Gloucestershire, the county town is notoriously neglectful of its duty in the matter, but the last report of the Local Government Board showed that in some neighbouring unions, such as Cirencester and Thornbury, the Vaccination Acts were being well administered. Cirencester is evidently maintaining its reputation in this respect. At a recent meeting of the Board of Guardians the vaccination returns for the year 1903 and for the first half of 1904 were submitted. In the latter period, of 247 cases that came under the notice of the vaccination officers, only 4 were unaccounted for, and in the calendar year 1904 there were received 444 certificates of successful primary vaccination, and only 5 cases were unaccounted for. The number of persons applying for exemption certificates appears to be very small. If the Vaccination Acts were as well administered elsewhere throughout the country as they are in Cirencester, the juvenile population would be very much better protected against small-pox than it can possibly be in presence of so much neglect of a preventive measure so simple and safe as vaccination.

VACCINATION AND SMALL-POX.

Shra.—We are not aware of any "records" of shortest intervals. To the third question the answer is in the affirmative. The Reports of the Royal Commission on Vaccination give many statistics, from which the general conclusions as to averages are as follows:

"3. That the protection it affords against attacks of the disease is greatest during the years immediately succeeding the operation of vaccination. It is impossible to fix with precision the length of this period of highest protection. Though not in all cases the same, if a period is to be fixed, it might, we think, fairly be said to cover in general a period of nine or ten years.

"4. That after the lapse of the period of highest protective potency, the efficacy of vaccination to protect against attack rapidly diminishes, but that it is still considerable in the next quinquennium, and possibly never altogether ceases.

"5. That its power to modify the character of the disease is also greatest in the period in which its power to protect from attack is greatest, but that its power thus to modify the disease does not diminish as rapidly as its protective influence against attacks, and its efficacy during the later periods of life to modify the disease is still very considerable."

ROYAL NAVY AND ARMY MEDICAL SERVICES.

REVISED RATES OF PAY FOR THE ARMY MEDICAL SERVICE IN INDIA.

Calcutta, February 17th.—The following revised rates of pay are notified as made applicable to appointments indicated to take effect from April 1st last, namely:

To Lieutenant-Colonels holding appointments of Principal Medical Officer of a field force or of Derajat Brigade, Rs. 1,600 monthly consolidated. To Secretary to Principal Medical Officer, His Majesty's Forces, India, or to Principal Medical Officer of a field force of two or more divisions, pay of rank plus Staff pay, Rs. 500 monthly. To Personal Assistant to Principal Medical Officer of a Command, pay of rank plus Rs. 150 Staff pay. To Surgeon to Commander-in Chief or Staff Surgeon Army Headquarters, pay of rank plus Rs. 350 Staff pay. Staff-Surgeon at Bangalore, pay of rank plus Rs. 200 Staff pay. Staff-Surgeon at Poona, pay of rank plus Rs. 380 Staff pay. Principal Medical Officer of Army General Hospital of 500 beds, Rs. 1,600 monthly consolidated. Officer in medical charge of a General Hospital of less than 500 beds, pay of rank plus Rs. 400 Staff pay. Officer of Royal Army Medical Corps in medical charge of a Field Hospital as a whole, pay of rank plus Rs. 400 Staff pay. Medical Storekeeper, pay of rank plus Rs. 400 Staff pay for Captain, or Rs. 500 Staff pay if above Captain's rank. Surgeon Naturalist of Marine Survey, pay of rank plus Rs. 200 Staff pay. Medical Officer, Lawrence Asylum, Sanawar, Rs. 450 for Lieutenant, rising after ten years' service as Captain to Rs. 650 monthly. Staff Surgeon, Secunderabad, pay as for medical charge of a native corps. Substantive charge of a Remount Dépôt, pay as for medical charge of a native corps.

A note adds that the pay of rank for Army Medical Corps officer is the same as for Indian Medical Service officers of similar rank, also that any present incumbent who would be a loser under the revised scale will continue to receive existing rates of pay.

HOSPITAL AND DISPENSARY MANAGEMENT.

A LIBEL ON HOSPITALS.

THE medical profession has serious ground of complaint against the cheap press. The halfpenny newspapers derive a large portion of their income from the advertisements of patent medicines; they are accustomed to enliven their columns by sensational accounts of the performances of quacks within and without the profession, and by very unacceptable and injudicious paragraphs about the character and work of the most honoured and honourable amongst us. If a complaint is made against a hospital, it is used as a sensational headline before any inquiry into the facts has been made, and the medical profession and all that belongs to it are prostituted in the most unscrupulous manner to the purposes of cheap journalism. The latest example of this abuse is an article in the March number of the new *Grand Magazine*, entitled Under the X Rays: Hospitals, Their Use and Abuse. It purports to be written by a medical practitioner, but we should be sorry to believe that a member of the profession could be capable of penning such a slander against its institutions. Like all malignant lies, it contains a certain amount of truth, but depends for its effect upon exaggerations and misstatements, of which we will proceed to give a few examples. The writer says:

> In every hospital recognized by the Medical Council as a place of instruction for students the treatment of the patients is entirely subordinated to the instruction of these students.

We may pass by the fact that it is not part of the work of the General Medical Council to recognize hospitals, merely noting this as an indication of the little knowledge or thought the writer brings to his task; but the charge is untrue. Teachers in medical schools recognize that the welfare of the patients is the real object with which hospitals are founded, and uphold the rule that any opportunity given to students for examining patients must depend on their condition and must be kept within such limits as to do no harm.

In the next sentence it is said:

> If a woman objects to being stripped for the casual inspection of two or three youths she is forthwith ordered to leave.

This passage teems with false suggestions. We have never heard of a patient being ordered to leave the hospital for such a reason; but why does the writer use the word "stripped" unless to suggest that the patient is stripped of all her clothes, and why does he speak of "casual" inspection? Surely "careful" would be a more appropriate term if the patient is examined before a class; but the expression indicates the animus of the writer. There can be no doubt that a charge of improper exposure is intended, for further on he says:

> In the wards it is no uncommon thing to see the visiting physician or surgeon pull down the bedclothes and examine a woman entirely naked merely for the purposes of demonstration; I have myself seen this done some hundreds of times.

We do not know where the writer gained his experience, but with a considerable knowledge of what goes on in hospitals we emphatically affirm that we have never seen such a thing done, and we believe that such a practice is entirely repugnant to the sentiments of English physicians and surgeons. For the purposes of examination portions of the clothing must be removed, but undue and indecent exposure is as much disapproved in hospitals as it is outside.

The writer proceeds to make a comparatively trivial complaint, although it is one of considerable importance to the patients, namely, the length of time out-patients are often kept waiting at hospitals. He states that this is due not to the pressure of numbers, but to the carelessness and indifference of the staff, or in order that the patients may be used for teaching purposes, and he complains that a man who asks to be allowed to go because he will lose his pay or his job is "requested to hold his tongue or go somewhere else." The poisonous suggestion in this passage is not that there is a considerable amount of inevitable waiting for out-patients, but that it is caused by carelessness and aggravated by rudeness. No one can assert that there may not be occasional sufferers from either of these faults on the part of some individual on duty in a hospital, for what institution could guarantee itself to be free from such occasional defects? It is, however, grossly unfair to represent that this is the ordinary method in which hospital out-patients are treated. The writer then repeats the hardly consistent accusation that the delay is due to the patients being used for teaching purposes.

> Nearly the whole of the time spent by the wretched patients in waiting is used by the physicians and surgeons in instructing the students or enunciating their own remarkable theories.

The absurdity of this charge is refuted by the number of patients seen by the out-patient staff at our hospitals, which shows how little time can be wasted in unnecessary examination and talk.

He next seeks to horrify his readers with a story of a patient suffering from malignant gastric disease who had her stomach distended with carbonic acid gas merely to satisfy the curiosity of one of the students, a proceeding which he says while "extremely painful had the stomach been healthy, must be much more so in a stomach which was the seat of cancer." It is not fair to suggest that this was done by the visiting physician to satisfy the "curiosity" of a student, as the proceeding is a proper and regular method of examination. It is not painful at all as a rule, and might be used with propriety in certain forms of cancer of the stomach. He then asks:

> Is it fair or just or even reasonable that a dying woman should be subjected to an exceedingly painful if not dangerous experiment merely to drive some information into the thick head of a callous student?

We would ask in turn, is it "fair or just or even reasonable" to imply that such a method of examination was used upon a woman known to be dying, or to describe the proceeding as "exceedingly painful if not dangerous," or to speak of the student as "callous" and having "a thick head?" Such expressions prove the writer's prejudice and disentitle his accusations to be regarded seriously. He proposes as remedies for these alleged evils that it should be necessary to obtain the permission of every woman before examining her in the presence of students, and that the out-patient staff should be required to devote the whole of the time set aside for seeing patients to that work alone.

In order to justify this, he makes the further statement, which he might easily have ascertained to be untrue, that "as a matter of fact these appointments are worth some hundreds of pounds a year to the holders, so that the 'gratuitous service' is not quite so self-denying as it sounds."

We have exposed the mendacities of this writer sufficiently to justify our complaint. It is much to be regretted that an English publishing firm of respectable standing should allow these statements to be scattered broadcast to the public through the pages of its magazine. That such practices as the writer describes, if they existed even here and there, would be defended by the medical profession or by the hospital authorities is inconceivable, and to represent them as being not only tolerated but as the ordinary and regular proceedings, countenanced and approved by the staffs and Boards of hospitals, is a libel upon hospital administration which deserves to be characterized by a stronger term.

THE CONTROL OF HOSPITAL EXPENDITURE WITH EFFICIENCY.

DR. D. J. MACKINTOSH (Medical Superintendent of the Glasgow Western Infirmary) delivered an address on the control of hospital expenditure with efficiency before the Hospitals Association on March 3rd, at a meeting held in the hall of Charing Cross Hospital. The chair was taken by Mr. T. BRYANT.

Dr. MACKINTOSH said the suggestions he had to make for the control of hospital expenditure were the outcome of personal experience. He began by explaining that though some persons considered that the comparison per occupied bed between hospitals was illusory, nevertheless the occupied bed calculated on the basis of the total ordinary expenditure had always been regarded as on the whole the most practical and fair standard of comparison. The cost per bed ranged in hospitals with medical schools from £50 5s. in Dundee to £142 15s. in St. George's Hospital, London. It was important to account for so great a difference. He contended that in order to control hospital expenditure effectively it was necessary that the whole work of superintending the various departments should be focussed in the hands of a single administrator. He showed by quoting details of expenditure how far a combination of detailed knowledge with effective superintendence had proved practicable in his experience. He then criticized some remarks of Mr Sydney Holland, reported in the *Standard* of January 19th, referring to the feeding of patients in Scottish hospitals on porridge, and denied that such patients were badly fed or starved. In discussing the question of surgical dressings, he maintained that no hospital should be satisfied with merely weekly returns. He stated how in the wards of

each of the surgeons in the Western Infirmary of Glasgow a system had been adopted which was not only an effectual check on waste, but a valuable and easy means of comparison of the amount of dressings used from day to day, week to week, or month to month. He doubted very much whether the detection of unusual expenditure under the heading of surgical dressings was possible to a lay superintendent. On the contrary, it was only a man who had himself been a resident medical officer and knew by experience what surgical dressing implied who could suggest economies, that were practical and did not sacrifice efficiency, in the junior medical and nursing staff who had the immediate charge of the dressings. It ought not to be taken for granted that a medically-trained man was necessarily devoid of administrative capacity, nor ought it to be assumed that in order to effect economy he would interfere with the treatment of the surgical patients in the wards. There was no interference with the methods of the surgeons, and he asserted that any demand whatsoever for dressings that came direct from the surgeon in charge was immediately responded to without comment or criticism. He believed that a layman in charge under such circumstances would be obliged either to interfere ignorantly or not to interfere at all; in the first place he would not have the practical knowledge required, and in the second place it was not probable that he would be listened to by the junior members of the staff with the same respect as a qualified member of their own profession. Considering the question of the control of hospital expenditure as a whole, Dr. Mackintosh maintained that it all turned upon the central supervision of all details. The minutiae of hospital superintendence should be concentrated in the resident administrator, and that official must have the good sense to secure willing and loyal co-operation. He should be able to utilize the advantages of the varied knowledge and experience of the members of his Hospital Board who were connected with large business concerns. Economy in purchase by means of such expert advice was, however, only one aspect of the problem, and he contended that economy in use was probably of even greater importance. The secretarial and the administrative work were distinct; the administrator must be at the hospital and the secretary should be, as he was in Scotland, in the middle of the business quarters of the cities, where he would be in constant touch with business men in every department of commerce and manufacture.

Mr. Conrad Thies (Secretary of the Royal Free Hospital) suggested that there was some difficulty in comparing the cost of the different hospitals, inasmuch as in some the patients provided their own tea, sugar, and butter, whilst in others everything was provided for them. He also alluded to the increase in the rates and taxes.

The Hon. Sydney Holland urged that the best way to secure efficiency in hospital management was to employ a lay superintendent, and he concluded his remarks by contending that the success that had attended the efforts of Dr. Mackintosh as medical superintendent in the Glasgow Western Infirmary was not due to the fact that he was a medical man, but had been achieved in spite of that fact.

Sir Henry Burdett placed before the meeting his views as to the advisability of a hospital being conducted by a superintendent who was a medical man, and argued that by paying first-class men with good abilities good salaries economy was effected.

The meeting then terminated with a vote of thanks to Dr. Mackintosh and to the Chairman.

KING'S COLLEGE HOSPITAL.

The sixty-sixth annual report presented to the annual court of the corporation of King's College Hospital on February 23rd stated that while the number of in-patients treated during the year showed an increase of 36 as compared with the previous year, there had been a considerable decrease in the work of the out-patient department, mainly attributable to the great changes now in progress in the neighbourhood of the hospital. The committee regarded this decrease as a striking justification of the policy of removing the hospital to a position where it would be surrounded by thousands of the poorest classes, at present denied easy access to any hospital; that there was no diminution in the number of in-patients was due to the fact that a number of cases came from a distance. In order to prevent the abuse of the out-patient department a lady almoner, Miss M. H. Lloyd Davies, had been appointed from January 1st, 1905.

The Chairman, the Rev. Dr. Headlam, said that an Act of Parliament sanctioning the removal of the hospital had been obtained, plans for the new buildings were to be submitted by six architects at the end of March, and it was hoped that the selected plan would be adopted in April or May. The fund for the removal now amounted to £133,000, and efforts were being made to increase the amount.

CANCER HOSPITAL, BROMPTON.

At the fifty-fourth annual meeting of the governors of the Cancer Hospital, Fulham Road, S.W., held on February 22nd, it was reported that the average number of beds daily occupied throughout the year had been 86; there had also been under treatment 1,763 out-patients. Ordinary income proving unfortunately insufficient for current expenditure, it had been found necessary to spend £6,500 of the capital fund. A new nurses' home had been opened, and an electric lift provided by a lady who desired to remain anonymous. Arrangements were in progress, it was stated, to place every bed in telephonic communication with the Chapel and Entertainment Room. The secretary of this charity is Mr. F. W. Howell.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Permission to incept in surgery has been granted to Joseph Griffiths, M.A., of King's College

Compulsory Greek.

The Senate decided in favour of retaining compulsory Greek in the Little-go by 1,559 votes against 1,052.

Degrees.

E. H. Hankin, M.A., St. John's College, has been approved for the degree of Sc.D.

The following degrees were conferred on Thursday, March 2nd:—*Sc.D. (honoris causâ)*: E. B. Tylor, Professor of Anthropology in the University of Oxford. *M.D.*: R. H. Urwick, Trin.; G. M. MacDonald, Christ's. *M.B.*: J. S. Pearson, Trin.; R. A. Worthington, Clare.

UNIVERSITY OF LEEDS.

APPOINTMENTS.

We are glad to be able to state that Dr. Trevelyan, who filled the position of Professor of Pathology for ten years, and whose resignation was much regretted by his colleagues on the Board of the Faculty of Medicine, has been appointed Lecturer on Materia Medica and Therapeutics.

Dr. Porter, who is the Assistant Medical Officer to the City, has been appointed Demonstrator of Public Health.

Mr. J. F. Dobson has been elected Assistant Surgeon for Children to the Hospital for Women and Children, and the Public Dispensary has secured the services of Dr. Oskar C. Grüner as Honorary Pathologist.

At the Infirmary Mr. P. K. Steele succeeds Dr. Watson as Resident Medical Officer, and Mr. J. A. Coupland succeeds Mr. H. Collinson as Resident Surgical Officer.

UNIVERSITY OF ST. ANDREWS.

The Senate of St. Andrews University has resolved to confer a number of honorary degrees in March. Among the recipients of the degree of LL.D. will be Dr. George A. Gibson, Physician to the Edinburgh Royal Infirmary.

UNIVERSITY COLLEGE, CARDIFF.

The New College Buildings.—At a meeting of the Council of the University of South Wales and Monmouthshire, held on March 1st, it was resolved to ask H.R.H. the Prince of Wales, Chancellor of the University of Wales, to perform the ceremony of laying the foundation stone of the new College buildings during the approaching summer, and an Executive Committee was appointed to make the necessary arrangements in the event of the Chancellor consenting to perform the ceremony.

Plant Diseases.—The Colonial Secretary has appointed Mr. Illtydd Pole Evans to be an assistant for plant diseases in the department of Agriculture in the Transvaal. The appointment is worth £500 a year. Mr. Evans was for some years a student of the University College, Cardiff, and graduated in science in the University of Wales in 1903. Since then he has been a research student in the University of Cambridge.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The Registrar of the College has arranged that the April examination for the Membership shall commence this year on Tuesday, April 11th, instead of April 18th, which would have carried it into Easter week.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The following candidates have been approved at the examinations indicated;

Final Fellowship.—Miss A. F. M. Cornall.

First Fellowship.—J. Campbell, H. H. B. Cunningham, D. Adams, R. M. Bronte, J. D'Alton, P. G. T. Elvery, J. B. Hanaflu, F. M. Hewson, J. Molyneux, C. Sheahan, T. Sheehy, G. F. Shepherd.

D.P.H. (Conjoint Board).—Captain E. A. Bourke, R.A.M.C., P. T. Bolger, S. G. Gordon.

L.D.S.—T. Flanagan.

TRINITY COLLEGE, DUBLIN.

The following candidates were approved at the Hilary term Final Examination in Surgery: H. E. M'Credy, R. Magill, M. J. M'Auliffe, and E. C. Scroope.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PICA.

VERITAS asks for suggestions in regard to the following case: A well-educated girl of 19 has had two severe attacks of influenza: after the first, three years ago, she became highly neurasthenic, but recovered apparently completely under appropriate treatment, including travel. But since then she has been subject to periodic cravings for more or less disgusting substances. She improved somewhat until a second attack of influenza some weeks ago, since which the morbid cravings have been more imperative. After each lapse she is greatly depressed and annoyed with herself. Valerian, bromides, asafoetida, etc., have been tried without good effect.

*** The case evidently belongs to the borderland between hysteria, neurasthenia, and mental disorder. Its affinities are with such conditions as the longings of pregnancy, imperative ideas, and kleptomania, but it may occur in merely neurotic persons, especially children. The indication is in the first place to combat the neurasthenia with ample feeding, tonics, open-air life, moderate exercise, both physical and mental, and moral suasion, mental diversion and discipline. Any disorder of digestion present should be rectified. If these measures fail it would be well for her to be placed under the care of some medical man especially experienced in the management of borderland cases for a course of mental training away from home.

ANSWERS.

IGNORAMUS.—We are advised that the work referred to is worth only a few shillings. Of course for lovers of old medical books it has a value of its own which can scarcely be estimated in terms of money.

H. C. G.—The County of Surrey has not yet any special provision for idiot children (though a conjoint arrangement between certain unions for epileptics and "feeble-minded" is being organized), and the only resort for such cases is the workhouse or the County Lunatic Asylum at Brookwood. There is also the charitable "asylum for idiots" at Earlswood, admission to which is by election, particulars of which may be obtained from the Secretary, Mr. Howard, 36, King William Street, London Bridge, E.C.

PRACTICE IN LUXEMBURG.

M.B.—So far as our information goes a medical man with British qualifications only would find himself in the Grand Duchy of Luxemburg much in the same position as in Germany; in other words he would be regarded officially as an unqualified practitioner. As such he would not be subjected to any direct penalties, but would be debarred from performing any official act and from using any title equivalent to those employed to denote their status by local qualified practitioners of medicine. Our correspondent would probably be able to obtain precise information by writing to the British Envoy to the Duchy of Luxemburg, British Legation, The Hague, Netherlands.

TREATMENT OF SESSILE WARTS.

DR. PERCY NEWELL (Bexhill) writes: In reply to the inquiries of your correspondent "Warts" in the BRITISH MEDICAL JOURNAL of February 25th, I had a similar case in which the warts affected the scalp and posterior surfaces of the hands. I tried most of the remedies suggested, including salicylic acid collodion, without the least benefit to the patient. I then tried thuja occidentalis, which completely cured them in three weeks. It is necessary to obtain a reliable preparation; many are inert. I used the tincture, ordering it to be painted on each wart night and morning, and also giving it in 2 minim doses internally. Its application is painless, and I consider it to be the most useful treatment in ordinary verruca.

DR. CLARENCE I. ELLIS (Dartmouth) in answer to "Warts" writes: I have found rhus toxicodendron of use in an outbreak of warts. Another good method is to concentrate the direct rays of the sun, through a convex lens, allowing the focal rays to play on each wart until a slight burning effect is produced. Let this be done daily or on alternate days according to the effect produced.

LETTERS, NOTES, Etc.

A VACCINATION LOTTERY.

THE Alcalde of Madrid has hit upon an ingenious device for diffusing the practice of vaccination among the people. This is a lottery, tickets for which are distributed to all persons who allow themselves to be vaccinated at the municipal stations. The Alcalde himself has given £120 to the prize fund.

AN OLD EPSOMIAN'S REGISTER.

WOULD the following three gentlemen be so good as to communicate their change of address to Mr. Edred M. Corner, F.R.C.S., 37, Harley Street, for use in a register of old Epsomians coming out shortly? Dr. Cecil Owen Gray, recently of Sutton Coldfield; Dr. George Francis Longbotham, recently of Birtley; Dr. Orme Stirling James Kellett, recently of Victoria Park, N.E.

A WARNING.

MEDICUS writes: May I warn medical men against a man, looking about 50 years of age, stoutly built, of medium height, round faced, light-coloured hair and small moustache, otherwise when seen was clean shaven, and had a temporary ecchymosis of left conjunctiva; speaks with a moderate American accent; said here that he was a doctor, and explained his call as due to what he had heard of one from a far-distant medical man whom he could be sure one would know. After conversation on general topics, he winds up with a plausible tale of requiring temporary loan of a moderate sum, for an exigency of the morrow, which he loathes to seek from a pawnbroker or moneylender, but will be so grateful to receive from his medical host, and offers, if desired, to leave a valuable article with the lender as proof of his good faith, and promises to return the loan in a couple or days. Should the loan be made, repayment would fail, and the proof of "good faith" would be found of dubious value as compared with the loan.

CLINICAL METHODS OF LEUCOCYTE ENUMERATION.

DR. WILLIAM G. SAVAGE (Colchester) writes: Dr. Turton, in his interesting and valuable paper on the above subject in the BRITISH MEDICAL JOURNAL of February 25th, describes a number of methods of leucocyte enumeration, among these Stengel's methods, and in regard to the first of these he gives Stengel's rather complicated mathematical calculations. I am writing to emphasize the value of this method and its great simplicity if the formula worked out by me, and described in the *Lancet*, September 27th, 1902, p. 866, is used. All that is necessary is to draw out the eyepiece until a diameter of the field of vision is just spanned by an exact number of squares. This number is x in the formula. Count the number of leucocytes in any recorded number of fields of vision, taking care that the fields do not overlap. The number of leucocytes divided by the number of fields counted is, of course, the average number for field of vision. This number is y in the formula. Then, with the blood diluted 100 times, the number of leucocytes per c.m. $= 5{,}600{,}000\,y : x$ and y only have to be determined, an easy matter, and a very simple calculation gives the result. Such a formula is quite easy to remember, is available for any microscope, any eyepiece, etc., and for over six years I have found it most convenient in routine work.

$$\frac{11\,x}{2}$$

QUINTUPLETS.

PROFESSOR NIJHOFF, of Groningen, has recently written a monograph on quintuplets, based on a case in his own experience where abortion occurred at the fifth month. His photograph of the quintuplets attached to a common placenta was published in the *Journal of Obstetrics and Gynaecology of the British Empire* for July, 1904. Since that date Bernheim of Philadelphia has reported another case where five male children were delivered at the eighth month (Quintuplets, by Albert Bernheim, M.D., *New York Medical Journal*, October 22nd, 1904, p. 776). The mother, aged 39, was 5 ft. 1 in. in height and 112 lb. in weight; she lived in Warren County, Kentucky. She had married at 17 and borne seven children; the youngest was 2½ years old. Within one hour she was delivered by Dr. S. J. Mathews of Mayfield, Kentucky, of five living male children at intervals of about twelve minutes. Their weights in order of birth were 4, 4¼, 4¼, 4½, and 5 lb.; they all seemed healthy and well developed. The five placentae were fused; apparently each fetus had a separate chorion, whilst it was noted that each had a distinct cord. All five died, the first when 4 days old, the fifth just over a fortnight in age. Dr. Mathews could not give any reason why all the children died, unless, Dr. Bernheim adds, it was the fact that after their baptism, on the fourth day, they were exposed to the cold air when their photographs were taken in the churchyard—a very reasonable theory. The photograph was successful, and is published in what Dr. Bernheim terms his "biography" of the quintuplets.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Inaugural Address

ON THE

PRESENT TEACHING OF PRACTICAL MIDWIFERY IN ENGLAND.

Delivered before the Obstetrical Society of London,

By W. R. DAKIN, M.D., F.R.C.P.,

Obstetric Physician and Lecturer on Midwifery, St. George's Hospital; President of the Society.

Midwives.

Our late President, in his parting address, alluded to the fact that we, as a Society, had come to the end of our work as an examining body for midwives. The conception of the scheme of examinations and its carrying out to completion is a matter in which our Society may justifiably take the greatest pride. It is not too much to say that, regarding it from a national point of view, the work that this Society has done is a more useful one than has ever before been accomplished by any medical scientific society. I imagine there can be no two opinions as to the use these examinations have been to the whole country. They have elevated the name of midwife to something which had never been contemplated—in the British Isles, at all events—as likely to develop out of its former significance, or, rather, insignificance. Who would now, when the word "midwife" was mentioned, picture to himself the possessor of it as being in any way like the dirty, snuffy old person with whom our fathers were satisfied? On the contrary, he would at once see before him a (usually) younger creature, the pink of cleanliness and purity of linen, eager to carry out all the principles in which she has been trained—those of implicit obedience to the doctor's orders, consistent with the maintenance of strict asepsis; yet able at the same time to manage with success some of the emergencies of labour in the doctor's absence.

In achieving this, ladies and gentlemen, you have educated more than your midwives. There is the English public. For unless you had shown, in the persons of those women who were considered worthy to receive your certificate, what a midwife might be made, the public could not have been stirred to the pitch of discontent with the old type that rendered it necessary to legislate in the matter. It has been stirred, and by the devoted energy of certain Fellows of your Society whose names are too well known to all of you for me to need to mention them. And the result of their unselfish efforts has been the addition to the Statute Book of an Act of which the present Government may be as proud as of any that they have carried through the Houses of Parliament. For the passing of the Midwives Act, whatever may be said in its disparagement by some who are not uninfluenced in their opinions by personal considerations, must infallibly lead to the diminution of septic death and septic illness in childbirth, and of ill-health in the after-lives of the mothers and children.

The Puerperal Death-rate.

The fact that our Society has intervened in matters of public health with such undoubted success induces me to ask you to allow me to pursue the same subject a little further. We know how the matter of death and illness in childbirth stands; it was impressed upon us most forcibly in an inaugural address by one of my most distinguished predecessors, Dr. Cullingworth. He showed, as we shall all remember, how the septic death-rate throughout the kingdom was not falling, but rising. He made some observations as to the cause of this retrogression, and, while allowing that such a disgraceful state of affairs might be to some extent due to the ignorance of midwives, he was of opinion that we ourselves, the medical practitioners of the country, were responsible for a good deal of it. To bring the statistics as nearly up to date as possible, I add the annual returns of the Registrar-General for the years since 1895, the last year with which Dr. Cullingworth dealt. They are as follows:

Deaths per 1,000 Births.

Average, 1896 to 1900—Total, 4·6	Septic, 2.0	Accidents, 2.6.
In 1902	,, 4·47	,, 2.1	,, 2.4.
In 1903	,, 4·06	,, 1.75	,, 2.3.

This shows a distinct improvement during 1903, and is a very healthy sign, if we could be sure that the improvement would be maintained. It may be due to the diffusion of educated midwives. The numbers are, however, no better than those of 1876 to 1880 as regards deaths from sepsis, and worse as regards total deaths. To state the numbers for 1903 in actual figures, and not in percentages, the births in England and Wales were 948,271. The deaths: Septic, 1,668, and from accidents, 2,189. If all the labours had been aseptic, the lives of 1,668 women would not have been sacrificed.

Before we accept without further proof that septicaemia in childbed is not diminishing, we may briefly examine some more evidence on this point. As regards the registration of deaths in puerperal cases, and its value now as compared with its value when registration of this kind was started and for some time after, it appears from the Registrar-General's returns from 1851 to 1900, as quoted by Dr. W. Williams in his Milroy Lectures of 1904, that, taking the mortality in two groups, as above, namely, those of septic disease and those of the accidents of childbirth, the former group has on the whole increased, and the latter has pretty steadily diminished. Dr. Williams gives this table:

Death-rate per 1,000 Births.

England and Wales.	Total Deaths.	Septic Deaths.	Accidents.
Averages of 5 years:			
1851-1855	4.90	1.50	3 4
1856-1860	4.60	1.50	3 0
1861-1865	4.80	1.60	3 2
1866-1870	4.60	1 50	3 1
1871-1875	5 40	2.40	3 0
1876-1880	3.90	1.70	2.2
1881-1885	4.90	2.80	2 1
1886-1890	4.50	2 40	2.1
1891-1895	5.40	2.50	2 9
1896-1900	4 60	2.00	2 6
Last three years:			
1901	4.70	2.20	2.4
1902	4 47	2.10	2.3
1903	4 06	1.75	2.3

Dr. Williams remarks:

During the last twenty years, when a more accurate registration has been adopted, upwards of 40 per cent of the total childbed mortality has been caused by septic diseases. It will further be seen that this undiminished mortality has been sustained for a period of twenty years, and that the sources of fallacy are not confined to one or to a few years. It will be noticed also that this period (1881 to 1900) of undiminished mortality in childbed coincides with a period in which enormous strides have been made in all matters pertaining to sanitation generally, and with a period of improved certification of the causes of death in connexion with childbirth.

Dr. Williams is of opinion, further, that the absence of diminution in mortality may be partly accounted for by improved registration. I find it difficult to imagine that this plays a very important part in the later years cited, for the table shows that in 1901 the mortality was increasing from septic disease, though decreasing from accidents of childbirth; and that in 1902 and 1903 the mean total cases of death are not at variance with those of previous years by as much as 0.5 per 1,000. Thus I think we must not attach too much importance to incompleteness of registration, since accuracy in this respect cannot be imagined to be in any great degree more conspicuous in the last three years than in the five years immediately preceding them. But so much has been said on this point of a quite convincing nature that I need labour the subject no further.

The Training of Medical Students in Midwifery.

We must, unfortunately, resign ourselves to accepting the fact that things have not appreciably improved for the last fifteen or twenty years. If the medical men of this country are responsible for any part of this excessive mortality—and there is unfortunately no reason to doubt it—it is obviously the duty of the whole profession, and perhaps of our Society more particularly, to spare no pains to remove such a reproach.

We may, however, just consider for a moment what the share of medical men in this failure to improve really is, since the part played by midwives in the matter has been mentioned. Now, assuming for the sake of argument that the former undoubtedly large share contributed to the puerperal mortality by dirty and unskilled midwives remains what it was, say, ten years ago even, we still shall have to explain why the cases under the care of medical men have not, by a marked degree of improvement, diminished the total number of deaths. We know that the quality of midwives has very appreciably bettered in the last ten years, and we can only imagine that the women attended by them now do better than those attended by former midwives. If

we are correct in our ideas on this point, then the failure to improve must lie at the door of the medical man, unless of course it could be shown that the women employ a midwife alone in very much larger proportion than formerly, and a doctor in a very much smaller. But the contrary is believed to be the case.

I propose this evening to arrive, as nearly as I may, at some way of accounting for this blot on our escutcheon, and, if I feel that my explanation is the right one, to go on to consider the best way to wipe it out.

We none of us have any doubt that, if the necessary precautions are taken, septicaemia can be abolished in midwifery practice. But we know that septicaemia is still rife and is accountable for many deaths and much disease. It is also a fact beyond gainsaying that medical men, who are responsible for a very large proportion of these unfortunate events, are anxious to do the best for their patients. Then why do they not prevent the occurrence of puerperal sepsis in their maternity work? In other words, why do they not put into practice the principles of antiseptic midwifery which have been demonstrated in our lying-in hospitals to be completely adequate?

As regards lying-in hospitals, which are always quoted as showing our power to abolish septicaemia, it may be argued that they are all very well, but that the filthy surroundings of the majority of the poor in towns—and in the country, too—make it impossible to carry out ideal methods among them. This argument is at once met by pointing to the results obtained in the outdoor maternity departments of the same hospitals and of other well-conducted maternity charities. In these the statistics are little, if at all, inferior to those obtained in the wards.

As a matter of fact there are two reasons for this failure throughout the country, and it is no use trying to shut our eyes to them. One is that there are some medical men who do not know how to practise aseptic midwifery; and the other that asepsis is not by a large number of medical men considered a matter to be taken seriously in midwifery practice, although they well know that in surgery it is a most vital element.

There are among the professors of medical science in this and in every other country a certain number of men who were educated in the days before any suspicion of the nature of sepsis had arisen. All the more honour is to be accorded to those of this period who have taken the pains to become acquainted with the present standing of our knowledge of septic processes, and the best way of guarding against them. They practise surgery with every precaution, and many of them have acquired the "aseptic instinct"—a most difficult learning. But all, even of this select class, do not practise an equal degree of purity in midwifery work, although they think they do. They have come to look on this branch of medicine as such a familiar and well-understood affair that there seems to be no need for the introduction of any new system or any modification of their well-tried modes of procedure. They have delivered hundreds of women with success, and are apt to ascribe this success to the routine they have come, in course of time, to adopt. It must not be imagined for a moment that I am imputing any blame to them in following this course; it is the one naturally dictated by their own individual experience, and it would be the height of impertinence in me to try to cast the least slur on the older members of our profession. I am proud to say I know very many of them who are as much alive to the importance of, and as skilful in the performance of, every detail of antiseptic midwifery as the most ideal obstetrician among us. I merely venture to point out the practical difficulties that beset them.

But as regards the younger men—those for whose views and practice the teachers of the present day are responsible—it is a different matter, and it is one a full discussion of which seems to me to be imperative. They are inculcated from the first moment at which they begin to handle surgical cases and have to deal with the management of wounds of all kinds with horror at the idea of contamination of any possibly absorbing surface with septic matter. They know also all about the condition of the maternal passages during and after labour. And yet cases of septicaemia occur in their midwifery practice. This is really our weak point, and the point on which we owe to ourselves and to the public our most earnest consideration.

The occurrence of puerperal fever in the practice of a conscientious man is a horrible shock to him. It causes him acute mental discomfort, and probably sleepless nights. This anxiety as to the result of every case he attends afterwards is simply misery, and must in the end take years off his life.

Then if one of those responsible for his teaching is brought to confer with him in such a case it must be with some feeling of self-reproach that the teacher hears the account of the antiseptic precautions that have been taken, quite complete as they would appear from the history given him. But there has been of necessity some omission of detail, not due to carelessness nor want of the best intention on the part of the medical man, but due to want of thorough training. Despondently may he, the professor, say with Macbeth:

> We but teach
> Bloody instructions, which, being taught, return
> To plague th' inventor. This even-handed justice
> Commends th' ingredients of our poisoned chalice
> To our own lips.

When the illness has to be explained to the patient and her husband it is not in human nature to candidly tell them that it might have been avoided if proper methods had been employed. They cannot be bluntly told, "This is the fault either of your doctor or of your nurse." But we know that this is practically always the truth. And further, we may be quite sure that the public will find it out for themselves very soon. In trying to discover a way out of this unfortunate state of affairs, and to avoid such catastrophes, we may compare the method for turning out the Complete Accoucheur, as at present adopted, with the training which is considered necessary for the student in surgery. Surgery is no doubt a very much wider subject than midwifery, but as far as medical practice is concerned it cannot be considered a more important one. And surgical cases which involve the management of large fresh wounds are extremely rare in the experience of men in general practice. In midwifery, on the other hand, large absorbent surfaces are of necessity produced at every labour. When such surfaces are untouched, as the placental site is in a labour which has run its normal course and in which no vaginal examination has been made, they heal as aseptic wounds. But either from necessity, or from inability on the part of the physician to desist from interfering, they are often put in the way of being contaminated, and it is quite obvious that aseptic handling is as necessary here as in any surgical case.

But compare the careful instruction which the student is obliged by the Examining Boards to undergo at the hands of the members of the hospital staff—the six months' dressing and the practice of surgery during two winter and two summer sessions—with the casual way in which he is allowed to get his smattering of midwifery. All that is required of him in the way of practice is "attendance on twenty labours." "Attendance" is a word which is capable of a very elastic interpretation, and may be held by some to consist of merely looking on, without making a single examination or performing a single manipulation. Moreover, the certificate may be "signed by one or more legally qualified practitioners"—that is, including teachers who are useful neither by precept nor example. The "practical" work is seen to be—or, at least, it is seen that there is no reason for its not being—simply a farce. Finally, to make matters worse, and to completely show in what esteem the subject of midwifery is held by the Examining Boards, the student is allowed to pass his examination in it

> At any time after the completion of the fourth year of professional study at a medical school, not less than one year after the passing of the Second Examination, on production of the required certificates.

In medicine and surgery, after passing the second examination, and before he is allowed to be examined in those subjects, he has very properly to spend two winter and two summer sessions in receiving clinical instruction. This extraordinary arrangement as regards the midwifery led to an examiner being gravely informed by a candidate that he could not answer a certain question in this subject—the particular one being a simple question on albuminuria—"because he was not going to do his medicine till next year." A delightfully simple and refreshing way of looking at the purposes for which qualifying examinations were instituted, but quite a logical one!

To find a parallel in history to the treatment of our unfortunate subject we must go back in imagination to the favourite heroine of our earliest youth, and remember how she was very badly treated and kept in the background by her two elder step-sisters; and how, on the occasion of a certain festivity she was only able to be taken there in a most furtive manner, and after extraordinary difficulties had been got over. She, of course, got there very late, while her step-sisters had

been there for a long time; and even then, although she had a great success, she was obliged to leave in a hurry before the party was over. It would be sad to pursue the story any further, when we think how the beautiful garments and the coach and horses that she had had given to her turned back again into ugly things, and how she became poor Cinderella once more. But we might hope that the happy ending of the story will come true; except, of course, the humiliation of the elder sisters, for we do not at all want medicine and surgery to be deposed from their important position.

In Ireland midwifery is treated with more respect—at least, the arrangements sound better. The student is obliged to attend a recognized midwifery hospital or maternity for six months, and he has to be present at 30 labours. This requirement is, at all events, a recognition of and some sort of an aspiration towards better things. It is also of great importance in prescribing a definite period during which the student must be attending to midwifery. But it can be made quite futile if the student likes, for he can easily "attend" at the hospital in such a way as to get signed up for six months' attendance and 30 cases, and never get one particle of good from it all.

So much for the minimum required by the Examining Boards. Let us see what is done in actual practice. At any time after passing his second examination the student may take his 20 cases. They are most commonly taken in the outdoor maternity of his own hospital. If the rules of the hospital are obeyed—and they are entirely gratuitous rules from the point of view of the Examining Boards—he is accompanied to at least his first case by the resident obstetric assistant, whose moral support enables the student to bear without discomposure the rather startling episodes of a labour witnessed for the first time. It depends entirely on the senior man whether the student learns anything of real value or not on this occasion. In most instances, since the senior has himself been taught in the same haphazard way, he is unable to convey to the pupil anything of the fundamental principles of the subject. When the next case comes the student knows probably little more than how to maintain an appearance of self-possession; and if it happens to be one of, say, contracted pelvis there is no reason why he should recognize it, and he naturally allows the woman to proceed on her dangerous course until the head has become impacted and she suffers from the perils of obstructed labour; or in a normal case he will forget, in the excitement of the moment, to be careful about his antiseptics. Such possibilities may be indefinitely multiplied. Supposing he has to deal with nothing but normal cases in his series, he is, perhaps, even worse off than if half his patients had been the subjects of dangerous complications, for he will go on his way into the world without ever having the chance of learning to recognize the presence of abnormality, much less the chance of seeing how it should be treated. It is, of course, the learning to recognize abnormal conditions at once that is almost the whole battle in midwifery, for when they are recognized early the treatment of them in nearly all cases is comparatively easy.

It may be said that the independent charge of cases in this way is likely to engender habits of self-reliance, and under different circumstances this would be true; but if self-reliance is acquired on a basis of ignorance the result can only be disastrous. The different circumstances would exist if he had been thoroughly taught to know natural and unnatural conditions when he saw them.

And so after all the days and nights spent in repulsive surroundings, and in still more repulsive society, the average fully-qualified man enters the profession with a very imperfect knowledge of practical midwifery; he has not even seen most of the phenomena of which he has heard in lectures or read in books, and he has to acquire his experience by his mistakes. In the process of establishing his position as a reliable practitioner, and of earning his living, mistakes are very expensive—infinitely more expensive than a few months devoted, before he is out in the world, to the acquisition of sufficient knowledge and skill to make such mistakes impossible. Looked at from his patient's standpoint the loss to the woman of health, it may be for years, or the loss of her life, valuable to her family and the community, makes them a more serious matter still.

When the public fully appreciate the state of affairs, as they must infallibly do before long, the position of the medical profession in general, and of such a society as this, the leading authority in the country, will, if no effort has been made to remedy the evil, not be one to be altogether proud of.

It must not be supposed, however, that no one has realized the imperfection of the midwifery education in this country until now. On the contrary, efforts to amend it have been made but without the least success. The General Medical Council, which is supreme in matters pertaining to the education, qualification, and subsequent professional behaviour of the medical men of the kingdom, has been petitioned on the subject, and has on one occasion, as it would appear, been spontaneously stirred to look into the matter, but the results, for various reasons, have been practically nothing. It will seem strange to most of us that until 1902 there had never been a teacher of midwifery on the Council. We are now fortunate enough to be represented by Sir John Williams, and we may hope for better things.

A report of the Education Committee of the General Medical Council on the subject was drawn up and adopted in 1896. It was to the effect that a student's practical work might consist of three months' attendance on the indoor practice of a lying-in hospital, or of being present at twenty labours, five of which must have been conducted under the direct supervision of a registered practitioner. There is no definition of what is meant by "supervision," and, in fact, it can be interpreted at the supervisor's pleasure into no conduct at all. And here again the quality of the teacher is evidently a matter of no importance. The matter, however, went no further.

There is yet one more point to be noticed in the teaching of midwifery as prescribed by the Boards. In medicine and surgery the student has to lay a foundation of anatomy and physiology before he begins pathology. Now, although the two fundamental subjects are taught in a very complete way in so far as they serve the purposes of the two branches I have named, the anatomy of the pregnant uterus and its contents and the physiology of pregnancy and labour and the lying-in period receive no attention. In consequence of this these elementary subjects are all left to the lecturer on midwifery, who has to teach this part of the subject in the most detailed manner before he can begin upon the mechanism of labour and the pathology of the whole subject. It is obviously impossible to do this in a three-months course.

If these deficiencies in the theoretical teaching of midwifery could be made good by practical work they might not be considered of vital importance. But, as things stand, they cannot, and many students embark on their career without having learned even how to pronounce the names of many processes and many of the diseases which may later on spring on them. Let us see now in what opinion our methods of teaching midwifery are held by an authority on the subject in another country. I quote from a short but important article on this subject written by Dr. Herman in the *Practitioner* for April, 1896. The extract has already been quoted by Sir William Sinclair in an address on the same subject. It is Dr. A. Martin, of Berlin, from whom Dr. Herman translates. Dr. Martin says:

> The arrangements of the medical schools in England for midwifery education are very imperfect. If we look away from the long renowned lying-in hospital, the Dublin Rotunda, and the very limited similar opportunities in Edinburgh and Glasgow, we find that the medical student has nothing analogous to our midwifery clinics. The student is taught midwifery theoretically. He learns practice among the out-patients. To these the professor of midwifery hardly ever goes. In London, for instance, these professors live in the far West, miles away from their hospitals and from the midwifery out-patient departments attached to them. The teaching in midwifery is almost exclusively in the hands of young assistants, who have been qualified one or at most two years, live away from the places in which the patients are delivered, and are, or should be, called if the labour does not go on naturally. It depends, therefore, entirely on the pleasure of these young assistants whether the student is or is not clinically instructed in the mechanism of labour, the aseptic management of childbed, and all further questions. It is to be considered also that there is at hand no trained midwife or monthly nurse. The student must more or less instruct himself. It says much for the value of the theoretical teaching that these young men do not have more disastrous experiences than in fact actually happen.
>
> In Germany, the regulations for the course in practical midwifery previous to the State examination are that a candidate shall have attended regularly two half-year courses in a lying-in hospital, and have personally delivered four women in the presence of the teacher or the assistant physician.
>
> In France, the corresponding rule is that the student shall have attended a course of three months in a lying-in hospital recognized by the Faculty of Medicine.

A Scheme for Better Training.

There is no need for me to say more on this aspect of the case. I think we may, perhaps, agree that our teaching is

quite inadequate to the importance of the subject, and the question to consider is whether any attempt ought to be made to better it. I think there can be only one opinion about that. How far a society such as ours should go in the politics of medicine is a matter for argument. We have taken part in such politics in an indirect but very decided manner, as we know; and the founders of our examinations for midwives, who were the members of a committee of our Council in November, 1870, thereby established a precedent of a kind. It was, of course, not a strictly parallel case to that of our society taking steps to obtain an alteration of the regulations for the education of students in midwifery. But their action had without doubt the very greatest influence in bringing about a far more radical change than a mere modification of existing rules, for it led to the passing of an Act of Parliament. Bacon says:

> I hold every man a debtor to his profession; from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to be a help and ornament thereunto.

In this spirit, having done with criticism of the destructive kind, I venture to ask you to consider how we may be a help as well as an ornament to our profession, and what we can do to improve it in midwifery practice.

Undoubtedly the best way for a student to learn practical midwifery is to do his work in a lying-in hospital, where there is a teacher who devotes himself entirely to the charge of the hospital and the pupils, and is a recognized and distinguished authority on the subject. This is impossible in London at present, for there is no such hospital accommodation for all our students. It may be possible in other towns. The next best thing, and the only way I see out of the difficulty as things are, is for every teaching hospital to have a lying-in ward. The reasons for abolishing lying-in wards in general hospitals now no longer exist: we do not fear the worst the surgeons can do to our cases, nor need they apprehend any danger from us. Lying-in wards do exist at two of our hospitals, and I understand that they are to be shortly introduced into others.

The number of lying-in beds would have to be in a certain proportion to the average number of students trained annually, after it had been settled how many cases a student should be required to attend in hospital before he undertook work in the outdoor maternity. For the combination of a thorough training in the hospital with the subsequent charge of cases outside seems to me to be the best possible arrangement. The whole service, inside and out, would have to be under the charge of a man of some experience, and one selected especially for this purpose. He would be under the direct control of the obstetric physicians. The appointment might be one of somewhat the same standing as the present one of obstetric tutor, at a reasonable salary. Then, in place of the present rule, demanding attendance on twenty cases only of labour, which can be vouched for by any person possessing a medical qualification, it ought to be made compulsory for every candidate to have attended regularly the practice of a lying-in hospital or of the lying-in wards of a general hospital for three months; to have personally attended thirty cases of labour in the following way:

Six cases must have been attended in the hospital, the candidate having made all the necessary examinations, abdominal and vaginal, and performed all the manipulations of delivery under the supervision of a recognized teacher.

Full notes are to be made in each case, in a manner satisfactory to the teacher, of the patient's previous history, of the pregnancy, labour, and lying-in period, and of the progress of the child.

The remainder of the 30 cases may be attended outside the hospital, under the control of the teacher, full notes being kept as before.

I should suggest that the 30 cases be taken in the student's fifth year, not less than two years after passing the second examination. He would then go up for his final examination in all three subjects—medicine, surgery, and midwifery—which he will certainly have to practise simultaneously, at the end of his fifth year.

The attendance in the gynaecological wards and at clinical lectures on the diseases of women might remain as at present.

Further, if it were considered advisable, and I think it is, the student should be obliged to attend two courses of lectures on systematic midwifery; the first course, to be attended in the third summer session, to be on the anatomy and physiology of pregnancy, labour, and lying-in, and of the newborn child; and the second course, in the fourth summer, on the pathology of the same.

I have named 6 cases as the number to be attended in the hospital, but if this seemed impracticable, a fewer number might be allowed, for even 1 case properly and thoroughly done would be worth more to the student than 20 or any other number attended in the way which now obtains; but there ought to be no great difficulty in managing 5. It depends, of course, on the number of lying-in beds obtainable in proportion to the average number of students trained in each year. I calculate that ten beds, arranged in three wards so as to allow for cleansing between every two batches of patients in each ward, would accommodate about 180 cases a year, and if each student took 5 cases that number of beds would be enough for thirty-six students. If there were more beds a larger number of cases per bed per annum would be possible, as the ward-cleansing could be arranged with more economy of time. A labour ward would be required for every ten or twelve beds.

The duties of the teacher in this department would be: To supervise every labour in the wards, and to see that the student to whom the case was allotted took every advantage of the opportunities for making examinations and for becoming familiar with all manipulations and details in the management of labour; to see that each case was fully reported, and to go round the cases with all the students at stated times; to accompany every student to his first case outside, and to show him how to adapt his now very adequate knowledge to the conditions of outside practice; to go to every case where the student found any important abnormality, and see that appropriate treatment was applied, judging when it was necessary to send for the member of the hospital staff in principal charge of the department.

The obstetric physicians would visit the wards regularly and teach on the cases. It would be no loss to a teaching hospital to devote such a number of beds as I have mentioned to lying-in cases, for students, other things being equal, would certainly choose hospitals so equipped in preference to those devoid of such opportunities for learning; and if all the teaching hospitals of London had these wards there would be a strong inducement for students generally to come to this city rather than go elsewhere.

In this very imperfect address I have tried to show the weak points of our present system of training students in practical midwifery. It is a system which was contrived many years ago, when midwifery was not in anything like the scientific position in which it is to-day. The system has not been improved in spite of all the advances that have been made in obstetric science, nor in spite of the addition of an extra year to the curriculum. I am very certain that there is a strong feeling among the teachers of obstetrics in this country that students are not properly taught, and they go out into the world without having obtained what we profess to give them, and that in consequence a great many lives are unnecessarily lost. I know also that the men who are in active practice throughout the country are convinced that the teaching they had as students, however recent their studentship may have been, was entirely inadequate.

If I am accused of washing our dirty linen in public, I can point to others who have adopted the open-air laundry method before me. At least three teachers of midwifery have put on record in a decided manner their feelings on the subject, and have each suggested improved methods of teaching, all of them practical.

Dr. Herman, in an article in the *Practitioner* of April, 1896, already alluded to, asks what would happen if the teachers of medicine and surgery were to see as little of the cases from which the students had to learn as the teachers of midwifery do at present; and if the students were left to make the diagnosis, and when in doubt call in the house-physician or house-surgeon; and, finally, if this officer asked the assistance of the visiting staff only in cases of great difficulty or danger. He points out that, as I have already said, midwifery cases require the most skilled attention in the early stages of conditions that may develop into difficulty, and he recommends that a teacher should go with the student directly labour has begun, and show him how to ascertain that the conditions are normal. If they are normal the student could be left to finish the case. If they are abnormal he should be shown how to do what is necessary. Dr. Herman discusses only the modification of the existing out-patient method of practice, but I am sure from what he says that he would approve of teaching in wards.

Sir William Sinclair delivered a very important address at the

Owens College in 1903 on the same subject. He mentioned, among many other points, the fact that the examining standard and the teaching standard are at very different levels in this country, and that a student is unable to properly bring himself up to the height of the former by the thoroughness of the latter. We may hope with him that this is an evolutionary stage of a completely developed system. He quoted from a letter addressed by the Dean of the Owens College to the General Medical Council in 1896 the following suggestions: (1) That the Council insist on three months' attendance at a lying-in hospital; (2) that the practical work should be supervised by a member of the hospital staff; and (3) that certificates of instruction in midwifery should not be received from a private practitioner any more than for clinical medicine or surgery.

These regulations seem to me to be most wise, but, as we know, there has been no attempt on the part of the body addressed to bring any such regulations into force. Sir William Sinclair recommended lying-in wards in general hospitals in default of teaching in lying-in hospitals, and was in agreement with what I have already said in recommending that the student should do his practical work in his final or clinical year.

Dr. John Edgar, the Professor of Midwifery in Anderson's College, Glasgow,[1] has spoken very decidedly on the same lines. He recommends the appointment of a special teacher in midwifery, who shall devote himself entirely to this subject, taking only consulting work outside his hospital duties, pretty much as is done in the German universities. He objects strongly to the certificates of attendance on cases being signed by any medical man other than a teacher of a hospital, and considers that the first six cases should be indoor, the student being drilled in the whole aseptic management of labour.

Surely all the weight of opinion I have adduced, and the discontent which I assert is prevalent among all members of the profession, must lead to something. It only needs the spark to fire the train. It seems to me that we ought not to wait to be shamed into action by pressure from outside, but with the confidence inspired by the successful result of our patient work in improving midwives, we ought seriously and with set purpose to think about setting our own house in order.

Reference.
1 *Glasgow Medical Journal*, September, 1898.

SOME REMARKS ON PUERPERAL INFECTION.

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The frequency of severe puerperal infection has shown little diminution during the last forty years, and constitutes a grave reproach to the present practice of midwifery in the British Isles, and indeed all over Europe. During the last twenty-five to thirty years surgical practice has been revolutionized, and infection is almost abolished both in hospitals and in the private practice of surgeons. This cannot be said of midwifery, except in lying-in hospitals where the mortality has been reduced to a minimum. In the five years 1851-5 the puerperal death-rate from all causes was 4.9 per 1,000, and in the five years preceding 1901 it was 4.6 per 1,000. The figures since 1881 are more accurate as a more complete system of registration was then adopted; these, however, show no diminution in the puerperal septic mortality, which still causes over 40 per cent. of all deaths in childbirth, and amounts to 2 per 1,000. Lancashire heads the list with a death-rate of 2.3 per 1,000 from sepsis. This by no means expresses the whole truth, for a much larger number of women suffer from inflammatory pelvic disease after delivery rendering them more or less invalid, and forming a considerable proportion of the patients under treatment at women's hospitals and elsewhere.

This high mortality and morbidity exists in spite of great improvements in sanitation, in our knowledge of the importance of asepsis and the best methods of attaining it, and with the object lesson afforded by maternity hospitals where severe sepsis is practically unknown. A study of the incidence of puerperal sepsis shows that it occurs mainly amongst women confined in their own homes largely attended by midwives and supervised sometimes by medical men. In England and Wales midwives attend 60 per cent. of confinements, and in some districts as many as 80 per cent. Recent figures published by Dr. Williams in his Milroy Lectures show conclusively that in South Wales infection occurs most frequently among women attended by untrained and ignorant midwives; density of population, climatic influences, and even the presence of zymotic diseases, such as diphtheria and scarlet fever, having little influence in producing puerperal sepsis. It must, however, be acknowledged that puerperal infection is far too frequent in the practice of medical men, especially after complicated and instrumental delivery. Each man should realize his responsibility in attending midwifery, and should spare no effort to control so far as is possible all the factors which if neglected so readily conduce to infection. This is often peculiarly difficult, especially amongst the poor. The doctor is often called in at the last moment, to find possibly an ignorant or meddlesome woman in charge who may have worked much mischief before his arrival. The patient has had no preliminary cleansing; the bed linen and clothing is dirty, the house often insanitary, and conveniences for aseptic measures are wanting. After delivery the principles of nursing are neglected, and the medical man is quite unable to control all the small details so essential to a normal puerperal period. If anything goes wrong he has to bear the odium, and incurs all the responsibility. Midwifery practice under present conditions is certain to be attended by some amount of infection. The insufficient and unskilful attendance provided for women, the necessity for midwives undertaking menial details of nursing, the ignorance and carelessness of women themselves, are all potent causes of infection. Although the vast majority of cases of infection arise in women attended by ignorant midwives, whether a doctor has been in attendance or not, there is still far too much sepsis among patients even of the better classes attended throughout by medical men. The gravity of interference by the hand, or the use of instruments, cannot be too strongly insisted upon. All manipulations in midwifery require those precautions which are taken before a surgical operation, the same attention to detail, and the same care in repairing any injuries which may unavoidably follow. This is possible in almost every case. The essential points are few in number, and largely comprised in the words "surgical cleanliness." The fact that many patients recover in which these measures are not adopted is no argument, especially when we remember the great frequency of puerperal morbidity and its consequences quite apart from the immediate risk to life.

Puerperal Morbidity.

Although severe infection has been practically abolished in maternity hospitals, patients by no means always progress smoothly to convalescence. The morbidity, that is, the proportion of cases in which a rise of temperature beyond 100.4°F. takes place, varies from 10 to 15 per cent. in even the most perfectly equipped maternity hospitals both in England and on the Continent. Edgar, of New York, in an analysis of 2,300 cases, finds a morbidity of 18.4 per cent. The morbidity rate in 1,000 consecutive cases in the Manchester Maternity Hospital was 11 per cent.; a rise of temperature occurred in 110 cases, a figure which compares favourably with other hospitals. The most recent figures are those of Zweifel, of Leipzig, which show a morbidity excluding pulmonary and other complications of 3.3 per cent. Ahlfeld states that in 8,000 labours in the hospital at Marburg there was only one death from sepsis after natural labour, and in that case the woman had examined herself. In the whole number there were only 20 deaths from sepsis, a percentage of 0.28. Of course, a large number of the cases of puerperal pyrexia are due to causes other than sepsis, such as gastro-intestinal disturbances, breast troubles, or some intercurrent affection, but the figures show a great liability to pyrexia in puerperal women, even under the best possible conditions. It is certain that the morbidity rate is very much higher than this in private practice, especially amongst the poor, but it is not possible to obtain exact figures.

Etiology.

We all now know that puerperal fever is a wound infection, nearly always the result of the introduction of organisms from without. The conditions under which many women are delivered render it at first sight surprising that infection is not more common. Nature, however, has provided very efficient means of protection, and every interference with spontaneous delivery violates these to some extent. The vagina normally contains many bacteria, none of which in health are pathogenic, but probably possess distinct resisting

power to septic organisms. The cervical canal and the uterine cavity are sterile. The amniotic fluid acts as a flushing douche, and after delivery the uterus is firmly contracted, and three to four days after delivery the internal os is almost closed. At the same time the condition of the genital canal renders it very susceptible to wound infection. The vulva is swollen, bruised, and oedematous; the vaginal outlet is relaxed and widely opened for some hours. In primiparae there is always some laceration of the vaginal orifice. Abrasions and lacerations are very frequent, especially if forceps have been used, and these often escape detection unless a careful examination is made. The cervix is widely dilated, congested, infiltrated with blood and often lacerated. Small clots are very liable to form in the cervical canal and the upper part of the vagina, even after normal delivery. The inner surface of the uterus is reddened, soft and pulpy, with shreds of decidua and small clots adhering to the mouths of the blood vessels. At the placental site the surface is peculiarly uneven, and shows many thrombosed vessels with adherent clots. There is no protecting epithelium in the uterus, and large vessels open close to the surface. Within a few hours of delivery the inner wall of the uterus is covered by a fibrinous exudation. The uterus thus forms a vast and irregular wound surface deprived of epithelium, and presenting many openings of vessels, an area peculiarly favourable to the stagnation and absorption of septic products. At least ten days elapse before the uterine mucosa can be said to be protected from infection, and for nearly three weeks the mucous membrane is very thin and soft, readily becoming an absorbing surface if injured in any way.

BACTERIOLOGY.

The essential feature of the disease is a microbic invasion, and many organisms may produce it. Practically, however, a few only are of the utmost importance.

1. Streptococcus pyogenes is the most frequent organism found, and its causal relation to the symptoms is definitely proved. Many varieties exist, and exhibit all degrees of virulence. Thus streptococci may be present in the vagina without producing any symptoms, or they may even invade the uterus, and cause only a mild superficial endometritis. If, however, a fresh invasion takes place from without, a more severe type of infection is produced. This may remain limited to wounds of the perineum or vagina, but commonly the uterine cavity is invaded. The organisms may remain superficial, or rapidly invade the uterine wall or the blood stream, resulting in septicaemia or pyaemia. Streptococcic invasion of the uterus is frequently characterized by the presence of grey membranous exudation over the cervix, readily seen by examination with a speculum. The lochia are usually profuse, haemorrhagic, and not offensive. In the more severe cases they may be diminished or even suppressed.

2. Staphylococcus pyogenes, albus and aureus, are commonly present in cases of puerperal infection. Very often they are saprophytic, but they may rarely cause severe or even fatal infection.

3. Bacterium coli commune is a frequent cause of infection. This is not surprising when we remember how easily contamination may occur from the rectum, and that one decigram of faeces contains 20 million bacilli. The infection is often superficial and characterized by very offensive lochia, often becoming purulent. When the bacterium coli is associated with streptococci its virulence is increased, and these "mixed infections" are common.

A few other specific organisms met with in rare cases are the diphtheria bacillus, the tetanus bacillus, bacillus typhosus, etc. There is, however, an important group of organisms which undoubtedly are responsible for many cases of infection—namely, the saprophytic bacteria of the vagina. These are very numerous; some only have been isolated. They are anaërobic and are not pathogenic under normal conditions. If, however, fresh infection is brought from without, or in the presence of dead tissues, such as placenta, clots, or decidua, they may become virulent and cause the so-called "putrid infections" of the uterus.

CLINICAL COURSE.

Puerperal infection is thus the result of invasion by septic organisms from without or by saprophytic bacteria already existing in the genital tract. In the majority of cases the uterine cavity early becomes invaded, although severe and fatal infection may arise from the wounds of the vagina or perineum. The clinical course of the disease depends upon many factors, namely:

1. The period at which infection occurs.
2. The site of infection.
3. The type of organism and its virulence.
4. The local conditions present in the uterus.
5. The resisting power of the individual.

On all these points our information is very incomplete, and consequently the clinical progress of the disease cannot be foretold with any degree of precision.

Great importance is rightly attached to the bacteriological diagnosis, and much labour has been devoted to this question. A glass tube may readily be introduced into the uterine cavity, the cervix being previously exposed by a speculum, and a specimen of the uterine secretion taken by means of suction with a syringe. The tube can then be sealed and sent to the laboratory. The secretion is examined by cover-glass preparations and by cultures, but a full report cannot be obtained in less than thirty-six to forty-eight hours. Our knowledge of the bacteriology is far from complete, but certain conclusions may be definitely formulated, and these have an important bearing on the treatment.

1. The uterine cavity is sterile during the first week in normal cases. After the seventh day organisms are often found, but rarely possess pathological importance. If, however, the lochia are sterile some other source for the pyrexia must be sought, such as wounds of the vagina or perineum or some extrauterine affection.

2. If the lochia contains streptococci a diagnosis of streptococcic infection may be made. We have, however, no means of estimating the gravity of the infection or the depth of invasion. No fewer than nine varieties of streptococci have been isolated from the uterus; some of these are not pathogenic, and the recognition of the type present is difficult and cannot be relied upon clinically. In many cases streptococcic endometritis remains superficial, and a leucocytic exudation is thrown out in the uterine mucosa, which prevents further spread of infection. The lochial discharge is often profuse, becoming purulent in a few days. In severe cases it may be scanty or suppressed, but the discharge is never offensive in pure streptococcic infection.

3. If the staphylococcus pyogenes aureus or albus is present, these organisms may be the cause of infection. They are often found associated with streptococci, and as in cultures the staphylococci grow more rapidly, the former may escape observation unless great care is taken. Staphylococci are often saprophytic and of little pathological significance.

4. The bacterium coli commune may be found in the lochia, which is usually profuse and offensive. These organisms possess very definite invasive power, and have been seen in the vaginal walls and the thrombi at the placental site. They do not invade the blood stream, but enter the lymphatics, producing metro-lymphangitis and peritonitis.

5. If anaërobic bacteria only are discovered the case is one of "putrid" endometritis. This is often associated with decomposition of clots, placenta or decidua, and these cases have been regarded as "sapraemia or absorptive fever." It has, however, been definitely proved that these organisms are capable of producing generalized infection even in the absence of pyogenic bacteria. If, however, these are present, such as the streptococcus or bacterium coli, the synthesis greatly increases the intensity of infection. A streptococcus of little virulence may thus become very dangerous if associated with putrefactive bacteria.

Putrid infection of the uterus may occur in various ways:

(*a*) As an infection of the amniotic fluid commencing before delivery.

(*b*) As an infection of the placenta, especially after abortion.

(*c*) As an infection of the decidua and blood clot *in utero* after delivery.

(*d*) As gaseous septicaemia; large quantities of gas developing in the uterus.

(*e*) As an abscess of the uterus or infection of a myoma.

(*f*) As gangrene of the uterus or dissecting metritis.

Putrid infection of the uterus may arise from the anaërobic organisms present before delivery, but these are nearly always associated with aërobic bacteria introduced from without, especially the colon bacillus or the streptococcus. Under such circumstances these bacteria become very virulent, invading the uterine wall and reaching the peritoneal investment of the uterus, causing a generalized infection (Varnier,

Jeannin). All recent research shows that the old distinction between sapraemia and septicaemic infection cannot be maintained. Pure sapraemia or "absorptive fever" is probably rare, and may readily develop into fatal septicaemia unless the early and complete removal of all infective material from the uterus is effected.

Sources of Infection.—The possible modes of infection of the puerperal woman are numerous, and no useful purpose would be served by a categorical list. The entrance of organisms from the vulva and perineum, which swarms with pathogenic bacteria, is readily effected by the introduction of the hand, instruments, etc., even if these are sterile. Soiled bed-linen, dirty garments, and the accumulation of discharges around the vulva and perineum are frequent causes of infection, and the risk is much increased if abrasions or lacerations are present. The formation of clots in the vagina forms an eminently suitable medium for rapid growth of saprophytic bacteria whose virulence is increased by invasion from without. Zweifel has recently obtained a large reduction in his morbidity by carefully removing vaginal clots on the second or third day. These he finds to be almost invariably present even in normal cases. Insanitary conditions, foul air, overcrowding, etc., must be regarded mainly as predisposing to infection by lowering the general health. Many other factors tend to render the puerperal woman peculiarly susceptible, such as the exhaustion of a long labour, the loss of blood, exposure to cold, and mental disturbance; but it must be clearly realized that the essential element is a microbic invasion from without, or, in rare cases, from the genital canal itself.

Autogenetic Infection.

This may occur as "absorptive fever" from decomposition of clots, decidua, or placenta, since the organisms present in the normal vagina are identical with those of "putrid" infections, and all that is necessary is that they should enter the uterine cavity by continuity of blood clot or retained products. In the great majority of these cases the infection is "mixed," due to bacterial invasion from without. Gonorrhoea at the time of delivery may cause an infection which may be considered "autogenetic," and this disease is certainly a cause of puerperal infection. Some years ago I analysed 50 cases in which the vagina was infected by gonorrhoea at the time of delivery, as shown by the development of acute purulent ophthalmia in the infant.[1] Sixty per cent. of the patients recovered without any complication. In 40 per cent. more or less acute inflammation of the pelvic organs occurred. In the majority of cases purulent endometritis with pyrexia was present, and in 10 per cent. acute pelvic peritonitis followed. All these patients recovered. Rarer complications are acute pelvic cellulitis, or abscess of the uterine wall. Three cases in the series died of general septicaemia, but in each the infection was a mixed one, streptococci being present. The prognosis of pure gonorrhoeal puerperal infection is favourable as to life, and many cases make complete recoveries, and bear children afterwards. Autogenetic infection may also arise in rare cases from the recrudescence of an old focus of inflammation or suppuration in the pelvis, such as a pyosalpinx, abscess of the ovary, or appendicular abscess. Mention must also be made of suppurating ovarian cysts and necrotic myomata causing septic symptoms after delivery.

EARLY SYMPTOMS AND DIAGNOSIS.

The prompt recognition of infection is most important, as at this time suitable treatment may radically change the course of the disease. The early signs are few but definite, and if a thorough investigation is made errors are not likely to arise. Almost all cases commence as a local infection, although exceptionally generalization may occur within a few hours. The disease remains local in the generative tract for two or three days, or longer. Experiments made on animals as to the speed at which streptococci may invade the tissues are misleading if applied to the human uterus.

1. *Rise of Temperature.*—If the infection is conveyed during labour, the temperature is usually raised within forty-eight hours. This may at first be slight and escape notice, unless careful records are kept. On the third or fourth day a sudden accession of fever, often accompanied by a rigor, occurs. Pyrexia coming on after the fourth or fifth day—the temperature having been up to this time absolutely normal—points to a bacterial invasion after delivery, and is often due to a "mixed" infection of saprophytic vaginal bacteria associated with streptococci or the bacterium coli commune introduced from without. Rises of temperature due to constipation, tension in the breasts, mental emotion, or some intercurrent disease, occur with special frequency in the puerperium. These must be carefully differentiated, and are unassociated with the other characteristics of infection.

2. *Increase of Pulse-rate.*—This occurs early, and the rise is usually out of proportion to the degree of pyrexia. Thus a temperature of 102° should usually be associated with a pulse-rate of 97; temperature of 104°, with pulse-rate of 105 (Liebermeister). In puerperal infection the pulse-rate is increased much beyond this ratio; a pulse of 120 to 130 is often present, and forms a reliable guide as to the severity of the disease.

3. *Delayed Involution of the Uterus.*—This is characteristic of infection of the uterine cavity, and is often accompanied by tenderness on pressure. Examination reveals that the cervix is soft, the canal widely open, and the internal os is patulous, readily admitting the finger. Special stress is laid on this last point by Budin, who regards it as characteristic of infection if present after the fourth day. Examination with a speculum reveals greyish exudation over the vaginal portion of the cervix and spreading upwards into the canal.

Changes in the Lochia.—These are not uniform. The uterine discharge may appear normal and yet contain streptococci. The lochia are often profuse, but in the severe cases they are scanty or even suppressed. Much weight has been attached to an offensive smell as a sign of infection. This is present in putrid endometritis or bacterium coli commune infections, especially if clots or placenta are retained *in utero*. In pure streptococcic infection there is no decomposition of the lochia. Profuse purulent discharge is characteristic of gonorrhoeal endometritis and the later stages of streptococcic infection.

The only reliable method of investigating the lochia is the bacteriological one, and this should, as far as possible, be adopted. The later symptoms depend on many factors to which reference has already been made, and which we are not able to estimate accurately. Consequently the prognosis must always be guarded. It is computed that if all cases of pyrexia due to infection be included, the mortality would not be more than 10 per cent. In the severe types the risk to life is much greater; probably 30 per cent. are fatal. The uterus may be the seat of a putrid or septic endometritis which remains superficial, the further progress of the organisms being checked by the leucocytic protecting zone developed in the deeper layers of the endometrium, or the infection may extend into the body of the uterus through the blood vessels or lymphatics or along the Fallopian tubes.

TREATMENT.

There is a general arrangement as to methods of prevention, and also as to the necessity for supporting measures to maintain the strength in cases of puerperal sepsis, but grave differences of opinion still exist as to the best methods of local treatment. In the majority of cases the disease is local at first, often commencing in the perineum or vagina, the uterine cavity being secondarily infected. It is not necessary to immediately explore the uterus in every case of mild infection. This, if done indiscriminately, may easily convert a slight infection into a severe one. A careful local examination of the perineum and vagina should always be made. If there is evidence of infection, all sutures should be removed and vaginal douches instituted. The cervix should also be examined by a speculum. If it is covered with grey exudation and the uterus is bulky and tender, it is almost certain that the uterus is infected.

So many methods have been adopted in the treatment of the uterus that it may conduce to clearness if the method I adopt is described shortly. It is based upon notes of 120 cases:

1. A rise of temperature of 101°, not accounted for by other causes, renders a careful examination of the generative tract necessary.

2. If no sufficient cause is found in the vagina or perineum, and if the uterus is bulky and tender, a specimen of the lochia is removed and a uterine douche given with due precautions. In 48 consecutive cases observed in hospital this was sufficient in 30 per cent. to bring down the temperature rapidly to normal. For some years I have supplemented this by carefully swabbing the interior of the uterus by absorbent wool soaked in a solution of biniodide of mercury in alcohol (1 in 2,000). This removes shreds of tissue and blood clot.

3. If this procedure is inefficient, or if the infection is of a severe type from the first, the uterus is explored with the fingers, preferably under chloroform. If the cavity is perfectly smooth, showing an absence of retained products or decidua—a condition which is rare—the uterus should be

thoroughly swabbed out with the biniodide in alcohol or some strong antiseptic solution, and packed with iodoform gauze soaked in an antiseptic. If a definite piece of placenta is found, this, together with blood clots, should be taken away, followed by swabbing and gauze packing. If the cavity is large and the surface irregular, due to hypertrophied and necrotic decidua, the patient's safety can only be ensured by its complete removal. There is no doubt that this is most efficiently done by the use of a suitable curette. The fingers alone cannot effect a complete removal of all placental and decidual tissue, especially if it is firmly adherent.

Curettage.

The most divergent views have been held as to the place of the curette in the puerperal uterus. The modern tendency is to restrict its use, and many entirely reject it. In Germany the curette is almost given up, and local treatment is restricted to swabbing and packing the uterus with gauze soaked in absolute alcohol or some non-toxic antiseptic. In France, on the other hand, Pinard, Dolèris, and others are strong advocates of early and thorough curettage in all cases of uterine infection. They insist on the importance of early operation with the object of disinfecting the uterus by removal of all necrotic tissue, including the superficial part of the decidual mucosa, which, if not already infected, will speedily become so. The results in skilled hands show that curettage is innocuous if carried out before the bacterial invasion has extended into the walls of the uterus. In septic infection of the endometrium, and if the organisms have already invaded the lymphatics and blood vessels, the results of any method of local treatment are uncertain. We possess, however, no clinical means of ascertaining the depth or degree of invasion, and many patients who show all the signs of septic infection manifest the most striking improvement after currettage skilfully performed. Very grave toxaemia may be produced by a superficial streptococcic invasion of the endometrium.

The arguments against curettage are: (1) The difficulty of thoroughly going over the whole interior of the uterus; (2) the danger of perforation; (3) that the finger can be used equally well to remove retained products; (4) that the curette may cause generalization of a local infection either by removing the leucocyte protective zone which is thrown out by the uterine wall to prevent the spread of infection, or by opening up the mouths of vessels and lymphatics which become the site of fresh inoculation. Curettage of the puerperal uterus is a serious operation, and it is difficult to carry out thoroughly; if badly done it is distinctly harmful. The cavity of the uterus is large, and unless it is gone over systematically much of the infected decidua will be left behind. Haemorrhage may be very free owing to atony of the uterine muscle. It is very desirable that a method of treatment should be devised which is efficient and yet absolutely safe. The "écouvillon" or brush curette of Budin and Dolèris effects a very complete removal of retained products and necrotic decidua. This instrument resembles a bottle brush, but is made of strong quills. It is used to scrub the interior of the uterus by vertical and rotary movements. All débris is then removed, and the cavity is left quite smooth. A douche is then given and the uterus firmly packed with gauze soaked in alcohol or some strong antiseptic. It is essential to give chloroform, as it is a painful process, and dilatation of the cervix may be required. The results are excellent if carried out at any early period of the disease, and this plan of treatment is worthy of more general adoption. There is general agreement that in certain types of infection all vigorous local treatment is harmful. Such are (1) general septicaemia with evidence of septic phlebitis or infiltration of the pelvic connective tissue; (2) peritonitis or inflammation of the appendages, except as a preliminary to some surgical operation such as drainage of the posterior *cul-de-sac*; (3) gonorrhoeal endometritis: these cases usually recover, unless a "mixed" infection is present. If curettage is thoroughly carried out it is rarely necessary to repeat it. If the operation has been of marked benefit and the symptoms recur it may be repeated but usually uterine douches or gauze packing are quite sufficient. If no good result follows little is to be done by further intrauterine treatment. Careful watch must be kept for evidence of localization of inflammatory products.

Posterior Vaginal Section.

This operation may be carried out as supplementary to curettage if symptoms of pelvic peritonitis are present. The finger is introduced into the peritoneal cavity, any fluid evacuated and drainage by a tube or gauze packing established. This procedure is free from danger, and in some cases is remarkably successful in checking the infective process.

Hysterectomy.

This operation has been performed in 137 published cases with a mortality of 63 per cent.[2] It has been done for the most diverse conditions, and its value and limitations can only be gauged after a complete study of the cases in detail.

It has been conclusively shown that the operation in cases of puerperal septicaemia, without localization of the infection, is most dangerous, the mortality amounting to 70 per cent., and it is probable that some which recovered would have had an equally good chance without the operation. If the uterus contains placenta or débris accompanied by grave infection, hysterectomy is much more dangerous than curettage and packing, and should never be done. The best results have been obtained in cases of peri-uterine suppuration, gangrene of the uterus, or necrotic myomata, but these rarely arise in the early days of the puerperium. The symptoms of infection do not afford any reliable guide as to when to operate in acute cases, and in these the operation is very fatal and should not be performed.

Use of Antistreptococcic Serum.

This has now been before the profession for ten years, yet there is no general agreement as to its value in puerperal septicaemia. This is due to various reasons: the enormous variability of puerperal infection; the different kinds of serum used; the rarity of complete bacteriological investigation. It is quite unscientific to use serum unless streptococci are actually the cause of infection. We know now that many varieties exist, and a serum potent against one type may be useless against others. A "polyvalent" serum has recently been introduced to meet this difficulty, but it is too early as yet to define its value.

The following conclusions may be stated:

1. The serum is innocuous if carefully prepared and injected with due precaution.
2. It must be administered early in the disease and in large doses—20 c.cm. twice or thrice in twenty-four hours in severe cases.
3. If administered early and in large doses definite improvement is observed in a considerable proportion of cases.
4. All statistics are valueless unless accompanied by bacteriological details.

The most recent work on the subject has been done by Bumm,[3] who is a strong advocate for the use of serum. In each case a bacteriological examination was made. He used it in 53 cases of streptococcic endometritis, 32 of which were severe, the blood containing streptococci in 17 cases. In 21—that is, 35 per cent.—the serum had a definite effect, as shown by fall in pulse and temperature; in 17 it was useless. Five patients died. In septic peritonitis and in endocarditis the serum had no effect. The serum was given in 3 cases of septicaemia, the blood being loaded with streptococci; in 2 cases the serum had no effect; 1 case recovered with thrombosis of the iliac vein.

It would seem, therefore, that serum should be given in all severe infections, and that it is of real value in a certain proportion of cases.

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THE INCREASING USE OF LEAD AS AN ABORTIFACIENT:

A SERIES OF THIRTY CASES OF PLUMBISM.*

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THE ecbolic properties of lead have been well known to the medical profession for a very long time, and every textbook dealing with the subject of plumbism refers to the frequency with which females suffering from this affection tend to abort. The idea of using this drug primarily as an abortifacient would never occur to any one having any medical knowledge; it would resemble too closely the Chinaman's method of obtaining roast pig by burning down the pigsty.

* Read before the Yorkshire Branch of the British Medical Association at Bradford, January, 1905.

Unfortunately, the quack and the patent pill vendor, devoid of responsibility, aiming only at results and heedless of consequences, have discovered in lead a drug which is at least effective and accomplishes the desired object.

So far as I can ascertain from the literature dealing with plumbism, the common use of this drug by the laity for the purpose of procuring abortion is only of comparatively recent date, perhaps some ten or fifteen years.

To Dr. F. M. Pope, of Leicester,[1] belongs the credit of first making the observation. In 1893 he reported two fatal cases of plumbism, the source of which was discovered after death to be diachylon, taken for the purpose of bringing on abortion. Since that time others have reported similar cases, amongst whom I may mention G. F. Crooke of Birmingham,[2] Bell Taylor of Nottingham,[3] Branson,[4] Ransom of Nottingham,[5] Wrangham of Leicester and Sheffield,[6] Scott of Nottingham,[7] Jacob and Trotnam,[8] and Layton of Walsall.[9]

It will thus be seen that this pernicious practice prevails notably in the Midland districts of England, and that it is gradually appearing to widen its circle. It seems to have reached Sheffield as early as 1901, as shown by Wrangham's case published in that year, in which insanity was produced, so that the patient came under his care in the South Yorkshire Asylum. It does not, however, seem to have become at all widely spread here until the last year or two. It is possible that the cause of the plumbism has been overlooked in many cases, and cases have occurred but have been attributed to the water supply, which has in the past caused widespread plumbism in the Sheffield district.

During the last few months, however, there has been a considerable number of similar cases of plumbism in women, some of which have been definitely traced to the wilful taking of various preparations for the purpose of procuring abortion, whilst others fail to show any other cause for their symptoms, and in them the same source is highly probable. So numerous have the cases become latterly, that I feel it is desirable once again to call the attention of the profession to this growing evil, which causes such terrible suffering and such serious after-results to these ignorant women. Another reason for bringing this forward is that I find so many medical men are quite unaware of the possibility or likelihood of such a thing, and hence are not on the look-out for anything of the kind. When I say that a few weeks ago I had three women in one ward at the Royal Hospital all gravely ill from this cause, and that at the same time I saw a fourth case in a neighbouring town which proved fatal, and that in none of these four cases had the medical men in charge of them any suspicion as to the true nature of the disease or of this traffic in lead as an abortifacient, I think no apology is necessary for bringing the matter forward. I am also anxious to hear from members of the Branch how far the practice has reached other Yorkshire centres of population.

Some of the cases I have seen have been acute in character, and presented symptoms of abdominal pain, with vomiting and constipation, strongly suggestive of abdominal disease. These cases are most likely to lead to an error of diagnosis; as has been pointed out by Ransom and others. They imply the taking of large doses of poison. It is mainly in connexion with this use of diachylon as an abortifacient that most of the papers hitherto published have dealt; but we have now an equally serious, if less immediately grave, problem to deal with—namely, the sale of quack "female irregularity" pills, containing only minute traces of lead, and leading insidiously to the most chronic forms of plumbism.

When first I began to see these cases I suspected that there must be some recurrence of lead in the Sheffield drinking water. Only a few years ago we in Sheffield had the unenviable notoriety of an extensive and serious outbreak of plumbism due to this cause. That, however, thanks to the treatment of the water supply by alkali, previous to its reaching the city, is practically a thing of the past. I communicated with the Medical Officer of Health (Dr. Scurfield), and asked him to kindly inquire into the matter. He assured me that there was no reason to suspect the water supply as the cause in any of the cases. He also kindly furnished me with a list of cases of plumbism which had been reported to him during 1904, and which could not be satisfactorily accounted for by occupation, etc. They were as follows: From May 30th to October 1st seven such cases had been reported. They were all women, and lived in quite different parts of the city. All had been carefully investigated by his officers. Their ages were 28, 38, 22, 40, 24, and in one it is not given. This fact that they were all of childbearing age is also suggestive. None of them worked as file cutters—a common additional cause of plumbism in this district.

As the number of cases I saw multiplied, the cause became more evident, but it was some time before I was able to find out any one definite source of the poison. This is not surprising, as the patients usually deny having taken anything, and are so afraid of getting into trouble that they dare not admit such a thing. However, in one case I was successful, and myself purchased the article from a well-known firm of druggists for purposes of analysis. The label says, "Dr. ———'s famous female pills—are world renowned and unequalled. Dose.—Two to be taken four times a day." They bear an address in London, and they are protected by a wrapper marked, "This stamp implies no Government guarantee." With them is given an objectionable circular, advertising all kinds of pessaries and protectives. Besides this there is a special piece of paper, which reads as follows: "They must be taken for a week before each month. (The extra strong or the special strength need only to be taken for four or five days) continuing them until effective. They will not injure the most delicate constitution nor infants at the breast."

A quantitative analysis of these pills was kindly made for me by one of my colleagues at University College, an expert analytical chemist, who sends me the following report:

I find lead, but only in a very small amount. The ash of the pills is partly soluble in acid and partly insoluble. There is no doubt about the presence of lead in the insoluble portion, but I have a doubt about it in the soluble portion.

10 pills taken, weight = 2.5577 grams = 39.4653 grains.

Metallic Lead Found.

Insoluble residue	0.24 mg.	= 0.0037 grains.
Soluble residue	0.14 mg.	= 0.0021 grains.

Quantity of Lead in one Pill.

Insoluble residue	0.00037 grains.
Soluble residue	0.00021 grains.

At first sight this appears to be a very minute trace of lead, but if one refers to the quantity of lead in drinking water known to have caused poisonous symptoms, it will be seen that this amount is quite enough to produce the results seen. Thus, Oliver[10] refers to a case produced by drinking water containing 0.0028 gr. per gallon. As the patient could not be expected to drink more than three pints of water per day it would mean $\frac{3}{8}$ths of 0.0028 gr. of lead—or 0.001 gr. per day. Now, each of the pills contains 0.0005 gr. of lead, so that if only three were taken daily it would mean 0.0015 gr., whilst eight a day (the quantity recommended on the label) would give 0.004 gr., or $\frac{2}{3}\frac{1}{0}$th gr. of lead. It is thus evident that the quantity of lead in these pills is quite sufficient to produce symptoms of plumbism.

Since then I have purchased two other varieties of "female pills" sold in the City and had them analysed. In both of these small quantities of lead have been found. I am assured by competent authorities that there is no likelihood of any lead having accidentally been used in the coating of the pills, or otherwise, and that in all probability it has been put in with a definite object. I have no doubt that the great depression of trade in this district during the last year has induced many women with families to resort to abortifacients.

I now give a list of cases which have either been under my own observation or the details of which have been kindly supplied by my colleagues in the district:

CASE I.

A. P., a married woman, aged 35, two children, came to hospital in June, 1903, complaining of "mist" over her eyes. In December, 1902, she had severe abdominal pain, for which she was in bed three weeks, also vomiting. She had two fits, at two months' interval; was unconscious for several days. She was queer in her mind and had to be held in bed. On one occasion she got out of bed and went out in her nightgown. She showed marked anaemia, blue line, and some muscular paralysis. The drinking-water at her house was examined and no lead was found in it. There is in this case no history of a miscarriage, nor was there any suspicion of the possibility of lead having been taken as an abortifacient.

CASE II.

E. A., a married woman, aged 31, six children living, admitted to Sheffield Royal Hospital, January 4th, 1904. Abdominal pain seven weeks; attacks of severe colic. Pain in calves. Vomiting. Miscarriage two weeks ago. Blue line. Ulcers in mouth, breath very foul. Marked basophile granules in erythrocytes. Some albuminuria. The patient denied having taken anything.

CASE III.

M. B., married woman, aged 29, two children living, admitted March 2nd, 1904. No miscarriages. Severe colic began four days ago with vomiting and haematemesis four times. Blue line on gums. The

patient began to take diachylon about Christmas, 1903, on account of delayed menstruation. Bought a pennyworth at a time and made it into pills, of which she would take three, four, and five per day. She did this for a fortnight, then stopped, as her menses appeared. She repeated the pills on February 15th to 17th, has had none since. Recovery.

CASE IV.

J. M., married woman, aged 28, was admitted on October 1st, 1904. Two children living. The following history was given by Dr. B., with whom I saw the case in consultation. The patient had a miscarriage about three weeks previously, and since then has been in a condition of hysterical stupor. Severe headache, appears dazed, passes motions under her, does not answer questions. Extremely anaemic, gums and breath very offensive, with a peculiar sweet metallic odour; well-developed blue line; has had some convulsions; some weakness of anus. After admission she became acutely maniacal and later had delusions. She gradually recovered, and went out two months later. Right disc was swollen and blurred; left disc slightly so: visual field not affected; recovery. No information could be obtained from the patient as to taking pills, but her sister admits that she took some, and her doctor knows she was much distressed at the idea of having another child.

CASE V.

S. J. M., married woman, aged 29, admitted October 11th, 1904; sent in by Dr. L. Had two children at full term; both died young. The third child was "taken away" at five months because patient was not strong enough to carry it. On admission abdominal pain and vomiting, marked blue line, breath offensive; costive: menses ceased four months ago; swelling of discs; visual field, right eye much diminished. She miscarried in hospital four days after admission. She denies having taken anything for the purpose of bringing on miscarriage. Discharged December, 1904.

CASE VI.

M. A. S., married woman, aged 29, was admitted on November 8th, 1904. She was sent in by Mr. C. She has two children living and one dead. Began five weeks ago with severe colic, vomiting, and headache. Extreme anaemia; visual field, both eyes reduced to one-third normal on November 18th. Completely recovered December 6th, 1904; discharged recovered December, 1904. She admits that owing to her menses ceasing in August she began to take patent female pills, as she thought she was pregnant. These are the pills referred to above as having been found to contain lead. As a matter of fact she is not pregnant.

CASE VII.

Mrs. G., aged 34, multipara, living at Parkgate, near Rotherham, was seen in consultation with Dr. — on November 29th, 1904. She had a miscarriage one year ago, and another on October 7th. Since then she had seemed very ill, extremely anaemic, had agonizing headache, also much vomiting. A few days ago she had a slight fit. Last night she had four severe fits, and since then has been in a stuporose condition. She is quite uncontrolled, tosses about, and tries to get out of bed. Extreme anaemia; breath sweet metallic odour and offensive; marked blue line; pulse 120; discs not seen owing to her restlessness; died the following day in convulsions. The actual source of lead not ascertained, but her husband says she had frequently said she would take abortifacients.

CASE VIII (reported by Mr. Longbottom of Sheffield).

Mrs. W., aged 42. Six children. Severe colic with constipation; abortion; persistent vomiting; blue line; seriously ill for some weeks and profoundly anaemic, but eventually recovered. Admitted having taken pills to procure abortion.

CASE IX.

Mrs. T., aged 29. Two children. Severe colic and vomiting: blue line; abortion; very ill for three weeks; recovered; admitted taking pills for abortion.

CASE X.

Mrs. C., aged 36. Three children. Severe colic; blue line; had been irregular, and was afraid she was pregnant, but would not admit having taken anything; recovering slowly.

CASE XI (reported by Dr. Innes Smith, Brightside, Sheffield).

Mrs. H., 33, four children. Colic, vomiting, cramps, and general collapse; blue line. Denied having taken anything, but had missed a period. August, 1904.

CASE XII.

Mrs. I., 28, four children (October, 1902). Anaemia, severe colic, constipation, dizziness; blue line; miscarriage. Had been taking "Mrs. O.'s pills."

CASE XIII.

Mrs. H. B., 37, six children (March, 1901). Colic, vomiting, constipation. Became unconscious; blue line; had missed a period. No history of taking pills.

CASE XIV.

L. J., 17, single (August, 1900). Haematemesis, constipation, colic, pregnant; blue line. Had been taking "Mrs. O.'s pills." Marriage speedily arranged for and symptoms abated.

CASE XV (reported by Dr. A. Cuff, F.R.C.S., Surgeon, Sheffield Royal Infirmary).

A. S., aged 27. Had recently miscarried; was admitted as possible intestinal obstruction in November, 1903. Vomiting, colic, constipation. Admitted having taken diachylon pills.

CASE XVI.

L. W., aged 31; miscarried. Admitted for burns caused by falling into the fire in convulsions. Frequent epileptiform convulsions for several days; maniacal. Blind, no optic neuritis: colic, constipation; blue line. Sent to asylum, where she eventually recovered. Had taken a jam-pot full of diachylon.

CASE XVII.

E. J., aged 10, miscarried; admitted for supposed intestinal obstruction or pelvic peritonitis in November, 1904; colic, constipation, vomiting, blue line; admitted having taken female pills.

CASE XVIII (reported by Mr. Rowthorn of Rotherham).

Mrs. H., aged 42, miscarried when three months pregnant, September, 1904; vomiting, constipation, colic, blue line; no lead in water supply examined: no employment in which lead used: has a grown-up family, and resented her pregnancy; denied taking abortifacients; recovered.

Also the following from my out-patient department at the Sheffield Royal Hospital:

CASE	XIX.—V. S.,	female,	aged	37,	March 1904.
,,	XX.—M. K.,	,,	,,	21,	,, ,,
,,	XXI.—L. V.,	,,	,,	24,	May. ,,
,,	XXII.—E. S.,	,,	,,	28,	June ,,
,,	XXIII.—M. R.,	,,	,,	38,	July ,,
,,	XXIV.—N. C.,	,,	,,	22,	,, ,,
,,	XXV.—S. M.,	,,	,,	40,	May ,,
,,	XXVI.—A. G.,	,,	,,	?	September
,,	XXVII.—M. R.,	,,	,,	24.	August ,,
,,	XXVIII.—E. W.,	,,	,,	?	October ,,

It will be noticed that all of these patients are women of child-bearing age, usually married, and in most cases mothers of families. They are, as a rule, somewhat older than the age at which, in lead-poisoning outbreaks, the women are mostly attacked—namely, from 18 to 24 years. Of the first 18 cases, of which alone I have any particulars, 11 did miscarry, 1 (a single woman) was pregnant, 5 admitted delayed menstruation, whilst 1 denied any menstrual trouble; 10 out of the 18, or more than half, admitted having taken some form of abortifacient, one died comatose a few hours after the cause was suspected, whilst in some of the others the friends admitted that the patient was very bothered about her real or supposed pregnancy.

When one adds up the total of suffering and illness which the taking of these preparations involves, it assumes a very costly and serious amount. Thus, one mother of a large family died, after suffering for weeks from what her doctor described as the most severe headache he ever saw—literally "agonizing," was his expression. Others became temporarily insane, and had convulsions. All suffered from severe colic and headache. All became profoundly anaemic and required prolonged rest and medical attendance, involving heavy doctor's bills, etc. Some, possibly many, have no doubt laid the foundations of permanent ill-health and future kidney disease. It would surely have been more economical to have had the baby, whilst in many of the cases the delayed menstruation was only a "false alarm"—there was no pregnancy.

The question naturally arises, What can be done to check this undoubtedly growing evil? It is difficult to see. We can hardly prosecute pill vendors for selling a drug which is contained in one of the pills of the *British Pharmacopoeia*. Even if we could, it would be impossible to prevent women from obtaining lead in some other form, whether as diachylon or as lead dust, or even as paint. It seems to me that all we can do is to spread the knowledge amongst our profession that this is going on, so that they may be on the watch for early cases and warn the patients of the dangers to which they are exposing themselves.

Unfortunately, the spreading of this knowledge that lead is an efficient abortifacient is very undesirable, and, in spite of the accompanying warnings, may do more harm than good in the case of those who will venture anything to end their pregnancy.

Since writing the above I have two more cases to record, each of which has some points of interest:

CASE XXIX.

L. S., married, 25, three children, came to the Royal Hospital on February 6th, 1905, with abdominal pain, severe anaemia, marked blue line; her menses ceased in September, 1904, and she took twelve of "Nurse ——'s pills." On account of her severe symptoms she was removed to a hospital as typhoid fever on September 21st. During her stay there all the positive typhoid signs were absent, and she was diagnosed and discharged as "diarrhoea, anaemia." She informed me that she first heard of these pills "from a lady she met at the Monday afternoon mother's meeting in connexion with her chapel:"

Case xxx (Reported by Mr. Connell, F.R.C.S.E., Surgeon, Sheffield Royal Infirmary).

Married woman, supposed to have intestinal obstruction following recent abortion. Mr. Connell, called in consultation, found marked blue line, constipation, anaemia, etc. The woman admitted having taken "61 pills" in one week.

References.

[1] British Medical Journal, 1893, vol. ii, p. 0. [2] *Lancet*, 1898, vol. ii, p. 255. [3] Ibid., p. 742. [4] British Medical Journal, December, 1899. [5] Ibid., June and July, 1900. [6] Ibid., 1901, vol. ii, p. 72. [7] *Quarterly Medical Journal*, February, 1902. [8] British Medical Journal, 1903, vol. i, p. 242. [9] Ibid., 1903, vol. i, p. 849. [10] Allbutt's *System*, vol. ii, p. 964, Lead Poisoning, by Thomas Oliver.

NEW METHODS OF STUDYING AFFECTIONS OF THE HEART.

By JAMES MACKENZIE, M.D.,
Burnley.

II.—THE ACTION OF DIGITALIS ON THE HUMAN HEART.

Considering the number of years during which digitalis has been employed in the treatment of affections of the heart, and considering the great number of experiments that have been performed on animals to determine the action of digitalis, it might be assumed that the nature of the action of the drug was sufficiently well known. But if one critically examines the results of these observations, clinical as well as experimental, no clear conception of the manner in which this drug acts can be obtained. The study of its effect upon my own patients has engaged my attention for many years, and I have collected a large number of observations which show its effect on the movements of the heart. The correct interpretation of these observations baffled me for a long time, but at last two events happened which threw a flood of light upon this subject. The first of these events was the observation that in a large class of patients, for whom digitalis is frequently prescribed, the rhythm of the heart does not proceed from the auricle to the ventricle, but originates in the fibres joining auricle and ventricle (remains of the canalis auricularis), or in the ventricle itself. The reaction to digitalis varies greatly, but the arrhythmia produced by the drug in a heart with the ventricular rhythm differs markedly from the arrhythmia produced in a heart with the normal rhythm. The fact that the rhythm of the heart may be ventricular in origin is beyond the ken of the physiologist and experimental pharmacologist, inasmuch as it is the result of long-standing changes in the heart impossible to produce experimentally; but it must be taken into consideration by all who desire to study the effect of digitalis in the human heart. The second event which enabled me to get a clearer insight into the mode of action of digitalis was the perusal of Professor Wenckebach's book on *Arrhythmia of the Heart*. This author, who had made himself familiar with the most minute details of the action of the individual functions of the heart muscle fibres, drew my attention to the exact meaning of many forms of arrhythmia which I had found resulted from the administration of digitalis. Pursuing the inquiry on the lines laid down by him I was able to explain satisfactorily the mode of action of digitalis in many of the most common and most striking irregularities.

I do not for one moment suggest that I have found out the whole matter of the action of digitalis, because there are many phenomena produced by digitalis with which I do not deal. This paper is concerned mainly with certain modifications of the heart's action produced by digitalis. The interpretation here given may not be found sufficient, because my knowledge is very limited and new facts are cropping up continually, so I have endeavoured as far as possible to give a careful record of the facts with such interpretations as appear most reasonable in my present state of knowledge. In doing this I place on record numerous tracings, for by these only can a true conception of the forms of arrhythmia be acquired. It is surprising how much of the literature on digitalis is taken up with the description of its action on the movements of the heart; the writers contenting themselves, as a rule, with minute verbal descriptions, the result of these descriptions being such a curious mixture of fact and fancy that no accurate notion of the real nature of the arrhythmia can be grasped. When in rare instances tracings have been given I have had no difficulty in recognizing the nature of the arrhythmia.

This inquiry suggests a probable explanation for the curiously discordant results obtained by observers, experimental and clinical, inasmuch as it has been overlooked that digitalis has a peculiar tendency to affect primarily those functions of the heart muscle fibre that have been previously damaged, the result being the production of an arrhythmia due to further depression of those functions. I have found, for instance, that in hearts where the function of conductivity was normal digitalis has no effect upon this function, though it may materially affect other functions of the heart muscle. But in cases where conductivity could be shown to be depressed digitalis very speedily exaggerated this depression and produced the characteristic dropping out of ventricular systoles. In the handling of the heart in experiments one can readily conceive how easily the delicate organization of the heart may be injured by some trivial accident, and the results obtained by experiment may thus vary according to the nature of the function injured.

Writers frequently urge that certain forms of the drug are more potent or more reliable than others. I have found all forms of the drug equally potent in suitable cases, and equally inefficacious in others. I have usually employed the digitalis in the form of the *B. P.* tincture, of the well-known squill, calomel and digitalis pill, and of the digitaline granules (Nativelle's). It might seem that the advocates of special forms of the drug have unwittingly prescribed it to patients whose hearts were peculiarly susceptible, and have attributed the very striking results to the nature of the drug rather than to the susceptibility of the organ.

Another point which shows the susceptibility of the organism to digitalis is this, that the drug affects all non-striped muscle fibre, and before it can have an appreciable effect on the heart it may grievously affect other muscular organs. I have collected sufficient evidence to incline me to the belief that the "gastric irritation" so frequently produced by digitalis is really due to the action of the drug in the musculature of the digestive tract.

A.—Action of Digitalis with the Normal Rhythm of the Heart.

1. *Effect of Digitalis on Stimulus Conduction (Dromotropic Effect).**

In a paper recently published in this Journal I described how the stimulus for contraction was conveyed from muscle fibre to muscle fibre. The stimulus arises at the mouths of the great veins, passes over the auricle, and reaches the ventricle by the fibres joining auricle and ventricle. By observing the time that elapses between the systole of the auricle and the systole of the ventricle we can gauge the rate of conduction along these fibres. This is shown in tracings of the jugular and carotid pulses, when in the jugular a wave, *a* (Fig. 1), due to the auricle, is frequently present, and is immediately followed by a wave, *c*, due to the carotid. The time between *a* and *c* represents the time that the stimulus takes to cross the fibres between auricle and ventricle. The conductivity may be considered normal when the *a*–*c* interval does not exceed one-fifth of a second. When this function is normal, it is doubtful if digitalis can effect it. At all events, I have pushed it in many cases until other functions of the heart were affected, and until severe gastric disturbances resulted, without the slightest sign of conductivity being delayed. But when conductivity is depressed—that is to say, when the *a*–*c* interval is more than one-fifth of a second—then digitalis may depress this function with great readiness. Patients may have a slight depression of conductivity for years, and during that time the rhythm of the heart may be invariably regular. Such patients are, however, exceedingly susceptible to the influence of digitalis, and a very small quantity of the drug may produce an arrhythmia due to the dropping out of ventricular systoles. The auricle will continue to contract with perfect regularity, but the stimulus occasionally fails to cross the fibres that connect auricle and ventricle.

Case 1.

Female, aged 24. She was under my care in 1900, and I had prescribed digitalis, and phenomena similar to what I am about to describe supervened. She had rheumatic fever in 1902. She married early in 1903,

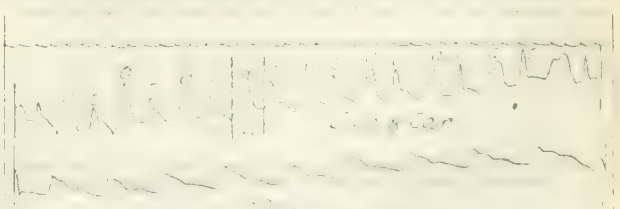


Fig. 1.—Simultaneous tracings of the jugular and carotid pulses with the radial, showing that the *a*-*c* interval (Space A) is twice the normal period (two-fifths of a second in place of one-fifth), indicating a delay in the stimulus passing from auricle to ventricle. The time marking here and in the other figures represents one-fifth seconds.

and consulted me on October 4th, 1903, being at that time four months pregnant. The heart's dullness was only slightly increased.

* This and kindred terms used afterwards have been employed by Engelmann, and are bound to be permanently used in the literature on the heart.

There was a well-marked systolic murmur at the apex (in 1900 I had noted a presystolic murmur). There was marked pulsation in the veins of the neck, a tracing of which shows an abnormal wide *a-c* interval (Space A, Fig. 1). Being in a fair condition of health, I advised her as to the avoidance of any means whereby the heart's work might be increased. On November 4th she consulted me for extreme weakness and shortness of breath. I prescribed her tincture of digitalis (*B.P.*), 15 minims, three times a day. On November 8th, when she had taken 3 drachms of the tincture, she complained of shortness of breath and great precordial distress—not pain, but a feeling of oppression over the front of the chest. The heart's action varied in a curious manner. For a few minutes the pulse would be perfectly regular, beating at the rate of 90 beats per minute, then it would suddenly become irregular and slow for a few minutes, then again resume the more rapid and regular rhythm. The digitalis was at once stopped, but the irregular action of the heart persisted until the 11th of November. From that date I kept the patient under constant supervision until a month after her confinement in February, 1904; I took tracings of her jugular and radial pulses at every visit and a very large number while she was in labour and under chloroform; I have seen her at intervals during the past year, and I have never found a single instance of the dropping out of the ventricular beat, or any resemblance to the irregularity which occurred from November 8th to November 11th. (On November 10th she fell for two hours into a curious mental condition, her memory for recent events being quite gone, talking in a slow hesitating manner, scarcely understanding what was said to her. The attack suddenly passed off, and never returned.)

I took a large number of long tracings during the days when the pulse was irregular, and the analysis of the short examples given in Figs. 2 and 3 applies equally to the whole of the tracings I obtained.

Fig. 1 shows the widened *a-c* interval, which is even yet (January, 1905) a constant phenomenon in tracings from this patient. Figs. 2 and 3 are instances of the different forms of irregularity that occurred after the administration of the digitalis. It will be noticed that the auricular wave, *a*, is perfectly regular in its appearance, whereas the radial pulse and the carotid (wave *c*) is markedly irregular.

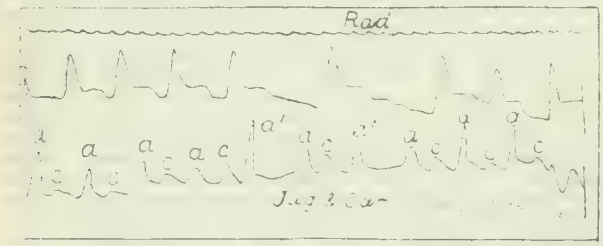
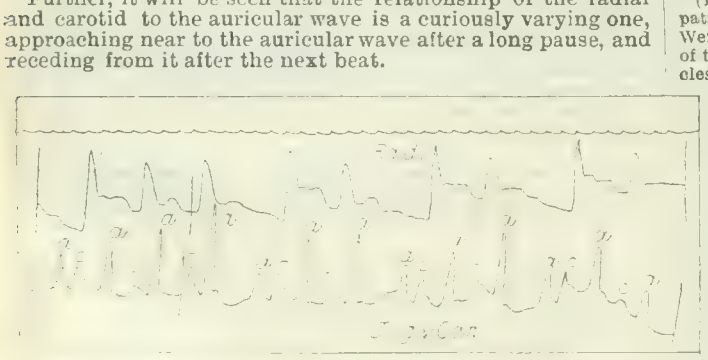


Fig. 2.—Tracings of the radial taken at the same time as the jugular and carotid. The waves *a* and *a'* are due to the auricle, and appear with perfect regularity, while the radial pulse and carotid (wave *c*) appear irregularly—a beat missing after each auricular wave *a'* (see the diagram of the tracing, Fig. 4).

Further, it will be seen that the relationship of the radial and carotid to the auricular wave is a curiously varying one, approaching near to the auricular wave after a long pause, and receding from it after the next beat.


a
a'
a
a
a
a'
a
a
a
a'
a
a

patients with no venous pulse the effect of digitalis in depressing conductivity can be recognized by the finger or by a tracing of the radial. I think I can assert with confidence that in any given case, when the auricles are active, when, in response to the administration of digitalis, the pulse becomes irregular, with long pauses, these pauses are due to the propping out of ventricular systoles, because the stimulus has failed to pass from auricle to ventricle. To my mind, the only other cause which could occasion these long pauses is the occurrence of extra systoles, but on listening over the heart the sounds of the heart are absent when a ventricular systole drops out; whereas, with extra systoles, the characteristic short, rapid sounds can be heard, due to the premature contraction of the ventricles.

I quote the following case to show how the nature of the arrhythmia can be proved with fair probability without the presence of a venous pulse to guide us:

Female, aged 53. She has suffered from attacks of palpitation, for which I have attended her at intervals for many years. She consulted me in April, 1904, for great shortness of breath and violent throbbing in the neck and upper part of the chest. The pulse was usually from 90 to 100 beats per minute, full and forcible. There was marked pulsation in the carotid, but no venous pulse. There was a faint apex beat in the fifth interspace, and the heart's dullness extended to the left 1 in. beyond the nipple. There was a rough systolic murmur at the apex, also well heard at the base. I was doubtful whether there was not also a slight aortic systolic murmur. There were no murmurs during my previous attendances on this patient. Notwithstanding rest and appropriate treatment she did not improve, and in June she visited Nauheim, and there underwent a six weeks' course of treatment—baths and exercises—followed by a visit to Switzerland. She returned to Burnley distinctly worse, very much thinner, less able to undertake exertion because of the palpitation and breathlessness, and the pulse rarely under 100 beats per minute. I tried her with various remedies, including digitalis; but in a few days this drug produced such gastric derangement that I had to stop it. She steadily got worse, and, as there was sleeplessness and much muscular tremor I prescribed ammonium bromide. In a few days she had an extensive attack of erythema nodosum on both legs. She recovered from this in a fortnight, being kept in bed and gently massaged. I resolved again to try the effect of digitalis. She began with three granules of digitalin a day on September 18th. No effect was observed till September 20th, when her heart began to intermit very frequently, sometimes she said she could feel it miss every second beat for hours. When I examined her on September 29th the pulse-rate varied in its rhythm, periods of perfect regularity varying with periods of irregularity as in Figs. 7 and 8.

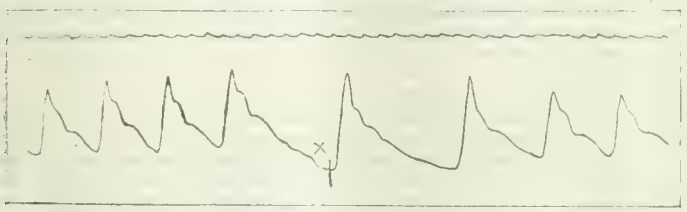


Fig. 7.—Tracing of the radial pulse, showing irregularity due to digitalis. The nature of this irregularity is shown in Fig. 9. The minute elevation preceding the fall at x is due to the systole of the left auricle.

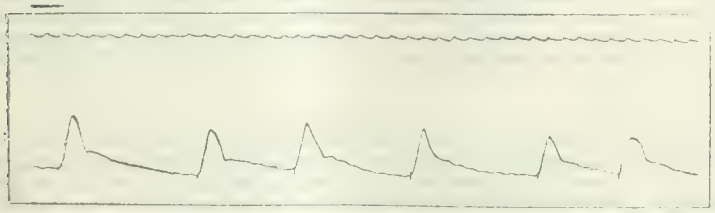


Fig. 8.—Shows the same as Fig. 7. The nature of this irregularity is shown in Fig. 10.

During the intermissions no sounds could be detected in the heart. The digitalis was stopped, and the arrhythmia daily got less until the 4th of October when it had entirely disappeared. Since that date the pulse has never shown a single irregularity, the heart has become much quieter, the rate gradually falling as low as 72 beats per minute. The heart's dullness is now within the nipple line, the murmurs are still present, but the patient's general health has wonderfully improved. Although the improvement dates from the period of arrhythmia, the patient has a horror of the digitalis.

While the absence of a venous pulse deprives us of the absolute proof of the nature of the arrhythmia we can infer that depression of conductivity was the cause from the similarity of the irregularity to that shown in Figs. 2 and 3. The nature of this arrhythmia becomes all the more evident if we construct diagrams on the basis of the two tracings Figs. 7 and 8

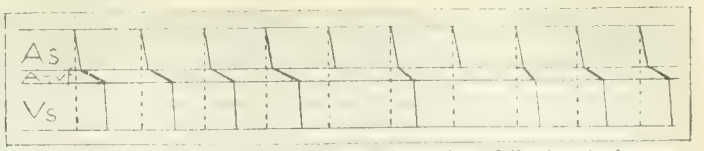


Fig. 9.—Diagram constructed to show the action of the heart when Fig. 7 was taken. For explanation see Fig. 4.

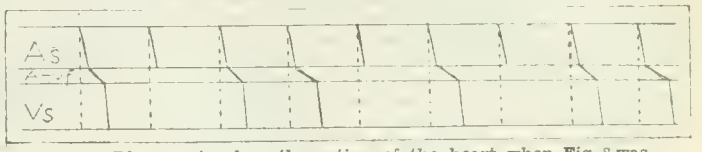


Fig. 10.—Diagram to show the action of the heart when Fig. 8 was taken. For explanation, see Fig. 4.

Fig. 10 is a diagram representing Fig. 8, and shows the nature of the arrhythmia in this instance. In constructing these diagrams, I have represented the auricular systole as appearing with mathematical regularity. As a matter of fact, however, there is usually a slight variation in the rhythm of the auricular systole, and a slight delay in its occurrence might slightly modify the time represented as having been spent by the stimulus crossing the A-V fibres. Further facts connected with this form of arrhythmia will be found in Wenckebach's book. This author had predicted that if digitalis were employed in a case of irregular pulse due to depressed conductivity, it might depress the conductivity to a dangerous extent.

On March 7th, 1905, this patient developed again this arrhythmia and at the same time a venous pulse appeared in the neck. I have taken numerous tracings of the jugular pulse and on analysis find that the above interpretation is verified in every particular.

The Milroy Lectures

ON

INDUSTRIAL ANTHRAX.

Delivered before the Royal College of Physicians of London.

By T. M. LEGGE, M.D.Oxon.,
H.M. Medical Inspector of Factories.

LECTURE II.

[Abstract.]

Treatment of External Anthrax.

The treatment of anthrax until recently has either been merely expectant or consisted in cauterization or other allied treatment of the local pustule. But the use of a serum derived from an immunized animal is coming more and more into use, especially in Italy and South America. Since in external anthrax spontaneous cures are frequent, a consideration of mere case-mortality will not suffice to establish the relative value of the three methods of treatment mentioned. Other points must be considered, such as (1) the relative amount of scarring or of deformity left; (2) the applicability of the form of treatment to the different types assumed by the disease and the stage which it may have reached; and (3) the length of time which elapses from the beginning of the treatment to resumption of employment. The third point is of especial moment in connexion with an industrial disease.

Muller[1] has described 13 consecutive cases treated successfully in Jena by rest, fixation, and elevation of the part affected, stimulating diet, and the local application of grey ointment. Ramstedt,[2] from the same clinic, has adduced more recently other 7 consecutive cases (one very severe), in which nothing but the same expectant treatment was pursued. And, similarly, Fr. Schultze[3] of Bonn has cited a case of extremely severe malignant pustule of the cheek, with extensive oedema of the eyelid, neck, and chest, which was cured after a plastic operation on the eyelid without other operative treatment. Muller, too, considers that the adoption of expectant treatment may be defended on the ground that any operation may facilitate the distribution of the bacilli throughout the system.

Surgical interference usually takes the form of free excision, dissecting out the pustule from the healthy tissues beneath, swabbing the wound out with pure carbolic, and allowing the wound to granulate up from the bottom. Subcutaneous injections of 5 per cent. carbolic acid around the malignant

pustule have also been employed. At Guy's Hospital, again, Davies Colley,[4] basing his practice on that of Muskett in South Africa, has, in addition to excision, powdered ipecacuanha on the wound, and given it in 10 gr. doses internally. Muskett[5] in 15 years thus treated 50 cases without fatal issue, using locally ipecacuanha mixed with water into a cream, and did not practise excision. He believed the remedy was a specific. Washbourn found that the powder had the power of destroying anthrax bacilli, but not the spores; in the body sporulation does not take place. This treatment is still most frequently employed at Guy's Hospital. In Russia[6] treatment by injections of carbolic acid has been largely used. Scharnowski has treated in this manner 50 cases, with 2 per cent. of deaths; their severity may be judged from the fact that in 25 the face and neck were affected.

Cauterisation with caustic potash has also been in favour, and Graef[7] has reported 384 cases thus treated by himself and two others, with a mortality of 5 per cent.

It has been already stated that the general mortality to be expected in anthrax is 25 per cent., but for cases treated early and under favourable conditions this is too high. Even, however, in districts where the disease is well known patients commonly defer applying for treatment much too long. Early excision—not later than the fourth day—is good; later on it seems possible to believe that it may promote generalization of the disease. In some situations, moreover, in which anthrax occurs excision is either impracticable or will necessitate subsequent and serious plastic operations and prolonged treatment.

SERUM TREATMENT.

Turning now to treatment by antianthrax serum, I have examined the details of all the published cases that I can find*—67 in number. All but 2 of the cases have been treated in Italy with Sclavo's serum.

Of these, 56 were treated by serum alone, and in 11 this serum treatment was subsequent to other treatment, which in 10 cases had been excision or cauterization, or both. In 44 of the 56 treated with serum alone the data given are precise enough to determine the time which elapsed between the commencement of treatment and complete recovery. In several instances it is the same as the time given for the separation of the eschar, but many days before that stage the patient was to all intents and purposes quite well, excluding the fatal cases. In every instance but one by the third day marked improvement had taken place, not only in the general symptoms but in arrest of the further development of the pustule and in diminution of the oedema. Taking the time thus given or to be inferred in these 44 cases, the average duration of treatment was eight days. In none was it more than fourteen days. I can affirm, too, that in the 12 cases treated with serum alone in which the details are not precise enough to allow of the number of days being given, the evidence all points to rapid healing except in 2, where there was loss of tissue. The exact description, so far as it is given of the final condition at the site of the pustule itself, is as follows:

No visible scar	10
Scar hardly visible	5
Slight scar	10
Completely cured	15
Some loss of tissue in eyelid but function unimpaired	1
Complete loss of upper eyelid	1
	42

The site of the lesion was on the neck, 15; cheek, 13; eyelids and eyebrow, 9; other parts of the face, 13; and arm and hand, 12.

As for the 2 fatal cases: In the first the patient was the subject of malaria, was addicted to alcohol, and had syphilis. The pustule was on the upper eyelid, with oedema extending rapidly over the face and chest, and there was no necrotic patch to assist in the diagnosis. The condition was suspected to be diphtheria of the conjunctival mucous membrane, and diphtheria antitoxin was injected. A day later some vesicles appeared on the eyebrow, and then 40 c.cm. of antianthrax serum were administered. After this he improved rapidly and materially for four days, but then had a rigor, followed by collapse and death. *Post mortem*, extensive submeningeal effusion containing anthrax bacilli was found.

In the other case, also affecting the eyelid, serum treatment was delayed, owing to the impossibility of obtaining it, so excision was practised. When the serum was obtained and injected endovenously, immediate improvement took place. Two days later the oedema had diminished so much that the woman was able to see out of her eye, took her food well, and the pulse-rate dropped from 140 to 104. A few hours later she was seized with sudden collapse, cyanosis, and died. No *post-mortem* examination was held.

Of the 9 other cases treated with excision or cautery as well, in 1 there was complete necrosis of the upper and lower eyelid, and in two others it is stated that after four days treatment of local injury was the only concern, although one was of such exceptional gravity as to have received 200 c.cm. of the serum endovenously within twenty-four hours. In another case in which the bacilli were found in the blood and urine, 190 c.cm. were administered in the course of seven days.

In the early days of treatment the doses were comparatively small, no more than 20 or 30 c.cm. being given at the initial injection. In later cases the initial dose was generally 40 c.cm., and those who have experience of the treatment strongly advocate big initial doses. In 39 of the cases the initial dose sufficed.

These cases, however, by no means exhaust the list of those in which serum treatment has been adopted. Sclavo[8] himself in 1903 reviews the subject in a paper in which he tabulates all the cases known to have been treated in Italy whatever the stage of the disease. These total 164, with a mortality of 6.09 per cent., as compared with 24.1 per cent. for the whole of Italy. The facts stated by him he believes are very far from showing accurately the therapeutic value of the antianthrax serum. In the early days of a new treatment holding out a fresh hope, there is always temptation to use it in the most desperate cases.

To two of the fatal cases I have referred already. In the third—affecting the upper eyelid—the disease was not diagnosed until too late, when the woman presented herself with high temperature, very weak intermittent pulse, difficulty of respiration and oedema of face, neck, and chest. Death took place within nine hours of commencing treatment.

In the fourth the pulse was situated on the neck with marked cyanosis from dyspnoea caused by the oedema, running pulse; 25 c.cm. injected with little hope of benefit. Death occurred within twenty hours.

In the fifth the pustule was situated on the neck, with oedema of the greater part of the thorax. Death took place within eleven hours of admission. 20 c.cm. only were injected.

In the sixth no record was kept except that death took place within thirty hours of admission.

In the seventh the pustule was on the neck, with oedema rapidly extending to the thorax. Bacilli were found in the blood. There appears to have been no reaction to injection of 45 c.cm. on the first day, and 30 c.cm. on the second.

Of the eighth, particulars are not given except that she was admitted to the hospital in a serious condition, the victim of alcoholism and suffering from disease of the heart.

The ninth had oedema of the neck and chest, and 20 c.cm. were injected. The following day there was marked improvement; 20 c.cm. were again injected, but death occurred suddenly on the morning of the following day, with symptoms of hemiplegia.

TRIAL IN ENGLAND.

Since July, 1904, serum treatment has been tried in England, either alone or in connexion with excision, in 12 cases of external anthrax—not including 1 in which, on the tenth day when the patient was already comatose and bacilli were present in the blood, 30 c.cm. were injected four hours before death. In 4 of these serum alone was used. In No. 1 the pustule was on the malar process, in No. 2 on the forehead, in No. 3 on the upper eyelid, and in No. 4 on the forearm. The first two were treated at St. Bartholomew's Hospital.[9] An initial dose of 40 c.cm. sufficed in both cases to arrest further "development of vesicles or other indications of the necrotic process." There was increased oedema, but this was associated with improvement in all other respects. In 1 of the cases no colonies of anthrax could be cultivated nineteen hours after the serum had been injected, although previously the fluid of the vesicles yielded abundant colonies. "Cultures were repeated on the third day, again with negative result. . . . Only a few disintegrating bacilli were found, mostly enclosed in leucocytes." In both cases

* When this was written the cases in the BRITISH MEDICAL JOURNAL of January 7th, February 11th, and in the *Lancet* of February 4th were not published.

hardly any scar was left. No. 3 was treated by Dr. Mitchell of Bradford. The patient was a mill worker. Already by the second day both eyelids were closed with oedema, which extended to the clavicle on the left side, and the right upper and lower eyelids were dark-coloured and appeared as if about to necrose. In four days 100 c.cm. were injected, 20 on the first, 50 on the second, 30 on the third, 10 on the fourth. By the fifth day the oedema had almost all disappeared except such as would readily be accounted for by the presence of a necrotic area on the left upper and lower eyelids. Although the local symptoms were very severe the general condition of the patient remained good. Case 4 was treated at the Royal Infirmary, Bradford. The type of the disease was described as very malignant, with oedema rapidly extending to the shoulder. He received 140 c.cm. in the course of three days—30 c.cm. intravenously on the morning of the day of death. There appeared to be reaction at first in a rise of temperature to 103.6° F., but the oedema continued to spread; he became insensible, and the diagnosis of meningeal haemorrhage between the pia mater and arachnoid was made by Dr. Bell. *Post mortem* the brain was found to be surrounded with blood between the pia mater and arachnoid and nowhere else.

Six of the 8 cases in which excision was practised as well as serum administered (treated in Guy's Hospital, Bradford Infirmary, Kidderminster Infirmary,[10] and by Dr. Peck of Queensbury, Bradford) made rapid uninterrupted recovery. In the seventh, treated at the North Stafford Infirmary, excision of the pustule on the hand and incisions into the brawny oedema had been made on the twelfth day of the disease. Administration of serum was commenced twenty-four hours later, when the patient was already in a comatose condition. Death took place twenty-four hours later, there having apparently been no reaction (except diminution of the oedema). In the eighth the pustule was situated on the neck, with rapidly-extending oedema. Two injections only of 10 c.cm., at twelve hours' interval, were given. Death occurred within thirty hours.

Its Claims.

The claims as to the effects of serum treatment can be summarized by saying that: (1) In very large doses it is innocuous; (2) it can be well borne even when introduced into the veins; (3) no case taken in an early stage, or of moderate severity, is fatal if treated with serum; (4) with the serum some cases are saved when the condition is most critical and prognosis almost hopeless; (5) when injected into the veins the serum quickly arrests the extension of the oedematous process so as to reduce notably the danger from suffocation which exists in many of the cases where the pustule is situated on the face or neck; (6) the serum, if used early enough, reduces to a minimum the destruction of tissue; (7) in some situations of the pustule, as the eyelid, serum must be used in preference to any other treatment; (8) persons attacked, when treated with the serum, appear to become convalescent in the course of a few hours; to these I may add (9) that in internal anthrax it is administered intravenously the only treatment which can hold out any hope.

In almost all cases injection of the serum is followed by a rise in temperature often to over 105° F., and with this there is an improvement in the general condition of the patient. The prognosis where there is this rise Sclavo regards as favourable. In the same way the necrotic process itself is to be regarded as a sign that the organism is making effort to resist the anthrax infection.

In Italy great value is attached to the treatment. A few facts may emphasize the value and importance attached to the serum treatment in Italy.

In Santa Croce,[11] a small town of about 5,000 inhabitants with 36 tanneries employing 350 workers, and where Dr. Cicognani has adopted the serum treatment exclusively since 1899, the workers now insist on having this treatment to the exclusion of every other, and, since operative treatment is uncalled for, present themselves when there appears the smallest pimple or boil suggesting anthrax.

Recently in Milan I visited the large horsehair factory of Pachetti Brothers, employing some 700 workers. In addition to the steam disinfection of horsehair, a physician attends every morning to treat accidents and slight ailments, keeping careful watch for conditions or appearances suggesting anthrax. His room is fitted up as a bacteriological laboratory for verification of anthrax, a supply of serum is kept, and thus cases in the earliest stages are caught, treated, and recover without cessation of work for more than a day or two. The head of the firm states that he has no fear whatever of the disease among his workpeople, as he has seen so many successes in dealing with it by this method. It was indeed this last piece of information communicated to me a year ago by Mr. Albert Webb, of the firm of Edward Webb and Sons, carpet manufacturers, Worcester, which led me to inquire into the method of treatment.

Its Preparation.

So far I have said nothing of the source of preparation of the antianthrax serum by Sclavo, Professor of Hygiene and Principal of the Pathological Institution in the University of Siena. Its origin may be traced back to 1880, when Toussaint[12] first suggested inoculation of animals with attenuated culture as a protection against naturally-acquired anthrax. This led to the elaboration by Pasteur and Chamberland of the method which is now so largely used, especially in France.

The successful efforts made by Behring in obtaining a protective serum against diphtheria, and by Kitasato against tetanus, stimulated inquiry in a similar direction as regards anthrax by Behring, Hankin, Metchnikoff, and Roux.

Marchoux in 1895[13] first succeeded in immunizing actively rabbits and sheep, using Pasteur's vaccines 1 and 2, and then injecting virulent cultures subcutaneously; at first in small and then in greatly-increased doses. And in the same year Sclavo, who had been working at the same subject, was able to assert from his experiments that (1) sheep brought to a high degree of active immunity could furnish a serum active against anthrax; and (2) that this serum showed prophylactic and curative power against anthrax when inoculated into rabbits. He then set to work to find a more powerful serum, and finally obtained from the ass the serum which he now uses. The result is the more curious in that, according to Behring, the strongest antitoxic serums are obtained from animals most susceptible to the organism under experiment; and to anthrax the ass is less susceptible than the goat or sheep.

Even with the ass, however, it is desirable to immunize three or four animals, and to select from among these the one producing the most active serum. In order to expedite the immunizing effect, he instituted simultaneous active and passive immunizing treatment, and finally succeeded in protecting sheep from anthrax of a very virulent nature, and satisfied himself of the curative properties of the serums by proving that 10 c.cm. administered twenty-four hours after inoculation with virulent anthrax cultures protected sheep in cases where one of the control animals died three hours and the others fourteen hours later.

He next turned his attention to treatment of malignant pustule in man, and the first case was treated in June, 1897. He desired also to test the effects of his combined active and passive immunizing method on large domestic animals—horses, cattle, and sheep; but his application to the Ministry of the Interior to defray the expenses entailed was unsuccessful, and therefore this part of his scheme could not be tried.

I have had the opportunity, through the kindness of Dr. Sclavo, of seeing all the stages in the preparation of the antianthrax serum in the Pathological Institute of Siena.

On August 10th, from an ass which had undergone the process of immunization during a period of two years, about 150 c.cm. of blood was taken from the left jugular vein. Similar bleeding had been practised on more than fifty previous occasions. On the 13th, the clot having separated, the serum was decanted, and ether was added to the extent of 3 per cent. of the whole bulk.

On the 13th, to test the efficacy of this serum, six rabbits three to act as controls—were inoculated subcutaneously in the abdomen with 0.5 c.cm. of a suspension of a culture of anthrax (grown on agar on August 11th, and kept at 36° to 37° C.). Three of the rabbits received also at the same time 10 c.cm. of the serum injected in one of the auricular veins. All the control animals were dead in thirty-six hours with extensive oedema at the point of inoculation, and anthrax bacilli were found in the blood and tissues *post mortem*. The three rabbits which received the 10 c.cm. of serum remained well except for slight induration at the point of inoculation until the 16th, when further opportunity of observing them ceased.

The efficacy of the serum thus having been proved, the serum was then introduced with antiseptic precautions into the 10 c.cm. tubes in which form it is used.

To maintain the immunization of the ass, on August 14th 10 c.cm. of a culture of anthrax in bouillon containing 2 per

cent. gelatine was injected subcutaneously into the right and left side of the neck. This culture was made on the 13th, and was mixed with an old culture prepared in the same way a month previously. The use of gelatine in the fluid injected is believed to prevent the formation of an abscess at the point of inoculation. There was much swelling and tenderness, which had in great part disappeared by the morning of the 16th.

ANIMALS AND ANTHRAX SERUMS.

Before leaving the subject of the history of serum treatment it is desirable to state what stage has been reached in similar serum treatment of the large domestic animals because its hopefulness here appears to be as great as in case of man. This can be best done by reference to the work of Sobernheim.[14]

His first series of experiments were carried out in 1897 with serum of cattle which had been subjected to Pasteur's treatment, and with the serum of one cow which, after recovery from spontaneous anthrax, had been further treated by Pasteur's method. The result, so far as concerned the production of immunity in rabbits, guinea-pigs, and mice was, he considered, so variable that they were contrary to any idea of specific action of the serum. More satisfactory results were obtained from immunizing two sheep—one slowly, the other rapidly—to such a degree that they could stand enormous doses of anthrax cultures without inconvenience. The serum of the one that was rapidly immunized showed remarkable protective properties in retarding a fatal issue in rabbits for from six to eight days, but held out little hope that serum-therapy would be used as a curative agent in anthrax in animals because of the rapidity of the disease.

In a further series of experiments on sheep, however, he obtained more successful results by employing simultaneous inoculation of antianthrax serum and virus, or inoculation of each of them separately within a short interval of time. He used for the virus anthrax cultures of about the strength of Pasteur's second vaccine, believing that with this strength injurious action would not result in the presence of the immunizing serum. As a matter of fact, it was found to be non-injurious, and the immunizing effect was far greater than that obtained from ordinary serum alone.

Subsequently, to test this combined method of producing immunity, he carried out experiments over a period of two years—1900-2—with the support and encouragement of the Chamber of Agriculture of Saxony. Thirty-three sheep, 18 oxen, and some horses were treated first with attenuated anthrax cultures, and later with highly virulent cultures in increasing doses until a degree of immunity was reached so great that inoculation of enormous quantities of most virulent anthrax could be borne without material ill effects resulting. The serum and culture were not mixed together, but 5, 10, 15 c.cm of serum were inoculated into the left side, and immediately after 0.5 to 1 c.cm. of the slightly attenuated anthrax culture into the right. After twelve to fourteen days inoculation with virulent anthrax cultures was made. The results of laboratory experiments were entirely satisfactory, as 10 c.cm. of the serum sufficed to protect, while the control animals died in twenty-four to thirty-six hours. The immunity, too, thus conferred protected 3 out of 4 sheep from contracting the disease by way of the intestinal tract. Its curative power was also shown in that of 5 sheep inoculated with virulent anthrax and then subcutaneously treated at intervals of from ten minutes to six hours later with 40 c.cm. of the serum, 2 survived, while death was delayed in the others from four to eight days. The control animals were killed in one and a half days. It was necessary to apply the method on a much larger scale in order to determine its general applicability in veterinary practice. Districts in which outbreaks of anthrax were occurring were, therefore, selected, and 2,700 cattle were treated, almost all of them by means of the combined method. No deaths were attributed to the inoculation, and no serious injury to health, even when the animals were only 2 or 3 weeks old. There was a rise of temperature and slight loss of appetite. From the moment the inoculations began cases of anthrax ceased to break out afresh. The immunity produced was lasting, as for a further nine months, up to the time of reporting, in spite of many outbreaks in untreated animals, none of the treated suffered. With larger doses animals already affected with the disease recovered.

Sobernheim feels himself, therefore, in view of these results, justified in speaking of the combined active and passive immunizing method as capable of giving powerful and lasting protection, and summarizes its advantages over Pasteur's method as follows: (1) That it is free from danger; (2) that it is effective in one day, and has not to be repeated; (3) that a stronger dose and more active cultures are used than is the case with Pasteur's vaccine, and probably a more lasting protection is conferred; (4) that it protects from infection by way of the intestinal tract; and (5) that it can be used for curative purposes. Since then he has carried out his treatment on a large scale in South America, with results which satisfy him as to the value of the process.

METHOD OF ACTION.

I have now stated the facts as to the preparation of and the results from treatment by antianthrax serum. When attempt is made to explain its action we are still almost totally in the dark. The anthrax poison is not comparable with that of diphtheria and tetanus, because never yet satisfactorily, despite numerous experiments, has any toxin been obtained from filtered cultures of the bacillus, injection of which produces the specific effects of the disease such as are obtained from injection of diphtheria and tetanus toxins. It is customary, from its tendency to generalization on inoculation, to describe the anthrax bacillus as an exciter of septicaemic processes; but the evidence from the manifestation of the behaviour of the bacilli in the human body undoubtedly points to the production of toxin of some sort. The presence of an excessive leucocytosis at the point of inoculation, the local necrosis, the oedema, the effects extending to distant organs, and the constitutional symptoms point to such toxic action. When, therefore, we recognize the absence of toxins from filtered cultures grown in artificial media, it must not necessarily be supposed that this holds good for the life-processes of the bacillus when developing on its natural soil in the body. Further, the poverty of the blood in bacilli until immediately before death is inconsistent with the view that the extent of the symptoms is due to the multiplication of the bacilli apart from toxic production.

Sobernheim cannot speak positively on the subject. He regards the artificially-acquired immunity from use of the serum as probably due to bactericidal rather than to antitoxic processes, on the ground that the whole character of anthrax infection is septicaemic in nature, but he does not consider that specific bactericidal effect of the antianthrax serum has been definitely proved either inside or outside the animal body. The serum does not decrease the development of, much less kill, the bacilli *in vitro* any more than does normal serum, nor does it bring about definite morphological changes in them. For days and sometimes weeks after subcutaneous inoculation of large quantities of anthrax bacilli into highly-immunized sheep, the bacilli can be found at the point of inoculation. On the eighth or twelfth day after inoculation he has found them in the blood, which, in his opinion, points to the likelihood of the development of antitoxic properties.

Ivo Bandi[15] states that the serum which he prepared from the sheep, and used successfully in two cases in man, possessed considerable bactericidal and antitoxic properties. To test its bactericidal power, he followed Bordet and Gengou's method of determining the presence of immune body—namely, the addition, to fresh serum containing a sufficient quantity of complement, of anthrax bacilli sensitized by exposure for some time to the influence of the specific serum heated to 55° C.

Sclavo, however, has not found that heating his serum to 55° C. for one hour in any way prevented its power of conferring immunity on rabbits.

Metchnikoff[16] attributes the results to phagocytosis. The absence of phagocytosis observed by Sobernheim he explains on the ground that immunization was not as complete as in Marchoux's experiments, and consequently the conditions of negative chemiotaxis were set up.

Sclavo in this connexion will not allow himself further expression of opinion than that the bactericidal substances of the antianthrax serum do not correspond in structure with those present in other bactericidal serums, and that in his experience they have only a secondary importance, notably inferior to that of the substances contained in it, which stimulate the defensive action of the phagocytes. Were the serum merely antitoxic it would not be possible, he thinks, for such differences to occur as are shown in the potency of the serum obtained from different animals. However big the doses of a weak serum, no such good results are obtained as from moderate doses of a powerful serum, probably from the fact that the weak serum insufficiently stimulates the leuco-

cytes. On the other hand, Sobernheim and Radziewsky[17] found that when anthrax bacilli were introduced into the peritoneal cavity, or developed there from the spore stage, phagocytosis was present in a very small degree and at a late stage, while the swelling up and granular disintegration of the bacilli was obvious. Kisskalt[18] also tested the same point and came to the same conclusion.

The simplest explanation of these differing views is to assume the action of an intracellular toxin which in slight amounts attracts, and in large keeps back, the leucocytes. We get less confused if, dismissing phagocytosis from our minds, we still retain the idea of the cells of the body, and accept the principle of immunity to be the fabrication by these cells of the bactericidal substances which, passing into the intravascular and extravascular fluids, destroy the bacilli. Radziewsky has shown by special staining methods that all the time the development of an anthrax infection is proceeding the multiplication of organisms is accompanied by death and destruction of others. The introduction of spores of anthrax on threads into the peritoneal cavity of guinea-pigs is followed up to the ninth hour by enormous increase in number, so that a thick network of them is formed, all staining well. Between that and the eleventh hour the reverse process goes on, during which an extraordinary destruction takes place, and by the fourteenth almost all are dead. This helps much to explain the negative bacteriological find in several cases of anthrax, as the number of bacteria which may be found at the end of an infection may not correspond in the slightest degree with the number that may at one time or another have been present. If there was no formation of bactericidal substances, as the vital powers became exhausted there would be no sufficient reason to explain the decrease rather than the increase of bacilli. And it is probable that the same bactericidal substances which kill the bacillus are the same as are produced in the organism during the process of immunization.

A fatal issue in anthrax is to be explained on this view of Radziewsky by assuming that as the microbes increase so the cells of the body react to destroy them. The bactericidal substances thus produced destroy so many bacilli that the substances liberated at their death exceed the minimum lethal dose. The use of the serum, therefore, would be to assist in the destruction of the bacilli before their number was such that from their death so much poisonous substance was produced as to be fatal. If this view explained everything its use would be limited to early cases, and in late cases it might even be a direct cause of death. From consideration of the cases treated in man by the serum, we can hardly believe that its only effect is to cut short the capacity of the bacilli to increase at a time when the amount of the intracellular poison has not yet reached a lethal dose.

Recently MacFadyen and S. Rowland,[19] by special methods, consisting in the use of very low temperatures, have obtained extracts from the bodies of typhoid bacilli, or in other words, their intracellular toxin. Injection of this into monkeys, rabbits, and goats over a period of four to six weeks produced a serum which showed (1) marked antibactericidal and antitoxic properties, and (2) curative and preventive properties as regards the typhoid bacillus and its intracellular toxin. This is the first instance where a serum has been obtained which was found to be bactericidal against a particular organism and antitoxic as regards the toxin contained in its substance.

The work of Wright and Douglas,[20] with its proof that the blood fluids through the opsonins contained in them modify bacteria in a manner which renders them a ready prey to the phagocytes, may be expected to throw light on the action of the antianthrax serum. The anthrax bacillus unfortunately, owing to thread formation, does not appear to lend itself well to the particular method of experimentation employed by them, namely, averaging the number of bacteria ingested by a certain number of leucocytes; but in experiments on the opsonic power of human blood in its relation to the anthrax bacillus when unheated serum was used, they say—

> Although enumeration was impossible, there was everywhere evidence of phagocytosis. In the few cases where the leucocytes had not ingested bacteria, they were found to have extended themselves in a characteristic manner along the bacterial thread. Repeating the experiments with heated serum, there was practically no sign of phagocytosis.

The presence of opsonins in quantity in the blood after inoculation of serum would account for the observation of Andrewes[21] in the case already referred to in which no anthrax colonies could be cultivated nineteen hours after injection of serum, although their presence had previously been abundantly proved, such few disintegrating bacilli as were found being mostly enclosed in leucocytes.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

AN UNUSUAL COMPLICATION OF VARICELLA.

Varicella is usually regarded as little more than an inconvenience to the average subject, and complications are conspicuous by their absence. They may, however, occur, and be of a troublesome nature, an instance being described in the following note. A healthy boy of 11 slept in the same bed as his elder brother on December 29th last; the following morning the elder boy showed a definite chicken-pox eruption, and was absolutely isolated, so that no further contact of any kind or degree took place between the two. On January 13th the younger boy complained of headache, loss of appetite, and weariness; examination showed a very profuse varicellar eruption, the vesicles increasing in number for about twenty-four hours. None could be seen upon the fauces, though the throat was sore. It was a severe attack—according to the patient's account there were over 300 spots—and the general symptoms continued for two days. On the night of January 15th I was called in to see the boy, who had passed practically no urine for sixteen hours, and was in pain, with constant but ineffectual efforts at micturition. The prepuce was swollen, and its opening obliterated by a large pock, and within the urethra, half an inch from the meatus, was a very tender and painful spot, which may or may not have represented another vesicle. There was tenderness above the pubes, and at least an inch of dullness, and there was evidently severe pain referred to the hypogastrium and penis. He was at once given a hot bath and a full dose of morphine, which almost immediately induced a plentiful passage of urine. Subsequently there was a certain amount of discomfort on micturition, but not enough to call for special treatment; the swelling of the prepuce disappeared as the eruption dried up.

Curiosity led me to see whether textbooks furnished any precedent for such an unusual occurrence; in only one—Keating's *Encyclopaedia of Children's Diseases*—out of eight or nine standard English and American works was there even the barest mention of such a complication. This leads me to suppose that it is a rare incident, and therefore worthy of record.

Bristol. Carey Coombs, M.D., B.S.Lond.

SCARLET FEVER IN A CHILD THREE WEEKS OLD.

I do not mean to assert that this case is unique, but an undoubted case of scarlet fever in a child 3 weeks old is very uncommon. It is a good illustration of how careful one has to be in examining cases as they may be brought for quite a different complaint. This child was brought up to the outpatient department to the County Hospital, Ayr, on account of an erysipelatous condition of the scrotum and thighs. On questioning the mother it was ascertained that the child had been feverish and very fretful for two days, and had also vomiting. The legs appeared redder than usual. The child was then stripped, when the upper limbs and the whole of the body were seen to be of a brilliant red hue, the throat was very red and injected, and there was a typical strawberry

tongue. The temperature in the axilla was almost 102° F. The case was notified, and was taken into the fever block of the hospital. There the temperature soon came down, and three days later the characteristic desquamation commenced round the ears and neck. This went on quickly, and he was discharged five weeks after admission.

Ayr. JOHN ALLAN, M.B., Ch.B.

ACUTE STRANGULATION OF ILEUM THROUGH AN APERTURE IN MESENTERY.

A GIRL, 9 years of age, retired to bed in her usual health; two hours later she was attacked by severe colicky pains in abdomen and frequent vomiting, which later became stercoral. I saw her fourteen hours after the commencement of attack. She was then collapsed, pulseless, heart-beats 180 per minute. The temperature in the groin was 99.5°F. There was tenderness over the whole abdomen, greatest at a point 2 in. below and to the right of the umbilicus, the abdomen was also slightly distended, and almost immobile during respiration; no motions nor flatus had been passed. Eight hours later she was still very collapsed. Heart-beats 180 per minute. Temperature in groin 100.5° F. There was great tenderness and much distension of the whole abdomen and occasional hiccough. She died suddenly twenty-four hours from the commencement of attack.

Autopsy.—The abdomen contained about 30 oz. of bloody serum, 4 ft. of the lower portion of ileum had passed through an aperture—large enough to admit the tips of two fingers—in the mesentery, and become strangulated, the gut being greatly congested. There was evidence of an old peritonitis in this part of abdomen. It appears that about four years ago she was run over by a trap, and it seems probable that the rent in the mesentery occurred at that time.

Walthamstow. J. CLARKE, M.R.C.S., L.R.C.P.

LARGE CYSTIC CALCULUS.

MR. PIKE in the BRITISH MEDICAL JOURNAL dated January 7th reported a cystic calculus of 13¾ oz., and more recently Lieutenant-Colonel Hatch (JOURNAL, February 18th) recorded one of 17 oz. It may therefore interest some readers to learn that in 1898 I removed by suprapubic lithotomy at Civil Hospital, Nasik, a calculus weighing 1 dr. and some grains over or under 20 oz. My notebook is not with me to refer to, but I fancy the stone was just over the 20 oz.

The patient was a low-caste Hindu. Had a history of stone for thirty-six years. He was in a very bad state of health, but said he preferred to die under the operation rather than bear the stone any longer. He died on the third day after the operation.

Both kidneys were most extensively diseased. The stone was white, smooth, circular, and—except a rather softer outer layer of less than ¼ in. in thickness—extremely hard, almost like marble.

I carefully, and with difficulty, divided it in half with a fine-toothed saw. Being transferred almost immediately I lost sight of the stone for a year. On writing for it only one half was forthcoming, and that is now in my possession.

Liverpool. C. TILSON HUDSON, Major, I.M.S.

HAEMATEMESIS AND MELAENA IN AN INFANT: RECOVERY.

READING the account of Drs. Morris and Feldman's case of haematemesis and melaena neonatorum reminded me of a case I attended in December, 1903, with the same happy result.

On December 17th I was called by the midwife to see a child—born the previous day—who was vomiting blood. The mother had been attended by the midwife, who assured me the delivery was easy, and that she had waited, as was her custom, for the child to cry before tying the cord. The midwife was anxious about the case, because she said she had had three other similar cases during several years of practice, and they had all died. The child was vomiting every half-hour or so, and most of the vomited matter was dark, nearly black, and thin, not clotted. It had also passed meconium several times, accompanied on the last two or three occasions by some bright, fresh blood. It had not been put to the breast or fed.

I saw dark blood vomited and bright blood on the napkin. The mouth, pharynx, and nose seemed normal; no bleeding points. Temperature and pulse were normal. It did not seem affected by the loss of blood, although I was assured several tablespoonfuls had been vomited. I administered drop doses of adrenalin chloride 1 in 1,000 every half-hour. At the end of twenty-four hours the loss of blood had greatly diminished, and on the third day ceased. It lasted altogether about eighty hours. Before the bleeding stopped, however, icterus was well marked, the conjunctivae were distinctly yellow, the napkins stained yellow by urine, and the skin generally of a pale yellow tinge. Under ¼ gr. doses of calomel this disappeared in five days, and recovery was complete. Weak milk and lime water only was administered. The child is now strong and healthy.

It appeared to me the liver or one of its appendages was responsible for the haematemesis and melaena, but if so I was much surprised to find the icterus clear up so rapidly.

Leigh, Lancs. J. CLAY BECKITT.

A CASE OF HAEMARTHROS OF THE WRIST.

THE following case merits, I think, publication, as the condition presents features of some interest and must be of considerable rarity.

J. C., a boy aged 14, came to my rooms on February 9th, and showed me a hand on the back of which there seemed at first sight to be a large diffuse ganglion. I found, however, that the hand had been normal until about ten minutes before, when the boy slipped in the road and fell, with the back of his hand on the kerbstone. He felt only slight pain at the moment, but noticed in a minute or two that the hand was getting stiff and tight, and that the back of it was rapidly swelling.

There could be no doubt that one had to do with a haemarthros of the wrist, and on examination it was seen that the compartments of the joint had been picked out in such a way as to demonstrate quite accurately the individual synovial pouches. From above down there were four distinct swellings on the back of the wrist.

1. An L-shaped swelling between the radius and ulna.
2. A sausage-shaped swelling below the level of the bones of the forearm, stretching transversely across the wrist, and united on either side by the lateral ligaments.
3. An irregular tumour like a small bean over the centre of the carpus.
4. An ill-defined irregular swelling running across the back of the wrist at the base of the metacarpal bones.

A glance at a diagram of the wrist shows the relation of these swellings to the joint. Even as I examined the case the contours of the tumours became blurred, and the separate swellings slowly merged into one irregular swelling, which obscured the wrist-joint.

I removed with a large hypodermic needle 3½ drachms of blood, and applied firm pressure over the wrist. The subsequent history was uneventful; there was extensive synovitis of the wrist-joint, which subsided under ordinary treatment; and there is now, except some slight thickening round the joint, very little wrong with the part.

R. ALLAN-BENNETT, M.B.Lond., M.R.C.S.

Saltburn-by-the-Sea, Yorkshire.

INCUBATION PERIOD OF MUMPS.

As medical officer to a preparatory school I have of late years insisted on a quarantine period of twenty-nine days in cases of mumps, and for this reason—that the school had been spared an epidemic in consequence of the detention at home beyond the usually-recognized period of twenty-five days of a lad who was unfit to travel through malaise (induced probably by the ferment of parotitis in his system), the disease only declaring itself on the twenty-eighth day. On a second occasion another boy developed the disease on the twenty-ninth day after last exposure, the very day on which he was about to return to school.

A still longer period of incubation came under my notice in an Eton scholar who developed the disease thirty-five days after leaving an infected house; but, though there was not the slightest evidence of fresh exposure, I cannot help thinking there must have been some source of fallacy in this case.

W. T. PARKER DOUGLAS, B.A., M.B.Cantab.

Speen, Newbury.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

South-Eastern Branch: Isle of Thanet Division.—A clinical meeting of this Division was held at the Royal Seamen's Hospital, Ramsgate, on March 2nd, Dr. C. Cotton in the chair.—Dr. Halstead showed a case of Raynaud's disease, complicated by psoriasis in a woman of middle age, who had been afflicted nine years. The disease had caused gangrene of the tips of the fingers, those in most use, as the index fingers, being proportionately worst affected. Dr. Halstead also showed a case of a man who had received a charge of small shot in his face and neck, which had caused the loss of both eyes; the patient also showed paralysis of the left vocal cord, the cause of which was discussed.—Dr. Tamplin showed a case of leucodermia, also a case of multiple neuralgia, possibly originating in the poisoning of a wound in the hand by a splint of greenhart wood.—Dr. Cotton showed a case of syphilis which had developed symptoms of cerebral gumma, rapidly clearing up under treatment; also a case of obstructive jaundice.—Dr. Halstead showed a case of rickets exhibiting a curious mode of progression.

Border Counties Branch: West Cumberland Division.—At a meeting of this Division, held on February 23rd, Mr. G. J. Muriel in the chair, Dr. Proud (Maryport) read a paper on puerperal eclampsia. Having regard to the good results of lumbar puncture for convulsions in children, he thought it should also have a good effect in such cases as puerperal eclampsia. He reported his results in several cases where all the ordinary remedies had failed and where good immediately followed from lumbar puncture; one case especially, where the patient was almost *in extremis*, consciousness and improvement at once showed itself. Dr. Proud also showed the following cases in the hospital, all of which had some special interest, namely, strangulated hernia, abscess of gall bladder, iliac abscess, and talipes equinus.—Dr. Crerar (Maryport) showed the following pathological specimens, and read notes on the cases:—(1) A very large bursa patellae (with photographs), which was removed: (2) two cases of ectopic gestation; (3) a case of bile duct carcinoma with gall stones; (4) a case of undescended testicle which had been removed, and which showed the presence of a bilocular funicular process. Dr. Crerar also showed the following cases:—(1) Extensive lupus of the face which had been treated successfully by the *x* rays; (2) case of injury involving the fifth and sixth cervical nerve roots.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Douglas Powell, Bart., K.C.V.O., President, in the Chair.

Tuesday, March 14th, 1905.

The Prospects and Vicissitudes of Appendicitis after Operation.

(*Adjourned Discussion.*)

Mr. Harrison Cripps said that the title of the original introduction was the After-effects of the Operation for Appendicitis. He did not quite understand what the operation was; there were innumerable operations for the condition, and the after-results necessarily depended in great measure on the kind of operation performed, the time at which it was performed, and even upon the individuality of the surgeon who performed it. He thought surgeons could fairly divide their cases into two classes: (1) Those seen between attacks of appendicitis, what was called recurrent appendicitis; and (2) those seen during the acute attack. He had been much struck by the unanimous opinion which seemed to exist with regard to the treatment of recurrent appendicitis. For his own part if a patient had had one attack and he was asked to see the case a few weeks afterwards and the patient was found to have practically recovered, if he found there was no swelling, no pain, and no tumour to be felt he assumed, and he thought often rightly, that that attack was a pure accident, and that the patient might never have another, and, therefore, he did not advise operation. But when a patient had had two or three or more attacks the fact of recurrence showed that there was some abiding cause. Therefore, whether he felt a tumour or not, he liked to advise operation during the quiescent period. There seemed to be an almost universal opinion in the profession, and one which he endorsed, that those cases which were operated upon between attacks yielded some of the most satisfactory results in surgery. As with every other surgical operation accidents would occasionally occur, but it would be found that an ordinary surgeon using antiseptic precautions would have a very small mortality, perhaps not more than 1 per cent. But the whole character of the class of acute or fulminating attacks were different. Those attacks might go to a satisfactory conclusion and might end in resolution. Many of them ended in abscess, and some which were operated on and others which were not ended in death. Much had been said in the discussion about collections of micrococci in the appendix by which the appendix was converted into a sort of test tube, and that those micrococci escaped and produced an attack of appendicitis. That was a view which he did not share. He believed that every person at the present moment had a certain quantity of bacteria in his appendix, and, therefore, why did not every one have an attack of appendicitis? It was known that a certain number of those attacks were undoubtedly due to a concretion. How that concretion acted—whether by producing an ulceration and then by extra movement getting more protruded and causing inflammation he could not say, but in a certain number of the cases a concretion was found at the operation. In other cases there was no concretion but everything was found much matted together, the omentum generally adherent over the appendix, the small intestine covering it, so that there was considerable difficulty before the appendix could be exposed at all. Sometimes it was tucked away in the most extraordinary positions, sometimes it had got under the caecum, sometimes into the pelvis, and of course occasionally on the surface. He desired to know what produced that curious distortion and would remind all surgeons accustomed to operate on such cases how frequent it was to find the appendix doubled on itself. He held that a far larger number of cases than was generally imagined were due to twisting of the mesenteric attachment of the appendix, and he was not aware that any one had called attention to the point before. He exhibited a small model consisting of an india-rubber tube from which depended a sheet of wash-leather and demonstrated the method in which the twisting occurred, showing that if the twist was below, the appendix got tucked underneath the caecum and if the twist were above, the caecum was found superficially. Many attacks of acute appendicitis would come on unexpectedly, the patient having previously been perfectly well. They were attributed to strain or to sprain, but it was difficult to understand why a sprain or strain should suddenly produce those violent symptoms. It must be remembered that when the operation was performed late in such a case everything was disguised; there were adhesions everywhere, the structures were difficult to see, and consequently what were supposed to be adhesions were often part of the twisted mesentery. He recently had two cases bearing on that point. One was that of a young man who, while straining at stool, was suddenly seized with a very violent pain in the region of the appendix. A few hours afterwards vomiting occurred, and the patient went to bed very ill, and remained so during the night. When the patient was seen next day at 4 o'clock the pain had gone, and so the patient seemed well, except for just a little tenderness in the abdomen. No operation was done. Six months afterwards the same patient, while practising a young horse at some hurdles, was suddenly seized with an exactly similar pain in the lower part of the abdomen, and was unable to ride home. He was assisted home, and vomited violently during the night, and was very ill the next day. A surgeon was not sent for, because the patient said he had had a similar attack before, and had got over it. He saw the patient on the third day, and he was then very ill with a fulminating attack of appendicitis of a typical character—a brawny swelling over the appendix region, with some redness and oedema. At the operation the appendix was found to be absolutely twisted on itself and almost black. Undoubtedly the first attack was due to the same cause, but the twisting undid itself, or it was only partial. In another recent case the patient, who had had two previous attacks, had apparently been well for many months before. He was playing tennis, and in reaching back he was seized with the same pain which he had had before. He saw the patient the next day, and was able to operate in forty-eight hours from the commencement. The symptoms were not as acute as in the first case, but the

appendix was very swollen and oedematous and doubled on itself. Without the slightest difficulty he was able to undo the twist, and then the appendix, which at first looked swollen, came out straight. He held strongly that in no inconsiderable number of those acute cases the attack commenced in that way. All his fatal cases had been those in which an abscess was present. A few years ago he regarded it as his duty, abscess or no abscess, to dissect out the appendix. But with subsequent experience he had changed his views. He believed now that if in acute abscess the surgeon satisfied himself by letting the matter out by a free incision a better result followed. Of course if the appendix was seen in front it would be difficult to resist the temptation to put a ligature round it and remove it. But in many of these cases the appendix was not seen, but only an abscess cavity, of which it was assumed the appendix formed part. If a formal surgical operation was performed in such a case it was necessary to do a great deal of dissection, and at what cost? There were broken-down adhesions, and a contaminating cavity, and some of the cases ended fatally. He believed the best treatment was to make an incision, not attempting to remove the appendix unless it was readily seen, evacuate the pus, and put in a gauze drain. Seeing that operation where there was no abscess caused very little danger to life, that if operation were delayed until an abscess had formed it became more hazardous, and that if no operation were done many of the cases were fatal on account of the abscess bursting into the peritoneal cavity, what was the proper course for the surgeon to follow? He was not referring to a very slight attack of appendicitis, but to a fulminating attack. In his opinion the surgeon should operate as soon as the case was seen. Such cases were very analogous to those of twisted ovarian tumours. The patient was suddenly attacked with illness in both cases, and if operation was done as soon as the condition was diagnosed the cases almost invariably did well. On the other hand, if no operation was done, how many of those cases got acute sepsis and acute peritonitis or dense adhesions round the part? Any one who was called in to a case of strangulated ovarian cyst which was easily diagnosed, and who did not operate, behaved in a way which was almost criminal, and he would go almost as far in speaking of the appendix in fulminating cases. He felt that if he operated at once the procedure was fraught with very little danger. The case looked formidable, the parts were brawny and swollen, etc., but everything could be identified, and it was possible to operate before the abscess had really formed. With regard to after-treatment, he thought the real question was whether the patient lived or died from the operation, and he believed that those who operated at once when they saw a case of acute fulminative appendicitis before the abscess broke would have better results than if they waited for something to turn up, with the result that only pus turned up, and they would then have to operate under very unfavourable conditions.

Dr. Samuel West remarked that only a few years ago typhlitis or perityphlitis was regarded as a medical disease and treated by the physician. Recently, under the name "appendicitis," it had been transferred bodily to the surgeon. The experience of both the physician and the surgeon was necessary in order to arrive at a good understanding of the disease, and that experience naturally presented the subject from different standpoints. Was it a fact that the appendix was an obsolete organ and of no value to the body? At one time that was thought of the suprarenal capsule, the pituitary body, and the thyroid body. It might be found hereafter that the removal of the appendix would lead to symptoms of a kind not now anticipated. If the appendix were diseased the question was of course different. Statistics were often misleading in medicine and surgery, and at the most they could only establish averages or general rules. Skill and experience would still be necessary in order to apply those general rules correctly to individual cases. Had appendicitis become more common? Surgeons had brought forward statistics of 100, 200, and 300 cases which had been under their own observation during the last few years, and some explanation of those large numbers seemed necessary. The statistics of St. Bartholomew's Hospital were instructive in that respect. The returns for the ten years 1894 to 1903 showed for the first half of that period an average of 70 or 80 cases, but for the second half 200 or more—in other words, three times as many. There was no reason to suppose that the affection had become more common, or that there was a difference in the power of diagnosis. Probably the increase was due to a larger number of operations having been undertaken during the quiescent period; but they were really cases of post-appendicitis, or laparotomies, and they confused the real statistics. One case might easily appear first as an acute case, and secondly as an operation in the quiescent stage. The increase in appendicitis of recent years was only apparent, not real. It would be necessary to compare the figures with the statistics of appendicitis without operation, and to know the natural history of the disease when left to itself and treated medically; for such statistics it was necessary to go back some years. The cases fell into three groups in both old and recent statistics: (1) Those associated with general peritonitis or as the result of perforation; (2) those in which the peritonitis was local and ended in suppuration or abscess; (3) those in which the local inflammation subsided without suppuration. It was necessary to know the relation of those groups to each other and the mortality in each group. There were not many statistics available for that special purpose, but he would refer to figures given in an excellent monograph by Dr. Hawkins. They showed that of 72 cases treated without operation, death occurred in 9; in 15 cases with suppuration, 11 recovered and 4 died; of 13 cases with general peritonitis, 3 recovered and 10 died; 72 per cent. of all the cases recovered from an acute attack without operation. That, he thought, would approximately represent the experience of most of the older physicians who could remember the results of typhlitis when treated medically. Sir Frederick Treves stated that the majority of cases of appendicitis got well without any operative interference, and Sir Alfred Fripp placed the mortality of cases treated medically as 11 per cent., Dr. Hawkins's total mortality being 14 per cent. If from Dr. Hawkins's cases those of general peritonitis—4 out of 5 of which were fatal—were excluded, and the other two groups added together, there was a death-rate of 4.6 per cent. As in those serious abscess cases they were treated on the lines of modern surgery, the conclusion was that the death-rate of those two groups treated with the minimum of surgery was under 5 per cent. Perforation and general peritonitis—a risk which Sir Frederick Treves said was exaggerated—must be added; but if the figures were anywhere near the truth they should give pause before recommending indiscriminate operation. He was not afraid of prudent surgery, but he did not like indiscriminate operation. The art of the physician and surgeon alike lay in determining when operation was necessary and when it could be avoided, and it was desirable and most important that the physician and the surgeon should be in accord. His own attitude was as follows: The majority of cases of acute appendicitis got well more or less completely without operation. Some recurred, and with each recurrence the existence of some gross lesion became more probable, and the risk of serious complication greater. Those were cases for operation in the quiescent stage, the risk of which was very small, probably 1 per cent. or 2 per cent. Where suppuration was manifest, the case should be treated at once on general surgical principles. Cases of perforation or septic peritonitis were very fatal, so that scarcely one case in ten recovered. Still, judging from the results of operation for perforative gastric ulcer or typhoid ulcer, the mortality of which was increased so rapidly with delay, it might be hoped that with more immediate operation the results might be less unfavourable than now. Unfortunately very many cases came for operation when in a moribund state. The risks of perforation in appendicitis had been exaggerated. In the acute stage, seeing that 70 or 80 per cent. of the cases might recover, it was not necessary to be in a hurry to operate. Each case must be considered on its own merits and dealt with accordingly.

Mr. Bruce Clarke said that it had been assumed that there were only two varieties of appendicitis, acute and chronic. He would not enter into the question of operating in the quiescent stage as he believed all were agreed upon that, but two classes of cases remained—the very acute and the moderately acute cases. Many speakers said they operated in the acute stage, but without saying what that term really meant. The point he thought surgeons must bear in mind was that when the case began to get acute, provided the operation were done early enough, it was then done with almost as much advantage as if it were undertaken in the quiescent stage, in other words the surgeon operated before the appendix became thoroughly septic. He had looked over the cases which to him were most instructive, namely, those which he had lost, and he asked himself why he had lost them. He had come to the conclusion the reason was that, either accidentally or in some way the peritoneum had been

fouled. Operation could be undertaken with a reasonable degree of safety on even a very acute case if it could be done without fouling the peritoneum. He therefore wished to say that it was not advisable to attempt to remove the appendix when suppurating unless it was under the surgeon's eyes; if not, he should content himself by letting out a certain amount of pus. He remembered two cases which were very instructive; in one the abscess was in the pelvis and pointing to the pelvis; in the other case the appendix lay on the outer side of the colon. In the first case he made an incision into the abscess and let out the pus, and the patient made an almost uneventful recovery. In the second he could not get at the pus to let it out as easily, and the consequence was that he had to get the appendix up from below. He tried to keep it away from the peritoneum, but he supposed that he failed. The same micro-organisms were found in both cases, but one case, the second, died in eighteen hours, while the other recovered satisfactorily. Those two cases made a great impression on his mind, and since then he had tried to content himself with letting out the pus by the route by which it could be evacuated most easily. If it could be let out through the vagina readily he would make an incision there. In some cases where the suppurating appendix was deep in the appendix he made an opening by the side of the coccyx through the ischio-rectal fossa, and in several instances with complete success. His ordinary plan was to have every case submitted to microscopical examination. The conclusions he had come to were briefly the following: He had so examined 200 cases, and found that in 191 there was suppuration, because the epithelium was denuded from the inside of the appendix, and, therefore, the septic material could get through and invade the deeper parts. Two of the cases were tuberculous, leaving 7 in which no denuded surface was found, and in which he assumed he might have been wrong in removing the appendix at all. Still the appendix was not opened from end to end, but merely cut in series, so that the denuded portion might have been missed. Five of them got well, and two of them came back afterwards. One of those two had gall stones, which he removed subsequently, and the other had renal calculus. Another point which had been raised was as to what happened to some of the cases which were assumed to be appendicitis, but which turned out not to be so. Another history which he could give of importance was that of a patient who had the appendix removed for assumed appendicitis. The patient was not under his care at the time. Six months later he came back with a recurrent attack, apparently of appendicitis, stating that he had had more than one attack since the removal of the appendix. Mr. Clarke satisfied himself that the operation had been performed, and kept the patient under observation for a week, during which time he found a swelling just above the region of the appendix. Thinking it was connected with the kidney, he had a separator put into the bladder, and the water from one side of the bladder was in excess of that from the other, scarcely any coming from the right kidney. He thought it probable that the swelling in the right kidney had been mistaken for appendicitis. He opened the abdomen on the right side, but found the kidneys healthy, and that the swelling was inside the peritoneum. There was an ileo-colic intussusception; and having with some considerable trouble got that undone, there appeared to be some swelling in the caecum, and that turned out to be a polypus close to the end of the caecum. It had been necessary to resect the intestine. The patient had practically recovered, and would leave the hospital in a day or two. Were such a case to be met with again it would very likely deceive the surgeon.

Mr. W. G. Spencer remarked that he had put in a table of 100 consecutive recent operations mainly for the year 1904, but also some in 1904. Some of the other tables put in extended over several years, so that an objection might be raised that all sorts of improvements had been introduced since the earlier years. His own table showed what happened when operation was carried out immediately, and the appendix removed in all cases. Practically all those cases were seen by others before him and the diagnosis of appendicitis made. Absolute uncertainty prevailed with regard to prognosis in individual cases, and no additional experience afforded him any added power of making a prognosis. Prognosis resting on statistics gave cold comfort to the individual, because he could not be assured that he did not form one of the unfortunate minority. In cases with abscess and peritonitis he believed that considerable improvement might be made by much freer operation, and the filling of abscess cavities with iodoform gauze, as was done by Professor Bergmann in 1886. Richardson, of Newcastle, published 4 cases of diffuse general peritonitis in which he stuffed the peritoneum with gauze and afterwards employed secondary suture. In one case, in addition to the abscess, the peritoneal cavity was designedly opened, and a large pool of septic material was found in the pelvis. The nurses had recorded a pulse of 130; after operation it fell to 104, and three hours afterwards to 84. The wound was filled with gauze and sewn up on the tenth day, and the whole cavity was healing well. He showed one of the most extensive cases at the Clinical Society some time ago. The man had an abscess for the fourth time, but had not been operated upon except for the opening of the abscess. The abscess extended from the last rib to the internal abdominal ring. The cavity was filled with gauze and sewn up on the tenth day, and when exhibited the man had a firm scar. It had been said that in that class the mortality was 9 out of 10, but in his opinion, unless there were tympanites in advanced degree and the streptococcal variety of infection, recovery with the employment of freer operation and sponging-out would be more like 9 out of 10 cases than 1 out of 10.

Mr. Malcolm said he was in complete accord with the speakers who had advocated early operation to avoid septic trouble. The new point in the discussion was in regard to the cases of extremely insidious onset. He operated upon a lady aged 58 who for thirty hours had hardly any symptoms at all, but she complained of pain in the right loin above the crest of the ileum. The temperature gradually rose to 100° F., but the pulse remained under 90. For the next twelve hours there was a rapid change for the worse, with distension of the intestines, constant vomiting, and much exhaustion. The pulse rose from 90 to 130 and the temperature to 100.6° F. He operated forty-four hours after the commencement, and found three small sloughs in the wall of the appendix, flaky lymph around it, and some thin serous fluid in the neighbourhood. The patient died the day after the operation. The sloughs were about a quarter to three-eighths of an inch in diameter. In two cases under his care the sloughs were in continuity with the healthy tissues, so that there had been no rupture of the appendix. Usually those cases were classified with those of gangrene of the whole appendix. He believed that those gangrenous patches were not due to inflammation at all, that the serious symptoms were due to paralysis of the intestine, and that the patches of gangrene were not due to such a process as an inflammation terminating in sloughing. In other parts of the body gangrene might occur without giving rise to pain or other symptoms. In the stomach or duodenum the first sign might be profuse haemorrhage or symptoms of perforation. Only those cases could be left in which there was a small well-defined tumour, when the symptoms of inflammation corresponded to the amount of local mischief, and especially where the intestine was not affected. In all other cases, and especially in those in which the condition was in great doubt, he thought it better to operate at once if the patient could be brought under care sufficiently early.

Mr. F. C. Wallis referred to the condition of the omentum either in cases of acute appendicitis or when there had been pus forming, when there was no adhesion of the omentum which was exceptional. He had had three or four cases of that character, the first of which afforded him a lesson. It was that of a boy with an abscess, whose omentum was very much infiltrated with inflammatory material, but it had not become adherent. The abscess was cleared out and the appendix removed, and the boy did very well. But the third week after the operation, when the external wound was nearly healed, he developed signs of partial intestinal obstruction. After waiting for a time the abdomen was opened, and it was found that the small intestine had become adherent to the omentum in two places. In such case the omentum, if not fixed down, was in that condition of plastic exudation which would enable it readily to adhere to anything with which it came in contact. Consequently it was wise to do one of two things—either to anchor the omentum or, the better course, to remove it. It had been the fashion recently to advocate an operation by means of which the patient, after having had the appendix removed, was able to get up in from ten days to a fortnight and go about his avocation. Of course it was desirable to bring about a quick recovery, but to lead patients to expect restoration to health in that short time was very undesirable. Much had been heard about mucous colitis, indigestion, etc., which often followed in such cases, and certainly cases of

appendicectomy could not have been said to have recovered in a fortnight; and if they were allowed to go about in that time relapses were very apt to occur.

Dr. Newton Pitt remarked that Dr. Samuel West's conclusion that appendicitis was not now more frequent than formerly did not accord with the Guy's Hospital figures or with his own experience. When he took out the statistics some years ago, they showed that the disease was much more frequent than twenty years ago and the mortality greater. There was also a marked increase in the year 1899 or 1890, when influenza was very rife. He did not believe that those increased figures merely represented the increased activity of the surgeon.

Mr. Mayo Robson sent a communication (which was read by Mr. Stephen Paget) in which he pointed out that if rigid asepsis could be carried out in the cases operated upon in the quiescent period there should be no mortality unless there were such complications as intestinal obstruction from pre-existing conditions or heart or lung complications. He had once seen intestinal obstruction necessitate enterotomy. He thought thrombosis, which figured largely in the London Hospital statistics, must be due to the practice of keeping the patient too long in one position. He always allowed his patients to be turned daily on to the right side, which he believed prevented thrombosis. Hernia was a preventable complication. He advocated separation of the muscles in the operation instead of division. He agreed with Mr. Pearce Gould that if operation were undertaken at the earliest possible moment very little would be heard of complications, most of which were dependent on septic absorption. He had seen very little of secondary abscess or faecal fistula following operation, and that was due to the removal of the appendix wherever possible, even in acute cases.

The President expressed the regret of himself and the Council that Sir Frederick Treves was prevented from being present. The three-nights' debate on the important subject of appendicitis had been of extreme value, and the opinions and experience of surgeons had greatly ripened since Sir Frederick Treves propounded the subject in 1887 at that Society. Attention had been concentrated on the best way of rendering operations most satisfactory, and of how best to avoid untoward complications. Many points, with the help of the large statistical experience with which the debate had been enriched, would have been decided. One point insisted upon by Sir Frederick Treves and strongly advocated by Mr. Pearce Gould, Sir William Bennett, Mr. Harrison Cripps, and Mr. Bruce Clarke was that where there was perityphlitic abscess it was best not to try and remove the appendix when imbedded, as it generally was, in adhesions. Another point was that failures and subsequent complications were sometimes attributable to the operation not having been adequately performed. Only a portion of the appendix was removed, instead of in its entirety down to its root in the caecum; this was frequently due to the fact that the appendix was partly invaginated into the caecum. There was the difficult question as to when to operate, but that was not in the scope of the debate. He would not have been inclined to go quite so far as Dr. West in regard to operation, and on the other hand Mr. Pearce Gould and Mr. Waterhouse advocated anticipating the abscess by dealing with the appendix in the quiescent period of the appendicitis. But that view must be guarded by great care in diagnosis, because in some cases healthy appendices had been removed, leaving behind the malady from which the patient had been promised relief. The danger must be recognized that the operation might be too lightly undertaken, and become too much a routine practice. Complications in quiescent cases he thought might sometimes be avoided in future by careful preparation of the patient a few days before the operation. Especial thanks were due to Mr. Lockwood for his most valuable contributions to the debate by illustrations of the pathology of the diseased appendix. It was important to separate the muscular fibres instead of dividing them, so as to obviate ventral hernia, with the consequent wearing of a large truss. In conclusion, he tendered the best thanks of the Society to those who had taken part in the discussion, which had been of an intensely interesting character.

Manchester Medical Society.—At a meeting on March 1st, Mr. W. Thorburn, President, in the chair, Dr. Joshua J. Cox showed a boy with well-marked achondroplasia, aged nearly 11 years, and weighing about 28 lb. The stunting and deformity of the long bones, the "trident-hand," the lordosis, the immense development of the gluteal, thigh and calf muscles, were very noticeable. He pointed out the importance of having careful pelvic measurements made in any case of pregnancy in which, owing to dwarfism with shortened extremities, slight achondroplasia with narrowing of the pelvis might be suspected in the patient.—Mr. E. Stanmore Bishop mentioned a case of muco-colitis treated by lavage through the appendix. These cases usually occurred in women, in neurotic subjects, and were frequently complicated by some disease of the generative organs. After referring in detail to methods of treatment, medical and surgical, which had been adopted in their treatment, he drew attention to a plan proposed by Dr. Weir, of New York: this utilized the appendix as a natural tube by means of which access might be obtained to the interior of the caecum, and the entire large intestine thereby flushed. Details of the case were then given.—Dr. R. J. Ewart read a paper on Venesection and its Indications from a Physiological Standpoint, in which he showed the unsuitable character of the term viscosity as applied to blood, and that blood met much greater resistance in its passage through a capillary than would be the case with a homogeneous fluid, the disparity amounting to between four and five times. From a physiological standpoint the indication for venesection was an excessive relative number of corpuscles, provided that the circulation had sufficient power to make up the loss with lymph drawn from the tissue.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor M.D., F.R.C.P., President, in the Chair.

Friday, March 10th, 1905.

Acute Rheumatoid Arthritis.

Dr. Hale White read notes of the case of a woman, aged 25, and said that from among the diseases often grouped together under the names of chronic rheumatoid arthritis, osteo-arthritis, arthritis deformans, and chronic articular rheumatism, was one which should be sharply separated off as a distinct disease with the following characteristics: It was usually met with in women aged about 20; the disease became soon most prominent in the proximal phalangeal joints and the wrists; it was markedly symmetrical in the two hands; the swelling was considerable and extended beyond the joints, producing a well-marked fusiform swelling about the affected interphalangeal joints and a general swelling about the wrists and other joints; sometimes a creaking might be felt, due apparently to thickening of the synovial membrane. In a few weeks most of the joints were affected, so that the woman was soon bedridden, unable to move fingers, thumbs, wrists, elbows, shoulders, and the corresponding joints of the lower extremity. The joints of the spine were often affected, so that turning in bed was difficult and painful; the temporo-maxillary joint was frequently implicated, and mastication was consequently difficult. Wherever it was easy to investigate the joints swelling about them was obvious, and they were usually painful. Muscular wasting was very rapid, clearly an extreme degree of genuine arthritic atrophy, and not dependent on disuse; the wasting was especially seen in the hand and forearm, but in a bad case was almost universal. The temperature was often raised daily, mostly in the evening, to a point between 100° and 102° F. The hands and feet were often covered with sweat, while the rest of the body was dry; the patient was pale, and the pulse was increased in frequency apart from pyrexia, and without evidence to connect the disease with rheumatic fever. Sometimes brown spots like large dark freckles appeared on the face, body, and limbs. After two, four, or even six weeks the temperature slowly regained its normal point, and the rate of the pulse diminished still more slowly. The colour partly returned, the sweating of the hands and feet lessened, the pain passed away, but much immobility and some swelling around the joints remained, and the patient was liable to fresh attacks, resembling the first and resulting in fresh swelling of and around the already fixed joints. After the acute stage had subsided, the sufferer was by no means recovered, for the swelling of the synovial membrane and soft tissues around the joints led to great immobility of them, and much of the muscular atrophy remained. The patient was hence often a chronic invalid. In this respect, as well as in many others, the disease stood in striking contrast to rheumatic fever. Careful manual examination during life, even in cases which had lasted many years, failed to reveal any lipping or bony outgrowths in connexion with the joints. The deformity appeared to be due to

effusion into the joint and swelling of the tissues around. Radiographic examination confirmed this view. As a rule, the attacks diminished in severity as time went on, and ultimately the patient might only suffer from the deformities due to previous attacks. Dr. Hale White, describing the histology of the disease, showed that it originated in the synovial membrane and tissues around the joint, and that no changes occurred in the bone and cartilage except such as might be produced by pressure of thickened synovial fringes. He then described a case, and pointed out the importance of passive movements to prevent fixation. He showed that the bones were unusually transparent to the *x* rays, and maintained that it was a distinct disease for which the most convenient appellation would be acute rheumatoid arthritis.

Arthritis Deformans and its Allies.

Dr. Bertram Abrahams read a paper on this subject. The expression, "arthritis deformans," was selected as the least unscientific of the many names for the disease, and that in most general use on the Continent and in America. There were four chief maladies which were grouped under this head. Of these, that described by Still in children stood entirely apart by reason of its course, the sequence of joints affected, and the associated enlargement of the spleen and lymphatic glands. At the other end of the scale was senile osteo-arthritis, a degenerative process that might come on as the terminal phase of arthritis deformans, or as a senile change in normal joints or in those already crippled by true rheumatism. The two remaining affections—acute and chronic arthritis deformans—were, it was suggested, different forms of the same malady, which was probably of an infective or toxaemic nature. In the acute type the poison was in such considerable amount that a large number of joints were, so to speak, flooded with it, and simultaneously affected; in the chronic the intoxication was less severe but more prolonged, so that the morbid changes were more in the nature of degeneration than of inflammation, and the joints were picked out in a fairly definite order. At the same time, as was only to be expected, much of the brunt of the disease fell upon the nervous system. That the two types merged into one another was further indicated by the number of intermediate forms which were met with. Skiagraphs and photographs were shown of the following conditions—gonorrhoeal arthritis, Charcot's joint, acute arthritis deformans, chronic arthritis deformans, and Still's disease.

Dr. Toogood recognized the acute cases described by Dr. Hale White, but thought they were as common in men as women. They were not easily distinguishable from gout. Drugs were of no avail; but good generous diet, with plenty of meat and tonics were sometimes of service. Signs of rheumatoid arthritis were found in nearly every *post-mortem* examination on persons over 65.

Dr. A. E. Garrod said there was high mortality in Still's disease, whereas adult cases rarely died. In adults, excluding the senile form of arthritis, there were two absolutely distinct diseases—namely, the acute rheumatoid arthritis described by Dr. Hale White, some cases of which might smoulder on for years; separated from this disease were cases of multiple osteo-arthritis, affecting joints of the thumb and the carpo-metacarpal joints, and causing far less damage. He suspected a third condition, far less common, with deformity as its chief feature, which, however, might be averted by early massage, and in which there was scarcely any enlargement of the joints. There were other cases due to infections, the focus of which was difficult to discover, though many of the cases were puerperal. Osteoid arthritis was more amenable to treatment than rheumatoid arthritis.

Dr. A. P. Luff thought that rheumatoid arthritis was an infectious disorder, due to infection from the intestinal tract, for the treatment of which carbonate of guaiacol was perhaps the best drug, the guaiacol not being set free until it reached the intestinal tract. In acute cases the proximal phalangeal joints were affected; in chronic cases the meta-carpo-phalangeal joint of the thumb. In rheumatoid arthritis the joints of the two hands were symmetrically affected, and there was the sweating of the palms and soles; neither condition was observable in gout. The former disorder spread also to the vertebral joints, and the temporo-maxillary articulation; not so gout. The term monarticular rheumatoid arthritis as applied to the hip should be expunged; it was due to injury not to infection.

Dr. Preston King (Bath) thought there was a strong nervous factor in rheumatoid arthritis; and that it was a bastard form of rheumatism, caused by the action of the rheumatic virus on the nervous system of resistant persons.

Dr. Blanc (Aix-les-Bains) related 2 severe cases who both had diphtheria, and the serum injected for that malady also greatly benefited the rheumatoid arthritis. He had since tried the treatment on 10 other cases, all of whom had subsequently improved, whilst in two of them recovery had ensued. The arthritis of tuberculous people was rendered worse by baths.

Dr. W. Ewart thought it proved that the condition arose under various forms of toxaemia, the poisons being those secreted by microbes, or being autotoxins. He was treating the affection by alternate anaemia and hyperaemia of the joints affected; and by shower baths and feeding up, excepting in the case of gouty or rheumatic people.

Dr. Llewelyn Jones (Bath) had seen 6 cases in which rheumatoid arthritis had followed on gastric ulcer.

Dr. Hale White, in reply, emphasized the fact that the spindle-shaped joints and the thinning of the ends of the bones were always seen in the cases he had described. The primary lesion was in the synovial membranes and in the soft structures around the joints. He was sceptical as to the power of a drug to disinfect the intestinal tract.

Dr. B. Abrahams had found guaiacol a valuable drug. Ten years ago he had seen Dr. Ringer treat cases with diphtheria antitoxin; in 1 case certainly with marked benefit.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Wednesday, March 1st, 1905.

Chyluria Complicating Pregnancy.

Dr. J. C. Holdich Leicester, I.M.S., read a short communication on a case of chyluria in a Eurasian, aged 18.

She had been married eight months, and had advanced to the eighth month in pregnancy. She presented herself for treatment at the Eden Hospital for Women, Calcutta, on account of severe pain on micturition. The urine had become milky for the first time on the previous day. For five months she had had a swelling in the right thigh, which had occasionally given rise to pain. The swelling felt like an enlarged gland in the femoral ring; it quickly subsided. On examining the urine drawn by catheter it was milky-white in colour, with a faint pink tint, and contained some white sediment; specific gravity 1022, faintly acid; albumen ¼; traces of blood; chyle present; phosphates in excess. On microscopic examination, besides phosphates, and oxalates, and blood corpuscles, bladder epithelium and several filaria embryos were found. The urine was found to clot shortly after being passed, but soon broke down again and remained fluid. Both the labour and the puerperium passed naturally except for a rise of temperature to 101.3° F. at the sixth day after delivery. The urine, as a rule, continued to preserve its milkiness. The blood was examined on three separate occasions, and on each was found to be swarming with filaria embryos. The case resisted all treatment, whether of diet, drugs, or posture, and the condition of the urine remained practically the same throughout. The patient's general condition showed considerable improvement during the time she was in hospital.

In the author's opinion, there was little doubt that in this case the pregnancy was the exciting cause of the chyluria, and attributable to the disturbance of the pelvic lymphatics already affected by filarial obstruction of the thoracic duct.

Pregnancy in a Rudimentary Uterine Cornu.

Dr. A. H. N. Lewers related a case in which he had operated for severe internal haemorrhage:

The patient, aged 24, had been married thirteen months. She had had a miscarriage at about the sixth month of pregnancy six months after marriage. One menstrual period had occurred thirteen weeks after the miscarriage. On the day prior to her admission to the London Hospital she was suddenly taken ill with severe pain in the abdomen. Preparations were at once made for operation. The patient's condition was so bad that both rectal and intravenous saline injections and hypodermic injections of strychnine were resorted to. On opening the abdomen, the ovum was discovered on the left side. The sac burst on handling, and a fetus of at least 3 months' gestation escaped with the liquor amnii. The pedicle was found to be much thicker than in a tubal gestation; it was transfixed and tied a second time to render it secure. On subsequent examination, the wall of the sac proved to consist of muscular tissue about ½ in. in thickness, formed by the rudimentary horn on the left side. It was noted that the left ovary did not contain the corpus luteum, from which the author infers that external migration of the ovum from the opposite ovary had occurred. The patient passed a decidual cast eight days after the operation and made a good recovery.

"Grape-like" Sarcoma of the Cervix Uteri.

Dr. Herbert Williamson showed a specimen of grape-like sarcoma of the cervix. He remarked upon the rarity of this form of sarcoma of the cervix; only sixteen cases having been

previously recorded. The specimen (which was removed by operation from a woman 39 years of age) consisted of a firm central core, to which were attached a number of branching processes. These processes, here and there throughout their length, were dilated into cyst-like bodies the size of cherries. Microscopically the growth was a mixed-celled sarcoma; the cysts were covered on the surface by several layers of stratified squamous epithelium, and their fluid contents appeared to have accumulated as the result of oedematous infiltration rather than of myxomatous degeneration of tissues.

Dr. HANDFIELD-JONES brought forward the history of a case, in which sarcoma of the same type had been found springing from the whole lining membrane of the body of the womb. In his own experience, the disease had shown very little evidence of malignancy, and the patient's life had been prolonged for several years after the disease was first recognized.

The PRESIDENT delivered his inaugural address, which is published at page 577.

MEDICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Monday, March 13th, 1905.

DISCUSSION ON CARCINOMA.

DR. E. F. BASHFORD read a paper on this subject, in which he limited his remarks to the growth of cancer, and emphasized the necessity for the investigation of the cancer problem on these lines. Evidence that malignant new growths were developed from normal cells was advanced. Reference was made to the extent that cancer occurred throughout the vertebrata. Slides were shown to illustrate the fact that cancer in the lower animals and man was the same thing. In them the incidence was higher in later life. Reference was made to transplantation experiments, with success in rats and especially in mice. The question of the "soil" in this relation was shown to be undetermined but probably comparatively unimportant. Slides were shown to demonstrate that transplanted cancer was the same thing as sporadic cancer. Cancer *qua* cancer did not produce any specific evidence of its presence. The special characters of propagated tumours were detailed. The occurrence of heterotypical mitosis was alluded to. The tumour maintained its cell characters under the longest propagation. Time limitations affected the character of growing cancer in a definite way, the age incidence having a close relation to the terminal stages of tissue life and accompanied by nuclear fusions. The balance of evidence was in favour of an interrupted and not a continuous growth of cancer. The immediate practical outcome was a strong indication for early surgical treatment. The problem that demanded investigation was, Why was the growth of propagated cancer limitless?

Mr. C. R. HUXLEY asked if carcinoma were to be regarded as a local or constitutional disease, referring to the occurrence of several primary growths in one patient.

Mr. W. J. WARING asked for an explanation of the recovery of certain patients from whom a portion only of an undoubted carcinoma had been removed.

The PRESIDENT referred to a case of cancer which had been operated on twice, and in whom death occurred nineteen years later from diabetes.

Dr. BASHFORD, in reply, said cancer was probably of a local nature; he alluded to the mechanism of the occasional disappearance of tumours, and to the possible influence of a reaction of tissues artificially set up.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting on February 22nd, Dr. J. K. KELLY, President, in the chair, a discussion on the treatment of chronic endometritis was opened by Dr. OLIPHANT, who in his introductory remarks said there were in this disease no symptoms which were an absolute guide to its diagnosis. In the way of treatment, dilatation and curettage were of most value, as giving free drainage. This was beneficial in those cases simulating carcinoma, in which narrowness of the cervix obstructed the flow of secretion from the uterus. Avoidance of all septic infection in puerperal and post-abortion cases was essential. General treatment was most important, and massage, rest at definite times, careful dietary, were all useful. In every case all possible local causes must be excluded before a diagnosis of endometritis alone was permissible.—Dr. STARK thought that chronic endocervicitis could exist without the endometrium becoming affected. He had good results from curettage in a case of membranous endometritis.—Dr. RICHMOND had seen contraction of cervix occur after intrauterine medication.—Dr. BROWNLIE of Kendrick had found curettage of much value in cases of endometritis after incomplete abortion.—Dr. RITCHIE thought curettage of value.—Dr. COULSON HOWIE had seen benefit got from applications of silver nitrate in cases of old lacerations of the cervix.—Dr. SCOTT MACGREGOR also had good results from applications to the cervix.—Dr. MUNRO KERR said that in the cases of virgins with leucorrhoeal discharge antiseptic applications were of much value. In cases of haemorrhage with thickened endometrium curettage was most useful.—Dr. BALFOUR MARSHALL thought curettage not only curative, but that it also aided diagnosis.—The PRESIDENT said there was some risk of pyosalpinx in certain cases in which intrauterine medication might be used.—Dr. OLIPHANT replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

E. H. BENNETT, F.R.C.S.I., in the Chair.

Friday, February 24th, 1905.

PLASTER-OF-PARIS SPLINTS.

DR. W. I. DE C. WHEELER demonstrated an apparatus designed by himself to facilitate the application of plaster-of-paris, either as a primary dressing to fractures of the femur or at any period before union had taken place. It consisted essentially of two gates swung on an upright iron bar, on which rested a padded crutch to receive the perineum, and was so arranged as to provide accurate extension during the entire operation of encasing the leg and pelvis in plaster and at the same time avoid errors arising from obliquity of the pelvis. He had treated five or six cases successfully with the apparatus. The device could be made, he said, by any ironmonger, and was inexpensive.

Mr. E. H. BENNETT thought the apparatus would be probably useful in general hospital work, but could hardly be used by country practitioners.

Mr. TOBIN thought it might be of service in the treatment of fractures of the femur in field service.

OBLIQUE FRACTURE OF THE TIBIA.

Mr. EDWARD H. BENNETT read a paper on this subject, and related the history of a case which recently came under his notice. The patient, a young girl, aged 15, jumped from a height of about 12 ft. on to the ground, and immediately fell backwards. Although she was able to stand up, she could not put any weight on the injured limb, nor attempt to walk. On being brought to hospital soon afterwards, she was found to be suffering from pain, and complained of loss of power in the limb, but it was not possible to obtain crepitus, nor detect any evidence of abnormal motion in the limb. An *x*-ray examination, however, revealed the presence of a fracture. It was very oblique, traversing almost 4 in. of the shaft of the tibia in its middle segment. Its direction was from above and without downwards and inwards. The absence of deformity was explained by the integrity of the fibula. The skiagraphs obtained from this case afforded the only example he had seen of oblique fracture of the shaft of the tibia from indirect force alone.

SOME CASES OF JOINT EXCISION.

Mr. KENNEDY read a paper on the above. In one case mentioned by him the knee was riddled with sinuses, and had been fixed at right angles for years, while the patient had symptoms of phthisical cavity in one lung. Nevertheless, recovery quickly followed excision of the joint, the lung healing rapidly, and the patient being enabled to get about. In another case, that of a child aged 4 years, who had met with an accident, the articular head was found completely detached from the rest of the epiphysis. The head was removed, and the remainder of the epiphysis sutured to the diaphysis. Complete union followed, although fifteen months had elapsed from the time of the accident to the operation. The child had perfect motion in her arm, and the growth of the limb has not been interfered with.

Mr. HAUGHTON drew attention to the value of stereoscopy in the early diagnosis of tuberculosis in joints. By its aid areas of rarefaction could be discerned and their true relations to each other and to the joint made out.

MIDLAND MEDICAL SOCIETY.—At a meeting on March 1st, Mr. E. WOOD WHITE, President, in the chair, the following were some of the cases shown: Mr. L. P. GAMGEE: A man,

aged 45, the subject of adiposis dolorosa. The disease had been in existence for five years, and the patient had symmetrical masses of fatty tissue at the back of the neck, a mass in the right axilla, and a large one in the subcutaneous tissue of the abdominal wall. The tumours were softer and of less definite outline than ordinary lipomata, while those in the axilla and abdominal wall were very tender on pressure. One of the tumours on the back of the neck was the seat of severe neuralgic pain. There was no abnormal pigmentation of the skin over the tumours, and there had been no subcutaneous haemorrhages. The patient had for many years been a confirmed alcoholic. Attention was called to the fact that this disease very rarely occurred in males.—Dr. Jameson Evans showed an eye containing a melanotic sarcoma, which had perforated the sclerotic near the corneal limbus. Before the eye was removed the large extraocular mass projected between the eyelids on to the patient's cheek. The following were the points of interest in the case: (1) The growth had arisen in an eye, the sight of which had been destroyed by an injury from a piece of steel three years previously. (2) The symptoms before the growth perforated the globe were comparatively mild, but its growth afterwards was exceedingly rapid. There never was any increased tension, but there was a cystoid cicatrix at the site of subsequent perforation and some ciliary injection. According to the patient's statement, the extraocular growth had only existed for three weeks. (3) The patient when shown (ten months after excision) was suffering from metastatic growths in the lung, liver, and in the skin of the face, chest, abdomen, and extremities.

Medico-Legal Society.—At a meeting on February 14th, Dr. Wynn Westcott in the chair, a discussion on privileged communications and professional secrecy was opened by Dr. A. G. Bateman. In this country, he said, adherence to the oath of Hippocrates was no longer possible to a medical man, since the law compelled him to disclose, if required, in a court of justice anything which he knew about a patient which was pertinent to the action, whether derived from personal observation or disclosed to him in confidence. Other authorities also were in a position successfully to demand information about his patients, such as local sanitary authorities, etc. Dr. Bateman then quoted extracts from the deliveries of many judges upon the point, in some of which regret was expressed that privilege was not extended to communications between medical man and patient. The secrecy of the confessional remained inviolable in practice though not in law, and anything which passed between a client and his lawyer was also protected. In France and America medical confidences were fully covered, and in the former country it was even an offence in law to break them. There was some doubt as to the penalty which might be incurred by refusal on the part of a medical man to disclose a secret acquired from a patient, and it was probable that each case would be judged on its merits. Opinions also differed as to whether a medical man, having knowledge that crimes were being or had been committed, was bound to volunteer information to the police. Dr. Bateman thought that a line should be made between civil and criminal cases; in the former privilege should be claimed, but not in the latter. In England actions for damages resulting from breach of confidence were unknown, but in Scotland it had been judicially decided that secrecy was an essential condition of the contract between a medical man and his employer, breach of which might subject the former to penalties. Who was the employer it was sometimes difficult to decide, but in cases such as that of a servant maid found by the family medical attendant to be pregnant it had been held that disclosure of the condition to the joint employer was privileged. Cases in which it seemed possible to the medical attendant that poisoning was in progress were very difficult; it had been suggested that in each centre a medical man with special toxicological knowledge should be appointed, so that he could be privately consulted by any perplexed medical man, his being the duty of disclosing the facts to the authorities if a prima facie case seemed to him to be established. In Scotland a privileged communication respecting such cases might and should be made to the Procurator-Fiscal, but in England his equivalent did not exist. Finally, the members were invited to consider the following questions: (1) Can the medical profession obtain the same or a similar measure of privilege which attaches to a lawyer, and would it be for the public benefit if it were conceded? (2) given the commission of crime, such as abortion, is it right for a medical man to give information to legal authorities, or is it "monstrous cruelty" for him to do so? (3) is there any danger, should a medical man not disclose the fact of a crime having been committed, of his being guilty of concealment of a felony? (4) is the mere concealment of the knowledge of a felony sufficient to make a person *particeps criminis*? (5) should we seek to obtain through Parliament powers by which death certificates shall be treated as confidential documents?—Sir T. Stevenson approved of the present law on the subject, but desired to see the privileges of lawyers done away with and priests treated as other persons with respect to confessional information given them.—Professor Glaister recited the declaration required of graduates in medicine of Scottish universities, and stated that in his opinion it was not necessary for a medical man to volunteer information on secrets he has obtained in the course of his professional calling, but should disclose what he knows when properly required to do so. When he had to examine a patient in a case he should supply both sides with the information he has obtained.—Dr. J. G. Garson agreed in considering it inexpedient for a medical man to go out of his way to give information to the police that a patient to whom he was called had been trying to procure her own abortion, but it was quite a different thing to give information regarding any one who practised as an abortionist, as in the case referred to by Dr. Bateman. He strongly supported the suggestion of the Midland Medical Institute as to the appointment of medical jurist consultants paid by the Home Office, not only to act in cases of supposed poisoning, but in any medico-legal cases.—Mr. Cowburn said that Roman Catholic priests had no privilege with respect to secrets obtained in the confessional, and the same held good for the Church of England. No clergy had the right to withhold in a court of law any communication made to him in the confessional. The privilege was given to lawyers not as such, but that the public may be protected, as without it no one would be safe in consulting them in respect to his defence in a court of law. In respect to lawyers, privilege was limited and restricted, and to extend the privilege to others would in his opinion be very dangerous.—Dr. Greenwood considered that where the well-being of the community was concerned, it was important that information should not be privileged as in criminal cases, but in civil cases the matter was on quite another footing; applying the rule to criminal and civil cases alike was the cause of much of the difficulty in which they found themselves. Several eminent lawyers were of opinion that medical men and lawyers should have the same privileges; the reason for giving it to lawyers equally applied to medical men, as a person might to his detriment be prevented from consulting a medical man under certain circumstances by the idea of disclosure occurring.—Mr. Schröder stated that coroners treated as privileged the private communications they received from medical men, however they might use the information therein contained.—Dr. Bateman, in replying, asked whether a case has ever been recorded in which a priest had been committed for refusing to disclose secrets of the confessional.

Ophthalmological Society of the United Kingdom.—A clinical evening was held on March 9th, Mr. John Tweedy, President, in the chair. Among the cases shown were the following: Mr. Edgar Chatterton: A woman, aged 38, who had the inner canthi, caruncles, and innermost extremity of the lower palpebral conjunctivae discoloured and of a dark grey appearance. As far as she knew this appearance had always been present. She had never had her lids treated with anything, neither had she any sign of old disease. Her occupation consisted of filling toy crackers with fulminate of silver, and she had done this work for years. Mr. Chatterton suggested that the silver salt had got into the eye and had caused the discoloration shown.—Mr. Charles Blair: A case of retinitis proliferans in a woman aged 59. The vision of the left eye was suddenly lost six months ago. The right fundus showed changes suggestive of albuminuria with numerous retinal haemorrhages. The urine was, however, free from both albumen and sugar.—Mr. A. Ogilvy: Case of pemphigus of the conjunctiva in a farm labourer, who for failing health went to Canada. Shortly after getting there he suffered from pemphigus, the attack lasting for six weeks. He remained well for six weeks, and then returned to England, at which time he could see to read with ease. On the passage home he had another attack, which was very severe. The eyes got rapidly worse, and now the corneae were seen to be opaque, and the conjunctivae was so shrunken that but little sac remained and the entropion was most trouble-

some. Lanoline applied to the eyes gave great relief.—Messrs. LAWSON and PARSONS: A drawing of a case of sarcoma of the choroid which occurred in a man aged 34. He had had a squint for two years, and the sight of the right eye had been failing for a year, and when first seen it was almost blind. For three months a black swelling had been present on the sclerotic, and this was increasing rapidly in size, and had much the appearance of a staphyloma. The eye was blind and the lens was opaque. The eye was removed, and on section a large sarcoma was found, which was thin and flat, and not at all like the choroidal sarcoma that is commonly seen. —Mr. HALLIBURTON MCMULLEN: A child aged 9 months, in whom an occasional upward deviation of the eye had been noticed since birth. On examination it was found that there was complete absence of downward rotation of the right eye, the movements in other directions were normal. On looking downwards the left eye fixed, while the right eye was rotated upwards and outwards, and was slightly retracted; the eyelid at the same time became elevated and retracted. The inferior rectus, and possibly also the superior oblique, were defective.—Mr. R. E. BICKERTON: Changes in the optic disc, retina, and choroid in a patient aged 15. When first seen in July last he had well-marked neuritis in the right eye, with surrounding retinitis. The disc, when shown, was raised, and of a bluish-white colour, with a wool-like margin. There were also numerous fundus changes.—Mr. CHARLES WRAY: A man who had improved considerably while under the treatment for tobacco amblyopia which he described at the last meeting of the Society. It consisted briefly in making such patients take brisk walks and drink large quantities of water.

REVIEWS.

TROPICAL DISEASES.

IN a pamphlet entitled *The Classification and Pathology of Beri-Beri*,[1] Dr. HAMILTON WRIGHT continues his previous work on this subject by discussing more fully some points in the classification and nerve pathology of the disease. In those previous papers it will be remembered the author attempted to prove that beri-beri was an acute infectious disease due to an organism inhabiting the duodenum, which there manufactured a toxin the producer of the nerve lesions. The weak point of this theory, as the author himself admits, is the absence of pyrexia in the initial stages of the disease, and this certainly would seem to exclude beri-beri from the category of acute infectious diseases. The classification adopted seems rational and sound, and the clinical summaries of the different types are well put forward. The part of the work describing the neuronal changes is very interesting and instructive; it indicates that the poison of beri-beri acts centrally as well as peripherally. The long list of illustrative cases—some with autopsy notes—are well worth reading; they have been accurately studied, and support the author's clinical views. It is now some time since Wright's first work appeared, and one waits with interest the future observations confirmatory of it.

Climate and Health in Hot Countries and the Outlines of Tropical Climatology[2] is the title of a popular book on personal hygiene by Lieutenant-Colonel GILES, the well-known author of a handbook of the gnats or mosquitos. The first chapter deals with housing and domestic architecture, and here the author makes a very useful suggestion that all tropical residences should be at least two-storied, the sleeping apartments being at least 12ft. to 15ft. above the ground. This has much to recommend it, and could fairly easily be carried out in most places. What is called the second great desideratum of a tropical house—namely, free ventilation—is carefully considered, and a ground plan shows how the rooms ought to be arranged. Clothing comes next—a very important subject for the young man about to proceed to the tropics; and then we have the equally important subject of water and food, the question of alcohol being just touched upon, moderation being advocated. This would seem to be the usual experience of all who have lived their lives, or part of them, in the hotter parts of the globe. A good chapter on the prevention of malaria, and one on the treatment of the common tropical diseases, closes the first part of the book. The second part deals with the outlines of tropical climatology, and is very interesting, many good tables of the temperature, rainfall, humidity, winds, etc., of different places being given. The book will be specially useful for those about to go to India, where the writer has evidently gained his experiences of tropical climates, and the layman would do well to take a copy out with him to read on the voyage.

The second edition of Major BUCHANAN'S book on *Malarial Fevers and Malarial Parasites in India*[3] is well worth reading. In its preparation he has left a considerable amount of the work of the first edition as it originally was, making, however, alterations, and adding some new chapters on the results of further observations. In many ways this is unfortunate. For example, one reads the chapter on mosquitos and malaria, and notes with astonishment the statement that in regard to the other fevers (quartan and malignant) there is no evidence that they are carried by mosquitos. Just, however, as one is about to pass to the next chapter a small subnote calls attention to the fact that the effect of temperature had not been taken into consideration, and this being so, the record of the previous faulty experiments would have been much better erased. One cannot also agree with the chapter on what is termed flagellar fever; the statement that flagellation occurs in the blood during life is contrary to the experience of other observers, and the points adduced in its support are not striking or convincing. The chapter on anti-plasmodists might well have been deleted, as unbelievers of the class against whom the text is directed are much best left alone. The nomenclature of the malaria of birds is not good, especially in the light of the recent researches on *halteridium* and the trypanosome. Apart, however, from these points there are many useful and carefully recorded observations contained in the book, and the diagrams, especially the unstained specimens, are really excellent. With a little rewriting of parts the value of the book would be greatly enhanced.

IN a pamphlet on trypanosomiasis and sleeping sickness Dr. BRODEU,[4] the Director of the laboratory at Leopoldville, gives a summary of some of the recent work on this subject. The usual historical facts are given up to the time of the discovery of trypanosomes in the cerebro-spinal fluid. Some clinical notes of the disease are appended, and then the author, using the technique indicated by Castellani for demonstrating the trypanosome, gives an account of his experiences with those parasites. There is nothing new in the account, and the communication as a whole is preliminary and of little value in advancing our knowledge of the subject.

SURGERY.

THE second edition of *Walsham's Handbook of Surgical Pathology*[5] was published in 1890, so that it is not surprising to find that Mr. H. J. PATERSON, in editing the third edition, has rewritten the greater part of the book, and has added a considerable amount of new matter. The first edition was a descriptive catalogue of specimens in the museum of St. Bartholomew's Hospital; the book has been developed and enlarged until it is now a complete handbook of surgical pathology in so far as the subject is capable of museum illustration. As a guide to the study of surgical morbid anatomy for the student it is probably unique; its scope is such that it will serve as a textbook in any museum. This general usefulness has been attained in part by supplementing the material in the hospital museum by descriptions of specimens in the museum of the Royal College of Surgeons, but it is due chiefly to the increased riches of the hospital museum itself, and is a witness to the energy and ability of its successive curators. An introduction has been added in

[1] *Studies from Institute for Medical Research, Federated Malay States.* Vol. ii, No. 2. *On the Classification and Pathology of Beri-Beri.* By Hamilton Wright, M.D. (McGill), Honorary Fellow of Johns Hopkins University (late Director, Institute Medical Research, Federated Malay States). London: John Bale, Sons, and Danielsson. 1904. (Demy 8vo, pp. 80. 3s. 6d.)

[2] *Climate and Health in Hot Countries and the Outlines of Tropical Climatology.* A Popular Treatise on Personal Hygiene in the Hotter Parts of the World and on the Climates that will be Met with Within Them. By Lieutenant-Colonel G. M. Giles, M.B., F.R.C.S., I.M.S.(Ret.). London: John Bale, Sons, and Danielsson. (Demy 8vo, pp. 315. 7s. 6d.)

[3] *Malarial Fevers and Malarial Parasites in India.* By Major Buchanan, M.A., M.D., I.M.S. Second edition. Calcutta: Thacker, Spink, and Co.: and London: W. Thacker and Co. 1903. (Demy 8vo, pp. 226, 16 plates, 24 illustrations. 7s. 6d.)

[4] *Publications de la Société d'Etudes Coloniales de Belgique.* Docteur Brodeu. Trypanosomiasis et Maladies du Sommeil. Brussels: L'Imprimerie Nouvelle. 1904. (Demy 8vo, pp. 15.)

[5] *Walsham's Handbook of Surgical Pathology.* For the use of students in pathological museums. Third edition. Revised and largely rewritten by Herbert J. Paterson, M.B., B.C., F.R.C.S. London: Baillière, Tindall, and Cox. 1904. (Demy 8vo, pp. 553. 10s. 6d.)

this edition, giving a general description of new growths. A morphological classification is adopted, and it is perhaps the least unsatisfactory at present available. The chapter is elementary, but sufficient for the student, except that something more might have been said about the characteristics of the endotheliomata, and certain statements in the description of carcinoma development are not entirely satisfactory. The best sections in the book are those on diseases and injuries of bones and on diseases of the digestive tract; in the latter, however, the pancreas and its affections are not represented. The numerous varieties and complications of hernia are extremely well illustrated. While these sections are exceptionally good, there is a general equality throughout the book, at which the editor has no doubt aimed in order to extend its utility. In this he has been entirely successful, and an increased popularity will certainly result from his labours.

In the preface to their work on rhinoplasty[6] the authors quote the opinion of Denonvilliers, who said in connexion with operations of this character, "the surgeon merely replaces a disgusting deformity by a ridiculous one." It is claimed that in recent years, since this sweeping statement was made, substantial progress has been made largely owing to the employment of antiseptic and aseptic surgery, which permits transferred and transplanted flaps to unite readily and accurately. This large volume on a very small section of plastic surgery is a tribute to the industry of the authors, but it affords a striking comment, not of a very favourable character, upon the growth of minute specialism at the present day. So far as we are able to ascertain, it does not possess much originality. There is one suggestion emanating from the authors themselves of an independent nature, and that is a means of replacing the lost cartilages of the nose by a portion of costal cartilage taken from the tips of one of the floating ribs. Beyond this point, the work is a collection of other surgeons' work in the effort to restore the nose partially or entirely. The method of injection of various substances, particularly of paraffin, is fully detailed, and the drawbacks fully set out. The number of illustrations is great—in fact, there is one to nearly each page of the book. If we were to be guided in forming our opinion by the figures we should be hopeful as to the cosmetic effects of these ingenious operations. But in plastic surgery, and particularly in this form of it, black and white illustrations are quite inadequate to convey any correct idea of the ultimate result, which falls very far short of the ideal aimed at, and often leads to much disappointment on the part of the patient. The one exception is the operation for lipoma nasi, where the redundancy of soft tissue can be removed, and skin grafts transferred by Thiersch's method from the thigh to the raw surface.

The author of *Surgical Emergencies*,[7] in his endeavour to make known the results of a wide practical knowledge and a careful study of his main subject, has arranged his material in an erratic and somewhat perplexing manner. The book, which presents on its cover the simple term of Appendicitis, and on its title page Appendicitis and Other Diseases about the Appendix, commences with a chapter on general abdominal surgery, and concludes with chapters on peritonitis, intussusception, perforated typhoid ulcer, and carcinoma of the intestinal tract. Dr. HOLMES'S writing, except in those parts of the book which are devoted to very graphic and really instructive clinical records, is pedantic and obscure, and it is very difficult to understand certain coloured plates, each intended to represent "a transparent or semi-transparent anatomic and pathologic mannikin, in which certain points stand out brilliantly luminous." Dr. Holmes, who has evidently paid much attention to appendicitis, deals very fully, if not so clearly as the reader might wish, with the different forms and complications of this disease. His contribution to the abundant literature on the subject may be regarded as an instructive and reliable statement of sound clinical views based on large experience. It contains very little if any addition to our knowledge of appendicitis, but gives some fresh and important information of the clinical characters and the diagnosis of the disease. The treatment, as may be expected, is summed up in the author's adage, "appendicitis granted, operate."

The title of Dr. GRIFFITH'S *Handbook of Surgery*[8] is rather misleading, as it is merely a collection of very meagre and condensed notes such as might be formed by any industrious student whilst going through a complete surgical treatise. The information here given is much too slight to be of service to either student or practitioner, and the book, even if regarded as an abstract of the most elementary surgical knowledge, is unsatisfactory and not very reliable. The author has shown much industry in its preparation, and has endeavoured to render it useful by a very disproportionate supply of illustrations. The size of the volume is unduly extended by the inclusion of quite irrelevant matter—such as microscopic technique, medico-legal subjects, and the examination of applicants for life insurance.

NOTES ON BOOKS.

THE twenty-third volume of the *Medical Annual*,[9] or the edition for the year 1905, makes its appearance in a somewhat larger form than its predecessors. The latter were growing thicker year by year, in spite of the use of thin, hard, paper, and at last the general editor has felt compelled to lengthen the page in order duly to record all the therapeutic advances and other work of the year. In other respects the *Annual* remains the same; each article is signed by an editor who may safely be presumed to know his subject; and the use of stereoscopic plates, first introduced we think last year, is again an attractive feature. There is, in short, no departure from the general lines which have gained this year book popularity in the past. It is an exceedingly useful book for any one in search of a new idea for treatment, or for one who wishes to bring his knowledge of the trend of contemporary thought up to date; but its contents of course must be read with discretion, and the opinions of the authors and workers quoted in the different articles not all accepted as generally-admitted views.

A REPORT ON THE CARE OF THE INSANE POOR.

By Our Special Commissioner.]

CONCLUSION.

THE family care of the insane: What idea do these words convey to most people, medical or lay, who may read them? Probably that of a system, or no system, which would grant to the insane an unwarrantable liberty fraught with danger, and opening up all manner of lurid possibilities to both patient and public; which would bring about the continued presence in the midst of the community of those who by their extravagances or misconduct would become a public eyesore—a reproduction, in fact, on a large scale of the old-time village "natural" or fool, inefficiently inspected and controlled; and which would be, above all, a tacit admission of failure on the part of those large and costly institutions, the county and borough asylums.

Nothing could possibly be wider of the truth. The family care system is the supplement of, not the substitute for, the asylum, and is only applicable to a certain proportion of the total insane population. This proportion varies with the nature of the country, the calling and character of its inhabitants, and the degree of inspection and control exercised over the patients, and has been variously estimated at from 10 to as much as 30 per cent. of the total asylum population. So far from constituting a public danger or inconvenience, its adoption has proved of considerable benefit to the districts in which it has been applied, and, so far from being in opposition to the interests of the asylums, it has been found everywhere to be a means of disburdening the asylums of their inoffensive, chronic and incurable cases, and promoting a concentration of medical effort on the acute and curable patients. Its adoption may thus be advocated on humane grounds, as permitting to suitable cases the inestim-

[6] *La Rhinoplastie* (Rhinoplasty). Par C. H. Nélaton et L. Ombrédanne. Paris: G. Steinheil. 1904. (Royal 8vo, pp. 432; 391 illustrations. Fr. 15.)

[7] *Surgical Emergencies*. The Surgery of the Abdomen. Part I. Appendicitis and other Diseases about the Appendix. By Bayard Holmes, B.S., M.D., Professor of Surgery in the University of Illinois; Professor of Clinical Surgery in the American Medical Missionary College, Chicago. New York: D. Appleton and Company. 1904. (Demy 8vo, pp. 350; 46 illustrations. 2 dols.)

[8] *A Handbook of Surgery*. By Frederic Richardson Griffith, M.D., Surgeon to the Bellevue Dispensary; Assistant Surgeon to the New York Polyclinic School and Hospital, etc. London: W. B. Saunders and Co. 1904. (Crown 8vo, pp. 570; 417 illustrations. 10s.)

[9] *The Medical Annual: A Year Book of Treatment and Practitioner's Index*. 1905. Twenty-third year. Bristol: John Wright and Co. (Demy 8vo, pp. 704. 7s. 6d.)

able boon of family life; on administrative and pecuniary grounds, as at once relieving the overcrowded asylums and lightening the burden of the taxpayer, and also on purely medical grounds, as a valuable therapeutic measure in many cases unfitted for asylum life, and as a means of testing the fitness of convalescents for return to society. In the preceding reports an account has been given of a study of this method of treatment in Scotland, Belgium, France, Holland, and Germany, and, had space and time permitted, the reports might have included the results obtained in Austria, Italy, Russia, Norway, Sweden, Denmark, and the United States. For the purpose of our examination, however, visits to the family colonies above mentioned, suffice to warrant the following conclusions:

A.—*The patients are happier, healthier, and more tranquil than in the asylum.*

These are statements which largely escape numerical demonstration. As to the contentment of the patients with their lot, however, there can be no question. In not one case out of the many hundreds with whom we conversed did the patient wish to leave the family for the asylum. Naturally in many cases—notably in the French colonies at Ainay-le-Chateau and at Dun-sur-Auron, and in some cases in Scotland—the patients desired to return to their own homes, but never to the asylum. This is further borne out by the fact that we saw many patients—melancholics and the subjects of stable delusions of persecution—who had formerly, whilst in the asylum, been agitated, depressed, or even actively suicidal, whose condition became markedly and instantly improved under family care, and who expressed to us their entire satisfaction with their surroundings. Following this mental amelioration, and in consequence, doubtless, of the open life, the healthy occupation, and the substitution of natural sensory stimuli for the countless depressive influences of crowded asylum wards, there is a decided physical improvement. The condition, indeed, of physical well-being amongst these patients is most striking, and furnishes one of the strongest arguments in favour of its adoption wherever possible. In the introduction we drew attention to the strictures passed by the English Commissioners in Lunacy on the tendency to unduly increase the size of asylums and the causal connexion between this and the incidence of, and death-rate from, asylum dysentery and phthisis. In the family colonies dysentery practically disappears as a cause of death and the death-rate from tuberculous diseases, notwithstanding the fact that the cases selected for boarding out—dements, imbeciles, and chronic maniacs—belong to classes which are notoriously prone to tuberculous diseases, undergoes a considerable diminution. The average percentage of tuberculous deaths on the total deaths from all causes is, for the family colonies of Belgium and France and the boarded-out cases in Scotland, 8.14 as contrasted with the average of 13 per cent. of the closed asylums of these countries, or the 17.4 per cent. of the county and borough asylums of England and Wales for 1903. It is, however, when one turns to the death-rates of the family colonies as compared with those of closed institutions that the difference in this respect between the two systems is most marked.

Percentage Death-rates on Patients Resident in 1903.

	Family Care.			Asylum.		
Belgium	Gheel ... 4.04 Lierneux 4.53	...		...	...	9.80
France	Dun ... 8.50 Ainay ... 3.10	...		...	...	9.50
Scotland ...	... ... 4.40	...		...	...	9.90
England ...	... ... —	...		...	...	9.17
Total averages	... 4.91	...		...	...	9.84

In the above figures we have not included the returns from the family colonies of Holland and Germany, because in Holland the connexion between the colony and the asylum is of so intimate a nature that no separate statement would be admissible, and in Germany the development of this system on a large scale is of so recent origin that the figures of its colonies, though equally satisfactory with the above, would not carry the same weight. The death-rates given above are remarkable in that they deal with a class of patient having normally a high death-rate, composed also in France preponderatingly of aged people, and yet giving a death-rate of one-half that of ordinary asylums.

B.—*The application of this method results in a large pecuniary benefit to the taxpayer:* (a) *by obviating the necessity for erecting new asylums or extending existing structures:* (b) *by the intrinsic cheapness of this form of provision for the insane as regards maintenance, administration, and medical service: and* (c) *by the aid in money and labour afforded to the guardians.*

Scotland in 1903 had 2,658 pauper patients under care in private dwellings. To calculate the cost of erecting asylums per patient is, the Commissioners in Lunacy for Scotland say, an extremely difficult matter, owing to variability in the price of land and cost of building, fluctuations in the number of beds in occupation, difference in the provisions made for future extension, etc. They have therefore measured this cost by the annual amount which the ratepayer has to pay to meet this outlay—that is, expressed it in yearly rental instead of prime cost. A table given in their annual report for 1903 shows that in May, 1903, the pauper lunatics maintained in district asylums were costing the country a yearly rental of £17 9s. 3d. per bed. If these 2,658 patients were housed in district asylums, therefore, an additional annual expenditure, merely in land and buildings, would be required of £51,731. As, however, between a fifth and a sixth of Scotland's pauper lunatics are maintained in the lunatic wards of poorhouses, and as a large number could be provided for by the simple extension of existing structures, the actual sum required would be much less. Even estimating it at £30,000 a year, however, an enormous economy is effected. But this is not all. The average weekly cost of each pauper lunatic in food, clothing, management, etc., in establishments in Scotland was 9s. 11d. per week for 1903, whilst that of each pauper patient in private dwellings was 6s. 10¾d., a saving on each patient of 3s. 0¾d. per patient per week, amounting to an economy of public moneys of £20,876 for one year. The total annual saving to Scotland effected by this mode of assistance to the insane poor is thus at least £50,000 a year.

To a greater or less extent the same pecuniary advantage has accrued from the adoption of this system in the other countries which we visited, the saving ranging from that of almost a half, in the case of the Seine Department, to that of a quarter in the case of the German colonies. It would be impossible to estimate with anything like accuracy the amount which would be saved to the taxpayers in England and Wales by the application of the family-care system as an integral part of lunacy administration in this country, but it may be accepted as within the mark that if 15 per cent. of the pauper asylum population in England and Wales were treated in this matter there would result an annual economy of at least £300,000, and if 20 per cent. were so treated, a sum of between £400 000 and half a million sterling. The amount saved would depend to a large extent on the form of family care adopted, but it should be remembered that whilst the establishment of special asylums for the boarded-out cases and the provision of an extensive machinery of supervision would lessen the economy, it would at the same time increase the proportion of cases to which the system might be applied.

C.—*The system is one of increased, not diminished, co-ordination and control.*

It will probably occasion considerable surprise to many to know that in England and Wales there are more pauper lunatics under family care than in either Scotland or France, or Belgium or Holland. There were in 1903 no fewer than 5,516 pauper lunatics living with relatives or friends. These patients, who are mainly harmless imbeciles or idiots, are discharged on the application of their relatives or friends to their care from workhouses and county and borough asylums under Section LVII of the Lunacy Act of 1890. They are handed over to the care of the guardians of the union, and from that time pass entirely out of the official cognizance of the Commissioners in Lunacy. They are visited once a quarter by the medical officer of the union, and at least once in every fourteen weeks by the relieving officer. A quarterly return has to be sent to the clerk to the guardians by the medical officer giving information as to the dates of his visits to the patients, their bodily and mental condition, their general conduct and management, their suitability for family care, and also information as to mechanical restraint. The relatives of the patients who have taken them under their care receive a small sum, ranging usually from 2s. 6d. to 4s. a week, towards their maintenance from the guardians, who, in the case of patients discharged from asylums, are reimbursed by the 4s. grant.

There are some points worthy of note with regard to this boarding out of pauper lunatics in England and Wales. In the first place, there is an entire lack of coherence between these patients and the general lunacy administration of the country, an absolute want of central control; in the second place, the guardians of the patients are in nearly all cases their parents or natural guardians, that is to say, the very people whom universal experience has proved to constitute the worst kind of guardian; in the third place, the sums paid to the guardians are utterly inadequate for their proper maintenance; and lastly, the medical care and supervision is less than in any of the countries we have taken under review. Contrast this system, or rather want of system, with the close care, the regular inspection and efficient control, the monthly bathing and medical examination, of the patients of the French, Belgian, Dutch, or German colonies, or with that of Scotland, which ensures, as Mr. Spence has said, "that no insane person in Scotland who receives parochial relief while under private care shall receive such relief unless under conditions prescribed by the State through the Board, and under Governmental inspection ensuring the fulfilment of these conditions," and it becomes abundantly clear that the boarding out of pauper lunatics in England and Wales is in need of instant reformation, and that the introduction of a modern properly-organized family-care system would result in increased, not diminished, co-ordination and control.

D.—*The application of the family-care system has a beneficial influence on the treatment of the insane, both in the asylum and in those under family care.*

Between Esquirol and Sir John Batty Tuke there has been a succession of alienists who have repeatedly urged the formation of small asylums for the treatment of acute and curable cases. In Germany for years, and in many other Continental States, and also since 1900 in Scotland, there have been mental hospitals for the treatment of early insanity amongst the poor, which have more than justified their establishment. In France the separate establishment of hospitals for acute and curable cases is being accomplished. Yet notwithstanding the weight of professional authority, England still lags behind. As a step in this direction, as a means of disencumbering the asylums of their surplusage of chronic and incurable cases, the value of family-care colonies is undeniable and, indeed, self-evident. Letchworth showed years ago that the recovery-rate of an asylum which had been relieved of its incurable cases by the formation of a colony, when added to the recovery-rate of the colony, exceeded the recovery-rate of mixed establishments, and this favourable influence of the separation of the cases has been the subject of comment by every medical director of the colonies we visited. Amongst the class of patients discharged to family care recoveries could hardly be hoped for, but in every colony we found these occurring amongst patients many of whom had been for years in asylums. More marked than this, however, is the amelioration in the mental condition of chronic cases under domestic influences, cases which have been agitated and restless in asylums have become comparatively tranquil in the family, the subjects of persistent delusions of persecution no longer kick against the pricks, and there are many cases living quietly in the family colonies, who had been actively suicidal in the asylum. This in no way detracts from the value of asylum treatment. The asylum and the family colony has each its proper sphere. For early, acute and curable cases, small completely-equipped mental hospitals under expert alienists in sufficient number to give individual attention to the patients—a condition impossible to fulfil in our immense asylums; for protracted, agitated, and dangerous cases, and those requiring careful nursing on account of their bodily or mental condition, the pavilion or villa asylum, in closed and semiclosed houses, and for a considerable percentage of the insane, chronic, incurable, and inoffensive cases, family care.

Professor Clifford Allbutt, in a letter published on May 23rd, 1904, wrote:

> The prevalent methods of treatment of insanity are not even yet individual enough. County asylums have too much of the barrack, retreats for the wealthy too much of the hotel. For the poorer we want the village system, for the richer a further extension of the villa system, which of late years has made much way.

The important benefit which the adoption of this system confers on the treatment of insanity is that, whilst securing the boon of family life to thousands who would otherwise be immured within asylums, it permits, at a greatly diminished cost, of an expenditure of individual effort and expert skill upon those likely to benefit by it which is impossible under our present system.

The possible dangers of the family-care system have been thoroughly discussed in the preceding reports. Suffice it to say that any misgivings we may have had under this head have been entirely removed by the results of our investigation. Major casualties are very much greater in the asylums than in the colonies, following naturally from the selected class boarded out, and under efficient inspection and control and with the exercise of proper care in the selection of cases the possibility of immoral or illegal conduct may be entirely eliminated.

The introduction of this system into England and Wales and also into Ireland has been frequently discussed and has been opposed by many on the ground of public danger or of the possibility of lax or exacting guardianship. We have also heard it said that it is a "cheap" system, with the implication that this is its sole recommendation. Its adoption by England and Wales would undoubtedly result in an immense economy of public funds, but had this been its only virtue it should have sought elsewhere for its advocacy. A study of this system proves that for a considerable proportion of the insane it is the most humane and the least costly mode of care as well as an important curative co-efficient. It is essentially a reformative and not a retrogressive measure, and those who oppose its extension in England on the ground of public safety or from fear of careless or harsh treatment of the patients by their guardians forget that we have to-day over 5,000 lunatics under family care who are seldom inspected, who are detached from any central administrative control, and for whom the use of mechanical means of restaint is, if not countenanced, at least not prohibited.

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	66	0	0
Dr. Egbert Williams	1	1	0
Dr. W. F. Brook, sen.	0	10	6
Dr. Eleazar Davis	0	10	6
Dr. J. Charles Edwards	1	10	6
Dr. S. J. Trevor Jones	0	10	6
Dr. S. Cromwell Jones	0	10	6
Dr. J. Walters	0	5	0

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 90.

Proprietary Medicines.—Among the Bills before the New York State Legislature is one prohibiting the sale of proprietary medicine in the State unless an analysis or formula specifying the ingredients which it contains is printed on the label of the bottle or package. False analysis or failure to place the formula on the outside of package is made punishable by a fine of not less than £10 or more than £100, or by imprisonment of not less than one month or more than six months. A similar Bill is before the Massachusetts State Legislature. It is resisted by the Druggists' Association because, as a correspondent of the *Boston Medical and Surgical Journal* tersely puts it, "they think that people would not take so much patent medicines if they knew what they were swallowing."

A Spanish Municipality and its Medical Officer.—It is seldom that the services of a medical officer receive any recognition from a local authority in this country. We therefore commend to the special attention of all town councils, boards of guardians, and other public authorities, the following example of appreciation of medical service shown by a Spanish municipality. The Ayuntiamento of Villamartin de Campos (Palencia) has recently conferred the freedom of the town on Dr. Rodrigo Fernandez in recognition of the zealous and devoted manner in which he has discharged the duties of Poor-law medical officer for twenty-five years. His name has been given to one of the streets of the town.

MEDICAL NEWS.

The Home Secretary has notified that His Majesty has authorized the Life Saving Society to be known in the future as the Royal Life Saving Society.

The first doctor's degree conferred on a woman by the University of Marburg has been won by a Japanese lady, Miss Tada Urata of Kumamoto.

We are informed that Mr. G. H. Makins, C.B., F.R.C.S., and Mr. Charters Symonds, F.R.C.S., have joined the consulting staff of the Bolingbroke Hospital, Wandsworth Common.

A society called the Chorley and District Medical Society has been formed at Chorley for the discussion of professional and social subjects. Dr. Jackson has been chosen President and Dr. Maskell Secretary and Treasurer.

Messrs. C. J. Hewlett and Sons, of London, have been awarded a gold medal for their standardized tinctures, drugs, and pharmaceutical preparations at the Cape Town International Exhibition, 1904-5.

The new whooping-cough block of the East London Hospital for Children, Shadwell, will be opened by the Princess Louise Augusta of Schleswig-Holstein on Saturday, April 8th, at 3.30 p.m.

We are informed that fourteen surgeons are competing for the quinquennial orthopaedic prize of £140 in memory of Umberto I, King of Italy. Professor Bassini of Padua, Professor Mikulicz of Breslau, and Mr. Bernard Roth of London, have been appointed by the University of Bologna to adjudge the prize.

The Sanitary Inspectors' Examination Board will hold an examination in London on May 2nd and the four following days for certificates of qualification for appointment of sanitary inspectors or inspectors of nuisances under Section cviii (2) (*d*) of the Public Health Act, 1891. Further particulars can be obtained on application to the Honorary Secretary of the Board, 1, Adelaide Buildings, London Bridge, E.C.

The report presented to the annual meeting of the Royal National Pension Fund for Nurses stated that during the past year 1,185 pension policies had been taken out, as compared with 953 in 1903. The annuities falling due showed satisfactory progress; at the December quarter these were being paid at the rate of over £12,000 per annum under 818 policies. The sum of £1,651 was distributed in sick pay during 1904. The total funds of the Society increased during the year from £820,792 to £910,525.

Among the objects exhibited this week by the Royal Meteorological Society in the library of the Institution of Civil Engineers is a life-size dummy, prepared by Mr. J. Lynn Thomas, dressed in the remains of the clothes of a man who was struck by lightning near Cardiff, on July 17th, 1903. The thermometers, anemometers, and sunshine recorders used on board the *Discovery* in the recent Antarctic expedition are also exhibited, as well as a number of beautiful water colour drawings of sky and cloud effects in Antarctic regions, made by Dr. E. A. Wilson.

In view of the importance of the more exact study of the insects which transmit disease in man and animals, the office of lecturer in economic entomology and parasitology has been created in the Liverpool School of Tropical Medicine, and Mr. R. T. Newstead has been appointed the first occupant. Mr. Newstead, who was assistant to the late Miss Ormerod, has been employed by the Board of Agriculture and some of the Colonial Governments to make investigations, and has published, through the Ray Society, articles upon scale insects and mealy bugs.

Society of Anaesthetists.—The following have been elected officers of the Society for next session: Mr. Edgar Willett, President; Mr. Walter Tyrrell, Vice-President; Dr. Probyn Williams, Treasurer; Mr. Crouch and Dr. Blumfield, Secretaries; and Drs. Bowen and Barton, Auditors. The Council is formed of the officers, in addition to Mrs. Berry, M.D., Mr. Carter Braine, and Dr. McCardie.

Exhibition of Tropical Diseases.—An exhibition of tropical diseases, as observed in Portuguese colonies, is being organized in connexion with the Section of Colonial and Naval Medicine at the Fifteenth International Medical Congress to be held at Lisbon in April, 1906. The exhibition will comprise interesting clinical cases, specimens, pathogenic parasites, species of *Culicidae* found in the Portuguese possessions, photographs of hospitals, statistics and curves showing the diffusion of particular diseases and the mortality therefrom in the Portuguese colonies, photographs of types of aboriginal races showing their clothing and mode of life, and specimens of their industrial produce.

University of London.—A meeting of the Faculty will be held at 5 p.m. on Friday, March 24th, at the University. The Faculty will elect a Senator in place of Sir Cooper Perry, who is unwilling to accept nomination for re-election. The Dean will make a statement as to the progress of the Institute of Medical Sciences scheme, and also on a matter connected with the visit of British physicians and surgeons to Paris in May next. Dr. Calvert has given notice of motion for a committee to consider a plan of retirement for members of the Boards of Studies.

Congress of French-Speaking Alienists.—The fifteenth congress of the alienists and neurologists of France and French-speaking countries will be held this year at Rennes from August 1st to 7th, under the presidency of Dr. A. Giraud, Medical Director of the Lunatic Asylum of Saint-Yon in the Seine-Inferieure Department. The following are the questions proposed for discussion: (1) Hypochondriasis, (2) forms of ascending neuritis, (3) baths and hydrotherapy in the treatment of mental diseases. Communications should be addressed to the General Secretary, Dr. J. Sizaret, Médecin en chef de l'Asyle Public des Aliénés de Rennes.

The Medical Society of London.—The one hundred and thirty-second anniversary dinner of the Medical Society of London was held at the Whitehall Rooms, Hotel Metropole, on March 15th, with the President, Mr. J. Langton, in the chair. To the right of the Chairman were seated the President of the Royal College of Physicians, the Principal of the University of London, the President of the Clinical Society, the Dean of the Faculty of Medicine of the University of London, the President of the Harveian Society, the President of the Gynaecological Society, the President of the West London Medico-Chirurgical Society, and to the left of the Chairman the President of the Royal College of Surgeons, the Director-General of the Army Medical Service, the President of the Royal Medical and Chirurgical Society, the President of the Neurological Society, the President of the Hunterian Society, the President of the Obstetrical Society, the President of the Laryngological Society, and the President of the Society of Anaesthetists. After the usual loyal toasts had been duly honoured, Sir William S. Church proposed the toast of "The Medical Society of London." He observed that there was in the air much talk of a scheme whereby the various medical societies in this metropolis would be more or less confederated together. He trusted that the individual societies would still retain their individuality. In any such movement, the Medical Society was bound to take a leading part. Mr. Langton, in responding to this toast, referred to the Lettsomian Lectures giving by Dr. Savage and to the address on the Growth of Cancer by Dr. Bashford. Sir A. W. Rücker, in replying to the toast of "The Guests," proposed by Dr. F. de Havilland Hall, said that the number of students of medicine in the metropolis, instead of increasing, had been for some years falling off, owing to the fact that the new provincial schools provided excellent classes for preliminary medical subjects. London must certainly put itself on an equality with the provinces. London had so many great medical schools and such an extraordinary wealth of teaching material that instruction in preliminary medical subjects in the metropolis must be put on a higher footing. These subjects did not require to be taught in the immediate neighbourhood of the sick bed, and it was a matter of the greatest importance that there should be established a central medical institution where physics and chemistry, and probably also anatomy and physiology, could be taught. That would do something to put the teaching of these subjects in the metropolis on an equality with the provincial centres, and with the greatest medical institutions in the capitals of the world. He concluded by reminding his hearers that that could only be done with the help of the medical profession. Mr. Tweedy also responded to this toast, and said he was glad to have the opportunity of acknowledging the benefits he had derived from the excellent library of the Medical Society. Sir Constantine Holman proposed the health of "The President," and that gentleman, in acknowledging the toast, paid a high compliment to the efforts of the two honorary secretaries of the Medical Society, Mr. Waring and Dr. Risien Russell, to whom he attributed the great success of the evening.

British Medical Journal.

SATURDAY, MARCH 18TH, 1905.

THE FAMILY CARE OF THE INSANE.

The report from our Special Commissioner on the Care of the Insane Poor, which has been appearing in the British Medical Journal for the last ten or eleven weeks, deals with a subject of great practical importance. The general question of State aid to the insane is largely financial, since it is the peculiarity of insanity, above all other diseases, that it tends to bring about dependence; hence the main problem which insanity presents to the administrator is connected with the care of those of the insane who are poor. The insane poor are also, from the very nature of things, a very much more important body numerically than the insane of the wealthier classes. Furthermore, the former, like the patients in our hospitals, offer facilities for attempting new methods of treatment which are not presented in the cases of the rich. Our Commissioner therefore considers, under the heading which he has adopted, the topic which is now attracting in almost every country more attention than any other connected with the general treatment of the insane—that, namely, of family care. To the medical profession the first question is: Is family care beneficial to the patients? If this must be answered in the negative, the matter needs no further consideration. If, however, it is capable of an affirmative answer the further questions come up in their turn: Can family care be carried out with sufficient security to the physical and moral welfare of the general public to render it feasible? Can it be worked with such economic results as will make it a method popular with the ratepayers?

With reference to the first question—that of benefit to patients—it is of course necessary in introducing this topic in England, where heretofore it has received such scanty notice, to premise that nobody suggests the treatment of all forms of insanity, or, to speak more correctly, of all cases of insanity by family care. It is as necessary to individualize treatment here as it is in everything else connected with states of mental disease. Unless some vast change occurs either in insanity or in facilities for treating it—a change which we have absolutely no warrant for expecting—the asylum, the mental hospital, or call it what you will, must always be necessary. Acute cases we now know require above all things rest. Mental rest is difficult to obtain, but one method often most serviceable is that isolation, that separation from the stimuli of ordinary life, which is hardly obtainable except in an asylum. There are, to be sure, many other phases of mental disturbance, such as the continuously suicidal state; states of excitement requiring such management as can be safely applied only by a well-trained and numerically strong staff; paralytic states, and several more which require to be dealt with in a special institution. The majority of the patients, however, in every public asylum are not by any means acute cases. They rather fall under the heads of those conditions commonly called paranoia and dementia. It is mainly with regard to these classes that the question of family care arises. Although many even of these will continue to require asylum care, to those to whom an asylum is not an absolute necessity its influence is probably more injurious than beneficial. The sense of confinement is always irksome, sometimes demoralizing. The monotony of existence, trying even to the staff, must, to any patient with sufficient intelligence to note the passage of time, be something approaching absolute torture. Attempts are now being made almost everywhere to increase the employment of patients at handicrafts, etc., attempts which asylum committees and trades' councils do not always labour to facilitate, for we have heard stories of administrators who found it necessary to employ their patients digging sandpits in the grounds one year and filling them up the next, as though this labour of the Danaids, as Paetz rightly says, could ever be regarded as anything but a punishment. Even the sports and games in an asylum become wearisome to those who have nothing else to do. The whole atmosphere of institution life is narrow and unwholesome for every one who has to breathe it. In people unaccustomed to depend on books the intelligence is starved if they are placed in circumstances where they can take little or no interest in the daily life around them, and the emotions are starved by the unvarying, chilly, and even hostile influences of confinement in an institution. Many years ago, in his presidential address at the annual meeting of the Medico-Psychological Association, the late Dr. Lockhart Robertson, summing up the evils of asylum life, quoted and applied the lines which Tennyson had then recently written, in which he spoke of—

> The narrow brain, the stony heart,
> The staring eye glazed o'er with sapless days,
> The long mechanic pacings to and fro,
> The set grey life, and apathetic end.

Can, then, a freer life be given to some of the inmates of our great asylums—a life brightened by the ordinary interests of humanity, and animated by the natural and cheery surroundings of the family? A perusal of our Commissioner's report supplies a very full answer to this question. After detailing his observations at many centres of family care in many lands—observations which we may say coincide generally with the opinions of the most advanced modern authorities who have dealt with the subject—he concludes that the patients are happier, healthier, and more tranquil than those in asylums. Happier, no doubt, because freer and not exposed to the crushing depression of asylum life, and more tranquil for the same reason. Evil example and the mental contagion arising from close association with turbulent cases do not exist while there are natural incentives to good behaviour unknown in institutions. Just as the crowding of the insane in asylum is injurious to the mental atmosphere, so it is to the physical, and thus it is not surprising to find that dysentery, one of the scourges of asylums, practically disappears as a cause of death in the home colony. Tuberculous diseases, though the classes of patients generally selected for family care are those most prone to these affections, show a very striking diminution. On the whole the death-rate among the patients in family care, at those centres where our Commissioner found it possible to obtain statistics of value for comparative purposes, may be said to be little more than half that of the corresponding asylums. The colony of Dun-sur-Auron, the only centre the death-rate of which approaches

that of the asylums, was originally founded solely for the reception of senile dements, a class among whom in the ordinary course of nature mortality must needs be high wherever they are.

Before we leave the question of benefit to patients, we must note that the application of family care is by no means a last resource, nor should it be confined entirely to incurable cases. In every country where it has been adopted on a large scale a number of "cures" have occurred. Some cases have either really improved under the more natural surroundings of life in the family or they have at least learned such a measure of self-restraint and self-help that they have ceased to be dependent and have become able to resume their place in society. It is well worth considering whether family care cautiously adopted just at the disappointing period when acute cases are passing into chronicity might not retard or even reverse the process of progressive degeneration.

With regard to the question whether family care of the insane is safe for the public, a glance through our Commissioner's report will carry more settled conviction than any amount of argument. Putting aside Gheel, all the other insane colonies have arisen since the inauguration of the beneficent changes in the treatment of the insane in the past century—all, indeed, except perhaps those of Scotland—since the coming of the interviewer and the cheap telegram. They have been founded and started in the most public way and often under a blaze of the fiercest discussion. Thus has been proved, not only that the scheme will work, but that it will work with safety and without inconvenience. If the average of accidents of all kinds was substantially heavier in family care than in asylums, public opinion, keenly — nay, even unfairly — sensitive in this matter, would have closed the family colonies long since. Instead of this we find them assuming immense proportions in Scotland, Belgium, and France; more modest in size in Germany, they are worked from no less than thirty-three separate centres, and they are developing every day. Holland, whose lunacy service deserves the admiration of all Europe, has adopted family care. So have Italy, Austria, and Russia. For details we refer to the report, in which our Commissioner has not shirked dealing with accidents. On the whole, it may fairly be argued that if any trifling increase of risk is run the advantages of the system more than counterbalance it.

Lastly, the question arises whether family care has any points which will commend it to the ratepayer. A country which enjoys the inestimable blessings of local government on the most democratic lines can hardly be expected to exhibit the unselfishness of Holland, which runs family care solely for the benefit of the patients, esteeming it an enlightened mode of treatment and not desiring to make any money by it. It is obvious, however, that the saving which could be effected in building would be very considerable if anything like the Scottish or Belgian proportion of patients could be removed to family care from English asylums. The saving on maintenance (that is, the difference between the maintenance charge in the asylum and the amount paid by the public for a patient boarded out) varies in various countries. In the great French colonies of the Seine Department a patient costs nearly one-half the asylum cost. In the German colonies the saving is only one-quarter. In Scotland it is about one-third.

Many incidental benefits arise from family care, such as the increased prosperity of the hosts which has been observed everywhere where the system has been adopted. But that one which will commend itself most strongly to the medical profession is the immense relief which it would afford to asylums, enabling them to develop duly their functions as hospitals for the insane.

We draw attention to the final paragraphs of this report treating of the sort of underhand boarding-out system which actually exists in England, under legal sanction but without supervision. This will no doubt lead some day to a scandal. We propose to return to this part of the question at a future date.

PARLIAMENT AND VACCINATION.

IN the House of Lords on the 10th inst. the Duke of Northumberland asked the Government whether it proposed to introduce a Bill this session for the promotion of revaccination at school age, and Lord Kenyon replied in the negative. There is no intention to introduce such a Bill. That does not surprise us. Ever since Lord Harris induced the Lords to let through the Conscience Clause in 1898, by leading them to suppose that a Revaccination Bill would probably follow, the Government has simply played with the question.

But the reasons for doing nothing given by Lord Kenyon are worthy of note. He stated that the Government rely on the opinion of the Royal Commission that compulsory revaccination is not practicable, and he also argued that so long as the conscientious objector is allowed to exist, it is impossible to introduce a Bill dealing completely with vaccination and revaccination. With regard to the first of these two points, the Duke of Northumberland had answered Lord Kenyon beforehand. He pointed out that the Government's promise was made after the Royal Commissioner had reported, not before it, so that it is indefensible to fall back now on the Commission's Report for justification of subsequent inaction. Lord Kenyon's second contention was, if possible, even less valid than the first. Instead of recognition of the conscientious objector being a bar to a Revaccination Bill, it is the very consideration which makes such a Bill practicable. It was this fact, indeed, which induced many people to accept the exemption clause, and it was the consequent hope, held out by the Government in the House of Lords, that led to the Bill becoming law. There can be no reasonable doubt that the causes which have led to the weakness of the Government's attitude with regard to the whole matter are to be found in their hopes or fears of the polling booths. To pass a really valuable Revaccination Bill was altogether feasible, and the time was most opportune, but, for electioneering reasons, the occasion has been allowed to slip, and the country is the loser both from a financial and from a public health point of view.

One curious assertion made by Lord Kenyon calls for a word of remark. He held that small-pox statistics show a great diminution of cases since the Act of 1898, and he stated that the Government hope this diminution may continue until the disease has almost died out of the land. We are bound to say that this is not how the facts have presented themselves to us. Without searching into all the available data it is impossible definitely to disprove Lord Kenyon's statement, but he gave no figures whatever in support of it, though he had all the resources of the Local Government Board at his command. Instead of small-pox dying out, the general impression is that for several years past it has been again endeavouring to assert itself in the

country. Derby, Dewsbury, Bradford, Halifax, Leicester, Newcastle, Nottingham, Oldham, Stockport—many of them centres of antivaccination—and various smaller places have had a good deal of small-pox in 1904, and it is difficult to believe that, throughout the country as a whole, the disease has been diminishing since 1898. Nor could it be expected to diminish. The Act of 1898 refers only to children, and, in so far as the numbers of infantile vaccinations have been increased—an increase which we thankfully recognize—the incidence of the disease should be lessened in the juvenile population of any locality where small-pox may prevail; but the Act exercises no pressure towards revaccination of adolescents or adults, and the great agency for revaccination has been small-pox itself, which, wherever it appears to any serious extent, has the effect of sending many persons to seek for the protection they have previously neglected or derided. It would, however, be very interesting to get a record of the data on which Lord Kenyon's statement is based, and we hope that in one or other House of Parliament a request will be made for such a return as will show whether his facts are any better than his arguments.

Meantime, in the House of Commons, Mr. Stanhope has introduced a Vaccination Bill which has no chance of becoming law, but yet possesses an interest of its own. It consists practically of two clauses. One of these provides that no officer of a Board of Guardians, wholly or partly paid out of the rates, shall take any legal proceedings for non-compliance with the Vaccination Acts without the authority of the guardians. In the past we have taken occasion to point out that a vaccination officer is placed in a very awkward position by having to perform duties in opposition to the local body which appoints him and partly pays him. It would be much better if the prosecuting officer were an official appointed and paid wholly by the central authority. But the effect of the clause in the Bill would be to substitute for a small evil a very great evil. It would be to make the administration or non-administration of the Vaccination Acts wholly and entirely a matter for local option. The Acts contain no local option clause; they are intended to be administered uniformly all over the country. It is true that they contain an individual option clause whereby so-called conscientious objectors may allow their children to remain open to attack by small-pox; but individual option and local option are totally different things, and to pass any amending Act which, by a side wind, would give every Board of Guardians power practically to abrogate the law in its own locality would be nothing less than preposterous.

The other enacting clause in Mr. Stanhope's Bill refers to exemption certificates. He desires that application for exemption by the mother as well as by the father shall be definitely legalized, and that if the justices are not "satisfied" of the existence of conscientious objection, the matter may be disposed of by the applicant taking the usual oath, and that no exemption certificate shall cost more than one shilling. The theory of the exemption clause has always been that it should furnish a rough-and-ready distinction between strenuous objection on the one hand and mere parental indifference on the other. The intention was to give effect to this theory by providing that, in order to obtain an exemption certificate, the parent or guardian would require to take at least as much trouble as would be involved in procuring the vaccination of his child. But the clause, as passed, was adopted in the course of discussion of the Bill in the House of Commons, and was never properly thought out by the Government. In practice it does not attain its object. Some justices who sympathize with antivaccination, or desire a little cheap popularity in antivaccinating towns, reduce the whole procedure to a farce. Others err in the opposite direction by refusing to be "satisfied" by anything the applicant may say, and such justices are in reality no friends to vaccination, seeing that their action results in the revival here and there of some semblance to the cheap martyrdoms which used to play so prominent a part in antivaccination propagandism. But the clause in the Bill which has been introduced by Mr. Stanhope provides no satisfactory solution of the difficulty. To make it necessary for the father himself, and not the mother, to appear before the justices is surely a very moderate requirement, and instead of being abolished it should be insisted on by every bench of magistrates in the country. At present it is merely optional. If any fee is to be fixed for a relief certificate the amount should be stated quite definitely. Neither the existing nor the proposed clause provides for any fee. The proposal merely is that if a fee is required it shall not exceed one shilling. In fact, defective as is the exemption clause of 1898, it would be still more defective if Mr. Stanhope's Bill became law, and the result would be to relax still further the already weak pressure which is brought to bear on parents to protect their children against attack and death by small-pox.

MEDICINE AND MEN OF LETTERS.

It is a curious fact that great writers, speaking generally, have been no lovers of the medical profession. This is doubtless the reason why doctors for the most part cut so sorry a figure in literature. Scribes of all sorts take a special pleasure in girding at them. Shakespeare, indeed, used them gently, as though he loved them. Although the medicine of his time was a tempting subject for the satirist, his large mind saw the nobility of its aim, which to less penetrating and sympathetic eyes was disguised by the poverty of its outward apparel, and divined the possibilities of development that lay hidden in the mass of error and superstition of which it mainly consisted. But Petrarch wrote treatises against medicine and its professors; Montaigne laughed at them; Molière put them on the stage as fixed figures for the scorn of time to point its finger at; Rousseau vilified them; Voltaire is the author of the famous saying that the healing art consists in pouring drugs of which the physician knows little into a body of which he knows less; and Carlyle said he might as well confide his sufferings to the hairy ear of a jackass as to that of a physician.

Is this attitude of mind due to intellectual superiority or simply to the conceit and egotism which are pretty constant ingredients in the composition of genius? To the doctor all men are equal; they are simply cases, and the case of a costermonger may be more interesting than that of a poet or a philosopher. Yet philosophers and poets probably think that their ailments should be treated as exceptional because they who suffer from them are exceptional persons. Flaubert—himself, by the way, the son of a distinguished surgeon—is said to have hated doctors because they treated him as a *bourgeois*.

It is, indeed, the literary people who are largely responsible for the distrust of the medical art that so many persons who, in Beatrice's phrase, "profess apprehension," pretend to feel. Whether he be moved, like Molière, by resentment at the failure of medicine in his own case, o

like Swift, by fierce indignation which tears his heart, or like Carlyle, by what the old physicians called "black bile," the writer speaks *urbi et orbi*; the doctor in his secret ministry has only the few anxious watchers by the sick bed for an audience. The contest being conducted on terms so unequal, what wonder is it that the doctor gets the worst of it?

We have lately come across a passage in the *Journal Intime* of Frédéric Amiel, in which the Genevan professor of aesthetics and philosophy admired of Matthew Arnold and so many other superior persons, expresses his views on doctors. "Why," he asks, "do doctors too often give bad advice?" His reply to his own question is that it is because they do not sufficiently individualize their diagnosis and their treatment. "They class all their patients in an allotted drawer of their nosology, and yet every patient is a *hapax*" [in grammatical terminology a ἅπαξ λεγόμενον is a word or a construction of which there is only a single example]. How, he goes on to say, can so rough a sifting lead to judicious treatment? "Every disease is a factor simple or complex multiplied by a factor which is always complex, namely, the individual who is the subject of it, so that the result is a special problem, always requiring a special solution, especially the further removed one is from childhood and from rustic life." To us, of course, all this is the merest commonplace, but Amiel gives forth his platitudes as if he were Sir Oracle proclaiming a new gospel. He goes on to say that the chief fault he has to find with doctors is that they disregard the true problem "which is to grasp in his unity the individual who needs their care." Their methods of investigation are, he complains, much too elementary; "a physician who does not read one to the bottom does not know the essential." A doctor after his heart should have a profound knowledge of the life and the soul, divining intuitively a disorder or suffering of any part of the being, and restoring peace by his mere presence. Such a doctor, we are assured, is possible, but most practitioners lack the higher and inner life; they know nothing of the transcendental laboratories of Nature. To Amiel's mind they are "superficial, profane, strangers to the divine, destitute of intuition and of sympathy." He concludes that the model physician should be at once a genius, a saint, and a man of God.

All these noble sentiments and fine language translated into common speech mean nothing more than that Amiel had been treated by his doctor as a man of mould like other folk; he doubtless gave the sensitive philosopher mere vulgar pills and potions, whereas he should have seen by intuition that there was a disorder of the finer feelings, for which more ethereal medication was indicated.

We hold strongly that there is in the practice of medicine, in the highest sense, much more than pills and potions, more even than the wisest physical therapeusis. We quite agree that the practitioner will find much to learn in the transcendental laboratories of Nature; to him more than to any other, nothing human must be foreign. It often falls within his province to treat the spiritual or mental condition of his patient. But he must not on that account neglect the humbler, but equally essential, part of his art. If in trying to influence the soul he forgets to treat the body, he will find himself in the position of the astronomer who, in gazing at the sky, fell into a ditch. If all doctors are to be geniuses, there will be no ground for further complaints as to the overcrowding of the profession. But will the last state of sufferers from disease be better than the first? It would assuredly be well if all doctors were saints and men of God, but genius is as much out of place in the sick room as Sir Frederick Treves holds it to be in the operating theatre. Genius is of its very nature soaring, and cares nothing for the small things that make up the greater part of human life and that are of such infinite importance to the sick. On the other hand, medicine, which unlike the law must concern itself about the least, is patient, plodding, and pedestrian. Genius practising medicine would be like Pegasus between the shafts of a milkcart.

OBSTETRICS IN THE MEDICAL CURRICULUM.

WE would invite the attention of every one connected, directly or indirectly, with medical education to the address by the President of the Obstetrical Society, published in this issue, and to the paper by Dr. Arnold Lea of Manchester, which supplements Dr. Dakin's address in certain directions. It is, of course, not the first time that obstetric consultants have sought to draw a lesson from the fact that in spite of improved sanitation, and in spite of the progress made by the doctrine of asepticism, the number of deaths in England and Wales due to septic complications of childbirth does not show any distinct tendency to diminish. The fact has been made a subject of reproach to general practitioners, and this has, not unnaturally, been hotly resented by them. This objection, however, does not lie against Dr. Dakin's utterances, for he is logical enough to take the matter back one step, and most justly saddles the responsibility on the teachers of midwifery, and the Examining Boards to whose lax regulations they are more or less completely subjected. It is, indeed, a very serious matter that in the last year for which statistics are available nearly 1,700 women died in England and Wales of septic disease associated with childbirth, and Dr. Lea does right to remind us that the deaths do not represent all the suffering and the loss of health due to puerperal septicaemia. The indictment is all the more serious if, as seems to be the case, this country is lagging behind Germany in the efficiency of the means taken to prevent septicaemia. How many of the deaths are traceable to midwives the statistics do not show, but there seems no escape from the conclusion that a certain proportion, how considerable must be a matter of conjecture, occur in the practice of medical men. Dr. Dakin expresses the opinion that this is not due to carelessness or want of goodwill, but to the inefficient, careless, and inadequate training given to the medical student at his medical school. Instead of his being so thoroughly and practically taught that asepticism has become for him a habit, almost an instinct, it remains a doctrine or article of faith to be professed and defended indeed, but carried out only by a painful process of remembering and reasoning. Dr. Dakin shows that, in the medical schools of London at least, the teaching of even theoretical midwifery is inefficient, and for this the teachers of midwifery in the medical schools must be held largely responsible: they cannot altogether excuse themselves on the ground that the regulations of the licensing bodies and medical schools are perfunctory, for they are themselves members of those licensing bodies and of the medical schools. Nor is Dr. Dakin quite right in saying that until 1902 there had never been a teacher of midwifery on the General Medical Council; Dr. Matthews Duncan was a member from 1883 to 1888, and Dr. Lombe Atthill from 1889 until 1903. Nearly ten years ago the British Medical Association presented a memorial to the General Medical Council asking it to prescribe that no student should be admitted to his final medical examination unless he presented a certificate showing that he had personally conducted at least thirty confinements under the direct supervision of a registered medical practitioner. At that time the regulations of the Council required that a student should have been present at not less than twelve labours, at least three of which he must have con-

ducted personally under the direct personal supervision of a registered medical practitioner; as a result of an inquiry then made by the Education Committee the requirement was raised to twenty labours, at least five of which must be conducted throughout under the strict supervision of a registered medical practitioner. Dr. Dakin, however, considers that this is inadequate; that the supervision is often illusory, and that the clinical instruction is, at any rate in the out-patient maternity departments of the London hospitals, almost altogether wanting. Dr. Dakin tells us that there is a strong feeling among teachers of obstetrics in this country that students are not properly taught—that they go out into the world without having obtained what the teachers profess to give them, and that in consequence a great many lives are lost unnecessarily. This is a very severe indictment, but it is made by a teacher from the chair of the Obstetrical Society. It will, we hope, stimulate teachers of obstetrics to take action to call the attention of the licensing bodies and of the General Medical Council to the defects of the present system.

THE GARCIA CENTENARY.

THE programme of the celebration in honour of the hundredth birthday of Señor Garcia which is to be held in London this day (Friday, March 17th) has now been definitively arranged. At 12 noon congratulatory addresses and messages will be presented to the distinguished centenarian at 20, Hanover Square, in the following order: (1) Message from the King of Spain which, we understand, will contain the announcement that the Grand Cross of the Alfonso Order has been conferred on Señor Garcia; (2) message from the German Emperor, who has conferred on him the Great Gold Medal of Merit; (3) address from the Royal Society of London; (4) message from the Prussian Academy of Sciences; (5) addresses from the Universities of Koenigsberg (of which Señor Garcia is an honorary M.D.), Manchester and Heidelberg; (6) address from old pupils; (7) addresses from the Royal Academy and Royal College of Music; (8) addresses and messages from the following laryngological societies: American Laryngological Association, Belgian Society of Oto-Rhino-Laryngology, Berlin Laryngological Society, British Laryngo-Oto-Rhinological Association, Danish Laryngological Society, French Laryngo-Rhino-Otological Society, Italian Laryngo-Rhino-Otological Society, London Laryngological Society, Netherlands Laryngo-Oto-Rhinological Society, Paris Laryngological Society, Rhenish-Westphalian Laryngological Society, St. Petersburg Laryngological Society, South German Laryngological Society, Spanish Laryngo-Oto Rhinological Society, Vienna Laryngological Society, Warsaw Laryngological Society, West German Laryngological Society In conclusion, the portrait painted by Mr. John Sargent, R.A., and subscribed for by friends and admirers throughout the world, will be presented to Señor Garcia. At 3 p.m. there will be in the same place a special meeting of the London Laryngological Society, at which a large number of foreign visitors have announced their intention to be present: a special feature of this meeting will be an exhibition of interesting pathological specimens, selected and arranged by Dr. Pegler, Curator to the Society. In the evening at 7.30 a banquet will be given at the Hotel Cecil, at which Señor Garcia is expected to be present. There will be only three toasts—the King, Señor Garcia, and the foreign visitors. It is hoped that Señor Garcia will respond to the toast to his health. After the dinner a selection of music will be given by a number of eminent artists who have kindly offered their services. It is understood that a special mark of honour will be bestowed on Señor Garcia by King Edward.

THE MODERN TREATMENT OF ANTHRAX.

THE practical application of serums to the curative treatment of anthrax formed the central theme of Dr. T. M. Legge's second Milroy Lecture, and a report of what he had to say upon the subject will be found in the early part of this issue. In his account of the claims which he thinks may be made on behalf of Sclavo's serum he recalled two cases recently recorded in the columns of the JOURNAL, on January 7th (p. 16), and on February 11th (p. 296). They are the first cases in this country in which reliance has been placed upon Sclavo's serum to the exclusion of all other treatment, and while each in its turn offers an excellent clinical picture of a case of this disease under serum treatment both afford striking testimony to the value of the remedy which Dr. Legge has been instrumental in introducing. Supplies of it are now kept in England, we understand, by Mr. Martindale, 10, New Cavendish Street, W., and also by Messrs. Allen and Hanburys, Plough Court, E.C., while it can also be bought in Italy from Elia Coli, medico-farmacista, Siena, at the price of Fr. 2 for each tube of 10 c.cm.

THE VITALITY OF THE TYPHOID BACILLUS IN SHELLFISH.

THE Fishmongers' Company has issued a preliminary report of investigations made for it by Dr. Klein, F.R.S., on the vitality of the typhoid bacillus in shellfish. Experiments were made with the object of ascertaining the behaviour of this organism in oysters, cockles, and mussels, when these were separately and directly infected with a definite quantity of the bacilli, and also when they were kept for twenty-four hours in sea water to which a definite quantity of the organism had previously been added. Dr. Klein has found that oysters readily take up into their interior the bacillus typhosus when this has been introduced either into their shell or into the surrounding sea water. When clean at starting, the oysters rapidly clear themselves of the ingested bacilli, provided they are kept in clean sea water which is frequently changed; if kept in a "dry" state—that is, out of the sea water—they clear themselves to a less extent and more slowly. Oysters from a polluted locality get rid of the bacilli to a less extent and at a slower rate, even if kept in clean sea water, than oysters which are clean to begin with; and when kept in the "dry" condition the retention of the bacilli by oysters from a polluted locality is particularly marked. The process of getting rid of the ingested bacilli, Dr. Klein finds, cannot be due to the oyster merely "passing them out," but must to a large extent be attributed to an inherent power of the oyster to directly devitalize the microbe. However largely infected with the bacillus typhosus, the oysters at no time present to the eye any sign of such infection, but remain in all parts normal in aspect. Cockles readily take in typhoid bacilli suspended in sea water. At first the number of the organisms appears to diminish, but it soon increases to a considerable degree; and it was found that five days after the cockles had been removed from the infected water and kept in clean sand, the number of typhoid bacilli was more than three times the number initially present. Subsequent to this period a diminution took place, but proceeded very slowly. Mussels also readily take up the organism, more readily, apparently, than either oysters or cockles. As regards the fate of the bacilli, mussels probably occupy an intermediate position between oysters and cockles; the number of bacilli undergoes a gradual diminution, but this diminution is incomparably slower than with oysters, though somewhat quicker than in cockles.

MEDICAL SUPERVISION OF LONDON SCHOOLS.

THE London Education Committee has resolved to recommend the appointment of a number of local assistant medical officers for the medical inspection of schools. The Committee, in coming to this decision, has been guided by the necessity for regularizing the system of school hygiene. Under the School Board, many different branches of work were begun, but some could not be carried out systematically, though they were developed as far as possible with the existing staff. It is proposed that all the regulations in force in the Council's schools shall be extended to the non-provided schools as soon as an adequate staff is provided, but the non-provided schools will be permitted at

once to apply for advice to the medical officer. In addition to the work in connexion with vision-testing, the prevention of acute contagious diseases, and personal cleanliness, there is, the Committee states, a great deal of work not being systematically applied, but yet of very great hygienic value, in school visitation, conferences with teachers on school conditions and school work, informal inspections of particular children, classes, or premises, and so forth, work which the teachers appreciate, and which is of great use to the medical officers. This, it is stated, could be at once extended to non-provided schools. Until definite and complete arrangements have been concluded a temporary list could be kept by the medical officer of such non-provided schools as the managers desire to be treated by the medical officer on the same conditions as the Council schools. At first this work would not require separate help, but it is pointed out that it may grow very rapidly. The managers of 132 of the non-provided schools have expressed their desire for the extension of the system of medical supervision to their schools. While realizing the importance of the recommendation made by the Committee on Physical Deterioration that a systematic medical inspection of children at schools should be imposed as a public duty on every school authority, the London Committee are apparently deterred from accepting the recommendation on the score of expense. They calculate that a visit to each school once a fortnight would require the services of 100 medical men, each giving a quarter of his time. They therefore suggest that a regular visit should be made by a medical officer to each school once a quarter. For this 20 local assistant medical officers would be required. They, however, propose to apply the system at first in one part of London only, and to appoint only 6 medical officers at present. Each would be required to attend three school sessions weekly, and the salary offered is £150 a year inclusive of travelling expenses. These new officers would do the work at present done by the oculists; would at their visits confer with the head teachers regarding children affected by eye, throat, nose, aural, or other disorders affecting health and school progress. They would inspect over-age children, and make a first selection of cases deemed worthy of further examination for special education. The routine of work in regard to cleansing and infectious diseases would also be followed up by such officers, each of whom would have in his district about 53 elementary schools. The Committee proposes shortly to consider the question of the appointment of more nurses to supervise the personal cleanliness of the children, and to confer with the teachers. At the present time 12 nurses are employed in this way, and the Committee considers that 18 more will be required, 12 for the provided and 6 for the non-provided schools. They also propose to appoint a permanent half-time medical assistant, whose duty it would be to examine children for admission to special schools, and to attend to office work connected with the medical supervision of non-provided schools.

"AS ITHERS SEE US."

THE "giftie" for himself and his fellow men for which Robert Burns so eloquently longed has recently been abundantly bestowed in the case of medical men who have the advantage of living in the neighbourhood of Southport. It was not, however, intended especially for their benefit nor is it fair that they should enjoy a monopoly of it. We must extract, therefore, for the benefit of the rest one or more pictures of the medical profession as they have been drawn in the correspondence columns of a paper published in that town. Medical men, or rather it would appear, registered medical practitioners, domineer the public from birth to death. In every career where there are any emoluments attached there is to be found the grasping hand of the profession. It has secured by legislative influence full and uncontrolled command of every institution in the country and of every human being. It holds the army, navy, hospitals, dispensaries, benefit societies, assurance societies, the Government and the people in bondage. In short, we have conquered everything, even ourselves. But no: it appears we are not omnipotent after all, for we have not destroyed truth and shall never be able to do so. This may possibly not surprise those of us who, thanks either to a classical education or to copy-book mottoes, are familiar with the idea that truth is great and will prevail. The truth more particularly in question in this instance is that, owing to an absurd system of examinations and regulations, the real genius of the country is kept out of the profession, and that herbalists and others of their kin ought to be not only protected by the law but encouraged by the State and by all right-thinking citizens. However this may be, it is at any rate satisfactory to know to what a powerful profession we belong, and we shall doubtless all walk an inch higher in consequence. Besides this, it is an enlivening notion in these hard times, and some of us may, but probably will not, find it consoling when faced by unpaid bills. The idea, however, that bills need remain unpaid, or that the butcher, the baker, and the candlestick-maker can all exact the services of the members of so powerful a body for next door to nothing, is probably one of those "foolish notions" from which the gift of Burns was at once to set its receivers free. At all events, the Council of the British Medical Association will, of course, now conclude that the work of its Medico-Political Committee is superfluous, and devote its energies simply to the exercise of the enormous powers which we now know the profession already to possess. Another foolish notion from which we are also delivered is the belief that the existence of a man's name on the *Medical Register* is any proof of qualification. It is not; for it appears that hundreds of men upon it have never passed any examination at all, but have bought the "sheepskins," which the Southport coroner was recently so misguided as to call "degrees," for the modest sum of £10 apiece. Why, there is one British college which alone sold a thousand of them in one year. Let no one laugh, for one of the correspondents of the paper quoted says so, and as he is allowed to say it in nearly a whole column, it may be presumed that he is an important person and knows what he is talking about; besides this, he can sign himself M.D L.L.D. Reform Colleges London, Chicago, and Buffalo. It is true that we never heard of these colleges before, but for the suggestion that they exist, as well as for the information about the powers of the profession, some of which we have quoted, let us be duly grateful to the *Southport Guardian*, which gave up some five or six columns of its presumably valuable space to its dissemination. Perhaps, however, the person really most entitled to gratitude is Mr. Brighouse, the coroner for Southport, whose judicious statements as to the dangers of the present system of death registration gave rise to the whole correspondence. An account of the inquest at which he made them was published in the BRITISH MEDICAL JOURNAL on February 25th at p. 431.

THE FUTURE OF MEDICINE IN SOUTH AFRICA.

THE future of South Africa is now in the making, and with it that of the medical profession in the four colonies. The metal is at present hot, but the shape which it may eventually assume is not likely to prove satisfactory to the profession if the moulding be left entirely to laymen. There is everywhere a growing tendency to try to get more and more gratuitous or half paid work out of medical men, and while South Africa is already no exception to the general rule, there is, if we read the portents aright, considerable danger in the future of more open pressure in this direction being exercised there than is anywhere else possible. At the Farmers' Conference held last year in Natal a resolution was moved and accepted by otherwise sensible men which in effect would place the majority of those who practise in South Africa in other than large towns in a position in some ways even more disadvantageous than that of a club surgeon in England. Still more recently, a newspaper of importance in Natal has not hesitated to condemn a fee of £13 as an excessive charge without troubling to inquire what kind of work and travel it represented, while it is apparently

advocated that a tariff of fees should be introduced by Government and its acceptance enforced upon district surgeons. Apart from the fact that it would be impossible to construct a legal tariff which would work out with anything approaching fairness in the case of practitioners the circumstances of whose work vary so enormously as do those of district surgeons, its introduction would unfavourably influence medical men in South Africa, however occupied. It is a proposal, therefore, of general, and not merely limited, interest, and however absurd it may seem in itself, it is not without importance as a presage of possible developments in the future. Medical men as a body are nowhere prone to take much thought for the political to morrow, and even of those who see that things in the future look bad, many are disinclined to try and make them more hopeful upon the ground that the present state of affairs will last long enough for them, and that those who follow must look out for themselves. This is a comprehensible if not admirable attitude in old conservative countries where time-honoured customs exist and legislation is slow, but by no means the case in South Africa. There, a kind of commonwealth and a broad franchise are well in sight, the development of economic conditions and conventions is likely to be extremely rapid, and it is quite certain that if the medical profession as at present represented in the various component States does not now look after its own interests no one else will.

THE TRANSVAAL BURGHER CAMPS.

LIEUTENANT-COLONEL S. J. THOMSON, C.I.E., I.M.S., has issued an interesting volume[1] giving an account of the administration of the camps in which the families of burghers who were on commando were accommodated and provided for by the British nation. They formed one of the great features of the war in South Africa, and in the Transvaal alone there were some nineteen such camps, accommodating as many as 60,000 persons at one time. Each camp was arranged for from 3,000 to 5,000 persons. It is evident that as the habits of the Boers were far from what we should consider sanitary, and as all supplies had to be brought from a great distance, nothing but the most complete organization could have prevented them becoming hotbeds of disease. It is a proof of the efficiency of the organization for which Lieutenant-Colonel Thomson was responsible as Director of Burgher Camps that, with the exception of severe epidemics of measles, which caused numerous deaths, the death-rate was only 25 per mille per annum, whilst the daily sick-rate was only about 1 per cent. of the population. The conservancy of the camps required careful attention. There were three classes of latrines: those for men, largely on the confines of the inhabited area; those for women and children, mostly within the camp; and lastly, those which were only for night use, and which were provided with a lantern and kept locked during the day. The water supply was generally obtained from the neighbouring town, as most of the camps were in the vicinity of some large township. Stand posts situated in the main streets of the camp brought the water within easy reach of the inhabitants. As an interesting record of a unique feature of warfare this report of the burgher camps is interesting, but it has an additional value as a manual of instruction for the conduct of large camps founded on the results of actual experience. In the chapters on establishment and medical arrangements especially there are many details of organization and administration which would be found most valuable to any one entrusted with the formation and control of large encampments.

AN AMERICAN MEDICAL POET.

IN *Medicine* for March there is an interesting account of an American medical poet whose name, we imagine, will be as new to most of our readers as we confess it was to us. James Gates Percival was born it 1795, and after taking an arts degree at Yale was for some time engaged in teaching. He then studied medicine, and after graduating at Philadelphia entered the United States army as assistant-surgeon. He was for some time Professor of Chemistry at the famous military academy at West Point. Apparently he left the service to devote himself to scientific research, for he made a geological survey of Connecticut in the course of which he walked over every hill, plain, and morass in the State. In this work he was engaged for five years at an annual salary never exceeding £60. In addition to his scientific knowledge, he was a linguist, reading with ease Latin, Greek, French, Spanish, German, Italian, and the Slavonic languages. But he was utterly wanting in the power of self-assertion; hence his great gifts were hidden from the world. His first efforts in verse were damned by the American press as brutally as were those of Keats by the *Quarterly Review*. If he was not, like the author of *Endymion*, killed off by one critique, the reviewers wounded his sensitive spirit so deeply that he tried to kill himself. Yet the workmanship of his verse was so fine that it earned praise from so severe a judge as Edgar Allan Poe. In addition to metrical translations of German and Slavonic lyrics, Percival published several small volumes of original poems between 1821 and 1843, and a complete edition appeared in 1859. Throughout his life he was a prey to the poverty which used to be the proverbial lot of poets. Hunger forced him to play the part of literary "ghost." He is said to have been the sole author, compiler, and editor of the first edition of the *Unabridged Dictionary* published in the name of Noah Webster, in which he gave not only the definition but the root and the history of some 16,000 words derived from thirty-nine languages, of all of which he had some critical knowledge. Webster's first dictionary was merely a compilation from standard authorities, the only original part consisting in American slang. It is to Percival that Webster owes his fame as a lexicographer. At last, in the decline of his life, fortune seemed disposed to smile on the doctor-poet. In 1854, through the influence of some friends who knew his worth, Percival was appointed Geologist to the State of Wisconsin. His first report was published in 1855, and he was engaged on the second at the time of his death. If it be asked what caused the failure of a man so brilliantly endowed, so versatile in accomplishment, and so strenuous in work, we think the answer may be given in two words—diffidence and instability. Samuel Johnson said: "Slow rises worth by poverty deprest." But many have fulfilled their destiny and uttered the message that was in them, in spite of poverty. There is a wise old saw, *Primum vivere deinde philosophari*. James Gates Percival, we take it, was one of those who find it more easy to philosophize than to live.

A MEDICAL DESCENDANT OF THE FAMILY OF JOAN OF ARC.

AMONG the many things to which the iconoclastic hammer of the higher criticism has been applied is the life of Joan of Arc. Her "voices" have been laughed at, denied, or scientifically explained; her reputation has been besmirched; her very existence has been called in question. Nevertheless, the history of her family can be clearly traced from 1380 through fifteen generations, and descendants of her parents still exist. The family was ennobled by Charles VII. in 1449, and the Maid of Orleans is represented by collateral descendants at the present day. Georges Haldat, who married Catherine Dulys, daughter of Pierre, a brother of Joan of Arc, begat offspring who in time formed a family the members of which occupied prominent positions in Lorraine, in the church, the magistracy, the army, and also in medicine. One of them, Dr. Charles Nicolas Alexandre de Haldat de Lys, of Nancy, who was born at Bourmont in Lorraine in 1770 and died at Nancy in 1852, gained considerable fame as a physician. After graduating in law he turned to the study of medicine. He began his professional career as a military surgeon in 1793 and took the degree of Doctor of Medicine at Strasburg in 1803. He was for many years Professor of Physiology and Experimental Physics at Nancy, and when the medical

[1] *The Transvaal Burgher Camps, South Africa.* By Lieutenant-Colonel S. J. Thomson, C.I.E., I.M.S. London: Hugh Rees and Co.; and Allahabad: Pioneer Press. 1904. (Crown8vo, pp. 74. 2 Rupees.)

school of that city was founded he was appointed its director. He was a remarkable man, and the author of numerous works; the bent of his mind was strongly towards physics and chemistry, but medicine was not neglected, and he also found time to write a good deal on archaeology, art, and literature. At his death he bequeathed to the city with which he had been so long and so honourably associated, a fine library and a valuable collection of minerals. Nancy expressed its gratitude by putting up a bronze bust to his memory. Another distinguished descendant of the family of Joan of Arc was Boucher de Perthes, one of the pioneers of prehistoric research. He was descended from Jean, Seigneur de Vouthon, a brother of the Maid's mother.

RADIOGRAPHY IN MADAGASCAR.

DRS. JOURDRAN AND FONTOYNONT, of the School of Medicine in Antananarivo, recently showed to the Anatomical Society of Paris some interesting radiographs obtained in Madagascar.[1] Among them was a skiagraph of a 10-centime piece arrested in the oesophagus just below the upper end of the sternum; it was obtained from a Hova child. It was one of a considerable number of cases. In none of them did the piece cause any trouble: in fact, it was always passed in from two to four days. In one case the progress of the coin was followed by radiography from the oesophagus through the stomach and intestines. The authors hazard the suggestion that the intestine in the Hovas has a larger calibre from their habit of eating large quantities of rice with no fluid. Normally the diameter of the oesophagus at the level of the upper end of the sternum is 14 mm., while that of the 10-centime piece is 15 mm. Another skiagraph showed a large stone in the bladder of a Hova child of 8 years. Such calculi are frequent among the Hovas, especially in males. As a rule suprapubic cystotomy is required for their removal. The largest noted by Jourdran and Fontoynont weighed 69 grammes. Yet another skiagraph showed complete destruction of the head of the right femur in a case of coxalgia in a Hova child of 10 years of age.

MODERN PRESCRIPTIONS.

COMPLAINTS are often heard that the new-fledged doctors of the present day cannot write prescriptions. Indeed it has been said by those who claim to speak with authority that even among older men prescriptions of the classic type have been superseded by the use of ready-made preparations. Dr. M. Clayton Thrush, a Philadelphia physician, has been at some pains to investigate the subject. As the result of observations made on 500 prescriptions in each of two of the leading pharmacies of Philadelphia, he has arrived at the following conclusions: (1) That the trend of modern prescription writing is in favour of proprietary preparations. (2) That the use of polypharmaceutic preparations is diminishing to a great extent, and their use is chiefly confined to the older practitioners. (3) That the number of incompatibilities observed is greater than it should be. (4) That the metric system is but little employed at the present time in prescription writing, a state of things which Dr. Thrush thinks is to be deplored. (5) That over one-third of the prescriptions are incorrectly written; this is especially true among the younger practitioners. (6) That certain non-official preparations are very popular, and that some of these deserve admission to the United States *Pharmacopoeia*. (7) That the more educated the physician the greater the use of the pharmacopoeial preparations, and the greater the tendency to simple instead of complex, non-scientific, polypharmaceutic and proprietary preparations.

MEDICAL MINISTERS IN CANADA.

THE recent general election in the province of Ontario, Canada, has had the result of bringing about a change of Government. The new Cabinet includes no fewer than three members of the medical profession. The Hon. Robert Allan Pyne, M.D., the new Minister for Education, has for many years been the Registrar of the Ontario College of Physicians and Surgeons. He has also been Chairman of the Public School Board of Toronto and of the Free Library Board. Dr. Pyne, who is just 50 years of age, is of Irish extraction. The Hon. Joseph O. Reaume, M.D., the new Minister of Public Works, is a French Canadian and a very popular legislator. He will retire altogether from practice. The Hon. Dr. William Armson Willoughby enters the Cabinet for the present without a portfolio. He was the Whip of the Conservative party when in opposition. He was born in 1844, and took his degree at Victoria College in 1867. He has had a seat in the Ontario Legislature almost uninterruptedly since 1886.

[1] *Bull. et Mém. Soc. Anat. de Paris*, 7 S., vol. vi, p. 723, 1904

THE UNIVERSITY OF LONDON AND TROPICAL MEDICINE.

IN response to appeals made to it by the London School of Tropical Medicine in February, 1904, the Senate of the University of London resolved a few weeks ago that candidates should be allowed to choose tropical medicine as the special branch of study in which they may be examined for the degree of Doctor of Medicine. The scheme of regulations for the examination is not yet complete, but it may be taken as definitively settled that tropical medicine will henceforth be accepted as one of the alternative subjects, now six in number, among which a selection can be made. A corollary of this decision is to be found in the fact that the Senate, at its meeting on February 22nd, resolved to admit the London School of Tropical Medicine as a school of the University. We congratulate the School on this conspicuous recognition of the value of its teaching and the University of London on the enlightened and progressive spirit shown in the appreciation it has shown of the important place held by tropical medicine in modern medical education.

THE SUPPLEMENT FOR THIS WEEK.

IN the SUPPLEMENT for this week is published a notice of motion from the Leinster Branch asking the Representative Meeting to agree to the appointment of an Irish Committee constituted on the same lines as the Scottish Committee. The recommendations of the Committee appointed to report on the co-ordination of the scientific work of the Association, its Branches and Divisions, are also published, in order that they may be considered by the Divisions. In addition to official service notices, vital statistics, vacancies and appointments, there will also be found in the SUPPLEMENT a report of the proceedings of the Executive Committee of the General Medical Council at its recent meeting.

THE Duchess of Albany has intimated her intention of attending the annual meeting of the Governors of the National Hospital for the Paralysed and Epileptic, Queen Square, to be held at the hospital on Tuesday, March 21st, at 3 p.m.

THE Right Hon. Gerald Balfour, who succeeds Mr. Walter Long as President of the Local Government Board in England, has not only had a long official experience as Chief Secretary for Ireland from 1895 to 1900, and as President of the Board of Trade since then, but also knows something of the work of the Local Government Board itself, since he was private secretary to his brother, Mr. Arthur Balfour, when President of the Local Government Board in 1885.

A DISCUSSION upon influenza will take place at the meeting of the Hunterian Society of London on March 22nd and April 26th, at 8.30 p.m. on each day. The first speaker will be Professor Clifford Allbutt, and he will be followed by Dr. Franklin Parsons, who will deal with the causes of influenza. On the second evening, April 26th, the discussion will be opened by the President, Dr. Frederick J. Smith, and papers will be read by Dr. Burney Yeo on the treatment of influenza, and by Dr. T. Glover Lyon on the clinical pathology of influenza. The Society meets at the London Institution, Finsbury Circus, E.C., and the discussion will be open to all members of the medical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Report of the Vaccination Expenses Committee, which is dated April, 1904, has this last week been placed in proof in the Library of the House of Commons. The Committee have arrived at the conclusion that the remuneration of vaccination officers for primary vaccination since the Act of 1898 came into operation has, in many cases, not been excessive, particularly in country districts. At the same time they believe that the fees paid for primary vaccination might be reduced without any diminution in the efficiency which has been attained under the present system, and without any injustice to the public vaccinators, if the provisions of the vaccination order were made more elastic. The extent of a parent's power to require the attendance at his home of a public vaccinator to vaccinate his child at the cost of the rates might, the Committee think, without hardship be considerably curtailed. They adopt the view that if a parent does not call in the public vaccinator (as he may do) before the child is 4 months of age, and does not have the child vaccinated when the public vaccinator makes, after notice, his statutory visit to the child's home to offer to vaccinate the child, the parent should not be entitled to have the child vaccinated at his home free of cost unless the operation has been postponed by the public vaccinator. If the parent afterwards desires to have his child vaccinated at the public cost, he should be required to take the child to the public vaccinator's surgery or other appointed place. The Committee hold that the primary vaccination of a child over the age of 1 year should not be obligatory at the home of such child, and that such lower minimum fee as may be prescribed in respect of vaccination elsewhere than at home should be payable. They further recommend such an alteration in the present system as would give public vaccinators an opportunity of arranging their visits to the homes of children when they have other professional work in the neighbourhood; and they suggest the substitution of four weeks for two weeks as the term during which the public vaccinator should be required to visit the home of the child after the receipt of the parent's request or of the notice sent by the vaccination officer. After careful consideration of the evidence the Committee state that in their opinion the minimum fees payable to public vaccinators may be fairly and reasonably fixed for every case of successful vaccination as follows: 2s. 6d. when performed elsewhere than at the home of the child or person vaccinated; 3s. when performed at the home of the child within one mile from the public vaccinator's residence; 4s. when performed at the home of the child over one mile and under two miles from the public vaccinator's residence; and 5s. when performed at the home of the child over two miles from such residence. Where journeys of over three miles have to be made a special fee should be arranged between the parties. In districts where much opposition to vaccination prevails the Committee think these minimum fees would not afford sufficient remuneration. The recommendation referred to in the preceding paragraph is, the Committee say, made on the understanding that the fee system of payment is to be continued; but they submit that a change in this system might in many districts, be made. In districts where there is sufficient public vaccination to occupy the whole time of a medical man the Committee think that the guardians should be empowered to appoint a whole-time permanent public vaccinator at a salary to be agreed upon between him and them with the approval of the Local Government Board, the department being empowered in such case to sanction an increase in salary if, in their opinion, the amount offered by the guardians is insufficient. In other districts it might be possible to associate the work with that of the district medical officer or medical officer of health at an agreed salary. The Committee further suggest that public vaccinators should have fixity of tenure with the same rights, privileges, and liabilities as district officers. Mr. Langley Browne is referred to as having supported this view. As regards revaccination, the Committee think that it should be performed only at stations or at the surgeries of the public vaccinators. When the public vaccinator has to visit a house to revaccinate, the fee should be the same as for primary vaccination, but if there are more cases than one to be revaccinated in the same house and at the same time, the public vaccinator, in the absence of any special arrangement, should be paid at the rate of 2s. 6d. per case.

Revaccination.—Last Friday the Duke of Northumberland asked the Government whether it was their intention to introduce a Bill this session for the promotion of revaccination of children at school age. He said that he was induced to raise the question because, as it seemed to him, the attitude of the Government had undergone some change. The hanging up of this question had resulted in a great number of small-pox cases. All the counties were put to great expense in providing isolation hospitals, which would be unnecessary if revaccination was general. Lord Kenyon, in replying for the Government, said they were certainly in favour of encouraging revaccination so far as they could, but they relied upon the Report of the Royal Commission which sat in 1896, to the effect that compulsory revaccination was impracticable. In the first place there were practical difficulties in the way, and, secondly, they were afraid of exciting greater hostility to vaccination itself. No doubt it was said that the Government would consider the question, and possibly they had, with the result that they did not see their way to bringing in a Bill. He admitted that there had been a considerable amount of small-pox in the country, but the figures still showed a gradual decrease since the Act of 1898, and it was hoped the decrease would continue. So long as the conscientious objector was allowed to exist—and the Government did not see how to get rid of him—it was impossible to introduce a full measure of compulsory vaccination or revaccination. His reply to the question was in the negative.

Milk Depots in London.—Mr. Lough's Bill to allow metropolitan borough councils to establish and maintain milk dépôts is a short Bill of three operative clauses. The first gives power to the councils, the second enacts that the expenses shall be paid out of the general rate, and the third defines a milk dépôt to mean an establishment or establishments for the purification, improvement, preservation, sterilization, and sale of milk and cream.

The London Recruiting District. Last July Sir Walter Foster called attention to the insanitary and unsuitable condition of the recruiting station at St. George's Barracks, and was told that negotiations were in progress for the removal of the station. Last week he asked whether any site had been purchased, and, if so, where, and when the building of the new recruiting barrack would be commenced. Mr. Secretary Arnold-Forster answered that the site for which negotiations were in progress proved too expensive to purchase. The whole question was therefore still under consideration.

The Registration of Nurses under the Companies Act.—Mr. Healy asked the President of the Board of Trade, if the Board had received an application for a licence to incorporate a society for the higher education of nurses, from gentlemen unconnected with medicine or surgery; and, if so, did the Board still adhere to the view expressed in a letter written by the Board on August 6th, 1891, to Dr. Bedford Fenwick, in which it was stated that it appeared to the Board of Trade that they were not competent to determine the very important question connected with the establishment of a register of nurses, which should be settled before the register can be effectively established; and that, under the circumstances, the Board of Trade were unable to grant the desired licence to the Royal British Nurses' Association; and that the Board were convinced that full inquiry (by competent authorities) into all the facts and circumstances of the case, and into the objections that had been raised, should precede any further steps on the part of the Government; and whether, if any change had since taken place in the policy of the Board in dealing with the question of the registration of nurses, he could indicate the nature and grounds of such change. Mr. Gerald Balfour replied that an application had been received by the Board of Trade for a licence to incorporate, under Section xxiii of the Companies Act, 1867, without the word "limited," a society for the higher education of nurses. The proposed memorandum and articles of association, which had been submitted to the Board of Trade, were subscribed by seven gentlemen, none of whom were members of the medical or surgical profession—one of whom, however, was chairman of the London Hospital. The Board of Trade proposed to hear both the applicants and the objectors to the grant of a licence, and till after such hearing did not propose to issue any decision as to policy or otherwise.

The Sale of Poisons.—In answer to Sir Thomas Dewar, who inquired on Monday whether it was proposed to introduce this session legislation to regulate the sale of poisons, Mr. Secretary Akers-Douglas said that the Lord President of the Council had under his consideration the question of legislation on the subject, but he (Mr. Akers-Douglas) was not in a position to make any statement as to the introduction of a Bill. Under regulations made by the Pharmaceutical Society, under Section 1 of the Pharmacy Act, 1868, and approved by the Privy Council, it was at the present time required that all liniments, embrocations, lotions, and liquid disinfectants containing poison must be sold in bottles rendered distinguishable by touch from ordinary medicine bottles, and that each and every bottle must bear a label giving notice that its contents were not to be taken internally.

The Evasion of the Medical Acts under the Companies Acts.—Sir John Tuke asked the Secretary of State for the Home Department on Tuesday last whether he was aware that evasions of the Medical Acts and the Dental Acts to the detriment of the public had been effected under the provisions of the Companies Acts; and, if so, whether he proposed to initiate legislation to preclude the possibility of such evasions being effected in future. Mr. Secretary Akers-Douglas said that he was aware of the cases recently before the Courts. He was not in a position to make any statement as to legislation, but he might say that the Lord President of the Council had been in communication with the General Medical Council and the Board of Trade on the subject of companies carrying on business as doctors and dentists, and the Board of Trade were, he understood, obtaining the opinion of the Law Officers of the Crown on the question of the registration of such companies under the Companies Acts.

The Prevention of Corruption Bill.—The Lord Chancellor carried the second reading of this Bill in the House of Lords on Monday last. He said that he had received a letter signed by twenty-two of the principal banks in London, earnestly pressing the Government to pass the measure. He hoped that the Government would take care that the Bill should not be lost again at the end of the session, as it dealt with a very serious and crying evil. Lord Avebury and the Archbishop of Canterbury supported the second reading, which was passed without a division.

The Juvenile Smoking Bill.—Dr. Macnamara presented this Bill on Tuesday last, to provide for the prevention of juvenile smoking. It is supported by Mr. John Burns, Mr. Churchill, Mr. Crooks, Sir John Gorst, Mr. Lambert, Mr. Lloyd George, Major Seely, Dr. Shipman, Sir John Tuke, Mr. Cathcart Wason, and Mr. George White. The second reading was put down formally for March 30th.

Underfed School Children.—Last Monday Sir John Gorst asked the Secretary to the Board of Education whether the attention of the Board of Education had been directed to the evidence given in December, 1903, by Dr. Eichholz, one of their inspectors, before the Committee on Physical Deterioration, in which he testified that in a school in Lambeth he considered 90 per cent. of the children unable, by reason of their physical condition, to attend to the duties of the school in a proper way; that in a school in West Ham he found a similar condition, 87 per cent. of the infants, and 77 per cent. of the elders; in a school in Manchester, 66 per cent.; in another Manchester School, 60 per cent. of the infants, 44 per cent. in the lower standards, and 27 per cent. in the upper standards; and in many schools in other towns a considerable, though less, proportion; and what steps the Board of Education had taken to prevent the waste of public money involved in providing instruction for children thus unfit to receive it. Sir William Anson answered that he had carefully read the evidence referred to, and had himself visited the Lambeth school. The right hon. member was probably aware that there were very wide differences of opinion as to the extent of the evil complained of and the remedies to be applied. A departmental Committee had been appointed by the Lord President for the purpose of providing useful and precise information on the subject.

Medical Inspectors of the Local Government Board.—Mr. Crooks asked the President of the Local Government Board whether the medical inspectors of the Local Government Board were permitted to accept appointments for pay outside their official duties. Mr. Grant Lawson answered that a medical inspector was required to devote the whole of his official time to the duties of his office; but this was not intended to interfere with the manner in which he employed the rest of his time or his holidays.

Scotland.

THE ABUSE OF MEDICAL CHARITIES.

AT a meeting of the Joint Conference Committee of the Queen Margaret College Settlement Association Charity Organization Society, held in Glasgow on March 7th, Professor R. Stockman read a paper on Abuses of Medical Charities. He pointed out that medical relief was an early form of charitable aid; it was one outcome of all the great religions of the world, and had had a wide extension in Christian times. During the past sixty years considerable anxiety had been felt regarding the large increase in the number of people taking advantage of such relief. In London the proportion receiving medical aid was about one-third of the whole population, and during the past ten years this proportion had increased by 23 per cent., whereas the population had increased only by 6 per cent. Professor Stockman attributed this largely to the improved conditions found in hospitals to which people were attracted by the great comfort by which they were surrounded in such institutions. Provident dispensaries and parallel institutions where the charge was based on a weekly wage limit had not, he said, proved successful, and in his opinion the only way to check the abuse of medical charities was to rely on the generous feeling of the working classes and of society generally.

TYPHUS FEVER IN ABERDEEN.

A special meeting of the Aberdeen Medico-Chirurgical Society was held in the Society's Rooms, King Street, on March 9th, at 8.30 p.m. Dr. George Rose, President, occupied the chair. The meeting was convened for the purpose of discussing the present outbreak of typhus fever in the city, and on account of the importance of the subject all the members of the profession in the city and suburbs were cordially invited to attend, whether members of the Medico-Chirurgical Society or not. The discussion was opened by Dr. Matthew Hay, Medical Officer of Health for the City of Aberdeen. Dr. Hay gave an account of the epidemic, tracing it from its beginnings up to the present time, and by means of a chart showed in a most lucid manner how the epidemic had been spread to the parts of the city in which it has mostly prevailed. Typhus fever had been absent from Aberdeen since 1899, when five cases occurred, but on the present occasion it got a much firmer hold unfortunately before its presence was recognized. Indeed, several weeks elapsed and a number of deaths occurred before suspicion was aroused, the earlier cases having been accompanied in adults by such complications as pneumonia, bronchopneumonia, etc., and the deaths having been certified as being due to these causes. The epidemic was ultimately traced back by Dr. Hay to a house in a very poor part of the city, inhabited by a chronic epileptic and his family, and as this individual was an invalid, and had not been out of the house for several months, how he contracted the disease remains a mystery; beyond that point the origin of the outbreak cannot be traced. At all events the man died, and as Dr. Hay was able to connect the great majority of the cases with this source he put down the cause of death as typhus fever. Dr. Hay gave a short account of previous outbreaks, and then went on to discuss the symptomatology of the disease and the main characteristics of the present epidemic. He described the modes of infection and laid most stress on mucous contact, such as kissing and using the same feeding utensils, etc.; perhaps the most interesting part of the paper was his argument on the theory that fleas were responsible for carrying the infection from one individual to another. In support of this he pointed out that practically all the cases showed many flea-bites and that, so far as the sanitary staff and nurses were concerned, cases of infection had occurred only amongst those who had to convey patients to the hospital or to deal with them immediately on admission. No nurse attending the cases after they had been cleansed, nor any of the ward maids, had taken the disease. For example, the ambulance driver who assisted in removing the cases from their houses to the hospital took typhus and died, and several

nurses who had the first care of the patient in the dirty condition in which most of them were, and had to handle their clothing, had taken the disease, but happily with no fatal result. On these and other grounds Dr. Hay argued against typhus being regarded as a virulently infectious disease to the extent maintained by Osler and other authorities. Dr. Hay then went on to describe the methods adopted to check the epidemic, and was able to state that these had been in the main satisfactory, and that the epidemic showed distinct signs of abating. In the past three weeks only one new case had been reported. Altogether, over 100 cases have passed through the city hospital. Dr. Angus Fraser continued the discussion of the symptomatology of the disease, and gave an able account of typhus fever as it was found in Aberdeen when he first became attached to the medical wards of the Royal Infirmary. At that time some hundreds of cases passed through the wards annually. Drs. Edmond, Lister, McKerron, T. Fraser, and Pirie also spoke. The President expressed the feeling of a crowded meeting in a few well-chosen words, and thanks were accorded most heartily to Drs. Matthew Key and Angus Fraser for their able and elaborate contributions.

Asepsis in Obstetric Practice.

At the ordinary meeting of the Aberdeen Medico-Chirurgical Society on March 2nd a discussion took place on the subject of asepsis in obstetric practice, introduced by Professor Stephenson in a well-reasoned and instructive paper. Drs. McKerron, John Gordon, Rose, Beveridge, Scott Riddell, and Rorie also spoke. Dr. D. Rorie, who has succeeded to the practice of the late Dr. Arthur (Cults), was, by ballot, unanimously admitted to the membership of the society.

Ireland.

Poisoning by Strychnine and Mercury.

A case of some interest was tried at the recent assizes at Armagh. An old woman, aged 74, who had some £33 or so in the savings' bank, and whose life had been insured by one of the prisoners, died under suspicious circumstances. Her daughter had come to live with her about a year before, and from that date, although healthy before, the deceased began to suffer from sharp attacks of colic and diarrhoea. On the day of her death a daughter-in-law gave her a dinner of potatoes, and she died within half an hour in horrible agony and convulsions, ten minutes after the first onset. No inquest was held, and one prisoner went to Canada and the other to Scotland. However, the body was exhumed, and inflammation was found in parts of the intestine; the feet were still arched; 286 grains of metallic mercury were found in all, of which 4 were in the stomach; and one-seventh of a grain of strychnine, with traces in the liver and kidneys. It was brought out in evidence that the daughter-in-law had bought under an assumed name ten grains of strychnine to poison rats two days before the death, and that the daughter had from time to time procured quicksilver with the ostensible object of mending a looking glass. The Crown entered the charge of poisoning by strychnine against the daughter-in-law; she was convicted and sentenced to death. The charge against the daughter was of feloniously administering metallic mercury with intent to kill; she also was convicted and sentenced for life. Several instances of the most utter callousness on the part of both prisoners were brought out in evidence; the son of the old woman, husband of one of the prisoners, was already in gaol for assault.

Alterations in Belfast Court House.

The High Sheriff of Belfast (Dr. Henry O'Neill) recently made an official inspection of the court house, Belfast, and procured estimates for several much-required improvements, both for general and special sanitary arrangements, and also for public convenience. The alterations, which have been talked about for some time, are sadly needed; and if Dr. O'Neill has brought about their accomplishment it will be another instance of a committee of one doing in a few hours what two boards haggle about for months, and he will deserve the thanks of the public and both legal and medical professions.

Outrage at the County Limerick Infirmary.

Mrs. O'Brien, a governor of the County Limerick Infirmary, and widow of the late Lord-Lieutenant of the County, was visiting the infirmary a short time ago, when somebody threw a disinfectant at her. The matter has been inquired into by the Committee, but the person who threw the disinfectant has not been identified, and the Committee recommended that the matter should be allowed to drop with an apology to Mrs. O'Brien. After some discussion, however, a notice of motion was given for the dismissal of the matron, the house surgeon, the cook, the laundress, and the housemaid.

Health of Belfast.

At the monthly meeting of the City Council, on March 1st, the Medical Superintendent Officer of Health reported the notification of 187 cases of zymotic disease, including two of small-pox; 867 births had been registered, and 606 deaths; and the annual death-rate from all causes was 22.0. Diphtheria and scarlatina had somewhat increased; measles was also prevalent, and of a serious type; 14 cases still remain in the Small-pox Hospital. The Council also approved of the scheme of Mr. Meyer, offering prizes for the best kept and most cleanly houses of 4s. a week rent or under.

PROFESSOR OSLER'S FAREWELL ADDRESS.

The valedictory address delivered by Professor Osler at the annual commencement exercises at Johns Hopkins University on February 22nd has been the occasion of revealing to the world the vanity of the boast so frequently heard from Americans that in the matter of humour they are a specially favoured nation. They have, it is true, a humour of their own, but the *Medical News* of New York frankly tells its countrymen that "with all their ability to *see* a joke, they are world-famous for not being able to *take* a joke." Evidently a man of dainty humour and graceful wit, like Professor Osler, is out of place among a people who require to have their jokes carefully dressed and distinctly labelled to prevent misapprehension. What universal scoffing there would have been about the thickness of the British pate if a distinguished professor of medicine in this country had found it necessary to ask the medical journals of two continents to explain that he did not seriously suggest that men over 60 should be put to death with chloroform! But the American papers have taken it as spoken in good sooth and sober sadness, and have during the past few weeks debated the subject with the utmost gravity, and there is some risk that "oslerization" will find a place in the language. The whole thing is so absurd that we are rather surprised that Professor Osler should have taken so much trouble to explain a matter which to people of the most ordinary intelligence seems to need no explanation.

The remarks made in the British Medical Journal of March 4th in an article entitled an Age Limit of Intellectual Work were founded on the brief telegraphic summaries of Professor Osler's address which appeared in the London newspapers. Now we have before us the whole text as published in the *Journal of the American Medical Association* of March 4th, and it will be fair to Dr. Osler and perhaps not uninteresting to our readers to give them an opportunity of forming a judgement as to his meaning from what he actually said.

The Call of the East.

After expressing the feelings of mingled gratitude and sorrow engendered by the last public function in which he would appear as a member of the University, he said his hearers might well wonder what motives had induced him, being "neither stricken deeply in years nor seriously damaged by illness," to give up a position of such influence and importance. He thought it was best they should stay in the wonder stage. Who could understand a man's motives? Did he always understand his own? He went on: "This much I may say in explanation—not in palliation. After years of hard work, at the very time when a man's energies begin to flag, and when he feels the need of more leisure, the conditions and surroundings that have made him what he is and that have moulded his character and abilities into something useful in the community;—these very circumstances insure an ever-increasing demand upon them, and when the call of the East comes, which in one form or another is heard by all of us, and which grows louder as we grow older, the call may come like the summons to Elijah, and not alone the plowing of the day, but the work of a life, friends, relatives, even father and mother, are left to take up new work in a new field. Or, happier far yet, if the call comes, as it did to Puran Das in Kipling's story, not to new labours, but to a life

'private, unactive, calm, contemplative.'" After teaching for thirty years and coming into very intimate contact with his assistants his heart was all cicatrices, covered with one big "milky patch."

Peripatetic Professors.

The question might be asked whether as professors they did not stay too long in one place. In a man of active mind too long attachment to one college was apt to breed self-satisfaction, to narrow his outlook, to foster a local spirit, and to promote senility. As St. Paul preferred an evangelist without attachments as being more free for the work, so in the general interests of higher education, a proper nomadic spirit should be encouraged in professors. Interchange of teachers, national and international, would prove most helpful. An international university clearing house might be arranged to facilitate the work. It was more particularly on the younger men that he urged the advantages of an early devotion to a periapatetic philosophy of life.

Intellectual Infantilism and Progeria.

There were two appalling diseases which only a feline restlessness of mind and body might head off in young men in the academic career. Intellectual infantilism was a well-recognized disease; and just as imperfect nutrition might cause failure of the marvellous changes which accompanied puberty in the body, so the mind too long fed on the same diet in one place might be rendered rickety, or even infantile. A rare but still more extraordinary bodily state was that known as progeria, in which the child did not remain infantile, but skipped adolescence, maturity, and manhood, and passed at once to senility. How few minds reached puberty, how few came to adolescence, how much fewer attained maturity? Progeria was an awful malady in a college. Few faculties escaped without an instance or two; he had known an entire faculty attacked. The progeric himself was a nice enough fellow to look at or play with, but he was sterile, with the mental horizon narrowed and quite incapable of assimilating the new thoughts of his day and generation. Early stages might be relieved by a prolonged stay at the university baths of Berlin or Leipzig, or if at the proper time a young man was transferred from an American or Anglican to a Gallic or Teutonic diet. Through no fault of the man but of the system, due to the unfortunate idea on the part of the denominations that in each of the States they should have their own educational institutions, collegiate infantilism was far too prevalent; against this the freer air and better diet of the fully-equipped universities was proving a rapid, as it was the rational, antidote. Nor would he limit the desire for change to the teachers. The student of the technical school should begin his *Wanderjahre* early, not postponing them until he had taken his M.D. A residence of four years in the one school was apt to breed prejudice and to promote mental astigmatism which the after-years might never be able to correct.

A Fixed Period For Teachers.

Professor Osler next proceeded to touch on a "question of some delicacy but of infinite importance in university life"—namely, a fixed period for the teacher either of time of service or of age. Except in some proprietary schools, he did not know of any institutions in the United States where there was a time limit of, say, twenty years' service, as in some of the London hospitals. It was a very serious matter in their young universities to have all their professors growing old at the same time. In some places only an epidemic, a time limit, or an age limit could save the situation. He had two fixed ideas well known to his friends, harmless obsessions with which he sometimes bored them, which had a direct bearing on this important problem.

The Age of Productiveness.

The first was the comparative uselessness of men above 40 years of age. This might seem shocking, but read aright the world's history bore out the statement. Take the sum of human achievement in action, in science, in art, in literature—substract the work of the men above 40, and while we should miss great treasures, even priceless treasures, we would practically be where we are to-day. It was difficult to name a great and far-reaching conquest of the human mind which had not been given to the world by a man on whose back the sun was still shining. The effective, moving vitalizing work of the world was done between the ages of 25 and 40—those fifteen golden years of plenty, the anabolic or constructive period in which there was always a balance in the mental bank and the credit was still good. In the science and art of medicine there had not been an advance of the first rank which had not been initiated by young or comparatively young men. Vesalius, Harvey, Hunter, Bichat, Laënnec, Virchow, Lister, Koch—the green years were yet on their heads when their epoch-making studies were made. To modify an old saying, a man was sane morally at 30, rich mentally at 40, wise spiritually at 50—or never. The young men should be afforded every possible chance of showing what was in them. The chief value of the teacher who had passed his climacteric, and was no longer a productive factor, was that he could play the man-midwife, as Socrates did to Thesetetus, and determine whether the thoughts which the young men were bringing to light were false idols or true and noble births.

The Time for Retirement.

Professor Osler proceeded: "My second fixed idea is the uselessness of men above 60 years of age, and the incalculable benefit it would be in commercial, political, and in professional life if, as a matter of course, men stopped work at this age. Donne tells us in his *Biothanatos* that by the laws of certain wise States sexagenarii were precipitated from a bridge, and in Rome men of that age were not admitted to the suffrage, and were called *depontani*, because the way to the Senate was *per pontem*, and they from age were not permitted to come hither.

"In that charming novel, the *Fixed Period*, Anthony Trollope discusses the practical advantages in modern life of a return to this ancient usage, and the plot hinges on the admirable scheme of a college into which, at 60, men retired for a year of contemplation before a peaceful departure by chloroform. That incalculable benefits might follow such a scheme is apparent to any one who, like myself, is nearing the limit, and who has made a careful study of the calamities which may befall men during the seventh and eighth decades! Still more when he contemplates the many evils which they perpetuate unconsciously and with impunity! As it can be maintained that all the great advances have come from men under 40, so the history of the world shows that a very large proportion of the evils may be traced to the sexagenarians—nearly all the great mistakes politically and socially, all of the worst poems, most of the bad pictures, a majority of the bad novels, and not a few of the bad sermons and speeches. It is not to be denied that occasionally there is a sexagenarian whose mind, as Cicero remarks, stands out of reach of the body's decay. Such a one has learned the secret of Hermippus, that ancient Roman, who, feeling that the silver cord was loosening, cut himself clear from all companions of his old age and betook himself to the company of young men, mingling with their games and studies, and so lived to the age of 153, *puerorum halitu refocillatus et educatus*. And there is truth in the story, since it is only those who live with the young who maintain a fresh outlook on the new problems of the world."

Conclusion.

Summing up, Professor Osler said the teacher's life should have three periods: Study until 25, investigation until 40, profession until 60, at which age he would retire him with a double allowance. Whether Anthony Trollope's suggestion of a college and chloroform should be carried out or not, he had become a little dubious, as his own time was getting so short.

THE EPIDEMIC OF TYPHOID FEVER AT LINCOLN.

[By Our Special Commissioner.]

IV.

The total number of notifications for the week ending Friday, March 10th, was 46, showing an increase of 9 on the previous week, and bringing the total since the beginning of the outbreak up to 815.

The Waterworks Water.

On March 8th Drs. Houston and McGowan sent in a second report to the Corporation on the condition of the water supply, as indicated by analyses made on March 4th and 5th, of samples taken from the waterworks rising main and from the two reservoirs. They record that none of the samples contained B. coli in 100 c.cm. of the water. They regard these results as highly satisfactory, affording confirmatory evidence of "the innocuous character of the water now sent into consumption, and showing that the treatment of the water continues to be successful." This treatment is being continued.

In addition to the above statements, an assurance is much to be desired:

1. That the source of the original infection of the waterworks water has been discovered and removed.

2. That the numerous tributaries of the water supply have been cleansed and freed from foul deposits, and are being patrolled and protected sufficiently to save the supply from obvious or surreptitious pollution.

3. Also that all cisterns and house supplies (including those in empty houses), and all "dead ends" throughout the city have been disinfected no less than the filter beds, mains, and reservoirs.

Secondary Cases.

Up to the present time the facts recorded in connexion with the epidemic all serve to confirm the supposition that the great outbreak of 448 cases notified between January 23rd and February 7th was chiefly due to the waterworks water. The cases notified between February 16th and 18th, 169 in number, were partly due to the same cause, and were partly "secondary cases," attributable to direct or indirect infection from the primary cases; whilst the 145 cases notified since February 17th were probably all secondary cases.

Unless extraordinary precautions and preventive measures were taken from the very first, a large number of individuals were sure to be infected through their households and surroundings, imperfect drains, sewers, shallow wells, etc., which in various places must have been contaminated during the month of January by the excreta (urine and faeces) of "ambulant cases" and cases in the early incubative stage of the disease; a still larger number were likely to be attacked through direct infection from those already stricken with the disease. Personal infection of those engaged in attending typhoid-fever patients is far more common, even in well-appointed hospitals, than is generally supposed. How much more prevalent must we expect such personal infection to be in houses where the inmates are closely associated with ambulant cases, and with cases attended by unskilled nurses, and where few or none of the necessary precautions are taken!

Course of the Epidemic.

The progress of the epidemic has conformed with the ordinary sequence of events generally observed in the development of waterborne epidemics of towns and cities. First, the sudden and widespread outbreak, continuing for two or three weeks, until a rapid but less sudden decline follows upon the purification of the water or the substitution of an unpolluted supply. Subsequently the notifications continue with diminished and diminishing numbers, varied by occasional outbursts, until they finally dwindle away.

A study of similar epidemics—such as those of Worthing in 1893 and Maidstone in 1897—shows a sequence of secondary cases very similar to that which is occurring in Lincoln at the present time. From a comparison of the curves of incidence as recorded in the three epidemics it is seen that there is a highly remarkable parallelism and similarity between them all.

In spite of the constant recurrence of this large proportion of secondary cases in typhoid epidemics the question of preventing secondary infection does not seem to have been seriously considered even by the Local Government Board.

The precautions and preventive measures required in order to secure protection from secondary infection are too elaborate and require too much expert knowledge and experience of typhoid epidemics to be entrusted to ordinary individuals. Neither municipal corporations, nor ordinary health committees, nor the citizens themselves can be expected to realize the imperative necessity for organizing and carrying out a complete system of precautions as soon as the community has been invaded by typhoid fever. It is obvious that as soon as the first signs of typhoid invasion have been detected in any locality, a complete staff of experts, under the control of an experienced epidemiologist, ought to be at once commissioned not only to investigate the source and cause of the primary infection, but also from the first to advise and direct the measures to be taken for the prevention of secondary infections.

Lepers in the United States.—A Bill is now before the Senate of the State of Massachusetts appropriating £50,000 for the establishment of an institution for the segregation of lepers in the United States. The Bill provides that the institution shall be situated on some abandoned military reservation or other suitable site which is national property.

THE TEACHING OF HYGIENE IN SCHOOLS.

XIV.—Physical Training.

It is only nineteen years since the teaching of physical exercises was made a compulsory subject for boys and girls in elementary schools. Now all class teachers take their own classes in physical exercises, the reason for this being the difficulty of obtaining experts for such numerous schools. Besides this, although their teaching is naturally inferior to that of experts, the personal influence which they may be supposed to have over their pupils, and the knowledge of their health and physical strength are believed to compensate for the lack of the extra skill of the professional.

Teachers therefore are obliged to go through a course of practical lessons; these last one hour, and take place once a week for twenty-five weeks. Until within the last few years the theoretical examination consisted in answering on paper a few questions connected with the physical education of school children. But now all teachers in London, male and female, in addition to the practical must pass a theoretical examination in hygiene and physiology before they can obtain a certificate of competency to teach physical exercises in school. Teachers possessing advanced certificates in physiology and hygiene need not pass this examination, but no teacher of physical exercises who has not passed in these subjects can obtain a certificate, and, with it, the increase in salary granted for this subject—£5 in the case of men and £3 in the case of women. Nevertheless—and this is a first grievance to them—they are allowed to go on teaching physical exercises until they succeed in passing the theoretical examination. The value of such an examination cannot be for one moment disputed, for to teach physical exercises without a proper knowledge of the effect such exercises have upon the body is manifestly dangerous.

But is the theoretical examination in hygiene and physiology as now taken by teachers quite suitable to the object for which it is intended? Does it not seem absolutely necessary for teachers of physical exercise in elementary schools to be obliged to obtain the advanced certificates in physiology and hygiene of the Science and Art Department, or to undergo an examination equivalent to that held by that Department to obtain a certificate, when their practical teaching is perhaps of an excellent kind?

The following are the subjects required of candidates in the examination laid down by the London Education Committee:

"The Council's examination consists of two parts—practical and theoretical; but teachers who possess certificates of the Board of Education (South Kensington) in advanced physiology and hygiene, or who prefer to qualify for them, are exempted from the theoretical part of the examination. This part of the examination will consist of (1) physiology and (2) hygiene; and will cover the work laid down in the following approved syllabus:

"(1) *Physiology.*—General acquaintance with the build of the body and the bones of the skeleton; special study of the spinal column, the ribs, and shoulder girdle, the pelvic basin, and the bones of the limbs; the chief joints, their classification and limits of movement; muscle and movement; structure and function of bone and cartilage; general acquaintance with physiological functions, with a more careful study of respiration, circulation, the abdominal organs and digestion; the skin and its functions; the nervous system in outline.

"(2) *Hygiene.*—Rules of hygiene so far as they apply to the following:

1. Effects of exercise (local and general).
2. Rules to be observed during and after muscular exertion.
3. Symptoms of over-exertion.
4. Advantages of frequent short exercises.
5. Effects of bad posture in sitting and standing; good postures—reading, writing, and needlework.
6. General rules for conducting a lesson in physical exercises.
7. Class-room exercises; ventilation of rooms.
8. Games as physical exercises.

With reference to the examination in theory, teachers are informed that they cannot hope to pass the examination without giving evidence of a practical knowledge of the human body, and they are strongly recommended to take advantage of the facilities afforded by the London County Council evening schools, or to adopt other means for obtaining an adequate knowledge of physiology.

The ground traversed by this apparently slight syllabus is enormous, because in order to find the material to answer the questions embodied in such a syllabus a very wide extent of

ground has to be traversed and a great deal of useless knowledge taken in with the useful and necessary.

What makes this specially pathetic to those behind the scenes is the actual result of all this cramming of advanced anatomy, physiology, and hygiene. You watch a teacher who has qualified in practice and theory, she probably holds a paper in her hand with a list of the exercises and certain mechanical indications to be given to the children, and—without doing her any injustice—it must be said that simply because her theoretical examination has not been conducted on the proper lines, far more of her attention is given to the paper than to the children.

It is admitted that the answers returned in the written examination by ordinary teachers who have been through the theoretical course show that, as a general rule, they have failed to understand the real importance of the subject with which the questions deal; their answers make it evident that they have just clung to some of the technical terms, and even these they cannot spell.

In our next article an account will be given of the conclusions come to by the Inter-Departmental Committee on Physical Exercises.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

429, Strand, March, 1905. GUY ELLISTON, *General Secretary.*

SOUTH AFRICAN MEDICAL CONGRESS.

THE next meeting of the South African Medical Congress will be held this year in Pietermaritzburg from June 12th to 17th. The arrangements have been made under the auspices of the Natal Branch of the British Medical Association.

OFFICERS OF CONGRESS.

The following are the office-bearers of the Congress:

President—James Hyslop, D.S.O., M.B., C.M.Ed., Pietermaritzburg.

Vice-President—Samuel G. Campbell, M.D., F.R.C.S.Ed., D.P.H.Ed., Durban.

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Hon. Treasurer—W. Russell Strapp, M.D., C.M.Ed., Pietermaritzburg.

General Committee.

Ex-officio—The President and Secretary, Branch Council, Natal Branch, B.M.A.
The President and Secretary, Durban Division, Natal Branch, B.M.A.
The S.M.O. and Officers, R.A.M.C., Fort Napier, Pietermaritzburg.

H. Rochefort Brown, M.A., M.B Oxon, F.R.C.S.Eng.
Robert A. Buntine, M.B., C.M.Melb.
Harry N. R. Child, M.R.C.S.Eng., L.R.C.P.Lond.
Charles H. Crass, M.B., Ch.B.Durh.
Oswald J. Currie, M.B Lond., M.R.C.S.Eng.
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G. E. Oddin-Taylor, M.R.C.S.Eng., L.R.C.P.Lond.
Charles Ward, M.R.C.S.Eng., L.R.C.P.Ed., F.R.C.S.Irel.
J. Coleman Woods, L.R.C.P. and S.Ed., L.F.P.S.Glasg.
William J. Woods, M.B.Irel., F.R.C.S.Eng.

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Secretary—A. T. Fraser M.B., Ch.B.Camb., Boshoff Street, Pietermaritzburg.

II.—MEDICAL SECTION.

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Secretary—Harry N. R. Child, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Grey's Hospital, Pietermaritzburg.

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VI.—SPECIAL SUBJECTS SECTION.

President—A. M. Fleming, C.M.G., M.B., F.R.C.S.Ed., D.P.H Camb., Medical Director, Rhodesia, Salisbury.

Vice-President—P. Everard Todd, M.B., C.M.Ed., Medical Superintendent, Asylum, Pretoria.

Secretary—Robert A. Buntine, M.B., C.M.Melb., Pietermaritz Street, Pietermaritzburg.

The Congress will be officially opened by His Excellency the Governor. The Natal Government has arranged that Members of Congress may travel by rail at reduced fares, and the other South African Governments are being approached with a view to their affording a similar privilege. The Union Castle Steamship Company has consented to grant a reduction of 20 per cent. on the usual fares to bona fide members of the Congress embarking at Cape Town, Algoa Bay, and East London.

NOVA ET VETERA.

HYGIENE AND MEDICINE IN MOROCCO.

MOROCCO has recently much occupied public attention, both on account of the movements of that interesting person, Raisuli, and of the political changes now taking place. Facts concerning the hygiene and medicine of the north-west corner of Africa are therefore of interest. Dr. L. Raynaud, of Algiers, who was commissioned by the Sanitary Council of Tangiers to organize a lazaretto at Mogador, has recently published a fascinating book on Morocco.[1]

It would be impossible in this place to touch on all the details concerning slaves, marriage customs, funerals, clothing, and so forth, which are dealt with by the author, and as to public hygiene, there is so little of it as scarcely to count. The ritual of personal purification is gone through, although religious precepts, both among the Mohammedans and the Jews, are not always carried out according to the letter of the law.

Scavenging and the conveyance of sewage leave much to be desired, as is usual among the Semitic races of North Africa. Thanks, however, to the cold winds, the blazing sun, and the clearing up of eatable odds and ends by the dogs, the morbidity and mortality are not so high as they might otherwise be. Europeans are doing something towards remedying the neglect of elementary hygiene by means of hospitals and various benevolent societies.

As the possibility of plague being introduced from the East by the Mohammedan pilgrims from Mecca or the Jewish pilgrims from Jerusalem was not remote, the lazaretto of Mogador was organized by Dr. Raynaud in 1900, but he recommended that a plague station should be established at Tangiers, preferably at Malabata Point, which corresponds in situation to the lazaret of Matifou with regard to Algiers. Morocco has more than once suffered from epidemics of plague.

Famine has been a frequent cause of depopulation. Alcoholism is making progress, notwithstanding the Koran. Much spirit is imported from Spain, France, Germany, and England, and the Jews manufacture wine and alcohol, the latter being distilled from raisins, honey, dates, figs, etc. Drunkenness is not limited to the male population, but it is spreading among the women. Tobacco, Indian hemp, and opium also are much used.

Medicine is taught, but not officially, in some of the mosques of Fez, and diplomas are delivered. Arab and Jewish medicine, so much vaunted, is after all mainly founded on translations of Hippocrates and Galen, a fact frequently lost sight of, all the more so, perhaps, as the two last-named authors have got orientalized names among the Semites. In addition to the practitioners who have had some kind of medical education, more or less mediaeval, there are medicine men of another class called "tobibs." These "tobibs" are either ignorant natives or renegades. They give their consultations and supply drugs in the markets, and travel from place to place. There are also dentists and barbers, the latter practising phlebotomy and cupping, as in the old days with us. The Santons are another variety of healers, who do not employ drugs, but deal in talismans, charms, and amulets. The Jewish sorcerers cast horoscopes and go in for astrological patter. Much the same kind of thing is found amongst ourselves, for have we not palmists, fortune-tellers, and Christian Scientists?

[1] *Documents sur le Nord-Ouest Africain.* Etude sur l'Hygiène et la Médecine au Maroc, suivie d'une Notice sur la Climatologie des Principales Villes de l'Empire. Paris: J. B. Baillière et Fils; and Algiers: S. Leon. 1902. (Demy 8vo, pp. 203. Fr. 5.)

Notwithstanding the fanaticism of the Moors, the Jewish dealer in incantations is frequently consulted. When asked to explain this the true believer replies that the prayer of the Mohammedan is so agreeable to Allah that he does not tire of listening to it, whereas the appeals of the Jew are so abhorrent that Allah grants the request at once to get rid of him.

Dr. Raynaud's book is full of curious and instructive details relating to the supposed curative properties of precious stones, native surgical instruments, anaesthesia and hypnotism, dressings, and so forth. The various branches of the healing art are dealt with, such as diseases of the eye, obstetrics, syphilis, and leprosy. There is also a reference to circumcision. Organotherapy is much in honour, and in this respect the precepts of Hippocrates, Galen, Celsus, and Dioscorides are followed. The work concludes with an exhaustive account of the climate, which adds considerably to its value.

LITERARY NOTES.

WE are asked to state that Messrs. Luzac and Co., Great Russell Street, W.C., have undertaken the English agency for Dr. R. Ghosh's *Materia Medica and Therapeutics*, which they are in a position to supply to the medical profession.

The *Journal of Experimental Medicine* will henceforth be published under the auspices of the Rockefeller Institute for Medical Research, New York, and will be edited by Drs. Simon Flexner and Eugene L. Opie. The scope of the *Journal* will suffer no alteration by reason of the change of management, and it is hoped that it may continue to cover, as heretofore, the field of experimental medicine. It is proposed to issue numbers of the *Journal* at intervals of two months, six numbers to constitute a volume, which will contain not less than 600 pages.

Messrs. Thomas Nelson and Sons have for several years been engaged in the preparation of an entirely new Encyclopedia, which will contain some novel features. It is to be issued in fortnightly parts, and arrangements have been made with the Amalgamated Press, Limited, to publish it under the title of the *Harmsworth Encyclopedia*. The parts will contain 160 pages, profusely illustrated, and will be issued at 7d. each. This will make the cost of the Encyclopedia one halfpenny per day. The whole of the Encyclopedia will occupy forty parts. Part I will be published on March 21st. It is stated that the services of upwards of 500 eminent scholars and specialists have contributed to the work.

The London correspondent of the New York *Medical Record*, in a letter published on January 28th, pleads for the retention of even a little Greek. "Even that little," he says, "*pace* the Dons, might have prevented the appearance in the BRITISH MEDICAL JOURNAL during the last month of three communications on 'afebrile' enteric fever." A pedant, without any knowledge of medicine, might conceivably find fault with an expression which he would probably consider—quite mistakenly—to be a "bull." But to the physician, who thinks more of things than of words, "afebrile enteric fever" is as legitimate a phrase as, for example, "apyretic pneumonia." In any case, in the name of etymological common sense, what has Greek to do with *febris*? We are inclined to think that our critic's zeal for Greek, like that of not a few of its defenders, is purely altruistic.

In the recently issued seventh *fasciule* of Tome VI of Lavisse's great *Histoire de France*, now in course of publication, a chapter is devoted to the French army in the time of Henry IV, Louis XIII, and Richelieu. There were no military hospitals; the first institution of the kind was not founded till 1639. When a soldier was wounded or ill he was set on the way to the hospital of the nearest town. Each company had a surgeon. Members of religious orders, especially Jesuits, followed the regiments, instructing the soldiers, and at the same time acting as volunteer infirmarians. Invalided soldiers were usually quartered in convents. But as they were not always edifying in their conduct and conversation, the monks got rid of them as soon as they could. There were pensions for officers, payable out of legacies placed for the purpose in the hands of the clergy, but these were inadequate. Richelieu conceived the idea of transforming the castle of Bicêtre into a hospital for invalids, which was to be maintained by taxes levied on abbeys and priories having an income of more than 2,000 livres. But the institution came to an untimely end for lack of money, and the mutilated veterans had to beg their bread.

In a book recently published, Dr. Miquel-Dalton gives some particulars as to the part played by members of the medical profession in the French Revolution. In the Convention forty-six doctors recorded their votes on the question of the death of Louis XVI; their votes were evenly divided between the Ayes and Noes. Marat demanded the execution of the tyrant within twenty-four hours. Lehardi of Morbihan pleaded that a majority of two-thirds should be required to make the vote effective. His moderation cost him dear, for he was sent to the scaffold with the Girondins, being the only doctor in that batch of victims. He was, however, a staunch revolutionist, and cried "*Vive la République!*" when his head was under the knife. In the Toulouse district a medical man named Baudot made himself conspicuous by his devouring zeal for liberty. In its name he had some 1,500 persons arrested, and had the decision as to their fate been in his hands they would all have been guillotined. It is noteworthy that among the doctors who played an active part in the Revolution there was no man of real professional distinction.

It is announced that a magazine entitled *First Aid* will appear in New York this month. It is devoted to literature and science, and will be issued monthly as the official organ of the American White Cross Aid Society. Mr. Edward Howe is to be the managing editor, and among those who are mentioned as constituting the scientific staff are Drs. Nicholas Senn, John B. Murphy, Chas. Adams, Geo. W. Webster, Frank Billings, and N. S. Davis.

The *Maryland Medical Journal* has issued a booklet in honour of Professor Osler. It consists mainly of reprints of paragraphs which have appeared in various American medical journals as to his approaching departure from Baltimore, with a portrait, and the coats of arms of the McGill, Pennsylvania, Johns Hopkins, and Oxford Universities, and the State of Maryland. Mr. Thomas O. Clark contributes a short poem in praise of the distinguished physician, from which we take the liberty of quoting a few lines which will give the medical students of Oxford an idea of their new Regius Professor:

> Kind as a father to his pupils he.
> Not distant—cordial, sympathetic, free;
> His aim, the highest ideals to impart
> To those who would pursue the healing art:
> How favoured they from such a man to learn,
> And pass their light to others in their turn!

Wrapt into future times the bard prophesies as follows:

> For many years to come, as now, his pen
> Will be a blessing to his fellow-men.
> And ever as he had a leading part
> In journalism of his chosen art.
> In all he undertakes his method tells—
> 'Tis by untiring effort he excels.

We forbear to quote more out of the regard we have for the hero whose praise is sung by Mr. Clark. But although his muse is distinctly pedestrian, and halting at that, he evidently writes, as better poets often do not, from his heart.

On February 6th, Professor Charles Richet delivered an address to the Society of Psychical Research, whose President he has just become in succession to Professor Barrett of Dublin. We note that he gave a new name to the "science" to which the Society devotes its energies. He objects to the world "occult" as descriptive of the phenomena which it investigates, because it has an ill savour of quackery, while the words "psychical" and "spiritist" are question-begging epithets. He proposes "metapsychics," a word made after the likeness of "metaphysics," a name given to parts of Aristotle's work coming after those dealing with physics. Sir Oliver Lodge said he would not be surprised if the new word "caught on." Professor Richet holds that a textbook of "metapsychics" is needed. In one sense Myers's *Human Personality* is a textbook, but it deals with the phenomena for the purpose of advancing the author's theory of the persistence of the individual after death. Professor Richet would have a textbook showing the present state of the investigation and indicating the abundance or paucity of proof in regard to various categories of "spookical" phenomena. The suggested textbook should deal with the following subjects: Apparitions; mechanical phenomena—movements of objects without contact; direct writings from unknown sources; hauntings; mystic voices; luminous and spirit photography; ghosts involving passage of matter through matter. Professor Richet believes it to be impossible, in the light of countless instances in history and experience, to deny that clairvoyance exists. "Without doubt, there are in nature vibrations which act obscurely on our submerged consciousness, and which reveal facts which our normal senses are incapable of conveying to us. But, although particular individuals—so-called mediums—are more capable than others of seeing these vibrations, I find it difficult to believe that we are not all more or less susceptible to the same influences." Professor Richet's view as to apparitions and other ghostly phenomena is that all the theories hitherto put forward are improbable and irrational. The phenomena are true, but the theories that are raised upon them are absurd.

Thomas Carlyle, as is well known, had no very exalted opinion of doctors. Moncure Conway, in his *Autobiography*, relates that when he returned from America in 1881 the Seer had sunk very low. His mind was yet in fair strength, and he was reading over the German books which had influenced him in youth. He told his visitor that his eightieth birthday had brought him many letters and telegrams of congratulation, adding characteristically that it was one of the unpleasantest days he had ever passed. "Few people," he went on to say, "know how miserable a thing is life when the strength has gone out of it. Some of my friends lately sent a doctor here, but it would have been just as useful to pour my ailments into the shaggy ear of a jackass. I said to him, 'The only benefit you could do me would be to mingle some arsenic with this cup of tea, but as the law forbids that, there is no reason for your remaining professionally.' He was a sensible sort of man." According to Conway it was largely through Carlyle's influence that restrictions were imposed on the practice of vivisection.

One of Carlyle's brothers was a doctor who was himself a remarkable man, full of information on all kinds of subjects, and a great linguist. He was six years younger than Thomas. He told Conway that he was induced by a German, with whom he formed a friendship in Edinburgh in early years, to go to Munich to study his profession. He belonged to a choice club of German beer-drinkers, who drank, smoked, and gave one another their views on the Universe, and it was from his accounts and stories of these men repeated to his brother that the idea of Teufelsdroeckh came into Thomas's head. Dr. Carlyle was in Italy a great deal and translated Dante.

In the February number of the *Journal of the Outdoor Life*, published at Saranac Lake, New York, Dr. Trudeau gives an interesting account of Robert Louis Stevenson's stay in the Adirondacks, whither he was sent for the benefit of his health. There he spent the winter of 1887-8, and although the snow and ice, the grey skies, and the intense cold did not suit his temperament, his health was much improved. He used, we are told, to rail in such forcible but beautiful language at the cold, the snow, the succession of cloudy days, and the lack of colour and sunshine, that, according to Dr. Trudeau, had his remarks been taken down, they would have made Saranac Lake famous as having furnished the inspiration for flights of the most picturesque eloquence. The big cheery fireplace of crackling logs appealed more to him than the bleak, snow-covered world outside, and Dr. Trudeau usually found him indoors long before dark, with his feet on the fender and a cigarette in his mouth, ready for a chat on any subject. His idealistic and artistic temperament, says the doctor, clung to all that was beautiful in life as expressed in Nature, in art, in form, light and colour, in thought, in poetry and imagination; and he deliberately turned his back on the cold facts of science and life, which he ignored as much as possible. He shunned the discussion of such things as poverty, disease, sorrow, and suffering. His thoughts had mostly been given to the former things while the doctor had spent his life among the latter; it was seldom, therefore, that they saw things from the same point of view. Stevenson, though he hated all kinds of social functions and refused all invitations, was at home on Saturday afternoons to all who might wish to see him. He often found the company of visitors irksome, and on one occasion, when the door had closed on a fashionable lady who had stayed too long, he walked excitedly across the room until his face was close to that of the doctor, when he said, "You know it isn't the great unwashed that I dread, but the great washed." While at Saranac Lake, Stevenson was visited by many prominent men, and it was there, on a cold winter night by the light of the wood fire, that he was delighted by Richard Mansfield's weird impersonation of Dr. Jekyll and Mr. Hyde. It was in the porch of the cottage in which he lived at Saranac Lake that the idea of *The Master of Ballantrae* came to him, and there he wrote many of his essays.

SPECIAL CORRESPONDENCE.

MANCHESTER.

The Coming of Age of the University Women's Union.—A Coroner on Viewing Bodies.—End of the Winter Session.—The Garcia Centenary.—Cost of a Small-pox Hospital at Elswick.—Gift to the Rochdale Nursing Institution.

ON the evening of March 10th the Manchester University Women's Union gave a reception in the Whitworth Hall of the University to celebrate the coming of age of university education for Manchester women. Some of the apparatus for higher education of women was in existence in Manchester as early as 1874, but it was not until many years later that the policy of separate education for the sexes was abandoned. Four graduates obtained the degree of B.A. in 1887, and in 1889 there was one Bachelor of Science, while 1904 saw the degree of Bachelor of Medicine conferred on the first Manchester woman medical undergraduate—Miss Catherine Chisholm, herself the daughter of a medical man who was a keen advocate for opening the portals of the medical school to women. At present there are about 240 women undergraduates, including 12 medical women undergraduates.

At an inquest held at Wigan, the foreman of the coroner's jury said he never looked at a body, and he hoped the coroner would use his influence to remove the necessity. The coroner replied that he sympathized with the jury, and if he ever went to Parliament he would be a reformer. Viewing of bodies was ridiculous.

This week the lectures in the Medical Department came to an end for the winter session, and the examinations for the degrees are going on. The summer session begins on Tuesday, April 25th.

The University of Manchester has not omitted to play its part in the Garcia Centenary, and an address of congratulation from it is to be one of the many presented to Señor Garcia on his hundredth birthday. Professor Stirling, moreover, in the last lecture of the session to the physiology students, took the opportunity to give an interesting history of Garcia's work.

A Local Government Board inquiry was held at Preston on March 8th into an application by the Lancashire County Council to borrow £8,000 for the completion of the Fylde, Preston, and Garstang Joint Small-pox Hospital at Elswick. The original estimate for the loan was £18,000, and this estimated expenditure has been exceeded by £8,739. Nevertheless, we are told there had been no extravagance; all the money had been well spent.

A few months ago the trustees of the will of the late Mr. James Holden proposed to pay £5,000 to the Rochdale Nursing Association under a clause of the will, which, after devising legacies to various hospitals, empowered them to hand over money to any other "well-established institution of a like nature." The necessary legal formalities have been satisfied, and payment of the legacy as proposed duly authorized.

SOUTH WALES.

Health of Monmouth.—Sewer Ventilation at Newport.—Rainfall.—Presentation at Garnant.—National Museum and Library.—Sir W. T. Lewis.—Welsh University.

AT a meeting of the Monmouth Town Council held on March 7th, the medical officer of health presented his report, in which it was stated that the death-rate was 21.9 as against 17.5 in 1903, and the birth-rate 24.5 as compared with 22.8 in 1903.

A report has been presented to the Newport Town Council on the question of sewer ventilation by the borough engineer, who states that it has yet to be demonstrated beyond the possibility of doubt that sewer air is prejudicial to health. If the Corporation is disinclined to wait for the results of the Manchester investigations, some limited experiments would afford valuable information, and an attempt might be made to ascertain whether zymotic disease was propagated by surface ventilation. He recommended that experimental works be tried in five districts.

The rainfall in the Cardiff district during the last few days has been the heaviest since July, 1904. At Lisvane it was 0.81 in. during the twenty-four hours ending 9 a.m. on March 9th, whilst at the Cantreff Reservoir there was an overflow of 8 in. 160 ft. wide, and at the Beacons an overflow of 3½ in. On Thursday, March 9th, the members of the Waterworks Committee visited the Heath filter beds to inspect the new reservoir, which is about to be completed, before it is tested.

On March 9th Dr. Howell Rees, J.P., late of Glangarnant, and now of Richmond Road, Cardiff, was presented with an illuminated address setting forth the high appreciation in which he is held by the inhabitants of Cwmaman generally, in which district he had resided upwards of thirty-two years. Dr. Rees has recently been elected on the Board of Management of the Cardiff infirmary.

The Mayor of Cardiff has issued a circular appealing for £50,000 to be raised in order to secure for Cardiff the location of the National Museum and Library. Some £26,000 have already been promised. Newport, Barry, Maesteg, Caerphilly, Penybont, etc., have unanimously decided to support the claims of Cardiff.

Sir W. T. Lewis, Bart., was made a freeman of the borough of Cardiff on March 10th. Sir William has during the last fifty years rendered yeoman services in connexion with Cardiff and the Principality generally, especially in connexion with the Cardiff Infirmary and the Merthyr General Hospital, and the honour conferred upon him is well deserved.

Sir T. Marchant Williams, Warden of the Guild of Graduates of the University of Wales, in an article to the *Welsh Leader*, writes: "The acceptance by the Senior Deputy Chancellor of the University of Wales, Sir Isambard Owen, of the principalship of the Armstrong College of Science at Newcastle, makes it incumbent on the University authorities to take steps immediately to appoint a working head of the University, who shall devote his whole time to the services of the University."

CORRESPONDENCE.

THE METROPOLITAN CONVALESCENT HOMES ASSOCIATION.

SIR,—I have read with much interest the report of the meeting convened to establish this Association, and its objects are such as will doubtless meet with the approval and support of all workers in hospitals and convalescent homes. These objects appear to be "to obtain some form of union and co-operation between the various convalescent homes. The changes in the character of the relief which can be afforded by them was recognized, and it was considered that such changes could best be initiated and carried out through a central association in immediate touch with the hospitals on the one hand and the homes on the other." "Centralization and combination of effort and the promotion of economy" are objects worthy of the attention of this Association, with whose inception so many eminent names are in evidence.

You, Sir, and many of your readers and correspondents will, I am sure, welcome this effort to deal with a pressing and many-sided problem, especially if the attention of the executive of the Association can, amongst its other duties, be directed towards a more thorough and radical mode of grappling with a disease peculiarly rife in London hospitals. The disease in question is surgical tuberculosis, being that form of tubercle affecting the bones, joints, glands and skin. It is true that children are more liable to it than adults. From the report of the meeting held on March 2nd it is clear that the work of the Association will be more particularly and immediately concerned with the thirteen convalescent homes connected with thirteen general hospitals. Yet I venture to think that the scope of work must be extended to children's hospitals and their convalescent homes when the whole subject comes up for consideration in all its bearings. In discussing the treatment of surgical tuberculosis I have advocated in your JOURNAL and in the *Practitioner*, and before the Invalid Children's Aid Association Congress, the urgent need of a central and influential body to secure co-operation and unity of effort among the urban hospitals, seaside hospitals, and convalescent homes.

At the risk of encroaching on your valuable space may I allude to some salient points which have been set forth from time to time in the columns of the BRITISH MEDICAL JOURNAL when dealing with surgical tuberculosis in children? It is true the disease is more rife among them, but a large number of adults suffer, and it is universally agreed that the fresh air of the country and seaside is imperatively needed for the cure of this disorder. They who have worked for years at children's hospitals in London and large towns know how disappointing

in many cases the results of their efforts have hitherto been. A good number of half-cures are made, but in tuberculosis half-cure is no cure at all. The complete cures which are obtained by one or more operations, in some cases as many as five or six, are comparatively few, and relapses in other cases are exceedingly common. The pressure upon the beds in general and children's hospitals precludes that long stay so necessary to the complete cure of these patients; and, indeed, it is very doubtful if the surroundings of such hospitals are conducive to this end, while it is not desirable for patients sick of other diseases to be exposed to the risk of contagion from tuberculous cases.

Before a child ill with surgical tubercle is well, he may be sent out because of the necessity of dealing with more urgent cases, or he is drafted to a convalescent home, where his stay is limited to a few weeks owing to administrative and other difficulties. He returns to his home in the crowded city, partially cured, and the disease breaks out again. Readmission to the hospital takes place, and the weary round commences once more. This means that much money, time, and labour have been spent, and the results are not satisfactory, nor so good as can be effected or ought to be achieved, while the resources of both hospital and convalescent home have been wasted to a considerable extent.

In my opinion, Sir, it is in the establishment of a central powerful and influential body, such as the Association appears to be, lies the hope of grappling with this problem. Efforts—and very successful ones, too—have been made to treat pulmonary tubercle in homes in the country, but hitherto surgical tubercle has not received the attention it deserves. The weighty words of Sir Edmund Hay Currie are worth pondering when he said, "The very last thing that ought to be done was to go in for bricks and mortar and to build new convalescent buildings. It is wrong to divert money to pay for new buildings till it is perfectly clear that the existing institutions were in a position to carry on their work." This is exactly the crux of the whole matter. I venture to say that adequate machinery for dealing with surgical tuberculosis exists. What is required is organized and co-ordinated and harmonized efforts under the direction of a central council, the members of which are convinced that the way to treat surgical tuberculosis, especially in children, is to retain such children in homes in the country or at the seaside until they are entirely cured; or it is evident that they are incurable with the means at present to hand. And in the latter case it is a moot point if separate homes should not be set aside for them with the object of preventing danger of infection to the healthy community.

It is therefore, sir, my earnest hope that the formation of the Metropolitan Convalescent Homes Association may lead to a powerful and organized effort to deal with and stamp out surgical tuberculosis especially in children, and place its treatment on the same satisfactory level as in France, Germany, Italy, and the United States.—I am, etc.,

A. H. TUBBY,
Consulting Surgeon to the Evelina Hospital for Children, etc.

London, W., March 10th.

THE TREATMENT OF POST-NASAL ADENOIDS.

SIR,—Dr. Ward Cousins states that "there are three well-recognized ways of removing post-nasal adenoids," and that the first of these is by the sterilized finger, which, in his opinion, is the best instrument for young children.

A very slight acquaintance with the practice and literature of the subject, both at home and abroad, will convince any one that the sterilized finger is not "a well-recognized way of removing adenoids." Indeed, it is now such an effete method that it is seldom referred to except to be condemned.

My criticisms are not quoted by Dr. Ward Cousins with the candour and frankness he professes to admire in my letter of February 4th. He quotes me as saying that I "often practised the finger-nail operation, and found it quite sufficient for the treatment of slight cases." This is not correct. My letter clearly states that I had "attempted the removal of adenoids with the finger nail. In slight cases or in soft growths it may prove sufficient; part of the growth is removed, involution takes place in what is left, and symptoms are relieved."

His familiarity with the generally employed Delstanche curette does not appear to be very intimate, judging by the idea that I "skilfully entangle the detached fragments" in its cage. The adenoid growth which is removed at a single stroke with this curette is not in fragments, but in one mass. The skill required to use it is acquired by all the students who work in the throat department.

It should be a satisfaction to the operator, and it is not an unnatural one to the friends in some cases, to see that a solid growth has been removed, and not merely scraped with a finger nail. But this is only an incidental and accessory advantage of the caged curette, although Dr. Ward Cousins refers to it as if it were the chief or only one. He finds that "it is scarcely adapted to remove anxiety." It is nowhere suggested in my previous letter that inspection of the removed mass allays anxiety. Anxiety to all concerned is diminished by removing a growth from the naso-pharynx, and out of the patient's air-passages, with one sweep of an instrument, instead of scraping it into fragments with the finger nail, and "leaving the remnants to be ejected in the usual way."

The statement that "soft gelatinous masses surrounded the posterior apertures" of the nose is a curious description of the appearance and distribution of these growths. The friable part of adenoid hypertrophies, which can be scratched away with the finger nail, may look gelatinous, but the solid tissue of the pharyngeal tonsil is a fleshy and not a gelatinous mass, and adenoid growths do not surround the posterior choanae.

In these discussions by correspondence, it is seldom that either party moves appreciably from his first standpoint; but this is a matter of very limited interest. The important point is that it should not be overlooked by others that the finger-nail operation is not a recognized way of removing adenoids; that it was tried and abandoned by aurists and laryngologists more than ten years ago; and that, while it may relieve symptoms in some cases, it is not as safe, rapid, or successful as other methods, even when it is supplemented by the free application of Dr. Ward Cousins's roughened metal probes, rubbed over the inferior nasal passages.—I am, etc.,

London, March 7th. STCLAIR THOMSON, M.D.

SIR,—I sincerely trust that the method of removing adenoid growths of the naso-pharynx, suggested by Dr. Ward Cousins, in the JOURNAL of January 28th, will not be followed.

The sterilized finger nail should be only used for clearing the fossae of Rosenmüller. It is almost impossible to remove a growth of any size with the finger nail without leaving tags behind, besides, the time the finger has to be kept in the mouth considerably complicates the operation.

A year or so ago I visited all the throat hospitals in London, so as to compare the different ways of operating, and I am convinced that the following is the safest and most surgical:

The patient is placed on his right side near the edge of the table with the head dependent resting on a low pillow, (care being taken that the neck is not twisted), the face projects slightly over the edge of the table, the legs somewhat drawn up. The index finger of the left hand is passed behind the soft palate and acts as a guide to the curette, which is then passed up into the naso-pharynx. The growths on the superior and posterior walls are removed by one or more sweeps of the curette from above downwards. It is the growths on the basi-sphenoid or superior wall of the naso-pharynx that are most often left by unskilled operators. The fossae of Rosenmüller are cleared with a small lateral curette, such as Bronner's or the sterilized finger nail. Personally I use the latter as less likely to injure the Eustachian eminences or cause undue cicatricial contraction.

If the posture of the patient is adhered to in the manner I have described the blood cannot enter the larynx, and if the light is good the operator has a view of the mouth, and with skill he can turn the growth—especially the cristate form on the posterior wall of the pharynx—out of the mouth. I now use a Macdonald's spring grip curette, which is practically a modified Gottstein with a thin-hinged plate; this retains the growth, and is a preferable instrument to Delstanche's, the hooks of which sometimes tear through the growth.—I am, etc.,

G. A. GARRY SIMPSON, M.R.C.S.,
Senior Clinical Assistant, Throat, Nose, and Ear Department, West London Hospital, Hammersmith.

East Acton.

SIR,—It seems to me a matter for the individual surgeon to decide, whether he use the sterilized finger nail or the curette in operating for post-nasal adenoids. Fingers vary in size and length, and also in the "tactus eruditus," and one man may rely more on his sense of touch through a medium,

another on that directly communicated through the finger tip.

When I was Clinical Assistant at the Royal Ear Hospital, Soho, the finger nail was the curette chiefly in vogue, and I have continued to use it since, with few exceptions. On the occasions that I have used the steel curette, I have not felt so satisfied, nor so confident of the results, as when I have trusted to the guarded finger, the sterilized finger nail, and sense of direct touch through the finger tip.—I am, etc.,

Bristol. CLEMENTS HAILES, M.D., F.R.C.S.Ed.

SURGEON-GENERAL EVATT'S REPORT.

SIR,—General Evatt has twice visited Ireland. On the first occasion he acted as Commissioner for the British Medical Association. His report to their JOURNAL made so strongly for the betterment of the Poor-law Medical Service that the President and Council of the Irish Medical Association invited him to tour the country at our expense, to lecture, to educate public opinion, and to report on the best means for reorganizing our Association. On his side he bargained that his report should be published in its entirety or not at all. Reversing the part of the prophet, he was brought to bless but remained to curse. His report was sent out to the 76 councillors marked "confidential, not to be shown, etc.," and we were at the same time expected to "gauge the feeling of our neighbours towards his recommendations." On February 15th a meeting of Council was held, and by 18 votes to 7 we decided to send it to our Branches. Some unworthy person gave it to a Dublin paper, and the Royal College of Surgeons sent a somewhat strong letter demanding whether our Association adopted Surgeon-General Evatt's report. On March 1st we were asked by the official party to reverse our action. Threats of resignation by our President and his cabinet; threats, veiled and overt, of eviction from the College halls, and of actions for libel resulted in a reversal of our decision of February 15th by a very narrow majority. General Evatt made certain accusations against the Royal Colleges and title-holders and seekers. Immediately the corporations and Sir Thomas that is, and Sir Thomas that may be, are up in arms eager for the fray. The Dublin *Medical Press*, which I understand is published in London, says the General is a Radical—nay, a Home Ruler—who dare not go North, and his report must go to the basket. This ostrich policy won't do, Sir. The serious point of the report is not his attack on the colleges and consultants, in my opinion; it is the terrible charges he brings against the men of my own class—the obscure country doctor. If ignorance, incompetence, and chronic drunkenness are as rife as he seems to imply, then I say the Local Government Board, the inspectors, the guardians—aye, even the parochial clergy—stand arraigned and condemned at the bar of public opinion. God's poor must not be oppressed and neglected. The festering sore—if there be one—must not be hidden; it must be excised boldly. On these grounds I demand the publication of Surgeon-General Evatt's report in full.—I am, etc.,

RICHARD MARLAY BLAKE,
Member of Council I.M.A.; Vice-President Poor-law Association of Ireland.

Ravensdale, co. Louth, March 9th.

COMPULSORY GREEK.

SIR,—From Dr. Buttar's arguments it would appear as if the London University were an institution unknown to him. In his last week's reply to my letter he makes this statement and query: "Dr. Garrett . . . appears to think that Arabic and Hindustani might be included, why not athletics and bridge?" If Dr. Buttar will take the trouble to write to the London University and ask for a copy of the regulations for matriculation he will find that under Division IV the candidate has the option of choice of any two of the following subjects, provided that he has already chosen Latin from one of the subjects of another group: Greek, French, German, Arabic, Sanskrit, Spanish, Portuguese, Italian, Hebrew, ancient history, modern history, logic, physical and general geography, geometrical and mechanical drawing, more advanced mathematics, elementary mechanics, elementary chemistry, elementary heat, light, and sound; elementary electricity and magnetism, elementary botany, elementary zoology.

Dr. Buttar's suggestion *re* "athletics and bridge" would seem to apply to the London University, and it is open to him to submit his proposition for the inclusion of these subjects to the Senate of this University, though perhaps it would not be out of place to remind him that, on account of the large number of distinguished graduates in medicine which the University of London can claim, as compared with both Oxford and Cambridge together, there is not a great chance of the Senate paying much attention to such a suggestion from an Oxford graduate.

Your correspondent of this week, "R. A. F., M.D.Oxon.", writes that the treasures of antiquity are kept by Oxford and Cambridge, that a horde of barbarians is battering the gates trying to get at them, but that they cannot reach them excepting they bring the golden key of Greek; that resonant titles and gorgeous hoods are given away with a pound of tea at other universities; further, that men of science throughout Europe are accustomed to think in Greek, and that the medical student must think in Greek, or suffer great disability. I admire "R. A. F.'s" fine imagination, but think these utterances of his will lack effect for want of truth.

The point I wish to drive, and which I believe will have to be admitted ultimately by every bigoted graduate of the old universities, is that the subjects of education that are equally worthy of study with Greek are now very numerous, and as life is too short for any one person to master more than a small part of them, it has become necessary for each individual to specialize in order to make the best use of his life, and the forcing of the study of the Greek language upon every student at the university is bad from the point of view of economy.—I am, etc.,

Cheltenham, Feb. 21st. J. H. GARRETT.

MENTAL SCIENCE IN MEDICAL EDUCATION.

SIR,—It is not my intention to join the debate on compulsory Greek, as I belong to another parish, being M.D.Edin. Besides, Dr. M. H. Savva has summed up everything that it is possible to say about it. I would urge that mental science should have a place in the preliminary education. Perception and sensation and the laws of thought are an interesting study and one of direct value in practice; especially should logic be encouraged. The only training in reasoning that a boy has is in Euclid. This is just a beginning. He does not seem to be taught even the Theory of Limits, without which modern science is impossible. For example, given a diagonal, by Euclid you have the side of the square exactly. Not so in arithmetic, where you have hundreds of decimals. Where may you stop? The want of this knowledge creates the only difficulty—other than force of habit—in the adoption of the metric system, or in realizing what "percentage of chloroform vapour" means. But physical science is but an adjunct to our life's work. Far more important is it to have right methods of reasoning from a few incidents, the greater number of them being at the time invisible.

A joint is inflamed—is it gout, rheumatism, or gonorrhoea? The Reasoning should be trained as well as the perception of signs and symptoms. The necessity of what I urge is shown by the many instances of faulty medical reasoning. For instance, the use of the word "pressure" as a pathological cause; or this—an injured joint is put in splints and kept at rest for a long time. Is the stiffness due to the prolonged rest, or to the inflammation caused by the injury? The answer is important, as on it depends the welfare of the patient.

Few medical students will ever learn to read Plato with their feet on the fender, but there is no reason why they should not be encouraged to read the *Republic* in English. My proposal is not to add an additional compulsory subject to the preliminary, but to encourage mental development by allowing mental philosophy or logic to supplement the marks in other subjects, and so save a candidate from vexatious rejection. He would justly be considered to possess as much "culture" as one who knew the conjugation of τύπτω. Of course, I speak generally, and not simply with reference to Cambridge.

More than a year ago a great philosopher died, and the papers were full of the subject and his writings. I chanced to ask a newly-fledged B.A.Cantab., "Have you read any of Herbert Spencer's works?" He replied, "You mean the *Faerie Queen*?" He is a good Greek scholar, but any Epsom boy above the Lower School would have known better.—I am, etc.,

Kensington, Feb. 25th. G. C. CRICHTON, M.D.

ALLEGED NEGRO IMMUNITY TO MALARIA.

SIR,—In the BRITISH MEDICAL JOURNAL of December 31st, 1904, and January 14th, are letters on the subject of the "immunity" of the negro to malarial and yellow fevers.

As to the last I say nothing; but as to the first—immunity

to malarial fever—one cannot help thinking that it surely should be unnecessary in the present day for physicians to combat a superstition that has been overthrown completely long since!

The negro race, in the West Indies and West Africa, does *not* enjoy "immunity" from malarial fever, and the adult negro can only be said to enjoy immunity in a very restricted sense. No medical man who has practised in both these regions (as I have done for the past twenty-three years), but is well-acquainted with this elementary fact.

That the adult negro, after the age of 21, and to less extent after puberty, suffers from malaria far less, both as to severity and frequency of attacks, than the child, is a fact, but that the latter do suffer severely is equally a fact.

The condition found in the adult is most certainly—as a very short study of the subject will suggest—due to the fact that in the early years of life malaria kills a terribly large proportion of the children that are born. The "survival of the fittest"—of those who have struggled through their infantile attacks—enables some to attain maturity. The percentage of attacks of malaria deaths decrease gradually up to 12 or 15 years of age; hence those who grow up have probably acquired a certain degree of immunity which enables them very often to escape bad attacks, or to suffer little when attacked in adult life, but they do not attain entire immunity, as it is quite common for adults to suffer, at greater or less intervals, from more or less mild attacks of the fever—even in West Africa, though it may be fatal to adults sometimes. In the West Indies this degree of immunity is very slight indeed, as the infant mortality from malaria is far less than in West Africa; and a West Indian negro immigrant to this country, exposed to a bad infection, may suffer as severely as any European.

One cannot, therefore, think it scientifically accurate to speak of "immunity" to malarial fever as obtaining among "negroes" as a race, and if it be permitted to speak in a restricted sense of the negro enjoying such immunity, it would, I imagine, be understood that only the adult negro (mainly of West Africa) was being referred to, and that even then the immunity is but relative, not complete.

I give the deaths from malarial fever at various ages in Lagos for the past five years among natives:

Return of Deaths of Natives from Malaria in Lagos Town from 1900 to 1904.

Year.	Total for all Ages.	Under 1 Year.	1 to 5 Years.	5 to 20 Years.	20 Years to 75 Upwards.
1900	491	282	50	34	125
1901	493	311	53	27	102
1902	473	263	55	42	113
1903	427	258	46	26	97
1904	493	314	71	28	80

It must follow from these facts that the use of inunctions of oil or grease, or of particular articles of diet, cannot, *per se*, prevent attacks of malaria; also, that it behoves us to combat malaria among natives quite as unceasingly as among Europeans.—I am, etc.,

HENRY STRACHAN,
February 11th. Principal Medical Officer, Lagos, West Africa.

INCUBATION PERIOD OF MUMPS.

SIR,—The case recorded by Dr. Blomfield in the BRITISH MEDICAL JOURNAL of February 25th, p. 412, is of interest, and every case in which the data allow of the incubation period of an infectious malady being established with reasonable precision and certainty will be welcomed, and by none more gratefully than by the members of the Medical Officers of Schools Association. But a careful examination of the statements detailed by Dr. Blomfield scarcely seems to warrant the deduction which he makes.

In all such matters precision in the use of technical terms is all-important, and it may be assumed that by the "incubation period" is understood the period of time which elapses between actual infection of the subject—not always or necessarily identical with the time of his "exposure to infection"—and the development of some obvious or suggestive prodromal symptom of the malady. If he could establish that the brother's infection occurred on December 29th, when he was last in contact with his sister, Dr. Blomfield would have proved that the incubation period of mumps may be at least twenty-five days. But (1) there is no proof that the brother was not exposed to any other source of infection subsequently, and in the social life of private patients evidence of this kind for or against is usually not to be obtained. (2) Though the contagium of mumps is supposed to be microbic, nothing definite on this head has been established. The disease "is supposed to be chiefly communicated from person to person," but we have no assured grounds for exculpating fomites as a medium of this communication. It would therefore be difficult to deny that mumps was contracted by the brother on the occasion of his return to the house on December 31st, or during the time of his subsequent residence in it. The rule laid down in the Association's *Code* would have required him "to be sent away to some house free from infection" before the period of quarantine was considered to begin! And on these terms the facts of the case would point to an incubation period of twenty-three days. (3) All conclusions drawn from the data given for estimating the duration of the incubation period are vitiated if Rule XIII of the *Code* (5th edition) was ignored. This rule emphatically states that the quarantine times specified, "dating from exposure to infection, may be considered safe if disinfection be carried out at the *commencement* of the quarantine." And in the preceding rule it is pointed out that the duration of the period required for quarantine after exposure to infection "depends chiefly upon whether the clothes have been efficiently disinfected *at the beginning of the quarantine*." It is obvious that, unless this precaution be strictly observed, it is possible for a person who has been exposed to infection to carry the contagium about—on his clothing or pocket-handkerchief, for example—and not become infected thereby until some days after the commencement of his nominal "quarantine period," if the specific contagium be of a relatively long-lived and resistant nature. Hence probably the abnormally long incubation period formerly described in some cases of scarlatina; and hence, too, the fact that the incubation period allotted to measles (the contagium of which is very short-lived, and is rapidly destroyed by exposure to fresh air and sunshine) remains still approximately at the figure which experience had assigned to it generations ago.

In the numerous large schools, which do occasionally afford special opportunities for peculiarly precise observation of all the circumstances obtaining in such matters, we have as yet no certain record of a longer period than a bare twenty-three days between exposure to infection and the development of distinct prodromata of mumps; a similar period of from nineteen to twenty-one days has been definitely established in several instances.

It must be admitted that there may be a few (very few) individuals in whom, owing to some constitutional idiosyncrasy, the development of the infecting contagium is sometimes abnormally delayed. Whether it is worth while to legislate, to the detriment of the vast majority, out of tenderness for the exceptional peculiarity of a minute and hypothetical minority, is hardly within the scope of practical sanitation.

Perhaps an earnest desire for precision, as nearly absolute as possible, in the methods adopted for attaining scientific truth may plead in extenuation of the length of this letter.—We are, etc.,

H. ALDERSMITH,
February 28th. CHARLES E. SHELLY.

THE TREATMENT OF HAEMOPTYSIS.

SIR,—Dr. Hyslop Thomson, in the BRITISH MEDICAL JOURNAL of December 17th, 1904, says that one of the ends to be kept in view in a case of severe haemoptysis "is to diminish the frequency of the cardiac beat and lower arterial tension," and then tells us that he has used adrenalin chloride and ergotin for this purpose: it is very difficult to see upon what grounds these two drugs seem to be so largely used in haemoptysis. Adrenalin raises the blood pressure, and for that reason alone is contraindicated; whether it has any constricting effect upon the pulmonary vessels seems very doubtful. According to some observers it acts upon the unstriped muscle, but there can be very little muscle left for it to act upon in a vessel whose walls have been destroyed by ulceration or aneurysmal dilatation; others, again, say that it only has a vaso-constricting effect upon vessels innervated by the sympathetic; even if that were so, then adrenalin could only be of service in haemorrhage from very small vessels, but Drs. Brodie and W. E. Dixon in the BRITISH MEDICAL JOURNAL

of December 24th state that adrenalin does not constrict the pulmonary vessels and act deleteriously in raising the systemic pressure. Ergot, again, raises the blood pressure, and, according to the same observers, leads to engorgement of the lung. It seems, therefore, that these two drugs are positively harmful, and that any good results that occur where they are used must be in spite of, and not because of, their exhibition. One wonders why Dr. Thomson has not mentioned turpentine after an initial action as a cardiac stimulant. This is followed by depression and fall of blood pressure; this drug, therefore, if given with some vaso-dilator to counteract the initial vaso-constricting effect seems to meet all the requirements, as far as they can be met, in this form of haemorrhage. One other point is perhaps useful: instead of applying an icebag over the cavity from which the bleeding is supposed to come, I would suggest turning the patient on to that side; this tends to lessen the amount of blood which might otherwise get down the other bronchus and so prevent flooding of the sound lung, and also dissemination of small clots which so often are the centres of small patches of bronchopneumonia afterwards. The treatment of a severe haemoptysis, therefore, seems to be:

(*a*) Absolute rest in a cool room, with the patient lying on the side of the cavity which, by previous examination, might lead us to expect was the bleeding one. Hot water to the feet. Hypodermic of morphine.

(*b*) Turpentine in large doses, with nitrite of amyl inhalations, or a dose or two of sp. etheris nit., until the stimulating effect of the turpentine has passed off.

(*c*) Strict limitation of the intake of fluids.

(*d*) Calcium chloride to promote local coagulation.

—I am, etc.,

Ludlow. EDWARD GREEN.

THE CAUSATION OF PLEURISY.

SIR,—In a lecture upon pleurisy by Dr. G. A. Gibson, published in the BRITISH MEDICAL JOURNAL of January 7th, the importance of the tubercle bacillus as a cause of inflammation of the pleura is, perhaps, somewhat underrated. The reference to the *post-mortem* statistics given by Osler, for example, is, from one standpoint, misleading. In 101 cases in which pleurisy was found in the *post-mortem* room in only 32 tubercle was the cause. Osler states, however, that in most of those cases in which the pleurisy was not due to tubercle it occurred as a complication of cardiac or Bright's disease.

Pleurisy, occurring not as a complication of chronic or of acute disease, but as a primary affection in an apparently healthy person, is perhaps of greater interest where the question of causation is concerned. In the majority of cases in which the pleura is thus attacked complete recovery takes place; but when death eventually occurs—it may be fifty years or more later—pleural adhesions are found on the side where inflammation had been present. In the greater number of these examples of pleural adhesion evidence of the former presence of tuberculous disease will be discovered if looked for. There may be small calcareous nodules in the pleura or in the lung beneath it, or, perhaps more commonly, pigmented scarring at the apex of the lung. In order to test the truth of this observation I have looked through 250 recent *post-mortem* records, only one-third of which are in my own handwriting. In 41 cases old pleural adhesions were present. Of these 41 cases in 28 it is definitely stated that there was evidence of old tuberculous disease of the slight character mentioned above; in 10 no mention is made of the fact that search was made for tuberculous disease; and in 3 only is it definitely stated that evidence of tuberculosis was absent.

Allowing that the 28 cases in which old tubercles or scars were noted were the only cases in which tuberculosis had been present, the proportion of tuberculous to non-tuberculous cases was more than 2 to 1. My own feeling is, however, that the figures do not justly represent the comparative frequency of tuberculosis as the cause of pleurisy. It must be remembered also that lobar pneumonia is a very common disease, and that old pleural adhesions are no doubt very frequently a sequel of this disease. In such instances the pleural adhesions are not a sequel of a disease that clinically would be described as pleurisy. Excluding adhesions due to pneumonia, or possibly bronchopneumonia during childhood, adhesions due to any other cause than that of tubercle must be comparatively rare.

It should be mentioned that in the above 41 cases only examples of moderately extensive adhesions were included. If localized adhesions in the neighbourhood of the apices of the lungs had been added, the number of tuberculous cases would have been increased. On the other hand, cases of pleural adhesion, where death resulted from cardiac disease or Bright's disease, were excluded.—I am, etc.,

Clifton, Bristol. THEODORE FISHER.

THE PROLONGED USE OF SIMPLE ENEMATA.

SIR,—It is now more than seventy-two years since James Scott, surgeon, published his book on *Instructions in the Use of Lavements*, wherein he recommended enemata of about 2 pints of warm water for habitual constipation. The syringe and douche can were then alike unknown, and the author advocated an "injecting machine." He modestly disclaimed credit for anything more than an earnest endeavour to induce the English generation of pill-swallowers to follow the example of the French and let water per anum take the place of drugs by the mouth.

His efforts were practically fruitless. It was not until your correspondent's namesake invented the enema syringe that enemata began to be used at all freely in this country. Since that time their use has continued to extend, partly due to the publication of booklets on the subject, partly to personal experience and recommendation, but apparently little if at all to the medical profession, which until comparatively late years appears to have regarded enemata as a sort of *dernier ressort*. At the present time a considerable number of people use the enema habitually in preference to taking aperients.

Now, your correspondent quotes Dr. Ringer against such habitual use, but does not make it clear to my mind if he himself opposes such use for every class of constipate or only for the bedridden. Perhaps, also, he will be good enough to say what quantity of water it is which is found to give "no result." Dr. Mitchell Bruce (*Mat. Med. and Therapeutics*) mentions 1 pint as a usual amount for an enema; my experience of hospital and doctor's enemata is that they usually run to about 1½ pints. I do not wonder that such small quantities fail to give satisfaction when continued for any length of time, considering that the capacity of the large intestine is from 3 to 4 quarts and that the seat of constipation is very often the ascending colon.

Nearly fifteen years' experience of large enemata convinces me of their great value in habitual constipation. I have never found proof that they produce or increase torpor of the bowel, or that they are open to the sweeping condemnation of Dr. Ringer and your correspondent, though one admits there are some people whom they do not appear to suit.

Enemata to be successfully employed in the relief of chronic constipation should be copious—3, 4, or 5 pints are often borne well when once the bowel is fairly cleared—they should be as hot as the hand can quite comfortably bear (100° F. or just over), and should be used about three times a week.

Of course, if it is to such large enemata that Dr. Higginson refers I must confess that our experiences do not coincide, but if it is the usual pint and a half enema alone that lies within the purview of his practice, then I would recommend his trial of the large quantity of water before he makes his decree of condemnation absolute.—I am, etc.,

Harston, Cambridge. W. J. YOUNG.

THE FEEDING OF INFANTS.

SIR,—In the BRITISH MEDICAL JOURNAL of February 11th I notice the review of a book by Dr. T. M. Allison on *Health in Infancy*.

Your remarks in that column are invariably so just that they serve as a guide to the members of the profession in making a selection of books, thus saving much money and time. There is one point on which we now require a more definite pronouncement than has hitherto obtained. I mean the feeding of infants. There can be no two opinions on the value of maternal feeding, and where all things are equal it is best; but things are not always equal. There is nothing so easily altered in character as mother's milk; some indiscretion in her food, over-exertion, irregularity in the feeding of her child, an emotional temperament, etc., all influence the natural food of the baby. It is almost impossible for the medical attendant to watch every mother he delivers, and they are easily influenced by the advice of neighbours, and especially the midwife who is in attendance; besides, the mischief is often done when the doctor is called in.

Granted a clean, well-adapted feeding bottle and a supply of pure cow's milk these dangers are lessened, if not done away with entirely, and all these are easily obtained, except,

perhaps, the last-mentioned, and that rests with the sanitary authority. For many years I have advised all mothers whose milk fails or is unsuitable, to give the child nothing but cow's milk, to which is added 5 per cent. of lime water and the same of sugar, and the results have fully borne out my practice. If the child should not be given its food at stated times it does not become altered in consequence. The bottle is not subject to maternal influences and indiscretions.

So far I have not had any difficulty with the proteid matter of cow's milk. It appears to be digested by even a weakly child, so that, in my opinion, the time has come for us to discard our somewhat conservative practices and turn to a more liberal view of the matter; if the mother is healthy, of good habits, and sensible to follow out our instructions, and, of course, has a sufficient amount of good milk, then the wisest course is for her to feed her child on the breast, but, otherwise, advise her to fall back on the bottle. It is absolute nonsense, as you remark, to say that a child cannot grow up healthy, beautiful, and with staying power on such a food; and the more we study artificial feeding, the healthier will be our children and the lower will be our infantile death-rate.

I know there is nothing new in this, but my excuse must be the need there is for a great change in our methods. Every medical man must have views of his own one way or the other.—I am, etc,

Darwen, Feb. 16th. F. G. HAWORTH.

TRAINING OF MENTAL NURSES.

SIR,—As President of the Medico-Psychological Association and in that capacity chairman of the meeting held on February 23rd at the North Riding Asylum, I write to correct the report of the proceedings published in the BRITISH MEDICAL JOURNAL of March 4th, on page 485, as it is inaccurate in a very important particular.

The Medico-Psychological Association at its last annual meeting decided that the period of training for nurses and attendants, before examination for the purpose of obtaining the certificate of competency in mental nursing, should be extended from two to three years, so as to bring the period of training in asylums into line with that in general hospitals. The resolution, which was moved by Dr. Carlyle Johnstone and seconded by Dr. Whitcombe, was not framed for the purpose of disturbing this principle, but with the object of ensuring that the entire period of training must be served in one institution. The amendment which Dr. Outterson Wood proposed contained no reference whatever to limiting the period of training to two years as is represented in your report, and it may be said that there is no more ardent supporter in the Association of the recent lengthening of the period of training than Dr. Outterson Wood. His amendment was framed with the purpose of allowing that the period of training already fixed at three years should be spent in not more than two institutions. This was adopted by the Association.

There are other inaccuracies in the report, but the one I have referred to misrepresents so entirely the action of the Association in this matter that I venture to ask you to publish this comment.—I am, etc.,

London, W., March 7th. R. PERCY SMITH.

*** We are requested to state that the substitution of "two" for "three" was due to an accidental error in transcribing, regret for which is expressed by the Hon. General Secretary of the Medico-Psychological Association.

A SIDELIGHT ON MEDICAL EDUCATION.

SIR,—To those of your readers who are making deductions from the tables you published on January 7th in the editorial under the above heading the following facts may be of interest:

1. The crammer with whom I coached for the I.M.S. gained over 83 per cent. of the total vacancies for the two military medical services at that examination.

2. In the class there were more candidates than there were vacancies.

3. It was not uncommon for a man to be guided by the advice of the crammer as to which service he should compete for. Thus, a friend of of mine attended the class but, on the advice of the crammer, did not compete at the first opportunity. He then had a try for the naval service, with what result I forget, and he eventually got a pretty high place in the I.M.S. examination.

4. In my year the first place in the I.M.S. examination was easily gained by the show man of the class. He had already been coached and failed to get placed. The second—a bad second—was a man who was competing for the first time. At Netley, where they were on equal terms, the second man gained 300 marks, more or less, on the leader and took most of the prizes.

The natural deduction to be made from the above facts is that the influence of the crammer very greatly exceeds that of the medical school in the results of the service examinations, and that to be of real value your tables should give separate figures for those who have undergone special preparation in London and those who have not done so.

5. The crammer referred to frequently took exception to answers given to his questions by provincial men—not on general grounds, but from the examination point of view. He was very clear on this point. A method of treatment taught by provincial authority, or even given in a textbook, was admitted to be sound, but we were warned not to give it to our examiner. I have shown that this crammer was highly successful. Would he adopt such a method if there were not good reason for it?

6. The clinical medicine examination was very different to what I had been accustomed to. In my medical school we were given a case to examine and write out at the bedside. The examiner then came and held a viva voce examination on the case. In the service examination I was given twenty minutes to examine a case, fully dressed, in a side room along with the other candidates and patients. We were then taken to another room and given about an hour to write about the case. The result was that I made very few marks, barely enough to qualify, in what was my best subject.

7. While coaching in London I only twice attended a hospital clinic. The only place open to me for other than book work was the Museum of the Royal College of Surgeons.

These last instances clearly show that the candidate from the provinces competes at a disadvantage. The statistics and opinion of an experienced crammer would be worth having.—I am, etc.,

February 8th. RAJPUT.

SIR,—I should like to point out a few fallacies in your method of comparing the relative value of the English conjoint qualification and of university degrees in medicine and surgery.

In the first place you take the total of the three service examinations as the basis of your calculations, although you point out that the competition for the navy, army, and Indian services varies considerably, namely—from 5 to 4 in the case of the navy, up to 5 to 2 for the Indian Medical Service.

If your deductions were based solely upon the comparative successes of the two types of candidate in the competition for the Indian Medical Service, with 5 candidates for every 2 vacancies, the results would not be so favourable to the diplomate as those quoted in the BRITISH MEDICAL JOURNAL of January 7th, 1905. It would be just as logical to calculate the success of a medical school upon the total number of its students who qualified, irrespective of the qualification they obtained.

Secondly, it would be interesting to study a list of the places taken at the open Indian Medical Service competition for the last ten years by diplomates (excluding, of course, the F.R.C.S.) and graduates respectively. Your readers might be surprised to find that even the London M.B. does not always come out better than the graduate of other universities.

A third fallacy is the conclusion to which you apparently invite your readers, namely—that all diplomates of the R.C.S. and R.C.P. are on the same level. Every medical student knows (whatever he may say in after-years) that the gulf between the man who takes his examinations for the Conjoint Board in the shortest time and the man who painfully stumbles through each subject separately is very wide. In fact, it is the possibility of splitting up the examinations into single subjects that can be passed separately that makes the diploma so unequal. We have all known as students the man who took the minimum time to obtain his M.R.C.S., L.R.C.P., and who was quite able to have taken the best university degree if he had had the necessary time and money, and we have also known the dear old "chronic" who, having given up attempting his intermediate M.B., had fallen back upon the graduated process of taking one step at a time (usually a long time) towards his diploma.

In addition to the fact mentioned by your correspondent "Fact" in the JOURNAL of January 21st, that the majority of

examiners for the services are on the staff of the London teaching hospitals, and that on this account London graduates and diplomates have an advantage over candidates from the provinces, I would also point out that the recent changes in the examinations are also in favour of the diplomate, many of the subjects taken up in the course of a university medical curriculum having now been dropped from the competitive examination. Under the revised regulations the subjects for examination are now strictly professional, and only include those that are required by the Conjoint Board.—I am, etc.,

February 25th. I.M.S.

ERGOPHOBIA.

Sir,—I am glad to see from the British Medical Journal of February 11th that Mr. Spanton has seen it his duty to utter a word of protest about the effect on some of the working classes of the Workmen's Compensation Act. With nearly all that he says I am in complete agreement. As an examiner for several large companies I have noted (1) the increasing readiness of those employed to come under the operation of the Act, with (2) a similar disinclination to return to work, and (3) a manifest determination to make the question of settlement almost impossible unless a good round sum be offered.

I am not speaking of deserving cases, where a man in receipt of good money is by some accident deprived of the means of livelihood, with perhaps a wife and children dependent on him. I refer more to that large and increasing class of minor injuries which lend themselves more to malingering, when perhaps, besides his compensation money, there are one or two clubs which can be pulled in, and when very often the total received is as much or more than the weekly work's wage. And in my experience none are so difficult to deal with as "back" injuries, either from a fall or crush or both, and this the men have got to know. Once get a man on the compensation list with a "bad back," and he can almost set all the medical referees in the country at defiance.

A case of this kind occurred here not very long ago; the diagnosis lay between "lumbago and lateral sclerosis." Opinions on both sides were numerous and distinguished, but in the end the judge accepted the less serious condition, though the man is still incapacitated. I mention this case to show the possibilities which a "bad back" may present. In a great many cases it stands for "ergophobia" in its most acute and pronounced form, especially if the person seeking compensation is at all advanced in years. By this I mean any man on the wrong side of 50; not a great age, certainly, but one which in many cases is the dividing line between a desire to return to work and the complaint known as "ergophobia." So well is this known by many of the large employers of labour, that they are becoming exceedingly chary of retaining many old hands unless from long service; they have had experience that they are not likely to succumb to this new disease.

My own opinion is that while in some cases the Act is of much benefit, yet it has the tendency of much of the recent legislation to emasculate the race. It helps to destroy the manhood of the nation, so to speak, by the direct inducement it affords to those so minded to neglect the Apostolic injunction that "if a man doth not work neither shall he eat." There is to-day far too much lessening of the individual responsibility which does not make for a nation's welfare. The inevitable result, though prolonged, must surely follow, for it has been truly said,

> Ill fares the land, to hastening ills a prey,
> Where wealth accumulates and men decay,

and yet at this present moment and in the same direction, the two great parties in the State are standing ready to overtrump each others' cards.—I am, etc.,

February 15th. Dubious.

THE PREVENTION OF DENTAL CARIES.

Sir,—Having read with much interest Dr. Wallace's paper upon physical degeneration and the teeth, may I suggest a few points, which perhaps would seem to militate against his conclusions?

The natives here have remarkably good teeth, and amongst a number of over 600 patients whom I have seen during the past two months only seven complained of any dental trouble, and one of these came from a tribe which is less cleanly than the Bondés amongst whom we are.

In the mouths also of the cases which I have seen in the course of examining patients medically I have noticed very few carious teeth, although one or two cases of gingivitis have presented themselves.

The food of the natives is almost entirely vegetable, but, so far from being the hard nuts and harder roots of the ideal primitive savage, it has as its principal constituent ugali, a thick porridge made from pounded maize and ugi, which is a kind of gruel.

They also eat peas carefully pounded and ground, and sometimes toasted mealie cobs.

The children frequently are not weaned until 2 years old, although they have ugi, etc., when they are quite young. Indigestion is common; it is chiefly of a flatulent and, I think, acid character, and the children suffer a great deal from diarrhoea and vomiting.

Thus two of the factors which are commonly supposed to predispose to dental caries are present: (*a*) soft food, (*b*) indigestion. Yet the teeth remain good.

This most probably is due to the third factor, that of neglect and accumulation of tartar being absent. The natives are exceedingly proud of their teeth, and clean them very diligently, using not the comparatively inefficient European tooth brush, but a good stiff piece of cane, frayed out at the end, but of course nothing in the way of bactericidal tooth powder.

Hence it seems probable that neglect of the mouth, neglect that is to say of the diligent friction of the teeth with an efficient tooth brush, is the most potent cause of dental caries.—I am, etc.,

C. R. Howard, M.B., B.C., M.R.C.S., L.R.C.P.

Uesalabani, Tanga, German East Africa.

THE INCREASE OF CANCER AND THE DECLINE OF TUBERCLE.

Sir,—The recently-issued report of the Registrar-General for 1903 reveals the remarkable and unprecedented fact that cancer is now, for the first time, a more fatal disease for women than phthisis, the respective death-rates per 100,000 living for the year being 100.3 for the former malady, and 99.3 for the latter.

Those who have hitherto investigated the etiology of cancer have paid far too little attention to this concomitancy, the significance of which I have specially indicated in my article on the pathology of cancer in vol. xvii of the *XX Century Practice of Medicine* and elsewhere.

It is now perfectly clear, under the conditions of existence prevailing in modern communities where the occidental type of civilization prevails, that cancer is a disease more to be dreaded than tubercle; for, while the latter has declined with great rapidity, the former has increased at a still faster rate, and both of these changes are now in active progress. Thus, during the last half of the nineteenth century the cancer mortality tripled, while the tubercle death-rate declined to the extent of nearly one-half.

If we extend our survey so as to embrace the 65 years from 1838 to 1903, these peculiarities are still further accentuated; for, during this period, the increase of the cancer mortality was more than five-fold, namely, from 16 per 100,000 living in 1838 to 87 in 1903; while, in contradistinction, the phthisis mortality declined more than three-fold, namely, from 380 in 1838 to 119 in 1903.

Unless some great change in the national habits soon takes place, of which there is at present no well-marked indication, it is evident that cancer will ere long claim more victims even than phthisis, as is indeed already the case in many localities, for example, Hampstead, Clifton, etc.

This great decline in the tubercle mortality under modern conditions of existence is one of the most extraordinary and unexpected facts that the study of vital statistics has ever revealed, and, rightly apprehended, it throws a striking light on the problem of the increase of cancer, as I have elsewhere shown.

This correlated variability in morbid proclivity is met with in every community where the modern type of civilization prevails; for, in those parts of Ireland where exceptions occur, for example, Kerry and the "Wild West," this type of civilization with its increased material prosperity, its good food, and good sanitation—is conspicuous by its absence, as I have ascertained by personal investigation on the spot.—I am, etc.,

Clifton, Bristol, March 6th. W. Roger Williams.

THE METRIC SYSTEM.

SIR,—The propaganda of the metric system in this country owes much of its success to misrepresentations which pass undetected owing to the usual bad teaching of weights and measures in our schools. Several letters have recently appeared in the BRITISH MEDICAL JOURNAL exemplifying another method of attack. This is to put forward, as legal weights or measures, trade units used for convenience in this as in every other country, in France as much as in England. We are told that a quarter of malt is a standard *weight*, and that we use vague measures such as the tablespoon and teaspoon, as if these household measures did not appear on French medicine bottles as much as on ours, and ignorance of our systems seems very widespread. That a Board of Trade official should not know what a quarter (corn measure) was a quarter of may have been a splendid illustration for Lord Kelvin's sarcasm, but probably the one was just as ignorant as the other on the point. Any one who had been decently taught would know that the corn quarter was so called because it was a quarter of the old chaldron which was the measure holding a short or 2,000-lb. ton of wheat, the old ton of England and the present ton of North America, from which the ton measurement of 40 cubic feet in ships is derived. The quarter thus enters into our decimal series of weights and measures, as it is the measure of 10 cubic feet, or 5 centals, of wheat, weighing the average 62½ lb. to the bushel. But the Decimal Association does not tell this.—I am, etc.,

Liverpool. EDWARD NICHOLSON.

MEDICO-LEGAL AND MEDICO-ETHICAL.

RISKS OF MEDICAL PRACTICE.

ALL medical men will sympathize with the co-respondent in the case Miller *v.* Miller and Fowler, which occupied much of the time of the Divorce Court last week. Mrs. Miller went into the witness-box and accused herself of misconduct with Dr. Fowler on several occasions. Dr. Fowler absolutely denied the charge, and was able to show by his day book and diary that he was otherwise engaged on certain of the occasions specified.

The President, in summing up, said the jury had to observe the way the witnesses had given their evidence; he had seldom seen a gentleman who was one of the parties give his evidence more accurately or with greater dignity than Dr. Fowler had done in this suit. If the case of the respondent came before him later it would be a question for him to decide whether the Court would act on her confession, which in any case was not evidence against the co-respondent. It was absolutely necessary for members of a profession, who *ex necessitate* had to place themselves in positions where opportunity might arise of abusing the confidence placed in them, that they should be protected from false accusations. The tribunal before which such matters came should sift such charges with the greatest care, and see that they were adequately established, otherwise members of the medical profession would be at the mercy of their female patients. He was bound to suggest that the respondent was not a trustworthy witness. The President dealt minutely with the evidence, and the jury, without leaving the box, found that the co-respondent had not committed adultery with the respondent. The case as against Dr. Fowler was then dismissed with costs, and the judge said that Dr. Fowler had absolutely cleared himself, and left the court without a stain upon his character.

Dr. Fowler was, we are informed, a member of the London and Counties Medical Protection Society. He had therefore taken the precaution the need for which is perhaps the most important moral to be drawn by members of the medical profession from this case.

We have received an intimation from Drs. Henry C. Thompson and C. M. Fegen that a meeting of the medical profession of Croydon and district will be held at the Public Hall, George Street, Croydon, on Monday evening next at 8.30, to make arrangements to entertain Dr. Owen Fowler at a dinner to be held in about a month's time.

COMMUNICATIONS BETWEEN CONSULTANT AND GENERAL PRACTITIONER.

A CORRESPONDENT sends us long notes upon the question of whether a patient has the right to demand possession of a letter written by a consultant to his medical attendant upon his case? A patient A. goes at the suggestion of his medical attendant B. to consult C., who hands A. a prescription, and under another cover a letter for B. Both these are forwarded to B. by A. Later on A. demands them to be returned to him. B. sends the prescriptions, but A. demands the original letter, asserting that whatever confidence and privilege a medical man is entitled to he is only entitled to it in favour of and not against the patient. It is admitted that the letter contains nothing which A. might not see, but B. maintains that the letter was addressed to him personally, and that A. is not entitled to have it. A. has argued that as a client has a right to obtain the original opinion of counsel from his solicitor, so a patient has a right to have the original letter of the consultant.

*** In our opinion the analogy between counsel's opinion and the letter does not hold good; it does, however, hold good so far as the prescription and directions for diet or regimen are concerned, which are generally written upon separate paper. We cannot tell what the issue of legal proceedings on such a point might be, but we are inclined to think that the judge would regard the letter as being a communication from one medical man to another which should not be handed to the patient.

EXPERT EVIDENCE ON STATEMENT OF FACT.

MEDICUS writes: I have been subpoenaed to give evidence in a county court as follows:—To state if two children are or are not suffering from measles, and if a recent outbreak of fire in the house has or has not accelerated their complaint. Is this expert evidence or a mere statement as to fact; and am I compelled to give such evidence without being paid for it? May I ask two guineas, and need I be sworn before I am paid? Lastly, does my position as a surgeon in one of the public services affect my position as regards the fee?

*** (1) To state whether children are suffering from measles, and whether their complaint has been accelerated or not by an outbreak of fire, is to give a professional opinion; though not technically that of an expert, yet neither is it such a mere statement of fact as would deprive a medical witness of his right to a professional fee. (2) "Medicus" is not compelled to give evidence without being paid, but must make his objection before being sworn. (3) It will be useless for him to ask two guineas, since the county court scale does not allow more than one guinea for this class of evidence. (4) Our correspondent's position as surgeon in one of the public services does not affect the question of his fee.

THE PRIVILEGES OF PUBLIC VACCINATORS.

EPSOMIAN writes that he, being a public vaccinator, was asked to vaccinate a child suffering from eczema. He advised that the operation should be postponed, and accordingly the child was taken for treatment to a hospital. He went from time to time to hear how the child was, and finally learnt that it had been vaccinated by another practitioner, A., as the father was unwilling to wait any longer. He complains of the action of this practitioner, on the ground that the latter knew perfectly well that he had been visiting the child with a view to vaccination.

*** We do not think "Epsomian" can claim that his having been asked to vaccinate the child precluded the father from getting the operation done elsewhere, but he appears to have been treated with some want of courtesy. On the facts as stated he has no serious ground of complaint against A.; patients having a right to change their medical attendant, medical practitioners must have the right to treat cases which have been under the care of other practitioners; but here the child had not been under "Epsomian's" treatment. A. might have told the father to write to "Epsomian" and tell him that the child had been vaccinated.

TWINS.

A. R. I.—A maternity nurse cannot claim double fees in a case of twins. Doubtless if she is attentive her employers will recognize the extra trouble imposed upon her.

A MEDICAL SLANDER CASE.

THE plaintiff in the case Gamlen *v.* Hedley sends us a brief report from the *Newcastle Daily Chronicle*. It is satisfactory to see that the case was settled upon terms, the defendant agreeing to pay £50 damages and costs, and on his behalf it was stated that any opinion he had expressed was formed under a misunderstanding as to the facts of the case. We know nothing of the details of the case, but think it cannot be desirable to enter further into them.

INGRATITUDE.

MEMBER asks our opinion of a case in which a young man of limited means was assisted in his medical education by an uncle, whom he subsequently joined in practice as assistant, but owing to a falling-off in the receipts of the practice the uncle gave him notice to leave. The nephew then joined an opponent in practice, and tried to take as many as possible of his uncle's patients with him.

*** This is a case of which we think it likely there may be two sides, and we have only heard one of them. As stated it looks like ingratitude on the part of the nephew. Any employer when engaging an assistant should protect himself by a proper agreement.

FEES IN PUERPERAL CASE.

CABER FEIGH should charge his usual fee for each visit in excess of those usually paid after delivery, in addition to the confinement fee; and extra fees for the small operations referred to. For a patient in the position described our correspondent should charge his maximum fee; but what this should be we cannot tell without knowing the charges customary in the locality.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

QUEEN ALEXANDRA'S IMPERIAL MILITARY NURSING SERVICE.

THE Director-General of the Army Medical Service has intimated to general officers that it is considered desirable that matrons or acting matrons of Queen Alexandra's Imperial Military Nursing Service should keep a permanent record of all the sisters and staff nurses of the nursing service, and also of the Army Nursing Service Reserve members serving under them in each hospital.

VOLUNTEER.—An officer resigning after fifteen years' service may be permitted to retain his rank, or, under certain circumstances, to get a step in honorary rank, and to continue to wear his uniform after retirement.

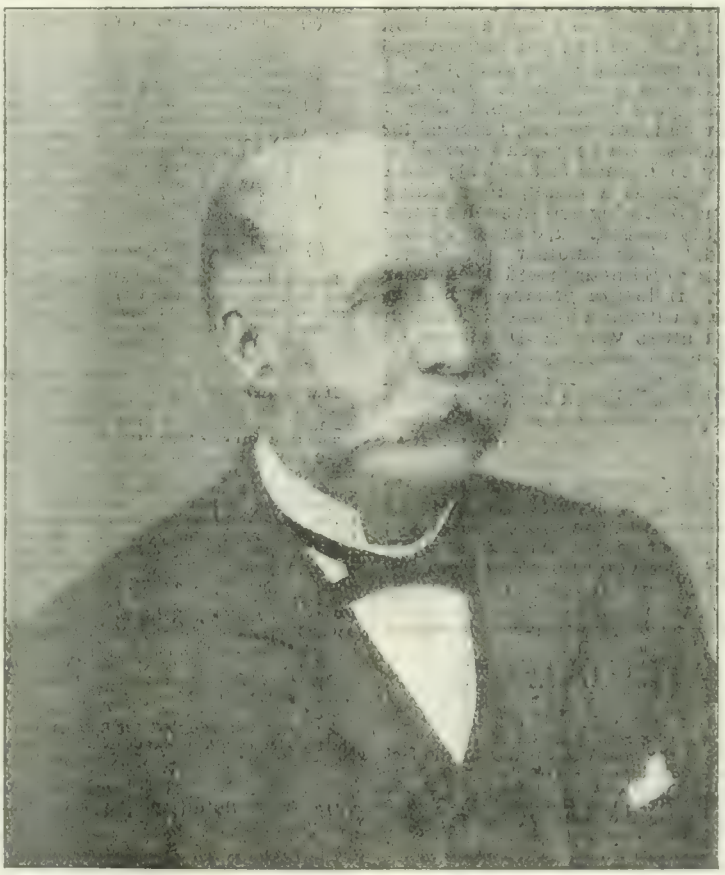
OBITUARY.

EDWARD ATKINSON, M.R.C.S., L.S.A.,

Consulting Surgeon, Leeds General Infirmary.

By the death of Edward Atkinson, on March 1st, at the ripe age of 75 years, the Leeds medical institutions have lost the last remaining link with the Hey family, which had been represented on the staff of the Leeds Infirmary in an unbroken line since the first William Hey commenced his term of service in 1776—a period of 129 years.

Although Mr. Atkinson had for several years lived quietly at his home in Franklin Road, Harrogate, he visited patients in Leeds up to a few months ago, and his youthful appearance and activity were the envy of many of his juniors. For the last three months he had been in failing health, and a severe internal haemorrhage, with haematemesis, a month ago rendered his condition perilous; he rallied for a period, but gradually sank. He was attended by Dr. Lever, of Harrogate, and was seen occasionally by his colleague, Mr. Edward Ward, of Leeds.



His mother was the daughter of the second William Hey. He was, therefore, the great grandson of William Hey, F.R.S., who died in 1819. When about 17 years of age Atkinson entered the merchant service, and went two voyages to India, and a third as Surgeon in the same ship after he had qualified. He had entered at King's College, where, after serving as house-pupil to the late Sir Wm. Bowman, and taking the M.R.C.S.Eng. in 1852, he became House-Surgeon.

When the Crimean war commenced, he went out as Civil Surgeon, and was attached to the Hospital at Scutari, where Miss Florence Nightingale had commenced her good work in nursing. Associated with him at that hospital were, amongst others, Mr. Christopher Heath, Mr. Hulke, the late Sir Spencer Wells, and Sir Geo. McLeod. In 1855 he was Assistant Surgeon to the British Civil Hospital at Smyrna.

After the war was over he went to Palestine, and resided for four years in Jerusalem, where he was Surgeon to the English Hospital and the Prussian Deaconesses Hospital.

In 1860 he returned to Leeds, and entered into an active partnership with his uncle, the third William Hey and his cousin Samuel Hey. He became Surgeon to the Leeds Public Dispensary in 1864, and held office until 1874, when he was elected Surgeon to the Infirmary. After serving his twenty years, he was made Consulting Surgeon—a position which he held up to the time of his death. He was the author of various contributions of a surgical nature to the medical journals. A love of natural history had been increased by his residence in the East. He was a Fellow of the Linnean Society, and published several papers upon zoological subjects. For many years he had been Honorary Curator of Zoology to the Leeds Literary and Philosophical Society, in which he took the deepest interest, and of which he was President in 1885-6. He was President of the Leeds and West Riding Medico-Chirurgical Society in 1877.

He also rendered service to the Leeds School of Medicine for twenty-four years, first as Lecturer on Anatomy and afterwards for some years on Botany. He also took part with Dr. Allbutt in a course of Comparative Anatomy. For twelve years he then lectured on Surgery, being associated with the late Mr. Jessop after the School was amalgamated with the Yorkshire College.

He was one of the pioneers of ambulance work in this country, and was the first medical instructor in "first aid" in Leeds. For thirty years he continued his philanthropic labours. He was an Honorary Associate of the Order of St. John of Jerusalem, and had a great reputation as an authority, and was the oldest examiner and teacher in the district.

He was a Vice-President of the Yorkshire Branch of the British Medical Association, and had served on the Council of the Branch since 1886, only resigning his seat last October. He was President of the Branch in 1896, and had been for years a regular attendant at its meetings.

His was an interesting personality. Having a genial and happy disposition with domestic tastes, kind and sympathetic, and with a keen sense of humour, he was in private one of the most lovable of men. He took interest in the pursuits of those much younger than himself, and, by his uniform courtesy, he endeared himself alike to friends and patients, and also to colleagues and pupils. He was an ardent Churchman, but never took much part in public affairs.

The interment took place in the churchyard at Silverdale in Lancashire, where lies one of his ten sons, who was drowned in the bay in 1872, and his governess, who was also drowned in attempting to rescue him. His remains were followed to the grave by Professor Birch, Dean of the Faculty of Medicine representing the University of Leeds; also by Dr. Hellier and Mr. T. Blair representing the Leeds Infirmary, and many others.

Mr. Atkinson celebrated his golden wedding a few years ago. He leaves a widow and eight sons, seven of whom are abroad in various parts of the world. His eldest son is Mr. Frank E. Atkinson, of Settle, Medical Officer of Health for the Craven and Sedbergh District.

Surgeon-Major General Thomas Walsh, retired pay, Army Medical Staff, died at Dublin on February 7th. He joined the department as Assistant Surgeon, May 25th, 1858; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; Brigade-Surgeon, July 16th, 1884; Surgeon-Colonel, October 28th, 1889; and Surgeon-Major-General, July 18th, 1894. He retired from the service, May 29th, 1898. He was in the Jowaki expedition in 1877-8 (mentioned in dispatches, medal with clasp); in the Afghan war in 1879-80, including the operations around Jugdulluck and the advance to the relief of Sherpore (mentioned in dispatches, medal with clasp); and in the Egyptian war of 1882, being present at the actions of Tel-el-Mahuta, Kassasin, September 9th, and Tel-el-Kebir (medal with clasp, and Khedive's bronze star).

CHARLES JAMES HARRIS, M.R.C.S., L.S.A., died on March 4th in his 83rd year. He entered as a student at the Middlesex Hospital when 35 years of age, and while obliged to earn his own living. He took the diplomas of M.R.C.S. and L.S.A. in 1865. Details as to his professional life are unknown to the writer; but long after he had retired from practice, and when aged 73, he became a vegetarian. Six years later, in a paper read before the Middlesex Hospital Medical Society, he could say, "Here am I, in my 79th year, not yet feeling old or stiff in the joints, and well in every respect, despite not having a tooth in my head. For nearly six years I have taken nothing in the shape of fish, flesh, or fowl; neither have I taken alcohol in any shape, nor have I used tobacco. In fact, I ingest nothing from the animal kingdom, and my drink is mostly water. Living thus, I desired to test my bodily condition; so last year, on July 11th, I started to ride to Edinburgh and back on my tricycle. I may remark that my tricycle weighed about 65 lb., and my body weight was 115 lb.; it is now 117 lb. This journey I accomplished with comfort and pleasure, riding about forty miles a day, and that, too, without losing weight. In July of the present year I thought I would like to see how far I could ride in the day without distressing myself, so I took a run from London to Bath. I started at 4 a.m. on July 9th, and covered over ninety miles in the day, reaching Calne at 10 p.m. I did not feel any signs of exhaustion or weariness. Four and a half hours' sleep found me quite refreshed, and after a breakfast of bread and butter and strawberries, I started for Bath, a distance of eighteen miles. On July 12th I started at 5 a.m. on my return journey to London (108 miles); and I reached London at 2 a.m., without a break, after riding through a storm of thunder and lightning and in such a pouring rain that I was thoroughly soaked. I cleaned up my tricycle before going to bed." Last summer Mr. Harris repeated his ride from London to Edinburgh and back under the same dietetic conditions. Influenza prostrated him on February 23rd, and adynamic pneumonia followed. Though medical friends and a trained nurse were in attendance, he chose to lie untended and undrugged, and almost unnourished, waiting with a great longing for death. He saw no human being for five hours before what is believed to have been the time of his departure. His body was cremated on Ash Wednesday. W. W. H.

BRIGADE-SURGEON ALEXANDER JOHNSTON, retired pay, late Army Medical Department, died at Ryde, I.W., on January 18th. He was appointed Assistant Surgeon, April 24th, 1865; Surgeon, March 1st, 1873; Surgeon-Major, November 23rd, 1874; and Honorary Brigade-Surgeon on retirement from the service, August 8th, 1883. He has no war record in the Army Lists.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Examinations for the Degree of Bachelor of Medicine.

ATTENTION is called by the Secretary of the Board of Faculty to the fact that the new regulations as to the production of certificates of instruction on entering names for these examinations will take effect at the next examination—namely, in Trinity Term, 1905, commencing on June 22nd. The necessary forms are supplied by the Secretary to the Boards of Faculties, Old Clarendon Building, Broad Street.

Degree Days.

The following are the degree days appointed for next term: Thursdays, May 4th, May 25th, June 22nd, June 29th, and Saturday, July 8th.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on February 22nd.

The London School of Tropical Medicine.

The London School of Tropical Medicine was admitted as a school of the University in the Faculty of Medicine in tropical medicine only.

Report of the Physiological Laboratory Committee for 1904.

The report stated that in addition to eleven courses delivered in 1902-3 six courses of eight lectures and one of five lectures had subsequently been given. Professor Halliburton's lectures delivered in the first quarter of 1903 at the Physiological Laboratory of the University, and at the Columbia University, New York, during January, 1904, had been published by Mr. John Murray by authorization of the Senate. Nine papers—seven by Dr. A. Waller, one of them in conjunction with Mr. Collingwood, and two by Mr. W. L. Symes, the outcome of work conducted in the laboratory—had been published.

Changes in the Regulations for Internal and External Students in the Faculty of Medicine.

The registrars reported that the deletion from the regulations in medicine for internal and external students of the section on the special examination in organic chemistry of January, 1905 (Calendar II 404-5 and III 21-22 of the medicine section), had involved certain consequential changes in the regulations relating to exemptions (Calendar II 388-91 and III 6-8 of the medicine section).

Appointments.

The name of Dr. C. S. Myers, M.A., was approved for inclusion in the panel of examiners in psychology and physiology.

UNIVERSITY OF LEEDS.

UNIVERSITY COURT.

A MEETING of the Court was held on March 8th, when certain ordinances were approved.

Degrees in Medicine and Surgery.

As regards medicine and surgery, it was decided that the degrees shall be Bachelor of Medicine and Bachelor of Surgery (M.B. and Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). Provision was made for the exemption from examinations and courses of study of students of the Yorkshire College or the Victoria University of Manchester, in order that students may be at no disadvantage in consequence of the changes which have recently taken place.

Ad Eundem Degrees.

The following recommendations of the Senate as to *ad eundem* degrees were adopted:

I. As to conferment of *ad eundem* degrees on students who have attended full courses of study at the Yorkshire College, and have graduated at various universities, but who have not been admitted to the College Associateship.

(*a*) That graduates of the Victoria University be offered the same degrees in the University of Leeds as those which they have received from the Victoria University.

(*b*) That graduates in medicine of other universities be admissible on application to the M.B. degree of the University of Leeds.

(*c*) That applications from other university graduates who have been students of the Yorkshire College be considered on their merits.

II. As to Associates of the Yorkshire College.

(*a*) That graduates of the Victoria University be offered the same degrees in the University of Leeds as those which they have received from the Victoria University.

(*b*) That graduates of other universities be offered the degree of Bachelor in the University in the Faculties in which they graduated elsewhere.

(*c*) That the question of the admission to degrees of Associates *honoris causâ* be deferred.

It was also decided that all persons admitted to degrees of the University of Leeds under the foregoing conditions be admissible as life members of Convocation; and also that no graduate so admitted to a degree be precluded from proceeding in the University of Leeds to a higher degree in his particular Faculty.

Honorary Degrees.

It was also decided to confer the honorary degree of M.Sc. upon members of the staff of the Leeds Infirmary who are also members of the Faculty of Medicine in the University.

The Council was authorized to grant to any professor of the University, or to any lecturer who is the head of any department in the University, a degree not higher than that of Master of the Faculty in which he has graduated, or, in the case of a professor or lecturer holding no degree, such degree, not higher than that of Master, as the Council may determine. The Council was also authorized, if it thought fit, to grant to any other officer of the University such degree, not higher than that of Master, as it might determine, but no such degree shall be conferred until a report thereon has been received from the Senate.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary Council was held on March 9th, Mr. John Tweedy, President, in the Chair.

Board of Examiners.

Mr. W. H. A. Jacobson and Mr. Bilton Pollard were admitted to the Court of Examiners.

Dental Surgery.

A report was adopted recommending that synopses be furnished indicating the range of examination in anatomy, physiology, and surgical pathology for candidates for the licence in Dental Surgery.

Bradshaw Lecturer.

Mr. H. T. Butlin was elected Bradshaw Lecturer for the ensuing collegiate year.

Presentation of Books.

The best thanks of the Council was given to the President for his presentation to the College Library of eight volumes of fifteenth-century books.

Sir Gilbert Blane's Medals.

These were awarded to Surgeon Sidney Thomas Reid, H.M.S. *Vestal*, 1901-2, and Surgeon Robert William Glennan Stewart, M.B., H.M. Ships *Latona* and *Thames*, 1903.

Central Midwives Board.

The best thanks of the Council were given to Mr. Ward Cousins for his services as the College Representative on the above. The following extracts from the report made by him will indicate its scope:—

The arrangements for the future training of pupil-midwives have received the careful attention of the Board. The following table indicates the number of the training schools recognized, and the number of teachers appointed by the Board up to the present time:

	Training Schools.	Teachers.
England	28	54
Wales	3	4
Scotland	4	1
Ireland	6	4
India	1	0
	39	65

The scheme of examinations prepared by the Board has recently received the approval of the Privy Council.

The examinations will be partly oral and partly written. The written examination will consist of six questions, and the time allowed for

answering them will be three hours. Fifteen minutes will be the average period for the oral examination of each candidate.

The examination will embrace the following subjects:

The elementary anatomy of the female pelvis and generative organs.
Pregnancy and its complications.
The symptoms, course, and management of natural labour.
The signs of abnormal labour.
Haemorrhage: Its varieties and the treatment.
Antiseptic midwifery.
Management of the puerperal patient.
Management of infants, and the signs of important diseases which may develop soon after birth.
Duties of the midwife.
Obstetric emergencies and how the midwife should deal with them before the arrival of the doctor.
Disinfection of person, clothing and appliances; house sanitation.
Puerperal fever: Its nature, causes, and symptoms.

Any candidate, who during the examination shows a want of acquaintance with the ordinary subjects of elementary education, may be rejected on this ground alone.

The examiners appointed by the Central Midwives Board will be men or women who are duly qualified practitioners. The examiners may, however, when they see fit, with the consent of the Board, employ for certain parts of the examination properly qualified women who are not medical practitioners.

The examinations will take place both in London and the Provinces three times a year, or oftener if necessary. They will be held simultaneously and on the same papers.

The first examination is fixed for June, 1905, and the first provincial centres will be Bristol, Manchester, and Newcastle-on-Tyne.

On the first day of April of the present year the provisions for existing midwives under the second section of the Midwives Act will expire; and, after that date, no woman will be entitled to use the name or description of midwife, implying that she is a person specially qualified to practise midwifery, unless she has obtained the certificate of the Central Midwives Board. Fifteen thousand four hundred and ninety women have already been entered on the First Midwives Roll; of this number seven thousand and forty-two have been admitted on certificates of training approved by the Board, and the remaining eight thousand four hundred and forty-eight have produced satisfactory evidence that before the passing of the Act they had been for at least one year in bona-fide practice as midwives. The majority of these women, it is no exaggeration to state, are both ignorant and incompetent, and, unfortunately, for some years at least they will continue to follow their calling among the poor classes of the population throughout the country.

The county councils and county borough councils throughout England and Wales are now actively engaged in carrying out the administration of the Act. They have appointed 127 local supervising authorities, and each authority is called upon to exercise general control and supervision over all the midwives practising within its area, and also to investigate charges of malpractice, negligence, and misconduct, and whenever a prima-facie case is established to report the same to the Central Midwives Board.

In conclusion, the opinion is steadily gaining ground that the introduction of educated midwives, controlled in their practice by well-defined duties and restrictions, will in a few years prove of inestimable benefit to the poor people of the land. Still it is already evident that the Midwives Act of 1902 is by no means a perfect piece of remedial legislation, and that experience may show the necessity of many modifications. In its present form there are difficulties which are scarcely fair to the medical profession, and the Central Midwives Board has recently drawn the attention of the Privy Council to the omission from the Act of any provision for the payment of medical fees.

Now it is the universal spirit of the profession to be ever ready to render immediate help in the hour of danger, and it is true that every medical man acknowledges a moral obligation to assist in every form of emergency. Still, as the law now stands, medical men will be summoned in every part of the country, and many practitioners will have to travel miles to aid midwives in cases of difficulty and danger. The fact is medical men everywhere will be practically responsible for the safety of the poor parturient women during the attendance of midwives practising under legal supervision, and therefore for the successful operation of the Act some amendment is necessary in order to provide a fair scale of remuneration for professional services.

Fellows' Subscription Dinner.

It was determined to have a Fellows' dinner at the College on the day of the Council election in July next.

TRINITY COLLEGE, DUBLIN.

HILARY TERM, 1905.

The following candidates were approved at the Hilary Term final examination in Medicine: Eva J. Jellett, W. J. Powell, C. R. M. Morris, R. Magill, W. Hassard, W. R. Galwey, W. F. Samuels, J. Murdoch, H. E. M'Cready, C. Scaife.

The following degrees and licences were conferred at the Spring Commencements:

M.D.—C. H. W. M'Cullagh, H. Stokes, G. S. Ross (*in absentia*)
M.B., B.Ch., B.A.O.—G. Hassard, R. Kelly, H. E. M'Cready, R. Magill.
L.M., L.Ch., L.A.O.—M. J. M'Auliffe, E. G. Scroope.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

The Royal Commission on the Care and Control of the Feeble-minded met again on March 13th, when evidence was given by the senior medical inspector for Poor-law purposes to the Local Government Board, Dr. A. H. Downes. He said that part of his work had been the formation of the Metropolitan Asylums District, and that he still paid special attention to it. Its Asylums Board was empowered to deal with imbeciles; it had taken into its care imbeciles and lunatics of the harmless class formerly treated in workhouses, and attempts had been made to provide completely separate accommodation for imbecile children and schools suitable for their education. More recently the Board had endeavoured to meet the needs of children who, though not of the certified class, were yet, by reason of defective intellect or physical infirmity, unfit to be trained in association with ordinary children; he did not think that any special arrangements had been made by it for epileptics or for those with physical defects. He considered that provision for the care of sane epileptics was greatly required, and that two authorities to deal with the same class of infirmity should certainly not be established. All classes should be admitted into one colony, guardians paying for the poor, and the rest for themselves.

Miss M. H. Mason, senior inspector of boarding-out to the Local Government Board, also gave evidence. Her experience was unfavourable to the boarding-out of children with mental or physical defects. Feeble-minded children attending special schools should live in homes under a qualified matron. There was a class of persons who were neither of normal intellect nor yet actually imbecile; when properly trained and supervised they were capable of keeping themselves, but they required constant protection throughout their lives. Individual unions should not attempt to set up homes and colonies: they should combine or the work be done by the County Council through a special Committee. On to the latter outside members should be co-opted and the membership of a certain number of women should be compulsory.

NEW YORK BUREAU OF HEALTH.

During December, 1904, the Division of Medical Inspection of the New York Department of Public Health and Charities made 8,353 inspections of houses and business places and ordered 889 fumigations. Sixty-two cases were referred for special diagnosis. There were 5,030 visits to schools and 1,253 children were excluded from school. Two hundred and eighty-five cultures were taken; 86 injections of antitoxin given; and 2,370 vaccinations performed. In the Division of Milk Inspection 163,977 quarts of milk were inspected; 1,891 quarts were condemned; 127 specimens were examined chemically, and 950 microscopically. In the Bacteriological Laboratory 1,340 examinations were made for diphtheria; 299 Widal examinations; 819 milk examinations; 102 examinations of sputum; and 1,990 bottles of antitoxin were supplied. In the chemical laboratory 210 analyses were made.

AERIAL TRANSMISSION OF SMALL-POX.

At a sessional meeting of the Royal Sanitary Institute, held at Newcastle-on-Tyne on March 4th, a paper was read by Dr. H. E. Armstrong on the question of the aërial dissemination of infection round small-pox hospitals. Dr. Louis Parkes presided. Dr. Armstrong's paper dealt in part with Dr. G. S. Buchanan's recent report to the Local Government Board on small-pox in Gateshead and Felling in relation to the Sheriff Hill Small pox Hospital. It will be remembered that that report concluded that the use of this hospital had been responsible, directly or indirectly, for a material part of the epidemic, and should no longer be used for the isolation of cases of small-pox. Dr. Armstrong discussed in particular the apparent absence of aërial transmission of small-pox in Newcastle in the epidemic of 1872-73, although the site and circumstances of the old Small-pox Hospital in Bath Lane—only 50 ft. distant from the densely-populated dwellings of Stowell Street—seemed to favour such dissemination, if such was, in point of fact, a channel of small-pox infection. In 1904 a group of cases at the east end of Newcastle notified between June 27th and July 16th did, on the contrary, seemed to indicate some such method of dissemination, and could be accounted for by the direction of the prevailing wind. Dr. Armstrong went on to discuss the possibility of flyborne infection being an explanation of infection often attributed to air. If it be established that small-pox is airborne, the question naturally arose at what distance from dwelling houses could a hospital safely be placed, and can airborne infection be destroyed by passing the outgoing air from wards through fire? A discussion followed, which appears to have been largely devoted to arguments for and against Dr. Buchanan's report on airborne dissemination.

PAYMENT OF MEDICAL MEN CALLED IN TO ASSIST MIDWIVES.

We are informed that at a meeting of nursing associations of the counties of Oxford, Gloucester, Worcester, and Warwick held on March 9th, the following memorial to the Local Government Board was adopted:

Your memorialists venture to ask your honourable Board that directions should be given whereby the district medical officers of the several unions shall be required to attend in cases of urgency on the requisition of a midwife whose name is on the Roll, and who, for the purpose of such requisition shall have the same power as an overseer, the medical officer being paid for his services by the guardians according to the scale provided (by the General Order (Consolidated) July 24th, 1847) in the case of orders given by a relieving officer; and that the case shall be forthwith reported by him to the relieving officer, who shall bring the matter before the Board of Guardians to determine whether or not it is a case in which the services of the medical officer should be treated as medical relief or (in the alternative) as a loan; the whole or some part of it in the latter case to be repaid, in such manner as the guardians shall see fit, by the husband whose wife has been attended.

READJUSTMENT OF POOR-LAW DISTRICTS.

W. W.—The change our correspondent proposes could not be made by the guardians without the consent of the Local Government Board. We do not think our correspondent would be well advised to make any attempt to procure an alteration of the boundaries of the medical districts of his union.

HOSPITAL AND DISPENSARY MANAGEMENT.

ROYAL DENTAL HOSPITAL OF LONDON.

Mr. J. Tweedy, President of the Royal College of Surgeons, presided on March 14th at the annual general meeting of Governors of the Royal Dental Hospital of London, held at the hospital, Leicester Square.

Mr. J. H. Hale, in moving the adoption of the annual report, pointed out that it recorded an increase in the number of cases treated, the total being 99,458, exceeding the number treated during 1903 by 1,628. Of these the anaesthetic cases alone numbered 41,908, being an increase of 6,309 over those of 1903.

The motion having been duly seconded, it was put to the meeting and carried unanimously.

Formal motions re-electing the Council and officers of the Hospital were duly carried.

Mr. TWEEDY congratulated the Hospital on the satisfactory character of the report. During the past year the number of cases treated in the hospital amounted to nearly 100,000, and the number of anaesthetic cases was nearly 42,000. The saving of pain suggested by those figures could not be calculated, and the figures further implied that the surgeons were able to do their work with thoroughness and efficiency. It was gratifying to know that the anaesthetics were administered with perfect safety, for not a single life was jeopardized. That was an unequivocal testimony to the care and skill of those who were entrusted with the administration of the anaesthetic. Mr. Tweedy praised the special provision made at the hospital for the care and treatment of the teeth of children. It would, he said, be impossible to over-estimate the value and importance of that department. Institutions like the Royal Dental Hospital did national service by impressing upon the community the necessity of bestowing attention on the care of the mouth and the teeth. Mr. Tweedy also showed how the benefits of the hospital were indefinitely multiplied by the school attached, whereby the benefits of the institution ultimately reached the whole community. Mr. Tweedy concluded by eulogizing the work of Mr. Morton Smale, who resigned the office of Dean of the Dental School.

Mr. MORTON SMALE, in moving a vote of thanks to Mr. Tweedy for presiding, gave a brief history of the services rendered to dentists by the Royal College of Surgeons.

After Mr. TWEEDY had briefly acknowledged the vote of thanks the company separated to inspect the hospital.

THE AUCKLAND (N.Z.) HOSPITAL.

IT has unfortunately been demonstrated sufficiently often both at home and abroad that when friction occurs between the Committee of Management and the honorary medical staff of a hospital the efficiency of the institution suffers. In matters directly affecting the professional management of the patients the medical staff is more likely to know what is most advantageous than a committee of laymen, and it is undoubtedly to the interest of the members of the staff that the hospital with which they are associated should be thoroughly efficient. It is, therefore, not surprising to find that the action of the Hospital and Charitable Aid Board in disregarding the recommendations of the honorary medical staff of the Auckland Hospital in regard to the purely professional working of the institution has led to serious irregularities necessitating a public inquiry.

From the *New Zealand Graphic* of December 19th, 1904, we learn that the Cabinet has had under consideration the report of the Royal Commission appointed to inquire into the matter. It appears from this report that in 1901, owing to a certain newspaper agitation, the Board, rejecting the proposals of the honorary medical staff, altered the arrangements previously in force with the intention "apparently to curtail as much as possible the work and responsibility of the honorary medical staff and to place the senior medical officer in a position unique in the history of any city hospital in the colony. The effect of this has been to create friction between the honorary medical staff on the one hand and the Board and senior medical officer on the other; has caused the resignation of many of the ablest men on the honorary staff; and has prevented others from applying for a position which is usually eagerly sought after by the first men in the profession" . . . "The Board by Rule 37 constituted the senior medical officer the medium of communication between the staff and the Board, and . . . gave him the privilege of attending meetings of the honorary staff, whilst the senior medical officer, by insidious methods, such as calling the staff to useless consultations and minor operations, and appropriating to himself many of the major operations on the plea of emergency, sought to make himself, and not the honorary staff supreme in matters medical and surgical." The result of this was that patients suffered from want of proper attention and from improper treatment which might have been avoided if the honorary staff had been consulted. The Commissioners condemn the action of the Board and describe the reasons put forward to justify it as being of the "flimsiest character." The report concludes with certain suggestions, including a recommendation that the Board should be relieved of the duty of managing the hospital which should be created "a separate institution in accordance with Sections 42 and 43 of the Hospitals and Charitable Institutions Act, 1885."

There is a sentence in the report which, coming with the force of the authority of the Commissioners, may be recommended to the consideration of all committees of management of medical and surgical institutions, for it enunciates an important principle by which such bodies should be guided. The Commissioners say, "It is recognized as sound hospital practice that the authority of the honorary staff should be supreme in medical and surgical as distinguished from administrative matters." To most of us this is a self-evident proposition, but the Auckland Hospital is not the only one which has had its usefulness curtailed owing to the want of appreciation by the Committee of Management of this elementary principle.

GENERAL HOSPITALS IN LONDON.

A CONFERENCE of representatives from the principal general hospitals in the metropolis was held at the offices of the King Edward's Hospital Fund for London on February 2nd; those present were: Lord Cheylesmore, Sir Trevor Lawrence, the Hon. Sydney Holland, Sir Cooper Perry, Mr. C. Awdry, Mr. H. Cosmo Bonsor, Mr. W. H. Cross, Mr. H. A. Harben, Mr. Henry Lucas, Mr. G. Q. Roberts, and Mr. A. W. West. The plan of the statistical report on hospital expenditure to be issued this year by the fund was fully considered, and a number of suggestions made, with a view to increasing its usefulness. The proceedings were private.

BEQUESTS TO MEDICAL CHARITIES.—The late Mr. John Gulston of Coventry, whose will has now been proved, left £1,000 to the Coventry and Warwickshire Hospital and £500 to the Coventry Nursing Institution. The Hereford General Hospital receives the sum of £200 under the will of Alderman Thomas Llanwarne of the same town, who died on January 1st. The Westminster General Dispensary, Gerrard Street, Soho, has been left £200 free of legacy duty by the late Miss C. Squire, of Gloucester Terrace, Hyde Park, W.

INDIA AND THE COLONIES.

INDIA.

Veterinary Pathology in India.

DR. ALFRED LINGARD, Imperial Bacteriologist, states in his annual report for the year 1903-4[1] that there has been a very large increase in the output of rinderpest serum from his laboratory at Muktesar. The total number of doses prepared during the year was 122,061, and the demand was greater by 27,007 doses than that of the previous year. We gather from the report that the use of this serum has given satisfaction. As an instance of its success we may refer to its employment amongst the commissariat bullocks engaged in the Sikkim-Thibet expedition. At the end of January, 1904, rinderpest had broken out amongst some of these animals; the inspecting veterinary officer was supplied with antirinderpest serum, and found it so efficacious that on March 12th he wrote, "The serum you supplied has given the greatest satisfaction, and I am glad to state that we are free from rinderpest." Anti-anthrax serum is also being prepared on a large scale. The demand for it is increasing, and the results obtained from its use appear to be beneficial. In addition to his administrative work Dr. Lingard is engaged upon an extensive scheme of research. He has been continuing his experiments on the liability of various breeds of cattle to rinderpest, and has also been engaged in investigating surra in camels, dourine in horses, and pyroplasmosis in various species of animals, including man. As an indication that scientific work is receiving official appreciation, we are glad to note that the Government of India express through their Secretary the opinion that "the Imperial Bacteriologist and his staff have done a good year's work," and consider that "the usefulness of the laboratory is rapidly increasing."

NEW SOUTH WALES.

LUNACY IN 1903.

ACCORDING to the annual report for the year 1903 of the Inspector-General of the Insane for New South Wales, Dr. Eric Sinclair, the number of patients under official cognizance on December 31st, 1902, was 4,687, and on December 31st, 1903, was 4,950, showing an increase of 263. This number is much above the average annual increase, which for the previous twenty years works out at 127. The proportion of insane to general population in New South Wales is now 1 to 289, which is practically the same ratio as that of England and Wales. Of these, 4,950 there were in hospitals for the insane 4,688, 54 in licensed houses, 194 were absent on leave under the provisions of the Lunacy Act, and 14 in hospitals for insane in South Australia.

Admissions.

There were 1,065 admissions during the year, 881 of whom had been admitted for the first time. This is the largest number of admissions as yet recorded, and is an increase of 118 on the admissions of the previous year. Dr. Sinclair gives a table showing the numbers of cases of "occurring insanity" and their proportion to the population, which goes back to 1884. This shows that there has been a fairly steady increase of these cases—and in all statistics as to the growth of insanity it is the incidence of fresh cases of insanity which is of diagnostic importance—both absolutely and relatively to the population during this period. This increase has been most marked since 1899, since which time the proportion of these cases to population has increased from 1 in 1,704 to 1 in 1,344. Dr. Sinclair attributes this in part to the trying period through which the country has passed of late, owing to drought and financial depression, but it may be conjectured that other factors, such as the fall in the numbers of young and robust immigrants into the country, have also played their part in causing this remarkable and rapid increase. Of the total admissions, natives of Australia formed 61 per cent., and England contributed 18, Ireland 9.25, Scotland 4.75, and other countries 7 per cent.

Accommodation.

Notwithstanding the greatly increased number of patients and the consequent need for additional accommodation, to which attention has been called for several years past, no provision has been made for the surplus patients who, at the end of 1903, numbered 194. The Inspector-General very properly points out the serious ill-effects of this overcrowding, and it is to be hoped that his recommendations will shortly be carried out.

[1] Calcutta: Government Central Printing Office. 1904.

Forms of Mental Disorder.

Of the 1,065 admissions 508 were cases of mania of all kinds, and of these no less than 160 were classed as cases of acute mania. There were 316 cases of melancholia, 75 were cases of dementia, and there were 45 general paralytics. There were also 80 cases of congenital or infantile mental deficiency, and 41 cases of epileptic insanity. This table also contains a valuable column, which might with advantage be included in our English reports, showing the forms of mental disorder in the total asylum population. From this it appears that, of the 4,935 inmates of the New South Wales asylums, only 91 were general paralytics, that is, in the low proportion of 1.84 per cent. Another point of interest is the comparatively small number of dements (670), who formed only 13.5 of the total asylum population.

Causes of Insanity.

Excluding "previous attacks," which were assigned in 187 cases, and leaving out of count the 246 cases in which no specific cause could be assigned, alcohol appears to have been the most frequent single cause of insanity amongst the admissions, having been recorded either as predisposing or exciting cause in 106 cases. This is, however, only 9.9 per cent. of the total admissions, and compares favourably with the proportion for England and Wales (22.6 per cent. for males, 9.5 per cent. for females). Venereal disease appears as cause in only 23. Moral causes were assigned in 191 cases, periodic causes (puberty, the menopause, and old age) in 102, privation and overwork in 71, phthisis in 46, and the remainder are distributed over the usually cited somatic illnesses. Hereditary influences were ascertained in 76 and congenital defect in 75.

Recoveries, Discharges, Deaths.

The number discharged as recovered was 379, giving a recovery rate on admissions of 35.58 per cent. This recovery-rate is the lowest recorded since 1876, but it includes the figures from the Hospital for Imbeciles at Newcastle, excluding which the rate would be 37.08 per cent. There were 65 discharged as improved, 356 were discharged on probation or granted leave of absence to the care of friends, and there were 351 deaths, giving a percentage death-rate on the average daily numbers resident of 7.57

Causes of Death.

The most noticeable cause of death was general paralysis, to which were due 65. Other forms of cerebro-spinal disease caused 84 deaths. There were 36 deaths from pneumonia, pleurisy, and bronchitis, and only 44 from phthisis pulmonalis, giving the satisfactorily low proportion of deaths from tuberculous disease of 12.2 per cent. of the total deaths. There were 39 deaths from old age, and the remainder do not call for particular comment.

Accidents.

There were 19 major accidents during the year, of which 1 ended fatally, and 2 cases of suicide. Considering the overcrowding which was present during the year, the high recovery-rate, low death-rate, and small number of accidents are extremely creditable, and must be matters of congratulation to the staffs of the various New South Wales asylums.

Reception House for Insane, Darlinghurst.

The statistics which we have analysed above do not include those of the Reception House, as the patients there are only admitted for temporary care and treatment on their way to the hospitals. There were 927 admitted during the year, and 6 remained from 1902, making a total of 933 under treatment during the year. The patients were composed of two classes —those under certificates of insanity and those under remand under Section VII of the Lunacy Act of 1898. The Superintendent reports that 26 were admitted twice during the year, and 36 had previously been inmates. The majority of these recurrent cases were suffering from temporary insanity due to drink. The institution appears to have done good and useful work. The number discharged as recovered was 262, and there were only 2 deaths.

NATAL.

Report on Plague.

The first part of the *Report on Plague in Natal, 1902-3*,[1] by Dr. Ernest Hill, Health Officer of Natal, is devoted to the general consideration of plague, especially as the disease affected the town of Durban. Although Durban is assigned the premier place in South Africa as regards the perfection of its sanitary equipment, in the opinion of Dr. P. Murison, the medical officer of health for the town, it has benefited very much in sanitary matters by the incidence of plague; in other words, he means that several of the insanitary blots existing in Durban have been removed when occasion demanded a closer inspection. Moreover, the Indian and native quarters are grossly overcrowded, and the coloured servants' quarters in private dwellings are in a similar plight. The first case of plague occurred in Durban on December 4th, 1902, but infected rats had been discovered on the previous day. The last case of plague in the same town was seen on August 15th, 1903. During this period 221 persons were attacked by plague in Natal, of which number 20 were Europeans, 94 were Indians, 101 natives, and 6 other coloured races. Of the 221 persons attacked by plague 104 died. Dr. Hill, from his observations, which are set forth in his report in the form of tables, concludes that

> there would appear no reason to question that the most important agency in the dissemination of plague was the rat. . . . Of infection of domestic animals there is no particle of evidence.

The fact that plague failed to infect the domestic animals in South Africa generally no doubt affords an explanation of the disappearance of the disease from almost every town and area in which it has ever prevailed. In the extermination of rats Danysz's "rat virus" did not prove efficient, and reliance was placed upon gangs of Europeans continuously employed in the destruction of vermin. An experiment on the limitation of plague when it first appears amongst rats was tried in Maritzburg. In a granary of a brewery in the town rat plague appeared; the granary and adjoining premises were fenced round by corrugated iron. Everything within the enclosed area was turned over, the bags sprayed with formalin solution, the floors disinfected, and all vermin destroyed. The result was eminently satisfactory, and the outbreak of plague was arrested. Another experiment to test the length of time plague germs lived in grain and remained infective was undertaken. Into a granary with stored grain in which plague rats lived and died, healthy rats were introduced one month after the death of the last plague rat; the newly-introduced rats caught plague and died. When, however, healthy rats were introduced into the same premises after two months from the death of the last plague-infected rat they were not attacked by plague. It would appear, therefore, that the plague bacillus when separated from a living host undergoes a rapidly progressive loss of virulence during the fourth to the eighth week. Prophylactic inoculation was not employed in Natal. The second part of this report is devoted to an account of bacteriological and experimental work undertaken by the Government bacteriologist, Mr. H. Watkins-Pitchford, F.R.C.V.S., assisted by Dr. Haydon. Some of the more interesting observations recorded are:

1. The bacillus pestis grows vigorously at a range of temperature so wide as that existing between 15° C. and 40° C., showing the ease with which the organism can adapt itself to the varying seasonal temperature.

2. Growth of the bacillus seems to be almost inhibited in carbonic dioxide.

3. After fifty days' culture in bouillon, with 2.5 per cent. sodium chloride, the plague organism is incapable of further growth when retransplanted upon other media.

4. The same observation held true after a lapse of seventy-five days for glucose agar and glucose bouillon.

5. After one hundred days, however, the cultures on glycerine agar, ox serum, salt agar, glycerine bouillon, and plain bouillon proved fatal to guinea-pigs.

6. An animal may retain plague bacilli alive within its tissues and not manifest signs of the disease. This was proved by an experiment in which an inoculated rat showed no signs of illness, but when, after twenty-three days subsequent to inoculation, the rat was killed, a drop of pus was found in a gland of the groin, and in the pus a few plague organisms; cultures therefrom proved virulent for guinea-pigs.

7. The liability to confuse the bacillus pestis with such germs as those of chicken cholera, rabbit septicaemia, swine plague, pneumopleurisy of calves, etc., is insisted upon by Mr. Watkins-Pitchford. He holds that the microscope alone is incapable of distinguishing between these bacilli, and that it is only by bacteriological investigations and by testing the virulence and behaviour of the bacillus experimentally in animals that a definite and conclusive diagnosis can be made.

This report on the plague in Natal for 1902-3 is not only a valuable record of the outbreak, but a contribution to plague literature of high scientific value.

[1] *Report on the Plague in Natal, 1902-3.* By Ernest Hill, M.R.C.S., L.R.C.P., D.P.H., Health Officer for the Colony. London: Cassell and Co. 1904. (Demy 8vo, pp. 192, with map, charts, and photomicrographs.)

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

OTTO.—The chief constituent of aloes is aloin, of which a percentage of about five parts can be obtained from the crude drug. It appears to be the only active constituent, and, as far as we are aware, the precise composition of the rest has never been determined. There are three varieties of aloin named barbaloin, socaloin (or barbaloin B), and nataloin, derived respectively from Barbados aloes, Socotra aloes, and Cape aloes. The two former are usually in the form of yellow, sulphur-like crystals. They both yield on oxidation chrysammic, aloetic, and picric acids. The former has the formula $C_{16}H_{10}O_7$ with about three molecules of water of crystallization. They are both purgative. Nataloin yields on oxidation no chrysammic acid, and has no action on man except after prolonged use of an exclusively meat diet.

AUTOMOBILES FOR MEDICAL MEN.

URBS, who is a practitioner in a city where the roads are macadamized, provided with square setts or with round cobble stones, would feel obliged for answers to the following queries: (1) Would it be advisable to purchase for the conditions of this practice any of the secondhand cars advertised in the motor papers? and, if so, are the consulting experts whom one would fee for advice on any particular machine as a rule reliable? (2) Or would it be preferable to purchase a new car—say Minerva or Rover—the price of which does not exceed £120? In the case of these light cars, would some form of solid tyres suffice on the driving wheels? It seems to inquirer that, while the ordinary two-seated double-cylinder car—of which there are many good ones with prices averaging £190—would be required for country practices or for touring, it should be possible to find a runabout car able to meet the demands of a city practice, where there are few hills, and no opportunities and no need for a higher speed-rate than that of a bicycle, at a sum much nearer £100 than £200. It is unfortunate that these cheap light cars have no reliability records.

ANSWERS.

ANAE.—Small-pox is certainly infectious from the very commencement of the disease, though it is not so infectious during the initial as during the eruptive stage.

P. P.—We know of no collective work on the subject, though many descriptions of health resorts, both in this country and abroad, contain analyses or other notices on the drinking water.

EXAMINATION FOR F.F.P.S.GLASG.

G. E. P.—For the examination in medicine for the Fellowship of the Faculty of Physicians and Surgeons of Glasgow, the candidate has to profess medicine, including clinical medicine, medical pathology, and therapeutics, and one of a number of optional subjects. For the former subjects suitable books of study might be Frederick Taylor's *Manual of the Practice of Medicine*, seventh edition (London: J. and A. Churchill. 1904. 15s.); or Osler's *Principles and Practice of Medicine*, fourth edition (London: Young J. Pentland. 1901. 18s.); while a special book can easily be selected for whichever of the optional subjects is chosen.

THE GERMAN INSURANCE SYSTEM AND SANATORIUMS.

J. E. N.: (1) A short account of the German system of workmen's insurance was written by Dr. Parkes Weber in the BRITISH MEDICAL JOURNAL for February 13th, 1897, page 388. An official pamphlet written in English and entitled *The Results of the Workmen's Insurance of the German Empire*, was compiled for the Paris International Exhibition of 1900 by G. A. Klein, and published by A. Asher and Co., Berlin, 1900. See especially An Account of the Methods of Combating Consumption with the Aid of the Compulsory Workmen's Insurance in Germany, BRITISH MEDICAL JOURNAL, August 24th, 1901, page 493. (2 and 3) A good deal of information regarding the results of the sanatorium treatment of pulmonary tuberculosis in Germany, and some in other countries, has been published—for example, The Hanseatic Insurance Statistics, Dr. Weicker's statistics of the popular (insurance) cases at Goerbersdorf, and Dr. Trudeau and especially Laurason Brown's statistics in the Adirondacks. Notices of some of these have appeared from time to time in the pages of the JOURNAL—namely, February 2nd, 1901 (on Dr. Weicker's report); July 13th, 1901 (on the Hause insurance results); EPITOME, 160, September 13th, 1902 (Dr. Reiche on the ultimate results of the sanatorium treatment of consumptives of the working classes); August 24th, 1901, page 484 (on Herr Bielefeldt's paper). See also later publications by Dr Weicker (in German), and a paper on results obtained by Dr. Meissen (*Zeitschr f. Tuberkulose*, 1903, vol. iv, pages 115-142). See also Laurason Brown's Analysis of fifteen hundred cases of tuberculosis discharged from the Adirondack Cottage Sanatorium two to eighteen years ago, *Jour. American Medical Association*, November 21st, 1903.

PRACTICE IN CANADA.

A. E. J.—As a medical graduate of a British University our correspondent would have no difficulty in obtaining legal authority to practise in Montreal upon production of proof of his identity with the person upon whom the degree inferred was bestowed and of evidence that he is entitled to registration in the United Kingdom. No examination would be imposed. Whether he would prove a financially successful practitioner is another question. Being, however, in good health, at the best period of life, and with an unusual fund of experience behind him, his prospects ought to be good. Montreal, however, like most other great educational centres, is well stocked with medical men, and it is not to be forgotten by A. E. J. that many of his competitors would have the advantage of the support of friends and relations. This, however, would appear to be but a small matter provided that A. E. J. has sufficient capital to enable him to feel his way slowly, that he is not handicapped by a considerable family, and that he feels bold enough to give up what appears to be a position of considerable and assured success in order to make a completely new start in a country of which he at present has no personal knowledge.

LETTERS, NOTES, Etc.

BETA writes: The widow of a medical man, aged 70, suffering from some paresis of the right arm, has only an annuity of £20 from some medical benevolent fund to live upon. Hitherto she has received some help from relatives, but this has now unavoidably ceased. Can any reader tell me of a home or institution that could afford a little further help?

MEDICAL MASONS: EPSOM COLLEGE.

DR. THOMAS DUTTON (Manchester Square, W.) writes: May I ask medical Masons and old Epsom boys to support the candidature of Royale Sherborne Dutton, aged 11, for the May election, his first and only chance? Son of the late E.G. Dutton, M.R.C.S.Eng., L.S.A., Lond., first M.B. University of Durham, member of the British Medical Association (twenty-two years), P.M. of the Dundas Lodge, 1255 (Plymouth), Life Governor of the Masonic Charity (the lad is too old for the Masonic boy's school), an old Epsom boy, and a Guyite, who died of pneumonia, after a few days' illness, at the early age of 49 years. I shall be glad to receive votes for the poor widow.

MR. GEORGE BATE (Lipson Road, Plymouth) writes: Would any member exchange votes in the coming election of foundation boy in Royal Epsom School for seven Masonic votes?

A SURGEON'S WIDOW.

SOME of our readers may possibly be able, and willing, to assist the candidature for the United Kingdom Beneficent Association of Mrs. Margaret M. Nichols. She is the widow of a Dublin surgeon who died in 1883, leaving her without means. Owing to the closing of a governesses' institution of which she was superintendent, she has now lost her sole source of income. During the time that she held this post, she devoted the salary to the support of those dependent on her—namely, her mother, an elder sister, and her own three daughters, of whom only one is strong enough for steady employment. Obviously, at Mrs. Nichol's age it must be difficult for her to find fresh work for herself.

AN OLD EPSOMIAN REGISTER.

MR. PERCIVAL TURNER (4, Adam Street, Adelphi, London, W.C.) writes: May I, through your columns, make known to Old Epsomians generally (a very large percentage of whom enter the medical profession) that the Epsomian Club, in conjunction with the present Head Master, Dr. Hart Smith-Pearse, are arranging to commemorate the jubilee year of the school (1905) by publishing a register of Old Boys and their various professions and distinctions, etc., together with a brief sketch of the history of the College since 1855, and other items of interest? Some dozen or so of us have undertaken the task of collecting the necessary statistics, and circulars have been sent to all whose addresses we can find. There are many hundreds of Old Boys, especially those who joined the College in its earlier years, whom we cannot trace, and therefore I venture to ask, through your columns, any Old Epsomians who have not received any intimation or who know the addresses of any old schoolfellows, especially those who have not entered the medical profession, to be kind enough to send me a postcard so that we may get into communication with them.

THE CALCULATION OF THE DATE OF DELIVERY IN PREGNANCY.

DR. W. J. CAIE (Bury St. Edmunds) writes: Dr. Henry's memorandum in the BRITISH MEDICAL JOURNAL of March 11th fails to convince me of the infallibility of Naegeli's method of calculation. In that letter he says that in five out of twelve months the duration of pregnancy is 281 to 283 days, while in the other seven months it is 280 days. I am afraid I do not catch his meaning, for it seems to me that the actual duration of pregnancy must be the same, in whatever month it start; the calculation, of course, varies with the month. Dr. Henry further states that Naegeli gives 280.75 days as the average duration, which alone is 2.45 days more than the average, which I give. Quite so. It is just here where I think Naegeli's method does not bear the test; his average is too much. As regards my suggested deduction of two days from the seven which Naegeli adds on, Dr. Henry argues that this would only "alter the centre of gravity," and, further, that this would make labour occur in Class A 1.4 days before the expected date, and in Class B 3.8 days after, but I would beg to point out that my Class A comprises 53.7 per cent. of all labours, while Class B comprises merely 24.5 per cent., so that a very large preponderance is in favour of those which occur before, and therefore by adding fewer days, over 50 per cent. of my cases would work out almost correctly.

ANGINA OR ANGELINA?

"THE trouble with you," said the doctor after examining the young man, "seems to be that something is the matter with your heart."

"With my heart?"

"Yes. To give it a name, it is angina pectoris."

"You'll have to guess again, doctor," said the patient. "That isn't her name at all."

An Address

ON

AFFECTIONS OF SOME JOINTS AS MET WITH IN GENERAL PRACTICE.

Given before the Kensington Division of the Metropolitan Counties Branch.

By EDMUND OWEN, F.R.C.S.,

Consulting Surgeon, St. Mary's Hospital, and Hospital for Sick Children Great Ormond Street, London.

The first difficulty in connexion with the preparation of an address for a meeting of a society such as this is the choice of the subject. In my case, however, this difficulty was removed before it existed by the title being fixed by your Chairman, Mr. George Eastes, and in doing this he has relieved me of much anxiety and responsibility. I confess that I should have hesitated to suggest such a subject as "Affections of some joints as met with in general practice"—Have not the last words been said upon it? Is it not commonplace, worn, and threadbare? And could I hope to bring it before you in a manner worthy of your reception? *Difficile est proprie communia dicere.*

In a paper such as this it is out of the question that one can deal with every kind of joint disease: I shall, therefore, leave out all mention of such chronic affections as osteo-arthritis and others which are due to disorder of the nerves. And I shall also pass by without further reference that quiet syphilitic affection of the knees in children which is so apt to be mistaken for tuberculous disease. This last, indeed, is a fit subject for a paper to itself.

Upon the important subject of disease of the hip-joint I shall say nothing. And in this I feel sure that you will deem me wise as well as thoughtful—wise, because if I once began it I should be apt to wander on until I was at last left with scarce a listener: thoughtful, because I thus show that I have some regard for your Chairman, who alone might feel himself bound to hear me out, politely sacrificing himself upon the altar of his Division. Hip disease, however, differs in no way in its pathology from other forms of tuberculous arthritis, though a want of thoroughness and promptitude in its treatment is apt to cause it, or, at least, to allow it to run an unchecked, a tedious, and a very unhappy course.

I shall venture to begin with a remark which will almost certainly arouse your attention; and it will probably also stimulate you to answer me back in the discussion which will follow. The statement is this, that if there is one branch of his practice in which the family doctor falls a little short—and, mind you, I say *if*—it is in the early recognition and prompt treatment of diseases of joints. And unless a joint disease is recognized quite early, and dealt with at once and thoroughly, there is something more to be regretted than a mere loss of time. Pathological changes do not wait for the diagnosis to be made; they hurry along whilst the surgeon is hesitating, and the stern chase is apt to become a very long chase. May I delicately hint that the general practitioner is sometimes apt to be just a little casual in his dealings with a case of early joint disease? His attention is probably first directed to it merely by accident, as it were, or in an off-hand sort of way. Is it not often thus:—"Oh, Doctor, now that you are here, I wish that you would look at Johnny; he says that his knee hurts him"? The parents evidently do not regard it as at all serious, but the doctor should not allow himself to adopt their view. Johnny does not want to run the risk of having his liberty and his pleasures lessened, and the doctor, on his part, does not want to make a needless fuss about what may be, after all, a very slight affair. So, at the end of a somewhat cursory examination of the knee (which has been made bare by the boy letting down his stocking and pulling up the leg of his knickerbocker) the doctor is apt to content himself with saying that he does not find much wrong, but that the boy is "not to run about"—which is so vague a bit of advice that it attracts no notice and serves no purpose. Next week the mother says, "Johnny's knee is not right yet,"—as if four or five days of, perhaps, a little less vigorous running about ought to have cured it. Once more the knee is made bare, and again there is not much to be seen amiss with it, though perhaps there may be a slight local swelling, for which clearly something must now be done.

And here I come to a very delicate matter. As a clinical historian I feel in duty bound to say exactly what is done, and yet I scarcely like to do so. But if in a mean and cowardly way I shirk this responsibility, I may fail to make good the gentle accusation with which I started. Well, here it is: The knee is painted with tincture of iodine! I am not suggesting that this would be done by any member of the Kensington Division of our Association, but I can assure you that the painting of the skin over a chronic affection of a joint, or a gland, is almost the routine treatment in other parts of what is known as the Metropolitan Area. When the white surface is marked by the deep yellow stain people see and know that "something" is being done, and that the case is not being allowed to drift on uncared-for. But the doctor might, as a great divine said on a different occasion, just as well have stroked the dome of St. Paul's to please the Dean and Chapter.

As regards outward applications, two of the greatest impostors in our pharmacopoeia have been the tinctures of arnica and iodine. The former, however, has slowly been stripped of nearly every shred of its ill-earned reputation, and now has scarcely a friend to say a good word for it; but the tincture of iodine has still, as I well know, a host of admirers.

Diagnosis.

If there is anything wrong with a joint, a thorough examination must be made, and this cannot be done, if it is the knee, for instance, by a boy merely letting down his stocking and pulling up his trouser-leg. He ought to be asked to take off boots, stockings, and trousers, so that the two knees could be looked at, and duly compared, at the same time.

One of the most interesting signs of joint-disease is the wasting of the muscles which control the movements of the joint, and this wasting begins to come on quite early. It is not caused simply by a want of use of the limb, though that, no doubt, has something to do with it. It is due to the fact that Nature arranges on her own part, and without any help from the surgeon, to obtain needful rest for the joint by taking all the energy out of the muscles; and this she does by cutting off a good deal of their supply of food. In other words, she tames them by starving them.

The nutrient supply of the muscles, the bones, and the joints is under the care of fibres (the trophic nerves) which come out from the cells in the anterior horn of the grey matter in the spinal cord, and they run in company with the fibres which take to the muscles the power of movement. When a joint is in trouble a message is sent up from it to the grey matter in the cord to the effect that all is not going on as it ought to go, that things are not working smoothly, and that the movements are giving rise to pain. All that Nature can do is to decrease the vigour of the muscles by putting them on lenten fare. And so the limb wastes. This is well seen in the poor condition of the muscles of the shoulder-blade and of the arm when the neighbouring joint is inflamed, and still better in the smallness of the thigh when the hip-joint or the knee is in trouble.

Wasting of the limb is an early and valuable sign of joint-disease, but it can be seen and apprized only when the two sides of the body are clearly brought into view at the same time. Whatever be the joint in trouble, the surgeon must have the boy stripped naked before he begins to examine him. And he ought to take a good general look before he begins to examine the part about which he hears complaints.

In the case of a fat child it may be impossible to be quite sure that there is any wasting of the muscles by merely casting the eye over the two limbs, and if the surgeon takes a tape measure and puts it around them, he may still be unable to assure himself of actual wasting. But let him grasp the limb with fingers and thumb, making firm pressure upon the soft tissues as he encircles them, and he will feel that the tips of the finger and thumb will meet and overlap on the damaged side, or that they are nearer meeting on that side than upon the other, or, which is equally to the point, that the muscles are wanting in firmness, or are quite flabby.

When the surgeon begins to examine the boy with his fingers he ought always to start by overhauling the *sound* side first. The watchful mother at once calls out, "It's not that joint: it's the other side." But in this way the surgeon gets the confidence of the little patient who then lets him do almost what he likes. The surgeon may, by chance, make some useful discovery by looking at the "good" side. He may find some strange birth-defect, or some lurking disease. At any rate, he learns the state of the sound joint, feels the outlines, the muscles, and the range of movements, and he then turns to the bad joint with a clear standard in his mind

by which to judge it. The first thing that he should do is to place the hand flat over the joint and see if the skin is warmer on that side than on the other. Of course, if the joint is deeply hidden amongst muscles, like that of the hip or shoulder, he may not find a difference in the surface heat, but it would almost certainly be manifested in the case of the knee, the elbow, or the ankle.

Why should the skin over the knee be hot because the joint is inflamed? This question may be answered by another, "Why should the cheek be flushed and heated because a man has an aching tooth on that side?" When one throws a stone into a pond the fading ripples reach the margin, and if the splash was a big one the waves are very noticeable. If the pulp of a tooth is inflamed all the blood-vessels in the neighbourhood are in a state of unrest and alarm, and this is shown by a vaso-motor paralysis and a flushing which may spread far from the actual seat of trouble. This is very interesting from a pathological as well as from a surgical point of view; it is a small part of that great scheme of inflammation without which it would be impossible for the surgeon to carry on his work. "But that," as the modern writer says, "is another story."

In finding out if the skin on the one side is hotter than that on the other, the same hand should be used. It is a mistake to feel one joint with the right hand and the other with the left, for the two hands may not be of the same temperature to start with, nor equally clever at measuring surface warmth.

If the patient is a young or shy child, the surgeon had better keep on talking to him all the time that he is examining the joint, asking him childish questions and getting him to answer them, so as to take his thoughts away from the sore part. And whilst he is gently pressing about for tenderness, and seeing how much movement is allowed, he should also keep a watchful eye upon the child, so that he may learn in an instant by the look of his face if he is hurting him—for a patient should never be made to suffer when a joint is under examination.

Is the Affection Tuberculous?

It sometimes happens that when a surgeon is looking at a painful joint, and almost before he has had time to make up his mind as to the exact nature of the trouble, the mother blurts out a question which has evidently been for some time uppermost in her thoughts and can no longer be kept in: "Is it tuberculous?" She will not be put off; she must at once have an answer, "Yes," or "No."

It is a good plan, when a surgeon does not want to give a direct answer to some searching question, to ask one for himself; and this time a useful one to put is, "Why *do* you ask me such a thing?" Then, by watching the manner in which the mother answers his question, he can see how he may best deal with her's. If she says, "Oh, because such and such members of our family have had tuberculosis in one form or another," he has got from her a valuable bit of information without having roused her alarm by asking for it, and he may not mind telling her just what he thinks. Whereas, if her manner clearly shows that she has a horrid dread of the very sound of the word which she has just used, he will feel that it would not only be unwise, but actually unkind, for him to confirm her fears. For it cannot possibly do any good that a nervous parent should be told that an affection of a joint *is* due to tubercle; and as in this world of uncertainties not even a surgeon has the right to be "cock-sure," he may well shelter himself behind a hedge of ignorance, and give to the parent the full benefit of the doubt.

There is no denying the fact, however, that the bacilli of tuberculosis have a very marked fondness for the synovial membrane of children's joints. And if anything has happened to lower the power of resistance of the joint, lurking germs will scarcely fail to seize upon it. There are two ways in which the resisting power may be diminished—namely, by the lining of the joint being hurt by a sprain or a blow, or by the state of the person's health being lowered, as by an attack of measles, influenza or what-not, or by the general surroundings.

It is almost certain that when the joint of a child or young adult is the subject of a quiet, lingering inflammation the cause is a tuberculous infection. A few years ago such a statement might have been traversed through and through, and cast out of a gathering of medical men such as this with ridicule. The chief reason brought forward against it would have been that, if the joint were properly treated, it would almost for certain get quite well; whereas every practitioner knew that tuberculous diseases were amongst the most incurable of all those to which flesh is heir. The explanation of this difference of opinions is that tuberculous disease of a joint used not to be recognized as such until it had reached an unmistakable form. But by patient work with the microscope, and by experiments in the laboratory, the pathologist has now cleared up the question once and for all, and in the direction which I have pointed out. Personally, I think the pathologist has sometimes gone a little too far. He has been apt to over-state his case, and to do something more than hint that unless the surgeon made a clean sweep of every germ in a case of tuberculous infection, the outlook was very bad or even hopeless. But the pathologist was not always a practitioner, nor was the patient's body an incubator; and certainly the delicate tissue of a bone or joint is not exactly the same thing as a drop of beef-tea or a film of gelatine. Beyond all this, there is a something in the living patient, a spirit or force—call it what you will—a something which the pathologist could not see or appreciate—that faithful friend of the medical man, the *vis medicatrix Naturae*.

When the practitioner is called to see a joint which is giving pain or discomfort to a child or young person, the first question which should occur to him is whether the affection is likely to be the beginning of a long tuberculous trouble; and if he keeps this before him it will make him all the more energetic and thorough in his dealings with the child and with the joint. If after a few weeks' treatment the disease entirely clears up, at least his prompt measures should be allowed to share some of the credit. But if it does not clear up, he at least will have no cause to reproach himself with a want of thoroughness.

I do not believe that I am overstating the case when I say that, in almost every instance, chronic disease in a child's joint is due to the germs of tuberculosis having found a resting-place in the synovial membrane. And when there is a strong history of heredity in connexion with the patient, the parents as well as the medical attendant should keep the thought ever before them.

Treatment.

It makes no difference what the joint is; if it is inflamed it must be kept at rest. There may be nothing wrong with the joint so far as sight or touch can make out; but from the moment that advice is sought the limb must be put at rest.

I have heard it confessed by a medical man that because he could discover nothing wrong with a joint which was said to be the seat of pain, he had not thought it needful to rest it; but that he had, rather, let the patient go on using the limb, in the hope that signs might become marked enough to warrant his taking serious measures with it, or that, by good luck, the trouble might wear itself out. In fact, he had allowed himself to play the part of what our neighbours call an *agent provocateur*—encouraging a somebody to run a wicked course in order that he might have something clear with which to deal. This, we are bound to say, was very wrong. A case should not be allowed to drift on because the surgeon is unable to find out exactly what is the matter. After all, treatment is far more important than diagnosis; so, without waiting until he could make up his mind as to what is amiss, the doctor would do well in every case to send the person at once to bed, or, at any rate, to remove him from his active life whilst a splint and bandage are being got ready—for I take it that something of this sort will be wanted. When a joint is in pain there is nothing so good for it as a well-fitting splint.

If the trouble is in the shoulder the arm must be fixed to the side by a broad roller bandage, or by a binder, and the patient must not thrust his hand through his coat sleeve until all pain and tenderness have passed away, though it may not be necessary to keep him in bed. If it is a child, however, bed is the best place for him for a time, so that he may understand how needful rest is thought for his bad arm. If a child is up and about, there is no saying what he may do; and certainly, until he has learnt that he must be "very careful," bed is the best place for him.

If it is the elbow that is in trouble, the forearm must at once be bent to a right angle and the limb secured in a splint. And for splinting there are few things more handy for the purpose than a square of common house-flannel cut into pieces of the proper size and shape, dipped in a creamy mixture of plaster-of-Paris, and fixed in place with a bandage of butter-cloth muslin. The house-flannel splint is put on next to the skin, without any cottonwool, and it should be long enough to

reach three-quarters of the way up to the shoulder and almost down to the wrist, for a splint which occupies only about the middle third of the limb does not suffice to keep the joint quite quiet.

I am glad to turn aside here to say that the surgeon who has learnt to use house-flannel and plaster-of-Paris finds his knowledge coming in usefully in all sorts of cases. It makes him ready to deal with a broken limb or an inflamed joint at a moment's notice, and without having had to keep in store a selection of splints suitable for all sorts of cases. If, as dresser or house surgeon, he did not learn the art of putting on a plaster splint, he can easily pick it up by seeing it once done. There is, however, a good deal of knack in it. The flannel having been duly cut into shapes and laid ready, an inch or so of water is poured into a basin and fresh plaster is shaken into it, out of the paper bag, until it forms a little island in the middle; then, as quickly as may be, it is stirred into the water until a creamy mixture is made in which the flannel is to be soaked. It is well to have two pieces of shaped flannel on each side of the limb, one of which has a surface which is daubed with the cream on one side only, the dry side being placed next to the bare limb. A nurse, or some other assistant, holds the pieces close against one side of the limb whilst the surgeon quickly fixes them in place by a few turns of a wide muslin roller. Without any loss of time the other side of the limb is similarly treated, only in this case the splints are put on outside the muslin bandage which held the other pieces in place. If the splints have been put on nicely there will be a space running up the front of the limb between their borders which is covered-in simply by muslin. Almost in less time than I have taken to describe the business the splints have become as hard as boards. And then, or next day, the surgeon may run the scissors up the narrow gap, take off the splints, trim their edges and loosely reapply them.

A dresser of mine was once about to put up in plaster side-splints a broken leg which had just come into St. Mary's Hospital. He had shaken out the plaster into a basin and was just going to pour water over it when the patient said: "If I was you, sir, I should put the water in first and then shake in the plaster." "Will you kindly mind your own business?" said the dresser. "That *is* my business," retorted the man, "I works in plaster."

There is one great advantage with regard to the house-flannel and plaster splints, they can be made of any length. It may happen that if they are being fitted on a tall man, or a very large limb, the first side will not be finished off before the plaster in the basin has become as hard as a rock, so that a second mixing will be needed. That, however, is a small matter.

The old plan of winding plaster-laden bandages round and round a limb, without any provision for their prompt removal in case of need, has quite given place to that of the side-splints which I have just mentioned.

But of all ways of fixing at rest an inflamed joint, there is none so good as that of leather side-splints. These splints are made of undressed cow-hide, shaped to a paper pattern, and then soaked in hot water and vinegar. Thus treated, the leather becomes as limp as wet brown paper, and after being bandaged on to the limb in this state, in two side-pieces, it is left on to harden. It thus becomes as stiff as need be, and it may afterwards be lined with wash-leather, and supplied with straps. I dare say that there are people who can make and fit leather splints as well as it is done by Spratt and Brooke, of 48, New Bond Street, but I am quite sure there are not any who can do it better. I show some splints made by them; one is for a little boy's tuberculous knee, another for a chronic inflammation of a wrist joint, and so on.

Whilst upon the subject of splints for inflamed joints, I will say that, as a rule, they are not made nearly long enough. For instance, if a knee is to be kept at rest, a splint which reaches only a third of the way up the thigh and a third of the way down the leg does not answer the purpose. If you try it for yourself, you will see that so short a splint does not prevent the knee from stirring. To do its work thoroughly the splint should go nearly up to the groin and almost down to the ankle.

In connexion with the long imprisonment of a limb because of inflammation in a joint, the question will very likely be asked if massage or electricity, or the two together, might not be of service. But inasmuch as a limb cannot be subjected to massage unless it is taken out of a splint, handled and moved about, massage must not be advised so long as a remnant of inflammation is left. If there is truth in what I said, that Nature begins her treatment of a diseased joint by starving the muscles into a condition of feebleness and inactivity, a surgeon would evidently be flying in her face, as it were, by having them roused and excited by any means whatever. But when it is found that the inflammation has quite passed away, the help of these useful measures may well be sought. And that will be the time also for alternate douchings with hot and with cold water, for gentle, passive movements, and for the carrying out of well-considered exercises, either in or out of a gymnasium.

Splints and Stiff Joints.

A general practitioner once said to me, in reference to a case of tuberculous knee which we were treating together:—"It is all very well for you to come in every now and then, take off the splint, and say that things are going on right. That is easy and pleasant enough. But the drudgery and worry of the case are for me, and on me are piled the questions. And the question that is for ever being put, either openly or in disguise, is whether this long rest of the limb in a splint may not leave the joint for ever stiff." The question is, after all, not an unreasonable one for a layman to ask. He knows that the quieter a split chair-rail is kept after it has been glued, the more solid is the join, and with this in view he may fix and steady the wet splice by wrapping a piece of card around it, lashing it with a string. From his boyhood also he has known that the surface of a pool which is sheltered from the wind more readily yields a coat of ice than that which is stirred by ripples. "And so," he says to himself, "it seems to me that if a knee-joint is long fixed up in a splint there is a great risk of its being stiff for ever." The answer to be given to such question is that it is the *inflammation* and not the *rest* which leaves a joint stiff, and that the first thing necessary towards getting rid of the inflammation is to obtain perfect rest for the joint. That if a limb were, by mischance, kept at rest for an indefinite time after the inflammation had passed off, the worst that could happen would be some fibrous adhesions in and around the joint, which could easily be broken down and got rid of later. But that, if the inflammation continued, a steady growth of granulation-tissue would destroy the softer part of the joint, and in due course find its way into the ends of the bones themselves. That if then, by good chance, the state of the patient's health happened to be vigorous enough, these granulations would grow into solid bone, soundly knit the ends of the two long bones together, and weld them into a single mass.

Through the whole field of surgery runs the unvarying principle that the first thing necessary for an inflamed organ is to rest it. The inflamed breast is rested by the child being weaned; the inflamed eye is rested by the light being shut out by Nature or by Art; the inflamed larynx is rested by the call to silence; and for the inflamed joint, whether it is in a gouty great-toe, in a golfer's elbow, in a cricketer's knee, or a child's hip, *rest* is the one thing needful.

When may the Joint be Set Free?

After a joint has been for some time fixed in a splint, and all cause for alarm has passed away, the question arises as to when the patient may have free use of the limb once more. If the surgeon was wise at the beginning of the treatment, he made no promise as to just when the joint should be set free, and he is, therefore, less likely now to be hurried into doing something which he might afterwards find cause to regret. He takes off the splint and has a good look at the joint, which, because of the wasting of the muscles, may now, perhaps, seem strangely large. I will take it that everything has been going on well, and that there is no one spot about the joint where bulging has taken place. A bulging might mean that the joint still held some "water," or, worse, that a cold (tuberculous) abscess was forming in it.

As I said a little while back, if the joint is inflamed the skin over it is hotter than it should be, and the first thing that the surgeon does is to place his hand over the joint to see if the skin is still warmer on that side, not forgetting, of course, that if a splint and bandage have only just been taken off, the skin is sure to be warmer. He gives it time to cool down, therefore, and afterwards satisfies himself that there is no unnatural warmth.

Then the surgeon carefully presses upon those parts of the joint which are nearest the surface, or gently squeezes them between his finger and thumb. As a rule, the tender places are in the grooves between the two bones forming the joint. In the case of the knee the tender spot is almost for certain over the internal semilunar cartilage, a spot which is found by

gently bending the leg and feeling for the hollow beneath the front of the internal condyle. If there is no flinching when this part is pressed, it is unlikely that any inflammation is lingering in the joint.

In the case of the hip the surgeon makes gentle pressure upon the front of the capsule, which he remembers is placed in the crease of the groin behind the femoral artery.

Any remaining tenderness in the shoulder-joint would be found out by pressing on the synovial membrane around the globular head of the bone beneath the acromial process. And in the elbow it would be best made out where the synovial membrane comes close up to the skin around the head and neck of the radius, just below the outer condyle of the humerus.

The wrist-joint is examined by pressing with the finger and thumb sideways between the styloid processes of the radius and ulna and the first row of the carpal bones. This is sure to find out any tenderness in the radio-carpal joint, and a gentle squeeze through the middle of the wrist reveals inflammation in the large synovial membrane of the carpus.

Granted, then, that the skin is not warmer than it should be, and that there is no bulging about a joint, and that no tender spot is to be made out by pressure, the chances are that the trouble has quite passed off, and the limb may be gradually set free again, and movements restored to the joint. But this return to freedom and activity must be gradual. It would not do to say, "Now you are all right; throw away the splint and use the joint." Such cheerful advice would be more than likely to invite a prompt return of the inflammation. At first the splint should be left off only at night, after the person has got into bed, and it should be put on again before he gets up in the morning. Then, if all goes well, it may be taken off in the evening and not put on again till next day. Then it need be worn only when the patient is going out of doors, and so on, a little more freedom being allowed each week, and the surgeon keeping his eye upon the joint the while.

During this time judicious massage will be helpful in bringing back tone and strength to the muscles of the limb. And, perhaps, day by day, a little movement may be given to the joint, so as to help on the return of activity and freedom; but this should be done with much care and gentleness. No risks must be run: far better would it be that the limb should be allowed to "shake itself loose," as Hugh Owen Thomas used to say.

Of course it is possible to overdo the rest treatment of an inflamed joint, as it is possible to overdo every kind of good treatment. Thus, Epsom salts are good for a gouty man, but one does not *feed* him on them. Still, as regards rest, "better the excess than the defect," and it is very sad to hear that a joint which one has been carefully tending through a long course of tuberculous synovitis is ignorantly handed over to a trial by "bone-setting," or sent to struggle in accomplishing painful tasks in a gymnasium.

It is more than likely that after a splint has been on for a week or two (and greatly to the comfort of the wearer), the surgeon is asked how much longer it will have to be worn. The answer to this question should be, "until the joint is quite well—and a little longer than that." There is a great deal behind this question; it is full of meaning. The parents have been talking to some ignorant, meddlesome, well-meaning friends, who have told them to be careful that the joint is not kept too long in splints, lest at last, when the splint is taken off, the joint be left stiff. They will have told the anxious parents that they have known this happen more than once. They may have spoken of the case of a girl who had a bad hip and was kept in a splint for two years, and walked lame ever after because her hip-joint had become "set"—all because of that splint! They have also heard of a boy who was never able to move his elbow-joint after having had it fixed in a splint for "an absurdly long while," and they say that, though they would be the last people in the world to interfere with a doctor's treatment, they would just like to ask the parents to beware of the long use of a splint.

They will also tell of a young fellow of whom they have lately heard who went to a "bone-setter just in time to be saved from a life-long stiffness of the knee." And the scene will very likely end by these meddlers saying how wonderful were the ways of those "bone-setters," and what a pity it was that doctors were so jealous of them!

And, gentlemen, the saddest part about it all is that those who talk like this are not the poor, and the uneducated—people whose ignorance could be understood and forgiven—unfortunately the higher people are in the social scale the more they seem to give themselves over to quackery.

The Shoulder-joint.

I think that I am right in saying that inflammation of the shoulder-joint is more apt to escape being found out than inflammation in other joints. In the first place, it is by no means a common affection, and, therefore, one is not so likely to be on the look-out for it. For a single case of shoulder disease how many cases of hip or knee disease are seen? Then it is less easy to make out disease of the shoulder than of the hip, because the shoulder-blade moves so freely on the surface of the ribs, and arm lameness is not nearly so noticeable as leg lameness. Directly the hip is attacked with inflammation the joint becomes stiff, and the person walks with a limp which is so marked as almost of itself to show what is wrong. And then come those complaints of "pain at the knee," which, from the earliest days of his work in the wards, the medical man has learnt to regard as the stormy petrel of hip disease. But, in the case of the shoulder, disease may be far advanced before it is found out, because the movements of the arm appear to be but little, if at all, decreased, and the dull, aching pain is more likely than not to be put down to "rheumatism."

On the first mention of pain at the shoulder the surgeon should have the upper part of the trunk laid bare, and, placing himself behind the patient, should take a general view of the back whilst the arms are hanging down by the sides. The first thing which he will then notice is that the spine of the scapula and the acromion process stand out with unusual clearness, because of the wasting of the supraspinatus and infraspinatus muscles and the deltoid, and he will also see that the arm is much wasted. Then, when the patient slowly raises his two arms to the level of the shoulder, he will notice that the angle of the scapula of the bad side begins to move with the humerus long before the other. That is to say, the humerus has become so fixed in the joint that it cannot be raised without the scapula following its movements. And this is just as much an evidence of shoulder-joint disease as fixation of the thigh is of hip disease.

For further proof of disease the surgeon will then fix the scapula with one hand and try gently to move the humerus with the other; he will meet with little success, and if he continues with his efforts they will cause pain. Lastly, he will find that on squeezing the joint between the finger and thumb there is a good deal of tenderness. Most likely the disease will be of tuberculous origin. Certainly so much wasting, stiffness, and tenderness could not be found in any rheumatoid affection.

Supposing that the disease is advancing or that the person is likely to meet with difficulty in keeping the arm quite quiet, even though he has the elbow and hand in a sling, it will be well to protect the shoulder from all chance of disturbance by moulding on a leather shield like that which I show. You will kindly notice that it covers the region of the deltoid and the upper part of the chest, front and back, and that it comes a good way down the arm. Nothing could be better for the purpose.

Inflammation of the Wrist.

Considering how apt the hand is to be hurt in one way or another, how it is at the front of everything and liable to be suddenly called upon to do all manner of rough work, and to bear all manner of strains, it is quite wonderful how rarely the wrist-joint gets into trouble. One reason for its so happily escaping from damage is the great freedom of movement which it possesses, to say nothing of the protection given by the readiness with which violence at the hand is received and dealt with at the elbow. But when the wrist of a delicate person is inflamed the result is apt to be very serious, and I do not think that there is a joint in the body which is as badly cared for in time of trouble as is the wrist.

The wrist is so thickly surrounded by tendons that, unless the inflammation is intense, the bulging of the synovial membrane and the flushing or heat of the skin, are apt to pass unnoticed. Having a good deal of pain in the hand the patient thinks that he must have sprained his wrist, and, knowing that sprains are sometimes very troublesome, and are a long while getting well (which, indeed, is quite true), he says little or nothing about the hand, "saving" it as much as he can, and using his fingers with great gentleness. His doctor tells him that he must take care of it, and perhaps tells him also that he had better wear it in a sling. But if, as is more likely than not, it is the

right hand, a sling alone will not be enough to keep the hand quiet. The man will be often taking it out to give a greeting, to write a letter, or to button a collar. And three or four times a day he has it out for washing. Half-measures of this sort will not be of much avail, and I am sure that no other joint in the body would be so carelessly treated. If it is said that it is so awkward to lose the use of the right hand, and even of the fingers, that it is wanted for hundreds of little services, many of which can be done without the least effort or force, I shall reply that for this very reason the hand and fingers should be placed beyond the reach of temptation, and this can be done only by fixing the hand in a splint as well as by carrying it in a sling.

A wooden splint is not the best sort to use as it shifts its place, and the bandages get loose, dirty and untidy. Nor does plaster-of-Paris serve well, as it is hard and uncomfortable, and is apt to become cracked, soft and soiled. Nothing does so well as a moulded splint of undressed leather. It can be made to fit as close as a glove, and if it is covered with black kid it may be made to look quite smart. A proper splint for the wrist should be long enough to reach from halfway up to the elbow down to the middle of the fingers, for if the fingers and thumb are left free the hand cannot get its full measure of rest, and unless this is secured the trouble may be never-ending.

In bringing these somewhat desultory remarks to a close, the fear comes home to me that you will think I have not made the best use of my time, that I have said nothing new, and that the old things which I have brought before you might have been brightened up a little, somewhat better clothed, and set before you in a more orderly and pleasing manner. And in this criticism I would be the last to join issue with you. Still, if they should by chance have the effect of making any one see more clearly the importance of giving his very best care and his highest skill to a troubled joint in the earliest days of its trouble, the time will not have been altogether wasted.

The Milroy Lectures

ON

INDUSTRIAL ANTHRAX.

Delivered before the Royal College of Physicians of London.

By T. M. LEGGE, M.D.Oxon.,
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LECTURE III.

[Abstract.]

Anthrax in Relation to the Wool and Worsted Trades.

There is interest in comparing the facts now known of the incidence of anthrax in wool and worsted as regards type of the disease, class of persons attacked, supposed dangerous material, and other circumstances, with those brought to light a quarter of a century ago, when the disease was first brought prominently into notice by the report of Mr. John Spear in 1881.[1] Internal anthrax, he wrote at that time, "is the form of the disease which is the much more common one—at all events the more commonly recorded one amongst wool sorters." During the six years 1899-1904 only six cases of the internal form have been reported, and there would thus appear to have occurred a remarkable change in the type of the disease prevalent in Bradford, the external and internal forms having changed places as regards frequency of appearance. As to the diminution of internal anthrax there is no doubt. Dr. Bell, who supplied Mr. Spear with much information as to the clinical symptoms of this type, and has had under observation hundreds of cases of anthrax since then, is sure of it. Some explanation of the change may be found in the more frequent diagnosis of external anthrax now, but this is insufficient to explain the very great reduction in cases of true wool-sorters' disease. Moreover, mild or rudimentary attacks of the constitutional form of the disease are never reported now.

Several of the cases investigated by Mr. Spear followed on manipulation of seriously infected van mohair. More recent cases of internal anthrax in 1898 and 1899 similarly followed one another quickly on manipulation of gravely infected Persian wool. With our knowledge of the greater virulence of the bacillus under certain conditions it is not unreasonable to assume that variations in type may be due to this cause, and that at some future time there may be recrudescence of the severer form.

The principal circumstance, however, which has altered since the time when Mr. Spear wrote, is that under which the manipulation of the wool takes place. Now, in addition to regulations requiring care in the opening of the bales and removal of the damaged wool or hair, fallen fleeces, and pieces of skin, none of the dangerous specified wools—alpaca, pelitan, cashmere, Persian, camel hair, and mohair—may be opened or sorted except at a place where a constant draught of air maintained by a fan carries the dust away downwards. Instances could be cited in which occurrence of anthrax seems to have followed as cause and effect on cessation or impairment of action of this fan exhaust. Changes in type of the disease, therefore, may be due to these altered conditions of working.

Twenty-five years ago Mr. Spear insisted also on the fact that "with rare exceptions only those suffered who were employed in the first manipulation—in the sorting process,"[2] qualified, however, by the statement that "the power of the wool for mischief cannot be said to be exhausted here, for in the combing room the material may possibly prove infective."

Now, cases are more frequent in the rooms where the carding and combing processes are carried on. I say rooms advisedly, because personally I believe some, perhaps most, of the cases are due to infection from unwashed wool, because though combing and carding and spinning are the principal, they are not the exclusive operations carried on in these rooms. The wash bowl occupies a portion of it, or is connected with it by a passage, and along this a current of air may pass from where the unwashed material is being treated. This explanation is insufficient, however, to account for all the later process cases. In the year 1904, for instance, two persons at least were attacked in factories where no raw material, but only finished noils tops (probably of Persian wool) were used. These tops must have passed through all the various stages of cleaning, washing, and the minute separation of one fibre from another in the combing machines at one factory before they were conveyed to the other where infection occurred.

Although the disease was first noticed after the introduction of alpaca and mohair as textile materials in 1837, and occasional sudden deaths occurred in later years (1867, 1868, and 1874) from alpaca,[3] the danger from mohair (introduced about 1863) seems to have overshadowed that from other material—such as Persian wool—at the time of Mr. Spear's inquiry. He gives the following list of foreign wools in the order of their apparent noxiousness as it was at that time considered to be: (1) Van mohair, (2) Persian, (3) camel hair, (4) alpaca, (5) Turkey mohair, (6) pelitan, (7) Cape mohair, (8) cashmere. Now the order would be: (1) Persian, (2) Turkey mohair, (3) van mohair, (4) East Indian, (5) camel hair, (6) alpaca, (7) pelitan and cashmere. Possibly the disappearance of van mohair from the position of greatest noxiousness is due to the fact that van mohair alone is required by the regulations to be washed and sorted while damp, if at all. The explanation why Persian wool is so largely in demand arises from the fact that this breed of sheep is one of the few in which the wool is naturally of a black, brown, or fawn colour.

The absence of anthrax from manipulation of the immense supplies of Australian and New Zealand wool I attribute to comparatively small incidence of the disease in animals in those countries, and to the precautions taken to prevent its spread and to proper disposal of the carcass. To the existence of similar precautions may also be attributed the rarity of cases in connexion with wools from the Argentine, where anthrax amongst animals is common.

To make manipulation of wool and horsehair from Asia safer, washing the sheep prior to shearing, willowing the wool free from dirt and dust, and discarding the fallen fleeces in the country of origin would be the next best thing to disinfection of the material, were that possible, by means of steam. This is what some manufacturers would wish to see done, and in March, 1903, the Chambers of Commerce of Bradford, Halifax, and Kidderminster addressed a circular letter urging that persons consigning Persian wool should endeavour, first, to keep out of the bales extraneous matter, and, secondly, to pack locks, fallen wool, and skin in separate bales. Any loss on locks sold at lower prices would be more than recouped by higher prices obtained for honestly-packed bales.

All the evidence shows, however, that wool is washed less

frequently before shipment than it used to be. In the anthrax report of 1897 the Committee express the wish that it were possible for His Majesty's Consuls to report anthrax-infected districts, so that by the ear-marking of the bales from such localities it might be possible to trace and arrest the mischief of imported infection.

Mr. Spear[4] was informed that it would not be difficult in Constantinople, where the classification of wools from Asia Minor was made, to secure that fallen fleeces should be classed apart. Pressure in this direction by combined action on the part of manufacturers or of the Legislature might have the effect on dealers and native growers abroad of making them take steps to keep apart these fallen fleeces or to separate them in Constantinople. This would, of course, merely shift the risk from the workers at home to those in Constantinople. The difficulties in the way of carrying out such proposals are many. In the absence of official records based on veterinary reports knowledge of anthrax-infected districts would be unreliable, and such evidence might tend to grow less when it became realized that knowledge of the incidence of anthrax was followed by stigma attaching to the wool or other material. Other diseases besides anthrax are rife among animals in Asia, and it is unlikely that, in the absence of discriminating veterinary reports, the consuls would be in a position to say what bales were infected. The practice, too, of storing wool, dependent on the needs of the market or on fluctuation in price, would equally tend to make such protection illusory. That the matter, however, has not escaped the attention of some of the consuls is apparent from the following quotation from the consular report from Kermanshah in Persia[5]: "In reply to an inquiry as to why more care was not taken in washing and sorting the wool, the Kermanshah wool merchants declared that no skins, cotton rags, or pieces of string were contained in the wool exported by them. They did not wash the wool so well for export as for spinning in the country, as well-washed wool scarcely fetched a better price in Bagdad than the usual wool exported there." If in this country, with all the precautions which are taken to check the spread of the disease and to prevent the flesh of anthrax-infected animals from coming into the market, illicit dealing is still practised, and every year carcasses thus infected are found in the meat markets and butchers' shops exposed for sale, what hope is there that in other countries where there are no regulations, where cupidity is not less marked than at home, and where the disease is probably a hundredfold more rife, material good could be achieved by the branding of bales or by reliance on the exclusion of fallen fleeces in the sorting carried on in Constantinople?

Anthrax in Relation to Hides and Skins.

The history of anthrax in this country in relation to hides and skins can be best traced from the reports of Mr. Spear[6] and of Dr. Hamer[7] on the occurrence of cases in London. Mr. Spear's report dealt mainly with an outbreak in a Bermondsey tanyard which occurred in 1882-3, due to a consignment of bales shipped from Shanghai, and Dr. Hamer with a total of 90 cases which had occurred between the years 1873 and 1893. In 86 the occupation was ascertained, of these 63 handled the hides while in the possession of the hide broker, and 23 (of whom 15 were tanners) after removal to other industrial premises.

Infection was believed to have been conveyed from China hides in 26 cases, from East Indian in 12, from other specified kinds in 9, and in 34 the source could not be ascertained. The later records which have been obtained since 1899 show that although the area from which infected hides may arrive has been widened, material from China and East India is now, as it was a quarter of a century ago, the principal source of danger. Nor does the later information disagree with the conclusion arrived at by Dr. Hamer that infection from wet hides is very rare.

The cutaneous type of the disease has remained the same, evidence of pulmonary anthrax being as absent now as it was in previous investigations. Dr. Hamer found some ground for the hope that substitution of wet for dry hides, which the trade appeared to encourage, would, if continued, lessen the risk of anthrax to those manipulating foreign hides in London.

Examination of his figures bearing on the imports of wet and dry hides and of those which I myself have added for later years shows that there is great fluctuation in the dry hide importations, and it may be shown that this depends largely on conditions existing in the countries of origin.

China hides are recognized in the trade as particularly dangerous, and assurance is freely given that this risk has diminished the trade in them, but actual figures do not altogether tend to support this view.

The hide and skin industry of Germany appears to be greater than that of this country. Thus the number of hides imported into Hamburg in 1903 is stated in the Consular report[8] to have exceeded that of Antwerp, Havre, and the United Kingdom combined. Reports of the factory inspectors give no account of incidence of anthrax on dock labourers, or on those manipulating the material in warehouses prior to tanning processes. They have contained every year from 1891 to 1902 references to cases in tanneries, but without attempt at complete returns.

In France information is still scantier than that obtainable in Germany, but in 57 cases recorded in tanyards by Le Roy des Barries[9] all but 1 occurred in factories using foreign material only, while Chauveau[10] has described 10 outbreaks in tanyards near Morlaix which coincided with the first use of China hides.

There seems no reason for doubt that anthrax can be conveyed by completely tanned material. Apart from the cases ascribed to tanned hides, where possibly infection may have been conveyed from raw hides present on the premises, anthrax has been conveyed to horses apparently through the harness. Thus two horses contracted anthrax, the lesion in both cases being on the flank where a quite new pair of reins came in contact with the body.[11] Ravenal found spores still virulent after immersion for 224 days in the seven tanning fluids ordinarily used. Houston's[12] experiments demonstrating the presence of anthrax spores in the effluent from the catch-pit of a hide factory show that they must be able to survive also the arsenicating, liming, and other processes.

It is doubtful if there is any way in which hides to be afterwards tanned could be effectively disinfected, and obviously to be of real benefit disinfection of hides, if practicable, should be done before the material is opened in the warehouse where most of the cases occur. To secure this would be impossible, and in this country, consequently, the precautions adopted in handling hides and skins coming from China and East India are slight, and directed solely to protection of the workers by such means as overalls, of prohibition of meals in rooms where the above dangerous hides are manipulated, etc.

Anthrax in Relation to Horsehair.

The occurrence of cases in a hair factory at Glasgow in 1878,[13] described by Dr. Russell, first drew prominent attention to the danger of anthrax to the workers with this material, and in France and Germany its use appears to have contributed by far the largest share of cases of anthrax. The outbreak in Glasgow in 1878 was due to virulent infection from Russian horsehair, and one reported in 1893 by Chauveau[14] was believed to be due to China horsehair. Since 1878 no case of anthrax was known to have occurred in Glasgow until an outbreak of five cases in 1900. During this second outbreak the particular factory in which all the early cases had occurred escaped, the firm having since 1878 discarded use of Siberian hair altogether.

The possibility of steam disinfection suggests itself as the only effective means of removing the danger from manipulation of dangerous wool and horsehair. In the case of wool no thorough and minute inquiry as to whether this method is practicable has ever been undertaken, but its possibility with hair has been thoroughly tested in this country and in Germany. The problem of steam disinfection when applied to horsehair and bristles is presented perhaps in its most difficult form. The natural resistance of the spores is increased by the dirt and grease of the material in which they are embedded. The hair is tied tightly together, and in the case of mane hair or combings the bales weighing about 5 cwts. are hydraulically packed. Recent experiments by Proskauer and Elsner[15] have shown, too, that anthrax spores artificially placed on horsehair are killed with greater difficulty than when on silk.

The experiments in this country by Webb and Duncan[16] have been carried out with known infected material, that is, with horsehair in its natural condition in which the presence of anthrax had been demonstrated. The experiments were made in a Washington Lyons apparatus. They found that dust shaken from China hair subjected to a temperature of about 245°F. for twenty minutes appeared sterilized. When, however, the horsehair thus treated had been subjected to the process of carding and one horsehair fibre separated from another, anthrax was cultivated from the dust so produced. From this the conclusion was drawn that the process of carding liberated the spores which had escaped the first dis-

infection owing to its environment of grease and dirt. Nevertheless numerous experiments with dust from combing machines showed that the disinfecting process had killed the great bulk of the bacilli and lowered the vitality of those which had survived. Hair could not be disinfected in bulk by exposure to steam at about 24 lb. pressure (253° F.) even for forty minutes.

When the results of the German experiments became known, Mr. Webb reduced the pressure at which he worked and found that equally satisfactory results were obtained with temperatures of 226° F. and 230° F. The German experiments conducted in the Imperial Health Office extended from 1894 to 1900.[17] They have been very thorough, owing to statements made by manufacturers that the hair made to undergo the preliminary steam disinfection was reduced in quality, and therefore a source of loss. Current saturated steam, and not superheated steam, was used. The temperature recorded in these experiments in the centre has been from 99° to 101° C.

Leaving out of consideration hair white or light grey in colour, which would be turned yellow, the general conclusion arrived at by these experiments is that, provided the pressure does not exceed 2½ lb., equivalent to a temperature of 218° F., and due precaution is exercised in the management and regulation of the apparatus during the time of disinfection, no injurious effect is produced in the hair which could be considered as diminishing its value or causing it to be a source of loss. Success, however, is only to be attained by minute care in detail—(1) In the construction of the apparatus designed so as to allow the steam to enter from above and find its exit at the lowest part of the apparatus; (2) provision of pressure gauges marking clearly the point when the pressure of 2½ lb. has been reached, and provision of thermometers to control the temperature indicated by the pressure gauge, and (3) constant attention to the apparatus during the time disinfection is in progress.

Frequent occurrence of cutaneous anthrax among brush-workers in Belgium has recently caused inquiry to be made there, also as to the possibility of removing danger in manipulation of the material. Satisfied of the impracticability of making steam disinfection obligatory in the numerous small workshops throughout the country (a feature of the industry which everywhere adds to the difficulty of controlling the danger), Dr. Gilbert, Principal Medical Inspector, directed his attention mainly to experiments to determine how far simple boiling might be regarded as efficient. He satisfied himself that this was the case.

To secure certain destruction, however, of all anthrax spores in horsehair absolute reliance cannot be placed on either steam disinfection or simple boiling. Adoption of one or the other is a very material safeguard, and steam disinfection is practicable for all kinds of hair, except that which is of white colour, provided due care is observed. Risk, however, must always be run by those persons who prepare the hair for disinfection.

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Pan-American Medical Congress.—The proceedings of the Pan-American Medical Congress, held at Panama in January, closed with a meeting of the Executive Committee at which the following resolutions, proposed by Guatemala and seconded by Peru, were carried: (1) That the next Pan-American Medical Congress arrange (*a*) for an international American pharmacopoeia; (*b*) for an international code of sanitation; (*c*) for an international code on temperance; and (*d*), as a sequel to the above, for the establishment of sanatoriums for the treatment of alcoholism; (*e*) for the formation of lectureships on medicine in the required studies of jurisprudence. (2) That there be formed at the next Congress a Section on Tropical Diseases. (3) That there be created Red Cross Branches, both Civil and Military. (4) Finally, it was resolved that encouragement be given to those engaged in the campaign against tuberculosis.

A SHORT NOTE ON THE NOSE AND NASO-PHARYNX.*

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It seems to me impossible to be definite or exact about the common affections of the upper air passages. Take, for example, these three phrases, chronic hypertrophic rhinitis, ozaena, and post-nasal catarrh. These troubles do not lend themselves to any sort of accurate description or classification; they give no opportunity for the language of dogmatic pathology.

I venture to suggest to you that the causes of these troubles lie a long way back in the history of our race. Surely it is not too much to assume that the inside of the nose and the back of the throat are in many of us naturally imperfect and feeble. Civilization is beginning to tell upon them as upon the teeth; and, of course, the word civilization includes all that we inherit from generations of sedentary or unwholesome life. Just as we are fated, many of us, to lose our teeth early, so many of us are fated to be troubled by the narrowness and feebleness of our upper air passages, fated to catch colds easily and get rid of them with difficulty, and to keep our mouths open by day, and to snore at night, and to have earaches in childhood and a relaxed membrana tympani in later life. One seldom sees a perfect set of teeth, and one seldom sees a perfect set of air passages. There is a crooked septum, or a spur on the septum, or an enlarged inferior turbinate, or a pinched, shallow naso-pharynx, so small that it will only just admit the tip of your finger, and the roof of the mouth, which ought to be low and broad like a Norman arch, is narrow and high like a Gothic arch, and the mucous membrane is thick, and clots of retained mucus slide down the back of the throat. It is unlikely, from all that we know of life, that the decay of our teeth should be an isolated fault of the body; it is likely enough that, as our teeth are coming to be crowded, irregular, and weak, so our air passages should come to have the same faults, and to be, like them, crowded, irregular, and weak.

Some of us may have had adenoids; but all these troubles are found in young people who have no adenoids and are not old enough to have had them and then outgrown them; and I think it more reasonable to believe that the inside of the nose and the back of the throat are tending, in the natural order of things, to become ill-developed and enfeebled, like their neighbours the teeth, especially among the poorer inhabitants of our great cities, who are the result of many generations of lives more or less unhealthy and sedentary. Which may make us impatient of all attempts at an exact classification of the maladies of this region of the body: for we know that organs in course of involution are variable and aberrant in their structure and in their action. Still, we must take things as we find them; we must, somehow or other, arrange these common diseases of the nose and the naso-pharynx. Perhaps, for practical purposes, we might make a sort of working arrangement of them as follows:

1. General obstruction. Under this head are included post-nasal catarrh, chronic hypertrophic catarrh, and those cases which have the look of adenoids, and the symptoms of adenoids, without adenoids.
2. General atrophy of the mucous membrane. Under this head are included ozaena and pharyngitis sicca.
3. Enlarged tonsils and adenoids.
4. Polypi, and other forms of new growth.
5. Specific infective diseases—tubercle, syphilis, etc.

Certainly it would take too long to consider all these diseases, and we may begin by setting aside the new growths and all the specific infective diseases. I would only recall that not only syphilis and tubercle, but also typhoid, may set up trouble within the nose. Typhoid, as it sometimes picks out the cartilages of the ribs or the cartilages of the larynx, so it sometimes picks out the cartilage of the nasal septum. I have seen 3 cases in which typhoid brought about some absorption of this cartilage. There was no ulceration or perforation or necrosis, only the skin of the nose fell in just below the nasal arch, leaving an ugly depression, just suited for the subcutaneous injection of paraffin. It is to be noted that one of these patients ascribed the deformity to her nurse, and was positive that the nose had been broken by rough nursing during the delirium of her fever.

* From a paper read at a meeting of the St. Pancras and Islington Division, Metropolitan Counties Branch.

General Obstruction.

By general obstruction I mean that state of things to which I have already alluded, where the nose is inconveniently crowded. I include under this division all cases of deformity of the septum or of the lower turbinates, and all, or nearly all, cases which are called chronic hypertrophic rhinitis, chronic catarrh, post-nasal catarrh, and pseudo-adenoids. The nose is narrow, stuffy, and overcrowded; the structures occupying it are healthy enough; they may be a little congested, but they are not inflamed, and they are not hypertrophied; they are only a little too large for the space assigned to them. The septum is deviated, or it has a spur along one side of it; it looks as if it had been bent across or broken across to make it fit. The lower turbinates take all the room that they can get, short of absolute occlusion of the nasal passages. In a word, the nose is overcrowded; which may be an inconvenience, but it is not a disease, no more than the overcrowded teeth which go with it are a disease, or the receding chin, which is held in popular opinion to be characteristic of a feeble mind.

The results of this general obstruction are twofold: First, there is the undue secretion or undue retention, or both, of mucus. I do not deny that the mucous membrane of the upper air passages may go wrong, as it were, of itself, without obstruction; but the great majority of the cases of chronic cold in the head and chronic dropping of mucus down the back of the throat are cases of obstruction. Next, there is that set of troubles which exactly imitate adenoids. Not a single sign is wanting to make up the complete picture of a case of adenoids. And then you examine the naso-pharynx and find none. What you do find is a narrow, pinched, inadequate little space, barely admitting your finger; there is no depth behind the nose; the soft palate and the back of the pharynx nearly touch. These children come to our hospitals literally in hundreds; they are as common as cases of real adenoids, or even more common, and it is impossible to doubt that many of them are subjected to the operation for adenoids who do not require it.

With regard to the treatment of these cases of general obstruction, I would submit to you this proposition: That we must steer a middle course, between doing too little and doing too much. In many cases—I think in the majority—there is nothing more than inconvenience and occasional discomfort; there never will be more than that—and, indeed, as time goes on there will be not more but less. It may be enough in such cases to teach the patient how to treat himself, and this kind of self-treatment should be made very simple; it should be an affair of the toilet, not a surgical procedure. Elaborate sprays and lotions are out of place, and so are antiseptics. The object of the patient is to wash and clean his nose just in the same way as he washes his face or cleans his teeth. Plain warm water, with a pinch of salt in it, makes an excellent lotion; and to relieve himself at odd hours he will find ordinary smelling salts as good as anything else. I believe that a domestic remedy of this sort will suffice for these more trivial cases.

But we find now and again cases that demand more serious treatment; the obstruction is so bad that it interferes with the general health and threatens the Eustachian tubes, and with these severe cases I would submit that we cannot do much good either with the galvanic cautery or with chloracetic acid. If we do anything, we ought to use a cutting instrument. It is easy and safe to remove a spur from the septum with a spokeshave or to remove part of a turbinate with a cutting forceps—and, if anything surgical be done, it ought to be not less than that; and I think that most surgeons are of opinion that it ought not to be more.

General Atrophy.

That general atrophy of the mucous membrane which we call ozaena in the nose and pharyngitis sicca in the throat is a most strange condition, and perhaps it is beyond our power of interpretation. It may be imitated, of course, by many things—by syphilitic necrosis, by a foreign body pushed up the nose and forgotten there, by pus in this or that accessory sinus, by a rhinolith, and even by the ordinary retention of mucus in general obstruction. Any one of these conditions may give rise to a foul smell from the nose: and I hardly need say that there is no meaning in that old distinction between smells which the patient, like everybody else, can smell, and smells which everybody else can smell but not the patient. So long as a man can smell anything he can smell his own nose; but if his olfactory nerves are not working, he cannot smell anything either inside or outside his nose. The curious fact that ozaena attacks young women and spares young men may be the key to the true nature of the disease, but I cannot turn that key. These girls come in good health, neither tuberculous nor syphilitic; they have in them no evidence of any sort or kind of constitutional trouble; but the mucous membrane of the upper air passages is thin, dry, shrunken, colourless, and glazed, and crusts of fetid mucus cling to it, and under them it is raw, and marked with spots of blood, and the patient goes drifting from one hospital to another without much good from any of them. This general atrophy of the mucous membrane, and, indeed, of all the structures inside the nose—for the turbinates also are shrunken—is surely a very strange disease. It has been attributed by one authority to the simple natural dryness of a nose that is broad and spacious, with wide open nostrils, so that the inside of the nose is unduly exposed. Another authority attributes it to the opposite state of things, and says that this general atrophy is the final result of a general hypertrophy of the mucous membrane; also a special micro-organism has been found and isolated which has produced by inoculation a fetid discharge from the nasal mucous membrane of animals. Behind all these arguments, and not explained by them, are the incidence of the disease on a particular sex and age, and its interminable duration in spite of all treatment.

Enlarged Tonsils and Adenoids.

The children who only seem to have adenoids are just as numerous as the children who have them. For this reason, it is a bad plan to say "I am sure the child has adenoids; I will not distress him by digital examination, I will examine him under the anaesthetic, and remove what I find." If we do that it will not be long before we anaesthetize a child, and then find nothing to remove. Hundreds of children are brought or sent to every throat and ear department in London for the operation of adenoids, who have general obstruction without adenoids. Therefore we ought to examine every case, and of course we may save some children from a digital examination by seeing the growths in a post-nasal mirror; and it is easy to make a post-nasal mirror out of an ordinary laryngeal mirror, smallest size, by bending the shank of the mirror a little backward, and setting the glass well forward.

These children, who have all the bother of adenoids without any adenoids, what can we do for them? We cannot do much; we can often arrest and cut short the earache by the immediate use of Politzer's bag. And let me say, in passing, that the best drops for a sharp earache are not laudanum, or oil, but cocaine. A few drops of cocaine, with frequent big hot fomentations over the whole ear, will often cure the child, and, of course, the gentle washing out of the nose and the practice of breathing exercises are valuable, especially the exercises, and so is the improvement of the general health. But we cannot, after all, change the whole design of the nose, and many of these children will bear the marks of general obstruction to the end of their lives.

Next, what are we to do for those cases which are, as it were, on the borderland? We see so often young people from 15 to 20 years old; they have general obstruction, and they have also more or less an excess of lymphoid tissue. The tonsils are big and coarse, but not very prominent, they do not offer themselves well for the guillotine: the back of the throat is thick and stuffy, but there is no real mass of adenoids. These are disheartening cases; the ordinary operation brings away next to nothing, and does very little good, if any; I think the best that we can do is under cocaine to reduce the tonsils with a cutting forceps, and to cauterize the back of the throat somewhat freely either with the galvano-cautery or with chloracetic acid; but, so long as the general obstruction remains the same, there is not much to be gained by treating these borderland cases.

Next, what is the true answer to that frequent question, If the adenoids are removed now, is there any chance of their coming back? I think the answer is twofold. First, that cases of general obstruction *plus* adenoids may be improved for a time by the removal of the adenoids, then the trouble of general obstruction asserts itself again, and the whole picture of adenoids is reproduced; yet there are no adenoids, or, at the most, a mere trace of them. Next, that the adenoids do sometimes recur, even though they have been skilfully removed. I have had several cases where three operations had been done, and one bewildering case where a child had undergone five operations at three different hospitals.

What is the cause of ordinary big tonsils and adenoids? They are not in any recognized sense of the words a result of

inflammation. Babies are born with adenoids, and there are small children who have never had a touch of acute tonsillitis whose tonsils yet meet in the middle line; neither are they to be called tumours in any strict sense of the word; neither are they evidence of any definite constitutional disease—such as rickets, or syphilis, or the predisposition to tuberculosis. We call them a local hypertrophy, but that name explains nothing. We know that the stores of lymphoid tissue throughout the body are proportionally greater in the child than in the adult; but that is a physiological affair, and enlarged tonsils and adenoids are pathological. Surely it is not unreasonable to suppose that the lymphoid structures in the pharynx are under the influence of that natural tendency toward defective development which we see in the teeth and in the upper air passages. Crowded, irregular, and carious teeth; crowded and irregular air passages lined with a mucous membrane which is liable to general atrophy at puberty; crowded stores of lymphoid tissue which is liable to a irregular sort of hypertrophy—surely these three conditions may have a common origin in a gradual change of type. It is certain that our teeth in the course of ages are become weak and ill-developed, and in a word, degenerate, and it may be that this degeneracy is at work also on the neighbouring and allied structures of the nose and the pharynx. For we know that the tonsils, like other organs which are in course of involution, are variable. Many people have no tonsils; that is to say, you can just discover, between the pillars of the fauces, a mere vestige of lymphoid tissue, which is, so far as we know, useless. Others have an excess of lymphoid tissue which is worse than useless. Surely this irregularity in size, and this apparent uselessness in function, suggest degeneracy.

THE OPENING OF PERITONSILLAR ABSCESSES.

By StClair Thomson, M.D., F.R.C.P., F.R.C.S.,

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There are few operations in the throat which are simpler, safer, and more satisfactory than the evacuation of a peritonsillar abscess, yet there appears to be considerable dissatisfaction both in the public and the profession in regard to "puncturing the tonsil," as it is termed. In his *Manual of Medical Treatment* Dr. Burney Yeo writes that "patients constantly complain of being uselessly put to pain by these punctures, which appear to give no relief."[1] Some medical men are equally frank in their confession of dissatisfaction. Thus, an American *confrère* writes: "I have seen a good many cases of quinsy, and hate the sight of them, because there seems so little that we can do for them" (P. F. Barbour)[2]; while another, in still more forcible and picturesque language, exclaims, "I would rather go against a penny-in-the-slot machine, or try to play for four aces than attempt to get pus out of one of these abscesses" (M. F. Coomes).[3]

The anxiety connected with attempts to relieve a quinsy is not limited to the fact that such efforts are frequently fruitless, but extends to a fear of plunging the bistoury into some large artery. Bosworth,[4] in spite of his long experience, says that in no case has he incised a quinsy without a certain degree of nervousness on account of the proximity of the blood vessels.

The usual sequence of events in this disease is somewhat as follows: Attempts at relieving the pent-up pus are willingly postponed both by patient and practitioner as long as possible—by the former, to escape increased and possibly useless pain; and by the latter, to avoid adding to previous failures. Finally, towards the seventh day or later, the patient begins to get worn out, the medical attendant thinks he will surely find that "matter has formed," and hopes that he may be more fortunate this time in striking it. Armed with a narrow, sharp-pointed knife, and with a vivid mental picture before him of the proximity of the carotid artery, he has much difficulty in securing any but the most restricted view of the field of operation. If successful in seeing the tonsillar region he probably thinks it best to thrust the knife into the most inflamed and prominent part which presents, though, for choice, he prefers to insert it into the tonsil itself, as safer and offering more chance of reaching a "tonsillar abscess." If no pus appears, and the patient is sufficiently tolerant, he may make two or more stabs into the tonsil, and the failure to find pus is glossed over by the encouraging statement that the bleeding will do good. This is a wiser comfort than the assertion that the abscess is not "ripe," for at the next visit one may be met with the disconcerting announcement that it "burst in the night."

It seems to me that the uncertainty of relieving a quinsy is due to a want of appreciation of its usual location, and that the anxiety connected with opening the purulent collection can be entirely avoided by not using a knife and by adopting a safe and equally effective instrument.

A quinsy, or an acute collection of pus in the faucial region, never forms in the tonsil itself. Although small, discrete foci of suppuration may occur within the lymphoid follicles of the tonsil, this takes place as part of the process of an ordinary tonsillitis, and does not give rise to the acute collection recognized clinically as "a quinsy." The latter is always peritonsillar, and forms in the areolar tissue between the tonsil and the pharyngeal aponeurosis. In very rare cases it collects externally to the tonsil. More frequently it is met with posteriorly—in the prolongation of the posterior faucial pillar. But in the large majority of cases—over 90 per cent., in fact—the abscess forms above and in front of the tonsil. It is only the latter condition I propose at present to consider.

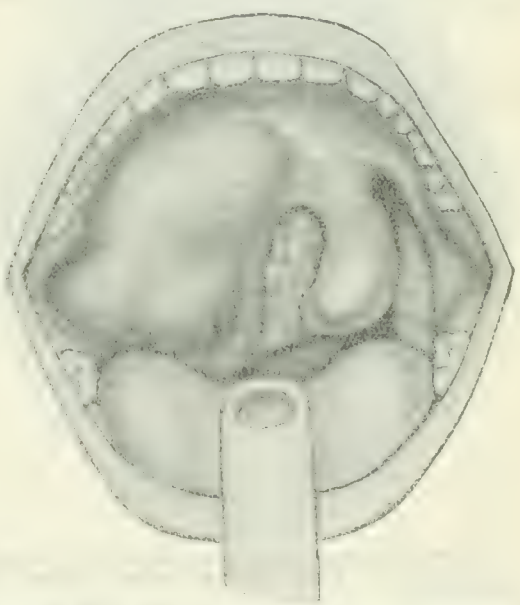


Fig. 1.—Acute peritonsillar abscess in a female patient, aged 26. The tonsils had been incompletely removed at the age of 15, and since then the patient had suffered from repeated attacks of tonsillitis. These attacks had doubtless caused the adhesions between the tonsil stumps and the anterior faucial pillars, and these adhesions tended to cause and aggravate recurring attacks of quinsy. Both tonsils show lacunar tonsillitis. The inflammation of the right tonsil stump bulges forward the faucial pillar, to which it is adherent. Above this is the peritonsillar abscess, pushing the median raphe of the palate to the left and causing oedematous inflammation of the uvula. As the quinsy is situated above the tonsil it distends the soft palate, and brings it much nearer to the front teeth (compare Fig. 2). The abscess in this case burst spontaneously through the supratonsillar fossa.

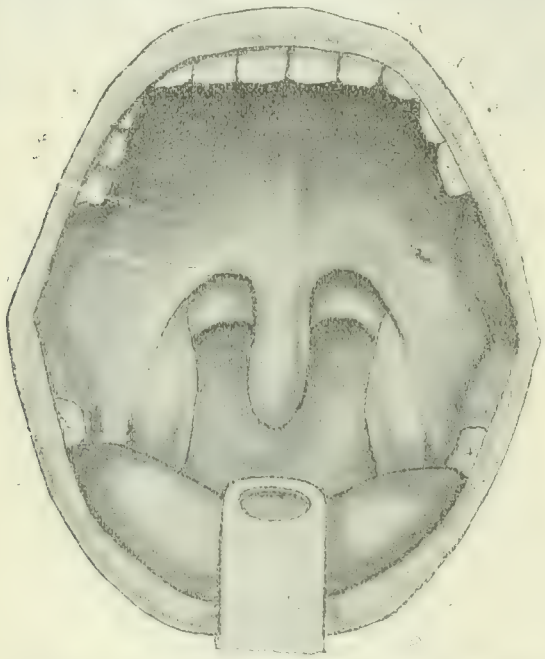
The clinical symptoms of this affection are so well known that it is only necessary to point out that, although the tonsil itself is never the site of the abscess, it frequently shows some signs of lacunar tonsillitis, and may be raised from its bed by the underlying suppuration. This occurs in the region of the supratonsillar fossa, above and external to the tonsil, and between the posterior and anterior pillars of the fauces. The latter is bulged forward and upward, and distended over the swelling; while the posterior pillar, the margin of the soft palate, and the uvula are frequently acutely oedematous (Fig. 1).

Left to itself the peritonsillar abscess generally bursts spontaneously into the mouth. The site of rupture often escapes detection, as in a large number of instances—probably the majority—it takes place through the supratonsillar fossa, and the pus trickles down over or behind the tonsil. But sometimes a quinsy will rupture through the soft palate, and the opening is apt to pass unnoticed since it may only be large enough to admit a small probe and allow of a slow

oozing out of pus (Fig. 2). This is the route we should follow when relieving the pent up-pus.

To reach the abscess the soft palate itself must be traversed, and the "site of election" is a point which can readily be located by taking the following bearings: If an imaginary horizontal line is drawn across the base of the uvula, and another vertically along the anterior faucial pillar, they will intersect at a point overlying the supratonsillar fossa. Just external to this is the best point for opening a quinsy (Fig. 3). Another guide is that this point will be found on an imaginary line extending from the base of the uvula to the upper wisdom tooth on the same side.

To reach the abscess cavity it is sufficient to provide oneself with a pair of Lister's sinus forceps, or one similar to that figured on page 662. In most cases the patient can only open the mouth to a very limited extent, and inspection and precision are greatly facilitated by the use of a frontal mirror or searchlight. The field of operation is cleansed and sprayed



2.—Shows site of spontaneous opening of an acute peritonsillar abscess on the left side; about ten days after rupture. From a man, aged 30.

with a 5 per cent. solution of cocaine, and the patient's head steadied by an assistant. A general anaesthetic should never be given. If the surgeon is uncertain as to the presence or exact situation of the pus, it is easy to feel the region with the end of the forceps. When this encounters a resistant cartilage-like tissue he should "tap" onwards until the sensation of a boggy surface is reached—in the area above indicated. It is then sufficient to push the forceps backwards, with a slight inclination outwards, in order to reach the pus. In cases which have existed for a week or so the collection may be near the surface, but with a shorter history we may have to go to a depth of two or three centimetres. As the forceps are withdrawn the blades should be opened widely, as in Hilton's method, so as to produce a vertical opening through which the pus pours into the mouth.

There are several advantages in avoiding the use of a naked knife. The operator need have no anxiety as to a possible risk of wounding a large vessel, and the patient is much more likely to permit the proceeding. If a mistake in diagnosis should have been made, or the operator fail to open the abscess, the patient is not so apt to resent a manœuvre which, after all, he frequently regards as only a manipulation of examination.

As a matter of fact, I can only remember one instance in which I failed to open a quinsy, although I have now employed these forceps in many dozens of cases. The method has also the advantage of considerably curtailing the duration of the illness, as pus may frequently be found as early as the third day, and sometimes at the end of forty-eight hours from the commencement of the attack.

As the procedure is safe and simple, there need be no hesitation in adopting it in an affection which is so painful and debilitating, with risks of pneumonia, albuminuria, haemorrhage, and even death from suffocation, if the abscess is left to open spontaneously.

There are only two other methods which appear to me to be equally safe. Thus, J. Killian reaches the abscess by introducing a curved, blunt probe through the supratonsillar fossa.[5] I have not been successful in my trials with this plan, except in cases of some duration, and I do not find that patients readily lend themselves to it. The other method is that suggested by Moure, of cutting through, at the "site of election" already described, with a galvano-cautery knife.[6] The principal objections to this method are that the treatment of quinsy is generally in the hands of the family physician, and the necessary armamentarium is not always at hand. Besides, patients are frequently so worn out and nervous, that the idea of treatment with "a battery" would be rejected in many cases. A great advantage of the plan I

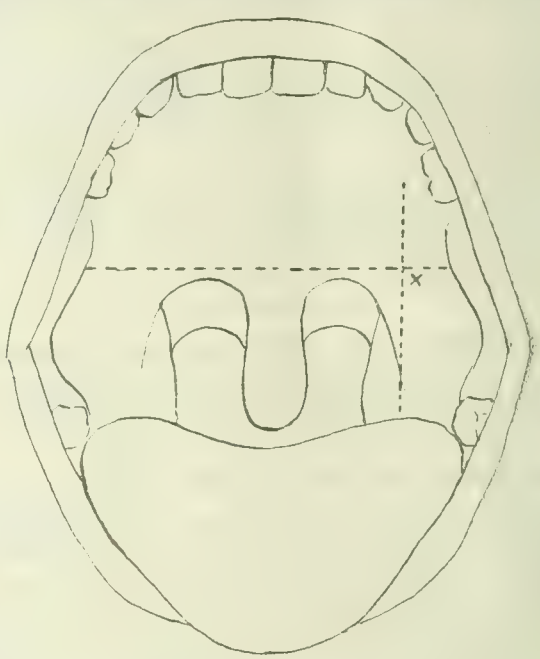


Fig. 3.—Semi-schematic drawing to indicate the site for opening a peritonsillar abscess.

have described is that the instrument and preparations are so little alarming that the patient's consent to the exploration can generally be obtained.

REFERENCES.

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SOFT FIBROMA OF THE LARYNX AND NECK.

By F. T. PAUL, F.R.C.S.,
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In the BRITISH MEDICAL JOURNAL of January 7th, 1905, Sir Felix Semon relates the case of a patient suffering from the above rare condition. In his valuable comments on the case he states:

> It is, in fact, the first case, so far as I know, in which a pure soft fibroma has ever been observed to have involved simultaneously the larynx and neck.

The specimen removed by Sir Felix Semon was sent to Mr. Shattock for pathological examination. He considered it probably a neuro-fibroma, and states: "There is, as yet, no record of any similarly disposed laryngeal fibroma."

In 1893 I showed at the Liverpool Medical Institution a case pathologically similar; though being further advanced and more rapidly growing, it was not alike in clinical details. I described it then as an extrinsic spindle-celled sarcoma of the larynx, with marked fibrillation of the cells, and as "of

an almost or altogether innocent nature." The patient, a female aged 20, was sent to me by our laryngologist, Dr. Middlemass Hunt. She had suffered from gradually-increasing dyspnoea for two years. When seen the growth involved the right side of the larynx in the neck, and had spread under the mucous membrane to the neighbourhood of the epiglottis and pharynx, where it appeared as pale rounded elevations of unbroken mucous membrane, which obstructed the view of the interior of the larynx. Dr. Hunt obtained snips from the growths in this situation, which I examined with the microscope, and finding them of a probably innocent nature, resolved to explore the tumour in the neck with a view to the possibility of being able to shell it out, or at any rate to relieve the breathing. Up to this time tracheotomy had not been absolutely necessary, but it became urgent before she was fully under chloroform, and information was at once obtained which showed that the growth had spread beyond the scope of removal, for it already surrounded the top of the trachea and bulged into it between the cartilages. Through the incisions the tumour in the neck was examined, and found to consist of bunches of more or less spherical growths, which could easily be isolated and separated, both from each other and the surrounding tissues, but their distribution was too wide to encourage an effort to make a clearance of them. The microscopical appearance of the nodules removed exactly resembled the illustration in the British Medical Journal of January 7th, and the arrangement of the growths would support Mr. Shattock's suggestion of their neuro-fibromatous nature.

I showed the patient again at the Liverpool Medical Institution in 1894. She had not only never been able to dispense with the tracheotomy tube, but it had to be gradually increased in length, and was now 5 in. long. The tumour showed no tendency to spread upwards, but extended further down the trachea towards the chest. From this time there was an increasing difficulty in respiration. We used rubber tubing fixed in a rubber shield for a tracheotomy tube, and lengthened it until it reached the bifurcation of the trachea, when the strangulating effect of the growth got the better of our efforts, and she died on March 7th, 1895.

A *post-mortem* examination was not allowed, but a free examination of the neck showed that the entire larynx and trachea down to the bronchi was surrounded by bunches of "soft fibromatous" growths, such as those depicted by Sir Felix Semon.

I call attention to this case because of its extreme rarity, as indicated in the paper referred to, and because it was only published in a provincial journal, in which it would not be likely to attract attention. It may be, too, that a knowledge of the natural course of such a tumour when unchecked by operation might be a help and encouragement to thorough and radical surgical treatment of the disease when seen in an earlier stage.

COMMONLY OVERLOOKED FACTORS IN VOCAL MECHANISM.

By Major R. F. E. AUSTIN, R.A.M.C.,
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There is an almost universal idea that all of us *naturally* possess either a good, bad, or indifferent voice. As a matter of fact, Nature is directly responsible for one, and one only, of these conditions; the others must be attributed to man's unconscious departure from Nature's laws. The tone of the voice may be compared to the rings a smoker can make; if he does not get a ring to his satisfaction he places the parts employed in its production in another position; and, once a perfect ring is formed, if the position of the parts is not altered, all the following rings will be perfect also. Of course the size of the tone, like the size of the smoker's ring, will depend upon individual differences, but it will be none the less perfect for that.

Now, if the proper breath pressure is used and the cords are kept approximated throughout the whole compass in the position that first produced a good tone—of course they must relax and stretch to determine the pitch of a note, but the space between them must remain unchanged—and the pharynx and mouth are kept properly opened, a perfect tone is bound to be the result; the tongue and lips must, of course, be moved for the purposes of pronunciation, but this can be done without greatly diminishing the cubic capacity of these resonance chambers.

It cannot be too strongly insisted that the avoidance of needless escape of breath is the only way to attain a correct, clear, well-controlled voice. If it is borne in mind that it is the breath which is resisted in its passage outwards through the vocal cords which originates tone, and not the amount of breath which passes through, it will be readily seen that the closer the cords are approximated the acuter is the tone and the less the waste of breath, consequently less effort is required to sustain a tone. In other words, a certain degree of approximation of the cords is necessary for the scientific production of tone, and this condition must be present at the very instant that the tone is sounded and be maintained throughout phonation. Only by careful experiment can the proper degree of approximation be determined. When right it will be found that the amount of breath pressure necessary to set the cords vibrating fully is very small. If they are too wide apart, great breath pressure—speaking comparatively—is needed, even for the production of soft tones. On the other hand, if the glottic chink is too small the resulting tone is very acute, metallic, and penetrating, whatever amount of breath pressure is used.

By far the greater number of us do not possess full control of the adductor muscles of the cords, and are therefore unable to quickly place and keep the cords in the most appropriate position, and it is surprising what a number of professional voice users, as well as amateurs, fail in this respect.

Needless to say, the singer or speaker who performs with an unduly open glottic chink does not grace the professional stage for long, for unless force is used the voice is deficient in carrying power, the amount of force necessitated depending upon the space between the cords. Now unduly forced breath pressure tends to still further open the glottis, and to prevent this the adductor muscles of the cords are put on the strain; this, if long continued, leads to singing out of tune, hoarseness, and other vocal troubles, and more often than not the muscles of the pharynx and tongue are also involuntarily contracted and cause the throaty tones so often heard. Again, suppose phonation is started with duly-approximated cords, unless great care is exercised and only the proper amount of breath pressure employed, the cords will be forced apart, or the adductor muscles will contract fully and tightly close the glottis, the resulting tone being harsh, metallic, and penetrating.

The majority of voices are lost, not from overwork, but as a result of improper emission. With duly approximated cords the voice can be heard in the largest hall without obvious effort on the part of the performer, whether singing or speaking pianissimo or fortissimo. The vocal cords must be only played upon by the breath if their best tone is to be obtained. A forte tone should only be the result of gradually increased equal pressure. If the voice is properly produced the singer or speaker knows that this is so by the feeling of delightful ease that is experienced; there is such a grip upon every note that he feels he can do just as he likes with it, whether loud or soft.

The only difference between the perfect singing voice and the perfect speaking voice is that in speaking the range of notes used is limited to only a few, and full use is not made of resonance; therefore speech is less musical, more acute and defined in pronunciation than singing.

As will already have been gathered, the whole question of voice hinges on the perfect control of the adductor muscles of the cords. Now, it has long been known to physical culturists that to obtain quickly the thorough control of any muscle, or set of muscles, they should be developed by brisk movements, which fully contract them. In the case of the adductor muscles of the cords, this can only be done by using the voice in a most inartistic although physiological manner. In other words, speak or sing words quickly in acute penetrating tones ("Pat-a-wat-quack" is an excellent phrase for this purpose). As already explained, this tone is the result of the cords being approximated to their closest and fullest extent. The voice should be extended up and down, note by note, in this manner until the limits of the compass are reached. Before this has been done classification into soprano, baritone, etc., should not be attempted.

When able to obtain acute metallic ringing notes in the whole of the compass with ease, sustaining the various vowels should then be attempted, and in the first instance this can best be accomplished by prefixing "Pat-a-wat" to them, thus: "Pat-a-wat-a-*way*," "Pat-a-wat-a-*wee*" "Pat-a-wat-a-*wy*," "Pat-a-wat-a-*woh*," etc. Afterwards they must be practised by themselves, and when perfected, words, phrases, etc., should be tried in the whole of the compass. It should be

noted that the vowel "Ah" must not be used until the voice is thoroughly under control. When this is so, there is no better vowel for practice, for it helps to give the open throat so very necessary for good voice production, but if used too early in the training, it tends to force the vocal cords apart.

No attention is paid to breathing, the whole of the mind is concentrated at first on getting a loud, sustained, metallic ringing tone. When the habit of contracting quickly and fully has so to speak been impressed upon the adductor muscles of the cords, gradations of tone can be carried out with safety and delightful ease, and it will be found that whatever amount of breath is required for phrasing, etc., can now be taken in and scientifically dealt with without having to worry about breath control. What is thought a normal breath now would not perhaps be considered one in, say, three months' time, for as control is obtained of the adductor muscles of the cords the muscles of expiration will also come under the influence of the will and inspiration unconsciously becomes deeper; but by no stretch of the imagination can this increased chest capacity be said to be abnormal. All the deep breathing exercises in the world cannot prevent the undue escape of breath during phonation, if the aperature of exit is too large, which is the case in ninety-nine out of every hundred persons. Unconsciously, from the first the pupil has been learning abdominal breathing, as it is impossible to say "Pat-a-wat" without an abdominal upheaval.

Now on attempting to sing with a good tone, the utmost use must be made of the mouth and pharynx to add all the resonance possible. The *voce di petto* of the Italians is simply and solely the result of duly approximated cords and an open pharynx and mouth. The chest plays only a very minor part in its production; in fact if any attempt is made to add resonance by filling it out unduly, it will be found most difficult to control this extra amount of air. Moreover, it is hard to understand how a chest full of compressed air can make any difference to its resounding qualities, and under the circumstances singing becomes more a feat of strength than a natural and pleasurable exercise.

No reference has been made to such terms as registers, chest note, head note, forward tone, etc., for in the properly-produced voice there is only one register or mechanism, and as long as the mind is capable of conceiving the pitch of a note, the cords will relax or stretch to produce it; but the size of the aperture between the cords remains the same throughout the whole of the compass. Every vibration partakes of the whole resonance of the cavities into which it can enter, and there is only one place of origin and emission of both the highest and lowest notes whatever the sensation may be.

A system of instruction such as the one sketched is actually in existence, and it has produced and is still producing amazing results in an incredibly short time.

But, to be a successful singer or speaker the possession of a voice is not enough; mental ability of an artistic kind is also needed, with, of course, a thorough knowledge of elocution and music.

SOME OBSERVATIONS ON THE PATHOGENESIS AND PREVENTION OF LOSS OF VOICE IN SINGERS.

BY JOBSON HORNE, M.D., B.C.CANTAB., M.R.C.P.LOND.,
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THE often-heard lament of the present age over its poverty in fine voices, and the want of lasting power in singing voices generally, has led to various explanations and to the formulation of extravagant theories. Some have attributed the decline in singing to the rise in pitch, which has been gradual, yet very considerable, during the past century; others have held composers responsible for not having sufficiently considered the voice, with the result that the vocalist has had to disregard his capabilities and put his vocal cords at everything—singable or unsingable. It is not the purpose of this paper to consider whether these explanations are or are not sufficient, or to offer any new theory in place of them; in passing, however, one might point out that neither the British language nor the British climate lend themselves so naturally to the old Italian method of voice production as a language teeming with vowels, and particularly with final vowels, and spoken in an atmosphere which is not conducive to chronic head colds.

The purpose of the paper is to summarize briefly the sequence of changes that are induced in the vocal cords by excessive or unnatural use, which may be represented in modern language by the word "strain"—an excellent term, unscientific, comprehensive, and truly descriptive of the "begin-all" and the "end-all" of faulty voice production.

The following facts have been arrived at partly through clinical observation and partly through *post-mortem* investigations, and it is hoped that the recording of them will serve further to emphasize the interdependence of art and science which has recently been brought under our notice.

The laryngoscope unaided affords practically no information about the finer movements and vibrations of the vocal cords, which are so essential to the production of the singing voice. To observe these it is necessary to supplement the laryngoscope with the stroboscope—an instrument known to scientists for nearly a century, and to children as a toy, in its modified form of the zoetrope, for almost the same length of time. To Dr. Musehold, of Berlin, we are indebted for knowledge about the singing voice that has been gained by the means of this instrument; in his clinic in Berlin, in 1897, I was afforded the opportunity of witnessing the more delicate functions of the cords, unobservable with the unaided laryngoscope.

Now to pass to the physiological changes which take place in the vocal cords during the production of the singing voice, changes which, when exaggerated, become the pathological factors to render the cords unfit for performing the finer movements required in singing. Of these changes hyperaemia is *facile princeps*.

Increased vascularity is the natural concomitant of increased function. The determination of blood to the vocal cords is in direct proportion to the effort made to produce the voice. It is possible to verify this by transillumination of the larynx. If in a darkened room an electric lamp—such as that used for illuminating the frontal sinus—be placed against the thyroid cartilage and the image of the cords be observed in a mirror in the pharynx, it will be noticed that the greater the effort used in the production of notes the more opaque the cords become; the increased opacity is due partly to increased muscular tension, but mainly to increased congestion of the vessels of the cords and to general vascularity. This hyperaemia may be further verified by observing the surface of the cords in the usual way. The increase both of muscular tension and of vascularity is illustrated in the accompanying photographs (Figs. 1 and 2)

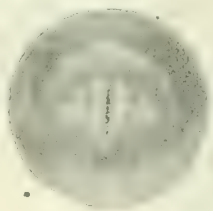


Fig. 1.—Vocal cords in "falsetto register," *ad libit.*

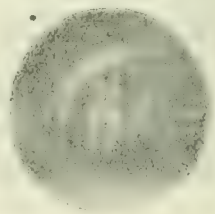


Fig. 2.—Vocal cords in "chest register," *ad libit.*

taken by Dr. Musehold in 1887. The two photographs were given to me by Dr. Musehold to show the condition of the vocal cords during the production of the singing voice in the "falsetto" and "chest" registers respectively. One conclusion arrived at by Dr. Musehold from his investigations being that in the "falsetto" register the glottis is only widened and narrowed, whereas in the "chest" register the glottis is opened and closed, and the cords themselves become more rounded or sausage-shaped, in contrast with their condition in the "falsetto" register.

At the present time I am not concerned with registers, nor can Dr. Musehold be held responsible for my deductions from his physiological observations to explain my starting-point of a definite morbid process. I desire only to draw attention to the condition of the cords during the excessive or unnatural use of a register with a view of considering the pathological changes which result when the abuse is persisted in. The superficial vessels, owing to the determination of blood to the surface of the cords, become tortuous to a degree almost amounting to varicosity. In fact, submucous haemorrhages have been recorded as occurring after a straining of the singing voice. Excessive vascularity if often repeated acts as an irritant, and the capillaries and vascular elements proliferate, as

may be seen in Fig. 3. Hyperplasia of the connective-tissue elements and of the submucous glandular structure ensues. Increased functional activity at first accompanies the latter, and is evidenced by a greater flow of mucus on to the surface of the cords, and by more frequent efforts to clear the voice. The hyperplasia may in itself become a cause for

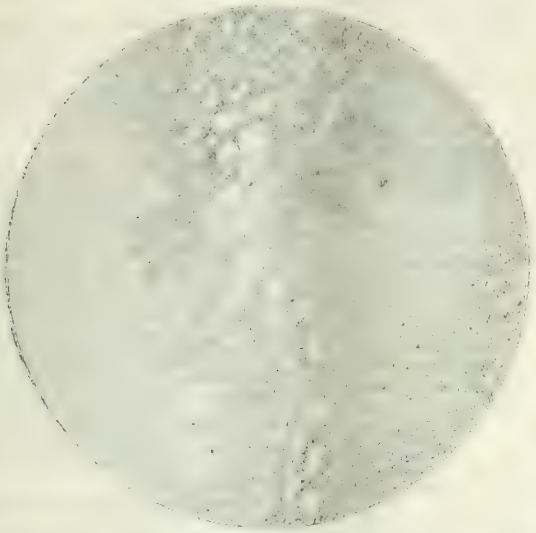


Fig. 3.—Photomicrograph of vertical section through the posterior end of a vocal cord, showing proliferation of the blood vessels and hyperplasia of the subepithelial connective tissue.

hyperaemia, tissues having some power of regulating their blood supply. The formation of new connective tissue is progressive, and the strands of fibrous tissue interlacing in amongst the glandular structure compress and gradually

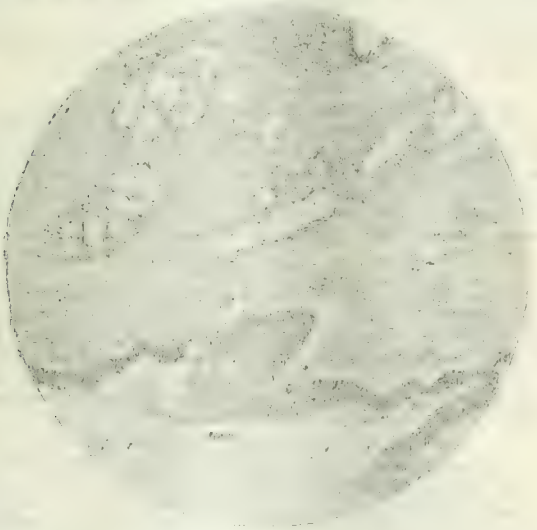


Fig. 4.—Photomicrograph of vertical section through a vocal cord, showing the increase of fibrous tissue compressing and obliterating the glandular structure.

obliterate it (Fig. 4). In consequence of this the supply of mucus to the cords is diminished. The muscle fibres themselves become surrounded by connective tissue, isolated areas are cut off and degenerate, a greater effort is required to produce the singing voice, and this increased effort in itself tends to renew the progressive nature of the morbid process (Fig. 5). The epithelium undergoes, *pari passu*, a hyperplasia, in time followed by a metaplasia, with, perhaps, the development of warty excrescences about the vocal processes and a a diffuse pachydermia laryngis.

In even quite the earliest stages of the morbid process I have described, the singing function must become seriously impaired. The intrinsic muscles, highly differentiated and specially trained, only too readily forget their office. The changes in the epithelium materially affect the vibratory power of the cords and the quality of the notes produced.

The treatment indicated by a study of the pathogenesis is rest—absolute rest. Local applications, local remedies of all kinds, can only aggravate and irritate the processes it is sought to arrest. As regards prevention, the natural conclusion, and the one of first importance, is to ascertain the capabilities of any individual vocal organ, and then to develop



Fig. 5.—Photomicrograph of vertical section, showing hyperplasia of the epithelium and papilliform digitations. The strands of fibrous tissue in the subepithelial layer are extending amongst the intrinsic muscles of the vocal cords.

rather than to train them, and above all things to let the voice be natural.

In conclusion, it affords me pleasure to express my gratitude to the Council of the British Medical Association, under whose auspices my investigations into the pathology of the larynx have been conducted.

PRELIMINARY NOTE ON RENAL ACTIVITY DURING ANAESTHESIA.

BY W. H. THOMPSON, M.D., Sc.D.,
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RECENT observations which I have carried out in this College have disclosed an unexpected effect on the secretion of urine produced by ether and chloroform when inhaled for the purpose of inducing anaesthesia.

Two varieties of experiments on this question had been in progress for some time past. In the first the urine was collected by means of cannulae placed in the ureters, the animals being narcotized with morphine, supplemented, when necessary, by a short inhalation of a mixture of ether and chloroform. In the second class the urine was drawn off from the bladder of the animal (female) by catheter, no previous narcotic being required.

In both sets of experiments observations were made for the following periods, the duration of which varied from one to two hours:

(*a*) Normal secretion before administration of the anaesthetic;
(*b*) During anaesthesia; and
(*c*) For one or more periods afterwards.

Two opposite effects were noted in the case of each anaesthetic. During the administration, some of the experiments showed a pronounced increase in the secretion of urine, others a marked depression. Both types of influence were exemplified in each class of experiment, but the increase effect was more frequent and pronounced in the ureter experiments, the decrease in the catheter experiments.

The following are examples of both kinds of result, the figures representing cubic centimetres of urine per period. During period (*b*) the anaesthetic was given:

I.—*Ureter Experiments.*

(*a*)	(*b*)	(*c*)	(*d*)	
12.6	25.0	32.75	24.0	(chloroform)
6.7	31.7	31.7	24.1	(ether)

II.—*Catheter Experiments.*

[illegible]	3.6	40.0	114.0	(chloroform)
38.0	1.0	13.5	48.5	(ether)

Still more recent experiments have shown how these two opposite sets of results may be reconciled. From these it appears that the early effect of both anaesthetics, lasting up to the period of complete insensibility, is ordinarily an increase of the secretion of urine. This, as a rule, is more pronounced in the case of ether than of chloroform. But during full anaesthesia, however prolonged—and this is the remarkable result—*the secretion of urine is almost completely arrested.* By full anaesthesia I mean a degree just beyond the loss of conjunctival reflex—namely, that required in surgical operations. The depressing effect during this period appears likewise to be more pronounced with ether than with chloroform.

Upon removal of the anaesthetic the kidneys rapidly recover, and, at all events in dogs, are actively secreting once more within five or ten minutes, this activity passing on to a condition of hyperactivity which lasts for some hours.

The value of the foregoing results (obtained with dogs) has been greatly enhanced by corroboration from the clinical side. Observations on renal activity during surgical anaesthesia, kindly carried out in Mercer's Hospital by Mr. Maunsell and Mr. Seton Pringle, together with Dr. Harold Pringle, Senior Demonstrator of Physiology in this department, have yielded results in the case of ether entirely in accord with my own. These will be published *in extenso* later, but meanwhile I am permitted to say that with the onset of insensibility in ether narcosis a condition of depression of urinary secretion sets in and continues which amounts in many cases to almost complete suppression. This is preceded in some instances by a marked increase of secretion during the induction of the anaesthesia. The following are the figures from one observation:

Rates of Secretion of Urine.

(a) For twenty-four hours ending at 9 o'clock on morning of operation = 42 c.cm. per hour.

(b) For two hours previous to ether inhalation = 104 c.cm. per hour.

(c) During the induction of anaesthesia (time 16 mins., urine 65 c.cm.) = 210 c.cm. per hour.

(d) During anaesthesia, first half-hour, 3.5 c.cm.; second half-hour, 1.7 c.cm.

It would seem, therefore, that this somewhat surprising effect is one of ordinary occurrence. That in the vast majority of cases it appears to do practically no harm is almost more remarkable than the fact itself. It is hardly necessary to say that our investigations extend also to alterations, both qualitative and quantitative, in the excretion of urinary constituents under anaesthesia. The full results will be published at an early period.

TRANSILLUMINATION OF THE ANTRUM OF HIGHMORE.

[With Special Plate.]

By A. BROWN KELLY, M.D., D.Sc.,

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The term "transillumination" (Durchleuchtung) was introduced by Czermak in 1858 to designate a method of examining the larynx devised by him. This is carried out in a darkened room by concentrating a light upon the front of the patient's neck, and observing in a laryngeal mirror the various parts of the larynx and trachea as they are successively transillumined by the light applied to the corresponding region externally.

While experimenting with this method, Voltolini found that the bones of the face could be transillumined if in a dark room a small incandescent lamp were held in the closed mouth. Although he failed to attach the proper significance to the phenomena he described, the credit of having first transillumined the antrum (1888), and of having indicated that this procedure would be of value as a diagnostic test, belongs to him.

In the following year Heryng placed transillumination on a practical basis. He showed that when the light traverses a healthy antrum, part of the cheek and the lower eyelid become red (for convenience we shall term the bright area the antral *tache*), while in empyema these regions remain dark owing to the altered conditions in the cavity preventing the passage of light. On the other hand, he proved that when a serous cyst occupies the antrum transillumination is unaffected, while if it distend the cavity the area of brightness is increased.

Vohsen, in 1890, by using a stronger light, showed that the eye also may be transillumined, the pupil then appearing as a red disc.

In 1892 the writer pointed out that during transillumination a person with closed eyes sees a dull red glow if the antra be normal, but if the antral *tache* be absent the subjective light sensation will also be absent.

Successful transillumination yields the three signs referred to—namely, the antral *tache*, the bright pupil, and the subjective light sensation. As to their importance the most diverse opinions have been expressed. I have, therefore, endeavoured to analyse the appearances observed during transillumination and to assign to these, individually and collectively, their proper value.

For the purposes of transillumination I have found a lamp, as depicted in Fig. 1, convenient. To the end of a suitably curved handle an incandescent lamp is fitted, over which various end pieces slip. One of these is scoop-shaped, and rests on the tongue during ordinary or palatal transillumination; another completely encloses the lamp, and has an opening on one side, which can be applied to the posterior surface of the superior maxilla inside the cheek for Escat's retro-maxillary transillumination; the third is funnel-shaped and open at the end for transillumination of the frontal sinus.



Fig. 1.

Transillumination should be carried out in a perfectly dark room. If the patient wears a dental plate, this must be removed. The lamp should be placed in the middle of the tongue and depressed sufficiently to keep it from burning the palate. The current should be gradually increased by means of a rheostat until the proper intensity is attained. Slight differences between the two sides may not be observed if too strong a light is used; while, on the other hand, a comparatively powerful light may be required to penetrate the tissues when thick.

Transillumination of the Normal Antrum.

Under ordinary circumstances the parts of the face that transillumine are those around the lips, the cheeks, the bridge of the nose, the lower eyelids, the pupils, and the eyeballs to the inner side of the cornea. Only those bright areas or *taches* the intensity and extent of which may be influenced by the condition of the antrum will be considered.

Crescentic Tache.

It is very commonly supposed that in transillumination the light passes through the anterior wall of the antrum and produces redness of the corresponding part of the face. This is not what usually occurs. In the great majority of persons it will be found that the illuminated area has a crescentic shape and lies above the lower margin of the bony orbit, which is indicated in Fig. 2 by a dotted line. This is at once evident if the test be practised on a cadaver with sunken eyeballs, when only the lower eyelids and tissues situated above the infraorbital margins are transillumined. The light that produces the crescentic *tache* passes through the roof of the antrum; this may be demonstrated by drawing forward the lower eyelid, when the conjunctival sac is found to be rendered specially bright by the stream of light from below.

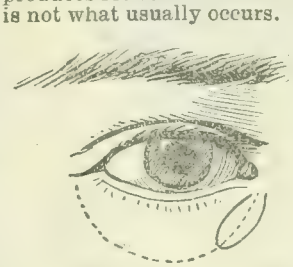


Fig. 2.

Infraorbital Tache.

In certain individuals, however, the light traverses the facial wall of the antrum and produces a bright area, which may be termed the infraorbital *tache*. The persons in whom this *tache* is observed are those that transillumine well—for example, young adults, spare individuals, and those with good-sized, thin-walled antra. In short, to obtain the infraorbital *tache* the conditions for transillumination must be

more favourable than when the crescentic is alone observed, assuming that the light employed is of the same intensity.

If a good subject for transillumination be examined with a light which is at first feeble and is gradually made stronger, it will be found that the region first rendered bright is the conjunctival sac; the crescentic *tache* afterwards comes into view, and last the infraorbital *tache*. The two latter are at first separated by a curved dark area which corresponds to the infraorbital margin, but as the intensity of the light is increased they merge into one another, the characteristic crescent disappears, and the cheek from eye to alveolus assumes a red glow.

Lachrymal Tache.

Every one who examines a large number of persons by transillumination cannot fail to observe the frequent presence of a bright area beneath the inner third of the eye. This may attract attention, either because it is the only part lit up, the crescentic and infraorbital *taches* being absent, or because it is the brightest portion of the illumined region. In the former case, especially when the condition is bilateral, the question naturally arises—Does this *tache* indicate a normal, though possibly small, antrum?

Experiments were made on cadavera in order to determine the significance of the illuminated area referred to. The writer's first impression that it corresponded to the upper and anterior angle of the antrum proved to be incorrect, for on filling the cavity with wool the *tache* still appeared on switching on the current. It was then thought that it might be prodnced by the passage of light from the middle meatus of the nose. This supposition was also shown to be erroneous, or, at least, to afford an insufficient explanation, for on firmly plugging, not only the middle meatus, but the whole nasal cavity, the *tache* was not obscured, the antrum meanwhile being empty. Finally, after thoroughly packing both nose and antrum, the *tache* no longer appeared in several of the subjects tested, while in others it was still present, as well as a triangular bright area to the outer side of the ala. It is therefore evident that the *tache* does not correspond to a special part of the antrum or nose, but that the light necessary to produce it may come from either, or may pass upwards through the soft tissues covering the canine fossa.

The *tache* was carefully mapped out in a number of patients, and its situation noted. In all, this was found to be the same, namely, beneath the inner third of the eye, and overlying the lower and inner part of the orbital margin, a small portion of the *tache* being above the margin, while the greater part was below. (See oval area mapped out in Fig. 2.)

On examining and transilluminating anatomical preparations with reference to this area, it became apparent that the *tache* corresponded to the lachrymal groove. Hence the term "lachrymal *tache*," which is here proposed.

The presence of this *tache* does not therefore indicate that the antrum is transillumined. There may be a brilliant lachrymal *tache*, although the cavity is full of pus or packed with gauze.

Nasal Tache.

In transilluminating the antrum, part of the bridge of the nose is very often seen to be more or less bright. The situation of this illuminated area, or "nasal *tache*," corresponds fairly closely with the nasal bone. One or both sides may be illumined. The presence of the *tache* and the degree of its luminosity depend upon the amount of light that reaches the under surface of the bony nasal bridge. Any condition interfering with the patency of the nasal fossa anteriorly tends to diminish or abolish the *tache*, while abnormal width, especially of the inferior meatus, tends to its increased brilliancy.

The nasal *tache* gives no direct information as to the condition of the antrum. If taken in conjunction, however, with the symptom of subjective light sensation, and with the illumination of the pupil it may assist in preventing misconceptions. Thus, an inequality in these two signs is occasionally met with in patients whose crescentic *taches* are equally bright. This anomaly may often be explained by observing the nasal *taches*, when they are seen to present a corresponding difference, which, in turn, is due to intranasal variations.

Intranasal Appearances during Transillumination.

Some authors (Robertson, Caldwell) have recommended the examination of the nasal cavity during palatal transillumination, maintaining that if empyema is present the inferior and middle turbinates will be in the shade. I have tried this test frequently, but have not found it of value. The light streams through the palate so strongly that the lower part of the nasal fossa and the inferior turbinates are brilliantly lit up, making it difficult to determine whether any light comes from the antrum.

Pupil and Subjective Light Sensation.

During transillumination the pupil is dilated. If there is difficulty in catching sight of it, this is best overcome by looking down into the patient's upturned eyes.

In applying the subjective light test the current should be rapidly switched on and off several times while the patient keeps the eyes closed. If conditions are favourable, an impression of light is received in each eye separately. It is thus possible for the patient to say whether the light is brighter on one side than another, or is present on one side only. If the difference between the two sides is not marked, or if the patient is uncertain or unintelligent, his opinion should be accepted with reserve.

The subjective light sensation usually corresponds with the degree of illumination of the pupil; if the pupil is bright the perception of light is marked, and vice versa. This association, however, is not constant, for in a fair number of cases light was perceived by the patient, while the pupil was not illumined; the converse was also met with, but rarely.

The greater delicacy of the subjective light test is counterbalanced, however, by the necessity of trusting to the patient's observation, and by the time needed to elicit the desired information. I therefore place more reliance on the appearance of the pupil.

Transillumination in Children and Young Adults.

In children under 10 years of age, a light of gradually-increasing intensity usually first illumines the lachrymal *taches:* subsequently the whole cheek is lit up, together with the pupils. The crescentic *taches* are not differentiated, the red glow over the cheeks being uniform, with the exception, perhaps, of the lachrymal *taches*, which may be especially bright.

In those from 10 to 15 years of age the lachrymal *taches* and pupils are, as a rule, bright. In some there is an extension outwards of the illumined area beneath the inner third or inner half of the eye.

In young adults a crescentic *tache* is usually present. This may vary in size from little more than the lachrymal *tache* to a full-sized crescentic *tache* passing to beyond the outer angle of the eye.

Thus, in young patients the extent of the transillumined area affords information as to the degree of development of the antrum. In exceptional cases this does not proceed symmetrically on the two sides. Such, at least, is the inference one is inclined to draw when, in the absence of symptoms of antral disease, the *tache* over one cavity is smaller and fainter than that over the other.

CONDITIONS THAT MAY INFLUENCE TRANSILLUMINATION.

Extra-Antral Conditions.

Experience has shown that the antrum is transillumined best in spare, thin-boned, fair persons, whose palate is not more highly arched than normal and whose nasal fossae are free and roomy. These conditions are best fulfilled in thin, anaemic women with a broad type of face.

Conversely, stout, large-boned, dark men, those with a high V-shaped palate, or with narrow and obstructed nasal passages, usually transillumine badly.

Transillumination of the pupil may be prevented by purulent ulcer of the cornea, dullness of the lens or vitreous, or closure of the pupil (Ziem). Burger thinks that the difference in transillumination of the eye may be due in a large proportion of cases to the condition of the pigment layer of the choroid.

Intranasal Conditions.

These may be either of an anatomical or pathological nature. The anatomical peculiarities which may cause the signs to be partially or totally obscured are the small size of the cavity and the presence of bony partitions. Pathological conditions, either by giving rise to the accumulation of morbid products within the antrum or by causing changes in the lining membrane, may affect transillumination favourably or unfavourably. (*a*) Conditions increasing the brilliancy: (1) Cysts with clear contents causing thinning and distension of the antral walls. (*b*) Conditions diminishing the brilliancy: (1) Collections of pus, mucus, blood, etc., which may be of intra- or extra-antral origin; (2) inflammatory thickening of the lining membrane; (3) tumours which may originate within the cavity or invade it from without.

VARIATIONS IN THE SAME SUBJECT AT SHORT INTERVALS.

It is evident that several of the conditions mentioned as influencing transillumination will vary in degree, and, consequently, in effect, from time to time. Thus, the antrum may be full of pus at one moment, while a little later—for example, after the patient has held his head in a dependent position—it may be empty; a lining membrane, which is only slightly thickened to-day, may be considerably swollen to-morrow, if an acute nasal catarrh has been contracted in the interval; the varying patency of the nasal fossae, in so far as it is dependent upon the state of the inferior turbinates, must also be taken into account.

The following experiments were made in order to find if the crescentic *tache*, pupil, and subjective light sensation could be produced by light from the nose. In a patient with a wide nasal cavity a small incandescent lamp held in the middle meatus lit up the crescent and pupil on the same side, both nasal *taches* brightly, and the pupil on the opposite side faintly; light was perceived in both eyes, but especially in that on the same side as the lamp. In another patient the lamp in the middle meatus caused the pupil to glow as brightly as when transillumined from the mouth. In a third patient palatine transillumination yielded a very bright lachrymal *tache* and a dim crescent; on packing the middle meatus both were abolished; light perception was present with and without the packing. In a fourth patient palatine transillumination yielded a very bright nasal *tache*, a faintly red pupil and subjective light perception. All were abolished on packing the middle meatus.

While these experiments showed that the manifestations of transillumination might each and all be produced by light from the nose, the examination of another set of patients proved that the illumination of the crescent and pupil, and the subjective light sensation might be independent of the passage of light through the nose. In these patients the manifestations produced during palatine transillumination were found to be unaffected by plugging the nasal cavities.

Not one of the signs elicited by transillumination is therefore absolutely reliable. The most trustworthy is the crescentic *tache*. It may certainly be produced by light which has traversed the nose only, but so exceptionally that when bright and reaching outwards to beyond the external angle of the eye, the antrum is most likely normal, although the presence of mucous or serous secretion, or even of scanty pus, is not excluded.

The additional presence of the illumined pupil and the subjective sensation of light strengthens the impression gained from the bright crescent as to the normal state of the antrum. The ocular manifestations are, however, oftener absent, and are more exposed to disturbing factors outside the antrum than the crescentic *taches*. The subjective light sensation, although a more delicate test than the illumined pupil, is less valuable, as its proper application demands a fair amount of intelligence on the part of the patient.

To determine the practical value of transillumination the undernoted statistics were compiled:

The Comparative Frequency of the Crescentic Tache, Illuminated Pupil, and Subjective Light Sensation Noted in 100 Persons whose Antra were Presumably Normal, and in whom the Hard Palate was not Unduly High.

	Crescent	Pupil.	Subjective Light.
Present on both sides equally	62	53	60
,, ,, but unequally ..	17	17	21
,, one side only	8	7	9
Absent on both sides	13	23	10

Equal crescentic *taches* and subjective light sensation were thus present in about the same number of persons (60 to 62 per cent.), while the pupils were equally illumined in about 10 per cent. less (53 per cent.). Of the three signs the bright pupil is therefore the one oftenest absent.

In those cases in which the two sides transillumined unequally abnormalities were found in the nasal fossae sufficient to account for the inequality of the crescents in 7, of the pupils in 8, and of the subjective light sensation in 12 instances. If, then, these cases be added to those in which the illumination was symmetrical, totals are yielded of 69, 61, and 72 cases in which the respective signs might be considered as equal on the two sides.

INTERPRETATION OF OBSERVATIONS.

In Health.

The above figures refer to the signs taken individually. I have recommended, however, that in forming an opinion from transillumination as to the condition of an antrum, the crescentic *tache*, with at least one of the ocular manifestations, be taken into account. Proceeding on these lines it was found that both antra were apparently healthy in 55 cases, and if to these be added 12 cases in which the unequal transillumination could be accounted for by the unequal patency of the nasal fossae, a total of 67 cases is obtained in which strong presumptive evidence is afforded of the normal state of the antra. In 15 cases the manifestations were insufficient or absent on both sides, so that one was left in doubt as to whether a bilateral anatomical or pathological condition interfered with transillumination. Lastly, in 18 cases the difference between the two sides could not be accounted for by the intranasal condition, and was such as to suggest an affection of the darker side. The presence of pus was excluded by exploratory irrigation in 9 instances, but the question as to whether the unilateral darkness was due to disease or an anatomical abnormality must remain unsettled.

To sum up, transillumination gave:

1. Presumptive evidence of the antra being normal in 67 cases.
2. Indefinite or no information in 15 cases.
3. Presumptive evidence of disease or of anatomical abnormality in one antrum in 18 cases.

The influence of an abnormally high palate on transillumination was investigated by the examination of 50 cases. Without tabulating the results, it may be briefly stated that all three signs were more frequently absent when the palate was high. Thus, with a normal hard palate, the crescent, pupil, and light sensation were absent in 13 per cent., 23 per cent., and 10 per cent. respectively; but when the palate was high these numbers rose to 24 per cent., 36 per cent., and 28 per cent. respectively. The presence of this abnormality was found to reduce the value of transillumination 20 per cent. when the association of signs (crescent and one of the ocular manifestations) was taken into account.

In Antral Disease.

The above statistics deal with the transillumination of antra which, so far as known, were healthy. Let us now determine the value of the test in the presence of antral disease. For this purpose the results of transillumination in 100 consecutive cases of antral suppuration (unilateral and bilateral) occurring in my practice have been tabulated as follows:

Crescent and one or both ocular manifestations present on the healthy side but absent on the diseased side ...	77
Crescent present on healthy but absent on diseased side ...	5
Crescent, pupil, and light sensation absent on both sides ... (Pus in both antra 13, pus in one antrum 4.)	17
Crescent, pupil, and light sensation present on both sides, and pus in both antra	1

The above figures prove that transillumination is a valuable diagnostic test in antral suppuration. In 77 cases the presence of disease is distinctly indicated, and in other 5 cases, although less marked, the evidence is sufficient to arouse suspicion. In four instances transillumination pointed to bilateral disease, whereas pus was found only in one antrum, probably the lining membrane of the empty antrum was thickened in consequence of previous disease.

In one case transillumination misled. All the signs of a healthy antrum were obtained on both sides, while in reality bilateral suppuration was going on. The very small amount of pus in the cavities, and the unusually favourable conditions for transillumination presented by the patient (an emaciated lady) accounted for the miscarriage of the test.

Fallacies.

In practising transillumination a fallacy may arise in one of three ways:

1. Transillumination may be equally brilliant on both sides, and yet one antrum may contain pus. In such a case, the amount of pus in the cavity is usually very scanty, and the lining membrane is little or not at all changed. These conditions are sometimes found when the pus is of dental or extra-antral origin. This fallacy will more readily occur if too strong a light is used.

2. Transillumination may be bright on one side and darker or absent on the other, and yet on the non-illumined side the antrum may contain no pus. The unilateral darkness may be due to the following conditions: (1) Abnormal thickness of



1.—Usual appearance when both antra are normal. The crescentic taches and pupils are bright, the infraorbital taches are less so.



2.—On the right side transillumination is normal, the crescentic tache and pupil being bright, and the lachrymal tache specially so. On the left side the lachrymal tache is present although the antrum has been packed with gauze. The nasal taches are also shown.



3.—Normal transillumination of right antrum by retro-maxillary method. The crescentic, infraorbital, and lachrymal taches, and the pupil, are bright.



4.—On the right side no transillumination of antrum, owing to purulent contents. On the left side transillumination is normal; the infraorbital tache is specially bright, and is not demarcated from the crescentic.

TO ILLUSTRATE DR. A. BROWN KELLY'S PAPER.

the bony walls of the antrum and small size of the cavity (asymmetry). (2) Thickening of the antral lining membrane in consequence of previous disease. (3) Solid tumour in the antrum. (4) More or less obstruction of the corresponding nasal fossa. On the other hand, the antrum that transillumines well may, as shown under 1, contain pus.

3. Both antra may transillumine badly or not at all, and yet they may contain no pus. The bilateral darkness is usually due to the light being too weak, or to conditions outside the antrum influencing transillumination unfavourably—for example, thick bones, high palate, and obstructed nasal cavities.

Assistance in Prognosis.

I shall merely mention the assistance that transillumination occasionally gives in forming a prognosis. Thus, if an antrum that was previously dark, after its purulent contents have been washed out, transillumines almost as well as the opposite normal antrum, the suppuration is more likely to yield to treatment than if it remained dark.

It is evident, from what has been stated, that transillumination is not an infallible diagnostic test. Not infrequently it suggests antral disease when none exists; on the other hand, if suppuration be going on in the antrum its presence is almost invariably indicated. On this account, and because of its easy application and the absence of discomfort to the patient, transillumination deserves to be used as a routine procedure in chronic affections of the nose accompanied by purulent or mucopurulent discharge.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

LEAD AS AN ABORTIFACIENT.

On March 6th this year I was called to a young married woman who had had two children. She was collapsed and complained of attacks of severe colic, vomiting, and diarrhoea. She informed me that having missed a period she had taken pennyroyal, steel pills, and gin and salts. I asked about lead, but did not examine her gums. She improved at first under treatment, but on March 12th, 13th, and 14th, she again had colic and vomiting and diarrhoea, and finally miscarried on March 16th. On March 18th I read Dr. Arthur Hall's paper in the current issue of the British Medical Journal, and then examined my patient's gums and found the blue line. I also found she had some pills other than the pink-coated ones which she had first shown me. Those which I found, and which I took away with me, were evidently hand-made, and came from Derby, so medical men in that neighbourhood had better be on the look-out for other cases.

I have tested them roughly by dissolving in HNO_3 and adding water. Potassium iodide gives a precipitate of yellow lead iodide, which disappears on boiling and reprecipitates on cooling in beautiful golden scales. Potassium bichromate also gave yellow precipitate. I should think these pills are made from diachylon.

Barnoldswick, Yorkshire. Harold C. Cadman, M.B.

The following case seems to me of interest seeing that Dr. Arthur Hall has just drawn attention to increase in the use of lead as an abortifacient. A woman, aged 32 years, complained to me of vomiting, abdominal colic, and constipation; she was markedly anaemic. Her abdominal muscles were rigid; upon flexing the thighs upon the abdomen, faecal masses, pitting upon pressure, were readily felt in the sigmoid and descending colon. Her tongue was thickly furred, and a very marked blue line was present on the gums. On questioning her, I discovered that eight days previous to my visit she had aborted, and she acknowledged that to procure this result she had taken some pills supplied to her by a neighbour. Under treatment she recovered.

Bedford. S. J. Ross, M.D.

M. B., a married woman, aged 34, with four children, called me to see her on February 20th, 1904. She gave a history of pain in the abdomen, and of constipation, and amenorrhoea for three months. A blue line was visible on the gums. She admitted taking diachylon in the form of home-made pills. There was no sign of haemorrhage.

About three weeks later I received an urgent message to visit her. On doing so I found her collapsed, with cold sweats, quick feeble pulse, great pallor, and severe haemorrhage; she aborted.

On November 17th, or some eight months later, she had a return of abdominal pain, and amenorrhoea which had lasted two months; there was no haemorrhage, but the blue line was still present. She admitted taking pills but no diachylon. On December 6th she aborted again. There was severe haemorrhage, but she recovered.

A sister of hers was taking diachylon pills at the same time, and they made her very ill, but she was found to be not really pregnant.

Manchester. W. Eales.

RUPTURE OF THE LEFT CORONARY ARTERY.

On January 30th, at 10.45 p.m., I received an urgent summons to see a patient who was suffering great pain and vomiting continuously. The patient had a history of vertigo and slight chronic gastric disturbance. I found Mrs. H., aged 76, who complained of extreme pain in the lower part of the chest, penetrating through to the back; it came on quite suddenly, and was accompanied by violent retching and vomiting, and great shortness of breath, the patient feeling as though she were "full of wind." The pulse was 90, regular and moderate in volume and pressure. The vessels were somewhat thickened, but not markedly so. There was no sign of hernia, and nothing to suggest biliary or renal colic, and the pain was not apparently of cardiac origin, but there was marked tenderness on pressure over the epigastrium, though it was not localized to any particular point. The vomited matters consisted of unchanged food, and there was no blood with them.

I diagnosed acute dyspepsia, in the absence of any other obvious lesion, and as the symptoms did not yield to ordinary measures and the pain continued acute, I gave morphine gr. ¼ hypodermically at 12 45 a.m., and at 1.15 a.m. I left the house, as the patient was much easier, though she was not sleeping and not entirely free from pain. At 4 a.m. I was told that the patient was dead, having slept quietly till 2 30, then breathed stertorously for some seconds and died in her sleep. As I had never seen her before, I obtained a *post-mortem* examination on February 1st, and found the following condition:

The pericardium was full of fluid and clotted blood, the heart itself somewhat small and showing pronounced brown atrophy; the valves appeared competent and healthy; the aorta showed numerous calcareous plates, and both coronary arteries were very atheromatous; the tissues in the auriculoventricular groove were infiltrated with blood which apparently had come from a rupture of the left coronary artery or one of its branches, which was probably caused during the strain of vomiting. The stomach showed chronic catarrh, and the vessels were injected, suggesting a recent acute exacerbation.

The patient had had food at 8 p.m., consisting in part of cold rice pudding, and this, as there was no sign or suggestion of poisoning, seems to have caused the gastric disturbance.

Had I not obtained a *post-mortem* examination, I should have been forced to conclude that death was due to the very moderate dose of morphine which I had given, but the condition found was a relief to me, although a surprise, as while I was with the patient she showed no signs of collapse and no urgent dyspnoea, such as were marked in another case of haemopericardium which I have recorded elsewhere.[1] The questions arise, When did the rupture occur? and Could the condition have been diagnosed had any one been present at the time of the occurrence?

Cheltenham. A. F. R. Condie, M.D. Edin.

[1] *Edin. Med. Journ.* September, 1903, p. 207.

MEASLES AND CHICKEN-POX OCCURRING CONCURRENTLY IN THE SAME PATIENT.

The occurrence of measles and chicken-pox at the same time in a patient is sufficiently rare to merit record. A little boy (H. J.), aged 4 years, first came under notice on January 2nd, 1905, with measles. The rash was well marked over the face, body, and arms, and had probably been out about four days. It presented all the appearances of the rash of ordinary measles, not rubeola. There was running from the eyes and nose, slight bronchitis with croupy cough, a temperature of 100.1°, and the other usual signs. The next morning two small vesicles developed on the back and one on the right leg, followed in twenty-four hours by a numerous crop. The vesicles were scattered about amongst the measly rash and seemed quite independent of it, not necessarily being thicker where the measles rash was the thickest or reddest. On the scalp, where there was no rash, several vesicles appeared, and on the back and feet vesicles were seen in the middle of well-marked red patches. The temperature fell on this second day to 100.2°, and did not rise with the further development of the vesicular eruption, being 98.4° the following day, and rising to 99° for three days afterwards, when it fell below 98° and remained so till January 13th, when it reached normal again and stayed there. The measles rash faded much more slowly than usual, and did not entirely disappear until three weeks had elapsed. This slow fading of the rash might have been due to the influence of the varicellar eruption, but not necessarily so, because a similar delayed disappearance of the eruption had occurred in several of my cases during the epidemic of measles occurring last year. The fresh vesicles of the varicellar eruption appeared in crops for three days and then ran the ordinary course. On February 3rd a few scabs were left, but otherwise the child was quite well. No history could be obtained in this case, so that it was impossible to say how he became infected, and whether the incubation period of either disease was affected by the presence of the infection of the other.

Birmingham. T. Sydney Short, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

CASES OF URETERAL SURGERY.

(Reported by Mr. E. Deanesly, B.Sc.Lond., F.R.C.S.Eng., Honorary Surgeon.)

[From Notes supplied by Messrs. Garnet Wright, M.B., and G. A. Roberts, F.R.C.S., House Surgeons.]

Operations on the ureters, though more common than formerly, are still comparatively infrequent; so the following three cases, which illustrate certain important points in the surgery of these tubes, are deemed worth recording:

Case I.

A man, aged 27, was admitted on May 23rd, 1903, complaining of pain in the left groin.

History.—Eleven years previously he had undergone operation elsewhere for left pyonephrosis. An attempt had been made to remove the kidney, but owing to shock the operation could not be completed. The sac therefore was drained, and the patient remained well for two years. He then began again to suffer from pain in the left groin, and it gradually became more constant and severe.

State on Admission.—His temperature was normal, the urine acid and free from albumen and pus. In the left loin there was a scar, but although the parts were lax no kidney could be felt. In the iliac region there was marked tenderness on deep pressure.

Operation.—The ureter was exposed by the ordinary curved incision in the iliac region. It was very thick, and about 1 in. in diameter. It was traced upwards into the small sac, representing the only remains of the kidney, and downwards to within 2 in. of the bladder. On incising it a quantity of very foul thick pus poured out, but little or no urine. A stone felt with a probe at its lower end was easily removed by long forceps. The probe was then passed into the bladder, its entry being verified by touching it with a metal sound passed by the urethra. The stone, roughly ovoid in shape, measured ⅝ by ½ in., and weighed when dry 30 gr. The ureter was not sutured but drained by a rubber tube passed into its lower end. The parietal wound was sutured and drained.

Result.—The wound healed rapidly and soundly, and no hernia has developed since. All symptoms were relieved, and at the present time (January, 1905) the man is well and at work.

Case II.

A man, aged 29, was admitted September 17th, 1904, complaining of symptoms which suggested stone in the left kidney.

History.—Ever since childhood he had suffered from pains in the left loin and groin, and used frequently to pass blood in his water. Owing to the latter symptom he had been admitted to the hospital ten years previously, and his bladder sounded, with a negative result. After that the blood never reappeared, but the pains became worse and were so increased by exertion that at length he was unable to continue his work as a fitter. At times also he had pain in the penis after micturition.

State on Admission.—His appearance was healthy, and no objective symptoms were detected beyond marked tenderness over the left kidney or the loin, and the presence of blood, pus, and oxalate crystals in the urine. An attempt to use Luys's segregator failed, owing to the spasm set up in the bladder.

Operation.—The symptoms pointed so clearly to the left kidney that this organ was examined through an incision in the loin on September 22nd. It was brought outside, and found to be dilated to about three times the normal size, the kidney substance being very thin. The ureter was of enormous size, being not less than 1½ in. in diameter as far down as it could be traced—that is, about 5 in. from the kidney. Careful palpation and inspection of the kidney detected no stone in it, nor could one be felt in the ureter. An opening was made in the latter, and a flexible bougie passed easily for a distance of 8 in., but could not be made to enter the bladder. A metal bougie was also passed down the ureter, but no stone was felt. No doubt, however, was felt of its existence, and the kidney was replaced, leaving a tube in the ureter to drain it. A rectal examination was made while the patient was still under the anaesthetic, and an unmistakable stone was felt exactly in the position of the lower end of the left ureter. Fourteen days later, the lumbar wound having healed with the exception of a small sinus, the patient was again anaesthetized and examined with the cystoscope. A marked difference was seen in the appearance of the two ureteral orifices, the left being larger and surrounded by very prominent muscular bands. Urine was seen plainly ejected from this with great force. No other change was seen. The ureter was now exposed by the ordinary curved incision in the iliac region. It was so large, and the walls were so thick and muscular, that it resembled a piece of large intestine without its peritoneal coat. It was traced downwards and freed from its surroundings until a stone could be felt between the finger and thumb close to the bladder. An incision was made and a smooth uric calculus, the size and shape of a Barcelona nut, was drawn out by forceps. A probe still failed to enter the bladder, and a further search resulted in the removal of two more stones closely resembling the first in size and shape. The three stones lay one above the other in the last part of the ureter, where they had been felt per rectum. Each measured about ⅝ in. in diameter, and the three together weighed 156 gr. A rubber drain was inserted in the ureter.

Result.—The wound healed readily in spite of the urine having become septic since the first operation. A urinary fistula persisted till the sixth week after the operation, but was soundly healed when the patient was discharged on November 19th, 1904.

Case III.

A married woman, aged 28, was admitted in August, 1904.

History.—This patient had been under treatment in the hospital in September, 1900, when she was suffering from frequent attacks of pain in the right loin and iliac region accompanied by vomiting. She had had two children, was thin, and had a very lax abdominal wall. The right kidney was easily felt and very movable. In its extreme descent the whole organ lay in the iliac fossa, with its upper border well below the ribs. It was not enlarged. The urine was normal. The kidney was exposed in the loin and the perinephric fat found almost absent. The kidney was not enlarged. The capsule was turned down from the lower end of it and sutured with silk to the lumbar fascia close to the last rib, fixing the kidney firmly in its normal position. The patient was discharged four weeks after admission with the wound healed and all symptoms relieved. In 1901 she became pregnant, and during her pregnancy had a good deal of abdominal pain and discomfort, not specially referred to the kidney. After her confinement she was examined on several occasions, and the kidney was found to remain in its normal position. She remained well for three years after the operation. She then began to suffer again from attacks of pain and swelling in the right loin, together with vomiting. These attacks usually ended with the passage of a large quantity of urine.

Condition on Examination.—At the date first mentioned she was readmitted during one of the attacks described, and a large tender elastic tumour was felt in the right hypochondriac region by the house surgeon. On the following morning the tumour had completely disappeared, and did not reappear until several days later, when it was accompanied by the previously noted symptoms and by high temperature. The urine was found to be alkaline and offensive, and to contain abundant pus. By means of Luys's segregator urine from the two sides was collected separately. There was a marked difference in the two specimens, that from the right being turbid with pus, while that from the left was comparatively clear. The observation was vitiated somewhat by failure to wash out the bladder completely, so that some pus was found in the left specimen, although very much less than in the right.

Operation.—On September 24th the loin was reopened and a portion of the twelfth rib removed. The kidney was brought outside, and found to be somewhat dilated and enlarged. The swelling, which had been felt as an abdominal tumour, was formed not by the kidney itself, but by the pelvis of the ureter, which was dilated and distended to the size of the

kidney itself, or even more. The ureter joined the dilated pelvis much above the lowest part of it, and below the point of junction was of uniform and normal calibre throughout its length. A very slight descent of the kidney under these circumstances would easily kink and obstruct the ureter. A triangular piece of the wall of the dilated pelvis, with its base at the kidney border and its apex at the insertion of the ureter, comprising about one-half of the whole sac, was cut away. Beginning at the ureter, into which the incision was prolonged for a short distance, a catgut suture passing through all the coats was used to bring together the edges of the remaining portion of the pelvis in a single straight seam ending at the hilus of the kidney. A second suture of fine silk passing through the outer coats only of the pelvis was inserted to strengthen the first. A No. 12 rubber catheter was fixed in the pelvis by a suture and brought out through the loin. The capsule of the kidney was sutured to the lumbar fascia in order to fix it again in proper position.

Result.—The wound healed by primary union, but convalescence was delayed for several weeks by the persistence of a high irregular temperature, by pain and tenderness over the kidney, which was visible and palpable in the hypochondrium, and by the passage of the whole of the urine from the right kidney through a lumbar fistula. Eventually urine began to descend the ureter and the fistula closed and healed soundly. The kidney became free from swelling and pain, and the patient was discharged, relieved of all her symptoms, eight weeks after the operation. At the present date (January, 1905) she is quite well and engaged in her ordinary household duties. The urine is abundant and healthy.

REMARKS.—The diagnosis of stone in the ureter is not always possible. Neither the site of the pain nor any other symptom is sufficient to indicate that a stone is in the ureter rather than in the renal pelvis, unless the stone can be felt through the rectum or seen by the cystoscope projecting into the bladder. In Case II both these tests were applied only after the negative exploration of the kidney. They should, of course, have been applied before. In Luys's segregator we have now an extremely simple and valuable means of localizing renal disease, and in a case where the symptoms pointed to obstruction of one ureter I have confirmed the diagnosis by this means. It gives, however, no guide to the position of the obstruction, and, failing direct evidence of the presence of a stone in the lower part of the ureter, the only rational procedure is to examine the kidney and upper part of the ureter first. This can only be done effectually by bringing the kidney out on to the loin, a simple measure even in the fattest patient if the tip of the twelfth rib and its muscular attachments are freely divided. It is not, I think, generally known how much this procedure simplifies extraction of the kidney. When the kidney is out of the wound the ureter can be traced downwards for several inches, and a probe can be passed down it into the bladder. It is a good rule to pass a probe in this manner in every case when a stone is removed from the kidney, and still more so when a stone has not been found in the kidney. By means of a long curved incision in the iliac region the ureter can be exposed without opening the peritoneum from immediately below the kidney to one inch or less above the bladder. If obstruction of the ureter has existed for any length of time hypertrophy and dilatation are sure to be present and to render the task easier. The presence of a dilated ureter and the point to which it extends should always be looked for in any operation on the kidney, as these facts are the best indications of the site of obstruction. Case III is an example of ureteroplasty, an operation which has yet to justify its permanent existence, although numerous encouraging examples have been published. The frequency with which movable kidney is followed by hydronephrosis is familiar. The fixation of the kidney, although successful for three years, did not prevent it in this case. I was not aware of any observation of hydronephrosis confined or almost confined to the pelvis of the ureter, as in this case, until I noticed a case curiously similar in all its circumstances published in the Hospital Reports of the BRITISH MEDICAL JOURNAL on December 10th, 1904, by Mr. E. Harrison, of Hull. The operation performed by Mr. Harrison differs essentially from mine, but succeeded equally well. In neither case has sufficient time elapsed to test the permanent result.

Those interested in the surgery of the ureter may be referred to an interesting article in the *Annals of Surgery*, December, 1904, by Harry Atwood Fowler, who lays stress on the value of vesical irritability as a diagnostic symptom when a stone is impacted in the lower end of the ureter. This symptom was noted in one of my cases, and may have been present but not noted in the other. The symptom is of value, of course, only when the cystoscope reveals no cause in the bladder itself, and when it is taken in conjunction with other symptoms. Dr. Fowler refers to two means of making a positive diagnosis which I have omitted to mention—namely, sounding the ureter through the bladder by means of the cystoscope and radiography. The first procedure is not only difficult but may easily mislead, for the ureteral catheter or probe may be arrested in its course by a fold or pocket in the ureter. Radiography may give valuable aid, especially with an oxalate calculus, but the slightness of the shadow and the position of the parts would generally render a radiograph very dubious evidence. Dr. Fowler himself was clearly misled by the radiograph of one of his own cases.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Birmingham, Thursday, March 9th, 1905.

T. E. UNDERHILL, M.D., President, in the Chair.

Dermography.—Dr. STACEY WILSON demonstrated a convenient substitute for the special dermographic pencils now used for clinical purposes. He showed that the simple device of rubbing on the skin a little zinc oxide, such as was used in the ordinary hospital dusting powder, imparted to it the quality of receiving from silver, German silver and similar metals, a good dark impression. Skin so treated could be easily and darkly marked by a silver coin from the pocket or a German silver pencil case, and a much more satisfactory diagram could be thus drawn on it than with the ordinary blunt dermographic pencil. He also alluded to the fact that this quality of the skin in the case of paralysed limbs was apt to be mistaken for a trophic change due to the paralysis, and explained as due to nervous influences instead of to the application of zinc dust by the nurse in the course of her usual routine. It was by the careful study of such a case that Dr. Wilson found out the true reason for dermographic skin in his cases of paralysis.

Reverberation in Abdominal Diagnosis.—Dr. STACEY WILSON demonstrated a simple form of reverberator by means of which the "bell sound" or *bruit d'airain*, of well-known value in the diagnosis of phthisical cavities and pneumothorax, could be rendered available for diagnosis of the outline and condition of the air-containing abdominal viscera. The method was modified from one of the already known methods of auscultatory percussion. The instrument consisted of a short cylindrical bone rod some one and a half inches long and three-eighths of an inch in diameter. Its lower end was rounded for close apposition to the abdominal wall or thoracic interspaces, while the upper end was flat and roughened, so that by scratching it with a finger nail loud and regular vibrations could be set up. This little rod was held firmly between the first and second fingers, its rounded lower end pressed firmly over the viscus examined, and its rough upper end scratched with the thumb nail. The area of the subjacent viscus was very sharply defined by the area over which the reverberation of the scratching sound could be clearly heard, with the familiar metallic ring known as the "bell sound." Not only was this method of value in this way, but with practice much information could be gained by watching the tone of the note if the scratching was kept up continuously. Thus, in ascites with distended stomach, the pitch of the reverberation could be heard to rise with each inspiration and fall with each expiration, owing to the increase in the tension of the gas in the stomach by the pressure of the descending diaphragm and the lower tension when it relaxed during expiration. But a sign of greater use was the change in the pitch of the note, which resulted from the peristaltic action of the viscus concerned. In the case of the stomach, if at all distended, the note was heard to vary regularly as the wave of contraction passed from cardia to pylorus. Useful information could often be gained by this same method in intestinal obstruction.

The Level of the Diaphragm and the Circulation.—Dr. STACEY WILSON then read his paper, entitled the Value of an Abnormal Rise in the Level of the Diaphragm as a Guide to the State of the General Circulation, of which the following is an abstract: Normal position of the diaphragm in health, as shown by the level of the gastric resonance and liver dullness; cases illustrating elevation of the diaphragm from limitation of food in gastric ulcer, enteric fever, etc.; high diaphragm in cases of anaemia, neurasthenia, etc.; high diaphragm occurring suddenly from cardiac failure in myocarditis, pericarditis, etc.; physiological explanation of a high diaphragm; its clinical significance and the indications which

it gives for treatment. The paper was discussed by Mr. Freer (Stourbridge), Dr. Foxwell, and Dr. Henton White, and Dr. Stacey Wilson replied.

OXFORD AND READING BRANCH: OXFORD DIVISION.

Oxford, Friday, March 17th, 1905.

Innes Griffin, M.R.C.S., in the Chair.

X-Ray Photographs of Fractures and Dislocations.—Mr. Jonathan Hutchinson, jun., gave a lantern demonstration of *x*-ray photographs of fractures and dislocations. Slides were exhibited of fractures of the phalanges, of the metacarpus, and metatarsus, and also of the os calcis and astragalus, many of which fractures would have been overlooked without the aid of the *x* rays. Some interesting photographs of fractures in the neighbourhood of the elbow-joint were shown, and the importance of photographing in more than one plane was well shown in the case of some oblique fractures of the long bones. Two or three pictures of dislocation of the big toe at the metatarso-phalangeal articulation were exhibited, and the illustration concluded with some instructive specimens of patella fracture.—In the discussion which followed, Mr. Whitelocke advocated the use of catgut in suturing the patella after opening the knee-joint and turning out clots. The use of silver wire often necessitated a second operation if the wire gave trouble; and in his cases, of which he had had five in the last three years, he had had no difficulty in approximating the fragments: beginning lateral movements of the patella at the end of the first week, he removed the splints at the end of a fortnight. In a month his patients were out of bed, and were able to resume work at the end of six weeks.—After some further discussion by Mr. Symonds and Mr. Parker, Mr. Hutchinson replied. He advocated waiting for ten days before operating for fractured patella, to allow inflammation to subside, and expressed his preference for silver wire, which enabled the bone to sustain a possible strain in the early days of union. He also advised passing two distinct loops of wire. —A vote of thanks to Mr. Hutchinson was proposed by Mr. Symonds and seconded by Mr. Whitelocke, and passed unanimously.

Chloroform Poisoning.—Dr. Turrell read notes on a case of chloroform poisoning, the fatal dose on this occasion being 2 oz., which the patient drank with suicidal intent; he died two hours after. Becoming violent and delirious half an hour after the dose, he was arrested in the street for drunkenness, was taken to the police station, and died comatose one hour later. Dr. Turrell showed the stomach, the mucous membrane of which was of a peculiar slaty-brown colour, with some patches of erosion. The right heart was engorged, and the blood of a bright red colour.

Gangrenous Meckel's Diverticulum.—Mr. Parker showed a specimen of a gangrenous Meckel's diverticulum. It was found in operating on a boy, aged 12, with symptoms suggestive of acute appendicitis; it was 3 in. long, and adherent to the mesentery, and surrounding a loop of intestine; the intestine showed early peritonitis, while the diverticulum itself was gangrenous—an example of the "biter bit." The patient died of peritonitis.

REPORTS OF SOCIETIES.

British Gynaecological Society.—At a meeting on March 10th, Dr. William Alexander, President, in the chair, after some cases had been shown by Dr. Frederick Edge, Dr. J. Inglis Parsons read a paper on the choice of treatment for fibromyoma of the uterus, discussing the question under seven headings: (1) Tumours producing no symptoms; for these operation was not considered justifiable. (2) Small tumours causing severe menorrhagia without pressure symptoms; in 95 per cent. electricity would diminish the haemorrhage, and ought to be tried before operation. (3) Small tumours producing pressure symptoms, with or without menorrhagia; if the pressure was on the bladder, operation was necessary, and either myomectomy or hysterectomy, or removal of the appendages, should be practised. (4) Uniform enlargement in shape resembling that of pregnancy at four to six months and causing pain and metrorrhagia; operation was recommended for this group because of the pressure symptoms, but if declined electricity was of great value. (5) Tumours forming a round mass confined to the pelvis and sometimes impacted; these should be operated on as soon as possible, because the pressure caused soon affected the general health. (6) Very large tumours filling the abdomen, the size of a full-term pregnancy; hysterectomy was the only available treatment for these tumours. (7) The relation of the menopause to fibroid tumours; the menopause came on much later, and, as a rule, the tumours ceased to grow and became smaller. He gave notes of 3 cases treated by electricity, which he had watched for seventeen, fourteen, and nine years respectively, through the menopause, and which had done well without operation.—Dr. J. A. Mansell Moullin said that the paper ignored the brilliant improvement in the results obtained by operation during the last fifteen years. Any discussion might, he thought, be confined to the cases in the first group, as all the others undoubtedly demanded operation.—Dr. H. Macnaughton-Jones had tried electricity, and, like Martin and Mackenrodt, had given it up. Every case should be dealt with according to its special features and complications.—Dr. Macpherson Lawrie protested against the sweeping disapproval of electrical treatment of myoma. He had known it of good service in many cases, diminishing haemorrhage, relieving pain, and sometimes leading to shrinking of the tumour.—The President thought that a patient ought not to be informed of the presence of a tumour, the knowledge of which would be a constant source of depression to her. She should invariably be given medical treatment in the first place, and the removal of the tumour only undertaken by the gynaecologist. Any good effects of electricity were merely palliative, and deferred but did not do away with the necessity of an operation. He had found the results of the removal of the appendages very unreliable, and in the majority of cases thought hysterectomy to be the best operation, though if the tumour was a solitary one he might enucleate it.—Dr. Inglis Parsons, in reply, said that if, as was sometimes possible, the pelvic organs were restored to health by electrical treatment, the patient would not be a chronic invalid; he had not found such treatment render a subsequent operation when necessary more difficult, nor had he ever lost a case from it. He agreed with the President as to removal of the appendages.

Epidemiological Society.—At a meeting on February 17th, Dr. B. A. Whitelegge, President, in the chair, Professor E. J. McWeeney read a paper on the relation of the parasitic protozoa to each other and to human diseases. The great majority of pathogenic protozoa, he said, belonged to the sporozoa, for though large numbers of amoeboid forms were found in the intestine many of these were mere stages in the development of higher organisms, while of the two naked parasitic amoebae, the A. coli and the A. dysenterica, the first was purely saprophytic and only the second pathogenic. These had respectively been renamed Entamoeba coli and histolytica by Schaudinn, who had shown that, while these two entamoeba agreed in passing through a vegetative or asexual cycle in the naked state, and, when exhausted, entering on a very primitive sexual cycle in capsules or cysts, they differed morphologically as well as in the details of the reproductive process. The pathogenic form had in its vegetative stage a tough ectoplasm enabling it to penetrate the tissues and multiply beneath the mucous membrane to form the ulcers so characteristic of dysentery. Schaudinn found by experiment that the parasite in the amoeboid form was not capable of conveying infection, at any rate when introduced per os, but that this would arise from the ingestion of the brown spore-like contents of the capsules. The haematosporidia, to which belonged the parasites of malaria and similar fevers, passed through two cycles, asexual and sexual, the former being continued for a long period in the blood of one animal, usually a mammal or bird, and the sexual in the body of another, mostly an insect, gnat, tick, or bug. The successive broods in the asexual stage were often indicated, as in malaria, by relapses or recurrences of the fever. The whole life-histories and the reproductive processes in the haematosporidia, and especially in the trypanosomata, were almost incredibly complex. These last owed their name to their peculiar "gimlet-like" form in the stage in which they bored their way into the red blood cells. Three forms of this stage co-existed, which Schaudinn somewhat arbitrarily distinguished as male, female, and neutral. Of these the "female" or macrogametocytes were the most resistant, and it was they which, sinking to the level of "schizonts" and producing successive broods by a parthenogenetic process, gave rise to the relapses in old-standing cases of malarial disease. It was often asked how the parasite, whatever its species or stage,

found its way from the stomach and intestine of the mosquito to the blood of the mammal; but Schaudinn, in his study of the proteosoma halteridium and leucocytozoon in the blood of the barn owl, had seen the *Culex pipiens*, in the act of biting, eject the contents of its stomach, saliva, and digesta into the wound; the vomiting was induced or aided by the eructation of gases, the products of fermentation of sugar or vegetable juices, a procedure which he had excited by artificial means. Trypanosomata closely resembled the spermatozoa of some animals, and their behaviour in the copulative act seemed likely to throw some light on that in the higher animals, especially the function and destiny of the superfluous spermatozoa, when one only actually entered the ovum. Major Rogers had shown that the bodies observed by Major Leishman in the spleen and marrow gave rise to trypanosomata; but, interesting as was the discovery of links and points of transition between what had been supposed to be various and distinct species of protozoa, that of the origin of spirochaetae, hitherto assumed to be bacteria, in trypanosomata was, if confirmed, still more wonderful. Danilewsky of Charkow had watched the development of the leucocytozoon in the body of the *Culex pipiens*, and in the white blood cells of the owl the subdivision of the microgametes till invisible save in mass, and their subsequent elongation and twisting into spirilla identical in appearance with the spirochaete of relapsing fever. Reintroduced into the blood of the owl they attacked not the mature cells but the erythroblasts, multiplying enormously before resuming the character of trypanosomata, and behaving in the spleen like the Leishman-Donovan bodies. No doubt seemed to attach to Schaudinn's suggestion that relapsing fever was a trypanosomiasis, the spirochaete constituting a stage in the life-history of the organism, and that the cold-blooded host was the common bed bug. Karlinski had found those in Bosnian houses, where there were cases of the fever, to be full of spirilla, while those in other houses were free, and the extreme minuteness of the transitional pre-spirillary form of trypanosoma observed by Danilewsky would account by analogy for the failure as yet to detect the pathogenic organism of yellow fever.

North of England Obstetrical and Gynaecological Society.—At a meeting at Liverpool on March 17th, Dr. Lloyd Roberts in the Chair, Dr. A. J. Wallace showed a new instrument, described as an elevating vaginal director, and designed to facilitate the making of a vaginal drainage incision from the abdomen. It was claimed as an improvement upon the operator's own finger, as it could be placed in the vagina by an assistant, who could then push up the posterior fornix to the level of the abdominal wound. Dr. Wallace also described the clinical features of a case of inoperable carcinoma uteri with symptoms of bulbar paralysis, and Dr. W. B. Warrington described the *post-mortem* findings and showed sections of the portions of the nervous system involved. He mentioned that secondary carcinoma in the brain was very rare, and that none was found in this case. A thrombosis of the cavernous sinus completely accounted for the paralysis of the third nerve, but there was no gross or microscopic lesion which explained the bulbar symptoms. These, he thought, must be attributed to the state of toxaemia produced by advanced malignant disease.—Dr. Lloyd Roberts showed a fibromyoma of the ovary, the parenchyma of the organ being stretched over one portion of the tumour, the other and larger portion having derived a covering from the broad ligament.—Dr. A. W. W. Lea read a paper on tuberculous disease of the Fallopian tubes and gave an analysis of eight cases treated by removal of the affected organs. In one case the uterus was subsequently removed for secondary tuberculous endometritis. He thought the condition was more common than was supposed and that removal of the diseased structures permits of a favourable prognosis. It was safe and advisable to have at least one ovary, and it was not necessary to remove the uterus, as this could be done subsequently if requisite. Dr. S. Buckley emphasized the importance of definite pathological diagnosis in these cases, as in some presenting the clinical features of tuberculosis the diagnosis could not be confirmed by the microscope or by cultures. Dr. W. G. Fitzgerald preferred operating by the vagina and removing the uterus together with the diseased appendages. Dr. H. Briggs agreed that the condition was more common than was usually supposed. Dr. H. Armstrong confirmed the view that there was but slight risk in leaving the ovaries. In the records of twenty years' necropsies in a children's hospital he had found no case of primary and only one of secondary ovarian tuberculosis. In the tubes the condition was commoner, but was nearly always secondary.

Pathological Society of Manchester.—At a meeting on March 8th, Dr. Donald in the chair, Dr. E. F. Trevelyan (Leeds) made some remarks on cysts of the brain, and showed specimens in illustration. A cyst, he said, resulting from cerebral haemorrhage might be indistinguishable from one due to softening; indeed, it might be difficult to distinguish the respective lesions even at an earlier stage. In the case of a cyst occupying the lenticulate nucleus, which had existed for twenty-five years and was probably due to embolism, there was a very definite and delicate cyst wall, clear contents, and no trace of pigmentation. The shortest time in which an apoplectic cyst could form was four weeks. They had been met with at varying dates after the onset of the original lesion. In a simple cyst of the choroid plexus with mucilaginous contents the varying symptoms extending over six years might be due to the shifting position of the cyst.—Dr. Thomas Harris exhibited the fluid from a case of pleural exudation in a man aged 57 years; he had had a severe injury to the chest some two and a half years ago, and since then had been ailing. On his admission to the Manchester Royal Infirmary there were signs of an encysted pleuritic effusion on the right side, and 40 oz. of brownish fluid resembling gold paint were withdrawn. It was found to be largely composed of cholesterine, together with unaltered red blood corpuscles and old-standing yellow granular masses considered to be altered blood. Subsequent to the aspiration the man improved considerably; it was thought that he would shortly be able to return to his work. Cholesterine in any large quantity was rare in the pleural cavity; when present it might either present a gold colour, as in this case, or have an opaline or milky appearance.—Dr. J. F. Hodgson described two cases of acromegaly. The first developed very marked vasomotor and trophic changes early in the course of the disease. The skin of the face, neck, and arm was excessively pigmented. He was very somnolent and easily fatigued. Bitemporal hemianopsia was present. In the second case the disease was associated with typical exophthalmic goitre. Optic neuritis, which was present when first seen, was soon followed by atrophy and total blindness. Six months before death the general symptoms due to increased intracranial pressure became very marked. Glycosuria was also present. In both cases the disease ran a very chronic course. Neither pituitary nor thyroid gland gave any permanent benefit.

Liverpool Medical Institution.—At a pathological meeting on March 9th, Dr. Barr, President, in the chair, the following were among the cases shown:—Dr. Oram demonstrated, by means of radiographs, the great improvement that had taken place in a tuberculous elbow-joint after treatment by the *x* rays.—Dr. Buchanan showed cells from the fluid of acute arthritis containing an intracellular micrococcus arranged in two pairs and tetrads. The President and Dr. Warrington did not consider this organism to be Weichselbaum's diplococcus intracellularis.—Mr. Nimmo Walker showed a specimen of obliteration of the left common, internal, and external iliac arteries from a subject in the University dissecting room, in which the chief anastomoses had taken place between the last lumbar and the deep circumflex iliac arteries, and between the middle and lateral sacral arteries. The obliteration was supposed to be due to thrombosis following obstruction by atheroma.—Mr. Thelwall Thomas and Dr. E. Cleaton Roberts exhibited sections of multiple naevo-lipomata removed from the hand of a man aged 20 years; they were congenital in origin.

Glasgow Pathological and Clinical Society.—At a meeting on March 13th, Professor Muir, President, in the chair, Dr. J. Grant Andrew showed as a fresh specimen a large tumour of the arm. It commenced as a small lump under the skin fifteen years ago; in the last six months it had grown very rapidly and had reached a size greater than a child's head. A slight injury led to severe haemorrhage. Amputation at the shoulder joint was performed. The tumour was regarded as probably a fibro-sarcoma.—Dr. J. Walker-Downie showed 2 cases illustrating persistence of branchial clefts. (1) A woman, aged 25, who had an incomplete internal fistula opening in the right posterior palatine arch. It was noticed first at the age of 19, when it burst and discharged into the mouth a quantity of whitish fluid streaked

with blood. It had continued to discharge at intervals ever since. (2) A man, aged 26, who was known to have had a cord-like structure in the neck since early childhood; up to two years ago it gave him no trouble. It was now a complete branchial fistula discharging by an external opening about ½ in. above the right sterno-clavicular articulation in the line of the anterior border of the sterno-mastoid muscle. The internal opening was in the right palatine arch.—Dr. J. KERR LOVE showed a case of otomycosis (myringo-mycosis aspergillina). There had been middle-ear discharge for many years, but the present disease was of very recent origin. The case was unusual in that the fungous mass occupied the middle ear instead of the inner end of the meatus externus. The fungus was found to be aspergillus niger or nigricans. Specimens of the mycelium and sporangia were shown.—Mr. A. E. MAYLARD showed a specimen of lympho-sarcoma of the neck, and Dr. JOHN ANDERSON showed microscopic sections of the same, from a man aged 24. The disease began as a lump on the left side of the neck six months ago, and a mass of the enlarged glands, weighing 1¼ lb., had been removed about six weeks before, but growth had rapidly recurred. The microscopic characters of the growth suggested the possibility that it was an infective lymphadenoma, but Dr. Anderson had so far been unable to discover in sections or by culture any micro-organisms. The case was referred to a committee of the Society.—Dr. JOHN H. TEACHER showed naked-eye and microscopic specimens and cultures from a case of human anthrax in a paint grinder, aged 32. The entire duration of the disease was only eighteen hours. It began with indefinite feelings of malaise, then headache developed, followed by delirium, unconsciousness, and, near the end, convulsions. Clinical examination revealed nothing but slight tenderness of the epigastric region. *Post mortem*, small ulcers were discovered in the stomach and intestines, which were regarded as the seat of infection. B. anthracis was discovered in them and in certain of the mesenteric glands, which were enlarged and haemorrhagic. The lungs showed nothing but congestion and oedema, but there was some pleuritic effusion. No lesion in trachea. There was a large, almost diffluent, "septic spleen." The pia arachnoid was the seat of a diffuse haemorrhage, universal in its distribution, but most marked over the vertex of the cerebrum and on the cerebellum. The organism swarmed in the extravasated blood and interstices of the pia mater. In the blood within the vessels they were few in number. The nature of the infection was confirmed by cultures and inoculation of animals. The source of infection could not be determined.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 3rd, Mr. C. M. TUKE, President, in the chair, Dr. ALEXANDER MORISON read a paper on boldness in treatment of certain phases of pneumonia in which he advocated (1) the treatment of high temperature by the application of ice to the body or to the head alone, (2) the conservation and relief of the heart by frequent injections hypodermically of strychnine, and the administration of turpentine internally, and (3) the relief of the heart by blood-letting. Dr. G. A. SUTHERLAND thought that strychnine when used should be given at frequent intervals, and in large doses until the physiological effects were produced. Dr. A. ELLIOT did not approve of strong measures for reduction of temperature unless the latter exceeded 104° or 105°, even then he found that ice to the chest was as a rule badly borne, and he preferred cold sponging. In regard to blood-letting he considered that the amount withdrawn was not of such great importance as the rapidity with which its loss was effected. Dr. OTTO GRÜNBAUM also advised non-interference with the temperature *per se* unless it exceeded 104°.—Mr. CECIL LEAF read a paper on the clinical causes of cancer of the breast, in which he endeavoured to show that these were numerous. Dr. S. D. CLIPPINGDALE considered the coincidence of cancer with consumption of great clinical importance, and drew attention to a paper published by himself in which he had endeavoured to show that in London both those diseases were more common in the low-lying districts near the river, irrespective of soil. Mr. J. G. PARDOE gave an illustration of what he deemed the infectious nature of cancer.—Mr. F. LAWRANCE thought cancer was undoubtedly hereditary, and possibly also infectious.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting on March 10th, Dr. J. F. J. SYKES in the chair, Professor SHERIDAN DELÉPINE read a paper upon the increase of anthrax in Great Britain. He admitted the possibility of the occasional introduction of the disease by imported foods or manures, but he thought the sources of infection were of secondary importance compared with the infection of the soil from actual cases of the disease occurring in this country, whether recognized or not. Little danger, he thought, was to be feared from carcasses sent whole for inspection and disposal at a well-conducted abattoir or knacker's yard, but what was most to be feared was the pollution of the soil from the blood-stained discharges of dying animals, and by the careless disposal of the blood or offal of infected animals slaughtered on farms or in private slaughter-houses. In a table giving the average number of cases of anthrax occurring in the six years 1897-1902, in proportion to 100,000 cattle in the several counties of Great Britain he showed that the most severely affected counties—Haddington, Edinburgh, Elgin, and Aberdeen—were practically free from those industries which might reasonably be considered as possible sources of infection. On the other hand, Peebles, Durham, the North and West Ridings of Yorkshire, Cheshire, and Wiltshire were only slightly affected, although more or less important wool, leather, and artificial manure works were to be found within their confines. The chief cause of the spread of infection in a locality he thought was the concealment or overlooking of cases of anthrax, and the remedy appeared to be a more complete system of notification. One of the defects of the present system was that it was based entirely upon the opinion of the farmer. The nature of many fatal cases was not obvious, and it should therefore be made compulsory to notify every case of death from an acute illness. Other proposals of Professor Delépine were that the county medical officer of health should be informed of the occurrence of outbreaks of anthrax in various parts of the county, and that the factory department and markets department of towns concerned should be made acquainted with districts where anthrax had broken out, so that special care could be exercised in inspecting carcasses and animal produets coming from those districts. In a letter to the President, Dr. T. M. Legge endorsed the opinion of Professor Delépine that bovine anthrax was not most frequent in the counties in which dry foreign wool, hair, and hides were manipulated. Dr. ARTHUR NEWSHOLME drew attention to the great importance of missed cases in spreading disease among the lower animals. Mr. WILLIAM HUNTING, F.R.C.V.S., Professor STOCKMAN, Chief Veterinary Inspector of the Board of Agriculture, Dr. ARNOLD EVANS, and the PRESIDENT also took part in the discussion.

PATHOLOGICAL SOCIETY OF LONDON.—Laboratory meeting at the Royal Army Medical College Examination Hall; Sir JOHN BURDON SANDERSON, Bart., M.D., F.R.S., President, in the chair. Observations upon "stimulins," Major LEISHMAN; typhoid bacillus from bone abscess, L. S. DUDGEON; physical method of estimating fibrin, C. F. SELOUS; demonstration of the "Leishman body," Major LEISHMAN.

REVIEWS.

THE FACTORY SURGEON.

ALTHOUGH there are about two thousand certifying factory surgeons in the United Kingdom we are not aware of the existence of any manual, handbook, or other publication, except the instructions of the Home Secretary, which bears upon their work. In Germany no appointment of a similar character exists, nor among the whole staff of factory inspectors is there one with a medical qualification. It is to emphasize the need which exists in Germany for a closer supervision over the health of the factory workers that Dr. SOMMERFELD has published his book on the duties of the factory surgeon.[1] No one is more fitted than he to do so, as will be acknowledged by those who know his *Handbuch der Gewerbe Krankheiten* and his other publications on industrial questions. He takes a broad view of the part which the medical man can play in improving the conditions of work in the factory, and has collected information bearing on the point from all civilized countries. In the first seventy pages he traces the development of factory inspection in the German Empire. He gives in full the duties now placed on the factory staff in Prussia and in the other twenty-four States, and the training that each member must undergo. He shows how more and more

[1] *Der Gewerbearzt* [The Factory Surgeon]. By Dr. Th. Sommerfeld. Jena: Gustav Fischer. 1905. (M. 5.)

preference is being given to candidates with technical knowledge in chemistry, engineering, and other sciences. He extracts from their annual reports the fragmentary and loose accounts such persons give of illness traceable to factory and workshop conditions, pointing out how often their conclusions, based on insufficient knowledge, are opposed to the evidence on the same subject obtained from medical men practising in industrial centres.

As in this country so in Germany periodical medical examination is made of workers in specially dangerous occupations, for example, in the manufacture of white lead, paints and colours, potassium bichromate, electrical accumulators, and in spelter works and basic slag works; but in every case the examining surgeon is appointed by the occupier, and Dr. Sommerfeld shows reason why such an appointment should be made by the State. In tracing the development of factory legislation in England he lays stress on the part which certifying surgeons have taken, and describes fully their duties. Nor does he omit mention of the requirement placed on general practitioners throughout the country of notifying certain forms of industrial poisoning and anthrax to the Chief Inspector. He has not recognized, however, how much devolves, also, on medical officers of health in improving the conditions under which work is carried on in workshops.

While recognizing the system of medical supervision in this country as superior to that found in any other, his criticism is that it is one-sided in that the certifying surgeons are concerned only with obvious injury to health and take no part in questions of general industrial hygiene.

LARYNGOLOGY AND OTOLOGY.

The appearance of Mr. de Santi's *Malignant Disease of the Larynx*[2] shows that there is no sign of abatement in the monograph fashion. "One of the main objects of this book," he tells us, "is to place before the profession the views we hold in England as to the correct operative treatment of laryngeal cancer;" accordingly, nearly half of the book is concerned with treatment. Unfortunately, our appetite for information has been spoiled by the discussion held on the subject when the British Medical Association met at Swansea in 1903. The subject was then discussed in all its amplitude, from the minor operation of thyrotomy, practised for the removal of the disease in its commencement, to the most extensive operations planned and performed with such brilliant results for the extirpation of the disease in its more progressive stages. To these results Mr. de Santi refers, and the report of that discussion may still be regarded as the most complete compendium of knowledge about the treatment of malignant disease of the larynx so far published. In a monograph one naturally looks for enlightenment on points requiring scientific research, and in the earlier pages we are glad to find a summary of the recently-published results of the author's investigation into the lymphatics of the larynx; but as to the nature of cancer of the larynx and the general causes on which it depends no new information is offered. The author does not even hold out hope; he tells us that "nothing more is known than of the nature and etiology of cancer elsewhere, and this is, when said, but little and involved in obscurity." The histological structure of the malignant growths is dealt with in a similar manner; that of sarcoma receives bare mention, while that of carcinoma is summarily disposed of in less than a page, culminating in a theory set forth in a manner which, if not grotesque, is certainly *sui generis*. Surgical statistics, an ever fertile field for inquiry, receive some pages of critical consideration. The author eventually arrives at the following, amongst other, conclusions: "It is probably sound surgery to remove the glands liable to infection, whether enlarged or not, in all cases of laryngeal cancer excepting those attacking the anterior two-thirds of the true vocal cords or the false vocal cords." Such thoroughness, we believe, is advocated by particular schools abroad; it may in some measure be supported in the future through a better knowledge of the tributary lymphatics and glands of the larynx. In this country, however, in cases of malignant disease of the larynx in which thyrotomy has been proved to be sufficient, the removal of glands presenting no evidence of infection would probably be considered unnecessary. In this respect Mr. de Santi appears to have exceeded one of the main objects of his treatise—namely, to place before the profession the views held in England as to the correct operative treatment of laryngeal cancer, views which, he considers, have not so far been sufficiently understood or appreciated abroad.

In their *Handbook on Anatomy and Diseases of the Eye and Ear*,[3] Drs. Roosa and Davis consider that they have exhibited the present state of ophthalmology and otology in sufficient proportions, even if abbreviated, to make their book an exact and reliable guide to the principles of treatment of the diseases of the eye and ear, and to the anatomy of these organs. The second part—that pertaining to the ear—with which alone we are concerned in the present place, extends to only 88 pages, and must be judged as a very condensed piece of writing. As such it may be said to give an outline of the anatomy, physiology, diagnosis, and treatment of diseases of these parts. It contains many practical hints, which, coming from such an authority as Professor Roosa, must carry weight; at the same time, there are statements which are calculated to excite our astonishment. Amongst these is the assertion (p. 229) that the tuning fork "is of little value in diagnosis," although subsequent paragraphs in the book appear to modify this statement. On page 234 we are told to direct the point of the Eustachian catheter to a spot half way between the external canthus of the eye and the external auditory meatus, which strikes us as rather low down. In paracentesis of the membrana tympani the authors prefer an incision starting near the posterior periphery of the membrane at its centre, and extending downwards and forwards in a curved direction to the middle of the anterior inferior quadrant. This is in order to avoid injuring the long process of the incus and the stapes. In otitis parasitica, the authors find the warm douche, thoroughly used, as good as any parasiticide. Aspergillus, we learn incidentally, is frequently seen in the Philippines. Under the head of chronic proliferous inflammation (Roosa) we are told that "electric massage is not useful," and "treatment of the Eustachian tubes by bougies yields very poor results." As indicating the change which in Professor Roosa's opinion has come over otology in the present day, we notice the following statement (p. 278): "After years of urging the rather reluctant profession to undertake operations upon the tympanum and the mastoid, the senior author of this little book has seen a day arrive when operations are sometimes undertaken when they are not required and are harmful." The addition of the century in which certain authors have made their discoveries, such as "Adam Politzer, Vienna, Nineteenth Century," is quaint. There is a good index to the book, but there are no illustrations.

PUBLIC HEALTH.

The Sewage Problem,[4] by Arthur J. Martin, is a digest of the evidence on the treatment of sewage which has been given before the Royal Commission now sitting. The excellent but all too diffuse volumes of evidence published by the Commission are much too long for the ordinary reader, and even those most interested in the subject have found their perusal somewhat tedious. Mr. Martin has made a very useful summary of the opinions and experience of most of the witnesses, giving, as far as possible, their actual replies to the Commission. He has arranged the evidence very clearly under different heads, first dealing with the purification of sewage on land, and its failure or impossibility in many cases; then with the various forms of artificial treatment, although he protests, and supports his protest by extracts from the evidence, that the bacterial processes should not be regarded as artificial. He deals with the need for preliminary treatment by screening and tanks, and with the various forms of bacterial filter or contact bed, giving useful comparisons between the competing systems and useful details of the materials and methods used by different witnesses, adds a chapter on the fourth report of the Commissioners and the appended special reports of their officers, and finally discusses what is likely to be the effect of the findings of the Commission on the Local Government Board in the matter of sanctioning loans for sewage schemes. Good features in this handbook are a time table or summary of the chief events relating to sewage disposal, and excellent

[2] *Malignant Disease of the Larynx (Carcinoma and Sarcoma)*. By Philip R. W. de Santi, F.R.C.S. London: Baillière, Tindall, and Cox. 1904. (Crown 8vo, pp. 167. 4s.)

[3] *Handbook of the Diseases of the Eye and Ear*. By D. B. St. John Roosa, M.D., LL.D., and A. Edward Davis, A.M., M.D. Part II, Anatomy and Diseases of the Ear. Philadelphia: F. A. Davis and Co. 1904. (Crown 8vo, pp. 312. 1 dol.)

[4] *The Sewage Problem*. By Arthur J. Martin. London: The Sanitary Publishing Company. 1905. (Cr. 8vo, pp. 380. 8s. 6d.)

indices both of the witnesses quoted and of the subject matters discussed. One drawback to the publication of such a digest at the present time is that we are still waiting for the report of the Commission on the various methods of land treatment of sewage which they have had under observation, and on the systematic investigation they have made of the various artificial processes. Necessarily these will be very important factors in enabling us to arrive at anything like a final conclusion on the work of the Commission. On the whole, Mr. Martin has been exceedingly fair in quoting from the evidence, carefully putting views for and against the competing theories and practices, although he has not been able to conceal his own bias in certain directions. The book is a useful summary, and the references given enable the reader to look up at once the actual evidence in the reports of the Commission and to ascertain the context of the replies quoted.

Dr. W. Robertson and Dr. Charles Porter are to be congratulated upon their students' handbook on *Sanitary Law and Practice*.[5] It is a comprehensive volume in which the various statutes relating to public health are condensed, pieced together, and illustrated by many examples and useful notes. Each branch of the subject has been treated by itself, and a number of practical suggestions are made not only as to administration, but in regard to the subject under consideration in each section. The book opens with the appointment and qualifications of a medical officer of health and a sanitary inspector. Then follow sections concerned with nuisances—smoke prevention, offensive trades, scavenging and cleansing, the keeping of animals, slaughterhouses, etc. The chapters dealing with unsound food and the administration of the Dairies, Cowsheds, and Milkshops Orders include a number of particulars regarding diseased meat. On the whole, however, it cannot be said that the descriptions are sufficiently explicit and accurate to be of much practical or scientific value, and here and there redundant and colloquial expressions occur which do not improve the text. Much useful information is given under the heading of infectious diseases, including a variety of suggested forms and certificates relating thereto. Disinfection is also fully treated and excellently illustrated, and the establishment of a reception house for "contacts" receives detailed consideration. A table of the chief points respecting each infectious disease is appended. The chapters which follow on hospitals for the isolation of infectious cases, water supply, drainage, sewerage, etc., are all full of information likely to prove useful to the student and the medical officer of health. The book is eminently practical, and its faults are the natural result of its virtues. It attempts, perhaps, too much, and whilst purporting to be a book on sanitary law, it includes a large amount of matter very remotely connected with law, and of necessity omits a number of points that might not unreasonably be looked for in a textbook of law. For instance, the condensations of statutes would be of much more practical value if they were annotated with cases upon which judgement has been given. The practice of the law is largely built up in law courts, and the judgements of such courts materially affect the practice of medical officers of health. It might therefore be expected in a book of this kind that there would be much less matter concerned with general public health work, which is fully dealt with in the ordinary textbooks, and much more guidance and advice with regard to the administration of the law which is so fully abstracted in the book. This is, however, but a minor blemish on an excellent book.

FEEBLE-MINDEDNESS.

So far as his range of subjects extends, Dr. Barr's *Mental Defectives*[6] is the most comprehensive treatise that has yet appeared. As the author tells us, "it addresses itself primarily to anxious parents and to earnest teachers, rather than to the scientist." We are sorry for this limitation, for after twenty years' experience as medical officer, as well as administrator, of perhaps the most complete institution for defectives in America, we feel sure that Dr. Barr is in possession of valuable pathological information in which his professional brethren on both sides of the Atlantic would have been glad to be allowed to participate. There has been so little published in this special line of investigation that we trust the pathological chapter which we look for in vain in the present work may form some future essay by the same pen.

The first chapter is devoted to definitions; while recognizing the scientific gradations of mental defect connoted respectively by the terms idiot and imbecile, the author states that those terms, "pre-empted and warped through long usage, fail to convey the exact idea apart from one of contumely," and consequently in America the expression "feeble-minded" has been adopted to cover every form of mental defect. That the term "feeble-minded" is, however, not altogether void of reproach is evident from the fact that "feebly-gifted" is suggested as appropriate for the lesser phases of abnormality. We confess that we prefer the blunter British plan of designating the more pronounced degrees of mental defect as idiocy or imbecility, and reserving the term "feeble-minded" for those who are mentally feeble only in the sense of a slight or partial departure from the normal.

The history of the subject is dealt with in a chapter of no less than fifty-three pages, quite encyclopaedic in its account of the treatment of the feeble-minded in all countries and in almost all ages. Dr. Barr traces from the time of St. Vincent de Paul efforts to ameliorate their condition, referring to the gradual development of a "physiologic" method of training them through the agency of Pereire, Esquirol, Voisin, Itard, Seguin, and others in France; of Saegert and Guggenbühl, and of Howe, Wilbur, Parrish and Kerlin in America. A full list of institutions for the "feeble-minded" in all the civilized countries of the world, including Japan, closes this chapter.

After reviewing the various attempts to classify defectives, Dr. Barr would seem to prefer for educational purposes one based on psychological rather than pathological considerations. Surely much light may be gathered as to possibilities of training by a study of the abnormal anatomical and physiological conditions of brain and nervous system upon which irregular or defective mental action depends. Take, for instance, the microcephalic class as an example of the first, that of cretins of the second. We are, therefore, somewhat disappointed that a physician should be contented with a simply educational classification, such as profound and superficial idiots, idio-imbeciles, moral imbeciles of various grades, imbeciles of various grades, and backward or mentally-feeble children. The book, however, is professedly written for educators rather than for scientists, and the educational detail is excellent.

The chapter on etiology contains many interesting observations with regard to the conditions of American life favouring the production of defective offspring. It would seem, however, that the attempt made to compare Dr. Barr's statistics of causes in 3,050 cases with the figures published by Drs. Fletcher Beach and Shuttleworth in 1892 in Hack Tuke's *Dictionary of Psychological Medicine* is open to fallacy, inasmuch as in the latter concurrent factors are tabulated, whereas in the former a single cause is assigned to each case. In the English tables no less than 5,229 possible factors are noted in a total of 2,380 cases; and the influence of the "personal equation" must necessarily come in when selection is made of only a single cause. This will to some extent explain the marked contrast between the American and English percentages in the family history of phthisis (7.57 as compared with 28.31), of insanity and imbecility (34.46 as compared with 21.38), of intemperance (4.46 as compared with 16.38), though both tables show a similar general ratio between causes acting before birth and causes acting after birth in the proportion of about 2 to 1. With regard to causes acting at birth there is a strange discrepancy, the American table assigning only 2.92 per cent. of cases to birth difficulties, the English table noting "protracted pressure" in as many as 14.24 per cent. In the English table traumatic post-natal causes are noted in 6.17 per cent. Dr. Barr gives "injury to head from falls" as the cause in 6.26 per cent. of his cases. The influence of consanguinity of parents and of inherited syphilis is even less conspicuous in the American than in the English table.

Diagnosis and prognosis are treated mainly with reference to the educational classification to which we have previously referred. An interesting study of the death periods and causes in 625 cases at Elwyn shows that the largest number of deaths occur between the 10th and 20th years, and that

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[5] *Sanitary Law and Practice.* A handbook for students. By W. Robertson, M.D., D.P.H., Medical Officer of Health of Leith, and Charles Porter, M.D., B.Sc., M.R.C.P., Assistant Medical Officer of Health of Sheffield, etc. London: The Sanitary Publishing Company. 1905. (Demy 8vo, pp. 780. 10s. 6d.)

[6] *Mental Defectives: Their History, Treatment and Training.* By Martin W. Barr, M.D., Chief Physician, Pennsylvania Training School for Feeble-minded Children, Elwyn, Pa., U.S.A. Philadelphia: Blakiston's Son and Company; and London: Rebman, Limited. (Demy 8vo, pp. 368. 17s. 6d.)

comparatively few defectives pass their 25th year. The mortality from phthisis reported is less than one-fifth of the whole number of deaths, contrasting favourably with the experience of English institutions. Training and treatment are fully discussed, especially from the educational standpoint, in Chapter VI, and the questions of craniectomy and asexualization are dealt with in Chapter VII. The utility of the former is denied; the latter is advocated, and its legalization in the case of young children adjudged defective by competent authorities, is strongly urged in the interests of the community at large. Indeed, it seems that a bill with this object has actually been passed by the Legislature of Pennsylvania, though not signed by the Governor, owing to some technical informality. Cretinism, microcephalus, hydrocephalus, and epilepsy are treated at some length; a chapter is devoted to adenoma sebaceum as met with in imbeciles; 63 pages are occupied with illustrative cases, and the final chapter with "Stories of the Children." The volume also contains much matter of miscellaneous interest, and is admirably got up and profusely illustrated. The comprehensive bibliography with which it closes will be very serviceable for reference by workers in this field of investigation.

THE PHENOMENA OF OBSESSION.

WITHIN the purview of psychiatry there are few subjects which have attracted greater interest than that of obsession, which appears to divide with the very vexed question of dementia praecox the controversial honours. The literature is already very considerable, but, strange to say, almost entirely Continental. Out of the 188 authors quoted by Dr. LOEWENFELD in his book on obsession,[7] only two—Hack Tuke and Julius Mickle—are English. Yet the subject is not only of the greatest scientific interest, but of the utmost practical importance, both in regard to everyday cases and those involving questions at law. On account of the comparative paucity of English writings on this subject, the admirable historical account with which the author prefaces this volume would alone make it valuable. Few records of cases exist of earlier date than the middle of last century; instances of obsession *sui generis* and independently of other forms of mental diseases, came only rarely under the notice of expert alienists, the majority having been classed by the general physicans in attendance as cases of hysteria or hypochondria. Esquirol, however, in 1839, described a case of kleptophobia in which the patient was well aware of the absurdity of her fears and was of good general intelligence. In 1861 Trélat described several cases of *délire du toucher*, and in the same year Baillarger published a report on some cases of similar nature under the title of *monomanie avec conscience*. In 1866, however, Morel, in addition to giving the best account of neurasthenia previous to the appearance of Beard's work, advanced considerably the knowlege of obsessive states by a paper on *délire émotif*, in which he gave as one of the most pathognomonic symptoms of these affections—which he separated from insanity and included amongst the neuroses—a morbid anxiety or sensitiveness to fears against which the victims fought vainly, whilst all the time recognizing them frankly as absurd. In 1877 Westphal, in a paper on imperative ideas (*Zwangsvorstellungen*), a term coined by Krafft-Ebing in 1867, defined them as ideas which, with an intact intelligence and independently of emotional disturbance, press into the foreground of the patient's consciousness against his will, cannot be dispelled, and obstruct the normal course of ideas, but are appreciated by the patient as foreign and absurd. According to Westphal, these states have no affective foundation and never terminate in true delusions, from which, on account of this incongruity with the rest of the conscious field, they are sharply distinguished. The next important contribution was that of Krafft-Ebing in 1878, who traversed many of Westphal's conclusions and affirmed that, in common with *originäre verrücktheit* (paranoia), there were in these states almost constantly hereditary factors or an original neuropsychopathic constitution and a distinct affective foundation, though he also admitted their stationary character. In Germany, Westphal's views have ever since exerted a predominating influence, but in France after Magnan, the phenomena of obsession—that is obsession, ideal or impulsive, with mental lucidity and fear—have been regarded by most as without exception stigmata of degeneration and as constituting neither an autonomous entity or class nor symptoms of a neurosis. These views have been widely held, in particular by Charcot, Saury, Legrain, Raymond, and Arnaud, and have, Dr. Loewenfeld says, been of service in qualifying the somewhat dogmatic views of Westphal's supporters. The most recent works, however, of Pitres and Régis, Janet, and the author himself, have shown that heredity is by no means a constant factor, though existing in about four-fifths of the cases. The forms of hereditary influences in the author's cases were in much the largest number neuropathic, insanity and feeble-mindedness being present in only a small proportion. In 1895 Freud wrote an interesting paper in the *Neurologisches Centralblatt*, contending that the phenomena of obsession belong to two different neuroses, the compulsive-neuroses (*Zwangsneurosen*) and the phobo-neuroses (*Angstneurosen*), separable from the other neuroses by their different etiology; the phenomena of obsession in these classes having, for Freud, a particular connexion with an inhibition of normal sexual function, an accumulation of sexual energy and, in consequence, persistent impressions upon the subconscious field. Loewenfeld has been entirely unable to substantiate this, and allies himself with Kaan, Thomsen, Krafft-Ebing, Mendel, Donath, and many others in regarding these phenomena from the symptomatological point of view, as being of very varied origin, as occurring in the course of many forms of disease, neurasthenia, hysteria, epilepsy, etc., and therefore neither to be generalized under degeneration nor separated as exclusively distinct neuroses.

The author's classification and treatment of this extremely difficult and complicated subject are very thorough and the subject is illustrated by careful clinical notes of numerous cases. Similar cases to those related by Dr. Loewenfeld spring instantly to mind; history is full of instances, even amongst men of genius, and there must be very few who are not aware of temporary minor obsessions in their own consciousness, for, as Goethe says:

> Nun ist die Luft von solchen Spuk so voll
> Dass niemand weiss wie er ihn meiden soll.—*Faust.*

Apart from this intrinsic interest Dr. Loewenfeld's book is so careful and comprehensive a study of a subject of profound interest and no little forensic importance, and contains so instructive an exposition and comparison of the various views of other writers, that it may be warmly recommended.

NOTES ON BOOKS.

"THE JOURNAL OF THE CEYLON BRANCH."

THE second number of the first volume of the *Journal of the Ceylon Branch of the British Medical Association* covers the last six months of 1904. The arrangements of this part as compared with the former, to which reference was made in the BRITISH MEDICAL JOURNAL of February 18th, p. 254, have been slightly modified. A new section has been added on comparative pathology, the importance of which, it is pointed out, has been emphasized by recent work on cancer, and members of the Branch are asked to keep this section in mind when they meet with instances of disease in animals. An appeal is made to members residing in outlying districts to send papers on diseases peculiar to or prevalent in their respective districts, and particularly on the action and uses of drugs indigenous in or peculiar to Ceylon. In response to the latter suggestion two papers appear in the present volume, one by Dr. Huybertsz on papain, and another by Dr. E. Roberts on tinospora cardiofolia, a climbing plant belonging to the Menispermaceae, the stem and leaves of which are largely used by the native medicine men as a diaphoretic, diuretic, haemostatic, and antirheumatic. Other valuable papers, several of which are illustrated, are on the incidence of cancer and sarcoma in Ceylon, by Dr. A. J. Chalmers; on pancreatitis in Ceylon, by Dr. A. J. Chalmers; on diphtheria in Ceylon, by Professor A. Castellani; and on the treatment of dysentery, by Dr. H. M. Fernando. In the clinical memoranda section several interesting and rare cases are published. The fasciculus does not include any formal addresses, yet it extends to 100 pages, and a useful index to the two numbers for the year is included.

The *Harveian Oration for 1904*[1] has been republished by its author, Dr. RICHARD CATON, in the form of a small book with a number of illustrations. This excellent oration, which appeared in the BRITISH MEDICAL JOURNAL at the time of its

[7] *Die psychischen Zwangserscheinungen* (The Mental Phenomena of Obsession). Von Dr. L. Loewenfeld, of München. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1904. (Demy 8vo, pp. 568. 13s. 9d.)

[1] *The Harveian Oration, 1904: I. Icon-Holep and Ancient Egyptian Medicine. II. Prevention of Valvular Disease.* By R. Caton, M.D., F.R.C.P. London: C. J. Clay and Sons. 1904. (Demy 8vo, pp. 34.)

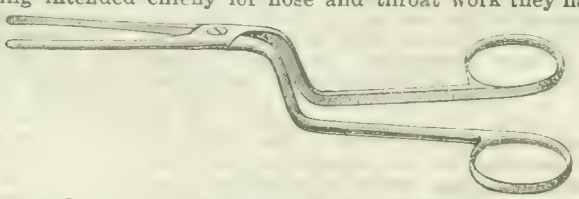
delivery, contains a scholarly and interesting account of medicine in ancient Egypt and is especially devoted to determining the amount of knowledge which the Egyptians possessed of the circulation of the blood; it concludes by an exposition of the value of prolonged rest in the treatment of incipient valvular disease, and it is suggested that the Egyptians also were aware of this. Printed in large type on wide margined paper, the book is easy and pleasant to read.

The fourth volume of the fourteenth series of *International Clinics*[2] is of quite exceptional excellence. To mention all the papers that are of great interest would be to refer to them all, with hardly an exception. Among the contributors to the volume are: Professor Hayem, Dr. Adolphe Javal, Sir Dyce Duckworth, Dr. H. Senator, Mr. Arbuthnot Lane, and Mr. A. A. Bowlby. Among the subjects of special importance are the following: The indications for the dechloridation treatment of Bright's disease; the value of radium in the treatment of lupus, rodent ulcer, and epithelioma; the incidence of gout in the United States and in new communities; the clinical significance of albumosuria; the differential diagnosis of general enlargements of the liver: nerve anastomosis for the cure of infantile palsy; the symptomatology and diagnosis of Glenard's disease and amoebic infection of the intestine and liver.

We are pleased to note that Mr. WILLIS, in revising and rearranging the second edition of his work, entitled *A Manual and Dictionary of the Flowering Plants and Ferns*,[3] has accepted the view we took some years ago, when the first edition appeared, that the work, instead of being in two volumes, would be better in one, and as such it now appears. It was admirable before, but with the many valuable additions—articles on outfit, on collecting and preserving materials, on observing and recording, and on general field work, explanations of many technical terms—it is a complete and reliable work of reference for all interested in botany. The book is intended for advanced students rather than for beginners. It is in three parts, Parts I and II being the most important, and inseparable from each other for purposes of cross-reference. Part I deals with the morphology, natural history, classification, and geographical distribution of flowering plants and ferns, and contains much interesting and scientific information. Part II is a very complete dictionary, arranged in alphabetical order, and including the whole of the classes, cohorts, and natural orders, and practically all the important British, European, American, tropical, and Southern genera. Both these parts have been greatly added to and improved, and Part III (glossary) has also been much enlarged, and the work, as it now stands, should prove invaluable to students.

MEDICAL AND SURGICAL APPLIANCES.

Forceps for Nose and Throat Work and for Opening Peritonsillar Abscess.—Dr. St Clair Thomson has designed the forceps illustrated in the accompanying drawing. They are, he writes, a slight modification of Lord Lister's sinus forceps. Being intended chiefly for nose and throat work they have



been made with a crank handle, so that the field of operation is not concealed by the surgeon's hand. It will be found that greater precision and firmness in manipulation is thus secured by being able to manœuvre in a direct line. The extremity is sufficiently blunt not to injure healthy surfaces, but is fine enough to allow of its being pushed through oedematous, necrotic, or membranous tissues. The inner surfaces are roughened, so as to permit of grasping foreign bodies in the nose, calculi in the tonsil crypts, etc. He has found these forceps useful for a variety of purposes—as ordinary nasal dressing forceps, for introducing gauze packing into the accessory sinuses during or after operation, for exploring the sphenoidal sinus, for swabbing the pharynx, or treating the tonsils, for seizing the end of the hypertrophied uvula, and so forth. They are also serviceable for packing the wound after the mastoid operation. They will be found particularly useful for opening peritonsillar abscesses. Where the abscess is pointing—generally above and external to the tonsil—pressure with the extremity of the forceps will readily detect the site of suppuration, and with slight increase in force the point can easily be made to penetrate the abscess. In withdrawing them the two blades should be separated, so as to enlarge the opening, as in Hilton's method. These forceps have been in use for several years, and are made by Messrs. Allen and Hanbury, Mayer and Meltzer, and other manufacturers.

A New Obstetric or Surgical Bag.—The annexed engravings represent two aspects of an obstetric or surgical case which Dr. J. Coole Kneale, of Shirley, Birmingham, has caused to be made by Messrs. Whitmore of the same city, and which differs in some material and important respects from those hitherto procurable. The front can be opened as in Fig. 1, by

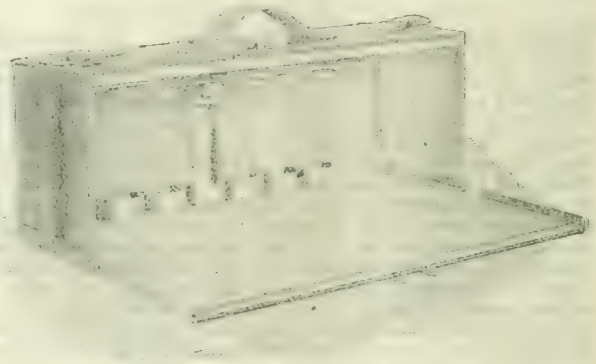


Fig. 1.

using one hand only, the whole contents being then at once visible and easily removable. The bottles are held in place, and their stoppers automatically locked by a simple aluminium fitment which likewise is removable. The whole case can be laid out perfectly flat, as indicated, but not fully shown in Fig. 2, and thus, besides making a convenient stand

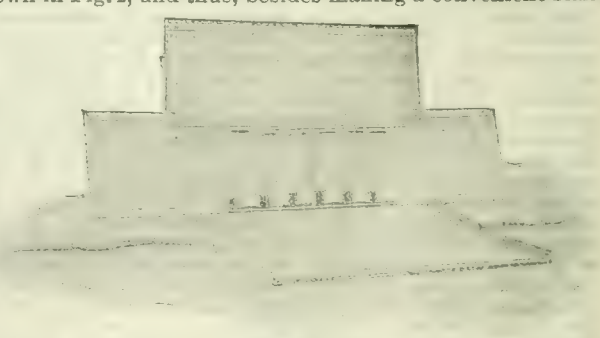


Fig. 2.

for instruments during operative measures, may be thoroughly washed with hot water, or 1 in 20 carbolic acid. When closed the case is perfectly rigid, and weighs with its contents no more than others of like purpose. Unlike these, however, its construction, Dr. Kneale believes, obviates the risk of carrying about clean instruments and bottles in a surgically dirty bag. The agents for its sale are Messrs. Arnold and Son, West Smithfield, E.C.

A New Cervix Dilator.—An opportunity has been afforded us by Dr. Alexander Duke, of London, of examining a dilator for the cervix uteri, which he has had made as a substitute for that of Hegar. It consists of a white metal rod and four side pieces. The former—a tube perforated from end to end—has grooved sides, which correspond accurately with the convexity of the side pieces, so that these can thus be slipped along it easily one by one. The centre piece is straight, but the sides have a slight curve on the external surface, so that the five parts combined have

[2] *International Clinics.* A Quarterly, edited by A. O. J. Kelly, A.M., M.D. Vol. iv. Fourteenth Series. 1905. Philadelphia and London: J. B. Lippincott Company. 1905. (Demy 8vo, pp. 314. 10s. 6d.)

[3] *A Manual and Dictionary of the Flowering Plants and Ferns.* By J. C. Willis, M.A. Second edition. Cambridge: University Press; and London: C. J. Clay and Sons. 1904. (Crown 8vo, pp. 682. 10s. 6d.)

very much the normal shape of the undilated cervix. The centre piece, not being solid like a Hegar, affords exit to contained secretions, and can be used to inject a lubricant which, finding its way out again, will facilitate the passage of the side pieces. It seems a well-contrived form of apparatus, so that it is not difficult to believe that the advantages claimed for it by Dr. Duke would prove well founded in practice. These are that the central tube is at least as easy to introduce as a first Hegar, and that, once in, it need not be removed until dilatation is complete. The introduction of the side pieces at intervals one by one, and the unilateral expansion thus produced, effects, when all are in place, quite as much dilatation as a much larger number of separate Hegars, and in a shorter time. He finds that while introducing them pressure on the uterus from above is preferable to traction with a volsellum. The instrument can be made to any size desired, and he believes that the use of one of large size in a case of pregnancy, in which it was deemed necessary to effect rapid delivery, would contrast favourably with that of screw dilators, especially if employed after application of a 10 per cent. solution of cocaine, as suggested by Dr. Joseph Farrar, of Gainsborough. All screw dilators, he notes, are liable to produce laceration even in expert hands. The makers of the instrument are Messrs. Hewlett and Son, Charlotte Street, E.C.

A Hammock for the Transport of Invalids by Train.—Miss N. C. Horne of Devizes has devised a hammock for the transport of invalids by train when the cost of an invalid carriage or ambulance is beyond their means. The special point in the hammock is the fixing across the centre of a transverse pillow to prevent the person slipping down when the hammock is raised at the head and low at the other end. She suggests that third-class carriages should be provided with hooks or other supports for the hammock, fastened into the woodwork between the door and side window, so that the hammock could be slung across the compartment over one of the seats. The head end being fixed, the patient sits in the hammock upon the carriage seat, and the foot end is then raised till he is suspended clear of the seat. Swinging is checked by special straps, and the invalid can travel in this way without the uncomfortable vibration which is felt when sitting or lying on the carriage seat. The suggestion to utilize hammocks for the railway transport of invalids is decidedly good, and the fixed transverse pillow is a useful device. The invalid and his companions would have to reserve the compartment; this entails taking about six tickets (third class), which makes the journey expensive. Under these circumstances the suggestion to charge 10s. 6d. extra for the use of the hammock seems a good deal: 5s., or even 2s. 6d., would seem to be quite sufficient to cover expenses. Miss Horne is endeavouring to persuade the large railway companies to take up the idea.

DISSEMINATION OF MAMMARY CANCER.

MR. W. SAMPSON HANDLEY, M.S., F.R.C.S., Hunterian Professor of the Royal College of Surgeons for 1905, chose as the subject of his three lectures last week the dissemination of mammary cancer.

He commenced by pointing out that although the subject might be considered as of minor importance when compared with that of the origin of the disease, yet precise knowledge of the paths by which cancer was distributed must be regarded of immense importance so long as early and radical operation remained the only cure. He gave a short account of the theories on the subject which have obtained currency, and then stated the views which he had been led to form chiefly as the result of work done by him in the Cancer Research Laboratories of the Middlesex Hospital during 1903-4.

THE NATURE OF CENTRIFUGAL SPREAD.

He had arrived at the conclusion that breast cancer spread in the parietes by a slowly progressive, centrifugal, quasi-serpiginous process, which was quite independent of the conveyance of the cancer cells by the lymph or blood stream. The characters of the process appeared to indicate actual growth of the cancer along one or other of the parietal layers in continuity with the primary neoplasm.

He based this conclusion on the fact that secondary deposits in the skin always appeared in the near neighbourhood of the primary focus, and that the area within which they were to be found was a circle centring at the primary neoplasm, and having a diameter which progressively increased as the case ran its course. By the time, however, that this circle had spread sufficiently to take in the proximal portions of the limbs, if not earlier, death usually supervened. Hence the distal halves of the limbs enjoyed an almost invariable immunity from subcutaneous nodules, however numerous and widely-scattered those nodules might be on other parts of the body. The same centrifugal process of spread was manifested in the distribution of the osseous metastases. Bone metastases hardly ever occurred in the distal halves of the limbs, and the liability of a bone to invasion increased with its proximity to the breast. The long bones liable to metastases, that is, the femur and humerus, were first attacked at that point nearest to the trunk at which they were subcutaneous. In other words, the femur was attacked near the base of the great trochanter, the humerus at the deltoid insertion. This fact seemed to indicate that centrifugal spread took place in the plane of the deep fascia, a conclusion also probable on anatomical grounds, since the main lymphatic plexus of the parietes lay upon the deep fascia. This view he further supported by operative statistics, which indicated that freedom from skin recurrences depended not on the wide removal of skin, but on wide removal of deep fascia.

PERMEATION.

Microscopically he had been able to prove that the cancerous area of deep fascia round a breast cancer was much larger than the area in the skin, and that the isolated nodular deposits in the skin and the muscles were local efflorescences from the cancerous deep fascia. By means of long radial sections of the parietal tissues, cut vertically to the skin surface, and extending in various directions from the primary growth as a centre he had been able to trace the process of cancerous spread in the deep fascia. Fine tendril-like processes of the primary growth pushed their way along the vessels forming the pectoral lymphatic plexus, and to this process of actual cancerous growth along lymphatic vessels he suggested that the term permeation should be applied. The cancer cells spread along the deep fascial lymphatic plexus just as would a thick injection fluid; that is to say, permeation extended centrifugally from the primary focus, and at first avoided the smaller vessels which offered a higher resistance. The vessels which composed the fascial plexus were larger than the innumerable vertical tributaries which run to the plexus from the skin above, or from the bones and muscles beneath. Hence the microscopic growing edge of permeated lymphatics was situated in the plane of the deep fascia, and did not involve the other layers of the parietes.

The next step was that the permeated lymphatics became so much distended by the proliferating cancer cells within them that the pressure forced cancer cells along the finer branch-lymphatics into the adjoining layers of the parietes, the skin, muscles, and bones. The nodular form of the deposits in these layers was determined, he thought, originally by the extension of permeation into the spherical group of capillaries in which each of the small lymphatic vessels arose.

He drew attention to the fact that permeation proceeded with apparently equal facility either with or against the stream of lymph. Moreover, its centrifugal progress was not checked by the anastomotic plexuses which separated one lymphatic area from others adjoining it. These plexuses formed efficient filters for any cancer cells carried to them by the reflux lymph stream, just as did the lymphatic glands for cancer cells which were swept into them along trunk lymphatics; but permeation, on the contrary, was not checked at the boundaries of a lymphatic area; the whole lymphatic system lay open to it, and its centrifugal extension was limited only by the degree of proliferative power which the cancer cells happened to possess.

PERMEATION A FUGITIVE PROCESS.

He believed, in short, that permeation was the master process of dissemination in all forms of carcinoma. The reason why its importance had hitherto escaped observation was that permeated lymphatics were after a time destroyed by a curative process which he had elsewhere described[1] under the term "perilymphatic fibrosis." The permeated lymphatics were first distended, then ruptured, by the proliferating cancer cells within them. The rupture excited a vigorous inflammatory reaction, which ended in the encapsulation and destruction of the included cancer cells, which had been already weakened and degenerated by the high pressure arising from their own proliferation within the lymphatics. The final stage was that the permeated lymphatic became replaced by a slender thread of newly-formed fibrous

[1] *Archives of the Middlesex Hospital*, forthcoming volume.

tissue. He had been able to trace and photograph all the stages of this process. Inasmuch as the parietal metastases, except those produced embolically in the lymphatic glands, arose in direct continuity with the primary growth, they were in a sense parts of it. But he thought the expression "primary growth" should be reserved for the region of interstitial infiltration round the primary focus.

A direct result from the orderly succession of permeation, perilymphatic fibrosis, and nodule formation was that three zones could be traced in the parietal tissues round the primary mammary growth, which he described as follows:

1. The proximal zone of isolated nodules, in which most of the permeated lymphatics connecting the nodular deposits with the primary growth had been replaced by cords of fibrous tissue.
2. A middle zone, in which destruction of the permeated fascial lymphatics might be seen progressing, and in which nodular deposits were commencing to form in the adjoining layers.
3. The peripheral zone of fascial permeation, which formed the microscopic growing edge of the cancer.

The width of the latter might vary; in one case it was 30 mm., in another case about 7 mm. The diameter of the circle of permeation in the two cases just mentioned was about 8 and 10 in.; the maximum diameter ever attained appeared to be between 3 and 4 ft. The patient died before the circle had spread to the distal portions of the limbs.

VISCERAL DISSEMINATION.

Visceral dissemination did not, as was usually thought, take place by way of the axillary glands, the supraclavicular glands, and the blood. A study of metastatic distribution negatived the embolic theory, though in isolated instances it might be true. Visceral dissemination was mainly due to the extension of permeation (by way of the fine anastomotic lymphatics which pierce the parietes) from the permeated area of the fascial plexus to the subserous lymphatic plexuses of the pleura and peritoneum. Cancer cells then escaped into the serous cavities and, implanting themselves upon the surface of the various viscera, gave rise to metastases which soon terminated the patient's existence. Accordingly obliteration of the pleura was found frequently to be effective in protecting the thorax from invasion.

EPIGASTRIC INVASION OF THE ABDOMEN.

The thick thoracic wall formed a strong defence to the pleural cavities, but the peritoneum, on the contrary, at the tip of the ensiform cartilage, a point little more than an inch distant from the margin of the breast, was separated from the fascial lymphatic plexus only by a single layer of fibrous tissue (the linea alba) and by a loose layer of subperitoneal fat. It was not surprising, therefore, that cancer frequently reached the epigastric parietal peritoneum, the liver, the portal glands, and the abdominal viscera generally, before the thorax had been invaded at all. He had demonstrated this mode of invasion histologically, and its frequency was shown by the fact that in 53 out of 422 cases cancer was found only in the peritoneal cavity and not in the thorax. He estimated that epigastric invasion of the abdomen occurred in at least 30 per cent. of cases of breast cancer. Although it appeared to be an earlier event than invasion of the thorax, no operative measures to guard against it were at present adopted, whereas the modern operation for mammary carcinoma, when carried out by an expert, afforded a maximum of protection to the thorax. Hence it arose that in the most recent operative statistics clinical recurrences in the abdomen exceeded those in the thorax in the proportion of two to one. Excision of the deep fascia of the epigastric region as far down as a horizontal line running two inches below the ensiform cartilage should, he thought, produce a further appreciable diminution in the mortality from mammary carcinoma. He had adopted this procedure in his own practice, and had not found that it increased the shock of the operation.

THE GRIFFITHS TESTIMONIAL FUND.

DR. A. P. FIDDIAN (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	69	18	6
Dr. W. E. Thomas, Ystrad	1	1	0
Dr. Fred. Buckham	0	5	0
Dr. S. H. Steel	0	5	0

By a printer's error Dr. J. C. Edwards was credited last week with a subscription of £1 10s. 6d. instead of 10s. 6d.

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

NOVA ET VETERA.

AN OLD SCHEME FOR THE SOCIALIZATION OF MEDICINE.

IN the BRITISH MEDICAL JOURNAL of November 5th, 1904, reference was made to a scheme for the provision of medical attendance on the citizens of Zurich on the lines of a friendly society, and to proposals in the same direction made in this country a few years ago. An elaborate scheme of the same general character was submitted to the British Parliament more than two centuries ago. Mention is made of the scheme in a paper entitled, The Case of a Ministry of Public Health, read in April, 1903, by Mr. Fred Scott, F.C.A., before the Manchester Statistical Society, and reprinted as a pamphlet. An extract from a tract dated 1689, now in the Manchester Free Reference Library, which is printed as an appendix to the pamphlet, contains the outline of a "Constitution of Physick" which is in fact a department of the public service whereby medical attendance was to be provided by the State for all citizens. The document, which is entitled *A Proposal for the better Securing of Health, humbly offered to the Consideration of the Honourable Houses of Parliament*,[1] is so interesting that we make no excuse for quoting it in full:

"This last year's Bill of Mortality, as well as the many poor Diseases, have given to some a just occasion of Reflecting on the great Numbers which Annually Dye within the City of London, and parts adjacent, comprized in the Weekly Bills of Mortality; whereof many, by Gods Blessing upon the true Methods of a Skillful Careful, and early Application of the Art of Physick, might in all probability have been preserved alive.

"Therefore, in order to so good and great an End, it is humbly proposed, that a more compleat practical Constitution of Physick according to the following Method, may be upon national Demonstration Established; whereby Care may be taken, that all Sick, as well Poor as Rich, shall be Advised and Visited, when needful, by Approved, Skillful Physicians, and Surgions, and furnished with necessary Medicines in all Diseases, except the Pox, Midwifery, and Cutting for the Stone; for which three last Calamities, some small Additional Allowance may be setled: Because the Pox may not be hereby encouraged, and Deliveries require mighty Pains, and unseasonable hours; and the Stone is not only a particular Dexterity, but requires much attendance.

"And all this, (Except as before Excepted) for a small certain Sum Assessed upon each House, not exceeding..... for the greatest Family nor under.....for the meanest that are not Objects of Charity: Which respective Sums will not be the third part of what is now spent, only in Apothecaries Bills in a Healthy year. And for this every Individual Person of the Family, as well the Lodger and Servant; as Master, Mistress, and Children, shall, when there is occasion, be sufficiently accommodated: Whereas many at present miserably perish without the least care, and for want of timely and skillful Assisstance. In short, It's proposed to serve all the Families, Rich and Poor, Little and Great, within the City and parts adjacent much better and cheaper than at present, with Visits, Advice, Medicine and Surgery.

"It is also further humbly offered, That effectual Care be taken to reform the Practice of Midwifery, according to a Proposal ready to be presented when commanded: And that the Laws in being may be revised and amended, which provide against the Sale of unwholesome Flesh in the Markets; and the Bread may be well baked; Wine not Sophisticated: Beer well Brewed; and the Houses and Streets well cleaned from Dirt and Filth: All these being very common causes of Diseases and Death.

This Constitvtion consists of the following Members, more or fewer, as the City Occasions, and Necessities may require:

FIRST, Ten Noble Curatores.

SECONDLY, Physicians.

One Super-Intendent or President.	Fourteen Junior Visitors.
Two Sub-Intendents.	Seven Sub-Secretaries.
Three Senior Heads of the College.	Forty two Chief Itinerants.
Four Junior Heads.	Forty nine Junior Itinerants.
Fourteen Senior Visitors.	Seven Senior Amanuenses.
Seven Principal Secretaries.	Fourteen Junior Amanuenses.

In all One hundred sixty four.

Of this Number, besides the three Intendents in the Chief College in Warwick-Jane, there will be Twenty three Physicians more: As also Twenty three in each other the six Colleges. Seven Colleges being

[1] Printed for Tho. Salusbury at the Sign of the Temple, near Temple Bar, in Fleet Street. 1689.

thought at present more than sufficient to serve the Bills of Mortality, with Convenience and Ease to the Inhabitants thereof: In each of which Colleges there are as followeth:

One Master, Head or Principal.	Six Senior Itinerants.
Two Senior Visitors.	Seven Junior Itinerants.
Two Junior Visitors.	One Senior Amanuenses.
One Principal Secretary.	Two Junior Amanuenses.
One Sub-Secretary.	

In all Twenty three.

The convenient places for the Seven Colleges may be

1. The Present College.
2. Lincolns-Inn-Fields.
3. Near Charing-Cross.
4. Near the Poultry.
5. Southwark near the Hospital.
6. Near Bishops-gate.
7. In or about Goodmans-fields.

Which places are to be published in Print about a Fortnight before the Settlement, that all may know where to apply for help.

THIRDLY, Chyrurgions.

One Master.	Twenty eight Assisstants.
One Deputy.	Fifty six Mates.
Seven Wardens.	Twenty eight Junior Mates.

In all One Hundred twenty one.

Of this Number, besides the Master and Deputy, at the Chief College, there are Seventeen in each of the Colleges, viz.

One Warden.	Eight Mates.
Four Assisstants.	Four Junior Mates.

In all Seventeen.

Some of which, besides Chirurgery, shall practice Midwifery, cut for the Stone, Reduce Dislocations, And draw Teeth, in each College.

FOURTHLY, Apothecaries.

One Master.	Forty two Mates.
One Deputy.	Forty two Journey-men.
Seven Wardens.	Forty two Sub-Journey-men.
Fourteen Assisstants.	

In all One hundred forty nine.

Of this Number, besides the Master and Deputy at the Chief College there are Twenty one in each College, viz.

One Warden.	Six Journey-men.
Two Assistants.	Six Sub-Journey-men.
Six Mates.	

In all Twenty one.

If the Number of any Exceeds the Inhabitants Necessities, it may be (as they dye out) lessened, by not supplying: But if not sufficient it may be Augmented.

The arguments in favour of the scheme and the advantages which would flow from its adoption are thus set forth:

Inducements for this New Establishment of Physick.

I. To preserve Health and save Lives, is always a Publick Good, but more especially in time of War.

II. That Medicine is highly useful to those great Ends, is and has been always the General Judgment of Mankind.

III. That every Good *eo Communuis eo Melius*; but that as Physick is now managed, not only the very Poor, but meaner sort of Tradesmen and their Families, Servants, and Misers, deter'd by Physicians Fees, and Apothecaries Bills, have little or no Benefit by Physick.

IV. That by these means, together with the want of timely and frequent visits, many dye yearly that might be preserved; and Epidemical and Contagious Distempers rise and are propagated.

V. That Physicians and Chirurgions may (and possibly many do) having no Check, or Supervisors, for Lucre sake, prolong Cures to the hazard of Life; and by new Experiments on their own single Judgment destroy many.

VI. That Apothecaries may be careless in their Mixtures, or Unskillful; or may Administer things improper or decayed, or tire their Patients with needless and nauseous Medicines for their own Advantage.

VII. Mountebanks, and Cheats in Physick, are found by Experience, to conduce extreamly to the Ruine of Peoples Healths, and loss oftimes, of their Lives, as well as of their Money.

VIII. That by this Constitution all those Ills will be prevented, all will have equal Help and Benefit: all will apply in time, since they may hope for Cure without fear of Charge: Diseases taken early more easily removed: Frequent Visits will be made, which in acute Diseases are most necessary: changes therein being often so great and sudden, that Life is frequently lost for want of a timely Visit: Consultations will be had, when necessary, though of the whole Faculty in difficult cases: Medicine publickly and faithfully prepared will only be given: And Mountebanks, with such others, will hereby sink of themselves, without Law or Trouble.

IX. Nothing will be here Clandestine, that in its own Nature requires not Secrecy. No Mans Ignorance or Negligence can here be prejudicial, for the Constitution directs all, inquires into and supervises all.

X. Physick and Chyrurgery will be extremely improved, and in little time, by the multitude of Experiments, recording of Observations, and mutual candid Assistance of the Members come near to a Demonstration.

XI. The Members of both Houses of Parliament, with their Families, not being House-Keepers in Town, will be attended Gratis: And indeed all the Inhabitants of every House, for the Small Rate charged thereon: Visits, Physick, and Chyrurgery therein included.

XII. The Advantages of this Constitution may be immediately extended to the Great Benefit both of the Navy and Army.

XIII. The Improvement of Health, and Preservation of Life, Encreases People, and that Augments Consumption, Trade, Power, and Wealth. And many Forrigners will repair hither for Remedy, when incurable abroad.

XIV. The Proposers are sensible that many Objections will be raised by Prejudice, Interest, and for want of a true information of the nature and Tendence of this Constitution; all which they are ready to answer, and hope the Publick Benefit will outweigh all by, and little Ends."

The scheme, it will be noted, is of the most comprehensive character, and shows a faculty for organization which should have saved the name of the unknown begetter of this "Constitution of Physick" from oblivion. Like all framers of constitutions, he was a little blind to practical difficulties. His suggesting of consultations of the whole faculty in puzzling cases appears to show that he was imperfectly acquainted with the facts of medical practice, and his confidence that under the system proposed by him "mountebanks would sink of themselves without law or trouble" reveals an ignorance of human nature that is not infrequently found in devisers of schemes for the reform of things in general. The fact that nothing is said about the amount of the salaries to be paid to the physicians and "chyrurgions" who are to be at the beck and call of the public may perhaps be taken to reveal a shade of doubt in the author's mind as to this important point. He does not, it must be admitted, display any particular regard for the interests of the medical profession; his philanthropy, like that of so many social reformers, was probably vicarious.

We do not know whether the scheme was ever actually presented to Parliament; if it were, it may reasonably be conjectured that the Government had, as a Cabinet Minister said not long ago with reference to a proposal concerning the public health, matters of greater political importance to occupy its attention.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Huddersfield Lecturer in Special Pathology.

The Vice-Chancellor of the University of Cambridge has announced that the General Board of Studies have appointed T. S. P. Strangeways, M.A., St. John's College, as the first Huddersfield Lecturer in Special Pathology, the duties to commence on Lady Day, 1905, the Lectureship in the first instance to be held until Michaelmas, 1909. This appointment has been confirmed by the Special Board for Medicine, and Mr. Strangeways will commence his work at the commencement of the Easter term. It is hoped that the precedent created by Huddersfield may be followed by other important and wealthy communities. Mr. Strangeways, who is well known to St. Bartholomew's Hospital men, has been University Demonstrator in Pathology for nearly seven years and is admirably qualified to perform the duties of the important post to which he has been appointed.

D.P.H. Examination.

The examination in Sanitary Science commences on Monday, April 3rd

Degrees.

The following degrees were conferred on March 16th.

M.D.—O. Inchley, Joh.; C. E. Williams, Gonv. and Cai.

M.B.—G. Cowan, King's; E. Harrison, Trin; C. D. Mathias, Trin; C. E. Palmer, Gonv. and Cai.; N. G. Harry, Jes.; H. Statham, Christ's.

B.C.—G. Cowan, King's; C. E. Palmer, Gonv. and Cai.; N. G. Harry, Jes.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates were approved at the March examination in the subjects stated:

Surgery.—†*J. Borle, J. M. S. Duncan, †J. H. Harrison, †W. G. O'Malley, A. R. Paterson, *A. Rogers, *L. Sells, *P. L. Vawdrey.

Medicine.—†*A. Bernfeld, †*J. Borle, †*H. A. Browning, †M. B. Dawson, †*H. R. Grellet, J. E. Jones, †*G. H. Rains, †R. H. Terry, †*P. C. West.

Forensic Medicine.—D. L. E. Bolton, J. Borle, M. B. Dawson, G. H. Rains.

Midwifery.—J. Borle, W. H. Lister.

The diploma of the Society was granted to the following candidates: J. Borle, J. M. S. Duncan, J. E. Jones, and A. Rogers.

† Section I. * Section II.

Heroism at Sea.—At the annual meeting of the Royal Humane Society, held on March 15th, it was announced that the Stanhope Gold Medal for the most meritorious case of the year was awarded to Captain T. C. Mackenzie, R.A.M.C., for his gallantry on September 22nd, 1904. He was being invalided home after a severe attack of typhoid fever, and when the steamer by which he travelled was in the Ionian Sea a boy fell overboard. Captain Mackenzie at once jumped after him, and securing two life-belts which were thrown, he caught the lad, lashed him to one, retaining the other himself, and awaited rescue. Owing to the choppy sea and the speed of the vessel they had been lost to sight, and it was forty minutes before they were again seen and picked up.

MEDICAL NEWS.

On February 23rd His Royal Highness Duke Karl Theodor of Bavaria, celebrated the 25th anniversary of his graduation as a Doctor of Medicine.

A number of ladies belonging to the highest society in Rome have formed a committee to devise means for the relief of sufferers from ringworm, which is very prevalent in the Province of Rome.

A provincial sessional meeting of the Royal Sanitary Institute will be held at Bristol on April 8th, at 11 a.m., when a discussion on Isolation Hospitals will be opened by Dr. D. S. Davies, M.O.H., and Mr. T. H. Yabbicom, City Engineer and Surveyor of Bristol.

Dr. Chang A. Holt has recently passed the California Board of Medical Examiners, being the first Chinaman licensed to practise medicine in that State. He is 26 years old, and was born in Canton. He received his medical education in San Francisco. It is said that he intends to practise his profession in his native country.

The Epidemic of Typhoid Fever at Lincoln.—The total number of notifications of typhoid fever in Lincoln for the week ending Friday, March 17th, was 46, making a total of 861 since December 1st, 1904. A large proportion of these cases are found to be "secondary," occurring in houses where there has been previous infection.

The Abolition of the Coroner in New York.—A Bill is now before the New York State Legislature by which the office of coroner and the jury system connected therewith are abolished, and it is believed that if the efforts of the Committee by which it is promoted are effectively backed by the medical profession, it will become law this year. The Bill transfers the judicial functions of coroners to the city magistrates, whose duties are essentially those of judges. The medical duties associated with the office of coroner are transferred to the Department of Health, in which a special branch is created for the purpose. The legal duties necessary for the proper conduct of inquests are transferred to the District Attorney, to whose province they rightly belong. The civil duties of the coroner are transferred to the City Chamberlain.

Cancer in Young Subjects.—Ten recent cases of carcinoma in subjects under 31 have been collected by Rhode (*Inaug. Dissert.*, Greifswald, 1904). These cases are (1) cancer of the rectum in a tanner's boy, aged 19; (2) cancer of the ovary in a maid-servant, aged 19; (3) cancer of the stomach in a girl, aged 22; (4) cancer of the pancreas in a workman, aged 23; (5) cancer of the cardiac end of the stomach in a shepherd's boy, aged 24; (6) cancer of the duodenum in a tavern-inspector, aged 25; (7) cancer of the pylorus in a maid-servant, aged 26; (8) malignant gastric ulcer in a girl, aged 26; (9) cancer of the stomach in a maid-servant, aged 29; (10) colloid cancer of the rectum in a baker (female), aged 30. These 10 cases were taken from a series of 322 cancerous patients on whom necropsies were performed in the Griefswald clinic in the course of twelve years. The number of cases from 30 to 50 years of age was 121; from 50 to 70, 156; and from 70 to 90, 35. Thus, although the number of cases in aged subjects was three and a half times as many as the number in persons under 30, the latter are not so free from malignant disease as is generally supposed.

Bequests to Hospitals.—The late Mr. James Holmes Lucking, of Streatham Hill, bequeathed some £100,000 to charities, and among the bequests are the following: £2,000 each to St. George's Hospital, King's College Hospital, London Hospital, St. Mary's Hospital, Middlesex Hospital, Brompton Consumption Hospital, National Hospital for the Paralysed and Epileptic, Royal Hospital for Incurables at Putney Heath, Earlswood Asylum, and the British Home and Hospital for Incurables at Streatham; also £1,000 each to Charing Cross Hospital, Guy's Hospital, Metropolitan Hospital, Royal Free Hospital, Seamen's Hospital Society, Westminster Hospital, University College Hospital, East London Hospital, Victoria Park Hospital for Chest Diseases, Great Ormond Street and the Evelina Children's Hospitals, Hospital for Women (Soho Square), Samaritan Free Hospital, Cancer Hospital at Brompton, Female Lock Hospital (Harrow Road), and the Royal London Ophthalmic Hospital; also £500 each to the Mount Vernon Consumption Hospital, the City Road Chest Hospital, and the Royal National Hospital at Ventnor.

The Leper Colony of Molokai.—Dr. William C. Wile, an American physician, who has recently paid a long visit to the leper settlements of Hawaii, gives the following account of Molokai: "The unfortunate victims of the leper colony on the island of Molokai now number about 1,100. They are well cared for, and have everything done for them that can alleviate their pitiable plight. From the period of infection, which occupies about two years, the leprous patient may have his existence prolonged from four to six years, rarely longer than the latter period. Curiously enough, the taint of leprosy is not always transmitted; a child of a leprous father and an uninfected mother may grow up in good health. One noteworthy feature of the colony is the heroism often displayed by non-leprous husbands who go to dwell in the disease-stricken settlement, to be by the side of a wife marked for death, and of as equally devoted wives who take the same risks." Dr. Wile thinks that more women act in this self-sacrificing manner than men.

Northumberland and Durham Medical Society.—An extraordinary meeting of the Northumberland and Durham Medical Society, under the presidency of Dr. G. H. Hume, was held in the College of Medicine, Newcastle-upon-Tyne, on March 9th, when an address was given by Mr. Stiles, Surgeon to the Royal Edinburgh Hospital for Children, on Some of the Surgical Diseases of Childhood. Mr. Stiles, after referring to the pathology and treatment of harelip, dealt with the pathology of congenital hydrocephalus, giving his experience of the treatment of this affection by ligature of the carotid arteries. The subjects of ectopia vesicae and the success which followed the establishment of a junction of the ureters with the rectum was discussed, and talipes and its treatment were also reviewed. The lecture was much appreciated, as was evident by the close attention with which it was followed. Later in the evening Dr. Hume took the chair at a banquet held at Tilley's. The Health of "Our Guest" was well received. Mr. Stiles subsequently proposed the toast of "The Northumberland and Durham Medical Society," which was responded by Mr. H. B. Angus, one of the secretaries. "The Health of the Chairman" was given by Dr. James Adamson. The dinner was attended by upwards of sixty gentlemen.

The Eyes and Ears of School Children.—A Bill providing for the better care of the health of children in public schools has been passed by the Vermont State Legislature, and will come into operation on July 1st. Under the terms of the Act, the State Board of Health and the Superintendent of Education must prepare suitable test cards, blanks, record books, etc., to be used in testing the sight and hearing of school children, and necessary instructions for their use: these cards and books are to be supplied free of charge to every school in the State. The superintendent, principal, or teacher in every school, during September in each year, must test the sight and hearing of all pupils under his charge, and keep a record of such examinations according to the instructions furnished. He must give information in writing to the parent or guardian of every pupil who shall be found to have any defect of vision or hearing, or disease of eyes or ears, with a brief statement of such defect or disease; and must send a written report of all such examinations to the Superintendent of Education.

American Diet.—According to census statistics, quoted in the *Journal of the American Medical Association*, there has been a large decrease in meat consumption and a corresponding increase in that of cereals and vegetables in the United States in the past half century. In 1850 the consumption of wheat was 4.30 bushels to each American, in 1900 it was 6.23 bushels. The Scotch diet of oatmeal has been adopted by the Americans within the last fifty years to a very great extent, as shown by the increase of from 0.90 bushels in 1850 to 3.86 bushels per capita consumption in 1890. There has been a corresponding increase in the consumption of vegetables, though the use of potatoes seems somewhat to have decreased. The use of sugar has been tripled per capita in the last fifty years. These statistics must not be taken to indicate that our American cousins are abandoning the fleshpots and giving themselves up to vegetarianism, but they show that a change has taken place in the national diet which can scarcely fail in time to exert some influence on the national temperament. Will the diminution of meat eating and the increased consumption of vegetables make hustling a less pronounced feature in the American character?

British Medical Journal.

SATURDAY, MARCH 25TH, 1905.

THE EVOLUTION OF LARYNGOLOGY.

A NOT inconsiderable part of this week's issue is devoted to a full account of celebrations in honour of a truly grand old man who has just, as Professor Fraenkel happily said, entered on the second century of his immortality. Manuel Garcia has writ large in the history of science a name already in the highest degree celebrated in the art of song. As his father was the trainer of nearly all the greatest singers in the first half of the nineteenth century, so the son, by his own teaching and that of his pupils, has been the master of most of those whose voices charmed the general ear during the second half. The value of his method is attested by the brilliant success of his pupils, and his unsurpassed merits as a teacher have been freely and gratefully recognized by the whole musical world. To us, however, it is not the founder of a justly famous school of song that is interesting so much as the man and the scientific discoverer. In the man we see a very remarkable specimen of vitality, one who has already exceeded the allotted span of human life by a whole generation, who till a few years ago was in active work, who is still clear and vigorous in mind and sound in body, and who is able to enjoy life and, as he proved last week, to bear without ill consequences an amount of excitement and fatigue that would have been too much for many men young enough to be his sons. For him, as for others who fulfil their century of years, the secret of longevity has not been in any particular diet, or in abstinence from things which fanatics denounce as poisons. He eats ordinary food, smokes, and takes his glass of wine or beer as he has always done. To him the only elixir of life has been strict moderation in food and drink, combined with regular exercise of mind and body. He can say with Adam:

> Though I look old, yet I am strong and lusty.
> For in my youth I never did apply
> Hot and rebellious liquors in my blood;
> Nor did not with unbashful forehead woo
> The means of weakness and debility.
> Therefore my age is as a lusty winter,
> Frosty but kindly.

Carlyle said that he never met a healthy-looking man in the streets without feeling inclined to take off his hat to him. In the same spirit we honour Señor Garcia as a living proof that a man may reach the farthest limit of age without senility.

But the special significance of the celebrations seems to us to lie in the fact that they constitute an act of public homage on the part of the medical profession to a man who enriched the art of healing with an instrument of precision of the highest practical value, and who has by his invention done much to enlarge the empire of medicine. Like a good many other discoveries which have materially furthered the progress of medical science, the laryngoscope came to us from outside. And with shame it must be added that it came among its own and its own received it not. To the Greeks it was foolishness and to the profession at large it was a thing of nought. Professor Osler has recently told us that if we take the sum of human achievement in science, art, and literature, and subtract the work of the men above 40, "while we should miss great treasures, even priceless treasures, we would practically be where we are to-day." The achievement of the great man whose centenary has just been celebrated with such general enthusiasm, supplies a striking comment on these hasty words. Garcia was ten years over the limit of achievement fixed by Professor Osler when he opened up a new world to scientific exploration. Leaving music out of account, subtract the laryngoscope from medicine, and what a gap is left in modern methods of diagnosis and treatment! Before its inventor threw light into places which had been dark since the birth of the human race, the larynx was an undiscovered country and its diseases lay beyond the limits of medical art. The most cursory review of the evolution of laryngology will enable us to appreciate the importance of the advance which we owe to the genius of Manuel Garcia. He is the true begetter of the laryngoscope, for, although several investigators had worked at the problem before him, he was the Columbus who showed how the egg could be made to stand on its end.

It was simple enough when men learned how it was done, and it might have been expected that the uses to which the little instrument could be put would forthwith have been perceived and its value as a means of diagnosis appreciated. Yet but for an accident Garcia's paper might have lain buried in the dusty tomb of the *Proceedings* of the Royal Society. It is generally said that Türck of Vienna coming by chance across the paper two years after the date of its presentation, was inspired to apply Garcia's invention to the examination of the upper air passages. This is not accurate. Türck had been working independently on much the same lines as Garcia, and had even devised a laryngoscope. He showed the instrument to a friend, who at once informed him that the invention was not new, and directed his attention to Garcia's paper. Türck continued his experiments for a time, but seems to have given them up owing to the want of sunlight in the winter. Soon afterwards Professor Czermak visited Vienna and was shown the laryngoscope, in which he was keenly interested. With it he made observations which he published. This gave rise to one of those bitter controversies as to priority of which the history of science offers so many examples. We need not refer further to the matter here than to say that while there is no doubt that Czermak owed his knowledge of the method to Türck and indirectly to Garcia, he made the important modification of substituting artificial illumination for the uncertain light of the sun. It is only fair, however, to forgotten pioneers of laryngoscopy to recall that artificial light had been used for the same purpose by Bozzini in 1804 and by Avery forty years later. It may be mentioned incidentally that Liston, whose name is often associated with the invention of the laryngoscope, only used "such a glass as is used by dentists, on a long stalk previously dipped in hot water, introduced with its reflecting surface downwards and carried well into the fauces," as a means of inspecting not the inside of the larynx, but oedematous swellings obstructing its orifice.

To Czermak unquestionably belongs the credit of making known to the world the laryngoscope, and to some extent the possibilities lying hidden in the little mirror. He visited the principal medical centres of Europe, and,

luckily being gifted with a capacious and exceptionally tolerant throat, he was able to give convincing demonstrations of the value of the discovery. If Garcia was the founder, Czermak was the apostle of laryngology. It had still many obstacles to overcome, but in this it only shared the common fate of all innovations. Many of the men who bore the heat of the day in the early time of storm and stress are still alive, and must rejoice in the fullness of recognition which their speciality has gained.

Had Garcia's work ended when he was 40 we should still not improbably be powerless to deal with functional aphonia, with laryngeal growths, with syphilis and tuberculosis of the larynx, and with many conditions in the upper air passages which can now be treated satisfactorily, because they can be seen. What is more important, we should be without a means of diagnosis which has proved invaluable in the detection of unsuspected disease of the brain and in the elucidation of obscure mediastinal affections. Abductor paralysis of a vocal cord is often the only appreciable symptom in the early stage of tabes, and it may give the key to the situation of a growth in the fourth ventricle, the medulla, or the cerebellum. Faint appearances discoverable only by laryngoscopy may furnish the first indication of pulmonary tuberculosis before any physical signs are present. The state of the larynx, in fact, is often a danger signal to those who can read its meaning. The laryngoscope may also reveal the presence of an aortic aneurysm or a mediastinal tumour. Its value in medicine is greater than that of the ophthalmoscope because its application is wider and the indications which it supplies are often more definite.

While touching general medicine at many points, laryngology is also to a large extent an autonomous territory in the great federation of the human organism. The extensions of Garcia's discovery which have been made in so many directions have given it a field of usefulness vaster than was dreamt of by those who first applied the laryngoscope to medicine.

In doing honour to Señor Garcia, therefore, as the Father of Laryngology, we hail in him the author of a most fruitful addition to the resources of medical art and the initiator of a great advance in medical science. He must feel a great and justifiable pride in seeing what a stately and wide-branching oak tree has sprung from the acorn which he planted.

INDUSTRIAL ANTHRAX.

DURING the six years 1899-1904, Dr. Legge informs us in his Milroy Lectures, 261 cases of industrial anthrax were notified to the Home Office. The trades connected with wool, horsehair, and hides were responsible for nearly all of them, 88 cases being attributable to the first of these industries, 70 to the second, and 86 to the third. The remaining 17 cases which complete the total arose as isolated instances amongst workers of horn, ragpickers, porters, and followers of various other employments. Amongst persons employed in wool, infection was confined to two localities—the Bradford district and Worcestershire—the reason being that the use of the dangerous classes of wool which come from Persia and European or Asiatic Turkey is practically confined to these two industrial centres. It is highly satisfactory to note that throughout the six years under review no single case has been traced to wool from Australia or New Zealand. To appreciate fully the significance of this fact we must realize that the amount of the raw material derived from these two Colonies is enormously greater than that obtained from other sources. In 1902, for example, the wool obtained from Australia and New Zealand was valued at over £13,500,000, whereas Persian wool imported during the same year was only valued at a little over £13,000, and the material obtained from Turkish dominions was valued at rather less than £750,000. In the other industries, also, the raw material derived from Eastern sources appears more liable to arrive in a contaminated state than that obtained elsewhere. Much of the anthrax-infected horsehair comes from China and Russia; and whilst the hides and skins imported in the wet condition from Italy and South America were only responsible for 2 cases, 19 cases were attributable to dry hides obtained from China, and a similar number to dry hides from India.

Industrial anthrax is a severe disease. The mortality in Dr. Legge's 261 cases works out at 25.6 per cent., and this does not appear to be exceptionally high; in Italy, where anthrax is notifiable, the percentage of deaths in 34,052 cases notified from 1880 to 1890 was 24.1. As regards the type of the disease, there appears to have been a remarkable change during the last quarter of a century, particularly in connexion with the woollen industry. Writing in 1881 Mr. John Spear reported that the internal form was much the more common, whereas in the six years reviewed by Dr. Legge all the cases recorded, with the exception of six, were of the external variety. Two circumstances, Dr. Legge points out, help to account for this change. External anthrax is more readily diagnosed now than formerly; and, owing to improved methods of ventilation which are now enforced when dangerous material is being handled, the risk of contracting the internal form by inhalation of anthrax-laden dust is considerably diminished. In the external form, where the pustule naturally occurs almost always on some exposed part of the skin, the severity of the disease appears to be determined to a large extent by the particular situation affected, the mortality when it occurs on the upper eyelid or neck being much higher than in cases affecting the forehead or the upper extremity.

In discussing curative methods, Dr. Legge gives us a very interesting account of Sclavo's serum treatment, which is almost new to English practitioners, only twelve cases having as yet been recorded; in only four of these was the serum used alone, and not in connexion with excision. In Italy, however, the serum has had a much more extensive trial. In 1903 Sclavo published a list of 164 cases in which it had been used. These gave a mortality of 6.09 per cent., as compared with a mortality of 24.1 per cent. for the whole of the Italian cases. Taking into consideration the fact that some of the patients were already *in extremis* when the serum was administered, this diminution of mortality is a strong argument in favour of the efficacy of the serum. From a personal study of the published details of the English cases, and 65 of the Italian cases, Dr. Legge arrives at the conclusion that many advantages can be claimed for this remedy. It is innocuous, even in very large doses, and can be borne well when introduced intravenously. No case taken in an early stage, or of moderate severity, is fatal if treated with serum; and some cases are saved when the prognosis is almost hopeless. The extension of oedema is checked, the destruction of tissue is reduced to a minimum, and recovery is very rapid. In internal forms of the disease, intravenous inoculation with the serum is the only method of treatment which can hold out any hope of recovery.

The scientific explanation of the method in which the serum acts is still an open question, and we shall probably have to wait for some time before laboratory investigations have satisfactorily cleared up this problem. But the two important clinical facts that it is innocuous, and that it is therapeutically valuable appear to have been already satisfactorily established, and these are sufficient to justify an application of the remedy without hesitation in all cases where occasion for its use arises.

Prevention, of course, is still better than cure, and we cordially agree with Dr. Legge that every effort ought to be made to reduce the opportunities for infection to a minimum. Unfortunately, effective restrictions are far from easy of application. The dangerous character of Eastern wools appears to be largely due to carelessness in washing and sorting, and to the unscrupulous inclusion of material from districts known to be badly infected with anthrax. But, as Dr. Legge points out, and as was recently remarked by Professor Delépine in a lecture delivered before the Incorporated Society of Medical Officers of Health, even in this country illicit dealing in animals infected with anthrax is difficult to suppress; and whilst an unscrupulous disregard for sanitary precautions is common amongst traders at home, the expectation that a higher standard of morality can be made to prevail over the natural cupidity of the Asiatic merchant must be regarded as remote.

RETROGRADE LEGISLATION.

We believe that it was Sterne who popularized the catchphrase "They manage these things better in France"; in this century we have been taught to replace France by Germany. We have been told by engineering and commercial and scientific experts that the excellence of German methods of administration and control are dethroning the Anglo-Saxon. It is curious, therefore, to find that at the very time when Dr. Sommerfeld, the leading expert on factory legislation and administration in Germany, is praising the British system of factory supervision—praising in particular the use that is made of the services of the factory surgeon, and complaining only that they are not sufficiently extensive, it is curious that this moment should be chosen by the Home Office to introduce a Bill curtailing the responsibilities of these useful public officers, and thus seriously diminishing the protection afforded to workmen by factory legislation. A Bill which conceals its object under the title "Accidents (Mines and Factories)" has been introduced by the Under-Secretary of State for the Home Department and backed by the Home Secretary. It is starred and is being put down from day to day, so that apparently the Government hope to squeeze it through some evening when the House has been tired out by gabble about Sir Antony MacDonnell and underweight jam tins.

At present all fatal accidents are notified to the factory surgeon of the district, and also any accidents caused by machinery in motion, molten metal, hot liquid, explosion, electric shock, or other causes specified as special by the Home Secretary, if the person injured is absent from the factory or workshop for a specified time. The Bill proposes to do away with this direct notification to the factory surgeon and to leave only the notification to the inspector, who will be required to send on the notification to the factory surgeon in such cases only as the Secretary of State may direct. Similar proposals were contained in the Factory Bill of 1901, but they were strongly objected to by a large number of members of Parliament, who were able to show that the only systematic investigation into accidents of this class was that made by the surgeon, who not only visits the works but the injured person also. Subsequently a Departmental Committee was appointed, and the new Bill is apparently founded upon one of its recommendations. The medical profession was not represented upon the Committee, and the recommendation would appear to have been made without fully realizing that a report made by a surgeon some time after the accident could not fulfil either of the two purposes of the notification which the Committee itself stated to be necessary—namely, the enforcement of the statutory provisions for the protection of workpeople and the collection of trustworthy statistics of accidents.

The importance of an accident from an administrative point of view does not depend altogether upon the severity of the injuries inflicted, for a slight injury inquired into may lead to the prevention of a serious accident in the future. Under the present system the certifying factory surgeon is able to form an accurate opinion as to the cause of the accident, and the inspector, with the surgeon's report before him, is in a position to ascertain the importance of the accident, which it would be impossible for him to do from the employer's notice alone. His duty, then, is, as an engineering expert, to advise as to the means which should be taken to prevent similar accidents in the future. It should be added that the system of employing factory surgeons to report on accidents had its origin in the very early days of factory legislation, and there can be no doubt that it has been one of the most effective means of rendering that legislation useful; to abolish it now would be a distinctly retrograde step, and we hope that the same facts and arguments which prevailed with the House of Commons when the attempt was made some years ago will be again effective.

THE PRESIDENT OF THE ASSOCIATION.

A general meeting of the Oxford Division, held on March 17th, in the Anatomical Theatre, University Museum, Oxford, Mr. Innes Griffin of Banbury in the chair, was made the occasion of a graceful acknowledgement of the admirable way in which Dr. Collier discharged the duties of President of the British Medical Association at its visit to Oxford in July, 1904. After expressing in the name of the Division the highest opinion of the President's services, Mr. Innes Griffin called upon Mr. Winkfield, Chairman of the Financial Committee, to make the presentation to Dr. Collier of silver plate, towards which members of the Division had subscribed. Mr. Winkfield, in presenting the President of the Association with a handsome silver bowl and silver tea and coffee service, referred to the success of the annual meeting of the Association held last summer in Oxford, a success which no doubt was greatly attributable to the natural charms of Oxford and its surroundings, but which was at least equally due to the strenuous labours and unwearied exertions of the President. It was due to his never-failing good temper, right judgement, and tact that the Executive Committee and all concerned in the organization of the meeting had risen superior over the difficulties which sometimes beset them. In offering this small token of their esteem to Dr. Collier, the members of the Division wished also to express their gratitude to Mrs. Collier for the important part she took in entertaining the Association, and begged her acceptance of a jewelled pendant in memory of the occasion. Dr. Collier, in reply, expressed his most hearty thanks, on behalf of his wife and himself, for the handsome gifts presented by the members of the Oxford Division. He said that his pleasure in acceptance was enhanced by the

feeling of friendliness and goodwill which was conveyed by Mr. Winkfield's words, and his only feeling of regret was that the other members of the Executive Committee who had so loyally worked with him were not sharing his good fortune on that occasion.

THE *MEDICAL REGISTER*.

THE *Medical Register* for 1905 has just been published, and is, as it should be, very much like its predecessors. The first point which may be noted with satisfaction is that the number of names which have been erased because their owners have not duly notified a change of address has fallen to little over one-quarter of what it was when we criticized this part of the work of the General Medical Council some two years ago. For this result some credit appears to be due to the principal registrar and his colleagues, for we believe that it is—partly, at any rate—owing to the greater pains now taken to ensure that practitioners really receive the notification of possible erasure sent to them. Another point which comes out is that the number of new names registered last year was lower than it has been for nearly a quarter of a century, or since the year 1881. In precise figures the number was 1,168, which, on looking up the earlier records, is found to be 158 below the average of the past twenty-four years, though only 100 lower than that of the last five. There appears indeed to have been a steady and continuous, if not very rapid, fall for a number of years past in the new names registered, and this, so far as it goes, would seem to indicate that the profession of medicine is proving less attractive than formerly. On the other hand, there is nothing to prove that all those who receive a first title to practise seek registration: it may be that an increasing number of those who purpose practising abroad regard registration in England as a superfluous expense, though this does not seem very likely. In any case, however, let no man take consolation from the belief that competition within the profession is about to become less severe, for the figures in the volume do not in any way suggest that there is any danger of the supply of registered medical practitioners falling short. On the contrary, when all allowances have been made for erasures and deaths on the one hand, and for new and renewed registrations on the other, the balance of registered practitioners—British, Colonial, and foreign—is found to be 38,492, which constitutes an increase of 614 names over previous years. The total number of persons registered since registration was first instituted some forty-six years ago is, it may be noted, 67,214, and of these the number quoted as appearing in the present *Register* constitute the survivors. The number of names removed last year on evidence of death was 543, which is slightly below the average; so far, we have not found any instance of the name of a medical man who died before the beginning of this year still appearing in the list; this is a point worthy of note, because in connexion with the *Register* for a year or two ago we had occasion to draw attention to what appeared to be carelessness in this respect. The number of Italian medical practitioners now numbers 12: 6 of them apparently practise in England, and 2 in South Africa, while the rest have addresses in Italy. Nine men gained admission to the *Register* on the strength of Colonial diplomas or degrees.

ECONOMY IN HOSPITALS.

THE annual Court of the governors of the National Hospital for the Paralysed and Epileptic, which took place last Tuesday, may fairly claim to be considered notable among such meetings. It is true that the usual tale of the need for further support was told, but, on the other hand, this was balanced in very uncommon fashion by the statement which the Chairman of the Hospital, Mr. Danvers Power, was able to make in respect of expenditure. During the expired year economies had been effected which, represented in terms of cost per bed, was equivalent to a reduction of the annual expenditure on each bed to £81 from the former figure of £94 7s. In other words, there was a saving on each occupied bed of some £13, and a net gain on the total ordinary expenditure of about £2,800. This excellent result, it appears, was the outcome of the steps which were taken in the autumn of the year 1903 to introduce increased economy in administration. The board of management called to its temporary assistance two committees, one formed from the medical staff and the other of seven ladies who, although the lady superintendent was one of their number, seem to have been selected not as having any special experience of hospital matters, but simply as women likely to be capable managers of a household. The suggestions made by the medical or dispensary committee resulted in a saving of £200 on the drug bill for the year, and those of the Ladies' or Housekeeping Committee in an economy of £1,150 on the cost of provisions alone, in addition to a further large saving on other items of common household expenditure. The report of the Ladies' Committee is a model of conciseness; they appear to have gone into the matter very thoroughly, and at the same time strictly to have confined themselves to the terms of their reference. Perhaps the most striking recommendation which they made was that a woman housekeeper should be substituted for a male steward, and this was duly adopted. It is important to note that none of the alterations in household management which led to the savings mentioned have in the opinion of the medical staff in any way lessened the efficiency of the institution. Mr. Power was careful to draw attention to this point, and it certainly lends strong support to his opinion that the management of a hospital requires little more than the same common sense which is necessary in any private house in which good order, cleanliness, and expense are all considerations. The essential point in hospital finance, he said, was prudent housekeeping, and no sum which had resulted from the most urgent of their appeals had come up to the value of the savings which a few ladies with a practical knowledge of housekeeping had effected for them.

DISEASES DUE TO PRESERVED FOOD.

AMONGST the recently-published scientific records of the Swedish Antarctic Expedition (1901-3) are two articles by Dr. Erik Ekelöf, the medical member of the expedition. One of these, which has already been translated into English,[1] deals with the general medical history of the explorers, and contains some interesting observations upon diet. With regard to the causation of scurvy the author admits that this disease is due to some defect in the nature of the food supply, but does not accept the popular theory that this defect consists essentially in a lack of vegetable food. Following Professor Torup of Christiania, he considers that scurvy arises not from the absence in the diet of certain elements existing in common fresh food and indispensable for the body, but from the ingestion of "some non-organized matter, foreign to, and dangerous for the human organism." In support of this hypothesis he quotes instances both from the expedition in which he participated and from the literature of previous polar explorations, which go to show that men may subsist for many months upon fresh meat, obtained by hunting, and with an entire absence of vegetables, without any sign of scurvy breaking out amongst them. In the second article[2] Dr. Ekelöf discusses more fully the etiology of the disease, and endeavours to throw some light on this obscure problem by a careful study, from the medical standpoint, of the literature of polar exploration. Amongst his arguments against the theory that absence of vegetable food causes scurvy he quotes the experience of Nansen and Johannsen, who lived in Franz-Joseph's Land for nine months during the winter of 1895-96 entirely on fresh animal food, enjoyed excellent health, and gained considerably in weight. He also reminds us of the observation of Greely, who led the American

[1] *Journal of Hygiene*, October, 1904, p. 511.

[2] *Wissenschaftliche Ergebnisse der Schwedischen Südpolar Expedition 1901-3.* Erster Band. Vierte Lieferung. Stockholm. 1904.

North Polar Expedition of 1881-4, that among many tribes of Esquimaux scurvy is unknown, although they eat neither bread nor vegetables. On the other hand, many instances are quoted in which scurvy broke out amongst expeditions which were well equipped with vegetable food. The one factor which Dr. Ekelöf finds invariably associated with outbreaks of scurvy is the consumption of preserved animal food. Such food, he holds, undergoes in course of prolonged keeping autolytic changes of a fermentative or analogous nature, in consequence of which toxic products are formed; and it is the ingestion of these substances which gives rise to scurvy. These deleterious bodies are not due to putrefactive or bacterial decomposition, nor do they reveal themselves by any change obvious to naked-eye inspection in the food which contains them. It cannot be said that Dr. Ekelöf has fully substantiated his rather vague theory, but his hypothesis is suggestive, advocated in an ingenious and interesting manner, and well worth considering. At the close of his article he endeavours to explain the etiology of another obscure disease—beri-beri—on similar grounds. Beri-beri, in his opinion, is also an intoxication not due to bacterial infection. An important factor in its causation is the use of preserved animal food, which contains a toxic nucleus chemically identical with that productive of scurvy, but modified in the intestinal canal by the presence of large quantities of starchy material. We congratulate Dr. Ekelöf upon his ingenuity, and hope that in the course of further investigations he may be able to establish his opinions upon a more substantially scientific basis.

DISTINCTION OF SEX IN LONG BONES.

Professor Dwight of Harvard has recently published an instructive anthropological study on the size of the articular surfaces of the long bones as characteristic of sex.[1] He notes how the pelvis has long been recognized as a reliable guide to the sex of the skeleton, and we may add that Professor Arthur Thomson has demonstrated that the essentially sexual characters of the pelvis are already as well-defined during fetal life as in the adult. Hyrtl laid great stress on the distinctions between the male and female sternum. The manubrium of the sternum in woman exceeds in length that of half the body, whilst in the male sternum the body is at least twice as long as the manubrium. Dwight, however, found on measuring several large series of sternums, about 40 per cent. of exceptions, and concluded that probably the rule applied to well-formed bodies, but not to a large proportion of those that we meet with. He found, on the other hand, that sex could be determined with far greater accuracy by the relative size of the articular surfaces of long bones, and his conclusions are based on measurements of the head of one humerus and one femur from 100 male and 100 female bodies, all white adults. Dorsey had already in 1897 reported measurements of the long bones of aborigines of America. He stated that if the maximum diameter of the head of the humerus of any Red Indian skeleton measured 44 mm., the chances were extremely great that it was from a male, whilst if it measured 45 mm. it was from a male to a practical certainty. The inference to be drawn from the measurements of the femur seemed almost, if not quite, as trustworthy. Dwight described the steps which he took to obtain accurate measurements. The results were as follows:—First, the heads of the humerus and femur were relatively small in woman, and probably the same might be said of other joints. Thus the same rule applied to the highly civilized American of old world ancestry, and to the barbarian red skin, the "poor Indian," *ingénu* or "noble savage" so dear to Pope, Voltaire, Dryden, and many other writers of a bygone age that believed in him. Secondly, Dwight found that the number of measurements of male joints smaller than the average female joint and of female joints larger than the average male was insignificant. The head of the humerus showed very constant proportions; the head of the femur was somewhat less characteristic yet still very valuable as a guide to sex. These measurements, it must be borne in mind, were made when the articular cartilages were in place and still fresh. Professor Dwight deserves to be commended for his industry, and for reminding us that we do not know everything yet about the human skeleton.

[1] *Amer. Journ. Anat.*, vol. iv, No. 1. December 20th, 1904.

DEATH AT 15 YEARS FROM A CONGENITAL ANOMALY.

In the early part of October, 1904, a girl 15 years of age was admitted into the Hôpital Necker,[1] suffering from uncontrollable vomiting. Towards the end of the month she developed symptoms of internal strangulation—complete intestinal obstruction, with typical facies and pulse—and died in two days. The cause was discovered at the autopsy on November 1st. The opening of the abdominal cavity revealed nothing noteworthy, but, as soon as the thorax was cut into, it was observed that the heart lay vertically in the middle line, and that from the left half of the diaphragm—left lobe of the central tendon—a globular swelling projected into the thoracic cavity, pushing the left lung upwards. The swelling was found to be a diaphragmatic hernia containing part of the stomach. Its sac was composed of peritoneal and pleural membranes in close contact, with no muscle or fat between them; its neck lay in the left lobe of the central tendon, about 3 cm. to the left of the oesophageal orifice; it did not seem to have had a traumatic origin, but had all the appearances of an arrested development; the sole content was a large part of the stomach, showing marked torsion and having two points of constriction. The rest of the diaphragm was normal, but it was noted that there was another small orifice near to the first containing a projection from the great omentum—a thoracic epiplocele. The spleen lay at a higher level than normal, but all the other abdominal organs occupied their usual positions. The appendix vermiformis was long and narrow, and was bound by adhesions to the peritoneum of the right iliac fossa. Two loops of small intestine were adherent in the same region.

THE MECHANISM OF DEGLUTITION.

Dr. Julius Schreiber,[2] the Director of the Universitäts-Poliklinik at Königsberg, has recently carried out some exact and valuable observations on the mechanism of deglutition. He recorded the pharyngeal part of the swallowing movement by means of a tambour placed within the pharynx, the laryngeal movements by a tambour affixed outside the larynx, and the passage of the bolus down the gullet by means of a string tied by one end to the bolus, the other end passing over a pulley to a writing style. The observations were mostly carried out on a neurotic patient, habituated to the passage of the oesophageal sound. From his observations, which are given in the form of curves, Dr. Schreiber establishes the fact that all ingesta, fluid or soft boluses, are expressed by the combined action of the muscles of deglutition out of the closed and airtight cavity of the mouth—or auricle of deglutition, if we compare the mechanism with that of the heart—into the pharynx—or ventricle of deglutition—whence by the contraction of the sphincters it was forced into the beginning of the gullet. Down this the bolus is carried by a peristalsis which varies in rate in the cervical and thoracic parts respectively, to the epicardia, which it reaches in about five seconds after the beginning of deglutition. The last four or five centimetres of the gullet act as a sphincter, and after a pause of 0.3 to 0.5 sec., press the bolus on into the stomach. This last part of the act occupies two to four seconds, so that the whole process of deglutition takes seven to nine seconds in its execution, a period which agrees with that at which an auscultatory sound can be heard in the stomach after the swallowing of fluid (Meltzer). Dr. Schreiber controverts

[1] A. Mougeot, *Bull. et Mém. Soc. Anat. de Paris*, 7 s., Vol. vi, p. 700, 1904.

[2] *Ueber den Schluckmechanismus* [On the Mechanism of Swallowing]. Von Dr. J. Schreiber. Berlin: A. Hirschwald. 1904. Demy 8vo, pp. 91. M.3.)

the conclusion of Kronecker and Meltzer that fluid can be shot down the gullet by the piston-like action of the mylohyoid muscle, and points out how this erroneous conclusion has arisen from the nature of the method of observation employed by these authors.

MEDICAL WORK IN BASUTOLAND.

BRITISH action in dealing with possessions such as Basutoland, where the population is still more or less in a condition of savagery and white people largely in the minority, has always been—and very wisely—slow. The injudicious effects of too much interference and the spirit of militarism are excellently seen in the experiences of the Germans in South-West Africa. In no way, however, can a better hold be acquired over the native than by the treatment of the sick and injured, and with this idea in view, and partly for the purpose of counteracting the harmful influence of the native witch-doctor, the Basutoland Government Medical Service was originally inaugurated. That it has met with considerable success is evident from the information furnished by the medical reports included in the Colonial Office White Book on Basutoland, just issued. During the year there were 72,700 attendances at the various stations (of which a little over 50,000 were vaccinations), out of a population which by the census of last year was found to consist of 348,848 souls. The general scope and efficiency of the medical work promise to be greatly increased by the completion of the new hospital at Maseru, which contains twenty-eight beds. It is stated that there is a growing need for hospital accommodation in the territory, for in addition to ordinary patients there is an increasing number of cases of acute disease amongst natives returning from the labour centres. Though the establishment of hospitals at all the stations would undoubtedly mean a considerable outlay, it is worthy of note that the Government institutions of this nature, whether hospitals or dispensaries, are partly self-supporting. Thus in the year under review the amount collected in out-patient fees, etc., realized nearly £2,000, which considerably more than covered the cost of drugs and maintenance. Good service was done by the issue in the Basuto language of a short paper on hygiene for use in the native schools, but it was not thought necessary to expound the part played by the mosquito in malaria, for the simple reason that the disease is unknown in Basutoland. An important subject is opened up by the allusions made in more than one of the district officer's reports to the unrestricted sale of drugs which is apparently permitted throughout the territory. It is stated that there is no proclamation dealing with the administration of medicine and pharmacy. No evidence of proper qualifications is required from persons practising, nor are they subject to any authority analogous to the Colonial Medical Councils in other colonies. As a consequence there is a very considerable trade in drugs carried on, not merely in proprietary medicines, but in the shape of prescribing for syphilis and other maladies by the storekeepers, large fees being sometimes taken from natives for advice and medicine by Europeans who have had no medical training whatsoever. A number of native dispensers are also in Government employ, and these, quick to see how lucrative unqualified practice is, may at any time elect to take to it themselves—and, indeed, have done so. It will thus be seen that the plea put forward in the report for legislation of some kind in the direction indicated is not without justification. It would be well if, as suggested, common action were taken by the various South African Governments for the due and proper control of medicine, dentistry, and pharmacy.

DOCTORS AND DUELLISTS.

THE object of the duello is said to be the healing of wounded honour. To try to cure a wound of the spirit, or rather the temper, by a scratch on the skin savours of homœopathy, but may perhaps be justified by the surgical principle of relieving tension by incision. Owing possibly to climatic influences, honour is more vulnerable in some countries than in others; hence there is more frequent need of curative scarification. It is one of those contradictions in human nature which puzzle the philosopher, that honour of the most morbidly delicate character in certain respects is in others often of a robustness which makes it insensitive to the grief of a wound. When honour has been satisfied by an exchange of scratches and it comes to paying the doctor, the duellist does not always show that punctilious regard for his own dignity which led him to seek vengeance for an affront. Sometimes, as the following story shows, he even takes refuge from the pursuit of the doctor behind the petticoats of his wife. A medical practitioner in France was asked to be present at a duel in his professional capacity. He got up early, travelled some miles, flamed the swords, and ministered to his client who was slightly wounded. He lost his whole morning over the business, and when both honour and wound were healed, he naturally looked for his fees. Some months passed, and, having heard nothing about the matter, he sent in his bill, the amount of which was only fifty francs. The patient apparently found it convenient to reply through his wife, and the lady's letter deserves reproduction as a "document" painfully illustrative of human meanness. After some preliminary sentences she goes on: "For the rest, I am told that between men there is a question of delicacy which forbids even the slightest appearance of trade in such a matter, and doctors, no more than the seconds, are brought on the ground by money. Not being versed in such things, however, if you persist in your claim, I shall, to my great regret, be obliged to leave to others the duty of settling this fine point with you. But I have no doubt that, after having thought over the considerations which I have taken the liberty to place before you, you will understand the case without the least difficulty, and you are too intelligent a man to make it necessary for me to discuss with you the useless treatment of an insignificant scratch." For sheer impudence this would be hard to beat. If the lady's "considerations" are pushed to their logical conclusion, the swords used for mutual phlebotomy should be supplied by the dealers in such articles for the honour and glory of the thing. In this particular case the doctor had to pay for the dressings, which apparently, in the lady's opinion, he should have been proud to do. The idea that a doctor is a philanthropist, who should think himself amply rewarded for trouble and loss of time by the mere joy of altruistic labour, is tolerably widespread. But it is new to us that he is expected not only to work for nothing, but to think it a privilege to be allowed to give his professional services to persons having no claim whatever upon him who choose to put what they call their honour to the touch of a sword prick.

THE KING'S SANATORIUM.

WE are authorized to state that the King has been pleased to appoint Dr. Noel Dean Bardswell Medical Superintendent of the King Edward VII Sanatorium, now in course of erection at Midhurst. Dr. Bardswell took the degree of Doctor of Medicine at the University of Edinburgh in 1899 and became a Member of the Royal College of Physicians of London in the following year. He is a Fellow of the Royal Society of Edinburgh. He has had large opportunities of observing consumption in all the phases and aspects of the disease, having in addition to numerous other appointments held the posts of clinical assistant at the Brompton Hospital for Consumption, house-physician at the Royal Infirmary, Sheffield, physician to the Sanatorium for Open-air Treatment at Banchory, and Medical Superintendent of the Mundesley Sanatorium, Norfolk. Dr. Bardswell is the author of reports on the sanatorium treatment of consumption at the Royal Infirmary, Sheffield; of papers on metabolism in cases of pulmonary tuberculosis, and the economic value of the sanatorium treatment for the working classes, published in the *Transactions* of the Royal Medical and Chirurgical Society, and of a report on researches on pulmonary tuberculosis made to the Scientific Grants Committee of the British Medical Association, and published in the BRITISH MEDICAL

JOURNAL, 1901-2. Dr. Bardswell will, we understand, spend some time in visiting foreign sanatoriums before entering on his duties at the King's Sanatorium, which, His Majesty's Advisory Committee hopes, will be opened in the early part of next year. We venture to add that we think the King has made an excellent selection, and the medical profession of Great Britain will, we are sure, be especially gratified that a man so well qualified for the post has been found within its own ranks.

LARYNGOLOGY AT THE INTERNATIONAL MEDICAL CONGRESS.

THE opportunity offered by the presence in London of representatives of the laryngological societies of France, Germany, Italy, the Netherlands, Belgium, and other countries on the occasion of the Garcia Centenary Celebration, was taken advantage of to consider the position of laryngology at the International Medical Congress. As was stated in the BRITISH MEDICAL JOURNAL of February 4th, the Organizing Committee of the Congress to be held at Lisbon in 1906 have placed laryngology, otology, and rhinology as one subdivision of a section, of which dentistry forms the other part. On March 18th a meeting was held at the house of Sir Felix Semon to discuss the situation, especially the question whether it would be expedient in future for laryngologists to hold independent international congresses after the manner of the otologists. The meeting was informal and no resolutions were passed. But the unanimous feeling of the delegates present was in complete agreement with the resolution passed by the Laryngological Society of London on January 13th. That resolution, it may be recalled, reaffirmed one passed in 1902 to the effect that at all international medical congresses laryngology and otology should each be assigned a full and separate section, and expressed regret that a position inferior to that of other recognized specialities had been assigned to laryngology in the programme of the Lisbon Congress. It was further agreed that in default of a definite assurance that laryngology should have the position to which it is entitled, the delegates would take no part in the Congress. The decision as to what further action should be taken was, of course, left to the individual societies, before which the matter will be brought by the delegates on their return to their respective countries.

SCIENTIFIC INVESTIGATION OF PLAGUE IN INDIA.

SOME months ago the Secretary of State for India entered into communication with the Lister Institute with regard to the desirability of making a systematic scientific inquiry into the etiology and prophylaxis of plague, which, as is well known, is continuing to produce a very large mortality in India, averaging over 30,000 a week, in spite of all efforts which have been made to check its ravages. Eventually a Committee was appointed, consisting of Sir Michael Foster and Professor Rose Bradford, F.R.S., representing the Royal Society; Colonel David Bruce, F.R.S., and Dr. C. J. Martin, F.R.S., representing the Lister Institute; and Surgeon-General A. M. Branfoot, C.I.E., President of the Medical Board of the India Office, with Dr. A. E. Boycott, of the Lister Institute, as Secretary. This Committee has advised the India Office that it is desirable to institute scientific inquiries on the subject, and Dr. C. J. Martin, who is the Director of the Lister Institute, left for India on March 21st. On his arrival he will make preliminary arrangements. We understand that it is probable that two bacteriologists from England and two members of the Indian Medical Service will be deputed to carry out the investigations, and that the laboratory work will be done at the Pasteur Institute at Kasauli.

CAMP TREATMENT OF CONSUMPTIVE LUNATICS.

FOR some four years consumptive lunatics have been treated in tents on Ward's Island, New York, and the results are said fully to justify the experiment. Dr. A. E. Macdonald, under whose direction it has been carried out, says that it was not at first believed that the camp treatment would be practicable except in the mild season. "The Ward's Island camp," he says, "is but a few feet above the tide water level; its site is swept in winter by winds of high velocity, coming over the ice-bound waters of the rivers and the Sound which surround it, and it suffers as much as, or more than, any other part of the city of New York from the trying changes of temperature and humidity which are so characteristic of its climate." The plan was, however, continued throughout the year with results so satisfactory that it has been determined to make the arrangement permanent. Both the patients and the nurses in the camps have enjoyed almost complete immunity from other pulmonary disease; not a single case of pneumonia has occurred among them during the period, and colds have been unknown. In several instances the patients' mental condition has been much improved, and in a few restored to the normal. Dr. Macdonald pertinently asks: "If, in spite of all these drawbacks, what has been done can be done, and that for insane patients, what may not be hoped from the extension of the same methods to the ordinary consumptive of sound mind, anxious for recovery, and capable of giving intelligent assistance in the struggle?"

THE ROYAL NAVAL COLLEGE AT OSBORNE.

SINCE the Royal Naval College at Osborne was opened there has been, we believe, a suspicion on the part of the parents of many of the present and prospective cadets as to the sanitary condition of the establishment. We understand that the College was recently visited by the Medical Consultative Board of the Admiralty consisting of Mr. Makins, C.B., Dr. Allchin, and Dr. Rolleston. The Medical Director-General of the Navy was also present, as was Mr. Fisher, of St. Thomas's Hospital, who had been asked to report on the nature of a very mild form of conjunctivitis which had been prevalent among the boys. We are glad to learn that the conjoint report presented after the inspection draws a very favourable comparison between the Royal Naval College and public schools, so that no fears need be entertained as to the salubrity of the situation or the health of the future officers of the navy while receiving instruction there.

THE SUPPLEMENT contains further notices of motion for discussion by the Representative Meeting. In addition to reports of meetings of Branches and Divisions held and notices of meetings to be held, there is also published the programme of the seventy-third annual meeting of the British Medical Association, which will take place at Leicester in July next. Besides the usual official service notices, vital statistics, diary, list of medical vacancies and appointments, and the calendar of the Association, there is printed in the SUPPLEMENT a report of the meeting of the Central Midwives Board on March 16th, from which it will be seen that the Board directed the erasure from the Midwives Roll of the names of two midwives.

MEDICAL NOTES IN PARLIAMENT.

The London County Council (General Powers) Bill came on for discussion last week and occupied several hours of the time of the House of Commons. The Bill was a good deal altered by the omission of clauses. First of all Clause 22, Part 5, which provided that the Council might from time to time make representations to the Local Government Board as to the way in which the Sale of Food and Drugs Acts were administered and institute inquiries and make investigations for the purpose. This was opposed as an encroachment on the independence of the Metropolitan Borough Councils. It was in vain that Mr. John Burns pointed out the inequality of administration and the desirability of making the Central Sanitary Authority a supervising power. The House rejected the clause by 183 to 177, and a similar fate overtook the clauses giving the County Council wider powers over the milk supply. The majority, though slight, maintained the powers of the Borough Councils and rejected the proposals to give the Central Sanitary Authority powers of inspection and interference.

The Coal Mines Employment Bill, which seeks to limit the hours of young persons under 18 years of age who work in coal mines to eight hours a day, was read a second time on Friday last week by a majority of fifty-eight. In the course of the debate Sir Walter Foster spoke strongly in favour of the Bill. He pointed out that boys working in coal pits were not medically examined before undertaking the work, like young persons entering factories. He quoted Dr. Tatham to show that the mortality among young miners was excessive, and that the death-rate from lung diseases other than tuberculosis was 21 per cent. higher than the standard. He also showed by statistics how terribly heavy was the loss of life from accidents, and he argued that the accidents were largely due to the prolonged hours of labour—ten or more a day—which rendered the lads less agile and alert in avoiding accidents while engaged in haulage work in the pits. If eight hours' work was sufficient labour for a grown man—and he contended that physiological inquiry supported this view—the fifty-four hours a week, or ten hours a day, was *a fortiori* too much for growing lads, and was injurious to the individual and hurtful to the development of the race.

Parochial Medical Officers in Scotland.—Last week Mr. Cathcart Wason asked the Lord Advocate if his attention had been directed to the numbers of cases of dismissal of medical officers in Scotland, and the hardships suffered thereby by the poor, and to the report of the Departmental Committee of the Local Government Board appointed to inquire into such cases, and to the fact that the British Medical Association had publicly advertised, warning applicants against accepting appointments in certain parishes, and if, under all the circumstances, he would bring the urgency of the case before the Government with a view to immediate legislation. The Lord Advocate replied that the matters referred to had been considered by the Secretary for Scotland, but the Government could not undertake to legislate on the subject this session. The hon. member had himself introduced a Bill on the subject, and, as he was aware, the question was a very controversial one.

The Medical Inspection of Lewis.—Mr. Weir asked the Lord Advocate, in view of the fact that no medical inspector from the Local Government Board had visited the Island of Lewis, would he state on how many occasions the medical officer of health for Ross and Cromarty had visited the island during the last five years, the time he spent in the island, and the names of the districts visited. The Lord Advocate replied that the medical officer had visited the island four times since January 1st, 1900, and on each occasion he stayed twenty-four to forty-eight hours and saw all the local medical officers, but did not visit all the four parishes into which the island was divided.

Vivisection of Dogs.—On Wednesday night at 11.50, after the fiscal debate closed, Sir F. Banbury took advantage of the ten minutes left before the rising of the House to move, "That in the opinion of this House no operations for the purposes of vivisection should be performed on dogs." For some five minutes he argued, amid many interruptions, in favour of the exemption of the dog as the friend of man. Mr. Channing seconded the motion. The Home Office was represented by Mr. Cochrane, and Sir Walter Foster watched the proceedings from the front Opposition Bench. At four minutes to twelve Mr. Cochrane rose to reply on behalf of the Government and talked the motion out to the general amusement of the House.

A New Form of Conscientious Objection.—On Wednesday afternoon Mr. Weir asked the First Lord of the Treasury whether he was aware that candidates for the public service were not allowed to take up appointments unless they had been vaccinated; and whether, seeing that this regulation penalized candidates who had a conscientious objection to vaccination, he would so amend the regulations as to make it competent for such persons to secure their appointments under a certificate of exemption granted under the Conscience Clause of the Vaccination Act, 1898. Mr. Balfour replied that he thought the hon. gentleman must be under some misapprehension. He had never heard that any objection felt by candidates to being vaccinated themselves would constitute conscientious objection. The conscientious objection was to the vaccination of their children.

Exemption from Vaccination.—Mr. Weir asked the President of the Local Government Board if he would state how many certificates of exemption from vaccination were granted during the year ending December 31st, 1904, and how the figures compared with the two previous years. Mr. Gerald Balfour answered that the returns made to the Local Government Board showed the number of certificates of conscientious objection received by the vaccination officers during the year. This number might be taken as substantially agreeing with the number granted during the year. The returns for 1904 were not quite complete, but the number of certificates received during that year might be stated approximately as 39,750. The numbers in 1902 and 1903 respectively were 33,632 and 37,259.

Physical Deterioration.—Last week Sir John Gorst asked the First Lord of the Treasury whether the Government would refer the report of the Departmental Committee on Physical Deterioration to a Select Committee of the House of Commons. The Prime Minister said in reply that, so far as the report of the Physical Deterioration Committee related to public elementary schools, a Departmental Committee had been appointed to obtain precise information as to the extent of the evil referred to. In the meantime the reference of the matter to a Select Committee did not seem desirable, but he would like to reserve judgement on that point until the Departmental Committee had reported.

The Physical Condition of Elementary School Children.—Sir John Gorst asked the Secretary to the Board of Education on Monday last whether he would give the names of the Departmental Committee which the President of the Board of Education had appointed for the purpose of providing useful and precise information on the physical condition of children in public elementary schools and the date of their appointment; what methods the Committee had adopted for obtaining information more precise than that furnished to the Committee on Physical Deterioration by Dr. Eichholz and other witnesses; and to what use the information thus provided had been put. Sir William Anson replied that the Inter-Departmental Committee, consisting of Mr. H. W. Simpkinson, C.B., Assistant Secretary Board of Education (Chairman); Dr. H. Franklin Parsons, Assistant Medical Officer Local Government Board; Mr. C. Jackson, Chief Inspector Elementary Schools; Hon. Maude Laurence, Chief Woman Inspector Board of Education; Mr. R. Walrond, Senior Examiner Board of Education: with Mr. E. H. Pelham as Secretary, was appointed on March 9th to collect certain information as to the medical inspection of children in elementary schools and as to the provision of meals for such children by voluntary agencies. He was not prepared to state the methods which the Committee would employ for obtaining this information, but he hoped that they would provide information more thorough and precise than any at present possessed, and would enable deductions to be drawn less indefinite in character than those which were supplied in the report of the Physical Deterioration Committee. In answer to a further question with reference to his visit to the Johanna Street Board School, the Secretary to the Board of Education said that he found the children attending to the duties of the school in a proper way, but he thought that many of them might with advantage have been provided with a more suitable curriculum. He was not in a position to criticize the medical evidence of Dr. Eichholz, but he had good reason for thinking that it might not be final.

The Accidents (Mines and Factories) Bill introduced by the Government is a measure which is sure to excite interest in the medical profession. It is announced in a memorandum on the front page of the Bill that it carries out the recommendations contained in the report of the Departmental Committee appointed in 1901 to inquire into the notification of industrial accidents. The Bill will in some respects improve the notification of accidents and make the very incomplete statistics now obtained as regards mines more satisfactory. The fourth clause, which deals with the notification of accidents in factories and workshops, practically abolishes the statutory duty of the certifying surgeon to investigate and report on accidents. The local factory inspector will send notice of the accident in such cases as the Secretary of State directs, to the certifying surgeon, but this is by no means the same as the statutory duty imposed by the Act of 1901 and preceding Acts on the factory surgeon. The same

point was raised when the Factory Act of 1901 was in Committee, and in deference to strong opposition from both sides of the House the certifying surgeon was retained in his original position. It was regarded as the best system for keeping up the accuracy and usefulness of the statistics. The matter will excite much discussion when the second reading comes on and amendments will be moved in Committee.

The Plague in Madras.—On Monday Sir Walter Foster asked the Secretary of State for India whether his attention had been drawn to the successful action taken by the Madras municipal authorities in repressing a recent outbreak of plague in the fishing village of Kuppam; whether he was aware that the measures by which plague had been kept out of the city of Madras had met with popular approval; and whether he would invite the Government in other provinces to follow the example of Madras, and to take measures of plague prevention in consultation with the municipal and rural local authorities. Mr. Secretary Brodrick replied that he had seen accounts of the case which reflected great credit on the local health officers. The hamlet, however, was favourably situated for the early discovery of the outbreak and for prompt and effective action to stop its spread. All provinces in India had rules which prescribed that similar preventive measures should be taken by Government officers in consultation with the municipal and rural authorities, and with the concurrence of the people; but the degree of success attained must necessarily depend on local circumstances.

Alien Lunatics and Inebriates.—Colonel Legge asked the Secretary of State for the Home Department on Tuesday whether he could give the number of pauper alien lunatics and imbeciles maintained in lunatic asylums and public institutions in the United Kingdom; and whether any means existed of ascertaining the country of origin of such lunatics and imbeciles. Mr. Secretary Akers-Douglas replied that the number of pauper alien lunatics maintained in county and borough asylums in England and Wales was in 1903, 817, as was shown in table 14A, on page 146 of the last Report of the Lunacy Commissioners. The same table gave the countries of origin, information as to which was obtained from the medical officers of asylums. He regretted that he was unable to give the number of alien imbeciles maintained in public institutions other than asylums, and also that, without longer notice, that he could not give the number of alien lunatics for the whole of the United Kingdom.

The Conscientious Objector at Spilsby.—Mr. Weir asked the Secretary of State for the Home Department whether he was aware that a labourer named Harrison was recently refused a certificate of exemption from vaccination for his child by the magistrates sitting at Spilsby and Boston; that he was subsequently summoned, and in default of payment of the fine of £1 and £1 2s. 6d. costs was sent to prison for one month; and that since this man's release he was on February 27th again summoned for not obeying the vaccination order; and, in view of the fact that he had repeatedly endeavoured to make clear that he conscientiously believed that vaccination would be prejudicial to the health of his child, would the Secretary of State consider the expediency of directing the attention of the magistrates at Spilsby and Boston to the remarks made by the Lord Chief Justice at Birmingham, on July 27th last, in regard to the principles on which the Act ought to be administered. Mr. Secretary Akers-Douglas said that he had made inquiries into this case, and he learned that the remarks of the Lord Chief Justice on the subject of conscientious objection to vaccination made at the Birmingham summer assizes were brought to the notice of the Spilsby magistrates before they convicted Harrison. The question whether the circumstances justified the issue of a certificate of exemption was in each case one for the discretion of the magistrates, with which he had no power to interfere.

The University College London (Transfer) Bill is a private measure introduced in the House of Lords, which has for its object the transfer to the University of London of University College and its property, except the University College Hospital, the Medical School, and the Boys' School. It is a long Bill of eighteen clauses and three schedules, and has been set down for reference to a Select Committee, where it can best be considered and any opposition fairly met and conciliated. The Bill now awaits the naming of the Select Committee.

The Prevention of Corruption Bill.—In the Lords the Committee stage of the Prevention of Corruption Bill was taken on Tuesday. Lord James moved new subsections to Clause 1, with the view of preventing custom being pleaded as a defence for accepting gifts, and for throwing the burden of proof in certain cases on the accused. Lord Avebury supported the amendments, but they were finally withdrawn. On Clause 2 Lord James protested against the provision requiring that the fiat of the Attorney-General should be necessary for a prosecution. The Lord Chancellor said that after a consideration which had extended over several years he could not consent to give up the protection which he thought necessary for the public. After some discussion Clause 2 was agreed to, and the Bill passed through Committee and was reported without amendment to the House.

Scotland.

THE LORD RECTORSHIP OF ABERDEEN UNIVERSITY.

AT a general meeting of the Aberdeen University Liberal Association, held at Marischal College recently, the question of the Lord Rectorship was under consideration. The term of office of the present Lord Rector, the Right. Hon. C. T. Ritchie, M.P., expires in October next. The following resolution, proposed by Mr. J. S. Paterson, President of the Students' Representative Council, was adopted:

> That the Aberdeen University Liberal Association learns with pleasure that the Right Hon. C. T. Ritchie, M.P., has intimated his willingness to become a candidate for the Lord Rectorship of the University for another term of office; and that, in view of his past services to the University and of the able stand he has taken on behalf of Free Trade, this Association joins with the Aberdeen University Unionist Association in giving Mr. Ritchie unanimous election to the office of Lord Rector.

ABERDEEN ROYAL INFIRMARY.

The annual report of the Aberdeen Royal Infirmary for the year 1904 has recently been issued, and exhibits several points of interest as compared with former years. The number of in-patients during the year was 2,906, an increase of 163 over the previous year, and the out-patients numbered 12,715, 1,827 more than in 1903. The average cost of each occupied bed for the year was £52 2s. 1d., all the expenditure for the year being included as ordinary expenditure. This shows a slight rise from last year, when it amounted to £51 0s. 6d. Even at the former figure, however, the directors are to be congratulated on the results of their management, for the efficiency of the hospital has in no way suffered. The income for the year amounted to £11,620 18s. 3d., and the total expenditure to £11,937 3s. 6d., leaving a deficit on the year's working of over £300. On one occasion the number of occupied beds rose to 244, the largest number in the history of the institution.

ROYAL EDINBURGH ASYLUM FOR THE INSANE.

Annual Meeting.

The statutory annual meeting of the Corporation of the Royal Edinburgh Asylum for the Insane was held on Monday, February 27th, the Lord Provost of Edinburgh presiding. After the report of the ordinary managers had been submitted, Dr. Clouston, the physician-superintendent, read his report for the year 1904.

Dr. Clouston's Report.

On January 1st, 1904, the number of patients was 929; on December 31st, 829; 457 (195 men and 262 women) were admitted; 434 (208 men and 226 women) were discharged; 123 (55 men and 68 women) died. On only one occasion (1896) in the history of the institution had there been a larger number of patients admitted, and the number under treatment (1,386) was the largest on record. The number of private patients admitted was 110, of whom 12 were voluntary patients. This was 36 more admissions of this private class than the average of the past five years. It is many years since it was possible to admit freely private patients at the lower rates of board—that is the lower middle class—and even this was only possible in the later months of the year because of the removal of 185 rate-paid patients to the new Bangour Asylum. The average cost of every rate-paid patient in the Scottish district asylums for 1902 was £43 5s. 8d., while in the Edinburgh asylums it was £33 4s. Twelve voluntary patients were admitted during the year. The proportion of recoveries among voluntary patients is much

higher than among the certified. In 1902 Dr. Clouston suggested that the Edinburgh Parish Council, then considering the plans for the Bangour Asylum, should institute a small and inexpensive form of hospital, quite near the city, for the treatment of the threatened and early forms of mental disease. The suggestion was not acted on, and thus Edinburgh had allowed Glasgow to get ahead of it, for the Glasgow Parish Council had built two admirable wards in connexion with its general hospital, not connected with its poorhouse. Dr. Clouston urged that mental disease ought to be looked at more from the disease point of view, and freed, at least in some of its forms and in its early stages, from the legal restrictions in which the Lunacy Acts had placed it. Modern science would not accept the lawyers' and the politicians' *non possumus* on this matter, no matter what they might say as to the danger of interference with the liberty of subject. The early stage was just that stage when proper treatment was most effective for cure, yet the law said you must wait till a man was so afflicted by his brain disease that you could certify him to be of unsound mind before you ventured to treat him. We were distinctly behind Germany, Denmark, and the United States in this matter. The question was no longer theoretical, but an urgent practical need of the community. Insanity was part of a great whole. It was merely one of a vast series of the results of breaking natural law, often wilful, mostly through ignorance or unavoidable lack of the means of healthful living. Prevention ought to begin very young. If one-tenth of the thought and one-twentieth of the effort that was at present wasted on political discussion and on unhealthful amusements were for a few generations given to health knowledge and disease prevention, some progress might be made. Men and women did not yet realize their health risks and their health duties. Humanity as a rule was not yet altruistic enough to care for the welfare of future generations. The cynic who asked, "What has future generations done for me?" accurately represented the present mood of the greater part of mankind. To see an Education Bill that made no direct provision for teaching health to our children, and an educational system that neglected the formation of self-control and character as its highest duty was the most vivid proof of our present fatuous state of mind in regard to this tremendous problem. To observe the way marriages were commonly arranged was almost to lose hope for the future of our race.

Some causes acted directly and unmistakably, others merely predisposed with more or less force to the mental upset of weak brains. Of the direct and exciting causes excessive drinking stood out well first. In 19 per cent. of the whole of the cases in the Edinburgh Asylum undoubtedly the excessive use of alcohol had upset the brain function. This was 10 per cent. less than last year, but dull trade and scarcity of money had elsewhere resulted in a diminished alcoholic lunacy rate. The proportion of female alcoholics had been steadily increasing until this year it reached the number of 49, or 18½ per cent. of the total female admissions, a number never before attained in the history of the asylum. The total number of the female alcoholics actually exceeded that of the men this year. Undoubtedly there was an increasing tendency to excess in alcohol by the women of our poorer city populations.

Closely connected with alcoholic insanity, because it was also mostly caused by a brain poison introduced from without, came general paralysis, of which there were 49 cases, or 11.6 per cent. of the admissions. The peculiarity this year was the number of women. They amounted to 22, or 8.2 per cent. of the admissions. Of the total of 123 deaths this year, 16, or 23½ per cent., were women general paralytics. From 1874-83 there were only 7.5 per cent. of the deaths among the women from this disease; from 1884-93 it had risen to 9.7 per cent.; from 1894 to 1903 to 12 per cent; and this year it was 23.5 per cent. The increase of this disease in modern times among both sexes, but especially among women of the uneducated classes, was a sad but proved fact in all European countries. Its meaning was just as certain—that the lives of some classes of our city populations are more immoral than they used to be.

The recovery-rate for the year was low—32.8 per cent. on the admissions, 9 per cent. under the average. This was owing to the number of old, paralysed, and exhausted people among the admissions.

The mortality-rate was high—14.6 on the average numbers, and 9 per cent. on the total number under treatment; but 15.5 per cent. of the mortality occurred within a fortnight of admission, and 38.2 per cent. within three months of admission. Almost all those patients had such serious diseases on admission as made speedy death inevitable.

The consumption rate was about the average, 16.6 per 1,000 of the average number resident. Though this was below the average for the asylums of the Empire it was still too high. The Craig House still kept up the record of all mental hospitals in having had no deaths from consumption.

Sixty-four per cent. of the deaths were from diseases of the nervous system, the highest ever recorded, probably due to sending troublesome and senile wrecks to the asylum to die.

Reference was made to the new era in the history of the asylum in parting with rate-paid patients, to the troublesome defects of drainage at the Craig House due to the settling of forced ground, and to the Scottish Asylums Laboratory.

Was insanity increasing? The English Commissioners in their 1903 report say that the growth of insanity was really lower than the rate of growth of the population at the same period of life (that is, from 20 to 54), and that it was only when that term was past that a rate of increase in excess of that of the population was to be found. The Scotch Commissioners find that in 1903 there was an actual decrease of lunacy in proportion to the population. It was only in Ireland that no comfort could be found in its Lunacy Blue Book, for with a diminishing population there was an increase of insanity, and the rate much exceeded that of Great Britain.

Ireland.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION FOR IRELAND.

Medical Report for 1904.

THE yearly medical reports of the various hospitals and sanatoriums for consumption are always of interest, since they not only furnish statistical information of the effects of treatment, but often contain some practical results of the observation of the staff. The statistical details necessarily deal with numbers which in themselves are too small to allow of general deductions from one year's work at any single institution, but the yearly records gradually mount up and furnish valuable material. The larger institutions have the advantage over the private sanatoriums in that their reports deal with hundreds, where the smaller can only deal with tens.

The Royal National Hospital for Consumption for Ireland, at Newcastle, co. Wicklow, is able to refer to 372 patients treated during the year 1904, of whom 305 were discharged and 3 died. Seeing that about half of these patients were advanced cases of consumption, it is satisfactory to note that 244 were improved by their stay in the hospital, which averaged about three months each for all patients. These figures by themselves are of little value beyond the encouragement which such a measure of success gives to the subscribers who support the hospital, and to the large number of consumptive patients who may see in this record hope that treatment may be successful in their own cases. The hospital contains 70 permanent beds—a small number when compared with the requirements of a country in which the prevalence of consumption is increasing—but temporary accommodation was provided during part of the year for 20 additional patients, 10 male and 10 female. These extra beds were obtained by using two large tents in which the patients were accommodated during nearly seven months—namely, from the middle of April to early in November. The report states that the accommodation so provided during the milder half of the year was satisfactory, and it seems a pity, therefore, that it was not found possible to continue it throughout the remainder of the year. It may be that there was some doubt in the minds of those responsible for the care of the patient as to the possibility of keeping consumptives in a marquee during the cold weather. It has, however, been done near London with very satisfactory results. Whilst the new wing of the Mount Vernon Consumption Hospital at Hampstead was being built, and the temporary open-air balconies had been pulled down, sixteen men were accommodated in a large marquee 50 ft. by 25 ft., and this tent was in continuous occupation from March, 1902, to October, 1903. Even in the winter months it was rarely necessary to have the canvas let down except on the windward side of the tent.

Of the patients in the Irish hospital, 84 per cent. gained weight, but an increase in weight is not incompatible with

advance of the disease; in the seventeen patients who on discharge were worse than when admitted there was an average loss of 1 lb. 2 oz., but most of those who remained in much the same condition as on admission gained in weight. Rather more than half of the patients (56.9 per cent.) had haemoptysis, serious or slight, which appears to be a rather large proportion.

A table which deals with 210 cases in which definite information was obtained as to the presence or absence of tuberculosis in the family is interesting, although the number is too small to be of much value by itself. By comparing the percentages where possible with those obtained by an examination of much larger numbers and seeing how far they agree we may form some idea of how the results shown in this table may fairly represent what may be generally anticipated. Of the 210 cases, in 79, or 37.6 per cent., some near relative or relatives had had tuberculous disease. Including the two previous years, it is found that, of 554 cases, 39.5 per cent. had tuberculous disease in the family. It is difficult to compare this percentage with other published statistics, as it apparently includes other relatives than parents. The percentage of hereditary predisposition is somewhat higher than that usually found when the parents only are considered, and considerably lower than that when grandparents, uncles and aunts, and brothers and sisters are taken into account. Williams (*Pulmonary Consumption*, London, 1887) amongst private patients found a history of consumption in the parents of 12 per cent. only of his patients, and in 48 per cent. when grandparents and other near relatives were counted. Squire, quoted by Fowler and Godlee (*Diseases of the Lungs*, 1898, p. 312), gives 24.79 per cent. for parents alone, and 62.34 per cent. when grandparents and collaterals are included. Cornet (Nothnagel's *Encyclopaedia of Practical Medicine*, English edition, 1904, pp. 319-20) gives a list of the results obtained by some twenty observers to show "the frequency phthisis is looked upon by these authors as hereditary," ranging from 10 per cent. (Louis) to about 85 per cent. (Rufz). As he remarks, the marked discrepancy in the percentages is an indication that the conception of heredity is extremely elastic. He further points out that when one-seventh of the population is tuberculous it is to be expected that there will be one or two members of a family of, say, 12 or 14 persons, including grandparents and collaterals, who will be affected with the disease without assuming any special hereditary influence. The influence of heredity in the production of the disease is, however, no longer considered so potent as it was formerly believed to be. There is, nevertheless, still a general belief that hereditary predisposition has a serious influence on the course and severity of the disease when once it has developed.

In the table in the report before us the 79 patients with a tuberculous family history appear to have improved more than those who had no history of tuberculosis in the family. Those with tuberculous family history showed an average gain of weight of 10 lb. 5 oz., and 85 per cent. of these patients were classed as "improved," whilst of the patients from non-tuberculous families the average gain in weight was 8 lb. 14 oz., and only 78.6 oz. were classed as improved. Thus, as the report states, the results do not support the view generally entertained that cases from tuberculous families are less hopeful than others. Comparing the Irish hospital table with a somewhat similar table in the report of the Mount Vernon Consumption Hospital for 1903, we find that of 493 patients 179, or 36 per cent., gave a history of tuberculosis in the family, and of these, 149, or 83.24 per cent., are classed as improved, while of those with no family taint of tuberculosis, 83.43 per cent. come under the heading improved. Although this second result, dealing as it does with a larger number of cases, shows a slightly greater proportion of improvement amongst those patients who have no family history of tuberculosis, there is still so slight a difference between the results of treatment in the members of tuberculous and those of non-tuberculous families that there is reason to modify the pessimistic views which have hitherto prevailed with regard to the influence of hereditary predisposition in those affected with consumption. The opinions of the physicians to the Brompton Hospital, quoted by Williams, agree that the influence of hereditary predisposition on the course of the disease is to render the attack more acute and more fatal. May we hope that the newer methods of treatment and the earlier recognition of the disease, leading to treatment at an earlier stage than formerly, have improved the chances of recovery for those in whom there is hereditary predisposition as well as in those who are free from inherited taint? If so, we have in this report a further note of encouragement furnished by the table under consideration.

The comparisons drawn between the figures contained in the last annual report of the Royal Hospital for Consumption for Ireland and those obtained from other hospital reports serve to illustrate a way in which the yearly reports from the various hospitals and sanatoriums for consumptives may be made of additional value in adding to the sum of general knowledge of the disease. If all such institutions in the kingdom could arrange to draw up their reports on a uniform system it might be of great value to all and result in much good to the community at large.

Alcoholism.

The fifth of the series of these lectures was delivered by Dr. O'Neill on the evening of March 14th in the Grosvenor Hall. Dr. O'Neill dealt chiefly with the question of alcohol consumption. He quoted the enormous drink bill of the nation during 1904, amounting to over £169,000 000 sterling, and said that although there had been a slight decrease during the last few years, it was still a terrible drain, being, in proportion to population, nearly double that of America, and no one knew how many times greater than that of Japan. He also strongly advocated State reformatories for habitual drunkards and the necessity of treating chronic drunkenness as a disease. He characterized the present method of small fines and short terms of imprisonment for confirmed alcoholics as fatuous. Of the 6 329 admissions during the year to His Majesty's prisons during 1904 at least 90 per cent. of the offences were committed by persons under the influence of alcohol.

County Antrim Infirmary.

The annual report of this infirmary has just been published; 320 intern cases and 651 extern patients were treated and 140 operations performed. The Surgeon—Dr. St. George—draws the attention of the Committee to the number of patients who are able to afford private advice and attendance, or to contribute to the funds of the hospital, but who are nevertheless admitted free to both intern and extern departments. A balance of £87 11s. 9d. remains in the Treasurer's hands.

The High Sheriff of Belfast.

The High Sheriff (Dr. O'Neill) signalized his advent to the office by as complete a cleansing and disinfecting of the court houses, Belfast, as was possible in the time. Three members of the profession, representative of the main departments of medicine, surgery, and gynaecology, occupied seats on the grand jury. In the evening of March 18th Dr. O'Neill hospitably entertained His Majesty's Judges and a large number of friends, legal, medical, and civic, to dinner in the Town Hall, when the health of the host was warmly honoured.

Surgeon-General Evatt's Report.

The action of the Council of the Irish Medical Association in withholding the Evatt report as a whole from the members of the Association, and resolving to consider only the recommendations which refer to the reorganization and work of the Association, has given rise to much difference of opinion. Some members have resigned, some have expressed their dissent in the columns of the daily press. Surgeon-General Evatt himself has addressed a long letter to the *Irish Times*, in which he says:

> I think the whole report should now be given to the Irish public, so that they might have the sweet as well as the bitter parts of the document to study, and that justice should be done to myself.

And he proceeds:

> It seems to me monstrous that because in a report based on two special visits to Ireland I have trodden on the toes of two old-world medical corporations, as yet unawakened to their full mission to the Irish nation they belong to, that my report should be kept private. For you must remember that, however my report may be silenced, I am in no way silenced, and the ideas of my report can be spread broadcast over the land through the platform and the non-medical press. "Great is the truth and it shall prevail," and I claim that my report is the truth, however unpalatable it may be. I have simply said openly what other people less free to speak than I am daily say. In neither of the two Colleges I refer to have the licentiates or members got the slightest vestige of representation or influence or authority in controlling their Colleges, and I am clearly of opinion that this is an out-of-date condition, and that a "representative body" chosen out of the counties could form an advisory body to work with the Councils of the Colleges.

Professor Kinkead of Galway also writes in disapproval of the action of the Council, and claims that as a matter of right, of policy, and of expediency the report should be

issued to the members. It is our property, we have paid for it; it belongs to us. The final decision rests with the members in general meeting; how can they decide if they don't get the report?

The attacks on the Colleges having been published, Dr. Kinkead asks:

What harm can be done by issuing the remainder of the report to the members of the Irish Medical Association? Instead of its causing or perpetuating a feud between the Royal Colleges and the Irish Medical Association, I am convinced that the universal feeling will be one of regret that Surgeon-General Evatt should have gone outside his commission and attacked institutions of which Irish medical men are justly proud.

He does not approve of the report, which he thinks "too full of rhetoric, too Utopian, . . . too imaginative."

The *Irish Times* thinks the Council committed a cardinal error in not being content with the first report printed in the British Medical Journal:

The situation is fraught with the greatest danger. Those who press for the publication of the report ought to be warned that they may precipitate a crisis—that, in fact, they may wreck the Association.

And the editor points out that many may secede from the Irish Medical Association and join the "British Medical Association—one of the most powerful bodies in the world."

Royal City of Dublin Hospital.

Her Excellency the Countess of Dudley was present at the annual meeting of the Royal City of Dublin Hospital held last week. The report stated that 1,187 intern patients had been treated during the year; 2,087 accident cases had been dealt with, and there were 22,025 attendances at the dispensaries. The deficit was £841 15s. 9d. on the year's working. The meeting was addressed by Sir John Nutting, Mr. A. H. Benson, Mr. Justice Barton, Sir James Murphy, and Dr. Alfred Parsons.

Richmond Hospital, Dublin.

On March 16th, His Excellency the Earl of Dudley paid a visit to the Richmond Hospital, when he was received by the Governors and the medical and surgical staff. He visited all the wards, and spoke to many of the patients. He expressed his admiration of the equipment of the hospital, and of the great comfort of the patients. The visit occupied over an hour and a half.

Royal Veterinary College.

His Excellency the Lord Lieutenant was present at the Royal Veterinary College, Dublin, on March 16th, when Professor Mettam, the Principal, delivered a lecture on some diseases of animals, including those communicable to man, which were under investigation in the laboratory of the College. The Chairman of the Board of Governors, Sir Christopher Nixon, delivered a short address, in the course of which he mentioned that 125 students had entered during the year, 61 had passed the earlier examinations, and 12 had become Licentiates of the Royal College of Veterinary Surgeons.

His Excellency Lord Dudley, in addressing the students, agreed as to the importance of this profession in a country like Ireland, and as to the great advantage of research in dealing with disease.

Canada.

Fire at the Royal Victoria Hospital, Montreal.

A fire in a hospital is happily a rare event, but the Royal Victoria Hospital, Montreal, has passed through the fiery ordeal and not been found wanting. The blaze was confined to the kitchen, which is situated in the top story of the central or administration building. The greater part of the damage was due to smoke and water, the ceilings and walls being stripped from many of the rooms. The servants' quarters suffered most severely, and the occupants lost most of their personal property. The nurses and medical officers, however, were more fortunate, and the greater part of their belongings were uninjured. Ample opportunity was given for a demonstration of the admirable discipline of the institution. Streams from the hospital hose were directed upon the fire a few minutes after it broke out, and the copper-sheathed fireproof doors in the passage ways to the sections containing the wards were at once closed, thus entirely shutting off the patients from the burning section.

On the arrival of the fire brigade the medical officers began to make their morning rounds, and it was a strange sight to see the firemen outside fighting the flames with the full strength of the brigade, while within the medical officers, attended by the nurses, were going from bed to bed palpating, percussing, auscultating, the ward maids dusting and sweeping, and the orderlies hurrying at the beck and call of the nurses, as if there were nothing to disturb the regular hospital routine. A few of the patients in the top story were removed to the bottom floor, as there was a chance of the flames leaping from one roof to another; none of the others were moved, although a long line of ambulances was drawn up ready at a moment's notice to begin the transfer to other hospitals.

By the time the fire was under control arrangements had been made with a city hotel to supply meals for the day, but by next morning a temporary kitchen had been prepared, and things were going on as usual. Only one patient was refused admission on account of the fire, and that simply because he arrived while the building was still in flames; others who came during the day were received as a matter of course. The governors of the hospital and the citizens of Montreal are to be congratulated upon having a hospital staff which responded so nobly in the hour of peril.

At a meeting of the Board it was decided to put in an independent supply of water for the institution, as the water pressure was very low, and the City Council is to be asked to establish a new fire station in the upper part of the city, as some delay occurred before the brigade could get to work, on account of the situation of the hospital. The reconstruction of the damaged portion is already well advanced, and, owing to the generosity of Lord Strathcona and Lord Mount Stephen, will be much finer than the original plan.

Proprietary Drugs and Foods.

A few months ago Mr. G. G. Nasmith, M.A., Ph.D., of the Provincial Laboratory, read, at a meeting of the Ontario Board of Health, a paper on harmful ingredients in canned goods and proprietary medicines, which has now been published. He gives the results of a series of investigations made in the laboratory of the Provincial Board of Health during 1903. One of the objects in view was to determine the alcohol content and food value of certain proprietary preparations much advertised in Canada.

Alcohol.

Mr. Nasmith gives the following table of his results in certain cases:

	Alcohol by Volume.	Approximate Constituents.
Peruna	24.90 per cent.	Vegetable extractives.
Ontario Chemist's Tonic Bitters	15.58 ,,	Vegetable bitters.
Stringer's Nervine ...	7.95 ,,	Sarsaparilla, oil of wintergreen, sulphate.
Dr. Shoop's Restorative	10.20 ,,	Bitters, sugar, strychnine ($\frac{1}{150}$ gr. dose)
Ayer's Sarsaparilla ...	23.30 ,,	Sarsaparilla, potass iodide.
Burdock Blood Bitters	16.00 ,,	Bitters, sugar, lime phosphates.
Warner's Safe Cure ...	11.40 ,,	Potass. nitrate, vegetable extractives.
Hood's Sarsaparilla ...	Alcohol	Sarsaparilla, potass iodide.
Lydia Pinkham's Vegetable Compound ...	21.00 per cent.	Sugar, bitter herbs.
Paine's Celery Compound	19.00 ,,	Bitter herbs, sugar, potash, phosphates.
Pierce's Golden Medical Discovery	0. ,,	Wild cherry extract, iron and phosphates, arsenic.
Powley's Liquozone ...	0. ,,	Sulphurous, [illegible] sulphuric, phosphoric acids, iron trace.

He states that in temperance States, in the North-West, and among Indians, certain of these remedies are very popular. He says that Peruna is reported to be a favourite society beverage, and adds that many of the bitters, tonics, peptone preparations, and malt extracts are undoubtedly taken for their alcohol content. Some of the peptone preparations, he says, tested in his laboratory were pronounced by amateur experts to be almost as good as sherry. With regard to the use of alcohol, he writes:

One tonic I know of is prepared by the caretaker of a building in his spare time; no expensive drugs or skilled scientific assistance is necessary. All the apparatus essential for many of the preparations is a barrel of whisky, water for diluting the same, glucose for sweetening, some vegetable bitter (the cheaper the better), and some common tonic or aperient like magnesium sulphite, potassium iodide, iron phosphate, etc. Of course you must advertise systematically, offer rewards for cases of failure to cure, or at least refund a patient's money. A favourite practice with a new nostrum is to represent it as one used for fifty years back in England or some other distant country.

Extracts of Beef, Etc.

With regard to peptone preparations he says that most of them yield about 20 per cent. of solids; he calculates that a bottle costing one dollar contains about 3½ oz. of peptone, which is equivalent to rather less than the same amount of dried lean beef. He continues as follows:

Wampole's Grano Pepton is stated to contain in each fluid ounce approximately the digestive equivalent of 1 oz. lean beef, 2 oz. whole wheat bread, 1 to 2 oz. egg white, and 1 to 2 fluid of milk together with pepsin and deastase. Now there are approximately in the 1 oz. beef 0.313 oz. digestible nutrients, 2 oz. graham flour (whole wheat), 1.738 oz. digestible nutrients, ½ oz. milk, 0.065 oz. digestible nutrients, ½ oz. egg white, 0.131 oz. digestible nutrients, or a total of 2.247 oz. of the products of digestion. The label represents that in each fluid ounce there are 2.247 oz. digestible nutrients present; but I find as a matter of fact in each fluid ounce only about ½ oz. solids, which is about $\frac{1}{10}$ of that claimed, and even this is by no means all nutriment. (This is one of the preparations often prescribed by physicians as a food.) As alcoholic temperance drinks they are quite popular, being very palatable to those used to alcoholic liquor.

Of the five preparations of this nature examined alcohol was present in all and much of their effect is doubtless due to that constituent.

1. Liquid peptonaids, "Beef, milk and gluten perfectly digested," a pleasant and convenient nutriment. Alcohol by vol. 20.3 per cent.

2. Nutrient wine of beef peptone. "A liquid food presenting the entire substance of fresh, raw lean beef." Armour and Co., alcohol, 20.0 per cent.

3. Bovinine. "The vital principles of beef." Is a genuine coagulated beef juice. Contains alcohol.

4. Mulford's predigested beef. "The most valuable concentrated remediably assimilable food known." Alcohol, 16.70 per cent.

5. Wampole's Grano Pepton. "Representing the final products of the digestion of beef, eggs, and the whole wheat grain." Alcohol, 17.50 per cent.

LITERARY NOTES.

MAJOR LOUIS L. SEAMAN, who served as a surgeon in the United States Volunteers in the Spanish-American and Philippine wars and with the allied armies in the Boxer campaign in China, and whose account of the health conditions in the Japanese army has been more than once referred to in the BRITISH MEDICAL JOURNAL, has embodied his experience in a book entitled *From Tokio Through Manchuria with the Japanese* just published by D. Appleton and Co., New York. The work contains forty-two full-page photographic illustrations.

In the *Scottish Medical and Surgical Journal* for March Mr. Francis Steuart gives an interesting account of old Scottish medicaments. In examining a collection of manuscripts now in the hands of Mr. A. Erskine-Murray, to whom they have come through succeeding generations of the family of Erskine of Alva, cadets of the Earls of Mar, he found three commonplace books of medical recipes. One of them, which dates from about 1630, contains directions how to "hinder" the marks of small-pox by anointing the sufferer's face with the fat of calves' feet and rose-water, or white wine and butter, or salt butter and rose-water. A plaster of "goos dung applyed" is said to draw out iron or "stobs of timber." Less practical prescriptions "ffor mischievous arts and putting divills to flight" are also given. Another, which bears date 1656, shows by the number of the remedies for ague which it contains how common that disease was in Scotland in the seventeenth century. The following is a prescription for "quartaine ague":

Take a pottle of good red wine and a pottle of new milke of a cow all of one colur; take 2 or 3 food handfulls of Mouscare (hawkweed) cleane pickt and washt, steepe it in ye milke and wine and temper them together and let them staude soe one night and putt them in a faire still and still them wth a soft fire and take ye water and put it into a faire glasse and putt it in ye sunne 4 or 5 days and let ye sick which he is dire in his Ague drinke thereof 3 or 4 times and he shall be rid of his Ague.

We are also told that "If age will suffer it, ye cutting of a veine before ye fitt cometh destroyeth greatly ye Ague. Let it be used often and a little at once." Another mode of treatment recommended is to anoint the patient's head, hands, and feet with "oyle of scorpion." Abscesses or "postoumes" are summarily dealt with as follows:

Thes be hote which proced of blood and choller. Thes be cold which come of phlegemei and melancholy.

In the way of treatment there was apparently little to be done except in the case of "thos which be opened by ye helpe of ye chyrurgin [which] be those which are harde, colde, large in bodys ewill disposed and thick skinned, iin cold membranes and parts in ye emuntories." Salves and balsams for wounds and bruises are of course very numerous. Burns caused by gunpowder were cured with eggs distilled with the juice of house leeks, or an ointment composed of boar's grease, groundsel, house leeks, and sheep's dung. Cures for inebriety were not unknown. One was "ye lights of a sheepe" whereof if the "party soe given" did eat he was promised that he would "finde remedy thereby." Another was as follows: "Give unto ye druncken man ye asches of swallows burnt in a close earthen pott, being wholy inciverated, feathers, bones, and all, and use ye powder thereof in drinke, brothes and potages, and it shall help him." The third book contains the following recipe for a "restorative Jelly for a consumption": "Take one pound of hartshorn shavings, 2 vipers, 3 ounces of eringe root, one quart of snails, shells and all just bruised. Boil them in a gallon of water till it comes to a jelly, then add the juice of six Seville oranges, a pint of Rhenish wine, and half a pound of white sugar candy." What must have been the digestive power of healthy Scotsmen in those heroic days if their invalids survived such delectable jellies?

In Sir Mountstuart Grant Duff's *Notes from a Diary 1886-8*, there is frequent mention of Sir Richard Owen. Once the famous anatomist told him what a happy use he had made of one of Milton's sonnets. He became a member of that highly select body "The Club" much earlier than most of the few who are chosen for admission because Johnson had expressed a wish that one member should be a physiologist. Hardly had he been elected when he was placed in a great difficulty. The opinion of the Club was asked as to whether a representation of Cromwell should be introduced in the new Houses of Parliament. Various views were expressed, when Lord Aberdeen, who was Chairman, said, "Well, we'll take a vote, and we'll begin with the youngest member." Owen extricated himself from an embarrassing position by saying, "Whatever we may do, we cannot raise for Cromwell a monument at all equal to one he has got already." The other members looked surprised, and he was asked to what he alluded, whereupon he quoted Milton's sonnet. The old man added that he was never so well repaid for learning a piece of poetry by heart. The moral is obvious, but we may be allowed to express a slight feeling of surprise that no one in a body, which is nothing if not literary, should have understood the allusion. On another occasion the diarist found Owen reading a volume of English letters, the frontispiece of which was a portrait of the Countess of Suffolk. Speaking of his memory, he said he found a difficulty sometimes in remembering ordinary names, but none with the pentesyllabic or hexasyllabic names of extinct monsters. Only that morning he had finished a paper for the Royal Society upon one of these—a creature of the crocodile kind, but without teeth—sent to him from Lord Howe's islands. Asked as to the personal appearance of Buckle, the author of the *History of Civilization*, Owen startled his questioner by answering, "Like a young Gibbon," an expression which, coming from the lips of the great zoologist, seemed to imply a resemblance to our quadrumanous relative. Owen, however, explained that he meant the historian. At another visit very near the end of Owen's life, he mentioned a curious instance of heredity in his own family. His grandson, then an undergraduate at Cavendish College, Cambridge, had developed so remarkable a turn for playing the organ that the authorities were able to dispense with the services of a regular organist. Professor Owen's mother was for several years organist at Ormskirk Church, and her father again was long organist at Lancaster. Their name was Parrin, and they came of ancestors who took refuge in England after the Revocation of the Edict of Nantes.

A prize was lately offered for an antivivisection story. If we may judge from the accounts of it which we have seen, *Trixy*, by Elizabeth Stuart Phelps Ward, an American writer of some note, would seem to be the kind of thing required. Here is the lady's description of the assistant director of a large surgical institute in which researches in physiology are carried out:

His face . . . was brutal. He had the eyes of an inquisitor, lowering and shifty. To an ordinary citizen his was a face to be dreaded. It was the type that was common in the sixteenth century. It was broad, flat, and surmounted by a rebellious fiery mane. But if his face would inspire dread, his hands gave the layman a nameless apprehension.

A charming portrait; one wonders if it is from life. If it is, it is not unlikely that one of the antivivisectionist fraternity unconsciously sat for it, for faces of the inquisitor type are, as far as our observation goes, more common among them than among their opponents.

It has been decided to publish on behalf of the recently-formed Students' Representative Organization of the Universities of Great Britain and Ireland a monthly magazine which will provide past and present students with news of the chief events at their own university, and also of important incidents and developments in other universities. The magazine, which will be called the *University Review*, will thus, it is hoped, serve as a record of the movement of thought at the universities in relation to all matters of scientific, literary, and educational interest. Among the regular monthly features of the *University Review* will be original articles of scientific, literary, and educational interest; general information and descriptive notes of the academic and social life from the universities of Great Britain and Ireland and from the university colleges, communicated by local correspondents; official information from the university authorities relating to important phases of university work, university developments, appointments, etc.; and correspondence from representatives in the principal universities of France, Germany, and the United States. The movement has already obtained the support of, among others, the Right Hon. James Bryce, the Right Hon. Sir John Gorst, Professor Cormack (University College, London), Principal Donaldson (St. Andrews University), Professor Patrick Geddes and Professor John Geikie (Edinburgh), Professor John Joly (Dublin), Principal Lang (Aberdeen), Professor Sherrington (Liverpool), Sir Isambard Owen (Newcastle-upon-Tyne), Professor Schuster (Manchester), Professor Firth (Oxford), Professor Reichel (University College of North Wales), Dr. Windle (Principal of Queen's College, Galway), and Canon Barnett (Warden of Toynbee Hall). All these gentlemen have promised their assistance as editorial advisers, and the support of members of other universities is being sought. The *University Review* will be edited by Mr. W. G. Fuller, the editorial offices are at 65, Long Acre, London, W.C., and the price will be 6d. monthly.

We have received the first three parts of the *Harmsworth Encyclopaedia* (Thomas Nelson and Sons, Paternoster Row). It certainly is a marvel of cheapness, and contains a vast amount of information. The medical articles as far as we have tested them are clearly and accurately written, though necessarily brief. We note, with due appreciation of the compliment, that in the article on appendicitis the BRITISH MEDICAL JOURNAL is given as the *locus classicus* on the illness of the King. The print is wonderfully clear considering the smallness of the type, but we confess we find the maps rather trying. Altogether, the *Encyclopaedia* justifies the description of it on the title page as "Everybody's book of reference."

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

Annual Meeting.

THE twenty-eighth annual general meeting of the above Association was held on March 15th at the Hotel Cecil, when Surgeon-General SIBTHORPE, C.B., resigned the presidential chair to Sir WILLIAM WHITLA.

The following officers were appointed for the ensuing year: *President-elect:* Dr. E. Irwin Scott (Brighton). *Vice-Presidents:* Dr. W. Alexander, Dr. P. S. Abraham, Surgeon-General Sibthorpe, C.B., and Sir James N. Dick, K.C.B., R.N. *Chairman of Council:* Dr. J. H. Swanton. *Vice-Chairman:* Dr. A. de T. Mouillot. *Hon. Treasurer:* Dr. M. J. Bulger. *Hon. Secretaries:* Dr. James Stewart, Dr. T. H. Frampton, and Mr. E. Canny Ryall. *Hon Auditors:* Dr. W. B. Johnston and Colonel James Morhead, R.A.M.C.

The following were elected members of the Council: Drs. G. V. Benson, A. J. Boyd, James Chambers, E. Wolfenden Collins, George Cowen, MacDonagh Cuffe, C.B. (Surgeon-General); G. W. Dawson, M. Dockrell, W. Douglas, F. W. Goodbody, H. J. Hildige, J. J. Macan, T. Neville, W. B. Pearsall, W. Whitlaw Scott, Whitley B. Stokes, R. Jocelyn Swan, and T. Telford-Smith.

The annual report showed a continuance of prosperity of the Association, the number on the roll of members reaching 894. The financial report was equally satisfactory. A beautifully-carved loving cup of Irish bog-oak of massive proportions, presented by Dr. E. Wolfenden Collins, was accepted by the Council with many thanks to the donor.

Dinner.

The St. Patrick's Festival Dinner of the Irish Medical Schools' and Graduates' Association was held on March 18th at the Hotel Cecil, London, with Sir William Whitla, the President of the Association, in the chair. After the usual loyal toasts had been honoured with more than the usual enthusiasm, the presentation took place of the Arnott Memorial gold medal to Captain Thomas Campbell Mackenzie, D.S.O., R.A.M.C. He was introduced by the Chairman of the Council of the Association, Dr. Swanton, who said that the medal was founded in the year 1900 by Mr. David T. Arnott, to be awarded every year to a medical graduate of an Irish university or a diplomate of an Irish corporation who had performed an act of heroism or distinguished service in the naval or military services or in civil life at home, on the high seas, or abroad. The medal might also be awarded for any achievement in medicine, surgery, or in medical research. Dr. Swanton explained that the medal had been awarded four times already, twice for distinguished medical service on the battlefield, once for an act of heroism in discharge of medical duties at home, and once for an achievement in the art of surgery. The circumstances connected with the presentation of the medal that year were that Captain Mackenzie on the voyage home from Mauritius during the passage of the vessel through the Ionian Sea dived over the ship's side to help one of the hands who had fallen overboard. Two life-buoys were thrown overboard, and Captain Mackenzie lashed one to the drowning man and retained the other himself. Owing to the rough sea and the speed of the vessel Captain Mackenzie was soon lost to sight, and it was forty minutes before he and the sailor were rescued, in an exhausted condition. The Director-General of the Army Medical Service had written that Captain Mackenzie was already distinguished for his gallantry and devotion to duty with the Irish Brigade in South Africa, and was a credit to his country and to the Irish medical schools. Captain Mackenzie, in acknowledging the honour conferred upon him, said it was just his luck to be where the accident occurred, and any one else at that dinner would have done the same thing. Dr. J. Gubbins Fitzgerald proposed the toast of "Our Defenders," which was responded to by Inspector-General W. H. Lloyd, R.N., by Director-General A. H. Keogh, C.B., and by Colonel Leese. Mr. A. Chance, President of the Royal College of Surgeons, Ireland, in submitting the toast of "Our Guests," complained that certain London hospitals were unwilling to elect on to their medical staffs for the surgical posts any Irishman unless he had passed the F.R.C.S.England. This toast was acknowledged by Mr. T. Loch, M.P. Mr. J. Tweedy then gave the toast of "The Association," and detailed the particulars of its rise and successful progress. After this had been suitably replied to by the President, the company dispersed.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending February 18th and 25th the deaths from plague numbered 27,837 and 29,465 respectively. The principal figures are: Bombay City, 618 and 735; Bombay Districts, 2,514 and 2,450; Calcutta, 88 and 84; Bengal Districts, 4,761 and 4,914; North-West Provinces and Oudh (United Provinces), 10,869 and 12,213; Punjab, 6,975 and 6,940; Hyderabad State, 319 and 602. During the week ending February 18th the deaths from plague in the following districts were: Rajputana, 543; Madras Districts, 261; Mysore State, 295; Burmah, 20.

Although the numbers quoted show a considerable improvement upon the weeks immediately preceding, when the highest mortality from plague stood at 36,117, telegrams dated Bombay, March 19th, state that plague is causing 45,000 deaths weekly.

SOUTH AFRICA.

East London.—During the week ending February 25th, 1 case of fatal plague occurred in East London. There had been no fresh cases of plague in Cape Colony for the previous three weeks. At East London and Port Elizabeth rats and mice were found during the week in question to be plague-infected.

MAURITIUS.

During the week ending March 10th, fresh cases of plague numbered 1 only, and deaths from the disease 1.

CONTRACT MEDICAL PRACTICE.

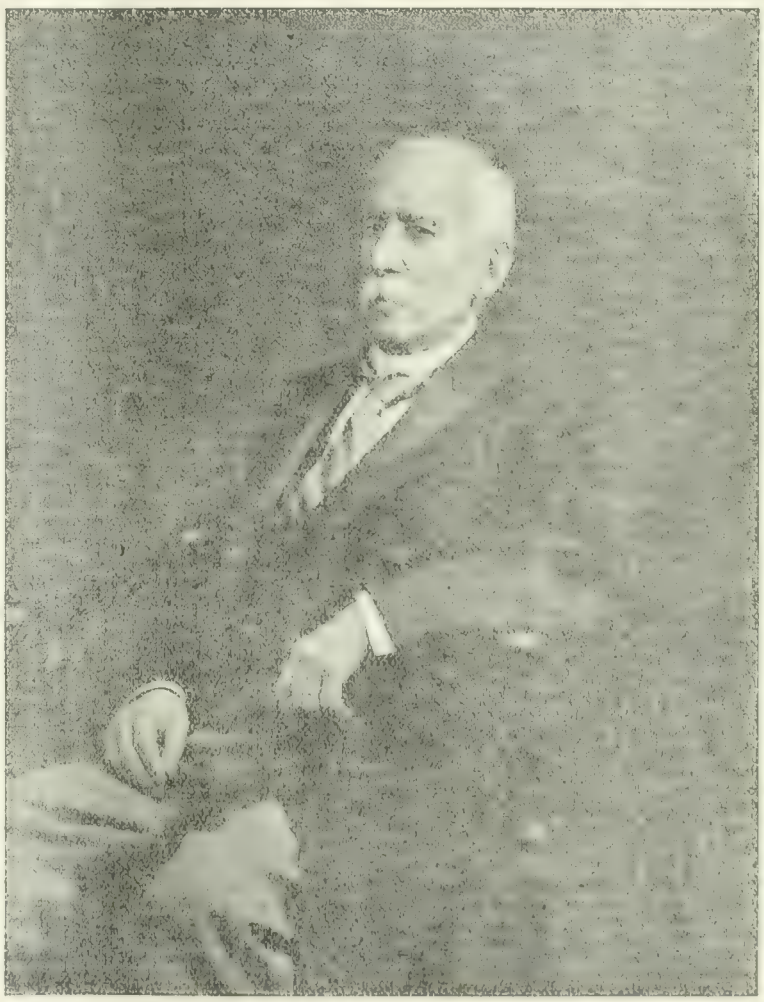
NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 91.

THE GARCIA CENTENARY.

The Old Master.

Sir George Cornewall Lewis was a hardened unbeliever in centenarians, but his scepticism must have suffered a severe shock could he have been present at the celebrations held in honour of the 100th birthday of His Excellency Don Manuel Garcia on March 17th. He would then have seen not merely a man whose years beyond all question numbered a century, but one who at that great age showed no sign of senility and could still take an active part in a series of trying ceremonies, and bear with dignity, if not altogether without fatigue, a load of honours and congratulations, a flood of speeches like the rushing of great waters, and repeated thunderstorms of applause that would have overwhelmed many men in the full vigour of life. The marvellous old man went through the ordeal apparently without feeling any ill effect, and seemed thoroughly to enjoy the whole thing. It was difficult indeed to believe that the venerable but by no means decrepit figure on the right of the Chairman at the banquet whom one saw light a cigarette and smoke it with relish in defiance of the Anti-Tobacco League, was born seven months before the battle of Trafalgar and was 10 years of age when the power of Napoleon was shattered at Waterloo. It was passing strange as one looked at him giving the lie in every point to Shakespeare's picture of extreme age, to think that he might not only have "seen Shelley plain" but have been one of the students who modelled their collars and their scowls on those of Byron; that he had finished his education before Pasteur was born, and had come to man's estate before Lister saw the light; that he had made his name known on two continents while Scott and Goethe were still alive, and Darwin was at school; and that he had made the discovery that will make his name immortal while the Prime Minister of England was in the nursery and many men whose names are now illustrious were yet unborn. How quick are his senses and how alert his intelligence was shown in many ways, trifling, perhaps, but significant, in the course of what must have been the most trying day of his long life. When Sir Felix Semon, in finishing for him the reading of his reply to the addresses presented to him, hesitated because he saw he was coming to a passage about himself, Señor Garcia cried, "Yes, yes! read that." Then as the Chairman of the Committee looked somewhat embarrassed, the old man said with great vivacity, "Well, give it to me; I will read it!" When one of the Spanish delegates addressed him in his mother tongue, a new light came into the centenarian's eyes, and he bent forward in an attitude of the closest attention, as if he feared to lose a single tone of the beloved speech, whose sound must have carried him back over a great gulf of years to the far-off days of his childhood. Any one who saw him walking with simple dignity to his seat in the room in Hanover Square or in the banquet hall at the Hotel Cecil, chatting pleasantly with those about him, and keenly alive to everything that was going on, might well have taken him for a man of 75. Though the banquet was somewhat unduly prolonged, and he left rather late he was none the worse; and when he dined on Sunday evening with Sir Felix Semon and the crowd of laryngologists who had come together to do homage to the founder of their art, he was brighter and less nervous than at the official banquet. He again smoked a cigarette and drank a glass of lager beer with relish. He also made a neat little speech, saying he was glad to be once more *en famille* with the laryngologists of all countries who hailed him as their father. We echo the hope expressed by Señor Garcia's countless admirers that he may long enjoy the honours and dignities so deservedly bestowed upon him by three Sovereigns.



A mes amis les laryngologistes. Manuel Garcia

Biographical Sketch.

Manuel Garcia belongs to a family whose name is imperishable in the annals of music. His father was Manoel del Popolo Vicente Garcia, the famous Spanish tenor for whom Rossini wrote the part of Almaviva; his sisters were Maria Felicia, who became celebrated as Madame Malibran, and Pauline who made illustrious the name of Viardot, and who still lives to enjoy her brother's triumph. The father, who was born at Seville in 1775, began his career as a choir boy in the cathedral of that city. As he grew up he quickly gained a great reputation as a composer and as a singer. He wrote many operas which were performed in Spain and in Paris with great success. Some of his songs which he sang accompanying himself on the guitar—notably *Yo que soy contrabandista* in *El poeta calculista*—achieved immense popularity. He composed seventeen Spanish, thirty-six Italian, and eight French operas. The MSS. of many of his compositions are preserved in the Municipal Archives of Madrid. He sang for the last time in Madrid in an oratorio performed in the Lent of 1807. In 1808 he made his début in Paris where he achieved great success. He afterwards settled for a time at Naples, where he was first tenor of the King's Opera Company, and studied music thoroughly under Giovanni Anzani. Afterwards he sang again with great applause in Paris, and in London.

Manuel Garcia, the younger, was born at Madrid on March 17th, 1805, and was baptized in the Church of San Martin in

The illustration is reproduced, by permission, from a photograph published in the *Internationales Centralblatt für Laryngologie* of March, 1905.

that city. He received his early education at Talavera de la Reina. He distinctly remembers scenes of the Peninsular War, especially seeing files of men and boys led out to be shot by the French by way of reprisal for the murder of soldiers. While his parents were abroad he was left in charge of his grandparents. In 1815 he joined his family at Naples, and except for a flying visit when he was 15, we believe he has never since seen the land of his birth. At Naples he began to learn singing under his father, but he found the severe training then insisted on very irksome and he seems to have had no particular vocation for the lyric stage. The bent of his mind was more towards the study of science. So distasteful was singing to him that at one time he felt drawn to the life of a sailor; he was, however, dissuaded by the entreaties of his mother and sister from going to sea.

In 1825 he went to America with his family; this was the first Italian opera troupe which crossed the Atlantic. In New York, among other operas, they performed *Il Barbiere di Seviglia*, Manuel Garcia the younger playing Figaro, his father Almaviva, his sister Malibran, Rosina, and his mother Bertha. The elder Garcia was a hard taskmaster, and his son, though he had a fine baritone voice, found the work of the operatic stage too hard for his physical resources. Returning to Europe with his family, he sang at Naples with but moderate success; this determined him to give up singing and devote himself to teaching. He himself attributes what he calls the ruin of his voice to his training having been continued throughout the period of "break" at puberty. He went to Paris, where he joined his father, who trained nearly all the greatest singers of the early part of the last century. The elder Garcia died in 1832, and in 1835 the son was appointed Professor in the Paris Conservatoire. He made a very thorough study of the anatomy of the vocal apparatus, not only in man but in animals, and his sister, Madame Viardot, tells how he would demonstrate to her the function of the organs of voice by means of bellows inserted into the larynx of a sheep or a cow. In 1841 he published a treatise on singing entitled *L'Ecole de Chant*. In the previous year he had presented to the French Academy of Science a memoir on the human voice which was reported on by Majendie, Savart, and Dutrochet. In that paper Garcia showed that the head voice does not necessarily begin where the chest voice ends, and that a certain number of notes can be produced in either register; that the chest voice and the head voice are produced by a special and spontaneous modification of the vocal organs, and that the exhaustion of the air contained in the chest is more rapid in the proportion of 4 to 3 in the production of a head than of a chest note; that the voice can produce the same sounds in two different timbres, clear and veiled; and that in the diatonic production of sounds from low to high the larynx rises progressively, and the velum palati constantly falls; whereas in production from high to low the larynx remains fixed in the lowest position while the velum is raised. In 1847 he published a *Traité Complet de l'Art du Chant*, in two parts.

In 1855 he made the discovery which has won for him celebrity in science as well as in art. Further on will be found his own account of the matter. A few years before that memorable date he had been driven by what Sydney Smith called stress of politics (the revolution of 1848) to London, where he has ever since made his home. He was appointed Professor in the Royal Academy of Music, and he continued to discharge the duties of that office till 1895. In 1881 he read, by special invitation, a paper on the invention of the laryngoscope before the International Medical Congress. After his retirement he gave private lessons till about two years ago. He has been twice married, the second time about thirty years ago, and has issue by both unions.

This is not the place to discuss the artistic value of Señor Garcia's method of voice-production. That he has been a highly-successful teacher is proved by the fact that among his pupils are such renowned singers as Jenny Lind, Christine Nilsen, Margaret Macintyre, Agnes Larcom, Johanna Wagner (niece of the famous composer), Henrietta Nissen (Madame Saloman), Charles Santley, Antoinette Sterling, Bataille, and the most celebrated teachers of singing in France and Germany, Mathilde Marchesi and Julius Stockhausen. It is worthy of mention that Garcia has never used the laryngoscope to any great extent in his teaching of voice-production.

HISTORY OF THE DISCOVERY.

Although the dentist's mirror was in use among the ancient Romans, the first trace of an attempt to examine the throat by means of reflected light is found in the middle of the eighteenth century. In 1743 Levret, whose name is still held in honour among obstetricians, described a speculum consisting of a plate of polished metal which "reflected the luminous rays in the direction of the tumour," and received the image of the tumour on its reflecting surface. Levret seems to have used the mirror not as a means of diagnosis but as a guide in the application of ligatures to tumours in the throat. At any rate his invention bore no fruit. Half a century later Bozzini, of Frankfort-on-the-Main, devoted much attention to devising means of illuminating the main canals of the human body. In 1807 he published a description of an apparatus by which the throat and the posterior nares could be examined by reflected light. The official heads of the profession laughed away Bozzini's invention, which, though cumbrous, deserved a better fate. In 1825 Cagniard de Latour introduced a little mirror into the back of the throat, hoping with the aid of the sun's rays and a second mirror to be able to see the epiglottis.

and even the glottis, but failed. In 1827 another unsuccessful attempt was made by Senn of Geneva. In 1829 Benjamin Guy Babington exhibited at the Hunterian Society of London an instrument very like the laryngoscope now in use; he employed it in many cases, but for some reason seems to have left no record of them. In 1832 Bennati of Paris stated that he could see the vocal cords by means of a double-tubed speculum invented by a patient suffering from laryngeal phthisis; Trousseau, however, proved to his own satisfaction that the epiglottis must always make it impossible to see the inside of the larynx. In 1838 Baumès of Lyons showed a mirror with which he said the larynx could be examined. In 1844 Warden of Edinburgh reported two cases, in which he said that he had been able to make "satisfactory ocular inspection of diseases affecting the glottis" by using two prisms of flint glass. In the same year Avery of London devised a laryngoscope in which a laryngeal mirror was combined with a lamp and reflector; the apparatus embodied the essential features of the modern laryngoscope, but its clumsiness made its practical application difficult and in many cases impossible.

In 1854 the problem at which these pioneers had worked in vain was solved by Manuel Garcia. Since he had given attention to the scientific aspects of voice production he had longed to see a healthy glottis in the very act of singing. The idea of employing mirrors for the purpose of studying the interior of the larynx came to him in 1854. The following is the story of his discovery in his own words:

One September day in 1854 I was strolling in the Palais Royal, preoccupied with the ever-recurring wish so often repressed as unrealizable, when suddenly I saw the two mirrors of the laryngoscope in their respective positions as if actually present before my eyes. I went straight to Charrière, the surgical instrument maker, and, asking if he happened to possess a small mirror with a long handle, was informed that he had a little dentist's mirror which had been one of the failures of the London Exhibition in 1851. I bought it for 6 francs. Having obtained also a hand mirror I returned home at once, very impatient to begin my experiments. I placed against the uvula the little mirror (which I had heated in warm water and carefully dried); then flashing upon its surface with the hand mirror a ray of sunlight, I saw at once, to my great joy, the glottis wide open before me, and so fully exposed that I could perceive a portion of the trachea. When my excitement had somewhat subsided I began to examine what was passing before my eyes. The manner in which the glottis silently opened and shut, and moved in the act of phonation, filled me with wonder. From what I then witnessed it was easy to conclude that the theory which attributed to the glottis alone the power of engendering sound was absolutely confirmed, from which it followed that the different positions taken by the larynx in front of the throat have no action whatever in the formation of sound; although, combined with divers elevations of the soft palate, they change the shape and the dimensions of the pharynx. In these changes we find the means of varying the qualities of the voice known as *timbres* or *Farbenklange*. I also perceived that vocal sounds are the results of explosions, not of communicated vibrations. This is proved by the fact that each separate lip of the glottis is incapable of producing any kind of sound. Besides, the lips do not protrude sufficiently to form vibrating reeds; and, if protruding, how could they vibrate in spite of recurring contact with each other? Having thus seen the vocal cord in action, I next began to study the mechanism of the scale.

On March 22nd, 1855, his epoch-making paper, Observations on the Human Voice, was communicated to the Royal Society by Professor Sharpey.[1] He there describes his method as follows:

It consists in placing a little mirror, fixed on a long handle suitably bent, in the throat of the person experimented on against the soft palate and uvula. The party ought to turn himself towards the sun, so that the luminous rays falling on the little mirror may be reflected on the larynx. If the observer experiment on himself, he ought, by means of a second mirror, to receive the rays of the sun, and direct them on the mirror, which is placed against the uvula.

The following is the account of what was seen by the first man who ever was able properly to observe the appearance of the human larynx during life:

At the moment when the person draws a deep breath, the epiglottis being raised, we are able to see the following series of movements: The arytenoid cartilages become separated by a very free lateral movement; the superior ligaments are placed against the ventricles; the inferior ligaments are also drawn back, though in a less degree, into the same cavities; and the glottis, large and wide open, is exhibited so as to show in part the rings of the trachea. But unfortunately, however dexterous we may be in disposing these organs, and even when we are most successful, at least the third part of the anterior of the glottis remains concealed by the epiglottis.

The movements of the glottis are then described:

As soon as we prepare to produce a sound, the arytenoid cartilages approach each other, and press together by their anterior surfaces, and by the anterior apophyses, without leaving any space or intercartilaginous glottis; sometimes even they come in contact so closely as to cross each other by the tubercles of Santorini. To this movement of the anterior apophyses that of the ligaments of the glottis corresponds, which detach themselves from the ventricles, come in contact with different degrees of energy, and show themselves at the bottom of the larynx under the form of an ellipse of a yellowish colour. The superior ligaments, together with the aryteno-epiglottidean folds, assist to form the tube which surmounts the glottis, and, being the lower and free extremity of that tube, enframe the ellipse, the surface of which they enlarge or diminish according as they enter more or less into the ventricles. These last scarcely retain a trace of their opening. By anticipation we might say of these cavities that . . . they only afford to the two pair of ligaments a space in which they may easily range themselves. When the aryteno-epiglottidean folds contract they lower the epiglottis and make the superior orifice of the larynx considerably narrower.

The meeting of the lips of the glottis naturally proceeding from the front towards the back, if this movement is well managed it will allow between the apophyses of the formation of a triangular space or intercartilaginous glottis, but one which, however, is closed as soon as the sounds are produced. After some essays we perceive that this internal disposition of the larynx is only visible when the epiglottis remains raised. But neither all the registers of the voice, nor all the degrees of intensity, are equally fitted for its taking this position. We soon discover that the brilliant and powerful sounds of the chest register contract the cavity of the larynx, and close still more its orifice; and, on the contrary, that veiled notes and notes of moderate power open both, so as to render any observation easy. The falsetto register especially possesses this prerogative, as well as the first notes of the head voice. (Let us here observe that three registers of voice are generally admitted—chest, falsetto, and head. The first begins lower in a man's voice than in a woman's; the second extends equally in both voices; the third reaches higher in the female voice.)

The formation of the voice is described as follows:

The voice is formed in one unique manner—by the compressions and expansions of the air, or the successive and regular explosions which it produces in passing through the glottis.

The ligaments of the glottis are situate about the mean level of the upper border of the cricoid, close the passage, and present a resistance to the air. As soon as the air has accumulated sufficiently it parts these folds and produces an explosion. But at the same instant, by virtue of their elasticity and the pressure from below being relieved, they meet again to give rise to a fresh explosion. A series of these compressions and expansions, or of explosions, occasioned by the expansive force of the air and the reaction of the glottis, produces the voice.

This theory, though now generally admitted for reeds, and undoubtedly evident in the liquid vein, the toothed-wheel of Savart, the syren of the Baron Cagnard Latour, etc., has not, to my knowledge, been yet applied to the glottis.

Garcia endeavoured to explain the formation of the different registers. After a detailed description of the laryngeal muscles, and their action on the cartilages and cords, he discusses the mechanism of the chest register.

When the arytenoid muscles have brought in contact the arytenoid cartilages, and closed the glottis, the voice may take two very different characters; nay, more, it will be produced in pitches widely apart from one another, and will give forth the chest, or falsetto registers, according as the fibres of the thyro-arytenoid attached to the vocal membrane are active or not. By the action of these fibres, as we have seen, this muscle raises the vocal membrane, and makes its apposable part thinner; whereas the lateral crico-arytenoid gives a rotary movement to the cartilage, which brings the apophyses into deep contact. This deep contact, which continues even after the apophyses no longer partake in the vibrations, gives a deep tension to the membranes, increases the depth of their contact (it is then that we feel the pinching of which we have spoken), and, as a necessary consequence, augments the resistance they present to the air. It is to the extent of this resistance that we attribute the formation of the chest register so distinct by its particular amplitude. To it we attribute also the slowness of the beats of the glottis, and the consequent low pitch of the sounds—a pitch which, even in the highest tenor voices, is at least an octave lower than the head notes of ordinary soprani.

In regard to the falsetto register he says:

When, on the contrary, the external fibres of the lateral crico-arytenoid muscle remain inactive, we produce the falsetto. The lips of the glottis, stretched by the horizontal bundle of the thyro-arytenoid, come in contact by their edge alone, formed at once by the ligament and the apophyses, and offer little resistance to the air. Hence arises the great loss of this agent, and the general weakness of the sounds produced here.

But as soon as we reach the sound *do*, the beats are produced by the ligaments exclusively, and we have attained the head register. It is certain, as we may deduce from the movement of ligaments, that then the vocal membrane is raised by the action of the fibres of the thyro-arytenoid muscle, and its surface is diminished to an edge; but we think that the external fibres of the lateral crico-arytenoid, which would prevent this movement, remain inactive. Then also the very decided tension, which the crico-thyroid muscle effects on the vocal tendons, and which accelerates their movements, takes place.

During the chest register, therefore, the vocal ligaments are stretched, and are in contact to an extent corresponding with the

[1] *Proceedings of the Royal Society*, from February 22rd, 1854, to December 20th, 1855, inclusive. Vol. vii, 1856, p. 399.

depth of the anterior apophyses of the arytenoid, whilst in the falsetto the edges alone of the ligaments are stretched and apposed; in both cases the sounds being formed, not by the actual vibrations of either the whole or part of the tendons, but by the successive explosions which they allow.

He goes on to deal with the pressure of the air and the mechanism of the different qualities of the voice. We have thought it well to give these extracts from Señor Garcia's paper in order to show what a thorough study he had made of the anatomy of the vocal apparatus and the physiology of the voice. The invention of the laryngoscope was not a happy accident, but the outcome of long thought, observation, and experiment, and the researches which he made with it were in the truest sense scientific.

THE CELEBRATION.

The formal celebration in honour of the distinguished centenarian took place at midday in the great room of the Royal Medical and Chirurgical Society's house in Hanover Square. The place was somewhat uncomfortably packed by a crowd of delegates of universities, learned bodies, laryngological and musical societies, old pupils, friends, and admirers of Señor Garcia. The room was tastefully decorated, and magnificent bouquets, presented by M. and Madame Marchesi, Madame Blanche Marchesi, and the Glasgow Society of Musicians, added greatly to the beauty of the scene but helped to make the atmosphere rather heavy. Among those present were the Marques de Villalobar (the Spanish Chargé d'Affaires), Madame Garcia, wife, and Miss Garcia, daughter of the centenarian; Professor Bernhardt Fraenkel (representing the Prussian Secretary of State for Public Instruction), Sir Felix and Lady Semon, Sir William Broadbent, Mr. John Sargent, R.A., M. Viardot, Sir A. Mackenzie, Mr. Macfarren, Mr. E. E. Cooper, Mr. Otto Goldschmidt; Mme. Blanche Marchesi, Mr. Santley, Herr and Frau Stockhausen, Signor Randegger, Hon. Spencer Lyttelton, C.B., Sir W. Parratt, Sir Hubert Parry, Dr. C. H. Lloyd, Sir C. V. Stanford, and a large number of British and foreign laryngologists. The entrance of Señor Garcia was greeted with loud cheers. He was bowed beneath the weight of years, but otherwise looked remarkably hale, and took a lively interest in the proceedings. He wore the insignia of the Honorary Commandership of the Royal Victorian Order, just conferred upon him by the King. He took his place on a chair of state placed on a daïs, where he sat alone in full view of the spectators.

Sir FELIX SEMON, Chairman of the Garcia Committee, in opening the proceedings, announced that the King had just been pleased to receive Señor Garcia at Buckingham Palace in order to express to him his congratulations and his recognition of all that Señor Garcia had done for medicine and music. At the same time the King had conferred upon him the Honorary Commandership of the Royal Victorian Order. His Majesty, at the conclusion of the interview, expressed a wish to be personally represented at the banquet that night, and said that he would desire his Lord in Waiting, Lord Suffield, to attend as his representative.

The Spanish Chargé d'Affaires delivered a congratulatory message from the King of Spain, in which he said the Spanish Government and people joined. In the name of his Majesty and of Señor Garcia's motherland he invested him with the Royal Order of Alfonso XII as a high reward of his merits and the services rendered to mankind through his science and labour. In conclusion he expressed hearty gratitude on behalf of Spain to all who had come and were represented there that day to honour Don Manuel Garcia as a glory to modern science.

The MARQUES DE VILLALOBAR then invested Señor Garcia with the Order amid loud cheers.

Professor FRAENKEL said that the man whom they were assembled to honour, who had devoted his best days to the teaching of singing, had not been content to attempt to discover the secrets of voice culture by sound alone, but had proceeded in a thoroughly scientific way. Through his genius he had thrown light on the hitherto dark places of the larynx and the source of the living human voice. He had thereby laid the sure foundations of the physiology of the voice. In recognition of his striking merits the German Emperor had conferred on him the Great Gold Medal for Science, and the Minister for Public Instruction had requested him to present that rarely-awarded distinction to Señor Garcia that day. He did so with the greatest pleasure as one who owed a very great debt of gratitude to the method of laryngoscopy invented by their honoured friend.

An address from the Royal Society was then presented by Sir ARCHIBALD GEIKIE (principal secretary), Professor FRANCIS DARWIN (foreign secretary), and Professor HALLIBURTON, F.R.S. The address, which was read by Professor HALLIBURTON, was as follows:

"The Royal Society of London join very cordially in congratulating Manuel Garcia on the celebration of his hundredth birthday.

"The President and Council recall with much pleasure the circumstance that the Royal Society afforded in their *Proceedings* (March 22nd, 1855) the medium for publishing to the scientific world the memorable paper in which Señor Garcia laid the foundation of the experimental study of voice production, and at the same time, through the laryngoscope, provided the starting-point for a new department of practical medical science.

"The Royal Society trust that Señor Garcia may still continue for years to come to enjoy in good health the esteem which his scientific achievement and his high personal character have brought him.

"Signed and sealed on behalf of the Royal Society for Promoting Natural Knowledge,

"WILLIAM HUGGINS,
"President."

Sir ARCHIBALD GEIKIE (as a corresponding member of the Prussian Academy of Sciences) read the following telegram from that academy:

> To the first investigator of the human voice by a new method which for all time has bestowed a single service on art, on science, and on suffering humanity, the Royal Prussian Academy of Sciences sends on his 100th birthday its most respectful congratulations.—WALDEYER, Secretary.

An address was next read from the University of Koenigsberg, which in 1862 conferred on Señor Garcia the honorary degree of Doctor of Medicine. A hope was expressed that he would live to receive the fresh diploma which it is the custom to confer on doctors of fifty years' standing.

The next address was from the Victoria University of Manchester, presented by Professor STIRLING, F.R.S., Dr. MILLIGAN, and Dr. S. MORITZ, followed by one from the Medical Faculty of Heidelberg.

The address from Señor Garcia's old pupils, among whom were Mr. Santley, Madame Blanche Marchesi, Herr and Fraulein Stockhausen, was read by Mr. BALLIN. In offering their sincere congratulations they said: "The services you have rendered to the art of singing are very great, and the large number of your pupils who have become famous is incontestable proof of your genius." Mme. BLANCHE MARCHESI spoke in the name of her parents, who were unavoidably absent, to express their gratitude for everything Señor Garcia had done for them. Their method and their success were due to Señor Garcia, who had laid the basis of their artistic career.

Mr. OTTO GOLDSCHMIDT, the husband of Jenny Lind, said that his late wife, to the end of her days, continued to have respect, regard, and veneration for Señor Garcia, who helped her to take the position in the musical world which she attained, and he was very happy indeed to be able to make that statement, and to congratulate the old master on what he had done for the great art of singing.

An address from the Royal Academy of Music was followed by one from the Royal College of Music.

Addresses and messages from laryngological societies and associations were then read, the following being among the bodies represented: The American Laryngological Association, the Belgian Society of Oto-Rhino-Laryngology (Dr. Delsaux, Dr. Goris, Dr. Broeckkaert), the Berlin Laryngological Society (Dr. Landgraf, Professor Kuttner, Professor Gluck), the British Laryngo-Oto-Rhinological Association (Mr. Chichele Nourse, Dr. Percy Jakins, Mr. Stuart-Low, Mr. Dennis Vinrace, Dr. Andrew Wylie), the Danish Laryngological Society, the French Laryngo-Rhino-Otological Society (Dr. Moure, Dr. Lermoyez, Dr. Toxier, Dr. Molinié), the Italian Laryngo-Rhino-Otological Society and Neapolitan School of Laryngology (Sir Felix Semon, hon. member, Professor Poli), the London Laryngological Society (Mr. Charters Symonds, Mr. de Santi, Dr. Davis, and Mr. H. B. Robinson), the Netherlands Laryngo-Oto-Rhinological Society (Dr. Moll, Dr. Burger, Dr. Kan, Dr. Zaalberg), the New York Academy of Medicine, Section of Laryngology (Dr. Harman Smith), the Paris Laryngological Society (Dr. C. J. Koenig, Dr. Mahu), the

Rhenish-Westphalian Laryngological Society (Dr. Hirschland), the St. Petersburg Laryngological Society, the South-German Laryngological Society (Dr. Avelis), the Spanish Laryngo-Oto-Rhinological Society and Academy of Medicine and Surgery (Dr. Botella, Dr. Tapia), the Vienna Laryngological Society (Professor Chiari), the Warsaw Laryngological Society, the West-German Laryngological Society (Dr. Fackeldey, Dr. Lieven), and the Hungarian Laryngological Society. Congratulatory telegrams were received from the Laryngological Societies of Sweden, Moscow, and Cracow; from the Amsterdam Medical Society; from the Medical Society of Japan; from Professor Moritz Schmidt, as President of the New German Laryngological Society; from Dr. Birkett, of Montreal, in the name of the students of M'Gill University; from Dr. French, of Brooklyn, and hundreds of others.

Dr. Botella, of Madrid, as the official delegate of the Spanish Government and of the Spanish Laryngological Society, said the invention of the laryngoscope had opened immense horizons to science, had put within its range many diseases the existence of which could never have been suspected, had made possible their treatment, and had saved from suffering and death numberless lives. The Spanish Government sent Señor Garcia its enthusiastic congratulations, and the Spanish Laryngological Society begged his acceptance of the diploma of "President of Honour." He brought a kind greeting from Spain to England—from Señor Garcia's native land to his adopted one. If the former gave him birth, the latter gave him shelter, and on that occasion both felt equally proud to have him as a son.

The address of the Laryngological Society of London, which was received with general and prolonged applause, was as follows:

"Dear and revered Master,—Amongst the many friends assembled to-day to lay a tribute of gratitude and admiration at your feet, and a greater number far away who are celebrating to-day's unique event in spirit, there can be none whose congratulations are more sincere or more cordial than those of the members of the Laryngological Society of London. We yield to none in our gratitude for your precious invention, the laryngoscope, which will keep your memory green through all ages. We, with the rest of mankind, admire in you the distinguished physiologist, the great musician, the teacher of so many celebrated singers; and we, amongst whom you have dwelt for so many years, have in addition had the great privilege of seeing you, our oldest honorary member, with us on many occasions and have learnt to appreciate in you the true friend, the courteous gentleman, the charming speaker. You have been permitted to retain all your brilliant faculties to patriarchal age, and to-day to celebrate your 100th birthday in undiminished vigour of mind and body. That this happy state may continue for many years to come, and that we may often have the pleasure and privilege of seeing the venerable father of laryngoscopy amongst us, is the sincere wish of your devoted friends, the members of the Laryngological Society of London.—Charters J. Symonds (President), Philip R. W. de Santi (Secretary)."

Sir F. Semon said that there was a large number of telegrams of congratulation, and that in the midst of the great strife which was going on between two great nations neither of them had forgotten a great benefactor. In addition to the congratulations from St. Petersburg and Warsaw already announced, telegrams had been received from the Moscow Laryngological Society and from the Medical Society of Japan.

Several of the foreign societies, including the Netherlands and the Vienna societies, announced that they had conferred their honorary membership upon Señor Garcia.

The programme was brought to a conclusion by the presentation to Señor Garcia of his portrait, painted by Mr. Sargent, R.A., and subscribed for by international contributions of friends and admirers.

The members of the Garcia Centenary Celebration Committee came forward to make the presentation. They were Sir Felix Semon (Chairman), Dr. E. Furniss Potter, and Mr. P. de Santi (Honorary Secretaries), Dr. E. Cresswell Baber, Dr. Barry Ball, Mr. J. S. Ballin, Mr. A. Bowlby, Mr. H. T. Butlin, Dr. H. J. Davis, Dr. J. Donelan, Dr. J. Walker Downie, Dr. F. de Havilland Hall, Dr. Percy Kidd, Dr. W. Hill, Mr. L. A. Lawrence, Dr. McBride, Dr. Milligan, Dr. Pegler, Dr. Permewan, Mr. H. B. Robinson, Mr. Charters J. Symonds, Dr. StClair Thomson, and Dr. F. Willcocks. Mr. W. R. H. Stewart, the Honorary Treasurer, was prevented by illness from attending.

Luncheon to the Visitors.

Dr. StClair Thomson entertained the foreign visitors and a large number of British laryngologists at luncheon at the Automobile Club, Piccadilly. The party numbered sixty in all. Among the foreign guests were Professors Fraenkel, Glück, and Kuttner, and Dr. Landgraf, of Berlin; Dr. Lieven of Aachen; Dr. Avellis of Frankfort-on-the-Main; Professor Chiari of Vienna; Drs. Lermoyez, Mahu, and Koenig of Paris; Dr. Moure of Bordeaux; Dr. Texier of Nantes; Dr. Molinié of Marseilles; Drs. Delsaux and Goris of Brussels; Dr. Brockaert of Ghent; Drs. Burger and Zaalberg of Amsterdam; Dr. Moll of Arnheim; Dr. Kau of Leyden; Professor Poli of Genoa; Drs. Botella and Tapia of Madrid; and Dr. Harman Smith of New York. Among the British guests were Sir Felix Semon, Dr. Edward Law, Dr. Dundas Grant, Professor Urban Pritchard, Dr. de Havilland Hall, Dr. Tilley, Mr. Waggett, Dr. Pegler, Dr. W. Hill, Dr. Furniss Potter, Dr. Scanes Spicer, Dr. Leonard Williams, Dr. H. Davis, and Dr. Curtis Webb, of London; Dr. McBride and Dr. Mackenzie Johnston of Edinburgh; Dr. Woods of Dublin; Dr. Milligan and Dr. Westmacott of Manchester; Dr. Bennett of Leicester; Drs. Walker Downie and Brown Kelly of Glasgow; Dr. Smurthwaite of Newcastle; Dr. Middlemass Hunt and Dr. Permewan of Liverpool; Dr. Bronner of Bradford; and Dr. Hutchinson of Brighton. Professor Chiari expressed on behalf of the visitors their thanks to their host for the bounteous and cordial hospitality with which they had been treated, and Dr. StClair Thomson made a graceful acknowledgement concluding with the happy phrase *La politica ci divide, la scienza ci unisce* (Politics divide us, science unites us) which was received with marked approbation.

Meeting of the Laryngological Society of London.

In the afternoon a special meeting of the Laryngological Society of London was held, at which all the foreign medical guests were present. Mr. Charters Symonds, the President, and afterwards Dr. Barry Ball, a Vice-President, occupied the chair. The President opened the meeting with some words of welcome to the visitors among whom were three Honorary Members of the Society—namely, Professor B. Fraenkel of Berlin, Dr. Lermoyez of Paris, and Dr. E. J. Moure of Bordeaux.

Mr. C. A. Parker exhibited a case of tuberculosis of the larynx in a woman aged 31. The interest of the case was in its relation to the patient's pregnancies. The disease commenced during her fourth pregnancy, since which she had been pregnant five times. On three occasions the child was born alive, and on two occasions she had miscarriages.

Cases illustrating the results of radical operations performed for the cure of chronic empyemata of the frontal and other nasal accessory cavities were exhibited by Dr. Herbert Tilley. Mr. Cresswell Baber inquired how long the tube was left in the fronto-nasal duct after a radical operation upon the frontal sinus. Dr. Tilley replied that in the after-treatment the tube was removed last, and that the result depended largely upon the time and trouble expended upon the after-treatment by the surgeon.

Mr. de Santi exhibited a case of pharyngo-laryngeal epithelioma in a woman, aged 35. The case was shown to the Society in January as doubtful tuberculous disease, in February as undoubted malignant disease, and condemned as inoperable; it was shown again on the present occasion for opinions as to operative treatment. Dr. E. J. Moure (Bordeaux) doubted the diagnosis of malignant disease, and pending a definite expression of opinion upon the portion which had been removed for microscopic examination, he was disposed to regard the case as one of tertiary syphilis, and to advise a course of antisyphilitic treatment prior to any surgical procedure. Professor Gluck (Berlin) considered that the malignant nature of the tumour was not decided. Professor Chiari (Vienna) was also in favour of obtaining the opinion of a microscopist before proceeding to an operation. Mr. de Santi replied that there had been a difference of opinion about the microscopic structure of the growth.

Dr. Purves Stewart (introduced by Mr. de Santi) demonstrated a case of unilateral congenital lesion of the medulla and spinal cord. There was arrest of development of the right half of the lower jaw, deformity of the right ear, absence of the right mastoid process, paralysis of the right half of the soft palate, tongue, and larynx, and absence of several muscles of the neck and larynx. There was absence of the right spinal accessory nerve and deficiency of the lower part of the right vagus nucleus, and absence of the right hypoglossal nerve.

Sir Felix Semon demonstrated the patient, specimen and microscopic preparation of a case of soft fibroma of the larynx and neck removed by an external operation without opening the cavity of the larynx. The case was reported in the British Medical Journal of January 7th. Professor Chiari referred to a similar case in which the same operation had been performed, and spoke in favour of the minor operation.

The President (Mr. Charters Symonds) demonstrated the patient and specimen of a successful case of total laryngectomy for malignant disease.

Dr. StClair Thomson exhibited a patient upon whom laryngo fissure had been performed for epithelioma eight months previously, and in whom no recurrence had taken place. In the discussion which followed there was a general consensus of opinion that eight months was not a sufficient interval to permit of an opinion about the probability of recurrence. Dr. Botella considered that at least two years, or even three years, were necessary. Professor Gluck cited a case in which there was a recurrence in the opposite side of the larynx after a lapse of eight years. Sir Felix Semon considered that after the larynx had remained free for one full year recurrence was improbable. Dr. E. J. Moure inquired whether the cannula had been removed immediately after the operation. The case was also discussed by Dr. Walker Downie and Mr. de Santi. Dr. StClair Thomson replied that no cannula was left in. He also showed a case of primary lupus of the larynx (quite healed) and of the pharynx (nearly healed) in a female aged 22; and a case in which cerebro-spinal fluid escaped from the nose.

Dr. Edward Law showed a case of incrustation in the trachea, with, at times, well-marked stenosis. Professor Chiari suggested the term tracheitis sicca for the condition, the cause being unknown. Dr. Law, in reply, said that the patient had undergone a course of treatment for seven weeks in the Oxygen Home, and that the symptoms had materially improved.

Dr. Atwood Thorne and Dr. J. R. Lunn exhibited a case of epithelioma of the nose; Mr. H. B. Robinson one of cicatricial diaphragm of specific origin passing from the posterior third of the tongue to the posterior wall of the pharynx, and Dr. Dundas Grant one of supposed pharyngeal pouch opening into right hyoid fossa, with a Roentgen radiograph showing the pouch when filled with bismuth.

A case of fixation of the left vocal cord and pulsating aortic aneurysm, exhibited by Dr. H. Davis, elicited some interesting opinions as to the significance to be attached to the fixation of the left vocal cord in the absence of any signs to account for it. Dr. Permewan stated that paralysis of the left vocal cord lasting for any considerable time without any signs was due to aneurysm of the arch of the aorta in the vast majority of cases. Dr. FitzGerald Powell dissented, and considered that such a dictum should not be allowed to go forth unchallenged. Dr. Jobson Horne said that his experience coincided with the statement made by Dr. Permewan, but added that he would not regard the search for signs complete without a radiograph of the thorax. Dr. Horne cited amongst the exceptions to the statement cases of implication of the left recurrent laryngeal nerve in a deep-seated new growth or enlarged lymphatic glands, and referred to one such case he had shown to the Society. Dr. Westmacott mentioned cases of children, brought on account of hoarseness, with fixation of left vocal cord. It was subsequently stated that the remarks by previous speakers were made with reference to adults. Dr. Watson Williams concurred with the views expressed by Dr. Permewan and Dr. Jobson Horne. Dr. Dundas Grant considered that alcohol would at times account for the condition under discussion. Dr. H. Smurthwaite mentioned three cases in which fixation of a vocal cord—the left in two and the right in one—occurred without signs to account for it, and in which *post mortem* the recurrent nerve was found fixed in adhesions to enlarged glands.

Dr. Lambert Lack exhibited a case in which an extensive operation had been successfully carried out for the removal of epithelioma of the epiglottis, glosso-epiglottic fold, and base of tongue with glands in both anterior triangles, and a similar case for removal of epithelioma of right arytaenoid and ary-epiglottic fold extending on to the wall of the pharynx. Dr. Herbert Tilley said that these cases had been regarded as inoperable, but the results showed that surgery could deal with them successfully.

Mr. H. Barwell showed two cases of tuberculous laryngitis which had healed under treatment.

Dr. Watson Williams exhibited a case of posterior ethmoidal and sphenoidal sinus disease in which the cells had been laid open and drained free of pus.

In connexion with the meeting there was an interesting exhibition of pathological specimens relating to the throat and nose, arranged by Dr. Pegler, Curator to the Society. Of the five-and-twenty macroscopic specimens of diseases of the larynx the following may be mentioned as being of particular interest: Diffuse pachydermia of the larynx, which was one of the earlier specimens exhibited to the Society by the late Professor Kanthack and Dr. Jobson Horne, lent by St. Bartholomew's Hospital Museum. From the same museum there was an interesting specimen of carcinoma of the larynx on the under surface of the vocal cords, contributed by Mr. Butlin. St. Thomas's Hospital Museum lent the specimen of carcinoma of the larynx from the case of the late Mr. Montague Williams. There was an interesting series of specimens illustrating diseases of the nose and the accessory cavities, and also of the naso-pharynx and oesophagus, nearly all of which were drawn from St. Bartholomew's Museum, and included the specimens from Mr. Butlin's cases of oesophageal pouches. From the Guy's Hospital Museum was a specimen of carcinomatous structure of the oesophagus, from a man under the care of Mr. Charters Symonds, who was kept alive in comparative comfort by means of intubation for eight months, and died of gangrene of the lung; and one of carcinoma of the larynx which was completely extirpated by Mr. Charters Symonds. Dr. William Milligan exhibited some photomicrographs of new growths occurring in the upper air passages. The curators of the museum of the Royal College of Surgeons and of those of the general and special hospitals were most obliging in placing their most interesting specimens at the disposal of the Society, and Dr. Pegler is to be congratulated on the excellent manner in which the exhibition was arranged.

The Banquet.

In the evening Señor Garcia was entertained at a banquet in the Hotel Cecil. More than four hundred were present, and the company included many ladies. Mr. Charters J. Symonds was in the chair; the King was represented by Lord Suffield, and among those present were the Spanish Chargé d'Affaires, Señor Garcia, Sir Felix and Lady Semon, the foreign delegates, Sir William Broadbent, Sir. R. Douglas Powell, Sir Lauder Brunton, Sir Anderson Critchett, Sir James Reid, Dr. McBride, Dr. Edward Law, Mr. H. Wakley, Professor Urban Pritchard, Dr. StClair Thomson, Dr. Dundas Grant, Dr. Mackenzie Davidson, Dr. Woakes, Dr. Donelan, Dr. Bond, Dr. Milligan, Dr. Cresswell Baber, Mr. de Santi, Dr. Furniss Potter, Dr. Pegler, Dr. Clifford Beale, Professor Halliburton, Professor Stirling, Sir George White, Mr. John Sargent, M. Viardot, Sir L Alma-Tadema, Sir E. Elgar, Sir C. V. Stanford, Sir A. Mackenzie, Sir H. Parry, Sir W. Parratt, and Sir F. Bridge. Lord Lister would have been present had the state of his health permitted.

The Chairman, in proposing the toast of "The King," said His Majesty was always the foremost in every way in the recognition of merit, and that day he had anticipated their function, and had received Señor Garcia personally, and conferred upon him a great honour—the Commandership of the Royal Victorian Order. His Majesty, in honour of Señor Garcia, had also sent Lord Suffield there as his representative.

The toast having been loyally honoured, the Chairman said that two other European sovereigns had combined with our own King to confer honour on their guest. His Majesty the King of Spain had sent Señor Garcia the Grand Cross of the Order of Alfonso XII, and also a message which he would call on the Spanish Chargé d'Affaires to read.

The Marquis de Villalobar said it gave him great pleasure to convey to his illustrious compatriot the message which His Majesty the King of Spain had sent to him just now through his Minister of Foreign Affairs. It was as follows:—"By command of His Majesty the King, congratulate personally Señor Garcia on the day of the celebration of his 100th birthday. Convey his royal best wishes to the grand old Spaniard who, by his invention and works, has glorified and exalted the name of Spain."

The Chairman, resuming, said he had heard a whisper that the honour conferred by the King of Spain carried with it the title of His Excellency, so that in future they might regard their dear old friend as His Excellency Señor Garcia. Again, His Majesty the German Emperor, mindful of the benefit which he himself not long since obtained from the knowledge of the instrument invented by Señor Garcia, had conferred upon him a great distinction. It had been brought

to London by the most distinguished laryngologist in Germany—Professor Fraenkel. It was the medal which was called the Great Gold Medal for Science. They would appreciate its importance when he said that previously it had only been conferred upon Professor Virchow, Professor Koch, Ehrlich, and Mommsen. These three Sovereigns had that day combined to recognize in Señor Garcia the ability which had influenced science and art in all countries. He gave them the toast first of the King of Spain, and then of the German Emperor.

The toasts having been honoured, Sir Felix Semon said: My dear and revered Master, ladies and gentlemen,—About ten years ago a charming collection of letters was published from the pen of the late Professor Billroth of Vienna, the most intimate friend of Brahms, and a man hardly less distinguished as a musical connoisseur of the very first rank than as one of the leaders of modern surgery. In the first of these letters, addressed to his mother from Göttingen, where he was then studying medicine, young Billroth describes in most enthusiastic language the deep impression which the singing of Jenny Lind, then in the zenith of her fame, had made upon his susceptible heart. "Such singing," he declares, "I should not have considered possible." That letter was written in February, 1850, more than fifty-five years ago. Since then the great surgeon has gone to his rest full of years and honours. The "Swedish nightingale," alas, is no longer with us. But the man who taught her that singing, which Billroth had believed to be unattainable, Manuel Garcia, the honoured guest of this evening, is still amongst us, in undimmed vigour of body and mind, on the day which completes his 100th year of life. It is a solemn, an almost awe-inspiring thought, ladies and gentlemen, that a man who was born when Napoleon's power was at its height, whose first recollections of life go back to the Peninsular war, who was a grown-up man when Beethoven and Goethe died; who has witnessed the political evolutions and revolutions, as well as the wonderful development of steam power, of electricity, and of natural sciences and industry, which have been the signature of the nineteenth century, should have been spared by a merciful Providence to receive on his 100th birthday the tribute of admiration which his grateful contemporaries to-night lay at his feet. To very few human beings is it given to attain the patriarchal age of 100; fewer still live to that age in full possession of their mental and bodily faculties; rarest of all is it that men, who have made their mark in the world, should thus be favoured. In our own days I know of two similar instances only, the centenaries of Sir Moses Montefiore and of Professor Chevreul. Our honoured guest to-day completes the triad. But there is a notable difference between the careers of these three men. Whilst Sir Moses Montefiore and Professor Chevreul were each acclaimed by one section of the community only, as venerable champions of good causes—Sir Moses by the philanthropists, Professor Chevreul by the chemists—we witness to-night the unusual spectacle that two liberal professions, which whilst always friendly, yet ordinarily have few points of contact with one another—music and medicine—unite and vie with one another to do honour to our great centenarian. How has this come about? That his brother musicians should wish to show their admiration for Manuel Garcia is not extraordinary. Our guest is the scion of a family the reputation and traditions of which have for fully one hundred years been indissoluby connected with the history of singing. His father, Manuel Garcia, the elder, was equally distinguished as a great singer, as a prominent composer, and as the prince of teachers of singing of the first half of the past century. His sisters, stars of the first magnitude on the firmament of singing, are two ladies, whose fame has outlived the, alas, usually but too brief celebrity of executants, however distinguished, Pauline Malibran and Mathilde Viardot. He himself, a worthy follower of his father's, has done an immense deal to advance the art of singing, and has been the teacher of many of the most celebrated artists of our own period. The fact that he first brought order into the confusion which existed before him between timbres and registers; his anatomical studies of the rôles played by some of the laryngeal muscles in producing the singing voice; his investigations of the mechanism of the scale, and of the part played by the external muscles and of the action of the soft palate in varying the qualities of the voice alone would suffice to earn for him the gratitude of every earnest lover of the noble art of music, a debt still further increased by his splendid *Method of Singing*, published more than sixty years ago and still a standard work. But equally great are his claims to lasting fame through that practical and sound instruction which he gave to so many great singers of the second half of the last century, whose names are household words to all of us. Manuel Garcia is the teacher of Jenny Lind, of Mathilde Marchesi, of Johanna Wagner, of Antoinette Sterling, of the Misses Macintyre, Orridge, Larkom, Thudichum, of Julius Stockhausen, of Salvatore Marchesi, of Bataille, and of Charles Santley. A grand record, indeed, for a teacher! And what must fill him with special gratification at the close of his great and brilliant career is that he has created a school. He himself in his country has educated pupils, who will perpetuate those great principles of which he has been so successful an exponent. In France, Madame Marchesi, the unrivalled teacher of many of the greatest singers of the present day, continues to add glory to the name of her revered master, and we deeply regret that she and her husband—doyen of all Señor Garcia's pupils—should have been prevented, through an indisposition of the latter, from carrying out their intention of being present with us to-night. In Germany, Julius Stockhausen, the acknowledged exponent of the art of singing, who is represented here to-night by his son and daughter, as he himself is unfortunately too infirm to venture upon the long journey, is the bearer of the traditions of the Garcia school. To have one's teaching thus perpetuated at the close of one's own career is, to my thinking, the most pleasing record which any intellectual worker could aspire to. Even if, in the course of time, as in all human arts and sciences, further development takes place and not every detail once taught by the master remains unshaken, yet the foundations laid and the sound principles developed by him will continue to flourish and to contribute towards the intellectual enjoyment of generations to come. Whilst thus the name of Manuel Garcia will remain engraved for ever upon the roll of music, he has acquired for himself even greater fame as a benefactor of the human race, and here I come to the reason why not only his own profession, but also the representatives of medicine, and indeed, an even greater circle of admirers, should lay a tribute of gratitude at his feet to-day. When occupied with the solution of the problem of the production of sound in the human larynx, which engaged his attention for so many years, his scientific mind was irresistibly drawn to the conclusion that for the unsatisfactory theories which were in vogue in the middle of last century facts ought to be substituted—facts only to be gained by the inspection of the living larynx engaged in the act of singing. He was unaware that this problem had occupied the attention of medical minds for nearly a century, and that although several of his predecessors had been near enough to solving the riddle, they had all curiously fallen short near the goal. He approached the question, How to make the larynx accessible to actual inspection, as a complete autodidact, and it was only after many years of thinking that, all of a sudden, one day in 1854, when strolling in the Palais Royal, he saw in proper position before his mind's eye the two mirrors, by the suitable arrangement of which it is possible to throw light into the throat of a person, and to reflect, from a little mirror held in it at a proper angle, light into the larynx. He rushed, as he has himself described in a charming fragment of autobiography, to Charrière, the well-known French instrument maker, and bought of him, for six francs, a dental mirror, which had been one of the failures of the London Exhibition of 1851. Having procured a hand glass, he hurried home, warmed the little mirror, placed it in his own throat below the uvula, threw the rays of the sun by means of the hand glass upon it, and had the intense satisfaction of seeing, at his first attempt, his own glottis wide open! When he had sufficiently recovered from his excitement, he began patiently to study the phenomena, which took place under his eye, and presented the result of his investigations to the Royal Society in a paper entitled "Physiological Observations of the Human Voice," which was published on March 22nd, 1855. This was the birth of an idea which revolutionized our knowledge of the larynx in health and disease, and, as I have just shown, five days only separate the centenary of the inventor from the jubilee of the publication of his great invention.

His communication, it is true, at first did not command the interest it deserved, and it was only two years later, when the volume of the *Proceedings of the Royal Society* containing his paper fell into the hands of the late Professor Türck, of Vienna, that that gentleman realized that the invention, intended for the elucidation of physiological problems only, might also be made useful for the study of numerous and important diseases of the vocal organs. But

even he did not grasp at first to the full the potentialities of Señor Garcia's great discovery. The matter was then taken up by the late Professor Czermak of Buda-Pesth. A fierce fight for priority arose between the two Austrian savants, which, whilst not pleasant in itself, had the desirable effect of drawing the attention of the medical world, sooner than would probably otherwise have been the case, to the new instrument of precision. True that even then it was for some time derided as a "physiological toy," but the victorious force of truth was stronger than all prejudice. Gradually medical men came to see that a new and powerful means of doing good had been placed into their hands, and laryngology came to be recognized as an important and legitimate branch of medical science. It is no figure of speech, but a mere statement of actually demonstrable facts, that since then millions of human beings have been benefited by Manuel Garcia's great invention. To give but one illustration: trustworthy statistics tell us that every seventh human being dies from tuberculosis, and every fifth person suffering from pulmonary tuberculosis is afflicted with some laryngeal complication. Señor Garcia's little mirror enables us to recognize such complications at an early period; and if not, alas! in all cases to cure, yet in almost all to relieve and assuage them. Thus with regard to this one fell disease only fully three per cent. alone of the human race have reason to bless Garcia's name. But it is not only with regard to tuberculosis but to numerous other affections of the larynx that similar conditions obtain, and, in fact, they extend far beyond the local affections of the part, as in many cases the discovery of certain laryngeal changes enables us at an early period to diagnose important general diseases, more particularly affections of the brain and within the chest. From mere inspection to successful treatment of these affections there was but one step. Intralaryngeal medication and surgery soon followed the discovery of the diagnostic properties of the laryngoscope, and its principles were extended towards the elucidation and treatment of the diseases of the parts situated between the nose and throat. Seeing the frequency and importance of all these affections, it is no exaggeration to say, as I have done, that Manuel Garcia has become a benefactor of mankind. That, ladies and gentlemen, is the reason why to-day, with his own profession, representatives of medicine join in gratefully laying a tribute of gratitute and admiration at his feet; why mighty rulers, why learned societies have sent representatives and deputations from all parts of the world, to tell him on the unique day which we are celebrating here how thankful we all are to the discoverer of the laryngoscope, and to testify to the fact that Manuel Garcia has erected for himself "a monument that will outlast brass, that will o'ertop the pyramids of kings." I feel sure that never was there any occasion when those participating in a public function rose to their feet with greater enthusiasm, with more sincere feelings of gratitude and admiration, than you will do now when I ask you to drink with me to the health of Señor Manuel Garcia, and to wish him many more years of life in equal possession of mental and bodily vigour as that enjoyed by him at present. I give you the "Health of Manuel Garcia."

The toast was drunk with enthusiasm, and the company sang "For he's a jolly good fellow."

Señor Garcia, who was almost overcome by emotion, said in response: Words, one has said, are given us to conceal our thoughts. They will admirably fulfil that purpose if you take mine as a full and complete expression of my feelings on this extraordinary occasion. But words, whatever use we make of them, are not mere masks. They are living things, intensely living things to some, to those of us who hold the magic ring that makes them slaves. They are as mighty friends, friends such as you to me, who from the ocean depths of your indulgence fling back to me my own poor and trivial deeds, transfigured into something "rich and strange."

At this point Señor Garcia, who had become almost inaudible, and who was evidently somewhat exhausted by fatigue and excitement, handed the MSS. of his speech to the Chairman, who read the remainder as follows: There are so many of you to be greeted, old friends out of the past, old pupils, comrades, children! Ah, children! Sixteen societies of laryngologists, and mostly come of age, calling me "father!" They will have it so, and I am pretty proud of the title, I can tell you. Well, do you think one solitary man could find fit words to answer all these voices? But you can do it for me. There is an old story some of you may remember, which when I read it changed the aspect of things for me by its very name, for that was a stroke of genius, *Put Yourself in His Place*. What a different world it would be if we all did that. Well, you try now. Try hard. Think yourselves each 100 years old to-day. Not the ladies, I will not ask them. Though they may come to that they will never look it, and they will never know it, and no one will ever believe it. But you men can try. Fancy you each have lived 100 years, and woke to-day to find yourself surrounded by kindly clamorous voices, "troops of friends." What would you say? I think you would say nought. Only the infinite nought which circles all things could give an adequate answer to you all. I shall say nought to this great master of the brush, Mr. Sargent, who with two creative touches in a moment brought life from void. It is a strange experience to see one's seeming spring out at one from nothing in a flash. I shall say nought to this rash friend of mine (Sir Felix Semon), who into the midst of a busy life crammed all the work and worry of the labour of love that has brought you here to-day; nought to the friends so very near my heart, the Laryngological Society of London, and the chosen band whose really terrible labours it fills me me with remorse to think about—the members of the Garcia Committee. I shall say nought, nought, nought to all of you, except just this. "God bless you every one."

The Chairman proposed "Our Foreign Guests," for whom Herr Emanuel Stockhausen (son of one of Señor Garcia's most distinguished pupils), Dr. Puttner, Dr. Harman Smith, Dr. Goris, Dr. Lermoyez, Dr. Poli, Dr. Botella, Dr. Burger, and Professor Chiari responded. During the dinner a number of congratulatory telegrams were received. Among them was one from the Prime Minister to the following effect: "I send heartiest congratulations.—Arthur Balfour."

Between the speeches of the foreign delegates, which were delivered in various tongues, Madame Blanche Marchesi, Miss Ada Crossley, Mr. Ben Davis, and Mr. A. Oswald delighted the audience with some admirable singing.

An Act of Reparation.

There are some points in connexion with this most interesting occasion that should not be left unnoticed. It is a sad and somewhat shameful truth that, considering the vast importance of his invention, Señor Garcia has received singularly little recognition from scientific bodies. The only distinction of the kind which he has hitherto received is the Honorary Doctorate of Medicine conferred upon him by the University of Königsberg in 1852. The Monthyon Prize was divided by the Paris Academy of Science between Türck and Czermak, while the real discoverer was left unhonoured. His name is conspicuous by its absence in the list of the many worthies whose lives are written, more or less accurately, in the *Encyclopaedia Britannica*. The recent celebration, which was organized and entirely managed throughout by Sir Felix Semon and Mr. Charters Symonds, ably assisted by the Treasurer, Mr. W. R. H. Stewart, and the Honorary Secretaries, Mr. de Santi and Dr. Furniss Potter, may be taken as a tardy, though none the less hearty, act of reparation on the part of the medical profession.

Demonstration by Professor Glück.

On Saturday afternoon Professor Glück (Berlin) demonstrated in the rooms of the Royal Medical and Chirurgical Society the recent improvements in his method of total laryngectomy for malignant disease, which is frequently combined with pharyngectomy and partial oesophagectomy. He showed a patient whom he had brought with him from Germany from whom all the parts named had been removed, and who to all appearance was well and in good spirits. The man speaks in an audible whisper with a voice of the quality known as "pharyngeal," and without difficulty swallowed water through an apparatus which Professor Glück stated he had worn for more than a year.

Receptions and Entertainments.

On Saturday evening a reception of the foreign delegates and a number of British laryngologists was held by the President of the London Laryngological Society and Mrs. Charters Symonds at their house in Portland Place. Much private hospitality was also extended to the visitors. On Saturday evening Dr. and Mrs. Law gave a large dinner party, and on Sunday evening Sir Felix Semon entertained the foreign delegates and a number of prominent British laryngologists at dinner at the German Club, while at the same time the ladies were entertained by Lady Semon in Wimpole Street. The gentlemen's dinner was graced by the presence of His Excellency Señor Garcia, who was in the best of spirits, and looked remarkably well. He repeatedly declared that he felt quite

at home among the laryngologists. He told many interesting stories of his early days, and once in trying to fix the time of some reminiscence he said, "Oh, about twenty-three or thirty years ago: I do not like these little dates!" With the greatest good nature, he signed his name on some forty menu cards. The following is the text of his speech, which we have the privilege of reproducing from the original holograph:

Sir Felix and Gentlemen,—Vous ne vous attendez pas, sans doute, à ce que je fasse un discours. Si j'ose prendre la parole, c'est pour vous exposer, en quelques mots, une pensée qui m'obsède et que le grand éclat donné à la présentation qui a eu lieu a fait naître dans mon esprit.

Le rôle des personnages qui ont figuré dans cette célébration aurait du être interverti; les félicitations, les compliments vous appartiennent, et c'est à vous et a vos sociétés qu'ils auraient du être adressés.

Il est de tout évidence que le petit instrument doit les succès qu'il a obtenus absolument et uniquement à vous, Messieurs, et aux associations sur lesquelles vous présidez. Privé du puissant appui de votre science, il serait tombé dans un oubli complet (*et ego quoque*).

Par suite je me considère comme un usurpateur insigne qui accepte ce qui, en réalité, vous appartient, et c'est par acquit de conscience que je le confesse.

Ne pouvant pas changer ce qui est, je termine ces mots en exprimant ma très vive reconnaissance aux sociétés laryngologiques que vous représentez et à vous, Messieurs, qui, sans souci des inconvénients des voyages, êtes venus de tous pays, même les plus lointains, pour féliciter le centenaire et, plus encore, pour l'honorer de leur approbation scientifique. Ainsi comblé, saura-t'il jamais manifester l'intensité de son appréciation, de sa reconnaissance?

Je ne pourrais conclure ces remarques sans exprimer mon admiration pour Sir Felix Semon, dont l'infatigable persévérance, unie à une rare puissance d'organization, a réussi, à travers de nombreux obstacles, à organizer cette grande démonstration, inspirée uniquement par le désir d'honorer un vieil ami. Merci: encore, Merci!

After dinner the gentlemen joined the ladies in Wimpole Street, where meanwhile all the laryngological world of London and his wife had gathered. A very enjoyable evening was spent, the climax of festivity being reached when the grand old centenarian quaffed a large glass of German lager beer at midnight. We are pleased to be able to state that Señor Garcia is none the worse for all the excitement and fatigue of the celebration of his 100th birthday.

THE TEACHING OF HYGIENE IN SCHOOLS.

No. XV.—Physical Exercises.

The teaching of physical exercises in elementary schools was only introduced into England in 1889, nineteen years after the system of universal education had been in force; as such teaching was already in full swing in many Continental countries, we had, as usual, the advantage of following what was at the time considered the best system. Instructional classes were formed where teachers were prepared to teach physical exercises to their classes. At first the Swedish system was taught, but later a so-called "English" system, modified and adapted from the different methods in other countries of Europe, was introduced into boys' schools, and was taught there until the syllabus prepared by the Inter-Departmental Committee on the model course of physical exercises was issued in 1904. This Committee was appointed in consequence of the report of the Royal Commission on Physical Training in Scotland. We are told in the introduction that "most of the exercises in the new syllabus are common to several of the systems at present found in operation in the schools. The difference, where it exists, is for the most part in unimportant details, and it would probably cause but little trouble in most cases to conform in all respects to the directions of the syllabus." As a matter of fact, the system advocated for universal use has existed in girls' schools, under the name of the Swedish system, for some ten or twelve years. The advantages of a universal system cannot be denied, for children and teachers, if they move from one district to another, are at once able to take up the work where they left it.

The question is whether the Swedish is the best possible system. The Royal Commission on Physical Training in Scotland stated that it was defective on account of its tendency to "staleness" and monotony. The report gives the following summing up of the evidence on this point:

"The Swedish system, admirable in theory and nearly perfect in its adaptation of certain exercises to attain certain results, is stated to be defective, inasmuch as it is exhausting, and tends to 'staleness' if thoroughly carried out, and its lack of interest and variety renders it unsuitable as a system to be pursued throughout nine years of school life. But selected exercises from it should form part of a wider and more varied whole."

The avoidance of monotony in physical exercises is one of the most essential points; once allow a child's attention to wander and it loses all the benefit of a lesson. The Swedes themselves admit that their system is appallingly monotonous, although it embraces 2,500 different movements, and it is on this score that it is especially open to criticism.

It is obvious that among the multitude of men and women teachers, all cannot teach physical exercises with an equal degree of efficiency. Swedish exercises above all others require energetic and competent teachers, and it is only too noticeable that many of the girls' classes are inclined to lack smartness and alertness.

The Committee has wisely left a freer hand to teachers, and invites them to apply their minds to the consideration of principles and to offer suggestions for the improvement of the syllabus. This is a step in the right direction, for to be treated as thinking human beings instead or mere machines is the very best way to arouse interest.

The Committee also recognize that physical exercises form a part of hygiene. We quote from the report:

"9. It has been forced upon the Committee in the course of their deliberations that, important as the question of physical exercise for schools is in itself, it is only part of a much larger question—namely, that of school and personal hygiene. The construction of a suitable course of exercise is conditioned throughout by considerations relating to the health of the children. We have indicated in the introduction that certain children ought at times, or altogether, to be excluded from participation in the exercises. We have also indicated our opinion that mere exclusion is not enough. Every case of insufficient feeding or constitutional weakness ought to be reported without delay to the local authority in order that the local authority may at once take steps to investigate the circumstances and apply a remedy, if a remedy is possible. It is obvious that the decision as to the exclusion of children must necessarily be made in the first place by the teacher on his own responsibility. It will probably be found that the more experienced teachers will be able to make the selection without any difficulty, but as regards future teachers we suggest that suitable instruction in the laws of health and in the outward signs of physical and mental weakness should receive a much more prominent place in the general scheme for the training of teachers than appears to have been the case hitherto. For this purpose no mere book-work instruction, such as may be necessary for passing written examinations in physiology and hygiene, is sufficient. The instruction should include a certain amount of, so to speak, clinical experience. The students should be made acquainted practically with the indications of normal health and normal physique, and taught how to recognize probable deviations from this standard. They should be able to recognize such signs of defective nutrition and such defects of sight, hearing, and breathing as require medical attention. They should also be familiar with the signs of fatigue, physical or mental, which to the experienced teacher are the gauge on which he keeps his eye in regulating the work of a class. In short, they should have practical experience of many of those forms of investigation which are grouped under the heading 'Child Study.'

"10. It is obvious, however, that the amount of study of this nature which can possibly be included in the ordinary course of training for teachers will not enable them to do more than select those cases which apparently require further investigation. That further investigation must be made by fully trained medical men, who have, moreover, made a speciality of this kind of work, and no form of educational organization can be considered to be complete which does not make provision for the systematic reference of questions of school hygiene and the special treatment of individual scholars to medical experts."

In this last paragraph the Committee have really touched upon the real difficulty—"trained medical men who have, moreover, made a speciality of this kind of work." It is perfectly true that upon systematic medical inspection of school children by medical experts turns the whole question involved in the term "hygiene," and with them the question of wise physical training. Mrs. Watt-Smyth, in her work

Physical Deterioration, justly says, "Englishmen should be careful not to call 'Swedish' a system from which they have wilfully or stupidly eliminated the most vitally-important points. Thus a most striking feature is the intelligent habit of measuring, weighing, and examining without their clothes all children attending schools, in the presence of two doctors. This is done at the beginning and end of each term, and careful records are kept of the results. As a consequence it is possible to watch the physical progress of the strong and to single out the unfit, who are all put together and, in a separate batch, given physical exercises suited to their strength. This sensible plan is attended with excellent results in many cases of deformity, and is worthy of every praise."

While many advantages may be expected from co-ordination in physical exercises, the wisdom of giving exactly the same exercises to vigorous boys and to delicate girls may be questioned by some. But until there is co-ordination and harmony in all these questions which relate to hygiene of the body and mind, such as the medical inspection, the weighing and measuring, the feeding, and the personal cleanliness of children being educated by the State, even the best results can only be disappointing.

The introduction to the report is full of wisdom, and has been carefully thought out, and every teacher of physical exercises would do well to read it over and over again, and even learn it by heart.

JUBILEE OF DR. A. T. H. WATERS OF LIVERPOOL.

At the meeting of the Liverpool Medical Institution, which took place on Thursday evening, March 16th, the principal business was the conveyance of the congratulations of the Society to Dr. A. T. H. Waters on his attaining his jubilee of membership. The meeting was largely attended, ninety members being present; Dr. Barr, President, was in the chair. Letters expressing regret at being unable to be present were received from Sir Dyce Duckworth, a former pupil of Dr. Waters, and from Dr. John Cameron.

Dr. Barr moved the following resolution:

> We, the members of the Liverpool Medical Institution, wish to offer to Dr. Alderman Thomas Houghton Waters our sincere congratulations on his attaining his jubilee of membership of this Institution, of which he is an ex-President, and we earnestly trust he may be long spared in the intellectual enjoyment of a ripe and mature age.

Dr. Barr, in speaking to the resolution, said: We fully recognize the importance of his valuable contributions to medical literature, which secured for him a wide reputation, and shed lustre on the Northern Hospital, the Royal Infirmary, and the Liverpool Medical School, with which institutions his life-work has been closely associated. Dr. Waters has witnessed and shared in the great improvements which have taken place in hospital practice during the past half-century, and he still shows the same keen interest as of yore in the advancement of the profession of which he is an honoured and distinguished member. He took an active part in the growth and development of the British Medical Association, of which he is an ex-President. We feel highly honoured in having a man of such wide professional attainments and general culture among our members, and we hope that he may be long spared to take an active interest in the well-being of this institution.

The resolution, which was seconded by Dr. William Carter, and supported by Dr. G. C. Walker (one of Dr. Waters's oldest pupils), was put to the meeting and carried with acclamation, all the members rising to their feet and applauding enthusiastically.

Reminiscences.

Dr. Waters, who looked remarkedly well and vigorous, thanked the members for their kind congratulations, and gave an address on Reminiscences of the Past Fifty Years. He said that when the late Dr. Austin Flint was in Liverpool, attending the last meeting of British Medical Association there, he remarked to him one day that at his (Dr. Flint's) age—he was a little over 70—his life was one of retrospect rather than of prospect; and that if this were so of Dr. Flint it was more so of the speaker, and that must be his excuse if he dwelt on the past rather than on the present or the future. His entry to the profession, nearly sixty years ago, dated from a period shortly after the introduction of chloroform into surgical practice, and he never saw a great surgical operation performed without the use of an anaesthetic. The London hospitals of that day were largely officered by men of ability and renown, but the clinical teaching was for the most part defective. At the hospital he attended there was little or no attempt at organized teaching, and such clinical lectures as were given were not very interesting and were badly attended. The student was thrown almost entirely on his own resources—a state of things not without its advantages, for knowledge thus acquired was likely to be sound and lasting. The tutorial system undoubtedly had its advantages, but for permanent and long-lasting knowledge commend him to that which was extorted by actual personal observation. The apprenticeship system which was then passing away had the disadvantage of taking the student too early from his general education, but it gave him a valuable insight into the details of practice, the use of drugs, the art of prescribing (rather deficient at the present day), and the general routine of family practice. His first acquaintance with Liverpool was in 1853, when he came as resident at the Royal Infirmary. He wished to refer to one of the then surgeons at the Infirmary, because he was in some respects a pioneer of modern surgery, which owes its success chiefly to the strictest possible cleanliness. Mr. John Prince Halton anticipated to some extent the present system. He insisted in his operations and in the dressing of wounds on a strict and uncompromising cleanliness in all details. He lived before the researches of Pasteur and Lister, and he did not grasp the scientific bearing of the whole question, but he recognized the great importance of cleanliness in surgical practice. However, his ideas did not take hold—he was considered over-particular, fussy, and a faddist—but now, after the lapse of half a century, they saw established as a canon of surgery the practice which he so strongly insisted. About this time was the Crimean war, for which he volunteered his services as medical officer, but his application was declined. The Crimean war reminded him of the great improvement which had taken place in nursing during the past fifty years. Fifty years ago the nursing in our hospitals was very defective and unsatisfactory, and the same was true of the nursing of private patients. Every woman was then supposed to be a born nurse—a profound mistake, for nursing was an art for which a special training was essential, and it constituted an occupation which any woman might be proud to follow. We were largely indebted for the improvement to that noble woman, Florence Nightingale, who by her admirable management of the hospitals in the Crimea brought order out of chaos, and effected a marked improvement in the condition of the institutions over which she presided. She still lived, an honour to her country and a glory to her sex, and it was yet to be hoped that, in accordance with the wish of many, King Edward would consent to enrol amongst those on whom the new Order of Merit had been conferred the name of this distinguished lady, whose name would long remain in the annals of the empire an example and an inspiration. Liverpool was one of the first towns to improve its nursing system, thanks to the efforts of the late Mr. William Rathbone and the late Miss Mereweather, lady superintendent of the Royal Infirmary. Speaking of the hospitals of Paris, which he visited in 1856, he said that physicians and surgeons paid their visits at 8 o'clock in the morning. Great pains were taken by them to point out the features of a case to the students, and altogether it seemed to him that clinical teaching was better done in Paris than in London. He thought that diagnosis was more carefully made than with us, but that in treatment the English physicians were more painstaking and successful. Soon after he started practice he became honorary medical officer to one of the dispensaries. Those appointments were then much sought four, and were considered to be stepping-stones to hospital appointments. He had to canvass a large number of subscribers, and secured a large number of promises and a good many proxies, but on the day of election his opponent retired, and there was no contest. In 1860 he was elected Physician to the Northern Hospital, where he remained till his appointment to the Royal Infirmary in 1871, from which he retired in 1886, having completed a period of actual work at these institutions of thirty-one years. In the early days of his membership of the Medical Institution, the meetings were held in the room upstairs, the attendance was scanty, and the members only numbered 66, compared with a total roll of 337 at the present time. The Society had gone on prospering, and, although he had not been for some years an active member of it, he had not ceased to take an active interest in its welfare, and he always read the accounts of its proceedings with interest and pleasure. He thought it

was a matter for sincere congratulation that the little cloud which recently hung over the institution had passed away, and that a new lease of the building had been granted at a nominal fine, and their best thanks were due to the Treasurer and to the others who carried out the negotiations. He considered the projected extension of the buildings a wise step, the carrying out of which should be carefully considered. Amongst the many changes which had taken place during the past fifty years one of the most important was that which related to the higher education of the community. Having taken part in all the early movements in connexion with the foundation of University College, he was familiar with every step which led to its completion, and he must remark that the initial movement and the primary action which resulted in the formation of the College were due to the medical profession, in fact to the Medical School. So long ago as 1873 an effort was made in this direction by the Medical School, but the Committee which was appointed was told that it was useless to ask the town for money at that time. In 1877 the scheme was revived, the College was launched, and had grown by degrees to its present dimensions. When he joined the Medical School in 1855 it was a small institution, imperfectly organized and equipped, with about 30 to 35 students, and a yearly entry of 10 to 12. It possessed one great advantage. It presented great facilities for the study of anatomy—the basis, he thought, of all medical and surgical science; and it was easy to see that, on the basis of such an advantage, it might be possible to establish a prosperous medical school. Not many years after he joined, an appeal for financial help was made to the public, and was handsomely responded to, with the result that there was an increase in the number of students and an improvement in the general prosperity of the school. Later it became affiliated to University College, and was now the Medical Faculty of the University. A striking change in our profession was the admission of women into its ranks; fifty years ago it had not entered the region of practical politics, and they could not but admire the energy and perseverance which women had shown in accomplishing the objects they had in view, and in overcoming what looked like insuperable objections. He was sure he would express the feelings of his hearers as well as his own when he said, with reference to all those ladies who had joined the profession, and especially those who were members of the institution, that they cordially welcomed them among them, and that they wished them every success in their honourable and arduous career. The British Medical Association had made rapid strides during the last fifty years. In 1859 it numbered about 2,300 members, and he remembered the then Secretary telling him that he thought it had reached its full development. Now, however, its members numbered over 19,000. After alluding to the change of practice with regard to blood-letting and the treatment of acute diseases which took place towards the middle of the last century, he said that stimulants came to be freely employed owing largely to the influence of Dr. Todd, so much so that a protest was issued against the indiscriminate use of alcohol in disease. Among the valuable means of diagnosis and remedies introduced into practice in the same period were the thermometer, the *x* rays, the open-air treatment of consumption, diphtheria antitoxin, and thyroid and suprarenal extract. Dr. Waters concluded his address, which was followed with intense interest, by forecasting what he thought would be the probable lines of development and the achievements of medicine during the next half-century.

A vote of thanks to Dr. Waters was moved by Dr. CATON, seconded by Mr. EDGAR BROWNE, and carried by acclamation.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Jewish Hospital.—Transit and Storage of Milk.—Medical Graduation.

THE Jewish Hospital is one of the Manchester memorials of the late Queen's reign. It is the first Jewish hospital erected in the kingdom, and is the visible evidence of the desire of the working-class Jews to help themselves. In one district alone there are 2,000 regular subscribers at 1d. a week. The beds have been fully occupied, chiefly by persons of foreign birth, and the chief diseases treated have been those of the respiratory and circulatory systems. The majority of the in-patients so far have been females. To keep the hospital going £1,400 a year is needed, while £3,000 will be required to place the institution out of debt this year.

The Manchester and District Milk Dealers' Association are continuing their efforts to obtain from the railway companies a revised transit terms and the erection of cold storages at the Manchester stations. There seems a good prospect of these results being obtained. At present milk from the different counties has to be sent along with other things that might have an injurious effect, and the extra cost of separate conveyance to the companies would be small.

The University medical graduation marks the end of the winter session. It will take place in the Whitworth Hall on March 28th, when degrees will be conferred by the Vice-Chancellor.

BRISTOL.

University College.—Children's Hospital Report.—Hospital Sunday Fund.—Royal Infirmary.

THE annual report of the meeting of the Governors and of the Council of University College contains gratifying evidence of progress made. Not only has the general position of all departments been fully maintained, but the honours list, as well as the entries of students, shows a commendable increase. There are now 1,164 students; the entries for the different classes and lectures—exclusive of medical students—reaches 2,354, a slight but satisfactory increase on the record of previous years. Honours have been obtained by several students, and one lady student was chosen for a Clothworkers' Scholarship at Newnham. Eight students have been elected to the Associateship of the College. The changes that have taken place on the staff are few beyond that of the appointment of Dr. Morris Travers, F.R.S., in place of Dr. Sydney Young, F.R.S., who left in December, 1903, to be Professor of Chemistry at Trinity College, Dublin. To commemorate the long and valuable services of the late Mr. Albert Fry a fund was started to raise a memorial to his memory, £2,000 being collected. To this was added £500 received from the Local Committee of the Welsh Industrial Exhibition, £400 from the University College Colston Society, and £731 by the trustees of the late Bristol Jubilee Club. With this sum, amounting to £3,704, the north wing of the College was completed, and the tower christened the Albert Fry Memorial Tower. The new buildings, which add a finish to the existing College, comprise class-rooms, administrative rooms for the principal and lady tutor, a common room for women students and an entrance hall. Among other gifts the College again, for the third time, received an anonymous donation of £1,000, while Mr. F. J. Fry and Mr. P. J. Worsley subscribed £250 to equip the Electro-technical Laboratory. It is gratifying to learn that the Principal, after a prolonged journey in the United States, which included a visit to many of the magnificently-endowed universities there, could say that he found none doing better work on so small a capital as Bristol University College.

The annual report of the Children's Hospital shows that 759 children and 75 women were treated as in-patients during the past year, a slight increase on the numbers of 1893. In the out-patient department 3,587 children and 1,988 women were treated. The income of the year was £4,316 18s. 8d., and the expenditure £4,904 13s., while the accumulated debt to the treasurer has reached £1,896 14s. 10d., an increase of £589 14s. 4d. The Committee ask for an additional £800 a year in annual income. Among the receipts were the gratifying sums of £209 from the Hospital Sunday Fund, and £482 from the Ladies' Auxiliary Committee. The fund raised in memory of the late President—namely, £2,835—has been invested in the 3 per cent. Bristol Corporation Stock. Since the commencement of this year an annexe to the infectious block has been begun, the necessary fund of £1,000 having been given by Lady Smyth. The Lord Mayor, who presided, proposed the adoption of the report, and after being seconded by the High Sheriff, was carried.

The contributions that have come in from the collections made on Hospital Sunday show that this year the amount will be a greater one than has been obtained in any of the previous years. Up to March 9th, £2,006 8s. 9d. has been received by the Treasurer, £2,000 not having been reached before. It is also very satisfactory to find that the number of places where collections are made has steadily increased. In the first year, only 92 places of worship took part; this year the number has reached 416, and of these 202 have sent in larger sums than they have done in the past. In 133 cases there were small decreases, whilst twenty-seven congregations

contributed the same as last year. Many of these are small chapels which depend largely on the collections for the minister's salary. The distribution of £1,600 was made as follows: Royal Infirmary £696, General Hospital £584, Children's Hospital £216; Eye Hospital £104; grants of £30 to the Orthopaedic Home, £20 to the Lock Hospital, and £7 10s. to the Eye Dispensary were also made.

The Royal Infirmary is making strenuous efforts to get increased subscriptions and raise money by various methods. Recently collecting boxes have been fixed in every tramcar running in the city, and quite a substantial sum is thereby collected each week. This last move has been made possible by the President of the Royal Infirmary and the Chairman of the Tram Company being one and the same person; and, though it is a valuable means for getting money, letters in the local papers show that some citizens think that the other large medical institutions should have a share. Whether the plea is well founded is another matter; but the Infirmary have to be congratulated in having discovered a new method of collecting. No pressure is brought to bear on those travelling in the cars, and in this way, if alone, it is less objectionable than methods adopted by some societies, who send collectors into the streets with boxes that are assiduously pushed in front of every man in the street. The number of patients at the Infirmary have increased by 115 in-patients and 483 out-patients, and the cost of the household necessaries has decreased by £455, though that due to surgical instruments and appliances had increased. The annual increase in the debt seems to have ceased though the ordinary income was less by £4,662 than the ordinary expenditure. The debt amounts to £15,552 and urgent appeals are made to wipe this off in order to carry out certain improvements and additions that are required. Sir George White, the President, in his speech stated that the ordinary income had increased by about £750, each item from which this came showing an increase. Legacies had increased by nearly £3,000, and the decrease in interest was merely due to the high income tax we all suffer from. Expenditure on the whole was less, though in one or two departments an increase affected the total sum. So that on the whole the Institution was able to reduce its total debt by £6. Sir George White expressed a hope that during the year the whole debt of over £15,000 would be cleared off, and he did not doubt the subscribers' ability to do this. But in addition to this £35,000 is required to bring the Infirmary up to its proper state of efficiency, and the Committee fully intended to get this sum. This year the summer fête in the Zoological Gardens would be on behalf of the Infirmary, and the President hoped then to raise £5,000. The President, in conclusion, gave some figures showing the number of patients that have been treated since the opening of the Infirmary in 1738. The usual votes of thanks were proposed and adopted.

SOUTH WALES.

The Welsh University College.—The National Museum and Library.—Underfed School Children.—Cardiff Infirmary.—Swansea Hospital.—Brentry Inebriate Reformatory.—West Wales Sanatorium for Consumptives.—Small-pox at Cardiff.—Infantile Mortality.

THE Prince of Wales is to visit Cardiff towards the end of June, when he will lay the foundation stone of the Welsh University College in Cathays Park. The Prince will be the guest of Lord and Lady Windsor at St. Fagans Castle, Glamorgan, during his visit in South Wales. The King is expected to visit Cardiff next year when the new Bute Dock and the extensive municipal buildings, including the Town Hall and Law Courts, are to be opened with an elaborate ceremonial. It is probable that His Majesty will then be the guest of Lord Bute at Cardiff Castle.

The Council of the University College of South Wales and Monmouthshire, at a meeting held on March 13th, reaffirmed the resolution of November 1st, 1899, which was as follows:

> That the Council of the University College of South Wales and Monmouthshire, in reply to the Parliamentary Committee of the Cardiff Corporation concerning the scheme for the establishment of a National Museum and Library, begs to acquaint the Cardiff Corporation that the Council of the College is perfectly willing, subject to proper trusts, to hand over the Salesbury Library, and if the suggested scheme of the Cardiff Corporation be carried out in its entirety and as presented to the Council of the College, namely, that all the Welsh books and manuscripts of the Corporation in their Reference Library and the Salesbury Library of the College be gathered into the National Library.

A letter from the Cardiff Corporation asking the College authorities to affix their seal to the memorial praying that the National Museum and Library for Wales should be placed in Cardiff was discussed.

A meeting of the subcommittee appointed by the various public bodies, etc., to devise some scheme for succouring underfed school children took place on March 13th at the Town Hall, Cardiff. The Mayor of Cardiff presided. A subcommittee of nine was appointed to draft a scheme for submission to a meeting of the full committee.

At a meeting of the Cardiff Corporation held on March 13th it was proposed by a member that the Council make an annual grant of 200 guineas to the Cardiff Infirmary. An amendment, however, was moved that the Council make a grant of the 200 guineas this year, leaving the Corporation free each year to continue or discontinue the grant as they felt disposed; the amendment was carried by a majority.

At a meeting of the Swansea Hospital Management Board on March 16th the chairman announced that the Great Western Railway Company had sent a donation of 100 guineas in acknowledgement of services rendered by the hospital in connexion with the Loughor railway disaster.

The annual report of the Brentry Certified Inebriate Reformatory for cases arising in the administrative counties of Glamorgan and Monmouthshire has been issued. The reformatory was maintained during the year 1904 at a net cost of 13s 8d. an inmate per week. This compares favourably with the cost of maintenance at other inebriate reformatories which varies from 14s. to 20s. and upwards. The Board received the Managing Committee's report, and also that of Dr. David Fleck, the superintendent and medical officer, with much satisfaction.

H.R H. Princess Christian will lay the foundation stone of the sanatorium for consumptives at Alltymynydd, near Llanybyther, on April 26th; the site is about two and a half miles from Llanbyther railway station.

A young woman, living in Whitchurch Road, Cardiff, a few days ago, was discovered to be suffering from small-pox. All attempts at tracing the case were futile. She was removed to the isolation hospital, and is now progressing favourably. No further cases have been reported.

At the Brynmawr District Council's meeting held on March 15th the Medical Officer of Health, Dr. Thomas, reported a birth-rate of 38.1 per 1,000 for the past year. The death-rate was 23 per 1,000 per annum, a high rate, the average for the past ten years being 19.34. He pointed out that 56 out of the 161 deaths were of children under the age of one year, giving the very high rate of 209.7 per 1,000 births. "It is a truly lamentable fact," Dr. Thomas added, "that such a large proportion of lives should thus end in early infancy, and there cannot be any doubt that careless feeding and nursing, combined with the fact of taking infants out in the night air, are responsible for such a sad slaughter of infants."

CORRESPONDENCE.

DEATH CERTIFICATION AND REGISTRATION OF STILLBIRTHS.

SIR,—The proposal of the Medico-Political Committee in the SUPPLEMENT of March 11th, p. 90, that there shall in future be two death certificates required—one as to the cause and the other as to the fact of death, each with a half-crown fee attached, to be paid out of the public purse—is, I think, a mistake, which, if proposed in a Bill, is likely to hinder the adoption of a much-needed reform. It must not be forgotten that the sole reason assigned for not carrying out the recommendations of the Committee of the House of Commons which in 1893 reported on the subject has been the expense, which, with only one certificate for each death, was estimated at from £60,000 to £100,000 a year, while with two it would, of course, be double that amount. It should also be stated that one of the grounds on which the House of Commons Committee recommended that a fee should be paid was this of requiring the fact as well as the cause of death to be certified. That Committee's recommendation, as given in its report, seems to me a perfectly reasonable one:

> Your Committee are of opinion, after consideration of the evidence bearing on the question, that in every case of death in which a medical practitioner has been in attendance he should be required to certify, not only to the cause, but also to the fact of death. Before giving his certificate he should be required personally to inspect the body, except in cases where, on the ground of distance, or other sufficient reason, he is unable to make such inspection. He should, however, before issuing a certificate in such cases, be furnished with a

certificate, signed by two persons, neighbours of the deceased, one of whom should be a householder, verifying the fact of death. He should also append to the certificate given in such a case a statement of the reasons which have prevented him making a personal inspection of the body. (Report, p. xiv.)

With regard to the registration of stillbirths, the Medico-Political Committee does not mention any period of gestation from which it shall be required, but the House of Commons Committee adopted seven months, which is the accepted time in Germany and Denmark, as a convenient starting-point.—I am, etc.,

Dulwich, March 15th. H. NELSON HARDY.

THE CORONERS BILL.

SIR,—With reference to the draft of a Bill to amend the law in relation to coroners, as it appears in Appendix B, page 93, of the SUPPLEMENT of March 11th, may I again point out the utter inadequacy of a fee of one guinea for making a *post-mortem* examination of the body of a person under such conditions as usually prevail in general practice; and, secondly, of the insufficiency of a fee of one guinea a day for attending to give evidence, unless the time occupied each day is specifically defined—for it is not an uncommon occurrence in serious or difficult cases for the whole of a day to be occupied in their investigation.—I am, etc.,

Willenhall, March 13th. JOHN T. HARTILL.

INQUEST FEES TO HOSPITAL OFFICERS.

SIR,—My attention has been drawn to Dr. Bateman's further letter on this subject, in which, commenting on my reply to his communication of February 20th, he informs you that the contention that medical officers of hospitals, etc., are entitled to fees when the inquest is not held in the institution where the patient dies is founded on a legal opinion.

When, in my letter of February 28th, I stated that the point had been raised on previous occasions, I specially had in view the question which arose after the publication, about 1891, of *The Law Relating to the Payment of Coroners*, by Mr. Herbert, from which your correspondent quotes. The author wrote:

> It is further provided, however, that where a patient dies in hospital, and an inquest is held in the hospital no fee shall be claimed by the medical witness.

The words "and an inquest is held in the hospital" are not in the subsection, and no reason is given for introducing them, and thus misquoting the Act.

Then, on referring to the practice in vogue in some districts of holding inquests away from the hospital, the writer says, in regard to such cases, "There can be no doubt that the fee is payable." Upon what ground such a conclusion is arrived at is not shown, and, as I presume it is entirely dependent upon the words introduced by the writer himself as quoted above—for which there appears to be no statutory authority—I venture to say its value is necessarily limited, and that it is misguiding in its application to the question at issue.

At one large metropolitan hospital I believe no inquest has ever been held in the building—certainly none since 1870. The statute dealing with the payment of medical witnesses is really not of recent date, but was one of those consolidated in the Coroners Act, 1887. Surely, if fees could be paid under the circumstances mentioned by your correspondent, some one or more of the many hospital medical officers who have given evidence in the coroner's court would, between the passing of the Act 6 and 7 Will. IV, c. 89, in 1836, and the present day, have discovered sufficient justification to proceed to make good a claim for payment of fees, had there been any legal chance of obtaining them.

Dr. Bateman also suggests to the house-surgeons that they should at least claim and obtain their "expenses." Here again I submit he has, under the present law, raised false premisses for these gentlemen, for on making application to the coroner they have to be informed that he has no power to pay "expenses" except as provided by the Coroners Act or under a schedule of "fees and allowances" as sanctioned by the county or borough councils, and then only as regards "travelling expenses" at the rate of 2d. a mile in cases where the witness has to travel over two miles.

The coroner as an executive officer can only pay that which the law permits, but I feel sure many would personally help forward any movement to secure fees to those medical officers who at the present time, under subsection 2 section 22 of the Coroners Act, 1887, are not entitled to receive them.

My remark as to a test action was not due to any uncertainty existing on the part of coroners as to the interpretation of the law, but because Dr. Bateman, from the attention and authority his statements and opinions rightly command, has created a doubt in the minds of house-surgeons which possibly nothing but a decision of the High Court will now fully dispel.—I am, etc.,

London, N.W., March 21st. WALTER SCHRÖDER.

THE TEACHING OF PRACTICAL MIDWIFERY.

SIR,—I venture to trespass on your space with reference to the inaugural address of the President of the Obstetrical Society. It is most refreshing to read the words of one who lives in the clouds. To me, a mere terrestrial sojourner, has occurred the idea of stating some terrestrial facts.

Before me appeared, when seated in the coroner's court only quite recently, a lady, a registered midwife, who certainly did not correspond to the charming picture drawn by Dr. Dakin, of the modern Gamp. The story, indeed, to me, was sad enough. A young woman, 19 years of age, died suddenly in the house of a man who had a wife and six children living with him. On her arrival she was pregnant, and when the wife discovered that the girl was pregnant by her own husband, she left the house. The girl was delivered of a child, and after this the midwife was summoned. No doctor was called, because the man had every confidence in the midwife, who, as he stated, had a midwife's certificate, and had attended many cases, including his own wife. The girl, according to the midwife's statement, had every attention, and speedily recovered. The temperature was never taken; she left her bed at the tenth day, and though once or twice in bed since then, was about the house until the day of death, which occurred three weeks after delivery. She was reported to have done a hard day's sewing for the children of the man who had ruined her the very day before death took place. The midwife was in attendance throughout.

The *post-mortem* examination resulted in the discovery of a pint of blood-stained purulent fluid in both pleural pericardial cavities. Both lungs were congested and oedematous; there were patches of lymph on the surfaces of both lungs and heart; there was congestion of the endocardium. In the peritoneal cavity there was just over half a pint of fetid purulent fluid with large flakes of lymph. There were flakes of lymph on the peritoneal surface everywhere. The intestines were swollen and matted together by soft adhesions. The liver, spleen, and both kidneys were soft, large, and congested, and the uterine endometrium was congested and inflamed. There was no pus in the cavity of the uterus, but in one spot a small piece of organized membrane and clot; the whole of the cellular tissue in the neighbourhood of the uterus and the pelvic peritoneum was congested.

No fault, in my opinion, could be found with the midwife on the ground of infecting the patient. So far as my opinion goes, the cause of the sepsis was the piece of retained membrane; and, further, in a very large proportion of cases of puerperal sepsis, a retention of decidua is the cause of puerperal sepsis.

Fault was found with the midwife for non-observance of the rules of the Midwives Board. The jury quite recognized that her ignorance was colossal, and one of them summed up the matter thus: "She might be a good 'char,' but she ain't no sort of good at a job like this."

At the request of the jury I reported this case to the Midwives Board. I finally received a notice to the effect that the local supervising authority found no prima facie case of misconduct. The success of the devoted energy and unselfish efforts of the Fellows of the Obstetrical Society is not apparent.—I am, etc.,

Hatfield, March 18th. LOVELL DRAGE.

THE PREVENTION OF DENTAL CARIES.

SIR,—Mr. C. R. Howard argues[1] that dental caries cannot be caused by a soft diet, because the natives of Uesalabani, who have remarkably good teeth, subsist mainly on ugali, "a thick porridge made from powdered maize and ugi, which is a kind of gruel. They also eat," he goes on to say, "peas carefully pounded and ground, and sometimes toasted mealie cobs." He concludes that their comparative freedom from dental caries is due to the fact that, being very proud of their teeth, they are careful to keep them clean, employing for the purpose a piece of cane frayed out at the end. One can well believe that this practice helps to prevent caries. Dr. Sim Wallace argues with force that the eating of coarse fibrous foods tends to promote the health of the teeth by the

[1] BRITISH MEDICAL JOURNAL, March 18th.

cleansing effect which food of this kind has upon them; and in the absence of such food, the employment of the cane brush would obviously be of advantage. That coarse food acts beneficially on the teeth it is impossible to doubt; but its good effect is due, I believe, not so much to its cleansing action on the teeth, as to the fact that it compels mastication, and thus gives the jaws, teeth, and salivary glands ample work to do. From Mr. Howard's letter, one would infer that the diet on which the natives of Uesalabani subsist is one which imposes little work on the teeth and jaws. Is it not a fact, however, that these people, in common with all the natives of Africa, have, as a rule, well-developed jaws, affording all the teeth, not excepting the "wisdoms," ample room to take up their proper positions? If such is the case, it is certain that their jaws—whatever their food may be—must be well exercised, for adequate exercise is a condition of adequate development.—I am, etc.,

London, W., March 19th. HARRY CAMPBELL.

THE POOR-LAW SERVICE OF IRELAND.

SIR,—Your readers may recollect that in the BRITISH MEDICAL JOURNAL of March 4th there appeared a curtailed account of the annual meeting of the Leinster Branch of the Association held February 25th. Advantage was taken of the occasion by the newly inaugurated President to exploit the consequences of someone having clandestinely supplied to the Press a confidential copy of Surgeon-General Evatt's report, made at the instance of the Irish Medical Association. It is usual for such lapses of propriety to be treated in silence, but Sir Thomas Myles held different views. The *Irish Times* of February 27th gives a full account of the proceedings. To say that the Surgeon-General's report was heartily condemned by the President but inadequately conveys an accurate impression; it was ridiculed, belittled and contemptuously discussed. To those not acquainted thoroughly with the facts of the case it would appear incomprehensible how a writer who, as the British Medical Association Commissioner, won such unstinted encomium over his first effort should have brought down such abuse in an almost similar attempt. Stripped of side issues the fact is simply that with his independence of judgement the Surgeon-General did not fail to upbraid the Royal Colleges with taking a mere academical interest in the grievances that have made the lot of the dispensary doctor wellnigh insupportable. Such candour at once merited the hostility of certain members of Council of the Irish College of Surgeons, and Sir Thomas Myles's address was the issue. The importance of the meeting of February 25th may be liberally discounted when it is stated that not a single country dispensary doctor attended the meeting. Three, or at most four, dispensary doctors of the city or suburbs put in an appearance, and only one of these, a Royal College of Surgeons Member of Council, spoke; indeed, the speaking on the Surgeon-General's confidential report was entirely confined to Members of Council of the College named. It may be of further interest to note that the Leinster Branch contains 337 members. Of these 31 only attended. It is evident that the Branch was so out of sympathy with the hostile attitude displayed towards the dispensary doctors' friend that the majority abstained from countenancing disrespect to the distinguished Surgeon-General's views by absenting themselves.

The address referred to teems with specious arguments against the ability of the Colleges to exceed their charter duties in furtherance of the views held by Surgeon-General Evatt. To deal with these seriatim would needlessly overburden your columns. As, however, Sir Thomas Myles has brought in the question of charter duties he must recollect that he himself was present in court when the Secretary to Council of the Irish College of Surgeons swore that for twelve years the charter provisions had been evaded as regards the regulations for the Fellowship—a grade which controls the election to the Presidency, Vice-Presidency, and Council! To speak, therefore, of exceeding charter duties in the matter of collegiate procedure where the necessities of Irish dispensary doctors are concerned throws a ludicrous light upon his reasons for ascribing Surgeon-General Evatt's suggestions as due to "colossal ignorance."—I am, etc.,

London, N.W., March 17th. S. WESLEY WILSON.

THE TREATMENT OF POST-NASAL ADENOIDS.

SIR,—In a letter published in the BRITISH MEDICAL JOURNAL of March 18th, Mr. Clements Hailes states that when he was Clinical Assistant at the Royal Ear Hospital, Soho, "the finger nail was the curette chiefly in vogue." This must have been some years ago, for we have abandoned this method of operating for adenoids for several years past. It is both unsurgical and inefficient, and the proof of the latter is to be found in the frequency with which the growths recur after its employment. My colleagues and myself, for the past seven or eight years at least, have employed the Delstanche curette or some modification thereof in nearly every case operated upon, and I consider it the neatest and most efficient method hitherto devised.

I might add that Dr. Ward Cousins's description of adenoids (which has already been criticized by Dr. StClair Thomson) does not appear to be based either on their appearance in the posterior rhinoscope nor upon an examination of the growths when removed *en masse*, and I think that if he employed the cradle curette of Delstanche his ideas of these hypertrophies would undergo considerable change.—I am, etc.,

MACLEOD YEARSLEY, F.R.C.S.,
London, W., March 20th. Surgeon to the Royal Ear Hospital.

THE TREATMENT OF HAEMOPTYSIS.

SIR,—Mr. Green does not quote me correctly when he attributes to me the statement that I had used ergotin and adrenalin chloride "to diminish the frequency of the cardiac beat and lower arterial tension." In the article to which he refers, I stated that in the treatment of severe haemoptysis we should endeavour to diminish the frequency of the heart-beat, lower arterial tension, lessen the blood supply to the diseased area, and increase the coagulability of the blood. To meet these indications I recommended the recumbent position with head and shoulders raised, hypodermic injection of morphine, application of ice bag, heat to the lower limbs, and high rectal injections of a solution of calcium chloride. In the concluding paragraph I mentioned that in addition to this method of treatment I had given a trial to ergotin and adrenalin chloride, and that in my hands the latter drug had not yielded any striking results, while the rise in blood pressure which usually followed its administration was certainly undesirable. I further stated that ergotin found its most useful field in the haemoptysis which occasionally precedes or accompanies menstruation. If Mr. Green will read my article a second time I feel sure he will admit that to represent me as saying that I had used ergotin and adrenalin chloride to diminish the frequency of the cardiac beat and lower arterial tension is not strictly accurate.

Mr. Green's remarks on the action of these two drugs I read with interest: most physiologists appear to concur in the opinion that the pulmonary vasomotor system is less perfect, and much less easily influenced, than that which controls the systemic circulation.

Inhalations of nitrite of amyl have been recommended in the treatment of haemoptysis, no doubt for the most part on theoretical grounds. In the only case in which I tried this drug the inhalation was followed by coughing and an increasing flow of blood; this may have been purely accidental, and it would be unwise to base any conclusion on such insufficient data.—I am, etc.,

Bridge of Weir, N.B., March 21st. H. HYSLOP THOMSON.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

IMPERIAL YEOMANRY RECRUITS.

A CORRESPONDENT inquires whether 2s. 6d. is a proper fee for the medical examination of an Imperial Yeomanry recruits in Cumberland and Westmorland?

*** We cannot give a definite answer to this question, as we have not seen a fixed scale for such examination. The fee may possibly vary according to local circumstances attending the examination. We do not suppose the fee for a Yeomanry recruit would exceed that for a line or cavalry recruit; and, therefore, we take it that the sum named by our correspondent is that usually granted.

LEAVE PAY FOR THE INDIAN MEDICAL SERVICE.

THE following revised scale of leave pay for officers of the Indian Medical Service, subject to the leave rules of 1886 for the Indian army, has been sanctioned: On appointment, £250 a year; on entering the tenth year of pension service, £300; on entering the fifteenth year of pension service, £450; on entering the twentieth year of pension service, £600; on entering the twenty-fifth year of pension service, £700.

FIRST LONDON ROYAL ENGINEERS (VOLUNTEERS).

WE are asked to state that there are two vacancies in the 1st London Royal Engineers (Volunteers) for surgeon-lieutenants. The expenses and obligations of an officer in this regiment are not heavy, and the work is interesting. Further particulars can be obtained on application to Major C. E. Dance, 70, Northampton Square, London, E.C.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CIRCULARIZING THE PROFESSION.

Our attention has been drawn to two recent instances in which medical men commencing practice as specialists have circularized the profession. In one case a physician who, after holding a public appointment, is commencing to practise as an alienist, sent out a visiting card marked "Change of address," bearing his old and new address, together with a prescription form indicating hours of consultation. This, it appears, has not been confined to members of the profession with whom the gentleman in question has an acquaintance. We are asked our opinion upon this, and would express the view that such notifications should only be issued to members of the profession with whom the issuer has had professional or private relations.

In the other case a registered medical practitioner has issued a postcard to members of the profession resident in the Manchester district giving his address, hours of consultation, with the words "Massage and Medical Gymnastics." We believe that the distribution of such a postcard to members of the profession is quite unprecedented, and should be sorry to see the example set by this gentleman followed by others.

THE POPE'S PHYSICIAN AND PINK PILLS.

A correspondent sends us a cutting from the *Toowoomba Chronicle* (Queensland), containing an article which is in effect an advertisement of Dr. Williams's Pink Pills for Pale People. The article is illustrated by a rough cut, purporting to be a portrait of Dr. Lapponi, Physician to the Pope, and quotes what purports to be a translation of a testimonial given by Dr. Lapponi, to which his facsimile signature is appended. The article praises Dr. Lapponi as standing at the "head of the medical profession in Europe," for his freedom from the "ignorant prejudice so common among ordinary ill-educated doctors," who are said to be bound in the meshes of "professional etiquette," and therefore unwilling to make use of this valuable remedy. While we have no desire to impose our views of correct medical conduct upon foreign physicians, we must point out that if Dr. Lapponi has written this testimonial he has given the support of his name to the use of a nostrum the composition of which is a secret. It does not alter the case that, as a rule, quack remedies are merely imitations of preparations contained in the *Pharmacopeias* of all civilized countries, nor need we apologize for the attitude of those "prejudiced persons" who prefer to know the composition of the remedies they prescribe, and who do what lies in them to hinder and oppose the too-successful career of the vendor of patent medicines.

A RECIDIVIST.

At the Warwick Assizes held on March 14th, Thomas Millerchip was sentenced to seven years' penal servitude for performing an illegal operation upon a female nurse. A previous conviction in 1885 to ten years' penal servitude for a similar offence was proved against the prisoner, whose name was removed from the *Medical Register* in November, 1885.

MEDICAL MEN AND THE LAY PRESS.

A Lincoln correspondent sends us a cutting from the London *Daily Express*, March 16th, containing a report of an interview with a gentleman who is styled "the leading practitioner in Lincoln," who, speaking as Chairman of the Lincoln Races Committee, said, "I would say to the racegoing public, you can come to Lincoln in safety." He also expressed his opinion that the epidemic had spent itself and that the disease not being airborne it was not dangerous to come into its neighbourhood; he added some further remarks on the cessation of the diphtheria epidemic. The paragraph seems to have been written in the interests of the Lincoln races, but it would seem to be better for medical men to avoid such interviews, as they always lead to adverse comment.

PROFESSIONAL RELATIONS.

Empyema.—The moral of the story is to show how disagreeable medical practitioners can be to one another when they are not on speaking terms. We do not know whose fault this is, but A. admits that he has on numerous occasions refused to meet B. in consultation. There can be no ground for ethical complaint in A.'s public action in connexion with the hospital unless in some specific instance he does an unfair act. Finally, the fact that B. has superseded A. in the attendance upon a patient is doubtless made more unpleasant by attending circumstances, but does not in itself justify any reflection on B. from a professional point of view.

VALUE OF A PRACTICE.

A Practitioner, not an Agent, writes: In reference to the statement of Mr. Percival Turner (British Medical Journal, February 25th, 1905, p. 454) that "hundreds of well-qualified men with capital are vainly seeking good investments," I should like to observe that if Mr. Turner means that "hundreds are waiting to purchase good practices" his statement must be taken with a very large grain of salt. I have had personal experience in this matter, and I assert that such is not the case. The number of men with capital of any amount is very limited, and the requirements of most of these gentlemen are so unreasonable that one has sometimes thought that they do not really mean to settle at all. I know of one case of a man who answers all advertisements relating to practices for sale and obtains full particulars under a promise of strict secrecy; he then discusses the practice with every agent or acquaintance he may meet, and in one case he actually visited the neighbourhood in which the practice was for sale, made public inquiries, and, in the end, the holder of the practice was obliged to withdraw it from the market for a time. This man has pursued this method for some years, and has not yet, I believe, purchased one. Practices are not so easily sold as Mr. Turner would lead us to suppose, nor is the price so high as he states. It must be a real good connexion to fetch one and a-half years' purchase.

THE DUTY OF A SUBSTITUTE.

Doubtful writes: Dr. M. was ill, when H., his patient for some years, had an accident and sent for him. As the patient would not have the *locum tenens*, the messenger went on to Dr. C., who attended and finished the case, and was subsequently asked to visit H. again for another illness, and also to attend his father, another patient of Dr. M.'s. Dr. C. was all this time unaware of the circumstances under which he was first called upon to attend H. until a brother practitioner told him that Dr. M. felt very much annoyed at Dr. C. for attending the H.'s. Dr. C. immediately called upon Dr. M., and asked him what he should do, as he was completely ignorant of the fact that H. had first sent for Dr. M., or indeed that H. had been a patient of Dr. M. Dr. M. then said he considered it fair if H. sent for Dr. C. again for Dr. C. to refuse to attend and explain to H. how he first attended there, and also for Dr. C. to refuse absolutely to attend H. for twelve months. This Dr. C. has promised to do. Will you please give your ethical solution of the above?

*** When the facts were explained to Dr. C., he would admit that he was only called in during the absence of Dr. M., so that it would be quite right for him to give up the case and explain to the patient that he was only acting as a substitute. On some future occasion C. may be away, and a patient of his may prefer a local practitioner to the *locum tenens* he has engaged, when he would doubtless feel sore if the man called in kept the case or family to which he had so fortuitously been introduced.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The President of the Board of Education has, with the concurrence of the President of the Local Government Board, appointed an interdepartmental Committee to report on the medical inspection and feeding of elementary school children. The Committee consists of Mr. H. W. Sirupkinson, C.B., Assistant Secretary of the Board of Education, Chairman; Dr. H. Franklin Parsons, Assistant Medical Officer under the Local Government Board; Mr. C. Jackson, Chief Inspector of Elementary Schools; the Honorable Maude Lawrence, Chief Woman Inspector, and Mr. R. Walrond, Senior Examiner of the Board of Education, with Mr. E. H. Pelham, Junior Examiner, as Secretary. The terms of the reference are:

1. To ascertain and report on what is now being done, and with what result, in respect of medical inspection of children in public elementary schools;

2. And, further, to inquire into the methods employed, the sums expended, and the relief given by various voluntary agencies for the provision of meals for children at public elementary schools, and to report whether relief of this character could be better organized, without any charge upon public funds, both generally and with special regard to children who, though not defective, are from malnutrition below the normal standard.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

The Royal Commission on the Care and Control of the Feeble-minded held further meetings on March 14th, 20th, and 21st.

Mr. Baldwyn Fleming, General Inspector of the Local Government Board, who gave evidence, said that at present no power existed to protect feeble-minded girls when they reached an age at which such protection was of supreme importance. An institution for persons of feeble mind was required which should be intermediate between the workhouse and the county asylum on the one hand, and the costly private asylum on the other. In default of the possession of considerable private means, no imbecile or feeble-minded person could at present obtain care and treatment unless he became a pauper for that purpose. Many imbeciles and feeble-minded persons were sent to the asylums simply because they proved offensive and troublesome in the workhouses. By their presence in asylums they kept out persons who would benefit by treatment. Of course, no imbecile or feeble-minded person who would benefit by treatment or who required special care should be detained in a workhouse. The care of the feeble-minded should be the charge of county councils, which should have the power to detain such cases indefinitely under suitable safeguards.

Mr. P. H. Bagenal, another general inspector of the Local Government Board, said that guardians in Yorkshire where he was stationed found difficulty in dealing with feeble-minded children. If detained in workhouses they grew worse, and if boarded out they were liable to ill-treatment. New homes for such children were required. The existing powers as to detention did not cover the necessities of the situation.

Mr. H. Jenner-Fust, also a general inspector, dealt with the position in Lancashire. He advocated the placing of all lunatics, idiots, epileptics, sane or insane, and feeble-minded persons under one authority in an administrative district formed for the purpose and unconnected with the Poor Law. He doubted if public opinion was sufficiently advanced to permit of feeble-minded adults being indefinitely detained, however pleasant their surroundings.

Miss B. Walton Evans, an Inspector of Boarded-out Children to the Local Government Board, said that boarded-out children were physically the pick of the Poor-law children, but as mental capacity was not brought into question, their number included children of feeble mind. She did not think this desirable, as special education could not be obtained for them in country places, and if illtreated they could not give an account of it. More special homes were required, and further powers as to detention, and in addition a system of medical inspection of all children undergoing education in the public schools. The Elementary Education (Defective and Epileptic Children) Act of 1899 should be compulsory and not optional. Colonies for the feeble-minded should be established in every county, and women sit on their committees of management; the children should be drafted into them between the ages of 14 and 16, as decided by a medical man. Education authorities should have power to send children who were in bad homes or under improper guardianship to special schools and to exact contributions for their maintenance. The public should learn to understand that feeble-mindedness was not curable, and could only be ameliorated. The root of the whole question was the danger to the community of allowing feeble-minded persons to marry. Short of the permanent control of feeble-minded children she did not see how it was to be prevented.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 42, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National) 2630 GERRARD, EDITORIAL SECRETARY AND MANAGER, EDITOR, 2631, Gerrard. 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. McM. has a case of acne rosacea in a young woman, in whom the affection is associated with cold feet and constipation. He asks whether there is any more up-to-date treatment than the following, which in the case in question has not met with much success: (1) careful regulation of diet; (2) a mild sulphur ointment applied at night and washed off in the morning with oatmeal water; (3) in the day time a calamine and oxide of zinc ointment applied.

*** In reply to a similar query, an Indian correspondent some time ago stated that he had succeeded in curing a bad case by using an electric face bath with electrolysis of the pustules, using a platinum electrode. He received the idea, he said, from a statement in Dr. Lewis Jones's *Medical Electricity* that acne of the back disappears during a course of bath treatment.

AMENORRHOEA.

W. S. asks for advice in the treatment of obstinate amenorrhoea where the patient is in good general health except for backache worse at what ought to be her periods. She has not menstruated for eight months, but was regular up to then, when she had a bad cold. Various forms of iron have been given and potassium permanganate tried for the last three months. Baths and moderate exercise have also been recommended.

REFERRED PAIN.

ANGINA asks for references to the literature of referred pain, especially to that in cardiac disease.

*** He should consult Dr. Head's papers in *Brain* on Disturbances of Sensation with especial reference to the Pain of Visceral Disease, vol. xvi, p. 1, 1893, vol. xvii, p. 339, 1894, and especially vol. xix, p. 153, 1896, dealing with pain in Diseases of the Heart and Lungs. He should also read Dr. James Mackenzie's papers on the subject, among others Some Points Bearing on the Association of Sensory Disorders and Visceral Disease, *Brain*, vol. xvi, p. 321, 1893, one in the BRITISH MEDICAL JOURNAL, vol. ii, 1903, p. 66, and others in the *Medical Chronicle* for 1892 (Contribution to the Study of Sensory Disorders Associated with Visceral Disease) and the *Lancet* for 1895 (Heart Pain and the Sensory Disorders Associated with Heart Failure). Dr. Gaskell's researches have also an important bearing on the main question.

ANSWERS.

AUTOMOBILES FOR MEDICAL MEN.

SPARKING PLUG writes: In answer to "Urbs" I would, as one who has gone pretty throughly into the question of cheap automobilism, not advise him to purchase any second hand car, but to make his mind up to an outlay of £200 and get a 6 h.p. De Dion; he will then have a motor which is not a toy and which, being made in thousands, can be readily repaired, which will carry three people over any road and will cost less than most for upkeep. In such a city as he describes "Urbs" will find solid tyres on all wheels most economical. They will not puncture nor skid, and will not materially alter either the speed or the comfort of the carriage. The single cylinder is important, as it practically means one strong and everlasting engine instead of two, four, six, or eight more or less delicate ones to keep in order, with a consequential low expenditure of half a pint of spirit a mile in the place of the half a gallon or so needed for the more complicated multicylinder machines. I had my gear box opened after 7,000 miles hard winter's use on very rough (loose broken flint) roads, and found the cogs as sharp and unworn as when new, and I am told that that is their usual condition after seven times 7,000 miles' wear. The "Sirdar" tyres are terribly cut and ragged, but, except for appearance, are as good as ever, and will carry me at least another 7,000 miles, I expect. I have no interest in the sale of this or of any other car, but confess to being somewhat of an enthusiast for these simple and excellent carriages, the reliability records for which 'Urbs" can read on p. 71 of the advertisement sheet of the same BRITISH MEDICAL JOURNAL in which his query appears. I have four horses fewer in my stables than in any previous winter; and, if only for the extra time I have now at home, I would not be without a motor, but I am not sure yet how economical it may be in money; at the same time, I am assured that while learning to manage it, my vocabulary has expanded, and would not now disgrace a suburban golf links; but that is another story.

LETTERS, NOTES, Etc.

MOTOR AMBULANCE.

DR. J. BRUCE RONALDSON (Haddington, N.B.) writes: Observing in your issue of March 4th an allusion to the prospective use of a motor for ambulance work, it occurred to me that an experience of mine, wherein I converted my car into an ambulance *pro tem.*, might interest your readers: One afternoon in August last I received a telegram to the effect that a lady had developed scarlet fever in a Highland hotel. Of course her immediate removal was imperative. I at once telephoned for a nurse to be sent on by night mail, had the covered top put on my car, and started without delay. After a glorious run through the most magnificent Highland scenery, over roads good, bad, and indifferent, including the far-famed Pass of Glencoe, I reached my destination without incident. Arrangements were soon completed for the return journey. I got my patient and nurse comfortably placed in the back of the car, with all the requisites for a long day, started at 7.10 on a brilliant morning, and without mishap or hitch of any kind reached my journey's end at 8.30 p.m., having covered 165 miles each way. My patient was not overfatigued, and made an uninterrupted recovery. This I fancy was a unique experience, and proves incontestably the practical value of an automobile for ambulance work. The car in question is a 10-12 h.p. Delahaye, and has done about 30,000 miles during the four years that I have used it for my professional work. It has pneumatic front tyres and solid, or rather cushion ("Ducasble") back ones.

CLINICAL METHODS OF ENUMERATING LEUCOCYTES.

DR. H. S. GABBETT (Eastbourne) writes: In the BRITISH MEDICAL JOURNAL of February 25th Dr. E. Turton discusses several methods of enumerating leucocytes. As he points out, there is a great saving of time in counting the red and white corpuscles in the same dilution; but whilst the Zeiss-Thoma counting-cell with dilution of 1 in 100 or 200 is most convenient for the red corpuscles, it is too shallow to contain a sufficient number of leucocytes in such a dilution, unless there be considerable leucocytosis. The method which I adopt is to mix the blood in the Zeiss-Thoma pipette in a dilution of 1 in 100, and to place one drop in a Zeiss-Thoma cell (depth 0.1 mm.) and another in a Gowers cell (depth 0.2 mm.) The red corpuscles are counted in the former and the leucocytes in the latter. By arranging the microscope so that the diameter of the field is 0.57 mm. the number of leucocytes is ascertained without any troublesome calculation. The cubic content of the field ($\pi 7^2 + 0.2$) is almost exactly 0.05 c.mm. The leucocytes are counted in 40 fields; and unless there is actual leucopenia more than 100 will be met with. The number in a c.mm. of undiluted blood is found by the formula—

$$\frac{\text{number counted} \times \text{degree of dilution}}{\text{fields examined} \times \text{cubic content of a field.}}$$

But since $40 \times 0.05 = 2$, the denominator of this fraction must always be 2, and therefore the whole calculation consists in multiplying by 100 and halving the product. For example, 140 leucocytes are counted in 40 fields with a dilution of 1 in 100. Following the above formula the number in a c.mm. of blood $= \frac{140 \times 100}{2} = 7{,}000$. When the leucocytes are so numerous that more than 100 occur in 20 fields, it is generally unnecessary to go further: and then (since $20 \times 0.05 = 1$) obviously the number counted $\times$ 100 is the number in a c.mm. of blood. I use a 12 mm. apochr. objective with 12 compensating ocular, which is a very good combination for counting purposes, and with which a field of 0.57 mm. diameter is readily obtained. The field is, of course, measured once for all with a stage micrometer, and the draw-tube length marked.

"DIHYDROXYPHTHALOPHENONE."

MR. CHAS. J. R. LAWDAY (Dartmouth) writes: In your issue of February 11th, p. 302, Dr. C. W. Buckley gives his experience with the above drug mentioning some of its disadvantages, but having used it myself in a number of cases, I so far have met with none of the troubles he mentions I am pleased to say. I have given it in 7½ gr. doses to patients suffering from bleeding piles, but have received no complaint as to any increase in the loss of blood. I have also found it very valuable in the same dose twice or thrice weekly, given to patients suffering from chronic constipation, and they have been very pleased with the result. I consider it a valuable addition to our list of purgatives and should like to hear the opinion of other medical men who have given it a trial.

APPENDICITIS AFTER OPERATION.

DR. SAMUEL WEST desires to correct two errors in the report of his remarks in the discussion on the prospects and vicissitudes of appendicitis after operation at the Royal Medical and Chirurgical Society, published in our last issue. In the reference to Dr. Hawkins's statistics it should have been stated that they showed that 72 per cent. of his cases recovered without operation and without a single death. Further, the estimated general mortality of 11 among all cases treated without operation should have been attributed to Fitz, and not as reported.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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The Harveian Lecture

ON

SOME NEW THERAPEUTIC METHODS IN DERMATOLOGY.

Delivered before the Harveian Society of London.

By MALCOLM MORRIS, F.R.C.S.Edin.,
Consulting Surgeon, Skin Department, St. Mary's Hospital.

[After thanking the Society for the honour of being invited to give the lecture, Mr. Morris proceeded as follows:]

Probably in no province of medical practice has greater progress been made recently than in dermatology. Measured by years, it is little more than a century since John Hunter classified skin diseases into those that mercury could cure, those that sulphur could cure, and those that the devil himself could not cure, and only about half as long since Erasmus Wilson treated them according to the general formula: arsenic inside and zinc ointment outside. The dermatologist of the present day looks upon these primitive methods with something of the pity which moved that scientific warrior, Major Dugald Dalgetty, when he found himself among men who fought with bows and arrows. But the very abundance and complexity of our therapeutic armaments tend to make the effective use of them in particular cases a matter of some difficulty. My purpose on this occasion is not to describe these modern methods in detail or to discuss fully the theories as to their mode of action which have been advanced. It will, I think, be more profitable to pass in rapid review the most important of them, and, while briefly indicating the special advantages and limitations of each, to endeavour to reduce the seeming diversity of their effects to an underlying unity of principle which, while enabling us to understand their mode of action, may help us to apply them accurately and to the best possible advantage in the treatment of the individual case.

As the field is too vast for even the most cursory review in the short space of time at my disposal, I will confine myself to the effects of some of the new therapeutic methods in chronic and obstinate forms of skin disease. Certain of these have hitherto been the despair of the dermatologist, and one of the most satisfactory features in the therapeutic revolution now in progress is that the results already achieved in dealing with several conditions which not long ago were most refractory to treatment gives good ground for hope that "chronic" will no longer be a euphemism for "incurable."

The Principle of Reaction.

From the observation of a large number of chronic affections of the skin—among which special mention may be made of psoriasis, eczema, sycosis, lupus, lupus erythematosus, ringworm of the scalp, scars and keloid, rodent ulcer, cutaneous epithelioma, and leprosy—I have been led to the conclusion that the general principle of treatment may be expressed in the single word, reaction. As a rule, without reaction there is no cure; unfortunately it does not follow that, given reaction, cure is certain. Reaction is a force which can work wonders if properly directed and controlled. In the present state of our knowledge we are but imperfectly able to control its operation. Reaction, which is simply response to stimulus, varies not only in degree, but in kind. The response varies according to the tissue or organ stimulated, and also according to the nature of the exciting agency and the strength and frequency with which it is applied. The mechanism of reaction is virtually that of inflammation, passing according to circumstances through the various stages of hyperaemia, infiltration, leucocytosis, exfoliation of epidermic structure, going on, if pyogenic micro-organisms invade the affected part, to suppuration, and ending, if unchecked, in necrosis of the deeper tissues. The milder form of reaction is exemplified by the transient form of erythema which follows the application of gentle heat. More active forms are produced by various blistering agents, and light rays properly applied; while severer forms are produced by croton oil, which has been employed in the treatment of ringworm of the scalp, and by the incautious use of x rays. Limited to hyperaemia and multiplication of white corpuscles, reaction may be regarded as a mode of quickening the tissues into healthy action with increase of phagocytosis.

"Alterative" Action.

Certain agents may have the power of producing—in addition to the phenomena of inflammation—a chemical or bactericidal or other specific action whose nature is still unknown. It is easy enough to understand how the induction of a bactericidal action can cure a process caused by bacteria, and how phagocytes may remove harmful substances as policemen rid society of malefactors. I am inclined to think, however, that in some affections the action of the remedy is what used to be called "alterative" in character. It either, as Dr. Creighton suggests, breaks a depraved habit in the tissues or kindles a slumbering process into a fiercer flame which in burning itself out destroys the disease. We must not, of course, allow ourselves to be misled by figurative language. All that we know about so-called alteratives is that they bring about a change of some kind which often ends in a cure. In whatever way the change is caused, it manifests itself in increased cell activity in the affected parts—in other words, by local reaction. Hence in many cases the first result of treatment is an exacerbation of the morbid process.

Agents (Causing Reaction).

Reaction may be caused by the external application of various drugs, or by the use of physical agents, such as heat, light, the x rays and radium, by drugs administered internally, by toxic substances generated within the body as the result of processes set up in the natural course of the disease, or by the artificial production of like conditions by the injection of serums or the administration of organic extracts; or by the combined use of external and internal remedies.

External Medicaments.

Of external medicaments causing reaction I need only mention here soft soap, sulphur, tar, salicylic acid, pyrogallol, and especially chrysarobin. Vigorous rubbing with soft soap, which contains strong alkalis, was at one time the chief—indeed, almost the only—remedy in use for chronic skin affections in the great days of Hebra. By this simple means the "miracle of cure" was undoubtedly wrought in a large number of cases. The reaction was intense enough to cause great pain, lasting a considerable time; then the inflammation gradually subsided, and with it the disease often faded away. Superfatted soaps, which soothe and cleanse but do not irritate the skin, have no curative effect; they are only mechanical adjuvants. The beneficial effects of sulphur in acne, and in superficial forms of sycosis, eczema, and other affections are due to the reaction which it causes. Every practitioner knows that sulphur baths at first often aggravate a chronic skin disease; not infrequently indeed it is made so much worse that not only the patient but the doctor becomes alarmed, and the treatment is discontinued just when it is beginning to produce its effect. The good done by tar, sulphur, and mercurial applications in psoriasis, eczema, sycosis, etc., is proportionate to the reaction which follows their use. The most striking effect of an external medicament on a skin affection, however, is the way in which chrysarobin cures chronic psoriasis. Used in the form of ointment, either alone or combined according to circumstances with tar or salicylic acid, it sets up inflammatory reaction, not in the affected parts, but in the healthy skin around. The pain thus caused makes the patient very uncomfortable and restless, and it is well to warn him that he has a bad time before him which will probably last two or three days. Sometimes the reaction is so violent that a general dermatitis is produced, the temperature goes up, it may be to 102° or 103°, with delirium and other symptoms of high fever. The condition is in fact one of systemic poisoning by an overdose of the drug. When the dermatitis has passed away it will be found that the patches of disease have disappeared. The recital of cases would be tedious, but I may just refer to one or two examples of the effect of the reaction caused by chrysarobin, which made a deep impression on my mind. Some years ago a young lady, who was about to be married, came to me almost covered with psoriasis. In her eagerness to get rid of it she bettered my instructions as to rubbing in chrysarobin to such a degree that acute toxaemia was produced. The whole cutaneous surface was in a blaze of inflammation, the temperature was 103.2°, the patient was delirious, and the situation decidedly alarming. The storm of reaction soon subsided, and the girl's skin showed no sign of the unsightly disease. The wedding took place in due course, and she was never again troubled by psoriasis. Similar symptoms of poisoning were observed in

an old gentleman afflicted with chronic corneal ulcers, whose troubles were made worse by psoriasis. When the dermatitis subsided the skin was found to be quite free from the disease. Not only was the psoriasis cured, but the corneal ulcers, which had been a source of discomfort to the patient, were found to be healed. That it is the systemic reaction which works the cure is, I think, shown by the familiar fact that if patches of psoriasis on one leg are treated with chrysarobin those on the other get well at the same time without any local application. It is almost superfluous to say that a remedy of such potency must be used with proper precautions.

But the point on which I wish to insist is that the practitioner must not be afraid of exciting reaction or too ready to discontinue the remedy when it has been excited. Reasonable patients are quite willing to submit to some temporary suffering if thereby they are likely to be delivered from a troublesome complaint. The effect of the remedy must of course be watched, and the strength of the application carefully adapted to the responsiveness of the skin; but, if need be, it should be used up to the furthest limit of tolerance. The danger signal is the oncoming of serious constitutional disturbance. Even this, however, should not deter us from using chrysarobin a second and a third time if necessary; it will generally be found that when the application is repeated the reaction is slighter than on the first occasion.

Another method of treatment which in my opinion cures by exciting reaction is mineral baths. The arsenical waters of La Bourboule and Levico, like the sulphur baths, often make psoriasis and eczema worse at first. Even indifferent waters like those of Bath sometimes have a like effect; hence patients are told that the waters of a particular place do not suit them, whereas the very fact that they cause reaction proves to my mind that they are beneficial. The arsenical pastes—used by some to destroy growths—produce their effect by setting up a reaction around the mass, which causes necrosis of the tissues in which it is imbedded, and thus brings about its separation. Powerful caustics—such as nitrate of mercury—not only directly destroy diseased tissues but give rise to reaction in their neighbourhood, which completes the cure.

Physical Agents.

Of physical agents, simple baths—hot or cold—and radiant heat produce the mildest form of reaction, and to that extent have a place in the therapeutics of chronic obstinate skin affections. Everyone knows that sea bathing often aggravates psoriasis and eczema; they should not, however, on that account be discontinued in chronic cases, for in the reaction caused by the salt water lies the hopes of the "alterative" effect which makes for improvement if not cure.

The old idea in treating lupus vulgaris was to destroy the affected tissues; the object is nowadays to set up a reaction which shall destroy the cause of the disease. The use of light, according to Finsen's method, always causes a reaction, the intensity of which varies according to the intensity of the light, and also according to the depth to which the disease extends and the amount of thickening and scarring which it has produced. Reaction is greater in a thin than in a coarse, thick skin. Persons of a dark complexion are less favourable subjects for the light treatment than fair people, the pigment hindering the penetration of the rays. The inflammatory phenomena constituting the reaction are accompanied by more or less pain, but there is seldom any constitutional disturbance. My experience is that the curative effect of the light rays is directly proportionate to the intensity of the inflammatory response; this clinical observation is confirmed by microscopic investigation.[1] Dr. J. M. MacLeod states that the histological sections of lupus vulgaris, after exposure to a Finsen lamp, give evidence of the beneficial effect of the inflammatory reaction. In the application of this mode of treatment, therefore, it should be the aim of the practitioner to produce a considerable degree of reaction.

With regard to the *x* rays, there is considerable difference of opinion among experts as to their action on tissues. Dr. MacLeod says that the microscopical appearances in tissues which have been subjected to the influence of the *x* rays differ from those seen in structures which have been exposed to the Finsen light, distinctive changes being seen in the diseased tissue which seem to be independent of an inflammatory reaction. Other authorities suggest that the action of the *x* rays is chemical in nature; others, again, that it is specific, causing devitalization and degeneration of the tissue elements of the integument. MacLeod himself concludes, after a careful review of such evidence as is available, that the action of the *x* rays is cumulative, and that when the cellular degeneration reaches a certain degree the toxic products of the broken-down cells are capable of setting up an inflammatory reaction. The clinical phenomena seem to me to warrant the belief that some part at least of the beneficial effects of the *x* rays is due to the reaction which they excite. That in the case of the rays, as in that of chrysarobin, there is something more than local reaction, however, may be inferred from the observation of the late Dr. Blacker,[2] that occasionally other patches of lupus vulgaris than those which were being treated improved at the same time, although they were not immediately under the influence of the rays.

Light and *X* Rays: Summary and Results.

I have now had five years' experience in the use of these methods in various affections. Full details of the manner in which they are employed, singly or in combination, and of the results of the treatment have been given by Dr. S. E. Dore and myself in a series of papers published in the British Medical Journal[3] and the *Practitioner*. I will not weary you by going over the ground again, but I take the opportunity of submitting a summary of our results up to the present date:

Lupus Vulgaris.—Of a total number of 67 cases of lupus vulgaris, in 19 the disease was of small, in 30 of moderate, and in 18 of large extent. In 3 of the first (small), in 10 of the second (moderate) and in 10 of the third (large) category mucous membranes had to be treated. In all the cases belonging to the first class a temporary cure was effected, but in most of them slight relapses calling for further treatment had occurred. In nearly all the cases belonging to the second category general improvement was brought about, and several of them were cured. In the majority of them, however, more or less frequent recurrence has taken place. Of the cases belonging to the third category—in which the disease had spread over the greater part of one or both sides of the face—nearly complete cure was achieved in 10. In 4 progress has been very slow, the patients still requiring continuous treatment; in 4 the treatment was not completed.

Rodent Ulcer.—We have treated 37 cases of rodent ulcer. These may be divided according to the stage of the process into three classes: (*a*) Pre-rodent, (*b*) pre-ulcerative, and (*c*) ulcerative. The first class (*a*) comprises 5 cases of small warty growths in which, although the diagnosis of rodent ulcer was somewhat doubtful, appearances were sufficiently suspicious to warrant destructive treatment. In all these complete recovery took place after a few applications of the Finsen light. In the second class (*b*) were 17 cases of rodent ulcer in the pre-ulcerative stage. The diagnosis was certain on clinical grounds. In one of them the disease, which was rather more extensive than in the others, was of the superficial serpiginous type; in another the disease was a small nodule which had followed the operative removal of a rodent ulcer. In all the cases belonging to this class the disease was cured for the time being, but in most slight recurrence has taken place. Of cases in the third class (*c*) we have had 15; in these there was advanced ulceration, and in some the lesions were of considerable extent, and most of them had undergone repeated operative treatment. In all these cases the treatment by Finsen light, supplemented by *x* rays, produced notable amelioration; healing took place even in the most extensive ulcers. In none of them, however, was the disease eradicated, and more or less continuous treatment has been required.

Lupus Erythematosus.—Of this disease 10 cases have been treated by the Finsen light. Nearly all were improved, but in none was recovery complete. In one in which the disease seemed to have been almost entirely removed, relapse subsequently occurred. In 3 cases the high frequency current was employed, and 2 of them were greatly benefited.

Ringworm of the Scalp.—Ringworm, which has hitherto been so troublesome to all concerned, is now very successfully dealt with by the *x* rays. The use of this method was suggested by Freund as long ago as 1896, but it was applied either in a wrong manner or too timidly, and the results were unsatisfactory. The problem has lately been solved by Sabouraud. His method is too complicated to describe here; an account of it may be found in the February number of the *British Journal of Dermatology*. It is sufficient to say that by his mode of applying the *x* rays the process of epilation can be completely carried out within the space of a month, the case then ceases to be infective. The growth of new hair does not begin till a considerable time after the last

infected hair has fallen out; hence there is no fungus to attack the young hairs. The efficacy of the new treatment as compared with the old, may be estimated from the fact that the disease can now be cured in three months. From the economic point of view this represents an immense saving of money. In the school for children infected with ringworm attached to the St. Louis Hospital in Paris, the average stay of a child was rather more than two years; it is now about three months. The cost of the treatment per head which used to be £80 is now a trifle over £10. As regards the mechanism of the cure Sabouraud insists that *x* rays have no parasiticide effect and great precautions are taken not to cause dermatitis. This, of course, is necessary or cicatricial alopecia would be produced. But that there is some reaction appears to be shown by the fact that some days after the application of the rays a slight erythema becomes visible in the area treated, and then gradually passes into a faint pigmentation. This to my mind represents a definite reaction in the depth of the follicle. The introduction of the method marks the beginning of a new era in the treatment of an affection which has previously been one of the stumbling-blocks of medical practice. It was fitting that we should owe the means of easy victory over a peculiarly rebellious disease to the distinguished man who has done so much to dissipate the darkness in which till lately its origin was enshrouded.

Sycosis, Acne, etc.—In addition to lupus vulgaris, rodent ulcer, and lupus erythematosus, cases of acne, sycosis, and other affections have been treated. In 2 cases of acne and 3 of sycosis the *x* rays were very beneficial after all other methods had failed. Three cases of keloid were treated—1 with the Finsen light, 1 with *x* rays, and 1 with *x* rays followed by the Finsen light. In 2 improvement took place; in the third treatment was abandoned before there had been time for it to produce much effect. Disfiguring scars are also successfully dealt with by the reaction caused by the light rays, leaving a soft healthy surface. In a man suffering from rhinophyma the hypertrophic mass was considerably reduced in size by the *x* rays. Several cases of alopecia were treated with Finsen light together with the high-frequency current, but the improvement was no greater than could have been brought about by other methods. In a case of well-developed leucoplakia of the tongue and mucous membrane of the mouth with ulceration, great relief was given by *x*-ray treatment. In two or three cases of malignant ulceration within the mouth, temporary improvement followed the use of the *x* rays, but the final result was not satisfactory. I think it right here to recall the fact that Dr. Schiff, of Vienna, was the first to call attention to the value of the *x* rays in these and some other chronic affections of the skin.

Radium.—We have used radium in several cases of rodent ulcer and lupus vulgaris. In small rodent ulcers we have not found that its effect is any better than that of the *x* rays, while in the case of large rodent ulcers the smallness of the area that can be treated with radium is a great disadvantage. In a patient with rodent ulcer, in whom a raised warty epithelioma-like growth developed on the side of the neck, the growth shrivelled, became pedunculated, and afterwards detached after about a month. Radium was applied for periods from ten minutes to half an hour. The objection arising from the smallness of the area that can be treated with radium applies also to its use in lupus. We have tried radium in dealing with small isolated nodules of lupus, but have not found it in any way superior to the Finsen light. In our experience the reaction caused by radium is preceded by a period of latency lasting from two to three weeks. After the application of five milligrammes of radium to the healthy skin in three persons for about twenty minutes a day during three weeks, small punched-out painful ulcers were produced. These took some weeks to heal, and left a slightly depressed pigmented scar. These scars became slightly telangiectatic and continued to be the seat of pain for several months after the application.

Internal Agents.

It is a fact familiar to all that certain drugs cause cutaneous reactions. Certain diseases have a like effect. Of modern remedies which produce their therapeutic effect by causing reaction I may mention tuberculin, certain serums, and adrenal, and thyroid extract. Any one who has seen the violent reaction caused by Koch's tuberculin in its original form—the TR is much milder, and, therefore, not so efficient on patches of lupus vulgaris must have been struck by the change which had come over the scene of disease when calm was restored. It looked as though at last Huxley's therapeutic ideal had been realized and it had "become possible to introduce into the economy a molecular mechanism which, like a very cunningly contrived torpedo, shall find its way to some particular group of living elements, and cause an explosion among them leaving the rest untouched."[4] The hopes thus raised were doomed to speedy disappointment, for it soon proved that the "torpedo" caused explosions not only in the places where cutaneous disease actually existed, but in hidden and—it might be—unsuspected points in vital organs like the lungs. Theoretically it was admirable, but it was not war in the therapeutic sense. The impossibility of limiting the reactive energy of tuberculin to the skin prevents in many cases the utilization of the specific properties in the treatment of lupus vulgaris.

Of serums or vaccines in dermatological therapeutics I can say little or nothing of my own knowledge. Dr. A. E. Wright asks us to believe that external antiseptics have no longer a place in dermatological therapeutics. According to him the proper way of applying such substances to the cure of diseases is by artificial means to stimulate the body to produce them within itself. When this has been accomplished all that remains to be done is to determine them to the particular site of infection, which I gather Dr. Wright thinks a comparatively small matter. If, he says, we take a normal man and test his protective substances against staphylococcus or against tubercle and compare him with a patient suffering from acne or furunculosis, it will be found that there is much less protective substance in the diseased man's blood than there is in that of the normal man. If he is inoculated with a staphylococcus vaccine the first result will be the appearance of new acne pustules or of a new crop of boils. This, as I understand Dr. Wright, is due to a diminution of the protective substances in the blood owing to the action of the poison on the cells using up whatever protective substance there may previously have been in the blood. This he calls the "negative phase" in the production of immunization; it is quickly followed by a "positive phase," in which a fresh supply of protective substances is produced. What is developed in the blood, says Dr. Wright, is a substance produced in the serum, which, though it does not kill staphylococci, paralyses them or makes them subject to phagocytosis; "it converts them into suitable pabulum for phagocytosis; it alters them so that the white corpuscles can afterwards ingest them." He has found that in the case of persons inoculated against staphylococcus the blood is richer in these substances than that of a healthy man. By means of his staphylococcus vaccine Dr. Wright states that he "has cured a number of cases of acne and furunculosis, with only one doubtful failure."[5]

The method is plausible, but it must be borne in mind that the majority of cases of furunculosis and acne are among the easiest of all skin diseases to treat. The staphylococcus can readily be killed by the antiseptics despised by Dr. Wright, without the constitutional disturbance caused by the vaccine. I am disposed to think that the good effects of his inoculations can be explained by the reaction which manifests itself in the aggravation of the lesions. Moreover, the method is far too complicated for general use, and even if boils "get well promptly" and acne "gets distinctly better" by its means, the use of such heavy artillery against these comparatively trifling ailments seems to be akin to the Russian methods of naval warfare. It would be interesting to learn how Dr. Wright has fared with his dealing with tubercle. It seems to me that here, as in the case of tuberculin, there would be a danger of quickening any slumbering embers of disease into a flame.

Captain E. R. Rost, of the Indian Medical Service, has recently[6] reported that he and others have had excellent results in the treatment of leprosy with a preparation which he calls "leprolin," a toxin of the cultivation of the bacillus leprae. This is prepared on the same lines as tuberculin. It produces a powerful reaction which lasts several days. Rost points out that the reaction varies in intensity, and as a rule, he says, the severity of the reaction may be taken as the index of the benefit that is likely to occur. He has used leprolin over 400 times without the production of any bad symptoms, and "in every case the disease has ceased to advance."

In four cases a complete cure seems to have been effected; at least there remains no sign of the disease. Akin to these methods is the injection of erysipelas toxins in cases of malignant disease that are past all surgery. The good effects of this plan in checking the progress of the disease and even causing it to recede to some extent, which have been noted by Coley of New York, have not been confirmed by observers in this country. It is well known, however, that an attack of

erysipelas often cures tuberculous and other chronic ulcers, doubtless by the modification of the sluggish character of the process produced by the reaction of the affected tissues.

Feeding with thyroid extract has a marked "alterative" influence in certain chronic affections of the skin. Its beneficial action in some cases of psoriasis was pointed out by Byrom Bramwell, but it was soon found that the effect was so evanescent as to make the remedy of little practical value; at any rate, that has been my experience, and I would explain its failure by its want of power to excite an adequate reaction. I have, however, found thyroid extract of use in quickening the healing of small indolent tuberculous ulcers, the manifestation of the condition connoted by the now obsolete term "scrofulodermia."

I have found adrenalin useful in lupus erythematosus owing to its tonic effect on the vascular system. This property would seem also to indicate its use in Raynaud's disease and "chilblain circulation," but in such conditions ichthyol may generally be relied on.

Under the head of internal remedies also comes the system of feeding with raw meat and flushing the system with large quantities of hot water. I have seen inveterate cases of psoriasis associated with rheumatoid arthritis which has resisted all the usual methods get well under this treatment. In addition to the eliminating of waste products brought about by it, the hot water doubtless causes a beneficial action on the skin.

Combination of External and Internal Agents.

Useful reaction can be produced in some skin affections by what may be called a mixed method. As a particularly good example, I would point to the effect on that intractable disease, lupus erythematosus, by Welander's method, of quinine (gr. ij to iij t. d.), combined with the external application of iodine. Under this treatment I have seen an obstinate case get well in a month. Adrenalin may with advantage be combined with the quinine. It is necessary to watch with special care the action of remedies used in combination to set up reaction, as they sometimes reinforce each other to an excessive, and it may be a dangerous, degree. Thus the administration of mercury internally is especially apt to cause symptoms of poisoning when combined with the extensive use of tar externally.

General Conclusion.

In conclusion, I would say that the moral of these discursory remarks is that, as a general rule, in the treatment of chronic and obstinate affections of the skin, the object to be aimed at is the production of reaction. So far from its being an accident to be avoided, I think that it is a most important part of the curative process. Of course, there must not be any excess of zeal, or the overwhelming force called into play may be as destructive as a too powerful ally brought in to suppress a rebellion. The means must in all cases be precisely adapted to the end that is aimed at. It would, for instance, be unjustifiably rash to run the risk of poisoning a patient with chrysarobin to cure a small patch of psoriasis on the elbow. Caution is particularly necessary in the use of the *x* rays, which, as every one knows, may, if used without strict precautions, cause necrosis of tissues, even extending through the thickness of a limb.

It is better as a general principle to produce reaction by a local application, but where this is found to be impossible an attempt should be made to excite it by means of agents within the body.

I do not wish to be understood as holding that the whole or even the essential part of the curative process consists in reaction alone. There may, as already hinted, be other factors which stimulate the vital processes into healthier activity, produce chemical changes, destroy parasites, or render the soil unsuitable for their growth, or make an environment in which they cannot live, or act in some way at present totally unknown.

The active principle in the cure may be generated or brought into operation by the reaction, and different kinds of reaction may have special functions. Much, too, must depend on the manner in which the reaction is excited; it is probable that a certain kind of reaction is adapted to a particular disease. This field of clinical and pathological research is as yet almost virgin soil. I think it will repay cultivation. I have only touched the fringe of a great subject, and I would ask you to take my remarks as conveying nothing more than a suggestion of a theory on which a rational system of treatment of some of the most inveterate diseases within the province of the dermatologist may ultimately be based.

References.

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CHRONIC CONSTIPATION AND ITS MEDICAL AND SURGICAL TREATMENT.

By W. ARBUTHNOT LANE, M.S., F.R.C.S.,

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In opening the debate on this subject at the Chelsea Clinical Society, on March 14th, Mr. Arbuthnot Lane said:

I feel very much the responsible position you have laid upon me in doing me the honour of asking me to open this debate. I agreed to do so with great pleasure for the reason that I am very much interested in the subject, which is one of extreme importance to the duration of life and to the health and happiness of the people, and because the mechanical conditions which are produced by the affection have, as far as I am aware, not been touched on or recognized by the pathologist.

Fortunately, it is always possible for any one to verify the accuracy of conditions which I have shown to exist very commonly in the human body by a sufficiently careful and accurate observation of the parts themselves. With many pathologists and anatomists the education of their special senses leads them to miss coarse changes which are obvious even from a considerable distance, while they devote valuable time to minute details. They do this the more readily since the conditions of the parts and the mutual relationships of the viscera differ very greatly after death from those present in life, especially in the erect position. I do not think I can do better than to place before you the conditions of the viscera which are consequent on an imperfect evacuation of the large bowel or cesspool of the gastro-intestinal tract. In the very large majority of cases such a condition is associated with the symptoms popularly comprehended under the term "constipation," but in a small proportion, while the large bowel up to the hepatic flexure or even to the splenic flexure may be constantly or frequently loaded, yet the patient obtains from the overflow a daily action which is usually solid, but may be fluid, and consequently makes no complaint of constipation—that is, though a patient may have a daily evacuation, he may still have a loaded large bowel. Again, the large intestine whose vitality has been depreciated both by local inflammatory changes and by the general loss of tone is thereby rendered liable to some specific infection, and ulcerative, membranous or other forms of colitis may develop in consequence.

The condition frequently may and often does date from a very early period, when, owing to the unsuitable feeding of the child, the intestines, and particularly the large bowel, are distended with gas, rendering the whole of the abdomen abnormally prominent, popularly known as "pot-belly." In these circumstances the caecum and ascending colon appear to suffer most severely, owing to the fact that this portion of the bowel is hung up at the hepatic flexure, which is rendered more acute by the distension, and consequent elongation, of the transverse colon in a downward direction. This distension of the transverse colon by dragging upon the band which supports the splenic flexure renders it difficult for the contents of the transverse colon to pass into the descending colon. In consequence of this distension the large bowel becomes more or less inflamed, and this inflammation may be sufficient to produce a distinct peritonitis as manifested by effusion.

In a paper[1] read before the meeting of the British Medical Association at Newcastle-on-Tyne in August, 1893, I called attention to the presence of fluid associated with distension of the intestines resulting from malnutrition, and described the manner in which hydrocele and hernia are produced in infancy by the increase in intra-abdominal tension resulting from flatulence and indigestion. It is to a certain extent analogous to the peritoneal effusion which accompanies cases of obstruction of the large intestine by malignant growth, etc. The appendix shares in the inflammatory process, and may do so sufficiently to become attached in the position in which it happens to lie at the time. If the condition occurs early in life the appendix may become attached

to the posterior abdominal wall in relation with the liver, and may become considerably elongated by the forcible downward displacement of the caecum in consequence of the development of this organ, and it is elongated from the distension by its contents. Or, again, the appendix may become fixed at any point in the line taken from that just described to the left side of the true pelvis, which is occupied by the abnormal caecum when it has reached its limit of distension. Such fixation of the appendix may not give rise to any obvious symptom, but it leaves the organ more or less damaged functionally, and capable of becoming obstructed and acutely inflamed at any time. What I mean to imply by this is that, unless in the very exceptional cases in which the appendix becomes inflamed in consequence of the entry into it of a foreign body, a so-called appendicitis is in the first instance directly consequent upon a condition of distension and inflammation of the caecum at some period or other. Or, in other words, appendicitis practically never exists except as a consequence of the overloading of the intestinal cesspool, and must of necessity have been associated at some time or other with other results of such distension.

As I have pointed out, the caecum in its progressive distension is forced downwards and inwards into the true pelvis. This results chiefly from its weight, since in the assumption of any attitude other than the recumbent a considerable difficulty exists in the passage of faecal matter through the hepatic flexure, and frequently, also, through the splenic flexure, since the loaded transverse colon accompanies the caecum in its descent. This forcing down of the caecum and transverse colon is much helped by the sedentary position almost universally assumed during defaecation in civilized communities. Under natural conditions the caecum and transverse colon are forced up and emptied by the pressure exerted by the thighs upon the abdomen in the attitude of squatting in defaecation. On the left side the pressure of the thigh raises the sigmoid loop, and facilitates the passage of faeces from the sigmoid into the rectum.

Again, the support which should be given by the muscles of the abdominal wall to the intra-abdominal contents is enormously reduced by their atrophy consequent upon the use of stays, while the constriction they exert on the abdomen below the costal margin exaggerates the obstruction at the flexures. The squatting position renders it impossible for an inguinal or a femoral hernia to develop during defaecation, as so often results in constipation when the ordinary watercloset seat is used.

The inflammation of the caecum and ascending colon consequent on their excessive distension produces an adhesive process between the outer wall of this bowel and the peritoneum with which it comes in contact. The formation of these adhesions is advantageous, in that they help to support the increasing weight of this portion of the bowel and to some extent to oppose its distension and downward displacement. Besides existing along the outer aspect of the colon these adhesive processes develop about the hepatic flexure, and by their contraction they draw up the hepatic flexure, exaggerating still further the acuteness of its angle and the condition of obstruction at this point. Precisely similar changes take place at the splenic flexure. After a time these adhesions develop into distinct mesenteries and strong bands.

The fixation of the bowel by these adhesions renders it less able to perform its normal functions and the muscle wall wastes in a degree corresponding to the limitation of its free action. In the sigmoid, which is driven down and obstructed, adhesions form between its mesentery and the peritoneum external to the mesentery, the intestine itself finally becoming bound down also to a varying extent. In consequence of this process the sigmoid is so contracted up that it ceases to be a loop and forms a straight conduit. This alteration facilitates the passage of faecal matter through it.

The presence of the inflamed large bowel in the true pelvis readily interferes with the functioning of the ovary and Fallopian tube, and I have seen these structures involved in adhesions about the caecum and sigmoid. In this way constipation would appear to play an important part in the sterility so common among women.

The distension of the caecum renders the entry of contents from the ileum difficult, and, in consequence, the small intestines become progressively dilated from below upwards by their dammed-back contents. This process of dilatation is accompanied by a thinning of the muscle wall of the small intestine, which naturally diminishes its capacity of performing its drainage efficiently.

The proper functioning of the stomach is interfered with partly by the delayed action of the intestines and partly by the strain exerted upon the stomach, through the great omentum, by the loaded and displaced transverse colon, especially in the sedentary or erect posture. In consequence the stomach becomes progressively dilated.

In very advanced cases not only may the small intestines become sufficiently inflamed to form adhesions to the surrounding parts, but the stomach itself may be still further disabled by the formation of adhesions about the pylorus, such adhesions being developed for the purpose of supporting an organ which is abnormally heavy, and which retains its contents for an excessive period of time.

In a large proportion of these cases of constipation the kidneys are mobile. Indeed in many of the cases I have operated on for chronic constipation not only had the appendix been removed without affording relief to the symptoms complained of by the patient, but one or both kidneys had been fixed by the operation of nephrorrhaphy for this very mobility. The kidneys are rendered mobile by two factors. One is the strain exerted on them by the loaded colon, and as the drag exerted on the right kidney is much greater than that exerted on the left the mobility of the former organ is correspondingly greater. The second factor in determining and facilitating the displacement of the kidneys is the absorption of the fat about the kidneys. This I shall show later to be the direct consequence of the auto-intoxication associated with this form of intestinal obstruction.

The clinical symptoms claim our attention next. Perhaps one of the most conspicuous is a fullness and tenderness in the region of the caecum, which organ in the erect and sitting postures in these cases of any extent reaches well into the true pelvis. In some cases its outline can be readily seen, while in all cases it can be defined by palpation. This is particularly the case if the patient is examined in the erect posture. A finger in the rectum or one in the vagina and another in the rectum may with the assistance of the hand on the abdomen show the position of the caecum in the true pelvis and the area of pain corresponds to the limits of the caecum. It is most painful where the caecum lies upon a firm background such as the iliac fossa or pelvic brim. The tenderness extends upwards to the hepatic flexure, and pressure on the loin below the first rib causes pain and tenderness in many cases. This pain is partly due to the strain exerted upon this area by the loaded bowel when the trunk is in the erect position, and partly to the thrusting in an upward and backward direction of the upper limit of the ascending colon. The pain, tenderness, and fullness of the distended caecum become greater as the day goes on, and are relieved after an interval when the patient assumes the supine posture, when the bowel is placed in such a mechanical relationship that it is able to relieve itself of some of its contents. In the supine position the patient is often unable to lie on the left side owing to the drag exerted by the still loaded cesspool upon its attachments. Again, the transverse colon is often a source of much pain and tenderness, but not in most cases to such an extent as the caecum. It can usually be accurately defined by palpation, while in some few cases its position is apparent to the eye. As it frequently becomes adherent to the ascending colon the area of the tenderness of the one merges into that of the other. If there is much habitual overloading of the transverse colon besides the pain and tenderness along its length there is a dragging pain and tenderness in the situation of the splenic flexure in front and to the left side.

The patient frequently complains of pain along the course of the sigmoid, and by palpation the surgeon can readily detect the presence of this portion of bowel as it lies telescoped in its length and fixed in a straight line running obliquely downwards and inwards along the iliac fossa. Very little pressure upon this inflamed and attached segment of bowel causes the patient the same sort of pain that is experienced when faecal matter is driven along it. The patient is liable to attacks of considerable pain and tenderness in the region occupied by the inflamed and dilated caecum, and such attacks are frequently mistaken for inflammations of the appendix alone. The appendix, which may or may not be inflamed, is frequently removed for the relief of such conditions of acute distension, the patient after such operations obtaining only the temporary relief that is afforded by the prolonged assumption of the resting posture favourable to the emptying of the cesspool and to the care and attention

which his bowels receive during the period of convalescence. When the erect attitude again is assumed the patient soon becomes affected with the troubles from which he suffered before his appendix was removed. This condition of the large bowel is almost the only cause for the pain which the patient experiences after these unsuccessful appendicular operations excepting such conditions as are due to an incorrect diagnosis in the first instance. This is exactly what one would expect from a knowledge of the causation of appendical disease.

That the operation of removal of the appendix not infrequently fails to relieve patients of their painful symptoms is well known to all of us, and no amount of statistics pointing to a contrary conclusion to this can be relied upon. It is possible at the time of the operation to gauge fairly accurately the amount of success that will follow upon the removal of the appendix, and, if necessary, upon the division of such bands as may be constricting the lumen of the caecum and ascending colon, or hitching up and obstructing the hepatic flexure.

I think that the failure to permanently relieve patients of their symptoms in a number of so-called cases of appendicitis is forcing itself daily more and more convincingly upon the profession, and is calling for a more thorough study of the physical conditions which produce appendical inflammation or which are associated with it. It seems to me that the consulting physician and the general practitioner can help the surgeons most materially by recounting their experiences of the subsequent history of these cases after operation.

In certain cases the patient refers all the pain to the epigastrium or to the umbilical region, and the many symptoms comprised under the term indigestion may be present in an aggravated form, and these I do not think it necessary to describe in detail. In such cases of advanced constipation in which the small intestine has become affected to such an extent that it is pinned down at intervals severe pain is complained of, and certain loops become so palpable during attacks and the pain so severe as to suggest obstruction.

The symptoms due to the absorption of toxins all tend to produce an appearance in the patient of premature senility. The patient wakes up with a feeling of weakness and rises unrefreshed from his sleep. There is an utter lack of tone and an inability to perform the ordinary routine duties. Consequent upon this weakness the respiratory function is carried out in an unsatisfactory manner, and attitudes of rest are habitually assumed, any active exercise being quite impossible, and the patient acquires resting deformities which I have described elsewhere. The consequent diminution in respiratory capacity becomes an added factor in the progressive loss of energy, and diminishes the resisting power of the individual. The diminution of the power of resistance, which is brought about by the presence of the toxins and their consequences, frequently cause a condition of oral sepsis, the teeth becoming carious and the gums inflamed from the invasion of organisms. This naturally adds to the depression of the vitality of the patient. The skin of the patient becomes dry, thin, and loose, and in the flexures, such as the axilla and groin, the secretions acquire a nasty offensive smell. This smell is also perceptible in advanced cases, when the abdomen is opened and the viscera are exposed. The colour of the skin is altered; it becomes a dirty brown colour. This pigmentation is exaggerated in certain parts, as, for instance, about the lower eyelids, at the inner angles of the eyelids, in the temporal region, in the neck, in the folds of the axilla, near the nipple, round the umbilicus, round the anus and about the generative organs. In some cases isolated well defined pigmented areas exist on the body.

In infancy the nidus afforded by the irritated lymphatic glands in the mesentery and by the presence of fluid in the peritoneal cavity serve as excellent media for the development of tubercle. The loss of resisting power brought about by the presence of toxins renders the child liable first to the entry of the organisms in the form of an eczema, and later to the entry of tubercle into areas whose vitality is still further depreciated by traumatism. Later in life tubercle, gout, gastric ulcer, rheumatoid arthritis, and many other similar diseases attack this class of patient with what might almost be called selective action.

Perhaps one of the most conspicuous consequences is the loss of fat that the patients undergo after a certain period of time. How long they are able to hold out against the influence of the ptomaines without losing fat varies greatly in different subjects. Once, however, that it commences, this loss of fat increases with marked activity, and it affords the best indication one can have that the patient is going repeatedly downhill. I particularly call your attention to the importance of this symptom, as I believe it is one that should lead us to take very active measures.

Associated with this symptom of loss of fat there are the symptoms arising from the dropping of such organs as are largely dependent upon the presence of fat for their retention in their normal position; I refer particularly to the kidney and the uterus. The toxin would appear to exert a special degenerating influence upon the sexual apparatus which is particularly marked in women.

There is often also a considerable amount of mental depression, and this is notably the case among the insane, in whom the presence or absence of a small quantity of toxin makes the difference between a manageable and an unmanageable patient.

In considering the question of treatment I do not propose to deal with any form other than operative, since I assume that everything short of operative interference has been tried. When it becomes apparent that something must be done beyond drug and other such treatment, the question resolves itself into whether an attempt should not be made to liberate the constriction by the division of bands or adhesions, or whether it would not be better to establish direct continuity between the lower end of the ileum and the termination of the large bowel. One's general experience is that while in men very considerable alleviation of symptoms may frequently be obtained by the division of bands and adhesions, nevertheless, in women, as a rule, it is better to proceed at once to the deflection of the faecal contents from the greater part of the large bowel.

In regard to the operative procedure itself I divide the ileum at about 6 in. to 8 in. from the caecum and connect the proximal end with the sigmoid, or should the rectum, which in these cases is dilated, afford a more suitable site for implantation I establish continuity with that part of the intestinal tract. The operation is extremely simple and its results are excellent, providing that the case has not been allowed to drift on till adhesions of the small intestine and considerable dilatation of the stomach have taken place. I cannot urge too strongly the importance of operative interference being carried out at an early period since the benefits to be gained vary inversely with the length of time during which the constipation has existed and with the mechanical changes resulting from such constipation.

Many have objected to the operation on the ground that the patient will be affected by persistent chronic diarrhoea. Such is certainly not the case. In a large proportion of the cases the patient has still for some considerable time to take drugs, or by preference use glycerine enemata, which latter are advisable in that they obviate any possible back-flow of faeces along the large bowel and their accumulation in the caecum. In a small proportion of careless feeders a certain number of fluid motions may follow upon an inordinately large vegetable meal such as not uncommonly occurs in the diet of the poor. The question of age appears to be a matter of no moment, but, on the other hand, the duration of the colonic obstruction is one of the most vital importance.

REFERENCE.

1 *The Causation and Treatment of Hydrocele and Hernia in Young Infants.*

NEW METHODS OF STUDYING AFFECTIONS OF THE HEART.

BY JAMES MACKENZIE, M.D.,
Burnley.

III.—THE ACTION OF DIGITALIS ON THE HUMAN HEART—(*Continued*).

THE EFFECT ON STIMULUS PRODUCTION (CHRONOTROPIC EFFECT) AND EXCITABILITY (BATHMOTROPIC EFFECT).

At the end of systole all the functions of the heart are for the time being abolished. The starting of the contraction is due to the power possessed by the muscle fibres of the heart to create within themselves material capable of stimulating the fibres to contract. Though all the fibres of the heart possess the power, those fibres at the mouth of the great veins possess this power in a greater degree, and hence the stimulus to contraction normally proceeds from this part over the whole heart. In addition, these fibres possess the power of creating

the stimulus matter in a remarkably regular manner, with the result that the heart normally beats with great regularity—in striking contrast to what happens when other parts of the heart take on the inception of the rhythm. The power to receive the stimulus—that is, excitability—is a distinct and definite function of the heart-muscle fibre. As this function may vary, the rate of the heart may depend on the susceptibility of the heart to stimulation. The stimulus material continues to be created until sufficient is formed to overcome the excitability of the muscle fibres.

When the heart's action becomes slower under the influence of digitalis, is it due to the slower formation of stimulus material (chronotropic effect) or to diminished excitability of the heart muscle (bathmotropic effect)? I know of no means by which we can distinguish whether the slowing is due to one effect or the other.

The fact that digitalis slows the heart is so well known that I need not dwell at any length on this part of the subject. I quote the following case, however, to demonstrate that the digitalis in materially affecting either the chronotropic and bathmotropic functions, does not affect the dromotropic (conductivity). In this respect this case is typical of most cases when the pulse becomes slow and regular under the influence of digitalis.

Case I.

Male, aged 34, schoolmaster, has been rather short of breath for two years. During December, 1902, he was troubled with violent beating of his heart and shortness of breath. He rested a week in bed and felt better. In the beginning of March, 1903, he again become very short of breath and his legs began to swell. I examined him on March 15th, and found him propped up in bed. He complained of shortness of breath and pain over the region of the liver. The respiration was short and shallow, thirty per minute. Both legs were greatly swollen and the abdomen was distended, but no fluid could be detected. The skin and muscles over the upper part of the right side of the abdomen were very tender to pressure. The liver was enlarged, extending 3 in. below the ribs. There was marked pulsation of the veins of the neck of the auricular type (see Fig. 1). The pulse was small, soft and rapid, 95 beats

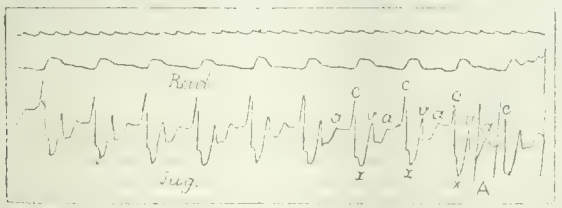


Fig. 1.—Simultaneous tracing of the radial and jugular pulses during failure of compensation. Note the slight increased *a-c* interval (space A).

per minute. There was a diffuse ill-defined cardiac impulse, the heart's dullness extended transversely from 2 in. to the right of the sternum across to 1 in. outside the left nipple line. There was a slight systolic murmur at all the areas. The urine was scanty and free from albumen. He was a steady man, but a heavy smoker. (He has subsequently suffered from an attack of rheumatic fever.) The patient was restricted to a milk diet and prescribed a pill containing pulv. digitalis, pulv. scill., pil. hydrarg., ext. hyoscyam.; of each one grain, one to be taken three times a day. Gradual improvement took place. After March 21st the urine became more abundant, the liver dullness diminished, and the tenderness of the covering tissues became less marked, though the pulse rate at times continued as rapid as ever. By April 1st the liver was normal in size, all tenderness of the superficial tissues had gone, the heart's dullness had diminished by 2 in and only a slight systolic murmur was heard at the mitral orifice, and the urine was abundant and all dropsy had disappeared. The pulse rate had fallen to 65, and the venous pulse was not so large (Fig. 2). By April 10th the patient had quite recovered, and the venous pulse had almost disappeared (Fig. 3).

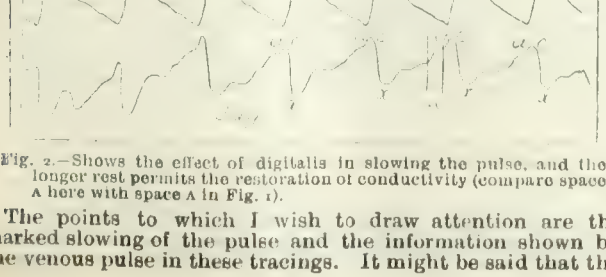


Fig. 2.—Shows the effect of digitalis in slowing the pulse, and the longer rest permits the restoration of conductivity (compare space A here with space A in Fig. 1).

The points to which I wish to draw attention are the marked slowing of the pulse and the information shown by the venous pulse in these tracings. It might be said that the slowing was due to other agencies employed besides the digitalis, but the same results as are here shown have happened with the prescription of the tincture of digitalis and of digitalin, so that one can reasonably attribute the slowing of the digitalis. This slowing is shown to be unaccompanied with any depressing effect on the conductivity. Rather we can say that the conductivity has improved, inasmuch as the *a-c* interval, space A, in Fig. 1, is greater than the same interval in Figs. 2 and 3. The increase in the length of the *a-c* interval in Fig. 1 is due to the exhaustion consequent on the long-continued rapid action of the heart, and the shortening of the period in Figs. 2 and 3 is due to the beneficial result of the rest obtained by the slowing of the heart—a result to be expected from what was shown in the two previous papers of this series. We can therefore conclude that while the digitalis then depressed the function of excitability and stimulus production, it did not depress the function of conductivity.

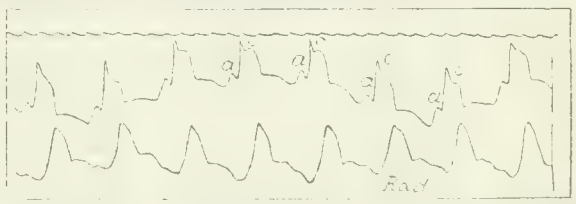


Fig. 3.—With continued improvement the jugular pulse has almost disappeared, the tracing only showing a small wave (*a*) due to the auricle before the carotid pulse (*c*).

Fig. 3 is instructive as showing the disappearance of the venous pulse, except for a small wave *a*, due to the auricular systole. The subsidence of the jugular distension and the greater fullness of the carotid alters the character of the tracing, for all these tracings were taken at the same place, immediately above the inner end of the right clavicle.

Effect on Contractility (Inotropic Effect).

The function of contractility is the most essential and the most notable function of the heart muscle. The more vigorous this function the more forcible will be the contraction of the heart. Certain circumstances materially affect this function, none more beneficially than rest. Within certain limits, the longer the pause the more vigorous will be the contraction, and the contraction will also last longer. It is a matter of everyday experience that a heart beating at a certain rate which is normal to the individual results in the circulation being efficiently carried on. An excessive slowing is no more conducive to an efficient circulation than an excessive quickening. The rate most compatible seems to be that which permits the heart muscle just enough time to recover its full power of contraction. As this function, like all the other functions of the heart, is abolished during systole, its recovery is gradual. If stimulated to contract too soon after systole the contraction is weaker and shorter in duration than if time were given it to recover fully. We have already seen how short a time is sufficient to make a great difference in the rate of conductivity, and we shall see how short a time is sufficient to make a great difference in the vigour of contractility.

The good effect of digitalis on contractility may be due simply to the fact that in slowing the rate (chronotropic or bathmotropic effect) it gives time for the function of contractility to be restored; but that digitalis under certain circumstances may affect the function of contractility directly can be demonstrated in a most striking and convincing manner. It is again to Wenckebach that we are indebted for the manner in which depression of conductivity can be recognized. From among the groups of allorhythmia, where every second beat rhythmically varies, Wenckebach distinguished one where a small beat regularly followed a large beat, while the rate of the heart may be perfectly regular. He, most appropriately, desires to limit the name pulsus alternans to this form of allorhythmia (see Figs. 5 and 8). Hitherto the name has been applied very loosely to arrhythmias that we now recognize as due to extra systoles. Wenckebach's explanation of the cause of pulsus alternans is as follows: When contractility is depressed, if time be allowed for a full and strong contraction, the longer duration of contraction encroaches upon the period of rest, so that by the time the next stimulus arrives the contractility has not sufficiently recovered, and a smaller and shorter contraction results. As this contraction is shorter in duration, the period

of rest is thereby lengthened before the next stimulus arrives, so that the contraction will be stronger and longer; being longer it will again encroach upon the period of rest, and so the process of alternation goes on. For the interesting and convincing manner in which Wenckebach demonstrates the real nature of this allorhythmia I would refer the reader to his book.

CASE II.

Female, aged 54, enjoyed good health till 1900, when she began to be short of breath. Towards the end of 1901 the difficulty in breathing increased and her legs began to swell. I saw her first in November, 1902, and she was then very weak and had to be propped up in bed, her legs and abdomen being swollen and urine scanty. The pulse was small and weak, and there was a large pulsation in the veins of the neck. The heart's dullness extended 2 in. to the right of the sternum and 1 in. to the left of the nipple line. The sounds were clear and free from murmur. I prescribed the pill of digitalis, calomel, and squill, and it speedily increased the flow of urine, diminished the dropsy, and slowed the pulse, though the jugular pulse continued large (Fig. 1).

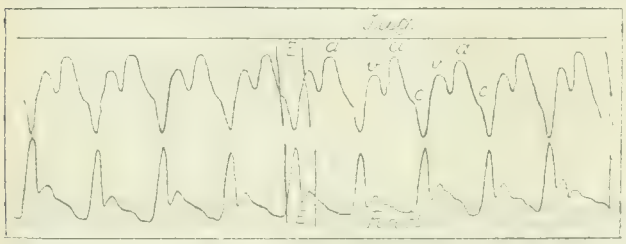


Fig. 4.—Jugular and radial pulses after partial recovery from an attack of failure of compensation in November, 1902. The jugular pulse is of the auricular type. Compare space E (period of ventricular systole) with space E in Fig. 7.

Unfortunately she was seized with severe salivation and ulceration of the gums, and the pills had to be stopped. She became worse after the pills were stopped, and though I tried digitalin and tincture of digitalis, no effect was produced. She again tried the pills, but soon began to salivate and had to stop them. After trying other remedies unavailingly she hit upon the plan of taking the pills with her food. She suffered no more from the salivation and benefited greatly by the pills. By February, 1903, she had made a fair recovery. I did not see her again till the beginning of November, 1903, when she was again suffering from shortness of breath, persistent cough, and unable to lie down. There was no dropsy. She had been occasionally taking the digitalis, calomel, and squill pills, and I advised her to take them regularly, three daily. They seemed to relieve her, and on November 14th the pulse tracing showed a rhythmical variation of the kind described as the pulsus alternans (Fig. 5).



Fig. 5.—Typical pulsus alternans due to digitalis. Each pulse period is of the same duration, while the size of the beat varies rhythmically.

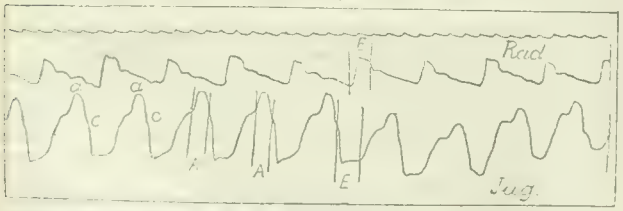


Fig. 6.—Taken at the same visit as Fig. 5, to show that there is no affection of conductivity during the alternating action, and apparently no alternating action of the auricle corresponding to the alternating action of the ventricle (November, 1903).

This arrhythmia had disappeared by the 17th, and I have never found it to recur. The patient gradually recovered from this attack, and I did not see her again until November, 1904. She was then very ill, her legs and abdomen being enormously swollen, and her left pleural cavity contained a large quantity of fluid. Her pulse was now continuously irregular, and the venous pulse had completely changed its character from one of the auricular type (Figs. 4 and 6) to one of the ventricular type (Fig. 7).

Digitalis in its various forms and strophanthus was pushed, but without result, and the patient died on December 11th, 1904. At the *post-mortem* examination there was found slight stenosis of the mitral orifice.

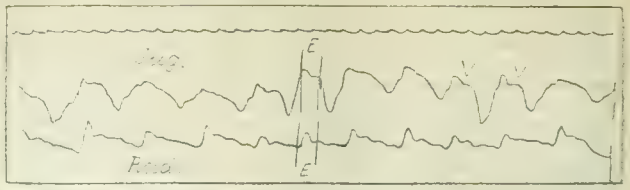


Fig. 7.—Simultaneous tracings of the radial and jugular pulses taken on November 9th, 1904. The jugular pulse is now of the ventricular type, and the rise in the jugular during the ventricular systole (space E) is in marked contrast to the fall during this period in Figs. 4 and 6. There is no wave due to the auricle; the inception of the rhythm is here taken up by the ventricle, and in consequence the rhythm is continuously irregular.

The point to which I wish to direct attention in this case is the occurrence of the pulse-beats in Fig. 5 at perfectly regular intervals, showing that the arrhythmia is entirely due to variations in the size and duration of the ventricular systole. Fig. 6 gives the jugular pulse at the same time, and shows that here there is no effect on the conductivity, the *a-c* interval corresponding to that in Fig. 4. It also shows that the alternating action of the heart has no appreciable effect on the auricular systole, as the waves *a* are apparently of the same size. The space E in all these tracings represents the time of ventricular systole during which the semilunar valves are open, and it will be noted that in the jugular pulse in Figs. 4 and 6 this period is occupied mainly by a great fall, while in Fig. 7 it is occupied by a great rise. Furthermore, there is no sign of a wave due to the auricle in Fig. 7, implying that here the ventricle has taken on the inception of the rhythm. Note that, with the inception of the rhythm by the ventricle, the rhythm of the pulse is continuously irregular. It might be suggested that in this case the alternating action was due to one of the other drugs accompanying the digitalis, but the fact that the same result followed the administration of the tincture in Case III, and of digitalin in a case I shall record later, and agrees closely with experimental production of the pulsus alternans in Fig. 12, points fairly conclusively to digitalis being the potent agent in producing the pulsus alternans in this case.

CASE III.

Female, aged 44, has suffered since 18 years of age from several attacks of rheumatic fever. Seen first on November 10th, 1903, complaining of shortness of breath and palpitation on the slightest effort. The pulse was small, quick, and regular, 100 per minute. There was great distension of and pulsation in the jugular veins. The apex beat was

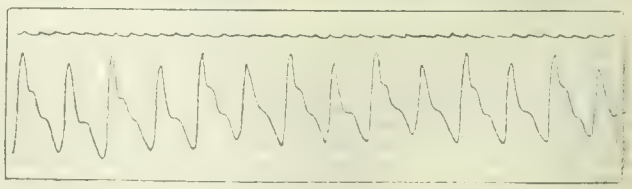


Fig. 8.—Typical pulsus alternans due to digitalis.

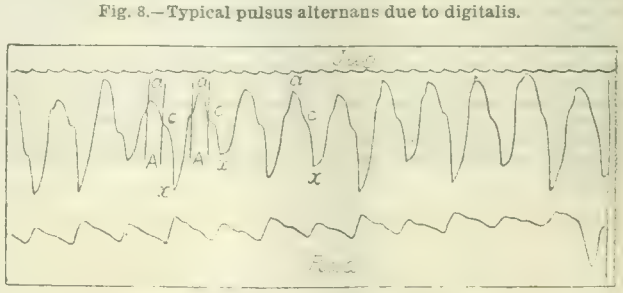


Fig. 9.—Shows the same things as Fig. 6.

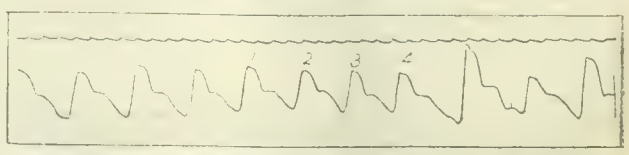


Fig. 10.—A slight alternating action occurs in the first five beats, then the heart rate quickens, producing the beats 1-4, which are regular in size. The prolonged pause after 4 is followed by a large and longer beat, which so exhausts contractility that the next beat is smaller and shorter, and the alternating rhythm is evidently again started.

large and forcible in the fifth interspace 1½ in. outside the nipple line. The heart's dullness extended 2 in. to the right of the middle line. There was a loud, long systolic murmur—heard at all the areas, loudest at the mitral. She was prescribed a mixture containing tincture of digitalis and tincture of iron, 5 minims of each, three times a day. On November 31st her pulse was observed to be irregular, and a tracing showed a good example of the pulsus alternans (Figs. 8 and 9).

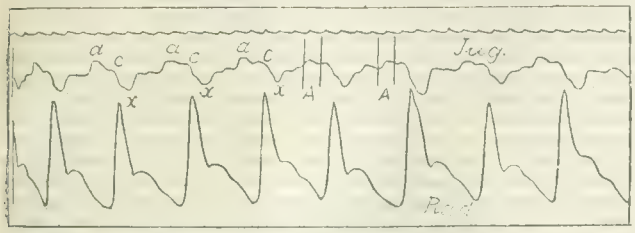


Fig 11.—Shows the persistence of the alternating action in the radial pulse with marked slowing of the rate, and with no apparent effect on the auricle or on conductivity.

From this date the patient steadily improved. On November 3rd the tracing, Fig. 10, was taken. By November 8th she felt very well, the pulse being slower and fuller, and the jugular pulse much smaller, though a slight alternating rhythm is still observable in the radial pulse (Fig. 11). By the 14th all signs of the jugular pulse and of the pulsus alternans had disappeared, the heart's dullness being greatly diminished and the patient felt much better. Since that date she has had several slight relapses, and though the digitalis has been pushed I never got so marked an alternating rhythm as in these tracings, though after long use of the drug I occasionally detected a slight form of this arrhythmia.

In the jugular tracing of Figs. 9 and 11 there is, again, no sign of conductivity being affected, and it should be noted that, so far as one can judge, the arrhythmia did not appear to affect the auricle. Fig. 10 is of interest. The first part of the tracing shows a slight alternating action with the pulse beats occurring at regular intervals till the beats marked 1-4 occur at slightly more rapid rate, and these beats correspond in size to the smaller beats in the first part of the tracing. This diminution in size is manifestly due to the fact that contractility has not had time to recover. After the fourth small beat there is a pause longer than usual, followed by the largest beat in the tracing. This large beat is manifestly due to the fact that the contractility has had more time for recovery by reason of the long pause after the preceding small beat. The exhaustion after the large wave results in a small wave followed by a large, and here is apparently the beginning of a period of alternating pulse beats (unfortunately the tracing was stopped here). Hoffmann and Wenckebach have particularly referred to this manner of starting the alternation.

I am inclined to think that there may be found a means of estimating the condition of the function of contractility by noting what effect a change in the period of rest has upon the size and character of the succeeding pulse beat. In a future paper I shall demonstrate this method with more fullness.

This depression of contractility is not common in cases where the auricle is active. From among a large number of observations I have only found three or four instances, and I might have had some doubt in attributing the effect to digitalis were it not that in cases of ventricular rhythm the effect is much more pronounced, and I hope to demonstrate how a depressed condition of contractility in cases with ventricular rhythm can be connected with a similar depression in cases with the auricular or normal rhythm. Furthermore, the following experimental observations demonstrate the justness of the interpretation given above.

Since I wrote this description of the effects of digitalis in contractility, Professor H. E. Hering has sent me the results of some experimental work done in his laboratory at Prague. In one paper Pletnew describes the effect of electric stimulation on the hearts of rabbits under the influence of medicinal doses of digitalis. The drug was carefully pushed, and in two instances, of which he gives tracings, the digitalis produced an alternating effect on the contraction of the heart. It will be seen in Fig. 12 that the arrhythmia is a good example of the alternating action of the ventricle and is in perfect agreement with the results I have just described in the human heart. These tracings also confirm in a most striking manner Wenckebach's description of the nature of the pulsus alternans. By careful measurement of the events in Fig 12 it will be seen that the starting of the V_s is perfectly regular, but that systole of the lesser beat is distinctly shorter in duration, so that the period of rest after the short beat is distinctly longer than after the large beat. Wenckebach has further pointed out that a beat may drop out from exhaustion of the function of contractility, and the missed beat at x Fig 12, is due to this cause. The preceding beat is very small and shows the exhaustion is increasing. There is no beat following the auricular systole a'. It might be said that the missing of a beat was due to the depression of conductivity, so that the stimulus failed to reach the ventricle from the auricle; but I have already shown that when digitalis affects conductivity so as to produce a ventricular intermission, that the time between A_s and V_s gradually lengthens, and that the V_s succeeding the pause occurs at a shorter interval after the A_s. By careful measurement it will be noted that conductivity is not in the least affected at any period here, the interval between A_s and V_s being a constant one. The V_s after the pause is the longest and largest in the series, and confirms the explanation I gave for the large beat in Fig. 10. These tracings also confirm the facts shown in my tracings that it is only the contractility of the ventricular fibres that are affected by medicinal doses, for the auricle manifests no corresponding arrhythmia.

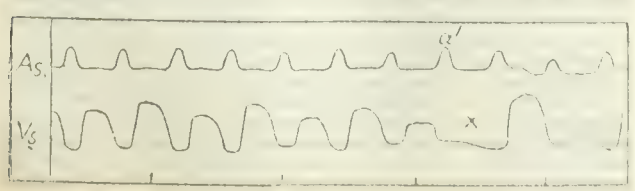


Fig. 12.

Another striking fact brought out by these experiments of Pletnew is that in no instance is there shown any affection of conductivity, affording therefore a support to the statement I have made that digitalis only affects conductivity when this function has been previously damaged. The fact that contractility was affected in the two instances cited suggests the possibility that that function was previously damaged, it might have been during the performance of the experiments. (In another of Pletnew's tracings, Fig. 17, he produced artificially an extra systole, after which there was a prolonged pause followed by a large and prolonged systole, and this started the alternating action in the manner referred to in describing Fig. 10.)

THE DIAGNOSTIC AND PROGNOSTIC VALUE OF THE LEUCOPENIA OF CACHEXIAL FEVER AND KALA-AZAR,

AND ITS TREATMENT BY QUININE AND BONE MARROW.

By LEONARD ROGERS, M.D., M.R.C.P., I.M.S.,
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In a paper read before the Oxford meeting of the British Medical Association I drew special attention to the marked degree of leucopenia in cachexial fever and kala-azar, and suggested that it might prove to be of diagnostic value. Further experience has convinced me that this is the case, and I propose to set forth the evidence in favour of this view in the present paper, as it is clearly a matter of the greatest practical importance if even a large proportion of cases of this disease can be correctly inferred from a simple examination of the finger blood, instead of the much more serious operation of spleen puncture; for although the latter method can, with due precautions, be safely performed in the great majority of cases, yet not infrequently the coagulability of the blood is so reduced in cachexial fever as to render it highly inadvisable to puncture the spleen. This is the case mainly in very anaemic subjects, and those who have suffered from various forms of haemorrhage, petechial or otherwise, in some of whom I have found the coagulability of the blood to be considerably reduced, and in such cases I estimate the coagulability first by means of Wright's instrument, and only puncture the spleen if the blood clots within five minutes or less. A fine hypodermic needle should be used.

Nomenclature.

I have retained the name of "cachexial" fever for the endemic form of the disease, so common in Bengal and Madras, until the precise nature of the flagellated protozoal parasite, whose development from the Leishman bodies I have described and figured elsewhere,[1] is exactly determined and named, as it appears to me to be less objectionable than the other names so far suggested. Thus, "tropical splenomegaly" does not cover all cases, as Donovan mentions three in which the spleen was not enlarged, and I have obtained the parasite in several cases in which the organ only extended an inch or so below the costal margin, and have watched a typical case of the disease, showing both the double remittent type of fever described in my last paper, and also the blood changes about to be described, in very marked degree, and during several months before his death the spleen was never large enough to be safely punctured below the ribs. The term "malarial cachexia of India" recently suggested is open to the still

graver objections that the disease is neither malarial nor is it confined to India, while I shall show presently true malarial cachexia does occur in this country. I propose to adopt Colonel Bruce's suggestion to call the spleen form of the new parasite by the name of Leishman alone for sake of brevity.

ANALYSIS OF THE BLOOD COUNTS IN 104 CASES OF SPLEEN PUNCTURE.

During the last eight months I have counted the white corpuscles with a haemocytometer in 104 cases, and in all but two of them have also enumerated the red corpuscles, thus allowing the ratio of the white to red to be worked out in 102 cases. In 88 the differential leucocyte count was also made, although this is a tedious process in these cases on account of the extreme reduction of the white corpuscles commonly found. A moment's consideration, however, shows that it is not necessary to enumerate them in several slides, as a recent writer states, for it will suffice to count all in a single film if they amount to two or three hundred, for there is no reason to suppose that they will be in different proportions in one drop of blood from that which obtains in the next drop, while owing to their small numbers they will be so widely distributed among the red corpuscles that the examination of a large film will give a correct estimation. From the total and differential counts of the leucocytes the total number of polynuclears can be estimated, the extreme reduction in which has been found to be a very important diagnostic point in cachexial fever. The three sets of data just mentioned have been embodied in Table I, so as to allow the variations met with to be readily studied, those cases in which Leishman bodies were obtained by spleen puncture during life, or in two cases after death, being contrasted with those in which negative results were obtained. Malarial parasites were found either in the spleen or in the peripheral blood in several of the latter, while the rest gave negative results.

TABLE I.—*Leucocyte Counts in 104 Spleen Puncture Cases.*

PART I.—Total Leucocyte Counts in 104 Spleen Puncture Cases.

	Leishman Bodies in Spleen Blood.					Leishman Bodies not found in Spleen Blood.					Grand Total
	Died.	Worse.	Doubtful.	Improved.	Total.	Died.	Worse.	Doubtful.	Improved.	Total.	
Over 6,000 ...	—	—	—	—	0	—	—	3	4	7	7
+4,000 to 6,000...	2	—	—	—	2	—	—	—	4	4	6
+3,000 to 4,000...	—	—	1	1	2	—	—	1	3	4	6
+2,000 to 3,000...	2	1	4	10	17	—	—	—	6	6	23
+1,000 to 2,000...	5	4	6	[illegible]	23	—	—	2	2	4	27
1,000 and less ...	9	5	9	9	32	—	—	—	3	3	35
Total ...	18	10	20	28	76	0	0	6	22	28	104

PART II.—Ratio of White Corpuscles to Red in 102 Cases.

+1-750	2	—	1	—	3	—	—	4	6	10	13
1-750 to 1-1,000 ...	1	—	2	4	7	—	—	—	4	4	11
1-1,000 to 1-5,000	1	1	7	4	13	—	—	1	4	5	18
1-1,500 to 1-2,000	4	3	1	6	14	—	—	—	2	2	16
1-2,000 to 1-3,000	2	2	5	3	12	—	—	—	3	3	15
1-3,000 to 1-4,000	3	1	4	7	15	—	—	—	2	2	17
Less than 1-4,000	5	3	0	4	12	—	—	—	—	0	12
Total (1-1500)	14	9	10	20	53	0	0	0	7	7	60
Grand total ...	18	10	20	28	76	0	0	5	21	26	102

PART III.—Total Polynuclear White Corpuscles.

Over 3,000 ...	—	—	—	—	0	—	—	3	4	7	7
2,000 to 3,000 ...	1	—	1	—	2	—	—	—	2	2	4
1,000 to 2,000 ...	2	—	2	9	13	—	—	1	7	8	21
500 to 1,000 ...	5	4	5	8	22	—	—	1	1	2	24
250 to 500 ...	4	4	6	7	21	—	—	1	2	3	24
Less than 250 ...	5	1	1	1	8	—	—	—	—	0	8
Total ...	17	9	15	25	66	0	0	6	16	22	88

The Total Leucocyte Count.

In the first part of the table the figures of the total leucocyte counts are shown according to the degree of leucopenia present. The cases are also classed according to the result, the fatal cases being shown in the first column; in the second, those in which the fever continued for some time unabated by treatment, which are returned as "worse;" thirdly, those in which the result was uncertain, owing to the shortness of time under observation; and fourthly, those which improved and were likely to recover, the fever having either stopped or declined to the low, intermittent type, which, I shall show presently, may be accompanied by steady improvement in both the blood and the general condition and weight, and eventually merge into complete recovery of health. Several of the cases entered in the third column as doubtful also showed signs which gave good hope of recovery, but were not long enough under treatment to enable a favourable prognosis being given. It will be seen from the table that while 28 cases either died or got worse, yet an equal number showed signs of improvement, while 20 were classed as "doubtful." On the other hand, among those in which no Leishman bodies were found no case either died or got worse, while 22 showed signs of improvement or recovered, although some of them were clinically typical cachexial fever cases. This is supported by the fact that the parasites may be very few and small in recovering cases, and may only be found at a second spleen puncture. Sometimes they are found by my method of culture after a day or two, although not met with in the original spleen blood films in the course of a careful examination. It is clear, then, that a negative spleen puncture is not certain evidence of the absence of the new parasites, although, on the other hand, it is of very good prognostic import.

Turning to the degree of loss of the leucocytes, we find that in only 4 out of 76 cases showing Leishman bodies were over 3 000 leucocytes present, and 3 of these were complicated by dysentery, phthisis, and pneumonococcus meningitis respectively, while the fourth showed only a very few shrunken parasites; the patient had no fever, and was apparently recovering from a very chronic attack of fever on and off for ten years, with a large and very hard spleen. On the other hand, no less than 15 out of the 26 cases in which no parasites were found showed over 3,000 leucocytes, most of them being malarial cases, while others were probably recovered cases of cachexial fever in which a large, hard spleen remained, while 2 were cases of phthisis with similar hard spleens. These cases chiefly occurred in the autumnal malarial season (when malarial fevers with parasites are extremely common both in the native and European Calcutta hospitals). In a few malarial parasites were found in the peripheral blood, but owing to the considerable enlargement of the spleen it was thought that the patients might also be suffering from cachexial fever, so spleen puncture was performed, while in 3 cases they were found in the spleen blood only.

Next we come to the intermediate degrees of leucopenia in which only from 2 000 to 3,000 white corpuscles were found. Out of 23 such cases 17 showed Leishman bodies, while in only 6 were they not detected. Among the 17 positive cases no less than 10 improved under treatment, while only 3 died or got worse, thus confirming the good prognostic value of relatively slight degree of leucopenia in the disease, which I pointed out in my Oxford paper. Among the 6 cases with similar counts in which no Leishman bodies were obtained by spleen puncture, 2 had spleens enlarged down to the anterior superior spine of the ilium, in 2 it reached to the navel, while it was not noted in 1. The sixth was a malarial case, malignant tertian parasites being found in the spleen, but not in the peripheral blood. Thus at least 4 of them were clinically cachexial fever cases on the way to recovery.

Among the cases showing the most marked degrees of leucopenia—namely, less than 2,000 white corpuscles—55 out of 62 showed Leishman bodies in the spleen, and no less than 23 of them died or got worse under treatment, while only 17 showed any improvement, thus reversing the prognosis obtained from the higher leucocyte count. The mortality was specially high among those which showed the extreme leucopenia represented by counts of 1,000 and less. Of the 7 cases with 2 000 or less leucocytes in which no Leishman bodies were found 5 showed improvement and 2 were doubtful. Five were clinically typical recovering cases of cachexial fever, 1 was doubtful, while 1 was malarial, malignant tertian parasites having been found in the spleen blood.

Taking the table as a whole we find that among the cases in which the new parasite was found in the spleen over 3,000 leucocytes were only found when some complication which might be expected to increase them was present, or the case was recovering; while in those showing 2,000 to 3,000 the prognosis was also comparatively favourable. A leucopenia of still greater degree than the above strongly points to

cachexial fever, although it may also occur in a few cases of true malarial cachexia with marked anaemia.

The Ratio of White Corpuscles to the Red.

Not only are the white corpuscles very much diminished absolutely in cachexial fever and kala-azar, but, as I have already pointed out with regard to both forms of the disease, the leucocytes are decreased in a much greater degree than are the red, so that instead of finding a normal relationship of 1 white to 600 or 700 red we nearly constantly find the ratio much below this point. The data of 102 counts are given in the second part of the table, which, besides showing very similar general results to those derived from the total leucocyte count, also presents some points of special interest. Out of 76 cases in which the new parasites were found in the spleen only 10 showed a ratio of more than 1 white to 1,000 red corpuscles, and 8 of these showed complications likely to have increased the ratio, including dysentery, phthisis, meningitis, and cancrum oris. The remaining two were recovering, having lost their fever, and showed only a few parasites in their spleen blood. On the other hand, 14 out of the 26 cases in which the new parasites were not found by spleen puncture show a similar normal ratio of white corpuscles. Moreover, the three cases in which malarial parasites were found in the spleen blood fall among these, although two of them showed very low total leucocyte counts, a point of the greatest importance, which is supported by the cases of true malarial cachexia given in Table II. Next, in cases showing an intermediate degree of decreased ratio of white corpuscles falling between 1 to 1,000 and 1 to 1,500, we see that in 13 out of 18 the new parasites were found in the spleen blood, while of the negative cases 4 were clinically typical favourable cases of cachexial fever with hard spleens enlarged down to the navel or beyond, while I have no clinical notes of the remaining case. I find, however, on reference to my tables of fever cases in which blood counts have been carried out during the last few years, that a relative reduction of the leucocytes of this degree may occur in typhoid fever, and also, I think, exceptionally in chronic malarial anaemia, so that, although highly suggestive of cachexial fever in a doubtful cases, it cannot be looked on as certainly diagnostic of the latter disease. When we come, however, to the more marked degrees of this change shown in the last four columns of Part II of Table I—namely, from ratios of less than 1 leucocyte to 1,500 red down to less than 1 to 5,000, we find we have a very valuable means of diagnosing cachexial from other fevers. Thus, out of 60 cases the new parasites were found in no less than 53 by spleen puncture, while out of the 7 negative cases 6 at least were clinically typical favourable cases of the disease, while the remaining 1 was probably also of the same nature, although admitted for ascites, a not very rare sequela of the more chronic forms of the affection.

The Total Polynuclears.

The third part of Table I shows the number of polynuclears obtained from worked-out from the total and differential leucocyte counts. The figures show very parallel results with those of the ratio of white to red corpuscles, so need only be very briefly considered, as, in view of the fact that equally valuable results can be obtained from the much quicker and simpler total counts of the red and white corpuscles, it is not of so much practical value as the former, although useful from the prognostic point of view. The only cases with Leishman bodies which showed over 2,000 polynuclears were complicated by meningitis and phthisis respectively. Below that point the great majority of the cases showed the new parasites, the prognosis becoming progressively worse as the number of polynuclears decreased. One malarial case with very marked anaemia, however, showed under 500 polynuclears, although the ratio of white to red was over 1 to 1,000, so that from this point of view the total polynuclear count does not appear to be quite so reliable a diagnostic aid as the simpler estimation of the ratios of the white to the red corpuscles.

The Blood Changes in True Malarial Cachexia.

Now that it has been found that the great majority of the cases hitherto regarded as "malarial cachexia" are actually caused by the new spleen parasite, and not by the malarial organisms, there has been an inevitable tendency to rush to the other extreme and deny the existence of true malarial cachexia with marked enlargement of the spleen. In Calcutta, where, on account of good drainage, but little malaria originates, except on the outskirts, the great majority of cases of chronic fever with very large spleens down to the navel in adults are undoubtedly due to the new parasite, and true chronic malaria is proportionately rare. In the very malarious districts of Dinajpur, however, I found the new parasite in only ten out of thirty large spleens which I punctured, while in five others malarial parasites were detected. Even in Dinajpur the endemic index must be comparatively low unless it differs greatly from that of the closely similarly situated district of Jalpaiguri, where the Malaria Commission found it to be 12 per cent. In order to study true malarial cachexia advantageously a place with a still higher endemic index is necessary, and preferably one in which cachexial fever cases are absent. Such an opportunity I recently met with in the Nowgong district of Assam, thanks to the great kindness of my friend, Dr. Dodds Price. As long ago as early in 1897 Dr. Price, at my suggestion, moved out the uninfected coolies from a line in which nearly half the inhabitants were suffering from kala-azar, with such satisfactory results that among over 500 people, including nearly 100 from the old lines, no case of the disease has appeared in the last eight years, during which time they have been under his charge. More recently several other infected lines have been cleared out in the same way, so that at the time of my recent visit I was able to examine the children in different lines which had been entirely free from the disease for varying numbers of years. In the line originally moved and longest free from the disease I found malarial parasites in 18 out of 20 children, giving an endemic index of 90 per cent. In another line, which had not been moved and in which kala-azar had been very bad, and was still present, an equal number of children gave an endemic index for malaria of 80 per cent. All three forms of malarial parasites were found, quartans and malignant tertians being most commonly met with. These data are of great interest from two points of view. In the first place, they show that the very gardens on which I examined so many cases of kala-azar eight years ago present one of the highest malarial fever-rates in India, and this accounts for the frequency with which I found malarial parasites in cases of kala-azar and the uniformity with which the tissues of those dying of the epidemic disease showed the pigment characteristic of malaria.

In the second place, the fact that both the infected and the uninfected lines each showed a very similar degree of malaria completes the proof that malaria is not an essential factor in the production of kala-azar, although it may well act as a predisposing cause by decreasing the resisting power of the patient, and especially by reducing the number of the leucocytes. An examination of a number of cases of kala-azar in the light of my recent studies of cachexial fever in Lower Bengal has also fully confirmed the opinion I expressed in my original report on the former disease, namely, "In the later stages the disease presents only the usual symptoms of malarial cachexia, and even then, individually considered, it is impossible to distinguish them from chronic malaria, as can be seen at a glance by a comparison of the photographs of kala-azar cases opposite pp. 33 and 57, with those of ordinary malarial cachexia as seen in Sylhet, where there is no kala-azar." I did not, however, foresee that the disease known as "malarial cachexia" would prove to be not malarial at all, although in my conclusions with regard to the nature of the disease I wrote: "It is, however, open to anyone to say that there is something in addition to malaria, which I have not discovered, but which accounts for the spread of the affection." At the present time the segregation measures have nearly eradicated the disease from the tea-garden lines, in spite of the yearly importation of susceptible material, while now that the disease has also markedly declined in the Nowgong district, and its spread further east has been largely checked, the epidemic appears to be nearly at an end, and the cases now seen differ only from the endemic form of Bengal—itself the remains of the great Burdwan epidemic of the Sixties and Seventies—in its somewhat greater virulence and the larger number of parasites in the spleen blood usually met with in kala-azar cases.

In addition to working out the endemic index in an infected and in an uninfected line, the children under 10 were examined for enlargement of the spleen in five coolie lines, three of which were new ones and free from kala-azar, one was a badly infected one, and the fifth only very slightly infected. The spleen-rate was very similar in each, both as to the percentage of enlarged spleens and also the proportions of different degrees of enlargement. In all, 232 children were examined, and the organ could be felt below the ribs in 84.92 per cent. of them. The degrees of enlargement are also of interest, especially in the uninfected lines which were free

TABLE II.—*Blood Changes in True Malarial Cachexia.*

No.	Sex.	Age.	Spleen Down to.	Malaria Parasites.	Red Corpuscles.	White Corpuscles.	Ratio of White to Red.	Total Polynuclears.	Polynuclears.	Lymphocytes.	Large Mononuclears.	
									%	%	%	
1	F.	6	Below navel	Malignant tertian	4,800,000	5,500	1–873	1,870	50	34	15	1
2	M.	8	Navel	Quartan	3,910,000	6,125	1–637	2,817	46	39	12	4
3	M.	8	4	*Nil*	2,035,000	4,250	1–477	2,550	60	23	8	9
4	F.	1	Below navel	Malignant tertian	2,350,000	2,625	1–895	895	34	52	14	1
5	F.	1½	4	Benign tertian	3,790,020	4,000	1–948	1,536	38	28	10	24
6	F.	3	Below navel	Quartan	4,370,000	5,500	1–705	2,750	50	37	12	1
7	M.	2½	Below navel	Quartan	2,170,000	3,250	1–667	2,420	44	30	9	17
8	M.	5	Navel	Quartan	4,670,000	7,125	1–655	3,491	49	34	12	5
9	F.	6	Navel	*Nil*	2,520,000	4,625	1–544	2,578	56	28	11	5

from kala-azar, which included 140 children. Of these, no enlargement was found in 13.6 per cent., the organ was just felt in 33 6 per cent., it extended 2 in. below the ribs in 27.1 per cent., and 4 in. below in 17.1 per cent., and in 8.6 per cent. it reached to the level of the navel or below it. It is clear, then, that in a highly malarious district a very considerable frequency and degree of enlargement of the spleen is found in places which are, and have been for years, quite free from the disease due to the Leishman bodies, and hence, no doubt, produced by malaria alone. Twenty of the children who showed the largest spleens, extending to 4 in. or more below the ribs, were more closely examined, their red and white corpuscles enumerated, and differential counts of the white corpuscles made, in order to see whether the blood changes differed in any constant way from those met with in cachexial fever. Many of them were thin and anaemic, presenting undoubted clinical symptoms of true malarial cachexia, while the figures in Table II, of 9 consecutive cases from the lines which are free from kala-azar, show that in several of them the red corpuscles had fallen to only about half the normal numbers. Most of them also showed malarial parasites in their peripheral blood at the time of examination. The white corpuscles were also markedly reduced in most of the cases, being as low as 2,625 in one (No. 4), but the column showing the ratio of the white to the red corpuscles shows that both are equally reduced, and in no case of the whole 20 examined was the ratio as low as 1 white to 1 000 red. In this respect these true malarial cachexia cases are in marked contrast to what is met with in all uncomplicated and active cases of cachexial fever, as I have shown in the earlier part of this paper, thus confirming the conclusion previously come to from the above analysis of over 100 spleen puncture cases in the Calcutta hospitals, that the marked decrease in the ratio of the white corpuscles to the red is peculiar to cachexial fever and to kala-azar—in which disease I drew attention to this change eight years ago—and this simple method will enable the diseases due to Leishman bodies to be differentiated in the great majority of cases from true malarial cachexia, from which they are not infrequently indistinguishable by an ordinary clinical examination—a matter of considerable practical importance. Moreover, this change is nearly always well marked when patients first come to hospital with the disease, although, as they usually give a history of intermittent fever on and off for from two to six months, I am not yet able to state how early in the disease the change occurs, although in Case 7 of Table III it was found within three weeks of the onset of the fever.

FISH AND TRYPANOSOMES.

I may also mention here that while in Assam I examined a large number of fish for trypanosomes from both infected and uninfected lines, and found them present in both series in nearly equal numbers in the same kinds of fish, so that I was unable to confirm Bentley's statements on this point. Moreover, I have failed to infect fish with either Leishman bodies or the flagellated forms derived from them by culture.

THE TREATMENT OF THE LEUCOPENIA OF CACHEXIAL FEVER AND KALA-AZAR.

In my report on kala-azar of 1897 I pointed out that the yellow marrow of the shafts of the long bones is always converted to a large extent into red marrow in fatal cases, and, looking on this as an attempt on the part of the system to repair the blood, I tried the administration of red medulla tabloids in cases of kala azar, with favourable results in several cases. Recently, thanks to the kindness of my colleagues at the European General Hospital, I have been able to closely watch a series of cases in which they have tested this treatment, combined with steady perseverance with quinine to keep the fever down as far as possible to the low intermittent type. It is too early to speak decisively as to the exact value of this method, but all who have seen the cases are convinced that it has done good in several, although it has failed in others, while some interesting light has been thrown on certain features of the course of the disease, which are not without practical importance. The results in all the cases treated for any considerable length of time, whether successfully or otherwise, are shown in Table III, the dates on which the blood counts were done being noted and the condition of the fever and of the patient generally at the same time entered in the last column. In the cases marked (*) Leishman bodies were found by spleen puncture, but in No. 5 no parasites were obtained in this way, although the case was a very typical one of cachexial fever, but the puncture was done after the cancrum oris had set in and he was beginning to improve—a significant point, as will be seen presently. In the other cases spleen puncture was not performed, the patients being European women and children, and the clinical characters of the disease being beyond question.

The results have been somewhat variable as a whole, but one point stands out clearly—namely, that whenever the fever assumes the remittent type both the blood and the general condition of the patient steadily and often rapidly deteriorate, while, on the other hand, prolonged intermittent fever, even of several months' duration, is not incompatible with steady improvement, both in the blood, especially in the number of the white corpuscles and their ratio to the red, and also in the general condition of the patient, as shown by a steady and marked increase in strength and weight and a reduction in the emaciation which is so characteristic of the disease. This is of great practical importance, for, as I have maintained for years against the nearly universal opinion of other writers on tropical medicine, quinine has a very material action on the fever in these cases, reducing it from the dangerous remittent type to an intermittent one, which may allow of improvement in the general health, and I now find that when the leucocytes have increased up to a certain point under the bone marrow treatment the fever has then stopped in several cases, and recovery ensued. It will be well to illustrate these points as briefly as possible by reference to some of the cases given in Table III.

First, as regards the fatal cases. No. 1 improved considerably in hospital, but left before she was nearly completely recovered. A few weeks after she was readmitted suffering from pneumonia, and died in a few hours. Had she continued under treatment she might very well have recovered. The other two fatal cases—Nos. 11 and 13—were under treatment for long periods without ever showing any definite improvement, the latter suffering from an acute attack of herpes zoster, followed by deep ulceration of each patch, apparently due to the lowered resistance of the tissues to bacterial invasion. Unfortunately the supply of bone-marrow tabloids ran out in Calcutta, as well as in other large Indian towns which were written to for them, and for some three weeks these two patients were without them, during which time they got worse and both died. This may, however, have been only a coincidence. Next, we have Case 4, who cannot, on the whole, be said to have materially improved, although for a time she did so, the fever becoming much less and the leucocytes markedly increasing. Recently, however, the remittent type of fever has reappeared, and she has gone back again. The case illustrates very well the relationship of remittent fever to a progressive deterioration of the blood and general condition and the improvement during low intermittent fever.

Table III.—*Effects of Bone Marrow and Quinine Treatment on the Blood.*

No.	Sex.	Age.	Date Examined.	Red Corpuscles.	White Corpuscles.	Ratio of White to Red.	Total Polymorphonuclears.	Polymorphonuclears.	Lymphocytes.	Large Mononuclears.	Type of Fever.	General Condition.
								%	%	%		
*1	F.	21	30–4	3,485,000	875	1–3,970	481	55	36	9	Intermittent to 101	
			10–5	3,510,000	1,375	1–2,553	—	—	—	—	"	Improving.
			6–6	3,360,000	1,125	1–2,986	—	—	—	—	[illegible] " to 100	Better. Left hospital: returned with pneumonia. Died.
*2	M.	4	6–5	3,205,000	875	1–3,885	346	42	48	8	Intermittent	Spleen very large.
			14–6	3,970,000	1,875	1–2 184	503	27	63	10	Low fever only	Improved.
			8–9	4,750,000	5,750	1– 803	2,645	47	47	4	No fever two months	Fat and well.
*3	F.	16	24–6	2 750 000	750	1–3,666	142	19	54	26	Intermittent and low remittent	
			8–9	2,020,000	1,375	1–1,949	560	40	44	16	Intermittent to 101	Improved.
			19–11	3.410 090	4.375	1– 779	2,450	56	29	15	No fever one month	Much better.
			14–12	3,820 000	5,000	1– 764	2,850	57	30	13	No fever	Gained weight, nearly well.
*4	F.	23	11– 7	3 090 000	750	1–4,120	300	46	38	22	High remittent	
			15– 9	2,890,000	3,250	1– 890	2,372	73	22	5	Low intermittent	Improved.
			21–11	3,780,000	3,000	1–1,260	—	—	—	—	Intermittent 101	No change.
			14–12	3,920,000	1,750	1–2,240	—	—	—	—	Remittent	Worse.
5	M.	19	12– 7	3,190,000	875	1–3,873	—	—	—	—	Intermittent 101	Cancrum oris.
			22–11	2,820,000	6.125	1– 469	—	—	—	—	No fever	Cancrum oris healing.
6	F.	6	15– 7	4,080,000	1,375	1–2.967	330	24	61	15	High remittent	
			31– 8	2,335,000	750	1–3,113	300	48	34	18	" all through	Worse.
			17–11	3,080,000	2.875	1–1 071	1,380	48	39	13	Fever, low intermittent	After cancrum oris.
7	F.	7	15– 7	5,270,000	4,750	1–1,240	2,375	50	29	17	Double remittent	Much improved.
			31– 8	3,670,000	2 875	1–1,274	1 292	58	52	24	Remittent	Worse.
			17–11	4,530,000	5 375	1– 854	2,795	52	43	5	*Nil* or low, intermittent	Improved greatly.
8	F.	13	3– 8	2,090,000	750	1–3,578	142	19	59	22	Intermittent	Spleen very large.
			10– 9	3,490,000	1,250	1–2,792	451	34	52	24	"	Improved.
			17–11	3,640 000	3,250	1–1,201	1,820	56	38	8	Had dysentery	Improving again.
9	F.	35	5– 8	2,880,000	1,375	1–2,822	1,072	78	16	6	Remittent	
			21– 9	3,830,000	2,000	1–1,915	—	—	—	—	Low intermittent	Improved.
			5–10	4,500,000	2,125	1–2,117	1,764	83	13	4	Normal	"
			21–11	3,800,000	1,375	1–2,894	—	—	—	—	Remittent	Worse.
			14–11	4 390,000	2.125	1–2,066	1,509	71	17	12	No fever one month	Much better.
10	M.	5	13– 8	2,950,000	2.875	1–1,026	747	35	40	34	High remittent	Getting worse.
			18–11	2 590,000	5,250	1– 429	1,877	35	46	19	Intermittent	Much improved.
11	F.	31	30– 8	3,800,000	2 875	1–1,322	1 358	48	38	14	Double remittent	
			5–10	4,080,000	2 500	1–1 632	1,600	64	25	11	Low intermittent	Improved slightly.
			22–11	4,360,000	2,625	1–1.675	—	—	—	—	Intermittent to 102	No change. Died December 12th.
*12	M.	37	28– 9	2,650,000	1,375	1–1,927	611	45	37	18	Intermittent	Fair condition.
			4–10	4,680,000	4 000	1–1,170	2,288	57	29	12	No fever last few days	Much improved.
*13	F.	20	21– 9	4,070,000	1,875	1–2,179	1,311	71	23	6	Low intermittent	
			21–11	3,070,000	1,625	1–1,874	—	—	—	—	" "	Sloughing herpes zoster. Died in Dec. with diarrhoea and cancrum oris.

* Leishman bodies found in the spleen blood.

Thirdly, we have cases which show slight improvement only, including Nos. 6 and 8. The former is a most remarkable case, illustrating the extraordinary way in which the most desperate cases may improve. The child was very bad on admission, and in spite of all treatment high remittent fever, often of the double type, continued unabated, and at length cancrum oris set in, and directions were actually given for the spleen to be punctured after her death, in order to look for Leishman bodies. Fortunately the temperature fell, and in a few days she was toddling about the ward, and her blood—especially the number and ratio of the leucocytes—was found to have markedly improved. The prognosis is still bad, but by no means hopeless, as I know from my Assam experience that no case need be despaired of—a remarkable feature which may be overlooked in hospital practice, and thus the disease be considered to be more frequently fatal than it really is. Case 8 also shows considerable improvement in the blood; the girl has been much weakened by dysentery, but is once more on the mend.

The remaining cases have either markedly improved or actually recovered. Thus Nos. 5, 7, 9, and 10 have either remained free from fever altogether for some time, or shown only low remittent type, while all of them show marked improvement in the blood conditions, and especially in the leucocytes. No. 5 is another example of a remarkable improvement in the blood and decline of the fever following cancrum oris. Indeed, this complication appears to be of the "kill or cure" description, for although commonly fatal, especially if not accompanied by any increase in the small number of leucocytes present—a relative leucocytosis—then death usually ensues, and the spleen is found to be full of parasites. If, however, a considerable degree of relative leucocytosis occurs, then the fever may cease and the patient recover, and no parasites be found by spleen puncture, as in Case 5. Whether it will prove possible to cure the fever by producing a more active increase of the leucocytes than by the slow, if sound, bone-marrow treatment, is a problem which is now engaging my attention. No. 7 is of interest as being a rare example of the disease coming under observation at a very early stage, being thought at first to be typhoid, although the occurrence of a well-marked double remittent type of fever made me suspect cachexial fever, which has been fully confirmed by the subsequent course of the disease, and the repeated negative result of the serum test. The remittent type of fever persisted, with one intermission, 10r over three months, but at length the temperature fell, and a rapid improvement in both the blood and the general condition ensued. It is noteworthy that the ratio of white to red corpuscles was below 1 to 1,000 very early in this case. No. 9 shows very clearly the ups and downs of the leucocytes and general state, with the falls and rises of the temperature curve, but she has now been free from fever for a month, and has gained 9 lb. in weight. Lastly, Nos. 2, 3, and 12 show recoveries, and illustrate the progressive increase in the leucocytes, and especially the polynuclears, the ratio of the white to the red corpuscles, and improvement in the general condition. No. 3 is of special interest, as for five months she was never free from intermittent fever, running up to from 100° to 102° F., yet during that time she improved most remarkably, on the quinine and bone marrow treatment, both in strength and in the number of the leucocytes, and when the latter had reached a fair figure the fever stopped, and she has now gained a good deal of weight, and appears to be almost well, being able to walk several miles. No. 12 showed a similar improvement all round at a time that intermittent fever was continuing, and the leucocytes, and especially the polynuclears, had increased about threefold on re-examination only a few days after the fever finally ceased, so that the improvement must have taken place during the continuance of the fever as in Case 3. No. 2 is the most complete recovery of the series in spite of an enormous spleen, and his low age also being very unfavourable.

If we may judge by Major Donovan's statement that almost every case admitted to his wards in Madras died or went out worse than they came in, the above results may certainly be regarded as highly favourable. For reasons already mentioned, however, I think he takes much too gloomy a view of the prognosis. It is true that in the epidemic form of the disease on Nowgong tea-gardens in Assam before 1897 the mortality of 200 cases worked out at 96 per cent., but that was at the height of the epidemic. Dr. Dodds Price has very kindly worked out the results of 500 cases treated by him in

certain gardens since 1898, and he finds no less than 132, or 26.4 per cent., recovered completely and permanently. It is possible that the more favourable results obtained at the Calcutta European Hospital and by Dr. Price in Assam may be due to another factor, for in view of what has been said above as to marked improvement taking place as long as only low intermittent fever is present, and the fact that in Calcutta it has been repeatedly found that the temperature runs up to the remittent type the moment quinine is left off (a point which will shortly be illustrated by Captain Clayton A. Lane, I.M.S.), there is good reason for believing that the much more favourable results of Dr. Price and myself than those reported by Major Donovan are causally related to the firm belief in, and the practice of, giving large doses of quinine in cachexial fever and kala-azar by the former, in opposition to the view of Major Donovan and others that quinine is useless in even the milder endemic form of the affection. At any rate, it can hardly be maintained that quinine does any harm, when it is considered that 60 gr. and upwards have frequently been given daily for long periods in some of the favourable cases recorded above, with much better results than any yet reported by those who deny the value of the drug; so that the proof afforded above, that even a reduction in the fever curve makes all the difference between deterioration and improvement, appears to me to render it inadvisable to deny these unfortunate patients the benefit conferred by quinine, combined with the administration of red medulla tabloids, or their equivalent in uncooked marrow mixed with other food to render it palatable.

Finally, I have to express my great indebtedness to my colleagues Lieutenant-Colonel G. F. A. Harris and Major F. J. Drury, the Physicians of the Medical College Hospital, and to Captains Clayton A. Lane and R. P. Wilson, of the European General Hospital, all of the I.M.S., for their kindness in allowing me to examine and make use of their cases.

Conclusions.

1. A very marked decrease in the leucocytes is always found in uncomplicated cases of cachexial fever, and when they number below 2,000 per c.cm. this is almost diagnostic of the disease, but may rarely occur in true malarial cachexia.

2. In cachexial fever the white corpuscles are reduced to a greater degree than the red, so that the ratio falls below 1 to 1,000 in all uncomplicated progressive cases. This is rarely so in true malarial cachexia, while a reduction in the ratio to below 1 to 1,500 appears to be quite diagnostic of cachexial from other Indian fevers.

3. The most marked degrees of reduction of the leucocytes, and especially of the polynuclears, is of bad prognostic import, and vice versa.

4. Red narrow tabloids are of great value in increasing the leucocytes, and this increase may take place during the continuance for months of intermittent fever, and be then followed by cessation of the fever and complete recovery.

5. High remittent fever is accompanied by progressive deterioration of the blood and general condition, but it may be often to a large extent reduced to the less injurious intermittent form by continued large doses of quinine, combined with red marrow. The best results yet reported have been obtained by those who carry out vigorous quinine treatment.

Reference.
[1] *Quart. Jour. of Micros. Science*, November, 1904.

THE EXPERIMENTAL TRANSMISSION OF MEDITERRANEAN FEVER.

BY

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(Communicated by the Director General R.N.)

[Preliminary Notice.]

It having been suggested to us, by Professor Ronald Ross, that Mediterranean fever is possibly conveyed from person to person by the mosquitos *Stegomyia fasciata* or *Culex pipiens*, and bearing in mind the work of the Commission of the United States Army on yellow fever,[1] we have made some experiments in the hope of ascertaining the true nature of the transmission of this disease.

Experiment 1.—Transmission by Direct Contact, Fomites, etc.

A case of Mediterranean fever was treated in the sick berth of a ship for a period of one month, while she was at sea or anchored in open roadsteads. The fever was fairly severe, the serum reaction was positive, and the micrococcus melitensis separated from the blood of the patient.

He was nursed by three non-immunes, who took no special precautions to avoid contracting the disease, and who twice slept in the bedclothes which had been used by the patient. The disease was not conveyed to these non-immunes.

This experiment was then repeated in another ship with another but more severe case of Mediterranean fever, and nursed by other non-immunes. The result was the same as before.

In both these cases the Mediterranean fever was obviously contracted before embarkation. No cases of the disease had occurred before in the ships and none were contracted afterwards.

Experiment 2.—Transmission by Inhalation, Infected Dust, etc.

The urine of a case of Malta fever, passed on the fifth day of the disease, with fever of 103.8° F., was mixed with some dust, making a thick paste; part of this was allowed to dry slowly in the shade for five days and powdered.

The dust was then inhaled, sniffed up the nostrils, and a considerable quantity swallowed by two non-immunes (E. H. R. and Mr. C.). The remainder of the infected dust was kept for six days, then dried in the sun and powdered, and this also inhaled, sniffed up the nostrils, and swallowed by the same non-immunes. The disease was not conveyed by these means.

A living culture of micrococcus melitensis, grown on agar for seven days, was spread on a glass plate, it being kept moist meanwhile, and was inhaled for one hour by one of us (E. H. R.); the culture was then allowed to dry, and finely powdered; this was then inhaled for three hours, and ultimately sniffed up the nostrils, and some of it swallowed by the same non-immune. The disease was not contracted by him.

Experiment 3.—Transmission by Infected Water.

Ten ounces of the urine of a case of Malta fever, in the sixth week of the disease, was mixed with five gallons of ordinary drinking water; a tumblerful of this mixture was then drunk by two of us (E. H. R. and G. M. L.). When the urine was passed the patient's temperature was 102.4° F., and when mixed with drinking water, an hour later, was neutral to litmus. The disease was not contracted by either of us.

Experiment 4.—Transmission by Mosquitos.

Two female mosquitos of the species *Stegomyia fasciata*, Fabricius (var. *Culex mosquito*, R. Desvoidy), and one female *Stegomyia pseudotaeniata* (Giles) were allowed to bite a patient suffering from Mediterranean fever in the third week of the disease, whose temperature at the time was 103° F. The mosquitos were then allowed to bite the two non-immunes (E. H. R. and Mr. C.) alternately on the sixth, twelfth, seventeenth, and twentieth nights after.

These same mosquitos were then reinfected from a fresh case of Malta fever, in the sixth week of the disease—temperature 101.6° F.—and again allowed to bite the same two non-immunes alternately as before, twenty-four hours, fourth, sixth, eighth, eleventh, thirteenth, and fifteenth days after. Two of these mosquitos then died: the remaining one, a *Stegomyia fasciata*, was then again reinfected from a fresh case of Malta fever, with a temperature of 103° F., who was in the eleventh week of the disease. This mosquito then fed on the blood of Mr. C. twenty-four and again forty hours after. The mosquito then died.

The disease was not conveyed by these means.

The possibility of the transmission being due to mosquitos infected in the early days of the disease having been suggested, another *Stegomyia* was allowed to distend herself with the blood of a very severe case on the second day and again on the eighth day of the illness, the patient's temperature on the two occasions being 102.4° F. and 103.2° F. respectively. This mosquito was then allowed to bite two other non-immunes—G. L. M. and Mr. D.—alternately on the third, sixth, tenth, twelfth, fourteenth, sixteenth, and seventeenth days afterwards.

The disease was not contracted by these non-immunes either.

Similar experiments have been attempted with other gnats—*Culex pipiens* (Linneus), *Culex fatigans* (Wiedermann), and the sea-water bred species, *Acartomyia zammitii* and *Theobaldia spathepalpis* (Rondani), but these have up to the present failed owing to the difficulty of making these species feed on blood when in captivity.

We have described ourselves as non-immunes, for none of us have had Mediterranean fever, and we have only lately been exposed to the disease for short periods during the last few months. None of us have had a day's illness during that time, with one exception—the case of G. M. L., who had three attacks of spring tertian malaria, contracted in Sardinia, when the parasite was found in his blood. The attack gave way readily on the exhibition of quinine. Moreover, we have all been tested with the serum reaction for Malta fever, which has given uniformly negative results.

The greatest care also has been exercised by all of us concerned to prevent the possibility of the accidental occurrence of the disease among us. Thus, the contact with cases, or the handling of living cultures of the micrococcus melitensis have been avoided, drinking water carefully examined mosquito netting utilized when necessary, and we have refrained from sleeping on shore. Places where the disease is known to be endemic have been avoided as far as possible.

Up to the present, therefore, these experiments have failed to reproduce the disease, but we trust that our efforts will be ultimately rewarded, and that the true nature of the transmission of Mediterranean fever be fully ascertained, and its prevention practised.

We publish these, our preliminary results, with the hope that they may prove to be of use to those now engaged in investigating the disease, and that, with the kindly help of others, we may have better opportunities for the furtherance of our researches.

REFERENCE.

[1] Reed, Carrol, Lazear, and Agramonte, *Journal American Medical Association*, 1901, vol. xxxvi.

INTERMITTENT FEVER IN MALTA.*

BY

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This is the first time that the existence of intermittent fever has been noticed in these islands. At least this is the first time that cases of ague contracted in Malta have been dealt with by the medical profession. There has always been a vague notion amongst us that there was a time when malarial fever was not an unknown disease in this island. Abela, a knight of the Order of St. John, mentions in his history of Malta, published in 1647, that a certain type of malignant fever was known, against which a certain powder was administered. Many places in old times were marshy and probably malarious. The valley beyond Naxar, on the way to St. Paul's Bay, was marshy for a great extent, and that district was called "Bûr-Marrôd," pronounced now "Benwarrad." Bûr-Marrôd means literally "unhealthy plain." The Marsa was known, in quite recent times, to be marshy and the whole district to be malarious. In the Capuchin convent at Floriana, which overlooks the Marsa, malaria is said to have been endemic at one time, and the friars were even forbidden to go down to church before daylight for fear of contracting the disease. This is what can be gathered from written and unwritten history, but it is a fact that, so far, nobody has demonstrated that a case of ague had been contracted in these islands.

During the month of August, 1904, cases of fever of a type unknown here, came to the notice of medical practitioners at Rabat. All the cases could be traced to a certain district not far away. On September 13th we visited the locality and collected information from the peasants of the neighbourhood.

Wied-il-Kligha is a deep ravine, distant about a mile from Rabat. In 1887 a portion of that ravine was dammed, with a view to collect the rain water for agricultural purposes. The length of the ravine between the two dams is 1,430 ft., and it was hoped to collect about 1 000,000 gallons of water at a time. Water collects there during the rainy season, and is then gradually conveyed as required in pipes to the eastern part of the country. On the western side of the ravine several groups of huts are seen, and a few rock caves have also been turned into habitations. The inhabitants of this cluster of huts number about 50, and they all sleep there on week days, to be ready in their fields early in the morning. On Sunday they generally go to Rabat where they have their proper dwelling houses.

Early last summer some of these peasants had a sudden rise of temperature, preceded by fits of shivering and followed by profuse perspiration. As they felt quite well soon after, medical aid was not immediately asked for, and it was only when children were attacked that the district medical officer was consulted. All the cases yielded readily to quinine treatment.

When we first visited the locality we saw two persons who had had a rigor about an hour before:

One, a man over 30, was lying in bed, hot and perspiring; the temperature in the mouth was 103° F. He had been ill twice during that week, and had taken a small dose of quinine. We made a good number of preparations from his blood, and Laveran's parasite was found in fair quantities.

The second patient was a woman of about 40, who was found sitting in the middle of a field, where she had been at work. She had been attacked there an hour before, and was not capable of moving a limb. That was her first attack, but nearly all the members of her family had been down with the fever. A good number of films were prepared from the blood of this woman, and the parasites were abundant.

On September 16th we visited once more the small community and found that other persons had been attacked, and that some of those who had been infected before had recurrences.

A young girl was found in bed with high fever, but she did not complain of having had fits of shivering. We took blood from the lobe of one of the ears, and the films showed the parasite in a fair quantity.

In all the cases the parasite was of the same type, globular, with the infected blood corpuscle hypertrophied.

We showed the preparation to Major Horrocks, R.A.M.C., and some films were sent to Professor Leishman, R.A.M.C., who kindly undertook to examine them for us. We all agreed that the cases were of benign tertian. Having satisfied ourselves as to the clinical symptoms and as to the presence of the parasite, it was natural that an attempt to find the mosquito that spread the disease should be made. We knew that so far nobody had found *Anopheles* in Malta. Indeed, the conditions of our land service are not very favourable to the breeding of those mosquitos. Experience, however, had shown elsewhere that mosquitos can readily adapt themselves to conditions which seem unfavourable to their species. The suspected ravine with its collection of rain water was not an unfavourable place for this species of mosquitos.

When we inspected the place in September the rainy season had not yet set in, but pools of water covered with green vegetation were numerous all along the bottom of the ravine. At the lower end of the same a considerable amount of water was collected, teeming with animal and vegetable life. At a superficial inspection on the first day of our visit we could not discover any larvae, but on the second day we went over the ground very carefully and succeeded in collecting both larvae and pupae. We were so lucky on that day that in one of the huts close by we found, by the help of an acetylene lamp, two female mosquitos in a dark corner. Although the characters of these insects were clear enough, we preferred to have an expert opinion on the same, and we therefore sent the mosquitos to Mr. F. V. Theobald, of the Zoological Department. That expert, with his usual kindness, was not long in informing us that the mosquitos sent to him were *Anopheles maculipennis*, a species common along the shores of the Mediterranean.

Our inquiry was then complete, and the only problem that could present itself was as to how the fever was brought to that distant part of the island. Undoubtedly the *Anopheles* have been among us from time immemorial, and surely the artificial lake at Wied-il-Kligha offered a good breeding ground.

The erection of the great military camp on Mtarfa hill, which overlooks and is not distant half a mile from the collection of water, brought with it the elements of infection. The regiments stationed there were bound to have in their ranks men who had contracted the fever in India, in Africa, or in Crete. The passage of the parasite from the infected men to the *Anopheles* in the valley below was simply a question of time. Last summer the circuit was closed and malaria in an epidemic form spread for the first time among the peasants of the Kligha district.

Fortunately, so far, the disease has not extended beyond its endemic focus, and considering that the collection of water in the ravine is artificial and fully under the control of the authorities, it is more than probable that the infection will not spread and will be also eventually eradicated.

* Read before the Malta and Mediterranean Branch.

The Berlin Municipality has made a grant of £4,000 to be applied towards the prevention of infantile diseases.

SHIP BERI-BERI.

By GEORGE A. TURNER, M.B., D.P.H.,
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While carrying on the work of Additional Port Health Officer for Table Bay, it was my duty to board and examine all vessels before they were granted pratique. During the fifteen months I was thus employed I came across a number of cases of the type of the disease known as ship beri-beri.

Symptoms.

As my duties merely consisted in the diagnosis of disease and the superintendence of subsequent precautions, it will be understood that I neither speak from personal experience of the course of the disease nor its treatment. I will therefore merely enumerate some of the principal symptoms which I noticed:

1. Oedema.
2. Irregularity of the heart's action.
3. Paralysis of very varying degrees.
4. Tenderness of the calves.
5. Irregularity of the knee-jerks.

My experience with regard to crews and passengers suffering from beri-beri was as follows: On boarding a vessel I was told that there were one or two men sick; in many cases the captain or chief officer stated at once that the men had beri-beri, and I would be shown one or two men lying in their bunks with well-marked symptoms and apparently extremely ill. Such cases were plain sailing, but when I endeavoured to ascertain whether the other members of the crew were in any way affected matters became more difficult. As a rule they all (being in port) declared themselves quite well, and it was only after careful examination of each individual that I was in a position to estimate the extent of the outbreak.

Generally, if one or two of the crew were laid up in their bunks with marked beri-beri I found several others in the earlier stages of the disease. The symptoms I looked for were: (1) Rapidity of the pulse, (2) oedema of the ankles.

Wherever marked cases of beri-beri existed on board a ship I considered the presence of these indications sufficient to justify me in putting a man down as suffering from the disease.

As regards the knee-jerks, I may say that I attached no particular reliance to them. I have seen them exaggerated in some cases, absent in some, and, again, in others quite normal. In advanced or acute cases the walk was characteristic.

I have seen cases amongst Indians, and Europeans as well, which were so slight that the men were able to carry on their ordinary duties as seamen, and they would not believe they were sick. On the other hand, I have seen Chinamen in the hold of a ship who were absolutely unable to move.

The following extract of notes taken from one vessel may be of interest:

A barque which left Rangoon at the end of May, 1903, arrived in Capetown in August of the same year, she had carried deals from the Baltic to Delagoa Bay, where she lay five or six weeks, and had then sailed to Rangoon. Her original crew consisted of sixteen men; of these, two deserted at Delagoa Bay, one died of the disease between that port and Rangoon, and three were left in hospital at Rangoon, so that fresh hands had to be engaged for the return voyage. Between Delagoa Bay and Rangoon all the crew were infected with the exception of four hands, namely, the first mate, carpenter and two boys.

On her arrival in Table Bay all were again infected, with the exception of six, so that there were 10 cases, several of whom were evidently relapses of the sickness contracted between Delagoa Bay and Rangoon. I may here mention that Norwegian and Swedish sailors frequently stated they had suffered from the disease on more than one occasion. The most prominent symptoms on this vessel were oedema of the legs and peculiarity of the heart's action, the knee-jerks were absent in most of the instances, though present in some; in one they were exaggerated; one or two of the patients had discoloured gums.

Before leaving this very brief account of the symptoms, I will relate two other cases which occurred on a Russian boat, which are of interest because they tend to show that the severity of the symptoms is not a guide to the prognosis.

When the vessel on which these two cases occurred arrived in Table Bay the first officer reported that the captain had died some fourteen days previously (doubtless, from the description given, of beri-beri), he further reported that the crew had contracted scurvy. I examined the cases of alleged scurvy and found them to be undoubtedly beri-beri. The worst case appeared to be the steward. This man had oedema from the feet to the abdomen, his scrotum was tremendously swollen, and there was evidently some fluid in the chest, the action of his heart was irregular and rapid, and I formed the opinion that the man would die. When I came to examine the rest of the crew I found most of them had some rapidity of the heart's action, with slight oedema of the ankles. These men were doing ordinary seamen's duties, and were not, as far as one could see, in a dangerous state, but one of them died within a day of my examination, whereas the steward, to my surprise, recovered completely.

Etiology.

After the diagnosis this is naturally the part of the subject which, as port officer, concerned me most, and the following are briefly the conclusions at which I arrived:

1. That no probability attaches itself to the theory that ship beri-beri is caused by want of ventilation.

2. That equally small reliance is to be placed in the diet and metal poisoning theories.

3. That the evidence tends to support the theory of Sir Patrick Manson that beri-beri is a place disease, and also that it is a germ disease, but probably not communicable from man to man; further than this I cannot go, but it may be noted that in Sir Patrick Manson's opinion the germ does not live as a parasite in the human body, but possibly the disease is caused by a toxin generated by a germ living in the patient's surroundings.

The history of the infected ships I boarded, and also information which I gathered from captains of other Norwegian vessels, generally intelligent men, who in the course of a long seafaring life had seen much of the disease and knew it well, may be summed up as follows: Small wood barques from the Baltic, manned chiefly by Scandinavian or Russian sailors, would leave with a cargo of deals (light wood, so that they carried a big deck cargo) for an East African port; there they would go up a river, and discharge cargo and take in wet sand ballast. After lying in the river some weeks they would sail for an Indian port—say, Rangoon—and there take in a cargo of teak, a heavy wood, wet and slimy from soaking in the water, and the vessel would sail for some European port. On account of the heaviness of the wood no deck cargo could be carried. The important point, to my mind, in these histories is that cases of beri-beri apparently do not occur on the voyage from the Baltic to the East Coast; at all events I have not heard of one—that is to say, that while the ship has a deck cargo, which, rising above the level of the roof of the deck-house, surrounding it with a coating of wet wood, preventing ventilation and of necessity making the crew's quarters very damp, and while, for a period at any rate, the weather is cold, so that probably all doors, ports, etc., are kept closed, to the further exclusion of fresh air, no cases of beri-beri happen. On the other hand, soon after a ship leaves the East Coast in ballast—that is, when she is light and has dry decks and the deck-house is well ventilated—the disease will sometimes make its appearance, though more frequently it does not break out until a ship leaves the Indian port, when the deck-house is again clear and is well ventilated. Again, I noticed that the officers on these infected vessels had quite as large a number of their mess attacked with the disease as the ordinary seamen, and their quarters contained a larger cubic capacity per head than that of the seamen's.

These facts, coupled with statements to be referred to later on, seem, in my judgement, to be contrary to the theory that want of ventilation and atmospheric dampness are in themselves the cause of the disease, because it is always when the men's quarters are well ventilated that the trouble occurs.

Diet and Rice Theory.

Various peculiarities of diet have at times been put down as the cause of the disease. Rice has been particularly mentioned. My small experience at Cape Town certainly did not support this theory, as the majority of the sufferers were Scandinavians—well-nourished sailors, properly fed on meat, vegetables (compressed when long at sea), bread or biscuits—who, I do not suppose, had any rice at all in their rations.

On the other hand, thousands of Indian coolies have passed through my hands in Table Bay, whose principal diet was rice or nuts. Yet I did not see a single case of the disease

among the Indian immigrants, and only very few among the lascar crews; two cases of the latter I shall refer to presently.

At the same time I had several cases among Chinese passengers who fed on far better diet than the Indian coolie; but these Chinese in two vessels had only come a short voyage from Mauritius, and had possibly contracted the disease before embarking.

Metal Poisoning.

This has been suggested as a cause of beri-beri; some captains of vessels are firmly convinced this is so. On more than one occasion I have been asked to see some tins of meat opened to give an opinion on them. Possibly the theory is due to cases of metal poisoning having been mistaken for beri-beri. It is not at all unlikely that rations may become contaminated with metals, especially now that tinned foods are so largely used; and the question of metal water tanks, too, must be remembered.

Toxic Theory.

The facts, as I have observed them, do not support the ventilation or diet theory, but rather favour the theory that the disease is caused by the absorption of a toxin formed by an organism outside the body.

I have given a good deal of careful consideration to the cases I have met with, and it seemed to me possible that the organism or origin of the disease, whatever it may be, might exist in the water and mud of tropical rivers, not necessarily in the drinking water, and that infection in the case of shipping was taken on board with the wet wood cargoes or the wet sand ballast, anchors, and cables, so that when the crew for any reason were rendered susceptible to the poison, either on account of being run down from fever, hard work, sudden change of climate, or from sickness of any kind, the disease manifested its presence.

First, I noticed that the small barques which were infected generally discharged their light cargoes at tropical or subtropical ports, and then took in wet sand ballast, and, of course, at the same time drinking water.

In the case of ships which had sailed from Rangoon I found that the timber taken in had been soaking for some considerable time in water, and the fact that the crews of wood vessels seemed most liable to the disease, combined with other factors, led me to suspect the wet-sand ballast and wet logs as the cause of the trouble. It is after a vessel leaves Rangoon that the disease most usually makes its appearance; possibly Rangoon is more highly infected than East African ports. Vessels coming to Table Bay for assistance usually stated that the first case occurred ten to twenty days out from port, but at the same time I was told that, as a rule, it was not until the ships crossed the line and encountered cold weather that the disease made its appearance.

I account for the various periods at which the disease breaks out after leaving port in this way: In the case of vessels in which the disease breaks out only ten days after sailing the crew may have been run down at starting by malaria, or possibly by the drunken debauch which sometimes precedes departure from port, and they may on these accounts be more susceptible to the action of the poison.

On the other hand, cases in which the disease does not appear for a month or more after sailing may be due to the fact that the crew started in good health, and time was required for the virulence of the poison to increase before making itself felt, or the sailors may become more susceptible after crossing the line, owing to change of temperature, excessive work through bad weather, or the want of fresh food.

The captain of one of these vessels informed me that beri-beri was endemic among the population at Rangoon who lived on the sea coast, that is, among lighthouse keepers, fishing populations, etc., whereas people living a little inland were free. This statement would also point to infection being obtained in some way from the water. However, I observe on referring to Scheube's map that the whole of Burmah is there marked as affected. The case of the two lascars before referred to as suffering from the disease on a steamer from Bristol, one of whom died, the other man having been treated for supposed Bright's disease at Bristol, and having evidently been sick for some time, may appear to be an exception to my previous statement. But it is significant that the boat came from an Indian port to Bristol, and further, she had an old-fashioned forecastle, so that the cable came through the hawse-pipe into the men's quarters, bringing up a quantity of mud and water when the anchor was raised, which in itself might suffice to produce the toxin, as the mud and water would spread over the deck of the whole forecastle, and, in the case of an old vessel, get between the seams of the deck planks; it would certainly not be removed by even careful scrubbing, and the deck of the forecastle is not over-carefully scrubbed.

Outside the marine population, as far as South Africa is concerned, cases of the disease chiefly occur among the Chinese. The peculiar liability of the Chinese race to beri-beri might be accounted for by the fact that the victims have come from infected marshy districts in China, and, having suffered from the disease previously, are liable to relapse or are more susceptible to the toxin. I have seen a case of the disease in Johannesburg, and a medical man there told me that he had had about a dozen other cases among Chinamen. Now, though Johannesburg is highly situated, it has a swampy portion, and the Chinese seem to congregate round the swampy area, which is waterlogged, and which may be infected with the disease. I do not suggest that the limited evidence I have cited is conclusive, but it seems to me perfectly consistent with Sir Patrick's Manson's theory as far as it goes.

Treatment.

I had no opportunity of studying the pathology or treatment of the disease, but one thing I noticed was that some of these wood barques of which I have been speaking were actually supplied with several gross of capsules containing iron and extract of bone marrow for the treatment of beri-beri, which shows that the captains of these vessels expect in the course of the voyage to be attacked with the disease.

Further, from the account of a Norwegian captain, some vessels are more prone to infection than others, one vessel of which I obtained a history had cases of beri-beri on four voyages out of five. Unfortunately, my notes made at the time are missing, and I cannot give full details, but it seems to point to the vessel having at some time received more infection than usual, so that the virulence of the toxin was continually being augmented; thus, when an opportunity offered, the poison made itself manifest by an outbreak of the disease.

NOTES ON CASES OF SPIRILLUM FEVER IN UGANDA.

BY

AUBREY D. P. HODGES, M.D.Lond., Medical Officer, Uganda Protectorate.

and

PHILIP H. ROSS, M.R.C.S., L.R.C.P., D.P.H., Government Bacteriologist, Uganda.

On October 23rd, 1903, in examining a blood film from an Indian, spirilla were found scattered sparsely through the slide, one occurring in about fifteen to twenty fields. They stained blue with Leishman's stain, were sharply pointed at both ends, varied in length between 36 μ and 42 μ, and were about 4 μ in diameter.

As up to this time no case of spirillum fever had been recognized as such or recorded in Uganda, a special interest attached to this discovery. Moreover, the patient being an Indian, the question arose whether he could have brought the infection from his own country, but as he had been over a year resident in Uganda this was not deemed likely. He was first seen on the morning of October 23rd, having been taken ill only the night before. There was no history of a previous attack. His condition when seen was as follows:

He was a small, poorly-nourished man of about 30; his temperature was 103.4°; he was prostrate, anxious, vomiting continually a greenish vomit, and complaining much of pain in the epigastrium and the small of the back. He also had a rather severe headache and pains in the limbs. There was slight tenderness over the liver and spleen and some slight enlargement of the latter. The urine was febrile, and contained nothing abnormal. In the afternoon his temperature was still over 103°, and the next morning it was normal, having fallen in the small hours apparently by crisis. In blood films taken the next morning no spirilla could be found. He complained then of nothing but weakness, and in another day was at work again.

On November 11th—the nineteenth day—the patient had a relapse almost exactly resembling in symptoms and duration the first attack, and spirilla were found in both fresh and stained specimens of blood. A few drops of blood from the finger-tip were drawn off with the usual precautions into 1 per cent. solution of potassium citrate, and the mixture injected subcutaneously into a monkey (*Cercopithecus*).

The following results occurred:

On November 16th, three and a half days after inoculation, the monkey's morning temperature was 105.6°, and numerous spirilla were

found in the blood. The temperature remained high during the three following days, spirilla being easily found each day. On November 20th the temperature fell by crisis, and remained normal till November 24th, no spirilla being found in the blood till the mornings of November 25th and 26th, when the monkey's temperature was over 106° and spirilla were very numerous. On November 26th the temperature again fell by crisis and spirilla again disappeared. On November 28th the temperature rose to 105.2°, but no spirilla could be found. From this date till December 15th the temperature remained normal and blood examinations were negative, but on the latter date the morning temperature was 105.8° and the evening temperature 106.2°, and spirilla were present in large numbers.

There had thus been an interval of eighteen days during which no spirilla could be found in the blood even by prolonged search, and this interval was of just the same length as the apyrexial interval in the patient from whom the monkey was inoculated. No further relapse occurred in the monkey.

Our attention having been drawn by this case to the spirillum, films were thenceforward examined from every case of pyrexia coming under observation. Over 60 cases have been examined, and in 12, including the first case, spirilla have been found. Of the other cases most were found to have malaria, and in a few nothing at all was discovered.

The 12 cases of spirillum fever have included natives of Uganda, of the East Coast, Sudanese, 2 Indians, and a European. In 7 of the cases the disease was probably contracted in Entebbe, and the other 5 patients had recently come from the southern parts of the Protectorate. A most marked feature of the cases has been that very few spirilla may be found in a specimen taken from a patient suffering from a clinically severe attack. In only 2 of the cases have spirilla been at all numerous, while in 1 case nearly two hours' search ended in finding two spirilla.

In the case of the European, with each of us looking at a specimen, one of us found two or three spirilla, the other finding none, and this was the case of a man with a severe first attack which was afterwards followed by two relapses at intervals of seven days. Moreover, in neither relapse were spirilla found at all. In the one relapse hitherto seen in a native, which was severe though of short duration, very few spirilla were found. In the one fatal case spirilla disappeared from the peripheral blood twenty-four hours before death, the temperature being still high and the patient in a "typhoid" condition. Relapses have been noted in three cases only at present; in two cases they were absent, and in the rest no information has yet been obtained.

It would seem, therefore, that spirilla may be even more scarce in relapses than in the original attack, and it is possible that some of the other pyrexial cases examined, in which nothing was found, may have been spirillum fever, especially as experience has shown that the spirillum does not always stain well with Leishman, which is our usual stain for malaria. In some cases the organism stains satisfactorily, in others, with exactly the same technique, it stains very faintly, and may readily be missed when looked for with a one-sixth objective and high ocular, and may be barely visible even with the oil-immersion. With aniline gentian violet or dilute carbol-fuchsin the organism stains well and can easily be picked up with a one-sixth objective and even a 2 ocular.

In practice we now take two films and stain one with aniline gentian violet or carbol-fuchsin, and the other with a Leishman, and afterwards, if we find it necessary, wipe off the oil with xylol from the Leishman film and, without further fixing, restain with one of the other stains.

Although in several cases the organism was seen in fresh specimens, this mode of examination was not found to be reliable, as only a momentary glimpse of a single organism was occasionally obtained, even where they were known to be present. There appears to be little or no movement of the blood corpuscles in a scanty infection—nothing comparable to that caused by a trypanosome or a filaria.

The disease would certainly seem to be widespread in Uganda, and the fact that hitherto it had not been recognized is probably due to the absence till lately of facilities for microscopic examination, as well as to the difficulty in many cases of finding the organism in the blood and to its bad staining properties with some stains. In addition, unless in severe cases, it would be clinically indistinguishable from the ordinary attacks of malaria in natives, for which disease they are seldom admitted to hospital, while the occurrence of relapses in their case would not readily be known without special inquiry, as is shown by the difficulty encountered in many of the cases, even after the diagnosis has been made, of getting authentic information as to a relapse having occurred. Further, it is found that, in the blood of a native with malaria who cannot possibly have had quinine, sometimes only one infected corpuscle may be found in a large blood film, while a great number of the large mononuclear leucocytes may contain pigment even in cases where there are no clinical signs of malaria. So that, whereas formerly if after twenty or thirty minutes' search pigmented leucocytes were found, but no malarial parasites, the case was regarded as almost certainly malarial, the experience of further cases has resulted in no case, in which malarial parasites are not seen, being now put down as malarial unless, after prolonged examination of large blood films, no spirilla are found but only pigmented leucocytes.

The importance of correct diagnosis is well shown by the case of the European. This patient had never had malaria, but for several weeks before his attack had been camping in a very malarial district. Clinically his disease might equally well have been malaria, and, prolonged examination of his blood showing nothing—he had been taking quinine—the most probable diagnosis with his history would have been malaria, had not the last corner of one of the slides shown that it was spirillum fever. This patient, therefore, is now free from fear of malarial recurrences, and can go his way, taking no quinine, or only prophylactic doses, with unshaken faith in the precautions he has hitherto been taking against malaria.

It seems probable that the organism itself is the spirochaete obermeieri, but lack of time and material have prevented further experiments on other animals to see if they are susceptible, or whether, as with the spirochaete obermeieri, the monkey is the only animal in which the disease can be reproduced. With the spirochaete obermeiera relapses in the monkey are described as rare or non-existent, but in this case the monkey had two well-marked relapses.

Clinically, and without the knowledge of the occurrence of one or more relapses, there would be great difficulty, as has been mentioned above, in distinguishing the spirillum fever which we have seen from malaria. Hitherto no special symptoms have been seen which might not equally well occur in the latter disease, but some general points of difference may be noted:

1. The occurrence of vomiting, which is infrequent in malaria in natives, seems more common among them in spirillum fever.
2. The complaints of pain, either in the head, back, or limbs, are more noticeable in spirillum fever.
3. The subsequent prostration is generally more marked, relatively to the duration of the attack, than in malaria.
4. The pyrexia is less subject to remissions and tends to subside by crisis.

Of these the last is the most important and generally useful.

Addendum.—Since the above notes were written spirilla have been found in one of the cases with regard to which we have stated that nothing whatever was discovered in the blood and that, in our opinion, some of them might have been spirillum fever.

This case, a European, was first seen on the morning of February 4th, having returned from a journey in Buddu (South of Uganda) the day before. He had already had two days' "fever," his temperature was 104°, his respiration hurried, he was vomiting frequently and complained much of headache. The necessaries for taking blood films were not at hand, and he was given quinine hypodermically on the chance that his disease was malaria. When seen in the early evening his temperature was normal, and blood films were not then taken as he had apparently reacted to quinine, and parasites would probably be absent from the peripheral blood. He remained well till February 15th, when blood films were taken at the height of fever and most carefully examined. Nothing was found, however, neither spirilla, malarial parasites, nor pigmented leucocytes. The examination was the more carefully made because his general clinical condition during fever strikingly resembled that of the other European whose case we report. The temperature fell in a few hours to normal, and similar attacks recurred on February 20th and 23rd and on March 1st. On the first two of these dates examination of films taken during the pyrexia again gave negative results, and on the 23rd, the intervals having been very irregular and the last one very short, it was thought that the case must after all be malarial. He had been taking 10 grains daily of quinine bisulph. in tabloids, and, as these seemed to be ineffectual, he was given 15 grains of the hydrochloride in cachets every morning. On March 1st, being much troubled with tinnitus, he did not take his quinine, and as at 9 a.m. he felt cold, he took his temperature and found it to be 100°. When seen at 10 a.m. his temperature was 100·7°, and blood films were at once taken. In these two or three spirilla were found in each large film, and about the same number in a film taken shortly after, when his temperature had risen to 104°.

The scarcity of spirilla in the peripheral blood is rendered the more striking by the fact that the case was really a severe one, for, although the pyrexial periods were of short duration,

the prostration after each relapse was marked, and the patient lost weight between February 4th and March 1st, to the extent of 1 st. 10 lb.

It will be seen that the difficulties of clinical diagnosis, to which we have drawn attention, were increased by the irregular intervals between the relapses, the shortness of the pyrexial periods, and, at one time, by the apparent reaction to quinine. The case appears, therefore, to emphasize what we have already said, not only as to the difficulty but as to the importance of diagnosis by the microscope.

[Note.—To this paper was attached a number of carefully-kept clinical charts, the publication of which is, however, unnecessary, since the usual cause of the pyrexia is sufficiently explained in the text.]

MEMORANDA;

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE OPENING OF PERITONSILLAR ABSCESSES.

That the most suitable position for reaching the pus in a peritonsillar abscess is not generally recognized was forcibly brought to my mind, about eighteen months ago, when on taking my seat for the viva voce examination in surgery held for an M.D. for general practitioners I was asked by a leading London surgeon, "Where would you open a quinsy?" and upon my replying, "Through the soft palate above the anterior pillar of the fauces," the expression on the examiner's face, and his exclamation of "Where?" was not at all calculated to give one the idea that he was going to have a pleasant ten minutes at the surgery table. A little further explanation on my part, however, made all go smoothly. The knowledge of the "site of election" I obtained from a short article by Mr. R. Lake in the *Medical Annual* for 1898. I have always, however, used a vertical incision, and provided one keeps well outside the vertical line of Dr. StClair Thomson, the operation is a very successful one—one might say, one of the most successful minor operations, from the patient's point of view especially, which falls to the lot of the general practitioner. Another very important point is also brought out in this article—namely, that the haemorrhage so much dreaded is doubtless often due to timid procrastination, allowing the arterial wall to become so softened that it ruptures at the moment external pressure is reduced.

Alresford, Hants. F. W. Jollye, M.D., F.R.C.S.E.

ENTERECTOMY AT TWELVE HOURS OLD: RECOVERY.

I can find no record of enterectomy at such an early age and think this must be the earliest on record. On February 19th, 1905, a midwife reported that a child had just been born with meconium coming away from the umbilical cord. I found a fistula the size of a crow's quill about 1 in. from the umbilical aperture in the side of the cord exuding meconium.

The same day, without anaesthetic, I slit the cord longitudinally, exposing a blind finger-like process of intestine with the fistula in its side. On drawing it out of the umbilical aperture it was found to be about 2 in. long and to come from the caecum; the intestine on either side of it was so narrow that I did not think it capable of maintaining the alimentary passage. I excised the narrowed intestine and joined the large to the small intestine by lateral anastomosis, closing the end of the large intestine. The intestine was returned into the abdomen and the umbilical aperture closed after removal of the umbilical cord.

The child was very sick for two days, but meconium escaped from the anus and it recovered perfectly.

I have previously reported the radical cure of hernia into the cord in a one day old infant, in the British Medical Journal, and this case seems to have been one of a persistent Meckel's diverticulum, though I am not sure that it was not an enlarged appendix which had perforated. There was no sign of any appendix on the excised caecum.

The only points worthy of note are that a newly-born infant bears the handling of its intestine well and, as far as one can tell, does not feel pain, the infant quietly sucked a sugared teat while its intestine was being stitched.

Plaistow, E. A. E. Kennedy,
Honorary Surgeon, Maternity Charity.

A CASE OF MESOTAN ERUPTION.

The following case came recently under my observation, the patient being a lady, aged 39, with a fair complexion and a skin of very fine texture.

History.—She had suffered from a mild attack of rheumatism, which had affected chiefly the feet and ankles, and also the metacarpo-phalangeal joint of each thumb. She had been treated with salicin, and afterwards with alkalies, with only a moderate degree of benefit, and at length an embrocation, consisting of mesotan and olive oil in equal proportions, was prescribed, with instructions that it should be very gently applied to the feet and ankles. In about ten or twelve days a rash appeared, not only on the parts to which the embrocation had been applied, but also on the arms, and it was on account of this rash that the patient sought advice.

Appearances Noted.—The parts implicated were the extensor aspects of the arms from a little above the elbow to half way down the forearms, the right arm being more extensively involved than the left, and the outer aspect of the right lower leg. The eruption presented much the same appearances in all the lesions—namely, a pinkish-red colour, somewhat mottled, deepest in tint towards the centre, and fading rapidly at the edges into the colour of the normal skin. It was a simple erythema, without infiltration or vesiculation, and the chief trouble it caused was intense burning and itchiness. She said the embrocation had not really been rubbed in, but only smeared over the ankles, and she was satisfied that it had been of service as far as the rheumatism was concerned, but she considered the resulting burning and pruritus a somewhat heavy penalty to pay for such benefit.

Treatment and Result.—She was advised by me to continue taking the alkalies—citrate and bicarbonate of potassium—to stop the use of the embrocation, and to paint the inflamed parts with a lotion of calamine and oxide of zinc. In the course of a few days the redness disappeared, and in a few days longer the unpleasant sensations had likewise ceased.

Remarks.—Both in regard to appearance and sensations the case answers to the description of mesotan rash given by Pollitzer of New York in a paper which he read before the American Dermatological Association in 1903.[1] The paper, which was afterwards published, contains details of two cases of rheumatism, both in elderly men, in whom the use of mesotan brought out eruptions of a much more severe character than that in my patient. In one of them the drug had been applied in full strength, and persevered with even after the rash had disappeared, with the result that vesicles developed which on rupture and drying left crusts. This second case ran much the same course, but, the mesotan having been diluted with olive oil, the dermatitis was not so severe. Both cases were treated successfully with ichthyol, dusting powders, and Lassar's paste, *sine* salicylic acid, but the patients suffered severely while the condition lasted. It is to be noted that the rheumatism was relieved in both cases. Besides detailing his own cases, Pollitzer in the same paper quotes a few instances of others which had been published.

There can, I think, be little doubt of the value of mesotan in the treatment of rheumatism, but that its use requires caution and careful supervision is clear. I am not sure whether it is much in use in this country or not; so far this is the only case of the kind I have seen, and if others besides those of Politzer's have been published they have escaped my notice.

David Couper, M.D.Glasg.,
Physician in Charge of the Skin Department, Victoria Infirmary, Glasgow.

PURULENT PERITONITIS AFTER PNEUMONIA.

On January 4th E. L., a child, aged 6, developed lobar pneumonia; on the eighth day crisis took place. Convalescence was slow, and the child remained in a languid state till January 27th, when the abdomen became suddenly much distended, and there was distinct evidence of fluid. I tapped at once, and drew off 3 pints of pure pus. On January 30th the fluid reaccumulated, and the child was admitted to the Cottage Hospital. There the abdomen was opened by Mr. Crabtree; a further large amount of pus was evacuated, the peritoneal cavity washed out, and the wound allowed to granulate. From the crisis at the date mentioned to the time of operation, more than three weeks later, the temperature never exceeded 100°.

A specimen of the pus was sent to H. S. Willson, M.B., D.P.H., Lecturer on Bacteriology, King's College, London, who reported as follows:

Smear preparations stained with methylene blue showed a few encapsuled diplococci among the pus cells. They stained well by Gram's method. No other organism was seen. A loopful of pus spread on glycerine agar, and incubated at 37° C. for twenty-four hours,

[1] A New Drug Eruption of the Iodoform Type. *Journal of Cutaneous Diseases*, October, 1903.

yielded a pure culture, the colonies being typical of the diplococcus pneumoniae—that is, small, discrete, transparent, and faintly visible; 1 c.cm. of the pus was injected into the peritoneal cavity of a guinea-pig. For a day or two the animal seemed somewhat ill and inactive, but soon recovered. It was killed twelve days after inoculation and examined. The internal organs were normal, there were no signs of peritonitis, and no organisms could be found in or cultivated from the blood, spleen, etc. Guinea-pigs are not the most susceptible of animals to the diplococcus pneumoniae; but the absence of pathogenic action indicated that this particular organism possessed very little virulence.

Dr. Willson concluded his report by saying that cases of pneumococcal peritonitis were rare, and that in view of its clinical features and successful result, the present case seemed well worth recording.

Weybridge. JOHN J. POWELL.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE LONDON HOSPITAL.

UTERINE FIBROID REMOVED FROM A PATIENT AGED 20.

(Reported by HENRY RUSSELL ANDREWS, M.D., B.S.Lond., M.R.C.P., Assistant Obstetric Physician to the Hospital.)

UTERINE fibroids at the age of 20 are sufficiently rare to warrant the recording of this case.

History.—R. A., a Jewess, aged 20, came to the out-patient department on January 25th, 1905. She had been married about a year, and had had a miscarriage five months after marriage. Four months ago, before presenting herself at the London, she had been admitted into a special hospital on account of an abdominal tumour. Abdominal section was performed, but she was told that nothing had been removed, and that time would show what the tumour was. She understood from this that the abdominal tumour was the pregnant uterus. She came to the London Hospital to know whether she was pregnant or not. The tumour had been increasing in size rapidly since the operation, but she had noticed no fetal movements. Menstruation was regular. For the last three weeks she had been troubled by morning vomiting.

Condition on Examination.—A smooth, elastic, slightly movable tumour was found rising out of the pelvis to a point rather higher than halfway between the umbilicus and the ensiform cartilage. No dipping sign could be obtained, no contractions could be felt, and no fetal heart could be heard. There was a median laparotomy scar 5 in. long. The breasts showed no signs of activity. Per vaginam the abdominal tumour was found to be the body of the uterus. *Ballottement* could not be obtained. The cervix was rather blue but was not soft or swollen. A diagnosis of single soft fibroid was made, and the patient was admitted for abdominal hysterectomy.

Operation.—Under an anaesthetic nothing further was made out, except that the supravaginal part of the cervix was considerably elongated. A sound passed 4½ in. on the left side of the mass. On opening the abdomen, the uterus was seen to be regularly enlarged, bluish in colour, and very vascular, looking exactly as if it were pregnant. The body was amputated in the usual way. The patient made an uninterrupted recovery. The uterus, which weighed 4 lb. 5 oz., was found to contain a single soft interstitial fibroid situated in the right side, the uterine cavity, which was considerably lengthened, lying to the left of the tumour. She made a good recovery. Microscopically the tumour was found to consist of fibres many of which had undergone myxomatous degeneration. It was evidently a fibroid, not a sarcoma.

REMARKS.—As regards the first operation which this patient underwent at a special hospital, it must be very rare for an operator to be unable to say, after opening the abdomen, whether a uterus large enough to form an abdominal tumour is pregnant or not. In this case, however, it is to be remembered that the abdomen was opened at a time when absolute signs of pregnancy could not be expected. The difficulty of diagnosis must have been considerable. As regards the rarity of fibroids in women of the age of this patient, Dr. Herbert Spencer, in a paper published in the *Transactions of the Obstetrical Society of London*, vol. xl, 1898, collected forty cases of uterine fibroids occurring in young subjects. Only eight of these patients were under 21, and in some of them, as Dr. Spencer pointed out, the evidence as to the nature of the growth was unconvincing.

WEST HAM INFIRMARY.

(Reported by Dr. P. R. BLAKE, Assistant Medical Officer.)

CASES OF SUCCESSFUL HERNIOTOMY IN THE AGED.

HAVING read with interest the accounts in the issues of the BRITISH MEDICAL JOURNAL for January 28th and February 25th of strangulated herniae successfully treated in the aged, I think that the two following cases treated in this Infirmary may prove of value in justifying operation whatever the age of the patient.

CASE I.—S. C., a woman aged 87, was admitted on September 20th, 1903, with an irreducible right femoral hernia: she had had constipation for five days and been vomiting for two days, the vomit on admission having a slightly faecal odour. I operated on her the same day: the patient being anaesthetized with gas and ether, the constriction was divided and the bowel, being in a fairly healthy condition, was returned into the abdomen, the sac being ligatured at the neck and cut off. As the patient was standing the operation well the sides of the ring were approximated with silk sutures, and a radical cure performed. She made an uninterrupted recovery, and was transferred to the Workhouse on December 7th, 1903, when she had no signs of any recurrence of the hernia.

CASE II.—S. F., a man, aged 84 was admitted on November 5th, 1904, suffering from an ulcerated leg; he also had an old right inguinal hernia, for which he had worn a truss on and off for twelve years. On the morning of November 29th, I was called up to him at 2 a.m., and found him in severe pain: he had just been to the lavatory, and the pain had come on after straining at stool. On examination of the hernia I found it to be larger than formerly, without impulse, very tender and painful, and apparently tightly gripped in the external ring. I tried taxis and the hot bath unsuccessfully, my impression being that a fresh piece of gut had been forced down on that already existing in the sac. He was retching but not vomiting. At 4 a.m. I decided to operate, gas and ether being given. On opening the sac the gut was found to be perfectly healthy, so after freeing the constriction, it was returned into the abdomen; the sac was ligatured at the neck and cut off. The patient's condition being then quite satisfactory, Bassini's operation for radical cure was performed. He made an uneventful recovery and was discharged from the infirmary on January 19th, 1905, at which time there were no signs of any recurrence of the hernia.

For permission to publish these notes I am indebted to Mr. E. Vallance, my medical superintendent.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY, NORTH SHIELDS.

SCALD OF THE CHEST TREATED BY GRAFTS FROM THE RABBIT.

(Reported by Mr. LACHLAN FRASER, M.S., Surgeon to the Hospital.)

J. L., aged 4 years, was admitted under my care on December 12th, 1904, suffering from a scald of the chest caused by the application of a linseed poultice.

Local Condition.—There was a large foul scald of the third degree covering the front of the chest, and measuring about 9 in. by 5 in.

Primary Treatment.—Boracic fomentations were applied for a fortnight, and by the end of that period the surface of the ulcer had become covered with granulations of a more or less healthy character.

Operation.—On December 26th a rabbit was chloroformed and then shaved over its chest and abdomen; its skin was then cleansed with soap and water and spirit. The child, meanwhile, having been chloroformed, was prepared by Dr. Hislop, who scraped away exuberant granulations and arrested all haemorrhage. I then cut a large number of Thiersch grafts from the rabbit and transferred them direct to the child. The rabbit died before the last three grafts had been taken. The average size of the grafts was about 1½ in. by ½ in. They were covered with protective tissue and sterilized gauze.

Result.—The case was dressed on the fifth day, when two or three grafts came away; all the rest had taken and gave no further trouble. The child left the hospital, cured, on February 8th, 1905.

REMARKS.—The large size of the scald, the small size of the child, and the fact that he was covered from head to foot with impetigo, rendered it difficult to obtain sufficient grafts from the patient himself. The last three portions of skin, which were taken after the rabbit was dead, were amongst the grafts which were successful. Here and there one can see patches of soft fur; for the most part, however, the skin looks much as it did when first removed.

CEREBRO-SPINAL MENINGITIS IN NEW YORK.—At a recent meeting of the Health Department of New York Dr. Darlington was empowered to ask the Board of Estimate and Apportionment for a small sum to defray the expense of a commission to investigate the unusual prevalence of cerebro-spinal meningitis, and try to find some remedy, to retard, or, if possible, stamp out the disease. In January, 1904, there were 25 deaths, while in the same month this year there were 107. In February, 1904, there were 26 deaths, while in February, 1905, there were 149.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH.

Bradford, Tuesday, March 21st, 1905.

Dr. Althorp, M B., in the Chair.

A conjoint meeting of the Bradford Division and the Bradford Medico-Chirurgical Society was held at the Royal Infirmary, Bradford, on March 21st. The evening was exclusively devoted to the exhibition and discussion of pathological specimens.

The Conjoint Meeting.—Dr. Althorp drew attention to the importance of the meeting of the two societies, and thought it of happy augury for the future. It was the first meeting in which the Medico-Chirurgical Society was conceived at which they had had the pleasure of having the attendance of ladies.

Specimens.—The following specimens were exhibited:—Mr. Althorp: (1) Gall bladder, with 2,505 gall stones removed from it; (2) gall bladder and gall stones removed from cystic, hepatic, and common ducts.—Dr. Campbell: Stereoscopic views of specimens of medico-legal interest.—Dr. Crowley: (1) Colon with perforation, from a case of ulcerative colitis; (2) perforation of a tuberculous ulcer of a portion of the intestine in the sac of an inguinal hernia; (3) new growth of the trachea; (4) carcinoma of the lung; (5) carcinoma of the stomach; (6) carcinoma of pancreas, with secondary growths in liver; (7) heart with ulcerative endocarditis; (8) extensive softening of brain, due to syphilitic arteritis; (9) gumma of spleen; (10) liver and spleen, from a case of Banti's disease.—Dr. Eurich: (*a*) Microscopic Demonstration: (1) Neuroglia scavenger cells, (2) calcification of nerve cells, (3) elastic fibre stain (inflamed skin), (4) degenerating nerve cells (spinal cord), (5) persistent thymus, (6) ova of bilharzia, (7) actinomyces, (8) fat stained with sudan, (9) senile choroid plexus, (10) unusual tuberculous sputum, (11) anthrax spores, (12) anthrax bacilli in tissues, etc. (*b*) Various cultures, etc., of bacteria, especially the differentiation between bacillus typhosus, and allied species. (*c*) Pathological Specimens: (1) Tuberculous ulcers of intestine and tabes mesenterica; (2) tuberculous tumours in human liver; (3) tuberculosis of liver, spleen, and kidneys of pig; (4) ovarian cystoma; (5) extensive subarachnoid haemorrhage (anthrax); (6) laryngeal diphtheria, with interstitial emphysema; (7) pericarditis; (8) partial placenta praevia (fourth month); (9) haemorrhage into spinal cord, and other preparations.—Mr. Basil Hall: (1) Specimens of myoma uteri removed by abdominal hysterectomy; (2) specimens of carcinoma uteri removed by abdominal hysterectomy; (3) epithelioma of colon from a case in which the transverse colon and part of the bladder were excised; (4) ovarian cyst becoming gangrenous from torsion of the pedicle; (5) growth of the cheek implanted during the removal of an epithelioma of the palate and tonsil; (6) tumour of the testis; (7) sarcoma of axilla; (8) growth of the penis.—Mr. Horrocks: (1) Sarcoma of testis, (2) ectopic gestation, (3) fibroma uteri.—Dr. Rabagliati: (1) Four cases of abdominal hysterectomy; (2) two specimens from myoma hysterectomy.—Dr. Wood: (1) Hydatidiform degeneration of chorion; (2) hypertrophied prostate removed by operation; (3) liver showing calcified hydatid cyst which caused no symptoms till accidentally ruptured; (4) bladder and kidneys showing tuberculous disease; (5) epithelioma of lower jaw from woman of 36; (6) ovarian cystoma with papillary growths; (7) suppurating ovarian cyst with great enlargement of Fallopian tube; (8) vesical calculi; (9) renal calculi; (10) biliary calculi from common bile duct and cystic duct.

HONG KONG AND CHINA BRANCH.

Hong Kong, Friday, January 27th, 1905.

Dr. G. P. Jordan, President, in the Chair.

Progressive Muscular Atrophy.—Major Strickland read notes on, and showed a case of progressive muscular atrophy. The patient was an Indian Sepoy, who was admitted to hospital on January 5th. For seven days previously he had loss of power in his right arm. His age was 24 years, and there was no history of syphilis or injury. He had a bubo in the groin in 1902 and also an attack of dysentery. Now on examination his deltoid, supraspinatus, and infraspinatus muscles were weakened, the hand grasp was weak, there was no wasting of the ball of the thumb. Major Strickland considered the case to be one of progressive muscular atrophy of rapid course. The measurements of the right arm were less than those of the left. There was no loss of power in the legs. The case was examined by the members present, and discussed by Dr. Atkinson, Dr. Hunter, and the President.

The Factors in Plague Incidence.—Major J. S. Thomson, I.M.S., read a paper on the factors in plague incidence, and the methods of dealing with an epidemic. He dealt with the subject under seven headings. (1) Malignant plague. He referred to the necessity of recognizing a malignant type of plague which might occur amidst ideal sanitary surroundings and the analogy of this variety of the disease with malignant small-pox, scarlatina, measles, etc., and how this fact enabled us to explain the otherwise contradictory behaviour of plague in its incidence on different people and places. (2) Latent plague. The general acceptance of a latent interval before the epidemic outbreak of plague was pointed out and explained. (3) The so-called seasonal variation of plague was referred to the influence of climate on the sleeping habits of the people, and the important relation in places with a variable climate between an excessive dry heat and a sudden fall in the virulence of plague consequent on the population coming under fresh air conditions. When the climate was equable and the people slept indoors all the year round, any season might be the period of an epidemic outbreak amongst a susceptible population living in insanitary surroundings. (4) The selective affinity in the incidence of plague on localities and individuals was pointed out. The insanitary areas usually suffered most, and the relative morbidity in proportion to the numbers present in any community bore a strong relation to their insanitary habits as regards surroundings, deficient ventilation, and to a less extent filth of person, clothing and dwellings. Striking instances of plague in well-ventilated houses were brought forward and the causes of such outbreaks enumerated. The almost entire absence of a tendency for plague to spread in sanitary plague hospitals to attendants or visitors, and the comparative immunity of Europeans, fakirs and others, also of the houseboat population in plague centres and of the ships, etc., because of superior ventilation, were mentioned as confirmatory of the want-of-fresh-air theory of plague. (5) The important relation of rats to plague, and Dr. Hunter's researches in proof of the rôle of the rat as a carrier on of the disease between epidemics of human plague, were referred to and explained. (6) Plague measures were discussed in detail, and the basis for their adoption pointed out. Evacuation especially was dwelt upon, and the reasons for the success when properly carried out explained; as also why it sometimes failed in Indian experience. (7) Under the heading of "Remedies" Major Thomson referred to the necessity for suiting any plague policy adopted to the particular conditions of the locality to be dealt with, and to the genius, temperament, and habits, etc., of the population attacked, and the remarks under the various aspects of the chief factors in plague incidence, and the methods of dealing with an epidemic were summed up in conclusion. Colonel W. E. Webb, R.A.M.C., Hon. Dr. J. M. Atkinson, Dr. F. W. Clark, Dr. Harston, Dr. Hunter, Dr. J. C. Thomson, and the President took part in the discussion, which was listened to by His Excellency the Governor (Sir M. Nathan), who was present by invitation of the Branch Council.

Votes of Thanks.—Major Thomson having replied, the President moved a vote of thanks to Major Thomson for his extremely interesting and instructive paper.—This was seconded by the Hon. Dr. J. M. Atkinson, and carried with acclamation. As the meeting had now ended the President thanked His Excellency the Governor for the honour he had conferred on the Branch that evening by his presence and listening to their discussion.—His Excellency suitably replied, and remarked that he had noted in his book the points of interest which he could refer to.

Automobile Ambulances.—Plans have been prepared in the office of the Surgeon-General of the United States Army for an automobile ambulance. If these designs can be carried out by automobile manufacturers it is considered likely that steam carriages fitted up with ambulance facilities will take the place of the present style of vehicles drawn by horses. In order to test the scheme thoroughly the department has ordered Captain Clyde S. Ford, Assistant Surgeon U.S. Army, to Ormond, Florida, to confer there with the manufacturers, to investigate every detail, and to make a report to the department on the feasibility of the proposal.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

Vincent Dickinson, M.D., President, in the Chair.

Tuesday, March 14th, 1905.

Chronic Constipation and its Medical and Surgical Treatment.

Mr. W. Arbuthnot Lane introduced a debate on this subject with the address published at p. 700.

Dr. Vincent Dickinson said that from the trend of Mr. Lane's remarks they were forcibly reminded that the treatment of chronic constipation did not consist alone in the giving of aperient drugs, and, apart from its surgical treatment, its cure was not to be found in any one panacea. The causes of chronic constipation might be primarily divided into two groups, intrinsic and extrinsic. Intrinsic causes might be further divided into—muscular atony, glandular atony, hepatic inefficiency, chronic colitis, and mechanical causes, organic and functional. Muscular atony constituted one of the great causes of constipation among the aged. Senility, besides producing a deficiency in the digestive fluids, also induced deficient muscular power in the alimentary canal, but that the deficiency of digestive fluids was not the only cause was proved by the fact that good digestion and fair appetite were far from uncommon in old people. A sedentary occupation which tended to substitute fat for healthy muscular tissues led to the same result. Over-distension of the intestinal tube by flatus occasioned inaction of the muscular fibres, and by its mechanical effects obstructed the passage of the faeces and impacted them into masses, thus causing a serious obstacle to the process of defaecation. The treatment of this causative group naturally should be on the lines of electricity and massage. After the course of massage was finished, the patient might practise auto-massage with the aid of a large heavy solid ball covered with flannel or wash leather, which could be rolled over the surface of the abdomen in a direction corresponding to that of the large intestine. The form of electricity most useful was strong faradization of the abdomen with a powerful coil, one pole over the lower dorsal vertebrae and the other moved over the abdominal walls, especially in the direction of the large intestines. Drugs which stimulated and strengthened intestinal activity, such as aloes, cascara, and strychnine, had their use in this group. By glandular atony was meant a deficiency in the amount or activity of the glandular secretion of the intestinal tract from the stomach to the colon, and that and the muscular atony combined played the chief rôle in the chronic constipation of old people. In the young and middle-aged that form was associated with more or less obvious symptoms of indigestion and discomfort complained of from two to four hours after a meal, and was often attended with a slow pulse, sallowness of skin, distension and dull pain in the right side of the abdomen and unnatural heat of the palms and soles. The tongue was foul at the root, while the tip and sides were red, the urine high-coloured and loaded, and there was often much flatulence. Constipation in gouty people was due to that cause combined with hepatic inactivity, and the most effective line of treatment consisted in administering the sulphate and carbonate of magnesia combined with tincture and infusion of gentian. Gentian had the power of stimulating the secretions of the intestinal tract, not only of the stomach but of the large and small intestine. When that method failed they must supplement the intestinal juices by administering pepsin, papain, liquor pancreaticus, and peptenzyme. Hepatic inactivity was often closely linked with the former cause, and it was in cases of hepatic inefficiency allied to gout that the use of saline aperients and mineral waters came most in request. A few grains of blue pill or grey powder had effects reaching far beyond their action as temporary aperients, and after a time patients thus treated were able to get healthy evacuations three or four days subsequently to taking a dose of that kind. On the supposition that the liver was somewhat at fault that treatment might be followed up by giving chloride of ammonium in combination with euonymin or iridin. In infants constipation attended with dry whitish stools probably belonged to that class, and might be satisfactorily treated by small doses of podophyllin. Chronic colitis might be the result of a continued loaded state of the colon due to other causes, and when established and combined with atony was in itself an important element in the pathogeny of constipation. In that condition they might meet with diarrhoea alternating with constipation, the stools often coated with masses of mucus, colic-like pains, and abdominal distension. Small doses of castor oil seemed to act better than any other in relieving the constipation and curing the disease; by small doses he meant 10 minims every four hours or a drachm night and morning, and it might be usefully combined with belladonna. Kussmaul introduced the injection of olive oil into the colon as a cure for that complaint, from 3 to 10 oz. of warm olive oil being employed every night at bedtime, and which should be retained during the night. In order to effect that the oil should not be injected through a Higginson's syringe, but by means of a douche can suspended above the bed and connected with a nozzle and indiarubber tube of large calibre. After a time the injection might be used on alternate nights, and the patient would probably find that he got an evacuation each morning; the intervals could be then lengthened until cure was effected. Of organic lesions, they must bear in mind constriction of the gut by adhesions, contraction of its lumen by new growths, or compression by tumours of the various viscera, by the pregnant uterus, by pelvic abscess, and by enlargement of the prostate. Mr. Lane had already spoken of some of those mechanical causes and results of chronic constipation. Then there were functional mechanical causes which acted probably through the nervous system—for example, lead poisoning, and spasm of the anus which occurred sometimes in cases of neurasthenia apart from any organic painful lesion, such as fissure. Apart from the surgical treatment of those mechanical causes, the ordinary aperients and laxatives had their chief use. Extrinsic causes might be summed up under two heads: hard water and improper diet. An excess of lime salts in the drinking water was one of the most important of the causes outside the body of the sufferer from constipation. He had known water impregnated with small quantities of iron salts also produce constipation when drunk habitually. In the category of improper diets he would place heavy bread, new cheese, and nuts. Sir Lauder Brunton considered that fine wheaten bread and thoroughly cooked vegetables acted as causes by removing all indigestible particles from those articles of diet. Otherwise there would be left in the bowel undissolved residues which would act as a mechanical stimulus to the peristaltic action of the bowels. Lack of sugar and lack of water might perhaps play a subsidiary part in the causation of chronic constipation. Some people intentionally abstained from sugar because they thought it fattening or gouty, but they perhaps forgot that at the same time they deprived themselves of a naturally laxative article of diet. Other people drank too little water or fluid of any kind, and so the faeces became dry and hard, and the effect of that abstraction of water was also seen in the constipation of diabetes. The object of his remarks had been to put forward the idea, "remove the cause and you will cure the complaint." It might be that in the future that would be effected by surgery rather than by medicine, but until that happy time arrived there would be many who would echo the trite observation of mine host of the Garter Inn, set forth in the *Merry Wives of Windsor*: "Shall I lose my doctor? No; he gives me the potions and the motions."

Dr. W. G. Goddard said that for the last three years he had had considerable experience in cases of chronic constipation. It had been his good fortune to be present at many surgical operations undertaken for its relief, and during those operations he had taken special pains to acquaint himself with what was to be observed when the contents of the abdomen were exposed to view. He had seen the caecum so distended that it was described by a surgeon there present as being as big as a football. He had seen it so great as to intrude itself into the pelvis and press on the organs therein. He had observed the transverse colon dragging on its supports, pulling on the stomach and reaching to the brim of the pelvis; and he had seen peritoneal adhesions—those ubiquitous adhesions—pass off here and there, fixing and distorting whatever they joined, but their direction always as had been described. He had noted the congested, blue, and unhealthy-looking appearance of the small intestine in general, and he had seen loops of the ileum sometimes attenuated and sometimes distended in the region of the ileo-caecal valve. In short, he had seen eye to eye with Mr. Lane in all these particulars. He also further agreed with him in general in arguing that the effects of the pathological conditions which he described were the cause of chronic constipation. That his conclusions were both logical and correct was borne out by the fact of his success in the surgical methods he advocated. But, despite Mr. Lane's successes, his treatment of such cases was not universally

accepted. One eminent medical consultant, indeed, had given categorical denial to Mr. Lane's teaching and methods. When he read that gentleman's statement he was much exercised in his mind to know what his objections could be, and after careful reflection he could come to one conclusion only, namely, that that authority had attributed, rightly or wrongly, certain advantageous functions to the colon that, in his opinion, it would be unjustifiable to interfere with. That conclusion led him to ask himself a question—What were, then, the functions of the normal colon? As might be supposed, in order to solve the problem he had recourse to the most recent textbooks of physiology, but there disappointment awaited him, for he found that scarcely any two of them agreed on this point. He, therefore, decided to investigate the functions of the colon for himself. He had been experimenting in Paris for the last few months on the living colon of the dog and the rabbit. He set himself to determine those functions under four heads: (1) As to the peristalsis of the colon—was it peculiar to the colon? (2) As to the digestion of fat, carried on by the agency of bacteria known to abound in the caecum. (3) As to the absorption of fluid from the faecal mass. (4) As to the digestion of cellulose. He would briefly describe his experiments. He purged both a dog and a rabbit and administered to them A.C.E. mixture. When the abdomen was opened, he made a small incision in the posterior part of the ascending colon, and through it he passed a small indiarubber ball to which was fitted a tube fitted with a stopcock. The elastic ball was chosen in consequence of its collapsibility, so that it could be passed through a comparatively small orifice, and also because it could be easily inflated and deflated to suit the altering calibre of the large gut. He noticed that the wall of the intestine contracted on the ball, and it was not difficult to see that both the external longitudinal and the internal circular muscular coats contracted together at the same instant of time. To make sure of that particular, however, he applied an enterograph which confirmed his observation. He also observed (in the case of the rabbit, whose intestine was more delicately responsive than that of the dog) that in front of the ball there was a contraction of the intestinal wall, and so marked was that that it might be compared to a constrictor or sphincter. The combined effects of those two processes were evidently to ensure a twisting or churning movement on the ball. After a time the sphincter gave way, and the ball was carried upwards or onwards, only to meet with a repetition of the process at the hepatic flexure of the intestine, and then again in the middle of the transverse colon, but he could not follow its action farther. The textbooks told them that first one coat of the intestine and then the other contracted, but it was clear they contracted together, the outer or longitudinal muscular coat acting as an adjuvant to the inner coat by pressing tightly upon it. As to the digestion of fat, he fed a dog on diet containing a slight excess of fat of known weight. He obtained the faeces arising from that food. He boiled the faeces first in alcohol and subsequently in ether; the ether was evaporated off from the product, and the fat and other compounds soluble in ether were weighed. He then removed the ileum of the same dog from its normal position and implanted it into the upper rectum. When the dog had recovered from the operation he administered to it a diet exactly similar to that it had previously received in its normal natural condition. He found, on weighing the fat resulting from its faeces, that the average quantity of six experiments was 12 per cent. more than in the first experiment; hence 12 per cent. of fat was digested by the caecum. Concerning the absorption of fluid from the faecal mass, he said that in the last experiment it was noted that during the first fifteen days after the operation the faeces were passed in a liquid condition, resembling the faecal fluid mass normally found in the ileum. But subsequent to this period the faeces gradually regained their normal consistency. In regard to cellulose, his experiments were not yet completed, but he thought they might accept the conclusion of the German Agricultural Chemists—namely, that cellulose was digested by the large intestine. Those, then, were the functions of the large intestine of the dog and of the rabbit, and he presumed they might in a great degree reason from the colon of the dog to that of man. Although they had seen the large intestine to possess great functions and great advantages, he could not conceive them to be very great. Indeed, he believed that, did the necessity arise, man could live without a colon. Let them consider what exactly would be their loss. Its peristalsis? No, for it would not be required. Loss of fat? Twelve per cent. of the whole digested was not a great loss, even if they omitted the possible presumption that the small intestine might even in some degree do the work of the large intestine in that respect, just as occurred in the case of the absorption of fluid when the large intestine was rendered functionless. Absorption of fluid from the faecal mass? No, for they had seen in the dog and, indeed, in man that, after a certain lapse of time, the small intestine became equal to that task. Digestion of cellulose? Yes, but cellulose did not largely enter into their diet, and it was by no means a necessary part of it. Therefore, they might say there would not be any great loss. If a man could live without his normal colon, he certainly could do so in the case of chronic constipation, for there they found the colon was disorganized, and if it had any advantages at all they must be less than in the normal condition, and its very slight aid to the human economy was more than counterbalanced by that one fact—namely, that in chronic constipation they had a portion of the colon, the caecum, acting as a cesspool where the faeces were stagnating and undergoing chemical decomposition and producing toxic substances which entered into the blood stream and sapped the vitality of the patient, and speedily sent him to his grave. He supposed general practitioners would rather attempt the cure of chronic constipation by drugs and other methods than by surgical operation. Drugs might be useful in that class of cases of chronic constipation which had not yet led to structural alterations within the abdomen, and into their treatment he did not purpose to enter then, but however efficacious the medicines they employed, he thought the majority of even those cases would sooner or later exhibit pathological changes, and, given pathological structural changes, drugs could avail nothing. Indeed they were worse than useless, for they delayed the surgical operative measures which in the end must be adopted. Massage had been advocated, and at the actual time of its performance was soothing to the patient, but he had a strong suspicion that its friction helped to form fresh peritoneal adhesions. Hence operative interference was now the only method remaining. Since the colon was the prime offender, if not the entire cause of the evils of chronic constipation, and since the removal of the cause usually eliminated the effect, it would appear only logical either to remove the colon from it anatomical relations or to leave it within the body, while rendering it functionless. But excision of only a small portion of the colon was a serious operation, whereas to excise the whole was more serious still, so that, save in extreme cases, such an act would be both unnecessary and unjustifiable, especially since they could resort to that surgical operation which Mr. Lane justly recommended. Of that particular operation he had had considerable experience, and of it he could say that it was comparatively safe, easy of performance, and efficient in its results.

Dr. Foster Palmer said that a patient with obstinate chronic constipation had a definite disease, and, unfortunately for him, one that was often not altogether functional. They welcomed a radical treatment like that suggested by Mr. Lane, which would in a degree restore the normal condition of the part, and practically enable the patient to begin his intestinal life afresh; and it was then that the medical man might impress upon him the importance of cultivating habits of regularity, which would in most cases, provided there was no organic affection, be successful in the long run in overcoming the difficulty. Aperients he considered were no remedy against chronic constipation; they might be occasionally required for a special and temporary effect, and when so required the simpler and more certain they were the better. In his opinion the remedies were very few, consisting of warm water and warm olive oil per rectum, either alone or both together. In regard to the diet there were two golden rules: to eat enough, both in quantity and variety, and to drink in proportion. A sufficiency of fluid was of the first importance. For the purely neurotic or spastic cases, as they were called, bromides and the antispasmodics were available. When stagnation was due to contraction of the circular fibres from irritation or incipient inflammation of the mucous or serous membrane, belladonna would bring about a relaxation of those fibres and restore the normal peristaltic action. In constipation from atony or defective nerve power nux vomica was the ideal remedy.

Dr. Seymour Taylor referred to the advisability of insisting upon patients acquiring the habit of regularity in regard to the evacuation of the bowel, and particularly discussed the question with reference to female patients. He criticised the modern form of watercloset. He had always

regarded the presence of scybala as indicating a necessity for the administration of a large enema, and gave details of the practice followed at Chatel-Guyon in the Auvergne.

The debate was then adjourned to March 21st.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir WILLIAM BROADBENT, Bart., M.D., F.R.C.P., F.R.S., Vice-President, in the Chair.

Tuesday, March 28th, 1905.

ANKYLOSTOMIASIS AS AFFECTING MINERS.

DR. THOMAS OLIVER made a communication on this subject. Ankylostomiasis, or miners' worm disease, while prevalent in the mining districts of mid-Europe, was known to exist in England only in the Dolcoath Mine in Cornwall, and must have been carried thither by infected workmen from abroad. It was until recently believed that the larva of the ankylostomum gained entrance into the alimentary canal by men eating with unwashed hands or by drinking contaminated water; but Looss, of Cairo, who accidentally infected himself by a culture, had shown that the larva could penetrate the skin, and, by a circuitous route, ultimately reach the upper part of the small intestine. The worm could not reproduce itself in the human intestine. Ova were constantly being passed out of the bowel by the faeces. Under a favourable temperature, 62° to 80° F., and in presence of moisture, the ova became transformed into active mobile larvae, which could live for many months in the wet sludge in the mines. When the larvae had reached the intestine, and had become transformed into the sexually-matured worms, male and female, they attached themselves by their hooklets to the mucous membrane of the bowel, from which they received nourishment. As ankylostomes often contained blood, miners' anaemia had been attributed to the blood-sucking propensities of the worm, but this view was not generally accepted. The ankylostomes probably produced toxins which were absorbed into the circulation of the host, and induced changes in the blood as in anaemia. The present position of the ankylostomiasis question on the Continent was discussed, and the preventive and curative treatment of the disease. Preventive measures were cleanliness of the workers, the maintenance of a low rather than a high temperature in the mines, and keeping the pits as dry as possible. As regards medicinal treatment by aperients and intestinal antiseptics, opinions were at variance.

SIR PATRICK MANSON considered that epidemic ankylostomiasis was likely to be as prevalent in the future in England as now in Germany. The paper helped to show that the healthiness of a country was not a function of climate but of the presence of parasites. The route for the introduction of the parasite through the veins of the skin, lungs, and gullet was very elaborate. The purpose was probably to confer on the embryo powers of resisting the action of the gastric juice. Looss had pointed out that the mature worms were developed only from those embryos that did not pass direct into the stomach. The most important means of preventing the disease was the education of the miners in the life-history of the ankylostome, ensuring their co-operation. The ovum, unless freely supplied with oxygen, perished. The Chinese, on this principle, stored excreta in cemented tanks until they fermented and decomposed, tending to the destruction of the ova. Eosinophilia, as an evidence of ankylostomiasis, was of little value, as the infection was usually multiple. The only certain diagnostic was the microscopic examination of the stool. His experience of thymol in large repeated doses, such as a half-drachm every two or three hours for three or four doses—the last dose with castor oil—had been altogether favourable, but no thymol solvent must be given at the same time. Areca nut would probably also be useful, and should be tried. The cases were not so rare in this country as was supposed.

DR. OLIVER replied.

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, March 24th, 1905.

EXAMINATION OF STOMACH BY *X* RAYS AND TUBE FILLED WITH SUBNITRATE OF BISMUTH.

DR. NORMAN DALTON and Mr. A. D. REID described the method, which was as follows: An ordinary stomach tube was passed once a day for two or three days to accustom the patient to its presence in the stomach. Then, the stomach being empty, the patient lay on his back, the *x* rays being beneath the couch. The bismuth tube was then slowly passed into the stomach while the epigastrium was watched through the fluorescent screen. In a typical case the tube was seen to emerge from beneath the ribs to the left of the middle line, and descend to the greater curvature of the stomach to the left of the umbilicus. Then the point of the tube slid upwards to the right along the pyloric end of the greater curvature, while the stem became convex towards the left. When the point became arrested at the pylorus, the rest of the tube adapted itself to the greater curvature, and the photograph of it in that position represented the greater curvature. The umbilicus was marked out by a metal disc and the curve of the ribs by metal wire to give bearing points. Lantern slides showed the tube in various positions, which severally indicated gastroptosis, gastrectasis, and malposition of pylorus due to adhesions, all verified at operation. Slight retching by the patient often disengaged the point of the tube and facilitated its gliding movement to the pylorus. Great retching prevented the photograph from being taken, but did not interfere with what was seen through the fluorescent screen. No photograph of the tube in a normal stomach had been obtained, because so much of the stomach was covered by ribs and liver that the shadow was faint. It was as safe as the empty tube, and showed the stomach when empty; whereas the injection of air or fluid might considerably stretch the viscus. The method enabled one to recommend an operation with the greatest confidence.

Mr. REID described the technique. The patient lay on his back on a canvas-topped couch, underneath which the *x*-tube was mounted on a double slide, which allowed movement longitudinally and transversely. The tube was enclosed in an opaque box with an adjustable circular diaphragm placed over a 3-in. aperture opposite the anode, the smallest diaphragm being used that would include the required area. When the bismuth tube had been inserted as far as it would go, the patient was directed to hold his breath, and the exposure of from 10 to 20 seconds made, the plate being placed on the abdomen. The apparatus must be powerful to enable a good skiagraph to be taken in this time; that used in taking those shown consisted of a 10-in. variable primary coil worked off the 100-volt continuous main, with an electrolytic interrupter working at 15 ampères on the primary of the coil, and either a heavy anode or water-cooled tube.

MR. MCGAVIN thought that with great dilatation a heavy tube might displace the stomach downwards very much.

SIR D. DUCKWORTH thought that would depend on the pressure exerted. He doubted if the tube always followed exactly the greater curvature of the stomach.

DR. N. DALTON, in reply, said that as the patient was lying flat the stomach was not depressed by the tube, and directly pressure was made the tube began to curve.

STENOSIS OF URETER.

MR. DOUGLAS DREW read notes of 3 cases upon which he had operated. Case I.—Congenital narrowing of upper end of ureter causing hydronephrosis; treated by incising stenosed portion of ureter and suturing it to adjacent part of the pelvis—pyelo-uretero-plasty—this resulting in a cure. Case II was more severe, as narrowing affected upper 4 in., which were exposed. The kidney was but little affected, although the pelvis contained 25 oz. of urinous fluid. Condition of ureter not remediable, but it did not appear desirable to sacrifice kidney. Ureteral orifice was enlarged in the hope that it might cure hydronephrosis, but within three weeks the tumour reappeared and would require nephrectomy as it was causing pain. Case III.—Pyonephrosis from calculi impacted in ureter; nephrotomy and ureterotomy, subsequently nephrectomy, owing to stenosis of ureter. Mr. Drew remarked on the importance of exploring the ureter in cases of hydronephrosis and pyonephrosis when the cause of the condition was not found in the kidney.

MR. A. E. BARKER thought stenosis low down in the ureter was rare. He had operated for valve-like closure of the upper end. He advocated the passage of a catheter from the pelvis down through the ureter, bladder, and urethra to dilate the stenosed part of the ureter.

MR. W. G. SPENCER thought it curious that the stenosis, if congenital, did not show itself earlier in life. All the cases were in women, and he suggested that a septic condition after labour might have caused the stenosis.

MR. DREW, in reply, said there was no sign of inflammation in the first two cases to warrant Mr. Spencer's suggestion.

THE CONDITION OF THE SMALL INTESTINE SOME YEARS AFTER EXTENSIVE ENTERECTOMIES.

MR. A. E. BARKER described three cases which showed that the condition of paresis of the intestine commonly seen about

an acute obstruction was not completely relieved by the release of the constriction, but might persist for years—a point apparently hitherto overlooked. At the second operation the bowel above the anastomosis had in neither case returned to its normal size or activity as contrasted with the part below the junction. The author attributed this weakening and thinning of the proximal portion not only to the distension of the gut above the obstruction, but to the saturation of all the coats and nerves with toxins developed in the fermenting bowel contents. Reasons for this conclusion were given and their bearing on practice.

Mr. Malcolm inquired if the line of junction by making a break in the peristaltic wave might not assist obstruction and dilate the upper portion of bowel.

Mr. Spencer remarked on the great length of bowel successfully removed by Mr. Barker in these cases, and thought that surgeons should not fear to excise large portions above obstructions.

Mr. Barker, in reply, said there was no increase of shock when the portion excised was extensive. If any bowel was removed, it should be enough to leave healthy tissue for the sutures.

Streptococcal Pachymeningitis.

Sir Dyce Duckworth and Mr. C. M. Hinds Howell described the case.

The patient, aged 14, was admitted to hospital on November 14th, 1904, with history of eighteen days' indisposition and headache and occasional vomiting. Temperature on admission was 102° F., pulse 90. He was irritable and complained of pain behind left ear, but nothing abnormal was found on examination of ears. A trace of albumin was present. Nothing abnormal was noted in the nervous system, beyond an increased weakness in the knee-jerks. On November 21st, there was increased amount of albumin in urine, with blood and casts. The leucocyte count was 15,400. Slight twitchings of face were noticed. Cerebral irritation had increased; all food was given by nasal tube. On November 24th: Cheyne-Stokes breathing, paresis of right side of face, ankle clonus, Babinski and Kernig signs were present. Dyspnoeic attacks followed on November 25th, and pulse became irregular; on November 27th patient became comatose and died. The temperature throughout varied little from 103° F., but fell the last two days of life. The pulse frequency was about 80 to 90, only becoming irregular at the end. The *post-mortem* examination showed a large quantity of pus over the vertex, subdural in position. The pia arachnoid was natural. The surface of the brain was furrowed deeply from pressure of the pus, which was streptococcal. A pyaemic abscess was present in the lung. The brain was exhibited.

Dr. N. Dalton inquired if the nasal sinuses had been examined. In a similar case which he had lately seen the nasal sinus was the seat of the infection.

Sir D. Duckworth, in reply, said the sinuses had not been examined.

MEDICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Monday, March 27th, 1905.

Pericolitis Sinistra.

Dr. H. D. Rolleston described under this heading cases which clinically represented appendicitis, except that the manifestations affected the left side of the abdomen. As in perityphlitis, the most important factor was the involvement of the visceral peritoneum. The conditions grouped together might be either a local peritonitis of comparatively slight intensity around the descending colon or sigmoid flexure; a local abscess in connexion with the descending colon, which might rupture into the general peritoneal cavity; or a general peritonitis set up by such rupture. Cases illustrating these three groups of cases were given. The underlying factor was probably constipation with the formation of stercoral ulcers in the mucous membrane. Reasons were given for considering that the ulcers were generally in false diverticula of the colon.

Dr. de Havilland Hall referred to cases occurring in his own experience. In the first group of cases a rheumatic predisposition played a part; he believed that in such the inflammation started in the serous surface. The pericolic abscesses, he believed, were due to colon ulceration. He had not seen a general peritonitis following the rupture of an abscess.

Dr. H. A. Caley considered that the condition might come on acutely without any previous history of constipation. He believed the infection originated from the mucous surface. Chronic pericolitis was far from uncommon, and might have a bearing on general dilatation of the colon.

Dr. Symes Thompson considered that in recurrent cases lubricants, such as vaseline, in combination with salol, were indicated.

Infective Colitis.

Dr. A. E. Carver described an outbreak of this disease implicating 25 or 30 cases, mostly in children, many of which were treated in the Great Northern Hospital. The large intestine was universally affected, the wall being thickened, swollen, and ulcerated, the ulcers extending to the muscle coat, but not perforating. The rectum was never affected. The bacillus enteritidis sporogenes was present in large numbers in all the cases in which the colon contents were examined bacteriologically. Evidence was adduced suggesting that drinking water was the channel of infection. Treatment had had little influence on the disease.

The paper was discussed by Dr. de Havilland Hall, Dr. C. E. Beevor, and Dr. Macnamara.

Epidemiological Society.—At a meeting on March 17th, Dr. B. A. Whitelegge, President, in the chair, Dr. A. E. Boycott read a paper on ankylostomiasis. The ankylostoma, a parasitic nematoid, differed from other haematozoa in having no intermediate host or parthenogenesis. Each species was pathogenic to one species of animal only, and this, too, only at one period in its saprophytic or larval development. Reproduction occurred in the parasitic phase, but the eggs did not hatch within the body of its host. One species only, *A. duodenale*, was known to attack man in the Old World, and one very similar, *A. americanum*, in the New. The worms were found in the upper part of the jejunum, where the female laid numerous eggs, easily recognizable in the faeces. The larvae were hatched in water in about twenty-four hours from the time of leaving the intestine, and fully developed in the course of a week, when they acquired a chitinous sheath, and were said to be encapsuled. The eggs and young larvae could be swallowed with impunity, the full-grown larvae only being infective. Entering the body, usually by the mouth, but under some circumstances through the integuments, they underwent rapid development, and in about five weeks were perfect and actively-reproductive males and females. These, as well as the full-grown larvae, were remarkably tolerant of heat and cold, and the larvae would live and show vigorous movement for days in the entire absence of oxygen, the want of which apparently prevented the ova from hatching in the bowel. The optimum temperature was 75° F., but the encapsuled larvae would live for months or years at anything above 50° F. They were very sensitive to reagents, the apparent resistance of the encapsuled larvae being due to the temporary protection afforded by the sheath. Some faeces possessed the property of inhibiting the hatching of the eggs; indeed, the percentage of larvae developed seemed always increased by dilution. The essential feature of ankylostomiasis was profound anaemia, due not, as in malaria, to destruction of the blood cells but to toxins. It varied from a 19 per cent. reduction in the oxygen capacity of the blood to a degree not exceeded in the worst pernicious anaemia, and surely fatal. Some men enjoyed an immunity or impunity in the presence of the parasite, but they were none the less a danger to others. Ankylostomiasis was very prevalent in hot and humid climates, but in the temperate zone the necessary conditions of warmth and moisture were found only in deep mines and tunnels, and even there it would be seen from a study of the life-history of the parasite that it would disappear spontaneously if the miners could be restrained from promiscuous defaecation, as had been achieved in a few places and with complete success in the Simplon Tunnel, contrasting strongly with the experience of the St. Gothard twenty years previously. Sir P. Manson said that in Ceylon it was more fatal than cholera, and in Puerto Rico a fourth of the deaths had been ascribed to "anaemia" until its true nature had been shown by Ashford in 1900. The President remarked that it was met with in the coal mines of Westphalia and the metalliferous mines of Cornwall, and had recently appeared in the coal pits of Lanark. As an anthelmintic nothing, said Dr. Boycott, could approach thymol in efficacy.

Liverpool Medical Institution.—At a meeting on March 16th (Dr. James Barr, President, in the chair), Dr. Frank H. Barendt showed a patient, aged 33, suffering from prurigo ferox. The primary efflorescences were obscured to some extent by the scratched skin. The femoral, cubital and axillary glands were enlarged. The man was able to do a little work, but owing to the lassitude from want of sleep, he was obliged to rest at intervals of three to four days. He never remembered falling to sleep without having to scratch himself, and when the itching was severe two or even three hours elapsed before his scratching ended in sleep.—Mr. Edgar Stevenson related a case of orbital exostosis in a girl, aged 22 years. The tumour had produced marked proptosis

downwards and outwards in the left eye. It had been noticed by the patient for six months. At the operation for its removal it was found to be attached to the inner angle of the orbit with its base in the frontal sinus. The base was not very broad and the growth was wrenched away with difficulty. It was of an irregular pear shape and measured 1½ in. in its largest diameter. The patient made an excellent recovery.—Mr. G. G. HAMILTON described a method of wiring fractured patellae transversely, and related 10 cases upon which he had thus operated.—Dr. T. R. BRADSHAW showed a man, aged 54, with symptoms of syringomyelia, which first appeared 15 years ago. The lumbar enlargement was chiefly involved. There were present wasting and atrophy of the anterior tibial muscles with foot and toe drop, trophic changes consisting of painless ulceration and eruptions on the legs and feet and curious deformities of the toes, and loss of painful and thermic sensation below the knee in the region corresponding to the fourth and fifth lumbar segments, and the first sacral; tactile sensibility was normal. The plantar and patella reflexes were abolished. There was some loss of thermic sense in the right hand, and some stiffness of the fingers of both hands. There were no sphincter or visceral troubles. Dr. Bradshaw pointed out that the complex of symptoms was characteristic of syringomyelia, but the case was atypical in view of the advanced age of the patient, and of the lumbar region being more involved than the cervical.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on March 7th, Miss COCK, M.D., in the chair, Miss WOODCOCK, M.D., showed a case of mitral stenosis in which the presystolic thrill and murmur were present only over and just external to the pulmonary base; also a case of aneurysm (probably fusiform) of the arch of the aorta in a woman aged 30.—Miss IVENS, M.S., showed the three following cases of oculo-motor paralysis under the care of Miss ELLABY, M.D.: (1) Case of Mrs. R., aged 55, paralysis of left third (external muscles only affected) and fourth cranial nerves. Sudden onset one year previously; ptosis had been complete for nine months. No other cranial nerves were involved. There was the characteristic limit of the left field of fixation, right normal; there was no limitation of the field of vision of either eye. The vision was good and both fundi apparently normal. There was a specific history. Two special points of interest were the Argyll Robertson pupil and the absence of patellar reflex. There was no inco-ordination. The patient had improved greatly on iodide of potassium. (2) H. B., single, aged 22, a dressmaker, was treated for left ear trouble in August, 1904. Severe headache, chiefly on the left side, began about the same time and increased in severity. There was giddiness, but no vomiting. On February 1st she saw double, and the left fourth and sixth cranial nerves were found to be paralysed. There was tenderness over the left mastoid, temporal, and orbital regions. The pupil reactions, vision, and both fundi were normal. There was no anaesthesia of the face, and both corneas were equally sensitive. Examination of the left ear showed nothing beyond the fact that a watch could only be heard on contact. No other cranial nerve was involved. No motor or sensory disturbances were found, the reflexes were normal, temperature subnormal. There was a family history of rheumatism, none of tuberculous disease or syphilis. (3) Mrs. S., aged 38. Recurrent third nerve paralysis. For four or five years she had been subject to severe attacks of left hemicrania at intervals of a few months. She noticed that the "left eye turned" suddenly when pain was relieved. Attack passed off in a few days. The present one began four years ago, and the divergence persisted. This was found to be due to paresis of the left third pair. The right field of fixation was normal, as also both fundi. The cause was probably specific.—A paper sent by Miss FARRER, M.B., of Bhiwani, was read, on a case of contracted pelvis from osteomalacia with transverse presentation, complicated by eclampsia. When first seen labour had lasted twenty-four hours. There was extreme transverse contraction of the pelvis, making vaginal examination difficult, but a prolapsed swollen fetal hand was felt just inside the vaginal orifice. Version was found to be impossible, so the patient was removed to hospital, where a well-marked eclamptic seizure occurred. Caesarean section was performed, a living child extracted, and the patient made a good recovery, after grave symptoms during the first week. There was no diminution of urine noted, and albumen was only present one day after the operation.

REVIEWS.

OBSTETRICS AND GYNAECOLOGY.

THE term "puerperal haemorrhages," as used by Dr. KEIM, means bleeding from any cause during or soon after pregnancy, and includes haemorrhage from abortion, traumatic, accidental, placenta praevia, post-partum, haemorrhage, and that from a ruptured uterus. The work[1] makes no claim to be exhaustive; it is only intended as a guide to the practitioner. We may note a few practical points. The description of the different kinds of haemorrhage is preceded by a general account of the means we have of stopping uterine haemorrhage. From it we learn that the use of adrenalin in obstetrics has given very uncertain, and in general very feeble, results. It is dangerous to use gelatine in puerperal haemorrhages, for gelatine is too good a culture medium for microbian flora. In case of vesicular mole we cannot but think the author gives hazardous advice when he recommends curetting. He tells the reader that if rupture of the uterus is imminent and, above all, if it has occurred, immediate hysterectomy should be done. Has Dr. Keim ever watched the result of simply putting a tent in the cervix and giving ergot? In placenta praevia Dr. Keim rightly puts trust in the method of treatment introduced by Dr. Braxton Hicks, but English accoucheurs may be surprised to hear that this is known as the "Berlin method." He mentions Champetier de Ribes's bag, but brings against it objections which we have not yet found to exist. He says it can be used only in hospitals or large towns where many bags, asepticized, and ready for use, can be quickly procured, for the bags are difficult to sterilize, they tear, and the accoucheur must have several at his disposal. If this is Dr. Keim's experience he had better change his instrument maker. He says that in using Champetier de Ribes's bag one should from time to time let out a little water and pump it in again, to make uterine contractions more active. This is superfluous. Dr. Keim mentions the injection of saline fluid, which he calls "artificial serum," in collapse after haemorrhage, but he seems not aware of the amount that can be given. The upper limit he gives is 1,200 grams (about 2½ pints). Twice as much as this may be used with advantage. Doubtless there are many French general practitioners who will find their knowledge refreshed and thought stimulated by reading this little book, but the English practitioner may be content without adding this to those that he has in his own language.

The third edition of Dr. DUDLEY'S *Principles and Practice of Gynaecology*[2] was noticed in the BRITISH MEDICAL JOURNAL of September 26th, 1903. The present edition has been improved mainly by the addition of new illustrations, by which the technique of some operations is made still more clear. The general character of the work remains as before; it is a book for the operator. The technique of operations is fully described and illustrated, and is up-to-date. The author gives the impression that he is both candid and judicious in his estimate of the results of his operations, and therefore of the indications for operation. But operation is and must be the business of specialists. For the general practitioner and student it is more important that his views of pathology should be sound, for bad practice follows from bad pathology. In this book we have presented again the imaginary pathology of thirty years ago. Thus we are told (p 689) that from anteflexion there follow: "(1) Collapse of the blood vessels at the angle of flexure, with consequent obstruction of the circulation, passive congestion, and hypersecretion of a vitiated mucus; (2) collapse and obstruction of the uterine canal at the angle of flexure, with consequent retention of the uterine secretions." This is what was said thirty years ago. It has since then been abundantly shown that in the canal of every anteflexed uterus that has ever been examined there is no angle, and no obstruction and no retention of secretions; and that the arrangement of the uterine blood vessels is such that no bend of the uterus can possibly obstruct its circulation. The people who describe these hypothetical morbid changes have been repeatedly challenged to produce one single specimen showing them, but in vain. Dr. Dudley should either figure

[1] *Traitement des Hémorrhagies Puerpérales* [Treatment of Puerperal Haemorrhages]. Par le Dr. G. Keim, Ancien interne des Hôpitaux de Paris, etc. Paris: Vigot Frères. 1905. (Cr. 8vo, pp. 238. Fr. 3.50.)

[2] *The Principles and Practice of Gynaecology*. By E. C. Dudley, A.M., M.D., President of the American Gynaecological Society, etc., etc. Fourth edition. London: Henry Kimpton. 1905. (Demy 8vo, pp. 771; 419 illustrations. 25s. net.)

or refer to an actual specimen, or delete these statements. At p. 618 we are told: "The symptoms of displacement refer to the pelvic organs or to the nervous system. . . . Among the symptoms or associated lesions which refer to the nervous system are neuralgia in various parts, hysteria, anaemia, motor disturbances, nervous dyspepsia, chlorosis, spinal irritation." Dr. Dudley would do well to ask the opinion of a competent neurologist as to the relation of hysteria to displacements, and as to the meaning of "spinal irritation."

CLINICAL MANUALS.

Dr. Herbert French's compact little volume, *Medical Laboratory Methods and Tests*,[3] has been written as a convenient handbook for the laboratory. In the transition period through which we have almost passed in the development of clinical laboratories there must be a feeling on the part of the senior practitioners that they would like to know more about the methods by which greater accuracy of diagnosis is secured in modern times. This guide written by Dr. French will serve such a purpose admirably, and may well encourage the general practitioner to carry out investigations for himself in the more common diseases. There is no reason beyond want of time why medical practitioners should not carry out the simpler bacteriological examination of the sputum or of infected hairs in various forms of tinea. Blood examination is also now so simplified that there can hardly be any excuse for the neglect of such inquiry in suspected cases, and, as Dr. French shows, the apparatus necessary for the examination of the stomach contents is not overwhelming. As a guide to laboratory work there is much to be said in praise of this book, but it must be admitted that the information contained is very meagre in comparison with that contained in the manuals on the subject published abroad, and more especially in Germany. The information given, however, is very accurate, and Dr. French has taken care to give the reasons, when possible within such small compass, for the various reactions described—for example, in the examination of the urine. We hope that Dr. French will not consider us captious when we complain of the very crude character of the illustrations; we are accustomed to see something more like the microscopic pictures of stained leucocytes than that printed on page 72.

Dr. Bayon's book on histological methods for the investigation of the nervous system[4] is an excellent compilation which, owing to its practical usefulness, should take a high place in the pathological and histological laboratory. It treats of the technique of the microscopic methods for the nervous system from beginning to end, of the instruments required, of reagents for fixing and hardening the tissues, of the processes of imbedding, of making, staining, and mounting sections; and, lastly, of photographing them. In passing, it describes methods for making macroscopical preparations of the nervous system, but its strength is contained in its instructions for such processes as staining neuroglia cells, nuclei of nerve cells, the tigroid bodies of the ganglion cells after Nissl, those for revealing degeneration of nerve fibres after Marchi, for colouring living nerve tissues with methylene blue after Dogiel, Bethe, and Ramon y Cajal, for silver impregnation of nerve tissues after Ramon y Cajal and Golgi, and those for staining axis cylinders. It is methodical in arrangement, concise, clear, and full of detail.

TREATMENT BY EXERCISE AND MASSAGE.

In the second edition of his treatise on treatment by exercise,[5] Dr. Fernand Lagrange announces that this method of treatment has made great progress in France during the ten years since the first edition (reviewed in the British Medical Journal in 1894, vol. ii, p. 534) appeared. This large work is, indeed, very comprehensive, embracing nearly all the methods taught and practised in Sweden (in which country the author spent several weeks observing real Swedish gymnastics), Germany, and France. We say nearly all, but not all, for, curiously enough, the methods of the brothers Schott of Nauheim for the treatment of cardiac affections are not alluded to, though the "Terrain-Cur" principles started by Oertel at Reichenhall—that is to say, graduated walking and climbing exercises in the open air—are fully considered, and even illustrated by a coloured map of the neighbourhood of Reichenhall. The Schott exercises, even if regarded merely as a variety of Ling's, should, we think, be referred to in this large treatise. The medical use of fencing and of games and sports, such as tennis and skating, is fully acknowledged. We are glad to find the use of exercise insisted on for digestive disturbances (p. 308) and some nervous affections (p. 419), in respect to which the author's quotation, "*sanguis moderator nervorum*," is too apt to be neglected. Chapter IX, on diseases of women, is entirely devoted to the manipulations of Thure-Brandt, which hitherto have not found favour amongst English medical practitioners. Amongst little errors and misprints we notice on p. 265 "Ichl en Allemagne" and "Lemnering en Autriche." Ischl—not Ichl—is in Austria, not Germany, and Lemnering should, of course, be Semmering. On p. 264 Oertel is spoken of as if he were still alive. On p. 220 the reference to the absence of Zander institutions in France must surely have been left over by mistake from the first edition.

Dr. P. C. Franze, in his medical guide to the therapeutic resources of Bad-Nauheim,[6] gives a concise account of the gradual development of this well-known mineral water bathing resort, its baths and springs, its inhalatorium, facilities for graduated exercises, etc., and, lastly, the chief indications of this spa in cardiac and other diseases. In regard to affections of the heart he says (p. 45): "It is not a question of the origin of the circulatory disturbance; in valvular defects, affections of the myocardium, and all other kinds of cardiac weakness the baths can exercise their effect so long as the heart still possesses a remnant of its reserve power." He points out that in some cases, as in fatty infiltration, the baths can act when drugs cannot be expected to help. The book should be useful to all those wishing to obtain a clear but concise sketch of medical Nauheim and its indications.

Dr. de Frumerie's volume on manual treatment[7] is a concise and useful little book, including the substance of a series of twelve lessons on treatment by massage and movement, given in the clinic of Professor Gilbert at the Hôpital Broussais in Paris. He does not, he says, seek to turn the students attending his course into masseurs, but to instruct those who are to become doctors, so that they may know how to prescribe direct and regular manual treatment. He does not agree with Bumm, who thinks that any skilled medical man able to think anatomically and pathologically, who understands the aims of manual treatment, can at once practise massage correctly. It would be true, he says, if every doctor possessed an apt hand, but this is only exceptionally the case. The section on massage of the liver or biliary ducts is of special interest, as the writer's efforts were made under the eyes of such an authority on hepatic diseases as Professor Gilbert.

MEDICAL AND SURGICAL APPLIANCES.

A Radiograph Couch.—Mr. E. W. H. Shenton, radiographer to Guy's Hospital, has devised a special couch for radiograph work which we have had an opportunity of examining in operation in his department at the hospital. It is so arranged that, by a turn of a screw handle, the lamp box can be moved instantly and noiselessly in any of three directions—that is to say, vertically, horizontally, or laterally—and thus brought to bear without any trouble upon any part of the patient's body which it may be desired to observe with the screen, or to radiograph. There is a foot pedal arrangement by which the light can be switched on or off at once without delay or stooping. The top of the couch instead of being fixed is quite free, and, being provided with drop handles, can be used as a stretcher, if desired, for the removal to the wards without further disturbance of a patient who has been the subject of radioscopic diagnosis. To facilitate cleansing it is fitted with a loose pegamoid cover. The apparatus appeared to be well designed, and to offer decided facilities for getting through a large number of radiographic operations with the smallest expenditure of time and trouble—no small advantage

[3] *Medical Laboratory Methods and Tests.* By Herbert French, M.A., M.D.Oxon., M.R.C.P.Lond., Medical Registrar, Guy's Hospital. London: Baillière, Tindall and Cox. 1904. (Cr. 8vo, pp. 152, 73 Illustrations. 3s. 6d.)

[4] *Histologischen Untersuchungsmethoden des Nervensystems.* Von Dr. P. G. Bayon. Würzburg: A. Stuber. 1905. (Crown 8vo, pp. 187. M. 3.60.)

[5] *La Médication par l'Exercice* [Treatment by Exercise]. Par le Dr. Fernand Lagrange. Second edition. Paris: Félix Alcan. 1904. (Demy 8vo, pp. 572; 62 figures and one coloured plate. Fr. 12.)

[6] *Aerztlicher Führer durch Bad-Nauheims Kurmittel für Aerzte und Laien.* [Medical Guide to the Therapeutic Resources of Bad-Nauheim for doctors and the general public.] By Dr. Med. P. C. Franze. Friedberg und Bad-Nauheim: C. Bindernagel. 1903. (Crown 8vo, pp. 56.)

[7] *Notions de Traitement Manuel* [Ideas of Manual Treatment]. Par le Dr. de Frumerie. Paris: Vigot Frères. 1904. (Cr. 8vo, pp. 175. Fr. 2.)

any institution in which frequent recourse is had to this method of diagnosis. There are of course, too, not a few cases, especially those of suspected renal disorder in which mechanical precision and rapidity of adjustment of the lamp are of material assistance in securing correct results. The price of the couch (which can be obtained from the Sanitas Electrical Co., 7, Soho Square, W.) is at present £35, but this, we understand, will be considerably reduced if any demand for its supply arises, a contingency which does not seem at all improbable.

MEDICAL NEWS.

Dr. Edward Roberts, one of the Honorary Surgeons to the Manchester Royal Eye Hospital, has been appointed Sheriff for the ensuing year for the county of Cardigan, which is his native county.

A festival dinner of the National Hospital for the Relief and Cure of the Paralysed and Epileptic, Queen Square, W.C., will be held in the Whitehall Rooms, Hôtel Métropole, under the chairmanship of Lord Strathcona and Mount Royal, on Thursday, April 13th.

Messrs. Duncan, Flockhart, and Co., of Edinburgh, and 143, Farringdon Road, E.C., have prepared a bibliography, containing references to papers, by English and American authors, on the use of chloride of ethyl as a general anaesthetic. They will send copies to any medical man interested.

The dinner to be given by the medical staff of the Seamen's Hospital to Mr. Johnson Smith, F.R.C.S., on his retirement after thirty years' service will take place on Wednesday, April 5th, at 7 30 p m, at the Trocadero Restaurant, Shaftesbury Avenue. Further information can be obtained on application to the Honorary Secretary of the Dinner Committee at the office of the Seamen's Hospital Society, 13a, Cockspur Street, S.W.

The Akademie für praktische Medizin in Cologne is founded to give post-graduate instruction to medical practitioners who have the advantage of following the practice of the Burger Hospital, 510 beds; the Augusta Hospital, 480 beds; the Lindenburg Hospital, 480 beds; the Children's Hospital, 100 beds; the Ophthalmic Institute, 50 beds; and the Midwifery Training Institute, 70 beds (with 2,500 confinements annually). We are informed that during the first winter term which commenced in October last, 150 German medical practitioners were registered, and that at the end of January a special course for military medical men was attended by 30 staff district officers, and 5 district assistant medical officers sent by the ministry. On May 15th a fortnight's course for foreign practitioners will begin. Lectures will be given on medicine, children's diseases, pathological anatomy, surgery, orthopaedics, gynaecology and obstetrics, dermatology and syphilis, laryngology and otology, ophthalmology, psychiatry, hygiene and biology, and social medicine. Further particulars can be obtained on application to the Secretary of the Cologne Academy, Portalgasse 2 Cologne.

The Epidemic of Typhoid Fever at Lincoln.—The total number of notifications during the week ending Friday, March 24th, was 32, showing a further decline of the epidemic, 46 cases having been notified in the previous week.

Anticigarette Legislation.—The Wisconsin State Legislature has passed with but one dissenting vote a Bill prohibiting the sale or manufacture of cigarette papers. It is not anticipated that the measure will meet with any opposition in the Senate.

Lepers in Canada.—The annual report presented to the Federal Parliament of the Dominion of Canada by Dr. Smith, Medical Superintendent of the Leper Hospital at Tracadie, New Brunswick, shows that there are now fifteen residents in the institution. Of these ten are males and five females, the youngest patient being 10 years and the oldest 62 years. Chaulmoogra oil has been used during the last two years with some success. Dr. Smith, who has carefully examined the question, expressing the conviction that leprosy is communicable through contagion.

A Congress of Midwives.—The midwives of Italy are shortly to meet in a national congress to be held at Milan. Intimations of adhesion have been received from the midwives' societies of Turin, Genoa, Milan, Bologna, Florence, Rome, and Cremona. The municipality of the city and the council of the province of Naples have promised their support. Addresses will be delivered by Professors A. Guzzoni of Messina, E. Pestalozza of Florence, and L. Bossi of Genoa.

The Medical Profession in Italy.—In 1861 the total number of medical practitioners in Italy was 18,947, the proportion to population being 8 8 per 10 000. In 1861 the number had fallen to 18,420, a proportion of 6.6 per 10 000 inhabitants. In 1881 it was 18 950, or 6.6 per 10 000. In 1901 it was 22,168, or 6.8 per 10,000. The distribution of practitioners is somewhat unequal, the proportion being higher in the south (7.7 per 10 000) than in the north (6.1 per 10,000). In the province of Udine the proportion is lower than anywhere else in Italy, there being only one practitioner to 2 831 inhabitants; in that of Naples it is highest, there being two doctors to 732 inhabitants.

Bequests to Medical Institutions.—Mrs. Jane Begley of Hammersmith, widow of Dr. W. C. Begley, late medical superintendent of Hanwell Asylum, amongst other bequests for public uses, left £1 000 to the Provost and Senior Fellows of Trinity College, Dublin, to augment the legacy bequeathed by her late husband for the establishment and endowment of four medical scholarships. She also left £500 to the Royal College of Physicians, £500 each to the West London Hospital and All Saints' Convalescent Hospital at Eastbourne, and £250 each to the Royal Hospital for Incurables, Wandsworth, the Society for the Relief of Widows and Orphans of Medical Men, and St. Mary's Hospital, Paddington. Mr. Edward Crossley of Halifax, formerly M.P. for the Sowerby Division of Yorkshire, who presented the Lick telescope to the Lick Observatory, bequeathed £1,000 to the Royal Halifax Infirmary and £500 to the Royal Isle of Wight Hospital. Miss Ellen Ware of Tunbridge Wells by her will gave £500 each to the General Hospital, Tunbridge Wells, Guy's Hospital, St. Thomas's Hospital, the Hospital for Women, Soho Square, and the Hospital for Incurables, Putney Heath.

Antivivisection in America.—We learn from *American Medicine* that the Committee on Probate and Chancery of the Massachusetts State Legislature is hearing arguments on a petition for the restriction of vivisection. The Bill is in its essential features the same that was before the Committee last year. It provides that no person shall cause pain to any animal through experiments, except under specified restrictions. These restrictions provide that experiments shall be performed only under authority of the faculty of an incorporated college or university; that the animals shall be thoroughly under the influence of some general anaesthetic, and shall be killed before recovering consciousness if the after-effect of such experiment is likely to prove painful. It is further provided that the Governor, with the consent of the council, shall appoint a commission of three persons, not more than one of whom shall be a registered medical practitioner, whose duty it shall be to inspect laboratories where such experiments are authorized. The Bill also provides that any person who performs such experiments contrary to the provisions of the Act may be sentenced to a term of not more than a year in gaol or to a fine of 250 dols., or both.

French Congress of Climatotherapy.—As has already been announced in the British Medical Journal, the French Congress of Climatotherapy and Urban Hygiene will hold its second meeting at Arcachon, April 24th to 28th, under the presidency of Professor Renaut, of Lyons. The closing meeting will be held at Pau on April 29th. In the Section of Climatotherapy the following questions will be discussed: The climatology of the French Atlantic littoral; pretuberculous and tuberculous cases in relation to forest and marine treatment; sanatoriums and seaside hospitals of the French Atlantic littoral; indications and contraindications of the climate of Pau. In the Section of Urban Hygiene the questions to be discussed are mainly of local interest. Excursions will be made to the forest around Arcachon, Biarritz, Hendaye (Sanatorium) and Fontarabia, Bayonne and Cambo. A reduction of 50 per cent. is granted by all the French railways to titular members (subscription 20 francs) and to their wives and children registered as associate members (subscription 10 francs). The latest date for inscription is April 5th. All applications for membership should be addressed, with the amount of the subscription, to the General Treasurer, Dr. Dechamp, Villa Tibur, Arcachon. For information relative to railway fares, tickets, hotel accommodation, etc., application should be made to the General Secretary, Dr. A. Festal, Villa David, Arcachon.

British Medical Journal.

SATURDAY, APRIL 1ST, 1905.

FOOD AND POISON: SOME NEW VIEWS.

At the conference of medical men and others interested in the subject of the teaching of hygiene and temperance in elementary schools held in London on March 24th, Sir Victor Horsley briefly referred to a memorandum prepared for the Board of Education by Sir Michael Foster on certain syllabuses for instruction in hygiene and temperance in public elementary schools. The titles or sources of the syllabuses criticized in this memorandum are not mentioned, although the comments attached to the memorandum by the Board of Education contain certain quotations. The memorandum itself, however, taken together with the comments of the Board, affords a general indication of the scope of the investigation which Sir Michael Foster was asked to make, and discloses, also, a somewhat curious attitude of mind in the Board and its adviser.

The memorandum begins with the proposition, to which every one will agree, that it is desirable to ascertain the proper meaning of terms. The first term discussed is the word "nourishing." It is stated that it is used in two senses, in the one it means "serving to build up the body," in the other "supplying energy to the body," and Sir Michael Foster asserts that some part of the sugar, starch, fat, and proteid of food does not actually enter into the fabric of the body. The Board notes that the general definition of "nourishing" tacitly adopted in the syllabuses is "serving to build up the body." This is a matter upon which physiologists are not entirely agreed, but it appears to be pretty clear that if food stuffs after absorption are not actually built into the tissues, they are at least consumed in the tissues, and there are many difficulties in the way of the theory that this can happen without their entering at least temporarily into combination with the substance of the tissue itself. At any rate, the distinction is really rather a fine one, and it would be absurd to bother teachers or children in elementary schools with the discussion of a theoretical point about which physiologists differ. Teachers and children should know that much of the food is used up in the production of energy, and any syllabus which fails to bring this out should be amended; but before teaching them this it is not necessary to wait until physiologists have decided precisely how the energy is liberated.

The memorandum next raises the old question of the relation of water and salts to nutrition; it is pointed out that though essential to life they do not yield energy; that on that ground we may refuse to class them as foods, but if we are to define food as a substance which must be incorporated into the tissues in order that they may live and act, then water and salts might be reckoned as foods. As they are not sources from which the body derives energy they are for convenience classed separately; there is, in fact, no confusion here, except that which the memorandum itself introduces. But Sir Michael Foster goes on to imply, if not definitely to assert, that such bodies as theine, caffeine, and alcohol are in the same category. This is such a strange statement that it will be well to quote his words. Of water and salts he says, "by their aid the energy of the energy-supplying substances is made available for the use of the body"; of theine, caffeine, and alcohol, he says, "they assist or may assist the processes by which the energy of the special energy-holding substances of the food is made available for the body." This question-begging suggestion leads up to a discussion of the meaning of the word "poison," and the statement is made that "it is usual to confine the idea of a poison to a substance which is deleterious to the body in a state of health, it being admitted that what is poisonous to a healthy body may be beneficial to an unhealthy body." This seems to us dangerously near a platitude, for probably the infants' class knows from experience the difference between a medicine and a food, and that whereas castor oil "may be beneficial to an unhealthy body," it would be an undesirable substitute for butter or even for margarine. It is a pity that Sir Michael Foster has concealed from the Board of Education the fact that castor oil contains hydrocarbons, which would yield energy to the body, and might, therefore, be classed among the foods, a fact strangely omitted from all the syllabuses we have studied. The information would have impressed the Board perhaps nearly as much as the next statement, which is that oxygen "if taken at certain doses (the pressure of several atmospheres) *kills* by a special kind of suffocation," is, in fact, a dangerous poison. This time the writer of the memorandum really makes the Board's flesh creep, and draws from it this cry of anguish: "Oxygen is regarded in the syllabuses as an essential of life. No reference is made to any dangerous properties." As a child is not likely to be called upon to live under a pressure of four to six atmospheres, it seems to the ordinary intelligence superfluous to trouble its brain with this experimental fact. Again, the memorandum says that water may be taken in health in such a dose as to act deleteriously. We might go further and say that a sheep may eat so much clover that it dies of its gluttony; thus the clover was a "substance which, taken into the body" of this particular sheep, "acted deleteriously"—Sir Michael Foster's definition of a poison—but the farmer would think it a little odd to be told by the Board of Education that clover was a poison.

After this we need, perhaps, not follow the memorandum in its discussion of the meaning of the word intoxication. Theine and caffeine, we are told, "in adequately large doses produce effects different from alcohol, but yet are such as to justify the term 'intoxicating'"; but, as is admitted, in actual life, "while alcohol is very frequently taken in doses sufficient to produce intoxication effects, theine (or caffeine) very rarely is." Very rarely indeed, we should suppose. It seems hardly necessary to confuse a child's mind by telling it that if it were to take an impossible dose of theine it might present special symptoms of intoxication. The fact is that people get drunk on alcohol and not on tea, and why this very simple and easily-comprehended fact should be obscured by a cloud of words it is difficult to understand. No doubt it would be well to teach children that excessive indulgence in tea and coffee is injurious, and we certainly think that they ought to be told how to make tea, and that stewed tea causes indigestion, though not because of its intoxicating properties. To class alcohol and tea together is, for practical purposes, misleading and confusing. We quite agree that "there ought to be no difficulty in teaching even young children hygienic duties in a broad way, basing the

teaching on the results of common experience, using physiological science, and then only simple and general physiological truths, as illustrating those results and showing the sound basis on which the teaching rests," but that Sir Michael Foster by his memorandum has contributed to this end we take leave to doubt.

A letter signed by Sir William Broadbent and a number of other distinguished physicians, surgeons, and physiologists was recently addressed to the Board of Education, criticizing the memorandum and asking the Board to help in the adoption of the teaching of hygiene and temperance in the elementary schools, and not to "permit the difficulties of interpretation unwarrantably suggested by Sir Michael Foster to introduce confusion of ideas into a subject which has hitherto been treated in a plain and straightforward manner." We gather from Sir Victor Horsley's remarks at the meeting on March 24th that the Board has found enlightenment and is ready to concede all that the profession has asked.

GERMAN EXPERIENCE OF ANTITYPHOID INOCULATION.

Owing to the prevalence of typhoid fever in their South-West African territories, and the necessity of sending out troops to deal with the Hereros rising, the subject of antityphoid inoculation has recently been a matter of special interest to the German military authorities. The method of preventive inoculation is being given a trial, and the experiences of their medical officers, which have recently been placed on record[1] are of considerable interest.

Of 1,050 men dispatched in a transport to South-West Africa in January last, 634 were inoculated, and the clinical effects of the treatment are recorded by Drs. Musehold and Steudel. In the case of a small number of the persons inoculated the symptoms were slight, and no general disturbance was produced; these, it is noted, were not invariably persons who had had typhoid fever or some similar affection. But in the great majority of cases a feeling of malaise, varying in severity, set in from two to five hours after inoculation, with chilliness, or even rigor, and twitching of the limbs. In about 15 per cent. of the cases there was vomiting; but frequent vomiting was exceptional. The feeling of chill was followed by a rise of temperature, which in exceptional cases reached to more than 40° C., but did not often exceed 39° C. In from twelve to sixteen hours after inoculation the general symptoms had in the majority of cases subsided into a feeling of exhaustion. About 6 per cent. of the inoculated remained in bed the day following the inoculation, with complaints of languor, headache, pain at the seat of inoculation, and, in some cases, pains in various joints. The disturbance at the seat of inoculation—which was the left side of the chest beneath the clavicle—was much more uniform than the general reaction; over an area about the size of the palm of the hand there was inflammatory redness and swelling, and the skin was tense and tender. Radiating pains were often felt in the intercostal muscles, the neck, and the left arm; but when the inoculation was made midway between the clavicle and the nipple, the neck and arm were generally unaffected. Only rarely were the axillary glands swollen and painful. In many cases, though the extension of the local manifestations and the febrile temperature were only slight, the disturbance in the general health was nevertheless not inconsiderable. But after forty-eight hours all the persons inoculated, including those that gave the severest reaction, were almost free from distress, with the exception of some remaining discomfort at the seat of inoculation. There were no instances of albuminuria.

As the result of their experience Drs. Musehold and Steudel offer a number of suggestions for future procedure in work of this kind. No person ought to be inoculated who has not been ascertained to be in a sound state of health; and proper provision ought to be made for clinical attention during the period of reaction. The material to be inoculated must be guaranteed free from living bacilli or other injurious material, and the inoculations must be made under strict aseptic precautions. For the first inoculation the highest dose which it is safe to use is 2 mg., or one loopful, of dead typhoid culture.

Another interesting series of clinical observations on the immediate effects of inoculation is recorded by Dr. Flemming, who has had the opportunity of observing the results of repeating the inoculation with increased doses. A second inoculation, where double the original dose was given, produced on the whole a much milder reaction than the first. In some cases, however (in 21 out 93), a higher temperature ensued after the second inoculation than after the first, but in most of these patients the febrile reaction on the first occasion had been either slight or absent. Amongst 24 persons who received a third dose, consisting of three times the amount given on the first occasion, the reaction was in most cases somewhat milder than that which ensued after the second inoculation.

In South-West Africa both the white and the coloured population, Drs. Eggert and Kuhn tell us, submit themselves with greater readiness to inoculation than would be the case in Germany, the reason being that in Africa people are accustomed to see the application of inoculative treatment for two cattle diseases, pleuropneumonia and rinderpest, which are rife there; they have therefore no prejudice against the practice of similar treatment upon themselves. From the statistics provided by Drs. Eggert and Kuhn of the inoculation of 84 whites and 461 coloured people, we learn that no unfavourable results followed the injections. Twenty-two of the cases were persons who had recovered from an attack of typhoid fever. It is interesting to note that 13 of these, who had contracted the disease six years previously, gave no reaction. The persons who had been recently attacked showed some slight increase of temperature and some local swelling, the reaction being less with the convalescents of the thirteenth to the fifteenth weeks than with the convalescents of the sixth to eighth weeks.

The questions of dosage, repetition of inoculations, and the interval between the first and subsequent inoculations are obviously of high practical importance, and in this connexion the instructions which accompanied 3,000 doses issued by the Berlin Institute for Infectious Diseases are deserving of notice. The first dose was to be 0.25 c.cm. of the material supplied, equivalent to 0.5 mg. of dead typhoid culture. The treatment was to be completed by either one or two subsequent doses. If one only was given it was to consist of 1 c.cm., and was to be given ten days after the first; if three doses in all were employed, the second, given ten days after the first, was to be 0.6 c.cm.; and the third, to be administered ten days after the second, was to consist of 1.5 c.cm.

[1] Veröffentlichungen aus dem Gebiete des Militär-Sanitätswesens. Heft 28. *Beiträge zur Schutzimpfung gegen Typhus.* Berlin: August Hirschwald. 1905.

STERILIZATION OF THE HANDS.[1]

The question of hand disinfection continues to occupy the attention of bacteriologists, and the literature of the subject is now voluminous. It is satisfactory to observe that some of the later experiments on the subject have gone far towards falsifying the prophecies of those who have denied the possibility of discovering reliable methods. One of the latest publications is a record of researches by Dr. Eugen Engels, with particular reference to the value of the three preparations—lysoform, bazillol, and sublamin—and their solutions in alcohol. The importance of alcohol was first demonstrated by Fürbringer, and later became an important element in the methods of Ahlfeld and Mikulicz. So long ago as 1881 Koch compared the bactericidal effects of alcoholic and watery solutions of chemicals, much to the advantage of the latter; but it appears certain that there is no general rule to this effect. Some chemicals are certainly more energetic in watery than in alcoholic solution, others the contrary. To the first group belongs carbolic acid and its homologues; to the latter probably the salts of the heavy metals. The most effective concentration of alcohol has occupied the attention of many; it is agreed that solutions in absolute alcohol are comparatively inert, and most workers have obtained the best results with the mean concentrations (50 to 70 per cent.). Recently, however, Weigl has obtained the best effect with a concentration of 80 to 90 per cent., provided the bacteria are not previously dried; and he has also found that better results are obtained with acid or alkaline than with neutral solutions.

Working with the three chemical substances named, Dr. Engels obtained generally much superior results with the alcoholic than with the watery solutions. He employed solutions in 97 to 98 per cent. alcohol, and in testing the sterility of the hands he used the very searching method introduced by Paul and Sarwey. The details of this method are, shortly, as follows: Sterile wooden slips were used for scraping the skin surface, the nail crevice, and the nail folds. The hands were thus tested first before washing, and then a second time after simple washing with sterile soap and brush in hot sterile water. After the use of the antiseptic they were again tested in a similar manner and then placed in a bath of warm sterile water (42°) for ten minutes; the fourth test was then made, and the final one after keeping the hands in a sterile sand bath for five minutes. The water of the bath and the sand were also examined bacteriologically. In addition to the wooden slip a sharp spoon was used to remove small particles of the surface epithelium.

The first experiments were made with Ahlfeld's hot-water alcohol method; the results showed complete sterilization in only 13 per cent.; in the remainder it was only superficial. Lysoform 2 per cent. in alcohol gave much superior results, but still better were obtained with bazillol and sublamin. Bazillol is a kresol preparation and very inexpensive (about 1 mark per kg.). Dr. Engels says that it is non-toxic and does no damage to the hands; experiments with a 1 per cent. alcoholic solution gave complete sterility through all tests in a minimum of 60 per cent.

Sublamin is mercuric sulphate ethylendiamine; in high concentration it does not injure the skin, and in alcoholic solutions it does not discolour nickelled instruments. As a 2 per mille alcoholic solution it gave results superior to any claimed for other methods, especially with regard to power of penetration. In 55 tests carried out according to the above-mentioned method in four instances a few organisms were found in the water of the bath and from the hands after the bath; in all the remainder complete sterility was obtained.

Mr. Leedham-Green tested the value of sublamin and pronounced against it; he employed it, however, as a watery solution (2 to 3 in 1,000) without alcohol. Dr. Engels compared his results obtained with an alcoholic solution with those obtained by the use of a watery solution followed by alcohol independently, and found the latter much inferior; his observations do not therefore conflict with those of Mr. Leedham-Green. The alcoholic solution is rubbed into the hands for five minutes with sterile flannel after five minutes' washing with sterile soap and brush in hot sterile water; it may be conveniently kept as a 10 per cent. solution in 50 per cent. alcohol; from this concentrated solution that for use may be readily made by adding 10, 20, 30 c.cm. to alcohol.

[1] *Die Desinfektion der Hände.* Von Dr. Med. Eugen Engels. Jena: Gustav Fischer. 1905. (Demy 8vo, pp. 158. M. 5.50.)

PROPOSED INSTITUTE OF INTERMEDIATE STUDIES IN LONDON.

The fund for the establishment at South Kensington of a centre for the intermediate medical sciences in connexion with the University of London has received from Mr. Beit a contribution of £25,000 and now amounts, we believe, to a sum of about £40,000. The scheme, therefore, is fairly launched and there seems good reason to hope that the fund will before very long be sufficiently large to justify the promoters in taking the preliminary steps for putting the work in hand. The sum asked for was £160,000, but it will probably be considered prudent to make a beginning as soon as £100,000 has been contributed. As has recently been shown, not for the first time, the position of the medical schools in London with regard to the teaching of the intermediate subjects is very unsatisfactory. There is great waste of money and of energy, and many of the schools are within measurable distance of bankruptcy in both. The matter is, therefore, somewhat urgent, and we hope that the appeal may receive a generous response from the public.

THE PRACTICE OF MIDWIFERY.

On and after Saturday, April 1st, the first of the penal clauses of the Midwives Act of 1902 will be in full operation. It will then be an offence, punishable on summary conviction, by a fine not exceeding £5, for any woman not certified under the Act to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is certified under the Act, or that she is a person specially qualified to practise midwifery, or recognized by law as a midwife. Any offence under this clause, like all others under the Act, may be prosecuted by the local supervising authority, while the expenses of such prosecution are to be defrayed by the council of the county or county borough in which the prosecution takes place. The second penal clause of the Act does not come into force till five years later, or not until April 1st, 1910. This clause will make the habitual practice of midwifery for gain by any person other than a certified midwife or a legally-qualified medical practitioner punishable by a fine not exceeding £10. How many women at present practising midwifery the first of these clauses will immediately affect it is impossible to say. It does not appear probable that the number will be very large, because of the total number of women who had been admitted to the Roll by the Central Midwives Board up to February 25th this year —15,490—no less than 8,448 were women whose claim to admission rested simply on the fact that they were in bona-fide practice of midwifery for a year previous to the passing of the Act, and that they bore a good character.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

THE Committee of the Liverpool School of Tropical Medicine has issued a report on the researches of its last expedition to Sierra Leone. The expedition consisted of Professor Boyce, Dr. Arthur Evans, and Dr. H. Herbert Clarke. As only a very limited time was available, the members confined themselves to a comparative study of the sanitation and antimalarial measures in actual practice in Bathurst, Konakry, and Freetown, and to inquiring how far the teaching of Professor Ross was acted upon, and if it could be said that, as the result of anti-mosquito measures and sanitation during the last four years, there had been a noticeable improvement in health. As the result of their observations, they state that the essential part which the mosquito plays in the transference of malaria is becoming generally understood both by officials and by merchants, and greater precautions are taken against these insects. Great misconceptions, however, still exist. It is urged that greater care should be taken to instruct merchants' assistants proceeding to the coast how malaria is conveyed only by certain mosquitos. The rigorous use of mosquito nets is insisted on, and it is strongly recommended that the European community should live away from the native quarters until malaria in the native population is substantially reduced from its present exceedingly high percentage. Drinking water should be under public control, and private wells abolished, and drainage should be carried out in a comprehensive manner. It is also urged that the grant for sanitary administration should be increased; that a pathological observatory should be established in each of the principal coast towns; that greater attention should be devoted to the study and prevention of diseases in domestic and transport animals, and to the cultivation of vegetables; that the health statistics of the European population should be made complete in order to measure the results of sanitation and antimosquito measures; and that fuller information should be furnished in the annual colonial reports. In connexion with the work of the Liverpool School of Tropical Medicine, it is said to be the desire of Sir Alfred Jones to establish a large malaria hospital in Liverpool. He considers that, as more people suffering from malaria are landed at that port than at any other, they should have a thoroughly-equipped institution under the direction of men who have had tropical experience.

THE PROPOSED UNION OF MEDICAL SOCIETIES IN LONDON.

A LETTER is published elsewhere in this issue from the President of the Royal College of Physicians, giving notice that a meeting will be held on Monday, April 10th, at 5 p.m., at the College of Physicians, to consider whether it is desirable that the divers medical societies in London should unite to form one Royal Society or Royal Academy of Medicine. It is well that the meeting should be held, as it were, on neutral territory; and that the chair should be taken by the President of the College, and not by the President of any medical society. It will be well, also, that the meeting should be representative of the whole profession, juniors with seniors, general practitioners with the consultants. If the general plan of union be approved it will be time enough then for the interminable *pourparlers*, and committees, and subcommittees which will be needed to bring the plan into effect. It was pointed out a few weeks ago that plans of this kind have been made, from 1808 to now, again and again; they have all failed; but there must be much to be said for a scheme which rises again after so many failures. The present scheme should be given a fair hearing on its own merits. It cannot well succeed unless it be approved by the Medical Society of London. If it is to be nothing more than a confederacy of those societies which meet at the house of the Royal Medical and Chirurgical Society it will be but a name. To make a Royal Society of Medicine, worthy of the profession and useful to it, the two wealthy societies, the Medical and the Medical and Chirurgical, must join hands. If that is impossible, there is nothing more to be said. But if these two societies, with some or with all of the societies at Hanover Square' were to agree to form one society, it ought not to cost a man more to belong to that society than it costs him now to belong to the Medical and Chirurgical Society alone. That is to say, if we take one who is a member of four or five societies, including the Medical and Chirurgical, he might have, for 3 guineas, all the privileges for which he now pays 6 or 7 guineas; there might be associates of this or that part of the Society's work, paying 1 guinea. Again, the *Transactions* of the new Society ought to be published monthly, well got-up, well illustrated; this would do away with the long delay of the present system of publishing once a year. Additions would be made to the premises in Hanover Square whereby, without detriment to the new Society, better provision would be ensured for the accommodation and social comfort of a greater number of Fellows. If the new Society had a Fellowship of two or three thousand—which is considered by those who have gone carefully into the matter a not unreasonable estimate—it might hope to have well-attended meetings, and there would be less repetition, less overlapping of work, less waste of time. But there are many objections to the proposed union. Some men believe in diversity, and in competition, and have no great liking for unity; they would rather have many societies than one. It is true that competition between man and man has a sort of saving grace. But can we justly argue from individuals to societies? What advantage is it to the profession in London that there should be several societies for the general study of medicine and surgery? Co-operation, no less than competition, is a good rule, and a way to success. It saves time, and money, and trouble. There is a greater difficulty. If this new Royal Society of Medicine is to see the light, each society must, more or less, give up itself. The new society would take the Medical and Chirurgical Society's house; there would be no Medical and Chirurgical Society. The new society would administer the Medical Society's property; there would be no Medical Society. And, to each society that joined the Union, there would come the same sort of loss. Perhaps, to some of the societies for special studies, the loss would be less; they might, if they did not like to be called "Sections," preserve the name "Society." But the Medical and Medical and Chirurgical Societies would indeed have to efface themselves, so far as their titles, possessions, separate libraries, and separate existences, are concerned.

THE CHARAKA CLUB AND PROFESSOR OSLER.

THE Charaka Club was established in 1898 by members of the medical profession in New York interested in the literary, artistic, and historical aspects of medicine. It is called after Charaka, author of the oldest extant work on Indian medicine. On March 4th the club gave a dinner in honour of its departing member, Dr. Osler. As we learn from the *Medical News*, the menu was in the form of a small pamphlet, entitled, *Folia of the Charaka Club*, having on its title page portraits of Charaka and "Baba" Osler side by side, with the subtitle, "A Record of Things once said (and not regretted) by Dr. William Osler." The rest of the pamphlet consisted of excerpts from Dr. Osler's latest work, *Aequanimitas*, with a reproduction of an old print of his favourite author, Sir Thomas Browne. A bronze medallion of the new Regius Professor of Medicine at Oxford was given to each member. It bore on the reverse the inscription, "The Charaka Club to Dr. William Osler, medico illustri, literarum cultori, socio gratissimo, March 4th, 1905." The walls of the room were decorated with old prints and mezzotints of famous physicians of the past, most of them, it is stated, over 60, and all over 40. Dr. Dana, who was in the chair, showed a series of portraits illustrating the reincarnations of Osler from Charaka down through Galen, Avicenna, Nostradamus, and others to Dr. Dover, buccaneer. Telegrams were read, of which the following, from "Geheimjustitsrath Zauberwurst of Jena, Physician to the Dowager Empress of China," may be given as a sample: "Gelungen. Haben schon zwei hundert Deutsche

Aertze—besonders Neurologen und Pathologen—osleriziert. Glueckliche Idee!" Among the speeches were one by Dr. Joseph Collins on the disadvantages of learning, and one by Dr. Gerster, who quoted the appropriate lines written by Ausonius on himself in his 90th year:

> Nonaginta annos, baculo sine, corpore toto
> Exegi, cunctis integer officiis.

Dr. G. L. Walton chanted a poem to the tune of "Tommy Atkins," all joining in the chorus. One of the verses runs as follows:

> It's open house he keeps in Franklin Street,
> You can lunch with him at any time you say,
> Then back he goes to duty like the ancient Therapeutae,
> And we hope he gets his thirteen pence a day.

The Chairman then introduced Dr. Weir Mitchell as "the greatest of our American men of medicine and men of letters." After a graceful reference to his long-standing friendship with Dr. Osler, Dr. Weir Mitchell read a poem entitled "Books and the Man," from which we quote the following verses:

> When the years gather round us like stern foes
> That give no quarter, and the ranks of love
> Break here and there, untouched there still abide
> Friends whom no adverse fate can wound or move;
>
> But are old friends the best? What age, I ask,
> Must friendship own to earn the title old?
> Shall none seem old save he who won or lost
> When fists were up or ill-kept wickets bowled?
>
> But if the oldest friends are best indeed,
> I'd have the proverb otherwise expressed.
> Friends are not best because they're merely old,
> But only old because they proved the best.

GUY'S HOSPITAL: AN APPEAL FOR FUNDS.

Thomas Guy, the founder of the famous hospital in Southwark, died on December 27th, 1724, in the 80th year of his age, when the hospital was all but completed. On January 6th, 1725 (before his burial), sixty patients were admitted to the wards; and from that day, through 180 years, the sick and maimed have constantly inhabited the building then raised by his benevolent charity. The endowment for the maintenance of the hospital left by Guy exceeded £220,000, which by the terms of his will had to be expended "in the purchase of lands or reversions in fee simple," so that the rents might be a perpetual provision for the sick. In 1828 William Hunt made a similar bequest to Guy's Hospital, amounting to £180,000. On these two sums the hospital was maintained without extraneous assistance until about 1881, when the agricultural depression which lessened the income from the landed estates from over £40,000 to £20,000 a year, and concurrent increased expenditure due to the age of the original buildings and the extra costliness of the modern treatment of patients, rendered necessary the first appeal to the public. The sum of £100,000 was asked for and promptly given. In ten years this sum had been expended, whilst new buildings and other improvements were much wanted. Mr. Gladstone, then one of the governors, made in 1895 a powerful appeal for help; the result was a subscription large, but not sufficiently large to place the hospital financially in a perfectly secure position. In 1901 a third appeal was made, to effect the renovation of the building and to raise the annual income to the amount necessary for the constant upkeep of the hospital; but again the amount contributed was insufficient. To supply this deficiency an appeal is made. During the past four years much necessary work has been accomplished, so that the equipment of the hospital is now in first-rate order. The following new buildings have been constructed: the nurses' home, with accommodation for 227 persons; the laundry, capable of dealing with 40,000 articles per week; and a central station for the supply and distribution of light, heat, water, and power throughout the hospital; whilst the casualty department has been improved and extended; open-air balconies have been supplied to all the medical and surgical wards; additional operating rooms have been built; an elaborate apparatus for electrical and light treatment has been installed; and the drainage reconstructed. With the completion of these works the extraordinary expenditure will now be reduced to narrow limits; though, if the response of the public to the present appeal should be liberal, the governors wish to undertake a rearrangement and enlargement of the out-patient departments, and the reconstruction of the old building containing the clinical wards. The hospital is at present in debt to the extent of £84,000 for the works already accomplished. For the extinction of this debt, and to secure an increase of annual subscriptions to the extent of £15,000, the Governers make this appeal, which is practically a continuation of that of 1901. The annual expenditure is calculated at £66,000, whilst the income from all sources is at present only £51,000. The increasing usefulness of the institution is shown in the fact that the number of in-patients has risen from 4,963 in 1885 to 8,581 in 1904; and that of out-patients has grown still more rapidly—namely, from 31,407 in 1885 to 136,872 in 1904. A severe economy is practised by the Governors in every direction in the administration of the funds committed to their keeping, as is evidenced by the high position held by Guy's Hospital on King Edward's Hospital Fund. Moreover, several of the recently added buildings have been constructed not only with a view to efficiency but also to economy. It would be superfluous for us to enumerate the many advances in medicine and surgery achieved within its walls, or the benefits conferred through its alumni on all classes of the community. But these and other weighty reasons which render this new appeal worthy of general support will be felt with peculiar force by Guy's men, and will doubtless urge them to make a similar effort to that which they achieved in response to the former re endowment appeal when in a few months they collected £26,000. The present need for assistance is no less urgent than that of ten years ago.

M. DOYEN'S RESEARCHES ON CANCER.

M. Doyen has one of the gifts that go to the making of success on the stage of the world in these days—that of keeping himself well before the footlights. He is a "quick change" artist, and plays with equal grace the leading gentleman in a cinematographic scene of sensational surgery, the medical expert at a fashionable duel, the scientific hunter who tracks a mysterious microbe to its lair, and the victim of professional orthodoxy. His most recent appearance is in the character of a martyr. It may be remembered that in December a committee consisting of six well-known surgeons was appointed by the Société de Chirurgie to investigate M. Doyen's claims to have discovered a micro-organism which he holds to be the cause of cancer, and a serum by means of which he said he had cured that disease in a considerable number of cases. That committee has not yet reported, a circumstance which can scarcely be regarded as surprising considering the short time it has been at work. Such deliberate methods, however, appear to be distasteful to M. Doyen. For this reason, probably, he tried to carry his case to the highest medical tribunal in France—the Academy of Medicine. The Academy naturally enough refused to hear him, as the case was before another court. It further declined to appoint a Control Committee to watch the investigation pursued by the Surgical Society. We think the Academy was fully justified in not lending itself to what it may fairly have looked upon as a manœuvre to force the hand of the Committee of the Surgical Society. M. Doyen failing to bend the heavenly powers next sought to move Acheron. He delivered the address intended for the Academy in the Salle des Fêtes of *Le Journal*, which published it next day with a portrait of the distinguished surgeon examining a microscopic preparation of a cancerous tumour. He had already submitted to the Anatomical Society preparations from animals inoculated with the micrococcus neoformans, and on March 17th these were discussed by the President of the Society, Professor Cornil, and by Dr. Letulle and Dr. Brault. No report of this discussion has, as far as we are

aware, yet appeared in the French medical journals, but the gist of it may be gathered from an interview with Professor Cornil published in the *Matin* of March 23rd. According to that eminent pathologist, the unanimous opinion of the members present was that the inoculations set up an inflammatory process with proliferation of tissue; the lesions, though curious, resembled those caused by other irritant agents, including various microbes, notably the tubercle bacillus, but had not the characters of cancer. The conclusions of Professor Cornil and the other members of the Société Anatomique exactly agree with those of Dr. Weinberg, to whom Professor Metchnikoff delegated the task of examining preparations of a like kind. M. Doyen, it would appear, has lately somewhat abated his pretensions; he is said now to claim only 25 per cent. of the cases treated as improved. There seems to be considerable tension between him and the Surgical Society. M. Delbet, the reporter of the Committee of the Society, has confided to an interviewer that M. Doyen, considering that the Committee examined his patients too often, requested them to make their visits at longer intervals. At their last visit on March 10th they were astonished to find that the number of the patients offered for examination had notably diminished. Of twenty-three presented in the first instance there remained at the last inspection only twelve. It is significant that M. Delbet, who for some time treated patients under his care in the Laënnec Hospital with M. Doyen's serum, now declines to allow injections to be made on his responsibility. We give these statements on the authority of the newspaper which has published them, but it is noteworthy that they are not contradicted by M. Doyen in letters of somewhat violent expostulation addressed by him to the *Matin*. It is deplorable that a scientific controversy should be fought out on a public platform before the *profanum vulgus* which cannot form a rational judgement as to the points at issue. To our rather puritanic notions of professional propriety it seems strange that men of real eminence should make their views on a scientific question known to the world through the medium of a newspaper. It has been said that morality is a matter of climate, and to a certain extent the same may be said of medical etiquette. M. Doyen at least cannot complain that his judges have made use of the newspapers to correct erroneous impressions that might easily be produced in the public mind by the very full reports of his work which have appeared in the press. He has appealed to the people, and it is only right that the people should have the means of coming to a sound conclusion on the case which, in defiance of professional custom, has been submitted to its judgement. The medical profession will await the report of the Société de Chirurgie, which will be presented early in July, before forming a final opinion; but if any prejudice against M. Doyen's case has been created, he alone is to blame.

THE QUEEN'S JUBILEE HOSPITAL.

ABOUT the middle of February it was reported in sundry lay papers that the honorary medical staff of the Queen's Jubilee Hospital, Earl's Court, W., had resigned, this being the outcome of the failure of an attempt on its part to force the lay Committee into unwarranted building expenditure; it was also indicated that, as a further consequence, H.R.H. Princess Louise had cancelled her engagement to lay the foundation stone of the projected new building. A week or so later we received a letter from the resigning staff drawing attention to the incorrectness of the statements made, and giving the precise terms of the resolution in which they had conveyed to the lay Committee the reasons for their resignation. A few days later, in common with the lay press, we received for publication a letter from the chairman of the lay Committee stating that a fresh staff had been appointed, giving the names of its members, and adding that they had accepted office with a full knowledge of antecedent circumstances. Whatever may have been the intention of the letter, it was certainly calculated to convey the impression that the conduct of the late staff stood condemned not only by the lay Committee, but by the members of the new medical staff, and that the whole matter was at an end. In commenting on the incident at this stage we expressed the opinion that both the lay Board and those who had accepted office under it had acted hastily, and suggested that the proper course was to obtain an inquiry into the affairs of the hospital at the hands of some independent body, preferably the Council of King Edward's Hospital Fund for London. This suggestion called forth an angry letter from the Chairman of the lay Committee, the publication of which, though it contained no new facts, would have taken up nearly two pages of this journal. To this publication he was in no way entitled, since it was through the action of some one connected with the lay Committee that the facts first become public property, and it was the one-sided statements then made which led to anything at all appearing in these columns on the subject. Moreover, the matter had gone much too far to be settled by a newspaper correspondence, as an independent inquiry had become essential in the public interest. We are glad to find that this has been recognized, and that at the annual meeting on March 25th it was stated by the Chairman of the Board that it had been decided to lay all the facts before the Council of King Edward's Hospital Fund in a document which commenced: "The Board have been attacked by certain of the medical papers for having accepted the resignations of the medical and surgical staff without first instituting an inquiry." A good deal of the time of the meeting was taken up by references to the shortcomings of the late staff. Speaking as they were to their subscribers it is natural that the Board should have endeavoured to make out the best possible story for themselves, but their defence seemed to betray the same lack of balance and discretion which in a measure has probably been at the bottom of the whole trouble. However this may be, one plea was put forward which it is impossible to accept as valid. There is no reason to doubt that the late staff desired to cease to co-operate in the work of the hospital, but their immediate replacement was certainly not forced upon the Committee, inasmuch as they expressed their readiness to continue at work meanwhile. The Committee, therefore, had plenty of time in which to do things decently and in order. The Chairman of the meeting, Mr. Hayes Fisher, M.P., said that one charge which had been brought against the institution was that it was a one-man show, the one man being Mr. Fitzroy Benham, to whose energy he paid many compliments. He showed no disposition to rebut the accusation, but, on the contrary, seemed to think that it was good for the hospital that it should be a one-man show, because the greater and more important that one man could make it the greater that one man's glory. Mr. Fitzroy Benham is the gentleman who founded the institution some seventeen years ago, and he has been one of its honorary surgeons and an active member of its Managing Board ever since, and he is the one member of the staff who did not resign on this occasion. We are not believers in any kind of one-man hospital. A resolution was passed at the meeting, rescinding the existing rule by which all members of the medical staff are *ipso facto* members of the Managing Board, and substituting for it one giving the staff a representation of six members. As it is apparently intended to raise the number of the staff to sixteen, this alteration in the rules seems to be reasonable.

MR. ROOSEVELT ON MILITARY MEDICINE.

IT was stated in the BRITISH MEDICAL JOURNAL a few weeks ago that a bill to increase the efficiency of the Medical Department of the United States Army had passed the Senate and was before the House of Representatives. It was thought to be certain to pass, as not only was it eminently reasonable in itself—this quality is not always an aid to legislative parturition—but it had the strong support of the Secretary for War and the President. On January 9th Mr. Roosevelt sent a message to Congress in which he pointed out that the Act approved on February 2nd, 1901, which did so much to promote the efficiency of

the army in general, failed to meet the needs of the Medical Department, "in which all of our people are peculiarly interested, and of which they have a right to demand a high degree of excellence." The President went on to say that not only did a competent medical service by safeguarding the health of the army contribute greatly to its power, but it gave to the families of the nation a guarantee that their fathers, brothers, and sons who were wounded in battle or sickened in the camp would have skilled medical and prompt attention to their wants which could be given only by an adequate and trained personnel. Mr. Roosevelt said he was satisfied that the Medical Corps was much too small for the needs of the present army, and therefore much too small for its successful expansion in time of war. On these grounds he earnestly recommended the passage of the Bill, concluding his message with the following warning: "If the Medical Department is left as it is, no amount of wisdom and efficiency in its administration would prevent a complete breakdown in the event of a serious war." From a memorandum addressed to the President by Surgeon-General O'Reilly it appears that the number of commissioned officers in the Department is nearly 200 short of that required to perform its work at present, and the deficiency has to be made good by the employment of civilian practitioners under contract. "This," it was pointed out by the Surgeon-General, "is an expensive and unsatisfactory expedient in time of peace, while in time of war it heavily handicaps the efficiency of the Department." The Bill had the approval of two Secretaries for War, of the Military Committee of the Senate, and of the American Medical Association, as well as the recommendation of the President. Nevertheless, it has failed to become law. The rejection of a measure which has been blessed with such remarkable unanimity by the head of the State, the administrative chiefs of the army, the Legislature, and the medical profession, seems to need some explanation. This is to be found in what must appear to those condemned by destiny to live under an "effete" monarchy to be the arbitrary power vested in the Speaker of Congress of refusing at his own will and pleasure to allow a Bill to come to the vote. It is said that but for this the Bill would certainly have passed. The weakness of this particular spot in the glorious American Constitution becomes still more conspicuous when it is understood that the obstructive attitude taken by the Speaker was due not to any disapproval of the provisions of the Bill, but simply to his determination to stop all new law-making during this Session. It is certainly a curious anomaly that in a country which boasts to be the chosen home of freedom one man should be able to stand in the way of legislation admitted on all hands to be most urgently needed in the interest alike of the army and of the nation. The measure is now shelved for twelve months; and in these days of wars and rumours of wars who shall say what a year may bring forth? In the reorganization of the medical service of a fighting force every hour of delay is fraught with possibilities of disaster, for efficiency is the work of time. This is the moral of the story, and we commend it—not by any means for the first time—to the earnest attention of those who seem to think the reform of the medical services of our own forces, naval and military, a matter that can be dealt with light-heartedly by any clever amateur in administration.

THE LONDON COUNTY COUNCIL AND THE AMBULANCE SERVICE.

At a recent meeting of the London County Council, the question of what action should be taken by that body in regard to the provision of proper ambulance accommodation in the metropolis again came under consideration. The General Purposes Committee reported that they had been in communication with the Fire Brigade in order to arrive at a conclusion as to whether it is desirable that such service should be undertaken in connexion with the work of the brigade. After prolonged consideration, the Fire Brigade Committee have reported that there are, in their opinion, insuperable difficulties in the way of amalgamating the two services. The General Purposes Committee have, we understand, nevertheless decided to proceed with the preparation of a scheme for the supply of ambulances for street accidents and casualties, and propose to report thereon to the Council in time to give the Parliamentary notices should the Council decide to apply to Parliament for powers to create an ambulance service.

THE RELATION OF THE UTERUS AND OVARIES TO MALIGNANT DISEASE.

Experience gained by the performance and rejection of oöphorectomy as a cure for fibroid and by "conservative" hysterectomy, has taught that the ovary has some share, by no means clearly understood, in the general economy of the subject, and it is further believed that lutein tissue is not purely degenerative, but discharges certain definite functions. The active ovary, in short, seems to have active duties, though whether over-use or complete abeyance of the reproductive faculties influence the ovaries the more unfavourably remains uncertain. Pinard's discoveries relating to the development of fibroids speak against abeyance, and possibly the ovaries as well as the uterus are prejudicially affected by delayed pregnancy. Absolute non-development of the greater or more essential part of the genital tract appears to bear a very negative relation to malignant disease. Thus, for very evident reasons, we do not expect to see cancer of the breast in a subject with arrested development of the ovaries and uterus; although over twenty cases of fibromyoma, a pathologically-innocent growth, have been observed in women with uterus unicornis or bicornis. Undeveloped ovaries are nearly always associated with even greater arrest in the development of the uterus, and cancer of either when such a condition exists is practically unknown. On the other hand, when the uterus is ill-developed—indeed, almost non-existent—the ovaries may be normal, or at least capable of developing their ova as far as lies in their power. Danel, of Lille, has recently published a case which shows that under this condition malignant disease may appear in the ovary.[1] A young woman, aged 25, applied at a hospital for relief from a rapidly-growing abdominal tumour and failing health. She had previously been strong, yet had never seen a menstrual show, although she complained of periodical abdominal pains. The tumour felt like a gravid uterus, the vulva was well formed, as was the vagina; but the nature of the pelvic part of the tumour could not be easily defined, nor could the cervix be distinguished. The tumour was removed, but not entire; it was very malignant, and portions adhered to intestine at several points. It was clearly an ovary, and bore a normal Fallopian tube, which ran into a mere thickening in the pelvic fascia; indeed, after the removal of the tumour the pelvis between the bladder and rectum was absolutely empty down to the top of the vagina, which was very narrow. There was no cervix. The relations between malignant diseases in the ovary and uterus, especially under ordinary circumstances, when only one of these two organs is cancerous, has never been accurately determined; whilst the advocates of panhysterectomy believe that the stump left when supravaginal hysterectomy has been performed is liable to cervical cancer. But it is not clear that the cervix, thus separated from the uterus, is more likely to become cancerous than under normal associations with the uterine body; whilst, if it be made clear, then, as Doran asked in the Harveian Lectures for 1902, is this malignant degeneration more likely to occur when the ovaries are left, or when they are removed with the fibroid body of the uterus?

LONDON SCHOOL OF TROPICAL MEDICINE.

A festival banquet in aid of the London School of Tropical Medicine will be held on May 10th. The chair will be taken by the Right Hon. Joseph Chamberlain, M.P., who will be supported by the Right Hon. A. Lyttelton, K.C., M.P., Secretary of State for the Colonies. The

[1] "Volumineux epithélioma massif de l'ovaire chez un sujet jeune présentant une atrophie extrême des organes génitaux internes," *Journ. des Sciences méd. de Lille*, January 21st, 1905, p. 42.

chairman of the Dinner Committee is the Duke of Marlborough, the vice-chairmen Lord Brassey, Lord Strathcona, and Sir Donald Currie; the Honorary Treasurer, Lord Rothschild; the Honorary Secretaries, Mr. William Waldorf Astor, and Sir Ralph Moor. In the first list of Stewards we note the names of the Duke of Argyll, Sir Thomas Barlow, Mr. Justice Bigham, Mr. Albert Brassey, M.P., Sir Lauder Brunton, Sir William Church, Lord Duncannon, Lord Egerton of Tatton, Sir Michael Foster, M.P., Dr. Kingston Fowler, the Japanese Minister (Viscount Hayashi), Sir Herbert Jerningham, Lord Kelvin, the Earl of Kinnoull, Sir James Kitson, M.P., Lord Knutsford, Sir Francis Lovell, Sir George Mackenzie, Professor Howard Marsh, the Greek Minister (Mons. D. G. Metaxas), Sir Frederick Milner, M.P., Professor Falkiner Nuttall, Mr. C. Arthur Pearson, Sir John Ure Primrose, Lord Provost of Glasgow, Mr. Leopold de Rothschild, the Earl of Scarborough, Sir Richard Temple, and Sir Edgar Vincent.

THE SOLDIER AND HIS TEETH.

We regret to learn that the Army Council has decided to abandon the experiment of providing recruits with artificial teeth which was begun a few months ago. The instructions on the subject contained in the War Office letter of November 5th have been cancelled in regard both to recruits and to trained soldiers. The experiment, in fact, has confessedly been a failure. In practice, it has been found that a large number of the men enlisted under the special conditions declined to complete their enlistment contracts by accepting the dentures proposed for them, and many have already been discharged as not likely to become efficient soldiers. This is a serious state of things, especially in view of the statement lately made by the Director of Recruiting that a very large proportion of the men offering themselves for the army are rejected on account of the bad state of their teeth. Napoleon said that an army marched on its belly, but it cannot do this unless the teeth which serve the belly are sound. It looks as though the British lion may within a measurable time be no longer able to show his teeth to any aggressor, for the good reason that he will have no teeth, natural or artificial, to show.

The Fothergillian Prize of the Medical Society of London for 1905 has been awarded, by the Council of the Society, to Sir Frederick Treves in recognition of the value of his work in connexion with abdominal surgery.

It has already been stated in the British Medical Journal that a Bill introduced to secure national incorporation of the American Medical Association was recently submitted to Congress. After undergoing a good deal of mutilation at the hands of the Senate and the House Judiciary Committees, it perished in a massacre of the innocents which preluded the dissolution of Congress.

On March 22nd the Secretary of State for the Colonies received at the Colonial Office a deputation of medical men, representing the London and Liverpool Schools of Tropical Medicine and East London hospitals, on the subject of beri-beri and sleeping sickness. Mr. Lyttelton promised to give earnest consideration to the views laid before him by the deputation.

Many of our readers will learn with regret that owing to ill health Mr. F. J. Marshall has been compelled to resign the post of Resident Medical Officer at St. George's Hospital which he has held for over thirty years. A testimonial is shortly to be presented to Mr. Marshall by his friends at St. George's and elsewhere as a slight token of their regard and of their appreciation for his unvarying kindliness and tact. Subscriptions may be sent to Sir William Bennett, K.C.V.O., honorary treasurer, or to the Dean of the Medical School, St. George's Hospital.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Civil Surgeons for the Army.—On Thursday in last week, in the course of the debate on the Report on Supply for the Army Supplementary Estimate, Sir Walter Foster called attention to the item of £20,000 on the vote for the pay of civilian medical practitioners. He asked for an explanation of this excess vote, which raised the sum of £36,000 for civil surgeons to £56,000, when it had been stated by the Secretary for War that he had added 462 medical officers to the Army Medical Corps. There was some mistake, he thought, in the figures given by the Secretary of State. In any case the amount for civil surgeons was very large, and ought not to be increasing in time of peace. It might be desirable to keep army medical officers in the large centres, but he found an increase of pay for civil surgeons in nearly all the districts of the home commands. Mr. Burdett-Coutts, in speaking on the same subject, paid a tribute to Mr. Brodrick for his reforms of the Army Medical Service, but complained that a promise for a scheme for the proper organization of civilian medical service had not yet been formulated. There were two methods of using civilian medical aid in war time: as separate units working together under the military department, or by absorption into the Army Medical Service. He commended to the attention of the Secretary of War the plan formulated by Dr. G. Stoker, and submitted to the War Office in 1900. In the absence of Mr. Arnold-Forster, the Financial Secretary to the War Office (Mr. Bromley-Davenport) replied. He admitted the importance of the subject. The Secretary of State had personally interested himself in the subject, and would no doubt when the time came give the assurance asked for. The establishment of the Royal Army Medical Corps had to be large in time of war and to be reduced in time of peace. In time of war it was desirable to call in the assistance of civilian officers, and these had rendered splendid service during the South African war. It was unfair to say the Estimates were crude and imperfect because this supplementary estimate was asked for. The necessity for maintaining a larger number of men in South Africa had affected all the votes. The garrisons were not reduced until months after the date when the reduction had been expected, and the necessity made greater demands upon the medical service, demands which could not be met by the Royal Army Medical Corps, and it became necessary to have recourse to civilian services. He thought the establishment was not sufficiently large and had not been kept up satisfactorily; but in the coming year the establishment would be increased, and he hoped a sufficient number of medical officers would be obtained to fill up requirements.

The Death-rate among Dover Postal Officials.—Sir Henry Campbell-Bannerman asked the Postmaster-General last week whether his attention had been called to the high death-rate recently prevailing among the men employed in the sorting office at the Town Station at Dover, and whether he would inquire into the sanitary conditions under which the work in that office was performed. Lord Stanley replied that his attention had been called to the matter. He was sorry to say that some deaths from phthisis had occurred in the last few years amongst the postal staff who were employed, or who had at some time been employed, at Dover; but on investigation he was glad to find that the medical officer did not associate any of them with the condition of the office, and that the sick rate at Dover was rather below than above the average. At the same time, he recognized that the present office at the station was overcrowded and unsatisfactory, and he had made arrangements for taking new temporary premises, which would make it possible to provide more space and better accommodation. The new premises would be ready for occupation very soon, and he hoped that before long a better permanent office to take the place of the station office would be provided.

Viewing the Body by Coroners' Juries.—Mr. Keir Hardie asked the Secretary of State for the Home Department, whether his attention had been called to the remarks of Mr. Coroner Graham, of Consett, anent the advisability of discontinuing the practice of compelling juries to view dead bodies upon which inquests were being held, and whether he purposed taking any action for putting an end to this practice. Mr. Akers-Douglas answered that his attention had not been

called to the remarks in question, but he had read a newspaper report of them, which the honourable member had been good enough to send. Legislation would be necessary to enable the practice to be discontinued; and on this point he could only refer to the answers given by his predecessor on February 22nd and March 29th, 1900, to the effect that there was no such decided preponderance of expert opinion in favour of any definite change in the law as would afford a reason for proposing legislation of the kind suggested.

Deaths among Sailors and Factory Operatives.—Mr. John Johnson asked the Secretary to the Board of Trade if he could state the number of seamen killed and drowned on British ships from the beginning of the year 1896 till the end of the year 1904; the number of men employed in the shipping industry; the number of men killed in the factories and workshops in the same period; and the number of men employed in factories and workshops. Mr. Bonar Law answered that the figures asked for were given, as regards seamen, in Parliamentary Paper (Cd. 2232) for the years 1896 to 1903. The figures for 1904 were not yet complete, but the lives reported to present date as having been lost were 990—namely, 417 by wrecks and casualties, 348 by drowning other than by wrecks and casualties, and 225 by accident other than drowning, wreck or casualty. The number of men employed in 1904 had not yet been ascertained. The number of males killed in factories and workshops during the years 1896 to 1904 was 7,944. The number of males employed in factories and workshops had not been ascertained since 1897, when it was 2,975,394.

Plague in India.—In answer to Mr. Herbert Roberts, Mr. Brodrick stated that he was unable to give figures as regards deaths from small-pox in India, as they were not specially returned to him. For plague the latest received figures were for the month of February—126 041 deaths. The total number of deaths from plague from January 1st up to the end of February was 252,567. He had been in communication with the Viceroy as to whether more could be done to remedy the present deplorable loss of life. It had been decided to send out a scientific expedition to make a thorough investigation into the origin and cause of plague. The Royal Society and the Lister Institute had undertaken the direction of the inquiry, and arrangements for starting it at once had been made. It was understood by Reuter's Agency that the Committee for the above work would consist of Surgeon-General Branfoot as Chairman, Sir Michael Foster, Dr. J. Rose Bradford (representing the Royal Society), Colonel David Bruce, and Dr. C. J. Martin (Lister Institute), and Dr. A. E. Boycott as Secretary. Dr. Martin had already sailed for India, and two bacteriologists would probably be sent out to India in a few weeks' time.

Underfed School Children.—An interesting debate was raised on Monday last on the second reading of the Consolidated Fund Bill on the subject of the feeding of children in elementary schools. Mr. Keir Hardie moved the rejection of the Bill as a protest against the inaction of the Education Department. He pleaded for action on the part of the State on the grounds of humanity and economy. It was the worst extravagance to spend money in trying to educate children who were physically unable to learn. He urged the Local Government Board to press Boards of Guardians to make grants for the purpose of feeding poor children. Mr. Macnamara seconded the motion, and spoke of a million children suffering from malnutrition. He drew from his own experience as a school teacher a series of vivid pictures of the destitution and misery of children attending schools in great towns, and urged that local authorities should deal with the matter after the methods of the canteen scholar system of Paris. Sir John Gorst quoted from the Report of the Deterioration Committee, and severely criticized the Government for neglecting to legislate according to its recommendations. Dr. Hutchinson followed on the same lines, and pointed out how ridiculous it was, considering the great sum spent on education, to make the work largely ineffective for the sake of saving another halfpenny in the pound. Colonel Lockwood and Mr. Crooks, in a striking speech, supported the same views, and Sir Walter Foster finally appealed to the Government to provide in the next Code for systematic medical inspection of all children in elementary schools. It was the basis of all progress in this direction. Medical inspection would discover the underfed children, the master could report the fact to the Poor-law authorities, and relief could be given if there were only a common-sense co-operation between the education authorities and the Local Government Board, acting through the Board of Guardians. The fear of lessening the sense of parental responsibility could be effectually met by granting all such relief on loan, and recovering from neglecting parents who were able to pay. He pressed the Local Government Board to co-operate with the Education Department, and at once undertake the work. Sir Wm. Anson denied that the Education Department had neglected the report of the Physical Deterioration Committee. He contended that the mere provision of food would not remedy the ill-effects of bad conditions under which many children were brought up. He suggested special schools for these children, and he would consult the Local Government Board as to the possibility of providing relief for the rates. The motion of Mr. Keir Hardie was finally rejected by a majority of 56.

Typhoid Fever in Malta.—In answer to questions put to him on Tuesday by Sir John Colomb, the Civil Lord of the Admiralty said that during 1904 there were 46 cases of typhoid admitted into the Malta Hospital. In reply to the second question he said that in H.M.S. *Venerable* there had been 17 cases of typhoid fever of which 4 ended fatally; in H.M.S. *Montagu*, 6 cases and 1 death; in H.M.S. *Arrogant*, 4 cases and 1 death. He added that as these questions and answers might give rise to misapprehension, he thought it desirable to add that the attacks of typhoid fever in these ships were not due to the Malta water supply. The disease was contracted during the visits of the ships to other Mediterranean ports.

Medical Officers of Health and Private Practice.—Mr. Weir asked the Lord Advocate if he would state the names of the six counties in Scotland where the medical officers of health engaged in general or consultative practice, and arrangements would be made for such officers to give their whole time to the duties of their office when fresh appointments were made. The Lord Advocate replied that the names of the counties were Bute, Forfar, Haddington Orkney, Zetland, Ross and Cromarty. Since 1901 it had been a necessary condition of participation in the sanitary officers' grant that a county medical officer should not engage in general private practice.

The Report on the Ventilation of the House of Commons.—In answer to a question by Sir Ernest Flower, Lord Balcarres, as representing the First Commissioner of Works, stated on Tuesday that it was proposed to carry out suggestions made in Dr. Gordon's report, and that the recommendations were intended to improve the system now in use, and were not incompatible with it.

Outbreaks of Disease in West Ross-shire.—On Monday last Mr. Weir asked the Lord Advocate if he would state whether there had been any outbreaks of fever or other contagious diseases on the western mainland of Ross-shire during last year such as to necessitate the closing of public schools; if so, would he state the names of the schools closed and the periods for which they were respectively closed. The Lord Advocate replied that the following schools in the western mainland of Ross-shire were closed in 1904 by order of the Sanitary Authority acting on the advice of the Medical Officer of Health—namely, Applecross, from March 18th to April, for influenza; Torridon, from April 12th to April 25th, no cause stated; Gairloch Opinaw, from November 4th to November 28th, for varicella; and Gairloch Kinlochewe, from June 1st to July 15th, for scarlet fever.

Vivisection.—There is a Bill called the Dogs (Protection) Bill before the House of Commons which seeks to protect dogs from being used for experimental purposes. It is to be brought on late at night with a hope that it may get a second reading. There is a general petition in its favour signed by over half a million of persons, and a medical petition signed by over 700 medical practitioners who declare that the use of dogs for vivisectional purposes is in no way necessary for the advancement of medical science or for the adequate instruction of medical students. The Bill is introduced by Mr. Ellis Griffith.

Drunkenness and Marriage.—In the State of Ohio there is a law forbidding the issue of marriage licences to habitual drunkards. A similar measure is to be submitted to the New Jersey State Legislature.

Scotland.

CLOSING OF THE GLASGOW MEDICAL SCHOOLS.

THE winter session of the medical schools of Glasgow closed on Thursday, March 23rd. Class work will be resumed towards the end of April. The students at present are in the throes of their professional examinations. At Anderson's College Medical School the class medals, prizes, and certificates were presented by Lady Inverclyde. The Chairman, Mr. James Thomson, in a short address made touching reference to the loss the school had sustained through the death, about a month ago, of one of their most efficient professors—Dr. R. S. Thomson. His memory would be long cherished both by teachers and students. Lord Inverclyde afterwards addressed the students, and referred to a family tie with the College through Dr. John Burns, his grand-uncle, who more than a hundred years ago, at the age of 26, was Professor of Anatomy in that College. He was transferred to the Chair of Surgery nine years later, and became in 1815 the Professor of Surgery in the University.

GLASGOW HOSPITAL SUNDAY FUND.

The report of the Glasgow Hospital Sunday Fund was presented to the annual meeting held last week. The last Sunday of November was observed in the city as Hospital Sunday, a large number of churches and Sunday schools having special collections. Owing, no doubt, to the general depression of trade, the amount collected was fully £400 less than last year. There was, however, available for distribution to the three large general hospitals of the city the handsome sum of £4,550, which was divided amongst these institutions in proportion to the number of beds—to the Royal Infirmary, £2,174; to the Western Infirmary, £1,714; and to the Victoria Infirmary, £662.

ANTHRAX IN CATTLE.

The Lanark County Council have issued a report of their medical officer, Dr. J. T. Wilson, on anthrax, and the reports of veterinary inspections are appended to it.

Lanarkshire is one of the counties in which the outbreaks of anthrax are least frequent, and in which the disorder does not affect sheep. Although it is not expressly stated, infection appears to be by the alimentary tract. One of the veterinary inspectors is of opinion that foreign foodstuffs are responsible for the disease, but the occurrence of anthrax on farms where no such food is used is sufficient proof that they are not the sole source of infection. Dr. Wilson has been unable, indeed, to confirm the observations of those who find the organism in specimens of imported food, even that used by animals actually affected.

The following points, he says, seem to be established:

1. That a buried carcass is innocuous. The organisms rapidly degenerate, and by the fifth day are unrecognizable; only under most exceptional circumstances does sporulation occur. Cremation is therefore unnecessary.

2. The discharges from an animal sick of the disease, and the shed blood, can and do infect the surroundings and spread the disease to other animals grazing in the same meadow, or feeding from the same stall.

3. The recognition of non-fatal cases of anthrax in cattle is difficult; indeed a diagnosis is seldom if ever made in the absence of *post-mortem* evidence from a fatal case.

4. The flesh of an animal dead of anthrax may, as a rule, be consumed with impunity. The case investigated and reported by Dr. Chalmers to the Glasgow Corporation, however, shows that such meat is not above suspicion.

5. Vaccination, where it has been carried out in Lanark, has so far met with no failure.

6. Examination of the blood of suspected cases *intra vitam* failed to reveal the bacillus, even where the animal ultimately died of anthrax.

Dr. Wilson takes exception to the suggestion made in a recent issue of the BRITISH MEDICAL JOURNAL, that anthrax should be brought under the single control of the Board of Agriculture; nevertheless he proposes that body as the authority best suited to undertake "some original research and inquiry bearing upon the cause and prevention of anthrax throughout Great Britain and Ireland."

AN exhibition is being organized by the *British and Colonial Druggist* to be held in London during the autumn. The exhibition is intended solely for medical men, who will be invited to visit it, and in order to exclude the public the price of admission will be fixed at 5s. The organizers are the same as those who have managed the Chemists' Exhibitions.

Ireland.

ULSTER HOSPITAL FOR CHILDREN AND WOMEN.

THE annual meeting of this institution was held on March 21st. The medical report showed increased attendance in all departments; 261 children had been admitted, and 195 operation had been performed; 2,261 new out-patients also had been seen. Unfortunately a deficit of £244 between income and expenditure was recorded in the treasurer's report, and in many of the speeches an appeal was made for increased subscriptions to keep the hospital out of debt.

ACTION FOR NEGLIGENCE: VERDICT FOR DEFENDANT.

An action was tried at the last Belfast Assizes, before Mr. Justice Wright, which aroused considerable public interest, and is of great importance to the profession. It was brought by A. E. Tughan, an infant, through his father, against Dr. Darnell of Bangor, co. Down, to recover £250 damages for personal injuries sustained by reason of the alleged negligence of the defendant. The facts brought out in the evidence were as follows: The plaintiff, a boy aged 17 years, contracted mumps and developed orchitis. On April 4th, 1904, when this complication was discovered, the father called in Dr. Darnell, who wrote a prescription for 4 oz. of a liniment composed of belladonna and soap liniment, said the boy required rest, gave instructions that the testicle was to be supported on a wooden splint, and that a little of the liniment was to be sprinkled on a piece of lint, and placed over the testicle. Dr. Darnell said he was going away for a day, but that Dr. Moore would attend if required. It subsequently appeared that the splint was not employed, that the liniment was used with a liberal hand, and the lint saturated. On the following morning the skin of the scrotum was blistered and excoriated; the patient complained of the liniment smarting him, but his mother persuaded him to allow it to be applied, as it would benefit the part. The patient then became delirious; Dr. Moore was telephoned for, but could not go, and Mrs. Darnell then got Dr. Gorman. Dr. Kirkwood, the boy's uncle, was also summoned. Dr. Gorman stopped the liniment, and olive oil was applied; he spoke to Dr. Darnell by telephone, and explained the circumstances. Dr. Darnell called at once, but his attendance was dispensed with. Drs. Gorman, Kirkwood, and McQuitty saw the patient, who was in a dangerous condition, and suffering from acute belladonna poisoning. The patient was out of danger in about four days, and ultimately quite recovered, except that the testicle was slightly smaller. For the defence Dr. Darnell stated that he drew a diagram of the support, which was to be made of light wood; that the liniment was to be used in case of pain supervening; that a little of the liniment was to be sprinkled over lint and laid over the affected part. There was no foundation for the assertion that his instructions were not understood. His statement was borne out by Mr. William Hanna, chemist, Bangor, who said that Mrs. Tughan explained to him about the splint, and said she had not used it. This was denied by Mrs. Tughan.

For the defence it was averred that the defendant properly and with due and reasonable care, and in due performance of his duty, prescribed the application of the liniment as being suitable and beneficial, mingled with another fluid known as soap liniment, both being calculated to relieve the patient. No injury was received by the minor plaintiff from any treatment prescribed by the defendant nor did he suffer any damage. The defendant acted with due and reasonable care, and proper and adequate directions and instructions were given relative to the application of the liniment. Those attending the plaintiff were informed of everything that the defendant, as a physician, was reasonably bound to inform them of, and he gave full, clear, and sufficiently-detailed instructions as to the application of the fluid. The defendant further said that the injuries were solely caused by the negligence of the plaintiff and his father, and of other persons attending on him, and the negligent failurs to attend to and comply with the instructions and directione given.

Dr. Rich. W. Leslie, Medical Attendant to the Campbell College; Mr. Kirk, Surgeon to the Royal Victoria Hospital; Dr. H. L. McKisack, Physician to the Royal Victoria Hospital; Mr. Sinclair, F.R.C.S.Eng., Professor of Surgery, Queen's College, Belfast; Mr. Henry O'Neill, Consulting Surgeon, Royal Victoria Hospital; Mr. John Campbell, F.R.C.S.Eng., Gynaecologist to the Samaritan Hospital, all

treatment given by Dr. Darnell. It appeared from Dr. Gorman's evidence that he noticed that about half the bottle of liniment had been used in the four applications.

The question put to the jury by his lordship was, did the defendant use reasonable care and skill as a professional surgeon in prescribing for and generally treating the infant plaintiff? The jury, after an absence of half an hour, answered the question in the affirmative, and his lordship gave judgement for the defendant.

Dr. Darnell was a member of the Medical Defence Union, and his defence was conducted by that body, Dr. Bateman, General Secretary, and Mr. Hempson, solicitor to the Union, being in attendance during the trial.

The case had been tried at the previous assize, but the jury had been unable to agree.

Tughan *v.* Darnell.

At a meeting of the Ulster Medical Society in the Medical Institute on March 23rd, the President, Dr. William Calwell, drew attention to the verdict which had been recently given in the case of Tughan *v.* Dr. Darnell. It was one, he said, which was sure to be received with the greatest satisfaction by the profession. It must have been a time of the greatest anxiety to Dr. Darnell; and as they sympathized with him in his long and weary waiting and trouble, so they now would seek to congratulate him in the hour of success. Dr. Darnell had fought not only for himself, but also for the profession. Dr. Darling (Lurgan) subsequently proposed the following resolution:

> That this meeting of the Ulster Medical Society congratulate Dr. Darnell, Bangor, co. Down, on the successful refutation of the unwarranted attack on his professional character, and expresses its sympathy with him on the annoyance and loss he has suffered by the recent litigation.

It was passed unanimously.

General Medical Council.

We are informed that Dr. Leonard Kidd of Enniskillen has announced his intention to present himself for election as Direct Representative on the General Medical Council in January, 1906, in opposition to the present Representative, Sir William Thomson, C.B.

Dublin Hospital Sunday Fund.

The amount of the Sunday collection in the Protestant churches of Dublin diocese for the hospitals of the city is £3,877 4s. 6d., as compared with £3,805 3s. 1d. in 1903. There were special donations of £100 from R. P., and of £50 each the Earl and Countess of Meath.

The Forster Green Consumptive Hospital, Belfast.

The Forster Green Consumptive Hospital, Belfast, seems likely to benefit to a very considerable extent under the will of the late Mr. Robert Wallace Murray, of Newcastle, county Down, formerly head of a large firm of tobacco and snuff manufacturers in Belfast. He died in December last, and his will, which has now been proved, directs that the residue of his estate shall, subject to the life-interest of his wife, be disposed of in the following manner. One-half is to go to the London Missionary Society, and the other is to be held in trust for the Forster Green Consumptive Hospital, provided that this institution complies with certain conditions—namely, its governors are to be informed by the executors what the minimum income of half the residue of the estate will be, and they are to consider whether they can, from outside sources, provide proper additional accommodation for as many patients as such additional income will support, estimating the cost of each patient as £1 a week. If within twelve months they satisfy the executors that they will be able to do so, the moiety of the residue is eventually to be paid over to them. In the contrary case the executors are directed to apply the income of the moiety for the maintenance and treatment of consumptive patients in such hospitals as they may determine. The sum which the Forster Green Hospital thus has a prospect of receiving would appear to be not less than £75,000.

Bequests to Medical Charities.—Under the will of the late Mr. Robert Wallace Murray, of Newcastle, co. Down, which has now been proved, the Belfast Society for Providing Nurses for the Sick Poor and the Hospital for Sick Children, Queen Street, Belfast, each receive a sum of £1,000. Miss Caroline Elizabeth Singleton, of Eastbourne, who died in February last, left the sum of £500 to the Metropolitan Nursing Association for Providing Trained Nurses.

THE TEACHING OF HYGIENE AND TEMPERANCE IN ELEMENTARY SCHOOLS.

An important and largely attended Conference of medical men and others interested in the subject of the teaching of hygiene and temperance in elementary schools was held at the theatre of the Examination Hall at Victoria Embankment on Friday, March 24th, at 5 p.m., under the Presidency of Sir William Broadbent, Bart., K.C.V.O., F.R.S. The objects of the meeting were explained by Sir William in his opening remarks. The medical profession were convinced of the value of the teaching of hygiene and temperance in schools. A deputation which recently waited upon Lord Londonderry in this matter was most favourably received. The scheme proposed was, said Sir William, one for training teachers and providing books for children in regard to hygiene and temperance. The public elementary schools should teach hygiene and temperance, especially since the State has taken upon it to give education, and compelled education. Such education should be efficient and capable of making useful social units of the children. The first consideration needed was the health of the child—a thing of which parents were ignorant, and in regard to which they required educating. The second was the formation of character. Physical deterioration was important and moral deterioration also demanded their attention, but at the root of both lay ignorance and vice. Want of self-control led to vice. Those factors which made for the decay and degeneracy of the race should be combated. The education of children in hygiene and temperance was one of the best means of doing good and averting the dangers which threatened the coming generation.

Hygiene and Temperance.

Sir Victor Horsley, called upon by the President, read a paper on the present position of the scheme for education in hygiene and temperance. Previous efforts towards such teaching, he said, had been due mostly to the Band of Hope, but the time had come when the medical profession should act. The recent petition signed by numerous representatives of the medical profession on the subject of reform in the education of children, and the special need of teaching them hygiene and temperance, had had a powerful effect on the Government. The Board of Education had not the means to execute such reforms, but it allowed the circulation of papers for the instruction of teachers; and many county boroughs, urban district councils, and nearly all local education authorities received such papers and proposals favourably. Among such county, borough, and other local authorities who responded favourably to the scheme were those representing Edinburgh, Glasgow, Durham, Buckingham, Sheffield, Bradford, Leicester, Hastings, Nottingham, Wakefield, Chester, Eastbourne, and others. He would only briefly refer to the regrettable incident of the condemnation by Sir Michael Foster of the syllabus prepared by the Band of Hope and submitted to the Board of Education, to state that the exaggerations of Sir Michael Foster had been nullified, and that in response to the letter addressed to the Board of Education by Sir William Broadbent, and largely signed by the medical profession, "the Board has conceded all we ask for."

Guidance of Educational Authorities.

Educational authorities required guidance in two respects, namely, how to train teachers and how teachers should train children. The Committee of Distribution was drawing up syllabuses which would be duly published in the medical journals for public criticism or comment before being adopted. The National Union of Teachers, a corporate body, with its enormous membership including all teachers of elementary schools, had not fully understood the action of the medical profession in this matter. The necessity of education in hygiene, in Nature study, and in the elementary physiology and principles of health was of more importance than a detailed knowledge of geography or history; the former should precede the latter. This was a matter of national, not technical or academic, importance. Reviewing the progress of the past year, he said that the Board of Education now recognized that such subjects should be compulsory in the sense of the code issued by the Board, and subject to the grant given, and that the medical profession was in agreement with the Board that hygiene and temperance should be one of the compulsory subjects in the above sense.

Physical Deterioration.

Dr. Robert Jones read a paper on the report of the Inter-Departmental Committee on Physical Deterioration. When in 1903 it was officially known and announced that over 60 per cent. of our recruits were rejected as physically unfit, the Home Secretary addressed inquiries to the Royal Colleges of Physicians and of Surgeons on the subject. The Colleges replied that the factors of physical degeneration existed, that they were partly artificial, such as food and drink, and that various other effective causes, hygienic and social, also prevailed. The Duke of Devonshire spoke of the dangers of physical degeneration brought about by conditions of life which menaced the health of the nation, and a Committee of three was appointed to inquire as to the actual existence of physical deterioration, and how valuable information could be gained. In July, 1904, after the examination of various information, and of many witnesses to whom in the aggregate some thousands of questions were put, the Committee reported to the effect that there was evidence of deficient physique, and that the health and strength of the industrial population was not such as it should be for the requirements of high efficiency. Some of the Committee (including Sir Thomas Barlow, Sir Victor Horsley, and others of the medical profession, four laymen and the President of the Provident Institution) formed a body for the collection of further evidence. Inquiries among the central foundation schools were facilitated by the help given by Sir Owen Roberts to the London County Council for such purposes.

Prophylactic Measures.

Their combined inquiries established the fact and the causes of physical degeneration. They would, said Dr. Jones, urge such measures and advice as follows: that the people should be taught not only to read and write but to sympathize with the needs of others; that temperance should be broadened and that alcoholic moderation and abstinence should be taught especially in the lower middle and artisan classes; that the evidence of insurance authorities showed a higher longevity for abstainers than non-abstainers, and that the havoc of alcoholism and venereal disease should be diminished. Their co-operation was invited to give effect to these aspirations, to make growth more perfect, life more healthy, and death more remote.

Alcohol and Nervous Disease.

Sir Thomas Barlow referred to the lesions, especially physical, produced by alcoholism, and cited several interesting cases of peripheral neuritis, and even of more serious central nervous disorder arising from "tippling" and habits of continued indulgence in alcohol. His own attitude was that of "the open mind." Alcohol exaggerated the neuritis produced by arsenic, as in the recent notable cases of the Manchester epidemic of arsenical poisoning from beer drinking. So also, he said, did alcohol and syphilis reinforce each other for evil. Port wine was not, as it was supposed, "the milk of the aged"; it tended to produce cardiac weakness, muscular and rheumatoid pains, and deterioration of the fine arterioles and blood vessels. Alcohol was also responsible for much insanity and mental disorder.

Alcohol and Immunity.

Alcohol was to be used for emergencies—for example, in cases of collapse such as occurred in a few illnesses or in accidents, and the grateful feeling of temporary warmth it created was good for the patient. But alcohol lessened leucocytosis; it lowered the power of resisting infection; and cases of splenic fever, tetanus, and hydrophobia in animals became more virulent if the animals were alcoholized. This was borne out by the experiments of the Pasteur Institute. Alcohol as an aid to combat cardiac failure was not to be compared with the hypodermic injection of strychnine. Even moderate drinking favoured the development of arterio-sclerosis, and in any case the physiological bounds of moderation, he said, should never be transgressed.

Mr. W. McAdam Eccles said the attitude of the medical profession was that of a broad and open mind based on scientific facts. Medical students should be fearlessly taught the evil of intemperance. Our medical education should include a short series of special yearly lectures on alcoholism. Let medical students be taught, that they might teach.

Proposed "Syllabus" of Instruction for Elementary Schools.

Dr. William Collier, President of the British Medical Association, recalled the teachings of Sir William Gull, Sir James Paget, and Sir Samuel Wilks, all of whom were earnest advocates of temperance. A year ago the Council of the British Medical Association decided that it was of urgent importance that elementary instruction in temperance should be given in all elementary schools, and sent an expression of opinion to that effect to the Board of Education. He hoped the "syllabus" about to be sent to the Board of Education would be most moderate in tone and marked by unanimity of opinion of those who send it. The less whisky or alcohol given in hospitals the better it was, he thought, for the patients.

Dr. Mott said he enjoyed a glass of wine at dinner and felt better. He advocated temperance rather than total abstinence. Pure wine should be taken and not "vile spirits," which contaminated almost all modern alcoholic liquors. He referred to the statements of Magnan as to the evils of such adulteration. Alcohol also produced insanity, epilepsy, and other neuroses. Alcohol, he thought, should never be ordered as a routine practice in hospitals.

Professor Sims Woodhead said he had but one patient in his practice—and that was himself—a total abstainer. He thought the young should be taught the evils of alcoholism and the advantages of hygiene. Local educational authorities were anxious to do all they could, but wished for an authoritative statement or "lead," in regard to the matter from the medical profession. He was glad that medical men who were outside that Association and were non-abstainers were coming in to aid them in their work, and hoped that the facts published by them would promote temperance as well as total abstinence.

Alcohol and Pneumonia.

Further brief remarks were contributed to the discussion by Mr. Pearce Gould. His experience, he said, in surgical practice was that abstinence favoured health and speedy recovery from operations in patients. Education regarding temperance should be "drilled" into children. Dr. Symes Thompson said that when the late Dr. Todd was in practice it was his custom to order tablespoonfuls of alcohol to be given to patients suffering from pneumonia and other severe illnesses, and that the result was to reinforce the disease and its severity and not the health of the patient. Another speaker referred to intemperance in food (meat), tobacco, and (in the case of children) sweets, while the last speaker referred to the importance of abstinence in the native races, and spoke of plans which were proposed to be put into effect to promote it among the races of West Africa.

THE TEACHING OF HYGIENE IN SCHOOLS.

XVI.—Physical Exercises (*Conclusion*).

It is necessary to consider physical training from the point of view of health, for its *raison d'être* is to bring a child's health up to a high standard and keep it so during school life; and the chances are that this early training of the body will have a lifelong influence. For this reason it is necessary that teachers and pupils alike should understand that wise physical training gives tone, improves appetite, sleep, and the functions of the internal organs. Not only the muscular but the nervous system is influenced by the activity of the muscles; therefore the brain is influenced as well as the body. Many people are under the impression that physical exercises merely consist of certain mechanical movements, which, when once learnt, are repeated without any effort of will, in short that they become almost involuntary from force of habit. This class of person generally advises that movements should be done to music to make them more recreative and interesting to children.

When subjects like grammar, geography, and arithmetic are treated as serious and worthy of the child's best attention, why should physical culture be regarded as a recreation? The aim, in physical exercises properly taught, is to get the brain to govern the body; it is not sufficient to do certain exercises mechanically, but to give the whole attention to understanding what each movement aims at doing, and to do it as carefully and thoughtfully as possible in consequence. In order to understand this, it should be realized that during the whole period of school life the brain and the muscles are continually growing and developing. They are interdependent; so interdependent, indeed, that without a healthy, well-developed muscular system the brain cannot attain its fullest degree of vigour. Each nervous centre requires external stimuli to develop its potential power. The development of portions of the brain depends on muscular exercise; this probably accounts for the instinctive love of movement in children and young animals.

To keep a child confined and sitting still for lengthened periods has an injurious effect on its normal growth. Forced inactivity leads to injurious postures, such as rounded back and contracted chest, with, perhaps, spinal curvature and a tendency to short-sightedness.

It must be borne in mind that exercise improves the nutrition, not only of the muscles themselves but of all other organs; it stimulates the action of the lungs, increasing the intake of oxygen and the output of carbonic acid; it accelerates the action of the heart, and both in this way and by hastening the passage of the blood through the muscles aids the circulation; indirectly it improves the digestion, the appetite, and the nutrition of the nervous system, and quickens the operations of the mind. Besides this, it restores wasted or undeveloped muscles.

During the period of growth, muscular action influences profoundly the development of the bones. The bones of a child are constantly growing in length and thickness, and they are, as it were, moulded by muscular action. If the muscles are feeble and little exercised the bones tend to be thin slender and ill-developed, and yield more readily to any cause tending to produce deformity. Well-regulated exercise, on the contrary, stimulates the growth of the bones, makes them stronger, ensures that they shall assume their normal form, and preserves the symmetry of the limbs.

Besides nutritive control and corrective exercises, there are those which may be termed recreative. Exercises may be done mechanically, for their effect on the circulation. The movements should be swift, massive, and simple, and should be given as a break between each lesson, for two or three minutes if possible. This time is well spent, for, by changing their ideas, it prevents the children from becoming inattentive from fatigue.

An ideal system of physical culture can never be attained until systematic games are included in it. In the selection of games and exercises the object aimed at should be to undo the evil caused by the conditions of school life. They should be designed to expand the chest, straighten the figure, quicken the circulation, and revive the spirits, and should be given every day, and not three times a week only, as is the case at present.

In a class of Swedish exercises the first position is an ideal one, and the child is expected to return to the ideal position after each exercise.

The Swedish system has been accepted by us as the best system of physical training. Let teachers and taught remember that, according to the Swedes, slouching is incompatible with personal dignity; they are trained to hold themselves upright and never to slouch.

THE PREVENTION OF CONSUMPTION.

The National Association for the Prevention of Consumption.

The sixth annual meeting of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was held on March 24th, at 20, Hanover Square, the Earl Derby in the chair. Among those present were Sir William Church, Sir William Broadbent, Mr. Malcolm Morris, Dr. Hector Mackenzie, Dr. Theodore Williams, Dr. Nathan Raw, and Dr. J. J. Perkins, Honorary Secretary.

The report of the Council gave an account of the work of the Association during the past year. It was stated that the financial position of the Association had given cause for anxiety, the expenditure having exceeded the income. By means of a special appeal to the public a sum of £160 had been raised. Every possible retrenchment had been made, but the expenses for the current year were still considerably in excess of the estimated income. For the purpose of bringing the claims of the Association before the City a meeting would be held at the Mansion House under the presidency of the Lord Mayor on May 17th. The next International Congress on Tuberculosis would take place from October 2nd to 7th in Paris under the patronage of the President of the French Republic. The aid of the Association had been sought by the organizing committee of that Congress to co-operate with them in this country; and the hope was expressed that the meeting of the Congress would give a fresh impetus to the efforts of the Association, and arouse new interest in the problems with which it had to grapple. Reference was made to the continued activity of the branches of the Association in different parts of the British Isles, and to the resolutions of the International Committee in May, 1904; and it was stated that the Council noted with pleasure that a further step in the suppression of the dangerous habit of spitting in public places had been taken by the London County Council in the case of the common lodging houses under its control. Tuberculosis in children, especially the surgical forms of the disease, had engaged the attention of the Association during the past year, and a Subcommittee had made recommendations urging the necessity of providing special hospitals for these cases, in the country or at the seaside, on the lines of open-air sanatoriums for pulmonary consumption. The belief was expressed that if special hospitals were provided, children could be admitted at any age; and in this way treatment could be begun at an earlier stage than was now possible, and could be continued till a cure was effected or the case was shown to be incurable. For the incurable cases separate homes should be provided. The Council stated that this country lagged far behind some other countries in its provision for such children. It was hoped that the London County Council would see its way to devote to this purpose the mansions often standing in the parks which they acquired; inquiry had been made, but for the present the matter remained in abeyance. A gratifying step in the extension of public control with regard to tuberculosis had been taken by the Sandgate Urban District Council, which was seeking power *inter alia* to exercise control over hospitals or sanatoriums for tuberculosis, to introduce notification of the disease, and to regulate the milk supply. The time, it was said, was evidently close at hand when provision of sanatoriums, municipal and other, would be on the increase. The principles and possibilities of sanatorium treatment were, it was pointed out, as yet but ill understood in this country. Open-air treatment was efficacious, or at any rate powerful to cure only when undertaken in an early stage of the complaint, and there was reason to fear that the system itself might fall into discredit if not wisely applied. It would be the duty of the Association to educate and guide public opinion and supply information, to urge that cases should be carefully selected and classified and kept under prolonged treatment, and to see that some means should be found for the after-care of them. Some system, it was added, must be devised to spread information as to the initial symptoms of phthisis and the importance of really early treatment. In all these directions there was a wide field for private endeavour to supplement public action.

Lord Derby, in moving the adoption of the report, stated that more than 4 000 copies of the journal of the Association, *Tuberculosis*, were distributed gratuitously wherever branches of the Association were established. New sanatoriums had been opened at Newcastle, Keswick, Glasgow, Gloucester, and in West Wales. Sheffield and Sandgate were the only towns at present which had taken steps to enforce compulsory notification of the disease. The more the local authorities insisted upon this the more the movement would gather force. The question of the treatment of tuberculosis fell, he said, into three parts. There was, first, the treatment in hospital of cases in which good could be done; then, supplementary to the hospital, there ought to be a place of rest for persons who had received benefit in the hospitals to have easier conditions of life; lastly, there were the cases in which nothing but ameliorative measures could be taken and for these refuges ought to be provided where they could spend their last days in comfort, and not be a source of danger to those around them.

Dr. Nathan Raw (Liverpool), who seconded the motion, said that many medical men were not convinced of the value of sanatorium treatment, and it was not surprising, therefore, if the general public was sceptical. A stronger reason for unbelief was the fact that during the last few years advanced and otherwise unsuitable cases had been rushed into sanatoriums in the hope of a cure. Failure, bitter disappointment, and wholesale condemnation of sanatoriums were the inevitable results. The sanatorium could be expected to confer benefits only to those patients, in the early stages of the disease, who were also otherwise suitable cases for the treatment. Sanatoriums alone would not stamp out consumption. County councils and health authorities were holding their hands, and the inevitable reaction had set in against sanatoriums. He felt sure that this would soon pass away. In the meantime it was the duty of every health authority to provide, first of all, a sanatorium for the treatment of early and suitable cases as a means of cure, and also some means for the isolation of advanced cases. With a few exceptions, the respectable poor had no refuge but the workhouse when attacked by consumption. This was not creditable to England, and did

not compare favourably with other parts of the civilized world.

Dr. Lionel Weatherly, who supported the motion, maintained that the sanatorium movement in England would never be successful until the sanatoriums were used for early cases only, which should be sent in discreetly.

Sir William Broadbent moved the following resolution:

> That in the interest of the public health it is necessary that consumption and tuberculous disease generally in the metropolis should be dealt with in a comprehensive manner, and that this will be done most efficiently by the Metropolitan Asylums Board constituting itself the sanatorium authority for consumption in London.

He said that there was in London an enormous amount of consumption and tuberculous disease. Some patients were actually paupers, and some just above that class. Many paupers suffering from tuberculous disease were in the workhouse, but most of them were in their own houses, where they were a constant source of danger. Owing to the existence of advanced cases of consumption in the lower classes, the well-to-do became infected; but, with knowledge and better instruction in hygiene, the well-to-do had no business with consumption. The consumption in the metropolis should be dealt with in a comprehensive manner; the only existing authority that could do this was the Metropolitan Asylums Board. If that body undertook to deal with consumption, they would make a definite impression upon the amount of disease which existed, and they would not only save life, but promote the public health. In conclusion, he said that they hoped by means of a deputation to place before the Board the desirability of their constituting themselves the sanatorium authority for consumptives in London.

Dr. Theodore Williams seconded the resolution, which was unanimously adopted.

On the motion of Mr. Malcolm Morris, seconded by Dr. H. Mackenzie, the auditors and the honorary secretary (Dr. J. J. Perkins) were re-elected.

The Notification of Consumption.

In Cheshire the experiment of the voluntary notification of phthisis is said to have been a failure. Dr. Garstang states that during the four years in which the Knutsford, Winsford, Middlewich Urban, and Bucklston Rural, authorities, to each of which he is medical officer, have issued circulars inviting the voluntary notification of pulmonary tuberculosis, only 50 had been received, and in almost every instance the cases were in the last stages, death following within a few days or weeks. During the same period there had been 139 deaths from phthisis, leaving 89 unnotified even up to death.

ANTIVACCINATORS AND THE OSSETT FIGURES.

The evidence afforded by the figures of the Ossett outbreak in favour of the value of vaccination as a protection against small-pox is so striking and apparently so conclusive, that some curiosity has naturally been felt to hear what antivaccinists would have to say in reply to them. It has not been necessary to wait long. The *Vaccination Inquirer*, the official organ of the Antivaccination League, has been constrained to take up the challenge thus thrown down, feeling, no doubt, that an answer of some kind was imperative.

The *Vaccination Inquirer* commences its laboured attack upon the Ossett figures by a characteristic reference to the "essential fallacy of the statistical methods in vogue" in the columns of the British Medical Journal, in which these figures appeared on January 14th last, page 98.

We stated that the Ossett figures are "definite." The *Inquirer* retorts that they are "too definite," and, with a passion for paradox which is as amusing as it is audacious, asserts that "they are definite in the sense of being clear, exclusive, and for these very reasons entirely inconclusive;" this is pretty good for a beginning. By way of a preliminary objection, the *Inquirer* alleges that it has "already encountered the usual obstacles to verifying" the figures, which is strange, as in the report of the outbreak issued by Drs. Kaye and Greenwood the initials of all the children are given, and it ought not to be difficult for any one who wants to identify them to do so. But, as it is scarcely possible even for the most uncompromising antivaccinist to assume that the figures are fabricated, the *Inquirer* proceeds to discount them as best it can.

Its first point is that "there was small-pox in the township" of Dewsbury, and that there was, "there, as elsewhere, bad management of small-pox and arrangements which were generally censured by the Local Government Board." Of course there was; we all know there was bad management on the part of the authorities around Dewsbury in regard to the discharge of their public health duties. But what has that to do with this particular outbreak? The infection was clearly imported into the school; but whether as the result of general bad management or of some unavoidable accident, is of no importance. The thing was neither "rich nor rare," and we may spare ourselves the trouble of speculating "how the dickens it got there;" for, as the *Inquirer* admits, "naturally enough, a case of small-pox was discovered one day at the school." "Of course," says the *Inquirer*, "the majority (although by no means all) of the escapes were vaccinated, otherwise we should not have had these figures paraded; and of course the majority, the large majority of the attacked (but again not all) were unvaccinated." So far good. But then, continues our critic, "thereupon the school is treated as the place of origin, the breeding ground, and the whole area of the small pox of Ossett." No one has said this. That the almost simultaneous attack by small-pox of 42 children, coming from all parts of the community, promoted the spread of the disease in the locality generally is in the highest degree probable, but the school was not the original starting place of the mischief, which had already got a hold of the Dewsbury population before the school was attacked. And then, because we ventured to say that the infection sown at the school "bore fruit according as it fell on bad or good ground," the *Inquirer* exclaims in virtuous indignation: "And such is the logic of medical writers, such is their reasoning power, that they seem to think a small-pox and vaccination table on this narrow basis is a thoroughly convincing proof of the value of vaccination, notwithstanding the recent evidence in the other direction of Leicester." Well, broad or narrow, there are the figures, and it is for the antivaccinists to show why, in a class of 27 children into which the infection of small-pox was one day certainly imported, all the unvaccinated children, to the number of 8, should within fourteen days afterwards have developed the disease, whilst the remaining 19 children, who had been vaccinated, escaped. The appeal to the experience of Leicester, besides being irrelevant, is futile, for the *Inquirer* knows well enough that the experience of Leicester affords as good evidence of the value of vaccination as can be needed if it be only looked for.

But, the *Inquirer* urges, "5 of the children who were attacked were vaccinated. It surely must have struck the medical statistician what a misfortune it was for him that these 5 vaccinated children took small-pox, and these 40 unvaccinated had the impudence to escape. It is a pity for him that small-pox struck vaccinated as well as unvaccinated; it is equally embarrassing that it passed by the unvaccinated as well as the vaccinated." Not at all: there is nothing embarrassing in the matter. On the contrary, the attack of these five children heightens the neatness of the demonstration. If they had been recently vaccinated it might have been difficult to explain to the satisfaction of antivaccinists that their attack was due to inefficient vaccination, for we know that the *Inquirer* and its friends are always arguing that no vaccination can be claimed to be inefficient for which a fee has been paid, even though the fee be the exiguous sixpence, and the mark left a solitary and almost unrecognizable one. But in these 5 cases we have no need to raise this issue; for they were all of them over 10 years of age. And even if we assume that they had been well vaccinated in infancy it is not surprising that they had lost immunity against attack; though, as the facts show, they were protected against a severe attack.

But the *Inquirer* has one more arrow in its quiver. With an inconsequence which would be surprising if he were not so hard pressed, the writer of the article thinks it important to inquire "where did the children catch the small-pox; in the school or out of the school?" What matters, it must be replied, whether they caught it in school or outside? The point of the argument is not so much where they caught it, but how it came to attack them in the manner it did. To ask, as the *Inquirer* does, "where was the benefit of vaccination" because five children, whose original protection had faded, caught small-pox lightly, whilst 87 others, who had also been vaccinated escaped, and 40 unvaccinated children, most of them so placed that they were in only a very slight degree exposed to infection, also escaped, is only to show how unable the antivaccinists are to pick a real hole in this remarkable case. But the League conversationalists have always one card up their sleeve when they see the game is hopeless. They can insinuate dishonesty in their opponents. "There is," alleges the *Inquirer*, "a cunning arrangement of the figures, so

as to bring out and impress us with the fact that in the particular class where the first case occurred all the unvaccinated were attacked and all the vaccinated escaped." But why "cunning"? To say that out of so many children a certain proportion were attacked, all of whom were unvaccinated, whilst the rest, who were vaccinated, escaped, is to state a bald fact, which no "cunning" is required to express. Whether or not it impresses the person before whom it is put is a different matter, as it involves the question of his intellectual capability to draw the obvious conclusion from the fact. The *Inquirer* admits that it "might be impressed if it were not for the sort of counter-demonstration supplied by the facts regarding the remainder of the Room A, where this class was." The remoteness of the other classes in this room may, it allows, explain why 2 out of 14 unvaccinated children escaped, but it claims that this does not explain why 5 vaccinated children were attacked. And it sententiously adds, "So it is with all these pretty demonstrations. They are perfect to the easy-going pro-vaccine mind, which takes the filth protection for granted. To the inquiring critical mind they settle nothing, or rather prove conclusively that the whole demonstration is fallacious."

The writer winds up with the Parthian shot, "how tiresome it must be for our friend the enemy that his figures never, never will bear scrutiny," Truly he is an apt scholar in the art which Danton taught, "*De l'audace, et encore de l'audace, et toujours de l'audace.*"

We have taken some trouble and encroached on the demands of more serious contributions to our overcrowded columns that we might give our readers the opportunity of seeing what the leaders of the antivaccinist agitation have to say in reply to the Ossett figures. Since the time of Jenner's historical experiment there has been no more logically-arranged test than that which the Ossett school outbreak exhibits. No person who has the intellectual capacity to draw a plain inference from unquestionable facts can for one moment doubt what is the inference to be drawn from this test. It would be an insult to the intelligence of our readers to labour it any further; and we are quite satisfied that it is from no deficiency of intellectual capacity that the controversialists of the *Inquirer* refuse to recognize it. To do so would be to admit that the whole foundation of the opposition to vaccination is rotten throughout, and that it is maintained only by shirking plain facts or by ingeniously misrepresenting them.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

The annual meeting of the General Council of King Edward's Hospital Fund for London was held on Wednesday at Marlborough House, H.R.H. the Prince of Wales, President of the Fund, in the chair.

The minutes of the previous meeting having been read and confirmed, and letters of regret at inability to attend having been read, Lord Rothschild, the Treasurer, presented the financial statement for the year ending December 31st, 1904. The total received by the Fund had been £99,088, and the expenses of collection and administration £2,141, a sum equal to a sum of only £2 3s. 2d per cent. on the amount received. Of the total received £80,000 had been distributed to hospitals and convalescent homes, £13,153 passed to capital account, and £3,793 carried forward.

On December 31st, after distributing £80,000, they had investments valued at £664,256 standing in the names of the Trustees, and £16 547 at the bankers.

In 1897 the annual subscriptions to the Fund, as apart from donations and other sources of income, were £21,143, and in 1904 they were £33,316, an increase of £12,000. They received in 1897 £21,161 on capital account and virtually nothing in 1904, but, on the other hand, in 1902 they received £400 000 for capital. In their first year they had distributed £56,826 as compared with £80,000 in the expired year.

The reception of the accounts and balance sheet having been moved by the Prince of Wales, and duly adopted,

Sir Savile Crossley, one of the Honorary Secretaries, read the report of the General Council. At the time when it was decided to give £80,000 to the Distribution Committee, it had seemed possible that that sum might exceed the whole income for the year, but generous support had since been received. His Majesty the King had been pleased to continue the deep interest in the Fund which he had exhibited from its inception, and His Royal Highness the Prince of Wales had exercised constant personal supervision over its work. On the invitation of His Royal Highness the President, Mr. J. Danvers Power had become one of the Honorary Secretaries, and Mr. Edgar Speyer added to the General Council. Any efforts to increase the number of small special hospitals had been discouraged, and without desiring to check charitable effort, they appealed to the authorities of the smaller hospitals to consider the economic advantages of amalgamation.

The Prince of Wales, in moving the adoption of the report, discussed the financial position of the fund, and referred to the great assistance received from the League of Mercy and its many workers. There had been an increase of some £900 in general subscriptions and donations, but the number of their supporters was not as great as it should be, and the ratio of increase in the aggregate of small sums was not equal to that of large contributions. The munificent gift of his ever-generous friend, Lord Mount Stephen, of £200,000, had been received too late to be included in the year's accounts. It brought them within £30 000 of the goal to which they were striving—namely, the acquisition of a permanent capital income of not less than £50 000. The amount still required would be reduced by £12 000 if the conditions attached to an offer made by Mr. Marshall were met; and Sir C. Tennant having given £3 000, all that remained to be collected by July 31st was £15,000. His Majesty the King, when he inaugurated the Fund, calculated that from £100,000 to £150,000 a year was required by the hospitals, and since then the population had grown. The fact that the expenses only equalled about 2 per cent. showed how carefully things were managed.

The growth of London and the increasing claims on charity compelled all who were specially interested in hospital work to consider every suggestion which tended towards either economy or increased usefulness. There was one such suggestion which seemed especially worthy of consideration, namely, whether hospitals which devoted themselves to the work of curing one special disease should not be carried on under as few roofs as possible, and whether, as time went on a judicious reduction of the total number of small hospitals might not be advantageously effected, though of course every one must sympathize with those who, having for many years given their time and money to maintain a hospital in which they were interested, felt reluctant to consent to its absorption by a larger establishment where its identity would be lost.

Referring to the statistical report on the expenditure of the sixteen large hospitals, he said it was satisfactory to be able to note that in the great majority of cases the suggestions were received in the spirit in which they were made. A similar and improved report would be prepared for the current year. The report was as yet only accessible to the Council and Committees and the hospitals directly concerned. For the present, publication would not be fair to some of them, since a reasonable period must be allowed to enable them to take whatever advantage they could find in the particulars now supplied to them for the first time. But he hoped that sooner or later all objections to publication would be removed, and that its usefulness would be thus extended to hospitals generally.

The report of the Medical Schools Committee did not properly come into a review of the concluded year but was too important not to receive special mention. He desired to thank its members and with them Mr. Danvers Power, who at the special request of the Committee agreed to act as its honorary secretary. Considering what weight the report carried they would of course endeavour to fulfil its recommendations.

It stated that of the twelve hospitals with medical schools at least eight contributed from their funds to the support of medical education, and proceeded to declare that the Committee "did not find that any special considerations had been advanced in justification of the expenditure by the hospitals on the schools."

Happily, however, there was a recommendation not to open up past transactions but merely to deal with the future. As the report was not published until after the commencement of the current year the hospitals could not act upon it in such a way as immediately to clear the accounts. The Fund therefore proposed to begin with the first complete year after the publication of the report—that was, with the year 1906. The hospitals would thus have nine clear months in which to consider their position. All that the Fund asked was that the whole of the grants from the King's Fund might go to the relief of the sick poor. If a general account was kept for that exclusive purpose, out of which only hospital payments were made, and into which all ordinary receipts for the general funds of the hospital were paid, then they

were satisfied to make their grants to that account. Individual subscribers, and even the whole body of subscribers to a particular hospital were in a different position from that of subscribers to the King's Fund. It must be remembered that the Fund collected many small sums from people who wished to do something for the sick poor, but who had no special interest in any one hospital, or in anything but the ordinarily accepted objects of the hospitals. While this subject of medical schools remained in doubt, while they were assured that for various reasons it was in the interests of the sick poor that the hospitals should assist in maintaining the schools, they were entitled to accept that view, and they did so. But now that they had in their hands the report of Sir Edward Fry's Committee they were bound to act upon its recommendations, and to reconsider the policy which they had hitherto followed. He trusted that in the near future the result of their action would be of benefit not only to the hospitals but to medical education as well. The Committee had pointed out that while the final studies of a medical student could only be pursued within the walls of a hospital, the teaching of the preliminary and intermediate subjects were more properly carried out in an institution of a university character, and it expressed great satisfaction to find that the statutes of the University of London directed the Senate to "use its best endeavours whenever practicable to secure such common courses of instruction for internal medical students in the preliminary and intermediate portion of their studies under appointed or recognized teachers at one or more centres." He was glad to know that the Senate had already put forward a scheme for the establishment of an Institute of Medical Sciences in connexion with the University of London. It was to be hoped that the public would generously support the appeal which had been made for the funds necessary to build and equip such an institute, and thus assist the University in its efforts to provide in London a medical education unrivalled throughout the Empire. He had observed with satisfaction that since the issue of the report of the Committee, Mr. Alfred Beit had made a very generous addition to the large donation which he had previously promised to the Institute Appeal Fund.

The Prince of Wales having concluded his address with a reference to the obligations of the Fund to its various officers, Mr. John Tweedy, President of the Royal College of Surgeons, said that it was unnecessary for him to add anything to the arguments His Royal Highness had employed with respect to the two important questions dealt with in his speech—namely, the amalgamation of the smaller hospitals, and the very important question of the separation of the earlier medical studies from the hospitals. Personally he agreed with His Royal Highness that if this separation were effected, not only would it benefit the hospitals as medical charities, but he was confident it would benefit medical education as well. The two parts of medical studies were quite separate. The preliminary science studies, and studies such as anatomy and physiology, were entirely distinct from the clinical studies. He hoped that, if not within the next year certainly as soon as practicable, this important separation would be carried out, and then in London they would have medical education placed upon the footing which was so much to be desired, and the absence of which those most interested in medical education had had occasion to regret for so many years past.

After some remarks by Mr. E. Cornwall (Chairman of the London County Council), in exemplification of the value of the Fund and the absolute necessity of hospitals, a vote of thanks to H.R.H. the President was moved by the Rev. T. Bowman Stephenson, seconded by Sir William Collins, and carried by acclamation.

The Prince of Wales having briefly expressed his acknowledgements, the proceedings terminated.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 87.

LITERARY NOTES.

The April number of the *Musical Times* will contain an illustrated biographical sketch of Manuel Garcia. The portraits will include a reproduction (as a special supplement) of that painted by Mr. John Sargent, R.A., and of another taken fifty years ago, about the time the laryngoscope was invented. The number will also contain portraits of the centenarian's father and of his sister, Madame Malibran. A sketch by Richard Doyle of the late Sir Charles Hallé and Garcia playing chess will also be reproduced for the first time.

The *House Beautiful* for March is full of interest. It contains an article on the feeding of infants, by Mrs. Ernest Hart, and an illustrated article on the house of Sir Lawrence Alma-Tadema, R.A. There are also some beautiful illustrations of armoires and cabinets, the work of André Charles Boulle.

The *Canada Medical Record*, together with its editor, Dr. Francis W. Campbell, has been absorbed into the *Montreal Medical Journal*. The *Record* had existed for thirty-three years, and during the whole of that period it had been under the direction of Dr. Campbell. The cause of its demise is, according to Dr. Campbell, the old one—want of money. As an illustration of the difficulties with which he had to contend, he mentions a fact scarcely creditable to his subscribers: that, of a list of a thousand, not fifty paid the subscription, which was only one dollar a year.

Professor Osler's joke that failed has inspired an Oxford bard, who is probably a future brother professor, to the following deliverance:

> Brother, I am sixty-one,
> So my work on earth is done:
> Calm should follow after storm—
> Reach me down the chloroform.

It will be noted that the poet by his own admission has already over-passed the farthest limit allowed to professors. Doubtless, however, the slight extension of the lease of life has been granted in compliance with the exigencies of the rhyme.

The Hon. John Collier, who, though best known to fame as a portrait painter, is Huxley's son-in-law, discussing the question of compulsory classics in the current *Cornhill*, says the curious thing is that the average head master is quite genuinely solicitous that the boy with good brains should not waste them on science. He seriously believes that the study of Greek is a better exercise for a superior brain than the study of Nature, and he often succeeds in imparting this belief to the best of his pupils. When one considers the relative importance in the modern world of the classical scholars and of the men of science, it is difficult to take this belief seriously, but it undoubtedly exists. There is an authentic anecdote which displays it, in a somewhat excessive form, but which is valuable as an illustration. Many years ago Professor Huxley delivered a lecture to the boys of Harrow School. An eminent classical master was met by a friend as he came away from the lecture. The classicist explained his presence at the lecture somewhat apologetically with the words: "I just went to see what this Natural Science was like. There's nothing in it!" The classical scholars now speak a little more respectfully of the intruder, but Mr. Collier doubts whether the attitude of mind has much changed.

The *Maryland Medical Journal* has in preparation a special "Osler Memorial Number," which will be published on June 1st.

The *Outlook*, in a review of Sir Frederick Treves's book, *The Other Side of the Lantern*, remarks that the volume, though having an index, is, as might be expected, without an appendix.

At a recent meeting of the Paris Academy of Medicine Professor Chantemesse referred to some anticipations of modern theories as to the part played by insects in the propagation of infectious diseases. In a thesis presented to the University of Montpellier in 1814, Boursin, with the object of protecting those who go down to the sea in ships against such diseases, recommended that all openings should be closed at night with sashes filled with bunting. Fonssagrives took up the idea, substituting for the bunting metallic network with fine meshes, which he thought would filter the air. At Fort-de-France, in 1821, an epidemic broke out on board the French brig *Euryale*; a commission was appointed to inquire into the origin of the infection, and its report concluded with a recommendation that the ship should be fumigated, "not so much with the object of purifying the corrupt

air as because that would be the most suitable means of dislodging and asphyxiating all the vermin hidden in the planking." The recommendation appeared to the sapient persons who at that time were the chief luminaries of French medical science as "insensate," and surprise was expressed that it should have been made by men calling themselves doctors. By a curious coincidence one of them, Bally, was about the same time the victim of an accident which might have enlightened him. While in a patient's room he suddenly felt an intense itching along the inner edge of the left middle finger. He rubbed the finger several times and washed it in cold water, to no purpose; after a time the itching ceased of itself. Bally thought nothing more about the matter, but next day he was attacked with yellow fever. It may be mentioned that the same Bally, who was Perpetual Secretary of the Academy of Medicine, left the Academy of Sciences when the phonograph was first presented to that learned body, not wishing, he said, "to sanction by his presence the scandalous tricks of a ventriloquist." He was even more conservative than the wise men who jeered at the laryngoscope as a physiological toy.

A new book by Dr. S. Weir Mitchell, the title of which has not yet been announced, will shortly be published. It is said that the distinguished author considers his new novel the strongest piece of fiction he has produced. It is a story of Northerners in the South during the Reconstruction period.

A play in which the extraordinary system of quackery known as osteopathy supplies an important part of the plot is running at one of the leading New York Theatres. The play was written by Augustus Thomas, and is entitled, *Mrs. Leffingwell's Boots.*

Messrs. J. and A. Churchill will have ready next month the eighth edition of Dr. Goodhart and Still's *Diseases of Children*. The book has been thoroughly revised. The same firm will publish about the same time a new book entitled *Paralysis and other Diseases of the Nervous System in Childhood and Early Life*, by Dr. James Taylor. The book is described as an expression of personal opinions, the result of the writer's observations, modified and extended by his knowledge of the views of others, on subjects in regard to which he has had special opportunities of acquiring experience.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

Research Scholarships.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

429, Strand, March, 1905. Guy Elliston, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Professor Huchard on the Muscle-tonic and Diuretic Action of Formic Acid and Formiates.—Société Anatomique: Dr. Doyen presents Microscopic Sections showing Results of Inoculation of Animals with Micrococcus Neoformans.—Emile Zola's Country House to be a Convalescent Home for Nurses of Assistance Publique.

At a recent meeting of the Académie de Médecine Professor Huchard read an interesting report on the muscle-tonic and diuretic action of formic acid and its salts. A maceration of ants was mentioned under the name of "electuarium magnanimitatio" of Hoffman in the *Universal Pharmacopoeia* of Lémery, first published in 1697, the name being due to its toxic and exciting properties. Coming down to the present time, Professor Huchard insisted, after the recent work of M. Clément (of Lyon) and of himself, on the undoubted muscle-tonic action of formiates—for example, after taking formic acid the subject was able to perform ten periods of work instead of five before taking the medicine; during these ten periods of work with the ergograph of Mosso, he was able to raise a weight of 5 kilograms 479 times instead of 132 times; the total work done being 106 kilograms, while before taking formic acid he had only been able to do 21 kilograms. He drew attention to the work of M. Clément, who has said that the action is rapidly felt—in less than twenty-four hours; several patients to whom formic acid or its sodium salt was given spontaneously noticed greater strength and ease in walking and running, mountain climbing, and going upstairs, with diminution in or marked delay in the sensation of fatigue. This action on the muscular system is durable, and lasts for eight or ten days after the administration of the medicine—under its influence the painful sensation of muscles after repeated contractions is notably lessened, and the tired muscles rapidly regain their energy. This muscle-tonic action is shown by the heart and vessels, on the gastro-intestinal walls, on the diaphragm, on the bladder muscle, increasing remarkably the force of the emission of urine in fact, on all the muscle, striped or unstriped, of the economy. Cardio-vascular action improves, the arterial tension increasing in cases in which the heart muscle is weak, and it is decreased when the hypertension is due to disturbance in the peripheral circulation. The toxicity and contractility of the muscles of the larynx is increased, as that of all muscles of respiration, increasing the force of the voice, and the amplitude of the respiratory movements, with decrease in breathlessness after exertion or running, with also markedly-increased appetite, and in cases of atony of the stomach with or without dilatation, there is a shortening of the digestive process. Such are the remarkable effects attributed by Clément to this medicine. Professor Huchard has not verified or confirmed all these points, but during the last four months he has been able to establish its importance by using it in cases of neurasthenia, diabetes, post-influenzal asthenia, after infectious diseases, in convalescence, in anaemia, hyposthenia with dilatation of the heart, gastric atony, weakness of patients on an exclusive milk diet. Professor Huchard, experimenting on himself with the formate of sodium, found by the ergograph of Mosso that with 15 grams of the medicine taken in five days, his muscular strength increased from

8 kilogrammeters 750 to 30 kilogrammeters 650—a fourfold increase in six days. Five days after ceasing the formiate, the muscular force had diminished, but still oscillated between 14 and 17. Another important point is the diuretic action which is very distinct, being rapidly produced and ceasing one or two days after stopping the medicine. The diuretic action seems less constant than that of theobromine, but if further experiments confirm this action and its power of diminishing the quantity of albumen, a new medicine will be found for kidney disease, etc. Professor Huchard uses for preference the formiate of sodium, a white salt crystallized in rhomboidal prisms; it is very soluble and deliquescent, and it is easy tolerated by the stomach, whereas the formiate of lithium gave rise to nausea and vomiting. The formiates must not be prescribed in acid syrups, which might set free some formic acid which is always very irritating to the stomach. Professor Huchard prescribes 1 gram of sodium formiate with syrup aurantii corticis to be taken three or four times daily. The treatment may be continued for some time without harm, as Clément took it for twenty consecutive months.

At the meetings of the Société Anatomique held on March 10th and 17th, Dr. Doyen presented a series of microscopic preparations, some in connexion with the morbid anatomy and the serum diagnosis of cancer in man, others in connexion with the pathogenic action of the "micrococcus neoformans" in animals, after their inoculation with pure cultures. Dr. Doyen concluded as follows: "From all these specimens it results that the 'micrococcus neoformans' which is found in various neoplasms, epitheliomas, carcinomas, sarcomas, adenomas, lipomas of rapid growth, is capable by inoculation in animals, especially the white rat and the white mouse, of reproducing very varied neoformations: Sebaceous adenoma, vegetating papilloma of the lung, arborescent lipoma—that is to say, veritable neoplasms, at times lesions more approaching the veritable cancer, as the tumour in mouse 13, or else lesions of an inflammatory type, but all characterized by embryonic and epithelial neoformations. These lesions cannot be considered in the strict acceptation of the word as cancerous lesions, for there are wanting certain precise histological characters, such as the demonstration of a typical initial focus, from which the secondary foci will have started, but it is indisputable that these neoformations produced by the 'micrococcus neoformans,' if they are by certain characters somewhat analogous to the lesions produced by the 'coccidium oviforme' of the rabbit and by certain organized or non-organized irritants, differ essentially from them by this fact, that the 'coccidium oviforme,' or these irritants practically produce but one lesion, and this always the same, whilst the 'micrococcus neoformans' is capable of itself of producing very varied lesions, which differ greatly from each other. It is, then, an established fact that the 'micrococcus neoformans' is a microbe endowed with indisputable pathogenic properties, and if the present experiments are not sufficiently conclusive in the eyes of many morbid anatomists, they form a whole which has not yet been realized by the inoculation of any of the species of microbes previously described." A lengthy discussion followed, which has not yet been reported in the medical press.

The widow of Emile Zola has offered the house and property at Médan to the Assistance Publique for a convalescent home for the nurses of the Assistance Publique. M. Mesureur, the director, has visited the property, and will advise the municipal council to accept the offer of Madame Zola. His intention is to preserve intact the two principal rooms—that is, the study and the billiard room, the latter possessing a very fine ceiling, an exact copy of a ceiling in the Château de Beauregard. Not many alterations will be required to adapt the house to its new use, which will be a great boon, as the Assistance Publique does not possess any place to which they can send their nurses to convalesce after illness, or to recuperate when they break down from overwork.

BERLIN.

Dr. Siegel's Bacteriological Investigations.—The Control of Infantile Mortality.—The Congress of Internal Medicine.—Professor Roentgen.

DR. SIEGEL, a report of whose investigations on the bacteriology of small-pox, syphilis, scarlatina, and foot-and-mouth disease was read some months ago before the Prussian Academy of Science, arousing much attention at the time, has now been given the opportunity of fully demonstrating his methods and results to the German Imperial Board of Health. Under the presidency of Dr. Koehler, Chief of the Board, a special meeting was held, in which the bacteriologists, Gaffky and Loeffler, together with Fluegge, von Bergmann, von Leyden, Schjerning, Gruber, Hoffmann, Gaertner, and others took part. It may be remembered that Dr. Siegel has once before claimed to have discovered the bacillus of foot-and-mouth disease. Loeffler, however, contested and completely disproved Siegel's conclusions. He established the fact that cattle inoculated with the new Siegel bacillus developed septic diseases, and often violent diarrhoea, but never showed the symptoms of foot-and-mouth disease. Dr. Siegel's new investigations and demonstrations have proved equally unconvincing. His microscopic preparations could not be proved to bear any special relation to the diseases in question, much less to their bacterial cause. In fact, Dr. Siegel's researches throw no new light on the mystery that underlies the etiology of any of these diseases. Nevertheless, his methods are to be re-examined and re-tested.

The Berlin magistrates have voted a sum of M. 80,000 (£4,000) for the year 1905-6, to be devoted to the combat against the excessive mortality of young children. The chief efforts will be directed to acute intestinal diseases, one of the main causes of infantile mortality. A new statistical publication of the Imperial Board of Health shows that of late years the number of deaths among young children caused by intestinal diseases has risen alarmingly. In 1902, 31,929 children died from intestinal diseases; in 1903 the number rose to 44,377—that is, an increase of 39 per cent. Of these intestinal diseases, diarrhoea accompanied by vomiting accounted for 14,403 deaths in 1902, as against 22,026 deaths in 1903—that is, an increase of 52·9 per cent. Again, if the number of deaths among children under 1 year old be considered, it was 13,282 in 1902, and rose to 20,136 in 1903—an increase of 51.6 per cent. These figures show that in Germany intestinal disease runs tuberculosis very close as a cause of infantile mortality, and the authorities do wisely no longer to be hypnotized by the dread of tuberculosis alone, to the exclusion of all united action against other devastators of the infant population.

This year's Congress for Internal Medicine will be held in Wiesbaden from April 12th to 15th, Geheimrath Erb (Heidelberg) presiding. The subject fixed on for the first day's debate is heredity. Professor Ziegler (Zena) will introduce it by a paper on the present position of the theory of heredity in biology, and Professor Martius (Rostock) will follow by a paper on the importance of heredity and disposition in pathology, with special reference to tuberculosis.

Professor Wilhelm Roentgen, the discoverer of the rays that bear his name, has just celebrated his 60th birthday. He was born in Lennep, a small place near the Rhine, studied and took his degree in Zürich, and was afterwards for several years the assistant of Professor Kundt, the physicist. In 1876 he was appointed Professor Extraordinarius in the Strassburg University, and received a full Ordinarius Professorship at the comparatively early age of 34. At present he belongs to the Munich University, having been called there shortly after his celebrated discovery. Berlin has honoured Roentgen by placing his bronze statue on the Potsdamer Brüke, a bridge in the best part of the the town, where he has a place near Gauss, Werner von Siemens, and Helmholtz. He is the only one of the four still alive.

LEEDS.

General Infirmary: Cost per Bed: Classification of Out-patients: Tenure of Office by Honorary Staff: Post-mortem Department.—Death from Lead Poisoning.—Registration of Midwives.

THE report presented at the annual meeting of the Leeds General Infirmary held on March 24th showed an increase in the amount of work done. The number of in-patients treated was 6,873, of whom 6,517 were admitted during the year. Of the new admissions, 1,191 were medical, 4,377 surgical, and 949 ophthalmic and aural patients. The daily average number of beds occupied was 355, and the average stay of each patient in hospital was 18·76 days. The number of new out-patients was 39,266. In the out-patient maternity department there were 602 confinements without a single maternal death. In moving the adoption of the report the Treasurer, Mr. Charles Lupton, made an interesting speech in which he touched on several matters of importance. He pointed out that many of the public did not grasp that the amount of work done in the treatment of women and children was as great as the figures showed; for, of the 45,783 new patients, 16,298 were

men, 16,123 were women, and 13 362 were children under the age of 13. Of the children, 1,408 were in-patients. Mr. Lupton then referred to the large amount of attention which had recently been given to hospital management and to the correspondence which had appeared in the *Times*. He argued that it was fallacious to regard the column headed "Cost per bed," which correspondents often refer to, as affording any safe criterion of economy or extravagance. In a letter which appeared in the *Times* on March 18th the cost per bed in Leeds was given as £73, while in another northern city it was only £55. On examination, however, he had found that while 6,139 in-patients and 40,113 out-patients were attended to in Leeds at a cost of £28,514, in the other hospital, 3,144 in-patients and 20 441 out-patients were attended to at a cost of £14 939. To make the comparison easier he had doubled the figures of the authorities of the other hospital all through, the result producing 6,288 in-patients and 40,882 out-patients attended to, at a cost of £29,978. Or, putting it another way, they would then have attended 149 more in-patients and 769 out-patients, at an extra cost of £1,464. If we allowed £5 a head for the in-patients, and 2s. 6d. a head for the out-patients, this £1,464 should only have been £841, and we thus get the remarkable result that a hospital which is supposed to run its beds at £18 per annum less each than we do, and which does about half our work, would actually spend more than we do if it did the same amount of work. These considerations showed that there must be some fallacies underlying the figures in the column showing "cost per bed." He was familiar to some degree with the working of the other hospital referred to, and he thought it would be hard to say which of the two institutions was the more economically managed. Referring to the custom which prevails at many hospitals of making compulsory charges to the patients for certain articles, such as tea, sugar, and butter, and in some cases of charging out-patients for medicine, Mr. Lupton stated that in Leeds it had always been held that when a patient was considered suitable for treatment at the infirmary he should receive free charity. Any voluntary donation would be readily received, but it was most undesirable in any way to encourage the impression on the part of any one that he was paying for what the infirmary was doing for him, as might be the case if any charge were made for medicine or food. It was much better, in his opinion, that the working classes should be approached when they were earning wages, and asked, as the well-to-do classes were, to contribute what they could afford to the infirmary for the benefit of those who were ill.

For some years the Infirmary has employed an inquiry officer to guard against abuse of the charity by those who were able to pay. In this respect it is, of course, impossible to draw a hard and fast rule, and there are many who can afford medical or surgical treatment for trivial ailments, whose circumstances would not admit of their paying for a serious operation with all its accompanying expenses, or for the attendance involved by a serious or lengthened illness. During the year 1904 inquiries were made in the out patient waiting hall in 15 086 instances. A series of questions were put to applicants and the answers noted down. As a result of this, 137 admitted their ability to pay; many of these had no wish to receive gratuitous attendance, but came, as they said, to get the best advice. These were, of course, not attended to. The answers given form the basis of a classification of the applicants into the married and unmarried, those with families and those without, and with certain groups corresponding to various wage limits. A certain percentage of these cases were more fully investigated, the inquiry officer visiting at the addresses given. In this way 1,114 further and fuller inquiries were made, and 75 applicants were found unsuitable for further treatment at the Infirmary, as they were able to pay for the necessary treatment. It is generally believed that the appointment of the inquiry officer has been the means of keeping away from the Infirmary numerous members of the class which is disposed to take advantage of the institution.

During the year 1905 some very important changes have been made in the conditions as to tenure of office of members of the honorary staff. This is a vexed question at many hospitals, and as the arrangements at Leeds now appear to be just and equitable, it is proposed to give them in detail in an early issue. One change may here be referred to. The necropsies have hitherto been performed by the two assistant physicians. The University of Leeds having decided to add a new Professor of Pathology and Bacteriology to its staff, applied to the Weekly Board for permission for such officer to have access to the hospital. This suggestion met with the approval of the Board, and rules have been passed enabling the Election Committee to appoint the Professor of Pathology to the position of Honorary Pathologist to the Infirmary, with membership of the Faculty and Weekly Board. Professor Grünbaum therefore shares with Dr. Griffith and Dr. Trevelyan the responsibility of making the *post-mortem* examination, and an additional link of union between the university and the infirmary is happily forged.

The Leeds City Coroner has held an inquest as to the death of a young woman who died after admission into the Infirmary suffering from marked symptoms of lead poisoning. It came out in evidence that the deceased had been taking pills for some time, which had been supplied to her by a neighbour. The pills had been obtained in the first instance from a woman of the age of 57, who stated in evidence that she made them for her own use, and that she had not sold them directly to the deceased. On analysis the pills were found to consist of 90 per cent. of emplastrum plumbi and 10 per cent. of aloes. The coroner, in his summing up, commented on the dangers of such pills; in his opinion the case involved a serious public question. The jury, while exonerating the woman who supplied the pills, recommended that steps should be taken to suppress the practice revealed.

The Medical Officer of Health of the City has been entrusted by the Corporation with the administration of the Midwives Act, and in consequence, the authority which he has been able to exercise over the midwives of the City ever since 1894 will be more thorough and efficient in every way. The actual supervision will be carried out by a staff of lady inspectors, the chief of whom holds the diploma of the Obstetrical Society of London. At present there are probably some 600 duly qualified midwives within the area of the Riding.

MANCHESTER.

Fleetwood and its Sewage Scheme.—The Law as Regards Workers with Bisulphide of Carbon.—Todmorden: its Water Scheme and its Cost.—Extension of Oldham Infirmary.—Victoria University.

Fleetwood, with its extensive harbour and its joint railway system—and the railway directors are the largest property owners as well as the harbour authorities—has long had a difficult sewage problem to grapple with, and the question of its sewerage has been before the Local Government Board for many years. At last a new sewage scheme has been devised; the formal ceremony for beginning of the work took place on March 21st, and the dispute between the harbour authorities and the local authority is at an end. The railway companies contribute £7,500 towards the cost of the new scheme, which is estimated to cost £60,000. The great cost is partly owing to the depth at which the sewers have to be laid in a very wet substratum, and because in several places they have to run through shifting sands. For many years the sewage has been poured into the harbour below the water level, and the tide has carried it out to sea. With the deepening of the harbour the sewage has not been taken away so readily by the tide, and consequently a nuisance has existed for some time. By the new scheme the sewage will be diverted from the harbour and conveyed directly into the sea at a point between Fleetwood and Rossall. The War Office, which owned about 1,000 yards of the foreshore needed for part of the drainage works, asked £30,000 for this bit of foreshore, but ultimately let the Council have the land for £100, the original cost price.

A firm of waterproofers was summoned for having failed to observe one of the special rules in connexion with this trade. The Chief Inspector of Factories prosecuted. One of the inspectors stated that on the occasion of a visit which he had made to the defendants' works two men were employed in the bisulphide of carbon room whose names had not been entered in the register, and there was no certificate of their having been seen by the examining surgeon for many months, although a monthly examination was obligatory. The facts were not disputed, but it was contended that the Act provided for the appointment of a certifying surgeon, whose duty it was to visit and examine the men at specified times, and, if he neglected that duty, the responsibility rested with him; it was his business, not that of the defendants, to keep the register. The magistrate said the defendants might or might not have ground of complaint against the surgeon, but they were not exonerated from ful-

filling their own obligations; it was for the defendants to call in the surgeon. It transpired in the course of the hearing that the gentleman who holds the post of certifying surgeon has been only appointed within a recent period. His predecessor made a monthly visit to the defendants' works under a special arrangement. It was contended that since that arrangement ceased there had been no attendance on the part of the surgeon at all, and it was submitted that there had been no infraction of the special rule on the part of the defendants. In any case, it amounted to no more than a mistake. The magistrate held that an obligation lay upon the defendants to have the men examined and registered before employing them where bisulphide of carbon was one of the ingredients used. He inflicted a small fine on each of the two informations.

In 1898 the Corporation of Todmorden obtained a Water Act whereby it was empowered to construct its own waterworks at Gorpley. Up to then the town had been supplied from the Ramsden reservoir. The Gorpley reservoir now completed has a capacity of 130,000,000 gallons, which provide an estimated daily supply of 621 000 gallons exclusive of compensation water. One feature of the work is the removal of all vegetation from the bottom and sides of the reservoir. Even without this precaution Todmorden water is remarkably free from colour. In addition, fine sand filters have been constructed of such area that the rate of downward flow at the surface of the sand will only be four inches per hour when all the water is being used. At this slow rate of filtration a gelatinous film of fine mud and microbes forms upon the surface of the sand, which prevents the passage of minute organisms, a method introduced in connexion with the London water supply. The total cost of the works is about £90,000. The Chairman of the Waterworks Committee turned on the water, and the Mayor unveiled a bronze tablet on the water tower to commemorate the completion of the scheme.

The formal opening of the extension of the Oldham Infirmary took place on March 25th. It provides additional accommodation for 43 patients, making a total of 154 beds in all. The building is in four stories, and has two operating theatres, and cost £20 157, of which £17,615 has been paid. Making allowance for the money in hand the deficiency is only £1,503.

The Council of Victoria University has instituted a scholarship of £30, tenable for three years at the University, to be awarded on the results of the next July Matriculation Examination. This scholarship is, of course, open to all who intend to enter the Faculty of Medicine by this portal. Degrees were conferred by the Vice-Chancellor on March 28th. The number of those graduating was seventeen, including one lady, Miss Corbett.

LIVERPOOL.

The Medical Institution: Proposed Enlargements and Alterations.—University Chemical Laboratories: Generous Endowment.—The Country Hospital for Children: Intended New Buildings.—Samaritan Hospital for Women.—St. Paul's Eye and Ear Infirmary.—Tropical Medicine School: Appointment of an Entomologist as Lecturer.

A special general meeting of the Liverpool Medical Institution was held on March 23rd for the purpose of considering proposals made by the Committee for enlarging the building by the absorption of the resident librarian's house and for the provision of greater facilities for the members. Amongst the alterations proposed are the provision of one or more rooms in connexion with the library, where members can read and study in quietness and without being disturbed by other members visiting the library. Such provision has long been needed, but owing to the uncertainty with regard to the renewal of the lease the Council has been unwilling to recommend the incurring of any avoidable expense until an agreement had been completed with the Corporation. The collection of books in the library is a valuable one, and includes many rare old medical and philosophical works. For some years past the Council has been judiciously subscribing to the standard medical perodicals published in this country and abroad, with the result that it is steadily building up a reference library which will be invaluable for original workers. Various other improvements are included in the scheme, which will be finally laid before the members at an adjourned meeting to be held on the first Wednesday in April. The improvements will involve an outlay of nearly £2,000. Only a small proportion of this can be met by funds existing in the Treasurer's hands, but there is a general feeling that such an admirable society will not be allowed to languish for want of generous support on the part of the medical profession in the city and the neighbourhood.

The President of the Council of the University of Liverpool (Mr. E. K. Muspratt) has offered to provide an extension of the Chemical Laboratories, at an estimated cost, including equipment, of £10,000. The offer has been gratefully accepted. Several other large sums have been contributed to the extension and maintenance of the chemical department.

The sixth annual meeting of the Country Hospital for Children was held recently, and was largely attended. The report is a satisfactory one, and proves that the institution has gained the confidence of that section of the public which supports the hospitals. The appeal made early last year for funds to build a new hospital have been so far successful that the sum of £30 000 was collected by the middle of last year, £20,000 being for building and the balance for a maintenance fund. In order to complete the central block, which, with slight alterations will hold from 60 to 70 beds, a sum of about £5,000 is still needed.

It is understood that the hospital will be unique in character and form. Its shape will be that of the letter H, the crosspiece representing the central block, consisting of dining rooms, play rooms, etc., while the wings will contain the wards. When completed the building will be capable of containing 200 beds, and thus will be nearly as large as the David Lewis Northern Hospital. Since the meeting was held, and as a result of the appeal made on that occasion, Mr. Holbrook Gaskell has intimated his intention of contributing £1,000 towards the erection and complete furnishing of an operating theatre.

The ninth annual report of the Samaritan Hospital for Women records a substantial increase in the work done. The admission of in-patients was 116, against 97 in the previous year. As only eight beds are at present in use, and practically all the cases underwent operation, this number proves that the resources of the hospital have been fully used. In the out-patient department there were 915 new cases. This hospital is unique in Liverpool in the fact that there are two ladies on the honorary staff. It is doing excellent work among the poor women of the south end of Liverpool, and it is satisfactory to find that the debt, inevitable in connexion with unendowed voluntary hospitals, is in this instance a small one.

At the thirty-second annual meeting of the St. Paul's Eye and Ear Infirmary it was announced that the hospital was now recognized by the Board of the Royal Colleges in London, and that it formed an integral part of the United Hospitals Clinical School. During the past year the Committee have continued their efforts to obtain a site on which to erect a new hospital, but so far without success. They have approached the Corporation several times with reference to certain pieces of land, but have been unable so far to effect any arrangement.

In view of the importance of the more exact study of insects which transmit disease in man and animals, the Committee of the Liverpool School of Tropical Medicine has appointed Mr. Newstead, F.S.A., as Lecturer in Economic Entomology and Parasitology. Mr. Newstead has had a career of distinction, and has been Curator of the Chester Grosvenor Museum for the last nineteen years. He is an Associate of the Linnean Society, a Fellow of the Entomological Society, and an Honorary Fellow of the Royal Horticultural Society. He has had a long practical experience of the insects injurious to man, animals, and plants. He has been employed by the Board of Agriculture and some of the Colonial Governments to conduct investigations for them. He is the author of two important publications issued by the Ray Society, and for several years he has been external examiner in entomology at Edinburgh University.

SOUTH WALES.

The National Museum and Library.—School Hygiene.—Proposed Presentation to Sir Isambard Owen.—Mynyddislwyn Sewerage Scheme.—Midwifery Scholarships.—Cardiff Port Sanitary Authority.—Small pox at Cardiff.—The Cray Reservoir.—Clydach Vale Colliery Explosion.

The "battle of the sites" for the National Museum and Library is still going on fiercely. Another of the series of meetings organized in aid of the Welsh Library Fund in connexion with the University College of Wales, Aberystwith, was held at the Guildhall, Carmarthen, on March 23rd. The

chair was occupied by Sir Lewis Morris, who remarked that, as far as the National Museum went, he thought that it should be at some great town, but it did not follow that the contact of museum and library should be a *sine qua non*. The location of the library rested in his opinion, between Aberystwith and Cardiff. Cardiff's case was vigorously attacked by Sir John Williams, who said, "What had Cardiff done with and for its College? It had placed it in an old building—a disused infirmary—and had left it there until this day. Meanwhile Cardiff had reaped £20 000 a year by the College. He also stated that London had been the capital of Wales from time immemorial, and, as far as he could see, no other place than London could be the capital of Wales, and he believed that Welshmen desired no other capital." However, Cardiff is still going ahead with its fund, which now amounts to £30,000.

Availing themselves of an offer made by the Bury District Nursing Association, the Bury Education Authority have permitted an interesting experiment in connexion with the school children, which is being tried this week for the first time. There are 6,000 children in the schools, and out of these there are some whose bodily ailments are neglected by their parents, either through ignorance of the causes or otherwise. A nurse has therefore been specially appointed to visit the schools, and will examine the children to which the head teacher directs her attention, and if they require medical attention a form will be sent to the parent to that effect. Whenever any wound requires dressing at home the head teacher will arrange for the nurse to instruct the parents how and what to do. The Salvation Army at Bury Dock have for some time past been actively engaged in feeding hungry children each morning before the latter go to school. As many as 150 children have partaken of an early-morning meal at the barracks, where the food is prepared and served out to the children.

Principal Griffiths of Cardiff has issued a circular, inviting a large number of gentlemen concerned with Welsh education to join a committee for the purpose of promoting a presentation to Sir Isambard Owen, Senior Deputy Chancellor to the University of Wales, on the occasion of his marriage. It is suggested that a portion of the presentation fund be used to defray the cost of a portrait of Sir Isambard, to be placed in the University Registry at Cardiff, and that the balance of the fund should be devoted towards the purchase of a personal gift, the nature of which shall be decided by the subscribers.

At the meeting of the Mynyddislwyn District Council, held at Tredegar Junction on March 20th, the clerk reported that the Local Government Board would not allow the council to join the Western Valleys sewerage scheme other than by Provisional Order.

At the annual meeting of the Glamorgan County Education Committee, held at Neath on March 21st, Sir J. T. D. Llewelyn asked whether the midwifery students that were being sent to Cardiff would receive instruction in a maternity ward. Dr. Morris replied in the negative, stating that the instruction thereat would consist of lectures only. The Chairman stated that some of the candidates found the expense of the journeys to Cardiff too heavy. As prospective midwives were now bound to go through this course of instruction there was certain to be a shortage of midwives in the county at the present rate. On the motion of Alderman Davies (Porth), the Secondary Education Subcommittee were requested to consider the desirability of further increasing the midwifery scholarships.

Dr. Walford, Medical Officer of the Port Sanitary Authority of Cardiff, in his annual report for 1904 just issued, states that the total number of vessels (foreign and coastwise) entering the port during the year was 11 005 (tonnage 5,742,177), compared with 11 674 (tonnage 5 798,828) in 1903. Some cases of typhoid, diphtheria, and small-pox were discovered, and 1 of beri-beri, but there had been no case of plague, though 79 vessels came from infected and suspected ports. Systematic destruction of rats on these latter vessels is continued. Nine patients were admitted to hospital, and there were no deaths. Inspection of frozen meat imported is an important part of the work of the sanitary staff, and in 1904 there were 19 cargoes of beef and mutton, all from the River Plate.

Two more cases of small-pox have been notified at Cardiff, both being occupants of the same house as that from which a case was reported recently. Both have been removed to the sanatorium.

It is stated that a fault recently discovered in the strata at the Cray Reservoir will necessitate an expenditure of at least £5,000 and a delay of several weeks in the completion of the work. The fault consists of red clay and stone, but there is good rock on each side. The dam will have to be widened in this part to overcome the difficulty.

Samples of air taken from various parts of the Clydach Vale Colliery have been sent to the Cardiff and County Public Health Laboratory for analysis as to the nature and amount of the poisonous gases present. This step has been taken with a view of assisting the explorers, by indicating whether the percentage of carbonic oxide, etc., is too great or not.

CORRESPONDENCE.

PROPOSED CONFEDERATION OF THE LONDON MEDICAL SOCIETIES.

Sir,—Attempts have been made from time to time to unite the various London societies representing medical science and practice more closely, so as to form a United Royal Society or Academy of Medicine, in which the existing societies would retain their individuality as sections of the united body. The present appears a favourable opportunity for again endeavouring to effect this unification; and I have gathered from many holding influential positions in the different societies that they would not object to such a confederation being again considered.

I have, therefore, consented to preside at a meeting to be held at the Royal College of Physicians on Monday, April 10th, at 5 p.m., to consider whether it is desirable that the central medical societies of London should unite to form one Royal Society or Academy of Medicine; and, if such union is thought desirable, to take preliminary steps to bring about such federation.

The meeting is open to Fellows and members of all medical societies, and it is hoped that there may be a large and representative meeting, as it is desired to gather the opinion of the profession, and especially of the junior members of it, as well as that of those who are officially associated with the several societies.—I am, etc.,

London, W., March 28th. W. S. Church.

CONVALESCENT HOMES ASSOCIATION.

Sir,—Attention has been so much concentrated by recent writers in the public press upon the cases of surgical convalescents with unhealed wounds after operation, that it seems necessary to state that, in view of the Convalescent Homes Association, these cases form only one point in the field of inquiry. This was made abundantly clear at the important and representative meeting held on March 2nd, when the other classes of patients mentioned in the interesting letter of Mr. Tubby in the British Medical Journal of March 18th were all specially referred to.

It may be well, also, to correct some misapprehensions which have not unnaturally arisen as to the principal objects of the Association.

There is no intention to establish a new fund. The general consensus of opinion is that there are already more than enough funds appealing to the public for charitable subscriptions. At the same time, it is quite possible that the publicity afforded to a new movement may direct attention to the need for a fuller support of convalescent effort. Moreover, it is conceivable that hospitals, already accustomed to pay a small weekly sum to convalescent homes for each patient sent, might be willing to contribute a somewhat larger capitation rate if special nursing and attention were afforded for the cases for whom provision is at present inadequate.

Letters have been received from several convalescent homes expressing the fear that, if they joined the Association by sending a representative, they would be bound to open their homes for surgical patients or be otherwise committed to some course which they could not approve. It seems superfluous to say that the Association is entirely for mutual conference, and any conclusions come to can only be advisory, and can compel no one. No interference with the existing management could possibly occur.

Another misapprehension is a serious one. While the needs of hospitals and their convalescents are perhaps of primary importance, there is a large number of convalescents who come from their own homes who have never passed through a hospital. These cases are equally deserving and equally demand treatment. There are, moreover, many of the poor who are in ill health and who would probably break down entirely if they were not enabled from time to time to obtain convalescent relief. For all such con-

valescent homes are intended and are of the greatest value. Ultimately the question of economies will attract attention, and nothing but good can result by comparison of the costs of various convalescent homes and by the establishment of some recognized standard of efficiency.

We beg to enclose the papers which are to be sent out this week inviting representatives of hospitals and convalescent homes, and of our great medical colleges, Hospital Funds, and other representative bodies to the first meeting of Council on Thursday, April 13th, at 4 p.m., at 20, Hanover Square. These will indicate the question that will first come under consideration. The success of our endeavour will largely depend upon a continuance of the support and co-operation that have already been accorded to the movement.

There is little doubt that hospitals already provided with convalescent homes of their own would be glad to obtain (as we are informed) quite double the amount of convalescent relief that they can themselves supply, and their help and support will be most important. We should be glad if you would afford us the publicity of your valuable JOURNAL to enable us to state that if any hospital or convalescent home has been inadvertently omitted and desire to send representatives to the Council meeting on April 13th, we shall be glad if they will communicate with one of us.—I am, etc.,

M. O. FITZGERALD, Honorary Secretary.
Chairman of the Metropolitan Convalescent Association,
32, Sackville Street, W.

S. H. HABERSHON, M.D., Honorary Secretary,
March 25th. 88, Harley Street, W.

THE TEACHING OF PRACTICAL MIDWIFERY.

SIR,—In his inspiring inaugural address to the London Obstetrical Society the new President chose for his theme the causes of the undiminished puerperal sepsis of to-day. Before proceeding to fix the responsibility upon the deficiencies in the training of the present-day medical student, Dr. Dakin assumes that the midwife factor can be to all intents and purposes excluded. Would that this were so, in even more than the sense implied. The pronouncement somewhat quaintly coincides with the conclusion of the Society's labours in the matter of launching fully-qualified midwives. The perfect midwife having been evolved, our Society very properly proceeds to complete its creative designs by making the general practitioner in its own image and likeness.

May we not still remember that the vastly-improved training of midwives is as yet hardly an unmixed blessing? The modern nurse adopts towards her duties a very different attitude from that of the "harmless necessary" midwife of twenty years ago. She is curious to test and eager to improve her experience. Unconscious of any defects in an antiseptic armour which an honourable Society's certificate seems to warrant her in trying on at every opportunity, she rushes in where obstetricians fear to tread, theirs being the caution instilled only by a longer scientific training. The consequence is, in spite of all control, a far too frequent practice of digital examination.

A proposal hails from Germany[1] for the State to provide rubber gloves for the compulsory use of midwives. The writer, Dr. Dörfler of Regensburg, points out that in Germany the midwife class is under no more effective control now than in times when antiseptics were unknown. He speaks from a wide knowledge of the country practice of Bavaria (the second largest German State and employing 5,000 midwives). Starting from the hypotheses that all puerperal sepsis is from outside and that the fewer the hands the less the infection, he excluded manual examination by midwives during his ten years' practice, and with 543 births observed no rise of temperature within six days of confinement except in 2 cases, and had no deaths. He quotes Zweifel's recent attribution of many septic puerperia to the retention of clots in the vagina, but strongly deprecates the removal of these by midwives under present conditions. A common practice is to employ forcible traction on the cord. The shortcomings of the country midwives are due both to ignorance and miserable fees (3 to 5 marks). A woman of the class employed cannot sterilize her roughened hands in the ordinary way. Yet she makes as many as ten vaginal examinations in any normal case, and perhaps twenty in a prolonged one. State supervision is recommended, of which the main points are the free provision of two or three pairs of rubber gloves per annum for the compulsory use of each midwife; the prohibition, except under medical control, of post-partum or ante-partum vaginal douching; the institution of courses of instruction to be attended at intervals; the enforcement of the legal fees which are at present disregarded; and a system of premiums payable to midwives on cases conducted without septic complications. Rubber gloves have been shown to be sterilizable by four minutes' scrubbing with soap and water, followed by two minutes' washing in 1 in 1,000 corrosive.

A previous article[2] by Angerer is quoted in support of his belief that upwards of 95 per cent. of cases of sepsis are attributable to lack of suitable precautions by midwives and monthly nurses.—I am, etc.,

London, W., March 13th. WALTER SWAFFIELD.

[1] *Münch. med. Woch.*, 1905, Nos. 9 and 10.

SIR,—Dr. Dakin, in his address delivered before the Obstetrical Society of London, has endeavoured to show that the deaths due to puerperal sepsis are due largely to the obstetric surgeon, or rather to the "younger men," and this he attributes to their deficiency in thorough aseptic training and general want of skill due to insufficient teaching. May I be allowed to point out to Dr. Dakin one or two points which appear to me, a general practitioner, to be at variance with his views? In the list of figures that Dr. Dakin gives there is an undoubted increase in the deaths due to sepsis and at the same time an undoubted decrease in those due to "accidents." One cannot help thinking that if the obstetric surgeon of to-day is less skilful than he was formerly, there ought to be an increase in the deaths due to both causes, for why should a man be more skilful in dealing with the complications of labour, and at the same time less skilful and more careless with his antiseptics? It seems to me that in that part of obstetric practice in which the surgeon alone is concerned—namely, manipulations—the mortality becomes less; whereas, where the responsibility is shared with the nurse—namely, the antiseptic part—the mortality becomes greater.

Again, Dr. Dakin has pointed out that the mortality in the out-patient maternity department of a lying-in hospital is very little, if at all, greater than that in the wards, and yet who do we find attending these out patients? According to Dr. Dakin, "a nervous, ignorant student." Does Dr. Dakin suppose that such a student in his presurgical days is more skilful and more antiseptic than the practitioner? I think not. A man among his own patients, and where a mistake means so much, is going to be far more careful, if anything, than the student; then what is the cause of the greater sepsis in private practice over the practice in the out-patient department of a lying-in hospital? The whole question is more likely to lie with the midwife than with the doctor. It is a well-recognized fact, in this part of the country at least, that the midwife is taking more and more of the obstetric work, a doctor often only being engaged to attend in case "there is anything wrong"; in this respect Dr. Lea, in his article on "Puerperal Infection," is much nearer the truth than Dr. Dakin. Dr. Lea puts the figures as 80 per cent. in some parts of the country. A case that occurred in my own practice last year might interest Dr. Dakin: I was called to a primipara some miles away, and when I reached her found the second stage of labour well advanced, the head just appearing at the vulva. At the same time I noticed that the midwife had a piece of dirty rag round her index-finger, and on inquiry I found she had a whitlow. There was no chance of giving the patient a douche before the birth of the child; the mother developed sepsis, and nearly died. I believe the saving of her life was due to antistreptococcic serum, but had she died I should have had to sign the certificate, and the death would have occurred in my practice, but should I have been to blame? I am sure there are many men to-day who get called out to cases of puerperal sepsis in which they have not attended the patient in labour, but only when the abnormal puerperal condition has developed, and if death occurs get some of the blame which they in no wise deserve. Is not Dr. Dakin's picture of the modern midwife somewhat over-coloured? Many nurses seem quite ignorant of the properties and action of corrosive sublimate. I have seen them carefully make a solution and then proceed to wash their hands with soap in it, or, again, how frequently a nurse will douche a patient with a solution of this salt without the addition of a little acid, regardless of the fact that the vagina contains albuminous secretions?

It would appear that the increase of puerperal sepsis is coincident with the increase in the number of labours conducted by midwives and without medical aid, and that the inefficient antiseptics used, frequently as douches, interfere with the normal germicidal action of the vagina. If the researches of

[2] Ibid., 1902, Nos. 49 and 50.

Kronig, Menge, and Walthard mean anything, it is that this germicidal power is a very potent factor in preventing sepsis both in obstetric and gynaecological work. In conclusion, one would like to know why Dr. Dakin considers that a midwife, usually with no surgical training, is more eager to carry out all the principles of strict asepsis in her treatment than a medical man who has had the same principles instilled into him both by the obstetrician and the surgeon alike. I think that unless Dr. Dakin has stronger evidence than he brought forward in his address that his indictment against the general practitioner must fall to the ground as "not proven."—I am, etc.,

Ludlow, March 27th. EDWARD GREEN.

SIR,—I have read with great interest the inaugural address delivered by the President of the Obstetrical Society relative to the practice of obstetrics in England.

The continued mortality from septic infection in England the President states to be principally caused by the neglect of a rigid attention to asepsis and antisepsis. This is no doubt true, but there are two elements in this matter which call for solution.

All obstetricians who have to do with the lower classes will concede the fact that the most important elements are the personal and the financial. Personally the women of the working classes are not clean; their clothing and surroundings are septic, therefore during labour they are of necessity exposed to the invasion of puerperal infection. To avoid this danger it will be necessary to observe rigidly the rules of antiseptic midwifery. Who is to pay? The women cannot; the medical attendant cannot and live. In Ireland the Medical Charities Act provides the means, but in England the wives of working men are outside the provisions of the Poor Laws, and of necessity all charges come on the husband; hence some provision must be made in order to place at their disposal during labour the necessary appliances.

This is an urgent matter for the working classes, and one which calls for the immediate attention of the benefit societies and such-like institutions whose business it is to provide medical attention for the women of the working classes.

I would call attention to a pamphlet published a few days ago by Dr. E. Hastings Tweedy, Master of the Rotunda Hospital, Dublin, *Asepsis in the Rotunda Hospital, Dublin.* Therein is contained a concise statement of the necessary outfit, and with slight modification a packet could be made up which would contain these essentials and be placed on sale at chemists' shops at a very low figure, which could be procured readily by women of the class referred to above. I venture to say that such could be sold for 2s. 6d. each, and I feel certain that if used they would contribute largely to the reduction of the childbed mortality so strongly referred to by the President of the Obstetrical Society.—I am, etc.,

THOMAS J. KELLY,
March 23rd. Medical Officer, Enniscorthy.

SIR,—Twenty years ago, at my request, the wife of the vicar of an adjacent parish sent a young widow to Queen Charlotte's Hospital to be trained as a midwife to attend the poor of the district. Afterwards the nurse attended as many as one hundred cases in a year. In any difficult case—they were very few—I went to her assistance. I mention this to show I am not without sympathy with the movement for obtaining good midwives.

But the Obstetrical Society of London goes too far, as any one who reads their examination papers will agree. In 1897 I attended a lady of position in her first confinement, a long and anxious case. I received a fee of ten guineas. Her two next confinements were simple and easy. I attended and received the same fee. But last year I was not consulted in any way. In the words of Dr. Dakin, the "younger creature, the pink of cleanliness and purity of linen, eager to carry out all the principles in which she had been trained—those of implicit obedience to the doctor's orders"—that is to say, the nurse, an L.O.S., conducted the case. Afterwards, in due time, I vaccinated the baby. I still attend the family.

But, pondering on these things, I last year resigned my Fellowship of the Obstetrical Society. Reading the inaugural address, one wonders that any of us are alive, and what the "snuffy old person with which our fathers were satisfied," who did her gentle best in the case of the learned President himself, would say if she read his opinion about her?

In another paragraph Dr. Dakin says "It must not be imagined . . . I am imputing any blame." Certainly not.—I am, etc..

March 21st. FORCEPS.

SIR,—In Dr. Dakin's inaugural address on the teaching of practical midwifery, he says that the passing of the Midwives Act must infallibly lead to the diminution of septic death in childbirth; and that the quality of midwives has been bettered in the last ten years. So, if there be not soon a lowering of the puerperal death-rate, "the failure to improve must lie at the door of medical men."

For nearly twenty years I have lived in a colliery district with a population of about 5,000, and during that whole period there has been no improvement in the class of women who act as midwives here. At one time I hoped that with the passing of the Midwives Act there would be a change for the better, but I consider that the very reverse is the case, for whereas the four or five women who acted as midwives had formerly no standing, they are now all duly certificated midwives, and may continue to act as such for the next twenty years. The large proportion of the labours are attended by them, and their ideas of cleanliness are most elementary. There must be hundreds of other colliery and working-class districts in England and Wales similarly situated, and how, under such circumstances, can we expect a diminution in the death-rate?

Seeing that all the women who were already acting as midwives have been granted certificates, would it not have been desirable for the county councils or other local authorities to have made some arrangements to give at least some elementary instruction to those obtaining certificates?—I am, etc.,

March 27th. COLLIERY SURGEON.

THE CAUSATION OF PLEURISY.

SIR,—The friendly remarks on my address on pleurisy contained in Dr. Theodore Fisher's interesting letter, published in the BRITISH MEDICAL JOURNAL of March 18th, are heartily welcome. Coming from one who has done so much to elucidate the pathology of chest affections, the opinions which he expresses will be received with deference, and must be considered with respect. In so far as possible, it will be my duty to meet his criticism in a spirit as frank and with a manner as courteous as his own.

Dr. Fisher approaches the subject of my address by stating that in it "the importance of the tubercle bacillus as a cause of inflammation of the pleura is, perhaps, somewhat underrated." It is possible—even probable—that the results of my own hospital experience, with which the address was solely concerned, do not coincide with those of other observers. The statistics upon which the address was based included every case in which pleurisy had been diagnosed during the period with which they were concerned. This fact must be regarded as the reason why tuberculosis has not, in my mind, been allowed such a prominent place as is often claimed for it as a causal factor in pleurisy. It may be added that my own private experience is even more strongly against some of the arguments urged at present in respect of the tuberculous nature of pleurisy.

Let me recall the statistics analysed in my address bearing on tubercle. In 118 cases, 35, or 29.7 per cent., were clearly recognized as tuberculous. In 49 cases, or 41.5 per cent., causes other than tubercle were definitely established. In 34 cases, or 28.8 per cent., the cause was unrecognizable. It is no doubt open to any one to express his opinion that many, or even all, of these doubtful cases were tuberculous. The whole tendency of my remarks was to plead for an open mind on this subject. There are so many causes—almost all microbic infections, and most of the poisons generated in the system, that is, in gouty, renal, and cardiac cases—capable of producing pleural inflammation, that it seems to me somewhat less than philosophic to assume without evidence that any given case of pleurisy must be tuberculous, seeing that its cause cannot be ascertained.

In my address it was pointed out that even the subsequent history of cases of pleurisy may be misleading. An experience which has often happened to me, and which, no doubt, has also fallen under the observation of numerous other observers, is that many patients, originally tuberculous, apparently get rid entirely of this tendency, while others, primarily free from from it, fall victims to its ravages in later life. Every one conversant with the routine work of the pathological department of a large hospital must have seen

many cases of which the following may be regarded as an epitome: An elderly patient dying of granular kidney and arterial changes, with some old tuberculous scars in the apices of the lungs and some recent pleurisy—sometimes dry, sometimes moist. In such a case as this, unless it is the result of a terminal infection, the pleurisy is usually caused by metabolic poisons, not by the old tuberculosis.

This leads me, finally, to apply one word of criticism to Dr. Fisher's letter. He appears to me to restrict the meaning of the term "pleurisy." In his remarks, both on Professor Osler's statistics and on his own figures, which, by the way, are very interesting, and almost the antithesis of Dr. Osler's, he seems to believe that inflammation of the pleura, associated with heart and kidney diseases, is not to be regarded as pleurisy. This is surely a new reading of nosology. To be logical, all cases in which inflammation of the pleura follows pulmonary tubercle, should also be rigidly excluded!—I am, etc.,

Edinburgh, March 25th. G. A. GIBSON.

THE FEEDING OF INFANTS.

SIR,—There is one point in the feeding of infants which ought to be authoritatively settled, upon which the profession seems to be about equally divided in opinion: That is whether the milk is "to be or not to be" boiled? Personally I am on the side of the non boilers, and have frequently during a long experience laid the "flattering unction to my soul" that I have saved life and much infantile discomfort by stopping the boiling of the milk. It seems to me that by boiling, the albumen is so coagulated that the baby is practically being fed on hard boiled white of egg (finely divided) and water!

This is a diet which requires a good strong adult stomach to tackle and must surely "play havoc and let loose the dogs of war" in the infantile "little Mary."

Before midwifery nurses are dispersed all over the country some unanimity on this important point in the teaching they receive should be arrived at to prevent stultification if some are taught one thing and others the other.—I am, etc.,

March 21st. LACTIS.

SIR,—Dr. Haworth's opinions on artificial feeding deserve careful thought and discussion, as the subject is most important. He finds normal maternal nursing difficult to obtain. Yet it obtained in our grandfathers' time, when bottles were rarities, and, as race degeneracy is declared a myth, why should it be difficult to obtain now?

I cannot agree that one should lightly change maternal for artificial feeding. "Indiscretion in her (the mother's) food, over-exertion, irregularity in the feeding of her child, an emotional temperament, etc.," are all trivial except the last, and can readily be put right, and none of them warrant one in resorting to artificial food. Whilst "a clean well-adapted bottle and a supply of pure milk" may be "easily obtained" in Darwen, generally in poor homes the cleanliness of the bottle is at its best when purchased, while the storage as well as the supply of milk is a grave question; whilst it is "almost impossible for the medical attendant to watch every mother he delivers," it is not impossible to give each one a little instruction; and whilst "they are easily influenced by the advice of neighbours," my experience is that mothers willing to nurse are most anxious to carry out medical instructions. And the instructions necessary for maternal feeding are less complex than those for artificial feeding. Again, many who do not nurse, do not do so for lack of knowledge, and are only too glad to learn what is best. Girls are not taught the care of the infant, and, unless told by the practitioner, they are at the mercy of the nurse, the neighbour, or the advertiser of baby foods. Hence to assist inexperience, to save the doctor's time, and to help the race, I wrote a little guide which has been very kindly received by the profession.

There are probably 50 per cent. of English babies being bottle-fed, and most of these could be nursed if the mothers were willing and encouraged to do so. I know several cases where a nurse has encouraged mothers to nurse, who were sure they could not manage, and the good result both to themselves and to the baby as compared with those already reared on the bottle has been most marked.

Nurses generally are much to blame for so much artificial feeding. They do not seem to know the importance of nursing, and probably are as much influenced as the public by seeing an adipose baby pictured in a periodical. Again, "foods" are being pushed for commercial reasons, in a way never known before, and I entirely agree that "every medical man must have views of his own one way or the other."

My view differs widely from Dr. Haworth's, who seems to hold that artificial feeding in infancy is but a little inferior to the natural, or, as he puts it, "Where all things are equal it is best;" and, again, "The bottle is not subject to maternal influences and indiscretions." I hold that natural feeding is greatly superior, that it is a vital process, which cannot be replaced or imitated artificially, and that its loss leaves an indelible mark on the individual. I would put it in figures as 25 per cent. better; that is, that an individual who would reach 100 years of age would, if bottle-fed, only reach 75 years of age; or, put in another way, artificial feeding will kill off a family in four generations. If artificial feeding be not bad for man it should not be bad for the racehorse, but can you get a breeder to think so? I should much like to see four generations of horses reared on artificial food, under veterinary control, and learn the result as to staying power, constitution, and teeth.

With regard to my having said that "A child cannot grow up healthy, beautiful, and with staying power on such a food," I would say that I stated something very different—namely, that "I do not think there has ever been or will be a woman distinguished among women for beauty, or a man distinguished among men for staying power, who was not naturally fed in infancy." I shall be glad of examples to the contrary. Are artificially-fed children of the fourth generation to be found, and are they common? And how many children of 6 years of age can be produced, after being artificially reared, with the normal condition of complete and perfect milk teeth? I hold that the adult is never what he ought to have been whose mother has broken the mammalian law, and I think a *post-mortem* examination on two young animals, differently fed, would prove that the flesh of the artificially-fed animal is over-ripened as compared with the other.

The subject is, however, not to be settled by isolated experience. It should be considered from a reliable number of cases, the resistance to fatigue and shock, the blood count after puberty, the condition of the teeth, etc., being taken into account. As there are families where both kinds of feeding are found, the question of parentage would there not come in.

With regard to teeth, Dr. Howard (German East Africa) ascribes the good teeth of the natives to friction of the teeth rather than to hard food. He states, however, that the infants are breast-fed, and have gruel and porridge (even to indigestion). I should attribute their good teeth to the intrinsic cause of food, rather than to extrinsic causes, though these of course are not without weight.—I am, etc.,

Newcastle-on-Tyne, March 22nd. T. M. ALLISON.

TREATMENT OF OTITIS MEDIA.

SIR,—I gladly support Dr. Smurthwaite's important suggestion[1] that something should be done to rescue the multitude of children now suffering from otorrhoea. The dangers of suppurative otitis are very real, and the pain when the bone is affected is sometimes extreme, and most difficult to relieve. But a periodical examination of school children would not be of any great benefit unless treatment could be carried out, and this cannot be done satisfactorily unless there is accommodation for aural cases in the hospitals. A considerable proportion of cases will not get well without operation. I am relieved to find some one who does not condemn intrameatal operations. The safety and good results of thorough intrameatal operations have now been placed beyond doubt by my work at the Coventry Hospital. While I am prepared to admit that there are theoretical objections to my operation of otectomy, the practical results show that this should be the operation of selection in persistent otorrhoea, unless the bone be deeply involved, the invariable result of neglect except in acute cases.

I have now performed this operation on a great many private patients, and with the exception of one lady who left off treatment too soon, all of them have got perfectly well. Hospital cases are more difficult to trace, and one has to leave a good deal of the after-treatment to assistants; at the same time I am very well satisfied with the results of otectomy at the Coventry Hospital. In most of these cases the only alternative was the radical operation, the results of which are often deplorable. In my reply to the discussion on my paper on otectomy read before the Birmingham Branch on

[1] BRITISH MEDICAL JOURNAL, January 28th, 1905, p. 180.

January 8th, I said: "I have to-day seen a man with a very offensive otorrhœa, who tells me he has been under the care of a leading specialist for four years. It is because so many of these cases are not cured by even clever specialists that I advocate otectomy." A few days later I did perform otectomy in this case, and the ear was quite well in less than a month. The hearing has improved.—I am, etc.,

Coventry, March 15th. F. Faulder White.

THE PREVENTION OF DENTAL CARIES.

Sir,—Whether Dr. Wallace is right in ascribing the value of coarse food to its scrubbing action on the teeth, or Dr. Campbell, when he lays weight on its compelling the exercise of energetic and prolonged action of the jaws, is not of great moment. The true reason probably lies partly with both. But, whatever its explanation, the main fact that coarse and fibrous food prevents caries should be—and possibly is—by now well recognized. And Dr. Howard's observations, when critically examined, will be found to be no bar to our belief in this direction.

Unless the methods of his natives are radically different from those of the natives in other and neighbouring parts of Africa, which is hardly conceivable, he will find on further inquiry that the "careful" pounding and grinding—done as it is with soft stone utensils—results in a "thick porridge" of such a coarse and gritty nature as compels very considerable mastication before being swallowed. The pounded peas and toasted mealie cobs moreover hardly give one the idea of being a "soft food" in the sense given to the term by Dr. Wallace and his supporters. If any one will breakfast one morning on these dainties and the next on ordinary English or Scotch porridge and milk he will realize the difference.—I am, etc.,

Kingston-on-Thames, March 25th. W. Geo. Creswell.

HOSPITAL REFORM.

Local Hospitals.

Sir,—After reading the discussion on hospital reform in a recent issue of the British Medical Journal, it seemed to me that the position from the general practitioner's point of view was rather inadequately dealt with, and with diffidence I now venture to submit some views which I know are shared by others who are like myself general practitioners.

With regard to the large hospitals in our cities, it can hardly be doubted that it is a misfortune that it is necessary to crowd large numbers of sick people in the atmosphere of a town rather than in that of the country, and this especially so when when the cases are those of chronic illness. It is hardly less a misfortune that the large hospitals deprive the general practitioner of a great deal of work which he would be much the better for doing, not so much from a financial as from a professional point of view. It is an acknowledged evil that many patients quite able to pay a moderate fee are admitted free to hospital because, it is said, there is no other place for them except an expensive home.

It seems to me that those evils might be in a great degree mitigated by the establishment throughout the country and in the suburbs of large towns of cottage or district hospitals which would have as a fundamental basis of their constitution: (1) That all practitioners in their neighbourhood should be admitted to their practice; and (2) that the patients admitted to them should pay according to their means.

The practitioners would benefit by being able to follow up their cases and treat them under good conditions. They would also benefit financially, for small fees could be charged in such a hospital where all could practise. They would, however, require to devote some time and trouble to gratuitous work, and they would also require to work in co-operation with their colleagues. The patients would benefit by being in the country, and by being attended to without delay and without what would be to some a dangerous journey.

It is not by any means contemplated that these small hospitals should do away with the necessity for the large ones. They would, however, relieve them of many cases of minor surgery and of less difficult medical cases. There is no reason why the two classes of hospital should not act in co-operation, and so the practitioners would be kept in touch with hospital life, and would share in the advance of medical science.

It may be said that this is a visionary scheme, but in this district—the Island of Bute—I think we may be said to have reduced it to practice. A community, by no means wealthy, of about 12,000 inhabitants, employs some six doctors. Eight years ago a hospital accommodating ten ordinary and three private patients was built at a cost of something under £3,000. Practically all classes in the community support the hospital, and all classes take advantage of it. The poor are admitted free, and are attended gratuitously by their doctors. They form about half the number of admissions. The better working class pay 7s. a week, and the private patients who occupy private rooms pay 30s. a week. Many of these also pay a modest fee to their doctor. About 100 cases are admitted yearly at a cost of £600, nine being the average number of beds occupied, and 26s. a week the cost of occupied bed.

All the medical practitioners attend their own cases which they send into the hospital, and they are all members of the Committee of Management. Though modifications would require to be made to suit different localities, I am convinced that some such scheme would prove a boon to the district in which it was carried out. It would relieve the large hospitals of much work which they would be better without, and would provide that cheap nursing home which the middle classes so much need.—I am, etc.,

Rothesay, March 23rd. J. N. Marshall, M.D.

THE POOR LAW SERVICE IN IRELAND.

Sir,—There are some errors and false deductions in Dr. Wilson's letter in the British Medical Journal of March 25th, page 694, to which, as Secretary of the Leinster Branch, I am anxious to call attention.

One would suppose from the letter referred to that the attendance at the late annual meeting of the Leinster Branch was much smaller than usual. This was not the case. Since the reorganization and absorption of unattached members there have been three annual meetings of the Branch, namely: In 1903, when 34 members attended; in 1904, when 46 members attended; and in 1905, when 33 members attended.

In 1904 we were able to state in the circular convening the meeting that the Chairman of Council would be present. There was no similar attraction for the 1905 meeting.

It is readily seen that the above figures lend no support to Dr. Wilson's deduction that "it is evident that the Branch was so out of sympathy with the hostile attitude displayed towards the dispensary doctors' friend that the majority abstained from countenancing disrespect to the distinguished Surgeon-General's views by absenting themselves." There is, however, a still stronger reason against such an assumption in the fact that the subject dealt with by the President was not known to members until the address was in course of delivery.

Being unable to discover any sign of dissent from the President's views amongst those who actually attended, Dr. Wilson lays stress on the fact that only 31 members attended out of 337. It has been seen that these figures are not abnormally low for the Leinster Branch, and I doubt very much if Dr. Wilson has found that more than 10 per cent. of the members of other Branches (for example, the Metropolitan Counties Branch, which is, I infer, his present one) of which he has had experience attend the annual or other meetings.

Dr. Wilson has been too impetuous in attack, else he would not have said "that the speaking on the Surgeon-General's confidential report was entirely confined to members of Council of College" of Surgeons. Three members spoke, and one of these was not even a Licentiate of the College and consequently could scarcely be looked upon as even a prospective member of Council. Nor further would he have stated "that not a single country dispensary doctor attended the meeting" when such a well-known, earnest, and energetic dispensary doctor as Dr. Denis Walshe was present. Nobody knows better than Dr. Wilson how difficult it is for Poor law medical officers to attend meetings, and yet at the late meeting quite as many (that is, 5) were present as at the 1903 meeting to which the 67 Poor-law medical officers who were members of the Branch were specially summoned "in order to discuss the steps they would wish the Association as a whole to take in regard to the disabilities under which they labour, and to decide on some form of resolution which might be presented at the annual meeting an hour later."

Although only 5 of the 67 attended, even Dr. Wilson would hardly have the temerity to argue that the 62 who could not come disapproved of the notice of motion which went from this meeting, and which ultimately brought the British Medical Association into line with the Irish Medical Association in the matter of the grievances of the Poor-law officers by leading to the unanimous adoption of the "Mayo resolutions" at the Representative Meeting held at Swansea.

The Irish Poor-law medical officers will take greater interest in the British Medical Association when they recognize the fact that there is not only no antagonism between it and the Irish Medical Association, but that the British Medical Association has given, and, we trust, will always continue to give until the desired end is reached, a whole-hearted support to the efforts which are being put forth by the Irish Medical Association to have the grievances under which the Poor-law medical officers groan redressed. Anything which obscures this issue now will do irreparable harm. We in Ireland, whether members of one or other or of both Associations, desire and require peace and unity amongst ourselves in order to work out our salvat on; unfortunately at the present time it looks as if Surgeon-General Evatt's report has brought disruption and the sword. Let us pray that these evils may be averted.—I am, etc.,

Dublin, March 28th. ARTHUR H. WHITE.

OBITUARY.

THE death took place on Thursday, March 16th, at the Mount, Caerphilly, of Dr. MAURICE GRIFFITH EVANS, J.P., in his 74th year. He had been suffering from paralysis for some months. Dr. Evans was the son of the Rev. Daniel Evans, Vicar of Llangolman, and commenced a medical career as an apprentice to his uncle, the late Dr. Philips, of Newcastle Emlyn. He afterwards proceeded to Guy's Hospital, and became M.R.C.S., L.M., and L.S.A. in 1853. Six years later he graduated M.D. at King's College, Aberdeen. Before settling in practice he served as Resident Surgeon and Apothecary at the Western General Dispensary and in a corresponding position at the Marylebone Infirmary. On the termination of this preliminary work he established himself at Narberth, whence, some years later, he moved to Cardiff. In the latter town he practised for some seventeen years with very marked professional and financial success. At the time of his retirement from ordinary work, some twelve years ago, he had attained the position of Consulting Physician to the Brecon County and Borough Infirmary, in the affairs of which he exhibited a marked interest throughout the remainder of his life. He always took a considerable part in public affairs, and he will long be remembered at Caerphilly as a strong magistrate, who took special interest in the protection of animals from unfair usage. He was President of the Cardiff Medical Society in 1881 and 1882, and as long as he was able to get about was a constant attendant at meetings of the British Medical Association, and even attended the gathering at Montreal in 1897. He was an excellent conversationalist, and always ready to assist in every deserving cause, and a very loyal friend, and hence will be much missed by many both in and out of the profession, in spite of the comparative retirement in which he had latterly lived. He was twice married, and is survived by his second wife. He never had any children of his own, but played the part of father to his younger brothers, who were deprived of their natural guardians while still very young. The funeral took place at Caerphilly in the presence of a large number of private friends and representatives of local bodies.

DR. ALBERT B. CRAIG died on March 14th at his home in Philadelphia of cerebro-spinal meningitis, contracted from a patient. Summoned to the bedside of a patient suffering from the fulminant type of cerebro-spinal meningitis, and his sympathies aroused by the absence of all friends and the serious condition of the patient, he gave himself literally night and day in the patient's service. The loss of sleep, the mental strain, the extraordinary fatigue, with the exposure to infection, constituted risks of which he was fully aware. Upon the onset of his symptoms he diagnosed his own case, bravely set his affairs in order, prepared his bride of but five months for the probable end, and to the last moment of consciousness sought to strengthen her for her coming trial. Although everything known to medical science was done to save his life, the progress of the disease was so rapid that he succumbed in ten hours. He graduated at Jefferson Medical College in 1901, and was looked upon as one of the most promising men in the profession of the United States. He was connected with the late *Philadelphia Medical Journal* for one year, leaving it on the foundation of *American Medicine* to join the staff of that journal, of which he was subeditor and collaborator till the time of his death. He was formerly a resident of Jefferson Hospital, and at the time of his death was an Assistant in the out-patient department of that institution, and Demonstrator of Anatomy and an Assistant Demonstrator of Surgery of the Jefferson Medical College.

LIEUTENANT-COLONEL HENRY WILLIAM ALEXANDER MACKINNON, D.S.O., Army Medical Staff, retired, died at Weybridge on March 28th, aged 63. He was appointed Assistant Surgeon, October 2nd, 1865; became Surgeon, March 1st, 1873; Surgeon-Major, October 2nd, 1877; was granted the rank of Lieutenant-Colonel, October 2nd, 1885; made Brigade Surgeon-Lieutenant-Colonel, March 10th, 1892; retiring from the service, October 26th, 1895. He was in the Egyptian war of 1882, being present at the battle of Tel-el-Kebir, where he was slightly wounded (medal with clasp and Khedive's bronze star). He was also in the Burmese campaign in 1885-6 with the Upper Burmah Field Force, part of the time as Principal Medical Officer (mentioned in dispatches, made a Companion of the Distinguished Service Order, and received a medal with clasp).

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Surgeon-General Ernesti, of Potsdam, who was often consulted by the German Imperial Family; Dr. Clément Juglar, Member of the Académie des Sciences Morales et Politiques, sometime President of the Paris Statistical Society and author of numerous works on political economy, aged 85; Professor Julius Alberti, Senior Surgeon of the St. Joseph Hospital, Potsdam, aged 56; Professor Johann Hjort, of Christiania, a leading Norwegian ophthalmologist; Dr. Wilhelm Schulek, Professor of Ophthalmology in the University of Budapest, aged 62; Dr. Walter S. Christopher of Chicago, sometime Professor of Medicine in the University of Michigan, and later of Diseases of Children, one of the foremost "pediatricians" (we have to thank the *Medical News* for teaching us that word) in the United States, aged 46; Dr. Paul Garnier, one of the leading French authorities on mental diseases, and author of numerous contributions to the literature of his special province, aged 56; Dr. Gaetano Strambio of Milan, formerly Professor of Descriptive Anatomy (a textbook of which he published), President of the Ototherapeutic Institute, Secretary of the Royal Lombard Institute of Science and Letters, and for twenty years editor of the *Gazetta Medica Lombarda*. Dr. Joens of Kiel, well known as a medical statistician, aged 89; and Dr. Cunha Bellem, a prominent sanitarian of Oporto, author of numerous writings on military hygiene, on the prophylaxis of phthisis in the army, on cholera, etc.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

IMPERIAL YEOMANRY RECRUITS.

SURGEON-LIEUTENANT-COLONEL R. R. SLEMAN (Volunteer Ambulance School of Instruction) informs us that by paragraph 246 of the Imperial Yeomanry Regulations a fee of 2s. 6d. is allowed for the examination of each recruit, except when the regimental medical officer is in camp.

ARNOTT MEMORIAL GOLD MEDAL.

CAPTAIN T. C. MACKENZIE, D.S.O., Royal Army Medical Corps, has been awarded the Arnott Memorial Gold Medal for 1905. The medal was founded in 1900 by Mr. David Arnott as a memorial to his father, the late Sir John Arnott, Bart., to be given to an Irish medical graduate who during the three previous years, had performed or accomplished the most conspicuous act of heroism or distinguished service, either in civil life or in the naval or military service, at home or abroad. Of the five occasions on which the medal has been awarded, the present is the third on which it has been won by an officer of the Royal Army Medical Corps.

ROYAL NAVY MEDICAL SERVICE.

Dental Surgeons.

THE undermentioned gentlemen have been appointed Dental Surgeons to the Naval Forces, and have been appointed for duty at Chatham, Portsmouth, and Plymouth respectively:

Mr. Victor Edwin Mills.
Mr. Bannar Harry Martin.
Mr. Albert Harris.

THE R.A.M.C. (VOLUNTEERS) AND SOUTH AFRICAN HONOURS.

IT is stated that the Army Council has decided that South African war honours cannot be granted for the Royal Army Medical Corps (Volunteers). We should like to know why. The then Volunteer Medical Staff Corps sent out numbers of men from all the companies to South Africa during the war, and their services were so highly appreciated that the title of corps and the ranks of officers were changed in consideration of the valuable services rendered during the war. Why the permission to bear South African war honours, a permission granted to every other Volunteer corps that sent a contingent to South Africa, should be refused to the Royal Army Medical Corps Volunteers is very difficult to understand. We hope that it does not mean that the Army Council intends to continue the snubbing tactics in relation to all things medical that used to characterize the unregenerated War Office.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE ADVERTISING OF HYDROPATHIC ESTABLISHMENTS.

W. H. B.—The circular sent to us seems to be one of the less objectionable acts on the part of an institution concerning which, as a class, there has been some well-founded complaint. So far as we know, the circular was issued to the medical profession only, and corrects a mistake in the *Medical Directory*. It does not seem to be a matter worthy of further comment.

VALUE OF A PRACTICE.

Once Bitten Twice Shy writes: In your columns I notice the remarks you print from "A Practitioner, not an Agent," and as I have within the past twelve months been into two practices and out of one, I think I can affirm the truth that there are hundreds awaiting to purchase good practices. To be more exact, I might say that there are probably two or three hundred men trying to purchase a genuine practice, but, on the other hand, there are twice as many anxious to sell practices of a sort. My experience has been that a really good genuine practice, like most good things, is not only very difficult to find, but, moreover, will fetch a year and a half's purchase easily. Most other medical men will agree with me that but few genuine practices come into the common market, as they are generally snapped up by someone "in the know," and this is doubly true of partnerships.

FRIENDLY SOCIETY APPOINTMENTS.

Beta writes: There has been some agitation in a Friendly Society for a change of medical officer, and another medical man has been asked to allow his name to be put forward at the annual election of officers, which has usually been a formal procedure. What is the proper course to be adopted: (1) To allow such a competition, or (2) ought the medical man requested to come forward to refuse to do so until the present holder has vacated the post?

*** The latter is the only alternative. If the annual election is, as is usually the case, only a formal procedure, it would not be in accordance with medical etiquette for any practitioner to come forward as a candidate against the present holder.

INQUEST FEES.

Ignorant writes us as follows: A tradesman meets with an accident, and is brought to a hospital, where he is admitted as a paying patient, and placed in a private ward. The patient dies within an hour of his admission, and an inquest is held. Is the resident medical officer, if summoned to give evidence, entitled to a fee for so doing? The coroner of this district, who is aware that I am writing to you, tells me that not within his knowledge has the point ever been raised as to whether a coroner should distinguish between paying and free patients in a general hospital in deciding whether a medical witness is entitled to a fee.

*** On reference to Subsection 2, Section xxii, of the Coroners Act, 1887, our correspondent will see that no distinction is made between paying and non-paying patients who may happen to die in a public hospital, and upon whom an inquest is held. We are advised that no fee would be payable for medical evidence given at the inquest in the case above mentioned.

A HALIFAX INQUEST.

M.B., C.M., writes to complain that the coroner, when holding an inquest on a patient of his whom he had attended for many years, and with whom he had been the night before death (due to suicide), failed to summon him to give evidence, more especially as the coroner had been previously informed that he could give important evidence as to the state of mind of the deceased man shortly before his death. The result was that an open verdict as to the deceased's mental condition was returned. Our correspondent is also annoyed at the coroner's observations regarding himself, made in his absence.

*** We notice that the local paper contains a letter from our correspondent which calls public attention to the matter, and justifies his statements. We would advise that should a similar case occur he should attend the inquest, which is an open court, whether summoned or not, and tender his evidence, which the coroner cannot refuse to hear if it is pertinent to the case. By this means an opportunity is given, by correcting at the time any statement or remarks that may convey false impressions before they are published, and saving further correspondence in the press. From what our correspondent says in his communication to us, there is little reason to doubt but that had he given evidence in the case the jury would have been satisfied that the deceased was at the time he took his life of unsound mind.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

The Council of King's College have elected Mr. Peter Thompson, M.D., Ch.B.Vict., as Professor of Anatomy; and Professor Arthur Dendy, D.Sc., of the South African College, Capetown, as Professor of Zoology.

Faculty of Medicine.

A meeting of the Faculty of Medicine was held at the University, South Kensington, on Friday, March 24th, at 5 p.m. Dr. J. K. Fowler, the Dean, occupied the chair, and there were sixty-three members present.

Senatorial Election.

Dr. Lauriston E. Shaw was elected to represent the Faculty on the Senate for four years from May next in place of Sir Cooper Perry, whose period of office expires on that date. A vote of thanks was given to Sir Cooper Perry for his services as Senator during the past four years.

Institute of Medical Sciences.

The Dean announced that Mr. Alfred Beit had promised to increase his donation towards the fund for building and endowing a University Institute of Medical Sciences from £5,000 to £25,000. A vote of thanks to Mr. Beit was carried by acclamation.

Visit of British Physicians and Surgeons to Paris.

The Faculty approved of a proposal that on the occasion of the return visit of British Physicians and Surgeons to Paris in May next the Dean of the Faculty of Medicine should take some special steps to do honour to the memory of Pasteur.

Pass Lists.

It was resolved that in the opinion of the Faculty it was advisable that pass lists of Bachelor's degrees should be issued in alphabetical order and without classification.

Boards of Studies.

It was resolved that it was desirable that members of Boards of Studies associated with the Faculty of Medicine should retire in accordance with some definite plan, and a Committee was appointed to propose a plan and submit it for the approval of the Faculty.

VICTORIA UNIVERSITY OF MANCHESTER.

The following candidates were approved at the March examinations in the subjects indicated:

Second Examination: Anatomy and Physiology—J. W. Bride, G. W. Bury, H. Coppock, D. J. Dakeyne, J. A. Fairer, F. Hall, F. Hartley, R. Lakin, P. Moran, W. Nightingale, Alice Oberdofer, G. Rainford, R. Robertson, D. Rodger, Elsie M. Royle, V. Southwell, H. E. R. Stephens, J. V. Steward, T. W. Todd, F. D. Walker, G. B. Warburton, H. Whitehead.

Materia Medica and Pharmacy.—T. E. Dickinson, W. P. Moffet, S. Rawlinson.

Final Examination: Part I.—C. Brown, T. G. Burnett, P. J. Harris-Jones, A. W. Howlett, R. Nightingale, H. B. Pare, P. L. Pollard.

Part II.—F. L. Boag, A. Cambell, Catharine L. Corbett, J. B. Dalton, *G. D. Dawson, R. L. Ferguson, H. E. Fox, W. H. Hey, R. W. Higson, E. Hulme, T. W. Lonsdale, G. G. Parkin, J. Smalley, H. Thorp, D. Walker, *E. M. Wilkins, J. S. Young.

* Honours, Second Class.

SOCIETY OF APOTHECARIES OF LONDON.

Midwives Act.

At a meeting of the Court of Assistants, held on March 21st, the following resolutions were adopted:

1. That steps be taken to urge upon the Government the desirability of the amendment of the Midwives Act, 1902, in the following respects:
   - (*a*) By a provision for payment by the local authority of members of the medical profession called in by midwives in cases of danger or difficulty, as defined by the rules framed by the Central Midwives Board.
   - (*b*) By provision for payment to the members of the Board of their reasonable travelling expenses and other disbursements incurred in connexion with their duties.
2. That a copy of the above resolution be sent to His Majesty's Privy Council.

A vote of thanks was passed to Mr. E. Parker Young for his services as the representative of the Society upon the Central Midwives Board during the last two years. Mr. Parker Young, in acknowledging the vote, explained that during his term of office he had been present at every meeting of the Board, and had signed nearly 10,000 midwives' certificates.

Subsequently, Mr. Parker Young was re-elected as Representative for another year.

Gillson Scholarship.

The report of the adjudicators for the Gillson Scholarship in Pathology, of the annual value of £90, was considered and adopted, the successful candidate being Mr. E. W. Ainley Walker, M.A., M.D.Oxon.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

The Royal Commission on the Care and Control of the Feeble-minded held a further meeting on March 27th.

Mr. T. H. Fischer, K.C., a Master in Lunacy, said that in the great majority of cases which came before the courts adequate control over the lunatic had to be obtained indirectly, that was to say, by directions as to the application of the lunatic's property. He could offer no opinion as to what should be done when the lunatic possessed no property. It was quite true that the law was at present inadequate to protect lunatics not actually certified as such. He had had to interfere recently in a case in which a man bought some property for some £600 a year and agreed to pay £1,000 a year ground rent, leaving his family starving. The proceedings necessary in such cases to declare a man a lunatic cost about £30, but might be more. He did not see how people of feeble mind could be prevented marrying, except by an Act of Parliament. The inquiry into the mental condition of such a person should be public; no more objection, if as much, could be raised to the publicity of such inquiries than to those in the divorce court.

Dr. R. Brayn, Medical Superintendent of Broadmoor Asylum, said that there were a good number of individuals at large who were either mentally or morally defective, but who did not come at present within the scope of lunacy laws. They were a source of danger to the public as well as an anxiety to their friends. The unconditional discharge of weak-minded criminals as at present in practice was contrary to the public interest. Agricultural colonies should be established in which weak-minded criminals might be subjected to a course of discipline and treatment adapted to their requirements. Such a system had been in use with regard to patients discharged from Broadmoor for many years and with great success.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. R. W. ORD (Dover) wishes to hear of an institution for a boy, aged 16, suffering from spastic paraplegia, and mentally deficient.

*** Application might be made to the Secretary of the National Industrial Home for Crippled Boys, Wright's Lane, Kensington, W. If the mental condition be considered a bar to admission there, he might be deemed eligible for the Kent County Asylum at Chartham, where there is a separate ward for juvenile imbeciles.

ANSWERS.

IF "J. P." requires a book on medical applied anatomy adapted to cramming for examination purposes, there are none to be recommended. If he wishes a small book which gives a good and fairly complete account of the relations of the viscera, vessels, and nerves to the surface of the body, *Surface Anatomy*, by T. Gillman Moorhead (London: Bailliere, Tindall, and Cox, 1905, 4s. 6d.), will be useful to him. If he wishes to have a book which deals in a full manner with clinical anatomy, then he should obtain *A Textbook of Clinical Anatomy*, by Daniel Eisendrath (London: W. B. Saunders and Co., 1903, 21s.).

PRIMARY PHARYNGEAL TUBERCULOSIS.

A. G. W.—References to primary pharyngeal tuberculosis are not numerous, but the following may be found useful: Watson Williams, *Diseases of the Upper Respiratory Tract*, fourth edition (Bristol: John Wright and Co., 1901, 17s. 6d.) p. 143. Moritz Schmidt, *Die Krankheiten der oberen Luftwege*, Dritte Auflage (Berlin: J. Springer, 1903, M. 18), p. 378. Jonathan Wright, Tuberculous Infection of the Lymphoid Tissue in the Pharynx, with references, *New York Medical Journal*, September 26th, 1896. Schrötter, two cases, *Monatsschrift für Ohrenheilkunde*, October, 1898. Julius Veis, cases and prognosis, *Archiv f. Laryngologie*, Band 12, 1902, p. 363.

INCOME TAX.

G. A. F. (Nottingham), having failed to appeal at the proper time against an excessive income-tax assessment, asks whether he can now obtain a refund of the overcharge.

*** If our correspondent's income, on the average of the three years 1902, 1903, and 1904, is less than the sum assessed, he can appeal "at the end of the year"—that is, at once—and claim a refund of the duty overpaid. Notice of appeal should be sent to the district surveyor of taxes without delay.

LETTERS, NOTES, Etc.

THE CALCULATION OF THE DATE OF DELIVERY IN PREGNANCY.

DR. HOWARD HENRY (Debenham) writes: Dr. Caie has apparently quite misunderstood the purpose of my memorandum in your issue of March 4th, which never attempted to convince him nor anybody else of the infallibility of Naegeli's method. On the contrary, I style it "rough-and-ready" and "inaccurate," for, while it purports to calculate 280 days, it does not uniformly do so. Dr. Caie asserts, in your issue of March 18th, that in my letter I say that in five out of the twelve months the "duration of pregnancy" is 281 to 283 days, etc. If he will refer to my letter he will find I make no statement as to the actual duration of pregnancy varying with the month. My words were: "If we test Naegeli's method we find that when pregnancy dates from five out of the twelve months 'the calculation' gives us 281 to 283 days, etc." My point is that in a pregnancy starting from May Naegeli's method gives the probable duration of pregnancy as 283 days (or, as modified by Dr. Caie, 281 days), while in January, for instance, it gives 280 days (modified 278 days). The remainder of my letter was occupied with a method of calculating 280 days (which I consider the average duration of pregnancy) from any date. As to the conclusion to be drawn from Dr. Caie's record, I find that the average duration of pregnancy in them was 279.28 days, assuming the average allowed by Naegeli's method is 280.75 days. But this is not accurate, unless taken over a very large number of years. In my own midwifery book I find that in one year there were only two confinements in February, while in another there were ten, which would make a great difference to the resulting average, as I hold that for confinements expected in February we allow three days too many according to Naegeli. That is why I said I would be interested to know how the suggestion in the second last paragraph of my letter would affect his analysis.

HOSPITALS AND MEDICAL SCHOOLS.

MR. WALTER WHITEHOUSE, L.D.S., R.C.S Ed. (Westminster) writes: Hospital secretaries would do well in their annual reports to answer the Committee on this subject by quoting the following passage from a little book published by Bowers Brothers, Blackfriars Road, wherein are quoted twenty-seven authorities, showing how all forms of charity increase the evils of poverty and physical degeneration: "Our hospitals are a form of charity not open to the objections enumerated herein. Any writer on this subject who would wish for a reputation for being practical rather than scientific or learned can recognize it is impracticable to expect our workers to anticipate and make provision for the many ills that may overtake him. So in this direction the kind heart of fellowship can give itself every latitude without fear of working evil; and every donor can know he is helping a science and art that will one day stand him in good stead, not only for himself, but those who are nearest and dearest to him."

INTESTINAL OBSTRUCTION.

MR. K. R. DALAL, L.M.&S. (Mazagon, Bombay) writes: I was called one day to see M. Y., a Hindu Dhobi, suffering from colic so severe that he was rolling on the floor with pain. The latter was stationary in position and intermittent in character. He located it just below the umbilicus. His bowels, he said, were not constipated, and his tongue was fairly clean: the pulse and temperature normal. Nothing abnormal could be felt in the abdomen. He was unaware of any indiscretion in his diet, and had taken no domestic drug which could account for his condition. I gave him a morphine injection, a santonine powder, a mixture of mag. sulph., and opium. He had a few motions and felt greatly relieved. He continued the mixture, and next day was completely well. Four days after he again complained of pain, but was put right by the same mixture. Three days after this he again suffered from severe colicky pain, followed by constant vomiting and distension of the abdomen. His bowels were constipated, the tongue furred and white, and the pulse rather frequent. On examination the abdomen was found to be greatly inflated, and tympanitic all over, but no tumour or any swelling or any tender spot could be detected. However, there was severe tenesmus, but without the passage of any mucus or blood. Suspecting intussusception, a rectal examination was made, when just at the tip of the examining finger some hard rounded body was felt. It was smooth and movable, but could not be indented. A duckbill speculum was introduced, and the patient was asked to bear down. After a little manipulation I succeeded in taking the rounded thing into the hollow of the speculum, which on withdrawal revealed a large-sized betel-nut. He had a very large evacuation after this, in which was expelled another nut little smaller than the first one. All the symptoms disappeared. When he was shown those betel nuts, he admitted having swallowed them whole, as given to him by a magician, who, after praying some incantations over the nuts, asked him to swallow them, assuring him at the same time that they would act as a safeguard against enchantments or the evil-doings of his enemies, and so render him immune against any form of witchcraft.

POISON BOTTLES.

DR. WILLIAM POLLOCK (Eastbourne) writes: The suggestion by a juryman at the inquest on the late Lieutenant Davenport again brings the subject of specially-shaped bottles for containing poisonous remedies prominently to the front. May I suggest that the adoption of a bottle shaped so that it could not possibly stand upright (with or without fluting of sides and of neck), would, humanly speaking, obviate such "mistakes" in future?

"THROW PHYSIC TO THE DOGS."

IT is related of General Sherman, one of the heroes of the American Civil War, that after being under medical treatment for some time, he one day said to his physician: "Doctor, I don't seem to be getting any better for all your medicine." "Well, General," said the physician, jestingly, "perhaps you had better follow Macbeth's precept and "throw physic to the dogs." "I would, doctor," replied the sick man, as he turned his head on his pillow, "I would, but there are a number of valuable dogs in this neighbourhood."

DESQUAMATION IN SCARLET FEVER.

W. HUNTINGTON, M.R.C.S.Eng., L.R.C.P.Lond., M.O.H. (St. Andrews), writes: My attention has been called to a letter from Dr. Kyle, in the BRITISH MEDICAL JOURNAL of March 11th, p. 532, the purport of which is to give additional evidence as to the non-infective nature of desquamation following scarlet fever. Dr. Kyle omits several very important points, one of which is most extraordinary. Four children slept in one bed, Dr. Kyle's patient being one of them. After being more or less ill from October 15th to the 19th, he was pronounced to be suffering from scarlet fever and taken from their midst on the latter date to hospital. The wonder is, how the others who were susceptible and sleeping in the same bed escaped getting scarlet fever had this been a case of that disease. Possibly they escaped by a miracle, or possibly the diagnosis at hospital, namely, that of erythema scarlatiniforme was more to the point.

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A Lecture

ON THE

SURGICAL TREATMENT OF ULCER OF THE STOMACH AND OF ITS COMPLICATIONS.

Delivered at the Medical Graduates' College and Polyclinic.

By B. G. A. MOYNIHAN, M.S., F.R.C.S.,

Senior Assistant Surgeon, Leeds General Infirmary.

Gentlemen,—The subject upon which I am to lecture to-day is the Surgical Treatment of Ulcer of the Stomach and of its Complications. I propose to consider the various conditions which may arise in the following order:

1. The perforation of gastric or duodenal ulcer.
2. The occurrence of haemorrhage in gastric or duodenal ulcer.
3. Chronic ulcer.
4. Hourglass stomach.

The Perforation of Gastric and Duodenal Ulcers.

There are few catastrophes so awful in their suddenness and in their intensity as the perforation of a gastric or duodenal ulcer. The extreme urgency of the condition is such that, unless surgical aid is speedily forthcoming, the patient hastens almost inevitably to her end. It is, therefore, of the first importance that there should be early recognition of the condition, and instant treatment of it if the patient's life is to be saved.

Perforation of the stomach is usually described as being of two varieties, acute and chronic; but there is, as I first pointed out, an intermediate class of case, not embraced by either of these terms, which is best described as subacute.

The distinction between these various forms is as follows:

In *acute perforation*, the ulcer gives way suddenly and completely. A larger or smaller hole results, and through this the stomach contents are free to escape at once into the general cavity of the peritoneum.

In *subacute perforation* the ulcer probably gives way almost as quickly as in the acute form, but owing to the small size of the ulcer, or to the emptiness of the stomach, or to the instant plugging of the opening by an omental flap or tag, or to the speedy formation of lymph, which forms, as it were, a cork or lid for the ulcer, the escape of fluid from the stomach is small in quantity and the damage inflicted thereby is less considerable. The symptoms at their onset may be as grave as those in acute perforation, but on opening the abdomen the ulcer may be seen to be sealed over, and no further escape of fluid is occurring.

In the subacute form of perforation I have found that there is always a complaint of greater discomfort for several days preceding the rupture. Vague general or localized pains have been felt in the abdomen, or a sharp spasm or "stitch" when the patient turned quickly or attempted to laugh. One girl, a housemaid, felt the pain down her left side, especially when reaching up to her work; another said it hurt her to bend, as her side felt stiff. These premonitory symptoms are important, and, if recognized, they should enable us to take measure to prevent the occurrence of perforation. They doubtless have their origin in a localized peritonitis, and the stiffness is due to the unconscious protection of an inflamed area by a muscular splint.

In *chronic perforation*, the ulcer has slowly eaten its way through the stomach coats, and a protective peritonitis has had time to develop at the base. The escape of stomach contents is therefore local merely; barriers of lymph confine the fluid to a restricted area, and a perigastric abscess forms. A chronic perforation occurs more frequently on the posterior surface of the stomach, and the perigastric abscess occasioned thereby is recognized as "subphrenic." The acute and subacute forms of perforating ulcer are more common on the anterior surface.

It has been shown by the operative experience of many surgeons that recovery from all these forms of perforation is possible under medical treatment alone. It is probable that the acute form is almost invariably fatal, and that the cases that recover are confined, perhaps exclusively, to the subacute or the chronic forms. In these cases, however, surgical treatment is called for in a later stage, perhaps because the stomach is inextricably bound in a mesh of adhesions and its freedom of action hampered, perhaps because it is so constricted that an hourglass stomach or a trifid stomach may be formed. The after-history of cases that recover is, I have found, the best argument in favour of instant operative treatment when the perforation occurs. For "recovery" does not mean return to health, but the changing of an acute and desperate illness into a prolonged and painful invalidism, escape from which can only be effected by surgical means.

During the last few years I have operated upon 22 cases of perforating gastric or duodenal ulcer. The following is an analysis of these:

Summary of Cases.

Since April 30th, 1897, the date of my first operation, I have had under my care 22 cases of perforating ulcer of the stomach or duodenum. In these 22 cases there were 14 recoveries—63.6 per cent., and 8 deaths—36.4 per cent. There were 7 cases in which a duodenal ulcer had perforated, 15 in which a gastric ulcer had perforated. In the first 10 cases there were 6 deaths; in the last 12 cases there were 2 deaths. My first case recovered, and then in succession were 5 unsuccessful cases.

The ages of the patients varied from 17 to 44. The cases of gastric ulcer were 15 in number; of these, 3 were males, aged 23 and 24; 12 females, of average age 26 years 1 month. The cases of duodenal ulcer were 7 in number; of these, 4 were males, aged 44, 25, 22, and 40; 3 females, aged 17, 17, 25.

An inquiry into the previous history of the cases of gastric ulcer showed that in every case with one exception—and in that no record of inquiry is made—the patient had suffered from symptoms referable to the ulcer for periods varying from a few weeks to several years. Of the 12 patients, 6 had been under treatment within a year of the occurrence of the perforation for indigestion, vomiting, or haematemesis and anaemia.

Similarly in every case of perforated duodenal ulcer previous symptoms had been observed, and 4 of the 7 patients had recently been under treatment. In none of these cases had relief been afforded.

In the majority of the patients there had been no increase in the severity of the symptoms during the few days preceding perforation. In 3 of the 22 cases, however, a distinct and notable exacerbation is recorded. The time which elapsed between the perforation of the ulcer and operation varied from three hours and fifty minutes to four days. In 3 cases the perforation was of the type I have described under the term "subacute." In one of these the operation was performed twenty-eight hours after the rupture. The patient died in the fourth week from a subphrenic abscess, with multiple points of suppuration within the abdomen.

The second case was one of perforated duodenal ulcer, which was operated upon four days after perforation. The ulcer was closed, and a second posterior incision was made to afford drainage; the patient recovered.

In the third case the ulcer was on the posterior surface, and a collection had formed in the lesser sac; the general peritoneum was also involved. An anterior and posterior incision were made in this case also. Recovery was most satisfactory.

In cases of subacute perforation it is most necessary to cleanse as thoroughly as possible, for the amount of lymph deposited is greatly in excess of that seen in the acute cases. The perforation was found on the anterior surface of the stomach in 13 cases, on the posterior surface in 2 cases. As a rule the perforation was near the lesser curvature, and nearer the cardiac end. In one case two perforations were found, both on the anterior surface, about 1½ in. apart. In one case the perforation occurred in the centre of an hourglass stomach, and gastroplasty had to be performed. In the 7 duodenal cases the perforation was found in the first portion 6 times, in the beginning of the second portion once. In 3 cases, in the whole series, gastro-enterostomy was performed immediately after the closure of the perforation, in 2 cases recovery followed. In 2 cases the subsequent performance of gastro-enterostomy has been necessary owing to the persistence of symptoms due to the ulcer, or to the scar left by it. There were, therefore, 14 cases of recovery from the perforation, in 2 of these gastro-enterostomy had been performed, and in 1 gastroplasty for an hourglass stomach; of the remaining 11, 2 suffered to such a degree as to necessitate the performance of a second operation, gastro-enterostomy, and 1 will probably have gastro-enterostomy performed shortly. In the 22 cases there were, therefore, 6 in which an immediate or a subsequent operation for the adjustment of the mechanical conditions of the stomach was necessary. Two of the

patients suffered from perforation while they were waiting for operation, one in the hospital, one in a nursing home. Both had complained for years of indigestion and vomiting, both had dilated and hypertrophied stomachs for which a gastro enterostomy was to be performed. In one a duodenal ulcer, in the other an ulcer at the pylorus, had perforated. In both the ulcer was closed and an immediate gastro-enterostomy performed. Both patients recovered, and remain perfectly well.

The cause of death in 6 cases was shock or a want of recovery from the condition of collapse, often profound, which existed before operation. In one case death resulted from empyema, and in one case from subphrenic abscess and suppuration at several points within the abdomen.

None of the patients who recovered suffered from any chest affection, from parotitis, thrombosis of veins, or from haematemesis during the time they were under treatment after the operation. In one of the fatal cases there was slight haematemesis. The question of drainage was determined entirely by the needs of each individual case. There was no rule in one's mind that had necessarily to be followed; what seemed appropriate to the case was adopted. As a rule, the earlier the case was seen the less was the need for drainage. Lavage was only adopted when the case was of long duration. When the stomach was found distended with fluids, it was emptied by the stomach tube during the operation. In all, drainage of the abdomen was adopted in 12 cases; in two of these posterior drainage, as well as anterior, was necessary, and in two others suprapubic drainage, as well as drainage through the wound, was established.

Haemorrhage.

The questions as to the propriety of surgical treatment in cases of haemorrhage from gastric or duodenal ulcers, and as to the best means of dealing with the conditions found at the time of operation have been much discussed during the last few years. The circumstances to be taken into account have presented themselves differently to different observers, and though in many points there is now substantial agreement, in many there is still a wide divergence of opinion.

I have elsewhere discussed in detail the various forms in which bleeding from gastric or duodenal ulcers may become manifest. I can, therefore, be brief in my present summary of this most important subject.

In some cases haemorrhage is the earliest and perhaps for a time the only symptom of gastric disturbance; in others it is the last expression in a long and tedious course of symptoms. In other words, the haemorrhage may occur from an acute or from a chronic ulcer of the stomach or duodenum. It will be found when the clinical history of a series of cases is examined, that whereas in the latter the bleeding varies within the widest limits both as regards quantity and frequency, in the former the clinical history is repeated in case after case in a most remarkable manner.

An inquiry into a series of cases will show that the characteristics of haemorrhage from an acute gastric ulcer are spontaneity, abruptness of onset, the rapid loss of a large quantity of blood, the marked tendency to spontaneous cessation, the infrequency of a repetition of the haemorrhage in anything but trivial quantity, and the transience of the resulting anaemia.

The bleeding from a chronic ulcer of the stomach or duodenum may vary within the widest limits both of frequency and of quantity. For convenience of description I should arrange the cases in four groups:

1. The haemorrhage is latent or concealed, is always trivial and often inconspicuous.
2. The haemorrhage is intermittent, but in moderate quantity, occurring spontaneously and with apparent caprice at infrequent intervals. The life of the patient is never in jeopardy from loss of blood, though anaemia is a persisting symptom.
3. The haemorrhage occurs generally, but not always, after a warning exacerbation of chronic symptoms. It is rapidly repeated, is always abundant, its persistence and excess cause grave peril, and will, if unchecked, be the determining cause of the patient's death.
4. The haemorrhage is instant, overwhelming, and lethal.

It has been advised by a distinguished authority that surgical measures should be adopted in all cases of haemorrhage from a gastric ulcer when the amount of blood lost exceeds half a litre. This is the very extremity of surgical impetuosity, to be found in my experience only in a physician.

The one character that the haemorrhage should possess to warrant the performance of an operation is recurrence; recurrence, too, at intervals which, becoming gradually curtailed, do not allow the patient to make up in the interval the ground which he loses in the attack.

In acute ulceration operation is, therefore, very rarely necessary; in chronic ulceration operation, for the particular purpose of arresting haemorrhage, is demanded in those cases which are grouped in the third class mentioned above.

In dealing with haemorrhage from the stomach or duodenum, two plans may be followed: By the first the surgeon makes a search for the ulcer or ulcers, and deals with them directly by excision, ligature, cauterization, or otherwise; by the second he deals with the haemorrhage indirectly by performing gastro-enterostomy as speedily as possible. By this operation the stomach is emptied, and allowed to contract, and opportunity is thus given to the ulcer to heal.

With regard to the former method—the method of search for, and direct treatment of, the ulcer—it must be acknowledged that it is the more desirable. When a vessel is bleeding the surgical indication is to secure it with a ligature, or in some other direct method to effect its closure. In many cases this is possible. The ulcer can be felt when the stomach is gripped between the fingers, and it can then be easily excised. This I have done in 4 cases. In other instances, however, the ulcer may be found adherent to the pancreas, or to the liver, or even to be excavating these organs; or, as in one case of my own, a large mass of induration may be found about the ulcer, and innumerable dense adhesions may also be present; or more ulcers than one may be found—one ulcer may be felt in the stomach and one in the duodenum; or finally, the most deliberate search of the whole stomach may fail to disclose any sign of ulcer. In all these circumstances the excision of the ulcer or the direct treatment of the bleeding point may be impossible, and recourse would then of necessity be had to the indirect method, the performance of gastro-enterostomy.

An inquiry into the records of cases which have been dealt with by the direct method shows that the bleeding point may be impossible to discover; that although blood can be seen to well up from the stomach wall, no single point can be recognized as its source. The whole surface seems to be weeping blood. Furthermore, when a definite excavation or erosion or ulcer has been recognized, and has been treated directly by ligature, cautery, excision, or curettage, and the stomach closed, the haemorrhage has continued as freely as before, and has proved fatal. At the *post-mortem* examination of such cases, a second ulcer or multiple ulcers may be found, or it may happen that no obvious source of the bleeding is discoverable. Local treatment of the supposed source of the haemorrhage has, therefore, not always met with adequate success.

For these reasons many surgeons, including myself, have felt that, at any rate in the earlier cases treated, surgical methods have missed their mark. Painstaking investigation of the mucosa has proved futile, and ligature of the actual or supposed source of the blood has not achieved its purpose. The belief was, therefore, expressed and acted upon, that in many cases local treatment was unnecessary, in many it was impossible, in all the desired end—the arrest of haemorrhage—could be secured at least as well by other and safer methods.

Gastro-enterostomy, it was found, led in all my cases to an instant cessation of the bleeding, and to the speedy and complete healing of the ulcer. The explanation of this was, it seemed to me, as follows: In all cases of haematemesis or melaena the tendency to spontaneous cessation is known to be remarkable, the cause of the continuance of the haemorrhage in certain instances, I concluded, after an examination of several cases during operation, must be distension of the stomach. In certain cases the stomach was so tightly inflated that manipulation of it was difficult. In one the distension was so marked that I had to puncture the stomach before beginning the anastomosis with the jejunum. The operation of gastro-enterostomy could be seen to result at once in an emptying of the stomach into the jejunum. In cases of haemorrhage, therefore, I advocated the performance of gastro-enterostomy as the safest, and speediest, and surest method of checking the outpouring of blood. My own practice has justified my advocacy of this method; in no case have I found reason to regret having adopted it. In all, the arrest of the haemorrhage has been complete and permanent.

This, however, has not been the experience of others. Many cases are recorded where haemorrhage continued ofter gastro-enterostomy had been performed, and proved fatal. Kocher, Quénu and Petersen all have met with this experience. In other recorded cases I am disposed to blame, not the gastro-enterostomy for failing to arrest the haemorrhage, but a Murphy button which had passed into the stomach, for causing its continuance.

It is, therefore, clear that both the direct and the indirect methods of dealing with the ulcers have at times proved unavailing. The safest course to pursue, whenever it is possible, is to secure first of all the bleeding point, if it can be determined with certainty, and subsequently to perform gastro-enterostomy. If no definite source of the haemorrhage is discoverable, gastro-enterostomy should be performed.

Summary of Cases.

I find that I have operated upon 22 patients, for the purpose of arresting haemorrhage which, so far as could be judged, was likely soon to prove fatal. Three patients have died, 19 patients recovered.

Excision of the ulcer alone was performed in one case, the patient dying suddenly on the eighth day, when apparently doing well.

Excision of the ulcer, followed by gastro-enterostomy, has been performed in 3 cases; 2 patients recovered and 1 died.

In the remaining 18 cases gastro-enterostomy alone had been performed; 17 patients recovered and one died.

In no case has there been haemorrhage after the operation in the patients who recovered; in those who died there was no evidence of any bleeding having occurred after the operation, though blood was, of course, found in the small and large intestines. In one patient who died, the only condition discoverable as a possible source of haemorrhage was a dilatation of the gastric veins.

Chronic Ulcer of the Stomach.

The symptoms which are caused by chronic ulceration of the stomach are of great variety. It is now becoming more widely recognized that "dyspepsia" or "chronic indigestion" is due, certainly in a majority of cases, to some mechanical change in the stomach as the result of chronic ulceration. Much depends upon the position that the ulcer occupies in the stomach. If it be close to the cardiac end it may, as in one case of my own, cause symptoms suggestive of oesophageal obstruction. If it be close to the pylorus, the narrowing there produced leads to a dilatation of the stomach. If the ulcer lie in the body of the organ, it may in its contraction give rise to an hourglass stomach. Wherever placed it may become adherent—to the liver, for example, to the pancreas, both of which may be deeply eroded, or to the abdominal wall.

The most favourable cases for surgical treatment are those in which the ulcer is placed at or near the pyloric orifice, when a considerable degree of dilatation of the stomach and much hypertrophy have resulted from the long-enduring obstacle to the proper emptying of the stomach. In these instances the operation of gastro-enterostomy affords an amount of relief that is always remarkable. Indeed, I do not think that the after-results of any operation in surgery can compare with these. I have two patients who within three years have doubled their weight, and not a few of my patients of the gentler sex have increased in girth considerably beyond their desires. It is certain that in not a few instances of pyloric obstruction due to chronic ulceration and induration a mistaken diagnosis has been made. In the early days of stomach surgery many surgeons, myself included, performed gastro-enterostomy upon patients whom we believed to be subjects of undoubted malignant disease; yet the lapse of years has shown that a mistake had been made. Tumours visible and palpable have gradually melted away, and patients emaciated almost to the last degree have daily added to their weight. As the hollows of the face and body slowly fill up a remarkable change occurs in the appearance of such patients. Two medical men upon whom I have operated have expressed their satisfaction on being constantly told that they "looked years younger."

When an ulcer lies close to the cardiac orifice of the stomach it causes, as I have said, symptoms which resemble those due to oesophageal obstruction low down. In two cases I have excised ulcers from the cardiac end of the stomach; in one the ulcer almost invaded the oesophagus, and was adherent to the under-surface of the liver; in the other the beginning of the lesser curvature was involved. In both, the mechanical difficulties of the operation were not inconsiderable.

It is important to bear in mind a fact to which I have frequently drawn attention, one which an increased experience only confirms; namely, that chronic ulcer, and indeed acute ulcer also, is rarely solitary. Ulceration of the stomach is associated not seldom with ulceration in the duodenum, and in approximately one-half of the cases there are more ulcers than one in the stomach. This multiplicity of ulcers, the fact of which does not seem to receive adequate recognition, is one which makes the treatment by excision one of great—it may be of insuperable—difficulty. It is one, moreover, which, being unrecognized, has done much to obscure the exact diagnosis of the nature and position of the ulcers. The diagnosis of duodenal ulcer—often said to be impossible, or a matter only of shrewd guess-work, is in reality a perfectly simple matter in many cases. For example, in a case of duodenal ulcer the characteristic pain is that which I have described as the "hunger pain," a pain which comes two to four hours after the completion of a meal. If, however, a gastric ulcer, say near the cardia, is also present, the pain may be experienced within a few minutes of the completion of the meal to be followed after an interval of comparative freedom, by the pain due to the duodenal ulcer. It is not accurate in such a case to say that in duodenal ulcer the pain may come early and may come late, and that, therefore, no reliance can be placed upon the time of the onset of pain as a diagnostic measure. I am satisfied, from a long and careful examination of these cases, that the time of the onset of pain after ingestion is a reasonably accurate guide as to the position of the ulcer. The researches of Professor Birmingham upon the anatomy of the stomach make it easy to appreciate the explanation of these facts. The indications for the surgical treatment of chronic ulcers of the stomach should be widened. An old-standing ulcer of the stomach with a greatly thickened base, which is perhaps adherent to the liver or pancreas or abdominal wall, does not strike one as being an object for successful treatment by medical means. It is true that a patient possessed of such an ulcer may be relieved for a time by rest in bed, rectal feeding, and so forth; but, as soon as ordinary diet is resumed, symptoms break out afresh, and existence can then only be rendered tolerable by such a curtailment of the diet that all enjoyment in the taking of food is abandoned. It may be confidently asserted that all forms of chronic ulceration of the stomach, in which the symptoms are those of "recurring dyspepsia" or "chronic indigestion," are suitable for treatment by surgical means. Medical means bring temporary relief, and afford an opportunity to the ulcer to display its powers of bleeding, or to perforate, or in the end to develop a malignant change. But, if the patient is to be cured, the means to that end lie in surgery alone. A diffidence in advising surgical treatment, even in the most rebellious cases, was both natural and proper in the days when the attentions of the surgeon involved a serious risk to life. In skilled hands nowadays, gastro-enterostomy, the operation of choice in at least nine cases out of ten, does not possess a death-rate of 5 per cent., in spite of the fact that many of the patients are very seriously ill, and that all of them are more or less wasted and enfeebled.

The operation that is required in the great majority of cases, then, is gastro-enterostomy. The surgical indication is to afford a wider and freer outlet to the stomach, at or near its most dependent part, in order that the stasis of food may be prevented. In the cases of long-standing ulcer of the stomach there is always some deficiency in the power of the organ to empty itself; to relieve this is the purpose of the operation.

For the condition of things found almost without exception in operations performed for chronic ulcer of the stomach, gastro-enterostomy is the most successful operation. But it is not improbable that with a clearer recognition of the essentially surgical nature of these cases, other operations may prove equally, perhaps even more, satisfactory than this. Finney's operation of gastro-duodenostomy has met with success at the hands of many surgeons, and I have obtained a good result in two cases. When the ulcer which is the cause of the operation is solitary it will probably be the best practice to excise it if possible. In cases of multiple ulcer near the pylorus, Rodman's operation—the excision of the ulcer-bearing area—may be necessary. The operation of pyloroplasty is speedily falling into disuse.

Summary of Cases.

For chronic ulcer of the stomach or duodenum, or both, excluding the cases of acute haemorrhage and of perforation previously considered, I have performed gastro-enterostomy in 153 cases, with 2 deaths. The total number of operations of all kinds is as follows: In 1 case gastroplication was performed; seven years later the patient was worse than before, and gastro-enterostomy was performed, with complete relief to all symptoms. In 3 cases pyloroplasty was performed; in two of these gastro-enterostomy has since been necessary. In

2 cases Finney's operation was performed; both patients recovered. In 153 cases gastro-enterostomy was performed; 151 patients recovered, 2 patients died.

Secondary operations have been necessary in 2 cases; in one, an early case, on account of regurgitant vomiting, an entero-anastomosis being performed; in the other vomiting began a few weeks after the operation, and persisted in spite of lavage; at the operation a hernia of the small intestine through the opening in the transverse mesocolon was found. Both these conditions—regurgitant vomiting and hernia through the opening in the mesocolon into the lesser sac—are impossible with the two slight modifications I have adopted during the last twelve months. Regurgitant vomiting is prevented by making the anastomosis as high as possible in the jejunum, and hernia is prevented by suturing the margins of the opening in the mesocolon to the jejunum near the line of stitches between it and the stomach.

Hourglass Stomach.

One of the late results of chronic ulceration occurring in the body of the stomach is the constriction of the organ at or near its middle; a condition of what is appropriately termed "hourglass stomach" is then seen.

Hourglass stomach is far commoner than was at one time supposed, and its existence was formerly attributed to a congenital fault in development. I have elsewhere shown that the condition is always acquired, and is the result of chronic ulceration or of malignant disease which is probably secondary to ulceration. The diagnosis of an hourglass stomach can generally be made with confidence if attention be paid to certain signs. These are:

1. If the stomach tube be passed, and the stomach washed out with a known quantity of fluid, the loss of a certain quantity will be observed when the return fluid is measured. Wölfler, who called attention to this sign, said that some of the fluid seemed to disappear "as though it had flowed through a large hole," as indeed it has in passing from the cardiac to the pyloric pouch (Wölfler's "first sign").

2. If the stomach be washed out until the fluid returns clear, a sudden rush of foul, evil-smelling fluid may occur; or, if the stomach be washed clean, the tube withdrawn and passed again, in a few minutes several ounces of dirty offensive fluid may escape. The fluid has regurgitated through the connecting channel between the pyloric and cardiac pouches (Wölfler's "second sign").

3. Paradoxical dilatation—if the stomach be palpated and a succussion splash obtained, the stomach tube passed and the stomach apparently emptied, palpation will still elicit a distinct splashing sound. This is due to the fact that only the cardiac pouch is drained; the contents of the pyloric remain undisturbed and cause the splashing sound on palpation. For this phenomenon Jaworski has suggested the appropriate name "paradoxical dilatation." Jaboulay has pointed out that if the cardiac loculus be filled with water, a splashing sound can still be obtained by palpation over the pyloric pouch. The sign of paradoxical dilatation is best elicited after washing out the stomach in the ordinary manner. When the abdomen is examined at the completion of the washing and when the stomach has been apparently drained quite dry, a splashing sound is readily obtained, for some of the fluid used has escaped into the pyloric pouch through the connecting channel.

4. Von Eiselsberg observed in one of his cases that on distending the stomach a bulging of the left side of the epigastrium was produced; after a few moments this gradually subsided and concomitantly there was a gradual filling up and bulging of the right side.

5. Von Eiselsberg also called attention to the bubbling, forcing, "sizzling" sound which can be heard when the stethoscope is applied over the stomach after distension with CO_2. If the two halves of a Seidlitz powder are separately given and the stomach be normal or dilated, no loud sound is heard anywhere except at the pylorus; if a constriction is present in the stomach, a loud, forcible, gushing sound can be easily distinguished at a point two or three inches to the left of the middle line.

6. I first called attention four years ago to a sign which I have since found of great service in establishing a diagnosis of hourglass stomach. The abdomen is carefully examined, and the stomach resonance percussed. A seidlitz powder in two halves is then administered. On percussing after about twenty or thirty seconds, an enormous increase in the resonance of the upper part of the stomach can be found, while the lower part remains unaltered. If the pyloric pouch can be felt or seen to be clearly demarcated, the diagnosis is inevitable, for the increase in resonance must be in a distended cardiac segment. If the abdomen be watched for a few minutes the pyloric pouch may sometimes be seen gradually to fill and become prominent.

7. Schmidt-Monard and Eichhorst have seen a distinct sulcus between the two pouches inflated with CO_2. This condition I have twice seen very distinctly.

Summary of Cases.

I have operated upon 20 cases of hourglass stomach due to simple disease, with three deaths. There may be great difficulty in successfully dealing with this deformity, owing to the fact that there are two pouches in the stomach, both of which must be drained, and to the fact that in a certain number of cases a constriction in the body of the stomach is associated with one at the pylorus. The operations performed in my cases were as follows:

Gastroplasty in 7.
Gastro-enterostomy alone in 6.
Gastroplasty and gastro-enterostomy in 2.
Gastro-gastrostomy alone in 1.
Gastro-gastrostomy and gastro-enterostomy in 3.
Dilatation of stenosis in 1.

CASES ILLUSTRATING ALTERNATIVE OPERATIONS FOR INTESTINAL OBSTRUCTION.

By ARTHUR E. BARKER, F.R.C.S.,

Professor of Surgery, University College; Surgeon, University College Hospital.

Among the large number of cases of intestinal obstruction which fall to the lot of most active surgeons, there are many, probably the majority, in which the line to be adopted seems quite obvious—as, for instance, in simple external herniae, which with few exceptions—one of which will be illustrated lower down—are plain sailing. But there are besides, and perhaps always will be, a large proportion in which the course which ought to be taken is not immediately clear even when the abdomen has been opened, and which consequently tax the surgeon's judgement even more than his skill, though both may be equal to many other emergencies. He may be familiar with the best method of performing colostomy, caecostomy, and enterectomy; he may have had success in "short-circuiting" in various directions and in enterectomy, and yet he is from time to time confronted with cases in which he must feel considerable doubt as to which of these procedures he is called upon to adopt, and where he is only too keenly conscious that an error in judgement or delay in decision may cost the patient his life, or, if the latter is saved, render it one of great suffering both to mind and body; and the more experience he has the more fully will he recognize the need of mature judgement and prompt decision.

A series of cases recently under my care have suggested these reflections, and that a very brief survey of them, with a short commentary on each, may be profitable for guidance to others, and even encouraging, in a very serious class of cases.

In the group to be related it will be noticed that there are instances both of obstruction in the large and small intestine due either to growth or inflammatory constriction; but stoppage from rectal carcinoma is not included, as the question of excision *versus* colostomy would carry us too far. There was a time, not long since, when the only alternative to non-interference in cases of obstruction of large or small bowel was the formation of an artificial anus, with or without excision of the growth if present. But ever since we have learned how to "short-circuit" the intestine round a growth or firm inflammatory obstacle, we have often where this has been done been perhaps inclined to be despondent as to the prognosis, and have not fully realized the resources of surgery.

Out of a large number of cases illustrating the alternative procedures at our disposal, the following are taken as examples. The first two show the advantages of "short-circuiting" *as a preliminary to subsequent removal* of the obstructing growth.

Case I.

A young man, aged 30, was admitted into hospital with aggravated symptoms of obstruction. These had been for some weeks gradual, and then rapidly increased. The abdomen was moderately distended, but very hard; the general condition was good, but pulse and temperature were rising. No tumour could be felt anywhere in the tense abdomen, and the only guides to the situation of the obstruction were the gradual onset of the symptoms, and the relatively late appearance in particular of the vomiting, which all pointed to a stoppage low down.

On May 7th, 1899, I opened the abdomen in the middle line, and found the small intestine hugely distended to over 3 in. in diameter, and greatly hypertrophied. It was hopeless to explore the abdominal cavity manually under these circumstances, and a coil was allowed to force itself out of the incision, and was at once slit open, giving exit to about five pints of horribly offensive contents and a large quantity of gas. The hand could now be introduced, and a growth was discovered in the caecum. The ileum, about 2 ft. above the ileo-caecal valve, was now anastomosed laterally to the transverse colon by suture, then the first relief opening in the gut was closed by suture, and the abdominal wound stitched up without drainage. Recovery from this operation was soon complete, with only some stitch abscesses. At the end of six weeks I again opened the abdomen in the right flank, and, finding everything quiet, excised the caecum and ascending colon, and about 6 in. of the ileum below the point of anastomosis, turning in and

stitching the ends distal to the anastomotic junction. Recovery was rapid, and the patient was quite well in May, 1904, five years after operation, and without any recurrence. I have sent him word to report himself, and hope soon to see him again.

In this case the benefit of immediate evacuation of the bowel was obvious, and as the latter was fairly healthy and hypertrophied, the process of emptying the bowel was rapid and almost complete, leaving little to flow through the anastomosis opening into the bowel below. The gut, though hypertrophied from effort against the chronic obstruction, was not sodden with toxins, as in the next and other cases, and was therefore in a suitable condition to hold stitches and unite by plastic adhesion. This being so, and the patient being relieved at once of most if not all of the pent-up faeces and in good condition generally, there was no reason against immediate "short-circuiting," and this was done forthwith. But it appeared questionable whether at that time he would have borne in addition the extra strain of such an elaborate operation as an excision of the caecum, which necessarily takes up much time. This measure was therefore postponed to a second sitting, when there was no doubt of the general condition and that of the gut being improved by the evacuation through the anastomosis and an abundant dietary.

The second case is somewhat analogous, but the conditions were altered, requiring a different procedure.

Case II.

A. A., aged 57, admitted to University College Hospital May 27th, 1904. Symptoms began with abdominal pain six months earlier, which recurred at intervals. Five weeks previous to admission severe pain and vomiting set in. This recurred and became faecal four days before he came to us. Bowels were irregular since the first attack, but had not acted at all for four days before admission. Wasting and anorexia had been noticed for five weeks. Enormous distension was now present. Diagnosis: carcinoma of the splenic flexure of colon.

May 27th, abdomen opened in mid-line below umbilicus. Greatly distended coils presented, and some free fluid escaped. Intestines sodden and friable. One of the escaped coils was incised, and much fluid and gas escaped. The hand could now be introduced into the abdomen, and a mass of carcinoma was felt blocking the splenic flexure. The sodden state and paresis of the bowel seemed to indicate that there was still much more faeces retained than had come away on incision of the gut; and as the general state of the patient was bad I abstained from further operation until the intestines had been emptied, and simply brought the incised portion of the bowel into the angle of the abdominal wound, and established an artificial anus. Relief followed freely, but the acrid faeces soon caused the most extensive ulceration of the whole of the lower half of the abdominal wall, in spite of every care. At the end of July this ulceration had improved, and was cleansed as far as possible for some days, and the proximal loop of bowel about 2 ft. above the artificial anus was anastomosed through a left lumbar incision to the sigmoid flexure of the colon (July 1st). This was a difficult operation, as the sigmoid was contracted owing to prolonged disuse, and it did not resume its functions until July 24th, when the first motion was passed per anum.

On July 28th I opened the abdomen again further up the left flank, and excised the whole splenic flexure with the growth, closing both cut ends of the bowel.

Finally on October 10th, I incised round the artificial anus, drew forward the bowel in which the opening lay, closed the proximal end, and dropped it into the abdomen and stitched up the wound in the abdominal wall, leaving the distal end of the bowel in the lower angle to allow the escape of gas and mucus from the caecum and colon, which had been closed at the other end. The man soon improved, and left the hospital on November 20th, 1904, for his home, looking very well.

In this case it appeared inadvisable to short-circuit the bowel in the first instance, in view of the fact that it was loaded with very acrid fermenting faeces and toxins, even after being relieved by incision in the first instance, and also on account of the sodden and rotten condition of the gut, which would hardly hold stitches when they were inserted in the relief opening. Moreover, the patient's general condition after many weeks of obstruction, semi-starvation, and suffering forbade anything but the shortest operation possible. But the ill-effects of an artificial anus were well exemplified in this case. The ulceration of the abdominal wall, due to the constant discharge of acrid faeces, was such as I have never seen before, and influenced the safety of the second operation very seriously, to say nothing of the discomfort and suffering. It also seemed to contraindicate the more extensive operation of excising the growth at the same time that the anastomosis was made. But there was another reason for postponing this excision. This lay in the condition of the bowel below the obstruction. It must be remembered that it had been for weeks or months inactive, little or no faeces having passed through it. As might have been expected, it was found to be empty and contracted, and could only resume its functions by degrees after the anastomosis was made. As a matter of fact, the first motion per rectum only took place on the twenty-fourth day after the ileum had been united to it. All this time the faeces continued to be discharged on the abdominal wall, keeping up the ulceration and rendering such a delicate operation as excision of a large part of the colon and growth extremely hazardous. When the latter operation came to be done, it was very difficult to keep the new wound in the flank clean of faeces. But it was done almost perfectly, and only a trace of superficial suppuration took place in it. Finally, it was necessary in closing the artificial anus to leave the distal portion open in the abdominal wall to serve as a safety-valve for the remains of the colon, thrown now out of function. Looking back upon all the features of this case, I cannot help thinking that the right course was followed, and that any other combination of the procedures would have given less prospect of success.

But there are other cases where our measures for the relief of malignant obstruction are far more simple and in many ways safer. Two out of a larger number may now be mentioned:

Case III.

Mrs. M., aged 58, was admitted in October, 1900, under the care of the late Dr. G. V. Poore, and transferred to me when we had diagnosed a cancerous obstruction of the transverse colon. The general condition was good except that the patient was passing 6.6 per cent. of sugar in her urine. Here the bowel could be assumed to be healthy as the obstruction had never been acute, and I trusted that a strict attention to asepsis would meet the risks of operating in the presence of glycosuria.

On October 25th, 1900, I excised the transverse colon and its growth, and at once joined up the divided bowel "end to end." The first dressing was removed on the tenth day, when some suppuration and leakage was found; but the patient made a steady and uneventful recovery after discharging a few stitches, and is now quite well, and apparently without recurrence four years and five months after operation (February, 1905). She is reported to have had, however, a stroke of paralysis recently.

It was in this case the absence of such an amount of obstruction as would have produced distension and disease of the gut with general toxaemia which determined resection and immediate junction "end to end." There was no need of a preliminary artificial anus, and no serious risk of contamination from an overloaded upper part, or of the stitches not holding in damaged intestine. Of course, the 6.6 per cent. of sugar complicated the case, but the success in spite of it shows the effect of adequate asepsis.

Case IV.

Mrs. G., aged 57 (private case), was like the last, except that the growth was in the splenic flexure. On November 11th, 1901, I excised the whole descending colon, including a large growth in the flexure involving a large patch of parietal peritoneum and a portion of the corresponding mesentery, and united the end of the transverse colon to the sigmoid flexure "end to end." Recovery was excellent after a trifling faecal fistula in the wound, which soon closed. Within the last few days, through the kindness of Dr. Travers, whose patient she was, I have heard that she is in excellent health now, over three years and a quarter after operation.

In this case, too, our whole task of relieving the obstruction and excising the cancer was completed at one sitting, as the bowel was healthy and the general condition favourable; and there was no reason to regret the procedure.

But even in cases where a growth in the bowel either ought not or cannot be removed owing to its extent and relations, or the patient's age or general health, or the presence of other deposits, much may be done to relieve the suffering of obstruction and prolong life in many cases by short-circuiting. A few such may be quoted in illustration:

Case V.

Case v is a remarkable instance and one hard to explain. Mrs. W., a lady aged 48, was treated by my colleague, Dr. F. Roberts, for chronic and very painful obstruction at the beginning of 1899. As the most approved measures gave no relief I was asked to operate. This was done on February 10th, 1899, six years ago. I found a mass of new growth the size of my fist, involving the small intestine. There were no adhesions, and the whole mass could be lifted out of the abdomen. It was pale in colour, lobulated, and softish under its covering of peritoneum. Though in itself it could have been easily excised with the several inches of bowel running through it, the presence of a chain of similar though smaller nodules lying in the corresponding mesentery as far as its root seemed to indicate advanced generalization, and to negative excision. It was regarded by all who saw it as malignant and probably sarcoma. I therefore made a short-circuit between the gut above and below the growth.

Recovery was perfect and rapid, and from that day to this the lady has remained perfectly well and has grown stout. We have of course been anxious about the growth, but it has

given no further trouble. I have heard of and seen her frequently up to date, and all is well. What the nature of the neoplasm really was it is impossible now to say, but we all held it to be a sarcoma. As six years have elapsed since the operation and it now shows no signs of its presence, this can hardly be the case.

CASE VI.

Mrs. M., aged 73, seen at Wimbledon with Dr. Barton, had suffered acutely from abdominal pain and obstruction for some considerable time. There was a small rounded, indistinct tumour to be felt above the umbilicus, which was, I think, first noticed by Dr. Mitchell Bruce. As no relief could be obtained otherwise, Dr. Barton asked me to operate, which I did last May in the presence of his partner, Dr. Hayward, and with my assistant. A mass of growth was found in the small intestine, obviously cancerous. But though this itself could have been easily removed with the loop involved, the presence of many secondary deposits forbade such a measure. Short-circuiting was therefore done, and perfect and immediate recovery followed. Within the last few weeks I have heard from Dr. Barton that the lady remains perfectly well and has increased much in weight. In this case months of comfort, at all events, have been secured at a very moderate risk.

CASE VII.

Mrs. B., aged 65, was suffering from constipation due to a carcinomatous lump in the sigmoid flexure of the colon. On opening the abdomen in the left flank not only was the large bowel found to be involved, but some coils of small intestine which were adherent to it. I therefore with considerable difficulty short-circuited the colon above and below the obstructing mass. Perfect recovery followed. A few days ago Mr. Stathers, of Brackley, wrote, saying that relief had been complete, and that the patient had enjoyed a comfortable existence for many months before the inevitable end came.

CASES VIII AND IX.

Cases VIII and IX were both of obstruction from cancer of the caecum, inoperable in each. In the first, an old woman of 72, on account of great feebleness; and in the other, a healthy-looking man of 48, on account of extensive secondary nodules in omentum, etc., only discovered when the abdomen was opened. They both illustrate the advantages of short-circuiting, and have left the hospital recently relieved of their obstruction and pain, and a good prospect of, perhaps, many months of comfortable existence, for such growths, as a rule, are slow in growth. In the first of these a lateral anastomosis of ileum to transverse colon was made 18 in. above the valve, with division of the ileum between the latter and the anastomosis, and closure of the cut ends. In the other, in order to save a little time, the ileum was divided, and the proximal end was implanted into the hepatic flexure of the colon "end to side," while the distal was closed. This of course diminished the ends to be closed by one, though, perhaps, it increased the risk of infection from the open end a little while stitching. Recovery was rapid in spite of bronchitis, and all troublesome symptoms were relieved at once.

The next case, recently in hospital, offered for solution a very difficult problem, although a simple incarcerated femoral hernia; it was, to be sure, of great size—in fact, the largest I have ever seen.

CASE X.

Mrs. G., aged 48, had suffered from a right femoral hernia for several years. This could always be reduced until quite recently, when it had become enormously increased in size, painful, and absolutely irreducible, but on admission there were no symptoms of actual acute strangulation. Attempts were made on several days to effect taxis with the fingers in vain, and then the whole mass was enveloped in a light elastic bandage to gradually reduce its size, if possible. Finally, I cut down upon it, and found that it contained the caecum (!) and a couple of feet or so of the lower part of the ileum. Both guts were almost quite black, inflamed, enormously oedematous, and were absolutely irreducible unless I had completely divided Poupart's ligament and much of the abdominal wall. But, even if this had been done, the condition of the bowel forbade reduction. I therefore covered the exposed hernia carefully with gauze packing, and immediately opened the abdomen in the right flank, and, having with some difficulty found the proximal end of the incarcerated loop of the ileum, anastomosed it to the ascending colon, and closed the abdominal wound. Then, returning to the hernia, I excised it *in toto*, closed the two cut ends, and, having stitched up the peritoneum where the caecum had been removed, performed a radical cure in the usual way. The gut removed consisted of the whole caecum and about a foot or so of the ileum, part of which was so dilated as to resemble the stomach in size and outline. After some vicissitudes, chiefly due to bronchitis, the patient recovered, and is now relieved of all trouble.

To have left such a large femoral hernia on the borderland of suppuration unrelieved would have been to court disaster sooner or later. An operation was, therefore, begun in the hope that it might be in a state to admit of reduction and a radical cure. But when the hernia was actually exposed, it was at once seen that this was out of the question. In the first place, to reduce a large hernia containing the caecum is always in the adult a very difficult matter, seeing that the caecum is only partially covered by the peritoneum. But apart from this difficulty, which would have been greater in a femoral hernia (where it is fortunately rare) than in an inguinal in which it is more common, the condition of the bowel was grave: it was black, oedematous, matted together into a lump, and softened. To have reduced it in this condition would have been very perilous. The only alternative, therefore, appeared to me to be excision of the whole extruded mass. This had the further advantage of enabling a radical cure to be done, which, though it prolonged the operation, seemed unavoidable, inasmuch as the large femoral ring, if left unclosed, would have invited the redescent of some other coil of intestine during the vomiting and coughing which so often follows chloroform or ether, and both of which were very severe after this long operation, for the operation was necessarily long (two and a half hours), involving as it did an abdominal section with anastomosis, followed by an extensive resection and then a radical cure. And there was no stopping once the condition had been clearly ascertained. That the fear of bronchitis was justified was seen soon after return to bed, and the lung condition was the chief source of anxiety. It was met in the usual way, especially by keeping the patient in the sitting position in bed, to give the fullest play to the lungs. This group of cases illustrate most of the alternatives at our disposal in cases of obstruction, exclusive of the formation of an artificial anus alone—a very sad alternative in my opinion, but one to which we are driven in some cases which might be amply illustrated by recent cases where it certainly gave a measure of relief.

Before concluding it may be well to refer to some points in the after-treatment in such cases which are of prime importance.

One of the chief immediate risks of these operations may fairly be said to be lung affections from causes tolerably well understood. This is best met by careful cleansing of the mouth and teeth before operation, by warmth during and after, when the patient's vitality is often at its lowest, by the reduction of the amount of the general anaesthetic to its lowest, and by the use of local anaesthesia for a part or the whole of the operation, and when the latter is finished the patient should be kept in the upright position as much as possible. This, of course, presupposes that the wound is firmly supported without too tight a bandage or binder, so that the diaphragm shall have free play. If the diaphragm be impeded in action, the bases of the lungs are of course not properly expanded.

Another risk is leakage at the points sutured in the intestine, and this is more apt to occur where the large bowel has been operated on than in the case of the small gut. This possibility raises the question of drainage of the wound or no drainage. Some operators of large experience and great skill have noticed leakage so often that they advocate drainage with gauze packing as a routine. But this involves a more or less open wound, and the risk of protrusion of gut during coughing or vomiting. On the other hand, if the wound is securely stitched up union takes place, and there is little danger of prolapse, and from what I have seen I think less danger of leakage. But if the latter takes place under a closed wound it may, of course, cause serious trouble, but perhaps not so serious as is often supposed where the junction lies immediately under the abdominal wound—for example, Case III. After trying both courses, I personally feel that where there is any doubt as to the asepsis or completeness of the sutures a small gauze drain is desirable from the neighbourhood of the junction. Otherwise entire and careful closure of the abdominal wound with firm support should be the rule. The gauze drain, if employed, should be removed early. Its track will still remain a point of least resistance should leakage subsequently take place, and will guide the discharge to the surface. Such tracks usually heal up sooner or later. But the weakness of an extensively drained wound, especially if a vertical pararectal wound has been made, must always be remembered. For this reason, in removal of portions of the large intestine the oblique incision in the loin is to be preferred. This has also the merit of being less likely to divide the nerves going to the rectus muscle as well as that of avoiding division of muscle fibres.

The less a wound has to be disturbed for the first few days the better for all the plastic processes and for the patient's general state. The second dressing can never be so securely applied as the first.

All this question of after-treatment requires very close attention and experience, and those who are constantly seeing these cases realize this most fully. No hard-and-fast lines of action can be laid down; each case must be treated on its merits. Some are simple enough, others tax our judgement and resourcefulness to the utmost.

Since these remarks were written, another case showing the benefit of short-circuiting for carcinoma of transverse colon has reappeared at hospital. I "short-circuited" more than two years ago, and on recovery proposed excision of the cancerous colon. But the poor fellow, aged 31, was obliged to decline, as his business matters were in confusion and required his personal attention then. He only returned three weeks ago looking very well and with regular bowels, but the growth was too far gone to justify removal (vide *Clin. Soc. Trans.*, March, 1905, for details).

REMOVAL OF GALL BLADDER IN A WOMAN AGED 75.

By AUGUSTUS W. ADDINSELL, M.R.C.P.,
Physician, London Temperance Hospital.

The following case may be worth recording on account of the age of the patient, the severity of the symptoms, and the completeness of the recovery.

Mrs. M., aged 74, a widow, had suffered from frequent attacks of pain in the right hypogastric region, accompanied by jaundice. There had been progressive exhaustion and emaciation for eighteen months. I saw her first in consultation with Dr. Muzio Williams in March, 1902. The history was that eighteen months previously she had been suddenly seized with violent pain in the right hypogastric region; vomiting was severe, and the following day all the usual symptoms of jaundice manifested themselves. The stools were pale, the urine was porter-coloured; the skin yellow, and the itching intolerable. This condition lasted for some days, the jaundice never completely disappearing; when in about a month another attack came on. These attacks recurred with increasing frequency, until, at the time I saw her, she was completely bedridden, rarely out of pain, deeply jaundiced, had lost more than 2 st. in weight, and had all the appearance of a woman suffering from malignant disease of the liver. There was a large solid mass reaching from below the right costal margin to the level of the anterior superior iliac spine; percussion over the right chest gave a clear note down to the last rib. There was complete enteroptosis. The lower border of the liver was easily felt below the umbilicus, and in the right iliac fossa a small movable mass was made out.

Dr. Turney had previously seen the patient and advised, in the event of the continuance of the symptoms, that an operation should be attempted. Dr. Muzio Williams agreed with me that, as the patient was markedly losing ground, there was no other course open.

I made an incision as for appendicitis, as that corresponded with the lower edge of the liver and was over the mass which I took to be the gall bladder. That organ was found considerably enlarged, and an incision into it showed it to be greatly thickened; the walls were more than ½ in. thick, and it was filled with a large mass of inspissated bile which readily broke down; there were in addition several large gall stones. After removing the mass and the stones, 6 oz. of normal saline solution were injected into the cystic duct; these were followed by another 3 oz. As none returned, it evidently passed through the via duodenales into the duodenum.

I removed the gall bladder and succeeded in getting the neck of the cystic duct into the lower angle of the peritoneal wound. The peritoneum was then closed and the fascia muscles sewn round the orifice of the duct, but the skin was not attached to the stump. The dressing was changed daily for a week, and 3 or 4 oz. of normal saline solution injected into the duct daily for seven days. After that the injections were discontinued. There was a gradually diminishing quantity of bile discharged, and in a month the wound was healed.

From the day following the operation decided improvement in all the symptoms set in; the urine became normal in colour; bile passed freely into the intestine, as evidenced by the colour of the stools; gradually the jaundice disappeared, the pain entirely ceased.

I have just seen the patient, two years after operation; she has put on more than two stone in weight. She takes daily walking exercise of four miles. She has had no pain or return of any of the symptoms, and is quite well, and stronger than she has been for years past. The eminently satisfactory result of operation on this case of severe cholangitis is encouraging.

I am indebted to Mr. Mayo Robson for the suggestion which I found in his book—as to the injection of saline solution—and I cannot help thinking that it was the washing out of the clogged ducts that cured this patient.

NEW METHODS OF STUDYING AFFECTIONS OF THE HEART.

By JAMES MACKENZIE, M.D.,
Burnley.

IV.—ACTION OF DIGITALIS ON THE HUMAN HEART IN CASES WHERE THE INCEPTION OF THE RHYTHM OF THE HEART IS DUE TO THE VENTRICLE.

I have already endeavoured in two papers in this Journal[1] to demonstrate the fact that the rhythm of the heart may originate with the ventricle. Continued observation has afforded me still stronger proof in favour of this observation. The study of the effect of digitalis on my patients has brought out very striking differences between these cases and those where the rhythm starts at the auricle. No rational idea of the manner in which digitalis acts can ever be obtained unless this change in the heart's action is appreciated. The means whereby one can recognize and demonstrate whether the rhythm of the heart is auricular or ventricular in origin is by the jugular pulse. When a pulse is present in the jugular if the auricle is active it will undoubtedly always produce a wave with its systole, but if the rhythm is ventricular in origin then no wave will appear at the time usually occupied by the auricular systole, but the jugular pulse will be found to be synchronous with the ventricular systole. This change of the jugular pulse from one of the auricular type to one of the ventricular has been illustrated by examples in my previous papers in this Journal and in my book,[2] and very convincing illustrations will be found in the second case recorded in this paper, and in a paper which Deutsch read at the last German Medical Congress at Leipzig.[3]

Apart from the scientific interest which this view should evoke, the matter is one of the highest practical importance, as a large number of the cases of heart failure which we are called upon to treat present not only this feature, but the inception of the rhythm by the ventricle is the direct and immediate cause of the heart failure. I have been engaged for some time on a minute inquiry into this subject, and the results obtained so far justify me in stating that they will not only profoundly modify our conception of many forms of heart failure, but will give us a more direct and definite aim in our attempts at treatment.

In my first paper on the ventricular rhythm, I showed that this condition might arise in different ways, one of which was that which occurred in advanced disease of the mitral valves. In this complaint, towards the end of life, the pulse frequently becomes irregular—the well-known "mitral pulse." This is almost invariably the sign that the ventricle has taken on the inception of the rhythm of the heart. If there has previously been present an auricular systolic murmur of the crescendo type it disappears, though a low-toned diastolic murmur may continue; and if there has been a jugular pulse present, it will now be found to be of the ventricular type. If the heart's action is rapid, it may be quite regular with the ventricular rhythm (see Figs. 5 and 8).

There seems to be reasonable ground for assuming that an anatomical basis will be found to account for some varieties of ventricular rhythm. In those cases where the ventricular rhythm arises subsequent to long-standing disease of the mitral valves and great dilatation, I had assumed that the auricle, like an over-distended bladder, became paralysed, temporarily or permanently. Certain signs, however, now lead me to doubt the correctness of this view in all cases, as it would seem that the auricle might contract during the ventricular systole. I mention this, that the term "auricular paralysis" may be understood to apply to those cases of long standing mitral disease where the rhythm is ventricular in origin, and where no evidence of an auricular contraction occurs. Dr. A. Keith,[4] in his recent Hunterian lectures, dwelt upon the nature and functions of certain bands of muscle fibres in the heart. In these lectures he analyses the anatomical condition of a number of hearts I sent him, and he brings out in a striking manner the relationship between certain anatomical conditions and the symptoms during life. Thus, in describing the heart from the first case I cite below, he found extreme atrophy of the musculature of the auricle with great elongation and atrophy of the auricular canal, there being also marked stenosis of the mitral and tricuspid orifices (see his Fig. 9). In another heart with mitral and tricuspid stenosis which I

had under observation for three years, and whose pulse never showed any irregularity, and in whom the auricle was active until her death, Keith found great hypertrophy of the musculature of the auricle, and neither stretching nor atrophy of the auricular canal.

To illustrate the effect of digitalis in cases of ventricular rhythm I shall deal first with those cases that result from advanced mitral disease, as a peculiar and distinctive reaction is produced that I have not found in other forms of ventricular rhythm nor in cases when the auricle is active. The reaction about to be described does not occur in all cases, but many show it in a remarkable degree, and it is astonishing how readily susceptible those hearts are to the influence of digitalis.

Case I.

Female, aged 51, seen first on March 23rd, 1902. There is a history of weakness and shortness of breath, extending back for many years. She lies propped up in bed, her legs and abdomen being greatly swollen. The urine is scanty, the respirations are short and shallow. There is marked pulsation in the veins of the neck of the ventricular type (Fig. 1).

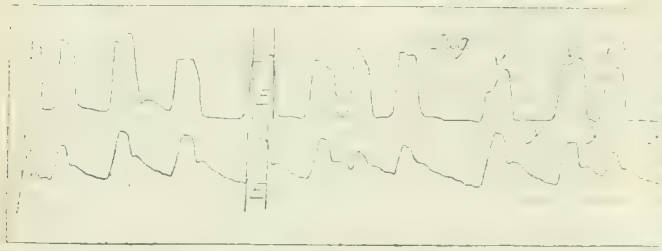


Fig. 1.—From an old-standing case of mitral and tricuspid stenosis. The jugular pulse is of the ventricular type, and the irregularity is due to the inception of the rhythm of the heart by the ventricle. (March 23rd, 1902.) (The space E in this and all other tracings represents that portion of the ventricular systole during which the semilunar valves are open.)

The pulse is small and very irregular. There is a great enlargement of the heart, the apex beat being felt in the sixth interspace, 2 in. beyond the nipple line, and the heart's dullness extends 2 in. to the right of the middle line. There is a systolic murmur heard at the apex, and also heard all over the back of the chest. A systolic murmur of a somewhat different character is heard over the front of the heart and at mid-sternum. A diastolic murmur occupying sometimes the whole of the diastolic period is heard in a small area at the apex. It is of a low, quietly blowing character, fading away towards the end—not ending in the characteristic crescendo murmur of the auricular systolic murmur. She was prescribed the pill containing digitalis, squill, and calomel three times a day. The pulse began to get slower in ten days' time, and on April 12th it had taken on the rhythm shown in Fig. 2.

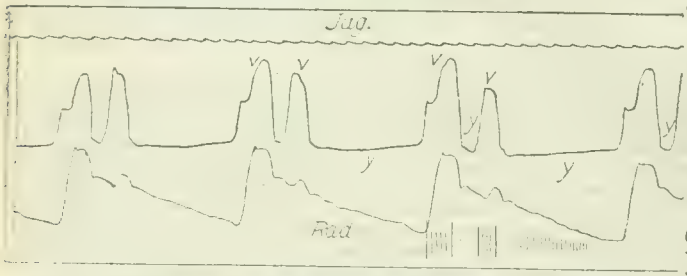


Fig. 2.—From the same patient as gave Fig. 1, three weeks later, showing how digitalis has exhausted the contractility, a weak, short beat following a large beat, then a long pause due to further exhaustion of the contractility. The shading underneath shows the position of the murmurs. (April 12th, 1902.)

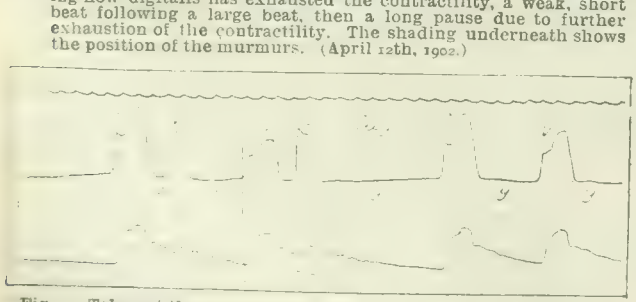


Fig. 3.—Taken at the same visit and from the same patient as Fig. 2, showing how the size and duration of the beat depends on the length of the preceding pause.

Sometimes this rhythm would vary as shown in Fig. 3. With the occurrence of this slow pulse the patient's condition improved, the urine increased in quantity and the dropsy to a great extent disappeared. Relief, however, lasted only a few months and she died on October 21st, 1902. At the *post-mortem* examination the mitral orifice was narrowed to a mere slit and the tricuspid barely permitted the passage of a finger.

There are some features to which I wish to call attention in this case. The rhythm of Fig. 1 is a very disorderly one and is a characteristic example of the kind of irregularity that occurs when the ventricle takes on the inception of the rhythm. It will be noticed that in the jugular pulse there is absolutely no sign of an auricular wave before the ventricular systole (space E). In most of the tracings I have given hitherto a distinct wave in the jugular followed by a fall always preceded the radial pulse; here, on the other hand, even where there is a long diastolic pause, no sign of an auricular beat occurs. The large wave V in the jugular is due to the right ventricle sending back directly through the over-distended auricle a large wave, and its perfect synchronism with the left ventricle is shown in its relationship to the radial pulse (lower tracing). The marked effect of digitalis is shown in Fig. 2, where a certain kind of regularity is to be observed. There are two beats linked together and they give a superficial resemblance to the form of pulse known as the pulsus bigeminus. But in true bigeminy and in the regular occurrence of extra systoles the auricles are active, and the peculiar arrhythmia is dependent on the activity of the auricle, so that it is manifest that we have to deal here with a totally different kind of arrhythmia. I am of opinion that the cause of the slow action of the heart is due to the digitalis depressing the function of contractility after the manner shown in my last paper. It was there pointed out that when digitalis depressed the contractility, if time were not given for the function to be restored, the contraction was less in force and shorter in duration, and experimental evidence was given to show that the fibres might refuse to contract and so a beat might drop out, to be followed by a stronger and longer systole. It will be noted that after a long pause (Fig. 2) a very large and long beat occurs. The stimulus arises shortly after this beat and the ventricle responds, but so exhausted is the contractility that only a small beat occurs and of very short duration. Its force is so small that it can barely open the aortic valves to produce a slight pulse wave in the radial artery; in fact, so weak is the second beat of the left ventricle that in many cases it fails to affect the radial pulse (see Fig. 9). The resistance offered to the wave sent back through the auricle to the jugular by the right ventricle is so slight that we always get a good record of its contraction in the jugular pulse, and here it is at once seen how much shorter is the ventricular contraction of the second beat compared with the first. After the second beat contractility is so greatly depressed that no response takes place for a time, when after a long rest it responds again with a long and full systole. This variation in the contractile force of the heart is still better seen in Fig. 3, where the size and duration of the beat depends entirely upon the time given to the muscle to recover. It is possible that other functions may be affected here besides that of contractility, but the depression of this function is so patent and so readily demonstrable that it is manifestly the principal, if not the entire, cause of the striking effect produced by the digitalis.

In the following case I would particularly draw attention to (1) the change of the jugular pulse from one of the auricular type to one of the ventricular type, and back again to one of the auricular type, indicating a temporary inception of the rhythm of the heart by the ventricle (temporary auricular paralysis?); (2) the extreme susceptibility of the heart to digitalis when the inception of the rhythm is due to the ventricle, compared to that when the rhythm is normal; (3) the difference in the reaction when the rhythm is normal and when it is ventricular.

Case II.

Female, aged 16. Seen first on March 21st, 1903. Has had rheumatic fever, and for some years has suffered from breathlessness and palpitation on exertion. This has increased lately, and there is slight oedema of the legs. There is marked pulsation of the veins of the neck of the auricular type (Fig. 4). The pulse is small, regular, 86 per minute. There is great heaving of the left chest with the movements of the greatly enlarged heart. The apex beat is large and diffuse, and felt in the sixth interspace and in the anterior axillary line. There is a loud, rough, systolic murmur heard over the whole heart and round to the back, but loudest at the apex. With rest and digitalis she rapidly improved. She broke down again, and a note on January 9th, 1904, states that the abdomen is greatly swollen, the liver enlarged, the legs oedematous, and the urine scant. The radial pulse is small, soft, and rapid, 126 per minute, while the jugular pulse is of the ventricular type. Under digitalin granules she again improved, but in February the granules were stopped, and she speedily broke down again. On

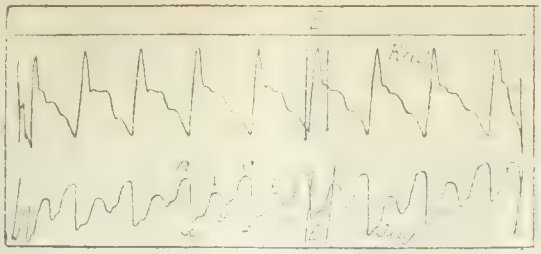


Fig. 4.—This and the following eight tracings are from the same patient. Here the pulse is regular, and the jugular pulse is of the auricular type. (March, 1903.)

March 10th, 1904, the condition was similar to that described on January 9th, the radial and jugular pulse tracings being shown in Fig. 5.

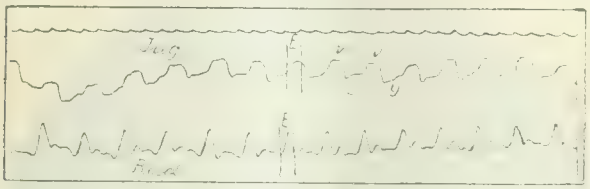


Fig. 5.—The jugular pulse is now of the ventricular type. (March 10th, 1904.)

She was prescribed digitalin granules, one per day. They speedily took effect, and on March 18th the pulse had become slow and irregular (Fig. 6). The urine had greatly increased in quantity, the abdomen

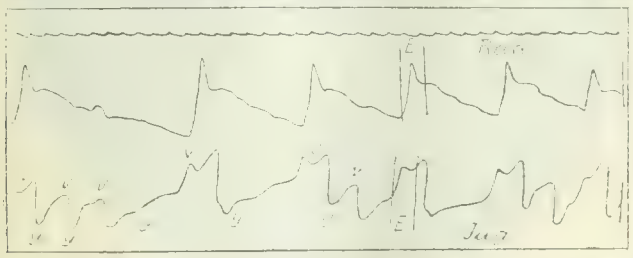


Fig. 6.—The jugular pulse is still of the ventricular type, but under the action of digitalis the radial has become slow and irregular. (March 18th, 1904.)

and liver had diminished in size, and all signs of dropsy had gone. The digitalis was continued till March 28th, one granule being taken every second day, and she continued in fair health, the pulse still slow and irregular, as shown by Fig. 7, which was taken on March 26th.

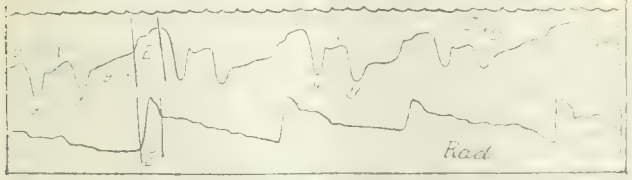


Fig. 7.—Shows the characteristic effect of digitalin being maintained. (March 26th, 1904.) The jugular tracing shows the nature of the arrhythmia, and resembles that in Fig. 2.

The digitalin was stopped on March 28th. Four days after stopping it the pulse had increased to 85 per minute, though she felt still fairly well. On April 5th—that is, eight days after stopping the digitalin—the rate of the heart had increased to 120 beats per minute, the pulse had become small and weak and the jugular distension had increased.



Fig. 8.—Eight days after stopping the digitalin failure of compensation again set in, the pulse here being 120 per minute, and the jugular pulse being still of the ventricular type. (April 5th, 1904.)

(Fig. 8.) The other signs of heart failure were beginning to show themselves. She was again put on digitalin, one granule per day. On April 9th the pulse was still 120 per minute. On April 11th it was 130, on April 14th it had again become slow and irregular. (Fig. 9.)

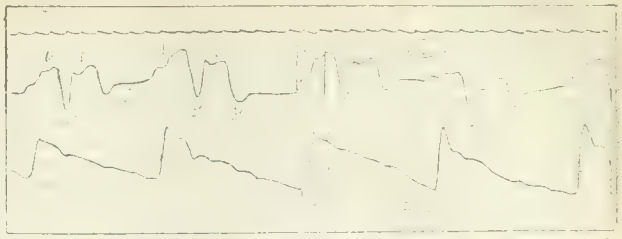


Fig. 9.—Nine days after beginning the digitalin the characteristic effect is reproduced. (April 14th, 1904.)

The digitalin was again stopped, but as the pulse began to increase in rate on March 17th, one granule per day was prescribed. The patient continued in fair health, but as the pulse did not slow down satisfactorily, on May 1st I doubled the dose. I did not take any further tracings till May 14th, contenting myself with watching for the slowing of the pulse. Finding it did not yield as before to the increased doses of digitalin, I took tracings on this day, and found a perfectly regular radial pulse, while the jugular pulse had completely changed its character, being now of the auricular type—that is, the auricle has again resumed its activity, and the heart chambers contract in their normal sequence. Occasionally, for a short period, it would show a slight alternating rhythm, as in Fig. 10.

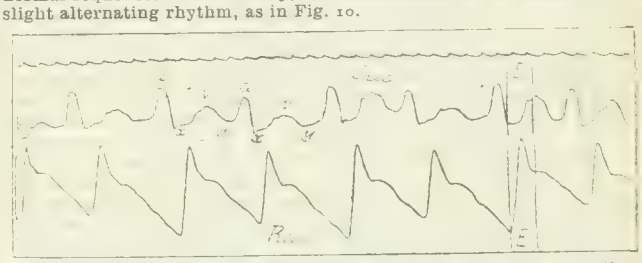


Fig. 10.—With continued use of digitalin the auricles resume the inception of the rhythm of the heart, as shown by the fact that here the jugular pulse is of the auricular type. (May 15th, 1904.)

The digitalin was stopped, and the patient continued in fair health for some months. Up till now (February, 1905) the jugular pulse has continued of the auricular type, and the pulse has been quite regular except during a short period shortly to be described. On December 18th, 1904, she was again beginning to get oedema of the legs, and the abdomen began to swell, and she was very breathless. The pulse was small, soft, and rapid, 110 per minute, and the jugular pulse was still of the auricular type. She was prescribed one granule of the digitalis per day. No improvement had taken place by December 27th, when she was ordered to take two granules per day. By January 2nd, 1905, the rate had fallen to 80, as a rule quite regular, but occasionally an extra-systole of ventricular origin would occur (Fig. 11). Sometimes for a

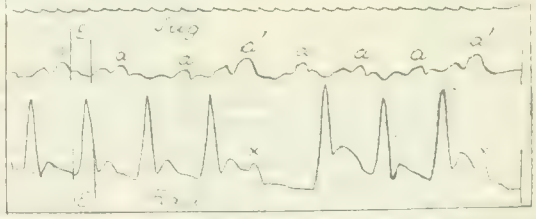


Fig. 11.—Shows a jugular pulse of the auricular type with the occasional occurrence of a ventricular extra-systole. The auricular waves (a and a^1) occur at regular intervals, while the small waves (x) in the radial occur prematurely. The larger size of a^1 is due to the fact that when the auricle contracts the ventricle is already in systole, and therefore cannot receive the auricular contents, which are thus sent back into the veins, producing this larger wave. (January 2nd, 1905.)

short period these ventricular extra-systoles would appear after every second beat (Fig. 12). The digitalis was stopped, and the arrhythmia

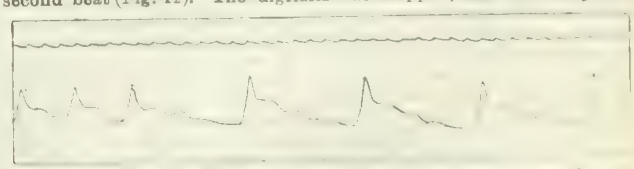


Fig. 12.—Shows an allorhythm due to the regular occurrence of ventricular extra-systoles. (January 2nd, 1905.)

disappeared. She still continues in fair health, with a perfectly regular pulse.

I need not dwell on the convincing character of this series of tracings from this patient. The demonstration of the normal rhythm in Fig. 4 and of the ventricular rhythm in Figs. 5 to 9 and the return to the normal rhythm in Fig. 10 is surely sufficient to give pause to the most sceptical critic. That some profound change had taken taken in the rhythm of the heart is placed beyond cavil, and if my interpretation is wrong there are sufficient striking facts recorded in the tracings to afford material for a close investigation into this matter. The space E in all these tracings represents that portion of the ventricular systole when the semilunar valves are open, and in the jugular tracings it will be seen that when the auricle is active a wave, *a*, precedes the space E, and a fall occurs during that period. When the rhythm is ventricular no auricular wave precedes E, and the space itself is always filled by a large wave.

The effect of digitalis when the rhythm is ventricular is manifestly of the same nature as that in Figs. 2 and 3: that is, it is mainly, if not entirely, an effect on the contractility. This case shows a remarkable sensitiveness to digitalis when the rhythm is ventricular, and I have often been able to slow and quicken the pulse rate in this manner in similar cases. Even when the auricle was restored to activity—as in Fig. 10—we seem to get an echo of the effect on contractility, for the slight arrhythmia shows also an alternating large and small beat. This is not a pure pulsus alternans, for we saw in the previous paper the rate was perfectly regular, whereas here—in Fig. 10—the pulse periods vary in length, a short period and a long period alternating. It will be seen that this is due to variation in the auricular rhythm, whereas in the case of the true pulsus alternans the variation was entirely due to difference in the size of the ventricular beats.

When the digitalis was pushed in December no speedy reaction followed like that in previous attacks of heart failure. When a definite reaction did occur (Figs. 11 and 12) it was of a totally different nature—namely, the occasional occurrence of ventricular systoles independent of the stimulation from the auricle—that is to say, ventricular extrasystoles. In my experience this is an unusual effect of digitalis, and in the next paper I will suggest a probable explanation when discussing the relationship of digitalis to the fibres joining auricle and ventricle.

REFERENCES.
[1] BRITISH MEDICAL JOURNAL, March 5th, 1904; October 8th, 1904. [2] *The Study of the Pulse.* Pentland. 1902. [3] *Verhandlungen des Kongresses für innere Medizin.* 1904. Tafel II, Figs. 4-8. [4] The *Lancet*, March 5th, 1904.

OBLITERATIVE ARTERITIS,

LEADING TO GANGRENE OF EXTREMITIES IN OTHERWISE APPARENTLY HEALTHY MEN IN THE PRIME OF LIFE.

BY

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IN a paper read at the annual meeting of the British Medical Association, in July, 1903,[1] we described two cases of obliterative arteritis in young men, leading to gangrene of the extremities. Of these cases the second was a complicated one, but the first was a typical one, affecting three limbs, in an otherwise apparently healthy man aged 37 years, there being absolutely no evidence of syphilis, alcoholism, renal disease, saturnism, ergotism, or premature senility. Our present case is remarkably similar in its main features, though only the two lower limbs have been affected.

CASE.

The patient, A. H., a cigarette maker, aged 39 years, a Jew from Roumania, was admitted into the German Hospital on August 3rd, 1904.

He enjoyed good health, but at twenty-three years of age commenced to suffer from pain in the right lower extremity. The pain was in the foot and the muscles of the calf of the leg. It used to come on when he had walked for six or seven minutes, and was accompanied by muscular weakness, so that when the pain came on he had to stand still, but after two or three minutes it used to get better, and he was able to go on for another six or seven minutes and then stop again, and so on. Evidently this was a kind of "intermittent claudication" of the extremity.[2] He says the foot was quite red at that time, as it not rarely is in cases in which the blood supply is obstructed, owing to changes in the arteries of the affected limb.[3] At Riga, in 1889, after more than a year of these sufferings, the right lower extremity was amputated below the knee joint. The wound healed rather slowly—that is to say, in about five months, and he then remained well till 1903. About June of that year he began to suffer from severe pains in the toes and the calf of the left lower extremity, and he had a kind of "intermittent claudication" in that extremity, similar to that which he previously had had in the other. It was this trouble which brought him as a patient to the German Hospital. There is not much more to be said in regard to the past history of the case. The patient has been moderate in alcohol, and there is not any history of venereal disease. He says, however, that he has been accustomed to smoke at least ten cigarettes a day, and has also taken a good deal of strong tea. His father died at over seventy years of age, and his mother is still living, aged about sixty-six years.

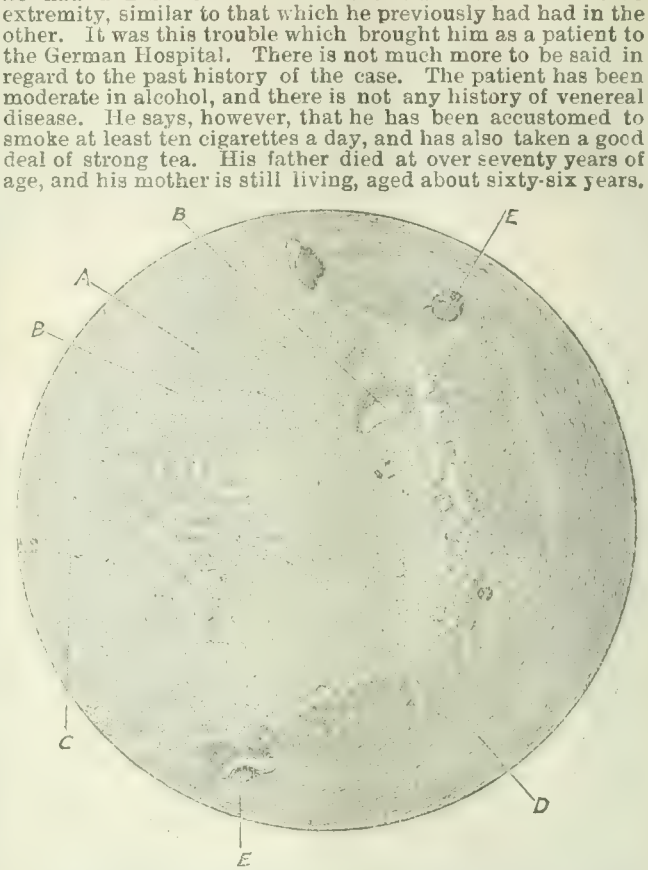


Fig. 1.—Transverse section of part of the popliteal artery (× 57), showing its channel obliterated by connective tissue (A). In this are many newly-formed blood vessels (B), and in some parts groups of brown pigment granules, some of which are represented diagrammatically in black (C). D=the middle coat. There are some small areas of calcification (E) just outside the elastic lamina, which is not very distinctly seen in the section illustrated.

Condition after Admission (August, 1904).—The patient was a medium-sized, active man, without signs of disease in the heart, lungs, or abdominal organs. The urine showed nothing abnormal. There were no signs of any disease of the nervous system. The arteries and nutrition of the upper extremities seemed to be natural. Arterial pulsation could be felt in both inguinal regions, but pulsation was hardly, if at all, perceptible in the left popliteal artery (the right leg had been amputated in 1889, as already stated). Examination of the blood (October 6th, 1904) showed the haemoglobin value to be about 100 per cent. of the normal standard; the number of red cells in the cubic millimetre was 5,120,000, and nothing remarkable was noticed in regard to the white corpuscles. Ophthalmoscopic examination (October, 1904) showed nothing abnormal.

On account of gangrene, Dr. Michels first of all removed the left big toe on August 5th, 1904. The wound did not heal properly, and intolerable pain in the foot[4] continued, so that on October 7th, 1904, Dr. Michels, at the patient's repeated request, other treatment having been found useless, amputated the left lower extremity below the knee. At the operation there was hardly any bleeding from the cut vessels, and on examination it was found that the lumen of the popliteal artery was completely obliterated at the site of amputation.

The progress of the case was quite uneventful. The patient was free from pain after the operation and the wound healed well. In December the stump appeared a good one, although at one part he said it was tender to pressure. His general

health was good. It may be noted that the general arterial blood-pressure is not, and probably never was, diminished. On March 23rd, 1905, it was about 145 mm. mercury in both arms, according to the Riva-Rocci apparatus.

Microscopic Examination.

Sections were made (1) of the popliteal vessels and nerve, from behind the tibia; (2) of the anterior tibial artery, with accompanying veins and nerve; (3) of the dorsalis pedis artery and vein, and the nerves accompanying them; (4) of a piece of muscle from the inner side of the first metatarsal bone.

1. *Popliteal Vessels and Nerve.*—The artery (see Fig. 1) appeared so small in section as to suggest the presence of congenital hypoplasia. It was found to have its lumen obliterated by fairly dense connective tissue, containing a great number of newly-formed blood vessels, and a certain amount of pigment granules, doubtless derived from blood (haemosiderin), and probably indicating that part of the connective tissue obliterating the arterial lumen was the result of organization of a thrombus. The elastic lamina of the internal coat was well preserved, and at some parts of the wall it was doubled. At some parts also there was a certain degree of proliferating endarteritis. Close outside the elastic lamina there were several minute points of calcification which could be dissolved out by weak acids, and in preparing the sections it was noted that there seemed to be gritty particles cut through by the microtome. The vasa vasorum were natural. One of the two veins accompanying the artery showed (in transverse section) a certain amount of "apparent thickening," due as usual to longitudinally arranged unstriped muscle fibres imitating proliferative changes of the inner coat.[5] The nerve appeared normal.

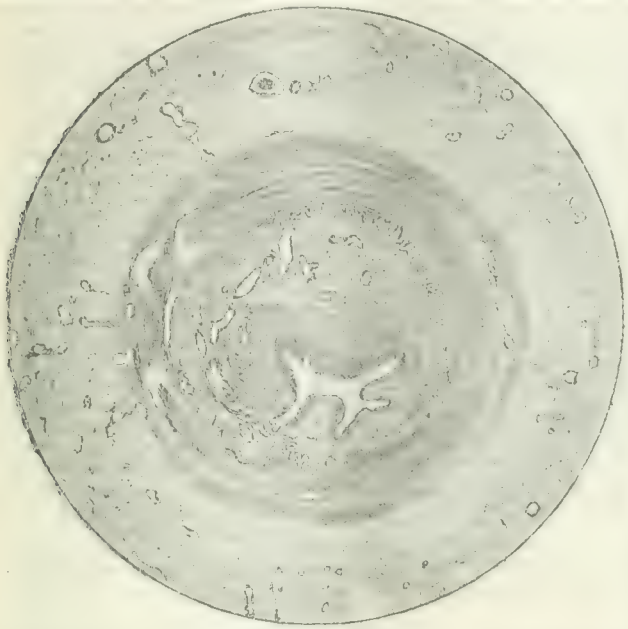


Fig. 2.—Transverse section of the dorsalis pedis artery (× 57), showing the lumen contracted and nearly obliterated by proliferative endoarteritis. The greatly-thickened inner coat, bounded externally by the clearly-defined wavy elastic lamina, consists chiefly of connective tissue containing many newly-formed blood vessels; no pigment granules are seen in it.

2. *Section of the Anterior Tibial Vessels and Nerve.*—The artery was occluded by connective tissue, similar to that noticed in the popliteal artery, and almost certainly the result of organization of a thrombus. The elastic lamina was distinct, and very wavy in outline. One of the veins showed a considerable amount of the "apparent thickening" due to longitudinally arranged muscle fibres imitating proliferation of its inner coat, that is to say, when seen in transverse section.[6] The nerve appeared normal.

3. *Section of the Dorsalis Pedis Vessels and Nerve.*—The artery (Fig. 2) showed an extreme degree of endarteritis proliferans, so that its lumen was greatly contracted, but not completely occluded. Much of the thickened inner coat had been converted into connective tissue by a process of organization with formation of new blood vessels. The elastic lamina was deficient at one part. The vein and nerves appeared normal.

4. *Section of the Muscle.*—The muscle fibres throughout showed complete absence of transverse striation, and the presence of very marked fibrillation, indicated by the longitudinal striation. There seemed to be excess of nuclei in the connective tissue in some parts.[7]

We must here mention that we are indebted to Dr. Mülberger, one of the House-Surgeons of the German Hospital, for some of the sections, and we have to thank Mr. S. G. Shattock and Dr. F. E. Batten for their kindness in examining the sections with us, the latter especially in regard to the condition of the muscle and nerves.

Remarks.

The pathology of this affection has been so ably studied by F. von Winiwarter,[8] C. Sternberg,[9] A. A. Wwedensky,[10] W. von Zoege-Manteuffel,[11] Bunge,[12] P. Wulff,[13] O. von Wartburg,[14] and Pearce Gould[15]; and the literature and views of various authors have been so recently discussed by Bunge and von Wartburg that we need not enter on these matters at length. Cases have also been described in England by Pearce Gould,[16] W. B. Hadden,[17] W. G. Spencer,[18] A. Dunlop,[19] and (a doubtful and complicated case) J. A. Arkwright.[20] In France, R. H. Camusat[21] has recently considered the subject and J. Darier has shortly alluded to it in his work on Syphilitic Arteritis.[22]

As to whether the final occlusion of arteries in these cases is generally due to thrombosis in already diseased vessels or to mere proliferation of the intima without thrombosis, opinions still differ. The question is, we believe, not very important, and we doubt whether, when thorough organization has taken place, it is always possible to distinguish between the two processes. In the present case, however, there can be practically no doubt that the occlusion of the larger arteries was due to thrombosis. If we had examined merely the popliteal vessels, we could hardly have connected the affection with arteritis obliterans, and should have merely come to the conclusion that the artery had in some way or other become thrombosed. The dorsalis pedis artery showed great thickening and vascularization of the intima, but to what extent this change preceded the clotting in the popliteal artery it is difficult to say. It is quite possible that the onset of the pains in the foot and calf of the leg and the intermittent claudication were brought about by clotting in the popliteal artery.

The disease occurs almost exclusively in the male sex, and the lower extremities are chiefly affected. Both in this and in our previous case the patients were poor Jews, living in the East End of London, as far as we can ascertain free from syphilis, alcoholism, and premature senility, but both of them accustomed to smoke at least ten cigarettes daily, and to drink a good deal of tea. We state this for what it is worth, and do not mean to hint that tobacco would induce this affection in most ordinary persons. It might, however, we believe, help to induce the affection in predisposed individuals. But the question then arises, What constitutes such a predisposition, and could a certain hypoplasia of arteries be connected with it? We have not sufficient data at present to discuss this question, but in the present case the popliteal artery seems to have been originally rather small.

It is possible that both poor or unwholesome food (ergotism is, of course, unknown in England) and racial factors may play a part in the etiology. We know of this disease now commencing in a third poor East End Jew in London. It is curious that we have during the last few years met with three instances of so rare a disease, and the fact that in all three of these instances the patients have been East End Jews between the ages of 30 and 40 suggests the existence of a racial or social (habits in regard to food and hygiene) predisposition. In a discussion at the Berlin Medical Society on November 9th, 1904, Professor J. Israel referred to an idiopathic gangrene of the lower extremities occurring in men between 30 and 40 years of age, especially Russian Jews. This had attracted attention, not only at Berlin, but likewise at Königsberg and Dorpat.

Notes and References.

[1] British Medical Journal, September 12th, 1903. [2] On the possible absence of cramp in "intermittent claudication" of extremities. See especially N. Ortner, Zur Klinik der Angiosklerose, Volkmann's *Sammlung klinischer Vorträge*, Leipzig, 1903, No. 347, p. 865. [3] Though this condition of redness and pain in a foot, due to organic obstruction in arteries is in some respects "erythromelalgia-like," it is probably not identical with that met with in "idiopathic," or "neuropathic," erythromelalgia. See F. P. Weber, A Case of Erythromelalgia, illustrating its relation to Raynaud's Symptom-complex. *British Journal of Dermatology*, February,

1904, p. 70. [4] According to the patient, when the trouble had lasted a long time the pain was more severely felt in the foot than in the calf of the leg. [5] F. P. Weber, An Apparent Thickening of Subcutaneous Veins, *Journ. of Pathology*, May, 1899, p. 73. [6] F. P. Weber, An Apparent Thickening of Subcutaneous Veins, loc. cit. [7] On ischaemic changes in striped muscles—that is, those due to arterial obstruction, see H. Lorenz's *Muskelerkrankungen*, in Nothnagel's System. Vienna, 1898, p. 62, et seq. [8] Ueber eine eigenthümliche Form von Endarteritis und Endophlebitis mit Gangrän des Fusses, *Arch. f. klin. Chir.*, Berlin, 1879, vol. xxiii. p. 202; in C. Friedländer's original paper on Arteritis Obliterans (*Centralbl. f. d med. Wissenschaft*, January 22nd, 1876), the process was discussed with no special reference to cases like the present one. [9] *Wien. klin. Woch.*, 1895, Nos. 37 and 39. [10] *Arch. f. klin Chir*, 1898, vol. lvii, p. 98. [11] *Arch. f. klin. Chir.*, 1891, vol. xlii, p. 569; and *Deut. Zeit. f. Chir.*, 1898, vol. xlvii. p. 461. [12] *Arch. f. klin. Chir.*, 1901, vol. lxiii, p. 467. [13] *Deut. Zeit. f. Chir.*, 1901, vol. lviii, p. 478. [14] *Beiträge z. klin. Chir.*, 1902, vol. xxxv, pp. 656 to 670. [15] The second Lettsomian Lecture, *Lancet*, 1902, vol. i, p. 717. [16] *Trans. Clin. Soc. Lond.*, vol. xvii. p. 95; and vol. xxiv. p. 134; and *Lancet* loc. cit. [17] *Trans. Clin. Soc. Lond.*, vol. xvii, p. 105. [18] *Trans. Clin. Soc. Lond.* vol. xxxi, p. 89. [19] *Lancet*, 1903, vol. i, p. 1440. [20] *Lancet*, 1902, vol. ii, p. 737. See also the editorial article on p. 753. [21] L'artérite dite spontanée, *Thèse de Paris*, 1902. [22] *De l'Artérite Syphilitique*, Paris, 1904.

THE INCIDENCE AND EFFECT OF SOME DISEASES ON OTHERS.*

BY J. R. CHARLES, M.A., M.D., M.R.C.P.

IT will be generally agreed, I think, that it is an unusual event to meet with two acute diseases running their course concurrently in the same patient, although, as is well known, such an event may be occasionally encountered. With regard to the co-existence of infectious diseases, Caiger, in his article on this subject in Allbutt's *System of Medicine*, quotes many cases, including one in which the unfortunate patient was suffering from four such diseases at the same time. He says that "the symptoms of one disease are neither delayed in their appearance, nor mitigated in their severity by the presence of another." I shall, however, return to points in this connexion later on. On the other hand, acute secondary infective disease very frequently arises during the course of chronic diseases. It is, indeed, so often the immediate cause of death in some of these conditions, that the mortality from this cause, combined with the number of deaths due to certain mechanical causes—for example, aneurysm or cerebral haemorrhage in chronic interstitial nephritis—has led to the saying that people rarely die of the disease from which they suffer. Like many of such sayings, this statement contains only a half-truth. Without doubt, while the supervention of a secondary infection is extremely harmful in almost all cases, there are instances in which the occurrence of a second disease may so mitigate the symptoms of the first, that the former disease may be much ameliorated, and its symptoms, for a time at any rate, wholly in abeyance.

I propose, first, to deal with the incidence of secondary infections in chronic disease. By far the most frequent infective organisms are the pyogenic cocci, the pneumococcus, and the tubercle bacillus. Some years ago I examined the *post-mortem* records of all the subjects of chronic disease who had died in the previous ten years in the General Hospital, Birmingham; of these there were 488. These numbers are sufficiently large to deduce results from them with fair accuracy, and the information so obtained is not only of some interest in itself, but the knowledge of it is a considerable help when estimating a prognosis in any given case—a most important part of our work.

Chronic Nephritis.

Dealing first with the subjects of chronic nephritis, there were 156 patients who died with the interstitial form of the disease. Of these no fewer than 52, or exactly one-third, succumbed to the results of secondary infections, which included 31 cases of lobar pneumonia, 3 of bronchopneumonia, 6 of pericarditis, 1 of pulmonary gangrene, 1 of pleurisy, 4 of empyema, 4 of phthisis, and 2 of general miliary tuberculosis. Of 37 cases of chronic mixed nephritis, 35.8 per cent. died from secondary infections, consisting of 6 of lobar pneumonia, 2 of pericarditis, 1 of pyaemia, and 4 of phthisis; while, of 22 cases of chronic parenchymatous nephritis, 31.8 per cent. died from secondary infections—namely, 3 from lobar pneumonia, 1 from bronchopneumonia, 2 from pericarditis, and 1 from peritonitis.

These figures show that the incidence of secondary infections in the different forms of chronic nephritis is practically the same in each—that is to say, at least a third of these patients die from the result of the supervention of a further malady. On the other hand, as we should expect, the relative proportion of patients dying from uraemia in the various forms of chronic nephritis varies very considerably in these different forms, being greatest in those cases in which the parenchyma is most involved. Thus, in the same series of cases, uraemia was the cause of death in 66 per cent. of the patients who suffered from the parenchymatous form of the disease, in 32 per cent. of those who had the mixed form, and in only 13 per cent. of those who had typical granular kidneys.

Cirrhosis of the Liver.

With the exception of congenital heart disease, to cirrhosis of the liver must be assigned the worst place as acting as a predisposing factor for the entrance of pathogenic organisms; for of 45 cases there was a death roll of a little over 44 per cent. from secondary infections—namely, 7 from lobar pneumonia, 3 from bronchopneumonia, 1 from empyema, 1 from pyaemia, 2 from tuberculous peritonitis, 4 from phthisis, and 2 from general miliary tuberculosis. And, again, very similar events were met with in a further series of 17 cases in which cirrhosis of the liver was associated with cirrhosis of the kidneys.

These figures prove, I think, the great frequency of secondary infection under these circumstances. It is to be remembered, however, that the reaction of the body in the presence of these chronic diseases is frequently extremely defective, not only against the entrance of pathogenic organisms, but also against their toxins, and that under these circumstances lesions of importance may easily be overlooked, unless carefully sought for. Thus, although double lobar pneumonia developed in a man who was the subject of chronic mixed nephritis, his temperature remained normal, and his respiration-rate only about 30 per minute. Again, a man with arterio-sclerosis and dilated heart died with extensive grey hepatization in his right lung. His temperature was subnormal for the four days he was in hospital before death, although in his case the respiration-rate varied between 40 and 54 per minute. Frequently, however, the respiration-rate in the pneumonic cases did not exceed 32 per minute. Further, as would be expected, a defective leucocytosis was found in those cases in which the white cells were counted.

Arterio-sclerosis.

Of the cases which might be classed as primary arterio-sclerosis, 19 per cent. died from pneumonia.

Heart Disease.

Only 1 among 8 deaths from congenital heart disease was due to phthisis, although 3 others died from cerebral pneumonia, and infantile diarrhoea respectively. Here the incidence of tubercle was less than we should have anticipated, but the number of deaths dealt with is too small to be of much value from the statistical standpoint. Secondary infections were responsible for over 15 per cent. of the deaths which occurred among 109 subjects of chronic valvular disease. Here pneumococcic infections were much the most numerous, being 14 times more common than tuberculous infection. These figures certainly bear out the old view that chronic valvular disease is antagonistic to the invasion of pulmonary tubercle.

Although some authors—Potain, Teissier—maintain that pulmonary tubercle is frequently associated with mitral stenosis, I can find little evidence to support their statement, for of 53 deaths from mitral stenosis, including 6 cases in which the tricuspid was also stenosed, tubercle did not occur once as a terminal infection.

That tubercle should so frequently be the cause of death in cases in which the amount of blood supplied to the lungs is much diminished, as in pulmonary or tricuspid stenosis, is what might naturally be expected, and in pulmonary stenosis, at all events, this seems to hold good, but the condition of the lungs under these circumstances is very different from that met with in chronic left-sided endocarditis.

Diabetes.

Turning to diabetes, the incidence and virulence of phthisis is well known. Six were directly due to this cause among 31 deaths, while of 18 patients who died either from coma or convulsions recent pulmonary tuberculous lesions were found in 4; non-tuberculous gangrene of the lungs and pneumonia occurred in 2 cases.

Pavy, in a paper which appeared in the *Lancet* last year, maintained that phthisis nowadays becomes very much less frequently developed among the well-to-do who adhere

* Read before the Chichester and Worthing Division of the South-Eastern Branch of the British Medical Association.

strictly to their dietetic regulations than of old, and that among the class of patients he sees it is almost a negligible quantity. He quotes cases, moreover, to show that should it supervene the diabetic symptoms are considerably mitigated. He also maintains that diabetes tends to decrease, or even to disappear, in patients who develop Bright's disease concurrently with the diabetes, and he refers to one such case in which dietetic restrictions were no longer required to keep the urine free from sugar. He further quotes von Noorden as saying, "It is interesting and noteworthy that the glycosuria very often disappears in patients in whom granular atrophy of the kidney has developed. The diabetes is cured, but we do not know the connexion." The existence of diabetes may be entirely masked during an attack of enteric fever, as the excretion of sugar frequently disappears, while the thirst and increased output of urea may easily be accounted for by the presence of the fever.

Epilepsy.

The manifestations of epilepsy are curiously modified by the presence of other diseases. I have been most impressed by this in the case of patients suffering from enteric fever in hospitals. When such a patient is well advanced in convalescence one is surprised to find he suffers from fits, and on inquiry one learns that he was previously epileptic: in other words, the fits have been in abeyance during the febrile and early post-febrile stages. I have never seen a fit during the febrile period. The depression of the cerebral activity in typhoid very fortunately seems sufficient to avert the nervous discharge necessary for an epileptic fit. This depression, in a sense, is protective, since the occurrence of a fit during the ulcerative stage would surely in many cases be attended with disastrous results. Clinically, I think another sign of the diminished cortical activity is the great ease with which ankle clonus can be elicited after an attack of enteric. This influence of enteric on epilepsy is all the more interesting as epilepsy may appear for the first time after an attack of typhoid fever.

I remember reading, although I cannot put my finger on the reference, that the onset of malaria very materially diminishes the frequency of epileptic seizures. Of this I have no experience.

According to M. Voisin, the frequency of epileptic seizures is much reduced by the following diseases:

(1) Anthrax. The author quoted a case in which weekly major and minor attacks were entirely suspended till death six weeks later.

(2) Measles. In 3 cases the fits ceased entirely during the rash, but were worse afterwards.

(3) Erysipelas. During the acute stage in 4 cases there was an absence of fits; these, however, subsequently returned.

(4) Acute pneumonia has the same inhibitive effect during the febrile stage; and the same is also seen in

(5) Diphtheria. Antitoxin injected as a prophylactic against diphtheria in 63 epileptic children had no effect on the occurrence of the fits.

In phthisis, during the stage of excavation and during acute exacerbations, he says the fits are arrested. The same author also states that the attacks are increased during scarlet fever, influenza, and typhoid. This last statement hardly agrees with what I have previously said about the influence of typhoid in epilepsy, but the evil influence of scarlet fever in epilepsy is well illustrated by the following episode. Some years ago an epidemic of scarlet fever broke out in the Salpêtrière, in which 4 epileptic patients were attacked and 15 others. The 4 epileptics all died in four or five days in status epilepticus, while all the others got well.

Blood Diseases.

Among diseases of the blood some extremely interesting facts have been brought to light, one of which is the apparent antagonism between splenic leukaemia and phthisis. Parker described a most interesting case in the British Medical Journal of 1902.

His patient came to him complaining of pain in the left side of the abdomen. He at that time had signs of old phthisis with excavation, chiefly in the right lung, over which the chest wall had been noticed to be flattened and contracted for ten years. Seven years before he was seen he had been treated with success for tuberculous laryngitis. The history and signs of old disease were therefore clear. There were also some signs of active disease in the lungs, although his general health was not interfered with. In the splenic region was a tumour, the nature of which was doubtful. The possibility of leukaemia being considered, his blood was repeatedly examined, but no evidence of this condition could be found. Exploratory laparotomy was performed, and the tumour proved to be the spleen rotated on its axis and bound down by adhesions. The patient improved after the operation, but fourteen months later the white cells were found to number 238,000 per c.mm., including many myelocytes. In fact, the number and the differential count of the leucocytes left no doubt as to the diagnosis of leucocythaemia, while the presence of tubercle bacilli in the sputum made the correctness of the diagnosis of the pulmonary condition equally certain. In this case the phthisis almost certainly preceded the leucocythaemia, but they existed for a considerable time together, during which the pulmonary disease made relatively little advance.

It is probable, indeed, that the patient was suffering from leukaemia when he first came under the notice of Dr. Parker, although at that time the blood gave no indication of his disease, in spite of the enlargement of the spleen. This probability is based on analogous cases; for in two other cases which have been recorded, in which phthisis occurred concurrently with leucocythaemia, it was noticed that, as the tuberculous process advanced, there occurred a steady decrease in the total number of leucocytes, including myelocytes, with a relative increase in the number of neutrophiles and lymphocytes. In one case of lymphatic leukaemia the state of the blood after tubercle had supervened was such that no one seeing the case for the first time would have arrived at the diagnosis of leukaemia from the condition of the blood. Typhoid, sepsis, and influenza all cause a temporary diminution in the number of the leucocytes during the fever, but, if the patient survives the attack, the condition of the blood returns to its former state. During a case of pneumonia the number of leucocytes in the blood of a leukaemic patient fell in a few days from 393,000 to 4,000 per cubic millimetre. Several other similar cases are quoted in the same paper.

The quantity of uric acid produced in splenic leukaemia and excreted in the urine is greatly increased. Although this is so, such patients rarely suffer from gout, though they may go on excreting enormous quantities of uric acid for years. Perhaps, however, it is this excess of uric acid in the blood during leukaemia which is inimical to the development or advance of tuberculosis, for phthisis is undoubtedly rare in the gouty, and I know of cases where complete arrest has taken place exceptionally satisfactorily in patients with a gouty family history; and I am inclined to think that the arterio-sclerosis which is described as not uncommon in chronic phthisis results rather from the treatment than from the disease, for a great deal of the successful treatment of incipient phthisis has been along lines highly productive of the gouty diathesis.

Unfortunately, no such antagonistic process as exists between leukaemia and phthisis exists between chlorosis and phthisis. In fact, the very reverse is the case, and I think that Gee's aphorism, "we should never see anaemia in a young woman without thinking of phthisis as a possible cause," is one of the most important in his book, and that if it were always acted upon and the lungs thoroughly examined in every case of chlorosis, there would be fewer cases of incurable consumption.

Cancer and Tubercle.

The relation of cancer to tubercle is remarkable. It is concisely summed up in the statement of Sidney Martin, who, after pointing out the great frequency with which retrograde pulmonary tubercle is found in cancerous patients, says, "although the condition induced by cancer tends to the invasion of the body by the tubercle bacilli, it is inimical to the spread of the disease." In fact, the tuberculous process is rarely found in an active state.

Antagonism of Infectious Diseases.

I do not propose in this paper to discuss the interaction of one organism on another, or of the action of one toxin on another, as this would lead us into the realm of experimental bacteriology, rather than into that of clinical medicine. Still it is as well to remember that the chemical products of organisms, and also the bacteria themselves, may modify very profoundly the effects of others (for example, erysipelas cocci injected with anthrax bacilli are protective against the anthrax poison, while the virulence of diphtheria bacilli is greatly increased by the concurrent inoculation of bacillus pyocyaneus); and it will be further remembered that the beneficial effects of erysipelas noticed in some cases of eczema, lupus, and sarcomata, the so-called curative erysipelas, led up to the production of Coley's fluid (a mixture of the toxins of the streptococcus of erysipelas with that of bacillus prodigiosus). Erysipelas occurring during the course of phthisis is said to cause an amelioration of the symptoms, including the cough. I do not remember having seen a case.

That the infectious diseases may occur together has already

been mentioned, and, as a general rule, the prognosis is more grave, especially when each of the combined diseases tends to cause lesions of the same parts—as tonsils, lungs, or kidneys. This is, after all, only what would naturally be expected; neither is it surprising that some of the infectious diseases favour the occurrence of others. Thus scarlet fever favours the onset of diphtheria owing to the faucial condition being favourable for the growth of the diphtheria bacilli, while the converse also holds good, that the diphtheritic patient is unduly susceptible to an attack of scarlet fever. Scarlet fever and enteric are rarely seen together, a fact which was noted by Murchison. In his day the two diseases were treated in the same wards, and yet in twenty-three years he only came across 8 cases in which these two diseases were coexistent. The relation of whooping-cough to measles is well known. When scarlet fever develops during the course of whooping-cough, the characteristic whoop of the disease is lost during the fever, to return again when the temperature becomes normal.

The relation of chorea to rheumatism is now on a very much more satisfactory basis than it was a few years ago, before the micrococcus of the disease was described, and they can hardly be spoken of as two diseases. But I remember seeing a very striking transition of one to the other. The patient was a young adult, who was suffering from such severe chorea that, after many methods had been tried in vain to control her movements, she was subsequently wrapped round with a damp sheet. Very shortly afterwards the choreic movements almost entirely ceased, though simultaneously she developed an acute attack of rheumatic fever.

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THE NATIONAL IMPORTANCE OF THE THOROUGH AND SYSTEMATIC REMOVAL OF ADENOIDS IN CHILDHOOD.*

BY GRIFFITH C. WILKIN, M.R.C.S., L.R.C.P.,
Paignton; late Surgeon, London Throat Hospital.

THE high pressure at which those of us who live in large towns are existing necessitates the frequent demand for the reason why.

I venture to ask whether this question, at least in medicine, has been put frequently enough.

In towns help is so near to hand that one imagines all must be equally well placed in this progressive age; and yet if you go into the country far from any town of size, and live amongst the people, you will quickly realize that the contrary is indeed the fact.

Addressing as I am a medical audience it would seem almost impertinent to say that to neglect to remove adenoids and enlarged tonsils in early life is most culpable. If we allow this then must the State plead guilty. The medical questions that come before the State are referred by it to those in high authority in the medical world. To these great men such small and unimportant matters as throat, nose, and ear disease make small appeal. Nor is it to be greatly wondered at, seeing the enormous amount of gratuitous work that they in common with all medical practitioners are called upon to perform. It therefore behoves the profession to act again for itself in this matter, remembering that to it as a body the people of our empire look, and not to one or two of its members.

Some years ago, my health breaking, I left London, where I had practised as a specialist on the throat, nose, and ear, holding the post of surgeon to the London Throat Hospital, and went to practise in a country village in Somersetshire. In the different villages in my district I found a great number of children suffering from adenoids with or without enlarged tonsils. On some of these operations were performed; many, on account of the misguided opposition of the father, had to be left alone. From the Board of Guardians no help could be obtained. From this southern and beautiful country fate took me to a Northamptonshire village. Here again chance favoured me, and throat work, operative and consultative, seemed to spring up around me. In a like manner innumerable cases of adenoids came under my observation, some in my own practice, some in that of a colleague. The yokel is generally depicted as a man of heavy, slow action, having, as a rule, his mouth open and breathing heavily, with an absolutely vacant expression. Is not this almost the exact description to be given of a patient suffering from adenoids?

Passing for a moment from the present day, take the paintings of beautiful ladies by the old masters; are not numbers of them shown with the nostrils of their well-shaped noses pinched and their lips parted, clearly showing that these growths are no new trouble?

For generations all classes of society have suffered in this way, the members carrying with them behind the nose, situated at that part of the pharynx where disturbance is least likely to occur, a hot-bed for the germination of the seeds of disease, and, when the nose is completely blocked, compelling the sufferer to breathe through the mouth the air of our cities. In the early days, before the enormous growth and multiplication of the large towns, and the consequent depopulation of the country, the matter may not have been so important, but to-day, in my opinion, it is of the utmost moment, deserving and requiring immediate attention.

No one will deny that a nation depends for its greatness on its people. The early days of human life are entirely one with the mother. On her manner of life—eating, drinking, sleeping, and thinking—what greatness may not hang? Then comes that wonderful change when, without a break in continuity of life, the child, separated from its mother, is yet for years, in ever-decreasing degree, dependent on her loving care—care such as no foster-mother can give and on which the health of the child, mental and physical, almost but not entirely depends.

Given two children, boys of 3 or 4 years old, the one having perfect power of nasal respiration, the other with his naso-pharynx blocked with adenoids, forced to respire through his mouth—is there any doubt which of the two will, other things being equal, turn out physically, mentally, and morally the finest specimen of humanity?

What wonder that consumption is to-day so prevalent? Those who are affected with adenoids are the very ones who are always hawking and spitting, the habit being undoubtedly caused by the presence of some irritant in the pharyngo-laryngeal passage.

Is it right for the profession to allow the country general practitioner to contend single-handed with these so-called minor ailments? He is by no means an idle man. Commencing with his surgery in the early morning, followed by his morning rounds, often without an interval for refreshment, continued late into the afternoon, doing Branch work whilst the horse rests or is changed, this with his nights often broken by confinements, as well as his day work so interrupted, where is his time for the more delicate throat and ear work or for the finer branches of diseases of women? Too much is asked from the man who, seldom getting bare justice, deserves the very greatest honour.

To meet the necessity properly I would suggest that centres be founded over Great Britain and Ireland, from which once a year medical inspectors properly qualified for the post should be sent out into the surrounding district, with power, in conjunction with the medical officers of the part, to visit the schools and examine the school children for throat, nose, and ear troubles, and to arrange with him for the proper treatment of the cases. This must be done under the authority of the law, and all proper care and precautions not to wound the susceptibilities of the parents must be taken. Some are apt to think that the country people are of little importance and may be treated anyhow. Kindness with firmness is as much appreciated in the land as in the town, and the successful man everywhere is he who is gentle, kind, and firm. Everything to-day is being done for the halt and maimed, little for the child who may become, if properly looked after, a good and capable citizen.

The large centres of life—our great cities—are fed by the country, and if the child life of the country is dwarfed and crippled by a plug and hot-bed for the germination of all that is foul placed at the back of its nose, what wonder that the nation is stationary, and how long can it be so?

*Read before the South-Western Branch of the British Medical Association.

FOOD LABORATORIES IN THE UNITED STATES.—A New York bureau for the examination of imported food stuffs was established about six months ago as an experiment. Apparently the result has been satisfactory, for it is now announced that food laboratories are to be established in Boston, New Orleans, and San Francisco.

A FATAL CASE OF ACUTE MERCURIAL POISONING.

By E. SCOTT SUGDEN, M.D., M.R.C.S.,
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Cases of acute mercurial poisoning are so rare and the literature so sparse that I think it desirable to place on record this well-marked case.

A young lady, 23 years of age, on October 1st swallowed, mixed in a tablespoonful of milk, a "headache powder," procured from a local chemist's shop. Immediately after taking the powder she was seized with a severe burning pain in the throat and with vomiting; she vomited again in a few minutes.

I was called to see her about twenty minutes after the powder had been swallowed. She was then sitting up in bed retching and vomiting a small quantity of white stringy mucus; she complained of a severe burning pain and feeling of tightness about the throat, slight burning pain in the epigastrium, and severe burning pain about the mouth, tongue, and lips. I found that the tongue, tonsils, and mucous membrane of the lips and cheeks were white and corroded; the face was slightly swollen and flushed; there was some tenderness over the stomach and slight general swelling of the abdomen; all parts of the mouth were exceedingly painful and tender.

Having administered as an emetic an apomorphine tabloid, $\frac{1}{10}$ gr., hypodermically and caused more vomiting, I gave magnesium carbonate in milk and washed the mouth with olive oil, and also induced her to swallow a tablespoonful of the oil; no eggs were obtainable at the time. Some collapse ensuing, I gave a cup of strong coffee. These remedies gave some relief to the patient, and she dozed off to sleep. About two hours later diarrhoea set in, two motions being passed mixed with blood; during the following night about six motions were passed, the later ones being almost entirely composed of blood; vomiting continued at intervals. There was total suppression of urine for twenty-four hours after taking the powder, but after that no trouble with the urine. Treated with mouth washes of tincture of myrrh and glycerine and borax, and small doses of bismuth and soda, and plenty of white of egg, milk and barley water, the vomiting and purging ceased, and all except the soreness of the mouth seemed to go well until nine days after taking the powder.

On October 4th (three days after poisoning) a haemorrhagic rash appeared on the skin of the face, and gradually spread all over the body and limbs; this was accompanied by a good deal of swelling of the face and soreness of the eyelids, and followed by free desquamation. On October 10th vomiting of blood set in, and I stopped all food by the mouth and fed only with nutrient enemata for a week. The vomiting soon stopped, and about October 16th the patient was able again to take a little barley water and Benger's food. The ulceration and sloughing of the mouth, however, was very troublesome, and on October 17th and 18th several haemorrhages occurred from the mouth and throat, and were accompanied by tympanitis of the abdomen and a rise of temperature to 101°, and the patient became much weaker. Painting with adrenalin solution stopped the haemorrhage, but swallowing gradually became impossible. After a temporary improvement the patient died very suddenly from heart failure on the evening of October 23rd, twenty-two days after swallowing the powder.

On October 1st I obtained six of the headache powders from the chemist and, along with the vomit, sent them to Mr. E. Davis, analyst, of Liverpool.

A large amount of mercury was found in the vomit, and the powders (which should have contained acetanilid, caffeine, and sodium bicarbonate, amounting to 5 gr. in all), were found to contain, in addition to the other constituents, a quantity of corrosive sublimate. The largest amount of corrosive sublimate found in one powder was 2.67 gr. How the corrosive sublimate got into the powders is a mystery which was not cleared up at the inquest. I was present at the *post-mortem* examination conducted by Dr. Nathan Raw of Liverpool, whose notes are as follow:

Body well developed and nourished. Rigor mortis pronounced. Pupils equal and dilated. There is considerable recent burning of the lips, nose, and lower eyelids, having the appearance of corrosion. The tongue, mucous membrane of the mouth, and fauces are of an ash-grey colour, with, in places, extensive sloughing. This appearance is also seen in the upper and lower portions of the oesophagus, the mucous membrane of which is corrugated and eroded.

The stomach shows intense congestion around the cardiac orifice. The mucous membrane is swollen and softened and of a bright-red colour with numerous ecchymoses. The small intestines here and there show intense injection, but in the caecum the mucous membrane is of a dark-brown colour with indication of intense haemorrhage.

Lungs.—Both engorged, 27 oz. each in weight. Scattered throughout both lungs were numerous thromboses, due to alteration of the blood. These varied from a point to the size of a shilling, and, according to Kauffman, are essential for the diagnosis of corrosive sublimate poisoning.

The liver and kidneys were enlarged and fatty.

The other organs appeared normal.

The chief features of this case were the comparatively small amount of corrosive sublimate in the powder—probably not more than $2\frac{1}{2}$ gr.—and the length of time the patient survived—twenty-two days; the longest recorded case I can find being nineteen days.

CASE OF ACUTE STRYCHNINE POISONING IN A CHILD: RECOVERY.

By JOHN R. POOLER, M.B., Ch.B.,
Resident Medical Officer, Small Heath Dispensary, Birmingham.

N. S., aged 8, came under my care at the end of January, 1904, for post-diphtheritic paralysis, affecting the legs, and, to a slight extent, the palate and pharynx. She was treated with a mixture containing liquor strychninae hydrochlor. ♏iij t.d.s. for the first fortnight, and at the end of that time the dose was increased to ♏v t.d.s. The child progressed favourably, and the signs of paralysis were disappearing gradually. About 5 p.m. on March 1st I was urgently summoned to the patient's home by the message that "the little girl had taken an overdose of the medicine and had been in fits for two hours." On arriving at the house I found the child in a state of collapse—face flushed, lips cyanosed, swollen, and bleeding; tongue also swollen and bitten through; pulse frequent and weak; pupils dilated. There was then no rigidity of the limbs or trunk, and she was fully conscious.

The history of the case was that at 3 p.m. the father of the child had proceeded to administer the medicine to her, and, with almost criminal carelessness, had remarked that as the bottle was nearly empty she might as well finish the lot. Notwithstanding a protest from the mother, he emptied the contents of the bottle (a large dispensary one) into an eggcup, and the child drank the whole amount. Five minutes later the mother, hearing a cry in another room, went to ascertain the cause, and found the little girl in strong convulsions. Her description of them to me was, that the back and head were arched, the teeth clenched, the arms and legs either rigid or "working," no loss of consciousness, but a complaint of great pain during the fits, during which she cried out that she was dying.

The dispensary being a considerable distance from the house, I was not sent for till two or three medical men in the immediate vicinity had been summoned, but none of them were able to attend. No real attempt at appropriate treatment was therefore started till my arrival two hours and a quarter later. The fits had continued with great severity during the whole of that time, but were then gradually subsiding.

Treatment.—Thirty grains of zinc sulphate were immediately administered in warm water, followed by strong freshly-made tea, and as no vomiting occurred, more of the drug was given a few minutes later. The fits not being severe just then, the stomach tube was also introduced and the stomach washed out with fair success. At the end of twenty minutes to half an hour, during which time the child remained free from convulsions, except for one slight attack, free vomiting set in. At the end of forty-five minutes the child, though collapsed, appeared to be much improved. No fit, except the slight one which I witnessed, had now occurred for an hour; the pulse was slower and stronger, the breathing normal; there was no rigidity of the limbs, and the mental state was quiescent. I therefore deemed it safe to leave the patient, but returned in an hour and found her still vomiting, somewhat weak and exhausted, but otherwise out of danger. Except for a slight rise of temperature during the next thirty-six hours (99° to 100° F.) recovery was speedy, and in two days she was running about as usual. I procured the same eggcup that had been used by the father and carefully measured out with water the approximate amount which on the man's own admission he had given the child. It was

three-parts of the eggcupful. This was corroborated by the mother and by the little girl herself, who is quite intelligent and old enough for an independent opinion. It came to over eight teaspoonfuls—roughly ℥ ix. The dose she was taking at that time was ♏ v, aquae ad ℥ j t.d.s. The liq. strych. hydrochlor. of the *British Pharmacopoeia* contains 1 gr. in 110 minims of water; the regulation dose of the liquor being 2 to 8 minims, and of the alkaloid $\frac{1}{60}$ to $\frac{1}{15}$ gr. The child took at least 45 minims of the liquor—that is, an amount equivalent to something between $\frac{1}{2}$ and $\frac{1}{3}$ gr. of the pure drug.

Remarks.

There are, I venture to think, one or two points of interest about this case.

First, the practically spontaneous recovery of the patient. I am inclined to think she would have survived without any treatment whatever. It was over two hours before she received any medical aid, and by that time the fits had to all intents and purposes subsided.

Secondly, the comparatively large dose of the poison—at least for a child—though the fact that she had been taking the drug regularly for over a month must certainly have produced some amount of immunity, and this probably saved her life.

Taylor, in his book on *Poisons*, says: "$\frac{1}{15}$ gr. operated as a poison on a child 2 to 3 years old, and caused death in four hours, the symptoms coming on in half an hour." He also quotes Dr. Darwin, who reported a case in which $\frac{3}{4}$ gr. killed a child aged $7\frac{1}{2}$ in half an hour. Taylor considers the fatal dose for an adult is from $\frac{1}{3}$ to 2 gr.

Dr. Husband, in his handbook, gives the fatal dose as "from $\frac{1}{4}$ to $\frac{1}{2}$ gr., but large doses have been taken, followed by recovery."

The *Encyclopaedia Medica*, in its article on poisons, puts down the fatal dose as "$\frac{1}{2}$ gr., which caused death in twenty minutes"; a little over a grain has frequently proved fatal, but recovery has taken place after 10 or even 20 gr.

The sublime contempt in which a certain section of the lay public hold the average doctor's "bottle of medicine," whether it contains a dangerous drug or not, is, I think, also a point worthy of mention.

THE CORRECT ANATOMICAL FORM OF BICYCLE PEDALS.*

By R. A. LUNDIE, M.A., B.Sc., M.B., F.R.C.S.Edin.

Much thought and ingenuity have been expended in trying to adapt the bicycle *saddle* to the body which is to ride upon it. I do not know that the corresponding question with regard to bicycle *pedals* has ever been raised in this country; yet I hope to show that it also deserves to be considered.

My first interest in the subject was an acutely personal one. I had at one time suffered from corns, but by properly-adapted shoes had practically got rid of them a good many years before 1898, when I began to bicycle. Within a year or so corns began to appear in parts symmetrical on the two feet where they had never been before, and in a situation where corns are not very common, namely, at the junction of the sole with the lateral aspect of the foot opposite the fifth metatarso-phalangeal joint. They became gradually but steadily more troublesome; at their worst each of the affected areas had at least three or four eyes, and was often very painful, in walking even more than in bicycling.

Though my previous refuge—modification of the shoes—proved unavailing, it was long before I suspected any connexion between the corns and the bicycle. During 1902, however, I chanced to hear a lady remark that she had never had corns till *she began to bicycle*. This suggestion put me on the right track. I modified my pedals, and since September, 1902, when I began to use the improved form, the corns have gradually lessened, without any other change in my habits or footgear. Now—January, 1905—the last of the eyes is just disappearing.

Stand on the ground with the feet close together and the toes pointing forward. The transverse axis of the soles is at right angles to the line of the leg (Fig. 1). Place the feet 6 in. apart, but still parallel, and this is no longer the case; the transverse axis of the soles is in the same direction as before, but the line of the leg is inclined to it; in other words, the foot is slightly inverted (Fig. 2). Pressure exerted through the leg is, therefore, no longer directly downwards, but downwards *and slightly outwards*. Now this is precisely the position of the foot (if we neglect the movement of flexion and extension at the ankle) on the ordinary bicycle-pedal at the lower part of the stroke; and at the upper part the inversion is somewhat increased. The foot is thus, when pedalling, being constantly pressed downwards *and slightly outwards* against the shoe.

It was this lateral component of the pressure which gave me so much trouble. How can it be eliminated?

Instead of standing on the ground, sit in a chair or lie on a couch, with the heels supported and the toes pointing upward (Fig. 1). Now separate the feet six inches as before. Being free from constraint, they retain their previous relation to the legs, the soles look a little outward, and there is no inversion (Fig. 3).

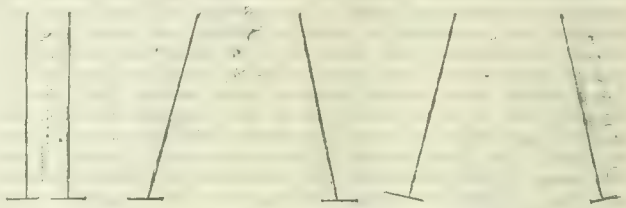


Fig. 1. Fig. 2. Fig. 3.

Figs. 1, 2, and 3 represent diagrammatically the positions of the feet and legs described. For the sake of clearness, the obliquity is considerably exaggerated.

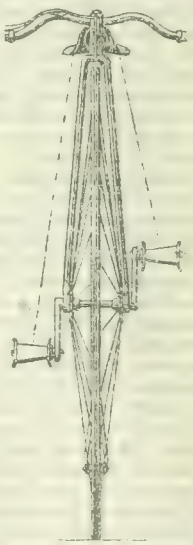


Fig. 4.—Bicycle (of 1888) with pedals devised to avoid discomfort in ankles and joints of feet.

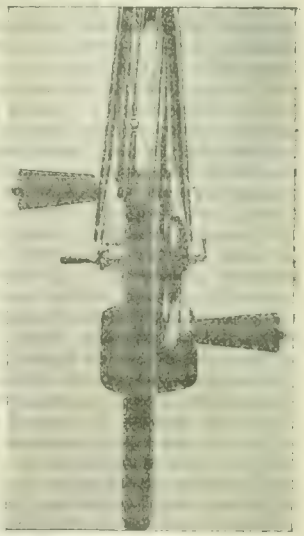


Fig. 5.—Bicycle (of 1904) with pedals devised to avoid cycling corns.

This at once suggests the proper position on the bicycle and the correct form of pedal. The tread should not be in a plane at right angles to the mesial plane of the machine, but slightly oblique, so that the outer side of the foot is a little higher than the inner (Fig. 5). On a pedal with the correct inclination the foot presses squarely and evenly, as in walking on level ground. I find accordingly that in sloping pedals the usual tabs at the outer side, to prevent the feet slipping off, are quite unnecessary.

It is easy, by suitably arranging lengths of board upon the floor, to demonstrate that the position above described is more comfortable than the position on ordinary pedals, *when one is walking with the feet kept 6 inches apart*: and therefore that it should be more comfortable in bicycling.

The pedals I have described are just as easy to make as the ordinary patterns, and, if manufactured wholesale, should be just as cheap. They wear better, as there is much less slipping and grinding of the foot upon the tread. At present, however, any one who desires to try them will have to get a pair specially adapted by a mechanic. No question of loss of power can arise if the slope of the pedal is at the angle indicated. The leg necessarily occupies a position not perpendicular but somewhat oblique to the axis of the pedal;

* Demonstrated before the Edinburgh Branch of the British Medical Association.

this obliquity must be allowed for, and the only question is whether the correction is to be applied in the joints of the rider's limbs, or in the structure of the bicycle; in other words, whether the body is to be adapted to the machine or the machine to the body. Medical men, at least, should have only one answer.

I may point out that in the motor bicycle the separation of the feet is greater, and their inversion on ordinary pedals therefore more marked, than on the common "safety" bicycle. Though the feet are less used for propulsion, I have no doubt that here also the comfort of a more natural position will readily be recognized.

I am not the first to suggest this form of pedal. In the course of my inquiries, I have found that one of what the late Professor Tait used to call those "worst of plagiarists, who adopt our ideas long before we have thought of them ourselves," devised and patented precisely the same thing in the United States sixteen years ago (Fig. 4). I have not been able to trace William E. Smith, of Washington, nor do I know that his patent has been worked; but our common contention, that sloping pedals are the most natural and comfortable, is strongly enforced by the fact that we have arrived at it by quite different paths. He has found, as I have, that lateral slipping of the foot is avoided; but he knows nothing of cycling corns. His dissatisfaction with the ordinary pedal seems to have arisen from discomfort in the ankle and the tarsal joints; for he says that it—

> compels the foot to play in a very tiresome manner upon the ankle-joints. . . . By my construction this difficulty is overcome and the rider enabled to propel the machine with less exertion than heretofore.

I think we may go further and say that not only the foot but the whole limb is put in a constrained position when working an ordinary pedal; and that this constraint is greatly lessened by a proper inclination of the tread. Several friends have reported to me that with a sloping tread they "find pedalling easier." Dr. Watteville, Kingussie, writes (after six months' trial):

> In addition to the lessening of friction, I find that the sloping pedals give me more power, and fatigue is thus lessened. I am deriving much comfort from them.

Increase of power and of comfort are advantages that should claim the attention of all bicyclists. To the minority who suffer from cycling corns the hope of getting rid of them, as I have done, will make an additional and a still stronger appeal. In the hope that some medical men may be induced to adopt and to recommend an improvement devised on anatomical instead of purely mechanical principles, I desire to bring it under the notice of the profession.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE LOWERING OF THE BODY TEMPERATURE IN HYPERPYREXIA BY MEANS OF RAPID EVAPORATION OF WATER.

The application of cold water has now become so well recognized as a part of the treatment of typhoid fever that most public hospitals are equipped with arrangements for its routine administration. Many difficulties, however, still face its adoption, while a fairly large staff of nurses is requisite for its systematic use. Again, where ice is utilized the supply often gives out, and in the hot zones of Australia, India, or Africa the difficulties associated with this special method of treatment can be better imagined than described. The scheme which I have improvised for the lowering of body temperature is as follows:

The patient's bed is covered with some waterproof, over which is placed a sheet of towelling. This towelling, the sides of which are cut in a slant, is braided with jaconet. The patient reclines on the sheet, and has, if necessary, a warm bottle to his feet. Over the whole of his trunk another piece of towelling is now placed in one or two layers, hemmed and bound along its sides with jaconet. A cradle is now placed over the bed, to the dome of which is attached a small electric revolving fan surrounded by a wire cage. Affixed to the cradle is a small rose, through which water slowly sprays in fine driplets on to the towelling covering the patient. The fan, revolving with more or less rapidity, affects the evaporation of water so that the degree of cold can be regulated to a nicety. All the nurse has to do after taking the temperature of the patient is to switch on the electric installation, when it will be found that a rapid evaporation of moisture lowers the temperature. Should there be any surplus of water it will run down the jaconet drains into a receiver at the foot of the bed.

A few large fans in the ward would keep the air pure and cool the atmosphere. This, of course, requires electric installation, but the initial cost cannot be considerable when the set-off in the economy both in labour and material is taken into account.

Louis Henry, M.D.,
Honorary Assistant Physician, Alfred Hospital, Melbourne, Victoria.

PROTECTIVE POWER OF VACCINATION.

The following case supplements that published by Dr. Angus in the British Medical Journal, October 15th, 1904:

Mrs. E. D., aged 37, was admitted to the Basford Sanatorium, Nottingham, suffering from small-pox on June 13th, 1903. Her seven months old baby, which she was suckling, and which had been successfully vaccinated fourteen days previously, was admitted with her. The baby was not weaned



but was nursed by its mother throughout her illness (confluent small-pox) and was handled daily by the other patients, about fifty in number, in various stages of small-pox. The baby left in perfect health. The vaccination marks on the baby's arm can be made out in the photograph by means of a magnifying glass.

Bulwell, Nottingham. H. J. Neilson, M.D.

A RARE FORM OF DISLOCATION OF THE ANKLE.

A man, aged 56, was descending some stone steps when he missed his footing; his left foot got fixed in a corner, and he fell, twisting it outwards under him. He was taken to hospital in an ambulance, and I saw him about three-quarters of an hour after the accident. He was in great pain, and lying flat on his back. The patella of each knee looked straight upwards, but whilst the right foot pointed straight upwards, the left was lying transverse and flat on its outer side, dislocated at the ankle joint by being rotated exactly a right angle outwards on its vertical axis. It was neither too far forwards or backwards, but simply rotated. The tibia was unbroken, and the internal malleolus projected considerably, stretching the skin over it. But the anterior face of the lower end of the tibia was still more prominent, and stood out very remarkably. The fibula was broken by an oblique fracture extending downwards and inwards in its

middle third. The external malleolus was twisted outwards and backwards with the outer side of the astragalus to which it was still attached in its normal relationship, so that the two malleoli were only separated behind by about a quarter of a circle, and by three-quarters of a circle in front. The astragalus was still in contact with the articular surface of the tibia, but at a right angle to its normal position. The tendo Achillis and the heel looked practically normal, the foot not being noticeably shortened or lengthened. The inner side of the tibia was very prominent, and the skin was tightly stretched over its lower end, and twisted like a corkscrew. The two things that were most striking on first seeing the case were the peculiar transverse position of the foot, and the strange appearance of the anterior face of the lower end of the tibia. The foot was not at all everted or inverted on its longitudinal axis, but rotated a quarter of a circle on its vertical axis. Under an anaesthetic the foot was replaced with very slight extension and internal rotation, and it went into its normal position with a snap. The case was seen also by my colleague, Mr. Linington, and the House-Surgeon, Mr. Bradbury. I have given this lengthy account of the case as I can find no record of anything of the kind.

THOMAS EASTES,
Honorary Medical Officer, Victoria Hospital, Folkestone.

PEMPHIGUS NEONATORUM.

IN May last I received a telephone message from the Women's Hospital asking me to see some little babies there which were suffering from cutaneous disease. I immediately went, and was greatly rewarded by seeing an interesting clinical entity —to wit, pemphigus neonatorum. At the time there was a bad case of syphilitic eruption in the hospital, and it was thought that it might be due to this; but the rapidity with which the disease progressed precluded this. Evidently this was an epidemic of cutaneous disease. At the time there was quite a number of newly-born babies in the hospital, and one and all became affected with the disease. It was a bullous-like eruption, commencing in the fingers and hands, and spreading on the face, buttocks, and other parts. It became pustular and confluent in a sort of semicircle. These would form bullae, especially on the face, which became swollen. It rapidly effloresced. The eyes were swollen and ejected. At first I thought it might be impetigo contagiosa. It bore somewhat of this character. The etiological character of pemphigus neonatorum is still a moot point. Most modern dermatologists consider it allied to, if not identical with, impetigo contagiosa or bullous varicella. I ordered an ointment of 10 gr. of ammoniated mercury in vaseline. It improved rapidly under this. The hospital was in a sound sanitary condition, no bad sewers or drains.

Two types of this disease are known—mild and severe. Sometimes it results in high fever and death. An epidemic has been reported in a lying-in hospital, due to the carelessness and uncleanliness of the midwife. As these cases of pemphigus neonatorum are not extremely common, it seemed to me that a report of a case might not prove uninteresting.

J. LESLIE FOLEY, M.D., L.R.C.P.Lond.,
Physician to the Skin Department of the Western Hospital, Montreal.

GONORRHOEAL ENDOCARDITIS.

HAVING read Dr. Hunter's interesting paper on a case of gonorrhoeal endocarditis,[1] and having learned that few cases of this condition are upon record, I submit the following notes of one which occurred recently in my practice.

On November 11th, 1904, at 9 p.m., I was called in to see J. A., aged 24. He was stated to be gasping for breath and dying. On examination, I found temperature 105°, pulse 140, orthopnoea, acute pain in precordial region, heart sounds unrecognizable, great distress in breathing, lividity of face and extremities, great anxiety, and delirium. He had been at his work the previous day, and there was no history of rheumatism and no affection of the joints. I injected liq. strych. ♏ij hypodermically, prescribed sinapism to precordial region, emptied the bowel, and put him on a mixture of tr. digitalis and liq. strych.

Next day he was still very ill, had not slept, and was vomiting. Temperature 104°, and pulse 130. I stopped the mixture and put him on pil. digitalin, renewed the sinapism, and gave him liq. morph. ♏x, aq. chlorof. ℥ss, and rectal injection of beef-tea. I saw him again in the evening: the pulse was slower—120—and the breathing easier. The temperature was 103°, and the delirium was gone. Next morning the improvement still continued, but the endocarditis was still present. Both the mitral and the aortic valves were affected. On inquiry, I ascertained that three weeks previously he had developed an acute gonorrhoea, and had been under treatment by a local chemist, though no discharge was present when I examined him. He continued to improve under rest, strict dieting, morphine, and digitalis, until November 25th, when I was called late at night to see him. He had lost the use of his left arm, but was otherwise feeling better. I had the arm elevated and wrapped in cotton-wool, and prescribed liq. ferri phosph.

The paresis continued till December 9th, when it disappeared as suddenly as it had come. His convalescence was uninterrupted. The gonorrhoeal discharge reappeared on December 15th, during convalescence, but yielded easily to a few protargol bougies. The man is a carter, and is now back at his work and in good health, save for a mitral regurgitant murmur.

I have not previously had a case of this complaint, but to my thinking the interesting features are (1) the rapid onset of the endocarditis, (2) the high temperature, (3) the embolism, and (4) the quiet disappearance of the embolus. I quite agree with Dr. Hunter when he says that the "gonorrhoeal bacillus must be regarded as capable . . . of setting up widespread disease in the body."

W. M. HAMILTON, M.D.,
Surgeon, Eccles and Patricroft Hospital.

[1] BRITISH MEDICAL JOURNAL, March 11th, p. 525.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WARRINGTON INFIRMARY.

A CASE OF SPONTANEOUS SUBLUXATION OF THE WRIST.

(Under the care of E. J. FOX, B.Sc., F.R.C.S.Eng.)

[Reported by A. HODGKINSON, M.Sc., M.B.Vict., Senior House Surgeon.]

SPONTANEOUS subluxation of the wrist is a condition of sufficient rarity to render the following case worthy of record.

History.—X., a domestic servant, aged 17, was admitted to the infirmary on November 10th, 1902, under Mr. Fox, with the following history. She was employed in a public-house, her time being principally occupied in dusting, washing, and scrubbing. Her father suffered from phthisis. Her mother, one brother, and two sisters were all healthy; five other children died in infancy. She herself states she had always had good health. There was no history of syphilis or infantile rickets. In June, 1902, she noticed that her left wrist became painful while using it. She also observed that it was becoming deformed. By degrees the pain and deformity increased until even at night when the limb was at rest the pain was of such a severe character as to keep her awake. Complete loss of power in the wrist followed, and then she came to the infirmary.

State on Examination.—She was a well-built, robust girl. The bony system was well developed, and there were no signs of disease with the exception of the lesion about to be described. On examination of the wrist by palpation, the inferior extremity of the ulna was found to be displaced posteriorly, and very prominent. The carpus was separated from the ulna, lying in a plane anterior to that bone. The radius had a slight anterior curve, its inferior extremity being separated from the ulna by a space wider than usual, and lying in a plane anterior to that of the ulna. The carpus in relation to the radius was subluxed slightly anteriorly. The hand was carried forward by the carpus. There was no wasting of the thenar or hypothenar eminences, and no apparent wasting of the interossei; on the other hand, the muscles of the forearm were slightly wasted.

The following comparative measurements show the difference in the two forearms:

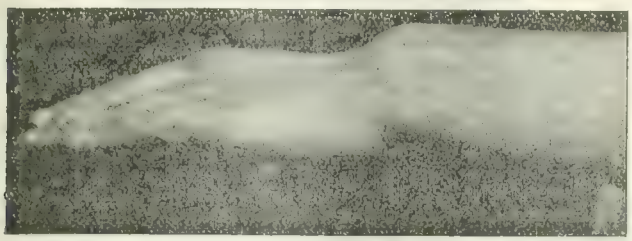
	Left.	Right.
At the level of styloid process:		
Circumference...	6½ in.	6 in.
Antero-posterior diameter ...	1⅝ ,,	1⅝ ,,
Transverse diameter	2¾ ,,	2¾ ,,
At a level 2 in. below olecranon process:		
Circumference...	8⅜ ,,	9 ,,

The movements of abduction and extension on the left side were not so complete as on the right side.

A study of various skiagraphs verified the facts obtained by palpation. Besides the anterior flexion of the radius there was a slight lateral curvature with its convexity external. There was no enlargement of the inferior extremity of either the radius or ulna.

Operation and Treatment.—The patient while in the infirmary was anaesthetized, and an incision 1¾ in. in length was made over the posterior surface of the inferior extremity of the radius. Another, 1 in.

in length, was made over the lower end of the ulna. Both bones were explored with a gouge and found to be healthy. There was no disease of the epiphyses. The wounds were sutured and a dressing applied. An attempt was made to reduce the deformity and to keep the wrist and ulna in position by means of an anterior and a posterior straight splint. In four weeks the wounds were completely healed. The forearm and wrist were massaged and kept at rest on a splint in a sling. In six months the pain had entirely disappeared, but the deformity still remained. The patient states that she finds the deformity no inconvenience, and that the wrist is as useful as it has ever been.



Remarks.—This lesion has been described under the name of "Madelung's subluxation of the wrist." It has been proposed by Kirmisson to rename it "progressive luxation of the wrist in the adolescent," as it occurs during that period of life in which growth is most rapid, and the deformity increases unless arrested by treatment. Gevaert describes the lesion as being anatomically characterized by a posterior displacement of the ulna on the back of the wrist, a separation of the inferior extremities of the bones of the forearm in the region of the radio-carpal joint, an anterior flexion of the radius, and a relaxation of the ligaments, tendons, and aponeuroses of the wrist.

In the case which Gevaert describes he noticed some wasting of the muscles of the forearm, and also of the interossei. In the above case the measurements show that there is a slight wasting of the forearm muscles, but we have been unable to detect any of the interossei. In our case there is a slight anterior subluxation of the carpus at the radio-carpal joint, which was not present in Gevaert's case.

The lesion occurs in individuals who are from 12 to 18 years of age, and whose occupation necessitates a continued strain on the wrist for several hours at a time; for example, pianists, typewriters, fencers, weavers, and washerwomen. The lesion is more often unilateral than bilateral in the proportion of 10 to 2 (Gevaert). The initial symptoms are pain and deformity, which gradually increase until there is complete functional impotence of the wrist. The nature of the lesion is obscure; the view accepted by the majority of authors is that it is a manifestation of rickets in the adolescent, that is, there is a certain predisposition in the bones and ligaments which renders them susceptible to external influences. Gevaert's case is especially interesting because it confirms the above view. His patient, a boy 16 years of age, suffered from a subluxation of both wrists, scoliosis, and a double genu valgum.

The treatment consists in maintaining the patient's general health; locally the pain is relieved by placing the hand and forearm on a splint until the pain has entirely disappeared. The functional impairment and wasting of the muscles are combated by massage and galvanism. Duplay describes a case characterized chiefly by a marked anterior curvature of the radius. He was able by osteotomy considerably to diminish the deformity.

I am indebted to Mr. Fox for permission to publish the case.

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Dekeyser, Subluxation Spontanée du Poignet; Subluxation de Madelung, *Journal Médical*, No. 42, October 17th, 1901, p. 593, contient la bibliographie jusqu'en 1901. §Duplay, *Arch. Générales de Médecine*, April, 1885, et *Gaz. des Hôpitaux*, December, 1891. Gevaert, *Revue d'Orthopédie*, No. 5, September, 1902. Extract, Gevaert's paper, British Medical Journal, December 27th, 1902.

Bequests to Medical Charities.—Mr. Richard Cadbury of Birmingham, who died on March 22nd, 1899, left instructions in his will for the payment of a large number of charitable bequests after the lapse of six years from the date of his death. The period being complete, the executors of the will have now made the payments ordered, less legacy duty. Among the beneficiaries are: The London Temperance Hospital, £10,000; Birmingham General Hospital, £5,000; Birmingham Eye Hospital, £5,000; Birmingham Ear and Throat Hospital, £2,500; and the Orthopaedic Hospital in the same city, a similar amount.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Bristol, Wednesday, March 29th, 1905.

R. J. H. Scott, F.R.C.S Ed., President, in the Chair.

Milk Dépôts.—Dr. J. M. Fortescue Brickdale read a paper upon milk dépôts, describing the system of milk treatment and distribution adopted by various dépôts. This was contrasted with the various possible means of contamination to which ordinary systems rendered the milk liable. Whilst recognizing that the dépôts only covered a portion of the risks, the advantages were sufficiently great to justify their adoption.—Dr. J. Stewart discussed the best method of popularizing the supply amongst the poor.—Dr. George Parker referred to the statistics of decreased mortality amongst children fed on dépôt milk, but pointed out that amongst the poorest the dépôt milk might also be carelessly treated and its advantages discounted. He considered that at present the dépôts should be run by private charitable organizations rather than by town councils.—Dr. Pierce urged that the period of danger to milk covered by the dépôts was the least important of all, and that of far greater importance was the need of stringent legislation covering cowsheds and the sources of milk, another fruitful source of deterioration of milk being the long distances from which large towns derived their milk supply.—In reply Dr. Brickdale agreed that the success of dépôts in supplying pure milk would depend largely, if not entirely, upon hygiene at the source of the supply.

Recto-Urethral Fistula.—Mr. R. J. P. Lansdown read a paper upon a case of recto-urethral fistula of 25 years' standing cured by one operation, and briefly referred to previous methods of operation and the frequently only partial success of the results even after subjecting the patient to numerous operations. The patient was 28 years of age, and had had lateral lithotomy performed upon him when 3 years old. The signs of the communication between rectum and urethra were characteristic, and the bladder would not retain sufficient fluid to enable cystoscopy to be performed. The chief points in the operation were a transverse perineal incision, separation of anterior wall of the rectum, dividing the fistula and widely separating the ends, packing the wound from the depths, a penile catheter was tied in, the bowels kept confined by opium, and the wound allowed to granulate up.—Mr. H. F. Mole discussed the operation.

Purpura Haemorrhagica.—Dr. F. H. Edgeworth read notes of a case. Right-sided paralysis and aphasia with inability to protrude the tongue occurred in the course of the disease. Haemorrhages from kidneys, vagina, and ears were present; blindness followed haemorrhages into the retinae. At the autopsy there was general haemorrhage over the cortex, base of brain and spinal cord. No organisms were found during life, but, amongst others found *post mortem*, an organism was found whose cultural characteristics did not correspond with those of organisms previously described in connexion with purpura haemorrhagica.—Dr. Waldo asked whether the coagulation line of the blood had been taken.—Dr. J. Michell Clarke said that the absence of organisms in the blood during life discounted the value of the organisms found *post mortem*. He referred to cases of cerebral lesions occurring in purpura.—Dr. Parker referred to cases showing a bacteriological cause in purpura.

Cases.—Dr. J. Michell Clarke showed a case of hysterical oedema with contracture of the foot; a case of atresia of the pulmonary artery, patent ductus arteriosus with an opening between the ventricles; a case of tumour of the subthalamic region; a case of disseminated sclerosis of unusual onset.—Dr. Newman Neild showed two cases of acromegaly—one, "type en large," in a woman aged 39; the other, a girl of 14, showing acromegalo-gigantism. The cases were discussed by Mr. H. F. Mole, Dr. F. H. Edgeworth, Dr. Llewellyn Jones, Dr. C. F. Coombs, and Dr. R. C. Leonard.

South-Eastern Branch: Brighton Division.—At a meeting held at Brighton on March 22nd, Dr. Hollis in the chair, Mr. A. J. Martineau showed a child 6 months of age whom he had treated for post-pharyngeal abscess, and read notes of the case.—Mr. V. T. Greenyer showed a man, 41 years of age, who was suffering from chronic lead poisoning, the most striking feature of the case being a tonic contraction of the

left rectus abdominis.—Dr. F. Robson described a fatal case of sulphonal poisoning.—Dr. F. G. Bushnell gave a demonstration of some microscopical pathological specimens.—Dr. Ryding Marsh showed a specimen of osteo-sarcoma of the femur occurring in a lad of 16 years of age, for which he had done an amputation at the hip-joint.

Metropolitan Counties Branch: St. Pancras and Islington Division.—At an ordinary meeting held at North-West London Hospital on February 24th, Dr. Walter Smith, Vice-Chairman, in the chair, Sir Hugh Beevor read a paper on items of treatment. He discussed mechanical aids in the treatment of emphysema (elastic waistcoat), collapsed lung after pleurisy (physical exercise), basic chronic interstitial pneumonia with catarrh (drainage by posture, creosote vapour and intralaryngeal injections). In diseases and conditions of the bowel the use of brief exercises developing the muscular wall of the abdominal cavity was very beneficial for constipation. For the form of dyspepsia commonly accompanied with reddening of the nose the laxative petroleum was recommended. In the earlier stage of mucous colitis ipecacuanha was found to have high value. Intestinal antiseptics were not advocated. For severe stomatitis β-naphthol 11 grs. to the ounce was said to be valuable. The treatment of oral sepsis in ordinary fever cases was alluded to. He went on to speak of the value of physical exercise, of Nauheim treatment, of sanatoriums for phthisis, of exercise for womb displacement, and nasal breathing. Definite instruction should be given to the convalescent; a few minutes devoted to some purposeful movements when persisted in with regularity day after day greatly accelerated the achievement of the purpose in view. The therapeutic uses of rest were insisted on. Consumptive patients should be kept in bed as long as fever was present. Rest was also beneficial in severe forms of vomiting. Sir Hugh Beevor also spoke of new drugs such as dibroma salicylate of quinine, and the doubtful advantages of new phenol and aniline derivatives and the risk attaching to them. He went on to discuss intravenous injection and the new serums subcutaneously given. The latter were said to be harmless as a rule; the former was considered to have achieved its highest value in saline solutions injected for collapse. Antithyroid serum was said to be reported as hopeful.—The paper was discussed by Dr. Smith and Dr. Buckell.

Southern Branch: Portsmouth Division.—At a meeting held at Portsmouth on March 28th, Dr. L. K. H. Hackman in the chair, Dr. Ward Cousins exhibited a patient after excision of the knee-joint of many years' duration. The patient had never walked previous to the operation. He now had a useful leg, and Dr. Cousins emphasized the fact that this was better than any artificial limb. He also showed a patient after operation for internal derangement of the knee-joint, the nature of which was found to be a vascular fringe of synovial membrane, which was nipped between the ends of the bones, so causing the symptoms.—Dr. Cole-Baker showed a case of Raynaud's disease in a young woman, in which the left radial pulse was very feeble as compared with the right.—Mr. C. P. Childe showed a case of excision of the tongue, floor of the mouth, and part of the lower jaw for epithelioma, with bilateral excision of the submaxillary contents, and drew attention to the value of ligature of the lingual artery in these cases.—Dr. Knott and Mr. Childe exhibited a case of splenectomy for wandering spleen, with haemorrhage within the capsule. Dr. Knott drew attention to the sudden appearance of the tumour, and the difficulty in diagnosis; Mr. Childe to the absence of symptoms previous to the haemorrhage, its likeness when discovered to an ovarian cyst with twisted pedicle, and the absence of any untoward effects up to the present time caused by its removal.—Dr. Cole-Baker exhibited a needle-holder which he had designed for curved and straight needles.—Dr. L. Maybury narrated a successful case of treatment of chronic mastitis by manipulation. The right breast having been removed for suspected carcinoma, a lump, which gave rise to considerable difficulty in diagnosis, appeared soon after in the left. This eventually disappeared under manipulation. The difficulty in diagnosis in these cases was discussed as also the anxiety they caused the surgeon in recommending what was best in the patient's interest.—Mr. Rendle read a paper on four cases of disease of the testicle. The points in the diagnosis of tuberculous syphilitic disease and sarcoma of the testicle were discussed, the treatment of tuberculous disease by epididymectomy noted, and the rarity and extreme malignancy of sarcoma alluded to.—Dr. Claremont exhibited a specimen of multiple perforating ulcers of the stomach, with macroscopical sections. There were five in all, and by contracting adhesions to various abdominal viscera during the process of perforation, extravasation into the general peritoneal cavity had been obviated.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

Annual Clinical Debate.

T. Vincent Dickinson, M.D., M.R.C.P., President, in the Chair.

Tuesday, March 21st, 1905.

Chronic Constipation and its Medical and Surgical Treatment.

Dr. William Collier (Oxford), in resuming the adjourned discussion, said that in the excellent volume of Lectures on Pathology by the late Dr. Sutton, the following conversation was reported. Dr. Sutton said:

> A few days ago I met my friend Barlow, who told me that quite recently he had seen a case of a man whose bowels had not been opened for six weeks. And Barlow said, "Well, Sutton, why should not a man go for six weeks without any action of the bowels?" And I replied, "Why not, so long as he is comfortable?"

Dr. Collier said the teaching represented by that conversation seemed to him to be absolutely erroneous. It might be quite true that some men were always thinking about their bowels, and that was a very bad thing for them, but, on the other hand, every one would be obliged to admit that constipation was the basis of a great deal of ill-health—indigestion, chronic and persistent headache, anaemia, and symptoms of mental and physical fatigue which passed off when due attention was paid to the bowels. But he altogether and absolutely disagreed with Mr. Arbuthnot Lane when he said:

> The harm done, directly or indirectly, by constipation was infinitely greater and more far-reaching than that ascribed to alcohol.

From his experience of female patients about 30 years of age and among the poor, he believed at least two-thirds of those who came for treatment suffered from constipation. Another proof of the extreme frequency of constipation was, that they had only to turn to the advertisement sheets of their daily press and notice the enormous number of advertisements of quack remedies. A few years ago a number of very interesting articles were published on quack remedies, such as Beecham's Pills, Mother Seigel's Syrup, etc., and it was found that in almost every case the basis was aloes. The fact that people were paying hundreds of thousands of pounds yearly for aperient medicines was proof that the disorder was very frequent. With regard to treatment patients might be divided into two classes: those who were able to pay for advice, and those who were not. Those who were paying for advice they might treat largely without drugs; those who were not able to pay fees they were compelled to treat very largely with drugs. In the treatment of chronic constipation they had two objects in view: they desired to increase peristaltic action, and they also wished to increase intestinal secretion. To produce an increased peristaltic action without drugs one of the best forms of rational treatment was by voluntary movement. On thinking over that subject he was struck by the fact, that for the twenty years that he had been in practice he had had to deal with a very large number of rowing men, but he could not remember a single rowing man who had ever come to him to be treated for chronic constipation. Why was that? He took it it was because of the nature of their exercise. In rowing the abdomen was intermittently pressed with a certain amount of violence against the thigh muscles. He took it that that pressure led to some forcing of bile from the liver into the intestines, and bile was a natural aperient, and the pressure further increased the peristaltic action. Moreover, the rowing exercise undoubtedly strengthened the abdominal muscles, and those muscles in their contraction also pressed on the intestines. There they had the keynote of the matter. They could treat chronic constipation largely by voluntary movement. Of course, they could not send all their patients into boats, but they could put them on chairs and induce them to go through the same movements as in rowing; or they could get them to indulge in other movements, such as the squatting movement—that was to say, rapidly and forcibly dropping on to the knees in a squatting attitude and quickly assuming the erect posture

again. That did exactly the same thing; it pressed on the liver and also irritated the intestines. They could easily think of other movements having the same object. One movement he was very fond of was to get a person to lie down and cross the arms on the chest, and then raise himself to the sitting position by the contraction of the abdominal muscles. If they tried they would find it was not easy to do at first. Perhaps he might point out that, quite apart from constipation, those exercises were very valuable if they wished to train their figure. If they found that the measurement at the level of the umbilicus tended to become an inch or two greater than the measurement round the nipple line he advised them to adopt those movements for a short time, and they would soon find that they would bring their figure into the correct shape. They came next to the question of manipulation, and that brought him to speak of massage. He was bound to admit that he thought there was an enormous amount of humbug as far as the treatment of constipation was concerned in the so-called skilled massage. He was a great believer in irritating the abdomen, but he did not think it required any skilled masseur. Only the other day he had taken up a small book entirely devoted to the subject of constipation: he saw it was very largely advertised. He found in it the following statement:

> Massage not only requires knowledge of the method of executing the different manipulations, but an accurate acquaintance with the position and nature of the different organs contained in the abdominal cavity.

And then it went on to say:

> The prevalence of appendicitis is practically coincident with the introduction of popular massage, and it is a serious question if unskilled massage is not largely responsible for the increase of this complaint.

In the country district in which he was he saw a good many cases of appendicitis, and he could assure the writer that of the hundreds of cases he had seen he was sure not one of the patients had ever been massaged at all. Appendicitis was much more common among the young than among the old, and it was very common among people who certainly did not get massage. He looked upon the abdomen as a part of the body which would put up with a good deal of rough knocking about. Though he did not consider skilled massage necessary, one could do a great deal by getting people to rub their abdomens in the direction of the large intestine; the jiu-jitsu blow with the side of the hand was another valuable procedure; that kind of blow over the course of the intestine was a valuable way of stimulating it. On the question of rubbing he would mention that one's knowledge of human nature was such as to lead one to prescribe a liniment of some sort; patients were not satisfied with the mere rubbing, and if they wanted to get them to practise the rubbing efficiently and regularly they must give them a liniment. Peristaltic movement might also be encouraged by stimulation from within. Their national diet was extremely bad—it was far too dry, too non-irritating. They did not eat half enough fruit. He was not a vegetarian, but he believed that the vegetarians gained a point in that respect—that they did not suffer from constipation in the way that people who ate meat did. When a patient came to him with constipation he was fond of suggesting fruit, and he nearly always received the reply, "I have tried fruit, and I find it does not have any effect." If he cross-examined that patient he found that he had taken perhaps one paltry orange or one apple a day. He told him to take in the winter time at least one orange after breakfast, two in the middle of the day, and one again at night. In the summer time he told him to eat five or six apples in the day. Another form of fruit which was extremely useful was nuts. If they talked to a patient about taking nuts, almost invariably he would say, "But nuts are so indigestible." Precisely, and that was what they wanted. For if they bit up and chewed properly the nuts they would get a food which would irritate the intestines to a certain extent without producing any of the ill effects of indigestion. Nuts did not ferment, and fermentative indigestion and the distension of the intestines with gas was one of the commonest forms of indigestion. He found as a matter of fact that patients would often stand nuts very well, and that they acted very well indeed. Of course, if he had a patient with symptoms suggestive of ulceration of the stomach he should not advise him to try nuts. Another point of importance which had to be considered was the question of fluids. He thought many people took alcohol with their meals; they took it in moderation, and hence did not get a sufficient amount of fluid. He always paid great attention to the amount of water taken, and he suggested the drinking of water at various times of the day. There was one point about water which they ought to remember, and that was that most of the English water contained a large proportion of chalk, and that chalk in itself was constipating. Therefore when he prescribed water he always took care to suggest that it should be boiled, for in that way much of the chalk became deposited. It might be necessary to supplement the treatment by the use of drugs. A drug of which he was very fond was one which the late Sir Andrew Clark used largely—namely, aloes. He was a firm believer in giving aloes in small quantities, often repeated, $\frac{1}{2}$ or $\frac{1}{4}$ gr. of aloin, with sulphate of iron and nux vomica twice a day, about 5 o'clock and 8 o'clock. If that was not sufficient he often gave colocynth. There were some cases in which one wanted to get the stools of a watery nature, and in those cases one was inclined to give sulphate of magnesia and sulphate of soda. He combined those drugs with the liquid extract of cascara sagrada, $\frac{1}{2}$ drachm of each. Next as to the question of treatment of the poor. Why was it that the poor suffered so much from constipation? He thought it was largely due to two causes. First of all, to the sedentary habits of the people, and, secondly, to the fact that their food consisted very largely of white bread and tea. Tea, of course, contained a lot of tannin, and the white bread which they got in England was not irritating enough. It seemed a monstrous thing that at their hospitals and in their private practice they should be compelled to continue teaching people to swallow drugs wholesale in the way that they did, but he was afraid they would be compelled to continue unless they could alter their national diet. They could not order the poor to take green vegetables and fruit because of the expense. There was one suggestion he had tried to induce his poorer patients to act upon, and that was to take olive oil for constipation. Olive oil was a good deal cheaper than cod-liver oil, and he found that if people would only try it a few times they would have no objection to it. He thought olive oil was a valuable aperient. And he would ask why should not they endeavour to get people to cook their food in olive oil? The probability was that if they adopted that course they would do something to get rid of that national disorder. With regard to enemas—of course, in a troublesome case one gave an enema or two, but he had not had much experience of treating patients with enemas over any considerable period. He thought the objection to the enema was that there was a great deal of discomfort, and a good deal of time taken up in giving it, and if one could get the bowels to act in other ways it was better for the comfort of the patient. The only other remark he would make was with regard to Mr. Lane's very interesting paper. He had never had those changes to which Mr. Lane referred pointed out to him before, and in the future, when one came to examine the dead body of a middle-aged person, one would look out for them. He must say that his own experience was that in country districts they had a more vigorous race of people than in the towns. Only a month ago a very distinguished surgeon came to their Medical Society at Oxford, and pointed out that the proper treatment of certain serious forms of indigestion was the passing of food straight into the jejunum. They were obliged to tell that surgeon that their experience was that their patients were so vigorous that they did not come across many cases that wanted that form of surgical treatment, and he would say from his own experience that he did not see many patients who would need to have their ileum connected with their rectum at present. But certainly the suggestion would have the most stimulating effect upon physicians and general practitioners, because it would impel them to a more active treatment of chronic constipation; they would want to preserve their patients from that fate, and also they would be able to lift the warning finger and say if they did not carry out their instructions then their fate would be that they would have to hand them over to the surgeon.

Dr. F. J. Smith said that with regard to the changes which according to Mr. Lane were to be seen in the abdominal viscera of patients suffering from chronic constipation, his observations were very far from coinciding with those of Mr. Lane. Again, Mr. Lane's statement that the position assumed by the appendix was dependent upon inflammation occurring round it and the cæcum at some period in development was entirely at variance with his experience. With the dependent condition of the transverse colon he agreed absolutely with Mr. Lane as to its frequency, though he would hesitate to ascribe to chronic constipation the sole responsibility of its production. He endorsed Mr. Lane's observation on the extreme frequency of adhesions at and about the two flexures of the

colon, and quite agreed with him that they caused material discomfort and even pain after food. But he could not agree with him in attributing their presence to chronic constipation. He was in very much closer agreement with Mr. Lane on physiological points, and held with him very strongly that chronic constipation led to symptoms which might in their turn lead to an unendurable continuance of life without relief. Although modern self-consciousness and neuropathy, combined with the skill of modern surgeons and the greatly reduced mortality of abdominal operations, might possibly bring many to a position in which they preferred the operative relief which was offered at so little risk to a continual worry about their bowels, the ease, safety, and simplicity of the operation did not, however, forbid medical men seriously asking themselves whether they were justified in advising a patient too lightly to undergo it. Dr. Smith suspected that the essential reason why patients drifted into a condition demanding relief by radical measures was that they would not take the trouble necessary to keep them free from symptoms. He concluded by giving details of a case of a patient admitted to the London Hospital, in which he had asked his colleague, Mr. Hutchinson, to see the man with a view to the performance of the operation recommended by Mr. Lane.

Dr. CAMPBELL THOMSON dealt with the influences that disorders of the nervous system had in connexion with the causes of chronic constipation. He entered into details concerning the principal functions of the stomach and intestines, and considered the performance of their functions under the control of the nervous system. He observed that at the outset of any discussion of the functions of the alimentary canal the fact had to be recognized that the mental state of a patient entered into the question. He brought forward clinical evidence showing that the functions of the stomach were represented in the cerebral cortex. It was in his opinion also probable that there was a psychic influence concerned in the secretion of the pancreatic juice as well as that of the stomach. He discussed the close relationship that existed between paralytic affections of the intestine and the mechanism of secretion. The most obvious examples of paralysis of the intestine were seen in the acute cases, some of which might be also associated with acute paralytic dilatation of the stomach, but just as loss of power in a limb might come on rapidly or very slowly according to the cause, so might powerlessness of the intestine be found in all degrees of severity and chronicity. In many of the severe and long-standing cases of constipation which medical measures entirely failed to relieve, the loss of power might be of such degree and standing that it was practically irrecoverable, and it was in such cases as those that the operation introduced by Mr. Lane was likely to be especially beneficial. The movements of the intestine, continually influenced and modified as they were by both higher and lower parts of the nervous system, would naturally be liable at times both to over-action and to under-action, and it was the various degrees of under-action which might be spoken of as loss of tone or paralysis that gave rise to constipation ranging from the acute to the chronic through all degrees of severity. Besides the disorders arising from the absorption of toxines chronic constipation also produced changes in the local nerves of the intestine by pressure and distension of the gut walls, and in the more distant parts of the nervous system by the abnormal impulses that must be continually reaching them from the disordered areas. He did not wish to place the disordered nervous system as a cause of constipation out of its due proportion; his object had been to bring it forward as one of the causes, which might, if not recognized, sometimes lead to failure of treatment, and to such a condition that an operation was at last the only means left by which the functions of the intestine could be restored to health.

Dr. LEONARD WILLIAMS said that the poisons which reached the circulation from within the body were to his mind even more important than those which attacked it from without, and he would go so far as to say that the evil effects of autotoxis from constipation, though less striking, were not less permanent and far-reaching than the evil effects of syphilis or alcohol. Dr. Williams considered operative measures in the treatment of chronic constipation quite unjustifiable until the patient had attained to about the age of 50 years. After that time the distended and displaced organs became bound by adhesions into vicious positions, and restoration to the normal became impossible without the ministrations of the surgeon. The essential factors in the production of any case of chronic constipation were deficiency of fluid in the intestinal tract and inadequate peristalsis. The conditions arising therefrom could be cured by the physician, and in every case ought to be cured by suitable hygienic measurements and medicinal treatment. He emphasized the importance, from the point of view of general hygiene, of maintaining in full working order the muscles which formed the external abdominal wall. To attempt to treat chronic constipation fitfully or spasmodically, or to consent to be a party to its fitful or spasmodic treatment was to court certain disaster. Therein lay one of the great advantages of the spa treatment of chronic constipation, for the patient went to the spa with the intention of submitting himself for a period of six weeks or so to such details as might be imposed upon him. The excellent results attending properly-supervised spa treatment led him to attempt to imitate the methods in vogue at those places with the view of obtaining their result for people who could not afford to go to a spa. He took the active principle of the vast majority of those waters—namely, their old friend mag. sulph., and combined it with an alkali in the shape of another old friend, mag. carb. To that he added tr. nucis vom., and, for antiseptic and gustatory reasons, he included ess. menth. pip. The final ingredient was inf. gen. co., and, although he could not explain it, he shared the belief expressed by one of the speakers last week as to its efficacy. Their prescription, therefore, ran thus: mag. sul. gr. xxx, mag. carb. gr. x, tr. nucis vom. ℥iv, ess. menth. pip. ℥x, inf. gent. co. ad oz. j. To be taken three times daily half an hour before food, followed by a full tumbler of hot water. That was the prescription for the robust—the Carlsbad or Vichy type of invalid—for the man who required alkalies as well as purgatives. But all patients did not belong to that class, and for them that mixture would be found very depressing. There were a good many people who required acids rather than alkalies—whom they would send to Kissingen rather than to Carlsbad—and for them their prescription must undergo some modification, thus: mag. sulph. gr. xxx-xl. acid. sulph. dil. ℥l, liq. strychnin. ℥v, ess. menth. pip. ℥xx, inf. gen. co. ad oz. j. Three times daily after food, followed by a tumblerful of water. To that might be added quinine or iron or arsenic or any other tonic which the patient seemed to require, the main thing to remember in connexion with any of them being that the natural mineral-water principle of small doses, largely diluted and frequently repeated, must always as far as possible be imitated. Dr. Williams then discussed the value of calomel and the advantages of prescribing belladonna.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

H. C. EARL, M.D., F.R.C.P.I., President, in the Chair.

Friday, March 17th, 1905.

ACTINOMYCOSIS.

DR. EARL read a paper on human actinomycosis, showing specimens from a case of actinomycosis of the right kidney with a metastatic abscess in the cerebrum.

Sir THORNLEY STOKER inquired whether the rarity of cultures was due to the want of a suitable medium.

Dr. CRAIG said that from the number of cases seen by Dr. Earl he was forced to assume that cases of human actinomycosis were commoner than he had hitherto imagined.

Mr. GUNN related particulars of cases which he had seen, and also mentioned a case where, owing to the discovery of mycelial threads in the discharge, a mistaken diagnosis of actinomycosis of the rectum was given. Later on it proved to be a carcinoma.

Dr. KIRKPATRICK mentioned a somewhat similar case occurring in the lip, where a diagnosis of actinomycosis was at first made, but subsequently this also was shown to be cancer.

Dr. EARL, in reply, stated that many of the peculiar yellow grains were made up of dead organisms, and so cultivations were not easy to obtain. He also considered the increase in the number of cases reported was due to better observation.

SARCOMA OF THE CONJUNCTIVA.

Mr. ARTHUR BENSON and Dr. MOONEY showed sections of a black tumour, the size of a split pea, removed from the conjunctiva of a married woman, aged 40. It was growing by a rather small pedicle from the conjunctiva of the globe, close to the sclero-corneal margin, at the outer side of the left eye. The woman stated that she first noticed it eleven years ago as a very small dark-reddish spot. For the past five years it had steadily, but very slowly, grown, and some large vessels ran

to its base. It was capable of being raised up from the ocular conjunctiva, and was excised with scissors, leaving what appeared to be a perfectly healthy conjunctiva below it. The origin of the growth seemed to have been one of those small collections of pigment seen at times in a perfectly healthy conjunctiva. Its extremely slow growth, its low degree of malignancy, and its limitation entirely to the conjunctiva were remarkable.

Dr. Mooney, who made sections of the tumour, said that it consisted of two parts, the larger being a small spindle-celled pigmented sarcoma, the pigment being abundant, particularly near the periphery and round an excentrically-placed non-pigmented area. This non-pigmented area or core, which was placed towards the base of the tumour, was made up of large swollen-looking epithelioid cells, loosely arranged with plentiful intercellular substance. Many of these cells had one or two vacuoles. In none of the sections was this area in touch with the surface of the tumour, and its limits were sharply defined. In bleached sections the structure of the pigmented portion was more easily determined. Mixed with the tumour cells were large epithelioid cells, some having vacuoles, and others deeply-staining granules. These large cells were much more numerous where the pigment was most plentiful. Many small empty dilated spaces were scattered throughout the growth, which had very few blood vessels. The conjunctiva covering the tumour was for the most part thickened, and at places cornified.

PATHOLOGICAL SOCIETY OF LONDON.

Rickman J. Godlee, M.S., Vice-President, in the Chair.

Tuesday, April 4th, 1905.

Subacute Atrophy of the Liver.

Dr. S. G. Scott recounted the case of a woman, aged 23, who died in the General Infirmary, Leeds. The gall bladder was found distended on exploratory laparotomy, and aspirated; the bile was sterile. Jaundice and pain were the chief symptoms present. Death occurred from the continuous bleeding which followed exploration of the ampulla of Vater through the duodenum. At the autopsy the liver was found shrunken and soft, and on section was red in colour with numerous yellow spots. The yellow patches consisted of liver cells in process of degeneration. The bile ducts were little if at all affected; and the author regarded some regeneration of hepatic tissue from the duct epithelium as in process. The chief feature was the duration of the case. Recovery had been described in acute atrophy, and probably the present case would have so terminated had it run its course; the speaker thought that fibrosis would in that case have arisen.

A Prehistoric Vesical Calculus.

Mr. S. G. Shattock exhibited a specimen, which was of much historical interest as proving the existence of urinary calculus at so remote a period. The calculus was found by Professor Elliot Smith in one of the graves of the prehistoric cemetery at El Amrah, in Upper Egypt, and presented by him to the Museum of the Royal College of Surgeons. The presence of a vase of stone showed the grave to have antedated by many generations the time of Menes, the first dynastic king (B.C. 4800). The age of the calculus was thus at least 7,000 years. It was found lying between the innominate bones of a boy of about 16 years, and it consisted of compact uric acid, which gave the usual chemical reactions, thickly encrusted with phosphates. Microscopic section of the uric acid "body" showed it to consist, as usual, of coarse, pale yellow crystals radially disposed in columns. After solution of the uric acid with caustic potash, a transparent matrix was revealed as under normal circumstances. The complete absence of calcium oxalate was noteworthy. In India 70 per cent. of urinary calculi consisted of this substance, which must be ascribed largely to the use of vegetable food stuff. In the later dynasties the food of the ancient Egyptians was chiefly vegetable. It was interesting, therefore, to notice that the recent investigations on the prehistoric people showed that they were hunters; this appeared in the discovery of hunting lances of flint in the prehistoric graves, in which clay models of kine had also been found. Immensely more interesting would the calculus have proved had it been possible to associate it with the bilharziosis commonly held to explain the great frequency of urinary calculus in modern Egypt, but this, in spite of an infinite expenditure of time and care, the speaker had been unable to do. Had the chitinous capsules of the ova been present they would certainly have been preserved and would have been discoverable. The occurrence of bilharziosis in the prehistoric age, therefore, was not as yet shown. Nevertheless, the disease was possibly very ancient, and he had questioned whether the bilharzial haematuria might in some explanatory way be related to the first of the Biblical Egyptian plagues; but a reference to the narrative would show the incongruities attaching to such an explanation. The speaker had had the opportunity of examining a second ancient Egyptian calculus from a tomb of the second dynasty; it contained no bilharzia ova, though in its centre was a cavity full of the conidia of a mould. The conidia looked so little changed that he had attempted to cultivate from them, but no growth was raised. This calculus was found (with three others) in a grave excavated at Naga-ed-dêr by Dr. George A. Reisner on behalf of the Egyptological expedition of the University of California, subsidized by Mrs. Phoebe Hearst.

Imperforate Ileo-colic Valve.

Dr. J. Catto exhibited this specimen, which was obtained from an infant. The obstruction was complete. The large intestine was empty. He thought it possibly of inflammatory origin.

Carcinoma of the Left Adrenal.

Dr. C. E. Adams recorded an example of this, associated as in the cases collected by Dr. Bulloch and Dr. Sequeira, with precocious puberty. The patient was a boy, 14 years of age, whose abdomen was explored for a swelling in the region indicated; the tumour found was considered inoperable. Death occurred seventeen months later. At the autopsy the growth was found to have invaded the liver, and to nearly fill the abdomen. At the age of 9 the boy acquired hair on the face, and marked muscularity, these characters being attributable to the adrenal disease. The results in question were indicative of overaction of the gland, and not of its destruction.

Mr. S. G. Shattock remarked that the results of caponization in birds carried out by Mr. Seligmann and himself possibly had a bearing on the subject, in that even in cases when the castration was complete, certain male characters were acquired—the growth of spurs and of a certain number of sickle feathers in the tail. Possibly the adrenal acted concurrently with the testicle in the production of external sexual characters.

Osteoplastic Carcinoma in Bone.

Dr. F. H. Thiele communicated an instance of carcinoma of the prostate, in which the secondary tumours in various of the bones were markedly osteoplastic. As Recklinghausen had pointed out in similar cases, the bones were infected through the larger foramina, the subperiosteal swellings taking place from within outwards. Such osteoplastic growths might occur in the case of any secondary carcinoma involving bone, this character being possibly due to venous congestion. Slowness of growth was one essential factor, and not every case of prostatic carcinoma was followed by such growths.

Dr. Lazarus-Barlow observed that work by Mr. Thomson Walker showed that in no case of seven collected at the Middlesex Hospital were osteoplastic growths associated with carcinoma of the prostate; the more cellular growths appeared to be the more likely to be so associated, not the fibrosing forms; prostatic carcinoma was a disease of advanced life, and at that period osteophytic processes were not uncommon.

Obliterative Arteritis.

A paper by Dr. E. Michels and Dr. Parkes Weber on this subject will be found in full on p. 762.

Clinical Society of Manchester.—At a meeting on March 21st, Dr. E. S. Reynolds, President, in the chair, Dr. Ashby opened a discussion on vomiting in infants. After briefly describing the structure, movements, and innervation of the stomach, he pointed out that vomiting being a reflex act might be physiological or pathological, or partake of the character of both. As a physiological reflex it might be useful in overloaded stomachs. As a pathological reflex it might indicate cerebral or other disease; it might be brought about by the contraction of the stomach alone, or the abdominal muscles, or by the union of both. Chronic vomiting or regurgitation shortly after food was of no significance unless accompanied by loss of weight, and might be looked on as a safety-valve action; in such cases less food should be given. If it were accompanied by loss of weight, and preceded by acute gastritis, it was

often most obstinate; as there was extreme irritability of the stomach and impaired power of digestion a residue of food, mostly curd, always remained in the stomach after the digestive process had ended. This decomposed and fermented, and when another meal was given the condition was aggravated, and a habit of vomiting established. Such cases in hospital required months for cure. They were usually cases of chronic gastric catarrh, with extreme gastric irritability. Pepsine and hydrochloric acid were scanty, the muscular walls inactive; and lactic, butyric, and other acids present, together with decomposing curd. Usually vomiting occurred, but sometimes a few meals were retained. The prognosis was bad, especially in infants under three months. He advised regular stomach washing, with abstinence from food for the first twenty-four hours; a little sugar and water being given, afterwards whey, alone or mixed, with a little cream or milk and barley water, the latter being properly and freshly prepared. He had found considerable utility in asses' milk, and recommended small doses of morphine or tincture of opium. He referred to a class of cases which were probably congenital pyloric stenosis. These went on well for the first week or two after birth, and then vomiting began, consisting of the food taken and of mucus; there was no bile; stools were infrequent, and contained no remains of food. The advisability of operations such as pylorectomy was discussed, and, if the diagnosis was assured, recommended. Cases classed as "recurrent vomiting" were referred to. Vomiting occurred at intervals more or less long, without any other gastric symptoms, or, if present, only slight: sometimes there was fever, but generally none: otherwise the health was good; but after an attack there was extreme prostration without any apparent lesion. In these cases recovery was the rule. In toxin poisoning the vomiting mostly came on suddenly after a day or two of languor; the vomited matter consisted of bile and mucus tinged with blood. There was extreme prostration, the abdomen flat or retracted, but no increase of temperature nor abdominal pain. —Dr. Marsden thought that though dilution with barley water might cause the curd to be deposited in finer particles, yet the belief in the necessity or advisability of its use was too much impressed upon the public mind. It might be that the poorer classes in many instances did not make the infusion with sufficient care or did not strain it adequately, but certainly there were some cases which did better by the substitution of the same degree of dilution by plain water. As an aid to securing much-needed rest by the stomach in certain cases sweetened water was valuable if given for several days until all evidence of toxaemia had passed away and the stomach and intestines had returned to a more normal condition.—After observations from other members present, Dr. Ashby replied.

Harveian Society of London.—At a clinical meeting at the Paddington Infirmary on March 23rd (Mr. C. B. Lockwood, President, in the chair), Dr. Maurice Squire, Medical Superintendent, showed the following among other cases: (1) A woman, aged 40 years, suffering from mitral stenosis. On admission, she had marked cyanosis and dyspnoea; the heart was dilated and hypertrophied, and there was a presystolic murmur; pulse weak and irregular and lungs congested at the bases. The heart condition gradually improved and the patient appeared to be getting much better, when a fortnight later she was suddenly seized with cramp and numbness in the legs, with loss of power, absence of knee-jerks, diminished sensation, and incontinence of urine; no girdle pain. She was much collapsed, but recovered in a few hours, her legs remaining paralysed for about three weeks. They then began to recover gradually. When shown she was able to walk well. Dr. Sutherland was of opinion that there was also aortic disease. The cause of the paraplegia appeared to be obscure. (2) A man, aged 37 years, a groom, suffering from myopathic dystrophy. The mother was said to have been similarly affected. The history was that his eyes were always prominent. He first noticed weakness of the legs ten years ago. The weakness soon after gradually came on in the arms. There was no sensory disturbance. He had been treated with strychnine and electricity without benefit. Although still able to walk a long way, he could not when shown raise himself from the ground if he fell. The case was fairly typical, with marked affection, especially of the muscles of the face, shoulder, upper arm, and thigh. (3) A man, aged 54 years, with tabes dorsalis, the onset of which he dated from an attack of influenza in 1892. In 1895 he was unable to walk at all, and had incontinence or sometimes retention of urine, and frequent lightning pains. The case was typical in most respects, with characteristic pupillary signs, inco-ordination, absent knee-jerks, etc. The interest of the case lay in the fact that he had improved without any treatment since his admission in 1895, and when shown could walk with two sticks, and had no lightning pains or urinary trouble. (4) A man, aged 31 years, with (?) gastric crises. His father had suffered from locomotor ataxy. The patient had had violent attacks of vomiting and pain in the abdomen for the past seven years. They came on every six or seven weeks without apparent cause, and lasted four or five days. During the attacks there was obvious distress, retraction of the abdomen, and marked dilatation of the stomach in the lower border, reaching the level of the umbilicus; splashing sounds easily obtained. There was no inco-ordination, but the knee-jerks were decidedly feeble, and the right pupil did not react to the light, the left being sluggish. Mr. Daniel commented on the patient's bad teeth, and the possibility of oral sepsis accounting for the gastric attacks. (5) A man, aged 38 years, with Friederich's disease. There was no history of syphilis. The illness began eighteen years ago with trembling of the limbs and difficulty in walking, which has gradually increased. On examination he was quite unable to stand; there was inco-ordination of the hands and irregular swaying movements of the head and arms; articulation thicker, slurred and slow; nystagmoid movements of eyes during lateral vision; pupils normal; knee-jerks absent; no sensory disturbance; no pes cavus: no scoliosis. Dr. Sutherland looked upon the case as one of combined sclerosis of the cord, in the absence of heredity. (6) A boy, aged 16, with probable cerebellar disease. He had noticed for two or three years pains in the legs and "rolling" about when walking. He was dull mentally, with slurring of speech: his gait ataxic, and inclined to be "reeling." No inco-ordination of hands; exaggeration of knee-jerks; plantar reflexes brisk; slight ankle clonus: slight lateral nystagmus; no optic neuritis; small perforation of right membrana tympani. (7) A man, aged 47 years, with syphilitic orchitis; had syphilis four to five years. The left testicle was enlarged and painful for seven or eight months about three years ago. Examination revealed a large tender right testicle: no testicular sensation. The swelling was nodular in places; in others soft and fluctuant. Vas deferens not enlarged, and slightly thickened, if at all. Rectal examination revealed no enlargement of vesiculae seminales. The swelling was subsiding apparently under the administration of mercury and pot. iod. Mr. Lockwood thought the case was possibly tuberculous. Mr. J. Broadbent agreed with Dr. Squire's diagnosis.

Liverpool Medical Institution.—At a meeting on March 30th, Dr. James Barr, President, in the chair. Dr. John Hay read a note on bradycardia, in which special reference was made to the pulsus varus, caused by "heart block." He described in detail the case of a man aged 26, in whom the rhythm of the auricles was independent of, and different from, that of the ventricles. The following were the important features of the case: (1) Marked infrequency of the pulse, which varied from 17 to 30 beats per minute; (2) transient loss of consciousness associated with disappearance of the pulse at the wrist; (3) auricular contractions occurring much more frequently than, and independently of, ventricular contractions; (4) an enormous heart, weighing 29 oz. The autopsy revealed no cause for this increased size. The heart was exhibited, and also a drawing of it made by Professor A. Keith, of London, who was of opinion that there was a stretching of the auricular canal, and also an attenuation of the bond between the base of the tricuspid valves and the base of the ventricle. The second case was that of a man, aged 62, in whom the heart block was not complete. There was marked depression of conductivity, the time taken by the stimulus to pass from the auricle to the ventricle being double its normal length. As a result of this, only every other contraction of the auricles was able to excite the ventricles to respond. The pulse-rate was 32 per minute, and although the patient was apparently in good health, he had a very much diminished area of cardiac response.—Mr. Robert Bickersteth read a note on prostatectomy, and discussed the circumstances which should guide the surgeon in his choice between the suprapubic and the perineal routes. He showed that it was generally possible by careful examination to distinguish in advance between prostates easily

removable and those likely to cause difficulty. For the easier cases, which comprised the fibro-adenomatous enlargements and formed the bulk of those requiring operation, the suprapubic operation, and enucleation after Mr. Freyer's method, was certainly, he thought, the operation of choice. There remained other cases, however, in which enucleation with the finger was likely to be either very difficult or altogether impossible; for these the perineal operation was best, a transverse incision securing a full exposure and a good view of all the parts concerned.—Mr. Hugh E. Jones read a paper on the difficulties and dangers of the radical mastoid operation. After defining the operation, and referring to the work of Schwarze, Stacke, Kuster, and Ballance, he enumerated its special difficulties. Amongst these were variations in the position and size of the antrum, sclerosis of the bone, and a forward position of the lateral sinus. The facial nerve was the most important structure to avoid; it might be injured by the faulty introduction or careless holding of Stacke's protector; by the too free removal of the posterior wall of the meatus at its inner end. The bone, if brittle, might be cracked by the chisel at a point not intended; the nerve might also suffer through careless curetting in the region of the fossa ovalis and sinus tympani, or curetting cells or fistulae in the lower deep anterior part of the petro-mastoid or posterior wall of the meatus. Packing was advocated in cases in which it was not certain that the whole of the disease tissue had been removed. The dangers peculiar to the operation were classified as follows: (1) those arising from coincident general disease—for example, advanced tuberculosis, diabetes, marasmus, and congenital syphilis in infants; (2) coincident undetected intracranial disease—for example, serous meningitis, latent cerebral abscess, acute cerebral abscess; (3) pathological conditions within the temporal bone might be stirred up and cause an extension of the septic process, which might result in suppurative meningitis or sinus phlebitis; (4) leaving foci of infection by incomplete operation. This was perhaps the greatest danger of all. Mr. Chas. A. Ballance (London) also read a paper on the same subject.—Dr. W. Milligan said that the fundamental principles of surgery should be adopted in the treatment of septic disease of the temporal bone, namely, free exposure of the diseased area and the establishment of free drainage. The peculiar anatomical difficulties of this region should be very carefully studied before undertaking the radical operation. He exhibited various sections of the temporal bone in order to demonstrate some of the difficulties described by Mr. Jones. The treatment of the soft parts was of the utmost importance, and he was an enthusiastic advocate of the grafting operation, which not only materially diminished the length of the after-treatment, but secured more certain results, especially in so far as the healing of the inner tympanic wall was concerned. Continuous and light packing was irksome to the patient and to the surgeon, and he was inclined to think that it tended to promote rather than to retard the growth of exuberant granulation tissue. In the treatment of tuberculous cases he advocated in the first instance merely providing efficient retro-auricular drainage together with the removal of sequestra, and later when the general condition of the patient had improved, the performance of the radical operation.

Society for the Study of Disease in Children.—At a meeting held on March 17th, at 11, Chandos Street, W., Dr. Leonard Guthrie in the chair, Dr. O. Grünbaum showed a boy, aged 9, with alopecia universalis. The hair of the head began to come out two years ago, and complete baldness resulted in a year. Then the eyebrows and eyelashes seemed to fade away. The nails were normal. Mr. G. Pernet advised liberal diet, tonics, thyroid extract, and stimulating lotions.—Dr. R. Hutchison exhibited a case of late rickets in a boy of 9 years. He had rickets at the age of 3 years, and had never completely recovered. For some months the legs had been gradually bending. There was marked epiphyseal enlargement of the lower ends of the radius and ulna, of the knee joints, and of the ankles, with typical rickety curvature of the femora and tibiae. The skull, chest, and viscera showed no changes.—Mr. S. Stephenson showed a boy, aged 9, with tuberculosis of the lachrymal sac. Tubercle bacilli were found in scrapings from the interior of the diseased sac. The boy was previously operated on for enlarged cervical glands. He still presented chronic ulceration of the nasal chambers, probably tuberculous.—Mr. Stephenson also showed a typical case of keratomalacia in a girl of 8 months. The condition was one of sloughing of the cornea in a young child suffering from marasmus. The eyes were kept shut, and the corneae were converted into greyish-white sloughs. The disease corresponded, he said, with "hikan," an epidemic disease of Japan, with the ophthalmia Braziliana of South America, and with the destructive keratitis common in Russia during the great Lenten fast.—Dr. J. Charlton Briscoe showed a girl, aged 13 years, with tremor of the right arm, very rapid, better felt than seen. It was absent during sleep, constant while awake, increased after exertion, and diminished after rest in bed. The muscles of the forearm and hand were not involved, and no other change was present. The onset was sudden, three months ago, with anorexia and lassitude. Dr. L. Guthrie suggested mild encephalitis or thrombosis of some of the finer vessels of the left cortex as possible causes. Dr. G. Sutherland regarded the condition as "functional," a diagnosis with which Dr. Briscoe agreed.—Dr. F. Parkes Weber showed a child, aged 12 years, with jaundice and very considerable enlargement of the spleen. The lymph glands were not enlarged, and the blood showed nothing abnormal. The mother had had six stillborn children.—Mr. J. Howell Evans showed a case of osteoma of the pregmatic Wormian bone.—Mr. G. F. Hett showed a child with tuberculosis of the lungs, cervical glands, and ears. It was discussed by Dr. Carre-Smith, Dr. Sutherland, Mr. Howell Evans, and others.

Ulster Medical Society.—At a meeting on March 23rd, Dr. William Calwell, President, in the chair, Dr. T. S. Kirk read a paper on some cases of perforation of the stomach and intestine. There were 11 consecutive cases of perforated gastric ulcer with only one death, and that took place two months after operation, with symptoms of heart disease. All the cases were operated on within twenty-four hours, and most of them within a few hours; the shortest was in an hour and three-quarters. Mr. Kirk chiefly relied upon the past history, the history of sudden onset, localized rigidity of the upper part of the recti, and pain. He had explored without mishap three cases where no perforation had been found. He had not flushed out any case. Mr. Mitchell, Dr. Darling (Lurgan), Dr. John Campbell (who advocated flushing with 12 to 14 gallons of fluid), Dr. McKisack, Mr. Fullerton, and the President discussed the paper. The opinion that opium in any form masked symptoms was supported, and it was agreed that it ought not to be given until a definite decision had been arrived at as regards operation. Mr. Mitchell pointed out that continued vomiting was against the diagnosis of perforation. The site of the pain and tenderness did not aid as regards the site of the ulcer. The President said it was still impossible to differentiate those cases of sudden onset of pain, collapse, etc., which were not due to perforation, from those which were; probably some of the former were due to tear of adhesions, others to constipation, others to movable kidney.—Mr. Thomas Houston showed a fresh specimen—the larynx, trachea, and oesophagus—from a case of ammonia poisoning.

Kidderminster Medical Society.—At a meeting on March 31st, Mr. C. Dennis Fitch, President, in the chair, the following were among the cases and specimens shown: Mr. Lionel Stretton: (1) A man, aged 49 years, who was admitted to the hospital suffering from an incised wound at the back of the wrist caused by a piece of granite flying against it when he was breaking stone; his fingers were flexed and he was unable to extend them. On opening the wound, it was found that the three tendons of the extensor communis digitorum and the tendon of the extensor indicis were all of them divided as they passed through their compartment of the annular ligament. They were sutured with catgut, and when shown (after two months) he had a good extension movement. (2) A small irregular-shaped gall stone removed from the cystic duct of a lady aged 46. She had a severe attack of haematemesis nine years ago, and had been unable to take solid food since. Within a fortnight of operation she was able to take full meals without discomfort. (3) A horseshoe-shaped appendix with a constriction; it was removed in the quiescent stage from a girl, whose right kidney was at the same time stitched to the loin to prevent its undue mobility; recovery uneventful.—Dr. Bertram Addenbrooke: A woman, 32 years of age, who had been suffering from phthisis three years. The disease had caused so much contraction of the left apex of the lung that the heart was drawn up and the apex beat found in the third intercostal space.—Mr. G. D. Dykes: A woman suffering from peripheral neuritis. She had suffered from sickness and

vomiting for several years. Twelve months ago she was treated for gastric ulcer, and improved, but five months ago pain in the stomach and vomiting returned. Her bowels were very constipated. Since the middle of December she had had pain in wrists and ankles, travelling up forearms and legs, with gradual loss of power and inability to straighten the fingers and extend hand on forearm; her left foot was affected in a similar manner, though less severely; she had lost flesh rapidly during the last few months, and was very anaemic and emaciated. There was marked tenderness along ulnar and median nerves of both forearms, and of external popliteal nerve of left leg. The knee-jerks were greatly exaggerated on both sides. The pupils responded to light and accommodation. On the gums there were two slight blue specks visible. She was a married woman, and had five children, and latterly several miscarriages.

MIDLAND MEDICAL SOCIETY.—At a meeting at Birmingham on March 15th, the PRESIDENT (Mr. Wood White) in the chair, among other exhibits was one by Dr. C. E. PURSLOW of a specimen from a case of irreducible prolapse of the uterus. The patient was admitted to the Queen's Hospital on June 4th, 1904, with a large mass protruding from the vulva, which had not gone back for six months. The vagina was completely everted, and the uterus lay entirely outside the body. Near the centre of the posterior vaginal wall was a small aperture, from which a little pus exuded on pressure, and into which a fine probe could be passed about 1 in. Attempts at reduction under anaesthesia, after the patient had rested more than a week in bed, failed, and so the uterus, with a large portion of the posterior vaginal wall, was excised. The operation was rendered difficult by the bladder being unusually adherent to the anterior wall of the uterus, and by some inflammatory thickening of the vaginal wall, the portion of the latter in the specimen showing a thickness of at least 1 in. The left ovary was found to be converted into an abscess cavity, and to be communicating with, and discharging through, the small hole already mentioned in the posterior vaginal wall. The patient made a good recovery, and the result of the operation has been quite satisfactory. The parts shown were the uterus, with the vaginal wall attached, and the left ovary.

REVIEWS.

ANATOMY AND EMBRYOLOGY.

THE *Edinburgh Stereoscopic Atlas of Anatomy*,[1] edited by Dr. DAVID WATERSTON, Lecturer and Demonstrator in the Anatomical Department of the University of Edinburgh, is, we believe, the first atlas of its kind which has been issued in this country, although, since the process of formol hardening has become general, it has been customary in more than one anatomical department to make stereoscopic photographs of the less usual dissections, and utilize them for demonstrations when subjects for the repetition of the dissection were not available, and it is many years since Dr. Berry, of Edinburgh, demonstrated the utility of the process. The *Edinburgh Atlas* is to consist of 250 photographs of the ordinary stereoscopic size; each photograph is mounted on the lower end of card measuring 9 in. by 7½ in., and the description of the photographs is printed in clear type on the upper part of the card. The first section of the *Atlas* consists of 50 photographs of dissections of the walls and cavity of the thorax—the mediastina, the lungs, the heart—and the central nervous system. The dissections have obviously been splendidly made, and the photographs almost without exception are excellent examples of their kind. The box in which each section of the *Atlas* is enclosed is convenient for storage, and the arrangement for lifting the cards from the box is simple and effective. Great judgement has been used in the choice of the dissections represented, and there can be no doubt that the *Atlas* will prove extremely valuable to those who cannot conveniently attain access to dissections themselves. Any one who studies the photographs will readily appreciate their superiority over ordinary figures for the demonstration of the relation of the various parts shown in the dissections to the three dimensions of space, and the only drawback to be guarded against is that of supposing that in every body with which he has to deal the relative positions of the parts will be exactly the same as they were in the body from which the photograph was taken. It is important to keep this in mind, for in more than one point the relative positions and sizes of organs and parts in the body depicted in the photographs of the *Atlas* are not exactly those which are frequently met with.

The greater part of the monograph on the human ovum and the first stages of its development,[2] in the production of which Drs. J. POTOCKI and A. BRANCA have collaborated, is concerned not so much with the human ovum itself and the phenomena which occur as the result of its impregnation as with the explanation of such of those phenomena as are only imperfectly known by reference to the better-known conditions in other mammals. The authors are evidently well acquainted with the observations which have been made in the department of mammalian embryology, and they have selected facts to illustrate their subject with excellent judgement. The accounts which they give of human ova, their formation, differentiation, and the phenomena which occur in association with them, after they are fecundated, are concise but clear and sufficient. There is no claim that the book contains any new material. Apparently its object is merely to give a brief and readable account of the known facts for the service of those who have not the time or the opportunity to search through the multitude of special articles which have been written on various parts of the subject, and they are to be warmly congratulated on the satisfactory result of their endeavour. The illustrations are good, and serve to make still more clear that which has already been well described in the text.

A GERMAN-ENGLISH MEDICAL DICTIONARY.

THE extraordinary advancement of medical science in Germany during the last half-century, which has been brought about by the labours of hosts of workers in the field of scientific research, has resulted in enormous additions to the scientific terminology of a language already sufficiently eclectic.[3] To the modern student of medicine, of chemistry, or of philosophy, a knowledge of German is almost indispensable, but the plethora of words is appalling even to the most earnest. Even to one with a good working knowledge of German a real difficulty is encountered when it is found that terms in common use in current scientific publications, in the innumerable technical *Zeitschriften* and so forth, are either not given at all in the most comprehensive ordinary dictionaries or are mentioned in terms insufficiently precise. For this reason a dictionary, such as this of LANG and ABRAHAMS, is an absolute necessity. It is intended, Dr. Abrahams says, to be a complete glossary of German medical words in common use, and it contains also a large number of words employed in the ancillary sciences, particularly chemistry, biology, and pathology. It fulfils in a satisfactory manner the intention of the authors and has evidently been prepared with scrupulous care. Doubtless many recent terms will have presented themselves to Dr. Abrahams, particularly those in which personal names are employed, and, after deliberation, have been excluded. The custom of attaching to a sign or a symptom-complex the name of an individual who is often not the real discoverer, has many disadvantages, but in some cases—the Westphal-Piltz pupil phenomenon, for instance—their mention here would have been of advantage. In one or two cases, also, we are not in entire agreement with the authors. For *Anschauung*, for instance, "view" only is given as equivalent, a quite insufficient rendering; *Ton-empfindung* and *Schall-empfindung* are both given as meaning perception of sound without any distinction; *Gemüts-bewegung* as mental emotion or excitement, and not as affective process; and though *zweckmässig* is correctly rendered as practical, suitable, fit, it also means purposive. *Verrücktheit* is translated as mental degeneracy. This is the rendering of a general dictionary, and its particular meaning of paranoia should have been given. *Paranoia* is described as a "form of insanity in which hallucinations are a marked feature." Owing to a regrettable lack of uniformity in the classification of mental diseases in different countries, an accurate translation of many terms of this kind is impossible, but this is very wide of the mark. Hallucinations are undoubtedly promi-

[1] *The Edinburgh Stereoscopic Atlas of Anatomy.* Edited by Dr. David Waterston, M.A., M.D., F.R.C.S.E., F.R.S.E. In five sections. Section I. Edinburgh and London: T. C. and E. C. Jack. 1905. (£1 5s. nett each section.)

[2] *L'Oeuf Humain et les premiers stades de son développement. Eléments d'embryogénie.* Par J. Potocki et A. Branca. Paris: G. Steinthal. 1905. (Demy 4to, pp. 196, 100 illustrations, 7 coloured plates. Frs. 10.)

[3] *A German-English Dictionary of Medical Terms.* By the late Hugo Lang, B.A. Edited and completed by Bertram Abrahams, M.B., B.Sc., F.R.C.P., London: J. and A. Churchill. 1905. (Demy 8vo, pp. 598. 15s.)

nent in paranoia, but progressive systematized delusional insanity would have been much more nearly an accurate definition. The term was, of course, adapted by Mendel from the writings of Plato to describe a special form of mental disease in persons possessing considerable mental capacity, yet having peculiarities, a mental twist, which separates them from the rest of humanity. From its derivation (παρα close to, and νους understanding) the practically-abandoned term monomania would have been better than the definition given by the author, though we in no way defend the use of this term. These are, however, but isolated points admitting a difference of opinion, and the book as a whole has been so carefully prepared that it will be found most helpful by all who wish to cultivate an acquaintance with recent scientific work in Germany.

NURSING.

Four years ago we had an opportunity of expressing a very favourable opinion of Davis's *Obstetric and Gynecologic Nursing*,[4] and the new edition possesses the same merits as its predecessor. The clearness and simplicity of the instruction and sanity of judgement in setting the limits of nursing and medical treatment are outstanding features, and if at points there are indications of flux in the bounds of the nurse's duties, the terms used by the author indicate that this is due to the multifarious conditions of American practice rather than to any indefiniteness in his own opinion. It is to be regretted that he still defines the temperature of the hot douche (p. 266) as 100° F. to 110° F., though in the treatment of post-partum bleeding a douche at a temperature between 115° F. and 120° F. is correctly enough prescribed. In gynecological cases, as well as in obstetrical, the physiological effect of a douche at the higher temperature is quite different from that of one at the lower (p. 33). Swelling of the legs during pregnancy should never be considered by a nurse as not serious enough to require to be reported to the physician.

The large number of treatises which have been published within recent years on nursing indicates either an increasing demand for literature on this subject or an excessive supply. The scope for originality is obviously limited, and some attempt is made by many authors to redeem this poverty by adding to the text a sketchy description of disease and its treatment. The volume on *Practical Nursing*,[5] by Miss Isla Stewart and Dr. Herbert E. Cuff, a new edition of which has been recently published, is an example of books of this class. The volume contains much useful information, but fully half its pages are devoted to a recital of points in symptomatology, diagnosis, and treatment, with many of which nurses have nothing to do. It is right that they should know the landmarks of disease, but such technical details as the indications for the use of the actual cautery (p. 157), the physical characteristics of the tongue (p. 66), the size, compressibility, and regularity of the pulse (p. 76), are unnecessary and undesirable. Of this, as of many other such works, it may safely be affirmed that, without loss of value, they could advantageously be boiled down to half their size. Their contents are undoubtedly helpful to those who have been lectured to and trained by the authors, but for nurses in general they are redundant and needlessly discursive.

NOTES ON BOOKS.

Mr. Duckworth's thirty-six studies in anthropology, as given in *Studies from the Anthropological Laboratory, Cambridge*[6] are all embraced, together with numerous illustrations, within the space of 282 pages. It is evident, therefore, that none of them are long—and, indeed, many are mere notes on points of anthropological interest. For the main part they deal with specimens in the University Anatomical Museum at Cambridge, and they embrace descriptions of the skulls of at least twelve different races; notes on the gorilla, hylobates, and the orang; a description of the brains of primates in the Cambridge Anatomical Museum; a description of the pelvic and abdominal organs and anatomy of the lemur, galago garnetti; and an interesting account of the dispersive action of a small stream of water on mammalian bones, the last article being of considerable interest in association with Dr. Dubois's theory of the dispersion of the bones, which he ascribes to pithecanthropus erectus. All the articles have their own special interest to the anthropologist, and many are valuable contributions to anthropological knowledge, but their general interest is limited. They show, however, that a large amount of careful and valuable work is being done in the anthropological section of the Anatomical Department of the University of Cambridge.

The second volume of the *Bulletin of the Ayer Clinical Laboratory of the Pennsylvania Hospital* contains four valuable original papers on work done in the laboratory; they are accompanied with many beautiful illustrations both in colour and in black and white. Dr. Longcope, besides contributing in conjunction with Dr. Scott a case of malignant tumour of the testicle resembling chorion epithelioma, has a paper on the changes of the bone marrow in acute infective diseases, including reference to 26 cases of typhoid, 15 of acute lobar pneumonia, and 4 of peritonitis. Dr. Cadwalader writes on the occurrence of basophile granules in the red blood corpuscles in association with nucleated red cells in lead poisoning, arguing for the origin of the granules from the nuclei of these cells. Dr. G. C. Robinson communicates an interesting paper on the relation between congenital malformations of the heart and the development of acute endocarditis.

Love's Tribute[7] is a sonnet sequence addressed by a husband to a much-loved wife. The sonnets breathe throughout the spirit of deep and undying affection. It is not easy to review such a volume in a critical spirit. It has been written, we judge, by one thoroughly familiar with the greatest sonnet sequence in the English language; in one of the latest of his series the poet exclaims:

> In the thrice-heated furnace of my brain
> Have I, Beloved, forged these simple songs;
> Love is their body, love their sole refrain,
> And unto thee alone each one belongs.

These lines give the keynote of the volume, and it is difficult to say more. The last sonnet reveals the tragedy which, perhaps, gave the sequence being. The author, who conceals his identity under the name of James Whitehead, is, we believe, a well-known member of the medical profession of the Scottish border.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ending March 4th and 11th the deaths in India from plague numbered 34,139 and 45,541 respectively. During the corresponding weeks of 1904 the figures were 28,919 and 33,517 respectively. During the week ending March 4th the principal figures were: Bombay City, 828; Bombay Districts, 2,402; Calcutta, 130; Bengal Districts, 5,543; North-West Provinces and Oudh, 15,089; Punjab, 7,952; Rajputana, 453; Central Provinces, 429; Central India, 139; Hyderabad State, 371; Mysore State, 218. From Aden 184 deaths are reported. Of the 45,541 deaths which occurred during the week ending March 11th, the only detailed returns to hand are: Bombay Districts, 2,666; Bengal Districts, 7,928; Punjab, 11,661; and North-West Provinces and Oudh, 18,938.

South Africa.

East London.—During the weeks ending March 4th and 11th the fresh cases of plague numbered 0 and 4, and the deaths from the disease 0 and 3. One case remains under treatment.

Rats and mice continued to be found infected by plague at East London and Port Elizabeth. A cat was found plague-infected at East London.

Mauritius.

No case of plague reported during the week ending March 24th.

Hong Kong.

During the week ending March 25th, one fresh case of plague reported.

Russia.

Between February 4th and 10th the fresh cases of plague in the Province of Viatka numbered 19, and the deaths from the disease 4.

Brazil.

From January 1st to February 5th plague caused 30 deaths in Rio de Janeiro.

Egypt.

During the week ending February 18th, 5 cases of plague were reported in Suez.

[4] *Obstetric and Gynecologic Nursing.* By Edward P. Davis, A.M., M.D. Second edition. London: W. B. Saunders and Co. 1904. (Demy 8vo, pp. 402. 8s. net.)

[5] *Practical Nursing.* By Isla Stewart and Herbert E. Cuff, M.D., F.R.C.S. New edition. Edinburgh and London: William Blackwood and Sons. 1904. (Crown 8vo, pp. 436; 13 illustrations. 5s.)

[6] *Studies from the Anthropological Laboratory, the Anatomy School, Cambridge.* By W. L. H. Duckworth, M.A. Cambridge: University Press. 1904. (Demy 8vo, pp. 291, 76 illustrations. 10s.)

[7] Edinburgh and London: T. N. Foulis. 1904. (Crown 8vo, pp. 152.)

MEDICAL NEWS.

Professor J. Symington of Belfast has been appointed an examiner in applied anatomy and physiology for the entrance examination to the Indian Medical Service.

The first cremation at the recently-erected crematorium at the City of London Cemetery, Little Ilford, was carried out successfully on March 18th. Complete incineration was effected in sixty minutes.

The annual public meeting of the Metropolitan Hospital Saturday Fund will take place at the Mansion House on April 29th, on which occasion Dr. Latham will deliver an address on Sanatoriums for Workers.

The festival dinner of the National Hospital for the Paralysed and Epileptic, Queen Square, London, which was to have been held on Thursday next, has been postponed owing to the continued absence of Lord Strathcona in Canada.

A provincial sessional meeting of the Royal Sanitary Institute will be held at the University of Liverpool on Saturday, April 15th, at 11 a.m., when a discussion on recent methods of rehousing tenants dispossessed from insanitary property will be opened by Mr. Fletcher T. Turton, Deputy Surveyor of the Corporation of Liverpool.

The dinner at which the medical profession of Croydon and district have decided to entertain Dr. Owen Fowler will take place at the Greyhound Hotel, Croydon, on May 4th, at 8 p.m. It will be remembered that Dr. Fowler was the co-respondent in the recent action of Miller *v.* Miller and Fowler, and when the case against him was dismissed the judge said that Dr. Fowler had absolutely cleared himself, and left the court without a stain upon his character. Tickets, exclusive of wine, 5s. each, can be obtained of Dr. C. M. Fegen, Town Hall, Croydon.

Miss J. Blower, late matron of the Ardwick and District Nurses' Home, Manchester, has been presented by the medical men with whom she has been associated in the work amongst the sick poor for the past nineteen years with an illuminated address, accompanied by a cheque, in recognition of their appreciation of her valuable services. Dr. Vipont Brown presided at the meeting on April 4th, when the presentation was made by Dr. F. W. Saberton on behalf of over sixty medical men whose names were appended to the address.

The wounded officer and men of the Russian warship *Varyag*, which was sunk by the Japanese at Chemulpo in the first stages of the war, had the benefit subsequently of the professional care and attention of Dr. Atkinson, Principal Civil Medical Officer, and Dr. J. Bell, Superintendent of the Government Civil Hospital. The Czar recently sent for each of the gentlemen a cigarette case of solid gold, with the Imperial coat of arms set in diamonds. These souvenirs were presented to Drs. Atkinson and Bell recently by the Governor of Hong Kong.

The Epidemic of Typhoid Fever in Lincoln.—The total number of notifications during the week ending Friday, March 31st, was 38, the totals of the four previous weeks having been 37, 46, 46, and 32 respectively.

Anti-Cigarette Legislation in America.—A Bill which makes unlawful the sale, gift, or importation into the State of cigarettes or cigarette materials passed the Wisconsin Senate on March 17th. It had previously been passed by the Assembly.

Bequests to Medical Charities.—Under the will of the late Miss Amelia Jane Bathurst of Eastbourne, which has now been proved, the West London Hospital, the Princess Alice Memorial Hospital, Eastbourne, and the All Saints' Convalescent Hospital in the same town, each receive the sum of £200.

German Surgical Congress.—The German Surgical Society will hold its thirty-fourth annual Congress in Easter week, April 26th to 29th. The following questions are proposed for discussion: The operative treatment of appendicitis; renal diagnosis and extirpation of the kidneys; post-operative pneumonia; the treatment of fracture of the patella. Members will have an opportunity of seeing Bier's method of artificial hyperaemia practised in a number of cases of acute inflammatory conditions by Dr. Bier himself.

The Spitting Nuisance.—Printed notices to the number of 2,700,000 have been prepared and will be placed in all school textbooks in New York City, warning pupils against spitting on street pavements and the floors of public places. At a recent meeting of the Maryland Society for the Prevention of Tuberculosis held in Baltimore, Dr. John S. Fulton presented cards which he had prepared for distribution among the public. The object is to collect "sputistics" regarding expectoration in public places. Those interested in the suppression of this filthy nuisance were urged to fill up the cards with records of their observations and forward them to the Secretary of the Society.

Metropolitan Hospital Saturday Fund.—The report of the Council of this fund, which was adopted at the thirty-first annual general meeting on April 1st, showed that in January last the Board of Delegates divided £22,196 among 198 hospitals, dispensaries, and convalescent homes, this amount being over £1,000 greater than in any previous year. The receipts from the collections made in workshops and places of business also showed satisfactory increase, and had reached £24,344. The Surgical Appliances Committee provided during the year 4 644 appliances, to the cost of which the recipients contributed £2,289. In addition, arrangements had been made for the transport of a good many patients to or from the hospitals. The Board recommended the grant of a sum of £500 to the National Committee for the establishment of sanatoriums for workers to assist in the erection of the proposed sanatorium at Benenden in Kent, and thereby secure fifteen beds in this institution for the use of supporters of the fund.

Dinner to Mr. W. Johnson Smith.—A complimentary dinner was given to Mr. W. Johnson Smith by his friends and colleagues on the occasion of his retirement from the post of principal medical officer to the Seamen's Hospital Society (*Dreadnought*), Greenwich. The dinner was given at the Trocadero on April 5th, with Sir Patrick Manson in the chair. In front of the Chairman were placed an ancient silver porringer and a chest containing a silver service, for presentation to Mr. Johnson Smith, whilst in the middle of the room was a large model of the old *Dreadnought*. After the toast of "The King" had been duly honoured, Sir Patrick Manson, in proposing the toast of the guest of the evening, "Mr. Johnson Smith," said that they were met to wish Mr. Johnson Smith prosperity and long life, and to give themselves the satisfaction of expressing their appreciation of the services he had rendered to the Seamen's Hospital. Mr. Johnson Smith had not only deserved success but he had attained it. Sir Patrick Manson went on to describe how much had changed in the medical profession since Mr. Johnson Smith joined it in 1862, and pointed out that the whole atmosphere and style of surgical science had undergone a complete alteration. When Mr. Johnson Smith joined the profession microscopes were practically unknown in hospitals and the only anaesthetic in use was chloroform. There must be stored up in the mind of Mr. Johnson Smith a mine of memories of the preantiseptic days, but he had kept pace with the advances made in his profession, and his work, *The Shipmaster's Medical and Surgical Help and First Aid* was widely used. The friends and colleagues of their guest were anxious that he should not forget them, and to emphasize that they had materialized their feelings of goodwill towards him by asking him to accept a chest of plate and a porringer. Sir Patrick Manson then presented Mr. Johnson Smith with the plate and porringer, and expressed the hope that they would remind him of his old friends and colleagues. Mr. Johnson Smith, in replying, spoke of the happy days he had passed on board the *Dreadnought*. He referred to the connexion of the Seamen's Hospital with Sir Patrick Manson, and observed how proud they all were of his celebrated researches into the question of malaria. He described how the patients in the *Dreadnought* were nursed when he first joined it. There were a few old women, but the majority of the nurses were old men, and their chief qualification for the post was that they had been fishermen. They certainly enjoyed the full confidence of their patients, and were an object of concern to politicians, as they lived on shore in tenements and therefore had votes. Mr. Johnson Smith concluded his speech by declaring that it was some comfort to him to know that he had tried to do his best. Sir Henry Burdett, in proposing the toast of "The Seamen's Hospital Society," eulogized the work done by that charity. After Mr. Nairne and Professor Hewlett had replied to this toast, Mr. William Turner gave the toast of "The Chairman," which was suitably acknowledged.

British Medical Journal.

SATURDAY, APRIL 8TH, 1905.

CEREBRO-SPINAL MENINGITIS.

The epidemic of cerebro-spinal meningitis in New York has assumed serious proportions. It began early in the present year and has been increasing in violence ever since, one hundred and forty-eight deaths from the disease being recorded during the week ending on April 1st. Comparing the present epidemic with that which occurred in New York in 1872 and lasted ten months, it appears that the deaths recorded this year already exceed the number in the whole of that period. The number since January 1st is 798. The disease has also appeared as an epidemic in Silesia; cases have occurred also in Saxony and other parts of Germany, and a few in the suburbs of Berlin.

Cerebro-spinal meningitis has been recognized as a distinct epidemic disease since the beginning of the last century. A small outbreak in Geneva in 1805 was described by Vieusseux, and in 1806 and during succeeding years several epidemics occurred in America and attracted considerable attention. According to Hirsch, the earlier outbreaks of the disease in various parts of the world may be divided into three groups: the first from 1805 to 1830, when the main incidence of the disease was in the United States; the second from 1837 to 1850, when the disease was severely felt in France, and a few outbreaks also occurred in America; the third from 1854 to 1874, when neither Europe nor America was free from the disease, and the latter country suffered from several extensive epidemics. Since 1874 the disease has broken out in many parts of America. A severe outbreak occurred in Maryland in 1892 and in New York in 1893, and in 1896 and subsequent years Boston and its neighbouring towns also suffered from it.

About the bacteriology of the disease a good deal is known, though the subject cannot as yet be said to have been completely elucidated. The organism most frequently associated with the infection is the diplococcus intracellularis meningitidis, which was described by Weichselbaum in 1887. Weichselbaum found it in the purulent exudate from cases of the disease, and affirmed the constancy of its presence in sections of the brain and its membranes. Councilman and others have considerably strengthened the value of Weichselbaum's discovery by an extended series of observations, being able to demonstrate the diplococci by culture or by microscopic examination in 38 cases out of 55. Osler, again, states that in a Boston outbreak, where *post-mortem* examinations were made of 35 cases, the diplococci were demonstrated in all but four; in one of these four they had previously been found in fluid withdrawn by lumbar puncture, and the other three were chronic.

Considering all the evidence available, there seems to be no doubt that this diplococcus is the causal agent in a very considerable proportion of cases of the disease at least, though we are not justified in assuming that cerebro-spinal meningitis is always and necessarily due to this organism. Other bacteria which have occasionally been found in association with the disease are the pneumococcus and Friedländer's bacillus.

With regard to the detection of the organism during life, the fact that it has very frequently been identified in the cerebro-spinal fluid withdrawn by lumbar puncture makes this method of examination a highly important aid to diagnosis. Little is known about the channels by which infection with the diplococcus meningitidis actually takes place, but some interesting observations have been made which lend support to the hypothesis that it may gain access to the brain directly by the nasal, auditory, or other passages. Scherer has found it twice in the nose in coryza; it has been found in the conjunctiva by Carl Fränkel and Axenfeld; and Jäger has observed it in the purulent discharges of rhinitis and otitis. The distribution of the organism in nature is not known.

The disease, according to Professor Osler, does not seem to be directly contagious, and is probably not transmitted by clothing or the excretions. How any particular epidemic arises it is, in the present state of our knowledge, extremely difficult to understand; but in view of the fact that outbreaks are generally localized and rarely very widespread, the risks of an importation of the disease into this country from the other side of the Atlantic do not appear to be very considerable.

In view of the prevalence of cerebro-spinal meningitis in New York, Dr. Darlington, head of the Health Board, has appointed a Commission to investigate the disease and devise means of cure or prevention. The members of the Commission are Dr. William M. Polk, Dean of Cornell Medical College (chairman); Dr. Walter B. James, Professor in the New York College of Physicians and Surgeons; Dr. William P. Northrup, Professor of Children's Diseases in the University of Bellevue Hospital Medical College; Dr. Simon Flexner, of the Rockefeller Institute; Dr. Joshua M. Van Cott, Pathologist to the Long Island Medical College; Dr. E. K. Dunham, Pathologist of the Carnegie Laboratory, and Dr. William K. Draper, visiting physician at Bellevue and Minturn Hospitals (secretary). Dr. Darlington's choice was determined by the facts that each of these physicians is a recognized authority in medicine, and that taken together they represent all the medical colleges of New York and will have the advantage of the laboratory work of those institutions. The Commission has already begun its work. It will issue cards to medical officers of hospitals, with blanks to be filled in with data as to cerebro-spinal meningitis. The schedule includes questions as to the evidences from the bacteriological standpoint of communicability and as to the biology of the disease bacilli, with reference to differentiation, agglutination, and pathogenesis. They further inquire as to the effect of drying on the bacilli and their viability in spray, as bearing on isolation and infection. Complete information about the patients surroundings and the conditions under which they were stricken with the disease will also be collected. It is probable that the scope of the investigation will be world-wide, and that information will be sought from hospitals all over the globe. All the members give their services free, while the £1,000 appropriated by the city will go toward defraying the expense of compiling data. This Commission is the second that has been appointed in New

York within twelve months. The Pneumonia Commission appointed last year is still at work, but expects to publish the results of its labours in a short time.

THE VENTILATION OF THE HOUSE OF COMMONS.

A report has been issued containing the results of the investigation entrusted to Dr. M. H. Gordon on the ventilation of the debating chamber of the House of Commons. Dr. Gordon's inquiries, which were carried out between May and August of last year on occasions when the chamber was in use, had for their principal object the determination of the quality of air supplied by the method of ventilation adopted. The observations undertaken were primarily bacteriological; but they have been supplemented by chemical analyses, carried out by Dr. W. H. Hurtley; estimations have also been made by Dr. John Aitken, F.R.S., of the proportion of dust particles in the air.

Bacteriological examination of the air entering the inlet, under the existing system of ventilation, showed that rainfall had a marked influence on the number of bacteria present, the organisms contained in the incoming air being fewer in wet weather. At the north inlet evidence was obtained that the incoming air was liable to pollution with material of intestinal origin, probably horse manure, derived from the boots of persons walking over a grating above the inlet in question. But with this exception there was exceedingly little evidence that the indrawn air was charged with any particulate impurity associated with matter which is liable to convey disease. Chemically, the air was found to be normal for town air as regards oxygen and carbon dioxide; and with regard to the number of dust particles present Dr. Aitken's observations led him to conclude that, for a town, the quality of the air was good.

The character of the air as it actually enters the debating chamber was determined by investigating the contents of the equalizing chamber. It was found that during debates the number of bacteria deposited from the air of the equalizing chamber showed a marked increase at certain points corresponding to gratings in the roof thereof, which constitutes the floor of the debating chamber. The excess of bacteria at these points was due to showers of débris falling through the gratings from members' boots; it was greatest below the portion of the centre gangway between the bar and the lobby door at that end of the debating chamber, and was also considerable behind the Speaker's chair and below the side gangways. The pollution consisted chiefly of material of intestinal origin, derived in all probability from horse manure. The average temperature of the air in the equalizing chamber was found to be 63° F., which, from the hygienic standpoint, is eminently suitable. But in respect of another physical condition, relative humidity, Dr. Gordon obtained much less satisfactory results. Whereas the percentage of humidity of the fresh air at the inlet was found to be 71, within the equalizing chamber the low average percentage of 63 was obtained. As it is held that the ideal humidity percentage of air supplied to inhabited rooms in this country should be between 70 and 80, or, according to another authority, preferably between 73 and 75, it is evident that the air supplied to the debating chamber must be regarded as unduly dry, and that to a high degree. Dr. Gordon thinks that this lack of moisture has had much to do with the complaints of members that sustained attendance on debates produces an enervating effect.

Dr. Gordon next reports on the character of the air as it passes out of the debating chamber. He has found that when a debate is in progress the number of bacteria deposited from the air is greater than when the chamber is empty, the additional contamination being mainly due to micro-organisms disseminated from the mouth and upper respiratory passages during the acts of speaking, coughing, or sneezing. Bacteriological evidence was also occasionally obtained that the air had become contaminated with micro-organisms introduced upon members' boots. Certain special experiments were devised in order to determine the extent of this liability to pollution. Earth was infected with the readily recognisable but harmless bacillus prodigiosus, and was then deposited outside the debating chamber at a distance of 576 feet from the bar. This organism was shown to have been brought in upon members' boots, and was recovered from air below the bar. The chemical evidence showed that, as regards carbon dioxide, air passing out of the debating chamber during debates was remarkably pure for air coming from an inhabited room. The diminution in oxygen, moreover, was small.

Experiments on the influence of ventilation upon the dissemination of micro-organisms brought out some facts of particular interest. Comparing the results of experiments made with the ventilation "on" and "off" respectively, it was found that, so far from removing the particulate matter sprayed from the mouth in performance of the act of loud speaking, the effect of ventilation was to permit the distribution of such material over a larger area in the chamber than when the ventilation was "off." In connexion with these observations, Dr. Gordon calls attention to the fact that certain infectious diseases are liable to be transmitted as a result of dissemination of their infection in air, notable instances being influenza and infectious colds.

At the conclusion of his report, Dr. Gordon offers several recommendations. He considers that the present air intake would be improved by raising the inlet a few feet and at the same time widening it. Traffic over the north inlet ought to be abolished. The air passing through the airway might be further purified by the continuous employment of the fine spray which is at present only in occasional use. Detailed suggestions are also offered upon some further points with the view of preventing access of contaminated air to the inlet, obtaining the requisite degree of moisture for the air in the debating chamber, and reducing, as far as possible, the dissemination of contaminated material from members' boots.

THE PREVENTION OF APOPLEXY.

The first object of medicine, said Sir William Jenner, is to prevent disease. When we remember how much of our etiological knowledge has been acquired since these words were uttered we may almost regard them as prophetic. Little enough do we know to-day as to the origin of many widespread and dangerous maladies; in Jenner's time we not only had not the knowledge, but in the majority of cases we were not even upon what has subsequently proved to be the right track. Now at least we know that, if we look at the question in its widest possible aspects, all pathological conditions result from two processes only, acting alone or in combination, namely, injury and exhaustion. Of the detectable causes of the former we have learned to dread especially the poisons, whether brewed by infective micro-organisms within the body or taken in ready-made.

That at some future date all causes of injury to the organism shall be known, and in consequence avertible, is the chief hope of the profession. The clinician and the bacteriologist work hand in hand towards their elucidation, the hygienist investigates their prevention, and eventually calls upon the law-giver to aid him in their eradication.

With the other main etiological factor the case is quite different. Wear and tear is, after all, a physiological rather than a pathological process, and, until recently at any rate, the quest for an elixir vitae has long been in abeyance. But old age does not attack all the tissues at the same time, and careful study may reveal its onset and progress in each individual case. This task evidently falls within the sphere of interest of the general practitioner, who is expected, as the popular phrase has it, to "know the constitution" of his patient. It is his duty to expound to those who seek his aid the laws of right living in general and their particular applicability. In so doing he will have to trust largely to his own judgement and experience, for most writings on the subject contain little beyond collections of well-tried platitudes. The general question has, however, been well treated by Sir Hermann Weber in the lecture on long life delivered at the Royal College of Physicians, which was published in our columns at the time, and we now have to welcome a contribution to a special department by the Regius Professor of Medicine at Cambridge. Professor Allbutt took as the subject of a recent address to the Bristol Medico-Chirurgical Society[1] the prevention of apoplexy, or, to be more accurate, of cerebral haemorrhage; he avowedly excluded from consideration both embolism and thrombosis. Quite apart from the intrinsic merits of his paper, he has done valuable service in drawing attention to prophylactic possibilities in connexion with so common a malady; and it need hardly be said that his argument is displayed in well-chosen language and with much rhetorical grace.

Professor Allbutt's contentions, put with a succinctness of which, perhaps, he would hardly approve, are that the trend of modern pathology is advancing from the static views of the older morbid anatomists to more dynamic theories, and that the catastrophic way of looking at disease must give place to the study of incidents minute in themselves but cumulative in their effects, leading up to the final disaster. He then proceeds to set forth his views as to the pathogeny of cerebral haemorrhage, with many of which the medical world must already be familiar. He asserts, in the first place, that in a very large number of cases of this affection the kidneys are not granular, and he rules out from consideration all instances associated with Bright's disease. He appears to use the terms granular contracted kidney and chronic Bright's disease interchangeably, although these conditions can be discriminated clinically and pathologically. While it is quite true that cerebral haemorrhage is but an infrequent result of chronic Bright's disease it is open to doubt if, except in cases of acute local arterial disease such as may arise from syphilis or leukaemia, it ever occurs in subjects whose kidneys are undegenerated. In place of the generally accepted and perhaps more obvious explanations Professor Allbutt suggests as the main cause of cerebral haemorrhage arterial disease resulting from "the accumulation of obscure stresses." He admits, however, that there is a large class of cases in which arterial degeneration is manifested without rise of pressure; these he does not further discuss.

From these views, which may to some appear a little transcendental, a practical moral is drawn. Every adult of the age of 40 and upwards—the phraseology is Professor Allbutt's own—is to have his blood-pressure measured at regular intervals by means of the best instruments obtainable; if persistent rise of arterial pressure is detected he must be made to revise his mode of life. The chief indications are regulated exercise, abstinence from alcohol, and a great reduction in the intake of food. It has long been realized that in all cases of arterial degeneration, of which those associated with the granular contracted kidney are usually considered the most important, such rules are imperative, and in this respect Professor Allbutt, though he is reiterating opinions probably very generally held, gives sound and valuable advice. But it may reasonably be doubted whether instrumental research will ever be as useful in the investigation of blood-pressure in man as the fingers and ears of a cultivated observer. There is a certain risk that the multiplication of instruments tends to pauperize the senses and to weaken their clinical acuity; even the sphygmograph is mainly used nowadays rather for the purpose of demonstration or of making a permanent record than for what it can tell us in diagnosis or prognosis. However, leaving aside all questions of detail, it cannot be gainsaid that Professor Allbutt has done good service in lending the weight of his authority to the view that cerebral haemorrhage may be warded off, or at least delayed, or that the prophylactic methods he recommends, whatever their theoretical basis, are in principle thoroughly sound.

[1] *Bristol Medico-Chirurgical Journal*, March, 1905.

THE PROPOSED CONFEDERATION OF MEDICAL SOCIETIES IN LONDON.

As announced in the British Medical Journal of April 1st, a meeting will be held at the Royal College of Physicians of London on Monday next at 5 p.m., under the presidency of Sir William Church, Bart., to consider the desirability of the amalgamation of the various medical societies in London so as to form a Royal Society or Academy of Medicine. The meeting will be open to Fellows and members of all medical societies, and in order fully to gather the opinion of the profession on the suggestion it is hoped that junior members will attend in force, as well as those officially associated with the several societies.

PLAGUE IN INDIA.

The alarming number of deaths from plague, over 45,000, during the week ending March 11th, 1905, has at last drawn the attention of the lay press to the state of affairs in India as regards this disease. The statements that this number of deaths was in excess of all previous records is inaccurate, for the returns showed that no fewer than 46,320, 47,759, and 46,812 persons died of plague during the first three weeks respectively of April, 1904. Although we commented upon the terrible death-rate from plague at the time, the facts attracted very little public attention in 1904; but this year it has caused considerable excitement, although the figures are, as yet, slightly lower than in 1904. The month of April has hitherto proved the period in which plague reaches its maximum in India, and the available returns for this year brings us only to March 11th. It is fair to assume, from experience of plague in India extending now to eleven years, that the maximum mortality from the disease had not been reached at that date. The indifference with which the continued prevalence of so serious and widespread an epidemic of plague in India has been hitherto regarded in this country is remarkable when we remember the importance of the matter, not

only to our great dependency but also to the empire and to the world generally. The Commission which, as we announced recently, is about to be appointed to make a scientific inquiry into the etiology and prophylaxis of plague will, it is hoped, get to work soon after Dr. C. J. Martin's arrival in India. While it is eminently desirable that these investigations should be made, we would repeat that practical sanitary administrators are required and that they should be given executive powers. Down to the present time the medical officers who have been specially detailed for plague work have been more or less completely under the control of local lay committees, who have not always adopted their advice or seconded their efforts. When Governments are sufficiently wise to allow medical men to exercise efficient executive power in regard to epidemic disease, then, and then only, may we hope to see such diseases effectively met by hygienic measures of a nature calculated to arrest their spread.

CHOLERA AND THE RUSSIAN POLICE.

THE political ferment now in progress in Russia, or to put things more accurately, the police methods employed to suppress it, seem not unlikely to lead to such an extensive prevalence of cholera in Russia as may constitute a danger to the rest of Europe. As is well known, the disease has been present in the more or less outlying parts of the Russian Empire throughout the winter, and in consequence the concerting of measures by which it might effectively be met was to be the principal business of the Medical Congress summoned to assemble at Moscow this week. A veto, however, was put upon its meetings by the police, and this was only removed after a strongly-worded telegram had been addressed to the Minister of the Interior. What shape the final resolutions of the Congress will take remains to be seen, but one passed at the earliest meeting seems to indicate that medical men throughout Russia feel that their possible utility as preachers of sanitation is destroyed by police interference and intrigues, and that they are disposed, under present circumstances, to stand aside from any crusade against cholera in which Government may desire them to play the most active part. They are, apart from constant espionage and liability to arrest, represented to the peasantry by agents of the police as being, like other members of the educated classes, in league with the Japanese. These calumnies make it dangerous for them to make themselves prominent in the advocacy and enforcement of measures of sanitation, and, owing to the absence of liberty of the press and to police prohibitions of gatherings of any kind, it is impossible to disabuse the minds of the populace of these false notions. Students of medicine in Russia have, in common with their fellows in other professions, been ever to the fore in matters political, so possibly some allowance has to be made for bias on this occasion. Nevertheless, the dangers mentioned are in themselves of a perfectly credible kind, for the tendency of the people to turn in epidemic times upon its would-be saviours is a very old and constantly-repeated story. How near the danger of an extensive outbreak of cholera may be it is impossible to say, but it is already officially admitted that the disease exists in districts neighbouring on that of Moscow, and it is even rumoured that suspicious cases have occurred in Moscow itself. In the presence of an actual outbreak medical instincts may safely be counted on to outweigh the tendencies of political antipathy, but since in nothing is the taking of time by the forelock of more value than in the meeting of a possible epidemic, the Russian Government is likely to pay dearly for its folly in divorcing from itself the sympathies of a profession which should be its principal friend in all matters connected with the domestic welfare of the people.

THE DANGERS OF WATERCRESS.

THE suspicion, which in recent years has become a strong probability, that typhoid fever, and possibly other diseases, may be disseminated through the use of uncooked vegetables has led to the question being asked whether watercress, which is always eaten uncooked, may not occasionally be responsible for outbreaks. In 1894 Dr. Verdon, then Medical Officer of Health for Lambeth, had reason to suspect watercress to be the cause of cases of typhoid fever. In 1903 Dr. Warry, Medical Officer of Health for Hackney, saw reason for attributing an outbreak of the disease to this vegetable. A chemical examination of the watercress beds in and around the County of London has been made by Mr. Frank Clowes, Chemist to the London County Council, and a bacteriological investigation of the water and watercress by Dr. A. C. Houston. The reports have now been published with an introduction by Sir Shirley Murphy, Medical Officer to the Council. An inspection of the watercress beds, made by the Council's inspectors, has shown—as was to be expected—that the local conditions vary very much; the best beds were generally found upon the bottom of hard clean gravel. Dr. Houston's bacteriological inquiries confirmed the evidence yielded by local investigation; he found that four samples taken from beds, the topographical conditions of which were satisfactory, were at least ten million times purer than samples from two of the beds most open to objection, and at least a million times purer than samples from three other beds in which the topographical conditions were unsatisfactory. Dr. Houston reports that while the danger of consuming "unwashed watercress is enormously reduced by careful washing," yet even the greatest care devoted to the washing of cress from polluted sources does not entirely free it from objectionable microbes. Sir Shirley Murphy concludes, firstly, that cress of the best quality can be grown under conditions to which from a health point of view no exception can be taken, and quotes Mr. Hibberd to the effect that "the finest cresses supplied to the markets, and especially to the London markets, are for the most part produced in the purest water and purest air," and, secondly, that, having regard to the extent to which careful washing removes impurities, it may be assumed that there is under existing circumstances no material risk in consuming the watercress supplied to London from the majority of the beds, but that efforts should be made to prevent the consumption of watercress from certain beds so long as they remain in their present polluted condition.

WITCHCRAFT AND BELIEFS OF THE INSANE.

AMONG the sane or partially sane the secular belief in witchcraft is perhaps the most remarkable example of a trait which still exists in the mental organization of the human race—an echo of the sense of mystery from which the mind can never wholly rid itself. Dr. Conolly Norman calls attention in the current number of the *Journal of Mental Science* to certain curious "survivals" of belief in witchcraft present in insane patients drawn from the population of Ireland to-day. The witches of old were considered to influence their victims injuriously by exercising malign energy upon something pertaining to the latter, or which formed a part of himself—for example, a waxen image or effigy, a lock of the victim's hair, his handwriting and signature, and the like. Thus pins were thrust into the image, the hair burnt with "blasting spells and incantations," or the wax melted away whereby the victim might die of painful disease or lose flesh and pine to his end like the waxen figure dissolved by heat. A lock of hair or the signature conferred the like power over the victim on the witch. "We find," says Dr. Norman, "this thought reproduced with singular fidelity, though in a modern garb, among those paranoiacs of to-day who entertain the very common delusion of mystic influence." He thus records the case of a young woman of twenty, who, after passing through the early stages of paranoia with delusions of being "mesmerized and chloroformed," developed characteristic notions of "witchcraft," which she believed was exercised on her. Dr. Norman, she said, would cause her "pain in the heart," "mitral disease," and "influence her mind, her feet, her every part," because he had possession of her handwriting and her signature from a letter she wrote to a girl. "He could do what he like

when he had my signature to work on," she said. Another patient, a man, aged 32, had paranoid delusions among which he believes that his enemies have got hold of his photograph, and by working on it with an electric machine are able to choke him, blow foul smells into his nostrils, and utter foul names in his ear. A third patient, a male aged 39, similarly deluded himself into the belief that a phonograph record was the *fons et origo mali* of his troubles. "Some years ago," he says, "I was asked to speak into the phonograph. . . . I did so, and they have got hold of my phonograph and are always interfering with it. I was sent here because my phonogram was exposed to the public and everybody could work upon it." Here again that very personal thing, "a man's phonogram" plays the part which "the dry plate of the photograph" played in the previous case, and the autograph signature in the first. In all we have so striking a coincidence with the machinery of witchcraft that it is difficult to believe that we are merely in face of an accidental resemblance. In times gone by even wise folk believed these "confessions" of witches—usually insane paranoiacs—and thus many a "witch" was done to death.

DINNER TO DR. FREDERICK ROBERTS.

On Wednesday, March 29th, Dr. F. T. Roberts was entertained at dinner at the Hotel Dieudonné by his past and present house-physicians at University College Hospital. The chair was taken by Dr. F. W. Mott, F.R.S., who was supported by about thirty former residents, including Mr. Charles Stonham, Mr. Percy Flemming, and Drs. Walter Tate, W. T. Cocking (Sheffield), Mitchell Stevens (Cardiff), Bertram Abrahams, W. H. B. Stoddart, Charles Bolton, and D. N. Nabarro. Letters and telegrams were read from old pupils in India, Italy, and the provinces who had been prevented from attending. Dr. Roberts's health was proposed by the Chairman, who referred to the fact that the master whom they were met to honour had for thirty-five years been, clinically speaking, one of the pillars of University College Hospital; if he had not laid the bricks of the new building which was about to be opened, he had at least cemented them with his brains. A time rule was about to sever Dr. Roberts's active connexion with the staff, but he was still a young man both mentally and physically, and all who had ever worked under him hoped that he might for many years be spared to help them in consultation. Mr. Stonham also spoke to the toast and attributed much of his progress in surgery to the cultivation of his powers of observation to which he was incited by Dr. Roberts. He referred also with high appreciation to the standard of character which Dr. Roberts upheld and lived up to, so that all who experienced his kindness and straightforwardness were ever after the better for it. Dr. Roberts, who was accorded a musical and most enthusiastic reception, gave a short history of his career. He stated that no fewer than sixteen of his old house-physicians were now on the staffs of general hospitals; to his residents and clinical clerks he owed much of the happiness he had experienced during his long connexion with University College Hospital. Personally he hoped that he had never said an unkind word or done an unkind deed to any one. He looked forward to the vacancy which his resignation would cause being filled by one of his former house-physicians and he announced that far from giving up work he proposed to devote more time to writing than he had of late years been able to spare. He concluded by toasting the organizers of the dinner. Dr. Mott and Dr. Bertram Abrahams responded. During the evening songs were contributed by Dr. Roberts himself, Drs. Mott, Tate, Banham and Stoddart. An album, which it is hoped will contain signed photographs of all his old house-physicians, is in preparation and when complete will be presented to Dr. Roberts.

NORTH OF ENGLAND GLASGOW UNIVERSITY CLUB.

The club held its annual banquet in the Grand Hotel, Sunderland, on March 29th, when Sir William Macewen, Regius Professor of Surgery of Glasgow University, was the guest of the evening. The chair was occupied by Dr. Gordon Dell, and the vice-chairs by Drs. J. D. Farquharson, J. T. Dunlop, and Jas. Hudson. The chairman was supported by Dr. Morgan, Rev. Dr. Randell, Dr. Wm. Robinson, Alderman Harrison, etc. There was a goodly number present. Letters of regret were received from the Mayor of Sunderland, the Lord Provost of Glasgow, Professor T. Oliver (Newcastle-on-Tyne), Sir W. T. Doxford, M.P., Mr. J. S. T. Pemberton, M.P., and others. After the Royal toast had been drunk, the Honorary Secretary, Dr. Dunlop, announced that a telegram had been sent to Lady Kelvin, conveying the sympathy of the members of the club with her in the illness of her husband, and expressing the hope that Lord Kelvin would soon be restored to health. The toast of "The Imperial Forces" was submitted by Dr. Chalmers, and responded to by Dr. Beveridge. In a very eloquent and well-expressed speech, Dr. J. D. Farquharson proposed "Our Alma Mater," coupling with it the name of Sir William Macewen. The "Gaudeamus" having been sung, Sir William Macewen, in acknowledging the toast, said that there was no university anywhere that had added more to the material prosperity and interest of humanity than the University of Glasgow. Large as that order might seem, he supported his statement by alluding to the work done by Black, the physicist; James Watt, the mechanician; Adam Smith, the author of *The Wealth of Nations*; Lord Kelvin, the scientist; and Lord Lister, the humanitarian. In thanking Dr. Farquharson for the compliment paid him, Sir William expressed the hope that the memory of their Alma Mater would be kept green by the members of the club. At the present time Glasgow University was extremely active and was forging ahead. Sir William Macewen was in favour of the young men at the University undertaking research work, not only at home but abroad, for he recognized the large amount of good work that was being done in other countries than our own. "The Corporation of Sunderland" was proposed by Dr. Stobo and replied to by Alderman Harrison. "Other Universities and Seats of Learning" was proposed by Dr. Morgan, and in the absence of Professor Oliver, responded to by Dr. Robinson. The Rev. Dr. Randell gave the "The North of England Glasgow University Club," which the Chairman acknowledged. The intervals between the speeches were devoted to songs and recitations. The banquet was most successful and a most enjoyable evening was spent by all.

CANCER RESEARCH IN AMERICA.

The Harvard Medical School has issued the third report of the Caroline Brewer Croft Cancer Commission. The report consists of four articles, the most interesting of which is a study by Drs. Vose and Howe of the effect of the *x* rays upon cancer. They find that cutaneous cancer under this form of treatment exhibits degenerative changes, which are not, however, distinguishable histologically from degeneration due to other causes. The vascular changes are limited to an endarteritis; new formation of blood vessels occurs if healing takes place; and there is some increase of elastic tissue. Another result of treatment is a diminution in the number of mitotic figures. The only way in which *x*-ray treatment effects a cure of cancer is by destruction and exfoliation of the tissue; its use is therefore obviously limited to superficial cases. Moreover, since the treatment is slow and the action superficial merely, the authors consider that, even in the cases where it might be applied with some prospect of utility, prompt surgical excision would be a preferable mode of treatment. Another disadvantage attached to the *x* rays is that, being non-selective in their action, they cannot be used strongly enough to effect destruction of any growth which penetrates at all deeply or extensively without serious if not irreparable injury to the overlying and surrounding tissues. Dr. E. H. Nichols records the results of 62 transplantation experiments, the tissue transplanted being sometimes fetal and sometimes adult. The tissue was transplanted into some other situation of the same animal

from which it was derived, the animals employed being rabbits and guinea-pigs. Dr. Nichols found that some types of epithelium (epidermis), both adult and fetal, retained their potentiality of growth and their cellular characteristics after transplantation, and produced nodules analogous to dermoid cyst or teratoma. Epithelioma of highly differentiated function, however, was in no case found to maintain its power of growth or to proliferate. In no case was an infiltration of the surrounding tissue produced by the transplanted epithelium, nor were metastases obtained. The potentiality of growth was found to be greater with fetal than with adult tissues, and led to the reproduction not of tissue at the same stage of development as that present when transplantation occurred, but of tissue exhibiting the ultimate stage of normal development. Dr. Greenough advocates the view that the so-called cell-inclusions of cancer are not of parasitic nature, but are merely coagulated secretory material contained within vacuoles of the cell protoplasm. Dr. Mallory deals with the fibrils, demonstrable by special staining methods, which are produced by neuroglia, unstriated muscle, and connective tissue cells.

CHRISTIAN SCIENCE.

IN the *Westminster Gazette* of March 30th there appeared a letter which vividly illustrates the results of that silly but dangerous superstition called by its adherents "Christian Science." We take the facts of the case as they are stated by the writer, who signs himself "An Old Friend of the Deceased." Some little time ago a lady went to London on a visit to her son, who is a member of the sect. The lady herself had always been strongly opposed to the teaching of Mother Eddy. Quite recently, without any previous intimation that she was otherwise than in her usual health, her relatives were informed by her son that she had been taken ill and had "passed on." Inquiries revealed the fact that four or five weeks previously the lady had had a severe attack of influenza complicated with acute bronchitis. She was treated by the usual methods of Christian Science—that is, she was told to make believe there was nothing the matter, and to go about notwithstanding the cold weather. It was not till her condition became serious enough to alarm her son that a doctor was hastily summoned; this step, it was explained, was taken to prevent the necessity of an inquest. On the doctor's arrival it was plain that the poor lady was beyond human aid, and, in fact, she died twelve hours later. The writer affirms that not a word was said to the doctor about the previous "treatment"; he was given to understand that the patient had been suddenly taken ill. The doctor's account is given in his own words as follows: "The deceased's son came round to my house on Friday evening, February 24th, and asked me to come and see his mother, who was not very well. I went round at once, and found Mrs. —— sitting up in a chair before the fire trying to behave as if there was nothing the matter. It did not take me two minutes to find out that she was dying." According to the writer of the letter the reason for this deception was that it was thought necessary to raise no suspicions which would justify the withholding of the death certificate. The relatives were informed that the lady had died of "acute bronchitis followed by heart failure," and there doubtless it was hoped that the matter would have ended. One of her brothers, however, suspecting that facts of material importance were being concealed, insisted upon learning the name of the doctor who had given the death certificate, and was eventually allowed to accompany his nephew to the doctor's house, on the strict understanding that the words "Christian Science" should not be mentioned. The meeting between the three men took place, and the doctor, still ignorant of the real facts of the case, when asked whether in his opinion the lady's life might have been saved had medical aid been earlier obtained, could only give a guarded answer, which left matters much as they were. All inconvenient inquiries being thus successfully burked, the funeral took place and one more name was added to the growing list of those who have fallen victims to "Christian Science." The son asserts that his mother became a Christian Scientist before her death and expressed a wish to be treated by its methods. The writer justly points out that even if this be true, it does not relieve the son of the moral responsibility for his mother's death. Assuming the facts as stated to be true, it is surely high time that something were done for the protection of weak-minded persons against their own folly and the fanaticism of those about them. Why should the "Peculiar People" under like circumstances be held guilty of manslaughter and the Christian Science "Healer" be allowed to go free? The "Peculiar People" have at least the excuse of a faith which, however mistaken in its application, has its root in a belief which has inspired prophets and sustained martyrs; Christian Science is a vain thing, born of fraud and nursed in folly.

WASTED CLINICAL MATERIAL.

AN account of a meeting of the Harveian Society, which is published at page 776 of the BRITISH MEDICAL JOURNAL, has a certain unusual interest attaching to it. The meeting took place at the Paddington Union Infirmary, Harrow Road, and the cases of which some account is given are merely a selection from a larger number shown by the medical superintendent of the infirmary on this occasion. The meeting will serve once more to draw attention to the immense amount of invaluable material for clinical teaching lying unused in the great Poor-law hospitals of the metropolis. It cannot be doubted that some organized attempt to take advantage of it would be beneficial to all who might be directly or indirectly concerned. The general work in many of these infirmaries is already singularly good, but it would be none the worse for coming from time to time under the observation of fifth-year and post-graduate students. The interest of the resident medical officers would be stimulated and the patients would benefit. There can be equally little doubt that the conduct of classes in infirmary wards would be a desirable addition to the medical instruction already provided by London. It is into these institutions that so many of the cases which pass their first stages in the wards of the general hospitals with medical schools attached eventually drift, and they then have a much closer analogy with the class of work with which the student will presently have to deal in private practice than they have in the first instance. He would learn something of the appearance and possible treatment of chronic and incurable disease, and there might be fewer complaints from practitioners that the newly-qualified men who offer themselves as assistants have still to be taught what for the practical purposes of everyday work it is necessary they should know.

THE HEALTH OF JOHANNESBURG.

THE population of Johannesburg, of which Dr. Charles Porter is Medical Officer of Health, is shown by his report for the year ending June 30th, 1904, now issued, to be of a curiously mixed character, practically every nation under the sun being represented. Of the total of 161,411 persons ascertained to be sleeping within the limits of the city on census night, April 17th, 1904, some 84,000 were classed as belonging to European races, a term which apparently includes white-skinned persons of every nationality. Of the rest the great majority, nearly 70,000, were South African coloured natives, the balance being made up of Malays, Arabs, Syrians, Turks, Cingalese, Afghans, Indians, etc. This fact must add not a little to the difficulty of effective sanitary administration, and is to be borne in mind in consideration of the vital statistics contained in the report. The total death-rate for all persons for the year, as based on the census return, was 23.9 per 1,000, a figure which, age and sex constitution apart (a large reservation), appears to compare not unfavourably with that of more than one well-known European city. The rate for those classed as Europeans taken alone was 17.2 per 1,000, that for Asiatics 19.5, and that for the coloured South African

inhabitants as high as 32.4. The birth-rate for Europeans was a little under that for England and Wales in the foregoing year, or 28 9 per 1,000, as against 29.7. The marriage-rate, with the same limitation, was, on the other hand, very much higher, or 28.4, as against 17.4 in London in 1903. Looking at the causes of death inscribed, pneumonia and enteric fever bulk highest as regards the whites, while among the coloured races, both native and Asiatic, pneumonia overshadows all other causes of death. This disease is, it would appear, usually most prevalent in the dry season, when dust pervades the atmosphere and everything else. The common habit of spitting anywhere and everywhere is also credited with playing no small part in its spread, while a belief in the direct and habitual infectivity of the disease as occurring in the Transvaal seems to be indicated by the recommendation that the number of persons in attendance on one suffering from pneumonia should be limited to that sufficient for the well-being of the patient. The typhoid case-mortality for the year among white patients was 12.4 per cent., and pollution of the air and soil by the existing bucket system of conservancy, promiscuous defaecation by natives in unobserved spots, and contamination of food and drink by infected dust and flies are suggested as explanations of its prevalence. The existing by-laws of the municipality in regard to sanitary matters, and the methods of procedure in connexion with them are based upon English observances, and it is stated that a change is required in order to make them effective in the case of coloured races and lower-class Russians and Poles. While it is obvious from the report that much remains to be done to put Johannesburg on a sanitary level with towns of equal importance elsewhere, it is equally obvious that the need for energy and sanitary enterprise is recognized, and being duly met. The report contains brief references to the special precautions against plague which have been adopted from time to time. Of the majority of these we gave a sufficiently complete account last year, and can therefore await the full report on the subject of plague in the Transvaal which is in preparation by the authorities.

TRICHROMIC VISION.

Dr. Edridge-Green, whose excellent work on colour vision is only now being recognized, although he has for years been propounding his theory, read notes of two interesting cases of trichromic vision before a recent meeting of the Royal Society. They are both cases in which only three colours of the spectrum were recognized—red, green, and violet; these colours gradually blended and merged into each other, thus making the spectrum look as it does to a normal-sighted person when the illumination is very bad. The part of the spectrum which to a normal vision is yellow is described by such people as being reddish-green. The cases here published give only a record of their condition, and the theory of the whole matter is not discussed, but enough is known to make it certain that the work of Dr. Edridge-Green on colour vision will, when properly grasped, be looked upon as of the greatest importance in this line of research. It does away with the necessity for the unsatisfactory theories of Helmholtz and others. It will doubtless be remembered that an influential Committee appointed by the Ophthalmological Society last year fully endorsed the views and methods used by Dr. Edridge-Green.

AN INTERNATIONAL CHILD-PROTECTION CONGRESS.

An International Congress on the Education and Protection of Children in Family Life will be held at Liége in September during the Universal Exposition. The work of the Congress will be divided among four sections as follows: (1) The study of childhood. (2) The education of childhood: (*a*) general questions; (*b*) education of the child by the parents in the family; (*c*) collaboration of the family with the school; (*d*) education in the family after school life. (3) Abnormal children. (4) Various organizations dealing with childhood. In the third section the following questions will be discussed: Classification of abnormal children and statistics relating to them; what is done with them at present; the education of the different classes of abnormal children; measures to be taken for their protection. Uncontrollable children; how they should be dealt with; their education; the organization of special institutions for them; special establishments for epileptics. In the fourth section, in addition to the subject of organizations for the protection of childhood, the following matters will be discussed: Hygiene; open-air treatment; anti-tuberculosis leagues; antialcoholism; abuse of tobacco; deserted children; child martyrs; children's provident societies; insurance of children for the benefit of parents; moral prophylaxis, etc.

A STRIKE OF MEDICAL STUDENTS.

Candidates for the degree of Doctor of Medicine in the University of Madrid have asked for the elimination of experimental psychology from the list of subjects in which examination is compulsory. Their demand is based mainly on the fact that the professor of experimental psychology has declared that the subject has no direct relation to medical practice, and is therefore of no particular use to any students of medicine except the few who intend to devote themselves to the field of mental diseases. The students therefore ask that the subject should be made voluntary instead of compulsory. The Minister of Public Instruction, however, has refused even to consider the request. The students have in consequence issued a manifesto insisting on their demand, and expressing their determination to "take the consequences of their attitude," whatever they may be. To British students the immediate consequences of such an attitude, even if, in the words of the Spanish protest "it did not overpass the limits of the strictest correctitude," would simply be that they would have to go to some less exacting body for a degree; but they manage these things differently abroad.

A MEDICAL CONGRESS IN CUBA.

The first National Medical Congress in Cuba will be held at Havana in May. More than 400 practitioners have already announced their intention of attending. A discussion of the prophylaxis of yellow fever will be introduced by Drs. J. Guiteras, A. D. Albertini, and E. Martinez, and one on the prevention of malaria by Drs. I. Agostini, A. Agramonte, and T. Coronado. Parasitology in Cuba will be discussed by several members, and the campaign against tuberculosis in the island, the sanitary statistics and the medical hydrology of Cuba will form the subjects of several addresses. Drs. E. Lopez, Juan Santos Fernandez, and representatives from each province have been appointed honorary presidents. The Executive Committee has commenced the publication of a bulletin which, in order to stimulate discussion, will contain abstracts of the principal addresses.

It was announced by an official bulletin issued last Monday that a slight operation had that morning been performed upon the Prince of Wales, and that he would be confined to his room for a few days. We learn that His Royal Highness is in excellent health and is doing splendidly.

Sir Allan Perry, Principal Civil Medical Officer and Inspector-General of Hospitals, Ceylon, has been made a member of the Municipal Council of Colombo. Sir Allan Perry, who is also Principal of the Ceylon Medical College, is a retired Major of the Army Medical Staff, and author of a *Medical History of Boer Prisoners of War in Ceylon.*

The Supplement for this week contains further notices of motion for discussion by the Representative Meeting in July next. There will also be found in the Supplement reports of Branch and Divisional meetings held, notices of meetings to be held, vital statistics, lists of medical vacancies and appointments, the diary of the week, and the Association Calendar.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Army Clothing Factory at Pimlico.—Late on Thursday night last week, Sir Charles Dilke called attention to the state of the ventilation in this factory, especially in the pressing gallery, which he described as deplorable. Mr. Shackleton said that something ought to be done to improve the conditions in which the girls worked and that it would be satisfactory to know that the lady inspector was allowed to visit the workshops at any time. Mr. Bromley-Davenport defended the ventilation of the factory, and said he did not believe there was a better ventilated or more healthy factory in the country. It was incorrect to say that the girl whose death had been mentioned died in consequence of the condition of the atmosphere. The doctor, at the inquest, gave evidence to the effect that the girl was unfitted for any employment at all. The atmosphere had been tested by a Home Office official, and it was found that the factory was thoroughly well ventilated. Factory inspectors had been invited to visit the factory, not on any special days or at set hours, but when they pleased. Their visit this year had resulted in no complaint of any kind. Sir Walter Foster said it would be much more satisfactory if the report of the lady inspector were placed before the House. It appeared in the course of the debate that some members who had seen the report considered it very unsatisfactory. Mr. Bromley-Davenport said that he had not seen the report referred to, but that he had no objection to ask the Home Secretary if the report might be laid on the table. After some further discussion, Sir Charles Dilke's motion for a reduction of the vote was rejected by a majority of 39.

Blocked Bills.—The Pharmacy Bill is down for second reading on April 11th, but is blocked by no less than five members. The Accidents (Mines and Factories) Bill is blocked by Dr. Hutchinson, who has also blocked the Dogs (Protection) Bill. The Sale of Butter Bill, introduced by the Government, is blocked by three members.

The Plague Inquiry.—Last week Mr. Herbert Roberts asked the Secretary of State for India whether, in connexion with the scientific expedition to be sent out to India to investigate the origin and causes of plague, the co-operation of those in the areas affected possessing a knowledge of the difficulties of the problem from an Indian standpoint would be sought; and whether he would consider the desirability of adding to the Committee an Indian member with special experience of plague. Mr. Brodrick replied that there seemed to be some misunderstanding as to the object and scope of the inquiry. The administrative aspects of plague were exhaustively dealt with by Sir Thomas Fraser's Commission of 1898-9, and the practical difficulties of combating the disease were familiar to the Indian Government and its officers. The present investigation would be confined to purely scientific problems, in the hope that if these were solved advance would be made in the practical treatment of the disease. The composition of the expedition had been settled on the advice of the two scientific societies which had undertaken to supervise the inquiry, and he did not propose to add another investigator to those already selected. The expedition would work in the plague-affected areas, and would naturally avail itself of local knowledge and co-operation in respect of matters within the scope of the inquiry.

Underfed Children.—The two Bills before the House to provide for the feeding of children in elementary schools are introduced, the one by Mr. Claude Hay, and the other by Mr. Arthur Henderson. The Prime Minister, in answer to questions asking him to give facilities for passing into law this session a short measure on this subject, replied that he did not think it would be proper even to suggest that any steps should be taken until the Committee now sitting and inquiring into the facts had reported. The subject of underfed school children came up again at question time on Monday last, and, in answer to several inquiries, Mr. Gerald Balfour, on behalf of the Local Government Board, said that the orders of the Board provided that it should be the duty of a relieving officer to receive all applications for relief made to him within his district or relating to any parish within his district, and forthwith to examine into the circumstances of every case by visiting the home and making all necessary inquiries, and to report the result of such inquiries to the guardians at their next ordinary meeting. The orders also provided that it should be his duty in every case of sudden or urgent necessity to afford such relief to the destitute person as might be requisite, provided that the same be not given in money. It would be incumbent on a relieving officer to act in accordance with these requirements if application were made to him by a teacher for relief to a child under the teacher's care who was destitute of necessary food. The extracts from the orders issued to relieving officers in 1896 contain the provisions to which he had alluded; but the orders do not refer specifically to cases of the kind mentioned in the question. The Secretary of the Board of Education and himself had been in communication with regard to such cases, and he was now considering whether any further steps should be taken in connexion with them and a circular be issued on the subject. Parents could be required to pay if able. Sir William Anson said that he hoped that it would shortly be possible to issue a circular of suggestions on the subject. The Prime Minister later on said that until the Departmental Committee had reported he could not make any statement as to giving facilities for legislation.

The Nurses' Registration Committee.—After midnight in Thursday's sitting, a Select Committee was appointed to consider the expediency of providing for the Registration of Nurses. Dr. Robert Ambrose, Major Kenneth Balfour, Mr. Charles Douglas, Mr. Charles Hobhouse, Dr. Hutchinson, Mr. Mount, Lord Morpeth, Mr. Pierpoint, Mr. Tennant, Sir John Stirling Maxwell, and Sir John Batty Tuke were appointed members. There are two Bills on the subject before the House, which will no doubt be considered by the Select Committee.

The Prevention of Corruption Bill has been read a third time in the House of Lords and will now come down for consideration in the Commons.

The University College London (Transfer) Bill has been petitioned against by the London County Council, as the administrative body for the County of London and as the Education Authority. The County Council specially objects to Subsection 2 of Clause 10 of the Bill and also to Clause 11. The powers sought in Clause 10 Subsection 2, would render it possible, the County Council fears, to apply a proportion of the income derived from trust funds to purposes other than those of expenses incurred in or incidental to the administration and management of such funds. This would be, it is considered, a dangerous precedent. The powers sought in Clause 11 as to the constitution of and delegation of powers and duties to Committees of the Senate are held to be too wide. These are the main points on which the opposition is based.

Small-pox Outbreaks and their Cost.—On Monday the President of the Local Government Board promised Sir John Tuke a return of the places in which small-pox had occurred during the past twelve months, giving the total number of cases occurring in each place in which the number had reached or exceeded 100. Captain Jessel asked, further, for the cost to the ratepayers of each such outbreak, and Mr. Gerald Balfour said that he had not the information desired; but he would endeavour to ascertain the amount of the expenditure incurred by the councils of municipal boroughs and urban districts in consequence of the occurrence of cases of small-pox in them during the past twelve months, where the number of cases had exceeded 100. He would suggest that the particulars, if it was found practicable to obtain them, should be included in the proposed return referred to in his reply to Sir John Tuke.

London Hospitals (Exemption from Rates) Bill.—This Bill, which provides for the exemption of hospitals in London from local rates, was presented by Mr. Hayes Fisher on Monday, and is supported by Mr. W. F. D. Smith, Mr. Sydney Buxton, Sir Joseph Dimsdale, Sir Henry Samuel, Captain Jessel, and Mr. James Bailey. The second reading has been formally put down for Monday next.

Vaccination and the Conscientious Objector.—On Monday Mr. Weir called attention by question to the divergence of practice among magistrates in administering the Act of 1898, and in reply Mr. Gerald Balfour admitted the divergence, and referred to the Lord Chief Justice's observations made at

Birmingham in July last with a view to a more uniform administration of the law on the subject. In order to bring these observations under the notice of the magistrates throughout the country the Home Secretary had embodied them in a circular which he had issued to clerks to justices, and he trusted that the results of this action would be to secure greater uniformity in the practice of magistrates under the enactment in question. It did not appear to him to be necessary to amend the law on the subject.

The Naval Hospital at Malta.—Sir John Colomb asked last Monday whether patients in the old wing of the naval hospital at Malta for surgical treatment had while there, or soon afterwards, developed fever, and whether any sanitary purification had been adopted. In reply, the Secretary and Civil Lord of the Admiralty stated that a small number of surgical patients while in the hospital had developed fever. During 1904 there were 74 cases for operation and of these 3 had fever. The whole of the walls of the wards and passages, etc., in the old portion of the hospital had been scraped and coated with a special gloss enamel paint, forming an impervious and washable surface. The soft stone floors had been removed and replaced by terazzo paving. The work was commenced in 1899 and completed in 1902.

The Dangers of Flock Mattresses.—On Tuesday last Mr. Fuller asked the Secretary of State for the Home Department whether his attention had been drawn to the alleged insanitary condition of certain cheaper kinds of flock used in the manufacture of cheap mattresses; if so, whether he proposed to take any steps, by initiating legislation or otherwise, to mitigate this alleged evil. Mr. Secretary Akers-Douglas said that his attention had been drawn to this question, and reports had been presented by district inspectors of factories which were under consideration. The reports went to show that the general condition of employment in this industry had improved in recent years, though they were still far from satisfactory in many cases. The Home Office was only concerned with the matter so far as the health of the workers engaged in the industry was concerned, and he should be prepared to make use of the powers given by the Factory Acts for the protection of the workers in places where insanitary conditions prevailed. Any measure which might be required for preventing the spread of infection would be a subject for consideration by the departments concerned with public health.

Ireland.

Direct Representative for Ireland.

The candidates for election to the General Medical Council as direct representative for Ireland are now before the electors. Dr. Leonard Kidd has so far contented himself with a circular asking for support, and Sir William Thomson, who now holds the office, has replied with an address. In reply to the claim that the direct representative should be a general practitioner, he points out that the function of such a member of Council is to represent the general body of the profession, outside the universities and corporate licensing bodies, and not any special class. He refers to his record of general work in the Council, and to his public efforts on behalf of the medical officers of the Poor-law service in Ireland, as showing his support of their struggle for mitigation of their grievances.

Medical Candidate for Parliament.

It is now definitely stated that Dr. Henry O'Neill has undertaken to stand for South Belfast, and will shortly commence his canvass. He will no doubt receive a large amount of support.

Royal Victoria Hospital, Belfast: Annual Meeting.

The annual meeting of the Royal Victoria Hospital at Belfast was held in the hospital on March 27th. The Right Hon. the Earl of Shaftesbury, K.P., presided. The annual report was very satisfactory. The total income for the year was £14,792, and the disbursements £13 914. For the capital account donations and bequests amounting to £62,614 had been received. This did not include £11,000 which the Right. Hon. W. J. Pirrie paid for a debt still owing to the building fund of the new hospital when the accounts were finally closed, so that the hospital might be handed over free of debt. The Misses Riddel had also built a superintendent's house at a cost of over £2,000, which likewise did not appear in the hospital accounts. Heat, light, and ventilation cost £1,637 15s. 5d., which was considered most satisfactory, and was under the estimate for the plenum system. The total cost per bed worked out at 27.06d. a day, and the average during the year for the three hospitals—Royal Victoria, Throne, and Consumptive—was £58 16s. 8d. Owing to the credit balance of over £700 the Board of Management now considered itself justified in opening a new unit, or 32 beds more; this unit has been allotted to the medical side, on the advice of the visiting staff, as, although there was considerable pressure on both medical and surgical sides, it was thought that the opening of another surgical ward would have the effect of starving the medical side of the hospital and school, and there was a unanimous desire to adhere to the original design of the hospital.

The Earl of Shaftesbury, in moving the adoption of the report, drew attention to the fact that although they were just about to open a new unit, they had still two other units, or 64 beds, lying idle; the Board of Management had refused to open them, but they saw their way to pay for their working; he would be glad to help, and he offered to endow a bed if five other similar sums were subscribed before the end of the financial year; the report informed them that although some forty beds more had been in use during the past year than in the old hospital, yet that at times patients had to be accommodated on lounges and couches.

Dr. Calwell, Honorary Secretary of the Medical and Surgical Staff, presented the medical report. There had been an increase from 2,458 to 2,908 in-patients, with 154 deaths, but 26 of these patients were moribund on admission. There were 1,212 surgical operations, with 45 deaths after operation The mortality in the medical cases had fallen from 5.6 in 1903 to 4.8 per cent., and in the surgical cases from 4.9 in 1903 to 4.2. The number of new cases treated in the extern department had been 22,585. Dr. Calwell further said that the plenum system was most satisfactory as regards both ventilation and heating, and that he personally was of opinion that some of the fall in mortality was due to its beneficial effects. There was no doubt that acute lung cases with sharp bronchial irritation were much benefited. The Roentgen ray and electric department were now working to their full limit and more room was urgently needed.

An Insanitary Courthouse.

At the request of Dr. Henry O'Neill, High Sheriff of Belfast, Mr. Robert F. Blake, F.C.S., F.I.C., has examined the air in the courthouse. In the Record Court he found 8 parts of carbonic anhydride in 10,000 of air, instead of 3.5 parts, the normal in a well-ventilated room; there were few people in the court at the time.

Likewise Mr. Peddie, consulting sanitary engineer, found the whole drainage system highly defective; considerable portions of both main and branch pipes pass directly under the building, and these portions are so bad that of some hundreds of gallons of water poured into the drains only twenty in one instance and fifty in another passed into the receiving chambers when the plugs were withdrawn. This means that the soil under the premises must be saturated with sewage. On the east side the water forced itself through the brickwork of the chamber, and on the west side it leaked out of the drains almost as fast as it entered them. The water which had so leaked out continued running back into the drains for two or three hours. Last year some of the joints were found gaping, and the surrounding subsoil black with offensive sewage matter. Mr. Peddie found substantially the same condition of affairs in 1891, and a report was made to that effect. Old pan closets are in use throughout the building and numerous other serious defects are detailed.

Mr. Thomas Carnwath, B.A., M.B., Assistant to the Professor of Pathology in the Queen's College, Belfast, examined the air bacteriologically. The air above the barristers' table contained 2,500 microbes per cubic metre, of which 80 per cent. were staphylococci, streptococci, and microbes of human origin; while air taken from a well-ventilated room on the same day contained less than 100 microbes per cubic metre. In another part of the court only 160 were found. This, Dr. Carnwath considers, points to insufficient ventilation and diffusion.

These results agree with the practical experience of continuous headache and malaise that nearly every one suffered from who had to remain in court for any length of time.

Cork Sanatorium for Consumption.

At the monthly meeting of the Cork Joint Hospital Board, held in the court-house on April 1st, the question of a suitable site for the proposed sanatorium came up for discussion. Dr. Corby said the Medical Committee appointed by the Board had gone into all the particulars with regard to the sixteen sites before them. They had to reject several as being totally unsuited and they found that several others should be visited.

Dr. Smyth, of the Altadore Sanatorium, Kilpedder, co. Wicklow, wrote that at the request of the Advisory Board, he had visited and inspected all the sites offered for the proposed sanatorium for co. Cork. He had kept the following considerations specially in view—height, aspect, amount of sunshine, climate, whether bracing or otherwise, nature of subsoil, local record as regards disease, particularly as regards tuberculosis, water supply, drainage, and suitability of site for architectural purposes. Out of sixteen sites only three, he considered, were suitable for the purpose of a sanatorium. These were Coolkelure, Dunmanway, a part of the Coolkelure estate belonging as a freehold to Lady Bandon. The area is about 150 acres, and is situate in a hollow at an elevation of over 600 feet above the sea level, and has higher ground all round it. The site is sheltered by natural means from all winds except north-east, in which direction, however, ample shelter is afforded by a thick wood. The death-rate from tuberculosis in Dunmanway district is the lowest in the county, being 1.7 per 1,000. This site Dr. Smyth recommends as the most suitable, but spoke favourably of two other sites—one Mount Massey, Macroom, and the other Rahan, Killavullen, near Mallow. It was decided that steps should be taken to acquire for the purpose of a sanatorium one of the three sites recommended by Dr. Smyth, and a Consultative Committee was formed to wait on the interested parties and see what terms could be come to.

THE EXPENDITURE OF HOSPITALS.

I.

Hospital administration is a subject with many sides, and though all of them, directly or indirectly, come under notice with much frequency in these columns, each of them in turn might, perhaps, with advantage be made the object of a considered and deliberate study. For the moment, however, it is merely proposed to take one factor in the general problem of how best to administer hospitals so as to extract from them the greatest advantage for all those who should benefit by their existence.

The factor in question is that of expenditure; in some degree this underlies all the others, and it is desirable to clear the ground by sketching the position which it occupies in the public mind at the present moment, and in describing the standpoint from which, as it appears to us, the whole question should be viewed.

For the former purpose the person to be thought of is not the layman who takes a special interest in hospital enterprise, but the individual to whom reference is commonly made under the title of "the man in the street."

The Popular View.

This person, whose importance in the connexion must not be under-estimated, has made up his mind that the management of hospitals is extravagant, and he is also uneasy as to the conduct of the medical men who staff them, and without whose services these institutions would be useless.

Having taken a general idea into his head that, for their own purposes, doctors fill the wards with obscure and very expensive cases, no matter what may be the financial circumstances of those who thus occupy the beds, he makes a few rapid and inaccurate deductions, and says that the poor are being kept out of their rights. Thanks to the development of the half-penny press, any lingering belief in the propriety of defining terms, which might once have lurked in his mind, has long since disappeared. If he were asked to explain what he meant by a hospital he would regard the invitation merely as an instance of perversity. He considers it waste of time to discuss the motives which actuate medical men in giving their services to institutions which collect under one roof a number of sick persons who, for various reasons, cannot obtain adequate treatment elsewhere.

In short, he is content to play his part in creating what is called a general impression, and to leave it to others to correct it at their leisure if they can.

It will be useful, therefore, to examine this general impression in the light of simple facts, for it is to members of the medical profession that many of the more intelligent public will eventually turn for information.

The Hospital as a Business Enterprise.

In hospital and allied enterprise regarded as a business there are three partners, of whom the first, in point of time if not of importance, is the subscriber or Board which represents him.

Sometimes, indeed, the subscriber constitutes the whole firm, as in certain charities, such as orphanages and convalescent homes, maintained by single individuals or by comparatively small bodies of subscribers, who make it their business to see that every one belonging to the executive is fairly paid. These institutions are examples of benevolence uncomplicated by any other consideration. The subscribers have no one to consult except themselves. If they choose to pay more than they need for the goods they order no one has any right to complain. If they require the medical officer to attend every day whether he is wanted or not, they have no difficulty in finding some one to undertake such duties on terms.

On these lines it would be quite easy to maintain an efficient home for chronic bronchitis or anything else, and equally easy would it be to maintain a general hospital, and even to staff it with the most eminent physicians and surgeons, provided the money to pay them were forthcoming. But as the money is not forthcoming, and as in any case the services of competent staffs can be obtained in another way, the ordinary hospital, or rather the subscriber who supports it, finds it preferable, for this reason alone, to abandon the idea of complete independence, and to go into partnership with the medical profession.

These two bodies very well might, and for long did, form the whole firm, but of late the claims to inclusion of a third party in the shape of the general public have been pushed with increasing insistence, and have been conceded.

The Public.

It is true that hospitals in most cases owed their inception to private efforts, the result of pity for misfortune, but misfortune in the twentieth century is regarded and treated in a manner which would never have occurred to our ancestors as being anything but what is now known as socialism.

The idea, in short, that a man who, though a member of the working and other classes is nevertheless not so badly off as to be a burden on his parish, has in case of necessity a right to be operated on for nothing by a skilful surgeon, and under the best conditions, is comparatively new. But there is nothing more certain than that if the London hospitals all closed their doors to-morrow the municipalities would be obliged to take measures for dealing with the situation which would be created.

The recognition of the necessity for efficient general hospitals in all thickly-populated districts is, in fact, a result of the advance of civilization. Just as railways, originating in the ordinary desire of private individuals to make money, have now become conveniences of which the public could not, and would not, allow to fail them, so hospitals, from being private praiseworthy efforts to relieve the sick poor, have come to be regarded as a right, and as a right they would in case of necessity be recognized.

The result is that the ordinary hospital patient does not go cap in hand to the hospital. If he considers himself a proper object for hospital treatment, he goes not as one seeking a charity, but rather as he would go to a post-office. Should he be kept waiting what he deems an unreasonable time, or be the subject of some unfortunate mistake, it is to the Press rather than to the representatives of the subscribers that he is more likely to appeal. Thus it comes about that hospital scandal is not an unfamiliar term, and that the man who is refused admission because he ought to go to the workhouse infirmary, or because not considered ill at all, is a well-known character, who rarely fails to obtain a hearing for his grievance. The completeness of the change becomes, perhaps, the more apparent when it is remembered that in the case of a destitute orphan, applying for admission to a home, and who, for want of votes, is beaten at the poll by the sixth child of a prosperous widow, its friends will have to console themselves with the thought that, after all, people can do what they like with their own.

The hospital patient, in short, is no longer merely the object of hospital enterprise, but a full and even predominant

partner in the firm. Hence it arises that expenditure has simultaneously to be regulated with regard (1) to the relations of the honorary medical staff to the work; (2) to the demands of the public for efficient treatment; and (3) to the reasonable wishes of the voluntary subscribers that their money shall be made to go as far as possible.

The Medical Profession.

The position and attitude of the public in the matter have been pointed out, but some words must be said on those of the other partners in the enterprise. The relation of the medical staff of a hospital to its work is directly concluded and determined by the economic conditions of the general body of the profession from which they are drawn.

As to this there is more misapprehension of facts than perhaps in any other matter which directly or indirectly influences hospital work. If ordinary members of the public are under misapprehensions as to the nature of the conditions which underlie this form of charity, they are even more in the dark about the situation of medical men both inside and outside the hospitals.

A medical man occupies a position which is entirely unique. Like other professional men, he has to make his living by taking fees for services rendered, but the services in his case are sought in respect of a matter which may, and often does, spell life or death to the person who seeks them. Every general practitioner knows what it is to be called in to a case of serious illness, when perfectly aware that he will never be paid for it afterwards, and equally aware that for several obvious reasons he cannot wisely demand his fee in advance, or in default refer the patient to the parish doctor. The rarity, indeed, of opportunities for public indignation, which is always ready for display when a death occurs and it is stated that the patient did not receive proper medical attendance, is the best proof to those who know the facts that it is a recognized incident in the medical profession to have to do a large amount of work for nothing. The medical man must also, if he possibly can, avoid having resource to the county court, which is open to every one else who has direct dealings with the public.

Add to these conditions the fact that he sees, in increasing numbers around him, places where doctors work for nothing, and where people who can and do pay for many comforts and amusements entirely beyond the necessaries of life, not only receive treatment for nothing, but often make a pecuniary profit out of the transaction by means of their sick club pay.

In large centres the medical staffs of hospitals are consultants who depend on the general body of their fellow practitioners for their *clientèle*: they look on the hospital work as a field of practice, and in many cases combine with that practice the teaching of students who, when they go into practice, are likely to send them patients. Consequently they cannot afford, even if they would, totally to disregard the wishes of the general practitioner, and the latter, though he recognizes the necessity of hospitals, is nevertheless justly desirous that they shall not be used for the destruction of what remains of his own living. He expects, therefore, the consultant who serves the hospital to satisfy himself that, except in some special case, the patient whom he treats is a person either unable to pay a general practitioner, or one whose disorder is of such a nature that a general practitioner advises that it is more suitable for treatment in a hospital. The consultant consequently has a right to demand three things in return for his services:

1. That practice in the hospital shall not preclude him from opportunities of advancing medical or surgical science, and shall include the supply of all that is required for the best and most effective treatment.

2. That he shall be given such opportunities of teaching as the hospital affords.

3. That he shall not be required to do anything which would injure his own profession, but, on the contrary, that he should be allowed every reasonable latitude in regard to the admission of cases sent to him by those with whom he is connected in his private practice.

All these requirements make for efficiency, so the interests of two at least of the partners may be immediately regarded as one.

The Subscribers.

The position of the third partner remains to be considered, and it is this which has been agitating the public mind since the Prince of Wales's speech on hospital economies last December.

As has been shown, it is completely different from what it was at the beginning. The subscriber has called into existence an enormous business, and he has to pay for its support. It is he who finds the money which his junior partners spend, but though he pays the piper he may not call the tune. Yet though this is the case, his rights are not to be overlooked; some tunes he may and should bar, and needless extravagance is one of them.

The question of what is extravagance and what merely heavy expenditure essential to efficiency is not one which a layman can undertake to answer in any particular case of treatment. But from large numbers of cases showing similar results he may and does deduce the fact that there is an average expenditure, and that some hospitals largely exceed it. If he tries to go any further he is told that he must distinguish, that circumstances alter cases, that methods of stating accounts vary, and so forth.

In fact, the difficulties which meet him are endless, and when he is sufficiently bewildered he goes on his way complaining, sometimes justly, sometimes unjustly, always ignorantly, and never with any increased desire to open his purse wider than before. Where he is right and where wrong, the removable difficulties which stand in the way of ascertaining the facts, and the remedies of existing flaws in the expenditure department of hospital administration, are the matters which we propose to consider in detail.

For the present we content ourselves with having endeavoured to make clear—clearer no doubt than is necessary in the case of many readers—the rights of all the parties concerned and the conditions which consequently have to be met.

THE TEACHING OF HYGIENE IN SCHOOLS.

XVII.—Infectious Diseases.

The frequent occurrence of acute specific infectious diseases in elementary schools is a great check to education and a constant source of annoyance to teachers. The first thing a teacher is anxious for is that the average attendance in the class should be good so as to gain the Government grant, the earning of which depends upon the average attendance of children. This fact may often cause a teacher to take a narrow view of such a question as infectious diseases in schools. Until 1903 a machinery existed by which, provided that teachers reported cases of infectious disease to the medical officer of health, they were allowed to count the period of exclusion of any child as school attendance; not only this, but the children who were prevented from attending owing to being in the same house with the patient, were also accounted as having attended. Naturally by this means the enthusiastic co-operation of teachers was secured; and, instead of shutting their eyes to possible infectious cases, they were only too glad to notify them, for from the moment of notification it was counted as attendance. The medical officer of health was able to take more prompt measures with regard to non-notifiable diseases—measles, whooping-cough, etc., and by inquiry at the homes to check the broadcast spread of an epidemic. In 1903, however, for reasons best known to the authorities, this valuable measure was done away with.

To-day, as far as the chief infectious diseases are concerned—such as small-pox, diphtheria, and scarlet fever—the law makes it compulsory for the parent or guardian and the medical practitioner to notify each case to the medical officer of health as soon as they become aware of its existence, and that is all.

The Public Health (London) Act, 1891—the Code regulations having since then been considerably simplified and the notification forms revised in order to ensure the receipt of early information in regard to infection in schools and to minimize the clerical work of the head teacher—made it compulsory for the medical officer of health to send a copy of the notification relative to small-pox, diphtheria, erysipelas, cholera, membranous croup, scarlatina (scarlet fever), typhus, typhoid, enteric, and relapsing fevers to the teachers of any school attended by children from infected houses, and the head master should receive a copy of the notification certificate within twelve hours of its receipt by the medical officer of health.

On receipt of the notification from the medical officer of health the following action is taken in London:

(*a*) The head master sends the notice to the head teachers of the other departments.

(*b*) All affected children (whether suffering or coming from

the home in which the disease exists) are excluded from school.

(*c*) Head teachers of all departments forward on the same day the names and addresses of all children affected by the notice to the divisional superintendent and the medical officer of the Board on a form specially provided for the purpose.

(*d*) The notification is then filed at the school until the end of the school year.

In addition to the notifiable diseases, the following non-notifiable diseases are dangerous to school children: Measles, mumps, whooping-cough, and chicken-pox. If a child shows symptoms of any of these diseases or comes from a home where such a disease is known to exist:

(*a*) The child is excluded.

(*b*) The head teachers of the other departments are informed.

(*c*) The head teachers of all departments forward on the same day the names and addresses of all affected children to the divisional superintendent, medical officer of health, and medical officer of the Board on a special form.

In most other towns and districts the notification of the so-called minor infectious diseases has not been made compulsory; among these are measles, whooping-cough, chicken-pox, and mumps.

This, minus the allowing of enforced absence through infectious disease to count in the school attendance grant, is the present state of affairs.

An epidemic rarely necessitates the closure of schools. When this has to be done, the occurrence can usually be traced to slow action on the part of the teacher, who destroys the *raison d'être* of closure by allowing the disease to spread through the class.

In old days a school was closed because so many of the children were ill that it seemed useless to struggle to keep it open in face of the spread of the disease. Now, successful closure depends upon its enforcement on the occurrence of the very first case in a class where many of the children have not already had the disease. Apart from the great loss of time caused to the healthy scholars by the closing of a school, it has been found that it is impossible to prevent children of the lower classes from meeting together; if they do not go to school they will assemble in the streets. Some consider that the danger from infection in the streets is not so great, because the children are in the open air: but they are not under supervision, and this adds to the risk.

Naturally, the conditions in the schoolroom make the spread of disease sometimes inevitable, even where the most rigorous precautions are taken. The living germs of disease are so minute that the finest particle of dust may contain large numbers of them. The germs brought to school in the clothes or books of children coming from infected houses are blown about the schoolroom, generally not too well ventilated, and are breathed in by the scholars. The close contact of children sitting side by side, in all probability at dual desks, also favours the spread of infection.

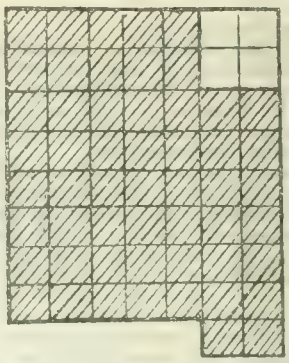
Then there is the difficulty of recognizing the acute infectious diseases in their early stages, because the preliminary symptoms so commonly take the form of cold in the head or sore throat. A cold in the head is such an everyday occurrence that a teacher would naturally be loth to exclude every child who suffered from such symptoms, yet coryza is the first symptom of measles, and constitutes its so-called catarrhal stage.

Measles is a disease which has proved particularly difficult to deal with, mainly owing to the fact that it is highly infectious in its preliminary stage before the rash appears, when the child may be thought to be suffering from a common cold. The indifference with which it is regarded by the parents of the poorer classes, who look upon it as inevitable, is another difficulty to contend with; they are glad that the child should get it over while young. This old-fashioned idea clings to them, for measles used to be regarded as a slight, unavoidable childish ailment. Both views are wrong; measles is not inevitable, and it is, as a rule, far more serious and fatal in young children than in older. Even although the actual attack may be slight, this disease is, perhaps, more to be dreaded than many more serious illnesses, on account of the possible after-effects, such as general debility, deafness, weak eyes, even blindness.

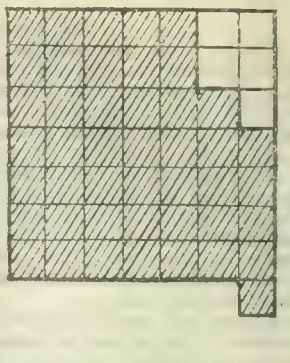
Preventive measures, therefore, are necessary, and in order to apply them effectively the teacher must be prepared to act with promptness. Recent experience proves that closure, to be successful, must take place on the occurrence of the very first case in a susceptible class. By a susceptible class is

Charts to show Number of Children in a Class Susceptible to Measles.

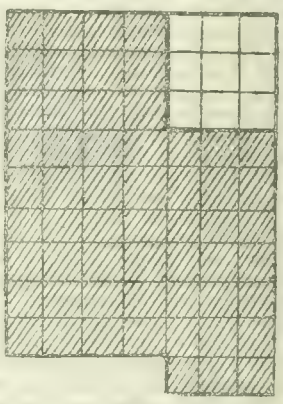
Reported to have had Measles, ▨; Doubtful, ▩; Not had Measles, plain; each square represents One Child.



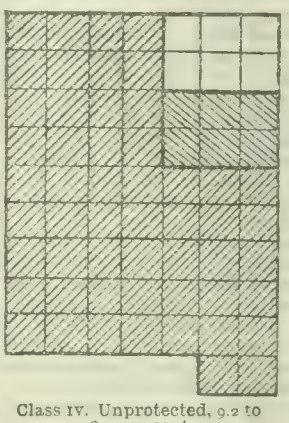
Class I. Unprotected, 6.9 per cent.



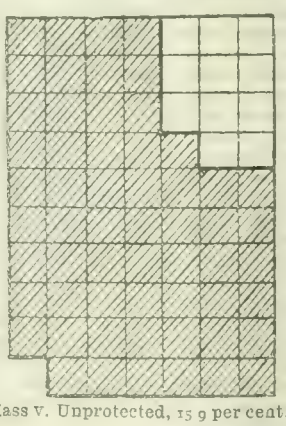
Class II. Unprotected, 10 per cent.



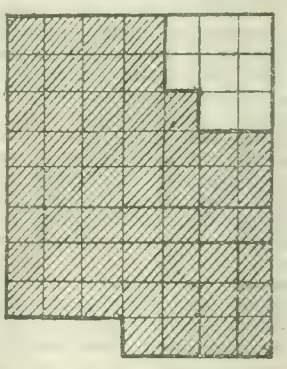
Class III. Unprotected, 13.6 per cent.



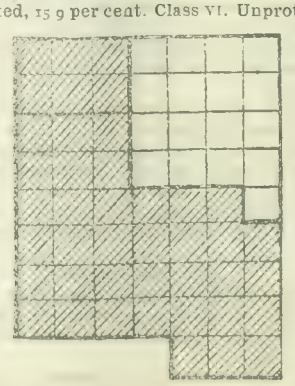
Class IV. Unprotected, 9.2 to 18.4 per cent.



Class V. Unprotected, 15 9 per cent.



Class VI. Unprotected. 13.3 per cent



Class VII Unprotected, 28.8 per cent.

meant a class in which very few of the scholars have already had measles. It has been found that it is necessary to keep a record of the measles history of all children. This can be done by the teacher, who should find out from each child on admission to the school whether it has or has not had measles; the record could be passed on as the child is promoted to a fresh standard. At Woolwich, where a special study of measles has been going on for the last two or three years, the measles history of every child in the infants' department is recorded on a separate card kept at the school. On the back of the card the teacher fills in the measles history of the child when admitted. In the event of a subsequent attack particulars of it are entered on the card, and it is separated from the others. Then the card is taken to the house, and on its reverse particulars are entered by the medical officer of health or his assistant, as the result of domiciliary inquiry.

If a child is observed to have a very bad running cold and to appear ill and heavy, the first thing the teacher does is to look up the record. If there is no evidence of a previous attack of measles it will be well to send the child home to be watched. After about seventy-two hours the rash appears, so that even if it were only a cold in the head the loss in school attendance would be slight. Since measles is highly infectious from the very beginning of the running eyes and nose this case, supposing it to have been measles, may have infected others. Let all subsequent cases of running cold then be sent home until it is known whether the first child is pronounced (after seventy-two hours) to have measles. In a case of this kind prompt closure of the school, or of the class would probably check an epidemic and should be resorted to, especially in a susceptible class. In a school two crops of measles may be expected. The seed for the first crop is the first case which, during the catarrhal stage, infects other children near it. The seed for the second crop, usually much larger than the first, are the cases of the first crop.

The closure would be likely only to last a very short time. The incubation period of measles may be taken as twelve days, and Dr. Kerr states that often the closure of a class for one week, embracing the twelfth day after that in which the child was in school in an infectious condition, is sufficient. Hitherto, closure of schools has been a sort of last resource when the epidemic had spread very much, generally after the occurrence of the second crop, which in most cases is the final one; it has therefore been of no avail, for the outbreak would have equally ceased without this extreme measure.

To be successful, closure must take place before measles becomes prevalent, and more than that, before the first crop appears. It will be seen, therefore, that much rests upon the judgement of the teacher, and that the record cards showing (*a*) those who have had measles before admission to the department; (*b*) those who suffer whilst scholars of this department, and the date; (*c*) those who leave the department and are not known to have had measles, would be invaluable, and quite worth the trouble of keeping, if only to help in keeping up school attendance. The teacher must view the matter from a broad point of view, and realize that a few temporary absences may ward off a sweeping epidemic, involving the non-attendance of whole classes. Now that the grants under Article 101* for non-attendances is no longer allowed, it is all the more necessary for him to be alert.

At the Woolwich schools charts are kept showing percentage of those who already have had measles. Such charts, if universally kept, would be of inestimable value when a question of school closure arose. At a glance one could tell how many in each class had had measles, and to what extent it was likely to spread. With regard to preventive measures, the chief things for teachers to learn are such prophylactic measures as efficient ventilation, properly swept and dusted class rooms; and the immediate isolation of any suspicious case.

They must learn the symptoms of onset, and if they are not quite sure about a case being infectious it is always wiser for them to act as if it were. This more especially if the case is suspected to be a disease which is prevalent in the district, and if many of the children in the class have not already had it.

It would also be necessary that they should know the period which should elapse before symptoms appear which enable the disease to be diagnosed by the medical attendant, so as to know when the child may be safely readmitted to school, and also, if it has suffered from a disease, how long the period of quarantine must last. This applies to all the infectious diseases to which school children are subject.

Certain epidemics cannot be avoided, owing to the possibility of the infection being harboured by children who, themselves not predisposed, take in germs from those who are infectious and pass them on to scholars who are predisposed and unable to resist the disease. These children are termed carriers, and are most dangerous agents in the spread of disease because they appear to be in perfect health.

Next most difficult to measles to deal with in schools is diphtheria, on account of these carriers, and because people cannot imagine that diphtheria can exist without very alarming symptoms. In small-pox, scarlet fever, and influenza the illness comes on so suddenly and so severely that as a rule the child is far too ill to be sent to school. Tuberculosis we have already treated.

It is more and more evident that the general health plays a leading part in the matter of special diseases. The stronger and fitter the subject the better he can resist disease. Schoolroom windows should be kept open top and bottom, winter and summer. Fresh air without draught never hurts any one; ten minutes' romp in the schoolyard after each lesson (which lasts about three-quarters of an hour) would keep up the children's circulation and free them from much of the poison contracted in an impure atmosphere. The teacher will benefit, too, not only in his or her own health, but by having, instead of sleepy, fatigue-poisoned, dull-witted scholars, bright and alert ones.

THE PREVENTION OF CONSUMPTION.

National Health Society.

The National Health Society, the main object of which has always been the diffusion of a knowledge of the laws of health throughout all classes of the community, is essentially a health missionary society. In furtherance of this object lectures on subjects materially affecting the health of the nation are from time to time organized by the Society for the special benefit of those who work amongst the poor—health visitors, district visitors, charity organization workers, Bible Mission women, etc.—and it was particularly for this purpose that the special lecture on Friday last was organized by the Society. The large lecture room of the Royal Medical and Chirurgical Society at Hanover Square was filled by exactly the audience for whom the lecture was intended, which should be a source of great satisfaction to the National Health Society, since it shows that its efforts to teach those who can best disseminate the knowledge are appreciated.

The lecturer, Dr. J. E. Squire, at the outset mentioned that there were nearly 60,000 victims to consumption in England and Wales alone in a single year, and these were found, not amongst the aged, but amongst young adults who were just beginning to turn to useful account the education given them in their youth. Let them think what it meant to the nation to have this waste of young life checked. Already the improvement which had gradually been brought about in the general hygienic condition of the people had resulted in a steady fall in the annual death-rate from consumption; and with special precautions, based on a more complete knowledge of the determining cause of tuberculosis, a far greater improvement might confidently be anticipated. The co-operation of the public was necessary, and to gain this the people must be educated to recognize the necessity and to appreciate the reasons which underlie the prophylactic measures recommended. These measures were based upon a knowledge of the causation of the disease, and the conditions which favoured its spread and rendered persons susceptible.

It was now known that consumption, in common with all tuberculous diseases, depended upon the entrance into the body, and the development within the body, of a micro-organism or "germ," the tubercle bacillus. This germ being given off from the bodies of the sick, must gain entrance into the body of a susceptible individual in order to produce the disease. Preventive measures must therefore be directed (1) towards destroying the infecting germ given off by the sick; and (2) towards preventing or counteracting the susceptibility or predisposition to the disease in the individual.

The characteristics of the micro-organism (bacillus), and the conditions under which it can live outside the body, were shortly discussed; the ways in which it was given off from the bodies of the sick being then considered. From these considerations it was possible to determine how the infection

might be destroyed. The two chief agents in conveying the infection from the sick were (1) the expectorated matter from consumptive patients; and (2) the milk of tuberculous animals.

Infection, in the first case, might be prevented by destroying the germs in the expectoration before this became dried; for it was chiefly when this dried and became pulverized that the disease germs got into the air. In the second case, careful supervision of cattle and inspection of milk might do much, but safety was assured if the milk were boiled before being used as food.

Passing to the causes of predisposition, heredity, climate, and locality, overcrowding and deficient ventilation in habitations, occupations, and previous illnesses had to be considered.

The lecturer's observations with regard to heredity were quoted, as tending to show that this was not so potent a factor in the causation of consumption as was popularly believed, and to justify a more hopeful feeling in reference to the members of families in which consumption had occurred. Overcrowding and sedentary occupations were conditions predisposing to consumption, and were both connected with deficiency of fresh air. Fresh air and sunlight were potent means of protection against consumption, both by destroying the germs and by strengthening the resisting power of the individual. The rules of life comprised under the term "general hygiene" furnished the key to the prevention of a predisposition to consumption; and the greater attention to these rules of late years would explain the steady diminution in the death-rate from tuberculous diseases.

The prevention of tuberculosis was not solely a matter for the medical profession; it required the intelligent co-operation of the public. Medical men were only too ready to act as guides, but they could do little unless the public were willing to be advised and to act.

The chair was occupied by Dr. Theodore Williams, who emphasized the importance of the co-operation of the public in prevention.

FRIENDLY SOCIETIES' SCHEME FOR CONSUMPTIVES IN THE MIDLANDS.

At a meeting of delegates from various Friendly Societies, held in the People's Hall, Birmingham, on February 25th, the Lord Mayor being in the chair, Dr. Robertson, medical officer of health for the city, and Dr. Foxwell spoke, and it was decided that steps should be taken by Friendly Societies to establish a sanatorium for the treatment of their members who suffer from consumption, and such other methods as may be considered advisable for the prevention of the disease. The proposal is to form an Association, to be called the Midland Counties Friendly Societies Association for the Prevention and Cure of Consumption, membership of which shall be open to any branch of a registered Friendly Society within a radius of forty miles of Birmingham. The annual subscription for each society shall be at the rate of 10s. 6d. for every 100 members. Local Committees will be formed to collect funds and to collect and disseminate information as to the causes and means of prevention of consumption. Admission to the sanatorium is to be restricted to those members who are certified to be in such a stage of the disease as to afford reasonable expectation of permanent improvement or cure by residence at the sanatorium.

LITERARY NOTES.

MR. F. HOWARD COLLINS has compiled a guide for authors, editors, printers, correctors of the press, compositors, and typists, entitled *Author and Printer*. This work, which will be published by Mr. Henry Frowde, is said to be an attempt to codify the best typographical practices of the present day somewhat on the lines of a dictionary. During the three years he has been engaged in its preparation Mr. Collins has had the assistance of many authors, editors, printers, and correctors of the press. The book has also, we understand, been approved by various trade associations, including the Executive Committee of the London Association of Correctors of the Press.

In a review of a recently-published work of Dr. Hans Kehr, embodying the results of an experience derived from 1,000 operations for gall stones, Dr. Marcel Baudoin (in the *Archives Provinciales de Chirurgie* of March 1st) says, doubtless truly, that French surgeons are ignorant of what is done in Germany and America. May we hint, however, that Mr. Mayo Robson, the only "specialized operator" besides Dr. Kehr who is mentioned by Dr. Baudoin, is not an American, but an Englishman?

Mr. Heinemann will publish shortly a work by Professor Russell Chittenden, of Yale University, entitled *Physiological Economy in Nutrition*. The author made an experimental investigation of the food requirements necessary to meet the true physiological needs of the body under different conditions of life and activity, his aim being to ascertain how far the dietary standards and customs which have gained general acceptance in most parts of the world are scientifically correct, and how far they fail to meet the daily needs of the body. Professor Russell Chittenden's observations were made upon three groups of men, representing different types and degrees of mental and physical activity, namely, a group of University professors, a detachment of soldiers, and a group of trained athletes. The book is illustrated with photographs of the subjects at various stages of the experiments.

In *India*, recently published by Mr. Henry Frowde, Colonel Sir Thomas Hungerford Holdich, speaking of the climate of India, says it possesses every sort of climate. Many of the weather anomalies are due to the influence which the physiography of the country exercises on the monsoon currents, to the periodic return of which all India looks for that all-important rain supply which yearly waters the parched plains, and renders its deserts green with abundant fertility. The monsoon is the yearly salvation of the millions that live on the fruits of the soil. A good or bad monsoon is the criterion of plenty or of famine. By it India lives: without it there is starvation, death, and misery. The anxiety, therefore, with which all, from highest to lowest, look out for the first warning telegrams from the Seychelles or Mauritius of those indications which are the forerunners of the yearly rain supply may well be imagined. The most remarkable effect, says the author, is produced at the head of the Bay of Bengal. There the gathering masses of watery vapour are driven over the surface of the heated sea for hundreds of miles without check, till they break on the southern edge of the Khasia hills in Eastern Bengal. At that point the rainfall is extraordinary, 50 or 60 feet being a not unusual register at Cherra Punji on the edge of the plateau. At Shillong (which is about 40 miles beyond the edge) the rainfall becomes normal. It is interesting to note that with this terrific rainfall the climate of Cherra Punji is not unendurable.

Dr. Scheuer, of Spa, who has for many years been a diligent collector of medical autographs, has recently acquired possession of two letters of Trousseau, which are published for the first time in the *Journal Médical de Bruxelles* of March 30th. One was written when the great physician was at the height of his fame, and when patients flocked from the ends of the earth to Paris in the hope of seeing him. The burden of work which he had to bear as physician to the Hôtel-Dieu and professor of clinical medicine, combined with private practice, was so heavy that he had been compelled to give up seeing patients except in consultation with other practitioners. The only exception to this rule which he ever consented to make was when any emergency arose among the patients of an absent colleague. The letter, of which a translation is here given, refers to such a case in the practice of Dr. Bigelow, a physician attached to the United States Legation in Paris; it may therefore, we fear, be inferred that the lady, whose behaviour may be gathered from the letter, belonged to the Anglo-Saxon race, among whose many virtues courtesy is not one of the most pre-eminent.

Madam,—On coming home yesterday at midday I found the card of M. F., with whom I have not the honour to be acquainted, on which was written an invitation to call and see a sick child. As M. F. is not a patient of mine, I thought a consultation with one of my professional brethren was asked for, and I told my valet the hour at which I could meet M. F.'s doctor. On coming home to dinner at half-past 7, I found a letter from you explaining the object of the invitation, and within half an hour I was at your house. It seems to me that I showed on behalf of the patients of my friend Bigelow a promptitude which I should not have displayed for my own. When I saw you, I thought it right to explain to you that, having for several years given up ordinary practice, I deemed it my duty to respond to your appeal only when I learnt that the summons came from patients of Dr. Bigelow, who had asked me to see his patients while he was away. This was an excuse and you took it for an insult. On taking leave of you I replied to a remark of yours about your five flights of stairs, that I had not counted them. I added that I would return the next morning, and that you could always count on my help.

Indeed, Madam, I seek in vain how I can have given you offence. can find no cause. I no longer go to the house of any new patient,

particularly if he is rich. I still go fairly often to the poor who ask for my services.

As regards you, Madam, and your husband, had you done me the honour to write in the morning to tell me that you were patients of Dr. Bigelow, I should not have hesitated immediately to call on you in the Rue de la Paix.

This explanation will, I hope, be sufficient. I return your letter. Now that the first movement of ill-temper is past, perhaps you will understand that that letter was an undeserved and unprovoked outrage addressed to a man of fifty-six, one who is therefore on the border of old age.

I also return your money. It belongs to Dr. Bigelow, as I go to see patients only for him, not for myself.

Accept, Madam, the homage of my profound respect.

Paris, May 20th, 1859. A. Trousseau.

In the other letter Trousseau courteously declines to advise on an obscure case which he had not had an opportunity of examining. An interesting circumstance mentioned by Dr. Scheuer is that Trousseau took himself as the text of clinical lectures on cancer of the stomach, from which he died. During the winter of 1864-5 Dr. Scheuer heard him at the Hotel Dieu describe from time to time the progress of the disease which was destroying him, and give minute descriptions of the lesions produced by it. He attributed the affection in a majority of cases to excessive fatigue of mind and body and irregularity and haste in meals.

NOVA ET VETERA.

MEDICAL DIALECT TERMS.

No medical man can be long in general practice without realizing that the names given by his patients to their diseases and symptoms and parts of their bodies are not those that have been taught to him in the schools. Further, if he talk the matter over with other practitioners working in other districts of the country he will discover that these names differ in different places. If he be a wise man he will give some thought to the matter, for he soon finds that his patients expect him to be acquainted with the terms they employ, and are inclined to place a low estimate on his knowledge if he is not. So that, even if he be not interested in medical dialectal peculiarities from the scientific and antiquarian side, he is almost forced to be so from the practical. As a reference work on all such subjects, and as a mine of interesting and curious information, Dr. Wright's *English Dialect Dictionary* (of which the terminal parts, Supplement, and Bibliography have just been published[1]) is simply invaluable. We need say nothing here of the scholarship of the Professor of Comparative Philology in Oxford, but we may emphasize the value of his researches and those of the correspondents associated with him in their bearing upon medical folklore and dialectal differences. Some examples drawn from the recently-issued part of the *Dictionary* will serve to illustrate and establish this point. The most important letter in the terminal part of the work is W, and from that, therefore, our illustrations will mainly be taken.

There is, for instance, the word "weed," or "weid," which is in common use in Scotland and Ireland. In addition to the ordinary meaning of a kind of childbed fever caused by chill or relapse, this term is employed to designate a chill causing inflammation and a fit of the ague. An illustrative quotation from an Irish source reads, "I'm a bit bothered on both sides of my head ever since I had that weary weid." Further, the word means a disease of horses and cattle—a dropsical state of the cellular tissue about the udder and between the hind legs, beginning as a catarrh of the udder, and ascribed to a chill from the cow being turned out on low, damp fields too soon after calving. Doubtless it is more often due, if it be of the same nature as puerperal mastitis in the human subject, to microbic infection. Yet another use of the word "weed" is for the pains of labour; and the *Dictionary* gives an illustrative quotation from Lanarkshire, "The weed and gut gaes thro' my flesh like lang needles, nails, or elshin irons." The term "weed" in dialectal use in England, and meaning a thin, weakly child, has probably quite a different origin, being connected with the idea of weeds growing in gardens, and worthless in nature.

"Wild-fire" (spelt in various ways) has a nosological meaning as well as its more ordinary ones of "summer lightning" and a "will-o'-the-wisp"; it signifies erysipelas and some other skin diseases in Lancashire, Yorkshire, Cheshire, Cornwall, as well as in some parts of Ireland and Scotland. A charm for erysipelas in Cornwall is quoted by Dr. Wright as follows:

> Christ he walketh over the land,
> Carried the wild fire in his hand,
> He rebuked the fire and bid it stand,
> Stand wildfire, stand.

In various parts of England "wisht" means physically weak, sickly, haggard, or white-faced; and in Cornwall the phrase is "as wisht as a winnard," the winnard being the redwing, which reaches Cornwall in late autumn, and in winter is very thin and miserably weak. In Aberdeenshire "win's" means rheumatism, and an illustrative quotation says, of a woman there, that "of nothing else was she heard to complain, but her win's and want of goodness." In Shetland the name "winster" signifies a disease of sheep kept in rich pastures; "it is occasioned by springing or running hard when the animal is fat, the blood vessels of the kidneys then burst."

There are many dialectal words signifying weakly, sickly, puny, or ill-developed, among which may be named "wangley," "wankly," "wanly," "warrach," "wave," "weary," "whinnocky," "whittery," "wirling," "wobart." "Wuzlie" means dwarfish, while "wratack" is an obsolete Scottish word for dwarf.

"Wrat" is (in Scotland and the North of England) a wart; and "wrat-wel" is a small sore piece of skin at the side of the nail. To cure warts there are many plans in use on Tyneside: "Take a large black snail, rub the wart well with it, then throw the snail against a thorn edge till it is impaled, and there let it die;" "rub the wart with eel's blood." In these districts, as well as in Derbyshire, Warwick, and Oxfordshire, "wasting" or "waste" means consumption or phthisis; in Leicestershire and Northamptonshire "wasty" signifies consumptive. In the North of England "water-jags" is chicken-pox, and "water-segged" is dropsical. "Wattles" are the teat-like excrescences hanging from the cheeks of swine; "wattle" also means the ear, and "wattlewarch" the earache. "Water-bleb" in Yorkshire is the water and membrane which bursts before a cow calves, as in the quotation, "T' cow 'ull sean cauve, t' water-bleb's brussen." "Water-calf" is defined as the placenta of the cow, being so used in Shetland; but, if this be so, it differs in meaning from the term "Wasser-Kalb," as used in Germany.

Doctors in Scotland soon learn, if they do not already know, that "wame" means the stomach as well as the womb, and that "wame-ill" is the stomach-ache; the same word, although spelt differently, is employed as far south in England as Lincolnshire and Somerset. "Wamlin," a big-bellied, puny child, is so used in Caithness. To "wash the baby's head" has a meaning other than the literal one: in the North of England it signifies to have something to drink to celebrate a birth:

> That in hur great gronfather's day, her practis used ta be,
> Ta call hiz nabors, wun an all, when lad or lass wor born,
> Ta wesh ther heeads o bumper toasts an sing till rosy morn.

In Antrim "wop" is the word used when a ewe produces an abortive lamb and "warp" has a similar meaning. To "work" has several medical meanings: thus, in Cheshire, it signifies to breathe with difficulty or pain; in Shetland, to struggle convulsively; in Lakeland, to purge; and in Derbyshire, to suppurate. In Lincolnshire, "worry" is to bring forth young, but is used generally only of such animals as have many at a birth, as cats, rabbits, and mice. "Weal" in Yorkshire is the penis; and "wrigled" in Lakeland is used of an animal which has the testicles imperfectly developed or obstructed.

Many other interesting examples might be cited, but we have space for only two more. Under the various names, "wax-kernel," "waxen-churnel," "waxen-crindle," and "waxing-curl" is meant a glandular swelling in the neck. Here is a Devonshire quotation showing its use in the above sense: "Why idden your little maid agone tü skule tü day, than?" "Aw, pore little blid, 'er idden very well. 'Er waxing-curls be down, an I've abin rubbin' um back wi' 'arts 'orn an' oil." "Wax," of course, means to grow, hence "waxing-pains" are growing pains; "waxin'" in Northumberland signifies the exudation from the teats of a mare or cow two or three days before parturition happens. "Lucky-hood" is the Devonshire word for a caul, as the following quotation shows: "I comed into the world wi' a lucky-hood, if you'll believe it."

[1] *The English Dialect Dictionary.* Edited by Joseph Wright, Ph.D., D.C.L., LL.D., Professor of Comparative Philology in the University of Oxford. Parts xxv-xxviii: Tommy—Zwodder. The Supplement and Bibliography. London: Published by Henry Frowde.

THE INDIAN PASTEUR INSTITUTE AT KASAULI.

THE Director of the Pasteur Institute of India, Lieutenant-Colonel D. Semple, M.D., R.A.M.C., has issued his fourth annual report for the period from August 9th, 1903, to August 8th, 1904.

HYDROPHOBIA.

The statistical summary shows a steady increase in the number of patients presenting themselves for treatment. The figures for the four years since the Institute was incorporated are:

1901	...	...	321	1903	...	...	584
1902	...	...	543	1904	...	...	612

The results also show a slight improvement, with 0.81 per cent. of failures as against 1 03. In the case of European patients the treatment was uniformly successful—an excellent record, which speaks well for the care and thoroughness with which the inoculations are conducted. In Paris the percentage of failures since 1886 is 0.30; in 1903, amongst 628 patients, it was 0.32 per cent.; at Lyons, amongst 673 patients, there was no death; at St. Petersburg in 1900, amongst 816 patients, 0.6 per cent.

Amongst natives the rate works out at 1.56 per cent., but it must be borne in mind that the circumstances are unfavourable; the bites are in general of greater severity and more frequently on naked or thinly-clad parts; there is greater delay in commencing treatment, the wounds are often inefficiently cauterized, neglected, and suppurating, and, finally, the native patients often cannot afford the generous regimen desirable throughout the twenty days of treatment.

With native patients the average interval from infection to the first inoculation was 11.6 days; amongst Europeans 7.2 days. For safety not more than three days should elapse after a bite upon the head or face, and not more than five in any case; intensive methods are used whenever treatment is postponed later than the fifth day.

In three cases hydrophobia supervened during the course of inoculations, and in two others within the fourteen-day limit; these fatalities are not included in the statistics of failures.

SEASONAL PREVALENCE.

Table IV, showing the monthly incidence, is of interest in contrast to the corresponding table of 1903, for whereas the maximum fell then in October and the minimum in July, this year (1904) the respective figures for those two months are almost exactly reversed, and whilst the highest monthly returns are made in August, the lowest occur in November and February. Unfortunately no meteorological data are appended, and the tables, therefore, have not their fullest possible value. A similar criticism might be levelled at other tables: those, for instance, giving the incidence figures for the several provinces and for the various castes, since no indication is given of the respective populations or numbers of adherents.

EARLY TREATMENT.

It has been the experience of other institutes, notably the Italian, that difficulty is met in enforcing public appreciation of the paramount importance of early or immediate treatment. At Kasauli all the fatal cases were amongst natives, and all but one came late. It was to be anticipated, however, that some years would elapse before full confidence was established with the native population; with the Europeans it should be otherwise, yet Colonel Semple is driven to remark:

> It is not an unusual thing for railway, postal, and telegraph employés, also native policemen, to waste days, and sometimes weeks, *in obtaining official sanction before setting out for treatment*: or, on the other hand, to waste an equally lengthy period of time in hospital, waiting for their wounds to heal up!

ANTIRABIC SERUM.

The results of the antirabic serum[1] are as yet uncertain; in 202 severe or late cases the serum was used as a preliminary measure in hypodermic doses of 10 c.cm. Three of the failures and two of those developing hydrophobia within the time limit were amongst those thus treated. In the worst cases the serum was injected "into and around the wound," and none of these succumbed; but as the routine method was proceeded with in every instance the effect upon case mortality can only be estimated when the available figures have accumulated.

PREVENTION.

It is remarked that the majority of the dogs inflicting the bites are ownerless, and, moreover, that it is these animals that are infected by jackals and spread the disorder amongst other dogs. In the Department of the Seine it has been shown that the prevalence of hydrophobia is in inverse proportion to the activity displayed in the extermination of stray dogs; hence the suggested legislation for the destruction of ownerless and pariah dogs, together with a tax on dogs all over the country, would probably do much to minimize the numbers of persons infected. As, however, all warm-blooded animals are susceptible to rabies, and the jackals particularly prone, it is hopeless to expect complete eradication of hydrophobia.

OTHER WORK OF THE INSTITUTE.

Turning to the summary of work done in addition to antirabic inoculations, the report is a little disappointing, for there is no further information as to the success of the various serums prepared. In the report for 1903 some space was devoted to an account of the anthrax vaccines issued, and it was stated that the results promised well; no details are forthcoming.

Large quantities of antitetanic and antidiphtheritic serums have been prepared and issued.

The work of Captain Lamb, the Assistant Director, on snake venoms is well known,[2] and the Director here acknowledges indebtedness. In addition to the anticobra-venom serum, two other preparations have been produced, one for the venom of daboia russelli and the other for a mixture of this and cobra venom. These serums have, however, not yet been issued.

Twelve officers availed themselves of the facilities offered for research, and did good work. It appears that much of the routine clinical pathology for diagnosis now carried out at the Institute might be equally well and more expeditiously performed by the medical officers at stations. The staining of a tubercle bacillus, and even the performance of an agglutination test, can be simply performed without the necessity for much apparatus.

[1] BRITISH MEDICAL JOURNAL, 1904, vol. i, p. 845.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

[2] BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 1546; 1904, vol. ii, p. 1025.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. Guy Elliston, *General Secretary.*

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

	£	s.	d.
Amount previously acknowledged	70	14	6
Dr. W. C. Griffiths	0	10	6
Dr. J. Shaw Lyttle	0	10	6

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 95.

SPECIAL CORRESPONDENCE.

BERLIN.

Alcoholism among the Working Classes.—New Wing of the Children's Hospital.—The Discoverer of Morphine.

The Berlin Municipal Hospital—"Friedrichshain"—which is situated in the east end of the city, makes its report for this year the vehicle for some serious reflections on the drinking habit and its ravages among the working population of Berlin. No less than 208 cases of delirium tremens were taken in during the year, and this figure is far from expressing the real number, for in many cases delirium tremens supervened as a complication of other diseases. The Friedrichshain patients are recruited chiefly from the working classes, and the registers show how widespread the drinking habit is among them. Almost a third of all sickness among the men is brought about by excessive spirit drinking.

A new wing is to be added to the Kaiser and Kaiserin Friedrich Children's Hospital. Building has been begun, and it is hoped that the wing will be ready for use before the end of 1906. The number of beds, which at present is 190, will then be almost doubled.

A hundred years have passed since Dr. Seetürner, an apothecary in Hamelu (Hanover), discovered morphine, and the German Society of Apothecaries has marked the date by affixing a commemorative tablet to the house in which Dr. Seetürner lived.

LIVERPOOL.

The Ladies' Charity and Lying-in Hospital.—District Nursing Association.

The annual meeting of the Ladies' Charity and Lying-in Hospital took place recently at the Town Hall, the Lord Mayor presiding. The report showed that the operations of the charity for the past year had been the largest in several respects since 1896. The outdoor cases were 1,900, against 1,790 in the previous year. The usual relief in the form of food, special nourishment, and coal, was furnished to very poor patients, and clothing and bedding were lent or given; 281 patients were admitted to the hospital, against 250 in the previous year. Sixty-eight pupil midwives were trained during the year, 50 receiving certificates, showing a considerable increase which was attributed to the passing of the Midwives Act of 1902. Ten medical students took out their midwifery practice with the charity during the year, in accordance with the arrangements made with the University.

The annual report of the Queen Victoria District Nursing Association shows that the work done by this very excellent institution continues to increase, and that the Association is now equal to the largest individual District Nursing Association in the country. There are 47 nurses and 5 matrons on the staff. During the year 7,496 separate cases were attended and 185,022 visits were paid. Besides these the nurses going to the elementary schools for the purpose of attending to the minor ailments of the children had made 46,695 dressings. The Liverpool Education Committee are at present considering the question of officially recognizing and assisting this part of district nursing.

LEEDS.

The Feeding of School Children: The Children's Relief Fund: Dr. Hall's Investigations: Effects of Extra Meals on Weight of Children.

There can be no doubt that one of the most important factors in influencing the physique of a nation must be the possibility of the children obtaining an adequate supply of suitable food. The Education Committee have made an inquiry through their School Attendance Subcommittee into the number of underfed children attending the elementary schools in the city. According to their report the number amounts to 3,245. The number of parents known to be out of work was 802, of whom 109 belonged to the less deserving class. At the beginning of the winter the number of underfed children was stated to be 6,720. It was resolved to recommend the Lord Mayor to convene a meeting of voluntary workers with a view to considering the question of providing meals for underfed school children at three or four centres; that the cost of such meals be defrayed by voluntary contribution, and that inquiry be made by the school attendance officers into all the cases to prevent abuse.

This, of course, is very far from representing the beginning of the work in Leeds in the direction of feeding necessitous children. Early in the winter the Leeds Children's Relief Fund began its work, and an interim report issued on January 20th showed that 175,000 dinners had been provided at a cost of 1 1/5d. per head. In the first week, 29,797 children were fed, and in the fifth 26,000. This work, however, came to an end some weeks ago, and it may be remembered that attention was called to this in the House of Commons by Mr. Keir Hardie.

Not only is the feeding of children during the school-going age of the utmost importance, but there ranks with it the feeding of the younger children and infants, and of the mothers during pregnancy and lactation. The work of Dr. William Hall, one of the senior members of the medical profession of Leeds, who lately retired from practice, and has employed his leisure in extending his investigations in this connexion, is of the utmost interest and importance. As already explained in the British Medical Journal, Dr. Hall has, with every precaution to ensure a fair comparison, investigated the physical condition of groups of Jewish and Gentile children of the same age, and living under the same conditions as to locality, and as to poverty. After the examination of a great many children, some 3,000 in all, Dr. Hall stated that the poor Jew was 3 lb. heavier and 2 in. taller than the poor Gentile at the age of 8; at 10 years of age he was 6½ lb. heavier and 2½ in. taller; and that at 12 he was 7 lb. heavier and 1¾ in. taller.

The teeth of all the children were examined and the condition of the osseous system investigated as far as possible, and Dr. Hall's report is that from 6 to 13 years of age the poor Jew is much less rickety and has much better teeth. A great many of the Gentile children were mouth-breathers, but in his examination of the Jewish children Dr. Hall was struck by the size of the nasal chamber and with the breadth and flatness of the roof of the mouth, and by the absence of mouth-breathing. Without in any way denying the injurious influences of overcrowding, hereditary predisposition, damp, cold, and impure atmosphere, Dr. Hall claims that the favourable and unfavourable position of the Jew and the Gentile children respectively in the above comparison is due in great measure to the character of the nourishment supplied to them before and after birth. Among the class he has investigated the pregnant Jewess is better fed, and after delivery she usually nurses her child, being able to do so in a greater percentage of cases than her Gentile sister. After the period of lactation he has found that the

dietary of the Jewish child is much more wisely devised. He finds the poor Gentile child in the slums living "on the edge of scurvy" under a dietary of white bread, tea, badly-cooked fish, or it may be tinned meat and pickles. On the other hand he finds the Jewish child, whose parents are not any better off, on a dietary of bread, made of white flour and rye mixed, cocoa or tea, almost always with milk, and plenty of sugar. The Jewish women club together to buy good fish cheap at the market; this they cook excellently; they use vegetables freely, and they always contrive to get eggs for their children. He points out that any morning at the gates of the Jewish school playgrounds groups of poor Jewish mothers may be seen waiting for their children and provided with food to give them during the interval for play.

With the assistance of some philanthropic friends Dr. Hall has, during the winter months, been feeding some of the children of the poorest class in the city. He has made most careful measurements throughout the "treatment," and certainly his figures are surprising and encouraging. Thus, on January 13th, he reports as follows: "I weighed 55 children, aged 7 to 8 years—28 boys and 27 girls—on December 29th. I weighed them again—some to-day and some yesterday. They had gained altogether 63 lb., or, at the rate of about 2 st. each per annum." The average increase in weight of a boy or girl between the ages of 7 and 8 is 5 lb., and this extraordinary gain of weight at the rate of 2 st. per annum at the commencement of the feeding experiment is attributed by Dr. Hall to the fact that the tissues of these half-starved children are, like the tissues of those recovering from illness, ready to pick up nourishment with avidity. The improvement in the appearance of the children has been no less striking. This remarkable result was obtained by securing that each child should obtain one adequate meal a day. The children are now getting two meals a day. Into the details of the character of these meals there is not space to enter, but we understand that the cost of the two meals a day is a fraction under 2d.

No one who has followed Dr. Hall's work, as the writer has, can fail to be impressed by the encouraging fact that children who have made a bad start in life, and who are living "on the edge of scurvy," may be, one may really say, rescued at the cost of 2d. a head a day. Opinions will differ as to how this should be carried out. Some argue that to compel attendance at school on the part of children who are underfed is wrong; probably all will agree that education under such circumstances must be unsatisfactory. Some say the State, which compels the attendance, should also supply the food—a dangerous view with limitless possibilities. Many must, we think, agree with the view that the parent should be made to pay when it cannot be shown that he is unable to do so, and that the wage of the parent should be to this extent at the disposal of the authorities.

SOUTH WALES.

Aberystwith College.—Pontypridd Education Committee.—Health of Caerphilly.—A Cardiff Professor's Appointment.—Llanelly Hospital.—Swansea Port Sanitary Authority.—Llantrissant and Llanwit Fardre Report.—Gifts to Cardiff Museum.—Small-pox at Cardiff.—Aberporth Water Supply.

A meeting of the Court of Governors of the University College of Wales, Aberyswith, was held at the Shire Hall, Carmarthen, on March 24th, Sir Lewis Morris presiding. Lord Rendel, the President of the College, sent a letter from the South of France in which he paid a high tribute to the late Rev. T. Mortimer Green, the Registrar of the College for thirteen years. The Court passed a vote of condolence with the bereaved family and placed on record its profound sorrow at the loss which it had sustained. Principal Roberts stated that Miss E. A. Carpenter had intimated her intention to resign at the close of the present season the office of Lady Principal of the Hall of Residence for Women Students. She was in her 70th year and had amply earned the rest she desired. Eulogistic speeches on the work of Miss Carpenter were delivered by Miss E. P. Hughes (Barry) and other ladies. The Chairman said that the question of providing something akin to a pension fund for the professional staff was most important.

At a meeting of the Pontypridd Education Committee held on March 30th Dr. Howard Davies, Medical Officer of Health, presented a comprehensive report, in which he stated that the eyesight tests carried out by the head teachers had been carefully made. The result of these tests was that of the children examined in the council's schools 580 were found to have slightly defective eyesight, and in 269 instances the vision was declared to be very defective. The latter number included 39 children whose defective vision had been corrected by appropriate glasses. He intended making a personal investigation of the children whose eyesight had been found defective and to present a further report. Dr. Davies reported that the outbreak of ophthalmia at the mixed department of the Pontshonnorton schools showed signs of abatement. This was due chiefly to the temporary additional accommodation recently erected, thereby relieving the very serious overcrowding, which was undoubtedly the principal factor in the causation of the disease. Children were also sent back to school before being completely cured, and he did not believe that parents realized the gravity of the disease but treated it as if there was no special need for medical treatment. The Committee decided that as the medical officer had given the matter close attention he should be allowed to continue to do so.

Dr. Thomas, Medical Officer of Health to the Caerphilly District Council, has issued his annual report for 1904. During the year 770 births were registered, giving a birth-rate of 38.5 per 1,000. There were 317 deaths, equal to a death-rate of 16.3 per 1,000; 243 cases of infectious disease were notified, 15 of these being small-pox, this being the third year in succession in which the Council had been obliged to deal with an importation of this disease. There was a decrease of diphtheria cases as compared with previous years, due possibly to more efficient drainage and sewerage.

The Senate of the University of London has appointed Mr. T. Raymont, M.A., Professor of Education in the University College of South Wales and Monmouthshire, to the office of Vice-Principal of the new training college about to be established in connexion with the Goldsmiths' College, London, S.E. Professor Raymont has been a member of the staff of the Cardiff College since 1890, when the teachers' training department was opened.

The Secretary of the Llanelly Hospital has received a cheque for 150 guineas from the directors of the Great Western Railway as an appreciation of the reception and treatment of the injured passengers in the Loughor railway disaster in October last.

Dr. Eben Davies, Medical Officer to the Swansea Port Sanitary Authority, in his annual report for 1904 just issued, states that the total number of vessels inspected in the port sanitary district (which comprises Swansea, Neath, Port Talbot, and Porthcawl) was 7,006; 1,436 of these were from foreign ports and 5,570 coastwise; 1,600 nuisances and defects were discovered and dealt with by the inspectors. The number of cases of sickness or injury that came to the knowledge of the inspectors was 182. These included enteric fever, 1; small-pox, 1; erysipelas, 1; and scarlatina, 1. Three of these cases were treated at the port hospital block. A sailor belonging to a ship from Sulina was found to have symptoms suggestive of plague. He was detained at the isolation hospital for nine days for observation and then discharged. Four vessels were disinfected on account of sickness on board on arrival. A draft of regulations under Section cxxv of the Public Health Act, 1875, has been distributed among the members of the authority for consideration with a view to obtaining the sanction of the Local Government Board.

Dr. Davies, Medical Officer to the Llantrissant and Llantwit Fardre District Council, in his annual report for 1904, states that the number of births was 465, equal to a birth-rate of 38.4, as against 459 and a rate of 37.9 in the previous year. The total deaths were 191, equivalent to a death rate of 15.7 as compared with 192 and a death-rate of 15.8 in the previous year. The death-rate under 1 year of age per 1,000 registered births was 135 as compared with 100 in the previous year; 78 cases of infectious diseases were notified, which compares very favourably with the three preceding years—there being 124 reported in 1903, 183 in 1902, and 385 in 1901. Seven deaths occurred from these notifiable diseases, whereas 26 deaths were the result of measles and whooping-cough. Dr. Davies urges upon his authority the importance of including measles and whooping-cough as notifiable diseases, as he states that it is only by isolating "first cases" particularly from schools and other crowded places, and preventing intercommunication between the members of affected houses and others that epidemics can be avoided. The requirements needed are the disinfection of all houses where non-notifiable infectious diseases exist; slop drains and better watercloset accommodation for parts of the district,

and the provision of a pure water supply for portions of the district, and a more thorough system of scavenging.

It was reported at the Cardiff Museum Committee meeting held on March 31st that Mr. T. H. Thomas (Cardiff) desired to present to the museum his collection of objects illustrating old Welsh life, at present in the museum on loan. Among the other gifts reported were antique glass vessels from Mount Carmel, by Mr. John Duncan, and two "sticks" from North Wales by the Rev. J. Davies.

Another case of small-pox occurred at a common lodging-in Homfray Street, Cardiff, and was removed to the Small-pox Hospital on March 31st. The patient had been suffering from the disease for several days, and had contracted it in Derbyshire, where he had been working up to within a few days of his illness.

A petition signed by 42 residents of Aberporth was read at a meeting of the Cardigan Rural District Council held on April 1st. It called attention to the inadequacy of the water supply, stating that for four months last summer many of the taps were dry. It also complained of the quality of the water. It was stated that the inhabitants had refused to pay the rate. A member proposed that if the people there would agree to bear the expense the Council should do what was possible towards increasing the supply. The motion was carried.

ADELAIDE.

The Leith Napier Case.—Government Recognition of the Branch.—Dental Act.—Nursing Associations.—Defence Association.

The Chief Justice this week delivered his judgement in the action brought against the South Australian Government by Dr. Leith Napier, to which I alluded in my last letter (published September 24th). Dr. Napier fell from his horse whilst on duty with the second contingent dispatched from Adelaide to the South African war, and he claimed compensation to the amount of £6,500. The learned judge, while deciding in the plaintiff's favour on certain points—to wit, that he was a member of the military forces, and that he was on military duty under the local Defence Act—found that he was not on "actual service" as defined by the Act, and therefore not entitled to compensation; but his Honour allowed that it was a hard case, and one, therefore, in which it would be a gracious act on the part of the Government not to press for the costs.

The South Australian Branch of the Association has recently been recognized as a representative institution in a more or less gratifying manner on more than one occasion. The Government consulted it on the subject of the most suitable site for a home for incurable consumptives. It is true that it did not wait for the Branch's opinion before taking action in the matter, but such a *rapprochement* would have been impossible a few years ago. Then, again, the Government inserted a clause in the amended Dental Act, allowing the Branch to elect the two medical members of the Board; under this provision Drs. Brummitt and Cudmore were appointed. Still more recently a communication has been received from the Vice-Admiral commanding the Australian Station, inviting the Branch to co-operate with the University in endeavouring to establish an Australian contingent of medical men willing to serve in the Imperial Naval Reserve in time of war.

The Dental Act does not seem to wear well, seeing that, although only passed in 1902, it required an amending Act in 1904. There has been a suggestion that a dental school might be established, as in Melbourne and Sydney, but the dental profession is opposed to it on the combined grounds of overcrowding and of inability to conduct the teaching properly.

Nursing matters are considerably in evidence just now, owing to the inauguration of a local branch of the Australian Trained Nurses' Association, under the presidency of Dr. Lendon. The Society has its headquarters in Sydney, with a membership of 1,000, including the Queensland branch; this as a result of only five years' work is very creditable. Its operations here will be slightly handicapped by the previous establishment under viceregal pressure, I am told, of the Royal British Nurses' Society, which is quite unsuited to South Australia's wants, since it only recognizes the Adelaide Hospital, and it ignores the excellent work performed in training nurses at several private hospitals, as well as other public institutions.

The Medical Defence Association of South Australia, which relieves our Branch of the necessity for dealing with many of the ethical and politico-economical questions which from time to time crop up, is in a flourishing condition, and is at present devoting its energies, so I understand, to an investigation of the abuse of the public hospitals, amongst which our latest charity, the Queen's (Maternity) Home, is probably the greatest offender; that the coming generation of practitioners will feel the effects of all this abuse is certain, as even the present is commencing to smart under it.

CORRESPONDENCE.

PROPOSED CONFEDERATION OF THE LONDON MEDICAL SOCIETIES.

Sir,—The advantages of having only one medical society in London must be patent to every one. The only objections that can be raised against the scheme are of a sentimental character. I sincerely hope that the Fellows of the Medical and Medical and Chirurgical Societies will not on April 10th follow the bad example of the Medical Defence Societies.—I am, etc.,

Harrogate, April 1st. William Bain.

THE CORONERS BILL.

Sir,—May I be permitted to express my satisfaction at Dr. Harthill's letter in the British Medical Journal of March 25th, (p. 693) *re* the draft a Bill to amend the law in relation to coroners? The fee of one guinea for giving evidence where a whole day is occupied is obviously inadequate, and with respect to the guinea fee for a *post-mortem* examination I should like to point out the want of any provision, either existing or proposed, for the payment of travelling or out-of-pocket expenses where the examination has to be made more than one mile from the practitioner's residence. My own experience must coincide with that of many others who have had to travel four or five miles to make an examination, involving cab hire and detention for at least three hours, with frequently a second journey to some neighbouring inn to give evidence, and yet no provision is made for travelling expenses for these journeys.

Furthermore, in the Supplement of March 11th, page 90, relative to the certificate of the fact of death a fee of 2s. 6d. is proposed to cover a three mile radius. Surely, even if so low an initial fee as 2s. 6d. is considered adequate, the radius should be one mile, as in the recommendation for payment for the certificate of the cause of death.

In calling attention to these points, I wish to emphasize what appears to escape notice, namely, that where a proposal for fixing a legal scale of fees is under consideration, the loss of time and the approximate cost of travelling should be allowed for as out-of-pocket expenses, seeing that even if the practitioner uses his own conveyances, such use should be regarded as equivalent to the cost of hiring.

With reference to other matters, it would be well to substitute a definite fee for such expressions as "not exceeding one guinea," in order to avoid any friction that may arise when such a matter is left to the discretion of an often adverse authority whose sole object is to cut down expenses. Such a matter as this last would hardly be conceived of as being worthy of mention had not similar friction already arisen over the new regulations as to witnesses' fees, where the practical interpretation has become very different to the original intent in some instances.—I am, etc.,

Lichfield. F. M. Rowland.

THE TEACHING OF MIDWIFERY.

Sir,—Dr. Dakin makes a sensational charge against general practitioners; he alleges that the excessive mortality from puerperal sepsis is due to the failure of medical men to adopt the principles of antiseptic midwifery. He brings not a shred of evidence forward beyond his own personal belief; he believes that the substitution of "the pink of cleanliness and purity of linen" for "the dirty, snuffy old person" has effected a marked improvement in the death rate from sepsis; he believes that the introduction of antiseptics has banished this cause of death from lying-in charities and hospitals; he believes, in consequence, that the increase of deaths from sepsis is due entirely to the ignorant or careless doctor whose training in midwifery has been in the hands of Dr. Dakin and his teaching *confrères*. Well, if it is so, the teaching must be

horribly incompetent even in inculcating ordinary cleanliness, for we find that the actual increase of septic deaths from the pre-antiseptic period—1851-70—to the antiseptic period—1881-1900—is no less than 60 per cent.

In the pre-antiseptic days the general practitioner was not responsible for more than half (to put it high) of the births; he attended, say, 5,000 out of every 10,000 births, and lost 7 from septic causes; to-day he attends certainly not more, and according to Dr. Dakin loses 24. It takes some credulity to believe that the knowledge of antiseptics imparted by Dr. Dakin and his colleagues has increased the septicity of the medical man threefold. Why does not Dr. Dakin bring forward some facts? It is easy to ascertain how many of these 1,668 deaths were attended during labour by medical men, and how many were not so attended.

The whole accusation is a fallacy based on some notion that puerperal sepsis is due to a microbe on a male digit, which, if not washed off in the prescribed bowl of the latest antiseptic fad, is introduced into some laceration, and produces sepsis.

It is true that some cases of bacterial disease arise by direct infection, but it is equally true that such pathogenic organisms as the pneumococcus and the diphtheria bacillus in the throat, B. coli communis in the intestine, or staphylococcus and streptococcus in the skin, may remain absolutely quiescent until suitable conditions enable them to assume a virulent form. We know that in the female genital tract there are many bacteria which are pathogenic in their virulent phase, and it is quite certain that sepsis may and does arise from the conversion of harmless into virulent forms.

In the second place, the patient's constitution is to be considered. To what extent may a protracted labour not diminish the protective bacteriolytic properties of the tissues?

Lastly, the abraded surface is always present for inoculation to take place. In all cases there is contusion and stretching, in most some perineal wound, large or small; in all there is the site of the detached placenta.

The three conditions necessary for sepsis are in no way amenable to antiseptic treatment; you cannot disinfect the vagina, etc., you cannot determine in advance the bacteriolytic powers, and you cannot seal up the placental site.

Early application of the forceps is the great safeguard against sepsis; it prevents prolonged pressure on soft parts; it does away with subsequent uterine inertia and general exhaustion; it, in fact, removes the two great aids to sepsis; it prevents, by enabling persistent uterine contraction to occur, the alternate contraction and relaxation of the muscles which makes the cavity of the uterus a suction pump into which, the one invariable open wound, the contents of the vagina are drawn. In the second place, we know that immunity, bacteriolysis, can be suspended or inhibited during fatigue or exhaustion. Hence the use of forceps certainly militates against sepsis, and since the forceps never enters the uterine cavity (or should not), it cannot introduce microbes there; the blades of the forceps, of course, lie between the fetal head and the membranes—that is, within the amniotal sac.

It would be very much to the point if obstetric teachers would spend more time on teaching students how and when to use forceps with skill and gentleness than on repeating *ad nauseam* the antiseptic precautions which have been replaced in surgery by cleanliness; for I believe that most of these septic cases might have been saved if the forceps had been applied in time to prevent the supervention of conditions favouring virulence in the organisms and exhaustion and uterine inertia in the patient. It follows that whether these cases were in the hands of midwives or of doctors, the true cause of the sepsis differed by a whole world from a failure of antisepsis.

May I suggest that Dr. Dakin makes an *amende honorable* to his slandered professional brothers?—I am, etc.,

April 3rd. G. P. (1890).

THE POOR-LAW SERVICE IN IRELAND.

SIR,—Professor White is at some pains to show in the BRITISH MEDICAL JOURNAL of April 1st that the Irish College of Surgeons has no monopoly of hostility to Surgeon-General Evatt's now famous report. It may be recollected that I originally quoted from the *Irish Times* of February 27th in my account of the annual meeting of the Leinster Branch. In that paper Sir William Thomson is stated to have proposed a vote of thanks to Sir Thomas Myles for "his interesting and important address." Dr. O'Carroll seconded the motion, and Dr. Donnelly supported it. Of these four names three are members of Council of the College.

I regret that Professor White complacently accepts an attendance of 33 as an average one out of 337 members of the Leinster Branch. It would be interesting to know if indifference alone was responsible for the absence of the well-known teachers of the city hospitals, such as the Adelaide, the Mater Misericordiae, St. Vincent's, Dr. Steevens's, and Jervis Street Hospitals. At the same time, the City of Dublin Hospital, Sir Patrick Dun's, and the Meath Hospital were represented by units or two or three members at the most. Perhaps if the business agenda were distributed some time before the meeting an improved attendance might be recorded, and in any case the charge of springing contentious matter upon the members could not be sustained.

Dr. White's argument that the few Poor-law doctors present on February 25th were quite sufficient to represent their interests is hardly justified by his allusion to the 1903 meeting. In the latter case it was well known that the British Medical Association were sympathetically inclined, the grievances were known, and no contentious elements were anticipated. Every one agrees that the "confidential" report must from its nature be contentious, and, if discussed at all, due notice should have been given.

It must be recollected that Professor White is a teacher in the Royal College of Surgeons, and when he adds his opinion that Surgeon-General Evatt's report has brought "disruption and the sword" he sympathetically reflects the prevalent views of his College. I am pleased that the Professor mentions these two factors jointly. In the hands of an able wielder of the sword disruption may speedily give place to order, and the grievances of the Poor-law services may not be made subservient to the medico-political exigencies of collegiate aspirations. I am glad already to see the "confidential" report bearing fruit and a candidate coming forward next January to contest the Direct Representation for Ireland. Since 1886 a member of the College of Surgeons' Council has held that office. This gave the College two votes on the General Medical Council, for even a Direct Representative cannot serve two masters.

Professor White, I notice, does not criticize that portion of my letter referring to violation of charters. I should have welcomed any explanation of his on a matter that has contributed materially to lessen the status of the F.R.C.S.Ire., and incidentally all other diplomas granted by the College. It was only last month that Mr. A. Chance, the President of the College, was deploring the refusal of the English College of Surgeons to grant *ad eundem* Fellowship to the Irish brethren. Some four years ago I pointed out to the Dublin College in a printed document the bad effect that these charter irregularities would occasion in this respect. Events have amply borne out my prediction.—I am, etc.,

London, N.W., April 3rd. S. WESLEY WILSON.

SURGEON-GENERAL EVATT'S REPORT.

SIR,—Nothing has occurred in Irish medical circles within the past quarter of a century that has aroused such keen interest and criticism as the suppression of Surgeon-General Evatt's report on the organization of the Irish Medical Association. Whether the statements contained therein *re* the Colleges of Physicians and Surgeons in Dublin, which I am informed caused the suppression, be true or false, the section of the Council which carried such a coercive resolution must surely feel that the "suppressed" report is much more powerful now than it might have been. In the interest of the Irish Medical Association, it is to be hoped that before the special general meeting which I believe is to be summoned, the Council will recognize that independent members will not tolerate such suppressive and unconstitutional conduct.—I am, etc.,

Dublin, April 4th. EDWARD MAGENNIS.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

SIR,—My answer is in the affirmative, as I believe that the chances of a quick and permanent recovery are better at a sanatorium than elsewhere. My reasons for this conclusion are as follows:

1. The patient is placed at once under favourable conditions, and away from the original source of infection. "Aid Nature" is the keynote of all treatment. This is precisely what a sanatorium does.

2. From home to a sanatorium means change of air and scene. Great factors these are in the treatment of any chronic disease.

3. Proper hygienic surroundings. How many homes fulfil these conditions? If the patient's home is in a large town the treatment of active tuberculous lung trouble cannot be seriously entertained there. The death-rate of the town may be low and its sanitation perfect; but take cultures, and mark the result. The discovery of antiseptics was a great boon to mankind, but asepsis is the scientific goal of the present day. If the patient's home is in the country the surroundings are better, and some measure of success will attend the treatment; but the objection remains that he became infected there, and that he will lack the great benefit of change of air.

4. Proper habits are cultivated and vicious ones avoided, which is an important feature in the treatment.

5. Food, clothing, and exercise are regulated. The due proportions of the different articles of diet, which is such an essential element in the treatment of this disease, and its variation according to circumstances, is somewhat complicated for the ordinary household.

6. Going to a sanatorium inspires a patient with the confidence that he is to have special treatment. Here we have the great factor of the influence of the mind over the body. Forget for a moment that you are a medical man, and cast aside your contemptuous familiarity with disease, and try to imagine what the "inspiration of confidence" means to the lay mind, knowing as you do how he magnifies his ailments and the virtues of his remedies.

7. Patients are under trained and constant observation. The value of this is incalculable. The general practitioner treating his patient at home may give admirable instructions, but are they obeyed and how? He has not the time to devote to any single case, and insist on the observance of these new laws of health. Friends are indulgent and patients often wilful. The fallacy of the "apparent cure" is the result of many causes. The lay press has boomed sanatoriums, and the public expect too much. Sanatoriums may with justice cry, "save us from our friends." They sprang up to meet a demand, but have been expected to do impossibilities. Patients in every stage of phthisis sought their help. The early and mild cases were rewarded, but the very advanced ones were hopeless. The early cases, though vastly improved and apparently cured, left before it was possible for a tuberculous lesion to be properly cicatrized, and, returning to the old surroundings, the mischief set in again. No matter how perfect a cure may be, we cannot expect a wounded lung to resist conditions which it succumbed to when whole. A few months' treatment is insufficient to cure tuberculous disease. How long will a broken-down, discharging, tuberculous gland take to heal without any local treatment? Statistics and notes of cases, and the percentage of apparent or real cures, at sanatoriums or elsewhere, are best avoided at present, as the former can be made to prove anything, being necessarily incomplete, at this early stage of the open-air treatment.

The personal element or the subtle question of varying degrees of immunity being indeterminable may be counted for or against the claims of sanatoriums, so cannot be reckoned with in this controversy. I have no pecuniary interest in any sanatorium, but am convinced of their great value.—I am, etc.,

John Francis O'Malley, L.R.C.P. and S.I.

London, N.E., March 21st.

Sir,—When the first of the letters appeared in the British Medical Journal under the heading "The Sanatorium Treatment of Phthisis: Is it Worth While?" I was inclined to leave the discussion to those who were not likely to have any special financial interest in this method of combating consumption, in the hope that some valuable opinions might be forthcoming from physicians who, whilst not themselves possessed of sanatoriums, might nevertheless be well informed upon the subject. It has been disappointing, however, to find that some of the contributions to the discussion have given evidence of such unpardonable ignorance that one feels constrained to agree with Dr. Annie McCall that "It is necessarily those who are interested in sanatoriums who are able to write on the subject."

Every physician with practical knowledge of the sanatorium treatment knows that the vast majority of patients received in the incipient stages of the disease derive the greatest benefit, generally amounting to an arrest of the tuberculous process, and that even in advanced cases the symptoms are almost invariably relieved and life is prolonged, whilst in no case does the treatment prove detrimental, and I do not doubt that every such physician can, like myself, count in considerable numbers friends, formerly patients, who are living and enduring evidences of the value of the treatment. It is common knowledge that patients progress more satisfactorily in the winter than in the summer months.

My intention in writing this letter is not to deal with the broad question as to whether the sanatorium treatment is worth while, beyond asserting that the answer to the question can only be answered by the strongest affirmative. I think, however, that the letter from Dr. James Ross, published in the issue of the Journal dated March 4th, calls for some comment.

Dr. Ross describes an open-air sanatorium as a building in three tiers, and states that "all sanatoriums seem to be built on the same plan," adding that patients in tier one may recover, but that the chances of patients in the second story are greatly diminished, while those on the third story would be better almost anywhere else than in a sanatorium." This is, doubtless, an exaggerated view, and so far as the construction of an ideal sanatorium is concerned, an entirely erroneous one.

The building in three stories can never be regarded as an ideal open-air sanatorium, which should consist of isolated sleeping châlets arranged around a central administrative block; each châlet should have windows opening in four directions, so that those on the exposed side may, when necessary, be closed, the others remaining open. In such a châlet, pure air free from chilling draughts is secured, and in my own experience, patients who occupy such châlets make much better progress than those accommodated in the best of rooms in a large building.

There is an additional importance in the recognition of this fact, in that a châlet sanatorium can be erected and equipped for a tenth of the cost usually incurred in building a substantial hospital-like institution. Happily, several sanatoriums for the consumptive poor have recently been erected on the châlet principle at a cost of less than £100 per bed, which contrasts favourably with the much larger amounts which have occasionally been expended on open-air sanatoriums.—I am, etc.,

London, W.C. Charles Reinhardt.

A SIDELIGHT ON MEDICAL EDUCATION.

Sir,—May I ask your correspondent, Dr. H. Elliot-Blake, to quote (1) the dates of the examinations to which he refers in his list of "twelve competitions" in the British Medical Journal of February 11th, 1905; (2) the branch of the Service for which these competitions were held; (3) the proportion of diplomates to graduates at these examinations?

Obviously, if ten candidates compete for ten vacancies, and among them ten are diplomates and none are graduates of, let us say, London University, the ten diplomates will show a record of success unequalled or approached by London University candidates. It is not difficult to show a record of success for any qualifying body by careful selection of lists. The Victoria University, for example, had a total of four candidates competing for the I.M.S. in the three examinations held for that service in 1895-6. Those for candidates obtained the first place consecutively twice, a second place, and a third place. The same success has been obtained by other universities. But we do not find them compiling tables to show their pre-eminence among medical qualifications.

If, however, your correspondent really wishes the medical public to believe that the English Conjoint diplomates (without other qualifications) are "50 per cent. more successful in obtaining the highest place" at open competitions for the I.M.S. than are the graduates of the universities, let him give us a list embracing a period sufficiently long for the purpose of drawing comparisons (a period of not less than twenty years I would suggest), and this list should furnish particulars of the number of competitors on each occasion, the proportion of differently qualified candidates, and it should refer only to whatever branch of the public service attracted the highest competition for each year respectively.

Lastly, it should be remembered that a very large proportion of medical students take the Conjoint diploma or L.S.A. before the final examination of their university. If these jointly-qualified candidates are claimed by the diplomates as successes for the diploma there is a slight fallacy in the deductions drawn.—I am, etc.,

I.M.S.

PROPORTION OF FAT IN CONDENSED MILK WHEN DILUTED.

SIR,—Had my comments on the analysis of the dilution of condensed milk in Dr. Hutchison's book been founded on an estimation of the fat percentage alone it is quite possible that I might have been misled by the source of fallacy that he points out in his letter in your issue of February 18th, p. 390. Indeed, it came as a surprise to me that the weight of an average teaspoonful of condensed milk, measured in the ordinary way, amounted to as much as 12 grams. As Dr. Hutchison, however, vouches for this fact, he has, doubtless, convinced himself of it by personal experiment. But, granting that a teaspoonful of condensed milk weighs fully 12 grams, I would still repeat that the analysis he furnishes must be incorrect, and, coming from one of his authority, might be "gravely misleading." In his book the fat percentages of the condensed milk and the proposed dilution are placed at 13 and 1·6 respectively; but in his letter, with a higher fat percentage (13·9) in the milk, Dr. Hutchison reduces the fat in the dilution to 1·3 per cent. As he points out, the difference between these two fat percentages in the solution is small, but in a proposed food for infants, where the fat element is so obviously defective, this difference may be of not inconsiderable importance. There is no need, however to labour this point. My comments were not founded on the fat percentage alone.

In the analysis of the dilution (1 to 24) in his book, the percentages of the different ingredients are given as: Proteid, 2·0; fat, 1·6; sugar, 8·17; and ash, 0·34. Now, with a fat percentage of 13 in the undiluted milk the analysis given of the dilution makes the percentages of proteid, sugar, and ash in the undiluted milk to work out at 16·2, 66·3, and 2·8 respectively. Now, when the different percentages are added together they amount to over 98, so that the water in the undiluted milk is barely more than 1 per cent. If we take Dr. Hutchison's figures as amended in his letter, with a fat percentage of 13·9 in the milk and one of 1·3 in the dilution, then a greater difficulty still arises. Assuming that no mistake has been made in the other ingredients in the dilution, then the percentage of proteid in the milk works out at 21·4 and that of the sugar at 87·3, thus giving a milk of impossible composition. In justice to his work, which is worthy of a wide circulation, Dr. Hutchison should give an adequate explanation of these apparent anomalies, or else a frank acknowledgement that an error has been made.—I am, etc.,

THE REVIEWER.

*** The publication of this letter has been accidentally delayed.

THE CAUSATION OF PLEURISY.

SIR,—Dr. G. A. Gibson has done me the honour of commenting upon my letter and has made some kind remarks about myself of which I feel that I am unworthy.

There is nothing in Dr. Gibson's letter from which it would be possible to differ, yet it seems to me that one of my suggestions has not perhaps been very clearly understood, namely, that the causation of pleurisy occurring in an apparently healthy person should be considered in a different light from that of pleurisy arising towards the end of a chronic illness, such as Bright's disease or some cardiac affection.

Dr. Flexner has pointed out that septic microbal infection occurs towards the end of most chronic illnesses, and pleurisy occurring as a complication of such illnesses is, in many instances, without doubt the result of such infection.

It is interesting to note that in cardiac disease an infarct is almost invariably the starting point of pleural effusions. The lowered vitality of the lung and of the pleura over the region of the infarct allows the invasion of micro-organisms which set up pleurisy. It may be mentioned in passing that textbooks sometimes suggest that it is not easy to understand why, in cardiac disease, pleural effusions should frequently occur only on one side. When the fact is appreciated that an infarct is the starting point of infection which leads to effusion, whatever mystery there may have been disappears.

With regard to pleurisy occurring in an apparently healthy person, it is necessary to admit that, although when death occurs some years later evidence of old tuberculous disease may be found, it does not of necessity follow that the tuberculous lesions are a proof that the pleurisy was tuberculous. They suggest such a causation but do not prove it. As Dr. Gibson indicates, in some instances no doubt the pleurisy and the tuberculous affection occurred at different periods of the patient's life. In other cases possibly the lesions due to the tubercle bacillus act like the infarct. They make a way to the pleura for other more irritating micro-organisms.—I am, etc.,

Clifton, April 1st. THEODORE FISHER.

TREATMENT OF OTITIS MEDIA.

SIR,—The letters of Dr. Smurthwaite and Mr. Faulder White open up a large and important subject, and one which the British Medical Association might well take up. Dr. Smurthwaite has asked that something should be done to rescue the multitude of children now suffering from otorrhœa. He might have widened his suggestion by adding non-suppurative diseases of the ear as well, for there are at least as many children who are becoming useless citizens through deafness as there are of those whose lives are hourly menaced by pus in the middle ear.

The matter is one which concerns the State closely, but, as is too often the case with other matters of importance, the Government ignores it altogether. In 1902 the disgraceful neglect of one of the most important of a child's senses was shown by Mr. Arthur Cheatle in his report on the examination of the ears of a thousand school children between the ages of 3 and 16 years in the Hanwell District School, including the Ophthalmic School, read before the Otological Society of the United Kingdom. Although this made sufficient stir for a question to be asked concerning it in the House of Commons, nothing resulted, and for all one knows to the contrary, these children may be as neglected now as then.

It requires a strong and influential body of men—such an one as the Association—to take the matter up with the intention of carrying it on to the end. Perhaps then the Government might be made to see that it was a matter of as much importance to attend to the ears of State-educated children as it is to appoint ophthalmic surgeons to attend to their eyes.—I am, etc.,

London, W., April 3rd. MACLEOD YEARSLEY, F.R.C.S., Surgeon to the Royal Ear Hospital.

OBITUARY.

THOMAS MORTON, M.D.Lond., M.R.C.S.Eng.

WE much regret to announce the death of Dr. Morton, which occurred at his residence, Greville Road, Kilburn, on March 27th. He had been in active work until six months previously, and was feeling the need for rest, when severe sciatica ensued. After a fortnight in bed the pain was subsiding, when dry pleurisy developed on the left side, soon followed by a still sharper attack of pleurisy with effusion on the right side. Again, however, he seemed to be slowly recovering, when, quite without warning, a sudden syncopal atttack occurred and ended fatally in a few minutes.

Dr. Morton was of Scotch extraction on both sides. His mother was a Bruce, and his father was the Rev. James Morton, Vicar of Holbeach and Prebendary of Lincoln, who was first cousin to the Scottish poet and orientalist, Dr. John Leyden, the literary friend of Scott. The Rev. James Morton was himself a man of learning, and one of the first Anglo-Saxon scholars of his day. Dr. Morton was born at Holbeach on November 1st, 1836, and was educated at Westminster School, where he was a "Bishop's Boy," or scholar on Bishop Williams's Foundation. He proceeded in 1854 to Queen's College, Cambridge, but left in the following year, having been offered a clerkship in the Secretary's office of the General Post Office. After serving with credit for three years he decided to leave the Civil Service and enter the medical profession.

He matriculated at the University of London, being second in classics, and entered at King's College in 1858, taking a Warneford Entrance Scholarship, and another scholarship at the end of the first year. While there he assisted in raising a company of the Queen's Westminster Volunteers among the students, and held a commission. He took the diplomas of the Royal College of Surgeons and the Apothecaries' Society in the spring of 1862, and spent the summer in the Paris hospitals. He graduated M.B., with honours, at the University of London in November, 1862, and proceeded to the M.D. degree in 1865.

Settling at Kilburn in 1863, he married in the following year a daughter of the late Mr. William J. Thoms, F.S.A., Librarian to the House of Lords, and originator of *Notes and*

Queries. He joined the C.E.T.S. in 1875, and became a total abstainer, and the temperance cause became thenceforth very near his heart. He published some valuable contributions to the literature of the subject; one of these, on *Alcohol in Arctic Exploration*, attracted much notice, and was translated into Dutch. Another paper on the mortality referable to alcohol led to the appointment of the Committee of the Harveian Society, which presented a valuable report on the same subject. He worked hard for the Committee and drafted the report. He was also chairman of a small Committee of the British Medical Association, which presented a report upon the consumption of alcohol then and twenty-five years previously.

Dr. Morton was Chairman and Consulting Medical Officer to the Kilburn Provident Medical Institute, which owed its inception to his efforts and initiative thirty years ago (1874), when a scheme was drawn up for its management for which he was mainly responsible. He was a Vice-President and member of the Council of the Society for the Study of Inebriety; and acted as secretary of an important committee which investigated the question of alcoholism and its heredity transmission two years ago; and he had been on the Council and Treasurer of the British Medical Temperance Association since 1884.

Of late years Dr. Morton had taken a deep and increasing interest in the subject of heredity and the transmission of predispositions and tendencies in the mental and psychical sphere, his thoughts being led in this direction largely by his observations during his professional life upon the morbid effect of parental and especially maternal intemperance upon the children. He also published various other papers, chiefly upon the subject of intemperance. He was a Vice-President of the Metropolitan Counties Branch of the British Medical Association, and a President of the Harveian Society. He constantly attended the annual meeting of Fellows and Members of the Royal College of Surgeons at the College, and often proposed resolutions having for their object the representation of the Members on the Council.

Altogether he was a man of wide sympathies, great industry, and energy, and was the object of respect and esteem of a large circle of patients and friends. He was a man without guile, always crediting others with the same transparently honest motives as those which actuated himself. His wife and sons and a daughter survive; his son, Dr. J. L. Morton, had been his partner for some years.

The death is announced from New Zealand of Mr. James Payne Baker, of Tauranga, Auckland. He was originally a student at Edinburgh, and became L.R.C.P. and S. in 1876, and a Fellow of the College of Surgeons of Edinburgh in 1879. After a certain amount of work in England he went out to New Zealand, and there gained a distinct if not very prominent position as a medical man earnest in all he undertook and sincere in all his ways. He took a great interest in Church matters, and for long acted as a lay reader, and conducted services in places which regular clergymen could but rarely visit. He was a member of the New Zealand Branch of the British Medical Association, and a Mason of standing in the craft.

We regret to have to record the death on April 2nd of Dr. James Alexander, of Paignton, President of the South-Western Branch of the British Medical Association. We hope to publish a biographical notice in a subsequent issue.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Lombard, Director of the Medical School of Caen; Dr. Parinaud, a well-known Paris ophthalmologist, author of works on eye diseases, aged 60; Dr. Collinot, representative of the Yonne Department in the French Senate; Dr. W. H. McPheeters, the oldest physician of St. Louis, formerly professor of clinical medicine in the St. Louis Medical College and associate editor of the *Medical and Surgical Journal* of that city, aged 89; Dr. Bobroff, Professor of Surgery in the University of Moscow, President of the Russian Surgical Society and author of numerous contributions to surgical literature, aged 55; Dr. G. Piotrowski, *Privatdocent* of Physiology in the University of Lemberg; Dr. Andreas Chodin, of Kieff, a leading Russian ophthalmologist, author of monographs on the simulation of blindness and defective vision, on practical ophthalmology, on ophthalmoscopy, and on operations on the eye, founder, and for many years sole editor, of the Russian *Westnik Oftalmologii* (Journal of Ophthalmology), aged 58; Dr. Theodor Bornhaupt, sometime Professor of Surgery in the University of Kieff, aged 63; and Dr. Alfred Frantzen, a well-known gynaecologist of St. Petersburg, aged 42.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL MEN AND THE LAY PRESS.

The gentleman, whose interview with a reporter we referred to in the British Medical Journal of March 25th, writes to say that the interview was "almost necessitated by a most blood-curdling and exaggerated article in the *Daily Express* the previous day," but that much of what was put into his mouth was "the creation of the reporter who was doubtless anxious to undo the mischief he had done."

*** While we are glad to give publicity to this explanation it only serves to emphasize the objection to giving such interviews.

CIRCULARISING THE PROFESSION.

With regard to the post card issued by a resident medical practitioner to the profession in the Manchester district, referred to in the British Medical Journal of March 25th, we learn that there are special circumstances which entitle him to sympathy. We should regard it as most unfortunate to allow a precedent of this nature to be established by what is undoubtedly a hard case. There is a well-known legal maxim that "Hard cases make bad laws."

SECRET COMMISSIONS.

A correspondent sends the following advertisement cut from the *Scotsman* of March 22nd:

Medical.—Chemist wishes to meet with doctor desirous of creating a practice in country town; good district; commission given.

He adds, "Apparently Mr. Justice Fry's remarks on secret commission are true in fact, when it is thus openly advertised."

*** We have never denied that offers of secret commission have been and are made to medical practitioners. What we have denied is Sir Edward Fry's assertion that it was the practice of the medical profession in this country to accept them. We can only trust that we are right in supposing that such an offer will not meet with any response.

"MESSAGES RECEIVED."

It has been repeatedly pointed out that, as a general rule, a notice in a shop window that messages are received for a medical practitioner is an unjustifiable advertisement, only permissible in very scattered country districts. In the present instance, if this excuse does not exist, the matter should be referred to the Division to which the member of whom complaint is made belongs.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.

Promotion to Lieutenant-Colonel.

It has been decided that promotion to the higher grade of Lieutenant-Colonel in the Indian Medical Service, in place of an officer transferred to temporary half-pay, is to be permanent, the officer so promoted becoming supernumerary in the event of the officer transferred being restored to the effective list.

MEDAL FOR NORTHERN NIGERIA, 1903.

The King has been pleased to approve of the Africa general service medal with clasp, inscribed "N. Nigeria, 1903," being granted to those officers and others of the Imperial and Colonial forces engaged in the Sokoto-Burmi, Northern Nigeria, military operations between April 15th and July 27th, 1903, both dates inclusive, who have not received the medal and clasp under Army Order 171 of 1903. Those who are already in possession of the Africa general service medal, but have been awarded the clasp "N. Nigeria, 1903," will receive the clasp only.

INCREASED PAY TO INDIAN MEDICAL SERVICE.

The *Pioneer* (an Indian newspaper) announces that the Secretary of State has agreed to the proposals of the Government of India to increase the pay of civil surgeons, with retrospective effect from April 1st, 1904. The increase to officers of the Indian Medical Service in military employment has effect from the middle of August, 1903.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MILKBORNE SCARLET FEVER.

Dr. Stuart Pethick, the Medical Officer of Little Woolton in Lancashire, has furnished an interesting report on a recent outbreak of scarlet fever traceable to milkborne infection. The population is 1,501, and at the end of March and beginning of April last year there was a sudden occurrence of scarlet fever (30 cases), from which the district had been free. Twenty-eight of the patients received their milk supply from the same dairy farm, and the remaining two probably drank the implicated milk on more than one occasion. Households were attacked in proportion to the amount of milk consumed, those consuming most being most attacked, the incidence

being greatest among children. The infection in the milk was continuous for some ten days, but its exact source was not determined. The sanitary conditions of the farm and the methods of dairying were good. No persons in the farmer's family or among the milkmen or their families had recently suffered from scarlet fever or any disease simulating it. The cows were also healthy and well kept, with the exception of one which appeared to be suffering from nephritis. Bacteriological examination of the milk from this cow revealed no pathological condition. The circumstances of the outbreak point definitely in the direction of milkborne infection, but the exact way in which the milk became infected remains obscure.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

THE Royal Commission on the Care and Control of the Feeble-minded sat again on April 3rd.

Dr. HERBERT SMALLEY, Medical Inspector of H.M. Prisons in England and Wales, having described the methods in use for dealing with weak-minded inhabitants of local prisons and convict establishments, expressed the view that it was not desirable that such persons should be consigned to gaol.

Dr. G. B. GRIFFITHS, Deputy Medical Officer and Deputy Governor of Holloway Gaol, said he regarded the practice of giving feeble-minded offenders repeated short sentences of imprisonment as unscientific in principle and unsatisfactory in result. These persons thus became habitual criminals, who preyed on the public when at large and lived on the taxpayer when in prison. There should be special institutions to which the court which tried feeble-minded persons could send them if convicted. Their treatment should be individual and on medical lines, and their classification should be exact; they should be detained for prolonged periods in pleasant, healthy surroundings and taught some manual occupation.

Dr. A. EICHHOLZ, H.M. Inspector of Schools for the Blind, Deaf, and Defective, indicated the need for new legislation in the way of securing the compulsory attendance at suitable schools of all feeble-minded and epileptic children, and the detention, permanent and temporary, of all persons morally unable to help themselves. In view of the successful working of the Blind and Deaf Education Act, which was compulsory, he thought a new Act of the kind described would be successful also. Much could be done indirectly to arrest the serious evil of feeble-mindedness by attacking the much more extensive evil of physical degeneracy from which it sprang.

THE ADMINISTRATION OF THE MIDWIVES ACT, 1902.

DR. R. R. RENTOUL (Liverpool) writes: The Liverpool City Council has appointed its Health Committee to act as "the Local Supervising Authority" under the above Act, and the latter body has passed the following resolution: "That in cases of urgency in which medical practitioners have been called in by certificated midwives as contemplated by Rule 17 of the Rules issued by the Central Midwives Board, pursuant to Section 111, Subsection 1, of the Midwives Act, 1902, a fee not exceeding 1 guinea be paid, on the certificate of the medical officer of health, to each such medical practitioner, in the event of his failing to obtain payment of his fee from the patient or from the Poor-law authority." This resolution is somewhat ambiguous. For instance, the fee is not 1 guinea, and therefore a fee of 5s. may be paid; and, again, the medical practitioner must prove to the medical officer of health that neither the patient nor the Poor-law authority will pay the fee. Also, the fee is to entirely cover *any* difficult obstetric operation, or merely one visit. I would suggest that a fee varying from 21s. to 44s. be paid by the local supervising authority for an obsteric operation, and a 5s. day and a 10s. night visit for an ordinary visit. One must ask, if the "agents" of the local supervising authority advise that a medical practitioner be called in, is their agent or authority responsible for payment of the fee? I do not think either the agent or the authority is, because Rule 17 of the Rules of the Midwives Board states only that in certain cases "a midwife must decline to attend alone, and must *advise* that a registered medical practitioner *be sent for*." Again, in Rule 19 (*b*) nothing is said regarding payment! It simply states that a woman "requires medical assistance at once on account of ——. Signed ——, Midwife." In fact it is careful to avoid making any request for the practitioner to attend, or promise to pay. I think every practitioner should carefully study these official Rules. A copy can be obtained from Spottiswoode and Co., New Street Square, London, for 7d., and the Midwives Act for 2d.

BACTERIAL DIAGNOSIS OF DIPHTHERIA.

LOEFFLER'S BACILLUS.—In those districts in which bacteriological examinations are systematically carried out in cases of suspected diphtheria it is the custom to ask the practitioner in attendance upon the patient to procure the material for cultivation, but where the clinical signs are well marked and the medical attendant does not consider it necessary to call in the aid of bacteriology it would be most undesirable for the medical officer of health to himself swab the patient's throat. To do so would be to break the most important rule of conduct of a medical officer of health—namely, never to see the patient of another practitioner except with the latter's consent or in consultation with him.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

The Lord Rectorship.

THE Right Honourable R. B. Haldane, K.C., LL.D., M.P., has accepted the invitation of the Executive of the University Liberal Association to stand as their candidate at the next Rectorial election in November. Mr. Haldane is a graduate of the University.

First Professional Examination.

The following candidates have been approved in the subjects indicated:

Physics.—D. C. Adam, F. Armstrong, Janet Armstrong, Alice E. M. Babington, T. H. Balfour, G. L. Batra, A. E. C. Beausoleil, B. J. W. Bennetts, J. G. Boal, T. C. Borthwick, A. M. Bose, E. O. Bowen, T. S. Bradburn, G. E. K. Branch, W. G. Brand, S. W. Brackenridge, J. A. Browne, W. F. Buist, O. S. Bullock, W. L. Burgess, A. D. Campbell, J. A. Campbell, R. B. Chamberlain, J. P. Charnock, A. D. Child, W. F. Christie, H. A. Cookson, N. A. Coward, J. S. Crichton, Lucy E. Davies, Jemima B. Dickie, J. K. K. Dickie, I. D. Dickson, Adelaide A. Dreaper, F. A. Duffield, W. Dunlop, A. H. Elmslie, H. G. Fellham, G. F. Fismer, C. C. Foster, F. B. Fraser, W. T. Gardiner, Mary M. Gardner, H. L. de F. Garland, G. H. Garnett, A. W. Gill, W. E. Goss, W. T. Graham, D. M. Grant, W. B. Grant, R. W. Greatorex, F. W. Greaves, W. P. Grieve, A. G. Hamilton, R. H. Hamilton, R. C. Harkness, J. Henderson, G. R. Inglis, Flora R. Innes, A. B. Jamieson, W. C. Jardine, J. M. Jones, R. R. Kerr, G. E. King, Lina Kurz, J. M. Lal, Janet Leiper, L. Leslie, L. A. Lewis, H. Lipetz, W. R. Logan, W. H. Lowe, H. F. Lumsden, D. C. Macaskill, J. C. MacCallum, A. J. M'Connell, P. A. M'Cool, W. Macdonald, T. M'Fetridge, E. B. Macfie, Mary E. V. M'Ilwaine, J. Mackil, G. E. G. Mackay, A. Mackenzie, A. D. M'Kenzie, W. M'Kie, A. C. M'Killop, D. M'Phail, R. C. MacQueen, A. J. MacVie, W. Messer, E. L. Middleton, G. M. Miller, R. W. Miller, A. M. Minford, L. M. V. Mitchell, J. B. de W. Molony, Flora Morrison, J. A. Mortimer, R. M. Nicholson, W. H. Pallett, H. Paterson, R. J. E. Paterson, Ella F. Pringle, S. P. P. Proctor, J. Rendwick, D. G. Robertson, J. Robertson, W. S. Robertson, W. H. Robinson, D. Ross, W. Ross, R. P. Rosser, Jessie A. Scott, J. M. Scott, S. C. Sen-Gupta, K. R. G. Shah, W. K. Sim, K. Simpson, G. H. Sinclair, W. Skirrow, T. W. Smart, H. F. Smith, J. G. Smyth, J. J. Stevenson, W. Stewart, R. K. S. Sutherland, J. Swan, L. W. C. Taylor, H. W. Teague, J. A. Thampson, A. B. Todd, J. Ware, A. Watson, T. Welsh, J. P. Whetter, H. Whittaker, E. W. Wilbourne, S. Williams, D. W. Woodruff, Margaret C. Young.

Zoology.—D. C. Adam, J. R. Adam, D. Aiken, H. J. Allsopp, Janet Armstrong, Annie C. Austin, G. L. Batra, W. M. Biden, T. C. Borthwick, A. M. Bose, A. M. Britton, F. A. J. Brodziak, B. S. Browne, J. E. Brydon, A. W. Burton, H. G. Carter, J. A. H. Carter, L. L. Cassidy, J. Cathcart, W. D. Chambers, P. Chisholm, Gladys H. Cook, J. S. Crichton, J. Crocket, J. K. M. Dickie, J. W. C. Drever, F. A. Duffield, W. J. Duncan, J. M. Elliot, A. M. Elliot, C. F. Fismer, Helen Forbes, W. C. Fragoso, E. L. Galletly, F. P. Gibson, H. R. B. Gibson, V. H. Gordon, D. M. Grant, W. B. Grant, J. A. W. Hackett, E. S. B. Hamilton, R. H. Hamilton, G. de C. Hugo, G. L. W. Iredale, H. E. Johnson, J. H. Jones, J. Langwill, J. H. Lawry, L. A. Lewis, H. Lipetz, H. A. V. Loots, P. C. Lornie, J. C. Lorraine, J. R. M'Gregor, Mary E. B. MacIlwaine, J. M. M'Keand, A. G. MacLeod, R. D. M. Macpherson, A. C. Mallace, T. H. R. Mathewson, D. B. Maunsell, Flora Morrison, N. S. Neill, E. F. W. Nixey, H. O. O'Neill, J. J. Pace, W. H. Pallett, H. F. Panton, A. R. Price, K. A. Raeman, D. Ross, R. P. Rosser, J. M. Scott, A. Sinclair-Loutit, W. Skirrow, T. F. M. Smart, R. O. Spencer, C. P. A. Stranaghan, G. F. Taylor, T. R. S. Thompson, W. S. Thomson, R. Thorp, P. Wheeler, J. Wilson, D. W. Woodruff, R. C. Wupperman, R. B. M. Yates.

UNIVERSITY OF GLASGOW.

First Professional Examination.

THE following candidates have been approved in the subjects indicated (B., Botany: Z., Zoology: P., Physics; C., Chemistry):

D. R. Adams (Z.), J. Allen (B., Z., P., C.), A. C. Anderson (Z. C.), J. G. Anderson (Z., C.), W. Anderson (Z., C.), W. H. S. Armstrong (P., C.), J. C. Auchencloss (C.), D. Barbour (Z., C.), A. M. Bayne (Z.), E. A. C. Beard (B., Z.), C. S. Black (Z.), J. Blakely (B., P., C.), D. M. Borland (Z.), C. Brash (B., P.), M. W. Broudy (B., Z., P., C.), A. H. Brown, (B., Z., C.), C. J. B. Buchheim (B., Z.), J. A. G. Burton (Z., P., C.), J. A. M. Cameron (Z., P.), A. H. Clark (Z., C.), J. L. Cochrane (Z.), J. C. Coalburn (B., Z.), R. Cramb (P.), D. Downie (B., Z.), C. Duguid (Z. C.), D. Fisher (Z., C.), T. S. Fleming (Z.), G. Fletcher, M.A. (Z., C.), R. D. B. Frew (P., C.), J. B. Galbraith (B., P.), R. Gale (Z.), W. E. Gemmell (Z.), D. Gibson (P.), A. G. Gilchrist (Z., C.), R. D. Goldie (Z., C.), G. S. Gordon (Z.), E. O'D. Graham (Z.), J. Graham (B., Z., P., C.), J. Granger (Z., C.), K. C. G. Gray (Z., C.), A. W. Gregorson (B.), G. Haddow (Z., P.), J. M'L. Hendry (P., C.), B. M. Hunter (Z., C.), J. W. Jones (Z., C.), J. P. Kinloch (Z., P.), T. J. Kirk (B., C.), D. N. Knox (Z., C.), J. Lang (C.), A. Leishman (Z., C.), W. T. Lindsay (Z., C.), G. S. Livingston (C.), W. M'Adam, M.A. (Z., C.), J. Macallan (B., Z., P.), W. C. Macartney (Z., P.), F. C. Macaulay (C.), R. M'Carlie (Z., C.), W. M'Connell (Z., C.), D. M'Dougall (C.), D. M'Intyre (B.), R. B. F. M'Kail (Z., C.), W. M. M'Kie (B., P. C.), R. H. M'Killop (B.), A. M'Kinnon (Z.), D. Mackinnon (B., P., C.), J. J. Mackintosh (P. C.), M. H. M'Leod (B., Z.), J. W. M'Nee (Z., C.), J. H. M'Nicol (Z., C.), M. MacPhail (P.), A. M'Pherson (B., C.), M. M'K. MacRae (B., P.), T. Marlin (Z., C.), J. P. Mathie (C.), A. Mitchell (B.), H. B. W. Morgan (Z. C.), J. M'I. Morgan (B.), J. Mowat (P., C.), J. Muir (B.), F. Murchie (B.), C. S. M'K. Murison (P.), F. L. Napier (Z.), W. Niccol (Z., C.), R. C. Robertson (Z.), H. G. Robinson (Z., C.), A. Roemmele (Z., C.), W. W. Rorke (Z., C.), W. Rutherford (Z., C.), N. C. Scott (B., Z., P., C.), W. W. Scott (P., C.), J. J. Sinclair (Z., P., C.), J. S. Somerville (Z., P.), R. Steel (Z.), A. Stewart (Z., P.), A. F. Stewart (Z., C.), D. Stewart (P., C.), W. B. Stewart (B.), R. W. Sutherland (Z., C.), D. C. Suttie (Z., C.), R. Sweet (Z.), A. Taylor (Z., C.), D. M. Taylor (Z.), W. Telfer (B., Z.), A. G. W. Thomson (Z.), J. L. Ure (Z., P.), C. H. Wagner (B., Z., P.), W. S. Waterhouse (C.), T. P. Watson (P.), J. B. Whitfield (Z., C.), W. C. Whittingham (Z., C.), J. A. Wilson (Z., C.), W. M. T. Wilson (C.), J. Y. Wood (Z., C.), D. Yellowlees (Z., C.), D. Young (Z., C.).

Women.—C. Barrowman (P., C.), M. B. S. Darroch (C.), M. C. Mitchell (C.), M. Muir (C.), J. D. Rankin (P.), M. E. Robertson (P., C.), O. Robertson (P.), M. E. Rutherfurd (C.).

Second Professional Examination.

The following candidates have been approved in the subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):

W. W. Adamson (A., P.), A. Anderson (A., P.), A. H. Arnott (A.), D. Arthur (A., P.), H. Bertram (A., P., M.), R. I. Binning (A., P.), W. Brown, M.A., (A., P.), M. Buchanan (A.), J. Cairncross (A., P.), T. H. Campbell (A., P., M.), J. P. Carmichael (A.), J. H. J. V. Coats (A., P.), A. J. Couper (A., P.), J. R. Craig (A., P., M.), J. C. Crawford (A.), C. A. Critchlow (A., P., M.), J. A. Doctor (A., P.), R. J. Driscoll (A.), J. Dunbar (M.), D. Duncan (A., P., M.), W. H. Duncan (P., M.), A. Dunsmuir (A., P.), L. J. Dunstone (A., P., M.), W. M. Elliott (A., P., M.), A. Fairley (A., P.), W. M. Fairlie (M.), T. Forsyth (P., M.), G. M. Fraser (P., M.), S. N. Galbraith (A., P.), B. Gale (A., P., M.), H. M. Granger (A., P., M.), J. V. Grant (P., M.), T. P. Grant (A., P.), J. D. Gray (P., M.), W. C. Gunn (A., P., M.), T.

Harkin (P., M.), J. M. Henderson (P.), A. Hogg (A., P., M.), A. J. Hutton (A., P., M.), P. J. Kelly (P.), W. H. Kiep (A., P.), J. T. Kirkland (P., M.), W. Leitch (A., P.), G. Ligertwood (M.), E. B. Macaulay (P., M.), T. M'Crirrick, M.A., B.Sc. (M.), C. Macdonald (A., P.), J. M'Donald (A., P.), J. R. M'Gilvray (P., M.), R. (M'Inroy A., P., M.), W. A. M'Kellar (M.), M. D. Mackenzie (M.), T. C. Mackenzie (M.), A. D. MacLachlan (A., P.), D. C. MacLachlan (P., M.), A. N. R. M'Neill (A., P., M.), J. M'Vittie (A., P., M.), Isa C. Marshall (A., P.), J. H. Martin (A., P.), W. S. Melville (A., P.), A. F. Miller (P., M.), J. W. Miller (A., P.), R. S. Miller (M.), W. Miller (M.), H. Morton (A., P.), R. C. Muir (P., M.), P. O'Brien (A., P., M.), J. Oswald (M.), I. Papiermeister (A., P., M.), D. Renton (A., P., M.), M. M. Rodger (M.), A. Scott (A., P., M.), G. W. Scott (A., P., M.), J. Smith, M.A., (A., M.), J. M. Smith (A.), J. Steedman (A., P., M.), C. K. Stevenson (A., P.), W. Stevenson (M.), J. Stewart, M.A. (P., M.), J. T. W. Stewart (M.), M. J. Stewart (A., P., M.), L. Storey (A., P.), J. A. Struthers (A., P., M.), J. M. Taylor (P.), R. S. Taylor (A., P.), H. J. Thomson (A., P.), R. Todd (M.), M. Turnbull (M.), J. M. Walker (P., M.), G. Wallace (P.), H. F. Watson (M.), W. B. Watson (A., P., M.), T. M. Watt (A., P.), F. R. Wilson (A., M.), H. M. Wilson A., P. M.), S. Wilson, M.A. (A., P., M.), T. Winning, M.A. (A., M.), G. Y. Yardumian (A., P., M.), M. Young (A., P.).

Women: M. M. Buchan (P.), E. S. Hill, M.A. (P.), A. R. Hird (A., M.), J. A. Macvea (M.), F. Mann (A., P.), V. D. Reis (A.), J. I. Robertson, M.A. (A., P.).

T. R. A. A. G. Crawford (under the old regulations).

Third Professional Examination.

The following candidates have been approved in the subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health):

J. M. Anderson (P., M.), T. Barbour, B.Sc. (P., M.), C. Burns (M.), W. R. Cammock (P., M.), W. A. Campbell (P., M.), D. L. Carmichael (P.), H. H. Christie (P.), J. S. Clark, M.A. (P.), T. G. Copestake (P., M.), J. Coutts (P., M.), A. D. Cowan (P., M.), T. L. Craig (P., M.), A. M. Crawford (P.), W. B. Cunningham (P.), H. W. Dempster (P.), A. C. Douglas (P., M.), J. R. Drever, M.A. (P., M.), E. M. Eaton (P.), J. Ferguson (P.), E. J. Fitzgerald (P.), T. H. Forrest (P.), W. Gilbert (P.), W. Gilfillan (P., M.), A. H. Gray (P., M.), R. N. Guthrie (P. M.), J. Hammond (M.), W. T. Hardie (M.), S. H. Harris (M.), R. M'C. Hill (P.), L. Hislop (M.), J. Keys (P., M.), A. M'Call (P., M.), J. M'Farlane (P., M.), W. F. Mackenzie (P.), W. Macleod (P.), A. A. C. M'Neill (P., M.), C. J. C. Macquarie (P.), W. H. Manson, M.A. (P., M.); R. Marshall (P., M.), J. Miller (P., M.), P. Mitchell, M.A. (P.), H. W. Moir (P., M.), P. J. O'Hare (P.), J. H. Paul (P., M.), A. G. Paxton (P., M.), J. Reid (M.), F. G. Robertson (P., M.), W. J. Rutherfurd (P., M.), J. Samson (P.), A. C. Sharp (P., M.), J. C. D. Simpson (P.), R. A. Slater (P., M.), W. Smellie (P., M.), T. B. Smith (P.), J. Stevenson (P., M.), J. Stevenson (P., M.), A. A. Stewart (P.), D. L. Tate (P. M.), C. S. Thomson (P.), J. K. Welsh (P., M.), D. J. Williams (P.), G. H. Wilson (P., M.), M. Youdelevitz (P.).

Women.—R. I. Hudson (M.), E. Oversby (P., M.), A. Picken, M.A. (P., M.), M. B. Taylor (M.), C. G. Thomlinson (P.).

R. S. M'Kim, M.A. (under old regulations).

The following candidates passed with distinction in the subjects indicated:

First Examination.—In Botany, Zoology, Physics, and Chemistry—J. Allan. In Zoology and Physics—J. A. M. Cameron, J. L. Ure. In Zoology and Chemistry—W. M'Adam, M.A. In Zoology—C. Duguid, J. W. M'Nee, W. W. Rorke, R. Sweet, D. Young. In Physics—Jessie D. Rankin, Margaret E. Robertson, N. C. Scott, W. W. Scott, J. J. Sinclair, J. S. Somerville, A. Stewart. In Chemistry—M. W. Broudy, D. N. Knox, J. P. Mathie.

Second Examination.—In Anatomy and Physiology—W. H. Kiep, M. Young. In Physiology and in Materia Medica and Therapeutics—M. J. Stewart. In Anatomy—J. H. Martin. In Physiology—W. W. Adamson, L. J. Dunstone, W. C. Gunn, A. J. Hutton, H. Morton, J. Stewart, M.A., H. J. Thomson, W. B. Watson. In Materia Medica and Therapeutics—T. H. Campbell, J. R. Craig.

Third Examination.—In Pathology and in Medical Jurisprudence and Public Health—W. Gilfillan, A. C. Sharp. In Pathology—W. R. Cammock, P. Mitchell, M.A., T. B. Smith. In Medical Jurisprudence and Public Health—C. Burns, R. Marshall, Agnes Picken, M.A.

In the Third Professional Examination for M.B., C.M. (old regulations), R. S. M'Kim, M.A., passed with distinction in Pathology.

CONJOINT BOARD IN SCOTLAND.

The following candidates were approved at the quarterly examinations indicated:

First Examination, Four Years' Course.—J. S. Lamech.

First Examination, Five Years' Course.—J. A. S. Phillips (with distinction), H. W. Howatson, I. C. Pratt, T. S. Reddy, F. J. de Souza, T. Walsh, F. R. Watson, Mary Imre-Macaulay, J. Blackburne.

Second Examination, Four Years' Course.—A. D. Roberts.

Second Examination, Five Years' Course.—S. A. Friar, W. F. McKenna, J. S. J. Stenhouse, G. E. Anderson (with distinction), M. J. Hayes, J. W. R. Rockwood.

Third Examination, Five Years' Course.—E. H. G. Duncan, L. N. Ghosh, J. W. N. Roberts, W. L. Watson, G. Heathcote, J. S. R. Weir, T. W. Faulkner, H. M. Sturrock, D. L. G. Radford, T. A. Gregg.

Final Examination.—W. A. Graham, J. Walsh, Sybil L. Lewis, A. H. Singleton, J. B. Mears, A. McKendrick, Elizabeth M. E. Kerr-Harris, F. W. Green, S. S. Antia, W. L. Robertson, D. S. Steele-Perkins, G. W. Craig, W. M. Johnston, A. Oyejola, H. J. D. Davidson, E. H. Knowles, A. T. Munroe, E. R. Frankish, C. H. K. Scharenguivel, S. S. Sperber, M. K. N. S. Culceria, G. H. van Zyl, A. C. Dhondy, H. E. Bolton.

UNIVERSITY OF LEEDS.

First Degrees Conferred.

At a congregation of the University held on March 31st, in the Library of the Medical School, the degrees of Bachelor of Medicine and Bachelor of Surgery were conferred on the following, who had satisfied the examiners in the recent examinations: F. Bailey, C. N. Smith, A. B. S. Todd, M. G. L. Walker. Before conferring the degrees the Vice-Chancellor (Dr. Bodington) remarked that it was in every way appropriate that the first degrees to be conferred in Leeds, other than honorary degrees, should be degrees in medicine, as the School of Medicine was the oldest of the departments of the University. In this respect Leeds had followed the precedent set by most of the European Universities, in which the earliest subjects to be studied and taught were those bearing upon medicine.

M.B. Examinations.

The result of the other examinations are as follows:

Second M.B. and Ch.B.—W. L. Dibb and W. D. Hamilton.

Final M.B. and Ch.B.: Part I.—E. R. Flint, F. E. Kendall, W. O. McKane.

UNIVERSITY OF LIVERPOOL.

DEGREES IN MEDICINE: ADDRESS BY THE VICE-CHANCELLOR.

The spring examinations for the M.B., Ch.B. degrees have just been completed. Twelve candidates presented themselves, and nine passed, all being students of the Royal Infirmary.

The graduation ceremony took place on April 1st, the candidates being presented by the Dean, Professor Benjamin Moore, and the degrees being conferred by Vice-Chancellor Dale. The Vice-Chancellor, having conferred the degrees, delivered an address, in which he appealed to the new graduates to remember the University to which they owed so much, and to preserve unbroken the ties that bound them to it. He reminded them of the Old Students' Association, and of the invaluable services which it had rendered to their corporate life, and said he hoped it would be possible for some, if not all, of them, by active service in that Association, to increase the work that others had begun. The reputation of the University lay in their hands, and he trusted they would do their best to enlarge and extend the traditions laid down by their predecessors. Nor must they forget that graduation was the beginning, and not the end, of study, and that they were now passing out of the school of medicine into the greater school of the world. They must remember that the science to which they had devoted themselves was a science that was perpetually advancing. Above all, he exhorted the graduates in their future career to place service first and success second. In the recognition of, and obedience to, this principle, he believed, was to be found the true secret of all success, all happiness, and all strength.

TRINITY COLLEGE, DUBLIN.

The following candidates were approved at the Hilary Examination in the subjects indicated:

Diploma in Public Health.—Part I: R. J. Fleming, D. S. B. Thomson. Part II: T. F. Griffin, D. S. B. Thomson.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The following is a list of the prize winners for the winter session:

Descriptive Anatomy.—Junior: 1st, G. C. Sneyd; 2nd, R. Adams. Senior: 1st, H. W. White; 2nd, J. Murray.

Practical Anatomy.—First year: 1st, Miss I. M. Clarke; 2nd, C. Greer. Second year: 1st, G. S. Levis; 2nd, G. W. Stanley.

Practice of Medicine.—1st, J. Lucas; 2nd, J. Prendiville.

Surgery.—1st, L. Lucas; 2nd, C. H. Wilson.

Midwifery.—1st, J. Prendiville; 2nd, G. M. Loughnan.

Physiology.—1st, A. E. S. Martin; 2nd, G. S. Levis.

Chemistry.—1st, R. H. F. Taaffe; 2nd, R. Adams and Miss I. M. Clarke (equal).

Pathology.—1st, G. F. Shepherd; 2nd, C. J. Hare.

Physics.—1st, R. Adams; 2nd, Miss I. M. Clarke.

The lectures and practical courses of the summer session commenced on Monday, April 3rd.

HOSPITAL AND DISPENSARY MANAGEMENT.

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, GLOUCESTER.

The forty-fifth annual report of this important private asylum for the year 1904 shows that on January 1st, 1904, there were 141 patients under care, and on December 31st 143, an increase of 2 on the previous year, but a slight decrease from any of the preceding sixteen years. During the year 38 patients were admitted, which is higher than the average for the preceding five years—namely, 33, and 5 of these were readmissions. The Medical Superintendent, Dr. J. Grieg Soutar, says that the admissions contained a fair proportion of acute cases, so that 9 had already been discharged as recovered at the time of writing, and in 12 more there was a good prospect of early recovery. Dr. Soutar says that there has been of recent years from some unexplained reason a marked diminution in the number of cases of acute mania, and a corresponding increase of cases of acute melancholia, entailing greatly-increased watchfulness and care on the part of the management. The statistical tables show that 18 of the 38 admissions were cases of acute melancholia, and 2 more cases of chronic melancholia, whilst there were only 5 cases of acute mania and 8 of other maniacal states. There were also 4 cases of dementia and 1 case of general paralysis of the insane. Dr. Soutar admits the difficulty—he might have said the impossibility—of ascertaining with any degree of certainty the causes which induced the mental attack, but shows that hereditary predisposition was ascertained in at least 55 per cent. of the admissions. Intemperance in drink is mentioned as cause in two cases, "moral" causes in 6, venereal disease in 2, bodily diseases in 11, and previous attacks in 4. During the year 18 were discharged as recovered, giving a percentage recovery-

rate on admissions of 47 3, and, excluding transfers (of which there were 9), a recovery-rate of 64.2 per cent. This, though less than that of the previous year, is an exceedingly high recovery-rate, and reflects great credit on the medical direction. There were also 2 discharged as relieved and 12 as not improved. There were only 4 deaths during the year, giving a death-rate of 2.2 per cent. on the average daily residents. One death was from general paralysis, 1 from carcinoma, 1 from pericarditis, and 1 from Bright's disease. The general health throughout the year was excellent; there were 2 casualties, only 1 of which was serious, and there was 1 escape. We remember hearing the medical superintendent of an important asylum say that an asylum from which there were no escapes was not properly managed, and though this may be regarded as a humorous exaggeration, it is a fact that the greater liberty a patient may be accorded, the better it is for the patient. We are therefore pleased to note that at this asylum many of the patients go beyond the grounds on parole, and that it is very seldom that this has given cause for regret.

THE MANAGEMENT OF OUT-PATIENT DEPARTMENTS.

Out-patient Departments and General Practitioners.

CO-OPERATION between a hospital and the medical men who work in its neighbourhood is very desirable, though the fact has in many quarters been overlooked, to the detriment of both parties. Recently instances have not been wanting in which the authorities of hospitals, both administrative and executive, have evinced a laudable ambition both to merit and secure this desirable community of action. Among these is that of the Belgrave Hospital for Children, to certain proposed novel points in the administration of which we drew attention when the foundation stone of the new building was laid in 1900. Both the committee of management and the honorary medical staff of this institution are anxious that its operations shall not only be non-injurious to the interests of local practitioners but in one direction as actively advantageous to them as they are to the poor in others. Naturally there is room for some difference of opinion as to what are the best means towards this end, so the honorary medical staff has sent out invitations to medical men who practise in the South-Western district to meet them at the hospital on Tuesday, April 11th, at 4.30 p.m., in order to discuss certain proposals which have been made for the regulation of out-patient department work and other connected matters. These proposals are as follows: (1) That as regards limitation of numbers, only a definite number of cases shall be seen on each day by the medical officer in attendance; (2) that in the selection of cases, preference shall be given, first to those who are most seriously ill, next to those referred to the hospital by medical practitioners, and finally to those who bring certificates from Governors; (3) in respect of the bestowal or refusal of treatment there are two alternative proposals (*a*) that out-patients living within a mile of the hospital shall only be admitted on the presentation of a card signed by a medical man, except in cases of urgent illness; or (*b*) that similar cards shall be issued to the Charity Organization Society, to almoners, and to local clergymen, those relating to any cases which are under treatment by a medical man being signed by him. It seems possible to the medical staff that if the distribution of cards is limited to medical men an undue amount of work may be thrown upon their shoulders, and that, on the other hand, if local practitioners do not take up the scheme warmly the out-patient department may find itself short of work, and that of a perfectly proper character; (4) the hospital had an idea of establishing a wage-limit for its patients other than those admitted under special circumstances, such as prolonged illness, the need for a surgical operation, or the recommendation of a medical practitioner that the case was one deserving of charitable treatment; it is suggested that if patients are admitted in accordance with the foregoing proposals no wage-limit is necessary; (5) the question will be raised as to whether an inquiry officer is necessary; (6) it is proposed to establish an out-patient register containing the name, age, and address of each patient, the occupation and wages of parents and dates of admission and discharge. Finally, the institution of a kind of consultation department will be considered, its object being to meet those common cases in which, when unable to pay a consultant's fee, parents themselves bring children for a second opinion, or those in which a practitioner himself desires one under similar circumstances, but does not care either to call in a neighbouring doctor or to ask a consultant to see the case without fee. It is proposed to make definite consultations possible in the case of families whose joint income does not exceed £3 a week, but it is considered open to question whether in all cases a fee should not be payable to the hospital proportionate either to the means of the patient or to the usual charge of the medical man in whose care the case is. A final suggestion will be one for the formation of a local medical society to meet every three months at the hospital, its president being one of the honorary medical staff, and its secretary a practitioner of the district.

CITY OF LONDON ASYLUM FOR MENTAL DISEASES, STONE, NEAR DARTFORD, KENT.

THE thirty-ninth annual report of this Institution (for the year 1904) announces the resignation of Dr. Ernest W. White, who has for eighteen years been its Medical Superintendent, and also the appointment as his successor of Dr. Robert H. Steen. Amongst other changes we note that the duties of Housekeeper will be transferred to the Chief Nurse, who will discharge the combined offices as Matron. This is a return to a condition which formerly obtained and, for obvious reasons, has been largely abandoned in English asylums. In France the performance of the double duties is objected to as preventing the efficient discharge of either duty, and we regretted to hear, quite recently, that the administration of the Asylum of Moiselles in Paris advocated, on the ground of economy, this combination of duties in one person, and quoted the custom in England in the matter as an example of its successful employment! The City of London Asylum contained on January 1st, 1904, 563 patients, and on December 31st 565. The admissions, 178 in number, were less than those of any of the preceding four years, but notwithstanding this the numbers remaining at the end of the year have increased steadily during this period, being due no doubt to the accumulation of chronic cases which is going on in asylums all over the country. Of the 178 admissions 168 were admitted for the first time, and only 8 were "reintegrations" who had been previously discharged as recovered from this asylum. In 50 the attack was a "first attack" and within three months' and in only 29 of more than twelve months' duration on admission. This asylum has had for many years—with the exception of 1902—a high recovery-rate, and with such a class of admission this should be maintained. As to the form of mental disorder amongst the admissions, 77 were cases of mania, the largest number being classed as acute mania; 74 were cases of melancholia; there were 7 cases of dementia, 11 of general paralyses of the insane, 5 of congenital or infantile mental deficiency, and there were 4 cases of acquired epilepsy. Table X, showing the probable causes of insanity among the admissions, ascribes "moral" causes in 32, intemperance in drink, as exciting cause (alcohol is not mentioned as predisposing cause) in 19, that is, in 10.5 per cent. Hereditary influences were ascertained in 39, that is, in 21.9 per cent. of the admissions, and the hereditary predisposition is classified in Table XV according to origin, but the character of the hereditary predisposition is not stated. Venereal disease is given as cause in 7 cases, and the remainder are distributed over the usually-cited factors. During the year 57 were discharged as recovered, giving a recovery rate on admissions of 42.22 per cent.: 75 as relieved, 10 as not improved, and there were 34 deaths. One-half of the deaths were due to cerebro-spinal disease, 8 of these dying from general paralysis. There was only 1 death from pulmonary phthisis, and there was 1 fatal accident—a case of suicide by hanging in a private patient. The remainder do not call for particular mention, but the low death-rate—6.03 per cent. calculated on the average numbers resident during the year—is very satisfactory. The Commissioners, in their entry in the report, call attention to the fact that the practice of allowing patients to go out upon trial has never been adopted in this asylum, and urge the Committee to consider the idea. The general health during the year was very good, and, with the exception of 1 case of enteric fever, the institution was entirely free from epidemic and endemic diseases.

THE OXFORD EYE HOSPITAL.

THE eighteenth annual report of the Oxford Eye Hospital states that, like most hospitals, it wants money for carrying out its objects. Messrs. R. W. Doyne and F. M. Ogilvie have been responsible for the surgical work done here for many years, but the consulting staff has been increased by the appointment of Mr. E. Nettleship. An interesting note is made by Mr. Doyne, in which he points out the great danger to the public when opticians are allowed to diagnose and treat eye conditions. He rightly remarks that no one wishes to interfere with their legitimate trade, but when the public are led to believe that these tradesmen are possessed of skilled medical knowledge then the danger is very great. In the thirty-two beds the hospital contains a good many operations were done during the year, including 110 for cataracts of all sorts, while there were 7,268 attendances. The hospital is doing excellent work.

INDIA AND THE COLONIES.

INDIA.

THE KING INSTITUTE OF PREVENTIVE MEDICINE.

THE King Institute of Preventive Medicine at Guindy was formally opened on March 11th, by Lord Ampthill, Governor of Madras. The Institute is at once the fruit of the strenuous labours of Lieutenant-Colonel W. G. King, I.M.S., C.I.E., and the symbol of his triumph over the unjust treatment to which he was subjected by a former Government.

What Colonel King Has Done.

The GOVERNOR, in declaring the Institute open, stated that for more than fifteen years Colonel King had steadily persisted in pressing the scheme upon the Madras Government, and he had finally succeeded in obtaining what he

wanted, or nearly all that he wanted, by his indefatigable enthusiasm, his powerful reasoning, and, he was almost tempted to say, by his bold importunity. It was impossible to call the Institute by any other name than that of "The King Institute," for it was in every respect the creation of Colonel King and the embodiment of his ideas. Not only the scheme and inception of the Institute were due to him, but every detail of the buildings and establishment, and all the duties which were to be performed there had been elaborated by him personally. It gave him the greatest pleasure to name the Institute after Colonel King, and in doing so he desired to commemorate not only the part he had played in this matter, but also, and more particularly, the great services which he had rendered to that Presidency in other respects. It would be difficult to overstate the debt which they owed to Colonel King for his devoted labours in the cause of sanitation or the great success which had attended them. He was glad to be there that day, as it gave him the opportunity of expressing some slight recognition of all that Colonel King had done now that his term of service was unfortunately drawing to a close. It was to Colonel King's energetic action and wise advice that he mainly attributed the fact that the plague had not spread in Madras to the same terrible extent which it had done in other parts of India, and that the city of Madras had thus far been practically kept immune.

Origin and Object of the Institute.

Lord Ampthill proceeded to give an account of the origin and object of the Institute. In 1890 it came to the notice of Government that the use of human lymph in vaccination might, in certain rare circumstances, be attended by the transmission of a virus other than that of vaccine. The Government therefore determined to employ nothing but animal lymph throughout the Presidency. But bovine lymph was exceedingly sensitive to the heat of the Indian climate, and the question arose as to how this special lymph could be rendered portable; for if this could not be achieved it would have been necessary to establish no less than 250 dépôts for the manufacture of lymph to serve the 141,000 square miles and the 40 millions of people of the Presidency. Colonel King was at the time acting as Inspector of Vaccination and Deputy Sanitary Commissioner, and he discovered, after a series of experiments, that animal lymph could be effectively preserved in lanoline for use in the tropics. He was therefore able to recommend the establishment of a single Central Vaccine Institute to serve the needs of the whole Presidency. At the same time he prepared a scheme for a reorganization of the Vaccination Department, which, the Governor regretted to say, was still under discussion, but which he hoped to see carried out before he left Madras, and suggested that the Vaccine Institute should form the centre at which the members of the new Vaccination Department could be properly trained for their responsible duties. Colonel King further pointed out the desirability of selecting and training special medical officers who should work in chemical and bacteriological laboratories attached to the office of the Sanitary Commissioner. Financial and other difficulties intervened, and these recommendations were not at once adopted. But, in 1894, the Indian Medical Congress pressed upon the Government of India the desirability of establishing bacteriological laboratories with specialists in charge in order to keep the Indian Medical Service in touch with the advance of science in Europe. Colonel King seized this opportunity of again pressing his views, and after a great deal of correspondence with the Government of India, into the details of which it was unnecessary to enter, the present scheme was evolved, and the Madras Government decided to build an establishment for the supply of animal vaccine, thus rendering the Presidency independent of the supply from Mysore, and to combine with it a Provincial Bacteriological Laboratory. But those who had to deal with Colonel King soon found out that he was not content with half measures, and before long they had him pressing for the addition of the serum section, which his forcible arguments soon persuaded them to sanction.

Pasteur Institute.

Colonel King's next move was to urge that the Pasteur Institute, which, thanks to the generous gift of Mr. Phipps, an American citizen, and the wise use which Lord Curzon decided to make of it, they were about to establish for Southern India, should be annexed to the Guindy Institute. Colonel King wished to see Madras provided with an Institute of Preventive Medicine and Bacteriological Research which should be second to no other. But in the interesting discussion which followed, and in which they declared themselved convinced, by Colonel King's arguments, they were obliged to yield to the decided opinion of the Government of India, advised by their great expert, Colonel Semple, that a cooler climate than that of Madras was necessary for the Pasteur Institute. The Pasteur Institute would therefore be established at Coonoor, and the building operations, for which plans and estimates had already been prepared, will shortly be commenced. The King Institute was, therefore, not quite so complete as its author would like it to be, but it was one of which he might well be proud, and on the possession of which the Madras Presidency could fairly congratulate itself. Before concluding, Lord Ampthill recalled the fact that the credit of introducing vaccination into India belonged to Madras; that was one of the great services rendered to India by Lord Clive a little more than a century ago. This, the Governor thought, was an additional reason why they should be proud of their new vaccine Institute and grateful to Colonel King for having persuaded them to establish it.

The King Institute and its Work.

The Institute comprises three sections, vaccine, bacteriological, and serum. They are scattered over an area of about thirteen acres, so that the sections, while under the supervision of the superintendent in charge, are entirely separate. The Vaccine Section manufactures and supplies vaccine to meet the demands of the whole Presidency. The output of vaccine from the Institute is much larger than that of any other similar institution in the world, the amount manufactured and sent out of the Institute every month being sufficient to vaccinate 150,000 people; and this quantity is increasing every month. About 200 calves are used in the manufacture of vaccine, these being brought to the Institute, in many cases, from long distances. Most careful arrangements have been made to prevent the contamination of the vaccine with septic material. The Bacteriological Section has a special laboratory for purposes of pathological diagnosis, in which specimens sent from all over the Presidency are examined and reported. These include reports on plague, malaria, rabies, typhoid, tubercle, leprosy, and the identification of flies, mosquitos, worms, parasites, and many other matters. Over 300 reports have been made since August, 1904, and the demands are said to be rapidly increasing. Materials and preparations used in microscopical and bacteriological work are prepared and sent out from its laboratory to those who require them; this is specially intended to help research work in the Presidency. In all such cases of supply a small charge is made to recover the cost of the raw material. This help has been largely taken advantage of by men throughout the Presidency. The main object of the Diagnosis Section is to stimulate research on lines that are most advanced, and to offer every assistance that a central institution equipped with the most up-to-date appliances can do to isolated workers in the province. The Institute had been kept in touch with pathological work at home, and original investigation in the recent field of protozoa is being steadily pursued. Matters of importance to public health, such as questions of water supply in relation to cholera and typhoid, and the occurrence of odours in waters and other matters, are also investigated in the Institute. A complete examination of the water of the Madras Municipality is at present being carried on with reference to its odour-bearing properties and the destruction of the iron of the pipes. The efficacy of the action of copper sulphate as a purifier of water has also been recently investigated. Results of experiments on disinfection by the agency of heat are shortly to be published. There is a complete experimental sewage plant on exhibition, including a septic tank, Dibdin's filter, and various forms of continuous and intermittent filters for ascertaining the agricultural value of their filtrates, as well as the bearings of sewage upon the vitality of disease microbes.

The King Institute of Preventive Medicine will, when in complete working order, be the one central place where all the members of the Vaccination Department—deputy inspectors and vaccinators—will be trained. Lectures on animal diseases, on human skin diseases, applied bacteriology and animal and human vaccination, will be delivered at the Institute. A course of lectures extending over five months will also be delivered on minor sanitary engineering for the benefit of assistant sanitary inspectors who wish to qualify for the grade of sanitary inspectors. The lecture theatre of the Institute will be available for lectures on bacteriology to the public.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

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CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. H. asks for information as to the suitability of Guatemala, Central America, for a patient suffering from incipient tuberculosis.

TREATMENT OF INFLAMED BURSA PATELLAE.

M.R.C.S.ENG. writes: Three weeks since a sound, healthy, and active man over 70, slightly hurt his left knee-cap. Effusion into the bursa patellae and swelling followed, and in spite of rest, support, and the routine treatment, persists. No inflammation, suppuration, discoloration, or pain present. Pressure over the swelled bursa gives moderate pain; but the knee-flexion is easy, perfect, and without pain. What is it best to do now?

ANSWERS.

DENS might consult the following books: *Diseases and Injuries of the Teeth*, by M. Smale, M.R.C.S., and J. F. Colyer, M.R.C.S., second edition (London: Longmans, Green and Co., 1901, 21s.); *Manual of Dental Surgery*, by C. S. Tomes, F.R.C.S., F.R.S. (London: J. and A. Churchill, 12s. 6d.), of which the seventh edition is to be published shortly; *Mechanical Practice in Dentistry*, by W. P. Pearsall, F.R.C.S. (London: C. Ash and Sons, 1898, 18s.); *The Mycology of the Mouth*, by K. W. Goadby, M.R.C.S. (London: Longmans, Green and Co., 1903, 8s. 6d).

W. A. C.—(1) The *Canadian Practitioner and Review* (price 3 dollars a year address, 61, Queen Street East, Toronto, Canada), and the *Montreal Medical Journal* (price 30 cents each copy; address, 216, Peel Street, Montreal) may probably be regarded as the leading medical periodicals in Canada. They are both monthly publications, and could be obtained either direct or through a medical bookseller. (2) The likelihood "of a medical man getting on" must depend in the Dominion not less than elsewhere mainly on his personal qualities and experience. Parts of the country are still very sparsely inhabited, and into these emigrants are daily moving, and there would probably lie the best chance for a new comer. It can scarcely be said, however, that Canada *needs* medical men. The Canadians as a body are an exceptionally well-educated race, and the number of medical schools is not few, some of them being of world-wide renown.

PRACTICE IN CANADA.

WE are informed that, owing to recent changes, it is probably not now possible for a medical man to obtain official recognition in Montreal simply on the strength of British medical diplomas or degrees. The passing of something in the nature of an ordinary final examination is believed to be now necessary. There has been no opportunity at present of verifying the information, but in view of a statement recently made on the same subject, currency is now given to it.

TREATMENT OF SESSILE WARTS.

DR. T. M. BARTLETT (Jamaica) writes: Perhaps the following experience may prove of value to "Warts," who asks for advice on the treatment of a case of the above condition. Some years ago I was consulted by an English clergyman on account of an extensive growth of warts on his face and hands. Recalling to mind the remarkable effect I had seen to follow the administration of thyroid by Dr. Byrom Bramwell in a case of ichthyosis I suggested a trial of this drug in the form of "tabloids"—gr. v morning and evening, or three times daily if no untoward symptoms followed. I heard from him some considerable time after, when he mentioned that he was very grateful for the suggestion, which had quite freed him of his trouble. He had satisfied himself by discontinuance and resumption of the tabloids that the benefit he derived was the result of their exhibition.

LETTERS, NOTES, Etc.

THE TREATMENT OF POST-NASAL ADENOIDS.

DR. E. HAROLD DRINKWATER (London) writes: I have read with great interest Dr Ward Cousins's article on the above subject in the BRITISH MEDICAL JOURNAL of January 28th and the subsequent correspondence, but cannot help criticizing some of the points brought forward by him. First of all, Dr Cousins states that adenoids "block the orifices of the Eustachian tubes," and later, that during the operation he "clears the Eustachian orifice." No doubt in exceptionally large growths the Eustachian orifices may be overlapped to a certain extent (though very rarely), but this occurs owing to the size of the growth, which hangs downwards from the pharyngeal vault. Surely Dr. Cousins does not mean to imply that adenoids actually arise from this situation? If not, why is it necessary to "clear the orifices" as an integral part of the operation? Lymphoid tissue exists in the membranous portion of the Eustachian tube (the tonsil of Gerlach), and is frequently hyperplastic, but it is impracticable, even if desirable, to remove this by any instrument or method. The affection of the tubes, middle ear, etc., as evidenced by deafness, retraction of the membranae tympani, etc., is due, in my opinion (apart from septic inflammation) to a circulatory disturbance—that is, a congestion of the mucous membrane of the tubo-tympanum associated with adenoids (together with nasal obstruction anteriorly very frequently—but not always). When both adenoids and anterior obstruction are present either morbid condition may be primary or secondary to the other.

Then Dr. Cousins states that the indications for operation are better judged by the urgency and persistency of symptoms than by physical examination. With all due respect for Dr. Cousins's skill and experience, I disagree with him entirely, and for this reason—that there are numberless cases of chronic non-suppurative catarrh of the middle ear which come to the aural surgeon for treatment during adolescence and later where remnants of adenoids are found, and where there is no history of any urgent symptoms traceable to the adenoids, but where great improvement follows the removal of these remnants—again showing that the aural trouble is a circulatory disturbance. I maintain that the presence of any excessive amount of lymphoid tissue in the post-nasal space, whether it causes present symptoms or not, is a sufficient indication for operation, even if only from the prophylactic point of view.

Then, again, I do not consider that adenoidectomy under any circumstances is quite free from risk. Every one who has operated on large numbers of cases has had cases of acute middle ear suppuration following the operation, and many other complications have been recorded, for example, secondary haemorrhage, meningitis, and septicaemia.

Lastly, as regards the finger-nail method. In my hands it has proved very unsatisfactory, and it has many obvious disadvantages, amongst these being (1) the increased risk of sepsis—one cannot sterilize the finger-nail efficiently; (2) the operation takes much longer to perform; (3) is attended by increased haemorrhage; and (4) one cannot so efficiently remove the growth, especially close to the septum. This latter observation I have confirmed by careful examination, by means of the post-nasal mirror in a fairly large number of cases operated on by the finger-nail method by different surgeons, and I think that this routine examination of cases some time after operation is absolutely necessary for one's own education.

From a considerable experience of the operative treatment of adenoids I have come to the firm conclusion that the best method is to remove the growth with one sweep of a Gottstein-Delstanche curette (or one of the recent improvements), and then to thoroughly scrape the pharyngeal vault with a simple Gottstein curette, especial care being taken to remove all growth just behind the septum nasi and on either side of it. It is in this situation that portions of growth are most frequently left in imperfect operations, and where they are most calculated to cause obstruction to respiration. After this one may remove hypertrophied lymphoid tissue in the fossae of Rosenmüller, by the finger-nail, but this is of minor importance, as it offers no obstruction to physiological respiration, and therefore has no influence in the causation of nasal and tubo-tympanic congestion.

With regard to the metal probes, they are certainly an innovation, and I should be glad to see an explanation of their utility. Congestion of the inferior turbinals disappears after adenoidectomy. True hypertrophy requires careful subsequent treatment, and adenoids do not arise from the boundaries of the posterior nares, except from the vault, where they are best reached by the curette. It would be easy to cause considerable damage by their use.

SUTURING WITH A HYPODERMIC NEEDLE.

Dr. GUBB (Algiers) writes: I came across a suggestion the other day in *Le Monde Médical* which strikes me as very ingenious. It may not be new, but as it was new to me it may be new to others. It bears on a mode of suturing rapidly and almost painlessly by the aid of a hypodermic needle. The approximated edges of skin are transpierced by the needle, the wire is then protruded (having previously been partially introduced into the lumen) and all one has to do is to tie the wire. This mode is vastly less painful than the one in general use, and is available in the absence of surgical needles.

ASSISTANT OR ACCOMPLICE?

THE designation "assistant" is distasteful to many men in the medical profession, who probably feel that one man is as good as another, and would be "a good deal better" but for the lack of opportunity. Benevolent, and it may be not altogether disinterested, diplomacy on the part of the principal sometimes seeks to avoid the parasitic stigma of "assistant" by the substitution of "colleague": we have even heard the episcopal-sounding term "coadjutor" employed by courteous lay folk. It may be hoped, however, that the old lady of quality, quoted by Sir Mount-Stuart Grant Duff, did not quite mean what she said when, on being asked whether she had seen the doctor, replied: "No; but he has promised to send his accomplice."

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Remarks
ON
THE TREATMENT OF EMPYEMA.

By J. HOGARTH PRINGLE, M.B., F.R.C.S.,
Surgeon, Royal Infirmary, Glasgow.

Wherever and whenever pus is found to exist in the body it is good practice to evacuate it at the earliest possible moment, and the pleural cavity forms no exception to this rule. The only result of delay is to give time for adhesions to form between the parietal and visceral layers of the pleura, where they remain in contact, and more or less thickening of those areas where they are separated by the fluid. These conditions form two of the chief causes for the delay in healing and the consequent necessity for secondary operations.

I leave out of account in this paper the treatment of localized empyema, and confine my remarks to general and diffuse cases.

The site of the opening through the chest wall is best made in the line of the scapula at the ninth rib; when the body is supine this is the most dependent part of the thorax, and affords best and most complete drainage of the cavity; in an ordinary case it is necessary to remove 1½ to 2 in. of the rib, to open the pleural cavity through the centre of the periosteum so exposed and to empty the cavity of pus. It is a good thing in most cases to carry out the resection of rib and to remove the pus with the patient lying supine, as recommended originally by Mr. Godlee, and, before incising the pleura, I allow as much pus to flow away through a ¼-in. cannula as will come, for the purpose of avoiding a possible sudden dislocation of the thoracic organs and any tendency to collapse that might be induced thereby. The pleura is then to be incised, and all fibrin masses, which are most developed, in my experience, in pneumococcic cases, to be got rid of. I wash out the cavity, taking care to allow plenty of space for the reflux current: it does good by washing away small particles of fibrin as well as pus, which, if left, will only form a nidus for the growth of organisms. The usual practice, judging from the descriptions one reads, after the formation of the drain-opening, is to be satisfied with the introduction of a drainage tube and the application of a dressing, and in many cases it is true this is all that is necessary: it is so, in fact, in those cases where the lung is free to expand after evacuation of the pus. It often happens after this that a lung will expand after the first few coughing efforts of the patient, practically up to the chest wall; but there is a large number of cases where this desirable expansion does not take place to any appreciable degree, and at this period of the treatment it is usually primarily due to the fact that the compressed lung, retracted and wedged into the vertebro-costal groove, has become adherent by its visceral pleural covering to the adjacent parietal pleura.

In the course of time such a lung may no doubt in many instances, if the adhesions be not too close, slowly expand and eventually come in contact with the chest wall; but, on the other hand, there are a great many cases where the lung will not expand completely, and still others where it will not expand at all, and in both these types of case some more extensive operation becomes necessary to allow the rigid chest wall to fall in and meet the non-expanding lung.

In my opinion, a surgeon treating an empyema ought not to be content with excision of a piece of a rib and the introduction of a drainage tube. I believe that the principle underlying the operation ought to be to get the lung freed from its adhesions and to give it the opportunity to expand if it can; and it will expand in all these cases after this has been done, unless there are interstitial changes in the pulmonary parenchyma. I have worked on this principle in treating empyema for the past nine years. After the evacuation of the pus, if the lung does not show any tendency to expand, I endeavour to free the adhesions between the two pleural surfaces.

It is probably easiest, and certainly safest, to begin this process of separation posteriorly, where the lung is in contact with costal pleura—another reason for selecting the scapular line as the site of incision and resection of rib as being nearest to the line of adhesion—and I prefer to start the process with my finger; therefore, if it be not possible to reach this adherent line through the opening already made, I resect the rib next above and a little further backwards, and, through the extra space so gained, work my finger in between the lung and costal pleura. Once started, the separation usually goes with remarkable ease, and the finger can usually strip the lung downwards and then forwards along the diaphragmatic surface and upwards off the pericardium. In the upper region of the cavity it naturally cannot work, but with a thick metal bougie and a long periosteal elevator it has usually been possible to free it fairly well, and in most cases it has been observed that, as the lung became free, its expansion followed the coughing efforts which always result from the manipulation, until in many cases it practically reached the level of the parietal pleura. More often it expanded only partially, but in almost every instance there was a distinct and immediate gain. This expansion has succeeded best and been most complete in children, but has been seen frequently in adults as well. In cases where it is at first only slight it constantly increases, and, in the majority of cases progresses until the lung comes to meet the chest wall. In some of the cases that I have treated (actually six in number), after freeing the lung it did not expand well, but remained partially collapsed and retracted in the posterior part of the pleural cavity, and a thoracoplastic operation eventually became necessary. But I am convinced that in many of the cases, had the freeing of the lung not been done, another and more severe operation would ultimately have been required; and further that, in those cases where this was avoided, a long protracted convalescence was saved.

This freeing of the lung is, in my opinion, of so great importance that if a patient be too ill at the time of the evacuation of the pus to enable one to proceed, I believe it ought to be carried out at a secondary operation specially for this purpose. As soon as it is possible for the patient to do so he ought to be encouraged to go in for respiratory exercises, with the object of blowing up his affected lung as quickly as possible. Air no doubt in these efforts passes over from the sound lung across the bronchi into the affected one, and thereby the natural elasticity of the lung is aided, and as it expands the circulation through it, which, as Hodsdon has shown, is in itself an aid to the expanding forces, goes on more freely.

In the course of time it will, however, in some cases become obvious that, even though it has been freed, no further expansion of the lung is going to take place, and then it will be necessary to carry out more extensive resection of ribs. In such cases it has always been my practice to operate on the lines originally recommended by Estlander, making a curved incision along the anterior aspect of the chest wall, and resecting a portion of each of the ribs from the second to the ninth, widest from the centrally-situated ribs, and gradually diminishing the length of each successive piece resected upwards and downwards. While Estlander, however, recommended that the portion of thickened pleura exposed by the removal of the rib should be taken away also, I have always stripped the parietal pleura off the whole internal aspect of the ribs, and in addition have always decorticated the lung by dissecting the thickened visceral pleura off its exposed surface. I decorticated in the first instance in 1897, in the case of the first Estlander's operation which I had to perform, without knowing that the procedure had been recommended and carried out previously by Delorme.[1] As far as my experience goes, the immediate expansion of the lung after decortication is not very great; it has never occurred to such a degree as to be in any way compared to that which takes place in the early stages after simple freeing of the lung at the time of evacuating the pus, and I believe that the latter is by far the more important procedure of the two, but still there is frequently a gain to some extent after decorticating, and the expansion will often increase after the operation if the patient be diligent in respiratory exercises.

The advantage claimed for removal of the thickened pleura, and it is often more than half an inch thick all round the chest wall is that it gets rid of a dense layer of fibrous tissue of great strength and resisting power, and thereby permits of the ribs falling in, while if it be left it acts as a splint to the ribs as it were, the very last thing that is desired.

Although this method has given quite fair results in my hands, it will not suffice for all cases, and then some further procedure will be necessary in order to obtain obliteration of the cavity. For these cases I have operated in the manner described in the following report of the case in which this was first tried:

A. S., aged 31, transferred April 29th, 1902, to my ward from the medical house where he had been under the care of my colleague, Dr. J. Lindsay Steven, to whose ward he had been admitted on April 17th.

Notes from Dr. Steven: "Patient had been suffering from a cold for about three months before admission; a fortnight ago he had a chill, followed by a stitch in right side at lower and outer part of chest. Continued work for three days after this, but weakness and shortness of breath sent him to bed. Patient has slight cough, greyish frothy expectoration; respirations 34, pulse 136, temperature 100° F., intermittent. General bulging, obliteration of intercostal spaces, defective movement, and diminished vocal fremitus and respiratory murmur, with absolute dullness to percussion over whole right side, back and front. Liver depressed, marked displacement of heart to left side, and extension of dullness to left side of sternum above."

On the same day with local anaesthesia a portion of the ninth rib was resected and 67 oz. of pus evacuated; the lung found completely collapsed and made no obvious expansion though freed.

June 5th, 1902. The lung having scarcely expanded at all, Estlander's resection of ribs was done, along with removal of all the thickened pleura; this was followed by a little expansion of the lung and considerable falling in of the ribs, and he went out perfectly healed August 18th, 1902.

Six months later, February 14th, 1903, he returned and stated he had been in good health and working up to three weeks ago, when he had an attack of influenza; he had pains all over the body, cough, and expectoration; a week before, during a paroxysm of coughing, the cicatrix burst, and pus was discharged. He was readmitted with a sinus in the centre of the old cicatrix, and the lung retracted so as to leave a cavity of considerable size. In order to close this, on February 17th, 1903, I made a long incision over the posterior extremities of the ribs, and with gouge forceps resected 1½ in. of bone from each of the ribs bounding the cavity just external to their tuberosities. The anterior extremities of these ribs having been already divided at the former operation, compression applied to the chest wall now easily depressed the ribs so far that they could meet the lung. He was kept lying as constantly as possible on the affected side, and went out completely healed April 25th.

He was last seen February 26th, 1905, when he stated he had been well ever since he left hospital; the ribs appear to have reunited posteriorly, but to be free anteriorly; the spine is perfectly straight, without the least trace of a curve.

I believe that this additional resection of ribs posteriorly will enable us to get closure of a large pleural cavity in many cases where Estlander's operation is not sufficient to do so, but it will not bring about obliteration in every case, and further operative measures may still be required to effect this. In two cases of this kind I have operated as follows, and the result in both instances has been entirely satisfactory. I believe that any cavity in the thorax could be obliterated by this method, which, at the same time, preserves a bony support to the side operated on.

When, at the time of the resection of ribs posteriorly in the manner described in the case of A. S., it is found that firm compression of the chest wall will not bring the latter into approximately close relation to the lung, I remove the central remaining piece of the highest and lowest ribs which have been resected (namely, the second and ninth) by running a long periosteal elevator along the inner and outer surfaces of these ribs, and then, taking the bone in lion forceps, twist it out of its periosteal canal; the second rib may be troublesome, because of the broad attachment of the serratus magnus to it, and the distance at which this is situated from the wounds.

The increase in the mobility of the costo-muscular flap so obtained is very considerable, but if it should still be insufficient to allow lung and chest wall to meet it can be again increased by removal of the central segment of one of the other ribs; for example, the sixth.

The figure appended shows diagrammatically what is done. Fig. 1 represents a normal chest wall for comparison. Fig. 2 shows a portion of bone resected both anteriorly and posteriorly from each rib from the second to the ninth inclusive, and in addition the central segment of the second, sixth, and ninth ribs removed, so that practically the whole of each of these three ribs is taken away.

I give below the notes of the case in which I first carried out this plan; the lung of this patient was as absolutely collapsed and non-expansile as it could well be, but as the result of the operation complete obliteration of the cavity was obtained.

E. H., aged 15, came under my care on November 9th, 1903. Two years before she had had pneumonia followed by empyema, for which she was treated elsewhere. A sinus had persisted, but the child had gone about until about two months ago, when she suddenly had a severe haemorrhage from the sinus, losing, as it was said, more than a pint of blood. Haemorrhage has recurred several times since then, and somewhat profusely during the few days before I saw her. The patient is undersized, very thin and anaemic, left thorax flattened, dull all over on percussion, respiratory murmur very feeble and bronchial in type, apex beat is at right nipple, two cicatrices on left chest wall, and one sinus which passes up to apex of the pleural cavity, and from which comes a thin, blood-stained, and very fetid discharge.

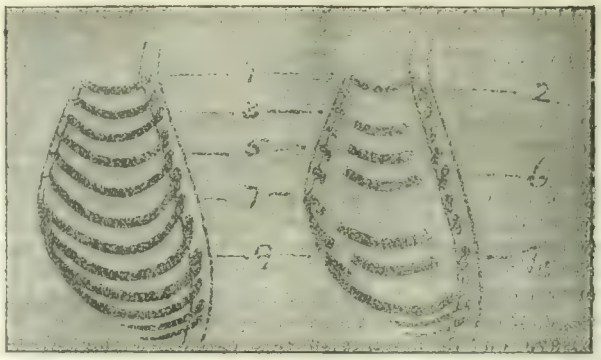


Fig. 1. Fig. 2.

November 13th. Resection of ribs from ninth to the second anteriorly, the lung was so completely collapsed and so solid, and the pleura so dense that nothing was done to free it, but the parietal pleura was removed; the patient's condition, too, became serious from collapse and she was put to bed. She rallied well, and on December 12th I resected the same ribs posteriorly and removed the central segments as described above; this allowed the flap to fall in and meet the lung all over; the depression of the flap was so marked that nearly the whole of the left side of the pericardium became exposed in consequence, and had ultimately to be covered with Thiersch skin grafts, but the cavity of the pleura was quite obliterated four weeks later. She has been seen in January, 1905, and remains perfectly well.

Another patient was operated on in February, 1904. The lung failed to expand in the slightest degree after being freed in the first instance and later decorticated, but by resection of the ribs posteriorly and removal of the central segments of the second, seventh, and ninth ribs perfect closure of the cavity resulted. Fig. 3, from a photograph taken March 1st, 1905, shows that no scoliosis has followed the operation.

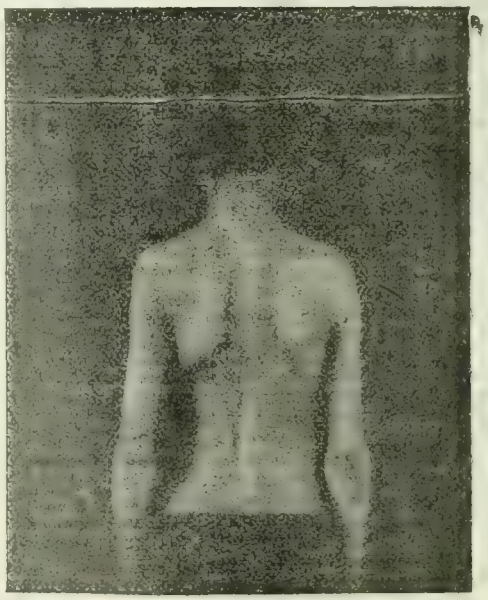


Fig. 3.

One of the causes of failure to obtain closure of the cavity in many cases after Estlander's operation is that the ribs can only collapse to a certain degree; after they have sunk inwards as far as they can go it will be found, I think, that their margins are so jammed together, possibly imbricating to some extent, that they cannot possibly go further. In both the last-mentioned cases this imbrication had taken place to such an extent that there was considerable difficulty in getting even an elevator in between the ribs, and it was not easy to get the bone forceps to work.

The operation devised by Schede has, in my opinion, the disadvantage of removing so much of the ribs that the spine is deprived of the greater part of its support on one side, and

as the result there is a decided liability to the development of a high degree of scoliosis.

By the method here advocated free mobility of a large flap, with the preservation of a large segment of several of the ribs, is obtained. As far as I can determine by examination of my two patients, bony union has occurred across the gaps made in the ribs, and Roentgen photographs tend to bear this out also; the spine remains supported, and in neither of these patients is there any scoliosis present.

Tuberculous Cases.

With regard to the treatment of tuberculous empyema and pyopneumothorax, doubt has sometimes been expressed as to the advisability of operating, and it has been stated there is a decided risk of stimulating the tuberculous process to increased activity as the result of operative interference. I am strongly of opinion that many of these cases ought to have the benefit of operation, and I was much interested in reading a recent paper by Professor Findlay [2] in which he records 2 cases of pyo-pneumothorax considerably improved by drainage, along with general treatment carried out according to the ideas prevailing at the present day regarding the treatment of tuberculosis, and he urges that "the subject should be reconsidered apart from the influence of old-established usage and predilection," with which opinion I entirely agree.

But operation in these cases ought to be carried out in such a manner that obliteration of the cavity should be aimed at in the shortest possible time. We ought not to be satisfied with drainage alone. Probably the best thing that could happen to a lung which is the seat of active tubercle is that its everlasting motion of expansion and contraction should be arrested, and this is the result of empyema in most of these cases, as long, at any rate, as the fluid is allowed to remain in the pleural cavity.

In operating in these tuberculous cases, I consider that no attempt should be made either to free the lung or to "decorticate" it, or, in fact, to do anything specially directed towards favouring its expansion; but, by resection of ribs in front and behind (if necessary, along with removal of the central segments of the highest and lowest of these ribs, though not necessarily done at the same sitting), and always associated with stripping of the whole of the parietal pleura off the chest wall, we should endeavour to make the latter meet the lung as quickly as possible and so obliterate the cavity, and get rid of the discharge which results from its persistence: and at the same time endeavour to get the general condition of the patient improved by every means available.

References.

[1] *Gaz. des Hôpitaux*, 1894. [2] *Trans. Clin. Soc. Lond.*, vol. xxxvii.

A CONTRIBUTION TO THE TREATMENT OF CHRONIC EMPYEMA.

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Medical literature is so vast that it is not possible to discover whether any treatment is novel, or whether it has been tried and discarded. The one of which I am going to give an account occurred to me some year or two ago, and during that time I have taken the opportunity of discussing it with some number of authorities, and have been told that they have not come across it in the literature. For this reason I give a description of the apparatus used, and hope to be able to record some number of cases at no far distant date.

The application of a negative pressure to the pleural cavity is so simple and obvious that the idea must have entered the minds of many, but possibly some had not the time, others not the inclination, to devise the necessary apparatus.

Method of Recording Progress.

Before describing the method of treatment I would like to draw attention to a way of estimating the progress in any individual case. The methods in general use are manifold, and I do not for a minute wish it to be supposed that the following can replace any, but will, I believe, occasionally assist when the other means give equivocal results. The probe teaches much as to the extent of the space between the thoracic wall and the lung; breath sounds, percussion, etc.—all these points assist, but are all occasionally at fault. It would be out of place to explain how thickened pleura, fibrin, fibrosed lung, may cause errors, for detraction of one method does not enhance another.

It is possible, however, to measure the actual volume of the space between the chest wall and the lung without causing any discomfort to the patient or consuming much time. The method is simply a modification of the volumenometer. This necessitates an approximately airtight joint between the chest wall and the apparatus, the arrangement of which is astonishingly easy. At first a guttapercha oncometer was moulded to fit the chest wall and fixed to it by means of strapping; there was no difficulty in making the junction airtight, but a slight negative pressure caused hyperaemia of the granulations around the wound and pain, and for this reason another plan was adopted.

A soft rubber tracheotomy tube was cut short and used as an empyema tube, the rubber guard fitted tightly against the chest wall, and prevented an appreciable amount of air from leaking in. Strapping was used to hold the tube in place, but as a rule the junction was airtight without its assistance. A glass tube was fitted into the tracheotomy tube, and this could be connected to the modified volumenometer, which consisted of a Woulff's bottle, a mercury manometer, and a small bicycle pump with the washer reversed, so that it acted as an exhaust and not a force pump. The capacity of the bottle was 350 c.cm., that of the pump 50 c.cm.; the tubing was fine, and therefore the capacity of it may be neglected.

One of the orifices of the Woulff's bottle is attached to a three-way tube, one branch of which passes to a manometer and the other to the pump; the other orifice is connected to the empyema tube. The bicycle pump is then pulled out, and the fall of pressure recorded by the manometer is noted. The tube is then disconnected from the chest, and attached to an airtight vessel. The pump is then pulled out again, and the fall of the mercury noted; if it be less than above, water is poured into the vessel and trial made again; by adjusting the amount of water in the vessel the fall in pressure can be made the same as when the apparatus was connected with the empyema. The volume of air in the vessel can then be estimated by pouring in water from a measure to fill it.

A rather better method requires an elementary knowledge of mathematics. If the volume of the pump be 50 c.cm. and that of the bottle 350 c.cm., on closing the second opening and drawing out the pump, the fall in pressure would be x

$$\frac{350}{350+50} = \frac{760-x}{760} \quad \therefore x = 95 \text{ mm. Hg}$$ (barometric pressure 760 mm. Hg).

Now if the fall on pressure be f mm. Hg when connected with the empyematous cavity, then the volume of that cavity (V) can be estimated by the following formula:

$$\frac{350+V}{400+V} = \frac{760-f}{760}$$

It is scarcely necessary for me to add that the cavity should be emptied before making the above observations by letting the patient cough when lying in a suitable position. Every few days the volume can be measured and the progress recorded in actual numbers; care should be taken to prevent the formation of pockets of pus, which would render the observations valueless.

Treatment.

The treatment consists in the application of a negative pressure to the pleural cavity for several hours every day. Attempts have already been made in this direction by draining through a long tube, the lower end of which was placed in a vessel upon the floor; this did not allow of the removal of flakes of fibrin first, a proceeding which seems to me an essential part of the treatment of an empyema of some weeks' standing. The same objection applies to Turner's tube and valve; the negative pressures obtained by these appliances is very slight.

The development of a negative pressure of 10 to 15 mm. Hg can be easily maintained by inexpensive apparatus. In selecting the pump one must remember that there may be a slight leak at the chest wall, so that it is wise to choose a form which will remove considerable quantities of air, and not one which is designed to develop a perfect vacuum. For this reason, Sprengel's mercury pump is not at all fitted for the purpose. Fischer's filter pump is almost ideal, because the regulation of the negative pressure developed is easily carried out by altering the length of tube used, and that form of pump requires very little water, less than half a gallon an hour, and thereby gives but little trouble.

It would not be wise to connect the pump direct with the

empyema for two reasons—(1) If anything were to go wrong with the pump, water would pass into the cavity; (2) if there were much discharge the pump would become dirty and refuse to act. A large bottle was connected between the pump and the chest, and this was partially filled with carbolic lotion; by placing the bottle on a higher level than the pump, it was found that even when the water was flowing extremely slowly, respiratory movements did not lead to sufficient alteration in pressure to draw the water into it. A negative pressure of 80 mm. Hg was used in adult cases, and this was accomplished by having a fall of nearly 2 metres.

Since the apparatus described above, although possessing the advantage of costing less than ten shillings, nevertheless labours from the disadvantage of requiring a slight amount of attention, it was thought worth while to devise one that would work without any attention at all. A small exhaust pump of about 16 c.cm. capacity was run by a small electric motor; with this arrangement it is necessary to place a valve in the system to prevent too great a negative pressure being developed. The arrangement which was adopted consisted in connecting the pump with a large wide-mouthed bottle, through the cork of which three tubes passed. One of these was connected with the pump, one with the chest, and the third was open above, but inside the bottle passed into a cylinder containing mercury.

The depth of the mercury was over 15 cm., the tube could be drawn up so that the distance of the end from the surface of the mercury could be adjusted with ease. It is necessary for the cylinder to be at least 2 centimetres in diameter, because air bubbling through mercury agitates it so greatly that if a small cylinder be used the mercury would be thrown out of it; gauze should be tied over the top of the cylinder. The negative pressure developed depends upon the depth of the opening of the tube below the surface of the mercury and efficiently prevents a dangerous exhaust being established.

The treatment is painless; usually the pulse rate is slightly accelerated, but that may be due to the excitement of having the apparatus by the bedside.

The Advantages.

The advantages which may be claimed for this treatment are two: the negative pressure tends to expand the lung without necessarily causing emphysema of the other lung, which may be expected from the use of James's bottles.

The negative pressure produces a hyperaemia of the tissues of the pleural cavity, which probably increases their local resistance.

The comparative opsonic values of exudates from the pleurae under normal and under reduced pressures are being estimated.

This is only a preliminary account, but the results obtained so far seemed to me to justify publication.

IRON ACETATE IN THE TREATMENT OF PNEUMONIA.

By HERBERT J. ROBSON, M.R.C.S., L.R.C.P.,
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For the last seven years all cases of pneumonia—whether bronchopneumonia or lobar pneumonia—met with in my practice have been treated by iron acetate, and in severe cases by alternate doses of iron acetate and strychnine, and with surprisingly good results. The statistics I intend publishing later when I get more time at my disposal.

A furred tongue or complications such as bronchitis and pleurisy or whooping-cough seem to make no difference to the good effect of the treatment, though the lower the condition of the patient the better is the value of the treatment demonstrated. The prescriptions used are:

℞ Liquor ferri perchlor. mxv, liquor ammon. acetat. ʒij, aq. chlorof. ad ʒss (adult dose). Take every 4 hours in water when given alone; take every 6 hours alternately with the strychnine mist. when this latter is needed. (It is administered every 6 hours until the patient is well over the crisis; then it is given every 8 hours, and later every 12 hours alternately with the strychnine.)

℞ Liquor strychninae mv, aq. chlorof. ad ʒss; fl. mist. Take every 6 hours in water alternately with the ferri mist. and as above stated (in severe cases only).

℞ Pine oil, for dry inhalation on a clean handkerchief.

Alcohol is seldom given until towards or after the crisis, and often it is not required at all, and then only as the pulse or condition of the patient directs.

Oxygen is seldom required; and, in my opinion, its value is very much overestimated. But when it is given it is administered "warm," being either gently blown into the patient's mouth and nose at a temperature of 90° or 95° F., at which temperature there is no cold draught or feeling of cold, or inhaled directly at a temperature of 65° F. from the oxygen warmer made for me by Messrs. Reynolds and Branson; though always the temperature of the oxygen is regulated by the warmer.

Quinine is never given, as in my opinion it does positive harm in this disease.

Digitalis seems seldom needed if the treatment by iron acetate is adopted early.

Antipyretics of the coal-tar series are carefully avoided, as in this disease I believe them to be dangerous.

Tepid sponging or the cold pack is resorted to for lowering a high temperature; though under the above treatment it seems to be seldom required. The temperature of the bedroom is kept at 63° F., and free ventilation is encouraged.

For *pleuritic pain* an occasional mustard leaf and a flannel binder carefully applied round the chest are resorted to. If these fail to relieve the pain, a small dose of morphine is given. Systematic poulticing is condemned.

For *insomnia*, which is seldom met with, trional is given, 15 gr., repeated in six or eight hours if needful.

Remarks.

The treatment by this alternate administration of the iron and the strychnine (where the latter is called for) seems to be particularly useful under the following conditions:

1. Cases of severe bronchopneumonia occurring in infants or children and in catarrhal and lobar pneumonia occurring in debilitated subjects.

2. Where one has not got two properly-trained nurses for night and day respectively, as by the regular administration of the strychnine through the night as well as through the day, the heart's action is kept up, and the danger of heart failure at the crisis is very much lessened.

3. In that infectious, creeping, and spreading form of pneumonia following influenza.

4. The crisis is hastened and favourably modified, the virulence of the disease is lessened, and the complication of empyema seldom occurs.

5. Even when bronchitis is present, there seldom seems need to order depressing drugs like ipecacuanha, as the iron acetate seems to act as a good expectorant.

NEW METHODS OF STUDYING AFFECTIONS OF THE HEART.

By JAMES MACKENZIE, M.D.,
Burnley.

V.—THE INCEPTION OF THE RHYTHM OF THE HEART BY THE VENTRICLE.

In this series of papers my main object has been to demonstrate the method of investigating the movements of the heart. For this purpose I have used for illustration cases where digitalis has modified the functions of the heart muscle, as thereby we can the more readily appreciate the nature of the changes, and more definitely determine the manner of their production. There are, however, many forms of heart failure in which digitalis has little or no effect, and, truth to tell, where no remedy seems capable of checking the onward progress of the heart failure. But even from the fact that these hearts do not sensibly react to digitalis, certain limited deductions may be drawn. Of such forms of heart failure there is one to which I have been giving special attention for many years, and the treatment of which has been unsatisfactory. This form includes many of those cases of heart failure with enlargement of the organ and a continued irregularity in its action, often without any antecedent history of valvular affection, and in whom *post-mortem* examination reveals no structural changes in the valves. Much has been written concerning such cases, and numerous terms of supposed diagnostic significance have been applied to them, such as chronic myocarditis, fatty degeneration, dilated heart, paroxysmal tachycardia, delirium cordis, chronic bronchitis with irregular heart, and so forth. A careful study of such cases—and particularly of those, now somewhat numerous, whom I have seen start on their downward career—convinces me that the whole train of

symptoms is due to the inefficient action of the heart, induced by the inception of the rhythm of the heart by the ventricle. The manner in which this ventricular rhythm starts varies, in some cases gradually, by the occurrence in increasing frequency of ventricular extra-systoles, in some cases suddenly in consequence of unwonted exertion, while in others the heart quietly drops into this condition without apparent cause. In all cases the heart's work is performed less efficiently, and usually there is at once a great limitation of the field of cardiac response—the patients cannot exert themselves with their wonted ease and comfort, shortness of breath, palpitation or pain being easily induced.

In certain cases, within a few hours of the inception of the ventricular rhythm, especially where the heart's action is rapid, marked changes take place in the circulatory system. The lips become darker in hue, and the face dusky. The area of the heart's dullness increases, the respirations become short and hurried, marked pulsation in the neck occurs, due to waves of blood being thrown back into the jugular veins. Then speedily follows oedema of the lungs and legs, enlargement of the liver, and all the typical signs of grievous heart failure. Other cases may not show such symptoms so rapidly; some, indeed, show but a slight limitation of the field of cardiac response, and may for years live a quiet life with continued irregularity in the heart's action, but liable to temporary attacks of heart failure.

When by some good fortune the heart reverts to its normal rhythm, the improvement in the patient's condition is at once remarkable, and the rapidity with which all the signs of heart failure disappear is even more striking than the rapidity with which they came on. In this fact—the restoration of the heart to the normal rhythm—we have the objective towards which all our efforts at treatment ought to be directed. Inasmuch as probably nearly one-third of the cases of serious heart failure we are called upon to treat owe their suffering to the inception of the rhythm by the ventricle, it will be realized that such an inquiry as this is not of mere academic importance, but is a prime necessity if we desire to treat our patients intelligently.

The Cause of the Ventricular Rhythm is due to Over-excitability of the Fibres joining Auricle and Ventricle.

In order that the aim for diagnostic and therapeutic purposes might be precise and definite, I have for many years been collecting evidence which might throw light upon the subject. The facts that I have gathered point to the conclusion that the cause of the ventricles contracting before the auricles ("ventricular rhythm") is due to an over-excitability of the muscular fibres joining the auricle and ventricle. I am aware that the evidence I shall give is not absolutely conclusive; still I shall adduce sufficient presumptive proof in favour of this suggestion, and in doing so try to indicate the lines on which investigation into this difficult problem may profitably be pursued.

Experimental Evidence.

Although I have worked out the solution of this question from the study of the action of the human heart, I find many striking corroborative and suggestive facts given by experimental physiologists, more especially in the researches of Gaskell. This observer specially insists on the fact that the muscular fibres joining auricle and ventricle in cold-blooded animals are extremely sensitive to stimulation. "Touch the auriculo-ventricular ring with the slightest stimulation, immediately a series of rhythmical contractions occur. It is most striking to see, after removal of the septum, how every portion of auricular and ventricular tissue can be explored up to the very edge of the ring without obtaining more than a simple contraction, while immediately the needle touches the muscular ring a series of rapid contractions results." He points out that in applying a ligature or section in the auriculo-ventricular groove a series of contractions immediately results from the stimulation of these fibres. Stimulation of the vagus sufficiently strong to stop the auricular movements may be followed by a starting of the heart's action, due to the ventricle taking on the rhythm the rhythm arising at these *a-v* fibres.

From such results as these one can safely deduce that there are two places in the heart where there is an exceptional tendency for the rhythm of the heart to start—at the sinus venosus (in man at the mouths of the great veins and adjacent portions of the auricle) and at the canalis auricularis (in man in the muscle fibres joining auricle and ventricle). Normally the rhythm starts at the former place, but when any undue excitation affects the latter, or even when the former fails to transmit a stimulus to the ventricle, the rhythm of the heart may start at these *a-v* fibres.

The Nature and Place of Origin of the Ventricular Extra-systole.

By the following train of reasoning I now suggest that the starting point of what I have hitherto called the "ventricular rhythm" is at the fibres joining the auricle and ventricle. In setting forth this argument I would specially call attention to the utility of this method of observation by pointing out the fund of information to be obtained from the study of such a simple tracing as Fig. 2.

At the Nottingham meeting of the British Medical Association in 1892 I demonstrated the fact that in certain common forms of irregular heart, when the pulse seemed to miss a beat the irregularity was due to the contraction of the ventricle prior to and independent of the auricle (Fig. 1). The early occurring ventricular contraction—which I then called the ventricular extra-systole—may cause so small a radial beat as to be imperceptible to the finger although shown in a sphygmograph, as in Fig. 1. I published the proofs for this statement in the *Journal of Pathology* in 1894.

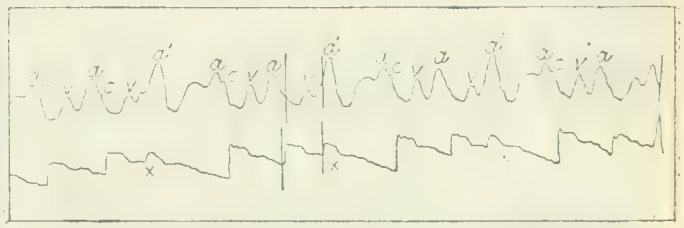


Fig. 1.—Simultaneous tracings of the jugular and radial pulses. While the radial pulse is irregular, the waves in the jugular (*a* and *a'*), due to the right auricle, are perfectly regular. The beats marked × in the radial pulse can be seen to occur before the auricular waves *a'*, demonstrating that at these periods the ventricle has contracted prior to and independent of the stimulus from the auricle.

Though this statement passed unnoticed by clinicians and physiologists, I was convinced that in it lay the key to many of the mysteries of the heart's varied action, and I have never ceased to inquire deeper into the true meaning of this observation. Subsequently Engelmann published the results of his experimental observations on the extra-systole in the frog's heart, and gave a detailed explanation of the meaning of its chief characteristics. Following on Engelmann's observations, Wenckebach found extra-systoles in man, and Cushney and Matthews and Hering demonstrated experimentally this ventricular extra-systole in the mammal heart, and subsequently these observers described the same irregularity in man, depending, however, for their proof only on the fact that the irregular period, including the extra-systole, occupied two pulse periods, whereas in my original paper I showed the actual relationship of the auricular systole to the ventricular, as in Fig. 1.

I have in previous papers called attention to the fact that a longer rest after systole permits the conductivity of the *a-v* fibres to be more completely restored, as shown by the duration of the *a-c* interval. When the conductivity is normal, a quickening of the heart beat or a slowing has little apparent effect upon the duration of the *a-c* interval. But if there be the slightest depression of this function, the period of rest has a very marked influence, so that in the duration of such *a-c* intervals we have a standard by which we can approximately estimate the time of the previous stimulation of these fibres. In Fig. 2 an extra-systole is shown at × in

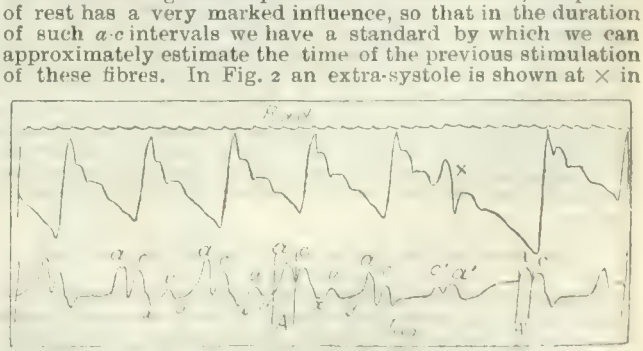


Fig. 2.—Simultaneous tracings of the radial and jugular pulses, showing the occurrence of a ventricular extra-systole at × in the radial tracing; *c'* corresponds in time with ×, and is due to the carotid. The auricle continues at its regular rhythm, the wave *a* occurring at the normal time, and after the ventricular systole

the radial tracing. It will be observed that this small wave occurs too early, and is followed by a pause longer than the pauses after the other pulse beats. In the jugular tracing the wave c' is due to the carotid, inasmuch as its appearance corresponds exactly with that of the small beat × in the radial. The wave a' is due to the auricle, for the interval between it and the preceding auricular wave, a, exactly corresponds to the intervals separating all the other auricular waves. This retention of the rhythmicity of the auricle is one of the most striking features in this form of irregular heart, and the interpretation here given has been abundantly confirmed by other observers, and by experiments on animals. This tracing demonstrates, therefore, that here, as in Fig. 1, the ventricle has contracted before the auricle. Engelmann has stated that the stimulus coming down from the auricle (a') finds the ventricle refractory after its premature contraction (c'), so that it fails to respond to the stimulus from a', but remains quiescent until the next physiological stimulus arrives from the auricle. This explanation may need modification, for here it is not that the ventricle is too exhausted, but, as this tracing demonstrates, it is because the conductivity of the a-v fibres is so exhausted that the stimulus from the auricle (a') is not conveyed to the ventricle. This is brought out in the diagram (Fig. 3) representing the events in Fig. 2.

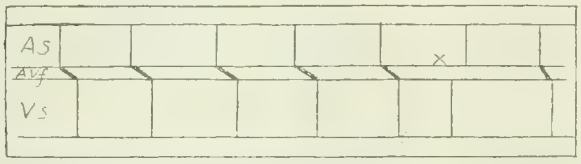


Fig. 3.—Diagram representing the events in Fig. 2. At × the stimulus arising in the a-v fibres produces a premature V_s. The stimulus from the following A_s is blocked at the a-v fibres.

To prove this statement consider the duration of the a-c intervals. All these intervals up to the extra-systole show a slight increase over the normal interval. Thus space A in Fig. 2 equals $\frac{1}{5}$ of a second, while A′ equals about half that time. The salient point to be elucidated here is why is A′ so much shortened? If the a-v fibres had responded to the stimulus from a' there would not have been a longer rest for these fibres, and the space A′ would have had the same length as the other a-c intervals. If, however, these fibres were stimulated in the production of the extra-systole (c' and ×), then they would be refractory to the stimulus from the auricle (a'), and would remain quiescent till the physiological stimulus arrived from the next auricular systole. In this manner they would have had a longer rest, their conductivity would be more completely restored, the stimulus would be conveyed across to the ventricle at a greater rate, and a shortening of the a-c interval would result, which shortening we find in A′.

The next question is, Did the stimulation of these fibres precede or follow the ventricular extra-systole? I am of opinion that they preceded, and therefore caused, the ventricular extra-systole, because, first, the shortening of A′ implies that the stimulation of the a-v fibres must have taken place at a time considerably in advance of a'; and, secondly, if these fibres had been stimulated by a backward wave from the ventricle, the stimulus would have passed back to the auricle and interfered with the auricular rhythm. We see, however, that the auricular rhythm is undisturbed. But it might be asked, if the stimulus arose in the a-v fibres, why did it not pass backwards to the auricle as well as forwards to the auricle? In many cases it does so, as one can tell from the disturbed auricular rhythm. In other cases, as here, a minimal stimulus that will provoke a forward contraction is not strong enough to start one in the backward direction. This argument, if not conclusive, is at all events suggestive, and indicates the lines which further investigation should pursue.

THE RESULTS OF CONTINUOUS EXCITABILITY OF THE a-v FIBRES.

Suppose, now, that instead of an occasional extra stimulus, producing an occasional extra-systole, there was a continuous excitability producing a series of ventricular contractions, just as Gaskell produced it experimentally, how would such a change be manifested in the human subject? I have now collected abundant proof showing such results of extra stimulation. When this happens, the rhythm of the heart at once changes, producing either a very rapid series of contractions, regular or irregular (paroxysmal tachycardia of ventricular origin), or a less rapid action of the heart, but with a continuously irregular rhythm. When this occurs a remarkable change takes place in the jugular pulse—a change from a pulse of the auricular type to one of the ventricular; that is, that whereas during the normal rhythm the auricular systole produced the principal wave in the jugular vein, there is during the abnormal rhythm no wave at this period of the cardiac cycle, but one large wave synchronous with and due to the ventricular systole. As a further proof I have found in a number of cases that patients with extra-systoles may show the irregular action at very varying intervals, occurring after every second or third beat. I have also found a few extra-systoles occurring together, and again have found a long-continued series of these, lasting sometimes for hours, sometimes for days and weeks, and in a number of cases persisting continuously until the heart became so exhausted that the patients succumbed. The proof that this rhythm was started by the ventricle I have given in my book on the pulse, and with greater detail in a paper published in the BRITISH MEDICAL JOURNAL of March 5th, 1904.

THE TREATMENT OF CASES OF VENTRICULAR RHYTHM DUE TO OVER-EXCITABILITY OF THE a-v FIBRES.

As I have remarked, the objective should be the restoration of the heart to the normal rhythm, and this can only be done by diminishing the excitability of the a-v fibres. I have tried a great variety of methods—rest in bed, massage, Schott movements, and all manner of drugs, and pushed the drugs as far as I dared, and have quite failed to achieve the object I had in view. I have seen many cases revert to the normal rhythm, and I have fancied that when this happened it was due to the method of treatment employed, but continued observation showed that it was due to other causes. This experience is well illustrated in the case of paroxysmal tachycardia of ventricular origin (there is another and rarer form of paroxysmal tachycardia where the rhythm is auricular in origin). The fewer cases a doctor sees of this complaint the more confident is he of his power to subdue the attack. I have now records of a large number of cases, some of whom have had ten to twenty attacks, and I can say with confidence that when the heart has reverted to its normal rhythm it was due to some factor altogether outside my power to control.

In the paper in this series on the effect of digitalis on the conductivity of the a-v fibres I showed how this drug readily and speedily affected this function in predisposed cases. Apart from such cases, I find that these fibres are the most resistant of all the muscle fibres of the heart to the influence of this drug, and when they are excitable the drug has but a slight effect upon their irritability, even when pushed as far as one dare. In many of my cases it has been absolutely without effect, and the following instance illustrates that, though it may have a slight effect, it fails to restore the normal rhythm.

In my paper on ventricular rhythm in the BRITISH MEDICAL JOURNAL of March 5th, 1904, I cited the case of a woman, 57 years of age, who had had numerous attacks of paroxysmal tachycardia, and I gave a number of tracings (Figs. 5 and 13 to 21) showing how for years she had had single ventricular extra-systoles, and that these became more frequent, ultimately culminating in attacks of paroxysmal tachycardia, which lasted at times for hours, days, and weeks, and how these attacks would subside independent of any method of treatment. Since the last note published of that patient in November, 1903, she has had a number of other attacks, one of which began while I was taking tracings of her pulse, and the jugular pulse at once changed from one of the auricular type to one of the ventricular. On October 1st, 1904, she was taken with an attack, which has continued up to the present (March, 1905), and since this attack started she has been in an extremely feeble state, with dusky countenance, persistent cough, enlarged liver, and swollen legs, the heart enlarged, invariably rapid, and irregular (Figs. 4 and 5).

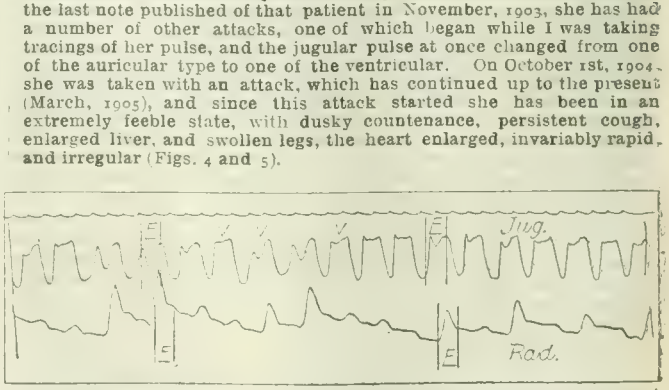


Fig. 4.—Weak, rapid, and irregular pulse due to the inception of the rhythm of the heart by the ventricle. The jugular pulse is of the ventricular type. Previous to the attack the jugular pulse resembled Fig. 1. (P. 120.)

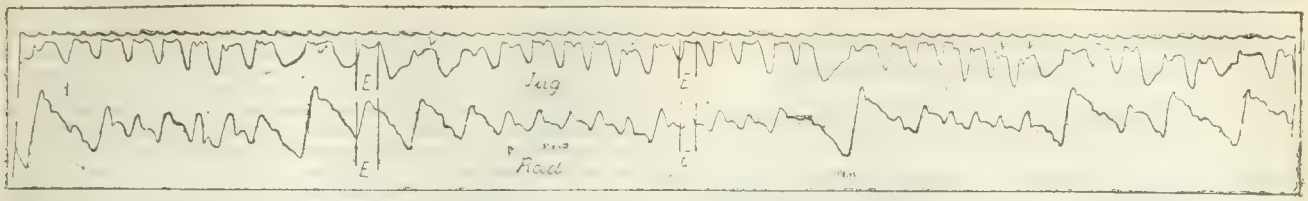


Fig. 6.—Small, rapid, and irregular pulse during an attack of heart failure. The rhythm of the heart is ventricular. (February 6th, 1905.)

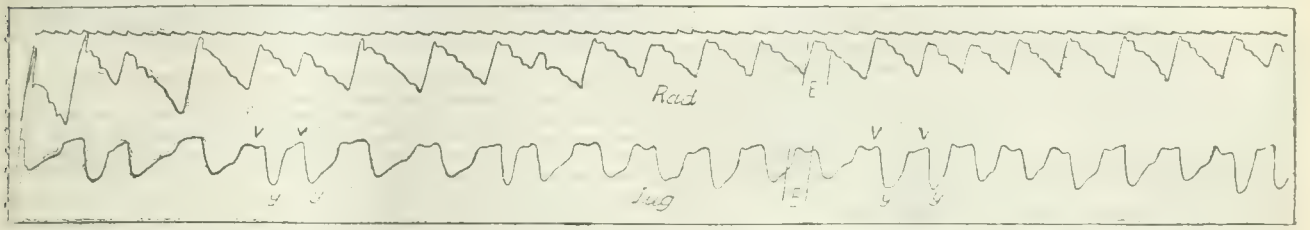


Fig. 7.—Shows the improvement in the pulse after digitalis. The jugular pulse shows that the rhythm of the heart is still ventricular. (February 17th, 1905.)

By November 1st, 1904, her condition had become so bad, and as rest, treatment, and careful nursing had failed to afford any relief, I determined carefully to push the digitalis, which, in the form of tincture, she began to take on November 1st 5j per diem. No effect was produced till November 5th, when she began to suffer from severe epigastric pain. This pain gradually descended lower in the central areas of the abdomen (umbilical and hypogastric), and when over the pubes terminated with an abundant fluid evacuation. She had several attacks like this on November 5th and 6th. The effect on the heart was to cause an appreciable slowing (Fig. 5), the rhythm, however, remaining ventricular.

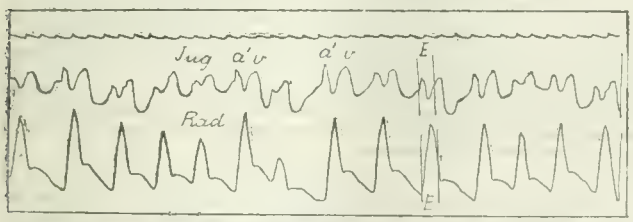


Fig. 5.—Shows effect of digitalis on the pulse. The rate is slower (108 per minute), but the ventricular rhythm persists.

The patient did not experience at first much relief. The digitalis was stopped, and two days later she experienced decided benefit, the breathing being easier and the legs less swollen, though the quantity of urine passed was not much increased—about 20 oz. per diem. Ten days later she got gradually worse, and I tried her again with digitalis, but one dose of 10 minims of the tincture immediately produced such a sensation of sinking and of pain in the epigastric region that she asserted she would rather die than take another dose. Since that time till now (March, 1905), she has been practically bedridden, the heart still acting weakly and irregularly.

The digitalis had an effect on the heart muscle, but the musculature of the digestive tract was evidently more susceptible than the heart muscle, and the disturbing effect on the stomach and bowels probably prevented sufficient of the drug being taken to affect materially the heart muscle. Although digitalis may fail to restore the normal rhythm, it may have a beneficial effect on certain cases of ventricular rhythm. Thus a woman, aged 57, who has been under my care for two years, invariably has attacks of heart failure when she ceases to take the digitalis. I have tried strophanthus and other drugs, but with no good result. The last attack was on February 6th, 1905, with dropsy, enlarged liver, blue face, great pulsation in the veins of the neck, and scanty urine. The pulse was small, rapid, and very irregular (Fig. 6).

She was prescribed tincture of digitalis 10 minims three times a day. She began to improve at once, and by November 17th the dropsy had nearly all disappeared; she breathed easier and passed more urine. The pulse became slower and more regular, but the ventricular rhythm persisted, and the jugular pulse remained very large (Fig. 7). A year ago, after a course of digitalis, even the jugular pulse would disappear, though the rhythm of the heart remained slightly irregular and ventricular in origin.

The Production of Ventricular Extra-systoles by Digitalis.

In the last paper of this series I gave a tracing showing extra-systoles occurring after digitalis. In another recent case I observed a similar occurrence. A female, aged 22, complained of being weak, of having attacks of palpitation, of having fainted; she had a presystolic murmur. On February 10th, 1905, she was prescribed tincture of digitalis. In a few days she felt distinctly better. On the 17th, after taking 5iv of the tincture, she complained of distressing "bumping" of her heart. The pulse felt regularly intermittent, and a tracing showed the regular occurrence of ventricular extra-systoles after every second normal beat (Fig. 8).

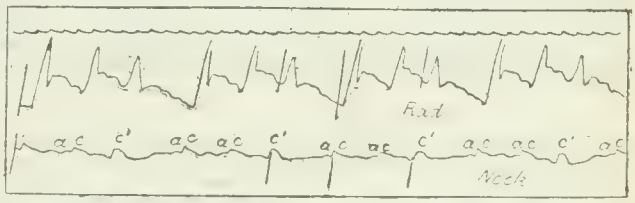


Fig. 8.—The radial pulse occurs in groups of three beats: the last of the three beats occurs a little earlier than the second beat. The faint tracing from the neck shows the carotid wave *c'*, due to the ventricular extra-systole, always a little larger than *c*, due to the fact that at this time the auricular wave also appeared in the jugular pulse and assisted to raise the lever.

The digitalis was stopped, and the next day all trace of extra-systoles had disappeared. She began again on the 20th to take 10 minims twice daily, and on the 24th the "bumping" of her heart began again, and a tracing showed the same arrhythmia as Fig. 7. The drug was stopped; there has been no recurrence of the irregularity, and the patient's condition is distinctly improved.

As digitalis when pushed has a depressing influence on all the functions of the heart, it seems at first sight strange that it should manifest a tendency to produce extra-systoles, which implies a certain degree of irritability. I can only account for it by the fact that while it has depressed the functional activity of all the other fibres of the heart, as shown by the slowing, it has failed to affect the *a-v* fibres, which retain their previous irritability, and "fire off" an extra-systole from time to time. But why it should do this so regularly I do not understand. If this surmise is right, it forms an additional argument in favour of the *a-v* fibres being the source of the extra-systoles.

Medical Certificates for Marriage.—It is said that the Armenian Church in the Caucasus has decided that no priest shall be allowed to perform the marriage ceremony unless the contracting parties can produce a medical warranty of physical soundness.

Bequests to Medical Charities.—Under the will of the late Mr. Henry Allen of Bolney, Sussex, which has now been proved, St. Mark's Hospital for Fistula receives a sum of £1,000, the London Fever Hospital half that amount, and St. Mary's Hospital, Paddington, and the Brompton Cancer Hospital £300 each, while £100 goes to the Dorking Cottage Hospital. After the payment of certain other legacies it is expected that there will be a residue of £10,000, which sum is left in trust for such charitable institutions as the trustees may themselves select, the desire being expressed that some portion may be allotted to charities connected with Great Missenden, Buckinghamshire.

A CASE OF PURULENT PERICARDITIS IN AN INFANT: OPERATION: DEATH.

BY

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and

R. P. ROWLANDS, M.S.Lond., F.R.C.S., Assistant Surgeon, East London Hospital for Children; Demonstrator of Anatomy, Guy's Hospital Medical School.

PURULENT pericarditis is seldom diagnosed in infancy, and the age of the present patient is, perhaps, the youngest at which an operation has been performed for its attempted relief. There are some points, too, in the method of operation that add to the interest of the case and to its value for being recorded. The notes have been compiled from the careful and elaborate ones taken by Dr. A. E. Hunter, formerly house-physician to the East London Hospital for Children, and for the sake of brevity only those of a more important and essential character have been dealt with.

R. W., a male infant, aged 1 year and eight months, was admitted into the East London Hospital for Children on January 22nd, 1904, under the care of Dr. Coutts.

History.

The history of the illness showed that the child had an attack of measles eight weeks before. Ever since the measles he has had a persistent cough which has got worse, and last night the mother thought the child was dying. He is sick after coughing but does not whoop. He sweats a great deal at nights and complains of pain in the abdomen. The last ten days he has been "off his food," and for the last two days has taken nothing. The father and mother and one brother are quite well. One child, however, died from "consumption," and the remaining member of the family, a sister of the patient, is in the same hospital, suffering from abscesses in the neck.

Condition on Admission.

The patient was a wasted infant with dry inelastic skin and distinctly rachitic. The fontanelle and cranial sutures were widely patent, the epiphyses of the long bones enlarged, and there was some beading of the ribs. The child did not seem very distressed, the alae nasi were not working, and there was an absence of cyanosis. The temperature, which on admission was normal, rose on the following day to slightly over 100°, but for the next two days remained subnormal. There was absolute dullness and increased resistance at the right posterior thoracic base, extending from the seventh rib above and round to the nipple line in front. Over the dull area the breath sounds are feeble or abolished. The heart's apex beat was in the fourth left intercostal space, just internal to the nipple, and the sounds were clear and distinct. The left lung was resonant on percussion and healthy breathing was audible all over. Both liver and spleen seemed of natural size.

Treatment.

It being considered that the signs at the right base were due to fluid, an exploratory syringe was inserted into the dull area, but no fluid was withdrawn.

A week later the signs at the right base had much diminished. Dr. Graham, the Medical Officer to the Electrical Department, examined the child under the *x* rays, and reported that the diaphragm was immobile on the right side, and the shadow over the dull area at the base of the right lung very slightly defined. The dull area was much darker than the rest, but transmitted light. There were no indications of either cardiac enlargement or of fluid in the pericardium.

The child did not improve, and the temperature became very irregular, running up to 103° or 104° in the evenings, and dropping down to near the normal in the mornings. On the ninth day after admission a patch of dullness was found at the left posterior base, extending up to the angle of the scapula, and there was diminished or absent breathing over the dull area. An exploratory syringe was inserted, and about a drachm of clear greenish fluid, not pus, was drawn off. The fluid was examined by Dr. W. P. S. Branson, then Pathologist to the Hospital, who reported that it was opalescent in character, containing a small quantity of fibrin. The centrifugalate consisted of a small deposit of leucocytes. No organisms were seen or tubercle found. The fluid was not considered to be pus. Unfortunately no cultivations were made. A week later, as the signs in the left chest remained the same, it was aspirated, but only ½ oz. of the same fluid as before was drawn off.

On February 15th, about three weeks after admission, the dullness over the left base had diminished, and there was more air entering the lung. The infant, however, had not improved, and his breathing was unduly rapid. The precordial dullness was noticed for the first time to be increased, extending upwards to lower border of second rib, and from just outside the left nipple to the right border of the sternum. The heart sounds were very indistinct, but there was no pericardial friction.

A week later the precordial dullness had increased, and now reached to the first rib above, and from 1 in. outside the left nipple line to ¼ in. beyond the right sternal border. The dull area was very resistant, and suggestive of fluid. The heart sounds could not be heard below the third left costal space, and there very feebly. The pulse was very rapid, and could scarcely be felt, and there were orthopnoea, cyanosis, and other signs of cardiac distress. As a blood examination showed a leucocyte count of 32,000, it was decided that the fluid in the pericardium was probably pus, and that operation offered the only slight chance of saving the child. A consultation was accordingly held with Mr. Rowlands, who agreed to operate, provided the consent of the parents was obtained.

Operation.

Mr. N. R. Phillips, who was temporarily acting for the Resident Medical Officer, gave chloroform. When the compress was removed from the chest on the operating table purplish subcutaneous haemorrhages were noticed; these had been induced by the gentle preliminary scrubbing, and clearly indicated the serious and septic condition of the child.

An exploring needle was introduced into the left costo-xiphoid angle, and passed upwards, backwards, and inwards, but no pus was discovered, although the needle had been thrust far enough to reach the pericardium. The needle was then tried at the sternal edge in the fifth left intercostal space, but with a like negative result. Dr. Coutts, who was present, still adhered to his diagnosis, and the following operation was therefore carried out at once.

A vertical incision was made over the sternal end of the left seventh costal cartilage, half an inch of which was carefully removed by paring, so as to avoid the internal mammary vessels. The edge of the left pleura was now seen in the wound, therefore a portion of the cartilaginous gladiolus was removed to give more room. This was easily and rapidly performed with the knife. The thickened and vascular pericardium was thus displayed and then opened freely by a crucial incision, the vertical limb of which reached the diaphragm below. The edges of the pericardial wound were secured to the skin by three sutures. Between 1 oz. and 2 oz. of pus escaped, and some pieces of lymph were removed by the finger and forceps. A finger was passed upwards to the front of the base of the heart, and also into the oblique sinus of the pericardium behind the heart. Two soft rubber tubes were then introduced into these two localities, and fixed in position by safety pins.

The child stood the operation well; but, in striking contrast to our last case, the fluid was not at a great pressure, and consequently there was an absence of the immediate and marked relief noticed in that case.[1] After the operation 2 minims of liquor strychninae were injected and the child replaced in bed.

The remaining history can be briefly summed up. In spite of occasional temporary improvement after injections of strychnine and saline solution with brandy the infant gradually sank, and died on the second day after the operation.

Post Mortem.

Extracts from the notes of the *post-mortem* examination made by Dr. W. P. S. Branson: The body is very wasted. The wound made to drain the pericardium lies immediately to the left of the ensiform cartilage. On either side of the oesophageal surface of the larynx is a grey membranous deposit. Cultures from this surface yielded the diphtheria bacillus. The tracheal bifurcation gland is large but not caseous. The sternum is densely adherent to the oedematous and fibro-gelatinous areolar tissue of the anterior mediastinum. The pericardium wound drains the sac thoroughly. The pericardium is very thick, the thickening being in a great part due to an organized addition to the inner surface. Both parietal and visceral layers are, on their opposed faces, covered with thick gelatinous pus, such as occurs in pneumococcal empyemata, and the parietal layers are adherent to the lung on either side. The appearances point to a long existence of the pericarditis. The pus from the pericardium contains many capsulated diplococci which are morphologically typical pneumococci. Both lungs are universally adherent by adhesions of long standing. All the lobes are oedematous, and the lower ones, in addition, are collapsed. There is no sign of inflammatory consolidation. The peritoneal cavity contains a small quantity of turbid fluid, with flakes of fibrinous pus here and there, and there are a few recent adhesions between the viscera. The peritoneal fluid on examination contained organisms apparently belonging to the bacillus coli communis group. There was nothing noteworthy in the rest of the organs examined, except that the venous system was greatly congested, and the blood more fluid than usual.

REMARKS BY DR. COUTTS.

In the present case the diagnosis of purulent pericarditis was made with much less confidence than in any of the other instances I have ventured upon it. The reason of this was owing to the amount of fluid in the pericardium being small, between 1 and 2 oz., and there being an absence of any accessory aid to diagnosis in the presence of an accompanying empyema, or the history of a past pneumonia. The diagnosis was based upon the extension of the pericardial dullness and diminution of the cardiac sounds, along with the signs of cardiac distress, which were marked and quite disproportionate to the amount of fluid found in the pericardial sac. As usual in such cases, there was never any audible pericardial rub. The history of a recent attack of measles, the successive involvement of the three serous surfaces, the character of the fluid drawn from the left pleura, and the type of the pyrexia,

all led me to regard the case as one probably of tuberculosis. It was the high leucocyte count, furnished me at the last moment, that led me to suspect suppuration and to counsel operation. With so many factors suggesting tuberculosis, I even now think it just possible that the pneumococcal inflammation was secondary to a previous tuberculous affection of the pericardium, although I have to admit that there was nothing found *post mortem* to justify such a supposition.

The double failure to find pus with the exploratory needle, even with the child under full anaesthesia, is further proof of the unreliability of the procedure in numerous cases. The failure with the needle, too, may well tend to upset a diagnosis that was otherwise well established, and in the present instance made me momentarily hesitate about sanctioning further operative measures. The diphtheritic condition of the larynx, discovered *post mortem*, of course precluded any chance of success from the operation; but it may be said that the condition had not revealed itself by any signs, and could not have been diagnosed during life.

This is the fourth case of purulent pericarditis I have had operated on, all without success. Three of the patients died within a few days after operation. In a fourth case, however, recently reported by Mr. Rowlands and myself,[2] the child lived for four months after operation, and here the death was accelerated by the contraction of measles and bronchopneumonia at a time when recovery seemed hopeful. All my cases, too, it may be claimed, were much younger than the generality of those recorded. The results are certainly not encouraging so far as to operation in very young children. Still, as death is practically certain without it, I would not be deterred by past experience from giving such children the slight chance that operation affords in any future cases I may come across.

Remarks by Mr. Rowlands.

The peculiar narrowness of the costo-xiphoid angles in this emaciated child, together with the absence of any fullness there, made me decide against adopting the epigastric operation in this case. I therefore removed the sternal end of the seventh left costal cartilage, but this gave very little room and exposed the edge of the left pleura. It was easy to remove a portion of the adjoining cartilaginous sternum; this gave ample room and a good view of the pericardium, and a safe and quick access to it. The sac was opened at the lowest extremity of its anterior surface, and thus at a good place for drainage.

Moreover, it was found possible to pass a finger into the various recesses of the cavity, and to introduce a tube behind the heart into the oblique sinus with comparative ease. The above points and especially the patency and directness of the aperture established strongly recommend the sternal route for young children. In our former case the fifth left costal cartilage and a piece of the sternum at that level were removed; but I am confident that the lower incision is a better one. Instructions were given to turn the child over on to the prone position several times a day for drainage, but unfortunately the child succumbed to his several diseases on the second day following the operation. Irrigation was not adopted at the operation, partly because Dr. Coutts reminded me of Mr. Parker's case, in which Mr. Parker believed irrigation to have proved fatal owing to pressure on the auricles due to failure to provide a good exit for the fluid; but the chief reason against irrigation was to avoid delay in the critical condition of the child.

References.

[1] British Medical Journal, January 2nd, 1904. [2] Ibid.

Water Supply and Sewerage for Manila.—When Manila passed into the control of the United States Government there were no water-pipe connexions in the houses. The residents were compelled to carry water from public fountains at the street corners. There was no connexion with sewers. The refuse was carried to inlets, which carried the sewage away only when flushed by rain. During the last two years the United States Government has ditched the sewers so as to flush them from the river, and it now proposes to spend £500,000 on the construction of a modern system of sewerage. The sum of £300,000 has been appropriated for a new water supply. The water, according to the new plans, will be taken from the Mariquina river, about fourteen miles above Manila.

An "Osler" Club has been formed in New York, each member of which pledges himself to retire from business when the majority of his fellows declare that he should be "Oslerized."

THE HEPATIC FACTOR IN BILIOUSNESS.

By FRANCIS HARE, M.D.,

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The pathology of functional diseases—that is, diseases which have no morbid anatomy—is admittedly unsatisfactory. The reason seems clear. Modern medicine is in the main inductive; it relies largely on the study of effects—usually ultimate structural effects; and where such are absent or imperceptible, further progress is liable to be checked. There is only one obvious way out of the impasse: we should add to our accustomed means of investigation a review of functional diseases from the deductive standpoint; in other words, we should apply the known principles of physiological function to the elucidation of the meaning of pathological function. So viewed, many seemingly mysterious functional disorders appear simple. This is true at least of those commonest of functional disorders, bilious attacks and biliousness.

Clinically these affections have been ascribed to prolonged external heat, to deficiency of physical exercise, to excess of sugar and rich carbohydrate food stuffs, and to excess of meat and nitrogenous food generally. Now it will not be difficult to show that all these etiological factors tend to cause at least one effect in common, namely, accumulation of glycogen in the liver.

It has been proved experimentally that accumulation of glycogen in the mammalian liver is favoured by external heat and physical inactivity (Kulz[1]). All physiologists are agreed that sugar and other carbohydrates are the chief food stuffs from which liver glycogen is derived. And it can be argued that, like the performance of function generally, the absorption of all food stuffs, and therefore of glycogen-forming material, is dependent upon the supply of proteid. Conformably Foster says that "the greatest accumulation of glycogen is effected, not by a pure carbohydrate diet, but by a mixed diet rich in carbohydrates."[2]

It is not difficult to form a definite conception of the mechanism whereby accumulation of glycogen to an ultra-physiological degree can give rise to all the clinical phenomena of a bilious attack. The liver cell which is rich in glycogen is large compared with the liver cell which, through previous starvation, contains no glycogen. This has been demonstrated by experiment. Enlargement of the liver cells involves enlargement of the liver lobules, and this of the whole organ, which is "as it were swollen" (Foster[3]). Now we have only to glance at the well-known representations of the histology of the liver in Quain's or Gray's *Anatomy* to see that enlargement of the liver cells will cause pressure on the intralobular capillaries, and that enlargement of the liver lobules will cause pressure on the interlobular veins. It seems physically impossible that these blood vessels can escape material pressure; and it is certainly impossible that such intrahepatic pressure can be exerted so as not to cause material retardation of the blood flow through the portal vein—a vein in which the blood pressure is extremely low (10 mm. Hg).

We may then assume that glycogenic distension of the liver causes mechanical congestion of the portal venous system behind the liver. Now "there are no valves in the portal vein or in its larger tributaries. . . . Valves are, however, present in the veins of the stomach and of the walls of the intestine; but, according to Hochstetter and Bryant, they early become insufficient, and in the adult to a great extent disappear."[4] It follows that the mechanical congestion of the main branches of the portal vein immediately behind the liver will directly involve mechanical congestion, or tendency to stasis, in the whole of the alimentary mucosa from the stomach downwards to the junction of the skin and mucous membrane at the margin of the anus.

Such a vascular condition affecting the gastric mucosa will be opposed to that which obtains when food is introduced into the stomach of the hungry animal. Then not only do the arteries of the organ dilate and largely increase the supply of oxygenated blood, but, the passage through the liver being unobstructed by glycogen, the circulation is rapid, so rapid that the blood in the gastric veins continues to preserve its arterial hue (Foster).[5] Manifestly for the rapid manufacture and discharge of the digestive juices, and for active digestion, a free escape for the blood is as essential as a plentiful supply.

Mechanical congestion will be associated with some swelling. Such, affecting the duodenal mucosa, will probably be sufficient to cause blocking of the orifice of the common bile duct; for, as Lauder Brunton points out, "the pressure under which bile is secreted is very low, so that a very slight obstruction to its flow through the common duct is sufficient to cause its accumulation in the gall bladder and gall ducts."[6] Blocking of the common bile duct will involve blocking of the pancreatic duct, since the two open by a common orifice. Thus there will be absence from the alimentary canal of bile and pancreatic juice; and it is probable that the vascular condition will preclude the secretion of the gastric and other digestive juices. As a result, there will be cessation of the processes of digestion and absorption, those processes which were primarily responsible for the glycogenic distension of the liver.

It is easy to conceive that the condition of the digestive organs described will be manifested clinically by anorexia, nausea, and vomiting; and that in some cases the retrohepatic congestion will relieve itself by diarrhoea. Anorexia will preclude fresh intake. Vomiting will cause compression of the liver and distended gall bladder between the abdominal wall and the diaphragm; thus the retained bile will be ejected into the duodenum, and will usually find its way into the stomach, whence it may be vomited. Diarrhoea, in addition to relieving the portal congestion, will hasten the alimentary current, and so tend to restrict further absorption. Meanwhile the ever-present combustion in the tissues will, by creating a demand for fuel, gradually reduce the amount of glycogen deposited in the liver. So the glycogenic distension will be relieved, the hepatic obstruction removed, the mechanical stases dispersed, and convalescence established. The whole paroxysm may be regarded as a well-organized and most salutary strike against the absorption of food in excess of the requirements of the organism; it is, moreover, a strike which attains its object in the most direct manner possible.

Harley divides biliousness into (1) the acute form, due as a rule to some distinct error of diet, such as a surfeit of plum pudding; (2) the subacute (recurrent) form, due not to isolated indiscretions in diet but to continued habitual over-indulgence; and (3) the chronic form, usually met with in adults, especially old residents of the tropics, and extending, it may be, to months in duration.[7] Conformably, we may speak of (1) acute glycogenic distension of the liver due to a large sudden irruption of glycogen-forming material into the portal venous system; (2) subacute or recurrent glycogenic distension of the liver, in which there is a continued absorption of glycogen-forming material in excess of consumption, and a consequent progressive accumulation of hepatic glycogen, which attains its maximum at more or less regular intervals; and (3) chronic glycogenic distension of the liver, in which recurrent relief fails, and in which consequently the organ remains more or less continuously packed with glycogen.

It has already been pointed out that the etiological factors commonly regarded as responsible for biliousness concur in tending to cause accumulation of glycogen in the liver; and it will not be difficult to show that factors, most of which are admittedly capable of dispersing biliousness, concur in tending to reduce the amount of glycogen in the liver. Some of these may be regarded as therapeutic—namely, abstention from food, physical exercise, climate, purgatives, restriction of meat and nitrogenous food stuffs, and restriction of carbohydrates. Others must be regarded as pathological—namely, pyrexia and glycosuria.

Therapeutic Factors capable of Dispersing Glycogenic Distension of the Liver and Biliousness.

Starvation empties the liver of glycogen (Foster[8]), and Harley says he has frequently cured his "bilious patients with a day or two's starvation diet." Many bilious patients have discovered for themselves the curative influence of temporary abstention from food.

Physical exercise markedly reduces the amount of glycogen in the liver (Manché[9]), and an increase of physical exercise is almost invariably prescribed in all kinds of biliousness.

Biliousness is proverbially more common in the tropics, and many bilious tropical residents may be rapidly relieved by a trip to a cool or cold climate. Other things equal, such climates, by promoting combustion, will reduce the amount of glycogen in the liver.

Deposition of hepatic glycogen depends *inter alia* upon the absorption of glycogen-forming material from the alimentary canal. Absorption occurs mainly in the intestine, hence purgatives of any kind will restrict absorption by hastening the intestinal current.* But since the nutritive value of the intestinal contents diminishes progressively from above downwards, the greatest restriction of food absorption from purgatives will follow such as act mainly upon the higher portions of the canal. Such a purgative is calomel, which, according to Lauder Brunton, has a "peculiar stimulant action on the duodenum and ileum."[10] This action was recognized by Murchison, who adduced in support the fact discovered by Radziejewski—that leucin and tyrosin, products of pancreatic digestion, which in ordinary circumstances are decomposed in the bowel, appear in the faeces after the administration of mercurials.[11] Now calomel is probably the purgative which has been found most useful in biliousness. But its usefulness will not be limited to its indirect relief of portal congestion through reduction of glycogenic distension.

Through withdrawal of fluid, calomel will directly relieve the retrohepatic portal congestion, the mechanical congestion of the duodenal mucosa, and the tendency to blocking of the orifice of the common bile-duct; and the last will perhaps be favoured by the exaggerated peristalsis of the duodenum induced by the drug. Thus bile will re-enter the intestine, and from its amount will colour the motions in probably greater degree than under physiological conditions. The long-standing difference of opinion between the physician and physiologist as to whether calomel does or does not increase the output of bile, depends, I think, upon the fact that both observers considered only the secretion of bile. The two observations are reconcilable on the above view. Calomel does not increase the secretion of bile, but effects the releasement of a prior retention. In support, it may be recalled that in some cases of prolonged biliousness the motions passed are light and dark alternately.

Reduction of meat and nitrogenous food stuffs generally is by no means new as a treatment for biliousness. Writing in 1879, J. Milner Fothergill advises "cutting down the albuminoids," and "substituting a dietary of fruit and farinaceous food for meat."[12] He considered that "by such means the work of the liver would be greatly economized, not only as to the storing up of glycogen, but, what is more important, the work of oxidation of albuminoids would be lessened."[13] The plan is still widely practised, and is moderately successful in many cases. Its success, however, is variously explained. It has been ascribed to diminished absorption of toxins from the intestine and to diminished introduction of the antecedents of uric acid.

On the view that glycogenic distension of the liver to a pathological degree is the essential factor, the success of the plan seems simple. The processes of digestion and absorption are functions of the nitrogenous tissues; and it is a fundamental biological fact that all functions depend upon the supply of proteid. It has been demonstrated by experiment that an animal from which all proteid is withheld dies from starvation, and that despite an ample supply of fats and carbohydrates. This means, of course, that digestion and absorption, amongst other functions, cease to be performed. It is reasonable, therefore, to believe that a large restriction of meat, fish, and eggs—the main sources of the proteid supply—will result in a progressive impairment of the processes of digestion and absorption. Hence the inflow to the portal venous system of glycogen-forming material will become less, and by so much will diminish the deposition of hepatic glycogen. This diminution will be gradual, because the impairment through restriction of proteid, of digestion and absorption, as of all function, is a gradual process. Hence bilious attacks and biliousness generally, treated by this method, may be expected to subside gradually, not suddenly; and clinical experience shows gradual subsidence to be the usual manner of improvement.

But restriction of proteid may prove a double-edged therapeutic weapon. Impairment of functions other than those of digestion and absorption may well ensue. For example, it is admitted that restriction of proteid retards the rate of combustion by the fixed nitrogenous tissues; and there can be little doubt that the function of combustion in the tissues is an important factor in relieving the liver of accumulated glycogen. Hence it is to be expected that restriction of proteid will in some cases fail to relieve bilious manifestations; and this will be found to accord with clinical experience. Many persons treated in this way not only continue

* The excess absorption associated with habitual constipation has been demonstrated experimentally by Baron Oefele (British Medical Journal, January 7th, 1905, p. 24).

to suffer, but also lose energy, strength, and colour. Such results, however, may often be moderated, if not obviated, by a concurrent increase of physical exercise, whereby the rate of combustion is maintained.

Restriction of Carbohydrates.

But if, as argued in this article, many of the various clinical conditions embraced in the term biliousness depend upon ultra-physiological distension of the liver by glycogen, then obviously the most rational, because the most direct, method of treatment will consist in restriction of the supply of glycogen-forming material. Glycogen is formed mainly from the carbohydrates, and by cutting down the carbohydrates in a mixed diet we shall relieve glycogenic distension. Conformably this plan has given in bilious attacks and biliousness generally results which are unmistakable. In many cases the change of diet is followed by an almost immediate cessation of recurrent bilious attacks, which remain absent so long as the new régime is maintained. Equally significant is the result of reversion to prior food habits. After a time, varying in different cases from a few days to a few weeks, the attacks recommence, and pursue their old recurrent course, usually at the accustomed intervals. It is true, however, that in some cases, a prolonged period of freedom, attained in the above manner, results in the disappearance of the tendency, even in the face of a moderately full carbohydrate intake. Numerous cases in support could be detailed, but space is lacking.

Pathological Conditions Capable of Dispersing Glycogenic Distension of the Liver and Biliousness.

The most noteworthy of these are pyrexia and glycosuria. Pyrexia markedly reduces the amount of hepatic glycogen (Bernard [14]). Probably in most cases it operates to this end in two ways. Always associated with pyrexia is an increase in the output of carbonic acid (Liebermeister, Leyden, Ringer); and this must depend on an increase in the rate of combustion; thus the expenditure of carbohydrate material is increased. Usually associated with pyrexia is a distaste for food, and more or less dyspepsia; thus the income of glycogen-forming material is diminished. At any rate the experimentally-demonstrated fact remains that hepatic glycogen is reduced by pyrexia. Conformably any practitioner can assure himself that the clinical manifestations typical of biliousness remain, for the most part, in complete abeyance during pyrexia of any duration. This is naturally most conspicuous when a prolonged intercurrent pyrexia supervenes in a case of long-standing recurrent or periodic bilious attacks. I know of numerous cases in which recurrent bilious attacks of many years' standing have ceased absolutely throughout the whole course of typhoid fever; and in many of these the hepatic disorder returned during convalescence, and continued to recur thereafter with its old approach to regularity.

What is true of recurrent bilious attacks should be true of chronic biliousness if, as seems probable, this condition often depends primarily upon prolonged glycogenic distension of the liver; any intercurrent pyrexia should have a salutary influence on the hepatic manifestations. On this point I made inquiries of Major D. J. Buchanan, I.M.S., editor of the *Indian Medical Gazette*, who kindly replied as follows: "My attention has not been called to the point you mention about the improvement following intercurrent feverish attacks in liver cases, though when you mention it, I have seen such improvement, though I did not note the connexion at the time." I can myself recall one case in which long-continued bilious symptoms of a distressing nature seemed completely dispersed by a compound fracture into the elbow-joint complicated by considerable septic pyrexia.

Glycosuria has marked inverse relations with biliousness. This is easy of explanation if we accept Pavy's view that the dehydration of portal sugar constitutes the glycogenic function of the liver, and that in glycosuria this function is at any rate inadequate. For, inadequacy of dehydrating power on the part of the liver will manifestly render impossible a pathological degree of glycogenic distension. Conformably Erhlich states [15] "that very little or no glycogen can be found in fragments of liver withdrawn by a trocar from diabetics during life." And again, it is a fact that recurrent bilious attacks and many other clinical conditions which cannot be here considered, but which, I shall elsewhere argue, depend upon glycogenic distension of the liver, tend to remain in abeyance or to become conspicuously modified, upon the supervention of glycosuria or diabetes mellitus of any kind.

Space is wanting for the enumeration of cases in support, but any physician can assure himself of the truth of the above statement in regard to bilious attacks by going through the previous life-histories of a series of diabetics.

The rational treatment for many cases of recurrent and other forms of biliousness has been deduced from the pathological views entertained in this article. This treatment consists simply in limiting the intake of carbohydrate material, and sugar is the first food stuff to be excluded. Herein is involved no functional impairment in any direction. The treatment consists merely in cutting down excess of supply. But practically it will be found advisable in most cases to insist also upon an increase in regular physical exercise. This will obviate the necessity for any severe degree of carbohydrate restriction. And it is certain that the patient who precludes glycogenic distension of the liver in part through such a healthy increase of expenditure remains in more robust condition than one who merely reduces his income to the level of a sedentary life; in other words, regular physical exercise confers many incidental benefits of great importance.

There are two further points requiring notice: The first is that the management of biliousness by the means advised is much simpler in the case of patients who are well nourished. To those of the profession who may not be conversant with this treatment but who may wish to make trial thereof I should like to suggest that commencement be made with patients who incline to be or who are corpulent. The second point is that in some cases, though by no means in all, it will be found necessary to provide against an excess of fats not less than against an excess of carbohydrates. Neither of the above points are merely empirical. They are both susceptible of simple explanation on physiological principles. But such explanation would open out a fresh argument and must be deferred.

References.

[1] *Textbook of Physiology*, Schäfer, 1898, vol. i, p. 918. [2] *Textbook of Physiology*, Foster, 1895, p. 751. [3] Ibid, 1895, p. 755. [4] Quain's *Anatomy* 1899, vol. ii, part ii, p. 543. [5] *Textbook of Physiology*, 1895, p. 420. [6] *Pharmacology, Materia Medica and Therapeutics*, 1885, p. 355. [7] *Diseases of the Liver*, 1883, p. 274 et seq. [8] *Textbook of Physiology*, 1895, p. 755. [9] Quoted by Schäfer, *Textbook of Physiology*, 1898, vol. i, p. 918. [10] *Pharmacology, Therapeutics and Materia Medica*, 1835, p. 355. [11] *Functional Derangements of the Liver*, 1874, p. 169. [12] *Practitioner*, 1879, vol. ii, p. 353. [13] Ibid. [14] Quoted by Saundby, *Renal and Urinary Diseases*, 1896, p. 299. [15] Ibid.

ON THE CLOSURE OF TRAUMATIC DEFECTS OF THE SKULL.*

By CHARLES LEEDHAM-GREEN, M.B., F.R.C.S.,

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I WISH to bring briefly before your notice the methods by which we can best close large defects in the vertex of the skull, whether produced by traumatism or otherwise, and to record two examples met with in my own experience.

Compound comminuted fractures of the vault furnish a large proportion of these defects, but a certain number follow surgical interference for the relief of cerebral tumour, epilepsy, etc. It is well established that, unless the loss of substance be very small, such defects of the cranium are very seldom spontaneously closed by bone, the bones of the vertex having but little power of repair. As a rule, the lost bone is replaced by fibrous tissue. When the defect is small this tissue is dense and unyielding; so much so that it is difficult to ascertain whether true bone exists or not. The few authenticated cases in which true bone has been formed to any extent can but be regarded as rare exceptions to the general rule.†

Clinical experience proves that the closure by firm fibrous tissue of a small defect, such as is left by the removal of a trephine crown, is generally unattended by injurious consequences to the patient. But it is not always so when the defect is large. For here the fibrous tissue most imperfectly replaces the bone. It is thin, soft, and yielding, and inade

* This paper was read before the Midland Branch of the British Medical Association. It was forgotten until a short time ago, when, after an interval of some years, I had an opportunity of re-examining both the cases referred to in it. This recalled the paper, and suggested that it might be worth publishing.

† Küster [1] reports a case of necrosis (not syphilitic) of the frontal bone, where, after the removal of a sequestrum (10 cm. by 8 cm.), the defect was completely and spontaneously closed by bone. Goez [2] also reports a case of syphilitic necrosis of the skull, where a defect of 13 cm. by 17 cm. was spontaneously closed.

quately protects the brain beneath. The patient is not only especially liable to cerebral injury from blows on the head, but severe intellectual disturbances are apt to supervene. It is true that this statement is opposed to the opinion held by Professor Kocher[3] and Berezowski,[4] neither of whom believes that such defects have injurious consequences. Indeed, Kocher is of opinion that they tend rather to prevent than produce serious cerebral symptoms, such as epilepsy. But, on the other hand, there is an increasing record of cases, which shows that though it is true that large traumatic defects may be unattended by serious consequences, yet at times severe cerebral symptoms do develop, which strongly point to such a cause. There is König's[5] historic case of a young man who, in consequence of a severe injury to the head, sustained an extensive cranial defect of the left temple and parietal region. Over this area the pulsations of the brain could be distinctly seen. The man, who previous to the injury was typically healthy, gradually became dull and apathetic to a marked degree, and suffered from frequent epileptic attacks. All these symptoms were permanently cured on the closure of the defect by an osteoplastic operation.

Von Bergmann also regards such defects, especially in young people, as directly predisposing to epileptic attacks. He quotes an interesting case[6] where a child, after a compound fracture of the frontal bone produced by the kick of a horse, was left with a pulsating defect. Three years after the injury the child was subject to attacks of headache, giddiness, and fainting. The defect in the bone was closed by a plastic operation, and the child at the time of writing, more than six years after, was perfectly well; von Bergmann has recently published three other similar cases, which he cured in a like manner. Bunge[7] is also of opinion that these defects are apt to give rise to grave trouble. Out of 13 cases observed by him, severe symptoms developed in 9, and in 4 of these epileptic attacks were present. In his cases the older the defect the more marked were the symptoms.

But, it may be asked, Are the symptoms observed in these cases really due to the defect in the cranial wall, or are they due to other causes, such as injury to the cortex, or adhesion of the brain to the dura mater or scalp? Although it is possible, nay probable, that frequently the symptoms observed are due to one or other of these latter causes, rather than to the presence of the defect, there are nevertheless many cases recorded which cannot be explained in this manner. These are cases where the dura mater was unopened, either at the time of the injury or at the plastic operation for the defect, and where the simple closure at once and permanently relieved the symptoms.

There is no lack of methods by which the defects may be made good, whether at the primary operation or subsequently at a second operation for that purpose. It is well known that the circular piece of bone removed by the trephine may be replaced either entirely or in small fragments. The re-implanted portions of bone generally heal in without any trouble. They do not themselves become living parts of the skull, but are generally absorbed, new bone being laid down in their place. Where such portions of bone are not available, other measures have been suggested. For example, the implantation of decalcified bone has been effected by Senn;[8] but it has since been shown that this kind of bone is rapidly absorbed, fibrous tissue, and not true bone, taking its place. Barth[9] says that this is due to the absence in the decalcified bone of lime salts, which are essential in any graft laid down with a view to producing true bone. He himself uses charred bone; and there are numerous cases recorded by him and others[10] showing the efficiency of this method. Mertens[11] advocates the implantation of bone which has been boiled. The superiority of this method over the former arises from its more rapid and more easy preparation, and its freedom from the objection of brittleness. Other surgeons have made use of grafts of living bone, removed from distant portions of the body. The anterior surface of the tibia,[12] or portions of bone removed from the lower animals may be used for this purpose.[13] In other cases plates of ivory,[14] silver, or celluloid[15] have been inserted, and successfully healed in. All these methods have the same drawback—namely, that of utilizing foreign bodies to close the opening. They therefore cannot be used unless the wound be in a perfect aseptic condition. If it should not heal per primum the bone graft or inserted plate will not be tolerated. In many of the reported successful cases of the implantation of silver or celluloid plates the plate has eventually caused irritation, and has had to be removed.

A method which is free from the disadvantages arising from the implantation of foreign bodies, whether of celluloid, boiled bone, or other material, is that which is known in Germany as the "König-Müller method."[16,17] It is the one which I adopted in the two cases which I wish now to record.

Rather more than five years ago a young man, aged 22, was struck violently on the head by a swing-boat, and sustained a large compound comminuted fracture of the occipital bone. He was brought to the Queen's Hospital, where I removed a large number of small bony fragments, leaving a defect in the skull of 3 sq. in. The dura mater was only slightly torn, and no gross lesion of the cortex of the brain could be detected. In consequence of the dirty nature of the wound and the damage done to the scalp, no attempt at bone-grafting could then be entertained. The patient made an uninterrupted recovery, and in a few weeks left the hospital with the intention of resuming his work. I then lost sight of him for two years, when he turned up in the out-patient room, complaining of severe headache, augmented by any movement of the head, dizziness, especially when stooping, and epileptic fits, which were increasing in frequency and severity. The headache and giddiness began to develop some six months after the injury; and a few months later mild epileptic attacks were noticed. At the site of the former injury there was a well-marked depression, about $2\frac{1}{2}$ in. in diameter. The brain could plainly be seen pulsating beneath the scalp. As the symptoms were increasing in severity and completely prevented the man from following his employment, I admitted him to the hospital with a view to closing the defect. Under an anaesthetic I turned up a large horseshoe flap of the scalp so as to fully expose the defect in the skull. I then refreshed the bone margin of the defect. (The dura mater was not opened.) When this had been done I made another horseshoe incision to one side of the first flap to outline another flap of the same dimensions as the first one, but having its base downwards. This flap differed from the former one, inasmuch as in raising it I took with it a thin layer of bone from the outer table of the skull. This was done by means of a broad chisel. The two flaps were then transposed; this second one, with the thin layer of bone adhering to its under surface, was placed so as to cover the cranial defect, and the first one to take its place. The wound healed per primum, and the patient was able to leave the hospital in a fortnight's time.

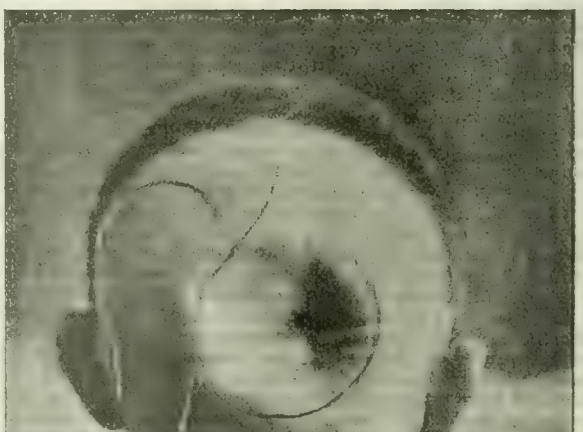


Fig. 1.

On examination of the part some months afterwards, the previous defect was found to be completely cured by a firm bony plate. The pulsation of the brain could no longer be detected, and apparently the hole in the skull was completely filled in. The patient declared himself so much better that he regarded himself cured. The fits had almost disappeared and the headache and giddiness quite.

I have recently had an opportunity of re-examining the patient, now two and a half years since the plastic operation. Although it leaves nothing to be desired, as regards closing the defect, yet the patient has not entirely lost the liability to epileptic attacks. But they become more and more slight and infrequent. It is, however, to be noted that he has lately become addicted to alcoholic excess, which has always so adverse an influence in cerebral injuries.



Fig. 2.

I have also made use of this mode of bone-grafting when operating for the cure of trigeminal neuralgia, by Krause's method, and with complete success. As ordinarily performed a large horse shoe scalp flap is turned down the temporal region, and the bone removed by means of trephine and cutting forceps so as to gain access to the cranial cavity to remove the Gasserian ganglion. Subsequently this leaves a considerable defect in the skull and produces a deep and unsightly depression, of the size of the bowl of a tablespoon, on the side of the temple. To avoid this, Krause advises that the skull be resected by Wagner's method,[18] though he admits that this procedure is apt to take a disproportionate time, and is not, therefore, advisable in elderly or debilitated patients.[19] I have found that, after the horse-shoe flap has been outlined by the scalpel, one can easily and rapidly by means of a broad sharp chisel shave off a thin film of bone adherent to the under-surface of the scalp flap. A small opening can then be made in the denuded bone, and rapidly enlarged to the necessary size by means of gouge forceps. When the ganglion has been removed, the temporal flap, with its adherent scale of bone, is sutured down over the defect. New bone is rapidly laid down from the bone-periosteum flap, and in a few weeks the defect is filled by firm and unyielding bone, and the disfiguring depression is thus obviated.

I think there can be no doubt that where the secondary closure of a bony defect is indicated the best method to use, if available, is that of the König-Müller flap, or some modification of it, for this method allows of many modifications. It does not seem necessary that the bone-periosteum flap should be adherent to the skin flap.[20] It may be raised up independently of the skin, merely receiving its blood supply through a small periosteum attachment. Indeed, there is evidence that a wholly detached periosteal graft is able to lay down true bone, and may be used for plastic purposes. F. von Mangolt[21] has recently published two cases of pseudo-arthrosis from loss of bone which were cured by the grafting of detached grafts of periosteum. Though obviously such a method exposes the graft to a far greater liability to necrosis should the wound become infected.

Where it is to be feared that firm adhesions might form beween the cortex and the implanted strip of bone, the graft may be turned over so that the periosteal surface lies against the brain.[22] It is, however, by no means certain that the bony surface is liable to form adhesions with the dura mater or cortex. Czerny[23] reports that, having occasion to turn up a König-Müller flap which he had laid down some eighteen months previously, he found that the under-surface of the bone was not adherent to the dura, but that a new lamina vitrea had formed on the under-surface of the bone-graft. Hoffmann[24] substantiates this from experiments made by him on certain animals.

Where for any reason it is not possible to make use of the König-Müller method, or any of its modifications, the best homoplastic method is probably that advocated by Mertens, namely, the use of boiled bone. According to Bunge, this only succeeds when the implanted bone is placed in direct contact with osteoplastic tissue. When the dura mater is covered with strong granulations this condition is probably not fulfilled, and absorption of the implanted bone will take place unless the diploë of the cranial bones be refreshed and the engrafted bone comes in direct contact with the refreshed edges of the cranial defect.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF DEATH UNDER CHLOROFORM.

A case of death under chloroform occurred at the Edinburgh Hospital for Women and Children, Bruntsfield, on January 21st, under the following circumstances:

The patient, a married woman aged 40, was admitted for operation for irreducible umbilical hernia. The hernia had existed for five years, and had for some time brought on attacks of pain and retching after any exertion. There was nothing in the previous history to contraindicate the use of an anaesthetic; in the circulatory system nothing abnormal was detected; in the respiratory, there were some crepitations at the base of the right lung. The examination of the urine showed specific gravity 1015, alkaline, no albumen; precipitate, phosphates. The temperature was normal or slightly subnormal, and the pulse ran about 80. On the fourth day after admission, and after the usual preparation, chloroform was administered to the patient by the house-surgeon. She took the anaesthetic quietly; there was no holding of the breath. The chloroform was dropped steadily on the mask and lowered gradually to within half an inch of the face, and continued for three or four minutes. Then the patient began to breathe heavily and rapidly, and the pupils dilated; there was no stridor, and no pallor. The mask was held further from the face, but not at once entirely withdrawn; then respiration suddenly ceased, chloroform was stopped, and the face became congested. This was within five minutes of the commencement of the administration. The head was lowered immediately, the feet raised, and artificial respiration combined with tongue traction was begun and persevered with for four hours. Hypodermic injections of strychnine and ether were immediately given, followed

later by rectal injections of whisky and a large saline enema. Capsules of amyl nitrite were also used and the faradic current applied. Two of the four doctors present believed that they could feel the pulse running for an hour; there was also some bleeding from the tongue, and an occasional doubtful effort at response to artificial respiration, but death resulted.

At the *post-mortem* examination the blood was found fluid and the right side of the heart slightly distended with blood. There were no clots. The left side of the heart was empty, all the valves were normal. The muscle of the heart was fatty and friable. The trachea and air passages were clear and the lungs normal except for a patch of consolidated lung at the right base about 3 in. square, and some old, firm adhesions at the left base. In the abdomen there were evidences of the umbilical hernia, with adhesions of the omentum to the transverse colon in two places. There was some congestion of the liver and the spleen was large and flabby, but not congested. There were no other abnormal conditions.

The microscopic examination of the lung is reported to show that the area of consolidation was due to a localized, organizing pneumonia.

ISABEL VENTERS, M.B., L.R.C.S.,
Senior Attendant Medical Officer.
ERIE EVANS, M.B.,
House Surgeon.

FRENUM UVULAE.

MRS. L., aged 35, was seen on February 11th, 1905, for chronic ear trouble. On examination of the throat the uvula was seen to be bent forward at an acute angle, and to be tied closely to the soft palate by a distinct band, about the thickness of the frenum linguae, attached in the middle line to both uvula and soft palate. The uvula was quite half an inch long, and the frenum extended the whole length. No discomfort nor inconvenience was experienced by the patient, who was not aware of any departure from the normal.

The case is recorded on account of its rarity. The writer is not aware of any record of a similar condition.

Birmingham. F. MARSH, F.R.C.S.

AN ANOMALOUS EPIDEMIC (? GERMAN MEASLES).

DR. POYNTON has drawn attention in his lecture on the differential diagnosis of scarlet fever, German measles, and measles[1] to the difficulties which frequently arise, of which the following is a proof:

Two inmates of a school near Paris complained of feeling out of sorts, had slight sore throat, and developed a patchy red rash. They were apparently well in a day or two and returned to their studies, but their temperatures—taken by themselves—remained from 99° to 100°. Subsequently others of their schoolmates were attacked, some having sore throats only, some a rash, about half of whom desquamated, whilst some desquamated in whom no rash had been noticed, and who did not think they had been ill at all.

The temperatures were not taken, it not being thought necessary. The disease was supposed to be a form of eczema due to indigestion; a skin specialist being later called in pronounced it to be of a scarlatiniform nature, and finally, when about 50 per cent. of the inmates had been attacked, three physicians diagnosed "an epidemic of rubéole," and the school was promptly closed three months after the first case developed.

The rash lasted from a few hours to a day or two, the course of the disease was from eight to fifteen days, fever was never marked, desquamation occurred in about one-third of the cases, and, from the description given me, was more than "mealy," being originally noticed by fellow-students. The convalescent I saw had had sore-throat, thought to be caused by an open window, no rash, no fever (temperatures taken), yet the hands desquamated fairly freely.

Last year I saw an adult who, a fortnight after tonsillitis, developed, when apparently in perfect health, a distinct, copious, measly rash, most marked on thighs and buttocks, slight on face and neck. There was a rise of temperature, 99° to 101°, lasting exactly thirty-six hours; the rash disappeared in three days. The patient never felt the least ill, there was no desquamation, no source of infection could be traced, and no infection followed. Drug rash and urticaria were both excluded. Would I have been justified in signing a school certificate as "never having suffered or been exposed to infection"?

London. WILLIAM HARTIGAN, M.D.Brux., D.P.H.

[1] BRITISH MEDICAL JOURNAL, February 4th, 1905.

COLD AFFUSION IN HYPERPYREXIA.

I OBSERVE that hyperpyrexia is still being treated by the application of cold water sponging "done slowly and deliberately." It is now many years since I learned, as it were by accident, that it is not the cooling of the body that we should aim at so much as the cause of the hyperpyrexia. I found that the sudden shock produced by even a tumblerful of cold water in a case of hyperpyrexia relieved the worst symptoms, showing that it is through the nervous system any good is done by the application of cold water, and that it must be applied suddenly to cause a shock. Acting on that theory I used the cold affusion of Currie, and in a case of scarlet fever in a boy, unconscious and limp, on the second day: his mother held him in a tub while I poured a pail of cold water over his shoulders. Although unconscious of what was being done, so soon as the water was applied he put a hand on each side of the tub and sprang into bed, to my astonishment as well as to that of the mother. His temperature was only one degree lower after the affusion, but his pulse was very different, and he was perfectly conscious. What astonished me, as much as anything, was that his skin became moist. He asked his mother to bring the water when he began to feel uncomfortable, and had the affusion repeated. He had no other treatment, and his progress was uninterrupted, no sequela following. Why Currie's cold affusion, once so popular, was abandoned, it is difficult to imagine.

Denholm, Hawick, N.B. JOHN HADDON, M.D.

DEATH FROM CANCER TWENTY-TWO YEARS AFTER PRIMARY OPERATION.

I HAVE recently lost a patient whose case is, I think, worth placing on record. She was a maiden lady, one of a large family, in which a strong tendency to cancer appeared to exist. An elder sister, also unmarried, died from cancer of the uterus, while a younger sister, also single, died from this disease, primarily of the stomach.

At the age of 50 my patient had the right mamma removed by the late Mr. Durham; the axilla was untouched, and for seventeen years there was no recurrence. Five years ago a small nodule was discovered just below the scar; this was removed, and a microscopic examination showed it to be a true scirrhous cancer; a little more than a year later another nodule was removed. About the same time the inner end of the scar became gradually fixed to the chest wall by a deep growth too firmly fixed for removal; this slowly increased until it threatened to ulcerate. Somewhat late Roentgen rays were tried, and for a time seemed to check the rapidity of growth. Finally, the skin ulcerated, the tumour sloughed, leaving a large malignant ulcer, which spread with a threatening of haemorrhage occasionally, the patient emaciating and succumbing to exhaustion at the age of 72.

At no time was there any sign or symptom of a secondary new growth, nor was it ever necessary to administer sedatives, as the disease was painless throughout.

London, N.W. A. W. GEORGE, M.D.Edin.

SATINWOODS AND DERMATITIS.

SHORTLY after reading Dr. H. E. Jones's article on this subject I happened to mention the facts to a planter living in the western hills of this island, where the satinwood grows abundantly, and he at once informed me that an irritable eruption was well known among the labourers handling the wood, also that he had himself suffered from a painful rash in his hands after turning satinwood in a lathe. Lately, at my request, he has been good enough to send up specimens of the leaves and wood, from which it appears that the satinwood is derived from no less than four species of *Fagara* (a genus of the order *Rutaceae*), *F. flava* being the chief source of the supply. This is one of the most beautiful trees of the Jamaica forests, with compound pinnate leaves containing large quantities of an aromatic oil. I have frequently observed the natives gathering the leaves to prepare a decoction which they take in fevers. The West Indian satinwoods have been thoroughly investigated by Professor Urban of Berlin; an account of them is contained in the appendix to his admirable work on the flora of the West Indies.

Kingston, Jamaica. M. GRABHAM, M.A., M.B.Cantab.

IODIZED CATGUT.

In the British Medical Journal of August 27th, 1904, p. 473, a short note from me on the above subject was published. Six months' further experience has more than confirmed the good opinion then expressed. Will you allow me once more to draw attention to the advantages of this material? They are:

1. *Ease in Preparation.*—The raw catgut wound on glass is placed in the solution of iodine. At the end of eight days, without any further trouble, it is ready for use. It is stored in the solution in which it is prepared. This method forms a pleasant contrast to the elaborate and laborious processes which have been commonly recommended. There is no scrubbing in soap and water, washing in ether, disinfecting in an antiseptic solution, and finally storage in alcohol; nor is there the inconvenience and expense of using special apparatus for sterilization by heat, nor the complexity of soaking in chromic acid and glycerine for varying periods.

2. *General Efficiency.*—It is tough, knots firmly, is not too quickly absorbed, and its black colour renders it easy to see. Careful bacteriological examination has proved it to be perfectly sterile. By using three thicknesses its life in the body may be made to vary from six days to a fortnight. In the skin, No. oo lasts for about six days, No. 1 for eight days, and No. 2 from ten to fourteen days. No. oo is quite resistant enough for ordinary skin sutures; for muscle and fascia No. 2 is best. Some have complained that occasionally it becomes brittle. This, I think, is due to the fact that iodine readily volatilizes, and, if not kept in a bottle with a well-ground stopper, the solution loses its strength, and the gut rots. Again, when rinsing, care must be taken that the water is not more than tepid; if hot, the catgut softens and unravels.

After ten months' constant use in all kinds of cases I have not found that catgut prepared by this method has any disadvantages, and cannot help thinking that when it is known it will come into very general use.

Lancaster. A. S. Barling.

TRAUMATIC SPINAL MENINGITIS.

A sepoy, aged 32, a strong, tall man of splendid physique, when turning under the rope during a tug-of-war, and straining to his utmost, felt a crick in the back of his neck. He felt nothing more of this for fifteen days, but then he came to the regimental hospital complaining of fever, and showing a temperature of 104° F., pulse 80, and breath sounds slightly quickened. He was admitted to hospital on the fourth day; later, his temperature fell to normal. His voice became thickened and impeded, his breathing hard and short. He remained in this condition for three days, when all these symptoms increased and his breathing became stertorous. He was unable to swallow even milk and water, which simply regurgitated or stayed in his mouth.

On the ninth day of admission, the muscles of the back of his neck stiffened, and he was unable to move his head on his pillow. No paralysis existed and no eye symptoms. He died at 7.30 p.m., with marked stertorous breathing and practically unconscious.

M. B. Pinchard,
Captain I.M.S., M.R.C.S., L.R.C.P.,
Secunderabad. Medical Officer 84th Punjabis.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE DECCAN REGIMENTAL HOSPITAL.

A CASE OF FIBROID PNEUMONIA.

(Reported by Captain A. N. Fleming, M.B., C.M.Edin., I.M.S., P.M.O. in charge of the XXth Deccan Horse.)

On reading the interesting article on a Case of Fibroid Pneumonia, by Dr. A. G. Auld, in the British Medical Journal of February 4th, I was struck with the great similarity it bore to a case under my treatment, and I accordingly think the few notes I append may be found of interest. No formal notes were taken originally and in consequence I am giving the early history of the case from memory.

The man is a native trooper in this regiment, by caste a Mohammedan, 34 years of age. He has served as a soldier for sixteen years which is a sufficient guarantee that he has been a healthy man till the onset of this illness.

First Admission.—He was admitted to hospital on December 12th, 1903, suffering from lobar pneumonia and remained in hospital until February 6th, 1904, when he was sent on two months' sick leave. The attack was a severe double pneumonia, but there were no complications, and recovery was considered to be complete when he left hospital.

Second Admission.—He again reported sick on November 30th, 1904, nearly ten months later, with fever and cough. The fever was of an irregular type, varying, as far as I can remember, between 103° and normal, and lasted about a month. On admission he expectorated fairly frequently, the sputum being of a frothy character. All over the right side of the chest mucous râles could be heard, but at the same time the breath sounds were much fainter than on the left side; no tubular breathing. Vocal resonance was slightly increased, and the percussion note was distinctly dull. The left side of the chest was normal. His sputum was examined on several occasons for the tubercle bacillus, always with negative results. After he had been in hospital a short time it was noticed that the respiratory movements were always much less on the right side than on the left, and that his respirations were rapid.

Present Condition.—The acute symptoms—namely, the fever, expectoration, cough, and moist sounds—gradually subsided in about a month's time, leaving the man in his present condition, which is as follows: He states that he has been subject to slight attacks of fever and cough up to the middle of February. He now feels a little weak and gets easily out of breath, but otherwise is perfectly well. In appearance he looks thin, but healthy and strong. The following is an account of the results of a physical examination of the chest:

Inspection in Front.—Right side contracted; right shoulder depressed. Almost entire absence of movement on respiration of right side except just above the costal margin, which rises and falls. Retraction of intercostal spaces on inspiration. Right nipple slightly but distinctly lower than left. Flatness of infraclavicular region. Above the nipple a certain amount of retraction is noticeable on expiration. Left side of chest normal.

Inspection Behind.—Right scapula does not move on respiration. Respiratory movements at the base good. Inferior angle of right scapula at the same level, but further from the spine than that of the left.

Measurement.—Circumference over nipple, right side, 15⅝ in.; left side, 16 in.

Vocal Resonance.—Increased all over right side.

Percussion.—Over clavicle higher pitched on right side. Over and below right nipple dull. Between these points the note is flat. Behind percussion note at the apex is only slightly more dull on the right side, but as you descend it gets progressively flatter. Absolute dullness at the base.

Auscultation.—Right side: Breath sounds progressively fainter from above down. Expiration just above the nipple prolonged. Increased vocal conduction. No accompaniments. Left side: Breath sounds puerile.

Heart.—Deep cardiac dullness about ½ in. internal to left nipple. Impulse not palpable. By auscultation heart sounds loudest about parasternal line, and normal in character. Pulse 90 to the minute. The extent of the cardiac dullness to the right cannot be made out by percussion owing to the condition of the lung.

Remarks.—My impression of the case is that it is a similar one to that described by Dr. Auld. I do not think it is tuberculous, judging from the character of the breath sounds and sputum, as well as by the negative result of microscopical examination. I think any cause such as is met with in "miners' phthisis" need not be considered when one remembers the healthy outdoor life the man has always led.

VICTORIA NURSING HOME, SHANGHAI.

CINNAMON IN DYSENTERY.

(Reported by Staff Surgeon G. T. Bishop, H.M.S. *Iphigenia*.)

The following case was under my care in the Victoria Nursing Home, Shanghai:

State on Admission.—A. H., an able-bodied seaman, aged 25, was admitted from H.M.S. *Vestal* on October 8th, 1904, having been ill five days, in a serious condition. The stools were small, but so frequent as to require constant use of the bedpan; they were composed mainly of blood, blood clot, and small amount of mucus and faeces. There was much tenesmus, and pain referred to back, legs, and lower part of abdomen. Temperature 101.6° F. Pulse fairly good. Emaciation marked. Tongue coated.

Progress.—He was placed on a diet of chicken tea, rice water, and milk. Ipecacuanha was given twice a day in a 20 gr. bolus with the usual precautions as to food, position, and opium. The drug was generally retained, but the patient suffered much from the retching and nausea that followed

By October 11th there was perhaps a little general improvement, but during the following night severe haemorrhage from the bowel occurred. The following morning the patient was naturally much weaker, so I stopped the ipecacuanha and ordered adrenalin in case of further haemorrhage.

By October 14th the patient had regained a little strength, but the tenesmus and calls to stool distressed him greatly. I again ordered ipecacuanha as before.

October 15th I found the patient almost moribund. He had had more severe haemorrhage from the bowel, and had passed some sloughs. Adrenalin was given as ordered, and bleeding quite stopped. There was distressful hiccough, lips drawn, eyes sunken, and limbs were simply bones covered with skin. But for some tympanites the patient resembles one with an attack of cholera.

Change of Treatment.—I ordered Chinese cinnamon bark to be freshly powdered and given in a 60 gr. bolus every six hours. Also three drops of ol. menth. pip. on sugar for the hiccough. The effect was magical. Within a few hours the man was taking nourishment, and the hiccough soon stopped. This was followed by refreshing sleep. Early next morning when I made my visit the improvement in the patient's condition was very marked. The tongue much cleaner, no tenesmus, and diarrhoea almost stopped.

Result.—Except for two attacks of orchitis the patient made continuous progress, and returned in good health to his duty on December 12th. During convalescence there was at first pus and mucus with the stools, but they became quite normal within six weeks. He continued to take the cinnamon (180 gr. per diem) for four weeks, the latter part of the time at his own request.

REMARKS.—Another naval case, but much less severe, I also treated in like manner with similar result some years ago. The treatment of dysentery by cinnamon is by no means new, but it is certainly not generally given in textbooks. I do not claim that the drug is infallible, possibly it is only in one variety of dysentery that it is useful. I maintain, however, that when given it should be in the form of a freshly-prepared powder, for convenience made up into a bolus. Cinnamon is open to neither of the objections associated with ipecacuanha and salines—namely, the emetic or purging effects. On the contrary, it is a peculiarly pleasant drug to take and assimilate. I would also draw attention to the good effect of the ol. menth. pip. on the troublesome hiccough, and also to the fact that haemorrhage stopped after the administration of adrenalin.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

Birmingham, March 31st, 1905.

T. S. SHORT, M.D., in the Chair.

Lupus of Pharynx.—Dr. LAMB showed a case of lupus of the pharynx. The patient was a farmer, aged 41; he felt quite well and was able to do hard farm work. About three years ago he felt some discomfort in the roof of his mouth, and noticed that he could not breathe freely through the nose, but the trouble was so slight that he did not consult a doctor for eighteen months. He then came to the hospital, and his palate and pharynx were found to be extensively diseased; all the visible parts of the pharynx were involved. At present the faucial pillars, tonsils, and walls of the pharynx presented one continuous diseased surface, from which the usual landmarks were obliterated. Part of the hard palate and the whole of the soft palate and uvula were also affected. The soft palate was completely adherent to the posterior pharyngeal wall, except just behind the uvula. The diseased surface presented in some parts a typical nodular deposit, in others irregular "worm eaten" ulceration, and in others cicatrization. The epiglottis and larynx were free from disease, and so were the nose and the skin. Treatment with caustics, paints, and curetting produced great improvement, but the disease relapsed when treatment was stopped. It was proposed to try multiple galvano-puncture.

Case for Diagnosis.—Dr. WILLOUGHBY GARDNER showed a case for diagnosis—a child, presenting a peculiar malformation of all the bones of the arms and legs, and especially of their articular cartilages.

Adiposis Dolorosa.—Dr. DOUGLAS STANLEY showed a woman, aged 40, who for ten years had complained of subcutaneous swellings in the upper and lower limbs; the size of these varied from 1½ in. to 3 in. in diameter, some were painful and tender, others tender without being in themselves painful. They were slightly lobulated on palpation. The patient was subject to periods of mental depression. There was no evidence of neuritis. Both ovaries had been removed several years previously.

Congenital Stenosis of Duodenum.—Dr. WILLOUGHBY GARDNER showed the stomach, duodenum, and upper portion of the jejunum from a case of congenital stenosis of the lower end of the duodenum. The child had lived for nine weeks, and had died from persistent vomiting, which commenced when it was a week old. The stomach and duodenum showed great hypertrophy and dilatation.

Panhysterectomy for Fibroid.—Dr. PURSLOW showed a specimen of uterus with fibroid removed for uncontrollable haemorrhage after abortion. The patient, a multipara, showed signs of abortion at the eleventh week of pregnancy; as the haemorrhage was severe Dr. Purslow was asked to see the case in consultation; he found the os open, and the ovum, with a large amount of blood clot, in the uterine cavity. The uterus was cleared out under an anaesthetic, curetted, and packed with iodoform gauze. An interstitial fibroid the size of a small orange could be felt in the right wall of the uterus. When the packing was removed at the end of forty-eight hours bleeding recommenced; the uterine cavity was washed out and again packed with gauze, but the haemorrhage recurred on its removal. As the patient's condition was becoming serious the abdomen was opened, and the uterus with the tumour removed by panhysterectomy. The patient made a good recovery, and was when shown, ten months later, in excellent health.

Patellar Flexion-Dislocation.—Mr. WM. THOMAS read notes of the condition he called patellar flexion-dislocation, in which the patella became dislocated when the knee was bent, but was quite normal when straight. He alluded to the difficulty of curing such cases either by operation or appliances. He read notes of a case on which he had recently operated successfully, where the dislocation was apparently caused by nodular bodies which were contained in cavities in the quadriceps extensor about the patella, in such a position as to push out the patella when the knee was bent. He had removed two of these bodies, which he exhibited. They were white, hard, and nodular, somewhat oval in shape, and about an inch in the longer diameter, by ¾ in. short diameter. He considered these coral-like growths to be hypertrophied, calcified and detached synovial fringes.

ULSTER BRANCH.

Belfast, Wednesday, April 5th, 1905.

Professor LINDSAY, M.D., F.R.C.P., President, in the Chair.

Male Infantilism.—Dr. WILLIAM CALWELL showed a case of male infantilism, aged 21, and photographs of a case of female dwarfism. The mental condition of the two patients offered a very striking contrast, he said, the dwarf being quick and intelligent, while the other patient, a well-grown young man in figure, was like an undeveloped child in mind.

Gynaecological Operations.—Professor BYERS and Dr. R. J. JOHNSTON presented a summary of a year's operative work in the Clarence ward (diseases of women) of the Royal Victoria Hospital. The cases numbered 156 in all, and included 87 vaginal operations, 15 operations on the urinary organs, 11 rectal operations, 37 abdominal, and 6 general. Professor Byers made some remarks on the table of cases as a whole. There were five deaths, two being cases of acute sepsis at the time of operation. He thought that his results were better now than in the old Royal Hospital, and this he attributed partly to the fact that each unit of the new hospital was worked separately, the sister in the ward being responsible for the sterilizing of instruments and dressings, and each ward having its own theatre. He also considered that the generally-improved surroundings in the new hospital improved the resisting power of patients, and that shock was less now than in the old hospital. Dr. R. J. Johnston explained some of the more important points in the various operative procedures.—The joint communication was discussed by Dr. DARLING (Lurgan), Mr. FULLERTON (Belfast), and Dr. J. C. MARTIN (Portrush).

Cancer of Rectum.—Dr. ST. GEORGE (Lisburn) and Mr. KIRK (Belfast) showed a patient on whom they had operated for cancer of the rectum by Harrison Cripps's method.

Method in Drug Prescribing.—Dr. W. M. STORAR read a paper entitled A Plea for the Larger Recognition of Method in Drug Prescribing, in which he advocated the dosage of homoeo-

pathy, taking such drugs as quinine, arsenic, cantharides, antimony, belladonna, and ergot as his examples of the value of small doses.

Thyrotomy for Endolaryngeal Cancer.—Dr. W. M. Killen showed a patient on whom he had operated by thyrotomy for endolaryngeal cancer, and read notes of the operation. The patient had been hoarse for a year before he came for advice. A small piece of the growth, which sprang from one vocal cord, was removed by forceps and examined, and proved to be epithelioma. The operation was done six months ago, and there were no signs of return, the patient having increased in weight.—Dr. Cecil Shaw (Belfast) made some remarks on the case.

Noma of Anus.—Dr. Darling (Lurgan) read notes of a case of noma involving the anus and surrounding parts, the patient being a girl of 11.—Mr. Robert Campbell discussed the case.

Tetany and Gastric Dilatation.—Dr. Trimble (Belfast) read a paper entitled Tetany as a Complication of Gastric Dilatation, with notes of a case.—Sir William Whitla said he considered this case as of special interest, as it strongly supported the view that the tetany was due to a toxaemia.—Dr. W. B. McQuitty (Belfast) had seen two fatal cases, one being somewhat like Dr. Trimble's case, having had marked mental symptoms. The patient was comatose for several days before death.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir Douglas Powell, Bart., K.C.V.O., M.D., F.R.C.P., President, in the Chair.

Tuesday, April 11th, 1905.

New Method of Jejunostomy.

Mr. Mayo Robson described a new operation, consisting in bringing up a loop of the jejunum to the surface and inserting into the apex of the loop a No. 12 Jaques catheter, which was passed for about 3 in. down the distal arm of the loop. The catheter was fixed to the opening by a stitch and was then surrounded by two purse-string sutures. The two arms of the loop were short-circuited at about 3 in. down so as to allow the bile and pancreatic fluid to pass onwards without coming into the portion of the bowel attached to the surface. The indications for the operation were extensive cancer of the stomach too advanced for gastrectomy, and in which no healthy spot of sufficient size on the stomach wall could be found for the purpose of gastrostomy or gastro-enterostomy, and general cicatricial contraction of the stomach, simple in character and due to the swallowing of caustic fluid, in which the stomach had been so far damaged that it no longer performed its functions or even allowed of the proper passage onwards of food.

Choledochotomy for Calculi in the Common Duct.

Mr. Mayo Robson also read this paper on a series of 123 cases. Before he had employed his method of thorough exposure of the deeper part of the biliary passages the mortality had been 16.2 per cent., but since he had had 53 consecutive recoveries, and in a continuous series of 80 operations there had only been 3 deaths, the mortality being therefore under 3.9 per cent. Of the 3, 2 might justifiably have been excluded from the series. In several cases he had found floating gall stones in the common duct where there was no jaundice, but simply repeated rigors with associated infective cholangitis. On five occasions he had removed gall stones from the common duct where the patients had not had any pain, the deep jaundice and repeated rigors having led to a diagnosis of intermittent fever. In half the cases pancreatic catarrh or interstitial pancreatitis had complicated the gall-stone trouble, and was cured by free drainage of the bile ducts. In a number of the cases cirrhosis of the liver had resulted from the biliary stasis. A number of the patients were advanced in years, and the age of 70 and upward seemed to be no barrier to a successful operation. In all the cases drainage of the bile passages, either through the common duct or through the gall bladder, was advocated. The disease was essentially a septic one, but primary union of the wound was the rule, and generally from the time of the drainage away of the septic bile all signs of the ailment being of a septic nature disappeared. Although common-duct cholelithiasis was usually without operation a fatal disease, by means of operation the chances of recovery were at least 95, and might be 98 per cent.

The President alluded to the presence of gall stones in the common duct without jaundice, and asked for an explanation. He also asked what extent of surface of adhesion between the surface of the liver and the abdominal wall was considered adequate to effect relief of the ascites. Was the capsule of the liver removed in the cases in which the liver was fixed to the abdominal wall on the analogy of decapsulation of the kidney.

Mr. Warrington Haward emphasized the importance of examining gall stones in the common duct, even though jaundice were not present; he referred to two cases in his own experience. He testified to the value of the operation advocated by Mr. Robson.

Mr. C. B. Keetley referred to a case of suppurating hydatids of the liver and to the performance of jejunostomy for acute intestinal haemorrhage, for which Mr. Robson's operation seemed very suitable. The opening in the intestine should be very small.

Mr. Mayo Robson, in reply, said he had found gall stones in the common duct without jaundice when the duct was dilated and the stone had not become impacted. For the relief of ascites he usually stitched a loop of omentum of two or three inches in extent to the incision. He had never removed the capsule of the liver.

Cases.

Mr. Mayo Robson also described a case of actinomycosis of the gall bladder, in which recovery occurred after operation and the administration of potassium iodide, and a case of adenoma of the gall bladder which had produced symptoms exactly resembling those of gall stones, and was successfully treated by cholecystectomy.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Arthur Chance, P.R.C.S.I., President, in the Chair.

Friday, March 24th, 1905.

Painless Haematuria.

Mr. L. G. Gunn read a paper on painless haematuria, showing the difficulty in making an accurate diagnosis in these cases. He gave an account of 5 cases which had passed through his hands during the past few months; all had had the common symptom of blood occurring in the urine, but in each case the cause of the haemorrhage differed, and could not in all probability have been discovered without the use of cystoscopy. The cause of the haematuria in the first case was believed to be an angiomatous condition of the renal papillae of the left kidney, all the other likely causes of bleeding being excluded one by one, but as the patient refused any operation, the diagnosis was not confirmed as it was in the remaining 4 cases. The haematuria in these cases proved to be from, in No. 2, a severe degree of interstitial change in the left kidney, the right being healthy and secreting from 40 to 50 oz. of healthy urine during the day after the removal of the diseased left; in Case 3, a chronic tuberculous ulceration of the bladder was the cause; the floors of several of these ulcers bled when the bladder was gently distended through an irrigation cystoscope; in Case 4 the cause was an adenoma of the left kidney, which was removed by operation; while the last case was one of carcinoma of the prostate invading the bladder wall, part of which was successfully removed with the diseased prostate.

Mr. Edward H. Taylor said that the cases confirmed his belief in the great value of cystoscopic examination. Cystoscopy and ureteral catheterization appeared to be methods of investigation requiring such a high degree to technical skill as to belong to the specialist rather than to the general surgeon.

Mr. T. E. Gordon thought that the methods of examination described were essential in a large proportion of cases, and would in future devolve on specialists.

Purulent Collections.

Mr. Robert Woods read a paper in which he discussed the laws governing the formation of purulent collections, and the way in which those laws affected surgical treatment. From theoretical considerations, he arrived at the conclusion that the correct way in which to treat empyema was by applying negative pressure to the pleural cavity and obviating the tendency of the lung to retract. In discussing multiple sinusitis, he mentioned that after performing the radical operation on the antrum of Highmore, according to the Caldwell-Luc method, he had on three occasions grafted the inside of the antrum by Thiersch grafts with good results.

Mr. G. Jameson Johnston disagreed with Mr. Woods regarding the treatment of abscess in the tibia, but hoped his apparatus for the treatment of empyema would prove workable, as he considered Estlander's operation a disgrace to medicine.

Mr. E. H. Bennett expressed himself as opposed to the treatment recommended. He thought attempts to exclude air from the pleural cavity by means of plugs would fail, as these could not be borne with comfort.

Mr. Blayney thought Mr. Woods's apparatus was not necessary in recent cases, as the lung usually expanded after the evacuation of the pus. For old-standing cases he agreed with others that it would be useless, but thought there was a fair field for it in certain cases in which the thickening of the pleura was but slight.

Messrs. Patrick Dempsey, R. A. Stoney, E. H. Taylor, and Francis Smith also discussed the communication.

Mr. Woods, in reply, stated that his apparatus was designed, not for localized empyemata, but for the more extensive kind in which the general pleural cavity was involved. He did not consider it would be of any use in those cases in which the pleura was much thickened.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., M.R.C.P., President, in the Chair.

Wednesday, April 5th, 1905.

The Corpus Luteum.

A demonstration, with lantern illustrations, was given by Dr. Cuthbert Lockyer on the development and retrogression of the corpus luteum, special reference being made to the compound lutein cystomata found in association with vesicular mole and chorion-epithelioma.

Dr. H. Williamson looked upon the fibrinous lining of these cysts, not as a mere deposit of fibrin from the central blood clot, but as a greatly hypertrophied membrana propria. Nor did he believe that the lutein cells migrated from distant corpora lutea; they arose *in situ* from modification of the stroma cells. The pigment lutein was not a derivative of haemoglobin, but a lipochrome.

Dr. Blacker thought it was certain that an excess of lutein tissue was present in many cases of vesicular mole and chorion-epithelioma, but that it bore any relation to the origin of such conditions was by no means settled. Seitz had examined thirty-six ovaries at different stages of pregnancy, and had found in practically all of them an excess of lutein tissue such as Dr. Lockyer had described. If further observations showed that such a hyperplasia was to be found in all cases of normal pregnancy, the view that the corpus luteum played any part in the production of either a vesicular mole or a chorion-epithelioma could hardly be sustained. A large series of control observations on the ovaries in normal pregnancy and in cases of fibroid must be undertaken before it could be said that the presence of an excess of lutein tissue, together with a vesicular mole or a chorion-epithelioma, was more than a mere coincidence.

Hysterectomy for Concealed Accidental Haemorrhage.

Mr. J. H. Targett described the following case:

The patient, aged 34, had had seven children, and severe ante-partum haemorrhage on the last two occasions. Bleeding commenced when six months gone. The membranes were artificially ruptured and a leg of the fetus was brought down. As no progress towards delivery was made and the patient's condition was becoming worse, the vagina was plugged with gauze and the woman was removed to hospital. Saline injections were given per rectum. The uterus, which at first reached to the level of the navel, appeared to have become more distended, was irregular in outline, tense, and in spite of the opium which had been given was tender to the touch. The cervix was rigid. Supravaginal hysterectomy was decided on as offering the quickest method of emptying the uterus and of controlling the haemorrhage. Intravenous injection of saline fluid was given and some was left in the peritoneal cavity. The pulse improved. Convalescence was complicated by a small parametric abscess in front of the cervix and by thrombosis of the left leg followed by thrombosis of the right.

Dr. Handfield-Jones suggested that vaginal Caesarean section might with advantage have been performed in this case.

Mr. Targett, in reply, said that in the circumstances of the case he considered that by removal of the uterus the dual risk of post-partum haemorrhage and of sepsis was diminished.

Calcified Tumour in Douglas's Pouch.

Dr. A. H. N. Lewers showed a calcified tumour which he had removed by abdominal section from Douglas's pouch in a woman aged 34, the mother of three children. measured $2\frac{1}{2}$ by $1\frac{1}{2}$ by $1\frac{1}{2}$ in. The surface was irregular, and completely calcified for a depth of $\frac{1}{16}$ in. The interior was tough, the section presenting a greyish-white appearance. It was regarded as probably a fibroid of the uterus which had undergone extreme hyaline degeneration and necrosis with calcareous deposit on the surface, but there was nothing to indicate its previous point of attachment.

Mr. Targett suggested enlarged appendices epiploicae as one possible source of such calcareous bodies. The size of the specimen in this case, however, precluded the possibility of its being a fat calculus.

Uterine Fibroid in a Patient aged 20.

This specimen, shown by Dr. Russell Andrews, was removed by hysterectomy from a young Jewess, at the London Hospital.

She had been married about a year, and had had one miscarriage. On account of the tumour the abdomen had been opened at a special hospital four months previously, and the patient was given to understand that she was pregnant. Menstruation had continued regularly. The tumour, after the exploratory operation, increased rapidly in size. It was smooth and elastic, reaching at least halfway from the umbilicus to the ensiform cartilage. A sound passed $4\frac{1}{2}$ in. The uterus contained one large interstitial fibroid on the right side, and weighed 4 lb. 5 oz. The tumour had undergone myxomatous degeneration.

Dr. Boxall referred to a case of soft fibroid in a patient 23 years of age.

Dr. Cullingworth said that, from a diagnostic point, it was important to remember that fibroids did sometimes occur in young subjects, and that when that took place they were often found softened by degeneration or by oedema.

Mr. W. Gandy mentioned a case of fibroid in a young lady of 28 which was expelled piecemeal after incision of the cervix.

Dr. Russell Andrews, in reply to Mr. Doran, said that both ovaries appeared to be healthy and were therefore not removed; the uterine wall was so thin over the tumour that the case was unsuited to myomectomy.

Medical Society of London.—A clinical meeting of this Society was held on April 10th, with Mr. John Langton, F.R.C.S., President, in the chair, when Dr. T. D. Savill showed the case of a man with tremor of the lower jaw, exhibited on opening the mouth, and paralysis of the left external pterygoid muscle, but without any facial anaesthesia. He also showed the case of a girl with keratosis of the palms of the hands and the soles of the feet.—Mr. F. C. Wallis showed a patient after excision of the rectum for carcinoma which had been freely movable, and the upper limit of which could be felt. The operation was done in two stages, and now, fourteen months later, there was perfect sphincteric control, and the man was in perfect health.—Dr. C. W. Chapman showed a case of intrathoracic aneurysm, in which pulsation of the whole tumour was quite visible with the *x* rays. Improvement occurred under the administration of potassium iodide. He also showed a case of mitral and aortic stenosis in a woman aged 74.—Dr. F. Parkes Weber showed a tuberculous patient who had sustained a pneumothorax over two years ago which developed into a pyopneumothorax that was drained, when the heart returned to its normal position and the lung showed considerable re-expansion.—Dr. E. Cautley showed a case of abdominal tumour for diagnosis, probably a sarcoma of the mesentery of the colon.—Dr. Leonard Guthrie showed a case of rheumatic endocarditis, with unusually numerous subcutaneous nodules.—Mr. S. Maynard Smith showed a case of osteitis deformans in a man, aged 42, in whose father the same condition existed; and Dr. Alexander Morison showed 3 cases of heart disease in children.

Pathological and Clinical Society of Glasgow.—At a meeting on April 10th, Dr. Henry Rutherfurd in the chair, Sir Hector C. Cameron showed a patient suffering from actinomycosis. When first seen there was a large swelling of the right cheek, apparently unconnected with the jaws. An abscess formed, from which a large quantity of pus was evacuated, in which the characteristic organisms were found. At a second operation, some time later, scraping brought to light a grass seed (the species of which could not be exactly determined), which doubtless was the bearer of the infection. How it had entered the cheek was not clear, but, at any rate, it had come from within the mouth.—Dr. J. R. Riddell showed a series of patients illustrating the effects

of treatment with *x* rays. It included 2 cases of round-celled sarcoma, 6 of rodent ulcer, 1 of epithelioma of the lip, 4 of lupus, and 2 of keloid. He thought the results on the whole were very satisfactory.—A discussion on glanders in man was introduced by Dr. R. M. Buchanan. Dr. A. K. Chalmers spoke of the prevalence of the disease in various stables in the city, and the public health and economic considerations related thereto. Dr. J. W. Anderson read notes of three cases in man; Dr. J. Cockburn Syson read notes of one case in man; Dr. R. M. Buchanan demonstrated the pathology of the disease by microscopic and museum preparations from man and the horse, and Mr. J. R. McCall, M.R.C.V.S., spoke of the rapid increase in the number of cases, the value of the mallein test for purposes of diagnosis, and the necessity of obtaining further powers to prevent the spread of the disease, giving reasons for believing that it was responsible for more deaths among men than was generally imagined.

Liverpool Medical Institution.—At a meeting on April 6th, being the last of the session, Dr. James Barr, President, in the chair, Dr. W. Blair Bell explained his method of mounting specimens of appendices in clear formalin gelatine. —Mr. Douglas Crawford showed an appendix containing a large concretion; beyond pain referred along the iliac branch of the ileo-hypogastric nerve, no other symptoms were present. He also showed an enlarged prostate, weighing 4 oz., removed suprapubically.—Messrs. C. H. Shears and E. M. Stockdale showed an endothelioma of the retina from a boy aged 3; the sections demonstrated its origin from the retina, showing the neuro-epithelioma.—Mr. Edgar Stevenson and Mr. Stockdale showed specimens illustrating the structure of a chalazion.—Mr. R. C. Dun exhibited an enteric intussusception which had become gangrenous and irreducible, and had been removed from a boy aged 4. He considered enteric intussusception rare. Mr. Thelwall Thomas, however, regarded this form as the usual one in children.—Mr. Dun also showed a congenital stricture of the oesophagus from a child aged 3. Seventeen months before death a gastrostomy had been performed. The stricture was situated in the lower third of the oesophagus just below the point crossed by the left bronchus. It was ⅝ in. in length, and with difficulty allowed the passage of an ordinary probe. Mr. Rushton Parker considered that this was an instance of maldevelopment.—Messrs. Thelwall Thomas and E. Cleaton Roberts showed sections of a non-traumatic cyst of the external ear, demonstrating the origin in primary degeneration of the cartilage itself; and also of a neurofibroma of the supraorbital nerve within the orbit, which had caused marked proptosis in a man aged 40.—Drs. W. Alexander and R. E. Kelly showed sections, stained in various ways, of a portion of the pre-Rolandic cortex from the brain of an epileptic. It showed a naevoid condition of the vessels, surrounded by old pigment, and great atrophy of the white matter and corresponding cortex.—Dr. John Hay showed specimens of the blood from a case of supposed trichinosis. There was a leucocytosis of 20,000, and 24 per cent. of the white cells were eosinophiles.—Dr. J. Hill Abram demonstrated a case of myositis the symptoms of which had been attributed to eating sausage, and in which the diagnosis of trichinosis was probable.—Drs. Warrington and E. Griffiths demonstrated the existence of fibres in the first and second dorsal white rami of the cat, whose cells of origin were in the spinal ganglia.—Dr. R. J. M. Buchanan showed a series of lantern slides illustrating the changes in the blood in spleno-medullary and lymphatic leucocythaemia, with especial reference to the effect which the *x*-ray treatment had on the white cells. He regarded the leucocytosis and leucocythaemia and inflammatory leucocytosis as being essentially the same order. Dr. John Hay dissented from this view, and also said that in his experiments under the *x*-ray treatment the myelocytes and mast cells were the first to go, and at last the normoblasts. The President, Dr. J. Hill Abram, and Dr. Warrington also criticized the paper.—Dr. H. Briggs showed a large and beautiful series of drawings and paintings illustrating the histology of endometritis adenoma and early carcinoma uteri, and discussed the value of the microscope as an aid to diagnosis in these conditions. Dr. Briggs and other speakers considered that not too much reliance should be placed on the examination of curettings.

Therapeutical Society.—At a meeting on March 28th, Dr. A. B. Day in the chair, Dr. G. Burnet, of Edinburgh, read a paper on aspirin and mesotan. Aspirin was, he said, a derivative of salicylic acid, and he claimed for it higher utility as an analgesic and antithermic agent than other allied compounds in all forms of rheumatism, in tonsillitis, and in the psoriasis of children. It did not irritate the kidneys, and its sudorific effects were useful in pleurisy with effusion and nephritis with uraemic symptoms. It diminished the sugar in mild cases of diabetes. The dose was 10 to 15 grains for an adult, 3 to 5 for a child, given in lemon juice, cold milk, or cachets but not tabloids, and frequently repeated. Mesotan, another salicyl derivative, was a useful external application for rheumatic pain other than that of gonorrhoeal origin. It was decomposed by water, rapidly absorbed by the skin. To avoid irritation the skin should be carefully dried before its application, the mesotan mixed with oil, and, if often repeated, the area treated changed. No impervious covering should be placed over the site of application. Dr. J. H. Bryant said that in some cases haematuria followed the use of aspirin and ceased with its abandonment. Dr. Cecil Wall had not observed this effect, but said that diarrhoea sometimes occurred if aspirin were taken before meals.—Dr. Robert Hutchison read a paper on the treatment of exophthalmic goitre by iodo-ether injections, as highly recommended by several French physicians. In his cases the thyroid had ceased to pulsate and became firmer, but there was no improvement in the exophthalmic goitre or tachycardia beyond what rest in bed caused. Graves's disease probably depended on some disturbance in the brain centres and not merely on activity of the thyroid.

REVIEWS.

DISEASES OF THE LIVER.

Dr. Rolleston's work on *Diseases of the Liver, Gall Bladder, and Bile Ducts*[1] is a decidedly ponderous volume in the sense of being unduly heavy to hold in the hand, but this is no doubt caused by the use of the heavily-loaded paper required by the numerous process illustrations. In addition to these figures there are several coloured plates, but all alike are deserving of praise for the care with which the preparations have been selected, the clearness of the printing, the excellent drawing, and the fidelity to nature of the coloured pathological plates. The reproduction of the numerous photomicrographs is particularly successful. The text deals at considerable length with the various forms of liver diseases, for the book extends to nearly 800 pages imperial octavo, of closely set and by no means large type. The relation of abscess of the liver to dysentery is discussed fully, and much interesting information is given, including most of the modern evidence that the two diseases by no means coincide, dysentery being more common in certain places and races of mankind than hepatic abscess, while in others the reverse is true. The writer of this notice remembers being told by the late Professor Carmona y Valle, of the City of Mexico, that while hepatic abscess was by no means rare there, dysentery was quite unknown. In connexion with the statement that Matthew Baillie described cirrhosis of the liver under the name of "scirrhous liver," it may be worth recalling the fact that Stahl had previously called it "scirrhosis of the liver." The account of cirrhosis of the liver is a good example of the complete way in which the author deals with his subjects, for it occupies 160 pages. We are not sure that he is right in his view that there is no such thing as tuberculous cirrhosis of the liver, or that when cirrhosis is associated with pulmonary tuberculosis it is the primary disease, for we have seen cases in which the liver affection was so entirely different in naked-eye and microscopical characters from common cirrhosis, with complete absence of the usual causes and symptoms, that we think there is better ground for the belief in the existence of this form of cirrhosis than Dr. Rolleston appears to allow. In speaking of biliary cirrhosis he has credited Professor Dreschfeld with having pointed out "years ago" that the newly-formed biliary canaliculi are the result of the active proliferation of the liver cells, and in another place he makes the same attribution, giving the reference to the *Journal of Anatomy and Physiology*, vol. xiv, page 60. There is, however, no paper by Professor Dreschfeld at page 69 of this volume, although there is one by him in another place upon cerebellar tumour, but it contains the well-known paper by Professor

[1] *Diseases of the Liver, Gall Bladder, and Bile Ducts.* By H. D. Rolleston, M.A., M.D.(Cantab.), F.R.C.P. London: W. B. Saunders and Co. 1905. (Demy 8vo, pp. 794. 25s.)

D. J. Hamilton (page 185) on cirrhosis of the liver, in which he demonstrates by beautiful drawings the development of the small bile ducts from the rows of liver cells; Hamilton therein refers to his predecessors, and there can be no doubt that Kelsch and Kiener, three years before, had described this formation very definitely in two papers published by them in the *Archives de Physiologie* for 1876. In speaking of the rarity of glycosuria in hepatic cirrhosis, the author is no doubt in agreement with most clinical observers, but he does not take into account that some writers have noted its frequency—a discrepancy which is probably due to the fact that the glycosuria is caused not by the cirrhosis of the liver but by the alcoholic habit; if the patients are in hospital and no longer taking alcohol, sugar is absent, while when seen in outside practice sugar is found pretty often. He recommends the Talma-Morison operation of omentopexy for ascites as if it had established itself as a successful operation, but the results that have so far been obtained in the comparatively small number of cases in which the operation has been performed, make it desirable in fairness to his readers that he should have given the statistics, which show a relatively high rate of mortality with only a small number of cures attained after many months of treatment in bed, results with which ordinary medical treatment by repeated paracentesis compares favourably.

Altogether this is the most considerable work on diseases of the liver which has appeared since the classical treatise of Murchison; it fully deserves to take a high place among modern textbooks, and we heartily congratulate Dr. Rolleston on his success.

FAMILY CARE OF THE INSANE.

THE remarkable extension which the family care of the insane has undergone of recent years, and the widespread interest shown in this question by the lunacy administrations of many countries, has induced Dr. FÉRÉ, of the Bicêtre, to bring out a considerably enlarged edition of his book, *Le Traitement des Aliénés dans les Familles*.[2] It is divided into two parts, the first being a comparative study of the application of this method in France and the other countries of its adoption, and the second dealing with general considerations, such as the selection of cases, the choice of habitation and guardian, and recommendations as to the care and treatment of the patients, etc., derived from the author's experience. It is more than a little unfortunate that more care has not been exercised in bringing the first half of this book up to date. Dr. Féré has visited Gheel, and gives a fair and unbiassed account of the system in vogue there; but the account of the colony at Lierneux is incomplete, and he gives no figures more recent than 1889, since which date it has been markedly extended and improved. He also appears to be in entire ignorance of the striking recent development of this system in Germany, and says, for instance, that "at the colony of Uchtspringe there exists a sort of family care, where the families of the employés of the asylum play the part of guardians to the epileptics." At no time in the history of Uchtspringe would this have been true, for Dr. Alt, the medical director of the asylum and colony at Uchtspringe, has always regarded epileptics as largely unsuitable for boarding-out, and the placing of patients in the homes of asylum attendants was merely a preparatory step to the extensive boarding-out of patients with the ordinary inhabitants of the place which now obtains at this and many other centres in Germany. The account of the German system is absurdly inadequate, and this lack of recent information is to be found in the description of nearly every other colony mentioned. Even that of the French colonies at Dun-sur-Auron and Ainay-le-Chateau is quite superficial, a fact which detracts considerably from the value of the book. On the other hand, Dr. Féré's treatment of the subject as a whole, his elucidation of the advantages which this system offers to the treatment of a considerable proportion of the insane, and the reasons he gives for its advocacy are thoroughly sound. He emphasizes the therapeutic value of the isolation of the patients, and lays stress upon the distinction between isolation and sequestration, a distinction too often overlooked. Isolation, he says, is a means of intellectual and moral hygiene, sequestration a measure of public order. In many cases, unfortunately, both are needed, but in many others isolation alone suffices, and may be secured in private dwellings, whilst it is, for obvious reasons, almost impossible of attainment in large asylums. The paramount necessity of undisturbed repose and individual attention, unattainable in large asylums; the unfavourable effect of the enforced discipline of asylum life on the subjects of delusions of persecution; the bad influence of one patient on another, and the great importance of family, or at any rate extra-asylum, treatment in cases of incipient insanity, particularly in hysteriform insanity and amongst cases of obsession, are insisted upon by the author. For these reasons, and notwithstanding the faults to which we have alluded, this book is worthy of careful study. In England, for many years, medical men have striven to remove the fear with which asylums have been regarded by the general public, and have pleaded for earlier certification and sequestration in asylums, and the recognition of these as mental hospitals; but there can be little question that until we have an adequate number of special mental hospitals for early, acute, and curable cases, the sequestration in asylums of a considerable number of the insane is not to be desired.

[2] *Le Traitement des Aliénés dans les Familles.* [The Treatment of the Insane in Families.] Par Dr. C. Féré. Troisième edition. Paris: Felix Alcan. 1905. (Crown 8vo, pp. 280.)

VENEREAL DISEASES.

DR. MATZENAUER'S manual of venereal diseases[3] has been designed to meet the requirements of the student and the medical practitioner. Its aim is to be practical, therefore such important points as diagnosis and treatment are chiefly insisted on. The first part deals with acquired syphilis, the history of the disease, and the primary, secondary, and tertiary phases; the affections of the various organs being passed in review. The brief historical survey is to the point, and should be read carefully, for it conveys the lesson which can bear repeating—that authority in medicine has but too frequently been a bar to progress. Such subjects as the various organisms brought forward as the cause of syphilis and the inoculation experiments on animals are dealt with, the information being brought up to date. There are also some instructive general remarks on the influence of morbid conditions in the development of syphilis and on other matters of interest, such as the question, When does syphilis become constitutional? The primary sore, the early (secondary), and the late (tertiary) symptoms are exhaustively analysed, yet without a sacrifice of conciseness as is but too often the case in Teutonic works. With regard to lichen planus, the author states that it was Neumann who first separated that condition from the syphilides, but it should be pointed out that Erasmus Wilson was the creator of lichen planus as an entity. The retention of psoriasis palmaris et plantaris syphilitica and pemphigus neonatorum syphiliticus is open to criticism, as such a nomenclature is misleading. In accordance with the Viennese school, Dr. Matzenauer does not refer to pityriasis rosea, but still retains the name herpes tonsurans maculosus. The syphilitic affections of the organs are well handled and their description is in accordance with modern investigations. Altogether the first part of Dr. Matzenauer's *Manual* can be confidently recommended to readers desirous of keeping abreast with recent advances and investigations in the domain of syphilis. A perusal of this portion of the work leads one to anticipate that the second part will be equally profitable, especially as regards the subject of congenital syphilis, to which Dr. Matzenauer has given much attention.

Of Dr. R. W. TAYLOR'S large book on *Genito-urinary and Venereal Diseases*,[4] by far the greater portion is devoted to the diseases named in the latter part of its title. The book opens with an account of gonorrhoea, its complications, and sequelae, and all these matters are well and clearly discussed at considerable length. It may be noted, however, that although the preface declares that the subject of gonorrhoea in all its phases has been "exhaustively given," yet the reader is referred to another work for "thorough discussion" of its etiology, which etiology, by the way, "although we know much about the gonococcus," Dr. Taylor considers to be still in a very unsettled state. In treatment he thinks protargol "a tame and diluted agent" compared with silver nitrate, whilst as to the merits of two other of the newer silver preparations—argentamin and argonin—he appears to be undecided, for we are told in one place that it is too early

[3] *Lehrbuch der venerischen Erkrankungen* [Manual of Venereal Diseases]. Von Dozent Dr. Rudolf Matzenauer. Erster Theil. Wien: Moritz Perles. 1904. (Demy 8vo, pp. 285. M 5.40.)

[4] *A Practical Treatise on Genito-urinary and Venereal Diseases and Syphilis.* By Robert W. Taylor, A.M., M.D., New York. Third edition. London: H. Kimpton. 1905. (Demy 8vo, pp. 757; 163 illustrations, 39 coloured plates. 28s.)

to speak definitely of their value, and a few pages further on that they are to-day virtually discarded. The description of the local venereal ulcer, here called chancroid, and of its treatment is good, and so are the coloured pictures of it. Syphilis in its several stages is for the most part judiciously and adequately dealt with. The chapters on syphilitic affections of the eye and of the ear have been contributed by Dr. W. A. Holden. As regards the treatment of syphilis, Dr. Taylor, for no good and sufficient reason that we have been able to discover, is emphatic in recommending that as a general rule specific treatment should be postponed until the onset of the secondary stage—that is, until the appearance of the general rash. He favours the administration of mercury at first by the mouth and later on by inunction, or in some cases by subcutaneous injection or fumigation. The coloured plates, showing syphilitic lesions both primary and secondary, are very good. Of the uncoloured illustrations there are some that might well have been omitted. Turning now to the section on genito-urinary affections, the first thing that strikes one is the unequal and in some cases inadequate manner in which they are treated; for instance, while stricture of the urethra occupies some fifty-seven pages, and hydrocele over fifteen pages, hypospadias and epispadias together are dismissed in a single page, stone in the kidney in a page and a half, the various operations on the kidney in two pages, and tumours of the bladder in less than three pages. With regard to the treatment of hypertrophy of the prostate when operative measures of any kind are called for, Dr. Taylor considers that suprapubic prostatectomy is the procedure to be chosen in the great majority of cases. In the chapter on affections of the ureters, Cathelin's urine separator is described, but it does not seem clear whether Dr. Taylor has himself employed it. In the picture showing the method of using this apparatus the patient is lying on his back, while the text describes him as being in the prone position. From the foregoing remarks it may have been gathered that Dr. Taylor's book will probably be of most use as a guide to venereal diseases, and as such it may be commended both to medical practitioners and students. As a treatise on genito-urinary diseases in general, though satisfactory in parts, it is on the whole insufficient and disappointing. The fact is that of the numerous subjects included in this book some have grown to such an extent that all of them can no longer be fully and satisfactorily treated in a single volume of reasonable size and weight, and of the truth of this statement the present volume may be taken as a fair illustration.

TREATMENT OF PULMONARY CONSUMPTION.

Popular crusades against any great evil are apt to be led into unproductive paths and side-issues unless they are guided by well-established and clearly-recognized principles. The rapidity with which the antituberculosis crusade has been adopted and carried on by municipal and other authorities is undoubtedly due to the fact that the issues at stake have been clearly enunciated and thoroughly understood. In our review of the first edition of Dr. Latham's book *The Diagnosis and Modern Treatment of Pulmonary Consumption*,[5] published two years ago, we pointed out that the author had proved his claim to recognition as a trustworthy guide, and in the somewhat amplified edition before us we find the same clearness of arrangement and simplicity of description as marked the previous work. Especially interesting are the chapters on the avoidance of reinfection, and upon the open-air methods of treatment. Of all "methods," that of open air requires above all to be regulated by common sense and careful watching. Its indiscriminate use is undoubtedly responsible for the pessimistic opinions that are sometimes expressed as to its limitations. Without expressing absolute agreement with some of the details of treatment advocated in the work, we may again commend Dr. Latham's book as a most valuable compendium of modern knowledge on the subject, which should be in the hands of all those who may be charged with the control of institutions for the treatment of tuberculous disease.

The first edition of Dr. Mendel's work on intratracheal medication in pulmonary tuberculosis was published in 1900,[6] and in this new edition we have a revision based on the experience of four years' further trial of his method. The special feature of Dr. Mendel's method of intratracheal injections is that, instead of passing the nozzle of the syringe into the upper portion of the larynx, he projects a small quantity of liquid against either the posterior or the lateral wall of the pharynx and allows this to run down by its own weight into the air passages. The author has convinced himself that as the oesophagus is closed, except during the act of swallowing, whilst the entrance to the larynx remains open, fluid injected in small quantities against the walls of the pharynx will flow into the air tube. Some excellent diagrams illustrate the technique of the operation. In the first edition, several medicaments were suggested for intratracheal injections; as the result of more prolonged experience, Dr. Mendel now employs eucalyptolized oil almost exclusively. The treatment is recommended for pulmonary tuberculosis in practically all stages; and the second part of the book, more than one half, is devoted to a review of the clinical results under the headings of modification of the respiration, modification of the stethoscopic signs, and modification of the functional symptoms. Marey's pneumograph has been used to record the changes in the respiration of the patients under treatment, and numerous tracings illustrate the text. Professor Brissaud, who for more than a year placed a large number of his tuberculous patients at the Hôtel-Dieu at Dr. Mendel's disposal for treatment by the intratracheal injection of eucalyptol, writes an introduction to the present edition of Dr. Mendel's work, and expresses his favourable opinion of the treatment and its results.

ADOLESCENCE.

Professor Stanley Hall's work on *Adolescence*,[7] large as it is, is said in the preface to be based on the author's *Psychology*, a presumably still larger work, not yet published. In the present volumes the reader will find a wonderful collection of recorded observations bearing on the normal, exaggerated, and pathological mental characteristics of adolescence, its aspirations, faults, crimes, and psychic peculiarities in both sexes, and the relation of all this to anthropology and the past history of mankind, and to present problems of education and sociology. A great part of the work is of medical interest, but in such a mine it is hard to choose where to dig in order to get suitable samples to illustrate the nature and value of the contents. The author regards the "real ego" as

> a spark struck off from the central source of all being, freighted with meanings that, could we interpret them, would give us the salient facts of its development history. Its essence is its processes of becoming. It is not a fixed, abiding thing, but grew out of antecedent soul states as different from its present form as protoplasm is from the mature body.

He thinks that upon the soul, as upon the body, the elements and forces of Nature have left their marks; they and man's needs and passions, acting through ages, have moulded and tempered the body and soul as met with in man of the present day. The beauty of Nature, ancient battles, occupations, industries, and religious worships have given rise to, or differentiated by a kind of polarization, such emotions as fear and affection, anger and pity. As a product of heredity the soul

> has been hammered, moulded, shocked, and worked by the stern law of labour and suffering into its present crude form. It is covered with scars and wounds not yet healed. It is still in the rough and patchworky, full of contradictions, although the most marvellous of all the products of nature. Where most educated and polished externally, it still has inner veins where barbaric and animal impulses are felt.

Professor Stanley Hall has endeavoured to search out characteristic changes at the age of life "when a certain group of powers emerges from the past; when heredity is bestowing its latest and therefore highest gifts; when the mind is most exquisitely sensitized to the aspects of nature and to social life.' He insists on the great natural joy of life in youth, whether of an epicurean or an aesthetic type. Youth "must and ought to enjoy life without alloy." Youth is the age of "natural inebriation without the need of intoxicants." He thinks that when a rapid increase in the size of the heart and arteries is normally taking place, heightened blood-pressure may be useful to obtain full development in the circulatory system before growth ceases. He dwells on the characteristic destructive tendencies of man, which has led to the extermination of the North sea-cow, the great auk, the

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[5] *The Diagnosis and Modern Treatment of Pulmonary Consumption.* By Arthur Latham, M.A., M.D.Oxon., F.R.C.P. Second Edition. London: Baillière, Tindall, and Cox. 1905. (Demy 8vo, pp. 224, 5s. net.)

[6] *Traitement de la Tuberculose Pulmonaire par la Médication intra-trachéale.* Par le Dr. Henry Mendel. Deuxième Edition. Paris: F. R. de Rudeval. 1904. (Demy 8vo, pp. 146.)

[7] *Adolescence: Its Psychology and its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education.* By G. Stanley Hall, Ph.D., LL.D. Two vols. London: S. Appleton. 1904. (Demy 8vo, pp. 1400. 31s. 6d. net.)

African quagga, and scores of other animals and birds. Athletics and boisterious games are an outlet which prevent the excesses of "hooliganism." In regard to education he thinks the characteristics of sex should be guarded. "The familiar camaraderie which ignores sex should be left to the agenic class." In one part of the work he quotes numerous instances of great men who have been considered dull or dawdling as children. Such instances may perhaps be admitted as constituting one of many reasons for not encouraging mental precocity by surrounding it with too studious an atmosphere, or by allowing it to run riot and possibly to ruin from too great or too exclusive mental exercise.

NOTES ON BOOKS.

THE tenth volume of the *Transactions of the Dermatological Society of Great Britain and Ireland*[1] contains an interesting paper on small-pox in the United States by Dr. W. T. Corlett, of Cleveland, Ohio, illustrated by twelve good plates from photographs. It is worthy of note that the United States, with all their up-to-datedness, should still suffer from preventable epidemics of small-pox. As a nation they are in this respect not more advanced than we are. The volume contains a number of cases of more or less rare diseases of the skin. Altogether the book shows that the Society is active and doing good work.

In our notice of the thirty-fourth annual edition of the *City of London Directory*[2] last year we reviewed at considerable length the special features of this work; it is unnecessary, therefore, to refer to them in detail in connexion with the issue for 1905, which has just appeared. It is a most valuable directory and work of reference for all those who have dealings with business houses, corporations, and public and other institutions which either conduct their operations in the City or are otherwise directly or indirectly connected with it. An addition to the information usually given which may be picked out as especially useful are nominal lists of all the Committees of the London County Council. So far as we are aware, they are not published officially elsewhere; and in view of the importance of the work for which these committees are responsible, it is desirable to have at hand complete information as to their composition. Unlike others, this directory habitually appears in March, and the changes which are so common about Christmas time therefore receive adequate attention.

DIETETIC PREPARATIONS AND MEDICAL AND SURGICAL APPLIANCES.

Pioneer Milk Sugar.—We have received a sample of the Pioneer Milk Sugar and a pamphlet from the proprietors dealing with the question of infant feeding. It is claimed that with the use of this sugar a quart of "humanized" milk can be prepared for the low sum of sixpence. As the preparation advised contains nearly 50 per cent. of pure water we are not greatly impressed with the lowness of the cost. The advantages of milk sugar over those more commonly in use should be obvious and acknowledged to justify the increase of cost arising from its adoption. Some authors state that during digestion milk sugar is converted into lactic acid, whilst during the same process cane sugar is partially converted into alcohol and carbonic acid. Others, again, assert that certain intestinal bacteria flourish better in the presence of cane than in that of milk sugar. Granting these contentions, however, the advantages of the use of milk over that of cane sugar have not been so obvious and incontestable in actual practice as to lead to its habitual adoption except by a limited few. The composition, again, of many of the so-called "humanized" milks varies widely. In the present pamphlet we are advised to prepare it by taking 1 pint of fresh cow's milk, 1 pint of water, 4 tablespoonfuls of Pioneer Milk Sugar, and 1 tablespoonful of separated or 4 tablespoonfuls of skim cream, and mixing them together. Now the compositions of separated cream and skim or gravity cream, as ordinarily purchased, vary within wide limits, and the fat percentage of the latter may exceed that of the former, or vice versa. It follows, then, that the fat percentage of the food advised—an important element—is altogether vague and indefinite. For this last reason, if for no others, the food advocated might prove an inappropriate one for many infants. The pamphlet is largely filled with quotations from medical writers. We trust, then, that it has only been circulated amongst members of the profession, and, even in this case, that the authority of the writers quoted has been obtained for the use of their names.

An Improved Form of Closet.—The annexed engravings illustrate the Kataphysical Health Closet, shown by Professor Chiene, C.B., at the February meeting of the Edinburgh Branch of the British Medical Association. It is intended to enable both adults and children comfortably to assume during defecation the physiological position naturally adopted by men in the fields. This is effected (1) by placing the seat in each case at the right height from the spot on which the feet rest, while at the same time keeping the whole height of the closet at that which is in common use; (2) by making both the pan and the lid-seats narrow anteriorly like a bicycle

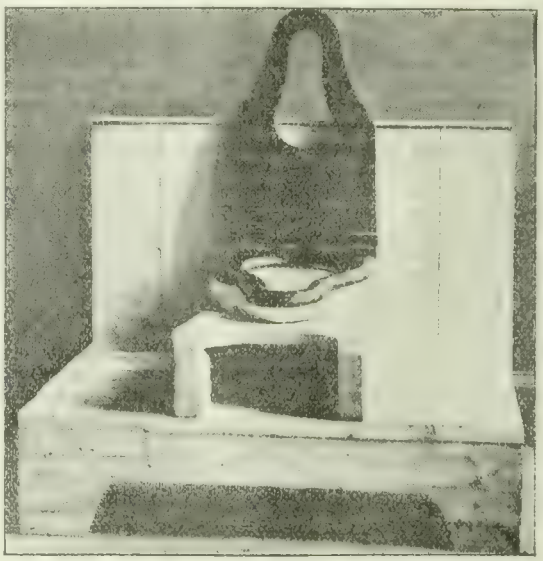


Fig. 1.

saddle, so that the thighs may be drawn well back. The apparatus consists (*a*) of a pan and two lid-seats, the upper and smaller for the use of children, the lower and larger for that of adults. Both can be raised, and the basin used as a urinal. (*b*) Of two cement platforms, of which the lower is 9 in. high and the upper 6 in. high. The lower platform, it is to be noted, is only necessary in order to raise the whole adult apparatus to the height of 18 in.—that in common use. Its existence, however, is otherwise advantageous, in that being undercut a person using the w.c. as a urinal can place his feet in the recess and stand close up to the basin. During defecation the

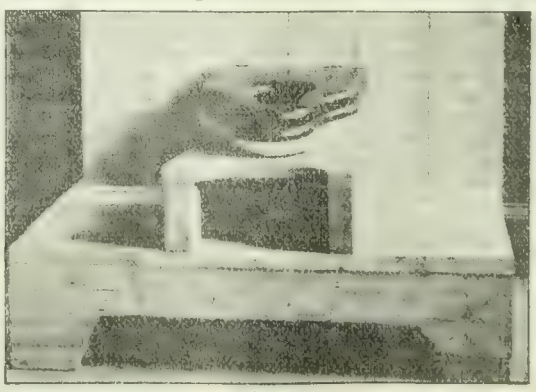


Fig. 2.

feet of the adult rest at each side of the basin and on the top of this lower platform, the distance from the adult lid seat to the latter being 9 in. (Fig. 1). Similarly the feet of the child rest on

[1] *Transactions of the Dermatological Society of Great Britain and Ireland. 1903-4.* Vol. X. London: H. K. Lewis. 1904. (8vo, pp. 96, 15 plates. 5s.)
[2] *The City of London Directory for 1905.* London: W. H. and L. Collingridge. (Demy 8vo, pp. 1198. 12s. 6d.)

each side of the basin and on the top of the upper platform, the distance from lid seat to platform being in this case 4 in. only. (Fig. 2). Professor Chiene pointed out that in the physiological position of defecation the pressure of the thighs reinforced the expulsive power of the abdominal muscles and firmly supported the inguinal and femoral rings. The lack of such support when using an ordinary 18 in. closet was, he said, at least one cause of chronic constipation, and might possibly also have to answer for some cases of appendicitis. In this connexion he noted that the dilatation of the caecum was a gradual process which began about the time when children had to give up the low nursery chamber and to use the high ordinary closet. After demonstrating his closet to a class of students Professor Chiene learned that the father of one of them, Mr. E. A. Rawlence of Salisbury, had likewise designed a closet with a similar object. Like Professor Chiene he chose 9 in. as the proper height, but his closet was for adults only, and, being sunk in the ground instead of raised to the ordinary hight of a closet, handles had to be introduced to enable the user to rise. The introduction of a closet which should permit of a natural attitude had long seemed to Professor Chiene a matter of importance, and hence he worked out the one which has been described and had it made by Messrs. Paterson and Sons of Elm Row, Edinburgh.

NOVA ET VETERA.

HOGARTH AND QUACKERY.

I.—Mrs. Mapp and Dr. Ward.

At the present day the terms "quack" and "quackery" seem to have acquired a strictly limited meaning, as was lately shown in the action-at-law between Mr. Labouchere and a gentleman connected with a notorious institution for the treatment of the deaf. The view then taken appears to be that a medical man possessing the diploma of any respectable university or other licensing body cannot be a quack.

But in the eighteenth century, when the Medical Act was not thought of and there was no *Medical Register*, a practitioner was judged by his methods, and not by his testamur. Thus we find that certain physicians owning university degrees were popularly dubbed quacks, along with the bill-sticking charlatans and other panacea-mongers.

Hogarth was a foe to all humbug, and he used his uncompromising pencil freely on the medical quacks of his day. In *A Consultation of Physicians* he gives portraits of three notorious quacks—"Chevalier" Taylor, the eye doctor; Mrs. Mapp, the bonesetter; and Dr. Joshua Ward. Below them are portraits of twelve physicians, including Dr. Bamber and Dr. Pierce Dod of St. Bartholomew's. The plate is thus described by the engraver (it was originally announced under the title *Quacks in Consultation*, 6d. each):

> The company of Undertakers beareth Sable, an Urinal proper between twelve Quack heads of the second and twelve cane heads Or, Consultant, On a chief, Nebulae, Ermine, one complete doctor issuant checkie sustaining in his right hand a baton of the second. (This is said to be Mrs. Mapp.) On his dexter and sinister sides two demi-doctors issuant of the second, and two cane heads issuant of the third; the first having an eye couchant (Taylor's cane) towards the dexter side of the escutcheon the second faced per pale proper and Gules guardant, with this motto Et plurima mortis imago.

All the quacks in this plate were very well-known characters, and their names were associated in more than one publication. To begin with, the "compleat doctor," although described as "hé," is almost certainly Mrs. Mapp, the bonesetter. This celebrated person was the daughter of a bonesetter named Wallin, at Hindon, in Wiltshire. She wandered about the country calling herself "Crazy Sally." She married, after she became famous, a man named Mapp. She had no pretensions to any knowledge of anatomy or surgery, but had great muscular strength, and no doubt dexterity and shrewdness. From the number of references to her in periodical literature and her advertisements in *Mist's Journal*, etc., it appears that she had an enormous reputation and a large practice, and no doubt worked some notable cures. This "famous masculine woman" was known as the bonesetter or Shape Mistress. The *Grub Street Journal* of August 19th, 1736, says:

> We hear that the husband of Mrs. Mapp, the famous bonesetter of Epsom, ran away from her last week, taking with him upwards of 100 guineas, and such other portable things as lay next hand . . . that her concern at first was very great, but as soon as the surprise was over she grew gay and seemed to think that the money was well disposed of, as it was like to rid her of her husband.

Those were times when verse making in the living and dead languages was very popular and every scribbler seemed to think that it was his duty to emulate Swift, Arbuthnot, Gay or Pope, and like Silas Wegg to "drop into poetry" continually. Mrs. Mapp was the subject of one of these poetasters whose verses on her and the two demi-doctors were published in the *Gentleman's Magazine* and ran as follows (Vol. vi, p. 483):

> Of late without the least pretence to skill
> Ward's grown a great physician by a pill
> Yet he can but a doubtful honour claim
> While envious death oft blasts his rising fame
> Next travelled Taylor fill'd us with surprise
> Who pours new light upon the blindest eyes.
> Each journal tells his circuit thro' the land;
> Each journal tells the blessings of his hand;
> And lest some hireling scribbler of the town
> Inquires his history he writes his own.
> We read the long accounts with wonder o'er.
> Had he wrote less we had believed him more.
> Let these oh Mapp thou wonder of the age!
> With dubious arts endeavour to engage
> While you irregularly strict to rules,
> Teach dull collegiate pendants they are fools:
> By merit the sure path to fame pursue
> For all who see thy art must own it true.

Through the loud chorus of praise, however, some discordant notes of complaint are to be heard. Thus, under date of September 9th, 1736:

> Advertisement . . . Whereas it has been industriously (I wish I could say truly) reported that I had found great benefit from a certain female bonesetter's performance, and that it was to a want of resolution to undergo the operation that I did not meet with a perfect cure; this is therefore to give notice that anyone afflicted with lameness (who are willing to know what good or harm others may receive before they venture on desperate measures themselves) will be welcome any morning to see the dressing of my leg, which was sound before the operation, and they will be able to judge of the performance and to whom I owe my present confinement to my bed and chair. Thomas Barber, Tallow Chandler, Saffron Hill.

She became a patron of the turf, and gave 10 guineas for a plate to be run at Epsom (where she lived); she set up a carriage, and "on Sunday waited on Her Majesty." We have quacks—triumphant quacks—nowadays, but we have not heard of any of them bespeaking the performance at a London theatre. This, according to the *London Daily Post*, is what Mrs. Mapp did (October 19th, 1736):

> Mrs. Mapp being present at the acting of the Wife's Relief, concurred in the universal applause of a crowded audience. This play was advertised by the desire of the famous Mrs. Mapp the bonesetter from Epsom.

The play was the "Wife's Relief," at the Theatre Royal in Lincoln's Inn Fields. This seems to have been a different play from the "'Husband's Relief' with the female bonesetter and the Worm Doctor," which was performed at the same house and reported in the papers earlier, when a song was sung on the stage beginning:

> You Surgeons of London who trouble your pates
> To ride in your coaches and purchase estates,
> Give over for shame for your pride has a fall,
> And the doctress of Epsom has outdone you all.
> Derry down, etc.

And ending thus:

> Dame Nature has given her a doctor's degree,
> She gets all the patients and pockets the fee;
> So if you don't instantly prove it a cheat,
> She'll loll in her chariot while you walk the street.

It seems that she did loll in her chariot, for she came up from Epsom in it with four horses once a week to the Grecian Coffee House, where she made surprising cures before Sir Hans Sloan, as reported in the *Gentleman's Magazine*:

> A man of Wardour Street, whose back had been broke nine years and stuck out two inches, a niece of Sir Hans Sloan in the like condition, and a gentleman who went with one shoe heel six inches high, having been lame 20 years of his hip and knee, whom she set straight and brought his leg down even with the other (vol. vi, page 617).

It would be wearisome to quote more of her cures, and of how she carried off crutches, which she called trophies of honour. We have only to read in our modern halfpenny press of the Scottish bonesetter and of the gentleman from Lancashire whose cures in Bond Street have lately been boomed by some enlightened journals, to know exactly what Mrs. Mapp's methods and results appeared to be. She was entertained by her brother quack, Ward, in Pall Mall, and soon took lodgings there; but, alas! for the fickle-

ness of the public, she died a year later near Seven Dials, "so miserably poor that the parish was obliged to bury her."

Joshua Ward, who with Taylor is associated in the journals of the day with Mrs. Mapp, was a person of considerable importance. He was known as "Spot" Ward, because the left side of his face was marked of a claret colour, probably from a naevus. George Stevens says:

> He was one of the younger sons of an old and respectable family at Guisborough in Yorkshire, where he was born some time in the seventeenth century. He seems from every description of him to have had small advantages from education, though he indisputably possessed no mean natural parts.

Born in 1685, he was returned to Parliament for Marlborough in January, 1717, but on May 13th in the same year his name was erased and that of another candidate substituted as member on the good and sufficient ground that he had not obtained a single valid vote. Whether it was on account of his conduct during the election, or, as some suppose, because he had connived at the escape of certain Jacobite prisoners, or had helped to secrete or illegally protect some of the property of the South Sea directors, it is certain that he fled to France, and resided for some time at St. Germain. In France he supported himself by the sale of his famous drop and pill, which he vaunted as cure-alls in the usual quack style, but, probably owing to unfortunate results in some cases, the French Government interfered, and he only escaped the Bastille by a hasty retreat to England in 1733, having secured his pardon from George II.

By unblushing advertisement and a lucky operation on the King, whose dislocated thumb he reduced by a violent wrench, he soon acquired an enormous reputation and practice among rich and poor. The former class, ever the patrons of quacks, took him up warmly, and ladies of title made themselves his honorary touts. He did not escape hostile criticism, which, at length, became so persistent that he brought an action for libel against the editor of the *Grub Street Journal*, when, to quote the *Dictionary of National Biography*:

> It was conclusively shown that beyond some slight knowledge of pharmacy, Ward was destitute of medical learning, and that his pill and drop were preparations of antimony, very violent in their action and quite unfit for general use, and that his remedies killed as many as they cured.

After this it is not surprising that his action failed, but he continued in prosperity till his death in his 77th year. He left the "secret" of his blue, his red, and his purple pills to a member of Parliament, who gave them to two charitable institutions, but their sale soon fell off when his personality was absent.

Although Dr. Johnson summed up Ward as "the weakest of the whole empiric tribe," he must have been a man of great personal influence and of some originality, for he was a pioneer in the manufacture of sulphuric acid, much to the annoyance of his neighbours at Twickenham and Richmond. Besides the caricature there is also a large print by Hogarth of Ward relieving the lame, the sick, and the palsied. In this, instead of the birth mark covering one half of the face, only a spot on the left cheek is shown, which would render the nickname of "Spot" apposite.

There is a statue of Ward in the hall of the Society of Arts in London. What more could a quack ask of fame?

THE "TER-JUBILEE" OF HAHNEMANN.—On April 10th the adepts of the homoeopathic cult celebrated the "ter-jubilee"—which appears to be intended to mean the one hundred and fiftieth anniversary—of the birth of their pious founder.

ROYAL INSTITUTION.—The following are the lecture arrangements at the Royal Institution after Easter: Professor L. C. Miall, Fullerian Professor of Physiology, three lectures on the Study of Extinct Animals; the Rev. H. G. Woods (Master of the Temple), three lectures on Velazquez; Professor Sir James Dewar, Fullerian Professor of Chemistry, three lectures on Flame; Professor J. A. Fleming, three lectures on Electromagnetic Waves (the Tyndall Lectures); Professor H. Marshall Ward, two lectures on Moulds and Mouldiness; Dr. J. G. Frazer, two lectures on the Evolution of the Kingship in Early Society; and Mr. A. H. Savage Landor, two lectures on Exploration in the Philippines. The Friday evening meetings will be resumed on May 5th, when a discourse will be delivered by Professor H. E. Armstrong on Problems underlying Nutrition. Succeeding discourses will probably be given by Professor E. Fox Nicholls, Sir Charles Eliot, K.C.M.G., Professor J. W. Bruhl Mr. George Henschel, and Sir William H. White.

THE EXPENDITURE OF HOSPITALS.

II.

IN the first article on this subject we dealt with the interrelationship in hospital enterprise of the public, the medical profession, and the subscribers.

Having thus cleared the ground, we proceed to consider the difficulties met with by a subscriber or member of a managing committee who wishes to inquire into expenditure and to distinguish desirable outlay from unnecessary extravagance; in doing this we shall keep matters as uncomplicated as possible by avoiding all figures except those necessary for purposes of illustration.

Hospital Account Keeping.

Reviewing the difficulties, there is one point which comes so directly to the front as almost to overshadow all other possible pitfalls. This is the prevalent method of keeping hospital accounts.

It came into being at a time when the accounts of many hospitals were very neglected, and when the necessity of business-like methods in charity administration was first beginning to force itself into notice; and doubtless it was a step in the right direction.

It had a taking appearance of clearness and simplicity about it, a still more taking title, and these together recommended the method to those who were anxious for reform, and led to its virtues being advocated by many influential people. Hence it was readily accepted by many institutions, and, its adoption being practically forced upon others, it has now come into a use which may be regarded as universal.

The title by which this method is known is the Uniform System of Hospital Accounts, and the claims put forward for it were that it made the cost of any hospital during any year, or the cost of any of its departments or items of outlay, immediately evident and truly comparable either with its own expenditure at any previous corresponding period, or with that of any similar hospital: thus in each case making control easy by establishing a test of comparative efficiency of administration.

It is the adoption of this system and belief in the validity of the claims made for it which are responsible for much of the misunderstanding about hospital accounts, and for the controversies which have lately taken place between the defenders of different administrations. And this for two very simple reasons.

First, the title given to this method is a misnomer, for it is not entitled to be considered a system of account keeping at all, and, secondly, the claims made for it are in practice unfounded.

Though the majority of readers are probably already familiar with this system, yet it will be as well to give a brief description of its points.

The plan is to keep the accounts by arranging all items of hospital income and expenditure in classified lists, and, to facilitate this classification of items, a kind of glossary of terms has been published with a view to showing into what list any particular item ought to go. Next the lists of classified items are again themselves classified, and their totals summarized under such headings as provisions, surgery and dispensary, on the one hand, and donations, subscriptions, special appeals, on the other. All outlay is divided into maintenance and administration charges and, like income, is characterized as being either ordinary or extraordinary. Thus the cost of a new dispensary would be extraordinary, the cost of a porter, ordinary expenditure; a subscription from a fund, ordinary income, the amount of a legacy, extraordinary. Finally, everything is summarized into an annual account of total income and expenditure.

This is the Uniform System of Hospital Accounts. Curiously enough, though presumably it must have occurred to its originators that a balance sheet was an indispensable accompaniment of any cash statement, a balance sheet formed no part of it. About two years ago a model balance sheet was suggested and its adoption strongly advised, but this addition does not remove the essential defects of the system.

The Defects of the System.

The method distributes the incomings and outgoings of a hospital as they occur into a well-considered series of lists with approximate accuracy, but when out of the totals of these lists an attempt is made to build up accounts the cart is put before the horse. For mere lists of the incomings and outgoings of a hospital do not constitute a system of account keeping, and though there is no absolute reason why the

totals should not be correct, there can be no assurance that they are, unless they have been reached by calling into play quite another "system," namely, ordinary book-keeping by double entry. The system in short attempts to do too much, to keep accounts and analyse accounts at one and the same moment, and consequently it fails in both directions.

Most hospitals, as has been stated, now publish their accounts on the uniform system, but which of them really depend upon it entirely and do not offer their subscribers the assurance of books kept on ordinary principles it is impossible to say; this is one of the first difficulties encountered by the financial inquirer.

The Pitfalls Offered by It.

So far we have dealt with the system regarded merely as a method of book-keeping; we now come to the claims which have been made for it.

If the totals and the analyses were both correct it would be possible at once to work out the relative expenditure on any given item for any given period, for the purpose of comparison with that of a previous corresponding period or with that of another hospital.

Thus the expenditure on each bed would be reached by dividing the number of beds occupied in the period under review into the total outlay on in-patients as opposed to out-patients, supposing always that a separate account of out-patients' expenses were kept. A rule-of-thumb deduction of so much for each out-patient such as is now common would of course ever give inaccurate results, since the ratio of out-patients to in-patients varies so greatly in different hospitals.

Assuming, however, this difficulty to be got over, the "cost per bed" of which we hear so much would be at once established in the way we have described, and with it a ready means of comparing the outlay of different hospitals, and one which would under many circumstances be of great utility to those who desired to regulate their expenditure.

If the uniform system of hospital accounts did all this, its value would undoubtedly be very great; but, unfortunately, it does not, simply because there is constant confusion in this system between payments out-of-pocket and real cost or expenditure.

Some examples of the way in which errors of deduction must necessarily arise may be given.

Total Ordinary Expenditure.

Thus, under the general heading of total ordinary expenditure, the uniform system provides one which is called interest on loan. This means that if a hospital goes into debt the amount paid as interest to the lender is to be entered as an outgoing. Hence, if, in order to provide £5,000 cash, money is borrowed at 4 per cent., the £200 paid as interest is entered in the accounts, and the apparent cost of maintenance is at once increased, and with it "the cost per bed" if interest on loans be charged against it. The same remark applies to rent, which is the same thing as interest on a loan, except that the loan is one of land.

But if, on the contrary, instead of borrowing money from a banker, the hospital borrows from its own capital funds, or if, instead of renting a house, it buys the house, then at once the outgoing disappears and the apparent cost per bed goes down.

The value of capital is of course the same whether it belongs to one person or another, but the hospitals which year by year render their annual statements on this uniform system take no account of the fact that loss of interest on capital is expenditure just as much as interest paid on a loan. The consequence is that the so-called total ordinary expenditure is not the total, and hence any deductions made from the figure thus shown must necessarily be inaccurate.

Separate Items.

When we come to the value of the separate items as a means of comparison, the misleading character of the uniform system is even more apparent. It might be supposed that the cost of provisions in any one year and in any one hospital when compared with the cost in the same hospital in a previous year or with that of another hospital of the same class would provide useful information; and so it would if the right meaning were attached to the word "cost."

But cash payments, as we have indicated, are one thing and cost is another, and it might almost as well be said that the cost of feeding the crew of a ship was nothing a week because the provisions were paid for before the voyage began, as to consider the cash paid for goods received into a hospital without reference to the period in which they are consumed.

Nevertheless this is what is done under the uniform system. It takes no account of stocks in hand and where, as is often the case with linen, stocks are replenished at intervals and on a large scale, one year is made to bear the expense of eighteen months or longer, leaving out of consideration cases in which possibly large stocks of groceries, etc., are debited to one year, and consumed in the year following.

Another instance of the way in which the system is misleading is in respect of the indicated object of the various items of expenditure. In the case of provisions, for example, it is to be assumed that these are purchased in order to feed the patients and the ordinary number of nurses and servants who attend upon them, while the salaries and wages of these attendants are entered under a separate heading. It often happens, however, where the accommodation of the hospital is limited, that many of the servants cannot be lodged and boarded; they are consequently paid higher wages and board themselves. On the other hand, some hospitals board servants who are usually paid wages only. Hence deductions made from the totals shown as expended on provisions or wages may readily be misleading. To establish the true cost of provisions for the purposes of comparison the number of mouths to feed or meals of various classes to provide would have to be calculated after taking into account the stocks in hand at the beginning of the year, while, of course, no wages comparison can properly be made without distinguishing between boarded and non-boarded servants.

It is not necessary to labour points of this description, but obviously they are not insignificant factors, and the net conclusion must be that if "the cost per bed" is calculated by using this system as a basis, it can only be regarded as a test of the very roughest description, and certainly not as one which can safely be used for determining the relative efficiency of the administration of different hospitals in the same year, or even of the same hospital in consecutive years except in a very guarded manner.

The Remedy.

As has been indicated, it is perfectly clear that the adoption of the system of book-keeping under which every commercial undertaking works would provide a remedy, and that out of the accounts thus furnished the management of a hospital could prepare statistical abstracts as often as it thought it worth while, and in the form considered most useful.

In this connexion it is to be noted that commercial undertakings do not commonly undertake the annual tabulation and classification of statistical results which may be of no particular value if the net result is satisfactory. A manufacturer is not always trying to find out exactly what he has spent on stationery as distinguished from other office expenses; what he wants to make sure of is that his property remains intact, and that there is a sufficient surplus at the end of the year which he calls the profit.

In his ordinary books he has all the material before him for an analysis and classification of the minutest character, and if he suspects waste anywhere he can call for a return as to any particular item. If he sees his profits diminishing he can undertake a detailed inquiry into everything. In default of this, however, there is a limit to the minuteness of statement in each year's published accounts, and it has not been proved that in hospitals the labour of adopting a different course produces a commensurate result.

A general statement of receipts and expenses and a proper balance sheet would produce figures which might be treated by applying factors such as the number of occupied beds, number of mouths, and number of out-patients, in such a way as to produce results which could be readily and really compared with the same results in the case of other hospitals. The task, of course, would be materially lightened by an authoritative statement as to what items are to be included in the estimate of cost per bed. Some items are at present commonly included over which the managers have no control whatever, for instance, rates and taxes. These vary enormously and even more abruptly perhaps in different parts of London than in different parts of the country.

Overhauling Expenditure.

The question remains, What ought a hospital to do if it decides to overhaul its expenditure? This is now being asked by hospital managers all over the country.

The increasing difficulty of raising sufficient subscriptions

is bringing home with force the truth of the saying that a penny saved is a penny gained. A penny a patient a day is not only a substantial sum per annum in the case of any hospital in relation to its size and total expenditure, but would be the interest of a large capital sum if it were effected in every hospital in the country. Few people who are acquainted with hospitals will doubt that considerably more than a penny a patient a day could be saved in most hospitals.

That this is not done cannot be ascribed to any indisposition on the part of the hospital managers to promote economy. The real reason is the absence of information from a central source and of periodical inquiry into the affairs of each hospital by persons especially selected for that purpose.

King Edward's Hospital Fund for London has made a commencement in the direction of supplying information. A statistical report relating to sixteen of the large general hospitals of London was issued last year, but access to it has been available only to the hospitals whose accounts are dealt with therein. The report sets out the cost per bed in each case under the various headings of expenditure ordained by the uniform system of accounts, but then, as has been shown, the cost per bed as thus indicated is only the roughest kind of guide as to what the actual cost has been.

Contract Prices.

The figures in the report are, however, accompanied by tables of prices which were being paid on a given date at the different hospitals, and the discrepancies shown between them caused, when alluded to by the Prince of Wales in his speech on December 19th last, something like a sensation.

In his speech the Prince showed that the prices paid for provisions by the sixteen largest general hospitals in London during the same periods varied between the different institutions so greatly that if the variations above the mean were taken it could be demonstrated that there had been an unnecessary expenditure of nearly £40,000 in one year by these hospitals alone. As examples, he quoted the differences between the highest and lowest prices paid for various articles, 3½d. in respect of the same description of beef, 3½d. in that of mutton, 1s. 1d. in the price of fowls, 2½d. a gallon as regarded milk, and 7d. a lb. in the case of tea. In addition, there were equally costly apparent discrepancies in the prices paid for household articles and drugs. It was suggested that the facts, though perhaps capable of satisfactory explanation, showed room for inquiry. This is undoubtedly the case, but here, too, of course, there are pitfalls, against which the unwary may be warned. The price paid on a given day may be, and probably is, the price which was bargained for three, six, or even twelve months before, and this makes all the difference. So, too, the quality of an article which is purchased for sixpence may result in far more waste than the payment of a shilling for a thing with the same name.

In short, the thorough overhauling of the expenditure of a hospital entails much more than a mere examination of figures. The efficiency of the work, the claims of the medical staff, and the effect on labour of inferior goods are all matters which can only be dealt with by personal inquiry on the spot, and with full knowledge of all circumstances.

Special Committees on Expenditure.

It seems, therefore, that a hospital which wishes to make sure that no waste is taking place within its walls should enlist the services of competent persons to inquire into the question on the spot, and that such inquiries should be periodical—certainly not less than once in three years.

Such inquiries, properly conducted, have never failed to reduce expenses. In the case of two London hospitals, competent Committees on expenditure have effected savings amounting to £2,000 a year in one case and £1,000 in the other.

The reason for comparative frequency of inquiry is not so much that facts alter between two inquiries, as that human nature tends to slackness in detail and to forgetfulness, while commerce has an interest in the result of slackness, since it spells increased expenditure. The price of provisions may be fixed to-day at the very lowest point, market variations to-morrow may compel the merchant to ask for an increase. Ask for it he certainly will; but when the market goes down it by no means follows that he will make a corresponding communication to his customer.

Similarly in regard to regulations for avoiding waste. All such regulations involve labour, and it is natural to the labourer to avoid work which is not insisted upon. The best manure for the farmer's land is the farmer's foot, but in a hospital the farmer is a person with more duties to perform than any one man can perform thoroughly, and therefore he must delegate them or leave some unperformed.

To deal with subscribers, to get new ones, to correspond with patient's friends, to attend committees, to be responsible for daily supplies, repairs, and all current work, and annually to be the moving spirit of some great appeal—such as a festival dinner, or bazaar—is an amount of work which leaves little or no time for the minute inspection of every small detail, each of which may be helping to make up a large sum lost in waste. However excellent, therefore, a secretary may be, periodical inquiries such as those mentioned are still desirable.

As for the persons by whom such inquiries should be conducted, there are persons of special experience whose services might perhaps be obtained for giving advice. Experts doubtless have done much for hospitals as a whole, but they know so much, and their ideals are so perfect, that it is doubtful whether they do not sometimes rather encourage fresh outlay than diminish expenditure, which is the immediate object. It is a special kind of work, and one of which it might be worth while to take advantage provided that the expert were satisfied for his remuneration with a small percentage on the savings of the first year after his advice had been given; doubtless he would realize a handsome sum.

In default of such expert inquiry, or even in preference to it, the course open is to appoint a small special committee. As was mentioned in an article on hospital economy in the British Medical Journal not long ago, the prudent administration of a hospital's domestic expenditure does not materially differ from that of any large private household in which cleanliness, order, and economy are all considerations. The persons selected, therefore, need not have any special knowledge of hospital work. They will have all they require in that way if provided with a list of the requirements of the medical staff in regard to nursing and dieting; and the chief precaution necessary is to make sure that they all have a practical knowledge of housekeeping and that they are people of common sense and sufficiently business-like to be capable of presenting the results of their examination in an intelligible way.

THE EPIDEMIC OF TYPHOID FEVER AT LINCOLN.

The total number of notifications during the week ending on Friday, April 7th, was 25, indicating a decrease on the previous five weeks, although a local outbreak of 9 cases occurred in the workhouse, an institution in which no cases had been recorded until April 1st.

The epidemic is following the usual course of waterborne outbreaks of typhoid fever, excepting that the occurrence of secondary cases does not appear to have decreased as rapidly as usual during the five weeks following the first great outburst.

This similarity and difference may be seen on comparing the daily notifications (commencing from the first week of violent outburst) at Maidstone (1897), and at Worthing during its second outbreak (1893). During the first five weeks of violent outburst, due probably in each case chiefly to infected water, the incidence in proportion to their respective populations was far greater at Worthing and Maidstone than at Lincoln, and also during the four weeks which immediately followed this first outburst. But it may be noticed that the rate of decrease at Lincoln has not been maintained, as in the two other epidemics.

This exception may to some extent be due to the fact that the total incidence at the end of this first five weeks amounted at Lincoln to only 11.7 per 1,000 of the population, whilst at Maidstone it was 40.6 per 1,000, and at Worthing (the earlier part of the epidemic being included) 65.4 per 1,000. The comparative excess of secondary cases at Lincoln can hardly be attributed to a comparative defective sanitary condition; for the reported conditions of houses, drains, sewers, etc., in this city compare very favourably with those which were recorded as obtaining in the two other towns. Nor does it appear to be due to less promptness or zeal on the part of the city health authorities and their advisers in carrying out the measures devised for arrest of the epidemic, from the time when the serious nature of the invasion was realized. The provision of temporary hospitals and of accommodation for convalescents and the isolation of infected patients at Lincoln, have been carried out on a considerably larger scale proportionately than at Maidstone and Worthing. The in-

vestigation of the dwelling, surroundings, and condition of each case notified have probably been conducted more systematically and thoroughly than in any previous epidemic.

But we have not yet fully realized the supreme importance of tracking out from the very outset all the scattered foci of infection which are invariably developed in a waterborne epidemic, and of exterminating all discoverable traces of the living poison.

In order to ensure protection from these many sources of infection we require an organized system prepared beforehand, and an outside staff trained and ready at the first signs of an epidemic to co-operate with and under the local sanitary authorities.

In the first outbreak of such epidemics the local authorities and health officers are too overwhelmed with the demands of each hour to be able to devote sufficient time for the detection of incubating and ambulant cases and other obscure sources of infection. Until this need is fully realized by the people, the medical profession, and our highest sanitary authorities, together with the necessity of instructing the people invaded with regard to the risks of direct and indirect infection, and the means of preventing these risks, the "secondary cases" will always be liable to equal and even to exceed those caused by the primary water infection.

NOTES ON HEALTH RESORTS.

THE LUCAN SPA.

By Thomas Laffan, M.R.C.S.,
Cashel, Ireland.

There is a popular saying which bids us look abroad for anything that is really valuable. To some extent it is universally prevalent, but nowhere does it obtain such hold as in our own country, where nothing merits support but that which has hailed from a distance. The Lucan Spa has cruelly suffered from the existence of this feeling. It offers many attractions, which add to the effects of its mere medical advantages. It is delightfully situated. It is in close proximity to a city which can boast of many art and other attractions. In later times the founding of an electric railway has brought it within easy reach of the City of Dublin, whilst the existence of two lines on its borders furnished easy access to visitors from all parts of Ireland. In the eighteenth century it was all the fashion, but for many a long year its fortunes were under a cloud, until that cloud was lifted by the enterprise of a number of intelligent and energetic gentlemen.

The waters of the Spa are alkaline, saline, and sulphurous. The amount of sulphuretted hydrogen exceeds that of Lisdoonvarna, and compares favourably with the best known waters of the same kind in Europe. The water is easy to drink, is brisk in its taste from the carbonic acid present, and the temperature is moderate, being estimated at 46° F. This moderate temperature confers on it advantages of its own, inasmuch as water of a very high temperature is over-stimulating. The primary effect of the Lucan water is that of a direct stimulant. It acts as an alterative, producing direct effects on the bowels, liver, kidneys, and skin. It is, therefore, a diuretic, diaphoretic, and tonic. It eliminates urea and uric acid, and other morbid elements, and is of great use in chronic internal congestions. It has a recognized place in uterine disorders. Its effect on gout and rheumatism is most pronounced, and well worthy of trial. Skin diseases, such as eczema, psoriasis, and other intractable affections derive the greatest advantages from residence here. The protean forms of dyspepsia are greatly improved, and, where not dependent on incurable organic disease, are every other day cured. Scrofulous diseases also are largely benefited, so also is chlorosis. More than one well-known writer has done justice to this Spa. Of these the most prominent are Mapother and Madden. Dr. Edgar Flinn has also produced a valuable monograph in its favour. The original apostle was, however, the celebrated Dr. Rutty, and it is now a century and a half since he did what was, after all, a bare justice to its merits. Various ulcers, which long resisted other treatment, have been cured at this Spa. For many years the late Sir Dominick Corrigan, the head of the profession in Ireland, recommended it for his chronic rheumatic cases, for enlargement of the joints, for piles, and for chronic mineral poisoning. Sir Charles Cameron shows that it is as rich in sulphuretted hydrogen as the new Spa at Harrogate, and he considers it quite as good. A strong point in favour of Lucan is the chemical condition of the sulphur gas, which is held merely in solution in the Lucan water, while in that of Harrogate it is in combination with bases. Its chemical composition shows that it contains as much carbonic acid, more sulphur gas and cathartic salts than Harrogate. In conclusion, I abstain from giving any directions as to the quantity of water to be taken, the number of baths, etc., as these would be matters of detail, which can be best given on the spot.

I can add my personal testimony to the experience which I have derived from patients, and urge a trial on all those with minds open to conviction.

THE MIDWIVES ACT.

Cambridge.

A letter was received by the Cambridge Guardians, at their meeting on March 22nd, from the County Council, calling attention to the provisions of the Midwives Act. In certain cases a midwife must decline to attend alone, and must advise that a registered medical practitioner be sent for. The County Council suggested the possibility of medical officers of the union being instructed to attend cases when requested to do so by any registered midwife in the borough, and that their fees should be paid by the guardians, the latter, of course, reimbursing themselves where possible by calling upon the relatives for payment.

Dr. Dalton gave notice that at the next meeting he would move the following resolution:

> That the district medical officers be informed that when summoned by a certificated midwife to attend an emergency, and there is not time to apply to the relieving officer, they attend the case as if they had been furnished with an order of the relieving officer, in such case the relief to be given on loan unless the Board decide otherwise.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 86.

Commission Demanded by Treasurer.

J. W. T.—A correspondent writes that he has recently been appointed surgeon to a Friendly Society, and when the treasurer called on him to pay a quarter's salary, he asked for a commission for himself, stating that he had always received one from the late surgeon. Our correspondent wishes to know whether such a payment would be legitimate, and whether it does not come under the head of "secret commissions" so forcibly condemned by the Association.

*** Such a payment would be a secret commission of a particularly bad character, and our correspondent should absolutely decline to consent to it.

Club Rates.

Cantab. writes that he has been asked by large employers of labour to attend their staff of 4,000 employés. He is to see them at a surgery, and when necessary at their own homes within a radius of 3 miles. Drugs are supplied him, but neither horse nor assistant. The employés are nearly all girls, or young unmarried women. What ought he to charge?

*** At the ordinary club rate (4s. per member) this would amount to £800 a year. As the members are all women, and a horse and assistant would almost certainly be required, £1,000 per annum is the least that we can suggest.

Tubo-uterine Gestation: Criminal Abortion: Death.—A case of much medico-legal interest in the annals of interstitial or tubo-uterine gestation was recently reported to a meeting of the Berlin Obstetrical and Gynaecological Society (*Zentralbl. f. Gynäk.*, No. 5, 1905, p. 146) by Dr. R. Schaeffer, who exhibited a ruptured fetal sac of this type. The patient had already induced abortion three times on herself, but the precise means are not stated; on the fourth occasion she said that she had introduced an irrigation tube into the uterus. One hour later violent pain set in, followed by deep syncope. Internal haemorrhage was evident, and the patient died on the way to hospital. On inspecting the uterus it was seen that the nozzle of the tube could not have entered the internal os, nor was there any perforation of the uterus, but a tubo-uterine sac had burst. Dr. Schaeffer believes that the lesion was caused simply by the forcible pushing upwards of the uterus by the tube forced into the cervical canal.

MEDICAL NEWS.

THE Committee appointed by the Corporation of Manchester which is to supervise the working of the Midwives Act of 1902 has recommended that application be made to the Local Government Board for power to pay for the medical assistance directed by the Act to be sought by midwives under certain circumstances. The fee which it is proposed to pay is one not exceeding a guinea.

GERMAN PSYCHIATRIC ASSOCIATION.—The German Psychiatric Association will hold its annual meeting this year at Dresden on April 28th and 29th. Professor Weygandt, of Würzburg, will present a report on idiocy, and twenty-one other communications are promised.

GARDEN CITIES IN BELGIUM.—A Garden City Association has just been formed at Brussels, in the neighbourhood of which it will probably begin its operations. Among the promoters is Dr. Van Ryn, General Secretary of the Belgian Antituberculosis League.

COMPULSORY VACCINATION IN AMERICA.—The Supreme Court of the United States has upheld the decision of the Massachusetts Court that the compulsory vaccination law is not unconstitutional. The ground taken is that as a police regulation compulsory vaccination may be enforced in protection of the health of the community.

THE UNIVERSITY OF BELGRADE.—The Servian Skupschina has lately passed a measure constituting the University of Belgrade a complete university with four faculties—medicine, law, philosophy, and technology. It is expected that the medical faculty will be in working order in the course of next year.

APPENDICITIS IN BERLIN.—In the report of tha medical staff of the Friedrichshain Municipal Hospital, Berlin, for last year, attention is called to the large increase in the number of cases of appendicitis. During the year 216 cases were admitted, in the majority of which immediate operation was judged to be necessary.

A LADY LECTURER AT BERNE.—Madame Schwenter, M.D., has recently qualified as *privat docent* in dermatology and diseases of the skin in the University of Berne. She is the first woman who has obtained the *venia docendi* in that seat of learning. This was, it appears, refused by the Medical Faculty, but their opposition was overruled by the Director of Education.

CEREBRO-SPINAL MENINGITIS.—The epidemic of cerebro-spinal meningitis which has been in progress in Prussian Silesia since about the end of last October is reported to have spread over the frontier into Austrian Galicia. In response to a question on the subject in the Prussian Landtag last week the Minister for Public Instruction, Religion, and Medical Matters, stated that in some of the affected districts there had been a large number of cases with a heavy mortality, but there was no great cause for alarm. Such measures as were possible were in operation.

PROPRIETARY MEDICINES IN CUBA.—Several deaths having recently occurred in Cuba as the consequence of an overdose of one or another proprietary medicine, the Cuban Government revived an old Spanish law requiring that the formula of every nostrum should be printed on the label of the bottle in which it is sold. Manufacturers of American medicines, foreseeing the loss of the secrecy which is the most potent ingredient in their products, brought all available influence to bear on the Cuban Government, which gave way to the extent of conceding that the formula of every proprietary medicine should be filed with the Cuban Government, which undertook to keep it secret. If the formula shows cause for belief that the remedy is dangerous, its sale will be hedged about with suitable restrictions.

QUACKERY AND LEGISLATION IN AMERICA.—A Bill just passed by the State Senate of Nebraska to regulate the practice of medicines makes it unlawful for any one to heal or pretend to heal or treat by suggestion mental or physical ills, whether imaginary or real. The Bill was introduced early in the session, and was strenuously opposed by Christian Scientists. In the New York State Legislature a Bill introduced to make "mental science" a recognized branch of medical practice has been defeated, largely owing to the efforts of the New York State Medical Society. On the other hand, a Bill recognizing osteopathy, now before the New York State Legislature, has been "reported favourably" by the Senate Judiciary Committee.

INTERNATIONAL TUBERCULOSIS SOCIETY.—The International Tuberculosis Society, which was established to study the best means of preventing and treating the disease, held its annual general meeting in Paris on March 14th under the presidency of Dr. Richelot, member of the Paris Academy of Medicine. Dr. Samuel Bernheim delivered an address, in which he dealt with the present state of the tuberculosis problem. The following were then elected office-bearers for 1905-6: President, Professor Lancereaux; Vice-Presidents, MM. Huchard, Richelot, S. Berneheim of Paris, Professor von Schroetter of Vienna, Sir Hermann Weber of London, Professor de Lancaster of Lisbon; General Secretaries, Dr. Georges Petit of Paris, Count Ivan Tolniewski, M.D., of London; Treasurer, M. Papillon of Paris; Assistant Treasurer, M. L. Garnier of Paris; Secretaries of Sittings, MM. Tartiere, Bourdin, Roblot, and Chauveau of Paris; Archiviste, M. Ruault of Paris. Applications for membership, etc., should be addressed to Dr. Georges Petit, 51, Rue de Roches, Paris.

BEQUESTS TO MEDICAL CHARITIES.—Under the will of the late Miss Elizabeth Caroline Brown, of Bayswater, East Grinstead, and Middlesbrough, which has now been proved, the Ormesby Cottage Hospital, Middlesbrough, receives £4,000; the North Riding Infirmary, Middlesbrough, £2,000; and the following institutions £500 each: Queen Charlotte's Lying-in Hospital, the Royal Free Hospital, the London Hospital, the London Fever Hospital, the Middlesex Hospital, the East Grinstead Cottage Hospital, the Children's Hospital (Paddington Green), and St. Mary's Hospital in the same neighbourhood.—The late Mr. George Ambler, of Baildon and Bradford, left £400 each to the Royal Infirmary, Bradford, and St. Catherine's Home for Cancer in the same town, and £125 to the Children's Hospital, Bradford.—Miss Thomasina Elizabeth Fawsett of Maidenhead, who died on February 3rd, left £2,000 each to the Brompton Hospital for Consumption and the Royal Hospital for Incurables and £500 to the Cottage Hospital at Maidenhead.

A STATE SANATORIUM FOR ILLINOIS.—On January 26th a Bill was introduced in the Illinois General Assembly by the Hon. Edward J. Glackin, one of the representatives of Chicago, providing for the erection, organization, and management of a State Sanatorium for persons afflicted with tuberculosis and for making an appropriation of £40,000 for the purchase of the land, the construction of the necessary buildings, and the maintenance of the institution. Chicago, with 35 per cent. of the total population of the State, has for years furnished nearly 45 (44.7) per cent. of the total deaths from pulmonary consumption. Yet Chicago is situated in a belt of territory along the western shores of Lake Michigan which furnishes, as a whole, an average of only 87 deaths from consumption out of every 1,000 deaths from all causes, as compared with an average of 126 out of every 1,000 in the entire United States, and of 137 in the remainder of the State outside that belt.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held on March 31st at 429, Strand, London. The chair was taken by Dr. de Havilland Hall. A long list of sickness claims occupied the attention of the Committee. As the number of members increases, and the average age of members is also growing, a continued expansion of the claim account must be looked for. Five years ago the amount of sickness pay disbursed in twelve months was a little over £8,000, and this has grown steadily until the amount paid away on this account last year exceeds £10,000. In fact, ever since the foundation of the Society in 1884 the amount paid away annually for sickness claims has steadily grown, the only disturbing causes being the epidemics of influenza, which on two occasions have made an abnormal addition to the total. At present the claims arising from influenza are few, and the attacks seem to be of a mild kind, as the sickness pay is required for a short time only. The growth of the sickness claim account was foreseen and provided for when the business was started, and the steady increase in the reserves of the Society, which now amount to nearly £200,000, shows that all necessary precautions were taken. Prospectuses and all information on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

British Medical Journal.

SATURDAY, APRIL 15TH, 1905.

EARTHQUAKES AND THE PUBLIC HEALTH.

Extensive earthquakes such as have just occurred in the North of India are of interest to the medical profession, and in particular to sanitarians, from several points of view—as, for example, their effects on human beings before, during, and after the occurrence; their influence on such health factors as drainage, sewage, and water supply; and their possible causation of epidemics by interference with such sanitary measures as well as in other ways.

Before considering these different points in detail, a few general remarks as to the principal places affected by the recent earthquake may be useful. As far as is known, the centre of disturbance seems to have been the British hill station and cantonment of Dharmsala, which was founded as recently as 1855, and which stands on a spur of the Daola Dhar mountains, separating Chamba from the Kangra Valley.

According to the Viceroy's telegram of April 9th, all the houses and buildings throughout the entire station, including cantonment and bazaars, have been totally destroyed, with enormous loss of life. This appalling destruction supports two observations that buildings situated high up a mountain suffer most from its swing, and still further by being unsupported on the face of the hill. From the valley below the houses are seen with the great range rearing itself above them to an average height of 13,000 ft., or 11,000 ft. above the valley. The rainfall at this place is about 143 in., but the drainage is excellent and the water supply should be good. The mortality amongst the troops (Gurkhas) is reported to have been increased by the fact that they were within recently-constructed stone barracks, instead of being housed in huts, from which, perhaps, escape might have been more easy.

This beautiful spot looked down on a fertile valley, the lower part of which, at least, was devoted to rice cultivation, rendering it swampy and unhealthy, but the upper part has become well known for its tea gardens, in the centre of which lay the delightful little town of Palumpur, now, alas! also said to be totally destroyed. Kangra and its suburb of Bhawan, in which stood for ages the famous temple of Devi, a great place of pilgrimage, is about 16 miles to the SSW. of Dharmsala. Its fort was the stronghold of the representatives of one of the most ancient Rajput families of India. Its situation is extremely picturesque, on the slopes of a hill overlooking a mountain torrent. Every building, without exception, in these places, is in ruins. The Treasury has collapsed, and treasure boxes are lying under the débris. It is estimated that only 500 of its inhabitants are living; many people still alive are imprisoned in ruined houses. A similar state of affairs exists in most villages in the neighbourhood. Fortunately the great majority of the people in the Kangra Valley lived in scattered farmsteads, and so may have the more easily escaped.

One other village—twenty-two miles to the south of Kangra—in which deaths have been noted—may be mentioned, namely, Jawala Mukhi, literally the volcano, because its famous shrine is built over an inflammable spring. Here, then, is an indication of volcanic agency. In the next district, or Kulu, the prettiest part of the British Himalayas, which has also suffered, there are hot and sulphur springs, some of which, as at Bihihst, actually rise up through the cold waters of the Bias river, while another one, in Manikarn, is so hot as to admit of rice being cooked in it.

Further south and east disturbances of more or less intensity are reported from Simla, which stands on a series of hills and ridges, and Mussoorie, one of the important hill sanatoriums of the United Provinces—from which, as the summer head quarters of the Trigonometric Survey, we may, perhaps, hope for some scientific data later. At Simla, the summer capital of India, as might be expected, much attention has been paid to building, to drainage, sewerage, and water supply. There are five distinct sewage systems with separate outfalls, a small biological installation, and many miles of water pipes. It is probable that all these systems have been disturbed. The station of Mussoorie—connected by a neck, on which is a bazaar, with the higher military cantonment of Landaur—has a water supply giving seven gallons per head, but no house connexions and no flushed drains.

Descending to the plains, reference may be made to the principal places which have suffered. Lahore, the chief town of the Punjab, stands on part of the area of the ancient capital. Part of the European town rests on old graveyards. A greatly-improved water supply has been carried out; still, it is an unhealthy city.

Amritsar, the chief commercial city of the Punjab, about forty miles east of Lahore, being on a very flat site, has presented great difficulties in draining it; but special projects have been devised, and a good supply of water is being provided. Malarial fevers, cholera, diarrhoea, and dysentery have always been very prevalent there. Even the waters of the Lake of Nectar (Amrit Sar) which surround the famous holy temple of the Sikhs, which has been damaged, strikes the observer as being very foul. The other injured towns are much in the same position as those already described, though we believe that in all of them of late years considerable sanitary improvements have been made and greater facilities provided for medical aid. Even Kashmir, and its capital Srinagar, which have also suffered, have been improved. Formerly, such a thing as a public latrine was unknown, and there were few private ones. The river Jhelum, which flows through the town, was a sewer; the drainage is still defective, and not long ago men were buried in the streets. No wonder that, although the Happy Valley is outside the endemic area, it has been devastated by twelve cholera epidemics in the last eighty years! Even the villages have bad water, and are much contaminated.

These particulars will enable us to understand the damage to health which an earthquake might be likely to cause.

Professor Milne says that some people persuade themselves that they can foretell the coming of an earthquake by an alteration in their stomachs, or that they have nervous presentiments; there seem to be no real grounds for such beliefs. On the other hand, the effects on the minds of those

who have passed through a severe earthquake, in which buildings have fallen, and perhaps persons have been killed or injured, are very serious, and are such as in some cases may never be effaced, leading to complete loss of health and nervous prostration.

The effects of such continued landslips as occurred at Darjeeling were very similar to those which follow an earthquake. Surgical treatment of broken limbs, injured spines, or crushed thoraxes was required; but added to these lesions was the shock of having gone through an appalling visitation. It is not easy, moreover, to forget the sickening feeling and sense of instability which accompany even the slightest earth tremors, especially when they are associated with the swaying of buildings or waving of the surface.

Writers have referred to the discharges of water, mud, vapours, especially sulphurous fumes, and gases which have caused sickness and fatal epidemics. Such cases, however, seem to be rare. The great dangers to health appear to be the disturbance of the drainage, sewerage, and water supply. Where there is an extensive system of pipes, landslips and earthquakes, especially if accompanied by cracks and fissures, which may even close and open, and sometimes suddenly, there must be much risk of breakage, and in the case of sewers of escape of their contents, which may lead to fouling of the soil, and especially of the water supply. Moreover, the source of water itself may be impaired, new sources may open, reservoirs may be cracked, wells may become dry or their contents fouled, and thus great difficulties created for the sanitary engineer.

At Darjeeling, after the great landslips in September, 1899, for several days the water supply was cut off on account of broken pipes, and the sanatorium depended upon old and long disused springs. Drainage was everywhere disturbed. Reservoirs were cracked, and it was long before the hills resumed their wonted appearance, and even recently huge scars were visible. Moreover, some injury to health may arise in a large hill station from difficulty of furnishing it with supplies owing to the rupture of communications with the plains. An earthquake, or slip of the soil cap, which may accompany it, or even an unusually heavy rainfall, may prove that what appeared to be solid rocks on which the buildings are constructed, are only huge boulders embedded in shale or some soft material.

It is probable that conditions such as have been indicated will be found at the different hill stations which have been recently affected, and that disease of an epidemic character may supervene. Fortunately, the monsoon season is some weeks distant, and it will therefore be possible to make at least temporary arrangements to tide over the danger. Indian engineers are well fitted to cope with such emergencies, owing to the yearly trials to which their skill is put by the tropical rains, in which sometimes provision has to be made for the discharge of several feet of water in a few hours. The effects of an earthquake on drainage, etc., do not differ much from those of excessive rainfall, and are just as likely to produce epidemics, though the case is usually rendered much more serious in the latter by the presence of large quantities of water which cannot be discharged.

It is possible that in both these calamities direct contamination of water and spread of disease may arise from the exposure of the bodies of the dead. Thus, for example, at Darjeeling a corner of the European cemetery was carried away by descending earth, and coffins were exposed; again, some of the bodies of the dead were borne away to a great distance down the hillside, and, never being recovered, may have polluted distant water sources. It may be difficult to find and bury all the corpses, but happily this seems not to be the case at Dharmsala. Until recently, both in the hills and in the plains, it would have been believed that virulent malarial fevers might have been greatly increased in frequency by the opening up of the soil, but it is probable that if this does happen it will be owing to general disturbance of the drainage and increase of the breeding grounds of the *Anopheles* mosquitos.

The repair, or even the thorough examination which must be necessary, of the drainage, water, and sewage systems of so many large towns as are affected in North India, will severely strain the engineering establishments which will also have to attempt to render secure many important public buildings before the advent of the monsoon. If success attends their efforts epidemics will probably be averted, but the task is no light one. Fortunately both the Punjab and the United Provinces have in Colonels Bamber and Thomson Sanitary Commissioners who are also men of special practical experience, the former as Principal Sanitary Official at the Delhi Durbar, and the latter in famines, at the Hardwar fairs, and in the Boer camps in Africa.

Only those who have seen the effects of a severe earthquake, such as that which devastated Bengal and Assam in 1897, can realize how thoroughly destructive to buildings such a calamity can be, and how great, therefore, is the task before the engineers. The expense will, of course, be enormous, but the people will expect the Government to bear most of it.

Native rulers, as a rule, were perhaps careless of the ordinary miseries of the people, but on great occasions, such as famines, they opened their coffers, relieved the hungry, and, as in Rajputana, built huge dams for irrigation purposes, and thus, by impressing the imagination of the people, often wiped out the memory of many ill deeds. The present catastrophe seems to afford our Indian Government a similar opportunity of which its recent prosperity may enable it to take advantage.

THE ANTIQUITY OF VACCINATION IN INDIA.

IN his address at the formal opening of the King Institute, an abstract of which was given in the BRITISH MEDICAL JOURNAL of April 8th, Lord Ampthill, the Governor of Madras, referred to various matters, medical and hygienic, in which India had anticipated Europe by centuries. The Mughal rulers were great sanitary reformers, as is shown by the magnificent waterworks which still exist and perform their functions at various places in the North of India. We are further assured that the modern policy in regard to plague evacuation and disinfection in no wise differs from that enjoined in the ancient Hindu Shastras, for plague has been known in India from the very dawn of its history. Lord Ampthill also claimed for the Hindus the discovery, or at any rate an ancient knowledge, of vaccination. Here, however, we take leave to think that he is on more debatable ground. But we will first allow him to state his case for himself.

Referring to papers written by Colonel King, he said that clear proof was adduced therein that the ancient caste injunctions of the Hindus were based on a belief in the existence of transmissible agents of disease, and that both

Hindus and Mohammedans used inoculation by small-pox virus as a protection against small-pox. It is, of course, matter of common knowledge that before what Lord Ampthill calls Jenner's rediscovery of vaccination the art of inoculation was used for a time in Europe, into which it had been imported from Constantinople; and it is doubtless to a large extent true that the knowledge of medicine which flourished in the near East at the commencement of the Christian era emanated from India. Colonel King thinks it probable that the ancient Hindus used animal vaccination secured by transmission of the small-pox virus through the cow; and we are told—for unfortunately we have not had an opportunity of consulting his writings on the subject—that he bases this interesting opinion on a passage in a work by Dhawantari, whom he calls the greatest of the ancient Hindu physicians. The passage runs as follows:

> Take the fluid of the pock on the udder of the cow or on the arm between the shoulder and elbow of a human subject on the point of a lancet and lance with it the arms between the shoulders and elbows until the blood appears: then mixing the fluid with the blood the fever of the small-pox will be produced.

This, as Lord Ampthill said, is vaccination pure and simple. He went on to say that Colonel King had himself discovered the ancient Sanscrit work in question and had brought it to his notice some two years ago. We cannot help thinking that the Governor has somewhat misunderstood the information supplied to him. The existence in Sanscrit works supposed to be ancient of passages in which vaccination is described has been known for something like a century. They may of course, like vaccination itself, have been "rediscovered."

The conclusion that the boon which Jenner gave to suffering mankind had been known for many centuries to the Hindus would be irresistible were it not for a fact which is evidently not known to Lord Ampthill, nor it would seem to Colonel King. This is that there is good reason to believe that the passages quoted in proof of the claim made on behalf of the Hindus are simply what the higher critics call interpolations. In Baron's *Life of Edward Jenner* (1838, vol. i, p. 555 *et seq.*) reference is made to certain extracts from *Sanctheya Grantham*, a medical work attributed to Dhawantari, given in an article published in the *Madras Courier* of January 12th, 1819. The writer of the article describes the work as "undoubtedly an ancient composition." In these extracts a description is given of the inoculation of matter from the cow as a protective against small-pox. Internal evidence made Baron suspect the genuineness of the passages, and he made inquiries of eminent Oriental scholars as to the existence of such a Sanscrit work. These inquiries led to rather startling discoveries. According to Sir John Malcolm, G.C.B., on the introduction of vaccine inoculation into India, the practice met with great opposition from the natives, and in order to overcome their prejudices Mr. Ellis, of Madras, who was well versed in Sanscrit literature, composed a short poem on vaccination in that language. This poem was inscribed on old paper, and said to have been *found*, the object of the pious fraud being that the impression of its antiquity might help to reconcile the minds of the Brahmins to the use of a prophylactic drawn from their sacred cow. Baron adds that Dr. Anderson, of Madras, adopted a like expedient in order to make the Hindus believe that vaccination was an ancient practice of their own. When vaccination was introduced into Bengal endeavours of a similar kind were made to prove that there, too, vaccination was an old practice. A native physician of Bareilly placed in the hands of Gillman, the station surgeon, some leaves on which were inscribed an extract purporting to be taken from a Sanscrit work on medicine, entitled *Sud'ya Sangreha*, said to have been written by a physician named Mahadeva, under the patronage of Rájá Rájasin'ha. It contained a chapter on Masúrica or chicken-pox. Towards the close of the book the author seems to have wandered from his primary theme to other matters. Immediately after recommending the application of leeches for the relief of bad sores, he goes on to say:

> Taking the matter of pustules, which are naturally produced on the teats of cows, carefully preserve it, and before the breaking-out of small-pox make with a fine instrument a small puncture like that made by a gnat on a child's limb, and introduce into the blood as much of that matter as is measured by a quarter of a ratti. Thus the wise physician makes the child secure from the eruption of small-pox.

Colebrooke and Blaquière, two eminent Sanscrit scholars to whom this passage was submitted, agreed in suspecting that it was an interpolation. Colebrooke laid stress on the fact that the original work from which the extract was said to have been made had not been shown to any one well versed in Sanscrit. Baron adds that Colebrooke made inquiries while he was in India which fully satisfied him that no original work of the kind had ever existed. Sir John Malcolm further ascertained that no such book was to be found in the library of the East India Company.

It is a curious and not altogether edifying story. We venture to think, however, that there is nothing intrinsically improbable in it, as even British administrators have sometimes acted on the principle that the end justifies the means. On the question of Sanscrit scholarship at issue we are not competent to form any opinion. The witnesses on whose testimony Baron relies are, however, of acknowledged authority, and, as far as we are aware, their evidence has not been called in question. Apart from this, it is difficult to believe that if vaccination had been an ancient practice among the Hindus it should have been necessary to reintroduce it among them after the promulgation of Jenner's beneficent discovery, or that it should have met with opposition strong enough to require diplomatic forgeries, as well as more legitimate means, to overcome.

MALTA FEVER.

Malta or Mediterranean fever, to give it a more correct designation, has been for years the *bête noire* of the naval and military forces stationed in the Mediterranean, and has occasioned untold expense to the Government in the amount of invaliding it has caused. Recognizing this, the present Colonial Secretary wrote the Royal Society in the beginning of 1904, suggesting that a thorough investigation of this insidious disease should be undertaken, and that a joint Commission representing the army, the navy, and the Civil Government should be appointed for that purpose. The Governor of Malta concurring in the proposal together with the War Office and the Admiralty, Mr. Lyttelton then asked the Royal Society to appoint an Advisory Board to supervise the investigations at home. A Commission consisting of Major Horrocks, R.A.M.C., Staff Surgeon Shaw, R.N., and Dr. Zammit, of the Malta Board of Health, was at once formed, and work was forthwith begun.

After nine months the first report of the Commission has just appeared; it contains some very interesting information, chiefly consisting of bacteriological researches on the micrococcus melitensis, the germ which is now supposed to be the cause of the disease. Historically the recognition of this disease is recent. Observers, even as far back as 1861, studying the clinical symptoms closely, were of the opinion that the disease was not the same as malaria or enteric fever, with which it was usually confused, but it was not until 1887, when Bruce discovered the micrococcus melitensis, that the disease was definitely recognized as a separate entity. Other workers, notably Hughes, Gipps, and Wright, soon confirmed the presence of this peculiar coccus, and the latter pointed out that the serum of a person suffering from Malta fever will agglutinate the coccus in a similar manner to that in which a typhoid serum agglutinates the specific bacillus of that disease. Immediately on the discovery of an organism the question suggested itself where the organism resided outside the body, and how it again gained entrance. The air, the water supply, faecal and urinary contamination of the soil, dust resulting from such sources, and more recently, after the researches in connexion with malaria and yellow fever, mosquitos have all been held accountable. Definite research on the saprophytic existence of the micrococcus was thus urgently needed, and Major Horrocks has rightly taken up this difficult task in his first two reports of the Commission. His conclusions are of the greatest interest; for example, he finds that the micrococcus melitensis survives for 69 days when planted in a dry sterilized manured soil; that its duration of life in dry sterilized sand appears to be about 20 days; that it is able to live for 80 days on dry fabrics, such as blankets, khaki serge, and khaki cotton; that it lives 25 days in sterilized sea water, 37 days in sterilized tap water, 43 days in Maltese soil, and 72 days in damp soil. If these conclusions are confirmed it becomes easy to conceive how the dust-infected air blown about by the wind finds its way into the nares and respiratory passages of the inhabitants of Malta and so infects them with the disease. It remains to be settled, however, how far the ordinary earth organisms would affect the micrococcus in a state of nature in its struggle for existence in the soil. Following up his investigations on the outside life of the organism, Major Horrocks has experimented on the mode of its conveyance to healthy individuals and animals. He believes that monkeys may be infected by dry dust, the coccus gaining entrance through the nares, throat, respiratory passages, or alimentary canal, or by contact with infected urine, and he even explains some of the spontaneous cases which arise in the hospitals of Malta by this latter means. That subcutaneous inoculations of cultures of the micrococcus melitensis will produce the disease appears to be undoubted, and lately cases have occurred in England in which investigators in laboratories have become infected with apparently typical Malta fever after working with cultures of the organisms. If the experiments of E. Ross and Levick, published in the British Medical Journal of April 1st, are to be accepted, then the question of transmission by dust and infected urine must again become doubtful. Those observers, it will be remembered, inhaled cultures in a moist state, as well as dried and finely powdered, and also drank water which had been mixed with the urine of a patient suffering from Malta fever without any effect. Again, results of bites of mosquitos of the genus *Stegomyia* fed on Malta fever cases have given unsatisfactory results. Major Horrocks's experiments were negative. Dr. Zammit claims one success, while Ross and Levick failed to infect themselves. It is not clear from the report that Dr. Zammit's monkey was kept under mosquito-proof conditions, or if it were that it could not have got the disease by inhalation or otherwise.

Further experiments of an exhaustive nature are required with mosquitos; the genus *Culex*, as well as *Stegomyia*, must be experimented with, and any other mosquitos that are present in infected areas should be carefully studied. The Commission has opened the way for much further useful study on this interesting disease, and future investigators will find plenty to do, not only in the study of the bacteriology of the micrococcus melitensis, but also in the study of the disease itself—for example, its pathology, its relation to mosquitos, and to other forms of relapsing fevers.

SANATORIUMS FOR METROPOLITAN CONSUMPTIVES.

An influential deputation, organized by the Metropolitan Branch of the Incorporated Society of Medical Officers of Health, is to be received by the Metropolitan Asylums Board on Saturday, April 15th, in regard to the provision of sanatoriums for metropolitan consumptives. The following bodies have been invited to join: The National Association for the Prevention of Consumption and Other Forms of Tuberculosis; the Royal College of Physicians of London; the Royal College of Surgeons of England; the Royal Institute of Public Health; the Royal Sanitary Institute; the National Health Society; the Metropolitan Hospital Saturday Fund; the Metropolitan Hospital Sunday Fund; the Mansion House Council (Dwellings of the Poor); and the Charity Organization Society. The proposal is that patients should be treated outside London by the open-air treatment, or otherwise, with a view to cure. It is considered that the chronic cases should, for the present at least, be well looked after by the various Boards of Guardians, who would doubtless arrange for a separate ward, or wards, in connexion with their Poor-law infirmaries, to be set aside for such a purpose. A memorial address by the Incorporated Society of Medical Officers of Health suggests that an Order of the Local Government Board be obtained to make Section v of the Metropolitan Poor Act, 1867, applicable to the case of "poor persons" suffering from pulmonary phthisis (consumption); and, if necessary, that an Act be obtained to make the provisions of Section lxxx of the Public Health (London) Act, 1891, applicable to pulmonary phthisis (consumption) as if such disease were therein mentioned as well as "fever, or small-pox, or diphtheria."

THE UNIVERSITY OF SHEFFIELD.

The aspirations of Sheffield to have its own University have been brought to a successful issue. An intimation has been conveyed to the solicitors for the promoters of the University scheme that the Privy Council at a meeting held on April 8th decided to recommend His Majesty to grant a Charter incorporating a university in Sheffield in accordance with the petition of the promoters. Thus after long and patient plodding those interested in the movement are able to congratulate themselves and the city on the success which has attended their efforts. The general and widely-spread interest in the scheme bodes well for its future, and it is to be hoped that the granting of the Charter may now give an additional impetus to the public spirit which has already been exhibited. Further funds are needed if the University is to start as well financially as its sponsors would wish. Already it is known that additional handsome subscriptions will be forthcoming. Recently Mr. Edgar Allen offered a sum of £10,000 towards the Endowment Fund if

four others would do likewise, or he would give £5,000 if nine others would do the same. This offer has not yet been accepted. Whether or not the money comes in this precise way, it is felt that among the citizens of Sheffield there are still many among those who have not yet done what their means would permit who can handsomely contribute towards the University funds. The new buildings are rapidly approaching completion, and they are expected to be finished and ready for occupation by next winter session. They are most pleasantly situated, adjoining one of the public parks. The block for the medical department is far removed from busy streets and the noise of traffic. The department has been well planned, and those capable of judging assert that it will not be easy to find buildings more suitable for their purpose than those comprised in the medical department.

VISIT OF BRITISH MEDICAL MEN TO PARIS.

The arrangements for the visit of British medical men to Paris next month are now nearly complete. The invitation, it will be remembered, was first spoken of during the visit of French medical men to London last October. The hope was then expressed both in public and private by many of our French guests that their then hosts might find it possible to visit Paris at an early date in order to see something of the working of the Paris hospitals, medical institutes, and laboratories. Some little difficulty was encountered in selecting a suitable date, but eventually the end of the second week in May was chosen as most convenient. The invitation received from the Paris Committee was transmitted to all those who took part in the reception of our French guests, and was cordially accepted by many of them; but as the date unfortunately falls during the summer session many others have found themselves obliged to forego the pleasure of visiting Paris. The number of the party is necessarily limited, but the London Committee has found it possible to arrange that the invitation to visit Paris should be extended to the principal medical centres in England, Ireland, and Scotland. The party will thus include members of the profession residing in Oxford, Cambridge, Bristol, Birmingham, Liverpool, Manchester, Leeds, Sheffield, Newcastle, Scotland and Ireland. The party will be received at the Sorbonne by M. Liard, Rector of the University of Paris, and M. Casimir-Périer, Président de la Société des Amis de l'Université, on Wednesday evening, May 10th, at 9 p.m. It is hoped, therefore, that members of the party will make every effort to leave London not later than that morning, so as to be in time for this reception. The mornings of Thursday (May 11th), Friday (May 12th), and Saturday (May 13th), will be given up to visits to the hospitals of Paris, under the guidance of members of the staffs. On Thursday afternoon the party will visit the Faculté de Médecine, the Assistance Publique, and the Hôtel de Ville, and on Friday the Institut Pasteur and the Hertford British Hospital. On Friday afternoon these more serious engagements will be interrupted in order to visit the Chateau de Chantilly, bequeathed with all the magnificent collections it contains to the Institute of France by the late Duc d'Aumale. On Friday evening there will be a theatrical entertainment at the Automobile Club in the Place de la Concorde. On Saturday evening the official ceremonies will be brought to an end by a banquet generously offered to the members of the British party by the medical profession in Paris. Invitations have been received for two excursions—both leaving Paris on Sunday afternoon, May 14th, and as at present arranged, returning to Paris, either on Tuesday evening or Wednesday morning. The one is from the Companies of Vichy and Evian, who will be glad to take a party to these two watering places; the number is limited to 100 (including ladies), and those who take part in this excursion will be the guests of the companies throughout from Paris back to Paris. The other is from the Medical Society of Pau and the towns of Arcachon, Biarritz, Salies de Béarn, and Pau. The municipalities invite the party, also limited to 100, to be their guests, and the total expense of the excursion to those who participate in it will, it is understood, be trifling.

THE STAMPING OUT OF MALARIA.

In the *Times* of April 7th Professor Ronald Ross gives an account of the work done towards the suppression of malaria at Klang and Port Swettenham in the Federated Malay States. The full details, as given by Dr. Malcolm Watson, District Surgeon of the Quala Selangor and Kuala Langat, will be found in a report which appears in the current issue of the *Journal of Tropical Medicine*. Professor Ross gives the following summary of the report: Klang is a town which had a population of 3,576 in 1901; and Port Swettenham, situated only five miles away, on the mouth of the Klang River, is closely connected with Klang, and contains a population which appears to be mostly official, and to number about 700. In 1900 both were hotbeds of malaria. Dr. Watson doubts whether more than three out of 293 houses in Klang escaped infection with malaria during the last four months of that year. Inquiry at almost any house elicited the fact that some one was ill. So serious did the matter become, that the Chinese held a three-days' "chou-chou," during which the devil was exorcised and was duly witnessed by several believers to take his flight in divers guises. Port Swettenham was opened in September, 1902; within two months 41 out of 49 Government quarters became infected, while 118 out of 196 Government servants were attacked before the end of the year. Owing to the recommendations of Dr. Watson, strongly supported by the State Surgeon, Dr. Travers, Government at once determined to carry out energetic measures of drainage, similar to those which this school has long recommended, and which have proved so beneficial in Havana and Ismailia. Swamps were filled up, jungle and undergrowth cleared, and a contour drain constructed round the declivities in order to intercept incoming springs. This and much similar work has been continued up to date, the total expenditure amounting to 26,000 Mexican dollars (1 dollar equals 2s.) for Klang and 59,000 dollars for Port Swettenham—this comparatively large expenditure being purposely permitted in order that the work of reclamation should be as permanent as possible, and should provide good building sites in both towns. Dr. Watson's analysis of the results shows that the admissions to hospital for malaria fell to a very considerable extent. Only 2 out of 260 children, or 0.77 per cent., residing in Klang and Port Swettenham were found to contain the parasite of malaria in November and December last, as against 91 infected children out of 298 residing in the surrounding district, or 33.8 per cent. The following table shows the fall in the amount of sick leave granted to officers at the two towns during 1901 to 1904 inclusive, and demonstrates that the expenditure for drainage has its economical as well as its sanitary advantages:

—	1901.	1902.	1903.	1904.
Sick certificates ...	236	40	23	14
Days of leave ...	1,026	198	73	71

No officer has suffered since July, 1904—that is, during the worst malarial season. Perhaps Dr. Watson's most convincing statement is one which he says he cannot help recording with less satisfaction—namely, that the fees resulting from his private practice in connexion with malarial fever have fallen to zero. He sums up by saying in whatever direction one turns it is plain that the two areas which were so malarious in 1901 are now practically, if not absolutely, free from the disease, and that the district surrounding these two areas remains much as it was—similar measures not having been undertaken in the district. He further states that 99 per cent. of the breeding places of *Anopheles* have been removed. He can find no evidence of any considerable immigration of *Anopheles* into the drained areas from the extensive breeding grounds just outside. The possibility of such immigration has

always been an excuse for neglecting antimosquito work, although, as Professor Ross has long maintained on mathematical grounds, immigration is unlikely to compensate for the reduction due to local drainage. The excellent piece of work should do much to encourage the efforts made in other parts of the British Empire.

LADY MEMBERS OF HOSPITAL COMMITTEES.

The Governors of the Norfolk and Norwich Hospital have not had very long to wait for an opportunity of considering in a concrete form the question of whether they desire to see women taking part in the management of the institution under their charge. By a change in the rules of the hospital some months ago, of which due note was made at the time in these columns, it was made lawful for persons of either sex to be elected to serve on the Board of Management. The propriety of this alteration in principle did not pass altogether unchallenged, but the general body of governors showed their considered approval of it last Saturday by selecting a lady to serve on the Board. As the *Eastern Daily Press* in a note on the subject points out, if the governors of a charity are considered fit to select those who shall represent them at all it may be claimed that they should have unrestricted choice in the matter, and that to place any limitations upon it would be tantamount to telling them that their discretion was not to be trusted. In hospital matters, as in most others, the question of opening or closing a door to women should be regarded purely from the point of view of the general public interest. So far as hospitals and allied institutions are concerned, there can be little doubt on which side the interest lies. Women in connexion with Poor-law infirmary management have proved that they can be useful, and though we do not remember any voluntary hospital in the administrative direction of which a woman plays an active part, the step taken by Norwich seems one in the right direction.

THE UNDESIRABLE ALIEN.

Among members of the medical profession it is improbable that there is much difference of opinion as to the propriety of the Legislature providing powers for the exclusion of undesirable aliens. In the use of this term there is no begging of the question, for from the medical standpoint any alien must be undesirable if by his arrival he does something to lower the general standard of health among the mass of the population. There are doubtless many ways in which he may do this—for instance, by overcrowding the labour market and by breaches of sanitary laws—but the one with which we are most directly concerned is that which is also most obvious and readily preventable—namely, by arriving physically, mentally, or morally defective or diseased. As to the percentage of aliens to whom any of these terms may be applied on arrival, there seem to be no statistics available which can be quoted with assurance, but probably few medical men whose practices lie in large towns and among the poorer sections of the population will doubt that it must be considerable. However small the percentage, in the aggregate the number is much too large in a country in which a cry of physical deterioration has been raised. How far alien immigration may justly be held to count as a factor in this latter question it is difficult to say, but seeing that it was shown not very long ago that 817 aliens were kept at the public charge in the asylums, alien immigration must certainly count for something, since lunacy and sterility unfortunately do not walk hand in hand. This, however, is but a small part of a very much broader question, the medical importance of which should be sufficient to ensure any Bill aimed simply at the exclusion of the physically, mentally, and morally unfit being dealt with on non-party lines. The whole question has recently been dealt with by Dr. Robert Rentoul[1] in a pamphlet in which, among other things, those who are of a speculative turn of mind will find data for estimates as to the probable percentage of aliens who arrive in this country in a condition which should lead to their prompt deportation. The numbers which Dr. Rentoul quotes as debarred from entering at ports in the United States and Canada are particularly striking when it is remembered that the aliens who actually ship for America and arrive there are only those who have succeeded in passing through the meshes of the medical net set to catch undesirables at the port of departure. To the best of our belief such a precaution is not taken in the case of those who are bound for England only.

[1] *The Undesirable Alien from the Medical Standpoint.* By R. Robert Rentoul, M.D. Liverpool: Cornish and Co. 1905. (Demy 8vo, pp. 15. 6d.)

MEDICAL TERMS IN THE *NEW ENGLISH DICTIONARY*.

The part of Dr. Murray's *New English Dictionary*,[1] which has just appeared, and which carries the work from Ree to Reign, contains fewer medical terms than usual; yet some of them are interesting. There is, for instance, the word Regimen, meaning "the regulation of such matters as have an influence on the preservation or restoration of health; a particular course of diet, exercise, or mode of living, prescribed or adopted for this end"; two quotations from Lanfranc's *Chirurgy* (of date about 1400) are given of its early use in this sense, and one of these may be transcribed here. It reads, "Thou schalt kepe him with good regimen, and he schal use no metis ne drinkis that engendrith scharp blood and greet." A more modern instance is found in the sentence, "His physician received a grateful letter from him acknowledging the success of his regimen." The obsolete form of the word is Regiment, of which an illustrative quotation from Foote's *Devil on Two Sticks* is given—"What signifies a palliative regiment, with such a rotten constitution." Another medical word in common use both as an adjective and a noun is Refrigerant. Many instances are given of its employment with the signification "cooling medicine"; one dated 1822 throws an interesting sidelight on medical practice at the time: "The injury produced by an injudicious use of evacuants and refrigerants." We all know what a Refrigerator is, but without *Murray* few of us perhaps would guess that Regnant, as applied to diseases, means prevalent or widespread. Refractory is an interesting term, for it means "obstinate and not yielding to treatment" when applied to a disease, but when used in relation to a patient it signifies "able to offer resistance to a disease," but the *Dictionary* does not tell us what happens when both patient and disease are refractory.

[1] *A New English Dictionary on Historical Principles.* April 1st, 1905. Ree-Reign. (Vol. viii). Oxford: Clarendon Press; and London: Henry Frowde.

NERVOUS DISEASES RESEARCH FUND.

The first annual meeting of the subscribers to the Nervous Diseases Research Fund was held on April 4th at the National Hospital for the Paralysed and Epileptic, Mr. Edgar Speyer in the chair. The report for 1904 stated that 48 autopsies had been performed, and that the results of the investigations would prove useful in diagnosis, and in solving some serious problems of cerebral and spinal disease. Among the cases of tumour of the brain there were six in which the brain stem was affected, and the clinical and pathological examination had added to the known signs of disease in that region, and had drawn attention to the functions of certain cells and nerve fibres in the mid-brain. Information of a similar character had been obtained in reference to tumours of the cerebellum; this would be of great value in the diagnosis of the exact situation of such tumours or of other morbid conditions affecting the same part. Special attention had been given to the study of myasthenia gravis, a disease which was almost invariably fatal, and about which little was known. New facts concerning its pathology had been ascertained, and these facts, such as they were, afforded a hope that the condition might be curable by medical treatment. The results of the work were embodied in papers which would be available for the medical profession generally. The contributions to the Fund in 1904 amounted to £731, and there was a balance at the bankers at the end of the

year of £459 18s. 4d. Mr. Edgar Speyer was elected Chairman and Treasurer for the current year, and Mr. J. Danvers Power Honorary Secretary. Dr. M. Gordon Holmes was appointed director of the research work of the Fund.

A CONGRESS ON QUACKERY.

The Congress on Quackery, which, as has already been announced in the British Medical Journal, is to meet in Paris, will open on May 8th. The programme includes twenty-five subjects for discussion, each of which will be introduced by a special report. The following is the list: (1) Illegal practice of medicine by bone-setters, sorcerers, and empirics—reporter, Dr. Léon Pouliot of Poitiers; (2) Illegal practice of medicine by quacks, magnetizers, and clairvoyants—Dr. Barbanneau of Pouzanges (Vendee); (3) Facts as to illegal practice of medicine by lay people or clerics for charitable purposes or under pretext of charity—Maître Bruno-Dubron, Advocate at the Court of Appeal, Paris; (4) Illegal practice of medicine by members of societies for the aid of the sick and wounded—Dr. Dignat of Paris; (5) Illegal practice of medicine by nurses, male and female—Dr. Noir of Paris; (6) Illegal practice of "massotherapy," schools of massage—Dr. Mesnard of Paris and Maître Mathiot, Advocate of the Court of Appeal; (7) Illegal practice of medicine by manicures, pedicures, barbers, and hairdressers—Drs. Milians and Cahelineau; (8) Illegal practice of medicine by pharmacists—Dr. Dubousquet-Labourdeuse; (9) Illegal practice by herbalists and *bandagistes*—Dr. Boudin of Oyonnax (Ain); (10) Illegal and irregular practice of medicine by opticians—Drs. d'Ayrenx and Péchin of Paris; (11) Illegal practice by persons who employ medical electricity—Dr. Laquerrière; (12) Illegal practice of medicine by dentists—Dr. Lassudrie of Paris; (13) Illegal practice of medicine by midwives—Dr. Dieupart of Paris; (14) Illegal practice by foreign doctors—Dr. de Grissac of Argenteuil (Seine et Oise); (15) Illegal practice by medical students—Dr. de Grissac; (16) Usurpation by *officiers de santé* of the title of doctor of medicine—Maître Geoffroy, advocate at the Appeal Court, Paris; (17) Doctors who overstep the limit of the privileges conferred by the law by covering shady enterprises with their diploma—Dr. Saint-Aurens of Paris; (18) The part played by the press in the matter of illegal medical practice—MM. Breitel and Goret, Doctors of Laws; (19) Medico-pharmaceutical advertising by persons who do not possess a medical diploma—Maître Leredu, Advocate at the Appeal Court, Paris; (20) Illegal and charlatanic practice of medicine by advertisement—Professor Folet of the University of Lille; (21) How the public should be warned as to the dangers of illegal practice—Dr. Leredde of Paris; (22) Social causes of illegal medical practice—Dr. Bardet of Paris; (23) Critical examination of the law of November 30th, 1892, as to the practice of medicine—Dr. Albert Prieur and Maître Léon Prieur, Advocate at the Appeal Court, Paris; (24) Action of medical syndicates—Dr. Maxwell, General Advocate at the Appeal Court, Bordeaux; (25) The creation of a central office for the repression of illegal medical practice—Dr. Levassort of Paris. It is expected that some of the questions will excite lively discussion both within the Congress and outside. It is stated, however, that the doctors have no intention of interfering with any other profession. Professor Brouardel, who will preside, says that the Congress will meet not to make war, but to promote concord and unity.

THE DENTISTS' REGISTER.

The *Dentists' Register*[1] for 1905, which has now been issued by the General Medical Council, contains altogether 4,734 names. Of these 2,374, or rather over 50 per cent., hold a license in dental surgery from one or other of the four colleges which grant such diplomas; of the rest 2,332 were admitted to the *Register* on the strength of the fact that they were in bona fide practice as dentists before the passing of the Dentists' Act of 1878; some 17 of these, however, held ordinary medical or surgical degrees or diplomas. The balance of the names in the *Register* is made up by three gentlemen admitted thereto as the holders of Colonial dental certificates and by 25 others who have been granted degrees in dental medicine or dental surgery by recognized universities in the United States of America. Of the holders of these Colonial and foreign diplomas some 10 or 11 appear to practise abroad. In regard to the registered dentists who hold licences in dental surgery it is to be noted that 60 per cent. of them derive their title from the Royal College of Surgeons of England, 18 per cent. from that in Ireland, 12 per cent. from that in Edinburgh, and 8 per cent. from the Faculty of Physicians and Surgeons in Glasgow. Of the total—2,374—some 280 hold ordinary medical and surgical degrees or diplomas in addition to one in dentistry, and three have added the Higher Dental Qualifications now to be obtained. Finally, it may be noted that the increase in total number for the year is 58, which represents a smaller percentage growth then even the unusually small increase in the sister register, that of ordinary medical men.

[1] London: Spottiswoode and Co., Limited. (3s. 4d.)

CHOLERA AND THE RUSSIAN POLICE.

The Medical Congress at Moscow, to the political aspect of which some reference was made last week, terminated in a fashion not less unfavourable to the Government than it commenced. The Congress was attended by a very large number of medical men from all parts of Russia, and those present pledged themselves definitely to take no part in the crusade against cholera and other epidemic disease upon the plan elaborated two years ago by M. de Plehve. In addition to declining in advance to serve either as administrators or executive officers in connexion with any Cholera Commissions which might be formed, it was determined to do everything possible to impose a similar course upon all medical men as well as those present at the Congress, and that any post in institutions which would entail the furtherance of the work of such Comissions must be abandoned. Finally, resolutions were moved and adopted for the formation of a national medical league pledged to the purpose of agitating against a bureaucratic régime and for the introduction of truly representative government. A congress of veterinary surgeons also passed resolutions similar to those adopted by the Medical Congress. It is to be noted that M. de Plehve's scheme met with opposition when it was first published two years ago. It placed the management and control of all measures aimed against cholera and allied disease in the hands of Government officials, mainly belonging to the police, and assigned to the medical men whose co-operation was essential but a very subordinate part. In view of the protests made the Minister of the Interior promised that the scheme should be amended, but a few weeks ago M. Bulyghin notified his intention of enforcing the scheme upon medical men in its original form.

A SIDELIGHT ON BERLIN HISTORY.

An interesting historical sketch of the evolution of dermatology in Berlin[1] from the pen of Dr. Paul Richter was published on the occasion of the recent International Congress of Dermatology, a copy being presented to the members who attended the sittings. Science in the early days lagged behind in Berlin, a fact deplored by Melanchthon, who, writing in 1539, pointed out that schools and churches were much neglected in the Mark of Brandenburg. In the year 1505 a university had been founded in Frankfort-on-the-Oder in preference to Berlin, owing to the paucity of dwellings and suitable buildings in the latter city. Things have changed since then; indeed, during the last thirty years the brand-new Prussian capital has increased in size and population by leaps and bounds. Now the Berliners speak with pride of their city as a Welt-Stadt—a world metropolis. Although the Frankfort University was rather insignificant as to size, various

[1] *Die Entwickelung der Dermatologie in Berlin* (The Evolution of Dermatology in Berlin). Von Dr. Paul Richter. Berlin: A. Hirschwald. 1904. (Demy 8vo, pp. 47. M. 1.)

works, more or less dermatological, saw the light there. In 1811 the Frankfort University came to an end, being merged into that of Breslau. As to Berlin, after the ill effects of the thirty-years' war had been surmounted, a medical college was founded by Friedrich Wilhelm (1685). A further step in the intellectual development of the capital was taken when the Society of Sciences was established by the exertions of the philosopher Leibnitz. This society became a royal society on the assumption of the crown by the Elector in 1701. At that time several contributions to dermatology appeared in the transactions, then printed in German. Later, in 1745, French, as is well known, was the language employed at the court, and also in the *Mémoires* of the Académie Royale des Sciences et des Belles-Lettres. At Sans Souci, Potsdam, the books belonging to Frederick the Great are almost all French. At this period again (1753) several papers on skin affections are in the archives of the Society. Berlin really possessed a University from 1780 onwards, for the professors of the Royal Medico-Chirurgical College were bound to deliver lectures. As a matter of fact, the University was officially founded in 1810. It would be beside the mark to give here the list of names of the men who have worked at dermatology, including syphilis, in Berlin down to the present time. Suffice it to say that in 1896 a university Poliklinik for skin and venereal diseases was established in the Luisenstrasse. An interesting point alluded to by Dr. Richter is the fact that a small-pox section has become unnecessary, for since the small-pox epidemic of 1871 in Berlin, thorough vaccination and revaccination has made small-pox a rarity in the capital, and when it does occur it is imported from beyond the boundaries of the German empire.

THE GRATITUDE OF THE BABU.

The Babu and his peculiar English have lately furnished abundant opportunities for the display of that judicial wit which recalls that of Mr. P. Magnus, and makes us envy the facility with which the audience in a law court is amused. But no imitation, not even that of Mr. Anstey, can be funnier than the original. Two specimens which should have a special interest for doctors have lately been published by our Indian contemporary, the *Pioneer*. Both are letters expressing gratitude for the ministrations of the staff of the Allahabad Hospital for Women. One addressed to the lady at the head of the hospital was to the following effect:

Dear She,—My wife has returned from your hospital cured. Provided males are allowed at your bungalow I would like to do you the honour of presenting myself there this afternoon, but I will not try to repay you—vengeance belongeth unto God.—Yours noticeably,

This pious sentiment might at first sight seem to be open to misconstruction. The writer, however, like a good many others in India and elsewhere, doubtless introduced his singularly inappropriate quotation merely as a literary flourish, without any particular regard to its application. The writer of the other letter expresses his feeling in less ambiguous terms. He says:

Dear and Fair Madame,—I have much pleasure to inform you that my dearly unfortunate wife will be no longer under your kind treatment. She having left this world for the other on the night of 27th ulto. For your help in this matter I shall ever remain greatful.—Yours reverently,

The pleasure with which he makes the announcement is quite in harmony with the evidently sincere gratitude promised for the manner in which he has been helped out of a difficulty.

THE PHYSICAL TRAINING OF YOUTH.

The second International Congress on the Physical Training of the Young will be held under the patronage of the King of Belgium and the honorary presidency of M. de Trooz, Minister of the Interior and of Public Instruction, at Liége, from August 28th to September 1st. Professor Mosso, of Turin, is President of the permanent International Committee, of which MM. G. Demeny, of Paris, and A. Fosséprez, of Brussels, are the Secretaries. The Chairman of the Organizing Committee is Dr. V. Desguin Alderman of Antwerp; the Vice-Chairman, Dr. Moeller, President of the Medical Commission of Brabant. The programme, as provisionally arranged, is as follows: (1) General situation: report by the permanent International Committee on Physical Education; (2) Inquiries and statistics as to the existing condition of physical education in various countries: report of the Belgian delegates; (3) Scientific bases of physical education; (4) Physical training in school children of both sexes; (5) Organization, programmes, normal schools, etc.; (6) Physical training of workmen: work after leaving school, popular festivals, competitions; (7) Unification of gymnastic terminology.

PATHOLOGY AND PHARMACOLOGY AT CAMBRIDGE.

We are informed that in addition to the ordinary classes in General Pathology and Pharmacology at Cambridge it is intended to organize a series of shorter courses for more advanced work. In the Pharmacological Section such subjects as bronchial asthma, vasoconstriction, the action and therapeutic value of adrenalin, the specific action of drugs, the relationship of tolerance to immunity, will be dealt with by Dr. Dixon. In the Pathological Section, Dr. Nuttall will treat of protozoa and the protozoal diseases, dealing with the hosts and carriers of these protozoa, with sleeping sickness, kala-azar, malaria, redwater, small-pox, scarlatina, etc. In General Pathology the subjects specially treated will be inflammation, immunity, antitoxins, bacteriolysins, haemolysins and other antibodies, food poisoning, and certain clinical methods arising out of recent investigations.

THE REGULATION OF FOOTBALL.

A Bill to regulate football has been passed by the Lower House of the South Dakota State Legislature. The Bill makes it a misdemeanour for any player who has injured another to take part in another game within ten days from the date of disqualification. It further makes it a misdemeanour for a captain to allow a disqualified player to enter a game, and prohibits the entrance into State institutions of football players who take only part of the course of study. From what one reads in the American papers of the savagery with which intercollege matches are contested and from the number of broken collar-bones and more serious injuries which are almost invariable consequences of such matches, football as played in the United States would appear to need regulation. It is to be hoped that some of the other States will follow the example of South Dakota, for if legislation does not directly soften the manners of football players it can prevent them from being ferocious.

PRACTICAL VEGETARIANISM.

One of the complaints made by the average sensual man against a vegetarian diet is that the average cook finds the cooking troublesome, and that the resulting dishes are insipid or mawkish. Colonel Kenney-Herbert has now come to the rescue with a small practical book on *Vegetarian and Simple Diet*,[1] in which he shows that what are called vegetarian dishes may be not only simple in preparation, but very attractive and varied. Excluding fish, flesh, and fowl, he explains how the remaining food stuffs may be cooked into appetizing dishes by a skilful cook. He lays special stress on two things: "(1) The preliminary frying of vegetables for soups, sauces, stews, etc.; and (2) the use of the liquid in which vegetables are cooked as the proper medium for their sauces." Soups are classified as follows: Clear soups, broths thickened, purées and potages of the nature of hotchpotch, but in all cases a standard foundation broth is needed corresponding to the bouillon of meat soups, and this generally consists of pulses. Many receipts for soups are given and for sauces made from the water in which vegetables have been boiled, thus imparting a better flavour. Garnishes play an important part in varying vegetarian diet, and the author gives many French receipts for stuffings and farces.

[1] *Vegetarian and Simple Diet.* By Colonel A. R. Kenney-Herbert (Wyvern). London: Swan Sonnenschein and Co., Limited. 1904. (Demy 8vo, pp. 450. 3s. 6d.).

Cleanliness is insisted on, and the use of French glazed earthenware cooking vessels, procurable at most English hardware shops, advised. Dainty and varied ways of cooking ordinary vegetables are given, and for eggs in every form. The author condemns English cooking, and most of his information is based on French and Italian methods; the use of rice and macaroni, and the way to make cheese dishes, toasts, savouries, etc., are fully dealt with. The style is clear and concise, and the matter instructive and original. There is a complete glossary of the terms used, and twenty menus for lunch and dinner throughout the year.

A LABOUR UNION COLONY FOR CONSUMPTIVES.

A movement is on foot among the labour unions of the United States to organize a large tuberculosis camp or colony in New Mexico, where members of the unions and their families may receive suitable climatic and medical treatment at little or no personal cost. The Temple of Fraternity, a building erected for the St. Louis Exposition by the World's Fair Fraternal Association, at a cost of £18,000, has been presented to the National Fraternal Sanatorium, and will be pulled down, the materials transported to the site chosen, and there rebuilt, to serve as the administration building for the colony. The heads of the cigar makers' unions are endeavouring to establish sanatoriums for consumptives in various appropriate sections of the United States.

Mr. Hugh Mallison Rigby, F.R.C.S., has been appointed one of the Surgeons-in-Ordinary to H.R.H. the Prince of Wales.

Dr. William Osler, Regius Professor of Medicine in the University of Oxford, has been elected an Honorary Fellow of the Royal College of Physicians of Ireland.

Dr. Carlos Maria Cortezo has succeeded Senor Lacierva as Minister of Public Instruction in Spain. Dr. Cortezo, who is Dean of the Princesa Hospital, Madrid, holds a high position in the medical profession; he is also a distinguished member of the Chamber of Deputies.

One of the appointments of assistant in the psychiatric clinic of the University of Rostock has lately been reserved for female graduates in medicine, a proof that the existence of the medical woman is now officially recognized in at least one German University.

The Council of University College, London, has appointed Sir Thomas Barlow to the Holme Professorship of Clinical Medicine, vacant through the resignation of Professor Frederick T. Roberts. Dr. Charles Bolton has been appointed Assistant Physician to University College Hospital.

A National Medico-Political Congress will be held under the patronage of the Belgian Government at Liége on August 13th, 14th, and 15th, at the time of the International Exposition. The questions proposed for discussion are: (1) The position of medical practitioners in regard to the law as to the compensation of workmen; (2) practitioners and the laws relating to public charity; (3) the medical inspection of schools; (4) social medicine; (5) medical providence.

In the Supplement for this week will be found further notices of motion for discussion at the Annual Representative Meeting at Leicester in July next. In addition to the reports of Branch and Divisional meetings held and notices of meetings to take place, there is also published the list of officers of the various sections of the annual meeting, as well as the usual notices of vital statistics, the diary, lists of medical vacancies and appointments, and the Association Calendar.

MEDICAL NOTES IN PARLIAMENT.

[By Our Lobby Correspondents.]

Coastguard Surgeons in Ireland.—Mr. O'Conor Kelly asked the Secretary to the Admiralty if he would state the number of coastguard surgeons in Ireland; how many held appointments additional to the Admiralty one; and how many devoted themselves exclusively to Admiralty work. Mr. Pretyman replied that the number of Admiralty surgeons and agents in Ireland was 117. None of these gentlemen were required to devote themselves exclusively to Admiralty work.

Vaccination and the Public Services.—Mr. Weir asked the Prime Minister whether he was aware that candidates for the public service were not allowed to take up appointments unless they had been vaccinated; and, seeing that this regulation penalized candidates who objected to vaccination, would he so amend the regulations as to make it competent for such persons to secure their appointments. Mr. Balfour replied that in the opinion of the authorities vaccination was a surgical or medical operation which ought to be performed. Until that decision was reversed, he did not see any reason for altering the rule which at present existed in the Civil Service. Mr. Weir further asked that the Local Government Board should be induced to see that a supply of pure calf lymph was afforded to every medical man. Mr. Balfour said he believed it was being done, and, on being contradicted, said, that at any rate the supply of pure vaccine lymph was sufficient for the Civil Service.

Civilian Surgeons in South Africa.—Mr. O'Doherty asked the Secretary of State for War last week whether he was aware that civilian surgeons attached to the army in South Africa were not eligible for the Customs rebate in accordance with a circular memorandum No. 30, dated July 4th, 1904, and issued by the Chief Staff Officer, South Africa; and whether, seeing that nursing sisters and school mistresses attached to the army participated in the rebate, he would see that civilian surgeons were placed on an equal footing with other civilians attached to the army. Mr. Secretary Arnold-Forster answered that he was aware of the circular referred to. The whole question of the Customs rebate was settled by a conference of Customs officers of the several South African Colonies. It was decided that civil surgeons were ineligible to receive this rebate, and the Army Council was not, therefore, in a position to alter this decision. Mr. O'Doherty also asked the Chancellor of the Exchequer whether he was aware that civilian surgeons in South Africa had to pay income tax on their salaries and allowances to the Imperial Exchequer, and also to contribute to the revenue of the Colony, and whether, seeing that civilian surgeons were the only civilians attached to the army who had to pay income tax, he would place these surgeons on an equal footing with other civilians attached to the army. The Chancellor of the Exchequer said in reply that he would inquire into the facts. The information at present in his possession did not enable him to answer the question.

Postal Officials and Medical Certificates.—Sir Walter Foster asked the Postmaster General last week whether he was aware that a telegraphist named Bullamore submitted a certificate from a private doctor at Brixton, stating that he was suffering from post-influenzal debility, and needed further rest; that the official medical adviser certified that Bullamore's health was as usual, and that no rest was required; that subsequently a specialist certified that Bullamore's symptoms were genuine, and that he could only expect to get relief by prolonged rest and quiet, and that the medical department declined to act upon the advice of the specialist; and, if so, would he state the attitude that his department adopted towards the certificates of private practitioners. Lord Stanley answered that he had received special reports respecting Mr. Bullamore's health from his private medical attendant, and from a specialist, as well as from the Chief Medical Officer of the Post Office, and an aural surgeon whom that gentleman had consulted. He had decided, at the suggestion of the Chief Medical Officer, to lay the whole matter before the Medical Referee to the Treasury. As regards certificates from private practitioners, full consideration was given to them, but he was bound to be guided by the opinion of the medical officers of the Department in such matters. In cases of doubt the Medical Referee was consulted.

The Public Health (No. 2) Bill.—This Bill, which seeks to amend the Law relating to the qualifications and tenure of medical officers of health and inspectors, was presented last week by Dr. Hutchinson, and is supported by Mr. William Abraham, Sir Walter Foster, Mr. Ernest Gray, Colonel Legge, Mr. Whittaker, Mr. Fenwick, Major Jameson, and Sir John Tuke. The order for second reading was put down formally for Monday in this week and then postponed till Monday next.

The Dundrum Asylum and Patients' Letters.—Mr. O'Doherty asked the Chief Secretary to the Lord Lieutenant of Ireland what were the rules regarding the writing of letters by patients confined in the Dundrum Central Asylum; how many could be written by a patient during a month; whether an appeal lay to the lunacy inspectors or to him in cases where the Governor did not submit letters written by patients; and whether his attention had been called to a number of letters written by a patient in this asylum named Logue during the months of September and October, 1904, and January, 1905, not forwarded by the Governor, and would he inquire into this case? Mr. Long replied that the regulations permitted patients to write two letters on the first of each month, and at other times under special circumstances. All communications which, in the opinion of the Resident Physician and Governor, contained improper matter were submitted by him to the Inspectors of Lunatic Asylums, and were dealt with by them under the asylum rules. Certain letters recently written by the patient named were withheld by the Resident Physician and Governor, with the concurrence of the Inspectors.

The Lunacy Act Amendment (London) Bill proposes to authorize the London County Council to provide receiving houses for the reception of persons mentally afflicted, or alleged to be of unsound mind, and to authorize the detention of such persons in such houses, and for other purposes connected therewith. It was presented last week by Sir John Tuke, and is supported by Mr. John Burns, Mr. Benn, Mr. Claude Hay, Mr. Cohen, Mr. Brigg, and Dr. Hutchinson. The second reading was formally fixed for Tuesday in this week, and then postponed till May 3rd.

The Tuberculosis (Animals) Prevention and Compensation Bill, which was before the House of Commons last year, and seeks to provide for the payment of compensation to owners of carcasses of animals condemned after slaughter, and destroyed by order of a magistrate on account of tuberculosis, and to assist in the prevention of tuberculosis, was introduced again last week by Mr. Ernest Gray. It is backed by Lord Henry Cavendish Bentinck, Sir Joseph Dimsdale, Mr. Field, Mr. Charles McArthur, Mr. David MacIver, Mr. Samuel Roberts, Sir Albert Rollit, Mr. William Rutherford, Mr. Schwann, and Mr. Tomkinson. The second reading has been put down for April 13th.

The Medicine Chest of the House of Commons.—In answer to a question by Sir William Tomlinson with reference to the provision of a medicine chest for use in accident or sudden illness in the House, Lord Balcarres said that there was such a chest, and that the key was kept by the constable on duty in the room where the chest was housed. It was ordered by instructions that no one except a qualified medical man should use it.

Underfed Children.—In answer to a question by Mr. Macnamara on Tuesday, asking how Boards of Guardians might assist local educational authorities in the work of providing food for children suffering from want of food while in attendance at public elementary schools, Mr. Gerald Balfour said that it would not be convenient to make a statement on the subject, but that he hoped shortly to be in a position to issue a circular to Boards of Guardians in regard to their powers and duties in relation to these children. Sir William Anson gave a similar reply on behalf of the Education Department.

Army Officers and Colour Blindness.—Mr. Arnold-Forster stated on Monday, in reply to Mr. Lyell, that in accordance with the recommendations of the medical authorities, it had been decided to return to the former practice under which colour blindness was not regarded as a disqualification for a commission in the army.

Pupil Teachers and Vaccination.—Mr. Weir on Monday asked the Secretary of the Board of Education whether a pupil teacher of Lewisham, who had gained a London County Council scholarship, had been informed three months after she had enjoyed the scholarship that under the regulations of the Board of Education her scholarship would be cancelled unless she passed a medical examination showing that she had been vaccinated, and whether, seeing that she was not aware of this condition when she competed, he would consider the expediency of relaxing the rule. Sir William Anson replied that no application had been received on behalf of the scholar, and that his knowledge of the case was confined to a newspaper extract. He saw no reason for an alteration of the rule, which had been laid down by the Board after careful consideration.

Small-pox at Bradford.—On Wednesday Sir Walter Foster asked the President of the Local Government Board whether he was aware of the outbreak of small-pox at Bradford, and whether he would call the attention of the guardians to the importance of the earliest discovery of cases of the disease, and with this view suggest to the guardians the issue of notices to the public urging them to seek medical advice at the earliest opportunity in all feverish ailments accompanied by a rash, however slight. Mr. Gerald Balfour answered that he was aware that there had been cases of small-pox at Bradford during the present year. The points referred to in the question appeared to him rather to concern the Town Council than the guardians. He had no reason to doubt that the Town Council and their officers were taking all precautions which experience had shown to be necessary in dealing with the matter, but he would draw their attention to the suggestions of the hon. member. He might add that 19 additional cases were notified during the week ended on the 8th inst., and he was in communication with the Town Council as to the circumstances which led to their occurrence. Sir Walter Foster also asked the President of the Local Government Board whether during the last few years the Bradford Guardians had reduced the number of applications for out-relief, and whether they had discouraged applications for medical out-relief by requiring parents (in the case of sick children) to attend before the Board or a Committee, or by making the relief on loan in the first instance, or by other means; and, if so, whether he would send a communication to the guardians recommending them to encourage applications for medical out-relief (by those unable to pay for medical advice) in the early stages of illness, and before infectious diseases had developed. Mr. Gerald Balfour replied that he was aware that some few years since the Bradford guardians adopted a policy of administration of out-relief the effect of which had been to diminish the number of applications, but he had no information to show that the action of the guardians had been such as to render it necessary or desirable to send to them a communication of the kind referred to in the latter part of the question.

Viewing the Body by Coroners' Juries.—On Wednesday Mr. Arthur Henderson asked the Secretary of State for the Home Department if his attention had been called to the fact that at Bradford a coroner and jury were under observation because they were compelled to view the body of a man who, in the opinion of the medical officer, had been suffering from malignant small-pox; whether, in view of the practice of viewing bodies in such cases becoming a possible danger to the community, he would consider the advisability of again introducing the Bill which in 1879 passed its second reading under the care of the then Home Secretary, the object of which was to make the viewing of bodies by coroners and juries no longer compulsory. Mr. Secretary Akers-Douglas replied that his attention had not been called to the case. With regard to the general question of the obligation of coroners and coroners' juries to view bodies, he feared that he could not add anything to the answer which he gave on March 23rd, which was to the effect that legislation would be necessary, and that there was no such decided preponderance of expert opinion in favour of any definite change in the law as would afford a reason for proposing legislation of the kind.

Infant Mortality.—This subject is engaging the attention of many members of the House, and on Wednesday a meeting was held, with Mr. Thomas Burt in the chair, to consider what steps could be taken to lessen the excessive death-rate of infants in many of the wards of our large towns. The medical members of the House are all taking an interest in the matter, and later on steps, it is stated, will be taken to rouse the authorities to action with a view to checking the evil.

Scotland.

The Development of Sanitation.

On April 5th, Dr. A. K. Chalmers, medical officer of Glasgow, delivered one of the lectures by which the Council of the Royal Philosophical Society of Glasgow have resolved to mark the passing of the first centenary of the Society. He said that while sanitary legislation took shape almost wholly during the second half of the nineteenth century, the conditions with which it was designed to cope had already attracted much attention. What the nineteenth century did for preventive medicine was to create the mental atmosphere in which disease came to be regarded not only as a misfortune to the individual, but as a factor in national welfare. Its causation was seen frequently to be dependent on environment, and environment was the sum of conditions which might be altered at will. The sanitary code of to-day aimed at modifying this environment. Sanitation to-day stood in some danger from the somewhat conventional horizon with which legislation had surrounded it. To some extent the rapid development of administrative methods might be advanced in explanation of this, but there was some evidence that we were losing sight of the unity of the problem which presented itself to the early reformers. While we found much that was fairly comparable in the differentiation of function in the several parts of the body politic, there were many reasons for thinking that it had proceeded to an extent which threatened to dissipate energy, and that one of the most clamant needs of present-day administration was the devising of some method of supervision which would bring the many functions of local administration into co-ordinated action. For illustration, one need only recall the circumstances of Glasgow in relation to its educational, its Poor-law, and its sanitary administration. Each within its own sphere discharged functions essential to the welfare of the whole; yet within the municipal area there were, for sanitary purposes, twenty-five subdistricts, corresponding to the municipal wards, the whole of Glasgow School Board area, and portions of five others (Govan, Springburn, Maryhill, Cathcart, and Eastwood), and no fewer than five Poor-law parishes (Glasgow, Govan, Eastwood, Cathcart, and Rutherglen), no one of which was wholly included. Moreover, neither police divisions nor registration districts were comparable one with the other nor with any of those mentioned. It was unnecessary to suggest that for all purposes the several districts should be coterminous, but it would have obvious advantages (where much subdivision was necessary for purposes, as, for example, sanitation) to represent the facts of each for any given larger unit of administration—say, education or Poor-law. The close of the nineteenth century found the functions of Poor-law and sanitary administration wholly without relation in their executive branches, and with only the somewhat intangible nexus of the Local Government Board of each portion of the kingdom to represent their common origin in the problem attending poverty. With the contrast in the position of Poor-law relief at the beginning and end of the century, it was a somewhat striking fact that there should have emerged as a definite outgrowth from the several inquiries into the conditions of pauperism and poverty the germ of sanitary administration, and that only when the century was well-nigh half over. Nor was the reason far to seek, for among the most potent causes of poverty was disease, and the prevention of disease became in consequence a hopeful auxiliary in the prevention of poverty. The true foundations of nineteenth-century sanitary science lay not so much in the additions to our knowledge of the causes of disease—although these were considerable—as in the calling into operation forces which were social and political rather than medical. They in that city might advance the solution of the problem more than they did by selecting an area and directing every educational, Poor-law, and sanitary agency towards a combined study of the causes at work. They would then have a clinical demonstration of disease on the social organism, and might perchance discover something further of its causes. Should they deem that some, like physical diseases, were rarely curable by means at present available, the formation of the labour colony would have its final sanction, and they would have made a discovery of some value.

Gray's Hospital, Aberdeen.

Mr. James Shepherd, Rossend Castle, Burntisland, has intimated to Mr. Stewart, Town Clerk, Elgin, a donation of £10,000 to Gray's Hospital. This hospital was founded by Dr. Gray about the beginning of last century, and has been of immense service to poor people in the county, who are admitted free, but it has hitherto been rather straitened for funds. This magnificent gift on the part of Mr. Shepherd will be received with much thankfulness and will enable the work of the hospital to be carried on much more efficiently than in the past. Mr. Shepherd is a native of Elgin, was educated at the academy there, and has always taken a keen interest in the affairs of the Cathedral city.

Ireland.

Irish Medical Association.

The Committee appointed to consider various schemes for the reorganization of the Irish Medical Association has, we understand, concluded its labours, under the presidency of Professor Kinkead of Galway. There have been many suggestions, and it is hoped that the great care taken in considering these will help very much towards the speedy adoption of changes which will add to the popularity and efficiency of the Association.

Medical Candidate for Parliament.

Dr. Henry O'Neill made his first public appearance as the candidate-elect for South Belfast on the evening of April 7th. Dr. O'Neill is a strong Unionist, and opposed to the preponderating sectarian element in university education. He also referred in his address to the totally unfit and unhealthy buildings in which many of the primary schools were held, and to the great necessity there is for a pure and wholesome food supply, and for some measure having for its object the furtherance of temperance.

Health of Belfast.

At the last meeting of the City Council, held on April 3rd, the Medical Superintendent Officer of Health reported that only 129 cases of zymotic disease had been notified during the previous month; 925 births and 657 deaths had been registered; the annual death-rate from all causes was 23.8. No cases of small-pox have been reported since February 23rd, so it was hoped the epidemic had been finally stamped out. Of the three last cases, one had never been vaccinated and developed confluent small-pox, and the other two had been vaccinated in infancy but not revaccinated. Measles was still prevalent and caused a mortality of 34. The Chairman of the Health Committee, Dr. King Kerr, said that in the whole epidemic there had not been a single case of small-pox in a revaccinated person, and that if every citizen of Belfast would get once successfully revaccinated they would be free from epidemics of small-pox. He congratulated the sanitary staff on their efforts in dealing with the disease.

Sunday Drunkenness in Belfast.

On April 3rd Mr. Hodder, one of the resident magistrates of Belfast, drew attention, by some remarks in the police-court, to the apparently unrestrained drunkenness that takes place on Sunday. It appears to be the practice for such persons as were fined that morning in the police-court to go outside the three-mile limit, represent themselves as bona-fide travellers, and obtain drink; they return to the town and are a nuisance to respectable pedestrians and a danger to vehicles. There are several well-known public-houses, just beyond the limit, where a huge traffic is carried on in the forenoon and evening, when the town houses are closed. Many philanthropists have drawn attention to the fact that in the afternoon the doors of public-houses are open at every corner, but not one place where any counter-attraction in the shape of free music, art galleries, museums, popular lectures, or such-like would give a chance of escaping from the open temptation of the whisky and beer shop. Some well-attended afternoon services and meetings are held by various sects.

The Vacant Senatorship of the Royal University in Ireland.

Dr. R. W. Leslie, Strandtown, Belfast, has just issued his address to the members of Convocation of the Royal University in Ireland as a candidate for the vacancy in the Senate caused by the resignation of Mr. Thomas Sinclair, F.R.C.S.Eng., Professor of Surgery, Queen's College, Belfast. Dr. Leslie's views on university education were fully embodied in his evidence before the University Commission, and are well known; he is opposed to the denominational element

in university education in Ireland, and to any attempt at abolition of the Royal University; he favours greater local autonomy of the Colleges, provision of halls of residence, and the introduction of extern examiners.

The Prevention of Tuberculosis.

Sir Charles A. Cameron, in the name of the Hospitals Committee of the Corporation of Dublin, has addressed a circular letter to the governors of the general hospitals in Dublin, asking for their co-operation in the efforts now being made and proposed to lessen the prevalence of tuberculosis. He points out that it is a fact that many poor persons suffering from tuberculosis of the lungs are obliged to live with their families although willing to be treated in hospitals. They often occupy rooms in which other persons live and sleep, and sometimes even share the same beds with healthy persons, whose health is thereby jeopardized. After referring to the fact that it is not usual for hospitals to retain hopeless cases of phthisis until death terminates the patients' sufferings he proceeded to say that in the interest of public health it would be desirable to retain in hospital consumptives who, belonging to the poorest classes, would not have in their homes that isolation so necessary to prevent them from infecting healthy persons. The Hospitals Committee therefore earnestly suggests that in each hospital a small ward might be devoted to consumptives, who would be retained until the termination of their disease by recovery or death. The authorities of the Mater Misericordiae Hospital, Dublin, have replied to the effect that they fully recognize the importance of isolating cases of consumption occurring amongst the poor, and of helping to mitigate their sufferings. They add that they are making arrangements to have two wards—one for men and the other for women—devoted exclusively to the treatment of consumptive cases. Sir Charles Cameron expresses the hope that the other hospitals will follow the example thus shown.

PROPOSED CONFEDERATION OF LONDON MEDICAL SOCIETIES.

Sir William Church, President of the Royal College of Physicians, presided at an influential and important meeting of medical men held on April 10th at the Royal College of Physicians. The London medical societies were represented by their presidents and the great number of surgeons and physicians who came to the meeting showed the interest taken in the movement for confederating the London medical societies.

The President gave a short historical survey of the various attempts that have been made since 1808 towards uniting the London medical societies into one body. He then took up the subject of the proposed confederation and said that those who were interested in it suggested that a new central body, the Royal Society of Medicine, should be established and that all the existing societies should be regarded as subdivisions of it. The existing societies were not to lose their own individuality but were to remain as societies under the wing of the Royal Society of Medicine. Great advantage would follow the establishment of such a body, embracing all medicine and all the affiliated sciences. Medicine had advanced so much that it was necessarily split up into many branches; and rightly enough each of those branches wished to have its own society. There was the danger that special subjects in medical practice might be looked upon as dissociated from general medicine. Any proposal that would preserve the connexion between general medicine and those specialities was to be encouraged in the interests of medicine. All the societies joining in the new scheme would gain in prestige by being connected with the Royal Society of Medicine of the metropolis of the kingdom. The Fellows and Associates of the proposed society would enjoy fuller advantages than was now possible without increased expenditure. Two grades were proposed for the society—Fellows and Associates. The Fellows would join the new society on certain financial terms which would give them the right of being present at all the meetings of the included societies. The Associates would be those who preferred to be members of one or more sections of the society, and who would have certain advantages and privileges by belonging to the new society, such as the use of its library and its rooms. If the proposed scheme was successful, it would be necessary to have more accommodation than there was at present at 20, Hanover Square, but those premises were capable of being enlarged. The rights of the Fellows and Associates must be left to be worked out later. They might take it as a working basis that the societies that met at Hanover Square and 11, Chandos Street, were likely to join the new society. By that it was not to be implied that other societies were to be excluded. The societies meeting at 20, Hanover Square and 11, Chandos Street, represented special branches of medicine, and these did not include the Harveian and the Hunterian, which were Societies for general medicine, and were somewhat on a different footing to that of the special societies. For the success of the scheme it was essential that the Medical Society should join in the movement. The Medical Society and the Royal Medical and Chirurgical Society were the only two Societies which had any considerable amount of property, and if such a combination as was suggested were made the new society would depend a good deal on the income which might be received from the property of the Medical Society. Unless the Medical Society were willing to consider the matter favourably it was impossible to see how the extra accommodation and advantages proposed were to be provided, and at the same time how the expenses of individual members were to be diminished. The details for the government of the new society must be left for the consideration of a Committee to be appointed at that meeting, and which would have the duty of formulating a scheme to be laid before the medical profession later on. In conclusion, the President directed the attention of the meeting to the advantages to be derived by British medicine from the scheme. The separate sections of the new society would receive and consider their own communications as each thought proper, and it was proposed that each section should publish its papers monthly, while the parent Society would elect a strong Publishing Committee to select from the communications made to all the various societies under its wing and publish them as the transactions of the Royal Society of Medicine. In his opinion such transactions would form a most valuable addition year by year to medicine, and would be representative of British medicine. The President then added that he had received letters from many men of note, all of them in favour of the idea of confederation.

Sir Frederick Treves then moved:

> That in the opinion of this meeting, convened by the President of the Royal College of Physicians and composed of Fellows and members of the medical societies of London, it is highly desirable that an effort should be made to unite the principal societies into a new body to be known as the Royal Society of Medicine.

He said that if all branches of medicine could be provided for under one roof, it would be, to put it at a low standard, an immense convenience. It must be also a matter of economy. Each society had its own management and in many cases its own library, and the money expended on these various societies, if concentrated, would lead to economy. All would agree that if the proposed union could be carried out it would be to the advantage of all, for it was very desirable that the science of medicine should be able to face the scientific world as a coherent whole. Every branch of medicine should remain under the general aegis of medicine. He was certain that the proposal would give to the science of medicine as a science a stronger position. The new society would, he imagined, in no way concern itself with politics or medical ethics. It was to be a society for the advancement of the science and art of medicine in the very widest sense of the term.

Sir Thomas Smith, in seconding the resolution, described the benefits to be derived from the scheme, and Mr. John Langton said that the scheme would result in the progress of medicine.

Dr. F. J. McCann thought the title of the new society should be the Royal Academy of Medicine.

Dr. Theodore Williams observed that the scheme would be a benefit from a financial point of view to the junior members of the profession.

Dr. T. Glover Lyon having addressed the meeting,

Sir R. Douglas Powell said that the scheme only provided for the union of the central medical societies. He said it would be a disaster to the medicine of London if the outlying local medical societies were to be merged into one body.

Mr. Goodsall said no society should be so treated that it would feel that it had been snuffed out.

The President then put the resolution to the meeting, whereupon it was carried unanimously amid much applause.

Sir William Broadbent then moved the following resolution, which was seconded by Mr. H. F. Waterhouse:

That the Councils of the Medical and Royal Medical and Chirurgical Societies be severally invited to appoint two delegates, and that the Councils of the Pathological, Clinical, Obstetrical, and Epidemiological Societies be severally invited to appoint one delegate to form, with the President of the Royal College of Physicians, the President of the Royal College of Surgeons, and five other gentlemen, a Committee which shall (1) make such inquiries as may be necessary: (2) submit a scheme of union to the various Societies for their consideration.

Dr. Theodore Williams said that there ought to be a representative from each of the other societies concerned.

Mr. John Langton said they ought to give the other societies a say in the matter.

Dr. Garrod suggested that the Medical Society and the Royal Medical and Chirurgical Society should appoint delegates and arrange for the representation of the other societies.

Sir Felix Semon considered that the Medical Society and the Royal Medical and Chirurgical Society should send two or three representatives to a Committee, and that the rest of the Committee should be formed by all the Presidents of the societies asked to join the scheme.

The President said he thought the wish of the meeting would be fulfilled if they accepted the following resolution which he would put from the Chair—namely, that the Committee should consist of two representatives from the Medical Society, two from the Royal Medical and Chirurgical Society, and one representative from any other society that wished to join in the scheme. The Committee to make such inquiries as may be necessary and to submit a scheme of union to the various societies for their consideration.

This resolution was put to the meeting and carried unanimously.

Dr. Arthur Latham was appointed Honorary Secretary to the Committee referred to in the last resolution, and on the motion of Dr. John Fawcett, seconded by Mr. H. S. Pendlebury, it was resolved that a general meeting of the societies concerned should be convened, if possible, in July next, to receive the report of the Committee.

A vote of thanks to Sir William Church for presiding was moved by Mr. A. Willett, seconded by Sir Felix Semon, and carried by acclamation.

Dr. Arthur Latham writes, under date April 11th: The second resolution passed at yesterday's meeting at the Royal College of Physicians on the above subject, the terms of which were left to Sir W. Church, runs as follows:

That a Committee be appointed consisting of two representatives from the Medical and the Royal Medical and Chirurgical Societies, together with one representative from each of the medical societies willing to consider the question of amalgamation, and the Presidents of the Royal Colleges, to (*a*) make such inquiries as may be necessary; (*b*) submit a scheme of union to the various societies for their consideration.

THE PREVENTION OF CONSUMPTION.

West Indies.

Trinidad.—On the initiative of Dr. G. H. Masson, a movement for the prevention of tuberculosis has been started at Trinidad. A meeting of medical practitioners was held in that place on February 23rd, with the object of forming a Society for that purpose. The Surgeon-General, Hon. Dr. J. de Wolf, presided, and among those present were Drs. C. F. Knox, R. H. E. Knaggs, P. Vilain, R. F. Black, C. F. Lassalle, S. Camps, E. A. G. Doyle, Resident Surgeon of the Colonial Hospital, S. M. Laurence, A. H. McShine, J. W. Eakin, and Masson. The Surgeon-General in his opening address said the question resolved itself into two heads; first, what the Government could do, and secondly, what could be done by private enterprise. So far as the Government was concerned, he had made representations to the authorities, asking them to provide for the isolation of advanced cases, so that they could be removed from their immediate surroundings, thereby preventing communication of the disease to others. He thought that cases requiring hospital care might be left to the Government for separate treatment, and this he anticipated would be accomplished in a short time. With regard to incipient cases, he thought an appeal could be reasonably made to the general public to provide for such cases, and to educate the people as to the cause of tuberculosis and the prevention of its undue increase in the colony. In addition to a sanatorium, a dispensary would be required, not only for the treatment of patients, but to serve as the head quarters of an organization for following the disease to homes where it was supposed to exist. Dr. Knaggs said one point of very great importance was the housing of the poor. The majority lived in hot-houses by day and freezing chambers by night. After discussion, a resolution was passed that the medical profession present resolved to form themselves into an association for the prevention and treatment of tuberculosis in Port of Spain. It was further resolved that the members of the medical profession in the colony and of the general public be invited to join the association; that the Governor and Lady Jackson be invited to become patrons of the association; that the Surgeon-General be appointed Chairman; that Dr. Masson be appointed Secretary and Treasurer of the association; and that the Medical Board be invited to contribute a sum to meet the expenses of the association. The Chairman moved the following provisional Committee: Dr. Dickson (in whose place Dr. Lassalle consented to act temporarily), Dr. Laurence, Dr. Vilain, Dr. Prada, and the Chairman and Secretary. It was also resolved that the Society should be called the Trinidad Association for the Prevention and Treatment of Tuberculosis and Lung Diseases. It is intended that the Committee of Management shall be composed, not only of medical men, but of persons selected from other walks in life.

A National Sanatorium in the United States.

An appropriation for the establishment and maintenance of a national sanatorium for indigent consumptives has been introduced in the House of Representatives by Mr. Wiley of Alabama. He proposes that Congress shall make an appropriation of £20,000 "for the purpose of erecting a national sanatorium for indigent persons of both races suffering from the disease called consumption, or tuberculosis of the lungs, including all persons in the army and navy of the United States, as well as those honourably discharged from such service who are likewise afflicted." The Bill provides for the erection of the sanatorium building or buildings at or near Citronelle, Alabama. It is to be left to the surgeon-general of the army to establish rules and regulations under which persons may be allowed to enter the institution, and for medical treatment. The control of the institution shall be vested in that officer, who shall have power to appoint a superintendent and other officers and employés. It is further provided that the surgeon-general shall have authority to promulgate such rules and regulations for the government of the officials of the sanatorium as he may deem proper and necessary, and, with this object in view, may authorize the employment of persons to cultivate the lands, manufacture articles, and procure supplies for the institution, as may be best to make it self-supporting.

United States.

Missouri.—The Missouri State Legislature has passed a Bill providing for the establishment of a sanatorium for the treatment of tuberculosis in its early stages. The institution will be situated in the Ozark Mountains on a plot of land covering an area of not less than 160 acres, and at an elevation of at least 1,000 ft. above the sea level. The site will be selected by a commission to be appointed by the Governor, two members of which will be practising physicians. The Bill provides for the appropriation of £10,000 for the purpose.

Illinois.—A Bill is before the Illinois State Legislature which provides for the appropriation of £40,000 for the erection of a sanatorium for consumptives in Illinois. The enactment of this Bill into the law will provide the State with an institution which will overshadow any other institution in importance. A large number of prominent citizens have endorsed the Bill.

Brazil.

The report presented to the Brazilian Minister of Justice and of the Interior by Dr. Hilario de Gouvêa, Permanent Secretary of the Brazilian League against Tuberculosis, and Delegate to the International Congress held at Copenhagen last May, contains as an appendix the text of a very interesting paper read by Dr. Gouvêa at the Congress. In this paper the measures taken in Brazil to limit the spread of tuberculosis are detailed, and it is evident that the Brazilian Association has been able to accomplish good work. In 1902, at the first International Tuberculosis Congress held in Berlin, Dr. Gouvêa was able to state that Senhor Rodrigues Alves, then President-Elect, had undertaken in his electoral programme to give attention to the sanitary requirements of Rio de Janeiro, in which town tuberculosis was very prevalent. This

promise the President proceeded to carry out immediately after his election. The following year (1903) the Government presented to the National Congress a project for the complete reform of the administrative sanitary services of the Union which in due course passed into law.

Under this law measures directly concerned with the prevention of tuberculosis are now in operation in Rio, as well as general sanitary regulations which will also tend in the direction of diminishing the prevalence of this disease. Amongst the important general regulations provision is made for the sanitary inspection of houses, for the notification of infectious diseases, and for the free disinfection of houses in which a case of infectious illness has occurred. We note a most useful provision by which any person taking a house is able to obtain from the sanitary authority of the district the certificate (*dossier sanitaire*) relating to the house. Tuberculosis has been made a notifiable disease in all cases of death, and in all cases of "open tuberculosis" (defined as those in which there is elimination of specific bacilli) under the following conditions:—When they reside in a common residence (*habitation collective*) when they work in factories, shops, or similar establishments, or are employed in restaurants, cafés, confectionery or other establishments where food substances are handled, or in chemists' shops. Cases of tuberculosis are also to be notified when the patient changes his domicile, or when employed as nurses, servants, hotel managers, or cooks. Cases of advanced tuberculosis are forbidden to reside in common residences, but there are certain such houses which are specially authorized to receive tuberculous persons. Public vehicles are not allowed to be used for the conveyance of infectious patients, nor those suffering from "open" tuberculosis. No person manifestly tuberculous is permitted to be employed in the places of business referred to above. Spittoons must be provided in business establishments, hotels, theatres, colleges and schools, churches, railway stations, etc. Tuberculous patients may not occupy the same wards in hospitals with other patients.

When a cow is recognized to be tuberculous the sanitary authority will immediately have it branded, and it will then not be permitted to be used for supplying milk, nor to live in a stable or shed with others; it may, however, be sold for slaughter in a public slaughter-house under the supervision of the sanitary authority. If the flesh is found unfit for food it will be destroyed, the owner receiving a fixed sum as compensation. These vigorous regulations are in great measure the result of the propaganda of the Brazilian Association for the Prevention of Tuberculosis in Rio de Janeiro, and, encouraged by the success of this Society, similar associations have been organized in other States of the Brazilian Confederation.

Australia.

Victoria.—The Victorian State Government has decided to utilize 200 acres of Crown lands, situated between Somerton and Broadmeadows, for the purpose of a State sanatorium. The Premier, Mr. Bent, has inspected the site in company with the Minister of Health and Dr. Norris, and it is intended to make provision as soon as possible for 60 patients. The Government intends to deal with the care of consumptives as a State question. Both curable and incurable patients are to be accommodated at the sanatorium. In the meantime the Premier has authorized Dr. Norris to give every attention to any cases that are brought under his notice, and to expend up to £20 a week in providing medicines, comforts, or other necessaries. It is intended to convey the patients by motor car to the new sanatorium, so as to prevent any risk of contagion in trains or tramcars. Adjoining the site is an area of 300 acres, which, if necessary, can be also utilized for the purposes of the sanatorium.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

Research Scholarships.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. Guy Elliston, *General Secretary.*

LITERARY NOTES.

In a thesis for the degree of Doctor of Medicine recently presented to the University of Lyons, Dr. Grozelier gives an account, based on the municipal archives of that city, of the methods of prophylaxis against plague adopted after the terrible epidemics of 1628 and 1629. The measures employed seem to have been effective, for after that time there were only brief outbreaks. Those attacked were isolated in a separate building, the Hôpital Saint-Laurent. When intimation of the occurrence of a case in the neighbourhood was received the city was surrounded by two cordons of troops, who had orders to shoot any one who might attempt to run the blockade. Any stranger wishing to enter the city was taken to a surgeon told off for that duty and carefully examined. If he was found to be in any way ill he was sent to the Hôtel-Dieu; if he presented unmistakable symptoms of plague he was sent to the pesthouse. There were no ambulance wagons in those days. Each *faubourg* had to provide bearers, who carried the sick on chairs; these were requisitioned by the surgeons as required. If nothing suspicious could be discovered about the traveller he was kept in quarantine. There were special buildings for this purpose, all separate from each other. Some were set apart for persons under observation; others, again, situated at a distance from the first, for persons in whom no development of disease occurred. In the observation stage of quarantine, the travellers were kept in huts under the charge of a monk whose business it was to see that the porter allowed no person or thing to pass into the place without a special permit. The detained persons had to wash and disinfect their own linen. If, after an imprisonment of twenty days, there seemed to be nothing wrong, they were handed over to the monk in charge of what was called the "*quarantaine d'approbation.*" There they stayed five days, and when their clothes had again been washed and perfumed they were set free. It was no easy

matter to find medical men willing to do duty as plague officers; and this is not surprising in view of what Ambroise Paré tells us about the manner in which the people showed their gratitude to them:

So has it been seen at Lyons (he says), when the physicians, surgeons, and barbers chosen to tend the sick were descried in the streets: every one ran after them, stoning them as if they were mad dogs, crying that they must go out only at night lest they should infect the healthy.

It needed no small courage to accept a post which brought upon a man not only the fear and hatred of the people but the dislike of his brethren. When we read of doctors in those days running away from a plague-stricken town, we should, before condemning their cowardice, remember that it was not only the risk of the disease they had to face, but professional ostracism, with the chance of being stoned by the public whom they served.

The first medical journal published in the United States is said to have been the *New York Repository*, which was continued from 1796 to 1822. The first medical journal begun in Philadelphia, which may be called the birthplace of medicine of the early American Republic, was the *Medical and Physical Journal*, edited by Dr. B. S. Barton, in 1804. It was continued for five years, and made three volumes. Dr. John Redman Coxe originated and edited the *Medical Museum* in 1805. The next journal was the *Eclectic Repertory and Analytical Review*, published by a medical society. Dr. Chapman (Philadelphia) originated the second *Medical and Physical Journal* in 1820. It was continued under that title until 1827 when the title of the periodical was changed to that of the *American Journal of the Medical Sciences*. This journal was entrusted to the charge of Dr. Isaac Hays, who placed it in the forefront of American medical literature.

The word "ergophobia" used by Mr. Spanton in a paper published in the British Medical Journal of February 11th, is convenient and expressive. Indeed, it is so good that a rival claimant for its invention has appeared. The *New York Medical Journal and Philadelphia Medical Journal* recalls that it used the word, believing it to be original, in its issue of October 10th, 1903. It subsequently learned that the word had been in use for a quarter of a century in the hospital reports of a New Jersey hospital. Our double-barrelled contemporary, however, insists that it was the first to print the word. Whether this be so or not we do not know, nor does it much matter. No charge of plagiarism is made, and indeed the word is sufficiently "inevitable," if we may use a term dear to superior literary persons, to have been invented independently by many. As the French poet said when he was taxed with borrowing something which lay "gross as a mountain, open, palpable" in the common path:

C'est imiter quelqu'un que de planter des choux.

Dr. E. J. Gardiner, of Chicago, has undertaken the editorship of a Spanish-American journal to be entitled *Revista Medico-Hispano-Americana*, which is intended to circulate in the South American Republics, the Philippines, and other Spanish-speaking countries. Among those who have promised to contribute are Drs. Frank Billings, N. S. Davis, Nicholas Senn, E. Fletcher Ingalls, Sanger Brown, J. Clarence Webster, and J. Nevins Hyde.

Under the title A Doctor to Kings, Mr. Edmund Gosse discoursed in a recent number of *Harper's Monthly Magazine* on Dr. John Radcliffe, the famous physician who gave his name to the Radcliffe Infirmary and the Radcliffe Library at Oxford. It cannot be said that Mr. Gosse illuminated his subject; indeed, his article rather gives the impression that he had recently come across Radcliffe, and, like Mr. Wemmick, had said, "Hullo! here's a doctor who was a character; let's write something about him." Some of his views are distinctly original. He tells us that Radcliffe "did much to enlarge the field of medical teaching in England and make it practical." It would be interesting to know where and when and whom Radcliffe taught. His contemporaries looked upon him as an empiric who, by his mother wit, sharpened by constant practice, at last acquired some skill in the art of healing. We are told further that Radcliffe "ridiculed the lectures in Galen and Hippocrates." It is possible that he did, but the ridicule was that of one who was no scholar, and who as not seldom happens, had a sneaking reverence for that which he professed to despise. At any rate, when towards the close of his career he took Mead under his patronage he was to some extent influenced by the fact that the young physician could read the ancient authors in the original languages. Radcliffe's ignorance of books was so notorious that this foundation of a library at Oxford was likened to the establishment of a harem by a eunuch. But he was a man of considerable sagacity, and had a sharp tongue which more than once got him into trouble. He lost the favour of William III by saying, when shown the royal ankles, which were dropsical, "Why, truly I would not have y'r Majesty's two legs for y'r three kingdoms." Many stories are told of him, among which is the following, for the truth of which we do not vouch. Radcliffe had what Byron calls the good old gentlemanly vice of avarice, and hated paying money that he owed. A pavior came to him one day to ask for the payment of an account long overdue. "What, you rascal, do you pretend to be paid for such a piece of work?" cried the doctor. "Why, you have spoiled my pavement, and then covered it over with earth to hide your bad work." "Doctor," replied the pavior, "mine is not the only work that the earth hides." "You dog, you," laughed the man of physic, "are you a wit? You must be poor. Come in"—and paid him.

Every one who knows anything of French poetry is familiar with the beautiful plaint beginning,

Au banquet de la vie, infortuné convive,
J'apparus un jour, et je meurs:
Je meurs, et sur la tombe où lentement j'arrive,
Nul ne viendra verser des pleurs.

These lines are inscribed on a marble tablet fixed on the wall of the Salle des Fondateurs in the annexe to the Paris Hôtel-Dieu, and above them is a statement that they were composed by N. J. L. Gilbert in the hospital a week before his death in 1780, at the age of 24. In a report recently presented to the Old Paris Committee it is pointed out that this is an error. The Secretary of the Committee, M. Tessen, says that the legend is that Gilbert died of consumption in the Hôtel-Dieu, but the truth is that he was admitted to the hospital in order to be operated on for a serious injury to the head caused by a fall from his horse. This account is as legendary as the other. It is true that the poet's head was hurt by a fall, but he recovered from the injury which, however, left its mark on his mind. He believed himself to be poisoned, and complained of a continual burning in his inside. One day he told his friends that he had swallowed the key of the door of his room. Moreau, Senior Surgeon to the Hôtel-Dieu, who was called in, declared that the thing was impossible, but recommended his removal to the hospital in order that he might be treated by douches. While he was in the Hôtel-Dieu a consultation of the whole staff was held, and it was agreed that the story of the key was incredible. Notwithstanding this pronouncement of the Faculty the patient died, and the key was found in his gullet. The case is a famous one in the records of surgery; it is briefly but accurately referred to in the second volume of Morell Mackenzie's *Manual of Diseases of the Throat and Nose* (1884), and one can only wonder how such an error came to be so conspicuously perpetuated.

INDIAN SANITARY REPORTS.

Bengal.

The Government prefaces its resolution on Major F. C. Clarkson's report with the following words: "The Sanitary Commissioner's report for 1903 deals for the most part with figures only, his remarks under the several headings consisting mainly of comparisons between the statistics of the year under review with those of the preceding year, and to speculations regarding the causes of these variations. Information as to local conditions, the special causes and prevalence of disease, and the progress of sanitation during the year, is somewhat scanty." This criticism is profoundly just and true, and applicable, as we have repeatedly urged, to the great majority of Indian sanitary and medical reports; and yet with strange infatuation the resolution proceeds to publish and comment on figures compiled in the secretariat, namely, an exhibit, district by district, of the annual average mortality from cholera, fever, small-pox, and dysentery and diarrhoea in the quinquennial period ending in 1897 and 1902: "A comparison of these data indicates that the death-rate from cholera was less by one-fifth in the latter than the former period. This is held to be due to an improvement in the sources from which the supplies of drinking water are drawn." As regards fever, the tables indicate a movement of the disease from the west to the east, corresponding, it is thought, with less rain in the former area and more in the latter. "A great and widespread increase in the mortality from small-pox" is demonstrated and the need of more efficient vaccination is acknow-

ledged. No marked change in bowel complaints is displayed. The year 1903 was a normal and fairly healthy one. The birth-rate was 39.00 and the death-rate 33.33. The latter would have been much lower but for the excessive prevalence of cholera and plague. There was a reduction in infant mortality, which is still very high, amounting to 19.4 per cent. of births. In Calcutta the mortality of infants was 31 per cent. of births. The health officer attributes it to bad sanitary conditions, bad midwifery, and the weak health of mothers. Cholera deaths amounted to 203,405, or 2.73 per mille of population. The late commencement of the monsoon and consequent impurity of water are blamed for the excess. Chemical purification of tanks and wells was largely resorted to, but the evidence regarding its effect is vague; 1,904 inoculations were performed, and appear to have been beneficial among tea-garden coolies proceeding to Assam. Small-pox showed some abatement as compared with 1902. The mortality was less in municipalities where vaccination is compulsory. Plague deaths amounted to 65,680, against 32,967 in 1902. Inoculation is not popular owing to the Punjab disaster. Disinfection and evacuation are the measures found most effective. The death-rate from fever was less (22.23 per mille), and of bowel complaints average. The figures relating to respiratory diseases (0.10 per mille) are considered absurd. The municipalities devoted about 43 per cent. of their income to sanitary work. The Sanitary Board met four times, and concerned itself with a creditable array of important sanitary projects.

Calcutta.

The report of the health officer, Dr. J. N. Cook, for the year 1903, is concise, and the tables appended to it have been greatly curtailed—with advantage. The birth-rate of the year was 15.5, which Dr. Cook considers too low. New arrangements are in contemplation for more exhaustive registration. The death-rate was 35.1; exclusive of plague, 25.4. The cholera mortality was moderate. The disease is imported by pilgrims, and bathing in an impure watercourse called Tolly's Nullah in connexion with the Pujahs of Kalighat temple is blamed for a good deal of it. Fever mortality was low. Fifty-one deaths were registered under enteric fever, which the health officer considers below the actual. The mortality caused by phthisis amounted to 1,580, or 7.3 per cent. of the total mortality. The disease seems to be on the increase in Calcutta, and the establishment of consumption homes is under contemplation. Small-pox mortality was low. New arrangements have been made for more thorough vaccination, and a dépôt for the preparation of lymph has been sanctioned. Details are given regarding the examination of water, gas, and food stuffs, bacteriological work in the municipal laboratory, work done by the sanitary executive, and prosecutions instituted for breaches of the by-laws. All these indicate active and useful effort.

United Provinces of Agra and Oudh.

The report submitted by Lieutenant-Colonel S. J. Thomson, C.I.E., D.P.H.Camb., is mainly arithmetical, and contains very little information regarding sanitary organization, administration, investigation, or work. A lurid light is thrown on the value of the statistics by the admission that in the case of one section of the population the number of deaths in several districts exceeded the census population. Efforts are being made to improve registration, and by an extensive system of testing to ascertain its value and shortcomings. Prosecutions and fines are resorted to and contribute to the same end. Death returns are also received from medical practitioners, which indicate in some measure the diseases of which people mostly die in these provinces. The year was a very unhealthy one. The birth-rate (46.13) was high, and the death-rate (40.28) in great excess; the rate for the preceding quinquennium being 30.91. Infantile mortality, amounting to 274.4 per 1,000 of births, was unprecedentedly severe. This was due to a severe outbreak of measles. It is shown that the infantile mortality in all the chief provinces was high in 1903. Cholera mortality, though below the average, was considerably above that of 1902. Small-pox was moderate, but plague very severe. The number of deaths was 84,499, against 40,223 in the previous year. In the district of Cawnpore a rate of 11.10 per 1,000 was reached. Fever mortality was high, the ratio being 27.65, against 24.51. The excess is attributed to late rains. No substantial preventive measures seem to be taken; but the sale of quinine is pushed and is on the increase. Bowel complaints were, as is usual when fever is virulent, greatly in excess. Returns of respiratory diseases are inaccurate, but are considerably higher than those of Bengal. The chapter on Civil Sanitary Works consists of some figured details regarding the supply of water to nine towns which have been provided with works. Fairs occupied much of the time and attention of the Sanitary Commissioners, and most elaborate precautions were adopted against cholera and plague. The "Magh Mela" at Allahabad "passed off without mishap." The "Kumbh mela" at Hurdwâr—a specially great bathing festival recurring every twelve years—was attended by 100,000 people, and some 400,000 turned up on the great bathing day. Eleven cases of cholera and 15 of plague occurred, but no spread took place until the last day, when cholera broke out amongst the Bairagis—religious mendicants—and was by them carried to several districts. The Dadoi fair at Ballia, another bathing festival, was attended by some 500,000 people, and caused no mischief.

The report of Mr. D. W. Aikman, Sanitary Engineer to Government, relates a good deal of business connected with projects for water supply and drainage. The Sanitary Board, which met seven times, concerned itself with schemes costing Rs.12,64,904. The review of the Local Government on these reports manifests keen and intelligent interest in sanitation. A grant of 2 lakhs of rupees has been made for the sanitary improvement of the smaller municipalities and towns.

The Punjab.

The report on the sanitary administration of the Punjab includes that of the Sanitary Commissioner, Lieutenant-Colonel C. J. Bamber, I.M.S., D.P.H.Camb., the Sanitary Engineer, C. E. V. Goument, A.M.I.C.E., and of the Sanitary Board. The year was a very unhealthy one. The autumnal rains were excessive and protracted. Food supplies were abundant and cheap. The birth-rate was 42.9, and the death-rate 49, which for the third year in succession is the highest provincial rate in India. Male births exceeded female, but the female death-rate was higher than the male. The death-rates of male infants under 1 year per 1,000 of census population was 346, and of females 351. In some districts the excess was suspiciously great. Mortality was higher among Mohammedans than among Hindus—an unusual circumstance, attributed to plague. "Fevers" accounted for the very high rate of 25.33. Excessive rain and inundation are blamed for the high ratio. Quinine was freely distributed. Anti-malarial measures have not been adopted on any large or useful scale. Plague prevailed in 21 districts, in some very severely; 317,356 cases and 192,068 deaths were reported. The disease is allowed apparently to run its course unimpeded. If the people voluntarily resort to segregation or disinfection they are assisted, but no compulsory measures are employed; 827,357 inoculations were performed during the year, and it is said that "the liability of the uninoculated to death was two and a-half times as great as that of the inoculated." Cholera prevailed epidemically in some parts of the provinces. It was imported from Hurdwâr, and was less than in the preceding "Kumbh" year. Small-pox was in slight excess. Diarrhœa and dysentery gave average figures, and respiratory diseases rendered a mortality of 3.38 per mille. Registration under this head is still imperfect, but the excess of the rate over that of Bengal and the United Provinces is remarkable. The information given regarding sanitary works indicates activity and progress. Village sanitation is very backward, but the towns are extensively undertaking water supply and drainage projects. A long list is given of sanitary works done at the expense of wealthy natives. The Government has given a grant of Rs. 30,000 to assist local bodies in carrying out sanitary works.

Bombay.

A reduced birth-rate and very high death-rate are the main features of the report for 1903. Separate statistics are given for the European and Eurasian population of the Presidency. Reckoned on the census population, the birth-rate of the former was 14.36 and the death-rate 13.45, and of the latter 21.20 and 24.40. Among the native population the rates were 31.22 and 43.91, against quinquennial ratios of 30.72 and 42.22. The birth-rate was 2.94 per mille lower and the death-rate 4.87 higher than in 1902. The low birth-rate is attributed to the plague. The number of stillbirths registered was 9,377, or 1.63 per cent. of the total births. In Bombay city and Kanara the proportions were 11.44 and 5.36. Plague accounted for 34.66 per cent. of the total mortality and 15.22 per 1,000 of population. All other causes of death were below the average. The death-rate for respiratory diseases was 3.21, the same as in the preceding year. The plague mortality, 281,269 deaths, was

the highest experienced since the commencement of the disease in 1896, and affected all districts except Thar and Parkar and the Upper Sind Frontier. The report is silent as regards efforts to combat the malady. The large infantile mortality in the Presidency continues to attract attention. "The ravages of plague have," it is stated, "embarrassed the financial position of most municipalities, and for want of funds many urgent schemes of water supply and drainage have not been carried out." The Sanitary Board only met once during the year, and the report of its proceedings is exceedingly meagre. Lieutenant-Colonel Crimmin, V.C., the health officer of the port, continues to render excellent service in examining vessels outgoing and incoming, their crews and passengers, and preventing the spread of infectious diseases.

SPECIAL CORRESPONDENCE.

PARIS.

Société de Chirurgie: M. Terrier on the Use of Scopolamine.—Programme for the Reception of the English Doctors in Paris in May.—Disturbances in Latin Quarter and Closing of Medical School.—Project to Lay out Public Gardens and Recreation Grounds on Site of Existing Fortifications.

At the last meeting of the Société de Chirurgie M. Terrier reported the case of a woman suffering from unilateral pyelonephritis, with a very sensitive bladder. Attempts to find out the condition of the other kidney by the endo-vesical separation of the urine from the two kidneys had been tried in vain. Owing to the excessively painful reaction of the bladder she was unable to support either the apparatus of Luys or of Cathelin for more than a few minutes. M. Terrier then tried anaesthesia in the patient by means of scopolamine, by the method already described in the British Medical Journal. A single injection was sufficient to cast the patient into a sleep sufficiently deep to introduce with ease the separator of Luys and to leave it *in situ* the necessary length of time. On her return to consciousness the patient declared she had no recollection of undergoing the operation.

At the Surgical Society's Rooms, on April 7th, a large meeting was held, with Professor Bouchard in the chair, when the broad outlines for the reception of the English doctors in May were decided upon:

May 10th. A delegation will meet the visitors at the Gare du Nord on the arrival of the train at about 6 p.m.
9 p.m.: Reception at the Sorbonne, when the English doctors will meet their French colleagues, and will be able to fill up forms stating the hospitals each may wish to visit.

May 11th. Morning: Visits to the hospitals *ad libitum*.
12 noon: Private luncheons given by Professors Landouzy and Huchard.
3 p.m.: Visits to the Faculty of Medicine (Laboratories and Library), and Assistance Publique and reception at Hôtel de Ville.
Evening: Invitation dinners given by Professors Bouchard and Lucas-Championnière.
Reception given by Professor Bouchard.

May 12th. Morning: Visits to the hospitals *ad libitum*.
2 p.m.: Train to Chantilly. Luncheon and visit to the Château and Park.
9 p.m.: *Soirée* at the Automobile club. The Committee hope to be able to obtain the services of the leading Parisian artistes.

May 13th. Morning: Visits to the hospitals.
Afternoon: Visits to the Hertford British Hospital and Institut Pasteur.
8 p.m.: Banquet at the Grand Hôtel.
The ladies of the party will be taken to the opera.

Serious disturbances have been taking place in the Latin Quarter, the anger of the students being directed against Professor Gariel, whom they consider unjust in the severity with which he conducted the professional examinations. Professor Gariel has been unable to deliver his lectures owing to the noise and disturbance. M. Liard, the Vice-Rector of the Académie, hastily summoned the Council of the University to consider the measures proposed by Professor Debove, the Dean of the Faculty of Medicine. The Council of the University decided unanimously to close the Faculty of Medicine till after the Easter vacation, which terminates on May 1st, so no lectures or examinations will be held till this date. This decision, which has been signed by the Minister of Public Instruction, is very prejudicial to the students going up for their final examinations and their theses. Dr. Treille, Senator for Constantine, has questioned the Minister on the subject in the Senate, calling attention to the disproportion between the disturbances and the extreme measure of closing the Faculty of Medicine; and as the Students' Association brought documents confirming the facts, the Minister has promised to allow the continuation of the fifth professional examinations and of the thesis examinations, and it is hoped that this measure will restore quiet. At present permission has been granted in only two exceptional cases to students to appear for their final examination, and the post-graduate courses, attended by paying foreigners, have been reopened.

The Council of the Alliance d'Hygiène Sociale, with M. Casimir-Périer in the chair, devoted its last meeting to the discussion of a report by Dr. Letulle on gardens for the people, and in particular on the utilization of the fortifications of Paris and the dismantled towns in the Nord Department. After a lengthy discussion, in which several senators and deputies took part, the following motions were carried:

1. That on principle each town shall reserve around it and in the neighbouring ground large free spaces, destined as playgrounds for children and for sports for the youth and adult population.
2. That Parliament shall only authorize the dismantlement of a town on the express condition and obligation to maintain free reserve lands destined to protect the hygiene of the town.
3. That in Paris in particular the city and the bordering communes shall benefit by the suppression of the fortifications and the military zone to mark out on this free land vast free spaces, to be transformed into public gardens.

The vast air space which surrounds Paris and other fortified towns, thanks to the existing fortifications, would be entirely lost were this land to be sold for building purposes, which would be most prejudicial to the health of the community. It is proposed, therefore, to preserve this air space by transforming the ground now occupied by fortifications into public gardens and recreation grounds.

SOUTH WALES.

Chepstow Board of Guardians.—Small-pox at Cardiff.—National Museum and Library.—Health of Rhymney.

At the Chepstow Board of Guardians' meeting, held on April 1st, it was reported that with regard to the proposed extension of the infirmary the Committee had met the architect, who, with a few alterations tending towards increased efficiency and better sanitation, had approved the scheme presented by the Committee. The approximate cost was £3,936, which would be a saving of nearly £2,000 upon the scheme previously formulated by the old Committee and approved by the Local Government Board, but rejected by the Guardians on the ground of expense. It was unanimously agreed that the revised scheme should be submitted to the Local Government Board.

No further cases of small-pox have been reported from Cardiff, and the administrative county of Glamorgan is entirely free from this disease.

At a meeting of the members of the Royal Institution of South Wales, held at Swansea, April 4th, under the presidency of Colonel Morgan, the following resolution was considered:

That the Council of the Royal Institution of South Wales is prepared to recommend the members of the Institution to hand over its museum, and all books, manuscripts, records, and other documents relating to Wales—now in the library—for the purpose of forming a nucleus for the National Museum of Wales, if located at Swansea, and the lands and buildings belonging to the institution, subject to the retention of a sum not to exceed £5,000, to be spent in acquiring a site and building for the purpose of continuing their work, unless the Governors of the National Museum prefer to give to the Royal Institution of South Wales accommodation for such purposes in the building they will erect.

The Chairman, in moving the resolution, said that this was one of the most momentous meetings they had held during the seventy years the institution had been established. The resolution was carried unanimously.

The Councils of Dolgelly, Newcastle Emlyn, Amlwch, Wrexham, Festiniog, and Llanidloes are supporting the claims of Aberystwith. The Cardiff and District Teachers' Association has resolved to guarantee the sum of £500 towards the Mayor's Fund for the location of the Library and Museum in Cardiff.

Dr. Redwood, Medical Officer of Health to the Rhymney Urban District Council, in his quarterly report states there have been 18 cases of typhoid fever, the large majority probably

due to polluted water; diphtheria 5 cases, scarlet fever 1 case. Measles was so prevalent in the early part of March that the schools had to be closed for a fortnight. Of deaths there had been 74, equal to a death-rate of 30 per 1,000. He complained of overcrowding as the great cause of ill-health, but thought that the Council need not take action until th eseventy-eight houses in course of erection were completed.

CORRESPONDENCE.

STAPHYLOCOCCUS VACCINE IN DERMATOLOGICAL THERAPEUTICS.

SIR,—I have read with interest Mr. Malcolm Morris's Harveian lecture on some new therapeutic methods in dermatology, and I am of opinion that his remarks on Dr. A. E. Wright's method of treating localized staphylococcic and tuberculous lesions are calculated to convey an unfair estimate of this remarkable addition to the modern therapeutics of disease. Mr. Malcolm Morris has evidently, although he criticizes Dr. Wright's work rather unfavourably, not taken the trouble to carefully read his articles, or does he fully understand the principles on which this unique method is based. He asserts that the majority of cases of furunculosis and acne are among the easiest of all skin lesions to treat. It is questionable whether this remark will be endorsed by the medical profession generally. However this may be, if he had studied the published cases which have been successfully treated by Dr. A. E. Wright, he would have found that the majority were cases of long duration, and some of them had been treated in every conceivable way without success. This method requires so much trouble and time, that no one would attempt to use it for cases amenable to the usual therapeutic measures.

Mr. Malcolm Morris then goes on to say that the good results obtained can be explained by the local reaction produced by the vaccine. This is a total misconception of the manner in which the cure is effected. Such a local reaction does occasionally occur, but is in itself no part of the curative agency, but merely an evidence of a temporary negative phase produced by the vaccine. If the dose be small this *local* reaction is entirely absent, and yet the treatment may be quite as successful. If Mr. Malcolm Morris had read the articles already referred to he would have found an explanation of why, in the treatment of skin affections, a reaction is often beneficial. It is simply this—the opsonic power of the serum in the diseased area is reduced to a minimum, and the reaction causes the diseased area to be bathed with fresh blood fluid with a much higher opsonic power, and this occasions the phagocytosis of the micro-organisms; this explanation is in conformity with all the known facts, and bears the stamp of genuineness.

Again, he fears that Dr. Wright's method of dealing with tubercle may quicken any slumbering embers of disease into a flame; now the whole point of Dr. Wright's method is to obviate such disastrous results, and if properly carried out the undoubted beneficial results of tuberculin are obtained without risk.

The methods of Dr. A. E. Wright are far too complicated, and require too much manipulative skill to come into general use, but their ingenuity and their utility as an indication for treatment of cases which are otherwise incurable will well repay any one who will take the trouble to master them.—I am, etc.,

Belfast, April 3rd. THOMAS HOUSTON.

DAMMING OF THE THAMES.

SIR,—Among the objections to this scheme important medical ones seem to have been overlooked. As the Thames at London would cease to be tidal, a great cause of the comparative healthiness of that city would also cease—the displacement of air now produced by the tide—and we could anticipate a consequent increase of disease due, also, to very imperfect flushing by the small stream through a long lake. The overflowing of low banks on the Surrey side after storms would tend to insanitary conditions, and the increased difficulties of sewerage and drainage would be enormous and costly.

If the dam be constructed, whence would much of the water supply of London be obtained, and at what cost? None of the water should be drawn from the Thames. It would be highly dangerous to drink (unboiled) the polluted fluid taken from the almost stagnant ditch. Remember Lincoln.

The demerits of the scheme outweigh the many advantages: commerce might be enhanced, but health would suffer so much that London would become a city to avoid.—I am, etc.,

Malvern, April 11th. STANLEY HAYNES, M.D.

THE TREATMENT OF EAR AND EYE TROUBLES IN ELEMENTARY SCHOOL CHILDREN.

SIR,—Will you kindly allow me to explain to the gentlemen who have recently been writing on this subject in the BRITISH MEDICAL JOURNAL how I manage to get over the difficulty in Acton?

First, I must state that I am fortunate in having a thoroughly reasonable and up-to-date Council, who assist me in every way when the health of the district is under consideration, the result being that we now rank as one of the healthiest suburbs of London.

For some years I have been struck by the number of poor children who attend school with defective eyesight, with all the accompanying headaches and inconveniences. Also with the number of deaf children, who, nothing being done for them, were allowed to grow up permanently deaf, with retracted drum membranes, frequently the result of neglected adenoid growths. The girls when they go into service are often unable to retain their situations owing to their affliction, and the same remark applies to the youths. Again, one finds numbers of children with chronic suppurative otitis media, which is frequently allowed to continue for years, all the time the child being in the greatest danger.

Seeing all this sad and neglected disease, I approached the Education Committee in the following way: "Will you allow me to do the best I can to get the eyes attended to? I will personally see to the ears of the children." They at once agreed, and this is my procedure:

I visit a certain school, get, say, a dozen children with defective eyesight. I then call on the parents and obtain their consent to their child being treated. Next I give a letter to an eye hospital; still visit to see that they are carrying out instructions, for you must watch these cases, otherwise the parents will frequently drop the treatment. When this dozen are supplied with glasses, which we do free of cost, then I take another dozen. With regard to the ear troubles, I pick out a dozen or so, examine them in my own house, and then operate on all the patients who require it.

I find the work is very successful, and gives great satisfaction, for not only do I personally restore many deaf children during the year, but I am also instrumental in getting their sight rectified, and preventing much suffering and misery. At present I only receive a small salary, but this scheme of mine is only on trial.

I feel this is the thin end of the wedge of a practice that will become universal. Fortunately I have had some long experience at a large hospital in the treatment of ear troubles, and it would certainly be an advantage if I could treat the eye cases as well.—I am, etc.,

G. A. GARRY SIMPSON,
Medical Officer of Health, Acton; Senior Clinical Assistant, Throat, Nose, and Ear Department, West London Hospital.

April 9th.

THE TEACHING OF MIDWIFERY.

SIR,—Facts are one thing, opinions are another. One fact that requires serious attention is that although the hospital mortality from puerperal fever has greatly diminished, yet the outside or private practice mortality has remained stationary. A little thought will show that at least three classes of obstetric cases occur outside hospitals:

(*a*) Those attended from start to finish by a medical man, who alone examines and manipulates the patient, and a nurse of sorts.

(*b*) Those attended from start to finish by a midwife with or without some nursing assistance.

(*c*) Those attended in the first place by a midwife, or nurse, or grandmother, or handy woman, or experienced neighbour, and in which a medical man is called in at some stage or other because of some trouble or complication.

The total septic mortality is, broadly speaking, the sum of the septic mortality of these three classes. A comparison of the morbidity and mortality of these three classes would, I venture to think, reveal some facts on which valuable opinions might be based. We must remember that nearly all fatal cases are attended at some time or another by a doctor, but surely his responsibility is nearly entirely confined to the patients who make up the first class.

Let us, Sir, bear the blame if blame be ours, but let us be

sure of our facts. Our severe though kindly critics should, I think, adduce some evidence to point their moral and adorn their tale.

A discussion as to the causation or prevention of puerperal fever, with especial relation to present-day metropolitan midwifery teaching, would involve consideration of many topics, from the abolition of the apprenticeship system to the make of midwifery bags—and I fear to trespass unduly on your space.

I would merely indicate the lines on which investigation would, I venture to think, yield some concrete facts on which valuable opinions might be based hereafter.—I am, etc.,

Upham, Hants, April 10th. James C. Hoyle, M.B., M.R.C.S.

Sir,—It is difficult to see any point in the letter signed "Forceps." By his own showing, the second and third labours in the case of his patient were easy and natural; yet he points to the fact that the fourth labour was conducted by a trained obstetric nurse as proof that the Obstetrical Society "goes too far."

Does he mean that the nurse in question knew more than she had any business to know, or that a trained nurse is incompetent to conduct a natural labour? What is his point?

The real point of his letter is, of course, that there are a certain number of people who are willing to risk the chance of the fourth labour being as easy and natural as preceding ones. If they do—and it is certainly not wise—that is their look-out, and they must take the consequences. But if they choose to do this, where is the fault of the Obstetrical Society or of the nurse which they have trained?

It is certainly aggravating to have to do with foolish patients, but this falls to the lot of all of us. Let, however, the blame be put upon the right shoulders.—I am, etc.,

April 2nd. M.B. Oxon.

SURGEON-GENERAL EVATT'S REPORT.

Sir,—As none of your correspondents who have written about the now famous Evatt report have made it clear under what circumstances the report came to be suppressed, I ask your leave to briefly summarize the history of the Surgeon-General's mission to Ireland last winter, and to explain how the censorship came to be applied to his report.

The Committee of Council of the Irish Medical Association, consisting of Dublin medical men, all (with one exception) I believe, either Fellows of or teachers in one or other of the Royal Colleges of Physicians and Surgeons, made the discovery early last winter that Surgeon-General Evatt was a sort of medical Napoleon, capable of gathering together, organizing, and consolidating the fighting forces of the medical profession in Ireland, and leading them to victory in their campaign for betterment.

This Committee recommended to the Council of the Association that the Surgeon-General be invited to Ireland.

The Council met on October 5th, 1904, and, on the proposition of Dr. Denham, it was decided to issue an invitation to Surgeon-General Evatt. Dr. Denham, in proposing his resolution, added: "We are much obliged to him for coming."

I repeatedly asked at the Council meeting to have terms of reference submitted to Surgeon-General Evatt, but my request did not find favour. The President (Dr. Tobin) suggested the matter should be left to the Surgeon-General's own initiative, adding: "If you get a man of his ability to do the work you cannot say, 'You are to do this' and 'You are to do that.' You must give him *carte blanche*. Dr. Denham later said: "You *must* give him *carte blanche*."

In the Journal of the Association, p. 294, one finds the Surgeon-General eulogized as follows: "He has big broad views ..... He regards every question from the point of view of the class it affects. He rises superior to petty differences .....; he is *par excellence* the man best fitted to carry to a triumphant conclusion the work he has in hand."

The President (Dr. Denham) and the Editor of the Journal were members of the inviting Committee of Council. Thus, in October, 1904, the Committee of Council expressed themselves as having the most implicit confidence in Surgeon-General Evatt. Note especially he had no terms of reference given him. He was given *carte blanche* by a Committee composed almost exclusively of Fellows or of teachers in one or other of the Royal Colleges in Dublin. And the Surgeon-General came and studied every phase of medical professional life in Ireland, and, returning to England, issued forth his report. The report first came before the Committee of Council. They appear to have arrived at the conclusion that it contained more candid criticism than they had bargained for. A printed copy of the report was sent to each member of Council that he might study it, and soon after a Council meeting was convened in Dublin to discuss the advisability or otherwise of issuing the report to the Association at large. After full discussion of the report in all its bearings, the Council decided that a copy should be sent to every member of the Association.

Now at this stage a wonderful thing happened. Some sort of a conference took place between leading and influential medical men officially connected with the Royal College of Physicians and the Royal College of Surgeons, with the result that an ultimatum was sent to the Committee of Council of the Association, threatening them that, unless the parts of the Evatt report adversely criticizing the Royal Colleges were expunged from the report before it would be circulated among the members of the Association at large, the Association would be evicted from the premises of the Royal College of Surgeons, and prevented from holding meetings within its hallowed walls for the future!

A hurried meeting of Council was summoned. Very few country members could arrange to attend in Dublin so soon (a fortnight) after the last meeting, with the result that the Dublin members of Council (including all the members of the Committee of Council) outvoted the country members, and succeeded in dooming the Evatt report.

Speeches were delivered, amongst others by the Secretary of the Royal College of Surgeons and the Secretary of the Royal College of Physicians denunciatory of the report, and to a man the Committee of Council joined in heaping anathema on the report for having dared to hold the mirror up to the Royal Colleges. But not one statement made by Surgeon-General Evatt with regard to the Colleges was disproved.

Thus those who were putting laurel wreaths on the Surgeon-General's brow in October, 1904, were the same who were court-martialling him in February, 1905.

Though I have written at greater length than I originally intended, I trust I have thrown new light on the story of the Evatt report.—I am, etc..

Westport, Ireland, April 10th. C. L. Birmingham, M.D., Member of Council, Irish Medical Association.

PROPORTION OF FAT IN CONDENSED MILK WHEN DILUTED.

Sir,—In reply to the letter of your Reviewer in the last issue of the British Medical Journal, I should like to say that, after he had first called in question the accuracy of the analysis given in my book, I did take the trouble to weigh several teaspoonfuls of condensed milk, and found that the average weight was, as I have already stated, about 12 grams. On referring, again, however, to the notes of the original analysis I find that the teaspoon there employed contained 12 grams of dry substance—that is, it must have held about 15 grams of fresh condensed milk, which explains the difficulty which your Reviewer points out—namely, that had 12 grammes of milk been taken the original milk could only have contained 1 per cent. of moisture.

Further, to say that the original milk actually contained 13·9 per cent. of fat is, I admit, an assumption. It is quite probable that it contained considerably less than that amount, but for my purposes there was no need to ascertain it. I can only repeat that an ordinary kitchen teaspoonful (such as would be likely to be used in poor households) taken from a tin of the particular condensed milk under consideration bought in the open market, when diluted in the proportion I described, actually did give the figures stated in my analysis.—I am, etc.,

London, W., April 12th. Robert Hutchison.

THE FEEDING OF INFANTS.

Sir,—Dr. Allison mistakes my meaning. First and foremost I put mother's milk as a food for infants, and I would not lightly change the one for the other, but I want to dislodge the professional antagonism to bottles or artificial feeding in any form. It is not so easy to secure efficient maternal feeding as obtained during our grandmothers' days. Then mothers lived more quietly, attended more immediately to household duties, had plainer food, and did not enter so much into social functions; consequently the milk was of a more regular and normal quality and the infants fed with more regularity, hence a stronger manhood and a more

beautiful womanhood. I do not say that it is easy for us in Darwen to secure everything desirable in the shape of clean utensils and pure milk. I wish it were; but we are attempting this by a staff of district nurses and careful supervision of the farms, and I hope for good results in the future.

I abhor the multitude of patent foods which inundate the market, and pin my faith on pure cow's milk, plus 5 per cent. of lime water and sugar: this is easily obtainable and the clean and suitable bottles as well. I cannot produce examples of the strength of manhood and beauty of womanhood from my method, but I can produce a large number of children which are growing up well and good as its result. To sum up, my argument is that where practicable a woman should suckle her child, but when her milk fails an equally good result can be obtained by the bottle.

In a manufacturing town like this many mothers have of necessity to go to the mill close up to the time of confinement and as soon afterwards as possible, this, besides affecting the quality of her milk, prevents her suckling her babe at the necessary intervals; so both suffer. Where a mother has not a sufficiency of her own milk I always advise her to supplement this supply with the bottle so that by the regularity of the suckling her milk is kept at the normal quality and the nearest approach to this is made up in the bottle. In the majority of cases the mother will put the infant to the breast during the hurried meal hours when usually a heavy stress of work is on, and during the intervals when she is at the mill the nurse feeds the baby artificially: this I maintain is wrong and followed by evil consequences for which the bottle is blamed instead of putting the blame on the combination of faulty methods.

Replying to "Lactis" the milk should not be boiled, nor should any water be added even for the youngest infant. I have never had any bad results from even the excess of proteid matter.—I am, etc.,

Darwen, April 5th. F. G. HAWORTH.

SIR,—It appears to me that Dr. Haworth's and Dr. Allison's letters form an apt illustration of the value of the adage *in medio tutissimus ibis*. The milk of any particular animal is undoubtedly elaborated to meet the particular requirements of that animal, and it seems illogical to hold that one milk may be substituted for another without detriment to the young. To take an obvious point, we know that the amount of proteid in an animal's milk varies directly with the rate of growth in the young; and we know that the chemical composition of milks varies both in the proportion and character of the principal ingredients. But there are undoubtedly differences yet more subtle than these between the milks of different species which have their analogue in the differences now recognized by the phenomena of precipitation, etc., between the bloods of various animals. On the other hand, Dr. Allison's position implies a universal negative, which is a difficult thing to prove. But even were it proved that there never has been "a woman distinguished among women for beauty, or a man distinguished among men for staying power, who was not naturally fed in infancy," that would certainly not end the question. I do not wish to quibble, but apart from the somewhat arbitrary assumption as to the most desirable attributes in the two sexes, I feel that Dr. Allison's words are rather those of a special pleader addressing a jury of matrons than those of a scientific physician addressing his professional brethren. The problem we all have to face, and especially those of us who are constantly dealing with the diseases of children among the poorer classes, is that in many cases it is really impossible for mothers to suckle their infants. In view of known facts we cannot put it on one side like Dr. Haworth by saying that cow's milk is just as good, if not better; nor can we deal with present conditions by reflections on what might happen before the fourth generation of artificially-fed children has been reached, like Dr. Allison. Even if we cannot produce men and women who are *all* distinguished according to Dr. Allison's criteria of excellence, we can at any rate vastly improve the nutrition and health of artificially-fed infants by care and exactitude as to diet.

I quite agree with your correspondent "Lactis" in the importance of instructing nurses and midwives in the principles of infant feeding. At the Bristol Children's Hospital I include two or three lectures on infant feeding and hygiene in the teaching I give the nursing staff, and I imagine that the same thing is done elsewhere. Simple instructions could also, I imagine, be easily given to midwives with the machinery for training them already at the disposal of the authorities. But I cannot agree with "Lactis" in his estimation of the effects of boiling on milk. A certain amount of lactalbumin is certainly coagulated when milk is boiled in an open vessel, but this does not convert it into hard-boiled egg albumen, nor is it necessary to feed the baby on it. It may be removed by a spoon. Still, I am not prepared to defend the wholesale or prolonged boiling of cow's milk. Ideally it should not be necessary, and certainly it has a detrimental effect on the milk as a food for infants. Practically, however, as the milk has to be kept for some hours, it is necessary, even when care is taken as to cleanliness in milking, etc., to destroy a certain amount of the organic life with which it is charged. The experimental evidence shows very clearly that this may be efficiently done, for all practical purposes, if the milk is raised to 68° or 70° C., preferably in a closed vessel, and then quickly cooled and kept cool. Very impure milk or milk which has to be kept a long time or in hot weather should, perhaps, be actually boiled; but to "sterilize" milk absolutely—that is, to destroy micro-organisms and their spores—requires several hours' boiling or a process of fractional sterilization. The former process is carried on by Variot at his *goutte de lait*, and the milk is said to keep well for a week; it is not, however, to be generally recommended on physiological grounds.

Taking the incidence of infantile scurvy as an index, Holt's figures show that this disease is less commonly produced in children fed on merely "pasteurized" as compared with "sterilized" milk in the proportion of 20 to 107 cases. Hence, it seems advisable to recommend the heating of infants' milk to 70° C. or a little under in the present state of our milk supply, and further to insist on the importance of its being kept subsequently at a low temperature to check the germination of spores.—I am, etc.,

Clifton, April 2nd. J. M. FORTESCUE-BRICKDALE, M.A., M.D.

ONE-MARK VACCINATION.

SIR,—Among the proposals made for the reform of the Vaccination Laws submitted to the Divisions for consideration in 1904 was this:

> That every private practitioner furnishing the vaccination authority with certificates of successful and efficient vaccination, satisfying a standard fixed by the Local Government Board, should receive a suitable fee for each such certificate.

This clause was adopted by 98 Divisions, rejected by 11, and 9 Divisions made special reservations, or refused a definite opinion.

In the light of these pronouncements it is interesting to read the opinions of the Committee of Inquiry into Vaccination Expenses embodied in their late report:

> A suggestion was made to us by witnesses appearing on behalf of the Association of Poor-law Unions and by witnesses representing Boards of Guardians that every registered medical practitioner should be entitled to receive a fee from the public funds for every case of successful vaccination performed and certified by him. We cannot recommend the adoption of this proposal. We do not believe that its adoption would contribute either to economy or to the efficiency of vaccination. Public vaccination is at present performed in accordance with stringent regulations prescribed by the Local Government Board. If any medical practitioner were to be paid a fee out of pubic funds for vaccination it would be practically impossible to secure adequate supervision of his work and methods of vaccination. If, on the other hand, the private medical practitioners were not to be subject to supervision there would be a great risk of the standard of vaccination falling short of what is now required by the Local Government Board. The careful methods of vaccination, including the various aseptic precautions, upon which the Local Government Board insist, are not recognized as necessary by many members of the medical profession, and we fail to see how the adoption of such precautions could be secured in these cases without inspection. But this is not all. In the course of our inquiry we frequently heard of the existence of a class of practitioner who we are told charge the sum of 6d. for vaccination, and whose methods are open to grave objection, inasmuch as they habitually produce one make only, and adopt no aseptic precautions in the performance of the operation. Having regard to the conclusions of the Royal Commission on these subjects, we do not consider that the public money should be expended in pus to such vaccinators.

These are sufficiently strong terms of disapproval, but they are incontrovertible. Any one who has followed carefully the mass of evidence laid before this Committee (and it has been my arduous duty to follow it all) would be assured that there is little in the practice and methods of vaccination in England upon which this Committee is uninformed. Further the evidence on "one-mark vaccination," as it is termed in the index to the minutes of evidence, was (the minutes inform us)

not obtained from public vaccinators, but from the officials of local bodies. Only two questions were put on the subject to the medical practitioners (1,213 and 1,389). No reference to the subject was made in the large body of evidence which I myself submitted (six pages in the minutes). I think the medical witnesses avoided the subject by tacit agreement, perhaps out of professional pride.

It is clear, however, that the Committee was well aware of the existence and the danger of the one-mark cheap practitioner, and that their very firm refusal to entertain the principle of general vaccination paid out of public funds was due to that knowledge, and the distrust it inspired.

I venture to ask if the Association would not be beginning at the right end if it framed measures for the suppression of methods of vaccination recognized as inefficient, and the issue of certificates which are little better than fraudulent.—I am, etc.,

Westerham, April 3rd. ARTHUR MAUDE.

JAPANESE SICK AND WOUNDED.

SIR,—Under the above heading, in the BRITISH MEDICAL JOURNAL of February 4th, attention is drawn in a short article to the remarkably low number of casualties in General Oku's army from enteric fever and dysentery. The inference drawn is that the results are due to the precautions taken to provide sterilized water to the troops. I do not think we are in possession yet of sufficient data to justify this deduction.

Among the lessons taught by both the South African and the Spanish-American wars was, surely, the importance played by flies and dust in the dissemination of disease. None of us who went through the South African war can doubt the influence of these factors.

Soon after the conclusion of peace there happened an affair known as "the army blanket scandal." In the investigation of this it was proved that old blankets, sold to contractors and distributed by them broadcast, were undoubtedly the cause of numerous cases of enteric fever.

Want of sanitation in "the lines," want of cleanliness in the "kitchens," and overcrowding in tents are a few of the numerous causes which assist the spread of enteric fever and dysentery in camps. Perhaps I may be excused for recalling the fact that even in England enteric fever is not always waterborne.

Personally I am convinced that enteric fever is hydra- not hydro-headed. One of the heads is hydrocephalic, and by reason of its large size has attracted much attention; but I am not sure that, abroad or on service, it is the most important.

To account for the immunity of the Japanese (presuming the figures quoted to be correct) there are many points to be considered. There may be a real immunity from enteric fever, or an immunity acquired by almost every individual in early life. We want to know something of the food, its method of preparation, and how, when, and where it is eaten. Sanitation, we may be sure, does not end with attention to the drinking-water. We must have before us an account of the sanitary condition "of the lines," methods for destruction of refuse, disinfection of excreta, clothing, blankets, etc. We know that personal cleanliness of the soldier and his clothing is insisted upon. The "Japs" individually are well educated, abstemious, well-disciplined, and trained to self-control. Soils, sites, and water supply must all be considered.

I need not pursue this further. Military sanitarians will await Colonel Macpherson's observations on all these points.

Finally, let us examine the photograph illustrating the review of Miss McCaul's work in the BRITISH MEDICAL JOURNAL of December 10th, 1904, which is alluded to in the above-mentioned article. We see a cauldron of hot water, open at the top, with no protection from dust or flies. The lid is resting on its edge on the ground. Is the ground clean? The lid so fits that when replaced any dirt on its edges must fall into the cauldron. A soldier is filling his water-bottle. Notice the position. The water-bottle is over the cauldron. Whence has he obtained the tin with which he is filling his bottle? Is it his own canteen, or does it belong to the sterilizer? Where will he place it when he has finished using it—on the ground, or in the cauldron for the next man to dip his hand into the water for it? Are their hands clean? Can he fill his water-bottle without letting water run over it and the straps back into the cauldron? His water-bottle is possibly covered with felt, like ours. It has been his close companion for months; he has worn it against his clothes, slept on it, thrown it down at random, and had it stained with mud, dust, blood, or filth. Is there not almost a certainty of recontamination of this drinking water? Can any one seriously think that even 25 per cent. of the men taking water from this cauldron are getting sterilized water?—I am, etc.,

Eastbourne. W. E. H.

DIPLOMATES OF SCOTTISH COLLEGES.

SIR,—I observed from the report in the BRITISH MEDICAL JOURNAL of the first meeting of the Association of Scotch diplomates that there was a proposal to have the Licence of the Royal College of Surgeons of Edinburgh converted into a Membership. The same College has for the first time this year allowed its Licentiates to wear a gown, and, as the College celebrates this year its fourth centenary, it would be a most appropriate occasion on which to substitute a Membership for the Licentiateship.—I am, etc.,

March 15th. GAMMA.

OBITUARY.

JAMES ALEXANDER, M.D., M.Ch.Dub.,

President of the South-Western Branch of the British Medical Association.

WE deeply regret to record the unexpected death of Dr. JAMES ALEXANDER, of Paignton, on Sunday, April 2nd, at the comparatively early age of 57, and while in the full tide of activity and usefulness.

Strong, robust, and of large, vigorous frame, a lease of his life might apparently have been safely taken, but, like so many of his brethren, he fell a victim to his professional exertions for others. Exceptional claims to his services, caused by a local epidemic of influenza, had made him overwork lately, and so had lowered his power of resistance to disease, and when he himself fell a victim to the malady (to which he at first refused to succumb) it was quickly followed by bronchopneumonia, and ultimately by aphasia and hemiplegia, probably caused by a cerebral embolism. The prognosis, however, up to the end was hopeful, and his sudden death came as a terrible shock to his friends. Many were in tears, and the gloom and sorrow in Paignton were universal.

Dr. James Alexander was born in 1848 at Omagh, co. Tyrone, Ireland, and was a son of Mr. James Fullerton Alexander of that place, who was a member of a collateral branch of the same family as the Archbishop of Armagh's. He was a graduate both in arts and medicine of the University of Dublin. He obtained his bachelor's degree in medicine in 1868, and his doctorate of medicine in 1878. He was, moreover, a prizeman and scholar of the Carmichael School of Medicine in Dublin.

A short time after graduation he was appointed Surgeon to the Union Mining Company of Newfoundland. His residence in that colony produced a paper on the climate of Newfoundland and some diseases met there, contributed to the Dublin Medical Society's *Journal* in 1878. But he was not a prolific contributor to the medical press. About twenty-seven years ago he settled in Paignton as an assistant to Dr. Pridham, whose son-in-law and successor he ultimately became. Here he spent the rest of his useful life, watching the place grow from an unimportant seaside village into a popular health resort, and retaining the position of the leading practitioner in the district.

Dr. Alexander was one of those useful citizens who held that the interests and exertions of a medical man should not end with his professional duties, and there was hardly a local office of honour which he did not at one time or another occupy. President of the Conservative Association, Chairman of the School Board, member of the district council, a Past-Master of the Torbay Lodge of Freemasons, he was in 1904 elected to the Presidency of the South-Western Branch of the British Medical Association, a post which he occupied most worthily at the time of his death.

Above and beyond all his claims to local usefulness, however, Dr. Alexander lived and moved in the love and appreciation of his friends and patients. Enemies he had none. There was no man so well known, and certainly no man so much beloved in the neighbourhood as Dr. Alexander, as was shown at his funeral. Every blind in the town was drawn down, flags flew at half-mast, and the crowd in the church was very large, numbers being unable to gain admission. Eight blue-jackets of the Coast Guard (to whom he was surgeon) carried the coffin. Every public body in the town followed him. The Freemasons, the Postal Officials, the

G.W. Railway sent contingents, all the friendly societies in full regalia were there. The British Medical Association was represented by Dr. G. Young Eales, of Torquay, the Honorary Secretary of the Branch, and by every medical man in the place who was not prevented by illness from attending, and had a public funeral been sought, or the time and place of interment been publicly notified, members of the Association from all Devon and Cornwall would have crowded in; so popular was he. The quantity of wreaths and flowers from his friends and patients of all classes was great, but the number of people in tears was the best proof of his popularity and of the general sense of his loss.

Never did a man of simpler and more direct manner, of kinder heart, of deeper sympathy, of more energy and vigour, than Dr. Alexander pass away. He was essentially and in its best sense before all things, a Man—upright, honourable, and true. He leaves a widow and four children (three sons and a daughter) to mourn his loss, to whom the sympathy of members of our Association, especially of those who knew and loved him, will go out. His eldest son is a Sub-Lieutenant in the Royal Navy. It is proposed to erect a public memorial to his memory in Paignton.

Dr. Young Eales, Honorary Secretary of the South-Western Branch, writes: "I believe I am correct in saying that this is the first time in the history of our Branch of a President dying during his year of office. Dr. Alexander's death is felt very deeply by us in this part, as he was so universally loved by all. A man with a kindly honest eye, a most genial disposition and conduct as straight as a line, he was usually the life and soul of our meetings. I have known him a great many years, and a better friend or more thorough gentleman one could never wish to meet. To show what Paignton thought of him it is only necessary to state that at the funeral all the public bodies were represented, the church was crowded to excess, while hundreds were unable to gain admittance, and it is estimated that about a couple of thousand people awaited the funeral procession at the cemetery. Most of the local medical men were at the funeral, and the Branch sent a beautiful wreath. I have no doubt, too, that at the meeting to be held on the 26th the Branch will take further steps to mark the loss it has suffered through the untimely death of its President."

WE regret to announce the death, at the age of 86, of Dr. PAUL HERVIEUX, Member of the Paris Academy of Medicine, of which he was President in 1896. Dr. Hervieux was a pupil of the famous Ecole Normale, where he graduated in the Section of Literature in 1839. He was offered a professorial chair in a provincial college, but suddenly determined to study medicine. He took his doctor's degree in 1847, and was appointed Physician-in-Chief to the Paris Maternity in 1860. He was an Honorary Physician to the hospitals. He was the author of numerous writings on the prophylaxis of epidemics of puerperal fever. He was director of the vaccine service of the Academy of Medicine.

DR. DAVID SMITH of Glasgow, who recently passed away in his 70th year, was born at Ochiltree, Ayrshire. He studied at the Universities of Glasgow and St. Andrews, where he had a distinguished career, his name appearing in the prize lists of all his classes. After graduation he was appointed demonstrator and assistant to the distinguished ophthalmologist, Dr. Mackenzie, a post which he held for some seven years. Afterwards Dr. Smith started for himself in the East End of Glasgow, where he acquired a large general practice. After some years he abandoned general practice for ophthalmology, in which he acquired a considerable reputation. For upwards of thirty-three years Dr. Smith acted as Medical Referee for the Peninsular Insurance Company. A man of quiet and unobtrusive manner and simple habits, he was much esteemed by all who knew him, alike for his professional ability and for the sincerity and genuineness of his character. He was a student to the end, and his favourite maxim, which he most scrupulously carried into practice, was "Duty before pleasure." Dr. Smith was a member of the Glasgow Eastern Division of the Glasgow and West of Scotland Branch of the British Medical Association. He was a member of the Church of Scotland, and for many years an elder in Sandyford Church. He leaves a widow, a son, and a daughter to mourn his loss.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have lately died are Dr. Angelo Molina, Professor of Materia Medica and Toxicology in the University of Parma; Dr. Eduard Himmel, well known in Vienna as a specialist in children's diseases, aged 58; Professor G. Meissner, the distinguished anatomist and physiologist of Gottingen, aged 75; Dr. Pietro Seganti, Director of the San Giacomo Hospital, Rome; Dr. Russell Murdoch of Baltimore, formerly lecturer on diseases of the eye and ear in the University of Maryland, and professor of diseases of the eye, ear, and throat in the Woman's Medical College, Baltimore, aged 66; and Dr. Michael H. Brophy, Dean of the College of Physicians and Surgeons of Quebec, and one of the founders of the *Bulletin Medical de Quebec* and of the Association of French-speaking Physicians of North America, aged 45.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MR. ROOSEVELT ON THE CAREER OF THE NAVAL SURGEON.

ON March 25th Mr. Roosevelt was present at the graduation exercises of the United States Naval Medical School. After handing diplomas to twenty-three assistant surgeons, the President said to them that, as members of the great medical body and as officers of the United States navy, they had a double standard of honour to live up to. Just as the great doctor who stood high in his profession in any city counted as one of the most valuable assets in that city's worth, so in the navy or the army the effect of having thoroughly trained men with a high and sensitive standard of professional honour and professional duty was well nigh incalculable upon the service itself. He wished them to feel that on their shoulders rested a great weight of responsibility, that their position was one of high honour, and not hold it under penalty of incurring the severest reprobation if they failed to live up to its requirements. He was not competent to speak save in the most general terms of their professional duties. He did wish, however, to call their attention to one or two features connected with them. In the first place, in connexion with the work they did for the service they had certain peculiar advantages in doing work that would be felt for the whole profession. For instance, it would fall to their lot to deal with certain types of tropical diseases. They would have to deal with them as no ordinary American doctor—no matter how great his experience—would have to deal with them, and they should fit themselves by most careful study and preparation, so that they should not only be able to grapple with cases as they came up, but in grappling with them to make and record observation upon them that would be of permanent value to their fellows in civil life. They could do what no civilian doctor could possibly do. There probably was not a branch of the profession into which, during their career, they would not have to go; no type of disease that they would not have to treat. But there were certain diseases that they would have to treat that the ordinary man who stayed at home of course did not, and it was of consequence to the entire medical profession that they should so fit themselves by study, by preparation, that they should not only be able to deal with those cases, but to deal with them in a way that would be of advantage to their stay-at-home brethren. There was one other point. Every effort should, of course, be made to provide them with ample means to do their work. Every effort ought to be made to persuade the National Legislature to remember that in case of war it was out of the question to improvise a great medical service for the army and navy. The needed increase was more keenly felt in the army than in the navy, because it was always the army that underwent the greatest expansion. But it was felt in both services. If a war came for which they had no greater preparation than at present they had made; if, as was perfectly certain to be the case, there were fever in the camps; if there were trouble among the volunteer forces, it was foolish to the greatest degree for the public men, and especially for the public press, to complain and shriek over the people who happened to be in power at that time. Let them shriek, said the President, or, rather, do not let them shriek at all—for shrieking is a sign of hysteria—but let them solemnly think over and repent of the fact that they have not made their representatives provide adequately in advance for the medical system in its *personnel*, its material, its organization and physical instruments necessary to make that organization effective, which alone, if prepared in advance, will obviate the trouble which otherwise was certain to come if they had a war.

Mr. Roosevelt proceeded: "Let them remember not to blame the people in power when the breakdown comes but blame themselves, the people of the United States, because they have not had the forethought to take the steps in advance which will prevent that breakdown occurring. Means ought to be provided; that is part of our duty. If we fail in it, then it is our responsibility not yours. But—and this I want to impress with all the strength that in me lies upon every medical man in either the army or the navy—remember always that in any time of crisis the chances are that you will have to work with imperfect implements. And you can form a pretty good test of your worth. If you sit down and say you could have done good work if only you had had the right implements to work with you will show your unfitness for your position. Your business, then, will be to do the very best you can do if you have got nothing in the world but a jack-knife to do it with. Keep before your minds all the time that when the crisis occurs it is almost sure to be the case that you will have to do no small part of your work with makeshifts; to do it, as I myself saw at Santiago the army physicians, roughly and hastily and with but one-fourth or one-fifth of the appliances that they would expect normally to have, and then, as I say, make up your mind that while you have done all you can to get the best material together in advance, you will not put forward the lack of that material as an excuse for not doing all the work you have to do upon the imperfect tools. Make it a matter of pride to get the best possible use out of them." The President concluded by welcoming the young officers as servants of the nation, and wished them every success in the great and honourable calling which they had chosen.

DRAWING OF PAY.

FROM July 1st next, all officers (medical officers included), whether at home or abroad, India excepted, are to have the option of drawing their pay either through the agents or the local account or paymaster. Servant allowance will continue to be drawn in the same manner as the pay, but field allowance and allowances in lieu of forage, stabling, lodging, and fuel and light, will always be drawn through the local accountant.

COURSE OF INSTRUCTION AT HASLAR FOR SURGEONS R.N.

THE course of instruction for Surgeons R.N. at Haslar Hospital terminated on April 6th, when the prizes were distributed by Vice-Admiral Sir Charles Drury, K.C.S.I., Second Sea Lord, who was accompanied by the Commander-in-Chief at Portsmouth and by the Medical Director-General of the Navy. Luncheon was served in the officers' mess prior to the distribution of the prizes, and Sir C. Drury gave a short address to the newly-commissioned surgeons. The gold medal was gained by Surgeon L. F. Cope (St. George's Hospital), the microscope by Surgeon L. C. Hunt (St. George's Hospital), and the silver medal and books by Surgeon H. M. Braithwaite (Durham University). The names of the candidates with the marks gained at the entrance examination and at the Haslar course are subjoined:

	Marks.		Marks.
L. F. Cope	4,472	F. C. Wilson	3,619
F. L. de Verteuil... ...	4,352	J. McA. Holmes ...	3,575
K. D. Bell	4,321	E. D. Rutherford ...	3,500
H. B. Hill	4,267	R. Willan...	3,426
H. M. Braithwaite ...	4,122	A. O. Hooper	3,355
D. G. Addison-Scott ...	3,991	H. S. Turner	3,303
F. Hernaman-Johnson...	3,960	E. M. W. Hearn ...	3,177
L. C. Hunt	3,859	R. H. McGiffin	3,167
C. R. Worthington ...	3,781	D. P. MacI. Campbell...	3,160
P. M. Rivaz...	3,764	S. H. Vickery	3,056
J. R. A. Clark-Hall ...	3,734	M. W. Haydon	2,931
H. Cooper	3,658	A. J. McDiarmid ...	2,890

VOLUNTEER MEDICAL ASSOCIATION.

THE annual dinner for medical officers of the Yeomanry and Volunteers will take place at the Hotel Cecil, London, on Saturday, May 6th, at 7.30 p.m. Major-General W. H. Mackinnon, C.V.O., C.B., Director of Auxiliary Forces, will be present and take the chair. Surgeon-General Keogh, C.B., M.D., Director-General of the Army Medical Services; Sir William Church, President of the Royal College of Physicians, and many other distinguished guests will be present. Dress: Mess uniform or evening dress. Guests may be invited. Tickets, 10s. each (exclusive of wine), may be obtained from the Secretaries, Brigade-Surgeon Colonel H. G. Thompson and Captain E. C. Montgomery-Smith, 36, Abbey Road, N.W.

A FRENCH MIDWIVES' ASSOCIATION.—The midwives of Bordeaux have formed an association which appears to be partly of the nature of a friendly society, partly an organization for the defence of their professional interests, and the study of reforms that may seem likely to improve the moral and material conditions of their profession.

BEQUESTS TO MEDICAL CHARITIES.—The late Mr. William Bourne Sutton, of Blythe Bridge, Staffordshire, whose will has now been proved, left £1,000 each to Guy's and St. Thomas's Hospitals, and £500 each to the Cottage Hospital at Longton and the North Staffordshire Infirmary at Hartshill.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MR. TROUTBECK AND THE MEDICAL PROFESSION.

We learn from the *Daily Chronicle* of April 10th that at a recent meeting of the Westminster Guardians a letter was read from Coroner Troutbeck complaining that Dr. Percy Edmunds, a divisional surgeon of police as well as registrar of deaths, had refused to give information to his officer respecting the death of a man, and had said that the officer "could ask Dr. Freyberger." Dr. Edmunds sent a reply to the Board in which he said he did not refuse all information, and sent the usual notice as registrar. "I offered," he added, "to supply all further information to the coroner if he gave me an assurance that I should be subpoenaed in the usual manner for the inquest if he considered an inquest necessary. I have fulfilled all my duties as district medical officer and as registrar fully and properly. The coroner has no power to demand information privately from anybody. The dilemma is only natural, and is likely to occur, considering that Mr. Troutbeck has broken long-standing custom and etiquette, and insulted and discarded the medical men practising in the city of Westminster. The remedy for the dilemma is very simple, and is in his own hands. The public fees for making autopsies and giving evidence at inquests should be diverted from the pockets of Dr. Freyberger into the pockets of the medical practitioners who are called in to see the circumstances and surroundings of sudden and suspicious death."

INDECENT ADVERTISEMENTS.

A BILL prohibiting advertisements for the cure of sexual diseases has been passed by both Houses of the Legislature of the State of Washington. It only awaits the Governor's signature to become law. By the terms of the Bill the publication or printing of any advertisement offering to cure genito-urinary diseases, to restore lost manhood, or to treat this class of disorders is forbidden. The penalty is imprisonment from one to six months for the editor or owner of any paper or the proprietor of any printing establishment who publishes such advertisements.

TOUTING FOR PRACTICE.

DISILLUSIONED writes: Is it correct conduct for a medical man to call on hotel keepers, proprietors of boarding-houses, etc., and to ask them to send him patients? or to write a hotel proprietor to form a medical club among his servants to which the said medical man is to be surgeon?

*** If distinct evidence can be obtained of such conduct the matter should be brought in the first instance before the Division of the Association of which the person complained of is a member, as there can be no doubt that such touting is improper and should be stopped.

THE EMPLOYMENT OF A REGISTERED MIDWIFE BY A MEDICAL PRACTITIONER.

A. C. L.—(1) There is no legal objection to a registered medical practitioner employing a certificated midwife at a salary to attend confinements; she may reside in his house or in rooms; (2) a medical practitioner may employ an assistant of either sex to dispense and help in the dressing of patients if the work be done under his supervision, and such person need not hold a dispenser's certificate; (3) we should imagine that there are many suitable persons available for an adequate salary.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE MANAGEMENT OF OUT-PATIENT DEPARTMENTS.

IN the BRITISH MEDICAL JOURNAL of April 8th, page 806, an account was given of the various propositions for the management of the out-patient work of the Belgrave Hospital for Children which were to be discussed at the meeting arranged between the honorary medical staff of the hospital and medical practitioners in its neighbourhood. This meeting took place on Tuesday last, with the result that it was decided to submit to the Committee of Management the following proposals as those approved:

1. Only a definite number of out-patients shall be seen on each day by the medical officer in attendance.

2. In the selection of cases, preference shall be given to (*a*) those most seriously ill, (*b*) cases referred to the institution by medical practitioners, (*c*) those bringing certificates from governors.

3. Out patients living within a radius of two miles from the hospital shall only be admitted, except in the case of urgent illness or accident on the presentation of a card signed by a medical man, or,

4. On presentation of similar cards issued to and signed by the Charity Organization Society and almoners.

5. A register of out-patients shall be kept, in which shall be registered the name, age, and address of the patient, and the date of admission and discharge.

It will be observed that the proposals originally put forward have been modified in some not unimportant respects, and that one of much interest has dropped out altogether. Thus the proposed radius has been raised from one mile to two, and local clergymen have apparently disappeared from those who are to be entitled to issue cards. If admission to the out-patient department were regulated in the manner suggested, it was deemed unnecessary to fix a wage limit, or even provide an inquiry officer or official almoner for the time being.

The important suggestions for a definite and formal arrangement of the out-patient department as a gratuitous

consulting room in certain cases were negatived, those present seeming to be of opinion that local practitioners would prefer to rely on the recognized courtesy of the honorary medical staff and to send up patients with a note when a further opinion was issued. This may well be the case; nevertheless it seems probable that it would have been better that affairs should have been put upon a definite footing, and the result is curious in view of the fact that in anticipation of the establishment of King's College Hospital in South London, the Committee appointed to consider the matter passed a resolution in favour of a correspondingly definite arrangement. These regulations have still to go before the Board of Management for final approval before they come into force; as, however, the Board has aimed from the beginning at securing the co-operation of local medical men, the necessary confirmation is likely to be forthcoming, though it seems possible that the Board may not think it advisable to make the proposed radius so large until they have seen what amount of active co-operation is forthcoming. The whole success of the experiment depends upon this, and it is to be hoped that no inertia will be shown. If successful, the introduction of these regulations will institute a decided advance in the development of a right system of conducting out-patient work throughout the metropolis. Apart from the fact that the number of local practitioners present at the meeting was far less considerable than so interesting a discussion might have been expected to attract, there seems no reason to doubt that all in the neighbourhood will endeavour to make the scheme a success. During the meeting it may be noted a somewhat curious suggestion was thrown out that if later the appointment of an inquiry officer seemed to be desirable it would be in the interest of the general practitioners in the neighbourhood to subscribe part of the sum necessary to enable the hospital to provide such an officer. This suggestion will doubtless come in time before the local medical society which it is proposed to form in connexion with the hospital.

ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, NORTHAMPTON.

THE report of the Medical Superintendent of this large asylum for 1904 shows a satisfactory state of affairs. The asylum is intended for paying patients belonging to the upper and middle classes, but it also carries out a certain amount of charitable work by assisting patients who are unable to pay the lowest rate ordinarily charged. Last year 88 cases of this kind were aided, the amount of assistance rendered to make up the payments to the lowest rate charged being £3,715 3s. There were 384 patients in the hospital on January 1st, 1904, and on the last day of the year they numbered 418. During the year 98 were admitted, of whom 20 were re-admissions, and 40 had suffered from previous attacks. Of the total admissions 50 were cases of mania of some form, 30 cases of melancholia, 10 were cases of dementia, and there were 4 each of general paralysis and congenital defect. As to the probable causes of insanity amongst these patients, intemperance in drink was assigned only in 3—that is, in 3.16 per cent., and hereditary influence were only ascertained in 10—that is, in 10.2 per cent. of the admissions. Previous attacks are mentioned as predisposing causes in 24, and "moral" causes in 34. During the year 64 patients were discharged, 23 as recovered, 12 as relieved, 13 as not improved, and there were 16 deaths. The percentage recovery-rate on admissions was 23.47, an unusually low recovery-rate for this asylum. Last year the recovery-rate was 46, and the average recovery-rate for the preceding five years was 41.8. The 16 deaths were due in 2 cases to phthisis, in 2 to senile decay, in 3 cases each to apoplexy, cardiac syncope, and pneumonia, in 1 case to exhaustion in melancholia, and in 1 case to suicide, the patient being absent from the asylum on trial. The percentage death-rate on the average numbers resident was, as is usual in well-conducted private asylums, a low one—namely, 3.95. The general health was good throughout the year, and 168 patients benefited by being sent, for periods varying from one to six months, to the beautiful seaside house belonging to the asylum at Bryn-y-Neuadd, near Llanfairfechan.

EAST LONDON HOSPITAL FOR CHILDREN.

ON April 8th a new isolation block was opened at the East London Hospital for Children and Dispensary for Women, Shadwell, by Princess Louise Augusta of Schleswig-Holstein. It is intended for the isolation and treatment of severe cases of whooping-cough, and its structure and accommodation are as follows: On the ground floor, in addition to the entrance hall, there is a ward for six beds, with a sanitary spur, consisting of lobby, slop sinks, bath room, etc., at its end; also a ward kitchen, a linen room, a housemaid's pantry, and a nurses' dining room. The first floor is a repetition of the ground floor, except that the sister's bed room takes the place of the nurses' dining room. On the second floor are the following: a nurses' sick room, eight bed rooms for nurses, a bath room, and the sanitary offices. At the back of the building is an iron outside staircase, whose primary object is to give means of egress from each floor in case of fire, but it also gives access to the flat roof of the building, and will enable the patients to be taken out for an airing. The whole place is lit with electric light, and has a spacious basement for a heating apparatus and stores. The staff will consist of a sister in charge, and four nurses for day duty and two for night work. There will also be a wardmaid. The Princess was welcomed to the Borough of Stepney by the Mayor, Alderman, and Town Clerk, and was received, among others, by the Bishop of Stepney, Dr. Morley Fletcher, Mr. C. Wallace, and Dr. Annand (Resident Medical Officer). Colonel NEEDHAM (Chairman of the hospital) read an address of welcome to the Princess. It stated that the benevolent interest taken by all the members of the Royal Family in the cause of charity was well known to all the poorer population of London, and visits paid by them to the neighbourhood of the sick and suffering formed bright landmarks in lives that were but too often overshadowed by poverty and distress. With regard to the new block, the entire cost of the building, excluding furniture and equipment, was stated to be £10,000. Of this amount, £3,350 had been granted by annual allowances from King Edward's Hospital Fund and £1,150 received from other sources. The sum still required was £5,500, of which £3,500 had already been promised on the condition that the balance of £2,000 was subscribed by June 30th. The PRINCESS, in declaring the wards open, said it gave her very great pleasure to be there that day, especially as it was not her first visit to the hospital. Therefore she could judge well of the enormous benefit and blessing those new wards would be, as they would be conducted and carried on on the same lines as the other wards in that most admirably-managed hospital. The Princess then received purses on behalf of the new buildings' fund, and a cordial vote of thanks was accorded to her on the motion of Sir H. SAMUEL, M.P., seconded by the MAYOR OF STEPNEY. A tour of inspection of the other wards of the hospital was then made by the Princess, in the course of which the cot in the Princess Mary Ward, endowed by the *Gentlewoman* Children's Salon, was named by her the Prince Albert Cot, after the second son of the Princess of Wales, who gave special permission for it to be so dedicated.

INDIA AND THE COLONIES.

CAPE COLONY.

LEPROSY.

THE report (1903) of the medical officer of health (Dr. A. John Gregory) for Cape Colony furnishes many items of interest concerning leprosy and the methods of dealing with it. The actual removal of the sufferers, and the administration of the asylums at Robben Island and Emjanyana do not come under the jurisdiction of Dr. Gregory. The responsibility is placed upon him, however, of ensuring that every person segregated under the Act is actually a leper, and one who should be segregated. He has the right to inspect the asylums and report thereon.

Dr. Gregory gives in detail the procedure which has to be followed before a person can be segregated as a leper. It is so hedged in by safeguards as to make it practically impossible at the present time for a non-leprous person to be removed and kept in a leper asylum. Another point is that every leper is afforded an opportunity of making proposals for his segregation at home. Such proposals are carefully considered in all their bearings. The elaborate system now employed has been in force in its entirety for the last few years only. During the last twelve and a quarter years ending April 30th, 1904, 139 persons have been discharged either from or before being removed to the asylums; in forty-one cases the disease was stated to have been arrested, in twenty-one the patients were returned as not suffering from leprosy, and in seventy-seven instances the condition was doubtful.

Dr. Gregory, whilst admitting that Robben Island has disadvantages as a place of segregation, is of opinion that they are not so important as to override its advantages. Owing to the agitation for removal, the Government, uncertain of the future, has done nothing, the result being that the leper wards are overcrowded, their periodical evacuation for proper cleansing and disinfection has become impossible, and no proper classification of patients can be carried out. Until quite recently the wholly indefensible system of accommodating healthy children of lepers in the leper wards was followed. The example of the Mission to Lepers in India and the East should be imitated, namely, separating the untainted children of leprous parents and providing for them elsewhere. On April 30th, 1904, there were 568 male and female lepers in the island, 78 being Europeans and 490 coloured. It would be wiser were the Europeans accommodated in a separate asylum on the mainland. This would relieve the admitted overcrowding, and would tend to allay the agitation against Robben Island. The Europeans and the coloured people are on different levels of civilization, both domestic and intellectual. Under the present arrangement, agitation is after all natural, seeing that to the European mind segregation on Robben Island savours of detention, not to say imprisonment. Besides, there is the feeling of degradation experienced by the white population at the idea of their relatives and friends being segregated with the coloured. The world must be taken as it is in the long run. Perfection is not yet, and in some breasts this racial feeling is very strong.

The establishment of a separate sanatorium—not on Robben Island—for white lepers need not be expensive, for there is no occasion for palatial and costly buildings. Sound, comfortable, weatherboard dwellings could be erected situated in a pleasant district. Some difficulty would be encountered here, as the inhabitants of the selected district would

no doubt protest. The whole thing should take the form of a small colony or village. The lepers could then occupy themselves in various ways. Lepers, especially in the advanced stages of the disease, are often apathetic, it is true; but, on the other hand, there are always some individuals who take an interest in life. Inexpensive buildings could be burnt down periodically if necessary. No hard-and-fast rule can be laid down. As to segregation, in every country the matter must be decided on its merits, such factors as geographical situation, grade of civilization, racial composition of the population, greater or less prevalence of the disease, and so forth, being taken into consideration. Dr. Gregory, be it added, does not admit the fish theory.

In conclusion, it is clear that the medical men responsible for the health of the colony are fully alive to the importance of the subject, and are actuated by the strongest feelings of humanity in their endeavours to deal with a matter bristling with difficulties. There can be no doubt whatever that Dr. Gregory and his staff are doing their best.

House Accommodation at Capetown.

The fundamental difficulties in front of the public health authorities at Capetown are still, and must for some time remain, the elementary ones of housing, food supply, and the control of infectious disease. A good water supply is already in existence; but much remains to be done in the matter of house accommodation. Dr. Jaspar Anderson, the medical officer of health, has recently had a careful survey made by the sanitary inspectors as to the manner in which the population is housed. The result shows that there are 3,771 single-room tenements inhabited by 7,703 adults and 3,442 children, or 14.5 per cent. of the total population of Capetown. In 529 of these tenements there is no kitchen or extra provision of any kind, so that the one room is used for cooking, living, sleeping, and, in some cases, for working purposes. There were found to be 1,831 two-room tenements, occupied by 5,249 adults and 3,056 children, or 10.8 per cent. of the total population of Capetown. Upwards of 8 per cent. of the population live in three-room tenements, and more than 6 per cent. live in tenements of four rooms. Roughly, therefore, some 40 per cent. of the whole city population reside in tenements of four rooms or less. The rent paid for single-room tenements varies from 3s. to 15s. a week. The medical officer writes:

> The cause of this overcrowding is chiefly the high rents demanded for the houses. A reduction in rent can, in my opinion, be brought about in only one way, and that is by the provision of houses of a suitable character in such numbers that, instead of there being a competition for houses, there is a competition for tenants.

The two chief differences between Capetown and London in this matter of overcrowding, if an area of Central London equal to Capetown alone be considered, will be found to be: First, that the percentage occupying two-room dwellings in the metropolis is much greater than that occupying one-room dwellings, and every year this proportion becomes more marked, and, secondly, the rents are lower. Judged broadly, it may be said generally that a high percentage of overcrowding in single-room tenements *plus* high rental indicates an extreme condition calling for vigorous measures. There are some 169 common lodging-houses in Capetown, and the medical officer has carried through a number of prosecutions for overcrowding in these places, obtaining penalties to the amount of £97. We fully recognize the difficulties, but if overcrowding in tenement houses were penalized in a similar way, the natural increase of the city population, which is out of proportion to the house accommodation, would in time be reduced. This appears to be harsh treatment, but it is sound policy, and in the end the most reasonable thing to do. The death-rate for the whole city is 23.9 (the lowest rate recorded for ten years), and the infantile mortality-rate 210.9 per 1,000 births, the lowest on record. Dr. Anderson's report is full of evidence of the excellence of the work that is being done, and it is certain that a vigorous and enlightened public health policy on behalf of the Corporation will have marked effect in a few years.

CEYLON.

Medical and Sanitary Report.

Sir Allen Perry's report for 1903 includes in one volume of moderate size information regarding all matters affecting the public health. The year was a healthy one. The birth-rate was 40 and death-rate 25.9 per mille, against 38.5 and 27.5 in the preceding year. The mortality caused by malaria, cholera, and small-pox was considerably lower; but there was a rise in enteric fever. The number of cases treated in hospital of the latter disease was 358, and 71 deaths took place among these. Most of the cases occurred in Colombo, and are attributed to contamination of well water by neighbouring cesspits. The decrease in cholera is explained by the quarantining of coolies at Ragama. The disease can always be traced back to India. Only 3 deaths were caused by small-pox, and the inhabitants of the island are reported to be well protected by vaccination. Dysentery is very prevalent, especially in the gaols, and leprosy seems to be on the increase. Ankylostomiasis is said to be brought by coolies from India, and spread by their careless habits. Only one case of plague was admitted at Galle. The arrangements for medical relief in Ceylon are very generous. There are 32 civil hospitals in which were treated 40,533 cases. There are special hospitals for females, lunatics, lepers, police, and prisoners. In addition there are 467 dispensaries in various parts of the colony. There is a medical school and bacteriological institute and a medical store, all doing useful work. A special investigation was held during 1902 and 1903 regarding the prevalence of malignant disease in the island. The conclusions arrived at were that cancer is a comparatively rare disease in Ceylon, that it is more common among males than females, occurs commonly over 40, and that the most common sites are the oral cavity and generative organs. Sarcoma is said to be much rarer than cancer. The frequency of oral cancer is attributed to the practice of chewing betel combined with tobacco, areca nut, and slaked lime.

Malaria in Ceylon and Mosquitos.

In a report to the Municipal Council of Colombo, Dr. Philip, the Medical Officer of Health for that town, reports on an outbreak of malarial fever at Mutwai. Five different species of *Anopheles* were found in the affected district, and amongst those many *Myzomyia culicifacies*, one of the chief carriers of malaria. It is unfortunate that time did not allow Dr. Philip to determine the number of infected insects found in the vicinity, or the presence and variety of the parasites met with in the population attacked. Such figures are always of the greatest value in advancing our knowledge of the epidemiology of malaria. The report, however, contains plenty of suggestions for the destruction of the *Anopheles* in the area. These are of the usual kind adopted now throughout the world, and, if carefully carried out, should certainly be beneficial in reducing the malarial index.

NEW ZEALAND.

Report of Chief Health Officer.

Dr. Malcolm Mason, the Chief Health Officer of New Zealand, has sent us a copy of the fourth annual report (1904) on the health of the colony, in which there are many signs of progress. Owing to increased vaccination and revaccination, imported small-pox has been in some measure "stamped out," and considerable progress has been made in coping with phthisis by means of sanatorium treatment. What is even more satisfactory to observe is the adoption of a policy of prevention in public health work in a fashion and to a degree impossible in Europe. For instance, efforts are being made to direct and control the growth of towns, and the arrangement of new streets and buildings. Cheap and rapid transit of the workers to and from the towns is also being considered. These matters are, of course, receiving attention in England, but at a stage in civilization frequently too late to effect radical changes, whereas in a new country like New Zealand there is opportunity to do much. The appendices to Dr. Mason's report contain particulars as to vital statistics, etc., which might suitably be summarized by the chief health officer. The death-rate for Auckland was 10.4 per 1,000, and for Auckland City 13.9; the infant mortality-rate was 120 per 1,000 births; the death-rate for Wellington was 11.3. The report is full of interest on many subjects but seems to us to require, at all events from its statistical point of view, a clear and succinct presentation.

AUSTRALIA.

Quarantine Conference.

The report of the Commonwealth of Australia Quarantine Conference, which met last June, has been issued. Medical delegates from New South Wales (Dr. Ashburton Thompson), Queensland (Dr. Burnett Ham), South Australia (Dr. Ramsay Smith), Tasmania (Dr. Elkington), Victoria (Dr. Astley Gresswell), and Western Australia (Dr. Lovegrove) attended. Dr. Gresswell presided, and the terms of reference included the consideration of (1) the advisability of taking over the

administration of the quaranttne laws from the several States; and (2) the provisions necessary or desirable to introduce in a federal quarantine Bill in regard to a number of preventive methods, including prevention of introduction and dissemination of disease, and quarantine of animals and plants. The advice of the Conference was also requested on a number of special subjects connected with quarantine.

The report contains replies to all the questions. A unanimous opinion is expressed that it is advisable for the Commonwealth of Australia to take over without delay the administration of the quarantine laws. The chief reasons assigned are the securing of efficiency and uniformity. The report comprises forty-three separate paragraphs, to which we have not space to refer in detail. We note that in regard to the much-discussed question of consumptives, the delegates report: "While this Conference is of opinion that danger of spreading tuberculosis attaches to admission to the Commonwealth of persons in indigent circumstances suffering from consumption if they are not provided with proper accommodation on shore, it has concluded that quarantining measures at the port of arrival would be impracticable." Another recommendation is in favour of the establishment of a biological laboratory for the use of the Director-General, and a further proposal is for uniformity and amendment of plague regulations.

SOUTH AUSTRALIA.

The City of Adelaide.

Dr. T. Borthwick, the Medical Officer of Health to the Corporation of Adelaide, has furnished his annual report for 1904 (ending September). The estimated population of the city for 1904 was 39,625, and in that population the death-rate for the year was 15.7. The birth-rate was 22 3, as against 27.7 in 1899, since which date it has steadily declined. The infant mortality-rate was 117 per 1,000 births. Phthisis has shown a gratifying decline, but there has been no diminution in other forms of tuberculosis. Typhoid fever has been less prevalent than for several years past, and the same may be said of diphtheria and scarlet fever. "No case or measles occurred during the year." The medical officer reports a variety of sanitary works during the year.

An attempt is being made to raise a sum of 5,000 dols. in order to secure a free bed for the use of distressed persons of British birth in the Good Samaritan Hospital at Los Angeles, California, which has recently been rebuilt. Title in the bed is to be vested in the British Vice-Consul, Mr. C. White Mortimer, and his successors in that office. Subscriptions may be sent either to him or to the Right Reverend J. H. Johnson, Bishop of Los Angeles.

Medical Legislation in America.—A Bill suggested by Coroner Dugan, as a result of several recent sensational murder trials, is to be submitted to the Pennsylvania State Legislature, prohibiting the use of embalming fluids containing arsenic, mercury, or carbolic acid, and directing that these agents shall not be used in the preservation of dead bodies. Another Bill makes vaccination compulsory on all persons who have not been successfully vaccinated within five years, and providing for arrest and fine for violation of the law. Another Bill provides for the examination and licensing of midwives. A Bill relating to vital statistics has been presented, making failure of midwives or physicians to report births, clergymen or magistrates to report marriages, or physicians to report deaths a misdemeanour. From the public health point of view the most important Bill introduced is one giving absolute power to the Boards of Health of all cities, counties, townships, and boroughs in dealing with cases of contagious disease. In the list of contagious disease, besides small-pox, diphtheria, and scarlet fever, are included chicken-pox, measles, mumps, whooping-cough, influenza, and pneumonia. In all cases the Boards are to have power to make rules for the notification of cases of these diseases by persons attending the sick, the quarantining and disinfecting of persons and premises, the placarding of notices, and the placing of guards to enforce these measures; the total destruction of infected bedding, clothing, or other articles; the care and burial of persons who may have died from any of the diseases mentioned; fixing the limit of time for burial; methods to be used in advertising the funeral; the disinfection of all conveyances used in the burial; the attendance of persons at public and private schools, and the compulsory vaccination of all persons employed therein.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship.

Arthur F. Hertz, M.A., B.M., Magdalen College, has been elected to a Radcliffe Travelling Fellowship for three years.

UNIVERSITY OF LONDON.

St. Thomas's Hospital Medical School.

The prizes for the work of the winter session at St. Thomas's Hospital have been awarded as follows: The William Tite Scholarship of £25 for Second year students, W. B. Johnson: the Musgrove Scholarship of £35 for Third year students, R. W. Rix; College prizes of £20 and £10 for Third year students, Messrs. J. A. Clarke and H. A. H. Robson. Prizes of £10 each for Fifth year students: *Medicine*, C. L. Morgan; *Surgery*, H. T. Gray; *Midwifery and Diseases of Women*, J. M. Wyatt; *Pharmacology*, Messrs. H. T. Gray and L. E. C. Norbury; *Forensic Medicine and Insanity*, L. E. Norbury; *Public Health*, G. J. Langley; the Haddon prize in Pathology, C. J. Langley; the Mead medal and Seymour-Graves-Toller prize for Practical Medicine, Pathology, and Hygiene, G. J. Langley; the Wainwright prize, H. R. Dean; the Cheselden medal for Surgery and Surgical Anatomy, L. E. C. Norbury.

UNIVERSITY OF EDINBURGH.

The following candidates have been approved at the Professional Examinations indicated:

First Examination: Chemistry.

J. R. Adam, D. Aiken, F. Armstrong, Janet Armstrong, Annie C. Austin, Alice E. M. Babington, T. H. Balfour, G. L. Batra, A. E. C. Beausoleil, R. A. Bell, W. M. Biden, J. G. Boal, T. C. Borthwick, A. M. Bose, E. O. Bowen, T. S. Bradburn, G. E. K. Branch, W. G. Brand, F. A. J. Brodziak, Peter de Bruijn, W. F. Buist, O. S. Bullock, W. L. Burgess, B. N. Burjoree, A. W. Burton, J. A. Campbell, J. A. H. Carter, J. Cathcart, J. P. Charnock, A. D. Child, B. R. Chopra, H. A. Cookson, N. A. Coward, J. J. Chrichton, J. Crockett, Lucy E. Davies, R. W. Davies, I. D. Dickson, Adelaide A. Dreaper, F. A. Duffield, J. M. Elliot, A. M. Elliott, T. R. Evans, H. G. Feltham, G. F. Fismer, A. G. Forbes, F. R. Fraser Mary M. Gardner, G. H. Garnett, A. W. Gill, T. J. Gilmore, R. L. Girdwood, M.A., V. H. Gordon, W. E. Goss, R. W. Greatorex, F. W. Greaves, A. G. Hamilton, E. S. B. Hamilton, R. Hamilton, R. C. Harkness, J. Henderson, Julia V. Henslow, H. Hutson, G. B. Inglis, Flora R. Innes, A. B. Jamieson, W. C. Jardine, W. D. S. Johnston, A. M. Jones, J. H. Jones, S. A. Karim, R. R. Kerr, C. E. King, Lina Kurz, J. M. Lal, J. H. Lawry, Janet Leiper, H. E. A. Lemerle, L. A. Lewis, H. Lipets, W. R. Logan, H. A. V. Lootze, J. C. Lorraine, W. H. Low, H. F. Lumsden, J. C. MacCallum, A. J. M'Connell, W. Macdonald, T. M'Fetridge, R. B. Macfie, Mary E. B. M'Ilwaine, J. Mackail, M.A., G. E. G Mackay, J. M. M'Keand, A. S. Mackenzie, A. D. M'Kenzie, J. T. M'Kenzie, W. M'Kie, D. Mackinnon, A. M'Nair, D. MacPhail, R. D. M. Macpherson, R. C. MacQueen, A. G. Macvie, S. D. Main, T. H. R. Mathewson, D. B. Maunsell, W. M. Menzies, W. Messer, E. L. Middleton, A. F. Miller, G. M. Miller, R. W. Miller, A. M. Minford, L. M. V. Mitchell, J. B. de W. Molony, J. Montgomery, Flora Morrison, J. A. Mortimer, J. M. Moyes, Rhoda M. Murdoch, W. J. Nisbet, H. O. O'Neill, J. E. Orchard, J. E. T. Oxley, R. J. E. Paterson, A. N. Pollock, Ella F. Pringle, S. P. P. Proctor, J. Renwick, D. G. Robertson, J. Robertson, W. S. Robertson, Agatha M. Robinson, C. Rogers, D. M. Ross, W. Ross, R. P. Rosser, Jessie A. Scott, J. M. Scott, S. C. Sen-Gupta, K. R. G. Shah, K. Simpson, G. H. Sinclair, W. Skirrow, T. W. Smart, H. F. Smith, B.A., J. C. Smith, M.A., J. Stevenson, W. Stevenson, F. M. Stewart, J. D. G. Stewart, W. Stewart, E. A. Strachan, R. K. S. Sutherland, J. Swan, L. W. O. Taylor, H. W. Teague, J. A. Thompson, W. S. Thomson, S. G. Tibbles, Mary M. M. Turpie, J. Ware, A. Watson, J. H. Watson, W. S. Watson, J. Welsh, S. Williams, R. C. Wupperman.

Second Examination.

Marion H. Archibald, M.A., Mary F. Bignold, A. Bremner, T. Buchan, T. Burrell,* R. A. Campbell, R. J. Chapman, W. G. Cobb, C. E. A. Coldicutt, C. H. Corbett, F. W. M. Cunningham, F. J. Davidson, M. Douglas, M.A., J. C. Drysdale, G. L. Duncan, A. D. Edington, R. Edwards, P. A. Euvrard, S. B. Faulkner, T. Y. Finlay, W. Fleming, W. S. Forbes, S. Forrest, M.A., J. Fraser, D. Geddes, J. R. Gibb, M.A., R. M. Glover, J. M. Grant, J. G. Greenfield,* A. R. Gunn, D. J. Guthrie, F. G. Harper, G. Henderson, A. F. Hewat, J. R. Hill, J. K. A. Hofmeyer, J. H. Horne, T. J. Hughes, A. Hunter, H. B. Hunter, M.A., W. L. Johnston, J. F. Mackay, J. L. Mackay,* A. T. Mackenzie, M.A., R. E. M'Laren, J. A. Manifold, F. W. Michael, G. G. Middleton, Margaret M. Miller, A. P. Mitchell, J. Morrison, J. Muckart, W. Murdie, M.A., F. V. Nanka-Bruce, J. J. H. Nelson, Katherine Nelson, B.A., Hilda M. Northcroft, J. L. H. Paterson, L. D. Stephen, Dorothy W. Stevenson, L. H. F. Thatcher, C. A. Thelander,* C. P. Theron, B.A., D. Thomson,* Lydia K. Towers.

Third Examination.

J. A. Ainscow, J. Alexander, M.A., W. L. L. Alston, E. H. Black, R. Bladworth, F. H. Bradley, J. W. Brebner, E. M. Brook, W. S. Buist, Alice N. Brown, S. T. Champtaloup, A. E. Chisholm,* S. E. Corner, M.A., D. M. Cotterill, R. E. Cunningham, J. A. Currell, J. S. Daniell, A. M'D. Dick,* J. H. Dickson, A. M. Drennan,* J. D. C. Duncan, R. Duncan, S. S. Dykes, N. S. Fraser, L. Gibson, G. L. Gordon, M. C. R. Graham, G. R. Grieveson, G. Gunn, J. R. Hall, H. W. P. Henderson, M.A., J. B. Johnston, N. W. Kidston, Olive T. Leonard, W. Lumsden, A. T. M'Donald, J. W. S. Macphee, T. S. M'Intosh, M. M'Lean, Helen M. Macmillan, J. B. M'Morland, A. C. B. M'Murtrie, K. W. D. Macrae, A. S. M'Tavish, J. N. M'Turk, D. Mann, G. M. Melville, Ada E. Miller, Agnes E. Porter, A. Prieston, G. Raffan, Mabel L. Ramsay,* E. N. Richardson, J. Ritchie, R. M'N. Robb, W. S. I. Robertson, J. Scott, T. H. Scott, H. L. Sells, Alice C. Sharp, R. C. S. Smith, R. St.C. Stewart, A. D. Stewart, R. R. Tample, W. B. Tannahill, D. R. Taylor, C. H. Tewsley, H. A. Thorburn, F. J. G. Tocher, Annie D. Urquhart, R. H. Walton, A. I. S. Walwyn, W. E. R. Williams, Marion E. Wilson, Emily C. Wyburne.

The following passed under the new regulations:

G. P. Adshead, J. H. Aikman, M.A.; A. F. Babonau, J. D. Bowie, H. F. Briggs, C. H. Burgess, J. M. Christie, W. Core, M.A.; A. Davies, D. D. Dunn, J. S. Edwards,* R. Fraser, J. W. Frew, E. C. Girling, W. L. Gordon, K. K. Grieve, Nettie D. Hendrie, A. S. Holden, W. T. A. Jolly, A. G. K. Ledger, A. Leitch, P. Lornie, J. M'Cutcheon, W. K. M'Donald,* J. N. Maclaggan,* J. A. Macleod, J. S. Manson, L. P. Mathers, C. P. Milne, H. J. More, G. Pollock, Edith Pycroft, E. Russell, W. O. Selater, G. D. Simpson, E. R. Thompson, J. N. Turnbull, A. G. Visser, E. F. C. Wallis, O. H. Williams, Ethel Wiseman, and A. W. Young.

* With distinction.

GRADUATION CEREMONY.

At the Spring Graduation Ceremonial, on Friday, April 7th, the honorary degree of LL.D. was conferred on Professor William Watson Cheyne, C.B., F.R.C.S., F.R.S., etc.; Sir Arthur Conan Doyle, M.D.; Dr. Hughlings Jackson, F.R.S., F.R.C.P.; Dr. Augustus D. Waller, F.R.S., Director of the Physiological Laboratory of the University of London; and on Colonel Sir Frank E. Younghusband, K.C.I.E.

The degree of D.Sc. in the Department of Public Health was conferred on Robert Martin Beattie, M.B., C.M., B.Sc. The degree of B.Sc. in the same department was conferred on John Crawford, M.B., C.M.; Robert Laurie, M.B., Ch.B., and Francis Watson More, M.B., Ch.B.

The degrees of M.B. and Ch.B. were conferred on Ernest Augustus Aylward.

UNIVERSITY OF ABERDEEN.

GRADUATION CEREMONY.

The following degrees in medicine were conferred at the Graduation Ceremony on Friday, April 7th:

Degree of M.D.—R. Grant, M.B., C.M. Thesis: Clinical Observations on the Summer Diarrhœa of Infants (under old regulations). A. R. Laing, M.B., C.M. Thesis: Some Experiments with Disinfectants, chiefly Formalin (commendation). A. Ledingham, M.A., M.B., Ch.B. Thesis: A Contribution to the Natural History of Enteric Fever.

Degrees of M.B., Ch.B.—R. Brown (with second class honour), Mary R. Bisset, A. Brown, D. Coutts, A. Dawson, W. A. Ellwood, W. G. Gordon, W. Low, M.A., *J. B. McDiarmid, J. E. Merrit, *A. Mitchell, M.A., J. Proctor, W. E. Reid, J. Sangster, J. A. B. Sims, R. H. Spittal, J. M. Taylor, M.A., Lisette A. M. Wilson.

* Passed Final Examination with distinction.

Pass Lists.

The following candidates have completed the Third Professional Examination:

H. Begg, W. Begg, W. Campbell, R. Chalmers, J. M. Clark, J. G. Copland, †G. F. Dawson, Mary W. Durno, R. J. Duthie, W. M. Ferguson, A. D. Fraser, †J. F. Gill, J. F. Grant, A. P. Hall, S. C. Howard, A. Hutton, C. V. Impey, W. B. Keith, A. Kellas, †A. S. Leslie, D. B. McGrigor, A. K. McKenzie, J. R. Mackenzie, †W. A. H. McKerrow, N. MacPhail, R. W. MacPherson, D. J. Marr, Sophie J. Meiklejohn, *W. L. Millar, M. A. Milne, *J. E. Mitchell, J. H. Moir, J. Murray, S. V. Van Nickerts, J. Raffan, P. M. Rennie, A. N. E. Rodgers, J. A. Scharenquivel, *F. J. Stuart, W. H. Wishart.

* Signifies distinction; † much distinction.

The following candidates have passed the Second Professional Examination:

W. Abel, E. E. Allaway, D. Anderson, W. Angus, J. W. Archibald, J. W. Barnett, Agnes V. Baxter, J. S. Beedie, J. A. M. Clark, A. L. E. F. Coleman, *W. J. Dilling, J. Ferries, *R. P. Garrow, †N. S. Gilchrist, H. W. Glashan, W. I. Gordon, T. G. Gray, L. H. Hay, *A. Horn, *D. Horn, *J. E. Kesson, B. Knowles, J. W. Littlejohn, J. M. Mathieson, H. Middleton, *B. Mitchell, G. Mitchell, J. Mitchell, S. W. Munro, J. Murray, A. M. Niven, A. Noble, A. W. R. Pirie, A. H. Skinner, W. L. Stewart, J. J. P. Wilson, J. M. Wilson.

The following have passed a portion of the Second Professional Examination:

J. Leask, G. H. C. Lumsden, W. J. Macintosh, J. M. McQueen, J. P. Mitchell, A. E. C. Myers, A. J. Pirie, J. Robertson, R. W. A. Salmond, J. E. G. Thomson.

The following have passed the First Professional Examination for the Degrees of M.B., Ch.B.:

C. D. S. Agassiz, W. Anderson, J. S. Annandale, D. Craig, J. G. Danson, D. S. Earden, *A. Gray, F. M. Greig, W. B. Hargreaves, Mabel Hector, G. F. Hunter, J. B. Macallam, C. McKerrow, *R. McRae, B. W. Martin, W. Mearns, *J. L. Menzies, A. J. Milne, J. J. A. Neil, P. Nicol, W. J. Pirie, J. Rae, *G. C. Soutter, D. M. Spring, W. Taylor, J. H. Will, C. G. Wood.

* Signifies distinction; † much distinction.

Prizes.

The following have been awarded gold medals for the Session 1904-5:—Fife Jamieson Gold Medal in Anatomy: Agnes V. Barter, M.A. The Lizars Gold Medal in Anatomy: N. S. Gilchrist, M.A., and Alexander Horn (equal). Keith Gold Medal for Systematic and Clinical Surgery: A. S. Leslie, M.A. Shepherd Memorial Gold Medal for Systematic and Practical Surgery: Alexander Dawson. Dr. James Anderson Gold Medal and Prize in Clinical Medicine: Alexander Mitchell, M.A. Matthews Duncan Gold Medal in Obstetrics: John M. Taylor, M.A.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.

At the monthly business meeting of the President and Fellows on Friday, April 7th, William Osler, M.D., McGill University, F.R.C.P.Lond., Regius Professor of Medicine in the University of Oxford, was duly elected an Honorary Fellow of the College. At the same meeting Edmond Joseph McWeeney, M.D., R.U.I. 1891, L.R.C.P.I. 1896, M.R.C.P.I. 1900, D.P.H. 1899, Examiner in Pathology, R.U.I., Pathologist, Mater Misericordiæ Hospital, Professor of Pathology and Bacteriology, Catholic University, Bacteriologist to the Local Government Board in Ireland, was duly elected a Fellow of the College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ELECTION OF EXAMINERS.

A MEETING of the Fellows will be held on Tuesday, May 2nd, at 4.30 p.m., pursuant to the provisions of the Supplemental Charter, to witness the election of the following Examiners: Two Examiners in Anatomy, four Examiners in Surgery, two Examiners in Physiology and Histology, two Examiners in Pathology and Bacteriology, one Examiner in Midwifery and Gynæcology, one Examiner in Biology, two Examiners in Ophthalmology, one Examiner in Sanitary Law and Vital Statistics, one Examiner in Engineering and Architecture, two Examiners in Chemistry and Physics, two Examiners in Dental Surgery and Pathology, two Examiners in Mechanical Dentistry, one Examiner (not being a Fellow or Licentiate of the College) in Languages, one Examiner (not being a Fellow or Licentiate of the College) in Mathematics, Physics, Dictation, and English Essay. "Graduates of any University which may be from time to time recognized by the College shall be eligible for election as Examiners in the subjects of general education. All the other Examiners shall be Fellows or Licentiates of the College. Persons engaged in private teaching are not eligible to be Examiners." Candidates are requested to lodge their applications in writing with the Registrar at the College on or before Tuesday, April 25th, at 10 a.m.

CONJOINT COLLEGES IN IRELAND.

The following candidates were approved at the Spring First Professional Examination:

R. H. F. Taaffe (with Honours), P. N. Allman, H. F. Blood, B. W. Farrell, C. Greer, W. Mulcahy, G. C. Sneyd, F. Reardon.

The following have now completed the above examination:

A. J. M. Blake, B. G. S. Belas, L. S. O'Hare, Miss Nora Williams, O. H. Woods.

The following candidates were approved at the Spring Second Professional Examination:

M. H. O'Sullivan (with Honours), S. Blake, W. Bomford, J. Ellenbogen, G. S. Levis, A. E. S. Martin, G. W. Stanley, E. Waide.

The following completed the examination:

B. Foley, T. C. Casey, T. Fehilly, G. J. M. Martin, D. Sheehan.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION.

Part I.

The following condidates were approved at the April examination in the subjects indicated:

Biology.—H. S. Brown, E. C. R. Fisher, F. S. Hawks.

Chemistry.—U. J. Bourke, W. E. Dimond, F. S. Hawks, H. H. Smith.

Materia Medica and Pharmacy.—H. S. Brown.

Part II.

Anatomy.—D. E. S. Davies, A. R. Hardy, P. J. Lush, O. Marshall, P. D. Pickles, C. S. Spencer, E. F. Waddington, M. V. Webb.

Physiology.—F. M. Cunningham, D. E. S. Davies, A. R. Hardy, O. Marshall, P. D. Pickles, C. S. Spencer, M. V. Webb.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

A FURTHER meeting of the Royal Commission on the Care and Control of the Feeble-minded took place on April 10th, when the first evidence given was that of Miss P. D. TOWNSEND and Miss JEFFERIES, who attended on behalf of the National Association for Promoting the Welfare of the Feeble-minded. They thought the most desirable way to assist the mentally defective was to require county councils to provide industrial colonies for their accommodation, and to remove feeble-minded persons of all ages from the charge of the Poor-law guardians.

Dr. TREADWELL, Medical Officer at Parkhurst Prison, stated that weak-minded convicts there had the ordinary prison rules somewhat relaxed in their favour. A part of the prison was set apart for them, special officers looked after them, and they were employed in the work of a market garden, and at road scraping, sewing, etc. A certain number of convicts not actually classed as weak-minded, yet lapsed into habitual criminals owing to evil influences. Many of these, if taken in hand early and kept for a time in labour colonies, might be reclaimed; but, taking weak-minded convicts all round, there would remain a large number who should be subjected to life-long control if the aim were the protection of society from further crimes on their part.

Dr. J. H. WILSON, Medical Officer of Pentonville Prison, gave his experience of the feeble-minded among the criminal classes at Millbank, Woking Invalid, and Pentonville prisons. The feeble-minded adult convict, who was in nearly all cases an offshoot from the defective juvenile, became in nearly all cases also an habitual criminal. He was acquainted with whole families of professional criminals, and had known various members of them as juveniles.

INSPECTION OF VACCINATION.

J. H. B.—There is no office of "Medical Inspector of Public Vaccination," but the medical inspectors of the Local Government Board are entrusted with the task of inspecting the work of the public vaccinators and vaccination officers in addition to their general duties in connexion with the sanitary administration of the country. Their salaries, according to *Whitaker's Almanack*, vary from £500 to £800 per annum, and their appointment is in the hands of the President of the Local Government Board, and is not open to competition. The names of the present medical inspectors may be found on page 36 of the current year's issue of the *Medical Directory*.

HARD WATER.

M.B., R.U.I. writes: Is a water supply to which lime is added to remove the hardness likely in any way to be unsuitable for drinking and cooking purposes?

*** Excess of lime tends to increase hardness, and therefore the softening of water by the lime process in a large degree adjusts itself. At the same time it should be remembered that limestone waters are believed to be a cause of goitrous conditions.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TREATMENT OF VESICAL CATARRH.

TABIB asks for advice in the treatment of an obstinate case of vesical catarrh of a mild nature in a middle-aged man. The patient would be willing to go to a hydropathic establishment.

HAIR FALLING OUT.

GWALLT has a patient, a lady 32 years of age, who had luxuriant hair and is gradually losing it: he would feel grateful for advice. No cause can be discovered for the thinning.

***The best course to adopt in this case would be to seek the advice of a dermatologist. It is not possible to suggest a treatment for such a case in a proper medical manner without seeing the lady; it would be like shooting in the dark. There are a variety of formulae in medical works on the subject.

ANSWERS.

ENLARGED BURSA PATELLAE.

M.B. writes: In a similar case to that of "M.R.C.S." (BRITISH MEDICAL JOURNAL, April 8th, 1905), after treating it with counter irritation for a month with no visible improvement, and as there was an unusually large amount of fluid I wanted the patient to allow me to puncture the bursa with a small trocar and evacuate the fluid. The patient, however, asked me to give it time, and kept on with the iodine painting. About three weeks after there was considerable improvement, and now—ten weeks in all—the swelling has gone, and the patient is quite well, and is very glad she did not allow any "cutting." The patient did her household work as usual with the exception of kneeling. I would therefore advise "M.R.C.S." to paint with iodine, and give the case time. If he evacuates the fluid it will most likely fill up again, as I have found it do.

LETTERS, NOTES, Etc.

STRYCHNINE POISONING IN A CHILD.

DR. ISDELL (London) writes: Dr. Pooler, in his interesting account of a case of strychnine poisoning (BRITISH MEDICAL JOURNAL, April 8th, p. 767) says that the fact of the child taking strychnine for over a month must have produced a certain amount of "toleration" (which is, I think, a better word than "immunity" in this connexion). Now, is it a certainty that the system can become tolerant of strychnine, as it can of opium? I remember, when I was a student, a fully-qualified man, who was doing work for a friend in Steevens's, was attacked by some form of convulsion. He was apparently a healthy man, but had been taking a tonic mixture which contained strychnine. One of our physicians, the late Dr. Grimshaw, without any hesitation ascribed the attack to the cumulative effect of the medicinal doses of strychnine.

DR. H. LECHMERE CLIFT (Carlisle) writes: In the BRITISH MEDICAL JOURNAL of the 8th inst. Dr. Pooler, in his very interesting account of a case of strychnine poisoning in a child, makes the remark that "the fact that she had been taking the drug regularly for over a month must certainly have produced some amount of immunity." I think most observers will agree with me that the prolonged use of strychnine produces no "immunity," but, on the contrary, it has a cumulative action. It is excreted, unchanged, very slowly in the urine, and a patient who has been taking the drug constantly in physiological doses is liable to manifest toxic symptoms if he takes a slightly larger quantity than usual, a quantity which would have no effect on one not "used" to the drug. Some months ago I was ordered to take strychnine regularly as a tonic, and on two occasions I found that by simply taking two full pharmacopoeial doses too quickly in succession some unpleasant poisoning symptoms followed.

SPIRILLUM FEVER IN UGANDA.

DR. DAVID NABARRO (Hampstead, N.W.) writes: In the BRITISH MEDICAL JOURNAL of April 1st, 1905, p. 713, there is an article by Drs. Hodges and Ross, of the Uganda Medical Service, on "Cases of Spirillum Fever in Uganda." These observers state that their first case came under observation on October 23rd, 1903, and add that "as up to this time no case of spirillum fever has been recognized as such or recorded in Uganda, a special interest attached to this discovery." I am surprised at Drs. Hodges and Ross making this statement, because at the time they made their discovery Captain Greig and myself were in Entebbe, Uganda, on the Sleeping Sickness Commission of the Royal Society, and we told them (for they were working in the Commission's laboratory and were indebted to the Commission for the monkey used for experimental inoculation) that a case had come to the notice of the Commission in the previous August (1903), the patient, a native of Uganda, having been admitted to hospital as a case of sleeping sickness. There were, however, no signs of this disease, but the patient had recurrent attacks of fever, and, on two occasions, spirochaetes were found in the blood. This case has been embodied in our report to the Royal Society written as long ago as November, 1903, the publication of which has been unavoidably delayed. Probably owing to the long interval that had elapsed, Drs. Hodges and Ross had forgotten about our case, the nature of which was clearly recognized at the time.

THE TEACHING OF PRACTICAL MIDWIFERY.

DR. ALEXANDER DUKE (London) in the course of a letter on this subject writes: The letter of Dr. Green in your last issue on the above subject I entirely agree with, and consider it would be most interesting to compare the percentage of septic cases after delivery by students attending hospitals with those attended by midwives alone. I maintain that any poor woman has more care and a better chance of escape from septicaemia when attended by a male student from the hospital than the woman who can offer no fee, attended by one of her own sex.

THE EVOLUTION OF PUBLIC HEALTH ADMINISTRATION.

DR. J. S. C. ELKINGTON (Chief Health Officer for Tasmania) writes: I regret that a typographical error in my Departmental Report for the half-year ending June 30th, 1904, should have stigmatized the New Town Government herd as possessing 66 per cent. of tubercle-infected animals. The sentence upon which your remarks in the issue of January 28th, 1905, p. 203, are based should, as you there surmise, run "4 of the 24, or 16·6 per cent. . . . were found to show the infection." Subsequent tests made on private herds failed to substantiate even this proportion of reactions. The numbers are as yet, however, too small, and the data of technique, etc., insufficient for obtaining any definite conclusions as to the prevalence or otherwise of bovine tuberculosis in Tasmania.

ACUTE CORROSIVE SUBLIMATE POISONING.

DR. H. L. DONOVAN (Acock's Green) writes: White of egg is recommended in the treatment of certain cases of poisoning; but eggs are not always to be had. In a case of great emergency would it not be well to induce the sufferer to drink blood, even some of his own?

LOBAR PNEUMONIA FOLLOWING MEASLES.

DR. JAMES CARMICHAEL (Edinburgh) writes: In Dr. Bottomley's short note of pneumonia in measles (BRITISH MEDICAL JOURNAL, February 4th, 1905, p. 237) I agree with his statement, which accords with my own experience, that the pneumonia of measles is frequently lobar in distribution, but this does not prove that it is not a bronchopneumonia. It is well known that measles pneumonia is due to a mixed infection of various organisms, that large areas of lung are generally affected with more or less splenization of all the lung tissues giving rise to general consolidation. The fact which Dr. Bottomley notes that copious moist sounds were heard during the entire course of the disease, proves conclusively to my mind that the cases were not croupous or pneumococcus pneumonia, as in this disease the air-cells and bronchioles being more or less completely blocked by the exudate few or no moist sounds are heard except in the very early or later stage of the disease. In bronchopneumonia, on the other hand, the air enters more or less into the air cells and bronchioles (except in collapsed lobules) during the whole course of the disease, and thus you have crepitant râles present during the whole period. This, indeed, is a most characteristic physical sign as between bronchopneumonia and croupous pneumonia (pneumonic fever).

THE GARDEN THERMOMETER IN CLINICAL PRACTICE.

DR. R. E. FOOTT (Wood Green) writes: A young man came to me with a long, written list of his father's symptoms. At the end his temperature was entered as being 92° F. I said to him, "Are you sure you took his temperature correctly?" "Oh, yes; quite certain," he said. I said, "What kind of an instrument had you?" "Oh," he said, "I got the garden thermometer, and he kept it close into his stomach for a long time."

WAR OFFICE WISDOM.

WE are indebted to the *Pharmaceutical Journal* for the following delightful example of War Office ineptitude. It is said that during the South African war the War Office contracted for a very large number of tumblers. After the order was placed it occurred to some wise man in the office that there might conceivably be a shortage of medicine glasses, and that it would be a convenience if all regimental glasses were marked, so that in emergency they could be used as medicine glasses. Notwithstanding the fact that the manufacturers pointed out how heavily this would increase the cost of the glasses, the War Office authorities decided in favour of universal medicine glasses, and medicine glasses they had, and medicine glasses the British taxpayer had to pay for.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
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A whole column	2 0 0
A page	5 5 0

An average line contains six words.

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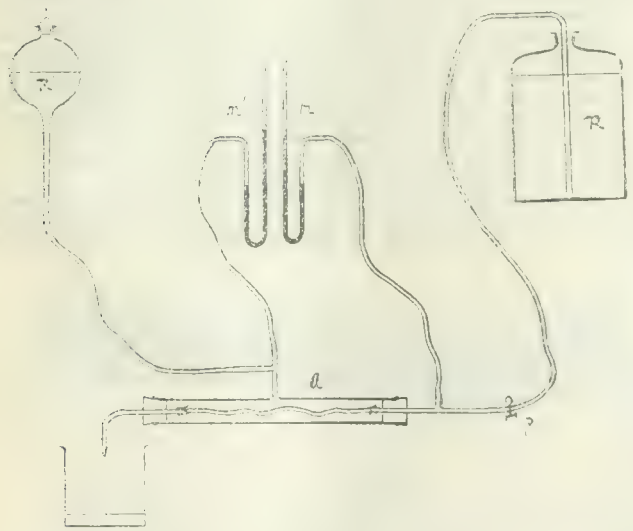
Remarks
ON
THE DETERMINATION OF ARTERIAL BLOOD PRESSURE IN CLINICAL PRACTICE.

By C. J. MARTIN, M.B., D.Sc., F.R.S.,
Director, Lister Institute of Preventive Medicine, London; late Professor of Physiology, University of Melbourne.

The importance of determining arterial blood pressure for the clinician need hardly be emphasized, for such knowledge is essential to the interpretation of circulatory conditions in health and disease. Indeed, I imagine such information to be in many cases as important as any obtained by listening to the sounds of the heart or feeling the pulse. I conclude that the reason why blood-pressure determinations are not more generally made by English physicians is entirely owing to the fact that they have found the apparatus available unhandy or unreliable.

I am aware that many physicians have been, and perhaps still are, of opinion that they are capable of gauging arterial pressure with sufficient accuracy by means of their fingers. With the acquisition of technical skill it is possible to do much by this means, but the method is only qualitative and liable to considerable fallacy. In estimating by the finger the force necessary to compress an artery one relies upon muscular sense. A perfectly educated muscular sense would give one a good indication of the force applied—but only of the force applied, and not necessarily of the pressure in the artery, for the force necessary to compress an artery under such circumstances varies not only with the pressure distending it but also with the area compressed—that is, with the size of the vessel.

Fig 1.



One easily compresses with the fingers the small carotid artery of a rabbit, but that of a large dog requires a much greater expenditure of force; nevertheless the pressure in the former may be, and often is, greater than in the latter.

Methods which have been Employed for Pressure Determinations.

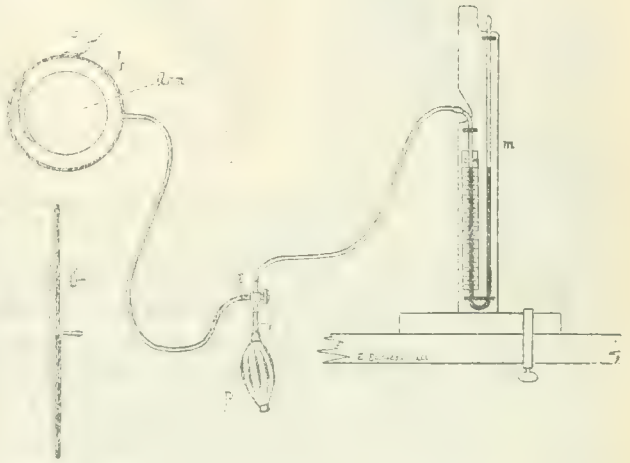
These all depend on balancing the pressure on the inside of the vessel by an external pressure and interpreting the former in terms of the latter.

As the pressure inside an artery is periodically varying by some 30 to 50 mm. of mercury it is necessary to decide at which stage in the variation one is to attempt to determine it; whether at the moment of systole or at what period during diastole.

The simplest and easiest point to ascertain is the systolic pressure, and this is, I believe, the only determination which can be made with accuracy without opening the vessel, and for practical purposes I think the observation of the maximum systolic pressure is of as much value to the physician as that at any other period of the cardiac cycle.

A prime consideration in any method of determining internal pressures in a tube by balancing them by an external pressure is the part played by the wall of the tube itself.

Fig 2.



If the wall possesses any considerable amount of elasticity or resistance to being collapsed or expanded, this will obviously have to be added to or deducted from the external pressure. For instance, an attempt to estimate the pressure in a piece of rubber tubing by measuring the external pressure required to be applied around it in order to obliterate all flow, would lead to considerable error, for in this case a pressure greatly in excess of the internal must be applied externally, owing to the resistance which even a thin rubber tube exercises against complete collapse at the corners.

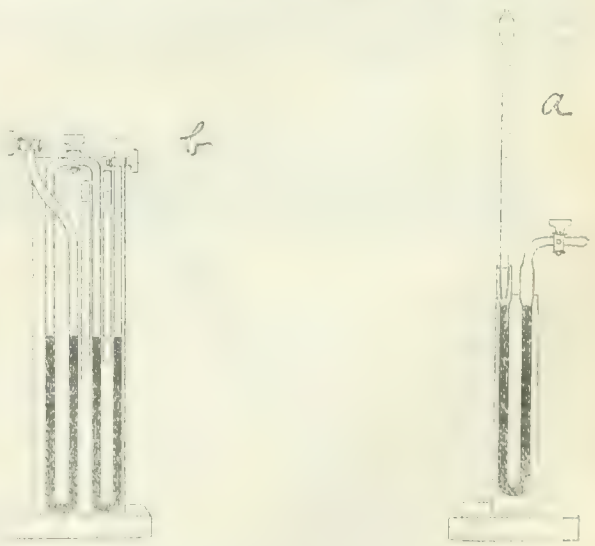


Fig. 3.

An artery, however, is a very special kind of tube, and von Basch[1] found that until it is stretched beyond the limits of pressure which it may be subjected to under physiological conditions it offers a quite negligible resistance to either collapsing or expanding, namely, 1½ to 2 mm. for a healthy and 5 mm. for an artery from a case of arterio-sclerosis.

This very striking fact can be easily demonstrated by a simple experiment illustrated in Fig. 1.

A is a piece of glass tube about $\frac{3}{4}$ in. in diameter, into the ends of which two rubber corks are inserted. The corks are pierced by two glass tubes, on to the ends of which the piece of artery is secured. One of the glass tubes is a T-piece communicating with the reservoir R containing water at some feet above the level of A, and also with a mercury manometer, M. When the pinch-cock, P, is opened, a small stream passes through the artery, and the manometer M records the internal pressure. The glass tube at the outlet is drawn to a fine point so as to offer considerable resistance. A is filled with water and is in connexion with manometer M′ and reservoir R′. The latter can be elevated at will by a pulley and winch.

To measure the elastic resistance opposed by the walls of the artery when collapsed by a pressure from outside, P is opened and water flows through the apparatus: R′ is now raised until the flow just ceases.

The difference in height between the mercury columns in the two manometers registers the pressure required to collapse the arterial walls.

With a normal artery—for example, carotid of man, horse, or large dog—this pressure was in my experiments only 2 mm. of mercury, and in an advanced case of arterio-sclerosis it was 7 mm.

One may therefore conclude that a determination of the external pressure necessary to obliterate an artery is a valid indication of the internal pressure in health within 2 mm., and that in extreme cases of sclerosis about 7 mm. must be deducted from the observed external pressure.

A considerable number of pieces of apparatus have been introduced from time to time with the object of estimating blood pressure in man, by raising the pressure on the outside of an artery until it equals that inside and at the same time measuring the pressure exerted.

These fall into two distinct groups:

(*a*) In which the pressure is applied only over a superficial artery and its immediate surroundings: Vierordt,[2] von Basch,[3] Hill and Barnard[4] (small instrument), Oliver.[5]

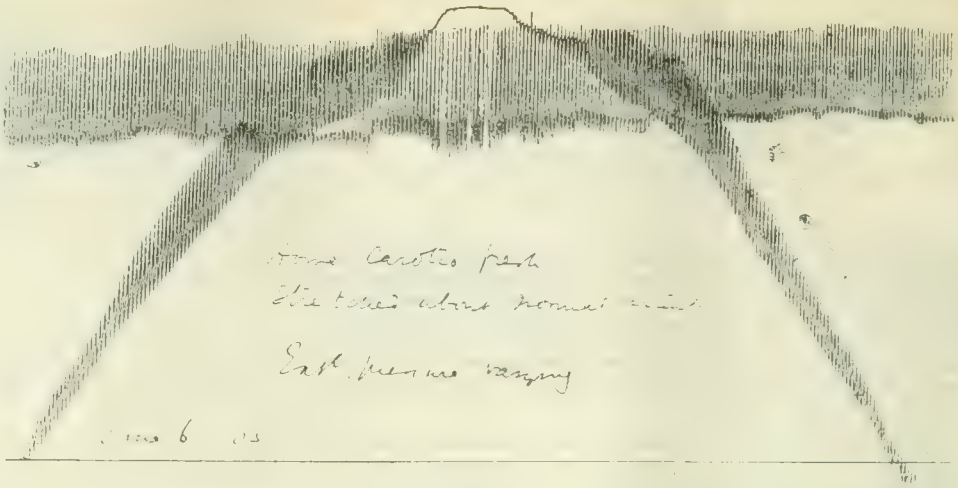


Fig. 4.

(*b*) In which the pressure is applied by a bag completely surrounding the limb or finger, or enclosing fingers, or the whole hand and fore-arm (plethysmograph): Riva Rocci,[6] Hill and Barnard[7] (large instrument), Gärtner,[8] Mosso,[9] Marey.[10]

I have used nearly all these various forms of apparatus, and I will now state my experience of the various methods.

A. The type in which a superficial artery is compressed by a small rubber bag over it is exemplified by Hill and Barnard's pocket sphygmomanometer and Oliver's haemodynamometer, as well as by the older instrument of von Basch.

In using the instruments of Hill and Barnard and Oliver one is recommended to take the pressure at which the maximum oscillation occurs, and to regard this as representing the mean pressure in the vessel. Von Basch's instrument is used to compress the artery, and the pressure in the bag at which pulsation in the parts beyond disappears is regarded as the criterion of the blood pressure.

These small instruments I have not found very reliable, and they nearly always indicate pressures considerably in excess of those shown by the second type mentioned above. The inflation of a bag encircling the arm until the pulse beyond vanishes cannot mislead one in the direction of too low a reading, so that the fault must rest with the smaller instruments, which are pressed down upon a superficial artery.

To ascertain the reason why this form of manometer generally records too high a pressure I dissected out a good length of the carotid artery in dogs, and connected the

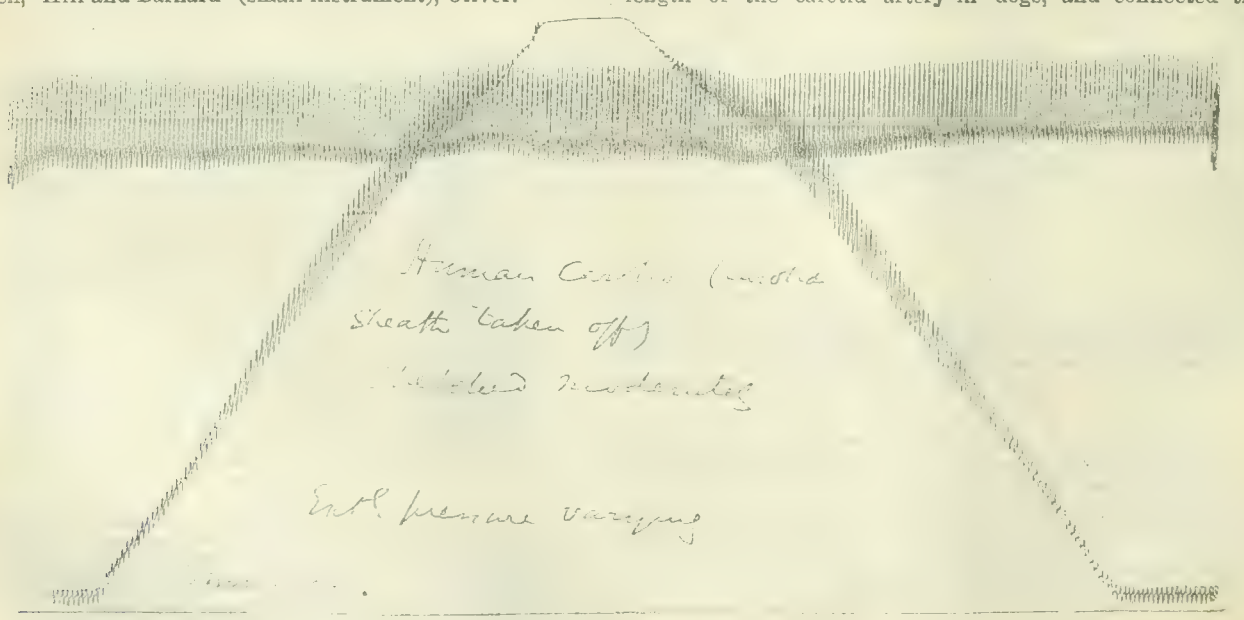


Fig. 5.

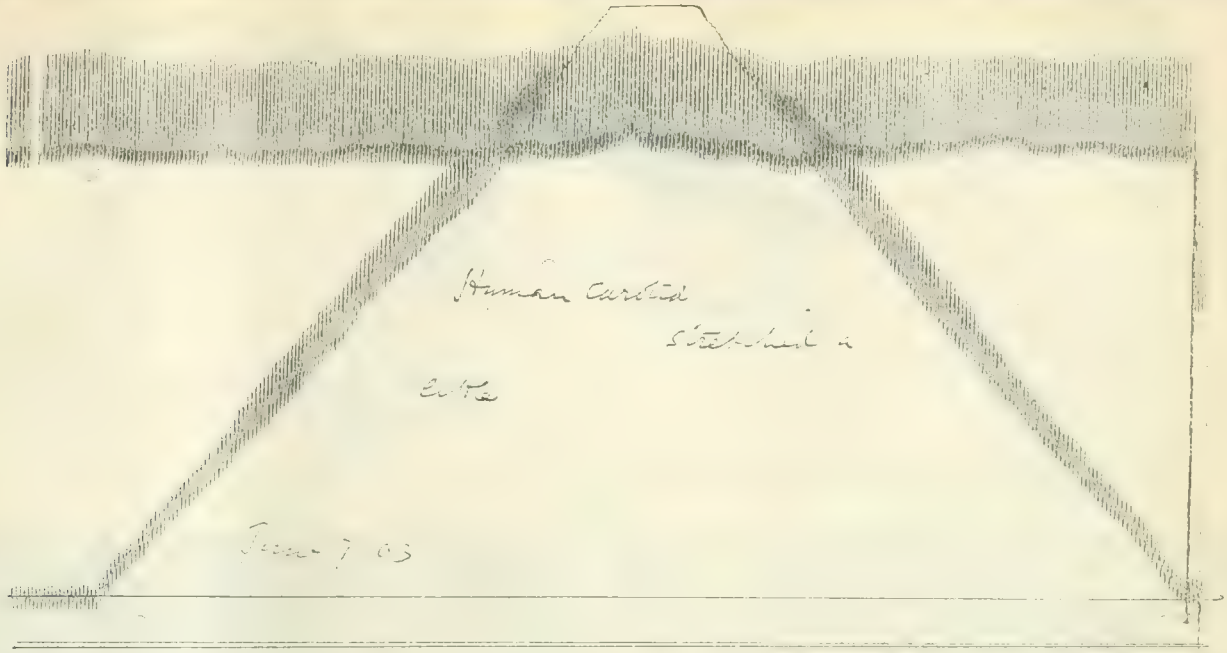


Fig. 6.

external carotid to a mercury manometer registering the pressure. The long piece of common carotid was laid upon a solid block of smooth wood, and the sphygmomanometer or haemodynamometer pressed down upon it until:

(*a*) The maximum oscillations occurred, and

(*b*) The pulse vanished from the manometer record.

Used in this way both instruments recorded pressures upon condition (*a*) at or about the mean pressure shown by the mercury manometer, and under condition (*b*) at or about the systolic pressures, and were always consistent. Therefore, used under these circumstances I have nothing to find fault with in them, assuming that the point of maximum oscillation can be taken as a good indication of blood pressure. The nearest approach to these ideal conditions is when the instrument is applied over the temporal or superficialis volae artery.

I next tried placing the artery upon a smooth surface, but in a slight groove, and found at once that considerably higher pressures, 20 to 30 mm. mercury, had to be exerted to obliterate the pulse or produce the maximum oscillation.

It is, I think, easy to see why this should be so. Supposing one pushes down the rubber bag over an artery lying on a flat surface until the flow is obliterated, the pressures per unit area in the bag and upon the artery will be approximately the same, or at any rate the instrument can be graduated so that it shall correctly record under these conditions.

If, however, the artery is lying between two more or less rigid structures, as the radial lies between the flexor carpi radialis tendon and the slope of the radius, directly pressure is brought upon the vessel it will recede, and in order that the bag may follow and compress it, some amount of aneurysmal dilatation must occur. Under these conditions the pressure recorded in the interior of the bag by the manometer or anaëroid is greater than the pressure exerted by the outside of the aneurysmal dilatation upon the artery, owing to the extra pressure required to produce this distortion of the rubber membrane, and the readings will be too high.

In the usual mode of employment on the human subject, the conditions are more nearly comparable to the second experiment.

Another very common fault, but not one of principle, is due to the fact that the fluid in the pads of Oliver's haemodynamometer evaporates and leaves the upper and lower surfaces concave instead of convex. Under these conditions they at once read too high. This can be remedied by injecting glycerine with a fine hypodermic needle passed obliquely through the rubber.

I do not, however, dispute for a moment the results brought forward by the inventors of these instruments, nor do I doubt that in their hands they may give consistent results. I can only say that in my hands in the laboratory and at the hospital they have proved very unsatisfactory and misleading, and have given readings almost invariably too high. I may mention that I find that my experience is not unique.

B. Methods in which the pressure is applied by a bag enclosing or completely surrounding a limb.

The method in which a limb is enclosed in a chamber (plethysmographic) was introduced by Marey[11] and elaborated by Mosso.[12] Although the apparatus of both of these physiologists possess much importance historically, they are not well adapted for use outside the laboratory, and I do not propose to further discuss them.

In 1897 a very simple and efficacious method of estimating the maximum systolic pressure in the brachial artery was introduced by Riva-Rocci.[13]

The original Riva-Rocci instrument consisted of a rubber cuff, not unlike a small piece of the inner tube of a bicycle tyre. Rather more than one-half of the circumference (the outside) of the tube forming the cuff was covered with a supporting layer of canvas. The interior was connected by a T-piece with a pump and a manometer. The cuff was slipped over the upper arm and blown up until the radial pulse disappeared. This point was read off on the manometer and regarded as the blood pressure in the brachial artery.

Riva-Rocci tested his apparatus upon animals in which the blood pressure was recorded by a manometer connected with the interior of an artery, and found it accurate.

This method has been extensively employed in clinical practice on the Continent and in America, and with a few modifications, to be discussed directly, has been found entirely practicable and reliable.

A year later Hill and Barnard[14] introduced an instrument founded on a similar principle. In their instrument, the interior of which is connected with a manometer and a pump, a piece of thin-walled rubber tube is wrapped around the upper arm and supported on the outside by means of a strip of leather broader than the rubber tube and secured by straps. The manometer is of anaëroid form. Their apparatus can be used in the same way as Riva-Rocci's to determine the maximum systolic pressure, but they prefer to inflate the tube until the point at which the maximum oscillations of pressure as shown by the manometer occur. This point they regard as equal to the mean arterial pressure, and on experimenting with their apparatus on a dog, in which the arterial pressure was simultaneously observed by connecting the interior of an artery with a mercury manometer, they found this to be the case.

Notwithstanding the fact—and it is a fact—that the instruments of Riva-Rocci and Hill showed the true arterial pressure when tried upon the limbs or neck of a dog, both these instruments as originally introduced—as was pointed out by

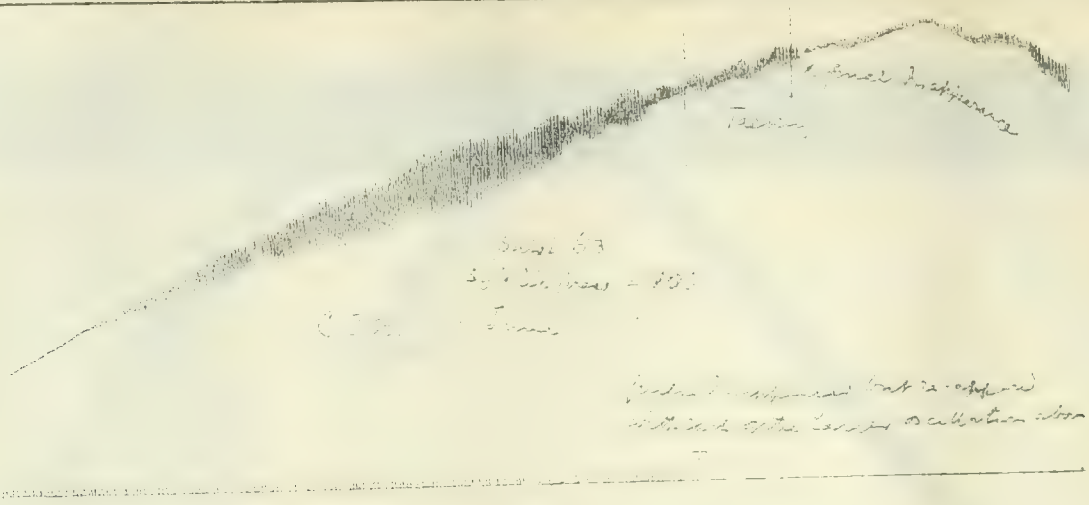


Fig. 1.

v. Recklinghausen[15]—indicate pressures which are considerably higher than the actual arterial pressure. V. Recklinghausen showed that this was due to the rubber tubes used to encircle the arm being too narrow.

The following series of observations of simultaneous pressures in the brachial arteries of the two sides with bags of different widths shows that v. Recklinghausen's criticism is well founded:

Width of Bag.	J. B. Obliterating Pressure.	C. J. Obliterating Pressure.
2 in.	116 114	112 108
3 ,, ...	112 110	108 106
4 ,, ...	106 104	100 100
4½ ,, ...	94 96	96 100
5 ,, ...	94 96	98 102

On another occasion I experimented upon two different individuals with even narrower bags, and obtained the following pressures simultaneously:

	4 cm. bag. (1.6 in.)	5 cm. bag. (2.0 in.)	10 cm. bag. (3.9 in.)	12 c.cm bag. (4.7 in.
C. J.	123	110	93	94
G. H.	136	119	106	105

A bag of at least 4 in. broad is required for an average arm. There is a relation between the breadth of bag necessary to give the minimum reading and the size of the limb (C. F. Gumprecht[16] and Hensen[17]). So broad a bag is not required with the small limbs of children or animals, which explains why the narrow armlet of the original Riva-Rocci gave correct readings upon dogs.

Another precaution must be mentioned. It is essential that the two free ends of the bag overlap. If the two ends fail to meet readings in excess of the true pressure will be obtained.

Provided these conditions are fulfilled any instrument upon the Riva-Rocci principle is reliable for determining the maximum pressure in the brachial artery with an error of less than 4 per cent., and this magnitude of the error is dependent upon the accuracy with which the individual can determine the presence or absence of pulsation in the radial.*

A simple and inexpensive form which I have been in the habit of using in the Physiological Laboratory at Melbourne for the last five years consists of a bag of thin rubber $\frac{1}{75}$ of an inch in thickness, 14 in. long and 5 in. broad, connected with a four-way piece of glass by stout-walled rubber tube. In using this apparatus the thin rubber bag was wrapped round the arm, supported by a wider piece of thin sheet lead and secured by straps. The other three limbs of the four-way piece were connected with (*a*) a U limb mercury manometer fitted with a paper millimetre scale, (*b*) a small bicycle pump, (*c*) a piece of rubber tube with a screw clamp upon it which is used to relax the pressure.

To fulfil the requirements of the physician, this arrangement of pieces of laboratory apparatus can be modified without increasing its complexity and without greatly increasing the expense. The following description refers to an arrangement which has been used during the last two years by many of my clinical friends, and which has undergone minor modifications at their suggestion, with a view to increasing its convenience. The form of bag described was shown me by Dr. Mummery at a recent meeting of the Physiological Society, and is the best I have seen. This form does away with the inconvenience of the supporting lead or leather.

The apparatus consists of a flat bag 14 in. long and $4\frac{1}{2}$ in. broad (*b*, Fig. 2), one side of which is composed of thin rubber $\frac{1}{75}$ in. in thickness and the other side of a mixture of rubber and canvas, from the centre of which a short length of tubing projects.

The interior of the bag communicates by flexible rubber tube with a four-way piece of brass (*t*). This junction is in communication on the one hand with a mercury manometer (*m*), and on the other with a rubber ball (*p*). The tube connecting with the ball contains a valve (*v*). The fourth way of the junction is closed by a screw and leather washer, by loosening which the air in the system may be allowed to leak out.

The manometer is of the ordinary U-tube variety, $11\frac{1}{2}$ in. in length; the internal diameter of the tube is $\frac{1}{10}$ in. One limb is provided with a scale in millimetres. The glass tube is fixed to an upright piece of wood fitted into a wooden base, which, when in use, can be clamped to the table for greater security. The upright piece of wood with attached manometer is removable from the base for convenience of packing in a box.

The manometer can be carried in any position, provided the ends be secured with rubber caps. The whole apparatus is fitted into a box 13 in. by 4 in. by $2\frac{1}{2}$ in. in such a way that there is no danger of damaging the glass tube.*

In using the instrument the bag is wrapped evenly round the right upper arm of the patient, either next to the skin or over soft clothing, so that the ends overlap. It is secured in position with two broad pieces of webbing. With children the bag can be placed round the thigh.

The arm and hand of the patient must rest upon a table at the level of the heart. The fingers of the observer's left hand

* Mummery has recently repeated the experimental observations of Riva-Rocci and Gumprecht (*Proc. Physiol. Soc.*, February 25th, 1905) and compared on the dog readings from a Riva-Rocci instrument with blood pressures directly recorded by a mercury manometer and found agreement.

* The apparatus in this form and fitted in a neat walnut box is made for me by my late assistant, Mr. E. Burgess, Summer Road, East Molesey, Surrey, and costs 25s. complete. New rubber bags can be supplied, 5s. each.

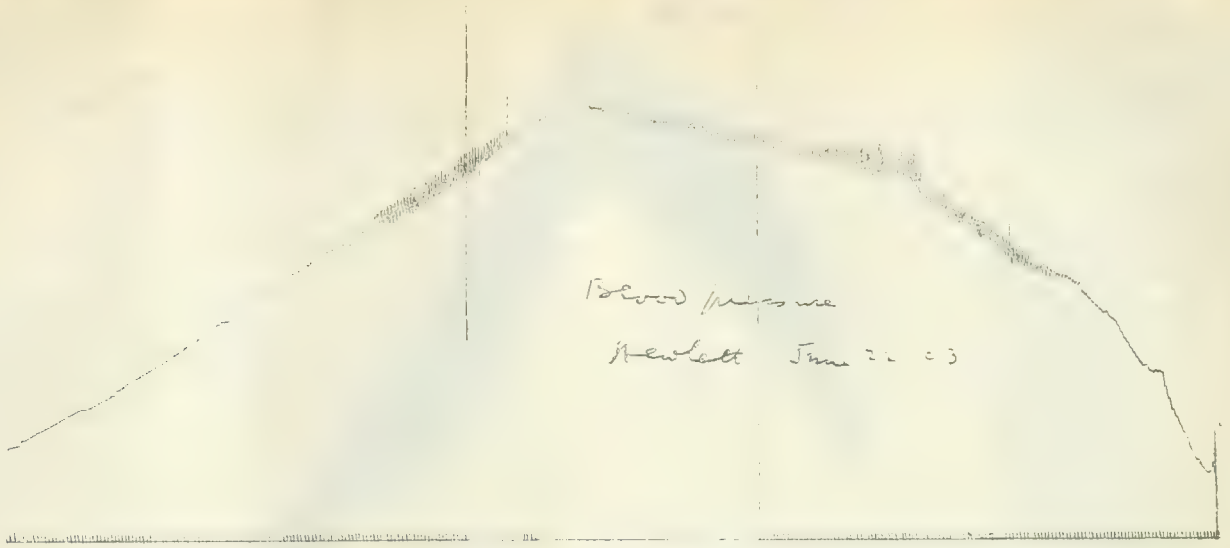


Fig. 8.

being kept upon the pulse, the pressure of the bag is slowly raised by squeezing the ball with the right hand until the pulse can no longer be felt.* At this point the depression of the mercury in one limb of the manometer is read on the scale, and this doubled (the mercury having risen correspondingly in the other limb) is a measure of the maximum systolic pressure at the time.

On raising the pressure very gradually towards the end an intermittent disappearance of pulsation in the radial may often be observed. This is due to the rise and fall of arterial pressure consequent upon respiration.

The patient must be kept quite quiet, as the slightest effort or excitement (for example, talking) raises the pressure. The mental disturbance caused by the idea of having a blood-pressure determination made may in a new patient send up the pressure 40 mm. of mercury! It is well to take a second reading later in the interview. This rise occurs when there may be no visible expression of excitement whatever.

Modifications of the manometer with the view of diminishing its length have been introduced by Sahli,[18] who has suggested both a single U limb jointed manometer (Fig. 3, *a*), made in two sections, and also a double U limb manometer (Fig. 3, *b*) in which, of course, the total difference of level of the mercury is distributed over the two limbs. The length of the manometer is thereby reduced to one-half. These modifications, however, increase the cost and fragility of the instrument, and I doubt whether the advantage gained is adequate.

Gärtner's ring sphygmometer is in principle the same as Riva-Rocci's, but on a very much smaller scale, adapted for use upon a finger. It consists of a metal supporting ring about 1 cm. broad, on the inside of which is a thin-walled hollow rubber ring, the interior of which communicates with a pump and a manometer. The ring is passed on to the middle phalanx of the finger, and the distal portion rendered bloodless by a special thick-walled rubber fingerstall, or a stout umbrella ring rolled slowly along the finger will do. Having blanched the peripheral portion, the small rubber ring of the instrument is pumped up so as to stop the circulation, and the fingerstall or umbrella ring removed. The pressure in the rubber ring is now allowed to slowly fall until the colour commences to return in the blanched portion, when the pressure in the manometer is read off. The return of colour indicates that the pressure in the bag is less than the systolic pressure. Gärtner's instrument possesses the advantage of being small and compact, and not requiring the removal of any clothing. It is not so accurate as the Riva-Rocci, because it is not so easy to determine slight changes in colour as to say when the pulse disappears, or, to use a chemical term, the end-point is not so delicate.

According to v. Recklinghausen[19] the ring is too narrow, and often gives too high readings in consequence. The pressure in the digital arteries is about 8 mm. less than in th brachial.

* The disappearance of pulsations in the manometer must not be taken as an indication that the artery is obliterated (see later).

The Point of Maximum Oscillations as the Criterion i Determinations of Blood Pressure.

Throughout this article I have displayed a bias in favour o using the determination of the maximum systolic pressure rather than taking the point at which maximum oscillation in pressure occur, for indication.

I am strongly of opinion that the maximum systoli pressure is the only point in the varying pressures of th cardiac cycle which can be determined with any degree o accuracy without opening an artery, for the following reasons

1. The maximum oscillations are not infrequently sprea over a very considerable range of pressure, so that it is difficul to determine when the oscillations are maximal, as they tai off gradually on each side, the only safe method being t raise the pressure until one is certain that they diminish an record this point, then to lower the pressure until undoubte diminution again occurs, and take the mean.

2. Exactly at what phase in the varying pressures of th cardiac cycle the maximal oscillation occurs is the subject o a difference of opinion. Tschlenoff[20] says this occurs at th systolic, Sahli[21] at the diastolic, Hill[22] at the mean pressure and Roy and Adami[23] at a point just above the minimu intravascular pressure.

As to what is the relation of pressure in an externa compressing bag applied to the arm to that in the brachia artery when maximum oscillations occur in the former is no a problem very easy to solve.

As a first instalment towards its solution I put an arter inside a glass cylinder, as in Fig. 1, but, instead of it bein connected to a head of pressure in a reservoir, a stream o water was pumped through it by an intermittent pump i order to imitate the circulatory conditions. The oscillation of pressure in this artificial circuit and those of the fluid i the tube surrounding the artery were recorded by manometer supplied with writing floats and arranged to record upo a travelling surface.

The pressure of the water outside the artery was slowl raised and lowered by raising the small reservoir (R', Fig. 1) thus imitating some of the conditions obtaining when blowin up the bag of a Riva-Rocci armlet.

Figs. 4 and 5 are records of experiments with the arterie of a horse and a man respectively, and show that in these ex periments the maximum oscillations occurred when the mea pressure outside was about halfway between the systolic an lowest diastolic pressures.

On the other hand, Fig. 6, which represents an experimen made with the same human carotid as Fig. 4, but les stretched, gave maximum pulsations in the external pressure which are distinctly subdiastolic. In fact, by varying th stretch of the artery I could modify the position of th maximum oscillations at will.

I then sought to obtain some light on the question by takir

a large number of graphic records of the oscillations of pressure in a Riva-Rocci armlet during the time that the pressure was gradually raised, as in using the instrument. To this end I inflated the bag with warm water instead of air, as otherwise the inertia of the mercury in the manometer would be too great to record satisfactorily. A float and style with writing point were attached to the open limb of the manometer and the pressure recorded upon a travelling smoked surface. In these experiments (200) the pressure at which the pulse was obliterated was also indicated by stopping the electrically-controlled time record by means of a key operated with the foot. The time-recording line also indicates the zero of pressure in these tracings. The raising and lowering of pressure was managed by means of a two-way cock, through which either water under pressure could be slowly driven into the bag, or what was already therein allowed to escape. I have a large number of such tracings from normal individuals and patients with a variety of circulatory disturbances from which I have chosen two types to illustrate this paper. It will be seen that the pulse is signalled as having disappeared from the radial whilst the oscillations are still marked, and with high pressures often nearly maximal. This is due to the transference to the upper edge of the bag of the exaggerated pulsation of the portion of the brachial and its branches above the point where it is obliterated. This introduces an important source of error when the point of maximum oscillation is taken to indicate mean arterial pressure.

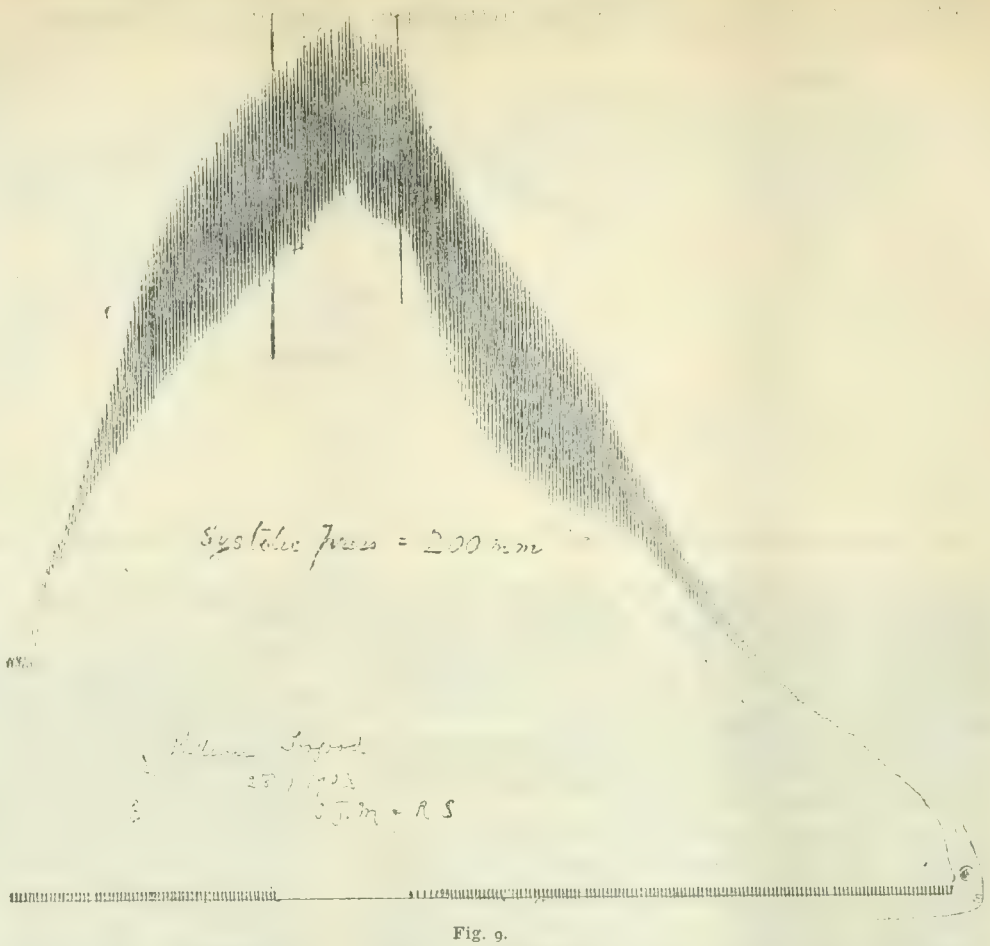


Fig. 9.

Fig. 7 shows a record from a healthy young adult, and Fig. 8 from another healthy adult. The obliterating pressure in both instances is practically identical, but the relation of the pressure at which maximum oscillations occur to the systolic pressure is quite different, although the pulse-rate is the same (63).

From other considerations in these two cases, I believe the variations in pressure during the cardiac cycle were greater in the individual from which the tracing recorded in Fig. 7 was taken, so that the mean pressure would be lower.

Fig. 9 is from an old man with considerable arterial sclerosis and failing heart and a high pressure (200 mm.). In this tracing the maximum oscillations occur at the systolic pressure with rising pressure in the instrument, and considerably below with falling pressure. This variation in the position of the greatest oscillations with the conditions under which the record is taken not infrequently occurs, and is a serious indictment against the employment of maximum oscillations as an indication of blood pressure.

From the analysis of 90 records under all manner of circulatory conditions, taken for me by my friend Dr. Embley, I find that the average ratio of pressure at which maximum oscillations occur to obliterating pressure is very nearly 0.8, but the variation from this average is very considerable, 0·96 to 0·6.

The higher figures for this ratio were always obtained in cases exhibiting big pressures, and the lowest in cases of marked incompetence of the aortic valves. I think, therefore, there is no doubt that the maximum oscillations of pressure in the Riva-Rocci instrument usually occur about the mean pressure as maintained by Hill,[24] but that there are conditions peculiar to the method which influence the position of the maximum oscillations, and make this observation less valuable as an indication of arterial pressure than the methods in which the obliteration of the pulse is employed as the criterion of the systolic pressure.

The observation of Hill that maximum oscillations do occur at or about the mean pressure shown by a mercury manometer connected with the artery of an animal when a rubber bag is used to compress the limb, I have been able to confirm; but I think that as employed in man this is less constantly the result than one is led to believe from his experiments and my own.

In conclusion, I wish to express my indebtedness to Dr. Embley for much valuable assistance in experiments in the taking of a large number of records upon which the conclusions recorded above are based.

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THE SPITTING NUISANCE AT DAVOS.—By an ordinance recently issued by the local authorities at Davos every consumptive patient is required to carry a pocket spittoon, and is forbidden to spit on the floors, on the streets, pavements, and footpaths, and also on the snow. The penalty for breach of the regulation is a fine not exceeding 50 francs (£2). It is to be hoped that, in the interest of the place as well as of the inhabitants and visitors, the ordinance will be rigorously enforced.

A CASE SIMULATING INTRACRANIAL TUMOUR

IN WHICH RECOVERY WAS ASSOCIATED WITH PERSISTENT CEREBRO-SPINAL RHINORRHOEA.

By T. R. GLYNN, M.D., F.R.C.P.,
Professor of Medicine, University of Liverpool.
WITH A NOTE BY
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Pathologist and Assistant Physician, Royal Infirmary, Liverpool; Lecturer in Clinical Pathology, University of Liverpool.

The subject of this affection was sent to me early in 1899 by Dr. Owen Evans of Liverpool. The following is my note of his condition at this period:

He was an electrical engineer, aged 21. He had suffered from paroxysmal pain in the head and vomiting for twelve months. His family history was good. His parents and two brothers were alive and well; a third brother and his only sister died at the ages of 2 and 5 from infantile disorders. With the exception of very occasional attacks of migraine, his health, up to the time of the present illness, had been perfect. He had been a well-conducted, industrious youth, and had never had syphilis.

In June, 1898, he suffered from ammonia poisoning, owing to the bursting of a pipe in a refrigerating store; for a day or two he was laid up with headache and vomiting, and was unable to return to work for a fortnight. Two months afterwards, when in a coal mine and walking in a stooping attitude, he struck the top of his head against a beam, temporarily lost consciousness, and vomited. He soon recovered and returned to his lodgings, where mustard was applied to the back of the neck to relieve severe headache; in a few days he went home to Liverpool, as he was too ill to work. He remained at home for a fortnight, and then, feeling better, attempted to resume his duties, but the headache and vomiting returned, and he was henceforth compelled to give up his occupation.

During the twelve months before his first visit to me in 1899 the headache generally occurred about every fourteen days; for the first few months it was limited to the forehead, and subsequently was usually confined to the back of the head; it continued for three to four days, and was associated with vomiting, giddiness, and depression, so that he was obliged to remain in bed. Occasionally also pain in the head and vomiting disturbed him in the night. Dr. Evans noted that during these paroxysms of pain the pupils were widely dilated. He also experienced certain choking sensations, at times attended with much agitation. Double vision on looking to the left was complained of within two months after the onset of the headache. In the intervals between the spells of headache he suffered from want of energy and some failure of memory and giddiness, any attempt to stoop causing him to fall forwards.

He was a well-formed, healthy-looking young man. There was some weakness of the left external rectus, the pupils were dilated, reaction normal, vision normal, with the exception of some concentric restriction of the visual fields; marked optic neuritis, knee-jerks exaggerated, plantar reflexes absent; abdominal and cremasteric reflexes well marked on the right, less marked on the left side; marked left hemianalgesia; gait normal. He usually slept well, and had a good appetite. The thoracic and abdominal organs were normal.

The next note I have of his condition is dated January, 1900. He reported that during the past twelve months he had been better, and sometimes almost fit for work. The paroxysms of headache had been less frequent and less severe; the double vision annoyed him but little. He, however, was still unable to stoop. The optic neuritis persisted, and there was little change elicited on physical examination.

During the next twelve months he distinctly became worse; the headaches never occurred in their usual violent form, but were occasionally troublesome. His memory became very defective, he grew lethargic and childish, laughing loudly on the slightest provocation. Taking little exercise and eating well, he became stout, and his sight failed so that V. = $\frac{1}{12}$. The pupils were dilated and sluggish, there was slight nystagmus, and marked weakness of left external rectus. He reeled in walking, and complained of weakness of the legs and of a tendency to fall forwards, and on several occasions had tumbled on his face. He was unable to walk down hill without assistance owing to an inclination to run. His legs frequently failed suddenly, causing him to collapse to the ground, and on such occasions he could not rise without help; this accident usually happened on passing from a warm to a cool atmosphere. His arms became weak, and there was volitional tremor of the hands; he frequently dropped articles he happened to be holding.

In the summer of 1901 I found that his pupils were widely dilated. Nystagmus was present. He reeled in walking and was inclined to fall forwards on standing with his eyes closed. There was distinct failure of muscular power of the extremities and tremor of the hands. Slight ankle clonus and absence of the abdominal, cremasteric and plantar reflexes.

During the following twelve months he continued to fail gradually. He no longer complained of headache and rarely vomited, but his intelligence continued to deteriorate; he became apathetic and indifferent to his condition. He could not add two simple figures together and his memory was completely lost. He was nearly blind, and was too weak to stand long without support. On three occasions he suffered from epileptiform attacks, in each of which he remained a long time comatose: one of these convulsions occurred in bed during the night and two during the day. Incontinence of urine set in; unless frequently passed, it ran away during the day and escaped involuntarily in bed at night.

Such was his condition when, in June, 1903, clear fluid commenced to escape in drops from the right nostril and immediately he began to improve, his mental vigour and muscular strength returned, and his sight was restored. The progress toward recovery was rapid, since he was early in August able to walk twenty miles.

I saw him in February, 1904, and found him almost completely restored to health; he complained only of slight failure of memory, some loss of energy, and of the discharge from the nose. The optic neuritis and all the other symptoms of cerebral mischief had disappeared.

I found that some clear fluid escaped from the right nostril. The discharge was collected by my son, Dr. E. E. Glynn, and found by him to present the characteristics of cerebro-spinal fluid.

On a subsequent occasion—October, 1904—he stated that he felt perfectly well, that his memory was as good as ever, and that he had returned to work. He continues to enjoy good health, but the rhinorrhoea persists. Dr. Hunt kindly examined the nasal cavity and found it normal.

Note by Dr. Ernest Glynn.

The discharge of fluid only occurs when the patient inclines his head slightly forward, and is especially troublesome when reading or writing, he is then obliged to blow his nose frequently, but as the discharge does not stiffen his handkerchief, one easily lasts him a whole day. The rate of the flow when sitting with the chin depressed varies from 1 to 5 drops a minute. When the head is held straight up, as in walking and sitting erect, the discharge ceases, the fluid apparently passing down the back of the nasal fossa into the pharynx, though its passage cannot be seen with a laryngoscope. The quantity of fluid escaping on different occasions, when the patient was sitting with his head forward, was as follows:

February 28th, 1904, 0.86 c.cm. in 30 minutes, at the rate of 41 c.cm., or 1 oz. 3 dr. per diem.

November 7th, 1904, 6.1 c.cm. in 45 minutes, at the rate of 194 c.cm., or 7 oz. per diem.

December 5th, 1904, 4.2 c.cm. in 50 minutes, at the rate of 120 c.cm., or 4 oz. 2 dr. per diem.

January 16th, 1905. 5 c.cm. in 55 minutes, at the rate of 131 c.cm., or 4 oz. 3 dr. per diem.

Examination of Fluid.

1. When fresh it is clear as water, and faintly alkaline. Its specific gravity obtained by weighing 6 c.cm. is 1007.

2. On acidifying with acetic acid there is a faint opalescence which passes through filter paper. A similar opalescence appeared in specimens of cerebro-spinal fluid obtained by lumbar puncture from three other patients; it is therefore probably not due to mucin washed out of the nose, but to nucleo-albumin.

3. On acidifying with acetic acid and boiling, a faint but distinct cloud appears, which is insoluble in nitric acid, and gives the xantho-proteic reaction for albumin.

4. By saturating the fluid with magnesium sulphate in the usual way and filtering, it was found that both globulin and serum albumin were present, the precipitate of the latter being the denser.

5. By precipitating the proteids in 10 c.cm. of the fluid with absolute alcohol, and drying and weighing the precipitate, the proteids amounted to 0.112 per cent.

6. The fluid when recently secreted reduces freshly prepared Fehling's solution, but if kept for a few days it becomes turbid from the growth of bacteria, and the reduction is then very faint or completely absent.

7. Drops of the fluid inoculated with aseptic precautions into tubes of agar and blood serum always yielded mixed cultures.

8. Fifteen c.cm. of the fluid were examined for choline with a negative result. The absence of choline is consistent with the patient's complete recovery from all cerebral symptoms.

9. Twelve grams of potassium iodide taken by the mouth in solution, or in gelatine capsules, produced the iodine reaction in the saliva in a quarter of an hour, and in the drops from the right nostril in half an hour, and also in a swab of the secretion of the other nostril. The test employed was starch paper and fuming nitric acid.[1]

10. Two grains of methylene blue taken as a pill did not appear in the fluid collected one hour afterwards or during the next two days. In case the methylene blue was secreted in a reduced and colourless form, specimens of the fluid were oxidized with peroxide of hydrogen, or by boiling with acetic acid; they were finally shaken up with chloroform with a negative result.

11. The fluid when centrifuged for ten minutes invariably contained a few multinuclear leucocytes and an occasional lymphocyte. The number of these cells was approximately 37,400 per c.cm. or 37.4 per c.mm. This result was obtained in the following manner: Four c.cm. of freshly-secreted fluid were centrifuged for ten minutes, a measured quantity was then poured off, and the remainder shaken up with an equal amount of methylene blue solution. The cells in this mixture were sufficiently numerous to count in a Thoma-Zeiss haemocytometer, thus the number of cells in the original fluid was eventually calculated.

That the fluid is cerebro-spinal is proved by its physical characteristics, its specific gravity, the small percentage of proteid and the presence of a reducing agent formerly called pyrocatechin but now believed to be glucose.

The invariable presence of a few polymorphonuclear leucocytes proves that the production of the cerebro-spinal fluid is associated with inflammation, which must be slight because the number of these cells is small, and the percentage of albumin and the specific gravity is not really higher than normal. In order to make sure that these polymorphonuclear leucocytes were not possibly derived from the normal secretion of the nasal mucosa being washed off by the cerebro-spinal fluid, the other nostril was douched out with water several times. A turbid fluid was obtained. This, when centrifuged, contained many lymphocytes and other cells, but no polymorphonuclear leucocytes.

It has long been known that the subarachnoid fluid sometimes escapes from the cavity of the skull in fractures at its base, but the possibility of its spontaneous discharge through the nose without such serious injury was not suspected, and is not hinted at in textbooks on medicine, or in special works on neurology. To Dr. StClair Thomson belongs the credit of recognizing this curious form of rhinorrhoea and of demonstrating the principles on which the diagnosis of the affection depends.[2]

Further, Dr. StClair Thomson also merits the distinction of directing attention to the remarkable fact that cerebro-spinal rhinorrhoea is almost invariably accompanied by cerebral symptoms. This conclusion was arrived at as the result of the clinical investigation of a case of the spontaneous escape of cerebro-spinal fluid from the nose under his own care, and of painstaking bibliographical research.

From various sources, and under various names, he collected 20 cases presenting more or less the characters of cerebro-spinal rhinorrhoea; 8 of these being precisely similar to his own case, and 12 closely resembling it, and from the material thus brought together he created a fairly distinct clinical picture of a new affection. Out of the 21 cases, 17 exhibited cerebral symptoms, and in 8 there were retinal troubles. Another example of the disorder—that is, of cerebro-spinal rhinorrhoea with cerebral symptoms—has recently been reported by M. Vigouroux.[3]

Dr. StClair Thomson suggests that internal hydrocephalus may be the cause of the cerebral symptoms, the retinal troubles and the cerebro-spinal rhinorrhoea, and my case tends to lend support to this opinion; for, as will presently appear, the group of symptoms presented by my patient were characteristic of acquired internal hydrocephalus of the adult.

The quantity of fluid discharged in cerebro-spinal rhinorrhoea varies; in the cases collected by Dr. StClair Thomson the maximum amount was 24 oz. in 24 hours, the minimum 8 oz.; while in M. Vigouroux's patient it was 28 oz. in the same period. In my patient the maximum amount secreted in 24 hours was estimated at 7 oz. less than any hitherto recorded case. The rate of flow varies considerably, for on other occasions it was 1 oz. 3 dr. and 4 oz. 2 dr. A similar variation has been noted in other patients.

In the majority of cases of cerebro-spinal rhinorrhoei the fluid flows from the left nostril; in my patient it escaped from the right. The discharge at night when lying down, the patient believes, passes into his throat.

In many instances headache and other cerebral symptoms ceased with the onset of the rhinorrhoea and became aggravated when it was suspended. In my patient also the advent of the discharge was associated with rapid improvement and its persistence with recovery.

There can, in my opinion, be no doubt that my patient suffered from acquired chronic internal hydrocephalus and that the spontaneous escape of cerebro-spinal fluid relieved intercranial pressure and led to recovery.

Some of his symptoms were suggestive of a tumour of the middle lobe of the cerebellum: namely, the nystagmus, reeling gait, and ataxy. The protracted character of the cerebral troubles—their duration was nearly five years—is more consistent with the existence of hydrocephalus than with the presence of a tumour. As recovery occurred, the growth, if present, might possibly have been a scrofuloma which cicatrized, but there is no evidence of tubercle or of a tuberculous tendency in the patient or in his family. Or, the growth might have been a gumma, but there is no history of syphilis, and between October, 1899, and January, 1901, he took 84 dr. of potassium iodide without benefit. Moreover, recovery, if it depended on the resolution of a tumour, could hardly have been as rapid as it was.

Other symptoms he exhibited are recognized as frequently present in internal hydrocephalus—giddiness on stooping, leading, if persisted in, to falling, vertigo, and falling on passing from a warm into a cool atmosphere, failure of nervous energy in every direction, associated with optic neuritis and an absence of focal symptoms; there was, indeed, a partial paralysis of the left sixth nerve, but this local paralysis has been noted in other instances of internal hydrocephalus, and was present in two cases of this disease under my care: one of hydrocephalus of the lateral ventricles caused by a very small tumour of the pineal gland pressing on the iter; the other of acquired internal hydrocephalus relieved by operation, presently to be referred to. Moreover, the slight palsy of the sixth nerve did not increase, an unlikely event if due to intracranial tumour. The liability to sudden failure of the legs and collapse to the ground with inability to rise without help, described in the case under consideration, was also present in these patients.

Before considering the pathology of certain cases of acquired internal hydrocephalus, it is necessary to allude to the circulation of the cerebro-spinal fluid. The most probable course is that recently summarized by Mott[4]: "That the cerebro-spinal fluid is for the most part secreted by the choroid plexus in the lateral ventricles, and that it escapes into the third ventricle, thence by the iter into the fourth ventricle, and by the foramina into the subarachnoid space, and thence by the perivascular and perineural lymphatics into the lymphatic system." The "foramina" mentioned are the foramen of Majendie situated in the roof of the fourth ventricle and two smaller foramina, one on each side of it.

An ependymitis, causing an increased secretion of fluid in the ventricles, is said to be a cause of internal hydrocephalus, but it appears to me that so long as the fluid can find its way out of the ventricles over-distension cannot occur. I am, therefore, of opinion that the common cause of acquired internal hydrocephalus is obstruction to the passage of fluid from the ventricles. Among the recognized lesions giving rise to such obstruction are tumours of the middle lobe of the cerebellum, and tumours of the pineal gland, or in the aqueduct of Sylvius.

An exceptional cause of obstruction was found in a patient of mine who died of internal hydrocephalus. Owing to caries of the bodies of the axis and atlas, followed by their collapse and ankylosis, the odontoid process was displaced upwards and backwards, and was maintained in this position, projecting unduly into the cranial cavity and narrowing the foramen magnum; not only was the spinal cord reduced by pressure to about the diameter of a goose quill, but the medulla was dragged backwards and thrust upwards against the cerebellum, thus closing Majendie's foramen. The patient had been under treatment for caries of the cervical vertebrae, and consequent paralysis of the four extremities and respiratory trouble, and had recovered, but died twelve months afterwards from internal hydrocephalus. No other cause of the affection but that described was discovered.

Another cause of internal hydrocephalus, and one I have assumed existed in the case under consideration, is chronic meningitis in the neighbourhood of the roof of the fourth ventricle, forming adhesions between the medulla and cerebellum, and leading to closure of Majendie's foramen and the neighbouring lateral foramina. The presence of the leucocytes in the fluid from my patient may be explained by

the chronic inflammatory process implicating the choroid plexus of the fourth ventricle which surrounds the foramen of Majendie.

I have met with two cases of internal hydrocephalus which apparently originated in retention of fluid in the ventricles induced by such lesion.

A youth was admitted under my care several years ago suffering apparently from a cerebellar tumour, coma being imminent; the skull was trephined over the cerebellum. Mr. Thelwall Thomas, who operated, thrust a finger well under the cerebellum, and in doing so broke down adhesions between this organ and the medulla; a quantity of fluid escaped from the fourth ventricle, the patient's cerebral symptoms were relieved, he recovered, and is to-day a teacher of music.

The other patient, a boy aged 15, was admitted suffering from pulsating headache, persistent vomiting, and giddiness of six weeks' duration. There was no paralysis, the pupils were widely dilated and sluggish, but optic neuritis was absent; gait staggering. Four days after admission respiration suddenly failed, and he died. At the necropsy "all the ventricles were dilated; there was evidence of chronic meningitis about the medulla and cerebellum in adhesions between them, which had blocked up the foramen of Majendie."

A blow on the head is a recognized cause of the internal hydrocephalus of the adult, and it is likely that an accident of this description gave rise to the affection in my patient, and that it did so by exciting a slight partial meningitis in the neighbourhood of the fourth ventricle and cerebellum. He was only going at a walking pace when he collided with the beam, and the injury was not severe, but violent enough to cause slight concussion. His illness distinctly dates from this blow; he never thoroughly resumed his duties, and in two or three weeks the pains in the head became violent.

It may be suggested that the cerebro spinal rhinorrhoea is due to a fracture of the cribriform plate, produced by the blow on the head. I do not believe that such a fracture occurred—first, because the blow was not very severe; and, secondly, because such a fracture would not produce symptoms of intracranial pressure. Lastly, the escape of fluid did not occur till nearly five years after the blow. The patient was quite intelligent enough during the first two or three years of his illness to have noticed persistent dropping from the nose if it had been present.

Opportunities for the pathological investigation of cases of spontaneous cerebro-spinal rhinorrhoea have been rare, and have failed to indicate the course taken by the fluid in its escape from the skull. It is possible that the fluid in the ventricles as it accumulated at last overcame the abnormal resistance I have assumed existed in the thickened roof of the fourth ventricle and in the adhesions between the medulla and cerebellum; that it escaped into the subarachnoid space, and forced its way along the perineural sheath of the olfactory nerves into the lymphatic network of the mucous membrane of the nose, and so to the surface of the epithelium. The fact that there is distinct anosmia on the right side of the nose (the odour of carbon bisulphide being unperceived) suggests interference with the olfactory tract or bulb on that side.

However, it may be asserted, and I think with justice, that if the cerebro-spinal fluid forced its way out of the ventricles, it would, entering the fluid of the subarachnoid space, together with it be gradually dispersed in the ordinary way along the perineural sheaths of the cranial and spinal nerves and the perivascular lymphatics.

It is therefore more probable that adhesive inflammation occurred at the base of the brain adjacent either to the distended third ventricle or the distended descending cornua of a lateral ventricle, that is, in the neighbourhood of the lamina cineria or of some part anterior to it, that a perforation occurred at this spot, and that the fluid, cut off from the general cavity of the arachnoid, found its way under considerable pressure to the perineural sheath of the right olfactory nerve.

It is possible that certain cases of apparent intracranial tumour terminating in recovery are cases of acquired internal hydrocephalus, where the ventricular fluid has after a while forced a way out of the ventricles into the subarachnoid space and been dispersed, and that the relief of symptoms has consequently followed.

The following case was probably one of chronic internal hydrocephalus taking such a course:

A boy, aged 14, was admitted under my care in August, 1878, suffering apparently from cerebellar tumour. He had complained of headache, chiefly occipital, vomiting and giddiness for twelve months. There was slight nystagmus, double optic neuritis and impaired vision, general ataxy and staggering gait. Knee-jerks absent, occasional incontinence, temperature normal. In a few weeks improvement set in, and by October he was perfectly well, and left the hospital.

Although internal hydrocephalus may occasionally terminate by spontaneous evacuation, it is an exceptional occurrence. Hence operative measures should be resorted to in any case with cerebral symptoms pointing to the possible existence of this affection, the surgeon trephining over the lower part of the cerebellum in order to explore the roof of the fourth ventricle.

The prognosis in cerebro-spinal rhinorrhoea is unfavourable, meningitis being as a rule generated from infective organisms finding their way into the cranial cavity; but, as the discharge in my patient is inconsiderable in quantity, the channel of exit is necessarily small and the risk of infection proportionately less.

It is evident that any attempt to relieve the rhinorrhoea by local treatment would be attended with great danger to the patient, and it is not likely that any benefit would follow lumbar puncture.

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ARTHRITIS DEFORMANS AND ITS ALLIES.*

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I propose to direct attention to the clinical features of the various affections which are ordinarily grouped under the name of rheumatoid arthritis. At the outset I would venture to say that I count myself among those who think that this name should be discarded as both barbarous and unscientific. This point I have already discussed elsewhere,[1] but I refer to it again now, as I think that in this case, at any rate, it would be well for us to assimilate our nomenclature to that of Continental writers.

At present, however, we have to recognize that the expression, rheumatoid arthritis, is the one in common use in this country, and, furthermore, that it includes at least four different conditions, the relations of which to one another I propose briefly to analyse. These conditions, for convenience sake, we may arrange chronologically, according to the average age of the patient when first attacked. They are (*a*) the children's disease, described by Dr. Still; (*b*) the acute process occurring in young women, of which Dr. Hale White, who has previously[2] reported two typical cases, has given another example to-night; (*c*) the familiar multi-articular affection of middle-aged women; and (*d*) the equally well-known chronic malady of the aged.

I do not intend to waste the time of the Society by going over details the knowledge of which is common to all, or to relate at any length the history of illustrative cases. I submit, however, a few skiagraphs and photographs of some of the more characteristic appearances.

Still's Disease.

This is usually referred to as rheumatoid arthritis in children—a most unjustifiable attribution, since in his original paper[3] Dr. Still pointed out with the utmost care how it differed from what had previously been described as rheumatoid arthritis. Although the practice of using personal names in connexion with maladies is one generally to be reprehended, I would suggest that until some simple and expressive term be found this should be called "Still's disease."

It is undoubtedly an infective process, and differs from all the other forms which we have under consideration in respect of the enlargement of the spleen and lymphatic glands with which it is usually associated. Dr. Hale White believes that the acute disease which occurs in young women is also infective, and the two are certainly alike in the presence of irregular fever, and the absence of "nervous" symptoms, with the exception of considerable muscular atrophy. But in other respects they differ widely; the one is essentially chronic, is more prevalent in boys, and attacks the fingers very late: the other is acute, has only been described in girls, and usually commences in the fingers. Pathologically each is mainly a synovitis, with only secondary changes in the cartilages, but it is only in the juvenile malady that we find enlargement of the spleen, lymphatic glands and sometimes liver. The condition of the joints in the latter has been carefully studied by Whitman.[4] On con-

* A paper read before the Clinical Society of London.

ideration of all the evidence, I would regard Still's disease as a chronic specific infection, and would separate it entirely from all other forms of joint disorder.

Senile Osteo-arthritis.

The complaint, which occurs at the other extreme of the scale of life, has equally distinctive characteristics. It is primarily a degenerative process, consisting in fibrillation, breaking up and wearing away of the joint cartilage. There may be some hypertrophy of the synovial folds at the edges, but this is secondary, and might almost be called compensatory. It has, indeed, been stated (Moll,[5] Reyher[6]) that similar pathological changes may result from prolonged immobilisation of a joint. The affection is so little inflammatory that it is doubtful whether the name osteo-arthritis should with propriety be applied to it. Further distinctive features are the absence of anaemia and of "nervous" symptoms and the fact that it usually attacks the large joints, especially the hip, first. It is worthy of remark that in all the other three forms which we are considering, as also in acute rheumatism, anaemia is a symptom which is virtually constant.

These two maladies, then, are in every way widely different from each other. It remains to be considered whether the other two are equally distinct, or whether any relationship can be traced either to one another or to those which we have already discussed. It may here be noticed that Weichselbaum, who has devoted much care to the study of the pathological conditions found in the senile form,[7] has come to the conclusion that they differ only in degree from those of the classical type of arthritis deformans. Clinically, too, one meets every now and then with patients of middle age suffering from a joint affection which neither by its localization nor its course is to be distinguished from the senile malady, which it moreover resembles in that pain and other general symptoms are notably absent.

Arthritis Deformans, Acute and Chronic.

Having dealt with these affections of the extremes of life, we have to consider the two remaining joint diseases which I have mentioned. It is here that the differential difficulties become most marked. In the paper previously referred to, Dr. Hale White pronounces strongly against the identity of the two maladies, but yet I must confess that on carefully reviewing the evidence, I am by no means convinced that we are able as yet certainly to divorce them. That both of them are distinct from true rheumatism may, I think, be taken as definitely established, though some cases which have been described as acute rheumatoid arthritis appear actually to have been rheumatic, or due to some other recognizable infection. The most striking difference between the two forms appears at first to be in the rapidity of their course. The acute disease often cripples its victim in a few weeks or months, while the course of the chronic may be reckoned in years or even decades. But the former does not always act with such terrible suddenness, crystallizing the patient, so to speak, in a single attack. It may be jerkily progressive, coming on in successive bouts, each accompanied by pyrexia and followed by increased maiming. So also the course of chronic arthritis deformans may ebb and flow, and a slight degree of fever is not infrequent in the exacerbations. In my experience, this is more common in younger women—those, for instance, in whom the disease begins at about the age of 30. It seems to me, therefore, that in this respect no sharp gulf unbridged by intermediate cases separates the acute and chronic forms.

As regards the incidence upon the joints, there is a distinct and fairly constant difference. In the acute variety many joints are affected at much about the same time, and among these the proximal interphalangeal and temporo-maxillary are usually conspicuous. The brunt of the chronic affection falls upon the metacarpo-phalangeal, and it spreads in a slow march to others, the knees being usually involved early. The character of the deformity hence differs in the two cases; this difference is accentuated by that in the anatomical changes, which will be referred to later. I have here photographs and skiagraphs of a typical case occurring thirteen years ago in a girl who was then 10 years old.* Within a few months every joint in the body was probably more or less damaged: the attack was a single one, and the condition has since remained, to all intents and purposes, stationary. It seems to me possible that the difference in distribution between the acute and chronic conditions may be one of degree only; in the former the process is too rapid for any marked selection to occur, and the lesions are accordingly more generalized. But this is only a suggestion; the fact that there is a difference in distribution remains. Some stress has been laid upon the fact that in the acute affection there are commonly fusiform swellings upon the interphalangeal joints; to this I attach no importance, as this shape is that naturally assumed in any acute or subacute inflammation of these joints, and is frequently seen in gout, in acute rheumatism, and in the exacerbations of chronic arthritis deformans.

A much more striking point of difference is met with when we come to consider the question of morbid anatomy. The inflammatory changes in acute arthritis deformans are primarily and mainly in the synovial membrane. The cartilages are damaged secondarily, and the only change which can be demonstrated in the bones is the marked thinning of their ends, to which Dr. Hale White has called attention, and which is so very conspicuous in the skiagraphs which I am showing to-night. In the chronic form, on the other hand, degenerative changes in the cartilage, involving fibrillation, patches of softening and hyperplasia, are the chief features in the pathological picture. At the same time, or soon after, the subjacent bone is absorbed in some places and hypertrophied in others. The synovial membrane, however, does not escape; it is usually hypertrophied, and may be sufficiently inflamed to cause marked dropsy of the joint. It may, indeed, be suggested that the difference between the two types is not so great as at first appears. As age increases the patient becomes progressively less liable in general to chronic synovial disease—other than traumatic. Thus, for instance, the incidence of tuberculous disease of the knee is in childhood mainly upon the synovial membrane, in adult life upon the bone ends. It therefore occurs to me that the contrast in arthritis deformans may be only a seeming one, and that the acute and chronic types may be the expressions merely of a similar process attacking joints at different ages. It is quite exceptional for what I may call the adult type of the disease to be seen in childhood; and both types show the common and perhaps essential features of absorption of bone and overgrowth of synovial membrane. Some of the skiagraphs of ordinary chronic arthritis deformans which I exhibit show extreme thinning of the ends of the long bones, which is, indeed, quite common in that affection.

One other point still requires explanation. There can be no doubt that in many, if not most, cases of chronic arthritis deformans the nervous system is profoundly affected. I am not quite able to follow those who regard the affection as a nervous disease; the view that it is a cerebro-spinal toxaemia has been ably argued by Dr. Llewellyn Jones,[8] but without carrying conviction to my mind. Nevertheless, we often find muscular, cutaneous and vascular trophoneuroses, exaggerated reflexes and even neuritis in association with chronic arthritis deformans. Mental worry seems to be a predisposing factor in some instances, and certainly often determines exacerbations; sometimes, too, in youngish women, the onset of the disease is associated with severe depression and a premature menopause. But we often see it in a most intense form without a trace of neurosis, and it hence seems to me more likely that the latter is more probably a concomitant effect of the specific toxin or infective virus. In acute arthritis deformans the nervous system is but little affected. It is true that in most of the long-standing cases which I have seen the patient has been "neurotic," but not more so than might have been anticipated from her crippled and invalid condition; objective signs of nervous disease are as a rule absent. On the whole, I am not inclined to regard this dissimilarity as connoting an essential difference between the two conditions. If, as I think probable, they are due to infective or toxaemic processes of similar nature, it is only reasonable to expect that the more acute would be characterized by pyrexia, while the prolonged action of the virus would involve more especially the nervous system.

In other words, if we exclude doubtful cases in which known infective causes may be present, the points of similarity between acute and chronic arthritis deformans seem to me to outweigh their differences, and to be compatible with the possibility that they represent the acute or inflammatory and chronic or degenerative phases of the same malady. Intermediate forms occur within the experience of all those who have the opportunity of seeing a considerable series of cases, and go to negative the drawing of a hard-and-fast line of separation.

* For permission to refer to this case I am indebted to the kind courtesy of Dr. Allchin.

The senile form is, to my mind, essentially degenerative, and may therefore, in my opinion, be the result of various factors, acting alone or in combination. Among these is, no doubt, to be reckoned the ordinary type of arthritis deformans, which may pass on into it, just as the large white kidney may—somewhat rarely perhaps—undergo contraction and fibrosis. In many instances there is no precedent arthritis deformans, and in such cases we have to look to other etiological agencies, in particular old age, as the causes of degeneration.[9] Sometimes it supervenes upon the chronic joint condition resulting from repeated attacks of acute rheumatism; in fact, it may be almost laid down as an axiom that any diseased joint will, if the patient live long enough, become the seat of senile osteo-arthritis.

Finally, the disease described by Dr. Still is an infective process which appears to be in no way related to any of the other forms.

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THE MEDICAL TREATMENT OF INSANITY.

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The great aim of medical art is the cure of disease, and in fulfilling this there are certain general principles which commend themselves to every medical practitioner, quite apart from the specialized treatment which is applied to the various maladies described in detail in the many textbooks upon medicine. These principles are, in short, hygienic, prophylactic, and directly remedial or therapeutic, and they apply to the treatment of insanity with even greater force than they do to diseases in general, for insanity results from neglect of the rules of health, and through attempts made to over-ride or to disregard the laws of Nature.

In hygienics we have the study of conditions which are of immense importance to the welfare of the whole population, such as those relating to occupations, to the density of the population, to drainage, air, and ventilation, to the character of the water and of food, as also those relating to personal and general cleanliness. The neglect of the laws of health deduced from these studies involves a lowered vigour and vitality, a diminished power of resistance to disease, and a general deterioration, if not a degeneration of both mental and bodily energy, the output of work in consequence is diminished, and any given stress approaches nearer the breaking point. Hygienic measures are of so much importance that the State now recognizes the necessity for the undivided attention of medical men and others in carrying them out, and public bodies find their highest function in establishing and perfecting conditions favouring a high standard of health among a community.

Prophylactic or preventive treatment implies that there are circumstances exposure to which tends to impair the general health, either directly or through tendencies derived from parents. Questions relating to alcohol and to immorality agitate the public mind from time to time in regard to insanity, as also in regard to vice, poverty, and crime; and measures considered for their control come under the designation of preventive treatment. Steps taken to prohibit the sale of alcoholic liquor are prophylactic measures in regard to insanity, as are also those relating to the marriage of neurotic and insane persons, which in the opinion of many should be prohibited. The question of betrothals and their suspension is too long and complicated a problem to be discussed here, but this special aspect has recently been before the public in the effort made to establish the science of Eugenics or stirpiculture—the propagation of the most fit—which is the direct and conscious application to man of the law of natural selection. Further preventive measures may be considered in the dissemination of knowledge as to the common causes of insanity and the means to be adopted for its avoidance, more especially by the treatment of incipient symptoms of mental disease in the out-patient departments of our hospitals, where prompt and skilful advice would be given, also by assistance or employment given to those who have recovered from mental diseases, as many of these not only fail to find work, but also suffer much hardship, which not infrequently causes them to relapse.

What should be done when a person not previously insane is threatened with symptoms of mental disorder? In many cases the treatment is obvious. The exciting cause, if any, must be removed, over-work must cease, over-worry must be controlled, and anxiety and over-excitement—in regard to religious matters, for example, to take a subject which at the present moment is commanding public attention—should be stopped; undue devotion must be restrained, and life generally must be on a less exciting and stimulating plane.

As to the remedial and therapeutic treatment of insanity—which is the theme of our lecture—we are confronted with the portentous fact that on January 1st, 1904, there were 117,199 persons, that is, 1 to every 288 of the population, who were certified or registered as insane in England and Wales; and speaking generally, these were incarcerated under about 126,000 certificates (private patients necessitating two for their detention) a number which amounts to more than five certificates for every registered medical practitioner; to such, therefore, this subject must be of much interest and importance. We also know that possibly an equal number of persons are on the borderland of certification, and that out of this group fresh cases are being daily precipitated into those of which the State—through the Lord Chancellor and the Lunacy Commissioners—has cognizance.

In the acute stage of no disease is care and attention more necessary, nor more expensive, nor, may it also be said, is there more hope of cure than there is in the early stages of acute insanity. Unfortunately, however, the study of insanity is a long and painful experience; it is also as interesting in theory as it is trying and exacting in practice.

The causes of insanity are, again, so complex; both so direct and so indirect and numerous; the "tissue of mind" is so complicated, its anatomy, physiology, and chemistry are so little understood; furthermore, the very nature of mind itself is so incomprehensible and mysterious that our treatment of insanity not infrequently amounts—as is also the case with many other diseases—to the treatment of symptoms as they arise—that is, to maintaining the strength of the patient by judicious nursing, to quieting hyperaesthetic senses, to raising the hopes and spirits of the despondent, and to promoting their general comfort. Possibly in no disease is it more necessary to support the patient's strength by appropriate nourishment, for the abnormal rapidity of disintegration which occurs in acute insanity impairs nutrition so quickly that death from exhaustion often takes place before the delirium subsides. It becomes imperative, therefore, to obviate this most frequent cause of death by a vigorous administration of un-irritating food, easy of digestion and nourishing, to be given frequently and in small quantities—"little and often." Foods, such as raw meat, or beef juice, peptonized beef tea, the yolk of eggs, milk with soda water, or with biscuit powder, barley water, gruel, rice water, broths, arrowroot, cornflour, or Mellin's food, all these being eminently suitable—possibly also (if exhaustion and delirium are combined) dry wines, but meat juices especially—that is, if the patient takes exercise out of doors. It is most necessary in all cases of acute insanity (acute delirious mania, acute puerperal mania, acute restless melancholia, etc.) to supply—even forcibly with the tube and funnel, by the mouth or nose, two or three times daily, at fixed intervals—alimentary material to counteract the dangerous profound exhaustion, and also to renovate and maintain power; for, unless sustaining treatment is secured, the exhaustion may prove fatal in a few hours.

The judicious selection of food material is also important in regard to sleep. Loss of sleep is one of the most distressing and prevalent symptoms in the early stages of insanity. In more than one case of puerperal insomnia I have known an attack of insanity to be prevented by treating such secondary conditions as relieving pain, moderating uneasiness, allaying anxiety of mind, soothing irritability and inducing sleep; for absolute repose is necessary and must be obtained by the use of drugs.

Whilst condemning the excessive use of calmatives and hypnotics as unjustifiable in the treatment of insanity, I must express my belief in sedatives. The motor excitement in certain forms of insanity—possibly from the production of a special toxin—is so fatiguing as well as exhausting, and the relief is so marked by the action of certain drugs, that in exceptional instances the morbid phenomena constituting insanity are cut short by the action of sedatives. Whilst discountenancing their use by persons who find in them a temporary alleviation to relieve sleeplessness, and who, more-

over, in many instances have established a habit which may become a disease; yet it is not improbable that many persons have been saved from attacks of actual insanity by early treatment of this distressing symptom. It has been maintained that the acute insanities are often the result of intra-neuronic and extra-neuronic toxins which act injuriously upon the nerve centres, and that the sedative effect of drugs is antagonized by these. It certainly is a fact that long-continued administration of drugs, such as sulphonal and the bromides, do require increasing doses to produce a given effect, which tends to show that diseased or damaged tissue is not so readily acted upon by sedatives, and that a larger dose is required by the insane than the normal person. Furthermore, a state of dementia may be brought about through the noxious effects of these drugs upon certain of the cortical neurons. We know that different parts of the nervous system are acted upon differently by various substances—for example, conium, curare, strychnine, the bromides, etc.—but our knowledge of the reason is unknown, and of their action empirical. We also know that restoration or anabolism takes place mostly during rest and sleep, and that in health action and reaction are always equal and contrary. In insanity there is probably some alteration, congenital or acquired, in the rhythm of waste and repair in the higher centres of the nervous system; but these centres, by the influence of sedatives, can be placed in a condition favourable to recuperation, and it is rather the combination of these sedatives with other remedies of a more general character which yield the best results—those, for instance, which favour nutrition by diminishing the irritability of the stomach or which assist its normal functions, such as pancreatin, pepsin, hydrochloric acid or papain, and those which also assist in the elimination of poisons from the skin, lungs, kidneys, and the alimentary canal, that is, which act upon the emunctory organs, as well as the organs of assimilation.

The first consideration, therefore in regard to the treatment of insanity is to ascertain if there be any abnormal condition of the bodily organs, removal of which will favour the disordered brain functions; and instances are not infrequent—and I refer to the adolescent forms of insanity in anaemic girls—when the restoration of bodily organs to their normal functions is followed by mental improvement. The re-establishment of menstruation and the cure of anaemia mean in these cases mental recovery, indicating the necessity for the combination of sedatives with general remedies which help to restore and build up the various systems of the somatic whole.

Before approaching the pharmaceutical armamentarium I may point out that conduct which is violent, destructive, and filthy in habits, usually determines the question of restraint; but if such conduct occurs in puerperal women, and shortly after confinement, or with fevers, accidents, or the onset of inflammation of important internal organs, or if it be due to alcohol, or to some known toxin; again, if it occurs in young persons, or it is sudden and possibly due to some one great overwhelming emotional disturbance—in these cases the physician and the friends must be tolerant, and the person treated at home as long as possible, or for at least a period of six weeks. On the other hand, if the patient be acutely suicidal or homicidal, or if the case be one of general paralysis with violence, seclusion under a certificate is then not only desirable, but necessary and obligatory.

In my opinion no supervision can equal the treatment given in our best private asylums and mental hospitals, which are especially constructed institutions where the comforts of a home are fully provided, where there are no wide departures from customary surroundings upon which sensitive persons are so dependent for their happiness, and where a skilful and trained staff exercise the closest vigilance and supervision. In these homes individual treatment is carried out, and the great benefit to be derived from this direct influence cannot be over-estimated. Should there be, however, as there often is, much feeling against certification, then residence as a voluntary boarder in a mental hospital can be arranged, but should there be an insurmountable dread of all institutions on the part of both the patient and his friends, then the best must be made of an improvised plan of private treatment, and the patient will have to be provided for in a private house, preferably in the country—for walking in the open air is necessary—and the rooms should be on the ground floor, all risks from stairs, windows, cutting instruments, strings or cords, should be fully safeguarded against, as also risks from fire and water. At least two competent mental nurses, one for day and the other for night duty, should be engaged, and they should make a daily written report of the pulse, temperature, food consumed, excretions, medicines taken, the hours of sleep, exercise out of doors, and all new symptoms. Relatives as nurses are less to be dreaded in cases of melancholia than in cases of mania, but usually in both conditions it is much better to engage competent nurses.

The treatment of mental disorder which comes within the experience of the general practitioner resolves itself most often into the treatment of cases of acute excitement or uncontrollable fury, but it must not be taken for granted that insanity with excitement invariably means a condition requiring antiphlogistic remedies. In cases in whom there is delirium, when the pulse is full, bounding and firm, and there are symptoms of sthenic inflammation, then venesection may prove beneficial. I have only used it for the venous engorgement of the *status epilepticus*, and then with good results. I have used the wine of tartarated antimony for furious excitement, with vascular and cerebral congestion, and when combined with morphine it is very effective. Aconite is a useful remedy in sthenic maniacal states and the exacerbations of recurrent insanity with cerebral hyperaemia. I have also used icebags to the head, and continuous immersion.

The difficulty in keeping maniacal patients in a warm bath at the body temperature, or at 100°, has been so great that to avoid constant struggling I have abandoned the practice. The exact physiological effects and the therapeutic value of long immersion are not quite understood. It has been considered to be "derivative,"—that is, the cutaneous vessels dilate and thus lessen the quantity of blood in the nervous system, but it has also been suggested by some that the effect of warm baths is to increase metabolism, by others that the pressure of the water on the skin gives a tone to the cutaneous and to the general circulation which was previously deficient.

The use of the "wet pack" has been urged in cases of insanity with excitement, but there are dangers accompanying it, and I do not advocate it as a reliable remedy, although for certain bodily conditions accompanying insanity I have tried it with good effect. Insanity, even with excitement, is a disease generally of under-nutrition, and whatever the pathological conditions may be which cause acute mania or acute melancholia, we can at present go no further than vaguely describe them as "a disturbed bio-chemical state" of the brain tissue, and my experience in the case of all the acute insanities recommends a generous and supporting rather than a depletory method of treatment.

In the treatment by the medical practitioner of cases of melancholia the tendency to suicide must be regarded as ever present, and the question of "foreign travel" not infrequently comes up for consideration. Speaking physiologically, the best brain work is done when the cortex receives abundant and definite stimuli from without. In travel, especially in the case of sea voyages, the life on board ship is exceedingly irksome, dull, and monotonous, and should not be advised for cases of incipient insanity or even for cases in whom there may be a threatening of mental breakdown with symptoms of depression. In a voyage to Colombo made by a distinguished writer, physician, and man of affairs he mentions two cases, both of whom threw themselves overboard, whose lives would probably have been spared had they not been urged to travel abroad. Even trips to the Continent do not provide an Englishman with the comforts he obtains at home, and which he hopes to receive abroad.

Electricity, administered in the form of currents through water in the form of electric baths, has been greatly advocated for the depressed varieties of insanity, more especially for atonic stuporose states in young persons. The galvanic current is passed through warm water at 100°, in which the patient is immersed. I have used such for many weeks at a time, daily, or several times a week, for about 10 to 30 minutes, and have kept a record of their weight whilst under treatment, and found it to go up, and their general mental and bodily conditions to improve. I confess to being favourably disposed to this form of electric stimulation, and it certainly appears to aid metabolism, although how and in what method I am unable to explain.

As to the action of drugs upon the brain, it cannot be localized so accurately as can that of drugs acting on the spinal cord and nerves, but their action illustrates two important general laws—firstly, the law of dissolution, which shows that when a drug affects functions progressively, those first affected are the highest in development—that is to say, they are the last acquired by the individual and the last to appear in the species. The next affected are those next to

the highest, and so on, until finally the lowest of all, from an evolutionary point of view—namely, the functions of respiration and circulation—are affected. We are acquainted with this exemplification in the case of alcohol, for the first functions to be disordered are those of the intellect, especially the highest, such as judgement and reason; then follow disorders of movement, and death from failure of respiration and circulation. Secondly, drugs in moderate doses excite a function but in large doses they paralyse it. This is familiarly illustrated in cases of chloroform inhalation, the first effects being motor excitement followed by motor paralysis, the excited limbs becoming motionless and weak. In the same manner drugs which are cerebral stimulants may become hypnotics, as is exemplified in the use of opium. Conium is also one of the remedies which appears to have contradictory effects, but this is probably explained by the fact that the relation between conia and methyl conia—two alkaloids with opposite effects—varies in each preparation.

It is an excellent remedy as succus conii (mx to ʒj) for controlling motor excitement. With the abolition of abnormal muscular action the ideas become less rapid and mobile, mental processes become clear, and sleep occurs. It is best to begin with small doses, and to combine these with strychnine or some other cardiac stimulant. As a nervous tonic for persons who suffer from overwork, or who are run down, who are weary and easily tired, the various preparations of phosphorus, more especially, perhaps, the glycero-phosphates, have in certain quarters had a reputation. On theoretical grounds phosphorus should have been in much favour as a brain tonic, and it has been recommended for its efficacy in various forms of insanity; but the aphorism—"without phosphorus no thought," is not borne out by the experience of the clinical psychiatrist.

The chemistry of the brain points out that lecithin, which enters largely into the structure of nervous tissue, is a compound which breaks up into glycero-phosphoric acid and cholin or neurin, and in certain bodily states associated with convulsions it appears probable that the amount of cholin in the blood represents the amount of waste caused by the breaking up of nervous material in the discharge of energy. But the particular rôle of phosphorus in the brain has hitherto received no satisfactory explanation, and, although the restorative nutrition of the brain is an important task for the psychiatrist, the problem of furnishing a reliable and assimilable preparation of phosphorus has yet to be solved; in consequence, the various phosphates may be administered *ad nauseam* without modifying illusions, hallucinations or delusions, and it is safe to assert that phosphorus is not to the brain in insanity what iron is to the blood in anaemia.

As to hypnotics, for the pure relief of insomnia paraldehyde in doses ʒss to ʒij (twice the amount is given for an enema) is one of the safest, for it stimulates cardiac action; moreover, valvular heart disease is not a strong contraindication. It has a peculiarly disagreeable taste and smell, which are best disguised in highly-flavoured syrups or wine. It is not recommended in phthisis or bronchial affections, as, being volatile, it is mostly eliminated by the lungs. Amylene hydrate, in doses from mx to mxxx, has been much recommended, and I have used it. Somnal, gr. xx to gr. xxx; methylal, ʒj to ʒij; hypnone, chloralamide, chloralose, hypnal, tetronal, and trional, have also their advocates. I have used sulphonal, gr. xx, three times a day (insoluble in water), trional (less insoluble), and tetronal. These have a cumulative effect which is their best quality, and they are excellent remedies for strong, dangerous, and aggressive maniacal patients. The effects of sulphonal do not appear fully for some hours, and as a night draught it should therefore be given early in the afternoon. The symptoms to be watched for are vertigo, ataxia, and haematoporphyrinuria. After death the blood appears to be fluid, and to resemble dark port wine. The crystals may disturb digestion and cause diarrhoea. If the patient is kept in bed during the administration, the physiological effects are intensified. Hyoscine in subcutaneous doses of gr. $\frac{1}{100}$ to gr. $\frac{1}{50}$ is a powerful and valuable remedy for the control of acute motor excitement in violent maniacal cases, those who are strong and muscular, and who in their fury may commit homicide. It differs from sulphonal and trional in that its effects are immediate, but they soon pass off. When the motor disturbances are controlled, quiet sleep is produced. It is not a remedy for feeble cases. Hyoscyamine, dose gr. $\frac{1}{50}$, combined with morphine, is a very effective remedy for excitement and sleeplessness. Cannabis indica is uncertain in its action; it gives rise to visual hallucinations and rapidity of ideas, the latter causing a feeling in the mind of indefinite stretches of time. When combined with bromide of potassium it is a useful remedy in senile insomnia, and especially when there is mental depression.

Possibly, of all the remedies for insomnia, the bromides are the most useful, for they lower reflex excitability and tend to slow down or diminish cortical activity. They are better hypnotics for states of excitement than for depression—but they may be combined with stimulants in such cases—and are therefore better suited for the insomnia of maniacal patients and for hallucinations of a tactile nature—paraesthetic states, as they are called—occurring in paretic and tabetic persons; also in cases of pharyngeal and laryngeal discomfort, giving rise to delusions of things in the throat. The effect of a single large dose is much better than that of long-continued under-dosing, and there is no danger of establishing a habit in regard to it. For alcoholic cases, for uterine reflex pains, such as occipital headaches, or in cases of neurasthenia with night terrors or unpleasant dreams, and combined with citrate of caffeine in cases of climacteric mental restlessness, the bromides are most useful. The only contraindication is unsoundness of the circulatory organs and anaemia, and the result of long-continued administration of bromides is a dull torpor, with loss of memory and stupor. Bromide of strontium is stated to be a better remedy for epilepsy than bromide of potassium, and to be also safer against cardiac failure, which is apt to occur in epilepsy, and bromide of sodium is stated to be the least often accompanied by gastric irritability. In association with chloral it is an excellent hypnotic for acute hallucinatory excitement, and possibly one of the best formulae is chloral hydrate, sodium bromide, and tincture of hyoscyamus. The contraindications to chloral are valvular or fatty heart disease, also if long administered with the bromides for epilepsy the tendency to cardiac failure from congestion arising in repeated fits should be remembered, also it loses effect by repetition. The dose of chloral is gr. x to xx, largely diluted and flavoured with aromatic syrups. It may also be given freely in milk. If given per rectum it is necessary to compress with the hand to retain the enema. The bromides are administered in doses of gr. xx to ʒj, or even up to ʒj and more. It is stated that neurotic medicines, such as are the bromides and also chloral, are best administered on an alkalinized stomach, hence a glass of milk is considered an effective adjuvant to such remedies. Possibly of all the hypnotics, opium together with its derivative morphine, is the one most often used, and it is probably the best remedy for psychic as well as physical pains, such also as are due to painful "vagus" sensations from cardiac crises and dyspnoea. Opium relieves acute mental depression, especially in old people, and it appears to act as a direct stimulant in the cardiac weakness of some senile cases. It appears to act directly also upon certain mental states, and to be antithetic to the painfully emotional states of melancholia and persecutory delusions. It is, in my opinion, contraindicated in states of mania, but morphine may then be administered. Morphine is often the best anodyne for the precordial pain of melancholia, as also for painful hallucinations in exhausted cases. A combination of opium with belladonna may assist to prevent the impairment of digestion caused by opium taken alone, especially in regard to constipation. The great danger in the use of opium is the toleration established and the risk there is in commencing a habit which may become a terrible disease.

In contrast to hypnotics there are drugs which act upon the nervous system as sedatives, but stopping short of the actual hypnotic effects just described. Smaller doses of the hypnotic class effect this, but drugs such as valerian in large doses are known to control the agitation of neurasthenia or cases suffering from temporary functional disturbances, such as are seen and described as hysterical insanity. Camphor monobromate in gr. v doses has been used with benefit in cases of insanity with epilepsy, also in spasmodic excitement or mental disturbances accompanying chorea. Lupulin has also its advocates for cases of neurasthenia and hysteria, and the extract of Calabar bean in general paralysis of the insane. The extractum physostigmatis was at one time much in favour, upon the recommendation of Fraser. I may be allowed to mention as a possible remedy for this disease the use of thorium hydroxide, a heavy white powder possessing radio-active properties. I have used 500 grammes of the powder in a cap over the head, worn day and night, and two cases have recovered after such treatment. It has been suggested that at the synapses—the arborization of the dentrites—there may be some radio-active body which either

originates, transmits, or intensifies nervous currents. If its possible modification of this disease is advantageously affected by thorium hydroxide the benefit may thus be explained. Possibly no direct effect is obtained, but at any rate it is worth a trial, and something is being done for this hitherto incurable condition. In the congestive vertigo of this disease the fluid extract of ergot has been tried, upon the theory that it acts as a vascular stimulant upon the vaso-motor centre, causing a contraction of the cerebral arterioles. It has been recommended to be given every few hours during the day, and alternating with bromide at night. For the seizures occurring in epilepsy, general paralysis, and puerperal insanity I have used chloroform inhalation and chloral, but prefer the latter.

I have used ergot for insanity about the climacteric period associated with menorrhagia. There are certain headaches and neuralgias about the "change of life" which almost incapacitate the sufferer from social and domestic duties. Those so-called lancinating pains may be associated with mental restlessness and actual insanity, and no remedy seems to be of permanently good effect. I have used antipyrin as an analgesic in such cases in doses from gr. v to gr. xx, but care is needed from the depressing cardiac effect, and antipyrin always needs a stimulant to follow. Phenacetin gr. x with quininae sulph. gr. j has proved a useful remedy, as also the citrate of caffeine in gr. iij doses. The peculiar restlessness of mental depression in regard to which there is no definite pathology, other than that it appears to have its basis in a summation of the organic sensations—and presumably caused by pneumogastric enervation—is often benefited by citrate of caffeine associated with small repeated doses of opium. It is in such cases that erythroxylon coca has been so much used, possibly also it is in similar cases that alcohol fulfils a definite therapeutic rôle, but it is necessary to beware of initiating a pernicious habit. As to alcohol, in the great majority of cases of insanity it is not essential, but I do not hesitate to use it in small doses every few hours in the exhaustion of acute mania, more especially in the puerperal form of insanity. It often interferes with digestion, and it is always best administered with liquid nourishment—either with milk, soup, beef tea, or broth. In acute insanity it is often difficult to get the patient to take solid food, but by coaxing he may be persuaded to take fluids, and alcohol may thus be effectively combined with it. The physiological effects of alcohol can be demonstrated by the sphygmograph. Alcohol increases the force and frequency of the heart's action and stimulates vascular tone, but in large doses alcohol acts as a definite depressant. Owing to this physiological action it is a dangerous remedy in the various forms of mental depression, for it gives the feeling of buoyancy and stimulation without any lasting benefit and without the sustaining action of food. In the excitement of mania the skin acts more freely as an eliminating organ than it does in depressed mental states, and more alcohol can therefore be tolerated in cases of mania. Strychnine gr. $\frac{1}{30}$ subcutaneously injected and digitalis in mx doses every hour for three hours and then stopping are useful in cases of exhaustion from acute insanity, also in cases of cerebral anaemia as a cardiac stimulant, especially when forced feeding is being adopted. Strychnine affects the whole nervous centres and not the spinal cord only. Nux vomica mv may be used with much good effect in the convalescing stages as a general tonic. The prolonged use of strychnine or nux vomica is ineffective, and they are better given alternately for a few weeks and with about one week's interval.

In the earlier part of my paper I have referred to eliminating medicines. The chief eliminating organs are the skin, the lungs, the kidneys, and the bowels. In no morbid condition is it more important to clear the *prima via* than it is in insanity. Laxatives and purgatives are absolutely necessary, and in free doses—usually twice the amount required by a healthy person. Depressed mental states, irritability, and even the convulsive seizures in cases of general paralysis or epilepsy are often due to auto-intoxication caused by constipation, and consequent absorption of poisons from the alimentary canal. Constipation, indeed, is the bane of insane persons, and podophyllin, elaterium, colocynth, calomel, and at times even croton oil, are necessary in full doses to cause a free action of the bowels.

The hydragogue cathartics can be freely administered in cases of insanity, and "house mixture"—the pharmacopoeial hst. sennae co.—is a safe and salutary corrective in such cases, and may be systematically administered once or twice a week with much benefit. The action of the skin and kidneys is assisted by the administration of diuretics and diaphoretics, but the best of medicines is exercise out of doors, which causes the lungs and skin to act freely and naturally, and which facilitates the exudation of substances noxious to healthy mental action.

It is hardly necessary in such a paper as this, and in addressing such readers, to emphasize the study of the various diatheses, to know our patient with his various idiosyncrasies—namely, his tendency to gout, rheumatism, anaemia, renal or cardiac disease, phthisis, myxoedema, ague, or syphilitic lesions, which all require special treatment. The question of organo-therapy and serum-therapeutics is also too wide to be discussed within the compass of a lecture such as this, but I will summarize my suggestions by recommending in cases of sudden or acute insanity: first, the isolation of the patient in a quiet or darkened room; forced alimentation; the control of motor excitement; reducing febrile states by tepid baths; sustaining the strength; and above all the inducing of sleep—these to be the cardinal lines of our treatment.

In conclusion, I may add that insanity may be modified in a community by the inspiration of high ideals, by agencies which are beneficial to sobriety and self-respect. I mean spiritual or moral agencies. These kindle a spirit of fervour, sympathy, and right-mindedness among the roughest characters, and in the most crowded areas of our cities. They are means which are peculiarly within the reach of medical men, who have opportunities of furthering them such as are afforded to no other profession.

AN INQUIRY INTO THE EXISTENCE OF TYPHOID FEVER IN BERMUDA.

BY

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[Communicated by the DIRECTOR-GENERAL, R.N.]

THE following paper represents the results of an investigation carried out to determine a question of considerable general interest, namely, whether cases of locally-acquired typhoid fever ever occur in Bermuda. Medical officers, both of the army and navy, stationed in Bermuda often have occasion to enter cases as typhoid fever in their returns, but it is common in the island to take the view that the disease does not exist. This opinion many officers of both services have been inclined to accept, and hence to regard the cases encountered as paratyphoid and not true typhoid.

In order, therefore, to settle the question, a series of tests were carried out in the naval laboratory at Bermuda, and to ensure thorough control three strains of undoubted Eberth and a pure culture of bacillus coli communis were obtained and put through the subjoined series of tests side by side with three strains of organism obtained from the spleens of three fatal cases of this disease dying in the Royal Naval Hospital at Bermuda. Details of *post-mortem* examinations, etc., are purposely given fairly fully.

The histories of all three cases show that their disease must have been contracted in Bermuda. One case died from toxaemia, one from perforation, and one from haemorrhage.

Sources of Cultures Tested.

Strain A—Bacillus coli communis	Supplied from laboratory of R.N. Hospital, Haslar, by the courtesy of Fleet-Surgeon Bassett-Smith.
Strain D—Bacillus typhosus	
Strain B—Bacillus typhosus from New York	Supplied from military laboratory, Bermuda, by the courtesy of Captain Wanhill, R.A.M.C.
Strain C—Bacillus typhosus from England	
Strain F	Obtained as stated in the text
Strain G	
Strain E	

Strain F was obtained from spleen of J. O., aged 47 years, joiner, H.M. Dockyard, Bermuda.

Clinical History.—This man had lived in Bermuda nine months before falling sick on October 19th, 1904. He had been ailing about 14 days; his temperature was 100° F.; he complained of headache and general malaise; he had a strong alcoholic history. October 21st. Found to be delirious at his residence at Somerset, Bermuda; temperature 103°; removed

to Royal Naval Hospital. October 22nd. No delirium. Tongue furred. Morning temperature 101.6° F.; evening temperature 103° F. Signs of fluid in abdomen. Patient very fat. Liver enlarged. October 23rd. Morning temperature 102.4° F.; evening temperature 103.2° F. Bowels confined. October 24th. Morning temperature 102.2° F.; evening temperature 103° F. Bowels opened twice. Widal's reaction, positive (dilution 1 in 80). October 25th. Morning temperature 100.4° F.; evening temperature 104.2° F. October 26th. Morning temperature 101.4° F. 7 p.m. vomited; patient delirious. 8 p.m., temperature 103.4° F. in axilla. Pulse thready, 120 per minute. Abdomen distended with gas. Vomited again, and rapidly sank, dying at 9.50 p.m. Fifteen minutes before death temperature was 105° F.

Post mortem Examination.—October 27th. Rigor mortis well marked. Old adhesions in right pleura; lungs otherwise normal. Liver weight 70 oz. Heart 15 oz.; valves normal; very little fat. Abdomen: recent peritonitis general. Local older peritonitis in right iliac region. Appendix normal. One perforated typhoid ulcer found in ileum 8 in. above ileo-caecal valve which had allowed intestinal contents to escape into peritoneal cavity, which was full of gas. No other typhoid ulcers present. Few Peyer's patches inflamed. Spleen soft and friable; weight 13½ oz. Spleen removed and seared with a hot iron. Seared portion cut through with a sterile knife, and platinum loop thrust into spleen pulp.

Cultures were made on MacConkey's medium, neutral-red agar, lactose agar, and broth.

Growths were obtained in each case. From that on MacConkey's medium plate cultures were made on Conradi and Drigalski's medium and bacillus typhosus (Strain F) was isolated. (Strain F is here called bacillus typhosus as the tests applied have proved it to be such. The same applies to Strains E and G.)

Strain G was obtained from spleen of R. H., aged 38, chief stoker H.M.S. *Terror*, married, and living at Somerset. He had lived in Bermuda since July, 1904.

	Nature and Source of Micro-organism.	A. B. Coli Com. from R.N. Hospital, Haslar.	B. B. Typhosus E. from New York, per Military Laboratory, Bermuda.	C. B. Typhosus E., from England, per Military Laboratory, Bermuda.	D. B. Typhosus E., from R.N. Hospital, Haslar.	E. B. isolated from Spleen of J. L., R.N. Hospital, Bermuda.	F. B. isolated from Spleen of O., R.N. Hospital, Bermuda.	G. B. isolated from Spleen of H., R.N. Hospital, Bermuda.
1	Character of micro-organism	Short rods and thread forms	Short rods and thread forms	Short rods and thread forms	Short rods and thread forms	Short rods and thread forms	Short rods and thread forms	Short rods and thread forms
2	Motility	Sluggish	Active	Active	Active	Active	Active	Active
3	Spores	Absent	Absent	Absent	Absent	Absent	Absent	Absent
4	Flagella	Short, slender, Nos. 3-4, peritrichous	Long, wavy, Nos. 9-12, peritrichous	Long, wavy, Nos. 8-13, peritrichous	Long, wavy, Nos. 9-14, peritrichous	Long, wavy, Nos. 8-11, peritrichous	Long, wavy, Nos. 8-12, peritrichous	Long, wavy, Nos. 7-11, peritrichous
5	Agglutination with serum from local cases of "typhoid"	—	+	+	+	+	+	+
6	Gram staining	—	—	—	—	—	—	—
7	Anaërobiosis	+	+	+	+	+	+	+
8	Conradi and Drigalski medium	Vigorous red growth visible after 24 hours	Blue colonies, visible after 3 days	Blue colonies, visible after 3 days	Blue colonies, visible after 3 days	Blue colonies, visible after 2 days	Blue colonies, visible after 2 days	Blue colonies, visible after 3 days
9	MacConkey's medium (modified)	Vigorous growth, medium turned reddish	Growth, medium unaltered	Growth, medium unaltered	Growth, medium unaltered	Growth, medium unaltered	Growth, medium unaltered	Growth, medium unaltered
10	Potato	Thick brownish-yellow growth	Light brownish-yellow growth	Light brownish-yellow growth	Light brownish yellow growth	Light brownish yellow growth	Light brownish-yellow growth	Light brownish-yellow growth
11	Gelatine streak	Non-liquefying vigorous, fairly opaque growth	Non-liquefying delicate transparent growth	Non-liquefying delicate transparent growth	Non-liquefying delicate transparent growth	Non-liquefying delicate transparent growth	Non-liquefying delicate transparent growth	Non-liquefying delicate transparent growth
12	Neutral red lactose agar	Magenta red	Orange	Orange	Orange	Orange	Orange	Orange
13	Agar, plain	Very vigorous well-raised growth, smooth grey	Vigorous, slightly-raised, smooth, grey growth	Vigorous, slightly-raised, smooth, grey growth	Vigorous, slightly-raised, smooth, grey growth	Vigorous, slightly-raised, smooth, grey growth	Vigorous, slightly-raised smooth, grey growth	Vigorous, slightly-raised, smooth, grey growth
14	Milk	Coagulated in 24 hours	Unaltered after 10 days	Unaltered after 10 days	Unaltered after 10 days	Unaltered after 10 days	Unaltered after 10 days	Unaltered after 10 days
15	Whey neutral to phenol-phthalein. Amount of acid produced in 10 c.cm. of whey in 48 hours at 37° C., expressed in c.cm. deci-normal acid	2.80	0.56	0.45	0.40	0.40	0.45	0.40
16	·2 per cent. lactose broth	Acid and gas in 24 hours	No acid or gas after 7 days	No acid or gas after 7 days	No acid or gas after 7 days	No acid or gas after 7 days	No acid or gas after 7 days	No acid or gas after 7 days
17	·2 per cent. lactose peptone salt solution							
18	·2 per cent. cane sugar peptone salt solution							
19	·2 per cent. glucose broth							
20	Bile salt broth							
21	·2 per cent. galactose peptone salt solution							
22	·2 per cent. maltose peptone salt solution	Acid and gas in 24 hours	Acid in 24 hours. No gas after 7 days	Acid in 24 hours. No gas after 7 days	Acid in 24 hours. No gas after 7 days	Acid in 24 hours. No gas after 7 days	Acid in 24 hours. No gas after 7 days	Acid in 24 hours. No gas after 7 days
23	·2 per cent. glucose peptone salt solution							
24	·2 per cent. mannite peptone salt solution							
25	Indol production in peptone salt solution in 7 days	Well marked	Nil	Nil	Nil	Nil	Nil	Nil

Remarks.—Most of the agglutination tests were made for clinical purposes, the usual dilution being 1 in 80. If a positive reaction were obtained, generally no higher dilution was tried, but in several cases dilutions up to 1 in 600 gave vigorous reactions.

Conradi and Drigalski's medium: (A) *Fleischwasser* 2 litres; boil for one hour, filter, and add peptone (Witte) 20 grams, nutrose 20 grams, salt 10 grams; boil again for one hour, filter, and add agar 40 grams; boil for three hours and make slightly alkaline to litmus, filter, and boil again for half an hour. (B) Neutral litmus solution 200 c.cm.; boil for ten minutes, and add pure sugar of milk 30 grams; boil again for ten minutes. (C) Now add hot litmus-milk-sugar solution to hot fluid agar; shake well and make slightly alkaline with caustic soda. To every 2 litres of the above add of 10 per cent. solution of water-free soda 4 c.cm. (to hyper-alkalinize). Finally add 20 c.cm. of a fresh prepared solution of crystal violet (B. Höchst), made by dissolving 0.1 gram in 100 c.cm. warm distilled water (*Journal R.A.M.C.*, p. 297, vol. i, No. 5).

MacConkey's medium C (modified): Agar 2 grams, peptone (Witte) 2 grams, water 100 c.cm. Boil until dissolved; strain and neutralize to phenol-phthalein; boil, filter, and sterilize. Add of ½ per cent. crystal violet solution 0.2 c.cm., ½ per cent. neutral red solution 1 c.cm., lactose (milk) 1 gram. Heat fifteen minutes in Koch's sterilizer.

Clinical History.—On October 24th, 1904, was visited at Somerset by Surgeon of *Terror*. Temperature was 104°; diarrhoea; lumbar pains; intense headache; had been feeling ill for ten days; tongue furred; no abdominal physical signs; heart and lungs normal; pulse, 100; respirations, 18. Removed to Royal Naval Hospital. Widal's reaction, positive (dilution, 1 in 80). Bowels opened twice; evening temperature, 103.2° October 25th. Evening temperature, 103.6°; bowels opened three times (liquid, light). October 26th. Bowels opened twice (loose, light yellow). October 27th. Bowels opened three times (liquid, dark). October 28th. Rose spots on abdomen. October 29th. Fresh rose spots; bowels opened four times (liquid, light): evening temperature, 103.2°. October 30th. Bowels opened once; evening temperature, 103.2°. October 31st. Bowels opened three times (light); evening temperature, 103.8°. November 1st. Two pea-soup stools. November 2nd. Two pea-soup stools; some abdominal distension. Noticed that most of the flies in the ward were collected round patient's bed. November 3rd. Three pea-soup stools. November 4th. Four pea-soup stools. November 5th. Twelve noon, slight haemorrhage per rectum; 4 p.m., slight haemorrhage per rectum; 6 p.m., severe haemorrhage per rectum, about two pints; pulse very bad; 9.30 p.m., haemorrhage continued; 11.45 p.m., more haemorrhage; patient semi-conscious; pulse hardly perceptible. November 6th. 12.30 a.m., haemorrhage continued; 1.15 a.m., pulse sinking; died at 2 a.m.

Post-mortem Examination (10 a.m.)—Patient very thin. Rigor mortis well marked. Heart, lungs, kidney, and liver normal. Spleen 22½ oz., soft and friable. Abdomen: No peritonitis; colon and ileum distended with blood. On slitting up bowel innumerable typhoid ulcers were found in ileum and large intestine. Peyer's patches much inflamed. Large mass of typhoid ulcers at ileo-caecal valve, probably the main source of haemorrhage, but ulceration very deep in many of the ulcers of ileum. Ulcers in colon very numerous, but smaller and more superficial; extended into rectum. Appendix not inflamed, 4 in. long. Spleen removed and cultures made with same precautions as in last case on Drigalski and Conradi's medium, MacConkey's medium, and lactose agar. Growth occurred on all three. By plate cultures on Conradi and Drigalski's medium bacillus typhosus (Strain G) was isolated.

Strain E was obtained from the spleen of J. L., aged 26, Petty Officer 1st Class, H.M.S. *Rocket*, who had been living in Bermuda for several months:

Clinical History.—Went sick August 24th, 1902, with headache, vertigo, and general malaise. Had felt ill four days; temperature, 103°; abdominal tenderness. August 25th. Sent to Royal Naval Hospital, Bermuda. Severe diarrhoea after purge given day before; evening temperature, 103°. August 26th. Morning temperature, 103.6°; headache better; bowels opened once; stool like curdled milk. Tongue dry and caked. No rose spots. August 27th. Morning temperature, 101.2°; severe headache and pain in abdomen. Transverse and descending colon dull, ascending tympanitic. Enema brought away large stool. Tongue dry and brown in centre. Evening temperature, 101.6°. August 28th. Morning temperature, 101°; patient unconscious; low muttering delirium. Urine passed twice involuntarily. Picking at bedclothes. 8.30 p.m.: Temperature, 103° in axilla; patient rapidly sank; pulse uncountable; rapid breathing; profuse sweating; incontinence of urine. 12 midnight: Temperature, 104° in axilla. August 29th, 9 a.m., died.

Post-mortem Examination (10.30 a.m., August 29th).—Heart large, firm, with dark soft clot in pulmonary artery; 2 oz. of serous fluid in pericardium; lungs congested at both bases; liver nutmeg; spleen not enlarged; considerable erosion of mucous membrane of greater curvature of stomach with punctate haemorrhages. Bowel: In ileum patches of acute congestion with punctiform haemorrhages; in caecum, and extending a little way into colon, acute congestion with one ulcer ⅜ in. long. Several whitish sloughs were found on surface of mucous membrane which could be picked off and left tiny punched-out cavities. Near caecum mesentery showed marked redness. Spleen was seared and punctured with a sterile needle and a streak culture made on agar. After twenty-four hours a grey growth was visible which was the original source, after various platings and subcultures, of bacillus typhosus, Strain E.

This Strain E had been in use for two years as the stock laboratory culture of bacillus typhosus, and was used for Widal reactions. No case presenting well-defined clinical symptoms of typhoid tested by this strain between August, 1902, and August, 1904, failed to give a reaction at one or other period of the disease.

The notes of this last fatal case are taken from the hospital records; the case was Staff-Surgeon Phillip's.

Reference to the attached tabular statement of tests shows that each strain of organism tested (except the bacillus coli) exhibited identical characteristics, and in no single test did Strains E, F, and G show any different reaction whatever to that shown by B, C, and D, all of which latter strains were true Eberth's bacilli used as controls.

We therefore consider it justifiable to state definitely that Strains E, F, and G are all three specimens of Eberth's bacillus; and, seeing that they were isolated from fatal cases of fever contracted in Bermuda, and having the clinical and *post-mortem* macroscopic appearances of typhoid fever, it is necessary to conclude that this disease exists in the island.

THE CORNEAL REFLEX IN ANAESTHESIA.

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Anaesthetist to the Birmingham and Midland Hospital for Women.

FROM a practical point of view it is of the utmost importance for the administrator to be able to judge how far he can "push" the anaesthetic for the proper performance of the operation in hand.

In the BRITISH MEDICAL JOURNAL of February 4th, 1905, Mr. H. Bellamy Gardner dogmatically lays down his two principles for safety in the administration of anaesthetics. These are: (1) Keep the airway clear; (2) never completely abolish the corneal reflex.

I quite agree with Mr. Gardner as to (1), and do not consider its importance can ever be over-estimated; and I cannot help thinking that if it were kept more prominently in view we should have fewer anaesthetic deaths to deplore.

Mr. Gardner's second principle, however, cannot in my experience be accepted unconditionally. After giving between one and two thousand anaesthetics for gynaecological operations with an average anaesthesia of forty-five minutes, and including some six hundred abdominal sections, I am convinced that while there is any trace of corneal reflex the general anaesthesia is not deep enough to prevent some straining should an extra nervous influence come into play; as, for instance, when the ovaries or uterus are pulled upon during the course of the operation. This straining may not only hamper the surgeon, but may lead to serious after-results, such as the slipping of the ligature of an ovarian stump, which, owing to the straining, could not perhaps be drawn tightly enough.

I therefore find it necessary to push the anaesthetic in these cases till secondary dilatation of the pupil begins, in order to get the complete relaxation required, and, if the breathing and pulse-rate remain good, I see no objection to so doing. After all, the fact of the existence of the corneal and conjunctival reflexes simply indicates that certain muscles still react to stimuli, and it appears to me not illogical to suppose that other muscles may be stimulated by suitable means while these remain active. Furthermore, my experience leads me to conclude:

1. That there is, *caeteris paribus*, a much greater interval of safety between the loss of the corneal reflex and the failure of respiration and heart than is generally admitted.
2. That the reaction to corneal stimulation varies enormously in individuals.

In conclusion, then, I believe that the corneal reflex cannot be depended upon as a guide in the administration of anaesthetics in cases requiring complete muscular relaxation, especially in abdominal and haemorrhoidal operations, in which, I think, moderate secondary dilatation of the pupil, while keeping a careful watch on the respiration and pulse, is the best guide to complete success.

A TESTIMONIAL, accompanied by a silver salver, was presented recently to Dr. Deas, of Thorndale, Merton Park, as a token of the high appreciation the members of the Wimbledon and District Medical Society had for his kindly services as honorary secretary from its birth and during its early infancy. The presentation was made by the President, who referred to the great pleasure the members experienced in welcoming Dr. Deas back after his severe attack of scarlet fever, and spoke in highly eulogistic terms of the services he had rendered to the Society. Dr. Deas, in reply, said that he had had already three surprises this year—the first when he found that he had scarlet fever; the second that so many of his professional brethren offered their services to him and visited him at the Isolation Hospital, Mitcham; while that the members should have presented him with this testimonial for the slight services he had rendered to the Society was the greatest surprise of all. The presentation was followed by a smoking concert, in which Messrs. Bishop, Clapham, Hill, Hemingway, Robertson, and Spurgin took part.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

PERINEORRHAPHY FOR RECTAL INCONTINENCE.

In the patient whose case is here reported rectal incontinence of twenty-six years' standing was cured by perineorrhaphy and suture of the anal sphincter. She was an unmarried lady, aged 34, and was first seen on April 13th, 1904.

Previous History.—When 8 years of age she was dropped by another child astride the gunwale of a boat, the rowlock of which tore the perineum, which was sewn up at once. Since this accident as soon as she has felt an inclination to defaecate she has always been obliged to rush to the watercloset, and if prevented, soiled her clothes. Within the past few months something had protruded.

Condition on Examination.—There was a complete tear of the perineum, extending through the external sphincter into the rectum, the mucous membrane of which had prolapsed anteriorly to the extent of 1 in. The patient had no power of retaining a soap-and-water enema.

Operation.—On April 15th I cut away the prolapsed rectal mucosa and reconstructed the perineum by a modification of Tait's flap-splitting operation, the ends of the external sphincter, which were represented by two fibrous nodules, being united with buried sutures of formalined catgut. At the operation a spherical mass occupying Douglas's pouch, which prior to operation was thought to be the fundus of the retroverted uterus, proved to be a fibroid the size of a duck's egg growing from the back of the uterus, and firmly adherent to the rectum and pelvic walls. The sound passed 2½ in., and demonstrated the fundus in its normal position.

Subsequent History.—On April 19th, that is, four days after operation, the patient was able to retain a simple enema. On June 8th, that is, nine weeks after operation, the patient wrote: "I can wait without any difficulty from five to eight minutes, am afraid to wait longer for fear the inclination for an action should pass." On January 24th, 1905, that is, nine months after operation, the patient came to report herself, when the following note was made: "There appears to be power of contraction in the external sphincter, about one-third of the normal. The perineal body is ½ in. in thickness, the tone of the perineal muscles being very good. The patient says she can now wait ten minutes."

Comments.—The publication of this case has been delayed for nine months to see if the result promised to be permanent. The improvement, first indicated by the power to retain an enema on the fourth day after operation, appears to have been due, in a large degree, at first to mechanical causes, that is, the repair of the perineum, which enabled the muscles of the pelvic floor, especially the levator ani, to act to better advantage, and later to the reinforcement of these muscles by a certain amount of contractile power in the external sphincter. The time during which rectal continence is possible has increased to ten minutes, and will quite possibly still further increase, because, as the patient herself says, it took her a long time to recognize the fact that the call of nature did not require immediate attention, since she had to break herself of a routine which had existed for so many years. At her last visit, the patient volunteered the opinion that her life was now, for the first time for twenty-six years, worth living.

On March 10th, 1905, the patient wrote: "At times I can only wait ten or fifteen minutes, yet again one hour and a half to two hours, and once I put it off so long that the inclination for an action entirely passed away."

Plymouth. C. Hamilton Whiteford, M.R.C.S., L.R.C.P.

STRANGULATED HERNIA IN THE AGED.

The following case is of interest in connexion with those of operation for strangulated hernia in aged persons which have been recently published:

On April 3rd, 1899, I was called to Mrs. J., aged 94, who was suddenly seized with pain in the right groin and vomiting. I found that she had a strangulated right femoral hernia. As the symptoms had only come on two hours previously, I decided to operate. Chloroform was administered by Dr. G. F. Murrell, and Mr. W. J. Foster kindly assisted me.

The hernia being still irreducible by taxis, I rapidly opened the sac and found a knuckle of gut covered with omentum; the omentum was ligatured and removed, the stricture divided in the usual manner, and the gut drawn slightly down and examined. The gut being uninjured was returned, and the skin wound sutured without drainage. The patient made an excellent recovery, the wound healing by first intention. There was no return of the hernia, and Mrs. J. died of senile decay about nine months after the operation.

Reading. G. H. R. Holden, M.D.

THE WIDER USE OF ARTIFICIAL RESPIRATION IN THERAPEUTICS.

It seems to me strange that, when we consider the great amount of attention paid during the last ten or fifteen years to the use of breathing exercises as a therapeutic measure, practically none has been paid to the therapeutic possibilities of artificial respiration.

It is true that we use it in cases of acute poisoning, hanging, drowning, asphyxia neonatorum, snakebite, sunstroke, lightning stroke, alarming dyspnoea, or paralysis of respiration from any cause; and there we stop. But, if we reflect, we must see that its scope might be greatly enlarged, and almost certainly with benefit, in a great many acute and chronic conditions.

I mention, merely as examples, a few out of the many in which it ought, in my opinion, to be tried: Rickets, malnutrition from any cause, habit-spasm, chronic Sydenham's chorea, immediately before epileptic attacks in cases that show an aura or any prodromata, hysterical seizures, anaemia, chlorosis, phthisis, perhaps in the early stage of acute pneumonia, cardiac affections, renal diseases, diabetes, chronic constipation, chronic toxaemic states, asthma, chronic bronchitis, tabes dorsalis, many of the insanities, and in "Weir Mitchell" cases.

As to method, Sylvester's, or Howard's, or Schäfer's, or Laborde's (rhythmical traction of tongue) or Depage's recently described method (rhythmical passive alternate flexion and extension of the head), which he finds quite as effectual as Laborde's method, and easier to apply. I would vary the method used according to the circumstances of the case; and I would have it done many times a day for as long a time as the operator would consent to go on. I see no reason why we should not use both breathing exercises and artificial respiration in many of the cases.

Are there any contraindications? Perhaps it would be objected that in acute pneumonia or pleurisy we should be outraging the sacred law of physiological rest of the hampered thorax. To this I reply: "Then use either Laborde's or Depage's method here, or both."

With regard to hysterical attacks, Balade (Bordeaux) found more than ten years ago that by simply holding out the tongue beyond the dental arch for several minutes severe attacks that resisted other treatment yielded completely.[1] It was this reference that suggested to me the possible value of artificial respiration during hysterical attacks.

There are certain grave conditions in which caution would be desirable in its application. I refer to myasthenia gravis and other bulbar affections. But even in these I think we might find some benefit from its use.

I need hardly say, in conclusion, that we should naturally use the purest air available either by out door treatment or by abundant ventilation indoors.

London, W. Leonard J. Kidd.

A CASE OF MESOTAN ERUPTION.

The following notes of a recent case of mesotan eruption may be of interest:

A lady, about 70 years of age, suffering from a prolonged attack of subacute gout, had mesotan applied to her left hand and knee on January 19th last, and on 20th and 21st the same mixed with equal parts of olive oil. On the 26th a slight rash appeared on the buttocks and left arm and elbow. On the 28th the knee was painted again, and likewise the hand from time to time up to February 8th, when a very irritating papular rash came out all over it. The papules were large, hard, pink, and like lichen planus in character, and such as I have recently seen provoked by free use of mesotan (undiluted) in another case. It faded and disappeared in a few days. The hand, which had been swollen throughout, was now ordered to be fomented with hot water and dressed with olive oil.

On March 8th, one month after the last application of mesotan, it became still more swollen, and on the next day, after very severe pain, large bullae formed almost all over the

[1] *Lancet*, 1894, vol. ii, p. 468.

palm, the outer border, and between the fingers. These bullae were opened, and continued for some days to discharge large quantities of serum, but healed without suppuration. The patient's temperature at the time of the bullous eruption was normal.

A week later a subcutaneous effusion formed over the elbow at the point of the olecranon on the same side, and has since been absorbed. I believe it was haemorrhagic, but whether it had anything to do with the mesotan I do not know.

The general treatment up to the time of the eruption was by piperazin and cardiac tonics. The mesotan was distinctly useful in relieving pain.

Bexhill-on-Sea. J. P. WILLS, M.D.

A PECULIAR CASE OF HETEROPHTHALMOS.

A WOMAN, aged 50, a Russian emigrant on her way to the United States, came to the surgery of Dr. B. Morris, of whose practice I am taking charge, to consult me about the condition of her eyes with regard to the presence or absence of trachoma. She had no traces of that disease, but I noticed that the colour of the iris in one eye was different from that in the other. On closer examination I discovered that not only was there a difference in the colour of her two irides, but that the upper half of her right iris was of different colour from that of the lower half of the same iris. The exact colours were as follows. Right iris: upper half green, lower half brown; left iris: blue. Contrary to what one might perhaps expect, her two pupils were of equal size, and the right pupil was perfectly regular, in spite of the fact that the amount of light passing on to the two retinae, or the two halves of the right retina cannot have been the same owing to the different degrees of absorption by the three different colours of the two irides. On ophthalmoscopic examination, however, I found that the fundus of the left eye—namely, that with the blue iris—was considerably redder than that of the right eye, although, owing to the hurried examination, I did not detect any difference in colour in two halves of the right fundus. It seems, therefore, probable that the intensity of light striking the two retinae is equalized by the different degrees of pigmentation of the choroids, which may therefore account for the equality of the pupils. Otherwise her fundi and discs were perfectly normal. Her vision was good, and her pupils reacted equally briskly to light and accommodation. There were a few dark-brown spots of pigment on the lower part of the right sclerotic. According to W. G. Sym, the colours in cases of heterochromia (with only two different colours) of congenital origin correspond to the colours of the eyes in the two parents. In this case the woman did not remember the colours of her parents' eyes, but in any case it would be difficult to account for the third colour, unless one of her parents also had heterophthalmos. I have only met with one other case of heterophthalmos myself, and have been told of a second. Both these, also, were in females, double coloration, however, alone existing.

London, E. M. FELDMAN, M.R.C.S., L.R.C.P.

ORAL SEPSIS AND PUERPERAL SEPTICAEMIA.

IN the following case, oral sepsis seemed to be so clearly indicated as a factor in the causation of the septicaemia that the facts are worth recording.

Mrs. M., aged 22, primipara, was confined on September 24th last, after a normal labour, and went on satisfactorily until the morning of October 3rd, the tenth day, when I was hastily summoned as she had had a rigor, and her temperature had gone up to 105°. On seeing her shortly after, I learned that she had passed a comfortable night, and had made a hearty breakfast, but that soon after she vomited, had a rigor, became very hot, and followed by profuse perspiration. Her temperature had now fallen to 103°. She complained of headache and thirst. There was no abdominal tenderness, nor offensive lochia.

This serious outbreak occurring ten days after her confinement was at first very perplexing, and I was unable to trace any cause for it. On the following day, however, my patient informed me for the first time, that she had been troubled off and on for some months with suppuration of the gums in connexion with some decayed stumps, but had not thought it worth her while to mention it before. About three days previously she had tried to open a small abscess in the gum with a safety pin. On examining her mouth, I found a small alveolar abscess which I opened, letting out a small quantity of pus.

By the sixth day of her illness her temperature had fallen to subnormal, with a rise of 102 4° F. the previous morning. On the morning of the eighth day of illness the temperature again rose to 103 2° F., but fell to normal by the next morning, when, as there was still suppuration going on in connexion with other stumps, I had two of them removed under gas. For the next three days, although the temperature was normal, or nearly so, each morning, it rose considerably each evening, on the last of which it rose to 104° F. After this—namely, the thirteenth day of illness, it fell again to subnormal, remaining so for another week, when it became normal, followed by an uninterrupted recovery.

The absence of uterine or pelvic symptoms and the sudden rise of temperature so late as the tenth day, would lead one to infer that the septicaemia had arisen from the predisposing sepsis of the gums, favoured by the puerperal state; and proximately from self-inoculation by the patient in her futile attempt to open the alveolar abscess.

Liverpool. THOS. DRAKE LEIGH, M.R.C.S.Eng.

THE OPENING OF SUPRATONSILLAR AND PERITONSILLAR ABSCESSES.

[Communicated by the DIRECTOR-GENERAL, R.N.]

I HAVE read with much interest the paper by Dr. StClair Thomson in the BRITISH MEDICAL JOURNAL of March 25th, and many will endorse with me the clear clinical picture of supratonsillar and peritonsillar abscesses depicted, and also the opinion that the treatment of such, both from a view to the relief of the patient's distress and to avoid any possible sinister result, is important. The distress of the patients in such cases is often very trying, and the occurrence of asphyxia from bursting of such an abscess during sleep has been several times recorded.

The procedure of opening a supratonsillar or peritonsillar abscess through the soft palate does not seem to be mentioned in the usual surgical textbooks, but those who have adopted it will fully bear out Dr. StClair Thomson's very able remarks. In a case of mine the abscess was attempted to be opened by the tonsil four times without success when I tried the above method, first incising the soft palate with a Paget knife and then using Hilton's method. The idea was arrived at experimentally on my part after other incisions in the tonsillar region had failed. Dr. StClair Thomson's method with a sinus forceps is as neat as it is simple, and must be specially serviceable where the mouth, as frequently is the case, can be opened to only a limited extent. I am inclined to think, however, that for such abscesses to open spontaneously through the soft palate must be very exceptional.

W. H. S. STALKARTT, M.D., C.M., F.R.C.S.E.,
Staff Surgeon R.N.

SURGICAL TREATMENT OF HYDROCELE OF TUNICA VAGINALIS.

IN the BRITISH MEDICAL JOURNAL of January 28th, 1905, p. 184, a note was published on the surgical treatment of hydrocele of the tunica vaginalis by Mr. E. A. Gaynes-Doyle, Resident Surgeon-Superintendent of the Colonial Hospital, Trinidad, W.I. In this Mr. Doyle refers to an operation performed by his chief assistant, Dr. Scheult, which consists in incising and reflecting the tunica back and securing its cut edges behind the testicle by sutures. It may be of interest both to Mr. Doyle and to your readers to know that this operation has for several years been extensively practised in India, where it is known as "Pratt's operation," having first been performed at Fyzabad in 1898 by Lieutenant-Colonel J. J. Pratt, I.M.S., now Civil Surgeon of Lucknow.

Colonel Pratt published short articles on this method, which he styled the Radical Cure of Hydrocele by Incision and Eversion, in the *Indian Medical Gazette* of August, 1898, and April, 1899, and since then it has been generally adopted by the medical profession in the United Provinces, and to a great extent elsewhere.

The buried sutures originally used to unite the edges of the tunica behind the epididymis have long been discarded, the evil effects of pressure of any kind on the delicate structures concerned being thus avoided. The operation as practised in this country has been highly successful in thousands of cases, and may be said to have driven all other methods of radical cure out of the field.

R. K. TANDAN, M.B., C.M.Edin.,
In charge Balrampur Hospital, Lucknow, India.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

CASE OF ANEURYSM OPENING FROM THE FIRST PART OF THE THORACIC AORTA INTO THE PULMONARY ARTERY.

(Reported by Fleet-Surgeon D. McNabb, R.N.)

C. R., a leading seaman and a well-developed man, was admitted to the Royal Naval Hospital, Malta, on December 9th, 1904, suffering from vomiting, persistent cough, and dyspnoea. The symptoms had suddenly developed while he was exerting himself in helping a shipmate along the deck of a destroyer. In Malta the cardiac signs were as follows:

Apex, sixth left interspace at nipple line. Loud systolic bruit heard at apex and all over sternum, more particularly at lower part.

Aneurysm was suspected, but the physical signs did not justify an absolute diagnosis of this character.

He was sent home, and on admission to the Royal Naval Hospital, Plymouth, the condition was as follows:

Apex just inside left nipple line; pulsation rapid and forcible. Carotids pulsating visibly; no increase of dullness to right of sternum or upwards. Slight difficulty in swallowing.

Loud, rasping systolic bruit all over cardiac area, but particularly marked at lower part of left side of sternum (about fifth interspace).

Later on the bruit at the base disappeared, an apical systolic alone remaining, which was conducted somewhat beyond the apex. He died from exhaustion following general anasarca and oedema of lungs about seventy-seven days after the first onset of symptoms.



Post-mortem Examination.—The aortic and pulmonary valves were both found watertight and free from vegetations, but there were a few of the latter on the mitral valves. In the aorta an opening about $\frac{3}{4}$ in. in diameter, with rounded edges and circular in shape, was found about $\frac{1}{2}$ in. above the semilunar valves, leading through the anterior wall of the aorta forwards and upwards direct into the pulmonary artery. There were signs of atheroma in the aorta round the opening, and it appears to me that the sudden exertion which was coincident with the onset of the symptoms must have been the cause of this portion of the already weakened aortic wall giving way and producing the condition described.

The annexed sketch, made from the preserved specimen, shows the condition described.

Tea as Medicine.—Before tea became cheap enough to be used as a beverage it was largely used as a medicine. An advertisement in the *Tatler* used to proclaim the virtues of a "famous chymical quintessence of Bohea tea and cocoanuts together, wherein the volatile salt, oil, and spirit of both 'formed' the highest restorative that either food or physic affords."

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

A. W. Collins, M.D., President, in the Chair.

Barrow-in-Furness, Wednesday, April 12th, 1905.

The Modern Treatment of Phthisis.—Dr. T. H. J. E. Hughes, Medical Superintendent of the Westmorland Sanatorium for Consumption at Grange, opened a discussion on this subject. He said that the best means at present at our disposal for the cure of phthisis was the open-air treatment, preferably carried out in a sanatorium. The aim was to raise the resistance of the patient sufficiently to overcome the disease. The essential points were pure air, rest, and good food. The patient should be surrounded by pure air day and night. He gave details as to how this was best effected. Rest was the next most important point; complete rest in bed was necessary so long as fever or gastritis persisted. Much harm was done by injudicious exercise, and this was chiefly responsible for the frequent failure of the treatment when not carried out under strict supervision. The heart in phthisis was not small, and this fallacious statement in many textbooks, with the theory of exercise to remedy it, had much to answer for. The food should be good and sufficient in amount; over-feeding was only necessary in some cases, and often did harm. Strict personal cleanliness, to prevent reinfection of the patient or infection of others, was very important. No drugs were required in uncomplicated cases. In complications, rest was the great remedial agent. Calcium chloride was useful in haemoptysis, but not ergot. Cases which were advanced or rapidly progressive were unsuitable for sanatorium treatment. The bronchial type of case was also often unsatisfactory in this country. As regarded results at the Westmorland Sanatorium, the early cases nearly all remained well; those in which the disease was moderately advanced derived real benefit. In the advanced stage, at any rate for poor people, the sanatorium treatment was unsatisfactory, as although most derived temporary benefit and a few returned to work, relapse was the rule, and more than half died within two years of discharge. The cost of treatment per patient per week last year was 30s., with an average of twenty-three inmates. Dr. E. H. Scholefield gave the results of his experience whilst resident medical officer at the Royal National Hospital, Ventnor. Dr. A. E. Thompson spoke very highly of the effects of the climate of the Orange River Colony, and said that he thought he had seen improvement under ichthyol. Drs. J. W. Anderson, Daniel, D. H. Anderson, and Settle also spoke. Mr. A. S. Barling showed Luys's separator, and mentioned several cases in which he had found it of value.

Specimens, etc.—The following were shown: Mr. J. H. Irwin: Osteo-sarcoma of femur and sarcoma of humerus.—Mr. A. S. Barling: Chondro-sarcoma of testes. Round-cell sarcoma of thigh enclosing femoral vessels and calculus removed from ureter. Photographs by Dr. Daniel of a case of exophthalmos under the care of Dr. Rutherford.—Dr. B. S. Stevens demonstrated under the microscope (1) trypanosoma lewisii; (2) saprolegnia ferox. A large number of new books and new editions were shown by various members.—Messrs. Gardner of Edinburgh exhibited a good collection of surgical instruments.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, April 14th, 1905.

A Joint Affection, possibly due to Malaria.

Professor Howard Marsh described this case. The patient, a man, aged 38, had had syphilis, and had lived abroad. In April, 1903, the knee for three weeks was the seat of severe pain, and again later on, so that morphine had to be injected, but the knee-joint was cool, movable, and very little swollen. In December, 1903, the joint appeared natural, but the muscles were wasted and so weak that he was unable to raise his heel from the bed. He complained of such agonizing pain from hip to ankle that he was ready to submit to

immediate amputation. In the evening the joint had undergone a remarkable change since the morning; it was greatly swollen, and the shape of the swelling was most unusual. It followed the limits of the synovial membrane, and was so abrupt and prominent that the joint had a globular appearance. There was no fluid in the joint, and the swelling seemed due to vascular turgescence of the synovial membrane. The joint swelled thus every evening and then gradually returned to its natural size. As he had often had malarial fever, quinine in 10. gr. doses twice a day was ordered. Next morning the pain was gone and he had slept soundly. The pain did not return. In four days the attacks of swelling disappeared, and he recovered muscular power in the limb so rapidly that in three weeks he was able to walk three or four miles without bad results. Six months later he had a patch of swelling covered by overwarm and intensely hyperaesthetic skin just over the internal malleolus; this swelling Dr. Tatham found was more pronounced and more painful at night. Quinine was again prescribed in 10 gr. doses, the pain was immediately relieved, and the swelling gradually disappeared. At present the knee was perfectly well. When the blood was examined by Major Ronald Ross no parasites were found. When quinine was given both the pain and the swelling forthwith disappeared. Were these symptoms due to malaria? Professor Marsh described other cases of localized vascular engorgement, periodic in its occurrence, and controlled by quinine.

Sir PATRICK MANSON said that symptoms might be related to malaria in two ways: first as a direct symptom of that disease, secondly as a condition due to the lowered vitality caused by malaria. Syphilis, for example, produced greater effect in one who had had malaria than in a healthy person. In Mr. Marsh's patient there were no symptoms pathognomonic of malaria. The periodicity was quotidian, as in many septic conditions, not tertian or quartan as was typical of malaria. The exacerbation of symptoms took place in the evening, a common event in syphilis, rare in malaria, in which it typically occurred before midday. Again, there was no enlargement of spleen and no fever. Quinine had been already administered, so that the absence of the malarial parasite was not a conclusive argument. The two great malarial tests were the finding of the parasite and the observance of malarial periodicity. In only two cases had he known one of these tests only to be observed, nor had he known active evidence of malaria to occur more than three years after exposure to malarial infection.

Colonel MULRONEY, I.M.S., said that the manifestations of syphilis in malarious patients were always more decided than in non-malarious subjects. Quinine relieved them temporarily, but iodide was necessarily for a permanent cure.

Professor MARSH, in replying, said there was no enlargement of the spleen in his case, and that the man had not been abroad for more than three years.

INTERMITTENT HYDROPS OF THE JOINTS.

Professor HOWARD MARSH described three cases which were in all their essential features very similar to each other. The joint effusion returned with remarkable periodicity, in two every fourteen, and in one every twelve, days. In all the local condition—mere increase of synovial fluid—was the same. In all the joints seemed normal in the intervals. They were typical instances of intermittent hydrops, and closely resembled those recorded by Drs. E. J. Brackett and F. I. Cotton in the *Boston Medical and Surgical Journal* in 1901. Our knowledge of the pathology of the condition was *nil*. Arsenic was the only agent which appeared to be useful. These cases might lead to errors in practice, for the recurring effusion might very well suggest the presence of a loose cartilage or a synovial fringe for which a useless operation might be performed.

Mr. F. C. WALLIS thought that a cultivation of the serum obtained by puncture might have settled the diagnosis. These cases were, in his opinion, usually due to micro-organisms, and washing out of the joints with a saline solution resulted in a cure.

Dr. F. J. POYNTON said that micro-organisms in joint affections were not found in the synovial fluid, but in the sub-endothelial layer. He thought the cases were of the nature of urticaria. Some serums when injected subcutaneously produced synovial effusion.

Dr. FORBES-ROSS suggested that the affection was a serous haemorrhage into the joint, resulting from diminished coagulability of the blood, as occurred in malaria, especially after the administration of mercury. Arsenic lessened metabolism, and thus increased the coagulability of the blood.

The PRESIDENT asked on what ground arsenic had been given.

Professor MARSH, in reply, said that the serum from one joint had been examined; but not the blood. He doubted if the attacks were inflammatory, as the joints remained unimpaired after several years of periodic attacks. He had no explanation to offer of the benefit produced by arsenic. Dr. Garrod had mentioned three cases, in two of which the synovitis followed gonorrhoea.

HYDRONEPHROSIS DUE TO MOVABLE KIDNEY.

Mr. F. J. STEWARD described two cases of hydronephrosis caused by undue mobility of the kidney, which resulted in the formation of a sharp kink in the upper part of the ureter as described by Gigon in 1856. In each case the bend in the upper part of the ureter was easily straightened out by pushing the kidney up into its normal position, where it was fixed by silk sutures to the parietes.

Mr. CLEMENT LUCAS related cases of the kind, and had known the hydronephrosis gradually destroy the kidney. It was most important to cure the condition by fixing the kidney and thus save that organ. During pregnancy the kidney was pushed up naturally, so that the symptoms of hydronephrosis disappeared. He had met with a case in which there was a sudden severe illness and then discharge of a pint or more of pus, followed by recovery. If the kidney was fixed too low the hydronephrois recurred.

Mr. W. TURNER had seen a hydronephrosis converted into pyonephrosis; after removal of the kidney the patient did very well. He discussed the origin of this change, and said that an organism had been discovered, but no name had been given to it. Certainly it was not the bacillus coli communis.

Dr. FORBES-ROSS said that the direction of the shrinkage of the kidney should be ascertained by laparotomy at the time of the operation; the subsequent kinking of the ureter might be prevented.

Mr. STEWARD replied.

PATHOLOGICAL SOCIETY OF LONDON.

Professor E. KLEIN, M.D., F.R.S., Vice-President, in the Chair.

Tuesday, April 18th, 1905.

INFLUENZAL ENDOCARDITIS.

DR. T. G. HORDER recounted 2 cases in which endocarditis resulted from influenzal infection. The vegetations on the valves and elsewhere gave cultures of a bacillus which had all the characters of Pfeiffer's. It was a strict aërobe, and grew vigorously on blood-agar. The inoculations of animals gave negative results, the bacillus, agreeing in this, also, with that of influenza. The first case concerned a man, aged 31, with aortic regurgitation. The blood was taken with a syringe and injected into broth tubes which were kept in the incubator. Rabbits which had received as much as 4 c.cm. of broth culture intravenously or intraperitoneally remained well. The same held true if the rabbit was previously infected with colon bacillus. In the patient's heart the chief lesion was a mural endocarditis of the left auricle; the influenza bacillus was found in the lesion. The second case was that of a boy suffering from mitral disease. Death occurred from uraemia, arising from renal disease. At the autopsy a single vegetation was found obstructing the mitral orifice. In both cases the disease assumed a septicaemic form, and in both, the disease was insidious in origin, and lasted three and four months respectively. Well-marked leucocytosis was present.

GONORRHOEAL ENDOCARDITIS.

The same author reported a case of the above, in which the gonococcus was cultivated from the blood. The man had contracted the disease three and a half months before admission to St. Bartholomew's Hospital. The growth appeared in the broth tubes on the third day. The leucocytosis present in the earlier stage gave place to a diminished as the resistance fell. The heart showed old thickening of the mitral cusps; to this were superadded more recent foci of endocarditis.

Dr. BULLOCH remarked that the older form of the influenza bacillus of 1892-3 was more easily recognized and less difficult to grow than at present. The diplococcus catarrhalis had to be differentiated.

In answer to the CHAIRMAN,

Dr. HORDER stated that by non-Gram-staining bacilli he

understood those that were decolorized with alcohol after treatment for one minute with aniline gentian violet and four minutes with iodine solution.

The Vitality of the Typhoid Bacillus in Shellfish.—Professor E. Klein communicated a series of observations upon this subject. In normal oysters there was often present an organism very like the typhoid bacillus, but which only grew in the cold. The oysters experimented upon were infected either by injecting the culture between the shells or placing the oysters in sea water to which a known number of the bacilli had been added. The final examination was made by mincing up the oyster and inoculating from it. The speaker found that if normal oysters received from a pure source were kept one day in typhoid-infected water, and if daily for six days they were transferred to a new supply of sterilized sea water all the bacilli disappeared. If oysters already polluted were treated by daily changes of water, they required a much longer time to rid themselves of the bacilli. Mussels behaved as oysters. Cockles were far more dangerous, and retained the bacillus for long periods; commonly, however, these were cooked before consumption, the danger being thus averted.

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Obstetrics on April 7th, Dr. A. J. Smith, President, in the chair, Professor E. J. McWeeney demonstrated the chorionic villi in a case of ruptured tubal pregnancy. The specimen had been removed by Mr. Blayney at the Mater Hospital from an unmarried girl aged 24, who had been suddenly seized with acute abdominal pain and collapse, but recovered after operation. The sac, about the size of a large hazel-nut, lay near the uterine end of the tube which was widely ruptured and contained a mass of blood clot to which some whitish shreds adhered. Microscopic sections showed the shreddy matter to consist of tufts of chorionic villi, some of which were enclosed in a thin epithelium-covered membrane of doubtful nature. The stroma of the villi exhibited marked metachromatism on staining with Ehrlich's haematoxylin. It was covered with a double layer of cubical cells (Langhans's cells), on the outside of which were scattered, without any regularity, large multinucleated masses of protoplasm (syncytia). In the intervillous spaces were groups of large mononuclear cells without intercellular substance (trophoblastic cells). The mass of blood-clot contained isolated syncytia in its clefts, and also large groups of the trophoblastic elements, lying at a considerable distance from the most deeply-penetrating villi. The syncytial cells had not as yet become confluent, and were identical in appearance with the multinucleated so-called "foreign-body" giant-cells found wherever intrusive matter was undergoing absorption. Their function probably was to cause the natural structures to melt away and thus provide nourishment for the ovum prior to the establishment of vascular connexions with the mother. Their nuclei seemed to be proliferating by gemmation, not by mitosis. The mucosa of the Fallopian tube was intact, save at one spot where it was replaced by a fibrinous mass. The delamination of its muscular bundles was apparently being accomplished by swarms of small mononuclear cells resembling lymphocytes.

West London Medico-Chirurgical Society.—At a clinical meeting on April 7th, Mr. C. M. Tuke, President, in the chair, Mr. J. Howell Evans showed a cervical auricle which he had removed from a child, and by the aid of lantern slides explained the origin of these growths.—Dr. Seymour Taylor showed a case of acromegaly in a woman of 28 years of age, who had wonderfully improved under treatment by pituitary gland extract. Dr. A. E. Russell remarked on the tendency in some of these cases for the disease to undergo spontaneous arrest.—Dr. Leonard Dobson exhibited a case of congenital ataxia in a boy aged 8½ years. The boy was born prematurely and delivered with forceps. He had been treated during infancy for rickets. He could not talk and did not attempt to walk until he was 4 years old. He now walked, but with a well-marked ataxic gait, and had constant choreic movements, which ceased during sleep. His general health was very good; he was a bright, intelligent boy, cleanly in his habits, with complete control over his sphincters. Dr. H. P. Potter suggested large doses of arsenic to allay the involuntary choreic movements. Dr. Arthur Saunders, who agreed with this suggestion, thought the condition was probably due to meningeal haemorrhage at time of birth. Dr. G. E. Shuttleworth said a degree of inhibitory and co-ordinative power might gradually be developed by judicious muscular exercises; he mentioned a boy under his care at the Royal Albert Asylum, Ancaster, who gradually was taught to use carving tools, and eventually became a teacher of wood carving at the asylum.—Dr. H. B. Ball showed a case of chronic middle-ear suppuration with thrombosis of the lateral sinus; in addition to the ordinary mastoid operation he laid open the lateral sinus, removed a broken-down clot, and ligatured the internal jugular vein.—Dr. Arthur Saunders showed a case of congenital heart disease in a girl aged 15. The point of interest was the peculiar character of the murmur. It was best heard at the pulmonary base, and was of a roaring character, lasting throughout both systole and diastole. Dr. Seymour Taylor said it was impossible to diagnose the exact condition of cases of congenital heart diseases.

Glasgow Medico-Chirurgical Society.—At a meeting on April 7th, Dr. David Newman, President, in the chair, Dr. George Burnside Buchanan described a case of malignant disease of the thyroid gland, with involvement of the sympathetic and recurrent laryngeal nerves. While the patient was under observation it was noted that he perspired freely, but the left side of the face and neck remained dry. The anterior limit of this dryness was the median line of the head and face, but the lower and posterior limits, though they reached well down the neck towards the chest and shoulder, were never definitely marked out. The left pupil was slightly contracted, and did not dilate on shading the eyes. The left eyelid drooped somewhat. The heart was rapid and sometimes irregular.

Liverpool Medical Institution.—At a meeting on April 13th, Dr. James Barr, President, in the chair, Dr. J. C. M. Given related a case of paramyoclonus multiplex occurring in a man aged 21. The contractions were unilateral in distribution, affecting mainly the muscles of the forearm, leg, and abdomen on the left side. The patient's mother had suffered from chorea gravidarum whilst pregnant with this child. He had himself had two severe accidents at long intervals, to which he attributed the commencement and increase of the disease. The administration of hyoscine hydrobromate (gr. $\frac{1}{100}$) twice daily had been followed by distinct improvement.—Dr. A. C. Wilson related 5 cases of haemorrhage apparently due to high arterial tension. Case I was that of a youth aged 20, who from early childhood had been subject to nose bleedings. During one week he had two severe attacks of haematemesis. The radial pulse denoted high arterial tension, and there was no pain or tenderness over the epigastrium suggestive of gastric ulcer. The patient quickly improved on taking large doses of perchloride of iron. Case II was that of an elderly lady, the subject of arterio sclerosis. She was suddenly seized with dizziness, and her congested face and slow high-tension pulse threatened an attack of apoplexy. This was averted by profuse bleeding from the nose. Case III was one of cerebral haemorrhage in a man aged 38. There was aphasia and paralysis of the right side. He gradually made a complete recovery. Case IV was that of a lady aged 45, who for the past seventeen years had had attacks of haemoptysis, at one time thought to be due to phthisis. Her general health was excellent; the sputum did not contain tubercle bacilli. Case V was also one of haemoptysis. The patient, a man of 48, had for six years been subject to slight bleeding attacks. There were no physical signs of phthisis, and the sputum did not contain tubercle bacilli.—Dr. Charles Pinkerton related a case of floating kidney, in which the symptoms closely resembled those due to gall stones. The patient was a married woman, 38 years of age, who during the last eighteen months had twelve attacks of great pain in the right side with sickness followed by jaundice. She had lost 4 st. in weight during that time. Physical examination revealed a floating kidney and a dilated stomach. A belt for the kidney was ordered, but before it arrived she had another attack, a typical Dietl's crisis, attended, however, by jaundice. After wearing the belt she rapidly gained in health and weight, and had remained perfectly free from all attacks since.

Dr. T. R. BRADSHAW referred to a case the converse of this, in which a woman had a freely-movable kidney and hepatic pains, but an operation for the removal of gall stones completely cured her.—Dr. R. J. M. BUCHANAN read a paper on the Prognosis in Pulmonary Tuberculosis, in which he advocated that the prognosis in pulmonary tuberculosis should be based upon a careful study and estimation of the general constitutional condition of the patient; the effects of the disease upon the body temperature, nutrition and circulation; a recognition of the extent of the lung involved and the ability of that left to carry on the respiratory process. Dr. NATHAN RAW thought the virulence of the infection and the resisting power of the tissues decided the fate of the person attacked. A predisposition to tuberculosis often made the prognosis unfavourable. Treatment commenced early, and maintained under proper surroundings would of course favour arrest of the disease. Dr. JOHN HAY considered that an opinion based upon the physical signs always underestimated the extent of the lesion. In forming a prognosis due consideration should always be given to the result of previous treatment.

HUNTERIAN SOCIETY.—At a meeting on April 12th, Dr. F. J. SMITH, President, who was in the chair, showed a case of sprue or hill diarrhoea in a woman about 35 years of age recently returned from India. The illness commenced with nocturnal diarrhoea and sickness. At first the motions were bile-stained; latterly they had become frothy and grey in colour and very offensive. They had never contained blood or slime. In India there were forty motions a day; on the voyage these were reduced to twenty, and in England to six; whilst in hospital single days had passed without a motion, but the volume of those passed was great. As soon as vomiting commenced the mouth became blistered and very sore along the edge of the tongue and on the lips and cheeks. Her weight during the nine months of the illness had fallen from 8 st. 12 lb to 4 st. 6 lb., the wasting continuing in spite of the amelioration in her symptoms in England. Sir PATRICK MANSON agreed provisionally with the diagnosis, as the symptoms appeared fairly typical. The characteristic change in sprue was almost total atrophy or erosion of the mucous membrane from the mouth to the anus. Secondary shrinkage of other organs such as the liver followed. No micro organisms had been certainly identified as the cause of the disease. He regarded the atrophy as the result of exhaustion due to long-continued over-stimulation of the alimentary glands, and especially of the liver, by tropical residence. The prognosis was exceedingly grave; although sprue was not of the same dramatic character as plague and cholera, yet with typhoid fever it produced more European deaths in tropical countries than those diseases. When the destruction of glandular tissue had passed a certain point recovery was impossible. In treatment the idea of exhaustion of the alimentary glands was the guide. Food must be given in very small quantities and an easily-digested form, energy being economized by keeping the patient in bed. Milk should then be given slowly with a teaspoon or through a straw every two hours, not more than 3 pints in a day. Nothing further should be done until increased appetite and solid faeces indicated commencing convalescence. The milk might then be slowly increased to 6 pints a day, and for at least six weeks nothing more should be given. When milk properly given did not agree the patients did not recover. No drugs were of any use, and most were harmful. Raw strawberries, however, had in many cases, a most remarkable curative effect. The prognosis was almost hopeless in patients over 50 years of age. Dr. BERNSTEIN spoke highly of the extract of bilberry in the treatment of chronic diarrhoea, and this could be obtained at all seasons. Mr. H. L. BARNARD referred to a case of long-continued diarrhoea cured by the daily use of preserved raspberries, currants, and blackberries.—Dr. STANLEY B. ATKINSON showed sections of bilateral inguinal tumours removed by Mr. Wheetton Hind from a lady aged 37 years. The sections were apparently testicular in structure, and Mr. Shattock had supported this opinion. The vagina was imperforate, but otherwise the patient was strictly feminine.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting in Manchester on April 14th, Dr. LLOYD ROBERTS, President, in the chair, Dr. ARTHUR J. WALLACE (Liverpool) read a paper on removal of the cancerous cervix by the abdominal route, with pelvic dissection, based on an experience of ten cases. He had originally employed the purely abdominal route, but now preferred the combined operation. The uterus, adnexa, pelvic connective tissues, and glands were first freed by laparotomy, and then extracted per vaginam. Details of the cases were given; in three the operations were incomplete. Out of the ten cases the iliac glands were cancerous in three, and the right obturator gland in another. In two cases the glands were diseased, although the primary disease was in an early stage, the uterus being freely movable, and all signs of infiltration being absent. He considered that in properly-selected cases the combined operation offered a better chance of success than did the vaginal operation. Sir W. J. SINCLAIR condemned the operation on the ground that cases which could not be dealt with successfully by vaginal hysterectomy were not suitable for operative treatment at all. The mortality of the operation under consideration was very high, and great harm was done to the patients who, though they lived, recovered with urinary fistulae. Dr. BRIGGS had not done the operation, nor did he think of doing so. He considered that any advances of an operative nature should be strictly on the lines of progress in general surgery. Dr. LEA pointed out that Sir William Sinclair was in the habit of treating by vaginal hysterectomy many cases of cervical carcinoma which would be regarded as inoperable by that route by ordinary gynaecologists.—Dr. GRIMSDALE (Liverpool) related a case of intraperitoneal rupture of the bladder which occurred during labour in a primipara. The hole in the bladder was due to sloughing of a portion of the upper part of the bladder. This was brown in colour, and had been bruised severely by being pinched apparently in the early stages of labour. The abdomen was opened and a gallon of urine removed from the peritoneal cavity. The bruised portion of the bladder was excised and the wound closed with fine silk. No drain was used. The patient made an easy recovery.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on April 7th, Mr. CHARTERS SYMONDS, President, in the chair, the following were among the cases and specimens shown: Dr. H. J. DAVIS: A case of possible traumatic perforation of the nasal septum in a boy, aged 17, who worked in a flour mill. Epistaxis had followed the injury. He also showed a piece of blue chalk, ½ in. long, which had remained three weeks impacted in the respiratory passage of a boy, aged 10. Dyspnoea and bronchitis had supervened. The chalk was dislodged and swallowed during laryngoscopic examination, and was passed per rectum.—Dr. KELSON exhibited a case of lingual growth in a man, aged 45. Some doubt was expressed as to whether this was a papilloma or a thyro-lingual cyst.—Dr. LACK showed a case of deformity of the hard palate and teeth due to nasal obstruction in a boy with facial paralysis, and showing the factors in the causation of high-arched palate.—Dr. PEGLER showed a case of broadening of the external nose caused by tense symmetrical swellings attached to the cartilaginous septum, and one of obstinate crusting and pus formation in a man, aged 40. Both turbinals had been removed.—Dr. TILLEY showed for diagnosis a man, aged 64, with recurrent paralysis of the right vocal cord, and some difficulty in swallowing. The right pupil was contracted and there was slight ptosis of the eyelid, and wasting of the upper part of the right trapezius. Members considered that the cause of the trouble was peripheral and not central.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—A meeting was held on April 5th, the following being among the cases shown:—Miss STONEY: (1) A woman aged 34, who had had a varicose ulcer for four years, but was now quite well. The treatment consisted in massage and the application of the high-frequency brush each for ten minutes twice a week and the constant use of boracic acid lotion. The patient was able to do her ordinary work during treatment. The ulcer was soundly healed on January 23rd, after thirteen treatments, and it had remained so ever since. Miss Stoney considered that high frequency helped by improving the tone of the varicose veins and thus the circulation of the contained blood, and also by cleaning the ulcer by means of the ozone given off from the brush. (2) A woman aged 41, who had had extensive ulceration for nine years following "white leg." On December 30th, 1904, redness and induration extended half-way up the leg and completely round it, the veins were markedly varicose, and there were three ulcers, each about 1 in. in diameter. There was no specific history. The treatment consisted in massage for ten minutes and the application of the high-frequency brush for five minutes daily and the internal administration of iron. Later on potassium iodide

was given and a Martin's bandage was applied. Twelve weeks of treatment showed all the ulcers firmly healed, the skin supple, and no apparent varicose veins. Miss Stoney thought that probably there was a specific element in the case, and that the potassium iodide undoubtedly assisted. It was satisfactory to cure an ulceration of nine years' duration with less than three months' treatment.—Miss Levey showed a case of nystagmus accompanied by head movements in a child of 3. The nystagmus increased when the head was held. The movements were first noticed at the age of 12 months. The child was born in normal labour, and there was no history of convulsions, traumatism, or debilitating illness, nor family history of tuberculous, specific, or nervous disease. The patient was fairly well nourished, and showed no signs of congenital syphilis or rickets.—Miss Corthorn read notes of a case of mediastinal tumour in a woman of 44, which proved fatal in six weeks from the time of seeking treatment. The first symptoms, which had been observed for about four months, were occasional difficulty in swallowing and failure of voice, together with severe gnawing pain in front of chest and over left shoulder. The patient was a public speaker, and addressed a large meeting six weeks before her death. Dysphagia and dyspnoea increased until the patient's death. *Post mortem*, the trachea was found surrounded by a growth which exerted marked pressure upon it and upon the bronchi. It encroached on the oesophagus behind and in front it enveloped the arch of the aorta, while a large glandular mass pressed on the apex of the left lung, and a smaller mass on the right. There was a small deposit in the anterior border of the left upper lobe and in the pericardium. The lungs otherwise were free, but showed extensive collapse.

REVIEWS.

SURGERY.

The manual by Professor Schlesinger on the indications for surgical intervention in diseases of the internal organs[1] is a book of somewhat new type. It is designed as a practical guide for the medical practitioner in deciding the indications for operation in the course of disease. The original German edition has just been completed in three parts, and we have before us a French translation of Parts i and ii. The first treats of the diseases of the nervous system, the respiratory apparatus, the mediastinum, the circulatory system, and the upper part of the digestive tract. In the second part are chapters on the liver and gall bladder, the spleen, pancreas, kidney, and urinary bladder. As illustrative of the method which is followed throughout the book, the first chapter on tumours of the brain may be taken. A paragraph on etiology is followed by a brief consideration of the pathological anatomy of the primary new growths, the tuberculous, and the syphilitic foci, which occur. The characteristic symptoms are then discussed, and this leads to the question of diagnosis, in particular the differential diagnosis from abscess, sinus thrombosis, hydrocephalus, and other conditions. The indications for operative interference are then given; in the first place those which point to the possibility of radical operation, and, secondly, those which suggest some palliative procedure. The chapter concludes with the consideration of morbid phenomena excited by operation, the results which may be expected from treatment other than operative, and the risks of operation in case of error in diagnosis. With some variations this is the scheme adopted in the consideration of all the conditions reviewed. Statistics are quoted on all the more difficult questions, and at the end of each chapter is a short bibliography. The question of surgical intervention is discussed in a manner which throughout appeals to the reader as being eminently temperate and sound. There is no doubt that this book is a really useful addition to the practitioner's library; it is easy of reference and clear in expression, and deserves a wide popularity.

In the reviews of former editions of Professor Da Costa's *Modern Surgery*,[2] we had to draw attention to many defects which were considered serious, and to omissions which caused the book to fall short of the standard which its title seemed to claim. It is, therefore, with especial pleasure that we are able to offer ungrudging praise to this new edition. The work has undergone considerable enlargement; it has been almost entirely rewritten, and the result is everything that could be desired. Its preparation must have been a matter necessitating the greatest industry; for a careful reading of nearly every chapter has shown that the most recent and approved teaching has been included, and that no advance of real importance during the last few years has gone unrecorded. Matas's treatment of aneurysm, the use of Crile's clamps, Connell's suture for gastric and intestinal work, Finney's operation (which should perhaps be included in the description of gastro-duodenostomy rather than in that of pyloroplasty), and Weir's method of excision of the rectum may be mentioned as recent advances which are duly chronicled. This work in its present form is, we think, the amplest and most authoritative exposition of modern surgery with which we are acquainted. Its range of subjects is exhaustive, the descriptions accurate and pithy, and all the burden of old tradition carried from one generation of textbooks to another is happily omitted. The one improvement now necessary is to have better illustrations; many are admirable, it is true, but there are some which are not worthy of a place in this book, and this is especially true of those borrowed from Esmarch and Kowalzig, and Fig. 336, borrowed from Kocher.

The eighth edition of Professor Koenig's classical textbook of surgery[3] has now been completed by the issue of a third volume. In the extensive revision of this portion of his work, the eminent Berlin surgeon has been assisted by his son, Professor Fritz Koenig, of Altona, who has prepared a full and able contribution on the surgical diseases of the upper extremity. The section on the surgery of the lower extremity has been enlarged, and rendered still more important and instructive on account of the special interest taken in this subject by Professor Koenig himself, and of much experience in his clinique at Berlin during the past ten years. Amongst the many interesting parts of the section which takes up more than half this bulky volume, attention is directed by the author to the results of a long and fruitful research on articular tuberculosis, and also to a comprehensive review of the subject of fractures of the thigh and leg, based on the improvement in diagnosis effected by skiagraphy, and on a special study of rich clinical material.

Dr. Bickham's *Textbook of Operative Surgery*[4] is practically a reissue of the first edition without any additions, and, indeed, without alterations of any kind, save some corrections of typographical errors and a few minor changes in the text. The favourable reception of this work by both reviewers and practitioners has caused the first edition to be exhausted within six months, and has thus rendered it unnecessary for the author to attempt any radical revision. To those who have not yet had an opportunity of consulting this textbook it may be recommended as a comprehensive one, and, as has been expressed in a previous notice, a very useful and reliable guide to operative surgery.

SURGICAL TREATMENT OF FACIAL NEURALGIA.

In the preface to his monograph on *Surgical Treatment of Facial Neuralgia*,[5] Mr. Jonathan Hutchinson, jun., says that "considerable difference of opinion still exists as to the best forms of operation for facial neuralgia. The hope of providing a clear account of a complex and difficult subject and of making it more simple is the chief reason of this work." The author at the outset distinguishes between neuralgia of a symptomatic kind and neuragia major or epileptiform neuralgia. For the former condition no operation on the nerve trunks is called for. Fortunately for the patient, even the graver form, true epileptiform neuralgia, hardly ever begins in the first division of the fifth nerve, or, if it does so, it involves it comparatively little. The chief features of this

[1] *Les Indications des Interventions Chirurgicales dans les Maladies Internes.* Par le Prof. Dr. Hermann Schlesinger. Traduction Française par les Docteurs L. Lichtwitz et J. Sabrazès. Parts i and ii. Paris: Vigot Frères. 1905. (Crown 8vo, pp. 287 and 242. Fr. 4 each.)

[2] *Modern Surgery, General and Operative.* By John Chalmers Da Costa, M.D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Fourth Edition. London: W. B. Saunders and Co. (Demy 8vo, pp. 1100, 707 illustrations. 21s.)

[3] *Lehrbuch der speciellen Chirurgie* [Textbook of Special Surgery]. Von Dr. Franz Koenig, Ord. Professor der Chirurgie, etc. Achte Auflage. Band III. Berlin: August Hirschwald. 1905. (Demy 8vo, pp. 972. 157 illustrations.)

[4] *A Textbook of Operative Surgery.* Written for students and practitioners. By Warren Stone Bickham, M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York, etc. Second edition. London: W. B. Saunders. 1904. (Demy 8vo, pp. 984; 559 illustrations. 25s.)

[5] *The Surgical Treatment of Facial Neuralgia.* By J. Hutchinson, jun., F.R.C.S., Surgeon to the London Hospital, etc. London: John Bale, Sons, and Danielsson. 1905. (Demy 8vo, pp. 136; 22 illustrations. 7s. 6d. net.)

terrible affection are described on pp. 17 and 18, and Mr. Hutchinson distinctly states that medical treatment, except increasing doses of morphine—a remedy almost worse than the disease—has little or no effect; while partial or complete removal of the Gasserian ganglion alone affords a permanent cure. Its exact pathology is unknown, and the Gasserian ganglion and its main branches show no pathological change; moreover, the disease has no relation to arterial sclerosis, as some have averred. Certain cerebral tumours pressing on the ganglion or its branches give rise to symptoms somewhat similar to the affection under review, but when a tumour is present the oculo-motor nerves are sooner or later involved, and there is obstruction of the orbital circulation causing proptosis, etc. Formerly it was the practice to treat these cases by repeated operations on the peripheral portions of the nerves, and Trousseau's remark in this connexion is quoted: "Even now, after more than thirty-six years of practice, I have never known it to be cured in a single case radically." Happily for the sufferers a radical cure has been found, and when once the neuralgia has spread from one division of the fifth nerve to another it is useless to waste time over extracranial operations. Intracranial operations, by whichever route the ganglion and its main branches are reached, are amongst the most difficult in surgery. Mr. Hutchinson prefers the temporal route or the Hartley-Krause method, and details fully the procedure to be adopted and carried through. He has introduced a most important and, as his cases show, successful modification into the operation. Instead of removing the whole of the ganglion, only that portion corresponding to the superior and inferior maxillary trunks is taken away. The ophthalmic division of its corresponding ganglionic root is left intact, thus obviating the risk of sloughing of the cornea and loss of the eye. Indeed it would be interesting to know in what percentage of cases, where the whole ganglion has been excised, the eye has been lost. Further details and results of treatment are fully given, and the work ends with an excellent bibliography of the subject, while its usefulness is enhanced by a full index. In conclusion, we can write with confidence that Mr. Hutchinson has realized in every sense the hope expressed in the preface, and has made a complex and difficult subject exceedingly clear. His monograph is all it should be. It is a careful and impartial review of the work of others in the same field, and it is based upon personal knowledge and experience, which are recited in a moderate and convincing manner, and is, therefore, a valuable contribution to the literature of the subject.

DREAM THEORIES.

DREAMS, laughter, and blushes are not phenomena which suggest, on the face of them, either any sort of inter-relationship or any possible dependence upon a common cause. In their manifestations, existing conditions, and attendant circumstances they seem as widely severed the one from the other as it is possible to imagine mental or physical states to be. To most people it will come as a surprising revelation that they may all three be due to a species of temporary insanity; yet this is apparently the opinion of Sir ARTHUR MITCHELL, who expresses his views in a volume he has just published on *Dreaming, Laughing, and Blushing*.[6]

In the preface to his book a clue to the issue of his studies and reveries is to be found in the hope he expresses that his conclusions, even if not fully accepted, may be regarded as worthy of consideration, "because of their having, if only in part correct, a possible useful outcome in the general study of mental disorders." As the title leads the reader to expect, the volume is divided into three parts. In dealing with dreaming the author prefaces his argument by stating that "there is no such thing as dreamless sleep." This is a bold statement, which it would be impossible to prove, but which is certainly not in accord with the personal experience of a large majority of healthy men and women. So true is this that the occurrence of dreams which disturb the sleep night after night is to many people such an unusual experience that it drives them to the doctor to find out what has happened to account for this unpleasant interruption of the completely unconscious sleep to which they are accustomed, and which is, rightly regarded by both doctor and patient as Nature's normal restorative for wearied tissues.

It is surely a wide assumption to say of mental activity that it is unceasing and comparable to the automatic mechanism of respiration and circulation, but it is on this analogy that Sir Arthur Mitchell bases his theory that "at no time can we choose whether we will think or cease from thinking; and, like other parts of the work of the brain, it is at least possible that it (thinking) may go on without stoppage while life lasts, under control of the will when we are awake, and without that control when we are asleep." The theory may be fascinating, but is it justified by what we know of functional activity in other organs, and is a more simple and probable explanation of dreaming not provided by the generally-accepted hypothesis that it depends upon direct or reflex irritation which, either through the circulatory or nervous mechanism, interferes with the relative anaemia in the cerebral cortex associated with profound and dreamless slumber?

In the section on laughter, it is stated as remarkable that "any particular mental state should be expressed by such a widespread muscular commotion and tumult." But why more remarkable than that sorrow should be expressed by a downcast countenance and weeping eyes, or the boisterous health of childhood by shouting and almost ceaseless muscular activity?

It seems fanciful to speak of laughter as an indication of a certain transient condition of mental aberration. But this is the explanation which Sir Arthur Mitchell offers. "In my opinion," he says, "dreaming and laughing both appear to be states of passing mental disorder." Similarly in regard to blushing, he asserts that "it is of such a nature as to prevent any hesitation in regarding it as a transient state of mental disorder." The warrant for this opinion is founded on the fact that the act of blushing is accompanied by a sense of confusion. But is it always so? and if it is, need the point be strained to find a solution other than that which is most obvious—namely, a temporary stimulation of the brain by capillary dilatation similar to that which finds its visible expression in the suffused cheeks?

There is much in the book that is suggestive as well as novel, and the author's views are clearly and concisely stated; but we agree with him in the doubts which evidently beset his own mind when he says, "If I think that in blushing, as in dreaming and laughing, the moral faculty is in disorder, I have not much to support the opinion."

[6] *About Dreaming, Laughing, and Blushing.* By Sir Arthur Mitchell, K.C.B. Edinburgh and London: William Green and Sons. 1905. (Demy 8vo, pp. 157. 5s.)

ORTHOPAEDIC SURGERY.

MR. RICHARD BARWELL has issued the sixth edition of his monograph on *Lateral Curvature of the Spine and Pelvic Deviations*,[7] and he has entirely rewritten the work, with the object of setting forth certain facts which constitute the key to the problem of spinal curvature, which form the rational basis to effective treatment. In the first chapter he discusses the diagnosis, and enumerates the symptoms. We wish he had alluded to the differential diagnosis, because it is now well-known that cases of Pott's disease with lateral deviation are often mistaken for lateral curvature and treated as such with disastrous results. The great point in this edition, which Mr. Barwell insists upon, is the influence of pelvic obliquity and pelvic version in the production of scoliosis. We think he has done good work in drawing attention to this factor in the deformity, because in a large number of cases, unless it is recognized and corrected at the outset of treatment, no good result can accrue. How to estimate the degree of pelvic deviation forms the subject matter of the second chapter, while its etiology is dealt with in the third chapter. In discussing treatment, the author condemns retentive appliances, and rightly says that the first essential in treatment is to enable the patient to recognize that his pelvis is "amesial," and induce him or her to correct such asymmetry by voluntary effort—in fact, to overcome the "mental topsy-turveydom" so often associated with scoliosis. One reason of the want of success in overcoming scoliosis is the difficulty of enlisting the intelligent co-operation of the patient. There are many points to which we should like to refer, but we regard this little work as an original effort to solve the difficult problems of scoliosis, and the writer has not been unsuccessful. We could wish that his style and diction were a little less involved. Some sentences are difficult of comprehension. Thus, speaking of the outlines of the flanks, Mr. Barwell says: "The differences between them reveal chiefly—of course, not solely—the presence and amount of lateral deviation, for these

[7] *Lateral Curvature of the Spine and Pelvic Deviations.* By Richard Barwell, F.R.C.S., Consulting Surgeon, Charing Cross Hospital, etc. Sixth edition. London: Baillière, Tindall and Cox. 1905. (Crown 8vo, pp. 100, 42 illustrations. 3s. net.)

margins are deficient in rotundity, or in severe cases are actually hollow opposite concavities, too full and rounded opposite convexities of the laterally curved spine." A clearer, more succinct style and some rearrangement of the subject matter will add much to the value of the book.

In their large volume on orthopaedic surgery[7] MM. Berger and Banzet have presented us with a fair summary of the work now being done in this field of surgery. They state in the introduction that the object of treatment is the restoration of the normal shape or form of the part, together with the re-establishment of function; and in order to effect their objects they insist, first, on correction of the deformity; secondly, maintenance of the correction; and, thirdly, persistent effort in obtaining the normal movements, while keeping up the correction. Further, the authors remark that the prime requisite of an orthopaedic operation must be its safety, and one element in obtaining desirable results is complete and perfect asepsis. The work commences with a full description of scoliosis, special emphasis being laid upon the usefulness of exercises, and many beautiful and artistic illustrations are reproduced, which make this section very valuable. The remarks on forcible *redressement* of lateral curvature are very unconvincing as to either the utility or practicability of this method. Plastic surgery of the upper limb is allotted ample space, and some of the suggestions for the remedying of dense cicatricial contraction in the axilla are clever and original. Unfortunately, however, the results very seldom equal the expectations of the operator. In discussing resection of the elbow for fracture, the danger of bony ankylosis is fully set forth, and a suggestion is put forward with the object of avoiding this calamity—namely, the interposition of a band of muscular tissue between the excised ends of the bones. By the wide adoption of tendon transplantation orthopaedic surgery has made a great advance in recent years, and we are happy to remark upon the very complete and fully-illustrated notice which this new method is accorded. In the upper limb especially the possible combinations of tendons give full scope to the ingenuity of the surgeon. On the subject of the treatment of congenital dislocation of the hip, which has been so much to the fore lately, the authors speak with no uncertain voice. They consider that the Paci-Lorenz method, or so-called bloodless reduction, gives up to the present the best results. While not entirely free from risk in the hands of a vigorous and enthusiastic surgeon, yet it is distinctly less dangerous than the open method, when too often septic infection and other disasters have followed. Space does not permit us to notice many other interesting and debatable points; but, while there are some obvious defects in the book, yet the clearness of the subject matter and the large number of illustrations make it of considerable value to those interested in orthopaedic surgery.

Dr. A. B. Judson, in the *Influence of Growth on Congenital and Acquired Deformities*,[8] has placed on record certain features of orthopaedic surgery which he has observed during his long experience. Considerably more than half the book is devoted to tuberculous disease of the spine and of the hip and knee-joints. In dealing with congenital clubfoot he describes fully the brace associated with his name, and advocates its use and the exercise of "stamping the foot straight" as the correct line of treatment, maintaining that the growth of the body and the increasing body weight will correct the equinus if the foot is kept from inversion by the brace. We venture to suggest that tenotomy will procure an equally efficient result, and save much time to the patient and surgeon. For the correction of hammer toe he advocates relief by amputation of the rampant toe through its metatarsal bone; but this method is open to many objections. The reader will be disappointed to find that in dealing with paralytic deficiencies no mention is made of tendon transplantation. An admirable account of the mechanical treatment of hip-joint disease by means of the ischiatic crutch is given, and the question of traction is fully and fairly discussed. We fail to see any useful purpose in the citation of cases—even though they occurred in the Seventies—of abscesses in connexion with tuberculous bone disease which have been allowed to burst spontaneously, after having attained sufficient dimensions to distend the trousers. Such citation can be instructive only as a comparison with more modern methods. It is disappointing also that more attention is not given to the element of growth as an aid to the correction of deformity, and that Dr. Judson has not made any reference to the commonest of all causes—namely, rickets. The book is more suited for those who have already a considerable knowledge of the subject than for those who are beginning to study.

[7] *Chirurgie Orthopédique* (Orthopaedic Surgery). Par Professor Paul Berger and Dr. S Banzet, Chief of the Laboratory of Operative Medicine in the Faculty of Medicine of Paris. Paris: G. Steinheil. 1904. (Royal 8vo, pp. 593, 489 illustrations. Fr. 20.)

[8] *The Influence of Growth on Congenital and Acquired Deformities.* By Adoniram Brown Judson, A.M., M.D. New York: William Wood and Co. 1905. (Demy 8vo, pp. 276, 134 illustrations.)

NOTES ON BOOKS.

The latest addition to Messrs. Saunders's series of Medical Hand Atlases is an English edition of Dr. Hermann Dürck's *General Pathologic Histology*.[1] In our notice of the original work we pointed out its very decided merits, and drew attention to the excellence of the illustrations. No less can be said of the book in its present form. The representations of the various processes of pathology, as seen in coloured sections under the microscope, number nearly 200, and cannot fail to be useful to students who are engaged in the study of general pathology, but who are not for the moment within reach of a microscope and sections of equal perfection. The text itself is of value, since the majority of the accepted views as to the sequence and nature of the various histological changes to be observed are clearly stated in outline, and a comprehension of the main principles involved is facilitated. A definite guide to the magnification under which the sections are supposed to be seen would have been an advantage.

In a bulky treatise Dr. Dangerfield deals with the subject of beri-beri.[2] The first five chapters are devoted to the history, geographical distribution, and etiology of the disease, and contain a summary which may be useful to those unacquainted with the subject. The salient feature of the book is contained, however, in the chapter dealing with the bacteriology. In this the author attempts to prove that a coccus is responsible for the disease. This organism he claims to have found in the intestinal canal from the pharynx to the rectum, in the blood, in the cerebro-spinal fluid, in the urethra, and even in the spermatozoa. The morphology at once strikes the reader as remarkable, five stages being described—namely, (1) the hemispherical form, (2) the diplococcic, (3) the micrococcic, (4) the zoogleic, and (5) the sporulating. The diagrams of those forms, though bearing out what the author states, cannot be said to be convincing, the difference in size at once suggesting a mixed cultivation, though the diagrammatic nature of the plates may be responsible for this. The cultivation is described minutely, and the germ is stated to grow freely on most of the ordinary culture media; it does not stain by Gram, produces indol, and also a marked green coloration on artichokes. The experimental work is faulty, as VI C. at once shows. Two rats fed on grain watered with beri-beri products (vomit) presented diarrhoea in the early days, and died in about one month and a half. The conclusion from these scanty data, according to the author, is that beri-beri is directly transmissible from man to the lower animals. The pathology is fairly well dealt with, though the nerve lesions might have been more fully described. Two pages only are devoted to the important subject of treatment. The book, though neglecting much valuable previous work, shows evidence of hard work and close study, but one cannot seriously recommend it as a textbook in any way representing present knowledge of beri-beri.

In a pamphlet entitled *The Destruction of Mosquitos*,[3] Major Hodder, R.E., gives an account of the drainage and other works carried out in St. Lucia, West Indies, in 1902 and 1903. An epidemic of yellow fever which occurred amongst the troops in that island in 1901 was primarily responsible for this work being undertaken. Acting under expert evidence, the military authorities decided to adopt means for destroying

[1] *Atlas and Epitome of General Pathologic Histology.* By Dr. H. Dürck. Authorized translation by L. Hektoen, M.D. London: W. B. Saunders and Co. 1904. (Cr 8vo, pp. 371; 80 plates, 36 illustrations. 21s.)

[2] *La Beriberi. Définition, étymologie, historique, bactériologie, symptomatologie, pathogénie, pathologie expérimentale, traitement.* Par le Dr. H. Vivian Dangerfield, de la Faculté de Médecine de Paris. Paris: A. Maloine. 1905. (Demy 8vo, pp. 242. Fr. 12.)

[3] *The Destruction of Mosquitos.* Being an account of the drainage and other works carried out with this object during 1902 and 1903 at St Lucia, West Indies. By Major W. M. Hodder, Royal Engineers. Chatham: W. and J. Mackay and Co. 1904. (Demy 8vo, pp. 70.)

the mosquitos, which were very prevalent on the island, and it is this work and other operations carried out later that Major Hodder now describes. The main part of the pamphlet deals with a description of how yellow fever was stamped out in Havana and the habits of mosquitos. The rest of the text deals with the various drainage improvements that were carried out. The results were satisfactory, and it is interesting to note that the malarial returns for 1903 were enormously lower than those of 1901 and 1902. The pamphlet will be valuable to those, whether lay or medical men, who may find themselves in tropical countries where there are many mosquitos. In view of the importance of this experiment from a sanitary point of view, it is unfortunate that some competent officer of the Royal Army Medical Corps did not take part in the report, as it would have lent it greater weight with the sceptics who believe that mosquito destruction is impossible.

LITERARY NOTES.

A book by Dr. Robert Lamb entitled *Saints and Savages* will shortly be published by Messrs. Blackwood. In it the author gives an account of five years' experience as a medical missionary in the New Hebrides.

A new illustrated journal, described as "scientific and literary," has recently appeared in Paris. Its title is *L'Avenir Medical*, and its editor is Dr. Felix Regnault, who is well known as a writer on medical and scientific subjects.

Le Droit Médical is the title of a new medical journal devoted to medical jurisprudence and the relations of medicine to the law which has recently appeared in Paris. The editor is M. Bruno Dubron, Doctor of Laws, Advocate at the Appeal Court of Amiens; the director, Professor E. Ausset, Professor in the Medical Faculty of Lille. The journal will be published in Paris.

It is estimated that there are 164 public medical libraries in the United States, representing a total of over 900 000 volumes. Of 40 libraries, having upwards of 5 000 books, however, the majority are said to be mere repositories rather than centres of living activity.

The first number of the *International Magazine of School Hygiene* was published at Leipzig in January. The prospectus states that the new periodical will deal with the following subjects: (1) Hygiene of school buildings and their furniture; (2) hygiene of residential schools and kindergartens; (3) methods of investigations in school hygiene; (4) hygiene of teaching and of teaching materials; (5) hygienic instruction of teachers and scholars; (6) physical education of youth; (7) diseases and medical service in schools; (8) hygiene of special schools; (9) hygiene of school children out of school; (10) hygiene of teachers; (11) general hygienic development in youth; (12) legal decisions and regulations regarding school hygiene; (13) conferences and congresses for school hygiene; (14) history of school hygiene. The magazine will publish papers in German, English, and French. The dates of appearance will depend on circumstances. The editors are Dr. Mathieu, of Paris; Sir Lauder Brunton, of London; Professor Johann Essen, of Christiania; and Professor Griesbach, of Mulhausen. There are 160 associate editors, of whom 9 are English and Scotch, 7 American, and 2 Canadian.

The *Medical Authors' and Publishers' Exchange* which has recently been established in New York is a kind of literary agency which devotes itself—for a consideration—to the assistance of medical writers. Manuscripts submitted for judgement are appraised both as to their literary and their scientific value, and the authors are helped to find publishers for their productions. Manuscripts are corrected, edited, typewritten, and prepared for the printer. References are found or verified, and, if desired, translations or abstracts are supplied. Illustrations are produced from the authors' descriptions, and assistance and advice are given as to the arrangement of the material. The *Medical Authors' and Publishers' Exchange* is under the personal direction of Dr. Frank P. Foster, editor of the *New York Medical Journal*. This is said to be the first systematic attempt to furnish this kind of assistance to medical writers in the United States.

The history of medicine has been officially recognized by the Philadelphia College of Physicians. A section devoted to the subject has been formed, its officers elected, its executive committee appointed by the President of the College, and its first meeting fixed for April 24th. Meetings will be held regularly, at which papers will be read; interesting books and manuscripts will be shown: lantern slide lectures will be held; distinguished medical historians will be invited from other cities to address the section. Philadelphia is said to be the city of the United States which is richest in the materials of medical history, and it is hoped that the impetus given to the study will arouse widespread interest in the subject. The following are the officers of the section: Chairman, Dr. R. G. Curtin; clerk, Dr. William Pepper; executive committee, Dr. F. R. Packard, Dr. C. A. Oliver, and Dr. S. McC. Hamill.

In its April issue our interesting contemporary *Climate* announces that it will depart journalistic life at the close of the present year. "This decision," it is stated, "has been made, not because of any waning interest in *Climate*, or any misgiving as to the importance of such a publication, but because the editor (Dr. Charles F. Harford) has undertaken largely-increased responsibilities during the last eighteen months in his appointment as Physician to the Church Missionary Society, which make it impossible for him to give the time necessary to edit and publish this journal." It is hoped that the information which has been given in the pages of *Climate* may be made available to its readers in some other form. "In any case, the staff of Livingstone College intend to devote themselves to the production of some more permanent literature, which may be useful in the preservation of health in the tropics and in other parts of the world."

A question of literary responsibility, which we should imagine to be unique, has recently arisen in France. M. Jouve, a publisher, printed for Dr. Cousin an inaugural thesis entitled *De l'Impregnation de la Mère*, and dealing with telegony. Soon after its appearance a young man applied to the publisher for a copy. The request was at first refused, on the ground that the thesis was intended solely for medical readers. The young man became more pressing, however, and at last the publisher, who did not know the would-be purchaser, gave way and sent him a copy of the thesis. After reading it the young man, who was about to be married to a widow, broke off the engagement, on the ground that he considered her to be "impregnated" by her first husband, and that he did not care to run the risk of having children resembling that gentleman. The outraged widow claims damages to the amount of £4 000 from the publisher, whom she holds responsible for the loss of a husband! The French laugh at our actions for breach of promise, but surely, in a case such as this, it would be more satisfactory to the feelings of the jilted lady, as well as more just in itself, if she could avenge her wrongs on the fickle swain rather than on a comparatively unoffending third party. The case adds a new terror to medical authorship.

Symphysiotomy is generally said to have been first proposed towards the end of the eighteenth century. In reality the suggestion at least dates from about the twelfth century. It is found in the following lines which occur in the *Schola Salernitana*, a Latin poem attributed to Arnold of Villanova and others:

> Nec jam Caesareum vulnus Lucina requiret:
> Symphyseos pubis dissectio rite peracta,
> Damnatos telo partus simul atque parentes,
> Protinus et certo, dulces servabit ad auras.
> At mitemne adeo pubes divisa medelam
> Matribus ac pueris feret, ars ut mitius ullum
> Auxilium nequeat, vel convenientius ullum,
> Quod possit repeti quoties natura jubebit?

The following somewhat loose version may serve to give a fairly accurate idea of the meaning of the author, of whom we may say at this distance of time, without risk of an action for libel, that he was evidently a poet *invitâ Minervâ*:

> No longer needs Lucina the dread rite
> That for great Caesar oped the way to life:
> The skilful severance of the pubic arch
> Will save the mother and the child from doom.
> Shall not this means then bring deliverance
> To babes and mothers—such an aid as art
> Can find none gentler or more suitable,
> That can be used again and yet again
> As oft as Nature makes it necessary?

Carlyle, though himself the brother of one doctor and the son-in-law of another, seems to have had on the whole a poor idea of the faculty. He complains that he got no relief from physicians; it is probable, however, that he was a refractory patient. That he had a lofty ideal of the medical profession is shown by more than one noble passage in his writings. None of them is more striking than the following letter which we quote as it is probably unfamiliar to many of our readers. It was read by Dr. Yeats to a party at Tintern Abbey on the occasion of the annual meeting of the British Medical Association held at Bristol in 1894. It was written concerning a book, entitled *The Healing Art the Right Hand of the Church*,

written by a medical man for his professional brethren and published by Messrs. Sutherland and Knox, of Edinburgh. The author wrote under the pseudonym "Therapeutes," but his work has long been out of print. The author sent a copy of the book to Carlyle, who replied as follows:

Chelsea, February 25th, 1859.

Dear Sir,—I have received your book which you were kind enough to send me, and I beg to return you thanks for the same. It is a book (unlike many that come to me here) of a serious nature, the fruit of long study, meditation, inquiry, and evidently of perfect conviction on your part.

I believe, and have long believed, the essential idea it sets forth to be not only true, but of the very highest importance to mankind, namely, that the Physician must first of all be a Priest (that is to say, a man of pious nobleness, devoted to the service of the Highest, and prepared to endure and endeavour for that same, taking no counsel of flesh and blood, as the theory of Priests is)—first of all, a real priest, and then that the whole world should take supreme counsel of him, as it does of its real or imaginary Priests or Pontiffs this long while back, and follow said counsel as the actual will of God—which it would be were the Physician what I say.

It is curious to remark that *Heilig* in our old Teutonic speech is both Holy and also Healthy; that the words Holy and Healthy, as our antique fathers understood them, are one and the same. A thousand times has that etymology risen sorrowfully upon me, in looking at the present distracted position of affairs, which is horrible to think of, if we look earnestly into it, and which cannot well be spoken of at all. We, sure enough, have completely contrived to divorce holiness (as we call it) from health, and have been reaping the fruits very plentifully during these fifteen hundred years.

The notion of bringing our present distracted anomaly of a Physician into union with our ditto ditto of a Priest, and making them identical is of course extremely chimerical; nor can one easily say what ought to be the first step towards bringing each of them back from his anomalous, imaginary condition and nearer to veracity, and the possibility of coalescing. But I am very glad to see the idea started, in any form, under any vesture, and heartily wish you success in bringing it home to men's minds.

I remain, yours truly,

T. Carlyle.

INDIAN SANITARY REPORTS.

City of Bombay.

In 1903 there was a fall in the birth rate, which is attributed to people leaving Bombay on account of the plague scare. The death-rate was 65 09—higher than that of 1902, but below the rates 1889, 1900, and 1901. Plague accounts for the excess, the number of deaths amounting to 20,788. Small-pox and measles were in considerable excess, but the cholera mortality was small. A curious incident connected with plague is noted: "A woman at Morli posed as a goddess gifted with the power of curing plague. Large numbers of people gathered round her residence, and many plague patients were conveyed in public conveyances to her." This conduced to spread the disease. The woman was arrested, tried, and convicted under the penal code. Infant mortality is very high, amounting to 532 per 1,000 births; 1,749 deaths were caused by infantile convulsions; 2,842 deaths from phthisis were registered and 102 from leprosy. Efforts are being made to obtain a more accurate return of death causes, and to improve vaccination. There is a municipal laboratory in which water, milk, and food are analysed. There are ten municipal dispensaries in which 84 886 patients were treated. The Health Officer, Dr. J. A. Turner, discusses in some detail several important sanitary matters; but his remarks indicate rather what ought to be done than what is being done to improve the sanitation of the town. The tables appended to this report are very elaborate, probably too ambitious in view of the quality of the figures obtained. They might with advantage be greatly simplified and curtailed.

Madras.

The report for 1903 includes a short introduction by the Sanitary Board, detailed reports by the Sanitary Commissioner (Lieutenant-Colonel W. G. King, I.M.S.), and the Sanitary Engineer (W. Hutton, A.M.I.C.E.), and a brief review by the Government. The year was a healthy one, the rainfall copious, and the prices of food grains moderate. The statistics, which are still imperfect, but, it is stated, improving in accuracy, indicate a higher birth-rate (31.2), and death rate (22.2) than in the preceding quinquennium. The rate of mortality of infants under 1 year of age, reckoned on 1 000 births was 177 6. Cholera prevailed severely in some districts, but there was on the whole a decline in its incidence. Dr. King mentions a very striking instance of conveyance of the disease by the river Adyar, and insists strongly on the need of increased attention to the purity of supplies. He quotes figures which show marked abatement in cholera mortality in towns provided with waterworks. The greater severity of small-pox in rural areas than in municipalities in which vaccination is compulsory is striking. The vaccination department is to be strengthened and improved. The deaths caused by plague numbered 13,291, against 10,795 in 1902. The disease prevailed in the central districts of the presidency, and its advance southwards is held to have been stayed by the precautions adopted. Dr. King is desirous of additional bacteriological research, especially as regards recrudescence. There was some decline in fever mortality. Reference is made to the investigations of Donovan and Christophers pointing to a special form of fever caused by a special parasite. The Sanitary Commissioner lays stress on the necessity of preventing wet cultivation in the vicinity of towns, and reports that experiments are to be made in six selected areas "for a thoroughly honest trial of modern methods of dealing with malaria." Bowel complaints are four times more fatal in urban than in rural areas, and this is due, Dr. King holds, to imperfect means of sewage disposal. Sanitary effort in rural areas appears to be very feeble, but in towns there is evidence of considerable activity. The Sanitary Board scrutinized the plans and estimates relating to 149 sanitary works of the total estimated value of Rs 1,766,394. The report of the sanitary engineer gives evidence of commendable energy and progress.

A notable incident of the year was the foundation of the King Institute of Preventive Medicine, in which bacteriological investigations and the preparation of vaccines and serums will be conducted. Lieutenant-Colonel Bannerman, I.M.S., has been appointed superintendent.

Burma.

Registration is still very imperfect in this province, and though efforts are being made to improve it many years will elapse ere any approach to accuracy or completeness is attained. In Upper Burma, the statistics of which are dealt with separately, registration is confined to a few towns. Colonel Little's report consists, nevertheless, mainly of comments on the figures collected during 1903. The year was remarkable for an excess of rain, which was unduly prolonged, and was an unhealthy one. The prices of food grains were high, but the supply was abundant. An unusually large export to Japan and China accounted for the dearness. The birth-rate of Lower Burma was 33.54, against 34.38 in the preceding five years, and of Upper Burma 37.48. The corresponding death-rates were 24.13, 24.48, and 21.80. Cholera and fevers were greatly in excess in both divisions. Bowel complaints were also above the average. The mortality caused by small-pox was considerably below the usual in Lower Burma and somewhat in excess in Upper Burmah. There has been a steady decline in small-pox mortality during the five years 1899-1903. Ten cases of plague were imported by steamers, but by means of isolation and disinfection the disease was prevented from entering the province. The work of the Port Health Department in Rangoon is reported to be searching and effective. The provincial Sanitary Board held two meetings during the year, and had under consideration numerous references from municipalities regarding sanitary schemes and projects. The municipalities devoted 54 per cent. of their income to sanitary works, and the smaller towns 34 per cent. Rs 1,59,975 were spent on rural sanitation. An interesting trial of the septic tank system, of which a detailed account is given, was made at Maymyo. The result is reported to have been satisfactory. The report of Mr. E. S. Housden, the sanitary engineer, gives information regarding several surveys and projects, and shows that many schemes for water supply and drainage are in process of construction by municipalities.

City of Rangoon.

Captain Gilbert, Health Officer, Rangoon Municipality, has in his report for 1903-4 pictured the sanitary condition of this important town in sombre colours. Postulating that the essentials of sanitation are pure water, pure earth, and pure air, he affirms that the water supplied to the town is bad, the drainage rudimentary, the houses overcrowded and ill-ventilated, and the scavenging and refuse removal imperfect. These evils appear to be realized, and efforts are being made to amend matters. An area of 5,779 acres, with a population of over 20,000, was added to the municipality during the year. "In this whole area there is not a single good road, no proper water supply, no rubbish removal, no night conservancy, no drainage." Equally

drastic is his description of the conditions under which the working classes live. The death-rate of the town was 34 57, and one-third of the children born are said to die under 1 year. Cholera, fever, bowel complaints, and small-pox are rampant. From the report of the Sanitary Commissioner we gather that strenuous efforts are being made to improve the quantity and quality of the water supply, and that amended building rules have been enacted, which however do not affect existing houses.

ASSAM.

Colonel David Wilkie has written a very able and interesting report, on which the Government has indited an appreciative memorandum. No sanitary engineer is employed in this province, and the "Sanitary Board" held no meeting during the year. The meteorological conditions were normal, food supplies plentiful and cheap, and conditions generally favourable to health. The birth-rate was 35.57 and death-rate 26 55, against quinquennial rates of 32.21 and 33 90. It is estimated by the administration, after consideration of census results, that the standard birth-rate of this province is 45 and death-rate 42. Registration is therefore held to be defective, owing to a careless population and inadequate agency. The birth-rate of tea-garden populations was 28.33 and death-rate 24.06—both, it is considered, below the reality. The death-rate of infants under 1 year of age, calculated on the births of the year, was 188 77. An interesting table is given showing this rate for the principal provinces of India, varying from 177.6 in Madras to 274.38 in the United Provinces. There was a great reduction in cholera mortality. The disease was worst in the district of Nowgong, following the course of the river Kallang. The mortality among garden coolies was less than in the general population, and deaths among imported coolies were fewer. Small-pox mortality was unusually low. It was highest in the Nowgong district, where the disease "appears to have taken root in Nonoi, a hotbed of obstruction to vaccination." Plague broke out in June at Dibrugarh in the neighbourhood of the foreign grain bazaar, where there was great mortality among rats. The diagnosis was confirmed by bacteriological investigation in the medical school; 37 cases and 28 deaths took place, but the disease was prevented from spreading by active preventive measures which probably were aided by the seasonal conditions. Fever mortality was comparatively low; the number of deaths attributed to kala-azar was 833, most of them in Sylhet and Nowgong—a great abatement as compared with previous years. The discovery of the Leishman parasite in these cases by Dr. Bentley is mentioned. Bowel complaints were less fatal than usual. The higher mortality from dysentery in tea gardens is discussed. Dr. Wilkie believes that this is more apparent than real, but gives a sad account of the life and insanitary environment of coolies.

No large sanitary work was undertaken during the year, but the municipalities and local Boards spent money on improving water supplies, market places, and drains.

MEDICAL NEWS.

THE annual dinner of the Pharmaceutical Society of Great Britain will be held at the Whitehall Rooms, Hotel Metropole, on Tuesday, May 16th, at 7 p.m.

THE French Government has granted a subvention of £4,000 in aid of the International Congress on Tuberculosis, which is to be held in Paris in October, 1905.

THE Professor of Medicine at the Gresham College, E C., Dr. E. Symes Thompson, will deliver at the beginning of May four lectures on the evolution and degeneration of the teeth. The times fixed are May 2nd and the three following days, at 6 p.m. each evening.

The second annual Welsh medical dinner will be held at the Great Central Hotel, Marylebone, W., on Friday, May 19th, when the chair will be taken by Sir Richard Douglas Powell. Special arrangements have been made for visitors at the hotel. Further information can be obtained from Dr. Ernest Jones, 13, Harley Street, W., or Mr. J. Howell Evans, M.Ch., F.R.C.S., 31, New Cavendish Street, W.

THE new Aliens Bill was introduced in the House of Commons on Tuesday afternoon. It precludes the disembarkment of alien immigrants except at eight ports. At each of these an immigration office is to be established, and no immigrant will be allowed to land until he has been inspected and passed by the superintendent in charge of it, in company with a medical officer. The eight ports in question are understood to be London, Leith, the Tyne, Grimsby, Hull, Harwich, Newhaven, and Southampton. These have been selected because they at present receive 97 per cent. of the alien immigration.

THE Medico-Psychological Association of Great Britain and Ireland (Northern and Midland Division) has fixed its next meeting for May 4th at the Retreat, York. The proceedings are to commence at 2.30 p.m., and between scientific business and social entertainments and amusements it is hoped to extend them over the week end. Among the latter are an "at home" for such ladies as may accompany members, an excursion to Ripon and Fountains Abbey, and golf at Ganton on Saturday, ending in a second general "at home" at the branch of the Retreat close to Scarborough. Dr. Bedford Pierce, the Medical Superintendent of the Retreat and Honorary Secretary of the Division, will be glad to have an intimation by May 1st from members who intend to be present.

THE LATE MR. LUTHER HOLDEN.—The estate of the late Mr. Luther Holden has been valued at £110,289. By this will he directs that a sum of £3 000 be paid to the Medical School of St. Bartholomew's Hospital for the foundation of a Scholarship in Surgery, and £500 to the Rebuilding Fund of the same hospital. On the death of his wife a further sum of £10 000 and the proceeds of the sale of his freehold residence near Ipswich and its furniture are to be divided equally between St. Bartholomew's and the Foundling Hospitals, an immediate legacy of £1,000 being also left to the latter.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this Society was held at 11, Chandos Street, W., on April 12th at 8.30 p.m. Mr. Christopher Heath, President, was in the chair. Three new members were elected. The Treasurer announced that a legacy of £250, duty free, had been received from the executors of the late Mrs. Jane Begley. One new widow and one orphan were granted relief at the rates of £50 and £12 per annum respectively. The sum of £1,293 was paid in half-yearly grants in January to the annuitants of the charity. Fifty-three widows and seventeen orphans are now on the books. The annual general meeting will take place on May 22nd at 5 p.m. at the offices of the Society.

THE LATE DR. THOMAS MORTON.—We learn that it is proposed to erect a permanent memorial to the late Dr. Thomas Morton, of whom an obituary notice appeared in a recent issue of the BRITISH MEDICAL JOURNAL. It has been suggested that a memorial at a cost of not less than £100 should be erected in St. Mark's Church, Hamilton Terrace, where for many years Dr. Morton was a constant worshipper. A committee of gentlemen connected with the management of the Kilburn Provident Medical Institute has been formed to carry the proposal into effect, and subscriptions towards the memorial may be sent to the Honorary Treasurer of the Institute, Mr. Joseph White, 7, Abercorn Place, N.W.

AMERICAN SOCIETY OF TROPICAL MEDICINE.—The second annual meeting of the American Society of Tropical Medicine was held at Philadelphia on March 24th. The following resolution, intended to be sent to the proper authorities, was adopted: "The American Society of Tropical Medicine, at the suggestion of Sir Patrick Manson, of London, one of its honorary members, begs to call your attention to the fact that the investigations of the past decade have so increased our knowledge of malaria, yellow fever, hook worm disease, and other tropical diseases as to make their prevention quite possible by the exercise of comparatively simple measures, and begs to recommend as a means toward the diminution and extinction of these maladies that a certain amount of information regarding them be included in the curriculum of the public schools in our tropical Colonial possessions." The papers mostly dealt with the health conditions of Panama. Dr. Seneca Egbert related the history of the Republic of Panama and of the Canal; Dr Joseph McFarland presented a communication on the Canal Zone, and Dr. Roland G. Curtin discussed the medical conditions of the Isthmus of Panama. The following officers were elected for the ensuing year: *President*, Dr. Roland G. Curtin, of Philadelphia; *Vice-Presidents*, Dr. Victor C. Vaughan, of Ann Arbor, and Dr. William S. Thayer, of Baltimore; *Treasurer*, Dr. Wharton Sinkler, of Philadelphia; *Secretary*, Dr. Joseph McFarland, of Philadelphia. The next annual meeting will be held in March, 1906.

British Medical Journal.

SATURDAY, APRIL 22ND, 1905.

TUBERCULOSIS IN CHILDHOOD.

Sir William Broadbent, in addressing the managers of the Metropolitan Asylums District, as one of the leaders of the deputation which waited upon them on Saturday last, took the opportunity of calling special attention to the unfortunate position of children of the poorer classes who are suffering from what is called surgical tuberculosis—that is to say, tuberculous disease of the bones, including the spine, the joints, and of the glands. There was, he asserted, no class of disease which yielded more readily to open-air treatment than these conditions in childhood, but at the present time they were left almost without any resource. In these columns during the last two or three years attention has repeatedly been called to this reproach to our civilization, and Mr. Tubby, as the result of a special inquiry carried out for the British Medical Journal, was able to produce statistics to show, first, that the treatment of tuberculosis of bones and joints under ordinary conditions of private and hospital practice among the poorer classes was most unsatisfactory in its results; and secondly, that these children occupied beds in the general and children's hospitals for months at a time, in many cases without any permanent benefit to themselves, while excluding other cases which might be treated more effectively. In the aggregate the waste of time, energy, and money in the London hospitals alone must be very large, while every general practitioner in the poorer quarters must be acquainted with dozens of cases which are a despair to him and a serious drain upon the limited resources of poor families. The city of Paris took this question in hand many years ago, and in the British Medical Journal of June 11th, 1904, our Special Commissioner described the special children's hospitals at Berck on the English Channel, and Hendaye in the south of France, and at several places in the neighbourhood of Paris. The hospitals at the first two places mentioned are maintained by the municipality of Paris, the others by a special charitable organization; they are used not only for children in whom tuberculosis has definitely declared itself, but also for those who appear to be threatened or distinctly predisposed to the disease. Once admitted to these hospitals they are retained there until the surgeon in charge considers that they may safely return to their homes, and the period for which some cases remain is to be reckoned not by months but by years. Our Commissioner also described the sanatorium at St. Pol, on the coast near Dunkirk, where children are received under similar circumstances from the manufacturing towns of northern France. Dr. Ménard, the experienced surgeon to the hospital at Berck, expresses the opinion that a period of three years' systematic treatment by good food and fresh air is necessary for the cure of an established case of tuberculosis of bones and joints, and that every large city with slums ought to have 1,000 beds for children at seaside hospitals for every million of its population. How far we are in this country from that ideal it is not necessary to insist; the provision made at the Royal Sea-Bathing Hospital at Margate, admirable as it is in many respects, is pitiably insufficient for the needs of London alone, even if it were devoted solely to children.

At the present moment it would appear that the opinion of pathologists with regard to the true cause of so-called surgical tuberculosis and abdominal tuberculosis is not settled. Professor Koch, in his famous address to the British Congress on Tuberculosis in July, 1901, asserted that primary tuberculosis of the intestines, especially among children, is a comparatively rare disease, and that it was by no means certain that the few cases on record were due to infection by bovine tuberculosis; he further stated that it was easy to distinguish whether the tubercle bacilli in a given case were derived from a human or from a bovine source. Kossel, Weber, and Heuss, in their recently-published report to the German Imperial Health Department[1] fully confirm Koch's statement that the tubercle bacillus derived from man differs from the bacillus derived from bovine animals, and can be distinguished by its biological characters; further, they have failed to find any evidence that the one type can be transformed into the other. They examined tuberculous material from 56 cases in men, women, and children, and found the human type of bacillus in 50 instances. In the remaining 6 cases the bacillus was of the bovine type, and it is very significant that in all these 6 instances the patients were children under 7 years of age, and that in 5 of them the infection was limited to, or appeared to have primarily affected, the intestines or mesenteric glands. The sixth instance in which the bacillus of the bovine type was found was an instance of miliary tuberculosis.

Altogether the German investigators appear to have examined tuberculous material from 18 children under 7 years of age. In 12 they found the human, in 6 the bovine, bacillus. In 3 of the 18 cases the lungs were the seat of the disease, and in all of these the human type of bacillus was found; of the 5 cases of miliary tuberculosis the human type was found thrice, the bovine twice. Of the 8 cases in which the tuberculosis was abdominal the bacillus was of the bovine type in 5. This points very strongly to infection through the intestines, and therefore to milk as the carrier of the infection. The bovine type was not found in tuberculosis of bones or glands, but only one case of each was examined.

We venture to hope that the Royal Commission on Tuberculosis appointed by the British Government in August, 1901, may shortly be able to make at least a further interim report more informing than that which was issued about twelve months ago. All that they could then tell us was that tuberculous material derived from tuberculosis of the lungs, glands, and joints in man gave rise in bovine animals either to acute tuberculosis or to a milder type of the disease which, when inoculated successively into other bovine animals eventually caused general tuberculosis of intense character which did not differ either in its general features or histological details from that produced in animals of the same species by inoculation with bovine tuberculosis. They did not state the source from which was derived the tuberculous material which at once produced the acute type of tuberculosis in the experimental animals; this may or may

[1] *Tuberculose-Arbeiten a. d. k. Gesundheitsamte.* Heft 3. 1905.

not be a matter of importance; the German experiments rather appear to indicate that it is not, for, as has been said, both the human and bovine type of bacillus were found in cases of miliary tuberculosis in children.

Altogether, then, the results of the German researches fully justify the advice given by Dr. Weber to the Central German Sanatoriums Committees as reported in the BRITISH MEDICAL JOURNAL of December 10th, 1904, p. 1596, when he said that while it was impossible at present to say how great the danger was from bovine bacilli, it undoubtedly existed, and it would be very unwise to do away with the precautions hitherto insisted on for the regulation of the milk trade. This conclusion fully justifies the attitude taken up by the medical profession in this country from the first, and it would be a matter for the deepest regret should the sanitary authorities in this country relax any of the by no means onerous precautions which are imposed with regard to tuberculosis in dairy cattle. We regret to see a tendency on the part of the Board of Agriculture to bring pressure to bear upon local authorities to deal very tenderly with the milk trade. A circular was issued at the end of last month suggesting to sanitary authorities that they should not institute prosecutions for the adulteration of milk without giving the suspected adulterators elaborate warning. The Board invited the sanitary authorities, in the absence of any special circumstances indicating the commission of fraud, to request the milk dealer to submit an explanation, advising the sanitary authority if it could feel at all able to do so to accept the explanation to refrain from the institution of proceedings or to withdraw any summons which might have been taken out. This is a paltry suggestion to come from a central department, and it is remarkable that such a circular, which may so seriously affect the health of the infant population, should have been issued by the Board of Agriculture without consultation with the Local Government Board. Sanitary authorities and local magistrates are as a rule only too ready to find excuses for milk dealers. It is possible, however, that the circular may have an opposite effect from that which the Board of Agriculture appears to desire, and that the attempted interference with the discretion of local authorities may tend to render these bodies more, rather than less, vigilant. The circular was considered at a meeting of the Hove Committee last week, when a resolution, moved by Dr. H. H. Taylor, was adopted, to the effect that the Sanitary Committee, being fully convinced of the importance to the infantile population of keeping up the quality of milk, view with great concern any action which will encourage the sale of milk below the standard already fixed by the Board of Agriculture in 1901. We would commend this resolution to the consideration of other sanitary authorities which may have the circular of the Board under consideration at the present time.

RABELAIS AS A PHYSICIAN.

IT is a matter of common knowledge that the creator of Gargantua began life as a monk, and after passing from one order to another, gathering vast erudition on the way, threw off the cowl and replaced it with the doctor's cap. He was about 40 when he entered the University of Montpellier as a student of medicine. His progress was amazingly rapid, for having matriculated on September 17th, 1530, he became a Bachelor of Medicine on December 1st following. He forthwith began to lecture on the *Aphorisms* of Hippocrates and the *Ars Parva* of Galen.

Towards the close of 1531 he was appointed physician to the Hôtel-Dieu at Lyons, and though he was only a Bachelor assumed the title of Doctor—an early instance of a practice which has since become common enough. The irregularity of his attendance got him into trouble with the hospital authorities, and in 1535 his services were dispensed with. Returning to Montpellier, he studied for some time and in April, 1537, passed his examination for the degree of Licentiate. Promotion to that of Doctor followed in due course. Rabelais, notwithstanding the somewhat erratic character of his studies, gives in his famous work innumerable proofs of his thorough knowledge of the medical science of his day. He is fond of anatomical details, which are generally remarkably accurate; he is known to have practised dissection at Montpellier, and a claim has seriously been put forward on his behalf that he was a pioneer of scientific anatomy before Vesalius. He modified an apparatus for the treatment of fractured leg described by Galen and gave it the imposing name of "glossocomion." Although the drawing of this apparatus gives one the impression of an antique engine of war, it seems to have been regarded as a distinct improvement in surgical practice; and so great a man as Ambroise Paré did Rabelais the honour of appropriating the invention without thinking it necessary to mention from whom he had got the idea. Rabelais also devised a syringotome or probe-pointed guarded bistoury, which was used to divide the peritoneum in penetrating wounds of the abdomen.

Of Rabelais's medical practice, whether at Lyons or elsewhere, little is known. He was titular physician to princes of the Church, such as Cardinal du Bellay and Cardinal de Langey, but it may be conjectured that this position was for his own protection rather than theirs. There is, indeed, evidence that in 1540 he was consulted by the Bishop of Narbonne on a matter as to which he may have been supposed to possess special enlightenment. The case propounded to him was as follows: Philippus Saccus, President of Milan, had taken counsel of the doctors of Bologna and Venice on the question whether a daughter who had just been born unto him could be regarded as got 'twixt the lawful sheets. It was on October 26th, 1539, at the fourth hour of the night before the new moon that the President first had carnal knowledge of his wife; and long before the nine months required by Nature were fulfilled a fine girl, having all the appearance of being a full-term child, had made her entry on the stage of the world. Unfortunately there is no record of Rabelais's solution of the problem.

In a thesis presented not long ago to the Medical Faculty of the University of Paris for the degree of Doctor of Medicine, M. Maurice Mollet deals with Rabelais as a clinician. A fairly complete notion of the therapeutics of the sixteenth century may be obtained from his writings. He not only mentions the remedies but indicates their uses, and by the extravagant praise bestowed upon some of them evidently intends to ridicule the folly or superstition of those who believed in their virtues. He invented a condiment made of salted fish—"garus," anchovy or sardine—seasoned with various spices, which he called *garum*, and recommended to his friend, Etienne Dolet, as the best thing for a man who passed his life bent over books, to restore appetite, purge the humours, and move the bowels. This "green sauce," whose virtues were celebrated by Dolet in Latin, and by Clément Marot in French, verses, had a great vogue for some time, and is still used in a much modified form in

some villages of the South of France. Rabelais himself soon scoffed at his own invention. Speaking of it, he says in the second chapter of the Tiers-Livre:

> Vous faites belle saulce verde, de légière concoction, de facile digestion, laquelle vous espanouist le cerveau, esbaudit les esprits animaulx, resjouit la veue, ouvre l'appetit, délecte le goust, assère le cœur, chatouille la langue, fait le tainct clair, fortifie les muscles, tempère le sang, allègre le diaphragme, refraischit le foye, desoppile la ratelle, soulaige les roignons, assouplit les reins, desgourdit les spondiles, vuide les urétères, dilate les vases spermaticques, abbrévie les cremastères, expurge la vessie, enfle les génitoires, corrige le prépuce, incruste le balane, rectifie le membre; vous fait bon ventre, bien rotter, vessir, peder, fianter, uriner, esterneur, sangloutir, toussir, cracher, comiter, baisler, moucher, halciner, inspirer, respirer, ronfler, suer, dresser le virolet, et mille aultres rares advantaiges.

We have not Sir Thomas Urquhart's translation at hand, and we despair of giving an adequate rendering of this comprehensive eulogy. We commend it to advertisers of proprietary remedies as a model of modest claims modestly expressed. With some slight mitigation of the raciness of expression here and there they would doubtless find many highly respectable newspapers ready to publish it, for the usual consideration.

It may perhaps be considered as in accordance with the eternal fitness of things that Rabelais's fame as a practitioner seems to rest mainly on his treatment of syphilis. The method then in fashion was that of the Italian, Gaspar di Torella. At first a mercurial ointment of the strength of 1 in 40 was applied; the effects were so satisfactory that the strength was increased and the inunction was extended to the whole body. Afterwards the patients were put fasting into a room heated to such a degree that some of them fainted on entering. The treatment was continued from twenty to twenty-five days. Poor people were placed in ovens where they were sometimes forgotten. Most of those who underwent this barbarous treatment died either of exhaustion caused by profuse sweating, or poisoned by the mercury. Only about 1 per cent. survived. In addition to the depressing effects of the disease and the treatment, the unhappy patients suffered much from boredom. Rabelais used mercury, but combined with the medicinal treatment a mental therapeusis having for its object the distraction of the patients' minds from their sufferings. He evidently believed, with Herbert Spencer, a philosopher of a very different type, that happiness is the best of all tonics. Dr. Mollet holds, indeed, that Rabelais's writings, which he himself said should not be read by any one who did not first take the precaution of supporting his belly with good stout girths lest it should burst, were inspired by the philanthropic idea of relieving pain and curing disease by laughter.

That Rabelais was in advance of his age in the matter of hygiene is shown by the fact that on his appointment as medical officer to the city of Metz in 1547, his first act was to order the removal of all filth from the streets. Here, too, his special knowledge of venereal diseases must have been specially useful, for among his duties was the medical inspection of brothels. On the alcohol question Rabelais's views, and perhaps his practice, were scarcely in accord with the trend of medical opinion at the present day. In regard to food, he thought that one should eat when he feels hungry; this, he says, is "the true diet, prescribed by the art of sound and certain medicine, although a crowd of stupid doctors advise the contrary." As a preservative against gout and gravel he recommended daily exercise. On the other hand he knew the value of rest in cachetic conditions. To fatten a man suffering from a wasting disease, he says the best way is for him to be a monk for three months; because "if in the monastic state of life he does not become fat, either by art or by nature, he will never become so."

Rabelais held strong views on education, physical as well as intellectual. Gargantua is made to learn and regularly practise riding; the use of axe, sword, and gun; hunting all manner of animals; wrestling, running, leaping, lifting weights, and climbing trees. He roared in the open air to develop his chest, and, on going home after these varied exercises, had a bath and was rubbed down. The intellectual training was still more severe. Gargantua rose at four, and began the day by having some pages of the Bible read to him; then he forthwith applied himself to study. At dinner he had to listen to commentaries on the meat, fish, vegetables, fruit, bread, and wine from Dioscorides, Pliny, and other ancient writers. Afterwards he was expected to give his mind to "a thousand little dainty devices and new inventions," such as arithmetic, geometry, and astronomy. Music was not forgotten; he learnt to play the lute, the harp, the German flute, the spinet, the viol, and other instruments. When he went for a walk he had to note the flowers, grasses, and trees, and to compare them with the descriptions given by Theophrastus, Galen, Dioscorides, and others. At night he had to learn to recognize the stars. Besides all this the scheme of education included Greek, Latin, Hebrew, Chaldaic and Arabic; a mastery of classical style; a complete knowledge of history and law. The pupil was to know the fishes of every sea and river; all the birds of the air; all the trees of the forest; all shrubs and plants, all metals hidden in the bowels of the earth, and all the precious stones of the East. His education was to be completed by a study of medicine of which "frequent anatomies" formed an important part.

It must be remembered that this gigantic scheme was intended for the education of a young giant. On the other hand, Rabelais himself was what Grandgousier wished his son to be, "an abyss of knowledge." It is not impossible, therefore, that he may have believed that the system which he sketched out was to some extent practicable, though in his customary manner he exaggerated it in every direction. But one can scarcely help suspecting that his scheme was partly meant for a satire on pedagogic methods when one reads that even when Gargantua went in the morning to "the secret places to make excretion of the natural digestions" he was pursued by his tutor, who insisted on explaining the details of the process. Allowing for exaggeration and occasional gibes from which the great scoffer could never refrain himself, it must be admitted that his scheme of education has much that is admirable. The most noteworthy points are the importance attached to physical training, and the inclusion of natural science, taught by direct observation as well as books, among subjects of study.

RAILWAY TRAVELLING AND DIABETES.

The increased prevalence of diabetes is a pathological fact which cannot be overlooked, and is hardly sufficiently explained by the continued growth of urban populations, the progress of wealth with its attendant luxury, or the invasion of Western Europe and America by the Jews.

The death-rate from diabetes per 100,000 population in 1880 was in London, Paris, and New York 4.3, 5.0, and 5.71 respectively; in 1890 the rates were 6.6, 13.0, and 8.06; in 1900 they were 7.7, 15.8, and 11.34. The rise in New York is the most striking, but was not unforeseen, for, in spite of the absence of statistical proof, the *Medical Record* of New York spoke of the disease as very prevalent so long ago as 1880, and attributed it to the strain of business competition or nervous wear and tear. The relation of railway travelling to this increase has not been taken into serious consideration, although the causative influence of injuries and shock has been more fully recognized of late years. In 1896 Dr. A. H. Smith read a paper before the New York Academy of Medicine, in which he sought to show that engine drivers as a class suffer disproportionately from diabetes, and this fact he ascribed to the anxious nature of their work.

Professor Saundby alluded to the point in his lectures, and, after quoting Dr. Smith, gave some figures placed at his disposal by Mr. Herbert Page, showing the causes of death of the engine drivers of the London and North-Western Railway Company for a number of years. According to these figures, the mortality from diabetes among engine drivers was nearly twice that of the general population at the same ages, but the data were on too small a scale to be conclusive. A more complete investigation of the question has been undertaken lately by Dr. Navarre, of Lyons,[1] using as his material the servants of the Paris, Lyons, and Mediterranean Railway Company. This company during the last ten years has employed on an average 71,000 persons, of whom 8,710 are travelling (4,590 engine drivers and stokers, 4,120 guards and carriage attendants), and 62,200 stationary. The total number of cases of diabetes reported by the medical officers of the company during the same time was 222, or about 3 per mille, of whom 112 are among the travelling class (58 engine drivers and stokers, 54 guards and carriage attendants), and 110 amongst the stationary class. If these figures are calculated so as to show the relative mortality, which for the whole of the servants reaches 3 per mille, the proportion is 12.63 per mille for engine drivers and stokers, 13.10 per mille for guards and carriage attendants, while for all other servants of the company the rate is only 1.76 per mille. He obtains similar results by taking the causes of early retirement for chronic diseases; out of 723 such retirements 14 were caused by diabetes, while of this number 11 were engine drivers or stokers, against 3 in the sedentary classes. Dr. Navarre considers that the greater frequency of diabetes amongst the travelling class of employés is due to vibration, and he remarks that this is felt more distinctly and is more fatiguing in the brake-vans than on the engines, which, in his opinion, accounts for the slightly-increased prevalence of diabetes amongst the guards and carriage attendants. He points out the interesting, and perhaps alarming, significance of these opinions, should they prove to be correct, in these days of excessive automobilism, for vibration is by no means confined to railways; if they are well founded we ought to find evidence in their favour among drivers of autocars, and especially among riders of the autocycle.

That railway travelling may be a factor in the production of the great increase of diabetes which has characterized the last quarter of a century is certainly a novel suggestion, but is not hastily to be set aside.

[1] *La Semaine Médicale*, No 15, 1905.

SANITATION OF ELEMENTARY SCHOOLS.

CRITICISM of the buildings used for the elementary schools supported until recently by voluntary efforts, and still more, perhaps, criticism of their sanitary arrangements, has always excited much ire in clerical minds, but so far as London is concerned, all that was said has been justified by the report which the Education Committee has just presented. A most painstaking examination of the 438 non-provided schools has been made, and serious defects have been found in many of them. The Committee considers 92 schools wholly unsuitable owing either to small size or radical defects in structure; as an instance a school is mentioned which was originally a church, and was converted to its present purpose by dividing in into two stories; the roof leaks, the staircase, exits, and sanitary offices are inadequate, and there is no playground. Another school is practically a cellar, for it is under the floor of a church and below the level of the pavement, the offices are in the building, and there is no playground. In 342 schools, or 78 per cent., the drains were found to be unsatisfactory. In 57 per cent. they leaked under the smoke test, and 89 others failed to stand the much more severe water test. In addition to the 92 schools which it is recommended should be closed altogether, 26 separate departments of other schools are considered to be unsatisfactory. Altogether the number of places lost by the closure of schools and departments will be nearly 42,000. But this will not be the total deficiency, for on the basis of allowing 10 sq. ft. of floor space for each child, the disuse of unsuitable rooms and the conversion of others into halls, the accommodation will be reduced by nearly 27,000 places more, so that the total deficiency will be nearly 69,000. The total annual additional cost which would result from carrying into effect the Committee's scheme would amount to £224,000. The prospect is not a very agreeable one to the ratepayers, and we observe that at the meeting of the County Council on Tuesday, Earl Carrington spoke of the reprehensible neglect of Church school buildings by the Church itself. We cannot think that recriminations of this kind will assist the cause of education any more than the defiant opinions said to be expressed by some ecclesiastical officials. The fact must always be remembered that until about thirty years ago the State did not recognize that it had any duty with regard to the elementary education of children, and that down to that time the only provision was that made by voluntary effort and mainly by the various churches.

A SCHOOL FOR INVALID CHILDREN.

THE Leeds Education Committee have, in accordance with the Elementary Education (Defective and Epileptic Children) Act of 1899, organized a school for invalid children. Children attending such schools must be certified by a duly qualified practitioner as "not being imbecile and not being merely dull or backward," but as being "by reason of mental, or physical defect, incapable of receiving proper benefit from the instruction in an ordinary public elementary school, but not incapable by reason of such defect of receiving benefit from instruction in a certified special class or school." A large house with a garden has been taken in one of the most elevated and healthy parts of the city, and has been altered for the special purposes of the school. Provision has been made for sixty children, and the age limit is from 7 to 16 years. Many of the children are able to go to the school without assistance, but, in the case of those who are lame or otherwise unable to do so, provision is made for their being taken to and from school in a properly equipped ambulance. The children are conveyed by their parents to one of several centres, or in some cases the ambulance calls at their homes, and they are then handed over to the care of a fully-trained nurse, who accompanies the ambulance. At present three journeys to and from the school are made daily. The nurse remains on duty at the school all day. The education is specially

adapted to the physical and mental condition of the children, and is conducted much more by individual instruction than by the ordinary class methods. A substantial meal, the expense of which is partly met by the parents, is provided once daily. The experiment has so far proved eminently successful. Many of the children have improved in their physical condition, as, indeed, was to be expected, and a visitor to the school is convinced that the children are carefully looked after, and kindly and intelligently trained.

THE JUBILEE HOSPITAL.

In another part of this issue, at p. 918, will be found a full summary of the report of the Executive Council of King Edward's Hospital Fund for London upon the affairs of the Queen's Jubilee Hospital, Earl's Court. Its contents justify in the fullest degree the attitude towards the institution which was assumed in this Journal, and which was the admitted cause of the inquiry being held at all. The recommendations made by the King's Fund are eminently practical, and it may be assumed that the governors of the institution will at once fall in with them, for those who represent them on the Board of Management have hitherto supplied no reason for crediting them with any but good motives, whatever other qualities they may be deemed to have lacked. They are unlikely, therefore, to place any obstacles in he way. Nor does any objection on the part of the new medical staff seem probable, as it appears indubitable that, whatever course the governors may desire to adopt, the members of the professional staff will best consult their own interest by separating themselves at once from the institution and offering themselves for re-election if they so desire when the suggested interregnum is over. Their connexion with it has at present been so short that their names are not even generally known. During the interregnum the King's Fund, with the assistance of the two Royal Colleges, will certainly not, as is suggested by the *Daily News* in a note on the subject, find any difficulty in procuring the temporary services of suitable surgeons and physicians.

ALCOHOL AND PHYSICAL DETERIORATION.

A conference of medical men of Leicester and Leicestershire was held at Leicester on April 13th, under the auspices of the Leicester Medical Society, the Leicester Division of the British Medical Association, and the Leicester Medical Union. Dr. R. C. Stewart, President of the Leicester Medical Society, was in the chair, and among those present were Dr. F. M. Pope, Mr. C. J. Bond, Dr. J. S. Sloane, Dr. C. K. Millard, Dr. Gordon Kelly, and many others. Professor Sims Woodhead delivered an address in which he said that the more he studied the matter the more he came to the conclusion that in alcohol they had a most potent cause of physical degeneration, not because of its rapid action, but because of the changes which it produced in the system, directly or indirectly. Its action upon the nervous system was more marked than was sometimes imagined. Further, it was now recognized that it acted not as a stimulant for anything beyond a very short time, but as a paralysing agent. Even in comparatively small quantities it interfered with the functional activity of the nerve cells. These cells were the most highly developed in the body, and their full functional activity was essential for the carrying on of the highest vital processes in the body; therefore, if they had anything that struck at these nerve cells they had something that struck at the very centre of nutrition and vegetative existence. That being so, the man who took too much alcohol was not able to give his best services to his family or to the nation. The report of the Inter-Departmental Committee on the question of physical deterioration showed that England was in danger of the evil that faced France. When only the men drank there was not a very marked deterioration, but as soon as the women began to drink two factors came into play; first a large number of infants born with defective nervous systems, and, secondly, there was a great interference with the productiveness of the women. In France it had been found that coincident with the upward trend in the consumption of alcohol there had been increased suicides and cases of lunacy, and of the percentage of conscripts refused as unfit for service. In Sweden, on the other hand, where there had been a decrease in the consumption of alcohol, the exact opposite was the case. The Chairman expressed his agreement with Professor Sims Woodhead, and was glad that alcohol was prescribed less and less by the medical profession. The other day a bishop said that the temperance party were to be congratulated on the work they had done, and one of the most hopeful results of that work had been the conversion of the medical profession on the subject of alcohol. Dr. Stewart rather thought that the profession had been doing this very quietly, without advertising or talking about it. The question of lessening the quantity of alcohol given to their patients had been discussed. Nearly all the asylums in England were giving up alcohol as an article of diet. He had persuaded his committee, after a great deal of trouble, to do so. The patients got on so much better without alcohol, especially the epileptics. Out of 284 patients now in the asylum, he was giving alcohol as medicine only to two. If alcohol was given, he insisted upon it being given at a meal. Dr. C. Killick Millard said he believed there was hardly a fever hospital in the country at which the practice of prescribing alcohol was still in force. Dr. Pope, in proposing a vote of thanks to Professor Woodhead, said that any one who had practised medicine for any time must have noticed the diminution in the amount of alcohol prescribed directly as a drug, and he had the utmost pleasure in saying that he could support all Professor Woodhead said in the direction of the undoubted benefit this had been to medical science. His own view was that they should give alcohol in the same way as any other drug—first satisfy themselves that it was essential and necessary, and then give it in absolutely definite doses. Moreover, the duration of the time when it was given should be absolutely under the physician's direction, and should not under any circumstance be exceeded. The motion was carried unanimously, and Professor Woodhead, in response, said that he believed the medical profession were doing more for temperance at the present day than any other single body of men.

VISIT OF BRITISH MEDICAL MEN TO PARIS.

A circular giving all the information available, issued by the London Committee, ought last Monday to have been in the hands of every medical man who has accepted the invitation to visit the hospitals and laboratories of Paris next month. Details may be altered, and a fuller programme is promised by the Paris Committee next week, but the main features are fixed. On each of the three days the mornings, when the staff of the Paris hospitals are accustomed to pay their visits, will be devoted to serious work, two afternoons to visits to institutions of more or less direct medical interest, and one to an excursion to Chantilly, which will also have a certain educative value, for most medical men who have leisure, and many who have very little, collect something, and the late Duc d'Aumale was very eclectic. It was stated last week that the expense of the excursion on May 14th, 15th, and 16th to the watering places of Béarn (Arcachon and Biarritz on the shores of the Bay of Biscay, and Pau and Salies in the foothills of the Pyrenees) would be trifling. It is now stated that the municipalities of the four towns intend to make the members of the party who choose this excursion their guests from the time when they leave Paris on Sunday afternoon until they arrive there again on Tuesday evening or Wednesday. The excursion ought to be most interesting, for the whole country from the pine woods of Arcachon to the terrace of Pau with its famous view on to the snowcapped Pyrenees, is full of beautiful scenery and interesting historical associations. The excursion to Vichy and Evian also promises to be most agreeable. Vichy is a typical French watering place,

gay and bright, admirably managed and possessing one of the best appointed bath houses in the world. It has also an excellent mechano-therapeutic institute under medical direction. Evian is less known to the English, although it is situated on the lake of Geneva, within sight of Lausanne, through which so many tourists pass every summer. The Honorary Secretaries have no further information with regard to the concession offered by the South-East and Chatham Railway and the Compagnie du Nord for the journey from Charing Cross to Paris, but Dr. Boyd Joll, 8, Hanger Lane, Ealing, has ascertained that the companies controlling the Newhaven and Dieppe route will grant excursion rates to a party of not less than thirty. The Paris Committee expect to be able to arrange a visit to Bagnoles de l'Orme on the return journey for those who choose this route. The visit to Paris will not only be agreeable and instructive to those who take part in it; it will cement the bond which in spite of quarrels and recriminations between politicians, now happily at an end, has always united the members of the medical profession in the two countries. The strength of the bond is that it is due to mutual respect, and to the homage which we pay in common to the great names of both countries. British medical men will not soon forget the ovation given to Lister in Paris at the Pasteur celebration, and an occasion will probably be taken during the coming visit to show that the admiration of Great Britain for the work and the character of the founder of bacteriology has not diminished, but rather tends to increase as the significance of what he achieved for mankind is more and more fully appreciated.

STREET ACCIDENTS IN LONDON.

THE Police Committee of the City of London was directed by the Court of Common Council some time ago to consider the advisability of establishing within the City a horse ambulance or other rapid means of conveyance to hospitals or elsewhere of persons injured in the streets. A report has, therefore, been prepared; it proposes to introduce an ambulance system of the kind indicated and to work it under the existing police organization. By this means it is anticipated that the cost of the system will be minimized and the efficiency of the police arrangements increased, while no special application either to Parliament or the City for funds will be required. The scheme anticipates the provision of two principal ambulance stations, one to serve the eastern, and the other the western portion of the City. Cases of accident in the former district would be sent to Guy's and the London Hospitals and dealt with by a station in Bishopsgate, the annual cost of which is estimated at £600. Cases in the western area would go, as now, to St. Bartholomew's Hospital, which has offered room for a station at a nominal rental. The net annual cost of the entire system is estimated at £1,184. The report concludes by urging the importance of the scheme to all who frequent the City, and expresses a hope that it will be adopted by the Court of Common Council in its entirety and permission accorded to put it into being at once. This plan, it may be noted, appears practically to be identical with one to the advantages of which we called attention about a year ago, and may safely be credited mainly to the energy of Captain Nott-Bower, the City Commissioner of Police.

THE BRITISH OPTICAL ASSOCIATION AGAIN.

OUR contemporary the *Standard* has recently opened its columns to the advocates of sight-testing by opticians. After publishing an article on sight testing favourable to the views of those who are advocating the claims of opticians to be entrusted with the eyesight of the public, it gives an account of an interview between a deputation of opticians from a body styling itself the General Board of Opticians with Mr. Alban Gibbs, M.P., the Master of the Spectacle Makers' Company, and Sir William Hart-Dyke, M.P., a Past Master of the Company, at the House of Commons. Colonel T. Davies Sewell, who is, we believe, the Secretary of the Spectacle Makers' Company, as well as President of the General Board of Opticians, introduced the deputation, and Mr. S. Cowan, the owner of opticians' shops in several large towns of the North of England, acted as spokesman. Mr. Cowan asked the support of the members of Parliament to the proposed Bill to regulate the practice of refractionists, or, in other words, of those opticians who, in the "usual custom of their trade, use tests to ascertain the nature and capacity of their customers' vision." Mr. Gibbs and Sir William Hart-Dyke were careful not to commit themselves, but said that they both believed in the principle, and would give a definite reply before Easter. The *Standard* then goes on to explain that there are three types of opticians:—(1) The man who allows his customer to test his own sight; (2) the sight-testing optician, who is "a skilled scientist"; and (3) a small number of men who only make up prescriptions. We are told that the British Optical Association was the first body which started the examination for sight testing and issued diplomas, and that the Board of Examiners was composed of medical men and physicists, but that its example was followed by the Spectacle Makers' Company. Its proceedings are, however, said to be threatened by the Medical Acts Amendment Bill, promoted by the British Medical Association, in which the *Standard* says there is a clause to restrict opticians from sight testing. In another article in the same paper it is stated that sight-testing opticians are joining in opposition to certain clauses in the proposed Medical Acts Amendment Bill which "forbids opticians, under any circumstances, to fit glasses without a prescription from a medical man." These statements, which have been made before, are apparently repeated seriously, but an examination of the Bill will show that neither opticians nor eyesight testing are mentioned in it, and the clause prohibiting practice by an unregistered person would no more interfere with the sale of spectacles than it would with the sale of trusses or elastic stockings; it seems, therefore, to be merely an effort of imagination on the part of these gentlemen who have not distinguished themselves in the course of this controversy by a scrupulous regard for accuracy. The whole dispute between the British Medical Association and a certain section of opticians is that the latter publish advertisements in which they claim to be able to treat all forms of errors of refraction, and not long ago the *British Optical Journal* itself admitted that some of the advertisements could not be defended. The Spectacle Makers' Company has claimed, by the letter of its late Master, Sir William Hart-Dyke, dated March 7th, 1902, that it forbids holders of its diploma to issue misleading statements in the form of advertisements, yet in spite of our having quoted misleading advertisements the Company has done nothing to redeem its pledge.

INSTRUCTIONS FOR MIDWIVES.

DR. MEREDITH YOUNG, the Medical Officer of Health for Stockport, has issued a paper of recommendations for midwives, which is as a whole a model of what such instructions should be. It is printed in large clear type. The reader is told that it is for use when no doctor is present; when a doctor is present the midwife is told to take his advice. The midwife is directed to boil her dresses, to keep her nails short and clean, to protect any cut or scratch, to use a bag with a removable lining, to boil all instruments that will stand it. She is instructed in the use of izal, corrosive sublimate, and carbolic acid. She is advised to use a lubricant in a collapsible tube, not in a pot, and not to use sponges. The only point which we think might be reconsidered is the recommendation to use boracic acid as an "antiseptic" eye lotion. This question was carefully discussed in a paper by Mr. Sydney Stephenson, published in 1903, and he then showed that the solution originally recommended by Credé, a 2 per cent. solution of silver nitrate, is far more trustworthy than anything else, and that next to it comes corrosive sublimate. Boracic acid was not mentioned in Mr. Stephenson's paper; but it is for every other purpose a less powerful antiseptic than corrosive sublimate. The objections to the routine use of silver nitrate are two:

(1) That it causes a slight conjunctivitis, and (2) the trouble and danger of mischance if midwives are ordered to carry about more chemicals than are absolutely necessary. This latter objection applies also, though in less degree, to the use of boric acid. We are inclined to think it simpler, easier, and better to let the midwife drop into the eye the sublimate solution she has already prepared for her hands. The alternative, we think, is to bid her let the eyes alone, unless the mother is known to have a yellow vaginal discharge, and in that case to use the 2 per cent. silver nitrate solution. This, however, is a detail; as a whole the paper is excellent.

THE CHANNELS OF INFECTION IN TUBERCULOSIS.

The subject selected for the Weber-Parkes Prize Essay for 1903 was the channels of infection in tuberculosis, together with the conditions, original or acquired, which render the different tissues vulnerable. Dr. Hugh Walsham devotes the greater part of the essay which won the prize to the channels of infection. One of the conditions of the prize is that the essay shall be based on original observation, and in this volume Dr. Walsham has collected and discussed some of the results of his work as Pathologist to the City of London Hospital for Diseases of the Chest, as well as observations specially carried out. The result is a valuable contribution to the study of one of the important problems connected with tuberculosis. The essay was illustrated by 280 microscopical preparations, many of which are reproduced in coloured plates of great interest. Dr. Walsham is evidently a master in the technique of this branch of pathological examination, and the beautiful clearness of the plates forms a distinctive feature of the volume in which the essay has been published.[1] The channels of infection discussed are five in number. Hereditary transmission, though possible by the ovum, is rare. The lymphatic vessels, the blood vessels, and the epithelial channels are the most frequent channels of transmission in the human subject, and infection may be conveyed by inoculation into the skin or tissues. In considering transmission by lymphatic vessels much attention is given to infection through the tonsils, and the following conclusions are formulated: That the tonsils are very frequently affected with tuberculous disease, which may be primary in the tonsil or secondary to chronic pulmonary tuberculosis; that when the tonsils are tuberculous the cervical glands receiving the lymphatics from these organs are also frequently affected with tubercle, as may be also the follicular glands at the base of the tongue. The tonsils may be affected from without or through the blood stream in acute miliary tuberculosis. The conditions, original or acquired, that render the tissues vulnerable are discussed, and a bibliography referring to tuberculosis of the glands, tonsils, pharynx, and kidney, and the relation of heart disease of tuberculosis is appended. If this essay does not carry our knowledge of the actual channels by which infection in tuberculosis reaches the human body and is distributed within the body much further, it at least adds fresh facts in proof of already-recognized paths of infection, and summarizes the present state of knowledge on this important subject judiciously and clearly. Dr. Walsham may be congratulated on a piece of good honest work well done.

A MEDICAL PEACE COMMITTEE.

We read in the *Journal des Débats* of March 24th that on March 21st a meeting was held in the house of Dr. J Rivière, the "eminent physico-therapeutist," who had invited more than 100 medical men of various nationalities to associate themselves with him in an endeavour to suppress war. A large number of them attended, and a Committee was formed to take action in the direction indicated. Of this Committee Dr. Rivière is Chairman; Drs. Philippeau, Suarez de Mendoza, T. Mende Ernst, Vice-Chairmen; Dr. Mazery, General Secretary; Drs. Pokitonoff, Antonelli, Cree, de Torres Mendiola, de Castro, Soffia, and Cogrel, Secretaries; and Dr. Marechal, Treasurer. The statutes will be settled later, and an influential list of patrons is promised. The profession of medicine is essentially pacific, and it is eminently fitting that its members should do all that lies in their power to abolish the horrors of war. We confess, however, that we do not see that medical men are called upon to take separate action for the attainment of that most desirable end. At any rate, if we are to take the field for the establishment of the reign of universal peace in the manner that appears to be suggested, we should like to see the work undertaken by an organization more fully representative of the profession.

A CASE OF CEREBRO-SPINAL FEVER.

In view of the existing outbreak of cerebro-spinal fever in New York and of the prevalence of the disease in an epidemic form in some of the more northerly parts of Central Europe, it is not perhaps surprising that the occurrence of any analogous case in the British Isles should be deemed of general interest. The admission of a case to King's College Hospital has, however, given rise to a quite unnecessary amount of type-expressed emotion and a number of more or less ill-founded statements. The case is under Dr. Ferrier's care, and it is to the courtesy of his house-physician, Dr. S. Clifford Pritchard, that we are indebted for the following notes concerning it. The patient is a man, aged 36, a coachman in the suburbs by occupation. He fell ill suddenly three weeks ago, the symptoms being faintness and a steadily-increasing headache. His temperature was found to be 103° F., and it varied between this and 99° F. until April 4th, when he was sent up to King's College Hospital. On his admission the temperature was 101° F., and the pulse slow and full. He was drowsy, but vomited frequently. The eyes and ears were normal, but over the left temporal area there was definite tenderness. No paralysis was present, but the knee-joint reflexes were slightly exaggerated, the knees being kept drawn up, and Koenig's phenomenon was present. Retraction of the neck was obvious, and marked pain was caused by any endeavour to flex it. Some meningeal fluid was withdrawn through a lumbar puncture, but no micro-organisms were at this time found. During the next few days the retraction and rigidity of the neck augmented, the patient being usually more or less unconscious, and at times delirious and endeavouring to leave his bed; the temperature varied between 103° and normal. On April 12th more fluid was drawn from the meninges, and on this occasion was found to contain diplococci, which on subsequent cultivation were identified as those of Weichselbaum. Since then the patient's condition has steadily improved, and the temperature has now remained normal for several days. Retraction of the neck has disappeared and the stiffness become less marked; he is conscious, but occasionally has a delusion that he has been out for a walk. No unusual precautions are being taken in regard to the case, and he is under treatment in the general ward. The case, therefore, would appear to be undoubtedly one of cerebro-spinal meningitis, but whether it is one of specific cerebro-spinal fever is not so certain. If it is, it belongs to the subacute and commoner form of the disease. The identification of the diplococcus intracellularis does not settle the question, for this organism, it is to be noted, has been recovered from the meningeal fluid of ordinary cases of meningitis of the form known as posterior basic by Still, Hunter, and Nuthall. In any case the occurrence of sporadic cases of cerebro-spinal fever is a well-recognized, and in many parts of the world a very common, event. Even when epidemics occur they are usually in scattered areas, and in America, as now in Silesia and Galicia, they have been commoner in rural than in urban areas. The experience of the profession as regards its infectivity is best exemplified by the manner in which the case mentioned is being treated at King's College Hospital. There is no evidence that contagion between person and person exists, and in an outbreak of some

[1] *The Channels of Infection in Tuberculosis.* Being the Weber-Parkes Prize Essay, 1903. By Hugh Walsham, M.A., M.D.Cantab., F.R.C.P. London: John Bale, Sons and Danielsson. 1904. (Demy 8vo, pp. 150. 12s. 6d.)

500 cases in the small island of Cyprus some years ago, of which we have notes, there was scarcely an example of the occurrence of two cases in one house, although no isolation of cases was maintained. The occurrence of this case, therefore, affords no ground for real alarm. "Spotted fever," it may be remarked, is not a particularly happy name for the disease, for petechiae do not constantly appear, and when they do so are often scattered and ill marked. Clinically the disease is one of intense interest, the most distinctive feature often being the apparent inconsistency of the co-existing symptoms, their rapid change and confusing variety. Cervical rigidity may always be found if looked for, and taken as a whole meningeal trouble is indicated. Meningitis, however, occurs in many diseases, of one or other of which some symptoms may be present, and the true cause thus overlooked. In fulminant cases no marked macroscopic changes may be discoverable on necropsy, but in those which have been long drawn out, the results of *post-mortem* examination are exceedingly satisfactory, for in no other complaint is the course of the disease and its varying symptoms found more clearly written in the cadaver.

TRYPANOSOMIASIS IN DROMEDARIES.

THE great importance of trypanosomes as pathogenic agents in man, cattle, and horses is a fact as prominent as any in the medical world of to-day; while many other animals are known to be susceptible in varying degrees. Among these are the dromedaries of Northern Africa, whose virtues as a means of conveyance render any serious disease to which they are liable a matter of extreme gravity. In the *Annales de l'Institut Pasteur* for January, 1905, is a full and interesting account of "Mard-el-Debab," which is the name given by camel-drivers to a disease attacking their dromedaries, and attributed by them to the bite of the gadfly. The principal clinical features, excluding the fury which the animals display when attacked by these insects, develop after a latent period of several months at least, and consist of progressive loss of flesh and strength, with slight febrile attacks from time to time. There is loss of appetite, with diminution in the amount of urine passed, and oedema of dependent parts as a final symptom. The female beasts abort, or sometimes give birth to feeble offspring which do not survive long. The drivers also point to torticollis and subcutaneous abscesses as symptoms: the former of these has not been observed by the authors, Drs. Edmond and Etienne Laurent, while they attribute the second to adult filariae. Animals of all ages are attacked; most of the affected animals die after an illness of several months or years, but a few recover with an immunity to the gadfly bite which greatly enhances their commercial value. The authors compute that 10 per cent. of the dromedaries between the Mediterranean and the Sahara are attacked, an estimate based on single examinations of the blood of nearly 300 camels for trypanosomes. The particular trypanosome is on an average 19 μ long, has a distinct centrosome, and multiplies by longitudinal fission. It is present with peculiar constancy in the blood of the affected camels, and has been inoculated with varying results. White rats and white mice showed greater susceptibility than any other animals, and passage through them exalted the virulence of the trypanosomes. A monkey, a she-goat, and a horse were the most refractory animals. Trypanosomes were recoverable from the blood of all inoculated animals, of which nearly every one died after a variable period of progressive cachexia. No opportunity arose for inspection of the organs of a dromedary dead of the disease, but most of the laboratory animals had enlargement of the spleen and lymph-glands with one or two other less constant lesions. The camel-drivers' theory, attributing the disease to the bites of gadflies, is enthusiastically supported by the authors on the following grounds: (1) the insects—*Atylotus (Tabanus) tomentosus* and *Atylotus (Tabanus) nemoralis*—are abundant in regions traversed by dromedaries, whom they attack in great numbers: (2) experimentally, animals hitherto healthy have developed trypanosomiasis after the bite of *Atyloti* that have been allowed to fasten upon animals with trypanosomes in the blood; (3) similar results do not attend the same experiments with *Stomoxes*, etc., instead of *Atyloti*, and *Stomoxes*, *Hippobosci*, etc., attack horses and mules, but not dromedaries to any appreciable extent; (4) trypanosomes can be demonstrated alive in the stomach of the *Atylotus* over half an hour after it has bitten an infected animal; and (5) the preventive measures practised by the camel-drivers, and described by the authors, are entirely directed to protection of the animals from gadflies, with an appreciable degree of success. In conclusion, they sum up the difficulties attending an effort to bring this and other trypanosomes into line. They agree with Koch[1] that the relative susceptibility of different animals to inoculation is not a safe test; a scientific morphological classification is impossible; and they suggest that animals cured of the various trypanosomiases should be inoculated with the doubtful trypanosome till an immunity to that particular infection is met with. They incline to the belief that "Mard-el-Debab" comes under one head with "Mbori," the camel disease of Timbuctoo, and surra; and they suggest that future developments of knowledge may show a cleavage of the trypanosomiases into those forms conveyed by Tabanides (Surra, El-Debab, Mbori) and those conveyed by tsetses (Nagana, trypanosomiasis theileri, etc.).

THE HENRY PHIPPS INSTITUTE.

THE Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis has commenced well, and the first annual report,[2] detailing the work from February, 1903, to February, 1904, is full of facts and figures of great interest and importance. Founded on February 1st, 1903, and incorporated on September 1st of that year, the purposes of the institute, as set forth in the charter, are the study of the cause, treatment, and prevention of tuberculosis, and the dissemination of knowledge on these subjects, the treatment and the cure of consumptives, without regard to race, creed, or colour. Clinical work commenced in temporary quarters at 238, Pine Street, Philadelphia, on the second day of February, 1903, the day after foundation. Dispensing patients were seen on that day and from that day on. Bare floors and walls, a few chairs, a clerk and three physicians constituted the equipment at the start. In the beginning arrangements were made with a drug store to supply medicines and with milkmen to supply milk to patients to whom these articles had to be given free. These were temporary makeshifts until the institute could create its own machinery for supplying them. Wards for the accommodation of fifty-two patients were opened on April 20th. Difficulty was experienced in organizing the necessary nursing staff because of the fear of infection, but at the end of the year the staff consisted of five trained nurses and five pupil-nurses. The medical staff at the end of the first year consisted of sixteen medical men. The records of cases for the first year fill ten octavo volumes of about one thousand pages each, and will form the basis of future scientific papers. A perusal of the report itself proves the justice of a statement in the introduction that "the work accomplished by the institute during the first year is interesting for its magnitude as well as for its scientific and philanthropic worth." During the year 2,039 patients were treated—254 in the wards and the remainder as dispensary patients. Statistical information is given as to nativity, age, sex, colour, residence, social condition, and occupation of the patients; evidence as to alcoholism, predisposing diseases, source of contagion, place of beginning of tuberculosis of the lungs, tissue involved, tubercle bacilli in the sputum, prominent symptoms, complications, and effects of treatment, as well as other details. There is a full autopsy report on the

[1] BRITISH MEDICAL JOURNAL, 1904, vol. ii., p. 1445.

[2] *The First Annual Report of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis.* February 1st, 1903, to February 1st, 1904. Philadelphia: Published by the Institute. 1905. (Demy 8vo, pp. 265.)

fifty-five patients who died in the hospital during the year. A special report on neurological work, by Dr. D. J. McCarthy, is particularly interesting. It has been stated by Dr. Clouston that there is a type of special tuberculous insanity; in this report a form of insanity peculiar to tuberculosis itself is recognized, and Dr. McCarthy says "a careful analysis of the cases of mental disturbances in tuberculosis will show a group of cases entirely different from any as yet described." There were four of these cases, all in an advanced stage of tuberculosis, and the special mental characteristics of them were "a happy, contented state of mind, expansive ideas, and distinct delusions of grandeur." Some special articles, including an elaborate statistical study of tuberculosis in Philadelphia from 1861 to 1903 inclusive, by Dr. J. W. Irwin, complete the first part of the report. The second contains the text of the lectures given under the auspices of the institute by Drs. Trudeau, Osler, Sims Woodhead, Hermann Biggs, and Maragliano. These lectures have already been published, but their inclusion in this volume is necessary to give completeness to the record of the year's work of the institute. Apart from the value of its contents, it gives evidence of the energy and organizing powers of the medical director, Dr. Lawrence F. Flick. The amount of work accomplished by the institute in its first year in the treatment of patients alone is considerable. That the clinical records of the institute should have been so well kept in the stress of the early days of an undertaking of such magnitude is a triumph of organization and administrative ability. Future annual reports will be eagerly looked for by all who are studying the many problems connected with tuberculosis; and, if the promise of the first year's work is fulfilled, these reports will prove of inestimable value in adding to our knowledge of this disease.

UTERINE FIBROID AND LATE MARRIAGE.

NOW that the results of hysterectomy for fibroid disease are so often published, attention is turned to all matters associated with that very common disorder. For a long period Professor Pinard has, we understand, taught that its evolution is associated rather with disuse than with use or abuse of the functions of the organ affected. He has recently enunciated his theory fully in a lecture of the highest interest.[1] In respect to fibroids and pregnancy, he notes that in 21,891 labours during the last ten years at the Baudelocque clinic, 171 were complicated by fibroid tumours, or 20·4 per cent. After long experience in hospital and private practice, and careful scrutiny of the records of parturition, abortion, and sterility, gleaned alike from the lying-in chamber and from the clinical histories of patients who sought medical relief on account of uterine fibroid, Dr. Pinard has arrived at certain convictions. First, the most evident predisposing cause of uterine fibroid disease is the failure to permit the reproductive function to evolve to its natural conclusion, by which he means impregnation, pregnancy, delivery at term, and also as an equally essential factor, lactation continued for a reasonable period. Secondly, late impregnation and secondary sterility are very frequent in the history of fibroid disease, a clinical fact which supports his first proposition. "For many years I have incessantly repeated to my pupils," says Dr. Pinard, "the following aphorism:—'Whenever you come across a primipara, aged 30 or older, in the lying-in room, *cherchez le fibrome.*' Is this notion, which I have endeavoured to inculcate for over twenty years, true and useful?" In order to prove its truth, he turns to the 171 cases of fibroid disease complicating labour in the Baudelocque clinic. No less than 94 were primiparae, and out of that 94 as many as 80 were 30 years of age or over, whilst only 1 was under 25; so 13 had married between the ages of 25 and 30—a relatively late period, especially in France—whilst the great majority, over 85 per cent., had married absolutely late in life. Dr. Pinard publishes full statistics of his operations on cases of uterine fibroid, and insists that they confirm his theory, and especially demonstrate a close relation between fibroids and "secondary sterility." By that term he signifies barrenness throughout sexual life after one or two pregnancies. Out of 68 cases 41 occurred in parous women. As many as 18 of the 41 had only once been pregnant and 14 only twice, whilst 9, a very small proportion, had passed through more than two pregnancies. Only 1 in this series was under 30 years of age, and this patient was 29, and had been delivered of her first child when 27, hence this case really followed Pinard's rule. Again, he shows that in the series of 41 parous women with fibroids, 30 had not been pregnant for over 10 years, and amongst them were only 2 who had passed the menopause; indeed there were but 6 elderly cases in the entire 68, 4 being sterile. Closer inspection of his statistics showed Dr. Pinard that abortion is, in relation to fibroids, practically sterility, and that the same must be said of all cases where the mother did not suckle her infant. Thus, according to this eminent French obstetrician, it is sterility that causes fibroids rather than fibroids that cause sterility. The theory is interesting, and will no doubt be thoroughly investigated by British authorities. It is probable that a large number of spinsters with fibroids never seek medical relief, whilst in a considerable proportion of married women the disease, hitherto unknown to them, is found out during pregnancy, labour, or the puerperium.

[1] *Annales de Gynéc. et d'Obstét.*, January, 1905.

SINGLE KIDNEY AND RENAL SURGERY.

THE fear of removing one kidney when it is not absolutely certain that its fellow exists is most reasonable, as the oversight has led to fatal results. It is a factor in the dispute about the relative merits of the lumbar and abdominal incision in operations on the kidney. A far more frequent complication than single kidney is the suppression of the functions of the pair; one kidney may be operated upon when the surgeon is under the erroneous impression that the other is efficient. All clinical records which throw light on these complications should be made public. M. Charles Monod[1] recently exhibited before the Société de Chirurgie de Paris a case where the condition was intermediate between those just mentioned, for a second kidney did exist, but it had never functioned. A man, aged 64, was operated upon for acute calculous anuria. His condition was very urgent; the right kidney was incised and urine flowed from the wound, but not a drop from the ureter; the patient died within a few days. The kidney, which had been laid open, was found to be uniformly hypertrophied, and its ureter was obstructed at the level of the pelvis by a calculus of the size of a large pea. The left kidney was represented by a spherical shell with thick walls, pearly white on their inner aspect. The contents consisted of a turbid fluid containing cholesterine. There was no duct of any kind associated with this rudimentary kidney, which, however, was supplied with large veins. Not a trace of a left ureter existed, either at the renal or vesical end of the normal course of that duct. In the discussion which followed the exhibition of this specimen, it was pointed out that in acute calculous anuria both kidneys must be involved, though as a rule from the same disease; in this instance it was otherwise. As acute anuria is necessarily a very urgent condition, the operator usually incises the kidney which seems to him the worse off, although in his haste he may not think about bilateral disease. Routier twice incised the same kidney, and felt sure that the patient, now in good health, is living with one kidney only, namely, that which he incised. M. Bazy described one case where both ureters were obstructed by a calculus. In less acute cases of renal disease requiring operation, the surgeon is not likely to leave out of consideration the questions of bilateral disease, and functionless or absent kidneys. Luys's separator is a valuable instrument as an aid in throwing light on these clinical questions.

[1] Anurie calculeuse. Néphrotomie. Mort.-Rein unique à droite. *Rev. de Gyn. et de Chir. Abdom.*, March-April, 1905, p. 312.

MEDICAL MINISTERS.

THE fashion seems to be setting strongly abroad in the direction of choosing medical men as Ministers of State. There are three doctors in the present French Cabinet, and last week we announced the appointment of Dr. Cortezo as Minister of Public Instruction in Spain. This week we have the pleasure to announce that the new Minister of Public Instruction in Italy is also a member of the medical profession. His Excellency Dr. Leonardo Bianchi is Professor of Psychiatry in the University of Naples, and has made his name familiar to physicians by his researches on diseases of the nervous system. He is looked upon as one of the leading clinical experts in diseases of the mind in Italy. His special experience should make him peculiarly fitted to deal with certain aspects of the education problem. A recent predecessor in his present office was Professor Guido Baccelli, one of the most conspicuous figures in Italian medicine.

THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

THE Liverpool School of Tropical Medicine has completed the organization of the fifteenth medical expedition to the tropics for the purpose of investigating diseases prevalent in those regions. The object of the expedition, which consists of Dr. Wolferston Thomas and Dr. Anton Breinl, is the study of yellow fever. Dr. Wolferston Thomas sailed on April 11th for the Amazon, and Dr. Breinl will start for the same destination a little later. The expedition, which is expected to begin its work about the first week in May, will make investigations up the Amazon River at its confluence with the Rio Negro. The work will begin at Manaos.

PROFESSOR OSLER'S SUCCESSOR.

DR. L. F. BARKER has been appointed to the Chair of Medicine in Johns Hopkins University, Baltimore, in succession to Professor Osler. Dr. Barker, who is 37 years of age, is a graduate of Toronto Medical School (1890), and was for some years at Johns Hopkins. He has been Professor of Anatomy, and more lately of Medicine, at the Rush Medical School, Chicago. Dr. William S. Thayer, formerly Associate Professor of Medicine, has been appointed Professor of Clinical Medicine. He is a graduate of Harvard, and is 40 years of age.

MEDICAL NOTES IN PARLIAMENT.

The Accidents (Mines and Factories) Bill.—The Government have put this Bill down for Tuesday, May 2nd, the day on which the House is to reassemble after the Easter recess. It was second on the order paper, the Naval Prize Bill, which has passed the Upper House, having precedence. But the Government have now decided to take the Aliens Bill as first order when the House meets after Easter. Under these circumstances the Bill might come on late in the evening for second reading. In any case it is sure to be debated at some length, as there are three motions for its rejection, and there is considerable dissatisfaction with the proposal to diminish the powers and duties of certifying surgeons as regards the visitation and report of accidents.

The Prevention of Corruption Bill, which has come down from the Lords, has been put down for second reading in the Commons on May 2nd. Mr. Lough has given notice to move that it be read a second time this day six months.

The Vaccination Prosecutions Bill, which provides that no prosecution under the Vaccination Acts shall be commenced without the authority of the guardians, was presented and read a first time last week. The Bill is in the charge of Mr. Channing, and is supported by Mr. Broadhurst, Mr. Goddard, Mr. Brigg, Sir John Rolleston, Mr. Corrie Grant, and Mr. Bell. The second reading was formally fixed for May 2nd.

The Cork District Lunatic Asylum.—Mr. Gilhooly asked the Chief Secretary to the Lord Lieutenant of Ireland last week whether he had received a resolution, passed unanimously by the Committee of Management of the Cork District Lunatic Asylum, calling on him to promote a Bill to enable the Committee to deport insane patients of other nationalities and counties who had been committed and remained chargeable to the local rates, and pointing out that those patients occupied the places in the institution erected, maintained, and taxed for local patients, thereby contributing to the overcrowding which at present existed in the asylum; and, if so, whether he purposed to give effect to it during this session. Mr. Long answered that the resolution had been received, but that he was unable at present to give an undertaking that legislation on the subject would be introduced.

Police Surgeons in County Mayo.—Last week Dr. Robert Ambrose asked the Chief Secretary to the Lord Lieutenant of Ireland if he would state the names of the police stations comprising the Newport, county Mayo, divisional police district; what was the name and what were the qualifications of the doctor who attended those stations; what was the distance between his residence and each station or barracks; what were the facilities for his travelling to attend a night call at any of one those stations or barracks. Mr. Long answered that the particulars were as follows: Achill Sound, Dr. T. H. Croly, 9 miles; Dugost, Dr. T. H. Croly; Keel, Dr. T. H. Croly, 4 miles; Ballycroy, Dr. J. F. Clery, 2 miles; Coolnabinnia, Dr. M. McSkerry, 10 miles; Brockagh, Dr. T. Allman, 5½ miles; Newport, Dr. F. T. O'Rorke, 8 miles; Mulvanny, Dr. F. T. O'Rorke, 19 miles; and Glenest, Dr. F. T. O'Rorke, 16 miles. Each of the gentlemen name was duly qualified and licensed to practise. The facilities for travelling to attend night calls were those usual in country districts—namely, the use of a special car or cycle.

Longford and Sick Soldiers.—Mr. Charles Craig asked the Secretary of State for War on Monday whether his attention had been called to the refusal of the local authorities in Longford to allow any cases of fever which might occur amongst the troops quartered in Longford to be treated in the fever hospital which was under the control of the Poor-law guardians, and would he say what steps he proposed to take to cope with an outbreak of fever amongst the military stationed at Longford. Mr. Long said that his attention had been drawn to the situation at Longford, and the whole question was receiving careful consideration. Should a case of fever arise arrangements would have to be made for its segregation in barracks. He was glad to be able to add that very few cases of infectious disease occurred at Longford, and none at all had occurred since a case of scarlet fever in 1902. The advisability of retaining troops in localities where ordinary facilities were withheld by the local authorities was necessarily engaging the attention of the Army Council.

Dispensaries in County Louth.—On Monday Mr. Joseph Nolan asked the Chief Secretary to the Lord Lieutenant of Ireland whether he could state, in miles, the maximum instance between the dwellings of poor people who might require medical aid and the nearest dispensary under the new arrangement of the Grange, Collon, and Drumconrath districts, county Louth; whether his attention had been called to the proceedings of a meeting of the Ardee guardians recently held and the resolution upon the subject adopted at the same; and whether, seeing that the new arrangement would necessitate a considerable expenditure upon buildings for medical officers' residences, he would carry out the late Chief Secretary's promise to have a sworn inquiry upon the spot, and take local opinion into account before making any change in the old arrangement. Mr. Long replied that the existing dispensaries had been retained under the new arrangement, and consequently the distance to be travelled was precisely the same as before. There was no proposal to build new residences for the medical officers. A local public inquiry was held on January 20th, 1904, as a result of which the Board, with all the facts before them, made their order rearranging the districts. He was not aware that any further inquiry was promised, nor, as he was at present advised, was one necessary.

Lunacy Acts Amendment Bill.—On Monday last the Attorney-General introduced a Bill to amend the Lunacy Acts, and put the second reading down formally for May 2nd. It is understood that the Bill provides for the appointment of two additional Commissioners of Lunacy, one medical and one legal, and also for giving facilities for the treatment of insanity in its early and curable stages without the formalities now required for detention. The Lunacy Acts Amendment (London) Bill, which was recently introduced, and stood for

second reading on May 3rd, was withdrawn on Friday last, and a revised Bill introduced on Tuesday by Sir John Tuke, who has blocked the Attorney-General's Bill.

A Medical Officer of Health for the Highlands.—Mr. Weir asked the Lord Advocate, in view of the extent of the area of the mainland of the combined counties of Ross and Cromarty and Inverness-shire, would he state whether the proposal to appoint one medical officer of health for the mainland of these counties had received the sanction of the Local Government Board for Scotland. Mr. Scott Dickson replied that the Local Government Board did not favour the proposal, and had not therefore sanctioned the scheme.

Vivisection.—Dr. Shipman asked the Secretary of State for the Home Department whether his attention had been called to the report of a recent case in the Clerkenwell County Court, in which it was stated that a Mr. F. O. Parsons, a veterinary surgeon of Crouch End, had performed certain experiments on dogs; and whether, seeing that Mr. Parsons did not hold a licence under the Cruelty to Animals Act, 1876, it was intended to take proceedings against him. Mr. Secretary Akers-Douglas answered that, as vaccination was, he was informed, a common method of treating dogs as a prophylactic against distemper, it was not clear to him, on the information he at present possessed, whether what took place in this instance constituted an "experiment" or not. He was making inquiries in order to ascertain whether such was the case.

The Swansea Corporation Bill.—This Bill, which relates to the water supply of Swansea and the district, came on for consideration in the House on Monday night. Sir George Newnes moved to amend Clause 16 by substituting sixty for thirty years as the term for the repayment of the £250,000 authorized to be borrowed by the Corporation for the construction of the waterworks. The Bill had passed a Committee, and the term of thirty years had been fixed and was supported by the Local Government Board. In the course of the debate it was contended that short periods of repayment were advisable as a check on municipal expenditure. Sir Walter Foster, while sympathizing with economy in municipal expenditure, strongly urged that all works connected with public health, like water supply, should be encouraged by having the easiest terms granted for loans. He referred to the recent epidemic at Lincoln as an example of the terrible effects of delaying to supply a populous place with good water, and said any attempt to check expenditure for health purposes was unwise. On division, the term of thirty years was retained by a majority of 42.

Promotion in the R.A.M.C.—Dr. Thompson asked the Secretary of State for War on Tuesday if he was aware of the discontent existing amongst the officers of the Royal Army Medical Corps at the delegation to the Advisory Board of the duty of recommending to the Secretary of State officers for promotion; and if, seeing that many of the members of the Board were civil medical practitioners, had no personal knowledge of the qualifications of many of the officers recently passed over, and were obliged to take their opinion of these officers from others junior to themselves, and that the continuation of the existing system threw the responsibility of promotions, from the Secretary of State and the Director-General, on the Advisory Board, he would arrange that in future officers with excellent official records passed over should be informed of the reason for their supersession. Mr. Arnold-Forster replied that the hon. member raised last session the points now brought forward again, and definite replies were given to each. He had nothing to add to the answers which he then gave, and he was not aware of the dissatisfaction alluded to.

Small-pox on the R.M.S. "Nile."—On Tuesday Sir Walter Foster asked the President of the Local Government Board whether the R.M.S. *Nile* was visited and inspected by the Port Sanitary Authority before she entered the port of Southampton; whether any offer was made to isolate persons who had been in contact with the case of small-pox on board; what steps were taken to advise the local authorities of each place to which the passengers and crew departed of the necessity of supervision and isolation; and how many cases of small-pox had up to the present occurred in connexion with the case on board the R.M.S. *Nile*. Mr. Gerald Balfour replied that he had made inquiry on this subject, and he understood that the *Nile* was visited off Netley by the Medical Officer of Health and by a sanitary inspector of the Southampton Port Sanitary Authority, that no offer was made to isolate persons who had been in contact with the case of small-pox on board, but that the only person who was stated to have been in contact with him was disinfected and kept under observation by the Port Sanitary Authority. He also understood that the names and addresses of the passengers and crew were obtained, and that the local authorities of each place to which these persons stated they were proceeding were informed by post the same night. Up to the present time he had heard of 19 cases of small-pox in England and Wales as having occurred in connexion with the case on board the *Nile*. Fifteen of these occurred in Southampton, 11 of which were infected on board the vessel, whilst the others occurred amongst persons who had been in contact with them.

Infantile Mortality.—Dr. Thompson asked the President of the Local Government Board, on Tuesday, if he was aware of the percentage of deaths of infants; if he received tabulated records of the deaths in different urban and rural districts; and if in future he would direct a medical inspector to visit such localities and inquire into the causes producing such results. Mr. Gerald Balfour answered that the Local Government Board were aware of the percentage of deaths of infants in different parts of England and Wales. Their information on this subject was derived from particulars given in the weekly and quarterly reports of the Registrar-General as to certain towns, and from the annual reports of the medical officers of health of urban and rural districts, copies of which were sent to the Board. He could not undertake to direct a medical inspector to visit every locality in which there was a high rate of infantile mortality, but where this was the case the circumstance was taken into account with other considerations in determining whether there should be a medical inspection of the district.

The Notification of Measles.—Dr. Thompson asked the Chief Secretary to the Lord Lieutenant of Ireland why the Local Government Board for Ireland had omitted measles from the schedule of infectious diseases, in view of the character of this disease. Mr. Long answered that the infectious diseases to which the Infectious Disease (Notification) Act, 1889, applied were specified in Section VI of the Act, and did not include measles. Power was, however, given to the sanitary authority by Section VII to order, subject to the Board's approval, that the Act should apply in their district, permanently or temporarily, to measles or any other infectious disease not mentioned in the Act.

The Training of Nurses in Ireland.—Dr. Thompson asked the Chief Secretary to the Lord Lieutenant of Ireland if he was aware that, by the arrangements enforced by the Local Government Board for Ireland in their Nursing Circulars, the Irish county hospitals were not recognized as training schools, and nurses trained in these institutions were debarred from occupying the position of charge nurses for district hospitals; and whether, in view of the experience of leading physicians and surgeons in this matter, and of the fact that nurses so trained were recognized as trained nurses in Great Britain and by the English Local Government Board, he would take steps to abrogate the rule in Ireland. Mr. Long replied that many of the Irish county hospitals were recognized as training schools for nurses, and the Local Government Board regarded as "qualified nurses" persons who had obtained certificates of proficiency from these institutions. In order to encourage the appointment of at least one qualified nurse in each Irish workhouse, it was provided by Section LVIII of the Local Government Act of 1898 that one-half of the salary of such nurse should be recouped from the local taxation account; and to ensure that none but nurses of high qualifications should obtain these appointments, the Board only recognized the certificates of general clinical or other hospitals where there was a good teaching staff and a large number of beds available for instruction. The present arrangement had been found to work satisfactorily, and had received the approval of the medical profession generally. Dr. Thompson also asked if the Chief Secretary would lay on the table the report of the Medical Inspector of the Local Government Board on the capabilities of the Tyrone county hospitals for training nurses, but the Chief Secretary declined on the ground that the reports were confidential documents.

Ireland.

Direct Representative for Ireland.

At the meeting of the Fermanagh Branch of the Irish Medical Association, held at Enniskillen on April 10th, the following resolution, proposed by Dr. Betty, and seconded by Dr. Thompson, was passed:

> That this Branch approves of the principle of appointing a provincial general practitioner as Direct Representative for Ireland on the General Medical Council.

"Q.C.C."

This is the title of a monthly magazine which the students of Queen's College, Cork, have issued for the first time this month. The place of honour is given to an article on Dr. Windle, and an excellent portrait of the new President is published. By lending an attentive ear to the grievances which need reformation, and by having remedied some of the minor ones, the President has already won the students' hearts. In an editorial article it is said that "Q.C.C." is a sign of the times, and has come to stay. The College is flourishing as it never did before; the number in attendance has been increasing steadily since 1901. The various clubs—philosophical, football, hockey, and cricket—are also in a flourishing condition. The news of the medical school, which contains some 200 students, is given in a racy, humorous style by "Brachial Plexus." Warm congratulations have been received from the old Alumni of Queen's College in various parts of the world on the prospect of the first issue of the magazine, whilst that from Dr. Macnaughton-Jones, of London, an old student and teacher, whose affection for his Alma Mater is well known, receives special notice. Altogether the number is bright and promising. Between 500 and 600 copies have been sold already.

Outbreak of Typhoid Fever in Cork.

An outbreak of typhoid fever has occurred in Cork; though not in any way alarming at present, yet if the source suspected prove correct it may at any time develop into an epidemic of large dimensions. Some 14 cases have been reported since March 20th, and on the Medical Officer of Health making investigations he found that nearly all the infected persons were supplied by the same milk vendor. Dr. Donovan inspected the premises of the farmers supplying the milk and found the animals and surroundings in a most filthy condition. He had both the milk and water from the three farmers' places subjected to bacteriological examination, and though nothing conclusive has been proved by the examination yet there was evidence of contamination of the water in two of the cases and the milk was not beyond suspicion. While not willing actually to say that it was a milk epidemic, Dr. Donovan felt it to be his duty, as medical officer of health, to recommend that all persons using this particular milk should take the precaution of having it boiled before drinking. It appears that some 800 persons are dependent on the supply of milk in question.

The Prevention of Consumption.

A meeting of the Executive Committee of the Cork Branch of the National Association for Prevention of Consumption was held on April 17th in the rooms of the Cork Medical and Surgical Society. Dr P. J. Cremen, who was in the chair, having called attention to what was being done in other districts by Educational Committees, particularly in Dublin, said that it would be necessary for the Educational Committee attached to the local branch to take up the subject energetically. One of the principal objects of the meeting was to appoint a chairman in place of Dr. Atkins, who had resigned the office owing to pressure of work. A deputation had waited on Dr. Windle, Principal of Queen's College, asking him to accept the position, and he had readily consented, and his name was formally proposed, seconded, and carried unanimously. Dr. Windle was also elected a Vice-President and member of the Executive Committee. Dr. Cremen further announced that a lecture would be delivered on April 27th by Professor McWeeney, of Dublin, on Tuberculosis: Its Cause and Cure. The lecture would be profusely illustrated by lantern slides, and would be practical. It was arranged that the presidents of the trade societies and different friendly societies should be invited to attend, as well as members of the Cork Borough Council and other local public bodies. Alderman Dale and Drs. O'Sullivan, Woods, and Allsom were selected as additional members of the Education Committee.

Down District Asylum.

The Committee of Management of this asylum paid their medical superintendent, Dr. Nolan, a compliment at their last meeting on April 15th. They presented him with a congratulatory address and a gold watch, and Mrs. Nolan with an autograph silver salver. They conveyed to him their good wishes and their high esteem for his tact, judgement, and courtesy.

The Foreshore Nuisance, Belfast Lough.

The Local Government Board has decided to make a provisional order forming a united district for the purpose of remedying the foreshore nuisance. It will consist of the Belfast County Borough, the Rural District of Castlereagh, and the Urban District of Holywood. The joint Board will have jurisdiction over the portion of the foreshore between the mouth of the Connswater River and the north-east boundary of the Rural District of Castlereagh and Craigdarragh: 85 per cent. of the expenses will be defrayed by the Corporation of Belfast, 7½ per cent. by Castlereagh Rural District, and 7½ per cent by Holywood Urban District. The expenditure in any one year must not exceed £2,000. The Board will consist of fifteen members; of these five are to be elected by the Corporation of Belfast, two by Castlereagh Rural District Council, and two by Holywood Urban District Council; the Lord Mayor of Belfast and the Chairmen of the other component districts are to be *ex officio* members, and one member is to be nominated by the Local Government Board.

Belfast Consumption Sanatorium.

The Consumptive Sanatorium at Whiteabbey, Belfast, has now been opened for two months, and Dr. Hall, the medical officer in charge, has reported that 40 cases have been under treatment, and that of these 30 have already shown marked signs of improvement. With the exception of a few all have benefited, although some have been obliged to leave. Various plans for the erection of huts and for the laying out of the land to the best advantage were put before the meeting of the guardians and duly approved.

The Ulster Eye, Ear, and Throat Hospital.

The annual meeting of this institution was held on April 11th, when the Right Hon. Thomas Sinclair, D.L., presided. The annual report showed that 273 patients had been admitted to the wards of the hospital and 1 528 new cases attended the extern department. A large number of operations had been performed, including 34 senile cataract and 80 for tonsils and adenoids; a general anaesthetic had been administered 130 times. The new giant electro-magnet and Roentgen-ray apparatus had been of great service. The Board make an appeal for £2,000, as many sanitary improvements will have to be carried out this year.

The Ulster Medical Society and the General Medical Council.

At the ninth annual meeting of the Ulster Medical Society on April 13th, the Honorary Secretary, Dr. Houston, read a letter from Dr. Kidd, Enniskillen, a Fellow of the Society, regarding the Direct Representative for Ireland on the General Medical Council, and urging that the Society should support a provincial general practitioner; he offered to stand himself, but said he would withdraw if a more suitable candidate presented himself. A general discussion ensued, in which it was pointed out that of the 17 English Representatives, 7 came from London and 10 from the provinces; of the 9 Scotch Representatives, 3 came from Edinburgh, 3 from Glasgow, and 3 from elsewhere; of the 7 Irish Representatives, all resided in Dublin. Reference was also made to the excellent services rendered by the present Direct Representative, Sir William Thomson. It was finally decided that the Society should not bind itself in any way at present.

Bequests to Medical Charities.—Under the will of the late Sir Edward Dolman Scott, Bart., of Great Barr, Staffordshire, who died on March 8th, a sum of £5,000 is directed to be paid to each of the following hospitals: the General Hospital, Birmingham; the County Infirmary, Stafford; and the Queen's Hospital, Birmingham. After the payment of certain other legacies, one-third of the ultimate residue is left to the Free Cancer Hospital, Brompton Road; the sum which this institution is thus likely to receive apparently being some £5,000 also.

Scotland.

The Physical Condition of School Children.

The Social Inquiry Committee of the Dundee Social Union has recently issued a report on the physical condition of the school children.[1] The inquiry was planned in consultation with Dr. Leslie Mackenzie and other experts, and superintended by Miss Mona Wilson. One thousand children in all were examined. To avoid opposition, the children examined were not stripped, and the doctors could only investigate the upper part of the body. Hence the amount of disease is understated; and yet in some of the schools such results appear as 17 cases of disease among 18 infants, 91 cases among 99 boys, 107 among 108. Nearly 11 per cent. of the boys, exclusive of the defective, are put down as "dull." The worst case is that of Cowgate School, with nearly 19 per cent. of dull and defective boys against nearly 7 per cent. in the best, girls seeming to bear adverse conditions better than boys, as their death rates show. The investigators give particulars of the physical condition of the dull and defective children, showing that out of 96 children only seven were not in some way diseased or defective in body. Large numbers of the dull children suffered from bad sight and hearing, 65 of them from defect or disease of the eyes (mostly long sight, simply requiring spectacles), and 42 from deafness in a greater or less degree, while 25 had adenoids. In the matter of defective eyesight alone the medical officer calculates that nearly 7,000 children in Dundee are seriously hampered in their education. It may be gathered that the Dundee School Board does not give enough attention to ventilation and lighting, or to guarding against the children's getting overheated by sitting in their outdoor clothes. Their arrangements for the elder children who go to work as half-timers or whole-timers are also unsatisfactory. The half-timers are taught on the alternate-day system, which is much more tiring than the usual half-day method. The children who are completely exempted from the day school are usually obliged to attend evening schools for two hours on four evenings in the week. No fewer than 16.7 per cent. of the children are verminous, and among the younger ones who cannot look after themselves the proportion would be much larger. Apart from minor troubles which could be dealt with by nurses, the large amount of serious disease shows that there is also undeniable need for periodical examination by a doctor. Dr. Emily Thompson found 20 cases (among 532 girls) in which the apex of one or other lung was affected. The cases of heart disease amounted to 7.47 per cent., or about 1,500 children for the whole of Dundee; for the discovery and treatment of these cases there is no provision, while the school exercises may do them serious injury. The prime necessity appears to be good food. The measurements and state of nutrition add the testimony of Dundee to the case for school feeding. The Dundee elementary school child is at all ages between 5 and 13 shorter and lighter than the child of a secondary school in the town and than the average given by Mr. F. Galton, and three-quarters of the boys of 13 were distinctly below the Galton average for the artisan class. The measurements of infants born at the Dundee Hospital show that this is not due to any original inferiority of the Dundee boy, for boy-babies start well, being taller than the average and not seriously less in weight. The classification as to nutrition also shows a low condition. Some schools are much worse than others, but the average shows 30 per cent. fat, 58 medium, and 12 thin among the boys, one school having over 18 per cent. among the thin. The girls run less to extremes, 80 per cent. of them being in a "medium" state. Not half the children of either sex have a good "health appearance."

[1] Dundee Social Union Report of Investigation into Social Conditions in Dundee. Part I.: Medical Inspection of School Children. John Leng and Co., Bank Street, Dundee; and 186, Fleet Street, London. (1s. net.)

A "League of Pitiful Deliverance."—The trial of three brothers at Kainsk, in Siberia, for conspiracy to murder has revealed the existence of a society which, under the title of the "League of Pitiful Deliverance," had for its object the killing of aged and infirm relatives of the members in order to put them out of pain. The death of such persons was decreed by a secret tribunal, and the trial was brought about by a woman, a sufferer from rheumatism, objecting to her death sentence and informing the police.

THE CARE OF THE CONSUMPTIVE POOR OF LONDON.

On April 15th a deputation, organized by the Incorporated Society of Medical Officers of Health, waited on the Metropolitan Asylums Board to urge on the Board the desirability of undertaking the duty of providing sanatoriums for the treatment of consumptives. Among the bodies represented in the deputation were the National Association for the Prevention of Consumption and other Forms of Tuberculosis, the Royal College of Physicians of London, the Royal College of Surgeons of England, the Royal Sanitary Institute, the National Health Society, the Hospital Saturday Fund Association, Hospital Sunday Fund Association, and the Charity Organization Society.

The deputation presented a memorial, signed by Dr. Joseph Priestley, Honorary Secretary of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health, which stated that between 7,000 and 8,000 persons (of whom the large majority were adults in the prime of life) died every year in London from pulmonary phthisis, the mortality among males being some 40 per cent. greater than among the females; and that a much larger number of persons, also chiefly adults, suffered from ill-health arising from the same disease. It was pointed out that great loss accrued to the community from these deaths, and this morbidity from pulmonary phthisis, and many deaths, and much illness and suffering, might be prevented were hospitals provided for the treatment of this disease. The memorial went on to say that persons suffering from pulmonary phthisis might be divided, roughly, into two classes: (1) Those in the primary stage of the disease which was curable and not specially infectious; and (2) those in the chronic stage of the disease which was incurable and very infectious. For those in the primary stage of the disease, hospitals were required wherein the patients might be treated with a view to cure, and for those in the chronic stage refuges wherein the patients might be isolated so as to be prevented from spreading the disease to others. The present provision of hospitals for pulmonary phthisis in London was said to be totally inadequate, and in connexion with such provision as there was, great difficulty and consequent delay were experienced in obtaining admittance thereto, more especially when, as usually was the case, the "letter" system prevailed, rendering it necessary for patients not only to have to wait long for their turn, and so lose the advantage of special and valuable treatment in the early stage of the disease, but also to find that when admitted they were rarely kept in hospital long enough to obtain a cure. Therefore the pressing need for the moment was the provision of a hospital or hospitals in the country for the treatment of persons in the acute and curable stage of the disease. Having regard to the provision now made, or which could be made, in separate wards at the various Poor-law infirmaries, the chronic cases might, for the present at any rate, be kept in town, where they could be visited by their friends. The need for sanatoriums arose from the fact that it was practically impossible to treat poor persons in their own homes or in Poor-law infirmaries in London with any reasonable hope of cure. The great bulk of the cases occurred amongst the poor, and the poorest classes of the people, who were unable to make any contribution towards the expenses incident to sanatorium treatment. It was stated that in 1899, the only year for which reliable statistics were available, a third of the deaths in London from pulmonary phthisis occurred in Poor-law institutions. Many of these sufferers might have been cured could they have obtained sanatorium treatment at the beginning of the illnesses, and a large amount of poverty and charge on the rates could thereby have been avoided. It was well known that many persons reduced by consumption to a state of poverty drifted into the workhouse, and became a permanent charge upon the rates, often leaving widows and orphans in a state of destitution, whereas many such persons might be cured if sanatorium treatment were made available for them in the early stages of their diseases. The memorial stated that whilst the deaths in London in 1904 from the diseases admissible to the Board's hospitals (smallpox, scarlet fever, diphtheria, and fever) aggregated only 1,415, of which 1,094 were due to scarlet fever and diphtheria (upwards of 90 per cent. being deaths of children under the age of 5 years), the deaths from pulmonary phthisis alone and exclusive of all other tuberculous diseases, were 7,738 in number, and of these a vast proportion were deaths of adult

men and women—more especially men in the prime of life. The money value to the community of the lives lost every year from this preventable and curable disease was enormous, and immensely transcended any possible cost to the rates by sanatorium provision. The memorialists, therefore, having given all these points consideration, and believing that it would be in the best interests of the community, earnestly prayed the managers to take necessary steps as they might think desirable forthwith, and suggested: 1. That an Order of the Local Government Board be obtained to make Section v of the Metropolitan Poor Act, 1867, applicable to the case of "poor persons" suffering from pulmonary phthisis (consumption); and if necessary (2) that an Act be obtained to make the provisions of Section 80 of the Public Health (London) Act, 1891, applicable to pulmonary phthisis (consumption) as if such disease were therein mentioned as well as "fever, or small-pox, or diphtheria."

Dr. Orme Dudfield, Medical Officer of Health for Kensington, and Ex-President of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health, first addressed the Board. He said the deputation had come to plead a great cause, and to impress upon the managers the necessity of forthwith constituting themselves the sanatorium authority for London. The deaths from phthisis in London alone now amounted to between 7,000 and 8,000 annually, and of these quite a third occurred in the London Poor-law institutions. The matter was first brought to the attention of the Board in 1902 by memorials from many public health and Poor-law authorities and by the National Association for the Prevention of Consumption. On that occasion, he said, the Board deferred consideration of the matter for twelve months, having regard to the important issues involved and to the fact that there was not at that time a general agreement among the metropolitan authorities in favour of their undertaking the treatment of consumptive patients. That was not satisfactory to a large minority of the Board, who sought on several occasions to reopen the subject, but in vain. The deputation pleaded that the consensus of opinion which the managers had been waiting for had now been attained. The metropolitan medical officers of health were unanimously of opinion that the Asylums Board was eminently qualified to discharge the duties it was now asked to undertake, and the deputation suggested that the Board should at once apply to the Local Government Board for the necessary power, and there was sufficient reason to believe that such application would not be made in vain. There was no other authority in London than the Board capable of undertaking the work, for the London County Council had no power under the London Isolation Hospitals Act. It was not asked that palaces should be erected for the reception of the cases. They wished, in the first instance, for hospitals which could accommodate cases in the earlier stages of the disease and refuges for incurable cases that were dangerous to others. The simplest buildings would be quite sufficient, and the cost of maintenance would not be more than 25s. a week for each patient. He estimated that the provision of 2,000 beds, which would provide for the treatment of about 4,000 cases a year, would not entail a greater expenditure than £130,000 per annum. If the Board would comply with the prayer of the memorialists, Dr. Orme Dudfield said he felt sanguine that the next forty years would see consumption far on the way towards total extinction.

Sir William Broadbent, who spoke as the representative of the National Association for the Prevention of Consumption, said it was estimated that there were from 40,000 to 50,000 people suffering from consumption in London, and of these possibly some 7,000 or 8,000 cases were in the earlier stages, which could be successfully dealt with by sanatorium treatment. He hoped the Board would not be satisfied with simply getting itself constituted the sanatorium authority for London; it should be the authority for dealing with tuberculosis as a whole, so that step by step they might deal with this great question from both the preventive and the curative aspects. He did not think it would add to the difficulty or the expense of the Board if it constituted itself such an authority. No one expected that the Board would undertake this gigantic task all at once, but little by little they might command the resources for dealing with the disease. He quite agreed that the initial expense should not be heavy, for there was no need for palatial buildings; the sanatoriums might very well be started with a number of light buildings, bungalows, and huts. The children suffering from surgical tuberculosis must not be forgotten. Dotted all over London at the present time there were thousands of children who were being made cripples by tuberculous disease of the spine and of the joints. No class of disease yielded more readily to treatment than these. The Board might be assured beforehand of the co-operation of the Poor-law authorities, who were anxious to obtain the Board's assistance in dealing with consumptives, segregating such as could be removed from their homes, isolating, to some extent, those who had to be left in unfavourable surroundings, and securing that the sputum, which was the great cause of disease, should be destroyed. The Board could deal with cases from a different point of view from that of the ordinary hospitals. It would receive patients, not specially for the good of the individual, but for the advantage and protection of the community. It would have a right, therefore, to make its own conditions of admission. It would not receive patients and allow them to leave just when they liked, and thus waste the money which had been spent on them by returning prematurely to their homes and work. It would insist upon the power of dealing with them as long as the medical authorities considered it necessary.

Sir Edmund Hay Currie, the Secretary of the Hospital Sunday Fund, said the hospitals established for the treatment of the disease were doing a splendid work, but their business was to patch up people. He stated that every morning of his life he received letters from clergy and ministers asking him to do what he could to get consumptive people into a hospital, and he was in the unfortunate position that, whatever the age of the sufferers might be, there was nowhere to send them.

Mr. W. G. Bunn, Secretary of the Hospital Saturday Fund, said he found the greatest difficulty in finding any accommodation for children suffering from the early forms of tuberculosis, and he urged that even if the larger work could not be undertaken, something at least should be done to save the children.

Mr. A. C. Scovell, Chairman of the Board, said the figures which had been mentioned certainly indicated the enormous importance of the subject as applied to a city of some 4,600,000 inhabitants. The information which the deputation had supplied and their remarks generally would be of the greatest assistance in guiding the Board to a decision, and the deputation might rest assured that every member of the Board was most sympathetic and most earnest in doing whatever could be done for the public health of London. The deputation had admitted that there were difficulties in dealing with the matter. One, of course, was that of expenditure, and the Board had been very much comforted by the assurance that the expenditure upon sanatoriums need not in itself be excessive. The Board's expenditure in its several institutions was rendered very large by the nature of the diseases which they had to treat, but they would now be able to assert with the greatest confidence that the capital expenditure on sanatoriums need not be anything like so heavy as the expenditure involved in providing infectious hospitals, and, further, that a much less expensive staff would be required for their administration. The main question still remained whether the public and the ratepayers of London were as yet sufficiently educated on the question as to give a ready assent to the payment of increased rates for the provision of sanatoriums. The position of the Board was well known to the deputation—namely, that by a resolution of November, 1903, they threw upon the Local Government Board the burden of inquiring into and giving the managers and the Asylums Board some guidance in the matter. All he could do now was to promise the deputation the earnest consideration of the facts they had adduced, and he expressed the hope that the day would come when they would see their wishes carried out by that Board or by some other authority.

The deputation then thanked the Board and withdrew. On the motion of the Chairman the whole subject was referred to the General Purposes Committee for consideration and report.

New York Hospital Commission.—A Committee of twelve was appointed recently to consider propositions for the benefit of the New York hospitals. At its first meeting, on April 3rd, the Chairman, Mr. John E Parsons, was empowered to select four subcommittees, which are to hold frequent meetings and report to the General Hospital Committee. These subcommittees are to deal respectively with hospital support, hospital co-operation, hospital economics, and hospital accounting.

THE EXPENDITURE OF HOSPITALS.

III.

We have already seen that the management of a hospital must be carried out primarily with a view to subserving the interests of the sick poor and ensuring the rights of the honorary medical staff; but assuming these conditions to be met, the subscribers have every right to demand that no part of their money shall be spent on anything but necessaries.

It is indeed not only their right but their duty to demand that the resources of the charity be carefully husbanded and that all means suited to this end be employed.

The Economic Value of Statistics.

The existing system of account-keeping is of very little help in the matter. Doubtless it would be feasible to introduce a better one, and thus after a time to build up a number of useful tables of comparative prices. Even, however, supposing this to be done, in practice each establishment must in the long run fall back on its own resources, and the form which the efforts towards economy take must to some extent depend upon the individuality of the manager.

Statistics may be very useful aids to economy, but the important thing is economy itself. Most people have seen a fussy election agent at work on polling day, wasting his time in trying to forecast the result which in a few hours would be an accomplished fact. Such a man is less likely to bring in his candidate than one who, with his coat off, is keeping every one at work until the clock strikes eight and the matter is settled. So, too, in a hospital the preparation of piles of statistics may cost money and impede work: but they are useless unless the curves are subsequently forced into the proper shape by personal supervision.

We have been speaking so far of statistics showing general results; exactly the opposite is true of statistics from the wards. Just as the competent election agent depends on his canvassers' books in order to be able to fetch up voters who have not been caught, so does the manager of a hospital depend on help of various kinds in order to know what is being done which ought to be stopped, and exactly where it is being done. There is much difference between knowing in time and knowing where, and knowing too late and not knowing where an error has been committed.

Executive Economy.

Who is to do this work? That is a question as to which a good many dogmatic assertions have been made; for our own part we should be inclined to cut the knot by saying that the right man is the most suitable man who can be found in each case. We believe Mr. Schnadhorst, the great Liberal organizer, began life as a Birmingham tradesman, and there can obviously be no reason why a medical man should not be a born hospital administrator. It may even be assumed that a naturally good medical administrator would at least start with an advantage over the otherwise equally good administrator who had still to become familiar with hospitals.

Similarly it may be stated that homogeneity in the different parts of any machine is an advantage in itself, and that in the case of a hospital staff community of education and of initial ideas, coupled with clear differentiation of precise function, would make for cohesion, frictionless working, and increased efficiency. A medical superintendent, with his desire to save money on the one hand, and his knowledge of scientific requirements on the other, would see for himself what was at once desirable and possible, and steadily work towards it. In ward-work economics his influence and authority would be at once effective in the case of young resident medical officers and others whose tendencies are seldom in the direction of economy. In the case of the senior staff, he would confine his professional knowledge mainly to the preparation of any figures which he might deem right to bring to their notice.

On general principles, therefore, it may safely be concluded that it would be a great step in advance if every hospital could have a medical superintendent.

To jump, however, from this, and to say that a medical superintendent is the only proper person to place at the head of a hospital, is going as too far in one direction as it is in another to argue that, because medical men as a body have a bad reputation as business men, no medical man can be fit for a business position. There are plenty of medical men who are excellent at business, and there are many examples of their selection for purely business positions. Their reputation, in short, comes mainly from the fact that most general practitioners are too occupied in purely professional work to pay an adequate amount of attention to its business aspects, and it is not the outcome of their education. The latter is of such a character as to fit the man who has undergone it to add on to it any other form of knowledge he may desire, while a "business education" generally means simply a somewhat briefer period of general education followed by a few years' experience in some particular branch of commerce, and is in itself a far less adequate prelude to the exercise of so important a function as that of a hospital superintendent. The available supply of suitable medical men is, of course, at present limited, for no great demand for it has been made; but if made, it could undoubtedly be met.

In any case, whether the internal administration be done by a layman or by a professional man, there is no doubt that in all very large hospitals dependent on subscriptions the work of collecting and spending should be divided.

The collection of funds is an art in itself, and would in all cases probably be better carried out by a separate department. To a certain extent this is already recognized; thus in the Glasgow Royal Infirmary, which possesses a medical superintendent, the work of collecting donations and dealing with subscribers is allotted to a secretary, who deals with it on the same lines as the secretaries of orphanages who carry on their work in London.

Some hospitals, again, of no great size employ what are called "appeal clerks," who earn their salaries and something more as well by being available on emergency for assistance in the general work, and it seems not improbable that an "economic clerk" would show equally useful results.

At any rate, whether the general work be done by many or by few officials it is quite possible to overdo economy in salaries. It is not good policy to go on blindly increasing existing salaries, but the scale of payment should be fixed in such a way as to attract competent men.

The desire to keep administration expenses at or below a fixed proportion of the maintenance charges has in many cases been carried much too far, and, as a general rule, it will be found that in hospitals of any size which show good results all round the management salaries are not low.

Economy in Dieting.

Passing from the officials to the details of the work they have to do, we can deal only in a very general way with some of the leading facts which recent inquiries have brought to light, or rather we should say, into the light of public criticism. In respect of the suggestions made there will doubtless be some persons to whom it will appear that each of them is too obvious to merit mention, but few will agree that there is no advantage to be derived from their consideration.

First, in regard to provisions, it may be stated generally that the question of what patients will and will not eat is one which does not appear to have been dealt with in any complete way. Of course people will eat anything if they are sufficiently hungry, and no one would suggest that the hospitals should be made places of privation. But at the same time it is not a fair argument against the provision of a cheap food like porridge to say that patients to whom it is offered have been known to remark that they can get skilly in gaol.

Porridge.

People are admitted to hospitals in order that they may be cured of disease, and anything which promotes economy, but which in no way interferes with the main object, is legitimate within reasonable bounds. It is not at all certain that the porridge which is so largely used in Scotch hospitals would be rejected by the majority of London patients after the first month of an experiment in that direction. A noisy and complaining patient informing the whole ward of his objections to his diet may cause a little trouble to begin with, but it would probably be temporary.

Fish.

Similarly it is said that London patients will not eat boiled fish, and it is well recognized that fried fish is considerably more expensive. It is not stated why London patients will not eat boiled fish, and here again we think it very likely that fish cooked in that way has not had a fair chance.

English and Foreign Meat.

In some of the hospitals only English meat is used. As to this we are bound to say that we think a great difference should be made in considering the supply of meat for patients and of meat for the permanent staff.

The character of foreign meat takes some little time to declare itself. At first any difference which may be detected by the eater is often considered to be in its favour; but after a month the palate becomes educated and often craves for the joint of a home-fed animal. This fact seems to show that some consideration should be extended to the permanent officials, but that the patients who pass in and out of the hospitals may fairly be fed on the cheaper quality properly treated. There is, however, a limit in this direction. Some hospitals have instituted what is called a "stewed mutton day," when they are able to feed the entire establishment on stewed mutton made from the cheaper portions of Australian mutton at 3d. a lb. It is very doubtful, however, whether there is really any economy in this, since the waste on meat of this class brings up the price to at least 5d. per lb.

Carving and Milk Serving.

The waste occasioned in a large institution by amateur carving is very great. A professional carver or an intelligent porter, who has been taught to carve properly, can by doing an hour's work daily save the hospital a considerable sum.

The same remark applies to the cutting of bread and the helping of milk. Bread which has been once touched, and milk which has had a patient's lips to it, of course, cannot be used again; but it constantly happens that too much of both is given out, and in a year the waste in this direction may run into hundredweights and gallons. Great difference of opinion appears to exist about the price of milk, which of course, if local circumstances are equal, ought to be simply a question of quality; as to this we would only say that cheap milks are probably poisonous.

Vegetables, Etc.

Recent correspondence respecting the expenditure of a London hospital raised a point in connexion with fruit and vegetables which appears to be of value. The greengrocery trade, as every one knows, is a risky one. A fruiterer cannot depend upon disposing of his perishable goods day by day. When, therefore, his stock or the state of the market enables him to dispose of considerable quantities at a low price, there is no reason why hospital authorities should not by co-operation with him take advantage of the fact. It will be found that on many days he is able to offer his goods at a very low price, and arrangements should be made to take advantage of this fact.

Domestic Expenditure.

It is perhaps not necessary here to say very much on those items which in the uniform system of accounts are classed under the heading "Domestic." No two housekeepers will agree on the relative merits of blankets at different prices and of different weights, or about cheap brooms and brushes and those of better qualities. Coal, too, is very much a matter of the system of heating prevailing in any given hospital and of the nature of the grates; these subjects we are not able to deal with at length. It is desirable, however, to call attention to a very important point made by Dr. Mackintosh, the Medical Superintendent of the Glasgow Royal Infirmary, in his recent lecture at Charing Cross Hospital, which, though it had reference particularly to domestic goods, might, if applied generally, affect the price of all goods. We cannot do better than quote Dr. Mackintosh's own words about his own hospital:

> Many of the managers are connected with the largest business concerns in the City, and they give without stint to the hospital the advantage of their varied knowledge and experience for years. To take one instance: in making the purchase of linen I have had the assistance of more than one manufacturer of linen, and they have not only devoted their own time and attention to the purchase of the goods, but placed at our disposal their staff of experts. The result is that at all times we can buy in the best market and at the best prices.

This experience will perhaps remind London managers that there still remain vacant a good many honorary posts in connexion with solicitors', auditors', and architects' work which are now filled by paid officers. It also suggests the advantage of being advised by those who have no personal interest in the result.

Washing.

The important item of washing merits a few observations in passing, because we have noticed a disposition on the part of some hospitals to attribute the high cost of washing to the absence of a separate laundry belonging to the establishment. It is most probable that a rude shock awaits those who anticipate a saving by means of a private laundry. Where there is room on the hospital premises for the laundry building, and where the power can be supplied from a central station therein, and labour can be provided in connexion with a neighbouring institution, it is doubtless an excellent arrangement to maintain a private laundry. But to build one in the country, with the accompanying necessity of transporting the linen to and fro, may be a very expensive experiment.

On the other hand, outside washing is a constant source of annoyance, and the question of damage in the wash is one with which most matrons are familiar. On the whole, however, we should advise any committee of management to pause and require very full particulars before embarking on a laundry of their own if economy is what they desire.

Uniforms.

A somewhat difficult domestic question arises out of the subject of uniforms for officers other than nurses. It is easy to run up large bills for uniforms for porters and others engaged in manual labour, and equally easy to save a large amount by dispensing with uniforms except in the cases of one or two ornamental individuals. In any institution, however, like a hospital it is of great importance that everything should be done decently and in such a manner as to impress every one concerned with the good order and authority of the establishment. All lower officials, therefore, who come into personal contact with the patients and the public should be in uniform, but in the case of others it is unnecessary.

Dispensary Expenditure.

Lastly, we must refer to the surgery and dispensary expenses in order to remark upon the necessity of a drug committee recruited from the medical staff. The proper supply of drugs is of so much consequence to the staff that changes of any kind should only be made with their concurrence; but changes to which they could have no objection may be made just as well by leaving the matter in their hands altogether, on the understanding that all such economies as will not interfere with the work will be put in practice by them. In order to enable a staff to see where avoidable leakages prevail it has been found effective in some hospitals to provide each member of it with an account of the expenses incurred in drugs and bandages by each ward, and to exhibit cards in suitable places stating the cost of various dressings so that they may be always in mind. When this has been done practically all has been done that can be so far as the senior staff is concerned.

In concluding our remarks on a subject which is of so much interest to the public and to all who are concerned in hospital administration, we must admit that in calling attention to the possibility of economic reform in hospitals we think King Edward's Hospital Fund has done a public service. At the same time those who advise the Prince of Wales have been wise in not committing themselves to definite statements about particular institutions. It is better to throw out for consideration a general proposition and to allow individual hospitals to work out their own salvation with due regard to the considerations which we have shown must ultimately govern the situation.

HOSPITALS AND MEDICAL SCHOOLS.

THE following circular letter has been addressed by King Edward's Hospital Fund for London to the Secretaries of the twelve London hospitals to which medical schools are attached:

"81, Cheapside, E.C., April 12th, 1905.

"The Honorary Secretaries beg to call your attention to the following resolution, which was passed by the Executive Committee of this Fund on March 10th last and approved:

> "That the Executive Committee, having considered the recommendation of Sir Edward Fry's Committee (par. 27), advises the General Council to notify to the hospitals that no grants will be made from the King's Fund as from and after January 1st, 1906, to any hospitals which make payments to, or on account of, their medical schools out of general funds subscribed for the relief of the sick poor.

"The Executive Committee think it desirable to offer some explanatory remarks on the subject which may be of assistance to the Committees of the hospitals concerned.

"Where the hospital and school form a single institution, or where subscribers have been in the habit of subscribing to the hospital funds, it will be necessary in future to keep separate accounts for the school, both in respect of receipts and expenditure. All money given to the hospital on and

after January 1st, 1906, not specially earmarked by the donor, should be paid direct into the general account, and nothing should be paid out of the general account to, or on account of, the medical school. It follows that the medical school should be treated as a separate establishment, and that a sufficient payment for rent, repairs, insurance, and all value received from the hospital by the medical school should be made by the school to the hospital.

"In regard to interest on capital given to the hospitals for the joint purposes of hospital and school, an apportionment may be necessary, and the Executive Committee will be glad to receive and consider any scheme of apportionment which, if and when agreed to, would finally dispose of that part of the question as far as it relates to this fund.

"These observations apply only to hospitals which desire to obtain grants from this fund, and the conditions laid down are merely those which are precedent to grants being made."

NOVA ET VETERA.

HOGARTH AND QUACKERY.

II.—Chevalier Taylor, St. André, Rock, and Misaubin.

Hogarth's great Triumvirate of Quacks (if the term be allowable when one was a woman) is completed by the second "Demi-Doctor," Chevalier Taylor. A good-sized volume might be compiled about Ward, and there is ample material for at least as large a one on Taylor.

He was born at Norwich in 1703, came to London, and was a pupil of Cheselden at St. Thomas's, but he soon took up the line of practice which brought him fame and profit. He travelled all over Europe in the regular quack style, lecturing, operating, and treating diseases of the eye. The following contemporary account of one of his lectures (it was at Northampton in 1747) will give some idea of the man and his ways:

The Doctor appeared dressd in black with a long light flowing ty'd wig; ascended a scaffold behind a large table raised about 2 ft. from the ground, and covered with an old piece of Tapestry, on which was laid a dark-coloured Cafoy Chariot Seat, with four black bunches (used upon hearses) ty'd to the corners for tossels, four large candles on each side the cushion, and a quart decanter of drinking water, with a half-pint glass to moisten his mouth. He bow'd, snuffed the candles, descended and delivered out to the Company his hat full of Syllabuses, divided into Sections, No. 1, 2, 3, &c. (such stuff, and so printed as to be intirely incoherent and unintelligible). Then mounting his Scaffold he bowed very low; then putting himself into a proper attitude, began in a solemn tragical voice and tone: "At Number One thus written you will find"—and repeating this with some vehemence, he read No. 1 of his Syllabus (which was): "A General Account of this design is mean't"—then spoke upon it most wretchedly, and so went through his whole Syllabus, speaking for two hours in the same manner, and with the same air, gesture, and tone, making a sort of blank verse of it, and always ending with a verb—for that, he says, is the true Ciceronian, prodigiously difficult, and never attempted by any man in our language before. In some instances, he said, "He equaled the finest Periods Tully ever wrote or spoke; which always began with the Genitive Case, were followed by the Substantive, and concluded with the Verb, as thus: "Of th' Eye the Beauties I will now declare." This was often repeated as his masterpiece; and he exulted and admired himself vastly upon it. When he had finished, he came smiling among his Auditors, appealed to them publicly if it was not charming fine, and if they had ever heard anything like it. I must own I never did, or saw his equal; and therefore send you this sketch of him as a great rarity.

Taylor obtained the degree of M.D. at Basle, at Liége, and at Cologne, and his Gracious Majesty King George II (who seems to have been fond of quacks) made him his oculist in 1736.

He claimed to be the author of forty-five works in various languages, the most notable of which is his *History of the Travels and Adventures of the Chevalier John Taylor, Ophthalmiater*, in three volumes, published in 1761. This is a braggart book, of no merit, and showed his want of education and culture. Dr. Johnson declared that he was "an instance of how far impudence will carry ignorance."

There are many contemporary attacks on him in prose and in verse, the most interesting of which is a scurrilous *Life*, said to have been written by his son, who was also an oculist. He died in a convent in Prague, and it is said that in his last days he was blind. Hogarth's portrait of him is probably a good likeness, for G. Steevens said that it "much resembles a mezzo tinto by Faber painted at Rome by the Chevalier Riche." Under it is the following inscription:

Joannes Taylor, Medicus in Optica expertissimus, multisque in Academiis celeberrimus Socius.

Taylor made presents of prints of this to his friends.

Another well-known quack is represented in a print which Hogarth was commissioned to engrave in 1726 by a number of medical men who wished him to satirize the not very creditable attitude of some of their colleagues who were concerned in the notorious affair of Mary Toft (or Tofts), the rabbit woman of Godalming. It was called "Cuniculariі, or the wise men of Godliman in Consultation," and represents the woman half reclining on a bed, her hands clenched and her features distorted as if she were in a labour pain, while seventeen rabbits are running about the floor. There are half a dozen men and another woman in the picture, which includes the figure of Sir Richard Manningham, F.R.S., F.R.C.P., etc., the most distinguished obstetrician of his day, whose reputation suffered from his hesitating, undecided action in this case; and Nathaniel St. André, ex-fencing and dancing master, who is distinguished by the small fiddle or Kit under his arm. This person, who had been for three years in high favour at Court with George I, was a Swiss who came over to England in an almost menial capacity, but professed to be a surgeon and anatomist, and was appointed Anatomist to the King in 1723. It is probable that he owed this position to his courtier-like manners and his knowledge of German rather than to his anatomical skill. He had no degree or diploma, but nevertheless he flourished exceedingly, until, in an evil hour, the King sent him to Guildford to investigate the affair of Mary Tofts.

The country was much agitated by the monstrous birth of three legs and the guts of a cat followed by the fragments of many rabbits, and when St. André gave his unconditional approval to the whole affair,[1] brought the woman to London and confidently foretold the birth of an eighteenth rabbit, the excitement of the public reached its height, until after more than two months the woman's confession of her fraud at once put an end to speculation and to the professional reputation of St. André.

It is difficult to believe that any person of common sense and even a smattering of anatomical and surgical knowledge could be taken in by so clumsy a fraud, yet it seems most probable that St. André was taken in, at any rate at first, if not throughout, for had he known it to be a fraud, his interest certainly lay in proclaiming it, by which he would have gained in reputation. There is evidence to show, however, that in other matters he was absurdly credulous and ignorant.

After the rabbit business his career as a courtier came to an end, but he was soon able to abandon medical practice, as in a few years he married the rich widow of one of his patients, Lady Betty Molineux, whose husband had been Secretary to the Prince of Wales (afterwards George II). Mr. Molineux was also sent to Guildford to satisfy his royal master's curiosity, and was much laughed at in contemporary satires for his share in the affair.

Scandal was busy with Lady Betty's and her second husband's names, and did not hesitate to hint that he had poisoned Molineux, but no evidence seems to have been forthcoming against him, and he lived in comfort to an advanced age.

The "Harlot's Progress" appeared in 1733. In the fifth scene of this great work, the two figures in the middle of the picture who are in such animated dispute that one of them is upsetting his chair, and neither of them pays any heed to the dying patient, are said to be representations of Dr. Misaubin and Dr. Rock. Both appear again in later pictures by Hogarth.

Rock was a notorious quack, whose speciality was venereal disease. He seems to have placarded the town with advertisements. His name is said to be legible on a piece of paper on a stool in this picture. One of his bills appears on the wall in Hogarth's great picture "The March of the Guards to Finchley," and the critics say that the soldier who is looking at the bill is painfully striving to overcome the effects of one of those diseases which Rock professed to be able to cure, and to which the military are said to be peculiarly exposed.

Dr. Misaubin was a prosperous man who lived in St Martin's Lane, and is contemptuously referred to by G. Steevens as the "Pill Doctor." He was born in France, and took the degree of M.D. at the University of Cahors in 1687. He came to London and obtained the licence of the College of Physicians in 1719. He is one of the four medical practitioners who are mentioned in *Tom Jones*. Fielding says of him that he "used to say that the proper direction to him was Dr. Misaubin in the world," intimating that there were very few

[1] For an account of the affair of Mary Tofts, see British Medical Journal, 1896, vol. ii, p. 269.

people in it to whom his great reputation was not known. He is represented in a contemporary print as saying, "*Prenez des pilules, prenez des pilules.*" Although he had a regular degree, his methods were those of the advertising quack who vaunts his panacea.

He is the Quack Doctor of the third picture of "Marriage à la Mode," and his back is seen (so it is said) leaving the chamber of death in the last picture of the series. There is little more to be said about this quack himself, but this visit to him is an unsolved riddle. It will be remembered that the scene is a room containing cabinets of curiosities, not forgetting the stuffed or dried crocodile which seems dear to quacks, for we were informed only the other day by a gentleman who had consulted a quack aurist that one of these saurians was a conspicuous ornament of his consulting room. On a table is a skull showing marks of caries. Next to it is the quack himself, and on his left a terribly rumbustious virago with the letters F. C. tattooed on her neck, who is opening a clasp knife and glaring at the young lord, who is not looking at her but leans across in front of her and holds out in his right hand a box of pills towards the quack doctor, while in his left he holds his cane aloft in what seems to us to be a playful manner. On his left, again, is the pathetic little figure of a young woman scarcely more than a child who seems covered with shame and holds her kerchief to her lips, while in her left hand is what looks like the lid of a pill box. The following explanations have been offered; one is said to have been given by Sullivan, one of Hogarth's engravers:

The nobleman threatens to cane a quack doctor for having given pills that prove ineffectual in curing a girl that he had debauched, and brings with him a woman from whom he alleges he has caught the infection, at which she in a rage is preparing to stab him with her clasp knife.

But why did she come with him? The explanation of Rouquet, the enameller, who was a friend and correspondent of Hogarth's and ought to have known, is that the Earl had brought the girl (from whom he had caught the disease) with him to the quack's for treatment, and that there he finds the bawd who had introduced him to the girl, and he reproaches her for the unsound condition of her ware. Whereupon she threatens to knife him. But if this be so, why does he hold out the box of pills, and why is he not looking at the bawd?

Neither of these explanations seems very plausible, and the following seems more probable. Though many people consider it obvious, it does not seem to have been held by contemporary critics: The Earl has debauched the young girl, who is pregnant. The quack has supplied "female" pills, no doubt "warranted to remove all obstructions." These have had no effect, and the Earl has called on the quack to reproach him for the uselessness of his medicine. The virago is the mother of the girl, and is threatening the seducer with her clasp knife.

As bearing on this question of syphilis, it is noteworthy that in the sixth and last tableau the child that is being held up to kiss its dead mother is a puny creature, and wears a steel support on the leg that is visible. At that time no very clear ideas of the effects of venereal disease in the second generation were held, and probably rickets (from which the child seems to be suffering) was attributed by Hogarth to the effects of syphilis in its debauched parents.

This short account of the most important of the quacks whom Hogarth delineated will show how rampant quackery was in the eighteenth century. Who shall say that it is less prevalent now? But where are the satirists who should expose it with pen or pencil?

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 80.

COMMISSION DEMANDED BY TREASURER.

HAUD INEXPERTUS LOQUOR disagrees with our condemnation of the practice of paying a commission to club secretaries on the quarterly fees handed to the surgeon. He writes: "Club treasurers and secretaries have great powers for evil, and if your correspondent values his appointment, he must pay for their good will." If such a practice were really necessary, it would be discreditable for a practitioner to hold a club appointment. Our correspondent's experience is unfortunate; we are acquainted with many club surgeons of long experience who have never paid such a commission.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage at which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, as far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. GUY ELLISTON, *General Secretary.*

THE MIDWIVES ACT.

THE ADMINISTRATION OF THE ACT.

ON April 15th Dr. G. H. Fosbroke read a paper before the members of the Incorporated Society of Medical Officers on the Administration of the Midwives Act. He expressed the belief that much good would result from raising the standard of midwives, for at least 60 per cent. of the births in England and Wales were attended by them, and there were about two thousand deaths annually from puerperal fever. The administration of the Act devolved on the Central Midwives Board and local supervising authorities. From April 1st of this year no woman could use the title of "midwife" unless she was enrolled by the Board, but an unenrolled midwife could continue to practise until March 31st, 1910, if she did not take the title or imply that she was certificated under the Act. After expressing approval of the compulsory character of the Act, Dr. Fosbroke explained that the supervising authorities, which included the councils of counties or county boroughs, were required to satisfy themselves that midwives took every precaution against the spread of puerperal fever, in regard to which many midwives were grossly indifferent, and to

secure the notification of the death of a mother or a child before the attendance of a medical practitioner. He regretted that the Central Board had made no regulation imposing on midwives the necessity of notifying immediately a change in their address, and suggested that facilities should be offered for the training of women to meet the dearth in the supply of qualified midwives. It was the practice of some women to advertise themselves as certificated midwives, even though they held no diploma. This was considered an injustice by those who were qualified, and he shared that opinion. On communicating with the Central Board on the subject the reply was received "that the only words a woman is entitled to append to her name are the words 'certified midwife' in full," and this without distinction of the qualifications by virtue of which her name appears on the roll. Speaking from his experience as Medical Officer for Worcestershire, Dr. Fosbroke said that of the six hundred midwives practising in the county it had been found that 11 per cent. could neither read nor write, 17 per cent. were over 65 years of age, 8 per cent. were very dirty, 10 per cent. had filthy houses, 16 per cent. were found not to wear washable dresses, and there were reasons to think that 5 per cent. were given to drinking. The Act was, therefore, in his opinion, fully justified.—Dr. C. J. Cullingworth stated that there were now 22,000 midwives enrolled, so that there need be no alarm that the country was not being properly supplied with them.

Midwife's Register of Her Cases.

Dr. Edward J. Cross, medical practitioner, appointed to assist Local Supervising Authority for Hunts County, writes: Mrs. W. is the district nurse for an adjoining village. She is registered under the Midwives Act, 1902. She claims to be exempt from keeping the prescribed records—Section 19 (a) and (b)—because she says she is not a midwife in the true sense of the term, inasmuch as it makes no pecuniary difference to her whether she attends fifty confinements or none, because she receives a salary. I contend that she must obey all the rules framed by the Central Midwives Board.

*** No midwife certified under the Midwives Act of 1902 can carry on her practice except under the control and direction of the local supervising authority of the district. She is bound to keep a register of her cases, and carry out all the directions to midwives according to Section E of the Rules framed by the Central Midwives Board.

THE PREVENTION OF CONSUMPTION.

United States.

Missouri.—The Municipal Assembly of St. Louis has passed an ordinance under which medical practitioners will henceforth be required to notify the Health Commissioner of cases of consumption in the same way as they are required to report all contagious diseases. Houses, however, will not be placarded, but the Health Department will supervise the control of consumptive patients, and in extreme cases it will have power to isolate them.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Part of New Infirmary Contract Let.—New Convalescent Home for Burnley Children.—Crippled Children's Help Society.—Completion of Crossley Sanatorium in Delamere Forest.—Opening of Summer Session.

The Board of Management of the Royal Infirmary have accepted the tender of a Leeds firm of contractors for the foundations of the new infirmary at a cost amounting to £26,360. Tenders were received from nine firms, and the successful tender was the lowest in amount and named the shortest period for completion of the work.

The Convalescent Home for Children, which has been built at St. Anne's-on-Sea by Sir John Thursby, High Sheriff of Lancashire, was opened on April 11th by the Bishop of Burnley. The site—nearly 2 acres in extent—and building cost £9,000, and the furnishing another £2,000, while, in addition, the donor has provided an endowment for future maintenance. It is intended for the reception of inmates selected from amongst the poorest children of Burnley and East Lancashire. The immediate locality is becoming gradually devoted to children's convalescent homes; the nearest buildings are two similar institutions, one of which is attached to the Manchester Children's Hospital. The donor said that he intended to make provision for suitable endowment for maintaining and carrying on the home not only in his lifetime, but afterwards, so that it might not be dependent on outside assistance; there would also be an avoidance of all sectarianism.

The annual meeting of the Crippled Children's Help Society was held on April 12th, which has for its object the care of the children crippled or home-bound by disease amongst the poor of Manchester and Salford. The combined register shows over 600 names, and of these 200 belong to the districts in Salford. There is a country nursing home situated near Marple. A sum of £360 was received and £370 expended during the year. In the Greengate Dispensary, which is situated in one of the poorest and most crowded districts of Salford, the Grimke Ward for Crippled Children was opened on April 13th.

The Crossley Sanatorium for Consumption in Delamere Forest, which will probably be formally opened by the King in July, has opened its doors to patients. It contains 90 beds, but whether they will be occupied depends on the charitable public. The donor, Mr. W. J. Crossley, has done his share, for he has built this magnificent sanatorium, and has handed it over, furnished ready for use, to the Manchester Hospital for Consumption. To run the 90 beds a yearly income of £6,000 is required. The endowment fund now stands at £57,000, yielding an income of £1,800, so that there remains a balance of £4,200 to be made up. It is estimated that the 90 beds will accommodate 200 patients in a year. The handsome building is placed on an elevated position at the northern end of the Crown land in the forest. About 66 acres are included in the lease from the Crown. The terrace on which the hospital stands is 480ft. above sea level. About 10 acres of the land have been cleared, and sown and planted with ornamental shrubs, the rest being largely occupied by pine woods. The façade is 100 yards long, and looks due south. All the windows open right down to the floor. There are open and revolving shelters outside for open-air treatment. The original estimate of the cost of the sanatorium was £70,000, but this sum has been considerably exceeded.

The summer session of the Medical School will begin on Tuesday, April 25th.

LEEDS.

Foster Homes for Pauper Children.—New Public Baths.—Adulteration of Food and Drugs.—Death of Mr. J. M. Nicol.

During the last few years the Board of Guardians has developed its resources for the care of pauper children. These children are seen in the first instance at the workhouse. They then pass through the receiving home at Beckett Street, and from this they are drafted on to the Central Home at Roundhay. This is an admirably-equipped building, which has recently been specially built for the purpose, and provides accommodation for forty children. There is a large playground; the children do not wear any uniform, and they attend either a Roman Catholic school or the Moortown school. In addition to this there are in various parts of Leeds ten homes, each with accommodation for about ten children. The children are placed under the care of a foster-mother, who is responsible for the care of the home and for the welfare of the children who attend the various schools of the Education Committee in the neighbourhood. No uniform is worn, and everything is done, with signal success, to prevent the stigma of pauperism from attaching itself to the children. Every effort is made to secure for those who have passed through the homes occupation at a distance from their former unfavourable surroundings, and in suitable cases emigration is encouraged.

At a cost of £20,000 Leeds has added another to the number of its public baths. The new buildings, which serve the joint purposes of a branch library and public baths, were opened by the Lord Mayor. They contain a swimming bath, 93 ft. by 46 ft., with a water area of 75 ft. by 30 ft., and a depth varying from 3 ft. to 6 ft. There are also twenty slipper baths, and a Russian bath consisting of a suite of three rooms, namely, a hot room, a shower room, and a cooling room. This is the eighth of the large public baths under the management of the Corporation. At the opening it was mentioned that during the past year the number of baths taken in the Corporation's institutions had risen from 157,684 to 367,000.

The report of the Leeds city analyst for the quarter ending March 31st is of considerable interest. It deals with the results of the examination of 197 samples. Of 65 samples of milk, 29 were watered and 9 practically deprived of fat. Two samples of cough cordial contained 1.8 gr. and 2.63 gr. respec-

tively of morphine hydrochlorate to the ounce. One sample of tinned peas contained copper sulphate to the amount of 1 gr. of the crystallized salt to the pound.

The greatest sympathy is felt for the family of James Main Nicol, who died suddenly on April 3rd. Mr. Nicol was one of the assistant dental surgeons lately appointed to the new dental department of the Leeds Public Dispensary. He was appointed secretary by his colleagues on the dental staff, and as one of their representatives on the Committee of the institution. Mr. Nicol was intimately associated with the negotiations which led to the establishment of the new department, and his business capacity was of the utmost value, while his gentleness of disposition and his self-sacrificing zeal endeared him to all with whom he came in contact.

LIVERPOOL.

Dr. Ernest Nevins on Consumption and Municipal and Parochial Sanatoriums.—The Sir William Banks Memorial Fund.—Meeting of the Royal Sanitary Institute.—Demolition of Insanitary Dwellings and the Rehousing of the Dispossessed.

DR. ERNEST NEVINS, Physician to the Liverpool Parish Hospital, and one of the Visiting Physicians at the Heswall Poor-law Sanatorium, gave an interesting address on April 14th before the Health Students' Association, the subject being the Prevention of Consumption, with Special Reference to Sanatoriums. The chair was taken by Dr. C. Thurstan Holland, who in his introductory remarks said that a statement had recently been publicly made to the effect that doctors should endeavour to send phthisical patients to sanatoriums at an early stage of the disease. This was a most difficult task, and was in many cases quite beyond the doctor's power; for even if at the early stage patients were informed of their condition, they could not be brought to believe that while they were able to perform their daily work it was necessary for them to be sent away to a sanatorium, particularly if they had families dependent on their labour. Dr. Nevins said that he intended particularly to dwell upon the question of the necessity for municipal and parochial sanatoriums for pauper victims of consumption. There were three distinct opinions on this subject. First, there were those enthusiasts who were willing to expend both brains and money in the building of sanatoriums; next, there were those who looked at the matter through black spectacles, and who even imputed unworthy motives to the promoters; and lastly, there were those who realized the value of open-air treatment and the other conditions obtaining in a sanatorium, but who considered that general sanitary measures calculated to prevent the disease, and the careful investigation of its causes, were of greater importance. At the meeting of the National Society for the Prevention of Tuberculosis held at Marlborough House in 1898, it was decided that public attention should be captured, imagination impressed, and the defensive instincts of the general public aroused, for the aim of the sanatorium was not only prevention but cure. Dr. Nevins quoted the views of many eminent authorities on the subject of rational and proper treatment of consumption, and referred to the many conditions which limited the possibility of success in sanatoriums. The suitable cases constituted a very small percentage of the sufferers, and so the patients who were fit for admission or could be given hopes of recovery were few. The greater number still required to be dealt with as out-patients at the various hospitals. The treatment carried out in sanatoriums was by some imagined to be a recent discovery, whereas its essential elements were recognized as early as the time of Hippocrates. The chief points in sanatorium treatment were a constant supply of fresh air, abundant food, and regulated rest and exercise, all provided under the supervision of a competent medical officer. Milk formed a special feature of the diet, but nourishing food, including milk, as well as fresh air and sunshine, had always been regarded as indispensable to good health. There was no reason to expect miracles, but it was reasonable to hope for good results when the patient could live an ideal life; and statistics seemed to show that, with reasonable care and hygienic conditions, it made little difference in the prognosis, whether treatment was carried out in a sanatorium or elsewhere. Statistics showed that of patients admitted to sanatoriums 25 per cent. died within four years. Considering that some selection of cases might be assumed to have been made, and that the cases admitted were more favourable than the average cases throughout the community, these results were not particularly favourable. It had been proved that in a number of cases, consumption got well without any special treatment. Sanatoriums had, however, done magnificent work in teaching the value of fresh air, though they could not be considered a success in a curative sense. The construction and maintenance of municipal and parochial sanatoriums would cost vast sums of money, money which would be better spent in building good dwellings for the people and in teaching them to live according to the laws of hygiene. Temperance reformers could do much towards the prevention of consumption, and so would all those who helped to remove the most deadly causes of the disease, which were certainly dirt, poverty, and insobriety. Compulsory notification, he considered, was open to strong objections, not the least being that it would lead to the concealment of the disease in many cases. Unlike other infectious diseases, consumption did not last for a limited time only, but it would, as it were, cause a person to be under suspicion all his life, and, in all probability, prevent him from following some of the occupations which were compatible with the capabilities of the sufferers for years.

It is announced that it is proposed to close the fund for the memorial for the late Sir William Banks on April 30th.

A provincial sessional meeting of the Royal Sanitary Institute was held on April 15th in the Arts Theatre of the Liverpool University. Sir Francis Sharp Powell, Bart., M.P., Vice-President, was in the chair, and Dr. A. A. Mussens, Assistant M.O.H., acted as Local Secretary. Mr. John Morris, Deputy-Chairman of the Liverpool Housing Committee, formally welcomed the Institute to the City. A great deal had been done, he said, in housing and rehousing the people, but there were still between 8,000 and 9,000 more slum dwellings to deal with. The Chairman said he was by no means certain that a stage had not been arrived at in the history of rehousing when it rather fell within the duty of the administrator than of the legislator. If there was to be sound progress in the housing of the people, there must be hearty, genuine, and intelligent co-operation between the architect, the physician, and the inhabitant. It was only by constant vigilance, incessant action, and perseverance, that the evil of insanitary conditions could be cured.

Mr. Fletcher T. Turton, Deputy Surveyor to the Liverpool Corporation, read a paper upon recent methods of rehousing tenants dispossessed from insanitary property. He said that in 1864 it was estimated that 22,000 houses in Liverpool were structurally insanitary. In September, 1902, there still remained 9,943, although the Corporation had dealt with about 8,000 houses, and about 4,000 had been demolished by the owners for sites for business purposes. About 8,600 back-to-back houses still remained. In the areas dealt with in the paper the death-rate was about 60 per 1,000. The demolition of insanitary dwellings caused a great displacement of population, and very few of the displaced tenants occupied the dwellings built in their place, a fact due to the higher rents of the newer premises, especially of those erected by private enterprise. The Corporation had now on hand the largest scheme yet attempted for housing the working classes, the estimated cost being £150,000. The contemplated buildings would accommodate 2,476 persons, and the population of the houses about to be demolished was 2,431. In all the new dwellings the Corporation only admitted as tenants those dispossessed by their operations, those who had lived in houses closed under the Housing Act of 1890, or those who had been living in cellar dwellings also closed. Several thousand families in Liverpool subsisted on an average of less than 10s. a week, and a greater number on less than 15s. A great proportion of these people at present occupied insanitary houses, and were the class of persons with whom the Corporation had to deal. Sheer poverty and distress in many cases prevented some of the tenants availing themselves of the new accommodation provided. It was a *sine qua non* of the Corporation that whatever was the rent it must by paid. The rents collected in the Corporation dwellings provided for the dispossessed amounted to 91.6 per cent. of the rent actually owing, a result most encouraging. Every one of the dwellings at present vacant could be let five times over if the Committee would only relax their rule; but they had stood firm to their task, finding that as private enterprise could not provide at a reasonable rent for those dispossessed, the Corporation would do so. The total net cost to the rates up to date had been about £28,639. This was equal to a rate of about 2d. in the pound, but eventually the ratepayers would have a valuable asset in the shape of rent-producing property. On the general results of the work he could speak with great confidence. In conclusion, he replied to a criticism that these dwellings were erected too near the heart of

the City, and that it would be better to move those dispossessed at once to the outskirts. Those who made remarks of that nature could hardly be aware of the conditions prevailing in the great labour mart of the City—the docks. It was essential that the men should live near their work. As the greater part of the insanitary property dealt with by the Corporation was tenanted by persons who obtained their living by this casual labour, the condition of the housing problem which had to be faced in Liverpool was substantially different from that which prevailed in many other cities and towns.

NEWCASTLE-UPON-TYNE.

New Wing at the University of Durham College of Medicine.—Entries for the Professional Examinations.—Death of Dr. Reginald Bigg.—Official Visit of Dutch Engineers to New High Level Bridge Works.—Assistant Appointments at the Royal Infirmary.

The builders are making rapid progress with the new wing of the College of Medicine. Already some idea can be formed of the extent of the addition and of the harmony of its proportions, for the front wall now reaches several feet from the ground. The open weather has allowed of the contractor and his men pushing on with all possible speed. When completed the wing will afford considerable extra accommodation, not only to the teaching staff but also to the students, as regards reading and recreation rooms.

The University of Durham professional examinations for degrees in medicine and surgery have begun. There are larger entries of candidates for all the examinations than on previous occasions at this time of the year.

The death of Dr. Reginald Bigg, the Demonstrator of Bacteriology in the College of Medicine, has cast quite a gloom over the college. Although for days past it was known that he was very ill, hopes were still entertained that he might recover. He will be missed by many, for he was not less sincere as a friend than successful as a teacher.

Last week Newcastle was favoured by an official visit of engineers from Holland. Messrs. Van Diense and Smit were sent on a special visit. At present a Bill is before the Dutch Parliament, which seeks to confer upon the Home Office powers to frame regulations for the safety of men engaged in sinking deep shafts during the building of bridges, and when working in compressed air. The new high-level bridge which is to span the River Tyne is perhaps in some ways one of the greatest undertakings of its class. The caissons employed have been the largest in use anywhere. The officials visited the Royal Infirmary, where they saw a patient suffering from compressed-air illness. They afterwards visited the works, where they were much impressed by the excellent arrangements made by the Cleveland Bridge Company for the protection of the workmen and their immediate treatment in the case of sudden illness.

It has been decided by the Committee of the Royal Infirmary to create in the out-patient special departments of the hospital several junior appointments. For these there are already plenty of local candidates in the field.

SOUTH WALES.

Cardiff Infirmary, etc.—West Wales Sanatorium.—Swansea Asylum Scheme.—Swansea Birth-rate.—St. Mellon's Council.—Jubilee Nurses' Institute, Cardiff and District Branch.—Water Supply of Lamphey, Pembrokeshire.—Cardiff and Vestry Powers.

The final meeting of the Committee which took in hand the question of the presentation of the freedom of the Borough of Cardiff to Sir William Thomas Lewis, Bart., was held on Monday, April 10th, at the Town Hall, the Mayor of Cardiff presiding. The Mayor reported that he had interviewed Sir William with regard to the disposal of the balance of the money in hand, some £650, and Sir William decided that £500 should be handed to the Infirmary, £100 to the Porthcawl Rest, and £50 to the Queen Victoria Jubilee Institute for Nurses (Cardiff District Branch). At the Cardiff Infirmary Board of Management meeting, held on April 12th, the Chairman (General Lee) referred with regret to the fact that Dr. Wallace's term of office as surgeon was drawing to a close. At the meeting of the Medical Board the intimation was received with individual and combined expressions of regret at the prospect of losing Dr. Wallace as an active colleague, and of the hope that it would not mean that he would abate his interest in the institution after twenty-seven years' service. On the proposition of General Lee, seconded by Mr. J. B. Ferrier, Dr. Wallace was appointed consulting surgeon.

The work of placing into position the huge stone, weighing eight tons, to which Her Royal Highness Princess Christian will affix a plate commemorating the erection of the Alltymynydd Sanatorium, was successfully accomplished last week, in the presence of a large number of spectators. As the proposed building will be of iron and wood, a foundation stone would be out of place, and the great unhewn block erected is in keeping with the wild mountain range. It is a great source of satisfaction to the Sanatorium Committee that Earl Cawdor has consented to become its president.

At a meeting of the Swansea Corporation General Purposes Committee on April 12th, the question of the co-operation of Swansea with the county authorities of Breconshire and Radnorshire in the matter of asylum accommodation was discussed on a suggestion that the scheme should be provisionally adopted. Alderman Martin said that it was proposed that the Corporation should accept the principle, enabling negotiations to be carried a step further, and until the latter were completed and the Corporation had formally accepted the proposals they would not be tied at all. The resident medical officer of the Brecon and Radnor Asylum calculated that an expenditure at the outside of another £30,000 would bring the accommodation up to 604 beds, giving an institution with 604 beds for £180,000, as against one of 364 beds for £150,000, and he calculated that the maintenance would be brought down to at least 10s. per head. The Corporation's Subcommittee were more and more convinced that they could not hope to put another institution up cheaper than Radnor and Brecon had, and if they could not hope to do that they would have to erect an institution that would cost £400 a bed. The proposals were: That the institution should be conducted in parts, say thirteen parts: seven-thirteenths should be used by Brecon and Radnor, and six-thirteenths by Swansea. Thus seven-thirteenths of the capital sum would be provided by the two counties and six-thirteenths by Swansea. The object of thus dividing was to overcome a fear in the minds of the county authorities that Swansea might become the predominant partner, and have a majority on the Board. The only point where the Swansea representatives could not go with those of the counties was that the latter expected something as goodwill, but this was not insurmountable. Before they went further it was necessary to have the consent of the Lunacy Commissioners, and, if the Corporation approved of the principle of the scheme, the combined authorities could then approach the Commissioners. A member of the Corporation thought they should, before proceeding further, consider the Cefngola site with a view of seeing if they could not adapt it for an independent institution, but Dr. Latimer said that the reasons given by Alderman Martin were cogent ones. It was ridiculous to think of Swansea running an asylum of its own when they could go in partnership on such beneficial lines. It was decided to come to a decision at a special meeting to be held within a fortnight.

The birth-rate of Swansea last quarter was 34.5, a higher rate than any recorded at Swansea for many years. The death-rate was 20.3.

At a meeting of the St. Mellon's District Council it was reported that there had been a serious outbreak of measles at Rogerstone and district.

The annual report of the local Branch of the Queen Victoria Jubilee Institute for Nurses affords ample evidence of the good work which is being accomplished. During 1904, 278 more cases were nursed, and 7,816 more visits made were paid than in 1903. The staff has been strengthened, there having been at work on an average two more nurses than in the previous year. Besides the superintendent and assistant superintendent there is at the house in Park Grove eight staff nurses and four others with full hospital training, but probationers so far as district nursing is concerned. A staff nurse is also stationed at Whitchurch and Llandaff. The average cost per case attended during the year was 12s. 5½d., the average cost per visit 4½d, and the number of visits per case 35½. In connexion with the Institute a maternity department has been established at St. Andrew's Crescent, this was opened on April 17th. This new departure will bring to the mothers and infants of the poorer classes the services of highly-trained midwives, and will also serve as a training school for midwives. The report also refers to the value of the Queen's Nurses Collecting Guild for securing increased

donations and makes an urgent appeal for further contributions in view of the extra expenditure of at least £150 per annum.

Respecting the water supply of Lamphey, Pembrokeshire, correspondence has been going on between the parish council and the district and county councils. The only supply is claimed by the landowner as his private property. The parish and district councils differ on the question of the adequacy of the supply. To give the county authorities power to intervene, the parish council was asked to pass a resolution in proper form. This resolution was passed, and submitted to the Local Government Committee of the County Council at their meeting held on April 14th at Haverfordwest. It was decided to ask the district council for their observations on the matter as well as for a special report from the medical officer.

Under Section XXXIII of the Local Government Act, 1894, the Local Government Board is empowered, on the application of the council of any municipal borough, to make an order transferring to the Corporation all the civil powers possessed by the vestry. Some time ago the Cardiff Council decided to make such an application, and the Local Government Board replied that the matter must first be submitted to the vestry meeting. This was done on April 13th, at which it was proposed by the Mayor and seconded by a member that the meeting should agree to the proposal of the Corporation. This was objected to by the Secretary of the Ratepayers Association, who did not agree that any further powers should be placed in the hands of the council, contending that the existing system served as a useful check from a ratepayer's point of view. On being put to the vote the motion was rejected. The Mayor demanded a poll, and this will take place on May 4th and 5th.

CORRESPONDENCE.

MINOR OPERATIONS AND HOSPITAL REFORM.

SIR,—During the eight years that I have been in practice dozens of minor operations which I have been willing and able to perform have been accepted and done at the hospital. (I have only known one refused, in which case the lady who sent the man reminded the hospital authorities that she was a £25 a year subscriber; need I say that was quite enough.) This is due to the "boom" in hospitals. Clergy, district visitors, any one with influence, combine to persuade our patients to go to "the hospital." This is the experience not of myself only, but thousands of young surgeons in all parts of England would, I venture to say, tell the same story if asked. I enclose a cutting from the most widely read newspaper in England which will give still greater impetus to this mania. Unless he be one of the few lucky dogs who hold hospital appointments, a medical man nowadays hardly gets a chance of doing any practical surgery.—I am, etc.,

April 11th. S. W.

THE TREATMENT OF DEFECTIVE SENSE ORGANS IN ELEMENTARY SCHOOL CHILDREN.

SIR,—The columns of the BRITISH MEDICAL JOURNAL have of late contained much valuable information on physical degeneration and the allied subject of school hygiene—one potent preventive.

The interesting letter from the medical officer of health for Acton in your last issue opens up the difficult question of practical public action, and that in directions commonly outside the sphere of a medical officer of health.

Before municipal bodies can do all that the profession could advise for the benefit of the children national education as to their needs must make big strides. However, to take steps for dealing with defects of the sense organs, as channels of education—or, rather, instruction—would seem to be well within the permissive powers of any education authority.

The scheme of medical inspection developed under the Education Committee of the London County Council is admirable, but is not applicable in its entirety to authorities in the provinces, where hospital facilities are less. Even the London eye hospitals at first felt the strain of the extra work sent them by the oculists who visit the schools. In industrial centres such as this the problem is a very pressing one, and our Education Authority is doing its best to tackle it. In the hope that others may be interested, I send this account of what is being done.

The first step was the appointment of a medical adviser to the Education Committee, and his duties were scheduled as follows: (1) To visit the schools for two hours twice a week for inspection of the children; (2) to give written instructions for the treatment necessary to correct defects of the sense-organs; (3) to examine and report on cases of prolonged absence or alleged excessive punishment; (4) to present a report at the monthly meeting of committee.

In each department the head teacher proposes a list of children who show signs of defect in sight, hearing, performance of breathing exercises, or mental capacity. Each child on the list is examined at the visit and written advice is given on the form addressed to its parent, according to circumstances. If it can be ascertained that the child's parents have a regular doctor they are advised of the defect and the need of medical attention.

Where private attendance seems impossible through poverty, suitable treatment is advised, or the necessity for hospital treatment indicated. Cases of defective vision receive an appointment for attendance at the medical adviser's surgery for refraction, and this is the most laborious part of the work, at any rate at first; but it becomes less serious after the first few rounds, when the old scholars have been mostly disposed of, and only fresh cases or new scholars need correction. Having completed the particular examination of the cases on the teacher's list, a general examination of the classes is made. One such visit is made to each department in rotation, and in this way each is visited three times in the year.

The provision of spectacles is not an object for which ratepayers' money can be voted. We have, however, a special charity, known as the Boot and Spectacle Fund, from which help is afforded in very needy cases. The help of the teachers and attendance officers is very valuable in selecting defective cases, and where necessary in influencing the parents to carry out advice.

In this district both parents are very commonly workpeople, which means that there is frequently gross ignorance as to the rearing of children and their requirements. This is, therefore, a typical district where leaflets such as those suggested by Dr. Rushton Parker in the JOURNAL of December 17th, 1904, would be of use in educating the parents as to children's defects needing attention. We hope to try this plan.

The cost of work of this sort to a municipality is hardly worth considering, for the results repay the cost many times over in efficient citizenship and decrease in rate-supported pauperism. If it is worth while for the Metropolitan Asylums Board to spend nearly half a million a year to minimize the risks of five million Londoners from infectious disease, it should be worth a good deal to any municipality to minimize the home production of defective citizens.—I am, etc.,

HACKWORTH STUART, M.D. Lond., D.P.H. Cantab.,
Hanley, April 15th. Medical Adviser, Hanley Education Committee.

TREATMENT OF OTITIS MEDIA.

SIR,—As an otologist I cannot but recognize the importance of the early recognition of and treatment of diseases of the ear in children, and I sympathize with Dr. Yearsley, in the BRITISH MEDICAL JOURNAL of April 8th, in his desire to see this carried out. As a citizen, however, I am not prepared to follow him in his attempt to throw the responsibility entirely upon the State. In the present day the tendency seems to be to relieve the parent of nearly all responsibility for the proper upbringing of his children, and in Dr. Yearsley's proposal we have further evidence of this. I should prefer to see an effort made to impress upon the parent the importance of attending to early ear symptoms.—I am, etc.,

Edinburgh, April 17th. R. MCKENZIE JOHNSTON.

CLINICAL METHODS OF ENUMERATING LEUCOCYTES.

SIR,—In Dr. Turton's very interesting summary of the various methods[1]—including his own—employed for counting the leucocytes of the blood, and which I have only just seen on return from abroad, I see no mention made of any method suited to counting these cells in cases with leucopenia.

In making blood counts on the many cases of severe anaemia—often associated with leucopenia—in this hospital, I found that the method I was in the habit of employing—namely, counting 10 fields of an area of $\frac{1}{16}$ sq. mm., and cubical capacity of $\frac{1}{160}$ c.mm. unsuited to many of the blood counts

[1] BRITISH MEDICAL JOURNAL, February 25th, 1905, p. 410.

in cases of tropical disease, especially so in Dum-dum fever, where the leucopenia may be extreme.

This method differs from that of Dr. Turton in two particulars only—that is, that I employ a 1 in 10 dilution and count 10 "fields," whereas he makes use of a 1 in 20 dilution and counts 20. The diluting fluid I employ is Toisson's, to which 1 per cent. of glacial acetic acid has been added.

In white blood cell counts in cases of leucopenia I use a "field" with a diameter equal to 8 squares on a Gowers's haemocytometer, or 16 squares on a Thoma-Zeiss. As the side of each square is $\frac{1}{10}$ m. and the depth of the cell $\frac{1}{5}$ mm. in the former instrument, while $\frac{2}{10}$ m. and $\frac{1}{10}$ m. respectively in the latter, the cubical capacity of each field examined on Gowers's instrument will be $\frac{1}{5}$ c.mm., and $\frac{2}{10}$ c.mm. on the Thoma-Zeiss.

While personally in the habit of counting 10 such "fields" in a blood count—that is, the whole of 1 c.mm. of blood diluted 1 in 10—this will not always be found necessary, as the enumeration of the leucocytes in one such field gives as much information as a count of 20 or 25 fields by any of the other methods usually employed. Further, the act of counting many fields is a troublesome process in the absence of a mechanical stage.

The advantages of this method in cases of leucopenia are illustrated by the fact that in a blood count recently made, when the leucocytes numbered 1,400 to the c.mm. of blood, the fields by the method I employ averaged 14 each, whereas if any of the many methods mentioned by Dr. Turton had been employed, several fields in such counts would have been clear of leucocytes.

The objection might be raised to this method that in order to obtain such large fields a dangerously low magnification is necessary and thus other objects be mistaken for leucocytes and included in the count. I do not think, however, that if ordinary precautions as to clean counting chambers, etc., are taken any difficulty will be met with. A possible source of error, however, is presented if the blood to be examined contains large numbers of mature malaria parasites, and it would certainly not be advisable to use this method in such cases, though this source of fallacy is common to most methods of leucocyte counts unless great care is taken.

I obtain the fields required for the process mentioned above by using a $\frac{2}{3}$ in. lens, 12 ocular, and well-drawn-out tube on a Crouch microscope, and they could be obtained on any microscope as well by using a $\frac{1}{4}$ in. lens with 0 ocular, or a $\frac{1}{2}$ in. lens and low eyepiece.—I am, etc.,

J. C. B. Statham,
Captain R.A.M.C.

Pathological Laboratory, R. V. Hospital, Netley, April 12th.

OPEN METHODS OF WOUND TREATMENT.

Sir,—I read in the British Medical Journal of December 3rd, 1904, p. 1543, which has only recently come to my notice, a letter from Dr. George Stoker dealing with the open treatment of wounds in the Alps and Zululand.

I wish to point out that my observations in the Alps were carried out in entire ignorance of Dr. Stoker's work in Zululand, and that I attribute the results obtained in the Alps to the dryness of our atmosphere, and chiefly to the antiseptic power of the sun rays, especially the ultra-violet, whose intensity increases greatly with the altitude above sea level. This fact enables me to use the sun rays without the apparatus which Finsen found necessary in his treatment of lupus at lower altitudes. I no not deny that oxygen may also have some effect, but I approached the subject with the other two factors, and have no special experience of the oxygen treatment.—I am, etc.,

Oscar Bernhard.

The Upper Engadine Hospital at Samaden, April 16th.

ONE-MARK VACCINATION.

Sir,—With reference to Dr. Arthur Maude's letter anent one-mark vaccination I should like to make some remarks.

I have frequently noticed in the British Medical Journal that one-mark vaccination was always associated with a fee of 6d. and some sepsis thrown in. But what of the "one-mark" carried out under strict aseptic precautions with a 2s. 6d. or 5s. fee at the end of it? I can assure you, Sir, that many men who are generally considered respectable and ethical, and who believe absolutely in all the recommendations of the Local Government Board, are at this moment putting on one mark, or at most two. One man told me that he charged 5s. for one mark and 2s. 6d. for two! Now, surely there must be some grave reason for all this. Prior to the passing of the present Vaccination Act the patients of private practitioners were certainly fairly well vaccinated with calf lymph, but since the passing of the Act it has, in my opinion, been the other way about. The public vaccinator has now the *entrée* into the houses of patients who may later become his own, and to prevent this the ordinary practitioner is driven to resort to tactics which invariably result in the one mark. Then when one man does it, all his neighbours must of course follow suit. I am certain that one-mark vaccination is more prevalent now than ever it was and until some amendment in the law is made it will get worse.

I quite agree with Dr. Maude that the pronouncement of the ninety-eight Divisions of the Association is impracticable and would entail an enormous expense. The only solution is to appoint vaccinators who would do nothing else.

As long, however, as the present arrangement continues whereby the State gives a certain class of practitioners opportunities for obtaining introductions to patients not their own, I shall, along with many others, continue to be, yours etc.,

April 15th. One-Mark.

STRYCHNINE POISONING IN A CHILD.

Sir,—Respecting the above case, which I reported in the British Medical Journal of April 8th, I agree with Dr. Isdell that the word "toleration" is a better expression to employ with regard to the drug than the one I used, namely, "immunity." He asks whether it is a certainty that the system can become tolerant of strychnine, as it can of opium? Dr. Lechmere Clift considers that the prolonged use of the drug produces no "toleration," but, on the contrary, it has a "cumulative action." The latter property is of course well known with regard to this alkaloid, but I am of opinion that not only does it possess the power of accumulation, but that the tissues can become tolerant of it to a marked degree. In support of this statement, I quote the following extract from Taylor on *Poisons:*

> A woman, aged 29, labouring under paralysis, took, in pills, $\frac{1}{8}$ gr. strychnine daily, and this was increased at intervals of four days to $\frac{1}{6}$, $\frac{1}{4}$, and 1 gr. daily. The dose was gradually raised to 3 gr. daily, and this is stated to have been continued for six days. Tetanic convulsions of the limbs and other symptoms then appeared, and the dose was gradually reduced. In two months the patient is said to have taken 70 gr. of strychnine. The bearing of this large quantity with comparative impunity may have depended not only on habit, but on the diseased state of the system (toleration) and on the rapid elimination of the poison.

And this quotation occurs in the chapter which Taylor devotes to what he calls the "drug habit," in which chapter he discusses the relative amount of toleration which the system possesses to opium, arsenic, strychnine, and other drugs.

In face of the above, I cannot but believe that in my case some amount of "toleration" had been produced. Otherwise the result would have been a fatal one. Dr. Dixon Mann also lays stress on the fact that "idiosyncracy plays an important rôle in determining the effect produced by minimum doses of strychnine."—I am, etc.,

Birmingham, April 15th. J. R. Pooler.

THE TALMA-MORISON OPERATION FOR ASCITES.

Sir,—In your kindly review of my book on *Diseases of the Liver, Gall Bladder, and Bile Duct*, the following sentence occurs:

"He recommends the Talma-Morison operation of omentopexy for ascites as if it had established itself as a successful operation, but the results that have so far been obtained in the comparatively small number of cases in which the operation has been performed, make it desirable *in fairness to his readers that he should have given the statistics*, which show a relatively high rate of mortality with only a small number of cures." (The italics are mine.)

May I point out that these statistics are fully given on pp. 260, 261 of my book? The fact that, like most statistical details, they appear in smaller type, may account for the reviewer's oversight.—I am etc.,

London, W., April 16th. H. D. Rolleston.

INTRATRACHEAL INJECTIONS.

Sir,—In a communication published in your columns, June, 1902, on the technique of the above, I laid stress on the importance of using the laryngoscope and having a properly made syringe—particulars and makers' names were mentioned.

Many correspondents who have failed, admit having neglected the former precaution, but success would be absolutely impossible with the syringe pictured on p. 126 of Messrs. Maw Son and Sons' new catalogue, of which I am the stated designer. The nozzle could not enter even the larynx; in addition, the unguarded glass barrel constitutes a grave danger.

I have recently heard of syringes sent to both East and West Indies of unworkable patterns.—I am, etc.,

Southport, April 16th. COLIN CAMPBELL.

SULPHURETTED HYDROGEN WATERS.

IN the BRITISH MEDICAL JOURNAL of April 15th a most interesting account of the Lucan Spa appears under the pen of Dr. Thomas Laffan. He states that:

A strong point in favour of Lucan is the chemical condition of the sulphur gas, which is held merely in solution in the Lucan waters, while in that of Harrogate it is in combination with bases.

I think, in view of the following particulars, this opinion requires a little modification so far as Harrogate is concerned.

So long ago as 1854 Professor Hofmann, in an article on the chemical analysis of the medicinal waters of Harrogate, published in the *Journal of the Chemical Society*, vol. vii, pointed out that the sulphuretted hydrogen in the old well was present both in combination and in solution. This fact was borne out in later years by Professor T. Thorpe in the *Philosophic Magazine* for July, 1876, and Mr. Hoyton Davis, whose analysis of the Harrogate waters is well known, is also of the same opinion.—I am, etc.,

Harrogate, April 15th. M. B. RAY, M.D.

PROPORTION OF FAT IN CONDENSED MILK WHEN DILUTED.

SIR,—The point in dispute between Dr. Hutchison and myself is important, or I would not trouble you with a reply to his second letter on my criticism. His explanation is totally incomprehensible to me. Surely he must admit that the relative proportions of the different constituent ingredients must be the same whatever the amount of substance taken, whether this be 15 gr. or 15 tons. In spite of Dr. Hutchison's assertion as to its accuracy, the error in his analysis must be apparent to any one taking the trouble to work out a simple proportion sum. How he can venture to defend it is inconceivable to me. Whilst thanking Dr. Hutchison for the courteous tone of his letters I take my final leave of the subject by reiterating my conviction that the error I have pointed out is a serious blot on his excellent little book, and one that he will do well to correct in future editions.—I am, etc.,

April 16th. THE REVIEWER.

SIR,—The controversy between your reviewer and Dr. Hutchison deals with an important matter, and it may become necessary to recommend the appointment of a Royal Commission to determine the capacity of the domestic teaspoon.

In the meantime, I beg to offer a temporary solution of the difficulty. Let the mixture be made according to Dr. Hutchison's wishes. I shall be pleased to submit the mixture to analysis and to inform you of the result.—I am, etc.,

London, W., April 10th. RALPH VINCENT.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

SIR,—1. Sanatorium treatment is, medically speaking, undoubtedly worth while.

2. Financially speaking it may not be. I agree with Dr. Reinhardt's standard of £100 per bed for chalet erections, and think that if well planned and administered, a substantial sanatorium should not cost above £150 per patient. The various building materials (iron, brick, and stone) should compete against each other. If a permanent building (brick or stone) costs £350 per patient, without depreciation, or an iron building costs £300, and has a depreciation of £1,000 per annum, from lasting thirty years and costing £30,000, the question may properly be asked—Is it worth while?

3. That "patients progress more satisfactorily in the winter than in the summer months" may be due to exposure in summer to enervating afternoon heats, when open-air animals are in the shade. A hare is then in its ferny or leafy "form," and a rabbit is in its cool retreat. Both contrast favourably with a patient in the sun, or a baked consumptive in a chalet. Wood for chalets is objectionable, being, contrary to public belief, the hottest material, and all chalets should be shaded by trees in summer, or be movable into the shade, especially those for advanced cases.—I am, etc.,

Newcastle-on-Tyne, April 14th. T. M. ALLISON.

DIPLOMATES OF SCOTTISH COLLEGES.

SIR,—Under the above heading in the BRITISH MEDICAL JOURNAL of April 15th a correspondent draws attention to the fact that the Royal College of Surgeons of Edinburgh has sanctioned the wearing of a gown by its Licentiates. That is so; and it was one of the objects of the Association of Medical Diplomates of Scotland.

Another object is "that the title of 'Licentiate' shall be altered to that of 'Member.'"

I would urge upon all whom it may concern to join the Association forthwith, as they will by so doing greatly further the endeavours of the Society to bring about this much-needed reform. The more numerically strong we are the more likely are we to have our petition granted.—I am, etc.,

CLAUDE ST. AUBYN-FARRER,
President, Association of Medical Diplomates of Scotland.

London, W., April 15th.

SIR,—It appears to me that the letter by "Gamma" is most opportune. I hope the suggestion relative to the membership will receive the consideration of the authorities at Edinburgh.

Now that permission has been granted by the Royal College of Surgeons to wear a gown it would be a most graceful act at the quatercentenary to allow substitution of membership for licentiateship.

I hope the Association of Diplomates in London will manifest its power by sending immediately to Edinburgh a petition, signed by all Diplomates, praying for this most desirable change to take place at the forthcoming celebrations.—I am, etc.,

April 15th. SPES.

SIR,—The proposal to have the licence of the Royal College of Surgeons of Edinburgh converted into a membership should be supported by Scottish diplomates. I suggest that the Association of Scottish Diplomates again circularize all members and non-members in order to bring the question to the front. Will any member enlighten us on the gown question? The first intimation I received was not from the College, but from the Association of Diplomates.—I am, etc.,

April 17th. SCOTTISH DIPLOMATE.

THE IRISH DIRECT REPRESENTATIVE.

SIR,—Ireland has six representatives on the General Medical Council, and every single one of them is a resident in Dublin, with no other interests to defend but those of the people who surround him and the doctor-making institutions out of which they live. The entire provincial element is voiceless and defenceless. Is this just? Do the provincials realize the depths of degradation and debasement which it implies? What steps did Sir William Thomson or his predecessors ever take to limit the army of newly-fledged men who are flung on the market every day? Is he not connected with that College of Surgeons whose laxity in the matter of examinations is notorious to all? Then, when our young people get assistancies in England, their want of that practical training which local hospitals and a modified apprenticeship would have afforded them, so detracts from their usefulness that the journals are filled with the letters of their masters complaining of their want of practical training, and averring that it is the master and not the man who should be paid. Look, then, at the wholesale robbery perpetrated on us by Dublin hospitals and their annexed homes. Sir William Thomson has during his time ever shown himself to be the mere creature and tool of Dublinism, and if the mass of the profession return this man, or any such man, again they will prove themselves wholly unworthy of the privilege which they will so little know how to utilize.—I am, etc.,

Cashel, April 13th. THOMAS LAFFAN.

COMPULSORY VACCINATION IN CALIFORNIA.—The California Legislature lately passed an Act repealing the compulsory vaccination law, but the Governor, who is a doctor, vetoed the measure, and the Legislature by a vote of 23 to 3 rejected a proposal to pass the Bill over the veto.

UNIVERSITIES AND COLLEGES.

THE SOCIETY OF APOTHECARIES OF LONDON.

The Title of Licentiate.

A PETITION, to be signed by such Licentiates of the Society of Apothecaries of London as have received the licence indicated since the Medical Act Amendment Act of 1886 came into force, has been prepared for presentation to the General Medical Council during the approaching session.

Its object is to move the Council forthwith to order that in respect of all persons who have passed or shall pass the qualifying examination of the Society conducted in the manner prescribed in the Act mentioned, and who have received or shall receive the diploma of the Society, the qualification entered in the *Medical Register* shall be altered from "Licentiate of the Society of Apothecaries" to "Licentiate in Medicine, Surgery, and Midwifery of the Society of Apothecaries," or to such abbreviation of this or other title as shall indicate that persons holding the diploma are legally qualified to practise medicine, surgery, and midwifery.

The petition recites the events which have led up to this petition, which are as follows: The Society was brought into official existence by letters patent from the Crown in the year 1618 under the title of the Master, Wardens, and Society of the Art and Mystery of the Apothecaries of the City of London.

In 1815 the Society obtained the passing of an Act by which it became unlawful for any person to commence practice as an apothecary in England or Wales unless he had received a licence from the Society granted after examination by a Court of Examiners consisting of twelve members of the Society of not less than ten years' standing.

In 1858, by the Act of that date, the General Medical Council and compulsory registration came into existence, power to select one member of the Council being granted to the Society. The Act ordered that all examinations for registrable titles to practise should be conducted to the satisfaction of the Council, and that the registers which were to be kept should be as nearly as conveniently might be in the form prescribed by Schedule D of the Act; accordingly the diploma of the Society was entered as L.S.A.

In 1874 the Society found that it was difficult in certain respects to comply with the Act of 1858, and hence obtained the passage of a Bill enabling it to reinforce its Court of Examiners from outside, and to co-operate under certain circumstances, if it pleased, with other bodies in the conduct of examinations.

In 1884 the Society added surgery to the subjects in which it examined candidates for its licence, but was compelled by the Medical Act of 1886 to again change its method. This Act made single qualifications in medicine or surgery no longer a title to registration, and it was deemed that the Society was at the time not legally entitled to grant a diploma in surgery.

The Society endeavoured, therefore, to join with the English Royal Colleges of Physicians and Surgeons, and, not succeeding, asked the General Medical Council to appoint assistants to its Court of Examiners, as empowered by the Act of 1886. With this request the Council complied, and hence the licence of the Society, as granted after the examinations then instituted, now constitutes a full title to admission to the *Medical Register*, being a diploma in medicine and surgery and midwifery.

The Licentiates complain, however, that their title as entered in the *Register* does not give a sufficient intimation to the public of their attainments, and that they are placed at a disadvantage as compared with holders of the diplomas of Conjoint Boards, inasmuch as that the public is liable to interpret their title as indicating knowledge of medicine only and not of surgery as well. They, therefore, pray that the change mentioned in the second paragraph may be made, and express their belief that the alteration may be effected without prejudice to the rights of the holders of other medical diplomas or to other medical corporations. The petition further mentions that the licence of the Society has been granted, since the Act of 1866 came into force and since the present system of examination was instituted, to nearly 2,000 persons, but it is not stated how many of these hold the L.S.A. alone, and are therefore really affected by the grievance of which complaint is made.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on March 29th.

Recognition of Teachers.

The following were recognized as teachers in the University:

At University College: Dr. J. H. Parsons in ophthalmology; Dr. F. J. Poynton in medicine; Dr. R. H. A. Plimmer and Dr. S. B. Schryver in physiological chemistry.

At King's College: Dr. David Sommerville in hygiene and public health.

At St. Bartholomew's Hospital Medical School: Dr. J. H. Drysdale in medicine; and Mr. L. B. Rawling in surgery.

At the London Hospital Medical College: Mr. Harold L. Barnard in surgery.

At St. George's Hospital Medical School: Dr. J. S. Collier in medicine and medical jurisprudence; Dr. E. Ivens Spriggs in medicine.

At St. Mary's Hospital Medical School: Dr. J. F. H. Broadbent and Dr. Wilfred Harris in medicine.

At Charing Cross Hospital Medical School: Mr. E. Treacher Collins in ophthalmology.

At the Westminster Hospital Medical School: Mr. A. H. Evans in surgery.

At the Hospital for Sick Children: Mr. Edred M. Corner in clinical surgery.

Advanced Lectures in Physiology.

It was resolved that the course of eight lectures on lymph to be delivered by Mr. F. A. Bainbridge at St. Bartholomew's Hospital Medical School at 4.30 p.m. on Tuesdays during the May term be recognized as an advanced course of lectures by the University.

Mutual Recognition of Certificates by the Universities of Oxford, Cambridge, and London.

The negotiations have now been completed by which, under certain conditions, the Oxford Senior Local Examination and the Higher Examination of the Oxford and Cambridge Schools Examination Board will be accepted in lieu of the London Matriculation Examination, and the London Matriculation Examination will give exemption from Oxford Responsions. A similar arrangement for the mutual recognition of certificates was concluded with Cambridge recently.

Gift to the Institute of Medical Sciences Fund.

The Senate adopted a resolution expressing their gratitude to Mr. Alfred Beit for his munificent gift of £25,000 to the Institute of Medical Sciences Fund.

Appointment to the Senate.

Dr. Lauriston E. Shaw has been appointed by the Faculty of Medicine to the Senate in place of Sir Cooper Perry.

Physiological Laboratory.

Dr. F. W. Pavy, F.R.S., has presented £100 to the funds of the Physiological Laboratory.

Dr. G. A. Buckmaster's recent course of lectures on the Physiology and Pathology of the Blood has been approved for publication under the auspices of the University.

Dr. F. W. Pavy, F.R.S., will give three lectures on Carbohydrate Metabolism on May 9th, 16th, and 23rd at 5 p.m.

Dr. T. G. Brodie, F.R.S., Professor Superintendent of the Brown Institution, will commence on May 30th, at 5 p.m., a course of five lectures on the Work of the Brown Institution during the Past Year. The lectures will be continued on succeeding Tuesdays at the same hour.

Any member of a London school of medicine, whether an undergraduate of the university or not, is entitled to a card of admission to these lectures on application to the Academic Registrar.

Bedford College for Women.

A special course of lectures on the Teaching of Hygiene will be given by Miss Alice Ravenhill during the Easter term, beginning on Thursday, May 18th, at 4.30 p.m.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Monday, April 17th, the President, Sir William S. Church, in the chair.

Announcements.

The President announced that the Gilbert-Blane Medals had been awarded to Staff Surgeon Sidney Thomas Reid and Surgeon Robert William Glennam Stewart, and the Bisset Hawkins Memorial Medal to Sir Patrick Manson.

Address.

The President then gave his annual address, in which he included biographical notices of Drs. Charles Kelly and Gilbart Smith, Sir Frederic Bateman, and Drs. Angel Money, Lee Dickinson, Vivian Poore, Vawdrey Lush, and Adam Bealey, the Fellows of the College who had died during the last collegiate year, and the chief affairs relating to the College during the same period.

On the motion of Sir Hermann Weber a vote of thanks to the President for his address was carried with acclamation.

The President then vacated the chair, and voting took place for his successor for the ensuing year.

Election of President.

On a first vote the numbers recorded were: For Sir R. Douglas Powell 51, Sir William Broadbent 50, Dr. Pye-Smith 27, Sir Thomas Barlow 2, and for Dr. Allchin, Sir Wm. Church, Dr. Pavy, Dr. Ferrier, and Sir John Williams 1 vote apiece.

On a second vote on the two names with the highest recorded on the previous one, the numbers came out at: Sir R. Douglas Powell 74, and Sir William Broadbent 59.

Sir R. Douglas Powell was then elected President, and took the chair.

Licences.

Licences to practise physic were granted to Sidney Herbert Daukes, David Morgan Jones, William Herbert Lowry, Edgar Coningsby Myott, and Lewis Thomas.

Communications.

Communications were received from (1) the Clerk of the Privy Council

(February 15th) forwarding a communication received through the Russian Chargé d'Affaires from the Committee for organizing the International Congress on Obstetrics and Gynaecology at St. Petersburg, September 11th to 18th next, inviting all persons interested to join and take part in the Congress; (2) the Secretary of the College of Surgeons, reporting certain proceedings of their Council on February 9th; (3) the Secretary-General of the International Congress on Medicine, to be held at Lisbon, April 19th to 26th, 1906, asking the College to send a delegate to represent it at the Congress. It was left to the President to nominate a delegate at the next comitia of the College.

Plague in India.

In accordance with notice, Dr. Norman Moore moved the following resolution: "That in view of the constantly-increasing mortality from plague in India since 1896, and of the recorded mortality of 252,000 in January and February of the present year a committee be appointed to report to the College on the desirability of the College addressing His Majesty's Government on the subject." This was seconded by Sir Dyce Duckworth, and carried, and it was left to the President to nominate the members of the proposed committee at the next meeting.

The Museum.

A communication was received from Dr. Dickinson resigning his office of Curator of the Museum, and, on the nomination of Sir William Church, Dr. Sharkey was elected his successor. A cordial vote of thanks was passed to Dr. Dickinson for his valuable services during his long tenure of the office.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A quarterly Council was held on April 13th, Mr. John Tweedy, President, in the chair.

Jacksonian Prize.

This prize for the year 1904 was awarded to Mr. Herbert John Paterson, M.B., B.S.Cantab., F.R.C.S., Assistant Surgeon to the London Temperance Hospital for a dissertation on the Diagnosis and Treatment of such Affections of the Stomach as are amenable to direct Surgical Interference.

The subject chosen for the year 1906 is the Diagnosis and Treatment of those Diseases and Morbid Growths of the Vertebral Column, Spinal Cord and Canal, which are amenable to Surgical Operations.

The Proposed Institution of a Medical School by the College.

A report from the Committee upon this proposition was read and adopted. The subjects selected in the proposition for teaching were (*a*) Chemistry, Physics, and Biology; (*b*) Anatomy and Physiology.

The Committee have taken into consideration the practicability of instituting a school of this character, and have had estimates prepared (1) of the annual cost to the two Colleges of the Examination Hall Buildings under present conditions; and (2) of the additional cost which would be incurred by instituting a medical school and using the buildings for the school as well as for examinations.

The cost of adding another story to the front portion of the building and of fitting the rooms for the purposes of the school would, it is thought, involve an initial capital outlay of £15,000. It would no longer be possible to let any of the rooms in the building, and this would involve a loss of about £3,300 per annum in rents. It is, however, not anticipated that the gross annual cost of the building would be increased, except in so far as the additional story would involve additional expense, and if, as proposed, the whole of the building were used for the school, that is, "for the promotion of education," it should be possible to obtain exemption from corporation duty amounting to £225 per annum, now paid in respect of three-quarters of the building.

If the scheme were successful, and this would of course depend mainly upon the support accorded to it by existing medical schools, and if the full complement of 100 students per annum were realized, the receipts should amount to £3,000 the first year, £6,000 the second, and probably to about £8,000 thereafter.

It will be seen that the gross additional annual cost involved by the institution of the school is estimated at £11,624, but this would be reduced to £3,399 after the first two years if the total of £8,000 from students' fees were realized and if the building were exempted from corporation duty. The deficit in the first two years would of course be much larger, and would have to be met by a further expenditure of capital.

The Committee have carefully considered this proposal for a school for the teaching of the early and intermediate subjects of the medical curriculum, and they are of opinion that it is impracticable for the College to institute such a school without adequate endowment.

Representation of the College upon the Senate of the University of London.

Mr. H. T. Butlin was re-elected as the College representative, the appointment being made for four years.

Studentship in Surgery and Anatomy.

A sum of £20 per annum was bequeathed by the late Mrs. Jane Begley, of 26, St Peter's Square, Hammersmith, for the purpose of founding a studentship in surgery and anatomy.

MEDICO-LEGAL AND MEDICO-ETHICAL.

BONESETTERS.

A correspondent sends us a cutting from the *Littlehampton Gazette*, which reports a meeting of the local Board of Guardians in order to draw attention to the following paragraph: "Mr. S. A. Barker, the London bonesetter, wrote informing the guardians that it was impossible to make a permanent cure in a case submitted to him from the Board. He had, however, given the patient relief by breaking away the adhesion, so that he might be built up muscularly. His fees were, he stated, 2 guineas for the first visit and 1 guinea for each subsequent interview. On account of the position of the patient, however, he would waive his charges. (Applause.) On the proposition of Mr. Wallace Wink, seconded by Captain Hills, it was resolved to accord Mr. Barker a hearty vote of thanks for his kindness." Our correspondent asks us to comment on medical men's conduct under similar circumstances, and states that he has always understood that it was not allowable to have anything in the nature of a consultation with a bonesetter. We do not understand that any registered medical practitioner took any part in the proceedings of the guardians. If a medical man was a member of the Board he might be outvoted, and could only protest against such a proceeding; he would, of course, take no part in it.

AN UNCERTIFICATED MIDWIFE.

The *Morning Advertiser* of April 12th publishes a report of an inquest held at Colchester on April 11th on a child which was born on Sunday, the 9th, and died on the following day. The coroner called the jury's attention to the fact that a section of the Midwives Act, which came into force on April 1st, made it an offence for an uncertificated person to use any description implying that she was a qualified midwife, and that if death was caused by a woman so practising the question of manslaughter would arise. The midwife was called, and stated that she had been practising for thirty years, but did not describe herself as a midwife. She called herself a charwoman. She considered herself, however, fully qualified as a midwife. A medical witness stated that the child had been properly attended to, and the jury, in returning a verdict of death from natural causes, found that the woman had acted skilfully, but ought to have called in a doctor, as the child proved so weakly.

MELANCHOLIA.

H. W. P. Y.—Our correspondent should immediately take the necessary steps to secure that the requirements of the lunacy laws are met in the case mentioned. The first forms required are the petition, the statement of particulars, the two medical certificates, the order of reception by a justice specially appointed for that purpose under the Lunacy Acts 1890-1. Copies of these to be sent within twenty-four hours to the Commissioners in Lunacy. Many other statutory requirements exist. The simplest plan will be to immediately obtain instructions from the Commissioners.

PROFESSIONAL SECRECY.

Wildah.—(1) The right course is to refuse information to the police on the ground that they have no right to ask for it; but where the suggestion is, as in this case, quite baseless, it may save trouble to tell the detective that he is mistaken; (2) it does not appear wise to give a woman even harmless drugs when she asks for an abortifacient; it would seem more consistent with our duty and the dignity of the profession to say that what she proposes is a felony and that we can have nothing to do with it.

THE DOCTOR'S LAMP.

A correspondent writes to complain that there is in his village a medical practitioner who served for a year as a civil surgeon in the late South African war. Since his return home this gentleman has put up a white lamp with two red crosses in front of his house, which emblem is taken by the simple village folk to indicate some special privilege. He asks us to say whether it is usual, and whether there is anything in the practitioner's past service to entitle him to do it, and whether the complainant himself could not do the same thing?

*** Professional opinion runs strongly against any form of advertisement, and so conspicuous a lamp would certainly appear to fall within the meaning of that term. Coloured doctors' lamps used to be common, but they have gone out of fashion; we cannot say that there is anything unprofessional in their use. The white lamp with two red crosses is a new variety, but the difference is hardly specific; so far as we know, such a lamp has the merit of being unique. Service as civil surgeon in South Africa does not give any special privilege to use the Red Cross badge either on a lamp or elsewhere.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE QUEEN'S JUBILEE HOSPITAL, EARL'S COURT.

In our last reference to the affairs of the Queen's Jubilee Hospital, Earl's Court, it was stated that an inquiry was to be held by King Edward's Hospital Fund for London. This has now been completed, and the findings published in a long report, of which the following is a summary:

Mr. Fitzroy Benham.

1. In regard to Mr. Benham's double connexion with the institution, it is pointed out that according to its rules he is not qualified to occupy the post of Surgeon. He was already in that position at the time the rule was made, so to this extent he stands outside it. If however, the rule was made in the interests of the hospital, it may be assumed that he continues to act on the staff for special reasons personal to himself. But unless these reasons are connected with his recognized professional eminence as distinct from academic qualification, the only conclusion that the reporters could draw was that he occupies his position as a member of the medical staff in virtue of being the founder of the hospital; should this be the case his position is a false one.

The Conduct of the Board

2. The action of the Board of Management in proceeding to elect a new staff without first calling for an independent inquiry into the circumstances which led up to so important an event as the resignation of the majority of the old one is specifically condemned.

3. At least nine of the twenty-two lay members of the Board are stated not to be qualified under the rules to serve upon it, and in its work it was slack and unsatisfactory. Even according to the chosen spokesman of the Board at the first meeting of the Commissioners there was want of punctuality and method

in its work and a general atmosphere of latent hostility and suspicion between its various subcommittees. Its functions were to a great extent delegated to the latter, but their work was not properly brought before it. Its control was not always exercised when it should have been, and it sometimes made itself felt in an improper manner. Instances in point are quoted.

The Conduct of the late Staff.

4. In regard to the late staff, though all were *ex-officio* professional members of the Board of Management, it is pointed out that they should not perhaps be held equally responsible with the lay members for details of the business administration, while in professional matters no free hand was accorded to them. It would have been wiser for them to make it clearer on the face of the minutes how and when they actively differed from their lay colleagues. Though the circumstances narrated in the first part of their resolution to resign is shown to be correct, it is considered that the actual occasion of their resignation was not the best which might have been chosen.

5. For the rest, the various charges brought by the Board against various members of the resigning honorary medical staff, the late resident medical officer, and the late matron are dismissed; in respect of most of them it is noted that they appear merely to have been evolved by the lay Board in the course of preparation of a case to lay before the King's Fund. As for the action of Dr. Morrison, to which the Board took exception and in consequence of which it forthwith suspended him from office, the opinion is expressed that he was in no way open to blame.

The New Staff.

6. It is shown that the professional staff as reconstituted exceeds in number the whole of the beds and cots in the hospital put together.

7. A reference is also made to the conduct of the medical men who accepted office upon the resignation of all the old staff with the exception of Mr. Benham and the dental surgeon. It runs as follows: We are not called upon to express any opinion from a professional point of view as to the proper course to be pursued by medical men who are invited to form the staff of a hospital immediately after the resignation in a body of any considerable portion of the late staff. Individually and collectively the new staff may have acted quite correctly for anything we can say to the contrary.

The Hospital Itself.

8. While the present wards are stated to be unfit for the purposes of a general hospital, the opinion is expressed that no building on a large scale is required in this quarter. A casualty and out-patient department with a few beds attached might, it is thought, do useful work in the neighbourhood, but in any case extension of ward accommodation is unnecessary, and drastic changes of management are required.

Recommendations.

The report concludes by recommending the Governors to introduce an interregnum in the administration of the institution, all the members of the staff and Board, with the exception of the trustees and treasurer, resigning office, and a period of twelve months being allowed to elapse between the end of the present administration and establishment of the future permanent management. In the meantime the Governors should elect a small Board formed of persons nominated by the King's Fund to carry on the work. The Board of Management thus constituted should be empowered to appoint, with the approval of the Presidents of the Royal Colleges of Physicians and Surgeons, a medical staff to serve for one year. At the end of that time a full report could be laid before the Governors, who could then resume their position either under the present constitution or under such revision of it as might be recommended to them or they might accept. The hospital being in debt the King's Fund is prepared to provide a sum of £1,000 for the current expenses of the proposed new Board.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MEDAL FOR THE TIBET MISSION.

The King has been pleased to approve of the grant of a medal to the members of the Tibet mission accompanying the force who served at or beyond Silliguri between December 13th, 1903, and September 23rd, 1904, both dates inclusive. A clasp inscribed "Gyantse" will also be granted to those who served at and around Gyantse between May 5th, 1904, and July 6th, 1904, both dates inclusive.

OBITUARY.

REGINALD BIGG, M.B., B.S.Durh, M.R.C.S., L.R.C.P.

It is with deep regret that we have to chronicle the death of Reginald Bigg, Demonstrator of Bacteriology and Comparative Pathology to the University of Durham. He received his medical education at St. Bartholomew's Hospital, becoming M.R.C.S., L.R.C.P. Lond. in 1900. Two years later he obtained the degrees of M.B. B.S. from the University of Durham and subsequently the D.P.H. with honours. After working for a time at ophthalmology as a clinical assistant at the Central London Ophthalmic Hospital, he went to the North of England on appointment as House-Surgeon to the Tynemouth Infirmary at North Shields. At the end of his term he became Visiting Medical Officer to the Newcastle Dispensary, and not long afterwards received appointment to the Medical School of the University.

During the few years Dr. Bigg resided in the North of England he had succeeded in gathering round him a large circle of friends. By his genial disposition, his kindly manner, and his readiness to assist he had come to occupy a warm place in the affection of the senior students of the Newcastle College of Medicine. There are many recent graduates of the University of Durham and medical officers of health who have cause to mourn his untimely end. As assistant to the Professor of Bacteriology in the College of Medicine Dr. Bigg had proved himself to be a most capable and assiduous lieutenant. He was in all senses of the word a true student of the science he loved, a careful and reliable bacteriologist. His illness was of short duration. A little over three weeks ago he had a rigor. Symptoms of rheumatic fever showed themselves shortly afterwards, and at an early stage of the illness signs of ulcerative endocarditis. He lay ill at the house of his friend, Mr. Samuel S. Murray, of Heaton, Newcastle-upon-Tyne, where, notwithstanding all that medical attention, aided by the advice of his chief, Professor George Murray, could do for him, he succumbed on April 13th. Thus, at the early age of 29, there has passed away a student and a fellow-worker, whose memory will long be revered. Sincere sympathy is felt for the father, the Rev. Canon Bigg, of Christ Church, Oxford, one of the Professors of Ecclesiastical History in that University.

We regret to have to record the death of Dr. David Steele Moon, which took place on April 8th after an illness extending over more than a year. Dr. Moon, who was a native of Liff, near Dundee, received his medical education at Anderson's College, Glasgow, and obtained the Licences of the Royal Colleges of Edinburgh in 1869. He began professional life by acting as House-Surgeon in the Glasgow Royal Infirmary, and afterwards held a similar appointment in the Royal Infirmary, Dundee. More than thirty years ago he commenced practice in Dundee, succeeding the late Dr. Bigg, whose daughter he married. He soon acquired a high reputation, and was greatly esteemed by a large circle of patients for his professional skill and sympathetic devotion to their interests. He gave special attention to surgery, and for a period of years was one of the surgeons to the Dundee Royal Infirmary. On the expiration of his term of office he was placed on the consulting staff. Dr. Moon was the author of a paper entitled Thoughts concerning Cancerous Disease, with Cases, which was published in the British Medical Journal in 1885. He was a zealous member of the local medical society, and frequently took part in its discussions. By his professional brethren he was held in high respect because of his rectitude and his invariably genial and sunny disposition. He leaves a widow and one son who is engaged in the study of medicine.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Professor Glaevecke, Director of the Obstetrical Section of the Auschar Hospital, Kiel, aged 49; Dr. George F. Keene, Superintendent of the State Hospital for the Insane, Howard, Rhode Island, aged 51; Dr. William Bodenhamer, formerly of New York, a recognized authority on intestinal diseases and author of a book on rectal medication, aged 96; Dr. J. Oscroft Tansley, of New York, a specialist in diseases of the eye and ear, aged 60; and Dr. Eduard Ronsburger, a well-known laryngologist of Vienna, aged 64.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

GOUTY asks is there any cure for receding gums in a gouty young person?

P. W. H. writes: My opinion has been asked as to whether there is any objection, from a medical point of view, to girls riding horseback astride. I am not personally aware of any medical views on the subject, and should be glad of further information in the query column of the BRITISH MEDICAL JOURNAL.

ANSWERS.

DR. B. L. THURLOW.—Cirrhosis of the liver in children is such a rare disease that no long account of it is to be found in the usual textbooks. The fullest description is that, perhaps, in the third volume of Keating's *Cyclopaedia of Children's Diseases*, but it is unsatisfactory in places, and not up-to-date. The best account of Still's disease is to be found in the original paper by Still himself in the eighteenth volume of the *Medico-Chirurgical Transactions*.

NOSE.—It is difficult to find a suitable book embracing the three subjects of diseases of the nose, ear, and throat. The best known in English is *Diseases of the Throat, Nose, and Ear*, by Dr. P. McBride, third edition (London: Young J. Pentland. 1900. 25s.). For general practitioners we can recommend *Diseases of the Upper Respiratory Tract*, by Dr. Watson Williams, fourth edition (Bristol: John Wright and Co. 1901. 17s. 6d.), and *Manual of Diseases of the Ear*, by Dr. Thomas Barr, third edition (Glasgow: J. Maclehose and Sons. 1901. 12s. 6d.).

BOOKS ON MEDICAL DISEASES OF CHILDREN.

BERKSHIRE.—Any of the following works would probably meet our correspondent's requirements: *The Wasting Diseases of Infants and Children*, by Eustace Smith, M.D., sixth edition (London: J. and A. Churchill. 1899. 6s.); *The Care and Feeding of Children*, by L. E. Holt, M.D., third edition (London: Sidney Appleton. 1904. 2s.); *The Diseases of Children*, by J. F. Goodhart, M.D., and G. F. Still, M.D. (London: J. and A. Churchill. 6s.), of which a new edition is to be published shortly; *Lectures on Diseases of Children*, by R. Hutchison, M.D. (London: Edward Arnold. 1904. 6s.); *Guide to the Clinical Examination and Treatment of Sick Children*, by J. Thomson, M.D. (Edinburgh: W. F. Clay. 1898. 9s.).

LETTERS, NOTES, ETC.

DUPUYTREN'S CONTRACTION OF THE PALMAR FASCIA.

DR. JOHN REID (London) writes: In Walsham's *Surgery* gout and rheumatism as causes of this condition are dismissed, and the entrance of a bacillus through a finger-nail scratch is supposed to produce a chronic inflammation. The early stage is well described: "The disease generally begins as a small rounded fibrous nodule." In a carpenter, aged 60, the skin had already shown transverse "puckers." The patient said that he felt his chisels, etc., hurt him, and he knew they were sharp. There was a certain amount of tenderness, and with antirheumatic treatment and rest the nodules disappeared. I have seen similar nodules on the thigh and leg fascia over tendons, causing a like tendency to contract, and disappearing under treatment. I have seen them also on other parts of the body. Of course, rest and regimen—whether by splints or otherwise—will remove rheumatic troubles, and the mode of treatment employed will remove the disease in a longer or shorter time, according to its character. My wish is merely to accentuate the gout and rheumatic origin of the above disease, in contradistinction to the theory of chronic inflammation and the entrance of a bacillus through a scratch. The circumscribed nature of the hard nodule and the multiplicity of nodules, together with the manifest antisuppurative character of the disease, militate against an inflammatory trouble such as would come from the scratch of a finger-nail. The disease is certainly common among rheumatic men and women whose occupation necessitates pressure in the palm or flexion of the fingers.

AN ESPERANTO MEDICAL DICTIONARY.

DR. E. T. WHITAKER (Kingsland, Shrewsbury) writes: The French Medical Esperanto Society, under the patronage of Professors Brouardel, Javal, Bouchard, and others, is engaged in compiling a dictionary of terms used in medical science, and desires to have the co-operation of medical men in other countries, so that the terms selected may be submitted to them for criticism and approval before being published. Would those of your readers who are already familiar with Esperanto, or are interested in that wonderful work of Dr. Zamenhof, kindly communicate with me in order to facilitate that object?

MEDICAL EXORCISM.

THE following is taken from a back number of the *St. George's Hospital Gazette*: A precocious small boy in one of the medical wards would talk glibly about his presystolic and systolic murmurs to anyone who came up to him. On Christmas Day he was allowed up for a treat, and, being asked at the house-physician's visit on the following morning if he felt any the worse, he promptly replied: "Oh, I'm all right. The murmurs have been cast out of me and have entered into the nurses!"

PEMPHIGUS NEONATORUM.

DR. HORACE WILSON (Sandown, I. of W.) writes: The etiology of pemphigus is still in the hypothetical stage, and the letter in the BRITISH MEDICAL JOURNAL of April 8th by Dr. Foley is extremely interesting as connecting it with syphilitic pemphigus, which, however, he eliminates owing to the rapidity of spread in his cases. I have held the opinion for some little time that all infantile pemphigus may be traced to a syphilitic origin, and have elsewhere suggested that a syphilitic infection of milk supply may be the source (see *Medical Times and Gazette*, December 31st, 1904). The basis of my observations was an epidemic of infantile pemphigus in my neighbourhood in London. The cases were mostly very mild, though I had one fatality. Two cases were in my own midwifery practice, three in that of one midwife, and two in that of another, thus showing that neither I nor the midwives had spread the infection; nor was it due to ordinary insanitary surroundings, as some of the cases were a mile apart, and in quite different social classes. I had reason to know that a milk carrier working for the firm supplying most of the district was infected with both syphilis and gonorrhoea, and at my suggestion he changed his occupation, but I cannot say that I actually traced any cases to contamination by him. The babies concerned were all bottle-fed, and the midwives' methods and cleanliness above suspicion. It is not my object to discuss the characteristics of the cases but to suggest further inquiry into the source of infection, as there have been recent instances of persons being punished for carrying infection perhaps without sufficient etiological investigation.

THE FAITH CURE AND CAVITIES.

AN American physician tells the following story of his attempt to confound a Christian Scientist. Every time they met the "Scientist" scoffed at medical science and discoursed on the wonders that could be wrought by faith. One day the doctor said to him:

"You are convinced that through faith you can do anything?"

"Yes," replied the "Scientist," "faith will move mountains." A week later he came to the doctor with a swollen jaw due to toothache. On the doctor expressing surprise at seeing him, he said "I have suffered all through the night. I simply cannot stand the pain any longer." Said the doctor, "Have you tried faith? You know you told me the other day that faith could move mountains." The reply was crushing if not convincing: "But this is a cavity, doctor; this is a cavity!"

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Remarks
ON
THE ETIOLOGY OF CARCINOMA.
HAS IT A PHYSIOLOGICAL FUNCTION IN THE BODY?

Read before the Edinburgh Medico-Chirurgical Society.

By GEORGE T. BEATSON, M.D.Edin., C.B.,
Surgeon, Western Infirmary, Glasgow, and Glasgow Cancer Hospital.

Some recent utterances on the etiology of carcinoma have strongly endorsed the view that we have to deal with a microbic disease. This aspect of the question is not new to this Society, as it has already been placed before it on more than one occasion, and notably so by Dr. W. Russell in his able and instructive paper. The lately published researches to which I refer are those of Professor Doyen, of Paris, and those of Drs. Ford Robertson and Wade, of Edinburgh. In the former we have the "micrococcus neoformans" regarded as the exciting cause of the disease, and in the latter the "plasmodiophora brassicae," the organism found in the "finger and toe" disease of the root of turnips, has been histologically identified in every phase of its life-cycle with similar appearances in mammary and intestinal carcinoma. One cannot allude to the above contributions without bestowing on them a warm encomium of praise for the careful, elaborate, and painstaking work that they represent. The scientific spirit of inquiry that pervades them has the warm sympathy of all of us, no matter what our views be on the nature of carcinoma; for it is only by such thorough and independent work, and by hearing both sides of the question, that we can arrive at a right conclusion, and solve the mystery surrounding this disease. I do not propose in this paper to discuss the conclusions arrived at by Professor Doyen and by Drs. Ford Robertson and Wade. All I would say of them is that so far apparently they do not fulfil the postulates of Koch, and that there is yet wanting in connexion with them that crucial test of the reproduction of carcinoma in animals by means of the respective micro-organisms that is almost an essential for the establishment of the position taken up. At the same time special importance attaches to the work of Professor Doyen, seeing that he has put his theory to the test clinically, and asserts that he has found a serum which has a curative effect in carcinoma. If this be so, it is most convincing evidence in favour of his theory, and this serum merits that most careful and unbiassed trial that I am sure it will obtain. Time, of course, is needed to test the value of any results, and it does not do to be too sanguine in the early days of any new remedy. What has struck me most in the communications I have read on the effects produced by Doyen's serum is the absence of any evidence of changes in the cancer cells themselves. The great point on which stress is laid is the mobility it induces in the growth. This, I think, is just what one would expect when we consider the source of the serum and the conditions that exist in the large majority of cancerous tumours. One of the most constant of these latter is the presence of a variable but generally extensive area of small cell infiltration. This is regarded as a disturbance of the nutritive processes of the part, or, as it is commonly expressed, is inflammatory in its nature, and it is the factor that probably serves in many instances to fix and anchor down a growth to the surrounding tissues. It may be described as its rootlets, and its presence is not regarded by surgeons as a favourable condition for operative work, for it seems associated with a tendency to recurrence. It is not at all unreasonable to hold that a serum made from microbic tissue, as Doyen frankly admits his is, should have an effect on this inflammatory area, as is seen in other instances of serum-therapy, and thus allow of an operation being done that otherwise would have been contraindicated. If this be so, such a serum should prove of great value, and possibly its future role may be as an adjunct to operative treatment, a preliminary course of it being gone through to localize the tumour, and by its effect on the surrounding tissue lessen the tendency to the dissemination of the cell growth, just as Watson Cheyne advocates the preliminary injection of antistreptococcus serum in operations on the tongue so as to diminish the risk of sepsis. Any such agent would be of the utmost value in all operative work for cancerous disease.

Assuming, then, as I think one has a right to do, that the parasitic theory of carcinoma has not yet been definitely established, I am entitled to bring forward any view that I may have formed of the disease either as the result of experimental or clinical observations, for in my opinion these latter have to be considered, and any theory that does not harmonize with them should be viewed with distrust. I confess that the more I work with carcinoma clinically the more I am inclined to regard it as a tissue vice, and the more I lean to the view I put before this Society nearly nine years ago, and which I may designate the germinal (reproductive tissue) theory of cancer. I then stated that I believed cancer consisted in the epithelium of the part affected taking on the active proliferation which is the marked characteristic of the germinal epithelium, and that the special cells seen in sections of cancer and known as cancer-bodies will eventually be shown to be special ova or germinal cells. Let me briefly allude to the grounds on which I came to this conclusion. In my paper I pointed out the very remarkable effects produced by the removal of the tubes and ovaries on carcinomatous mammary tissue, for under the operation there took place an actual disappearance of it. Apart from its therapeutic interest, such a fact had some bearing on the etiology of cancer, and thus I was led to theorize and enunciate the above hypothesis. At the time I wrote my paper I had only done a few cases, and my object in publishing them was to put the procedure in the hands of the profession, so that they might test its value. They have done so, and I consider with very great fairness. Speaking generally, it may be said that an analysis of the cases in which the operation has been done is favourable to the procedure. This is borne out by Mr. Alexis Thomson's figures published in the British Medical Journal of November 8th, 1902, and by some very recent ones given by Mr. Hugh Lett at a meeting of the Royal Medical and Chirurgical Society of London on January 24th, 1905, where he dealt with 99 cases, and showed that 36.4 per cent. of all cases operated on were materially benefited by the operation.

It may be taken, then, as a proved fact that under oöphorectomy mammary carcinomatous tissue is very much influenced, and may even disappear. The nature of the change consists in a great increase in the stroma of the growth, and a marked disappearance and fatty degeneration of the epithelial cells. In other words, there is a more cicatricial condition of the part affected, such as we see in the cases of atrophic or withering scirrhus mammae. This is well shown in the slides illustrating sections before (Fig. 1) and after oöphorectomy (Fig. 2) for mammary cancer.

It was on these grounds, and these only, that I based my germinal theory of cancer, but I fully recognized that to establish it on a scientific and reliable basis a good deal more was required, and that if I was correct we ought to find (1) nuclear protrusions (polar bodies) and (2) fewer chromasomes in the so-called germinal cells. Search was made for the former by Dr. Ernest Fortune in films that he prepared from carcinomatous tissue, it being recognized that any such protrusions, being nuclear, should be coloured green by the Biondi stain. In some of the films there were noted appearances in certain of the cells containing the so-called parasite that indicated a body, which stained green, either leaving or just entering the cells. In some cases it was surrounded by a distinct vacuole, but whether this body was an extrusion or an intrusion of a possible leucocyte was not absolutely clear, and it was decided that no definite nuclear protrusions (polar bodies) had been established. As regards the diminished number of chromosomes, no prolonged investigation was made, especially as a very able cytologist whom I spoke to held that it would be a very difficult if not impossible task to count the chromosomes in the cells of human carcinoma. Dr. Ernest Fortune, to whom I am under great obligations for all the microscopic sections in connexion with my cancer work, and also otherwise for much valuable and suggestive help, and who has also prepared the photo-micrographs I shall show this evening, only confirmed the observation that cancer cells which were dividing and undergoing mitosis showed a clearer appearance than the other, as if the process of division had some clarifying effect on the whole protoplasm of the cell. He also observed that while in the films made from cancer tissue cells could be found in all stages of karyokinesis, those cells containing the alleged parasite had never been seen dividing themselves, although the cancer cells in their vicinity were doing so. No assistance either in the matter was gained from a series of experi-

ments I made in inoculating ovarian and testicular tissue into rabbits.

Although, however, I was unable to furnish the proof I was in search of, confirmation of it came from another and an independent source, for on December 10th, 1903, a paper was read at the Royal Society of London by Professor Farmer, Mr. Moore, and Mr. Walker, entitled "Resemblances Exhibited Between the Cells of Malignant Growths in Man and those of Normal Reproductive Tissue." As the result of a large number of careful observations on the intranuclear changes occurring in the cells of malignant growths undergoing multiplication, these gentlemen were able to establish the fact that the division of the nucleus of malignant cells very closely resembles that found in developing reproductive tissue. In other words, the mitotic division was of the heterotype order, and there were only half the number of chromosomes in several of the malignant cells. On my drawing attention to the view of carcinoma that I had put forward to this Society in 1896, the authors were generous enough to reply "that it would have been difficult at the time he wrote for Dr. Beatson to have come nearer to the facts since demonstrated by us." With this further development another very important fact bearing on the etiology of carcinoma was established.

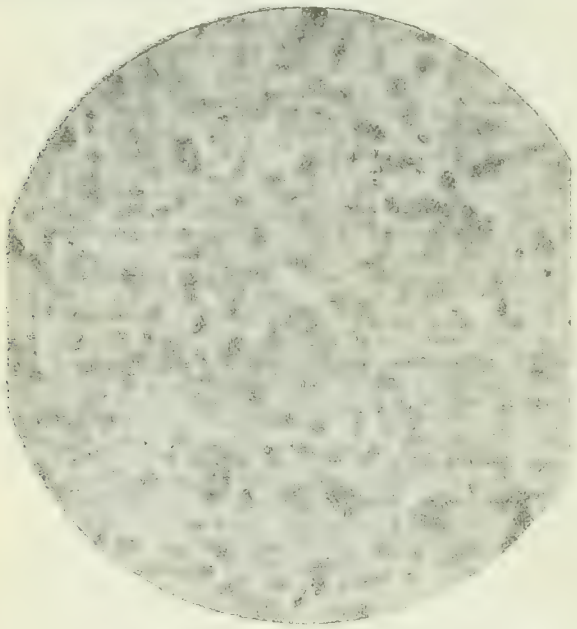


Fig. 1.

Before I pass to the consideration of the etiology of cancer, I wish briefly to allude here to a few points that I think have a special bearing on it. The first one is the cellular character of the so-called cancerous growth or tissue. In its structure carcinoma is always regarded as made up of two distinct elements, namely, (1) epithelial cells, and (2) a connective stroma, but its characteristic feature is the disorderly distribution of its large, irregular, and polymorphic cells. Any stroma that they possess is derived from the connective tissue spaces into which they are forced, and they have no blood vessels, no nerves, and no lymphatics of their own. We do not see amongst these cells any capillary formation such as occurs in the granulation tissue of a repairing wound. Cancer cells in fact show no tendency to organize. They simply lie in an intercellular fluid unpermeated by any new-formed blood vessels. In other words, a cancerous tumour is composed of cells only, its stroma being a pre-existing element into which the cells have been forced by pressure. There is in such a tumour only a massing together or heaping up of cells that have no tendency to develop into permanent tissue, and are entirely devoid of organization. Cells so situated must be of low vitality and be liable to decay, a characteristic that specially marks carcinomatous swellings. We all know how readily they break down, especially the central or oldest cells, so that we have formed these large crateriform ulcers that are clinically recognizable as malignant. Then cell proliferation itself is an indication of weakness, for, as Virchow says: "All cellular formations which lose their nucleus have a mere transitory existence, they perish, they disappear, they die away, or break up." The striking feature, then, of a carcinomatous tumour is that it is entirely made up of cells, which proliferate, but do so apparently only to perish, and have no building up or constructive power.

Another special characteristic of the carcinomatous cell is its unirritating character. When it is cast off by the primary tumour and finds a lodgement elsewhere, its arrival in a distant part of the tissues or in an organ is not heralded by any special local disturbance or by constitutional irritation. Every physician and surgeon knows the great difficulty in deciding in cases of carcinoma as to the existence or non-existence of secondary deposits that might be a bar to operation. For example, small local foci of dissemination in the lungs or liver will often not reveal their presence by any physical signs, and *post-mortem* examinations often show metastatic deposits in organs where, owing to an entire absence of symptoms, their presence was never suspected. I need not give illustrations of what is a common experience, but this fact has always seemed to me a strong point in favour of the view that we were dealing in the case of the carcinoma cell with one that is the offspring of the body tissues and is in no way a stranger to them. Were this not so, we ought to

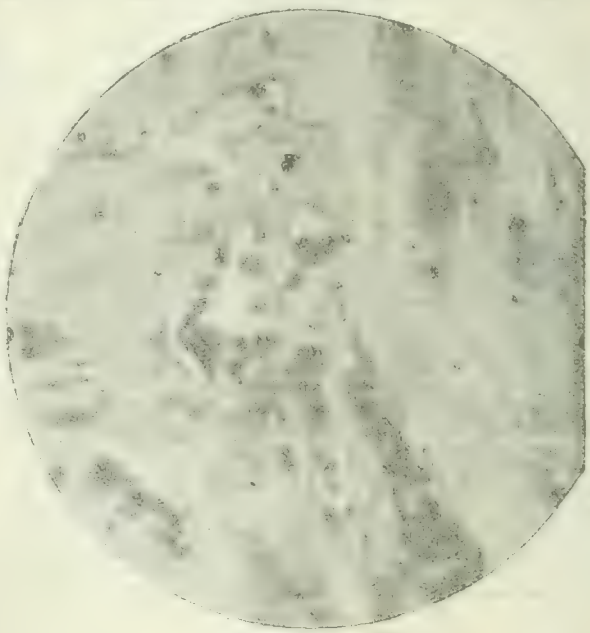


Fig. 2.

have present in the primary tumour as well as in all secondary deposits that disturbance of nutrition known as inflammation, such as is generally observed in the case of microbic or protozoal infection. As a general rule, all such signs of irritation are absent in the early stage of carcinomatous growths.

This fact has a bearing on another matter on which stress is often laid, and that is the importance of the medical man seeing cases of carcinoma early, and patients are sometimes blamed for not having sought advice sooner. The truth is it is not always their fault. It is not uncommon for cases to come under our notice where carcinoma has made extensive progress in both the mamma and the uterus without giving rise to any symptoms of sufficient importance to attract the attention of the patients. It is only when the cancer cells have begun to act by their bulk like a foreign body that they set up irritation locally. Constitutionally they give no sign; many of those who are the subjects of this serious and fatal disease showing outwardly all the appearance of perfect health. Delay in seeking medical advice is consequently often unavoidable, and I am not in favour of the view that is being put forward of late by some of our profession that with the object of getting hold of cases in an early stage the general public should be instructed in the early manifestations and symptoms of carcinoma. Against this I would most emphatically protest. To begin with, there is very little to teach them, and if people are to be on the watch every day of their lives for the possible occurrence of this

disease, there will be induced that unhappy and apprehensive frame of mind that I regard as a powerful predisposing cause of the very condition we want to avoid. The greatest blessing we have is that we do not know what lies before us, and to be constantly on the look-out for the occurrence of cancer would make life unbearable. By all means let it be generally known by the public that the moment a swelling or lump is detected medical advice should be taken about it, just as should be done, too, when any symptoms of illness show any persistency or are of an unusual character. In the same way it cannot be too strongly impressed on the profession that the possibility of carcinoma being the exciting element in troublesome cases of indigestion must never be overlooked, and that swellings of every kind should be thoroughly investigated on their detection and carefully watched.

The general good health that is often present in those who are the subject of carcinomatous disease has its analogy in the *post-mortem* room, for I have often been struck in our examination of the bodies of those who have died at the Glasgow Cancer Hospital with their well-nourished condition, even when they have suffered from the disease for a lengthy time.

Another point, too, that has attracted my attention has been the very pigmented condition of the fat in some of these cases. It presents a reddish-yellow, yolk-of-egg appearance, and has a colouring matter present that is not seen in ordinary fat. I was especially struck with this in a case last year, and tried to get a chemical analysis of the fat, but it seems that the chemistry of human fat is not very well known, and has not been very extensively studied. It is possible that the appearance to which I refer may be entirely a *post-mortem* one, or be present in other chronic diseases, and thus have no particular association with carcinoma, but it may have, and it may also be associated with the so-called lemon-tinged cachexia that is often remarked in cancerous patients. As bearing on this point, I have sometimes noticed when operating on cancer cases, especially in mammary ones, an oily and fluid state of the fat. And it is, I think, a very general experience that in these cases carcinoma disseminates itself more rapidly than in patients of spare build.

I come now to the last point I wish to draw attention to, and that is, the source of the procreative fluid of the human body. In view of the germinal theory of carcinoma that I am putting forward, some reference must be made to this subject, for I consider that it has a close relationship with it. As is well known, the ovaries and testes prepare certain modified epithelial cells, termed respectively ova and spermatozoa, by the union of which the human embryo is produced. Before, however, this can be accomplished the ova have to undergo a maturation process and the spermatozoa a series of cell divisions, by which in each case there is a reduction of half the number of their chromosomes. In both these organs this process is accompanied by great cellular activity; and the question may very fairly be asked, what is the stimulus that sets it in motion so that we have the extrusion of the polar bodies in ova and the reducing division that leads to the formation of spermatozoa? It must be a secretion of some kind, and it may be elaborated by the testes and ovaries themselves, or by all the tissues of the body, in accordance with the old Hippocratic idea. In the latter case the testes and ovaries are merely instruments for elaborating the work done by the rest of the body, which is in reality the source of the fructifying fluid which confers on the ova and spermatozoa their procreative power. I confess that this latter view commends itself more to my mind, and it is, I consider, not altogether unsupported by facts. Thus, experiments show that the fluid portion of the semen largely furnished by the accessory sexual glands, such as the seminal vesicles, the prostate gland, and Cowper's glands, is not only essential to the motility of the spermatozoa, but also to their fertilizing power. Again, the removal of the tubes and ovaries leads to the deposit of an increased amount of fat in the body, as if some secretion of the tissues was being stored up and was no longer being removed from the tissues, in the same way as mucin accumulates in the body in myxoedema, when the thyroid gland is excised. If this be as I suggest, we have in the body tissues a secretion which has to be reckoned with, a secretion that not only probably bestows vigour on the tissues themselves and might even under certain circumstances confer on them a proliferating power, but seems to have a special affinity for one particular tissue, namely, the fat of the body. In this latter it may be retained and kept as it were in reserve, as, for instance, when failing functional activity on the part of the testes and ovaries does not utilize it to the extent that it is created or does so slowly and intermittently. Further on I shall refer again to this matter, so will say nothing more upon it now, but I regard it as having an important bearing on the etiology of carcinoma.

Various as have been the theories put forward to explain the formation of tumours, in all the definitions of them there has generally been evident an undercurrent of feeling that they perform no physiological function in the human body. Some have even openly expressed this view. Thus, Lücke describes a neoplasm as "an increase of volume by the production of a new tissue without a corresponding physiological function," and Coats, too, takes up the same position, stating that tumours are "pieces of tissue which have a life and growth of their own irrespective of the needs of the organism and that without any apparent object." Of none of the tumours has this view been more strongly held than of the carcinomata, the cells of which are regarded as inimical and hostile to the rest of the body cells and have been likened to an invading host advancing to the conquest and eventual destruction of every tissue in the body. Like others I have shared this view, but the more I have thought over the subject the more have I felt that the so-called autonomous proliferation of cells was a mere assumption, and that possibly the carcinomata were doing work for the organism by eliminating or dealing with some body product. If so, this would bring them into line with the action of the other body cells, and present them not as rebels running amuck in the body commonwealth of cells, but as taking up some new work, or as performing the duties of other cells no longer functionally active. Could any ground for such a view be shown to exist, it seemed to me to put the whole question on a more scientific basis, and carried with it some ray of hope in the direction of therapeutic measures.

As bearing on such an aspect of the matter, I could not but be interested in some recent investigations on the tumour formation that occurs in the form of rounded bulbs or nodules on the roots of healthy bean or clover plants. To them I should like to refer, as they bear indirectly, I think, on the work recently published by Drs. Ford Robertson and Wade, and my remarks will be a summary of an article that appeared in the last October number of the *Century Magazine*.

It had often been observed that the roots of bean or clover plants have on them tumours or swellings varying in size from small pinhead nodules up to good-sized potatoes; and it was further noted that though such plants appeared diseased, they were in reality the most healthy. This seemed even more remarkable when examination of the tumours showed that they were packed with bacteria. Matters were, however, presented in a different aspect when investigation of these bacteria revealed the fact that they were constantly absorbing free nitrogen from the air, and were supplying the plants affected with the very food they needed. In other words, every nodule or tumour was acting as a feeder to the plant, whose vigour might be measured by the number of growths upon its roots, for in every one of these tumours the never-tiring bacteria were separating the nitrogen from the air and changing it into plant food. This furnished an explanation of a fact that had previously been noted—namely, that after a crop of beans or any leguminous plant, the soil gave a much better crop of wheat, this being due to these leguminous plants not only obtaining their necessary nitrogen from the air instead of the soil, but actually putting nitrogen back into the latter. I need hardly say that botanists and agriculturists were not slow to grasp the practical aspect of this matter, and by breeding and colonizing the bacteria they tried to inoculate the soil, and thus make it favourable not only for the growth of leguminous plants, but subsequently for wheat. The first attempts in this direction by Professor Nobbe of Tharandt with his so-called "nitrogen" failed, but Dr. George Moore of Washington showed that the failure was due to a wrong cultivation of the bacteria. They had been fed with too much nitrogenous food, and this dulled their appetite for nitrogen. They were surfeited with it and would not work, any more than will the son whose rich father has given him everything he asks for without making the boy do anything for himself.

Dr. Moore reared his bacteria on such food that they still retained a desire for nitrogen, and worked vigorously to obtain it, and they have now become invaluable. They are sent about in packets to vaccinate or inoculate the ground, with the result that crops on soil so treated have increased a hundredfold, and tumours that gave plants the appearance of being diseased have proved to be powerful workers in the economies of plant life, furnishing man with the means of

tapping the sea of nitrogen around us in the atmosphere and conveying it to the impoverished soil, thus making the barren places to rejoice and the desert to blossom like the rose. Paget long since drew attention to the nodosities and nest-like growths seen on trees, and they have always been of interest in connexion with the subject of tumour growth, but they become doubly so if increasing knowledge reveals that possibly they are doing work, and that of a beneficent kind, in the world of Nature.

To assume that some kind of physiological work may underlie tumour growth in man is not, I consider, unreasonable, and the possibility of this should not be overlooked. Harm may be done by taking for granted that, because a process is inexplicable and apparently detrimental, it is therefore aimless and meaningless. A more sensible and more encouraging attitude to take up is that it may be a modification of some one of the many activities of the body functions. In the case of the carcinomata, I believe that there are indications that this is so; and the most confirmatory fact bearing on it is that established by Farmer, Moore, and Walker—namely, that there exist in malignant growths special cells characterized by a reduced number of chromosomes, and that have their prototype in the reproductive

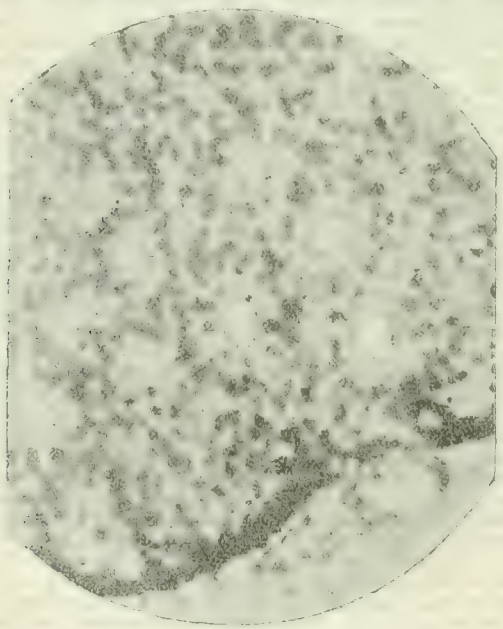


Fig. 3.

cells of the body. From this it would almost seem as if, through some functional inactivity or disease in the testes or ovaries, the part affected by the carcinoma was doing vicariously their work or helping them in an excess of work thrown upon them. If, as I suggest, the body tissues elaborate the procreative fluid, the possibility of this interchange, and the necessity for assistance in their work, is not an unlikely or an unreasonable suggestion. Not only is there nothing in the carcinomata structurally irreconcilable with such a view, but there are rather some points that tell in favour of it. The absence of all organization in the crowds of cancer cells that fill the tissues and form the tumour would suggest that they are cast-off cells, which, were they not shut in by the tissues, would escape in the same way as do the cells thrown off in the tubuli seminiferi, and which find an outlet by the vasa deferentia. A disintegration and degeneration takes place in many of these latter, just as occurs in the cancer cells that fill the alveoli of a breast tumour. I am inclined to regard a carcinoma as made up of two separate portions, as it were, one part being composed of cells that have been thrown off as a secretion, and another part that is glandular in the sense that it is doing work as a secreting tissue. Some of the secreted cells will divide and subdivide, and will reach the stage of what may be termed germinal cells, but many of them will degenerate and perish. In short, there is being enacted in the tissues the same cell activity and proliferation that goes on daily in the ovaries and testes, where alone can be found a parallel to the profusion of cell life that marks the carcinomata. Others have noted the glandular character of these neoplasms. Bland-Sutton speaks of them as "aborted and aberrant glandular tissues." No doubt they are imperfectly glandular, though they assume an acinous type, but the relation of their cells to the interstitial connective tissue with its blood vessels and lymphatics quite allows of any secreting action being carried on. Sometimes the arrangement of the cancer cells seen in sections is suggestive of gland formation (Fig. 3), and this is very well shown in one that I will put on the screen. At least it is a possible explanation of what is an unusual and rather striking appearance.

Another interesting point that I think has some bearing on this question of cancer as a secreting organ is the effects of operations for carcinoma. Of course, I leave out those cases where operation has removed ulcerated growths or some constriction in the digestive canal that has mechanically interfered with nutrition. Apart from such cases, it is a very general experience that in successful operations patients put on flesh and get stouter. Even those suffering from the so-called cachetic symptoms often lose them and regain a healthy appearance. It is not easy to explain this, unless the removal of the carcinoma has put a stop to something that was draining the tissues and markedly modifying them.

I have said that such patients get stouter. Does this in any way explain matters? Does it point to the fatty tissue of the body again taking on its storage property to deal with a secretion that was no longer being used up by the carcinoma—a secretion that, as I have already said, is probably manufactured by the tissues themselves, and in which they are bathed, deriving from it strength and vigour, and even in some cases, should they be degenerate, a fertilizing power? If this be so—and I incline to the view—then we have the fat of the body bearing some relation to carcinoma both before the occurrence of that disease and after its successful removal by operation. Under both conditions it has a salutary influence, and it may be that it is only when its storage power is weak, or has been strained to the utmost, that the more specially developed though degenerate cells of any body organ or tissue may draw upon the body secretion that the fat contains, and by dealing with it in a different way manufacture it into an epithelial secretion on the lines of the normal reproductive tissue of the body.

Apart from any influence that oöphorectomy in inoperable breast cancer may have on the blood supply of the mammary region it may exercise its beneficial effects by not only lessening the amount of my suggested body secretion but also by adding to the capacity for development of the fatty tissue and thus increase its storage power.

It is an interesting fact that lutein occurs in all fatty tissues as well as in blood serum, egg yolk, and milk. I am indebted for this information to Dr. Malcolm, of the University of Edinburgh Physiological Laboratory, to whom I had written on the subject of lutein in fat and the possibility of estimating the amount present in it, as I was anxious to know if an excess of it was the cause of the rich colour observed in the fat of cancer patients. As to the significance of lutein in fat everything is at present problematical, for it has not yet been isolated in the pure state and several varieties are supposed to exist. Staedeler and Holm have published a paper describing a crystallizable lutein found in the corpus luteum of the cow, and recently, in the December number of the *Practitioner*, Mr. Cuthbert Lockyer has drawn attention to the occurrence of lutein cysts in the ovary in cases of deciduoma malignum. In the last edition of Schäfer's *Histology* the opinion is expressed, on the authority of Fraenkel and Cohn, that the corpus luteum produces an internal secretion which causes the fixation of the embryo to the uterine wall and thus controls cell proliferation. In view of this latter property I have made trial of the extract of corpus luteum in mammary cancer, but with no appreciable effect on the growth.

Gentlemen, from what has fallen from me to-night you will gather that I put forward as the most likely explanation of carcinoma what I may term the "germinal theory." In my humble opinion it harmonizes most with the facts and course of the disease as observed clinically, and it furnishes an explanation of many interesting points about it that are otherwise mysterious and obscure. It assumes, I admit, the existence of a general tissue secretion that cannot be absolutely proved, but in favour of which there is, I consider, a fair amount of reasonable and confirmatory evidence. With such a procreative fluid in the body, in the event of the testes or ovaries through functional decay or disease being unable to deal with it, and the fat of the body having no special

capacity for storing it, it is within the bounds of possibility that tissues or organs that have retrograded physiologically, and, by losing their differentiation, have reverted to a more primitive type, should under these conditions take upon themselves the function of secreting it when they would, of course, do so in the cellular form followed by the normal reproductive tissue. This, it may be said, is a return to the old "spermatic theory" of carcinoma, and it is so to some extent, but yet with an important difference, in that the older writers assumed a conversion of the normal tissue of the part into tumour tissue, whereas, in the view I put forward the masses of the tumour cells are not a tissue at all, but are cells thrown off by altered somatic cells in the elaboration of a special secretion. And, if I am correct in this conclusion, then in carcinoma we have a tissue secretion to deal with, in relation to which the fat of the body probably acts as a middleman just as lymph does in ordinary nutrition. This being so, I do not see that we should take too pessimistic a view of the therapeutic position in connexion with the disease or despair altogether of its successful treatment.

Gentlemen, nine years have elapsed since I last addressed this Society on the subject of carcinoma, and during that period it has occupied much of my thoughts. To-night I have again ventured to lay before you the trend of that thought and how the problem of this disease is presenting itself to me at present. As on the previous occasion I had to ask your indulgence for stating much that was theoretical and problematical, so again I feel I must do the same. I can only plead in excuse the conditions under which in this matter we have all to work. Carcinoma is a great mystery, and in its elucidation progress can only be made by observation and by forming a good working hypothesis. If facts in sufficient number and importance tally with that hypothesis, then one is justified in raising it to the dignity of a theory. I dare say I am premature in taking that step at present, but I conscientiously believe that all the indications point to a germinal (reproductive tissue) theory of cancer.

MALIGNANT DISEASE OF THE FUNDUS UTERI

TREATED BY X RAYS THROUGH THE ABDOMINAL WALL: RECOVERY.

By ARTHUR J. CLEVELAND, M.D., M.R.C.P.,

Honorary Electrotherapeutist, Norfolk and Norwich Hospital.

WITH A NOTE ON THE CASE

By Donald D. Day, M.B., F.R.C.S.,

Honorary Surgeon, Norfolk and Norwich Hospital.

It has been stated dogmatically, and the opinion is generally held, that the treatment of all but quite superficial malignant growths by *x* rays is useless; and without affirming that this view is disproved by the case I now record, or that the case is undoubtedly one of a deep-seated cancer cured by *x* rays, I think it is worthy of attention even if it should only have been a coincidence that recovery followed the treatment.

History.

The patient, a married woman of 40, who had always enjoyed good health, and had been born and had spent her youth in India, was seized with pain in the lower part of the abdomen and sickness in September, 1903. This attack was immediately preceded by a menstrual period accompanied by an excessive loss. Prior to this the menstrual functions had been normal. During the next few days she had a temperature of 99° to 101°, was very constipated, and had much pelvic pain and tenderness.

On October 6th, 1903, she was seen by Mr. Donald Day, who has very kindly written some notes for me on the case. He thus describes the condition of the patient and the operation performed:

"She was in a state of great debility and anaemia induced by frequent uterine haemorrhages. The uterus was somewhat enlarged, and the fundus could easily be felt bulging to the left and tender to pressure. Per vaginam the uterus felt fixed, especially on the left side; the cervix was patulous, and a probe passed 4 in. A diagnosis of carcinoma of the body of the uterus was made.

On November 9th laparotomy was performed in the Norfolk and Norwich Hospital, but, as was feared, it was found that removal was out of the question. The fundus was occupied by an irregular mass like a small orange, which grew into the left broad ligament, was adherent to the pelvic wall, and implicated the sigmoid flexure, where it crossed the broad ligament.

Removal of the growth would have necessitated resection of some inches of the sigmoid, and considering the fixity of the mass and the impossibility of removing the entire disease, this was considered inadvisable. No doubt existed in the minds of those present that it was a malignant growth. Recovery from the operation was uneventful, but no improvement occurred in her symptoms until she came under Dr. Cleveland's treatment. I examined her again last summer (1904) and found the uterus of normal size and freely movable. No sign of disease existing in it or the broad ligament could be detected and she was apparently completely recovered. I consider that the entire credit for this must be ascribed to the *x*-ray treatment."

Treatment.

On December 12th, 1903, the patient came to me, and as a "forlorn hope" she agreed to try *x*-ray treatment. She had recovered well from the operation but was suffering considerable pain, had a bloody vaginal discharge, which had been foul, was constipated, and occasionally passed blood per rectum. The pain caused insomnia and necessitated opium both by mouth and rectum. She was occasionally sick and ate badly. Her weight was 8 st. 8 lb., about a stone below the normal. A hard mass could be felt in the left iliac fossa extending to the middle line and downwards into the pelvis. This was tender, and walking a short distance caused pain in it.

I treated her with a moderately high tube excited by a mica-plate static machine, applying the rays directly over the pelvis for fifteen minutes at a time, three times a week, the tube being about 6 in. distant from the skin of the abdominal wall. After thirteen exposures she developed some dermatitis and I discontinued treatment.

On January 9th her weight was the same, and her general condition unaltered. She had some haemorrhage and pain when the bowels were opened, often wanted opium at night, and used to have attacks of constipation with abdominal distension.

Towards the end of January she began to improve, and the pain and discharge became less. As she had had a fairly sharp reaction to the rays I did not recommence treatment till February 5th, and then gave her another twelve exposures, causing some more dermatitis. She was by this time getting much better, sleeping well, and could walk two or three miles without pain. Her weight on March 16th was 9 st. 7 lb., a gain of 13 lb.

From March 9th till April 9th she had no treatment, and during the latter part of this time the pain and haemorrhage returned. She got depressed and ate badly, but her weight was maintained. Under further treatment all these symptoms quickly disappeared, and in June she weighed 9 st. 8 lb., could walk four or five miles, and one day played two setts of tennis. Mr. Day examined her on June 4th, and said that he could find no tumour, and the uterus was freely movable.

Since June she has had treatment from time to time, and has been as well as ever she was in her life. Menstruation is quite normal, and there is no discharge from either rectum or vagina. She has maintained the gain of 1 st. in weight, and has just started for India. Beyond a little opium when necessary and an occasional purge she had no other treatment than that described.

Remarks.

There is no strict scientific proof that the very happy result which followed the application of *x* rays was entirely due to it, for it has often happened that tumours diagnosed as malignant at an operation and left as irremovable have remained quiescent for a long time, and the accuracy of the diagnosis consequently called into question. Whether in certain rare instances an exploratory operation can have the same effect on a cancer as it can on a tuberculous affection of the peritoneum need, I think, hardly be considered in this case, for it was not until ten weeks after the operation that any sign of improvement was manifest—and, indeed, during this time the disease was apparently progressing. Again, in March the cessation of treatment was accompanied by a return of the symptoms, and a resumption of it followed by a rapid amelioration. It is difficult to explain these results on the hypothesis that the operation was the beneficial factor in the case.

The other point for discussion is, Was the disease really of

a malignant nature? I was not present at the operation, and as *x*-ray treatment was not thought of at the time no portion of the growth was removed for examination.

As Mr. Day says in his notes, which I have already quoted, there was no doubt in his mind or in the minds of those assisting him at the operation that the disease was of a malignant nature, and the clinical history of the case during the eight or ten weeks immediately following the laparotomy seems to justify that conclusion.

THE POINTS OF INCIDENCE COMPARED IN CANCER, LEUCODERMA, AND SCLERODERMA.

[WITH SPECIAL PLATE.]

BY G. LENTHAL CHEATLE, C.B., F.R.C.S.,
Surgeon, King's College Hospital and Italian Hospital.

IN my two previous communications[1] upon this subject I have referred to three points: the genesis, the incidence, and the spread of cancer when considered apart from the secondary deposits.

In my last paper I pointed out that on the trunk rodent ulcers appeared on points at which nerves became cutaneous; which points also correspond to the maximum points described by Dr. Henry Head. I said I had not sufficient cases to enable me to determine whether the same thing was occurring in the face. Dr. Sequeira has kindly supplied me with the points of incidence in 138 cases of rodent ulcer on the face; the two do not coincide, but it will be seen later that rodent ulcers in the face appear most commonly on points at which nerves become cutaneous, notably the infraorbital, infratrochlear, temporo-malar, and lachrymal. Further, it will be seen that it is on the points at which the smaller branches become cutaneous that rodent ulcer appears commonly on the face and body.

Since writing my last paper I have had the advantage of more than one conversation with Dr. Head, and I learnt from him that maximum points are chiefly of importance when two or more are affected with disease—say herpes zoster—on the same nerve area, hence demonstrating a central cause; but should only one maximum point be affected, then the disease is due to a probable peripheral cause. Now, I can only show cases on the trunk where one maximum point on the same nerve area is the seat of a rodent ulcer; hence, according to Dr. Head, the change ought to be peripheral rather than central—that is to say, if I am right in suggesting a relationship between the two facts. In future I shall not use the term maximum point, but only refer to it as a point on which the nerve becomes cutaneous.

I propose in the present article to consider only the points of incidence in which the cancer process begins on the skin. And I wish to draw attention to the fact that the point of incidence must have an important etiological bearing on the actual genesis of cancer.

I shall confine my example of cancer to rodent ulcer, partly because squamous epithelioma is even more rare on the trunk and because there are no complicating factors connected with secondary deposits, which do not, as a rule, occur in rodent ulcer. I publish all the reproductions of rodent ulcers on the trunk which so far I have been able to collect. As I have already said, points of incidence of primary cancer occur at points on which the nerves become cutaneous, and in this article I wish to strengthen that statement by pointing out that the points of incidence in rodent ulcer on the face and trunk are common to the points of incidence of the so-called neurotrophic diseases—leucoderma and scleroderma; and hence I wish further to indicate that the points of incidence in the latter diseases correspond also to those points at which nerves become cutaneous. In the simple and more localized forms of leucoderma and scleroderma there is, as a rule, only one maximum point of a nerve area affected, and therefore, according to Dr. Head, the neurotrophic factor is probably peripheral.

HEAD AND FACE.

Fig. 1 represents a diagram of the points of incidence in 138 consecutive cases of rodent ulcer of the face collected with most careful investigation by Dr. Sequeira * from his large clinic at the London Hospital, and I must thank him for allowing me to publish this work in my paper. Dr. Sequeira's own observations I have placed away from my paper not because they are unimportant, but because I do not wish to complicate the sequence of my observations.

Now, it will be seen that the points of incidence on which rodent ulcers are most common in Dr. Sequeira's cases are identical with points of incidence in cases of leucoderma seen in Figs. 2, 3, and 4, and with the nasal point of incidence in scleroderma in Fig. 5, all of which points are seen to be skin areas at which small branches of the fifth nerve become cutaneous—namely, the infraorbital, infratrochlear, temporo-malar and lachrymal nerves (see Fig. 6).

Perhaps the most striking thing in comparing them is to note the relation of the diseases to the ala of the nose and eyelid, where the incidence of rodent ulcer is also most frequent (Fig. 1).

Before leaving the cases represented by Figs. 3 and 4 I would like to remind the reader that I have previously pointed out that the primary growth of cancer in lip and eyelid occupies the same oral and palpebral regions respectively as does leucoderma and scleroderma in these regions.

TRUNK.

Figs. 7 to 15 inclusive represent different cases of scleroderma; Figs. 16, 17, and 18, 2 cases of leucoderma; Figs. 19 and 20 are anatomical figures showing the distribution of cutaneous nerves in the trunk reproduced from Professor Cunningham's *Textbook of Anatomy*, with the kind permission of the publisher, Mr. Young J. Pentland, Edinburgh.

With these figures I am now going to compare all those rodent ulcers of the trunk the reproductions of which, so far, I have been able to collect.

Compare the rodent ulcer scar in 21 with the case of scleroderma in Fig. 11 and the anatomical diagram, Fig. 20.

Before leaving Fig. 11 I would like to remind the reader that the lesions shown in the drawings of the ears represent also points of incidence in rodent ulcer, and their spread in front of the ear corresponds to the spread of rodent ulcer when it occurs in front of the ear. The position of the rodent ulcer in Fig. 22 compares with the point of scleroderma in the lower photograph in Fig. 7 and the anatomical Fig. 20.

Fig. 23 represents a rodent ulcer the site of which compares with the same picture as the rodent ulcer represented in Fig. 22.

Fig. 24 is a rodent ulcer which arose in the internal division of the posterior branch of the third dorsal nerve. Compare Fig. 20.

Of the extensive rodent ulcer seen in Fig. 25 I have no history, but its area of occupation corresponds to the posterior branches of the first to the seventh dorsal nerves. See Fig. 20 and compare with Fig. 9.

The rodent ulcer in Fig. 26 compares in position with the top patch of scleroderma on the right side of Fig. 9, also compare Fig. 20. The position of the rodent ulcer in Fig. 27 compares with that of the upper patch of scleroderma in Fig. 8. See also Fig. 20.

The rodent ulcer in Fig. 28 began on the spot where the first sacral nerve becomes cutaneous. See Fig. 20.

Dr. Pusey, U.S.A., who kindly sent me the photograph reproduced in Fig. 29, did not state the exact point of its incidence, but the distribution occupies the areas supplied by the internal divisions of the posterior branches of the dorsal nerves of both sides from about the third to the twelfth. Compare with similar distribution of leucoderma in Fig. 16.

Fig. 30 is a rodent ulcer which started on the right side on the coccygeal nerve area.

The rodent ulcer of Fig. 31 began at the point of the arrow seen in the figure; compare the point of incidence of scleroderma in Figs. 12 and 15, and compare it also with an anatomical diagram (Fig. 19).

Fig. 32 represents a rodent ulcer in the axilla—compare with scleroderma in Figs. 12 and 14, and leucoderma in Fig. 18, and the nerve supply in Fig. 19.

Fig. 33. A rodent ulcer on the point at which the second dorsal nerve becomes cutaneous in Fig. 19.

Fig. 34 shows a rodent ulcer and its point of incidence in the figure below it. Compare with scleroderma in Figs. 10 and 14 and with Fig. 19.

Fig. 35. Rodent ulcer; although I cannot find a case in which to compare the point of incidence with leucoderma and scleroderma the ulcer evidently began in the same line (longitudinal with the body) as the scleroderma in the upper

* Dr. Sequeira says: Fig. 1 is reduced from a large diagram on which the point of origin of 138 rodent ulcers of the face has been marked. It shows (1) a greater tendency for the right side of the face to be affected; (2) that the common sites are the alae nasi, the inner and outer canthus of the eye; (3) that nearly all arise in the middle of the face; (4) that there is no special predilection for Head's "maximum points."

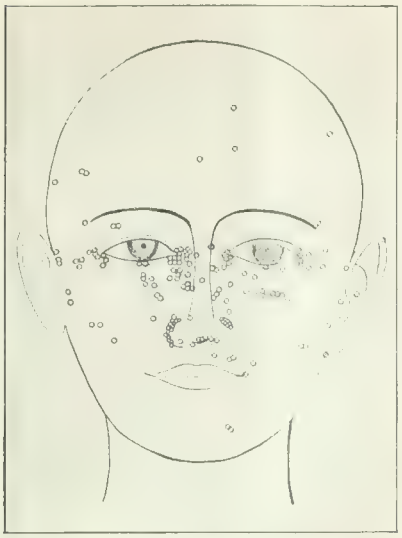


Fig. 1.—Dr. Sequeira's diagrammatic representation of the points of incidence in 138 cases of rodent ulcer.



Fig. 2.—Leucoderma. Royal College of Surgeons Museum.



Fig. 3.—Leucoderma. Royal College of Surgeons Museum.

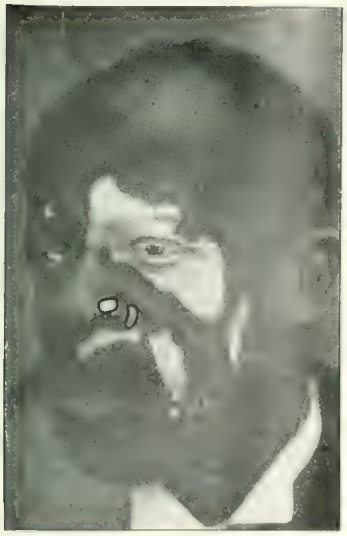


Fig. 4.—Leucoderma. Royal College of Surgeons Museum.

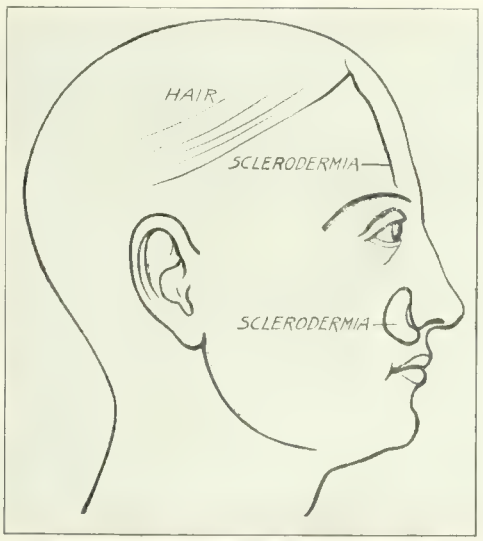


Fig. 5.—Scleroderma. Dr. Whitfield's case.

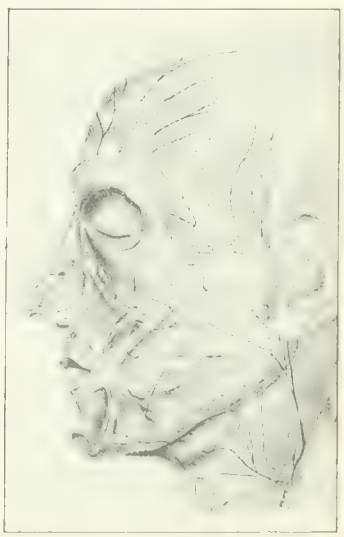


Fig. 6.—The 1st and 2nd division of the 5th nerve. The auriculo-temporal nerve is abnormal. Fritz Frohse.



Fig. 7.—Scleroderma. Dr. Whitfield's case.



Fig. 8.—Scleroderma. Royal College of Surgeons Museum.



Fig. 9.—Scleroderma. Royal College of Surgeons Museum.



Fig. 10.—Scleroderma. From Mr. Hutchinson's collection at the Polyclinic.

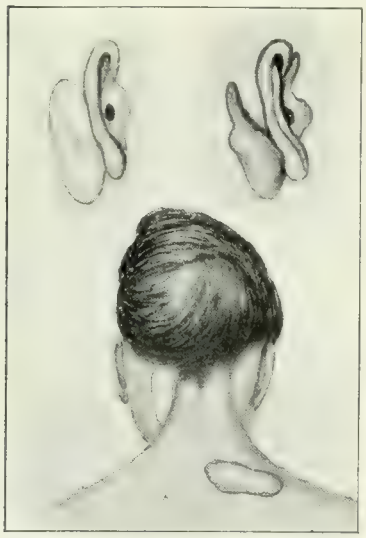


Fig. 11. — Scleroderma. From Mr. Hutchinson's collection at Polyclinic.



Fig. 12.—Scleroderma. Kaposi, *Handatlas der Hautkrankheiten.*



Fig. 13.—Scleroderma. Royal College of Surgeons Museum.

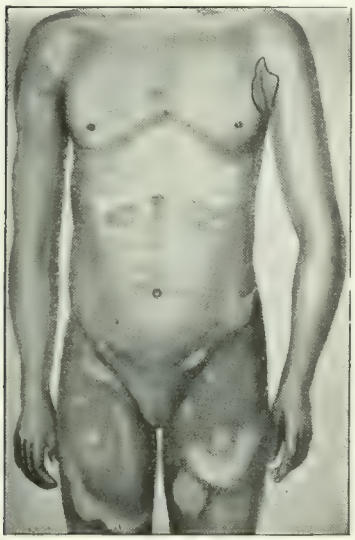


Fig. 14.—Scleroderma. Royal College of Surgeons Museum.



Fig. 15.—Scleroderma. From Mr. Hutchinson's collection at the Polyclinic.



Fig. 16.—Leucoderma. From Mr Hutchinson's collection at the Polyclinic.



Fig. 17.—Leucoderma. From Mr. Hutchinson's collection at the Polyclinic.



Fig. 18.—Leucoderma. Dr. Montgomery's case, from the *Journal of Cutaneous Diseases*, January, 1904.

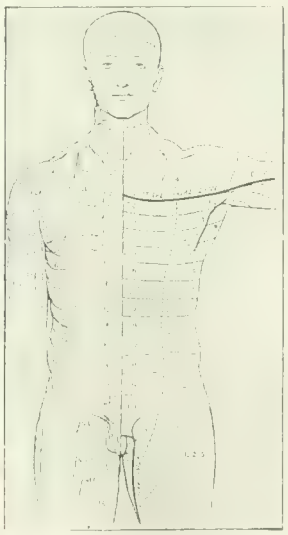


Fig. 19.—Cutaneous nerves of trunk. From Prof. D. J. Cunningham's *Textbook of Anatomy.*

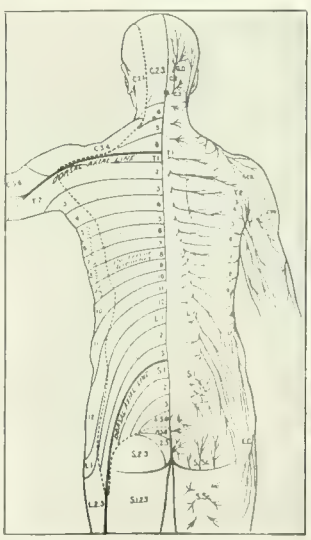


Fig. 20.—Cutaneous nerves of the trunk. From Prof. D. J. Cunningham's *Textbook of Anatomy.*



Fig. 21.—Scar of rodent ulcer cured by *x* rays. Dr. Jacob's case.

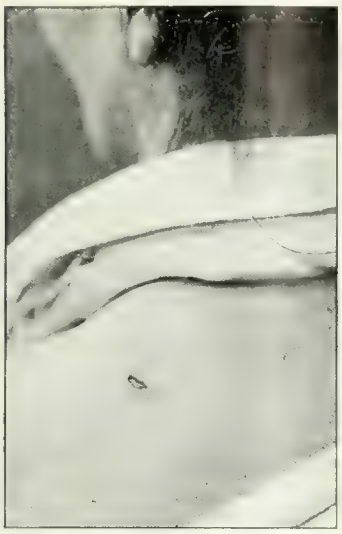


Fig. 22.—Rodent ulcer. Dr. Sequeira's case.

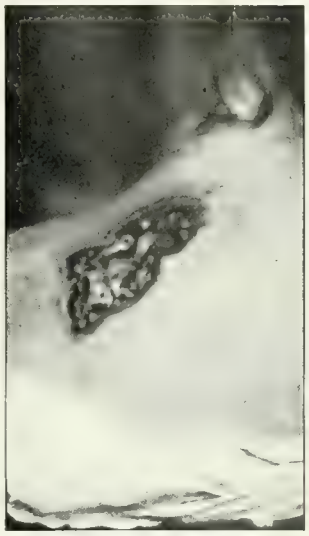


Fig. 23.—Rodent ulcer. From Mr. Hutchinson's collection.



Fig. 24.—Rodent ulcer on left of middle line. Mr. A. Reid's case.



Fig. 25.—Rodent ulcer. From Mr. Hutchinson's collection at the Polyclinic.

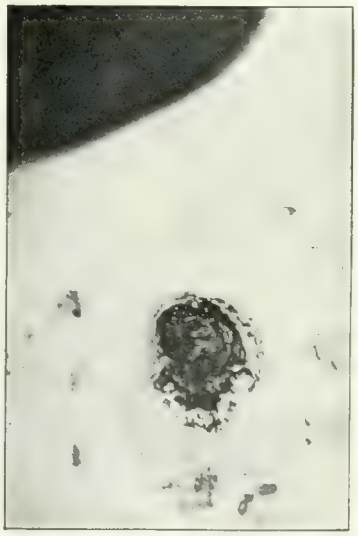


Fig. 26.—Rodent ulcer on upper and inner extremity of scapula. Mr. A. Reid's case.



Fig. 27.—Rodent ulcer. Dr. Etienne Henrard's case. From the *Archives d'Electricité Médicale*.



Fig. 28.—Rodent ulcer. Sir Victor Horsley's case.



Fig. 29.—Rodent ulcer. From the collection of Dr. W. A. Pusey (U.S.A.).



Fig. 30.—Rodent ulcer. From the collection of Dr. Norman Walker (Edinburgh).



Fig. 31.—Rodent ulcer. Dr. Mill's case.



Fig. 32.—Rodent ulcer. Mr. McAdam Eccles's case.



Fig. 33.—Rodent ulcer. From Mr. Hutchinson's collection at the Polyclinic.



Fig. 34.—Rodent ulcer. Upper photograph shows the distribution on the side of the chest. The figure below shows its point of incidence. Dr. Jacob's case

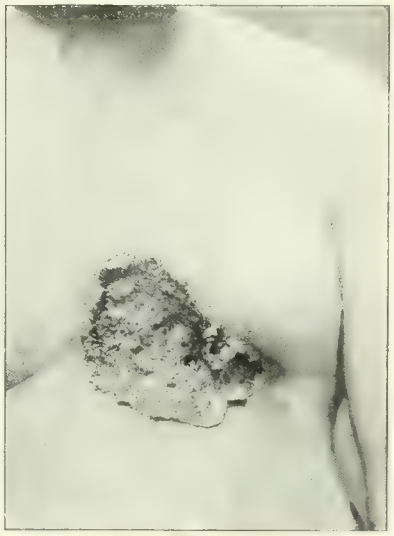


Fig. 35.—Rodent ulcer. Dr. Sequeira's case.

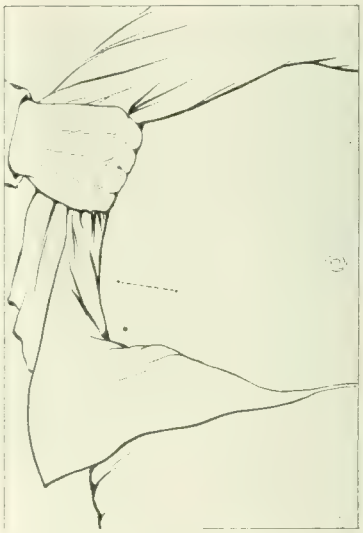


Fig. 36.—Linear scar marking the site of removal of a rodent ulcer. The dot marks the position of the anterior superior iliac spine. Sir Victor Horsley's case.

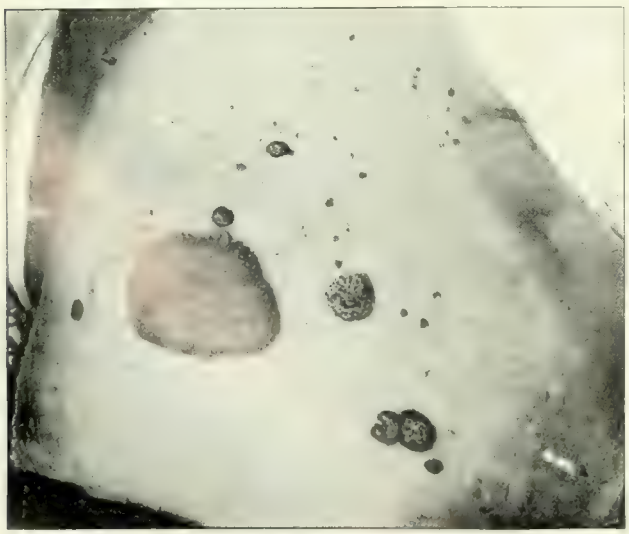


Fig. 37.—Rodent ulcer on right side of abdomen. From Mr. Hutchinson's collection at the Polyclinic.



Fig. 38.—Rodent ulcer (groin). Royal College of Surgeons Museum.

photograph in Fig. 7 and in Figs. 10 and 14. Compare the fourth dorsal nerve distribution in Fig. 19.

Figs. 36 and 37 are rodent ulcers on points comparable to scleroderma in Fig. 14, leucoderma in Fig. 17. See also Fig. 19.

In Fig. 38 the rodent ulcer occupies the region of the ilio-inguinal nerve's distribution on the skin. See Fig. 19 and compare with the indistinct distribution of scleroderma on the right side in Fig. 13.

The observations contained in this paper strengthen the opinion which I have already expressed, namely, that the incidence of cancer may be due to the direct or indirect nervous influence of the area in which it occurs: as we now believe is the case in leucoderma and scleroderma.

Further, if I am right in believing that the rodent ulcers on the face and body coincide in incidence with scleroderma and leucoderma, and that these points of incidence are due to direct or indirect nervous influences, then I am right in saying that the tenability of part or all of the cleft-inclusion theory is threatened. In support of this I point out that the points of incidence of rodent ulcer on the trunk are not usually on the position of clefts as we know them.

As I have already said, I have never seen a rodent ulcer appearing on two or more points at which the same nerve root becomes cutaneous on the trunk, but only a rodent ulcer on one of the points. Hence the nervous influence, if present, which affects its incidence is probably either peripheral or a peripheral modification of central influence and not only segmental. The spread of rodent ulcer on the trunk, as it does on the head and face, appears on the whole to resemble the spread of scleroderma and leucoderma, and hence the spread as well as the incidence of rodent ulcer on the body is under a nervous influence which, if present, is peripheral.

Can this investigation throw any light upon the vexed question of the germ theory of cancer?

I have already pointed out that there are areas, around the mouth for instance, which are common to the spread of disease in processes known to be infective and of scleroderma, leucoderma and rodent ulcer. But there are others which are not common to them all, but only to leucoderma, scleroderma, and rodent ulcer.

Moreover, I have shown previously cases in which the spread of rodent ulcers have ceased in areas which had become denervated. And, finally, I cannot obtain sufficient evidence to support the idea that processes known to be purely infective are more liable to select those points of the skin at which nerves become cutaneous. However, on the whole time is not ripe for a definite statement on this point, although the little evidence I have just given appears to me to oppose rather than support the theory that cancer may be entirely due to the effects of a micro-organism.

Finally, I have to thank Sir Victor Horsley, Dr. Sequeira, Captain Pinch of the London Polyclinic, Dr. Pusey of Chicago, Dr. Norman Walker, and Mr. Hall-Edwards for many pictures of rodent ulcers.

Reference.

1 British Medical Journal, April 18th, 1903, and December 12th, 1903.

CINNAMIC SALTS IN THE TREATMENT OF CANCER.

An Address Delivered before the Beckenham and Penge Medical Society.

By LOVELL DRAGE, M.D.Oxon.,
Hatfield.

At the outset of this discourse it is necessary to apologize for venturing to believe that there is a possibility of the treatment of cancer becoming more generally recognized than it is at the present time by the members of our profession. The mere attempt at a treatment of the disease by any other method than that by the knife brings down on him who makes it a certain amount of discredit—to put the matter in the least objectionable manner.

In addressing a society of gentlemen engaged in the general practice of the profession, I have much less fear of such an attitude of mind than I should have in addressing many assemblages. We general practitioners tread out the corn after surgery has had its fill, and we know only too well what difficulties must be faced when the much-vaunted knife has had its swing. What matters it to us when pursuing our calling, and using our best endeavours, if we leave no remedy untried which may bring palliation to those who may be numbered amongst the failures of surgery. What man amongst us can foretell if we who are cutting new furrows may not lay a foundation upon which the successful treatment of cancer, without the aid of surgery, can be made?

Sodium Cinnamate or Orthocoumarate.

It is my purpose to attempt to explain my position with reference to the treatment of cancer by the subcutaneous injection of a 10 per cent. solution of sodium cinnamate, or of a 22 per cent. solution of the orthocoumarate of the same base. Perhaps it will be well to state at once that the dose of the former is 30 minims, administered once or twice a week, and that of the latter 25 minims administered at the same interval.

For many years the problem presented itself to me, as it must have done to each of you—this problem of the treatment of cancer. It cannot be asserted that surgery, great as its triumphs undoubtedly have been, can be looked upon as providing the most scientific method.

The resort to surgery is to my mind nothing less than a confession of defeat. Here is a disease consisting of degeneration of cells, or, if it be preferred, a retrogression to the genetic type of cell. If this is accepted, it must occur to most minds that if the environment of the cells affected can be profoundly changed in that direction which leads to an arrest of this degeneration or retrogression, a successful result is not only possible, but certain. It is common knowledge at the present moment that it is perfectly easy to profoundly change the environment of cells by the artificial alteration of the composition of the blood. Thus, the experiments of Richter and Spiro, confirmed by Batty Shaw, prove that, at all events in cats, a very considerable leucocytosis can be produced by the intravenous injection of sodium cinnamate. This leucocytosis has been proved to be not the result of depriving the blood of a certain amount of liquid, but is the result of stimulating the simpler lymphocytes to transformation into the polymorphonuclear cells and intermediate forms.

So far as my observation is concerned—and it is supported by Dr. Randell, of Beckenham—both the coumarate and the cinnamate of sodium produce in the human subject a leucocytosis of this class.

The working hypothesis, then, upon which the whole treatment is based is this: If it is possible to make, artificially, a large increase in the most organized cells—I mean those most endowed with the properties of living cells—it is probable that such an alteration will be made in the environments of cells which have reverted to the genetic type that an arrest in the reversion is possible and probable.

Having arrived at this point, the first difficulty which presents itself is the provision of clinical material, surgery claiming all cases in early stages, but here is a point which I desire to especially emphasize: Do something more than removal by the knife in early cases of the disease when operation has been decided upon. Inject either of these drugs into the circulation before operation and for three months afterwards.

One of my cases, which made a great impression upon my mind, was that of a woman whose breast I removed for scirrhus. She was treated with the oil of cinnamon for a fortnight before operation, and for three months afterwards. That woman made a recovery from the operation of simple removal of the breasts, which impressed me very much, was at work in a short space of time, and has remained well after four years have nearly elapsed, although well past middle life. More than this, some eighteen months after the operation she showed me an old sebaceous cyst on her back which presented all the signs of scirrhous cancer in a state of atrophy, and this cyst has given no trouble, and has healed up under a scab.

Since this case a forward step has been taken, following upon the discovery of the therapeutic action of cinnamic acid. Cinnamon oil is practically a mixture of cinnamic aldehyde and cinnamic acid, and the aldehyde is rapidly oxidized into cinnamic acid when introduced into the circulation.

It may here be stated that the most active chemical substance at present investigated is believed to be the cinnamic aldehyde. Its administration, though less painful than the other chemical substances investigated, is exceedingly painful within twenty-four hours of administration, and has been given up for the present. My friend Dr. Morgan, of the Royal College of Science, South Kensington, first obtained for me the glycerine solution of sodium cinnamate, and then the sodium salts of the three isomeric cormaric acids.

Results.

Two cases of cancer in the region of the pharynx and larynx have been treated. In both relief from pain and distressing symptoms was experienced, and not only so, the discharges were free from the fetor usually associated with the disease when found in these regions. The patient died when defeated by the disease, and painlessly passed away in sleep.

In one case of lymphatic recurrence in a woman whose breast my friend, Mr. Lockwood, removed in St. Bartholomew's Hospital, the gland disappeared rapidly after treatment, and the elderly patient remains well two years at least after operation.

In a second case of growth in the breast, the patient, a nurse in the middle period of life, refused operation absolutely, but she clamoured for treatment because she suffered so much pain during the exertion of moving patients in bed that the fear of losing her work was always before her. I am forced to confess that I only undertook the treatment after pressing operation upon her as forcibly as is in my power, and refused to take any responsibility upon myself in case of disaster. That woman has been continuously employed in her work for two years past, and although the tumour cannot be said to have disappeared, it has markedly altered so far as the sense of touch is concerned, and now gives no pain. So far as my judgement goes it was a scirrhous tumour, but in the absence of microscopical evidence it is not my intention to assert its nature. The case is given for what it is worth.

A third case of breast tumour was more successfully treated, because the tumour disappeared altogether. The woman in whose breast this tumour was found had been previously treated for cancer in the abdominal cavity; the signs and symptoms presented certainly suggested to me that the patient was suffering from cancer, either of the pyloric end of the stomach or the upper end of the duodenum. All symptoms, such as pain and vomiting, slowly subsided after treatment, and the patient, after many months of comfort, died of heart disease, from which she had suffered for many years. It was only during an examination of the heart after its final breakdown that I discovered the lump in the breast; the patient had been afraid to tell me of this lump, which she had noticed three months previously. In advanced cases of cancer of the breast failures of surgery, no failure to alleviate has been observed except in two cases.

Abdominal Cases.

Of cases of cancer which have been tested by the microscope one of spindle-celled sarcoma of the spleen excited great interest. The unfortunate man had had one testicle removed, and had been under one operation for the removal of glands. When the patient came under observation a very large tumour of the spleen presented itself. The man, under treatment, lived for many months without pain, and died peacefully when the disease was victorious. It may be noted that when the treatment was interrupted, owing to inability to come to me, pain was complained of, and the treatment was then carried out, under my direction, by Dr. Berry of Grantham.

At the same time that this patient was under treatment, a man afflicted with a large growth of liver, which had been investigated by Mr. Lockwood by means of exploratory incision, came under my notice; the result was the same.

Several cases of cancer of the bowel have been placed under treatment, and the points noted have been relief of symptoms of obstruction and of pain. In one case there was a very marked cessation of collection of ascitic fluid. This patient had a considerable ascites when he first presented himself. After one tapping there was no further collection.

It appears to me that enough has been stated in order to demonstrate the fact that there is a remarkable reaction in patients when the drugs in question have been exhibited. The view taken of their therapeutic action is this: If the case is advanced it appears improbable from the nature of the disease to suppose that any treatment can remove it, but there is no doubt in my mind that the administration of the treatment suggested inhibits the activity of the organisms which are connected with putrefactive changes. The relief from pain is in all probability due to this fact, and so is the prolongation of life.

When this treatment was not in my hands it was my experience that patients died in a very large percentage of cases from the results of sepsis. In no case treated by my method have I seen a patient so die.

Patients, so far as my observation goes, die from simple exhaustion, and not with the old horrors connected with the disease. The relief of obstruction in the bowels, however, rather inclines me to believe that even in old cases the treatment is capable of profoundly influencing the character of the growth, and certainly the treatment of very early cases leads in the direction of the belief that the disease is more capable of satisfactory treatment than is usually supposed.

Early diagnosis, as in all cases of disease, is here of the most supreme importance, and I believe that the treatment in the hands of those who have cases of difficulty connected with the abdominal cavity in which there is reasonable suspicion that the disease is cancerous in its nature will lead to surprise. I must confess to have experienced these feelings of surprise myself.

In conclusion, gentlemen, I express a hope that some of you, at all events, will be sufficiently interested to carry on the work further; and I may add that my friend, Dr. Morgan, of the Royal College of Science, has already furnished me with other allied chemical substances of which I have hopes.

A CASE OF CANCEROUS DISEASE OF THE STOMACH,

WITH SECONDARY INFECTION OF THE LIVER, OF THE THORACIC DUCT, AND OF THE CERVICAL LYMPHATIC GLANDS.

BY W. MITCHELL STEVENS, M.D. LOND., M.R.C.P. LOND.,

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THE case which forms the subject of this communication is of especial clinical and pathological interest, being one of "latent" carcinoma of the stomach in which I was able to make an early and correct diagnosis by discovering the presence of glandular enlargement in the left supraclavicular region and in which a *post-mortem* examination showed extensive cancerous affection of the stomach and liver associated with marked cancerous disease of the thoracic duct and localized infection of the above-mentioned glands.

REPORT OF CASE.

J. D., a labourer, aged 46, came under my care as an out-patient at the Cardiff Infirmary on September 30th, 1904, complaining of swelling of the legs and genitals of about a week's duration.

History.

Except for an attack of ague in India in 1890, he had enjoyed excellent health until about twelve months ago, when he became pale and somewhat weak, and he states that he was then supposed to be suffering from "anaemia."

Since that time until the advent of the dropsy he had been able to do his work, though he never felt really well but had noticed that he was getting gradually weaker and rather short of breath. His appetite had been good; he states that he had not lost any flesh, he had no gastric symptoms, and, indeed, there had been no localizing symptoms of any kind.

Condition on September 30th.

The patient is somewhat sallow and exhibits a moderate degree of pallor, and there is slight wasting. While lying down he is perfectly comfortable, but when walking he is obviously weak and short of breath. There is no jaundice. There is extreme oedema of both legs and of the scrotum and penis, and slight puffiness of the lower eyelids.

The pulse is 84 per minute, of low tension, and quite regular. The heart and arteries present nothing abnormal except a very faint haemic murmur over the pulmonary area.

The lungs are perfectly normal. The tongue is slightly furred, the appetite is good, the bowels are regular, and there is an entire absence of any gastro-intestinal symptoms.

There is no abdominal swelling or tenderness, the spleen is not palpable, nor is the area of splenic dullness increased, and the stomach is neither tender nor enlarged, nor can any physical signs be discovered except an enlargement of the liver, the lower border of which can be felt extending to two fingerbreadths below the costal margin. The hepatic enlargement is perfectly uniform, and there is no associated pain nor tenderness.

The urine is normal in every respect. A blood examination presented nothing except a moderate degree of diminution in the red corpuscles.

In the left supraclavicular region there is an enlarged gland about the size of a hazel nut which is situated just under the posterior border of the sterno-mastoid muscle, and is fairly movable, but very hard.

October 14th. On this date he was admitted as an in-patient with the diagnosis of malignant disease of the stomach and liver. His condition is much the same as when first seen, except that the liver has increased in size, now extending to within an inch of the umbilicus, but the enlargement is uniform and smooth, and there is no local tenderness nor pain, though there is a slight feeling of fullness in the right hypochondrium associated with a nasty taste in the mouth and slight flatulence after food. The glandular enlargement in the neck has obviously increased, and involves several glands. His weight is 9 st. 10 lb., and though he says he has not lost flesh there can be no doubt that he is mistaken.

October 29th. The patient's weight is 9 st. 12½ lb. The oedema of the feet and external genitals has entirely disappeared. There is now no complaint of any unpleasant taste in the mouth nor of flatulence after food. The appetite is good, the tongue is clean, and, except for slight weakness, the patient feels well. The liver and the glandular enlargements are slightly better marked. The patient, at his own request, was discharged, and again attended as an out-patient.

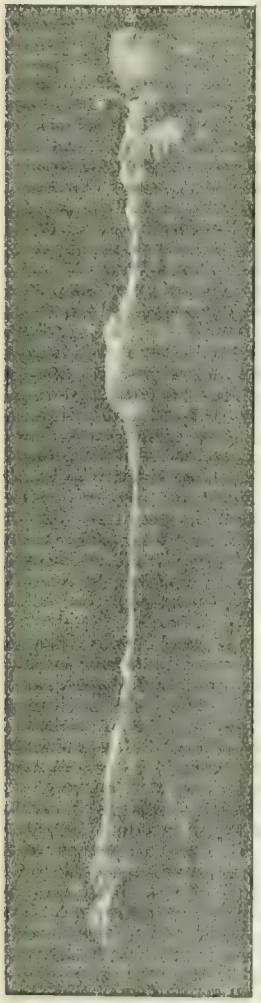


Fig. 1.—A, Ending of duct in large vein; B, large nodule of growth of the duct; C, receptaculum chyli; D, glands in neck; E, isolated deep-seated gland.

December 1st. The patient is gradually losing ground. He is getting progressively weaker, and is losing flesh. He complains of much "fullness" in the right hypochondrium, but there is no local pain nor tenderness and the appetite is good, and gastro-intestinal symptoms are entirely absent. The liver now extends downwards to the umbilicus, but its surface is smooth and not tender. The glands in the neck have increased in size. Careful examination fails to reveal any other physical signs.

December 29th. He was re-admitted as an in-patient. There is now a well marked cachetic appearance with great wasting. He is very anaemic, and exceedingly weak and breathless. He complains of much "fullness" over the liver, of flatulence, of epigastric pain after taking solid food, and of occasional vomiting. There is a slight icteric tint of the conjunctivae. The liver now extends beyond the umbilicus, and is also felt in the left hypochondrium, its surface presents small irregularities, and a distinct localized nodule is felt just below and to the left of the xiphi-sternum, and there is localized tenderness in the epigastric region. The glands in the neck now form a matted, fairly movable mass about the size of a Tangerine orange.

January 12th. The patient is rapidly losing flesh and becoming weaker. For the last three days he has complained of aching pain in the epigastrium. He is unable to take solid food as it causes severe pain and is rejected by vomiting. Some small but distinct tender nodules can be felt on the surface of the liver. The veins over the lower part of the chest are enlarged and prominent.

January 21st. There is no pain. The liver is increasing in size and becoming more nodular. The appetite is good, but he cannot take solid food, and there is slight flatulence after taking liquid nourishment with a feeling of "dead weight" in the epigastrium. There is now moderately marked ascites, and the feet and legs are slightly oedematous.

January 21th. Cachexia is very marked. There is a good deal of epigastric pain, especially at night time.

February 4th. For the last few days the patient has been vomiting a dark brown offensive material which on examination shows the presence of blood. The liver is now greatly enlarged, tender, and markedly nodular. There is marked oedema of the legs, external genitals, and the abdominal walls. There is slight but distinct jaundice.

February 14th. Emaciation is now extreme, and the vomiting very distressing.

February 25th. The patient died to-day.

Necropsy.

The necropsy was performed by me on February 26th. The body was excessively emaciated. On opening the abdomen, a large quantity of clear straw-coloured ascitic fluid was evacuated. The peritoneum, spleen, kidneys, and intestines were healthy. The mesentery showed a few dilated lymphatic vessels containing a milky fluid.

The stomach was not enlarged, nor was there any constriction of the pylorus, and its contents consisted of a small quantity of grumous material. On the posterior wall of the stomach there was found a hard growth involving almost the whole of that aspect of the organ, and the only parts of the posterior surface free from growth were those in the immediate neighbourhood of the cardia and of the pylorus. The surface of the growth was not ulcerated except for a small area the size of a half-crown situated almost in the centre of the mass. The outlines of the growth were well defined, and the part situated nearest to the pylorus showed a tendency to be of soft consistence and of cauliflower-like aspect.

The liver weighed 12 lb. 8 oz., and it showed enormous deposits of greyish-yellow, rather soft cancerous masses, so that there was but little normal hepatic tissue left.

Glands: There were several enlarged cancerous glands round the hepatic fissure, and also several from the size of a cherry to that of a walnut, situated behind the stomach and along the upper border of the pancreas, and one large gland had pushed itself into that organ. The pancreas itself was free from growth. There was no apparent pressure upon the inferior vena cava.

The thoracic duct, with the receptaculum chyli and the enlarged cervical glands were carefully dissected out, and showed the appearances presented in the accompanying photograph. The receptaculum chyli and the whole of the thoracic duct were extensively infiltrated with hard greyish-white cancerous growth, and the lumen of the duct was obliterated. At intervals along the course of the duct the growth formed nodular tumours, and no part was free from growth. Just before the ending of the thoracic duct there was found adherent to it a cancerous gland of the size of a hazel nut, and above that the lower cervical glands formed a nodular mass the size of a Tangerine orange, which on section showed extensive cancerous infiltration.

A careful search failed to reveal morbid changes in any other parts than those above mentioned.

Microscopical sections showed an exact reproduction of the gastric cancer in the thoracic duct and in the cervical glands.

Remarks.

This case is interesting from both its clinical and pathological aspects, and the following points are, I think, worthy of notice:

1. *Duration.*—The entire duration of symptoms was seventeen months. Until the last five months of his life the patient had worked fairly regularly and had complained but little.

2. *Early Symptoms.*—The earliest symptoms were slight weakness and pallor, with an entire absence of gastric trouble, so that he was supposed to be suffering from "anaemia." The prominent symptom which brought him to the infirmary was the marked oedema of the legs, scrotum, and penis, and this, combined with pallor, with shortness of breath, with his denial of any wasting, and with an entire absence of any gastro-intestinal symptoms, naturally caused me to believe that he had either cardiac or renal disease. On examination, however, it was found that his heart, except for a faint, obviously haemic, murmur, was perfectly healthy, as were also the lungs. A history of swelling of the lower eyelids in the morning, together with the passing of small quantities of urine, next led to an examination of that excretion, with entirely negative results. It was thus obvious that there was neither cardiac, pulmonary, nor renal disease. A further consideration of the case then led me to suspect that the oedema was due to pressure upon the inferior vena cava, and the presence of anaemia (probably "secondary") combined with slight though distinct weakness, and with some wasting (which, though denied by the patient, nevertheless seemed to be present), led one to suspect "latent" malignant disease. An examination of the abdomen then showed that

the liver was enlarged, though there was no local pain nor tenderness. A careful examination discovered nothing else in the abdomen, but palpation of the neck showed an enlarged, hard, fairly movable gland just above the left clavicle and behind the posterior border of the sterno-mastoid muscle. Since there was no disease to be discovered in the immediate neighbourhood, it appeared that this glandular enlargement was probably secondary to malignant disease within the abdomen (the infection having been carried upwards by the thoracic duct), and since this was associated with a liver enlargement, I concluded that there was probably malignant disease of the liver. As malignant disease of the liver is nearly always secondary in origin, and since no primary disease could be discovered elsewhere, it seemed probable that one was dealing with a case of "latent" cancer of the stomach which had been followed by secondary infection of the liver and cervical glands, and probably by an enlargement of the lymphatic glands in the abdomen, which latter had caused the oedema by pressure. I therefore, within half an hour of seeing the case, was enabled by the above method of reasoning to arrive at a correct diagnosis.

3. *Absence of Gastric Symptoms.*—The entire absence of gastric symptoms until the latest stages is both interesting and instructive. Throughout the whole course of the case it is especially interesting to note that the patient's appetite was good. When we consider, however, that there was no constriction of the pylorus and no ulceration of the growth till its latest stages, it is not at all peculiar that there should have been no local pain or tenderness or vomiting. The early anaemia is what would be expected from the great destruction of gastric glands. It is remarkable, however, that there should have been such an absence of the ordinary symptoms of "indigestion." In the later stages when ulceration had occurred there was gastric pain, vomiting, and haematemesis.

4. *The Liver Enlargement.*—Until the latest stages there was no hepatic pain nor tenderness nor jaundice, and the hepatic enlargement showed no nodules.

5. *The Oedema.*—No distinct signs of pressure upon the inferior vena cava could be found. I am inclined to believe that the oedema was dependent upon several causes, such as pressure, lymphatic obstruction, and cachexia.

6. *The Enlarged Cervical Glands.*—The striking point in this case was the enlargement of the glands above the left clavicle. When first seen the small, hard gland suggested secondary infection from malignant disease, and a careful search failed to reveal any source of infection in the immediate neighbourhood and pointed towards infection through the thoracic duct. Although it is a long cry from the abdomen to the neck, nevertheless, when one bears in mind the ease with which infection may be carried by the thoracic duct, it is remarkable that such comparatively few cases have been recorded. Particular attention has been drawn to this mode of infection by Toisier, and it has been naturally believed that the connecting link was the thoracic duct, but so far as I know this has never been so conclusively demonstrated as in the above-recorded case.

7. *The Thoracic Duct.*—The amount of disease in this duct was very remarkable. The non-occurrence of chylous ascites and of other effects shows that the lymphatic anastomoses were very free, although I was unable to discover any obvious dilatation of lymphatic channels.

In conclusion, I may say that this case demonstrates well the following points: (*a*) The marked oedema which may be due to intra-abdominal disease; (*b*) the "latency" of the symptoms in some cases of cancer of the stomach; (*c*) the absence of typical signs or symptoms of cancer of the liver; (*d*) the transference of infection by the thoracic duct; (*e*) the significance of glandular enlargement above the left clavicle.

GRAFTING OF COMPLETELY-SEPARATED SKIN-FLAPS IN THE TREATMENT OF CONTRACTURES DUE TO CICATRICES.

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The characteristic property of a cicatrix to undergo contraction is, as is well known, responsible for the production of many unsightly deformities and serious losses of function of the parts involved. Such deformities are most often seen from cicatrization after burns, for the reason that heat is the most usual agent by which considerable areas of the skin are destroyed. The result of the destruction of tissue by a burn is a granulating wound which slowly heals, and contraction usually proceeds as the process of healing progresses, despite all efforts to prevent the contraction by means of splints, passive movements, etc. Deformities resulting from such a process are most often seen about the face, neck, and hands or arms.

The difficulty of getting rid of extensive cicatricial bands is only too well known. Thus, when the cicatrices affect the fingers, these may be fused with the palm, being bound down so firmly as to be quite immovable. If treated by mere division of the cicatrices, cure does not result; for, as the gaps which result from straightening the fingers heal, the contractures are surely reproduced. There is but one way of restoring the parts under such circumstances to anything like the normal condition, and that is by means of complete removal of the scar tissue, followed by grafting of a layer of tissue consisting of epidermis and cutis vera.

Some years ago I published[8] cases in which fingers drawn into the palm by cicatrices were cured by means of excising the cicatrices, and filling up the gaps by pieces of the entire thickness of the skin removed from the arm or leg. In the same paper I discussed the comparative value of the three methods of grafting—Reverdin's,[1] Thiersch's,[2] and Wolfe's.[3] The result was to show that recurrence of contraction would occur after Reverdin's and Thiersch's methods, in both of which merely epithelium is planted on the surface of the wound. I showed also that the result of employing not only epidermis, but also cutis vera to cover the entire wound, was that no contraction resulted either during healing or remotely. This method, originally employed by Wolfe[3] in Glasgow in 1875, and subsequently by Krause[4] of Altona, is undoubtedly the proper one to adopt in all cases in which a grafting operation is required to remove deformities due to contraction of cicatrices, provided that the parts can be rendered and kept aseptic; for it is only by this method of grafting that complete freedom from recurrence of contraction can be secured. As compared with the older method of Reverdin[1] (1870) it undoubtedly demands a higher technique for its successful performance, probably demanding perfect asepsis. It is therefore well suited for cases in which perfect asepsis can be attained—for example, cases of completely-healed cicatrices in parts which can be rendered and kept aseptic, or newly-made aseptic operation wounds in parts which can be kept aseptic.

There is good reason why the graft of the entire skin should be superior to the graft of Thiersch; for in the former all the normal structures of the skin are contained in the graft, and remain after it has healed in, while in Thiersch's method a mere shaving of epithelium is laid on. The latter method, therefore, merely hastens cicatrization and still leaves a scar, thinner, perhaps, than the natural scar would have been, and therefore not so liable to contraction, but still merely an epithelial covering and a scar. In Wolfe's or Krause's graft, however, there are the glandular structures and hair follicles and muscle cells, etc., of the true skin, and therefore this graft when healed in is not a scar. I am aware that Enderlen[5] holds that in the process of healing these grafts are gradually eaten away, and replaced almost entirely from below, and that by the end of four weeks they are almost entirely replaced. Braun,[6] however, and also Henle,[7] subsequently reinvestigated this point, and came to the conclusion that the various structures normally present in the true skin are not absorbed, but persist. The latter is the only view which can be held in the light of observations which are easily made clinically; for the persistence of the hair follicles is demonstrable by the growth of hairs over the surface of the graft.

Since publishing my first cases I have frequently employed this method, and have found it almost invariably successful. I have used it for various purposes, for example, for removal of contractures due to cicatrices which could not otherwise be relieved, to fill defects caused by removal of tumours, etc., when it was not possible to get the edges of the wounds to meet, and to fill the defect left in the brow after removing the flap for rhinoplasty, and for syndactylism.

I have recently had a case of cicatricial contracture due to a burn affecting the thumb on its dorsal aspect, and therefore producing hyperextension, which, indeed, was so extreme that dorsal dislocation resulted, rendering the thumb useless. As the functional restoration by means of this method of grafting has been perfect, and as no other possible method could have produced this *restitutio ad integrum*, I think it right to record this case. The only other proposal which could have been made would be excision of the head of the

metacarpal bone in order to allow the thumb to come into place, but this would have at best produced a sorry thumb. The photographs show the condition of the thumb before operation and the range of movement possible after operation, and in one of the photographs the outline of the graft, which was taken from the thigh, is marked, showing the extent of the wound which was covered up by the graft. The following is a summary of the case:—

The patient, a gentleman, aged 19, was sent to me by Dr. Rankin of Edinburgh on December 2nd, 1903, suffering from backward dislocation of the right thumb due to a contracted cicatrix on the dorsum of the thumb.

On May 19th, 1903, while carrying a can of petrol, someone lit a match which ignited the petrol, with the result that the patient sustained a severe burn on his right hand, left wrist, and face. The burn affected the dorsum of the right hand and thumb, and extended upwards over the wrist, but was deepest over the thumb. The case was placed under the charge of Dr. Rankin, who dressed the sores resulting from the burn until they were cicatrized. According to Dr. Rankin's report, the destruction of tissue was sufficient to expose the sheath of the extensor secundi tendon, the interphalangeal joint was opened, and the matrix of the nail in part destroyed. During cicatrization the greatest care was exercised by means of passive movements, vibrations, etc., to prevent or diminish the tendency to contraction, but despite all efforts a dense band of cicatrix over the dorsum of the thumb gradually underwent contraction and over-extended the thumb, making gradually the passive flexion of the thumb increasingly more difficult, until the hyperextension was so great and the cicatricial band so massive and unyielding that no flexion could be carried out at all, either passively or actively. Finally the contraction became more extreme, and the phalangeal articular surface was drawn on to the dorsum of the metacarpal bone, producing thus a dislocation of the thumb backwards.

When I first saw the patient the condition just described was present. The thumb was fixed in hyperextension, and could be moved only to the slightest degree. The cicatrix causing the mischief was dense and bulky, extending over the entire breadth of the dorsal surface of the metacarpal and first phalanx. The prominence caused by the head of the metacarpal bone was visible, and the head of the bone could be felt projecting into the palm.

On January 17th, 1904, this dense band of cicatrix was dissected off completely, and when this was done the floor of the wound presented a healthy appearance, and the tendons were visible through their sheaths. After removal of the scar no difficulty was experienced in reducing the dislocation, no great force being necessary. The thumb was then fixed in the fully flexed position. The wound which was presented was irregularly elliptical, measuring $1\frac{3}{4}$ in. in greatest breadth and 3 in. in length. An elliptical portion of skin measuring 4 in. in length and $2\frac{1}{2}$ in. in breadth was then dissected from the thigh and stitched into the gap in the thumb. The wound in the thigh was completely closed by sutures.

The dressing on the hand was not disturbed till February 6th, that is, three weeks after the operation, and it was then found that the grafted portion of skin had healed in perfectly, there being no necrosis. The characteristic markings of the skin persisted and the graft was studded with minute hairs. Examination of the graft for sensation showed that it was entirely absent.

By February 15th, that is, twenty-nine days after the operation sensation was still in abeyance.

By February 29th, that is, six weeks after the operation, the movements of the thumb were practically normal, the patient being able to touch the tips of all the fingers with the point of the thumb. Sensation was still absent.

By March 7th, seven weeks after operation, sensation was somewhat developed, the patient being able to recognize touch in the centre of the graft and having regained in part the thermic sense. The range of movement of the thumb was quite normal. The interphalangeal joint was of course ankylosed on account of the original destruction of the joint, but this does not interfere with the usefulness of the thumb.

By thirteen weeks after the operation, the sensation in the graft was practically normal, except in the centre where it was defective; it was soft and movable, and resembled healthy skin, showing short hairs and skin markings. The photographs were taken at this date.

In this case had the burn destroyed the tendons quite a different problem would, of course, have been presented, but the fact of the tendons being intact, which was assured by the history and also by examination of the case, made the prospects of successful treatment by means of a graft almost assured.

There is one other point to which I should like to refer, and that is the development of sensation in the graft. The removal of the scar involves section of all the small nerves



Fig. 1.—Before operation. Showing dislocation of thumb backwards.

entering the scar; the portion of skin which is used as the graft contains a number of distal segments of nerve fibres distributed to the skin, and these fibres have just been divided. The grafting, therefore, constitutes an experiment in nerve regeneration which is not without interest.

According to the older view of Ranvier[8] that the distal segment of a divided nerve is regenerated only by downgrowth of fibres from the central end, sensation ought to be developed in the graft in the minimum interval of time, because of the minute distance to be traversed by the new fibres growing down from the central ends of the small nerves cut in clearing away the cicatricial tissue, and which are now



Fig. 2.—Thirteen weeks after operation. Voluntary extension of thumb.

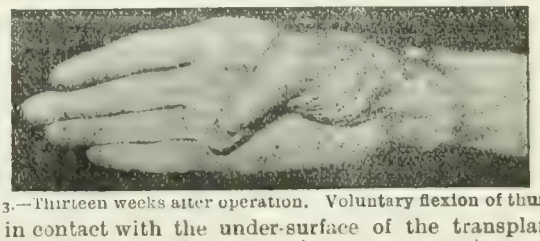


Fig. 3.—Thirteen weeks after operation. Voluntary flexion of thumb.

lying in contact with the under-surface of the transplanted skin. If this view of regeneration were correct, a much shorter period of time would be required for restoration of sensation than would be necessary if the nerve had been divided higher up in the arm. The divided central ends are almost in contact with the end organs; yet in this case, as in

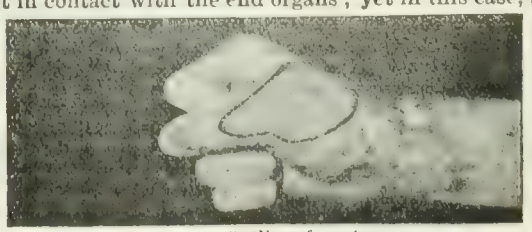


Fig. 4.—Outline of graft.

others which I have examined, about seven weeks were necessary to restore a moderate degree of sensation in the graft after this recent division of nerve fibres. This is just about the time which is required for sensation to begin to reappear after a primary suture for section of a nerve higher up the arm. Is not this in favour of the view of regeneration of nerves which I supported in a paper[10] published several years ago?

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RECURRING TORSION OF THE SPERMATIC CORD, WITH AN ACCOUNT OF FIVE CASES.

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TORSION of the spermatic cord occurs with greater frequency than is generally supposed, and the reason why it is not more often recognized is due to the absence of, or scant, information in most of the surgical textbooks.

Perry,[1] writing on torsion, describes two varieties, the first characterized by one sudden and acute attack, the other by more or less frequent recurrence, with or without the eventual onset of an acute degree of torsion. The term "recurring" is a suitable one to apply to this second variety.

The literature in connexion with the first form is now fairly large, and especially good are the monograph by Dr. A. Lapointe,[2] and a paper by Dr. J. Vanverts of Lille.[3] With regard to the second variety—recurring torsion of the cord—there is but little information. Perry[1] and Van der Poel[4] have described cases, while Gifford Nash[5] has published an interesting case bearing on this variety. Since publishing an account of 2 acute cases, and a probable recurring one, in September, 1901,[6] 6 others have been seen by me, 5 of which suffered from recurring torsion, and were operated on; another case, a child aged 5 months, had an attack which passed off spontaneously.

Etiology.

The main predisposing factor is the abnormal manner in which the testicle, suspended by the cord, hangs free in the tunica vaginalis. Both testicle and cord are completely surrounded by visceral tunica vaginalis, so that the testicle resembles small intestine, and the cord the mesentery, termed here the mesorchium. Lauenstein[7] has compared this arrangement to a fruit hanging by its stalk, and Lapointe[2] to the heart in the pericardium, and a term descriptive of this would be "floating testicle."

Lauenstein has also laid stress on a broad and flattened cord as another predisposing cause, and this is a common condition to find. In all the five cases of recurring torsion operated on it was present. Not only is the cord flattened, but it shows as well an abnormality in the disposition of the vas deferens and the main vessels. The chief vascular structures pass between the visceral layers of the tunica vaginalis to the globus major, occupying one border of the mesorchium, while in the other the vas deferens ascends from the globus minor. There is no satisfactory term for this arrangement. "Bifidité du Cordon" or "Bifurcation" expresses but imperfectly the actual condition, consequently it appears to me that "intermesorchial separation of the cord" would prove a more suitable descriptive title.

Kocher[8] describes how this may be brought about in the descent of the testicle. The lower end of the testicle, globus minor and part of the cord, covered by tunica vaginalis, are arrested in their descent, but the upper end and globus major, together with the vessels, continue. Consequently, the testicle tends to assume a horizontal position, and the vessels are drawn away from the vas deferens by the descending globus major. If, however, the descent of the globus major continues, complete vertical inversion of the testicle may occur, so that the globus major lies inferior to the globus minor.

Curling[9] considered the chief factor to be the defective formation or attachment of the middle strand of the gubernaculum testis, with the result that there is no fixation of the lower portion of the testis to the bottom of the scrotum. As to the side affected, in 10 cases of recurring torsion 5 were right and 5 were left, and in the recorded cases of acute torsion the same holds good, neither side showing any marked preponderance. The testicle may be situated anywhere in the line of descent. In 10 undoubted cases the testis was descended in 6, almost descended in 2, and in 2 it was situated in the inguinal region. On the other hand, acute torsion affects imperfectly-descended testes more frequently than descended. Puberty may be considered as another predisposing cause, for in both recurring and acute torsion the majority of reported cases developed symptoms about this period. In 10 cases of recurring torsion the attacks commenced at the age of 20, 12, 13, 24, and 3 respectively. In Van der Poel's case[4] it was 22, and 11 and 13 in 2 of Perry's.[1] Nicoladoni[10] reported a case where the attacks began at 12, Macaigne and Vanverts[11] 1 at 15 years. In the last 2 cases operation was performed on account of the severity of a subsequent attack.

Nash and Perry[1] reported cases, aged 19 and 15, where a torsion was diagnosed and untwisted. In Nash's case this was followed by some atrophy, but no subsequent attacks. Perry's patient did not report himself again. Lapointe[2] in 37 cases of acute torsion which he collected found that 24 occurred between the ages of 13 and 25. It must, however, be borne in mind that many cases of torsion in the infant are undiagnosed or the symptoms attributed to an orchitis, which—with no scientific foundation whatever—it is said undescended testicles are liable to.

Pearce Gould[12] has shown that there is a true venous hypertrophy in the cord at puberty, and both Davies-Colley[13] and Spencer[14] refer to an increased vascular arrangement in connexion with the testicle at this period.

Exciting Causes.

These are indefinite. The statements made by patients as to the cause of onset were strain, walking, coming on at night in three cases; crossing the right leg over the left caused the onset in a right testicle, and in another case crossing the left leg over the right also caused an attack in the right testicle.

In the acute form of torsion strain—such as lifting a weight, coughing, blowing the cornet, defaecation—are mentioned, as well as attacks coming on at night. There are several theories put forward to explain how the actual twist is brought about. R. W. Johnston[15] suggests the action of the cremaster muscle, and J. Hutchinson, jun.,[16] thinks that sudden contraction of its more oblique fibres may have a share in the mechanism. Davies-Colley[13] considered the action of the gubernaculum probable. Spencer looks upon the veins as a factor, and when it is considered how at puberty there is a venous hypertrophy in connexion with the testicle, how these veins are arranged at one edge of a broad cord, and how readily they are distended by abdominal strain, some weight ought to be given to the theory. Position has to do with the onset, and the question arises how far it is mechanical or only an interference with the venous return. The actual exciting cause cannot be definitely stated, but it seems probable that there are combinations of conditions which, acting together, induce the onset, otherwise the sufferer from recurring torsion would incessantly be having attacks.

Symptoms.

Patients suffering from this condition apply for advice during a severer attack than usual, or because they have just passed through one, or, annoyed by attacks, they wish to avoid the recurrence of them.

The history is generally typical, attacks coming on from time to time in young adults, attributed to strain, position, or to no definite cause. There is the sudden onset of pain in the testicle, sickening in character, spreading over the hypogastric and up towards the lumbar region. Vomiting usually occurs early, and with it signs of more or less collapse, shown by pallor, and perspiration on the forehead and lips. The testicle is extremely tender on handling, and in the course of a few hours swelling occurs in this region. The thigh on the affected side may be flexed. Prostration is complete till relief, which, as a rule, comes in the course of some hours, with, usually, the sudden cessation of the severe symptoms and the disappearance of the local swelling in the course of a day. Patients have attributed their relief to stroking the testicle and hot fomentations. These attacks, varying much in severity, may come on at intervals of weeks, or more usually months, and for years such recurrences may take place, as in one of Perry's cases, where for fourteen years there had been an attack every two or three months, and in two of mine, where for ten years there had been recurring attacks.

When a patient is seen during an attack the local symptoms are extreme tenderness, especially about the epididymis, and

should some hours have elapsed fluid is generally present in the tunica vaginalis. The testicle may or may not be fully descended; it may be horizontal or with the epididymis anterior. The epididymis is enlarged, and on tracing the cord upwards a hard, very tender area may be felt. This is the site of the torsion. In addition to these local signs there are the general symptoms and history already mentioned, with, after existence for some time, a possible rise in the temperature. In one of my patients it was 100° F. This rise of temperature has been noticed in cases of acute torsion. It was 100·6° F. and 100° F. in two cases operated on by me, and Barker[17] reported a case where it registered 102·2° F.

If advice is sought on account of the annoyance caused by recurring attacks, in addition to the history, local examination may assist the diagnosis. The testicle may lie in its normal position, or be drawn up, or it may be horizontal. An endeavour should be made to produce torsion by grasping the testicle, and, rotating it in its vertical axis, first of all inwards, and, failing this, outwards, the characteristic pain may be so induced. In some of the cases the testicle was smaller than on the other side, and in Van der Poel's case there was a history of slow descent in childhood.

That recurring torsion may occur in infants the following case will illustrate:

D. B., aged 5 months, was seen on November 19th, 1903, with Drs. Burn Murdoch and A. N. S. Carmichael. The history was that at 5 p.m. the child was suddenly seized with pain and became collapsed. It was found that a swelling was present in the right inguinal region, hard "like a slate pencil," exquisitely tender on palpation, no impulse on crying. The testicle was descended and tender. Vomiting occurred shortly after the onset, but there was a history of vomiting practically since birth. When seen at 9 p.m. there was swelling in the right side of the scrotum, but none in the inguinal region. The right testicle was descended and the epididymis enlarged and evidently tender; fluid was present in the tunica vaginalis, and could not be reduced into the abdomen. The severe symptoms had somewhat rapidly ceased shortly before 9 p.m., and flatus had been passed. The diagnosis of probable torsion of the cord with spontaneous relief which had been made was agreed with. The after-history was that the hydrocele had disappeared in a few days, and five months afterwards the child was well, and no recurrence had taken place, nor was there any atrophy of the testicle.

Though no attack has followed, so far as can be ascertained, the fact that one has occurred with spontaneous detorsion is evidence that other attacks may take place, and for this reason the case is of interest. In another case, detailed at the end of the paper, recurring attacks began at the age of 3 years, and continued at intervals till the age of 13, when an operation was performed to prevent recurrences.

Diagnosis.

When an attack is present and the testicle lies in the scrotum, the condition for which it is most likely to be mistaken is epididymo-orchitis; for there is pain, swelling, extreme tenderness, and possibly an elevated temperature, while the age of the patient, usually about puberty, renders the possibility more probable. The sudden onset of pain with collapse in a person otherwise well, the early and severe local tenderness, with perhaps the presence of a very sensitive hard swelling in the cord, ought to be sufficient to enable a correct diagnosis to be made. If, however, there is still a doubt, the absence of gonococci in a stained film of urethral mucus, and a negative history as far as mumps is concerned, will still further assist in the elucidation of the condition. The history, of course, is of the greatest assistance; but, even if the attack be the first, the diagnosis ought, in the large majority of cases, to be made correctly, instead of jumping to the conclusion that pain, swelling, tenderness, with an elevation of temperature, are necessarily the signs of inflammation, and inflammation only.

After swelling has occurred, strangulated hernia may be simulated, and more especially is this so when, from the severity of the attack, vomiting and collapse are present. On careful inquiry, however, it will be found that pain was the first symptom, followed in some hours by swelling. In hernia, as a rule, there will be swelling, followed by pain. In torsion there is no fullness of the inguinal canal, the early vomiting tends to cease, and complete obstruction is very rare. Whipple and Nash,[18] however, reported a case of acute torsion where the vomiting became stercoraceous in character. Even in a first attack these points of difference ought to render the diagnosis fairly easy, while if there is a previous history of recurring attacks the diagnosis is clear.

In undescended testes the onset of torsion is most likely to be confused with strangulated hernia, but there is the empty scrotum, the sudden pain, followed gradually by swelling, and generally incomplete obstruction. It is in children, however, that the chief difficulty arises, but the case when seen may have suffered for such a time that the rise of temperature and improvement in the general condition, with absence of obstruction, renders the diagnosis easier. There may, of course, be a hernia as well, and consequently when there is doubt the diagnosis should be settled by an exploratory incision.

The diagnosis of epididymo-orchitis in an undescended testicle must be made on the lines already given, but a word of warning may again be sounded concerning the onset of inflammation in the undescended testis of infants and young children. It is a popular belief that inflammation often followed by atrophy is liable to attack such misplaced testes, and though this statement is constantly repeated no proof whatsoever has been forthcoming beyond the clinical symptoms, which are those of torsion. Even in such a recent and excellent paper as that of Odiorne and Simmons[19] (1904) it is stated that "the undescended testicle is more commonly the seat of inflammatory conditions than one which is normally placed," and shortly after a case (No. 31) is described, which is typical of recurring torsion. No doubt a testicle situated in the inguinal region is more liable to injury, but no amount of injury will cause by itself a true microbic process.

Lapointe[2] has at the end of his monograph detailed 6 cases under the heading of "Infarctus hemorrhagiques sans torsion," and earlier in his work he states that, though rare, such conditions may occur. A doubt, however, is thrown on a case of Volkmann's. Reading over the quoted cases, it appears probable that they are primarily due to torsion which had undergone spontaneous detorsion after permanent damage to the testicle had taken place. In one case—that of Englisch[20]—the testicle was found fixed to the posterior wall, which renders it likely that some other cause than torsion was responsible for the condition.

Rare conditions that might simulate the complaint are embolism of the spermatic artery and appendicitis in an inguinal hernia. Stanton and Shaw[21] have described a herniated appendix adherent to the testicle in the tunica vaginalis; and Golding,[22] of Brooklyn, has recently recorded a case of inflamed appendix in an inguinal hernia that simulated strangulated hernia. Ruptured varicocele, bruise of irreducible omental hernia, lymphadenitis of the horizontal chain of glands, are less likely to be mistaken for torsion. When a case is seen in the interval there is nothing which simulates closely these attacks.

Pathology.

In 7 out of 8 cases of recurring torsion where the direction of the twist was noticed the rotation took place from without inwards. Lauenstein has referred to this in acute forms of the affection, and quotes Kustner's similar experience in connexion with torsion of the ovarian pedicle. Lapointe, however, from the literature of 24 cases, states that no rule can be formulated. The degree of torsion must in recurring cases vary from a slight amount to such an extent that the patient seeks advice on account of the severity of the symptoms, and then a variation has been found from half a turn to two turns, meaning by a half-turn the rotation through a half circle 180 degrees. The site of the twist is in that free portion of the cord which, covered by tunica vaginalis, suspends the epididymis and testicle. Sometimes the arrangements are unusual, as in an acute case reported by Lexer,[23] where the torsion took place between an abnormally-situated epididymis, which, with the vas deferens, lay outside the tunica vaginalis, and the testicle suspended in the serous sac by a mesorchium which contained the vessels only. In order to understand the various lesions that result from torsion it is necessary to refer to the pathological changes found in acute cases.

Incision into the tunica vaginalis reveals more or less bloodstained fluid, occasionally clot. The cord and epididymis are greatly swollen and bluish or purplish in colour, while the spiral intersections produced by the twist are obvious. The appearance resulting from this has been compared by Barker to a bloated leech, and by several other observers to a portion of strangulated intestine. The testicle itself varies in dimensions and appearance. It has been described as double its size by Manson.[24] Whipple and Nash, as well as Legueu,[25] have found it apparently normal. Two children operated on by me on the fifth day after onset showed no enlargement of the testicle, but a marked reddish-black discoloration. It is difficult to understand how

such a dense structure as the tunica albuginea becomes distended to any great extent. The condition of the cord at the site of torsion has been noted by Nicoladoni, Lexer, Souligoux[3]; the veins were found to be flattened and obliterated, while the spermatic artery was pervious. This is what might be expected, except in very severe degrees of torsion, when the atrery might be occluded, or in the late stages of the affection, when stasis and clotting might have taken place in it. The result of this obliteration of the veins is that the distal parts become engorged with blood, and naturally the more distensible structures show this most markedly, hence the striking appearance presented by the epididymis and any portion of the adjacent cord below the twist. Section of the affected parts shows intense engorgement, appearing red, black, or purple. Microscopic examination has shown great blood infiltration and degenerative changes in the affected structures. The result of this lesion is the destruction of the testicle, not a necrosis in the ordinary sense of the word, because there is no organismal infection but an aseptic death of the gland, which in process of time undergoes fibrification and consequent atrophy if left in the scrotum. Adhesions between the tunica vaginalis and the testis may occur as shown in Niemann's [26] case, operated on thirty-two days after the onset.

With the evidence so obtained, it is possible to understand what may take place in recurring cases. Repeated congestions, some severe, would possibly tend to produce by degrees a certain amount of fibrosis of the testicle and epididymis, with a consequent degree of atrophy. At the same time, any sharper attack than usual may cause lymph to be deposited in the tunica vaginalis, and so the formation of adhesions which will anchor the testicle.

A severe attack of torsion may be followed by atrophy, as in the case reported by Gifford Nash, where detorsion was carried out an hour and a quarter after the onset of the attack, but did not prevent a certain amount of atrophy which was reported later.

Prognosis.

The only prognosis that can be given in recurring torsion is that the attacks will continue and probably result in a varying degree of atrophy, unless an operation to fix the testicle is performed. At any time such an acute degree of torsion may occur that a termination in atrophy takes place; even if the patient has been shown how to carry out the needful action for untwisting his cord this is a possibility. A testicle in the young adult, situated in the inguinal region, is probably functionless (Griffiths).[27] So the effect of torsion on it as a secreting gland need not be considered when compared with a descended testicle; the pain and annoyance from repeated attacks will, however, continue. In those below puberty there must also be taken into consideration the fact that if the testicle is left in its undescended position it will not develop satisfactorily. So far as is known, torsion of the cord has never proved fatal.

Treatment.

This depends on whether a patient is seen during an attack or in the interval. When torsion is present an endeavour should be made to untwist the cord-detorsion. The testicle should be grasped between the thumb, first and second fingers, and slowly rotated on its vertical axis, first of all from within outwards, as in recurring torsion, it seems the most likely to succeed. No great force ought to be used, and the rotation should be continued until relief is felt, or the pain and resistance become so severe that it is obvious the wrong direction has been taken. Should this be so the opposite rotation ought to be carried out. There is necessarily some pain connected with this manipulation, but not very intense, and if successful there is immediate relief from the severe symptoms. Detorsion may prove a failure, and then an operation must be performed as soon as possible to remedy the condition and fix the testicle, and if it be undescended an endeavour made at the same time to bring it down into the scrotum.

The fixation of the testicle is all that requires any description here, and the method given will probably prove the best and simplest.

An oblique incision is made which crosses the cord just below the external abdominal ring, and through this opening the tunica vaginalis is exposed and separated from the coverings either before or after opening. There is usually a drachm or more of clear yellow fluid in the sac. The parietal layer of the tunica vaginalis is clipped away and the visceral layer over the testicle and cord scraped. The testicle is now fixed to the coverings by one or more catgut stitches passed through the tunica albuginea, being careful to anchor it well down and avoid torsion when so doing. The ease with which the testicle and its coverings can be evaginated through this incision renders the operation simple, but it requires more care to stitch the testicle to a suitable portion of the coverings and to avoid a certain amount of torsion than if the incision were made in the scrotum.

Professor Annandale had a successful case by simply drawing the testicle out through a small incision in the tunica vaginalis, turning the vaginalis inside out, and suturing the opening, so allowing the testicle to form adhesions.

The after-results in the 5 cases operated on were, as far as can be followed, successful, and in one case it is three years since the operation. I have to thank Professor Annandale for allowing me to publish one case, and Mr. Cathcart for not only two cases, but for his kind consideration in asking me to operate on one of them. The following are the notes of 5 cases:

CASE I.

Mr. M., aged 30, was seen, with Dr. J. McGibbon, in December, 1901. He is a married man with two children, and until ten years ago was strong and healthy, when, while severely exerting himself, he was seized with sudden, intense pain in the left testicle. This pain was sickening in character, and shot up the line of the spermatic cord towards the left kidney, and also over the lower part of the abdomen. It was followed in the course of a quarter of an hour by vomiting, and he had to get to bed as soon as possible. The testicle was unaltered in position and size, but swelling in the scrotum gradually occurred. Fomentations were applied on account of the pain, and during their application sudden and immediate relief was obtained, though palpation still caused a certain amount of tenderness. The swelling rapidly disappeared, and in twenty-four hours he was perfectly well. For the last ten years he has had on an average two attacks a year similar in the main characteristics to the first attack, and always preceded by some strain, even coughing. Mr. M. volunteered the statement that he thought his testicle twisted to the right. There is no history of delayed descent or other abnormality. The attack in which he was seen by me was similar to the above description, and on examination the left side of the scrotum was found to be fuller than the right, and marked tenderness was present in the region of the epididymis, which was swollen and tender. The testicle was not raised, and lay in apparently a normal position. Some fluid was present in a large tunica vaginalis. The temperature was 100.0° F. The diagnosis of torsion of the spermatic cord, which had already been made by Dr. McGibbon, was agreed with, and an endeavour to untwist the cord was carried out. The testicle was twisted from right to left, and though momentarily painful this was successful in giving complete and immediate relief. A little more than half a turn was needed. An operation to fix the testicle was recommended, and carried out ten days later.

Operation.—An oblique incision was made over the external abdominal ring, and the tunica vaginalis, which extended to this point, was exposed. When opened about 1 oz. of clear yellow fluid escaped, and the testicle, fully descended, was seen lying free in the sac of the tunica vaginalis, with the long axis horizontal. The cord was broad and flat, and consisted of two groupings—at the one border the vas deferens passed to the globus minor, and at the other were the veins, somewhat varicose. The whole cord and testicle were covered from the external abdominal ring by visceral tunica vaginalis, so that they lay free in the large tunica vaginalis—in fact, a condition of floating testicle. The veins, being somewhat varicose, were removed for the distance of 1 in., and the catgut ligatures were tied together, so shortening the cord. The parietal tunica vaginalis was clipped away, and the visceral layer over the testicle was scraped with the knife. Two catgut sutures were inserted through the tunica albuginea and the raw surface of the scrotum. The after-history was uneventful, and three years have now elapsed without any recurrence of his previous trouble.

CASE II.

W. T., aged 16, was seen in the out-patient department of the Edinburgh Royal Infirmary in January, 1902. For four years he had had attacks of pain affecting the left testicle every two or three months. The attacks were predisposed to by walking, but at times came on at night. The onset of the attack was always sudden, the pain, sickening in character, shot up towards the left kidney, and caused prostration. In about a quarter of an hour vomiting took place, and later there was some swelling of the testicular region, followed by gradual cessation of the pain, and then disappearance of the swelling. Such an attack usually incapacitated him from work for a couple of days, and there was constipation. The present attack has lasted four hours and came on suddenly. There is pallor and faintness. The testicle is somewhat drawn up, exceedingly tender, and in the region of the epididymis there is a hard rounded swelling about the size of a hazel nut. A half turn was sufficient, from right to left—from within outwards—to bring about immediate relief and an appreciable descent of the testicle. Operation was recommended, and Mr. C. W. Cathcart, whose receiving day it was, admitted the patient, and most kindly asked me to operate.

Operation.—A few days later an oblique incision was made over the external abdominal ring and the tunica vaginalis exposed. It was found to be large, and extended from the external ring downwards. On opening it, about 2 drachms of clear yellowish fluid escaped. The testicle and cord hung free in this cavity from the external abdominal ring, and were covered by visceral tunica vaginalis. There was a broad arrangement of the cord, with separation of the vas deferens from the vessels, and the testicle itself hung almost horizontal. The parietal tunica vaginalis was removed, and a strip of the visceral investment was separated with difficulty from the free aspect of the testicle. Catgut sutures were inserted, uniting the fresh surface of the testicle and the scrotal wall.

The after-history was uneventful, and two years later the patient reported that he was in the best of health.

Case III.

A. W., aged 16, was seen in the out-patient department of the Edinburgh Royal Infirmary in February, 1902. For three years he had been suffering from sudden attacks of severe pain in the left testicle. Strain apparently brought on the attack, which varied in severity and duration. The pain was always sudden in onset, and got very severe in character. It was accompanied by vomiting, in a little time swelling appeared on the affected side, and at a variable time sudden relief would be obtained. As the attacks incapacitated him from work he applied for treatment. On examination there did not appear to be anything abnormal about the testicle, nor could the characteristic pain be induced by endeavours to twist the cord. Operation was recommended, and Professor Annandale, whose receiving day it was, operated later.

Operation.—The testicle, considerably atrophied and soft, was found lying free and horizontal in a large tunica vaginalis, which contained two to three drachms of clear fluid. The cremaster muscle was hypertrophied. The testicle and cord were covered by visceral tunica vaginalis, and the cord was broad, with separation of the vas deferens from the vessels. The tunica vaginalis was evaginated and stitched in this position, the testicle and cord lying in apposition to the fresh internal aspect of the scrotum, to which it was fixed by catgut sutures. As far as could be followed there was no recurrence of the previous symptoms.

Case IV.

W. G., aged 24, seen at the Royal Infirmary, Edinburgh, in September, 1902, when in charge of Mr. Cathcart's wards. A year ago he had a bicycle accident and injured his left testicle, which remained painful for three weeks. Three weeks previous to admission there was a sudden onset of pain in the left testicle, sickening in character, and this remained for four to five hours, swelling gradually taking place and the pain subsiding. There was no vomiting. Altogether there had been three attacks of a similar nature. On examination there was a slight varicocele, the testicle lay somewhat horizontal and could not be twisted so as to produce a recurrence of the symptoms. Operation was advised and carried out later. The testicle lay free and almost horizontal in a large tunica vaginalis, and with the epididymis and part of the cord was covered completely by visceral tunica vaginalis. There was free fluid present in the tunica, and the cord contained a slight varicocele and was broad in its arrangement. The varicocele was excised and the cut ends united, the tunica vaginalis clipped away, and the testicle anchored by catgut sutures to the rawed scrotal surface. Except for some slight superficial suppuration the case did well, but no after-history could be obtained.

Case V.

R. C., aged 13, was seen in the out-patient department of the Edinburgh Royal Infirmary in July, 1903. There was a history of recurring attacks of pain in the right testicle from the age of 3. These attacks usually began in the early morning, waking him from sleep. The pain was sudden in onset, sickening in character, and quickly followed by vomiting. He could not bear any handling of the part, the pain was so severe. In two to three hours from the onset swelling began, and disappeared in twenty-four hours after relief had been obtained. The severity of the attacks varied in duration and degree but always passed off suddenly. He noticed that crossing the left leg over the right tended to induce an attack. The right testicle was smaller than the left; it lay horizontal, and was markedly raised compared to the other. The characteristic pain could be induced by rotation of the testicle outwards. He had been treated with a truss for supposed hernia but no sign of one could be found. Operation was advised.

Operation.—Mr. Cathcart, into whose wards he was admitted, operated, and found the testicle considerably atrophied and soft. It was lying horizontal in a large tunica vaginalis, which contained clear fluid. The testicle and cord were covered completely by visceral tunica vaginalis, and the veins and vessels of the cord were enlarged. The cremaster muscle was hypertrophied. The tunica vaginalis was clipped away and the testicle sewn to the scrotum. Recovery was uneventful.

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AN INVESTIGATION ON THE REGENERATION OF NERVES,

WITH A VIEW TO THE SURGICAL TREATMENT OF CERTAIN PARALYSES.

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[Part I.]

The various nerve fibres which run in a nerve trunk may in the present stage of our knowledge be classified under the following groups:

1. Motor nerves proceeding direct from the central nervous system to skeletal muscles.

2. Preganglionic fibres arising in the central nervous system and ending in nerve cells placed peripherally (sympathetic ganglion cells, mesenteric ganglion cells, and those of the heart, salivary glands, etc.).

3. Post-ganglionic fibres arising in these peripheral ganglia and ending in smooth muscle and glandular tissue.

4. Afferent fibres arising in the peripheral sensory apparatus, and proceeding to the central nervous system, and having their cells stationed in ganglion close to but not included in the central nervous system; with these must be classified for the present the vaso-dilator nerves.

In investigating the results of nerve crossing, we have to bear in mind the fact that the particular nerves used may contain any or all of these groups. Sensory phenomena are extremely difficult to determine in animals; and in such nerves as those of the limbs the preganglionic fibres are absent. Thus the motor fibres attract our chief attention as they give results which are the most striking and easy to interpret.

The startling results obtained from nerve crossing have opened a very fascinating field in surgery. The earliest experiment in this direction was apparently performed by Fleurens[1] in 1824. This observer divided the two chief nerves from the brachial plexus in a cock; one nerve supplies the muscle of the superior and the other those of the inferior surface of the wing. They were both divided, and the proximal end of one joined to the distal end of the other and vice versa. After a time co-ordinated movement was observed in the limb. Since then many other observers have used different nerves for crossing. These nerves may have a similar or different function. Schwann[2] made some experiments on the sciatic nerve in the frog, to see if sensory fibres could establish a functional connexion with motor fibres. His results were against any such union. These have been confirmed by many other observers, including Bidder and Gluge and Thiernesse,[3] who crossed the hypoglossal and lingual nerves. It seems that any such functional union is very unlikely. In all this class of experiment there is a considerable risk of all the nerves uniting in a common cicatrix, which of course vitiates any result obtained. To avoid this, Rawa[4] used only one crossing, and excised a considerable length of the other nerves. Such a procedure, of course, results in permanent loss of power in one set of muscles antagonistic to those innervated by the crossed nerve. Such a condition is unsatisfactory and not very easy to interpret, owing to the contracture developing in the innervated muscles. Rawa crossed the peroneal and posterior tibial nerves, and describes a contraction occurring in the muscles normally supplied by the posterior tibial, when the peroneal which has been crossed is stimulated and vice versa. This observer also crossed the vagus and hypoglossal, widely excising one set, and in the animals which survived the function of the vagus or hypoglossal was apparently carried on by the crossed nerve. After six months' interval in the animal the central end of whose vagus was sutured to the distal end of the hypoglossal, rhythmical movements were present in the corresponding half of the tongue. These had a definite relation to the movements of respiration. The conclusions drawn from this were that the central end deter-

mined the nature, and the distal end the position, of the movements.

Langley[6] united the proximal end of the vagus to the distal end of the cervical sympathetic, and found the vagus had acquired an influence over all the structures innervated by the sympathetic. He had taken precautions to prevent the corresponding nerve joining in a common cicatrix, and he assumed that the "autonomic" motor fibres of the vagus to the oesophagus, stomach, lungs, and heart established this function. After a time the animal lost the dilated pupil and dilatation of the vessels to the ear seen after section of the sympathetic. It seemed that the vagus was exercising the tonic action on those structures which the sympathetic normally innervates. He also got return of most of the sympathetic functions when the distal end of this nerve was joined on to the proximal end of the lingual. This was presumably brought about by the vaso-dilator fibres in the chorda tympani branch.

Many experiments have now been done in nerve crossing where both pairs of nerves are kept, and some method of preventing union between the central and peripheral ends of the same nerve adopted. These confirm the original one of Fleurens, and are so interesting from their surgical possibilities that they may be briefly described. The fore limb of the dog was the part used. Stefani[6] crossed the median and musculo-spiral nerves, and after 202 days good co-ordinated and voluntary movements were restored. Two out of three of his experiments were vitiated by some of the central fibres joining on to the distal ones in the same nerve. Cunningham[7] successfully combated this tendency by wrapping round the nerves at the point of suture a layer of fascia. His experiments are also more conclusive, as he crossed the musculo-spiral with the whole of the nerves supplying the flexor muscles. After seventeen months electrical stimulation showed that the central end of the musculo-spiral had united with the peripheral end of the median and ulnar, and resulted in flexion of the limbs. At the same time volitional movements were far from satisfactory. In another set of experiments he crossed the median and ulnar nerves and found very good results following, but in these cases the immediate loss of power was not very noticeable. He concludes that after crossing two motor nerves the co-ordination was good, provided these nerves have a synergic function. When the nerves supply antagonistic muscle, however, the functional result is unsatisfactory.

Kennedy[8] made some very complete experiments in crossing the musculo-spiral with the median, musculo-cutaneous, and ulnar—that is, the nerve supply of the whole of the flexors and extensors was interchanged.

This procedure maintained the balance of opposing action and prevented the development of contractures. Precautions were taken to avoid confluent union in a common cicatrix by interposing the internal anconeus muscle between the two sets of nerves. Co-ordinated voluntary movements were very completely restored, and a subsequent dissection showed no confluent union. Stimulation of musculo-spiral above the line of suture resulted in flexion, and vice versa. Thus, as Kennedy remarks, for restoration of function it is not at all necessary that the old paths for nervous impulses should be restored. Probably the same thing holds after simple division and suture of a nerve. The exact axis of the trunk is altered, and it is extremely likely that many of the peripheral fibres do not unite with the central ends of those with which they were formerly continuous. This means that in some cases the motor cells of the spinal cord supply different muscle fibres to those which they originally innervated. After cutting a nerve it apparently unites equally well as regards function whether the axis of the trunk be maintained or the lower piece be given a half twist round. Thus a considerable amount of co-ordination has to be developed, and I believe this accounts for the fact that the very delicate movements are with great difficulty—if ever—regained, after division of a nerve. This also agrees with the fact that when divided nerves are joined in their old position, function does not return any earlier than when they are crossed, though co ordination may do so to some degree. Probably age plays a prominent part in this result, for the younger the animal the easier is it for fresh paths to be opened up.

In connexion with this subject, the state of the cortical centres after nerve crossing is of great interest. Stefani, in the work previously referred to, investigated the condition of these centres. He states that there is a loss of irritability in them. Cunningham finds the cortical representation is changed after nerve crossing, but stimulation of any particular area gives rise to inco-ordinate movements. Kennedy finds the cortical areas for flexion and extension are interchanged after nerve crossing, and produce co-ordinate muscular action.

The next class of nerve crossing consists in suturing the central end of one to the peripheral end of two or more nerves. This has been used to treat certain cases of paralysis, and has been almost exclusively practised on the facial and spinal accessory nerve. The central end of the spinal accessory is sutured to its own peripheral end, also to the peripheral end of the facial which supplies the muscles. Some of the fibres of the spinal accessory unite with their own peripheral ends, and others with the peripheral fibres of the facial. This operation was first performed in man by Faure and Furet[9] in a case of facial paralysis due to a bullet penetrating the ear. The lesion was of eighteen months' standing, so no functional result took place. Kennedy, in the paper previously referred to, reports fully the case of a woman on whom the operation was performed. She suffered from facial tic, and so of course the muscles had not undergone any atrophy at the time of the operation. A good result was obtained. It was interesting to note that when she voluntarily raised the arm on the side operated on, the same side of the face contracted. This was due to the nerve impulse passing along the spinal accessory to the trapezius muscle, as well as along the facial nerves. Bréavoine[10] in his paper gives a drawing of the point of union of the spinal accessory and facial nerves. It is stained by Weigert's method, and shows some of the fibres of the central end of the spinal accessory going down the distal part of both spinal accessory and facial nerves. A similar result is obtained by crossing other nerves, such as the hypoglossal and facial. I have a dog at present whose left facial muscles are innervated by part of the twelfth nerve; nothing unusual is noticed when the animal laps. These experiments show that the muscles supplied by two nerves can be innervated by suturing these to the central end of one of them. The nerve fibres of this central branch effect a junction with the nerve fibres in both peripheral branches. I have emphasized that a raw surface is necessary. It seems that no junction occurs if a nerve is implanted laterally on to the side of a second when the latter is intact. Desprès[11] performed this experiment in the case of the median and ulnar nerves; and Neugebauer[12] with the peroneal and tibial nerves, and in both cases without any successful result.

In a recent communication Langley and Anderson[13] have made very extensive observations on the union of different kinds of nerves. They conclude that (1) the central end of an efferent fibre can make functional connexion with the peripheral end of any other efferent fibre of the same class, whatever be the normal actions produced by the two nerve fibres; (2) functional union is not possible between efferent fibres proceeding from the spinal cord and post-ganglionic nerve fibres, that is, fibres arising in peripheral ganglia, and ending in smooth muscle and glandular tissue; (3) afferent fibres cannot unite with efferent or post-ganglionic fibres, to give a motor effect, though they may possibly join anatomically.

It has long been known that conductivity can be restored in a divided nerve if the cut ends be sutured together. This can take place even though the suturing be performed a considerable time after section of the nerve, if the ends be freshened and brought into apposition. Until very recently it was believed, chiefly from the work of Ballance and Purves Stewart,[14] which agrees with the older experiments of Howell and Huber, that a considerable amount of regeneration takes place in the distal end of a cut nerve which remains unsutured to its central end. Complete regeneration, however, can only take place when the continuity of the nerve is restored. This is known as the "autogenetic" theory of regeneration. Langley and Anderson's[15] experiments cast some doubt upon this theory. These observers are inclined to the old belief that the fibres from the central end grow down into and along the peripheral end, and that no regeneration at all takes place in the latter unless it is connected with its own central end or the central end of other nerves. They question the technique of the supporters of the "autogenetic" theory, which usually consisted in excising a considerable length of nerve or twisting the central end up and fixing it to the skin. Langley and Anderson explain the result so obtained by the fact that the peripheral end of a cut nerve, when sewn into the skin or left lying among muscles, may make connexion with the central nervous system by means of the nerves of the surrounding cut tissues, though it makes no connexion with its own central end.

Head and Ham[16] removed a considerable length of the radial and sciatic nerves in cats, and found no medullated fibres present in the peripheral trunk in 249 and 100 to 150 days respectively. These experiments also are against the "autogenetic" theory.

On the other hand, many cases are reported of some return in sensation in a few days after secondary suture of nerves which have been previously divided. It is obvious that this time is too short for any fibres to have grown down from the central end of the nerve, along to the sensory end organs. But the areas of distribution of sensory nerves are somewhat variable, and what is more important, they considerably overlap. Thus, these cases of supposed early return of sensation after union of nerves which have been a long time divided are not conclusive.

At the present time we cannot say definitely whether any regeneration at all takes place in the peripheral end of the cut nerve if it remains unconnected with its central end (provided, of course, that it does not establish more or less union with other nerves).

My own experiments were directed on the same line as the crossing of facial and spinal accessory, but two nerves which supplied antagonistic muscles were used. The hind limb of the dog was the part experimented upon in all cases, for though this does not give a good indication of the return of delicate movements, it is very easy to deal with the whole of opposing muscles. As the animals were not kept alive more than five months, the sensory phenomena were disregarded. Probably, as in man, sensory fibres regenerate earlier than motor ones. In fact, volitional co-ordination is impossible without sensory impressions; but a quiet dog will not evince any discomfort on being pricked, even in health. Thus it is impossible to estimate the early stages of restoration of sensation. The nerves were divided in the popliteal space, and were reached by means of a straight incision and retraction of the hamstring muscles. The sciatic nerve bifurcates deep down almost on the femur, but at a very variable height, into the two popliteals. With an unusually low point of division manipulation of the nerves is difficult. A considerable quantity of fatty tissue fills the space, and this with some lymphatic glands is best removed, as with traumatism it is very liable to suppurate. Thin chromicized catgut was used for suturing, as it is absorbed, though not too rapidly. As few sutures as possible were passed through the nerve substance. Any attempt to get an efficient hold by means of the nerve sheath in the small nerves of the dog failed. Cases which suppurated were rejected, but one animal in which the skin wound separated, but without any sepsis, was allowed to continue. An impervious suture, like silkworm gut, was used to unite the skin wound. After trying many appliances for protecting the wound, such as plaster-of-paris and collodion, I rejected all, and merely powdered the area of the wound with boracic powder. Dressings of any kind seemed to irritate the animal and caused it to bite and rub the wound.

The following is a list of the animals experimented upon. They were all anaesthetized with a mixture of equal parts of ether and chloroform after having morphine given them:

Dog I. Operated on January 20th, 1903. Both the internal and external popliteal nerves were cut completely across on the left hind leg. The central end of the internal popliteal was sutured to the peripheral end of both the internal and external popliteal by a single suture of chromicized catgut. As much as possible (about $\frac{3}{4}$ in.) of the central end of the external popliteal was excised. No attempt was made to interpose any muscle or fascial tissue between the central and peripheral ends of the external popliteal. After recovery from the anaesthetic, and when the wound was healed, the animal walked with the foot doubled over on the dorsal surface.

February 27th, 1903. The animal only occasionally treads on the dorsum of the foot, any attempt to scratch with the limb is ineffectual, and the movements lack co ordination. At the same time the ankle joint is loose, and permits of flexion and extension to an abnormal degree. No ulcer has formed on the dorsal surface of the foot; sensation, as far as can be made out, does not differ in the two legs.

June 8th, 1903 (139 days). Function by this time has very much improved, and the animal does not go over on the dorsal surface of the foot at all. It runs and walks about almost like a healthy dog. The animal was anaesthetized and the popliteal space opened up; a slight swelling was present where the three nerves were sutured together. The central end of the external popliteal had a bulbous termination, but no fibrous strand extended down to the line of suture. Stimulation of the internal popliteal at A (above the point of suture) caused contraction of both flexor and extensor muscles, but the flexors of the toes predominated. After cutting through the internal popliteal at B (below the line of suture) stimulation of the internal popliteal at A resulted in forcible contraction of the extensor muscles of the toes. Thus the nerve impulse travelled from the central end of the interior popliteal along both the distal end of the interior and exterior popliteal to the muscles.

Dog II. Right leg operated on August 7th, 1903. A similar operation was performed as in Dog I, but the central end of the external popliteal was sutured to the peripheral ends of both internal and external popliteal. About $\frac{7}{8}$ in. of the central end of the internal popliteal was excised.

August 22nd, 1903. The animal usually holds the leg off the ground in walking, but when it is used the foot always comes down on the dorsal surface. The skin wound is gaping slightly, but no deep suppuration has occurred.

September 15th, 1903. Two ulcers which formed on the dorsal surface of the foot, have almost healed. The wound in the popliteal space has perfectly united. Animal walks fairly well, but still goes over very often on the dorsal surface.

November 15th, 1903. The ulcers have completely healed, and the animal walks much better, the foot only occasionally doubling over. The right leg is weaker than its fellow; this is well seen when an attempt is made to stand on the hind legs, for the right one often gives way. Co-ordination is not perfect, as the animal is somewhat awkward in scratching itself with the injured limb, and the foot is rather loose at the ankle joint.

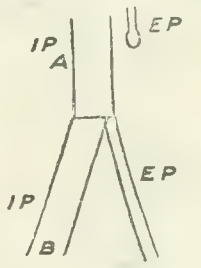


Fig. 1.

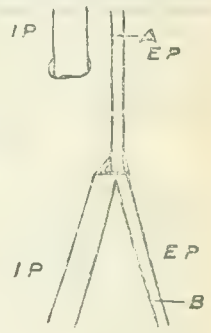


Fig. 2.

November 25th, 1903 (110 days). The popliteal space was opened up and the nerves subjected to electrical stimulation. The central end of the internal popliteal had formed a bulb, but there was no fibrous strand growing down from this to the line of suture. A slight swelling had formed where the three ends had been sutured together. Stimulation of the external popliteal at A (considerably above the line of suture) results in contraction of both flexor and extensor muscles of the toes, but the latter, though usually the weaker set, now predominate. After cutting the external popliteal at B (below the line of suture) stimulation gives rise to vigorous contraction of the flexor muscles. This shows that some of the fibres of the central end have joined on to others in the distal end of internal popliteal. The nerves were removed, pinned out in a stretched condition on a sheet of cork, and hardened in Muller's fluid. Pieces of each were embedded in celloidin and cut as nearly as possible transversely to their long axis. This was effected by placing small lengths of the nerve upright in a block of liver tissue. They were stained by Weigert's method, and the fibres counted under the microscope with the aid of an ocular micrometer. The numbers of fibres in the central portion of external popliteal was 4,435, and in the distal part of external popliteal 2,786. In the distal portion of internal popliteal there were 7,196 fibres.

Dog III. The left hind leg was operated on on October 29th, 1903. About $\frac{3}{4}$ in. of external popliteal was excised. A cut was made transversely in internal popliteal nearly half way through its entire thickness. Into this gap the peripheral end of external popliteal was drawn and fixed as accurately as possible by a single suture. The wound healed by first intention. Immediately after the operation the animal, when walking, held the injured leg off the ground, the toes were fully flexed, and when the foot was placed on the ground it was always on the dorsal surface.

November 14th, 1903. Animal constantly uses left leg in walking, and the plantar surface is placed on the ground, though very rarely the dorsal is used.

February 12th, 1904. Function is almost perfect, the animal never walks on the dorsum of the foot, the only difference between the hind legs is seen in the finer movements, such as in scratching a particular spot; but even here close observation is necessary. Sometimes, too, in jumping off the hind legs, it appears as if the left leg were a little weaker than its fellow. On asking a stranger to look at the dog, he stated that he could detect nothing peculiar when the animal was running about. The amount of recovery was about the same as in Dog I; 136 days after operation the dog was anaesthetized and electrical stimulation used. On stimulating internal popliteal above the point of junction with external popliteal, flexion of the toes and partial extension of the foot took place. The tendons in the front of the leg could be felt actively contracting: on cutting internal popliteal below at B stimulation resulted in vigorous flexion of the foot, and considerable, though less powerful, extension of the toes. The central end of external popliteal ended in a bulb and from this a thread of fibrous tissue tapered off towards the point of suture of external popliteal to internal popliteal. I was anxious to make certain that none of the fibres of the central end had joined

those in the peripheral end of external popliteal, so sections of the end of the bulb and fibrous thread were cut and stained by Weigert's method. These showed the nerve fibres extending a short distance down the thread, but they stopped quite ½ in. above the junction of external popliteal to internal popliteal. They had the irregular curling distribution usually seen in the bulbous end of a cut nerve. Before stimulation, this bulb and thread was separated from internal popliteal, so the results obtained could not have been in any degree caused by the two ends of the external popliteal joining on to one another. Counting of the individual fibres showed there were 7,740 in internal popliteal above the point of junction with external popliteal, below this point there were 7,275 fibres. In the peripheral end of external popliteal there were 2,431 fibres. This experiment differed from the former two in that the majority of the fibres of one nerve, the internal popliteal, were not divided and so had no chance of joining with those of the peripheral part of external popliteal. Consequently a portion of the antagonistic muscle to the extensors was never paralysed.

Dog IV. The left leg operated on May 11th, 1904. Both external and internal popliteal were divided completely across as low as possible, and the central end of external popliteal was sutured to the peripheral ends of both external and internal popliteal. A suture was passed through the cut end of the central part of internal popliteal, which was doubled back and attached to the sheath of the inner side of the sciatic nerve. The wound healed by first intention.

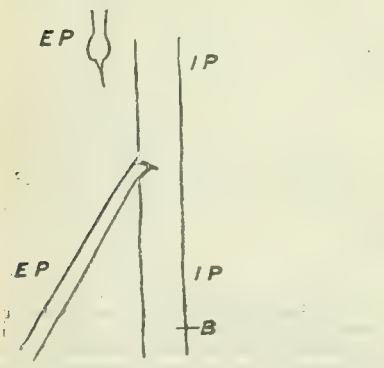


Fig. 3.

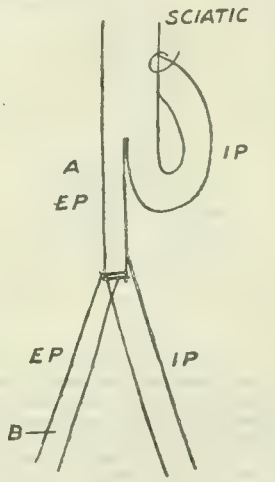


Fig. 4.

May 20th, 1904. The dog usually keeps the leg well up, but when placed on the ground the dorsal surface of the foot is always downwards.

August 3rd, 1904. The dog walks fairly well, but the foot is often placed with the dorsal surface on the ground: the muscles of the left leg are distinctly smaller than those of the right. The left leg is decidedly weaker than its fellow, and this is easily seen when the dog jumps. Two small ulcers have formed on the dorsum of the foot.

September 3rd, 1904. These ulcers have extended and the outer one has now exposed the extensor tendon, and has spread round the nail to the plantar surface of the foot.

September 14th, 1904. Up to this time the ulcer did not cause any pain, but now the animal avoids using the limb by holding it off the ground. It has extended into the joint of one toe, and has an unhealthy appearance; the corresponding nail has dropped off. September 25th, 1904 (after 137 days), the animal was anaesthetized and the nerve stimulated. The curled-up central end of internal popliteal was seen as a large bulb about 2 in. above the line of suture. No fibrous prolongation extended down from it, and no fibres could possibly have grown down to the line of suture. The external popliteal nerve was cut at A and B (above and below the point of suture). Stimulation at A caused vigorous contraction of the muscles at the back of the limb. Stimulating the proximal cut end of the external popliteal at B also resulted in the same contraction. This is an axon reflex, and the impulse travels up the external popliteal to the line of suture and then down the internal popliteal to the muscles. The tendo Achillis was detached from the os calcis and fixed to a lever, and it was found that the smallest stimulus capable of producing a contraction when applied at A would do so when given at B. The left leg below the os calcis was put in an oncometer, and the animal was curarized and artificial restoration kept up. Stimulation at A gave no alteration in the volume of the limb. Curare does not paralyse the vasomotor nerves. This proved that the vasomotor nerves had not regenerated. Similarly no axon reflex was obtained with the vasomotor nerves. This absence of vasomotor regeneration is interesting in connexion with the "trophic" ulcers. The counting of the nerve fibres gave 5,826 in the central end of the external popliteal; in the lower end of the external popliteal there were 1,880; in the peripheral end of the internal popliteal 6,808.

RESULTS OBTAINED.

1. When the peripheral ends of two nerves supplying antagonistic muscles are sutured to the central end of one of them—the other being thrown out of action—the fibres of this central end join on to those of both peripheral nerves and establish a functional result. Regarding this from the point of view of the motor cells of the anterior horn of the spinal cord, we see that it is possible to throw out of action those innervating one of two opposing groups of muscles, and to allow the remaining cells which previously set one group only in action to extend their sphere of innervation, and thus supply both groups. The fact that the central end of one nerve may innervate muscles through the peripheral end of two nerves has been shown by several observers in the case of the spinal accessory and facial nerves, but never before, so far as I am aware, with a nerve supplying antagonistic muscles.

2. As the animal has good co-ordination, it evidently has the power of using each group of muscles separately, and when using them together it can adjust their action so as to give accurate or fairly accurate movements. This is interesting in connexion with the axon reflex, and I shall discuss this relation later on. It is evidently due to a re-education of co-ordination, and would probably be more easily and thoroughly effected in young animals than in old ones. In Kennedy's interesting case, where the facial nerve was implanted in the spinal accessory, at the moment of rising the arm on that side the corresponding half of the face contracted. This latter "speedily passes away, although the arm is kept up."[17] Possibly it will not occur at all when the co-ordination has been further improved. Whether the very delicate movements, such as are necessary in playing a violin or to give touch to the piano, would return after nerve crossing, or even after simple nerve division and immediate suture, is doubtful. Bowlby[17] thinks this would not return in the latter case.

3. When a large nerve can be used to innervate two or more nerves, a better functional result is obtained than when a small one is used. This probably depends on the number of fibres (or motor cells) available in the two cases; the results in my own experiments were certainly much better when the central end of the internal popliteal was used, compared with the smaller external popliteal. Probably a limit will soon be reached, when the central end of a small nerve would cease to produce any useful movement.

4. When using one nerve to innervate two peripheral nerves, the muscles supplied formerly by the central nerve tend to predominate on stimulation, even if they are normally the weaker set. This happened in Dogs II and III, but I am doubtful if these are sufficient data on which to base the conclusion. A good deal may depend on the relative areas of the cut end of the central nerve which are in contact with the cut peripheral nerve. With comparatively small nerves, as in the dog, this is difficult to estimate. Langley and Anderson show that the peripheral end of cut nerve fibres exert a chemiotactic influence on their own central end, and this is greatest amongst the similar members of the same class; probably it holds to a lesser degree in different nerves of the same class. But this chemiotactic attraction may not be sufficient to counteract the purely physical one of having a large area of the cut face of two nerves in contact.

In Dogs II and IV the distal end of the internal popliteal contained about three times the number of fibres that the distal end of the external popliteal had. In these cases the central end of the external popliteal was used. In Dog III the flexor muscles of the ankle were apparently the more powerful.

5. The counting results and the axon reflex obtained in Dog IV show that when the central end of one nerve is joined on to the peripheral ends of two nerves, there are considerably more fibres in the lower set than in the upper—that is, a single nerve fibre in the central nerve may divide into two or more fibres which go to the peripheral nerve. The following is a tabulated list of the countings:

No. of Animal.	Upper Set.		Lower Set.
Dog II	E. P. 4,435	9,982	E. P. 2,786 I. P. 7,196
Dog III	*I. P. 7,740	9,706	E. P. 2,431 I. P. 7,275
Dog IV	E. P. 5,826	8,868	E. P. 1,880 I. P. 6,808

*I. P. not completely divided at operation.

At first I thought that one fibre usually divided into two in the peripheral nerves (the discrepancy being due to unavoidable errors in counting), but the count in Dog IV, and the fact that the same animal proved no regeneration took place in the vasomotor nerves, negatived this idea. The count in the upper set of nerves thus included the vasomotor fibres, which were unregenerated in the lower set. This

makes the difference between the upper and lower counts more marked. As the nerves included both sensory and motor fibre, we cannot say more than that either or both of these two classes may divide into several branches after suture. Professor Osborne suggested I should try and get the axon reflex which we were successful in obtaining in Dog IV on September 25th, 1904.

This shows that a single fibre from a ganglion cell may divide into two or more fibres and supply antagonistic muscles. On September 27th, 1904, that is two days later, the *Journal of Physiology* arrived, giving an account of the same experiment,



Fig. 5.

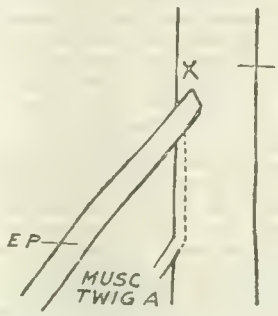


Fig. 6.

performed by Langley and Anderson, but Dr. Osborne's idea was obviously an independent one. These observers apparently consider that the axon reflex, or division of fibre as shown in the figure, accounts for the whole of the contraction occurring in the antagonistic muscles. I cannot conceive how the co-ordinated useful movement would be possible if every fibre divided to supply antagonistic muscles, and am at present trying to show that only some of the fibres do this. These experiments are not yet complete. It is quite likely that every fibre divides, but in most cases all the branches go to one set of muscles. The fact that in Dog II the peripheral external popliteal contained 2,786, and the peripheral internal popliteal 7,196 fibres, and in Dog IV the peripheral external popliteal 1,880, and the peripheral internal popliteal 6,808 fibres, excludes the fact of every fibre dividing into two branches of which one goes to each of the two antagonistic sets of muscles (or if more than two branches, an equal number going down either nerve). But it is still compatible with the theory that a fibre in the proximal nerve may divide into several branches, the majority of which go down one nerve. Even this hypothesis would result in a considerable waste of nervous and muscular energy, and would probably be incompatible with any accurate co-ordination of movement.

The counting shows that after suturing two nerves into one, the number of fibres in the peripheral nerves is not as great as it is normally (at the end of four and a half months). But at this time vasomotor regeneration has not taken place, and these fibres may possibly make up the deficiency. I intend to investigate this point later, but at present I cannot say that any diminution in number will ultimately be found. Thus there may be no wasting of muscles after nerve crossing, and all the muscle fibres may be innervated by "branch fibres," if I may so call them, but my experiment with the external popliteal show that a limit is soon reached in this direction, and possibly, too, to the number of branches into which a single fibre can divide.

The microscopical examination of the nerves after crossing shows some interesting facts. Most of the main muscular branches which come off the internal popliteal below the line of section were stained and examined. In every case except one, the muscular trunk contained some nerve fibres. The exception was found in a small muscle twig coming from the internal popliteal at the lower limit of the popliteal space in Dog III. This was possibly due to the mechanical effect of the interposition of the external popliteal in the gap in the internal popliteal proving too much for the chemiotactic attraction of the fibres from X into A (see Fig. 6).

The nerve fibres in the peripheral nerve often have a wavy course; this was shown in longitudinal section, and accounts for the fact that in transverse sections some of the fibres appear round and others oval, or occasionally spindle shaped. This factor adds considerably to the difficulty of counting.

The arrangement of the peripheral nerve into fasciculi is altered after division and union. The large fasciculi are broken up into numerous smaller ones, which, however, suggest the original outline of the former bundle. Thus the normal external popliteal in a dog consists, as shown in the figure, of a single large oval group of nerve fibres, surrounded by a thick connective-tissue sheath.

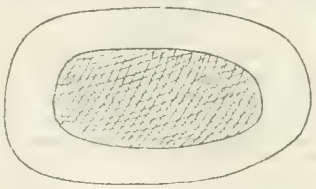


Fig. 7.—Normal external popliteal nerve magnified.

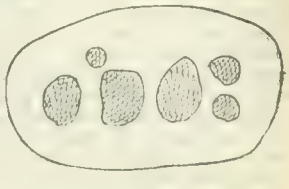


Fig. 8.—Peripheral end of external popliteal after suture.

In the peripheral external popliteal, after suture, six or seven small groups are seen, in which an evident relationship to the single oval group is apparent. These groups are separated by connective-tissue partitions. The normal internal popliteal consists of eight bundles, but in one case, after suture (Dog IV), the peripheral internal popliteal contained thirty-three small groups. At the same time, in all my cases the size of the peripheral nerve was much smaller than that of its corresponding central end.

Application of the Results to Surgery.

In infantile paralysis we have a loss of power in certain muscles as the result of destruction of a certain number of motor ganglion cells in the anterior horn of the spinal cord. The foregoing experiments show that a certain number of these motor cells can be dispensed with and yet all the functions of the limb be efficiently retained. This suggests the idea that it is probable a good result could be obtained by suturing the nerve supplying the paralysed muscles on to the cut surface of the proximal end of an adjacent healthy nerve. The healthy nerve may be cut partly across and the paralysed one fixed in the gap so formed (as in Dog III). This has the advantage that some of the muscles are never cut off from their nerve supply, but the healthy nerve may be cut completely across, and its own peripheral end, as well as the peripheral end of the paralysed nerve, sutured to the central end. This has several advantages; in the first place, it gives all the fibres in the proximal nerve the chance of branching (for this seems impossible without dividing a fibre) and supplying a greater number of muscle cells. In the second place, the innervated muscles are liable to shorten and develop a contracture before regeneration in the divided nerves has taken place. Lastly, it is possible, as in Dog III, that the mechanical interposition of the paralysed nerve may prevent some of the branches of the peripheral end of the healthy nerve receiving any fibres. I think nerve crossing would be specially applicable in the common form of infantile paralysis where the extensors of the toes and the peronei are affected. The external popliteal being small compared with the internal nerve, experience with the dog would lead us to expect a good functional result. Where the calf muscles are affected, Dogs II and IV would lead us to expect a useful though not so strong a limb as in the former case. There are two classes of cases, where it is probable that this procedure would be useless. First, in those cases where a large amount of recovery takes place with a limb fairly useful, but still not so strong as its fellow; it is very doubtful if we could hope for a better result from nerve suture than would occur naturally. A great many cases of infantile paralysis go on to almost complete recovery in the course of time. Secondly, in very severe cases, where only a small group of muscles remains intact (as, for example, a case where the peronei alone retain their function), it is very questionable if the fibres of the musculo-cutaneous nerve could innervate at all efficiently the muscles supplied by the anterior tibial and large internal popliteal. Several objections may be raised against this procedure. It is impossible to tell for a considerable time how much recovery will take place naturally, and during this delay fatty degeneration and atrophy of the muscle fibres is going on. It is known that when a muscle has been cut off from its nerve for some time (about two years), little or no recovery follows suture of the separated ends of the nerve. It should, I think, be possible to come to an opinion as to whether the particular case merits trial of nerve crossing, in about six months at the outside limit, and very

often in a much shorter time. Meanwhile the nutrition of the muscles should be kept up by electricity and massage, so that if suture be performed, undegenerated muscle fibres should be ready to respond to the nerve stimulus. Ballance and Purves Stewart's experiments show that degeneration occurs in the distal end of a cut nerve whether sutured or not, and regeneration of the peripheral fibres goes on to a certain point without any stimulus from the central end, thus leading to the production of protoplasmic threads from the nuclei of the primitive sheath. These are the "embryonic fibres" of Howell and Huber. Thus, if the autogenetic theory be correct, it does not matter for the first few weeks whether the ends are united or not, as far as ultimate regeneration and function are concerned. In some cases, when an early decision can be made, it may be possible to perform the crossing within the first three weeks, which is as good as the immediate union I have made in the dog.

In many cases a muscle is not completely paralysed, a few of its motor cells having recovered. If the nerves are crossed, as in my experiment, the proximal end of the damaged nerve not being used, some healthy and useful horn cells are wasted. It would be best to stitch the cut surfaces of the four nerves in apposition (as in the figure),

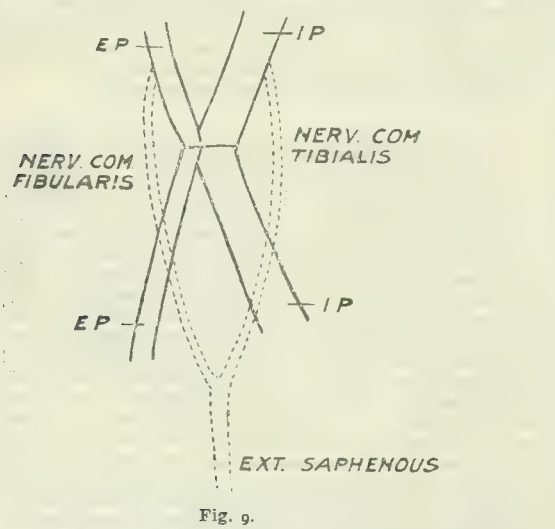


Fig. 9.

and give the few healthy fibres which remain in the damaged nerve a chance to join on to some in the distal end. Of course I could not perform this experiment in animals, as there is no easy means of destroying a certain number of motor horn cells to produce a condition analogous to anterior poliomyelitis. A third objection may be raised against this procedure in that all the nerves of the limb being divided, "trophic" troubles would be very liable to occur before union of the nerves took place.

I believe the so-called "trophic" ulcers are really due to absence of the sensation of pain in the part, as well as the absence for a considerable time of regeneration of the vaso-motor nerves. The animal consequently does not trouble to rest the limb or protect it from injury. It is just as liable to occur after simple division and immediate suture of a nerve. I have a dog at present whose left sciatic nerve was divided and at once joined. An ulcer formed which led to loss of one of the toes, but the ulcer has now healed up and the leg recovered its function. After dividing the nerves in man such troubles could be prevented by avoiding prolonged pressure on any part of the limb. In infantile paralysis sensation is unaltered, so the purely sensory nerves need not be divided at all—for example, the external popliteal of the nerve in man gives off the nervus communicans fibularis, and the internal popliteal the communicans tibialis. These two join to form the external saphenous nerve, which gives sensation to a large part of the foot. These two communicantes nerves can easily be left. Sometimes they arise too low down in the space to allow of the external being brought into contact with the internal popliteal. In this case the fasciculus can be separated some distance up from the main trunks, and thus allow the latter to be drawn aside. In the same way, if only the peronei muscles were affected, it would probably be unwise to cut across the external popliteal nerve. If this nerve be followed to the neck of the fibula it will be found to divide, and the nerve supplying the flexors of the ankle can be separated from the musculo-cutaneous right up to the popliteal space, by merely splitting the external popliteal. In this case it would be preferable to suture the separated musculo-cutaneous to the large internal popliteal rather than to the small anterior tibial. By these means a good many nerves can be preserved intact, and this, combined with proper care, should prevent any troublesome pressure sores and "trophic" ulcers. Contrasting this procedure with Nicoladoni's operation, it may be said that it would probably be an improvement on it in some cases. Nerve crossing would restore some of the power in the paralysed muscles, while tendon implantation merely utilizes the tendons of insertion of the useless muscle to which portions of vigorous and healthy muscles are sutured. At the same time, it must be acknowledged that no possible benefit could accrue by nerve crossing in long-standing paralysis; here the muscle fibres have atrophied and disappeared, and are beyond the stage of regeneration, when nerve stimuli are re-established.

I have not had an opportunity of trying this operation in a living subject, but it is easy to perform on the cadaver. A slightly curved incision is made in the centre of the popliteal space, and a very short flap of skin and subcutaneous tissue raised. Immediately under the strong deep fascia the popliteal nerves are met. If the external popliteal be the one whose motor cells are destroyed, it is cut completely across after splitting off the sensory nervus communicans fibularis and tibialis. The internal popliteal is cut, and the two peripheral ends sutured to the central end of the internal popliteal. At the same time, the central end of the external popliteal should be sutured to the junction to utilize any remaining fibres it may contain. Catgut or tendon sutures which are absorbed, and leave little scar tissue, should be used. These should take hold principally of the nerve sheath, so as to avoid breaking up the nerve fibres.

Summary.

1. It is possible to functionate two opposing groups of muscles by a single nerve, which previously supplied one group only; or, to put it in another way, it is possible to innervate fairly completely muscles with a much smaller number of motor horn cells than usually bring about this effect.

2. When the central end of one nerve is joined to the peripheral ends of two nerves there are many more fibres in the peripheral nerves than in the central nerves, so that the nerve fibres in the proximal trunk divide on going to the distal trunks.

3. In some cases at least some of the branches from one nerve fibre go to supply one set, and others the opposing set of muscles. This may prevent very delicate movement being restored.

4. After this form of suturing the arrangement of the nerve fasciculi in the peripheral nerves is considerably altered.

Though these experiments are incomplete, as they have not been performed on the human subject, I think sufficient has been done to justify the clinical trial of the method. It seems it would be likely to improve some of those distressing cases of infantile paralysis for which so little can at present be done. It may be applicable, too, in some injuries with loss of some of the length of the nerves, tumours of nerves, etc.

In conclusion, I should like to express my thanks to Professors Osborne and Martin for the help in this work, and also Mr. Mattheson, who assisted me in most of the operations.

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Mr. Francis J. Loveday, M.R.C.S., L.R.C.P., has been elected People's Churchwarden of St. Barnabas' Church, Pimlico, for the ensuing year.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A NOTE ON MOUTH-BREATHING AS A COMMON ANTECEDENT TO PHTHISIS.

Observations at three open-air sanatoriums from October, 1904, to April, 1905, give the following results:

Cases Examined.	Percentage under 20 years.	Percentage of Mouth-Breathers.
Of robust build 23	—	34.7
,, neutral ,, ... 25	12.0	16.0
,, weedy ,, ... 19	26.3	5.2
Total 67	11.9	19.4

The mouth-breathing was due to: Naso pharyngeal conditions ... 2; Deflected septum ... ... 1; Habit and uncertain causes ... 8; Projecting teeth 2

The inferences drawn are:

(*a*) Support to the inhalation theory of infection. The connexion between mouth-breathing and phthisis seems not to be adequately recognized, but it is obviously of practical importance, not only as regards prophylaxis, but also especially when a phthisical patient leaves a sanatorium to return to a more dusty air. Again, the deficiency of the inspired air in warmth and moisture cannot be favourable to cure nor to continued quiescence of a pulmonary tuberculous focus. As a measure of general hygiene among the healthy frequent change and speedy disinfection of handkerchiefs would seem advisable if (as some of Cornet's classical experiments also show) the nasal passages act as such an efficient filter.

(*b*) Indirectly, the value of pulmonary tuberculosis as a physical selective agency.

For the robust people who succumbed did so more often at a later age, and under the stress of continued dust inhalation, than did the obviously weakly.

The eugenic aspect of tuberculosis is of course too large a subject to be approached on scanty evidence. But that one-fifth of an unselected series of consumptives should be mouth-breathers, and that such a trifle as projecting teeth may conspire with unfavourable conditions to make a man phthisical, seem facts worthy of notice. I have not had much opportunity of compiling a bibliography; the only reference indeed that I can find to the condition under notice is in this year's *Medical Annual*, which I quote:

Moeller and Rappoport point out the importance of the condition of the air passages as predisposing to phthisis. Especially is this so in disease of the naso-pharynx in which the functions of filtering and moistening the air going to the lungs are lost. In support they show the very high percentage of some disease of the upper air passages occurring in cases of pulmonary phthisis. (*Zeits. f. Tuberk. u. Heilk.*, July, 1903).

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CEREBRAL SYMPTOMS IN MEASLES

D. G., aged 12 years, was first seen on February 25th, the third day of the rash.

The girl had hitherto been in every respect healthy and the family history was singularly good, with the exceptions that three of the elder children who suffered from measles many years ago all showed severe infections, and that the eldest brother (now aged 24) nearly died when 12 years old from some cerebral condition which their then attendant (a man of much experience) believed to be tuberculous meningitis.

The parents were in good social circumstances, and the child, the youngest of the family, was receiving every care and attention. The rash appeared on the morning of February 23rd. The temperature, taken regularly for some days, had never risen above 102 5°. When I first saw her the case appeared to be a quite straightforward one of ordinary measles, with no pulmonary complications. The rash, which covered her from head to feet, was "out" well, the temperature was only 102 5°; but there had been much gastric irritability and vomiting. This subsided in a few hours with judicious dieting. During the next day the child seemed quite bright and cheerful, and was taking nourishment better, but her mother noticed frequent twitchings of the limbs and face. At about 5.30 p.m. on February 26th she was sitting up in bed to take some nourishment, laughing and talking to a sister, when suddenly she fell back in "a fit." This is said to have been manifested by complete unconsciousness, accompanied by generalized convulsions of about half a minute's duration.

When I saw her some half-hour later the condition was as follows: The convulsions had completely passed off. She was lying on her left side, moaning and restless. External stimuli were responded to by impatient movements only. She could be made to turn on to her right side, but, in whatever attitude she lay, there was constant jactitation. She was entirely irresponsive to imperative commands and questions, and showed no recognition of her surroundings. The pupils were equal and were somewhat sluggish to light. No paresis anywhere could be recognized, but the right arm and leg were thought to move more stiffly than the left. She could swallow, though with difficulty. Owing to the restlessness, it was for some hours difficult to obtain reliable temperature and pulse records, but there was certainly no hyperpyrexia; in fact, my thermometer only gave a reading of 98.6°. Throughout the night her condition remained unchanged, and on the morning of February 27th, in view of the very unusual features of the case, I requested a consultation with a colleague. The restlessness, moaning, and semiconscious resistiveness were unabated, but we were unable to find any localizing sign or symptom in any organ or system. In especial, there was no middle-ear involvement; and the lungs were clear. Temperature 102°, pulse 120. Later in the day she began to have slight snatches of sleep. During this day and the next she passed urine under her. At 8 p.m. on February 28th she was decidedly better, less restless and resistive, but had not spoken. She began to swallow liquid food readily. Through the night she slept well, and next morning (March 1st) her temperature was 98°, pulse 108; the measles rash was fading, and she began to follow with her eyes the movement of persons in the room. The restlessness and resistiveness had ceased. At 9 p.m. she was evidently quite conscious, and said "Yes" in answer to a question.

By some misunderstanding, I did not obtain a specimen of urine until late in the course of the case. It then showed a very faint haze of albumen, but no other abnormality of any kind.

From this time her recovery was rapid and complete; the only points to be recorded being a complete lapse of memory for four days (February 26th to March 1st), this extending well into the time when to all appearances consciousness had been completely restored, and a slightly increased tendency to excitement on small occasions, accompanied by muscular twitchings. (Her mother's statement on this point was unconfirmed by my own observation.) When last seen on April 1st the girl seemed to be in perfect health.

The points of interest in this unusual case are:

1. The sudden appearance of alarming cerebral symptoms late in what appeared to be a case of measles of simple and uncomplicated form in a girl of 12 years.

2. The character of the seizure—a very short convulsive stage (half a minute), followed by intense restlessness and cerebral irritability, suggesting the onset of grave cerebral mischief, of forty-eight hours' duration.

3. The complete disappearance of all symptoms as the measles rash and fever cleared up.

Edgbaston. Guy J. Branson, B.A., M.D.Lond.

A CASE OF ALMOND OIL POISONING.

The following case is interesting, first, because poisoning by oil of almonds is a rare accident; and, secondly, because after so large a dose recovery is not the usual result.

The patient, a boy, aged 9, was a strong healthy lad, who, according to the history given me, retired to bed in apparently the best of health save for a little toothache. Very shortly afterwards he aroused the attention of his younger brother, who slept with him, by vomiting and peculiar breathing. The mother, attracted by the screams of his brother, went to the boy's assistance, and found him unable to speak, eyes wide open, bright and staring, lips and fingers of a violet colour, jaws clenched, limbs in a state of tonic spasm, and breathing in gasps. When I saw him he was completely unconscious, breathing in gasps, the colour of his lips and fingers as above, jaws tightly clenched, eyes wide open and bright, pupils dilated, no response to light, pulse hardly perceptible at the wrist, limbs quite relaxed. Whilst examining him I noticed a strong smell of prussic acid about his mouth,

and it was then that I elicited from his mother that she had soaked a piece of cotton-wool in almond oil and placed the same in the offending tooth. The treatment carried out was artificial respiration, ammonia to the nostrils, and a mustard plaster over the precordium, together with the usual hot applications to his cold body, and a hypodermic of strychnine. In about half an hour his breathing became much better, the pulse also greatly improved. The treatment was persevered in until he showed signs of regaining consciousness, which occurred in three hours' time. Next day I found him quite conscious and complaining of headache; his lips were still rather bluish in appearance but his pulse and heart were quite normal. A light simple diet was ordered, the room being kept well ventilated. By the evening he was practically all right, and has remained so ever since.

The oil used was the oil of bitter almonds, which contains from 15 to 25 per cent. of prussic acid. The piece of cotton-wool was not found in his tooth; evidently he must have swallowed it on going to bed.

Liverpool. H. E. HEAPY, M.B., M.R.C.S., L.R.C.P.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CLACTON AND DISTRICT COTTAGE HOSPITAL.

RUPTURED KIDNEY: EMPYEMA: NEPHRECTOMY: RECOVERY.

(Reported by PERCY COLEMAN, M.B., B.S., Surgeon to the hospital.)

ON September 7th, 1904, during the landing of the troops for the military manœuvres, R. W., aged 18, a seaman on board H.M.S. *Good Hope*, was kicked by a horse over the side of a transport, and fell a distance of 30 to 35 ft. into a horse boat, striking his back severely. When taken on board he was suffering a good deal of pain in the back and showed bruising over the left kidney. His pulse was fair; there was no marked collapse, and the patient was conscious. He passed 19 oz. of urine containing a quantity of blood, and also vomited.

Condition on Board.—During the night his condition became worse; the pulse began to fail, respirations quickened, and he rapidly became collapsed. Almost pure blood was passed on three occasions, and in amounts of about 3 or 4 oz. at a time. The next day a considerable amount of blood was voided, but in gradually-diminishing quantities until September 10th, when the urine became clear for the first time. A more or less collapsed condition continued until the same day, but after this his general state improved considerably. During this period the pulse was at times not to be felt, at other times it was just perceptible; there was tenderness and resistance over the left renal region and down the left side of the abdomen. The patient was delirious at times and passing his motions and urine into the bed; vomiting of green fluid took place at intervals. The tongue was clean and moist. He improved steadily until September 13th, when he was seized with acute pain in the belly and small of the back, associated with increased tenderness in that region and rise of temperature. On September 14th fullness and tenderness was noted over the left renal region and down left side of belly, but no fluctuation. He passed some urine, alkaline, foul-smelling, and containing pus. An hour afterwards he passed some more, which was acid, sweet, free from pus, but showing a cloud of albumen. As to treatment, collapse and haemorrhage were met by hypodermic injection of strychnine and ergot; pain was relieved by morphine.

Removal Ashore.—On this date (September 14th) it was thought desirable by Fleet Surgeon J. Menary that the man should be removed to sick quarters on shore and he was accordingly placed under my care in the Cottage Hospital. On admission his temperature was 101°; pulse 120, and of good quality; respirations, 36. There was much pain over the left lower thorax requiring morphine for its relief; 70 oz. of urine, containing a trace of albumen, were passed during the first twenty-four hours; and for the next three days it averaged 50 oz. per diem. Signs of fluid in the left pleura appeared and this rapidly increased in quantity, causing much dyspnoea. There were no sweats or rigors.

Aspiration.—On September 18th the temperature had reached 102° and breathlessness was so great that an aspirating needle was introduced and a pint of serous fluid withdrawn. This was followed by relief of the dyspnoea, but the temperature did not fall below 100° and fluid quickly reaccumulated. On the evening of the 24th a rigor occurred, so patient was put under an anaesthetic and a needle again introduced into the seventh space in the mid-axillary line.

Operation.—Pus being found it was thought advisable to resect a portion of rib. About 1½ in. of the sixth rib in the mid-axillary line were removed. On entering the pleural cavity, however, only about half a pint of serous fluid escaped. On introducing a finger and feeling to the seat of the original puncture, no cause for the pus first withdrawn could be found. There was no bulging into the thorax of either the lateral chest wall or the diaphragm. We concluded that there must have been either a localized purulent collection between the ribs and pleura or that the needle must have reached a subdiaphragmatic abscess.

Progress.—A few days after this, when the resection wound was nearly closed, we opened a collection of pus which had become subcutaneous. The temperature now dropped and the patient seemed much easier, but very shortly the temperature again showed evening rises and profuse perspirations set in. Patient was now also becoming emaciated, and on November 1st had another slight rigor.

Second Operation.—An anaesthetic was therefore again administered and an oblique incision made in the left loin for the purpose of exploring the kidney. On reaching the lumbar fascia the tissues were felt to be much indurated, and on dividing this the finger entered a cavity from which curdy material escaped. On removing a quantity of this one could feel the kidney broken up into a number of fragments, widely separated from one another and surrounded everywhere by the curdy matter. These fragments were removed as thoroughly as possible, but nothing like a pedicle could be made out and the ureter could not be recognized. The cavity was well irrigated and a large drainage tube introduced.

Result.—The morning after the operation the temperature was normal, pulse 96. Sweats at once ceased. The evening temperature still showed an occasional tendency to rise a degree or so, until on November 19th it rose to 101°. On November 20th the old rib-resection wound gave way and allowed of the escape of a quantity of pus. A small tube was introduced for a few days, but matters did not much improve until the wound had been freely enlarged and a larger tube substituted. The discharge then rapidly diminished, and at the end of another fortnight had practically ceased. The patient was now able to walk about the ward and to take his food with avidity. Urine, free from albumen, was passed in quantities of 50 to 60 oz. daily. By the end of December the patient could walk about the garden for several hours a day without discomfort of any sort. A small sinus into which only the finest probe could be introduced existed in the loin, and this secreted a mere trace of serous fluid.

REMARKS.—This case shows the wonderfully-rapid compensatory action of the sound kidney. At the end of a week from the injury more than the average quantity of urine, namely, 60 to 70 oz., were passed per diem, and it is almost certain that none of this was contributed by the left kidney, remembering the completely disorganized condition of this organ subsequently found. It was torn quite away from the renal vessels. Moreover, the ureter was obviously impervious after about the tenth day, when every trace of pus and even albumen in the urine had disappeared. The large daily quantity of urine passed after the man's admission to hospital led me to believe that the damaged kidney was resuming its function. This mistake, it has since occurred to me, might have been avoided had a Luys's segregator been available, and the use of this instrument would probably have led to an earlier exploration of the kidney and a consequently more rapid recovery of the patient. I am much indebted to Naval Surgeon F. Nimmo for the notes of the case whilst on board the *Good Hope*, and to Dr. W. H. Slimon for his advice and help during the operations.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL.

SIMULTANEOUS INTRAUTERINE AND EXTRAUTERINE GESTATION: OPERATION: RECOVERY.

(Reported by WM. C. ALLARDICE, M.D.Glasg., Assistant Surgeon.)

THE rarity of simultaneous intrauterine and extrauterine pregnancy is sufficient excuse for reporting the following case:

The patient, a primipara aged 23, was admitted under my care at the infirmary on August 15th, 1904.

History.—Previous to her marriage a year ago she had always enjoyed good health. She missed her period in February, and about the end of March was seized with acute abdominal pain in the right side, which caused vomiting and faintness. She recovered from this attack without medical advice, but had not been free from a dull aching pain in the right side ever since. When seven months pregnant she was delivered by a midwife, who stated that confinement was normal. As the abdomen remained enlarged and the patient became feverish a doctor was called in, who advised her removal to the infirmary.

State on Admission.—The patient was obviously seriously ill, the tongue being dry and furred, the temperature 103°, the pulse 132, and the respirations 48 to the minute. She complained of acute abdominal pain, vomiting, and obstinate constipation. On examination, the abdomen was found to be universally distended, with rigidity of the muscles of the abdominal wall. A large swelling was made out occupying the right side of the abdomen, extending from the flank to

the middle line, while in the left iliac region was a smooth, firm body, which felt like the uterus. On vaginal examination the os was found to be enlarged and patulous, the cervix pointed towards the right, and the body of the uterus was felt pushed over to the left side of the pelvis; the right side of the pelvis was occupied by a large mass, which fluctuated and was extremely tender to the touch.

Operation.—It was decided to explore the abdomen. An incision was made in the right linea semilunaris, and on opening the abdomen the swelling on the right side was found to be a large cystic tumour with omentum densely adherent to its surface. A trocar was inserted into this tumour, and an escape of foul smelling gas took place; the opening was then enlarged, and a large quantity of decomposing blood clot and fluid evacuated. The cavity, contained a seven-months fetus, which was extracted. The cord was ligatured, and the placenta found to be attached to the deep portions of the sac, where large vessels could be felt pulsating. As the patient was exceedingly collapsed and blue under the anaesthetic, it was impossible to attempt the removal of the placenta. The cavity was flushed out with hot saline solution and packed with a large quantity of iodoform gauze, the edges of the sac being stitched to the abdominal wall.

Progress.—Under appropriate treatment she rallied from the operation and made good progress. During the next fortnight a free purulent discharge took place from the cavity, which was irrigated night and morning with hot boracic lotion. This discharge gradually ceased, but there were no signs of the placenta having come away. Five weeks after the operation the wound had almost entirely healed, but to the left of the middle line a rounded swelling had appeared, and the patient again began to show signs of septic absorption.

Second Operation.—This swelling was explored through the left linea semilunaris, and was found to be cystic, containing the remains of the placenta, partly adherent to the cyst wall and partly detached, lying free in a semipurulent fluid. This cystic cavity, with the placenta, had become quite shut off from that portion of the sac opened at the first operation. The loose portions of the placenta were removed and the adherent parts stripped off with the finger, the cavity being flushed out with hot saline solution, the edges of the cyst secured to the abdominal wall and a glass drainage tube inserted.

Result.—The patient now made an uneventful recovery, and was discharged four weeks after the second operation with both the abdominal incisions soundly healed.

Remarks.—It will be noted that this patient had a fetus in the uterus and in the right Fallopian tube at the same time. The history which she gave was quite obviously one of rupture of the extrauterine sac at the eighth week of pregnancy, but nevertheless, this fetus continued to develop along with the intrauterine one until the seventh month of pregnancy, when labour occurred. The death and decomposition of the extrauterine fetus caused septicaemia, which led to operation and the recognition of a most unusual circumstance—namely, that first an ovum became fertilized and developed in the right Fallopian tube, and then another ovum becamed fertililized and developed in utero.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of State Medicine.

Sir John W. Moore, M.D., President, in the Chair.

Friday, April 14th, 1905.

Asylum Dysentery.

Professor E. J. McWeeney showed a large series of cultures of an organism which he had isolated by the Drigalski plate method from the muco-purulent stools of a typical case of asylum dysentery; also for purposes of comparison, parallel cultures of genuine typhoid, and of two strains of B. coli, one derived from human stools and highly pathogenic for rabbits, the other freshly cultivated from a pure water supply and presumably non-pathogenic. The dysentery organism was thus shown to have the closest cultural resemblance to the typhoid, the chief morphological difference being its non-motility. The chief cultural differences appeared on Endo's fuchsin-medium and in mannite agar.

The President thought it probable that at least some cases of summer diarrhoea in children were due to the presence of the bacillus of dysentery.

Dr. A. R. Parsons hoped that Dr. McWeeney would be able to keep a strain of this micro-organism growing, so that other cases of asylum dysentery might be tested against it; it was very probable that in the future the treatment of dysentery would largely depend on the bacteriological diagnosis.

Poisoning by Carbon Monoxide.

Dr. W. J. Thompson described a case in which the gas poisoning was contracted not by inhaling ordinary coal gas, but by being in a small room (17 by 8 by 7) with a smouldering fire. It took place on one of the dredgers belonging to the Port and Docks Board. The patient was admitted to Jervis Street Hospital on November 12th, 1904, at 7.30 a.m.; he was in a state of deep coma, and of a dusky, dark-greyish colour; the respirations were short, shallow, and stertorous, about 24 per minute; the pulse small and thready; the first sound of the heart lost; the pupils irregular; the surface of the body cold, and the abdomen retracted; there was also suppression of urine. He was treated by hypodermic injections of digitalin, strychnine, and ether; by continued artificial respiration with inhalation of oxygen; by blood-letting, and by the application of heat to all parts of the body. The blood when drawn off had the characteristic bright red colour of carbon monoxide poisoning. The patient regained consciousness towards evening, and left the hospital in fifteen days perfectly well. On the first day he only passed 9 oz. of urine, on the second 15 oz., and on the third 23 oz., and afterwards the normal quantity; no sugar or albumen was detected, and the amount of urea per ounce was normal.

Manchester Medical Society.—At a meeting on April 5th Dr. Dreschfeld showed four members (mother, two sons and one daughter) of one family affected with Thomsen's disease. In the mother the affection was only slightly marked; the elder of the two sons, aged 16, showed the symptoms well. The muscles of the forearm and hands and the muscles of the leg were chiefly affected and of the facial muscles, the orbicularis palpebrarum. The younger brother, aged 10, and the girl, aged 12, showed the same symptoms but in a slighter degree. Dr. Dreschfeld referred to the various groups of cases belonging to this type of disease. Besides the characteristic hereditary form described by Erb, to which most of the published cases belonged, there were some cases in which only one member of the family was affected, and in which the symptoms came on later in life. A third group of cases had been described by Eulenberg and others in which there was the hereditary element, but in which the symptoms only appeared during the cold weather and not during the hot season; a fourth group might be distinguished in which besides the hypertrophy of the muscle and the myotonic reactions there was also noticed muscular atrophy. In many cases of the ordinary and typical Thomsen's disease examination of the muscles had shown besides the hypertrophy of muscular fibres that some muscle fibres were markedly degenerated.—Mr. Southam mentioned a case of pyloric obstruction, due to fibrous stenosis, the result of contraction of a cicatrized gastric ulcer, occurring in a male, aged 58. Loreta's operation (digital dilatation of the pylorus) had been performed six years previously, and for about four years the symptoms were relieved. Obstructive symptoms then began to recur, and about twelve months subsequently gastro-enterostomy was performed with a very satisfactory result.—Mr. Alexander Wilson read a paper upon the treatment of accidents from chloroform. He pointed out that the initial symptom of grave danger was not diminished respiration, but acceleration of the respiratory movements due to anaemia of the respiratory centre, resulting from failure of the circulation. For treatment he advocated the prompt application of vigorous artificial respiration, which to be successful must be begun before cessation of the respiratory movements. In cases of engorgement of the right side of the heart the patient should be temporarily raised into the sitting position. — Dr. W. E. Fothergill read a paper on Variations of the Menstrual Function in Anaemia, and endeavoured to afford an explanation of the occurrence of both amenorrhoea and menorrhagia as symptoms of anaemia. While the ancient "plethoric" theory of menstruation had been dropped long ago, it had a modern equivalent in the view that menstruation was an expression of the predominating anabolism characteristic of the female organism. On this view an anabolic surplus would exist in the healthy female from puberty to the menopause. During pregnancy this would be expended upon the fetus, during lactation, in milk, and at other times in a periodic menstrual discharge. The time of occurrence of this discharge would appear to be determined by the glandular activity of the corpus luteum. Amenorrhoea could thus be of two kinds: it could be due either to the absence of an anabolic surplus or to the absence of a normal corpus luteum. The amenorrhoea of anaemia was doubtless of the former kind, as the occurrence of pregnancy during anaemic amenorrhoea indicated the continuance of ovulation and corpus luteum formation. The occurrence of menorrhagia during and secondary

to anaemia (as opposed to the occurrence of anaemia secondary to menorrhagia) was doubtless observed in certain cases. This was best explained, he thought, by the assumption that under certain circumstances the uterine muscle together with the cardiac and other muscles were so deteriorated in anaemia that their usual control over the vascular supply of the uterine mucosa was lost. In support of this view, the causation of various other forms of uterine haemorrhage was shown to be due to muscular insufficiency.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 30th, Dr. ARTHUR HALL, President, in the chair, the following were among the cases and specimens shown: Dr. J. MASON: A case of patent branchial cleft in a boy aged 11 years. There was a small opening in the neck at the outer border of the sternal portion of the sterno-mastoid muscle about half an inch above the right clavicle, which admitted a fine probe for a distance of about 2 in. in an upward direction. The sinus secreted a small quantity of thick mucus.—Dr. SINCLAIR WHITE: (1) Two specimens of fibroids of the uterus complicated with pregnancy. In each case panhysterectomy had been performed, and the patient made a good recovery. He was impressed with the ease with which the uterus was removed owing to the great laxity of the broad ligaments. (2) An ovarian abscess removed from a married patient aged 24 years. There was a history of pelvic pain for four months with evening pyrexia and rigors. Bimanually a tender, fluctuating, irregularly-rounded mass could be felt on the right side of the uterus. The diagnosis of septic tubo-ovarian mischief was strengthened by a history of gonorrhoea in the husband. It was not possible without undue force to bring the ovary to the surface until the Fallopian tube and broad ligament had been ligatured and divided near to the uterus. The diseased mass was eventually removed without rupturing the abscess and the wound healed aseptically. The Trendelenburg posture conjoined with gauze packing increased greatly the ease and safety with which these growths could be removed. (3) A dermoid cyst of the right ovary removed from a patient, aged 13 years—the tumour had been observed for one year and had been tapped before coming to hospital. It was of a lustreless dark-brown colour and everywhere adherent. The pedicle was twisted on itself to the extent of two complete turns and had implicated the vermiform appendix in the twist. The patient made a good recovery. (4) A knee-joint showing the typical pathological changes produced by osteo-arthritis and excised from a patient, aged 31 years, who had been crippled by it for several years. Although monarticular osteo-arthritis involving the knee joint came within the recognized sphere of influence of the operating surgeon, the exhibitor had signally failed in two previous cases to obtain a useful limb after excision. The present case was too recent to say how it would turn out eventually. (5) Five specimens of mid-rectal cancer excised by Kraske's method. The exhibitor was in favour of a preliminary iliac colotomy in most cases. By introducing the hand through the abdominal wound it was easy to decide whether or not the growth was removable, and, what was of equal importance, whether there was secondary infection of the mesenteric glands. (6) Three specimens of partial gastrectomy for cancer of the pyloric end of the stomach. In one case, in which he had used Murphy's button, it was necessary to perform gastro-jejunostomy three months later on account of stenosis of the opening. (7) Two specimens of excised caecal cancer. In both cases he had obtained a good result by lateral implantation by means of Murphy's button; one half of the button was passed into the colon before closing its cut end, a small opening was then made 2 in. above through which the shank of the button was protruded; the second half was sewn into the end of the ilium. (8) A tuberculous kidney containing a large branched calculus, removed from a man aged 56. Symptoms of renal calculus had existed for twenty five years. Tubercle, he thought, was very apt to develop in old-standing cases of renal calculus.—Mr. ARCHIBALD CUFF read notes of and showed the specimens from cases of: (1) Ascending colon for carcinoma in a woman aged 38. (2) Resection of caecum and ascending colon in a young woman aged 25. The junction of the small and large bowels was effected by implantation of the small bowel into the wall of the large, and suture after Watson Cheyne's method. (3) A case of large hydatid of the liver treated by drainage and packing the peritoneal cavity in a woman five months pregnant. Recovery was rapid, and the pregnancy undisturbed. (4) Ruptured tubal gestation: the pregnancy had commenced during suckling and in a period of amenorrhoea; the rupture was accompanied by a discharge of blood per vaginam, which, but for the considerable pain present, the patient would have considered a normal period.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting on April 14th, Mr. R. CLEMENT LUCAS in the chair, the following were among the proceedings: Dr. C. W. CHAPMAN read notes of a case of hysteria in a girl, aged 10. At first she suffered from anorexia, excitability, and showed a morbid degree of affection for her parents. Gradually excitability was replaced by listlessness, so that she hardly answered questions. She was seen by two other physicians who diagnosed cerebral tumour. She became bedridden, with complete loss of power and sensation in the legs, emaciation, and incontinence of urine and faeces. At times she declared she was quite blind. Dreadful screaming fits occurred daily, attracting the attention of passers-by. She was then separated from her friends, put into a hospital, and there made a rapid recovery. Twenty years had since elapsed, without any return of the former symptoms. Mr. LUCAS thought that some cases of enuresis should be regarded as hysterical. Dr. G. E. SHUTTLEWORTH held that certain peculiarities about their food, sometimes shown by children of neurotic parents, were hysterical in origin. He thought that hysterical symptoms in children were fairly common.—Mr. R. C. DUN (Liverpool) described a case of congenital deformity of both forearms in a child 5 months old. The limbs were in a position of complete pronation. A bridge of bone extended downwards and inwards from the neck of the radius to the upper end of the shaft of the ulna. There was absolute fixation, and the other muscles acted properly. He had been unable to find any record of a similar condition.—Mr. C. BATCHELOR (Staines) reported a case of exophthalmic goitre in a girl aged 3. She was the daughter of healthy parents in a good position of life, and there was no evident cause for the condition. The earliest signs were prominence of the eyes and attacks of passion. Later there was distinct enlargement of the thyroid, and the attacks of passion became more frequent. The heart's action was accelerated. A year after the onset the exophthalmos was very marked; pulse 120 to 140, marked carotid pulsation, breathlessness on exertion, von Graefe's sign, but no tremors. She died from exhaustion after an attack of diarrhoea and uncontrollable vomiting at the age of 6 years and 4 months.—Dr. EDMUND CAUTLEY showed a specimen of infective endocarditis of the aortic valves and aorta from a boy, aged 8 years. No other valves were affected. The child was admitted to hospital as a case of meningitis due to injury. The diagnosis was established during life by the presence of a loud aortic systolic murmur, an enlarged spleen, irregular pyrexia, and absence of cerebral symptoms usual in meningitis. The aortic valves were converted into thick, hard, warty masses. The aorta was dilated, and in it was situated a large circular patch of chronic induration, like a sessile wart. It was softened at the side, permitting the effusion of blood into the pericardium, the effusion being the direct cause of death. In the base of the wall of the left ventricle there was an infarct, the size of a small walnut, beginning to break down. Another infarct was found in the spleen. From the condition of the valves Dr. Cautley thought that there had been a primary congenital lesion, and that the terminal infection was of recent origin. The child had been in another hospital some years before for a "weak heart." The left ventricle was hypertrophied, but not dilated.—Mr. R. C. DUN showed a specimen of congenital stricture of the oesophagus from a boy, aged 31 months, symptoms having begun at 18 months. The obstruction was seven and a half inches from the teeth. The first symptoms were vomiting and wasting. Gastrostomy was done at the age of 20 months. The child subsequently died from marasmus. The specimen showed a simple stricture an inch above the diaphragm. In two other cases, one reported by Dr. B. Rogers to this Society last year, and the other published in the *Lancet*, January 7th, 1905, by Dr. Whipham and Mr. Fagge, the position of the stricture was the same as in this instance. In none had the symptoms appeared before the twelfth month. Dr. T. R. WHIPHAM stated that a research into the literature had only enabled him to find six analogous cases.

HARVEIAN SOCIETY OF LONDON.—At a meeting on April 13th, Mr. C. B. LOCKWOOD, President, in the chair, Dr. EDMUND CAUTLEY read a paper on convulsions in children, dealing especially with their etiology and treatment. Many

of the general causes of convulsions usually given acted by impairing nutrition. Great importance must be attributed to dietetic causes, especially in infants under 6 months of age. In 55 out of 300 cases epilepsy was the cause of the convulsions, the incidence being especially marked in the cases between 3 and 12 years of age (40 out of 84). A medical man summoned to a case of convulsions in a child should take with him chloroform, chloral hydrate, amyl nitrite, morphine, and a hypodermic syringe. Chloral should be given by the bowel; if not retained, $\frac{1}{20}$ gr. of morphine might be injected under the skin of a child 6 months old. After the fit bromides should be administered and especial attention paid to the diet. Dr. Sydney Phillips thought careful examination of the urine to be important, on account of the possible renal origin of fits. Dr. J. Broadbent believed in the production of fits by worms and teething.—Mr. H. S. Clogg read a paper on appendicitis in childhood; relatively it was infrequent, not more than about 10 per cent. occurring before 15 years of age. The precise situation of the appendix seemed of importance, and that situated internal to the caecum, and pointing towards the pelvis, was the one most likelely to be affected with diffuse peritonitis or local suppuration. Diffuse peritonitis was relatively more common in children than in adults, and was present in nearly 36 per cent. of cases. Its early diagnosis was difficult and the prognosis very grave.

Chelsea Clinical Society.—At a meeting on April 18th, Dr. T. Vincent Dickinson, President, in the chair, Mr. John Pardoe read a paper on the choice of methods for the radical cure of prostatic enlargements. The size of the gland, its consistency and contour, mobility or fixity of the gland as a whole, and the appearance presented by the intravesical surface, were the points upon which reliance should be placed for a recognition of the prostates suited for complete removal, and those which must be treated in another way. The oedematous prostates were soft, elastic, and freely movable. The fibro-muscular, collar-like prostates were firm, slightly elastic, small, and not so mobile. Malignant prostates were hard and fixed. The first should be removed by suprapubic enucleation. The second should be treated by a perineal prostatotomy, while carcinomatous prostates should be left entirely alone.—Dr. May read notes of three cases of acholia in children. The disease, he thought, was a toxaemia of some kind. Examination of the stools in these cases was important, as otherwise the nature of the illness might readily be overlooked.

REVIEWS.

ABDOMINAL SURGERY.

In these days, when we come across so many medical works far more notable for their similarity to each other than for originality, it is quite refreshing to peruse a treatise like *The Preparation and After-treatment of Section Cases*.[1] No doubt much that is written by Dr. Stewart McKay will be warmly disputed, but the whole subject is of such a nature as to preclude unanimity of opinion. Perhaps it would have been well had the word "abdominal" been placed in the title before "section," but the latter word by itself can hardly be misunderstood, and many prefer the term to "laparotomy" or "coeliotomy." In an introduction Mr. Christopher Martin informs us that he has revised this work, and that it meets with his entire approbation. Dr. McKay, we know, is well-fitted for the task which he has undertaken. Beginning as assistant to Mr. Lawson Tait, he later studied abdominal surgery in a large number of foreign medical schools. Lastly, he has had wide experience, combined with direct responsibility, as surgeon to an Australian hospital. Dr. McKay is of opinion that the instructions given in textbooks concerning the preparation and the after-treatment of section cases are not full enough for any man little experienced in abdominal surgery. He has therefore set down everything that he considers will help the young surgeon. A treatise of this class cannot give experience, but it can aid the inexperienced, and that aid is well afforded by Dr. McKay. The expert, as a competent judge, will possibly prize it even more; besides, if wise and modest, as becomes experts, he will seek the records of the labours of others in his own field, well summarized in this work. Though not so prominent as in most standard textbooks, we find many familiar details about operating theatres and sterilizers. Most properly Dr. McKay qualifies the importance of modern "systems." In big black type he reminds the reader how he learnt from his deceased teacher that it is possible to achieve the greatest success in abdominal surgery by the employment of hot water, soap, and washing soda. He adds, on the strength of his own experience of responsibility for over ten years, that "while soap, soda, and hot water are sufficient for this success, the addition of *sublimate* or biniodide of mercury to this trinity makes our achievements still easier." The italics, we note, are confined to the perchloride. He insists that the surgeon must learn how to prepare his instruments, ligatures, and sponges at home, and how to transport them without danger to a patient's house. "This is the practical knowledge that surgeons in Australia are in need of," says Dr. McKay, but it is equally desirable for the Briton whose practice is restricted to the United Kingdom. It is not only in the Bush that the surgeon may have to operate in localities where he is "not surrounded by tiled walls and glass tables." These modern paraphernalia—never to be made light of, we admit—are not an unmixed blessing. The beginner should be taught the relative as well as the intrinsic value of each of his tools, and should be reminded that an operator's good results must in great part be due to his skill rather than to his armamentarium. The best, most essential, and most original part of this work is comprised within the chapters on the preparation of the patient for operation, after-treatment, pulse, temperature, tongue, and bowels. Still more importance might have been awarded to after-histories, not for favouring record-beating statistics, but for throwing light on truths apt to be obscured. Dr. McKay says much about troublesome cough and kidney disease in patients with abdominal tumour. He insists, like Treves, that the urine should be examined daily for about a week, and that the surgeon should have a clear knowledge of the precise meaning of albuminuria, for "only a little albumen" may represent a grave complication, whilst a larger proportion in another case may mean renal changes caused by the tumour, so that its removal is distinctly indicated by the symptom. Kidney disease reminds us how Fournier of Amiens advises drainage of the kidney in pyonephrosis of pregnancy in preference to the induction of labour, whilst the mention of pregnancy turns our attention once more to Dr. McKay, who warns us against excessive disinfection of the vagina before operation on a pregnant subject, as that step may bring on labour. We have reason to believe that this undesired result is not rare, and that the premature arrest of pregnancy may unjustly be charged to the operation. The experienced will agree with Dr. McKay that the treatment of pain immediately after operation is most difficult, but that morphine and opiates are objectionable. In agreement with most operators, he advocates early opening of the bowels. There is great difference of opinion as to whether the enema or a drug should be used first, and few British operators follow the author's routine practice of giving small doses of calomel and elaterium on the second day. As a rule, much milder physic is efficient. We must all admit that the author is wise in advocating the regular use of the rectal tube until the bowels act, and in his recommendation of an early purgative enema, although there seems to be little necessity for the cathartic which he maintains should precede it. He dwells on the difficulty of mixing oil of turpentine thoroughly with the soap and water; some surgeons find that an egg is the best agent for blending the ingredients of the enema so that the turpentine should not irritate the bowel or impart its flavour to the saliva. That early passage of flatus is a most desirable thing to promote and a most favourable symptom when it appears there can be no doubt; the author, however, rightly turns attention to Vautrin's discovery that flatus often passes in considerable quantities in colibacillary infection after hysterectomy; it is also observed after other operations where the bowel is damaged, and raises false hopes dispelled by the prominence of distinct symptoms of sepsis. In septic infection due to other germs retention of flatus is all but invariable. We will pass over the chapters on shock, haemorrhage, and peritonitis, as the reader will know what to expect from the experienced author tutored by Lawson Tait. There is a fair chapter on pulmonary embolism and heart clot—a subject always to be impressed on the beginner, and seldom far from the thoughts of the most experienced operator on occasions when he is a little doubtful about his nurse. This accident

[1] *The Preparation and After-treatment of Section Cases.* By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon, Lewisham Hospital for Women and Children, Sydney, etc. London: Baillière, Tindall, and Cox. 1905. (Demy 8vo, pp. 651, 134 illustrations. 15s.)

is the greatest argument in favour of caution during the later weeks of convalescence. The footnote to page 515 deserved to be placed in the text; it relates the sudden death of a patient on the ninth day after an exploratory incision had been made and closed, malignant disease of the liver being diagnosed. "Exploratory" measures in cases clearly desperate not rarely prove disastrous. In the paragraphs on sinus set up by ligature the author does not neglect to state that when the uterus has been removed entire the ligatures at times become infected—an objection to panhysterectomy. The treatise concludes with a chapter on post-operative hernia. Dr. McKay does not omit to note that many authorities still advocate deep interrupted sutures in preference to the separate union of layers. He reminds the reader that a small hernia of this class may be controlled by careful bandaging. The operation for the cure of incisional hernia is often difficult, and the author brings forward evidence to prove that it is not very satisfactory. Recent records from Leipzig give nine recurrences in eleven operations! Sloughing of the sac, which sometimes occurs when no operation to cure the hernia has been attempted, may follow many months after an operation of that class. Indeed, the experienced will hardly agree with the author that "in all cases, even if the second operation does not cure, the patient's condition is much improved." The truth is that post-operative hernia is a very objectionable complication, most unsatisfactory to deal with. Dr. McKay holds that the abdominal belt is a prophylactic measure of great importance, and most, though not all, experts are of the same opinion. To award unqualified praise to this work because there is much in it with which we agree would not be difficult, to find fault with it because much is to be found in its pages to which we cannot entirely assent would also be easy. Dr. McKay's great treatise may be rather bulky, it may fail to make every beginner comprehend quite clearly why there should be so much preparation and why the case may get on almost as well under circumstances where such preparation is impossible, and it is to be regretted that it is almost purely gynaecological. On the other hand, we have, in justice to the author, explained at some length the excellencies of *The Preparation and After-Treatment of Section Cases*, a notable and highly original publication.

Dr. DOUGLAS, in his work on *Surgical Diseases of the Abdomen*,[2] deals chiefly with the symptoms, causes, and diagnosis of the surgical diseases of the abdomen; descriptions of operative procedures have been purposely omitted. We may say at once that the work is one of the most satisfactory surgical works which has been published in recent years. It is written with a freshness and vigour, with an absence of verbal repetitions from ancient authorities, that is unusual and delightful. The author's acquaintance with the literature of the last ten years is intimate and extensive, and his references thereto are always apt. A close and constant study of this work has only made one's confidence in it closer. Each section is dealt with somewhat in the following manner: Name of disease, definition; frequency; etiology, predisposing and essential causes; varieties complicating pathology, symptoms, significance of symptoms, differential diagnosis, prognosis, treatment, indications for operation, contra-indications, surgical measures. It will thus be seen that all subjects are thoroughly discussed. It is clear that the author possesses in an unusual degree a combination of intimate personal acquaintance with the practice of his art, a full and ready knowledge of the opinions of those who in recent years have spoken with authority upon the subjects he discusses.

HAEMATOLOGY.

IT is becoming very clear that diagnosis in disease is growing more and more technical. The great advances that have been made in the diagnosis of infective diseases since the introduction of biological methods are obvious in the case of enteric fever, Malta fever, cholera, etc., and the diagnostic value of the tuberculins in cases of tuberculosis is one of assured position. In quite recent times other methods, based on various reactions dependent upon the vital activities of bacteria, have begun to come into prominence, but it is uncertain at present whether the reaction of agglutination introduced by Arloing and Courmont will ever take the same important place in the diagnosis of tuberculosis as the Widal test has in enteric fever, nor are we at present able to say whether Professor Wright's discovery of an opsonic content in the serum, which is capable of being used as a measure of immunity or susceptibility to various infections, furnishes a method which can be so simplified as to be made readily applicable to the study of infection in human beings.

No group of workers has done more to advance our knowledge in these newer branches of medicine than the French school led by Pasteur and Metchnikoff, Bordet, and others. Contemporary French thought is deeply influenced by the teaching of these men, so that not a year passes without the publication of many far-reaching observations based on the vital reaction taking place between pathogenic agencies and the human economy. French literature is full of new investigations carried out for the purpose of the study of the vital properties of the fluids of the body, and the facts established are turned in a most practical manner to the problems of diagnosis and treatment.

The blood acting as a medium by means of which the whole body is permeated with toxic and antitoxic principles, springs at once to the front as a subject worthy of the most searching study, whether the object of research be more immediately that of the effects or of causes. No two names are more closely associated with those interesting studies than those of Drs. BEZANÇON and LABBÉ; and a perusal of the list of their many joint publications will show with what great authority they may write on all subjects dealing with the anatomical and physiological characters of the blood and the haematopoietic organs both in health and disease.

To those whose interests centre around the problems of immunity and the efforts to apply the teachings of this subject to the prevention and cure of infective diseases, their volume[1] will be a welcome relief to other publications on the subject of blood diseases which, though describing in most tedious detail the anatomical changes of the blood in various conditions which are obviously but different degrees of reaction to some unknown pathological process at present not understood, leave the reader with a sense of defeat, with a feeling that after all the minute analyses of the leucocytic counts of the blood, it is still impossible sharply to define these diseases by a mere consideration of the blood picture; cases of lymphadenoma have been found to pass into cases of leucocythaemia or vice versa, and cases of pernicious anaemia may show in the blood picture signs which suggest the presence of leucocythaemia as well.

It must not therefore be thought that this volume has nothing to say on such important matters as those just referred to; the reader will find in its pages all that is necessary in this direction, and the excellent figures and diagrams will serve as useful guides in the study of the various forms of blood disease. What will captivate the reader is the extremely able and lucid way in which the authors attack the problems connected with the physiology and pathology of the serum; it is this sixth section of the volume which we would particularly commend to those who are wishful to learn more of the problems of bacteriolysis and cytolysis, of those obscure causes of jaundice which, apparently independent of bile, may be caused by urobilin; of the investigation of renal adequacy by a consideration of the molecular concentration of the serum as shown by cryoscopic examination, and finally of those biological methods introduced by Bouchard for the detection of the toxicity of the serum by observations of the toxic effects of injection into smaller animals.

The chapters dealing with cytolysis and precipitins, and with the mechanism of cytolysis and bacteriolysis, will open up new vistas of thought, and will show the efforts that are being made to secure a remedy for cancer and other morbid cellular growths, such as goitre, etc., by the use of a cytolytic serum derived from lower animals previously injected with the cells of such growths. The study of haemolysis has hitherto been more of scientific interest than of practical value, but the writers have given a useful digest of the method suggested by Bordet and Gengou, and elaborated by Widal and Le Sourd for using the phenomenon as a test of the existence of infection by the typhoid bacillus or the tubercle bacillus. The principle of the test depends upon the view that bacteriolysis and cytolysis are manifestations of one and the same function, and that cytolytic activity may be exhausted in bacteriolysis, and vice versa. The test, though complicated, appears to be fairly accurate. There are four requirements: A. Sensitized red corpuscles, say of a rabbit, etc., that is,

[2] *Surgical Diseases of the Abdomen.* By Richard Douglas, M.D., formerly Professor of Gynaecology and Abdominal Surgery, Medical Department, Vanderbilt University, Nashville. London: Kebman Limited. (Demy 8vo, pp. 883, 20 plates. 30s.)

[1] *Traité d'Hématologie* [Treatise on the Study of the Blood]. Par Fernand Bezançon et Marcel Labbé. Paris: G. Steinheil. 1904. (Royal 8vo, pp. 959; 125 illustrations; 9 coloured plates. Fr. 25.)

red corpuscles which have been added to the serum of a guinea-pig previously, injected with the blood of a rabbit, the serum of the guinea-pig after withdrawal being first heated to 56° C. No haemolysis will occur because of the destruction of the cytane or complement by the heat. B. The serum of a patient with typhoid fever or tuberculous disease heated to 56° C. so as to destroy cytane or complement; this is then added to an emulsion of typhoid or tubercle bacilli which thus become sensitized. C. To B. is added the serum of a normal animal unheated and containing cytose or alexin—to use another term signifying the same thing, which thus becomes entirely fixed to the bacilli. On now adding some of A. to the mixture C. no haemolysis occurs. If, however, the suspected typhoid or tuberculous patient were free from disease, then the cytane of the normal untested serum would fail to be anchored to the unsensitized bacilli and would attach itself to the sensitized red corpuscles and the subsequent haemolysis would prove the absence of infection in the suspected patient.

We do not wish it to be thought that we have no hostile criticisms to offer. It is obvious that there is a want of mathematical precision in some of the more recent observations of French workers so ably described by Drs. Bezançon and Labbé. As will be seen from the above sample of a biological test of the two diseases mentioned, it is obvious that little attention has been paid to the influence of the mass of serum or of sensitized bacteria or red corpuscles used in the experiment, and that its success depends upon so many details, and the use of at least four elements—at least two animals, a bacterial culture, and the serum of the suspected patient. Further, this so-called "reaction of fixation" when applied by Widal and Le Sourd to tuberculosis failed in some cases of the disease.

Another criticism which should be brought forward is that the authors, in their chapter on cytotoxins of the serum, have not paid attention to the criticisms advanced by Ghedini, Cafiero, and others to the effect that the cytolysis is not specific—for example, cytotoxic serums obtained by the injection into animals of preparations of the pancreas, ovary, testicle, suprarenal body, thyroid, thymus, and nervous tissue have been found, on injection into the same sorts of animal from which the organs were originally derived, not to produce specific homocytolysis, but that in all the animals, whichever of those serums were used, there is a heterocytolysis affecting the liver, spleen, and kidneys.

Our adverse criticism, however, does not extend any further to this suggestive volume or to the way the writers have accumulated so large a store of information and presented such a readable treatise. Contemporary workers are deeply indebted to them, not only for the valuable clinical information contained, but also for the luminous exposition of recent advances in the study of the physiology and pathology of the blood, which has saved the volume from being, like several other works on the subject, a dreary repetition of meaningless or, at any rate, equivocal blood counts.

ANATOMY.

The second part of Dr. J. Sobotta's descriptive atlas of human anatomy,[1] which constitutes the third volume of Lehmann's medical atlases, differs but little in general value from the first part, which has already been reviewed in these pages, and the same may be said of the essentials of human descriptive anatomy,[2] which is the title of an extended text intended to accompany and amplify the short descriptions of the plates and figures in the atlas itself. The second part of the atlas contains figures illustrating the anatomy of the nose, mouth, pharynx, the thoracic and abdominal viscera, the urinary and generative organs, and the heart. The figures and plates are accompanied by short descriptions, and the atlas is therefore complete in itself without the text of the "essentials"; its value, however, is greatly enhanced by the latter, which is practically a short textbook of anatomy devoid illustrations, but furnished with numerous references to the figures in the atlas. The majority of the illustrations in the atlas are both well designed and well executed, but the representations of the heart give very little idea of the normal shape of the organ, and in Plate 42 the relative positions of the ureters to the iliac and spermatic vessels are not those usually found in the human body.

[1] *Atlas der descriptiven Anatomie des Menschen.* Von Dr. J. Sobatta. II Abteilung. Munich: J. F. Lehmann. 1904. (Demy 4to, pp. 207, 215 illustrations. M. 16.)

[2] *Grundriss der descriptiven Anatomie des Menschen.* Von Dr. J. Sobotta. II Abteilung. Munich: J. F. Lehmann. 1904. (Demy 4to, pp. 154. M. 3.)

Dr. Gillman Moorhead's little book on *Surface Anatomy*[3] is a good guide for those who wish to run quickly over the relations of the deeper parts to the surface of the body. The descriptions are short, correct, and, for the most part, sufficient, and the majority of the illustrations are well adapted to their purpose, but the reader must use the diagrammatic figures on pages 52 and 62 with caution, for in them the relative positions of some of the viscera, both to the skeleton and to each other, are not quite correct.

THE TREATMENT OF CANCER.

Cancer and its Treatment[4] is a reproduction in book form of the Bradshaw lecture delivered by Mr. A. W. Mayo Robson before the Royal College of Surgeons in December last. Some of the views expressed did not escape criticism at the time, as being too extreme, but this fact does not deduce from the value of the book as a clear and well expressed exposition of the general principles of cancer treatment which are current at the present time and also of the beliefs of a man whose ability to form on the subject opinions of great weight is not open to question. In effect the book is a reasoned and earnest pleading for a fuller recognition both by the profession and by the public of the value of early operation. The general belief is expressed that every case of developed and recognizable cancer has been preceded by a definite precancerous condition or stage, and that in the bringing about of this stage chronic irritation, the one exciting cause o cancer the existence of which has been proved, very often plays an apparent part. This is the stage at which operations can be practised with the greatest chance of permanent success, and thus, therefore, the stage at which they should be performed with much greater frequency than is at present the case. These views are extended and urged even in relation to conditions of possible visceral irritation such as that set up by the presence of gall stones. Speaking in particular of the nipple conditions which are sometimes followed by mammary cancer Mr. Mayo Robson urges that it is better to alarm and to cure than to lull into a false sense of security and afterwards have to advise a radical operation at a less favourable period. This is the view underlying his opinions throughout, chapter and verse in the shape of cases from his own practice and that of others being freely supplied. If for nothing else the book would be noteworthy for its eloquent condemnation of delay and its frank assertion that so far as present knowledge goes, and with the exception of rodent ulcer, the only hope of cure in malignant disease lies in early diagnosis and immediate, complete, and wide removal.

NOTES ON BOOKS.

In the fortieth volume of the *St. Bartholomew's Hospital Reports*[5] will be found some clinical papers based on work in the wards and a few more substantial articles. We have already commented on Sir Dyce Duckworth's judicious "remarks on some diseases which may present misleading or seemingly unimportant symptoms." Turning to other communications we must award a specially honourable mention to Mr. Sydney Scott for his monograph on "tuberculosis of the female breast." The 27 cases of this disease under observation in the hospital for the last fifteen years are tabulated and analysed. It were well if more articles of this type were to be found in every issue of the archives of hospitals. Another excellent paper of a similar class is Mr. L. B. Rawling's "congenital and traumatic cysts of the brain and meninges," also well tabulated. The purely clinical papers are all short, though all will repay study. Dr. G. C. Garratt, lately attached to the London Fever Hospital, sums up his experience on the early sequelae of severe faucial diphtheria and their treatment; he does not tabulate cases but sums up what therapeutic methods answer well or prove unsatisfactory. For a good analytical paper we may single out Dr. J. A. Ormerod's "case of subacute combined degeneration of the spinal cord." The statistical tables of the registrars and the annual museum report are appended to or rather form the greater part of this volume.

[3] *Surface Anatomy.* By J. Gillman Moorhead, M.D. Univ. Dub., M.R.C.P.I. London: Baillière, Tindall, and Cox. 1905. (Crown 8vo, pp. 158, 23 illustrations. 4s. 6d.)

[4] *Cancer and its Treatment.* By A. W. Mayo Robson, D.Sc., F.R.C.S. London: Baillière, Tindall and Cox. 1905. (Demy 8vo, pp. 90. 3s. 6d.)

[5] *St. Bartholomew's Hospital Reports.* Edited by A. E. Garrod, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xl. London: Smith, Elder and Co. 1905. (Demy 8vo, pp. 240. 8s. 6d.)

MEDICAL NEWS.

A Bill has been introduced into the Japanese Diet providing for a stricter control of the drug business.

A discussion on housing in mansions let as flats will be opened by Dr. Louis C. Parkes, M.O.H., Chelsea, and Mr. W. Rolfe, at the Royal Sanitary Institute, Margaret Street, W., on May 8th, at 5 p.m.

The annual dinner of the Hunterian Society will take place on Wednesday next, at 8 p.m., at the Great Eastern Hotel, Liverpool Street, following on the general meeting and delivery of the annual oration.

We learn from the *New York Medical Journal* that Dr. William A. Dunn has been appointed one of the Pope's Physicians. Dr. Dunn, who is 50 years old, took his degree at Harvard in 1875, and practised for many years at Boston.

The Metropolitan Hospital Saturday Fund, the annual public meeting of which takes place on Saturday at the Mansion House at 3 30 p.m., has issued an "honourable mention" list of all collections made last year of £25 and upwards both in ordinary workshops and in the establishments of public and private large employers of labour. Included are some twenty or more sums of over £100, ten of these being over £200, four over £300, two over £600, and one over £700. The last mentioned is the Royal Arsenal and Dockyard, Woolwich.

A telegram received at the India Office from the Viceroy last week gave a brief account of the medical measures taken for the relief of the surviving sufferers from the recent earthquake. They consisted of the dispatch to the affected area of officers of the Indian Medical Service with staffs of hospital assistants, who established temporary hospitals in the smaller villages and restarted others in the larger places. A precise idea of the general nature of the injuries caused may also be gathered from the report. They are much what might have been anticipated; large numbers of scalp wounds, and a smaller number of cases of severe injury to the head, of injury to the spine, and of fractures of limbs, simple and compound. Those were the cases which required attention; in addition, of course, there were many persons who received bruises and abrasions of a more or less trifling character.

Medical Magistrate.—Alderman Samuel Ebenezer Johnson, L.S.A.Lond., L.R.C.S.Edin., has been placed on the Commission of the Peace for the County of Worcester.

A Medical Centenarian.—The *Canada Lancet* states that Dr. Philip Chisholm, who died at Loch Lomond, Cape Breton, on March 10th, was born at Loch Charron, Ross-shire, Scotland, 102 years ago last June. He went to Nova Scotia in 1821. His surgical skill was in much demand over a large stretch of country, physicians being few and far between through the country in his early days.

Conference of American Anatomists.—The first session of the Conference of American Anatomists was held in the Wistar Institute, Philadelphia, on April 11th. Among those present were representatives of anatomical science from every part of the United States. The meeting had under consideration the question of the advisability of selecting a central institute for co-operative research.

The Rebuilding Fund Committee of St. Bartholomew's Hospital received last week a donation of £5,000 from Messrs. Wernher, Beit, and Co. This is the first piece of good fortune which this enterprise has experienced for some time past. Considering the importance of the institution and the admitted need for its complete renovation it is to be regretted that after so long a time the authorities should still be in the position of having to issue two column advertisements in the *Times* in the hope of obtaining the £30,000 still required before even the new out-patient building can be put in hand.

German Laryngological Society.—The German Laryngological Society, which was founded on the initiative of Professor Moriz Schmidt, of Frankfort-on-the-Main, in August, 1904, will hold its first annual meeting at Heidelberg on June 13th. Professor Bernhard Fraenkel, of Berlin, will deliver an address on the future of laryngology. Professor Schmidt is the President, Professor Fraenkel Vice-President, Dr. G. Avellis, of Frankfort-on-the-Main, and Professor Paul Heymann, of Berlin, Secretaries, and Dr. Neumayer, of Munich, Treasurer of the new Society.

Medical Study Excursions.—The seventh Voyage d'Etudes Médicales will take place this year from September 1st to the 14th under the presidency of Professor Landouzy. The health resorts of the South-West of France will be visited as follows: Luchon, Siradan, Barbazon, Capvert, Bagnères-de-Bigorre, Argèles, Barèges, Saint-Sauveur, Cauterets, Pau, Eaux-Bonnes, Eaux-Chaudes, St. Christau, Salies-de-Béarn, Biarritz, Cambo, Hendaye (Sanatorium), Dax and Arcachon. A detailed programme will be published later. All communications should be addressed to the Organizer of the Excursions, Dr. Carron de la Carrière, 2, Rue Lincoln, Paris.

New Poor-law Training Ship.—The sleeping decks of the ship which is to replace the vessel in use since 1876 by the Metropolitan Poor-law Unions for the training of boys for the naval and mercantile services have air-space equal to about 400 cubic feet for each boy. The new ship is a replica in external appearance of its predecessor, an old two-decker of 90 guns; it will bear the same historic name, the *Exmouth*, and provides accommodation for 600 boys. Special arrangements have been made for its ventilation, the incoming air being warmed in winter and cooled in summer. It has been built at Barrow by Messrs. Vickers, Son, and Maxim, and was launched on April 20th.

Milk and Scarlet Fever.—In a report to his authority on April 20th, Dr. Anningson, Medical Officer of Health for Cambridge, traced the origin of a recent outbreak of 78 cases of scarlet fever apparently to infected milk. The dairy farm immediately implicated was in good order, but the dairyman had supplemented his own milk by a purchase from a purveyor who obtained his supply from fifteen different sources. A man employed in milking at one of these was found to have his hands and feet in a state consistent with a belief that he had recently suffered from scarlet fever. His child was in the same condition, and both had visited relatives in a village in which scarlet fever was stated to have been present. No further cases attributable to the Cambridge dairyman's milk occurred after the supplementary supply was stopped.

Quackery in Germany.—The following figures show the prevalence of quackery in the German Empire. In Prussia the number of persons who practise medicine without a legal qualification is 4,104, being in the proportion of 22.8 quacks to every hundred legitimate practitioners. That quackery is increasing rapidly may be gathered from the fact that in the period 1897 to 1902 while the population of Berlin increased by 30 per cent. the number of quacks increased by 57 per cent. There are in Germany 835 "nature healing" associations with a total membership of 111,887. In the course of three years 392,000 pamphlets setting forth the excellences of that system of quackery were distributed, and in the single year 1902 no fewer than 3,056 public addresses in praise of it were delivered. One of the journals devoted to the propagation of nature healing has a circulation of 112,000 copies. The textbook of Bilz, the prophet of the cult, has had a sale of a million copies, while of that of his former employé, Platen, 250,000 copies have been sold.

The Adirondack Cottage Sanatorium.—Dr. Edward L. Trudeau, the founder and President of the Adirondack Sanatorium, has recently described the difficulties which his energy and determination overcame in the first years of the sanatorium, and the annual report for 1904, the twentieth year, shows what good work the oldest of such institutions for the treatment of consumptives in America has been and is still doing. During the year three new buildings were erected, two cottages for patients and a library. The number of patients treated during the year was 296, and in addition the free out-patient department, for patients who are unable to gain admission to the sanatorium and seek accommodation in the town, has been crowded. The practice of allowing patients to sleep out of doors throughout the entire year has been steadily extended, and, though the winter of 1903-4 was one of the coldest known at Saranac Lake for many years, 50 per cent. of the patients slept out not only without injury but with apparent benefit. A study of the after-history of the patients during the first seventeen years of the existence of the sanatorium shows that but 7 per cent. more of deaths occurred amongst apparently cured patients than would have occurred amongst healthy people during the same period. The death-rate of the "arrested" cases is much greater than the normal death-rate, and nearly half the patients discharged with the disease still active die during the first two years.

British Medical Journal.

SATURDAY, APRIL 29TH, 1905.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The medical inspection of school children was first put into force in Brussels about 30 years ago, and a very effectual system has gradually been established there. In nearly all other European countries and in the United States, Columbia, the Argentine, and in Egypt, such inspection is more or less thoroughly carried out, whether by the State, the education department, the public health authorities, or the municipality.

In France the school medical officers are appointed by the municipality; in Norway by the municipality under the Board of Education. In Germany the conditions vary in different provinces or towns: thus, in Leipzig medical inspectors are employed; in Wiesbaden children are examined by the medical officer of the school; in Prussia the work is sometimes done by the medical officers of the municipality, sometimes by those of the State or district, or, again, by special medical officers responsible to the Education Board. In Hungary the State appoints school medical officers, who have first to pass an examination. In Turkey they are under the Minister of Education. Japan, Russia, and Chili have special central medical committees to control school hygiene. Japan has nearly 9,000 school medical officers, practically every school and training college being under medical inspection; teachers go through a course of hygiene, physiology, and first aid, in order to teach these subjects to children in schools.

New York, Philadelphia, Chicago, Boston, and many other cities in America have established daily medical inspection. The first city to organize the work was Boston, and the system there appears to be the best in the United States. The medical inspector visits the schools every morning soon after it opens. After the class has assembled the teacher singles out any child who appears to be ill, or whose parents wish for its examination. These children are sent to a special room where they are seen by the medical inspector, who decides whether they are in a fit state to attend school; if a child is found to be ill it is sent home with a letter stating what is believed to be wrong with it, and telling the parent what to do. The medical inspector keeps a record of all cases declared to be unfit to attend school, and sends reports in respect to all infectious cases to the health authorities, but never undertakes the treatment of the child; his duty ends with the recognition of illness and the advice to the parents to have the child treated. The child is not allowed to return to school until it has again been examined by the medical inspector. As showing the amount of work to be done and the character of the diseases recognized, it may be stated that in 1899 the number of pupils referred by the teachers for medical inspection was 17,449; of these 2,583, or 14.8 per cent., were sent home. It is instructive to note that of these 2,583 children no fewer than 468, or 18 per cent., were suffering from acute specific infectious diseases; it is almost impossible to estimate the amount of illness and interruption of school attendance thus prevented. A far larger number were sent home on account of diseases of the throat, mouth, or chest, and the number of rejections on account of skin diseases was still greater. In New York, during the same year, 128,787 children were referred to the medical inspector, and 9,367, or 7.3 per cent., were excluded; in 716 instances, or 7.6 per cent. of the cases excluded, the child was suffering from measles, whooping-cough, scarlet fever, or diphtheria. Contagious diseases of the eye were the cause of exclusion in 1,894 instances, and skin diseases (including dirty heads) in 5,486.

In England there is no medical inspection of individual children. There is school inspection, and, with the schools, of the children as a mass. As a rule, one medical officer is in charge of all the schools in one large town or district under the education authority, with special assistants for different branches of school work. It would obviously be impossible for one medical officer to occupy himself in the special examination of the large numbers of children in the schools which he superintends. We know of some medical officers who, beyond general medical supervision, do splendid work in the examination of eyes, ears, throats, cleansing heads, etc. But this is really outside their real work, and may be looked upon as being done from enthusiasm or humanity.

The question of systematized medical inspection of schools in England is very much in the air just now, and as we generally wait to adopt new methods until other countries have tried them, it is to be hoped that we may be able to establish a very thorough, simple, and co-ordinated method of medical inspection throughout the country.

One thing is certain, that it is impossible for a single officer to an authority, even with the help of two or three or a dozen skilled assistants, to deal with the health of individual children.

The fact must not be lost sight of, that all relating to the hygiene of the school buildings and school rooms, of dealing with infectious diseases on broad general lines is a distinct department, and that the officer who attends to these matters cannot be expected to determine the physical condition of each child. There seems to be some fear that were general practitioners entrusted with this latter work, there would be overlapping or clashing; there would in reality be two different departments co-operating to do work in two different departments—medical school inspectors and officers of the public health department.

The experience of Boston, New York, and other cities proves that by systematic inspection a great number of infectious cases are detected so early as to prevent epidemics spreading through schools. It has been objected that the system casts undue responsibilities upon teachers and increases their work. But since the medical inspector attends each school every morning, taking it in his rounds, the teacher can refer any child at once to him, and he immediately relieves the teacher of responsibility. Of course in any scheme the intelligent co-operation of the class teachers will be necessary. Experience proves that parents appreciate the interest taken in their children's health, and frequently send a message by a child who appears to be not quite well.

With this question of medical inspection are closely bound up many problems vexing the public mind with regard to

school children, such as the singling out of children suffering from such diseases or deformities as rickets, spinal curvature, tuberculous joints, heart disease, debility, and who are therefore unfit to take part in the ordinary curriculum of physical exercises; the early treatment and isolation of consumptives; the singling out of the underfed, a question causing so much talk with so little result at the present moment, and one which can be solved only when there are kitchens in all schools where the dinners can be cooked by the cookery students and eaten by all the children in the schools. Certain Boards have endeavoured to meet the difficulty by appointing trained nurses, or accepting the services of nurses provided by voluntary efforts. These nurses are supposed not only to attend to the minor ailments of the children, but also to detect the first signs of infectious disease. While it is true that the services of trained nurses may often be very valuable, it cannot be admitted that their employment really solves the difficulty; they may be very useful in helping teachers to recognize that a child is out of health, and by carrying out suitable treatment may do much to prevent the spread of, for example, infectious eye diseases. But it is too much to expect them to be able to answer the often very difficult question as to whether a child is sickening for an infectious disorder, or has, after recovery, ceased to be capable of spreading it. A teacher who notices that a child is ill should be able at once to refer it for a medical opinion. This is not the case in this country, where no effective system of medical supervision exists, although the need for it is, as a rule, accepted in principle.

The medical inspector of the school will also superintend the weighing and measuring of the children, and thus be helped to single out children who are not thriving.

As to the value of medical supervision in case of infectious disease the figures in America go to prove that the results are most useful. As has already been pointed out in the series of articles published recently, it is not so much the actual loss of school attendance but the after-results to the children which make this question so serious.

As to the question of extra expense to the ratepayer, we would point out that, as medical inspection would diminish infectious disease, the expenditure of the local sanitary authority would be lessened; that the system would prevent waste of school accommodation and loss of grants; and that the expenditure need not be great. Countries less rich than ours keep up a large staff of medical inspectors of schools. In Japan there are 8,424, in Germany 676 in 234 towns, in Brussels 52, in Paris 128, in Hungary 80, in Austria 56, in America over 500. Surely we also can afford to take reasonable precautions to secure that the children whom we compulsorily educate in elementary schools shall be turned out as healthy and useful citizens as possible. The best means of thoroughly accomplishing this is by the daily visits of a physician to each school. Numbers of capable young general practitioners would be glad to undertake this duty, and would gain useful experience in the care of children which they often are unable to obtain at present. But the system must be the same throughout the country in order to achieve satisfactory results and to obtain records which are urgently needed but not at present in existence. By this prophylactic policy the physique of the nation would be much benefited, and our present system of "after death the doctor" wiped out.

DRUG TREATMENT FOR INEBRIETY.

The medicinal treatment of chronic alcoholism is at the present time in a very unsatisfactory state in this country. It is very much neglected by the medical profession, yet there is accumulating a considerable amount of evidence, not, it is true, all of it untainted, tending to prove that in suitable cases a great deal may be done by a wise regimen combined with the exhibition of suitable drugs without confining the patient in a licensed retreat. Unfortunately the drug treatment of chronic alcoholism has been shamelessly exploited by the proprietors of secret systems and the vendors of nostrums. Not a year passes without the arrival, generally from across the Atlantic, of some new and infallible cure heralded very often by much beating of the drum ecclesiastic. Some years ago an account was given in these columns of the majority of the "cures" then most in vogue; whether their number has been increased since that time we cannot say, because though a good many new systems have been advertised some of the older ones seem to have dropped out.

The latest addition to the list appears to be the Jamieson system, which has recently been industriously pushed in this country. This system, we are assured by the proprietor, is not imported from America, but the methods by which it is being brought to public notice resemble those with which we are already familiar. The Dean of Norwich, whose loyalty to the medical profession is well known, was induced to preside over a meeting in that city on April 14th, at which Mr. A. W. Jamieson was allowed to explain "the new and successful cure for alcoholism under medical supervision known as the Jamieson treatment," and on the evening of the same day another meeting was held at the Assembly Rooms under the chairmanship of the Mayor, when Mr. Jamieson made a similar statement. He advanced the familiar claims that the treatment he employs builds up and restores the weakened will power and removes the desire for alcohol. He asserted that the prescription had been shown to some forty or fifty doctors, who had endorsed it as being a good one. At both meetings a resolution was adopted to appoint a small committee to consider the advisability of starting a local home for the treatment of alcoholism, presumably by Mr. Jamieson's system. We hear that before this meeting took place communications were opened with the leading members of the medical profession in Norwich, and that the matter was fully considered by the medical and surgical staff of the Norfolk and Norwich Hospital on April 12th, when the following resolution was adopted: "That this meeting does not consider it desirable for any member of the staff to lend his support, by his presence at the meeting on Friday next, April 14th, or otherwise, to what is advertised as the 'Jamieson treatment of alcoholism.'" We cannot see that any other course was open to the medical profession in Norwich or will be open to the medical profession in any other city where similar proposals may be made.

It is a well-understood rule that secret remedies cannot be countenanced by the medical profession, and in this instance the prescriptions used are the secret of the promoter of the proposed home. It is only fair to add that Mr. Jamieson appears to have offered to show his prescriptions to any medical man interested; and, further, that, as regards the proposed home in Norwich, which is designed for the benefit of the poorer classes only, he desires to place it under medical supervision. These conditions, however,

will not fulfil the recognized and reasonable requirements of the medical profession, and the fact that Mr. Jamieson is not to derive any direct pecuniary benefit from the home has nothing to do with the matter.

Chronic alcoholism produces lesions, temporary or permanent, in most of the organs of the body, especially in the digestive and nervous systems, and any treatment, while it must be mainly directed to preventing the patient from continuing to poison himself with alcohol, must also have regard to means for restoring the functions of the damaged organs. Twelve years ago, in a handbook prepared by the American Association for the Study and Cure of Inebriety this point was well brought out, and it was also pointed out that among drugs possessing more or less specific action in the condition were hyoscyamus, stramonium, and strychnine. A year ago we published a paper by Dr. McBride on the treatment of inebriety, in which he stated that the satisfactory results he was able to report occurred under treatment by strychnine nitrate and atropine given hypodermically, while at the same time fluid extract of red cinchona bark was given by the mouth. Dr. Backwell Fenn, in the same issue of the Journal, stated that the treatment he adopted consisted of hypodermic injections of strychnine sulphate and of daturine or atropine; he gave at the same time a bitter tonic containing the chlorides of gold, sodium, and ammonium.

Strychnine to some extent may be regarded as an antagonist of alcohol, since "strychnine restores to some extent the reflex irritability when it is reduced by" alcohol, "the antagonism being mutual as far as the spinal cord and medulla oblongata are concerned."[1] Combemale considers that it is the drug mainly indicated in chronic alcoholism, but that it must not be used during periods of excitement or in delirium tremens, and Triboulet[2] points out that the treatment may be continued for a long time, although it is well to give the injections for five days, and then to suspend them for five days, resuming them at the end of that period; in old age and in patients in whom the kidneys are damaged, the treatment must be conducted with great care. Triboulet appears to attach much importance to the anti-serum prepared in the manner directed by Broca, Sapelier, and Thébault. They produce in the horse a tolerance to alcohol by giving large doses of alcohol by the mouth, and find that the serum of an animal prepared in this way contains a hypothetical substance to which they give the name antiethyline. The injection of this serum it is stated causes the drunkard to lose the taste for spirits. With regard to atropine it would appear that it can be replaced by the alkaloids of hyoscyamus or stramonium, but the point seems to be of quite minor importance since daturine, the alkaloid originally described as present in stramonium, is now known to be identical with atropine, and atropine and hyoscyamine are isomeric, the former being a conversion product of the latter.

It would appear to be advantageous to give at the same time as the treatment by hypodermic injection is being pursued, some bitter tonic by the mouth. Triboulet strongly recommends copious draughts of weak infusions of gentian or cinchona, but the favourite medicament appears to be the liquid extract of cinchona bark. With regard to ammonium chloride, recommended by Dr. Fenn, and used we believe in some of the advertised treatments, it may be observed that the drug is one which is still largely used by many practitioners, although it has fallen largely out of fashion. It used to be given a great deal for chronic catarrhs of the bronchial, intestinal, and urinary mucous membranes, and is still, we believe, relied upon by many practitioners as a most effectual drug in the treatment of neuralgia, especially facial neuralgia.

No doubt chronic alcoholism is usually to be treated more efficiently if it can be brought under the good influences which exist in a well-conducted home or institution, but it may be worth while for family practitioners to consider whether it might not be possible, in early cases at any rate, to do something to check the habit by the use of strychnine and atropine, combined with careful regulation of diet and of course the withdrawal of alcohol in all forms.

[1] Hale White's *Pharmacology and Therapeutics.*
[2] *Traité de l'Alcoolisme*, 1905.

HYSTEROPEXY AND PREGNANCY.

The management of backward displacements of the uterus remains uncertain. Pessaries, largely misunderstood by their advocates as well as by their detractors, prove of undoubted benefit in some cases and fail in others, whilst at the best they are for several reasons very objectionable. Recently various methods for fixing the uterus forwards have been largely practised, either by sutures inserted through an incision made in the anterior vaginal fornix or by sutures passed through an abdominal wound; vaginal fixation or ventral fixation of the uterus being the terms applied to these two procedures. Others advocate the shortening of the round ligaments in order to bring the fundus forward.

Objections to these radical methods for the treatment of backward displacements may be frivolous when they are based on prejudice and absence of experience, but there is definite evidence against the indiscriminate practice of any of these methods. There is a great lack of definite after-histories of sufficient length to be of real value. Thus a report of fifty cases of ventral fixation is quite valueless unless each patient can be followed up, since recovery from operation by no means necessarily means cure. Nor is an operation of this kind devoid of danger; Montgomery[1] admits that in one of his own cases of ventral fixation fatal strangulation occurred, owing to a large portion of intestine slipping under the sutures immediately after the operation, and reminds us that Lindfors, Jacobi, Olshausen, and others have reported similar accidents. In order to avoid so deadly a complication some operators close the vesico-uterine fold, or pass sutures low down the anterior aspect of the uterus, and attach them to the peritoneum below the level of the lower angle of the abdominal wound; this is sufficient, practically, to close the fold without interfering with the distension of the bladder, and prevents the insinuation of intestine below the fixing sutures.[2] These precautionary measures are truly surgical, and we believe that many women are greatly benefited by ventral fixation properly and skilfully performed. Medicine, however, cannot rely on the *ipse dixi* of the most upright and able authority, and there is still a great lack of reliable analysis of after-histories.

One question of supreme importance must always be considered in relation to hysteropexy or fixation of the uterus, and that is the influence of the operation on future

[1] *Practical Gynaecology*, 2nd edition, 1904, p. 495.
[2] W. J. Sinclair, on Ventrifixation of the Uterus, British Medical Journal, March 26th, 1904, p. 713.

pregnancies. An instructive discussion on this subject took place at the Rouen meeting of the Congrès d'Obstétrique in April, 1904.[3] Dr. Oui of Lille brought forward a valuable report on this subject. Vaginal fixation proves very unsatisfactory in its influence on future pregnancies. Oui, excluding Dührssen's latest modification too newly introduced to allow of full after-histories, sums up the results of vaginal fixation as frequent abortion, and yet more frequent dystocia due mainly to the unnatural position of the cervix. Delivery through the vagina not rarely proves impossible, so that between 1895 and 1903 no less than 11 Caesarean sections had to be performed, and in two instances at least rupture of the uterus occurred. Oui therefore condemns vaginal fixation utterly, and is not surprised to find that so many bad results are reported from Germany, where one distinguished operator and his assistants make vaginal fixation the final stage of every colpotomy, so that they fixed the uterine body to the vagina about one thousand times in the space of two years!

Turning to ventral fixation or abdominal hysteropexy, Oui is more cautious on account of the great variations in method practised by different authorities and their followers. Some very bad obstetrical results are noted, but it is questionable whether in all cases the fixation was to blame, and we may add that the retroflexed uterus itself not rarely presents other and more serious morbid conditions prejudicial to gestation and not remedied by fixation. Gottschalk, who observed two abortions following hysteropexy, yet succeeded, by breaking down adhesions under chloroform, in conducting a third pregnancy to term. In other instances abortion has occurred in the first pregnancy, followed by normal gestation to term, implying that the process of gestation may tear off or greatly stretch the adhesions. Oui strongly condemns the fixation of the uterus low down and in sharp anteflexion. This position interferes with the development of the entire anterior wall of the uterus during pregnancy. That wall, thick, short, and undilatable, may play the part of a fibroid in the lower portion of the uterus, obstructing the pelvic inlet. Hence perhaps the considerable proportion of unfavourable presentations reported by Pinard, Schütte, and others, who make out that the patients had passed through normal labours before hysteropexy. Abnormally high level of the cervix is another grave impediment to labour; it is a natural, or to speak more correctly, necessary result of the practice of fixing the fundus very high up, against the middle of the abdominal wound. In one case of dystocia under Abel the cervix lay at the level of the fifth lumbar vertebra, in another under Schütte at the almost fabulous height of the second lumbar.

After careful consideration of all reliable good and bad reports of abdominal hysteropexy, Oui concludes that in the great majority of cases this procedure is not prejudicial to future pregnancy and labour. He agrees with Laroyenne and Sir William Sinclair in objecting to suspension to any extent, as distinguished from fixation, and in passing the sutures through the anterior wall well below the level of the fundus and the insertion of the Fallopian tubes. In conclusion, when the many dangers which attend and follow this operation are taken into account, it is clear that it should never be attempted without much deliberation and careful study of such evidence for and against it as has been collected by M. Oui and others experienced in its practice.

[3] Oui, L'Hystéropexie envisagée au point de vue de son influence sur les grossesses ultérieures, *Annales de Gyn. et d'Obstét.*, April, 1904, p. 225.

FRIENDLY SOCIETIES AND SLATE CLUBS.

An interesting paper on the progress of Friendly Societies and other institutions connected with the Friendly Societies' Registry Office during the ten years 1894-1904 was read at the last meeting of the Royal Statistical Society by Mr. E. W. Brabrook, late Chief Registrar of Friendly Societies. It contains much valuable information, and Mr. Brabrook's large experience of the subject makes his views worthy of the greatest consideration.

It appears that the number of members in Friendly Societies, in collecting societies, and other societies under the Friendly Societies Act, which in 1891 was 8,320,262, had risen in 1903 to 13,414,182, and that their funds had increased from £26,003,061 to £47,666,118. This, however, is very far from showing the full importance of the matter, for when workmen's compensation schemes, trade unions, building societies, industrial and provident societies, loan societies, and railway trustee and post-office savings banks are included the huge total of £396,189,194 is reached, an increase of £138,478,036 over the amount recorded in 1893.

We agree with Mr. Brabrook that every Friendly Society ought to be permanent, and commend his remarks on "juveniles" to the societies to which they are affiliated. As the law now allows Friendly Societies to have members of any age over 1 year, he strongly advises that juvenile branches should be amalgamated with the mother societies. He says that the reluctance shown is due to the wish not to mix up the youths with the adult members. This may be one reason; another may be that they are enabled by the present arrangement to obtain medical attendance for their juvenile members at half the rate of the adults. It has often been pointed out that this ought not to be.

Mr. Brabrook says "the liability of youths to sickness is slight," but if reckoned from childhood it is much greater than that of adults, and there is no reason in the world why a juvenile should pay less than an adult member. It has unfortunately become common in many parts of the country for medical practitioners to take juvenile members at a lower rate than adult members, and the mother societies know that if they admitted their juveniles it would be impossible to refuse the medical officers the same fee for them as for the others. If the profession were united, and refused to accept juveniles in contract practice at a lower rate than adults, a reform which Mr. Brabrook approves of would be thereby promoted.

Mr. Brabrook says nothing about "slate clubs." They have nothing to do with his Registry, and he may possibly think them unfit to rank with Friendly Societies. Whatever good purpose they may serve they are entirely outside actuarial calculations. By the theory of their construction they are good for only one year, and occasionally they partake more of the nature of a lottery than a Friendly Society. That medical practitioners should accept such clubs at ordinary Friendly Society rates is derogatory to the profession. Nearly all the grounds on which the ordinary club rates are said to be justified are wanting in the case of such societies, and the public is in a great measure justified in regarding the services of practitioners who accept such appointments as worth no more than the penny a week paid them.

The permanence of the contract is the justification usually advanced for the low rate paid by a Friendly Society to its medical officer. The argument that small payments over a number of years by healthy adult members, admitted only after a medical examination, and requiring little or no medical attendance, may recompense the medical officer for the inevitable call for his services as the members grow old and infirm, has an element of reasonableness which is altogether absent in the case of a heterogeneous collection of members, organized for the space of one year only, and beginning *de novo* every twelve months.

Mr. Brabrook demurs to the opinion of Mr. A. H. Bailey that trade unions are not Friendly Societies, on the ground that the larger portion of the funds they annually dispense is devoted to members "in sickness, accident, old age, and temporary want of employment." But surely, the character of a society is governed by the purpose for which it was created! The object for which a trade union exists is to furnish funds for trade disputes. If no such disputes arise a surplus may be accumulated to be otherwise utilized; but if the labour world is much agitated, and big questions have to be fought, there will probably be not much to spare for anything outside the recognized objects of its organization.

SECURITY OF TENURE AND THE PUBLIC HEALTH BILL.

If any justification were needed for the action of the British Medical Association in promoting the Public Health Bill, which provides for the security of tenure of office of medical officers of health it would be found in the recent action of the Chipping Sodbury Rural District Council, which, having been faithfully served for thirty-two years, in conjunction with several adjoining authorities, by Dr. Francis T. Bond, as medical officer of health, decided a few weeks ago that the time had arrived when a separate medical officer should be appointed for their district only. They accordingly advertised for a medical officer of health who should reside within the district, and on April 19th appointed out of four applicants a local practitioner to the office. The real reason for Dr. Bond's dismissal—for that is what it amounts to—was his objection last October to having three parishes with a population of 4,600 persons added to his district without any addition made to his salary for the increased work cast upon him. The Local Government Board upheld his protest, and he was given an extra £33 per annum until the end of his year of office in May. The action of the Council is thus in open antagonism to the Board, and this is made even more apparent when it is stated that a medical inspector of the Board, Dr. Theodore Thomson, attended the meeting of the Council at which the election took place and asked on behalf of the Board for some precise reason for breaking away from the combination, a step he said which the Board regarded as a serious error. Ten members of the Council voted for a resolution offering the appointment to Dr. Bond, but 20 voted in opposition. If the influence of the Local Government Board as the central and controlling public health authority is to be upheld it can hardly take this rebuff quietly. We would point out, however, that the President of the Board can readily prevent a recurrence of such an untoward incident by using his influence to obtain facilities for the discussion of the Public Health Bill, of which Dr. Hutchinson is in charge. From a party point of view the measure is absolutely non-contentious, and there is so much evidence of its necessity that we have little fear of the result if its advocates can only secure a hearing. It must be apparent to every person who considers the subject impartially and has the real interests of the people at heart that the best results are to be obtained by making a public health official feel that so long as he carries out his duties faithfully and conscientiously he will be secure from the attacks of individual members of the electing body. But under existing conditions precisely the reverse is the case. The medical officer of health is elected for one year, for three, or for five years, as the case may be. The only reason why this short tenure is enforced must be in order that the sanitary authority may be able to get rid of him as easily as possible and without the unpleasantness of dismissing him. If the Bill becomes an Act of Parliament a medical officer of health who in any way neglects his duty, or is incompetent, may be got rid of quite easily if the Local Government Board is convinced that he has neglected his duty, or that he is incompetent. What more can any authority desire? It is a hard thing to say, but it would almost appear as if the opposition to the reform the Association advocates could come only from those who have no real desire for any improvement in the sanitary surroundings of the poor, for after all this is the class with which sanitary officials are most concerned.

CEREBRO-SPINAL FEVER.

A Reuter's telegram this week indicates that the health authorities of New York have determined to treat cerebro-spinal fever as an infectious zymotic disorder, and consequently to subject those suffering from it, together with their attendants, to isolation, and to put into practice, in regard to clothing, bedding, and houses, the disinfection precautions ordinarily adopted in cases of the infectious class. In the face of a somewhat widespread epidemic such as that at New York this may quite well be regarded as a desirable step to take. It should not, however, be interpreted as evidence of conviction that the disease is contagious or infectious in the ordinary sense of the term—as used, for instance, in connexion with scarlet fever or typhus. On the American continent cerebro-spinal fever is a very well-known disease, and there, as elsewhere, it is generally agreed that multiple cases in single dwellings are uncommon, and that there is no evidence that it is directly communicable from man to man. Knowledge of the ways by which the disease becomes epidemic is of a negative character, and the action of the American authorities is probably due to their desire to leave no possible door unclosed. In the same connexion it may be noted that they are also turning their attention to dogs and cats as possible sources of infection. In our note upon the subject (April 22nd, p. 899) last week it was indicated that sporadic cases of the disease are not so very rare. Fresh evidence of the truth of this statement has been received by us this week in the shape of communications of different kinds from readers of the British Medical Journal. Some one or more of these will be published in the form of memoranda next week, and at the same time a brief history of the initial illness of the patient now in the wards of King's College Hospital, with which Dr. J. R. Johnson, of Richmond, who originally attended the case, has been good enough to supply us. The later history was given in the note to which reference has already been made. A fatal case of cerebro-spinal meningitis associated with the presence of the diplococcus intracellularis has occurred in the Royal Infirmary, Liverpool. The patient was a man, a tailor's cutter, and in consequence of the fact that he had been concerned in a squabble at his place of business a month before his death, a suggestion was raised that the case was of traumatic origin. The deceased, however, only remained away from business for two or three days after the quarrel, and remained in his usual health until shortly before his death, and neither during the fatal illness nor at the *post-mortem* examination was anything found to justify a suspicion that the disease had any real connexion with injury. The diplococcus intracellularis was found in the cerebro-spinal fluid during the patient's life, and characteristic inflammatory changes were found in the membranes of the brain and cord after death. A considerable amount of attention has been given to this case in the daily press in consequence of the remarkable attitude taken up at the inquest by Mr. Lynskey, the solicitor who represented the friends of the deceased, and by Dr. M'Feely, the practitioner who attended the deceased before

admission to the hospital. The former suggested that the *post-mortem* examination was a most perfunctory one, and Dr. M'Feely, who was present at the *post mortem* examination by invitation of the surgeon in charge of the case, said he entirely disagreed as to the cause of death, and that the *post mortem* examination had confirmed his diagnosis that death was due to abscess on the brain. A verdict was found to the effect that death was due to cerebro-spinal meningitis, with the addition that there was no evidence to show whether it was due to an injury or to an abscess set up by an injury. Fortunately it was still possible to make a second examination of the brain, which was done at the infirmary by Dr. E. E. Glynn, the pathologist—who was absent from Liverpool when the first examination was made—in the presence of Dr. M'Feely and also of Dr. T. R. Bradshaw and two of the resident staff. Every part of the organ was thoroughly inspected, and no pus was found anywhere except in the meninges. All present, including Dr. M'Feely himself, ascertained beyond all possibility of doubt that there was no abscess in any part of the brain, and Dr. M'Feely expressed himself as being in complete agreement with the other medical men on this point. There seems, therefore, little ground for connecting the man's death with any injury, and no reason to doubt that the case was one of cerebro-spinal meningitis. As an addendum to the general clinical picture presented by these cases, as briefly outlined last week, an explanation of the confusing variety and variability of the symptoms is suggested by a correspondent. In ordinary cases of cerebro-spinal meningitis due to other non-traumatic causes, the symptoms of this condition are commonly more or less masked by those of the disease of which it is a complication. The condition in cerebro spinal fever is likewise commonly masked, but roughly speaking the masking symptom may vary in its nature from day to day. The explanation would appear to be that except in fulminant cases, which finish in twenty-four hours or less, the symptoms are all due to purely central causes. In the fulminant cases, he says, there is very little macroscopic evidence of disease to be found after death, and though but little is known of the microbiology of the disease, it is presumable, on the analogy of other diseases, that symptoms and rapid death are alike mainly due to an overwhelming development of toxins. It is otherwise in cases of longer duration; in these the symptoms are due purely to disturbance of trophic or sensory or motor or higher centres. At a *post-mortem* examination on a case of any considerable duration, it commonly appears as if the bacillus, taken as a single entity, had been unable, so to speak, to make up its mind where to settle down. Some lymph is certainly usually found at the base and on the surface of the brain, but otherwise evidence of discontinuous meningeal inflammation may be found in a great many different places, and of varying age and intensity. It is to this variability in site and intensity of the inflammation set up by the diplococcus that the variability of the symptoms may probably be ascribed. It may explain, too, curious cases, such as one which occurred in the epidemic to which reference was made last week. In this the patient, after a few days of stupor and cervical rigidity, remained for a week or more apparently quite well, except for the existence of slight persistent rigidity of the neck, and of the following symptom—namely, that several times an hour she was seized with attacks of Cheyne-Stokes respiration. In the intervals she would laugh, talk, smoke, eat, and walk about.

KNOWLEDGE OF PLAGUE IN INDIA.

SINCE March 25th the *Times of India* has published no tabulated statement of the plague returns throughout India. The reason for this omission is calculated to increase rather than to allay anxiety concerning the prevalence of plague in that country. Is it an omission from "want of space in our columns," an inadvertency, or a deliberate withholding of information on the part of the newspaper authorities themselves or at the request of the Government? For some reason impossible to fathom the "home" papers furnish no information concerning the state of India in regard to the epidemic of plague; we have been indebted to the *Times of India*, the *Pioneer Mail*, and other papers published in India for information on this subject. We believe that the deaths in India during a recent week numbered over 50,000, but no public announcement to that effect has been made. From other parts of the Empire, from Hong Kong, Mauritius, Cape Colony, and Queensland, telegraphic accounts of plague are received, but the reports from these centres show a minimum amount of the disease to be present, a few cases only occurring occasionally. It is time that the extent of the epidemic of plague in India was brought home to the people in this country fairly and exactly. The Indian Medical Service, all told, numbers somewhere about 700 men, and the number of people in India is little short of the population of Europe. Is it possible for the officers of the Indian Medical Service to do their ordinary work, and, in addition, to fight an epidemic of plague corresponding in virulence to the black death in Europe in times gone by?

THE ECONOMY OF AN EFFICIENT ARMY MEDICAL SERVICE.

WE invite the attention of members of Parliament in general and of Mr. Arnold-Forster in particular to a passage in an article on the war in Manchuria in the *Fortnightly Review* by a writer who signs himself Miles. He takes a very professional and cold-blooded view and is concerned merely in obtaining a reasonably correct estimate of the numbers of the opposing forces. After discussing the many causes which diminish the paper number of an army he comes to the question of sick and wounded. He asserts that no army in the field has been so well cared for as the Japanese, and after a passing sacrifice on the altar of humanity, he writes: "The difference that it makes in a prolonged campaign is stupendous." This is the point which really interests Miles. "It is said," he continues, "that in the recent battle (Mukden) for instance, the Japanese losses have been about 40,000 in killed and wounded. If we allow that about 8,000 of these were killed on the spot or mortally wounded, while 32,000 were wounded in various degrees, we may safely reckon that, with the almost ideal arrangement of the Nippon medical staff and their complete equipment, some of these will have returned to the ranks, and that by the end of the year, should the war last, fully 30,000 will be as fit for warfare as they were before. On the Russian side, no one who has read the frightful particulars of the treatment to which the sick and wounded have been subjected, can believe that half of those sent north will ever be fit for anything again." Here the writer adds in a footnote, "At Harbin alone the deaths have been at least 5,000 a week, which about equals the highest estimate of the number of reinforcements that Russia can deliver there," and he proceeds to point out that this difference must be reckoned with from the fighting point of view, leaving out humanity altogether, in two ways: "First, it diminishes the continually available reserves of war-tried men on the one side, and increases it on the other; secondly, the effect on the spirit and go with which soldiers enter into a fresh fight cannot but be enormously affected by the difference in the prospect before them should they meet with a chance wound or be knocked over by excessive exertion." We might have hesitated to use the last argument, and we are not anxious to rest the case on it. On the financial side alone, however, it is of great strength, even for a nation like Russia, with uncounted millions to call upon. For a small country like ours, with a limited population, it is overwhelming. We are quite clear that if the man in the street, who has to pay the piper and may have to do the piping himself, could once be got to understand how enormously an efficient medical service increases the continuing efficiency of an army he would insist—politicians and bespangled Horse Guards to the contrary notwithstanding—that the medical services of the British Army should be brought to, and maintained at, the highest state of efficiency.

TYPHOID FEVER IN THE UNITED STATES ARMY.

The Surgeon-General of the United States Army has just issued the report of the Commission appointed to inquire into the "Origin and Spread of Typhoid Fever in United States Military Camps during the Spanish War of 1898." The delay in the publication of this important document is attributed to the action of Congress in refusing earlier to grant the necessary appropriation. Dr. Victor C. Vaughan is the only surviving member of the original Board, Dr. E. O. Shakespeare and Major Walter Reed having died in the meantime. The report is in two large volumes. The first contains a detailed account of the various regiments of the army in the several camps occupied during the time covered by the report. After this come the general statements and conclusions of the Board, and three appendices giving the results of work performed in the University of Michigan at the request of the Board on the sanitary examination and chemical disinfection of drinking water, and typhoid bacilluria. The second volume is a massive folio of maps and charts in which the statements contained in the text are presented graphically. One-fifth of the soldiers in the national encampments in 1898 contracted typhoid fever. Of the 20,738 cases of the disease, the medical officers of the army correctly diagnosed about half, most of the others being sent to hospitals with a diagnosis of malaria. The deaths numbered 1,580, a rate of 7.61 per cent. This corresponds closely to the general hospital mortality of the disease in civil practice, and under the circumstances must be regarded as highly creditable to the medical staff. The deaths from typhoid were 86 per cent. of the total deaths in the army. The Board states that typhoid fever is so widely distributed in the United States that one or more cases are likely to appear in any regiment within eight weeks after assembly. This being the case, it is obvious how readily camps may become polluted. The pollution of camps is attributed partly to neglect on the part of the authorities to provide sufficient and proper means of prevention, and partly to wilfulness on the part of the soldiers. The Board urges the necessity of instructing officers in hygiene, so that they may assist the medical staff instead of failing to co-operate with it or even refusing its demands, as often happened in 1898. Proper arrangements for disposal of excreta should be provided, and the strictest discipline, reinforced by court-martial if necessary, exercised to enforce sanitary regulations. We shall hope to give a fuller account and analysis of the facts and conclusions in the report, but meanwhile we commend it and the suggestions of the Board to the earnest attention of our own military authorities.

THE SURGERY OF PANCREATIC TUMOURS.

The treatment of simple cysts of the pancreas is fairly understood; they should be extirpated if possible, and when their deeper attachments are inseparable from important structures the surgeon must content himself with drainage. The management of solid and especially mixed tumours is much more doubtful, and their diagnosis is often attended with difficulty, nor even when they are removed is it always evident that they are of pancreatic origin, for the genesis of a very large tumour severed from its attachments may baffle the pathologist. Their removal, too, may require the excision also of important structures inseparable from them. Thus Monprofit, of Angers, was compelled to remove the spleen and the tail of the pancreas; fortunately he saved his patient.[1] He considered that it probably was not of true pancreatic origin, but arose from remnants of the Wolffian body in the posterior layer of the mesocolon. Dunning, of Indianapolis,[2] has recently operated on a somewhat similar case, where he remarks that the tumour which he removed was called pancreatic because it was situated in the position usually occupied by such a tumour and was attached to the pancreas, but he admits that it might have arisen in the upper part of the Wolffian body. The patient was a married woman, aged 25; she had noticed for two and a half years a swelling just below the left ribs which had persisted, sometimes seeming a little larger and sometimes a little smaller. It was the seat of attacks of intense pain, without however any vomiting, so common in association with pancreatic cysts; during the attacks it was said to disappear, or at least to diminish greatly in bulk. The tumour was very movable, and when the patient stood upright its lower border descended to 2 or 3 in. below the umbilicus. It was elastic and fluctuated in parts. As it could be pushed into the left flank and then there was resonance in front of it, tumour of the left kidney was diagnosed, and a puncture was made in the loin (a step which Dunning regretted), but no fluid came away. A lumbar incision was made, and the kidney was found in its normal position; another was therefore made outside the left rectus. Some mucilaginous fluid—the result of the exploratory puncture—was found free in the peritoneal cavity. The tumour, as big as an adult head, though so movable proved hard to deliver; it had to be enucleated from the gastro-colic omentum and the posterior layer of the mesocolon. Then the operator came to a firm attachment of the tumour to the pancreas near its tail, which was separated without any laceration of the glandular tissue of the organ. Very little bleeding followed the enucleation, the cavity left by the removal of the tumour was closed by a series of fine catgut stitches after the ligature of a few arteries. The peritoneal cavity was flushed with saline solution, as the fluid found free was suspected to have escaped from a hydatid, then the pelvis was again mopped and dried with sponges. No after-history is given, though recovery is implied. The tumour was found to be a true cystadenoma, its cystic cavities, which varied greatly in size, were lined with exuberant acini bearing epithelium in different degrees of degeneration, certainly not typical pancreatic tissue. Anatomically and surgically this tumour was rightly defined as pancreatic. Dunning dwells on the alleged disappearance of the tumour—a clinical subject of great interest. He found, before operation, that when the patient was placed on her back with her head low he could cause all visible signs of the tumour to disappear, and found it difficult even on deep palpation to trace its outline. This disappearance of a pancreatic tumour has been noted by other surgeons. Dunning relates how an epigastric tumour disappeared in the same way. An exploratory incision was made, and the tumour proved to be a movable liver, which could be easily pushed down into the position which it assumed when the patient stood up.

[1] *Gaz. méd. de Paris*, March 12th, 1904, and Doran, British Medical Journal, October 22nd, 1904, p. 1078.
[2] *Amer. Journ. Obst.*, January, 1905, p. 161.

CHOLERA AND THE RUSSIAN POLICE.

Under the above title an account was given in the columns of the British Medical Journal on April 15th of the objections raised by the Medical Congress at Moscow to police interference with medical men and of the resolution passed to refuse in consequence to co-operate in any Government campaign against cholera. Since then the St. Petersburg correspondent of the *Standard* has given an account of what is being done in anticipation of a wide extension of the cholera which already exists in several parts of Central Russia. At the Institute of Experimental Medicine at St. Petersburg two courses, each of a month's duration, are now being conducted. Each is being attended by from 150 to 200 physicians or senior students, many of the former having been sent by the Zemstvos or Councils of districts within the present danger zone. It is said to be believed that one thousand physicians will attend the courses before the epidemic begins, and that it is hoped that each of these will be able to train a number of his colleagues. It is stated that after a week's lectures, batches of thirty young men and women, having first been inoculated as a precautionary measure with plague serum and cholera vaccine, go for a week to an isolated island near Cronstadt, where they are employed for a week preparing Yersin's plague prophylactic serum and Haffkine's anticholera vaccine. Apparently this work is confined to students of one of the

courses, that of the others not being indicated. We give the information for what it is worth, but think it probable that the correspondent quoted has mixed up ordinary hygiene and bacteriological classes with special arrangements for dealing with cholera. Enormous amounts of the materials in question can be prepared by a very limited number of persons, but those persons should be specially skilled in bacteriological work. It does not seem probable that even a Russian Government would think it necessary to provide for their preparation at a great number of different centres, and still less that it would consider it desirable to entrust its manufacture to persons merely trained in the manner described.

THE STERILIZATION OF IMBECILES.

THE Pennsylvania House lately passed a Bill authorizing the castration of hopeless imbeciles. It had passed the Senate earlier in the session. The Bill provides that it shall be compulsory for institutions in the State entrusted exclusively or especially with the care of idiots and imbecile children to appoint upon its staff at least one skilled neurologist and one skilled surgeon of recognized ability, whose duty it shall be, in conjunction with the chief physician of the institution, to examine the mental and physical condition of the inmates. If in their judgement sterilization is deemed advisable, it shall be lawful for the surgeon to perform such operation as shall be considered safest and most effective, but the operation shall not be performed except in cases that have been pronounced after one year's test in the institution to be beyond amelioration. The Bill has been vetoed by the Governor.

MONEY AS A MICROBE KILLER.

WE have all doubtless been taught to believe that lucre is filthy, and some time ago evidence was brought forward which went to show that to its moral filth was superadded a physical foulness which made it both a breeding ground and a vehicle for all sorts of microbes. In these days the whirligig of time brings strange revenges to persons and things that have been calumniated. Nero is proved to have been an amiable professor of the doctrine, "Art for art's sake"; and money, instead of being the root of all evil, has recently been shown to possess at least one good quality—that of killing microbes. A Bill for clean paper money was considered by a Committee of the late American Congress before its dissolution. Among the evidence submitted was a report of investigations made by Dr. William H. Park for the purpose of determining the influence of coin and of paper money upon the life of diphtheria bacilli. Pennies, nickels, and dimes were placed in the mouths of children suffering from diphtheria. The coins showed no trace of diphtheria bacilli twenty-four hours afterwards. Paper money at the end of forty-eight hours showed a growth, and continued to do so at times up to one month. It would therefore appear that both coins and bank notes kill microbes, though the paper money is much slower in its effect.

THE QUEEN'S JUBILEE HOSPITAL.

THE Governors of the Queen's Jubilee Hospital, Earl's Court, have up to the time of writing not come to a settled conclusion as to the course which they will adopt in respect of the expert report upon the affairs of the institution provided by the Executive Council of King Edward's Hospital Fund for London. From sundry interviews, however, with persons connected with the Board of Management which have been recorded in certain of the daily papers, it would appear that there is a tendency on the part of some of the Board to refuse to put the recommendations into practice, in spite of the fact that before the inquiry was held assurances were given that the Board was prepared to stand or fall by its result and to accept any suggestions made. It has long been desired by all interested in the hospital work of London that some independent but expert authority should show itself disposed to act as an arbitrator in all disputed matters of hospital administration. The King's Fund seemed to be marked out in advance to fulfil this need, and in the management of its affairs its council has shown such sagacity and statesmanlike breadth of view that no doubt can be felt as to its forming an Arbitration Board of the most satisfactory character. It would, therefore, be lamentable if, on the first occasion on which it has been requested and consented to act in this capacity, its decision were not loyally accepted. Its recommendations are certainly drastic, but therein lies their strength; for radical cures and not tinkering compromises are what is required in any serious hospital dispute arising from profound causes. It might seem, of course, as if the retirement of the new staff entailed by the recommendations imposed somewhat of a hardship upon them; but even were this so, no consideration for individual interests should ever be allowed to stand in the way of those of a public charity.

BOOKSELLING BY CURSE.

MOST of us have suffered the unwelcome visits of the book tout, but as this method of pushing business has proved comparatively unsuccessful on this side of the Atlantic other plans have to be devised. A correspondent sends us a copy of a circular issued to promote the sale of a book called *Darwinian Fallacies*, by J. Scouller, published by Simpkin, Marshall, Hamilton, Kent, and Co., Limited, which is apparently being sent to "all members of the Royal Society and of the British Association for the Advancement of Science." The author therein challenges its recipients to refute the arguments contained in the book (price 3s. 6d., form of application enclosed), and by way of inducement writes: "If they refuse to take up the gauntlet thus thrown down, then they shall certainly stand dishonoured in the sight of both God and man, for they will thus be displaying a pusillanimous disloyalty to truth." As it is obviously impossible to refute unseen arguments, they are called upon to buy this book or be "dishonoured in the sight of God and man"! No doubt the only way to treat an appeal of this sort is to consign it to the waste-paper basket, but we should like to point out to the publishers that a curse is not a proper commercial consideration, and that their business ought not to be promoted by means which are less modern than mediaeval, more likely to be ludicrous than lucrative, and amount in effect to an impertinence.

MOTOR AMBULANCES.

IN the course of a letter to the press last week in support of the objects of the Metropolitan Street Ambulance Association, Mr. Reginald Harrison, its president, made allusion to the question of motor *versus* horse for ambulance purposes. He does not appear to have any strong leaning in either direction himself, but quotes the following letter to himself from the Superintendent of New York Hospital:

> I think when I last wrote we were entertaining large expectations of the motor vehicle. These have not been realized. All of the hospitals, with one exception, which have the motor vehicles, still use them, but it is largely because they have them on hand. The mechanism is too delicate for such rough work, and the parts are constantly giving out, and frequent and costly repairs are necessary. One of the hospitals—the Roosevelt—has discontinued that part of their service and returned to the horse vehicle. I still have faith in the motor vehicle, but many improvements must be made before it will be sufficiently reliable to displace the horse ambulance.

This communication is of especial interest in connexion with the desire which the Metropolitan Asylums Board is believed to have to exchange their present ambulances for a motor service. At first sight the experience narrated might appear to contraindicate any such experiment on the part of the Board, but it is to be noted that the letter was written more than a year ago. In matters automobile that is a long period, especially when it is remembered that the particular vehicles the experiences with which are narrated must have been purchased at a considerably earlier date. During the last year or so the construction of motor-driven vehicles as regards reliability and capacity for constant steady work has greatly improved. If this is true of carriages intended for rapid work, it is still more

true of those intended for the comparatively slow speeds required in ambulance work, or from eight to sixteen miles an hour. The rapid spread of the use of automobile vehicles for a multiplicity of commercial purposes tends to support this conclusion, while the recent apparent success of more than one practical motor-omnibus experiment is also a case in point. Finally, it may be remarked that while ordinary American-built automobiles have their virtues, they are not generally considered remarkable for perfection of workmanship and solidity of structure—two points which are now bringing English-built vehicles for touring and other practical purposes into a very much better place than they formerly held.

LONDON SCHOOL OF TROPICAL MEDICINE.

The festival banquet in aid of the London School of Tropical Medicine will take place at the Hotel Cecil on Wednesday, May 10th, under the presidency of the Right Hon. Joseph Chamberlain, M.P., who will be supported by the Right Hon. Alfred Lyttelton, K.C., M.P., Secretary of State for the Colonies. Sir R. Douglas Powell, President of the Royal College of Physicians of London will be present, and in the revised list of stewards just issued are the names of the Duke of Fife, the Marquess of Bath, the Earl of Glasgow, the Earl of Scarborough, Earl Percy, M.P., Viscount Ridley, Lord Strathcona, Lord Kelvin, Lord Tredegar, His Excellency Raja Nuprabandh Phya, Siamese Minister; Admiral Sir John Dalrymple Hay, Sir William Holland, M.P., President of the Associated Chambers of Commerce; Sir Alfred Jones, Sir Hubert Jerningham, Sir Nevile Lubbock, Chairman of the West India Committee; Admiral Sir Archibald Douglas (Commander-in-Chief, Portsmouth), Sir Edgar Vincent, Sir Thomas Sutherland, Sir Frank Swettenham and Sir Frederick Young. It may be mentioned that the cost of constructing and furnishing the buildings required for the purposes of the hospital and school has amounted to £30,000, of which all but £6,000 has been obtained, mostly from the general public. The deficit, however, is still due to the Committee of the Seamen's Hospital, and constitutes a serious drag on the finances of the school. It is hoped that the dinner may supply the means, not only of extinguishing this debt, but also of providing a reasonable endowment such as would enable the school to become affiliated to the London University, and to enlarge the scope of its operation in a manner and to an extent commensurate with the demands upon its services. A sum of at least £100,000 is required in order to provide adequate endowment for the teaching staff, to meet laboratory and other current expenses, and to make due provision for the maintenance and treatment of a sufficient number of patients in the wards. The Festival Banquet is free, and the Honorary Secretaries, Mr. William Waldorf Astor and Sir Ralph Moor, K.C.M.G., will be glad to send a card of invitation to any contributor to the fund or to see any gentleman interested in the movement at 13A, Cockspur Street, W.

THE MIDWIVES ACT.

Some of the inquests held in various parts of the country since April 1st, when the first penal clause of the Midwives Act came into operation, tend to show that there must still be a considerable proportion of women who practise midwifery, but who have either neglected to seek, or who have been refused, recognition by the Central Midwives Board. A crop of prosecutions might have followed, but the inquiries were mainly in connexion with stillbirths, and the authorities appear to have rested content with the warning given in each case by the coroner to the woman concerned.

THE LANE LECTURES.

Sir Patrick Manson, K.C.M.G., has been invited to deliver the Lane Lectures this year. We understand that the subject of his lectures will be tropical diseases. The Lane Lectures owe their origin to the late Dr. Levi Cooper Lane, founder of the Lane Hospital, San Francisco, and of the Cooper Medical College, the first medical school established on the Pacific Coast. According to the terms of the foundation the lectures are to be delivered each year by some physician or surgeon of recognized eminence. The first course was delivered in 1896 by Sir William Macewen, and among the subsequent lecturers have been Professor Clifford Allbutt, Sir Michael Foster, Mr. Malcolm Morris, and Sir Charles Ball.

AN INTERNATIONAL CONGRESS ON PHYSICOTHERAPY.

An International Congress of Physicotherapy, the first of its kind, will be held at Liége this year, on August 13th and two following days. The object of the Congress is the study of the treatment by physical remedies of chronic diseases in which drugs are of comparatively little use. Under that head are included all external methods capable of causing reaction in the system. Among these are natural agents, such as baths, hydrotherapy, light, and movements, grouped together under the head of physicotherapy; and artificial procedures, such as electrotherapy, the use of the *x* rays, and massage, designated by the general term physicotherapy. Communications should be addressed to Dr. De Munter, Rue Louvrex, Liége.

We regret to have to record the death at Edinburgh on April 20th of Sir John Sibbald, formerly Commissioner in Lunacy for Scotland. We hope to publish a biographical notice in an early issue.

An excellent platinotype copy of Herkomer's portrait of the late Mr. William Cadge of Norwich has been issued by Mr. F. Hollyer, and can be obtained at his studio, 9, Pembroke Square, Kensington, W.

Mrs. Garrett Anderson, M.D., has contributed £50 towards the restoration of the Museum of the Norfolk and Norwich Hospital. The fund was started by the handsome donation of £500 from Dr. Robert Barnes, and of £100 from the children of the late Sir Frederick Bateman, M.D.

The German Section of the Medical Council of Prague recently held a meeting, to which representatives of the German newspapers published at Prague were invited, to discuss the question of the publication of quack advertisements in the press. It was decided to take collective action to prevent the insertion of such advertisements.

The American Medical Association will hold its annual meeting this year at Portland, Oregon, from July 11th to 14th. It is expected that at least 2,500 members with their families and guests will attend the meetings, and preparations on a large scale are being made for their entertainment.

The Ingleby Lectures before the University of Birmingham for 1905 will be delivered on Thursdays, May 4th and 11th, at 4 p.m., in the Medical Lecture Theatre of the University by Dr. James Kerr, Medical Officer (Education), London County Council. The subject selected is mentally-defective children.

We are informed that the British Ambassador in Paris, Sir Francis Bertie, has accepted an invitation to be present at a banquet to be given on May 13th to the British medical men visiting Paris. The honorary secretaries of the London Committee ask us to state that the failure of so many members of the British party to respond to the inquiries in the circular addressed to them ten days ago is causing great embarrassment not only to them but also to those who so generously propose to entertain parties at Vichy and Evian, and at the watering-places of Béarn. We are also asked to state, for the information of members of the party, that ladies are invited to attend the opening reception at the Sorbonne on Wednesday evening, May 10th, at 9 p.m., and that the return tickets at reduced fares to be obtained on presentation of a voucher will be available by any of the S.E. and C.R. Co.'s services from Charing Cross or Victoria, will be issued on any date from May 6th to May 11th inclusive, and will be available for a fortnight from the day of issue.

MEDICAL NOTES IN PARLIAMENT.

[By Our Lobby Correspondents.]

After the Easter Recess the opportunities of private members will be reduced to the Fridays and to one evening a week, and Government business will occupy more of the time of the House. On May 2nd, when the House meets, the second reading of the Aliens Bill will be taken, and as there are motions for its rejection by Mr. Atherley Jones, Sir Charles Dilke, Mr. Trevelyan, and Mr. Keir Hardie, there is sure to be a prolonged debate. The Report of Ways and Means, which is second in order, may be reached, and will in that case occupy the rest of the day.

The Registration of Nurses.—The Select Committee which sat last session to consider the expediency of providing for the registration of nurses was reappointed this year, and held two meetings before Easter. Some interesting evidence was taken from matrons of hospitals and nursing institutions, but it was by no means uniformly in favour of the system of registration. After the Easter recess the Committee will pursue its labours under the Chairmanship of Mr. Tennant and most probably report at the end of the session. Two Bills—one for the Registration of Nurses and Private Nursing Homes and the other called the Nurses Registration Bill—are still before the House, and are down for second reading on May 8th and 9th, but no progress can be made with them until the Select Committee, which will resume its sittings on May 11th, has reported.

Accidents to Railway Servants.—Mr. Channing called attention to this subject last week on the Civil Service Estimates, and complained that since the Act of 1900 there had been no substantial reduction in coupling accidents. According to the returns, it appeared that the number of accidents due to coupling in ten years had been practically equal to the number employed on this part of railway work. Mr. Bell said that accidents to railway servants could not be allowed to escape notice. In the four grades of drivers, firemen, goods guards, and shunters, 76,188 men were employed, and of these last year 101 were killed and 2,093 injured. If the Board of Trade did its work as well as the Home Office, thousands of accidents might be avoided. In the factories and workshops of railway companies inspected by the Home Office 81,440 men were employed, and among these there were only 18 fatal accidents and 43 men injured. He could not understand why the shunting yards could not be inspected as the workshops were. Mr. Bonar-Law defended the Board of Trade, and said that in the United States 278 men were killed last year in connexion with coupling. That number could not be fairly compared with the number in this country, as the systems were different. The number killed in shunting in the United Kingdom was 74, and, taking the number employed as half as many as in the States, it appeared that for every man killed here two were killed there. The Board of Trade were, however, far from being satisfied; they desired to reduce the number of accidents as much as possible, and not merely to aim at keeping it lower than in other countries. They were doing all they could to encourage the invention and adoption of safer methods of coupling.

The Sanitation of Non-Provided Schools in London.—Mr. Benn called attention last week to the report presented to the London County Council on the condition of these schools surveyed by the County Council officers. Of the 438 schools 25 per cent. were wholly unsuitable for the education of children and 78 per cent. were badly drained. He referred to the bad influence of these conditions on the health and development of the children and said it was no wonder there was physical deterioration. He blamed the Education Department for having neglected these schools and for not having kept them up to modern sanitary requirements. A very brisk debate followed in which Sir William Anson, Mr. Lloyd George, Mr. Macnamara, Mr. Lewis, and others took part.

Underfed School Children.—On the last evening sitting before Easter there was an interesting debate on this subject, opened by Mr. Bamford Slack, who called attention to the report of the Committee on Physical Deterioration, and moved a resolution demanding that children in need of food should be fed before being subjected to mental or physical instruction. He agreed that the cost should, where expedient, be recovered from the parents, and he urged in vigorous terms the necessity for taking immediate steps to feed the children who were compelled to attend school, and who came in large numbers without adequate food. Mr. Claude Hay seconded the resolution, and Sir George Bartley moved an amendment which made the relief given to the children a Poor-law matter. Sir F. Banbury supported the amendment, which was resisted by Mr. Macnamara, who advocated the system at work in Paris. Sir W. Hart-Dyke also supported the motion, and pointed out that the evil had grown too large for voluntary effort. Mr. Keir Hardie and Sir John Gorst also spoke. The reply of Sir Wm. Anson admitted the evil, and detailed the proposals of the Government to meet it. He said the report of the Committee was more cheering than was often admitted, for it showed that there was really an improvement in physique. He quoted at length from the report of the Committee to indicate the safe lines on which the children might be fed, when voluntary effort could not undertake it. They did not want too many organizations at work—namely, voluntary effort, the Poor Law, and the local authority. The President of the Local Government Board was about to issue an order to Poor-law authorities to suggest that relief to underfed children should be given on application of the managers, or teachers authorized by the managers, or of an officer of the local education authority. The relief might be given by way of loan to the father, recoverable as such relief was recoverable. The relief could be given at once if urgent, but in other cases after notice to the father. If the cost was not recovered it would entail the disfranchisement of the parent. At the close of the debate Sir Walter Foster complained that no provision was made for medical inspection of the children, which was the basis of all progress in the matter. On a division, the amendment was rejected, and the debate on the resolution was adjourned.

Scotland.

Aberdeen Medico-Chirurgical Society.

The Society met on Thursday, April 20th, at 8.30 p.m., the President, Dr. George Rose, occupying the chair. The evening was occupied with the reading of short papers on cases of interest by the following members: Dr. Albert Henderson, a case of glandular enlargement in a child; Dr. Howie, a case of epigastralgia; Dr. Lister, a case of haemoglobinuria; Dr. Thomas Milne, a case of cat asthma; Dr. A. Ogston, jun., a case of intestinal obstruction; Dr. Rose, a case of chronic polyarthritis in a child (Still's disease). In the last case Dr. Rose was able to show the patient.

Honorary Degrees at Glasgow.

At the Spring graduation ceremony of Glasgow University on April 18th, the honorary degree of LL.D. was conferred upon Sir William Whitla, M.D., Professor of Materia Medica and Therapeutics in Queen's College, Belfast. In presenting Sir William Whitla, Professor Moir said that he had long been well known to members of Glasgow University, and had acted some years ago as examiner in materia medica and therapeutics. His book on *Materia Medica* and his *Dictionary of Treatment* were well known to all English-speaking medical men, and the dictionary had achieved perhaps the unique distinction of being translated into Chinese; this translation was now in its third edition. The crowning act of Sir William Whitla's success as a practitioner in Belfast had been the devotion of a considerable portion of his fortune to the building and organization of an institute affording a perfectly unsectarian home for the medical profession, and in particular for the Ulster Medical Society.

The honorary degree of Doctor of Laws was also conferred on Dr. Crum Brown, Professor of Chemistry in the University of Edinburgh. In presenting Professor Crum Brown, Professor Moir said that he was not only a distinguished chemist but a classical scholar and widely read in modern languages. His numerous scientific papers might be grouped into those which dealt with the relation of chemical constitution to physiological action, with the relation between the movements of the eye and the movement of the head, the sense of rotation, and the function of the semicircular canals of the inner ear and those which involved researches in organic synthesis. On several notable occasions his scientific intuition had enabled him to anticipate the trend of further developments in chemical

theory—a quality which had proved peculiarly stimulating to all students of science who had come within the sphere of his influence.

Ireland.

Direct Representative for Ireland.

Dr. Leonard Kidd has issued an address as candidate for the office of Direct Representative for Ireland on the General Medical Council. It is very voluminous, and the list of reforms which he advocates is long. He says he is in favour of increasing the direct representation to one-half the Council; of the one-portal system for each division of the kingdom; of a preliminary examination to admit medical students to a students' register—this and the "final" to be under the absolute control of the Council in regard to the standard of efficiency—universities and corporations to confer qualifications as at present; of stringent measures against unqualified practice; of enabling the Council to subpoena witnesses and take evidence on oath, and to withdraw degrees and diplomas when a name has been removed from the *Register*; of the licensing of clinical hospitals by the Council; and of providing direct representation for registered dentists. It is a large programme, and to carry out the greater part of it parliamentary legislation will be necessary.

DISQUALIFICATIONS UNDER THE LUNACY ACT, 1890.

[From a Correspondent.]

When another Lunacy Bill is brought into Parliament, the clauses in the Lunacy Act, 1890, which disqualify, from holding certain offices, persons who are, or have been, interested in licensed houses, will need consideration and recasting. Section 158 provides that "a person shall not be qualified to be a Commissioner or Secretary or Clerk to the Commissioners if he is, or within one year prior to his appointment has been, interested in a licensed house." Section 165 provides that "a person shall not be appointed a Chancery Visitor if he is or has been within the two years preceding his appointment directly or indirectly interested in any licensed house." Section 177 (3) provides that "a person shall not be qualified to be a visitor or clerk or assistant clerk to any visitor, who is or within one year prior to his appointment has been interested in a licensed house."

These provisions embody in statutory form the remnant of the prejudice that so justly prevailed against the madhouses prior to 1827, when the retirement of Lord Eldon from the Chancellorship removed the great obstacle to their reform. The prejudice has lingered down to our own day, and the provisions cited from the Lunacy Act, 1890, truly reflect its logic and its justice.

A person interested in a Hospital registered under the Act may be appointed either a Commissioner or a Chancery Visitor; and one of the existing Commissioners was, immediately prior to his appointment as Commissioner, interested, in the sense of being a salaried officer, in a registered hospital. A person interested in the same sense in a licensed house is not eligible for a Commissionership until one year has elapsed since he relinquished his interest. Yet the salaried Superintendent of a registered hospital is interested in precisely the same way, and to precisely the same extent, as the salaried licensee of a licensed house. In either case his interest ceases the moment he relinquishes his post. In either case he is concerned to precisely the same extent and degree in the success of the institution with which he is connected. That is to say, he must make the place successful. If he does not, he will be compelled to make way for some one else who will. His position depends on his financial success. Similarity of position leads to similarity of conduct. There are registered hospitals conducted with quite as keen an eye to the main chance as any licensed house. There are licensed houses in which patients have been received, not merely on charitable terms, but wholly gratuitously. Whatever disqualification attaches to a salaried post in a licensed house, should attach to a similar post in a registered hospital. If no disqualification attaches to the one, neither should any attach to the other. The cases are "on all fours" with each other.

But supposing that interest in a licensed house ought to disqualify the interested person from office in any of the capacities mentioned, why should the disqualification be retrospective? What is the object of this provision? If the provision is an honest provision, and is intended to safeguard the purity of official bodies against the intrusion of interest, it is difficult to see what is gained by its retrospective action. It implies that, after a person has parted with his whole material interest in a concern, he thereafter retains, for a period of one year if he is made a Commissioner, or of two years if he is made a Chancery Visitor, a sentimental interest in his previous employment. It implies that, after he has parted with his interest, he still retains an interest. It implies that this remaining interest slowly fades away, and that it fades at a different rate according to the office to which its possessor is appointed. If he is appointed a Commissioner, it is extinct in twelve months; but the appointment to a Chancery Visitorship has a preservative effect on the interest, and continues it in force for two years, when the last lingering remnant expires, or the interest suddenly comes to an end. If this is not the implication of the Sections of the Act that have been quoted, then they have another meaning. If the interpolation of a year's interval, or of two years' interval, between the relinquishment of the interest and the making of the appointment, was not to provide against a lingering remnant of interest after the interest had been relinquished, then the object of the provision was, by imposing an impossible condition, to exclude, wholly and for ever, every person who had ever been interested in a licensed house, from the offices in question. In fact, no one who has ever had any interest in a licensed house has ever been appointed a Commissioner or a Chancery Visitor. If this was the object of the Sections that have been cited, then, surely, that object ought to have been secured directly, by a plain and straightforward enactment to that effect, and not by a questionable stratagem, unworthy of a great Legislature.

The disqualifications inserted into the Act are not the less remarkable for what they omit than for what they include. A man may not hold a Commissionship if he has within one year, or a Chancery Visitorship if he has within two years, been interested in a licensed house. But there is nothing in the Act to disqualify from either office a man whose wife, or brother, or sister has owned a licensed house, or whose wife or brother or sister acquires a licensed house during his term of office, or whose wife, brother or sister, continues to own one throughout that term.

It is clear that the matter cannot be left in its present shape. If it is the intention of the Legislature to exclude from office, wholly and for ever, every person who has ever had an interest of any kind in a licensed house, this intention should be plainly and straightforwardly stated in the enactment, and not secured by a sidewind. If, as it is admitted, a person who is disqualified from holding office by the possession of an interest in a licensed house, can divest himself of his disqualification by renouncing his interest, then he should be granted that privilege in fact, and not merely be tantalized by a colourable and pretended grant, hedged about by conditions which nullify it in practice. As matters stand, the Legislature, upon the pretext of securing the purity of responsible offices, has made an enactment which is utterly inefficient for that purpose, but which does cast a slur upon persons who are pursuing a legitimate and legalized calling. The removal of a disqualification so unreasonable would prejudice no one; it would tend to elevate the status both of licensed houses and of their officials; and it might be supplanted by provisions which would be really effectual, without being derogatory to any one. Now that attention has been called to it, it seems impossible that the existing state of affairs will be allowed to continue.

Medical Black Lists.—The medical practitioners of Millbury, Massachusetts, have entered into a mutual agreement that they will not attend professionally, except in case of emergency, any person who wilfully refuses to pay for medical services rendered previously by any other practitioner of the place. Some time ago the physicians of Monroe County, North Carolina, entered into a similar agreement. All who had refused to pay doctors' bills were put on a black list, and an agreement was entered into not to visit any of them until the account was settled. The doctors stuck to their agreement regardless of the consequences, and the aid of the Legislature has been invoked by those on the black list. A bill has accordingly been introduced which compels a practitioner to attend the sick when money is tendered for his services, if the practitioner has no other reason for refusing to answer the call than the black-list agreement.

NOVA ET VETERA.

OPEN-AIR TREATMENT OF PHTHISIS IN SCOTLAND 100 YEARS AGO.

IN the correspondence columns of the BRITISH MEDICAL JOURNAL in November and December, 1899, some letters appeared under the heading of "A Pioneer in the Treatment of Consumption." The correspondence arose in connexion with an abstract of Dr. G. S. Middleton's account of "An Early Glasgow Medical Society," and in particular of a paper read by a Mr. Campbell in 1825, referred to in the minute-book of the Society, dealing with the "Treatment of Consumption."[1] From the correspondence it appeared that the "pioneer" referred to was the Rev. Andrew Stewart, M.D., Parish Minister of Erskine.

Lately a MS. has come into my possession (now placed in the library of the Faculty of Physicians and Surgeons), which I found among a pile of MSS. left by the late Dr. Mackenzie of Glasgow, the celebrated ophthalmologist. It was endorsed, in Dr. Mackenzie's handwriting, as "Dr. Stewart's Treatment of Phthisis." It had been transcribed for him, the original having been written by one who was a victim of the disease undergoing this cure. From the reference to the "Brownonian" system, one may suspect the writer to have been himself a medical man; but in any case, everything points to care and accuracy in giving the account of the method and of the results in his own case. The following is a copy:

"DR. STEWART'S TREATMENT OF PHTHISIS.

"The practice of Dr. Stewart in pulmonary consumption and every other modification of that dreadful train of diseases brought on by cold, and connected with the throat, windpipe, and chest, is founded upon every principle of common sense. After the extraordinary benefit which I have derived from his advice, I cannot omit attempting to detail his maxims, which I collected from his conversation during a residence of four days under the same roof. In the year 1796, while studying at the University of Edinburgh, Dr. Stewart first embraced opinions which were the foundation of his differing so materially from the usual line of practice, in consequence of attending a course of lectures delivered by a most eminent physician in Edinburgh; he conceived that in detailing the nature and treatment of abscess on the lungs, that the lecturer deduced a different conclusion from that which he was labouring to establish, and pursuing the idea which forcibly presented itself to his mind, that no difference ought to exist between the treatment of an internal and of an external abscess, Dr. Stewart formed a system which experience has matured and practice fully justified. If the complaint begins with acute inflammation, Dr. Stewart pursues the depleting plan for a short time with vigour, but in the second stage of the disorder, when exhaustion and nervous irritability come on, with a fluttering pulse often varying, and night perspirations, he immediately attributes these symptoms to weakness, and begins to support the constitution, and enables it to throw off the disease by its own rallying powers. To this end, he has found that vinegar and water rubbed in night and morning over the surface (the method of doing which I shall describe) materially and mainly contribute, and in no instance has it been productive of fresh cold or any other unpleasant consequence, while, on the contrary, it abstracts internal heat, it promotes and produces a healthy circulation to the surface, and opens the pores of the skin, and, lastly, forms the grand object of which Dr. Stewart never loses sight, that of hardening the patient and defending the constitution from fresh attacks of cold. Other benefits might be enumerated, such as the power of the vinegar when absorbed and taken into the system, in diminishing fever; and of the material use it is in regulating the bowels, aided, perhaps, by means of the unusual friction. In the old-established practice, Dr. Stewart contends that the effect is pursued and not the cause; and that irritation of pulse, and quickness of circulation, which are the effect of weakness, are treated as if they proceeded from inflammation, until the patient is reduced to a skeleton and all the powers of the constitution are destroyed, thus co-operating with, and increasing a disorder of which the destructive tendency and the ravaging powers are but too well known; but admitting that this old practice succeeds, and that the life is preserved, it is still but a system of palliation, for the extreme precaution necessary against the fear of taking cold, makes the patient a complete hothouse plant, and implies a state of constant bondage. The climate cannot be brought to suit the constitution, therefore the constitution must be hardened to bear the climate, which can only be done by persevering in a prudent and determined manner in producing a state of coolness and firmness capable of defying the dangerous variations in the weather, and by restoring the frame to its original healthy tone of vigour. Dr. Stewart is inimical in the highest degree to the use of the sedative and anodyne medicines, thinking them highly detrimental to the constitution in general, to the digestive powers and nervous system in particular, whilst their effect is at best successful for the moment. It is Dr. Stewart's urgent wish that the patients should be for many hours daily in the open air—cautiously, however, avoiding fatigue—either on horseback or on foot or in an open carriage, which last he relies most upon as least likely to tire the patient.

"The diet should consist of plain meat, broth, pudding, fish, or any course of simple but nutritious food, according as the patient feels inclined. Soda water, ginger beer, spruce beer, mild malt liquor, or even wine and water if the patient is accustomed to it or feels the want of it, but as a general rule Dr. Stewart is no friend to wine or to the habit of drinking it undiluted, particularly for women who are not supposed to be used to it. Dr. Stewart is anxious to explain that his system partakes not in the most remote degree of the Brownonian or cramming system; he is altogether hostile to it or to any undue means of giving strength by false stimuli; he only prescribes that moderate quantity of refreshing food which nature and reason point as wholesome, and those early and regular hours which are most efficacious to digestion.

"The method of washing only remains; nothing can be more extraordinary than its effects in my own case in producing sleep, and in lowering the pulse after anodynes had been long used and had begun to lose their power. Rub in equal parts of vinegar and water, as if using an embrocation, over the surface of the arms, throat, neck, chest, back, and bowels; tepid for the first three or four times and afterwards quite cold; first dry with a towel, then with flannel, or a flesh brush for ten minutes to each part, particularly in the morning; at night less friction will suffice. This may be, in a few days, extended to the lower limbs, preparatory to their being plunged into a pail of salt and water, and well dry rubbed, which may be done at the end of a fortnight. The quantity of vinegar may be reduced gradually after a week or ten days, first to two-thirds and then to one-third, so that by the end of six weeks the use of it may be discontinued in the morning, but must be persevered in at night for three months, for the whole process is meant as an introduction to the cold shower, or plunge bath, or, what is best of all, the open sea. The plunge bath should be taken at seventy degrees of warmth, three times, and then washing and rubbing should never be omitted; bathing may be used even four times in a week, when begun as above with caution. All the bathing to be performed with the head bare. Such is the outline of the plan I have pursued with the best effect; a sufficient time has not elapsed to permit of the use of the immersion or plunge bath, but it is to be regularly adopted shortly, and the washing only has been so efficacious that I anticipate in time restoration to health and former strength. No cold has been caught, all cough has ceased, the night perspirations wholly subdued, and sleep and appetite are returned; a large portion of every day has been spent in the air notwithstanding the most ungenial weather, with constant east wind."

"*To Mr. Mackenzie, with the transcriber's best wishes for his welfare.*"

The Rev. Andrew Stewart, M.D., was the father of the late Dr. A. P. Stewart, Physician to the Middlesex Hospital, London. The son is best known in medical history as perhaps the chief pioneer in establishing the distinction between typhus and typhoid fevers (1840); he had the opportunity of studying both forms while resident assistant in the Glasgow Royal Infirmary, under Dr. Robert Perry, who has also strong claims for recognition in this connexion. In the memoir of Dr. A. P. Stewart, in the New Sydenham Society's reprint in 1884 of his paper on fever, a bare reference is made to his father's reputation for successful practice in the cure of consumption "before entering the ministry;" but he continued

[1] The letters by Sir W. T. Gairdner and Dr. J. G. Wallace (Haddington) appeared in the BRITISH MEDICAL JOURNAL, 1899, vol. ii, pp. 1514, 1587, and 1709. The abstract, headed "An Early Glasgow Medical Society," appeared November 18th, 1899, p. 1435. Dr. Middleton's paper was published in the *Glasgow Medical Journal*, November, 1899, p. 333: "A Note on the Minute-Book of an Early Glasgow Medico-Chirurgical Society." The minute-book is now in the library of the Faculty of Physicians and Surgeons, Glasgow.

the practice when minister of the parish of Bolton, in Haddington, and of Erskine, on the Clyde, as was shown by the name applied to him in the old Glasgow minute-book of a "medico-clerical gentleman of consumptive notoriety." Indeed, before leaving Haddingtonshire, he had successfully treated the Hon. Margaret Stuart, daughter of the tenth Lord Blantyre, whom he married in 1809,[2] and she lived till 1839, being then 64 years old.

Andrew Stewart (who was the son of David Stewart, of Cleughside, Kirkpatrick-Fleming, Dumfriesshire) studied in the University of Edinburgh, and was licenced as a preacher by the Presbytery of Edinburgh on April 27th, 1796. He took the degree of Doctor of Medicine at Edinburgh in 1802, his thesis being *De Mentis Literarum Studiosae Incitamentis, Malis, et Regimine*, Edin., 1802. He was presented as minister of the parish of Bolton, Haddingtonshire, by Lord Blantyre, and ordained April 26th, 1804. He was married, as already stated, to Lord Blantyre's daughter in 1809, and transferred to the parish of Erskine, Renfrewshire, on Lord Blantyre's presentation, being admitted September 21st, 1815. He died December 26th, 1838, in his 68th year.[3] Before his death he seems to have attained more than local fame or notoriety in connexion with his cures, his method being "keenly opposed by the leading medical practitioners both in Scotland and England at the beginning of the century."[4] The "tonic" treatment of consumption is contemptuously dismissed in Craigie's *Practice of Physic* in 1840, and from the references there we know that Stewart's method was in view.

There is a partial account of Dr. Stewart's method of treatment by a fellow-student of his, Dr. Hume of Hamilton, who read a paper to the Clydesdale Medical Society on December 6th, 1822. This and another communication by the same author may be found in the *Quarterly Journal of Foreign and British Medicine and Surgery*, vol. v, London, 1823, pp. 143 and 642. Dr. Hume spoke favourably of the results of Stewart's treatment.

Much attention seems to have been directed about this time to the tonic form of treatment in certain stages or forms of phthisis (sometimes called "dyspeptic phthisis")—for example, in a MS. essay, still preserved, read to the Glasgow Medical Society in 1821 by Benj. Macnair, "On Consumptive Complaints," this style of treatment is advocated without any reference to Dr. Stewart's name; he refers, however, to many authorities in support of his method, and very specially to Dr. Rush's *Medical Inquiries and Observations*, 1794, vol. i, p. 158. This reference is most instructive in connexion with modern views of treatment, but this is not the place to go into the general history of the subject.

Interest in the history of the open-air treatment of consumption in Britain was stimulated by the reprinting, in 1901, of Dr. Bodington's *Essay on the Treatment and Cure of Pulmonary Consumption on Principles Natural, Rational, and Successful*. This was originally published in London in 1840. Stewart dates his views back to 1796. The two authorities, while agreeing essentially as to feeding and open air, differ a little also—Bodington in allowing sedatives, which Stewart withholds; and Stewart in using vinegar frictions and cold baths, which Bodington does not specially allude to. They agree in calling attention to the rapid pulse of phthisis, and both are emphatic in repudiating the idea that this is a sign of inflammation to be combated by "antiphlogistic" treatment.

James Finlayson, M.D., LL.D., Glasgow.

[2] This incident is referred to in the obituary notice of Dr. A. P. Stewart, *Medical Times and Gazette*, August 4th, 1888; also in vol. i of Oliphant's *Life of Edward Irving*, 1862, under the chapter "Haddington." Also in Hew Scott's *Fasti Ecclesiae Scoticanae*, under the parish "Erskine." It is also alluded to by Sir William T. Gairdner in his letter to the British Medical Journal, December 2nd, 1899.

[3] Details obtained from Hew Scott's *Fasti Ecclesiae Scoticanae*, Edin., 1866-7.

[4] See Rev. Duncan Macfarlane's account of the parish of Erskine in the *New Statistical Account of Scotland*, vol. vii, Edin., 1845. In the discussion on Mr. Campbell's paper in 1825 at the Glasgow Society, it is stated "the majority of the members considered that almost every case of this disease in its early stages is accompanied by more or less of an inflammatory action ..... and a strictly antiphlogistic plan of treatment is distinctly indicated." "The society naturally adverted to the chief promulgator of this practice [the tonic plan], *A Medico-Clerical Gentleman of Consumptive Notoriety*" (see MS. Minute-Book of the Society).

Leprosy in the German Empire.—Official statistics show that at the close of the year 1904 the total number of persons known to be suffering from leprosy in the German Empire was 24, as against 25 at the corresponding period of 1903. Of the cases 19 are in Prussia, 3 in Hamburg, and 1 each in Mecklenburg-Schwerin and Alsace-Lorraine. Three of the Prussian and one of the Hamburg lepers died during the course of 1904.

LIVERPOOL SMALL-POX AND SMALL-POX HOSPITALS.

The prevalence of small-pox in Liverpool in 1902 and 1903 and the issue of a report thereon by Dr. Hope, the medical officer of health, have caused the Local Government Board to make detailed investigation of certain aspects of the outbreak, and the results are embodied in a report by Dr. Reece.

The population of Liverpool in 1904 was estimated at 723,420, and the number of inhabited houses at 129,200. The acreage is 14,909. Liverpool is a seaport attracting many vagrants especially prone to small-pox, and in the twelve years preceding 1902 the cases notified or discovered ranged from a minimum of 2 in 1890 to a maximum of 229 in 1894. In 1900 there were 156 cases, and in 1901, 37 cases. The total cases in the twelve years were 868. In December, 1901, infection was introduced from the United States, but in consequence of the excellent administrative arrangements of the Health Department of the city the disease made little headway till November, 1902, when a missed case resulted in a local outbreak, which at the beginning of 1903 had assumed the proportions of a considerable epidemic. From December 6th, 1901, to the end of 1902, 552 cases were known of, and from the beginning of 1903 to the end of June of that year 1,585 cases, and for the last six months of the year 141 cases. These make a total of 2,278 cases in the two years, and do not include 33 found on vessels on their arrival in Liverpool.

Dr. Reece's report proceeds to give an account of the very thorough measures taken by Dr. Hope in dealing with small-pox. All doubtful cases were visited by one or other of the health officials. The ambulance service is abundant, and cases notified up to 11 o'clock at night were removed the same day, usually within an hour of notification. Special bedding vans were used for removal of infected clothing, bedding, etc., which articles were mostly taken to a disinfecting station in Charters Street. Special furniture vans were used for returning disinfected articles. Bedding from poorer houses was mostly disposed of by means of a refuse destructor adjoining Charters Street. A staff of skilled disinfectors, amounting at one time to no less than forty-two men, was employed in the disinfection of premises, and this work begun without avoidable delay after removal of patients to hospital. The routine included sulphur fumigation, removal of paper from the walls, and spraying with solution of perchloride of mercury. The wall paper was removed in canvas bags, and the whole burned in the refuse destructor.

A special staff under an experienced inspector was deputed to make inquiries as to possible sources of infection of all cases, and to keep under supervision such contacts as were not removed to hospitals. Before the outbreak reached epidemic proportions, the small-pox hospitals were customarily used for observation and isolation of contacts, who, of course, were duly vaccinated. Vaccination was freely offered throughout the epidemic, and in addition to cordial co-operation between the public vaccinators and the public health staff, medical men were specially appointed for vaccination work as the epidemic grew. Revaccination was not limited to persons above 10 years of age in infected households, especially if the marks of primary vaccination were indistinct or insufficient.

The report next proceeds to deal with the small-pox hospital arrangements of Liverpool, and is of special interest as regards the question of the influence of such hospitals on spread of the disease in surrounding populations. Excluding a small hospital of the Port Sanitary Authority, the Liverpool Corporation possess three hospitals for the reception of small-pox patients, namely, the Priory Road Hospital, the Park Hill Hospital, and the Fazakerley Hospital. Priory Road Hospital, which is intended for 40 patients, falls short of modern requirements in several respects. It is the hospital which has ordinarily been used for small-pox. Park Hill Hospital is intended primarily for fevers, but was used for small-pox when the cases became numerous. The ward pavilions are of a temporary type. There is accommodation for 350 beds. Fazakerley Hospital has 160 beds for small-pox patients.

The position of the hospitals in relation to Liverpool is shown in each of a series of spot maps appended to the report. Fazakerley is outside the city boundary, and is the only hospital which can be regarded as comparatively remote from populous areas. The other two are within the city, and

have a population extending roughly about half round the hospital, but not close to it. In neither case are there many dwellings within a quarter of a mile. The Priory Road Hospital is mainly surrounded within that distance by a public park, a large cemetery, and open fields. About one half of the mile area round Park Hill Hospital consists almost wholly of river. Within a quarter of a mile of the Priory Road Hospital there are 85 houses, and of Park Hill Hospital 171 houses. Within half a mile of Priory Road Hospital there are 2,055 houses and within a mile 21,724 houses. Within half a mile of Park Hill Hospital there are 2,430 dwellings and within a mile 12,610. For Fazakerley Hospital the corresponding figures are—within a quarter of a mile, 9 houses; within half a mile, 175; within three-quarters of a mile, 556; and within one mile, 1,423 houses. "A demonstration, therefore, of absence of spread of small-pox from hospital, in the case of Liverpool, where three hospitals, two of them in the city, were receiving acute small-pox cases, and where in particular one of the hospitals (Park Hill) for a period of twenty-four weeks at the height of the epidemic received acute small-pox patients in large numbers, would, if established, be not only particularly interesting to epidemiologists, but in its administrative aspects would be reassuring to small-pox hospital authorities."

Dr. Reece reports, however, that such demonstration of absence of hospital influence is not to be found in Liverpool, and he submits diagrams and tables bearing on the question. The following table shows per 10,000 houses for the period December 8th, 1901, to December 6th, 1902, the number of houses infected by small-pox in areas respectively within one mile, within three-quarter mile, and within half a mile of the Priory Road Hospital, and gives also the corresponding rate for the rest of the city, including the areas round the two other small-pox hospitals:

Period during which Priory Road Hospital was alone used for Reception of Acute Small-pox Patients.	Priory Road Hospital Area; House Invasion per 10,000 Houses within—			House Invasion per 10,000 Houses in rest of City of Liverpool, including the Hospital Areas of Park Hill and Fazakerley Hospitals.
	1 Mile of the Hospital.	¾ Mile of the Hospital.	½ Mile of the Hospital.	
December 8th, 1901, to December 6th, 1902	27.6	33.3	68.1	16.0

The next table refers to the period December 7th, 1902, to June 20th, 1903, which was a time of full activity for all three small-pox hospitals. The table, therefore, gives data for the areas round the whole three hospitals, and is as follows:

Period during which all three Hospitals were used for Reception of Acute Small-pox Patients.	The Three Hospital Areas; House Invasion per 10,000 Houses within—				House Invasion per 10,000 Houses of Houses Situate in the rest of the City of Liverpool.
	1 Mile of the three Hospitals.	¾ Mile of the three Hospitals.	½ Mile of the three Hospitals.	¼ Mile of the three Hospitals.	
December 7th, 1902, to June 20th, 1903	114.7	128.8	222.3	415.2	85.9

Other tables are as follow:

Priory Road Small-pox Hospital.
December 8th, 1901, to December 6th, 1902.
Houses invaded per 10,000 Houses in each Instance.

Zones.	0 to ¼ Mile (Houses in the Zone, 85).	¼ to ½ Mile (Houses in the Zone, 1,970).	½ to ¾ Mile (Houses in the Zone, 7,257).	¾ to 1 Mile (Houses in the Zone, 12,412).	All the Rest of the City of Liverpool (Houses, 114,476).
Invaded houses	—	71.07	23.43	23.37	16.00

All Three Small-pox Hospitals.
December 7th, 1902, to June 20th, 1903.
Houses invaded per 10,000 Houses in each Instance.

Zones.	0 to ¼ Mile (Houses in the Zone, 265).	¼ to ½ Mile (Houses in the Zone, 4,393)	½ to ¾ Mile (Houses in the Zone, 12,201).	¾ to 1 Mile (Houses in the Zone, 18,896)	All the Rest of the City of Liverpool outside the Three Hospital Areas (Houses, 100,969).
Invaded houses	415.2	211.6	92.6	102.2	85.9

Park Hill Small-pox Hospital Alone.
December 7th, 1902, to June 20th, 1903.
Houses invaded per 10,000 Houses in each Instance.

Zones.	0 to ¼ Mile (Houses in the Zone, 171).	¼ to ½ Mile (Houses in the Zone, 2,259)	½ to ¾ Mile (Houses in the Zone, 4,563).	¾ to 1 Mile (Houses in the Zone, 5,617).	All the Rest of the City of Liverpool outside the Three Hospital Areas (Houses, 100,969).
Invaded houses	526.3	331.6	146.8	158.4	85.9

Fazakerley Small-pox Hospital.
June 21st to November 7th, 1903.
Houses invaded per 10,000 Houses in each Instance.

Zones.	0 to ¼ Mile (Houses in the Zone, 9).	¼ to ½ Mile (Houses in the Zone, 166).	½ to ¾ Mile (Houses in the Zone, 381).	¾ to 1 Mile (Houses in the Zone, 867).	All the Rest of the City of Liverpool outside the Three Hospital Areas (Houses, 100,969).
Invaded houses	—	120.5	183.8	115.4	8.7

Within a mile of Fazakerley Hospital are situated the cottage homes of the West Derby Union. No case of small-pox occurred in these homes during the period under review. The inmates were all vaccinated and revaccinated.

Dr. Reece's conclusions are as follow:

1. Inhabited areas within a mile of each of the three Liverpool small-pox hospitals have suffered more severely from small-pox than the city as a whole.
2. Exceptional incidence of small-pox within these areas has corresponded in point of time with the use of these hospitals for the treatment of acute small-pox cases.
3. Broadly speaking, within these hospital areas the dwellings nearer to hospital have sustained a far heavier incidence of small-pox than those further away.

He adds that:

"Looking to all the circumstances which have come under review, I am compelled to consider that the influence of these hospitals has been responsible in material degree for the considerable and sustained prevalence of small-pox in Liverpool in 1902-3."

THE tenth report of the Up-Country Nursing Association states that during 1904 the staff varied in number from 9 to 12 nurses, who attended in all 104 cases on 2,408 working days. The object of this association is to provide if possible for the nursing of sick Europeans in the more out of the way parts of India, the nurses being distributed and doing their work under the direction of local committees. The expenses of the undertaking are too heavy to enable the association to be entirely self-supporting, and it is desired, moreover, to extend its benefits over a wider area by a material increase of the working staff. Financial assistance is, therefore, sought from those interested in India. Donations will be received by the Honorary Treasurers, Colonel Sir W. S. S. Bisset, 46, Queen Anne's Gate, S.W., and Major-General J. Bowers, Clapton Court, Crewkerne.

MODERN PRESCRIBING.

A recent issue of the *Chemist and Druggist* contains a summarized account of an inquiry made not long ago by Mr. Patrick Macewan as to the proprietary articles which figure in the prescriptions of medical men at the present time.

He obtained information from some twenty-seven retail chemists in different parts of the United Kingdom, and these together appear to have furnished him with notes as to about 8,500 prescriptions. In 10 per cent. of them a proprietary article was one of the ingredients ordered or constituted the whole prescription, while in some prescriptions there figured more than one article of this class.

As an investigation, the inquiry of course, though interesting as far as it went, may be regarded as having been too limited in extent to enable safe conclusions to be drawn, and the use of the word "proprietary" requires note. All those who supplied information do not appear to have interpreted it in the same sense, and some of them seem to have included in it anything which does not appear in the *British Pharmacopoeia* or was prescribed with a special manufacturer's name attached. From the point of view, however, from which the inquiry was undertaken this is probably no drawback, for its purpose seems to have been to endeavour to determine how far the practice of true pharmacy is still essential in the work of a modern dispensing chemist. The medical interest lies, perhaps, more in the comments by which some of the contributors to the inquiry accompanied their notes. A few of these may be cited.

Thus, a chemist at Cambridge writes:

I maintain that when a physician, who has acquired and retained the art of prescribing, can rely upon the ability and conscientiousness of the pharmacist, he is generally inclined towards "official preparations." I believe that one of the main factors in the development of the custom to order "branded drugs" has been the inefficiency of many pharmacists, or rather I should say chemists or pseudo-chemists. I personally have lately been finding that doctors are discouraging the use of ready-made preparations. I have recently had three doctors ask me: "Have you something like So-and-so?"—mentioning a well-known preparation.

From Cardiff comes the following:

My dispensary is on similar lines to, say, twenty years ago. I get few of the special preparations ordered. As a matter of fact, I believe the younger generation of medical men are the guilty sinners who prescribe nostrums.

Medical Bristol receives the following testimony from a Clifton chemist:

In judging of the proportion of proprietaries to official remedies in these prescriptions, it is worth noting that the controlling influence at the Bristol Royal Infirmary, to which many of my medical supporters are attached, strongly discourages the prescribing of proprietaries.

Several notes come from Glasgow; one says:

These copies have been taken consecutively from nine different books in daily use, and although they do not indicate much increase of specialities being prescribed, the fact remains that a very considerable increase of prescribed specialities has taken place in recent years. I mean by specialities preparations of which the full formula is not disclosed.

Another contributor adds to his calculation:

It so happens that these are peculiarly free from proprietaries. It is not always so. When an opportunity affords and I suggest to the physician the better administration of some form of medicine it is adopted.

From the same town a chemist after stating that one particular medical man whom he has drilled for years adheres loyally but not slavishly to official preparations, says:

The other prescriptions are also remarkable for the paucity of proprietary or non official products. The most probable explanation of this peculiarity is that as my business lies in a district populated by the upper working and lower middle classes, and as the medical men who visit in it either have, or have had, shops of their own, the need for cheapness is felt to be imperative. I became an apprentice in 1879. At that time the proprietary, non-official, and factory-made preparations used in dispensing were comparatively few. Now, even in a single firm's price-list they run into hundreds, and the grand total mounts to tens of thousands. "Back to the *B.P.*" is the cry that must be raised—not as an injunction against all progress in pharmacy and pharmacology, but as a *caveat* against reckless innovation and unscrupulous commercialism. If dispensing is to survive, it can only be through a reformation of the whole system of prescribing, and the cultivation of a true reciprocity between medicine and pharmacy.

A communication from Liverpool includes the following comment:

Personally, I am hopeful that the practice of ordering secret and proprietary preparations is less common than formerly. As a rule the most successful practitioners avoid "giving themselves away" by ordering "quackeries."

Among many things which a Bootle chemist has to say is the following:

The prescribing of special preparations outside those of the *Pharmacopoeia* is an evil which I firmly believe is to be laid at the door of the pharmacist himself rather than at that of the medical man. Where the pharmacist is ready to assist the doctor with useful and practical suggestions, in which his acquaintance with pharmacopoeial drugs, galenicals, and methods is evident, it will be invariably seen that the doctor is ready, and even anxious, to order official preparations instead of secret compounds of hypothetical value. This is our experience here, covering a period of nearly fifty years, and as yet there are no indications of any alteration setting in, but rather that the medical men have been so overdone by the hosts of new remedies appearing day by day that in utter disgust they are turning more than ever to the pages of *Squire* or the *Extra Pharmacopoeia* for their elegant pharmacy.

Kensington and Leytonstone respectively contribute the following criticisms:

Doctors during the last two or three years have been writing prescriptions more carefully and better for the chemist, but the average prescriptions are much more costly than in years past.

There is a tendency on the part of physicians to keep ahead of the *Pharmacopoeia* in ordering new remedies. It is a very different matter with the ordinary general medical practitioner who does his own dispensing. His prescriptions invariably show he is quite content to stick to the *Pharmacopoeia*, especially the older editions, for to suit his convenience we come across one occasionally. They more often than not are incorrectly written, and give good scope for the imagination of the pharmacist.

We conclude with one from Oxford Street, which refers to the batch of fifty-one prescriptions last received:

It seems to me that these could not be much improved upon, if one had set oneself to point out to medical men how they could write really representative and ideal prescriptions; many of the drugs are of the most usual type, and could be dispensed by any one.

AMERICAN NURSES IN JAPAN.

Mention has already been made in the British Medical Journal of the fact that on the outbreak of the war some American nurses offered their services to the Japanese Government. It has been pretty plainly hinted in American newspapers that the Japanese authorities were embarrassed rather than gratified by the offer. Their medical and nursing organization is so good and so complete as to make outside aid quite unnecessary. But the politeness characteristic of their nation, and perhaps reasons of policy, made it somewhat difficult for them to refuse. They therefore agreed to receive a small party for six months.

In fulfilment of this agreement Mrs. Anita Newcomb McGee, M.D., who in the Spanish war was acting-assistant-surgeon in the United States army in charge of the Army Nurse Corps, took nine American nurses to Japan in 1904. She gives an account of her mission in the current number of the *Century Magazine*. Had the American nurses been princesses, she says, they could hot have been more enthusiastically welcomed by the people of Japan. Never, it appears, had that nation given such a welcome to a foreigner. Mrs. Newcomb McGee had with her nine nurses who had served in the army of the United States during and after the war with Spain. Some had been in Cuba and in the Philippine Islands, and one had also been with the American soldiers in the Chinese Boxer campaign. These nurses were under orders from the moment of landing, and their movements were directed by the officers of the Red Cross Society, especially by Dr. Takaki, Surgeon-General of the navy, retired, and a member of the House of Peers. Although the nurses went to Manchuria and served on the hospital ships running to Dalny and to the Yalu River, their main work was at Hiroshima in Western Japan, where is situated the largest and most important hospital of the Japanese army. The policy of the medical department of the Japanese army, says Mrs. McGee, makes Hiroshima of even greater importance to its work than it is to that of the line, for wounded soldiers are not operated on in Manchuria. Their first-aid bandages are applied on the field, and then the men are sent to Japan as expeditiously as possible. The run from Dalny or New-Chwang, or from Antung on the Yalu, is only three or four days; and after landing the Kinsin soldiers the rest are taken to the great base hospital at Hiroshima, where the serious surgical work is done. The chief (consulting) surgeon

there is Surgeon General Sato, who told Mrs. McGee that he had served in five wars, including his work under German army surgeons in 1870, but that he had never been near a battlefield. When the party arrived at Hiroshima, Surgeon-General Fujita who was then the chief administrative surgeon there, said to Mrs. McGee: "Except for the smoke and noise of battle, Hiroshima is 'the front.'" The hospital in October consisted of eight divisions of different sizes, but with a total capacity of about 14 000 beds, or 17 000 if closely crowded. The division for contagious diseases, including typhoid fever and dysentery, was one of the smallest, having only 500 beds. The wards are one-story wooden structures on the "pavilion" plan, and are usually planned for 60 or 70 beds each, with increase to 100 if necessary. For officers and critical cases certain wards are partitioned into small rooms. Convalescents are sent to the home hospitals of their army corps or to some health resort. All the nursing in the field and part of that on the hospital ships and in Japan is done by men. Some are soldiers who have learned only to carry stretchers, while even the most skilled are inferior to the women nurses of the Red Cross Society in the length and completeness of their training. The training school of the Red Cross Hospital at Tokio requires three months of probation, during which twelve hours daily are spent in cleaning and other manual work about the hospital. For the next year and a half alternate days are spent in the same way, and the others in attending lectures and studying from notes. At the end of this time the pupils receive printed textbooks for reference, and are sent into the wards for eighteen months of practical nursing before graduation. The Red Cross nurses' training is military throughout, and a large proportion of women take it primarily as an act of patriotism. These marry or take up other occupations after finishing their hospital course. All nurses trained by the Red Cross Society must engage to serve in the army, if physically able, at any time within fifteen years after graduation. By the beginning of autumn, 1904, the Society had supplied for military service all available graduates and pupil nurses as well—a total of 2 200 women, besides 594 men. One of the most remarkable things about these Japanese women was their extraordinary strength and endurance. At the Hiroshima Hospital they were on duty for twenty-eight hours on end with only such sleep as they could get in the ward ante-room where they were within call. Like all Japanese, they drank hot tea at any hour, but they took scarcely fifteen minutes to eat their light, cold meals. They thought nothing of carrying a man on their backs. They were cheerful, generous, and always willing and uncomplaining. The work of the Japanese nurses in the operating room is the same as that of nurses elsewhere. In the wards they pay great attention to the wishes of the individual patient. If he is asleep the taking of his temperature is postponed; if he feels hungry and wants one of his eggs boiled, or if he needs water after drinking his medicine from its bottle, a nurse waits on him. The Japanese patients' ideal of a trained nurse is one as kindly attentive as are his own female relatives. One of the interesting features of the hospital work was the presence on certain days of the members of the Ladies' Volunteer Nursing Association, an auxiliary of the Red Cross Society, with branches in the provinces. The ladies of the Hiroshima branch have an office room at the main division, from which they send cards to the relatives of each newly-arrived patient announcing his return from the field and stating whether he is sick, lightly or severely wounded. Members of the Society also meet the hospital trains at each stopping place, make immense quantitities of bandages and first-aid dressings, and use their funds to secure comforts of various kinds for their country's soldiers. Apart from descriptions of their triumphal entry into towns and the compliments that were paid to them by every one from the Empress downwards, Mrs. McGee tells us but little about their doings in Japan. We do not gather from her account what amount of actual nursing they were allowed to do. We have already said, on the authority of American journalists in a position to know the truth, that in fact they were regarded somewhat in the light of white elephants by the Japanese. As they could not speak the language, they were useless in the hospitals. Their presence was an embarrassment and an expense to their hosts as they required separate accommodation and special food. Mrs. McGee seems to think that she accomplished something by lecturing on sick diet, as to which she says the Japanese have somewhat crude notions. But, on her own showing, the Japanese nurses can do all that American nurses can do and a great deal which they cannot, and they do it all with a minimum of fuss. The American nurses must, therefore, have felt themselves just a little in the way, but for the ladies themselves it was doubtless an interesting and instructive experience.

CIRCUMCISION AND CLITORIDECTOMY AS PRACTISED BY THE NATIVES OF BRITISH EAST AFRICA.

The interesting review in the issue of the British Medical Journal for December 24th, 1904, of Dr. J. G. Frazer's article on the origin of circumcision, published in the *Independent Review* for November, has tempted me to hunt up some notes made in my diary when on a shooting trip in 1902 in the Uganda Protectorate.

The following description of the operations of circumcision and clitoridectomy, as performed by the natives of British East Africa, is culled partly from these notes, but to a greater extent from data which I have obtained from some descriptive articles upon the customs and habits of certain tribes of British East Africa, published by Messrs. C. W. Hobley, A.M.I.C.E., Geologist to the I.B.E.A. Company; H. R. Tate, Acting Subcommissioner, Kenya District, B.E.A.; and S. Bagge, Subcommissioner, B.E.A.[1]

Amongst the Kikuyu an uncircumcised boy is called a *kahé*, after circumcision the youth is known as a *muranake*. A girl, prior to removal of the clitoris, is called a *karegu*; after the operation she is eligible for marriage and is known as a *muiretu*. A married woman goes by the name of *muhiki*, and is entitled to wear a "tail" or "mkia" (at least amongst the Nilotic and Bantu tribes). A *mutumia* is a primiparous woman. Similar appellations are made use of by neighbouring tribes. Circumcision and clitoridectomy, amongst the Masai and Kavirondos, are great ceremonial events extending over a period of many months and occurring but once every six to eight years.

Circumcision.

The boy, who has for several days been smeared all over with a mixture of white clay and fat, is, on the night previous to the operation, shaved over the whole body, excepting the eyelashes, and his finger nails are cut short. Just before dawn, on the following morning, he bathes in a pool and returns to the kraal, outside of which he awaits events.

When the sun rises, the boy's mother spreads a skin on the ground inside the kraal. The operator, who is known as the *andorobo*, as well as all those about to assist at the operation, are anointed upon the nose and forehead with a streak of white clay. The boy is then made to sit upon the skin, the legs apart and the arms held behind him by one of the assistants. The operator takes up a position between the boy's legs and marks a white line with the clay upon the external surface of the prepuce at the level of the corona glandis.

The foreskin is pulled back and the fraenum preputii scarified with the point of the knife so as to give free play to the parts. The operator's finger is then passed between the prepuce and the dorsal surface of the glans penis and a transverse incision is made just below the white line of clay. Through the opening thus formed in the prepuce is forced the glans penis, and the latter is retained in position by means of the long thorn of the ol-oimorouyai tree. The redundant prepuce is then cut off. The wound is cleansed with milk and water.

The foreskin is carefully preserved, as it is believed that anyone stealing it can cause the boy's death. During convalescence the boy is kept at rest and fed on a mixture of milk and bullock's blood. Next day he is washed all over with a decoction of the ol-oimorouyai tree. Only males are allowed to witness the operation.

An uncircumcised youth is not permitted to have connexion with an unclitoridectomized girl, though he is allowed free intercourse with a girl that has been operated upon.

Clitoridectomy.

The Nandi and Guasangishu tribes of the Kisumu province

[1] Notes on the Kikuyu and Kamba tribes of British East Africa. By H. R. Tate. The Circumcision Ceremony among the Naivasha Masai. By S. Bagge. Published in the *Journal of the Anthropological Institute*, vol. xxxiv, 1904. British East Africa; Anthropological Studies in Kavirondo and Nandi. By C. W. Hobley, A.M.I.C.E., *Journal of the Anthropological Institute*, vol. xxxiii, 1903.

of British East Africa clitoridectomize their young girls at or about the age of puberty. The ceremony is invariably carried out at sunrise during full moon. The girl's head is shaved and oiled the night before the operation, and she is solemnly warned by all the young male warriors that if she winces or cries out during the operation she will be disgraced amongst women and expelled the settlement.

At dawn the girl is laid out on a skin in a reclining position, her head and shoulders resting in the lap of an old woman, while two other attendants seize each knee. The young and old of both sexes are allowed to witness the operation, and stand around in a circle.

The pudenda are sprinkled with powdered wood ashes, and the operator, an old woman, taking a sickle-shaped knife with a blade about 1.5 in. in length, removes the labia minora and clitoris, while all the old women run round crying out, in order to drown any noise the patient may unavoidably make. Milk is then poured over the wound.

Amongst the Nandi and Masai, the clitoris is removed, but not the labia minora, and women only are allowed actually to witness the operation, the men standing around in a circle some little distance away from the women. Recovery is complete in about a month, and ill effects are the exception. After this operation the woman is eligible for marriage. A child born to an unclitoridectomized Nandi girl is killed. A married woman wears the "tail" or "mkia" just over the cleft of the buttocks, and this is a most important article of dress. C. W. Hobley says that if a married woman

runs out of her house in a hurry—say because she has been beaten—and goes into another house without the tail, the house she enters is considered unclean, and the husband has to give a goat, which is killed on the doorstep of that house, before it is considered to be purified; the meat is divided between the aggressor and the owner of the house.

It is interesting to note that, as in the case of the male, the portion excised is carefully guarded, and mischief to the individual is believed to be certain to follow the loss or theft of the part.

Remarks.

I have not heard of any tribes in the British Protectorate of East Africa who hang the excised foreskins on trees and bushes, or conceal them in holes, as Dr. Frazer says is the custom among the Warramunga and Unmatjera tribes of Australia. I am informed, however, by an officer who accompanied the Brass River expedition on the west coast of Africa, that he saw just outside one of the native villages a tree from which were suspended numerous recently-amputated foreskins.

It is highly probable that the ultimate origin of circumcision and clitoridectomy rites, as practised by these African tribes, was sacrifice to the local god or gods. In prehistoric times the ape-like ancestors of man lived in families or small communities. A member of the primitive tribe who proved unruly or dangerous, or who, through carelessness or imprudence, brought trouble to the home, would be set upon and severely punished, sometimes with death. Even at the present day, the leader of a tribe of baboons bent on a marauding expedition will cuff the head of a noisy incautious youngster to enforce care and silence.

As the centuries rolled by, and intelligence slowly increased, a cause for the various catastrophes and disasters would be sought. Some being, like unto themselves, only very terrible, fiercer, and invisible, would be thought to be the cause of the thunder and lightning, the earthquake, storm and flood. The death of the natural victims of these phenomena would be thought to have appeased the wrathful god. The next step in the evolution of the religion of man would be that of anticipating the anger of the god, and so averting disaster by sacrificing certain individuals to him—note that the primitive god was generally of the male persuasion. Thus arose, in all likelihood, the custom of sacrificing living men to an angry and jealous divinity, and it is significant that, in biblical times, "males without blemish" were the chosen victims. As the value of human life came to be better recognized, and the rights of the individual became asserted, and simultaneously the ferocity of the primitive god decreased, a part instead of the whole of the individual would be sacrificed. In this way arose, I think, the custom of ablating certain portions of the male and female anatomy. The excised nymphae, clitoris, and preputium were the humble propitiatory offerings of primitive man to a terror-striking anthropomorphic deity.

C. Marsh Beadnell,
Fleet Surgeon, R.N.

PRESCRIBING OR DISPENSING IN MEDICAL PRACTICE.

In May of last year a Committee was appointed by the Islington Medical Society to inquire into the relative merits of prescribing and dispensing in medical practice.

The points discussed were:

1. The ethical aspect of this question as regards patient, chemist, and practitioner.

2. Objections urged against prescribing on the ground of loss of income by medical men: (*a*) by their seeing patients less often than when dispensing; (*b*) by misuse of prescriptions—for example, unauthorized repetition and transfer of prescriptions to others; (*c*) by patients being driven, on account of cost of medicines, to hospitals, dispensaries, or prescribing chemists.

3 Profit or loss on drugs, surgery expenses, and repetitions of medicines, under either system.

4 Position of druggists in relation to this subject as regards charges, counter prescribing, etc.

5 Position of the poor generally and of club patients under either system.

Report.

The Committee have made their report and the conclusions arrived at by them are the following:

1. The Committee are agreed that, considered from the ethical standpoint, the use of prescriptions is preferable to dispensing.

2. The Committee state that they would prefer to prescribe, but must admit that to do so would entail loss to the practitioner, which loss however might, by arrangement, be minimized. In this connexion they wish to direct attention to the recommendations of the Medico-Political Committee of the British Medical Association[1] that:—"(*a*) Members of the profession should adopt the practice of indicating on every prescription the period or the number of times for which it was intended to be dispensed; (*b*) that, in order to prevent copying, all prescriptions should be signed by the practitioner with his full name and address and not merely initialled; (*c*) that medical practitioners should observe the rule of not recommending drugs or special preparations by name but always ordering them by prescription."

3. The Committee considered that in respect of the items under this heading, it is more profitable to dispense than to prescribe.

4. The Committee expressed the belief that chemists are, as a rule, disposed to be amenable to the views of medical men if the latter should agree to prescribe instead of dispensing.

5. The Committee considered that the prescribing system, if adopted generally, would be applicable to practice among the poor, including club patients.

THE PLAGUE.

Prevalence of the Disease.

India.

During the week ending March 18th there occurred 47,088 deaths from plague in India. At the principal centres the figures were: The Bombay Presidency, 3,224 deaths; Bengal districts, 7,219; North-West Provinces and Oudh (United Provinces), 19,76; the Punjab, 10,592. During the week ending March 11th the deaths from the disease amounted to 45,541. There has been no plague at Belgaum since March 5th. Plague is increasing alarmingly at Ahmedabad from 20 to 25 cases, and 15 to 20 deaths occurring daily.

South Africa.

Cape Colony.

Port Elizabeth.—During the weeks ending March 18th, 25th, and April 1st the fresh cases of plague numbered 1, 0, and 0, and the deaths from the disease 0, 1, and 0. On April 1st no cases were under treatment.

East London.—During the weeks ending March 18th, 25th, and April 1st the fresh cases of plague numbered 2, 3, and 5, and the deaths from the disease 2, 1, and 1. On April 1st 7 cases remained under treatment. No fewer than 6 of the cases of plague occurred in Europeans.

Rats and mice continue to be found to be plague-infected in Port Elizabeth and East London.

Queensland.

Brisbane.—During the weeks ending February 18th, 25th, March 4th, 11th, and 18th the fresh cases of plague numbered 5, 3, 1, 2, and 0, and the deaths from the disease 0, 3, 1, 1, and 0 respectively.

Hong Kong.

During the weeks ending April 1st, 8th, and 15th the fresh cases plague numbered 2, 3, and 1, and the deaths from the disease 2, 3, and respectively.

[1] Supplement, November 26th, 1904.

LITERARY NOTES.

An authorized English translation of Professor Schlesinger's *Indications for Operation in Diseases of the Internal Organs*, by Mr. Keith W. Monsarrat, will shortly be published by Messrs. J. Wright and Co.

On May 4th Messrs. Macmillan and Co. will publish the first number of a new weekly paper, called the *Nursing Times*. Many well-known authorities on nursing have already expressed themselves as interested in the journal. Among these may be mentioned: Miss S. A. Swift, Matron of Guy's Hospital; Miss Frances Spencer, Lady Superintendent of Nurses, Royal Infirmary, Edinburgh; Miss E. M. Jones, Lady Superintendent of Nurses, Royal Infirmary, Liverpool; Miss L. V. Haughton, Sir Patrick Dun's Hospital, Dublin; Miss Louisa Twining; Miss Amy Hughes, County Nursing Associations; Miss M. Loane, Q.V.J.I.N., Portsmouth; Miss C. J. Wood, Miss Rose Petty, the Countess of Aberdeen, and the Countess of Minto. The journal will not concern itself with nursing politics nor with controversial matters. Its aim will be to provide a useful and practical paper for trained nurses. It will contain lectures and addresses by medical and nursing experts, articles on new methods, treatments, and appliances, accounts of nurses' work at home and abroad, of hospitals and training schools, of new openings and pioneer work, correspondence, general and personal news from all parts of the world.

In May falls the centenary of the death of Schiller, one of the greatest of the poets whom we can claim as members of the medical profession. Schiller was the son of a surgeon in the Duke of Würtemberg's army, and the poet received a medical training, and in due course became an army doctor. It was while he was serving in that capacity that he produced *The Robbers*, which he had to publish at his own expense. In 1789 he escaped from the profession, which was not congenial to him, by accepting an invitation to occupy the chair of History at Jena. This gave him what he desired—a life of literary leisure with a decent competency.

A new journal of experimental pathology and therapeutics (*Zeitschrift für experiment. Pathologie und Therapie*. Erster Band. Erstes Heft. Berlin: August Hirschwald. 1905. M. 7) has made its appearance under the editorship of Professors Brieger and Kraus of Berlin, Professor Hering of Prague, and Professor Paltauf of Vienna. The journal will be devoted to subjects which possess not merely a clinical but also a pathological interest, and will relate to facts and observations which are elucidated by experimental methods. The term "experimental" is not confined to animal experiments but is used in a broad sense and includes observations on the human subject where systematic and objective methods of investigation are employed. Under the guidance of its four distinguished editors this new enterprise ought to do well; in the variety of interesting matter, and the generally high standard displayed in their first number, they have certainly made a good beginning. Cardio-vascular problems are discussed by Professor Hering, Dr. Rihl, and Dr. Pan; Drs. Pick and Schwoner contribute an article on diphtheria antitoxin in its interaction with toxin; and Dr. Max Bönniger records some careful work on the elastic tension of the skin and its relation to oedema.

In a recent number of the *Dublin Journal of Medical Science*, Dr. John Knott relates the strange eventful history of "Captain" Thomas Dover, M.B., whom he describes as "physician, pirate, 'quicksilver doctor,' inventor of 'Dover's powder,' and discoverer of 'Robinson Crusoe.'" Dover is said to have been born in Warwickshire about 1660. He became a pupil of Sydenham, of whose treatment of small-pox he gives the following account:

> Whilst I lived with Dr. Sydenham, I had myself the Small Pox, and fell ill on Twelfth Day. In the Beginning I lost twenty-two Ounces of Blood. He gave me a Vomit; but I find, by Experience, Purging much better. I went abroad, by his Direction, till I was blind, and then took to my Bed. I had no Fire allow'd in my room, my windows were constantly open, my Bed Clothes were order'd to be laid no higher than my waist. He made me take twelve Bottles of small Beer, acidulated with Spirit of Vitriol, every twenty-four hours. I had of this Anomalous Kind to a very great Degree, yet never lost my Senses one Moment. This Method will serve very well in The Confluent Sort.

Dover seems to have started in practice at Bristol in 1684. In 1708 he left England on a voyage of circumnavigation of the globe. With a number of other adventurers he sailed in two ships, the *Duke* and the *Duchess*. Dover was captain of the former and President of the General Council of the Expedition. He had no medical charge, each vessel having two fully-qualified surgeons on board. He sailed the Spanish Main, and among other achievements captured a valuable Spanish "prize" of twenty-one guns and sacked two or three cities. How he mixed piracy with medical observation is oddly shown in the following quotation from his record of forty-nine years' practice, entitle *The Ancient Physician's Legacy to his Country*, the fifth edition of which was published in 1733:

> When I took by Storm the two Cities of *Guaiaquil*, under the Line, in the *South Seas*, it happen'd, that not long before, the Plague had raged amongst them. For our better security, therefore, and keeping our People together, we lay in their Churches, and likewise brought thither the Plunder of the Cities: We were very much annoyed with the Smell of dead Bodies. These Bodies could hardly be said to be Buried; for the *Spaniards* abroad use no Coffins, but throw several dead Bodies one upon another, with only a Draw-board over them; so that it is no wonder we receiv'd the Infection.
>
> In a very few Days after we got on board one of the Surgeons came to me to acquaint me that several of my Men were taken after a violent Manner, with that Languor of Spirits that they were not able to move. I immediately went among them, and, to my great Surprize, soon discerned what was the Matter. In less than Forty-eight Hours we had in our several Ships one hundred and eighty Men in this miserable Condition.
>
> I ORDER'D the Surgeon to bleed them in both Arms, and to go round to them all, with Command to leave them Bleeding till all were blooded, and then come and tie them up in their Turns. Thus they lay bleeding and fainting, so long, that I could not conceive they could lose less than one hundred Ounces each Man.
>
> If we had lost so great a Number of our People, the poor Remains must infallibly have perish'd. I began to consider, that the Plague was no more than a Fever of the most exalted kind; and so *Duro huic nodo durior adhuc cuneus adhibendus*. A fever we define to be *Aucta sanguinis Fermentatio sanguini & humoribus inducta*. The only Intention of Healing, must be to abate that preternatural Fermentation, and resist Putrefaction, which must be by large Quantities of cooling and diluting Liquors. We had on board Oil and Spirit of Vitriol sufficient, which I caused to be mixed with Water to the Acidity of a Lemon, and made them drink very freely of it; so that notwithstanding we had one hundred and eighty odd down in this most fatal Distemper, yet we lost no more than seven or eight; and even these owed their Deaths to the strong Liquors which their Mess-Mates procured for them.
>
> They all had Spots, which in the great Plague they call *Tokens*; few or none of the *Spaniards* escaped death that had them; but my People had them, and Buboes too.
>
> Now if we had had Recourse to Alexipharmicks, such as *Venice* Treacle, Diascordium, Mithridate, and such-like good-for-nothing Compositions, or the most celebrated *Gascoin's* Powder, or Bezoar, I make no Question at all, considering the Heat of the Climate, but we had lost every Man.

On February 2nd, 1709, Dover's ship touched at the island of Juan Fernandez, where he found Alexander Selkirk, who had lived alone on his remote island during a period of four years and four months. It is well known that the history of the unique experiences of that shipwrecked mariner furnished Defoe with the inspiration of his *Robinson Crusoe*. Ten years after his return to England (September 20th, 1721) Dover became a Licentiate of the College of Physicians, London; and he appears to have practised there till 1728. He then seems to have disappeared from the English metropolis till 1731, when he reappeared in Lombard Street, also seeing patients daily at the Jerusalem Coffeehouse. In 1736 he moved to Arundel Street, where he died in 1742. The following are the original directions for the preparation of Dover's remedy:

> Take Opium one Ounce, Salt-Petre and Tartar vitriolated, each four Ounces; Ipocacuana one Ounce, Liquorish one Ounce. Put the Salt-Petre and Tartar into a red-hot Mortar, stirring them with a Spoon till they have done flaming. Then powder them very fine; after that slice in your Opium; grind these to a Powder, and then mix the other Powders with these. Dose, from forty to sixty or seventy Grains in a Glass of White-Wine Posset going to Bed. Covering up warm, and drinking a Quart or Three Pints of the Posset-Drink while sweating.
>
> And the prognosis of the case, after the adoption of the author's advice, is thus stated in his own words: "In two or three Hours, at furthest, the Patient will be perfectly free from pain: and though before not able to put one Foot to the Ground, 'tis very much if he cannot walk the next Day. When it is taken, keep your Bed till next Day Noon. This Remedy may be taken once a Week, or once a Month.

Anticipating doubts which practitioners might naturally feel about the dosage, he says:

> Some Apothecaries have desired their Patients to make their Wills, and settle their Affairs, before they venture upon so large a Dose as I have recommended, which is from Forty to Seventy Grains. As monstrous as they may represent this, I can produce undeniable Proofs, where a Patient of mine has taken no less a Quantity than a Hundred Grains, and yet has appear'd abroad the next Day.
>
> This notion of theirs proceeds entirely from their Ignorance, and from the want of knowing the Nature of those Ingredients that are mix'd up with it, for they naturally weaken the power of the Opium.

NOTES ON HEALTH RESORTS.

Bognanco.

Amongst the resorts on the Continent, especially in the Italian Lake District, to which the new Simplon railway may bring increased numbers of visitors, is Bognanco, a little place in a typical valley of the Italian Alps, to the south of the Simplon, about 2,300 ft. above sea level. It is suitable for a stay in late summer and autumn, and possesses gaseous alkaline-earthy chalybeate waters, and also a weakly-mineralized effervescent spring which may be used as a table water. The little health resort is only 4½ miles by carriage road from Domodossola, the Italian terminus of the Simplon railway. It is open from the beginning of June to the end of September, and is not overcrowded with trippers. There is a good hotel of 100 beds in connexion with the bathing establishment.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 79.

THE GRIFFITHS TESTIMONIAL FUND.

Dr. A. P. Fiddian (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscription:

	£	s.	d.
Amount previously acknowledged	72	10	6
Dr. W. Lyne Blight	0	10	6

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.

SPECIAL CORRESPONDENCE.

VIENNA.

Cerebro-spinal Meningitis.—A Protest against the Intrusion of Laymen into Medical Practice.—Patients' Written Consent to Operations.

An outbreak of cerebro-spinal meningitis has occurred in the eastern provinces of the empire in Galicia and Silesia. The disease, which has not been observed in these regions for many years, has a tendency to run a very acute course. During the three weeks ending on April 8th, 742 cases were notified. The mortality exceeds more than 50 per cent., and the epidemic is spreading. It attacks not only children but adults. The importation of the disease has been traced to some Russian fugitives who crossed the Russo-German frontier and thence migrated to Galicia. Already a few sporadic cases have occurred on the track of railways westward, in Cracow, also one in Vienna, which ended fatally. It is well known that in certain prisons, barracks, and workhouses now and then a local epidemic occurs, but owing to the limited intercourse of the inmates of such buildings with the outside world it is easily controlled. Very stringent measures have been adopted to check the spread of the disease. Treatment by prolonged hot baths has been found beneficial in cases not too far advanced.

A meeting of practitioners was lately held in Vienna, which was attended by nearly a thousand members of the profession. The object was to present a petition to the Government against the intrusion of laymen into the profession. The fully-qualified dental surgeons, who hitherto were alone entitled to practise dentistry, have now competitors in their unqualified assistants, and the Government proposes to give them a licence to practise. The medical practitioners fear that this is only the beginning of a systematic campaign against them, and that soon midwives, opticians, truss-makers, etc., will come forward with similar demands. The imperfect organization of the profession makes it almost helpless against such encroachments. One outcome of the meeting is a proposal that all medical boards, representative societies, and medical associations should combine. Already the majority of these bodies have joined the union; it is felt that racial and political disputes must cease in the presence of a common enemy.

Several actions for damages for injury said to be inflicted during an operation have recently been tried, and, although in every case the surgeon was acquitted, the authorities of the Vienna hospitals have made a rule that every patient who has to undergo an operation will be requested to sign a paper empowering the operator to do whatever he may judge necessary in the interest of the patient, and especially to extend the operation to any other organ in cases where the diagnosis is doubtful. It is thought that this rule should also be applied to operations in private practice.

MANCHESTER.

Allocation of Beds and New Appointments at the Royal Infirmary.—Should Children Under 5 Years Attend Public Schools?

The allocation of beds in the proposed new Royal Infirmary is now under discussion, and it appears probable that no provision will be made for in-patient eye and ear cases, these being left to the special hospitals, provided that agreement on such subjects as site and the teaching requirements of the university can be reached. At the monthly meeting of the Board of Management Mr. G. Ashton was appointed Assistant Surgical Officer; Mr. C. H. Melland, Director of the Chemical Laboratory; Mr. F. C. Moore, Assistant Director; and Messrs. Ramsbottom and Cunliffe, Resident Medical Officers at the Infirmary and Manchester Convalescent Home respectively.

Dr. Laird, the medical officer for Crewe, in his annual report for the year, directs attention to the great infantile mortality in the borough. The number of deaths of children under one year was 228. In August last measles were first notified; by the end of the year fourteen schools were invaded, and in each school the department first and most seriously affected was the infants' department. Indeed, the very young children contributed by far the greatest number of cases. Dr. Laird raises the question as to the advisability of children under 5 years of age attending day schools, because of the risk of spreading measles amongst children at school. In Crewe the number of children in the public elementary schools is 9,342, and of these 1,270 are under 5 years of age. In the opinion of the medical officer of health it is questionable whether the educational benefit which such young children can derive outweighs the risks they run of contracting infectious diseases such as measles and whooping-cough. All the deaths from these diseases during 1904 occurred among children of 5 years and under.

CORRESPONDENCE.

THE DETERMINATION OF ARTERIAL BLOOD PRESSURE IN CLINICAL PRACTICE.

Sir,—The paper by Dr. Charles J. Martin in this week's British Medical Journal on blood pressure, as well as the lecture given a short time ago by Dr. Clifford Allbutt, have afforded me much interest and, I might say, satisfaction, since during the greater part of my medical career I acted from clinical experience in accordance with these more strictly scientific views. I always believed and taught that when the circulation was tolerably quick and free the pressure was less, judging by the fact that the blood vessels were less apt to give way and cause haemorrhage than when the circulation was slower. I remember having a controversy on this point in reference to haemoptysis, and in consequence kept for some time a record and found that in a very large majority of instances the bleeding occurred at night when the patient was in bed. This reminds me of the fearful treatment these patients had to undergo. I call to mind a young man sitting up in bed, frightened almost out of his life to move or speak, talking in a whisper, continually putting lumps of ice into his mouth, while a bag of the same material was hanging on his chest. How these cold applications and dilution of his blood were to favour coagulation in the pulmonary vessels I could not conceive. I did, however, see that the treatment appealed to the "common sense" of the doctor, the patient, and his friends (common sense generally meaning vulgar opinion opposed to knowledge).

Similarly, I was quite of opinion that apoplexy or cerebral haemorrhage occurred more frequently when the patient was quiet at home, rather than when out-of-doors employed at his

avocation. As regards the heart itself when diseased, every man of experience knew that a little exercise was beneficial long before the Nauheim treatment was heard of. Yet, how many persons, because they had a cardiac bruit were doomed to a sedentary life, and in consequence suffered much in health by the treatment. I was often surprised to hear, after finding a ruptured wall of the heart which had occurred during sleep, that the patient had been hard at work all the previous day. When we consider the number of persons engaged in their ordinary avocations who are the subjects of various diseases of the heart, of aneurysm, and decay of the blood vessels, ever threatening rupture, we might imagine that they were exposing themselves to the dangers which would lead to the final catastrophe; but this is not the case, for it is generally when they are quiet at home that these events mostly happen.

I always took this view of blood pressure and acted upon it, as, for instance, making a patient with mitral disease and a very rapid and irregular acting heart get out of bed and walk several times round the room, with the result of lowering the pulse by twenty or more beats. I have even known patients with valvular disease and angina totally disregard the advice of the doctor as to absolute quietude, and in spite of his recommendation to the contrary, take long bicycle rides and even shoot, much to the relief of their breathing and other unpleasant symptoms.

In my time very little physics was taught in the department of physiology. The latter was regarded as a science of itself and associated with that obscure word vitality, which was often spoken of as somehow opposed to ordinary mechanical or chemical laws.

Of course, there were a few clever men shrewd enough to see that ordinary hydrodynamic laws might obtain in the human body as elsewhere; for example, on expressing surprise at the manner in which an effusion of blood arising from injury to a small artery had separated and torn up the surrounding tissue, my old master, Mr. Cock, said he believed that the action was the same as that in the Bramah press. I have no doubt he was right, and in his also saying, on the question being put to him, that the effect of a pleuritic effusion of pressing with so great a force on the lungs and thorax had the same cause, but in the latter case starting with all the force of a secretion or cell growth rather than by the slow introduction into a cavity of a simple fluid.

Modern medicine and physiology have been much assisted by the study of physics, and an experiment which I have seen performed since I have retired from practice seems by its simplicity to completely set at rest any hesitation I might have had with respect to blood pressure and the circulation—namely, that when the latter was most free the former was lessened.

The experiment consisted in taking two large square vessels filled with water and communicating by a small pipe. The lecturer said, as a matter of fact and of necessity, that when any pressure was exerted upon the water so as to make it pass into the other one, that it moved with greater velocity in the small tube than in the large vessel. To each of these vessels and also to the tube a barometer was attached beneath them, the mercury standing at the same height in all three of them. Immediately, when by some contrivance pressure was made on one of the vessels so as to drive the water into the others it passed through the tube with increased speed and at the same time the mercury rose, proving, as the lecturer said, that the greater the velocity a fluid passes through a pipe the less is the pressure. This was the demonstration proving the truth of my long-standing belief.—I am, etc.,

Hampstead, April 24th. SAMUEL WILKS.

SIR,—I have read with much interest the instructive article on the above subject by Dr. C. J. Martin in your issue of April 22nd, p 865. Dr. Martin has entered so fully into the matter that there is not much left to be said, but as I have been working at this subject for a good many years, and have had experience with several instruments I should like to record my impressions as to their value.

Dr. Oliver's haemadynamometer is a very portable instrument, and with ordinary care the reading of the mean pressure can be taken within a possible error of about five millimetres of mercury. It causes no inconvenience to the patient and therefore no objection to its use can be raised on this score. All the instruments in which the external pressure is applied by means of an india-rubber bag round the arm leave more or less discomfort for some time after use, and thus from the patient's point of view are not free from objection. On one occasion I was about to take the blood-pressure in a highly neurotic man with Hill and Barnard's sphygmometer, and when the cuff began to tighten round his arm he almost fainted, so I had to desist from this method of observation. That occurred some years ago, and as the patient has not since returned it seems to have made a lasting impression.

Oliver's instrument is not reliable for taking the systolic pressure, but I have recently had a long description from him of a very ingenious apparatus which he has invented and which will record both the mean and systolic pressures. This instrument I hope will soon be on the market.

Hill and Barnard's small sphygmometer is cheaper than Oliver's, but in my opinion is not so reliable. However, their large sphygmometer is an exceedingly useful instrument, and, if it were supplied with a large armlet such as that provided with the instruments of Drs. Martin and Stanton, it would continue to be one of the best on the market. With careful observation the maximum oscillations can be easily noted, and this gives the mean pressure. If the pressure in the armlet be increased until the pulse disappears at the wrist the reading gives the systolic pressure. Owing to the small size of the india-rubber cuff, and there being nothing to prevent its lateral expansion, it receives impulses from the artery proximal to the part compressed, and thus oscillations occur in the instrument at a much higher pressure than that required to obliterate the pulse. It is, therefore, the pressure required to obliterate the pulse which is the record of the systolic pressure. The inertia of this instrument is very much less than that of any mercurial manometer.

Dr. Martin has made a good many observations with the Riva-Rocci instrument, but I cannot accept his conclusions except as to the unreliability of that apparatus. In Fig. 9, "the maximum oscillations occur at the systolic pressure with rising pressure in the instrument, and considerably below with falling pressure. This variation in the position of the greatest oscillations with the condition under which the record is taken not infrequently occurs, and is a serious indictment against the employment of maximum oscillations as an indication of blood pressure." In my opinion it is a serious indictment against the form of instrument with which he was experimenting, but not against maximum oscillations recorded by a reliable instrument. Dr. Martin himself condemns the Riva-Rocci armlet, and therefore in his experiments he should have used one of which he approves. It is absolutely impossible that in a compressed artery the greatest oscillations could occur during the systolic pressure, therefore in those observations the oscillations must have arisen from impulses conveyed to the armlet from the proximal part of the artery.

In order to correct this source of error, Dr. Martin recommends a much larger armlet, and he should have used such, but in my opinion no matter what be the size of the rubber-bag, it should be protected from these indirect pulsations which are very apt to occur, especially in large sclerosed arteries. I have ordered Dr. Martin's apparatus, and I hope soon to have an opportunity of trying it. However, from his clear description, I have no doubt that it gives a fairly accurate record of the systolic pressure, but the oscillations of the column of mercury in his U-shaped manometer must be so very slight as to render them useless for recording the mean or diastolic pressures.

In my opinion it is extremely desirable to record both the systolic and diastolic pressures, but of the two the latter is the more important. Diseases of the circulation are most frequently initiated at the periphery, and therefore it is of paramount importance to study the peripheral circulation. For this purpose it is essential to know both the diastolic and systolic pressures. When you have got a high diastolic pressure there is great peripheral resistance, but you may have a very high systolic pressure—as in many cases of free aortic regurgitation—and very little resistance at the periphery. A method which I constantly adopt of arriving at a fairly accurate idea of the blood pressure without any instrument is as follows: I feel the radial pulse at the level of the heart and make a mental note of the pressure; I then raise the arm straight up above the head and again feel the pulse at the wrist. This natural fall of about 50 mm. of mercury in cases of low pressure with little peripheral resistance causes the pulse almost to disappear at the wrist. With a little experience you can thus easily judge the mean pressure within 10 to 20 mm. of mercury, and you can certainly form a better opinion of the peripheral resistance than you could from any purely systolic blood-pressure instrument.

In the *University of Pennsylvania Medical Bulletin* of February, 1903, there is an excellent paper by Dr. William B. Stanton on a practical clinical method for determining blood pressure in man, with a description of a new apparatus which I am inclined to think is a better one than that described by Dr. Martin. Dr. Stanton covered all the ground which has now been traversed by Dr. Martin. With Dr. Stanton's apparatus the pulse is rapidly obliterated, and then the pressure slowly lowered until the pulse just reappears at the wrist: this gives the systolic pressure. If the operator have any doubt as to the accuracy of his observation he can note the pressure at the time of disappearance and reappearance of the pulse, and take the mean of the two. Having noted the systolic pressure, the external pressure is slowly lowered until the oscillations in the mercurial column attain their maxima; "the base-line of these maximum pulsations is noted as the diastolic pressure. The mean pressure is the mathematical mean of the two pressures obtained."

I have recently had a modification of Dr. Stanton's apparatus made for me by Mr. C. R. Nisbett, mechanician to the Thompson-Yates Laboratories. In this apparatus the armlet is composed of a rubber-bag 16 in. long by 3½ in. wide. This bag is encased in a canvas cover 20 in. long by 5 in. wide, and the whole covered with a stiff leather cuff provided with two straps. This large armlet applies very uniform pressure. The canvas jacket prevents any lateral expansion of the rubber bag, and reduces to a minimum the risk of any impulse being conveyed from the proximal and uncompressed portion of the artery. The mercurial manometer has only one limb, and consequently the oscillations are twice as great as those which would occur in a U-shaped tube. A foot pump is used for inflating the bag, and thus raising the pressure, so that both hands of the operator are left free. The objection to the instrument is that it is not very portable, but for hospital or consulting-room work it is a very reliable apparatus.—I am, etc.,

Liverpool, April 22nd. JAMES BARR.

SIR,—Dr. C. J. Martin's article, Remarks on the Determination of Arterial Blood Pressure in Clinical Practice, which appeared in the BRITISH MEDICAL JOURNAL of April 22nd, will be acceptable to many of your readers interested in the important subject of clinical sphygmometry, affording as it does a good summary of work done by the author and others with the mercurial manometer applied to man. Having devoted the past winter mainly to a manometric study of the physiology of the systolic arterial pressure, and to an extension of my inquiries into the peripheral circulation by manometric methods (including Dr. C. J. Martin's and other manometers), I trust you will favour me with space for a few remarks on these methods.

Just now there is, especially among American observers and other followers of Riva Rocci, a disposition to exalt the clinical importance of the determination of the systolic pressure and to proportionately depreciate the significance of the diastolic pressure.[1] Hence one manometer is produced after another—all nearly equal in clinical merit—designed merely to determine the systolic pressure. My impression is that this is a somewhat unwise step, for just now should we not regard both pressures as of at least equal importance, especially in these early days of accurate clinical sphygmometry, we having yet much to learn in regard to the physiological and clinical relation between these pressures? They should, I think, both be taken in every case; and, of course, it will be of practical convenience to be able to do this by means of the same instrument. My recent work has satisfied me that the mercurial manometer, with the aid of air compression in rubber bags, enables one to read the systolic and diastolic pressures with a close approximation to accuracy. But, in order to do this satisfactorily, it seems to me to be necessary that the bore of the tube should not be less than 3 mm in diameter, otherwise capillary and frictional obstruction to motion from the formation of oxide of mercury, which collects at the top of the column, impair the instrument for the recording of the diastolic pressure, and then the systolic pressure only can be read definitely. Apart, however, from this structural precaution—which, of course, can easily be met—the long mercurial column cannot well be regarded as ideally convenient for routine clinical observation.

From the vigorous efforts made, especially by our American cousins, to devise various ingenious forms of apparatus which reduce to a minimum the cumbrousness of mercury for this purpose, one might suppose that it is not possible to make satisfactory manometric observations on man without employing it. Some recent work, however, has shown me that mercury may be dispensed with without loss of accuracy for this purpose, and moreover with some gain in convenience and in sensitiveness, so as to include results which could not be obtained by a mercurial recorder.

In studying the diastolic pressure in the arterial tract from the brachial to the finger tip it was necessary to devise a more delicate manometric instrument than can be constructed with mercury. Fortunately I succeeded in doing so, the new manometer being simple in construction, easy to work with, and without springs or similar mechanical device. The instrument being graduated from the mercurial manometer, indicates in mm. Hg on an open horizontal scale the air-compression within the rubber bag applied to any part in which it is desired to know the diastolic arterial pressure (any portion of the finger, wrist, arm) and the systolic pressure (wrist, arm). When bringing forward my results I will refer to the details of construction, etc.; meanwhile with me the new manometer has superseded the mercurial (except for occasional verification) in studying the sphygmometry of man.

In regard to Dr. Martin's criticism that my haemodynamometer reads too high, perhaps I may be allowed to remark that according to my observation the readings it affords correspond with those of the mercurial manometer. I am, however, preferring the new instrument, which enables one to read the systolic pressure, as well as the diastolic, with equal facility and without the need of special training in technique, so that I am hoping it will prove useful to others.—I am, etc.,

Farnham, April 24th. GEORGE OLIVER.

[1] By "diastolic" is here meant that pressure which is signified by the maximal oscillation of the indicator, whether it be actually mean or minimal diastolic, or whatever its true significance may be shown to be by future inquiry.

THE TUBERCULOSIS QUESTION.

SIR,—Having had some leisure to look into the question of the climates of Australia, New Zealand, and Canada, and their influence upon tuberculosis, it seems to me that we should do better by sending away from our trying English climate those cases which are likely to go on from bad to worse if they stay here.

It seems absurd to have a consumptive hospital in Brompton, and to spend over £30,000 a year in vain attempts to cure those who go to it for treatment. There is no doubt that tuberculosis is a disease very liable to develop in great cities or in damp and cold climates. Now that our Colonies are opening up to the settlement of good emigrants, more kind charity may be shown in promoting emigration than in building hospitals at home.—I am, etc.,

April 20th. R. L.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

SIR,—There has recently been some discussion in the columns of the BRITISH MEDICAL JOURNAL on the advantages and disadvantages of boiled cow's milk as a food for infants, and there seems to exist much difference of opinion on the subject amongst members of the profession. Under these circumstances I feel that any one who can bring forward facts to throw light on the subject may do some good, which is my excuse for troubling you with this letter.

I have recently been making some laboratory experiments as to the digestibility of boiled and unboiled milk, and as the result in every case has been the same, it may help towards the elucidation of the matter.

I have used the ordinary mixed milk from a London dairy, and as a check to this, in case the presence of preservatives should in any way influence them—and unfortunately one cannot be sure of their absence—on two occasions I procured it direct from a friend in the country who keeps his own cows. I took half an ounce of boiled and the same quantity of unboiled milk, raised them to a temperature of 98° F., and added six drops of essence of rennet. In the boiled milk the curd formed more slowly, and when it formed was not quite so firm as that of the unboiled; this I found to be invariably the case. On breaking the curd up by shaking, then filtering and drying the filtrate, I found the solid matter in the boiled milk weighed from 1½ to 2 gr. more than that in the raw, the increase in weight being due to coagulation of the soluble albumen.

I next took two half-ounce samples of milk—one boiled, the other plain—to which, after curdling by rennet and breaking

up by stirring, I added pepsin gr. ½, acid hydrochloric ♏v, aqua destil. ad. ℥ij. These were placed in an incubator at 98° F., and kept there, during different experiments, for periods varying from two to four hours. They were then thrown on to filter paper and the filtrate dried and weighed. To avoid error I performed the experiment a number of times, varying it as to the length of time the mixture was kept in the incubator and the degree of fineness to which I broke up the curd. In every case I found the dried filtrate from the boiled milk weighed less than that from the unboiled, although, as shown above, before digestion it was the heavier by about 2 gr. If the mixture was incubated for about two hours the difference would be from 6 to 7 gr. (boiled 25 gr.; unboiled 32 gr.), but when it had been in for four hours there would only be about 2 gr. difference in weight, digestion of the proteids by that time being nearly complete. I found no appreciable difference was made in the result if the curd was broken up very thoroughly by prolonged and violent shaking.

I have no doubt this experiment has been performed by others, but I do not happen to have seen any description of it. I would, therefore, apologize to any former investigator if I am bringing forward results already demonstrated.

My experiments point to the fact that *boiled* milk forms a softer curd with rennet—and I presume it may be assumed with the rennin of the gastric juice in human beings—that the curd is not so rapidly formed, giving the gastric secretions more time to mix in with it, and so prevent it forming into large masses; that, independently of the size of the curd, pepsin in the presence of hydrochloric acid digests the curd of boiled milk more rapidly than that of unboiled.

I am only too well aware that laboratory experiments are often but a poor criterion of what takes place physiologically, but they may be some indication of the truth, and when one takes into consideration the risk that is run in London in giving milk which has not in some way been sterilized, I think the general opinion will be in favour of boiling. Trace London's milk supply from the cow to the consumer. Milked in an insanitary shed by a man or woman anything but clean—as we look upon the word clean—put in a milk can with an ill-fitting lid, driven in an open cart to the station, allowed to stand for some time on the platform with dust-raising expresses rushing through the station, then brought to town in either closed or partially open milk vans; again at the London terminus it is stood about on the platform, and then driven in open carts through the London streets.

At the dairy more handling is necessary; it is transferred into other cans, and again taken round the streets in open hand carts, to be delivered at the customer's house. In dry weather a considerable quantity of dust must get into it—railway dust, but worse still the dust from our wood pavements—and in such an excellent culture medium as milk the development of bacteria must take place by the million. That the greater part of these are harmless is pretty well proved by the fact that people drink raw milk and survive, but surely the risk is a big one, especially for children and invalids. If it were not for the expense, the ideal arrangement would be to have our milk put straight into sterile bottles at the milking shed, which should be kept in a really clean and sanitary state.

I am quite alive to the risk of destroying the imperfectly-understood vital principle in milk when it is boiled, and therefore of inducing scurvy in the child fed on boiled milk. I think if milk is only just brought to the boil, this risk is small, but I would guard against it by giving daily a small quantity of either raw meat juice or the juice of some fruit.—I am, etc.,

Craven Hill Gardens, W., April 24th. J. SADLER CURGENVEN.

CEREBRO-SPINAL MENINGITIS.

SIR,—According to the London daily papers this week, the case of cerebro-spinal meningitis reported to have occurred at Richmond is the first case of that disease in England.

It may be interesting to you to know that since February of this year I have had three cases of this disease in one house in this town. The first case occurred in a young maid-servant aged about 15. She died about the end of the third week. The second case was that of a school teacher, aged 40, lodging in the same house. She was taken ill two days after the maid and lived a month. Three weeks afterwards a child in the same house, aged 7 years, fell ill of the same disease. She has now been ill five weeks and three days, and, although her condition seemed hopeless during the fourth and fifth weeks, a slight improvement has now set in, and I should not be surprised if recovery takes place.

All the cases have been seen by consultants, and all agree with my diagnosis. I intend preparing a paper on the cases.—I am, etc.,

W. ROBB, M.B., C.M.

Irthlingborough, Northamptonshire, April 19th.

ARTHRITIS DEFORMANS.

SIR,—I read the abstract of Dr. Hale White's paper on rheumatoid arthritis published in the BRITISH MEDICAL JOURNAL some time ago, and I have now read Dr. Abrahams's paper on the same subject published in the JOURNAL of April 22nd.

The papers are interesting, and show skill in argument and observation, but to my mind at least they are not practical, and lead to nothing new in the way of prophylaxis or treatment—the points which most concern general practitioners. The most practical and convincing paper I have read is that published by Dr. P. W. Latham in the *Lancet*, April 6th, 1901. I sent you notes of a case which I treated with great success in a cottage with only the aid of a district nurse, on the lines laid down by him in the JOURNAL of November 22nd, 1902, p. 1648. I have treated several others since, and am more convinced than ever of the value of his suggestions. It matters little to me whether the disease is fusiform, infective, or what not, if the only treatment of the chronic variety that has proved successful in my hands is that indicated by Dr. Latham.

One patient now under my care was treated years ago in a large London hospital as locomotor ataxy; this I regard as striking evidence of the nervous element. This patient was proved later to be suffering from genuine arthritis deformans, and not locomotor ataxy. It attacked him in early middle life, when under great pressure physically, with mental worry added.

Up to the present time I have read nothing that convinces me there is any specific virus special to rheumatoid arthritis. I regard it merely as a symptom or set of symptoms which can be set up by any poison, gout, rheumatism, chronic pustular discharges, tubercle, influenza, malaria, typhoid, diphtheria, prolonged mental worry often associated with semi-starvation and great physical exertion during from ten to sixteen hours per diem, mental shock, menopause, spinal injury, etc. Any one or a combination of several of these can flood the tissues with toxins and eventually produce rheumatoid arthritis.

The various clinical manifestations are to my mind merely degrees of the malady modified by the nature and intensity of the poison, idiosyncracy of the patient, and period of life.

I am absolutely convinced that the one outstanding factor in the chronic form is a failure of the subtle mechanism by which nerves control the nutrition of joints and muscles. Those who fail to accept this view will meet with only partial success in the treatment of this terrible malady which still stands as a reproach to the medical profession.—I am, etc.,

Bournemouth, April 21st. W. J. MIDELTON.

ONE-MARK VACCINATION.

SIR,—I desire to express my approval of "One-Mark's" letter in the BRITISH MEDICAL JOURNAL of April 22nd, p. 915.

My experience of vaccination under the present Act is that the number of my vaccinations has fallen 75 per cent., and my income from this source reduced proportionately. On the other hand, my Poor-rate has gone up, as I have to pay more in order that the public vaccinator may receive the enormous sum of over £800 per annum. I also find that some of my patients have been filched from me by the public vaccinator having the *entrée* into their houses.

I wonder how many medical men are aware that the cost of public vaccination jumped up from £72,665 in 1899 to £270,628 in 1902, or nearly £200,000!

I believe thoroughly in vaccination and revaccination, but my belief alone will not keep me and my family; and I practise, and absolutely depend upon, my profession for a living.

I have not up to the present gone in for one-mark vaccination, but it is my intention henceforth to do so, unless the public vaccinator refunds to me the amount of money which has been diverted from my pocket into his and at the same time undertakes not to attend my patients in the future.

I charge 2s. 6d. for vaccination, have postage to pay when ordering lymph and cost of same, together with carriage when

it comes and the risk of making a bad debt. On the other hand, the public vaccinator pays no postage, and his lymph is supplied free and carriage paid, and he does not risk a bad debt. At the same time, he is paid a fee of more than four times that which I receive.

I do not agree with those who hold that were every medical man a public vaccinator, it would be impossible to exercise proper supervision. I consider that every man who desires to be a public vaccinator, and is willing to accept a certain rate of pay, and carry out the regulations of the Local Government Board, is entitled to become one. At the same time I would fix a penalty for not carrying out the regulations, and on a second offence suspend him for a certain period of time.

I also consider there would be fewer objections to vaccination were a person permitted to choose his own vaccinator, and know at the same time the operation would cost him nothing. I am quite sure I could bring more influence to bear with my own patients on this point, and the same would be the case with every medical man, and thus the anti-vaccinationist would, if not disappear entirely, become much fewer in numbers. At the present time, if I were to worry parents to have their infants vaccinated, the conclusion they would naturally come to is that I desire to transfer 2s. 6d. from their pocket into mine, and I have certainly no intention to lower myself by touting for work in such a fashion.—I am, etc.,

April 25th. General Practitioner.

COMBINED SANITARY DISTRICTS.

Sir,—The extraordinary treatment of Dr. Francis Bond by the Chipping Sodbury District Council is so manifestly unjust not only to him but to the inhabitants of the district, who are deprived of the services of one of our most experienced and eminent public health officers, that strenuous efforts ought to be made not only to get him reinstated but also to prevent a recurrence of such a catastrophe. According to the local papers, Dr. Theodore Thomson attended a meeting of the District Council, on behalf of the Local Government Board, and unsuccessfully urged the reappointment of Dr. Bond.

My immediate object in writing you is to point out that under Section cclxxxvi of the Public Health Act, 1875, the Local Government Board has the power under certain circumstances of making a combination of districts for the purpose of appointing a medical officer of health, and I believe I am right in saying that somewhere in the Seventies one of the sanitary authorities in the Herefordshire districts desired to break away from the combination, but the Board threatened to make a compulsory Order, and the combination still remains intact.—I am, etc.,

Hereford, April 22nd. Herbert Jones.

A SIDELIGHT ON MEDICAL EDUCATION.

Sir,—The answer to "I.M.S." might, I think, for the most part, have been found in the data of my first and complete letter; but perhaps the following few considerations may be added. The last twelve service examination statistics that were made available were those dated from the army competitive examination of July, 1902, to the army one of July, 1904, and the examinations between those dates were unexceptionally included. To make an extended series over twenty years would prove a bit more difficult even than "I.M.S." may imagine, and, if his were the same as my experience in collecting them, he would encounter the extraordinary prejudice and refusals of supply at the hands of some of the Government offices concerned, especially as a private individual. By this longer series, or any still longer ones, I doubt if the main position would be at all altered; and, any way, my series and the conclusions drawn were taken over a wider field than had before been used in that way as representative, and surely, it was an adequate summary and treatment of the subject.

The number of the College men does predominate in those service competitions. "I.M.S." forgets, however, that in my tables every class of candidates had clearly to be carefully treated separately and extracted over each series. Now, it will readily appear that the numerical strength of the College men actually confirms strongly the rigidity of the comparisons made, and would have severely told against them if they had been incapable of continuing to hold their own against their other university competitors. Such numbers could only help to make their position the less assailable when compared with that of the average, and not the "honour," degree men elsewhere. The actual total numbers asked for, with regard to the numbers of London College men and the degree men brought in, respectively, were 160 and 122, out of a total of 376. Admittedly, in the second table of all the higher places gained, to get an index average a separate figure would have to be worked out for each class of candidates. But there my relative index number of the first table gave a perfectly clear general view not to need a laborious detailed review afterwards of each of the further place distributions. As a definite example to show the difference of non-comparable statistics, I would here adduce the chief quotation from the statistics in the Royal College of Surgeons' last report—namely, that their members "were 22.6 per cent. more successful for the Navy, Army, and Indian Medical Services than candidates drawn from all other sources." This peculiar conclusion obviously leaves out those who do better than the College men; and, although easy to fall into, it is an acme of error to then lump them altogether and say those who stand second or third in a tally of numbers do better than those before them and all the others. My comparisons were quite different and did not attempt to do anything of that kind, consequently my second table referred to the total and not the relative number.

For the larger object of my total comparison it seemed useless to chop up the figures to show when each body distinguished itself beyond other bodies. It would have been an endless divisioning, and there were not sufficient numbers to deal with the less representative bodies. A far more interesting series of numbers than those of the trials of the smaller bodies might be got together to show that before the formation of the local universities and the ascending popularity of the London University, the College and Hall men held the best, and often the premier, medical posts in the naval and military services, and also, at that time, in many hospital services too. It would be inadequate and trivial to take each of the service statistics separately for the full comparison; it would complicate and confuse a correct estimate, and it could reach no conclusion.

As to the application of these statistics, as a rule I agree it would be supererogation on the part of examining bodies to advertise their competitive successes. In fact, I dwelt thereon—on the insufficiency of motive of the Royal College of Surgeons' quotations in their report, without their redressing the anomalous and inadequate position of their members, registered like all other medical practitioners, belonging to the College, but without a degree as given in other towns for similar examinations.—I am, etc.,

Bognor, April 20th. H. Elliot-Blake.

MINOR OPERATIONS AND HOSPITAL REFORM.

Sir,—I have read with great pleasure the letter of your correspondent "S. W." in reference to the above subject. There is no doubt that the grievance is a very serious one both for the hospitals and the young surgeons which your correspondent alludes to; but why, may I ask, does he apply the term young? I think the old are equally as badly treated. Of course all this is brought about by (in my opinion) residing near or in a hospital town, and by the places where the medical men reside being overrun by clubs. This latter has a great deal to do with the burning question, as, for example, supposing an operation has to be performed on a club patient, I think it is invariably the case that a hospital note is at once suggested; consequently the rush to the hospital. I may say since I have been in this district (fifteen months) I have performed several minor operations, such as removal of tonsils, adenoids, haemorrhoids, circumcisions, and amputations of fingers, but not before clearly explaining to the patients or their parents that they could be done at home equally as well as at the hospital (without prejudice of course), and consequently got the permission to operate.

I think if medical men, anxious for surgical operations, were more determined with their patients, and explained to them that the case could be attended to at their home, then probably the rush and imposition which takes place at the hospitals might be greatly reduced.—I am, etc.,

Dudley, April 22nd. A. St. Lawrance Burke.

THE CORNEAL REFLEX IN ANAESTHESIA.

Sir,—It was with much pleasure that I read Mr. Thomas's note on the above subject in the British Medical Journal of April 22nd. My experience is that if the reflex be not abolished in the great majority of cases, reflex movements will take place disconcerting to the operator, embarrassing to the anaesthetist, and not without danger to the patient. I

cannot, however, quite agree with Mr. Thomas in thinking it necessary to push the anaesthetic until secondary dilatation of the pupil begins; that I take as a sign to lessen the amount given.

My custom is to abolish the reflex, to watch for its return, and then to administer more anaesthesia, never allowing the reflex to become marked. In this way, in the great majority of cases, patients may, I believe, be kept well under, and yet in safety.

There are, however, exceptions, chiefly occurring in weakly people and children, in both of whom the reflex is quickly and completely lost; and yet they are not sufficiently "under" for operative purposes. In other cases one must be guided by the breathing, pulse, etc.—I am, etc.,

Worcester, April 23rd. S. C. LEGGE, M.R.C.S., L.R.C.P.

THE SOCIETIES OF APOTHECARIES.

SIR,—A change of title would be welcome to all Licentiates of the Society of Apothecaries of both London and Dublin who have obtained their diplomas since the Halls granted registrable licences in medicine, surgery, and midwifery. If there are to be any efforts made to secure the granting of new "letters testimonial," may I suggest that they be L.F.P.andS.Lond. or Dubl. (Licentiate of the Faculty of Physicians and Surgeons of London or Dublin). This would be much better than Lic. Med., Lic. Surg., and Lic. Midwif. of the Soc. Apothes. of London or Dublin, which latter titles were proposed in your issue of April 22nd, p. 917. —I am, etc.,

April 22nd. A LICENTIATE.

DIPLOMATES OF SCOTTISH COLLEGES.

SIR,—In reply to "Scottish Diplomate," as far as I am aware, no description of the gown prescribed to be worn by licentiates has appeared in the published proceedings of the Council of the College of Surgeons of Edinburgh.

The gown is similar to that of a Bachelor of Arts of a University, of dark blue alpaca, the texture and shade thereof being specially determined by the Council. The yoke is of azure silk, but not continued down the front as in the gown worn by Fellows of the College. Each sleeve is looped up with white silk cord.

The cap directed to be worn is made also of dark blue alpaca of the John Knox pattern, but possibly the College might permit a college cap without greatly infringing their regulations. The gown is made by Messrs. Christie and Kilpatrick, 104, South Bridge, Edinburgh, and by Messrs. Ede and Son, 93, Chancery Lane, London.—I am, etc.,

April 24th. L.R.C.S.EDIN.

OBITUARY.

ALEXANDER MATTHEW, M.A., F.R.C.S.E.,

Corstorphine.

WE regret to have to record the death of Dr. Alexander Matthew, of Corstorphine, which took place in the early hours of Monday, April 17th.

Dr. Matthews, who was a Graduate in Arts of the University of Edinburgh and a Fellow of the Royal College of Surgeons of that city, began medical practice in Kinross some thirty-four years ago. For about ten years he worked in that town until, on the retirement of the late Dr. Fowler of Corstorphine, he took over his practice in a neighbourhood now a rising suburb of Edinburgh, then a quiet little Midlothian village with but slight association with the Scottish metropolis.

By his skill as a physician and by his great personal charm, Alexander Matthew endeared himself to every one. It may safely be said of him that he was one of God's good men. He associated himself with all the village life and politics; his help and advice were freely given in all its interests. For many years he was Visiting Physician to the Convalescent Home of the Royal Infirmary prior to that institution being transferred to the charge of a resident medical officer. After the change he was Honorary Consulting Physician. He had medical charge of the Murrayfield Home of the Society for Prevention of Cruelty to Children. He was Medical Officer for the Parish of Corstorphine, Medical Officer of the Post-office and Certifying Factory Surgeon. Always a busy practitioner, he yet found much solace in literary pursuits and in antiquarian research; his knowledge was encyclopaedic and always available. In politics he was a staunch Conservative. Of a strongly religious nature, he was firmly attached to the Church of Scotland, and in his capacity as an elder in the church of his parish his interest in all things pertaining to its welfare was never failing.

In the latter part of last year he began to suffer from signs of renal disease. He bravely fought against the insidious onset, but at the commencement of this year, acting on the advice of his physicians, he sought health in the south of England. Unfortunately the hopes were disappointed, and he returned to his own home, to bear with extraordinary patience the lingering failure of strength and hope. The usual dire symptoms of his malady developed, uraemia supervened, and after a week of great suffering the overwrought heart was still, and the beloved husband, parent, physician, and friend passed away while yet in the prime of manhood.

On April 20th, in the presence of an immense crowd, he was laid to rest under the chancel window of the ancient church within whose sacred walls he so long had worshipped and for the restoration of which he had strenuously hoped and worked.

DR. EDWARD HENRY WARNER, who died at Bristol on April 17th, was formerly a student of Edinburgh University, whence he received the degrees of M.B., C.M., in 1883, and that of M.D. some two years later. On leaving his medical school he first turned his attention to mental diseases, and took an appointment as Assistant Medical Officer at Lancaster County Asylum. Later he was selected for a corresponding post at the City and County Asylum, Bristol, but eventually he gave up lunacy work as a speciality and established himself in private practice in Bristol City. This he carried on actively until about nine months ago, when he unfortunately contracted pleurisy. He went away for rest and ordinary change of air, but no improvement being noted he submitted himself for a time to sanatorium treatment. This seemed to benefit him considerably, but heart symptoms supervened, and finally caused his death at the early age of 49. He held, in connexion with his practice, several appointments of a public character, and amongst others those of Surgeon to the Midland Railway, and of Medical Officer to one of the districts of the Bristol Union. He was a member of the British Medical Association, and amongst his colleagues and patients he was held in much esteem. Dr. Warner was married, and leaves a widow and one child.

THE late Dr. ALBERT HENRY BAINES, of Southport, was known to have been in failing health for a considerable period, so, though the news of his death gave rise to deep regret among his many friends and former patients, it did not come as a surprise. He was born in Leicester some sixty-one years ago, and received his medical education at Guy's Hospital, his student career being one of some distinction. He was the Gold Medallist of the Society of Apothecaries in Materia Medica and Pharmaceutical Chemistry in 1886, two years later becoming M.R.C.S.Eng., and in the year following L.R.C.P.Lond. After completing his student career he went for a voyage or two as a surgeon in the Inman Company, and then received appointment as Assistant Medical Officer on the male side of Colney Hatch Asylum. He then took to private practice, and worked for some years at Eltham in Kent, but subsequently moved up north and established himself in Southport, and he remained in that district from 1879 until the time of his death. He created for himself a large practice, and at the same time gained the esteem and respect of his professional colleagues, and enjoyed it undiminished to the end of his career. He was for many years an active member of the honorary medical staff of the Southport Infirmary, and was elected to the position of Honorary Consulting Physician to that institution in 1896. In addition, he was Medical Officer to the Convalescent Home of the Manchester and Salford District Provident Society and Medical Referee to a number of assurance societies. Though his health had begun to fail he conducted his practice single-handed until 1903; he then took a partner, but continued himself to assist in the work until some twelve months ago. His final illness lasted about two months. Dr. Baines became a member of the British Medical Association at an early period of his career, as also of the Liverpool Medical Institute and the Southport Medical Society, and found time occasionally to contribute notes of interesting cases to the BRITISH MEDICAL JOURNAL, the *Lancet*, and other medical publications. His funeral at Birkdale was the occasion of an unusually large gathering

and of an impressive memorial address at the conclusion of the first part of the ceremony, for Albert Baines had the faculty of awakening the affection as well as the respect and esteem of those with whom he was brought into contact. Dr. Baines was married, and leaves behind him a widow and a son and daughter.

News of the death of Colonel Bartholomew O'Brien, M.D., I.M.S., which occurred at Bognor, though not unexpected, will be heard with much regret by many friends in India and England alike. Bartholomew O'Brien, who was born in Dungarvan, co. Waterford, in May, 1848, was a student of Queen's College, Cork, and entered the Indian Medical Service immediately after graduating as M.D., M.Ch. of the Royal University of Ireland in 1872. After completing a term of instruction at Netley he went out to India, where he joined the civil side of the service, and was appointed Assistant Surgeon to the General Hospital at Calcutta. The next thirty years of his life he passed as a Civil Surgeon in the United Provinces, and as such won much esteem both from the public and from the Government, carrying on an extensive general practice, and acquiring a reputation as a bold and successful surgeon. It was in ophthalmic work perhaps that he took the greatest interest; his manipulative skill specially fitted him for this class of surgery, and at an early period of his career he devoted a tour of leave to its study under John Cooper and George Lawson at the old Moorfields Eye Hospital. In 1895 he was civil surgeon at Allahabad, and was successful in arresting a threatened outbreak of plague. Seven years later the Government of Bengal selected him as its principal medical adviser at Calcutta, a post which he held long enough to suggest and initiate a number of valuable sanitary measures which have since been completed. A year later, however, he was retransferred to his old Provinces as officiating Inspector-General of Civil Hospitals, and it was while in occupation of this post that he fell ill, and was invalided home for heart failure. He arrived home last summer, and after receiving advice in London went for treatment and repose to Bognor. Though the heart mischief was found to be very extensive, his health improved so materially for a time that some hope was felt that complete compensation might be established. This, however, unfortunately did not prove to be the case, and he died on April 1st.

By his death on March 23rd last from an acute and very brief illness, the career of Dr. Keith Campbell, of Ebbw Vale, which was so full of promise, was brought to a premature close at the early age of 32. In spite of difficulties, of which only those who were intimately acquainted with him were cognizant, and which were indomitably surmounted, his course of training and subsequent work were characterized by unusual brilliance. At Edinburgh University eight class medals out of a possible ten fell to his lot, and with the degrees of M.B. and C.M. he was awarded honours, and commendation with that of M.D., while the D.P.H. which he took at Aberdeen was also taken with honours. Unsparing of self, straightforward and conscientious in the performance of duty, his kindly nature, soundness of judgement in dealing with the affairs of others, his tactfulness in trying and most delicate circumstances and his unquestioned skilfulness in practice were such as to inspire confidence and esteem in all with whom he came in contact. It is hardly to be doubted that, in his efforts for the welfare of others, he drew too greatly upon his reserve of vitality, so that, when his fatal illness supervened, his power of resistance proved ineffectual. Of him it may truly be said that his life was sacrificed on the altar of duty.

Brigade-Surgeon Frederick William Moore, late Army Medical Staff, died on February 13th last. He joined the Army Medical Department as Assistant Surgeon, October 28th, 1853; became Surgeon, May 5th, 1863; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, November 27th, 1879; retiring from the service, November 14th, 1885. He served in the Jowaki expedition in 1878 as Principal Medical Officer (mentioned in dispatches, medal with clasp), and in the Afghan war in 1879-80 in charge of the base hospitals of the 1st and 2nd Divisions of the Khyber field force (medal).

Surgeon-Major Gough Ashton, M.B., late Army Medical Staff, died at Oxmantown Mall, Birr, on January 20th. He entered the Army Medical Service as Assistant Surgeon, October 1st, 1862; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876; retiring February 12th, 1887. He was in the Afghan war of 1878-80, receiving the medal granted for that campaign.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Theophil Jerofejeff, sometime Professor of Ophthalmology in the University of Tomsk (Siberia), aged 61; Professor Bornhaupt of Kieff, one of the leading surgeons of Russia, aged 62; Dr. Albert K. Hadel of Baltimore, a specialist on diseases of the throat and nose, and well known as a writer on historical subjects; Dr. M. Pastor y Pellicer, Professor of Therapeutics in the University of Zaragoza; and Dr. W. H. Doughty, sometime Professor of Materia Medica and Therapeutics in the University of Georgia, aged 69.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

Fourth Centenary Celebration, 1905.

The fourth centenary of the Royal College of Surgeons of Edinburgh, as already announced, will be celebrated on July 19th, 20th, and 21st. The following is the official programme:

Wednesday, July 19th, 9.30 p.m.—Reception of Honorary Fellows Elect by the President and Fellows in the Royal College of Surgeons. (Full evening dress.)

Thursday, July 20th, 10.30 a.m.—The Honorary Fellows Elect, Fellows, and guests will meet in Parliament Hall. (Academic robes, official costume, or uniform.) Admission by ticket only. 11.30 a.m.—Service in St. Giles's Cathedral, to which a procession will start from Parliament Hall at 11 a.m. 4 p.m.—Ceremony in the M'Ewan Hall. Address by the President. Presentation of congratulatory addresses. Conferring of Honorary Fellowships. Doors open at 3 p.m. Organ recital at 3.30 p.m. (Honorary Fellows Elect, Fellows, and guests will be expected to attend in their academic robes, official costume, or uniform.) Admission by ticket only. 9.30 p.m.—Evening reception in Royal College of Surgeons. (Full evening dress or uniform.) Admission by ticket only.

Friday, July 21st, 3.30 p.m.—Reception in the grounds of George Heriot's Hospital. Admission by ticket only. 7 p.m.—Banquet in the Music Hall. (Court dress, uniform, or full evening dress.) Dinner tickets for Ordinary Fellows one guinea.

Fellows of the College who desire to attend the celebration are requested to intimate the fact, and state at which of the ceremonies it is their intention to be present.

Answers addressed to the Honorary Secretary, Fourth Centenary Celebration, Royal College of Surgeons, Edinburgh, must be received on or before June 1st, 1905. After that date it may be impossible to guarantee tickets for the various functions.

The following candidates were approved at the April Final Examination in Dental Surgery:

E. E. Cassady, M.B., C.M.; W. W. Dunlop, T. C. Dykes, J. L. Elphinstone, L. B. Glasspole, M. Michael, W. J. F. Middlemiss, A. H. Morgan, J. T. Reed, J. Scobie, H. T. Simpson, J. W. Smith, W. L. R. Tasker, R. M. H. Wilson, and A. A. Sumpter.

UNIVERSITY OF LONDON.

The London School of Tropical Medicine.

The following is a list of the students who passed the Examinations in Tropical Medicine held at the end of the seventeenth session, January-April, 1905:

Dr. H. Ludovici (Colonial Service) (with distinction), Dr. F. B. Thompson (Colonial Service) (with distinction), Miss H. B. Hanson, M.D. (with distinction), Miss E. Watts, Dr. R. F. Williams (Colonial Service), Dr. H. A. Foy, Miss M. E. Hayes, M.B., Dr. R. van Someren.

UNIVERSITY OF DURHAM.

The following candidates were approved at the April examinations in the subjects indicated:

Anatomy, Physiology, and Materia Medica.—Charlotte Purnell,* Elizabeth Patteson,* Gertrude E. O'Brien,* Helen Y. Campbell, H. R. Crisp, G. I. Cumberlege, R. M. Davies, L. K. Edmeades, Helen M Gurney, Elizabeth N. Havelock, D. E. Johnstone, T. D. Miller, H. Shield, H. J. Slade, E. D. Smith, J. F. Young.

Elementary Anatomy and Biology, Chemistry and Physics.—C. W. Greene,† E. C. Braithwaite,* C. M. Brown, C. E. L. Burman, B. G. H. Connolly, C. J. Henderson, W. Sacco.

Elementary Anatomy and Biology.—R. M. Angus, Harriett A. R. Apps, W. Barkes, A. H. Bower, J. G. Campbell, B.A., H. A. Cooper, L. W. Evans, F. H. Fawkes, R. C. H. Francis, P. A. Galpin, C. Gray, A. C. Greene, J. P. Jackson, Annie V. Mack, E. P. Martin, Ruth Nicholson, J. H. Owen, F. Rahtkens, R. Raffle, C. E. Reindorf, Matilda A. Sinclair, T. W. Stallybrass, H. W. Sykes, G. H. Wood, A. A. Woodhouse, B.A.

Chemistry and Physics.—J. M. L. F. Coquelin, C. P. R. Harvey, E. P. L. Hughes, S. L. Randolph, L. M. Stewart.

† First-class honours. * Second-class honours.

CONJOINT BOARD IN SCOTLAND.

The following candidates were approved at the April examinations indicated:

First Examination (5 years' course).—R. Anderson, J. D. Collins, R. M. Danks, G. N. K Desai, A. R. H. Harrison, J. A. Irwin, A. Macaulay, N. S. Vaid, B. H. Willoughby.

Second Examination (5 years' course).—J. A. J. Crowley, J. M'Turk, H. A. Higginson, H. H. Bradley, J. Jefferies, T. R. M'Kenna, G. Coats, J. Legan, P. J. M'Ardle, T. O. Wilson, J. H. Milne, H. G. Higgins, M. F. Anderson, W. F. G. Scott, O. T. Jones, J. D. Jones, W. E. Barrett.

Second Examination (4 years' course).—J. S. Lamech, J. H. Fullarton.

Third Examination.—J. R. D. Holtby (with distinction), G. Hart, W. F. F. Durr, R. W. Duncan, C. H. Bannerman, F. J. Breakell, N. B. Watch, J. H. Patterson, W. W. Johns, J. A. Ashurst (with distinction), A. F. Garrand, G. W. Hill, A. M'Millan, J. T. Anderson, W. T. Carter.

Final Examination.—P. Henderson, S. C. Chuckerbutty, E. Gaunt, P. A. M'Donald, C. H. Bannerman, A. Jack, W. W. N. Knox, W. M. Ramsay, T. P. Cox, W. H. Woodger, J. N. Datta, S. M. Dickson, J. Wylie, R. Basenow.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The following candidates having passed the necessary examination have been admitted Fellows of the College: Mr. S. S. Pringle, M.B., B.Ch., University of Dublin; and Mr. W. I. de Courcy Wheeler, M.D., B.Ch., University of Dublin. Both are Surgeons to Mercers Hospital.

CONJOINT COLLEGES IN IRELAND.

Third Professional Examination.

The following candidates were approved at the Spring examination:

M. J. Ahern, W. H. Bournes, I. Clarke, K. Dillon, A. J. Faulkner, E. P. Harding, H. M. Harrison, E. J. Higgins, A. B. Hogan, M. R. J. Hayes, J. B. Kelly, T. Leonard, B. Leeper, R. Martin, H. S. Moorhead, S. McCausland, B. A. Odlum, R. O'Kelly, T. T. O'Farrell, G. Petit, G. Sheppard, W. H. Soady.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates were approved at the April examinations in the subjects indicated:

Surgery.—*A. Anderson, †*W. L. Crabtree, W. A. T. Lloyd, E. B. Miles, †*E. W. A. Walker.

Medicine.—†*E. J. Blewitt, †*A. G. C. Findlay, P. C. W. Laws, †*W. S. Mitchell, *R. H. Terry, †*E. W. A. Walker.

Forensic Medicine.—E. J. Blewitt, S. A. Mahmood, J. P. B. Snell, A. R. Wade, E. W. A. Walker.

Midwifery.—W. G. O'Malley, R. St. Johnston, E. W. A. Walker.

The diploma of the Society was granted to Messrs. A. Anderson, W. A. T. Lloyd, and E. W. A. Walker.

* Section II. † Section I.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

WATER SUPPLY IN RURAL ESSEX.

Dr. Thresh's report to the Essex County Council on the water supply to the rural districts of Essex is a complete and instructive piece of work, and in these days of rural depopulation such a report, showing the actual state of the water supply of these rural places, is of especial value. It is the outcome of a communication to the Essex County Council with reference to the migration of the rural population to the large towns and the necessity of making some effort to keep the people upon the land.

There is no question that in numerous parts of England many rural districts are very inadequately supplied with pure water, and this cannot but exercise a prejudicial effect upon the inhabitants, and cause some to migrate to the towns.

In the lengthy report under consideration, Dr. Thresh gives clear statements as to the water supply of each rural district, and the details are illustrated by excellent maps. On the whole the report amply demonstrates that the majority of the rural districts are well supplied with water, although in some the supply is very inadequate. Dr. Thresh particularly calls attention to the schemes which have been carried out severally by the Maldon, Chelmsford, and Rochford Rural District Councils. Of these the Purleigh Waterworks of the Maldon Rural District may be instanced as an example of what may be done in this way for more or less isolated parishes. These waterworks are the most extensive rural works in the county. The water used is derived from a series of springs in Woodham Walter parish, which yield from 60,000 to 100,000 gallons of water per day. The area round the wells was acquired to protect them from pollution. The water is collected in a reservoir, and pumped to a distributing reservoir sufficiently elevated to command all the district. The difference in elevation is 110 ft. From the distributing reservoir the mains ramify for miles, and standpipes are fixed along the route to supply houses and farms which are not directly connected with the mains. A number of hamlets are supplied. The total cost of the works was about £13,000. The introduction of this supply to a previously waterless area has been an immense boon. The whole area is upon London clay, and previously water was only obtainable from deep wells or collected rain water. An application is now being made for an increased loan to extend the main to two further parishes.

A considerable part of the rural area is supplied by wells, many being shallow wells. Dr. Thresh calls attention to this fact, and also that typhoid fever is very rare in the rural districts, and records his conviction that typhoid fever is never caused by well water when the well is so constructed that no impurity can get into it without having filtered through 8 or 10 ft. of soil. This question is, as Dr. Thresh points out, one of much importance; and the further one—as to how far chemical analysis is able to decide as to the purity or harmfulness of such water—is equally important.

A concise but clear statement of the geology of Essex in relation to its water supply adds greatly to the interest of the report.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

The Royal Commission on the Care and Control of the Feebleminded heard further evidence on April 17th.

Sir John Batty Tuke, M.P., explained the practical bearings of the Lunacy Act as regards certification. "Lunatic" under the Act meant an idiot or person of unsound mind. The latter was the better term; it was unqualified, and included all persons of unsound mind, whether the unsoundness was congenital or acquired, and also all forms of mental defect and feebleness. The essentials of the certificates under Form 8 of the second schedule were: (1) Evidence of unsound mind observed by certifier; (2) evidence founded on observation of others; (3) statement of belief that the case required care and treatment. The unsoundness of mind might consist of idiocy or of acquired insanity. The degrees of idiocy might range between absolute fatuity and mere feeblemindedness. A manifest case of insanity might not require certification, because it might be under due care and attention, and its circumstances did not demand asylum treatment. On the other hand, a very much milder case might demand asylum treatment, because it was so situated as not to be able to obtain care and treatment. The mildest insanity, mere feeblemindedness, might justify certification, because the afflicted person was not being properly cared for—for example, young weak-minded girls, who obviously should be protected. He agreed that the passage in Section xxviii, which said that a reception order should not be made upon a certificate founded only upon facts communicated by others, might in rare instances create difficulty in the certification of a congenitally weak-minded person, or in the case of cases of apparently mild insanity, or in the case of mild dementia—for instance, feeblemindedness following on an acquired insanity. He was not, however, prepared to advise that it should be possible to shut a person up only on facts observed by others than the certifier; there should be facts observed by the certifier himself. It was quite true that there were persons of unsound mind, and well known to be dangerous, who were regarded generally as uncertifiable, and who, if certified and sent to an asylum, would probably be there soon pronounced sane and discharged. The difficulty in getting such cases certified was due partly to the risk of an action for damages and partly to the difficulty of discriminating between ordinary wickedness and moral perversion. Asylums also disliked receiving such cases, especially if there was anything criminal in their history. He was in favour of colonies licensed in connexion with the Lunacy Commission, and would also be inclined to certify certain classes feebleminded ness and imbecility much more freely than was at present common. Their certification was desirable, but in order to bring it about some modification of the law was necessary. The Scottish asylums were crowded with simple cases of senile dementia such as in England were treated in workhouses. A much cheaper form of institution would meet their needs.

Dr. John Tatham, one of the Census Commissioners, gave evidence as to the facts regarding lunacy revealed by the census of 1901.

Dr. James Scott, medical officer of His Majesty's Prison, Brixton, said that people who could not at present be certified as insane, but who nevertheless could not fairly be held to be fully responsible for their misdeeds, formed somewhat a large class. To many of these a prison formed a harbour of refuge in which they were spared the trouble of thinking how to get food and lodging. It was important, in his opinion, to consider means by which these "undesirables" might be prevented from reproducing their like.

The Commission then adjourned until May 12th.

INFANT MORTALITY IN DUNDEE.

The report of Dr. Templeman, Medical Officer of Health for Dundee, issued on April 12th, states that the total number of births for the year was 4,510—2,268 males and 2,242 females—while the deaths numbered 3,307—1,532 males and 1,775 females—equal to a death-rate of 20.22 per 1,000. The infantile death-rate of Dundee for the past year was 174 per 1,000 births, or 23 8 per cent. of the total mortality in the city, the total number of deaths of children in the first year of life being 788. The deaths under 5 years numbered 1,273, or 38.4 per cent. of the total mortality. The greatest factor in the production of the zymotic death-rate had been zymotic diarrhoea, causing 88 deaths, and in 85 cases investigated it was found that only 9 were breast-fed, 28 were partly fed by breast and partly by bottle, and 48 were entirely brought up by hand. Of 65 infants who died from diseases of the stomach and bowels, 9 were breast-fed and 44 were artificially fed. The total number of children under 2 years who had died from diarrhoea or disease of the digestive system and whose cases was inquired into was 186, and of these 21 were breast-fed, 52 partly breast-fed, and 113 were brought up by hand, while 115 of the mothers were at work. Regarding the municipal sterilized milk depôt, Dr. Templeman says that the number of infants on the register continued to in-

crease, and about 80 infants were using it regularly at the end of the year. As a rule the children who were fed with that milk had thriven exceedingly well, and none of the deaths from zymotic diarrhoea had occurred in children who had been using the milk for any length of time. Appended to the report is a statement by Misses Swanson and Whyte, the Health Visitors. In all, they visited 13,384 houses, chiefly of one and two rooms. In many of these the ventilation was insufficient, and in two-roomed houses they often found the windows in the room nailed up and the chimney stopped up. In 207 houses they found young children left alone or in the charge of an incapable person.

FEES FOR CONSULTATION.

Rusticus, who is a district medical officer, asks for advice in the following case: He states that he had under care in his district a very serious pauper case and that he called to his assistance a neighbouring practitioner who saw the patient with him three times as a consultant. He wrote to the guardians asking for a fee (£1 11s. 6d.) for the consultant. The clerk replied to the effect that he could find no authority to enable the guardians to make the payment requested.

*** We think it would be difficult to find a Board of Guardians who would consent to pay a fee for such services as our correspondent describes, unless the case had been brought to their notice previous to these services being rendered. As this appears not to have been done we question whether any payment now sanctioned by them would be strictly legal. We are consequently not surprised at the reply received from the clerk.

COMPILATION OF DEATH STATISTICS.

M.O.H. would do well to avoid the use of a register of births and deaths, and adopt instead the card system. Under this system the Registrar of Deaths is supplied with cards having printed on them the headings for the information which he supplies to the M.O.H. These are filled in by the registrar, instead of the usual weekly sheets. This system involves no increased trouble to the registrar, while the medical officer of health avoids the necessity for any books. For each report which he has to make he can classify his cards according to age and sex, cause of death, or locality, as may be desired.

MEDICO-LEGAL AND MEDICO-ETHICAL.

COMPENSATION FOR LOSS OF TOOTH.

The case McGowan *v.* Whitaker was tried before Judge Edge, in the Clerkenwell County Court, on Wednesday, April 19th.

The plaintiff McGowan, an omnibus driver, stated that in September last he went to Dr. Whitaker's surgery, and there saw Dr. Fleming, *locum tenens* to the defendant Dr. Whitaker. He had toothache, and pointed out a tooth in the upper jaw on the left side, which he asked the doctor to take out. The doctor pulled a tooth out, and directly he (the plaintiff) saw it, and had it in his hand, he said, "Why, doctor, you have taken out the wrong one." The doctor said, "Oh, we will soon have the right tooth!" and he took out the other. The next day the plaintiff saw his own medical man, who advised him to go home. In consequence of the removal of the teeth he was laid up for five weeks. The plaintiff claimed damages for loss of time and for loss of a sound tooth.

Dr. Fleming stated that he was *locum tenens* for Dr. Whitaker, that he had had considerable experience in drawing teeth both in South Wales, and in South Africa during the late war. The plaintiff, McGowan, came to Dr. Whitaker's surgery in September last suffering from toothache, and asked him to take out the 12-year molar on the left side of the upper jaw. He examined the tooth carefully, and found the gum swollen round it, and he extracted it. The tooth had a hole in it and the roots had pus on them. McGowan said it was the wrong tooth, and insisted upon his taking out the next tooth to it. Witness pointed out the seriousness of losing another tooth; but, knowing that the man's time was valuable and seeing that he was in much pain, acceded to his request and removed the wisdom tooth; with it came a small portion of the alveolus.

The teeth were produced in court; an upper molar with a large cavity on the distal surface of the crown, and a small piece of the alveolar plate attached to the neck, and an upper wisdom tooth free from caries in the crown; but to the curved roots a portion of the alveolus was attached, having all the appearance of ankylosis, as described by Hopewell-Smith (*The Histology and Patho-Histology of the Teeth*, p. 293 et seq.). There was evidence of chronic inflammation. It was contended that, assuming Dr. Fleming's statement to be correct, he first removed the 12-year molar, and only removed the wisdom tooth on the patient insisting because of the pain in his jaw and that there was reason to believe that the wisdom tooth had caused as much pain as the 12-year molar; in fact, that both teeth were involved, because they were—to use the common expression—unsound.

After hearing the evidence on both sides—including that of two dental surgeons, Mr. Blaaberg and Mr. R. Denison Pedley, who were called for the defence—the judge came to the conclusion that the wisdom tooth was a sound one, and that Dr. Fleming had accidentally removed it. He gave judgement for the plaintiff McGowan, with £16 16s. compensation for the loss of his tooth.

Dr. Whitaker was defended by the London and Counties Medical Protection Society, of which he is a member.

SUPPLY OF APPLIANCES.

M. E. Dicus asks to what extent it is expedient or customary for medical men to supply their patients with medical appliances, such as elastic stockings, trusses, etc.

*** This is a matter entirely for the practitioner. He may designate the article required, and leave it to his patient to get them from the instrument maker, or he may himself order the article and debit the patient with the cost. In many cases the former course is preferable, but it is quite possible that sometimes the latter may be more expedient.

MEDICAL ATTENDANCE IN NON-PROVIDED SCHOOLS.

Square writes that his partner some time ago was requested by the headmistress to attend a child who had broken his arm in the playground of a non-provided school. The bill was sent in to the managers, but payment was refused. The old School Board used always to pay for such cases, and the L.C.C. likewise pay for such accidents in the case of the ordinary Board schools, but decline to pay in the non-provided schools. He wishes to know who is legally liable.

*** Although the old School Board used to pay it is by no means certain that they were legally liable unless they instructed the headmaster or mistress to call in medical help when necessary. On ordinary principles the headmistress alone would be liable, but it is a pity that the L.C.C. should draw a distinction between the non-provided and other schools under their jurisdiction. The managers would be liable only if they specially authorized the headmistress to call in medical aid. If the L.C.C. admit liability as to cost of medical aid in the case of the other schools, it is difficult to understand how they can now repudiate it in the case of the non-provided schools. Before taking any action our correspondent would be wise in consulting a solicitor.

MAY A REGISTERED PRACTITIONER BE A DIRECTOR OF A BUILDING SOCIETY?

Building.—A medical practitioner has been elected director of a building society now being formed in the town in which he lives. He asks whether there is any reason against his accepting the appointment.

*** Speaking generally, there is no objection to a medical practitioner becoming a director of any company which is not concerned with the sale of drugs, dressings, instruments, articles of diet, or any other material supplied to patients. We understand that a building society is a company organized to acquire land and house property and to sell the same to its members, while paying, if it can, a reasonable dividend to those who subscribe the capital that may be necessary to start it. So long as such a company is properly conducted there appears to be no reason against a medical practitioner occupying the position of a director.

RESPONSIBILITY FOR MEDICAL DEBTS.

Sperans asks (1) whether the party who stands in the relation of an adopted father is responsible for the debt of the adopted daughter. Does the adoption still hold good after twenty-one years or maturity of daughter? (2) Would a master be held responsible for a medical debt if the servant received no wages for her labour to him? (3) I was called in to see a girl suffering from bad throat. I advised, and directed her throat to be treated thrice weekly, which was done over a period. They now deny that I was authorized to do so, or that they were responsible for debt of girl. This girl works in the shop of the parties but it seems has no wages, as they say she was adopted: also, this girl taught outside, and paid into the house for fourteen years £20 a year. Would this latter be held to entitle the girl to seek medical advice seeing she was working for her other necessities for these people?

*** With regard to (1), medicines and medical aid are necessaries for which an infant may contract and render himself liable, but a parent is not liable to pay for such necessaries furnished to an infant child without some proof of a contract on his part, either expressed or implied. A contract would be implied where the doctor was summoned by the parent or his servant. We have not been able to find an exact authority on the point whether the position of an adopted child is the same as that of an ordinary child, but it is conceived that if the child is held out to the world as the child of the person who summons the doctor that person would be held liable. In any event the liability ceases at 21. With regard to (2), a master is not bound to provide medical assistance for his servant; the obligation must arise from contract, and it will not be implied from the fact that the servant lives under the master's roof. (3) If the girl in question is an infant, it seems that the facts stated in this question might raise the presumption that the foster parents were liable, but the question is very doubtful. Seeing that the girl is herself earning wages, why does not our correspondent proceed against her personally?

A DISCLAIMER.

Mr. Chisholm Williams (London) writes: In the *London Magazine* for March is an eight page advertisement of the O'Connor Extension Company, entitled "Life's Handicap," by a Fellow of the Royal College of Surgeons; in the text my name is prominently displayed. Will you permit me to state that I am not the author of the article, and also that I have a letter from the managing director undertaking that my name shall not be used in such a manner again. Thanking you in anticipation.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE LONDON TEMPERANCE HOSPITAL.

At the annual general meeting of the London Temperance Hospital on April 19th it was stated that the in-patients during the expired year numbered 1,337 as compared with 1,376 in that which preceded. There had also been 24 721 cases under treatment in the out-patient and casualty departments. The total ordinary expenditure of over £10,000 left a small balance in hand, the average expense of each in-patient having been reduced by 2s. 11d. a head as comparing with the cost in 1903. A resolution was passed to proceed with the erection of a new out-patient room at a cost of £15,000. Towards this sum £3,600 had already been received or promised, £2,400 being in grants from King Edward's Hospital Fund for London. It was stated during the meeting that only in 70 of the 32,393 cases which had been treated in the wards since the institution was opened had there been occasion to administer an alcoholic stimulant.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MEDAL FOR SOMALILAND.

THE King has approved of the award of a medal and clasp to the naval and marine forces employed in the operations in Somaliland between January 18th, 1902, and May 11th, 1904. The medal is the Africa general service medal, and the clasp, "Somaliland, 1902-04." The grant includes all officers, etc., belonging to the following ships who were landed for duty or were serving on board during the periods stated. Those already in possession of the medal for former operations will receive the clasp only. A gratuity, similar to that awarded for the operations in China in 1900, will be granted to the members of the wireless telegraphy party only. List of ships, with period entitling to award of medal: *Cossack*, from January 18th to May 12th, 1902, and from February 2nd to June 4th, 1903; *Dryad*, from June 17th to September 11th, 1902; *Fox*, from February 14th to April 17th, 1903, from July 5th to September 14th, 1903, and from March 8th to May 11th, 1904; *Harrier*, from November 9th to November 30th, 1902, from December 20th to December 22nd, 1902, and from March 13th to March 16th, 1903; *Highflyer*, from November 26th to December 15th, 1902, from February 27th to April 6th, 1903, and from July 14th to July 27th, 1903; *Hussar*, from January 16th to August 1st, 1903; *Hyacinth*, from February 9th to May 8th, 1904; *Merlin*, from June 15th, 1903, to February 24th, 1904; *Mohawk*, from November 12th, 1903, to May 4th, 1904; *Naiad*, from October 31st, 1902, to May 2nd, 1903; *Perseus*, from April 27th to October 9th, 1902, from December 4th, 1902, to March 4th, 1903, and from November 7th, 1903, to March 19th, 1904; *Pomone*, from October 5th, 1902, to March 30th, 1903, and from December 12th, 1903, to April 14th, 1904; *Porpoise*, from June 3rd to December 12th, 1903, and from April 21st to April 30th, 1904; *Redbreast*, from March 16th to July 10th, 1903.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

L.R.C.S. (Ross-shire) writes: There is a missionary located here whose legs are so weak that he is unable to walk more than 100 yards without taking a rest. He is about 60 years, and is very stout. He suffers no pain in the limbs. Some ten years ago he was engaged in missionary work in Australia, and had long distances to go on horseback. He attributes the weakness in his limbs to that cause. He has never had rheumatism, and is in good general health. I have heard that many of the Boers in South Africa who were in the habit of riding a great deal were similarly affected, men who looked strong and vigorous on horseback being unable to walk far. I shall be glad to know if any of your readers who were in South Africa came across any cases such as the one I have described. I shall also be glad to know the pathology of the disease and whether it is amenable to treatment.

ANSWERS.

THE HOMBURG WATERS.

R.P.R.A.M.C.—The principal Homburg springs are the Elizabeth, Kaiser, Ludwigs, Louisen, and Stahl (Steel). The long analyses of all these springs will be found in the last edition of the *Bader-Almanach*, published by Rudolf Mosse in Berlin, 1904, together with a short account of the health resort. A full answer to R.P.R.A.M.C. would require a special number of the BRITISH MEDICAL JOURNAL. He might consult one of the treatises on mineral waters and health resorts (H. and F. P. Weber, Burney Yeo), and look up articles on the subject in Allbutt's *System*, Quain's *Dictionary of Medicine*, etc.

LETTERS, NOTES, Etc.

MEDICAL GOLF TOURNAMENT.

THE medical golf tournament for 1905 will be held on Thursday, May 25th, on the links of the Sunningdale Golf Club. Competitors will be arranged in two classes—Class I with handicaps of 12 and under, and Class II with handicaps of more than 12 (limit 24). Eighteen holes will be played against Bogey. Further particulars can be obtained from Dr. Rolf Creasy, Windlesham, Surrey.

THE GARDEN THERMOMETER IN CLINICAL MEDICINE.

DR. W. F. COLCLOUGH (Sherborne, Dorset) writes: With reference to Dr. R. E. Foott's communication in the BRITISH MEDICAL JOURNAL of April 15th *re* the garden thermometer, a somewhat similar experience occurred to me in 1895 when in practice in Portugal. I charged to be at the seaside for an afternoon's tennis, and was requested to see an English child who had suddenly become very feverish. I asked if they had a thermometer in the house, the grandmother replied, "Yes, she would get it"; after some delay, to my great surprise she brought an enormous garden thermometer which she had had to detach from the wall. The dear old lady, who afterwards became a very intimate friend, often used to joke about our first meeting and her mistake.

"A COMPLICATION OF DOCTORS."

AN American jury is reported to have returned the following verdict at an inquest: "Death from bowel trouble and a complication of doctors." It was stated that six practitioners were called in at different times, and several more had been sent for, but failed to come. The multitude of counsellors in this case was small, however, compared with that which a *grande dame de par le monde* in this country considered necessary for her safety. For many years, in whatever part of the kingdom she happened to be, she had always a consultant of the first rank with her for the week-end, while a younger man rising into fame was in attendance during the rest of the week. Among them most of the special branches of medical practice were represented. Her passion for medical ministrations reached the height of its fulfilment on the occasion of an International Congress, when she gathered together about her bed the leaders in medicine, surgery, and gynaecology from every part of Europe and America. Many of her doctors thought she had nothing particular the matter with her till she surprised them by dying. Whether her end was hastened by a "complication of doctors" is a question which, fortunately, we are not called upon to determine.

PHYSIOLOGY IN ELEMENTARY SCHOOLS.

AS an illustration of the way in which the youthful mind sometimes apprehends the truths of "physiology" as taught in elementary schools, we quote the following from an American journal. To the question "What is our blood composed of and how does alcohol act on it?" a pupil made the remarkable answer: "It is made of one million red insects and one thousand white ones to every drop of blood. Alcohol kills them and sends their carcasses to the front of the body. That is why people who drink alcohol have red noses."

SALIES DE-BÉARN.

DR. T. W. HEYWOOD writes to us from Salies-de-Béarn to praise the amenities of that watering place, and especially to commend its muriated waters, which contain bromides and iodides. He also speaks of the beauty of the scenery in the immediate neighbourhood, the town being situated near the Basses-Pyrénées.

BREACH OF PROMISE AND TUBERCULOSIS.

IN an action for breach of promise recently brought against an American mayor the defence set up by the defendant was that he had discovered after engagement that the prospective bride was suffering from tuberculosis. This defence was held to be good by the judge, who made the following deliverance on the subject: "If tuberculosis is an infectious disease which passes from parent to offspring, then it is against public policy for such marriages to be permitted, and no person should be mulcted in damages who breaks a promise he has made to marry such an affected person."

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Introduction
TO A
DISCUSSION ON INFLUENZA

At the Hunterian Society

BY T. CLIFFORD ALLBUTT, M.D., LL.D., F.R.S.,
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INFLUENZA has had, perhaps, an especial interest for me, because, in my childhood, I remember well the outbreak of the epidemic in the Forties, and I had heard something of the manner in which people suffered during the previous epidemic in the Thirties, which seems to have been a very severe one—from what I heard people say, even more severe than the epidemic of 1844. Since that time there have been epidemics mild in degree, but none, of course, with anything like the severity of the outbreak dating from 1889-90. Speaking with the knowledge of what I heard in my childhood, my recollections of the outbreak in the Forties, and the experience of us all in the 1889 90 outbreak, I have ventured to say that this last outbreak was apparently a very much severer epidemic than that which occurred in the Forties. But, of course, it must be remembered that in those times observation was far less accurate, and sequels were not attached to causes with that perspicuity with which they are concatenated now; and no doubt a great many sequels of influenza, especially some of the nervous sequels, were not duly recognized or attributed to their proper causes in the influenza infection.

The disease itself is apparently a very old one. We know of it pretty definitely from the twelfth century onwards. I shall touch very slightly on the epidemic history, because on this subject you will hear Dr. Franklin Parsons afterwards; but one little point of history I may mention—namely, that almost in every century, perhaps, indeed, in every century since the twelfth, there has been a somewhat virulent outbreak, and in almost every century there has been a distinguished observer to record it for us. In the course of other reading I happen to have come across no little information concerning these epidemics. The epidemic of 1540 was very fatal. In the next century—the seventeenth—we have both Willis and Sydenham as observers, and we could not very well have two observers of disease more admirable than these. In the eighteenth century we have Fothergill and Heberden as historians, who, again, were almost ideally-selected observers: we have Huxham's classical account of the epidemic of 1733; of that in 1803 a description by one whom I am inclined to regard as the greatest physician who ever lived, namely, Laënnec; and of the 1847-8 outbreak we possess the well-known monograph of Peacock. I shall only touch upon the course of these epidemics in so far as they illustrate the contagiousness of the disease; Dr. Franklin Parsons will probably carry the matter a great deal further.

Taking the features which are now indisputable, I will remind you that the disease seems to be endemic in Northern Central Asia, as cholera seems to be endemic on the Ganges. For some reasons which we do not comprehend, as cholera raises its head from time to time to begin to travel, so influenza starts on occasional raids. Of the internal affairs of Northern China, infectious and otherwise, we know very little. The outpost from which the epidemic is definitely traced to us is Bokhara, and I may say, briefly, without attempting at this time to set forth all the details, that it follows, and has followed, the three chief trade routes in Asia westwards, and has done so in a very remarkable way. In 1889, at any rate, it tracked from East to West Siberia by the Caspian route, by the more southerly route to Sebastopol and Odessa, and, thirdly, through Merv and Persia. It was in St. Petersburg in November, 1889, and early in December it was in London and Paris. It reached New York in the time that corresponded to the most rapid means of locomotion, that is to say, eight or nine days later. It did not get over the slower passage to Hudson Bay until the following February. Some of the remarkable features of the journey were that the pest travelled in the first instance by express trains, for it appeared at first at a few large stations on the way, where very active centres of disease were promptly established; the intermediate areas were attacked more gradually—by *petite vitesse*. The through travellers appear in the first instance to have been the murderers. It was they who brought the pest along with them to the main stations by the express trains, which, of course, got much more rapidly over the ground, and reached the several large towns quickly. The main direction of progress was from the North-East to South-West. In 1889-90 the rapidity of arrival in Europe and America was much more rapid than the waves of invasion in previous epidemics, on account of the opening of the Siberian Railway and associated factors.

Since the virulent outbreak of 1890 we know—and it has been true of all previous epidemics—that within the main flood of the epidemic there have been subsidiary or secondary areas of intensity—what we may call vortices in the main curve—which are apparently due—I speak with hesitation in Dr. Franklin Parsons's presence—to the recrudescence of germs of the disease, which, after the first brunt in this place or in that, become latent and burst again into virulence.

It is of importance to emphasize a few of the main features of the passage of the epidemic in order to lay stress upon the contagious nature of it. I suppose every one in this room looks on the contagiousness of influenza as something so certain that it is needless for me to dwell upon it. I can only say that in 1890 this was not by any means the general opinion; indeed, it was the opinion of very few. People may now assume contagion as obvious, but I will tell you how it is impressed on my memory that such was not the general opinion in 1890 and previously. In 1890, for a brief interlude in my life, I was a Commissioner in Lunacy, and I remember well the sudden swoop of this terribly bewildering epidemic upon the lunatic asylums in England. Now it became manifest that those persons who were in contact with the outer world—the medical and domestic staff, the attendants, persons visiting them or the patients—fell down at the rate of something approaching 50 per cent. Amongst the inmates who did not go into the outer world the incidence of the disease was relatively slight, which was some mitigation of a calamity which would otherwise have paralysed patients and administration alike. These events pointed so distinctly to contagion that I looked into the matter very carefully from this point of view, and the only recent author of eminence who definitely pronounced for contagion was Parkes, in Reynolds's *System of Medicine*, who definitely stated his opinion that the spread was by contagion and contagion only. The prevailing opinion, medical and lay, was, on the contrary, that the pestilence swept the folk down like an atmospheric wave as a morbid influence in the air. We cannot wonder at this conviction when people were felled in St. Petersburg at the rate of 40,000 a day, and the question might well be asked how all these could catch it by transference from one to another? We now know, of course, that the terrible suddenness is accounted for by the very short incubation, apparently sometimes even less than twenty-four hours, nearly always less than forty-eight. If we assume a swift and subtle contagion, a very brief incubation and an enormous range of public susceptibility, it is intelligible that the smouldering flax of the comparatively few first victims may well break into a devastating flame in a day or two.

I think it is quite certain, from the very remarkable experience we obtained in asylums—and it is borne out by prison experience and by the experience of lighthouses and so on, isolated villages for instance—that the contagion, whatever it is, may be carried in clothes, upon things as well as in human beings, although probably only for a very short time, perhaps a few days only. Our asylum experience seemed to make it pretty clear that linen and clothes could carry it for a few days. I formed the opinion then—and I have seen no reason to doubt it since—that the disease is propagated in the sputum and spray from the respiratory tract; and this experience is borne out by the further observation of the negative cases—that is, of the non-infectiousness of cases in which the respiratory tract is unaffected. It may be said that this is a very fortuitous and contingent kind of evidence, and so it is; but after some vigilance I am able to assert that I never saw a patient without respiratory affection prove infectious. We see a good many cases with absolutely no respiratory affection. I have two recent examples now under observation, patients in the midst of large households, who had no affections of the respiratory tract, and whose attacks were not followed by any farther outbreak in the house. These are but two of scores of such cases. Therefore I remain of opinion that influenza is infectious only when the respiratory system is affected.

The meteorological conditions of influenza are so variable, as Dr. Franklin Parsons will probably tell us, that I will pass this part of the subject over without a word.

The bacteriology is, however, so important that, hackneyed as it may appear, I must say something about it. There is no doubt now among us as to the specific character of the Pfeiffer bacillus, and about the means of isolating, identifying, and cultivating it. But of its habits, where it is generated, whence it comes, and how it usually survives, we are absolutely ignorant. It may prove to be one of that large crowd of microbes—the flora, as it is the fashion to say—which is with us always in our mouths, and of which this or that species at times takes on, as analogy of other cases would illustrate, a peculiar and extraordinary virulence. It is a matter of the utmost importance to us to know, if we can learn, what the origin and habits of this parasite are, but as yet unfortunately we have no glimpse of them.

The public susceptibility when this epidemic first arrived in 1890 was very great; early in 1890 it was terrific. Nobody seemed immune; people went down at the rate of 50 per cent., and this is probably under the mark, as vast numbers of people had mild attacks which were scarcely noted or were disregarded. I do not know what the general opinion concerning young children is, but my own impression is that they are not very susceptible. When they get to 8, 10, or 12 years of age they become more susceptible and are apt to have very sharp attacks of two or three days' duration; but, except in the ear, they do not suffer much from sequels. The malady in them passes off as quickly, they have not the usual wretched, tedious convalescence. They are very apt, however, to have otitis media, more apt of course than adults. As many people gain immunity, the epidemics subside or peter out, but recrudescence is frequent, because the acquired immunity of susceptible persons is apparently short. A medical man brought a patient to me two or three weeks ago with some of the sequels of influenza, and he assured me that his patient had had a previous attack within two months. Of course, it is not for me to doubt the assertion of a very competent observer, but there was not a bacteriological investigation, and two months is even a shorter period than I was disposed to admit. In my experience five or six months' immunization is generally conferred even on very susceptible people; so that such a person if re-exposed to infection five or six months after a previous attack, is liable to go down again, although not so severely. Twelve months is the more usual respite.

As regards the morbid anatomy I have nothing to say, except that so far as our laboratories go, and my own personal observation, it is an inflammation of an erysipelatous type. Dr. Cobbett carried out a large number of observations and experiments on erysipelas in our laboratories, and with his work I was at one time not unfamiliar. The histology of influenza appears to be very much of the same character, especially in its disposition to small cell and to nuclear infiltration. In the lungs we see this in the coats of the bronchial tubes and also interstitially between the alveoli. There is far more interstitial infiltration than in ordinary croupous pneumonia. The consolidation is never quite of the same appearance as that of the so-called croupous pneumonia; the cut surface is more glistening and more uniform, and it is softer to pressure. What is more characteristic still, if there be a lobar inflammation it is almost always associated with lobular patches. Again, it is very seldom (perhaps never) confined to one lung. In its lobar form, however, it may begin quite suddenly, like an ordinary lobar pneumonia, and thus it may simulate lobar pneumonia closely; no lobular complication may be audible, and it may seem to be confined to one lung. I will not say how far it is to be absolutely replied upon, but it is a useful general rule that in influenzal pneumonia the sputum, of which we have had a great deal at our laboratories, is not rusty; it is not like pneumonic sputum; it is mucous or muco-purulent. Of course, the lobular is far the more common form, but I do not wish now to discuss features, which are well known.

The next point on which I would insist is that, like phthisis, influenza may excavate. I had a very striking case of this kind some few years ago, verified by repeated pathological investigation. The sputum always contained influenza bacilli, with some mixed infection of course, but never tubercle. Yet both lungs were excavated, as in phthisis. The patient was for a time sadly wrecked, but ultimately he got perfectly well, and would have got well sooner if he had not been so susceptible that he had two or three supervening attacks. If tubercle be present, I need scarcely urge what most people here know but too well, how calamitous an event it is when influenza falls on the lungs of a person already the subject of pulmonary tubercle.

Influenzal pleuritic effusions do badly, and pericardial still worse. And in influenza the empyemas do very badly; nay, you may almost recognize the nature of such a case by its doing so badly. There is generally, of course, streptococcus with Pfeiffer's bacillus.

The heart in influenza is a little inexplicable; it may get into a very perturbed, and even into a perilous condition, but if you come to examine these influenza hearts after death (at any rate to judge by the few I have had the chance of examining), the histological changes amount really to very little. It would be hard to say that there is more muscular degeneration than is to be found in any febrile infection; yet, for all that, the heart is in special peril, in more peril in influenza than it is in many other infectious fevers. I can only suggest that the danger may lie rather in the nervous endowments of the heart than in the muscular fibre itself. Of the cardiac symptoms I will speak presently.

Now as regards symptoms. For some time I have laid stress, especially for diagnostic purposes, on the extreme suddenness with which influenza attacks its victims. If the attack is severe its suddenness is striking enough, in swiftness of stroke exceeding, I think, any other disease. If the attack is mild the suddenness is not so much noticed, but I think it always begins suddenly. Ordinary colds generally creep on. Influenza has a peculiar effect upon the nervo-muscular apparatus, as perhaps many of you here who have had influenza know to your cost. Not infrequently the prostrating effect is terrific. For instance, a gentleman, for all he knew perfectly well, was riding on horseback near my house in Cambridge, when he was seized so suddenly that he had to clamber off his horse as well as he could, and sit down until some passer-by fetched a cab and took him home. A patient of mine, when out for a walk in the country, was seized as he passed from one field to another; he had to hang on for a time to a post, and scarcely knows how he got home. Those are but two instances out of many such. When I described this mode of onset a few years ago at the British Medical Association, Sir William Broadbent said: "I quite agree with that. I remember a patient of mine who drove in at one gate of the Park in perfect health and drove out of the other prostrate with influenza." This is, of course, the form in which it attacks the nervo-muscular system, inducing intense prostration. At the first outbreak in 1890 staff and attendants went down in this sort of way in the asylums, as if mown down. That they were thus knocked off work at once before mixing again with the patients is one reason why the patients so largely escaped; the attendants were laid on their backs and the patients were saved from their contagion. This suddenness of onset is often a useful point of distinction between influenza and typhoid fever. One is very hard put to it sometimes at the outset to distinguish typhoid from influenza; but typhoid generally begins insidiously, influenza suddenly.

In convalescence the malaise very often departs as suddenly as it came on. There are many instances of this brusque recovery in a protracted convalescence. A convalescent goes on for weeks and months feeling unfit for his work, miserably depressed, almost suicidal. Everything is a difficulty and a drag. Suddenly he says to himself, "Dear me, how I should enjoy my lunch or tea," and he falls to, and from that hour is well. Sir William Church has described to me some cases of this sudden release.

The temperature is not high, nor very prolonged, and I need not go much into pyrexia; it is more important to remind you that often it falls considerably below normal, and may remain so, or fluctuate thither for some time in early convalescence. It is usual to divide influenza into the three forms, the respiratory form, the nervous form (which was especially common in the 1890 epidemic), and the gastro-intestinal form. But I would add to these a fourth form—namely, the continuous form, which, I think, is not in the books. It has been my difficulty on not a few occasions—I think four occasions, strictly—to be called in to see certain cases of an unaccountably persistent febrile state; the temperatures are not very high nor the symptoms severe, but a week or two passes and lysis does not take place. There is no typhoid agglutination, nor other sign or symptom to define the case as typhoid. Nor are there any indications of tuberculosis. The first case in which we were able to prove the case to be influenza was under the care of Mr. Lucas, of Bury St. Edmunds. Dr. Graham Smith, my colleague in the Cambridge medical department, went over to Bury and obtained a little mucus from the mouth of the patient. This revealed "a pure culture of the influenza bacillus." There had been no respiratory symptoms, and it was with difficulty that

Dr. Graham Smith obtained a scrap of phlegm. There was no cough, no recognizable expectoration. In a case of fever then of sudden onset, which instead of clearing up in three or four days goes on with an indefinite febrile curve, which might be typhoid though a little less regular, influenza must be borne in mind and diagnosis by bacteriology employed. Moreover, in these influenzal fevers the spleen is not infrequently enlarged and tumid; it was so in two at least of the cases which I am speaking of now, a little large and tender; in 1 of the 4 cases it was neither tender nor palpable.

Other cases begin with some violent neuralgic pains, often in the back and limbs but not rarely in the head. I saw a patient last week who began with violent neuralgia in the submaxillary region and throat, accompanied with slight laryngitis; the vocal cords were a little tumid. The soft palate was a little wet and pendulous, otherwise negative. Pfeiffer's bacillus was present. For a few days the neuralgia was so severe that the teeth, ear, and neighbouring parts were continually under suspicion.

Then there are the ear cases. I have seen a good many of these, and otologists will tell us that during the last few years they have had twice as many cases of otitis media as in a like period before 1890. A member of my own household is now recovering from a mastoid operation by Mr. Cooke of Cambridge. She began suddenly with influenza: intense pain in the ear set in on the first or second day, and on the third or fourth day the drum was seen to protrude. It was incised, and pus was let out, but the mastoid cells had to be opened. In children this is, of course, a very grave anxiety.

There is another point of diagnosis we cannot afford to neglect in these obscure cases. At the beginning of almost every febrile disease we have rather scanty, high-coloured, and often depositing urine. In influenza the urine is not high-coloured, and is not lateritious, as in "chill." This is, I think, a very practical point, and, if you can see the urine early in the case, its aspect will very often lead you to suspect influenza.

Convalescence is terribly slow, and the duration of it is in no proportion to the attack. I had an exceedingly slight attack about a month ago—so slight that it did not take me for an hour off my work. About 5 o'clock one evening I felt ill and found my temperature at 101°, but next morning, as I was a little better, I did not take it again, and forgot the disorder. But in a few days I began to realize an utter weariness and distaste for all exertion. I felt peevish if any one rang the door bell. This went on day after day. The attack could not well have been milder, yet the subsequent depression was very tedious. In influenzal convalescence the loss of appetite, and the distaste for food, are very prominent features in all cases. The taste is lost also for other things, that is to say, in the spheres of the other senses. I went to a concert in my convalescence, and found myself in the position of a man without an ear for music, and said to myself, "How on earth have I and other persons been able to sit listening to this kind of noise for two mortal hours?" Indeed at the end of one hour I had to walk out. Now, the day before yesterday (two days before this address) my disorder passed off quickly.

Neuritic and paralytic attacks we do not hear so much of now, but there were a good many of them in the early Nineties. I have had but two attacks of influenza. One was in 1890, when I was living in London, and it was as slight as the one I had a month ago. In the former case likewise I had forgotten the attack until a few days later, when walking in the street I suddenly felt paraplegic, and had to get a hansom to get forward to Whitehall. Thence I had to take a cab home, and for two or three days I had a little difficulty in walking about. Then the thing passed off. My knee-jerks did not disappear. There are many far worse cases of paraplegia than this, but I do think there has not been anything like the same nerve poisoning of late that there was ten years ago. Many persons then became dangerously suicidal during convalescence.

Peripheral neuritis, as I have said, is a rarer sequel of influenza in the last few years. Of the danger of palsy in the respiratory mechanism I have seen two cases, and was called to a third case, which I failed to see (he was seen afterwards by Dr. Buzzard), in which the patient died. The neuritis may begin in the intercostal area or in the phrenics or may extend itself to them. Any ascending palsy of this kind must be anxiously watched.

Another case which strikes me as worth mentioning is one of a gentleman who had paralysis of the right arm when recovering from influenza. He was an old man, and his friends were naturally very much alarmed when he awoke in the morning to discover a palsy of the right arm. He could not feed himself with this hand, sign a cheque, or do anything with it; and this palsy—which went no farther—passed off in a few days. I suppose this was neuritis. Sensation was not obviously affected.

As regards the blood vessels, the veins are not very rarely attacked by phlebitis, and I have seen arterial thrombosis in three cases—one case femoral, two popliteal—just as the same event occurs in typhoid.

I would draw special attention, however, to angina pectoris. A paper of great importance was published on this subject a few years ago by Dr. Ernest Sansom—that is, on Angina Pectoris and Aortitis in Influenza—and in my Cavendish Lecture two or three years ago I went somewhat fully into the matter, and need not reargue it now at length. The same arteritis which, as I have said, may occur in the distal vessels may occur in the aorta. As many of you are aware, I am a heretic about angina pectoris, and believe the seat of the pain to be not in the heart but in the first part of the aorta. Seven or eight years ago a friend of mine, after an attack of influenza, was suddenly seized with an attack of severe angina pectoris, so intense that he could scarcely crawl up the two or three steps into his own chambers. The attack was of the most typical, and was severe in degree. Dr. Humphry, whose patient he was, asked me to see him, for the attacks were repeated very frequently and severely. We kept him absolutely at rest for a few weeks, and gradually the attacks grew fewer and slighter, so that in some three or four months it had entirely disappeared. For some years now past he has been in excellent health. He was a man of some 55 to 60 years of age. I have seen perhaps three or four of such cases, but it is not easy to define in all the relation to a forerunning influenza. I was very much struck with Dr. Sansom's paper, because it precisely bore out and explained by *post-mortem* evidence experiences of my own.

Of sudden death from poisoning of the heart, as in diphtheria, I have had in influenza happily no experience. But of minor, though often very troublesome and tedious perversions of the heart's action, my experience has been only too abundant. In some cases the heart is accelerated, in some it is retarded. The rate may rise to 140, and vary from 125 to 140 for many weeks, or it may fall to such a range as 35 to 50. In these cases of retardation, as in a very closely-studied case I lately saw with Dr. Michel of Cambridge, the temperature fell likewise, and in its fluctuations kept some parallelism with the pulse rate. Whether in acceleration or in retardation, the rhythm is apt to be irregular also, sometimes only by intermittences with the prolonged pause, sometimes quite arrhythmic. Some precordial pain (not angina pectoris) is not infrequent. The arteries seem relaxed; both in the slow and rapid forms the aorta may be seen to beat in the suprasternal notch, and the carotids to throb. The patient may or may not be aware of the beating, but the area of dullness to percussion is extended both to the right of the manubrium sterni, and over the root of the pulmonary artery. Indeed, in respect of physical signs the chief feature is a remarkable extension of the area of cardiac dullness in all diameters. The limit extends well outwards to or beyond the left mid-clavicular line and upwards almost to the second rib. The limit of deep dullness is found 2 cm. to the right of the sternum, and extends upwards into the third space a good fingerbreadth from the sternum. But the veins of the neck are not usually distended.

Murmurs - except, perhaps, a soft systolic murmur in the left third interspace—are not the rule, but a more or less fugitive murmur of mitral regurgitation is not infrequent. These dilated hearts need much careful nursing and treatment, but ultimately do well, for, as I have said, the intoxication is primarily rather of the nervous than of the muscular tissues.

With regard to possible cardiac disability, on one practical point I must insist—namely, on the avoidance of chloroform. I am quite sure that no patient for some time after influenza ought, for empyema or the like, to have chloroform as an anaesthetic, not even if it is given after the manner of Professor Waller or of Mr. Vernon Harcourt. More than once I have had occasion to regret giving it for a simple thing like empyema. The patient may not die there and then, but the heart is placed under a double intoxication, it is still more embarassed and recovers badly afterwards; perhaps in the course of a few days it may gradually fail.

Dyspepsia persists for a very long time, but this is almost always after the gastro-intestinal form of the infection. Ordinarily the difficulty is an aversion from food.

Another sequel not, I think, mentioned in books is sweats, the obstinate recurrence of profuse paroxysmal sweats for months after an attack of influenza. The sweats are of a very profuse and trying kind, and seem to keep up the debility.

Treatment is a question to be dealt with by my friend, Dr. Burney Yeo, at a later date, and certainly I am very glad I have not to deal with treatment, because I do not know that there is any which can be called specific. There are two points, however, I am unwilling to forget, one of which is well known, but difficult to enforce. This is, that it is of great importance that the patient should do, what we none of us do—that is, go to bed the moment he suspects influenza, and stop there until the acute phase is well past. It is, I fear, a counsel of perfection; people will not do it, but those who do will find in it an enormous saving of time, trouble, and long convalescence afterwards. As regards this long, tedious depression and misery which follows, all I would say is, that I think it is very much shortened by what I may call a non-toxic diet. To dispel it affectionate wives keep their husbands up with beef tea, feed them at short intervals with chops, bring out the old brown sherry, and so forth. Now if all this loaded diet is cut off, and the patient put on a diet clear of purin bodies and much nitrogen, such as milk, custards, and the like, especially leaving out meat, I am quite sure that the misery and depression of the convalescence from influenza will pass off much more quickly.

THE EPIDEMIOLOGY OF INFLUENZA.*

By H. FRANKLIN PARSONS, M.D., D.P.H.,
Vice-President, Epidemiological Society.

If we want an abundant vegetable crop we need first the proper seed, in the second place suitable soil, and in the third place the necessary meteorological conditions of climate and weather. Similarly, to produce an epidemic abundance of disease we need first of all the specific organism of the disease, corresponding to the seed; secondly, we need predisposed persons in which the organism may be sown; and, thirdly, we need favouring conditions. These favouring conditions may be such as will enhance the virulence of the specific organism, or such as diminish the resistance of the individual, as, for instance, persons are rendered more prone to fever by famine; or such as assist the multiplication and dissemination of the infective organism, as, perhaps, heavy rainfall after a period of drought may wash infective matter into wells; or there may be other conditions which we do not know, such as were spoken of by the older writers as the "epidemic constitution." At any rate, there are certain favouring conditions necessary, without which the seed may fall upon apparently suitable soil and yet no epidemic follows. In influenza it seems to be generally acknowledged, as Professor Allbutt has told us, that the Pfeiffer bacillus is the specific infective organism, either alone or associated with other microbes, such as the pneumococcus or streptococcus. The personal predisposition, as Professor Allbutt has also told us, is very general. A very large proportion of persons, on the first arrival of influenza in the country, fell victims to it. In London at the time of the 1889-90 epidemic I could not find in any community figures showing a larger proportion than 25 per cent. affected, but still 25 per cent. is a large proportion. Although one attack seems to produce some kind of immunity against another, yet the immunity, as we have heard, is short-lived, and a person may suffer from an attack again and again. I am not quite sure whether he suffers with the same suddenness of onset on subsequent occasions, or whether, indeed, the later attacks are, strictly speaking, fresh attacks. Possibly, the nervous system having been once affected by the influenza poison, the old wound aches afresh when a person's health is lowered by something else, in the same way as patients who have suffered from malaria abroad, coming back to this country, where they do not get a fresh dose of the malarial infection, may nevertheless suffer the old feelings under the influence of circumstances which affect their general health.

As regards the spread of influenza, I believe it is now generally acknowledged that this spread takes place by personal infection. In 1889 that was not the belief, almost all earlier writers having put it down to vague atmospheric or cosmic or telluric influences. But a number of observers in different countries studied the epidemic of 1889-90, and I believe they all came to the conclusion that infection from person to person was the mode in which it spread. The old stories of its spread over wide regions faster than human beings could travel, and of attacks of persons in isolated places, and sudden attacks of ships far from land, were not confirmed. A number of inquiries were made in this country and elsewhere, but no such instances came to hand. On the contrary, although the epidemic of 1889-90 travelled very fast, it took three months to spread through England. It was pandemic all over the world, but it took more than a year to spread through the world. Some remote places like Gilgit in Cashmere, and the Blantyre Highlands in Central Africa, were not attacked until more than a year after its first appearance in Central Asia. It was very commonly observed, as Professor Allbutt has told us, that in institutions the people who had it first of all were the staff, who were in contact with the outer world. The inmates who remained inside, in workhouses, in prisons, and in lunatic asylums, escaped, or had it very slightly. In families the first to suffer was generally the head of the household, who went out to business, and after him his wife, and then the children. In many instances the subsequent cases occurred at intervals of two or three days from the first case. Numerous histories could be given of its introduction by travellers into places, and then spreading from person to person. The rapidity of the development of the epidemic was not greater than could be accounted for by its short period of incubation, by the early development of infectiousness, and by the widespread susceptibility to the disease.

I think we must assume that besides the well-marked cases of which we have heard, there must have been—as we know to be often the case in other diseases—a number of mild unrecognized cases which might convey the infection, and probably also the infection may be carried by persons who are not themselves obviously affected by it, as we know diphtheria may be. Persons attending on a case of diphtheria may harbour the bacillus in their throats for long periods without suffering in their health in any way, but when those persons come into contact with a susceptible individual they may give him diphtheria. It is possible that influenza may be carried in a similar manner.

Another thing which I think we may assume in influenza is that what we may call the "striking distance" is longer than in some other diseases. We know that in some diseases infection may be conveyed to persons for relatively large distances through the air, and that the infective matter from the lungs may be diffused as spray by coughing and sneezing. Experiments have shown that recognizable bacilli from the mouth may be carried by a speaker to a distance of some 40 ft., and consequently we may suppose that the Pfeiffer bacillus, during the act of coughing or sneezing, may be conveyed a distance of several feet through the air. Hence a person may probably contract influenza by coming within a distance from a person who is suffering from it less close than would be necessary in the case of some other diseases, such as diphtheria or scarlet fever.

But personal infection alone will not explain the behaviour of influenza, and we must assume that some other circumstances are necessary for its epidemic development. The crux of the question is, what are those circumstances? Or to put it another way: What becomes of the influenza contagion in the interval between the epidemics? That is the point we want to know. Does it die out entirely, and is it regenerated afresh by development from some ordinary innocuous microbe? Or does it almost lose its virulence, and regain it under some unknown conditions? Or does it form resting spores and remain in some condition outside the human body, or in some of the lower animals, or what? Those are all subjects on which, so far as I am aware, we know nothing. It will be necessary to investigate these things before we can understand the behaviour of influenza, or what it is that leads to its epidemic development from time to time. Of course, the same difficulty occurs with other diseases. Scarlet fever, for instance, we know spreads by infection, but it is not always epidemic. It recurs at intervals of a few years. In the case of scarlet fever, measles, whooping cough, and similar diseases, we have good reason to believe the cause of their recurrence at intervals of a few years is the accumulation in the interval of susceptible

* Read at a meeting of the Hunterian Society on March 22nd.

individuals. A fresh generation of children has been born who have not suffered from the diseases and been protected by a previous attack, so that when the infection comes the soil is ripe, and the epidemic develops. But that will hardly explain the spread of influenza. In that respect it is more like cholera. The cholera organism is always present in certain parts of the world, and always finds the means appropriate for its spread, but it does not always spread. It is only from time to time, under the influence of some conditions that we do not know, that cholera spreads beyond its native regions, and becomes pandemic.

Our materials for investigating influenza from the bacteriological point of view are unfortunately less complete than those of many other diseases. It is not a notifiable disease under the Notification Act, and no record of cases is often kept. The deaths are not given by the Registrar-General for areas less than counties, nor, except in London, are they given for periods of less than a year.

Then there is the difficulty of diagnosis. The sudden invasion, no doubt, is a very characteristic thing when it occurs, but one would not like to say that no case which did not begin with the sudden invasion was one of influenza. There must be many mild cases which do not present those typical symptoms. Of course it is possible to diagnose it by finding the Pfeiffer bacillus, but that is not a proceeding which is commonly resorted to. Then, again, not only are there many cases of influenza which are not recognized, but also there are, no doubt, very many cases which are called influenza which are not the true disease. Influenza is a term which comes into fashion after an epidemic, and anybody who has had a bad cold calls it "an influenza cold" or "influenza" pure and simple, until the memory of the epidemic has died away. After that the habit of speaking of ordinary catarrhs as "influenza" dies out, to recur again with another epidemic. That may partly account for the course of influenza mortality so far as it is registered.

I have a diagram here—I am afraid it is on almost too small a scale to show in this large theatre—which shows the course of influenza so far as it is recorded by the deaths registered since causes of death were tabulated by the Registrar-General in 1847. In 1847-8 there was a large epidemic, which began in London in 1847, and affected the provinces mostly in 1848, and then subsided. For some ten years afterwards influenza recurred in minor prevalences at intervals of about seven years, and then it subsided almost to vanishing point. In 1889 there were only 99 deaths registered in the whole of London from influenza, giving a death-rate of only 2 per million. In 1889 the epidemic came, but its mortality was not registered until 1890. When first influenza came in 1889 it seems to have been thought of as a mild disease of which no one had any right to die, and if a person died of it it was thought he must have been badly treated by his medical man, and accordingly not many deaths were certified as from influenza. But later on, when the formidable nature of the disease was recognized, and it was well known to be one from which people might die without any discredit attaching to their medical attendant, the proportion of cases registered as from influenza was greater. That is shown by comparing the number of deaths registered from influenza with the excess of deaths during the epidemic above the average from diseases of the respiratory organs. In the first epidemic there was a large increase of death from diseases of the respiratory organs, but comparatively few deaths were put down to influenza. In the later epidemics there was also a large excess of deaths from diseases of the respiratory organs, but a larger proportion was ascribed to influenza.

The second epidemic occurred in London in May, 1891. It began earlier in Hull and Sheffield, and reached London about the end of April or the beginning of May, and during May and June was at its height. It subsided, but influenza occurred again in the autumn in some other towns, such as Plymouth and Newcastle-on-Tyne, and reached London about the New Year, just about the same time that the first epidemic did two years before. Those two epidemics are the most fatal we have had, so far as they are recorded. It subsided then, and in 1893 there was another epidemic which occurred in the autumn, but was not so fatal. In March, 1895, there was a very fatal epidemic, and then the mortality from influenza was lower for several years, but there were minor prevalences in the intervening years; and the last large epidemic was in 1900. Since then it has been less.

The first epidemic seems to have been the most general and the most sudden. In none of the later epidemics, so far as I have heard, has there been such a rush of patients to the London hospitals. By the kindness of the medical registrars I obtained from several of the hospitals figures of patients attended there, and there was a very great rush to the hospitals in January, 1890, but in the later epidemics of 1891-3, though there was a large increase in the number of patients, there was not such a large and sudden rush, nor was there the same disorganization of public services through a large number of the staff being affected at one time. As Professor Allbutt has told us, the first epidemic seems to have affected the nervous system, and that was one reason why it was not perhaps recognized as influenza. People had looked upon influenza as essentially a disease of the respiratory organs, and they were not prepared to recognize as influenza a disease in which the symptoms were in many cases chiefly or entirely nervous. But in the second and third epidemics the respiratory affections were more prevalent. The large mortality mainly occurred from pneumonia and respiratory complications. In the third epidemic, in December, 1893, in London throat symptoms and abdominal symptoms were especially prevalent. In addition to the major epidemics minor prevalences of influenza occurred in March, 1893, April, 1897, and February, 1898, March, 1899, March, 1901, January, 1903, and December, 1904. These lesser prevalences have frequently been unaccompanied by any increase in the general death-rate, or in the deaths from respiratory diseases.

Epidemics of influenza tend to occur at about the same time in different parts of the country, and also about the same time in widely-distant countries of the world, and yet neighbouring communities are not necessarily affected simultaneously, but there may be several weeks' interval. In the epidemic of 1893 a lunatic asylum and a prison side by side at Birmingham were both affected but only at a month's interval. Some districts escape almost entirely in one epidemic and are severely attacked in another. There are other regions which have a high mortality year by year—Herefordshire, Shropshire, and North Wales have suffered severely in every epidemic, while, on the other hand, some counties have suffered in one but not in another.

Taking the deaths in London week by week as an index, as they are recorded in the weekly returns of the Registrar-General, it will be seen that the type of influenza epidemics has changed markedly since the first occurrence in 1889-90. The earlier epidemics are marked by a sudden rise, an abrupt culmination, and a rapid decline almost to zero. With a number of deaths from influenza there is a high attendant death-rate from all causes, and also a great increase in the number of deaths from respiratory diseases. The latter epidemics have shown a slower rise; they have not attained the same height in any one week, but they have been more protracted, and the trough of the wave has remained higher during the intervals. Very rarely of recent years has there been a week without two or three deaths being recorded from influenza in London.

The other diagram shows the comparison between the weekly mortality registered from influenza in London in two years; the red refers to 1890, the year of the first epidemic. You will notice it began at zero in December, 1889, and shot up in two weeks to the height, and then almost as rapidly subsided. There was then a somewhat slower subsidence, which was probably due to deaths occurring after the original attack from secondary causes. Then they sank almost to zero; some weeks there were no deaths at all, and they remained quite low until the spring of the next year. The blue shows 1901, which I have chosen because the number of deaths to the year happens to be almost the same as in 1890, and the prevalence was pretty well comprised within the year. It is often partly in December and partly in January, but here you will see it arose slowly and irregularly, and continued high the first three months of the year, then fell in the summer months, but never quite so low as in the former year, and then rose again in the latter part of the year.

The first type of epidemic—the abrupt type—is that of the invasion of a susceptible population by a new disease. We know how a population that has never suffered from a disease before is suddenly attacked when it is introduced, as in the case of measles in Fiji, and small-pox attacking new countries where it has never been before. The second type is characteristic of endemic disease, with seasonable exacerbations in winter and spring.

Still, the matter is not so simple as all that. In the first epidemic of 1890 some towns, such as Manchester and Sheffield, had only mild protracted prevalences, such as have occurred of recent years in London; while in the second

epidemic in the spring of 1891 those same towns had sudden and severe epidemics of the first type.

The outbreak of influenza cannot be ascribed to any particular kind of weather. Epidemics have occurred at almost all times of the year, at any rate during three-quarters of the year, though very rarely, if ever, in the third quarter. In some instances they have developed after the breaking up of a period of frost, but not always. Epidemics are developed at other times, and a long frost has occurred and broken up without influenza showing any increase, as for instance in January, 1891. But the epidemics of influenza have been most fatal when occurring in weather when the temperature is below the average for the time of year.

Influenza is more fatal at the later periods of life, hence it is most fatal in districts containing a large proportion of elderly persons. It is more fatal in the agricultural than in the manufacturing and mining counties, and also it has shown in some instances a greater incidence of fatality in residential than in working-class districts. For instance, some of the West-End districts of London, such as Paddington, Kensington, and Marylebone, have suffered more than the East-End ones. Brighton, which is a healthy town, has suffered more than some of the northern manufacturing towns. To some extent this incidence may be accounted for by the proportion of persons living at older ages, but the whole difference cannot be thus explained. It would seem almost as if there was something in bad sanitary conditions such as favour the prevalence of some diseases, such as diarrhoea and enteric fever, which is in some way inimical to influenza, because in the period of year when the diseases popularly spoken of as filth diseases are at their highest, such as diarrhoea and typhoid fever, that is to say, in August and September, influenza mortality is at the lowest.

I am afraid the few observations I have given you have not thrown very much light on the cause of the disease, but at any rate they have shown you how very much there is to be ascertained before we can understand it, and the need that there is for further observations—especially among those who are brought in contact with the disease in their everyday practice—before we get to understand what is its true history and behaviour.

A RECORD OF A YEAR'S (1904) OPERATIONS IN CLARENCE WARD (GYNAECOLOGICAL) OF THE ROYAL VICTORIA HOSPITAL, BELFAST.*

BY

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We have been mainly induced to publish this record as a contribution to the question of hospital construction and management. The Clarence Ward in the Royal Victoria Hospital is, like all the other surgical and medical wards, a separate unit containing sixteen beds, and completely isolated from its neighbours. It has its own operating theatre and its own instrument and dressing sterilizers, the sterilizing being done by steam under pressure from the main steam pipe, the dressings being sterilized at a pressure of 10 to 12 lb. and the instruments at a pressure of 4 to 7 lb., and being looked after by the sister of the ward, who is also responsible for the supply of sterilized water, which is delivered direct from the main through a Berkefeld filter surrounded by a steam jacket, so that water of any required temperature can be obtained. It will thus be seen that any failure in asepsis can be brought home to the person at fault without loss of time. Another factor to be considered is the warming and ventilating of the theatre and ward, which are carried out by the plenum system. The ward temperature is kept at 60° F.; the theatre, by a special arrangement, can be raised to 65° F. We have been struck by the good results in the way of recovery from operations which have been obtained under this régime, and especially by the great lessening of shock after operation, which we attribute largely to the perfect ventilation and uniform temperature of the theatre. In both respects the new Royal Victoria Hospital offers a very gratifying contrast to the old Belfast Hospital, where natural ventilation was employed, and this opinion is shared with us by several of our surgical colleagues.

During the year 156 operations were performed, with a mortality of 5, that is 3.2 per cent.

	No.	Mortality
I. Vaginal Operations.		
Curetting for endometritis	34	—
Curetting for abortion	6	—
Dilatation of cervix	3	—
Perineorrhaphy	15	—
Colpo-perineorrhaphy	3	—
Excision of Skene's glands	2	—
Haematoma of vulva (incising)	1	—
Excision of cancer of vulva	3	—
Amputation of hymen	1	—
Removal of buried sutures	2	—
Cervical polypi	4	—
Amputation of cervix	3	—
Repair of cervical laceration	1	—
Induction of labour	1	—
Vaginal coeliotomy	1	—
Vaginal hysterectomy	3	1
Removal of inoperable cervical cancer	4	—
II. Operations on Urinary Organs.		
Urethral caruncle	2	—
Exploration of bladder	4	—
Urethral polypi	1	—
Lithotrity of vesical calculus	1	—
Vesico-vaginal fistula	3	—
Exploration of kidney	1	—
Nephropexy	2	—
Nephrectomy	1	1
III. Rectal Operations.		
Fissure in ano	5	—
Fistula in ano	2	—
Removal of papillomata	1	—
Whitehead's operation for piles	3	—
IV. Abdominal Sections.		
Oöphorectomy	7	—
Ovariotomy	6	1
Parovarian cyst	1	—
Pyosalpinx	2	—
Ruptured tubal pregnancy	2	—
Hysterectomy for fibroid	5	2
Hysterectomy for endometritis	1	—
Ventrifixation of uterus	6	—
Incision of pus cysts	2	—
Exploratory laparotomy	1	—
Retroperitoneal lipoma	1	—
Intestinal obstruction	1	—
Radical cure of ventral hernia	1	—
Faecal fistula	1	—
V. General Operations.		
Incision of mammary abscess	2	—
—— Iliac abscess	3	—
Excision of scar	1	—
Total	156	5

As regards our vaginal operations, 87 in number, there is not a great deal with which we need detain you. We might perhaps call your attention to the subject of perineorrhaphy. This has always been done by Tait's method, which has proved very successful in this clinic up till the present. Three colpo-perineorrhaphies were done in cases of complete procidentia, they were each done by the lateral method, wide strips of mucous membrane being excised on either side of the protrusion and sutured up afterwards; this was combined with amputation of the os, which in these cases is practically always greatly enlarged and hypertrophied, and the whole was completed by a very thorough perineorrhaphy. Catgut was used for the vaginal suture, both to avoid the necessity of removal afterwards—a proceeding which is rather troublesome in the case of silkworm gut—and because the giving way of the catgut after a few days allows the edges of the wound to fall apart and healing to take place by cicatrization, so that a ridge of scar tissue is left on either side of the vagina adherent to the deeper tissues of the pelvic floor and forming an additional safeguard against the return of the displacement. The results of this method have been very good. We have had all the cases, including some done in 1903, under observation in the extern department, without any return of the trouble, and when one considers how extreme the displacement is and how little the natural supports of the uterus

* Read before the Ulster Branch of the British Medical Association at the Spring Meeting in Belfast, April 5th, 1905.

are to be relied on in these cases, we think the result of the operation very satisfactory.

Three excisions of cancer of the vulva were done, in each case accompanied by the clearing out of the inguinal glands on the affected side. Up till now we have seen no recurrence, but it is of course too soon to regard these cases as cures.

Vaginal coeliotomy was only performed once, for the removal of a prolapsed ovary. This operation was done formerly much more frequently in the ward. We have come, however, to prefer abdominal section, since the risks to the patient are not any greater, and since one is much more free to deal with any unlooked-for complication that may be present. Another reason is that by opening the abdomen one can deal radically with retroversion of the uterus, which so often accompanies prolapsed ovary.

In view of the recent discussion on hysterectomy at the general meeting of the Association, and the method advocated by the eminent London surgeon who opened the discussion, it may be of interest to briefly describe that in use at the Royal Victoria Hospital. The preliminary preparation occupies about a week. The vagina is douched twice daily for three days after admission, the growth is then thoroughly curetted away with a Volkmann's spoon, and the cavity stuffed with iodoform gauze to check haemorrhage; the daily douches are then resumed for three days, and finally, before operating, the cavity is again gone over with the Volkmann's spoon. The remaining steps of the operation are carried out in the usual way, and the ovaries are left if healthy.

The one death recorded from vaginal hysterectomy in the year's work was due to intestinal obstruction from adhesion to the vaginal wound. The case was rather a puzzling one, as attacks of vomiting alternated with a diarrhoeic condition, the reason being that the kinking which took place was evidently intermittent, and the final collapse came so suddenly that interference was hopeless. One regrets, of course, that earlier interference was not undertaken, but as, according to the latest statistics, the accident only happens in 1 out of 98 cases, it seems likely to be a long time before a chance of making use of the experience will arrive again.

Of inoperable cases of cancer we had four. The treatment adopted consisted in thorough curetting with a Volkmann's spoon, with subsequent packing with gauze soaked in 50 per cent. zinc chloride solution. On the whole, the results were not very satisfactory; recurrence showed itself on an average in about two months.

In the cases of operations on the urinary organs, fifteen in number with one death, we may note the occurrence of a case of urethral polyp as sufficiently rare to be of interest. In connexion with exploration of the bladder, we might perhaps say a word as regards the different types of urine segregators.

Our experience is in favour of Harris's, which seems much more suitable to the female bladder, and gives more absolutely accurate separation of the urine than Luys's, owing to the fact that the latter requires a firm base against which it can be pressed, while the former raises up the bladder floor and forms a watershed of the bladder itself.

Two cases of nephropexy were done, the method adopted consisting in stripping the capsule off about half of the posterior surface of the kidney, and then suturing with catgut sutures passed through the last intercostal space. The results as to fixation were not very satisfactory, considerable mobility being discoverable soon afterwards, but functionally the cases did very well. The one death occurred after nephrectomy for tuberculous kidney; the case did well for two days and then sank rapidly and died on the fourth day. No necropsy was permitted; examination of the wound showed no suppuration. The kidney was exposed three times and the pelvis opened twice. In no case was drainage employed, and buried catgut sutures were used to unite the muscular layers. Healing by first intention followed in all three.

Eleven anal operations were performed without a death. Whitehead's operation was done three times, a continuous catgut suture being used. The results were very satisfactory.

We had 37 abdominal sections during the year. To take first the three deaths which occurred—that after ovariotomy was in the case of an old woman, who had a large ovarian cyst which was suppurating at several foci. Her condition when operated on was practically desperate; she survived till the eighth day. One death after hysterectomy was in a case of sloughing fibroid of very large size. Death occurred on the third day after a rise of temperature to 101°. Another death (hysterectomy) was a moderately large fibroid, which was easily removed with practically no loss of blood. Her temperature rose steadily after operation to 101.8° on the second day, and remained about this point till the fourth day, when she died. A *post-mortem* examination showed commencing repair of the wound; no sign of peritonitis, but heart muscle flabby with commencing fatty degeneration.

As regards morbidity after operation, exclusive of the 3 cases which died we had 34 abdominal sections. In 8 of these the temperature never rose above normal after operation, in 16 it did not rise above 100°, in 8 it rose to between 100° and 101°, and in 4 there was a rise of 102° or upwards. Of these 2 had tuberculous lesions, one of the others had very severe bronchitis, and largely in consequence of this developed stitch abscesses; in the other cases a piece of omentum which had been used to cover the raw surface left after the enucleation of a pyosalpinx sloughed in part and gave rise to a deep-seated abscess, which finally pointed in the lower angle of the abdominal wound.

As regards sterilization of the patient's skin and of the hands, the patient's skin is scrubbed with soap and water, turpentine and ether, and a perchloride (1 in 1,000) dressing applied overnight, the whole process being gone through again on the operating table. The hands are washed in running water with soap and a nailbrush for ten minutes, and are then scrubbed with 80 per cent. spirit and rinsed in 1 in 1,000 perchloride. Neither of us use gloves of any sort. The hands are frequently rinsed during operation, and the handling of instruments, sponges, ligatures, etc., confined as much as possible to the operator, with, in cases of necessity, his assistant.

The abdominal incision is made about one inch to the side of the middle line, and the fibres of the rectus separated. Sutures of silkworm gut are passed through the entire thickness of the abdominal wall.

The tubal pregnancies both occupied the ampulla of the tube. No attempt was made to empty the abdomen of blood, but the clots lying in the pelvis were cleared out, the tube ligated and cut off, about two pints of saline poured in, and the wound sutured. Both recovered without a bad symptom.

One hysterectomy, with removal of the appendages, was done for intractable endometritis, with great relief to the patient. Supravaginal hysterectomy for fibroid was done in all cases.

Ventrifixation alone was done in 6 cases, and in 4 other cases was combined with oöphorectomy. We are of opinion that this operation alone is of little avail in prolapse, except where combined with measures to narrow the vaginal outlet. In many cases of retroversion, however, associated with endometritis, which resists treatment by curetting, plugs, and pessaries, we have seen considerable benefit from its employment.

One of our cases of ovariotomy was in an old woman of 80, who recovered without a bad symptom. Two collections of pus in the pelvis were opened and drained, one by the vaginal route, and one by the abdomen. These collections were not in relationship to either appendages or uterus, and were walled in by intestine; we suspect that in each case they represented pelvic haematoceles which had become infected from the intestine and broken down. The case drained through the vagina, subsequently developed a faecal fistula, which was, however, afterwards closed successfully by the use of zinc chloride solution as a caustic.

The radical cure of ventral hernia was, properly speaking, an approximation of the recti, which were separated about 4 in. from each other. The patient—a very stout woman—was dieted down 1 st. in weight before operation. The whole of the omentum, which was loaded with fat, was then removed, and the margins of the recti with their sheaths brought together by buried sutures of silkworm gut at intervals of about ½ in. The line of sutures extended from 1½ in. below the ensiform to within 1 in. of the pubes. The patient now—nearly a year after operation—has a perfect abdominal wall, with a well-marked ridge down the middle.

The intestinal obstruction was caused by an adherent Meckel's diverticulum, which was united by its tip to a coil of small intestine, a polypus having developed within the latter at the site of adhesion. The diverticulum was excised, and also the piece of bowel with the polypus inside, end-to-end anastomosis with continuous silk suture being done. The patient recovered.

Nothing need be said of our six general operations, which were trifling in character.

THE DIAZO REACTION IN TUBERCULOSIS.

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The urine test, based upon the chemical fact that if sulphanilic acid be acted upon by nitrous acid, diazo-sulpho-benzol is formed which unites with certain aromatic compounds occasionally present in urine to yield aniline colours, and known as Ehrlich's diazo reaction, was first brought forward as a valuable test for the recognition of typhoid fever. It was soon, however, found to be of very variable occurrence, and to be present in other conditions of which tuberculosis stood pre-eminent, and an effort was made to prove that the diazo reaction was of assistance in the diagnosis of tuberculous affections, and in the prognosis of that disease. At present the most diverse opinions prevail as to the behaviour and clinical value of this test, and the most conflicting statements are published from time to time of the results obtained by various observers. I believe that this is due in great part to the paucity of cases recorded by each writer, and to the many unorthodox ways of performing the reaction, since it is common knowledge that experimentalists of every age have failed because they had not discovered laws which govern variations. I have watched the reaction in three thousand persons, and performed it many times in each, endeavouring to follow each case to its conclusion before allowing myself to be influenced by the results. The record of this work, of necessity greatly epitomized, is the subject of the present paper.

It is necessary to first detail the manner of carrying out the test, since want of strict attention to this point has been the cause of many erroneous conclusions. Ehrlich prescribed the following reagents:

1. A saturated solution of sulphanilic acid (crystals) in 5 per cent. HCl.
2. A ½ per cent. solution of pure nitrite of sodium.
3. Liquor ammon. fort.

To be employed thus: A mixture containing the sulphanilic acid solution and the solution of sodium nitrite, in the proportion of 40 c.cm. of the former to 1 c.cm. of the latter, is measured in a graduated tube, and 10 c.cm. of it added to an equal quantity of urine in a test tube. After shaking, so as to effect a thorough admixture, 1 drop of ammonia is allowed to trickle down the side of the test tube. If the reaction occurs, the following phenomena are to be observed:

1. A red ring forms at the junction of the ammonia with the rest of the fluid.
2. On inverting the test tube, so as to mix the ammonia with the urine, the whole will assume a red colour.
3. On violently shaking the tube, with the thumb held over the mouth, so as to cause a froth to form, this red colour, varying from strawberry pink to deep crimson, will be communicated to the froth.
4. After allowing the specimen to stand for twenty-four hours a sediment of a green or violet colour will have settled to the bottom of the test tube.

Ehrlich specially emphasized the point that the reaction is not positive unless the pink or crimson colour is communicated to the froth, and further stated that the presence or absence of the green precipitate was of little moment.

The test practically resolves itself, therefore, into the accurate observance of the froth, so that I have adopted the method of shaking the specimen before the addition of the ammonia, and allowing the latter to trickle directly on to the foam, when the colour struck is readily noticed, since it shows up against the white of the froth. I have found also that one or two precautions are required to obtain accurate and uniform results. They may be briefly stated:

1. The test cannot be performed except during the day, or by the use of pure white light.
2. The urine should not be more than twenty-four hours old, and should be kept covered.
3. Both the sulphanilic acid and the sodium nitrite solutions are very unstable, and deteriorate rapidly. Fresh solutions must be employed. The nitrite should be renewed weekly, the acid once a month. We do not mean to say that the reaction will not occur with older chemicals, but we positively affirm that its appearance will be variable.
4. The proportions of sulphanilic acid and sodium nitrite require accurate measurement. An excess of the latter, even in so slight an amount as 2 c.cm. in 40 c.cm., will annul a delicate test.

Having thus stated the method of performing the reaction, I may pass on to the review of the work, of which the end has been to ascertain the value of Ehrlich's test in the diagnosis and prognosis of tuberculous disease. The 3,000 cases in which the behaviour of the reaction has been followed comprised 600 cases of persons in health and 2,400 of diseased states. Of those in health not one yielded a positive reaction, from which I at once conclude it never to be present in normal urine. Of the remaining 2,400 cases I found the following number of positive reactions:

1. Various forms of tuberculosis	...	96 positive cases out of	672
2. Measles	...	18 ,, ,, ,,	25
3. Enteric	...	17 ,, ,, ,,	21
4. Typhus	...	5 ,, ,, ,,	5
5. Acute lobar pneumonia	...	4 ,, ,, ,,	41
6. Acute bronchopneumonia	...	1 ,, ,, ,,	16
7. Acute bronchitis	...	1 ,, ,, ,,	96
8. Puerperal septicaemia	...	4 ,, ,, ,,	4

The remaining 564 cases, comprising almost every acute malady of common occurrence in this country, continuously yielded a negative test. Other writers have declared its presence in erysipelas, intermittent fever, surgical septicaemia, and some other conditions, but their reports are very variable. Sacquépée, of Paris, observed it in puerperal septicaemia, and other authorities have found it more or less frequent in measles and typhus fever. We may suppose, then, that its presence is fairly constant in these three conditions, leaving its behaviour in typhoid fever out of account, since in that disease its conduct has been frequently investigated, and I have made no fresh observations. There still remain the cases of pneumonia and bronchitis to account for. These will be referred to later. Suffice it for the present that each was complicated with an underlying phthisis.

It is not sufficient, however, to have merely recorded the presence of the positive reaction in certain diseases; the clinical progress of each case has therefore been followed with reference to the behaviour of the reaction from time to time, with a view to ascertaining if its presence or absence has any bearing upon prognosis, as has been claimed by several writers. Very early in the research it was discovered that the positive reaction appeared very variably in the several cases of tuberculosis under observation. Many cases never yielded it; others did so at intervals of days or weeks, while it was at once obvious that its presence coincided with exacerbations of the disease. This was remarked by Ehrlich. I realized, therefore, that if the results were to have any value, the testings must be done frequently with each patient, and a record kept of their clinical condition. Accordingly, I performed the test in many cases every day the whole time they were under investigation, and kept a constant record of their clinical progress and physical signs. No case was tested less frequently than twice a week. By this means I have avoided falling into several errors which must be inevitable under any other mode of investigation.

A. The Value of the Reaction in the Diagnosis of Tuberculous Conditions.

In the summarized statistics at the opening of this record I have stated that the number of tuberculous cases investigated amounted to 672. These are made up as follows:

Disease.	Total No. of Cases.	No. of Cases Positive.	No. of Cases Negative.
Acute miliary tuberculosis	2	2	0
Chronic pulmonary tuberculosis ...	628	83	545
Tuberculous meningitis	6	6	0
,, peritonitis	3	3	0
,, adenitis	12	1	11
,, bones and joints ...	21	0	21

The question at once arises, Did the presence or absence of the positive reaction prove of any assistance in the diagnosis of these cases? I shall endeavour to answer this by discussing the several groups singly.

1. *Chronic Pulmonary Tuberculosis.*

From the tabulated records of the 83 positive cases I find that not one was in the early stages of phthisis, when a diagnosis might be difficult, but that in every instance there were abundant physical signs of advanced mischief. In this I agree with other investigators. Bolli found the reaction present in the second and third stages of pulmonary tuberculosis, and was supported in this by Blad, Videbeck, and Michaelis. The later investigations of de Boissière and Cummins are further confirmatory of the fact. My own cases may be thus summarized:

Unilateral apical consolidation	... ...	9 cases
Bilateral ,, ,,	... ...	12 ,,
Unilateral vomica	... ...	23 ,,
Bilateral vomicae	... ...	39 ,,
		83

When these physical signs were taken in conjunction with the usual clinical picture of phthisis, no urine test was needed to convince one as to the diagnosis. So far, then, its value is *nil*. On the other hand I believe it to be of assistance in those cases in which the tuberculous mischief is hidden under some other acute process. I have referred, for example, to the fact that the positive reaction was elicited in 4 cases of acute lobar pneumonia, in 1 case of acute bronchopneumonia, and in 1 of acute bronchitis, and that in each of these cases there was afterwards found to be an underlying tuberculous lesion. The reaction faded and then disappeared in each instance, upon the recovery of the patient from the intercurrent affection, and in 2 cases it was observed to appear with the pneumonia. Petri records the case of a phthisical girl who gave a positive reaction during an attack of acute follicular tonsillitis, so that it would appear that not only does the reaction depend upon the exacerbations of the tuberculous process (as observed), but that its presence may be also determined by the onset of any acute illness upon an existing tuberculous lesion. This may explain its presence in such diseases as erysipelas and so forth, and may have misled the experimentalist in thinking it indicative of that and other diseases. In cases such as these the presence of the positive reaction may be of diagnostic value. Chronic or acute bronchial catarrh, for instance, often covers tuberculous signs. If, then, the reaction is obtained in these conditions, it should at once lead one to suspect tuberculous mischief. Considering the large number of cases tested, and that every one yielding a positive reaction was tuberculous (excepting those diseases cited, measles, typhoid, typhus and puerperal septicaemia), I feel justified in concluding that there must be some hidden tuberculous process at work in any case yielding the positive reaction not known to be in the category of those diseases which give it.

2. *Tuberculous Pleurisy and Peritonitis.*

I have not had under observation any case of this condition distinct from phthisis—that is to say, none which could be affirmed to be tuberculous. From a total of 46 cases of pleurisy, 16 were obviously tuberculous, being accompanied by other signs and symptoms, and of these only 3 gave a positive reaction, and that because they were accompanied by advanced apical mischief. For this reason they are not grouped separately. No reaction was obtainable in any of those cases where one was in doubt as to the nature of the process. Bolli found the reaction present in 6 cases out of 12, and noted that the disappearance of the characteristic colour coincided with the absorption of the pleuritic effusion. He obtained similar results in 8 cases of tuberculous peritonitis. I have not watched a sufficient number of cases of either to justify any new conclusion. While doubtful if the reaction can have any value in the diagnosis of either condition, I believe it only to occur in pleurisy and peritonitis of a tuberculous nature.

3. *Tuberculous Meningitis.*

Of 6 cases of this disease every one gave a strongly-marked positive reaction. In 5 of the cases the diagnosis was made, or proved, by *post-mortem* examination; in the sixth, the patient was a child presenting typical symptoms. This is mentioned because no evidence could have any value without an autopsy to corroborate the record. It is interesting to know that two of the cases were regarded as typhoid fever, the presence of the diazo reaction being taken as confirmatory of this view, nor was the possibility of meningitis fully realized until the *post-mortem* examination proved negative, and the brain was exposed accordingly. It is a matter of regret that the reaction should be most constant in an affection which often closely resembles enteric fever, and that it is on this account of no value in the differential diagnosis of the two complaints. Indeed, I find it present frequently in other conditions resembling these—namely, typhus fever, acute miliary tuberculosis, and acute lobar pneumonia in a phthisical subject, precisely the very group of diseases which, in certain cases, may be mistaken for each other.

4. *Tuberculous Adenitis.*

Of 12 cases of tuberculous disease of the lymphatic glands one only yielded a positive diazo reaction—a boy suffering from glandular enlargements in both axilla, round the neck, both groins, and in the anterior mediastinum. It is to be regretted that the patient was of a morose and sullen temper, refusing treatment and full examination, so that no further record has been kept. Faint inspiratory crepitations at one pulmonary apex, with the presence of the diazo reaction, led to the conclusion that the patient was tuberculous. As in the case of pleurisy and peritonitis the paucity of cases prevents any conclusions, but the question is left open as to whether the reaction might not prove of occasional service in differentiating the various glandular affections.

B. The Value of the Reaction in the Prognosis of Chronic Pulmonary Tuberculosis.

This is now considered as the most important feature in the behaviour of the diazo reaction, and it has been the goal towards which the energies of most of its investigators have been directed. A few of their conclusions may be briefly indicated. Bolli looked upon the presence of the reaction in the early stages of phthisis as not necessarily of bad import, and its absence in the latter stages as indicative of a less rapid course. Michaelis made observations upon 167 phthisical patients, of whom 111 gave a positive reaction, and 56 a negative one. Of the 111, none were cured, 15 were improved, 13 remained unchanged, while 30 died; whereas of the 56 negative cases, 5 were cured, 44 improved, 4 remained unchanged, and only 3 died. Blad and Videbeck also worked at the same subject, their results agreeing with those of Bolli, and with the records of Lorentz at the Halila Sanatorium. Their tabulated results show that, in general, the reaction is negative, or if present, weak and inconstant, in those cases which clinically appear favourable. On the other hand, it was positive and well marked in bad cases. They agreed that patients yielding the reaction were not suitable for sanatorium treatment. Friedenwald considered the positive reaction justified a gloomy prognosis. Nissen believes that the more constant its presence the more acute and extensive is the tuberculous process. Raoul de Boissière examined 130 cases of chronic phthisis in the Edinburgh Hospital for Consumption, of which 18 were found to give a positive reaction. Thirteen of these died, 1 lay *in extremis*, and 2 recovered. He found that the presence of the positive reaction coincided with the appearance of the graver symptoms, and concluded that its appearance was of bad import, and its disappearance a good omen. Cummins examined 436 urines, of which tuberculosis cases numbered 221; 67 of these responded to the test. They were tested periodically, and led him to the following conclusions, namely, "That the presence of the positive reaction has great prognostic significance in pulmonary tuberculosis. It does not appear till late, and is usually noted in a rapid case. When it once appears, it persists until death. The average duration of life after the appearance of the diazo reaction is about six months. An unfavourable prognosis should be given in every patient presenting this reaction." Ehrlich himself looked upon its appearance as a bad portent, while, on the other hand, Petri, Georgiewsky, Becker, Giesler, and others declare the reaction to have no significance in the prognosis of phthisis.

My own opinion is, as has been stated at the opening of this paper, that this variableness of results has depended upon too infrequent testings, so that I would again emphasize the fact that I have followed the behaviour of the reaction in every case at least twice a week, and often daily throughout their course.

It has been said that of the total number of phthisical patients examined, 83 yielded a positive test, and that every one of these was in the second or third stage of the disease. To complete their clinical picture we would further add that 67 ran an evening temperature of over 100°; 32 of these being intermittent, 15 remittent, and 7 continuous. Of the remaining cases 5 had a swinging temperature of between 99° and 100°, and 10 were apyrexic.

The 545 negative cases present a contrast to this. Of them 386 were in the earliest stages of phthisis, 111 presented unilateral consolidation, and 33 bilateral; 12 presented unilateral cavities, and 9 had bilateral vomicae. With regard to their temperature, 436 were apyrexic, 12 ran up between 99° and 100°, and 63 had a swinging temperature of over 100°.

Of the 83 positive cases, 60 died, 6 were unchanged, while 17 may be said to have shown slight improvement. Of the negative cases, 17 died (6 of intercurrent affections), 30 were unchanged, and 454 improved.

Several other facts were also noticed. Forty-eight of the positive cases showed a gradual fading of the reaction as they drew near to their end, and ultimately ceased to yield it at all, sometimes as long as months before death; generally it ceased on the day of death. In several cases the urine was drawn off *post mortem* by means of an aspirating needle introduced above the pubis, but a positive reaction was never obtained. Petri performed the same experiment, but never

found a positive reaction after death. Ehrlich first noticed this *ante-mortem* fading of the reaction, but it has since been contradicted by some writers. That it really does fade is a fact. Those declaring the contrary have simply not met with the cases.

Petri considered a concentrated state of the urine to be necessary to the production of the characteristic positive tint. With a view to testing the accuracy of this observation, I have recorded the specific gravity of every case, and found that of the sum total of positive cases (including measles, typhoid, etc.) the average specific gravity was 1025. Only in 6 cases was it less than 1016; but in reference to this point we have to consider that the concentration of the urine is largely dependent upon the temperature of the patient previous to and at the time of voiding, and, in the case of phthisis, upon night sweats. Those with the highest temperatures and the most profuse sweats are generally the worst cases, and therefore the class in which we may expect the reaction. In the same way the reaction cannot be wholly dependent upon pyrexia, as some have affirmed, since it is often present in apyrexic cases.

I have further observed that those cases giving the reaction to the end have run a more rapid course, and have died in a less exhausted condition than those who had once given the reaction, and then had ceased to do so. This I believe to be the cause of the constant affirmation that a diazo patient had the worst outlook, and I believe that writers who have made this statement have not met with cases which ceased to yield the reaction a month or six weeks prior to death. There seems, in short, to be required a certain amount of vitality for the production of the characteristic aniline colour of Ehrlich's reaction. This is borne out in a remarkable way by the following case:

G. C., aged 20. Admitted to Walton Workhouse, December 16th, 1901. Temperature 97.6°, pulse 168, respirations 56. In extreme exhaustion. A large vomica at right apex. Diazo negative. Patient was so ill that no expectation of his surviving the night was felt. He rallied, however, and showed marked improvement the next and four following days. On December 21st, that is five days after admission, he gave a well-marked reaction. A day or two later he began to sink; his temperature, which had gone up to 100°, fell to subnormal again, the diazo reaction faded, and he died on the 20th of the same month.

We further have to record a very singular case in which the patient, although in the last stages of phthisis, failed to give the reaction. He was under observation for a month, during which time his urine was tested daily. On the last day of the month he died from haemoptysis, and in idle curiosity I set the blood aside in a measure glass, decanted the serum and subjected it to the diazo test. To my astonishment it yielded a rich reaction. Encouraged by this event I repeated the experiment in 6 other cases of haemoptysis, but did not again succeed in eliciting the reaction. I aspirated the heart immediately death occurred in a large number of cases, but never obtained a positive coloration. My attempts to get it in pleuritic effusions also failed.

CONCLUSIONS.

The conclusions I draw from this investigation are that the reaction is not of any value in the prognosis of chronic tuberculosis. It is certainly true that those patients who gave the reaction have nearly all died; it is certain that in most cases the course was rapid; it is also true that its appearance and disappearance corresponded to the exacerbations and to improvement: it is also a fact that those not giving the reaction are patients who have shown improvement in their clinical course. This, to a large extent, agrees with what has been before written. Were this all, such facts would indeed be significant, but they reveal only half the truth. The positive cases have died, but they have been precisely those cases for whom no hope could ever be entertained; they have run, many of them, a rapid course, but an equal number have run a slow course and even improved; its appearance coincides with the exacerbations of the tuberculous process, but it follows the onset of the graver symptoms, and though it disappears with improvement, such disappearance again follows the suspension of the alarming signs; while, again, it may disappear because the patient is growing weaker. A reaction blowing hot and cold in this manner cannot be of very great reliability. Lastly, patients who have not given the reaction have mostly been in the early stages when hope is justifiable, while if it is absent in the later stages it means nothing, since its appearance is intermittent: is present one week, absent the next.

It is probable that every fatal case of tuberculosis will yield the reaction at some period of its course. In view of the frequency of the intermissions, we cannot say that any case is negative unless it has been tested constantly for long periods. Of the 17 cases which were negative and yet died, 6 succumbed to interrecurrent diseases. Of the remainder, 2 were admitted *in extremis*, when the reaction is known to fade, so that it is not an unjustifiable conclusion to suppose that the other 9 were tested during an intermission.

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TETANY AS A COMPLICATION OF GASTRIC DILATATION,

WITH NOTES OF A CASE.*

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THERE are few subjects in the whole range of medical literature round which so much controversy has raged as that of tetany. Its first description, in association with gastric dilatation, is attributed by some to Newman[1] in 1861, by others to Steinheim.[2] Its etiology was the despair of theorists and experimental workers alike, Maestro[3] regarding it as an "essential neurosis," Oddo[4] as "a toxaemia produced in the presence of a hypersecretion of hydrochloric acid and gastric juice," while Berlizheimer[5] cites a case in which no ptomaines could be found.

Its pathology was for years the will-o'-the-wisp of the men of the microscope and of the morbid specimen, but to their credit be it said they promise fair to be the guides out of the present morass. Its treatment has been the shuttlecock of the battledores of the physician and surgeon, the former of whom have tried everything, from calomel to the latest antiseptic, while the latter have performed operations as varied in intensity as gastric lavage, puncture of the spinal cord, and gastro-enterostomy.

I shall leave, however, the domain of controversy and speculation, and pass on to the clinical notes of a case, and subsequently make some observations on them and on tetany in general.

Personal History.

R. H. S., aged 45, married, by occupation a commercial traveller for a distillery, but, nevertheless, very moderate in his use of alcoholic liquors. Of an active, nervous temperament, slightly built, and rather short of stature. For years he had complained of attacks of indigestion, which were the more remarkable to him because of the enormous quantities of food and fluid he was capable of taking at one meal. Pain ensued during these attacks about an hour after eating, and was only relieved by vomiting, which he sometimes produced artificially, in quantities as large as a chamberful, often wondering "where it had all come from," and being astonished to see in it at times food he must have eaten several days previously—for example, barley groats.

History of the Present Illness.

First Day.—I was called to see the patient first about 8 p.m. on Thursday, September 8th, 1904, and on arrival was informed that he had "had a fit" a short time previously, in which the upper arms were pressed to the sides, the forearms bent at the elbows, the fingers bent at the knuckles, with the thumbs inside the palms. The feet were also contracted, and there were twitchings about the mouth. During the entire attack he was quite conscious—indeed, rather alarmed at the appearance of his hands, exclaiming, quite excitedly, as if watching something entirely outside himself, "Look! Look at my hands!" Bathing in hot water had relieved the contracture and the pain. He was very flushed and sweating when I entered, sitting propped up in bed, carefully holding his hands under the bedclothes lest another

* Read before the Spring meeting of the Belfast Branch of the British Medical Association.

attack should develop. On questioning him he stated that prior to the "fit" he had felt his feet and hands "prinkling." The temperature was normal. Pulse regular and strong, 78 per minute. The tongue was clean, and the bowels had been moved the day previously. He was now complaining of nothing except pains in his loins and legs.

Second Day.—At 4 a.m. he had another similar, but shorter paroxysm, which was again relieved by hot water bathing. Temperature normal, pulse 78. During the day he had another slight seizure. I examined the urine for albumen, with negative results. He was rather excited in conversation, and complained of want of sleep which he said he had suffered from for four nights. Accordingly I prescribed: Pot. brom. gr.xv, chloral hyd. gr.v, in a mixture to be given every hour till five such doses were taken if required. This had little effect, producing only slight snatches of sleep, from which he waked up very excitedly. Hiccough occurred at intervals.

Third Day.—No further paroxysm. Temperature normal, pulse 80. Delirium deepening, with muttering incoherency. Hiccough almost constant.

Fourth Day.—Sir Wm. Whitla was called in consultation, and mapped out the stomach, the lower curvature reaching below the umbilicus. Pulse 78, temperature normal. Conscious, but incoherent. Hiccough constant. Recognizing the necessity of getting rid of any toxin which might have been accumulating in the stomach, but fearing lest the introduction of a stomach tube might precipitate another paroxysm, it was decided to give him water freely in order to wash out his stomach automatically by emesis. Accordingly pint after pint was given (measured) till six were swallowed, and, as no vomiting occurred, a pint of mustard and warm water was administered—7 pints in all at one time, without result.

Fifth Day.—Muttering delirium and hiccough continued; morning temperature normal, evening ditto 98.8°. Having given a dose of Purgen, which cleared the bowels of a copious dark green motion, I ordered enemata of glyco-thymoline and bovinine to be given at 4-hour intervals, as it was evident nothing was being absorbed by the stomach.

Sixth Day.—No further paroxysm; muttering delirium and hiccough continued. Evening temperature 99°; pulse 88.

Seventh Day.—Death.—Vomited at 4 a.m., after which for half an hour he rallied somewhat, but gradually lapsed into his former state. There was a right external strabismus, but no inequality of the pupils. Gradually he sank into a comatose condition, and died at 4.30 p.m. without regaining consciousness. Rigor mortis set in in less than two hours. Trousseau's sign was only slightly present. Chvostek's sign was absent.

In two particulars this case differed from any other of which I can find any record:

1. Hiccough, which was persistent and constant towards the end, resisting all treatment.

2. (Which I regard as being by far the most important) The peculiar mental condition associated with the case. When the first paroxysm passed off his mind was perfectly clear, though a little excited, but gradually he became more and more delirious and incoherent until the stage of complete coma was reached on the seventh day when he died unconscious.

Regarding Trousseau's sign (in itself a monumental witness to his keen and careful powers of observation), this seems to be regarded more as a curious phenomenon than as of any practical utility; and tested after it is definitely known that a paroxysm of tetany has occurred, it is like a man who consults the weather-glass merely to corroborate the fact that rain has just fallen. I suggest, then, that if the sign was sought for in cases where tetany might reasonably be feared (not in dilatation of the stomach merely, but in rickets, etc.), it might prove a valuable diagnostic token, as indicating a coming storm, rather than a confirmation of the storm that has passed.

That tetany as a complication of gastric dilatation is comparatively rare is admitted by all observers; thus Berlizheimer[6] believed in 1897 that only 11 real cases had been recorded. But Sievers[7] in 1898 gave an account of 27 fatal cases, while Parsons[8] says no case had been reported in Ireland up to 1894. Since then, however, the recorded cases have considerably increased, and it may be fairly assumed that cases were rarer in point of observation than in point of fact. Further, they seem to be almost as fatal as they are rare. Soltau Fenwick[9] collected a series of 26 cases in which the mortality was 70 per cent., which is, perhaps, below the general average.

Regarding its etiology, the two main theories which obtain most acceptance are, that it is due to (1) toxaemia or to (2) reflex irritation. But neither of these two theories will alone explain the phenomena, while both together would seem to satisfy all requirements.

As indicating an auto-intoxication, with the origin of the toxin in the alimentary canal, it is a significant fact that nearly every case recorded (including ordinary tetany associated with rickets, etc.) has had some gastro-intestinal disorder. This was pointed out by Hauser,[10] but long previously—in 1875—by Haddon[11] in a paper read before the annual meeting of the Association. Bouveret and Devic found that if hydrochloric acid was allowed to act on syntonin, and alcohol on the resulting product, and this final product introduced into the stomachs of animals, symptoms were produced in all respects like tetany. Further, in the case of which I have given notes, the peculiar mental condition seems to point unmistakably to auto-intoxication.

Oddo and Sarles, and Ewald[12] have found indican in the urine in some of these cases, which is formed by fermentation set up in the gastro-intestinal tract.

Lastly, it seems a significant fact, as first pointed out by Hauser[13] in an article on tetany in children, that "there appeared to be a connexion between the appearance of gastro-intestinal symptoms and that of tetany."

For the theory of reflex irritation as a cause much might be said, but the question at once arises, Why does the nerve irritation commence in the hands and feet, and not produce general convulsions, as it does, for example, in the teething of childhood? This would be satisfactorily answered by presupposing as a cause some form of toxaemia which had a selective affinity or irritative effect on the delicate sensory nerve endings of the hands and feet, for it must be borne in mind that the *first* symptoms of the paroxysm is a tingling sensation in the extremities. As supporting this, it may be mentioned that Ross and Bury[14] believe that a neuritis may be induced by auto-intoxication from ptomaines.

Weiss in adults, and Bonome and Cervesato[15] in children, have demonstrated the fact that in severe cases, inflammatory and degenerative changes take place in the anterior cornua of the spinal cord—a condition which was shrewdly suspected by Parsons[16] in 1894, because of the muscular atrophy which sometimes sets in, in tetany of children.

As supporting the combined theory of toxaemia and reflex irritation, the remarkable clinical resemblance which exists between strychnine poisoning and tetany is of deep significance. In the former there is a well-recognized poison at work, and we know its mode of action thoroughly. A poison is introduced into the system with a strong affinity for nerve tissue, analogous to the toxin of tetany. After an interval more or less prolonged, and generally excited by some irritation, a tonic spasm occurs, which passes away for a time, only to again recur upon some fresh irritation. In this, tetany maintains its clinical resemblance to strychnine poisoning, since in nearly every recorded case, vomiting or some other irritation has preceded the paroxysm.

The pathology of tetany in gastric dilatation might be pictured thus: The stomach, narrowed at its pyloric end by the cicatrization of an old ulcer, is gradually dilated into a mere bag, with scarcely any digestive power, and thus becomes a suitable nidus for fermentative toxins which gradually become absorbed into the system, producing a condition of nervous irritability both directly and reflexly—directly by acting on the delicate sensory nerve ends of the extremities, and reflexly as a result of this on the motor nerve cells in the cord producing the characteristic spasm of the extremities, upon any determining cause sufficient to upset the unstable equilibrium of the nervous system.

As to treatment, lavage has fallen into disrepute because this operation has sometimes precipitated an attack. Oddo[17] recommends calomel as a purge every other day and benzonaphthol in ½ gr. doses every two hours as an intestinal antiseptic. If the patient survives the attack, Mayo Robson[18] strongly recommends operation for the relief of the pyloric stenosis, which is the primary cause of the disease, and is present in about 92 per cent. of these cases. This is certainly the only treatment which has up to the present given any hopeful results, and has the further advantage of curing the attendant constantly-recurring and sometimes ever-present indigestion.

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THE annual meeting of the Asylum Workers' Association will be held at 20, Hanover Square, W., on Friday, May 19th, at 4 p.m., under the presidency of Sir John Batty Tuke, M.P.

PRELIMINARY NOTE UPON A LEUCOCYTOZOAN OF THE DOG.

BY CHARLES A. BENTLEY, M.B., D.T.M.H.CANTAB., D.P.H.,
Medical Officer, Empire of India and Ceylon Tea Co., Limited, Borjulie Tezpur, Assam.

THE increasing interest displayed in comparative parasitology since the recent advances in the study of tropical disease induces me to record the discovery of what I have reason to think is a new and hitherto undescribed parasite of the leucocytes of the dog.

During February, 1904, I had occasion to examine the blood of a number of dogs from the Tezpur District of Assam. While thus engaged I came across the parasite to which this note refers.

The dogs harbouring the parasite were of English breed, born in Assam. One was a year and the others two and three years old respectively. They did not present any marked symptoms beyond a slight anaemia and some little febrile disturbance. Their temperature appeared to vary between 98° and 101° F. Examination of the blood showed the presence of nucleated red blood cells in small numbers.

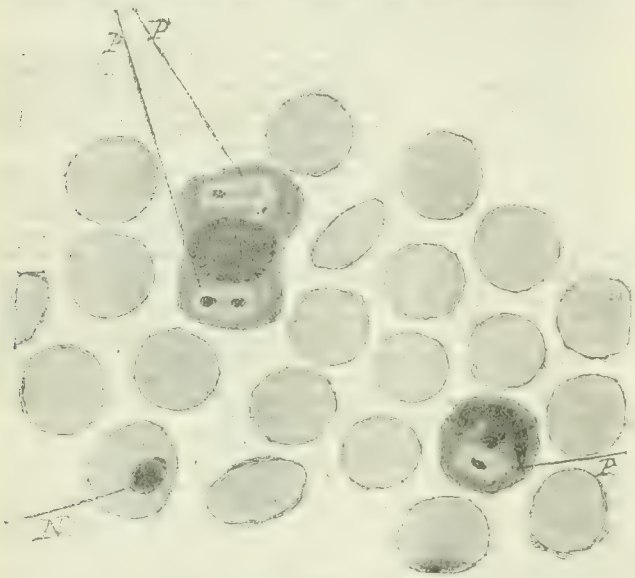


Fig. 1.—Blood film showing parasites (P) lying in protoplasm of large mononuclear and polymorphonuclear leucocytes; N, nucleated red blood cell.

On examining dried blood films from these dogs stained by Leishman's modifications of Romanowski's stain, many of the polymorphonuclear and transitional leucocytes were seen to be harbouring one or more oval nucleated bodies. These bodies presented a clear outline and a more refractile contents than the protoplasm of the leucocytes in which they lay. They almost gave the impression of being contained in a capsule in the interior of which could be distinguished a more or less vague nucleated mass. In some cases this mass appeared to suggest a vermicule-like body coiled upon itself. Careful examination failed to show anything like signs of degeneration in these bodies, and appeared to negative the idea that they might be undergoing endoleucocytic digestion. This, together with marked changes in contour and position of the nucleus, exhibited by many of the leucocytes harbouring them, seemed to indicate the probability of the bodies being parasitic in nature.

Once or twice free parasites were noticed, but it is possible that they may have been derived from leucocytes destroyed during the spreading of the blood film. Many of the apparently unaffected leucocytes showed a small circular deeply-stained mass lying near the nucleus, to which it appeared to be attached by a faintly-staining tail-like process. This body, the nature of which is not apparent, may perhaps prove to be some earlier stage of the parasitic invasion.

The examination of fresh films exhibited the parasite as a rod-like refractile body lying in the protoplasm of the leucocyte, sometimes upon and at other times to one side of the nucleus.

On a later occasion—in May, 1904—fresh films were again examined by Captain S. P. James, I.M.S. (to whom I had demonstrated the parasite), and myself, and a vermicule which the former had managed to free from its enclosing capsule was watched for some time while it exhibited a side-to-side movement of one extremity, upon which appeared a markedly-refractile spot.

The body stains well by methylene blue, thionin blue, and haematoxylin, and preparations may be improved by counter-staining with eosin. Leishman's stain, however, gives the best results. Measurements in dried films show the parasite to be from 8 to 10 microns long by 4 or 5 broad, with a nucleus of from 2 to 3 microns in diameter. The nucleus is sometimes central and at other times placed near one extremity.

It is difficult at present to suggest the class to which this probable parasite belongs. Up to the present I have been unable to trace any description of a similar parasite being found in the leucocytes of warm-blooded animals. A high authority upon the protozoa to whom I showed my specimens has suggested to me the possibility, judging from its morphological affinities, of this parasite proving to belong to the haemogregarines. Should this idea prove to be correct, it

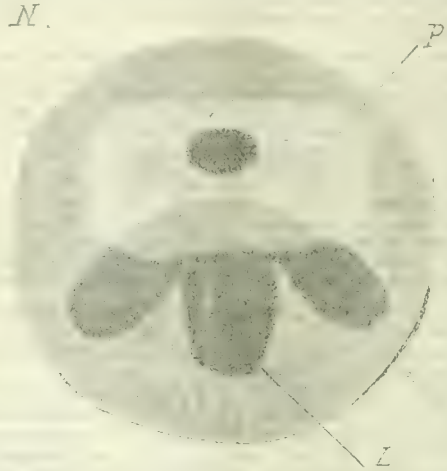


Fig. 2.—Drawing showing parasite lying in protoplasm of polymorphonuclear leucocyte (greatly enlarged); P, parasite; N, nucleus of parasite; L, nucleus of polymorphonuclear leucocyte, partly covered by parasite.

follows that the discovery will bear a double significance, being the first haemogregarine reported as occurring in the blood of mammalian host, and the first haemogregarine to be found as a parasite of the leucocytes, in contradistinction to those already known to occur as parasites of the erythrocytes of cold-blooded animals.

ACUTE POISONING BY A SINGLE CASTOR-OIL SEED.

BY A. GORDON GULLAN, M.D.LOND., M.R.C.P.LOND., F.R.C.S.ENG.,
Physician, Liverpool Stanley Hospital.

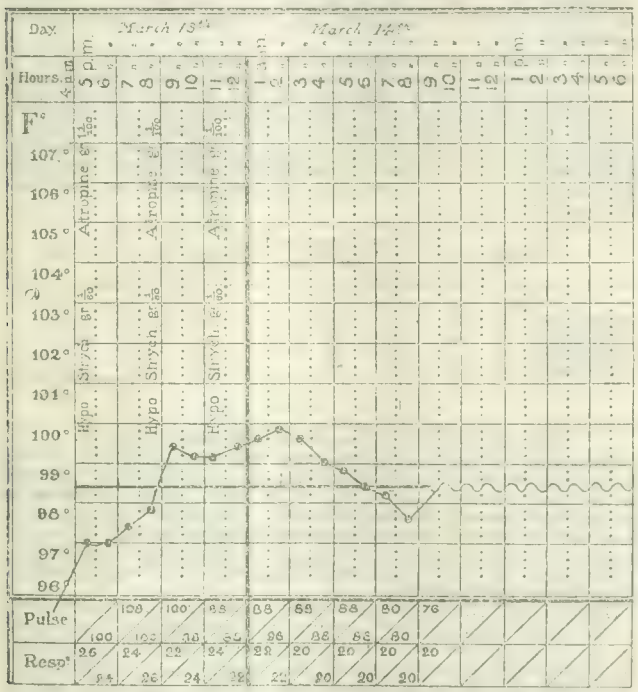
THOUGH the castor-oil seed is known to contain a poisonous albuminoid substance located in the embryo, I am sure that many do not realize the virulence which it possesses. I think, therefore, the following case, in which most acute and dangerous symptoms arose after the ingestion of a single seed, may be instructive.

History.—On March 13th, 1905, a farm labourer, in robust health, aged 28, who was on a visit to Liverpool, was watching some bags of castor-oil seeds being loaded on one of the Atlantic liners; one of the bags burst, and he picked up a seed and ate it. He noticed that it "burnt his mouth and throat a little, and made his eyes water," and then almost immediately he felt weak and collapsed, his knees giving way, and he staggered to a policeman at the dock entrance, who gave him an emetic of salt and water, which had effect. He complained of "feeling choked, and as if he could not breathe," and he was unable to stand. The policeman therefore rang up the horse ambulance, and he was brought with

all speed to the Stanley Hospital. He arrived there within one hour of taking the seed, and as I happened to be in the hospital I saw him at once.

State on Admission, 4 p.m.—The man was then in a condition of great collapse; his face was swollen and blue, his pupils a little dilated, the surface of his body cold, and his hands and feet cold and cyanosed. His respirations were very shallow, and his temperature could not be registered in the axilla or mouth. His pulse was imperceptible at the wrist; there was no cardiac impulse, and the heart sounds were very feeble and distant. He would reply sensibly when roused, but otherwise remained in a semi-conscious condition.

Treatment.—His stomach having been washed out with a warm saline solution, he was then given a dose containing a drachm each of the spirits of ether, chloroform, and aromatic ammonia (previously, while in the ambulance, the house-surgeon had injected $\frac{1}{60}$ gr. of strychnine). He was put to bed in hot blankets, hot bottles applied, 1 oz. of brandy given every two hours, and a hypodermic solution of $\frac{1}{60}$ gr. of strychnine and $\frac{1}{100}$ gr. of atropine was injected at 5 p.m., 8 p.m., and 11 p.m.



This stimulating treatment had a marked effect, his temperature steadily rose (see chart), reaching 97° F. at 5 p.m. and 6 p.m., and his pulse (which could be counted at 6 p.m., when it was 100) steadily improved in strength and volume, and the blueness and coldness of his face and extremities gradually disappeared. He slept 7½ hours during the night. The following day—March 14th—the volume and tension of his pulse was good, and his temperature, which had risen to between 99° and 100° F. during the night, was normal. His eyelids were a little puffy, and his tongue and lips rather swollen, the former being coated. As the bowels had not acted since admission, he was ordered a mixture containing gr. x of magnesium carbonate and gr. xxx of magnesium sulphate thrice daily, which acted the following day, the motions being well formed and of normal colour. He continued to improve, and left the hospital perfectly well in every respect on March 18th.

Remarks.—This case demonstrates the potency of the poison, as one bean only had been eaten. It is also interesting to note the rapid onset of the symptoms, and the entire absence of vomiting and purging which are usually present in persons poisoned by these seeds.

Bequests to Medical Charities.—Under the will of the late Rev. Edmund Lord, of Beaumont Street, Portland Place, and New Steine, Brighton, who died on March 4th, the London Hospital and the Sussex County Hospital each receive a sum of £100.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CEREBRO-SPINAL MENINGITIS.

The following are brief notes of the early stages in the case of cerebro-spinal meningitis, due to the diplococcus intracellularis, which came under my observation recently in Richmond.

The patient, W. H. A., is a coachman, aged 35, married, and with three young children. He lives over stables. As there had been two severe cases of septic tonsillitis in his family during the last year, the drainage of the house and stables had recently been thoroughly tested and made efficient. I have known the patient for some years as a healthy, temperate man.

I was called to see him on the evening of March 20th. He complained of feeling very ill and of severe headache. He stated that he had been quite well until four days previously, when he had felt very cold, shivered, had severe headache, vomited repeatedly, and had kept nothing down; was obliged to give up work on account of the severe pain in his head. His temperature on the evening of March 20th was 103°, pulse 110, tongue deeply furred, with anorexia and constipation. The pain in the head, which was undoubtedly most severe, was referred to the vertex—the base of the occiput and both sides of the neck immediately beneath the ears. There was no swelling or tenderness. He also complained of pain in the lumbar region. He ceased to vomit upon being put to bed. There was nothing wrong with his nose, throat, eyes, or ears. No discharge and no tenderness in connexion with them. His teeth, however, are very defective. All other organs normal. Urine scanty, but free from albumen.

During the ten days that I had him under observation his condition became steadily worse. The pains in the head were paroxysmal—chiefly at night, and at the onset of each severe period of pain the temperature rose from normal to 103-4°. The pain was unrelieved by ordinary drugs. Morphine alone gave him ease. The stiffness of the neck—a marked feature in the case—increased. He was perfectly rational during the day, but his wife stated that at night he was rambling. The blood gave no Widal reaction. There was never at any time any eruption, nor were there any spots, haemorrhagic or otherwise, upon his skin.

It became clear that the case was either one of cerebral abscess or meningitis. There were no localizing symptoms, and as the case seemed to present unusual features, and to be one of possibly an infective type, I took him up to King's College Hospital where he was admitted and where the diplococcus intracellularis was found to exist in the meningeal fluid.

Richmond. J. R. Johnson.

*** The later history of this case was published in an annotation in our issue for April 22nd, at p. 899.

The following is a report of three cases which occurred in my practice in the country near Banbridge, co. Down, twelve months ago, and which I regarded at the time as cerebro-spinal meningitis:

1. The first patient was a girl, aged 9 years. She had been ill for five days with headache and pains in the back, but she had not been in bed before I saw her. She cried frequently, was dull and listless, slow to answer questions, and had marked photophobia. Temperature 102°, pulse 100. Examination of the chest and abdomen revealed nothing abnormal except a slight petechial rash over the skin; the spots were small, distinctly haemorrhagic, and unlike any of the ordinary exanthemata. The tongue was slightly coated, the throat inflamed; no diarrhoea existed. She was placed in bed in a darkened room, with ice applied to her head. Four hours later I got a telegram saying she was dying, which proved to be true. She had had a series of very severe convulsions, her temperature ran up to 106 4°, and she died half an hour after I arrived. I was painfully surprised at this abrupt termination, but I did not suspect then that the case was anything but a meningitis of one of the usual types.

2. Nine days later in the same house I saw a boy, aged 14, a brother of the first patient. He had been ill for two days, and his symptoms were almost identical with those of his sister when I first saw her. Continuous pain, mental torpor, photophobia, and petechial rash were all present. He also

had an inflamed throat, and his temperature was 102° F. The following day he was worse, there was well-marked retraction of the neck and spine, and Koenig's sign was present; later on there were spasms of the muscles but no convulsions, also hyperaesthesia over spine with increasing pain and difficulty in extending the legs. It seemed a typical case of cerebro-spinal meningitis, and to confirm this belief I prepared to perform lumbar puncture so as to have the cerebro-spinal fluid examined for the diplococcus. In this, however, I unfortunately failed, for on inserting the needle, owing to the violent struggles of the boy and the sympathy of his father, I was compelled to desist, to my lasting regret. This was on the fifth day of his illness; about the seventh the symptoms began gradually to subside, and he was convalescent in a fortnight. He was placed on no special treatment beyond rest and isolation in a darkened room, ice-cap, bromides, and antipyrine. The rash gradually disappeared during recovery after the other symptoms subsided.

3. During the convalescence of the last patient his sister, a girl of 18, fell ill in exactly the same way. She developed all the symptoms enumerated above, including the petechial rash, but they were less severe, and convalescence set in about the tenth day. Both these last two cases were quite well within three weeks, and no other similar cases occurred in the house or neighbourhood.

Do the above history and symptoms justify a diagnosis of cerebro-spinal meningitis in the absence of an epidemic, and if so in what way can such a sporadic outbreak be explained? There was an epidemic in Dublin five years ago, and this I was fortunate enough to witness, but subsequently I neither saw nor heard of any cases in Ireland until these three occurred in such a curious and to me inexplicable manner.

Glasgow. J. HOPE REFORD, M.D., R.U.I.

PROTECTIVE VALUE OF VACCINATION.

THE following interesting case, which recently occurred in this town, illustrates the protective value of vaccination very strongly. On March 22nd I was called in to see a young girl, aged 15, who is employed as a hosiery hand. She presented a well-marked pustular eruption all over the body, but the associated constitutional symptoms were far from severe. She was removed as soon as possible to the small-pox hospital some distance away. She had never been vaccinated. The remaining members of the family, consisting of father, mother, and five children, were kept isolated in their own house. All these again had never been vaccinated, so I most strongly urged them as to the advisability of immediate vaccination. They all consented, with the exception of the mother and eldest daughter, who absolutely refused to take advantage of the protection thus offered them (an instance of ignorant obstinacy which is very prevalent in Leicestershire).

The cases which were vaccinated reacted well to the lymph, each insertion being followed by well-marked reaction. Fourteen days later the two unvaccinated persons exhibited unmistakable signs of small-pox, and of a far more severe type than the original case. These again were promptly dispatched to the isolation hospital, while the remaining members—namely, the vaccinated ones—are well, and show no signs of the disease; and this in spite of the fact that all the family during the period of incubation, had been living in a small house, and in close intercourse with the patients.

E. LYNN-JENKINS, M.B., B.S., M.R.C.S., L.R.C.P.,
Medical Officer to the Isolation Hospital, Hinckley and District.

HETEROCHROMIA IRIDIS.

THE following notes may be of interest in connexion with a case of heterophthalmos recorded in a recent number of the BRITISH MEDICAL JOURNAL. When administering an anaesthetic to a labourer, 24 years of age, under treatment for a septic bursa of the elbow, I discovered that his left iris was of two colours. The upper and inner quadrant (if one may use the term) was of a brown colour, while the rest of the iris was blue. An interesting point was that the two colours stood out, so to speak, in bold relief—the one did not fade into the other. It looked as if a distinct line had been drawn separating the two. The iris of the right eye was brown.

On questioning the patient later on it was ascertained that although he was aware of the condition, he did not think anything about it, as no trouble resulted and his sight was in no way affected. The pupils were regular and responded equally well to the light and accommodation tests. The patient did not know of a similar condition in any of his relatives, nor could he give any particulars as to the colour of his parents' eyes. No ophthalmoscopic examination was made.

The condition does not seem to cause any inconvenience, and, according to Berry, the percentage of people with this condition is infinitesimal.

Ayr. JOHN ALLAN, M.B., Ch.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WADSLEY ASYLUM, SHEFFIELD.

NOTES OF A CASE OF BILIARY CALCULI IN THE PERITONEUM.

(Reported by DANIEL GILLESPIE, M.B., B.Ch., Assistant Medical Officer.)

THE patient to whom the following notes relate was admitted to this institution in the year 1889, suffering from mania with epilepsy.

His fits were always preceded by active visual and articulate auditory hallucinations, and followed by longer or shorter periods of excitement, during which he was often extremely restless. In the spring of 1898 he had icterus, and was confined to bed, complaining of pain in the hepatic region. On examination the liver was at that time slightly enlarged. He had always a habit of rubbing his abdomen, although he never complained of pain except in the one instance just mentioned. The following figures show how the succession of fits which caused his death was distributed:

Date.	Fits During the Day.	Fits at Night.	Total.
1905.			
January 17th	—	1	1
January 18th	10	1	11
January 19th	17	30	47
January 20th*	—	—	9
			68

*Died in ninth fit about 10 a.m., despite active treatment.

Post-mortem Notes.—The pia arachnoid was thickened, and showed milky lines along the smaller vessels; it stripped readily from the cortex cerebri, leaving no erosions, and the blood vessels which ran in this membrane were distended with blood. The whole brain was found to be much congested, and the convolutions were atrophied with a compensatory increase of arachnoid fluid. Basal vessels were thickened.

The organs in the thorax showed the characteristic appearances of death during an epileptic fit.

On opening the abdominal cavity, one or two small brownish calculi were observed to stud the peritoneum of the gut. It was found on careful examination that in places—for example, the renal surface of the spleen and recto-vesical pouch—they were aggregated into masses. All the calculi were firmly attached to the peritoneum, evidently as the result of an irritative inflammation. They were facetted more or less, and in size varied from a millet seed to a large pea. There were no adhesions between the coils of the intestines, and no fluid was present in the peritoneal cavity.

Liver.—There was evidence of a perihepatitis in the neighbourhood of the fundus of the gall bladder, also at the inferior part of the posterior surface of the right lobe just where the diaphragm passes into the right crus. Thirty or forty calculi were fixed to the diaphragm close to this spot. On section the liver showed venous congestion, and in places fatty accumulation. The gall bladder was packed with small calculi. At the anterior half of the fossa vesicae felleae was an old-standing perihepatitis, which was probably due to a rupture of the gall bladder at the left superior aspect of the fundus, as the wall at this spot was only formed by the thickened peritoneum, and an edge could be felt distinctly to correspond in the wall of the gall bladder. The ducts were thickened but pervious. Chemical examination of the stones proved they were biliary calculi.

REMARKS.—The patient gave no indications of the condition present in his abdominal cavity, which was only discovered on the *post-mortem* table. It would be difficult to say whether his peculiar habit of rubbing the abdomen was due to discomfort and pain or was the result of his mental condition, as he was a most deluded man. The contents of the gall bladder in this case were sterile, and it is probable that only the calculi with a little mucus were extruded, since the peritoneum

on the intestines had its natural gloss, and I feel confident that if bile in any quantity had been poured out, there would have been extensive adhesions as the result of its irritating property.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session was held at Bath on April 26th, Mr. R. J. H. SCOTT, President, in the chair. Mr. J. R. BENSON read some practical notes on skin grafting, and comments were made upon them by Dr. E. MARKHAM SKERRITT and Mr. BEATH.—Mr. R. LLEWELLYN JONES related some cases of joint swelling simulating gout and rheumatism; and other cases were recorded by Dr. WILSON SMITH, Dr. NEWMAN NEILD, Mr. C. E. S. FLEMMING, Dr. PARKER, Dr. KENNETH WILLS, and Dr. NORBURN.—Mr. C. E. S. FLEMMING read a paper on lumbago, and in the discussion which followed the PRESIDENT, Dr. LLEWELLYN JONES, Dr. MARKHAM SKERRITT, Mr. BLOXAM, Mr. BEATH, Dr. WILLS, and Dr. PARKER took part.—Dr. LLEWELLYN JONES showed a case of asteriognosis, and Dr. NEILD and Mr. BEAUMONT commented upon it.—Mr. W. M. BEAUMONT showed a case of essential shrinking of the conjunctiva; also a case of general tremor, with eye symptoms, following influenza.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

CLINICAL EVENING.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, April 28th, 1905.

CONGENITAL DISLOCATION OF HIP.

MR. JACKSON CLARKE exhibited two cases reduced, in August 1903, by the method of Lorenz, together with skiagraphs. The girls were aged 7 and 8 respectively. Each patient now walked well.

Mr. OPENSHAW doubted if in these or in the majority of such cases the head of the femur was replaced in the acetabulum. Nevertheless movement of the joint was restored, so that it was functionally, though not anatomically, perfect. The shortening of the limb was probably due to shortening of its bones from its prolonged disuse.

Mr. JACKSON CLARKE thought the actual anatomical condition was unimportant if perfect function was restored. The age of 3 or 4 years was the best for treatment by this method.

DILATATION OF LARGE INTESTINE.

Dr. MORLEY FLETCHER and Mr. BETHAM ROBINSON showed a boy, aged 12, whose colon, from the hepatic flexure to the rectum, at the pelvic floor, had been enormously distended with faeces in November, 1904, when laparotomy was performed, and the circumference of the upper part of the rectum found to be 19¾ in. Many pounds of soft, dark faeces were forced by manipulation per anum until the bowel was emptied. The abdomen was then closed. The result had been satisfactory.

Dr. PORTER PARKINSON thought it likely that distension might recur. Was the distension the only morbid condition present? There were dilated veins at the upper part of the abdomen.

Mr. DOUGLAS DREW had recently operated upon a similar case, in which the distension involved also the small intestine.

Mr. MAKINS also described cases in which operations had been performed. Want of power on the part of the intestinal muscular coat gave rise to the condition. Anastomosis of the sigmoid loop had cured one case in his experience.

A MEMBER had opened the small intestine at its lower end, and cured a patient by letting the faecal matter escape externally before it passed into the colon.

Mr. ROBINSON, in reply, said that no other morbid condition was present. If recurrence took place he would open the caecum and wash out the colon.

SWELLING OF LEFT HAND AND WRIST (LYMPHANGITIS?).

Drs. FAWCETT and HERTZ showed a girl, aged 17, who had had this condition for four months. Elevation of the limb reduced the swelling, which was painless, and pitted slightly on pressure. The pulse was of good volume. Skiagraphs showed that the bones of the affected hand were more transparent than those of the opposite side.

SCLERODACTYLIA WITH VASOMOTOR PHENOMENA.

Dr. FAWCETT also showed a soldier, aged 21, whose hands for a year past had become cold and bluish-white. All treatments had proved unsuccessful.

KAPOSI'S DISEASE.

Dr. FAWCETT showed a girl, aged 16, with freckles since the age of 2½ years. A granulomatous patch had existed on the nose for four months, and had been growing until it was treated by the application of *x* rays, since when it had diminished. There was no history of the disease in any other member of the family.

TUMOUR OF TONGUE.

Mr. J. LUNN exhibited a girl, aged 12, with scars about the mouth and past keratitis, who had two swellings in the dorsum of the tongue on the right side, which were indurated, but without nodules. The cervical glands of the same side were enlarged.

Mr. W. G. SPENCER thought the condition was one of lymphangioma, and would probably go on to macroglossia. He advised operation if further growth occurred.

UNUNITED FRACTURE OF TIBIA AND FIBULA.

Mr. C. SYMONDS showed a man, aged 40, upon whom he had already done two operations for this condition. The first corrected the deformity, but there was no union of the fracture. At the second operation the fibrous material covering the ends of the bones at the site of fracture was cut away, and the bones wired together, but six weeks later there was still free movement. Now for four or five months a walking apparatus, which kept the fracture fixed, had been fitted, and there had been progress towards union.

Mr. OPENSHAW remarked that the bone was still ununited. The splint used was most efficacious. He employed it in recent fractures of femur, or tibia and fibula, and the patients could soon walk, as the weight of the body passed to the ground through the splint from the lower end of the pelvis without passing through the fractured bones.

FIBROUS MASSES IN THE CORPORA CAVERNOSA.

Mr. CHARLES GIBBS showed a male, aged 48, with this condition, which had first occurred during coïtus, and had produced cordee and impotency, and had rendered erection partial and painful.

Mr. CAMPBELL WILLIAMS thought the condition was due to haemorrhage.

Mr. GIBBS replied, and stated reasons which led him to conclude that the masses were not caused by extravasation.

ABNORMALITY OF LEFT TESTIS.

Mr. W. G. SPENCER showed a male, aged 21, who had never felt either in scrotum or groin a testis like the right one. A soft mass hung down in the left scrotum, which was drawn up when he coughed.

Mr. H. L. MCGAVIN thought the condition was one of hernia above an atrophic testicle.

Mr. SPENCER did not propose to operate on the case.

ABSENCE OF ABDOMINAL MUSCLES.

Dr. C. BOLTON exhibited a male infant, aged 3 weeks, who had absence of the lateral muscles of the abdomen, with enlarged bladder, and distended coils at the sides of the abdomen, which were probably distended ureters, not coils of intestine. The child also had a linear scar-like umbilicus and undescended testicles, as noted by Dr. Garrod in other cases of the kind.

OTHER EXHIBITS.

Dr. A. M. GOSSAGE: Stokes-Adams disease; Mr. DOUGLAS DREW: Tuberculosis of parotid salivary gland; Dr. T. D. SAVILL: Traumatic stricture of oesophagus relieved by electricity; Mr. CRISP ENGLISH: Traumatic cephalhydrocele.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on April 27th, Dr. JAMES BARR, President, in the chair, the following were among the proceedings: Dr. A. GORDON GULLAN read a

note on a case of hydatid cyst of the lung. The patient, a woman aged 38, was admitted to hospital in June, 1903. She was then very thin, weighing only 7 st.; the right lung showed signs of consolidation from the fourth rib to its base, and there was a large cavity in the upper part. She expectorated hydatid cysts varying in size from that of a pea to that of a walnut. The sputum on other occasions was mucopurulent. She was given an expectorant mixture, formalin inhalations, and intratracheal injections consisting of menthol 10 per cent., guaiacol 2 per cent., olive oil 88 per cent., 1 to 2 drachms being injected daily. No hydatids were expelled after July 20th, and the patient made a satisfactory recovery, having since gained 2 st. 10 lb. in weight. Mr. COLIN CAMPBELL could hardly believe that injections of such small quantities of oily solutions could produce much eliminative effect; it would simply float on the contents of the cavity. In the treatment of tuberculous cavities in the lungs he had for years employed heavy glycerine solutions; these, by displacing muco-purulent secretions, brought antiseptic drugs into direct contact with the diseased tissues.—Dr. HUBERT ARMSTRONG read a note on second dentition and its medical aspects. He pointed to rickets, cretinism, syphilis, the exanthemata, and other acute febrile diseases, adenoids, thumb-sucking, etc., as causes of faulty dentition, and to ulcerative stomatitis, anaemia, and dyspepsia as among conditions set up by faulty dentition in its turn. It also had some influence on the character of various neuroses, etc.—Dr. W. BLAIR BELL read a note on the surgical treatment of chronic constipation. He did not consider that ileo-sigmoidostomy was a suitable operation for dilated conditions of the big bowel, owing to "backing up" which occurred. He thought caecoplication or excision of the dilated portion of the caecum more rational. Ileo-sigmoidostomy, however, was valuable in those cases in which the big bowel was contracted, and he related a case of this kind in which he had performed this operation with satisfactory results. He was convinced that no one operation, however, could ever be successful in all cases of intractable constipation.—Mr. RUSHTON PARKER showed models of an old Roman catheter, a rectum dilator, and an unguent injector.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 18th, Mr. ALTHORP (President) in the chair, Dr. MITCHELL read notes on a case of cutaneous anthrax treated without excision with Sclavo's antianthrax serum. The case was one eminently suitable for a trial of the serum, the pustule being on the upper eyelid, where excision was practically impossible. No reaction was noticed after injection; the swelling increased rather than decreased; sloughing was not prevented; the tissues down to the cartilage of the eyelid sloughed, and the patient was left with an extreme condition of ectropion; otherwise recovery was good.—Dr. SCHOFIELD read notes of a case of anthrax on the wrist, where the pustule was not excised. Sclavo's serum had apparently no effect, and the patient died. Mr. ALTHORP urged strongly that the old method of excision should be carried out whenever possible. Dr. J. H. BELL said he had more confidence in the serum treatment than in any other, especially in cutaneous anthrax; 40 c.cm. should be injected to begin with, and repeated in twelve hours. Internal anthrax was not so common now in Bradford as it used to be. The diagnosis of this variety was very difficult, there being no positive sign till the disease was fairly advanced. The bacilli did not appear in the blood till very late, and were best found by cultivation. Mr. HORROCKS quoted cases of cutaneous anthrax which had recovered without any treatment beyond that of fomentation, and asked whether it was not possible that the cases which had recovered with serum treatment might also have recovered without. Dr. CAMPBELL quoted a case in which anthrax bacilli were found in the sputum of a case of bronchiectasis; recovery was complete. Possibly anthrax in Italy was of a milder form than in England. Drs. SCHOFIELD and MITCHELL then replied.—Mr. HORROCKS read a paper on the advantages and disadvantages of some of the substances commonly used as sutures in surgery. He laid down as essentials in a suture material that it should be sterile; bear a strain without breaking; last till the union took place; and not cause mechanical irritation. He was strongly in favour of catgut prepared in xylol after the method employed by Mr. Mayo Robson. Dr. RABAGLIATI had not found the xylol gut reliable, and preferred it carbolized. Dr. WOOD believed that the material was of very little moment provided it was sterile.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting on April 19th, Dr. BOWEN DAVIES (Llandrindod Wells), President, in the chair, Dr. MCCLURE read a paper on the climatology of the Sahara, the characteristics of desert climates, and the physical and psychical effects of life in such places. Dr. SYMES THOMPSON thought that desert air, by promoting evaporation, metabolism, and elimination, was of proved value in many rheumatic and gouty affections, and especially in syphilis and in renal disease. Dr. THEODORE WILLIAMS considered these climates had a most exhilarating influence on the nervous system and stimulated the processes of secretion and metabolism. They were useful for patients suffering from chronic rheumatism, chronic bronchitis, asthma, and in cases of limited tuberculous cavity. He wished the climate of the Egyptian desert could be rendered available for patients of moderate means. Dr. LEONARD WILLIAMS said the climate of the desert appeared to be a superlative form of bracing climate. This might be useful in many conditions; but its indiscriminate employment for therapeutic purposes was much to be deprecated. There were a great many conditions, notably chronic bronchitis and chronic nephritis, which were not only not benefited by bracing climates but very definitely the reverse. Mr. WILLIAM ARMSTRONG (Buxton) said that while practising in Egypt during the past winter he had paid special attention to the therapeutic possibilities of the desert. Cases of rheumatism, rheumatoid arthritis, neuritis, and atonic gout did excellently, early phthisis fairly well, kidney trouble very well indeed. Dr. HARRY CAMPBELL believed that it would ultimately be found that the good effect produced by change of climate was brought about essentially through the nervous system. Dr. ROBERT FELKIN remarked that camping in the desert would do great good to those who were worried and overworked or who had early mental trouble. It should not be too long, however, as depression might follow the exciting and stimulating effect of desert life. Dr. LEON (Southsea) agreed with Dr. McClure's statements as to the exhilarating effect of the Sahara air. The water was extremely hard—in fact, brackish—owing to the large amount of sodium chloride and lime salts. This, combined with the keen air, played havoc with ladies' complexions, and made washing and toilet operations unpleasant. Cases suitable for Biskra, especially tuberculous cases, must be carefully selected. The life was distinctly monotonous, and, after a time, rather depressing. Dr. PERCY LEWIS (Folkestone) welcomed the allusion in the paper to the use of mental therapeutics in corporeal disease. In his opinion such treatment would in the near future revolutionize the methods at present in use both in medicine and surgery.

BRITISH GYNAECOLOGICAL SOCIETY.—At a meeting on April 13th, Dr. WILLIAM ALEXANDER, President, in the chair, Professor C. JACOBS (Brussels) read a paper on surgical intervention in cancer of the cervix uteri. To do any good operations must be prompt, early, and extensive. In 13 cases of supravaginal amputation, 12 showed recurrence within one year and 1 in fifteen months after operation. In 81 cases of vaginal hysterectomy there was an immediate mortality of 1.2 per cent., and in four years not one patient was alive. In 95 cases of abdominal hysterectomy there was an immediate mortality of 6.3 per cent., and recurrence took place within six years in the remainder. The results appeared to prove either that cure was usually impossible or that our operations were imperfect. The fact that cancer of the cervix was primarily a local infection propagated by lymphatics induced the author to advocate abdominal hysterectomy. Reports were given of 5 inoperable cases which improved sufficiently to permit of intervention after injections of Doyen's antineoplasic serum.—Professor TAYLOR agreed that it was not possible at present to judge of the value of the serum mentioned.—Mr. F. BOWREMAN JESSETT preferred the vaginal operation. If the sacral or lumbar glands were involved it made little difference which method was adopted.—Dr. THOMAS WILSON considered the results of extensive abdominal operations were certainly no better than those by the vaginal method.—Dr. F. J. MCCANN opposed the extensive operations now practised. The supravaginal method still had a place in treatment. In his own practice he removed considerable portions of the anterior and posterior walls of the vagina with the cervix.—Dr. GILES believed that from a theoretical view the abdominal route was to be preferred, but while operative results remained as at present many would choose the vaginal method.—Professor JACOBS replied.

REVIEWS.

THE HISTORY OF THE SOCIETY OF APOTHECARIES OF LONDON.

THE Society of Apothecaries has been well served by its historians. The memoirs of the Chelsea Physic Garden were written some years ago by Mr. Henry Field, and were continued by Dr. Semple. A few years later Dr. Corfe published his interesting pamphlet upon the apothecary. Mr. BARRETT now issues his *History of the Society of Apothecaries of London*,[1] which perhaps would have been better called the Annals or the Chronicles. It consists of an abstract of the minute books, which, as he says, it is gratifying to find in an absolutely perfect state. Unfortunately, however, there is a marked absence in these minute books of any information with regard to the important political or social events, and there is consequently room for another volume dealing with the Apothecaries' Society from without.

The Society began on April 9th, 1606, when it received a charter of incorporation from James I, which united it with the Grocers' Company. On December 6th, 1617, the Apothecaries were given an independent existence by a charter which designated them the Master, Wardens and Society of the Art and Mystery of the Apothecaries of the City of London. The business was to buy, sell and prepare pure drugs, and this business brought them into direct antagonism with the Grocers, their former allies, and afterwards with the Vintners' and Distillers' Companies. The earlier years of the Society were passed in constant strife, which ended satisfactorily for the Apothecaries, who emerged as a small but united body with a well-defined position amongst the City companies. When the early disputes had been settled the Society aroused the enmity of the College of Physicians by venturing to prescribe as well as to dispense medicines. Then ensued the war of the dispensaries, which was brought to a close after the publication in 1697 of Garth's burlesque epic, *The Dispensary*. The outcome of the battle was to leave the Apothecaries the right to prescribe as well as to dispense medicines. They became the general practitioners, and obtained the power of making or marring a physician. During the early years of the eighteenth century the Apothecaries' energies were concentrated upon the creation and management of the Navy Stock, which gave the Society the privilege of serving the fleet with medicines. The surgeons in Her Majesty's service were obliged to purchase their drugs and medicines from the Apothecaries' Hall, and the mixing of all stock drugs for the navy was actually viewed by the Master and Wardens of the Society. Money had to be borrowed to meet the cost of buying the large quantity of drugs which it was necessary to obtain, and a "Navy Stock" was established, the shares being issued to members of the Society. This stock paid a good dividend for many years, but it was finally dissolved in 1880. A knowledge of simples was very necessary to the Apothecaries, and a sound knowledge of botany was therefore an important part of their training. We read as early as 1627 that the meeting place appointed for a simpling was to be "at Graies Inne in Holborne at five o'clock in the morning." These herborizings soon became a feature of the Society's work, and even until the middle of the last century the professor of botany would go long expeditions with the apprentices to gather and name the various plants, the excursions ending with a dinner in some country alehouse. The numerous gardens in the neighbourhood of Blackfriars were sufficient at first for the teaching of economic botany, but as these disappeared the Society had to look for other places of instruction. To this end the Physic Garden in Chelsea was rented in 1673; in 1731 Sir Hans Sloane gave the ground to the Society for ever, and to this day it remains an important means of teaching botany to students in London. In the early part of the last century the Society of Apothecaries were sufficiently far-seeing and public-spirited to undertake the examination of general practitioners, and for many years the licence of the Society of Apothecaries was looked upon as the most popular means of entering the medical profession. But it has of late years been of less importance since the Royal College of Physicians and the Royal College of Surgeons have instituted a combined examination.

Mr. Barrett's history tells much that is valuable to a student of civic life in London during the eighteenth and nineteenth centuries, though there is, of course, little that is new. The City companies ran very much along the same lines, and the Society of Apothecaries does not differ materially from the other minor companies. Mr. Barrett has illustrated his book with numerous sketches in black and white. The cuts include architectural features, the contents of the Hall, many objects of interest in the buildings at Blackfriars, and views of various picturesque nooks and corners. There is a good index, and the work is well printed. The English, however, is slipshod throughout, and this rather spoils the pleasure of reading it. Here and there a few slips may be noted—for example, the Surgeons' Company is referred to instead of the Barber-Surgeons, for the separation did not take place until 1745, and there was no Royal College of Surgeons until 1822.

[1] *The History of the Society of Apothecaries of London.* By C. R. B. Barrett, M.A. London: Elliot Stock. 1905. (Demy 4to, pp. 349. 21s. net.)

HANDBOOKS OF DIAGNOSIS.

IT is somewhat unfortunate that Dr. L. N. BOSTON should have chosen *Clinical Diagnosis*[2] as a descriptive title of his volume, for by so doing he somewhat misleads the inquirer after new laboratory methods who might quite readily overlook this book. He has really written a volume on special methods of investigation in the clinical laboratory, not a guide to true bedside diagnosis. There is, however, little need to quarrel with the title of the book, for it soon becomes obvious that the author has provided a very complete account of the special methods used in the examination of the blood, the urine, gastric contents, faeces, sputum, and of various secretions, exudates, etc. The methods advocated are for the most part those generally accepted, but a special feature of the volume is the copious illustrations, by means of which an inquirer would readily be able to discover the nature of the various microscopic objects met with in disease. Useful passages are inserted describing the clinical significance of the various pathological findings, and admirable accounts are given of the Widal-Grünbaum reaction in typhoid fever and of the parasites of the blood and faeces. A neat method developed by the author is described, whereby the proteids of the urine are demonstrated in a pipette by admitting nitric acid beneath a quantity of urine already present in the pipette. The paragraphs dealing with emulsion-albuminuria give the impression that the author does not consider this condition due to certain forms of albumose, and he makes the curious statement that the milkiness of such urine is due to minute globules of fat; yet fat cannot be extracted with ether, nor can an osmic acid effect be secured. The condition is well known not to be due to fat, and is met with in some cases of granular kidney. While giving Dr. Boston the fullest credit for having compiled a useful textbook on laboratory methods, we cannot refrain from criticizing the introduction into a textbook of various methods of investigation which so far have been but little tried, and of various discoveries which so far have not been shown to have any clinical value; we refer more especially to the sections on invasion of the red marrow by bacteria, serum-diagnosis, electrical conductivity of the urine, and the paragraph dealing with urein in which the author states that in 50 c.cm. of urine nearly 2 oz. (!) of liquid urein are claimed to exist. In a future edition he will do well to expunge many of the merely theoretical observations which have not been found to have any value in clinical diagnosis; there will then be left much which is most useful, and which will save the reader much searching in more technical monographs on laboratory methods.

We had an opportunity of expressing our appreciation of the second edition of an index of symptoms as a clue to diagnosis[3] by Dr. LEFTWICH, and with the addition of another 116 pages in the third edition feel that we are presented with a still more useful guide to various conditions. He suggests to the reader that he should enumerate for himself the various causes of enlargement of the spleen and compare the text with that on page 329. We have done so, and found that we have not given such a number as Dr. Leftwich has, probably because he, like most authors, cannot bring himself in new editions to resort to the pruning knife; possible as it is to find the spleen enlarged in acromegaly and pernicious anaemia, such diseases are hardly to be considered maladies of which splenic enlargement is a feature. Rigors in typhoid fever should be referred to as well as the occurrence of herpes in the same malady. Osler records 29 instances in a series of 829 cases of enteric fever.

[2] *A Textbook of Clinical Diagnosis.* By L. Napoleon Boston, A.M., M.D. London: W. B. Saunders and Co. 1904. (Demy 8vo, pp. 549, 320 illustrations. 18s.)

[3] *An Index of Symptoms as a Clue to Diagnosis.* By Ralph Winnington Leftwich, M.D. Third edition. London: Smith, Elder, and Co. 1904. Crown 8vo, pp. 400. 6s.)

GASTRO INTESTINAL DISEASES.

THE large work by Dr. BOARDMAN REED of Philadelphia on *Diseases of the Stomach and Intestines*[4] hardly needs a correspondingly long notice, for, although the volume, including the index, extends to over a thousand pages, it has been made up largely from standard authorities whose books are well known in this country.

The drawings are chiefly borrowed from the works of Sidney Martin and Ewald, or from the catalogues of instrument makers, and in the few cases in which they are original little can be said in their favour—for example, the microphotographs on pp. 508-9, 527, and the drawings on pages 613 and 939.

Much of its bulk is also due to the inclusion of matter which is usually treated briefly in a work of this kind or left out altogether. For example, sixty-five pages are devoted to anatomical and physiological details, while chapters are given on diseases of the rectum and anus, with their surgical treatment; the animal parasites of the intestine, including tape-worms, and acute infectious diseases, such as diarrhoea and dysentery. We might congratulate the reader on being spared cholera and enteric fever.

The description the author gives of his method of examination is most elaborate, a whole lecture being devoted to the interrogation of the patient. Most readers will agree that the suggestions he makes on pp. 71-2 as to sexual matters are not required in the examination of the stomach in this country. The author quotes (page 83) a Dr. John P. Arnold for a novel objective sign:

> The peculiarity described by him is in such cases a somewhat doughy and in chronic cases a gristly, tense, cord-like feeling of the band of longitudinal muscular fibres which run *(sic)* up and down on either side of the spine. This abnormality is supposed by Arnold to be due to a congested or infiltrated condition of the muscle, while the cord itself is anaemic probably in chronic cases. Hammond believed the spinal cord to be anaemic in such cases. The findings obtained by a careful palpation over the spine should thus assist in directing our attention to the organ or part of the body which may be suspected of being diseased.

Lower down we are told that:

> If there is sensitiveness to pressure near the lower dorsal vertebrae you should suspect some disease of the stomach or possibly in the small intestines, but it might signify disease in the liver or pancreas either alone or in conjunction with an involvement of the stomach and small intestines, since the vaso-constrictors which supply all of these organs are found in the same spinal nerves from the fifth dorsal to the second lumbar.

So that, after all, the precise indication is not very clear.

The author is not clear as to the value of stomach washing, but it is evident that he is not such an ardent advocate of it as some of his German trained fellow-countrymen were a few years ago. It is singular how seldom it is really needed, and probably the cases in which it has proved in the past of most value are those which may be best cured by gastro-enterostomy. The style of Dr. Reed's therapeutics is shown by his preference for the administration of "cuprum arsenite" in doses of from $\frac{1}{500}$ to $\frac{1}{1000}$ of a grain!

On more important questions we find him wanting. The diagnostic signs of dilatation are not clearly described, nor the differential diagnosis of atonic and obstructive dilatation made plain, while undue reliance is placed upon the uncertain sign of splashing. Surgical methods are not discussed, although there is a special chapter on the surgery of the stomach and intestines at the end of the book which in a very inadequate manner mentions the principal operations now undertaken for the relief of stomach conditions.

Possibly Dr. Reed does not claim to be an authority upon pathology, at any rate his illustrations of pathological conditions are generally borrowed, and his descriptions under this head are meagre. The remarks on treatment are perhaps the parts of the book for which he would chiefly claim credit; they are certainly varied, including such brilliant suggestions as the treatment of tuberculous ulcer of the stomach by the injection of Koch's tuberculin, and cancer of the stomach by *x* rays and radium; he delights in mechanical appliances, but he nowhere shows an intelligent appreciation of the indications for surgical treatment.

It is scarcely worth while to pursue this course of criticism through the second part of the book, which is devoted to diseases of the intestines, but we may note the absence of any reference to the value of blood counting in the diagnosis of appendicular abscess, and an extraordinary claim of the author's to treat Bright's disease successfully by "secondary static currents"!

[4] *Lectures on Diseases of the Stomach and Intestines, for Practitioners and Students.* By Boardman Reed, M.D. Bristol: John Wright and Co.: and London: Simpkin, Marshall, Hamilton, Kent, and Co. 1905. (Demy 8vo, pp. 1021, 112 illustrations. 21s.)

PLAGUE AND THE GEOGRAPHICAL DISTRIBUTION OF RATS.

By BRUCE SKINNER,
Lieutenant-Colonel R.A.M.C.

CERTAIN facts connected with the geographical distribution of rats appear to me to be of interest in relation to the distribution of plague, and I write in the hope that some of your readers may, even if they disagree with the suggestions offered, throw some light on the points dealt with below.

Although the history of plague epidemics is familiar to most, it will perhaps be advisable to first sketch the leading points in order that their relation to the distribution of a species of rat may be made more graphic.

The following localities have been marked off as "endemic areas" of plague.[1]

1. The district of Assyr in Arabia, on the eastern shore of the Red Sea;
2. Parts of Mesopotamia and Persia;
3. The district of Garhwhal and Kumaon, in the North-West Provinces of India;
4. Yunnan in China:
5. East and Central Africa.

In former times the ravages of plague in Europe were devastating in their effects. Towards the close of the seventeenth century the epidemics on this continent gradually ceased, the cessation occurring first on the western side and working eastwards, the following being the dates of the last epidemics in the countries named:

Netherlands, 1672.	France, 1722.
England, 1679.	Sicily, 1743.
Spain, 1681.	North Russia, 1770.
Scandinavia, 1704.	Hungary and Poland, 1771.
Germany, 1707.	Italy, 1815.
Denmark, 1710.	Turkey, 1841.
Austria, 1713.	

Plague lingered on in South Russia till 1837, recurring on the banks of the Volga in 1879.

From the endemic area plague again gathered way in 1896, and epidemics have since assumed formidable dimensions in China and India, extending to Japan and Formosa, the Sandwich Islands, New Caledonia, Australia, South Africa, Madagascar, Mauritius, Réunion, Egypt, Arabia, Mesopotamia, Persia, European Russia, East and West Africa, Portugal, Glasgow, Vienna, Turkey, Mexico, California, Paraguay, Argentina, Brazil.

It has been chiefly in India and China that rats have been observed to be infected with plague, while this was not found to be the case in the epidemics of the later period occurring in Glasgow and Oporto.

The distribution of rats, as far as I have been able to ascertain, is as follows:

The old English rat (*Mus rattus*), which I will here call the long-tailed rat, is stated to have appeared in Europe in the thirteenth century. It is world-wide in its distribution. This rat may be black, brown, rufous, and even grey in colour. No reliance can, however, be attached to the coloration of rats for specific distinction.

The other species, the brown rat (*Mus decumanus*), is commonly known as the Norway rat—perhaps owing to its having been introduced into England in Norwegian vessels. According to Pallas, who is referred to on this point by both Murray[2] and Lyddeker,[3] the Norway rat came from Asia, crossing the Volga in 1726 after an earthquake. It was recorded in England in 1730 and in France in 1737. The dates probably indicate the period when this rat was present in such numbers as to have become the subject of notice.

In 1775 it appeared in North America, and subsequently in California, Jamaica, Brazil, and at Maldonado on the La Plata. Murray says it does not occur in New Zealand, though Darwin recorded it there.[4] It is not found in Persia and Kandahar (1866). It is known in India, chiefly in the ports. It is unknown in Siberia.

The Norway rat has opportunities of spreading in ships; perhaps it is for this reason that popular natural histories record its distribution as world-wide. But before accepting this inference it would be more satisfactory to have records of its capture in countries distant from Europe, certified by the diagnosis of the species by a competent naturalist. For it has to be borne in mind that the colouring of the long-tailed rat is sometimes much like that of the Norway rat. So much

[1] Shadwell, Dr. A., *Encyclopaedia Britannica*, vol. xxxi, p. 788.
[2] *Geographical Distribution of Mammals*, 1866.
[3] *Royal Natural History*, p. 140.
[4] *Voyage of the Beagle*, 1896 Ed., p. 512.

alike are they, that the Egyptian rat (*M. alexandrinus*) has been mistaken for the last named. This Egyptian brown variety of *M. rattus* extends from North Africa through India to Burmah.

The Norway rat is larger than the long-tailed, and excels it in strength and ferocity. These characters have enabled it to drive the long-tailed rat into an extremely subordinate position in Europe. The Norway rat is usually light brown in colour, and possesses two distinguishing characters—its tail is never longer than its body, and its ears when bent over do not reach further than the margin of the eye. It keeps to the lower parts of buildings,[5] while the long-tailed rat is inclined to ascend to higher regions, and has been known to nest in trees.

It will be obvious, if the Norway rat did not appear in England until 1730, that it had nothing to do with the plague there. It did not appear in France or the Netherlands until after the last plague epidemics in those countries. In fact, the only countries in which it may have been present before the Eastward retrocession are Hungary, Poland, and Russia, presuming Pallas's statement to have been correct.

Mr. Oldfield Thomas, F.R.S., informs me that the ship rat belongs to the long-tailed species. The Norway rat is stated to go on board ships in harbour, but to leave them when they are sailing; he is consequently not found in numbers on ships at sea, where he is present more by accident than design. Dr. Shadwell[6] records that plague-stricken rats have rarely been found on board ships,[7] even though such ships may have been in communication with infected ports. Though plague has evidently been carried to many ports by ships, it has made practically no headway, and in some cases the rats of the ports where plague has been imported have not suffered. For instance, the rats of Oporto (1899) and Glasgow (1900) were not infected during the epidemics at those ports.

The above points appear to me to suggest that the Norway rat may possibly be immune, wholly or partially, to plague, and, further, that he may be the means of keeping down at least one of the causes of dissemination through his successful antagonism to the long-tailed rat. The latter has been almost driven out of places where the Norway rat has gained a footing—certainly in Europe. The Egyptian variety appears to be holding its own, but probably, if encouraged by man, the Norway rat would gain the mastery in places where he is not yet dominant, if repeated reinforcements from the parent stock were imported into such countries until the species was established.

I have ventured to communicate these notes in the hope that some may perhaps think it worth while in the cause of knowledge to work out two points:

1. The presence of *Mus decumanus* within the endemic areas of plague, and whether in large numbers or only occasionally. He was not present in Persia or Kandahar when Murray wrote (1866). It would be a gain to know if he is established in Garhwhal and Kumaon, Yunnan, and East and Central Africa, as the dominant species. The *M. humiliatus* of China is said to be almost identical with *M. decumanus*: is it found in Yunnan?

2. The liability, or otherwise, of *M. decumanus* to plague infection.

This last point can, of course, be investigated without proceeding to a plague area, but apart from laboratory experiments, it would be interesting to know if this Norway rat suffers from plague in an infected area—say, in Bombay. I think the history of the invasion of Europe by this species points to the possibility that he does not.

It at least indicates certainly that he was not the propagator of the historical epidemics, and it points to the probability that by his destruction of the long-tailed species he has been instrumental in saving Europe from the establishment and spread of epidemics carried to our ports by man as well as by rats. It is of course possible that he keeps down sickness in his tribe by his custom of prompt destruction and assimilation of ailing members, thus maintaining a high standard of vitality, the surest guarantee of immunity, in his race.

At least there would appear to be a prima facie case for further investigation on the above lines to elucidate the problem whether the Norway rat prevents the spread of plague by destroying the long-tailed rat varieties who undoubtedly appear to be propagators of the disease, and whose indigenous area corresponds with the endemic areas of plague.

I may mention that the Americans have been enabled to grow fruit on trees that were formerly rendered worthless by a scale insect, by importing and breeding the Chinese variety of the ladybird which feeds on this insect. The case is not on all fours with the above problem, but it is valuable as illustrating how one variety of animal may be useful in dealing with a disease which continues unchecked in the presence of other varieties of the same animal.

I have suggested that the Norway rat may stay the spread of plague by destroying the long-tailed species; it is of course possible that the Norway rat may have a more direct method of dealing with the disease at its source[8]—wherever that may be.

[5] Duncan, *Cassell's Natural History*, p. 108.

[6] Op. cit.

[7] Cases where plague-stricken rats have been found on ships are recorded in the Local Government Board Report on Bubonic Plague, 1902, by Dr. Bruce Low, p. 18.

UNDERFED CHILDREN AT PUBLIC ELEMENTARY SCHOOLS.

THE Local Government Board has issued an Order to Boards of Guardians as to the relief of underfed elementary school children, authorizing the provision of such relief under certain conditions. The Order does not apply to a child who is blind or deaf and dumb.

In a covering circular the Board states that the question has been raised as to the powers and duties of guardians in relation to such children, and the circular proceeds as follows:

Powers and Duties of Guardians.

The guardians and their officers are, of course, only concerned with the relief of destitution, but if a child in any Poor-law union is in fact destitute of necessary food, and application for relief is made to the guardians or the relieving officer by the child or by any responsible person on his behalf, it is the duty of the guardians, and, in a case of sudden or urgent necessity, of the relieving officer, to afford such relief as may be requisite, subject to the regulations issued by the Board or their predecessors with regard to the administration of relief which are in force in the union. And this is so, even although the parent is able to provide the food required, if in fact he fails to provide it.

The Board realize, however, that where the child resides with a parent who is able to supply the requisite food but neglects to do so, the cost of the relief given ought in general, and especially where the neglect is habitual, to be borne by the parent and not to fall on the ratepayers. The object would be secured if the relief was given on loan, and the cost was recovered from the parent. This could not be done in all cases, but in order to meet the object in view as far as possible, the Board have issued a new order called "The Relief (School Children) Order, 1905," dealing with relief to children in public elementary schools. Copies of the Order are enclosed, and for convenience of reference it is also printed as an appendix to this circular.

Effect of Order.

The Order deals with cases where an application is made to the guardians directly or otherwise, or to a relieving officer, by the managers, or by a teacher duly empowered by the managers, of a public elementary school, or by an officer duly empowered by the local education authority, having for its object the allowance of relief to a child under the age of 16, who is in course of attendance at a public elementary school. Such an application is defined as a "special application" by Article I of the Order, but, as will be seen from Article VII, the Order only deals with a special application made where a child to whom it relates is not blind, or deaf and dumb, and resides with his father, and his father is not in receipt of relief other than relief given in accordance with the Order.

Where a special application is made to the guardians, and the case is not one of sudden and urgent necessity, Article II of the Order requires them to take steps to ascertain whether relief to the child is or is not rendered necessary by the habitual neglect of the father to provide adequate food for the child. If the guardians are satisfied that it is, then any relief or the cost price of it given in accordance with the Order must be given or considered as given by way of loan. If, however, the guardians are not satisfied that the relief is rendered necessary by the habitual neglect of the father to provide adequate food, it will be in their discretion to determine whether or not the relief shall be given on loan. In any

[8] See, as bearing on this, Dr. J. Danysz on "A Microbe Pathogenic to Rats (*Mus decumanus* and *Mus Rattus*), etc.," in the BRITISH MEDICAL JOURNAL for April 22nd, 1904, p. 947.

case in which the guardians decide to give relief in accordance with the Order and the relief is given on loan, it will be incumbent on them after making their Order upon the application and before the relief is given, to cause all practicable steps to be taken to notify to the father the fact that the relief will be given or considered as given by way of loan. This will afford the father an opportunity of undertaking to provide without relief all that the circumstances of the case require. If he in fact makes this provision, it will obviously be unnecessary for the relief to be given.

The Article further provides that where the relief is given otherwise than on loan, a notification shall be made to the father before the relief is given, so that in this case also the father may have an opportunity of undertaking to make proper provision for giving food to the child.

In neither case can the guardians allow relief for a longer period than one month, but the application can be renewed if necessary.

The circular advises that where there is evidence of habitual neglect of the father to provide food the guardians should consider whether the case is one in which proceedings could be taken against the father either under the Vagrancy Act, 1824, or the Prevention of Cruelty to Children Act, 1904.

The relief given to the child in pursuance of a special application will be relief to the father and the relief given on loan or the cost price of it can be recovered from the father in the county court.

Cases of Sudden and Urgent Necessity.

Cases of sudden and urgent necessity in which a special application is made to the guardians do not come under Article II, nor do cases of sudden or urgent necessity in which a special application is made to the relieving officer. These are dealt with in Articles III and IV, which provide that the relief shall be given on loan, but that the guardians or the relieving officer shall at the time of making the order or giving the relief, as the case may be, or as soon as possible afterwards, take all practicable steps for notifying to the father the fact that the relief is given by way of loan.

Mode of Giving Relief.

The precise way in which relief should be given to underfed children in consequence of special applications under the Order must obviously, the Local Government Board states, for the most part depend on the local circumstances. It is important that the relief should not be given in money where this can possibly be avoided, and that the arrangements made should be such as to secure to the utmost extent practicable that the child shall himself get the full benefit of the relief ordered. Where the relief is given by the relieving officer on his own responsibility of course it cannot be given in money.

The Local Government Board believes that the guardians will no doubt find it desirable to avail themselves of any charitable organization which exists in the locality for the provision of meals, and to arrange with them for the supply of food to the child on the presentation of a ticket. In other cases an arrangement might be made with some shopkeeper to supply the food on presentation of an order from the relieving officer.

THE TEACHING OF HYGIENE IN SCHOOLS.

THE EDUCATION OF THE TEACHERS.

SOME educationalists—perhaps the majority—maintain that the time to teach hygiene to children is after they leave the elementary school. The idea is that they should then attend evening continuation classes. As we have endeavoured to point out, however excellent these continuation classes may be, 13 or 14 is not the age to begin to learn moral and personal hygiene. Infants of a few months are trained by careful nurses in habits of cleanliness; they are taught to go to sleep without being rocked, and to wait for their next meal without being given a poisonous "comforter" to suck. By the time a child attends the infant class of an elementary school, it is almost too late in some cases to eradicate bad habits, and certainly not too soon to begin to teach good ones. As the task of forming young children is by far the most difficult, teachers with special qualifications should be selected and most carefully trained.

The kindergarten teacher will require the most careful training of all. Thus in time, as the infants get moved up into the higher standards, the ground will be ready for real lessons in hygiene and physiology, which are comparatively easy. The sort of teaching in these subjects at present given in training colleges is pitiably deficient, and is generally carried out, where the subject is taken at all, by lecturers who seem to teach just whatever comes into their own heads without method or solid basis.

It may be plainly stated that, as the teaching of physiology and hygiene is now viewed, there is no one at present qualified to teach them in the training colleges. A course of training in their practical bearing upon everyday life should be part of the training not only of every medical student but of every school teacher and health inspector.

Many of the existing teachers have passed the South Kensington examination, or an examination equivalent to that. This may help them to understand applied hygiene and physiology when there is some one qualified to teach these, but at present the subject has not been begun to be understood by anybody. Any teaching will be rendered useless if inspectors with antiquated ideas discourage and restrict the teachers; for this reason it is necessary that they also should be up-to-date in the subjects. A cast-iron code is issued and the Education Department places absolute power in the hands of its inspectors. What is the consequence? The teacher slavishly sticks to a programme whether he or she personally considers it good, bad, or indifferent, because the inspectors as a rule find it easier to inspect a school carried on in this manner than one where an enlightened teacher with some character modifies the time table to meet the requirements of a particular district or a particular class of children, and introduces teaching above the head of the inspecting officer. An unfavourable report of the school means the loss of the Government grant to the school and ruin to the teacher.

The code for 1904 somewhat relaxed the cast-iron system, and allowed teachers some discretion as to the framing of schemes. But after having their ideas narrowed and their individuality crushed, it is hardly likely that any great initiative would be left; and, besides, old fashioned inspectors still exist. The whole spirit pervading schools is slavish obedience to a time table containing the subjects laid down in the code. Still there are many capable and clever teachers, and in a subject like hygiene it would be best that each school should have a voice in the drawing out of the programme, for the lessons could then be adapted to the different types of children according to the neighbourhood in which the school was situated, and the subject cut out to make room for hygiene be one which would not be a great loss to the scholars. On this point there is at present much disparity of opinion. Some assert that grammar as now taught is useless and deadly; the teachers hate it, and could any child enjoy being set the task of picking nouns, verbs, and other parts of speech out of sentences? Geography is taught in a still more deadly manner: strings of names of places with lists of the things they are famous for; history again never seems to get beyond William the Conqueror, and is one long grounding about the Ancient Britons, the Saxons and the Normans.

Ask the scholars in elementary schools the historical events which have taken place in the reigns of Victoria and Edward VII, and what is going on to-day. They will in all probability know far less about it than about the Druids. Surely there must be some teachers who are human enough to put themselves in the children's place, and see the odious monotony of the present system of teaching. Something must keep them back, for nowhere do we see any signs of broad rational teaching. And if hygiene is going to be taught in the same narrow mechanical way, it will be better to leave it alone, for it is a subject above all others which must be taught on broad lines.

While large sums of money are lavished on schools, at present the essentials seem to be lost sight of; the education of the teachers is too hurried, and not leisurely enough. They qualify as teachers when they are very young, and once they begin teaching they have few opportunities to enlarge their minds and broaden their ideas. They are not specially encouraged to exchange ideas with their head masters or mistresses; indeed, we can imagine those being very much annoyed with an ambitious young assistant wishing to introduce new methods. The school libraries are not stocked with carefully-chosen books and magazines likely to broaden the mind, and soon even the young teacher who arrived full of zeal and enterprise settles down into a narrow groove and continues therein until turned out on account of old age. Although it may appear hard to say it, this question of age is an important factor in education. There exist at present a large number of elderly head teachers who naturally stick on like grim death until they are forced to

retire. Generally their health is broken down, their ideas are old-fashioned; they were trained many years ago, and their ideas are antiquated. These people, quite harmless in themselves, unfortunately hinder the whole school from advancing with the times, and seriously injure the cause of education. Head teachers should be selected for their qualities as leaders, and should be brought into schools for their special qualifications, just as in regiments in the army special officers are brought in from other regiments to command because they are born leaders of men. These leaders of schools should do all they can to broaden the minds of the teachers under them, instead of narrowing them and hampering them by ideas and methods which our civilization has outgrown.

But reform must begin at the top. So long as H.M. Inspector is a person pitchforked into that office because he has taken a good degree and has influential political friends it is hardly reasonable to expect any thoroughly logical broad-based system of education in elementary schools. At present the Government seems to go on the principle that though reading and writing do not come by nature, school inspecting is a gift. It may be now and again we may hit upon an exceptional man like Matthew Arnold, detesting routine, thoroughly imbued with the real meaning of education, and strenuous to make others grasp its meaning. But a man or woman placed in the extremely responsible position of inspector of elementary schools should be specially trained for the post. There is a great deal in the suggestion that this training should be undertaken by the University. Some of them have already shown their readiness to do this very important national work. The churches insist that after taking an ordinary degree the candidate for orders shall receive a special training in his future duties; so does the Bar, so does medicine, so does every other profession. The same principle should be applied to inspectors of elementary schools; they should be required to have gone through a course in pedagogy, including practical work, for at least a year in elementary schools of various types. Undoubtedly teachers who show exceptional ability and initiative should be eligible for promotion to the rank of inspector. They would bring a healthy practical tone into the corps of inspectors in which at present it is lamentably deficient.

INTERNATIONAL ASSOCIATION OF THE MEDICAL PRESS.

MEETING AT BERNE.

AFTER the Congress of the Medical Press held in Paris in 1900, the Conference of Monaco in 1902, the Congress of Madrid, 1903, and the International Committee meeting held in Brussels later in the same year, the Executive Committee of the International Association of the Medical Press was convoked to meet at Berne on April 27th. The President of the International Association, Dr. Carlos M. Cortezo, was unable to attend, having just accepted the appointment of Minister of Public Instruction in the Spanish Government. Dr. Larra y Cerezo, who was General Secretary of the Medical Press Congress held in Madrid, attended instead. The conference was fortunate in securing the presence of the General Secretary of the Fifteenth International Medical Congress, Professor Miguel Bombarda, who represented the Association of the Portuguese Medical Press. The other representatives of national medical press organizations were the General Secretary of the International Association, Dr R. Blondel and Dr. J. Amédée Doléris, delegates of the Association of the French Medical Press, Professor Posner of Berlin, Vice-President of the International Association and representative of the Association of the Medical Press published in German (this comprises not only the German Empire, but the German-speaking portions of Austria). The Italian Association was represented by Professor L. M. Bossi of Genoa; the Belgium Association by Dr. Pechère of Brussels; Switzerland by Professor A. Jaquet; and the Association of the British Medical Press by Mr. Adolphe Smith.

M. RINGIER, Chancellor of the Swiss Confederation, received the delegates, congratulated them on their humanitarian mission, and offered them the use for their deliberations of Committee Room No. 4 in the House of Parliament of the Swiss Republic. Here the Conference sat for two days. The first difficult matter to decide was whether advantage should be taken of the honours and hospitality often offered to members of the press to reduce the difficulty and cost of holding international gatherings. Hospitality from public bodies, or reductions in railway fares seemed generally to be considered as acceptable, but great anxiety was expressed not to do anything that might be interpreted as recommending any particular mineral spring or other industrial enterprise. Finally, the following resolution was unanimously adopted:

"With the object of increasing the importance and authority of the annual meetings of the Committee by augmenting the number of delegates present, the meeting held at Berne in 1905 decides to appeal to the National Associations of the Medical Press urging them to endeavour to defray out of their own budget the travelling expenses of their delegates to these meetings. Pending the completion of such organization the General Secretary of the International Association is at liberty to negotiate with the National Organization of the country where the annual meeting will be held in regard to all facilities for travelling and for the sojourn of the delegates coming from other countries."

After this, the Treasurer, Dr. Pechère of Brussels, was instructed to write for the payment of subscriptions due at the rate of 20 francs in gold for every member of the Executive Committee each nationality has the right to nominate. It was also decided that the first financial year of the International Association dates from January, 1903. Then an address to the Russian medical press, intended to remove a misunderstanding that had arisen, was drawn up and signed by all present.

A very delicate and difficult discussion followed as to the means which could be taken to prevent unworthy journals from joining the International Association. In Spain the Association of the Medical Press has been in existence twenty-three years. Nothing was said throwing any doubt on the honour of its members, but the Spanish Association differs from that of many other countries inasmuch as it admits the journals of other though allied sciences, such as the chemists and the veterinary surgeons. In France, unfortunately, there was, at one time, a great laxity as to admissions, and it would seem as if some undesirable elements then became members of French Association. Finally, and to meet these difficulties, the General Secretary, Dr. BLONDEL, moved:

"That the present meeting of delegates, so as to conform with the rules, should authorize him to write to all general secretaries, and to ask them for a list of the proposals or rules of their respective National Associations which relate to the papers they desire should be affiliated to the International Association; at the same time pointing out to them that the delegates assembled at Berne expressed the desire that the National Associations should only propose such journals as were exclusively scientific publications and exclude publications distributed gratuitously."

By the latter phrase is meant papers published by manufacturers and other industrial enterprises, and put into circulation for the purpose of selling the goods in which their owners deal. This measure is all the more necessary as it was decided to issue an annual publication giving details concerning all affiliated societies and papers, and great anxiety was expressed that no unworthy publication should be included in such a list.

In regard to the meeting at Lisbon, two proposals were before the Committee: Should there be a congress at Lisbon as there had been in Paris in 1900 and at Madrid in 1903, to which all medical papers, whether affiliated or not, could send representatives; or should there only be a general meeting, open to all members of the International Association of the Medical Press but not to others? Mr. ADOLPHE SMITH explained that he had been instructed by the British Association of the Medical Press to urge that this was a matter of expediency which local conditions might modify, and therefore the choice between a congress and a meeting of only members of the International Association should be left to the National Association of the country where such meetings or congresses were to be held. This principle was accepted, and Dr. BOMBARDA at once announced that he selected, on behalf of the Portuguese Association, the holding of a general meeting and not of a congress.

After much conversation it was decided that the general meeting of the International Association of the Medical Press would take place at Lisbon on Tuesday and Wednesday, the 17th and 18th of April, 1906. The Portuguese would provide a room and printing, there would be no entrance fee charged and no further privileges; but, if the members of the International Association of the Medical Press also enrolled themselves as

members of the Fifteenth International Medical Congress, all the privileges and fêtes would be open to them. A great deal also was said in regard to the work of press men at the General Medical Congress and explanation given as to the sort of help needed. One of the difficulties was to ascertain beforehand how many journalists would be present and really at work. A special room where silence will be maintained is to be provided and facilities arranged for the quick delivery of letters to journalists. Then the secretaries of the sections would be requested to remain after the sittings were concluded so as to read out the summaries of the speeches supplied during the course of the discussions by their authors.

The questions relating to copyright were last on the agenda, and then Mr. ADOLPHE SMITH, as instructed by the British Association, moved:

"That copyright of articles in a medical journal should be of such a nature as to preclude advertisers from misusing such articles or any quotations therefrom."

After a few words of explanation this was carried unanimously.

A longer discussion and explanation was necessary before Dr. DOLÉRIS, on behalf of the French Association, moved the following:

"Considering, first, that practically the inaugural thesis is an obligatory test accompanying the examination and public debate;

"Secondly, that if this thesis can be published as a pamphlet and sold to the profit of the author or his assigns, this profit is very much attenuated by the obligation of sending a considerable number of copies to the professors attached to the universities, the libraries of the Faculties, and the schools of medicine; and that, further, the thesis of the doctorate of medicine is generally and gratuitously distributed by the author himself to a large number of members of the profession; that all this constitutes an extensive publicity which considerably reduces the commercial value of the work;

"Thirdly, that the reproduction in a journal of an inaugural thesis, even if it possesses a really original character instead of being a mere compilation followed by the same conclusions that are given in the classical textbooks, such reproduction can only confer on the author professional and moral advantages that are vastly superior to the profits of the sale of the work;

"Fourthly, that finally the reproduction of medical works, articles, lectures, and notes has become customary;

"The delegates constituting the Committee of the International Association of the Medical Press express the opinion that the reproduction of an inaugural thesis cannot, as a rule, be considered to constitute an appreciable material damage;

"That further, there can be no question of a penal offence, as the evident intention of the journalist is to render service to the author by giving him a gratuitous publicity."

This resolution was adopted by the majority, and the following, proposed by Professor POSNER of Berlin, was carried unanimously:

"The Conference of Berne:

"Considering that some authors are in the habit of publishing their works simultaneously in several journals without informing the editors of these journals; that this custom gives rise to great difficulties for the orientation of literature and the establishment of priority in literary property, and that it is injurious to the rights of the publishers who have purchased these works;

"Declares:

"That it is not admissible that an author should be able to publish the same work in different journals unless it be a translation authorized by the original publisher. The members of the Association are therefore authorized to insist that the authors who offer them an original work shall be called upon to affirm that the work is not published or about to be published elsewhere."

Such were the principal decisions of the Berne Conference, not to mention a great deal of conversation which was not devoid of practical interest.

THE Medical Society of Bad Nauheim has issued the third edition of a pamphlet on the nature and uses of the waters of that place, in which the indications for their employment are fully discussed. The same Society has also issued a smaller pamphlet giving similar information in a more condensed form. Copies can be obtained on application to the Geschäftszimmer, Bad Nauheim, Hesse.

THE HONORARY STAFF OF HOSPITALS.

TENURE OF OFFICE.

EVERY one who is interested in hospital management must feel that, among the factors likely to influence an institution favourably or unfavourably, an important place must be given to the rules which determine the manner of appointment and the tenure of office of the members of the honorary staff.

These rules should be framed so as generally to secure the best years of a man's life for the service of the hospital. The regulations as to length of service should be such as to ensure, as far as possible, that promotion from the assistant staff to the full staff should not be too slow, and that vacancies should occur with sufficient frequency to induce junior men to make those professional sacrifices which are required, and to work with a view to qualifying themselves for election on the staff. It is precisely during the years in which a physician or a surgeon is of most use to his hospital and to the students attending it, that he will derive the most benefit from his association with the institution. On the other hand, the hospital will be most likely to command a strong candidature for appointments if men feel that they are not likely to be condemned to an unduly long service in a subordinate capacity. It is true that no regulations that can be framed will ensure that fortune shall favour all members of the staff equally in the matter of promotion, for resignations may be sent in, and, unhappily, deaths may occur. It is, however, equally true that the regulations may be so framed as to neutralize in a measure the inequalities of fortune, and, if this is done, the hospital will secure a greater uniformity in the strength of the candidature for appointments, for there will not be, to the same extent as if the rules were not framed in this spirit, a good and a bad time for any one coming on the staff, but the attractions will be more uniform.

If the term "Honorary Staff" is used in its widest and best significance, to refer, not only to those actually serving the hospital at any particular period, but also to those who may subsequently be elected, it will be found that their interests and those of the institution are identical, and it is clear that regulations framed on the lines we have mentioned will be beneficial to both.

The rules are widely different in the various London and provincial hospitals, and it is because we feel that those which, as the result of recent modifications, now exist at the Leeds General Infirmary, are just and equitable, and in harmony with the spirit above indicated, that we think it well to refer to them here, and briefly to discuss their bearing.

At one time—prior, that is to say, to 1882—the honorary staff consisted of three physicians, four surgeons, two ophthalmic and aural surgeons, and one dental surgeon, all of whom were appointed without any limit as to tenure of office. In 1882 the staff was increased by the addition of two assistant surgeons, and in 1884 certain new rules were made, prior to a further increase of the staff by the addition of two assistant physicians. In accordance with these new rules the members of the full staff had to resign at the end of twenty years' service in that capacity, and were elected honorary consultants, with a right to the use of six beds each in the case of physicians and surgeons, four beds in the case of ophthalmic surgeons, and two beds in the case of the obstetric physician. The vacancies so created were filled by the Election Committee, who were, however, not necessarily limited in their choice to the members of the assistant staff. Under this rule, Dr. Clifford Allbutt, Mr. Wheelhouse, and Mr. Teale, who were elected under the old conditions, but who fell in with the new arrangement, resigned, and became honorary consultants; Mr. McGill and Mr. Robson were promoted to the full staff; Mr. Ward and Mr. W. H. Brown were elected assistant surgeons, and to the new posts of assistant physician Dr. Barrs and Dr. Jacob were elected. The number of physicians on the staff, which at the time of Dr. Allbutt's resignation was reduced to two, was in 1892 increased to three. In 1885 the post of honorary obstetric physician was created, and in 1890 an assistant surgeon was appointed to the ophthalmic and aural departments.

For twenty years this system has been followed with satisfactory results on the whole, at least on the surgical side, but it was then clearly seen that, while promotion on the part of the assistant staff had indeed been not unduly delayed, some members of the assistant medical and surgical staff would, on the one hand, have to wait an unduly long time before being

promoted to the full staff and having charge of beds, and, on the other hand, in consequence of this, would remain on the staff till an unduly advanced age.

The matter was very fully discussed in all its bearings, and the rules were again modified, and are now framed on lines which may be summarized as follows:

The assistant physicians and assistant surgeons (including the assistant ophthalmic surgeon) are appointed for ten years only. When they have held office as such for this period, they shall, if they wish to continue to work in connexion with the infirmary, submit themselves for election for the post of physician or surgeon with charge of out-patients. If elected to such post they shall succeed to the full staff on vacancies arising in order of seniority, and without further election. If not elected they shall retire from all connexion with the infirmary. This promotion to the position of physician or surgeon with charge of out-patients does not give occasion to the election of an assistant physician or an assistant surgeon, as the case may be, for no change of duty is involved, and the officer will continue to fulfil the same duties as an assistant physician or surgeon—that, is, those of attending to the out-patient department and acting as deputy for the members of the full staff. It is also provided that after five years' service each member of the assistant staff becomes entitled to the use of a certain number of beds, an assistant physician to 4, an assistant surgeon to 6, and an assistant ophthalmic surgeon to 3.

The rules as to the retirement of the members of the full staff have been modified by the addition of an age limit of 60 years, with the retention, however, of the previous twenty years' time limit, so that members of the full staff must retire on the completion of twenty years' service in that capacity, or on the attainment of the age of 60 years, whichever event may first happen. They then become members of the honorary consulting staff without further election. Lest this age limit should press unduly on those members of the present staff who were elected under the conditions that have prevailed during the last twenty years, it was agreed that in their case the age limit should be 65.

The bearing of these rules may perhaps be appreciated by dealing with some examples of what may actually occur. It is clear that while the number of the honorary staff remains as at present the effect of the twenty years' term of office of the full staff will be as follows. As there are three physicians, each serving for twenty years, there must be three vacancies to be filled in each period of twenty years, and as there are two assistant physicians, the expectation of length of service of each, prior to his getting on the full staff, will be thirteen and one-third years, which under the new rules will resolve itself into ten years as assistant physician and three and one-third years as physician with charge of out-patients. The addition, however, of the age limit of 60 years certainly may, and very probably will, lessen this term of thirteen and one-third years, and it will doubtless often happen that, prior to the completion of his ten years' service, an assistant may be able to apply for promotion to the full staff without holding the intermediate position of physician with charge of out-patients. In such a case he has to be appointed by the Election Committee, who, however, as has already been said, are not necessarily limited in their choice to the members of the assistant staff. As there are four surgeons and two assistant surgeons, and as there are two ophthalmic surgeons and one assistant ophthalmic surgeon, it follows that the average expectation of service on the assistant staff will in these instances be ten years, and here, again, the age limit of 60 years will tend to shorten this. The new rule, therefore, as to promotion to the position of physician, surgeon, or ophthalmic surgeon with charge of out-patients will only come into play if any one has to remain in a junior capacity longer than ten years, which under existing circumstances as to the relative number of the members of the full staff and the assistant staff, is, in the case of the surgeons rather more, and in the case of the physicians probably rather less, than the average expectation. To any honorary officer who has to come under the operation of the rule it affords the double consolation that his title is improved, without indeed any alteration in his duties, and, what is very important, that he is put in an assured position for promotion to the full staff on a vacancy occurring, without further candidature.

It is undoubtedly possible that vacancies arising either from death or from resignation before the age limit or time limit is reached, while expediting the promotion of some members of the staff, may result in others having to serve as much as twenty years before coming on the full staff. The addition of the sixty years' age limit for the full staff will in such cases safeguard the hospital from any one remaining on full duty to an unduly advanced age, while the hardship to the individual will be lessened by his partial promotion at the end of ten years' service.

The retention of the twenty years' time limit may, indeed, result in a member of the full staff having to retire before he attains to the age of 60, but any such member must have had the advantages of an early promotion. It is, we believe, the rule in some of the London hospitals, where the tenure of office is based on an age limit, that that limit is fixed at a greater age in the case of the physicians than in that of the surgeons, and much may be said in favour of this practice. In Leeds, however, those who revised the rules in 1884 very wisely decided that the members of the consulting staff should retain the right of using a certain number of beds. This is a provision which makes retirement from the full staff a very different thing from that complete dissociation with the work of the hospital which, coming as it may at a time that a man is in the full activity of professional work, is a severe wrench in his life. That this is the case we know from conversations we have had with senior members of the profession who have come under the operation of this rule. In Leeds the system adopted has been productive of the happiest results by retaining for the service of the infirmary those whose long experience commands the respect of their colleagues on the acting staff.

THE ASSOCIATION OF ECONOMIC BIOLOGISTS.

THE first congress of the Association of Economic Biologists was held in the University of Birmingham on April 19th, under the chairmanship of Mr. FRED V. THEOBALD, President. The association was welcomed to Birmingham by Professor T. W. BRIDGE, F.R.S., as the senior member of the biological staff.

Mr. A. E. SHIPLEY, F.R.S., then moved the following resolution:

> That the Association of Economic Biologists respectfully draws the attention of the President of the Board of Agriculture and Fisheries to the fact that on the Committee recently appointed to inquire into the nature and causes of grouse disease there is no pathologist, bacteriologist, or parasitologist, and that in the opinion of the association some expert in bacteria or animal parasites should, if possible, be added to the Committee.

Mr. Shipley read a list of gentlemen forming the Committee, and remarked that they were more noted for the destruction than the preservation of grouse. It was well known that diseases of grouse were caused by bacteria or parasites, and yet no single member of the Committee was qualified to express an opinion or suggest experiments which would be effective in discovering a remedy for the disease. This was not the first time the Government had ignored economic biologists in appointing committees to investigate questions of economic biology, and he thought it was the duty of the association to enter a mild protest.

Mr. CECIL WARBURTON seconded the motion, which was carried unanimously.

The PRESIDENT (Mr. Theobald) then read a paper, entitled "A Plea for the Study of British Aphides in connexion with Cultivated Plants," and reminded his hearers that plant lice were more plentiful during 1904 than in any other year during the last quarter of a century; rare specimens were plentiful and common species swarmed. Other papers on animal parasites of economic plants were read by Dr. MACDOUGALL, Mr. WALTER E. COLLINGE, and Professor CARPENTER. In the absence of Professor Cave his paper on the presence of ascaris suilla in the liver of pigs was read by Professor SHIPLEY. The concluding paper was by Mr. FRED V. THEOBALD, on ticks and flies as agents in the distribution of disease.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 87.

MEDICAL NEWS.

A MARBLE memorial of the late Professor Giulio Bizzozzero is to be placed in the Institute of General Pathology at Turin.

THE Lord Mayor of London will preside at the festival dinner of the City of London Hospital for Diseases of the Chest, Victoria Park, to be held at the Trocadero Restaurant on May 26th.

DR. F. W. CLARK, Acting Principal Colonial Medical Officer of Hong Kong, has been appointed an official member of the Executive Council in the room of Dr. J. Mitford Atkinson, who has left the colony on leave.

THE post-graduate college and past and present West London Hospital dinner will take place at the Trocadero Restaurant, Piccadilly, London, W., on Wednesday, June 7th, when the chair will be taken by Dr. Seymour Taylor at 7.30 p.m.

THE late Mr. William Holbour, of Campden Hill, W., in addition to making a bequest of £2,000 to the Royal Hospital for Incurables, directed that a similar sum should be paid by his executors to any hospital which they might choose to select.

A PUBLIC meeting will be held at the Mansion House on Wednesday, May 17th, at 3 p.m., under the presidency of the Lord Mayor, in furtherance of an appeal for £10,000 on behalf of the National Association for the Prevention of Consumption and other forms of Tuberculosis.

THE eighth annual meeting of the Childhood Society will be held at 7, St. James's Square, S.W., on Wednesday, May 10th, when the President (Earl Tatton of Egerton) will take the chair at 3 p.m. Professor H. E. Armstrong, F.R.S., will deliver an address on the teaching of common sense in the school of the future.

THE President of the Board of Agriculture and Fisheries has appointed a committee, with the Earl of Onslow as chairman, to inquire into the administration and working of the Small Holdings Act, 1892. The committee does not appear to contain any person having special knowledge of the important public health bearings of the question at issue.

THE five cases of small-pox in Lewisham, the announcement of which gave rise to some local alarm in the early part of last week, all occurred in one family. The first patient was a boy, who remained ill with an unrecognized attack of the disease for three weeks, and all the family caught it in turn. Since then only one further case has been notified in Lewisham, while in London generally the disease is less prevalent than usual.

THE Congress on Quackery, which was to have been opened in Paris on May 8th under the presidency of Professor Brouardel, has been postponed till April 30th, 1906. A programme of the work of the Congress appeared in a recent issue of the BRITISH MEDICAL JOURNAL. It may have been noted that it was very extensive, and it is not surprising therefore to learn that the reason of the postponement of the meeting is that many of the reports which were to serve as introductions to the discussions are not ready.

INVITATIONS have been issued by Alderman Mr. George Clifton, J.P., Chairman of the Asylums Committee of the Borough of Leicester and President of the Leicester Medical Union, to attend a meeting in the Council Chamber of the Town Hall on May 11th, at 3.30 p.m., when a lecture will be delivered by Dr. Robert Rentoul of Liverpool on physical degeneration and its causes and prevention. Special reference will be made to the question of the sterilization of certain degenerates, and the lecture will be followed by a short discussion.

MEDICAL MAGISTRATE.—Dr. C. H. Wise of Walthamstow has been appointed to the Commission of the Peace for the county of Essex.

ABERDEEN UNIVERSITY CLUB, LONDON.—The May dinner of the Aberdeen University Club, London, will be held at the Trocadero Restaurant, Shaftesbury Avenue, W., on Wednesday, May 17th, at 7.30 p.m. The Very Rev. John Marshall Lang, D.D., Principal of the University, Aberdeen, will be in the chair. Members desiring to be present should communicate with Dr. R. J. Collie, Honorary Secretary, 25, Porchester Terrace, W., not later than May 13th.

A DOYEN INSTITUTE IN LONDON.—It has been announced in most of the daily newspapers that M. Doyen has decided to open an institution in London, to be conducted upon the same lines as his clinic in Paris, for the treatment of cancer. It is stated that the institute, which will be conducted under Dr. Doyen's personal supervision, will be situated in St. John's Wood, and will accommodate forty patients.

BEQUESTS TO MEDICAL CHARITIES.—Under the will of the late Mr. Joseph Proctor Mann, of Moreton-in-the-Marsh, Gloucestershire, which has now been proved, the following institutions each receive a sum of £100: the Royal Medical Benevolent Institution, the "Medical College at Epsom," Guy's Hospital, St. Thomas's Hospital, and King's College Hospital.

NORTH-EAST LONDON POST-GRADUATE COLLEGE.—The opening lecture of the summer session of the North-East London Post-graduate College will be given by Dr. H. D. Rolleston, Physician to St. George's Hospital, on Thursday, May 11th, at 4.30 p.m., at the Tottenham Hospital, N., on High Arterial Tension: its Results and Prevention. The series of clinical lectures, of which this is the first for the present session, is free to all qualified medical practitioners.

GERMAN ASSOCIATION OF SCIENTISTS AND MEDICAL PRACTITIONERS.—The German Association of Scientists and Medical Practitioners will hold its seventy-seventh annual meeting this year at Meran from September 24th to 30th. The work of the scientific branch of the Congress will be distributed among fourteen, that of the medical branch among seventeen, sections. At the general meetings addresses will be delivered by Professor Langley of Cambridge on recent researches on the nervous system, and by Professor Correus of Leipzig and Professor Heider of Innsbruck on the laws of heredity.

THE AIMS OF THE PAN-AMERICAN MEDICAL CONGRESS.—At the closing meeting of the Pan-American Medical Congress held at Panama in January it was resolved that the next Congress should arrange (*a*) for an international American pharmacopoeia; (*b*) for an international code of sanitation: (*c*) for an international code on temperance; and (*d*) as a sequel, for the establishment of sanatoriums for the treatment of alcoholism; (*e*) for the establishment of lectureships on medicine as a part of the prescribed courses of jurisprudence. It was also decided that the next Congress should include a section on tropical diseases; that Red Cross branches, both civil and military, should be created; and that encouragement should be given to those engaged in the campaign against tuberculosis.

UNDERFED SCHOLARS.—The Committee on Medical Inspection and the Provision of Meals for Children appointed by the Board of Education has definitely started its inquiry. The Committee has issued two forms to local authorities: the first inquires into the present methods of medical inspection in the schools, and the second into the methods at present employed in the various districts for feeding hungry school children. The object of the inquiry is to find out the actual state of affairs with regard to the underfed, and how far existing charitable organizations meet the case. In Paris a similar problem has been solved by the Cantine Scolaire conducted by the municipality. Some 8,000,000 meals are provided annually for school children at a cost of £70,000. Of this sum, £45,000 comes from the rates, £20,000 from the sale of dinner coupons to parents, and the balance from voluntary contributions. There are dining halls provided for groups of schools; coupons are given to the really necessitous, and sold to parents able to pay for them.

COLONIAL AGRICULTURE AND HYGIENE.—The French National Exposition of Colonial Agriculture which is to be held in the Colonial Garden at Nogent-sur-Marne from June 20th to July 20th includes a section of hygiene. It is pointed out in the official notification that the connexion between colonial agriculture is of the closest, as in the colonies more than elsewhere, it is impossible to carry any undertaking to a successful issue if health fails. The Organizing Committee is composed as follows: Chairman: Professor Charrin, of the Collège de France; Secretary: Dr. Loir, Lecturer in the Superior School of Colonial Agriculture; Members: Drs. Grall, Medical Inspector Colonial Sanitary Service; Granjux, Editor of the *Caducée*; Laveran, Member of the Institute of France and of the Paris Academy of Medicine; Le Dantec, Professor of Exotic Pathology in the Medical Faculty of Bordeaux; Mallet, Physician to the Superior School of Colonial Agriculture, and Mathieu, *agrégé* of the University of Paris, and Director of the Burgundy Oenological Station.

British Medical Journal.

SATURDAY, MAY 6TH, 1905.

UNDERFED SCHOOL CHILDREN.

THE order which Mr. Gerald Balfour has issued, together with a circular of instructions to Boards of Guardians, is doubtless the outcome of the representations made by Sir John Gorst and Dr. Macnamara in the House of Commons. The Order concerns children under 16 years of age who are not blind or deaf and dumb living with a father who is not in receipt of relief, and the application must be made to the guardians, directly or otherwise, or to a relieving officer, by the managers, or by a teacher duly empowered by the managers, of a public elementary school, or by an officer duly empowered by the local education authority.

With the guardians will lie the responsibility of finding out whether the case is one of habitual neglect on the part of the father to provide sufficient food for the child, and if it be so any relief or the cost price of it must be considered as given by way of loan. If, on the other hand, the guardians are not satisfied that the underfeeding comes from habitual neglect of the father to provide adequate food, they will determine whether or not relief shall be given on loan. The father will be warned that relief is about to be given as a loan or not, as the case may be, so as to give him the opportunity of providing the child with food himself. In neither case will the guardians allow relief for more than a month at a time, but the application will be renewable. When it is seen that the case is really one of habitual neglect, proceedings will be taken against the father, and if necessary the amount of the loan will be required to be paid to the guardians by any master or employer owing wages to the father.

It is stated in the Circular that the mode of giving relief must depend upon local circumstances, and that inasmuch as it is important that the relief be not given in money where it can be avoided, charitable organizations should arrange to supply food to the children on presentation of a ticket. In other cases an arrangement might be made with some shopkeeper to supply food on presentation of an order from the relieving officer.

At a first glance this revolution in the Poor-law procedure makes it appear that the question of underfed school children is about to be solved. But in reality the Order is almost like so much waste paper. To take London as an example, the question of cost will be a very serious difficulty. So long as the guardians control the matter the charge is a parochial one, and certain districts will have to bear the whole burthen, or else shut their eyes and neglect the duties imposed upon them by the Order; whereas in the hands of the education authorities the charge would have been spread over the whole area in all large towns. If the local education authorities and the guardians worked hand in hand much might be done, but Poor-law guardians as a rule are not particularly sympathetic, and the education authorities already have their hands very full.

We are once more moving in a vicious circle. Without systematic medical inspection of schools, who is to point out the underfed children? The teachers, we presume. But the old objection still holds good, that many starving children, who are too proud to admit that they are hungry, will be passed over and thereby lose the benefit of education, and the State, while framing an Order which sounds wise and generous, still in reality relies on charitable agencies for the working of the machinery which is to set this new scheme in motion. Will not the work of domiciliary inquiry fall upon health visitors, while charitable organizations are to be responsible for the food?

May not charitable organizations refuse to be treated as mere kitchens? Even if they do not, will "existing organizations" cover the ground? This we shall know when Sir William Anson's Committee reports. Again, what is to happen in districts where no such organizations exist? Surely the Local Government Board must see that their new Order is a mere farce, and that sooner or later the question will have to be boldly faced, as it has been in other countries. We repeat that the only radical measure is the feeding of children at school in connexion with the cookery classes. We quote Mrs. Watt Smyth, the originator of this scheme:

"No matter how excellent the work done by these unselfish societies, it seems impossible to discriminate between the million children contained in Board and voluntary schools in London without passing over many a starving child. The only sound plan would seem to be to provide every one of the pupils with a dinner at school. For this those who are able should be required to pay, while charitable funds, such as the one described above, would defray the expenses of the meals given to the extremely poor. Strenuous efforts should be made to organize a cooking centre at each school large enough to supply these dinners. The pupils should take turns to cook the meals under efficient supervision and instruction. The effect upon physique would be lasting, for few girls after enjoying for nine years decent dinners at school would, when they got homes of their own, return to the squalor and discomfort of meals as they are too often served in the families of the labouring classes in England. The elder girls should be trusted with small weekly sums for the purchase of the materials necessary for the dinners, and should be trained to do the shopping and keep accounts, so as to learn the value of money. Lectures should also be given on the properties of various foods and their relative value, on the lines sketched in a previous chapter. We may take it that no child attending an elementary school is likely to be better fed at home than if the above system were adopted. Every child, therefore, would benefit, or at least would lose nothing, while to the underfed the gain would be great. Many of the consequences of malnutrition, such as stunted growth, deficient muscle, inattention, weariness, want of concentration, would be prevented. Further, if underfed children are not actually more susceptible to contract infectious diseases, they are undoubtedly more likely to suffer severely from an attack and its sequelae. In the discussion on the relation of poverty and disease, the Deputy Chairman of the Sanitary Committee of the Corporation of Manchester expressed the opinion (1902) that large numbers of children of school age succumb to phthisis and lung diseases partly owing to defective nutrition and partly to lessened power of resistance to infection."

The Board of Guardians if they wished to be useful

could still carry out the work of prosecuting those parents who refused to pay. But experience in Paris and elsewhere goes to prove that parents are generally most willing to pay.

Complaints are heard on every side of the unsatisfactory teaching in existing schools of cookery for elementary school children. How hours are spent upon the theory of cookery, when the theory should be taught in the schoolroom; how much of the important work of making fires, and cleaning grates, is done by charwomen; how elaborate pots and pans and appliances are in vogue, such as the children can never hope to have in their own homes, and how the art of decorating and garnishing occupy the time which should be devoted to roasting and boiling and mincing and hashing, which, after all, is what these children require to learn. They would acquire this if it came to their having meals at school, for then the lesson would become practical and businesslike, boys and girls alike being taught, and simple, varied meals being chosen.

Each child would pay its twopence, or whatever was considered fair, the materials at present supplied by the education authority and practically wasted would be used up, there would be no chance of starving children being passed over, and the teaching of cooking would be established on a common-sense practical basis.

The scheme is so simple, so useful, and so straightforward that its adoption is merely a matter of time.

MEDICAL SCIENCE AND COLONIZATION.

IN colonization it may truly be said that the lancet is more powerful than the sword. The sword is the instrument of conquest; but in the work of development it has to give way to the more peaceful weapon. Many times in the world's history have the fruits of conquest been lost in consequence of attacks made on explorers and pioneers by enemies against whom the sword was powerless to protect them. Flourishing colonies have been laid waste and great cities have been depopulated by the inroads of invisible invaders which no barrier could keep out, and neither force nor art could overcome. Till lately some of the fairest and most productive regions on the earth's surface were uninhabitable by any but natives, and there are still places which deserve the name of the white man's grave. Explorers and settlers had for centuries fallen victims to strange diseases unknown to medical science. Like the spirit in Camoens's epic which strove to stop Vasco de Gama on his fateful voyage to the East Indies, there seemed to be a subtle power which sought to guard these territories from profanation by civilized feet. The greed for gold nerved men to brave these terrors; they accepted what they considered the inevitable with a fatalistic philosophy generally reinforced by the liberal use of "fire water." When asked as to the secret of the baleful influence which claimed so vast a tribute of health and life on every form of enterprise in the tropics, medicine had no answer to give but the vague word "climate." The conveniently comprehensive theory implied in that term received its most familiar embodiment in the name given to the deadliest and most widespread of the scourges of the tropics: malaria was described, if not explained, as an effect of "bad air."

To Laveran we owe the discovery which marked the dawn of a new era in tropical pathology and sanitation; and from this *idée mère* of a parasitic origin of a disease which had been a mystery since the beginning of civilization has sprung, especially during the last fifteen years, a series of other discoveries which have gone far to justify the statement made by Sir Patrick Manson before the Royal Geographical Society in 1898 that 99 per cent. of tropical diseases are caused by germs. Climate may cause discomfort and enervation, and may predispose to disease; but the real enemy of the white man in tropical climes and the great obstacle to colonization is the wealth of parasitic life which finds in him a ready prey. In the discovery of means of destroying these parasites or neutralizing their power of mischief lies the secret of acclimatization. It is a matter of knowledge and the application of knowledge.

Already scientific investigation has placed some of the knowledge needed at our disposal; and there is a gratifying appropriateness in the fact that for the best part of that knowledge the world is indebted to two men of our own race, which has led the way in colonization—Patrick Manson and Ronald Ross. The labours of these men and of their pupils have thrown light into not a few of the dark places of tropical pathology. Besides the additions to knowledge directly due to them, they have done a work of incalculable value by forcing on the notice of the profession the scientific interest of a previously unknown class of diseases, and on the attention of statesmen the calculable importance of the study of tropical medicine in its bearing on the future of our Empire and the destiny of our race. The schools of London and Liverpool, striving with each other in generous rivalry, have done work which will be seen in its true light when the dust of the small controversies of to-day has been laid by time. They have sent forth investigators to distant regions, where several of them have suffered from the diseases they were sent to study, and more than one have fallen martyrs to their zeal for knowledge. They have sent out many practitioners fully equipped to cope with diseases against which not so long ago science had no weapons of defence to offer; moreover, these practitioners are trained in the methods of research, so that wherever their professional lot is cast they are able to take advantages of the opportunities presented by local conditions for the gaining of fresh knowledge. No institutions in the country are better deserving of support, and this not only from a philanthropic but even more from a business point of view. The prosperity of our Empire, perhaps the existence of our country, depends to a large extent on the successful development of the material resources of our colonies, and this in turn depends on the increased possibilities of acclimatization. This, it may truly be said, is the chief practical problem which these schools have been brought into existence to solve.

The Liverpool School of Tropical Medicine is fortunate in having found in a merchant prince of that capital of commerce a patron whose enlightened munificence has greatly facilitated its work. The London School, though it may reckon Mr. Chamberlain as its pious founder, has no such *decus et tutamen* as Sir Alfred Jones. From the beginning, its scientific enterprise and its practical usefulness have been crippled by want of funds. It has already sent out several scientific exploring expeditions to Central Africa, the West Indies, the Straits, and elsewhere, and it has trained more than 500 practitioners, a large proportion of whom are officers of the Colonial Service. Strong testimony to the value of its work is further borne by the fact that the Governments of the Crown

Colonies and that of India have contributed a sum of £1,000 a year for five years in aid of teaching and research in protozoology and helminthology, imperfectly cultivated fields of science on which lie the hopes of many fruitful discoveries. But the very usefulness of the School has made expansion necessary, and this must inevitably entail increased expenditure. As we said last week, a sum of at least £100,000 is required to make due provision for the maintenance and treatment of patients in the hospital, to furnish adequate remuneration for the teaching staff, and to meet laboratory and other current expenses. The School has also a laudable wish to get itself affiliated to the London University, a step that would be a further guarantee of the efficiency of its teaching. Here, too, there are some financial difficulties to be overcome. An appeal to the public is to be made in the form, consecrated by British usage, of a dinner at which Mr. Chamberlain will preside. This will take place at the Hotel Cecil on May 10th, and a large number of men of eminence in various spheres of activity have promised to attend. There are good grounds for hope that the result of the appeal will be fairly satisfactory. Sir Donald Currie and Lord Strathcona have each given £500, and the Peninsular and Oriental Steam Navigation Company has contributed five hundred guineas. A large number of smaller contributions have already been received, and the stewards, among whom are many influential men, have doubtless a considerable amount on their lists. Any medical man who may wish to attend the dinner will receive a ticket free on application to the Honorary Secretaries at 13A, Cockspur Street, S.W.

We need only add that, from our own knowledge of what the London School of Tropical Medicine has done and is doing, it is an institution in every way worthy of the support of the profession and the public.

THE TRAINING OF VOLUNTEER MEDICAL UNITS.

IN a leading article on the future of the volunteer force which appeared in the BRITISH MEDICAL JOURNAL on January 7th it was urged that it was necessary that there should be no reduction in the present establishment of the volunteer medical service, which is none too large for the requirements of the force. An adequate number of men does not, however, in itself constitute an efficient service. Efficiency is only attained by proper training.

The Secretary of State for War has declared his intention to encourage greater efficiency in the volunteer force, and we may hope that the Medical Service will not be overlooked in this connexion. Unfortunately, the military authorities, by whom the Regulations for the volunteers are framed, seem to have a difficulty in realizing that there is, and must be, an essential difference between the volunteer and the regular soldier, which makes it impossible to apply similar methods in the management of the two branches of the army.

Cast-iron regulations may be a necessity for the regular army. Whilst serving with the colours the men are soldiers at all times and under all circumstances; wherever they may be and whatever they may be doing they are subject to discipline, and the army is responsible for them. Regulations must therefore be framed to meet all contingencies, and discipline demands that these regulations shall be strictly and rigidly followed. The volunteer, on the other hand, is primarily, and for most of his time, a civilian, who devotes what time he can spare from his civilian occupation to learning military duty. The War Office may lay down a minimum amount of time which must be so devoted to entitle the man to be recognized as an efficient auxiliary to the army, but the individual must decide when this time can be spared.

Though regulations for the volunteer force are essential, they must be elastic, to allow of their stretching to embrace the almost infinite variations in the civilian's opportunities for military training. The regulations which deal with discipline under arms may be stringent, but the regulations which deal with training must be elastic. The want of elasticity in such regulations has at times pressed with particular severity upon the medical units of the volunteer force. Regulations for the training of volunteer units were made to apply equally to artillery, engineers, infantry, and medical units. One essential which the combatant soldier must learn is that his value depends upon his action as one of a number of men working in co-ordination as a single unit. The medical or ambulance soldier has to learn that though he may have to work in conjunction with others, and take his part in co-ordinated evolutions, he must above all be able to act as an individual. The infantry soldier cannot be trained without putting him occasionally in his place in the battalion; the medical orderly cannot be properly trained unless he can be occasionally taken singly. First aid and nursing, for example, cannot be taught to the mass—each individual should be specially instructed. In the volunteers such personal instruction of the medical orderly should be encouraged, and in the medical units therefore no definite number of men should be required for a "drill" to be counted.

But combined action is necessary for bearer company work in the field, and for training all ranks in the routine and organization of a military hospital. Thus a certain proportion of each man's attendances during the year should be at drills where a sufficient number is on parade to form a bearer company or ambulance unit. Attendance at camp forms one of the most valuable factors in the volunteers' training. Attendance at camp should therefore be encouraged in every possible way, but to make such attendance compulsory may debar the more educated men—clerks, students, etc.—from becoming volunteers. It is, however, just these men who are the most desirable recruits for the medical service. The difficulty in attending camp experienced by volunteer medical officers has been recognized by the War Office and provided for in the regulations.

It may be useful to review briefly some of the principles which should govern the scheme of training for the different sections of the volunteer medical organization.

Volunteer medical officers differ from all other volunteer officers in that they are already trained in their special work before receiving their commissions; they are not amateurs. Nevertheless, they require training in the military details, the knowledge of which constitutes the difference between the medical officer and the civil surgeon. Discipline, military usages, camp and barrack routine must be learned, as well as stretcher drill, bearer-company exercise, and the organization, administration, and routine of military hospitals. Thus, though they need not attend so many drills and parades as the combatant officers, they require some drill, and should attend camp as often as possible. The regimental medical officer will not be

expected to attend drills so frequently as the R.A.M.C. (Volunteer) officer, but he would do well to attend the drills of the nearest R.A.M.C. (Volunteer) company occasionally. For the summer camp one medical officer will be required to accompany the regiment, and the other medical officers should be attached to the R.A.M.C. (Volunteers) for the camp training. Brigade-surgeons will, of course, accompany their brigades into camp.

The regimental stretcher bearers are primarily combatants, and only secondarily ambulance men. They require training in their special work, and a certain number of drills or lectures each year under the regimental medical officers should be made a condition to qualify for the right to wear the badge. In camp they should be available for duties under the medical officer when required, being excused fatigues as compensation for this extra duty. On field days they should be at the disposal of the medical officer.

The brigade bearer company is wrong in principle. These companies were evolved from the regimental stretcher bearers, and whilst they were formed of men borne on the strength of regiments in the brigade they were necessarily integral portions of the brigade. Now that they are specially enlisted there is no reason for retaining them as component units of the brigade. The company is too small a unit for satisfactory administration, and the large number of small units adds to the expense of general administration. It would therefore be to the advantage of the companies and a saving to the country if, instead of a number of isolated bearer companies, a few strong divisions of the R.A.M.C. (Vol.) were organized. Even under existing conditions the brigade bearer companies should seek every opportunity of working with the R.A.M.C. (Vol.). These companies might at least camp with the R.A.M.C. (Vol.) and not with their brigades. The brigade hospital with its two or three patients does not provide adequate training for the men. A large medical camp—say at Aldershot or Shorncliffe—would allow of very varied and thorough training in camp duties, field ambulance exercises, sick convoys, and hospital duties. If placed in a central position a field hospital could be established in which all the sick from the various volunteer units encamped in the neighbourhood could be received and treated. If the medical officer in charge and the quartermaster were appointed for the week, all the other duties could be performed by successive batches of men relieving each other every twelve hours. Thus a large number would get some practical training in field hospital work in the course of a week's camp.

To keep up the numbers of a volunteer army the service must be made attractive, and must not interfere with civil employment. Enthusiasm is more readily engendered when large numbers of men with similar interests are gathered together. The medical service of the volunteer force being cut up into small units, misses this advantage. If the larger units cannot be permanently constituted, the small units can at least be brought together once a year in camp.

All R.A.M.C. volunteers should be trained in the practical details of nursing. Although some companies may be specially intended for ambulance work in the field, their training should include nursing. Even if such a company may not be needed as a whole for hospital duty, it is important that individuals should be ready for ambulance or for hospital duties as required.

THE SUPPLEMENT.

The Supplement for this week contains a report of the proceedings of the Council at its meeting on April 19th, the minutes of meetings of the Ethical, Medical Defence, and Organization Committees of the Association, together with reports of Branch and Division meetings held and notices of meetings to take place. In addition to the usual service notices, vital statistics, the diary, and the Association calendar, there is a report of the meeting of the Central Midwives Board held on April 27th, from which it will be seen that the total number of midwives on the Roll up to that date was 22,207.

LOCAL SOCIETIES AND THE BRITISH MEDICAL ASSOCIATION.

One of the principal objects of the changes of the constitution of the British Medical Association, carried through a few years ago, was to place at the services of the medical profession of the British Empire an organization which should combine in itself the advantages of local medical societies with those of an imperial association. At that time there existed in this country many local medical societies, some having purely scientific objects, others formed with a view to the local protection of the honour and interests of the profession, others again combining these objects, and all recognized to be doing excellent work for the profession. On the other hand, the profession had in the British Medical Association a central organization of great numerical strength and prestige. The most zealous members of each of these forms of medical organizations were in many cases the most fully cognizant of their respective limitations. Many local medical societies recognized that their usefulness was largely crippled by the lack of co-ordination with a national organization, and this feeling found expression in the conference of delegates of these societies held at Lancaster in May, 1900. On the other hand, many active workers in the British Medical Association realized that the large area of the majority of the existing Branches rendered it sometimes difficult for them to act for the profession locally as did the local medical societies, and thereby prevented the Association from realizing its full capacity of usefulness to the profession. To satisfy both these needs the Divisions of the Association were constituted and have therefore a dual function. They act as instruments through which the Association is enabled to ascertain the wishes of its members and to obtain information which may guide the Central Executive in the discharge of its duties. But each Division is also a local medical society, self-governing within very wide limits, and capable of meeting the requirement of the profession in respect of purely local organization. The automatic working of the constitution of the Association has naturally brought into greater prominence the former aspect of the work of the Divisions, but it is gratifying to observe evidences that the capacity of the Divisions for acting as local medical societies is being increasingly appreciated both within and without the Association. One manifestation of this appreciation within the Association will be found in the reports which have appeared from time to time in the British Medical Journal of the action taken by Divisions in defence of the local interests of the profession, such as that which we report from the Oxford Division this week, or that reported recently by the Cardiff Division. Not less important is the fact that local medical societies outside the Association which have done some excellent work for the profession in the past are recognizing that it is to the advantage of their members to amalgamate with the British Medical Association by converting the local medical society into a Division of the Association. The latest example is the Southend Medical Society, which, in determining upon its own abdication in favour of the South-Essex Division of the Association, has stated concisely the reasons for this step in terms which have a general application, namely, that in view of the fact that all the purposes for which the society was formed were

now secured, with other advantages by the Subdivision of the East Anglian Branch of the British Medical Association and the formation of the South-Essex Division, the society should cease to exist. The decision has only been arrived at after full investigation, and was adopted unanimously at an extraordinary meeting of the society on April 25th. We venture to think that the example merits the careful consideration of the members of local medical societies in other districts.

THE VALUE OF MEDICAL ORGANIZATION.

WHEN issues are clear and results definite, particulars of the action of medical officers of public authorities to obtain justice from their employers are always worth recording. One such case which terminated last week in Oxfordshire was as follows: The medical officer of No. 4 district of the Chipping Norton Union after holding his appointment for four years asked that his salary should be increased from £34 to £44 per annum, in order that he might thus be paid at the same rate in respect of acreage and population as the medical officers of the remaining districts. The application was refused and he thereupon tendered his resignation. This was accepted, and in the letter conveying the acceptance he was asked if he intended to resign also the appointment of public vaccinator which he had been holding at the same time. On his replying in the negative he received the statutory twenty-eight days' notice to vacate the appointment, and simultaneously an advertisement of the vacancy, and of the day upon which it would be filled, was issued. When that day arrived, however, it was found that no applications had been received, and the guardians thereupon asked the medical man to resume his appointment on the terms refusal of which in the first instance had led to his resignation of the one post and to his dismissal from the other. Apart from the definiteness of the victory, the case is of interest as being one in which guardians were foiled in a practice in which they are too often successful, namely, that of using the appointment of public vaccinator as a bait whereby to tempt men to accept underpaid work as Poor-law medical officers. There is special interest, however, in the way in which the result mentioned was achieved. The facts having been brought by the practitioner concerned to the knowledge of the Medical Secretary of the British Medical Association with a request for the support of the Association, he was advised that such support could best be given by the Oxford Division, to which the matter was accordingly referred. The Division took steps to secure that any prospective candidate should be made aware of the facts, and the result was as stated. The organization with which the Association provides the profession was utilized, action suitable to the occasion was taken, the medical profession presented a united front, and the day was won. This was a case, it will be noted, in which though personal defence was needed, any organization arranged purely for personal defence was useless, and the Medical Defence Union, of which the medical man concerned was a member, rightly deemed itself incapable of acting. What was required was an organization capable of securing professional union, both locally and generally, and, fortunately, both were ready. The case offers excellent support for the belief in the value of the present plan on which the British Medical Association is arranged, and in its pliant adaptability to all the needs of the profession. Its roots lie in the Divisions, and the Divisions can act either on their own initiative, as virtually independent bodies, or in response to a suggestion from the centre, which in its turn can at need be moved to action by the Division. While pointing out the grounds for satisfaction in the outcome of this matter, it is proper to draw attention to one point on which a note of warning should perhaps be sounded. It so happens that in this case the Division on consideration concurred in the view taken by the member as to the injustice of the action of the guardians; but it would have been better in every way if he had afforded his professional brethren an opportunity of considering the matter and advising him upon it before he took the definite action which led to the necessity of his asking the Division to support him.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ON Tuesday next, May 9th, at 8.30 p.m., papers will be read by Dr. Parkes Weber on splenomegalic or myelopathic polycythaemia, and by Dr. Branson on abdominal tuberculosis in childhood. The next meeting will be on May 23rd, during the Centenary Festival of the Society, when Dr. Head will deliver the Marshall Hall Prize Address. The arrangements for the Centenary Festival are as follows: On Monday, May 22nd, which is the day of the founding of the Society in 1805, the President will hold a reception at 5 p.m. in the afternoon at the Society's House, 20, Hanover Square, when the diplomas will be presented to the new Honorary Fellows. In the evening the festival dinner will take place at the Hotel Cecil at 8 o'clock. His Royal Highness the Prince of Wales has graciously consented to be present and to be admitted an Honorary Fellow of the Society. The reception of Fellows and guests will be at 7.30, and it is especially requested that they come not later than 7.45. Those Fellows who desire to sit together at the dinner are requested to communicate at once with the Secretary, 20, Hanover Square. A few seats in the gallery of the Dining Hall will be reserved for ladies who wish to hear the speeches after dinner; applications to be made to the Secretary. The meeting for the Marshall Hall Address by Dr. Head on Tuesday will be at 8.30, the ordinary time of meeting. On Wednesday evening a Conversazione will be held, at 9.30, at the Natural History Museum, South Kensington. Tickets of admission have been sent out, and all applications for further tickets must be made at once to the Secretary. A centenary volume, containing a history of the Society, and a short account of its Presidents, has been written by Dr. Norman Moore and Mr. Stephen Paget, and each Fellow will receive a copy. It is proposed to have an exhibition, at the Society's house, of books, portraits, instruments, etc., of a hundred years ago.

SANITARY WORK IN THE PHILIPPINES.

THE Philippine Islands Medical Association held its second annual meeting at Manila on March 3rd and following days. The attendance averaged more than one hundred at every meeting. The most important communication was the Address in State Medicine, which was delivered by Major E. C. Carter, United States Army, Commissioner of Public Health. He began by confessing that the result of his three years' work in the Philippine Islands was one of the greatest disappointments of his life; it seemed to him that it had been one unbroken series of failures. Whatever had been achieved had been done along the lines of least resistance rather than of scientific accuracy. It had been demonstrated in the Philippines, as elsewhere, that State medicine or prophylactic sanitation must be largely influenced by the habits and customs of the people whose condition it was desired to improve. A knowledge of the feelings and ideas of a strange people was not to be got from books or from observation alone; owing to the lack of such knowledge he had often found himself in deep water from which he had not always escaped unscathed. It was hoped that by the formulation in advance of a clear, concise, and definite plan, the people themselves could be persuaded, led, and finally attracted to the good. But if the history of the Teutons and the Latins taught anything, it showed that the systems of life were a growth and a development, and did not spring, admirable and complete, like Athene from the forehead of Zeus. Epidemics and the violation of sanitary laws had been more disastrous to nations than war. Speaking of what had been done, Major Carter stated that vaccination had given satisfactory results in the city of Manila; only 27 deaths from small-pox had occurred during 1904, and in 10 of these the victims were Europeans and Americans who had neglected or avoided vaccination. The latter number was out of all proportion to the number

of natives affected. Referring to the cholera epidemic, the Commissioner said he had been obliged to report to his chief at Washington that all precautions against the spread of the epidemic were doomed to failure, and its end was to be expected only when the vulnerable material had been exhausted. The worst difficulty that confronted the Board of Health in the epidemic of 1902 was the hostility, partly active and partly passive, of the medical profession. Dr. W. S. Washburn, who delivered the Address in Climatology, showed by statistics that the climate of Manila was one of the best in the tropics; the white race could live there as long as anywhere in the world. The death-rate among the whites was as low as in any of the healthiest cities of Europe or the United States. In a paper on the evolution of the medical laboratory work in the Philippine Islands Dr. R. P. Strong, Director of the Biological Laboratory, said the work done had had a great economic value; much of the manufacture of serums and vaccines and chemical analysis, photographing, and assaying had been done for the Insular Government. He invited particular attention to the fact that laboratory facilities were freely at the disposal of any trustworthy person from any part of the world; space would be given, chemical and other materials provided, and all animals required for experiment supplied. The only condition imposed was that the results of the work done should be published in their laboratory *Bulletin*. There was abundance of material for work, particularly on plague, dysentery, surra, rinderpest, glanders, malaria, and dengue. Dr. Maximilian Herzog, Pathologist of the Bureau of Laboratories, gave an account of the history of plague in the Philippines. The first case of which there was any record was reported in Manila on December 26th, 1899. The Chinese came first in order of susceptibility, next the Filipinos, and, lastly, the whites. There had been a steady decline of cases among the Chinese; this Dr. Herzog ascribed to natural causes rather than to any measures that had been taken. The choice of time and place of the next meeting was left to the Standing Committee; Major Carter was elected president.

MALARIA PREVENTION IN THE MADRAS PRESIDENCY.

Lieutenant-Colonel King, I.M.S., Sanitary Commissioner for Madras, has addressed to civil surgeons an important circular in which the subject of malaria prevention is dealt with in a practical and suggestive manner. Recent orders of the Government of Madras have placed a competent overseer at the disposal of district sanitary officers for the purpose of making surveys, plans, and estimates, and enjoined local authorities to carry out sanitary schemes thus proposed and prepared. Two circumstances have aided the present departure in sanitary reform, namely, the education and training of a sanitary executive which Lieutenant-Colonel King has for some years been pushing, and the opening of the King Institute of Preventive Medicine, the origin and objects of which were fully described in a recent number of the British Medical Journal.[1] The question of malaria prevention is handled broadly, and all the influences likely to affect prevalence or repression described with great breadth of view. The subject of irrigation and wet cultivation is one of the most difficult in relation to the adoption of antimalarial enterprises. The Sanitary Commissioner very strongly advocates the establishment of a "dry zone" in which wet cultivation is strictly prohibited around populous places, and gives facts in support of the success of this system, which it appears is enforced by law in Italy.

INFANTILE MORTALITY IN QUEENSLAND.

In a recent report Dr. Clatworthy called attention to the excessive infant mortality in South Brisbane, and to the necessity for more stringent legislation for the protection of infants. In February a deputation of medical men, including Dr. Ham (the Public Health Commissioner), and Drs. Lockhart Gibson, Kerr Scott, Page, Wield, Salter, Turner, and Robertson, waited upon the Home Secretary of Queensland to discuss the administration by the local authorities of the clauses of the Act relating to the protection of infantile life. The deputation pointed out the serious defects in the present administration of the Act, and urged the necessity for new legislation on the lines of the South Australian Act. Mr. Airey, who had already discussed the subject with Dr. Ham and the Society for the Prevention of Cruelty to Children, expressed his appreciation of the importance of the subject and his sympathy with the requests of the deputation. He pointed out, however, that the machinery at the disposal of the Government was insufficient to prevent the evils arising from baby-farming. He promised to bring the whole subject before the Cabinet, and in view of the urgency of the matter he thought that there was no doubt that the Government would be prepared to introduce legislation based on the lines of the South Australian Act.

[1] British Medical Journal, April 8th, p. 806.

CEREBRO-SPINAL FEVER.

Dr. McFeely of Liverpool, an account of whose case of cerebro-spinal meningitis was given in the course of an annotation under the above heading last week, has been good enough to supply us with a full note of the history of the case anterior to its admission to the Royal Infirmary, and of this the following is an abstract: The case was first seen by him on March 17th, the morning after the patient had been subjected to some violence on the part of his employer. He had been unable to sleep all night and complained of acute earache, vomiting, and vertigo. There were no visible marks of injury, and a prescription was given for the ear pain. He was in the same state next day, and was directed to remain in bed, and to advise Dr. McFeely of his further progress. After a few days the patient visited Dr. McFeely, and said, though no better, he must return to work lest he should lose his job. Dr. McFeely met him again in the street, some days later, holding his hand to his head, and subsequently received a second visit from him, at which he stated that he was still no better, and that his pain was only kept under by the cocaine drops supplied. This was on April 7th. Three days later Dr. McFeely, being informed that he was now deaf in the injured ear and that the pain had given way to numbness in and around it, warned his relatives that the patient was running a serious risk in continuing to go about, since his symptoms pointed either to acute otitis or a cerebral lesion. Eight days later Dr. McFeely was summoned to see him at 2 a.m. The previous night the patient on arriving at home had vomited and complained of violent occipital headache: he got out of bed once or twice, staggered about, and finally lapsed into unconsciousness. When seen by Dr. McFeely he was lying with his thigh flexed in the abdomen and the head bent forward and almost leaning on his knees—a position which Dr. McFeely remarks is not suggestive of spinal meningitis. He was comatose and only slightly sensitive to pain, but winced when touched on the left temporal and parietal region; there was no tenderness anywhere over the spine; the pupils were sluggish in response to light. He was perspiring copiously, the temperature being 104.5° F. and the pulse 90. Dr. McFeely therefore advised his removal to the infirmary, but meanwhile visited him again a few hours later: the bowels had then been moved by a dose of calomel, and the coma had increased. He was admitted to the infirmary in the evening, and died forty-eight hours later, a lumbar puncture having been made in the interval, and the diplococcus intracellularis found. At the *post-mortem* examination, and afterwards, death was conclusively shown to be due to generalized cerebro-spinal meningitis, but Dr. McFeely remarks that the dura mater was not turned back from the base of the skull, nor, as far as he knows, was the internal ear examined, so that it is possible, he thinks, there may have been an undetected basal fracture. We understand, however, that Dr. McFeely was not present right up to the end of the examination, so it seems prob-

able that he is mistaken on this point. If, however, he is correct, the circumstance is perhaps one to be regretted, since it might be contended that room was left for doubt as to whether the cerebro-spinal meningitis discovered was purely idiopathic, or connected in some obscure way with the early conditions now described on behalf of Dr. McFeely. The independent occurrence within a month and in one patient of a history of head injury, an acute otitis, and a fatal attack of cerebro-spinal inflammation might possibly in itself be regarded as a circumstance worthy of note, but we have given the facts in detail chiefly because, though Dr. McFeely's connexion with the case has been the subject of some comment, he very properly refused to discuss the matter except at a meeting of the Liverpool Medical Institute on April 27th. His account of the case then given was followed by a discussion which turned chiefly on the possible medico-legal bearings of such cases. At the same meeting it transpired that when he gave evidence before the coroner's court he was not aware of the state in which the spinal cord as distinct from the base of the brain was found, a fact which seems to explain his continued belief at that time in an abscess being accountable for the death.

AN ORIGINAL SCHEME FOR CHILD REARING.

A SCHEME for municipal child rearing has been adopted at Huddersfield. Alderman Benjamin Broadbent, Mayor of Huddersfield, who is we believe a brother of Sir William Broadbent, being painfully impressed by the great infant mortality at Huddersfield, offered one sovereign to every child who reached the age of one year. Struck by the common sense of this idea, the health authorities drew up a scheme which was discussed and adopted by the corporation last week. The most original part of the scheme is that one shilling will be paid to the first person who shall notify the birth of a baby to the medical officer within forty hours of the event. Lady health visitors are to be appointed who will at once go to the house and advise the mothers how to nurse and rear the baby. They will also inquire into the causes leading to the death of infants, investigate cases of illness among school children, and inspect workshops where women are employed. The medical officer of health will draw up a paper of instruction in the care of infants, feeding, washing, clothing, etc., to be distributed among parents. The mayor, who has assisted personally in drawing up the scheme, insists upon the necessity of establishing a nursery where infants may be cared for while the mothers are away at their work in the mills. Here special milk will be available to feed the babies. The scheme is an admirable one, and other municipalities will do well to follow the example of Huddersfield.

RADIUM IN THE TREATMENT OF CANCER.

DURING the past week sensational reports have appeared in the newspapers as to the curative effects of the "Lieber treatment" of cancer. A press agency, which for years past has made itself notorious for the untrustworthiness of its reports of medical discoveries and new cures, gives details of the case of a prominent citizen of the United States. It is stated that an *x*-ray examination showed that the cancerous area had been reduced by the Liebler (*sic*) treatment in three weeks from 18 to 7 square inches. It is added that the rapidity of the abatement of the mischief surprises the physicians in attendance, who now hope to find at the next examination that the growth has disappeared. The patient, who is the President of a university, is reported as saying that he is "feeling fine"; he has gained 12 lb. in weight, and is working eight hours a day. For his sake we hope this is true; but for the sake of other sufferers who may be deluded by vain hopes in reading of the marvels of radium, we think it right to state that the gentleman whose name is put forward as the inventor of the method has emphatically repudiated the accounts of the treatment and its effects which have been published in the American papers, from which the reports which have found their way hither are taken. The following letter from Mr. Hugo Lieber appeared in the *New York Medical Journal* and *Philadelphia Medical Journal* of April 22nd:

> I note that the daily papers of April 19th contained sensational articles attributing to me the treatment and cure of a case of cancer at the Flower Hospital, in reference to which I beg leave to say that I have never been in the Flower Hospital in my life, and that the statements contained in these various articles are in the main false and wholly misleading. My only connexion with this matter was the preparation, some months ago, of some celluloid needles coated with radium, which were made by me at the request of Dr. Piffard. For about two years I had been trying to obtain radium in such form as to overcome the obstruction of the container so as to make the *alpha* rays available for practical use, which I finally succeeded in doing by what I have termed radium coating. This only is the novel feature of my invention. My only connexion with the case was the preparation of the radium-coated celluloid needles at the request of Dr. Piffard, who desired to try them in a case of cancer. I have never seen any of the patients nor treated any of them, and if any credit is due for the use of these needles prepared by me it is to Dr. Piffard.

The particular method of employing radium in the case in question was described by Dr. Piffard in an address delivered before the Medical Society of the County of New York on March 27th, 1905, when he also exhibited the radium coated needles. While the results obtained have been quite satisfactory so far, Dr. Piffard does not consider that a sufficient number of cases has yet been treated to justify any final conclusion as to the real value of the method.

FROM CIGARETTE TO CIGAR.

THE State of Indiana, in a fit of that fine frenzy of reforming zeal which seems to visit American legislators from time to time, recently made a law punishing by heavy fines all persons found with cigarettes or cigarette papers in their possession. Already, however, it has become apparent that the enactment is too drastic. Several decisions have been given by the Courts of Indianapolis that there is nothing to prevent private persons from carrying cigarettes as long as they do not attempt to sell them. One effect of the new law is said to be that boys who formerly smoked cigarettes now smoke big black cigars.

VOLUNTEER TRAINING IN APRIL.

THE 3rd London Volunteer Infantry Brigade held its annual training this year at Dover from April 20th to 27th, as it was found that the majority of the corps would be unable to join a camp for the usual week in August. Four battalions and the bearer company were present, and each had a muster of upwards of two-thirds of its strength. Owing to the time of year the men were accommodated in schools instead of under canvas, and, as the weather turned out—a north wind blowing the whole week—this was fortunate for the health of the men. We remember a few years ago the London Scottish were under canvas in April, and, though the men experienced no inconvenience at the time, a good many suffered for it afterwards. This year the health of the men was remarkably good and the services of the medical officers were not much in requisition. On each field day the bearer company established a field hospital at a convenient site, but very few cases were brought for treatment, and only on one day was it necessary to take any men home in the ambulance. Advantage was taken of being at Dover, where there is a station hospital, to give the men of the bearer company some instruction in hospital orderly duties, and, through the kindness of Colonel Webb, the Principal Medical Officer, all who could be spared spent several hours in the wards every morning. This is the first time this privilege has been extended to men of brigade bearer companies, and it was much appreciated.

AMERICAN NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

What the *Medical News* calls the most important meeting of tuberculosis specialists ever held in the United States will take place at Washington on May 18th and 19th, when the American National Association for the Study and Prevention of Tuberculosis will assemble to consider a plan of campaign by which consumption can be eradicated. Hitherto, although local societies and State and City Health Boards have grappled with the problem more or less energetically, no authoritative national body comprising all the foremost experts of America has been in existence. Now such men as Drs. Biggs, Bowditch, Trudeau, Osler, Sternberg, with many others—laymen as well as physicians of exceptional training and influence—have joined in a united effort to solve the problem of tuberculosis in all its aspects, sociological, pathological and bacteriological, clinical and climatological. It is estimated that pulmonary tuberculosis now exacts an annual tribute of more than 100,000 lives and millions of dollars in loss of money in the United States. The most conservative among the leaders of the movement are agreed that the disease can be controlled and in time stamped out. This is to be the aim of their efforts.

THE DRINKING OF METHYLATED SPIRIT.

Porson, the famous Greek scholar, who drank whatever was handy, is said to have declared that the spirit from a friend's lamp was one of the most comforting beverages he had tasted. The remains of several mighty men of war, including Lord Nelson, which were placed in spirit of some kind or another for preservation during transport home are known to have arrived in a dry state, the preservative fluid having been drunk on the passage. Curators of museums have sometimes had a difficulty in keeping their specimens owing to the same depraved taste in certain attendants. The drinking of methylated spirit seems to be prevalent among the poorer classes in the Isle of Man. The House of Keys has under consideration a Bill to regulate the sale of this unseductive intoxicant. The principle was adopted, as in England, of prohibiting the sale in ordinary of non-mineralized spirit.

SCHOOLBOYS' SLEEP.

A meeting of the Medical Officers of Schools Association will be held at the Medical Society's Rooms, 11, Chandos Street, Cavendish Square, on Thursday next, May 11th, at 4 p.m., when a discussion will be opened by Dr. Acland on the hours of sleep which are desirable for the younger boys at public schools. The matter is one of considerable importance to the well-being of growing boys, and has already attracted some attention, as may be seen from the fact that at the Conference on School Hygiene which was held under the auspices of the Royal Sanitary Institute in February last, a resolution was passed and has been approved by the Council of the Institute, to the effect that in some of the public schools the present hours of sleep are insufficient. It is hoped that there may be a full meeting on May 11th both of schoolmasters and of medical officers of schools, and that the discussion may be the means of calling the attention of the Public School Authorities to a question of hygiene which in many schools has not been sufficiently studied.

COBRA VENOM AND PROTEID METABOLISM.

Dr. James Scott, in a paper recently read before the Royal Society, has called attention to the fact that although much valuable work has been done upon the physiological action of cobra venom, no observations of its effects upon the metabolism have hitherto been recorded. In the endeavour to fill up this gap in our knowledge, Dr. Scott has carried out a research upon proteid metabolism in dogs injected subcutaneously with sublethal, and in some cases lethal, doses of cobra venom, after having first been brought into a condition of nitrogenous equilibrium. He found that, in spite of a well-marked local reaction, practically no change was induced in the rate of proteid metabolism by the administration of the venom. There was a slight decrease in the proportion of urea nitrogen; but this was quite insignificant when compared with that produced by diphtheria toxins and various other drugs. There was also a slight rise in the proportion both of ammonia nitrogen and nitrogen in purin bodies, whilst the nitrogen in other compounds showed no constant change. The change in the P_2O_5 excreted was not constant, but in two experiments there was a slight rise. The general result of the research therefore affords evidence that the change produced in the proteid metabolism is small. Such as it is, it is in the direction of decreased elaboration of urea and increase in the proportion of nitrogen excreted as ammonia. These are indications, in Dr. Scott's opinion, of a slight toxic action on the hepatic metabolism rather than a general action on the proteid changes. He, therefore, regards his results as tending to confirm the view that the poison of cobra venom acts chiefly upon the nervous system.

A PARASITE OF THE LEUCOCYTES OF DOGS.

In to-day's issue of the British Medical Journal Dr. Bentley describes a parasite of the white corpuscles of dogs from Assam. This discovery is of importance, because though parasites have been found in the leucocytes of cold-blooded animals, this is the first recorded instance of their occurrence in warm-blood hosts. Dr. Bentley first found this interesting organism when examining the blood of dogs in February, 1904, in Assam. Febrile symptoms and slight anaemia were present. The further description of the parasites, their life-history, different phases, and other points will be looked forward to with great interest by protozoologists and others interested in this branch of medicine.

A HOSPITAL ISLAND.

The contract has been awarded for the construction of an island in New York Harbour on which is to be built what is intended to be one of the finest institutions in the world for the treatment of contagious diseases. It is expected that the hospital, which is to be an addition to the immigrant station at Ellis Island, will be completed within two years.

The next session of the General Medical Council will begin on Tuesday, May 23rd, when the President, Dr. Donald MacAlister, will take the chair at 2 p.m.

At a meeting of the Medical Society of London on Monday next, May 8th, Mr. Reginald Harrison will open a discussion on the perineal and subpubic method of prostatectomy.

The Administrative Council of the Department of the Seine has dispatched to England a small mixed commission of water experts. It is charged to investigate the methods of water purification in use in London and in several of the large provincial cities, and to report upon any of them which may seem capable of being adopted with advantage in connexion with the River Seine. One of the members of the commission is M. Calmette, Director of the Pasteur Institute at Lille.

The party of British medical men visiting Paris next week will be received at the Institut Pasteur at 3.45 p.m. on Saturday, May 13th, by M. Roux and Madame Pasteur. On Thursday afternoon, May 11th, the party will be received at the Hôtel de Ville by Dr. Brousse, President of the Municipal Council of Paris, and some of its members. The morning of each day of the visit will be devoted to visits to the hospitals, and members of the party will have an opportunity of choosing the hospitals they may prefer to attend, at the reception at the Sorbonne on Wednesday evening, May 10th.

MEDICAL NOTES IN PARLIAMENT.

[By Our Lobby Correspondents.]

The House of Commons met again after the Easter recess on Tuesday last and proceeded to debate the Aliens Bill on the motion for its second reading. Sir Charles Dilke moved an instruction suggesting that the evils of low-priced alien labour could be best met by legislation to prevent sweating, and requiring further assurance that the principle of asylum for victims of persecution was properly safeguarded in the Bill. In the course of a speech which criticized the figures on which the Bill was founded, he pointed out that the one poor alien who could and must be landed under the Bill was the person suffering from infectious disease. The Public Health Acts would require him to be landed for isolation and treatment. The public health point of view was not prominently raised in the debate and only incidental reference was made to overcrowding in insanitary areas. The debate lasted all day, and, after the instruction had been rejected by a majority of 152, the Bill was read a second time without a division.

The Lunacy Bill introduced by the Attorney-General and the Solicitor-General has been printed and circulated. It consists of six clauses. The first relates to visits to licensed houses, and proposes to enact that the commissioners may by rules provide that anything hitherto done by two, or not less than two, commissioners may be done by one commissioner. In the second clause, power is taken for the Lord Chancellor to appoint one extra legal and one extra medical commissioner. The third clause deals with the temporary care of incipient lunatics, and allows a person suffering from mental disease, on the certificate of a medical practitioner that the disease is not confirmed, to be placed with a person named in the certificate for six months for treatment with a view to recovery. The certificate must not be signed by the person receiving the patient, and a copy of the certificate must be sent within one day to the Commissioners, who may visit the patient. The person who receives the patient for treatment is also obliged to notify the reception of the case, and also to send notice to the Commissioners in case of death or change of residence. Notice has also to be given within two clear days of the expiration of the period named in the certificate, or if he ceases to have charge of the patient at an earlier date, whether the patient has recovered, and if not, in what manner he has been dealt with. A penalty not exceeding £50 is proposed for the misdemeanour of default in giving notices or reports. Only one patient can be received by any one at the same time, and after the expiration of the time named in the original certificate, another certificate for the same patient cannot be given for six months. The fourth and fifth clauses deal with and extend the administrative powers for Judges in Lunacy and the jurisdiction of Masters in Lunacy. The sixth clause gives short title of the Bill, and the construction with other Acts, and fixes the date of operation from January 1st, 1906.

Homes under the Inebriates Acts.—Mr. Purvis asked the Home Secretary, on Tuesday, if he could state the number of homes established under the Inebriates Acts, 1898 and 1899; the present capacity of the homes, and the total number of inmates on March 31st last. Mr. Secretary Akers-Douglas replied that under the Inebriates Acts, 1898 and 1899, two State inebriate reformatories and twelve certified inebriate reformatories had been established prior to March 31st last. These institutions contained 1,112 available beds and 876 inmates on the date mentioned; 200 of the unoccupied beds were in newly-established institutions. Another certified reformatory with accommodation for 80 persons had just been opened. Besides these reformatories, which were for persons committed from courts, there were nineteen retreats licensed under the Habitual Drunkards Act, 1879, which provided accommodation for 544 voluntary cases.

The Royal Commission on Sewage Disposal.—In answer to Mr. James Hope, the Secretary to the Treasury stated on Tuesday that the cost of this Commission up to March 31st last amounted to £35,362. In answer to a further question it was stated that the Commission hoped to issue a report this year dealing with the relative merits of different methods of sewage disposal. It was understood that it could not be stated at present when the final report would be issued.

The Infectious Diseases (Ireland) Bill is a Government measure introduced by Mr. Long, the Chief Secretary, and the Attorney-General for Ireland. The object of the Bill is to make the law in Ireland like that in England so far as regards the notification of cases of infectious disease, and the steps to be taken to prevent the spread of such diseases through the medium of day schools. The expenses incurred under the Bill by the Sanitary Authority will be regarded as expenses under the Public Health Act. It is proposed to come into force on January 1st, 1906.

The Constitution of Dublin University.—Dr. Thompson asked the First Lord of the Treasury if he would consider the advisability of so altering the constitution of the University of Dublin that the Board of that institution should be elected by the Junior Fellows and Professors, and that the principle of co-option might also be adopted, so as to permit of the immediate election of a certain specified number of Roman Catholics on the governing authority. Mr. Balfour answered that legislation would be necessary to give effect to this proposal, and this was not contemplated by His Majesty's Government.

Ireland.

The Irish University Question.

In the *New Ireland Review* the Rev. T. A. Finlay, S.J., one of the professors in the Catholic University College, Dublin, contributes an article in which he advocates an *ad interim* policy, making for a definite solution of the Irish University question. He believes that if carried into effect it would demonstrate with new force the need for Government intervention, and add new cogency to the arguments with which the claims now made upon the Government are urged. He accounts for the failure of the former effort of the Catholics to found a university for themselves by the facts—first, that it could not confer degrees which would be recognized as a stamp of proficiency in the professions; secondly, that no body of professors qualified for the work of a Catholic University could be found in Ireland; thirdly, that there did not exist any general system of intermediate education to furnish students to a popular university. These disabilities no longer exist. Degrees of recognized worth can now be had from the Royal University. A network of intermediate schools educates 10,000 pupils in the courses that lead to a university.

The National University College which he proposes to found would exist primarily for those who, for conscientious reasons, cannot avail themselves of existing university institutions; but it would also admit, without tests of any kind, all others who might choose to take advantage of its teaching. There would be a Board of trustees and visitors, which would constitute the highest authority. It should be representative of the classes who contributed to create and maintain the college. Assuming that the Catholic clergy took an active part in raising funds, they would by this fact—other considerations apart—be entitled to have a part in allocating them. Two seats might accordingly be reserved for members of the hierarchy. Contributing laymen might be represented by three men. And, lastly, the Gaelic League should be represented. This would give a Board of six members.

The academic council would be entrusted with the immediate conduct of the educational work of the college. The president of the college, appointed by the Board, would represent that body, and there would be three members for the Arts Faculty, two for medical, and one for law and engineering. The members of the Faculty in which a professional appointment had to be filled should sit and vote with the council. How is the money to be provided? Obviously by those for whom the institution would exist—the Catholics of Ireland; £10 from each parish would provide £10,000. The amount raised in each diocese should be devoted wholly to scholarships for the ablest pupils of the intermediate schools of the diocese. If the value of a scholarship were fixed at £50, the sum subscribed would provide for the free education of 200 scholars. As to the maintenance of the staff, it is assumed that the services of half the Fellows of the Royal University would, as at present, be given to the Dublin College, and this addition of teaching power would amply supply any deficiency. Any additional buildings required beyond those at present in use should be of the cheapest materials. Such a lecture shed of corrugated iron would cry aloud persistently till the injustice of which it was the monument was redressed.

The author admits that his scheme has been peremptorily dismissed by one man of eminence as "absurd," but from others it has received more flattering comment. He believes that a serious effort by the Irish nation to establish a system of higher education would appeal to English statesmen more potently than any statement of grievances, however eloquently worded or logically complete.

The Purdysburn Drainage Question, Belfast.

A memorial to the Local Government Board is being presented by ratepayers in Windsor Ward, Belfast. The memorial recites the erection of a fever hospital three miles beyond the boundary of Belfast; the approval of a meeting of the Public Health Committee of the Corporation, held on May 6th, 1904, of a scheme for the drainage of the hospital at an estimated cost of £6,444, embracing the pumping of the sewage through an iron main to the high-level sewer at Balmoral Avenue, the terminal point of the city sewers in the district; the commencement of the work, although the Public Health (Ireland) Act, 41 and 42 Vict., cap. 52, sec. 35, enacts that a sanitary authority shall give three months' notice of any intended sewer construction in one or more of the local papers within the district of where the work is to be made; and no notice of the proposed sewage scheme appeared in any of the Belfast newspapers; that a public meeting in the district was immediately held on the discovery of the scheme; that the ventilation of the present sewers in the district is very deficient and dangerous to health, and has been protested against; and that the proposed discharge of the sewerage matter from one infectious disease hospital would intensify the danger, especially as the district is thickly populated, although it is promised to disinfect the sewage. Finally, the memorialists pray the Board to stop the proposed scheme, and give public notice in order that objections may be lodged, and to order proper ventilation of the present sewers.

National Association for the Prevention of Consumption, Cork Branch.

On April 27th, under the auspices of the Cork Branch of the National Association for the Prevention of Consumption, Professor E. J. McWeeney, M.A., M.D., F.R.C.P.Irel., of Dublin, delivered a lecture on Tuberculosis: its Cause and Prevention. The large hall of the Assembly Rooms was well filled, and the lecture, which was presented in a popular form and illustrated by limelight diagrams, was followed with much interest. Dr. Windle, President, Queen's College, Cork, was in the chair, and the medical profession was well represented in the audience.

Professor McWeeney, after some preliminary observations on the pathology and nomenclature of the disease, pointed out that it was excessively common over most of the world, but that Europe was specially stricken with it. In Ireland, during 1900, it caused nearly 12,000 deaths, coming next in frequency as a death producer to "old age." In 1903 it took the first place, causing over 12,180 deaths, representing an annual rate of mortality of 2.8 per 1,000. In Dublin the deaths from all forms of tuberculosis last year amounted to 1,779; of this number over 1,125 were due to the pulmonary form. In Cork, with a population of 76,122, there were 352 deaths from phthisis, whereas the mortality in the two divisions of the Sister Island, which began by being higher had been undergoing a progressive diminution from 3.3 to 1.9 in England, from 3.6 to 2.3 in Scotland. In Ireland it had actually risen from 2.4 in 1869 to 2 7 in 1902, and the figure for 1903 is 2 8, showing a persistent tendency to rise. Taken in conjunction with the steady increase in mental disease and the steady drain of emigration these statistics gave a gloomy outlook for the future of the Irish people. Professor McWeeney then went on to describe the bacillus and the various ways by which it may gain entrance into the body. First of all from sputum which fell on the floors of rooms, tramcars, etc, drying up, falling into powder, and mingling with the dust, and in this form was inhaled. Secondly, through the skin, especially the face and scalp. This happened chiefly in infancy when children were in the "crawling stage" of their development. Thirdly, by being sprayed from the mouth in the act of coughing, sneezing, and even loud speaking, while another mode, the importance of which had been very diversely rated, was through the milk and meat of tuberculous cows.

Referring to the preventability of tuberculosis Professor McWeeney said that undoubtedly the most important was the disinfection of the sputum, best achieved by the use of spitoons, the contents of which might be poured into the fire and the vessel itself scalded out with boiling water. If handkerchiefs were used they should be thoroughly "scalded" before being sent to the laundry. Cow's milk intended for young babies and children should be sterilized. Living rooms should be well ventilated, blinds up and winpows open. The dusting of rooms should be done by the moist method; special regulations should be enforced with regard to spitting in workrooms, where the vibrations of machines kept the air continually charged with dust, and in shops, etc. Then as regards the duty of the sanitary authority and the state; in the first place every facility should be given to the medical profession for early diagnosis of consumption, the presence of the bacillus in the sputum revealing the disease long before the lung was extensively affected. Every sanitary authority throughout the country should have its bacteriologist, to whom specimens from suspected cases should be sent, and who would report on them free of charge. The enormous value of this would be that cases of incipient consumption would thus be detected while it was yet time to save them by life in the open air and liberal diet. In the second place, the notification of consumption should be compulsory. The town of Sheffield had been the first to obtain parliamentary sanction for work of this sort. Thirdly, there should be compulsory periodical inspection of dairy cows within the towns and cities so as to detect those with tuberculous udders. Milk coming in from outside districts should be periodically tested, and if the bacilli were detected the source of the infected milk should be traced to the cow yielding it. Private slaughterhouses should be abolished, and all large animals killed at public abattoirs. Lastly, the provision of sanatoriums was of great use for the treatment of cases, but there should be two kinds—one for early cases that were curable, the other for very advanced cases which, left in their own homes, would be a source of danger to their families.

Dr. Cremen, on behalf of the audience, proposed a vote of thanks to Dr. McWeeney, who in his reply said that the success of the Cork Branch of the Association for Prevention of Consumption was largely due to the energy of Dr. Cremen.

Women Graduates at Dublin University.

A great crowd of women received degrees at the University of Dublin last week. There were a few from Ireland, but the majority came from the English universities, where degrees are not conferred upon women candidates, although they pass the qualifying examinations. The coffers of the University of Dublin benefit to the extent of nearly £2,000. It is stated that many of the graduates are opposed to the action of the Board in this matter, but it is hardly likely that so profitable an arrangement will be abandoned, at least until the Universities of Oxford and Cambridge agree to recognize the eligibility of women for their degrees.

Recognition of Work for Russian Sailors.

The University of Dublin has conferred the degree of M.D., *stip. con.*, on Mr. George H. Keene, M.B., one of its graduates, in recognition of services rendered by him to the Russian sailors wounded last year at Chemulpho, when their ship, the *Variag*, was destroyed by the Japanese squadron. He has already received the thanks of the Tsar, accompanied by a cigarette case decorated with diamonds.

The Royal University.

Mr. Andrew Todd, M.A., LL.D., and Mr. Edward Magennis, M.D., both of Dublin, have offered themselves as representatives of Convocation on the Senate of the Royal University. In a joint address they assert that a great deal of apathy is shown by the members towards meetings of Convocation, and this they attribute to the want of attention displayed by the Senate to the expressed opinions of Convocation. Their endeavour, if elected, will be to ensure that recommendations made by Convocation shall be fully and seriously considered by the Senate.

Meat and Milk.

Dr. Hugh O'Neill, High Sheriff of Belfast and editor of the *Belfast Health Journal*, has just returned from a visit to Copenhagen, Berlin, Cologne, and Hamburg, which he undertook in order to investigate the systems of milk and meat inspection practised in those cities. Accounts of his experiences and opinions have already appeared in several papers. The German meat and the Danish milk methods are already well known to sanitarians in this country, but, in view of the prospect of his representing Belfast in Parliament, it is natural that importance should be attached to

his views about them by the papers; and, in any case, it is permissible to regard the incident as evidence that if Dr. O'Neill reaches Westminster there will be found in him a recruit to the small number of members who favour measures of sanitary progress.

Scotland.

Representation of the University of Edinburgh.

It is announced that Sir John Batty Tuke, the representative of the Universities of Edinburgh and St. Andrews in the House of Commons, will be opposed at the next election by Mr. John St. Loe Strachey, editor of the *Spectator*. Mr. Strachey has come forward at the request of the Edinburgh University Free Trade Union.

Ayr District Asylum, Ayr.

The Medical Superintendent of this Asylum, Dr. C. C. Easterbrook, in his annual report for 1904, comments on the fact that "in some quarters of late there has arisen a tendency to decry the possibility of obtaining a satisfactory 'history' in the case of insane patients belonging to the poorer classes and to disparage its reliability," and he continues "but in view of the fact that without a 'history,' in a mental case beyond all others, it is, except in obvious cases, impossible to form an opinion worthy of the name, and quite apart from the important bearing of this subject on the future elucidation of the insanities I think it the physician's duty to his patient not to rest satisfied until he has ferreted out and sifted all the facts necessary to enable him to arrive at a proper working diagnosis and prognosis." To ascertain the truth there is required, he says: "(1) The desire to know the truth, (2) the energy to pursue it, (3) tact in eliciting it, and (4) ability to tell the true from the false, to discriminate between the valuable and the worthless clues of evidence, to discard the latter and to follow up the former.' "The disparagement of the armchair critics is all the more regrettable as being highly inimical to progress in our understanding and treatment of insanity." This tendency, traversed in such strong terms by Dr. Easterbrook, undoubtedly exists; but it is, unfortunately, only too well grounded on evidential fact.

The pessimistic dubiety with which the tables setting forth the probable causes of insanity amongst the admissions are regarded—and this is evidently the gravamen of Dr. Easterbrook's complaint—is to be found, however, not amongst the armchair critics, but is the deliberately expressed opinion of men of admitted authority, and augurs most hopefully for a more scientific method of attacking the great problem of the causation of insanity than that of drawing hasty conclusions from the information usually supplied under this head. Even if every medical superintendent of an asylum, or, what is perhaps more to the point, if every assistant medical officer in an asylum—for it is as a rule to these that the compilation of the tables is committed—fulfilled the four conditions Dr. Easterbrook desires, and possessed that scientific instinct which Bacon called "experientia literata, sagacitas potius et odorato quaedam venatica, quam scientia," and the ability to divest his mind of every preconception, bias, or pet theory, 'non fingendum aut excogitandum, sed inveniendum, quid natura aut faciat aut ferat," the difficulties in the way of arriving at anything like accuracy would still be enough to vitiate conclusions drawn from data whose validity depends on the good faith and fidelity of recollection of pauper lunatics or their friends. Fortunately such information, though helpful, is not indispensable. The classification, diagnosis, and treatment of mental diseases are as yet, and, so far as one can see, are destined for years to remain symptomatological; and though it is obviously incumbent on the physician "not to rest satisfied until he has ferreted out and sifted all the facts necessary to enable him to arrive at a proper working diagnosis and prognosis," it is quite possible to form an opinion worthy of the name without anything approaching to a complete history. The true path of progress to a knowledge of the causes of insanity appears to lie in biological, pathological, and psychological investigation.

This, the thirty-fourth annual report of this asylum, shows that on January 1st, 1904, there were 518 patients on the register, and on December 31st there were 508. The average number daily resident was 517, which is an increase of only two on the previous year. These figures refer entirely to rate-paid lunatics, there being no accommodation in this asylum for private patients. The statistical tables show a steady yearly increase of the average daily numbers under treatment since the opening of this asylum, but with regard to the ratio of insanity to population, Ayrshire is a "sane" county, for at the 1901 census the county of Ayr was twenty-eighth on the list of the 33 counties of Scotland, the ratio for 1904 being estimated by Dr. Easterbrook at 2.6 per 1,000. There were 140 admissions during the year, two of whom were admitted twice during the year. The great majority were of the age period 30 to 59 inclusive, and 109 were "first attack" cases. Very complete information is given as to the supposed causal factors of the insanities in these cases, arranged in two columns, distinguishing between the total incidence of these factors and those in which they were regarded as the main cause of the attack. Alcoholic excess is mentioned in 43 cases, but in only 19 of these as the chief cause—that is, in 13.7 per cent. of the admissions. Epochal and reproductive crises are given in 56—that is, in 10.5 per cent.; syphilis is mentioned in 10 cases, but as main causal factor in only 1, although there were 9 cases of general paralysis amongst the admissions. Mental factors, emotional strains, and crises are mentioned in 33 cases, but as chief cause in 9 only—a proportion probably much nearer the truth than that usually given. Dr. Easterbrook deals with the hereditary factors in a separate table, dividing the relationships into degrees according to closeness of connexion, and into the forms of disease affecting the forbears or relatives of the patients. This table shows that 40.1 per cent of the admissions belonged to families in which some form of psychosis was admitted, and 20.4 per cent. to families in which some member was affected by tuberculous disease. It should be stated here that the table includes cousins and "remote and indefinite relatives," 10 out of the total 57 belonging to this column.

As to the forms of mental disorder in the 138 persons admitted, Table VI gives these according to their symptomatological classification and also their nosological classification, somewhat after the plan of Skae's classification. The table shows that there were admitted 53 cases of mania, 21 of melancholia, 30 in whom hallucinations, delusions, or obsessions were marked features, 20 of delirium, confusion, or stupor, and 14 of mental enfeeblement or dementia. Of the total number, 7 suffered from congenital defect, 9 were general paralytics, and there were 6 cases of epileptic insanity. There were 19 classed as cases of alcoholic insanity. During the year 91 were discharged, 1 of whom was discharged twice. Of these, 56 were sent out recovered, 22 were transferred to other asylums or poorhouses, and 13 were discharged to family care. The recovery-rate for the year, calculated on the admissions, was 40, or, excluding transfers, 42.7 per cent. During the year there were 59 deaths, giving a death-rate on the average numbers resident of 11.41 per cent. The chief causes of death were: Senile decay in 10 cases, pulmonary tuberculosis in 7, general paralysis in 6, heart disease in 6, and in 1 case from septic intoxication following a cut throat inflicted before admission. The causes of death were verified in 53 instances *post mortem*. The general health of the institution was good throughout the year, and the casualties unimportant. The reports of the Commissioners in Lunacy for Scotland, who speak in well-deserved terms of encomium regarding the management of this institution, are included in the report.

LITERARY NOTES.

Messrs. Green and Son, of Edinburgh, will shortly publish a work, entitled *Methods of Morbid Histology and Clinical Pathology*, by Drs. Walker-Hall and G. Herxheimer. The book, which is designed for the use of students, hospital residents and research workers, includes descriptions of all the new methods of investigation of blood, nervous tissues, etc. There is a full bibliography, and the type is arranged in such a manner as to facilitate laboratory work.

Under the title of *Archivos Latino-Americanos de Pediatria* a new review devoted to children's diseases has just appeared at Buenos Aires. Its object is stated to be to complete the work of international congresses and to form a link of union between American paediatrists.

The *American Journal of Surgery and Gynaecology* has dropped the latter part of its title and henceforth will appear as the *American Journal of Surgery*. The journal in its new avatar is edited by Dr. Walter B. Brickner, of New York, and published by Dr. Joseph MacDonald, Junr., formerly Manager of the *International Journal of Surgery*.

We have received from Messrs. Cassell and Company Part I of *Royal Academy Pictures*, 1905, illustrating the 137th exhibition of the Royal Academy. It is to be completed in four parts, each of which will contain a Rembrandt photogravure plate of a notable picture; that in Part I is The Cup of Tantalus, by Sir E. J. Poynter, P.R.A. The work has already established itself as the best pictorial representation of the Royal Academy Exhibition, and this year's issue fully maintains its high standard of excellence.

Not the least interesting picture among Mr. Charles Whibley's *Literary Portraits* is Philemon Holland, "Doctour of Physicke" of the University of Cambridge and English "Translator-General in his age" of the classical writers. Holland took his M.D. in 1595, and in the same year settled to the practice of his profession at Coventry. He was just 40 when he entered on his career as a physician; of his earlier life little or nothing is known. He was not successful in the ordinary sense; as Mr. Whibley puts it, "he tended the sick in charity and grew poor." He was driven for a livelihood to become usher in a school, where he taught the rudiments of learning to the ingenuous youth of Coventry for many years. He had some distinguished pupils, among whom was Lucius Cary, the great Lord Falkland. But neither teaching nor physicking was his true vocation; he was, before all, an interpreter of the writers of ancient Greece and Rome to his rude countrymen. Besides Latin and Greek, he knew perfectly Italian and French, and he was a master of nervous and polyphonic English. He gives us his notion of translating in the following passage:

> According to this purpose and intent of mine I frame my pen not to any effective phrase but to a mean and popular style, wherein if I have called again into use some old words, let it be attributed to the love of my country language: if the sentence be not so concise, couched and knit together as the original, loth I was to be obscure and darke: have I not Englished every phrase aptly? each nation hath several manners, yea, and terms appropriate by themselves.

From this it would appear that Holland believed he was writing in a mean and popular style, whereas, as Mr. Whibley points out, even when he is most familiar his periods pass like a pageant or march as armed men. To members of his own profession probably his translation of Pliny's *Natural History* makes the strongest appeal, but he also Englished Plutarch's *Morals*, Livy, Suetonius, Xenophon's *Cyropaedia*, the *Roman History* of Ammianus Marcellinus, and the *Regimen Sanitatis Salerni*, which he calls "the Schoole of Salernes Regiment of Health, containing most learned and judicious directions, and instructions, for the Preservation, Guide, and Government of Man's Life." In 1637 "this eminent Translator," as Fuller says, "was translated to a better life." Coventry commemorated her famous citizen by a monument in Trinity Church.

To the May number of the *Practitioner*, Dr. Gibson, of Edinburgh, contributes some cases of aneurysm; Dr. StClair Thomson relates a case in which epilepsy ceased on the removal of adenoids; Dr. Robert Hutchison discusses the dietetic treatment of dyspepsia; and Dr. J. D. Rolleston deals with some aspects of the serum treatment of diphtheria. There is an illustrated article on King's College Hospital and School, by Dr. H. Willoughby Lyle; and one on royal relics, in which are related the strange adventures of fragments of the fleshly garments of various kings and famous men. It is said that the heart of the great Napoleon, which was put aside at the *post-mortem* examination, was eaten by rats; that the heart of Louis XVII was preserved by P. J. Pelletan, one of the surgeons appointed to examine the body, and offered by him and his descendants to Louis XVIII, Charles X, and the Comte de Chambord; none of them, it appears, would own it as of their own royal flesh and blood. The story of the opening of the coffin of Charles I in 1813, is told on the authority of Sir Henry Halford, who was present. The memory of Gambetta has lately been specially honoured in France, and an account of the fate of the great demagogue's heart is therefore opportune. It appears that the doctors who ministered to Gambetta in his last illness divided his limbs and viscera among themselves after his death, and the question what had become of his heart at one time threatened to become one of the mysteries of history. Paul Bert, who assuredly cannot be suspected of superstition, confided to a journalist of Cahors, Gambetta's native town, that in the scramble for relics of the great Tribune of the People, he had secured the heart. With pious care he kept it sealed up in a glass vessel, which, for safety, was enclosed in a fireproof casket; it seems to have been exposed occasionally, doubtless with appropriate rites, to the veneration of devotees. Great alarm was caused among them by a rumour that the precious relic had been carried off to Tonquin, when Paul Bert went to that colony to enter on his duties as governor, and that it had been lost on the voyage. After a period of mourning good tidings of great joy came to them, and they learnt that the sacrosanct viscus had never left France but had been deposited in safe hands, and that on Madame Bert's return to France it had been given into her keeping. Doubtless the lady has a due sense of the importance of her trust, but the responsibility is great, and the faithful feel that the State is the proper guardian of a national treasure.

METROPOLITAN HOSPITAL SATURDAY FUND.

Tuberculosis and the Industrial Classes.

The annual meeting of the supporters of the Hospital Saturday Fund was held at the Mansion House on April 29th, under the presidency of the Lord Mayor.

Report of Council.

The report of the Council stated that the income of the fund for 1904 was £24,344, as compared with £23,674 in the previous year. The sum of £22 196 was distributed among 198 institutions. Upwards of 36,000 letters of recommendation for participating institutions were also distributed during the year. This number included 1,609 for convalescent homes, of which 660 were on the part-payment system. The Surgical Appliance Committee supplied 4,644 appliances during the year, towards the cost of which the patients contributed £2,289. It was stated that satisfactory progress had been made in the work of the National Committee for the Establishment of Sanatoriums for Workers suffering from Tuberculosis, which was inaugurated by the fund. The Committee had decided to purchase a site of 250 acres at Benenden, in Kent, and it was hoped that in the near future a sanatorium, to accommodate 200 patients, would be established. Mr. A. S. Harvey, Chairman of the Council, in the absence of Sir Savile Crossley, M.P. (Chairman of the Fund), gave an account of the work during the last twelve months. Although the work of the fund during 1904 was larger than ever before, the percentage of expenses was less, having been under 10 per cent.

An Industrial Campaign against Tuberculosis.

Dr. Arthur Latham delivered an address on this subject. He pointed out that in London alone nearly 8,000 persons died of consumption, and it was said that another 8,000 died of other forms of tuberculosis; therefore, in that great city 16,000 victims were sacrificed year by year to a preventable disease. Many of these died in the prime of life, when their life was most valuable to their family and to the community. Many others were slowly treading the path towards death. For every man who died there were five others who were certainly but slowly succumbing to this disease. There were in London 40,000 persons suffering from consumption. If all forms of tuberculosis were included, the number was no less than 80,000. The population of London was about 5,000,000, so if these statistics were true the startling deduction could be made that out of every sixty-five people at present in the metropolis, one, at least, would be dead in five years' time from tuberculosis—dead, that is, from a preventable disease which owed its origin to filth. The working classes suffered in this respect twice as much as the general community. Therefore, of the working classes—men, women, and children—met in the streets of London, at least one in thirty-three would be dead in five years from tuberculosis. If attention were confined to those between the ages of fifteen and fifty these figures would still be more formidable. Of the deaths from consumption in London one-third at least took place in the Poor-law institutions. If one could trace these cases it would be found that many a man formerly in good circumstances was gradually, and with infinite suffering, brought to such a pass that he was glad to lie down in the workhouse and die. Turning to the business side of the question, Dr. Latham asked, Did any of them realize the economic loss—the loss in pounds, shillings, and pence—caused by the tubercle bacilli? Dr. Herman Biggs, of New York, had estimated that, apart from all other forms of tuberculosis, the cost of consumption to New York year by year amounted to £4,600,000 sterling, and that the total annual cost of this disease to the United States was no less than £66,000,000 sterling. They would not be far wrong if they put the annual loss from consumption in London at £4,000,000 sterling, and the total annual loss from all

forms of tuberculosis at something like twice that amount. Much of this loss from a preventable disease came from the pockets of the industrial classes. Was not this sum large enough to make them take some steps to ensure themselves against the loss? If spotted fever caused 1,000 deaths in England and Wales a week would they do nothing? Yet in England and Wales there were 1,000 deaths a week from consumption alone, and 2,000 deaths a week from all forms of tuberculosis—in other words, tuberculosis killed in England and Wales one victim every five minutes; yet comparatively little was done to check its ravages. Until about ten years ago they were satisfied with the Poor-law institutions, and a few hospitals such as the Brompton and the Royal National Hospital at Ventnor. Such institutions had alleviated many sufferers, and had helped to cure some. Their chief work, however, had been the education of the public. By this means during the last sixty years the death rate from tuberculosis had been reduced by no less than two-thirds, and consequently no less than 75,000 lives were saved each year. The educational value of the consumption hospitals has been greatly increased by the National Association for the Prevention of Consumption and other Forms of Tuberculosis, which should receive more support than it did. Owing to the work of that Association, and of the consumption hospitals, the municipal councils and other bodies had been stirred into action. The municipal councils were trying to educate the public, and some of them even endowed a few beds in sanatoriums. A certain number did much to prevent the spread of the disease by disinfecting houses infected by consumption, and by examining the expectoration of suspected cases free of charge. Owing to this spread of knowledge the public had learnt that tuberculosis was due to filth and that it is not inherited; that it was due to a violation of Nature's laws, and that it was caused by bad air and insufficient food. They have learnt also that it was spread by the expectoration of those who had already become its victims, and in consequence they were being taught not to spit. But something more than this comparatively slow education of the public was wanted. The consumption hospitals should do more than act as educational centres. The present generation did not get the full value of the money spent on consumption, and the consumption hospitals are not properly organized for the immediate and economic relief of their patients. Further, the money spent on disease was not spent to the best advantage, for the various organizations which existed to assist the sick were not sufficiently linked together. In few hospitals was there any real connecting link with the Friendly Societies, provident institutions, the Charity Organization Society, or the numerous convalescent homes. At a few hospitals, like St. George's, such a link had been supplied for a number of years in the person of a lady almoner, who had been able to do a large amount of good work by putting the patients into touch with bodies who had money to spend, and by supervizing the details of the patient's home life. An officer of this kind was an imperative necessity for all consumptive hospitals if they were to obtain full value for the money spent on this disease, and he was glad to say that the Committee of Management at the Brompton Hospital had recently appointed such an officer. Lately the medical profession in this country, and the public, had learnt that the best treatment for consumption at present was the sanatorium treatment. Hospitals in towns were not suitable for the cure of tuberculosis; they should be used only for the reception of cases which were waiting their turn to be admitted into the country institutions. It was imperative that the consumption hospital should be closely linked to sanatoriums in the country. If the full economic value of the money spent on consumption was to be obtained, in his opinion, the following reforms were essential; (1) There should be a number of institutions, municipal or other, such as the French dispensaries, where, on payment of a small fee, any working man or woman in a suspicious state of health could have the expectoration examined. (2) All hospitals should be brought in close connexion with the various organizations existing outside. This could be done by the employment of almoners. (3) The pernicious system of in- and out-patient letters to the hospitals should be discarded. Cases should be admitted on their merits. If the doors of the consumption hospitals were closed to patients in an advanced stage of consumption, provision would have to be made for them elsewhere. It was probable that the Metropolitan Asylums Board would be able to deal with this part of the question, and to find room for these advanced cases. He earnestly hoped that this would be done, for then the crusade could begin in earnest. (4) Every consumption hospital should be in close touch with sanatoriums in the country, to which patients could be sent from the town hospitals. The Brompton and Mount Vernon, he was glad to say, already had sanatoriums of their own, the Brompton Sanatorium in Surrey being absolutely free. If these four reforms were carried out, the economic value of the consumption hospitals would be increased tenfold; but, even if these reforms were carried out to-morrow, they could not hope to cope with the enormous number of consumptives who thronged the floors of the hospitals. Could the industrial classes do nothing for themselves? He said they could, and that the question was entirely in their own hands. Most of these classes belonged to the Friendly Societies or other provident institutions. What steps did these societies take in the matter? Absolutely none. They paid money to members who were sick, but they took no measures to bring a man back to health, and they took no measures on prevention. He was sure that these societies would move as soon as they understood that they could really help, and he was the more certain of it because he could show them that by so doing they would save their funds. Mr. Alfred Chapman and Mr. Russell had made an important investigation into the cost of consumption to a single court of the Ancient Order of Foresters. Mr. Russell found that the average cost of sick pay to each member of his court was three times as great as the pay to any person dying from another disease. A man dying from consumption cost £21 to the Society, and a man dying from another disease cost £7. Mr. Chapman had also brought to light the fact that the courts and district funds of the South London district of the Ancient Order of Foresters had lost in the last twenty-five years over £11,000 from consumption. There was reason to believe that other districts and other societies had not lost less. German business men had grappled with the problem. A law was passed in Germany some years back which compelled every one with an income of less than £100 per annum to ensure against sickness. When this law had been in force for a few years the insurance companies found themselves heavily hit by consumption. At least one person in every three who drew sick pay from them was suffering from tuberculosis. Medical statistics and advice did not always carry much weight, but dwindling dividends and inroads upon capital always arrested attention and ensured a searching inquiry. The German insurance companies investigated the matter thoroughly. They sought medical advice, and were told that the most hopeful treatment of consumption was by means of efficient sanatoriums. They were, morever, told that if no treatment were attempted, possibly two consumptives in every ten would be cured by natural means, but if patients were sent in a sufficiently early stage to sanatoriums, seven out of ten would have the disease arrested. The chairman of one of the principal German insurance companies proved that if 140 out of 500 consumptives could be restored so far to health as to do without sick pay for one year, this would be sufficient to recoup the company for the cost of sanatoriums, or for the erection and maintenance of one of its own. Consequently the German insurance companies erected sanatoriums for their clients, and so satisfied were these business men with the results obtained that they were extending the system. Further, they were aiming at the prevention of the disease as well as its cure. They knew that badly-ventilated dwellings are one of the chief causes of tuberculosis, and so they were building model houses for the use of their clients. What was possible in Germany was possible in England. A law like the German law, compelling every one with a certain income to insure themselves against sickness would, he feared, never be passed in England. That was no reason why they should not deal with the question themselves. The Friendly and allied societies had the money and the organization, and it was their duty to follow in the footsteps of the German insurance companies. He had reason to believe that the Friendly Societies were willing to take this question in hand; the Friendly Societies of the Midland counties had formed an association for this purpose. Again, the National Committee for the Establishment of Sanatoriums for Workers had been formed, largely through the energy of Mr. Bunn, at the initiative of the Hospital Saturday Fund. That Committee, which consisted of representatives of the Hospital Saturday Fund, the Post Office employés, the Friendly and other societies, had worked out a scheme in

which it was proposed to erect a sanatorium for 200 patients—men and women—at the maximum cost of £50,000—that is, £200 to £250 per bed. This sanatorium, after erection, would be self-maintained. It was hoped that it would be the first of many others. The capital sum of £50,000 would be raised by public subscription, and it was suggested that the Friendly and other societies might so amend their rules, if necessary, as to be of help in this direction. The Friendly Societies, Post Office employés, trade unions, employers of labour, and all other classes interested in the subject, were invited to endow beds at the rate of 25s. a week for the use of their members. A suitable site of 250 acres had been selected in Kent, and a unique feature was a farm colony to enable those able to do so to learn horticulture, fruit growing, and other suitable pursuits. The pounds, shillings, and pence were not very formidable. Mr. Charles Garland had worked out a scheme for the Post Office employés. Ample funds for those employés who contract consumption could be obtained if all officers would consent to a deduction of two shillings a year from their pay—that is, a deduction of about a halfpenny per week. The Postmaster-General had given every assistance to the movement, and had consented to such a deduction being made by the Comptroller and Accountant-General from the salaries of those Post Office employés who gave their consent. Such a contribution gave any one considered suitable by the medical officer a claim for admission to the sanatorium free of charge. Further, any one admitted to the sanatorium would be entitled to six months' leave on full pay. This question of full pay whilst on sick leave was one of the most important details of the scheme. The Post Office employés expected to be able to endow 10 beds, and, in addition, they were making a voluntary subscription towards the building fund. The scheme was not philanthropic, for those who benefited by it would have ensured themselves against the risk of consumption. It was not prophylactic, that is, it was not primarily directed against the prevention of the disease. Some other scheme, such as that now under the consideration of the Metropolitan Asylums Board, would have to be devised to deal with advanced cases. People must not run away with the idea that two or three months' sanatorium treatment was a specific and absolute cure for consumption. It was the best treatment available at present, but it was not a miracle-working agent. It was absolutely essential that when a man left the sanatorium a suitable and healthy occupation, under good sanitary conditions, should be found for him.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Dr. R. Brunon on Nutritive Value of Sterilized Cow's Milk in Infant Feeding.—Professor Blanchard's New Book on the Mosquito.—Proposed Presentation of Portrait Medal to Professor Pozzi.

AT a recent meeting of the Académie de Médecine Dr. Raoul Brunon read a paper on the nutritive value of sterilized cow's milk, his conclusions being drawn from the philanthropic work of "La Goutte de Lait" in Rouen, which, from July 1st, 1900, to December 31st, 1904, nourished 2,000 poor infants and distributed 223,000 litres of milk. All the children had previously been fed on adulterated or concentrated milks, starch, or unhealthy mixtures; 70 per cent. were suffering from atrophy, athrepsia, or cachexia; one-third only were normal and took the milk of the society from the start. The milk was especially rich in fats, phosphates, and lactose, the quantity of caseine being about normal. It was given sterilized, and slightly modified according to the method of Dr. Dufour, of Fécamp, that is to say, one-third of the total quantity of milk was removed, the whey taken off and replaced by an equal quantity of water, adding 1 gram of salt and 10 gr. of sugar per litre: the third thus modified was again added to the total quantity. Since 1902 a special cow-house has been added, the cows are picked and subjected to the tuberculin test, fed on oats, bran, carrots, lucern-grass, the fodder being always the same and almost exclusively dry. This fodder seems to increase the important elements in the milk (fats, lactose and phosphates) and diminishes the relative proportion of casein, making the milk more like human milk. The cows' udders are washed before they are milked, all the receptacles for the milk are washed and sterilized and the milk is filtered through sterilized wool. It will then keep for several days and has been sent into neighbouring departments. The results have been very good. The total mortality has not exceeded 13 per cent., the mortality from enteritis has always been below 7 per cent. and in 1904 fell to 3 per cent., whereas the mortality from infantile diarrhoea in Rouen is 51 per cent. Moreover, in children suffering from enteritis (70 per cent.) this milk has shown curative properties. All the children receive the modified milk and no case of Barlow's disease has been observed. A small number of infants did not increase in weight, this being due either to receiving an excessive quantity of milk or to modification in the nutritive value of the milk in those cases from sterilization; these children were then given unsterilized milk with good results. Dr. Raoul Brunon concludes as follows: (1) The nutritive value of milk shall be calculated, not by experiments and analyzing the milk, but by the state of health of the infants to whom it is given. (2) Cow's milk sterilized at 102° C. during 45 minutes preserves its nutritive value. (3) Modifying the milk by removal of one-third of the caseins seems to increase its digestibility and causes no bad symptoms. Overfeeding is a frequent cause of enteritis. (4) The "Goutte de Lait" in Rouen has easily raised healthy children and cured 1 500 infants suffering severely from enteritis. (5) By its special installation some infants were raised on unsterilized milk, who appeared not to assimilate the sterilized milk.

Professor Blanchard presented to the Académie de Médecine a new book by himself on mosquitos, their natural and medical history, which will be useful not only to entomologists but also to medical men, explorers, colonists, hygienists, parasitologists, and veterinary surgeons. Professor Blanchard studies methodically the different species known to act as pathogenic agents and those which are now believed to be harmless but which any day may be proved to belong to the first class, and he only treats of the parasitic side of the various endemic diseases in which they play a part.

The friends, colleagues, and pupils of Professor Pozzi intend to offer him a medal on the occasion of his promotion to Commander in the Légion d'Honneur, and to celebrate his presidency of the Seventeenth French Congress of Surgery last autumn. The sculptor, Chaplain, has been asked to design the medal. All subscribers of 25 francs will receive a copy of the medal in bronze. Subscriptions may be sent before June 15th to M. Pierre Masson, Editor, 120, Boulevard St. Germain.

BERLIN.

Epidemic Cerebro-Spinal Meningitis.—The German Surgical Congress.—International Roentgen Congress.

As cases of cerebro-spinal fever are being daily notified from all parts of Germany, the Prussian authorities are distributing a paper of information and advice amongst the general public. The paper begins by characterizing the disease as "an infectious disease, produced by the incursion of a live, invisible germ, the so-called meningococcus intracellularis," then goes on to describe shortly the initial symptoms. Paragraph 3 treats of the mode of infection, which it says is, as a rule, carried by the nasal and pharyngeal mucus, and may be spread even by healthy persons in contact with the sick, through the bacteria which their nasal and pharyngeal mucus may contain. The spread of the disease—says paragraph 4—is favoured by crowded and ill-ventilated dwellings. The measures to be taken, wherever a case occurs, are grouped under five headings: (*a*) Immediate notification; (*b*) strict segregation with special directions as to transport; (*c*) disinfection of rooms; (*d*) children, living in a house where a case has occurred, are to be kept from school; (*e*) directions for the disinfection of persons who may come in contact with patients suffering from the disease. The last paragraph gives precautionary and disinfecting methods for the use of those who may have to attend on cases before their removal to hospital.

The thirty-fourth annual Congress of German Surgeons met in the Langenbeck House in Berlin during the last week of April, and was presided over by Professor Kronlein (Zurich). A subject—and one subject only—had been chosen for each day, and this arrangement proved very successful, since it permitted more thorough discussion of interesting problems than one is accustomed to in a congress. Among many notable papers the most valuable was probably that read by Professor Bier (Bonn) on the method of engorgement—hyperaemia in acutely inflammatory diseases. Bier's instruments consist of funnel-shaped glass vessels of various sizes, which can be evacuated like cupping glasses by means of an india-rubber

ball. These he applies to carbuncles, furuncles, and certain inflammatory processes. When abscess formation sets in small incisions into the skin are made. The instruments were on view in the exhibition of the congress. Uncomplicated as apparatus, their therapeutic application is nevertheless by no means simple, and Bier himself lays stress on the point that the greatest experience and tact are required in order that the method may be applied rightly and in the right cases.

Close on the heels of the Surgical Congress followed the International Roentgen Congress, the first meeting of which was held on May 1st. Ten years have passed since Roentgen's amazing discovery, and it was to mark this that the Berlin Roentgen Association issued invitations for a meeting with an accompanying exhibition of the most modern Roentgen appliances in their bearing on medicine in the widest sense. Roentgen himself was expected, and an ovation was planned, which, however, has had to assume the modest form of a telegram, as the eagerly-expected discoverer of the *x* rays has found it impossible to be present. Almost 100 papers and demonstrations were announced, all bearing on the uses of the Roentgen rays for diagnostic and therapeutic purposes, and on modern constructive improvements. Something of interest there will be in each—or at least in the great majority—of these papers no doubt; still after this first day's meeting it is safe to predict that the exhibition will be at least as valuable as the debates. The hundreds of apparatus, one more ingenious than the other, all the result of one discovery, are a most significant spectacle, and nothing more characteristic of our era can be imagined than the close connexion between pure science, technical skill, and commercial ability, which makes such an exhibition possible.

INDIA.

The Increased Pay of the Indian Medical Service.

THE dispatch of the Secretary of State for India on the subject of the increased pay of the civil branch of the Indian Medical Service reached India several weeks ago, and although its full contents have not yet been made public, owing, it is understood, to certain points having been referred back once more for further consideration by the home authorities, yet certain facts regarding the increase already sanctioned are known and deserve careful consideration. In the first place the increased rates take effect from April 1st, 1904, which is fairly liberal, although some eight months later than the military branch drew it.

The increased rates of pay in the military branch have been taken as the basis of that of the civil branch, but the old plan whereby second class civil surgeons—who constitute about five-sixths of the total—draw Rs. 50 a month less than the military pay and first class civil surgeons get Rs. 50 more, has been retained. This is a very unfortunate and most unpopular feature, for it is well known that the work of the civil surgeons is several times as hard as that of their military brethren, while it is generally recognized that this loss is not compensated in the majority of stations by the minute amount of private practice obtainable at the present day. Further, the proposal of the Government of India that the very inadequate extra allowances for the most distasteful and troublesome gaol administrative work demanded of civil surgeons should be doubled, has not been sanctioned, but this has, it is understood, been referred back for further consideration.

The very necessary increase of pay required to attract and keep the right class of men in the sanitary department has also been disallowed, with the result that in one of the most important provinces of India, and one in which sanitation is very backward, has at the present time only one-third of the proper number of deputy sanitary commissioners, while for the remaining posts gazetted officers cannot be obtained. Whether it will still be possible to get men to accept the much more onerous duties of civil employ on the lower rates of pay than in the military branch with their much better stations and far greater leisure remains to be seen, but if they are obtained it will be purely owing to the keenness on their professional work of the good class of men who have been recruited during the last few years in anticipation of something substantial being done to increase the attractions of the civil branch. That the service will continue to attract the same class of men as hitherto is not, however, to be expected, especially now that the Royal Army Medical Corps offers a career so much superior to what it did formerly.

It is greatly to be hoped that the Secretary of State for India may see his way to reconsider his decision, and both do away with the anomalous reduction of pay on entering the civil branch and also sanction the increased gaol allowances recommended by the Government of India. These small concessions will go far to redress the principal grievances of the civil branch of the Indian Medical Service, which contains nearly two-thirds of the total members, and so enable the previous high standard of competition for the service to be kept up.

The pay of the civil surgeon has been dealt with at length, as he is the backbone of the service and yet has been least generously dealt with. The pay of a number of special and already fairly well-paid posts have been increased in a satisfactory way, but many of these were already highly prized and sought after. The general popularity of the service must, however, depend mainly on the prospects of the civil surgeon, and it is the junior civil surgeons who deserve most increase of pay. Unfortunately, in the scheme so far sanctioned these are just the men who gain least. The future of the Indian Medical Service is still hanging in the balance, and it is greatly to be hoped that the Secretary of State for India will be in a more generous mood when the further dispatch of the Government of India on this subject reaches him.

MANCHESTER.

Foundation of Hospital at Leigh.—Small-pox in Lancashire.—Gifts to Rochdale Infirmary.

THE foundation of the Leigh Infirmary was laid on April 29th. The scheme was begun in 1886, when Miss Farnworth of Astley bequeathed £1,000 to an infirmary for Leigh provided it was erected within twenty-one years. The Frances Charity contributed £2,000 in 1901, and since then a committee has worked hard to obtain the necessary funds. Already £10,000 has been raised toward the building fund, and over £4,000 towards the maintenance fund. The contract has been let for £13,000. The hospital provides for over one hundred beds, but in the first instance fifteen beds for men and fifteen for women will be provided. The site is 3¼ acres in extent.

During the quarter ended March 31st small-pox appeared in 21 districts of the administrative county of Lancashire, as compared with 27 in the December quarter of last year. Fifteen districts were free from infection, and 9 new districts were attacked. As compared with the December quarter, during the past three months of this year there was an increase of 20 cases but a decrease of 5 deaths, the total number being 131 cases with 2 deaths, as against 111 cases and 7 deaths. In the corresponding first quarter of 1904 the numbers were 132 cases and 9 deaths.

The Rochdale Infirmary has accepted a gift of £1,000 from Mr. James Ogden for the endowment of a bed in the male ward, in memory of his two brothers. Mr. Ogden has previously made a similar gift in memory of his mother.

LIVERPOOL.

Appointment of an Assistant Gynaecological Surgeon to the Royal Infirmary.—Cerebro-spinal Meningitis.

NOTICE has been given that a special meeting of the trustees of the Liverpool Royal Infirmary will be held on Wednesday morning, May 10th, for the purpose of making such changes in the laws of the institution as will enable the appointment of an assistant gynaecological surgeon to be made.

No further cases of cerebro-spinal meningitis have been reported in Liverpool, and there is good reason to hope that the case which formed the subject of an inquest on April 22nd was a sporadic instance of the disease.

THE President of the Board of Agriculture and Fisheries has appointed a Committee to make an inquiry, by experiment and otherwise, into the pathology and etiology of epizootic abortion, and to suggest remedies. The Committee consists of the following:—Professor John MacFadyean, M.R.C.V.S., M.B., B.Sc., Principal of the Royal Veterinary College (Chairman); Sir Edward Strachey, M.P.; the Very Rev. Dr. John Gillespie; Mr. William Hunting, F.R.C.V.S.; Dr. George H. Falkiner Nuttall, F.R.S.; and Mr. Stewart Stockman, M.R.C.V.S., Chief Veterinary Officer of the Board of Agriculture and Fisheries. Mr. James Ralph Jackson, M.R.C.V.S., of the Board of Agriculture and Fisheries, will act as Secretary to the Committee.

CORRESPONDENCE.

THE COMMITTEE WORK OF THE ASSOCIATION.

Sir,—As some confusion seems to exist on this subject, will you allow me a few words, which may save some time to both the Council and the Representative Meeting in any further discussions relating to it? The burden of the Committee work has become so heavy that even with the better distribution which is likely to result from the new Standing Orders the *personnel* of the Council seems hardly large enough to cope with it. To one who remembers the old order of things before the Council was reduced in number a proposal to again add to it would be hopelessly retrograde. One is therefore forced to look for a suitable source from which the membership of the Committees can be recruited. The most directly available one is the Representative Meeting, and this has the additional attraction that the experience of the Medico-Political and Ethical Committees which have Representative Meeting members has been a proof of their value. There seems also to be an advantage to the central organizations in having in the Association at large, and especially in the Representative Meeting, a number of men who are by personal experience familiar with the conditions, including the limitations and difficulties of the executive work.

As regards the question of the distribution of the work among individual Committees, my experience of the Council and Committees has shown me that of the present score of Committees several deal with subjects not clearly separated, that this renders much greater the difficulty of co-ordinating the whole of a particular subject, and increases the number of Committee minutes that have to be considered by the Council. This seems to be one of the causes responsible for the fact that three times this session the Council has been unable to get through its agenda. To avoid the difficulty arising in this way, the plan seems to me to be to have a series of Committees, each dealing, as the Medico-Political, Ethical and Organization Committees do now, with a whole group of subjects which they digest for the Council before it is called on to take the ultimate executive measures. Take, in illustration, the subject which more than any other interests me, the scientific work of the Association. At present four Committees are engaged in dealing with respectively the libraries, the research work, the organization of the sections, and the correlation of the whole. Would it not be simpler and more effective to have this work presented to the Council in one set of minutes by a properly-formed Science Committee which could form a Subcommittee with such expert assistance as was needed for a special purpose like the preparation of the preliminary report on the research grants? Surely this would be simpler for the Council, and it would get rid of the delay which is inevitable at present when such a question as the fostering of Division libraries has to be referred by the Council from the minutes of the Science Co-ordination Committee to the Library and Premises Committee.—I am, etc.,

Dundee, May 1st. R. C. Buist.

THE SOCIETIES OF APOTHECARIES.

Sir,—Will you allow me to state, in reply to numerous inquirers, that the number of practitioners really affected by the non-descriptive title of L.S.A. appears to be greater than is generally supposed. An examination of the *Medical Directory*, 1905, shows that 1,571 persons now practising hold the diploma in medicine, surgery, and midwifery of the Society, and of these, 809 (nearly 51 per cent.) have taken no additional qualification.

It has been suggested by some correspondents that the Society should seek the designation of Faculty of Physicians and Surgeons of London. Such persons have not studied the history of the London medical corporations, or they would know that the Charter of the College of Physicians was granted to "the President and College, or Commonality, of the Faculty of Physic of London."

The body of the Licentiates of the Society of Apothecaries has no desire to usurp the titles of other corporations, and that which is asked in the petition (Lic. Med. Surg. and Midwifery of the Society of Apothecaries) was carefully considered, so as not to trespass on the rights of any other medical body, and at the same time to do a simple act of justice to a considerable number of practitioners.

May I ask any Licentiates who have not sent their proxies to do so at once?—I am, etc.,

Oxford, May 1st. A. Rivers-Willson.

Sir,—The Licentiates of the Society of Apothecaries are petitioning the General Medical Council to alter their designation in the *Medical Register* to Licentiates of Medicine Surgery, and Midwifery of the Society of Apothecaries, or some such title as will indicate to the public that they are qualified to practise medicine, surgery, and midwifery. The confusion of the public, already great in consequence of the multiplicity of medical titles, would be worse confounded by the addition—the L.M.S.M.S.A.Lond. Many think that the title a licentiate places on his doorplate is of more importance as an indication to the public than the information contained in the *Medical Register*. In present day English and for present-day purposes the word "apothecary" is about as defunct as is "man-midwife" or "barber-surgeon." There can be no disrespect to the Society of Apothecaries in facing this fact. The only sign of vitality left in the word is the part it plays in connexion with the name of the historical and still honoured guild or corporation. Older practitioners possessing the M.R.C.S.Eng. and L.S.A.Lond. simply drop the latter and call themselves "surgeons." Now the licentiates dating from 1886 call themselves surgeons—and legally so—on the strength of their L.S.A. alone. The questions then arise: If surgeons, why not physicians also? and, Is a licentiate of the Society of Apothecaries entitled to place "physician and surgeon" on his doorplate and account forms?

I would like to elicit some definite information on the matter, for the general idea still appears to be foggy with regard to the points raised.—I am, etc.,

April 26th. Tempora Mutantur.

Sir,—I quite concur with the proposal of "Licentiate" that if a change is to be made in the title, that L.F.P.S.Lond. or Dubl. would be far preferable to the one previously suggested in the British Medical Journal of April 22nd.—I am, etc.,

May 1st. Another Licentiate.

ONE-MARK VACCINATION.

Sir,—At the risk of being considered insistent I must ask to be allowed to reply to the letter of your correspondent "General Practitioner" in the British Medical Journal of April 29th. He asks how many medical men are aware that the cost of public vaccination jumped up from £72,665 in 1899 to £270,628 in 1902. He omits to point out that in 1872 these expenses were £113,000 and that they steadily decreased to the figure he gives for 1899. It is a curious coincidence that the high-water mark of expenses under the old Vaccination Act happens to be almost exactly doubled by the high-water mark of expenses under the new Act. Now, everybody knows that the first few years of the working of the new Act coincided with outbreaks of small-pox all over England, and with resultant outbreaks of revaccination. If proper allowance were made for the increase of population between 1872 and 1899 it would be obvious that the expenditure in the later year should have risen to nearly £150,000, instead of sinking to £72 665. The shrinkage was due to the unpopularity of vaccination and the failure of compulsion pending the report of the Royal Commission.

When the new Act introduced methods better tolerated by the public the proportion of primary vaccination increased at a leap. At the same time an enormous wave of revaccination passed over the country, with the financial result I have indicated.

When proper allowance is made for these factors it will be seen that the receipts of the public vaccinators have by no means been doubled, for their gross receipts, in which are included the revaccinations, have only just been doubled.

If "General Practitioner" will take the trouble to study carefully the minutes of evidence taken before the recent Departmental Committee he will learn that the labours of the public vaccinators have been not merely doubled but multiplied fourfold.

He states that he charges 2s. 6d. for vaccination, including the price of lymph. He fails to state, however, whether this is for vaccination at his own home or at the patient's, or the sort of distances he includes under a half-crown fee, or whether he ever goes to inspect his vaccinations before signing the certificates. He further states that the public vaccinator receives a fee of "more than four times that which I receive," and that he pays no postage. The latter point is dismissed easily, for the public vaccinator (though he requests and receives his lymph free of postages) has to pay postage on several forms which in the aggregate amount to about the same as

the postage "General Practitioner" pays for procuring his lymph.

As to the fees, I would demand from "General Practitioner" a little more accuracy. Since he shelters himself under an anonymous signature, it may be true that the public vaccinator in his district gets a fee of more than 10s. for every vaccination, but I should like to know where the district is. It must be in one of those rural outlying parts where very long journeys are involved, for I claim to know something of the scale of fees granted to public vaccinators in the rural districts, and I must ask those who wish to grasp the amount of work now undertaken by public vaccinators for fees which appear to be high (but are in reality very insufficient), to study the table prepared by myself on p. 108-9 of the Minutes of Evidence.

Further still, in contrasting his fee with that of the public vaccinator, "General Practitioner" entirely omits to indicate that the fee of the latter is earned only for each case vaccinated, that he has to send a notice (and pay postage on the notice) to the parents of a large proportion of infants whom he does not vaccinate, and for the journey he gets no fee; that to secure one vaccination and inspect it, he has to pay at least an average of three visits, and in many districts four visits.

"General Practitioner" and your other correspondents who are defending "one-mark vaccination" write as if they conceive that the public vaccinators had devised and designed the present Act for their own benefit; they did not do either, and any reader who follows the evidence of the witnesses before the Departmental Committee more closely than "General Practitioner" has done will easily grasp that as a rule these huge fortunes described as made by public vaccinators have been very hardly earned.—I am, etc.,

Westerham, May 1st. ARTHUR MAUDE.

SIR,—The statement of "General Practitioner" as to the increased cost of vaccination as between 1899 and 1902 is rather misleading. He omits to state that since 1902 it has dropped almost to the normal figure again. The increase in the latter year was to a very large extent due to the enormous number of revaccinations resulting from the epidemic scare; and this, again, was the accumulated result of many years of antivaccinist agitation. It was unique. It had never occurred before and is never likely to occur again, unless, indeed, compulsory vaccination is abolished. Still, it was successful and, I venture to think, economical, for it prevented a second year's epidemic, which would have been a far greater expense. Nor, in relation to the much-abused public vaccinator, is it so great as it seems. It only amounts to an average of about £50 to each. I think, too, that the annual income of the public vaccinator referred to must either be an exaggerated estimate, or must refer to an epidemic year. I am acquainted, I think, with most of the larger public vaccinators in London, and I only know one whose district is sufficiently large to bring in anything approaching this, and he does no private practice at all. I can hardly imagine, indeed, a public vaccinator making this amount (£800 a year) from vaccination being able to do private practice as well.

I am not called upon to give any opinion in individual cases, but I may say, from my experience of public vaccinators, that they are always most scrupulously careful not to take any advantage of their official visits to secure private patients. On the contrary, the advantage must lie, upon the whole, on the side of the private practitioner; for it is a well-known fact, and is even recognized in the report of the Vaccination Expenses Committee, that the public vaccinator, on taking office, frequently loses a considerable amount of his private practice. This loss has been variously estimated at from £100 to £300 a year. I have reason to know that the latter estimate even is not always an excessive one. This is possibly due to the fact that the public vaccinator will let people think he has given up seeing private patients rather than do anything which might seem to be taking an unfair advantage of his position to secure them. This, at least, would be one of the causes.

The private practitioner too, it is true, has to pay for lymph and postage and to risk bad debts; but, on the other hand, the public vaccinator has to send notices and pay postage for them, to pay an enormous number of fruitless visits, and receives no fee if vaccination is unsuccessful, or if the case, for whatever reason, is not inspected. In addition to this, he has clerical work to do, which takes him from fifteen to twenty minutes for each case.—I am, etc.,

April 29th. A PUBLIC VACCINATOR.

SIR,—The letter from "General Practitioner" (April 29th) applies to many other general practitioners among whom I include myself. Why should we medical men help to pay the public vaccinator who takes money out of our pockets by being able to vaccinate for nothing, which, of course, is the argument which carries the day with the working classes? My point also is this—that by the public vaccinator in this district getting 10s. for each vaccination, it practically amounts to his getting 31s. 6d. for every confinement, whereas with the same patient the general practitioner gets a guinea, and perhaps 2s. 6d. for vaccination and perhaps not. Of course the supply of Government lymph to all medical men needs no argument. It is only fair and common sense.—I am, etc.,

May 2nd. ANOTHER GENERAL PRACTITIONER.

MOTOR AMBULANCES.

SIR,—It would seem that the more recent experience of the Metropolitan Asylums Board with motor ambulances coincides with that of New York, as stated in your annotation in the BRITISH MEDICAL JOURNAL of April 29th.

The following paragraph appears in to-day's *Times* (May 2nd):

> At an ordinary meeting of the Metropolitan Asylums Board on Saturday . . . it was decided, on the recommendation of the Ambulance Committee of the Asylums Board, to sell the steam-motor ambulance which was purchased some months ago, and had proved unsuitable for the requirements, to a firm of engineers for £130.

The point I have all along endeavoured to give prominence to—without calling into question the possibility of a future for the automobile—is that hitherto it has not (as far as I know) proved a success. On all grounds it is to be hoped that London will not repeat these experiences. I should like to see what the promotion of a competition might do in producing a motor ambulance. For an efficient machine—something better than has hitherto been made—a large demand might be anticipated. In the meantime the horse ambulance seems to be generally approved.—I am, etc.,

London, W., May 2nd. REGINALD HARRISON.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

SIR,—In your issue of April 29th is published a letter by Dr. J. Sadler Curgenven on the digestibility of boiled and unboiled milk, which I have read with much interest. The laboratory experiments detailed by the writer, as to the digestibility of boiled milk, are confirmed by my clinical experience, and I endorse all he says as to the necessity for some form of sterilization. I have for more than twenty years given up the sterilizer, and adopted the simple expedient of raising the milk in feeding infants to 212° F. To simplify all directions in connexion with hand-rearing seems to me to be desirable, unless by so doing, the effect is of less value. A saucepan is always at hand, a sterilizer has to be purchased.

In the last passage of the letter, the writer says, "I am quite alive to the risk of destroying the imperfectly understood vital principle of milk when it is boiled, and therefore inducing scurvy in a child who is fed on boiled milk." He qualifies this later on by pointing out that the risk is small if the milk is brought to "the boil," and adds a further suggestion as to the use of raw meat juice. To this last suggestion I take exception, although I know it to be common advice. Does any such risk exist? I have long since satisfied myself that such a fear is a myth, and that it ought to be forgotten. I believe the American writers have been in the main answerable for the statement that sterilization of milk impairs its nutritive value. I have never seen a case of scurvy so induced, but, on the contrary, I have cured scores by a good milk sterilized at 212°. It is not to milk alone that we must look for an explanation of this disease, but chiefly to its exclusion in favour of peptonized food—such as Mellin, Benger, etc. After the ninth month of life a want of variety in the character of food is also a potent factor. Children who are fed on milk which has been boiled take to it kindly. They maintain the average gain of weight, which is for the first six months of life 1 lb. per month, and their development is in accord with Nature's plan. What can we want more?

I hope I may be permitted to add some further remarks, even at the risk of being thought prolix, on this subject of hand-rearing. Children's feeding does not begin and end with the selection of a food. The handling of cow's milk is a problem which has to be mastered, and it is the want of this knowledge which too often leads to failure. Certain general principles will apply to all children, but the individual child

requires the adjustment of the several constituents of cow's milk. The Walker-Gordon principle is the sound one, but the same good can be achieved in the large majority of cases without those refinements. Let us dismiss that weak habit of flying to the dairy companies and manufacturing chemists for help in this matter. Teach students the methods which physiology and common sense will supply if due thought is given to the subject by those who undertake to educate them. I devoutly hope that the time is not far distant when the need for this is fully recognized and a systematic teaching of the subject is introduced into the schools. Let us teach our profession first, and then we may succeed in educating those who will be well-qualified to impart that knowledge to those who attend the Board schools. When this is attained, and not until, shall we be spared the frequent reference to infant mortality in the medical and lay press. Last, and not least, the suffering which children have to bear, and which can and ought to be avoided, will be put an end to.—I am, etc.,

Nottingham, May 1st. LEWIS W. MARSHALL.

CHRISTIAN SCIENCE.

SIR,—A man called on me on April 28th last to inquire about a patient of mine who is suffering from osteosarcoma of the upper cervical vertebrae. He represented himself as an emissary of the patient's wife and wished for an opinion as to the prognosis, saying that if I had no objection they would much like to place him under the care of the Christian Scientists. I gave him, as the wife's emissary, the choice between the Christian Scientists and myself, and they chose the latter. Accordingly I expressed my opinion of the prognosis, keeping a copy, and obtaining the man's signature to each.

This morning the wife came to see me and informed me a "healer" put in an appearance with my written opinion and permission to "treat" the case. This the wife asked to see, and at once repudiated the whole thing.

I enclose a copy of the signed "permission."—I am, etc.,

London, W., May 1st. H. STANLEY TURNER.

April 28th, 1905.

I hereby certify that Mr. A. B., of ————, has been under my care suffering from osteosarcoma of the upper cervical vertebrae, verified by microscopic examination. The condition is absolutely incurable.

As Mr. B. wishes to place himself under the care of the Christian Scientists, who require a statement of his incurability, I hereby make that statement and withdraw from all further treatment of the case.

(Signed) H. STANLEY TURNER.

Witness (signed) W. Sutton, 6, St. Ann's Park Road, Wandsworth, S.W.

A NEW LEUCOCYTOZOAN OF THE DOG.

SIR,—Since submitting "A Note upon a Leucocytozoan of the Dog" for publication in the BRITISH MEDICAL JOURNAL, my attention has been drawn to a No. 14, *Scientific Memoirs*, published by the Indian Government Press, in which Captain S. P. James, I.M.S., gives a description of my parasite.

Readers of this memoir will probably scarcely recognize, until their attention is called to the fact, casually mentioned on one of the pages, that I, and not Captain James, was the discoverer of this leucocytozoan.

It is scarcely necessary to point out that the allusion referred to minimizes as far as possible my part in the matter, reducing it to "the finding of something which I thought might be a parasite."

Had the memoir made mention of the fact that the "body" was demonstrated to its author by the finder, who recognized its parasitic nature, and considered himself perfectly safe in showing it to his guest; had it added that mutual discussion followed as to the class to which this parasite probably belonged, and as to the wisdom of publishing an immediate account, the advice given being "non-publication of the discovery until the life-history had been fully worked out," I should not have considered it necessary to allude to the matter.

The fact remains, however, that months ago I informed Captain James of my intention to publish a preliminary note upon the parasite, notwithstanding his advice, and that in the same letter I asked his permission to mention his name in connexion with a description of the motile vermicula form which he was successful in obtaining while working as my guest with me upon the parasite. I have not received an answer to my letter, and I did not dream that a description of my discovery and our mutual work upon it would be published without my knowledge and under the single name of the observer to whom I had first shown it.

I do not for a moment suggest that a man is not entirely justified in recording the results of his own observations, but it appears to me that there are obligations which should hold good between those engaged in scientific research as well as in social intercourse. The neglect of such obligations tends to cause distrust among those who should be united in a common cause, and puts a premium upon the publication of premature and incomplete observations which frequently serve no useful end.—I am, etc.,

CHAS. A. BENTLEY, M.B., D.P.H., D.T.M.

P. and O. ss. *Britannia*, Port Said, April 25th.

THE IRISH MEDICAL DIRECTORY.

SIR,—The Irish Medical Association, which has been doing good work for the medical officers of the Poor-law service in Ireland, has unfortunately overstepped the mark in the *Directory* just published under its auspices. Had the Association confined itself to printing a directory or list of its own members no comment would have been necessary, but as it has undertaken the publication of an *Irish Medical Directory* all the members of the profession in Ireland must be interested and affected thereby. The first edition consists of 3,000 copies. In the preface advertisements are solicited, and it is hoped that this "new *Irish Medical Directory* may take the place of the old medical directory," and "that it will become a necessity to the profession." One would naturally have expected that a society of medical men ostensibly banded together for the purpose of promoting the welfare of the profession would have been anxious to avoid slighting or injuring any members of the profession, but it is only necessary to glance through the pages of this so-called *Irish Medical Directory* in order to see the bad taste displayed by the publishers. All the members of the Irish Medical Association are printed in large, bold type, with their degrees, appointments, etc., well set forth: but the names of the other members of the profession in Ireland, which are largely in the majority, are passed over in small, insignificant type, without degrees or qualifications of any kind. This book is described as "an admirable medium for advertising" and "a reliable and accurate record of the profession in Ireland."

Doubtless, in time it may become a book of reference for the public, but at present it is misleading, and savours too much of an advertisement for the members of the Association. I feel sure this was never desired or contemplated by many of those whose names I observe in the lists.

Because some are acutely interested in the medical Poor-law service it should not be forgotten that there are other organizations at work, that others have interests, and that the remuneration of Poor-law medical officers is not the only difficulty connected with the profession.—I am, etc.,

S. W. ALLWORTHY,

Hon. Sec., N. Irel. Div. Lond. and Cos. Med. Protect. Soc.

Belfast, April 10th.

SIR,—The proverb, *Quem Deus vult perdere prius dementat*, I think, applies to the Irish Medical Association; whose proceedings, sufficiently erratic in the past, have been capped by the issue of a so-called *Irish Medical Directory* in which are published the names of all medical men in Ireland. Those not members of the Association are not given any qualifications at all. With a copy of this directory is sent an appeal to join the Association. I can imagine nothing more calculated to alienate non-members, and to cause respectable and self-respecting members to resign than the issue of such a book under such a title. I enclose the copy sent to me.—I am, etc.,

April 14th. NOT TO BE INTIMIDATED.

TRACHOMA IN ITALY.—In the Italian Chamber of Deputies recently, Professor Scellingo called the attention of the Minister of the Interior to the increasing prevalence of trachoma in Italy, and suggested that special departments for children suffering from the disease should be established in public schools.

STATE SANATORIUMS IN ITALY.—In the discussion on the budget in the Italian Chamber of Deputies, Dr. Licata strongly urged the necessity of measures for the safeguarding of the public health, and especially for the prevention of infectious diseases. Recalling the resolutions passed by several congresses on the need for sanatoriums for sufferers from tuberculosis, he expressed a hope that the Government would make adequate financial provision for the purpose.

OBITUARY.

SIR JOHN SIBBALD, M.D., F.R.C.P.E.,

Late Commissioner in Lunacy, Scotland.

John Sibbald was born in Edinburgh in June, 1833, and died at his residence, 18, Great King Street, Edinburgh, on April 20th last. He was thus within a few weeks of the completion of his 72nd year. The family of Sibbald has been well known in Edinburgh for over two centuries. The famous Sir Robert Sibbald, who was President of the College of Physicians during the closing years of the Restoration period, was a remote ancestor of the subject of the present memoir. He, in company with several other Scottish notables of the time, is said to have temporarily renounced Protestantism and joined the Roman Catholic Church, in obedience to the expressed wish of the King (James III). A family of such antiquity had necessarily many branches, and among other famous relatives they reckoned Sir Walter Scott.

Sir John was educated at Merchiston Castle School, from which he passed to the University of Edinburgh, where he took the degree of M.D. in 1854. While a student he occupied the position of President of the Royal Medical Society, which was then, as now, a mark of academic distinction and of the respect in which he was held by his fellow students. He began his professional career as House-Surgeon in the Perth Infirmary, after which he went to Paris to complete his medical studies. There he formed many friendships among the leading physicians of that city, and until the last he maintained a traditional acquaintance with the present representatives of the Paris school. Afterwards he became a Resident Physician in the Brompton Hospital for Consumption, under Sir Richard Quain. While there he assisted Sir Richard in his investigations into the mechanism of the production of the first sound of the heart. In course of these investigations Quain and Sibbald spent many hours on many occasions in the Zoological Gardens studying the heart sounds in the reptilia, in which class the auriculo-ventricular valves are rudimentary. After many experiments, they fixed upon the python as the animal which gave the best results, and they decided that the weight of evidence was clearly against the theory that the structure or the functions of the auriculo-ventricular valves were the source of the first sound.



Dr. Sibbald's inclinations led him, in spite of a varied acquaintance with many branches of medical science, to devote himself early to the study of mental diseases, and his next public appointment was that of Assistant Physician to the Royal Edinburgh Asylum under the late Dr. Skae. Of this period of his life the following testimony was given by his lifelong friend and then colleague Dr. Yellowlees:

> When at Morningside he was a straightforward, honest, genuine, upright fellow, sagacious, yet unostentatious—a man who was shrewd, courteous, and fair in his reasoning; a man who was exceedingly careful and deliberate in his utterances, even before he had learned the necessity of reserve which his official position afterwards taught him.

While Assistant Physician at Morningside Dr. Sibbald paid several visits to the Continent in order to study the various methods of treating the insane. His experiences were published chiefly in the *Journal of Mental Service*. One of the most useful and earlier descriptions of the Lunatic Colony at Gheel in Belgium appeared under his signature in that journal in the year 1861. Gheel was then but imperfectly known in this country, and it is largely through Sir John Sibbald's exertions that the wider recognition of the advantages of that system has arisen. In 1862 he was appointed Medical Superintendent of the Argyle and Bute Asylum, and while in that position he resolved to adopt in his administration and in his treatment of the insane the most advanced and the most beneficial methods which the experience of others or his own judgement could suggest. At this period also a previous acquaintance with Professor Griesinger, of Berlin, ripened into a close friendship. Griesinger's ideas were notoriously advanced for his time, and he refused to recognize any distinction of a valid nature between insanity and other forms of nervous disease—so much so, that his own clinic in the Charité Hospital contained mental and nervous diseases of all kinds. His influence upon Sibbald in this respect was a lasting one, as shown by his efforts during the latter years of his life to induce the managers of the Edinburgh Royal Infirmary to open wards for the treatment of acute and transitory forms of mental disorder, and by his anxiety to remove the legal and artificial barriers which separate mental from physical disease, and hamper the free treatment of the former. In 1870 Dr. Sibbald was appointed a Deputy Commissioner in Lunacy for Scotland, upon receiving which appointment he resigned his superintendency of the Argyle Asylum and the editorship of the *Journal of Mental Science*, which he had held for one or two years previously. During the eight years in which he was a Deputy Commissioner he visited almost every nook and corner of Scotland in the course of his official inspection of the insane in private dwellings. It was characteristic of the man that this part of his official work, in which there is necessarily a certain amount of sameness and monotony, was performed with such conscientiousness and thoroughness as to dignify it and add to its importance as a branch of Scottish lunacy administration.

In 1877 he delivered the Morison Lectures before the Royal College of Physicians of Edinburgh. These lectures have been separately printed under the title *Insanity in Its Public Aspect*.

The vacancy caused in the Board of Commissioners in Lunacy through the death of Sir James Coxe was filled by Dr. Sibbald's appointment to the Board, where he and Sir Arthur Mitchell remained colleagues for sixteen years, until the retirement of the latter in 1894. Into this new sphere of more extended usefulness he carried the progressive and liberal principles which throughout his previous life he had always maintained. Quiet and persuasive in his manner, he earned respect for his ideas and acquiescence in his proposals chiefly owing to the thorough manner in which he thought out details, and the lucid way in which he presented them. His mind in its working was Germanic without prolixity, and eminently practical. His enthusiasm was strenuous, but

without display, and he was satisfied if results, though small, were in the direction of ultimate progress. He retired under the age limit in 1899, and in recognition of his long and valuable services he received the honour of knighthood. On the same occasion his numerous friends presented him with his portrait, painted by Sir George Reid, P.R.S.A. In acknowledgement of their appreciation of him, his colleagues in their forty-second report speak as follows:

His sound judgement, his eagerness to examine all new ideas which seemed to hold out the promise of improving the care and treatment of the insane, and his quickness to perceive and to advocate what was good in them have been productive of changes which are likely to have a lasting influence upon lunacy administration in Scotland.

The six years which elapsed between his retirement from office and his death were years of activity and good work. Shortly before retiring he had published a small work in pamphlet form entitled *Plans of Modern Asylums*, which attracted wide attention. In it he described the gradual development which had taken place during the past century in the care and treatment of the insane and the progressive steps in the methods of housing the insane poor. The principle of the construction of the asylums of Altscherbitz in Germany and of Kankakee in America were described and advocated. In consequence of the advanced views contained in this book the Edinburgh District Lunacy Board asked him to act as their medical adviser in the construction of the new asylum for the city. Although he did not live to see the completion of that asylum he had the satisfaction of seeing the Aberdeen City Authorities erect a similar asylum for their insane poor. In addition to this duty he interested himself in the promotion of the International Congress for Home Relief. He was a Vice-President of the Paris Congress held in 1900 and President of the Executive Committee of the Congress held in Edinburgh in 1904. To the transactions of these Congresses he contributed valuable papers, one of the most interesting and valuable of which, entitled The Relief of the Poor in Edinburgh, has since been published in separate form. Reference has already been made to his advocacy of the system of treating incipient cases of insanity in general hospitals. Both by his personal influence and by numerous articles written to the medical journals during the year 1902, he strove to promote the establishment of a special department for these cases in the Edinburgh Infirmary. In 1900 he read before the Royal Society of Edinburgh an interesting paper on the Statistics of Suicide in Scotland. The labour involved in the production of the results of long inquiry into this subject was enormous, and the conclusions arrived at from a study of numerous tabular statements were of far-reaching importance. It was his intention to have proceeded with a further study of the subject, but the multiplicity of other calls upon his willingly-given services were so numerous as to delay this intention until it was too late.

Though in politics a keen Liberal he never allowed himself to be diverted from his proper work by political enthusiasms or entanglements, nor was the fine catholicity of his mind ever clouded by political or religious prejudices. In private life he was genial and humorous, a true friend and an excellent counsellor. Towards the end of December of last year he began to suffer from an affection of the throat, which turned out to be malignant. Though aware of this condition from the first he bore his fate with philosophic calm and fortitude. Up to the end he continued to take the same lively interest in those subjects to which he had devoted the greater part of his life. An intimate personal friend remarked that in his manner of dying he taught the greatest lesson of his long and useful life.

CHARLES ROBERT CLARKE TICHBORNE,

Dublin.

WE have to announce with much regret the death of Mr. C. R. C. Tichborne, of Dublin, who for many years was Consulting Chemist to the Apothecaries' Hall of Ireland, and had represented that body on the General Medical Council since 1896. Mr. Tichborne was an Englishman, and having become proficient as a chemist, he early obtained an appointment in Dublin in connexion with "The Hall," ultimately becoming Governor of that institution. He held very many appointments as Public Analyst to various counties in Ireland, and he contributed numerous papers on chemical subjects to the scientific journals. He was a Licentiate of the Royal College of Surgeons in Ireland. On the General Medical Council he was always a staunch supporter of the rights of the Apothecaries' Hall. He was specially active as a member of the Pharmacopœia Committee, and his services were acknowledged to be most valuable.

Mr. Tichborne was an accomplished musician, and was one of the leading amateur 'cellists in Dublin. He was much respected in Ireland, where it is felt that his death leaves a gap which will not be easily filled. His loss to scientific pharmacy is indeed very great.

JOSEPH EVERETT DUTTON, M.B., CH.B.VICT., D.P.H.,

Walter Myers Fellow, Liverpool School of Tropical Medicine.

IT is with profound regret that we record the untimely death of this brilliant young investigator, which took place suddenly on February 27th at Kosongo, in the Congo territory, where he was actively engaged in the investigation of trypanosomiasis and tick fever. The journey from Kosongo to the nearest telegraph station takes two months, hence the delay in the announcement, which is not accompanied by any details of importance.

Joseph Everett Dutton was only 29 years of age at the time of his death, but he had already won for himself a recognized position throughout the scientific world, and last October Professor Koch in an address at the anniversary meeting of the Berlin Medical Society, a translation of which appeared in the BRITISH MEDICAL JOURNAL, spoke in high terms of his work. He was educated at the King's School, Chester, entered the Liverpool Medical School and the Liverpool Royal Infirmary, and graduated M.B., Ch.B.Vict., with honours, in 1897. In the same year he was appointed to the George Holt Fellowship in Pathology. Subsequently he became a resident at the Royal Infirmary, where he was for six months house-surgeon to Professor Rushton Parker, and house-physician to Professor Richard Caton for a similar term.

In 1900 he undertook his first expedition to West Africa, visiting Nigeria in company with Dr. Annett. Two reports were issued as the result of this expedition, the one dealing with antimalarial sanitation, and the other consisting of one of the most complete monographs hitherto published on filariasis. In 1901 he was elected to the Walter Myers Fellowship, and proceeded alone to the Gambia. He drew up a most comprehensive and useful report on antimalarial methods, which has proved of the greatest service to that colony. It was during this expedition that he first recognized the presence of trypanosomes in human blood. Dr. Forde, the medical officer of Bathurst, showed him the blood of a European which contained an organism which Dr. Forde took to be a filaria, but which Dr. Dutton immediately recognized as a new trypanosome. He described it accurately and named it, and subsequently found the same organism in numerous other cases in the Gambia and elsewhere. It can hardly be doubted that this discovery of the trypanosome in man by Dr. Dutton was an important factor in leading to the discovery of the cause of sleeping sickness, which was subsequently shown by other observers to be due to the same parasite. In addition to the *Trypanosoma gambiense* he described several other trypanosomes new to science.

In 1902 he proceeded with Dr. Todd to the Senegambia, and drew up a report on sanitation which was presented to the French Government, and further papers on trypanosomiasis were published.

The last expedition to the Congo, on which Dr. Dutton was engaged when his career was so unexpectedly brought to an end, was sent out from Liverpool towards the end of 1903. The party consisted of Dr. Dutton, Dr. Todd, and Dr. Christy, who proceeded to the Congo to investigate trypanosomiasis and other tropical diseases. Dr. Christy returned to England in June, 1904, but the others pushed on, and reached Stanley Falls about the end of the year. The last letter from Dr. Dutton was received by his friend and former collaborator, Dr. Annett, Lecturer on Comparative Pathology in the University of Liverpool, and is dated February 9th. The letter, which is illustrated with drawings, is full of details of his most recent work, which will doubtless be made public at the proper time. This work was largely concerned with the causation of tick fever, which is closely related to the relapsing fever of Europe, if it is not identical with it, and, like relapsing fever, is associated with the presence of spirilla in the blood. From the letter it appears that both Dr. Dutton and Dr. Todd had suffered from the fever, but were then recovered. Dr. Dutton, who attributed his attack to inoculation when making a *post-mortem* examination, had had four relapses, but Dr. Todd's fever was of the abortive type.

The letter contains two important statements which are new, and which seem to place the etiology of this disease on an

unassailable basis. One is that for the first time the writer succeeded in imparting spirillum fever to a monkey by means of the tick. The other is contained in a postscript dated February 12th, and is to the effect that a monkey had been infected with spirilla by the bite of young ticks—at their first feed after hatching—the ticks having been reared from naturally infected parents. As regards the condition of the spirillum in the body of the tick, he was unable to trace it beyond the stomach and the Malpighian tubes.

It would be difficult to over-estimate the value of these discoveries if, as there is little doubt will be the case, they are confirmed by subsequent observers; and it is sad to think of this young man cut off on the threshold of what seemed certain to prove a brilliant career, a career which bid fair to bring incalculable benefits to humanity. During his student days and afterwards at the College and in the Royal Infirmary Dr. Dutton was held in the highest esteem by his teachers, his fellow students, and all who came in contact with him. He was devoted to his work and his demeanour was characterized by a gentleness and an entire absence of self-assertion which made him as much beloved as he was esteemed and respected. In him medical science has lost one of its most promising and distinguished men, and the University of Liverpool one of its most gifted students, who combined a great intellect with a charming personality.

Professor Ronald Ross, C.B., F.R.S., writes:

I have been kindly asked by the Editor of the British Medical Journal to write a few words about our most lamented colleague, Dr. J. Everett Dutton. It is very hard to write anything coherently so early after the arrival of the unexpected news of his death, occurring as it did just as he was about to return to England full of scientific experience garnered during several years in Africa. I can only say that his loss is to all of us like that of a family bereavement. I personally have known him during six years, and should like to say that I have certainly never met any scientific worker for whom it was possible to have more respect and affection. He was a true Knight of Science. Indeed, we all considered him as the Galahad of that group of enthusiastic young men who, with so little recompense to themselves, have during the last few years pushed forward the cause of tropical medical science at such a rapid rate. For years, with little prospects to look forward to, without rest or recreation, and in spite of frequent illnesses, he has worked unremittingly in the cause of science and his country. He perhaps, of all others, deserved the reward given to Galahad. His great scientific ability was supported by a singular purity, modesty, and courtesy of character. All we can do for his memory is to place him in a niche beside that other martyr to the same cause, Walter Myers; but if there is any sense of gratitude in my countrymen, they will not, I hope, allow such services and such a fate as those of Everett Dutton to be quickly forgotten. I can say no more at the moment.

The Late Colonel Bartholomew O'Brien, I.M.S.—We are informed by a correspondent in a note of appreciation of the public services of the late Colonel O'Brien that during his service in Calcutta he was under the Military Department as Principal Medical Officer of the Calcutta District. As such it necessarily follows that he was not, as stated, principal medical adviser to the Government of Bengal, a post which at the time was held by another officer employed on the civil side. Colonel O'Brien took much interest in the sanitation of Fort William, and it was in connexion with that place that the chief improvements mentioned in the obituary notice were initiated.

The name of Dr. Robert Patrick Connell must be added to the long list of members of our profession who have sacrificed their lives in pursuance of their work. Whilst attending on a patient suffering from a mild attack of discrete small-pox at the Bradkirk Isolation Hospital, Bamber Bridge, near Preston, he contracted the disease, which developed into a most virulent attack of the haemorrhagic type, to which he succumbed on the sixth day, despite the incessant attention of his friend and neighbour, Dr. Thomas Sharples. Dr. Connell had only been in practice at Bamber Bridge for some two years, but had succeeded in gaining many friends, by whom his loss is greatly deplored. The funeral took place on April 29th, at Brownedge Church, and was attended by a very large number of his patients and sympathizing friends. He was a member of the Preston Division of the Lancashire and Cheshire Branch of the British Medical Association.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have lately died are Dr. Alberto Costa, Inspector-General of the Sanitary Department of the Argentine Army and one of the founders of the School of Military Sanitation, Buenos Aires; Dr. E. Garcia Duarte, Professor of External Pathology in the University of Granada; Dr. Andreas Kornhuber, Professor of Zoology in the Vienna Technical High School, aged 83; and Dr. Eduard Himmel, of Vienna, a specialist in children's diseases of considerable reputation, aged 58.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CORONERS' INQUESTS AND PAYMENT OF MEDICAL WITNESSES.

E. P. writes: A coroner in a murder case holds an inquest at which the doctor attends by request, but his evidence is not taken. A guinea is paid for this attendance. A *post-mortem* examination is made the next day and the adjourned inquest some ten days afterwards. The coroner (a medical man) pays two guineas for the *post-mortem* examination and another guinea for the adjourned inquest—in all four guineas. I should mention that the inquests and *post-mortem* examinations were held at a village inn three miles away. The county finance clerk raises the question whether three or four guineas should be the correct payment. The coroner is anxious to establish some precedent, and would value the opinion of the British Medical Journal in support of his contention, basing his payment scale upon the fact that the doctor had three separate attendances and *post-mortem* examination at a distance of three miles from his house.

*** Medical witnesses at inquests are remunerated for their attendance and for making *post-mortem* examinations, if previously ordered by the coroner, in the following manner, as provided by Act of Parliament (Coroners Act, 1887, Section xxii): (*a*) For attending to give evidence at any inquest whereat no *post-mortem* examination has been made by such practitioner, one guinea. (*b*) For making a *post-mortem* examination of the body of the deceased with or without an analysis of the contents of the stomach or intestines, and for attending to give evidence thereon, two guineas. The interpretation of these clauses has often been made a matter of discussion between coroners, medical witnesses, clerks of the peace, and county auditors, and the general consensus of opinion has resulted in the payment to medical witnesses of one guinea for giving evidence when no *post-mortem* examination is made, and two guineas when a *post-mortem* examination has been made, ordered either before or at any time during the course of the inquiry, and as all adjournments are considered as part of the same inquest no other fee than the two guineas is paid. The council of the Coroners' Society of England and Wales has reluctantly come to the same conclusion, and it is generally acted upon in the counties of London and Middlesex. As to travelling expenses, over two miles, we believe medical witnesses can claim the same amount a mile as that allowed to other witnesses under a scale of disbursements made by the county councils and municipal authorities, which the coroner may allow at his discretion. In London and Middlesex travelling expenses are allowed at the rate of two pence a mile. There is a Bill now being promoted by the British Medical Association which, when it becomes law, will provide increased remuneration for medical witnesses with payment for each attendance at the court, and we would refer our correspondent to the Supplement of the Journal of March 11th, 1905, p. 91, where it is fully set forth.

INQUEST FEES TO HOSPITAL OFFICERS.

In a case to which our attention is drawn by a correspondent, a patient admitted to a country hospital with fractured ribs, who was seen on admission by the resident house-surgeon, subsequently died, and the coroner requested the attendance at the inquest both of the house-surgeon who, at his request, made an autopsy, and of the visiting surgeon under whose care the man had been. No fee was paid to either of these gentlemen, and we are asked to say if this was legal.

*** The coroner's legal justification is found in Section xx of the Coroners Act, 1887. By Subsection 11 it is provided that "When an inquest is held on the body of a person who has died in a county or other lunatic asylum, or in a public hospital, infirmary, or other medical institution, or in a building or place belonging thereto, whether the place be supported by endowments or by voluntary subscriptions, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid, shall not be entitled to such fee or remuneration." This subsection it is proposed to repeal in the Coroners Bill promoted by the Medico-Political Committee of the British Medical Association.

MEDICAL MEN AND ADVERTISEMENTS OF PROPRIETARY ARTICLES.

F. W. S. sends us a cutting from an advertisement which appears in the *Daily Mail* under the heading "Messages from Medical Men," which purports to give the text of a number of testimonials given by members of the medical profession to iron-ox tonic tablets. The signatures are

omitted, but the qualifications are given, and the whole is attested by a notary public, who states that he has seen the original testimonials, and that they are faithful copies or extracts from the originals.

*** We have seen this advertisement with much regret. We have no means of knowing any more about it than appears, and can only express the opinion that if members of the medical profession have really given these testimonials they have acted in a way which they will already have seen cause to regret.

RED LAMPS.

TWO correspondents write to us upon this subject, one to say that the red lamp is very common in the East End of London, and so can hardly have gone out of fashion; and the other, to tell us that red lamps are by no means uncommon in the Highlands of Scotland, and to express his personal preference for the white lamp with the red cross.

*** We have never ventured to condemn the use of such lamps. We have only suggested that any one who uses an unusual means of attracting attention to himself lays himself open to the charge of advertising.

"GROSS RECEIPTS."

VENDOR writes for information as to the following: A. takes B. into partnership, and it is agreed that if A. retires B. shall take his share, paying two years' purchase, calculated on the average gross receipts of the last three years. If one of these years should be that in which B. entered the partnership, in calculating gross receipts, ought that amount paid during the year, but earned before B. joined A., to be included?

*** Certainly. Every penny received by either partner out of the practice would be included in the gross receipts.

LEAD POISONING FROM DIACHYLON.

A. W. S. asks: (1) Whether it is necessary to notify the Home Office of a case of lead poisoning caused by the patient taking "diachylon and bitter apple" pills in order to procure abortion. (2) In case the woman dies, has a certificate to be refused and the coroner written to?

*** (1) No. The object of the notification is to obtain a clue to dangerous conditions over which the inspectors can exercise control, and hence the requirement under Section lxxiii of the Factory and Workshop Act, 1901, is limited to cases which appear to have been contracted in a factory or workshop. Beyond these limits the Home Office has no power to interfere, and plumbism otherwise acquired—for example, from lead in drinking water, from lead taken to procure abortion, or even from industrial occupation outside the Factory Acts—could not be dealt with by the Factory Department. (2) Without doubt the coroner should be communicated with and the facts laid before him. If a certificate is given to the relatives stating the cause of the death it will be taken to the registrar, who will forward it to the coroner, and the inquest, if any, may be delayed, as also the funeral. It is on the whole advisable for the medical attendant in such cases to withhold the certificate till after he has communicated with the coroner and knows his decision.

NOTICES OF MEDICAL MEN IN THE LAY PRESS.

TRANSPADANUS sends a cutting from a local paper, which notes under the heading of what "People are Saying" the change of residence of a medical practitioner; he asks whether the latter should not write a disclaimer.

*** A protest should be sent to the editor of the paper by the practitioner mentioned, not for publication, but to state his objection to the notice. We will refer the matter to the Ethical Committee.

SURGERY NOTICES.

PILLS.—Medical opinion is adverse to the spirit of advertising, and although a notice inside a surgery would not be in a position to attract public attention, we cannot express our approval of anything in the nature of display.

PROFESSIONAL SECRECY.

SABRINA writes: A. is surgeon to a railway provident society, which is managed by the men, not by the railway company. A. is consulted by one of the members, a signalman, and finds him to be suffering from aortic and mitral disease. A. tells the patient of his condition, and advises him to seek other employment; the patient, however, refuses to stop his work. What ought A. to do? Should he inform the railway company of the man's condition, seeing that his sudden death while on duty might involve a serious accident, or do the patient's interests outweigh the public safety?

*** Our correspondent has done his duty by pointing out to the patient his unfitness for work, but he would be violating the rule of professional secrecy if he communicated to the company the facts which have become known to him in his professional capacity. The safety of the public may be secured by other means—for example, the company may submit its signalmen from time to time to a medical examination, in which a medical examiner, acting on behalf of the company, would report any diseases likely to interfere with the due and safe performance of their duty. There is, however, no reason against our correspondent refusing to give the man a certificate of fitness to resume work, and by this means he may prevent him becoming a public danger without violating professional secrecy.

A SPECIALIST AND HIS PROFESSIONAL BRETHREN.

PEACE writes that he is starting in a populous district where he wishes to practise as specialist in the eye, ear, nose and throat, for which he has trained himself by special appointments and study. He is continuing to work at special hospitals, and proposes to take small fees so as to compete with the special hospitals which treat many persons who can pay something but cannot afford the usual fees charged by consultants. He recognizes that he must depend upon the recommendations of the general practitioners in the neighbourhood and for this purpose he has called upon a great many, but he asks whether there can be any objection to his writing to those whom he cannot see?

*** We see no objection to our correspondent writing as he proposes, but we cannot approve of anything of the nature of a circular and think the preferable way is to join the local Division of the Association through which he can make the acquaintance of his professional neighbours.

MEDICAL ADVERTISING.

W. R. W.—The newspaper cutting sent to us is undoubtedly open to the objection our correspondent makes, but there is nothing to show that the medical practitioner mentioned in it is in any way responsible. We will refer the matter to the Central Ethical Committee.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

OUTDOOR PAUPER LUNATICS.

PERPLEXED writes asking what certificates (if any) are required to place a person legally on the quarterly list of outdoor pauper lunatics.

*** It rests solely with the medical officer of the district to decide as to the lunacy of any havenless paupers in his district, and if in his opinion there should be any persons therein who can be properly described as pauper lunatics, who are at the same time properly taken care of, and may properly remain out of an asylum, all such persons should be visited and carefully inspected by him at their own residences once or more during every quarter, and then, within seven days of the end of the quarter, a list of such persons so visited and inspected sent to the clerk to the guardians by the medical officer. The forms used for this purpose are supplied to the medical officers by the guardians on application to their clerk.

VACANT DISTRICT MEDICAL APPOINTMENT.

A. H. S. writes that he is the only practitioner living in a provincial Poor-law district, the medical appointment for which (in consequence of a death) is now vacant. He has decided to apply for this appointment, and asks what his best course of action would be.

*** Our correspondent should, if the vacancy in question is advertised, be careful when applying for the appointment to comply with the requirements of the advertisement. He may consistently point out that his residence is in the district, and (if such be the case) in that part of it which would render it easy of access for all the pauper patients therein. It would not be advisable for him to draw any comparisons between his own residence and that of others who may be candidates.

DISINFECTION OF BOOKS AFTER SCARLET FEVER.

DRAX. would like to know, can books which have been used freely during an attack of scarlet fever (seven weeks) be disinfected? If so, what is the best means of doing so? Would opening them fan-like in a room where formalin is evaporated three times be sufficient?

*** Books which have been thus used, unless valuable, should be burnt. Otherwise they may be disinfected as suggested. On the whole it is the best method.

ANKYLOSTOMIASIS.—In a pamphlet entitled the *Dirt Eating Disease*, or ankylostomiasis, published in Brisbane in 1901, Dr. C. A. Brough gives, in a popular form, a very good synopsis of the main features of this disease. In his preface he expresses surprise that so much interest should recently have been taken in this disorder, considering that it has been so well known for many years, and has been fully described in all medical textbooks. The recent outbreak in a mine in Cornwall has been responsible for many papers and lectures on the subject in England, owing probably to the fact that few have seen or studied the subject in this country. In the tropics it is very common. The author describes briefly the anatomy of the worm, the pathology of the disease, the theories as to the action of the parasite in the production of anaemia, the symptoms, clinical history, and treatment. The life-cycle given is now of course slightly out of date, the recent work on the passage of the ankylostomes through the skin having appeared since the publication of the pamphlet. It will be useful for those who have not made a special study of the literature of the subject, but wish to possess themselves rapidly of the main facts of this important disease.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degree Days.

THE degree days for the ensuing terms are as follows: In Easter term: Thursday, May 4th, Thursday, May 25th; in Trinity term: Thursday, June 22nd, Thursday, June 29th, Saturday, July 8th.

D.M. Degree.

The following have received the degree of Doctor of Medicine: Owen William Richards, New College; Oscar Hildesheim, Magdalen College.

Natural Science Scholarships.

Examinations for scholarships and exhibitions in natural science are announced as follows: May 2nd, Merton College and New College; July 4th, Brasenose College.

CAMBRIDGE UNIVERSITY.

THE following candidates were approved in both parts of the April examination for the diploma indicated:

D.P.H.—D. G. Advani, R. Ahern, C. A. Bentley, Isabella D. Cameron, C. J. Coleman, J. W. Cornwall, T. S. Elliott, H. B. Fawcus, C. Fisher, T. B. Heggs, A. E. Jones, H. G. Jones, E. W. Routley, A. M. Simpson, J. B. Thackwell, D. B. Waters.

The M.D. degree was conferred on April 27th on Messrs. S. P. Pollard and W. L. H. Duckworth, and that of M.B. on Mr. F. W. M. Palmer.

UNIVERSITY OF LONDON.

Meeting of Convocation.

AT the meeting on Tuesday, May 9th, at 5 p.m., a Deputy-Chairman of Convocation and the Clerk of Convocation will be elected. Dr. T. L. Mears is nominated for the former office, Mr. Henry E. Allen for the latter. Certain members of the Senate are also to be appointed. The graduates in medicine will select one, and Dr. J. Frank Payne, B.Sc., has been duly nominated. The report of the Standing Committee states that there is nothing in the Parliamentary Bill for transferring University College to the University which in any way injuriously affects Convocation. The Committee recommends the formation of a University Athletic Union, and the establishment of a University Boat Club to enable an eight of the University to compete at Henley. It will be proposed to change the hour for the meetings of Convocation from 5 to 5.30 p.m. Resolutions favouring these various recommendations will be proposed to the meeting.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen passed the Second Examination of the Board at the quarterly meeting of the Examiners in the subjects indicated, namely:

Passed in Anatomy and Physiology.—W. A. Alexander, B.A.Camb., C. H. F. Atkinson, C. J. Aveling, B. F. Bartlett, A. W. Bevis, R. F. Capon, H. B. Carter, T. Evans, J. A. Clark, W. Dean, E. L. Fyffe, M. N. K. Dikshit, L.M. and S. Bombay, E. G. Gauntlett, W. Gilliatt, J. M. Hammond, F. T. Hancock, M.R.C.V.S., A. T. Jackson, R. H. H. Jolly, T. W. Jones, A. R. Hardy, J. E. L. Johnston, R. J. Jones, G. F. Jotham, P. Lang, A. Miles, A. N. Leeming, O. W. McSheely, M. H. E. R. Montesole, M. K. Nelson, D. North, H. E. Perkins, C. M. Plumptree, W. J. Petty, W. E. Roberts, A. Samuel, E. J. J. Quirk, P. C. Raiment, J. S. Robertson, R. W. Rix, H. A. H. Robson, A. F. Sanderson, F. C. Searle, R. Sacknovis, B.Sc.Vict., E. P. Stibbe, W. E. Wilks, C. H. S. Webb, and H. A. F. Wilson.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary quarterly comitia was held at the College on Thursday, April 27th, the President (Sir R. Douglas Powell) in the chair.

Plague in India.

The PRESIDENT announced that he had nominated Sir Patrick Manson and Drs. Payne, Norman Moore, Anderson, Simpson, and Beatson to serve on a Committee to consider the constantly-increasing mortality from plague in India since 1896, and to report to the College on the desirability of the College addressing His Majesty's Government on the subject.

International Medical Congress, 1906.

The PRESIDENT also announced that he had nominated Sir Dyce Duckworth to represent the College at the International Medical Congress to be held at Lisbon in April, 1906.

Cancer Research Committee.

Sir William Church was reappointed to represent the College on the Cancer Research Commission.

Membership.

The following gentlemen were admitted members of the College: Arthur John Jex-Blake, M.A., M.B.Oxon.; Frank Edward Taylor, M.A.Vict., M.B.Lond., L.R.C.P.; George William Watson, M.D.Lond., L.R.C.P.; William Henry Wynn, M.D.Lond., L.R.C.P.

Licences.

In conjunction with the Royal College of Surgeons, licences to practise were granted to 108 gentlemen.

Fellowship.

On the nomination of the Council, the following gentlemen were elected Fellows of the College: Duncan Burgess, M.B.Cantab.; Bedford Pierce, M.D.Lond.; James William Russell, M.D.Cantab.; James Harry Sequeira, M.D.Lond.; Arthur Whitfield, M.D.Lond.; Thomas Watts Eden, M.D.Edin.; William Barnett Warrington, M.D.Lond.; Wilfred John Harris, M.D.Cantab.; Robert Arthur Young, M.D.Lond.; Leonard Rogers, M.D.Lond.; Harold Batty Shaw, M.D.Lond.; Edmund Ivens Spriggs, M.D.Lond.

Communications.

Communications were received from (1) the Secretary of the Royal College of Surgeons, reporting certain proceedings of the Council on April 13th; (2) the executors of the late Mrs. Begley, announcing a bequest of £500 to the College.

University of London.

On the nomination of the Council, Dr. Pye-Smith was re-elected as the Representative of the College on the Senate of the University of London.

Baly Medal.

On the recommendation of the Council, the Baly Medal was awarded to Professor Pavlov of St. Petersburg, as having pre-eminently distinguished himself in the science of physiology.

Reports.

The following reports were received:

1. From the Committee on the Care and Control of the Feeble-minded. Suggested verbal amendments were approved, and the report adopted.

2. From the Committee of Management, dated February 6th, recommending that the Swansea General and Eye Hospital be added to the list of the General Hospitals, and the Willesden District Isolation Hospital to the list of the fever hospitals recognized by the Examining Board in England.

3. From the Laboratories Committee, dated January 27th, reporting that (*a*) during the month of December 2,475 doses of diphtheria antitoxin, each containing 3,000 units, have been supplied to the hospitals of the Metropolitan Asylums Board, making a total of 7,425,000 units; (*b*) that on January 1st the laboratories and staff were taken over by the Metropolitan Asylums Board; (*c*) that, as the duties of the Committee have now been completed, no further meetings will be held.

4. From Dr. Pye-Smith, on the history and work of the laboratories of the Royal Colleges since their opening in January, 1890. This was received, and a cordial vote of thanks was passed to Dr. Pye-Smith for his interesting and valuable report.

5. From Sir William Church and Sir Lauder Brunton, the representatives of the College on the Conference of the Sanitary Institute on School Hygiene, February 7th to 10th, 1905.

Dr. Norman Moore moved "That the generous offer of the Worshipful Company of Barbers, conveyed in a letter to one of the Censors, to restore to the College an Inspedimus Charter of Charles II, now in possession of the Company, be accepted." This was carried unanimously, and a special vote of thanks was passed to the Company for their generosity.

Books and other publications presented to the library during the past quarter were received, and thanks returned to the donors.

The quarterly report of the College Finance Committee, and the quarterly report of the Examiners for the Licence on the January examinations were received and adopted.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE FIELD AMBULANCE.

SURGEON-LIEUTENANT-COLONEL R. R. SLEMAN (London) writes: A description of the new unit, "The Field Ambulance," has recently been published by the War Office. It takes the place of the bearer company and the field hospital, and is under the command of a lieutenant-colonel. The total personnel consists of 252 of all ranks; these are divided into:

(1) A bearer,
(2) A tent, and
(3) A transport division.

The bearer division consists of a personnel of 129, of which 117 are privates; 90 of these may be "specially enlisted men."

The tent division has accommodation for 150 patients; three of the officers may be civilian surgeons.

In the transport division no less than 60 of the Army Service Corps are employed, but without an officer from that corps.

Each field ambulance is attached to a brigade. There is also one for the corps troops.

In a cavalry brigade there is only accommodation for a field ambulance equipped for 50 patients, and the personnel is accordingly reduced to 120.

FIRST AID IN THE ARMY.

THE annual contest for the Connaught Challenge Shield for regimental stretcher bearers took place at Aldershot on April 26th. Seven teams competed, each team consisting of four stretcher bearer squads under a non-commissioned officer. The work was judged by a committee, of which Major Hinge and Captains Steele and Thom, all of the Royal Army Medical Corps, were the technical members. The test consisted of each team in turn going at the double to a spot about 300 yards distant at which four nominal patients were lying. Arrived there, the patients had to be dressed in the way which seemed to be indicated by the nature of the imaginary injury inscribed on a ticket attached to each patient's jacket. The dressings completed, the patients had to be placed on a stretcher and carried back to a field hospital, where the party was examined *viva voce* as to the work done. Points were awarded for time, care, and skill in handling the patient, correct bandaging, steadiness in carrying, and intelligent answering of the questions put. The winning team belonged to the 1st Royal Welsh Fusiliers with a total of 154 marks out of a possible 180; a team from the 3rd Grenadier Guards was placed second with 102 marks, and one from the 3rd Scots Guards with 100. Colonel Bulin, who presented the shield to the winning team, remarked on the importance of the contest, as the injuries of men in actual warfare had often been aggravated through lack of necessary skill on the part of men forming bearer parties.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE annual banquet of the School will be held at the Trocadero Restaurant, Piccadilly Circus, W., on Thursday, May 18th, at 7.45 p.m. The chair will be taken by the senior medical officer, Surgeon-Colonel P. B. Giles, V.D., F.R.C.S. The string band of the 1st Cadet Battalion of the Royal Fusiliers will perform a selection of music during the evening. Past and present members of the School can obtain tickets by applying to the mess president, Surgeon-Captain E. M. Callender, M.D. 47, Connaught Square, W.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. T. HOUGHTON MITCHELL (Ambleside) writes: Has the light treatment been tried in neuralgia, sciatica, or Bell's palsy. The thought occurs to me that the *x* rays, or Finsen light, by modifying the circulation, by producing an endosmosis or change of tissue in the affected nerve and its neurilemma, and by acting also as a light moxa, might prove beneficial in intractable cases of these affections.

SPASMODIC MUSCULAR ACTION IN THE LOWER EYELIDS.

IRRITANS writes: A patient of mine, who spent twelve years in India, and had repeated attacks of malarial fever and congestion of liver, is now troubled with periodical attacks of incessant twitching of the lower eyelids, chiefly the left. The movements are rapid, and somewhat resemble the motion of the indicator in a telegraphic instrument. There is no pain, but the condition causes much inconvenience, especially when reading. There is an old history of syphilis, but no symptoms have been apparent for ten years. I should be glad to know the probable cause.

THE DEGREE OF D.D.S.

DENTAL.—Where can the D.D.S. be obtained by an L.D.S. of this country without further curriculum?

*** We regret that we cannot answer the question. The only plan would be to inquire of some of the bodies granting the D.D.S., who would, we believe, admit an L.D.S. to examination after a short course in their own schools. In Canada the Ontario Dental College, which is affiliated to the University, would admit after a year's study; and we doubt if a candidate would be admitted to examination without some further study on the spot by any of the reputable colleges.

ANSWERS.

J. P. B.—As gleet is not a disease in itself but a sign of some morbid condition of the urethra, the answer to the questions must depend on the cause of the gleet, which should be ascertained by the history of the case and examination of the urethra and of the discharge.

NEUROLOGY would probably find Oppenheim's *Diseases of the Nervous System* a thoroughly satisfactory book for his purpose. The fourth German edition of it was reviewed in the BRITISH MEDICAL JOURNAL of March 11th, 1905, p. 541, and an English translation of the third edition by Dr. E. E. Mayer (London: J. B. Lippincott Company. 1904. 21s.), was reviewed on July 9th, 1904, p. 75. In regard to disseminated sclerosis in particular, he might well consult in addition Clifford Allbutt's *System of Medicine*, vol. iii, (London: Macmillan and Company. 1899. 25s.)

THE EXAMINATION FOR THE DIPLOMA IN TROPICAL MEDICINE.

F. J. A. B.—1. Besides Cambridge and Liverpool (the latter only eligible to those who have attended the course there), Edinburgh now offers a diploma in tropical medicine. 2. The date of the examination in Edinburgh is not settled. 3. In addition to *Tropical Diseases*, by Sir P. Manson, C.M.G., M.D., new edition (London: Cassell and Company. 1903. 10s. 9d.); *Studies in Laboratory Work*, by C. W. Daniels, M.B (London: John Bale, Sons, and Danielsson. 1903. 15s.); *Manual of Bacteriology*, by R. Muir, M.D., and J. Ritchie, M.D., third edition (Edinburgh and London: Young J. Pentland. 1902. 12s. 6d.); and *Hygiene*, by J. L. Notter, M.D., and Lieutenant-Colonel R. H. Firth, R.A.M.C., fifth edition (London: Longmans, Green and Company. 1902. 3s. 6d.), all of which are useful, our correspondent might consult *The Diseases of Warm Countries*, by Dr. B. Scheube, second edition (London: John Bale, Sons, and Danielsson, 1903. 30s.), and *The Practical Study of Malaria*, by J. W. W. Stephens, M.D., and S. R. Christophers, M.B., I.M.S. (London: Williams and Norgate. 1904. 12s. 6d.). 4. A practical course at some school of tropical medicine is essential.

LETTERS, NOTES, Etc.

THE PRICE OF ADRENALIN.

MESSRS. PARKE, DAVIS AND CO. (London) write: Our attention has been drawn to the translation of the article on "adrenalin" which appears in your EPITOME of the BRITISH MEDICAL JOURNAL, April 15th, 1905, p. 58, and we note that comparisons are therein drawn between the cost of adrenalin and suprarenin, very much to the disadvantage of the former. The author is represented as stating that 10 grams of adrenalin solution, 1 in 10,000, costs 3s. 7d., while the same quantity of a 1 in 1,000 solution of suprarenin costs only 1s. 6d. Permit us to say that there is some strange mistake somewhere, and we trust you will allow us, in the interests of your readers as well as ourselves to point this out. So far from 10 grams of a 1 in 10,000 solution of adrenalin costing 3s. 7d., it would, in this country, cost only 1½d., and allowing for the import duty on adrenalin going into Germany, the price of the quantity named should not be more than 3d., or less one-twelfth of the figure quoted by you, while 10 grams of 1 in 1,000 solution of adrenalin costs in this country less than 1s. 5d. We trust you will publish this correction of what is undoubtedly a mistake.

CINNAMIC SALTS IN THE TREATMENT OF CANCER.

MESSRS. MARTINDALE (10, New Cavendish Street, W.) have prepared the 22 per cent. orthocoumarate solution mentioned in Dr. Lovell Drage's paper and are prepared to supply it to members of the medical profession.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

DR. J. SADLER CURGENVEN (London, W.) writes: I find in my letter to you on the above subject, appearing in the BRITISH MEDICAL JOURNAL of April 29th, that I inadvertently used the word "filtrate" where I meant "residue." Any one reading this letter would, I think, appreciate that it was a mistake, but I should be very grateful if you would insert this correction in your next issue.

TREATMENT OF PNEUMONIA BY ACETATE OF IRON.

MR. HERBERT ROBSON (Leeds) writes to give the following further details as regards the feeding and general care of patients when treated by him, as described in his paper on April 15th at p. 812:

A sheet of paper with the following directions written on it is given to the nurse in charge of the case, and the importance of observing them is impressed upon the patient:

1. Strict rest in bed and in the recumbent posture. Reserve all strength possible.
2. Give 3½ pints of fluid food each 24 hours.
3. Keep the temperature of the room at 63° F. night and day.
4. Ventilate the room regularly.
5. Take and record the patient's temperature, pulse, and respiration every 4 hours.
6. Wear a light woollen vest beneath the flannel nightdress.

Food.—Stress is laid upon the importance of giving 3½ pints of fluid food (consisting of milk, egg flip, broths, liquid peptonoids, milk and plasmon, Benger's Food, etc.) each 24 hours, 5 oz. being allowed every 2 hours during the hours awake. As soon as possible light solids are given. A caution is given against overloading the stomach.

Water.—As much is allowed as the patient likes to drink, but not more than 5 oz. at one time.

Liquid Peptonoids (Carnrick's or panopeptine) appear to be of great value in this complaint, and they are often prescribed with the mixtures (that is, dispensed with the mixtures by the chemist) in anxious cases occurring in infants or little children. In severe or desperate cases the parents of children will so much more readily give the medicines if they understand that the medicine is not only medicine but food.

Purgatives.—If necessary a simple purge is given at the outset of the complaint; but it is pointed out as risky treatment to give one at or about the crisis on account of the danger then of setting up acute diarrhoea. Constipation at the crisis is treated by enema.

I take it that the primary cause of the disease in both catarrhal and lobar pneumonia is Fraenkel's pneumococcus; and my opinion is that the iron acetate kills it, or at any rate that it is an antidote to the toxins produced in the complaint, as in no other treatment in my experience do you get such speedy and favourable resolution, and such a freedom from bad complications.

No doubt in severe cases it could be given in much larger doses with advantage, as I have never yet seen it cause gastric disturbance, and it curiously agrees well in those cases where iron seems contraindicated, as in livery or gouty subjects, and where there is a foul tongue or a high-tension pulse.

STRYCHNINE POISONING.

DR. G. PARKER (Clifton, Bristol) writes: Whether strychnine accumulates in the system or not, how can we account for the large doses taken in the well-known extensive treatment of lead poisoning, tobacco amaurosis, and other affections if tolerance cannot be acquired? Many people will take doses progressively increased up to 20 minims at least of the liquor three times daily for weeks or months with no discomfort under ordinary care, and I know of a patient who has just been taking hypodermic injections of half a grain daily in the same way. It is certain that such doses would be a serious matter in persons unaccustomed to the drug.

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An Address

ON

THE LOGICAL BASIS OF THE SANITARY POLICY OF MOSQUITO REDUCTION.

Delivered at the Section of Preventive Medicine of the International Congress of Arts and Science, Universal Exposition, St. Louis, September, 1904.

BY RONALD ROSS, C.B., D.Sc., F.R.S.,

Professor of Tropical Medicine, University and School of Tropical Medicine, Liverpool.

THE great science of preventive medicine is often called upon to consider new policies of public sanitation, which, whether they ultimately prove successful or not, are always of profound interest and importance to mankind. Quite recently a new measure of this kind has been proposed, which in the opinion of many promises to rank with house sanitation and preventive inoculation as a means of saving human life on a large scale. Unfortunately, its value has not yet been clearly demonstrated, with the result that it is not being employed as largely as some of us hoped would be the case. I feel, therefore, that I cannot better acknowledge the honour you have done me in inviting me to address you to-day than by attempting to discuss this important theme, in the hope that the discussion may prove profitable to the cause of public health. The new sanitary policy to which I refer is that which aims at the reduction of disease-bearing insects, especially those which are the disseminating agents of malaria, yellow fever, and filariasis.

I presume that it is scarcely necessary to discuss the evidence which has established the connexion between various insects and arthropods and many diseases of man and of animals. The fact that the pathogenetic parasites which produce those great scourges of the tropics just mentioned are carried by gnats is now too well known to require reiteration. It is necessary only to remind you that the gnat acts as an intermediary, becoming infected when biting infected persons, and some weeks later infecting healthy persons in its turn—the parasite passing alternately from insect to man. The hypothesis that the infection in these diseases may be produced in any other manner than by the bite of gnats has not been justified by any recorded experiments or by any substantial arguments, and we may therefore assume for the present that if we could exterminate the intermediary agents, the gnats, in a locality, we could also exterminate there the diseases referred to. But here we enter upon ground which in the opinion of many is much less secure. While some believe in the possibility of reducing gnats in given localities and consider that the point has been proved by experiment, others are much more sceptical and hold that the experiments were not sound. This state of uncertainty naturally causes much hesitation in the adoption of measures against gnats, and therefore possibly a continued loss of life by the diseases occasioned by them, and I therefore propose to sift the matter as carefully as time will allow.

In the first place, we should note that experiments made in this connexion have not been very satisfactory, owing to the fact that no accurate method has yet been found for estimating the number of gnats in any locality. We can express our personal impressions as to their numbers being small or large, but I am aware of no criterion by which we can express those numbers in actual figures. We cannot anywhere state the exact number of mosquitos to the square mile or yard, and we cannot therefore accurately gauge any local decrease which may have resulted from operations against them. A method of doing this may be invented in the future, but for the present we must employ another means for resolving the problem—one which has given such great results in physics—namely, strict logical deduction from ascertained premises.

As another preliminary we should note that mosquito reduction is only part of a larger subject—namely, that of the local reduction of any living organisms. Unlike particles of matter (so far as we know them), the living unit cannot progress through space and time for more than a limited distance. The diffusion of living units must therefore be circumscribed; a number of them liberated at a given point would never be able to pass beyond a certain distance from that point, and the laws governing this movement must be the same for all organisms. The motile animal is capable of propelling itself for a time in any direction, but even the immotile plant calls in the agency of the winds and waters for the dissemination of its seeds. The extent of this migration, whether of the motile or the immotile organism, must to a large degree be capable of determination by proper analysis, and the logical position of the question of local reduction depends upon this analysis.

The life of gnats, like that of other animals, is governed by fixed laws. Propagation can never exceed, nor mortality fall below, certain rates. Local conditions may be favourable either to the birth-rate or to the death-rate, and the local population must depend upon the food supply. Diseases, predatory animals, unfavourable conditions, and accidents depress the density of population, and in fact local reduction—that is, artificial depression of the density of population—practically resolves itself into (*a*) direct destruction, and (*b*) artificial creation of unfavourable conditions.

Let us now endeavour to obtain a perfectly clear picture of the problem before us by imagining an ideal case. Suppose that we have to deal with a country of indefinite extent, every point of which is equally favourable to the propagation of gnats (or of any other animal); and suppose that every point of it is equally attractive to them as regards food supply, and that there is nothing—such, for instance, as steady winds or local enemies—which tends to drive them into certain parts of the country. Then the density of the gnat population will be uniform all over the country. Of course such a state of things does not actually exist in Nature; but we shall nevertheless find it useful to consider it as if it does exist, and shall afterwards easily determine the variations from this ideal condition due to definite causes. Let us next select a circumscribed area within this country, and suppose that operations against the insects are undertaken inside it but not outside it. The question before us is the following: How far will these operations affect the mosquito density within the area and immediately round it?

Now, the operations may belong to two categories—those aimed at killing the insects within the area, and those aimed at checking their propagation. The first can never be completely successful; it is, in fact, impossible to kill every adult winged gnat within any area. But it is generally possible to destroy at least a large proportion of their larvae, which, it is scarcely necessary to remind you, must live for at least at week in suitable waters, and which may easily be killed by larvacides, or by emptying out the waters, or by other means. This method of checking propagation consists, in the case of these insects, of draining away, filling up, poisoning, or emptying out the waters in which they breed. Obviously, the ultimate effect is roughly the same if we drain away a breeding pool, or if we persistently destroy the larvae found in it, though in the first case the work is more or less permanent, and in the second demands constant repetition. If we drain a breeding area, we tend to produce the same effect at the end of a year as if we had destroyed as many gnats as otherwise that area would have produced during that period. Thus, though we cannot kill all mosquitos within an area, even during a short period, we can always arrest their propagation there for as long as we please, provided that we can obliterate all their breeding waters, or persistently destroy all their larvae, which we may assume can generally be done for an adequate expenditure. We must therefore ask what will be the exact effect of completely arresting propagation within a given area under the assumed conditions.

The first obvious point is that the operation must result in a decrease of mosquitos. If we kill a single gnat there must be one gnat in the world less than before; if we kill a thousand every day there must be so many thousands less at the end of a given period; and the arrest of propagation over any area, however small, must be equivalent to the destruction of a certain number of the insects. But this does not help us much. It may be suggested that, after the arrest of propagation over even a considerable area, the diminution of mosquitos within the area remains inappreciable owing to immigration from outside. What is the law governing the percentage of diminution in the mosquito density due to arrest of propagation within an area?

The number of gnats (or any animal) within an area must always be a function of four variables—the birth-rate and death-rate within the area and the immigration and emigration into and out of it. If we could surround the area by an immense mosquito bar, the insects within it—after the death of old immigrants—would consist entirely of native insects; on the other hand, if we arrest propagation, the gnat population must hereafter consist entirely of immigrants. The

question therefore resolves itself into this one: What is, what must be, the ratio of immigrants to natives within any area? What factors determine that ratio?

Ceteris paribus, one factor must be the size of the area. If the area be a small one—say of 10 yards radius—suppression of propagation will do little good, because the proportion of mosquitos bred there will be very small (under our assumed conditions) compared with those bred in the large surrounding tracts of country, which will have no difficulty in traversing so small a distance as 10 yards. But if we completely suppress propagation over an area of 10 miles radius the case must be very different; every gnat reaching the centre must now traverse 10 miles to do so. And if we increase the radius of the no-propagation area still further we must finally arrive at a state of affairs when no mosquitos at all can reach the centre, and when, therefore, that centre must be absolutely free from them. In other words, we can reduce the mosquito density at any point by arresting propagation over a sufficient radius round that point.

But we now enter upon more difficult ground. How large must that radius be in order to render the centre entirely mosquito-free? Still further, what will be the proportion of mosquito reduction depending upon a given radius of anti-propagation operations? What will be the proportion, either at the centre of operations, or at any point within or without the circumference of operations? The answer depends upon the distance which a mosquito can traverse, not during a single flight, but during its whole life; and also upon certain laws of probability which must govern its wanderings to and fro upon the face of the earth. Let me endeavour to indicate how this problem, which is essentially a mathematical one of considerable interest, can be solved.

Suppose that a mosquito is born at a given point, and that during its life it wanders about, to or fro, to left or to right, where it wills in search of food or of mating, over a country which is uniformly attractive and favourable to it. After a time it will die. What are the probabilities that its dead body will be found at a given distance from its birthplace? That is really the problem which governs the whole of this great subject of the prophylaxis of malaria. It is a problem which applies to any living unit. We may word it otherwise, thus: suppose a box containing a million gnats were to be opened in the centre of a large plain, and that the insects were allowed to wander freely in all directions, how many of them would be found after death at a given distance from the place where the box was opened? Or we may suppose without modifying the nature of the problem that the insects emanate, not from a box, but from a single breeding pool.

Now, what would happen is as follows: We may divide the career of each insect into an arbitrary number of successive periods or stages—say of one minute's duration each. During the first minute most of the insects would fly towards every point of the compass. At the end of the minute a few might fly straight on and a few straight back, while the rest would travel at various angles to the right or left. At the end of the second minute the same thing would occur—most would change their course, and a very few might wander straight on (provided that no special attraction existed for them). So also at the end of each stage, the same laws of chance would govern their movements. At last, after their death, it would be found that an extremely small proportion of the insects have moved continuously in one direction, and that the vast majority of them have wandered more or less backward and forward, and have died in the vicinity of the box or pool from which they originally came.

The full mathematical analysis determining the question is of some complexity, and I cannot here deal with it in its entirety. But if we consider the lateral movements as tending to neutralize themselves, the problem becomes a simple one, well known in the calculus of probabilities, and affording a rough approximation to the truth. If we suppose that the whole average life of the insect contains n stages, and that each insect can traverse an average distance l during one such stage or element of time, then the extreme average distance to which any insect can wander during the whole of its life must be nl. I call this the limit of migration, and denote it by L, as it becomes an important constant in the investigation. It will then be found that the numbers of insects which have succeeded in reaching the distances nl, $(n-1)\,l$, $(n-2)\,l$, etc., from the centre will vary as twice the number of permutations of $2n$ things taken successively, none, one, two, three at a time, and so on—that is to say, as the successive coefficients of the expansion of 2^{2n} by the binomial theorem. Suppose for convenience that the whole number of gnats escaping from the box is 2^{2n}—a number which can be made as large as we please by taking n large enough and l small enough—then the probabilities are that the number of them which succeed in reaching the limit of migration is only 2; the number of those which succeed in reaching a distance one stage short of this, namely $(n-1)\,l$ is $2\,2n$; of those which reach a stage one shorter still is $2^{\frac{2n(2n-1)}{2}}$; and so on. Hence the whole number of gnats will be found arranged as follows:

Distances from centre:

$$nl, \quad (n-1)l, \quad (n-2)l, \qquad (n-3)\,l, \qquad \text{etc.}$$

Number of gnats:

$$2 + 4n + 2^{\frac{2n(2n-1)}{2}} + 2^{\frac{2n(2n-1)(2n-2)}{2.3}} + \text{etc.} = 2^{2n}.$$

It therefore follows from the known values of the binomial coefficients that if we divide the whole number of gnats into groups according to the distance at which their bodies are found from the box, the probabilities are that the largest group will be found at the first stage—that is, close to the box, and that the successive groups as we proceed further and further from the box will become smaller and smaller until only a very few occur at the extreme distance, the possible limit of migration. And the same reasoning will apply to a breeding pool or vessel of water—that is, the insects coming from such a source will tend to remain in its immediate vicinity, provided that the whole surrounding area is uniformly attractive to them.

The following diagram will, I hope, make the reasoning quite clear:

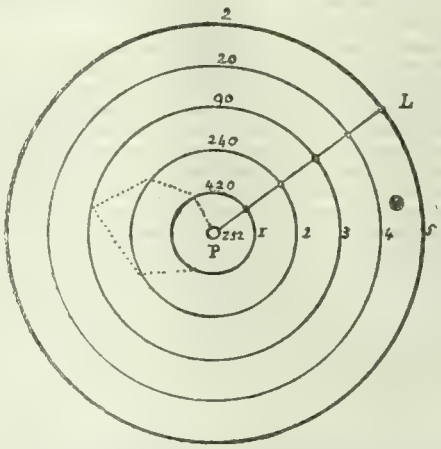


Diagram 1.—The chance distribution of mosquitos. P, central breeding pool; L, limit of migration. The numbers denote the proportion of 1,024 mosquitos, starting from P, which die at the distances 1, 2, 3, 4, 5 respectively. The continuous line denotes a continuous migration always in one direction, the dotted line the usual erratic course.

We suppose that 1,024 mosquitos have escaped during a given period from the central breeding pool P, and we divide their subsequent life into 5 stages, the numbers 1,024 and 5 being selected merely for illustration. Rings are drawn round the central pool in order to mark the distance to which the insects may possibly wander up to the end of each stage, and the continuous line shows the course followed by one which has wandered straight onward all its life and has died at the extreme limit to which an insect of its species can generally go—namely, the outermost circle, L. On the other hand, the dotted line shows a course which is likely to be followed by the largest number of the 1024 insects liberated from the pool—that is to say, a quite irregular to-and-fro course, generally terminating somewhere near the point of origin. The numbers placed on each ring show the number of mosquitos calculated from the binomial coefficients when $n=5$, which are likely to reach as far as that ring at the time of their death. Thus, only 2 out of the 1,024 mosquitos are ever likely to reach the extreme limit; while, on the other hand, no less than 912, or 89 per cent., are likely to die within the second ring round the centre.

The same reasoning will apply whatever may be the number of mosquitos liberated from the pool, or the number of stages into which we arbitrarily divide their subsequent life. Suppose, for example, that 1,048,576 mosquitos escape from

the pool, and that we divide their life into ten stages; then only two of all these insects are ever likely to reach the extreme limit of the outermost circle; only 40 will die at the next circle, only 190 at the next, and so on, the large majority perishing within the circles comparatively close to the point of origin.

This fact should be clearly grasped. The law here enunciated may perhaps be called the centripetal law of random wandering. It ordains that when living units wander from a given point guided only by chance they will always tend to revert to that point. The principle which governs their to-and-fro movements is that which governs the drawing of black and red cards from a shuffled pack. The chances against our drawing all the twenty-six black cards from such a pack without a single red card amongst them are enormous; as are the chances against a mosquito, guided only by chance, always wandering on in one direction. On the other hand, just as we shall generally draw black and red cards alternately from the pack, or nearly so, so will the random movements of the living unit tend to be alternately backward and forward—tend, in fact, to keep it near the spot whence it started. As there is no particular reason why it should move in one direction more than another, it will generally end by remaining near where it was.

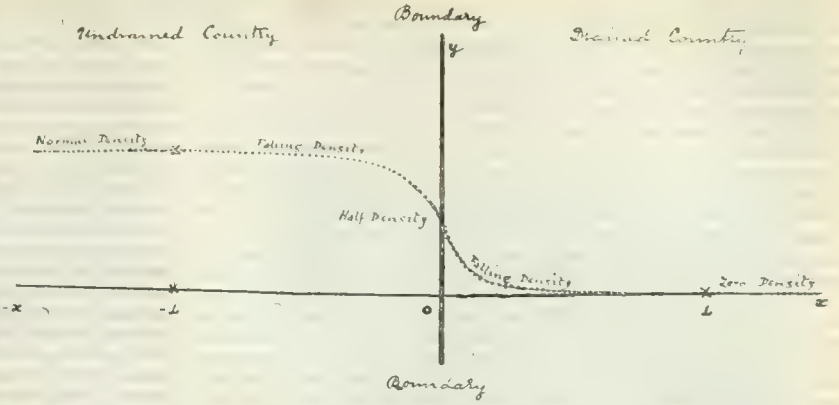


Diagram 2.—Curve of falling mosquito-density due to drainage on right of boundary; L and -L are the limit of migration on either side of the boundary.

But it will now be objected that the movements of mosquitos are not guided only by chance, but by the search for food. To study this point, take the diagram just given, place a number of pencil dots upon it at random, and suppose that each pencil dot denotes a place where the insects can obtain food—suppose, for example, that the breeding pool lies in the centre of a large city and that the pencil dots are houses round it. Consideration will show that the centripetal law must still hold good, because there is no reason why the insects should attack one house more than another. There is no reason why a mosquito which has flown straight from the pool to the nearest house should next fly to another house in a straight line away from the pool, rather than back again, or to the right or left. The same law of chance will continue to exert the same influence, and the insects will always tend to persecute those houses which lie in the immediate vicinity of their breeding pool. Even when there are many pools scattered about among the houses, there is no reason why, after feeding, the mosquitos will go to one rather than to another; and the result must be that in general they will tend to remain where they were.

Self-evident as this argument may now appear, it is not understood by many who write on the subject, and who seem to think that mosquitos radiate from a centre, and shoot for ever onwards into all parts of the country as rays of light do. Accepting this fallacy without question, they argue that it is useless to drain local breeding pools because of the influx of mosquitos from without. Such an influx certainly always exists, but I shall now endeavour to show that it cannot generally compensate for local destruction.

Let us consider a tract of country over which numbers of mosquito-breeding pools are scattered, with houses and other feeding places lying among them. Suppose we draw a straight line across this country and drain away all the pools to the right of it, leaving all those to the left of it intact. Then all the insects on the left of the line must be natives of that part, and all those on the right of it must be immigrants which have crossed over the line from the left. How many mosquitos will there now be on the right side compared with those on the left side? The following diagram will enable us to consider this question more conveniently.

First, examine the state of affairs before the drainage was effected. We may suppose that mosquitos were then breeding fairly uniformly over the whole country, and that their density was much the same on both sides of the line. A certain amount of migration across the line, both from right to left and from left to right, must always have been going on; and since the density was equal on both sides, this migration must also have been equal and opposite—that is, as many emigrants must have been constantly passing from right to left as from left to right. Now, after the drainage has been effected, the following changes occur. The insects breed as before on the left of the line, and some continue as before to cross over it into the drained country; but in the latter, on the right of the line, propagation is entirely checked and, moreover, the migration from it to the left of the line which used to exist now ceases. Hence not only must there be a decrease of a mosquito-density on the right of the line, due to the local cessation of breeding, but also a decrease on the left of the line, due to the cessation of the migration from the right which formerly took place—that is to say, the drainage has affected the mosquito-density not only up to the line of demarcation, but beyond it. And, moreover, since the migration was formerly equal from both sides of the line, it follows that now, after the drainage, the loss on the left side of the line due to the cessation of immigration from the right is exactly equal to the gain on the right due to the continuance of the immigration from the left. That is to say, the mosquitos gained by immigration into the drained country must be exactly lost by the undrained country. This fact can be seen to be obviously true if we imagine an immense mosquito-bar put up along the line of demarcation so as to check all migration across it, when, of course, the mosquito-density would remain as at first on the left, and would become absolute zero on the right; then on removing the mosquito-bar an overflow would commence from left to right, which would increase the density on the right by exactly as much as it would reduce the density on the left.

The dotted line on the diagram indicates the effect on the mosquito-density which must be produced by the drainage. If L is the possible limit of migration of mosquitos (it may be one mile or a hundred, for all we know), the effect of the drainage will first begin to be felt at that distance to the left of the boundary line. From this point the density will begin to fall gradually until the boundary is reached, when it must be exactly one-half the original density. This follows because of the equivalence of the emigration and immigration on the two sides. Next, as we proceed from the boundary into the drained country the density continues to fall, until at a distance L on the right of the line it becomes zero, the country now becoming entirely free of mosquitos because they can no longer penetrate so far from the undrained country.

In the diagram the line giving the mosquito-density falls very slowly at first, and then, near the boundary, very rapidly, subsequently sinking slowly to zero. The mathematical analysis on which this curve is based is too complex to be given here; but it is not difficult to see that the centripetal law of random migration must determine some such curvature. The mosquitos which are bred in the pools lying along the boundary line must remain for the most part in its proximity, only a few finding their way further into the drained country, and only a very few reaching, or nearly reaching, the limit of migration. Though an infinitesimal proportion of them may wander as far as ten, twenty, or more miles into the drained country (and we do not know exactly how far they may not occasionally wander), the vast bulk of the immigrants must remain comparatively close to the boundary. As, for the reason just given, the mosquito-density on the boundary itself must always be only one-half the original density, it follows that it must become very rapidly still less the further we proceed into the drained country. In fact, the analysis shows that the total number of emigrants must be insignificant when compared with the number of insects which remain behind, that is, when they are not drawn particularly in one direction. We are there-

fore justified in concluding that, as a general rule, the number of immigrants into any area of operations must, for practical purposes, be very small or inappreciable a short distance within the boundary line. The following diagram probably represents with accuracy the effects of thorough suppression of propagation within a circular area.

At the circle *a* and beyond it the mosquito-density will be the normal density which existed before the operations were commenced. At *b*, the circle bounding the drainage operations, the density will always be about half the normal density. At the circle *c* and within it the density will be small, inappreciable, or zero. The distance from *a* to *b* may be taken as being the same as that from *b* to *c*, and, as the mosquitos penetrating from *b* to *c* must be drawn from the zone between *a* and *b*, the average result will be the same as if no immigration at all takes place. We do not possess sufficient data to enable us to calculate the actual distance between *a*, *b*, and *c*; this will depend in a certain measure on the activity of the species of insect concerned and on the existence or absence of special local attractions; but this fact does not discredit the general principles involved.

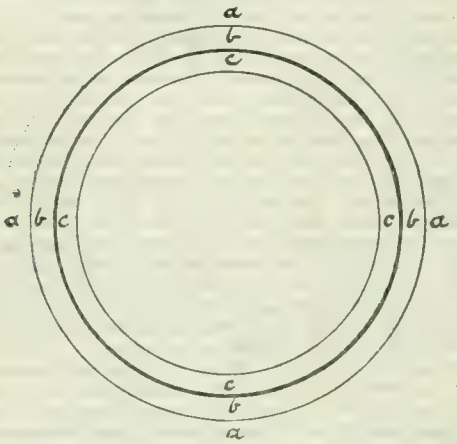


Diagram 3.—Effect of drainage of a circular area; *b*, boundary of drained area. Mosquito-density begins to diminish at the circle, *a*; becomes one-half at the boundary, *b*; and is small, inappreciable, or zero at and within the circle, *c*.

One case has not yet been considered—namely, that in which there exists only a single feeding place in the whole tract of country, such, for instance, as a single house or group of houses situated in the midst of deserted swamps. In such a case the insects may be compelled to come from considerable distances—from as far as their senses are capable of guiding them—in search of food, and drainage operations carried on with a view to relieving such a house may, for all we know, have to be extended over miles. But such cases are not of great consequence, because drainage is seldom the appropriate measure for isolated dwellings, which can generally be protected at far less cost by means of gauze screens. Moreover, it is very doubtful whether feeding places for mosquitos are ever so solitary as the case assumes. Where there is one dwelling there are generally many, scattered at various distances over the country, and the insects are known to feed on cattle, birds, and other animals. For towns, where antimosquito measures are most demanded, our first assumed condition of uniform attractiveness must as a rule be the one in force, and in such cases the centripetal law will hold.

The effect of wind requires examination. Theoretically, if the insects are supposed always to remain on the wing, wind blowing on a generating pool will merely have the effect of drifting the whole brood to a certain extent in one direction without changing the relative positions of the insects to each other. The result would be the same as indicated in Diagram 1, except that the generating pool would now be excentric. If a proportion of the insects take shelter, the circles of Diagram 1 would become ellipses with the generating pool at a focus. In such a case the wind—and especially devious winds—would have a distributive tendency; but it must be remembered that if the insects are scattered further apart their members at a given point must be reduced. A wind which blows mosquitos into an area must blow others out of it. The net result of devious winds on a circular drained area would be that the mosquito density is not so much reduced at the centre, but is reduced to a greater distance outside the boundary circle, so that the average reduction remains the same. With a wind blowing continuously from one direction the indication would be to extend the drainage further in that direction. Obviously, wind may scatter mosquitos, but it cannot create them, nor prevent the total average reduction due to antipropagation measures, as some people seem to think. It is, however, very doubtful whether wind does really drive or scatter mosquitos to any great degree. In my experience they are extremely tenacious of locality. Thus, *Anopheles* were seldom seen on Tower Hill—a low, open hill in the middle of Freetown, Sierra Leone—although numerous generating pools existed a few hundred yards from the top, all round the foot of it, and the winds were often very strong. If a continuous wind can drive mosquitos before it, then, during the south-west monsoon in India, they should be driven away from the west coast and massed towards the east coast; but I have never heard that they are at all less numerous on the west coast. I have often seen very numerous mosquitos on bare coasts exposed to strong sea breezes, as at Madras. As a rule, they seem to take shelter in the presence of a strong breeze. Instances of their being driven far by winds are frequently quoted, but in my opinion they were more probably bred, in such cases, in unobserved pools close at hand. The wind hypothesis is frequently used by municipal officials as an excuse for doing nothing—it is convenient to blame a marsh miles distant for propagating the mosquitos, which are really produced by faulty sanitation in the town itself.

Another and similar statement is often made with all gravity to the effect that mosquitos are brought into towns in trains, carts, and cabs. So they are, but a moment's reflection will assure us that the number introduced in this manner must always be infinitesimal compared with those that fly in or which are bred in the town itself. Moreover, if vehicles may bring them in they may also take them out.

I will now endeavour to sum up the arguments which I have laid before you—I fear very cursorily and inadequately. First, I suggested that there must be for every living unit a certain distance which that unit may possibly cover if it continues to move all its life, with such capacity for movement as Nature has given it, always in the same direction. I called this distance the limit of migration, because scarcely one in many billions of living units is ever likely to reach it, not because the units do not possess the capacity for covering the distance, but because the laws of chance ordain that they shall scarcely ever continue to move always in the same direction. Next, I endeavoured to show that, owing to the constant changes of direction which must take place in all random migration, the large majority of units must tend to remain in or near the neighbourhood where they were born. Thus, though they may really possess the power to wander much further away, right up to the ideal limit, yet actually they generally find themselves confined by the impalpable but no less impassable walls of chance within a much more circumscribed area, which we may call the practical limit of migration—that is, a limit beyond which any given percentage of units which we like to select do not generally pass. Lastly, I tried to apply this reasoning to the important particular case of the immigration of mosquitos into an area in which their propagation has been arrested by drainage and other suitable means.

Conclusions.

My conclusions are:

1. The mosquito density will always be reduced, not only within the area of operations, but to a distance equal to the ideal limit of migration beyond it.

2. On the boundary of operations the mosquito density should always be reduced to about one-half the normal density.

3. The curve of density will rise rapidly outside the boundary and will fall rapidly inside it.

4. As immigration into an area of operations must always be at the expense of the mosquito population immediately outside it, the average density of the whole area affected by the operations must be the same as if no immigration at all has taken place.

5. As a general rule for practical purposes, if the area of operations be of any considerable size immigration will not very materially affect the result.

In conclusion, it must be repeated that the whole subject of mosquito reduction cannot be scientifically examined without mathematical analysis. The subject is really a part of the mathematical theory of migration—a theory which, so far as I know, has not yet been discussed. It is not possible to

make satisfactory experiments on the influx, efflux, and varying density of mosquitos without such an analysis, and one, I may add, far more minute than has been attempted here. The subject has suffered much at the hands of those who have attempted experiments without adequate preliminary consideration, and whose opinions or results have seriously impeded the obviously useful and practical sanitary policy referred to. The statement, so frequently made, that local antipropagation measures must always be useless owing to immigration from outside is equivalent to saying that the population of the United States would remain the same even if the birth-rate were to be reduced to zero. In a recent experiment at Mian Mir in India the astounding result was obtained that the mosquito density was, if anything, increased by the antipropagation measures, which is equivalent to saying that the population of the United States would be increased by the abolition of the birth-rate. In the meantime, I for one, must continue to believe the somewhat self-evident theory that antipropagation measures must always reduce the mosquito density, even if the results at Havana, Ismailia, Klang, Port Swettenham, and other places are not accepted as irrefragable experimental proof of it.

THE CAUSE AND TREATMENT OF PRURITUS ANI

By F. C. WALLIS, M.B., F.R.C.S.,

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THE papers recently published in the BRITISH MEDICAL JOURNAL on this subject are interesting in many ways, but especially because they show that the cause, the real cause of pruritus ani—that is inveterate pruritus ani, as Sir Charles Ball properly calls it—is still not known, or not recognized.

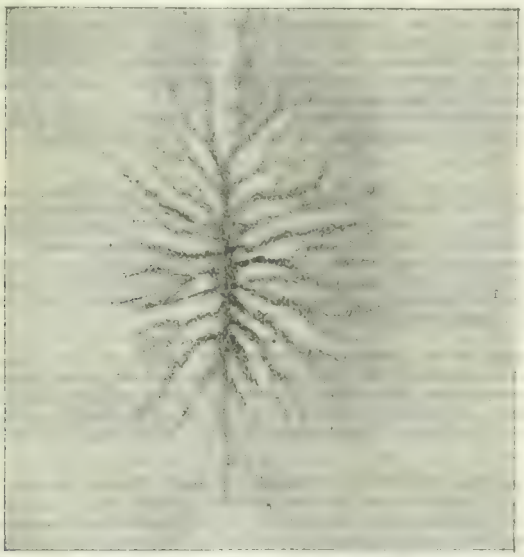


Fig. 1.

In 1897, in the *St. Bartholomew's Hospital Journal*, and again in 1902, in the *Clinical Journal*, I published the results of my investigations concerning this troublesome complaint. To my own experience I can now add that of one or two others; and, as the united experience is both sufficient and satisfactory, it will, I think, be useful to repeat what I have already written.

PATHOLOGY.

First let me say that these remarks do not apply to passing anal irritation, which may be due to one of the many assigned causes, and which will disappear when the cause, such as errors of diet, eczema, gout, thread-worms, etc., is treated. They apply to the inveterate cases, which go on year after year, in spite of all sorts of treatment—the constant irritation occurring night after night, bringing in its train other symptoms due to want of sleep, such as inability to work, irritability, dyspepsia, loss of appetite and loss of weight, making life a veritable burden.

The local appearance of the skin area affected by pruritus ani is quite typical (as in Fig. 1), and should at once be recognized as pathognomonic of the trouble. Chronic irritation and constant scratching produce a chronic inflammation of the skin resulting in a complete alteration in the character of the integument, which becomes largely infiltrated with fibrous tissue, loses its elasticity, and becomes covered with dead and often sodden epithelium.

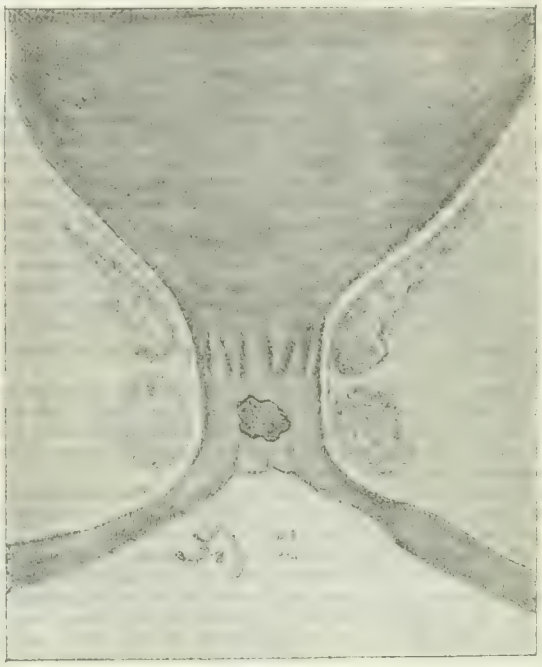


Fig. 2.

In over 90 per cent. of cases of pruritus ani which I have examined at St. Mark's I have found a shallow ulcer situated between the two sphincters (Fig. 2), more often in the posterior segment than in the anterior, and generally near the dorsal midline. In some cases there is more than one ulcer, and again in others there are various clefts which almost or entirely surround the bowel (Fig. 3).

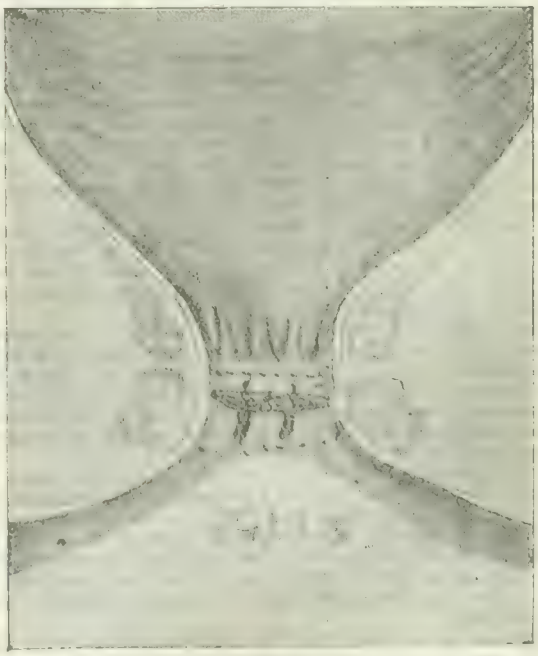


Fig. 3.

The method of fusion of the proctodeum with the blind end of the gut is, I believe, the cause of this frequent ulcer. The fusion takes place at a variable line between the sphincters. The lining membrane of the proctodeum is thin, and, unlike

mucous membrane, is scantily supplied with blood vessels, and thus abrasions in this locality are easily brought about. But because of the ever-altering condition of the sphincter, and because of the contents of the bowel, they rarely heal of their own accord. The abrasion becomes an ulcer covered with chronic granulation tissue, exuding an irritating secretion, which causes pruritus. As this was a definite and constant lesion, I determined to treat it, believing it to be the cause of this distressing complaint.

TREATMENT.

Without going over various details of early cases, I may say that the results are much better when patients can lie up for ten to fourteen days, when the following treatment is carried out: The usual preparation for a rectal operation having been carried out, the patient is anaesthetized, and put in the lithotomy position. The sphincter is moderately stretched and the ulcer or ulcers brought into view and treated with the electric thermo-cautery, and the cautery is also applied to the thickened skin as well, especially in any cases where fissures or clefts exist between the hypertrophied skin folds. Vaseline is applied to the cauterized area, and a morphine suppository inserted into the bowel. A pad of wool is kept in position by a T-bandage, and the patient is put back to bed and kept there.

A purge is given on the third night and a warm boracic bath is taken twice a day. After the bath the skin is thoroughly dried and powdered with starch and zinc powder, and a small piece of cotton-wool impregnated with powder is introduced just inside the sphincter.

In all these cases the irritation ceases either at once or after a few days, and if proper care is taken it does not return, and the patients are usually well in about fourteen days, but the absolute healing of the ulcer may often take longer than this.

In cases where the abrasion practically encircles the bowel I have thought it better to dissect off the ring of tissue involved, as shown between the two dotted lines in Fig. 3, bringing the upper cut edge down to the anal margin, to which it is attached by a continuous catgut suture—thus removing all the lining membrane of the proctodeum. These cases are not so immediately successful as the others because the condition of the muco-cutaneous margin is indifferent and healing is at times protracted, and some temporary contraction may occur, but with proper care this disappears, the result is good and the pruritus is cured.

Having regard to the large number of out-patients suffering from this trouble, it is obviously impossible to take them all into hospital, and the following plan is adopted. The patient being placed in the knee-elbow position, a bivalve speculum is inserted into the rectum and kept in position about half opened. Some eucaine is injected behind the ulcer. This renders the area anaesthetic and brings the ulcer into prominence. The ulcer is either treated with lactic acid or burnt with the electric thermo-cautery, the speculum removed, and a morphine suppository introduced. Zinc and starch powder is dusted over the skin and a pad and T-bandage are applied. The subsequent treatment is the same as has already been described.

A large percentage of these cases are cured; many are improved. A few do not respond for long to the treatment, but this is because it is not properly carried out by the patients, and, indeed, it must be often a matter of considerable difficulty for them to do so.

The interesting feature in many cases is the *immediate* cessation of the irritation after the cautery has been applied. This is well shown in the accompanying cases. The irritation may recur spasmodically to a slight extent, but it is easily allayed and soon disappears entirely. The permanent success of the treatment depends largely upon careful nursing under the personal supervision of the operator.

The suggestion by Sir Charles Ball that these cases are of central origin is one which I cannot accept without further evidence than that which was given in his interesting paper published in the BRITISH MEDICAL JOURNAL of January 21st. Long-continued peripheral irritation does, of course, produce a change in the nerves supplying the affected area, but when the cause has been removed the nerves gradually recover themselves.

The operation which has been so successful in Sir Charles Ball's hands is not one which I should like to see made a practice of. I do not think it is necessary, and in many cases it will end in disaster.

The following analysis of 272 cases seen at St. Mark's Hospital will show how frequently the ulcer occurs:

1.	Ulcer recorded as present	140
2.	Ulcer recorded as definitely absent ...	2
3.	Cases not investigated for ulcer	87
4.	Cases associated with haemorrhoids ...	22
5.	,, ,, ,, fistula	8
6.	,, ,, ,, fissure	7
7.	Other causes	6
	Total	272

Of the 87 cases not investigated many were of a trivial character, but it is reasonable to suppose that an ulcer would have been found in a fair proportion of this number if it had been looked for.

The notes of the following cases have been taken from the practices of Mr. A. Chune Fletcher and Mr. H. M. Ramsay, as well as from my own, and illustrate the beneficial results which have been obtained in a large number of cases.

Examples of Cases Treated by the Cautery, or Applications of Lactic Acid, or by Both.

CASE I.

Male, aged 45, gouty. Has had pruritus ani for years. Operated on previously for piles, without relief of pruritus. Suffers from insomnia and general malaise.

An ulcer was seen in the posterior segment and cauterized under an anaesthetic.

After-treatment and Result.—Rest for ten days; boracic baths; zinc oxide and starch powder. Seen after some months. looked five years younger, had put on flesh, slept well, no pruritus. The treatment was carried out in 1900, and there has been no recurrence.

CASE II.

Male, aged 43, highly neurotic. Pruritus ani for years. Had had two operations, but with no good effect. Ulcer discovered and cauterized. After-treatment as in Case I. Result: Pruritus ani gradually disappeared, and patient's general health greatly improved.

CASE III.

Under the care of Mr. H. M. Ramsay. Male, aged 22. Pruritus ani associated with eczema for five years. Operated on for piles three years ago, without improvement. The condition kept him awake at night; he had lost flesh, and was in a low, nervous condition.

Operation February, 1904, under an anaesthetic. A posterior ulcer just within the external sphincter was cauterized. Slept well all night, no itching. In bed fourteen days.

After-treatment as in Case I. Result: Pruritus cured and eczema cleared up. Put on weight, in better health, no recurrence.

CASE IV.

Treated by Mr. Ramsay. Male, aged 53, seen in June, 1904. Had suffered from pruritus ani for "3 years." There was also a local condition of eczema. Complained of sleeplessness due to constant scratching. Had tried many treatments with only slight temporary relief.

On examination an ulcer was found on the anterior wall, just inside the sphincter. This was treated by the electric cautery after a local injection of eucaine. After-treatment as in Case I. Well in three weeks, and no recurrence.

CASE V.

Treated by Mr. Ramsay. Male patient. Seen in July, 1904. In a low, nervous condition. Has had pruritus ani for some years, which commences when the patient gets warm in bed, and prevents him from sleeping. An ulcer was found and treated as in Case IV, with entire relief of symptoms. The patient sleeps well and has put on weight.

CASE VI.

Under the care of Mr. A. Chune Fletcher. Treated in 1898. Male, aged 32. Pruritus ani for seven years. There was a gouty family history. Patient was in a low, nervous, despondent condition, and suffered from want of sleep due to the nightly-recurring irritation.

The anal skin showed the usual parchment-like condition, and was chafed and fissured. A considerable ulcer was found on the posterior wall between the sphincters, and was treated by the application of lactic acid. The itching was checked at once, and, although the ulcer took some time to heal, his local and general condition rapidly improved, and he made a complete recovery.

CASE VII.

Treated by Mr. Fletcher. Male, aged 42. Pruritus ani and sense of "twitching" in rectum for three years. Posterior and anterior ulcers. Treated by lactic acid and cautery, with external hot douching at night, and "fuller's earth" to affected skin. Irritation ceased almost immediately, but ulcers took nearly three months to heal.

CASE VIII.

Treated by Mr. Fletcher. Male, aged 42. Pruritus ani for two years. Posterior ulcer, treated by bi-weekly applications of lactic acid and daily injections of hazeline and water equal parts. Well in three weeks.

CASE IX.

Treated by Mr. Fletcher. Female, aged 40. Pruritus ani, varying greatly in intensity. Large posterior and small anterior ulcers. Treatment: Lactic acid, hazeline and water, cautery to edges of ulcer. Well in six weeks.

CASE X.

Treated by Mr. Fletcher. Male, aged 41. Much pruritus every night when warm in bed. After painless action of bowels, a feeling of burning comes on, with dull aching pain across the back and down the thighs, which varies in degree, but never quite goes. Posterior ulcer discovered. Lactic acid applied. Pruritus disappeared and other symptoms gradually lessened as ulcer healed. Well in one month.

Examples of Cases where the Whole Circumference of the Lining Membrane was Dissected Off.

CASE XI.

Female, aged about 40, single; seen November, 1902. Pruritus ani for many years. Patient was in a thin, miserable, nervous condition, unable to sleep on account of the irritation. Inside the external sphincter the whole circumference of the bowel was practically denuded of epithelium. The affected ring of tissue was dissected off, and the upper edge sewn to the skin. Healing was slow in this instance, but the condition of pruritus ani gradually disappeared. This patient developed a fissure nearly two years after, which was operated on in November, 1904. No return of pruritus.

CASE XII.

Male, aged 40. Pruritus ani for twenty-five years. Much worse of late. No treatment has done any good. Suffers from insomnia caused by itching. Typical external appearance. Inside the sphincter the entire circumference of the bowel was denuded of epithelium. The internal "pruritic area" was dissected off, the patient being anaesthetized, and the upper edge sewn to the skin margin. The condition of pruritus gradually disappeared, and when the patient left the home three weeks later he was practically well of it.

Seen since and says he is a different man. Sleeps well and eats well. There was some slight contraction of the orifice, but this was easily got rid of by using a conical vulcanite bougie for a few times.

CASE XIII.

Male, aged 28. Pruritus ani for years. The whole circumference of the lining membrane was affected, this was dissected off and the upper edge sewn to the skin margin. Well in three weeks.

CASE XIV.

Female, aged 54. Pruritus ani for three years. Skin around anus excoriated, white and sodden. Ulcers found laterally and posteriorly. Membrane dissected off. Well in three weeks.

CASE XV.

Male, aged 54. Pruritus ani for years. Skin around anus white and sodden-looking. Ulcers found. Ring of membrane dissected off. Well in five weeks.

THE SURGICAL ANATOMY AND OPERATIVE TREATMENT OF TUBERCULOUS GLANDS OF NECK.

BY W. GREENWOOD SUTCLIFFE, F.R.C.S.ENG.,

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THE anatomy of the lymphatic glands of the neck has been very thoroughly described by Leaf in his *Surgical Anatomy of the Lymphatic Glands*, in Poirier and Cunéo's *Lymphatics*, translated by Leaf, and is also effectively treated in Cunningham's *Textbook of Anatomy*, p. 865, where a sufficiently full description of the normal glands is to be found. The practical surgeon has, however, to deal with structures that are no longer normal, and a thoroughly intimate knowledge of the anatomy of the neck as distorted by masses of enlarged glands is only to be acquired by a large operative experience. For while with small superficial glands the only practical point is to avoid scarring the skin in a wrong direction, a really extensive case involves the exposure of almost the entire contents of both the anatomical triangles, and structures as widely separated as the facial nerve and the thoracic duct may require special attention to avoid their injury or actual division.

ANATOMY.

For descriptive purposes the cervical glands may be divided into superficial and deep groups, including in the latter all glands beneath the layer of cervical fascia that forms the sheath of the sterno-mastoid. The superficial groups again may be divided into three sets—superficial parotid, superficial submaxillary, and superficial cervical.

1. *The superficial parotid*, two or three in number, are, when tuberculous, almost always found to be broken down, and are imbedded in the salivary gland. I have never seen the facial nerve damaged by their removal, so that the greater part of the pes anserinus must be protected by a sufficient layer of salivary gland tissue; but the proximity of the nerve is not likely to be forgotten, and most operators will keep exceedingly close to the capsule of the gland, and, if it be adherent, scrape rather than dissect.

2. *The superficial submaxillary* are among the most common of enlarged glands. They lie outside the salivary gland superficial to the mylo-hyoid and upon the layer of deep fascia stretching across from the sterno-mastoid to the hyo-glossus, mylo-hyoid, digastric and hyoid bone. In their removal it is difficult for the inferior labial branch of the facial nerve to escape division, the facial vessels are deep to the glands, and can generally be avoided. When much enlarged, their adhesion to the fascia is so intimate as to make them practically continuous with the deep set, and they can then be easily removed in one group. The importance of this group and the frequency of their infection is readily understood when their connexions are considered. They receive lymphatic vessels from the superficial part of the nose, face, and both lips, while the floor of the mouth, front of the tongue, submaxillary and sublingual salivary glands are furnished with vessels that drain into the deeper submaxillary groups under the fascia, so that the intimate connexion of the two groups, when enlarged, is due as much to their simultaneous infection from neighbouring areas as to their direct anatomical continuity.

3. *The superficial cervical* set includes the glands that run along the external jugular vein superficial to the sterno-mastoid and along its posterior border, where they lie embedded in the cervical fascia, so that their free removal, in the rare event of the deep glands not being enlarged, exposes the muscular floor of the posterior triangle; the spinal accessory nerve, leaving the posterior border of the muscle a little below its centre, lies beneath the superficial group, and is seldom endangered by their removal, but the descending acromial and clavicular branches of the cervical plexus are usually found running directly over the glands and are not easily avoided.

The deep cervical glands have been divided for descriptive purposes into an upper and a lower set, but no such division is recognizable where most are affected by tuberculous disease. They extend in varying degrees of enlargement from the transverse process of the axis and base of the skull above to the junction of the internal jugular and subclavian veins below, where they pass outwards along the upper edge of the subclavian vein towards the axillary group, and inwards behind the clavicle and sterno-clavicular joints in close relation with the innominate vessels and the pleura.

The glands when enlarging tend, like the spread of a deep-seated abscess, to follow well-defined planes of least resistance, and are curiously directed and restrained by the firmer bands into which the cervical fascia is divided. For instance, it is very rare to find enlargement of the group in the anterior triangle to extend lower down along the anterior edge of the sterno-mastoid than the lower border of the thyroid cartilage; below that level they are directed backwards under the muscle over the carotid sheath and bulge out under the posterior border of the muscle, coming thus in contact with the glandular concatenatae proper that lie directly upon the fascia forming the sheath of the internal jugular vein. This backward direction of the enlarging glands is brought about, no doubt, by the strong pressure exerted on them by the thicker sternal head of the muscle and its intimate fascial connexions, as, where, owing to division of its nerve, the muscle has undergone atrophy, I have several times removed enlarged glands from beneath its anterior border nearly as far down as the clavicle.

In the same way, I have never found any enlarged glands in the closely-confined space above and internal to the posterior belly of the digastric, while outside and above the posterior edge of the digastric and stylo-hyoid their enlargement in cases of any extent is a fairly constant feature.

In notes of my own cases I am accustomed to refer to the deep glands as belonging to three main groups—an anterior group comprising all glands that can be reached from the front of the sterno-mastoid, and an upper and lower posterior group, these being separated by the spinal accessory nerve passing across the posterior triangle.

The lower posterior group comprises three fairly definite sets: (1) Those glands that were originally superficial or internal to the vessels and have in their growth been directed outwards and backwards in the direction of least resistance; (2) those that belong naturally to the posterior triangle; and (3) those that are in actual contact with the venous compartment of the carotid sheath. In removing these the vein should be deliberately exposed and kept in sight, and is

then out of danger; but the normal anatomy of the parts is considerably altered, the glands displacing the thin-walled vein inwards over the artery, thus leaving the pneumogastric nerve in its compartment more or less directly under the outer edge of the vein, as shown in the diagram, and this position must be remembered if it be necessary to pass a ligature round the vein.

In old cases where several operations have been performed, especially if one or more attempts to "thoroughly clear out" the neck have been made, there is always the possibility that the vein itself has been ligatured, then irregularly distributed venous channels are apt to arise and embarrass the operator, and he has to keep close to the capsules of the glands until

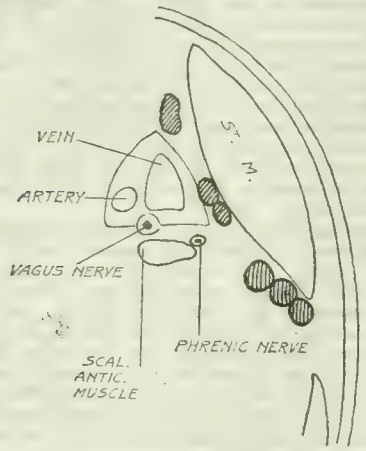


Fig. 1.—Diagram showing moderate-sized glands at level of sixth cervical vertebra.

the vagus nerve has been identified and avoided. Kocher, in his *Operative Surgery*, 4th edition, page 126, says that "unilateral division of the nerve does not endanger life, and indeed may not give rise to any unfavourable symptom whatever." Whichever side be divided or injured one "unfavourable symptom" may be looked for with abiding certainty—paralysis of the muscles supplied by the recurrent laryngeal nerve with its typical whispering voice, and there is always the possibility of a direct stimulation of the inhibitory fibres producing an immediate fatality.

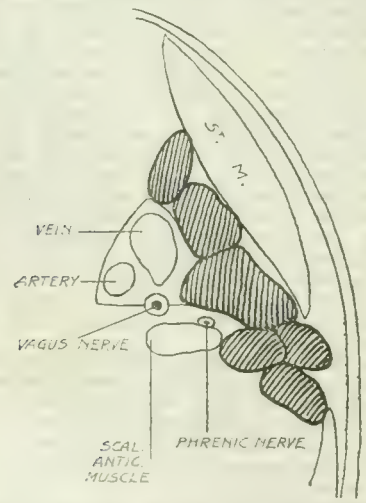


Fig. 2.—Diagram showing glands enlarged and displacement inwards of internal jugular vein over vagus nerve.

Sir F. Treves in his *Manual of Operative Surgery* (vol. 2, page 171) says "it is very rare indeed for this nerve to enter the field of the operation during excision of tuberculous glands," but in old cases if the deep glands are thoroughly dealt with it comes into direct view in nearly every case, and its altered position should be borne in mind. The spinal accessory nerve is endangered with all three of the deep groups: (1) In the anterior triangle before it enters the muscle, and (2) in the posterior triangle in clearing the group above and that below the nerve. Division of this nerve is followed by paralysis and rapid wasting of the muscles it supplies, so that its early identification and isolation are alike advisable. The members of the anterior group are apt to dip in between the nerve and the internal jugular vein in the inch or so of its course from beneath the posterior belly of the digastric to its point of entrance to the sterno-mastoid. In old cases the gland capsules are firmly adherent to it, but the nerve can generally be defined if a sufficient exposure be made by firm retraction of the muscle. In the posterior triangle the nerve crosses the space in a species of groove between the glands, running perhaps its greatest risk of being cut where it emerges from the sterno-mastoid "at or slightly above the middle of the posterior border of this muscle"; it sinks beneath the upper border of the trapezius on a level with the sixth or seventh cervical spine (Quain's *Anatomy:* Appendix). To avoid injury to this nerve is one of the first points in the operation; were it not for the necessity for preserving it the simplest method of removing glands would obviously be to begin at the lowest and dissect out all the glands of the neck in one mass; as it is, the safest manner is to divide the mass into the three groups already mentioned; the removal of the anterior group should leave the upper end of the nerve clear in the upper part of the anterior triangle, and the position of the nerve being remembered in the posterior triangle the glands should be cleared in two groups above and below it.

The upper anterior group if much enlarged under the upper end of the sterno-mastoid comes almost into contact with the main trunk of the facial nerve as it emerges from the stylo-mastoid foramen and moves forward superficial to and in front of the posterior belly of the digastric to enter the parotid gland; the nerve is here in close relation with one of the temporo-facial veins as they emerge from the parotid gland; these veins from their dense adhesion to the capsules of a broken-down gland are sometimes injured, and it is extremely easy to put a pair of artery forceps on the facial nerve as well as the punctured vein near it. This must have occurred in two of my own cases where complete facial paralysis, fortunately only of a temporary character, followed operations with considerable venous haemorrhage in this region. The length of time taken for recovery was the same in each case, beginning at the eighth week in the fronto-orbital region and being complete in ten weeks from the injury. The vicinity of the nerve is sometimes betrayed by vigorous twitching of the facial muscles, but it is very rarely actually exposed, it having so short a course outside the parotid gland tissue.

The lower groups of glands, dipping as they do under the lower end of the sterno-mastoid and clavicle, are in relation with the internal jugular, subclavian, innominate, and vertebral veins; superficial to them are the suprascapular, transverse cervical and external jugular veins, while deep to them are the anterior scalene muscle and phrenic nerve, the top of the pleura, and the subclavian artery. The only structures that give real trouble are the internal jugular and innominate veins, and fortunately, the glands are adherent to the sheath of the vessels, not to their actual walls, so that division of the fascia over the glands close to the vein liberates the latter and allows of its being pushed forwards out of the way. The cervical fascia forming the carotid sheath becomes apparently continuous at the lower part of the neck with the layer over the prevertebral muscles, and as the deeper glands are normally embedded in that fascia and in contact with the vascular compartment of the carotid sheath, such glands when they enlarge practically monopolize the whole outer wall of the sheath, which spreads out over them and fuses with their own proper capsular covering; when the glands are freed from their connexions this fascial covering comes away with them, leaving the thin-walled vein quite bare, but visible and uninjured.

This adhesion of the glands to the fascia is constant throughout the whole length of the vein, but the ease with which the glandular mass can be isolated from it is much more marked at its lower end than in the upper and middle parts of its course; this is no doubt due to the glands being there more exposed to friction from muscular contractions and a consequent greater development of adventitious fibrous tissue in its neighbourhood, but unless the parts have been disturbed by previous partial operations it is rare indeed that an effectual and safe isolation of the vein cannot be effected.

Out of my last 250 cases it was necessary to tie the vein four times; one of them had already been subjected to four previous operations, and the other three instances had all been the seat of former attempts at complete extirpation, and

the operations were carried out through the old scars. Injury to the pleura or the fascia over it is recognized during operation by a peculiar whistling sound made by the entering air; it produced no apparent ill effects in two cases in which I have personally observed it. In one of the cases a minute pin-hole opening was distinctly seen on retracting the vessels, from beneath which a mass of caseating glands had been removed. Probably the puncture is sealed automatically when the wound is closed and the dressing applied.

Injury to the thoracic duct has not occurred in my own experience, though I have twice recognized it exposed in the wound. Deanesly,[1] in a very interesting account of a case of this injury, implanted the duct into the wall of the vein, but he quotes several authorities, Kocher among others, to show that it can be ligatured without injury. In the cases where I saw the duct exposed, the glands were readily separable from the veins after their overlying fascial envelope had been divided. Further cases of injury to the duct are recorded by Schroeder and Plummer, of Chicago, in the *Annals of Surgery*, 1898.

OPERATIVE TREATMENT.

In dealing with gland cases three cardinal points are to be remembered: (1) The operation should be as complete as possible; (2) the spinal accessory and important nerves and vessels should escape injury; (3) the incisions should be planned so as to make the resulting scar as little visible as possible.

A definite routine description of an operation for all cases is obviously absurd, as they vary from a superficial gland abscess to a large mass involving an exacting dissection for its safe removal. The cases fall, however, into two main groups: those where there is suppuration that has burst the capsule and infected the skin or subcutaneous tissues, and those where the caseating matter is still enclosed in the gland capsules, these latter forming by far the greater number of cases.

The gland abscesses of children where the skin is damaged are best treated by enclosing the infected area in an elliptical incision and removing as much as possible of the affected gland with it; if other glands beneath it are enlarged—and this is nearly always the case—they can be removed at the same time through the same incision. Before proceeding to remove the deeper glands the superficial wound is rubbed over with a 1 in 500 solution of biniodide of mercury, and after the deep glands are removed the edges of the original wound are freed and closed by interrupted sutures in the usual manner. Stiles of Edinburgh, in a paper published in the BRITISH MEDICAL JOURNAL, September 12th, 1896, advocates, after incision and scraping, the mopping out of the abscess cavity with pure carbolic acid and stuffing with iodoformed worsted; others have advocated in place of the carbolic acid a 1 in 100 solution of bichloride of mercury. Wounds treated in this way often heal readily enough, but are liable to be followed by subcutaneous thickening that breaks down a few weeks after the operation, while the enlarged glands that exist usually beneath the superficial abscess cavity are liable to be overlooked altogether if this method is too implicitly followed, so that the better practice is, where possible, to find the outer edge of the broken-down gland and remove it bodily, together with the glands so constantly found adherent to the fascia on its under-surface. With this possible exception, the older partial methods of incising the capsule of the gland and scraping out its contents with a sharp spoon have practically ceased to be recommended, and, with all modern writers, Stiles advocates that in adolescents and adults excision should be the rule where the disease is localized to the neck. With broken-down skin, the surgeon is, of course, restricted in his choice of a suitable site for the incision, but in other cases the position of his cuts and the resulting scar becomes a very important one.

Though it has now long been agreed that incisions made along natural lines of cleavage, such as are visible in most necks, produce less marked scars than those produced by the older longitudinal incisions on either side of the sterno-mastoid, we constantly see cases that have been operated on in the metropolitan hospitals with such scars; the anterior of these incisions is to my mind particularly vicious—not only is its resulting scar most unsightly and conspicuous, but it is more frequently the seat of keloid thickening than almost any situation in the body and gives by no means so free an exposure as the obliquely transverse cut following the natural creases of the skin; even the posterior vertical cut is unnecessary except where the lower part of the posterior triangle is involved, and then it is better made more obliquely. When previous operations have taken place the new incision should always, where possible, utilize the old scar; but as I have seen many necks with what amounted to rows of parallel scars and their accompanying stitch marks, in nearly all of which the excisions could have been carried out through the original line, this is not the universal rule.



Fig. 3.—Through the curved line *a*, which is in a natural crease of the neck, the entire anterior triangle and most of the posterior is cleared easily.

The attached diagram shows the incisions I am in the habit of making; the obliquely transverse cut is sufficient for the vast majority of cases, as its edges can be freed from the subjacent structures and retracted down considerably. Fig. 4 shows the incisions I now adopt for the largest type of case. For those cases where the posterior triangle is almost alone affected the oblique posterior cut from the mastoid to the sternum, or so much of it as is necessary, is employed. Formerly, in large cases I was in the habit of making a straight cut nearly down to the clavicle, from the posterior



Fig. 4.—Incisions for extensive cases, the line *b*, lying behind the fold of the sterno-mastoid, is almost invisible from the front.

end of the transverse incision (*a*), and turning this triangular flap forwards. I found that the apex of the flap did not heal well, and that the straight cut to the clavicle caused considerable disfigurement. I now make the two incisions shown in Fig. 4, so as to leave a fingerbreadth or more of skin undivided at the apex of the triangle; the posterior incision, instead of going straight down towards the clavicle, is made obliquely forwards so as to terminate at the sternal

head of the muscle. This incision lies in a natural fold of the neck, as the sternal head of the muscle invariably stands out prominently, while the whole incision, lying as it does behind the wide fold made by the muscle, leaves a scar that is practically invisible from the front. An additional advantage for this direction of the incision is that through it the whole of the posterior triangle can be laid bare with very little separation of tissue, and the posterior border of the muscle can be freed in its entire extent, while in conjunction with the upper oblique incision a complete and thorough exposure of the entire contents of both triangles is readily obtained.

The obliquely transverse incision leaves a mark nearly as invisible as the one referred to as used by Döllinger of Buda Pesth (*Annals of Surgery*, 1903), and fully described by Parry of Glasgow in a paper read at Brighton in June, 1903, and published in the *Reports of the Society for Study of Disease in Children*, vol. iii, 1903. The incision is there made "through the hairy scalp—from near the apex of the mastoid to the nape of the neck." "By following the outline of the hairy scalp the wound has its convexity downwards, and the centre of it is thus brought nearer to the affected glands."

If the incision (*a*) be kept in a crease of the neck its posterior part is covered by hair, while by prolonging the incision forwards in front of the edge of the sterno-mastoid the anterior triangle can be cleared out much more effectually than by working from beneath the muscle, as in Parry's description. His method appears to be less suited to adherent cases involving the anterior triangle than to freely-movable masses that can be readily shelled out, and even then as the glands are not removed *en masse*, and separation of fasciae is recommended by the author to be carried out "with two forefingers introduced into the wound beneath the sterno-mastoid muscle," it is more than probable that in less expert hands than his own a very considerable number of diseased glands would escape surgical consideration.

A very brief description of the details of the operation is necessary, once it is admitted that the glands are to be removed and that they are best removed *en masse* rather than separately, or by multiple incisions after the manner described in a paper of historical interest by Mr. Teale, of Leeds, in Professor Clifford Allbutt's *System of Medicine*. Personally, like most men working largely in one field of surgery, I have fallen into a routine manner of dealing even with these at first sight irregular masses. To take first a medium-sized enlargement, involving the anterior and part of the posterior triangle, the preliminary incision (*a*) exposes the superficial glands, which are cleared out of the way, and if they are adherent to the deeper ones they form a suitable handle to pull them into view. The anterior group—those I have alluded to as being in front of the spinal accessory—are always dealt with first; the fascia in front of the sterno-mastoid is freely incised, and the lowermost of the glands is slightly freed on its surface and seized with toothed forceps. The kind I employ is a modification of Mr. Arbuthnot Lane's tissue forceps, made for me by Down Brothers. The fenestrated blades are wider than in the original pattern, and the teeth, which are made slightly larger, are doubled in number. A variable amount of dissection frees the gland from its deep attachment, and the entire group with their fascial envelopes intact is systematically cleared upwards; working from the under surface of the lowermost, the raising of this gland exposes the carotid sheath on which it rests, and the thin-walled vein should always escape injury, as it comes at once into full view of the operator.

The spinal accessory nerve comes into view long before it is in actual danger, and is best avoided by dealing with the glands behind and above it separately. Early ligature of the internal jugular vein, and its removal with the glands, is a gratuitous complication of the operation. Provided that the surgeon avoids tearing with blunt instruments, and confines himself to clean dissection with the point of a sharp knife, he should be able to divide the fine bands of fascia connecting the carotid sheath with the gland capsules without injuring either the vein or its larger tributaries; in the rare cases where it is accidentally injured, unless the puncture is quite small and easily controlled by pinching up and tying part of its wall, it is safer to at once put an aneurysm needle round the vein and tie above and below the seat of injury, rather than to make a dash at the bleeding point with a pair of artery forceps, as these may easily tear the opening wider, and are capable of nipping the vagus with undesirable consequences.

When the anterior triangle is cleared up, and the spinal accessory nerve sufficiently freed to be safe, the upper posterior group can be dealt with from behind the muscle whose posterior edge is raised from the glands beneath with a few touches of the scalpel. The hindmost and lowest gland that can be reached is freed and seized with tissue forceps, and beginning beneath it, the glandular mass, with the fascia covering the muscles in the posterior triangle, is dissected up and gradually worked out from beneath the sterno-mastoid, where its connexions with the outer wall of the vein are readily separated. The position of the vein being already made clear in the anterior triangle it is very easily identified, and, except in old cases with dense adhesions, is separated from the glands with very great ease. In the larger cases where two incisions are employed and where both triangles are completely cleared, the same methods are adopted. First, the anterior triangle is cleared through the incision as figured in diagram (*a*). The posterior incision is then made in line shown in diagram (*b*), and is carried down as far as the necessities of the case demand. The sterno-mastoid is raised from the surface of the glands, and the mass is dealt with in the simplest and safest way. First, the lowest and most posterior gland above the course of the spinal accessory across the triangle is sought for, freed slightly, and seized with the tissue forceps; this is usually just under the upper border of the trapezius. The dissection is then carried straight down to the muscular floor of the triangle, and the whole mass is gradually dissected forwards till the neighbourhood of the vein is reached. The separation and division of the deep fascial connexions, which are often exceedingly tough, gives a very desirable mobility to the mass to be removed. At this stage the freed posterior border of the sterno-mastoid is pulled forwards by an assistant, the partially freed mass, firmly held by the tissue forceps, is kept on the stretch and a few light touches on its upper surface under the muscle from above downwards usually suffice to bring the vein well into view. When the attachments of the sheath of the vein to the glands are divided it is readily pushed out of the way under the muscle, and the mass is easily separated from any remaining attachments. The group below the spinal accessory now remains to be dealt with, and as the vein is already well in view and the line of separation of the sheath and gland capsules is, as it were, "under the hand" of the surgeon, the safest plan is to continue separating the glands as far down as the subclavian; once the vein is freed the most external gland is seized as before and the lower mass is gradually liberated by dissecting it up from its under surface. The lower one descends into the subclavian triangle, the greater is the need to keep the point of the knife accurately on the capsule of the gland; if that be done the vicinity of the formidable structures to be found there need in no way interfere with a complete clearance of the diseased tissues.

I have now, excluding minor cases, operated on over 250 of these necks, and have yet to find a case where it is necessary to even partially divide the sterno-mastoid muscle. I have not found it necessary to adopt the methods of Professor Fenyer, of Chicago, U.S.A., a description of whose operation is to be found in the *Annals of Surgery* for 1898. His incision is practically the same as the posterior one that I employ, but he then "divides the clavicular origin of the sterno-mastoid and places a provisional ligature round the vein to prevent the entry of air in case of injury." I have no personal experience of what a temporary ligature round the lower end of the internal jugular would cause in the shape of distension of the vein above, but it may fairly be assumed that the safe separation of the glands from it is not likely to be facilitated by this remarkable manœuvre.

Before closing these large wounds haemorrhage must be very completely arrested: in the posterior triangle especially a great number of small vessels require ligature, but beyond the occasional division of the communicating facial vein very few vessels are injured in the anterior division.

Like most surgeons dealing with tuberculous tissues, I have had repeated troubles with silk ligatures, which exhibit a reprehensible tendency to reappear a few weeks after operation. I have, therefore, taken to using sterilized chromic gut of the ten-day variety recommended by Professor Sir W. Macewen. So far I have had no trouble with it, but past experience has made me chary of recording a final favourable verdict. Like all wounds, these heal more ideally if asepsis be employed and no lotions are allowed in the wound; but, as most of the hospital cases are the site of scars, sinuses, or breaking-down glands, it is rare that the washing-out of the wound with a 1 in 4,000 biniodide of mercury solution is able to be dispensed with.

In a case of any size a gauze drain for twenty-four hours is always used, and in all cases I am more inclined to use it than a few years back, when the prevailing fashion was to sew up every wound firmly. For sutures I prefer interrupted stitches of the finest gossamer silkworm gut, which are removed on the fourth day. So long as there has been no tension in the wound, healing is usually effected without a row of stitch marks, provided that a very fine needle is used. In all extensive cases I make a rule of keeping the patient in bed at least fourteen days from the operation, and where circumstances permit it is advantageous to keep them lying down, to a great extent in the open air, for a full month, and by that time the wound is soundly healed throughout.

As to the disappearance of enlarged tuberculous glands without operative treatment, it must be admitted that such cases are extremely rare after the glands have existed as definite palpable swellings for more than six months. When such a happy result is achieved its main contributory causes are always the climatic and hygienic conditions, and to these must be added the time that can be given up to prolonged rest or at least a cessation of business worries or harassing pursuits. It cannot be too strongly impressed on parents and patients that a few weeks at the seaside, especially if spent at a crowded boarding house, is absolutely futile in these cases; the object to be attained is to endow the tissues of the body with sufficient force not only to enable its cells to destroy the invading organisms but to develop sufficient resistance to a possible second invasion when the conditions of environment are less favourable. For this months or even years are necessary, and in the case of young children they should be left at a seaside place for two years at least; if this cannot be done, and at the end of the time that has been allowed a sensible diminution in the size of the glands has not taken place, their removal by operation should be carried out without hesitation. Young adults have been benefited by varying the seaside atmosphere with a stay for some months in a Swiss mountain resort, but very great care is necessary in selecting the cases likely to be improved. The train journey is fatiguing, the food is different to that he has been accustomed to, and if proper supervision is not provided the patient is apt to indulge too freely in the vigorous athletic pursuits that are common in such centres, and, as a result of overstrain, some of the glands break down, and the return journey is undertaken under distressing conditions. A long sea voyage is sometimes recommended, but is always a risky experiment, and the rapid changes of climate from our own wintry weather to the humid moisture of the tropics is often unsettling to an invalid.

In the following four sets of cases operation should be carried out at once:

(1) Where suppuration is taking place; (2) where sinuses, as a result of burst abscesses or previous incomplete operations, are present; (3) where, though not obviously suppurating, the glands are increasing in size, are causing pain, uneasiness, and deformity, and have not yielded to climatic and hygienic measures; (4) where gland infection has occurred in subjects unable or unwilling to incur a prolonged period of rest, or whose future would be jeopardized by the interruption of their education, or by the presence of the glands, as in boys wishing to enter the public services.

In giving the reasons for an operation to the patient, or his parents or friends, too much stress is still laid on the possibility of an early infection of the lungs with tubercle as a direct result of the glandular trouble. I have certainly seen the glands infected in a case of acute pulmonary tuberculosis, no doubt through the blood stream, and can cite two or three large unoperated gland cases that have eventually developed pulmonary tubercle, but in my own experience general tuberculous infection from primary glandular enlargements is exceedingly rare. The possibilities of discharging sinuses, scarring and contracting of the skin, chronic invalidism, and general damage to the organism, are sufficiently cogent reasons to urge, when requisite, the performance of an operation that is attended by few dangers, accompanied by small disfigurement, and, where completely carried out, followed by no recurrences.

REFERENCE.

1 *Lancet*, vol. ii, 1903.

BEQUESTS TO MEDICAL CHARITIES.—The late Mr. Blackall Simonds of Bradfield, Berks, left £100 each to the Royal Berkshire Hospital and the Reading Branch of the Queen Victoria Society for Nursing Poor People at Home.

CONGENITAL HYPERTROPHY AND DILATATION OF THE SIGMOID FLEXURE.*

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SO-CALLED idiopathic dilatation and hypertrophy of colon (or Hirschsprung's disease, as it is called by the Germans) is of such rare occurrence—or probably, to be more correct, though not infrequent, is so seldom recognized during life—that it may not be out of place in giving an account of the case I am bringing before you briefly to refer to the symptoms and pathology of the disease.

It occurs most frequently in early childhood; in the majority of the reported cases the symptoms having commenced within a few days of birth. These are—constipation with abdominal distension, sometimes reaching enormous proportions, and more or less frequently recurring attacks of intestinal obstruction, the general health being often seriously affected by intestinal auto-intoxication. In well-marked cases which have attained a few years of life there is, in addition to a permanently-enlarged and lengthened abdomen, marked deformity of the thorax, which is shortened and widened so that the lower ribs lie horizontally and the subcostal angle is widely opened out. The deformity is well illustrated in a paper by Walker and Griffiths,[1] describing a case in a boy aged 11, in whom the measurements from the base of the ensiform to the suprasternal notch and pubes were respectively 4½ and 23 in.; and in another by Crozier Griffiths[2] on congenital idiopathic dilatation of the colon.

The disease is more frequently found in males than in females, the proportions varying in different collections of cases by different writers—for example, Hale White[3] refers to 12 cases, of which 11 were males; Crozier Griffiths[4] collected 24 cases, of which 20 were males; and Duval, quoted by Kredel,[5] collected 45 cases, of which 36 were males. Death generally takes place in early life from various causes—for example, obstruction, colitis, syncope or perforation, and probably volvulus—but a certain number reach adult life. Necropsy or laparotomy shows that the distension is entirely due to enormous dilatation with elongation of the colon or some part of it, especially the sigmoid. The muscular coats—sometimes all the coats—are greatly hypertrophied. The rectum, though sometimes taking part in the dilatation, is generally normal, and no organic obstruction is found to account for the condition. When occurring in middle or advanced life the symptoms and pathology are the same, and although a history pointing to congenital origin is more often wanting than not, the enormous hypertrophy and dilatation of the bowel, the usual absence of faecal accumulation, and the fact that the patient is generally a man, suffice, as a rule, to differentiate the condition from dilatation due to habitual overloading of the sigmoid with faeces.

The case I now report is particularly interesting, first, because it is one of those few in which there is an undoubted congenital history, and at the same time the subject has reached adult life, is well developed, and now enjoys complete health; and, secondly, on account of the coexistence of the faecal concretion which led to the error in diagnosis.

The patient, a plump and well-developed, though stupid, young woman of 21, was admitted to the Swansea Hospital on July 21st, 1904, for abdominal tumour. The following history is copied from the house-surgeon's notes:

In February, 1903, she first noticed a hard lump in the lower part of the abdomen to the left side. It caused no trouble, but five weeks ago she noticed that it had increased in size. The only abdominal pain she has had has been consequent upon aperients or enemas for constipation, from which she has always suffered. Apart from this she has always enjoyed good health until five or six weeks ago, since which she has felt below par. Menstruation regular.

There was a hard globular and movable tumour, dull on percussion, rising out of the pelvis somewhat to the left of the middle line. On vaginal examination it was most obvious in the left posterior quarter of the pelvis, and was movable apart from the uterus, which it had pushed forward and to the right. The diagnosis was solid ovarian tumour of the left side.

On August 3rd the abdomen was opened and there presented in the wound a thick-walled collapsed viscus which was at first mistaken for an enormously dilated stomach. It extended from immediately behind the pubes upwards into the upper umbilical and well into the right iliac and lumbar regions,

* Read before a meeting of the South Wales and Monmouthshire Branch of the British Medical Association at Newport, March 9th.

completely covering the small intestines. Upon being withdrawn from the abdomen it was at once identified as colon by its bands, which were from 1½ in. to 2 in. in width. The tumour, which was about the size of a croquet ball, was found to be rolling about freely within it, and was easily made to occupy the prolapsed gut. Considerable pressure through the hypertrophied bowel wall was required to indent it.

Further investigation showed that the hypertrophied bowel was an enormously dilated and elongated sigmoid loop. The upper part merged into the descending colon, which was dilated, but to a lesser extent than the sigmoid, while the rectum appeared to be normal in position and size and without any constriction at its point of junction with the lower limb. There was a well-marked meso-sigmoid of a maximum length of from 5 in. to 6 in., while the greatest width of the bowel, which was at the fundus of the loop, was about 7 in. At this point it gave the impression of being capable with very little stretching of being drawn over an average man's thigh. The bowel wall was three or four times its normal thickness, all the coats taking part in the hypertrophy. An incision 4 in. long was made in its free border at the fundus of the loop on to the concretion, clamps having been previously applied above and below. The concretion presented a smooth surface covered with mucus. By means of a wide osteotome pushed into it and rotated it was easily and cleanly broken into three fragments, which were removed separately with a lithotomy forceps. It weighed 20 oz., and was entirely composed of vegetable fibre closely matted together. The bowel wound was closed and infolded by three continuous stout catgut sutures each including a greater length than the previous, so that 10 or 11 in. of the loop were narrowed down by an extent varying from 3½ in. in the centre to 1 in. at either end. The abdomen was closed without drainage, and the patient made an uneventful recovery.

I saw her again a few days ago and learnt that with the help of abdominal massage and an occasional aperient, not more often than once a week, she had been free from constipation and had a daily action of the bowels since leaving hospital.

Interrogated more closely after the operation, she admitted that she had suffered from constipation as long as she could remember, and latterly never had an action without the assistance of an aperient. From her mother the following history was subsequently obtained. For a week after birth there was no action of the bowel, and after this to get an action a small piece of soap was daily pushed into the rectum. At 6 months the belly was much distended at frequent intervals and as the result of medical advice, treatment by hot baths followed inunction of cod-liver and castor oil over the abdominal wall was adopted and maintained till the age of 4. By this means an action was secured on an average every other day. Later, when attending school, constipation with distension became more and more marked until a fortnight or even three weeks often elapsed between two evacuations.

At this time she was frequently under medical treatment, and on one occasion a loaded rectum was digitally cleared out by her medical attendant. Frequent recourse was had to soap and water enemas and eventually the bowels were never opened without their aid or that of an aperient. At 14 attacks of distension were accompanied by abdominal pain and vomiting and recurred from time to time until her admission to hospital. The history is intentionally given in the sequence in which it was obtained.

There is nothing in the appearance of the abdominal wall (nor was there before the operation) to suggest that there had been frequent and excessive distension, but subsequent examination shows that the belly wall when the patient is lying on the back is abnormally elastic and redundant, allowing of large folds consisting of its whole thickness being picked up in the grasp of the hand without inconvenience to her. The chest is well formed, and there is no spreading of the subcostal angle.

In Allbutt's *System of Medicine* Hale White,[6] discussing 12 cases of idiopathic dilatation of colon (the only examples of the condition discoverable in the medical literature of the previous forty years) finds that five were in boys, four in men of 50 and upwards, one in a girl of 17, but in whom symptoms had appeared at the age of 8 months, and the remaining two in men of 24 and 34. He concludes that probably two varieties of the condition should be distinguished: (1) That met with in children, and "due to some congenital inertness of bowel"; and (2) that occurring in elderly subjects, which he suggests is comparable with dilatation of the stomach without pyloric obstruction. Since this was written many more cases have been reported and collected, and various explanations offered of their pathology. Thus Treves,[7] arguing chiefly from his own very remarkable case, that of a girl aged 5½ years, in whom, after trying other measures without relief, he finally excised the descending colon, sigmoid, and rectum, but also from the fact that such great hypertrophy of the coats is invariably found in these cases, contends that in children idiopathic dilatation of the colon is due to a congenital narrowing in the lower part, while the cases occurring in advanced life, he suggests, are due to a habitually overloaded sigmoid loop hanging down into the pelvis and causing obstructive kinking at its distal extremity, the hypertrophy being the result of effort to overcome the obstruction. But, as has been pointed out by other writers, if overloading of the sigmoid were the prime cause in cases arising late in life, women should be more subject to the condition than men (constipation with them being much commoner), whereas, as Treves himself observes, the reverse is actually the case.

Then with regard to Treves's explanation of the congenital origin in children, Crozier Griffiths[8] points out that the view is not supported by the evidence of numerous necropsies, special mention being made in the vast majority of recorded cases that no such narrowing in the rectum or lower colon existed.

Again, Griffiths holds that the congenital cases should be divided into two classes (1) those in which dilatation actually exists at birth, and (2) those in which there is only a congenital tendency to dilatation, a position which as regards the latter class rather seems to beg the question.

In a recent paper upon the subject, Kredel[9] contends that the condition is not so rare as is generally supposed, and attributes all cases, whether occurring in children or in later life, to congenital variations in the length of certain parts of the colon and meso-colon. That these variations do exist at birth and earlier is a matter of common anatomical knowledge. According to Ballantyne,[10] the transverse colon in a full-term fetus "not infrequently forms a wide loop, passing downwards towards the pelvic brim," and "the sigmoid flexure is relatively of great length and generally forms a large loop, part of which, in the male fetus at any rate, lies in the posterior part of the pelvic cavity." A slight exaggeration in the length of these folds, caused probably by some developmental error, or by a more or less slight and transitory obstruction, associated perhaps with peritonitis, constitutes the first step in the direction of the deformity. Such a loop would favour stagnation, present a difficulty in the onward passage of the bowel contents, and lead to dilatation and compensating hypertrophy—the more pronounced, other things being equal, in proportion as the effect is felt earlier in fetal life at a time when intestinal development is more active.

This theory of the origin seems applicable to all cases, in spite of the difficulty which Kredel finds in interpreting those in which adults are affected and the history cannot be traced back into childhood. This would probably have been the case with the patient who is the subject of this communication but for the accidental existence of the faecal concretion. But for this, the later and more severe symptoms would probably have been postponed till later in life, or might even not have occurred at all, while, had not the mother's history been available, nothing would have been learned of the troubles in her early life.

So far, the only undoubted cases which have been published have been those in which the symptoms have forced attention and in which the pathological condition has been very marked, as shown by laparotomy or necropsy; but it seems only reasonable to assume that lesser degrees of the deformity exist, giving rise to symptoms correspondingly less severe, and consequently easily misinterpreted. Indeed, so long as hypertrophy keeps pace with dilatation, there would appear to be no reason why symptoms should not be indefinitely postponed.

As regards treatment, massage is recommended by Crozier Griffiths but condemned by Kredel as being likely to increase the risk of perforation.

For a time it appears to have sufficed in this case, for inunction of oil into the abdominal wall amounted to massage. Aperients and enemas, so far as possible, should be avoided, as they only tend to increase the dilatation. Colotomy was done in several cases, notably in one of Osler's, with relief of symptoms, but should only be regarded as a temporary measure. Narrowing of the dilated loop, as was done in this case, so far with success, is recommended by Kredel, but many of the more severe cases will probably resist all treat-

ment short of resection of the useless and dilated loop, as was so brilliantly carried out by Treves.

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THE AFTER-HISTORY OF PATIENTS UPON WHOM GASTRIC OPERATIONS HAVE BEEN PERFORMED.

[SECOND SERIES.]

BY C. MANSELL MOULLIN, M.D., F.R.C.S.,

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IN the BRITISH MEDICAL JOURNAL of February 20th, 1904, I published an account of the subsequent history of eighteen patients upon whom I had operated for various affections connected with the stomach prior to the end of 1902, and whose cases I had been able to trace. The object that I had in view was to collect and record, not the immediate results of these operations, which are sufficiently well known already, but those that follow later, after the patients have returned to work and to their ordinary diet and mode of life; to find out whether the relief they obtained was permanent, or whether the improvement that followed the operation may not have been merely of a temporary character, due, perhaps, quite as much to the rest in bed, and quiet, and good feeding as to the operation itself. I propose now to continue the series with the cases operated upon in 1903, as the time that has elapsed, though not so long as in most of the previous ones, is long enough to show whether the benefit obtained is likely to last or not. The question is one of great importance, especially in connexion with gastro-enterostomy, which is regarded by many as more or less upon its trial. It is acknowledged that very great relief is obtained in many cases; but on the other hand, it is asserted that in many the old symptoms persist; that in some new lesions are caused in the shape of peptic ulcers in the bowel below; and that there is no certainty that the artificial opening will not contract. (In connexion with this I may mention that I have recently seen a specimen taken *post mortem* from a patient upon whom gastro-enterostomy had been performed twelve years before, and who had died from some trouble in no way connected with the stomach, in which the artificial communication was as perfect as could be wished and apparently had performed efficiently all the duties required of it.) As might be expected in an inquiry of this kind, a considerable number of the patients cannot be traced. Still, out of twenty-nine operated upon in 1903 (excluding all cases of carcinoma and those in which perforation had taken place already), I have been able to obtain a record of twenty-four.

The questions asked were the same in all. Have you any pain after meals? If so, is it severe? Are you often sick? Have you brought up any blood since the operation? Is your general health better than it was?

In forming an estimate of the value of gastro-enterostomy and pyloroplasty in cases of unperforated gastric ulcer, one point that is not usually taken into consideration is the question how much is it reasonable to expect of them? This depends partly upon the extent of the changes that have already been allowed to take place in the stomach, partly upon the opportunity the patient may have in the future for avoiding the causes that led to those changes. If the ulceration has been allowed to continue for many years without any effective treatment, so that instead of there being merely a single limited lesion the stomach is reduced to the condition of an irregular misshapen sac, distorted by cicatrices and hampered in every direction by adhesions, it is not reasonable to expect that the formation of an artificial opening into the bowel could restore everything to its normal state, nor is it reasonable to expect that patients who have suffered from severe dyspepsia for years before the formation of the ulcer will henceforth be freed from all pain and inconvenience, unless at the same time they avoid the causes that led to their dyspepsia.

It sounds a trite thing to say, but apparently it is often forgotten, that if the conditions of living after the operation remain the same as they were before, the consequences will be the same, except in so far as the stomach is able to empty itself more rapidly and more thoroughly into the bowel. All that surgery can do is to enable the stomach to pass its contents on rapidly and without effort; to drain it thoroughly and give it rest; and to prevent its dragging violently and painfully upon the intensely sensitive parietal peritoneum around it. Neither gastro-enterostomy nor pyloroplasty claims to be a panacea, or an operation that can undo the mischief caused by years of inefficient treatment, especially when the conditions that gave rise to that mischief are allowed to continue at work unchecked. They must be judged by the results they give in cases which are operated upon before they have reached the hopeless stage so freely illustrated in our museums.

Taking these 24 cases in conjunction with those which I have already published, it appears to me that there is sufficient evidence to form at least a provisional opinion as to the permanent relief afforded by this operation.

Pyloroplasty (of which the first three in this series are examples) can only be regarded as a very qualified success. The pain returned more or less in all the cases. The scar left seems to have contracted again. It is a great pity, for the operation is a most ingenious one, is easy of performance, and takes but a very short time; but in my own mind there is no doubt that it should be reserved for cases in which the condition of the patient will not allow anything more to be attempted, and perhaps for those in which the chief feature is hypertrophy of the pyloric muscle. Free division of this muscular band, causing complete cessation of contraction for a time, may possibly lead to a sufficient degree of wasting to prevent any recurrence of the stenosis.

With regard to the twenty-one cases of gastro-enterostomy, twelve may be regarded as cured and five as very much benefited by the operation. But the true result is better than this, for, of the latter, several are as well as they could ever expect to be under the conditions of the life they lead. No. 16, for example, so long as she lives in the country, has only light work to do, and is reasonably careful as to diet, is perfectly well. But, unfortunately, this is not always possible, and the result is a relapse. So it is with others. The attacks of pain from which they occasionally suffer are brought on by some definite cause, of which by far the most common is indiscretion in diet. They cannot grasp the fact that the causes which led to the formation of the ulcer before the operation will, if they are allowed to continue at work, lead to trouble again, in spite of the operation. Gastro-enterostomy cannot confer upon the stomach greater digestive power than it possessed before the patient was ill at all. Two patients in whom no definite lesion was found—no ulcer and no scar—have not benefited in the least. What may have been the cause of their symptoms I cannot tell. Apparently it was not gastric ulcer, and the diagnosis, not the operation, is to blame. The remaining two are very perplexing. One, the last on the list, a martyr to some form of progressive osteo-arthritis, is gradually growing weaker and weaker for no known cause. Vomiting before the operation was incessant. The pylorus would hardly admit a probe. For a time there was considerable improvement. Then the patient gradually began to fail, growing weaker and weaker, with attacks of occasional vomiting and pain, but not sufficiently frequent or severe to account for the failure. The other was an exceedingly complicated case, in which laparotomy had already been performed, and in which there was good reason for thinking that the disease was not confined to the stomach.

The posterior transmesocolic operation was performed whenever practicable, but so far as the stomach is concerned, it seems to be immaterial whether the opening is made upon the anterior or the posterior wall. In either case it soon becomes the most dependent part. In addition to the gastro-enterostomy in all but two a lateral communication was made as well between the contiguous sides of the jejunal loop. I have adopted this plan for the last four years, and I have never had the slightest trace of what is known as the "vicious circle." Indeed, it is impossible to understand how such a condition of things could be produced. The additional operation takes a very short time, and it is a great safeguard against the possibility of the rest of the small intestine ascending through the opening in the transverse mesocolon and lodging itself in the lesser peritoneal cavity, a complication which has been stated to occur occasionally after this method of operation. In several instances in which the patients were suffering from chronic starvation, I have made use of the opening in the jejunum to introduce a pint

No.	Name.	Sex and Age.	Date.	Condition, etc.	Remarks.
1	A. R.	F., 30	Oct. 3, 1903	Haematemesis five years before. Stomach dilated. Pyloroplasty. Patient discharged on October 31st with the note that the stomach, the walls of which were more or less atonic, did not appear to empty itself so well as it would have done through a gastro-jejunostomy	Recurrence of very severe pain at times. Patient recommended to come into hospital again for gastro-enterostomy.
2	H. H. R.	M., 30	Oct., 1903	History of indigestion for years past; of frequent vomiting, and of an attack of haematemesis and melaena. Pylorus thickened, contracted, and fixed by adhesions. Pyloroplasty	Had a little pain some time ago, but not severe. Has twice brought up some blood. Is not sick. General health much better.
3	A. M.	F.	Nov., 1903	Haematemesis on two occasions. Vomiting frequent for nine months. Cicatricial stenosis of pylorus. Pyloroplasty	Was much better after the operation, until two months ago. Then pain and vomiting returned for some weeks. Is much better again now. Has not brought up any blood since the operation.
4	A. P.	F., 33	Jan. 13, 1903	Severe pain for many years. Copious vomiting. Haematemesis on one occasion. Chronic ulcer at pylorus with many adhesions and enlarged glands in mesentery. Posterior gastro-jejunostomy with lateral anastomosis	Had improved very much until six months ago, when she was confined. Since then has had severe pain after meals. Is never sick. General health much better than it was.
5	A. L.	F., 37	Mar. 29, 1903	History of continued dyspepsia with two attacks of haematemesis. Slight dilatation of stomach. Recent erosion at cardiac end. Anterior gastro-jejunostomy	Complains of a "slight rather heavy feeling after meals." Is sick on an average once in three months. Has not brought up any blood. General health better.
6	A. R.	F., 27	April 15 1903	Two attacks of haematemesis. Pain beginning two hours after food, relieved by vomiting. Cicatricial contraction at pylorus. Posterior gastro-jejunostomy with lateral anastomosis	Sometimes suffers from pain after meals, but it is never severe. Is not sick, and has not brought up any blood. Very anaemic still.
7	A. P.	F., 28	May 25 1903	Severe indigestion for fifteen years. Pain very severe of late half an hour after food. Slight haematemesis once. Pyloric stenosis. Posterior gastro-jejunostomy with lateral anastomosis	No pain now and general health very much better. Has had two attacks of pain and sickness brought on by indiscretion in diet. Feels much stronger in every way.
8	S. M.	F., 33	May 13 1903	Pain and vomiting for four years, growing more severe. Haematemesis once. No ulcer or scar found. Posterior gastro-jejunostomy with lateral anastomosis	Symptoms returned about October. Suffers from pain and sickness. Once brought up a little blood. Is better when she can keep in bed.
9	A. C.	M., 37	May, 1903	Severe pain after meals, occasionally relieved by vomiting. No haematemesis or melaena. Stomach dilated. Thickening around pylorus. No scar or ulcer. Posterior gastro-enterostomy with lateral anastomosis	Suffers from severe pain at times. Is not often sick. Has not brought up any blood. General health only slightly better.
10	L. L.	M., 25	June, 1903	Frequent vomiting. Severe haematemesis on several occasions. Pain not severe. Deep crater-like ulcer on the anterior surface of the stomach near cardiac end of lesser curvature. Anterior gastro-jejunostomy with lateral anastomosis	Suffers from a heavy feeling after meals, but does not call it pain. Has been sick, but not for the last four months. General health very much better than it was.
11	E. B.	F., 50	June 18 1903	History of indigestion and vomiting for many years. Seven weeks before admission is reported to have brought up twelve pints of blood. No tumour to be felt. Old scar upon wall of stomach near pylorus. Excised. Anterior gastro-jejunostomy with lateral anastomosis lower down	No pain. Has been sick once, due to the food taken. Health better than it has been for seven years. Has put on a stone in weight.
12	S. R.	F., 45	July 4, 1903	Pain after food for many years, relieved by vomiting. Haematemesis and melaena two days before admission. No tumour. Old, densely-indurated scar occupying lesser curvature of stomach. Excised. This affected the shape of the stomach so much that it was thought advisable to perform a posterior gastro-jejunostomy as well. No lateral anastomosis was made	Has severe pain sometimes under right shoulder. Is sick every three or four days. Has not brought up any blood. General health better.
13	J. P.	M., 36	Sept., 1903	Dilated stomach, with copious vomiting. Old ulcer, with adhesions about pylorus. Posterior gastro-jejunostomy, with lateral anastomosis	No pain whatever. Is sick occasionally, but not like he used to be. General health a great deal better.
14	M. K.	F., 50	Sept. 29 1903	Haematemesis twice eight years before, with continuous pain and frequent vomiting since. Hard mass to be felt between umbilicus and ensiform cartilage. Stomach dilated. Dense, hard scar, involving lesser curvature and pylorus, with a great deal of infiltration. Posterior gastro-jejunostomy, with lateral anastomosis	No pain after meals. Is never sick. Has never brought up any blood. General health "much better than it was before the operation."
15	M. H.	F., 42	Oct., 1903	History of pain after food relieved by vomiting, and of haematemesis and melaena on several occasions. Laparotomy had already been performed at another hospital. Numerous adhesions, especially to transverse colon and on posterior surface of stomach. No ulcer found. Anterior gastro-jejunostomy and lateral anastomosis. During convalescence suffered from repeated attacks of vomiting which bore no relation to meals. An hour after food had been taken patient would bring up large amount of fluid, which did not show a visible trace of the last meal	A few weeks after operation a faecal fistula formed, which closed spontaneously. Some months later a gastric fistula developed, so large and so direct that dressings of considerable size found their way into the stomach (? were forced in by patient) and were vomited. This was closed by operation. Later a small faecal fistula again developed, but this one, too, closed of itself. Patient writes: "I am much better, and able to take more food without so much sickness." (February, 1905.)
16	L. R.	F., 23	Oct. 30, 1903	History of six years' duration. Incessant vomiting with severe pain for the last four months. Old scar puckering up lesser curvature. Omentum adherent to scar, and tying down the stomach into an hourglass shape. Posterior gastro-jejunostomy with lateral anastomosis	Up to last July had felt better than she had done for years. Since then has been much overworked, and has suffered from pain after meals, but it is not severe. She is never sick and her general health is certainly better.
17	C. L.	F., 36	Nov. 9, 1903	Pain and vomiting for fifteen years, becoming worse. No haematemesis but probably melaena. Has been living on peptonized milk. Stomach contracted into hourglass shape from a scar involving lesser curvature. Anterior gastro-jejunostomy was performed as the stomach was so tied down. Lateral anastomosis also	"Since the operation I am really much better in health than I have been for the last ten years. I have very little pain or sickness, and am able to enjoy my food, which is a wonder to me at times, considering the years I suffered before I went to hospital."
18	M. G.	F.	Nov., 1903	For last six years severe pain, relieved by vomiting at first, constant now. No hematemesis. Cicatricial stenosis of pylorus. Posterior gastro-jejunostomy with lateral anastomosis	Has no pain after meals, but is sick occasionally. Has not brought up any blood. General health much better than it was.

No.	Name.	Sex and Age.	Date.	Condition, etc.	Remarks.
19	J. B.	M., 42	Nov., 1903	Very severe haematemesis and melaena on many occasions. Pain very severe. Has lost 2 st. in weight. Large hard mass at cardiac end of lesser curvature with many enlarged glands. Doubtful whether malignant or not. Posterior gastro-jejunostomy with lateral anastomosis	"Is able to digest his food, which he could not do for fifteen years." Has not been sick or brought up any blood since the operation. Suffers from much distension for two hours after meals. Feels better than he did, but is too weak to do any work. Much troubled by bronchitis.
20	W. R.	M., 50	Nov., 1903	Severe pain after food, relieved by vomiting. Brought up blood once. Slight dilatation of stomach, with old scar at cardiac end of lesser curvature. Posterior gastro-jejunostomy with lateral anastomosis	Is quite a different man since the operation. Enjoys any food without the least pain, and has never been sick.
21	G. B.	M., 43	Nov., 1903	Profuse haematemesis twice. Severe pain after food. Has lost 2 st. Old gastric ulcer, with much induration on lesser curvature. Posterior gastro-jejunostomy with lateral anastomosis	No pain after meals. Never sick. General health very good.
22	E. A.	M., 58	Nov., 1903	History of ulcer of stomach for 9 years. Large mass at pylorus adherent to anterior wall of abdomen. Anterior gastro-jejunostomy with lateral anastomosis	No pain. Never sick. Has put on 1½ st. The mass can no longer be felt.
23	E. B.	F., 24	Nov., 1903	Six years' constant pain after food. No vomiting, melaena, or haematemesis. Hourglass stomach with adhesion to anterior wall. Posterior gastro-jejunostomy with lateral anastomosis	Free from pain if careful about diet. Is much stouter. Has married since.
24	E. H.	F., 28	Nov., 1903	Persistent vomiting after food for six months. Greatly emaciated. Dilated thin-walled stomach with nodular cicatricial pylorus. Same operation	Patient, who was suffering from a peculiar form of osteo-arthritis, improved very much for about a year, and then began to fail again, with occasional attacks of pain and vomiting; cause uncertain.

of peptonized beef-tea into the bowel during the course of the operation with much benefit. As regards the position of the opening in the wall of the stomach, in many cases there was no option. It had to be made where it could. But it is very significant that some of the cases in which, owing to the force of circumstances, it had to be made quite at the cardiac end did the best, so far, at any rate, as freedom from pain is concerned. The pain felt in dyspepsia and gastric ulcer is not due to the contact of the food with the lining membrane of the stomach, for this is quite insensitive, nor to the increased acidity of the gastric juice, but to the movement of the stomach during digestion dragging upon the parietal peritoneum, the exquisite sensitiveness of which is still further increased (in cases in which there is an ulcer) by irritation spreading to it from the ulcer along the lymphatics. If pain is to be avoided after gastro-enterostomy, the opening in the stomach must either be at the cardiac end, and very free, so that the pyloric end has no work to do; or if it is placed at the pyloric end, there must be for the same reason free division of the circular muscular fibres in the prepyloric portion. In either case adventitious adhesions, the result of past inflammation, must be dissected away, or the stomach will continue to drag through them upon the parietal peritoneum, and the pain will continue.

THE VALUE OF THE VERMIFORM APPENDIX IN THE TREATMENT OF ULCERATIVE AND MEMBRANOUS COLITIS.

BY J. HUTCHINSON, JUN., F.R.C.S.,
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AN opening into the caecum has been advocated in cases of chronic membranous colitis, with a double view. In one of the earliest published instances[1] all the motions were passed through the artificial anus for six weeks, so as to give the colon complete rest; the opening was then successfully closed. The patient, however, died two months later from acute peritonitis, the cause of which was not ascertained, as there was no *post-mortem* examination. In a still earlier case, operated upon in 1894,[2] the caecal anus was left open for over seven months, the patient recovering. In a third case, which also ended successfully, the opening was retained for a year.

The other object with which the surgeon makes an opening into the caecum is to flush the colon through with saline, antiseptic or astringent solutions. Seeing that the inflammation is usually limited to the colon, this is a thoroughly rational proceeding, especially as there is marked decomposition and often suppuration. The drawbacks of a caecal anus are well known. If a colotomy opening in the sigmoid flexure is regarded by some patients as an intolerable nuisance, how much worse is an artificial anus in the right groin! The more fluid contents of the caecum are constantly being evacuated and are likely to cause much irritation of the skin. The opening into the intestine may be difficult to close when the time comes for this to be done.

If the surgeon employs the vermiform appendix for irrigation purposes, he will find that it possesses the following advantages. In the first place, all leakage of caecal contents can be avoided. Secondly, by means of a rubber catheter inserted and retained in the appendix, the washing out of the colon can be done in an efficient and cleanly way. Finally, it is quite easy by resection of the appendix to close the fistula when the treatment has accomplished its object.

It is difficult to decide who originated the method. Mr. Stanmore Bishop, in reporting a successful case,[3] attributes it to Weir of New York. My colleague, Mr. H. L. Barnard, who suggested it to me, believed that Mr. W. G. Spencer was the originator of the modification, which is undoubtedly an improvement on the old method of opening the caecum.

The following case may be briefly narrated in the hope that others will test the value of the proceeding.

A man, aged 36, was admitted into the London Hospital with the diagnosis of malignant disease of the colon.

History.

For a long time he had complained of constipation, which he attributed to his sedentary occupation. During the last twelve months he had lost weight to the extent of several pounds, and had noticed that excessive mucus and later blood had passed with his motions. A sudden desire for an evacuation would come on, which had to be immediately complied with; from time to time there was tenesmus. During the last six months blood had been present with each motion. There was a tendency to haemorrhoids, the rectum was ballooned. In the left iliac fossa I detected nodular thickening along the course of the sigmoid flexure. Nothing abnormal could be felt in the rest of the abdomen. The motions were always fluid and offensive, and contained blood and mucus, with copious shreds of membrane, which were shown by microscopic examination to consist of cellular and epithelial structures.

Operation.

In order to exclude the presence of a malignant growth, I made a median exploratory incision. A small opening was made through the muscles in the right groin; through it the vermiform appendix (which was normal and free from adhesions) was brought on to the surface. It was here fixed at its base by fine silk sutures; it was opened at its distal end and a rubber catheter inserted into its lumen. The other abdominal wound was then closed layer by layer in the usual way.

Treatment by Astringent Irrigation.

The operation was performed on November 11th, 1904, and four days later irrigation was commenced through the tube. Warm boracic solution was at first employed, then nitrate of silver lotion of a strength varying from a quarter to two grains to the ounce. The dresser to the case, Mr. Burne Jones, carried out this treatment daily until December 24th, when it was thought it would be safe to discontinue it. At first blood had been freely present, but this gradually disappeared. It will be understood that a large quantity of the astringent solution was used on each occasion; it came away per rectum about five minutes after starting the irrigation.

On December 28th, that is, seven weeks after the first operation, I

enlarged the small wound in the right groin, drew out the caecum, and excised the whole appendix. A few kangaroo tendon sutures were inserted in the small muscular aperture. The patient was kept in hospital for some time under observation. He gained over a stone in weight, had entirely lost the symptom of frequent motions with tenesmus, and the membrane and blood had ceased to be passed. He has reported himself since as being well; there has once or twice been a streak of blood with the motions, which are now well formed.

I should have noted that examination with the sigmoidoscope showed a congested and relaxed mucous membrane, but it was unsatisfactory owing to the dark blood and semi-purulent stuff coming down from the colon.

It may be suggested that, looking to the possibility of relapse in the future, it was unwise to remove the appendix, as it might be required for irrigation purposes again. The case was a typical and fairly severe one of membranous and ulcerative colitis, and the short duration of the treatment required—only seven weeks—contrasts favourably with that recorded in many of the cases in which a caecal opening was employed.

As regards drugs, quinine, salol, and occasional doses of opium were given to prevent relapse, but the cure was entirely due to the irrigation with nitrate of silver solution. It is admitted by physicians that no medicinal treatment has any marked control over the progress of colitis. It is probable that direct treatment through the vermiform appendix will come to be resorted to not only in chronic cases, but in subacute ones of any severity, as well as in dysentery. It is obviously more logical to irrigate the large intestine from the caecum onwards than to trust to astringent enemata.

Mr. C. B. Lockwood, in an interesting paper on colitis and appendicitis,[4] states his belief that muco-membranous colitis may cause inflammation of the appendix. He narrates one case which proved fatal, and in which exactly the same ulcerative changes were found in both colon and appendix. This is readily understood, but the removal of the latter organ as a means of treating the colitis is hardly logical. In fact, Mr. Lockwood states that in one case in which this course was adopted, he doubted "whether the colitis was really much better." When an extensive tract of skin or mucous membrane is inflamed, the excision of a small portion cannot be expected to accomplish much. On the other hand, it is of interest to have found a real use for that much abused organ, the vermiform appendix, and to have rendered both safer and more certain the treatment of chronic colitis.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

RECOVERY FROM MORPHINE POISONING AFTER SUBCUTANEOUS INJECTION OF ATROPINE.

AT 9.30 a.m. on February 23rd, 1891, I was hastily summoned to see a lady, aged 45. On my arrival I found her in bed in a deep state of coma, face suffused, and all reflexes absent. The pupils were equally contracted to the size of a small pin's head, and she could not be roused. I gave her $\frac{1}{10}$ gr. apomorphine by hypodermic injection without any result. Continuous efforts were made to rouse her by slapping and shaking. Her condition pointed to an overdose of opium, but how brought about was not ascertained till she had recovered. Her condition was desperate, and I decided to use atropine subcutaneously. 10.10 a.m. Respirations 10, atropine $\frac{1}{10}$ gr. 10.20. Pulse 128, very feeble, respirations 10, atropine $\frac{1}{10}$ gr. repeated. 10.40. Respirations 6, atropine $\frac{1}{10}$ gr. One pint black coffee per rectum; faradization of phrenic nerve. 10.50. Respirations 11; face more suffused; slight reflex of eyelids. After the third dose of atropine the pupils rapidly dilated. She was still in a desperate state, with cyanosed face and mucous râles in the chest, but I had some hope of her recovery. 11.25. Pulse 112, feeble; mustard bath to feet for twenty-five minutes, artificial respiration for half an hour. 11.45. Respirations 18, nitrite of amyl 3 minims by inhalation. 11.50 Ether ℥j hypodermically, no reflex action anywhere, increased râles over chest. 12.25 p.m. 2 oz. brandy per rectum, pulse very feeble, lachrymal secretion noticed for the first time. On slapping the chin she screwed up her face and opened the eyelids once; no response to shouting close to the ear; brandy rectal injection repeated. (The stomach had early been washed out with warm water and glycerine of tannin and gallic acid.)

The case to those who saw it seemed hopeless, but I could not despair. Assuming she had taken morphine she had been given a dose of atropine sufficient to kill her if she had not taken morphine, and my thought at the moment was that we could only let the two drugs fight it out. 1.35 to 1.45. Still mucous râles in chest; continued slapping her chin and trying to rouse her. 1.55. Pulse 136 stronger, respirations 22 shallow, temperature 98.4°. 2.25. Pulse 136, respirations 24 deeper, râles in chest diminished. (If not for râles and cyanosed face she looked like one in natural sleep.) I became much more hopeful of her recovery. (Early in the case her chin dropped and had to be held up for a long time, or her respiration became impeded.)

In the course of half an hour there was evident improvement. The pupils had begun to contract, and before I left her at 4 p.m. she had recovered consciousness and spoke to me.

Next day she told me that she had injected 40 minims of morphine, equal to gr. iv, at or before midnight, "because she wanted to die." Atropine is recognized as the physiological antidote to morphine, and Bartholow recommends gr. $\frac{1}{30}$ of atropine for each grain of morphine taken. In this case $\frac{4}{30}$ was administered, which was $\frac{1}{30}$ more than was required.

The danger from morphine poisoning ended with the day, but her mental condition gave rise to much anxiety, and it was thought that she would have to be sent to an asylum. This was happily avoided. The patient fully recovered, and is still alive and well. I need not go into her previous personal and family history, which was somewhat distressing. I ascertained that on more than one occasion she had threatened to commit suicide, but no notice was taken of these threats. She was near the climacteric, and this, with her troubles, evidently brought on an attack of melancholia.

My chief object in reporting this case is to lay stress upon the value of atropine as the physiological antidote to morphine. I think this is not sufficiently recognized, especially by house-surgeons in hospitals. In my opinion lives might be saved by prompt treatment, which are now lost.

A. SHEEN, M.D., D.P.H.,
Consulting Surgeon, Cardiff Infirmary.

A CASE OF FRACTURED BASE OF SKULL.

THE following case is of interest on account of the severity of the injury, from which the patient recovered. G. W., aged 34 years, height 5 ft. 9 in., weight 15 st., a labouring foreman, was thrown head foremost down a shaft 22 ft. deep owing to the premature explosion of a blasting charge.

On examination he was found to be unconscious; there was profuse haemorrhage from the nose and from the right ear, and vomiting of blood. The scalp was extensively detached from the vertex and forehead, and fell down over the eyes and nose; there were punctured wounds of both sclerotics, and slight extravasation of blood under the right pupil, which was also irregular. The right hand was extensively lacerated, the first phalangeal joint being fractured, while punctured wounds were found on legs, face, and body, containing powder and mud.

His wounds were cleaned, stitched, and dressed with iodoform gauze, atropine dropped into the right eye, and an icebag applied to the head. The haemorrhage oozed from the ear until 2.15 p.m., and continued from the nose until 11 a.m. next day; vomiting of blood continued at intervals until next morning, when the patient became semi-conscious. The right eye was then found dilated but irregular, and on ophthalmoscopic examination haemorrhage in the vitreous was noted there; this eye was completely blind and inco-ordinate in movement. The scalp wounds healed by first intention; the temperature never went higher than 101°, and became normal on the sixth day. The patient, however, remained only semi-conscious until the morning of the eighth day, and then became markedly restless.

On the sixteenth day he was able to discern the shadow of a hand passing before the right eye. The inco-ordination of movement lessened after the fourth day, and was normal on the ninth day, when the icebag was discontinued. From this date the man steadily improved, and four weeks after the accident he was allowed to get up for the first time. He felt giddy, and could not be made to believe that he was not falling

while sitting in a chair, and so was put back to bed after an hour. The temperature that night ran up to 99.8°, and next morning was found to be 102°, so he was kept in bed for eight days, but after this he was able to get up without any rise of temperature or any other irregular symptoms.

Blaenavon. A. H. JAMES, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

NEWCASTLE-ON-TYNE EYE INFIRMARY.

CASE OF PRIMARY INTRADURAL TUMOUR OF THE OPTIC NERVE.

(Reported by H. PERCY BENNETT, M.B., C.M., Honorary Surgeon.)

THE patient in this case, a bright, intelligent boy, aged 11, was first seen by me on November 23rd, 1903.

History.—Four months ago the eye was noticed to be prominent. Three months ago it suddenly became much more so (haemorrhage ?), and then gradually went back to the position noted on his admission as an out-patient here. A month ago he noticed that he could not see with the eye.

State on Examination.—He had considerable proptosis of the right eye, but otherwise was healthy-looking, and complained of no pain; the ocular movements were not at all impaired; there was no perception of light in the eye; ophthalmoscopic examination showed the media to be clear; the disc a trifle pale, no blurring of the edges, and the veins tortuous. No swelling could be felt in the orbit, no pulsation, no bruit. Tension of the eye was normal.

Diagnosis.—From the perfect mobility of the eye (the corneal reflex showed no lateral or vertical displacement) and the projection being directly forwards, there could be no doubt that one had to deal with a tumour situated within the muscular cone; and, from the early loss of all sight in the eye, with probably a tumour of the optic nerve.

Treatment.—As these tumours are not of a very malignant type I decided to try the effects of a course of treatment with pot. iod.: 5 gr. doses were given t.i.d., and later on 10 gr. doses. After a few weeks of this treatment the proptosis was rather less, but later on the condition became worse, and on March 28th the movements of the eye were somewhat restricted when the patient looked down and in.

Operation.—On May 1st the eye was removed with 1.3 cm. of apparently normal nerve attached to it. On inserting a finger into the orbit a large tumour could be felt extending right down into the optic foramen; in order to remove the whole of this mass a small gouge was inserted into the apex of the orbit, and the whole of the tumour was removed with 1 cm. of healthy-looking nerve at the posterior end; in fact, the nerve was partly torn away at or very near the chiasma.

REMARKS.—The patient for two days after the operation complained of severe headache. May 13th: Vision of remaining eye = $\frac{6}{6}$, but the field of vision was very much diminished to the temporal side, this no doubt being due to the dragging on the nerve at the time of the operation—a result much to be preferred to leaving any affected nerve behind which would ultimately involve the brain. This latter is the danger to guard against. Byers, in his excellent monograph, says "the outlook in general is to be regarded as extremely grave. . . . The danger is not from a recurrence in the direct sense of the term, but from the continual development of the intracranial portion of the tumour, which it is impossible to remove at the time of the operation." I am indebted to Dr. Bolam for a careful examination of the tumour, which he found to consist of an overgrowth of connective tissue of the framework of the nerve, and therefore agrees with the views held by Treacher Collins and Devereux Marshall as to the nature of these tumours. The growth was smooth and spindle-shaped, measuring 3.5 cm. long, 1.9 cm. in diameter at widest part, and with a maximum circumference of 6.2 cm. Werner has recently recorded two cases of intradural tumour of the optic nerve, one of them being a typical example of this form of tumour, which Byers classifies as "fibromatosis." I last saw the patient on December 7th. He was in good health; vision = $\frac{6}{6}$, and the field of vision was slightly larger than when last noted. As showing the rarity of intradural tumours of the optic nerve, this is the only case seen at this infirmary during the last six years, and probably for a very much longer period. About 6,000 new patients are seen in a year. According to Collins and Marshall, only two growths of the optic nerve have been removed at the Moorfields Hospital between 1885 and 1900, whilst during that time 388,000 patients have been treated.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

Birmingham, Friday, April 28th.

W. F. HASLAM, F.R.C.S., in the Chair.

Infantile Cerebral Diplegia.—Dr. KAUFFMANN showed two cases of infantile cerebral diplegia. (1) A girl, aged 19, had been under observation for five years. When first seen, at the age of 14, the development of the body corresponded with the normal of 10 or 11 years, whereas the mental development resembled that of a child of 6 or 7 years. She was totally blind in both eyes, and examination of the fundi revealed choroido-retinitis with optic atrophy, the latter probably consecutive. There was considerable nystagmus in all directions. She could use her arms and hands freely, and was able to knit; but the legs were paralyzed so that she was unable to stand, though she could still, unaided, sit up in bed. The ankles were spastically extended, the spasm becoming more pronounced when an attempt was made to place the patient on her feet; ordinarily it could easily be overcome by pressure. The knees showed clasp-knife rigidity in the extended position. The knee-jerks were equal and very small; other plantar reflexes were of extensor type. The muscle reflexes of the arms were lively. The history then obtained was as follows: Up to the age of 6 she seemed to develop normally both in body and in mind. At that time mental weakness was detected, and this had continued to increase, though slowly, until her admission. At 8 years she had an epileptic fit—the first—and soon after this event she began gradually to lose voluntary power over the legs, which became stiff. Until one year before admission her eyesight was good, and she could recognize people across the street; but since then vision had failed rapidly. The patient had never menstruated. The family history disclosed neither alcoholism nor syphilis; nor was any other member of the family affected similarly to this patient; she had two sisters and one brother, all older than herself, and all enjoying good health. The progress of the case from admission up to the present date had shown a gradual decline of all mental and physical powers. The patient had not grown at all, though puberty had become established. The upper limbs were much in the state already described, but in the lower ones great wasting had occurred, coupled with rigid flexion of the hips and knees, which were now fixed by permanent shortening of the muscles. Speech was not affected, articulation was clear, and the voice strong. She still remembered the names of the wards through which she had successively passed and the names of her brothers and sisters. But she repeated her sentences over and over again until a new question elicited a new reply, which would then be repeated. Latterly she had become noisy at times, and, when not shouting, was generally found to be muttering unintelligibly to herself; she picked and tore at her clothes, and only the paralysis of the legs prevented her from getting out of bed. Yet she would always listen attentively when addressed and reply to any simple question. For the last three years the patient had suffered, in addition, from epileptic fits, both major and minor, in great numbers; most of them occurred in the night. On no occasion had the seizures appeared to aggravate the general condition, and the coma never lasted very long. The optic discs were extremely atrophied, and the retinae showed patchy pigmentation. There was some doubt whether congenital syphilis played any causal part in this case, for the appearance of the patient was somewhat suggestive of this disease, and the choroido-retinitis likewise was in favour of syphilis, besides being very uncommon, to say the least, in infantile diplegia. But whether or not syphilis was the fundamental factor, the case had appeared to run a course much like several others which had been under observation. (2) A woman, aged 25, had been under observation seven months, and no change had taken place in that time. She was admitted suffering from constant spasmodic movements, intermediate in character between those of chorea and athetosis. The facial muscles, those of the limb girdles, and of all the limbs were involved in these movements. In the face the spasm resembled that of chorea, and was bilaterally equal. It rendered articulation very indistinct, and the voice was jerky (? from participation of the laryngeal muscles

together with those of the face and tongue). In the hands the movements resembled athetosis, and were much slower than in the face. In the legs the movements consisted chiefly of irregular kicking, extension of the knees, and flexion of the hips, which imparted some rocking motion to the body. Excitement increased all the movements, and during sleep they ceased entirely. In addition to the movements described there was rigid flexion and contraction of the knees, requiring great force to overcome it. The plantar reflexes were extensor. The legs and thighs were well nourished, the latter especially appearing hypertrophied, probably as a result of the constant movement. The eyes were normal, and there was no nystagmus. Mentally the girl was somewhat deficient, and though comprehending simple questions and answering them rationally, she could not count beyond 12, and did not know the significance of simple fractions. The only history obtainable was to the effect that she had never been able to walk or stand, and had therefore spent all her life sitting or lying down, had never gone to school, and had always, so far as she remembered, suffered from the movements. No family history was elicited beyond this—that she had an only (elder) sister in good health. Out of 11 cases of infantile cerebral diplegia which had been under observation choreoid movements had been seen only in 2, and in the patient now shown had in their intensity and width of distribution far exceeded those which had been observed in the other case.

Pachydermia Laryngis.—Dr. LAMB showed a case of pachydermia laryngis in a woman aged 29, who had been the subject of suppuration in the posterior nasal sinuses ever since she could remember. The diseased sinuses were opened and the suppuration cured, but the pachydermia persisted, helped, no doubt, by the patient's intemperate habits.

Adenoma of Kidney.—Mr. HEATON showed (for Mr. BARLING) a renal tumour removed from a lady aged 50, who thought she had had something growing for four years on the right side of the abdomen. During the latter part of that time she had been entirely invalided, with pain in the abdomen, extreme constipation, and inability to take solid food without vomiting. The last few months she had been practically confined to bed, and able to take only fluid nourishment. On examination a tumour was found on the right side of the abdomen, movable in the vertical direction and slightly in the lateral; it appeared to be connected with the lower end of the right kidney, as it could not be definitely separated from that organ. When forcibly dragged upon the tumour could be displaced into the right iliac fossa; the stomach was dilated and proptosed, so that its lower border was about halfway between the umbilicus and the pubes. The abdomen was opened to determine the nature and relation of the tumour, and the growth was found to be connected with the lower end of the right kidney, and as the nature of the tumour was quite uncertain and there was a good left kidney, the right kidney with the growth was excised. In freeing the tumour it had to be dissected off the second portion of the duodenum, and was so firmly adherent to this portion of the intestine that suture of the bowel was required to repair the damaged coats. A good recovery followed the operation, and at the end of three weeks the patient was taking a mixed ordinary diet without pain or inconvenience. It appeared probable that the drag of the tumour kinked the duodenum, thus producing stasis and dilatation of the stomach. The pathological report of the specimen was as follows: A perfectly encapsuled tumour within the capsule of the kidney, and situated at its lower pole. Its histological characters are masked by extensive necrobiotic changes. It is, however, fairly certainly an adenoma exhibiting a papilliferous arrangement. It is probably non-malignant.

Sarcoma of Axilla.—Mr. HEATON also showed the following case for Mr. BARLING: The patient, a lady of 45, noticed a lump on the outer edge of the left breast two years before coming under observation; operation was refused at that time. When first seen by Mr. Barling there was a tumour occupying the whole of the left axilla, encroaching somewhat on the thorax, extending underneath both pectoral muscles to beyond the middle line of the clavicle, and reaching to the lower margin of that bone. The skin was adherent to the central part of the tumour, over an area as large as one's hand; the growth was very firm and did not pulsate. It appeared that the tumour could be slightly moved on the thoracic wall; there was no obstruction of the venous return from the arm, and the main nerve trunks appeared to be uninvolved. It appeared hopeless to extirpate the growth locally without great risk, owing to its relation to the axillary and subclavian vessels, and rapid recurrence seemed fairly certain. Berger's amputation was therefore resolved upon, and was carried out without difficulty, and a rapid recovery followed the operation. This is the fourth operation of the kind performed by Mr. Barling for growth, all followed by recovery, and two of the patients remain well at intervals of nine and four years. The growth appeared to have originated in the region of the pectoral tendons. Histologically it was a mixed-celled sarcoma, spindle cells and mixed cells—chiefly spindle.

Removal of Gall Stone from Small Intestine.—Mr. HEATON also showed (on behalf of Mr. BARLING) a gall stone, oval in shape, weighing 220 gr., removed from the small intestine of a woman aged 56. When first seen she had been suffering for forty-eight hours from absolute constipation, severe abdominal pain, with constant vomiting of large quantities of fluid, which finally became stercoral, and the symptoms were made worse by the patient taking, on the advice of her neighbours, a large dose of castor oil. The diagnosis made was acute intestinal obstruction in the small intestine dependent upon a mechanical cause. On opening the abdomen some turbid serum and lymph was evacuated, and a coil of small intestine, deeply congested, very much thickened, and covered with patches of lymph, was found adherent to another coil of small intestine which otherwise appeared to be healthy. On further examination, the gall stone was found about 2 ft. away from the thickened and congested bowel, and was removed by incision there and subsequent suture of the intestine. It appeared probable that the gall stone was for a time impacted in the damaged portion of the intestine already alluded to, and that reverse peristalsis or efforts of vomiting displaced the stone from the point where it was impacted back into the healthy small intestine where it was found and from whence it was removed. The patient made an uninterrupted recovery. There was no previous history of gall-stone colic.

Intrathoracic Growth.—Dr. DOUGLAS STANLEY showed a large intrathoracic growth taken from a patient aged 28, whom he had shown while alive at the Midland Medical Society. The growth was mediastinal in origin, but had involved the pericardium and the right auricle, and had compressed the aorta, bronchi, and trachea. The growth was of about six months' duration.

Hydrocephalus in Adult.—Dr. STANLEY BARNES showed the brain from a case of hydrocephalus in the adult. The patient was a man who at the age of 23 began to suffer from headache and vomiting, with occasional hiccough. From this time until his death, fifteen months later, he was never free from headache, and other symptoms came on, suggesting the presence of a tumour in the left lateral lobe of the cerebellum. Optic neuritis was present. The *post-mortem* examination showed that there was present a severe degree of hydrocephalus, which was due to a dense band of tissue in the roof of the fourth ventricle, matting together the medulla and the cerebellum and occluding the foramen of Magendie. On microscopic examination, this band showed many giant cells of the tuberculous type, but no tubercle bacilli could be found (Ehrlich's method). There was no sign of any extension of the meningitis recently.

NORTH OF ENGLAND BRANCH.

Morpeth, Thursday, April 13th.

J. DRUMMOND, M.D., President, in the chair.

Difference in Type of Diseases.—Dr. BARROW (Rothbury) read a short paper, entitled "Differences in Type of Diseases at Different Periods." He mentioned rheumatic fever with pericarditis and effusion, scarlet fever with dropsy and with severe ulceration and sloughing of glands as examples amongst others of diseases common in his student days and days of early practice but very rarely seen now. While giving credit to earlier diagnosis and better treatment he was inclined to favour the view that there had been a real change of type. Dr. BEATTIE, Dr. F. TODD and the PRESIDENT discussed various points in the paper, and Dr. BARROW replied.

Ataxic Paraplegia.—Dr. DICKIE (Morpeth) showed a case, to which he gave the provisional name of ataxic paraplegia, of a baker, very deaf since age of 14. About 19 had acute rheumatism. Fifteen years ago began to get very tired on exertion. Came into Dr. Dickie's hands about a year ago with ataxic gait and severe girdle pains. During last three months had had great rigidity of legs. Knee jerks very exaggerated. sensations very mixed, patient being hardly able to tell difference between heat and cold. Dr. Dickie thought that the disease began in

the lateral columns, then extended to the posterior and was now again extending in the lateral column. No ascertainable specific history. Dr. BEATTIE thought the symptoms were those of marked lateral sclerosis with irritation of the posterior roots. He ventured to diagnose a chronic specific myelitis or pachymeningitis, although Pott's disease must be first carefully eliminated. Suggestions were thrown out for treatment. The PRESIDENT spoke, and Dr. DICKIE replied.

Specimens.—Mr. A. M. MARTIN showed (1) two large adenomata from prostate of man of 67, who within three weeks of operation was micturating freely; (2) large adenoma from thyroid; (3) specimen showing congenital absence of tibia; (4) ruptured Fallopian tube removed from case of tubal gestation; (5) endosteal sarcoma of os calcis; (6) large hydronephrotic kidney. In this case the urine separator was used and it was found that no urine came from the affected kidney. The tumour varied greatly in size but there had been no attack of colic. The specimen showed that the disease had been due to the very oblique direction of the ureter, and to a valvular condition of the mucous membrane of the pelvis of the kidney.—Mr. G. G. TURNER showed (1) fibroid uterus in which the main symptom had been pressure on the rectum: there had never been any bleeding. (2) Encysted hydrocele of cord associated with hernia from child 12 weeks old. (3) Stomach from child 5 weeks old. The infant vomited everything, and died before operation could be performed. The case was thought to be one of congenital pyloric stenosis; but although the orifice was small, it was not so small as in an undoubted case of which a specimen was also shown. (4) Epithelioma of vagina from a woman aged 34. (5) Two appendices, one from child of 4, the other from man, aged 39, who had had three previous attacks extending over a period of several years. Finally, he had bad pain with vomiting, and was operated on ten hours afterwards, when the appendix was found to be acutely inflamed, and distended with very offensive faeces.—Mr. H. B. ANGUS showed calculus removed from ureter. There was, he said, nothing special about the specimen, but the case was very instructive. The patient, a man, had an attack of renal colic 10 years ago, and no other until the day on which Mr. Angus saw him, when he also had haematuria. The urine separator was used, but, unfortunately, as the sequel showed, did not work properly. The ureter was exposed and the stone removed, but the patient got suppression of urine and died, when the other kidney was shown to be glandular and the ureter blocked by calculi. The case showed him the absolute necessity of ascertaining the condition of both kidneys before operation. Mr. W. G. RICHARDSON spoke, giving some cases illustrative of the value of the separator. In one case, in which clear water came from one kidney while almost pure pus came from the other, it was proved that the clear water was so deficient in urea that the other and apparently much more damaged kidney was really doing all the eliminatory work. In answer to the PRESIDENT, he explained that his experience had been with Luys's instrument. It took a long time to prepare the instrument, pass it and clean it afterwards—about one and a half hours on the average. It was rather painful in use, cocaine being needful. The PRESIDENT commented on the very beautiful specimens which had been shown, and in the name of the meeting thanked the members who had taken so much trouble.—Dr. EAST showed a case of Huntingdon's chorea, and went into detail on the case on account of its great rarity. Dr. BEATTIE and the PRESIDENT spoke on it.

Postponement of Paper.—Owing to shortness of time Mr. W. G. Richardson was asked to postpone his paper on some unusual causes of sciatica.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

H. T. BUTLIN, F.R.C.S., Vice-President, in the Chair.

Tuesday, May 9th, 1905.

CASE OF "SPLENOMEGALIC" OR "MYELOPATHIC" POLYCYTHAEMIA WITH TRUE PLETHORA AND ARTERIAL HYPERTONIA WITHOUT CYANOSIS.

DR. F. PARKES WEBER communicated this case in a Jewish woman, aged 37, who came under his care for acute erythromelalgia of the left foot. The percentage of red corpuscles and haemoglobin, the total volume, the viscosity, the specific gravity, and the arterial pressure of the blood were all found greatly increased. The abnormal variation in size of the erythrocytes, the presence of erythroblasts in the blood stream, the high percentage of polymorphonuclears in the differential count of white cells, as well as the appearance of the bone marrow in a similar case, all pointed to excessive functional activity in the bone marrow, but whether this was the primary morbid factor or not remained uncertain. The sequence of events in the production of the symptom-complex "splenomegalic polycythaemia" was probably as follows: Increased erythroblastic activity involving a great part, but not necessarily the whole, of the bone marrow; increased viscosity of the blood resulting from the polycythaemia; dilatation of small blood vessels, partly to lessen resistance to the abnormally viscous blood, partly to make more room for dilution of the blood; the "plethora vera" or "polyhaemia" was probably to be regarded as an attempt to compensate for the increased viscosity of the blood, and for the excessive percentage of the total blood volume occupied by the cells; the arterial hypertonia was to be regarded as a result of the greater strain thrown on the circulatory mechanism; cyanosis, when this occurred, was probably due to inadequacy of the series of compensatory changes which were supposed to precede it.

Dr. PURVES STEWART sent a letter (read by the SECRETARY) describing a similar case of polycythaemia.

Dr. G. A. GIBSON also sent a letter (which was read) arguing against a mechanical theory of the causation.

Dr. J. S. HALDANE agreed with the general account of the causation of the disease as due to an increased activity of the bone marrow. There was no reason, he thought, for predicating an increase in the plasma of the blood. Reference was made to the method of determining the blood volume by carbonic oxide. The patient was in the condition that might be produced in an animal by injecting into it the blood of another animal. It was to be regretted that it had not been possible to bleed this patient copiously.

Dr. A. J. WHITING referred to the enlargement of the spleen seen with increase in the bone marrow after artificial haemorrhage in animals. The spleen was rosy-red and friable and showed large numbers of nucleated red cells, erythroblasts and giant cells. Had the spleen been examined microscopically in any such case?

Dr. BOYCOTT, speaking from the point of view of the histology of the blood, considered that the condition was an entity and adverted to the characteristic features of the blood. The polymorphonuclear neutrophile leucocytes were greatly increased, which was peculiar he believed to this condition.

Dr. PARKES WEBER replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor JOHN CHIENE, C.B., President, in the Chair.

Wednesday, May 3rd, 1905.

WORD BLINDNESS.

DRS. J. V. PATERSON and EDWIN BRAMWELL read a paper on two cases of word blindness. In the first—that of a man, aged 63—there was complete word and almost complete letter blindness. Numerals were read much more readily than letters. The patient was able to write correctly only about one half of the letters of the alphabet. Right homonymous hemianopsia was present and also rigidity of the right arm and leg following a hemiplegia. Sensation of all kinds was unimpaired; intelligence remained good, and speech quite unaffected. The condition had lasted two and a half years, and blocking of the left posterior cerebral artery was thought to be most probably its cause. The second case was that of an intelligent man, aged 64, with a very defective memory, who was under treatment for cirrhosis of the kidney and chronic bronchitis. He had right homonymous hemianopsia and word and letter blindness. He understood perfectly everything said to him, and spoke fluently. He was able to read figures very much better than letters. His writing was only slightly impaired. Neither sensory nor motor paralysis existed. He died with uraemic symptoms, and at the autopsy a large area of cerebral softening was discovered, corresponding to the distribution of the posterior cerebral artery. The cortex in the region of the angular gyrus was not involved.

LEUKAEMIA AND X RAYS.

Dr. BYROM BRAMWELL showed a woman, aged 28, suffering from spleno-medullary leukaemia, whom he had submitted to treatment by *x* rays. At first this caused a swinging temperature and marked tenderness over the spleen. Gradual improvement, however, occurred, the spleen diminishing in

size and the white corpuscle count falling to 28,000; the proportion of myelocytes remained high. In another case which he related there had been corresponding improvement of special symptoms, but no general gain was effected, and the patient died.

MULTIPLE CHONDROMATA.

Mr. COTTERILL showed a man with multiple chondromata and chondrosarcoma. The chondromata affected nearly all the long bones, and were fairly symmetrical in distribution. Five months ago a chondrosarcoma began on the right ilium, and had already reached enormous dimensions.

EXTROVERSION OF THE BLADDER.

Mr. ALEXIS THOMSON showed a boy, aged 9, suffering from extroversion of the bladder, non-descent of the testes, and epispadias, in whom he had transplanted the ureters into the rectum (Peter's operation). Continence of urine began two days after the operation. The patient could retain his urine for eight hours during the night, and for four to six by day. There were no symptoms of infection of the kidneys occurring from the rectal communication established.

MEDICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Monday, May 8th, 1905.

DISCUSSION ON PROSTATECTOMY.

MR. REGINALD HARRISON opened this discussion. The use of perineal prostatectomy, in his experience, was almost entirely confined to partial removals of the gland. The advantage claimed for it in preserving intact the ejaculatory duct was somewhat problematical. A degree of incontinence of urine was not very uncommon after a completed perineal prostatectomy. The results of the method, he considered, did not compare favourably with those of total enucleation. Complete supraprostatectomy was, in his opinion, the operation of choice in the majority of cases. The advantages of the latter method were then considered in detail. Where the prostatic or even the membranous urethra had been destroyed or torn across in the course of the enucleation of the gland stricture did not usually follow, as had been anticipated, probably because of the free drainage provided. He had never found delay in healing follow the suprapubic operation provided that the drainage was sufficiently ample. The value of supraprostatectomy in allowing coexisting vesical stone to be detected in saccules and pouches of a presumed healthy bladder was emphasized. Partial supraprostatectomy had not, on the whole, proved a success. The partial success of such cases at one time largely discounted those in which success was complete. The mortality of the two operations was about 10 per cent., being probably slightly less after the perineal operation. The mortality might be considerably reduced in many instances by earlier prostatectomy, and by the exclusion of malignant and other unsuitable cases. The influence of vasectomy and orchidectomy in arresting or aborting prostatic overgrowth was alluded to.

Mr. BRUCE CLARKE, speaking from his own experience, agreed that the suprapubic operation was on the whole the more satisfactory under ordinary circumstances. It should be undertaken at as early a time as possible, which was gauged by the amount of obstruction, and not merely by the size of the prostate apart from occasional swelling. The best results were obtained if the right layer were at once got into, and for this purpose he had found it best to make an incision through the mucous membrane. The urethra in the vast majority of cases was torn across, and he had never seen the smallest harm follow; incontinence after was very unlikely to occur. There were a certain number of septic cases in which the combined perineal and suprapubic method was advisable, draining the bladder previously by the perineal route.

Mr. W. G. SPENCER spoke of cases in which he had found it imperatively necessary to relieve prostatic obstruction through the perineum. Such instances were seen in densely hard prostates with but slight enlargement and much transitory spasm. In any case, it became necessary to distinguish a simple diffuse fibroma from a scirrhous carcinoma. Illustrative cases were quoted, and details of the perineal operation were given. By avoiding the capsule all serious haemorrhage was prevented, and the aim was to remove the obstructing portion of the gland. The incision was a central semilunar one. In no instance did fistula occur. A growth benign at first, it was demonstrated, might become malignant.

Mr. P. J. FREYER said that prostatectomy by the perineal method did not affect the same cases as those attacked by the suprapubic method; the patients were much younger, and the prostates removed were much smaller. Whether or not the enlargement was malignant was difficult to diagnose both before and after removal. Injury of the rectum, incontinence of urine, stricture, was common in the perineal method with other accidents which did not occur with the suprapubic method. In his first 100 cases the mortality was 10 per cent.; in the next 85 it had been a little over 5 per cent.

Mr. H. T. HERRING referred to the mortality of the two methods, the question of drainage, the ease of the operation, and the after-effects produced. On the whole he favoured the suprapubic method, but he considered that the proper use of the sterile catheter was to be preferred in many cases to either.

Mr. C. W. MANSELL MOULLIN considered that the decision as to the suprapubic or perineal method depended on the prostate—whether it grew into the bladder or not. The suprapubic method gave the greater accessibility. By the perineal route the urethra and bladder should not be opened if the advantage of the method in regard to drainage was to be obtained. If the orifice of the bladder were patulous and the obstruction due to congestion, there was no indication for prostatectomy.

Mr. CUTHBERT WALLACE agreed that in the majority of cases the suprapubic method was preferable. Drainage was not a matter of much moment, and rapidity of healing was much the same in both; possibly the comfort of the patient was less interfered with after the perineal operation. It was important not to operate in the acute stage.

Dr. HEYWOOD SMITH described some favourable personal experiences of the suprapubic method.

Mr. THOMSON WALKER referred to the limits of the two operations, and said that in the majority of cases the suprapubic method was greatly to be preferred, especially in view of the rapidity with which it could be carried out.

Mr. JOHN PARDOE discussed the question of the suitability of particular cases for the operation of removal. Fixed prostates were usually malignant, and should be left.

HUNTERIAN SOCIETY.

F. J. SMITH, M.D., F.R.C.P., President, in the Chair.

Wednesday, April 26th, 1905.

DISCUSSION ON INFLUENZA.

THE discussion on influenza, introduced by Professor CLIFFORD ALLBUTT and Dr. FRANKLIN PARSONS (see BRITISH MEDICAL JOURNAL, May 6th), was continued by Dr. BULLOCH, who said the researches of bacteriologists culminated in 1892 with R. Pfeiffer's discovery of the haemophilic microbe since known as bacillus influenzae. Practically no new facts had been added to Pfeiffer's original discovery. After searching trials Dr. Bulloch had found that the bacillus only grew in the presence of haemoglobin, and that it was difficult to preserve the cultures alive. The important practical point in reference to Pfeiffer's bacillus was its parasitic character, which rendered its cultivation a matter of difficulty. It was very susceptible to drying, a fact which altogether negatived the supposition that influenza was carried to great distances by the air. The extreme temperatures at which the bacillus grew were 27° and 42° C. This showed that in temperate climates, at any rate, the microbe did not multiply outside the body of man. Influenza was a highly contagious disease, and in almost all cases was propagated directly from man to man. As Pfeiffer showed, the bacillus influenzae was found locally in the respiratory passages, and it was an extreme rarity to find it in the circulation. Under ordinary circumstances the general symptoms were those of intoxication. So far as was known the toxin was of the endocellular class, so that it was customary to assume that the poison diffused out of the body of the microbe to be absorbed into the circulation, and finally acted on the nervous system and other parts. In many cases those intoxication symptoms were quite the most striking phenomena in the disease, the local catarrhal process in the respiratory system being minimal. Dr. Bulloch then emphasized the fact that whereas in the early Nineties Pfeiffer's bacillus was frequently met with, it had in recent years become much rarer, although epidemics of catarrh—described as influenza—were still very prevalent. From his experience as a bacteriologist he had come to the conclusion that infections with Pfeiffer's bacillus were rare at the present day, an opinion which had also been expressed in other countries, notably France and America. He believed that what is called influenza clinically was not one disease, but probably a series

of diseases caused by different microbes, among which a prominent place had to be given to micrococcus catarrhalis and allied cocci. He referred to the spread of these catarrhal diseases, and emphasized the importance of the researches of Flügge and his assistants on their dissemination by microbic droplets in the form of spray discharged from the mouth and nose during coughing, sneezing, etc. The pandemic and epidemic characters of influenza were due to the extremely contagious character of the microbe, to the fact that the disposition in man was almost universal, and that the incubation period of the disease was very short. Cases of indirect infection must be regarded as rare. Referring to the important question of immunity, he said experiments on animals and observations in man showed that the immunity, if it existed, was of low degree, and at the same time slight duration. In all probability, however, some immunizing influences were at work, as in the course of time the microbe became attenuated. The history of pandemics showed a violent acute outburst affecting large percentages of the community, then after a few years, with intermittent local epidemics, the disease died down. It had been assumed that the microbe sank to the level of a secondary invader, or actually a saprophyte. The continued occurrence of epidemics of influenza was referable to the fact that the microbes could persist for long periods in the respiratory passages of people who have had the disease. With a disease so eminently contagious, and considering the innumerable chances of infection and the general disposition of man to the disease, a satisfactory prophylaxis was almost impossible. It was attempted only in special cases, such as in old people and in those suffering from catarrhal lung affections where the disposition would appear to be considerably increased. In private practice Dr. Bulloch considered that isolation as complete as possible was the only effective measure in preventing the spread of the disease.

Dr. T. GLOVER LYON said that, in view of what Dr. Bulloch had said, he thought two things happened: there was a fulmination of true influenza which diminished or fizzled out, and also the occurrence of epidemics of other diseases, which clinically simulated influenza, but depended on a different virus. He believed there had been a real change in the disease clinically. This was shown by the fact that when the epidemic of 1889 came to England it was quite a month before it was recognized as influenza at all, although many physicians had seen the epidemic of 1847. In describing the epidemic of 1889 authors gave nervous symptoms the first place, respiratory the second, and gastro-intestinal the third. In the descriptions of recent visits, such as 1892, the nervous symptoms had been put first, the gastro-intestinal and respiratory about equal. He suggested as a cause for this the fact that the influenzal poison attacked parts which were in a state of bad nutrition. At the time of the epidemics preceding 1889 people had "no nerves." Railways were a recent invention, and electricity was a mere plaything. The strain on the nerves since 1889 had enormously increased, and it was not surprising that nervous symptoms had come into prominence in recent epidemics of influenza. Of late years gastro-intestinal symptoms had come to the front, which might be explained by the fact that the feeding of English people had much deteriorated during the last twenty years in point of quality. In the old days nearly every one took his food at home at regular hours. At the present time a large number of people dine at cheap restaurants, where they got unwholesome food, badly cooked in dirty kitchens, which they ate hurriedly and irregularly. This change he believed accounted largely for the increase of symptoms in influenza referred to the gastro-intestinal tract. (He also thought, by the way, that it accounted for a good deal of appendicitis.) Other specific diseases affected the central nervous system, but he thought that influenza damaged much more than any other disease the brain and spinal cord. It might, clinically speaking, be called "centro-neural fever." Let us take a simple case. The attack was characterized by sudden mental and physical collapse, with pains referable to the nerve centres, out of all proportion to the general symptoms of fever present. In severe attacks in which its secondary symptoms occurred, it appeared to him these were due to a damaged central nervous system; either they were caused by it or they were very much modified by the damaged central nervous system throwing impulses on to the outlying parts. In febrile conditions there was usually a certain co-ordination between pulse, respiration and temperature, but in influenza this was often modified. There was, perhaps, a high temperature, a low pulse, slow respiration or other irregular combination. He had often found in cases of influenza crepitations at the base of the lung, what he would call a pseudo-pleurisy; here again he thought the central nervous system projected itself on to the pleura and the neighbouring lung. In gastro-intestinal cases there was gastrodynia, and, on the other hand, atonic dyspepsia. He did not think one could see many cases without feeling that the central nervous system played a very great part in these atonic cases of influenza. Again, the disappearance was often sudden. As to urinary symptoms, there sometimes was polyuria, vanishing suddenly, and in the cutaneous group urticaria, erythema, and erratic sweats. There could not be any doubt that these were of neurotic origin.

Dr. FORD ANDERSON said, in reference to what Professor Clifford Allbutt had said as to the special infectiousness of the catarrhal form of influenza, that was not quite his own experience. He was quite willing to admit that the catarrhal form of influenza was the most infectious, but he could not doubt the evidence with regard to the infectiousness of the other forms, at least in every case where there was a temperature; he thought that was the best guide. He had had reason to think that treatment by sprays was a preventive. He had used resorcin for spraying and quinine for gargling, and certainly the members of a family in which these had been used seemed to escape better than those in which they were not employed. But, however important these methods of protection were, there was nothing that in his opinion could take the place of isolation. A very frequent cause of influenza was the proximity of waiters and waitresses at dinner. They contracted influenza in their own houses, they went to the private houses in which they served, and in handing round the meat and drinks they communicated the disease to their masters and mistresses. He believed also that the same thing happened in theatres. There was a form of influenza that occurred particularly about last Christmas-time. So often did it occur amongst children who had been to see a certain play, that he asked in each new case whether they had been to that play. He had the swabbings from the throat bacteriologically examined, and found a staphylococcus and a streptococcus, and nothing else. With regard to treatment, although he used the salicylate of sodium, he distrusted it, because it was depressing and upsetting to the digestive organs. He generally preferred salicin as introduced by Maclagan in 20 gr. doses, with the addition of phenacetine, to reduce fever and to calm the nervous symptoms. But the sooner one got away from those antipyretics to quinine the better. Quinine, however, did not seem to him to suit cases of bronchopneumonia. In such cases he always gave digitalis, chloride of ammonium, and nux vomica, which he thought invaluable in bronchopneumonia. He wished to express the great benefit he had received from the use of Hill and Barnard's sphygmometer. He was quite sure that many of the troubles of influenza came from high arterial tension, and if one could only discover that in time by some instrument which was more acute than the finger danger might often be averted. If the arterial tension were high, then was the time for giving nitrite of sodium or trinitrine. To sum up, he thought it was a question, in treating influenza, of treating the symptoms, keeping always in mind the age of the patient, the amount of fever, and any idiosyncrasy of the patient.

Dr. HUMPHREYS said the heart troubles that occurred in connexion with influenza were, in his opinion, the most salient point of the whole series. In the earlier days—a year or two after 1889, it was a constant thing, when seeing patients, to find they were well in bed, and immediately they stood up on their feet they fell on the floor with acutely-dilated hearts. He had seen two or three cases in the course of a single morning's call where this occurred. The heart failure was associated also with the depression. During the earlier years of influenza the remedy he found of more avail than anything else was digitalis. Arguing from his own experience and many similar cases, he would say that though influenza showed marked attenuation in the majority of cases, yet others occurred which exhibited no diminution in severity of the symptoms.

Dr. SHADWELL said he thought that the cases of angina pectoris met with in influenza—even very severe cases—were essentially of neurotic origin. In many cases of neuralgia coming on after influenza, if the spine were examined an acutely-tender spot would be found, and if that tender spot were treated with a blister the pain was relieved in twenty-four hours or less, and in two or three days the neuralgia or

the neuritis was practically cured, beyond a little tenderness of the nerve.

The PRESIDENT as a physician could not say he had had any very enormous experience of influenza by itself, because the cases he had seen were generally those with so-called complications. He must confess that one was very much troubled to know what to do with them or for them. With regard to the food why should they pour milk and beef-tea down patients' throats because they chose to say that milk and beef-tea were particularly easily digestible? When it was a question of treating symptoms or treating the patient, what ought to be done was to try and meet the patient's wishes as far as possible. What was the first thing a patient who had been ill generally asked for? What was the first thing that made them think they were on the high road to recovery? A cup of tea and a bit of bread and butter! He was a great believer in a cup of tea. He used this kind of thing frequently in the wards in pneumonia and bronchitis where the patients had been fed on milk and beef-tea. To his mind the word "neurotic" should be reserved for those cases in which it was thought that will power was mainly at fault. As a consulting physician he had seen only a few cases, but he had read of a good many more, where meningitis was spoken of as occurring; meningitis was inferred from the acute pains in the head. He was never quite satisfied that there was any real inflammation there. He thought it possible there might have been a little neuritis of the nerves of the meninges; the pain did seem to be too persistently severe for pure and simple neuralgia. Yet if they were to believe that neuritis was actually present, it was rather difficult to explain the rather rapid or almost sudden recoveries in some of the cases.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, May 4th, 1905.

CONGENITAL CORNEAL INJURY.

DR. LESLIE BUCHANAN (Glasgow) read notes of two cases illustrating the late effects of birth injury to the cornea, and mentioned that he had recently seen a third. The conditions described closely resembled the lines of opacity seen by Buchanan and Thomson in cases of birth injury, and were in the nature of a refraction opacity which at first sight might be taken for a nebula or passed over altogether. The presence of a high degree of astigmatism in one eye only should, however, give rise to suspicion, and lead to examination of the back of the cornea and of the history.

MYOPIC CONUS.

Dr. LESLIE BUCHANAN, after demonstrating by a series of lantern slides the changes found histologically in cases of lesion of the choroid, showed that in certain cases of myopic conus there was more than a mere stretching of the choroid, a fibro-cellular formation being found in two cases on the surface of the elastic lamina.

Dr. A. H. H. SINCLAIR read a paper on Bjerrum's method of testing the field of vision, especially in relation to the diagnosis of glaucoma. He thought it had several advantages over the ordinary perimeter, for it could be used to investigate the condition of the field within its full limits, and often demonstrated minor or relative defects within the field of great clinical importance, and undemonstrable by other methods.

THE PUPILLARY MEMBRANE.

Dr. ARTHUR L. BALLANTYNE described the microscopical condition of the left eye of a fetus of seven or eight months, in which the pupillary membrane was almost complete, and adherent at one part to the posterior surface of the cornea. The iris was adherent to the cornea in the corresponding situation. The different layers of the cornea were normal, but at the place where the iris and pupillary membrane were adherent the endothelial lining of the anterior chamber was absent, though present elsewhere. The remains of the hyaloid artery and tunica vasculosa were also present. The author attributed the adhesion to an inflammatory process which had led to the destruction of parts of the endothelium of the anterior chamber, and consequently to an intimate adhesion of the walls of the anterior chamber at the affected parts. He had found fourteen cases recorded, and two theories were held to account for it. The one was that the cleavage of the mesoblast into substantia propria of the cornea was incomplete, and resulted in the apparent adhesion of the fully-developed membrane and cornea. The other corresponded to that suggested by the author in explanation of his own case.

PULSATING EXOPHTHALMOS.

Mr. S. JOHNSON TAYLOR related a case of pulsating exophthalmos in a patient aged 55. The condition came on after the receipt of a blow on the head from a fall four years ago. Proptosis occurred four weeks later, and she suffered severe pain with corneal ulceration, all of which became worse in spite of rest, iodide, etc. Consequently, Mr. Taylor tied the right common carotid about nine weeks after the injury, the operation resulting in a perfect and permanent cure.

OLDHAM MEDICAL SOCIETY.—At a meeting on April 18th, Dr. C. BROOMHEAD, President, in the chair, Dr. G. J. ROBERTSON showed: (1) A case of undescended testicle treated by separating the globus nerve of the epididymis, incising the bottom of the scrotum, and pulling the testicle through the incision, which was partially closed by sutures and the testicle secured to the skin; the operation was concluded by closing the inguinal canal; (2) a case of spermatorrhoea, with masturbation, excessive sexual indulgence, and hypochondriasis treated by removing the testicle on one side and performing vasectomy on the other; since the operation the patient looked better, was stouter, and was anxious to work.—Dr. J. B. LENDRUM showed a gall stone the size of a walnut removed from a case of intestinal obstruction. There was a history of gall-stone colic and the passage of small gall stones per anum. Finally the patient was seized with pain in the epigastrium and vomiting, which became faecal. An operation was performed and the stone removed from about the middle of the small intestine. There was a small faecal fistula for a time, but eventually the wound healed.—Dr. J. B. WILKINSON, Medical Officer of Health to Oldham, read some notes on small-pox. He was of opinion that the disease might occur without any rash at all (1) where it was mild from vaccination protection, and (2) so severe that the patient died before the rash came out. The diagnosis was a question of, perhaps, the greatest importance, and no one diagnostic point was sufficient. The presence of vaccination marks, the distribution of the rash on the face, wrists, and legs, the period of contact with other cases, the progression of the spots—were all important. He suggested marking the spots with an aniline pencil so as to watch their growth more accurately, and also pricking the vesicles. In small-pox they reformed, but in chicken-pox they disappeared. As to vaccination, he stated that (1) out of 1,200 cases he had seen, only one occurred in a person within ten years of vaccination; (2) out of 730 in the last few years in Oldham, not one occurred in a vaccinated child under 10 years of age; (3) and only two in similar persons under 15 years; (4) not a single death had occurred within twenty-five years of vaccination.

PATHOLOGICAL SOCIETY OF LONDON.—At a laboratory meeting at the Middlesex Hospital on Tuesday, May 2nd, Sir JOHN BURDON SANDERSON, Bart., F.R.S., President, in the chair, the following communications were made:—Dr. V. BONNEY: A note on nuclear changes in venereal warts.—Mr. A. G. R. FOULERTON: (1) A new species of streptothrix isolated from the air; (2) a case of squamous-celled carcinoma of the finger associated with frequent and prolonged exposure to *x* rays; (3) some further observations on the pathology of streptothrix infections.—Mr. GOODALL: Some pathological conditions occurring in the common frog.—Dr. C. R. LYSTER: An electric warm stage.—Mr. HILLIER: A self-regulating gas-heated warm stage.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on Tuesday, May 2nd, Miss THORNETT, M.D., showed a case of arteriovenous communication in the cavernous sinus. The case was interesting, owing to the very slight injury to which the lesion was attributed, the age of the child, 1 year only, the absence of many of the characteristic symptoms commonly produced by this lesion, and the failure of treatment. Both common carotid arteries had been tied, but so far, six months after the last operation, no amelioration of the exophthalmos had resulted. The possibility of further treatment by tying the left internal carotid artery was suggested.—Miss A. E. BROWN, M.D., mentioned a case of influenza in a woman of 62; the acute attack lasted six days, and four weeks after the onset difficulty in walking was noticed, increasing till the patient was unable to get out of bed. She complained of deep-seated pain in the muscles of the thighs and legs

which became acute on movement, and also of a sense of weakness and unsteadiness on walking. There was no oedema and no wasting of the muscles, nor change in sensation. The reflexes were brisk, no ankle clonus existing. Convalescence had been extremely slow, and at the end of eighteen weeks the patient could walk only a short distance and with great difficulty. The diagnosis suggested was toxic myasthenia.—Miss Thorne, F.R.C.S.I., showed a new sterilizer for swabs for abdominal operations. The drum of the sterilizer contained two trays with a separate compartment for each swab. The surgeon could readily see both before and after the operation that each compartment was filled, and therefore that the number of swabs was correct. Messrs. Bailey, of Oxford Street, had made the sterilizer, and had taken much trouble in carrying out Miss Thorne's wishes.

REVIEWS.

TAYLOR'S MEDICAL JURISPRUDENCE.

The fifth edition of Taylor's well known *Principles and Practice of Medical Jurisprudence*[1] will be welcomed both by medical men and lawyers, for the large number of important medico-legal cases that have occupied the courts during the last ten years has made it highly advisable that this standard work should be brought fully up to date.

Considering the nature of the demands made upon the student by the great increase in the amount of time that he has to devote to the more purely scientific aspects of his profession, it is small wonder that of late there has been a tendency to push aside subjects, like forensic medicine, which bear rather upon the application of acquired knowledge than upon the making of additions to that which is already known. All the more necessary is it, therefore, that the practitioner should be supplied with an up to-date work to which he can refer when he is called upon to uphold his right to the title of expert in the witness-box. Taylor's *Principles*, without doubt, has long been recognized as the standard work for this purpose; written originally by one who had had a wide experience in the courts, and in its later editions added to and amplified by Sir Thomas Stevenson, who probably has a more extensive knowledge of medico-legal work than any other man now living, it has always been remarkable for including very little that could be looked upon as either extraneous or unimportant on the one hand, and on the other for containing almost everything which it was expedient for the medical jurist to know.

Dr. Frederick Smith has carefully edited this edition, having, as he states in the preface, had the great advantage of the free use of all the material which the previous editor had collected during the interval which has elapsed since the appearance of the fourth edition in 1894. He has at the same time added a considerable quantity of new matter, necessitated by the many advances that have been made in chemical pathology, in bacteriology and in toxicology on the one hand, and on the other by the activity shown by legislators in attempting to extend the principle of employer's liability and generally to increase the amount of State control in various directions. Considering the amount of new matter, it seems at first somewhat surprising that the editor has not found it necessary materially to increase the number of pages. He has, however, by deleting the majority of the illustrations, by printing the records of cases as a rule in small type, and by the omission of many of the cases which have become superfluous, succeeded in maintaining the work at not much more than its previous size. He has further completely altered the plan of the book, having made it, in its arrangement, correspond more with that generally adopted in textbooks. This last alteration occasions some regret. The principle previously followed was to a great extent, not so much to illustrate the subject by cases, as to build upon the cases the superstructure of forensic medicine. The result is, that the new edition is less of a "lawbook" and more of a "textbook."

Certain subjects which have recently come especially to the front have been carefully dealt with. Such a one is professional secrecy. It is a constant source of anxiety to medical men to know how far their duty to the State should override their obligations to their patients. Dr. Smith discusses the matter, but he does not attempt to decide it, dismissing it with the remark that each case must be settled on its merits—reasonable if not very helpful advice. Identification by finger prints, a method much in favour with the police at the present moment, scarcely receives adequate consideration. If this method is to be of any permanent value it is essential that the examination should be in the hands of experts, and not left to the decision of inspectors. With regard to the precipitation test for the determination of the species from which a given specimen of blood has come, the view taken by the editor is, it seems to us, somewhat too optimistic. Material additions have been made to the section on gunshot wounds as the result of the experience gained in the South African war, but the special effects of the use of smokeless powder might have been discussed more in detail with advantage.

The importance in the present day of "life insurance" has been well recognized, and a short chapter has been added upon "accident insurance" and "workman's compensation." The last, however, is chiefly useful for the references it gives to other publications than for the material contained in the article itself.

In the toxicological portion, the chapter dealing with poisoning by arsenic has naturally been considerably altered and extended as a result of the researches undertaken in connexion with the inquiry by a Royal Commission upon the subject of arsenic in food. The editor has here, as in other subjects, rather confined himself to a critical summary of what other people have said than to any attempt to draw definite conclusions for himself. Poisoning by some of the more important of the drugs with which the German manufacturing chemists have flooded the market is fairly well dealt with, and a very valuable list of the poisons contained in some of the more widely known proprietary remedies and quack medicines has been added. The matters connected with poisoning by food might have been more fully considered with advantage.

As a whole, the editor has done his work with great care and discrimination; the cases he has omitted are not greatly to be regretted, and those he has added are in the main well chosen, adequately reported, and recent. New material has been supplied where necessary, and most of the noteworthy advances recently made have been duly chronicled. Yet we miss the old "Taylor," and cannot but feel that the sweeping changes in the characteristic features are by no means altogether improvements. The index is comprehensive, and, so far as we have tested it, accurate, and this will make reference easier to those who have been accustomed to make use of the earlier editions.

[1] *Taylor's Principles and Practice of Medical Jurisprudence.* Edited by Fred. J. Smith, M.A., M.D.Oxon. Fifth Edition. In two volumes. London: J. and A. Churchill. 1905. (Demy 8vo, pp. 1920. 36s.)

RELIGION AND HEALTH.

The interdependence of religion and health, which may both be regarded as inherent birthrights of mankind, is a broad fact which is generally accepted and which is capable of easy demonstration. The narrow creeds or pretentious dogmas which limit on the one hand the scope, and obscure on the other the essence, of true religion have their counterparts in the piecemeal legislation which is doled out to meet the requirements of the public health only when these become urgent enough to be dangerous, no less than in the extravagant virtues which are ascribed to every new remedy, and the pernicious notoriety which each successive "cure" immediately achieves through the medium of a sensational and indiscriminating lay press.

In an excellent monograph on *Religion and Health*,[2] Dr. Norman Porritt attempts, with very considerable success, to reconcile the laws of the one with those of the other, and to convince the reader of the need for both to ensure the possession of the *mens sana in corpore sano*. Every tissue of the body possesses an inherent power, the *vis medicatrix Naturae*, which causes it to struggle after health when beset by disease or injury. It may similarly be affirmed, according to Dr. Porritt, that man is morally endowed by Nature with an inborn desire to overcome evil and do good. "The bad man does not exist who has not at some time felt and indulged the longing for better things." This is another way of enforcing the Christian creed, which claims for every man a spiritual as well as a physical body. Both are endowed with an energy which intuitively strives after perfection, but which is constantly subjected to the buffets of disease and sin. Bodily health and personal religion are

[2] *Religion and Health: their Mutual Relationship and Influence.* By Norman Porritt, M.R.C.S., L.R.C.P., F.N.S.A., Consulting Surgeon, Huddersfield Infirmary. London: Skeffington and Son. 1905. (Crown 8vo, pp. 181. 3s. 6d. net.)

alike necessary for the fulfilment of a useful and well-ordered life, and though each is, in its own sphere, of supreme importance, there is between them a mutual tie which renders the one the indispensable associate and correlative of the other. Both are closely interwoven with the history of the human race from the first dawn of civilization.

It is not unlikely that Moses was indebted to early Egyptian teachings for the health laws which he promulgated as part of the Hebrew religion, and which are to a large extent responsible for the extraordinary vitality enjoyed by Jews to the present day. "There is convincing evidence," says Dr. Porritt, "that they (Jews) live longer and multiply more quickly than Gentiles, and are freer from diseases which decimate other classes." The leading explanation of this important fact is no doubt to be found in the food restrictions and other sanitary regulations which are rigorously enjoined, but their observance is secured by their inculcation as a religious duty. "The religion of the Jew enters into every act of his life. His regard for the Sabbath, his temperance, his control of his appetites, and the observance of the preventive and hygienic measures to be found in Leviticus, are made easy and clear, not because he knows that they are hygienically expedient, but because they come to him with all the force of Divine commands." A whole chapter is devoted to "the cult of Mrs. Baker Eddy," and with a caustic sarcasm worthy of a better cause the author demolishes the presumptuous and offensive arguments of the high priestess of Christian Science.

Dr. Porritt will find most social reformers in agreement with his view that the principal etiological factor in physical degeneration is alcohol. It is unfortunately only too true that mainly because of it children are deprived "not only of food, warmth, clothing, and comfortable housing, but of that parental oversight and care which are of first importance if we are to rear worthy, vigorous members of an imperial race."

The volume is a worthy plea for a higher standard of living, and will well repay perusal by all those who take interest in the great problems of existence. Dr. Porritt calls upon the Church—using the term in its broadest significance—to enter more into the service of the national health, and he appeals to the individual to arouse himself to a greater sense of his bodily and spiritual responsibilities: "Let man learn he has no more right to damage the form on which God has stamped His image than he has to debase the coin bearing the King's superscription, and the battle of health, as well as of religion, is more than half won."

GYNAECOLOGY.

THE profession will be gratified to read the new issue of the *Manual of Gynaecology*,[3] as eight years have elapsed since the preceding edition was published, and Drs. HART and BARBOUR continue their labours as teachers in the northern Athens. More ambitious but less experienced writers will do well to bear in mind that the new issue is shorter by seven pages than its predecessor, for the two recognized authorities who have compiled a textbook which is really wanted by tutors and students understand how to condense. Above all, the pages on operative surgery, the bugbear of teachers, are not overdone with details of specialists' modifications. The warning about the possible difficulties which may arise in the course of a hysterectomy for fibromyoma is well timed, and the authors are judicious in maintaining their opinion that the application of electricity to tumours of this class is in a great measure a treatment of symptoms. The paragraphs on inflammation of different parts of the mucosa of the genital tract have been well revised, and the same may be said of all the clinical and pathological portions of this edition. A few unfortunate oversights are to be detected. Thus Teacher's fine monograph on Chorion-epithelioma, usually known as deciduoma malignum, with its exhaustive table of references, is entirely overlooked. As it appeared in 1903 we presume that the authors of this new edition had already written their own very fair but incomplete review of the subject when Teacher's work, originally read before the once sceptical Obstetrical Society of London, became known to medical literature. Again, malignant disease of the ovary, though rightly described as of "comparatively frequent occurrence," is briefly dismissed in a statement that it "may occur either as primary carcinoma or sarcoma." There is a prevalent theory that the latter type is the more frequent, a theory supported by Bland-Sutton and other British authorities, but much contested by current German pathologists. Thus Martin states positively that three-quarters of the primary malignant tumours of the ovary in his own operative practice proved to be cancers, not sarcomas. Hence the authors' short sentence above quoted is not only insufficient, but misleading to the student, and indeed to all who have not specially studied the subject. The opinion of the authors on this subject would be welcome to the expert as well, and the same must be said of the Kossmann theory as to the origin of papilloma of the tube, ovary, and broad ligament, which is entirely excluded. It would have been interesting to read how far Drs. Hart and Barbour considered that it displaced, if it really does displace, Coblenz's doctrines. The great variation in the degree of malignancy of a papilloma should have been dwelt upon. The authors have rightly avoided cumbering their textbook with the discussion of abstruse pathological questions only to be judged by experience, but the subjects to which we have above referred concern all who study diseases of women, whilst, if a contested theory like that of Coblenz be introduced, some mention should be made of any more recent teaching that may confute it. In conclusion, we may say, as we did at the beginning of this notice, that we are glad to see a new edition of a work by authors who are current authorities and able teachers, a work well known and justly popular throughout the medical schools of the British empire.

Dr. MACNAUGHTON-JONES is determined to keep abreast of the times, as may be seen by a glance at the ninth edition of his *Practical Manual of Diseases of Women*.[4] It is an excellent compendium of all additions to the surgery, pathology, and therapeutics of its subject, and no care and expense has been spared to make it a distinct improvement on its immediate predecessor. The author's vigilance as to improvements in operative methods is already well known to us, but he extends his watchfulness to purely pathological subjects. If scientific matter be introduced at all into a practical manual, it should be treated clearly, and taken from original sources. The author has followed this rule, having in many instances applied direct to British and foreign pathologists, not contenting himself with simple quotations from their writings. The importance of original information about serious conditions such as tuberculosis of the genital tract, ectopic pregnancy, and chorion-epithelioma is manifest. Atmocausis, as practised by Pincus, is discussed fully, and we agree with that authority and the author of this textbook that this operation is not one to be lightly undertaken. Some of the new plates, such as the series demonstrating deciduoma malignum and its metastases, are of high excellence.

M. PIQUAUD has prepared a very substantial treatise on the degenerative changes in uterine fibroids[5] which is the result of the examination of several series of fibroids removed by M. Walther and M. Quénu at two hospitals in Paris. The pathological changes are classified under seven heads, described in detail and discussed in relation to the material under the author's observation and the opinion and experience of others. He detected distinct degeneration in forty-two fibroids submitted to him and the proportion of each variety of degenerative change was represented as follows: Fibrous degeneration, 11; oedematous, 7; calcareous, 6; sarcomatous, 5; and cystic, 4; suppuration, 1; complete necrobiosis, 1; and sloughing, 3; lastly, 4 cases in which cancer co-existed with fibroid are included. M. Piquaud has not detected a single case of fatty degeneration, and observes that the change has only twice been authenticated by the most accepted modern methods of research (Freund, Martin). The author distinguishes an angiomatous or telangiectatic degeneration, which he failed, however, to discover in any of his own series, so that he publishes Schwartz and Mermet's case in full. One subject in association with the pathology of fibroids is of general interest, namely, malignant degeneration. Once it was held to be very rare;

[3] *Manual of Gynaecology.* By D. Berry Hart, M.D., F.R.C.P.Edin., F.R.S Edin., Lecturer on Midwifery and Gynaecology, School of the Royal Colleges, Edinburgh, etc., and A. H Freeland Barbour, M.A., B.Sc., M.D., F.R.C.P.Edin., F.R.S Edin., Lecturer on Midwifery and Diseases of Women, School of the Royal Colleges, Edinburgh, etc. Sixth edition. Edinburgh and London: W. and A. K. Johnston. 1504. (Demy 8vo, pp. 770, 317 illustrations.)

[4] *Practical Manual of Diseases of Women and Uterine Therapeutics for Students and Practitioners.* By H. Macnaughton-Jones, M.D., M.Ch. Ninth edition. London: Baillière, Tindall, and Cox. 1904. (Demy 8vo, pp. 1082; 122 plates; 637 illustrations. 21s.)

[5] *Les Dégénérescences des Fibro-myomes de l'Utérus* [The Degenerative Changes in Uterine Fibroids]. Travail du Laboratoire du Dr. Quénu. Par G. Piquaud. Ancien interne lauréat des Hôpitaux, prosecteur provisoire à la Faculté de Médecine. Paris: G. Steinheil. 1905. (Demy 8vo, pp. 426; 36 illustrations. Fr. 12.)

now there is a prevalent belief that the contrary is the case, indeed one Russian authority rates the proportion according to histological evidence absurdly high when we compare it with clinical evidence gleaned from cases of fibroid left alone and cases submitted to panhysterectomy or to supracervical amputation. That in respect to the latter operation sarcomatous changes in the stump are not of extreme rarity there can be little or no doubt, but in few if any such cases is it certain that the fibroid previously removed was free from sarcomatous elements. The author has much to say on malignant degeneration, distinguishing it from complication with independent cancers and sarcomas. It is important both for pathologists and operators to note that M. Piquaud admits the existence of oedema properly so-called as a true and frequent type of degeneration. In fact, as has been observed above, he discovered it in a clear one-sixth of his entire series. The conclusions to be drawn are, first, that the pathologist must not mistake this change for myxomatous degeneration, and, secondly, that the operator when removing a big soft, juicy, vascular fibroid must not be unduly alarmed about malignancy.

APPLIED BACTERIOLOGY.

IN his *Manual of Serum Diagnosis*[6] Dr. ROSTOSKI has produced a book which should prove of distinct value to the practitioner who has no time to devote to laboratory work or extensive reading. In 86 pages of good-sized and clear print he has managed to describe adequately the chief methods of performing serum reactions, and to discuss concisely their significance in all the diseases in which they have so far been applied. Naturally the chapter on typhoid and paratyphoid fever is the longest, for it is in those diseases that the serum reaction has been most extensively studied. We agree with all the author's conclusions save one, namely, that a positive reaction must be ranked first of the cardinal symptoms of typhoid. We are of the opinion that he underestimates the number of cases in which a positive reaction occurs in diseases which clinically are not typhoid but are something else. We are not prepared to admit, for instance, that a case that has all the symptoms and runs the course of acute pneumonia, and yet gives a positive Widal's reaction, is necessarily a case of an unusual localization of the typhoid bacillus. But though we believe that such cases are more common than Dr. Rostoski supposes, yet they are not very common; so that taken in conjunction with other signs the reaction is valuable. Paratyphoid fever can be recognized only by the serum reaction. Its diagnosis is important from the point of view of prognosis, inasmuch as it is a less severe and fatal disease than typhoid. As for the other diseases—especially cholera and plague—serum reactions are valuable as aids towards identifying the micro-organisms rather than the diseases. The book contains a short but excellent chapter on the precipitins and their use in forensic medicine.

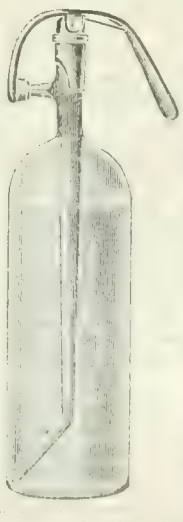
When we first made the acquaintance of FROST'S *Laboratory Guide in Elementary Bacteriology*[7] we were somewhat sceptical as to its utility, chiefly on the ground that the medical student did not appreciate a combined manual and note-book. The appearance of a third edition within three years from the date of the first is evidence that we were mistaken. The volume is divided into two parts, dealing respectively with general and medical bacteriology, six months being suggested as the period required for the work of each part. The general plan and scope of the work, excellent in themselves, do not differ in any way from those of the former issue; ten chapters supply the details for 109 "exercises" upon the morphology, physiology, and pathogenesis of bacteria and the systematic study of species, bacteriological analyses, clinical diagnosis, and a detailed study of the principal pathogenic bacteria, including both aërobes and anaërobes; whilst numerous blank pages enable the student to record his own notes. The directions for every exercise follow a definite plan; the technique to be employed and the reasons thereof are first briefly explained, and then follows the specific application the student is to work out—the latter, of course, variable according to circumstances or the individual fancy of the demonstrator who uses the book for class work. The numerous typographical and other errors alluded to in a previous notice of this work have for the most part been eliminated, although inaccuracies are still to be found—as, for example, the obvious confusion of Bunge's granules with Ernst'schenkorper in the method given for staining metachromatic granules. As it now stands the work forms a handy notebook guide for use in the bacteriological laboratory.

If any practitioner wishes to obtain in a short time and with little trouble a clear idea of the services that bacteriology has rendered to preventive medicine, he cannot do better than read Dr. NATTAN-LARRIER'S little book on preventive serum-therapeutics and bacterio-therapeutics.[8] He will find in it a considerable body of evidence in favour of the prophylactic use of antitoxic serums and the so-called bacterial vaccines, set forth with brevity, clearness, and discrimination. The diseases in which these agents have been employed as adjuncts to the ordinary preventive measures known to sanitary science are diphtheria, tetanus, typhoid fever, cholera, plague, yellow fever, and streptococcal infection. We agree with the author in thinking that the two last diseases can hardly yet be said to have been successfully treated in this way; and we also agree with him that, with respect to the remainder, judgement should be exercised as to when the serum or vaccine (as the case may be) should be employed. But that these agents are of value there can be no doubt; and for this reason only the reader cannot do better than consult this book.

NOTES ON BOOKS.

THE second edition of COLLIE and WIGHTMAN'S excellent textbook on *First Aid*,[9] the first edition of which was reviewed in the BRITISH MEDICAL JOURNAL of January 9th, 1904, has been enlarged by some twenty additional pages. Several new illustrations have been added, as well as a description, with photographs, of the fireman's lift for carrying helpless persons. The stretcher drill has been revised to bring it into correspondence with the present methods in use in the Royal Army Medical Corps. A few blank pages for students' notes are bound up in the body of the book, and some additional examination questions will help students to test their knowledge. The enlargement of the book has made it necessary to increase the price from 6d. to 8d.

MEDICAL AND SURGICAL APPLIANCES.



A New Ethyl-Chloride Siphon.—The annexed illustration represents a new form of siphon which has been brought out for use with the ethyl chloride prepared by Dr. Thilo of Mainz. The purity of this preparation is guaranteed by Dr. Bein, the Government analyst at Berlin, and is said to be so complete that the liquid is suitable for the production of either general or local anaesthesia, no unpleasant after-effects being produced. With the siphon illustrated a suitable spray can be produced without any necessity for slanting the bottle, or other awkward movement. The large curve at the top serves to prevent the bottle rolling if hastily replaced on the table during use. These bottles can be refilled. Thilo's ethyl chloride is also supplied by the sole agents, Messrs. Arnold and Son, of West Smithfield, in ordinary 50-gram tubes with screw tops.

[6] *Manual of Serum Diagnosis.* By Dr. O. Rostoski, University of Würtzburg. Authorized translation by Dr. Charles Bolduan. New York: John Wiley and Sons; and London: Chapman and Hall, 1904. (Cr. 8vo, pp. 86. 4s. 6d.)

[7] *A Laboratory Guide in Elementary Bacteriology.* By William Dodge Frost, Ph.D., Assistant Professor of Bacteriology, University of Wisconsin. Third edition. New York: The Macmillan Co.; and London: Macmillan and Co. 1904. (Demy 8vo, pp. 410, 41 illustrations, 2 plates. 7s.)

[8] *Les Médications Préventives, Sérothérapie et Bactério-thérapie.* [Preventive Measures of Serotherapeutics and Bacterio-therapeutics.] Par Dr. L. Nattan-Larrier. Paris: J. B. Baillière et Fils. 1905. (Crown 8vo, pp. 96. Fr. 1.50.)

[9] *First Aid to Accidents.* By R. J. Collie, M.D., and C. F. Wightman, F.R.C.S.Eng. Second edition. London: George Gill and Sons. (32mo, pp. 133. 8d.)

MEDICAL NEWS.

The King has appointed Mr. Charles Edwin Truman, M.R.C.S., to be dentist to his Majesty's household in the room of Mr. Edwin Thomas Truman, M.R.C.S., deceased.

The annual general meeting of the Medical Defence Union (Limited) will be held at the Medical Society's Rooms, 11, Chandos Street, W., on Thursday, May 25th, at 5 p.m., to receive the annual report for 1904, etc.

Sir Charles B. Ball, Honorary Surgeon to the King, has been appointed a Commissioner in Ireland, under the Educational Endowment Act, a position distinct from that of Commissioner of National Education.

Sir Wm. Ramsay, K.C.B., F.R.S., will preside at a dinner of the Glasgow University Club, London, to be held in the Trocadero Restaurant, Piccadilly Circus, on Friday, May 26th, at 7.15 p.m. Applications for tickets should be addressed to Dr. C. O. Hawthorne, 63, Harley Street, W.

The Commemoration Day proceedings of the Livingstone College will take place on Tuesday, May 23rd. They include a short meeting to be held in the grounds of the College, Leyton, E., at 3.30 p.m., when a statement as to the progress of this institution will be made by the Principal, Dr. C. F. Harford.

The officers of the Indian Medical Service will hold their annual dinner at the New Gaiety Restaurant, Strand, W.C., on Thursday, June 8th, when the chair will be taken by Surgeon-General James Cleghorn, C.S.I., at 7.45 p.m. Further particulars can be obtained from the Honorary Secretary, Lieutenant-Colonel P. J. Freyer, 46, Harley Street, W.

Dr. Charles Creighton, author of the *History of Epidemics in Britain*, will read a paper on Plague in India before the Indian Section of the Society of Arts on Thursday afternoon, May 18th. Dr. Creighton has recently visited India for the purpose of studying the general aspects of plague, and his paper, besides dealing with the present situation, will refer to the probable course of the infection according to historical precedent. The chair will be taken at 4.30 by Sir Dennis Fitzpatrick, member of the Council of India.

Successful Vaccination.—The Local Government Board has awarded Dr. W. F. Sheard, Public Vaccinator of the Putney District, £33 18s. for successful results in vaccination. Dr. Sheard has had nine previous awards.

The Epidemic of Typhoid Fever at Lincoln.—The number of notifications for the week ending Friday, May 5th, amounted to 5, the numbers for the preceding three weeks having been 21, 21, and 8 respectively. There is good reason to believe that the epidemic is practically at an end.

The Medico-Psychological Association.—The Council of the Medico-Psychological Association at its last meeting unanimously elected Dr. Outterson Wood to be President-elect in the room of the late Sir John Sibbald. The election has been accepted by Dr. Wood, who will therefore become President at the annual meeting in July next.

Medical Ethics.—A course of four lectures on medical ethics will be delivered in the Medical Lecture Theatre of the University of Birmingham by Professor R. Saundby, M.D., M.Sc., LL.D., F.R.C.P., on Thursdays, May 18th and 25th, June 1st and 8th, at 4 o'clock. Members of the medical profession and students of medicine are invited to attend.

Belgrave Hospital for Children.—The matinée given at the Pavilion Music Hall, with which the late Mr. Dan Leno was so long and closely connected, in order to raise funds for a Dan Leno Cot at the Belgrave Hospital for Children, realized over £300. The deceased artist was one of the vice-presidents of the institution.

Society for the Study of Disease in Children.—The Wightman lecturer for the year of the Society for the Study of Disease in Children is Dr. Henry Ashby of Manchester. He has selected as his subject "Some of the Neuroses of Early Life," and will deliver the lecture at the Society's rooms, 11, Chandos Street, W., on Friday next at 5 30 p.m. Any member of the medical profession is at liberty to attend.

The Prevention of Insanity.—At the sixty-first session of the American Medico-Psychological Association held recently, the principal question discussed was the part that might be played by legislation in the prevention of insanity. Dr. H. W. Miller expressed the view that the State should control the marriage of persons afflicted with mental disease.

King's College Hospital.—Following the advice of their assessor, Mr. Plumbe, the King's College Hospital Removal Committee has awarded the first place to the design sent in by Mr. W. A. Pite, R.I.B.A., of the firm of Messrs. Pite and Balfour. The Committee has appointed Mr. Pite to act as the architect of the new hospital buildings.

Dermatological Society of Great Britain and Ireland.—The annual general meeting will take place at 11, Chandos Street, Cavendish Square, W., on Wednesday, May 24th, at 4.30 p.m., Dr. Henry Waldo, President, in the chair. Professor McCall Anderson will deliver the oration on A Plea for the more General Use of Tuberculin by the Profession. Members of the medical profession interested in the subject are invited to attend.

Hospital Sunday Fund.—Mr. George Herring has offered the Council of the Hospital Sunday Fund a choice between a cheque for £10,000 and an addition of 5s. to each £1 collected in places of worship on June 25th next, his total liability in the latter case being limited to £25,000. The Council has chosen the latter alternative, this being the seventh year in succession in which it has received and accepted a similar munificent offer from the same source.

Bequests to Medical Charities.—By the will of the late Miss Hannah Beswick of Mossley, which has now been proved, direct bequests of £1,000 each are made to the following institutions: The Royal Infirmary, Ashton-under-Lyne; the Royal Infirmary, Manchester; the Manchester Eye Hospital, and the Henshaw Blind Asylum at Old Trafford. In addition, these institutions are to share equally in the residue of the deceased's estate, and will thus have divided between them a further sum of about £18,000.

Sussex Medical Benevolent Society.—The first meeting of the Sussex Medical Benevolent Society was held at the Dispensary, Queen's Road, Brighton, on Tuesday, May 9th, those present being Drs. Bailey, Bowring, Vere Benson (Lewes), Campbell (Hastings), Chaffey, Dodd, Gordon Dill, Frazer, Hillyer (East Grinstead), Hobhouse, Meyer (Hurst), Morgan, Parry, Prowse, Simpson, and Turton. Mr. Turton was elected President, Dr. Uhthoff was appointed Treasurer, and Dr. A. H. Parry Honorary Secretary. The objects of the Society (the membership of which is limited to members of the medical profession) are to aid the widows and children of members dying in indigent circumstances, to assist such members as are incapacitated from practising, and to help the children of members who are so incapacitated. The Secretary reported that eighty-nine doctors in Sussex had already joined, and that he hoped now the Society had a good start the numbers would rapidly increase. The subscription is £1 1s. per annum, and any medical practitioner in the county is eligible for membership.

Medical Sickness and Accident Society.—The usual monthly meeting of the Executive Committee of the Medical Sickness Annuity and Life Assurance Society was held at 429, Strand, London, W.C., on April 28th. In the absence of Dr. de Havilland Hall the chair was taken by Dr. J. Brindley James. The sickness claims are still somewhat numerous, but there is a distinct improvement in the records over those of the first three months of the year, and the experience of the current quarter so far does not materially differ from what is expected in the spring. The annual report, which by this time is in the hands of the members, was considered. The annual general meeting will be held at 11, Chandos Street, Cavendish Square, London, on May 18th, at 5 p.m. The report shows that the business of the Society is steadily growing. In the sickness branch, though over £10,000 was paid away in claims during the year 1904, the sickness fund increased to the extent of nearly £5,000; the total number of weeks of sickness was a trifle under the expectation. The annuity and life assurance funds have also increased although no new business has been done in these branches for many years. As usual a large saving was effected in the management, but nearly all this (£830 10s.) was given away as cash bonuses to those members who have reached age 65 in sickness benefit. A large addition has also been made to the Investment Fluctuation Reserve Fund, and the whole assets of the society have grown from £176,647 to £186,658. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

British Medical Journal.

SATURDAY, MAY 13TH, 1905.

THE DOCTOR IN MODERN WARFARE.

WELLINGTON, though unlike his mighty foeman he took little personal interest in his sick and wounded, had the sense to perceive that the organization of victory depends largely on the maintenance of troops in full physical vigour. He used to boast that whatever might be his merits as a general he was at any rate a first-rate commissariat officer. To his superiority over the French in this respect he attributed his success. With a large mindedness which has been conspicuously absent in some of those who have come after him, he recognized the military value of the work done by his medical staff. In his day, however, preventive medicine was still in its infancy, and destructive pestilences were, like hospital gangrene, accepted as among the inevitable conditions of war. Now the means of preventing such scourges are known to sanitarians, but the lesson that it is the first duty of a general in the field to use those means has not yet penetrated the military mind in our own and most other countries that call themselves civilized.

For proof of this statement we need look no farther back than the beginning of the present year. It is notorious that the establishment of a new order of things, founded on a recognition of the fact that the prevention of disease is the primary and vital function of the medical service of the army, was so vehemently opposed by the military authorities that the strongest pressure from high quarters was needed to bring it into being. How little they have even now taken to heart the teaching of our terrible experience in South Africa is shown by the readiness with which they fall back into the old ways as soon as any scare that galvanizes them into an appearance of activity dies out. Only one "modern instance" need be cited. Three years ago the Advisory Board recommended that lectures on military sanitation should be given to the cadets at Woolwich and Sandhurst and to the officers going through the special course of training at the Staff College. It can scarcely be denied that at the present day an intelligent grasp of the sanitary problems which must inevitably arise in a campaign is an essential part of the training of an officer; it is indeed the want of such knowledge in military commanders of the old school that has been the cause of immense waste of life and terrible disasters. These courses have been given during the last two years, and it speaks well for the intelligence of the future officers of the British army that they were thoroughly interested in the subject and fully appreciated the value of the lectures. Now the War Office, for no apparent reason, has reduced the lectures to a number that makes anything like an adequate treatment of the subject impossible. It is the old, old story. South Africa is forgotten, and Manchuria is a long way off; why, then, trouble about things as to which Parliament and the public are alike indifferent? The certai consequences of this short-sighted policy if we should unfortunately be involved in a great war—and in this time of political earthquakes who shall say what a day may bring forth?—have been pointed out over and over again in this JOURNAL. But the men to whose hands is entrusted the defence of the country seem to be smitten with blindness in regard to the health of the fighting machines under their direction. Could anything prove this more convincingly than the intention with which that impetuous reformer Sir John Fisher is credited of replacing the specially trained medical service of the navy by civilians who will "sign on" for five years, and, after they have got such experience as can be gained in that time, will make room for another batch of raw hands?

Of the disasters brought upon forces in the field by imperfect equipment in the means of defence against disease a most instructive example is presented by the Russian army in Manchuria. It is well known that General Kuropatkin's movements were seriously crippled by the prevalence of disease among his troops, and there can be little doubt that the inadequate provision for the proper care of the sick and wounded has been a main cause of the defeat of the Russians. Providence, as Napoleon said, is on the side of the big battalions. But if, through want of efficiency in the medical arrangements, men who could be made fit to serve again are allowed to die or to become useless, the biggest battalions must in time shrink to a degree that will make them an easy prey to a more intelligently-directed enemy. This, indeed, seems to us the great military lesson of the war, and, blind as are our authorities, they might, as Lear says, see how the world goes in this direction without eyes.

How well the Japanese understand the part played by the doctor in modern warfare has already been pointed out in the JOURNAL. Some additional details are given by Anita Newcomb McGee, M.D., in the May number of the *Century Magazine*. As supervisor of nurses at the great base hospital at Hiroshima, on hospital ships, and at hospitals on the Yalu River she had ample opportunities of observing, to use her own words, "how the Japanese save lives." Among the many thousands of patients treated at the Hiroshima Hospital before the end of September, there were only fifty deaths of men suffering from typhoid, and a large proportion of these deaths were, she says, actually due to beri-beri, wounds, or other complications. The explanation of this low rate of mortality is, first of all, the great attention paid to sanitation; every case is treated as contagious and rigorously isolated. Dr. McGee further mentions the daily consumption by every soldier of several creosote pills as having contributed to the result. In the Hiroshima Hospital, where only serious cases of wounds, especially those requiring operation, are received, the results of surgical treatment are equally remarkable. Of more than 3,000 such patients received up to the end of September, only 47 died. Even more notable is the saving of limbs, for although the hospital is the chief operating centre for the whole Japanese army, only 19 amputations were performed there in a period of three months, and of these 5 were of fingers only.

From the figures available Dr. McGee estimates the total number of deaths from wounds of the whole army of Japan during the year after the declaration of war to have been less than 40,000. When one reads, she says, of 10,000 casualties in a prolonged battle, it means, on the average, that approximately one-fifth, or 2,000 men, are killed on

the field and as many more die of their wounds as to bring the total deaths to about one-third the casualties, or 3,300. Probably 2,500 or more of the wounded are able to walk from the battlefield without assistance, and of these 1,500 recover in the field hospitals and soon return to active service. The remainder of the casualties (5,200) are sent to Japan (almost all to Hiroshima), and either they are found incapacitated for further fighting, or, after a varying period in hospital and health resort, they return to take their place at the front again in Manchuria. Probably only from twenty to thirty of these men are operated on before reaching Japan (generally in order to stop haemorrhage), and several times that number require operation at Hiroshima. A fact which goes to show that the bayonet is by no means an obsolete weapon is that it was responsible for 7 per cent. of all wounds. In the Japanese army, for every 100 men killed outright about 66 wounded die, and almost all these deaths occur before the men can be sent beyond the field hospitals—in other words, the men recorded as dying from wounds are killed by bullet or steel, not by microbes or want of proper treatment. According to Dr. McGee, these results are chiefly due to the intelligent use of the package of sterilized bandages which every soldier carries, and to the rule of not operating on the field. Among the wounded Russian prisoners, on the other hand, in scarcely any case had a regular dressing been applied; they had bandaged themselves with pieces of dirty underclothing, and consequently their wounds were in a shockingly septic state.

Still more striking testimony to the efficiency of the Japanese medical service came from Sir Frederick Treves at the dinner of the Japan Society held on May 3rd. That distinguished surgeon said the Japanese were helping us to solve many of the problems which had been a terror to all European armies. British troops entered a war with many determinations. One was to have 10 per cent. sick. This was what they were accustomed to—and they got it. Now the Japanese were quite content with 1 per cent. sick, and they got it. Sir Frederick Treves did not say how our allies achieved this result. We will therefore venture to suggest an explanation. It is not that the Japanese are superior to us in the practice of the healing art, but simply that they apply the knowledge which they have learnt from Western nations more effectively to the necessities and emergencies of war.

The first object of the Japanese medical service is to keep the soldiers in good fighting condition. The Chief Surgeon with the United States force in the China Relief Expedition in 1900 reported that the organization of the Japanese provided three skilled medical officers to take care of their sick and wounded for every two provided by any other contingent, and this without taking into account the supplementary *personnel* of the Red Cross Society.

To sum up: Japan has given to the world a striking proof of the inestimable value to an army in the field of a large and well-organized medical department; she has also taught the still more important lesson that the efforts of the military sanitarian to be effective must be supported by the officers and by the men. The appreciation of the value of sanitary measures is a part of the Japanese military training; this is the secret of their unparalleled results in the saving of lives. We have seen how much the authorities of our own fighting forces stand in need of education as to this matter. Once more, therefore, we earnestly invite their attention to the great object lesson now being given by Japan.

RE-EDUCATION.

THE aim of every form of education is the creation of an automatic mechanism whereby what is learned by gradual and laborious methods becomes a matter of easy and almost unconscious expression. This automatic facility is possessed in varying degrees by different individuals according to their capacity for learning, the educational opportunities afforded to them, and the harmony with which their various psychical, sensory, and motor processes are brought into relationship with one another. In idiots and imbeciles synergic acts are more or less impossible, and between them and the ordinary persons of normal intellectual and physical development, there intervenes an endless variety of individuals who are imperfectly balanced. Moreover, the results of accident or disease may lead, in one direction or another, to disturbance of the integrity of the educated mechanism in virtue of which what is regarded as a normal standard is maintained.

A natural instinct gropes after measures for the relief of such disabilities, and from the earliest history of medicine attempts have been made to cope with them by a variety of measures adapted to their cure or alleviation. In a book just published Dr. Contet, of Paris,[1] gives a readable and comprehensive account of processes by which it is at the present day possible, through a system of carefully-planned re-education, to improve the condition of initial faulty automatism, or to restore it when it has become disturbed sequentially to tissue changes. The book is divided into four parts, the question of re-education being considered respectively in its psychical, motor, sensory, and organic aspects; and a final chapter is added bearing upon the value of the system as applied to idiocy.

Dr. Contet believes, and there are many who will agree with him, that all the neuroses should be grouped together under one common name, and he suggests as a generic title "psychasthenia." In the matter of treatment he emphasizes the value of isolation, rest and feeding, but expresses little confidence in drugs, electricity, or balneotherapeutics. His methods are practically those of Weir Mitchell, but he believes that sufficient regard is not paid to the personal influence of the medical attendant and of the nurses. The imperative need of getting the patient's willing and whole-hearted co-operation is also, he insists, of first importance. "Si le médecin peut beaucoup avec lui, il ne peut rien sans lui." In Dr. Contet's experience, patients suffering from alcoholism or drug habits derive more benefit from treatment conducted on these lines and based on an attempt to re-educate their powers of self-control than by confinement in retreats.

The idea which governs his conception of motor re-education is thus expressed: "Man is capable of learning other methods of progression than by walking; he can learn other languages than his mother tongue; why, then, should it not be possible for him to re-learn to speak or to re-establish a new neuro-motor system of walking, when, from one cause or another, these functions come to be disarranged?" This corresponds with the theory on which Fraenkel's methods are applied to the improvement of inco-ordination in cases of locomotor ataxia, and on which attempts are made to restore speech in aphasic conditions. Several chapters are devoted to the various means which may be employed for the re-education of the special senses,

[1] *Les Méthodes de Ré-éducation en Thérapeutique* (Ré-éducation Psychique, Motrice, Sensorielle et Organique.) Par le Docteur Contet. Paris: Vigot Frères. 1905. (Demy 8vo, pp. 268. Fr. 3.50.)

and in the part of the book dealing with organic disease the author has much that is new and suggestive to say in regard to the value of re-education in various forms of respiratory, circulatory, and excretory disorders. In dealing with the management of imbeciles and idiots, special prominence is given to the medico-pedagogic system of Bourneville. The book is pleasantly written, and may be recommended not only to those who are interested in the subject of re-education as a measure of therapeutic importance in special diseases such as imbecility, aphasia, or locomotor ataxia, but to all who have to encounter—and what physician is there who has not?—conditions of functional or organic disorder in which the normal psychomotor automatism is deranged either by excess or default.

WESTERN MEDICINE IN CHINA.

EXCELLENT work has been done by the College of Medicine for the Chinese at Hong Kong, but the chief agencies in the introduction of Western medicine into China are the medical organizations of the various missionary societies. More than 100 hospitals and dispensaries, served by about twice that number of medical missionaries, have been opened by these societies throughout the Celestial Empire. At these institutions about 300,000 out-patients are seen every year, and about 30,000 in-patients are treated in the wards. The number of operations performed is very large. For the working of these hospitals and dispensaries native assistants, male and female, are needed. Hitherto these helpers have received their training in the hospitals, but schools are now being established in various centres where they will receive a sound medical training. At a general meeting of the China Medical Missionary Association, a body composed of some 200 medical men and women from Europe and America, held at Shanghai in February, 1905, a resolution was passed expressing great satisfaction at the formation of Union Medical Colleges in Peking, Canton, and Shanghai, and at the proposed foundation of another in Central Chantung, and urging the various missions working in China to use their utmost endeavours toward the formation of similar schools in other large centres.

Only an inconsiderable proportion of the candidates for admission to these schools have gained a sufficient knowledge of English to enable them to profit by teaching imparted in our language: hence the need has arisen for good textbooks of medical science written in Chinese. Hitherto few books of any kind have been available, and such as there were have mostly been out of date. Moreover, as there was no fixed and accepted terminology, each translator practically coined his own vocabulary. The result was chaos and black night, in which the teacher and the taught groped blindly without coming into touch with each other. To remedy this evil, the China Medical Missionary Association some years ago appointed a Committee to prepare a standard list of terms used in medicine and the ancillary sciences. That Committee has now, we understand, almost completed its labours.

The question of terminology having been settled, the next step is the publication of a series of textbooks of medical science with the aid of which Chinese students can be taught the principles of rational medicine. It is gratifying that this matter, too, has been grappled with by the China Medical Missionary Association. At a meeting recently held at Shanghai, a Publication Committee was appointed to arrange for the preparation and issue of such textbooks as are required, and also for the publication of a medical journal in Chinese. It was decided to place at the disposal of the committee four-fifths of any funds remaining to the credit of the Association at the end of each year, and the Committee was further empowered to appeal for voluntary contributions in aid of the important work with which it has been entrusted.

The first work published by the Committee is Professor Halliburton's *Handbook of Physiology*, a translation of which by Dr. Philip B. Cousland, of Chao-Chow-Fu, Swatow, happened to be ready for the printer. We regret that we are unable to express or to form any opinion as to the merits of the translation, but it is interesting to see the familiar textbook in its Chinese dress. The blocks were all cut in Shanghai by native workmen, and considering the thinness of the paper on which they are printed, the illustrations come out well. We understand that in this respect the work marks a distinct advance on anything of the kind previously done in China. The book has been produced under difficulties of which stay-at-home authors can have little conception. Owing to the distance of Dr. Cousland's station from Shanghai, the transmission and return of each set of proofs occupied on an average about three weeks.

As funds allow the China Medical Missionary Association will publish translations of other textbooks of established reputation; already arrangements are being made for the acquisition of a volume on therapeutics. Although Professor Halliburton's book is the first that has been issued under the auspices of the Association, a translation of Gray's *Anatomy* by an American physician, Dr. Whitney, was published some years ago, and, we believe, has lately been reissued in a revised form.

It is a matter of legitimate gratification to us that the writings of British authors should be chosen to be vehicles for the introduction of Western medical science into China. Medicine, as we have often taken occasion to point out, is the greatest of civilizing agencies, and there can be no better means of hastening the day of awakening for China than to strike the mind of its people, held fast for so many centuries in the sleep of ignorance and superstition, with the shaft of scientific light.

THE PHYSICAL EFFECTS OF ALCOHOL.

AT a meeting of the Women's Union of the Church of England Temperance Society, held on May 4th, Sir Frederick Treves delivered an address on the physical effects of the use of alcohol. He said that alcohol was of course distinctly a poison. Like other poisons, it had certain uses, but the restrictions on its use should be as strict as on arsenic, opium, and strychnine. It was a curiously insidious poison, producing effects which seemed to be only relieved by taking more of it—a remark which applied to morphine or opium. Alcohol, said Sir Frederick Treves, had a certain position as a medicine, but in the last twenty-five years its use by the medical profession had steadily diminished. It was often said that alcohol was an excellent appetizer, but the appetite did not need artificial stimulation; if the body wanted feeding it demanded food. Instead of aiding digestion, alcohol hindered that process, even when taken in small amounts. Again, it was supposed to be strengthening, whereas it curiously modified the nourishment of the body, and to reach the acme of physical condition was impossible if any alcohol was used. Its stimulating effect was only momentary, and after that had passed off the capacity for work fell enormously. Alcohol, as it were, brought up the whole of the reserve forces of the body and threw them into action, and when these were used up there was nothing to fall back upon. It dissipated rather than conserved bodily energy. As a work-producer it was exceedingly

extravagant, and might lead to a physical bankruptcy. In saying this he was not speaking of excessive drinking. It was a curious fact that troops could not march on alcohol. In the Ladysmith relief column, which he accompanied, the first men to drop out were the men who drank. The fact was as clear as if they had all had labels on their backs. In regard to the circulation alcohol increased the heart-beat and reddened the skin by using up the body's reserve power, but then the heart's action became weaker, a temporary effect being got at an enormous cost. The action of alcohol on the central nervous system was that of a functional poison, first stimulating it and then depressing. The higher nervous centres went first, becoming slightly dulled. The man who worked on even a moderate amount of alcohol was not at his best. Fine work could not be done under that condition. The use of alcohol was absolutely inconsistent with a surgeon's work, or with any work demanding quick and alert judgement. He was much struck by the number of professional men who for that reason had discontinued the use of alcohol in the middle of the day. Referring to the notion that alcohol kept out the cold, Sir Frederick Treves quoted a great authority who stated that alcohol really lowered the temperature of the body by increased loss of heat, and to some extent by increased oxidation, and much reduced the power of the body to resist cold. Finally, men could not be "fit" if they took alcohol. It was simply preposterous to suppose that any young healthy person needed any alcohol whatever; he was much better without even the smallest amount of it. Having spent the greater part of his life operating, he would say, with Sir James Paget, that of all people those he dreaded to operate on were the drinkers. In conclusion, Sir Frederick expressed the hope that what he had said would help his hearers to answer such absolute fallacies as "a glass of port can do you no harm."

DINNER TO DR. C. O. FOWLER.

DR. FOWLER, of Croydon, who a few weeks ago triumphantly vindicated his character in one of those cases that illustrate the risks to which all medical practitioners are liable, was entertained by his professional brethren at a congratulatory dinner on May 4th. The arrangements were in the hands of Dr. C. M. Fegen, one of the original promoters of the London and Counties Medical Protection Society. Dr. H. G. Thompson, J.P., occupied the chair, and among those present were Dr. George Heron, Chairman, and Dr. Hugh Woods, General Secretary, of the London and Counties Medical Protection Society; Dr. Robert Boxall; Dr. T. R. Adams, J.P., Dr. T. Jackson, J.P., Dr. Parsons-Smith, J.P., Dr. J. H. Galton, Dr. P. F. Duncan, and a large number of members of the profession. After the customary loyal toasts, the Chairman proposed the health of the guest of the evening. Dr. Fowler, in acknowledgement, said that during the past fourteen months he had lived in a terrible nightmare, and if it had not been for the support of his fellow practitioners in Croydon, and the very material help and support of the London and Counties Medical Protection Society, he really did not know what he should have done. Financially, the society had proved of the greatest benefit to him, and the knowledge which the society possessed in the conduct of these matters was of great assistance in proving his innocence. He also wished to thank the solicitors, Messrs. Le Brasseur and Oakley, who were kindness itself. During the terrible days of the trial he was supported by members of the Council occupying high professional positions, such as Dr. Heron, who sat next to him in Court and helped him in every possible way he could. Dr. Hugh Woods, the Secretary of the Society, had also been very kind to him. He urged upon the members of the profession the necessity of joining the London and Counties Medical Protection Society, which he considered as necessary for them as insuring their lives against death, accident, or illness. It had saved his professional existence, for had he lost the case it would have been a living death for him; he might have been buried alive so far as his future was concerned. The toast of "The Two Defence Societies" was proposed by Dr. Parsons-Smith, and was responded to in suitable terms by Dr. G. Heron and Dr. Galton.

THE TRAINING OF MIDWIVES.

THE expediency of providing an institution in Birmingham for the training of midwives, in imitation of Manchester, Liverpool, and other large cities, was discussed at a meeting of the Birmingham Lying-in Charity, held at the Council House on May 4th. It was stated that of the 297 women who were practising in Birmingham last year only 247 had been registered, and it was doubtful if more than 200 would be capable of obtaining the certificate. It was therefore evident that in a very short time there would be a deficiency of about 100 women, and to meet this a proper course of training must be provided for suitable women without delay. This work the Charity proposes to undertake. The Charity already employs six certificated midwives, and nine pupils have been trained during the past eight months. Application has been made to the Central Midwives Board for recognition as a training centre for Birmingham and the district, but this will not be granted until the Charity has a nursing home, where the pupils can complete their training by attending difficult cases, in which special treatment is necessary. Such a home is said to be urgently needed for the sake of the patients, for there is no institution in Birmingham where serious maternity cases requiring operation can be received. A piece of land has been purchased in a central position, and £5,000 collected towards the building of a small home. At least £3,000 is still required, and the Committee is making an appeal to the public for assistance. Sir Hallewell Rogers, who presided over a large attendance, which included the Lady Mayoress, Bishop Gore, and representatives from the Warwickshire, Worcestershire, and Staffordshire County Councils, said that, in his opinion, no appeal had ever been made in Birmingham on behalf of a philanthropic object more pressing, more necessary, and more practical than this. Among the speakers in support of the society's appeal was Dr. F. H. Champneys, who said that on the midwives of the future depended very largely our capacity as a nation for maintaining our position in the world. Birmingham had the opportunity of building the finest lying-in hospital in the country. Dr. E. Malins also spoke, and, on the motion of Alderman Cooke, seconded by the Lady Mayoress, a resolution was passed pledging the meeting to support the scheme of the Lying-in Charity. Bishop Gore supported the resolution.

THE ABUSE OF MEDICAL CERTIFICATES.

THE want of due sense of responsibility with which medical certificates are sometimes given is not without example in this country, but we have never heard of a case that could be compared with one which has recently occurred in France, where the consequences were most serious for an innocent person. Dr. F., while "interne" at the Hôtel-Dieu in 1898, operated upon a patient for hydrocele for which the patient gave his written authorization. In 1901 legal proceedings were begun against Dr. F., which have lasted up to the present year, and terminated only in March last. These various lawsuits on the part of a hospital patient were rendered possible by the existence in France of a philanthropic institution for supplying legal aid to poor persons, but its help could not have been secured had his assertions not been supported by medical certificates which stated that his condition was the result of a badly performed operation. It appears that these certificates were given without any examination of the patient, under the impression that the operation had been performed by a quack, and the doctors excused themselves by saying that they had done it out of charity in order to help a man who seemed in a very pitiable condition. This exposure is undoubtedly calculated to discredit the authority of medical certificates, but it is pointed out that those who give them render themselves liable to actions at law when, as in this case, they have been prejudicial to a third person.

[1] *Gazette des Hôpitaux*, No. 48, 1905.

In another recent case in France a medical practitioner was fined 500 francs for giving a married woman a false certificate testifying that certain lesions observed by him were caused by her husband. Here also the doctor had pleaded that he gave the certificate out of pity, but admitted that he had certified to facts for which he had only the patient's word. A medical certificate is a solemn declaration which should be no more given from motives of pity or charity if unsupported by actual observation than we should testify falsely on oath in the witness box, out of sympathy with a prisoner.

INFLUENZA AND MASS MORTALITY.

THE annual report for 1904 of Dr. A. R. Reynolds, Commissioner of Health for Chicago, gives an interesting bird's-eye view of the health of the city during the past two decades. In the first of these the mean annual death-rate was equal to 20.2 deaths in every thousand of the population, and in the second it fell to only 15.1. It is the mortality in the 1 to 5 age-group which is commonly accepted as the best test of the health conditions under which a community lives, and of the efficiency of its sanitary administration, so it is satisfactory to note that the major part of the fall is due to the saving of life among the child population. A number of clear diagrams illustrative of the comparative prevalence in the two periods of different zymotic diseases is given, but the main interest of the report lies in Dr. Reynolds's statement in respect of influenza. Excepting, he says, in the case of cancer, the death-rate from which has increased by 22.8 per cent., every one of the important causes of death which show an increase on the second decade can be traced clearly to the malign influence of the demon influenza, which has been constantly present throughout the period. Its direct mortality has increased by 145 per cent., but this he says is but a drop in the ocean compared with its effect in paving the way for other diseases. As an example, he quotes pneumonia, which caused 16,244 in the first decade and 31,283 in the second; it is now conceded, he says, that influenza is one of the most potent predisposing causes of pneumonia. Bright's disease also shows a heavy increase, and this is a common sequela of pneumonia in its time. The same remarks are made about heart disease, the mortality from which has more than doubled.

TELEPHONES AND TUBERCULOSIS.

IN his monthly report to his authority, Dr. W. Collingridge, Medical Officer of Health for the City of London, lays one more of the bogeys which from time to time are raised to make a cheap sensation. Statements appeared in various quarters that telephone call offices constituted a danger to the public because these who used them might, through the mouthpieces, become infected with tuberculosis or diphtheria. Determining to investigate the matter, Dr. Collingridge, with the sanction of the Telephone Company, removed mouthpieces (to the number of twelve) from various call offices in the city, and sent them to Dr. Klein for bacteriological investigation. The latter, after conducting experiments with guinea-pigs, reported that none of the mouthpieces submitted contained either tubercle or diphtheria bacilli. Dr. Collingridge therefore concludes that there is no real risk in the use of the telephone at public call offices so far as infectious disease is concerned, and that the alarm which has been raised has no foundation in fact. He has not, however, overlooked one really objectionable feature of call offices, namely, that they are very badly ventilated and frequently, moreover, so constructed as to be not easy to clean. He states that the company has undertaken to attend to this matter. If this be done, and ordinary care be used in keeping the call boxes themselves, as well as the telephone mouthpieces, free from accumulations of dust, members of the public may once more rest happy in the assurance that in using a telephone they run no other risk than that of losing their temper. This danger is one which exists in connexion with this otherwise exceptionally valuable instrument wherever placed, and it must be admitted to be really great. The loss of temper would even appear occasionally to be so complete that cases recently have been reported—from America and elsewhere—in which callers who have failed to "get on" have committed suicide on the spot by way of avenging themselves upon the Exchange which has omitted to assist them. Presumably in these instances the telephonic exasperation has merely been the last straw which has broken the camel's back—or, in other words, finally upset an already ill-balanced nervous system. Any alternative supposition would seem to indicate that telephone companies may eventually feel bound to demand from the would-be caller proof of the possession of a philosophic temperament as well as of a twopenny fee.

PRISON REFORM.

IN the BRITISH MEDICAL JOURNAL of August 20th, 1904, some account was given of an interesting experiment in prison reform made by Miss Smith-Rossie. She gave lectures, with practical demonstrations on nursing, the care of children, and domestic hygiene, to the female prisoners in Portsmouth Prison. So successful did the experiment prove that the Home Secretary has since sanctioned the adoption of the system on a large scale at Holloway. Eager to gain further experience by the study of what is being done elsewhere, Miss Smith-Rossie recently visited La Petite Roquette, the special children's prison of Paris. Miss Smith-Rossie, who is, we believe, the only woman who has ever been allowed to inspect the inside of the Paris prisons, did not approve of everything she saw there. The discipline seemed to her too severe in the case of petty offenders and too lax in that of great criminals. To one point in which they are conspicuously superior to ours, she bears emphatic testimony. In the French prisons the prisoners' own desire to accomplish good work, which she holds to be the first step towards any real reform, is stimulated by a system of small rewards. In British prisons, where bad work is punished but good work brings no mitigation of the prisoner's lot, "the least possible" is the ideal aimed at in discharging the prescribed tasks. In Paris, on the contrary, prisoners strive to do the most they can, simply because they derive direct benefit from their labour. They are paid by contractors a small sum daily in proportion to the work done, and this money can be spent by the prisoner on little dainties in the way of food and drink wherewith to supplement the prison fare. This is a very different thing from the British system, under which the small sums earned by good conduct are paid only when they have worked out their sentence. According to Miss Smith-Rossie the results of the system of rewards is excellent. The inmates of French prisons work at their tasks with all their heart, and thus they learn a love of good work which in many cases remains with them as an abiding possession. We think the system might be introduced into our own prisons with the greatest advantage, and we invite the attention of reformers and philanthropists to an article published in the current number of *Good Words* in which Miss Smith-Rossie gives a full account of the French plan and its practical working.

AMERICAN PHYSICAL EDUCATION ASSOCIATION.

THE annual meeting of the American Physical Education Association was held recently in New York. It opened on April 17th with an address from Dr. Luther Halsey Gulick, director of physical training in the New York Public Schools, on "Rhythm and Education." He insisted on the importance of alternate periods of activity and rest in life. He pointed out that children's play followed the same periodicity games being taken up and dropped at certain seasons and he expressed the belief that many works of genius were produced under the same law. Continuous work, he said, fatigued the brain cells, and if intense activity were too long continued, the result was that genius subsided to the level of mediocrity. Dr. Gulick's doctrine, in fact, might be summed up in the familiar proverb that all work and no play makes Jack a dull boy. Among the subjects discussed was the usefulness of dancing in the

physical training of boys and girls. Miss Caroline Crawford, of the Teachers' College, urged that little children should be allowed to dance in the gymnasium. As she tersely put it: "Let them do the kind of dancing that they like best, and it will probably be found to be the kind that is performed to the accompaniment of Indian tunes. Let them do Indian war dances. Give the tots a chance to get their exercise in a way that they like best, and it will be found to be the most beneficial to them." Dr. George L. Meylan, physical director of Columbia University, in speaking about marks for proficiency in physical education, said vitality was much more desirable than strength. Vitality and endurance were correlated, and efforts were being made to establish endurance tests. No satisfactory vitality test had yet been found. Professor Frank Boaz, of Columbia University, spoke on "The Significance of Epochs in Growth and Development." He exhibited a chart, representing the results of many years' investigations, which showed at what age average persons reached certain stages of development. Forty-four and a half years was indicated as the point at which the first approach of senility was noticed, but the age varied greatly with different persons. Another matter discussed was the use of gymnastics for the restoration of health. A committee was appointed to discuss the advisability of forming a permanent organization in connexion with the American Association. It was announced that the National Anthropometric Association intends to get measurements through the Young Women's Christian Association branches, colleges, and schools of America, of 40,000 men and women, in order to determine the exact proportions of the national type.

THE PARASITIC THEORY OF CANCER.

In an address[1] recently delivered before the Berlin Medical Society, Professor E. von Leyden upholds his belief in the parasitic origin of cancer. Referring to recent observations on the wide dissemination of cancer in the animal kingdom, Professor von Leyden urges that the majority of these cases have been found in domestic animals which are in close contact with man. We can, he thinks, go still further and say that a large number of the animals affected with cancer were found in the neighbourhood of infirmaries or pathological institutes. He refers to cases of cancer amongst rats, cats, dogs, horses, and oxen, and contrasts these with animals in the wild state, amongst which, he alleges, genuine cases of cancer are unknown. In further support of the suggestion that cancer is due to an infection from man, reference is made to the opinion expressed by many writers that the negro in Africa is naturally free from cancer, whereas the American negroes suffer from the disease just as much as the white races with which they are in contact. After calling attention to reported instances of the direct transference of cancer from man to man, the so-called "cancer à deux," the lecturer discusses the significance of experimental transference of the disease from animal to animal of the same species, or from one part of the body to another. These experiments, when successful, are often criticized as being cases merely of transplantation, which ought not to be regarded as equivalent to true infection. This objection is considered by Professor von Leyden to be unfair and invalid. If the material transferred merely continued its existence without altering its essential characters, that would be transplantation and nothing more; but when the material not only proliferates but produces a progressive and ultimately fatal disease, we have every right to regard the experiment as a genuine inoculation with a specific infection. We find the cancer parasite, according to Professor von Leyden, as an intracellular organism distinguishable from other cell inclusions by its characteristic appearance, which is compared to a bird's eye. In consequence of the frequently raised objection that these bodies are merely vacuoles, leucocytes, lymphocytes, or nuclear débris, he has pursued his investigations further, and is now able to reaffirm his opinion that the bodies he regards as specific are distinguishable from all these non-specific varieties of cellular inclusions. As the existence of the parasite is essentially intracellular, it is unreasonable to suppose that it is able to survive for long outside of cancer cells, and still more unreasonable to demand that it must be shown to fulfil the same experimental conditions as the tubercle bacilli—namely, cultivation on artificial media, and production of the specific disease by inoculation of these cultures. At the conclusion of his address Professor von Leyden makes an interesting allusion to the chemical work which is being carried on in his laboratories for cancer research. These investigations are bringing out important differences between the composition of cancerous tissue and that of normal cellular material. Both the melanotic pigment and certain albuminous compounds which occur in malignant disease are quite different from anything hitherto found in the normal body. The action of normal digestive ferments upon cancer cells is also different from that exercised upon normal cells, the cells in malignant disease being susceptible in an exceptionally high degree to tryptic digestion. Finally, a ferment has been found by Blumenthal in cancer cells which does not dissolve cells of the cancerous type alone, but attacks all the cells of the body with equal vigour, whereas the ferments of normal cells only exercise an autolytic action upon the albuminous constituents of the particular type of cell from which they are derived.

[1] *Ueber die parasitäre Theorie in der Aetiologie der Krebse.* Berlin: August Hirschwald. 1905. (80 Pfg.)

HOSPITALS AND WELL-TO-DO PATIENTS.

In the course of an action for damages which was tried before Mr. Justice Darling last week it transpired that the plaintiff, a well-to-do man, had been taken as an accident case to a metropolitan hospital and had there received the treatment which his injuries required. In his comments on the case, which was eventually won by the plaintiff, Mr. Justice Darling drew attention to the fact that in the statement of claim there was no entry of anything having been paid to the hospital in question in return for the services rendered. Hospitals, he said, were primarily intended for the necessitous poor, and though it was perfectly right under the circumstances that the plaintiff should have been admitted and treated, it was not right that well-to-do men such as the plaintiff, even though they were involuntary patients, should fail to make a pecuniary acknowledgement of the benefits which they thus received. He considered the matter of public interest and desired the reporters present to give currency to his observations. It is, of course, one of the primary and admitted duties of general hospitals to receive and deal in some efficient manner with cases of street accident, irrespective of the class and means of the sufferer, but undoubtedly Mr. Justice Darling is correct in his conception of the course which the well-to-do should adopt under such circumstances.

CEREBRO-SPINAL FEVER.

The attention of those who are interested in cerebro-spinal fever may well be directed to the nineteenth volume of the *Transactions of the Association of American Physicians.*[1] Among the large number of good papers on general medicine which it contains, and which were read at the annual meeting of this Association last year, will be found one on the clinical features of cerebro-spinal meningitis, or cerebro-spinal fever of the epidemic type, by Dr. Henry Koplik of New York. What is ordinarily called etiology is not dealt with, but the general pathology is sufficiently considered and treatment discussed at some length. The majority of Dr. Koplik's cases were among very young children; this may possibly account for the comparative and abnormal uniformity of symptomatology which is observable in his cases, and may possibly leave a misleading impression as to the period of life at which the disease is likely to be encountered. In epidemics, as a rule, the principal

[1] Philadelphia: Published by the Association. 1904. (Demy 8vo. pp. 584.)

incidence has not been either on the very young or on the very old, but on those at the most robust or early adult stages of existence. The paper would be notable at the present moment if for nothing else than the fact that its opening paragraphs reveals the falsity of the conception that the recent outbreak in New York constitutes anything in the way of a really new departure. Dr. Koplik mentions incidentally that for the past five years there have been yearly outbreaks of the disease in New York, and that there was an extensive epidemic just a year ago. For the rest, the only point calling for special notice is the fact that Dr. Koplik agrees both with Still and with Nuttall in regarding the cases of posterior basic meningitis commonly met with in young children as examples of cerebro-spinal fever in a sporadic form, and as a disease directly due to a diplococcus indistinguishable from that of Weichselbaum.

THE FIGHT AGAINST CEREBRO-SPINAL MENINGITIS IN NEW YORK.

IN addition to the appointment of a commission of eminent men to investigate the pathology and epidemiology of cerebro-spinal meningitis, the New York Department of Health has organized a corps of medical inspectors for the sanitary supervision of the disease in the borough of Manhattan. It is the duty of these inspectors to attend to the isolation and quarantine of patients at their homes, to order the disinfection of premises and bedding, and to report as to the sanitary condition of the premises, and any violations of the sanitary code. They are all men of special experience, and their services are at the disposal of any practitioner who may require assistance in the diagnosis of suspected cases. To a practitioner trained in such work has been assigned the performance of lumbar puncture in these cases, at the request of the attending physician. The Department of Health advises that lumbar puncture should be done in all cases where practicable, both as an aid to diagnosis and as a means of obtaining more material for bacteriological study and consequent advancement of knowledge.

MEASLES AND EDUCATION.

THE annual report of the medical officer to the Altofts (Normanton) Urban Council, Dr. MacKenzie, contains a strong indictment of the practice of encouraging the attendance at school of children below the age of 6 years. It suits the parents because it gets these infants temporarily out of their way, and it suits the schools because of the grants thereby accruing. But it does not suit the children in any way; their after mental and physical development is stunted by too early pressure, and in particular it exposes them to attacks of measles just at the ages at which this disease proves most fatal. Thus it happens, Dr. MacKenzie argues, that measles remains a disease which kills about as many children as small-pox, diphtheria, and gastric fever put together; nor, he adds, is the financial side of the question to be forgotten and the enormous addition to the education rate which provision for these infants entails. Finally, he says, if all children under 6 were excluded from school, universal notification adopted, and healthy children kept away from sick households, measles, instead of being as now the most dangerous of infectious diseases, would become the least so, and children would grow up better educated, and stronger and healthier, both morally and physically, than now. The question of the attendance of children at school at these very early ages is one upon which medical opinion is not perhaps entirely agreed, but of late it has appeared to be crystallizing in the direction indicated by the report quoted. In view of the fact that in Switzerland, an exceptionally well-educated country, the earliest school age is 7—as mentioned in one of the recent articles on School Hygiene which we are now publishing—the practice in England is certainly not one that can be defended upon educational grounds alone, while the above is a sample of the medical indictments to which it is exposed.

WHAT IS AN ACCIDENT?

THE legal definition of the term "accident" is a matter which has given rise to some considerable discussion in the law courts. In its popular sense the phrase denotes some fortuitous and unexpected injury of a violent nature, but in defining the phrase for the purpose of administering the Workmen's Compensation Act, the judges seem to be inclined to go further than this. For instance, the House of Lords held that a woolsorter who was infected with anthrax in the course of employment was entitled to compensation on the ground that he had sustained an accident. A recent case in the Court of Appeal goes to show that the term "accident" as used in the Workmen's Compensation Act will have the same meaning as in a policy of insurance against accidents. It appeared that a stevedore who was subject to epileptic fits was employed upon a vessel loading coal. It was his duty to stand on the edge of the hatchway and to guide the buckets as they went up and down. While so standing on the edge the stevedore was seized with a fit. He fell into the hold of the vessel, and was injured. It was contended that he had sustained injury by accident arising out of and in the course of his employment, and that he was thereupon entitled to compensation. The employers, however, urged that the primary cause of the fall was idiopathic disease, that is, epilepsy, and that unless the applicant could show that that disease arose out of his employment, he could not succeed. The Court of Appeal, however, decided that they had merely looked at the *causa proxima* of the accident, which was the fall into the hold, and that it being the duty of the applicant to stand near the hold, he had sustained injury in the course of his employment. They therefore made an award in his favour. In giving this definition of the term "accident," the Lords Justices followed an old case where an epileptic fell into the water while crossing a shallow stream. Being unable to help himself he was drowned. His relatives preferred a claim under a policy of insurance against death by accident. The Court held that an accident had occasioned the death, although the policy contained a clause to the effect that the company should not be liable for death "from any other disease or secondary cause arising within the system before or at the time of following the accidental injury." The moral of the case in the Court of Appeal is that an employer must have regard to the general health as well as to the age of any workman whom he employs, for it is clear that he will be liable to pay compensation even where the more serious consequences of an accident were occasioned by the fact that the workman was suffering from some physical defect.

MEDICAL MEN AND INFECTIOUS DISORDERS.

FOR medical men to catch infectious disorders in the course of their duties is very common, and when they do so they often die more readily than the average man, the disease attacking them when exhausted by their labours. For a medical man, however, to die of small-pox, or even to acquire the disease at all, is rare. It is natural, therefore, that several correspondents should have expressed themselves desirous of learning more of the circumstances under which the late Dr. Connell—of whom a short obituary notice was published in the BRITISH MEDICAL JOURNAL of May 6th, page 1021—came to meet with his death. We are indebted for our knowledge of them to the courtesy of Dr. Thomas Sharples, of Lostock Hall, who was a neighbour of the deceased, and who attended him during his fatal illness. Early in April Dr. Connell had on his hands a case of an exceptionally mild type of discrete small-pox. Towards its termination Dr. Connell himself began to feel tired, and, experiencing a general feeling of weariness, he thought he had a mild attack of influenza. On April 20th, however, he felt sufficiently ill to consult Dr. Sharples, thinking he must be going to have scarlet fever. Dr. Sharples saw him the same day and found that he had a temperature of 103° F. and a slight sore throat, while his face, hands, arms, and back were covered with an erythematous rash. Dr. Sharples, on visiting him again next

morning, found a number of distinct spots which were commencing to be vesicular, and thereupon pronounced the case to be one of small-pox, and had it removed to the Isolation Hospital. There he visited Dr. Connell again in the evening, and found that the spots had increased in number and extent of vesiculation, and that while many of them coalesced, the interspaces were occupied by haemorrhagic patches. From this date the extreme gravity of the case and its marked haemorrhagic character were apparent. The body became covered with petechiae, and blood was passed with the urine. Delirium remained slight throughout, but exhaustion was early and complete, and the patient died on the sixth day from general blood poisoning and profound weakness. The question of vaccination in connexion with this case is natually one of interest, since it is to effective revaccination that medical men and the staffs of small-pox hospitals owe what has become almost proverbial immunity from small-pox. In this case revaccination had never been performed, and the evidence of even satisfactory primary vaccination is not very good. Dr. Connell was born in India, and said that he had been vaccinated in that country at the age of 5, but we gather from Dr. Sharples's communication that he did not find any marks. On the point of revaccination there is no doubt; he had never been revaccinated, and when, early in his attendance upon the initial case, the desirability of this precaution was suggested to him, he replied that he could not be bothered with the operation, and that he had no fear of taking the disease. Later on, and when too late, he expressed his regret that he had never taken the small trouble entailed by this precaution. This case, therefore, involves no departure from the general rule; for if Dr. Connell had ever been efficiently vaccinated at all, it was a single operation, and thirty-three years had since elapsed. Another lesson which is pressed home by the sad event is that of the potential malignancy of the disease whenever those exposed to it have failed to protect themselves; for here we have a case of the worst or haemorrhagic type following from contact with one of exceptional lightness.

A PECULIAR SKIN DISEASE.

Dr. Hans Ziemann describes[1] a peculiar skin disease which he has found amongst the negroes on the West Coast of Africa. He was not aware, whilst pursuing his investigations, that anything like it had previously been recorded, but recently his attention had been called to a paragraph in Sir Harry H. Johnston's monograph on *British Central Africa*, where a description of an interesting form of leucoderma is given, which, Dr. Ziemann admits, presents certain analogies to the West African disease. The disease described by Dr. Ziemann is characterized by the appearance of round, oval, or irregularly-shaped patches of a bright, pale, yellowish-red colour on the skin of the extensor and flexor surfaces of the hands and feet. The predominant colour of the affected areas is of a whitish tinge, and the general aspect may be compared to that of extensive superficial burns which have healed without the formation of granulation tissue. The disease begins at the age of from 10 to 15 years; its course is symmetrical, either attacking the hands first and then the feet, or the feet first and the hands afterwards, or both at the same time. The progress of the disease is extremely chronic. Dr. Ziemann has never seen more than four-fifths of the surface of the hands or feet affected with pigment atrophy, and at this stage the process appeared to have terminated. The flexor surfaces appear to be more extensively affected than the extensor. Another characteristic of the disease is that the pigment atrophy is practically confined to the hands and feet, only a slight further extension being noticeable after the lapse of ten, fifteen, or twenty years. There is a gradual and more or less complete loss of pigment in the hairs situated in the atrophied regions. Sensibility appears to be normal; at least, Dr. Ziemann has not been able to ascertain any impairment in the sensations of either touch, temperature, or pain; nor was there any alteration in the muscle sense. The sweat glands in the affected areas were normal. The electrical reactions of the affected limbs were normal, and there was no evidence in any part of the body of any lesions affecting either the nervous system, the blood, or the excretory functions.

[1] *Arch. f. Dermat. u. Syphilis*, Bd. 74, H. 2, N. 3.

LEPROSY IN BRITISH INDIA.[1]

Mr. Wellesley C. Bailey, Superintendent of the Mission to Lepers in India and the East, has contributed an interesting survey of leprosy in British India to the *Transactions* of the International Congress of Dermatology held recently in Berlin. In it he reviews the increase or decrease of the disease since the first International Conference on Leprosy met in Berlin in 1897, and expresses the opinion that the real figures relating to the leper population of our great dependency are immensely in excess of the numbers given in the official returns. With regard to the methods employed in dealing with the disease, after touching on the Leper Acts he goes on to show that the Government and the philanthropic institutions are co-operating to this end, and with good results. An encouraging feature of the efforts made in India is the segregation of the children of lepers, a most important step from the point of view of prophylaxis. Mr. Bailey does not touch on medical questions, as not coming within his province as a layman. As to this point, those interested in the matter will find many details in the exhaustive report on leprosy in the British Empire supplied by Mr. George Pernet, and printed in the first volume of the Congress's *Transactions*. Mr. Pernet insists in his conclusions on the enormous mass of leprosy with which the British have to cope, and on the magnitude of the task when the number and variety of the native races, the hugeness of the population, and the vastness of the area under the sway of the English are considered.

[1] *Leprosy in British India*. By W. C. Bailey. Edinburgh and London: William Blackwood and Sons. 1904. (Demy 8vo, pp. 48.)

AMERICA'S FAREWELL TO PROFESSOR OSLER.

A farewell banquet was given in honour of Professor Osler on May 3rd. Some five hundred medical practitioners from all parts of the United States and Canada were present. Many speeches in honour of the new Regius Professor of Medicine at Oxford were delivered, and in reply Dr. Osler said that his ideal had been to build up a great American clinic on the lines of those in Germany, which he looked upon as being in the forefront in the intricate problems of internal medicine. Much had already been accomplished in that direction, and he expressed the belief that with a good equipment more good professional work could be accomplished in America in five years than could be accomplished in Germany in ten.

In the Supplement for this week is published the provisional agenda for the Annual Representative Meeting to be held at Leicester in July next. It also contains notices of Branch and Division meetings to be held, a list of medical vacancies, the diary, and the Association calendar.

The Annual Oration before the Medical Society of London will be delivered by Mr. Henry Morris on May 15th at 9 p.m. on the financial relation existing between the London hospitals and the associated medical schools, and the bearing of these relations on medical education in London. The guests will be received by the President at 8 30 p.m., and at 8 45 the Fothergillian Medal will be presented to Sir Frederick Treves.

We are asked to state that the next dinner of the Edinburgh University Club of London will take place at the Criterion Restaurant on Wednesday, May 24th, when the Right Hon. Lord Robertson will occupy the chair. Among those who have accepted invitations from the club are the President of the Royal College of Surgeons, the President of the General Medical Council, Surgeon-General Keogh, and Mr. Anthony Hope Hawkins.

MEDICAL NOTES IN PARLIAMENT.

[BY OUR LOBBY CORRESPONDENTS.]

The Sanitation of the House of Commons.—On Thursday in last week, when the vote for £56,700 for the Houses of Parliament buildings was considered in Committee of Supply, several members indulged in the annual grumble about the sanitary condition and the ventilation of the House. Mr. Harwood moved a reduction of £100, to call attention to "the miserable social accommodation provided for the members," and Mr. Wylie followed with a criticism on health grounds. While he admitted that there had been improvement, he contended that there was insufficient distribution of air in the Chamber, and that the system of forcing the air up through the floor was radically wrong. The air was altogether too dry, and he quoted Dr. Gordon's report in support of this view. He asked for overhead ventilation. Sir J. Fergusson described the ventilation as unpleasant, uncertain, and injurious. Sir G. Bartley, on the other hand, thought the ventilation was good. He complained of the great increase of expenditure; this year they were spending over £27,000 on warming, ventilating, and lighting, while ten years ago the cost was £15 000, and twenty years ago only £13,000. Major Seeley asked that a little more fresh air might be given, which cost nothing, and advocated more open windows. Mr. Dillon said that open windows were not a solution of the problem of ventilation. The recent report of an outside expert contravened the report of the Committee of three years back. He objected to ventilation through the floor as necessarily unhealthy on account of the dust brought in on members' feet. Lord Balcarres, as representing the Board of Works, defended the ventilation of the Chamber; Dr. Gordon had been called in by the First Commissioner of Works, and his report in no way condemned the present system, which had been examined by expert after expert and found to be specially suited to the requirements. The Committee appointed to make further inquiry consisted of the member for London University, Dr. Haldane, and Dr. Gordon, and their report might be expected before the winter. No owner of a public hall or theatre or incumbent of a church would dare to submit their buildings to the bacteriological tests to which they had submitted the House of Commons, unless they were prepared for a panic on the part of the audience or congregation. After some other criticisms and complaints, Mr. Patrick O'Brien said that a room ought to be provided for use in case a member was taken ill, and that telephonic communication should be established with Westminster Hospital to meet any case of urgency. Lord Balcarres said it was impossible to set aside a room for this purpose, but that the Serjeant-at-Arms authorized him to say that his rooms were available at all hours for a member taken ill. The telephonic communication with Westminster Hospital he hoped might be established before long. After this the Committee divided, when 114 voted for the reduction and 202 voted against it. After some further conversation the vote was agreed to.

Distress Warrants under the Vaccination Acts.—Mr. Weir asked the President of the Local Government Board last week whether he was aware that the vaccination officer for the Borough of Brighton had recently obtained warrants of distress upon the goods of several persons in the borough for alleged non-compliance with the terms of the Vaccination Act, 1898, and, seeing that this officer was employed by the Brighton Board of Guardians and paid by that body, would he state why they were not communicated with before such measures were resorted to. Mr. Grant Lawson answered that the Local Government Board had not received any information as to the matter referred to, but, in their opinion, the application for a distress warrant formed part of the proceedings for the enforcement of the Vaccination Acts. These proceedings the vaccination officer was empowered to take without previous communication with the guardians.

Reading and the Diet of Casuals.—Last week Mr. Isaacs asked the President of the Local Government Board on what grounds the Board had refused to allow the departure from the provisions of their general Order of December 18th, 1882, so as to enable the guardians of Reading to vary the dietary of the casuals at the Reading vagrant wards by substituting an allowance of tea at night on admission in place of gruel; and whether the Board would reconsider the matter in view of the difficulty arising from the uncertainty in the number of applicants for relief on any particular night. Mr. Grant Lawson answered that the Local Government Board attached much importance to uniformity in the treatment of the casual poor, and considered that the dietary prescribed by their general Order referred to should not be departed from in the case of a particular workhouse. It was on these grounds that they felt unable to assent to the proposal of the Reading guardians, and he was afraid that he could not promise that the Board would reconsider their decision in the matter. He might add that there was a special objection to assenting to exceptional diets at the present time, as the whole subject of the treatment of vagrants was being investigated by a Departmental Committee.

Wanstead and Woodford Joint Hospital Board.—Mr. Louis Sinclair asked the President of the Local Government Board last week whether he was aware that Wanstead and Woodford were adjoining urban districts having populations of 9,000 and 14,500 respectively; that Wanstead had ample isolation hospital accommodation and Woodford had none; that an inquiry was held in November last, under the Public Health Act, 1875, at the instigation of Woodford alone, and in disregard of the remonstrance of Wanstead; that His Majesty's inspector reported in favour of the Local Government Board making a compulsory Provisional Order for the formation of a joint hospital board for the two districts; that a letter from the Wanstead Urban Council and a petition from the ratepayers had been sent to the Local Government Board against the Order being made, Wanstead desiring to retain its own hospital and to maintain its own patients: and, if so, whether he could undertake, under the circumstances, that the Board would decline, at the instance of Woodford alone, and in face of the opposition of Wanstead, to make a compulsory Provisional Order (subject to confirmation by Parliament) for the formation of a joint hospital board for the districts of Wanstead and Woodford combined. Mr. Grant Lawson replied that he was aware of the facts of this case, which were generally as stated in the question. The matter was now under the consideration of the Local Government Board, but he could not at present state what their decision would be.

Pure Beer.—Dr. Hutchinson asked the President of the Local Government Board what steps had been taken by the officers of the Inland Revenue to test the various materials used in the manufacture of beer; to obtain a return of the specific ingredients so used; and to ascertain to what extent, if any, they were found to be contaminated with arsenic; and whether any standard of purity in beer had been laid down by the Inland Revenue. The Chancellor of the Exchequer said that in respect to the first three portions of the question, the procedure of the Board of Inland Revenue in exercising control and inspection over the ingredients which might contain arsenic, and which were used in the manufacture of beer, was that provided for in the Revenue Act of 1888 as extended in October, 1901. The Revenue officials had caused frequent samples to be taken of other ingredients than those immediately specified in the Act named. They had tested, not only glucose and "invert" sugar, but also caramel, malt, hops, and a number of brewers' worts; and, in cases where beer "regenerators" and yeast foods had been found arsenical, the manufacturer had either been cautioned, or sanction to the use of the substance had been withheld. The Arsenical Poisoning Commission bore testimony in their report to the value of the work done by the Inland Revenue in connexion with the Government laboratory, and it would be continued as advised by the Commission. In regard to the last paragraph of the question, the Board of Inland Revenue had no authority to prescribe a standard of purity for beer.

The Plague in India.—On Monday Mr. Herbert Roberts asked the Secretary of State for India what was the estimated cost of the scientific investigation into plague in India, and what proportion of this expenditure would be borne by the British Treasury; whether he would state what success had attended the work on Dr. Haffkine's system; whether the scientific expedition would have its headquarters at the Pasteur Institute at Kassauli; and whether the present investigation would proceed on the line of bacteriological research. Mr. Brodrick replied that the expenditure was estimated at £5,000 for the current year. No portion would be borne by the British Treasury. Inoculation was a valuable preventive but it was not popular, and its effects were

not regarded as permanent. The question as to the headquarters of the expedition would be settled locally between the Government of India and the head of the expedition, while the line of investigation would be determined by the scientific societies controlling the work. He had no doubt that bacteriological research would be largely resorted to. In answer to a further question respecting the congested states of the towns affected, Mr. Brodrick said that in Bombay and Calcutta, where the congestion was most serious, the Government was actively promoting the provision of additional building accommodation for the poorer classes. Elsewhere such overcrowding as existed was due to the habits and predilections of the people rather than to absence of building land or dearness of materials. In plague-stricken localities assistance to move was often offered to the inhabitants but was not seldom refused.

Small-pox from the R.M.S. "Nile."—Mr. Hayden asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that small-pox was recently introduced into Mullingar and Athlone through two men who had been landed at Southampton from the steamship *Nile*; whether he could state the steps taken by the local authorities to prevent the spread of the disease, and to what extent these steps were dependent on the consent of the persons who had come in contact with those affected; and what was the cost of the precautions taken. Mr. Long admitted the facts and said that the steps taken were the isolation of patients and "contacts" as far as possible; the disinfection of premises, the disinfection and destruction of infected clothes, etc.; and the vaccination and revaccination of "contacts." The latter could not be isolated except with their own consent. The cost at Mullingar was £52 16s.; the cost at Athlone had not been ascertained. In answer to a further question as to legislation for the isolation of "contacts," Mr. Long repeated that the isolation of small-pox "contacts" could not be effected without the consent of such persons. In ordinary circumstances it was held to be unnecessary to isolate the inmates of dwellings invaded by small-pox in districts in which the sanitary laws were properly administered and vaccination was efficiently carried out. He saw no reason, therefore, for legislation on the subject. In answer to a further question on Tuesday, Mr. Gerald Balfour said that the local authorities had no power to quarantine vessels coming into their districts with small-pox cases on board, but a person on board suffering from a dangerous infectious disease might be removed to hospital under justice's order. He could not hold out any expectation of a return to the former system of putting vessels into quarantine. He understood that sixteen persons in England and Wales who were landed from the *Nile* had since developed small-pox. Seven persons who had come into contact with the passengers or crew had also developed the disease; 4 cases of death from small-pox at Southampton had been reported to the Local Government Board as occurring since the arrival of the ship. He had not received any reports of deaths in other places to which the passengers and crew proceeded on landing.

Small-pox.—On Monday there was granted, on the motion of Sir John Tuke, a return showing as regards each port or other sanitary district in England and Wales (exclusive of any district wholly or partly in London), in respect of which during the year ended March 25th, 1905, cases of small-pox have been reported to the Local Government Board; the number of such cases; and also, where the number reported has exceeded 100, the estimated amount of the expenditure incurred by the sanitary authority in consequence of the occurrence of such cases.

Laymen on the General Medical Council.—On Monday Mr. Weir asked the President of the Local Government Board if he would take such steps as might be necessary to secure the representation of laymen on the General Medical Council. The Home Secretary, in reply, said that under Section VII of the Medical Acts of 1886 the General Medical Council consisted of members nominated by the Privy Council and by the Royal Colleges and a number of other learned bodies, and of elected representatives of medical practitioners. There was nothing in the Act to prevent the nominating bodies choosing laymen, but he was informed that no representations have ever reached the Privy Council Office in favour of the course proposed in the question.

Uncertified Deaths.—Mr. Weir asked the Lord Advocate if he would state the number of uncertified deaths in Scotland and Ireland respectively for each year since 1900. Mr. Scott Dickson answered that the number of deaths from uncertified causes in Scotland during 1900 were 2,757; during 1901 were 2,392; during 1902 were 2 180. Figures for 1903-4 were not yet available. For information as to the Irish figures the honourable member should probably apply to the Secretary to the Lord Lieutenant.

Typhoid at Lincoln.—Mr. Jacoby asked the President of the Local Government Board, on Tuesday, if he intended to send an official to hold an inquiry at Lincoln into the recent serious epidemic of typhoid fever. Mr. Gerald Balfour replied that a medical inspector of the Local Government Board had visited Lincoln, and investigated the causes of the outbreak referred to. He was not prepared to direct any further official inquiry on the subject.

M.O.H. Reports in Scotland.—Mr. Weir asked the Lord Advocate if he would state why the report of the medical officer of health for the parish of Uig, Island of Lewis, was not included with the reports of other medical officers in the current report of the county medical officer of health for Ross and Cromarty. Mr. Scott Dickson answered that the report of the medical officer of health of Uig had not been received at the time of his annual report going to press, but in any case the publishing of the parish reports in the county report was a matter within the discretion of the county medical officer.

Ireland.

WOMEN GRADUATES AT DUBLIN UNIVERSITY.

DR. TRAILL, Provost of Trinity College, has addressed a letter to the *Times* in reference to some criticisms made by its Dublin correspondent on the recent conferment of degrees upon several ladies from Oxford and Cambridge. The subject was referred to in the last issue of the BRITISH MEDICAL JOURNAL. The Provost denies that the University is in financial straits. He says:

> We have only done for these ladies what we have always done for men from Oxford and Cambridge who have had the same qualifications, and what we will do for our lady students when they shall have qualified for these degrees. . . . . No one inside or outside the College has either publicly or privately signified dissent to what we have done.

To this the correspondent replies that the Provost confuses the question of the admission of women to the degrees of Dublin University with the particular branch of that question. It is true that University opinion was in favour of the admission of women to degrees; but "it would be quite untrue to claim the same unanimity in favour of the system under which every lady now living who has qualified for the degree of Bachelor of Arts at Oxford or Cambridge may receive that degree on payment of a sum of £10 3s. to Trinity College, Dublin." "The system seems to a good many members of Dublin University to be a breach of the high academic courtesy on which the relations between great universities are founded. Trinity College is admitting to its degrees in a wholesale fashion, and for a substantial monetary consideration ladies to whom the two great English Universities for whatever reasons refuse those degrees. Many Dublin men are nice enough to think that this is hardly 'good form.'" The *Irish Times* says the conferment was "more suggestive of a commercial transaction than an academic ceremony."

There is no doubt that a great many graduates are hurt at this rather wholesale conferring of degrees upon people whom the University did not educate, but whose degree fees pass to that body, because Oxford and Cambridge did not choose to confer the distinction, however merited. It is said by some that this proceeding will force the hands of the two English universities. But however desirable that may be it hardly lies with Dublin University—a convert of the other day—to assume this rôle. Graduates of the Royal University of Ireland also complain that the recent facilities offered by the older institution have attracted a large number of its women undergraduates. One does not like to hear it said in this connexion that there are dwindling classes at Trinity and that this implies a dwindling purse. "But," says the correspondent, "this argument was freely used in favour of the admission of women to the University, and I have heard it adduced many times by reputable graduates of Dublin

University in defence of the lucrative process which in the space of one day has added £1,500 to the exchequer of Trinity College, Dublin."

ULSTER MEDICAL SOCIETY.

The tenth meeting of the society was held on May 4th in the Medical Institute, Belfast; Dr. J. Brian Moore occupied the chair. Mr. Robert Campbell read a paper on surgical cleanliness. He pointed out that the chief sources of infection were on the hands of the surgeon, the skin of the patient, and the dressings and instruments. As regards the hands of the surgeon, it was impossible to render them aseptic; consequently recourse was had to gloves. Cotton gloves were futile, india-rubber gloves were too smooth and liable to be cut and snipped; however, the make of these gloves had recently been improved, and the surface had been roughened a little, so as to obviate the slipping of a coil of intestine or such like. The air around surgeons was not altogether innocent. If a surgeon perspired easily, or suffered from dandruff, he should wear some form of bandage round the head. A surgeon should speak as little as possible while operating, as with many minute particles of saliva were apt to be expelled when talking; and if the operation necessitated much conversation, a thin band of gauze should be put round the mouth. For deep sutures he favoured the formalin method of preparation. A large number of Fellows offered remarks. Dr. Gardner Robb read a paper on small-pox in Belfast. He said that nine independent and separate introductions of the disease from outside had been traced, and this was one of the difficulties in stamping out the disease. As regards vaccination the statistics were overwhelmingly in its favour. Only one vaccinated person died, and he was an alcoholic in a low state of health; there was not a single case of a person revaccinated during the previous epidemic having taken the disease during this one. As regards diagnosis, he found the distribution of the eruption on the face and lower part of the extremities in small-pox, and on the body in chicken-pox, to be of great service and one of the most reliable signs. He said there was a considerable amount of carelessness in vaccination among medical men, and this was greatly to be deplored. He thought vaccination was of some use in modifying the disease even at the sixth day of incubation.

HEALTH OF BELFAST.

At the monthly meeting of the City Council on May 1st the Medical Superintendent Officer of Health reported 953 births and 644 deaths; 146 cases of zymotic disease had been notified, and 32 deaths from measles had occurred; no case of small-pox had been notified since February 23rd; the total death-rate was 23.4. The Chairman of the Health Committee, Dr. King Kerr, in proposing the adoption of its report, said that they should object to the order of the Local Government Board regarding the Cultra foreshore nuisance; Belfast was to contribute £1,700 and the others only £300, and yet the representation on the proposed Board was equal. He said the Committee recommended the appointment of a visiting physician to the new fever hospital at Purdysburn instead of a resident medical superintendent; the house originally built for the medical superintendent was to be converted into a diphtheria ward; there were not a sufficient number of small wards for the isolation of patients. After a full discussion the Committee had come to the conclusion that it would be for the interest of the public generally not to have a resident medical superintendent, as more economical. Councillor Williamson, M.D., moved that the portion of the report relating to the officering of the hospital be referred back to the Committee, but this was defeated.

CORK SCIENTIFIC ASSOCIATION.

On May 1st Professor Marcus Hartog, M.A., D.Sc., of Queen's College, Cork, gave an interesting lecture before the Cork Scientific Association, entitled the Dual Force of the Dividing Cell. Dr. Hartog explained that in the living cell about to divide there appears the figure of a fibrous spindle, often with star-like radiations from its poles. This closely resembles that shown by iron filings scattered in a magnetic field by two unlike poles, an analogy which has been present to all observers since the discovery of the field thirty-two years ago. By the use of magnetic and electrostatic models it is demonstrated that the figure expresses the segregation of the protoplasm under the stress of a "dual" or "polarized" force into threads more permeable to the force, and intermediate matter less permeable to it, just as in a viscid liquid the former is segregated into continuous chains. Such material chains of force have properties of their own different to the theoretical "lines of force" along which they lie, and they modify the distribution of these lines. The weak point of previous interpretations, whether on the side of analogy or against it, has been the confusion of the material chains with "lines of force." By magnetic models it is proved that the anastomosis and interlacing of these chains can be produced by magnetic stress, and even a spiral arrangement induced under the action of mechanical movement. Figures with an odd number of centres joined up by consecutive spindles can be obtained such as exist in the cell. Now, the chief dual forces are magnetism and electrostatic force, but isolated magnetic centres of single polarity cannot exist, and the protoplasmic substance is known not to be highly susceptible to magnetism. Magnetism may therefore be rejected. The same objections do not apply to electrostatic force; and it is hard to see how an electrostatic field can be maintained in a viscid medium permeated by solution of electrolytes. If this objection be valid, Dr. Hartog says, we must admit in the living organism a dual force unknown in the inorganic world. The paper was illustrated by twenty-five lantern slides.

WATER SUPPLY OF CORK.

The purity of the water supply to the city of Cork is never wholly free from suspicion. The pumping machinery is of the most antiquated and inadequate description, and there is always the fear of a serious breakdown and a consequent water famine. As to the purity of the supply, it is still subject to serious pollution at Macroon and from the Deipsey and Blarney rivers. To mitigate this a filtering tunnel was some years since constructed at the pumping station, but this, it seems, is incapable of doing all that is required of it, though its construction cost a considerable sum. Now, it appears the medical officer of health reports the filtration system in use is "antiquated and unsuitable for a city like Cork." It is also admitted to be incapable of filtering, even in a faulty manner, more than two-thirds of the total supply. In these circumstances the Waterworks Committee finds itself obliged either to shut off the supply for several hours at night, or else pump one-third of the city's supply from the river without undergoing any process of filtration whatever. Both, needless to say, are open to serious objection. However, it was decided the lesser of the two evils was to send one-third of the total supply unfiltered water through the service pipes during the period when the river was not in flood, the water being previously analysed. Having regard to the serious pollution to which the River Lee is exposed, it is surprising that the recent outbreak of typhoid was not of a more alarming character. It is little wonder that the medical officer of health recommends each householder to boil the water used in his household before drinking it.

The Provost of Trinity College, Dr. A. Traill, M.D., F.R.C.S.I. (hon.), has been elected an Honorary Fellow of the Royal College of Physicians, Ireland.

MENTALLY-DEFECTIVE CHILDREN.

DR. JAMES KERR, Medical Officer (Education) to the London County Council and Ingleby Lecturer at the University of Birmingham, has taken as the subject of his lectures mentally-defective children. The first lecture was delivered on May 4th. Professor Barling, Dean of the Faculty of Medicine, was in the chair, and there was a large audience, among those present being many ladies and gentlemen engaged in teaching and philanthropic work in Birmingham. In introducing the lecturer, the Chairman said the subject was one that had of late assumed very considerable importance. Some of the citizens of Birmingham, including those interested in education, were doing something to cope with the problem, and it was thought that at the present time it would serve a useful purpose if they invited an Ingleby lecturer to deal with the really important question of mentally-defective children. That was rather a new departure, as hitherto the Ingleby lecturer had dealt mainly with technical subjects which would not interest the lay public. Dr. Kerr began by asking how was feeble-mindedness to be defined? They could call it mental weakness, in some directions associated with imperfections of the nervous system. He insisted that no study of the mentally-defective child was possible except by continuous reference to the normal; on the other hand, study of the mentally defective was of great utility and full of suggestion for the treatment of ordinary children. The expression "feeble-mindedness" expressed to some extent

failure to reach a certain standard in the general summation of the mental qualities; but discrimination of those individuals into actual classes presented difficulties. The classification adopted was purely empirical. Children who could not receive proper benefit in the ordinary schools, and were not merely dull and backward nor imbecile, were to be regarded as feeble-minded and suitable for education in special schools. In the classification there was first the normal class, and, of course, the supernormal, the clever, and so on, and then those who fell short of the normal, the whole class which in America was termed feeble-minded. In England we specialized somewhat further. We distinguished a class as dull and backward, and then we came to the feeble-minded. The worst of the latter were the imbecile, and those worse still than imbeciles—they were very few—we called idiots. So difficult was the classification that some writers put in intermediate classes such as idio-imbecile, and so on, while others separated each of the classes into higher, middle, and lower grade imbeciles, and so forth. Verging on the feeble-minded was the great group of dull and backward. Sometimes the mental defect was temporary, and the terms "spurious mental defect" might be used for many of the children who were wanting in knowledge and spontaneity from a condition that might be due to debility, from want of proper nourishment, rest and sleep, and similar causes. For those children, who might be very roughly estimated as constituting about a tenth of the ordinary school population, intermediate schools should be provided, and every child who showed any difficulty with its school work should pass into an intermediate school where cleanliness, regular drill, good attitudes, and automatic obedience would be insisted on, and easier and simpler tasks would be given. With more individual attention the child, catching up in his work, would return in a few months to the ordinary school, or remaining under an education adapted to his capacity, would not be wasting time as so many were in the ordinary school, or, if unable to keep up these, would pass into the special class or even to the imbecile asylum. That was the normal stage in educational development which should have preceded the institution of special schools. Another group, fortunately very small, was that of the lunatics. That category did not include idiots and imbeciles. It was generally taken that a lunatic had possessed normal mental conditions which, through accident or disease, had passed into a state inconsistent with the normal conduct of life. The lunatic had at some time got worse, whereas the feeble-minded, idiot, or imbecile person had never possessed normal mental powers, and, as a rule, remained stationary or improved in that condition. The lecturer's own experience was practically confined to children who came within range of the Education Acts—that was, the normal, the dull and backward, and the feeble-minded, with a few imbeciles who were difficult to differentiate from the feeble-minded. Provision for the mentally-defective class of child was comparatively recent in England. In 1890, except in such institutions as Earlswood and the Royal Albert Asylum at Lancaster, there was no public provision except for paupers. The report of the Commission which resulted in the Blind and Deaf Act in 1893 recommended that feeble-minded children should be separated from ordinary scholars in public elementary schools, in order that they might receive special instruction. Classes were started here and there, and after a Departmental Committee had inquired into the whole subject the Education Act (Defective and Epileptic) of 1900 was passed. That Act had been extensively adopted as far as regarded the mentally and physically defective, but till recently, owing to impracticable financial requirements, its provisions for epileptics had remained a dead letter. Owing to the recommendations of the Committee having been passed over as regarded imbeciles, there was no statutory duty laid on any one for the care of imbeciles who were not paupers. Those children were excluded from school, and became greatly neglected, constituting a very serious social danger, and such considerations had at length led to the appointment of the Royal Commission now sitting to consider the care and control of the feeble-minded of all classes. Theoretically there were the two great classes of feeble-minded—the physiological class, due to normal variation, and the pathological class, due to the results of disease, but there was a large indeterminate class which it was impossible as yet to differentiate. The first class, although less numerous, was of much greater importance from the educational point of view than the larger group, and their study should throw much light on the development of brain functions, and on the methods of ascertaining the special defect in the mental power of children, and the system of education which was applicable to them. He mentioned incidentally that young children were frequently ambidextrous, and as their mental evolution proceeded became right-handed. In the mentally defective and so-called criminal classes ambidexterity was common, as the further specialization in development of the right hand was not maintained. In one little child, who showed great mental powers, before the age of 4 she began to print on her spontaneous drawings, but the print was always reversed. When set a copy in print it was reversed when copied, and at first even when pointed out she did not see anything wrong. Later the first line copied was mirror-wise, the second line correct, but the third mirrored, and the mirror lines were begun at the right hand and the correct lines at the left. The same child came in from a walk one day and asked what "sonaip" over the music shop meant. The word "pianos" was meant. Such early reversed reading and mirror-writing indicated an alternating use of the brain on either side, and was, he believed, found in certain of the older Greek inscriptions. Every case of a feeble-minded child which seemed exceptional was worthy of long study for the light which it might throw on normal brain action, or on feeble-mindedness from disease. The study of the class of child met in the special schools was of much greater importance than the observation of idiots and imbeciles. The child for special study must be kept under observation in a residential school, where observation by trained experts was the chief object, and where all the laboratory methods of psychology, physiology, and clinical medicine were available. Observation of hysteria had thrown much light on mental phenomena. Suggestion, especially in slight hypnotic conditions, had revolutionized ideas of conscious and subconscious actions, and through such means they had seen both in adults and children, the blind made to see, to lame to walk, and the palsied hands restored to grasp and feel, almost as if by miracle. To the question whether those means could be used to inhibit emotions and to develop useful habits in those whose conduct required regulation in childhood, only the experience of a scientific observer in such an institution was likely to give an answer free from bias, and from the risk of premature judgement. Dr. Kerr suggested that there was no place where the pioneer work of founding such a central observation home would be more opportune than in connexion with the educational work of Birmingham.

PROPOSED INCORPORATED SOCIETY FOR THE PROMOTION OF THE HIGHER EDUCATION AND TRAINING OF NURSES.

THE application of the Incorporated Society for the Promotion of the Higher Education and Training of Nurses to be registered as a company without the word "limited" was heard in the Deputation Room of the Board of Trade, 7, Whitehall Gardens, London, on May 5th.

Mr. G. S. BARNES, who presided over the proceedings, stated that the Board of Trade had received so many communications and protests, not only from men who were eminent in the medical profession, and from matrons and sisters and nurses, but also from other men and women who had devoted their lives to the study of the subject on which they wrote, that the Board of Trade thought it right before coming to any conclusion on the matter to hear in detail the objections that had been raised.

Sir VICTOR HORSLEY said that he attended there as Chairman of the Representative Meeting of the British Medical Association. The Association consisted of nearly 20,000 medical men, and the Representative Meeting could be described as the Parliament of that Association, since it was composed of delegates chosen by the members of the Association. He, therefore, had the honour of representing the Association in its most representative form, but he had with him also a deputation from the British Medical Association—Mr. Andrew Clark, Chairman of the Council of the Association, Dr. H. Langley Browne, and Dr. J. H. Galton, members of the Council. With him also were two of the officers of the British Medical Association, the General Secretary, Mr. Guy Elliston, and the Medical Secretary, Dr. J. Smith Whitaker. That deputation was from an Association which represented the majority of the medical men in this country. They had given up their time to come there that morning because a great

question of principle was involved. They felt that the time had long gone past when private persons should be allowed to group themselves together to carry out State duties. It was an entire anachronism, and the movement was actually opposed by the large hospitals in the metropolis. The medical profession had suffered much from this very thing, and knew well the disastrous attempts of private individuals to undertake duties which the State alone ought to execute. Therefore the medical profession sympathized most deeply with the nursing profession in this particular. He, as Chairman of the Representative Meeting of the Association, had reported to the Select Committee of the House of Commons now sitting the following resolution, moved by Dr. Langley Browne, in favour of the registration of nurses: "That this meeting approves of the principle of the registration of nurses." Dr. Langley Browne would tell them how strongly it was felt by the members of the Representative Meeting which was held at Oxford that the principle of the registration of nurses should be approved. It had been suggested by some that any proposition for the registration of nurses would be entirely opposed by the medical profession, but that was not so. If the medical profession were given the power of recognizing who was a properly-trained nurse by means of such registration of nurses, it would not be opposed; but the medical profession would only accept State registration, and not a pseudo-registration like the scheme put before them. They did not really know what scheme was intended to be put forward, for, as a matter of fact, he (the speaker) held in his hand two different prospectuses. Of these one which had been received by the Association contained no provision for the representation on the Council of Management of any medical men or nurses; it was a complete blank in that respect. In the other copy, also received by the British Medical Association, they found inserted the provision that physicians, surgeons, and trained nurses would constitute the Council. He (Sir Victor Horsley) was not aware that in connexion with Stock Exchange affairs it was a good thing to have two different prospectuses. Supposing, however, the second and less unfavourable prospectus was considered, still the medical profession was strongly opposed to the application being granted in any form whatever. The medical profession was opposed to the Board of Trade allowing this company to be constituted under its aegis, and the medical profession objected to the incorporation of such a body under any circumstances. The British Medical Association felt in this matter with the Royal British Nurses Association, that to constitute this new body would be to infringe upon the position of the existing nurses' association. So far he had spoken on behalf of the medical profession, and he had to point out that the medical profession was acting solely in the interests of the public. It had sunk its own material interests in order to make it clearly known that what it knew the public required was a State guarantee and not a private guarantee. The medical profession also felt that the nursing profession had been hardly used in this matter, and it considered that under the protection of the State a proper controlling and disciplinary Board should be constructed, so that the public and the medical profession would alike be satisfied. Sir Victor Horsley concluded by declaring that the medical profession would have nothing to do with the proposition before them that day, and would oppose as strongly as possible the incorporation of a body of non-medical private persons to manage a national service like that of nursing.

Dr. J. H. GALTON said that the Council of the proposed body was self-elected, and, further, the Council was to be re-elected by itself. No Association could be more at home in heartily objecting to a proposal of that kind than the British Medical Association, for that Association formerly had a self-elected Council. The Association, however, had had to do away with it. Dr. Galton then proceeded to criticize the nursing methods followed at Guy's Hospital in regard to sending nurses out to the public.

These strictures on the nursing methods of Guy's Hospital were answered by Mr. COSMO BONSOR.

Dr. LANGLEY BROWNE said that he wished to endorse the remarks that Sir Victor Horsley had made. At the sitting of the Representative Meeting of the British Medical Association at Oxford a resolution was passed in favour of the registration of nurses. He (Dr. Langley Browne) spoke as a member of the Council of the British Medical Association and he also spoke on behalf of the medical practitioners in the Midland Counties. In the provinces they realized the evils of untrained nurses being turned loose on the public. When a nurse was wanted in an emergency they had to take what they could get. There was no time to make inquiries. Instead of companies turning out nurses registered as efficient, there must be constituted a State registration of nurses. Dr. Langley Browne pointed out that it was the State only that could inflict penalties, and State registration was the only form that could be accepted by the provincial hospitals. The proposal they were considering that day was an attempt to make another corner in nurses, only on a larger scale. The medical profession objected to the proposal, with or without the term "limited," because the only acceptable method of registration was State registration, and all were strongly opposed to any other form.

Sir JAMES CRICHTON-BROWNE spoke on behalf of the Royal British Nurses Association. He said that the new body proposed would prove injurious to the interests of nurses and to the public at large. According to Sir James Crichton-Browne the Royal British Nurses Association represented nearly 3,000 nurses, and they objected to the present proposal because the application was inopportune, the undertaking was an unnecessary encroachment on the work of nurses, and its constitution was vicious in principle and opposed to all sound principles. After referring to the two Bills for the training of nurses now before Parliament, Sir James Crichton-Browne urged that the promoters of the company concerned were trying to improve the fleeting moment so as to secure a licence that they could not obtain otherwise before legislation was undertaken. He suggested that the Board of Trade was not competent to decide without full inquiry the important questions concerned in the application. Scotland, Ireland, and Wales would never consent to such a company as was proposed, and the Board of Trade would have to concede the principle of a plurality of nursing registers producing confusion worse confounded in the mind of the bewildered public. The proposed company aimed at injuring an association which had been built up at great trouble and expense, a great deal of the money coming out of the pockets of poor nurses. The proposed company was an attempt by means of Stock Exchange verbiage to capture and exploit the nursing profession by a body of laymen who knew nothing of the training of nurses. Any nurse who enrolled herself in that society would be liable to be struck off the roll and have a stigma attached to her name by a council whose members were laymen. Any training school would be liable to have a stigma placed on it by the council of the proposed company. Great injustice and mischief might result. It might be said that the company was a purely voluntary one, but they all knew what could be done by lavish advertisement and pressure. Sir James Crichton-Browne concluded by suggesting that the opinion of the General Medical Council might be taken on the matter.

Dr. BEZLEY THORNE and Dr. COMYNS BERKELEY also spoke.

Mr. CHARLES BURT, of the Central Hospital Council of London, said the Council he spoke for represented sixteen of the large hospitals in London, excepting Guy's Hospital. His Council disapproved of the application of the promoters in view of the present proceedings in Parliament. Technically the omission of the word "limited" might seem of little account, but it was clear that the promoters thought a great deal more of the omission of the word than would appear. It seemed to give an authority to the institution which would not otherwise be obtained if the word "limited" were included. Mr. Charles Burt concluded by declaring that if the Board of Trade would be satisfied with the registration of nurses by a private co-operation managed by a few private gentlemen, who in the first instance nominated themselves, the nurses themselves would not be satisfied.

Mr. SYDNEY HOLLAND urged that the application should not be granted, and pressed Mr. Bonsor very hard on the question of to whom the training of nurses was intended to be handed over.

Dr. H. K. SWANZY, Vice-President of the Royal College of Surgeons in Ireland, said that the Royal College of Surgeons he represented opposed the application. The College did not say it opposed the registration of nurses. The proposed company would be mischievous, as it was proposed that the profession of nursing was to be governed by a lay body in which nurses had no representation; such government by companies would be degrading and the proposal was absolutely unsound and objectionable.

Mrs. BEDFORD FENWICK spoke on behalf of the Council of Matrons against the proposal, and Dr. BEDFORD FENWICK addressed the meeting on behalf of the British Gynaecological Society. He opposed the proposal, and asked how the

suggested company would manage in regard to examinations of trained nurses for special branches.

Mr. COSMO BONSOR, in replying to the objections, explained the apparent issue of the two prospectuses. The company was to be absolutely a voluntary one; if it was wanted it would succeed, otherwise it must fail. He denied that the proposed company would damage any interest. Mr. Bonsor's remarks started a discussion, carried on by Mr. SYDNEY HOLLAND, Mr. CHARLES BURT, Sir JAMES CRICHTON-BROWNE, and Mr. BONSOR.

Mr. G. S. BARNES concluded the proceedings by thanking those present for their attendance, and assuring them that what had been said would be most carefully considered by Lord Salisbury.

A hearty vote of thanks to Mr. Barnes for his courtesy was accorded with acclamation.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage at which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, as far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. GUY ELLISTON, *General Secretary.*

MEDICAL COMMISSIONERS OF SUPPLY FOR AYRSHIRE.—The following medical practitioners, who are also Justices of the Peace for Ayrshire, have been made Commissioners of Supply for the County of Ayr—namely, Dr. John Wylie, Kilmarnock, and Dr. John Cunningham, Stewarton.

LONDON SCHOOL OF TROPICAL MEDICINE.

A DINNER in aid of the London School of Tropical Medicine was held on May 10th at the Hotel Cecil, the Right Hon. JOSEPH CHAMBERLAIN, M.P., in the chair. Among those present were Mr. Alfred Lyttelton, M.P., Secretary of State for the Colonies; the Duke of Marlborough, Lord Strathcona, Sir R. Douglas Powell, President of the Royal College of Physicians; Sir William S. Church, Sir T. Barlow, Sir Francis Lovell, Professor R. Blanchard of Paris, Sir P. Manson, Sir Alfred Jones, Mr. W. Watson Cheyne, Mr. Jonathan Hutchinson, Dr. Allan Macfadyen, Professor Howard Marsh, Professor Ronald Ross, Professor Sir A. W. Rücker, Professor W. J. Simpson, Dr. Augustus Waller, Sir A. Geikie, and a large number of other well-known men.

After the loyal toasts had been drunk,

Mr. CHAMBERLAIN, in proposing "The London School of Tropical Medicine," said that he thought they would be inclined to agree with him that attendance at a great public banquet of that kind, or at all events any inordinate addition to such festivities, was really inconsistent with the position of advocate and supporter of preventive medicine; but he could not resist the temptation to repeat the experience of six years ago when he presided at a similar banquet, and when they established that school. Now he came back to them to rejoice in their past success, and to provide for their future. His interest in that great question was unexhausted, and, indeed, unabated. It was a privilege as well as a duty to be in any way associated with it. It was a privilege, because he could not himself think of any subject of scientific research and philanthropic enterprise which was more interesting, and it was a duty which we owed to the Empire and from which we could not divest ourselves, whatever our political opinions might be. That duty had increased in recent years with the continual extension of our territory, with the increase of our scientific knowledge and our opportunity, and also with the awakening of our Imperial conscience. We owed this duty to the vast population for which we had gradually made ourselves responsible. We owed it still more to those of our own race who were daily risking health and life in order to maintain the honour and the interests of this country. Within the last half century Africa had been disclosed to the world, and in what had been called the race for Africa it was impossible that we should not have our share. Competition in what Lord Rosebery once called the pegging-out of claims for territory and markets went on. We were unable to stay where we began. Whatever the beginning, we must go on until something like rough justice and order had been introduced into the territory for which we were responsible. Hence arose many little wars, which, though much to be regretted, should after all be considered in connexion with their result. Let them compare the position of Egypt as it was a quarter of a century ago with the Egypt of Lord Cromer (cheers), which was the envy for its prosperity of every country in the world. Let them look at the case—perhaps even more extraordinary—of the Soudan, or of Nigeria, a great empire of immense size and fertility and wealth, still almost distracted by the existence of the slave trade, by the brutalities of petty tyrants, by the base superstition which prevailed; yet under the wise control of men like Sir F. Lugard, Sir R. Moor, and he would add the name of Sir W. McGregor, whose country was very near to Nigeria, that country had made wonderful progress, and we could see no limit to the prosperity it could attain. Lives of Britons had been lost there and considerable numbers of natives had been killed, but if they took every life lost in the whole series of those campaigns it would not approach to more than a fraction of the number of the native population that was destroyed every year before our advent. The worst conditions that had to be met were the new conditions of formerly unknown disease, conditions of climate which had always been so fatal to Europeans. In the progress of this great world-discovery the pioneers had suffered from our ignorance of the new conditions they would have to face, and our inability to deal with them. Many of them had left their health and their lives behind them. It was true of the tropics, as it was true of some of our temperate Colonies, as Kipling said in his *Songs of the English:*

> On the sanddrift, on the veldt side, in the fern scrub we lay,
> That our sons might follow after by the bones by the way,
> Follow after, follow after, we have watered the root,
> And the bud has come to blossom that ripens for fruit.

Our first duty was to do all that was in our power in order to reduce this blood tribute that we paid to the Empire, to reduce it to the uttermost. M. Pasteur, he supposed, laid the foundations for all the recent work of scientific research, and the work had been continued both abroad and at home by men whose names would be remembered among those of the greatest of our philanthropists and men of science. In connexion with the work of dealing with tropical disease, we should never forget the names of Sir Patrick Manson, of Major Ross, of Leishman, Haffkine, and many others. He thought we owed first to Sir Patrick Manson the idea of a tropical school which should co-ordinate all this knowledge and give it practical effect. Almost abreast with him, if not before, came the promoters of the Liverpool School. There was room for all in that work. He was sure they entertained no jealousy; on the contrary, they welcomed the success of that competition, and they congratulated the Liverpool School on the success they had already achieved. There was only one thing he thought he envied them, and that was the liberality and the energy of their citizens. He wished that in every other institution such as that they could have a man as energetic, as devoted as Sir Alfred Jones. He wished they could have a community as generous as that of Liverpool had shown itself. They raised something like £40,000 by private subscriptions, and money still poured forth there whenever there was a sufficiently satisfactory subject for its expenditure. Why could not London, the metropolis of the Empire, the metropolis of the world's commerce, emulate more frequently the generosity of a provincial city? The London School was provided at a cost of £30,000, a considerable portion of which was provided by Government and Colonial assistance, some by private subscription, while some, unfortunately, had to be provided by loan. It held accommodation, in the first instance, for 20 students and 6 residents. Since that time the accommodation had been increased. Altogether 503 students had passed through the school, 233 sent by Government, 157 private students, 50 foreign students, and 54 missionaries. That classification, and especially the last figures, would suggest how much devotion and unselfish zeal there was in those who went to those countries at all risks to themselves in order to give comfort and religious instruction to the inhabitants. We were still in the beginning of this inquiry and of these operations. The results in regard to malaria and yellow fever had been more than striking. Elephantiasis, sleeping sickness, beriberi, and other plagues, which, though only become known to us in recent years, up to this time had wrought havoc among the native populations in which they existed were being investigated. For some of the expeditions sent out we had to thank private benefactors, otherwise they would have been impossible. They had to thank Sir J. Craggs, and they had to thank specially Mr. Bomanji Petit, a Parsee gentleman, who, with a munificence characteristic of his community, had contributed £7,000. Still more were they grateful to those who had taken part in these expeditions, not concealing from themselves what they involved. They were in many cases more dangerous than war; surely they were not less honourable. First Mr. W. Myers, and now recently Dr. Dutton, both distinguished men of science, both given up to the pursuit of this research, had fallen victims to their unselfishness. They were true martyrs to science and to humanity. How should we honour their memory? What statues or monuments should we erect? Surely there could be no better expression of our feeling than to enable the work to which they gave their lives to be continued and extended. The London Committee asked for the sum of £100,000, and, if he might make a comparison between London and Liverpool, it was a mere drop in the bucket in comparison with the Liverpool subscription. They asked for £100,000 to repay the debt, make a proper provision for the teaching in such a teaching institution as that, and, above all, to subsidize the research into these diseases of every kind. He confessed it seemed to him that there could not be a more desirable application of superfluous wealth than to enable that institution to unite the work of the investigator and the work of the physician, which was after all the ideal union between scientific inquiry and its practical application. He asked them to sympathize with those workers of our Empire who had already done so much to secure its renown, and who had contributed, and were contributing, to the happiness and welfare of the vast populations which we had gathered together under the protecting influence of a single flag.

Sir PATRICK MANSON replied to the toast.

Mr. LYTTELTON, M.P., proposed "The Empire," which was acknowledged by Lord STRATHCONA, and

The DUKE OF MARLBOROUGH gave the health of "The Chairman," to which Mr. CHAMBERLAIN replied.

Subscriptions and donations amounting to nearly £10,000 were received during the evening.

NATIONAL ANTIVIVISECTION SOCIETY.

THE annual meeting of the National Antivivisection Society was held at the Queen's Hall on May 10th, Lord LLANGATTOCK in the chair.

Lord LLANGATTOCK said that at that, their thirtieth annual meeting, he could again congratulate them on a successful year's work. The task of strengthening their branches throughout the country had been carried on with great spirit, and they had now thirty-five organized bodies aiding them and increasing their influence in every direction. One useful piece of work done had been the obtaining of signatures to a petition, addressed not to the House of Commons itself, but to the individual members of that body. The object was to obtain support for a very reasonable and practical measure, which Sir F. Banbury had kept before the House so successfully for the last few years. The response had been satisfactory, and promises had been received of support beyond expectation. To their honorary secretary, Mr. Coleridge, was due a notable victory achieved in the last few months. An unbiassed tribunal had raised its voice against the diversion of funds subscribed to a hospital for the support of a medical school. The report of the Committee must be considered to be entirely in their favour, for it said in so many words that a distinction between the hospital and the school was in every case to be drawn with such clearness that it might be understood by the general public, so that no question might arise as to the destination and application of moneys contributed from any source. Let it never be said that they were working against the medical profession. There was no profession for which they had greater respect, regard, and admiration. It was not the 40,000 medical men they opposed, but the 340 vivisectors. Their policy was a simple one. They believed with unfaltering faith that to torture animals was unjustifiable and immoral, and that the profession of the most lofty motives did not justify the committal of acts which were in themselves immoral.

The Hon. STEPHEN COLERIDGE, having announced that he had just received £200 towards the funds of the society, and had been informed that the Women's Liberal Federation had that day passed a resolution in favour of the total abolition of vivisection, moved:

> That this mass meeting of the citizens of London believes the legalization of the torture of animals by the Act of 1876 to be immoral, and calls upon Parliament to make the torture of animals for scientific knowledge a crime.

He said that the basis of their movement was a moral one. Some people believed that a Bill should be produced calling on Parliament to abolish all experiments on animals, whether painful or painless. He had come to the conclusion that such a Bill could not pass. If they were to ask Parliament to abolish the painless experiments, ending in the animal's death, they would be asking that the man of science should be placed lower than the slaughterman. They should not abandon the living animals now being tortured in the vain hope of such a Bill, and therefore a Bill had been prepared which made it illegal to inflict torture on any animal. King Edward's Hospital Fund Committee came to the conclusion that the connexion of a medical school with a hospital tended to raise the cost per bed, but Lord Rothschild declared that all those who criticized the small amount of money diverted from the general upkeep of a hospital to a medical school were ignorant, or wished to be ignorant, of the fact that the presence of the school diminished in a great degree the cost of the hospital. Vivisectors declared that they had conferred great benefits on the human race by their practices. If they did so by a wicked act that would not justify the act. But when they made that claim what did it amount to? Was it based on facts or on imagination? He had looked into the death rates, as set out in the Registrar-General's returns, in connexion with certain diseases. The best test as to whether a disease was being cured or not by a particular practice was to be found in those statistics. Taking diphtheria, it was said that that disease was to be stamped out by the use of antitoxin, which was first produced in 1894. The death-rate per million for the ten years previous to that

year was 1,912, but since then it had been 2,603. It really seemed a pity the disease was not left to the ordinary doctor. Then there was cancer, in connexion with which an Imperial Cancer Research Fund was started which amounted to £34,000, and experiments on horses were conducted. In 1894 the death-rate from that disease was 539 per million; it was now 872. The more vivisection the higher climbed the death-rate. Whooping-cough had not been attacked by the vivisector, and under the care of the doctor the death-rate had gone down from 425 to 285; scarlet fever was in the same position, and the death-rate had fallen from 402 to 125 in ten years. In 1884 there were 419 deaths per million from measles, now the deaths were 274; and dysentery, also free of the vivisector, fell from 1,008 in 1884 to 551 last year. It really seemed that the best thing for the human race was that the vivisector should leave us alone.

Mr. DAVID CHRISTIE MURRAY, in seconding the resolution, declared that he was with it heart and soul. They did not pretend that they were fitted to judge the physiological aspect of the question; but they could look at the evidence before them, and after years of examination he declared that the vivisectionists had failed to establish their case. Lord Lister declared vivisection necessary for the advancement of scientific research; Sir W. Fergusson, the greatest operating surgeon of his time, was of the contrary opinion. Sir Victor Horsley said that vivisection was necessary for the instruction of the student; Sir Benjamin Ward Richardson said it did not benefit the student intellectually or morally. The vivisectionists denied that their experiments gave pain, but their own books were against them. They operated with sham anaesthetics, and that was where they should be gone for. It should be made a crime. There should be a medical Board established which should have power to declare that a certain demonstration had been made often enough, that there was no necessity for making it again, and that any person committing it should be regarded as having committed a criminal act.

The Earl of HADDINGTON, in supporting the resolution, pointed out that in Scotland the branch founded in 1902 had already a thousand members, and had collected nearly £700.

Mr. CHANNING, M.P., said he had recently backed a Bill to exempt dogs from vivisection, the reception of which convinced him that many men in the House had hearts and consciences to which that society might appeal. He congratulated them on the splendid work they were doing, and hoped that they would continue. One of his relatives recently took a profound interest in the United States against the extension of the practices they condemned, under various disguises, to human beings in hospitals, and they should realize that those who could torture animals were capable of carrying the spirit of inquiry as far as that.

The resolution was carried unanimously, and the proceedings closed with a vote of thanks to the Chairman, proposed by Archbishop BAGSHAWE, seconded by Admiral Sir W. KENNEDY, and carried unanimously.

THE PREVENTION OF CONSUMPTION.

THE HOSPITAL FOR CONSUMPTION, VENTNOR.

THE thirty-sixth annual report of the Board of Management of the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, presented at the annual meeting of its Governors on March 23rd, states that the expenditure for the year (£15,267) exceeded the receipts by nearly £3,000. The observation is made that though a large percentage of the cases treated come from London and its neighbourhood, the hospital receives nothing from the King's and Metropolitan Hospital Saturday Funds, to which many people now confine their contributions. During the year the treatment of 817 cases was completed; of these, 86·4 per cent. left "improved" or "much improved"; 8·9 per cent. left in a condition practically unchanged; 29 became worse, and 17 died. The average stay of all cases was 66·5 days, and the average gain among those who increased in weight was 9 lb. 12 oz.; the maximum gain in any one case was 2 st. 11 lb. 4 oz. in sixteen weeks. A certain number, 56 in all, lost weight, the average loss in these cases being 3 lb. At the end of the year there remained 152 patients whose cases were uncompleted.

Of the tables in the medical part of the reports, some are based on the Davos system of classification of cases of phthisis, and all, taken together, supply the data necessary for weighing the results obtained. Special attention is drawn to the fact that pyrexial cases are not, as at some sanatoriums abroad, refused admission; but governors are urged to remember the desirability of refusing letters of recommendation except to those who medically are deemed capable of benefiting by sanatorium treatment. Advanced cases, it is stated, are expensive, and benefit little; early cases cost less and greatly improve. The situation and surroundings of this hospital, it may be remarked, are in many ways so ideal that it is desirable that the fullest advantage should be taken of them; but we do not think that the governors will be able to do this until they rid themselves of the system of letters. It has done this institution and those who have sought its aid an immense amount of harm in the past, and its continued existence may be responsible for the fact that less general support is accorded to the Ventnor hospital than from many points of view it certainly deserves.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 83

THE POWELL DUFFRYN COLLIERIES.

A question of contract medical practice has brought about a rather remarkable condition in the Aberdare district. Some six months ago a section of the men employed at the pits of the Powell Duffryn Colliery Company determined to cease to employ local practitioners as their medical attendants, and instead to engage for their exclusive service a medical man with three assistants, and to provide these with a central and two branch surgeries. The scheme was put into practice, some 2,000 of the men out of a total of about 5,000 joining in it, and medical men, as stated, being sought and duly engaged. The rest of the men adhered to the pre-existing arrangements, and the colliery directors continued as before to facilitate them by the collection of the agreed poundage from each man's wages. They refused, however, to do so in the case of men who joined the new scheme, and in consequence these latter caused a mass meeting to be held at which all agreed to go upon strike. In the event, however, only 2,300 of them tendered the preliminary notices, with the result that a further mass meeting had to be summoned. The result of this appears to have been that the directors were again approached on behalf of the dissatisfied section of the men, and the former finally asked that a deputation should be sent to them consisting of two representatives of the men who uphold the old scheme and two of those who favour the one which has partly been substituted for it. The men appear to be fairly unanimous, so far as can be gathered, in their opposition towards any selective treatment on the part of the directors, but entirely divided on the general question of medical attendance in itself.

LITERARY NOTES.

AT a recent meeting of the Lisbon Sociedade das Sciencias Medicas, Dr. Carlos Santos presented a copy of a medical certificate preserved in the Archives of the Portuguese Ministry of War. It was given to Joanne Mendes de Vasconcellos, a distinguished military commander of the seventeenth century, who played a leading part in the wars which followed the shaking off of the yoke of Spain in 1640. While in command of the army at Alemtejo, the general was anxious to get leave that he might have a chance of recovering his health, which was undermined by long campaigning. The King, on the advice of his Council of War, refused the request on the ground that there was no one competent to take his place. The general then sent the following certificate to show that his life was in danger if he did not get sick leave:

I Doctor Pedro Lemos physician to his Majesty now serving as physician major of the army of the province of Alemtejo certify that in this town of Elvas I have examined Field Marshal General John Mendez de Vasconcellos, who is suffering from copious fluxions which frequently affect his chest, and together therewith a great burning and inflammation in the liver and kidneys, whence there come upon him fever and other accidental troubles which many times compel him to undergo bleedings and purgings: In addition to which he has many pains in the joints of the arms and legs, which cause him to pass some nights without sleep and without any rest whatever. Notwithstanding that he has

two issues, made so as to enable him to go while the essential treatment required cannot be carried out, and at the same time the aforesaid diseases constantly increase, so that at present he has been in bed more than eighteen days and has been bled three times, and leeches and other remedies have been applied without improvement, nor do I think this can be obtained unless he can be treated radically with purges, apozems and sweatings, and unless this is done he will run serious risk of losing his life; and to vouch for the truth of this I have made oath on the Holy Gospels in Elvas on this twenty-third day of the month of November of 1646. (Signed) Dr. Pedro de Lemos.

Even this certificate failed of its effect, and the King sent his own physician to treat the sick warrior.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Visit of French Delegates to Sewage Works.—Sewage Sludge and Fruit Essences.—Monument to James Prescott Joule.—Recruiting Returns for Manchester: Enormous Rejection of Applicants.

A NUMBER of delegates from the Council General of the Department of the Seine, who are on a mission to England for the inspection and study of our methods for the purification of sewage visited Manchester last week. Amongst the delegates were M. Grebauval (President of the General Council), MM. Moreau, Chenal, Parisot, Defrance, and Dr. Calmette, Director of the Pasteur Institute, Lille. After visiting the works the Secretary, M. Garnier stated that what struck the strangers most was the large scale on which the operations are conducted near Manchester. Elsewhere they had seen the bacterial method of treatment of sewage, but on a much reduced area as compared with that of Manchester. Indeed, the works were much larger than those visited at Leeds. Later, the deputation visited the Salford sewage works. The Lord Mayor gave a luncheon in honour of the visitors at the Town Hall.

The sewage question is a very important one in Manchester, and the Corporation, with an eye to economy, are making inquiries on the Continent to gain information as to the best way in which to extract fats and other commercially-valuable bye-products from sewage. A paper of importance on this subject was read at its last meeting before the Society of Chemical Industry, by Dr. Grossmann, which carries the question an interesting stage further. At an installation where sixteen tons of sewage were dealt with daily, the apparatus used produced without any objectionable odour about seven tons of manurial residue per day. Amongst other products of distillation were ammonia and butyric, propionic and acetic acids, and there was evidence of organic bases. It was even suggested that these organic bases would form an important item in the revenue derived from the distillation of sewage sludge, and it would be possible by judicious manipulation to convert the organic bodies into fruit essences and other compounds. Hitherto sewage sludge had been considered a nuisance, but when it was realized that it might yield a profit this nauseous compound would be regarded in a different light.

A monument is to be erected at Sale to the memory of the distinguished physicist James Prescott Joule, whose theory of the mechanical theory of heat is now universally accepted. Manchester has already a beautiful marble statue of Joule in the Town Hall. Joule was born at Salford in 1818, and died at his house in Sale on October 11th, 1889. The present memorial will be of bronze, and will be in all 11 ft. high. The pedestal will be of stone or granite, and above it will rise, 4 ft. in height, the half length figure in bronze. Joule is represented as reading a scientific paper to an audience—the paper illustrating his "tangent galvanometer."

The past year's recruiting returns, which have just been published, again bring into bold relief the low standard of physical development amongst the youth of Manchester who seek to join the army. In Manchester, during the twelve months ended September 30th last, 5,083 young men offered themselves for enlistment in the City. Of this number, the recruiters were compelled to reject 1,962, the preliminary examination showing them to be quite unfit for service in any branch of the services. Of the remainder, who were passed on for medical examination, 1,522 failed to satisfy the medical tests, and only 1,378 of the original 5,038 were finally approved, so that about sixty-nine per cent. were thus rejected as being unfit for military service. On few previous occasions have the annual recruiting returns of Manchester disclosed such unsatisfactory results. Nor does it bring much consolation to find that this wholesale rejection is not peculiar to Manchester. At other recruiting stations in Lancashire, although the percentage of rejections was not quite so high, the declarations as to unfitness were very much the same. The average Lancashire lad on attaining the recruiting age is found to be not above the infantry standard (5 ft. 3 in.) in height, but if physically fit he makes excellent raw material for the finished product. The recruiting sergeants find that enlistment is still unpopular, and the recruits therefore are drawn from those who have a difficulty in obtaining civil employment. In 1870 the height of the infantryman was to be 5 ft. 8 in. In July of that year it was reduced to 5 ft. 6 in., and again in September to 5 ft. 5½ in. In 1871 the standard was lowered to 5 ft. 5 in., and in 1873 to 5 ft. 4½ in. In 1884 5 ft. 4 in. was the standard, and to-day it is only 5 ft. 3 in. As to the causes of rejection, only a small proportion in Manchester were on account of height. A considerable number failed on account of small chest measurement, but the majority were not accepted because of bad teeth and "flat feet," whilst not a few were found to suffer from defective eyesight. To what extent the great proportion of "flat" feet is due to the wearing of clogs requires investigation.

SOUTH WALES.

Measles at Newport, Mon.—Penybont Sewerage Board.—Cardiff Infirmary.—Annual Report for Merthyr.—Health of Llantarnam.—Porthcawl Meteorological Station.—University College, Cardiff.—Llandrindod Wells Water Bill.—Caerphilly Council.—Health of Llandaff.—Barry Diphtheria Outbreak.—Enteric Fever Outbreak near Cardiff.

DURING the quarter ended March, 1905, the average attendance at the Newport schools showed a decrease of 411, a percentage of 1.3 on the corresponding quarter of last year. The average attendance was 86.8. Since these figures were collected the measles epidemic has extended, and seven schools have been closed.

At a meeting of the Penybont Sewerage Board, held on April 29th, sanction of the Local Government Board was received for a loan of £7,000 towards diverting the main sewer from Portobello to the sea, to substitute iron pipes for stoneware ones, and to cover costs of recent law cases.

The register of patients at the Cardiff Infirmary for the week ended April 28th, 1905, showed that the number of in-patients admitted during the week, medical and surgical, was 23; ophthalmic, 5; total, 28. Average number of beds daily occupied during the week, 136. Out-patients, new cases, medical and surgical, 173; aural, 3; ophthalmic, 47; total, 225. The out-patients attending during the week numbered 327.

In his annual report for 1904, Dr. D. J. Thomas, D.P.H., Medical Officer of Health to the Merthyr Urban District Council, deals with the progress made with the housing question. He states that sixty-three houses were condemned as unfit for human habitation. In the four years 1900 to 1903, twenty-three deaths had occurred in twenty-three houses, and if the numbers supplied were correct, this represented an average death-date of 53 per 1,000 per annum. Last year seventeen of the houses erected by the Council were completed, and the scheme for the erection of 100 houses was completed, and until the adoption of this project the action of the Council had been destructive in character, consisting of the clearing of unhealthy areas, and the closing of insanitary houses. Each house erected by the Council consisted of five rooms, together with a pantry, coal house, and sanitary convenience, and the sum actually expended, excluding various items such as architect's fees, was £17,046 11s. 9d. The figures worked out at £170 7s. 4d. per house, and the houses were let at an inclusive rental of 22s. 6d. a month. It was, however, evident that these dwellings were beyond the reach of the poorer community, but in view of the restrictions placed upon sanitary authorities, it was difficult to see in what direction economy was to be practised in the erection of similar dwellings. But if the scheme had not attained this end, it had helped to relieve the pressure for house accommodation, and thus enabled the Council to deal more freely with insanitary property. Very few people would deny that the condition of some properties would not justify an even more liberal closure, but the action of the Council must bear a relation also to the amount of house accommodation, or the conditions created by wholesale closure might result in untold harm. Insanitary property was not the only

factor that entered into the problem. There was, besides, the question of the scarcity of houses, and until quite recently the supply did not exceed the demand to such an extent as to justify indiscriminate closure.

Dr. W. E. Murphy, Medical Officer of Health for Llantarnam, in his annual report for 1904, estimates the population at 5,700, which shows a considerable increase. The birth-rate was 37.01 per 1,000 and the death-rate 18 4 per 1,000. The death-rate is 4 4 per 1,000 higher than the average of the last ten years.

The following are the Porthcawl climatological returns for the month of April, 1905: Temperature in the shade, mean maximum, 51 7°; mean minimum, 41.6°; mean temperature, 46 6°; highest recorded, 56°; mean of dry-bulb thermometer, 47.3°; mean of wet bulb thermometer, 44 5°. Sunshine—Total sunshine, 113 75 hours; total sunshine in one day, 10.5 hours. Rainfall—Total rainfall, 2.39 in.; maximum rainfall during one day, 0.33 in.

A meeting of the Council of the University College of South Wales and Monmouthshire was held at Cardiff on May 3rd, under the presidency of Dr. W. T. Edwards, Lord Windsor, and other members of the Council being present. The Council received the resignation of Professor T. Raymont on his appointment as Vice-Principal in the Goldsmiths' College, London, and they resolved to place on record their appreciation of the valuable services he had rendered the College. A letter was received from the Registrar of the University of Wales stating that a congregation of the University will be held in Cardiff on the occasion of the visit of the Chancellor, His Royal Highness the Prince of Wales, to lay the foundation-stone of the new University College. The Registrar of the College (Mr. J. Austin Jenkins) reported a gift to the College of a valuable specimen of a James I shilling, struck to commemorate the union of England and Scotland. The Council resolved to place a statue of the late Principal Viriamu Jones in the vestibule of the new College buildings.

The Hereford Town Council have instructed a Committee to take such steps as they may consider desirable for opposing the water clauses of the Parliamentary Bill of the Llandrindod Wells Urban District Council, and to effect any arrangements with that Council which they may consider will satisfactorily safeguard the interests of the city.

At a meeting of the Caerphilly District Council a letter was read from a firm in Surrey asking if the Council would approve of the erection of cheap workmen's dwellings, consisting of corrugated iron with fireproof lining. The firm pointed out that such structures were permissible in many places now when there was such a great demand for cheaper houses for workmen. If permission was given plans of the structures would be submitted for approval by the surveyor. A member suggested that the houses be given a trial, but this was objected to by another member, who stated that the by-laws prohibited the erection of such dwellings. Eventually the Clerk was instructed to reply that the Council would consider any specific application by the firm.

The annual report of Dr. R. Prichard, D.P.H., Medical Officer of Health dealing with the thirty-four parishes constituting the rural district of Llandaff and Dinas Powis, has just been issued. Seven hundred and forty births were registered, this being the highest number recorded for the district, and equal to a birth-rate of 29 91 per 1,000 of the estimated population; 342 deaths occurred, equal to a death rate of 13 82; 84 of these deaths were those of infants under 1 year of age, and equivalent to an infant mortality-rate of 113. Cancer was the cause of 19 deaths, the number recorded during the preceding four years being 14, 13, 16, and 12 respectively; 111 cases of diphtheria were notified, 6 proving fatal; 5 cases of enteric; 60 of scarlet fever, with 6 deaths; 5 erysipelas, 1 death, 169 whooping cough, with 11 deaths; measles caused 6 deaths, and diarrhoea was fatal in 6 instances. Only 1 case of puerperal fever was notified during the year, and the patient recovered. Dr. Prichard, in dealing with phthisis, refers to the ignorance which prevails as to what constitute preventive measures in cases of consumption. Public lectures, he states, would be useful; but the real education must, and will in time be, carried out by sanitary authorities. In other words, when the patient is told by his medical attendant that he is afflicted with tuberculosis, he will readily follow any directions which may lead to his recovery. Patients, adds Dr. Prichard, can take the necessary precautions to prevent the spread of the disease, with great benefit to themselves, and without being in the least a nuisance to others.

Dr. G. Neale, Medical Officer of Health, reported to the Barry Health Committee, at their meeting held on May 4th, that 115 cases of infectious diseases were notified during the past quarter, including 43 of scarlet fever and 59 of diphtheria. The outbreak of diphtheria which commenced in November, 1904, continued to the middle of March, 1905. The disease was generally mild in character, only 4 cases having terminated fatally. The Local Government Board wrote in reply to the Council stating that, provided the local medical officer advised favourably, they were prepared to sanction reasonable expenditure in the gratuitous supply of antitoxin for diphtheria cases. The reply was considered satisfactory, and a member moved that they allow the medical officer to provide the serum in cases not dealt with by the Poor-law authorities. This was agreed to.

At a special meeting of the Health Committee of the Cardiff Corporation held on May 5th, Dr. E. Walford, Medical Officer of Health, reported that in accordance with the Dairies, Cowsheds, and Milkshops Order he had given notice to the occupier of a dairy situated outside the borough to appear before the Committee that day to explain the outbreak of enteric fever at his residence. The dairyman was in attendance at the meeting, and Dr. Walford read the report he had prepared for that Committee—namely: "In accordance with the provisions of Section IV of the Infectious Diseases Prevention Act, 1890, I have to report that two cases of enteric fever have recently occurred at the residence of the occupier of the Llandaff Mill Dairy, one of the persons attacked being the man in charge of the cows. I am of the opinion, therefore that the consumption of milk from such a dairy is likely to cause enteric fever. Acting upon this opinion, I have obtained the authorization of a justice having jurisdiction in the county of Glamorgan to inspect the said dairy. As a result of its inspection, I am of the opinion that the disease is caused from the consumption of the milk supplied therefrom. The cowsheds and farm premises generally were in a very dirty condition from the accumulation of manure and filth, and I have to advise that your authority should make an order under the powers of the above-mentioned Act, requiring the said dairyman not to supply any milk from his dairy within the district of the Urban Sanitary Authority of Cardiff, until I have certified that in my opinion the premises are free from infection.' Dr. Walford added that the whole of the milk from the dairy went to a dealer in Cardiff. The man who had milked the cows was in the District Council's hospital and the wife of his employer was ill at the house where he had lived prior to his removal to the hospital. The dairyman said that he would give an undertaking that the cows should be removed away half a mile or a mile if necessary, and that no person at present employed in his dairy should be employed in milking these cows and to conform to such other requirements as Dr. Walford would deem necessary. Dr. Walford advised the Committee to serve notice upon the dairyman according to the Act, and that he be asked to inform the Council of the arrangements he proposes to make to satisfy them. This was agreed to. Further, the dairyman said he had no knowledge whatever of the regulations controlling the sale of milk under the Dairies, Cowsheds and Milkshops Order.

LEEDS.

The late Sir John Barran.—The Weatherill Memorial.—The Aims of the University of Leeds.

The City of Leeds and the University of Leeds have both suffered a great loss by the death of Sir John Barran in his 84th year; for the former has lost one of its most honoured citizens and the latter is deprived of one of its first honorary graduates and one of its warmest and most enthusiastic supporters. If, as the Vice-Chancellor said in presenting Sir John for the degree of LL D., "he had merely introduced a great and successful industry into Leeds, his would have been no sterile record," but all who are acquainted with Sir John Barran's public work must feel that throughout his long career he was always actuated by the highest ideals of citizenship. He was one of the founders of the Yorkshire College; ever ready to assist by his purse and by his influence in its development; he was a member of the council from its inception, and for some years acted as chairman of the finance committee, and subsequently as treasurer.

It will be remembered that one of the conditions attached to the will of the late Christopher Charles Weatherill was the placing of a memorial of the testator in the accident ward which was to be named after him. Mr. Thomas Brock, R.A., whose much-admired statue of the Black Prince adorns the City Square, has accepted the commission of the Board of

Management to execute a bas-relief. Mr. Brock has recently visited the infirmary, and will shortly give his opinion as to the exact form the memorial should take, and will submit a model.

In addressing a meeting of the leading citizens of Bradford which had been convened by the mayor, the Marquess of Ripon, as Chancellor of the University of Leeds, took a very broad view of the aims and aspirations of a provincial university. Feeling convinced that technical education is itself benefited by the laying of a broad scientific education, the authorities of the University were alive to the necessity of seeing to it that in respect of technical education the University should be something more than a mere collection of technical schools, and should be able to offer that which could not be obtained in smaller centres, which might, however, be provided with excellent technical schools. Referring to the mayor's speech in Leeds some weeks ago, he said he had taken the true line when he urged on the authorities the development of that part of university education which dealt with art, literature, history, and other matters. The Pro-Chancellor, Mr. Arthur Lupton, in making an appeal for support from Bradford, stated that more than three-fourths of the registered day students came from districts outside Leeds, and that there were at the present time no less than 58 students from Bradford who were studying arts, science, medicine, and law in the University. Dr. Campbell, speaking as a Bradford medical man and as one of the teachers in the University, mentioned the advantages accruing to Bradford from the proximity of the old-established and efficient medical school of Leeds, which was, of course, a part of the University. It is confidently believed that most of the large towns in the West Riding who have university facilities offered to them by the establishment of the new University will support it in every way they can.

CORRESPONDENCE.

THE MIDWIVES ACT AND THE MEDICAL PROFESSION.

SIR,—As now the above Act is in full swing (I cannot say working order) and the midwives (save the mark in some cases) are more or less provided for, or, at least, protected, may I suggest that something should be done to protect the medical profession by some amendment of the Act?

As the Act stands at present the midwife, if she meets with any case that is abnormal, must send for *a medical man*; having done so, she at once complies with the Act and makes herself secure, but how about the medical man called in? I mean, of course, as regards his fee, which is very essential. Now, I should suggest that as under the present above-mentioned Act the midwives are under the control of County and District Councils, why not have some particular medical man appointed under such authorities in each district and to whom he can apply for his fees for any cases which may require his services in connexion with these midwives. Why protect the midwife and allow the medical man (who has all the responsibility) to bear the brunt of the battle, and then to get only thanks, if he even gets that, in some cases?

I quote a case in point which happened to myself a short time ago, and which has urged me to make this suggestion. A midwife having had a case which she could not manage herself sent for me (the case was retained placenta; child born three hours previously). This midwife, I may say, is one of the old women of the district who has obtained her certificate (or papers as she called it) by having been in practice as a midwife for some few years; but has had no special training, and is most illiterate. On my arrival the midwife explained that as she could not get the placenta away, she thought it best to send to me, as her rules (which she could not read) directed her to send for "*a doctor*," so that she would have no blame. Having expressed the placenta and put the patient comfortable I left, and saw the patient again several times until she was convalescent. As no arrangement for the fee was made, I thought I would quietly tell the patient that my fee would be (or at least was) one guinea. She said she was very sorry indeed as her husband was out of work and there was no likelihood of his getting any, and consequently no likelihood of me getting my fee; they had three children to try to support, which was also an excuse. Now, I do not go to midwives' cases, and have made up my mind not to do so again unless the fee is tendered at the time. I think the term "Midwives Protection Act" would be more appropriate than the present term.—I am, etc.,

Netherton, Dudley, May 5th. A. ST. LAWRANCE-BURKE.

DISQUALIFICATIONS UNDER THE LUNACY ACT, 1890.

SIR,—In the BRITISH MEDICAL JOURNAL of April 29th there is an interesting paper on the disqualifications under the Lunacy Act of 1890.

I am very glad to see this question is being raised, not because I have any ambition to become a commissioner, but because I consider that these disqualifications cast an unmerited slur on that part of the speciality who are treating insanity in licensed houses.

On January 1st, 1904, 3,601 patients were being treated in licensed houses and 4,271 in registered hospitals, yet the hospitals are always represented in the councils of the Commissioners and the licensed house as carefully excluded.

As your correspondent very properly points out there is no difference between the position of a superintendent of a hospital and the proprietor of a licensed house—both are dependent on the success of their treatment for their livings, for to assume that because the superintendent is paid a fixed salary he has no interest in keeping up the numbers is to assume the thing that is not. A superintendent who emptied a hospital would not be likely to retain the confidence of his committee.

The Commissioners are asking for an increase in their numbers, and it is to be hoped that when the Lord Chancellor takes action in this matter he will endeavour to do away with an injustice to us who are interested in licensed houses.—I am, etc.,

Shrewsbury, May 2nd. E. H. O. SANKEY, M.A., M.B., B.C.

ELECTION OF CENTRAL COUNCIL, BRITISH MEDICAL ASSOCIATION.

SIR,—As the primary mover of the resolution by which, at the last Representatives' Meeting, By-law 24 was amended in the direction of allowing Divisions as a whole to nominate candidates, may I draw attention to this new power given to Divisions as local medical societies; for, judging by the notices now appearing in the BRITISH MEDICAL JOURNAL, it seems to have been overlooked?

It may interest some to hear that the Metropolitan Branch, while otherwise accepting the ballot paper suggested by the Organization Committee, decided to state, in the case of those candidates nominated by Divisions, the names of the Divisions that have so nominated.—I am, etc.,

London, S.W., May 8th. E. ROWLAND FOTHERGILL.

LANCASHIRE AND CHESHIRE BRANCH AND ELECTION FOR CENTRAL COUNCIL.

SIR,—Judging from the proceedings of last year's election the members of the Lancashire and Cheshire Branch of the British Medical Association will not this year have the opportunity of communicating with each other by means of the BRITISH MEDICAL JOURNAL with reference to the approaching election for the Central Council of the Association, after the receipt of the ballot papers and before the date on which they have to be returned. It is quite possible we may receive them to-morrow (Thursday), and then they would have to be returned before Saturday in the next week, and so the matter could not be discussed in the JOURNAL.

To my mind there ought to be at least one issue of the JOURNAL in the interval between receiving and returning the voting papers, through which we might communicate with each other. Two would be still better.

This year, I understand, that for the four vacancies on the Central Council which this Branch has to fill, seven candidates have been nominated, and I should be glad to be allowed to make some general remarks upon the subject.

During the last and recent years these four representatives have consisted of two consultants or specialists and two factory surgeons, one of whom also being a Poor-law and vaccination officer.

Now, it is very probable that these four have been again nominated, and I think it is only right that the members of the Branch should know all this. My own opinion is that only one consultant should be elected, one factory and vaccination officer, and two general practitioners not holding these offices, and so a fair representation would be made of the whole Branch, the great majority, of course, consisting of general practitioners.

It is well known that vaccination officers have had a good

time since the passing of the Act, and many have been the complaints made of their interference with the patients of private practitioners.

If the four mentioned have been again nominated, it is just possible that the other three are general practitioners—one I know for a certainty is—not holding either of the appointments referred to. So, then, if one factory surgeon, one consultant, and two of the others, if general practitioners pure and simple, are voted for, then we may get a fair representation. If this plan be not adopted, there will be cross-voting, and the original four will be certainly returned if they are again in the field.

Of course, the only way for general practitioners to make sure of their men is to plump only for one, two, or three of their own class. They need not fear that any particular one of the present representatives will be short of votes, and the only safe way to secure their own candidates is not to vote for any of the present representatives but for one or more of the three newly nominated.

There has been a vast amount more interest taken in the work of the Association since the new constitution, but members require to be constantly reminded of what is going on, as men engaged in general practice and not in touch with medical politics cannot be expected yet to know the importance of looking after their own interests through organization. After doing all we can to stir them up to vote, I venture to prophesy that out of 1,600 members not more than 500 will take the trouble to send in their ballot papers, but after this warning they will have no ground for complaint that no one took the trouble to issue it.

If we receive the voting papers before Saturday we shall be at a disadvantage, as many papers will be returned at once before the JOURNAL is read, and therefore there will be all the more reason for those sending in who have not done so, as a large percentage of members do not read their JOURNAL at all, and many of those who do may not refer to the correspondence.

I do not suppose my writing will stir enough general practitioners to vote in order to change the representatives, but I take the opportunity of calling the attention of those who care to bestir themselves, and also with a view of ventilating the subject generally. It really does, and will, take so much to stir general practitioners as a body before they have any voting weight.

I am quite expecting the same anomaly of previous years—namely, that the voting papers are to be returned to one of the candidates!

So much resulted through my going to the poll last year that it is just possible some little benefit may again unexpectedly arise. I do not anticipate that I shall be elected, so that I shall not be disappointed, and no one need expect that I shall do any canvassing. As there may be a large amount of cross-voting the only way for any one to make the most of his votes is to vote for as few as possible—say, only one, or at most two. The present representatives will be certain to have many votes. Last year, I believe, they polled over 400.—I am, etc.,

Manchester, May 3rd. G. H. BROADBENT.

ONE-MARK VACCINATION.

SIR,—It is wise for those who desire reforms to use guarded, temperate, and convincing language. Your correspondents, "One Mark" and "General Practitioner," have unwittingly strengthened the position of those in favour of public vaccination by showing their determination to sail as close to the wind as the law allows simply because they have a grievance, and one with which most practitioners intensely sympathize.

"G. P.'s" letter might be *précised* thus: "If I were a public vaccinator, as every practitioner ought to be, I should vaccinate efficiently; but as I am not I will do as bad work as the law will tolerate, even though by so doing I risk the safety of the people whom my vaccination is presumed to protect." Surely "G. P.'s" "risk of making a bad debt" would not, in a case of illness, induce him to withhold expensive though necessary medicine to ensure the recovery of his patient?

I am afraid that if "G. P." disclosed his identity and his letter had appeared in a lay paper he might "put his shutters up." Let us by all fair means agitate for the abolition of public vaccination, or, at all events, that part of it which consists of domiciliary visits to the patients of private practitioners. If every general practioner were paid by the local authority there should be no difficulty in supervision. A visit to the surgery to see that the proper appliances are kept in good order, and an inspection of the arm of any child whose vaccination has been certified, would surely suffice to insure that the Local Government Board requirements have been complied with. Till then let every man do honest work,

> True as the dial to the sun,
> Although it be not shone upon,

and thus show that we are fit for the privilege and justice which we demand.—I am, etc.,

May 1st. L. S. A.

SIR,—In this district the public vaccinator is also registrar of births, marriages and deaths, and makes a point of calling with his book to register the birth of any child. Under such circumstances as these may I ask how can any medical practitioner be expected, in the face of such competition, to keep in the straight path? Personally I feel inclined not only to offer "one mark" but free vaccination; it would pay in the long run.—I am, etc.,

May 2nd. "BURFORD."

SIR,—May I be allowed heartily to endorse the remarks of "General Practitioner" (BRITISH MEDICAL JOURNAL, April 29th) respecting one-mark vaccination? I have been a public vaccinator myself, and when I was one (and well paid for my work), I was aghast at the suggestion of anything less than 4 marks. Now, however, that I am only a general practitioner I certainly intend joining the ranks of "One Mark" and his followers, because I think that if all our brother practitioners will do the same it will ultimately have the effect of remedying the iniquitous injustice of the Vaccination Act as at present administered. The scheme is an improvement on the old method of station vaccination, but that is not saying much. In the first place, if vaccination is any good at all (and we believe it to be) it should be illegal to perform inefficient vaccination, namely, one small puncture, and this could only be done by paying us the same fees as the public vaccinators out of the public funds.

But the greatest mistake is to place its administration in the hands of the Boards of Guardians, who know little and care less about vaccination, and who quite properly resent the injustice of having to administer an Act for protection against disease which should properly belong to the domain of public health. Every unvaccinated person is, we assume, a danger to himself and others as a possible subject for contracting and spreading variola, and is, therefore, a constant menace to the public health. The authorities to whose care these matters are entrusted should administer the Vaccination Act.

The vaccination officer would be a sort of sanitary inspector, whose business it would be to ferret out every unvaccinated person and have them vaccinated. Every general practitioner should be a public vaccinator, and he would have an interest in pressing on a procedure which he knows to be salutary, just as he now assists the sanitary authorities by reporting cases of infectious disease, etc. Persons should have whatever doctor they like to vaccinate them, and each practitioner would receive his quarterly cheque for vaccination. The matter of the fee could be easily settled by taking the average of the amounts which each doctor in the district agrees to accept. It would all be so simple and as completely efficient as compulsory vaccination ever will be.

The friction caused by the present Act is getting more intense every day. The guardians do not want to have anything to do with it; they will not exercise their compulsory obligations; their vaccination officer, even if originally zealous, is soon paralysed by their apathy and depreciation of his well-meant efforts, and the public do not want a strange doctor to come into their homes and perform an operation upon their children. They resent the interference; but I venture to say that if each person could be vaccinated by his own medical man free of expense, not 1 per cent. would raise any objection whatever. However, this will not, I fear, come about in our time. Meanwhile, I am, etc.,

May 4th. ANOTHER ONE-MARK.

SIR,—Is it not a fact that before the new Act came into force the majority of public vaccinations were done at the surgery or vaccination station? Whereas now what is the case? If for the same operation there is a fee of 2s. 6d. and 10s., which is it likely any one would try to obtain? Consequently the public vaccinator is always most willing to vaccinate at the patient's house. The general practitioner, on the other hand—certainly among working-class patients—cannot

obtain more than 2s. 6d. for the operation, and to get that has to ask if he *may* vaccinate the baby of the mother whom he has attended in confinement, and as he has to live, as well as the public vaccinator, he must offer if required to do one spot only; and, whether he does it at his own surgery or at the patient's house, obtains the same fee.

Another most objectionable practice which takes place in our union is not only most unprofessional, but also most unfair to the other medical men residing in the district. It is this: when the parent goes to register the baby the registrar inquires who is going to vaccinate the baby, and then, if they require the public vaccinator, a printed form is handed them (supplied free by the guardians, I presume) with the name of the public vaccinator in large type. This I consider practically amounts to touting for public vaccinators.—I am, etc.,

May 8th. ANOTHER GENERAL PRACTITIONER.

THE IRISH MEDICAL DIRECTORY.

SIR,—I cordially endorse the sentiments expressed in the letters published in your issue of May 6th with reference to the so-called *Irish Medical Directory*. It is in my opinion nothing but a form of coercion to drive all and sundry into the net of the Irish Medical Association by putting forward a legalized form of advertisement for those who are willing to be ensnared.

I, too, have received a copy of the so-called *Directory*, with application for membership, but think there has been too much beating of drum of Irish Poor-law medical officers, and not sufficient thought for the general body of the profession in Ireland. Therefore under the circumstances I decline to be intimidated by this Association.—I am, etc.,

May 7th. "TRACHOMA."

SIR,—I entirely agree with your correspondents who object to the manner in which the names are published in the so-called *Irish Medical Directory*. The Irish Medical Association has made a mistake, which I hope it will remedy in its next issue by publishing the names in the same type setting forth their degrees, etc., accurately. If the degrees or qualifications are not accurately given, the book might still remain "an admirable medium for 'advertising' the practitioner," who has had placed opposite his name better degrees or qualifications than those which he possesses. I would suggest that the qualifications should be taken from the *Medical Register;* they are not accurately given in the present issue.—I am, etc.

A MEMBER OF THE IRISH MEDICAL ASSOCIATION.

May 8th.

FOOD POISONING AND THE CONVALESCENCE OF INFLUENZA

SIR,—May I be permitted a brief comment on the concluding remarks of Dr. Clifford Allbutt's address on influenza, which deal with the question of diet during the course of that complaint? If ignorant and solicitous relatives are at fault in urging too much and too rich food, is the medical profession itself wholly exempt from blame in the same direction? I have long been convinced that much of the misery following influenza—the weariness and depression, the languor of body and the hebetude of brain—is due to food poisoning rather than to the direct consequences of the illness itself. People generally speaking, in illness as in health, act on the principle that weakness is rectified, strength maintained, mainly in proportion to the amount and the "goodness" of the food taken. To feel well and to be eating little excites suspicion, if not actual alarm; while the throes of convalescence are borne cheerfully, and without question, in the possession of that blessed thing, a good appetite.

The method of feeding-up—so dear to the lay mind, so plausible, so easy to recommend, so sure of ready acquiescence—what follies, what unreasonableness are not prosecuted in its name! When the powers of assimilation are at their lowest, and "all the wheels of being slow," when elimination proceeds least actively, then it is that we elect to urge, or at least to approve, food in such amount and such quality as a person might well fail to cope with in health and vigour. Perhaps in influenza the danger is greater and the consequences more pronounced because of the general nerve depression usual in the complaint, and every one will admit the important part played by the nervous system in all forms of indigestion, whether of the primary or the much less obvious secondary types. The many attacks of influenza from which I myself have suffered long since satisfied me of this at least, that protracted and irksome convalescence is more likely to be avoided by a light and simple diet rather than by a process of feeding-up. Tonics, to arouse an appetite without providing any corresponding capacity to dispose of the food taken, champagne to give a momentary and delusive fillip, and concentrated nitrogenous foods washed down at meal times with Burgundy, and crowded in surreptitiously between meals in the insinuating varieties devised by commerce—this is a principle which may or may not combat the devastating effects of influenza, but it is assuredly one which, in many folk, at least, provides its own lingering Nemesis of symptoms, less palpable, perhaps, but not less irksome nor less incapacitating than those of the illness itself.—I am, etc.,

Hale, Cheshire, May 7th. PERCY WITHERS.

PRACTITIONERS AND CHEMISTS.

SIR,—I have been recently nonsuited in an action to recover fees, the judge laying it down as a point of law that a medical man dispensing through a chemist is the agent of the patient, and consequently, in accordance with the law relating to "agency," is entitled to recover only that amount actually paid by him to the chemist for the medicine supplied.

As this is an entirely new view to the profession at large, and moreover will interfere with the practice of a great and increasing number of general practitioners, I think it only right that they should be made aware of the position they are occupying, lest they, like myself, should take action upon a wrong assumption and be mulcted in costs.

I have, however, obtained leave to appeal, and should feel greatly obliged if some of your readers would give me their views and advice upon the matter. In connexion with this I enclose a letter I have just received from my chemists defining the position as it affects themselves.

Another feature of the judgement is that it will give the right to any patient to sue their doctor for sums paid in the past, beyond what was the actual cost-price of the medicines sent them.—I am, etc.,

W. COODE ADAMS, M.B.Lond.

Eton Avenue, Hampstead, May 8th.

[COPY.]

May 5th.

Dear Sir,—The situation disclosed by the judgement in your case (Adams *v.* Butterworth) renders it necessary for us to reconsider our arrangements with you as to dispensing, and for the following reasons:

1. If you are compelled to charge your patients only as much for each mixture, etc., as we charge you, you will be *underselling us.*

2. If you should be compelled on another occasion to appeal to the county court, you will have to state publicly what you are charged by us for each mixture, etc., thus *disclosing our profits to the public.*

Will you therefore call on us at an early date to discuss the same.

Yours truly,

To Dr. Coode Adams.

THE CAUSE OF CANCER.

SIR,—As with the great discoveries in science, art, and mechanics, no single man or woman can ever hope to take the full credit for the discovery of the cause of cancer; for if ever that consummation is attained it will be by the efforts of many workers extending over a series of years.

After carefully reading all the articles on carcinoma that have appeared in the BRITISH MEDICAL JOURNAL during the last few years I confess to be strongly in favour of the germinal theory so ably expounded by Dr. Beatson in your last issue. To put his views in a nutshell, cancer is simply a running to seed; and to counteract this tendency should be the aim of all concerned. It can hardly be doubted that the majority of the human race eat and drink far more than is necessary to maintain the balance of health after arriving at maturity, and it must be admitted that in a certain percentage of men and women the functions of the reproductive organs are at fault or suspended after middle age.

Consequently the fluid, or whatever else it is, from which the germinal cells are manufactured by the ovaries and testes will accumulate in the system—probably in the fat, as Dr. Beatson suspects—and it is feasible to suppose that, the material being there, it only requires local irritation to complete the process of germinal or epithelial cell formation.

Prevention being better than cure, I venture to say that more moderate eating and drinking after middle age, and a small dose of magnesium sulphate before breakfast twice a week for those who are inclined to put on fat, would lessen the yearly mortality from cancer.—I am, etc.,

Ardrishaig, May 1st. ALLAN WILSON, M.D.

THE SOCIETIES OF APOTHECARIES.

SIR,—Your correspondent "Tempora Mutantur" asks, Is a Licentiate of the Society of Apothecaries entitled to place "Physician and Surgeon" on his doorplate and account forms?

The answer to this question is contained in an official communication from the Society published in the principal medical journals on June 30th, 1900, which ran as follows:

> The resolution passed by the General Medical Council at its recent session, deciding not to employ the funds of the Council in defraying the expenses of a test case to determine whether the L.S.A. (1886) is or is not entitled to call himself physician and surgeon, having been read,
>
> Resolved: That in view of the opinions expressed by eminent counsel in favour of the Society's contention, and this Court, considering that the decision of the General Medical Council ought not to operate to the prejudice of the Licentiates of the Society, hereby authorizes all Licentiates of the Society qualified under the Medical Act 1886 to call themselves physicians and surgeons, and undertakes to defend them at the sole cost of the Society from the legal consequences of their adopting those titles.

The matter remains now just where it was when this notice was issued, for no College of Physicians or Surgeons has accepted the challenge contained therein, and I hope that its republication may help to make the situation clearer. I quite agree with your correspondent that the word "apothecary" as meaning a medical practitioner is dead (hence the confusion in the public mind as to what he really is), but I must confess that I cannot follow him when he asserts that the more descriptive designation of Lic. Med. Surg. and Mid. Soc. of Apoth. would make the confusion worse confounded. The very large number of signatures to the petition to the General Medical Council on this subject proves conclusively how generally the proposed change would be welcomed not only by those who are practising on the L.S.A. alone, but by those who have taken additional diplomas or degrees.—I am, etc.,

Oxford, May 8th. A. RIVERS-WILLSON.

SIR,—As the London Society of Apothecaries is about to petition for a change of title, may I suggest that it is high time Apothecaries' Hall of Ireland did the same? The latter Corporation has every right to see that their own Licentiates (qualified in medicine, surgery, and midwifery, under the provisions of the Medical Act, 1886) are not placed on a lower level as regards title than the similarly-qualified London licentiates. The London men will probably soon sign themselves Licentiates of Medicine, Surgery, and Midwifery of the Society of Apothecaries of London; their Dublin brethren (unless something is at once done for them) on the other hand will remain under their old title of L.A.H.Dub.

This will be manifestly unfair to them, and it is only right they should be put on an equal footing with the London Society licentiates.

I suggest therefore that the Dublin licentiates petition the General Medical Council for a change of title without delay.—I am, etc.,

May 8th. L.A.H.DUB.

SIR,—The letter in the BRITISH MEDICAL JOURNAL of May 6th, signed "Tempora Mutantur," suggestively remarks without any disrespect to the Society, that the title "apothecary;" is about as defunct as is "man-midwife" or "barber-surgeon," and as the Conjoint Board claims M.R.C.S.Eng. and L.R.C.P.Lond., might not the distinctive title of the Society of Apothecaries be "Society of Phys. and Surgeons, Lond." Thus, a Licentiate L.S.P.S.Lond.—"Lic. Soc. Phys. and Surgs. Lond." This would not, as far as I can see, usurp the title of any other corporation; the only question is whether such an alteration would involve a fresh charter. The fact however remains that the Society does not qualify its Licentiates as Apothecaries, but as Physicians and Surgeons.—I am, etc.,

May 8th. MEDICUS.

SIR,—That a change of title is necessary for those holding the single qualification of L.S.A. or L.A.H. will be generally admitted. The change should be one wherein the word "apothecary" is admitted, as the public are apt to associate the word with those who practise pharmacy, or perhaps imagine that there still exists that classical individual who practised some centuries ago, and is so delightfully described by novelists—a cross between a glorified prescribing chemist and a "consulting physician." The *Lancet* of May 6th contains an objection to the word Faculty as suggested by your correspondent of April 29th. If, therefore, the word "Society" be substituted for that of "Faculty," and the letters L.S.P.S. be used, then there will be no infringement of other examining bodies, and will be sufficiently descriptive.—I am, etc.,

May 8th. X. Y. Z.

INFLUENZA IMMUNITY.

SIR,—On reading Dr. T. Clifford Allbutt's discussion on influenza he mentions the period of immunization as being not less than five or six months, I may say that within the last month two cases of what I take to be undoubted influenza came under my notice, these two cases having previously been under my care two months before with exactly the same symptoms from which they are now recovering. One of these patients during the second attack had angina pectoris, the first seizure being extremely severe, the subsequent ones gradually diminishing in severity, and for the last few days he seems to have been quite free from them.—I am, etc.,

EDWARD S. B. EAMES, M.R.C.S., L.R.C.P.

Uffculme, Devon, May 8th.

OBITUARY.

GEORG MEISSNER, M.D.,

Formerly Professor of Physiology, University of Göttingen.

DR. GEORG MEISSNER, whose death has already been announced in the BRITISH MEDICAL JOURNAL, was born at Hanover on November 29th, 1829. He was a pupil of Johannes Müller in Berlin, and of all the pupils of that great physiologist perhaps he was the one who interested himself most in those broad general problems in physiology which have made the name of Müller one of the greatest of his century. Meissner also studied at Göttingen under R. Wagner and at Munich under C. v. Suboid. He took his degree of M.D. in Göttingen in 1852. In 1855 he became Professor of Anatomy and Physiology in Bale; in 1857 he was called to Freiburg in Breisgau as Professor of Physiology and Zoology; and in 1860 to Göttingen as Professor of Physiology.

At Göttingen he was associated with R. Wagner, who in 1852 discovered the touch corpuscles in the cutaneous papillae. These corpuscles bear the name both of Wagner and Meissner, as they were more fully studied by Meissner in 1853. He estimated that in an area of two square millimetres of the palmar surface of the last phalanx of a finger there were 400 papillae, of which 108 were provided with these tactile corpuscles.

From 1856 onwards for many years he, jointly with Henle, edited the well-known *Bericht über die Anatomie und Physiologie*, the prototype of so many annual reports, epitomes, and other *Berichte*.

Every student of medicine is acquainted with Meissner's plexus, which lies in the submucous coat of the intestinal tract. Meissner's discoveries were made in the early part of his career. For thirty years he published little, although he wrote much. He burned many of his papers before his death, but there remain a certain number including one on the comparative anatomy of the semicircular canals. Meissner was an excellent teacher and experimenter. He was a gifted musician. Since the death of his wife eighteen years ago, he had lived a lonely and secluded life, visiting but seldom, though gladly welcoming those who visited him. He was the teacher of most of the practitioners in Hanover, all of whom spoke of him with affection. A few years ago Meissner retired from the chair of physiology, and was succeeded by Max Verworn, whose name is now, and has been for some years, one of the best known in connexion with what is known as "general physiology."

THE LATE DR. J. E. DUTTON.—Mr. Chamberlain has sent to the Liverpool School of Tropical Medicine a letter of condolence on the death of Dr. Dutton, an account of whose career was given in the BRITISH MEDICAL JOURNAL of May 6th. He said that Dr. Dutton died a martyr to the cause to which he had devoted himself, and must have his place with the great army of men who, in many different professions and occupations, had fallen victims on the way, leaving to the future the welfare and prosperity of the great dominions of the King. The Secretary of State for the Colonies has also expressed deep sympathy with Dr. Dutton's relatives.

LIEUTENANT-COLONEL KENNETH SERJEANT WALLIS, R.A.M.C. (ret.), died at his residence, in Hastings, on May 2nd at the age of 52. Colonel Wallis entered the medical service of the army in 1878, becoming Surgeon-Major in 1890 and Lieutenant-Colonel in 1898. He served in the Zulu war of 1879 and in the subsequent operations against Sekukuni, including the storming of the stronghold, where he was slightly wounded (medal with clasp). In the Boer war of 1880-1 he was in medical charge of the garrison at Potchefstroom during its investment, and was again slightly wounded. He served with the Nile Expedition in 1884-5, where he was in charge of the movable field hospital, and was present in the reconnaissance to Metammeh (medal with clasp and Khedive's star).

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have lately died are Professor Eckard, Director of the Physiological Institute of Giessen and the Senior Member of the Medical Faculty of that University, aged 84; Professor Augusto Picconio, lecturer on pharmaceutical chemistry in the Institute of High Studies, Florence; and Dr. Samuel von Basch, Professor of Experimental Pathology in the University of Vienna, and sometime Professor of Anatomy in the University of Mexico, aged 68.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

YEOMANRY AND VOLUNTEER MEDICAL OFFICERS.

ANNUAL DINNER.

THE annual dinner of the Medical Officers of the Yeomanry and Volunteers took place on Saturday last, May 6th, at the Hotel Cecil. The chair was occupied by Major-General W. H. Mackinnon, C.V.O., C.B., Director of Auxiliary Forces, and among the visitors present were Surgeon-General Keogh, C.B., Director-General of the Army Medical Department, Sir William Church, Bart, K.C.B., Lieutenant-Colonel Hopkins, V.D., Major Thurston, and Major Green. There was not so large an attendance of Volunteer officers as had been hoped, owing probably to the fact that the day was Saturday, which was fixed in the belief that it would enable country medical officers to attend more easily.

After the toast of "The Imperial Forces," which was proposed by Sir WILLIAM CHURCH, Surgeon-General KEOGH, C.B., proposed "The Volunteer Medical Association," and in the course of his remarks said that he did not think the Volunteer medical service of this country was in a satisfactory condition, and this was partly because there was no similarity between it and the Army Medical Service. Some volunteer battalions had three or more medical officers who were trained with their battalions and learned nothing of duties outside them; this was unsatisfactory. His theory was that the volunteers ought to be in a position to act at home when the regular army had gone abroad; but to be able to take their place they must be trained for it. The senior officers of volunteers should be in a position to take the place of the senior officers of the army and carry out the higher duties, not merely regimental duties as they did at present. They were all well instructed and competent in medical matters, but lacked knowledge of administration. He hoped the Volunteer Medical Association would take the matter up, and he would be pleased to give any advice or assistance in his power.

Brigade-Surgeon-Lieutenant-Colonel THOMPSON replied, and spoke of the work the Association had already done and of the ideals of what it should do.

Lieut.-Colonel HOPKINS, V.D. West London Rifles, proposed "The Medical Officers of the Yeomanry and Volunteers," and alluded to the fact that medical officers differed from other officers, in that all the time they were volunteering they were still doing their ordinary professional work, whereas the others, when in camp, for instance, could throw aside profession or business and get a thorough change.

Surgeon-Colonel A. CLARK, V.D., replied.

The toast of "The Chairman" was proposed by Surgeon-Lieut.-Colonel KIALLMARK in a felicitous speech, and General MACKINNON in replying expressed his gratification at being present and also of getting to know more about the Volunteer Medical Association. He had gained information which would be of use to him in the appointment he held. He was satisfied that medical officers were well trained in their profession before becoming volunteers, but there were two important points in which they failed and required training, and these were the routine of camp and the management of large bodies of men. He laid stress on the fact that the volunteer medical officer was not for show, or for Saturday afternoon parades, or for walking out, but for preparedness for war, and he did not think the volunteers quite grasped this, and that they were, in fact, part of our army. He asked why was not the Volunteer Medical Service a regular organized body as the Director-General wished to make it, so that it could be of some real assistance to the regular army? He thought it would have no chance if the War Office started it; it could only come about by conference between the volunteers themselves and suggestions emanating from them. In concluding, the Chairman spoke of the new standards of chest measurement and weight, and hoped all medical officers would play up to it, as many men were admitted into the ranks who were unfit to do company work.

The proceedings were enlivened by some capital songs, and the company dispersed about a quarter to eleven after a very pleasant evening.

THE TRAINING OF VOLUNTEER MEDICAL UNITS.

R. H. LUCE, M.B., Captain and Honorary Major Commanding Sherwood Foresters Brigade Bearer Company, writes: With reference to your leading article last week on the training of volunteer medical units, may I be permitted to say a word for the present system of brigade bearer companies being attached to the brigades with which they would have to work in the field? The sense of belonging to a complete mobilization unit is a very strong stimulus, and helps to engender that spirit of *esprit de corps* which is so essential. Moreover, my own experience leads me to believe that in no way can a bearer company learn its work better than by constant exercise with combatant troops. My own practice is, on every field-day in which the brigade as a whole is engaged, to work throughout as though real casualties were occurring. On each occasion a suitable number of labels describing various imaginary wounds is served out before the beginning of the engagement to the captains of the companies which will compose the fighting line, who distribute them to their men on suitable occasions. It becomes the duty of the bearers to find, treat, and gather these men in through a collecting station to a dressing station selected as far as possible in accordance with the tactical scheme of the day. Each day is thus made a tactical problem for the officers and a practical exercise for the men. I maintain that the practice thus obtained by the constant co operation of all units, of which the staffs know one another personally and realize that they would have to work together on actual service, could not be gained by a centralized body of one branch only, however good the instruction. There is no doubt that the brigades as a whole like to have their own ministering units, and that they serve as cementing links between the different combatant units. And if there is anything at all in having a mobilization scheme for volunteers on the brigade system it is essential that each should be complete in itself. With regard to field hospital work, I quite admit that the brigade hospital in camp is not sufficient to train the men to become efficient nurses, but by a system of short shifts of the men, something can be done to giving all some knowledge of the work. With regard to finance, my own experience after three years as an independent unit is that the allowances are sufficient. We are spared many expenses which combatant units have, such as ranges and bands, and with the exception of transport, which is a heavy item, we have little that they have not.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACCIDENT COMPANY'S CERTIFICATES.

A. G. L. writes that a member of one of his clubs recently met with an accident for which he attended him. He was also a member of another club, which did not employ a surgeon, and he had a policy in an accident insurance company. The latter requires a special form of certificate, and A. G. L. wishes to know (1) whether he should look to the accident company or to his patient for his fee: (2) whether the patient can claim this certificate, and also the certificate for the other club, as part of the medical attendance to which he is entitled as a member of his club.

*** (1) Our correspondent must look to his patient, and not to the company. (2) The patient should pay an extra fee for both certificates, and the amounts charged should be regulated by the customary charges made in private practice in the neighbourhood.

MOBARAK.—Such remuneration would be a fairly liberal one in this country, but without knowing a great deal more of the local conditions, it would be impossible to say whether such remuneration would be fair under the circumstances. The fact that the practitioner, who requires his assistance, gets £1,000 a year for the work in question does not throw much light on the matter.

MEDICAL ADVERTISING.

SCALPEL sends us a cutting from a local newspaper headed "Remarkable Surgical Success," which contains a brief account of an operation performed by a local practitioner, a report of which had been published by him in the *Medical Press and Circular*.

*** We cannot accept our correspondent's view that the paragraph complained of is evidently inspired by the practitioner in question, or his statement that medical periodicals do not come into the hands of the lay press. We will, however, refer the matter to the Ethical Committee.

UNIVERSITIES AND COLLEGES

UNIVERSITY OF OXFORD.

THE following candidates have been approved in the subjects indicated:

Further Examination in Mathematics—G. W. Carte, H. O. Gibson, S. B. Henson, R. E. Negus, A. Pearce-Gould, A. S. Roe.

Elementary Zoology.—P. P. W. Andrews, T. Bentham, J. L. Birley, A. Booth, G. W. Carte, A. R. Chavasse, H. E. Clarke, G. E. Downs, H. O. Gibson, H. Hinds, E. G. Martin, H. P. Newsholme, J. A. Noble, E. L. Pearce-Gould, E. W. M. H. Phillips, H. W. Scott-Wilson, C. J. G. Taylor, W. W. Wagstaffe, R. O. Ward, T. S. Wright.

UNIVERSITY OF CAMBRIDGE.

H. J. WARING, M.S. (London), F.R.C.S., has been appointed an Additional Examiner in Surgery in the Third M.B., Part II.

UNIVERSITY OF GLASGOW.

AT the Spring Graduation Ceremony, on April 19th, the Degree of Doctor of Medicine was conferred on the following gentlemen: J. McCall, A. W. M'Clelland, A. J. M'Kechnie, and H. K. Wallace, B.Sc.

The Glasgow University Court has appointed Dr. Edward Proven Cathcart, of the Lister Institute of Preventive Medicine, to the Grieve Lectureship on Physiological Chemistry. The endowment for this lectureship was bequeathed to the University by the late Dr. John Grieve, of Glasgow, and this is the first appointment to the new position. Dr. Cathcart received his medical education at Glasgow University, where he graduated M.B., Ch.B. in 1900, and M.D. with honours for thesis in 1904. After a year in the Western Infirmary, Glasgow, as resident physician and surgeon, he went to Munich and Berlin to study chemistry and bacteriology, and since 1903 has been engaged in similar work in the Lister Institute of Preventive Medicine in London.

UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL.

THE statutory half-yearly meeting of the General Council of the University of Edinburgh was held in the Examination Hall of the University on Wednesday, May 3rd, at 3 o'clock, Mr. Thomas McKie, Advocate, in the chair. After the minutes of last meeting had been read the reports of the business and finance committees were presented, and the Education Bill was considered. In presenting the report of the finance committee Mr. P. D. Buchan said there was a steady if small increase in the number of matriculated students, and they were recovering the ground they lost ten years ago. The figures, in the Faculties of Medicine and Science during the sessions noted, are as follows:

Session.	Medicine.	Science.
1889-90	2,003	—
1891-92	1,852	—
1893-94	1,560	171
1895-96	1,455	145
1897-98	1,405	147
1899-1900	1,368	149
1900-1901	1,364	170
1901-1902	1,396	169
1902-1903	1,427	206
1903-1904	1 487	229

UNIVERSITY OF DURHAM.

AT a Convocation on April 29th the Degrees were conferred on the following persons:

M.D.—A. B. Bradford, Annie T. Brunyate, J. W. Caton, T. Clayton, B.S., B.Hy., D.P.H., Flora Murray, A. H. Proctor, O. Shields, T. C. Visser.

M.D. (for practitioners of fifteen years' standing).—J. K. Couch, M.R.C.S., L.R.C.P., L. Demetriadi, F.R.C.S.E., L.K.Q.C.P.I., L.F.P.S.G., D.P.H., H. E. Deane, M.R.C.S., L.S.A., F. W. Lewitt, M.R.C.S., L.R.C.P., J. A. Ward, M.R.C.S., L.R.C.P., L.S.A., F. H. Weekes, M.R.C.S., L.S.A.

M.B.—D. T. Birt, J. A. Bennett, J. F. Bridge, W. H. H. Croudace, Lillie Johnson, B.Sc.; F. W. Kemp, B. W. Lacey, T. W. Maddison, A. V. Maybury, M.R.C.S., L.R.C.P.; A. B. Raffle, C. D. Relton, L. M. Rosten, M.R.C.S., L.R.C.P.; Olga Alberta Schiele, A. A. Smith, M.R.C.S., L.R.C.P.; E. C. Young.

B.S.—D. T. Birt, J. A. Bennett, W. H. H. Croudace, Lillie Johnson, F. W. Kemp, B. W. Lacey, T. W. Maddison, A. V. Maybury, M.R.C.S., L.R.C.P.; A. B. Raffle, C. D. Relton, L. M. Rosten, M.R.C.S., L.R.C.P.; Olga A. Schiele, A. A. Smith, M.R.C.S., L.R.C.P.; F. Spicer, M.D.Durh., M.R.C.S.

B.Hy.—K. T. Matthew, L.M. & S. Madras, D.P.H.Camb., L.R.C.P. & S. Ed.

The diploma in Public Health was granted to G. F. Darker, J. C. Venniker, and J. M. Ferguson.

The following candidates were approved at the Third M.B. examination in April:

O. Arnott, T. H. Bishop, M.R.C.S., L.R.C.P., S. Havelock, B.Sc., T. D. Miller, M.R.C.S., L.R.C.P., H. G. G. Mackenzie, M.A., Bertha M. Mules, Jessie J. M. Morton, R. W. Pearson, M.R.C.S., L.R.C.P., H. B. Stephenson, H. J. Slade, M.R.C.S., L.R.C.P., A. J. Turner, H. H. Whatte, J. B. Williamson, C. R. Wilkins.

UNIVERSITY OF LONDON.

PRESENTATION DAY.

PRESENTATION DAY at the University of London was observed on May 10th with the usual ceremonies in the new seat of the University at the Imperial Institute.

Sir ARTHUR RÜCKER, the Principal, read his report for the year, which showed that the activity of the University had been extended in various directions. There was an appreciable increase in the number of entries for matriculation, 6,686 as against 6,512 in 1903-4, and the percentage of failures had fallen from 52.7 to 50.8 per cent. The Universities of Oxford, Cambridge, and London had agreed upon a scheme for the mutual recognition of the certificates given for their respective entrance examinations. It had been decided to establish a Faculty of Law. The transfer of the Goldsmiths' Institute at New Cross to the University had been completed. It was hoped that the Bill for the incorporation of University College in the University would be passed before the end of the present session. The Goldsmiths' Company, in addition to their gift of the institute, upon which £100 000 had been expended, had promised a subvention of £5,000 a year for five years, with a further gift of £5,000 to enable the University and the London County Council to carry on the evening classes. The Drapers' Company had given another £1,000 in aid of the department of applied mechanics in University College. The gifts to the University since the date of the last report amount to £81,900, exclusive of the site and buildings of the Goldsmiths' Institute. Large as this sum was, the report stated that "it is unfortunately true that much money is needed to make up for the long neglect of university teaching in London in the past."

In the M.B. list there were 64 names, 11 being those of women, and in the B.S. pass and honour list 22, including 3 women. In the M.B. and B.S. pass and honours, 58 were successful, of whom 9 were women. Forty-one, of whom 3 were women, were presented for the M.D. degree, Charles N. Sears, St. Thomas's Hospital, obtaining the number of marks qualifying for the University medal. One was presented for the M.D. (State Medicine) degree, one for the M.D. (Medicine) and M.B., and one, a woman, for the M.D. (Medicine) and B.S.

The following medical graduates won distinctions:

B.S.—Noël E. Waterfield, St. Bartholomew's Hospital, honours (University medal).

M.B., B.S.—Sidney Arthur Boyd, Charing Cross Hospital, distinguished in medicine, pathology, forensic medicine and hygiene, and surgery (University medal); and Harold B. Day, King's College, distinguished in medicine, pathology, surgery, and midwifery and diseases of women (University medal), equal.

M.S.—Cyril A. R. Nitch, St. Thomas's Hospital, University medal.

M.D.—Arthur R. Short (medicine), University College and University College, Bristol, University medal; Charles P. Lukis (pathology), St. Bartholomew's Hospital, University medal.

The VICE-CHANCELLOR addressed the newly-admitted graduates and congratulated them upon the amount of knowledge they had shown in the examinations, and still more upon the priceless benefit of having learned how to learn.

Sir MICHAEL FOSTER, M.P., also spoke.

MEETING OF CONVOCATION.

An ordinary general meeting of Convocation was held on May 9th at the University Buildings, South Kensington, the Chairman, Sir E. Busk, presiding.

Mr. T. L. Mears, LL.D., was unanimously elected Deputy Chairman of Convocation for the ensuing year. Mr. H. E. Allen was re-elected Clerk of Convocation. The following were appointed members of the Senate: Lord Justice Cozens-Hardy, Mr. J. F. Payne, Mr. C. B. Edgar, Sir A. K. Rollit, M.P., Mr. J. F. Moulton, K.C., M.P., Mr. S. L. Loney, Sir Philip Magnus, Sir W. Palmer, and Dr. M. Walmsley.

Dr. Walmsley presented the report of the Standing Committee, which was received.

Dr. Mears moved: "That steps be taken to co ordinate the numerous organizations already existing in connexion with the University for the promotion of various sports and thereout to form a University athletic union, and that, in order to enable a London University eight to enter for the Grand Challenge Cup or other prize at Henley, a University boat club should be established."

The motion was seconded, and a discussion took place, in the course of which the question was raised as to what powers Convocation had to deal with this matter.

Sir P. Magnus proposed to add at the beginning of the motion the words, "That in the opinion of Convocation it is desirable."

This was accepted by the mover.

The Chairman said that Convocation had no executive power, but it was quite within its province to express an opinion on the matter before them. They could put their opinion before the Senate, and by that means they might bring out private initiative by which this need might be met.

The motion was carried *nem. con.*

It was agreed that in future meetings of Convocation should be held at 5.30 o'clock instead of 5.

Other business connected with the Faculties of Engineering and Laws having been settled, the House adjourned.

UNIVERSITY COLLEGE, LONDON.

Physiological Department.

A course of ten lectures will be given by W. Page May, M.D., D.Sc., F.R.C.P., Fellow of the College, on the Structure and Functions of the Central Nervous System, on Wednesdays, at 5 p.m., commencing Wednesday, May 10th. The following are the subjects to be dealt with at the lectures: 1. Methods of investigation. Ganglion cell and nerve fibre. The nerve arc. Degeneration and regeneration. 2. Spinal cord. Nuclei. Conducting paths. Localization. 3 and 4. Structure and function of the centres and paths in the brain stem. Medulla. Pons. Mid-brain. 5. Cerebellum, its cortex. Peduncles and their functions. 6. Basal ganglia, with special reference to the optic thalamus and corpus striatum. 7. Centres and paths of vision and taste. 8. Centres and paths of hearing and smell. 9 Cerebral hemispheres. Motor, sensory, and psychic areas. 10. The main afferent and efferent paths of the central nervous system. Summary. These lectures are open to internal students of the University without fee, as well as to medical practitioners on presentation of their cards.

ROYAL UNIVERSITY OF IRELAND.

THE following candidates were approved at the Spring Second Examination in Medicine:

*D. Barry, *R. Cox, B.A.; *Caroline J. Crawford, *E. Dowling, *W. D. O'Kelly, D. R. Acheson, J. H. P. Boyd-Barrett, J. P. Cahir, A. W. Connolly, P. P. Connolly, J. Devereux, C. Dixon, J. R. Elwood, E. H. Flanigan, T. J. Hollins, B.A.; J. G. Johnston, T. Kennedy, W. P. MacArthur, S. W. McComb, R. J. McFeeters, J. P. J. McGivern, J. J. McGrath, M. McNiff, D. J. Magee, B.A.; H. Mathewson, M. J. Mulligan, C. Murphy, P. J. O'Brien, B.A.; D. O'Sullivan, R. H. Robinson, M. White, J. M. Williams.

* Qualified to compete for honours.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, May 2nd, Dr. Playfair, President, in the chair.

The late Sir John Sibbald.

The President made feeling reference to the loss which the College had sustained by the death of Sir John Sibbald.

Admission to the Membership.

On a ballot the following candidates were admitted to the Membership of the College after examination: Hugh Jamieson, M.B., C.M., Edinburgh; Leo Ferdinando Bianchi, L.R.C.P.E., L.R.C.S., L.F.P.S.G., Edinburgh; Patrick Stevenson Haldane, M.B., Ch.B., Bridge of Allan; Jamshijd Dadabhai Munsiff, L.R.C.P.E., L.R.C.S.E., L.F.P.S.G., Edinburgh.

Admission to the Licence.

The Registrar reported that since the last quarterly meeting thirty-eight persons had obtained the Licence of the College by examination.

Annual Report Regarding the Laboratory.

The Curator submitted his report for the last year regarding the research and reporting work undertaken in the Laboratory during the year and the expenditure incurred. The report showed that thirty-four workers had been engaged in research; that 2,426 specimens had been reported on, being an increase of 61 on the number for the previous year; and that the expenditure had amounted to £1,086 12s. 4d. The report was adopted by the College.

Parkin Prize Award.

The Parkin Prize, which is in the gift of the College, was awarded after competition to Dr. Charles Porter, M.R.C.P.E. The subject of the essay on the present occasion was, in terms of the deed of bequest, "On the curative effects of carbonic acid gas or other forms of carbon in cholera, for different forms of fever and other diseases." The Treasurer also reported that the Council had resolved to offer the Parkin Prize for competition for the ensuing year, the subject to be, in terms of the bequest, "On the effects of volcanic action in the production of epidemic diseases in the animal and in the vegetable creation, and in the production of hurricanes and abnormal atmospherical vicissitudes." Essays to be received by the Secretary up to December 31st, 1906.

Conjoint Committee of Management of Triple Qualification.

Dr. Norman Walker was elected as Representative of the College on the Conjoint Committee of Management of the Triple Qualification.

Appointment of Morison Lecturer.

It was intimated that Dr. Ford Robertson had been appointed Morison Lecturer for the ensuing session.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Council on May 2nd, the following Examiners were elected:

Anatomy.—P. J. Fagan, A. Fraser.
Surgery.—F. Conway-Dwyer, A. Fullerton, T. E. Gordon, R. Lane-Joynt.
Physiology and Histology.—C. Coppinger, E. L'Estrange Ledwich.
Pathology and Bacteriology.—R. Allen, A. H. White.
Midwifery and Gynaecology.—F. W. Kidd.
Biology.—J. J. Burgess.
Ophthalmology.—A. H. Benson, P. W. Maxwell.
Sanitary Law and Vital Statistics.—H. B. Goulding.
Chemistry and Physics.—E. Lapper, R. J. Montgomery.
Dental Surgery and Pathology.—G. M. P. Murray, W. G. Story.
Mechanical Dentistry.—W. B. Pearsall, D. L. Rogers.

General Meeting and Election of Officers.

A MEETING of the Fellows will be held on Saturday, June 3rd, at 1 o'clock, to receive the annual report of the Council.

A meeting will also be held on Monday, June 5th, at 1 o'clock, pursuant to the provisions of the charters, to elect a President, Vice-President, Council, and Secretary of the College for the ensuing year.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SANATORIUM TREATMENT: IS IT WORTH WHILE?

IN an address delivered some weeks ago to the Health Students' Association at Liverpool, of which an account was given in the BRITISH MEDICAL JOURNAL on April 22nd, p. 912, Dr. Ernest Nevins, amongst other things, deprecated the building of sanatoriums out of public funds on the ground that these institutions could not be considered a success in a curative sense. A report of this speech was sent to Sir William Broadbent by Mr. W. P. Hartley, who in conjunction with Lady Willox and counselled by Sir William Broadbent, built the Liverpool Sanatorium in Delamere Forest as an annexe to the Liverpool Hospital for Consumption and Diseases of the Chest. Mr. Hartley made no comment on the address, but simply asked for an opinion on it so far as it concerned the value of sanatoriums. He received the following reply: "It was quite certain there would be a reaction against sanatoriums. The expectations formed were too exalted, and this, with the desire to help sufferers, led to cases being admitted too far advanced for permanent arrest. They fail to recover, and are regarded as failures, but there are thousands who have been restored to comparative health and efficiency who would otherwise have died. You will never have cause to regret the part you took in establishing the Delamere Forest Sanatorium."

MUNICIPAL SUPPLY OF STERILIZED MILK.

THE Special Committee of the Fulham Borough Council appointed to consider a scheme for establishing municipal dépôts for the supply of sterilized milk has put in a report unfavourable to the idea, because of the heavy loss which is stated to occur in connexion with similar undertakings at Battersea, Liverpool, and St. Helens.

THE LOCAL GOVERNMENT BOARD AND VACCINATION.

THE Local Government Board has sent the following reply to a correspondent who inquired whether the Board approved of the publication of the names of persons availing themselves of the services of the public vaccinator: "Local Government Board, Whitehall, S.W., May 5th, 1905.—Sir,—As regards the question submitted in your letter of the 26th ult., the Local Government Board direct me to state that they are not aware of any legal authority under which a board of guardians can pay for the publication of lists of the names of persons availing themselves of the services of the public vaccinators for the vaccination or revaccination of themselves, their children, or their servants. Moreover, it was intended by the Legislature that the benefits of the Vaccination Acts should be open to all classes of the population, and the Board strongly deprecate any action on the part of boards of guardians which would tend to suggest that public vaccination should be limited to persons who are not in a position to pay for the operation. In this connexion I am to draw attention to Section XXVI of the Vaccination Act, 1867, which enacts as follows: 'It is hereby declared that the vaccination, or the surgical or medical assistance incident to the vaccination, of any person in a union or parish, heretofore or hereafter performed or rendered by a public vaccinator, shall not be considered to be parochial relief, alms, or charitable allowance to such person or his parent, and no such person or his parent shall by reason thereof be deprived of any right or privilege or be subject to any disability or disqualification.'—I am, Sir, your obedient servant, JOHN LITHIBY, Assistant Secretary."

SEWAGE FARM.

G. P.—The amount of land required for a sewage farm is dependent upon several conditions—for example, the kind of soil, the type of filter employed (if any), and the care with which the filter is managed. With intermittent filtration and subsequent irrigation over sandy gravel one acre should suffice for 1,000 to 1,500 persons, according to the care which is bestowed upon the installation.

QUALIFYING CERTIFICATE IN VACCINATION.

R. T. C. writes: I am applying for the post of public vaccinator to this district, and have been asked to produce my certificate qualifying me. I have unfortunately mislaid this. I would be much obliged if you would kindly inform me if it would be possible for me to obtain a duplicate, and, if so, to whom must I apply? I did my course at the Surrey Chapel in Blackfriars Road and under the late Dr. Cory.

*** First, inquiry should be made of any examining body which required the production of the certificate, to ascertain whether it was detained instead of being returned. This is especially necessary in dealing with the Conjoint Board. Failing this, application should be made to the Secretary of the Local Government Board, who may be able to trace the counterfoil of the certificate. If, however, it was a necessary preliminary to the final examination which our correspondent took that he should have produced this certificate, any further production may be dispensed with. Such production has been necessary in the case of candidates for the degrees of the Universities of Edinburgh since 1868; London, 1869; Cambridge, 1877; Aberdeen, St. Andrews, and Glasgow, 1895; and for the L.R.C.P. since 1877; M.R.C.S. since 1878; and L.S.A. since 1887.

HOSPITAL AND DISPENSARY MANAGEMENT.

ILKLEY CORONATION COTTAGE HOSPITAL.

A COTTAGE hospital which was projected at Ilkley as a memorial of the Coronation, and which is to bear the above title, has now been completed, and was formally opened the middle of last month by Professor Chiene, C.B., of Edinburgh. It is, as it should be, an unpretentious building of two stories, and provides on its ground floor two wards of three beds each, a well-lighted operation room, a sitting room for the matron, and various domestic offices. On the upper floor is a third ward for three private patients, and bedrooms for the resident staff. It is excellently fitted up, and in its present form will meet a need which medical men in the neighbourhood, to whose efforts its erection was largely due, have long felt to exist; matters, moreover, have been so arranged that, if need be, wings can be added at a later date, and the accommodation thus increased without further difficulty than that of meeting the expense. It is also intended that the new building shall be the head quarters of the Ilkley District Nursing Association, a body which has long been doing very useful work in the neighbourhood.

Previous to the opening ceremony, Professor Chiene, a number of medical men in the district, and some of the Hospital Committee were entertained at luncheon by Dr. Thomas Johnston, at which suitable toasts were proposed and drunk. Later on, a move being made to the institution itself, the Chairman of the Hospital Committee, Mr. B. Nussey, explained the nature of the movement which had led to the erection of the building, and presented Professor Chiene with a gold key to the building, bearing an inscription descriptive of the occasion, an enamelled picture of Ilkley Wells, and Professor Chiene's own initials. In his speech Professor Chiene gave an interesting account of the history of cottage hospital enterprise in England which dated from 1864; it had been greatly assisted by the development of modern surgery, and had resulted in the erection of 300 buildings. He did not think that the popularity of hospitals could be held to have the drawback of loosening family ties. Family nursing might suffice in medical cases, but for the adequate treatment of surgical troubles hospital care was for most people essential. With the growth of hospitals there had arisen a belief in the value not only of hospital treatment but of skilled nursing and all that it implied. It was an excellent point, he thought, in the proposed administration of the new building, that its practice was to be open to all medical men in the neighbourhood alike. To provide for the treatment of accidents, he indicated his belief that one medical man, with an understudy, should be appointed as an on-duty officer for a certain period, understudy and chief then changing places, the changes being continuously rung until the available supply of medical men sufficiently close at hand for the purpose was exhausted.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

F. W. E. H. is anxious to be referred to any experimental work showing the action of nitrite of amyl inhalation upon the cerebral circulation.

MR. F. S. D. HOGG, M.R.C.S., etc. (Rickmansworth), would feel much obliged for information as to results obtained in the treatment of tuberculosis when Luton's artificial serum is employed.

M. E P. writes: I should like to know if enlargement of the thyroid gland often occurs after hysterectomy, and whether this gland is ever the seat of secondary growths. I have a patient who had a hysterectomy done last August for carcinoma of the body. She has made an excellent recovery; there is no return of the growth to be made out in the pelvis, but the thyroid gland has rapidly enlarged the last few weeks. The whole gland is larger than normal, but the right lobe is very large.

DR. ELIOT CURWEN (Hove, Sussex) writes: I should be much obliged if any of the readers of the BRITISH MEDICAL JOURNAL would give me help in the following case: In November last a boy contracted nasal diphtheria, and during the first few days received two doses of antitoxin. Since then he has been in robust health, but swabs from his throat have invariably revealed the presence of large quantities of typical Klebs-Loeffler bacilli. In February, and again recently—six months after the original infection—pure cultures of these bacilli have been injected into guinea-pigs, and in each case the animal has died within two days, with signs characteristic of diphtheria infection. The nose and throat have been systematically treated with boracic acid lotion and with a spray containing hydrarg. perchlor. 1 in 2000, glyc. ac. carbolici m xv, and menthol gr. xxv to the ounce. I should be glad (1) of suggestions as to how best to kill the bacilli, and (2) of opinions as to whether the bacilli, being virulent to guinea-pigs, must be regarded as virulent to children also.

ANSWERS.

RHINOLOGIST will find a full description of the operation in *Archiv für Laryngologie*, 16 Bd. 3 Heft, under the title Die submucöse Fensterresektion der Nasenscheidewand, von Professor Dr. Gustav Killian.

COUNTRY PRACTITIONER.—Jacobson and Steward's *Operations of Surgery*, in two volumes, 4th edition (London: J. and A. Churchill. 1902. 42s.), would probably meet the requirements of our correspondent.

P. F.—The best account in English of the life and work of Semmelweis is contained in a pamphlet by Dr. Theodore Duka, of 55, Nevern Square, South Kensington, W., printed by Stephen Austin and Sons, Hertford, in 1892.

SCALPEL.—Mr. W. Martindale, Manufacturing Chemist (10, New Cavendish Street, London, W.), has been good enough to supply for the information of our correspondent the following formula for ether soap: R. Mercuric iodide, 25 gr.; potassium iodide, ½ oz.; soft soap, 2 lb.; alcohol, 90 per cent., 1 pint; ether, q.s. to 5 pints.

W.—A marked reaction to diphtheria antitoxin is in favour of a doubtful case being one of diphtheria, but it cannot be considered diagnostic, even though the injection has been given early; for sometimes a marked reaction does not immediately follow in cases of diphtheria; and cases simulating diphtheria will often quickly clear up under local treatment.

F.R.C.S.EDIN.

S. E. R.—The following books have been recommended for the Examination for the F.R.C.S.Edin.: Rose and Carless's *Manual of Surgery*, 5th edition (London: Baillière, Tindall, and Cox, 1902, 21s.); Article on Surgical Anatomy in Quain's *Anatomy*, Appendix, 10th edition (London: Longmans, Green, and Co., 1896, 6s. 6d.); Anatomy in its Surgical Aspect, as found in Gray's *Anatomy*, 14th edition, edited by T. Pickering Pick (London: Longmans, Green, and Co., 1897, 36s.); or Cunningham's *Anatomy*, 2nd edition (Edinburgh and London: Young J. Pentland, 1896, 25s.); *Treatise on the Science and Practice of Midwifery*, by W. S. Playfair, M.D., F.R.C.P., 9th edition (London: Smith, Elder, and Co., 1898, 28s.); *Difficult Labour*, by G. E. Herman, M.B., F.R.C.P., new edition (London: Cassell and Co., 1901, 12s. 6d.); *The Science and Art of Obstetrics*, by T. Parvin, A.M., M.D., 3rd edition (Philadelphia: Lea Brothers and Co., 1895, 18s.); *A Manual of Midwifery*, by A. L. Galabin, M.A., M.D., 5th edition (London: J. and A. Churchill. 1900, 15s.); *A Textbook of Obstetrics*, by B. C. Hirst, M.D., 2nd edition (London: W. B. Saunders and Co., 1900, 21s.); *A Textbook of Pathology*, by L. Hektoen, M.D., and D. Reisman, M.D., in two volumes (London: W. B. Saunders and Co., 1901, 35s.); *Manual of Bacteriology*, by R. Muir, M.D., and J. Ritchie, M.D., 3rd edition (London: Young J. Pentland, 1902, 12s. 6d.); *Textbook of Ophthalmology*, by Dr. E. Fuchs, 2nd edition (London: H. K. Lewis, 1899, 21s.); or *Manual of Practical Ophthalmology*, by G. A. Berry, M.B., F.R.C.S.E. (London: Young J. Pentland, 1904, 10s. 6d.); *The Refraction of the Eye*, by G. Hartridge, F.R.C.S., 8th edition (London: J. and A. Churchill, 1903, 6s.); Landolt's article in *System of Diseases of the Eye*, by W. F. Norris, M.D., and C. A. Oliver, M.D., vol. iv (London: J. B. Lippincott Co., 1900, 21s.); and *Elementary Ophthalmic Optics*, by J. H. Parsons, F.R.C.S. (London: J. and A. Churchill, 1901. 6s. 6d.). The examination is, in the hands of some of the examiners, said to be very severe and up to date.

LETTERS, NOTES, Etc.

FINANCIAL AND PHYSIOLOGICAL ECONOMY.

DR. JOHN HADDON (Hawick) writes: The question of reducing expenditure in hospitals by economy in diet, to which attention is directed by your article on the Expenditure of Hospitals, deserves the consideration not only of the managers of hospitals but of the medical profession as well. The most recent and excellent study of diet which has come from America, entitled *Physiological Economy in Nutrition*, by Professor Chittenden, proves scientifically that professional men, soldiers, and athletes were improved in health and vigour by reducing their proteid food to from a half to a third of what they had been in the habit of taking.

If men doing so much work as the soldiers and athletes did found such benefit by such a change in diet, and continued the restricted diet as they did from choice after a trial of six months' duration, is it not likely that the patients in our hospitals would benefit by a similar reduction in their proteid food?

Abernethy long ago proved that by attention to diet even surgical cases got well for which the knife was looked upon as the only remedy. If surgical cases are amenable to diet, medical cases would surely respond more quickly.

It is thus evident that if restricted diet were adopted in our hospitals not only would financial economy result from less cost in food, but the physiological economy in hastening recovery would materially further relieve the finances by shortening the stay of the patient in the hospital. The subject is so far-reaching and of such paramount importance that it seems desirable that the influence of this Association should be brought to bear upon the question.

ACUTE POISONING BY A SINGLE CASTOR-OIL SEED.

MAJOR G. H. FINK, I.M.S. (retired), writes: The medical world has doubtless been startled by reading in the BRITISH MEDICAL JOURNAL of May 6th, 1905, of a cure of "acute poisoning by a single castor oil seed," by Dr. A. Gordon Gullan. We have heard of the effects of croton-oil seeds which have an acrid burning taste; but I am sure the majority of us have neither heard nor read in textbooks of these properties in castor-oil seeds. It sometimes happens that croton-oil seeds get mixed up with castor-oil seeds, and are, therefore, sometimes difficult to detect. Might this mistake not have occurred in the case reported? It is very probable and quite possible. I would, therefore, draw attention to this possible mistake before condemning the castor-oil seed, since we all know of the extreme value of the latter therapeutically, and particularly in the tropics.

CHRISTIAN SCIENCE DEFIED BY JIGGERS.

ACCORDING to Surgeon Sutton, of the United States Navy, one of the most troublesome insects on the Isthmus of Panama is the "jigger" (*Pulex penetrans*, Linn.). Its favourite point of attack is the interphalangeal folds of the toes. In the *Clinical Review* of Chicago, it is suggested that the United States Government should provide for this emergency by obtaining its Isthmus recruits from Kansas. Our contemporary adds that it may be that the necessity of becoming inured to the attacks of the insect is responsible for the verse which ends: "They never work their feet—in Kansas." It is stated that the only physical ailment which the Christian scientists of Kansas admit that they are unable to "demonstrate" is "jiggers."

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

MELLIN'S FOOD (Limited) write: We notice that in the BRITISH MEDICAL JOURNAL of May 6th a letter is published from Dr. Lewis W. Marshall under the above head containing the following statement: "I have never seen a case of scurvy so induced, but, on the contrary, I have cured scores by a good milk sterilized at 212°. It is not to milk alone that we must look for an explanation of this disease, but chiefly to its *exclusion* in favour of peptonized food—such as Mellin, etc." We trust you will permit us to point out that Mellin's Food is in no respect a peptonized food; we fear Dr. Marshall must be under a misapprehension. Moreover, instead of being recommended as a *substitute* for cow's milk, we have for over thirty years laid stress on the fact that Mellin's Food is a *milk modifier*, and in every instance it is to be employed in conjunction with fresh milk. Our announcement in the advertisement columns of your issue of the above date also calls attention to this very point.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Remarks
ON
THE CAUSES AND TREATMENT OF OEDEMA.

BY J. DIXON MANN, M.D., F.R.C.P.,
Physician to the Salford Royal Hospital.

OEDEMA due to failure of cardiac or of renal compensation, or of the two conjointly, is a common clinical phenomenon the pathology and treatment of which demands renewed consideration in the light of recent investigations on the subject.

In simple cardiac oedema the causal factor is essentially hydrodynamic, its action being mediate. The oedema is not the direct result of back pressure, or, at any rate, only to a limited extent; it is chiefly due to changes in the vascular endothelium caused by the imperfect supply of oxygen and of nutrient material to which the partial stagnation of the blood gives rise. The lack of oxygen and of nutrition impairs the vitality of the vascular walls and makes them unduly permeable; the ensuing transudation is augmented by the low pressure of the blood supply to the kidneys and the coincident retention in the tissues of sodium chloride.

Oedema due to kidney disease is less readily explained. Amongst other causes are changes in the vascular endothelium produced by the toxic action of waste products present in the blood, which, under normal conditions, are removed by the kidneys; the defective elimination of water by the kidneys, and, probably, the occurrence of hydraemic plethora exercise no little influence. During the last few years many suggestive experimental and clinical investigations have been made in relation to the part played by sodium chloride in the development of oedema.

Within the normal tissues a fluctuating percentage of water is retained, the intake and output of which, to some extent, is regulated by the amount of sodium chloride they contain. When much sodium chloride is present, the quantity of water is large; diminution of the salt determines an equivalent dehydration of the tissues. By the administration and the withholding of common salt, Widal and Javal[1] demonstrated in the healthy subject gradations from the physiological hydration of the tissues to those variations which border on the commencement of oedema, and which cannot be exceeded in health, because the kidneys eliminate the excess of salt that is above the normal balance. If an extra amount of common salt is added to the regular diet of a healthy person, an equivalent excess of sodium chloride appears in the urine. It is to be remembered that sodium chloride is almost exclusively eliminated by the kidneys; an insignificant fraction only is discharged with the faeces. In some cases of nephritis there are grounds for assuming that the glomerular epithelium keeps back a considerable amount of sodium chloride over and above the normal balance; if this retention continues day by day, the limit of physiological hydration eventually is exceeded and oedema is the result. Widal and Javal distinguish the early stage of sodium chloride retention as the pre-oedematous stage which by hydration subsequently develops oedema. Halpern[2] describes three stages of chlorine retention due to renal incompetence: a pre-oedematous stage when apparently no water is retained but only sodium chloride, which is locked up in the tissues; a stage of latent oedema in which, along with the salt, water is retained but not visibly as oedema; a third stage of increased salt retention together with visible oedema. H. Strauss[3] assumes that retention of sodium chloride constitutes an indication of the loss of renal compensation and that the chlorine retention precedes and is the cause of the oedema. He further believes that molecules which are free from chlorine do not keep back so much water as those which contain chlorine; so that, in loss of renal compensation, the elimination of sodium chloride and of molecules which contain sodium chloride is interfered with at an earlier period and in a higher degree than that of water and of those metabolic end-products which are free from chlorine.

The kidneys are never absolutely impervious to sodium chloride, and a very decided loss of perviousness is rare; in some cases of Bright's disease in which the elimination of sodium chloride is impaired, considerable fluctuations in the quantity eliminated may occur during the progress of the disease. Koziczkowski[4] believes that sodium chloride occupies a special position in the elimination of urinary salts, and therefore that it cannot be taken as an indicator for the general saline excretion. He states that in the acute stage of the most severe nephritis the sodium chloride excretion may be absolutely unchanged, and that when it has been much reduced for some time it may be suddenly increased without any other alteration in the symptoms beyond an improvement in the general circulation. When the compensation of the kidneys is lowered or is in abeyance, a normal quantity of urine containing a low percentage of sodium chloride may be excreted; if, under these conditions, an extra amount of common salt be added to the patient's diet the percentage eliminated in the urine remains unaltered, showing that the condition of the kidneys is the cause of the retention. This reasoning, however, is hardly conclusive, as retention due to other than renal causation would have the same effect.

Widal and Javal also believe that the elimination of sodium chloride by the kidneys is a specialized function which may be damaged without interference with their other excretive functions—that of urea, for example; so that, in many cases of chloride retention, the usual relation borne by the urea to the sodium chloride of the urine no longer holds good. Castaigne and Rathery[6] have demonstrated experimentally that a solution of common salt with a cryoscopic index of — 0.78° C., has no injurious action on renal epithelium; but when the solution has a higher or a lower density it determines histological changes in the renal cells. Under physiological conditions, Castaigne and Rathery believe that sodium chloride always passes through the healthy renal epithelium at the same osmotic pressure; and that when the renal epithelium is altered by disease the osmotic pressure becomes higher. In nephritis they found that diet poor in salt has a favourable influence both on the albuminuria and the oedema. Achard and Paisseau,[6] by intravenous injections of hypotonic and hypertonic solutions of sodium chloride (— 0.20° to 1.50° C.), set up changes in the renal epithelium similar to those produced by Castaigne and Rathery.

It has been observed that oedema may increase without diminution in the daily volume of urine, or with such diminution as is insufficient to account for the quantity of water retained. An attempt has been made to explain this discrepancy on purely physical grounds. Kövesi and Roth-Schulz suppose that the systemic juices of the patient are pervaded by great excess of sodium chloride; and, as the evaporation of aqueous liquids is retarded in direct proportion to their osmotic tension, that the high molecular concentration of the systemic juices determines a material diminution of the insensible perspiration and of the aqueous exhalation from the lungs which, taken collectively, serve to explain the difficulty. The excessive oedema in the case quoted by Kövesi and Roth-Schulz, which called forth this explanation would not be satisfactorily accounted for, however, on this hypothesis, even had the insensible perspiration and the pulmonary exhalation been entirely arrested. It is a common observation in cases of nephritis with oedema, that if the daily consumption of common salt be materially increased the patient will drink more water than before, often without increasing the volume of urine; when this occurs, the excess of water is added to the oedema.

Some recent experiments by Roth-Schulz and de Körösy[7] are of interest in relation to the question of sodium-chloride elimination. They find that diffusion through parchment-paper follows the same laws as when no membrane is interposed between the saline solution and water, except that the rate of diffusion is slower. If water is replaced by blood, diffusion is much slower, and it does not follow the same laws, inasmuch as some salts diffuse irregularly. If recent animal membrane be substituted for vegetable parchment, further differences are observed; chlorides and carbonates diffuse from mucous surfaces more readily than other salts. The inference is that, apart from the vital function of cells, the nature of the solutions and the physical properties of the interposed membrane exercise a considerable selective influence in the process of diffusion.

The view that oedema is largely determined by primary sodium-chloride retention with sequential retention of water is traversed by several observers. Marischler[8] inverts the sequence and regards the retention of salt as being secondary to that of water. Mohr[9] goes still further, and denies that there is any relation between them; he holds that the retention and the elimination of sodium chloride and of water are respectively independent of each other other. Achard and Looper[10] decline to accept the renal causation of sodium-chloride retention in nephritis, and attribute it to extra-renal

influences such as occur in fevers, pneumonia and other acute diseases. The results of a series of chemical analyses of various organs and tissues of the human body made by Rumpf[11] tend to support this view. In some cases of nephritis he found that the amount of sodium chloride in the kidneys exceeded the amount present in the blood and other organs; but although, in many cases of nephritis, the amount of sodium chloride in the blood and the tissues was very high, it was much higher in some other diseases—cirrhosis of the liver, tuberculosis, and heart failure. In some cases of chronic nephritis, notwithstanding the presence of oedema, the amount of sodium chloride in the blood and the various organs was below rather than above the average normal. Rumpf also observed, in chronic nephritis, that there was a diminution in the amount of water in the blood and in the tissues; at a later stage of the disease, however, when the excretion of water is frequently diminished, this condition disappears.

The question has arisen as to whether the retention of sodium chloride is a histo-retention or a sero-retention—that is, whether the salt is held back in the tissues or in the juices. Some investigators have found considerable increase in the amount of sodium chloride present in the organs of patients who have died from nephritis with chloride retention, as compared with the corresponding organs derived from those who have died without any preceding retention (Bohne[12], Achard and Loeper,[13] and others). H. Strauss believes that at the commencement of retention the tissues probably play an important part, but that subsequently they contain less than the juices. It appears probable that much of the salt which is primarily held back by the tissues may, later on, be dissolved out by the transudation fluid. A number of analyses, made by Scheel,[14] of various organs from patients with and without retention point to the serum and not the tissues as the chief seat of retention. He considers the retention of water to be primary, and the chloride retention to be the result of an effort of the organism to maintain its osmotic balance.

Although there appears to be a close relation between the retention of sodium chloride and the occurrence of oedema, there are difficulties in the way of unreservedly accepting the relation of cause and effect; the extent to which the kidneys are responsible for the retention also is debatable. In many cases of chronic Bright's disease with general oedema, the patients being on the same mixed diet and taking the same amount of salt, I have found great variations in the daily output of sodium chloride, ranging between 7 and 12.8 grams, and, moreover, there was no constant relation between the extent and course of the oedema and the amount of salt retained. In some cases in which the oedema was increasing the output of sodium chloride was not far below the average; in others the retention of salt and of water was on parallel lines. Whilst hesitating implicitly to accept the theory that retention of sodium chloride is the exclusive cause of renal oedema, I am satisfied that restriction of dietetic salt in the oedema of Bright's disease tends to promote its dispersion. On the other hand, Ferrannini[15] believes that the withdrawal of salt from the diet of nephritics is of no avail in the treatment of oedema; his deductions, however, being based on the results obtained from the subcutaneous injections of physiological salt solution, are open to criticism.

The treatment of oedema has for its object the removal or the modification of the conditions which give rise to it. First, as to simple cardiac oedema. When the heart alone is at fault, physiological rest is the most potent of all remedial agents. Physiological rest comprises absence of all avoidable calls, mental as well as physical, on the cardiac energy, so that it shall be solely devoted to the nutrition of passive tissues and to the transmission of adequate blood-pressure to the secretory organs. In an imperfectly compensated diseased heart, it has been found that the night urine often exceeds the day urine in amount, which is the converse of the healthy ratio. This excess of night urine is attributable to the greater passivity of the patient, in body and mind, during the night as compared with the day. During the night he sleeps, or, if awake, he is probably more tranquil than throughout the day; he is less frequently disturbed by the administration of food, by attention to his various wants; conversation also is more restricted. The result is that the many duties imposed on the enfeebled heart during the day absorb so much of its energy as to reduce the blood-pressure below what is needful for efficient renal activity; so that the work which should be done in the day is postponed until the more restful night. The low blood-pressure not only limits the output of water, but it also determines retention of sodium chloride, which probably constitutes an important factor in the production of the oedema. The following by no means uncommon case illustrates the effect of physiological rest in the treatment of oedema due to loss of cardiac compensation.

J. A., aged 61 years, was admitted into the Salford Royal Hospital on May 8th, 1903, with extensive oedema all over the body; the surface was cold and cyanosed. The heart was dilated, and the pulse was quick and feeble with intermissions. A faint systolic murmur was heard over the mitral and tricuspid areas. Basic hypostatic congestion existed at the posterior third of both lungs, and the liver projected about a finger's breadth below the costal margin; but there was no ascites. The tongue was thickly coated, and the temperature was subnormal. For a week or two before admission the patient passed very little urine. During this time he had got out of bed at intervals, and had gone downstairs to sit by the fire. On admission the patient was put to bed, and was given a little stomachic medicine, but no diuretics, cardiac tonics, nor alcoholic stimulants. On the day after admission he passed only 9 oz. of urine. It was high-coloured, clear, acid; specific gravity, 1024; it was free from albumin; it contained 3.1 per cent. of urea, but only 4.6 grams of sodium chloride. On the second day he passed 31 oz., on the third 60, on the fourth 63, on the fifth 109, on the sixth 163, on the seventh 220, and on the eighth 214. A considerable portion of the accumulated fluid having now come away, the daily amount of urine dropped to from 60 to 70 oz. a day. When the volume of urine was at its highest the urea only reached 0.25 per cent. The percentage of urea slowly increased; on the tenth day it was 0.6 per cent., and on the twelfth day it rose to 1.3 per cent., and subsequently to 2 per cent. The daily amount of sodium chloride increased with the output of urine: when the urine reached 220 oz. the sodium chloride amounted to 22.7 grams. It remained above 18 grams until the twelfth day, when it dropped to 14.5, and then it settled down to about 12 grams, the daily volume of urine being from 45 to 55 oz. After one month's stay in hospital, the patient was discharged free from dropsy and with restored cardiac compensation, due solely to physiological rest.

In most cases of failure of cardiac compensation rest alone is insufficient to restore it. Of medicinal remedies digitalis stands apart from other heart tonics in respect to efficacy. Few medicinal preparations, however, vary so much in activity as do those of digitalis; this is owing to the wide differences in percentage of the active principle yielded by the foxglove leaves in different years, and the time of year when they are gathered, together with the treatment to which they are subsequently submitted. Keller[16] found variations of from 0.26 to 0.62 per cent. of digitoxin in the leaves grown in various years, and he prepared a tincture which was three times richer in digitoxin than a commercial tincture of the same year. Strophanthus is much used as an alternative to digitalis. Fraenkel[17] found that the preparations of strophanthus vary still more widely in activity than those of digitalis—from 100 to 6,000 per cent. My own experience leads me to attach a much higher value to digitalis than to strophanthus; it is not to be denied, however, that much of the ordinary tincture of digitalis is inert, or thereabouts. Amongst the active preparations are Nativelle's granules of digitaline and a form of digitoxin recently discovered by Cloetta, which is soluble in water, to which the name "digalen" has been given.

In some instances the judicious administration of alcohol is of great efficacy in tiding the heart over a critical period; but its effects require close observation. When the kidneys are diseased alcohol is to be avoided unless it be absolutely necessary.

Renal incompetence is usually more difficult to overcome than simple cardiac incompetence. When the kidneys are in fault the efficiency of cardiac tonics is limited by the degree of impairment to which the renal epithelium has succumbed; and the diuretic action of salines, to say the least of it, is uncertain. Fortunately, the resources of renal therapeutics have been materially added to by the introduction of a comparatively new class of diuretics. Diuretics of this type are purin derivatives, being methyl substitution products of xanthin or dioxypurin. They comprise caffeine or trimethylxanthin, theobromine or dimethylxanthin, and its isomer theocine, the methyl group in theobromine being in the 3.7, and in the theocine in the 1.3 positions. Theocine (theophylline) was first obtained from tea leaves, by Kossel, in 1888; but until Traube in 1901 succeeded in producing it synthetically it was too costly for therapeutic use. These closely-allied substances are selective in their therapeutic action. Caffeine stimulates the heart, and has only a limited direct action on the kidneys. Theobromine acts much more powerfully on the renal epithelium; it also stimulates the heart, but not so powerfully as caffeine. Theocine also is a less powerful cardiac stimulant than caffeine, but it is more active as a diuretic than either of the other two. Theobromine is often given as a double salt with sodium salicylate, under

the designation "diuretin," and more recently with sodium acetate, as "agurin." Theocine is also given combined with sodium acetate. Full doses of theocine may cause nausea and even vomiting, therefore the dose should not exceed 6 or 7 gr. All these diuretics, but especially theocine, increase the elimination of the solid urinary constituents as well as of water. Dreser[18] compared the depression of the freezing-point of urine with its electrical conductivity, and found, after the administration of theocine, that the aggregate number of molecules, especially of electrolytes (salts) is increased as well as the volume of water. On the other hand, when diuresis is solely due to an increased intake of water, the excretion of non-electrolytes, such as urea, predominates over the electrolytes. This special activity, by which the excretion of salts is promoted, places theocine amongst the most efficient of diuretics in cases of oedema with retention of sodium chloride. The diuresis produced by these xanthin derivatives is frequently delayed for twenty-four or more hours, and sometimes, when the renal epithelium is profoundly disorganized, it fails to occur at all. It is often necessary to give digitalis along with theobromine and with theocine in order to develop diuresis.

When the incompetent kidneys fail to respond to the stimulus of diuretics, the skin affords an alternative route for the elimination of water and also of the solid urinary constituents. Kövesi and Roth-Schulz found that the dissolved substances in sweat, under ordinary conditions, cause it to have about the same cryoscopic index as blood (−0.4° −0.6° C.); but not infrequently a much higher molecular concentration, equal to more than 1° C., is met with. Sweat free from albumin yields from 0.1 to 0.45 per cent. of nitrogen and from 0.09 to 0.56 per cent. of sodium chloride, so that an amount equal to about half of the solid constituents of the urine may be removed by the sweat, with a corresponding reduction in the molecular concentration of the blood. Thus the hot-air bath and the vapour bath place at our disposal a very efficient auxiliary means of reducing oedema and at the same time of promoting the elimination of nitrogen and of salts, especially of sodium chlorides. During the administration of the bath the patient should not be allowed to drink copiously of water, as is frequently prescribed with the object of promoting the perspiration; the water thus drunk is added to that which is already retained, and therefore in proportion to its amount it neutralizes the remedial action of the bath.

Cathartics, often of great service in the treatment of Bright's disease, avail little in the dispersion of oedema.

When the kidneys are in fault, the diet in cases of oedema is of great importance. The indications are—to avoid excess of proteids and of such dietetic substances as are likely to irritate the renal epithelium, or to increase the retention of water, and at the same time to afford a sufficiency of nutrient material for the systemic requirements. Milk is almost universally held to occupy the first place in the dietary of nephritis, and of all foods milk is the least harmful to the kidneys; its exclusive use, however, is not without objection. A large quantity of milk needs to be drank daily in order to furnish the requisite nutrient material; this keeps the vascular system unnaturally replete, and consequently the heart is liable to become dilated. It is quite true that in some conditions—in diabetes, for example—the heart does not suffer from the imbibition of large excesses of liquids; but in these conditions the kidneys are active—even superactive; they speedily remove the redundant liquid, whereas in kidney disease with dropsy diuresis is tardy and restricted. Again, the imbibition of much liquid tends to increase the amount of water already retained in the system. Except in acute nephritis, when the advantages of a milk diet outweigh the disadvantages, an exclusive milk diet is not to be recommended.

In the oedema of chronic Bright's disease, the balance between the dietetic indications is best adjusted by allowing the patient to take a moderate amount of solid food, special attention being paid to the quantity of proteids and of sodium chloride contained by it. A diet rich in proteids is to be avoided, and any lack in calories must be made good by carbohydrates and fat. It is also advisable to eliminate from the dietary those food stuffs which contain a high percentage of extractives; purins, creatinin, and other bodies classed as extractives, are irritating to the renal epithelium. For example, according to the analyses of Walker Hall,[19] the percentages of total nitrogen and extractive nitrogen of beefsteak are both high; whilst in codfish, although the total nitrogen is equally high, the extractive nitrogen is low. In mutton, the percentages of total nitrogen and of extractive nitrogen are both considerably lower than in beefsteak; in chicken, the percentage is slightly above that of mutton. Glandular organs such as liver, kidney, and sweetbread, which are rich in purins, should be forbidden; also all ragouts and "made dishes." As regards total nitrogen, the differences between fish, flesh, and fowl are not great, and they may be equalized by carefully restricting the intake of such kinds as are of high percentage. Proteids may be replaced by milk puddings and other farinaceous dishes, cream, butter, bread, potatoes, and sweets, together with eggs, and weak tea and coffee. If soups are allowed, they should be simple and home-made, without salt, or with but a sprinkling; concentrated meat extracts, which abound in creatinin, should not be permitted. As the eliminative activity of diseased kidneys varies considerably within short periods, it is well to estimate the twenty-four hours' excretion of nitrogen from time to time, and, if defective, to further restrict the allowance of nitrogenous food, which should not exceed from two to three ounces daily.

The quantity of liquid allowed to dropsical patients with Bright's disease should be determined by careful consideration of the conditions involved. The plan frequently adopted of causing the patient to drink copiously of liquids in order to promote the elimination of end-products is fallacious on two grounds: First, the kidneys are incompetent to excrete urine of normal molecular density, consequently it is poor in solid constituents; secondly, the fact that oedema is present indicates a tendency to retention of water which lays under contribution the whole of the liquid imbibed, leaving but a small proportion of the excess to act as the vehicle for carrying away effete products in the urine, so that the oedema is increased in place of the tissues being flushed out. On the other hand, undue restriction of liquids impedes the output of a certain proportion of solid constituents which the kidneys are still competent to eliminate, provided that the volume of urine be not arbitrarily checked. When the volume of urine is ample, the intake of liquid usually needs no restriction; with scanty urine, the intake should be adjusted by comparing daily the intake with the weight of the patient; increase in weight would suggest restriction of intake. It is better to aid diuresis by a sufficiency of water than to attempt to induce it by copious imbibition.

When it is deemed desirable to reduce the ingestion of salt, the dietary for a time should be limited to substances which are poor in salt, such as milk, cream, unsalted (or washed) butter, eggs, bread, potatoes mashed with cream, rice, a couple of ounces of beef or of breast of fowl, and weak tea or coffee. In the first instance, no added salt should be allowed; a limited amount may be permitted subsequently, when the oedema is subsiding. If the oedema is slight, it will be sufficient to limit the quantity of salt to one-half of what would be taken under ordinary conditions. In this way it is easy to reduce the daily excretion of sodium chloride in the urine from 14 or 15 grams to 6 or 8 grams; by further limitation of intake it may be brought down to 3 or 4 grams. Most patients with Bright's disease can excrete as much sodium chloride as will yield 0.5 per cent. in the urine; on this datum Kövesi and Roth-Schulz recommend that the allowance of salt should not exceed ½ gram for each 100 c.cm. of urine, so that with an output of 40 oz. of urine, the daily allowance of salt would be about 1½ dr. The object to be fulfilled is to maintain the normal balance of sodium chloride without trusting to the eliminative capacity of the kidneys to remove an inordinate excess.

The progress of the oedema is ascertained by periodically weighing the patient, whose weight diminishes as the oedema subsides. One example of the effect of a limited intake of table salt will suffice.

C., male, aged 23 years, who had been several months in hospital suffering from chronic parenchymatous nephritis with progressively-increasing oedema, was put on a diet which contained about 8 grams of salt daily, with the following result:

	Weight.
January 16th	208 lbs.
,, 27th	201¾ ,,
February 3rd	194 ,,
,, 10th	189½ ,,
,, 17th	187½ ,,
,, 24th	183½ ,,

During this period the daily excretion of sodium chloride ranged from 7 to 13 grams. The urea kept close upon 1.1 per cent. From 0.7 to 2 per cent. of albumin was present. Part of the time the patient took 6 gr. of theocine twice a day;

subsequently he took 8 gr. of theobromine twice daily. Whilst taking the diuretics the patient passed from 60 to 80 oz. of urine in the twenty-four hours; previously it was below 50 oz. The oedema visibly diminished, and the condition of the patient improved.

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ON THE TREATMENT OF PURULENT CAVITIES.*

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To judge by recent and current medical literature some confusion of thought exists concerning the principles underlying the treatment of purulent collections. One result of this confusion is that methods of treatment found suitable in particular cases are presumed to be applicable universally. Thus in every textbook I have seen, whether on general or departmental surgery, it is considered that the principle of drainage, so successful in dealing with soft-tissue abscesses, is a prime factor in the cure of chronic purulent collections inside fixed walls.

I shall attempt, among other things, to show that simple drainage is of small value in such cases.

In every soft-tissue abscess the tissues which surround the abscess have been by its growth distorted from their natural position, to which place they always tend to revert. The force of this reversion, or, what is the same thing, the pressure of the pus, is determined as to its degree by the following three factors: First, the rapidity of the growth of the abscess; secondly, its situation; and, thirdly, its size.

As regards the first, a rapidly-growing collection pushes the tissues more rudely aside, it gives them less time to adapt themselves to its presence; their natural elasticity is therefore less impaired than in a case of a slowly-growing one.

Secondly, the situation in which the abscess grows. If the surrounding tissues are soft and lax, the tendency to revert will be feebler and the pus pressure correspondingly lower than when the tissues are denser and tougher. By surrounding tissues is not necessarily meant only those directly bordering on the abscess, but all structures which tend to be distorted by its presence. Fibrous-tissue planes, though remote from the wall, may help it enormously in its reversion.

When we come to consider the influence of the mere size of the abscess on its pressure, we find the question is not quite so simple as it might first appear. It might be thought, since the bigger an abscess grows the more its surroundings are distorted, that the pressure inside would in all cases increase proportionately, but there is an important factor which interferes with this. In cases where we may regard the force of reversion, or pus pressure, as being due to tension in the sac wall, the pressure varies, according to a well-known physical law, not only as the tension per unit of length but also inversely as the radius of curvature.

$$P=\frac{T}{R}\dagger$$

Therefore if the sac wall tension remains the same, the larger the sac, the lower will be the pressure inside and conversely. Now in a growing abscess the tissue fibres at the sac wall are always, except at the start, on the point of giving way and are in other words at their maximum tension. Therefore I think we may say that the tension per unit of length of the sac wall is constant or nearly so, for a given abscess, no matter what its size so long as it is confined to the same tissue.

This law of the pressure varying inversely as the radius only applies to cases where the pressure may be regarded as being due to tension in the sac wall, and where that tension is constant. In the other class—namely, where the pus pressure is due to influences remote from the sac, it is by no means true.

If for simplicity's sake we suppose a small abscess situated in the middle of a much larger and not very resistant structure, which is in turn confined by a tough capsule, a relatively large increase in the abscess will only cause a relatively small stretching of the remote capsule, which will not be distorted beyond its limit of elasticity; its tension will be increased, and the pressure internal to it, and therefore the pus pressure increased. Hence we arrive at the interesting result that increase in the size of an abscess causes a fall of pressure if the resistance to its growth is immediately outside the sac, while if this resistance is some distance from the sac it results in a rise.

This is really only another way of saying that as long as the tissues, whether near or remote, to whose tension the abscess pressure is due, are not distorted beyond their limit of elasticity, increase in the size of an abscess is followed by a rise in its pressure, while if that limit be passed it results in a fall.

There is one possible case in which this is untrue, and though it does not occur in the human body, it may be mentioned for sake of completeness. The case would arise if the tissues were so elastic that the increase of tension due to stretching was more than counterbalanced by the increase in the radius of curvature.

It need hardly be said that though both these varieties exist in their pure form, yet most abscesses consist of a combination of both, in which one or another element predominates.

From the foregoing it only needs a little consideration to show that if the cavity is large enough and the surrounding tissues lax enough, or if the abscess is sufficiently slow in its growth, the tendency after incision to spontaneous evacuation of its contents may be so feeble as to be unable to overcome the effect of gravity if the opening is not near the lowest point; while if the abscess is moderate in size and the surrounding tissues firm, the influence of gravity, especially in acute cases, may in turn be quite negligible.

It is in the former class of case that drainage from, or close to, the most dependent point is so important; for it is clear that the abscess will never heal if the head of the pus between the drainage opening and the lowest point of the sac is sufficient either to force the fluid further through the tissues, or to prevent the contractility of the tissues from extruding the matter. Examples of this are to be found in every part of the body—abscess beneath the scalp will occur to everyone. A chronic abscess burrowing through the thigh, especially when the wasting of the muscles from inaction has relaxed the deep fascia, is also a case in point; but perhaps the most common region is in and around the abdomen where the general looseness of the tissues favours its occurrence.

As an example of the latter class—that is, where the influence of gravity may be disregarded, a tonsillar abscess may be cited. The most convenient place for puncture is in the soft palate, and this is rarely the lowest point, yet the healing is never retarded on this account, for the abscess is generally acute, the quantity of pus is never very great, and the surrounding tissues are never very lax.

If the conditions are favourable even large abcesses may empty themselves in spite of the influence of gravity. I have seen two cases of deep-seated abscess at the root of the neck, which from the necessities of the cases had to be opened in front of the trachea low down, at a place which in the upright position must have been quite the highest point, and even in the recumbent position could not have been very far from it. From each of these a quantity of pus escaped on incision, which showed it must have come from deep within the chest, and yet in spite not only of the influence of gravity, but the perhaps more important negative pressure of the thorax, healing took place rapidly. In these cases the abcesses were situated in the connective tissue, and the extrusion of the contents was not so much the result of the contractility of the walls as of the reversion of the deep fascial places.

This negative pressure of the thorax leads us to consider the part it plays in the empyema of the pleural cavity.

The case of the pleura differs from any we have yet considered in that the outer concave wall is fixed or nearly so. Healing can only take place through obliteration of the cavity by union of the parietal and visceral walls. Now, this could only be accomplished rapidly by expansion of the lung in opposition to the negative pressure, a thing which the lung has no inducement whatever to do since the negative pressure of the thorax is in fact due to the contractility of the lung. So

* Read before the Surgical Section of the Royal Academy of Medicine, Ireland, on March 24th, 1905.

† For the case of a cavity having a single curve. If the wall is curved in two directions the formula is $P=T\left(\frac{1}{R}+\frac{1}{R_1}\right)$ where R and R_1 are the radii of curvature.

that for obliteration we have to depend on the growth of granulation tissue and the gradual falling in of the chest wall under the influence of the contraction of the fibrous layer deposited on its inner surface.

Here we have the exact converse of the conditions found in abscess beneath the scalp. Here, too, we have a fixed and a movable wall with a semilunar cavity between; but with this important difference, that it is the inner convex wall which is fixed and the outer wall which is movable. Here the contraction of the movable wall tends to obliterate the cavity, while in the case of the pleura it has exactly the opposite effect. This is the sole reason of the difference of difficulty in getting the two cases to heal.

The negative pressure of the thorax is the constant factor in the enlargement of the pleural cavity by contraction of the lung, but in all except recent cases there is another. When the visceral pleura becomes thickened and the organized new tissue tends to contract, its effect is to aid the collapse of the lung, since its concavity is directed towards the root of the lung and away from the pleural cavity. This effect may be very small if the empyema is localized by adhesions, for the contracted surface will be only the chord of a very flat arc, but if the whole cavity be involved the effect will be very great.

From the point of view of its squeezing effect on the lung, this new contracting sheet is of importance. In the first place, the thicker it grows and the stronger it gets the harder it will compress the lung; but, in addition to this, its crushing power is increased by the mere fact that the lung gets smaller, because decrease in the radius of curvature of a contracting sheet means increase in the pressure to which the tension in that sheet gives rise. The delicate lung tissue can offer no resistance to the influence of this vicious circle, and we need not doubt that the process of carnification is entirely due to this cause. It is no wonder, then, if such a pleural cavity when opened takes an indefinite time to heal, for the effect of dependent drainage is purely negative.



Up to the present the operation of resection of the ribs as advocated by Estländer is the most important surgical aid to the healing process. It helps the collapse of the rigid outer wall and so facilitates the obliteration of the cavity.

Let us now consider what would be necessary in order to make such a cavity heal at once. It is clear from the foregoing that if, while providing an exit for the pus, we could keep the lung continuously distended so that the parietal and visceral layers were in contact, fusion of the granulating surfaces would take place very rapidly, since there would be no cavity to be filled.

Now there are two ways of keeping the lung distended, and two only. The first is by corking up one bronchus and forcing air into the lung through a perforation in the cork. The other is by applying a suction apparatus to the pleural cavity; and I make this proposal believing it to be quite feasible, for even if some technical difficulties stand in the way, it is worth while to try and surmount them when we consider the importance of the end to be attained, namely, aborting the disease, and leaving the patient from the very first with a lung not more impaired than it already was by the disease which occasioned the empyema.

In the first place, the seat of the wound where the drainage tube is inserted should be made airtight. This could be managed by a small pneumatic pad applied round the wound. Through the middle of the pad the drainage tube should pass, the hole in the pad being hermetically sealed to the outer wall of the tube. Suction could be applied by an aspirated reservoir with a manometer tube attached.

In order to fix our ideas, as well as for the purpose of experiment, I have had such an apparatus made for me by Messrs. Smith and Sheppard. It consists of a large bottle, which can be sufficiently exhausted by a small air-pump. It is advisable that the capacity of the bottle should be considerable so that minute leakages, such as are inevitable with rubber tubes and joints, as well as the gradual outflow of pus to take the place of air, may have but a small influence on the pressure.

The pressure is gauged by means of a U-shaped mercurial manometer. Into the free end of the manometer a pair of wires, connected with an electric alarm, are lowered to any requisite depth. Should the negative pressure in the reservoir fall below a certain point corresponding with the tips of the wires, the mercury rises, makes contact between the points, and the attending nurse is summoned by the bell.

The air pad, which is fixed to the drainage tube, is secured to the patient not only by a belt going round the chest, but locally by rubber strapping.

I have had pads made in various shapes and sizes. The best form can only be decided experimentally, but the most promising is a conical one with the drainage tube passing through the axis of the cone. The pad need not necessarily contain air. Water would be less liable to leakage, besides avoiding the necessity of opening the pad to allow for expansion when sterilizing by boiling. Great care should be taken to allow no air to enter the pleural cavity either before or during treatment. If it entered it would rise to the highest part of the cavity and prevent the union of the surfaces between which it lay. Furthermore, it would stand no chance of being removed by an apparatus arranged only to abstract the heavy material from the most dependent part. If air gains admission it can be removed by turning the patient on the opposite side and filling the pleural sac with boric lotion, at the same time providing for the escape of air.

It is therefore evident that once the pad has been put in position and the treatment started it ought not to be removed until the case is quite or very nearly cured, for removal of the pad would mean entry of air and ripping up of the adhesions between the granulating surfaces. For the same reason the tube leading from the pad to the bottle should be carefully clamped before removing the bottle for emptying and cleansing, and the bottle again exhausted before undoing the clamp.

Theoretically, the opening in the chest wall should be made at the most dependent point as the patient lies, so that the gravitation of the pus might cause the adhesion of the pleural layers to begin at parts remote from the opening, which should, of course, be the last place to close. But practically, I think, it will be found sufficient if the opening is some distance away, provided the end of the empyema tube is at the bottom of the cavity. When the rest of the pleura has adhered, the track can be made to close by shortening the tube.

Again, the earlier in the history of such a case the treatment were tried the better would be the chance of success, for the more recent the visceral exudation the less it will be organized, and the less will be its tendency to contract. With regard to the degree of negative pressure to be applied, it must be at least sufficient to expand the lung. If the method were applied at the onset of the disease, the normal negative pressure of the thorax would be the only resistance to be overcome by the pump. But since, in many cases, the correct amount will not be precisely known, a greater negative pressure must, for certainty sake, be resorted to, and there is no reason, as far as one can see, against the minimum being considerably exceeded. The determination of the most useful pressure must, however, be left to experience and experiment.

An approximation to the correct degree may be made by watching the effect of gradual increase of negative pressure on the outflow of pus. When it is seen that a further increase is not responded to by an additional outflow, it may be taken as proof that the existing amount is enough to keep the cavity nearly empty.

In pyopericarditis, in the same way the negative pressure of the thorax keeps the parietal pericardium distended, and thus

retards healing by preventing its contact with the visceral layer.

When we come to rigid cavities, such as the antrum of Highmore, where the mucous membrane is degenerated, the futility of expecting drainage to effect a cure will, from previous considerations, be apparent. It may be admitted that in the history of a case of empyema of the antrum from simple infection—that is, where there is no tooth or bone disease, there is a point up to which simple drainage might allow the lining membrane to recover, though I am not at all aware that this has ever been tried. But when once the purulent stage is established it is hard to see how this can ever occur. The truth is that mere drainage, if not actually pernicious in such cases, can be entirely dispensed with. At best it can only get rid of excess of pus; it can never leave the cavity pus-free.

Further, in cases where the membrane at the hiatus semilunaris is degenerated or swollen, no ordinary-sized hole would have the effect of emptying the antrum, for no air could come in from above to take the place of the pus. The rule that lays down that the antra should be tapped at the most dependent point is only an unreasoning extension of what in other circumstances is a highly important practice. The real reason why opening the antrum from below sometimes cures empyema is that it allows thorough flushing and cleansing of the cavity, and by removing the infected matter permits the lining membrane to recover. This end is just as well attained with a solid plug in the opening as with a drainage tube, while the plug has the additional advantage that the pus does not trickle into the mouth and get swallowed by the patient. In cases where degeneration is so well established that regular and frequent flushing does not effect a cure within a reasonable time, continuing the treatment will not bring it about.

Granulation tissue would be no bar to healing if the walls could but collapse and the granulations fuse, but the rigidity of the walls prevents anything of the kind from happening, for after the first few layers granulations grow so slowly that it would take an enormous time for obliteration to be effected in such a way.

An effort must then be made to curette the diseased tissue and allow the raw surfaces to epithelialize. This can be effected by cutting away the inner wall of the antrum to such an extent as to permit the mucous membrane of the nose to creep in and cover the raw surfaces with a healthy coat. I have lately in three cases supplemented this method by applying large grafts to the inside of the antrum through the opening in the canine fossa a week after the primary operation, and in each case with an excellent result.

Again, let us take the case of the frontal sinus. Here we have the best possible example of the insufficiency of drainage to cure an infected bone cavity. The sinus is provided with an exit at its most dependent point, and if drainage were of any service whatever, one can hardly see how such a cavity could ever become chronically affected. The explanation given by those who attribute its disease to want of proper drainage is that the concomitant swelling of the mucous membrane of the infundibulum blocks the exit, and so impedes the gravitation of the discharge. So in many cases it undoubtedly does, and in these we have brow ague from pus pressure as a constant symptom; but in many others the infundibulum is large enough to allow perfect drainage, in spite of swelling, and this is borne out by the ease with which large instruments can be introduced into the cavity from the nose, and also by the complete absence of frontal ache, a symptom which could not fail to be present were the outflow in any way obstructed.

That such cases do not tend to spontaneous cure shows that mere drainage is not enough, unless the other necessary condition is present—namely, that one wall of the cavity must be collapsible.

Here, then, we have the key to the correct treatment of such cases. There is no use in trephining the anterior wall and scraping and disinfecting the cavity. The mucous membrane has been destroyed, and when the bone granulates the old condition is re-established as badly as ever. In the same way a diseased mastoid process will never heal from simply letting the pus out by chiselling if its interior is degenerated. Such treatment should be reserved for acute cases, where, on the subsidence of the inflammation, the membrane reverts to its normal condition.

Operations on the mastoid in old-standing cases were heart-breaking to the surgeons until the modern radical procedure was developed. The essence of this beautiful operation consists in throwing the tympanum, external meatus, mastoid cells and attic, all into one large accessible cavity over the surface of which epidermis is encouraged to grow by utilizing the skin of the external meatus and by transplantation by Thiersch's method from other parts of the body.

So, also, when abscess occurs in bone, the head of the tibia for example, opening and scraping and drainage are of no use, the granulations cannot fuse, for they cannot meet if the cavity is of any but the smallest size. The efforts of the surgeon should be directed towards laying the cavity freely open and planting the raw surface with large grafts.

In the majority of surgical cases pain is a function of tension. Now, tension in cases of infection is determined by two things: the rigidity of the surrounding tissues and the time they get to adapt themselves to their new conditions. There are certain parts of the body noted for their painfulness when inflamed. These are not necessarily places richly supplied with sensory nerves, but rather parts whose structure is such that it does not readily allow of distortion.

A gouty or rheumatic inflammation of fibrous tissue is always severe, and a patient may suffer a degree of torture from a small furuncle on the fibro-cartilaginous parts of the nose or ear out of all proportion to the size of the affected area. If the affection is virulent the inflammatory products accumulate rapidly, the mechanical disturbance of the tissues is violent, the tension is high, and the pain great. If, on the other hand, the infection is mild the products accumulate slowly, the tissues get time to adapt themselves, the tension is low, and there is but little pain, and if the malady only progresses with sufficient slowness there is no reason why pain should not be entirely absent.

This gives a more reasonable explanation of the fact that tuberculous otitis usually progresses painlessly, than the assumption, obviously made to fit the fact, that the tubercle bacillus produces a special anaesthetic toxin which deadens the nerves of the affected area.

FRONTAL SINUS EMPYEMA FOLLOWED BY SUBDURAL ABSCESS.*

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Assistant Surgeon to the Throat and Ear Hospital, Brighton.

J. M., aged 31, was first seen in January, 1904, when he complained of pain in the right cheek, upper molar teeth, and over the right eye, and of a nasal discharge. Symptoms had been present five or six months. He had been to a dentist and had a sound tooth drawn.

On examination there was found a marked deviation of the nasal septum to the left side and a corresponding enlargement of the turbinal bones on the right. There was pus about the middle turbinal region and the cheek was dark on transillumination.

On January 29th, 1904, the right antrum was perforated through the tooth socket under gas and foul pus washed out. The patient was taught to wash the cavity out himself, and this antrum gave no more trouble. In the following August the left antrum began to trouble him. Symptoms were the same as he had had on the right side, and I saw him on August 23rd. He had had a molar tooth extracted before I saw him on this occasion also, and there was said to have been an abscess at its root. (I may mention that all his teeth are unusually good.) I perforated this antrum also through the tooth socket, and daily syringing was instituted.

I was called to see him one week later for acute pain on the left side of the forehead and round the orbit, especially at the inner angle of the lids. His temperature was 101° F. The antrum when examined washed out clear. The day before he had been for a long motor-car ride, which, owing to a mishap, had been prolonged until 2 a.m. on the day when I saw him. Pain commenced at 6 a.m.

I tried to pass a frontal sinus cannula under cocaine and failed. I put him on inhalations of mentholized steam, and tried again, but without success.

On September 1st, under chloroform, I raised an angular flap over the sinus, and removed a circle of bone with a ¾-inch trephine. The mucous membrane lining the anterior wall was deeply congested, and gas bubbled through a puncture made in it by the pin of the trephine. The sinus was full of offensive yellow pus, and there was a small area of bare bone on the inner wall. It was ascertained that a probe could be passed into the nose, and the inferior turbinal was removed

*Case shown to the Brighton Division of the British Medical Association.

to facilitate drainage. Temperature fell after this operation and remained down for two days, when he had a rigor, and it ran up to 104.2°. There seemed to be very little pus from the frontal sinus, but there was a good deal of offensive discharge about the ethmoidal region.

On September 4th, under chloroform, I completed the radical operation on the frontal sinus, removing the whole of the middle turbinal bone, scraping out the ethmoidal cells, and making a large opening into the antrum from the inferior meatus of the nose. This operation gave no relief. Rigors were of daily occurrence; the pulse was somewhat slow, headache was severe, and the patient complained of numbness and tingling at the extremities of the little and ring fingers of the right hand; there was no vomiting, no optic neuritis, and the mental condition was brisk.

On September 9th I explored again under chloroform, and found a bead of pus issuing from a pinhole opening in the posterior bony wall of the sinus in the middle of the bare area above noted. I removed this bare bone and evacuated a considerable amount of creamy-white offensive pus.

The subsequent history was uneventful. For some time there was offensive discharge about the ethmoidal region. This eventually diminished in amount and became sweet. I found the administration of nuclein solution by the mouth useful in drying up the discharge. Complaint was made of some discomfort owing to division of the supraorbital nerve in performing the radical operation. This is now passing off, and there is practically no nasal discharge.

REMARKS ON COMPLETE PROSTATECTOMY FOUNDED ON FIFTEEN CASES.*

BY J. LYNN THOMAS, C.B., F.R.C.S.ENG.,

Surgeon to the Cardiff Infirmary; Consulting Surgeon to the Hamadryad Hospital, Porth Hospital, Bridgend Cottage Hospital, Cardiff Provident Dispensary, and Barry Accident Hospital.

I HAD the privilege of being present at the Manchester meeting of the British Medical Association, 1902, when the two alternative routes for the removal of enlarged prostates in the aged were recommended by men of specialized experience with zeal worthy of forensic advocates, and it is no exaggeration to state that the practical result of that discussion has been a great boon to many sufferers, and has borne fruit to a degree which is almost revolutionary.

Mr. Freyer, in enthusiastically advocating the suprapubic route for complete removal of the prostate, trod upon the corns of admirers of McGill's operation, who thought that they recognized an old dish under a new name. Disinterested spectators and subsequent investigators have by this time come to the conclusion that Mr. Freyer placed the suprapubic operation upon broader and sounder bases, and has achieved results which are more constant, uniform, and dependable than any that previously existed. Before the Manchester meeting, I had performed McGill's operation on five occasions, but owing to the narrow range of its application, and the uncertainty as to the ultimate result, I found that most patients, after the risks and probable result of the operation had been explained to them, did not care to undergo it. Under present circumstances, when patients are informed that they can be cured, but that the risk to life is about 10 per cent., I have been astonished at their readiness to undergo operation, notwithstanding strong advice to the contrary by other medical men. One of my reasons for bringing before your notice to-day the result of my experience is due to this particular attitude on the part of some members of the profession. It is common practice, I believe, for prostate patients to consult a number of doctors, and after they have undergone operation to express much gratitude at the result, incidentally reflecting approvingly upon their own judgement by enumerating the doctors who did not agree with their decision to having their prostates removed.

My own cases number 15 prostatectomies—13 suprapubic and 2 perineal—with 2 deaths.

Of the latter, one (my eighth case) died as the result of the operation in about forty-eight hours, the other (my twelfth case) died from pneumonia about nine days after. The first death made me adopt the perineal route in the next two cases, but afterwards wrong diagnoses, due to unexpected pathological conditions causing symptoms pointing to malignant disease, brought me accidentally back to the suprapubic route.

*Read before the South Wales Branch of the British Medical Association at Carmarthen, December 8th, 1904.

The ages of my patients varied from 56 to 77. The prostates removed ranged in weight from 1 oz. to 6 oz., my last two cases supplying the extremes in weight, and both these patients suffered from serious heart trouble. Two were corpulent—one 5ft. 10 in. in height, weighed 220 lb., the other, 5 ft. 5 in., scaled 196 lb., so that after operation a very deep wound was left to granulate up, but notwithstanding this fact the heaviest man left the private hospital in twenty-six days, the urine having entirely passed per urethram from the eighteenth day after operation.

It seems to me that, owing to the necessity of possessing strong, talon-shaped nails on the forefingers, there are at least two types of surgeons who cannot perform Freyer's operation—the one is handicapped by nature and the other is a victim to ceremonial: the first are those who naturally possess soft flexible nails; the second, men who cut their nails down to the quick. For these the perineal is undoubtedly the route best suited.

In several of my suprapubic operations no instrument was used except scalpel and catheter, and no ligatures were required; I prefer the transverse incision through the skin along the fold at the lower part of the abdomen, because it is parallel and practically on the same level as the upper portion of the pubes. And after dividing the sheath over the recti and pyramidales muscles, the left forefinger acts as retractor, and the opening becomes lozenge shaped, giving a good view down to the bladder wall, then the silver prostatic catheter in the bladder is pushed against the finger so that an opening is forced through the anterior wall of the bladder and is immediately enlarged downwards, whilst the catheter remains as guide to the upper end of the opening in the bladder; the left forefinger delivers the prostate into the bladder. A rubber glove is worn on the right hand as a protection against infecting the fingers when introduced into the rectum. I have on some occasions had the prostate freed from its sheath and delivered into the bladder under two minutes, but I must confess that I have had some trouble in extracting it from the bladder.

My earliest cases happened to be very septic, and after operation I immediately packed the bladder and wound with iodoform gauze and left it in for twenty-four hours, but in one instance where I had used Stonham's ribbon gauze I found that the bladder and urethral muscles extruded part of it through the meatus and had given rise to symptoms of dysuria. Since that experience I confine packing of the bladder to septic cases with paralysed bladder and to using the ordinary gauze.

As far as the perineal operation is concerned, my limited experience left the impression that it is easily performed, and that an excellent view of the whole field of operation is gained by adopting the curved transverse incision through skin and superficial fascia and by bringing down the base of the bladder by Young's prostate retractor, and by using Proust's bulb retractor. Parker Syms's rubber prostate retractor and Legueu's three-bladed instrument are not quite so convenient as that of Young for lowering the prostate.

My views as to the indication for operation are necessarily narrowed on account of the fact that I do not see patients until they have tasted the discomfort, the worry, and to some the humiliating outlook of catheter life. Many a strong man is utterly disheartened or even demoralized when he feels he is losing control over micturition; he fancies that the overflow of urine is a sign of second childhood, the want of control over the mechanical obstruction at the neck of the bladder being misinterpreted as loss of control over its nervous mechanism.

I would draw attention to my fourth case of prostatectomy, as the patient decided for himself the course of treatment to be adopted. One morning he failed to pass urine, and was relieved by my friend, Dr. Arthur Taylor, by catheter. In the evening of the same day I saw him in consultation; after again relieving him, he asked if no other treatment but that of catheter was open to him, and mentioned that his brother had died the previous year in great misery after using an instrument for some months. After explaining to him my views of Freyer's operation, he decided to have it done without delay, and next morning I removed complete in its capsule, together with the prostatic portion of the urethra, the prostate shown in Fig. 1. He was 72 years of age, 5 ft. 5 in., and weighed 196 lb. He afterwards remarked that the profession did not realize the misery and the lives that might be saved by adopting his views with regard to treatment! This man's prostate was removed within twenty-four hours of the first signs of trouble. I cannot but think that there is much

wisdom in occasionally adopting this suggestion, for by doing so the pain, the humiliation of catheter life, wakeful nights, cystitis, and other miserable sequelae are avoided at small risk by early and timely interference.

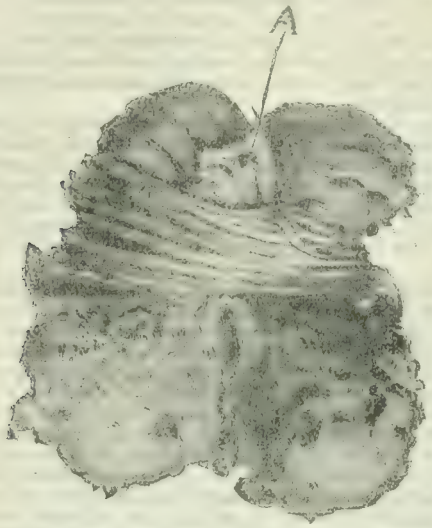


Fig. 1.—Anterior view of prostate complete in its capsule, carrying within it the prostatic urethra. The upper end at A has vesical mucous membrane surrounding urethra attached to it. (Case 4.) Recovery.

One case—a sad one—I wish to refer to, as it happened to be the only one in which there was no definite interval between the prostatic capsule and its sheath.

I saw with Dr. W. E. Thomas, Bridgend, a German, aged 62, who had had prostatic trouble for some time, and the passage of a catheter gave rise to intense pain with tendency to subsequent haematuria. After I had removed a hard, tough, cartilaginous prostate, I discovered that one of the vesiculae seminales was attached to it, and that the abdominal cavity was opened. Owing to the collapsed condition of the patient coeliotomy could not be performed, but a couple of sutures were placed at the site of the opening, and the bladder packed with iodoform gauze. The patient did not recover from shock, and died in two days. In a similar case perineal prostatectomy would be safer, as it is the only route by which a tunnel can be satisfactorily made through a prostate that has no line of separation or cleavage between its capsule and sheath. The recent demonstration by Mr. Thomson Walker of the existence of a sheathless area to the prostate at the base of the bladder is an anatomical fact of very great practical importance. It is through this sheathless area that the so-called third lobe of the prostate usually protrudes into the bladder, and consequently upward growth of an enlarged prostate towards the bladder is a suitable condition for Freyer's operation, as the neck of the sheath will be stretched or opened out, so that enucleation of the gland will be comparatively easy.



Fig. 3.—This complete prostate shows well "the third lobe" which projected into the bladder. Had "the lobe M" been removed alone, I should call it a case of "McGill's operation." The additional removal of the right and left lobes R and L makes it a Freyer's operation.

The other death I had was a case of Dr. Naunton Davies's of Carmarthen; the patient had previously had two suprapubic operations for vesical calculi. He was 71 years of age, and I removed a small calculus with a two-ounce prostate without much difficulty; he developed double pneumonia, and died nine days after operation.

Mistakes in Diagnosis.

I saw Mr. C., in consultation with Dr. Mullin, J.P., and we agreed that he had malignant disease of the prostate on account of the intensity of the pain in the bladder, the profuse haematuria, and the passage of disintegrated débris. He was 56 years of age. After performing suprapubic cystotomy I enucleated through an ulcerated opening in the

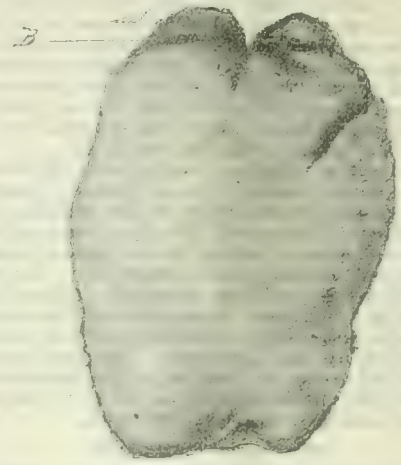


Fig. 2.—Prostatic adenoma removed through ulceration of vesical mucous membrane. Area above B was necrotic and projected into the bladder (McGill's operation).

mucous membrane the prostatic adenoma shown in Fig. 2. The upper part of the specimen was necrotic, grey, and putrid. Recovery uneventful. I may point out that in this case ulceration of the mucous membrane of the bladder took place in the area in which there is no prostatic sheath. The other case in which I suspected a growth in the bladder was at the Cardiff Infirmary in December, 1903. The patient suffered intense pain at the neck of the bladder whilst passing catheter, and had severe haematuria, and he also passed much débris. I performed suprapubic cystotomy, and removed through a false passage which had been made through the mucous membrane of bladder two halves of an enlarged prostate weighing 3 oz. This patient was feeble and cachectic, the urine was foul, and his recovery was rather slow.

The Co-existence of Heart Disease.

Mr. H., aged 77, a patient of Dr. O'Donovan, had developed a loud systolic bruit during the last six months before operation; the left side of the heart was dilated and there was an occasional intermission of the pulse, the apex beat being in the nipple line, and he could not stand much exertion. On September 24th, 1904, he was anaesthetized with ethyl chloride and ether by Dr. Cyril Lewis at the Private Hospital. Dr. O'Donovan assisted at the operation, and I removed a 6-oz. prostate in a very short time, but I had to separate the two halves of the prostate before I could get them out of the bladder. The specimen (Fig. 3) shows well the so-called third lobe of the prostate. The patient went home cured in six weeks. There was no shock or disturbance from the operation. [In February, 1905, he reported himself as having no urinary trouble, and was much improved in health.]

My last case was a patient of Alderman Dr. Jones, Penrhiwceiber, who suffered from well-marked emphysema of the lungs consequent upon two severe attacks of bronchitis.

The heart beat could not be distinctly felt on that account, and the pulse was extremely irregular and intermittent. The patient looked in fairly good health, although he was "asthmatic," and had suffered a great deal from the frequent passage of catheter by day and night during the previous three months. I removed the prostate in October, 1904. Dr. Cyril Lewis gave the anaesthetic, Dr. Jones assisted, and Mr. Cresswell, C.B., was present. The prostate and its capsule were the toughest I have had to deal with and were removed piecemeal—four adenomata and three tough fragments of capsule. My left forefinger got tired out, and I had to use my right forefinger before the operation was completed. Rubber gloves were used on the hands when manipulating in the rectum. On the night of the operation I was afraid he was in for an attack of bronchitis, but an emetic removed all anxiety. From the eighteenth day after operation he passed urine entirely per urethram, and went home on the twenty-sixth day, retaining and passing his urine quite normally. [In March, 1905, he reported himself, and said the result was perfect—"I do not get up at night."]

In conclusion, I would venture to remark about the use of antiseptics in these operations. Weak antiseptic solutions for washing out the bladder are only a source of local irritation, plus the possibility of being absorbed and throwing unnecessary tax upon the eliminating organs. Sterilized salt solution is better for irrigation, because the beneficial effect is really due to the mechanical removal of surgical dirt. Antiseptics to be of any germicidal value must be strong, and for suprapubic operations upon the bladder I find that pure tincture of iodine poured into the bladder (2 to 4 dr.) through the suprapubic opening is an excellent preparation to correct septic conditions either at the time of operation or at subsequent dressings. It is better than any powder, because it runs into all the nooks and crevices, and comes into contact with the entire field of operation.

[Since the above paper was written Messrs. Weiss and Son have made for me a special elevator for lifting up the base of the bladder, and in two suprapubic operations I found it most useful; in one case where my fingers were too short without it I was able to pick out 47 calculi from a post-prostatic pouch before I removed a big prostate. The elevator is passed into the rectum, and is under control of the operator. I hope later on to relate cases in which such an instrument is of great value in raising the pelvic floor through rectum or vagina, in ovariotomy, hysterectomy, and bladder operations.]

A RECENT SERIES OF 60 CASES OF TOTAL ENUCLEATION OF THE PROSTATE FOR RADICAL CURE OF ENLARGEMENT OF THAT ORGAN.

By P. J. FREYER, M.A., M.D., M.Ch.,

Surgeon, King Edward VII's Hospital for Officers, and to St. Peter's Hospital.

During the past four years lectures and papers of mine have been published from time to time in the BRITISH MEDICAL JOURNAL[1] dealing with my operation of total enucleation of the prostate for radical cure of enlargement of that organ. These lectures and papers have dealt with series of this operation, gradually increasing in number, and in this way full details of each instance of my first 110 cases of the operation have been placed before the profession. I have now to record a further series of 60 cases operated on between July 1st, 1904, and March 8th, 1905. This series is such a large one that it is impossible without encroaching unduly on the space of the JOURNAL to enter, as I have previously done, into full details of each case. I propose, therefore, recording in detail a limited number of cases of more than ordinary interest or illustrative of some peculiar feature of the operation, adding a tabular statement giving some of the most important particulars of each case.

CASE CXII.

A gentleman, aged 62, consulted me on June 29th, 1904, on the advice of Dr. R. G. Pollock, Tiverton. Prostatic symptoms for three years; retention of urine two years previously and on several occasions within the next year, relieved by catheter; dependent on catheter for one year. Repeated attacks of cystitis, orchitis, and haemorrhage, with clots blocking the catheter; much pain. Prostate greatly enlarged per rectum, bilobed, smooth, tense, elastic, movable, easily felt bimanually, the size and shape of a large pear; urine contained pus, blood, and albumen. Patient very stout, general health fair.

On July 4th, Lieutenant-Colonel D. ffrench-Mullen, I.M.S., and Dr. Laing Gordon of Florence being present, I enucleated the prostate entire in its capsule, leaving the urethra behind. Time from commencing the operation till the prostate was delivered from the bladder six minutes. More bleeding than usual, but no shock; uninterrupted recovery; passed some urine naturally on June 22nd; wound closed on July 26th. Went home in good health on August 5th, able to pass and to retain his urine, which was normal, as well as he ever did. On January 20th, 1905, he wrote me that he was in perfect health, untroubled by any urinary symptoms.

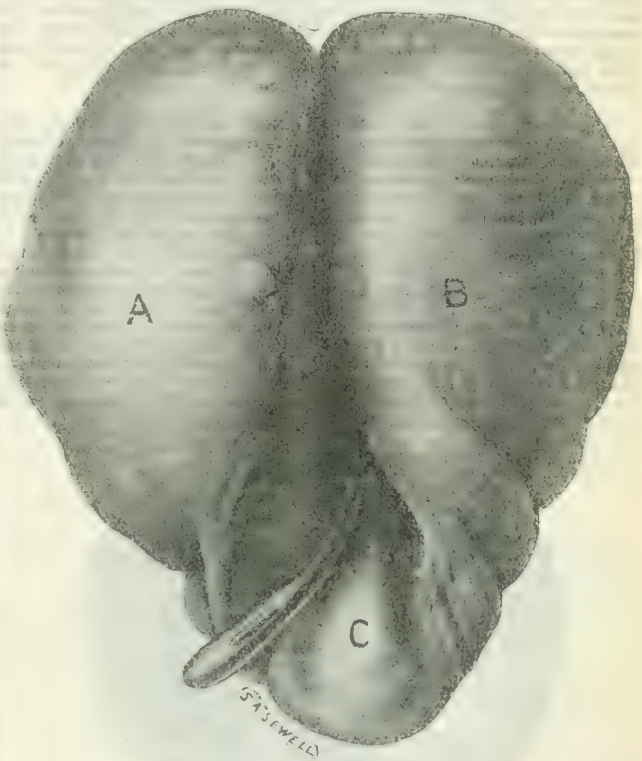


Fig. 1.—Prostate, weighing 6¾ oz., removed from patient aged 62 (Case CXII). A, left lobe; B, right lobe, giving off an outgrowth, C, in the bladder. Catheter shows tortuous course of urethra.

The prostate (Fig. 1), which weighs 6¾ oz., is a fine specimen of symmetrical adenomatous enlargement. Two-thirds of the prostate projected into the bladder.

CASE CXVI.

Gentleman, aged 62, came from Trinidad to consult me, on the advice of Dr. Eakin, Port of Spain, August 10th, 1903. Prostatic symptoms eleven years. Double castration performed by a London surgeon in 1896 for cure of his disease, but with no benefit whatever. Completely dependent on the catheter six years; chronic cystitis; haemorrhage twice. Prostate size of a walnut, hard but movable; scarcely felt bimanually as patient was very stout. I advised removal of the prostate; but the operation was postponed for a year owing to pressure of business. On his return in July, 1904, patient was in much the same state; catheter used five or six times daily; urine "fishy" in odour, contained much pus and mucus.

With the assistance of Mr. Thomson Walker I enucleated the prostate, weighing 1¼ oz., entire in its capsule, July 21st, easily and rapidly. Urine began to pass naturally August 4th, but the suprapubic wound was slow in completely closing. I saw him on September 23rd previous to his departure for Trinidad. He was in excellent health, the wound firmly closed, and he could pass and retain urine as well as he ever did.

CASE CXX.

A distinguished Russian General, aged 75, consulted me August 4th, 1904, suffering from prostatic symptoms for six years; completely dependent on the catheter for three years; operated on about three years ago by the late Professor Bottini of Italy by the electro-cautery, but with no improvement. Since then has had cystitis continuously, for which bladder washed out twice daily. Had consulted many specialists on the Continent and in England, including Professor Guyon of Paris, with whose kind approval I was approached with a view to removal of the prostate. Great loss of flesh during past few years, with some digestive troubles; prostate enlarged per rectum, bilobed, very dense, movable, felt bimanually; calculus detected by the sound; sufferings so severe that the patient said he would run any risk from operation rather than continue "catheter life." On my advice he consulted Sir Douglas Powell, who considered that his constitution was sufficiently sound to stand operation, which had to be postponed till after my autumn holiday.

On September 15th, Dr. Hewett being the anaesthetist, I removed two phosphatic calculi suprapubically, and then enucleated the prostate. This was accomplished with difficulty, owing to the cicatricial adhesions between the prostate and bladder resulting from Bottini's operation. Scarcely any bleeding; no shock. There was no rise of temperature, and satisfactory progress was made, with the exception of his severe digestive troubles, for which Sir William Broadbent saw him with me. On September 24th urine passed freely per urethram, but the suprapubic wound being slow in closing I tied in a rubber catheter on October 21st for five days, when the suprapubic wound was firmly closed, and the urine passed naturally with perfect ease. On November 5th patient left for the Riviera in good health, able to pass and retain his urine better than he ever did before. On January 16th, 1905, I heard from him that his urine was quite clear, and that his digestive troubles had practically disappeared.

CASE CXXI.

Gentleman, aged 82, seen with Dr. Randell, Beckenham, August 10th, 1904. Catheter employed for prostatic obstruction eight years, latterly four times daily, a little urine being passed naturally every two hours with much straining. Haemorrhage, cystitis, and orchitis from time to time. Catheter introduced with difficulty. Prostate greatly enlarged per rectum, bilobed, soft, smooth, movable; felt bimanually, the size of a large orange. Health feeble. Inguinal hernia requiring a truss.

On September 15th, Mr. C. Braine being the anaesthetist, Dr. Randell assisting, Drs. de Havilland Hall (London) and Renny (Colchester) being present, I enucleated the prostate entire in its capsule easily and rapidly in four minutes. Very little bleeding; no shock. The recovery was uninterrupted, urine passing naturally October 12th, and the wound being dry next day, after which it did not reopen. Seen by Dr. de Havilland Hall September 23rd, in excellent health, able to pass and retain urine as well as he ever did. Left for home on September 24th. On January 26th, 1905, he wrote: "I am quite well, and as active as ever;" and on March 13th, "My health continues excellent."

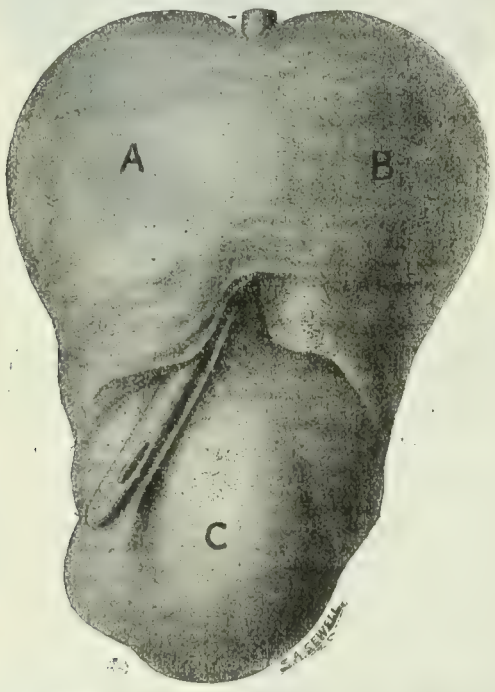


Fig. 2.—Prostate weighing 4 oz. removed from a patient aged 82. (Case CXXI.) A, left lobe; B, right lobe, prolonged into bladder in polypoid form, C.

The prostate (Fig. 2), which weighs 4 oz., presented an outgrowth in the bladder the size of a large plum, growing from the right lobe.

CASE CXXV.

G. C., aged 70, admitted to St. Peter's Hospital, September 18th, 1904, completely dependent on the catheter from prostatic enlargement. Had been operated on in November, 1903, in another London hospital, the house-surgeon of which kindly supplied the following notes:

"November 26th, 1903. Mr. ——— operated by suprapubic opening; brought bladder to surface and fixed it to abdominal wall by two lateral sutures. Bladder was opened, and a small vesical tumour found blocking the internal meatus. Mucous membrane opened and a tumour the size of a walnut shelled out, adenomatous in substance. Drainage tube inserted and catheter lodged. December 12th. Abdominal wound closed. December 16th. Wound broke down, urine discharging. January 1st, 1904. Patient's condition not being improved, he was again taken to the theatre, wound opened, and the internal meatus found freely patent to catheter passed through it. In view of this Mr. ——— determined not to do anything further. Bladder appeared to be atonic.

Since this time patient had been obliged to use a catheter to draw his urine, usually four times daily, though never employed before the operation. Prostate enlarged per rectum, bilobed, soft and movable; and by the cystoscope both lobes were seen somewhat prominent in the bladder, the space between them being ragged, the result of the previous operation. Pulse irregular, but no bruit detected.

On September 21st I enucleated the prostate, weighing 1½ oz., with some difficulty, owing to the adhesions caused by the previous operation; rather more bleeding than usual.

Uninterrupted recovery, with the exception of slight orchitis; wound closed, and all the urine passed naturally October 6th; discharged cured October 24th. This patient presented himself at the hospital a few days ago in perfect health, able to pass and retain urine, which was normal, as well as he ever did. I introduced a catheter, but found no residual urine.

This is the fourth case that I have published in which McGill's operation of partial prostatectomy had been previously performed with no improvement, followed by absolute cure after complete removal of the prostate by my method. It will be observed that the failure to pass urine naturally after the first operation was attributed to "atony of the bladder," whereas in reality it was due to obstruction by pressure of the lateral lobes on the urethra, there being no atony of the bladder whatever.

CASE CXXIX.

Gentleman, aged 78, seen with Dr. W. C. Luffman, London, September 15th, 1904. Prostatic symptoms for ten years, much aggravated during last two. Completely dependent on catheter for seven weeks. Haemorrhage, cystitis, with rigors, and temperature 104° F. from time to time. Patient very stout and feeble, suffering from chronic bronchitis. Much pus and mucus in urine, specific gravity 1012. Prostate scarcely felt enlarged per rectum, but bimanual examination revealed its size as that of a large orange projecting into the bladder, very soft and movable.

The patient's general health being improved, on October 3rd I enucleated the prostate entire in its capsule. Major J. G. Gordon, I.M.S., and Dr. J. A. Potts, Ross, Hereford, being present. I also removed an oxalate of lime calculus weighing 34 gr. from the bladder. Time occupied six minutes. Troubled much with bronchitis for a few days after operation, but strength gradually improved. Some urine passed naturally October 15th, wound dry October 18th. Went home perfectly well November 5th; able to pass and retain urine as well as ever. On March 10th, 1905, he called to see me in excellent health. Could retain urine four or five hours by day and six or seven by night, and pass it with perfect ease; in fact, better than he ever did previously.

The prostate, which weighs 5⅛ oz., had several polypoid outgrowths in the bladder from the right lobe, which is twice the size of the left.

CASE CXXXI.

On September 19th, 1904, I saw, in consultation, with Dr. H. S. Stone (Reigate), a well-known public man, aged 71, who had suffered from prostatic symptoms, gradually increasing for twelve years, much aggravated during past year. Catheter passed five months previously, and 2 oz. urine drawn off, employed regularly since then, sometimes introduced with much difficulty. Severe attack of cystitis, with fever, three weeks before; much pus and mucus in urine. Has latterly lost flesh rapidly and become dull, listless, and with want of energy; much pain in penis; blood occasionally in urine. Prostate enlarged bilaterally, smooth, rather hard, movable; felt bimanually. I made a cystoscopic examination September 20th and discovered a bilateral outgrowth of prostate in bladder and several round calculi lying on the trigone, like eggs in a bird's nest.

Operation fixed for September 24th, but had to be postponed owing to sharp rise of temperature to 103° F. Fever, with much pus in urine and symptoms of blood poisoning, continued for several days. There was much difficulty in introducing a catheter, which had to be tied in October 6th. Patient's condition gave rise to much anxiety, and suprapubic drainage was contemplated as a temporary measure. After the catheter was tied in, however, the temperature subsided nearly to normal, so it was decided to remove the prostate before further loss of strength occurred.

This I accomplished October 5th, Dr. Stone assisting, and Drs. J. Hewetson and Watson being present. Nine uric-acid calculi weighing 95 gr. were removed, and then the prostate was enucleated entire; weight 1¾ oz. Time, six minutes. Scarcely any bleeding; no shock. The fever at once disappeared after operation, and patient's strength rapidly improved. Some urine passed per urethram October 19th. The suprapubic wound was slow in healing, owing, no doubt, to patient's previous bad health, but was practically closed November 19th. On December 30th he came to me in excellent health, having put on much flesh. He can now pass and retain urine as well as he ever did, and has resumed the duties of a more than ordinarily active life.

CXXXII.

Gentleman, aged 78, seen with Dr. J. A. Potts, Ross, Hereford, October 3rd, 1904. Retention of urine seven years previously when travelling in Belgium, relieved after twenty-four hours by catheter by a doctor at Ghent. Not troubled much after that till two years ago, when severe bleeding and pain set in, from which he was confined to bed for a fortnight. Catheter abandoned owing to difficulty of introduction. Urine passed hourly day and night with intense pain; condition most distressing. With difficulty I introduced a bicoudée catheter, and drew off 6 oz. stinking ammoniacal urine.

By cystoscopic examination on October 7th I detected two large

vesical calculi, which were also felt by the sound. Prostate greatly enlarged.

On October 10th, Dr. Potts assisting, I opened the bladder suprapubically and removed two calculi (urates covered by phosphates) weighing 2¼ oz., and then enucleated the prostate entire—a fine specimen weighing 5 oz. Both lobes were very prominent in the bladder, and the right gave off a polypoid outgrowth the size of a large gooseberry. Time, six minutes, three of which were occupied in removing the calculi. Uninterrupted recovery. Passed urine naturally October 25th, wound dry November 10th. On November 17th he left for home in excellent health, able to pass and retain urine as well as ever. On November 23rd he wrote: "I cannot but express gratitude for the marvellous success of the operation. I now make water without any pain and can retain it for seven or eight hours."

CASE CXXXIII.

J. N., aged 67, sent by Dr. Duckworth Barker, Bexhill, admitted to St. Peter's Hospital, October 4th, 1904, for prostatic symptoms of four years' duration. Had retention of urine on four occasions, relieved by catheter. Residual urine 8 oz., containing some pus and albumen. Had "a stroke" three months previously affecting the whole of left side and speech, from which he had only partially recovered. Prostate felt enlarged per rectum, bilobed, smooth, soft, movable, bimanually felt to be size of a Tangerine orange.

On October 12th I had the honour of operating in presence of Professors Poirier, Hartmann, Lucas-Championnière, Reynier, Proust, and many other distinguished French surgeons during their visit to London. The prostate (Fig. 3) was easily and rapidly enucleated entire in its

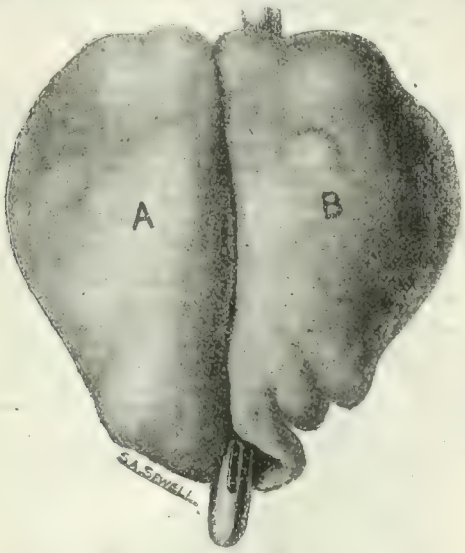


Fig. 3.—Prostate weighing 1¾ oz. removed from a patient aged 67 (Case CXXXIII). A, left lobe; B, right lobe.

capsule, the urethra behind the veru montanum coming away with it, the time occupied from commencing the operation till the prostate was delivered from the bladder being three minutes. Scarcely any bleeding or shock. The prostate, which was symmetrically enlarged, weighed 1¾ oz.

Uninterrupted recovery, some urine passing naturally November 2nd, and the wound being dry November 4th. Patient returned home quite well November 25th, passing and retaining his urine as well as ever he did. On January 20th, 1905, Dr. Barker wrote: "The operation has been a great success; he can hold his water all night with comfort, and can go for four to six hours during the day without any difficulty."

CASE CXXXVI.

Member of the medical profession, aged 73, consulted me October 4th, 1904. Symptoms of enlarged prostate seven years; entirely dependent on catheter five years. Urine clear, acid, 1020, trace of albumen. Prostate greatly enlarged, bilobed, soft, movable, felt very prominent in bladder bimanually. Mitral disease of heart with loud bruit. Seen by Sir Thomas Barlow and Dr. de Havilland Hall, both of whom considered that the state of the heart did not contraindicate the employment of an anaesthetic, provided he had a week's rest in bed with careful dieting.

On October 25th, Dr. Hewett being anaesthetist, and Mr. H. W. Carson being present, I enucleated the prostate (weighing 3¼ oz.), the lobes of which were very prominent in the bladder, particularly the left (Fig. 4, A), which spread out in the form of a fan (C C'). In the enucleation a small portion of the left lobe was broken off, owing to inflammatory adhesions to the bladder, and was removed separately. Time, six minutes; scarcely any bleeding and no shock; in fact the pulse was better after the operation than before.

Recovered without any unfavourable symptom. Urine passed naturally November 9th; wound dry November 14th. Left the Surgical Home quite well November 26th; able to retain and pass urine as well as ever. He is now in active pursuit of his profession.

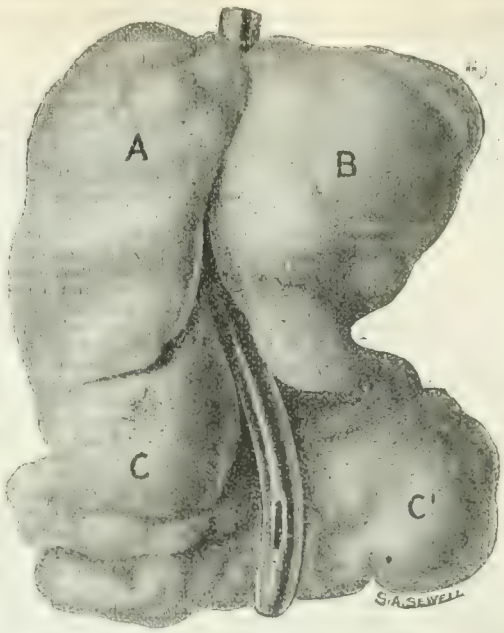


Fig. 4.—Prostate weighing 3¼ oz. removed from patient aged 73 (Case CXXXVI). B, right lobe; A, left lobe, terminating in fan-shaped outgrowth, C C'.

CASE CXLIX.

On September 24th, 1904, I examined a patient, aged 57, sent by Dr. Latham of Cambridge. He had suffered from prostatic symptoms for seven years. Six years ago he had retention of urine, which was drawn off by the catheter, on which he had been practically dependent ever since. He has had repeated attacks of cystitis, haemorrhage, and orchitis. The urine contained pus and albumen but was acid; specific gravity 1015. The prostate was not felt much enlarged per rectum, but bilobed, dense, and movable. Bimanually it was felt projecting in the bladder. On the patient's return home he had a severe attack of cystitis with pyrexia, which prevented his coming to London for operation till the middle of November.

On November 23rd, at St. Peter's Hospital, I enucleated the prostate, which weighed 1¼ oz., entire, easily, and rapidly, the time occupied being five minutes. The prostate presented in the bladder in the form of two polypoid outgrowths (Fig. 5, B, A), that from the right lobe being

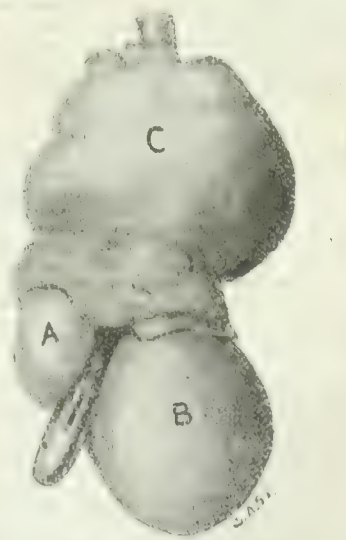


Fig. 5.—Prostate weighing 1¼ oz. removed from patient aged 57 (Case CXLIX). B and A, outgrowths in the bladder from the right and left lobes respectively, separated from the main body, C, by a narrow neck.

the size of a plum and that from the left the size of a cherry. These two outgrowths were separated from the main body (C) of the prostate by a narrow neck produced by constriction of the sphincter muscle, a portion of which came away with the prostate.

The recovery was uninterrupted save for a slight swelling of one testicle. Urine passed per urethram on December 12th, and the wound

was dry December 18th. On December 29th he went home in good health, able to pass and retain his urine naturally.

CASE CLV.

Colonel S., aged 83, seen with Dr. J. C. Ferrier, S. Norwood, December 8th, 1904. Had prostatic symptoms six years, much aggravated the last two years. Retention of urine fifteen days previously; entirely dependent on the catheter for 10 days. Much pain and difficulty in introducing catheter; in great distress from cystitis, attempting to pass urine every few minutes. Prostate enlarged, bilobed, tense, movable; felt bimanually. Patient stout, general health fair, pus and albumen in urine.

On December 10th patient was conveyed to London in an ambulance. After washing out the bladder daily and preparing him for operation, on December 20th, Dr. Ferrier assisting and Mr. C. Braine being the anaesthetist, I opened the bladder suprapubically, removed a small urate stone weighing 39 gr., and then enucleated the prostate entire (weight, 2¾ oz.). Time occupied, five minutes. Very little bleeding; no shock. No unfavourable symptoms supervened. Urine commenced to pass naturally January 9th, 1905; wound closed January 12th. On January 16th he was walking about his room; and on January 25th, when he left for home, he was in good health, passing and retaining his urine as well as ever he did. On January 28th Dr. Ferrier wrote: "I am exceedingly pleased to see how well a man of his age has done after your operation."

CASE CLX.

Gentleman, aged 80, sent by Dr. A. M. Mitchell, Guildford, January 11th, 1905. Prostatic symptoms four years. Retention one and three-quarter years ago, relieved by catheter, which has been regularly employed since then; entirely dependent thereon for one year. Cystitis, haemorrhages, intense pain in penis during and after using catheter. Urine alkaline; much pus and mucus. Has been in bed seven weeks, and is so feeble that he had to be conveyed from Guildford to London in an ambulance. Heart very feeble; pulse intermittent and irregular. Prostate bilaterally enlarged, soft, tense, movable; much pain and tenderness during examination, due probably to presence of vesical calculi. Condition of patient very distressing; catheter introduced with much pain and difficulty.

On January 16th, Dr. Mitchell assisting, I opened the bladder suprapubically and found four phosphatic calculi, weighing 185 gr., which were removed. The prostate projected into the bladder in the shape of an enormously hypertrophied cervix uteri with wide irregular os. The prostate was enucleated entire without difficulty and weighed 2⅛ oz. Time eight minutes, four of which were expended in removing the calculi. Operation well borne, no shock.

Progress was very satisfactory, the patient regaining strength rapidly. Some urine was passed naturally January 24th, and entirely in this way after February 6th. On February 28th he went home in good health, passing and retaining his urine, which was quite clear, normally. On March 9th he wrote, "As to the water the remedy seems complete."

CASE CLXV.

Gentleman, aged 74, first seen by me at Brixton, January 18th, 1904, in consultation with Dr. A. D. Jollye. Prostatic symptoms had existed six years, during which time retention of urine had frequently occurred and was relieved by the catheter, which was, however, not habitually employed. There was intense pain and frequency of micturition and for two days the urine had contained blood. The residual urine only amounted to 5 oz., but the prostate felt enormously enlarged, globular, dense, smooth, movable and placed very high up in the rectum. Sounded, but no stone found. The patient being averse to operation I advised the employment of the catheter four or five times daily.

I next saw him January 2nd, 1905, when he desired to have the prostate removed. Though the catheter had been regularly employed five or six times daily the symptoms had grown gradually worse, so that he was now suffering from severe cystitis with alkaline urine containing much blood and ropy, offensive muco-pus. The prostate was so tender that he could scarcely bear examination by the urethra or rectum. The patient's condition was, indeed, pitiable; and in addition to the local troubles he had lost much flesh, though still very stout; his pulse was irregular and intermittent, and he was suffering from chronic bronchitis with rapid and laboured breathing. Under these circumstances I declined to operate till the bronchitis should have subsided, probably during the ensuing summer; but on January 23rd he entered a surgical home and begged for operation, stating that he preferred any risk therefrom rather than employ the catheter any longer.

On January 26th, Mr. C. Braine being the anaesthetist and Dr. Jollye assisting, I opened the bladder suprapubically, and found a phosphatic calculus lying behind the prostate. This was removed, and weighed 63 gr. I then proceeded to enucleate the prostate, which was larger than a cricket ball. The lobes were symmetrically enlarged, and two-thirds of the mass lay in the bladder covered merely by mucous membrane. Owing to the stoutness of the patient and the rigidity of his muscles, even under the most profound anaesthesia, great difficulty was experienced in reaching the distal aspect of the prostate to enucleate it out of the sheath towards the rectum, and strip it off the triangular ligament. Much physical force was required in the enucleation, which occupied twenty-six minutes instead of the usual three to six minutes required. The two lobes were removed separately. There was considerable bleeding, and the patient seemed much collapsed, with feeble, irregular pulse. By the evening, however, the pulse was strong and regular, and the patient moved about in bed without aid. On February 2nd he passed urine copiously by the urethra, and on February 17th the abdominal wound had closed. The bladder had to be washed out daily for some weeks, as the urine contained much muco-pus. On March 18th he went home in good health. He could retain 11 oz. of urine, and then pass it as well as ever he did. There was no residual urine. The prostate weighs 0¼ oz. On March 30th he called to see me. He was in excellent health and spirits, able to pass and retain his urine, which was quite clear, as well as he ever did.

This case was one of the most anxious that I have dealt with, particularly as the chronic bronchitis continued for some weeks after the operation.

Tabular Statement Giving Particulars of a Recent Series of 60 Cases of Total Enucleation of the Prostate.

Serial No.	Date of Operation.	Age of Patient.	Medical Man with whom Seen, or by whom Sent.	Weight of Prostate.	Result of Operation.
	1904	Yr		Oz.	
111	July 2	58	—	1	Successful.
112	,, 2	59	Dr. Walter Fox, Christchurch, N. Zealand	1½	Death.
113	,, 4	62	Dr. J. R. R. Pollock, Tiverton	6¼	Successful.
114	,, 6	66	Dr. Selwyn Harvey, London	2½	,,
115	,, 20	61	Dr. A. J. Duncan, Dundee	3	,,
116	,, 21	62	Dr. J. W. Eakin, Port of Spain, Trinidad	1	,,
117	Aug. 9	66	Hospital case	2½	,,
118	Sept. 12	70	—	1½	,,
119	,, 13	75	Mr. G. C. Parnell, Forest Hill	3½	,,
120	,, 15	75	Sir R. Douglas Powell	1½	,,
121	,, 15	82	Dr. R. H. M. Randell, Beckenham	4	,,
122	,, 16	67	Mr. W. E. Thomas, Bridgend, Glam.	3½	,,
123	,, 10	83	—	1½	,,
124	,, 20	70	Mr. J. E. B. Burroughs, Lee	2½	,,
125	,, 21	71	Hospital case	1½	,,
126	,, 26	69	Dr. E. J. Cave, Bath	2½	,,
127	,, 28	63	Dr. F. Ward, Ipswich	2½	,,
128	,, 28	67	Hospital case	3½	Death.
129	Oct. 3	78	Dr. W. C. Luffman, London	5½	Successful.
130	,, 8	58	—	1	,,
131	,, 9	71	Dr. H. S. Stone, Reigate	1½	,,
132	,, 10	78	Mr. J. A. Potts, Ross, Herefordshire	5	,,
133	,, 12	67	Hospital case; Dr. P. D. Barker, Bexhill	1½	,,
134	,, 19	67	Dr. A. Churchward, South Norwood	3½	,,
135	,, 24	70	Dr. R. S. Mair, London	2½	,,
136	,, 25	73	Dr. de Havilland Hall, London	3½	,,
137	,, 26	58	Hospital case	1½	,,
138	,, 31	73	Mr. F. W. Wright, South Godstone	3½	Death.
139	,, 31	63	Colonel J. H. P. Boileau, R.A.M.C.	1½	Successful.
140	Nov. 1	78	Mr. Sydney Hulke, Walmer, Major W. H. Pinches, R.A.M.C.	2½	,,
141	,, 2	71	Hospital case; Dr. E. Thompson, M.P., Omagh	2½	,,
142	,, 5	64	Dr. Walter Berry, Lowestoft	3½	,,
143	,, 7	67	Dr. A. H. Croucher, Eastbourne	2½	,,
144	,, 9	65	Hospital case; Dr. A. Milne-Thompson, Portsea	3½	,,
145	,, 12	64	Sir Alfred Cooper	1½	,,
146	,, 15	75	Mr. J. W. Gooch, Windsor	2½	,,
147	,, 17	65	Dr. N. McCaskie, London	1½	,,
148	,, 21	73	Dr. A. G. Wells, West Kensington	1½	,,
149	,, 23	57	Hospital case; Dr. P. W. Latham, Cambridge	1½	,,
150	Dec. 1	60	Dr. W. A. Michie, Greenwich	3½	,,
151	,, 5	70	Dr. W. Y. Orr, Putney	4½	Death.
152	,, 6	63	Dr. J. C. Ferrier, South Norwood	1½	Successful.
153	,, 7	57	Hospital case; Dr. J. J. Hanley, Shipley	1½	,,
154	,, 10	63	Dr. E. H. Greves, Bournemouth	2½	,,
155	,, 20	83	Dr. J. C. Ferrier, South Norwood	2½	,,
	1905				
156	Jan. 5	63	Mr. Thos. Lucas, Cambridge	3½	,,
157	,, 9	67	Surgeon-General Stephenson, A.M.S.	2½	,,
158	,, 10	68	—	1½	,,
159	,, 11	69	Hospital case	2½	,,
160	,, 16	80	Dr. A. M. Mitchell, Guildford	2½	,,
161	,, 18	74	Hospital case	1½	,,
162	,, 19	54	Dr. A. Eyton Lloyd, Rhyl	1½	,,
163	,, 25	67	Dr. G. F. Hugill, Balham	2½	,,
164	,, 25	72	Hospital case	4½	,,
165	,, 26	74	Dr. A. D. Jollye, London	9½	,,
166	,, 30	64	Mr. J. W. Gooch, Windsor	1½	,,
167	Feb. 11	63	Dr. C. D. Muspratt, Bournemouth	2	,,
168	,, 15	60	Hospital case	6½	,,
169	,, 25	57	Dr. E. Lloyd Jones, Cambridge	1	,,
170	March 8	69	Hospital case; Dr. J. G. Blackman, Portsmouth	5½	Death.

In connexion with these 60 operations there were five deaths, the details of which are briefly as follows:

CASE CXII.

This gentleman, aged 59, was sent from New Zealand by Dr. Walter Fox, Christchurch. He had suffered from prostatic symptoms for nine years, and was entirely dependent on the catheter for one year. The case was complicated by stone in the bladder, the urine being very foul and ammoniacal, and containing much pus and albumen. General health bad; suffered much from violent attacks of "indigestion." On July 2nd, 1904, I removed the prostate, weighing 1½ oz., and a large phosphatic calculus, weighing 327 gr., from the bladder. Progress was satisfactory till July 18th, when what was regarded as a severe

attack of indigestion set in. Next day he had much pain and tenderness in the gastro-hepatic region, accompanied by slight jaundice and retching. Collapse set in, and he died on July 20th. There was evidently chronic disease of the liver, possibly malignant.

CASE CXXVIII.

Hospital patient, sent by Dr. Lloyd Williams, Stone, Staffordshire. Vesical calculus removed by litholapaxy two years previously Catheter employed for three years. Residual urine 21 oz., foul, alkaline, containing much pus; specific gravity 1012. On September 28th, 1904, I removed the prostate, which weighed $3\frac{1}{2}$ oz. The operation was easily accomplished and well borne, but the patient died uraemic on October 5th. The kidneys were found extensively diseased.

CASE CXXXVIII.

Gentleman, aged 72, brought by Dr. F. W. Wright, South Godstone. Was in great distress from over-distended bladder, with extreme frequency of micturition. Would not employ a catheter. Suffering from an enormous naso-pharyngeal growth, blocking both nostrils, which had recurred after repeated removal and general catarrh of the air passages. On October 31st, 1904, I removed the prostate, weighing $3\frac{1}{2}$ oz., easily and rapidly. There was scarcely any bleeding or shock, and in the evening his condition was quite satisfactory. Early next morning, however, the breathing became rapid and laboured, and there was inability to cough up the accumulation of mucus in the bronchi. The bronchial symptoms increasing rapidly, the patient died that evening of heart failure. Though chloroform was employed, the bronchitis would seem to have been induced by the anaesthetic facilitating the accumulation of mucus in the bronchi in a patient the subject of chronic catarrh with naso-pharyngeal growth.

CASE CLI.

Gentleman, aged 70, seen with Dr. W. Y. Orr, of Putney. Prostatic symptoms had existed for six years, culminating in retention of urine November 28th, 1904; catheter passed with difficulty, and about a quart of urine with blood drawn off. On December 5th, Mr. Watson Cheyne being present, I removed the prostate, which weighed $4\frac{1}{2}$ oz., with great ease in five minutes, with scarcely any bleeding. The patient was extremely restless and excited the whole day after the operation. Urine very freely secreted for two days, but was of pale colour and devoid of the usual odour. Then it became scanty, and the patient died uraemic on December 8th. There was no autopsy, but doubtless the kidneys were diseased from the backward pressure of the urine for years.

CASE CLXX.

Hospital patient, aged 69, sent by Dr. J. G. Blackman, Portsmouth. Cathether employed for fifteen years; entirely dependent thereon for two years. Frequent attacks of cystitis and bleeding. Urine contained much pus, but patient seemed in very fair health and a favourable subject for operation. On March 8th I enucleated the prostate easily and rapidly—in five minutes; there was practically no bleeding or shock. Beyond some retching after operation progress was satisfactory for forty-eight hours, but on the evening of March 10th severe vomiting set in, followed by collapse, and the patient died early next morning. No autopsy was allowed.

REFERENCES.

[1] July 20th, 1901; February 18t, July 26th, November 8th, 1902; July 4th, October 17th, 1903; May 21st, October 29th, 1904.

TREATMENT OF TUBERCULOSIS AND TUBERCULIN INOCULATION.

BY T. WARREN BROWN, M.R.C.S.ENG., L.R.C.P.LOND.,
Wallington.

THE treatment of tuberculosis by tuberculin being somewhat new, and comparatively few cases having been reported, a description of a case which has been under my care for a year may not be without interest.

The patient is a young lady aged 16, who when first seen by me in February, 1904, was suffering from subacute cystitis. Previously she had passed a few drops of blood at the end of micturition with some pain, but little attention was paid to this fact until I saw her and learned from her mother that her urine was thick and there was pain after passing it, and sometimes blood, and that she was disturbed several times during the night owing to the frequent desire to micturate. On examination I found the urine contained pus and a trace of blood with some calcium oxalate crystals, and treated the case as one of ordinary cystitis; when, however, no sign of improvement occurred I sent a specimen of the urine for examination for tubercle bacilli and received the following report:

Specific gravity 1016, faintly acid, albumen small amount, blood a trace, sugar absent. The deposit is excessive owing to a moderate amount of pus. With this is a very little blood and an excess of vesical epithelium; some of the cells appear to come from the deeper layers of the vesical mucosa. No casts or renal cells. Some minute crystals of calcic oxalate. Tubercle bacilli are present in small numbers.

This satisfied me that the case was one of tuberculous ulceration of the bladder, and desiring to ascertain its extent I, in consultation with Mr. Pardoe of St. Peter's Hospital, obtained a complete cystoscopic examination of the interior of the bladder. On the right side of the neck was a small ulcer, and around the orifice of the right ureter another patch. On pressing the right kidney turbid fluid passed out of the orifice of the right ureter; there were also several nodules scattered over the mucous membrane of the bladder, but clear urine was pressed out of the left ureter. This examination clearly showed right ascending tuberculous cystitis. The patient was put on general treatment with plenty of fats and urinary antiseptics, urotropine and salol āā gr. v, tr. bellad. ♏x t.d.s., also ol. santal flav. ♏x in capsules t.d.s. She remained on this treatment until June 14th, 1904, when she was getting worse, the pain requiring morphine suppositories every night. I again consulted Mr. Pardoe, and we agreed to start the tuberculin treatment, to which her parents readily consented. I started with Koch's T R, which I obtained in measured doses from Messrs. Allen and Hanburys, beginning with the minute dose of $\frac{1}{2\frac{1}{0}}$ mg., gradually increasing it every two days. At first no great reaction occurred beyond a slight temperature of 100°; when $\frac{1}{4}$ mg. was reached the temperature went up to 102.2°, and pain became very severe; with $\frac{1}{2}$ mg. the temperature was 105.4° with rigors and malaise, but strange to say the pain became better. Owing to this strong reaction I returned to $\frac{1}{4}$ mg., which caused fair reaction and temperature 105°. I kept at this strength every other day for a week, the temperature returning to normal. I then again started on $\frac{1}{2}$ mg., which gave a reaction with temperature 103.8° F. After this I injected $\frac{1}{2}$ mg. every four days for about one month, and, as the patient responded in no way to this strength, the temperature keeping normal, I increased the dose to $\frac{3}{4}$ mg., this only giving a temperature of 100° F. The $\frac{3}{4}$ mg. was kept up for about one month, then 1 mg. was reached, which caused only slight reaction. The patient is still receiving injections of this strength once a week, and is very much better in all respects—pain very slight, micturition less frequent, and the urine almost clear, with no tubercle bacilli. The weight of the patient was increased about 2 lb. a month during the treatment. After three months of tuberculin treatment the bladder was again cystoscoped by Mr. Pardoe, who found the ulcers healed and in their place puckered scars, but there were still present the scattered nodules. It is to be hoped that these are undergoing retrograde changes, and that the disease has been cured. The patient is now living at Westcliffe-on-Sea, where she is under the care of Dr. Day, who still continues the inoculations from an immunizing as well as curative point of view. This patient's disease is localized to the bladder, and all the other organs of the body are normal; I therefore consider it was a most suitable case for the tuberculin treatment, and I do not hesitate to say that the latter has been the means of curing a disease which has always been looked upon as of progressively downward character.

TREATMENT OF SEA-SICKNESS.

BY J. METCALFE SHARPE,
Surgeon, R.M.S. *Ultonia*.

As the treatment of this troublesome malady is, up to the present, somewhat indefinite, I desire to advance a theory which I hold is not altogether impracticable, and which, as ship surgeon in both the Cunard Steamship Company and P. and O. S. N. Company, I have found helpful to more than one sufferer.

Assuming that sea-sickness is a reflex action of the stomach to a central stimulus, it occurred to me that the stimulus must enter the brain by one or more of the special sense tracts. I found that the vomited material in five cases of uncomplicated sea-sickness compared in reaction with the vomit in certain organic diseases of the nervous system, namely, locomotor ataxy, etc., being very acid, the acidity being due to lactic acid, and, to a lesser degree, free hydrochloric acid. The examination was conducted in each case fifteen minutes after the administration of food. The test used was the following:

Add to a 5 per cent. solution of carbolic acid two or three drops of a solution of perchloride of iron, until fluid is a pale amethyst blue. To this add a few drops of contents of stomach, when, if lactic acid is present, the colour will change to a canary yellow.

Again, the vomiting of sea-sickness is "persistent," and occurs after everything taken into the stomach; that is to say, the simplest and least irritating articles of food are as

liable to be rejected as those which might be supposed to cause some embarrassment to the stomach.

Granted, then, that sea-sickness is a nervous vomiting, and that the reflex action is transmitted by the vagi to the solar plexus, the question arises, What is the origin of the stimulus?

By paralysing the accommodation of one eye, that is to say, converting one eye into an "ametropic" and allowing the other to remain "emmetropic," it was found that the intensity of the symptoms was greatly ameliorated. During the last twelve months at sea I have collected reports on 50 cases so treated; 65 per cent. were relieved in from six to twenty-four hours; the method of treatment being: Two or three drops of a solution of atropine (4 gr. to the ounce) or other mydriatic were dropped into one eye daily, after a satisfactory examination with the ophthalmoscope, etc., or where the patient objected one eye was merely bandaged; thus, by altering the principal focus, the motion of objects on board a ship (which no doubt forms the impulse) is not so uniformly transmitted to the brain. Nine of the above cases are more or less blind in one eye, and have not experienced sea-sickness since blindness. One recent case I will cite, as being a striking example of the effects of unilateral blindness on sea-sickness:

D. M., aged 50 years. First-class passenger, R.M.S. *Etruria*, has crossed western ocean two or three times a year in "Cunard liners" since 1887. Suffered severely from sea-sickness every trip until 1896. In 1894 consulted an oculist, when both eyes were certified to be "emmetropic." In January, 1896, vision in left eye was found to be ¼ (afterwards becoming entirely lost). Cause not known. In February, 1896, he again crossed, and has since continued to do so as regularly as before, but has not since experienced any feeling of sea-sickness.

In conclusion, should like to add a few remarks *re* the administration of chloral hydrate in this malady. As a hypnotic and depressant of the vagi centres large doses are required; but, unfortunately, large doses act as a gastric irritant, and thus the tendency to vomit is increased; consequently only a small dose of the drug is retained and absorbed, which acts as a stimulant to the vagi centres. The only satisfactory way to administer chloral hydrate in obstinate cases of sea-sickness is by the rectum in doses of from 20 to 30 gr.

The important question of the treatment of sea-sickness, which strikes fear into the hearts of thousands of people who are compelled by business or otherwise to cross the ocean, demands special attention. As the present system of treatment by soporifics and general depressants is, at the most, symptomatic, and dangers may arise from not knowing the idiosyncrasies of your patients (which obviously ship surgeons cannot), I felt compelled to abandon it.

I am indebted to Dr. Johnson, Cunard liner R.M.S. *Etruria*, for reports on some of the cases.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE IDENTIFICATION OF MOSQUITOS.

I would like to take this opportunity of drawing the attention of those who are interested in the subject to an error which I noticed in a note on *Anopheles (cellia) pharoensis* in the first report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. Mr. Theobald says: "It also extends into Arabia, having recently been sent to me from the Aden Hinterland." In May, 1904, when in medical charge of the lines of communication at Nobat Dukaim, I sent a few specimens of an *Anopheles* which I was then studying to Mr. Theobald, with a note to say I thought it was a new species but was related to *A. rossii* and *A. ludlowii*. Mr. Theobald wrote back, and said my *Anopheles* was *Anopheles wellcomei*. I was unable to compare this mosquito with *Anopheles wellcomei*, so I awaited the publication of the above report. I had, in the meantime, sent some specimens to Liverpool as *Anopheles wellcomei*. The report appeared in September, 1904, and later I heard from Liverpool that my specimens were not *Anopheles wellcomei*. Since then I have read the description of *Anopheles wellcomei*, and have compared it with my specimens, and find it is most certainly not the same mosquito. I therefore wish to state that mine is a new species, and has been named *Anopheles arabiensis*. I need hardly say that the note on *Anopheles pharoensis* is meant for *Anopheles wellcomei*. I have studied all the *Culicidae* in the Aden Hinterland as far as I was able, and never once came across any *Anopheline* that could be placed in the genus *cellia*.

It will be easily understood that it is an exceedingly difficult matter identifying a mosquito from a dried adult female, so much depends on the scale ornamentation; but to one who is on the spot and has the opportunity of examining countless numbers of fresh specimens and of studying the eggs and larvae, and comparing these with the accurate descriptions of the known mosquitos, it is far simpler.

Anopheles arabiensis is the most important malaria carrier in the Hinterland. Malaria is the prevailing disease, and is mostly malignant tertian. I hope shortly to publish my descriptions of five new *Anopheles*, giving full details of eggs and larvae.

Jubbulpore. W. Scott Patton, M.B., Lieut. I.M.S.

EXERCISE AND OPEN-AIR TREATMENT OF PHTHISIS.

Now, when we hear so much about the open-air treatment of consumption, I cannot help writing a few lines strongly to endorse the statement made by Dr. Hughes of the Westmorland Sanatorium regarding exercises (British Medical Journal, April 22nd, page 883). I can recall cases, happily not very numerous, when I have seen tuberculous mischief in the lung in young men powerfully helped on its course by a trip to Switzerland. The patient goes with friends, and is encouraged by them to exert himself in long walks from which he returns fevered and exhausted.

Too much stress is now laid on exercise. One may see a consumptive invalid walking daily in all weathers; he tells you he is "doing the open-air cure." The truth being that he is dangerously overdoing what he calls the air cure. Put such a one on the plan of rest, good food, and pure air, and an improvement is pretty certain to follow. When a tuberculous patient begins to show signs of gout in his system then the case becomes very hopeful.

With regard to air treatment, I should like to say that there seems to me to be a tendency to a non-tuberculous form of disease in the left lung apex as a result of breathing close air. In a book I wrote on the climatic treatment of consumption many years ago, I referred to the cases of seamen who were invalided from an old man of war with what the surgeon called "pulmonary cachexia." The disease was evident at the left lung apex, and was attributed to the very close atmosphere in which the men slept. Most of these cases recovered completely. I have myself observed cases in which a crepitant râle at the left apex has made one fear the advent of tuberculosis, but many of them have recovered perfectly under treatment. One such I had under observation last year. The youth was a hard-working dental student, and my diagnosis was confirmed by an able second opinion. Treatment with sodium hypophosphite, pure air and rest seems perfectly to have restored this man, for now no morbid sounds can be heard in the lungs. There were no bacilli in the sputum.

Cases of this class in young overworked men and women ought certainly to benefit greatly in a well-managed sanatorium.

Bognor. John C. Thorowgood, M.D., F.R.C.P.

CAMPHOR POISONING: A NOTE.

In discussing camphor poisoning the authorities give descriptions which are more varied than convincing, and treat the fact that convulsions occur with an almost contemptuous brevity.

I have been called to two cases, and in each I was warned that "the patient was dead." My father, Dr. Leonard Grant, has also seen one case, and the message sent was to the effect—"Sister has died in a fit." Although, however, neither of us has seen any of these attacks, the history of one of my cases is so striking that I submit it.

A police-constable was called to see a man who had taken poison, and found him apparently dying. While the officer was preparing an emetic the patient vomited and seemed to get immediately well, but the officer decided to take him to the hospital, whither he walked with ease. The house-physician on duty was unable to find anything to support the history, so the man was taken to the police station.

While the constable was explaining the matter to the inspector the prisoner was seized with a convulsion, which rapidly passed into collapse and of such a character that even an officer of this experience added to his request that I should come, "I think the man is dead."

I was at the station in less than ten minutes, and found the patient standing. He smelt strongly of camphor, as did also

the vomit on the floor; the pupils were dilated and the pulse flabby, but there the signs ended. After the usual first aid I sent him into the infirmary, where he remained, I believe, one day.

My other case was that of a young child in whom languor was a marked symptom. The mother described the occurrence of a convulsion "like teething." This class of case is interesting, and personally I should be glad to hear of the experience of others in connexion with them.

London, E. GRAHAM GRANT.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

YORK COUNTY HOSPITAL.

A CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL: CEPHALO-TETANUS: RECOVERY.

(Reported by Mr. W. H. JALLAND, F.R.C.S., Surgeon to the Hospital.)

CHARLES B., aged 21, a groom, was admitted into hospital under my care on December 2nd, 1904, suffering from a compound depressed fracture of the skull in the left frontal region. It was stated that his previous health had always been good, and that day he had received a kick on the head from a horse in the hunting field after a fall. He was unconscious for a short period, and then with help he was able to walk out of the field.

Condition on Admission.—The patient, a thin, very pale man, walked into the casualty room with a little assistance, and was able to speak and see clearly. The wound in the left frontal region had been sutured in two places. The sutures were removed, the wound opened, and a compound depressed fracture of the left frontal was seen. Some earth was removed from the deeper parts of the wound, which was temporarily dressed with wet salalembroth gauze. There were no other injuries, nor were any signs of constitutional disease found. On admission to the ward his temperature was normal and his pulse 56, of good volume and regular; respirations 20.

Operation.—Two hours later the patient was placed under an anaesthetic, the scalp and eyebrows shaved, and the wound cleaned in the usual way. The anterior limit of the wound was carried forward by an incision in order to expose the whole of the depressed bone, the wound so made being rather more than 2 in. from front to back. With Hoffmann's gouge forceps the opening in the skull was enlarged, and three pieces of bone were removed with sequestrum forceps, as well as some spicules of bone. It was noted that earth had been driven between the skull and the dura mater, and, as far as possible, this was removed with dry swabs. It was also noted that the fluid which flowed from the intracranial portion of the wound was of a watery character, but no laceration of the dura mater was observed. The three pieces of bone, bare of periosteum, were replaced, two of the pieces having been scrubbed in 1 to 40 carbolic lotion. The wound was closed with silkworm-gut sutures, and a small drainage tube inserted through the posterior limit of the wound, and the wound dressed with salalembroth gauze.

Progress.—A ¼ gr. of morphine was given hypodermically in the evening after the operation, and the patient passed a good night, being little troubled with sickness. The stitches were taken out on December 7th, when the wound was found to be healed, except where the drainage tube had been. During the week succeeding admission the patient's temperature rose to 100½° on three occasions, and was generally between 99° and 100°; the pulse ranged from 68 to 70, respirations from 18 to 20.

Onset of Tetanic Symptoms.—On December 10th there was observed to be a little persistent oedema round the left eye. On December 12th the man complained of some stiffness of the jaw muscles, apparently the masseters, which prevented him from opening his mouth. He had suffered from no spasms, nor from stiffness of the neck or hands. His temperature was between 96° and 97°; pulse, 52 to 56. The tongue was clean, and, except for the stiffness in his jaw muscles, the patient was comfortable. Fluid diet was taken with difficulty. On December 13th during the night the patient had difficulty in swallowing. Pulse and temperature remained as on the previous day, but a serous discharge was found to be coming from the old tube track. He was given chloral gr. xxx and pot. brom. gr. xx every four hours. On December 16th no change was observed, except that the wound was dry; it was dressed with pulv. acidi bor. On December 17th the dressings were found soaked with serous discharge, and the wound was dressed with salalembroth gauze. The jaw muscles were less stiff. The temperature, pulse, and respirations remained as before. The chloral mixture was given three times a day.

Result.—By December 25th the stiffness of the masseters had almost entirely disappeared, and the wound was dry. On December 27th there was slight oedema round the left eye, but the patient's general condition was good. On January 6th the man was discharged quite well.

(I am indebted to the house surgeon, Mr. J. G. Gaynor, for the preparation of these notes.)

British Medical Association.
CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH-EASTERN BRANCH: CANTERBURY AND FAVERSHAM DIVISION.—At a meeting held at the Kent and Canterbury Hospital on May 4th, under the Presidency of Mr. B. RIGDEN, Vice-Chairman, Dr. E. WEATHERHEAD showed a case of thrombosis of the deep cerebral veins, with bilateral haemorrhage into the optic thalami. The patient, a woman aged 38, was admitted to the Kent and Canterbury Hospital on October 26th, 1904. Two weeks previously she began to complain of pain in the forehead above the left eye. For four days before admission she was "queer in the head" at times; forgot her children's names, and talked about relatives long ago dead as though they were still alive, asking to see them, and so on. She was quite herself at other times. She took to bed three days before admission. She had had no vomiting, but a little retching one night only. She was sleepless, and continued to complain of constant pain in the head. Previous health: No serious illness; subject to "neuralgic" headaches for last two months. Family: Seven children; four living, youngest 2½ years; three died in early life. No miscarriages. Condition on admission: She seemed to be in great pain, which was referred entirely to the forehead, chiefly the left side. She answered questions intelligently, but scarcely talked otherwise. Pulse 140, temperature 100°; tongue furred. No definite physical signs of disease in heart or lungs. The legs appeared to be tender to pressure; knee-jerks could not be obtained; ankle clonus not present. Babinski's sign not present; plantar reflex exaggerated; no pupillary changes. Progress of case: The patient gradually passed from a condition of restlessness to a drowsy state, with delirious intervals. Widal's test gave a negative result. For the last three days there was incontinence of urine and faeces. The temperature, after the initial rise on admission, remained about normal till the last three days, when it began to rise. The pulse ranged from 112 to 144. An attempt at ophthalmoscopy failed, it being impossible to get the patient to keep her eyes still. The urine contained a faint trace of albumen. The patient died on the seventh day after admission. *Post-mortem* examination.—Brain: cortical veins of cerebrum much distended, more so on left than on right side. Both optic thalami presented a mottled red appearance with well-defined red outline. On making deeper horizontal sections, portions of each thalamus were found to be almost black in colour, evidently a haemorrhagic condition. The internal capsules were not involved. The vena magna Galeni and its tributaries were thrombosed. Unfortunately this condition of the veins, which naturally was not suspected, was only discovered after the skull had been restored to position and the scalp sewn up, so that the condition of the cerebral sinuses was never investigated. There was no apparent disease of the arteries at the base of the brain. The kidneys were not examined, the examination being made hastily. Other organs were healthy. Microscopic preparations of the optic thalamus and of one of the thrombosed veins were made. The former showed extensive haemorrhagic infiltration, but no trace of any gliomatous formation. Nothing suggestive of syphilis was found in either preparation. Observations: (1) the absence of any assignable cause; (2) the absence of hemiplegia or hemianaesthesia, which have been frequently observed in lesions of the optic thalamus. The paucity of symptoms is noteworthy.—Dr. HENCHLEY showed (1) a woman, aged 47, having a lipoma situated below and internal to the left scapula. It was 17.5 cm. in length and 10.5 cm. in breadth; she stated that it had increased in size somewhat considerably during the last three months; (2) a woman, aged 28 suffering from pulmonary tuberculosis in the right lung with the heart situated on the right side of chest. The apex beat was in the fourth right

interspace. The liver and spleen were normally situated.—Dr. Gosse read notes on a case of recurring paralysis of the third nerve occurring in a widow, aged 69, who had brought up a healthy family and had no miscarriages. History of the case: In 1901 she was treated for rheumatism; in November, 1902, for neuralgia, especially affecting the right supraorbital and auriculo-temporal nerves; in December there was ptosis, and the right pupil was dilated and irregular, but no optic neuritis; in January, 1903, there was discharge from the right ear, and the gums of that side were tender and painful. She was given pot. iod. 3j a day from the appearance of the ptosis, etc., until May; gradually improving, the symptoms disappeared by November. But whether this was due to the treatment is doubtful. In October, 1904, she had a second attack, starting with similar neuralgia, which was very persistent and intractable; the pupil again dilated, but not so markedly, and there was no ptosis. The patient gradually got weaker and weaker, and fell into a semi-conscious, autotoxaemic condition, which so often terminates a long and well-spent life. However, after remaining in this condition some weeks, during which she took no medicine and little nourishment, she rallied in February, 1905, and as she recovered strength the neuralgia returned, which could not be relieved; she relapsed, and died early in April. Dr. Gosse was unable to make an autopsy, but, as the nuclei of the third and fifth nerves are adjacent, the symptoms suggested the probability of a nuclear lesion.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Rickman J. Godlee, M.B., B.S., Vice-President, in the Chair.

Tuesday, May 16th, 1905.

Myasthenia Gravis.

Dr. E. Farquhar Buzzard read a paper on, and showed specimens illustrative of the morbid anatomy of, myasthenia gravis. The central and peripheral nervous system in cases of this disease had been often examined by a number of competent observers, but had not shown constant changes. During the last few years attention had been drawn to the occurrence of hypertrophy or tumours of the thymus gland, associated in certain cases with deposits of lymphoid cells in the skeletal muscles, by Weigert, Goldflam, Hun, Link, and others. Dr. Buzzard had examined *post mortem* 5 cases of myasthenia, in 3 of which there were no naked-eye changes. In 1 case, that of a woman aged 29, there was a large thymus gland weighing 41 grams, and having the characteristic bilobar appearance of the normal gland in early life. Microscopically it presented the features of a simple hypertrophy, and was noticeably free from eosinophile cells, large numbers of which are generally found in the enlarged glands of children. In another case there was found a large mass in the anterior mediastinum in the position of the thymus gland, but without its characteristic appearance. The upper part of the mass resembled a new growth, and was adherent to the surrounding structure; the lower part consisted of a multilocular cyst containing cloudy fluid. Sections of the neoplastic portion showed strands of connective tissue, between which were large masses of small round cells and no definite concentric corpuscles. The walls of the cystic portion showed similar features, but contained occasional Hassall bodies. In the three other cases the thymus remains did not present any features which could be considered abnormal. The central and peripheral nervous system was carefully examined in all cases, but no constant or important changes were detected. The investigation of the muscles and of the visceral organs yielded positive results of a constant kind in all five patients. The most important and characteristic of those was the presence of small foci of cells, resembling lymphocytes, scattered irregularly between the fibres of a muscle or between the cells of a glandular organ. The term "lymphorrhage" might be applied to these collections, both on account of the characters of the cells of which they were composed, and because their general appearance was suggestive of a capillary haemorrhage with the distinction that the cells were not red blood corpuscles. A small empty capillary vessel lined by a single layer of endothelium was sometimes observed in the neighbourhood of these lymphorrhages. The latter had been found in a smaller or larger number of the muscles of each case, but, in some instances, only after a prolonged search. The ocular muscles had been most fruitful in the three cases in which they had been examined. The only other changes in the muscles were presented by the fibres themselves; here and there were seen a few fibres which had become swollen and rounded, some hyaline or granular in appearance, and often showing a tendency to stain a paler blue with eosin or fuchsin. Lymphorrhages were found also in the liver, the adrenal bodies, the thyroid gland, and in the cardiac muscle; and in one instance a similar condition was detected in a posterior spinal root ganglion. In the glandular organs the cellular deposits were frequently unaccompanied by any other changes, but in a few instances where the lymphorrhage was of larger size the neighbouring gland cells had undergone degeneration or destruction. As a result of the investigation it was evident that the thymus tumours or thymus hypertrophy were not constant characteristics, and that they must not be regarded as the origin of the other changes but rather as associated phenomena of frequent occurrence and great interest. The fact that in 5 consecutive cases similar microscopical changes have been found in the muscles and other organs went a long way towards establishing a definite morbid anatomy for the disease. The objection to that view, which might be advanced on the ground that previous observers had failed to describe these changes, was met by the very extensive search required to establish their presence and by the well-known truth that what was not particularly looked for was frequently overlooked. The absence of blood changes and of any attention in the general lymphatic system rendered the origin of the lymphocytic deposits very obscure, and little light could be thrown on the relation of the morbid changes to the clinical features of the disease.

Resemblance Between the "Cancer Body" and Certain Normal Constituents of the Cells of Gametogenic Tissues.

Mr. C. Walker gave a demonstration in which the identity was proved of the "cancer body" described by different authors with the archoplastic vesicle of the reproductive cells of the testicle (as studied in the guinea-pig). The author, with his colleague Professor Farmer, however, did not regard the cancer cell as identical with a sexual cell. The vesicle had been some while ago described by Dr. Moore.

Morbid Growth from Angora Ewe.

Dr. W. de Korté described a malignant form of disease found in the ewe goat in South Africa. The disease commenced at the anus, ulcerated, and was invariably fatal. He did not know whether metastasis occurred. The author viewed the growth as a sarcoma, although at the ulcerated surface it assumed a granulomatous character.

True Hermaphroditism in the Fowl.

Mr. S. G. Shattock and Mr. C. G. Seligmann exhibited a specimen of the above. The ultimate criterion of sex was the structure of the reproductive glands; an abnormal disposition of the sexual passages or misdevelopment of the external generative organs might lead to ambiguity of sex during life, but such aberrations did not constitute the condition of true hermaphroditism. So far from viewing hermaphroditism as a phenomenon altogether abnormal, the authors held it rather to represent a reversion to the primitive ancestral form, for as one descended in the scale it became fairly common as a variation—for example, in the fish—and still lower in certain forms it became the normal disposition. The presence in the human embryo of a double set of sexual passages, male and female, and the undifferentiated state of the sexual glands on their first appearance pointed to human descent having taken place through a hermaphrodite ancestry. The bird in question was a two-year-old Leghorn fowl, which externally exhibited the comb and wattles, with the spurs of a cock, but the tail of a hen. Its sexual physiology was quite negative. The dissection showed a well-developed left oviduct, and a short diminutive right; a vas deferens was present on each side. The sexual glands were convoluted on the surface, and of altogether abnormal form. The left gland consisted of inactive tubuli; serial sections of its lower end revealed two ova, each provided with a follicular wall; the vitellus of each presented an eccentric oval space answering to a germinal vesicle. The serial sections proved the structures in question to be spherical and not cross sections of distended tubes, none such of which were anywhere present. The sexual gland of the right side was the smaller, and consisted of inactive tubuli like the left, but at one spot a group of tubuli were met with in which active cell prolifera-

tion and spermatogenesis were in progress. Each gland was furnished with a vas deferens, and the oviduct of the left side was fully developed, the sexual gland of this side being that which contained the ova. Potentially, therefore, the bird was capable of performing to the full extent both male and female functions. The authors had been led from this specimen and other data, to hold that the not uncommon change of plumage from female to male, and more rarely from male to female, possibly indicated a bisexual character. They had clear evidence, from having such birds under observation, that when the duck after ceasing to lay assumed the male plumage, its sexual proclivities underwent a corresponding change, and it would "tread" the female bird. For the production of external male characters, the authors' experiments had shown that the testicular tissue need not be in any way connected with a duct, and, moreover, that a very small piece would suffice for the result. In regard to such change of plumage, the authors were investigating material to ascertain whether areas of tissue capable of producing a male internal secretion were present in the female bird, either in the proper sexual gland or dislocated in the substance of adjacent organs.

Mr. T. W. P. Lawrence thought the specimen of interest in its bearing on human hermaphroditism, the existence of which was still doubted by some. The speaker had recorded with Dr. Blacker a case in which an ovi-testis was present in a human fetus. When the recorded examples of human hermaphroditism were critically sifted, only six were found reliable. In one of these (recorded in Germany) the individual menstruated at the age of 17 years, and cohabited afterwards with a man; at the age of 36 years cohabitation with both sexes occurred; at the age of 43 the menses ceased, and the individual lived as a male. This physiological history tallied very remarkably with those referred to by the preceding speakers, in which the female of certain birds acquired external male characters and male instincts.

Communications by Mr. H. Rundle upon a congenital form of malformation of the lower limbs, and by Dr. Bernstein on multiple cavitation in bronchopneumonia were taken as read, owing to the curtailment of the meeting involved by the annual official business of the Society.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, May 12th, 1905.

Lobar Pneumonia during Enteric Fever.

Dr. Sidney Phillips and Mr. B. H. Spilsbury recorded the case of a patient, aged 20, who came under observation on December 2nd, 1904, suffering from typhoid fever at about the tenth day. The temperature was 105.6°; the rash was just commencing to appear; there were pneumonia at the right apex and hepatization of the whole of the lower lobe of the left lung. Four days later there were signs of resolution of the right apex pneumonia, but the patient's condition did not improve; the abdominal symptoms of the typhoid fever were moderate in severity, and tended to decline, but the pneumonia at the left base showed no signs of resolution; the tubular breathing persisted, and the fever, cyanosis, and dyspnoea became extreme, toxaemia and failing pulse supervened, and death occurred on December 11th. The necropsy showed numerous typhoid ulcers in the small intestines, and a few small ulcers in the ascending colon; they were in various stages, but there was no perforation. The left lower lobe was in a state of red hepatization throughout, and scattered throughout it were small white nodules which to the naked eye appeared to be tubercles. They were found by Mr. B. H. Spilsbury, in the pathological laboratory of St. Mary's Hospital, to be minute abscesses, in which were large masses of organisms; in some minute cocci retaining Gram's stain, in others B. typhosus. No pneumococci or tubercle bacilli were found. The lung and microscopic slides were exhibited. Dr. Phillips pointed out that pneumonia in typhoid fever was almost always due to the pneumococcus or staphylococcus. It was rarely due, as in this case, to the bacillus of typhoid. Polguere, of Paris, had described a very similar case. In the case now recorded, the pulmonary symptoms predominated over the general ones. The onset of pneumonia was early in the course of the typhoid attack, its development was rapid, and its resolution very much delayed; these were points said by Polguere to be characteristic of typho-pneumonia.

Dr. Goodall said that such bacteriological examinations were difficult. Lobar pneumonia was probably not more frequent than in 3 per cent. of cases of typhoid fever, and was specially rare at the onset; whilst bronchopneumonia was common at the onset, simulating acute miliary tuberculosis. Ordinary lobar pneumonia was often mistaken for enteric fever.

Dr. Herbert French narrated 4 cases of typhoid in a mother and three children, all commencing with pneumonia. The leucocyte count was low in all the 4 cases—a remarkable feature in pneumonia, but common in typhoid.

Dr. Hawkins said that lobar pneumonia occurred in only 1 per cent. of cases of typhoid in the Middlesex Hospital.

Dr. Pasteur agreed that the combination of the two diseases was not common. He related a case of acute meningitis in enteric fever in which the bacillus typhosus was *post mortem* found in the meninges.

Dr. Phillips, in reply, said that his case was the first to be recorded in English literature in which the infection was due to the bacillus typhosus.

Fracture of the Astragalus.

Mr. Hugh Lett and Mr. J. Hutchinson, jun., contributed this paper. In certain cases of impacted fracture of the astragalus the foot remained in the equinus position, combined with that of varus, so that its functions were greatly impeded, the patient being unable to walk with the heel and toes touching the ground. Where manipulation under anaesthesia failed to correct the impaction (proved by the *x* rays) the writers advocated excision of the fractured bone. At the same time they rejected the teaching of Mr. Ombredonne that all cases of fracture of the astragalus should be treated by excision, which was only required in the exceptional instances of persistent deformity. In cases of dislocation of the astragalus the external malleolus should be chiselled through at its base to facilitate the reduction.

Fractures of the Astragalus and Os Calcis.

Mr. J. Hutchinson, jun., and Mr. Lett discussed a series of 8 cases of fracture of the os calcis. The *x* rays proved that comminuted fracture of the body of the bone was the most common form, due to falls from a height. Widening of the os calcis, a band of deep ecchymosis beneath the malleoli, and the appearance of flat-foot were the chief signs apart from the conclusive evidence of the *x* rays. Although several months usually elapsed before the patient could walk well the ultimate result was good. Hence operative interference in these cases was not indicated.

Mr. W. G. Spencer admitted that skiagraphy ensured better diagnosis, but deprecated the practice now prevalent of postponing the setting until a good skiagraph could be taken. Fractures should be immediately set before muscular rigidity appeared.

Mr. Hutchinson replied.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., M.R.C.P., President, in the Chair.

Wednesday, May 3rd, 1905.

Mortality in Childbed.

Dr. Robert Boxall read a paper on this subject, based on the records for twenty-five years of the Lying-in Hospital, York Road, and on the returns of the Registrars-General for Great Britain and Ireland. The hospital records were also considered in relation to the particular antiseptic in use during special periods, special attention being drawn to the good results during the sublimate period and recurrence of septic disorder while experimental use was being made of salufer. Among 2 000 odd patients treated throughout in hospital during the past sixteen years there had been no severe septic illness, but, on the other hand, there had been 4 fatal cases in patients in whom ineffectual attempts at delivery had been made before admission. The septic infection thus introduced failed, however, to spread. The principle of regarding every person who approached a patient as a potential purveyor of infection had been preserved, but it had been found possible to simplify methods of precaution without impairing their efficiency; a routine douche was now only used just before and just after delivery and on the fifth day. Wards were fumigated less frequently, and formalin substituted for sulphur, the wards allowed to contain more beds, and washing of walls and furniture with carbolic lotion abandoned. The general conclusions were as follows:

(1) The total death-rate from childbirth has not diminished either in England and Wales, in Scotland or in Ireland, where it is abnormally

high as compared with the other divisions of the kingdom, but in London it has declined considerably. (2) The death-rate from accidents of childbirth has declined slightly in each division of the kingdom, but is abnormally high in Ireland, and in London has markedly diminished. (3) The death-rate from puerperal septic diseases has, if anything, shown a tendency to increase in each division of the kingdom, but in London has been declining for at least the last decade.

Dr. GALABIN thought the conclusion that the death-rate from puerperal sepsis had, if anything, shown a tendency to increase in each division of the kingdom was too pessimistic and not supported by the charts. The statistics published by himself, he thought, showed there had been a distinct improvement in the mortality from puerperal septicaemia in England and Wales since 1880.

Dr. W. S. A. GRIFFITH said that it was obvious to every consultant that as a rule the disease was neither diagnosed nor was efficient treatment adopted until the patient was hopelessly septic and beyond the aid of successful treatment. He thought that some other cause must have been at work to account for the disastrous effects of douching with salufer. At Queen Charlotte's patients were frequently admitted in labour with infective vaginitis, and it had not always been possible to disinfect these severe cases in time. He asked if Dr. Boxall had met with the same difficulty, and, if so, how he had so successfully dealt with them.

Dr. C. O. FOWLER alluded to the difficulty met with by medical practitioners in controlling the engagement of nurses for confinement cases in private practice. He considered that a nurse should never be asked to give a douche unless she had had a proper training. He deprecated the practice which largely prevailed of the nurse endeavouring to get the case over before the arrival of the doctor. He knew it was a common practice among some of those who ostensibly professed to follow aseptic methods and to disinfect their hands before making a vaginal examination to handle various articles between the disinfection and the examination regardless of the risk of reinfecting them.

Dr. CULLINGWORTH related the circumstances under which, on his initiative, salufer had, for a time, been used as a douche and for washing the external genitals. He was still in doubt as to whether the occurrence of sepsis just at that particular time was really due to the use of salufer. Of course, salufer itself could not convey infection, and if it was the cause of the outbreak it could only be so indirectly owing to the discontinuance of douching with corrosive sublimate. He could not believe that possible. The paper once more emphasized the unpleasant fact that whilst in lying-in hospitals sepsis had for all practical purposes been eliminated the prevalence of puerperal septicaemia in the country generally was great as ever. He quite agreed with the position taken up by the President in his inaugural address. He believed that the great hope lay in the direction of better clinical instruction both for medical students and for midwives.

Dr. PURSLOW thought that the great importance of cleansing and disinfecting the vulva of the parturient woman was sometimes apt to be overlooked in private practice.

Dr. BOXALL, in reply, said that he hoped for the sake of humanity that Dr. Galabin's criticism would prove correct. The evidence of the disastrous effect of salufer as a douche rested not on the mortality so much as on the morbidity records as evidenced by the temperature charts. This to his mind appeared conclusive, and warranted the belief that it was better to omit a douche altogether than to use with it an inefficient antiseptic. He considered that a nurse, unless properly trained, should never be allowed to administer a douche after delivery. In his experience also notification of puerperal fever was rarely made till death was imminent. The Notification Act had been practically inoperative in many places as far as puerperal fever was concerned. Recognizing the futility of attempting to determine the presence of gonorrhoeal and of septic matter in the vagina in the case of patients admitted to hospital during labour, the practice was adopted of disinfecting the vulva and vagina, if possible before delivery, and of douching with an antiseptic solution immediately afterwards. Under this treatment, ophthalmia cases rarely occurred. He had never seen a septic case in hospital which was attributable to gonorrhoea.

REPEATED TUBAL PREGNANCY.

Dr. C. E. PURSLOW read a short account of a case in which he had operated twice. On each occasion there was intraperitoneal haemorrhage from the fimbriated extremity of the tube, after the patient had gone exactly a fortnight over the period.

ACUTE GENERAL GONOCOCCIC PERITONITIS.

Mr. A. G. R. FOULERTON showed microscopic specimens from a case of acute peritonitis in which cultures of micrococcus gonorrhoeae had been obtained from the peritoneal exudation. The tubes and ovaries of both sides were removed by operation.

Dr. CULLINGWORTH could not agree with Mr. Foulerton's explanation of the peritoneal infection resulting from kinking of the tube.

EDINBURGH OBSTETRICAL SOCIETY.

Dr. N. T. BREWIS, President, in the Chair.

Wednesday, May 10th, 1905.

SOME CURIOSITIES OF CURETTING.

SIR HALLIDAY CROOM communicated a paper in which he laid emphasis on the enormous importance of the early diagnosis of malignant disease, and urged that microscopic examination of the débris removed by curettage afforded the only comparatively certain aid by which it could be effected. It should be the routine practice of all operators to submit the tissues removed by the curette to microscopic examination. The microscopist should receive sufficient tissue, and at the same time should be supplied with a summary of the clinical features of each case. Even when a microscopic examination was made errors sometimes arose, and he gave instances of cases in which the after-history seemed to refute the diagnosis made by the microscopist. Such cases were disappointing, but they confirmed, in his opinion, the necessity of basing all diagnosis on facts obtained both clinically and microscopically. As to the accidents which might follow curetting, Sir Halliday cited a case in which stenosis of the os uteri and consequent retention of menstrual discharge for two periods, simulating pregnancy, had occurred in a young married woman whom he had curetted after an incomplete abortion. He narrated also an instance in which a practitioner, by curetting after an abortion, had perforated the fundus uteri. When the case was seen in consultation it was found that a loop of intestine had prolapsed into the vagina. Though such cases were rare in this country, many had been recorded abroad—for example, Harvey's case, quoted by Kelly, in which 6 ft. of intestine had been cut off. In speaking of the disappointments of curettage, Sir Halliday concluded by recounting 2 cases in which he performed the operation for endometritis in the hope of rendering pregnancy more probable, but in each case the results were the opposite of what had been expected. Uterine atrophic changes accompanied by amenorrhoea set in, leading to permanent sterility.

Dr. HAULTAIN said he also had met with cases where curettage had been followed by amenorrhoea and sterility. In his experience cancer of the uterus was very rare in nulliparous women, whereas Sir Halliday Croom had found that such women furnished from 10 to 13 per cent. of all cases of cancer of the uterus. In the early diagnosis of malignant disease of the uterus the friability of the diseased tissues was one of special significance.

Dr. BALLANTYNE thought that in cases in which the fundus of the uterus had been perforated by the sound or curette the patient should be kept under the closest observation and immediate hysterectomy performed if any untoward symptom appeared.

Dr. FORDYCE said he depended more on clinical observation than on microscopical examination for early diagnosis of uterine cancer.

SPECIMENS.

The rest of the evening was given up to the demonstration of specimens, among which were the following:—Dr. BARBOUR: Two malignant ovaries from the same subject. This he considered to be rare. On opening the abdomen no ascites was present; the peritoneum was found to be much thickened.—Dr. HAULTAIN: (1) Acute axial rotation of uterus with large calcareous fibroid. It was known to the patient that a tumour was present for many years. Twisting suddenly occurred, giving rise to acute symptoms. Uterus, Fallopian tubes, and the ovaries were almost gangrenous when the abdomen was opened. (2) Chronic torsion of the pedicle of an ovary. The Fallopian tube was also involved, and was found to be enormously enlarged as a result of the interference with its venous return. The appearance of the ovary closely resembled a spleen. (3) Cyclops factus, with a rudimentary mouth which would barely admit the passage of a bristle. (4) Two specimens of velementous insertions of the umbilical cord. In one a vessel was given off from the cord, passed on to the membranes, and regained the edge of the placenta after a course of about 4 in. in the membranes. The latter had ruptured close to this abnormally-situated vessel. Dr. Haultain was of opinion that if the latter had been involved in the tear an accidental haemor-

rhage fatal to the child would have followed.—Dr. Fordyce, a degenerating fibroid tumour from a case of hysterectomy four and a half weeks after full-time labour. The operation was performed on account of persistently high temperature, pain, and the presence of a septic uterine discharge. After the operation the patient's temperature became normal, and she made a good recovery. The tumour was undergoing necrobiotic changes.

Manchester Medico-Ethical Association.—At a meeting on April 18th, Dr. S. Buckley, President, in the chair, Dr. Holgate Owen opened a discussion on the influence of tradition on medical practice. He pointed out that it was extremely difficult to judge correctly of tendencies in any social or scientific organization, when viewed within a short space of time; but that, as regards the organized practice of medicine, the trend of method had, during the past thirty years, undergone a change which was almost revolutionary. The wider the range of survey, the more we found that fixed principles, established rules, uniform systems, or what used to be called "orthodoxy," were becoming uncertain as guides, and less influential upon the minds and action of medical men. In the midst of this apparent instability, and as if to taunt us with our want of light and guidance, there came to us from all the ends of the earth, but especially from America, drugs of all descriptions, suitable for all complaints, and said to be absolutely certain in their curative effects. This absence of systemization might be observed in other parts of the civilized world. France, Germany, and America, seemed to be devoid of any authoritative teaching in the medical art; there was no medical school or society in any of these countries which at the present time could agree to promulgate any system or mode of treatment which could be influential beyond its immediate surroundings, or for any length of time. Scholasticism, indeed, had received its death-blow, but only within a century ago had medicine asserted for itself a position among the sciences. A strictly scientific pursuit, Dr. Owen thought, it never could be; but he believed that it had at length and for ever, in civilized nations, raised itself above the rank of a mere art to be supported by superstition, traditional teaching, and empiricism. Brief allusion was made to the teaching of Hippocrates; to his clear recognition that disease, equally with life, was a process governed by what we should now call natural laws; and to his high conception of the duties and status of the physician—equally free from the mysticism of a priesthood, and the vulgar pretensions of a mercenary craft. Since his time traditional influence had held universal sway, until the beginning of the seventeenth century, the period of Harvey, Thomas Sydenham, and Descartes, when scientific discovery began to lay the ghosts of superstition and dogma. The spirit of dogma, however, survived to the beginning of last century. At the present juncture, social and scientific developments were taking place which were influencing the practice and, Dr. Owen believed, the status of the medical man. The rapid advance which public sanitation, domestic sanitation, and personal hygiene were making, on scientific lines, was forcing its way at the urgent demand of a social development unprecedented in rapidity and intellectual breadth at any previous period of our history. The problem which now faced us every day was, less frequently, what were we to give to cure a disease? and more commonly, how were we to correct the error of life through which it had arisen, and to prevent its recurrence? In conclusion, he asked special consideration of the following points: To what extent were we now influenced by tradition in the practice of our art? Did the light of scientific teaching, which was increasing every day, justify us in administering drugs to the extent provided by the *British Pharmacopœia*? Did not all believe that the treatment by drugs was carried too far, and that it was so, to a large extent, simply in response to a public still influenced by the errors of our forefathers? If this were so, was it, from an ethical point of view, carrying out those principles which best conduced to the honour and success of the profession? In the discussion which followed the President observed that, notwithstanding the advanced conception by the profession as to what medical practice should be, medical men were still faced by the exaggerated notion of the scope and value of drugs entertained by the public, and this had to be dealt with patiently and with tact.

Medico-Psychological Association of Great Britain and Ireland.—At a meeting of the Northern-Midland Division on May 4th, held at the Retreat, York, by the invitation of the Committee of the Retreat and of Dr. Bedford Pierce, Dr. T. W. Macdowall of Morpeth in the chair, Dr. H. J. Mackenzie of York described a case of neurasthenia followed by melancholia. The patient, a man, aged 53, had for years suffered from indigestion, and from neurasthenia for about five months. Treatment and dieting had failed to benefit him, and he had been steadily losing flesh. One sister had been insane. On admission to the Retreat he was very thin, weighing, though a tall man, just under 8 stone. He was much depressed, and had a settled belief that he could never recover and that his stomach was dead and that it was useless to eat. The sight or even the mention of food would bring on an attack of hysterical screaming. He had soon to be fed forcibly for a few days, and then he took food himself again, but he did not gain in weight and his mental state grew worse. He thought he was cursed of God and that his present state was a punishment for his sins, and he began to have hallucinations of sight and hearing. He became dirty in his habits, apparently as a penance. But at times he could talk quite clearly and rationally. He developed a haematoma auris, which suppurated and had to be opened freely, but in the end it healed well and with little deformity. He then refused food entirely, and had to be fed forcibly four times a day for about four months. Under this treatment he improved physically, but it was not till he had gained about 20 lb. in weight that any marked mental improvement set in. He improved steadily from this time, and went home well after seven and a half months' residence. He had remained well since, and his indigestion seemed to have disappeared.—Dr. Norah Kemp described a case of periodic mania in a woman aged 30, in which, during the last two and a half years, recurrences had appeared every eight weeks with unfailing regularity. The relapses lasted about a week, exhibited all the symptoms of acute mania, were coincident with a menstrual period, and each was succeeded by a lucid interval of six weeks. At the beginning of the attack the number of white blood corpuscles per c.mm. of blood was 16,000, at the height of the attack 34,000, and on recovery the number fell to 9,000. The case was complicated with malignant disease, for which both breasts were removed in 1902. There had been a recurrence of this, which was being treated with *x* rays.—Dr. Johnstone of Leeds read a paper on dementia praecox. He thought the best translation of the term was premature dementia, though it was usually translated as adolescent insanity. The mental symptoms varied according to the age at onset and the previous education and mental abilities. There was no more harm in calling a case dementia praecox which apparently recovered than in calling a case adolescent insanity which went rapidly and hopelessly to the bad. In ordinary medical work cases diagnosed correctly were not always sure of correct prognosis, at their onset at least. With our present knowledge it was not always possible to tell whether a patient with adolescent insanity or dementia praecox would go rapidly to the bad or would make an apparent recovery. Probably some indications might be discovered to help us to distinguish these cases. Many cases which apparently recovered relapsed late in life, showing symptoms of katatonic excitement or stupor or these conditions alternating, and were called by some resistive melancholia. The prognosis was very grave. Professor Kraepelin's view that dementia praecox should be regarded as a distinct disease was upheld by many Continental authorities, and a definite etiology, pathology, and semeiology had been assigned to it, but the prognosis was almost as uncertain as that of adolescent insanity.—Dr. W. F. Menzies read a paper on tuberculosis in asylums. The asylum tuberculous death-rate was not falling in ratio to that of the general population. A considerable percentage of cases of higher grade amentia and primary adult insanity were precipitated by the tuberculous infection, and in asylums acted as foci. Among other precautionary measures he advocated increasing the amount of fat in asylum dietaries.—Dr. Bedford Pierce gave details of two asylum cases of atonic dilatation of the stomach successfully treated by Stendall's method, which principally consisted in the continuous application of heat to the abdomen. Abundant food was given at regular intervals. Drugs were not used.

Society for the Study of Disease in Children.—At a meeting on May 5th, Dr. George Carpenter in the chair, the following cases were shown: Mr. Sydney Stephenson, a girl, aged 4, with silver deposit on the cornea, due to the application of solid silver nitrate to an ulcer.—Dr. F. J. Poynton: five children with combined aortic and mitral disease. In one, a well-marked aortic regurgitant murmur

had completely disappeared, and in a second case it had almost gone. Dr. G. A. SUTHERLAND had never found the murmur of aortic regurgitation disappear.—Mr. GEORGE PERNET: a boy, aged 8, with generalized alopecia. Mr. ERNEST CLARK knew of a case cured by high-frequency currents.—Mr. CLARKE: a girl with bilateral coloboma of the iris, in the downward and outward position, and not as usual directly downwards. There was no notch in the lens or lids; he ascribed it to intrauterine inflammation rather than to developmental defect.—Dr. EDMUND CAUTLEY: a child, aged 12 months, with bilateral periostitis of the femur. Although the previous diet was conducive to scurvy and the baby was anaemic, the gums were not discoloured. The mother had had one miscarriage. He regarded the case as specific on account of the symmetry, the course, and the result of exploratory incision on the left side. There was still considerable thickening of the lower half of each femur. Probably there had been some epiphysitis as well.—Dr. F. PARKES WEBER: a girl, aged 11, with wasting of the left leg and right arm and forearm, beginning insidiously a year ago. Reaction of degeneration was present in the thenar muscles. He regarded it as a case of dystrophy of the peroneal type. Dr. CAUTLEY drew attention to the "claw-like" appearance of the hand, the wasting of the vastus internus and the slight pes cavus as confirmatory signs. He referred to a similar case he had shown three years ago which had begun at the early age of 18 months, and, like Dr. Weber's case, had followed measles. —Dr. CARPENTER: Cases of congenital deformity of the hands in several members of the same family, chiefly absence of the terminal phalanx of each little finger. Two children, their mother, uncle and his children, and an aunt were affected. The mother's father had two thumbs on each hand, and his brother had webbed fingers.—Dr. CARPENTER and Mr. P. LOCKHART MUMMERY: A specimen of congenital hypertrophic stenosis of the pylorus from a child, aged 3 months, who had died the day after pyloroplasty. It weighed only 5 lb. before operation. The stomach was dilated, and the pylorus easily palpable.—Dr. CAUTLEY pointed out that such wasted cases were almost hopeless, and that the prognosis depended on the degree of marasmus before operation rather than on the operation itself, and was largely influenced by subsequent feeding. Cases should be diagnosed and submitted to operation before the age of 6 weeks, and as early as possible. A diagnosis could be made without waiting for peristalsis and a palpable pylorus.—A specimen of multiple papillomata of the larynx, from a boy aged 4, was shown by Dr. L. W. MARSHALL (Nottingham).—The following cases were also shown: Multiple gummata in a girl, aged 7, and bilateral birth palsy of the arms in a baby, aged 4 months, by Dr. PORTER PARKINSON; and primary tuberculous disease of the middle ear, with secondary involvement of the cervical glands, by Mr. HUNTER TOD.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—At a meeting on April 29th, Dr. B. A. WHITELEGGE, C.B., President, in the chair, Dr. G. S. BUCHANAN read a paper on the spread of small-pox around small-pox hospitals in relation to aërial convection. During the last four years the prevalence of the disease had necessitated the establishment of hospitals, and revived the interest in their influence. Mr. Power in his report in 1886 had shown in respect of Fulham Hospital that there was a regular graduation in the incidence of the disease around the hospital, the cases relative to population or number of houses being most numerous within a quarter of a mile radius, and diminishing in each successive zone of half, three-quarter, to one mile. After 1884 the practice had commenced of sending acute cases to the ships in Long Reach, and milder cases and convalescents to Gore Farm, Darenth. In the next epidemic of 1901-2 the same course was followed, the cases on the ships averaging 164, reaching a maximum of 275; the average incidence in London during this time was 2 per 1,000, the highest—that in Holborn—being 7.2, but as regards the neighbourhood of the ships it was 16 in Grays and 18.5 in the twelve parishes of the Orsett Union, Purfleet suffering most severely. Neither Dr. J. Thresh, G. S. Buchanan, nor Mr. Corbet could discover intercourse with the ships, neglect of revaccination, of disinfection, or of isolation, which could be held accountable. The sanitary staff worked well and there was no concealment of cases. Even "contacts" played no important part, no cases occurring among them in four-fifths of the houses attacked. Yet, throughout the epidemic, Purfleet, Grays, and West Thurrock suffered far beyond the remainder of the district. On the Kentish shore a large number of workmen were employed in erecting a temporary hospital on the uninhabited flats. Amongst these, and before any patient had been received, cases of small-pox appeared from time to time, 60 in all; of course, personal communications between these men and the members of the staff could not be excluded; but this could not account for the appearance of cases on board vessels that had anchored in the Long Reach. In studying Dr. A. K. Chalmers's report of small-pox at Glasgow in 1890-1897 he was struck by the disproportionate incidence on the Eastern District, in which was the Belvidere, the only small-pox hospital. The hospital had no sooner begun to fill than the number, both absolute and relative, of cases in the Eastern Division rose until in three of the six years they exceeded and in three closely approached the highest in the other areas of the city. From the reports of small-pox at Manchester from 1902 to 1904 he could draw no corresponding conclusions, for the population of 48,000 living within a mile of the hospital contributed no more than 25 cases and none of the men employed in laying drains around the hospitals were attacked, though they refused to be vaccinated. Dr. Reece's report on the epidemic at Liverpool in 1902-3 was the most important contribution to the question that had appeared of late. With a population of 720,000 there were, in the two years 1902 and 1903, 2,278 cases in 1,632 houses, not counting those brought by shipping. There were two old hospitals—Priory Road and Park Hill—and one new one, which alone had been approved by the Local Government Board, at Fazakerly, outside the city boundary. For fifty-three weeks Priory Road was the only hospital; it was closed when that at Fazakerly was opened, and remained so to the end, after seventy-seven weeks' occupation. The Park Hill Hospital, opened during the height of the epidemic, was used for twenty-four weeks only. It was opened on January 12th to meet a local outbreak due to an unnotified and fatal case. The houses newly invaded within a mile of this hospital rose in each successive fortnight from 2.4 to 20.50, and the district continued to suffer more than the rest of Liverpool until the hospital was closed. The graduated incidence shown by the percentage of houses attacked in each zone around was well marked, as it was also in those around the small hospital at Priory Road. In what did this "hospital influence" consist? He denied that the traffic of ambulances and vehicles, the visits of friends or tradespeople, or the movements of the staff sufficed to explain the graduated incidence. Save at Dewsbury and a very few places of less importance no general violation of the rules or breaches of regulations for seclusion of patients had been established, and neither patients, staff, nor tradesmen were drawn more from the immediate neighbourhood than from other quarters, while ambulance traffic would follow the lines of the main roads, not the smaller streets and alleys. Felling was invaded from the side of Gateshead Hospital, which stood in a high open position, its own hospital being two miles on the other side of the town. The negative character of the evidence from Manchester was explicable by the measures adopted by Dr. Niven to prevent the diffusion of the epidermis. In conclusion, he urged that observed facts as regards diffusion of dust under various circumstances itself showed the reasonableness of the hypothesis that aërial convection was the cause of the spread of small-pox around isolation hospitals. Dr. C. B. KERR admitted that Dr. Buchanan's paper was the best defence he had heard of the aërial theory, and would have convinced him if he had not known that all evidence on the other side had been suppressed. The sole isolation hospital in Edinburgh was badly placed and ill arranged in every way—only 72 yards distant from the fever block with 400 patients, 325 yards from the poor house with 1,000 inmates, nearer to a hydropathic establishment for 200 patients, while paupers worked all day close to its boundaries. The average number of patients in the small-pox hospital had been 55 for two months and 47 for the three months. Within the quarter-of-a-mile circle was Craig House Asylum with 400 patients, and a general population of 2,000, but the only cases within a mile of the hospital were 2 imported and 2 secondary in the poor house, and, by a curious coincidence, exactly the same number occurred in another poor house far away. The fever patients were mostly vaccinated, but a large number of typhoid patients and of cases of erysipelas in the ward nearer to the small-pox block were not, yet not one contracted the disease. The nurses for the small-pox wards were volunteers from the fever hospital, and only the most trustworthy were accepted; once in they were never allowed to leave the building on any pretext, while Dr. Kerr, the medical officer of health, the Local Government Board inspector, and the ambulance

attendants were the only persons who were admitted. Here was the secret of their success. He considered the association of fever and small-pox hospitals to present many advantages. The old nurses were more to be trusted than new recruits, and he had more control. Just outside the mile limit several houses were invaded, but in three of the first four exposure to infection was proved. The actual epidemic was concentrated around the site of the old hospital, which in previous epidemics used to be blamed as a centre for diffusion of disease in the district. In view of the lateness of the hour, further discussion of the paper was then adjourned.

PATHOLOGICAL SOCIETY OF MANCHESTER.—At a meeting on May 10th Dr. DONALD showed a macerated fetus which had been retained in the abdomen for nearly four years. The case was diagnosed as one of extrauterine pregnancy with death of the fetus in September, 1901. Operation was not advised at that time. Since then the patient had been pregnant three times. The first of these pregnancies terminated in abortion; the second went on to term, and the child was born alive. The first four months of the next pregnancy were uneventful, then the patient began to have severe abdominal pain, and the temperature and pulse ran up. Abdominal section was performed, and the macerated fetus removed. The patient made a good recovery, but miscarried on the tenth day. The macerated fetus lay in a sac, which on dissection was found to be one horn of a bicornuate uterus. The sac was inflamed and adherent to bowel and omentum at one part.

REVIEWS.

DIET IN HEALTH AND DISEASE.

IN a volume on *Diet in Health and Disease*,[1] by Drs. FRIEDENWALD and RUHRÄH of Baltimore, we have yet another evidence of the industry of our transatlantic colleagues. The work is dedicated to Professor Osler, whose stimulating influence will no doubt be greatly missed in the city which was his home for many years. The present work is, as perhaps all books on diet must be, a compilation, and perhaps it may seem to contain some things scarcely worthy of being printed. The process of compilation has its disadvantages. Unless it is done with careful consideration it leads to unnecessary repetition and to contradictions which are at times confusing. For example, on page 165, under "poisoning due to fish," the authors state that "kakké, a disease of Japan and other eastern countries, is believed to be due to the eating of certain varieties of the *Scombridae* family," and on page 432, under "beri-beri," we are told that "this disease is apparently due to the use of contaminated rice," no indication being afforded the reader that kakké is merely the Japanese name for the disease that in India was named beri-beri. On p. 409, under "purpura haemorrhagica," the book says "milk and somatose and milk are suggested as most valuable foods," but on p. 507, under "haemorrhagic purpura," we read, "various foods, such as a diet consisting largely of gelatine, have been suggested," and "it is well to give fresh fruit juices and a diet somewhat similar to that indicated in scurvy." On page 466, under "Soya," two analyses are given, in one of which the carbohydrates are 30.35 per cent., in the other the starch and sugar are 2.79 per cent., while in the table on page 91 Soya beans are stated to contain 33.7 per cent. of carbohydrates. The explanation should have been given that Soya contains a mucilaginous carbohydrate, which, although neither starch nor sugar, is convertible into the latter, and therefore must be taken into account in diabetes; we would add that Soya bread has a peculiar taste, and in certain patients is liable to cause diarrhoea. On page 320 we are told that "trout, even when young, is very difficult to digest"; but on page 331 this fish is included under "tender meats." The table on page 99 makes beefsteak contain 77.5 per cent. of carbohydrates, while in that on page 81 it is given as containing none.

Under the section devoted to special diets there are many which are, at least, of small value and we should not have thought it necessary to give detailed and separate accounts of the diet in such diseases as small-pox, scarlet fever, measles, mumps, whooping-cough, influenza, meningitis, cerebro-spinal fever, diphtheria, erysipelas, rheumatism, malaria, rabes, peritonitis, acute yellow atrophy of the liver, fatty liver, syphilis, diseases of the heart, emphysema, pleurisy, neuralgia, chorea, chronic lead poisoning, and Addison's disease, yet this section takes up 236 pages, or about one-third of the whole book.

The authorities quoted are mainly German, in spite of the great differences that exist between English or American and German taste in food and cookery; for example, would Leube's diet of "beefsteak scraped to a pulp and roasted in fresh butter," or "raw ham" be tolerated by any other than German patients?

We note the following misprints and omissions: Page 75, line 4, "macerated" for masticated; page 99, under chestnuts, it should be made clear that it is when raw that they are indigestible, as they are digestible when cooked. Schweitzer is printed "Schmitzer." Page 150, under the artificial food preparations, Roborat is omitted, but is included on page 460 in describing diabetic dietaries. It seems strange to say that in "boiling" meats the temperature of the water should not exceed the temperature necessary for the coagulation of the proteids, as boiling implies the use of a temperature of 212°. In the section on food adulteration, under coffee, "green" is apparently printed for "ground"—"green" coffee, one would suppose, could only be imitated by the manufacturer of wooden nutmegs. In the same section there is no reference to the adulteration of butter by milk or of confectionery by paraffin. The authors state that Harrington has shown that the ingestion of boric acid may be a cause of nephritis, but they omit to state that this happens only when the quantity is so large as 22.4 grams for a man weighing 140 lb., which is much more than would be taken in food when boric acid is used as a preservative. On page 450 coffee "with milk or sugar" is allowed in a carbohydrate-free diet; this probably should be "without."

The section on infant feeding contains a great deal of information respecting the highly artificial methods in vogue in the United States, which have been elaborated in consequence of the frequency with which American mothers are unable to nurse their children. The diet tables for children in the nursery show that the American child is fed in a way that would be regarded as excessive in England, especially in the proportion of animal food. The diet given for a boys' school is as follows:

Breakfast: Fruit, a cereal with cream, bread and butter, steak, chops, hash, or eggs, fish occasionally, corn bread once a week, griddle cakes.

Dinner: Soup, meat, fish once a week, potatoes and a green vegetable, hominy or rice once a week, fruit.

Supper: Hash, cold meat, fish or omelet, bread and butter, with syrup or preserved fruit or fruit juice, plain cake, milk to drink.

On page 307, under "Tetanus," the authors suggest the extraction of a tooth to allow of the introduction of food, overlooking the fact that feeding by the nose or the rectum is at least equally available. Turning to the diets in those diseases where it is of special value, we notice that under "Oxaluria" the authors omit the suggestion of Klemperer to exclude milk, while they recommend a diet consisting largely or entirely of animal food—a proposal which seems to be based rather upon theoretical considerations than upon the result of clinical experience. In the treatment of chronic interstitial nephritis, it is strange to be told "that the amount of protein to be taken may usually be left largely to the patient," for while modern opinion is in favour of allowing some amount of meat to patients of this class it is generally thought desirable to limit the quantity. Another remarkable statement is that the most frequent complication of diabetes is contracted kidney. That kidney changes of some sort are extremely common is certainly true, but contracted kidney is undoubtedly rare; out of 271 cases given in Windle's table the kidneys were normal in 115, and cirrhotic in only 10.

This work is one which, while containing much valuable information, is susceptible in a future edition of considerable improvement by excision and emendation.

[1] *Diet in Health and Disease.* By Julius Friedenwald, M.D., and John Ruhräh, M.D. London: W. B. Saunders and Co. 1905. (Demy 8vo, pp. 689. 18s.)

BIOLOGY.

THE seventh volume of the *Cambridge Natural History*[2] on fishes, ascidians, etc., deals with the lower groups of vertebrate animals. It is true that all zoologists do not regard the hemichordata, of which balanoglossus is the well-known type, as ancestors of the vertebrates, but the group appears to be placed here not from a controversial point of view but because this is a convenient place to insert it. The author, Dr. S. F. HARMER, gives an excellent unbiassed statement as to the

[2] *Cambridge Natural History.* Edited by S. F. Harmer, Sc.D., F.R.S., and A. E. Shipley, M.A., F.R.S. Vol. vii. Hemichordata; Ascidians and Amphioxus; Fishes. London: Macmillan and Co. 1904. (Demy 8vo, pp. 778; 440 illustrations. 17s.)

opinions with regard to the position of the hemichordata from an evolutionary point of view. The second and third chapters in the volume are concerned with the tunicata and are from the pen of Professor Herdman. From the preface to the volume we learn that parts of the work have been in type for more than four years, but it might almost be said that parts of the chapters upon tunicates have been in type since 1888 because they are almost word for word the same as the article by Professor Herdman on tunicates in the ninth edition of the *Encyclopaedia Britannica*. A number of the illustrations have also been taken from the same article. Professor Herdman also writes the chapter upon the cephalochordata, of which amphioxus is the familiar example. This group has been well worked by several authors and was exhaustively considered both morphologically and phylogenetically by Dr. Willey in 1894, since which time not much has been added. The map showing the distribution of the few species given on p. 138 might have been clearer. Professor Bridge is responsible for the fishes, except the systematic account of the teleostei, and ten well-written chapters, comprising 279 pages, are devoted to the general subject. The bibliography of this part of the volume is at times, however, disappointing. For instance, the egg and larval stages of fishes are discussed shortly on pp. 408 to 420, but there is no reference to the papers of Holt, M'Intosh, Ehrenbaum, Raffaele, Emery, and others upon fish-eggs and larvae. On the other hand, the bibliography on such a subject as fish scales is fairly complete, although a few papers, such as those by Salbey, Ussow, Baudelot, and Mörner appear to have been overlooked. We notice that Professor Bridge accepts without comment the opinion that "the concentric rings observable on the surface of many teleostean scales are an index to the age of the fish." The scales of only a few species have so far been studied, and in many cases—for example, salmon, roach, pike, plaice, and sole—the age cannot be so easily read, if it can be read at all, as it seems to have been in the carp and pollack, the species chiefly dealt with by Dr. Hoffbauer and Mr. Thomson. It was suggested—we believe by the late Dr. Francis Day—that the presence of pyloric caeca, the possible functions of which are discussed on p. 275, was evidence of marine origin in those fresh-water species in which they occurred. In such a book as this a paragraph upon this subject would have been appropriate. It is somewhat difficult to discuss the new classification of the teleostei which we owe to Mr. G. A. Boulenger. A synopsis of this classification was first published by the author last year, so that it is entirely new, and it is perhaps open to question whether in such a book as this it would not have been better to retain the old system and to add a full chapter upon the new. Those who are not ichthyologists will encounter some difficulty in finding their way about the new system. The principle upon which this classification is based is, however, in accord with the ideal system, since it is founded upon a study of the skeleton, and aims at being phylogenetic instead of physiological. The printing and illustrations of the volume are up to the standard of the series, and the maps showing the geographical distribution of the various families of fishes will be found very useful.

It is perhaps a question whether one should be pleased or disappointed that Professor SEDGWICK has not completed his *Students' Textbook of Zoology*[3] in two volumes as originally promised. The first volume, which appeared so long ago as 1898, contained 619 pages, and dealt with the protozoa to the chaetognatha, while the second volume, appearing after a lapse of nearly seven years, contains 700 pages, and deals only with amphioxus and the vertebrata. The third and last volume, which we are glad to learn is already in the press, has therefore to deal with the tunicata, enteropneusta, echinodermata, and the great group of the arthropoda. We are not sure whether or not a textbook in three large volumes is to be welcomed by the student, and we are inclined to think that Professor Sedgwick has included too much, and has thus detracted from the value of the work. The author admits in the introduction that he has probably been too ambitious in the systematic portions of the volume, and we certainly think that these might have been largely curtailed without detriment. We are glad to note the prominence given in the volume to palaeontology, and to see that a table of geological periods and formations is inserted after the table of contents. Chapter 1 contains a short and concise introduction to the chordata; and Chapter 2, consisting of about thirty pages, deals with the cephalochorda. Contrary to the plan followed in the rest of the book, the embryology of this group—or rather of the type amphioxus—is dealt with at some length. We do not see why the author should have departed from his rule in this case, especially when a reference to Korschelt and Heider or to the exhaustive papers of Hatschek and Willey would have been quite as satisfactory for the student, and would have saved space. One cannot expect complete bibliographies of all the subjects touched upon in a textbook, but in the work under notice most of the more important papers appear to have been noticed in their proper places. The class "pisces" occupies 212 pages, a large number being given up to the systematic part of the subject, which might have been curtailed. The classification of the teleostei adopted in the book is that recently published by Mr. G. A. Boulenger, first as a synopsis and then in vol. vii of the *Cambridge Natural History*. The amphibia and reptiles occupy about 150 pages, while the birds are finished off in about seventy. The author has in this latter class made a selection in the systematic portion, a process which surely might have been applied in the other classes. However, our chief complaint is of the bulkiness of the volume, which we think detracts from its value. The student will undoubtedly find everything that a textbook of zoology should contain.

Organic Evolution is the title on the cover of a work by Dr. M. M. METCALF, Professor of Biology in the Woman's College of Baltimore. This designation is modified on the title-page by the words, *An Outline of the Theory of Organic Evolution*.[4] The preface still more accurately defines the book as "not intended for biologists, but rather for those who would like a brief introductory outline of this important phase of biological theory." We must confess that, were we approaching the subject for the first time, this work on organic evolution would not, after having carefully read the 188 pages of the text, convince us of its reality. This is perhaps owing to the lack of crystallization of the ideas suggested. The subject-matter is "treated largely by pictures." Of these there are 101 plates and 46 figures. Some of them are excellent.

CONSUMPTION AND THE NERVOUS SYSTEM.

THE monograph on *Consumption and the Nervous System*,[5] by Dr. JESSEN, is one which deserves the attention of all students of the subject of which it treats. Much labour has been expended on the collation of a very great number of large and small works of men in different countries who have brought sometimes evidence, and sometimes only speculation, to bear upon the problem. No less than 225 separate references are presented, with critical commentaries on the greater number of them. From such a multitude of counsellors some wisdom may be looked for. No very striking addition to our knowledge of the relation of consumption to the varying conditions of the nervous system is to be deduced. But all that has been ascertained and most of what has been assumed will be found in Dr. Jessen's book.

The nervous system may be affected in one of three ways by the presence of tuberculosis in the organism. The coarse lesions produced by actual tuberculous deposit, the more subtle effects of the intoxication by the tuberculous poison, and the reflex effects produced by the presence of tuberculous disease in the lungs. The extent to which the lungs are rendered more liable to tuberculosis in the case of lunatics depends upon several factors — the frequent degeneracy of all the tissues in such persons, the close association together in asylums of tuberculous with non-tuberculous people together with the possibility of simple coincidence—all these go far to explain the frequency of tuberculosis among the insane. That the average consumptive patient is materially altered in character with the incidence of the disease has been commented on by many observers. The degree of mental disturbance during periods of active disease has been shown by no one more clearly than by Dr. Head, and the mental state of a patient during recrudescence or rapid advance of tuberculous disease has now become a valuable diagnostic and prognostic symptom. Dr. Jessen discusses all these mental changes in detail, and sets forth certain types that may be regarded as more or less peculiar to the tuberculous subject. While evidence is forth-

[3] *Students' Textbook of Zoology*. Vol II. Amphioxus and Vertebrata. By Adam Sedgwick, M.A., F.R.S. London: Swan Sonnenschein and Co. 1905. (Demy 8vo, pp. 722, 218.)

[4] *An Outline of the Theory of Organic Evolution*. By M. M. Metcalf, Ph.D. London: Macmillan and Co. 1904. (Demy 8vo, pp. 188, 101 plates, 46 illustrations. 10s. 6d.)

[5] *Lungenschwindsucht und Nervensystem*. [Consumption and the Nervous System.] Von Dr. F. Jessen, of Davoz. Jena: Gustav Fischer. 1905. (Demy 8vo, pp. 112. M.2.)

coming to prove the frequent occurrence of alternation between the activity of the lung disease and the mental changes, there is as yet no sufficient warranty for the assumption that either exercises a retarding effect upon the other.

The practical treatment of such cases presents the initial difficulty that for the relief of the lung condition patients should not be herded together, while the mental condition calls for such supervision as can only be exercised in institutions and asylums. The method of treatment in tents does not appear to have been tried in Germany, although it has been favourably reported upon by Dr. McDonald of the Manhattan State Hospital. The relation of pulmonary tuberculosis to various neuroses, to organic disease of the central nervous system, to peripheral motor and sensory disturbances, and to those of the vasomotor and secretory nerves are in turn examined in close detail. The monograph closes with an interesting chapter on the influence of the nervous system upon the onset and course of consumption and with the very full bibliography already referred to. The whole work is thus especially useful for reference, while it is interesting for present perusal as a critical compendium of modern information on the subject.

NOTES ON BOOKS.

THE *Atlas of the External Diseases of the Eye*,[1] one of Messrs. Saunders's series of medical hand atlases, is a reproduction in English form of the well-known work by Professor O. HAAB of Zurich. It consists of a brief but clearly-expressed treatise on the pathology and treatment of diseases of the more visible parts of the eye, accompanied by some 98 coloured illustrations. The latter are strikingly realistic and well calculated to drive home the various points made in the text. Like the rest of the series of which it forms part, this book is well turned out and easy to read. It will be decidedly useful to students and others who desire a general acquaintance with the subject but who are not in a position to spend very much time in ophthalmic departments.

The American Climatological Association concerns itself largely with the treatment of diseases of the chest, and the majority of the papers read at its annual meeting at Philadelphia in June last year have phthisis as their *leit-motif*. These have now been published in the twentieth volume of the *Transactions*[2] of the Association; that which deals with the classification of cases of pulmonary tuberculosis by Dr. Karl von Ruck is especially worthy of attention; it contains a useful summary or review of nearly all those which have hitherto been proposed by various authorities, together with one formulated by the author himself.

The *Pocket Medical Dictionary*[3] of Dr. W. A. NEWMAN DORLAND has reached its fourth edition—a circumstance which is good evidence that it meets a want. In its present form it is a handy, well-printed volume, reference to which is facilitated by the use of leaded type for each word which is to be explained. It may be stated, too, to be comprehensive, considering the rapidity with which new terms are coined for use in scientific medical literature. We see no use, however, in taking up space by numerous tables which "it is believed will prove of value to students for memorizing in preparation for examinations." A dictionary—and especially a pocket one—should be a dictionary and nothing else; and if intended to become popular on this side of the Atlantic the classic spelling of well-known terms should be preserved.

The twenty-third volume of the *Transactions of the Epidemiological Society of London*[4] covers the work of this Society during the session ending in 1904. Its interest is quite up to that of its predecessors, and no one who desires to know the general trend of modern thought on matters epidemiological could do better than peruse the half-dozen papers which it contains, and especially the discussions by which they were followed. As of more acute interest than the others at the present time, attention may be directed to that on anthrax, while that on the etiology of scurvy is of value as a clear representation of the various opinions now current on a subject which does not often come under general discussion. The volume concludes with a broad-minded obituary notice of the late Sir John Simon, which is evidently the work of some one who is behind the scenes of official life, and acquainted with the difficulties which it places in the way of a really master mind.

The Motoring Annual[5] is a book which will appeal less to the man who regards his "auto" merely as a useful means of locomotion than to him who takes a deep interest in all that goes to make up the motor world. The latter will find in it complete information as to Who's Who, Motor Records, Clubs, Speeds, Laws, etc. The book is illustrated freely, and the man who does not care for information on points such as we have mentioned may yet find a good deal to interest him in the concluding pages, which deal with types of cars and tyres.

[1] *Atlas of the External Diseases of the Eye.* By Dr. O. Haab. Second Edition, revised by G. E. de Schweinitz, A.M., M.D. London: W. B. Saunders and Co. (Crown 8vo, pp. 232; 48 plates. 13s.)

[2] Philadelphia: Published by the Association. (Demy 8vo, pp. 324.)

[3] London: W. B. Saunders and Co. (Cr. 8vo, pp. 566. 5s.)

[4] London: Williams and Norgate. 1904. (Demy 8vo, pp. 258. 6s.)

[5] London: Office of *Motoring Illustrated*. (Demy 8vo, pp. 467. 5s.)

MEDICAL AND SURGICAL APPLIANCES AND DIETETIC PREPARATIONS.

A Surgical Sponge.—We have received from Messrs. Down Brothers, 21, St. Thomas's Street, S.E., a specimen of what they have called the safe surgical sponge. It is made of ordinary knitting cotton—that is to say, of somewhat better material than the ordinary "sponge cloth,"—and is therefore readily sterilized. It is dyed a purple colour with a view to making it conspicuous and less likely to be overlooked in abdominal operations than the ordinary sponge or gauze pad. Surgeons do not, as a matter of fact, rely upon inspection as a safeguard against leaving materials inside the abdomen, and some addition to this sponge is necessary before it can be properly called safe. The material is very absorptive; it can be readily cleansed and resterilized, and has therefore the advantage of cheapness. The sponge is the invention of Mrs. George, of Oxford, a nurse.



Kresophen Disinfectant.—Kresophen is a disinfectant and germicide prepared by Messrs. Willows, Francis, Butler, and Thompson, Limited, 40, Aldersgate Street, E.C. It is a brown, soapy liquid, which forms a clear solution with distilled water, and is claimed to be about one-fourth stronger in bactericidal properties than carbolic acid. It contains 50 per cent. of cresols, and on account of the detergent properties of the soap contained it has greater penetrating properties than carbolic acid. It can be used as an aqueous solution, ½ to 1 per cent., for disinfecting the hands or instruments, and up to 2 per cent. in the treatment of wounds. It has no detrimental action on surgical instruments.

Beta-Eucaine Lactate.—This substance has already been referred to in our notes on New Remedies in the BRITISH MEDICAL JOURNAL of November 12th, 1904, and we have now received a sample from Messrs. A. and M. Zimmerman (3, Lloyd's Avenue, E.C.). It occurs as a white powder, which dissolves readily in water, a 20 per cent. solution being easily prepared; this ready solubility appears to be the chief advantage it possesses over the hydrochloride, which is too well known to need further mention. Solutions of the hydrochloride cannot be made stronger than 4 per cent. at the ordinary temperature, and these, though sufficing for many purposes, are not sufficiently concentrated for operations on the nose, throat, and ear. Solutions of the lactate, like those of the hydrochloride, can be boiled without any risk of decomposition, and thus possess a great advantage over cocaine salts. Now that a very soluble salt has been produced it will no doubt still further replace cocaine, which is about twice as costly.

A NEW hospital for poor consumptives has just been opened in Rome.

VISIT OF BRITISH PHYSICIANS AND SURGEONS TO PARIS.

THE first item on the programme arranged by the Committee of Reception of French Doctors was a reception on Wednesday night, May 10th, at the Sorbonne, but a large number of the British physicians and surgeons arrived in Paris some days before this function took place, and employed the time in visiting the Paris hospitals. It had been anticipated that most of the visitors would travel by the train leaving London on Wednesday morning at 9, and arriving at Paris at 4.45 in the afternoon; preparations had therefore been made for providing special travelling facilities for those who went by that train. The party which travelled by that train, however, only numbered about forty medical men and twenty ladies. On nearing Calais, M. Finez, the representative of the Northern Railway of France, who had been deputed to travel with the party from Dover to Paris, pointed out the decorations put up at the Calais landing stage in honour of the visitors. On leaving the boat the British physicians and surgeons were conducted by Mr. Finez to a special express, and the luggage of the party was exempted, by special permission, from examination by the French Custom House officers, who helped in every way possible to expedite the transference of the baggage. Before entering the special train for Paris a warm welcome to France was accorded to the travellers by a deputation from the "Alliance Littéraire, Scientifique, et Artistique, Franco-Anglaise," with whom were associated the Chamber of Commerce of Calais, the "Chambre Syndicale," and the doctors of Calais. The spokesman of the deputation was Professor F. Lennel, who, addressing Sir Dyce Duckworth, delivered an eloquent speech of welcome. After Sir Dyce Duckworth had replied in French, bouquets were given to the ladies of the party. The visitors then entered the special train for Paris, in which lunch was served. On arriving at Paris, they were conducted to a decorated hall at the Gare du Nord, where they found M. Lucas-Championnière, with a distinguished company of Paris doctors, waiting to receive them. M. Lucas-Championnière briefly conveyed to the party the felicitations of the Paris Committee, and Sir Dyce Duckworth acknowledged the compliment in a few words in French. A move was then made to the station yard, where carriages were found waiting to take the visitors to their hotels.

RECEPTION AT THE SORBONNE.

In the evening the British physicians and surgeons were received at the Sorbonne by M. Liard, Rector of the University of Paris. The function took place in the grand salon, and M. Liard was assisted by the members of the Council of the University.

M. LIARD, in the name of the University, formally welcomed the visitors, and referred to the ancient bonds of amity that connected the University with Great Britain.

The next speech was by Professor BOUCHARD, who extended a cordial welcome to his *confrères*.

Sir WILLIAM BROADBENT then spoke. His discourse was suddenly interrupted by the place being plunged into darkness, through the failure of the electric light. This accident caused some consternation, but very soon attendants appeared bearing candles in quaint old-fashioned candelabra, and these sufficed to permit the function to proceed. Sir William Broadbent was loudly applauded, especially when he observed that the intellectual friendship between Great Britain and France had been further cemented by the visits of the King and of the French President.

Professor CLIFFORD ALLBUTT also addressed the meeting, and was followed by Dr. G. OGILVIE, who recounted the connexions between the Sorbonne and Scotland. The following is the text of his speech:

Monsieur le Recteur, Professor Bouchard,

Au nom de mes collègues Anglais, je vous remercie de vos paroles bienveillantes. J'ai écouté avec plaisir vos remarques éloquentes, et l'accueil charmant que nous venons de recevoir ici est d'un bon augure pour le reste de notre visite.

Il était impossible de mieux commencer nos réunions, que dans ce centre de science, la vieille Sorbonne. Pour moi, qui suis du pays de Marie Stuart, ce n'est pas un terrain nouveau. N'y a-t-il pas tout près d'ici, la rue d'Ecosse, l'ancien Collège des Ecossais, dans la rue Cardinal Lemoine, et n'est ce pas dans cette même salle, qu'il y a onze ans, on fonda la Société Franco-Ecossaise, dont Jules Simon fut le premier président?

Avec tous ces souvenirs, je me bornerai à exprimer l'espoir, que notre heureuse entente se continue à jamais, de plus en plus forte, à mesure que grandiront les sentiments d'affection entre les deux grands peuples.

Sir William Broadbent and Professor Clifford Allbutt were formally presented with medals as *souvenirs* of the occasion. Presently a band, which was present in a side room, played "God Save the King." This took place just as the faulty fuses were replaced, and the whole building became once more brilliantly lit up. Then, led by M. Liard, every one trooped off laughing and jesting to what was called a "lunch" in the dining hall of the university.

THE PARIS HOSPITALS AND ALMSHOUSES.

The British physicians and surgeons visiting Paris inspected the various Paris hospitals and almshouses on the mornings of May 11th, 12th, 13th, and 14th. The Paris hospitals are administered by the Assistance Publique, and are bound to give free and unrestricted admission to the sick poor, no letters of recommendation being issued. This free and unrestricted admission is probably the cause of the crowded condition of the wards of the Paris hospitals. The wonderful cleanliness of the French hospitals is perhaps the reason why this condition of overcrowding does not make itself felt, but the evil has by no means escaped the attention of the medical men in Paris. Many of the eminent French physicians and surgeons observed that there was always plenty of money to be collected in Paris for the building of churches and benevolent institutions, but the ever-present necessity for increasing the number of wards in the hospitals so as to provide sufficient space for the patients fails to attract the attention of the well-to-do.

The Hôtel-Dieu.

The Hôtel-Dieu has accommodation for 885 beds, and was built thirty years ago. It is what we call in England a general hospital, and 15,000 patients are passed through its wards every year. It is one of the few hospitals remaining in Paris where nuns conduct the nursing. The list of the staff contains the names of Dr. Lucas-Championnière, Dr. Dieulafoy, and Dr. Champetier de Ribes, and so it is not surprising that the Hôtel-Dieu attracted a large number of visitors.

The Lariboisière Hospital.

The Lariboisière Hospital is situated in one of the most thickly populated parts of Paris near the Gare du Nord, and provides 990 beds. Upon inquiry being made the information was forthcoming that it was possible to find room for 300 extra beds, though where they managed to put them was certainly a matter of some surprise. In the wards of this hospital, as in most of the Paris hospitals, not only are the beds placed very close to one another against the wall, but there is a third row of beds placed along the centre of the ward. So narrow is the space between the beds that even if screens were provided by the Assistance Publique it would be a matter of difficulty to place them round the bed of a patient. In the surgical wards of men like Drs. Poirier and Hartmann the success of their operations must be put in some jeopardy by reason of the want of air space.

The Cochin Hospital.

The Cochin Hospital received many visitors. The institution occupies a very large site, and is now being rebuilt by degrees. A sum of Fr.11,000 000 has been voted for the purpose, and already a sum of Fr.400 000 has been expended in erecting a separate building for one of the medical services. This is in charge of Professor Chauffard, who explained its plans and arrangements with pardonable pride. The building is, in fact, a miniature hospital, containing three long wards, several small wards, and a clinical laboratory. The whole building, which is of one story, is well lighted.

Saint-Antoine Hospital.

The Hospital of Saint-Antoine was a centre of great interest by reason of its *x*-ray department for the treatment of cancer. The institution contains 900 beds, and the significant information was given that the increase in the number of beds in the winter was very numerous. When the crowded condition of the wards in May is taken into account, it is difficult to conceive what the condition must be in the winter months,

when it is stated, on the authority of the Assistance Publique, that extra beds are very numerous.

Saint-Louis Hospital.

The Saint-Louis Hospital contains over 1,200 beds, and interested many of the British physicians and surgeons because the treatment of all kinds of cutaneous and venereal diseases is carried on there. Here are gathered together from all parts of France and its Colonies abnormal cases, including patients with leprosy.

Bretonneau Hospital.

The Bretonneau Hospital for children contains 261 beds, but here again, on inquiry being made, it was found that they could manage to make up 134 more beds in times of pressure. This hospital was built about 1901, and great care has been taken to have the building well up to date in regard to all recent improvements. In consequence of the principle followed by the Assistance Publique that all cases applying for admission must be admitted, there is very ample provision made for infectious diseases, and the special wards constructed for the reception of these cases are well adapted for that purpose.

Boucicaut Hospital.

The Boucicaut Hospital was erected a few years ago by the benefaction of Mme. Boucicaut. It is constructed on the system of small pavilions almost completely isolated, the only communication being by underground passages with the kitchens and administrative offices. The nursing of this hospital is partly conducted by nuns assisted by 23 nurses, and in the ward for the newly-born children a sufficient supply of wet-nurses is arranged for. The party who visited this hospital was cordially received by Dr. Letulle.

The Necker Hospital.

The Necker Hospital contains 479 beds, and is renowned because it is the place where Laennec worked and established the use of the stethoscope. The present staff numbers amongst its members Professor Huchard, who received his numerous visitors with great geniality.

The Aubervilliers Hospital.

The Aubervilliers Hospital is entirely reserved for patients suffering from contagious diseases and contains eleven departments. The wards are on the separate pavilion system, and the utmost precautions have been devised for the prevention of the spread of disease. The hospital is practically in course of reconstruction, and when finished will be able to provide for 300 patients.

The Maternité Hospital.

The Maternité Hospital contains 188 beds, and is the training school for a hundred midwives. This institution is worked in connexion with two other hospitals situated close to it, the "Clinique Baudelocque" and the "Clinique Tarnier." At the Clinique Baudelocque the Professor is Dr. Pinard, who spared no pains in showing the numerous visitors around his institution.

The Salpêtrière Hospital.

The Salpêtrière Hospital provides 271 beds for medical cases, 2,574 beds for old and infirm people, 163 beds for adult epileptics, 45 beds for children, 60 beds for a reformatory school, and 724 beds for female lunatics. The institution is, in fact, a small town in itself, and it is interesting to remember that it started in the seventeenth century as an almshouse for women and as a prison for prostitutes. Inasmuch as Professor Raymond and Professor Déjerine work at this hospital, it was only to be expected that this place drew large audiences from the British physicians and surgeons visiting Paris.

Visit to the Hertford British Hospital.

On Saturday afternoon, May 13th, a formal visit was paid by the British physicians and surgeons to the Hertford British Hospital. This institution is not an easy place to find, and many of the visitors were told by the cabmen of Paris that no such hospital existed. However, by insisting on the Paris cabmen asking their way to 72, Rue de Villiers, beyond the fortifications at Levallois-Perret, a large number of the British party succeeded in arriving at the well-appointed hospital, containing forty beds and cots, which was presented to the British Government by Lady Wallace in July, 1900. The hospital is prettily placed in an airy suburb of Paris, and in the roomy entrance hall of the building the visitors found many members of the Committee of Management waiting to receive them. Only a small number, however, of the guests succeeded in arriving at this out-of-the-way hospital in time for the official reception, but they were all welcomed by members of the Medical Staff and Committee, and personally conducted round the wards, Dr. L. Robinson and Dr. A. A. Warden, together with Professor P. Poirier, spending much time in showing the guests over the wards.

Reception by the Faculty of Medicine.

On Thursday, May 11th, after the morning visits to the hospitals, the party repaired to the Faculty of Medicine, where they were received by the President of the Faculty, Dr. Debove, in the Amphitheatre of the School of Medicine. His speech was short but happily phrased, and thoroughly deserved the acclamation with which it was greeted. The scarlet robes of the professors gave the gathering a brilliant appearance, which was seen at its best in the Council Chamber of the Faculty, hung round with beautiful Gobelin tapestry. But there was no time to spare, for another reception awaited the visitors at the Hôtel de Ville.

Reception at the Hôtel de Ville.

M. Brousse, the President of the Municipal Council of Paris, received his guests at the entrance to the Salon des Arcades, and with him were the two Vice-Presidents—M. Rebeillard and M. H. Rousselle. In the group round the President were also the Préfet de la Seine (M. de Selves) and the Préfet de Police (M. Lépine).

M. Brousse, in his speech, referred in most complimentary terms to the scientific learning of the visitors. He was followed by M. de Selves, who gained loud applause when he described the high merits of Pasteur and Lord Lister. After M. Lépine had said a few words of welcome, the task of replying was worthily fulfilled by Sir William Broadbent. The company then dispersed through the magnificent building, and especially enjoyed the musical entertainment that was provided.

Reception by the Assistance Publique.

A short distance from the Hôtel de Ville another reception had been prepared for the British physicians and surgeons at the office of the Assistance Publique. The ceremony took place in an upper chamber, reached by a narrow and somewhat dark staircase, the whole building being utterly devoid of anything approaching luxury, thus providing a sharp contrast to the magnificence that had astonished the visitors at the Hôtel de Ville. The Director-General of the Assistance Publique, M. G. Mesureur, gave a short address, in which he said that the reception accorded by the Assistance Publique was neither brilliant nor lavish, but it was frankly loyal and from the heart. It was, he continued, the best possible reception that could be offered in the House of the Poor. He rejoiced in the fact that for the discoveries of science there was no prohibitive tariff, and the visit of the British physicians and surgeons served as a trumpet-call to those who were sleeping amongst old traditions and ancient practices. M. Mesureur then explained how hospital organization in Paris was united under one management, enjoying a certain independence with a kind of self-government. The Assistance Publique was entrusted with the duty of providing for the medical needs of a considerable population, and considered that it had no higher mission, after guaranteeing the moral protection of the sick and their material well-being, than that of making themselves collaborateurs with the heads of medical science. M. Mesureur concluded by thanking his visitors in the name of the universal confraternity which assembles at the bedside of the sick poor.

With M. Mesureur there were present many members of the Administrative Council of the Assistance Publique, amongst whom were MM. Voisin, Léon Bourgeois, Brouardel Faisans, Navarre, Porak, André Lefèvre, Félix Roussel.

Sir William Broadbent gracefully complimented M. Mesureur on the welcome extended to the party, and Sir John Moore added his felicitations on the admirable manner in which the Assistance Publique performed its duties.

A Wreath laid on Pasteur's Tomb.

After the visit to the Hertford British Hospital, every one hurried off to the Pasteur Institute, where a very large gathering of guests and French doctors and scientists took place about 4 in the afternoon. It was widely known that

Dr. J. Kingston Fowler, the Dean of the Medical Faculty of the University of London, was commissioned to lay a wreath upon the tomb of Pasteur in the crypt of the Pasteur Institute. Before this interesting ceremony actually took place Dr. Roux, the Director of the Pasteur Institute, extended a cordial welcome to the British physicians and surgeons, and then he conducted Dr. Kingston Fowler down a long corridor leading to a steep winding stair which gave access to a stone passage forming a sloping approach to the crypt in which is placed the tomb of Pasteur. Standing at the gates of the crypt, Dr. Kingston Fowler delivered in French an effective and modest speech on Pasteur and his work. When he had concluded he disappeared into the crypt and placed a wreath upon the tomb of Pasteur bearing the following inscription: "A ce grand Pasteur, le bienfaiteur de la race humaine." The speech delivered by Dr. Fowler made a deep impression on the vast assembly gathered together at the crypt of the great master; he said:

M. le Directeur,—J'ose croire qu'en ma qualité de Doyen de la Faculté de Médecine de Londres vous et Madame Pasteur me permettez de déposer cette couronne sur le tombeau du Maître qui a tant fait pour la science et l'humanité, et dont cet Institut même rappelle à l'univers les travaux accomplis.

Cet hommage je le rends au nom des quatre cents professeurs de la Faculté de Médecine; je veux y associer de plus tous ceux qui exercent notre profession, tous ceux qui visitent aujourd'hui ce pays et cette ville dont les traditions artistiques, littéraires, et scientifiques sont connues du monde entier.

Le souvenir et l'exemple du grand Français que fut Pasteur inspireront toujours les hommes qui comme lui voudront se dévouer à la cause universelle de la science. Nous voulons apporter à sa mémoire le tribut de notre profonde admiration.

Les découvertes de Pasteur dans le domaine de la physique et de la chimie; ses recherches, à la fois ardentes et patientes, sur les causes de la fermentation, sur les causes des maladies chez l'homme et chez l'animal ont sauvé d'importantes industries, et nous ont permis, d'une manière plus efficace et plus sûre, non seulement de soulager ceux qui souffrent, mais encore d'arracher à la mort bien des gens qui sans lui auraient péri.

Je ne saurais mieux faire que de rappeler l'hommage rendu par un de ses plus éminents disciples, Lister:

"Vos brillantes recherches m'ont prouvé l'evidence de la théorie des causes de la putréfaction par les organismes microbiens, et m'ont fourni le seul principe sur lequel pouvait être basé le système antiseptique."

Le XIXme siècle marquera dans l'histoire par les découvertes de tous genres; les travaux de Pasteur suffiraient seuls à lui assigner une place prépondérante dans les annales de la science.

La science ne reconnait pas de frontières; elle réunit en une commune fraternité tous ceux qui se dévouent à son service. De près ou de loin tous ceux suivent les traces de Pasteur contribuent à rapprocher les peuples.

Nous sommes convaincus que l'amitié entre la France et l'Angleterre ne cessera de croître: que les deux nations travailleront d'un commun effort aux progrès de la science et contribueront à la réalization de ce but—la paix du monde.

Professor A. Waller then delivered an address as follows:

C'est au nom de la Faculté des Sciences de l'Université de Londres—au nom de la Science—puissante sœur et alliée de la bienfaisante puissance de la Médecine, que j'ai le privilège d'exprimer ici notre profonde sentiment de respect et reconnaissance. Ce n'est pas ici dans la maison Pasteur que j'aurai l'audace de vouloir faire son éloge—nous n'avons pas le droit d'enfreindre sur une intimité de connaissance qui vous appartient. Souffrez cependant que je vous expose en quelques mots la place qu'occupe en notre pensée l'œuvre de Pasteur à l'égard des nationalités qui vous entourent.

Nous sommes peut être trop rapprochés de Pasteur, et par le temps et par l'espace, pour pouvoir lui donner la place qu'il recevra dans les temps futurs.

Transportons-nous en imagination à cent ans, à mille ans d'ici dans l'histoire universelle de la terre que nous habitons, de ce grain de sable vivant dans l'immensité de l'univers, et ce sera parmi les époques ce XIXième siècle, que nous venons de traverser, qui apparaîtra suprême dans l'évolution sociale. Ce qui marquera pour nous ce XIXième siècle, sera non pas seulement l'éclosion de ces moyens de communication par la subjugation de la vapeur, mais plutôt la révélation de ce monde de l'infiniment petit, auprès duquel chaque grain de sable est un globe terrestre.

Et, en nous dévoilant ce royaume de l'infiniment petit Pasteur a été le médecin de la médecine; il lui a dévoilé les causes des maladies dont l'origine s'était jusqu'ici dérobée à l'observation.

Il a eu cette rare fortune pour un homme de science de nous indiquer en même temps que les causes de la maladie les moyens de la combattre.

Je ne parlerai plus, je m'incline. Souffrez pourtant qu'un Anglais parlant au nom de la Science Universelle proclame ici devant la tombe de Pasteur, sous le toit qui abrite sa compagne, que Pasteur a bien mérité de la France, et qu'en bien méritant de la France, il a bien mérité du monde entier.

The delivery of these eulogistic speeches was received with great applause. After the conclusion of this interesting ceremony the great mass of people present slowly extricated themselves from the approach to the crypt, and dispersed over the Pasteur Institute. On entering the bacteriological building most of the visitors paid their respects to Madame Pasteur, the widow of the scientist. This lady, surrounded by her family, received the respectful salutations of the British physicians and surgeons, and sustained the somewhat trying experience with great spirit and courage. The first story of the Bacteriological Institute is occupied by laboratories of various kinds, and above are situated the laboratories for original work carried on by the principal professors. The treatment of patients for hydrophobia is conducted in the Bacteriological building, and naturally attracted the attention of the visitors. This treatment lasts for about fifteen to twenty-one days, according to the locality and gravity of the bites, the mortality being stated to be less than 5 per 1,000. Here also is placed the laboratory of Professor Metchnikoff. Opposite to the Bacteriological Institution is a large building for the treatment of infectious patients. Each patient is isolated in a glass ward, and the most successful results are claimed for this arrangement. Attached to these wards is a large building where serums are prepared and where laboratories for chemical biology are placed. Here the visitors were shown the ourang-outangs that have been inoculated with syphilis. One of these creatures exhibited the induration that had followed inoculation on the left eyebrow, and its limbs were seen to be covered with secondary papules. The Pasteur Institute is peculiar in France in that it is independent of the State, and this circumstance enables the Director of the Pasteur Institute to carry on his work with a greater amount of liberty than is accorded to institutions of a like nature in that country.

Visit to Chantilly.

On Friday afternoon, May 12th, the British physicians and surgeons went by special train to Chantilly. It took about forty minutes or so to reach Chantilly, and on arrival the visitors found carriages waiting to convey them through the forest to the Château, where the celebrated collection of art is preserved under the name of the Musée Condé. The inspection of this wonderful treasure-house of art lasted only an hour, but enough was seen to form some idea of the magnificent collection the late Duc d'Aumale bequeathed to the Institute. The visitors were received by M. Gustave Macon and by M. Méz'ères, member of the French Academy, who did all they could in the short time at their disposal to show the treasures under their care. Before returning to Paris the stables at Chantilly were visited, and an excellent "lunch" was served in the cool garden of the Hôtel Grand Condé.

Soirée at the Automobile Club.

A magnificent entertainment was provided on Friday night for the visitors by the Automobile Club at the luxurious building occupied by the Club in the Place de la Concorde. In the precincts of this Club is a well-appointed theatre, to which the guests were conducted on arrival, and after "La Marseillaise" and "God Save the King" had been rendered by the excellent band, part of the opera of "Lakmé" was sung by some of the leading actors and actresses in Paris, followed by old French songs and some beautiful dances. During the evening many of the guests found their way to the terraces, adorned with flowers and shrubs, situated on the roof of the Club, from whence charming views of Paris are obtained. The Automobile Club was most lavish in its hospitality, and long after midnight the entertainment showed no sign of slackness, and when human nature at last showed signs of giving way the company were stimulated to stay yet longer on hearing the announcement that a cinematograph of the proceedings of the party at Chantilly was to be shown on the stage. Naturally every one waited to see how they looked at Chantilly, and it was very amusing to see the incidents of the visit reproduced. High praise is due to those who had the arrangement of the reception at the Automobile Club, for it must have been a very difficult task to provide for the entertainment of such a large number of guests in such a lavish and hospitable manner; the smallest details seemed to have been thought out with care, and most of the guests preserved the programme of the proceedings on account of the artistic merit of the illustrations with which it is adorned.

Banquet at the Grand Hotel.

The official termination of the visit of the British physicians and surgeons to Paris was the grand banquet given at

the Grand Hotel. The guests to this banquet numbered over 400, and they were received in a sumptuously-decorated hall on the first floor of the Grand Hotel. From either end of this hall two winding staircases led down into the banqueting room, thus enabling the guests without any crushing to reach their respective seats. The menu card was prettily adorned with the rose, thistle, and shamrock, and the decoration of the banqueting hall was admired by every one. Commandant Lamy represented the President of the Republic of France at the banquet, and Sir Francis Bertie, the British Ambassador, was also present. These gentlemen were seated on either side of Professor Bouchard, who was the President of the feast; and after the "Marseillaise" and "God Save the King" had been played by the band, he announced that he had received a telegram from the President of the Republic, regretting that he was unable to meet personally the eminent men assembled in Paris, and wishing them from the bottom of his heart all success in their humanitarian work. The relations so happily established in London in 1904 and in Paris by the present visit would certainly contribute to the progress of the art of relieving physical suffering, and would help to maintain and develop the cordiality that had been established between the two nations that are neighbours and friends. When the thunder of applause that followed the reading of this telegram had subsided, Professor Bouchard turned to Sir William Broadbent and informed him that he (Professor Bouchard) had been directed by the President of the Republic to present Sir William Broadbent with the insignia of the rank of Commander of the Legion of Honour. Professor Bouchard then leant forward and invested Sir William Broadbent with the insignia, and, as far as could be seen in such a vast hall, he also cordially embraced him. The British physicians and surgeons gave vent to their feeling by singing, or rather shouting at the top of their voices, the well-known chorus of "For he's a jolly good fellow." The proceedings were certainly noisy, but they were very enthusiastic, and the fifteen speeches that were delivered by different orators in the course of the evening were more or less indifferently heard, nothing apparently being able to prevent a large number of the guests chatting together in a loud and cheerful manner. Sir William Broadbent spoke immediately after the President, and his words were received with great applause by those who were fortunate enough to hear them. Professor Debove, who followed, had a wonderful voice that was heard above the din of conversation, and his speech was acknowledged by Professor Clifford Allbutt and Dr. Pye-Smith. The next speaker was Dr. Strauss, Medical Inspector of the Military Government of Paris, and very appropriately he was answered by Surgeon-General Keogh. Dr. Lucas-Championnière was the next orator, to whom succeeded Sir W. Macewen. After Dr. Balzer and Dr. Bruchet had delivered congratulatory orations, Dr. George Ogilvie spoke as follows:

Monsieur le Président, Messieurs,

Mes paroles ce soir sortent difficilement. Je ne suis pas à mon aise, ni dans mon assiette—excusez l'expression, Messieurs. Je me sens un peu timide, non parce que je parle devant vous, Monsieur le Président, devant l'élite du monde médical, mais . . . parce que c'est la première fois que j'essaie de m'exprimer en langue Française depuis que je suis Chevalier de la Légion d'Honneur. Je suis très sensible à cette distinction, et je l'apprécie d'autant plus qu'elle me vient de la France.

Messieurs, ce soir j'ai la tête aussi pleine d'idées que la ruche est pleine d'abeilles, et ces idées ont autant d'envie de sortir que la reine des abeilles en a de s'échapper, pour prendre son vol nuptial au mois de juin. Mais cependant je crains bien que votre hospitalité Française n'ait apporté un peu de trouble dans mes idées, et maintenant je me rends compte, pour la première fois de ma vie, que les grandes pensées, et les grands dîners, ne sont pas compatibles.

Votre hospitalité me rappelle une petite histoire que est arrivée dans mon pays natal, le pays de Marie Stuart, un petit pays qui n'est pas tout à fait inconnu dans le vôtre, et dont Boieldieu a chanté l'hospitalité dans la Dame Blanche.

Le maire d'une ville avait rencontré au marché le maire d'une ville voisine, et l'avait invité à dîner. Le dîner fut simple, mais copieux, et abondamment arrosé de vin capiteux. Au moment de se séparer, en reconduisant son invité à la porte, l'hôte lui dit, Prenez garde aux marches, cet escalier est un vrai casse-cou, et quand vous arriverez au bas, vous verrez deux voitures—prenez la première, car la deuxième n'est pas là. Voilà, Messieurs, l'hospitalité Ecossaise et j'espère que la vôtre n'aura pas le même effet sur vos invités. Je ne crains rien pour moi-même, car je suis habitué à l'hospitalité Française. Je m'aperçois messieurs—par les rires de l'assistance—que l'humour Ecossais va de pair avec l'esprit gaulois; c'est comme le champagne sec, il faut avoir un goût cultivé pour l'apprécier.

Messieurs, nous sommes à Paris, et nos quatre jours ont passé comme un éclair. Il n'y a pas d'étrangers qui vraiment connaissent Paris. Vos magnifiques boulevards, les musées du Louvre, les Champs Elysées, les Invalides, ne sont qu'une petite partie de Paris. Pour être capable d'apprécier le charme et la beauté de la Ville Lumière il faut être un mélange de savant, de philosophe, et de bohême.

Suivre les pâles rayons de la lune éclairant la magnificence solennelle de Notre Dame, et la longue ligne d'édifices qui s'étend de la Sainte Chapelle aux Tuileries.

Se tenir sur le Pont Neuf, quand les lampes jettent leur lueur blafarde sur les eaux agitées de la Seine, et assister à la lutte entre le soleil et les ténèbres.

Parcourir les boulevards silencieux pendant que la cité est endormie.

Ecouter le bourdonnement de la ruche à son réveil.

Flâner dans les rues du Quartier Latin, où chaque pierre évoque des souvenirs.

S'asseoir dans un petit café, dans une rue étroite, au milieu d'artistes atteints de cette maladie splendide—le génie:

Voilà ce qui est, voir et connaître Paris.

Incomparable cité! Enfantée par la nature, vénérable par l'age, mais toujours jeune. Pour la célébrer, il suffit d'exprimer ce qu'elle est, le monument et le foyer d'un grand peuple.

Que dire de votre école de médecine, de vos hôpitaux, et de tous vos géants du passé—Louis, Trousseau, et Pasteur, qui ont fait jaillir la lumière des ténèbres—Larrey, Dupuytren, et Nélaton, qui ont mis de l'ordre, là ou était le chaos, et . . . j'en passe, je ne parle que des morts, car il m'en faudrait citer trop de vivants. Puissent ces génies nous servir à tous d'exemple dans la recherche de la vérité, suivant ce qui disait Rousseau dans *Emile*—"Je sais que la vérité est dans les choses, et non dans mon esprit qui les juge, et que moins je mets du mien dans les jugements que j'en porte, plus je suis sûr d'approcher de la vérité."

Messieurs, notre devise doit être comme elle a été celle de nos devanciers, de rendre le petit coin de l'univers où nous vivons plus humain, plus sage, et plus heureux.

Tout à mon admiration pour votre magnifique cité, et à mon affection pour vos géants du passé, j'allais presque oublier, Messieurs, de remercier les vivants pour leur splendide reception. Que puis-je dire, sinon, merci à tous, millefois merci. Chacun de vous à été si gentil pour nous qu'il m'est impossible de vous nommer tous. Cependant qu'il me soit permis de citer un nom, celui du Dr Triboulet, dont l'esprit d'organization et l'amabilité ont assuré le succès de cette fête cordiale. Messieurs, permettez-moi de vous présenter au nom de mes compatriotes, nos plus sincères remerciments—et ils partent du cœur:—pour cette visite, qui vivra à jamais en notre mémoire.

Messieurs, je crains d'avoir trop parlé, de vous avoir ennuyés, peut-être mon imagination a-t elle pris le mors aux dents? Ce n'est pas ma faute, c'est la faute de ma nationalité, car quand l'imagination s'empare d'un Ecossais, elle le possède, dans le vieux sens biblique du mot: c'est comme un volcan que rien ne peut éteindre.

Encore un mot, Messieurs,—A Québec, au Canada, reposent dans le même tombeau, deux héros, un héros Francais, un héros Anglais, Montcalm et Wolfe. Ils ont lutté tous deux sur le même champ de bataille. Ils ont perdu leur vie pour leur pays. Ils dorment maintenant côte-à-côte, leur dernier sommeil, honorés également par l'Angleterre, et par la France.

Messieurs, dans les ages futurs, si on élève un monument à la France et à l'Angleterre, je souhaite qu'on lise sur son socle—La France et l'Angleterre, unies pour le progrès, et pour la paix.

The final speeches were delivered by Dr. Monprofit and Mr. Lynn Thomas, C.B., and the proceedings then terminated.

Reception by Professor Bouchard.

Madame and Professor Bouchard gave a reception to the visitors at the Salle Washington on Thursday evening. It commenced at ten o'clock and was of a cordial character, and the guests evidently enjoyed the release from anything approaching official ceremony.

Private Entertainments.

The British physicians and surgeons visiting Paris were entertained in the most lavish and hospitable manner by the leading medical men in Paris. Professor Bouchard, the President of the Paris Executive Committee, entertained a numerous company to dinner on May 11th, and the Vice-President of the Paris Executive Committee, Dr. Lucas-Championnière, gave a dinner party on May 12th. Professor Landouzy entertained a numerous company to lunch on May 11th, and Professor Huchard also gave a luncheon party on that date. Dr. Blondel invited a large number of guests to luncheon on May 13th, and a large party enjoyed the hospitality of Professor Hartmann on the night of May 12th.

Excursions to Vichy and Pau.

On Sunday, May 14th, many of the British physicians and surgeons started on a visit to Pau, and others left Paris to visit Vichy and Evian.

Bequests to Medical Charities.—The late Mr. Edward Andrew Sander, a Deputy Lieutenant and County Alderman for Devonshire, of Heavitree, Devon, left £500 each to the West of England Eye Infirmary and the Royal Devon and Exeter Hospital, and £200 to the Exeter Lying-in Hospital.

MEDICAL NEWS.

The degree of Doctor of Medicine was recently conferred for the first time on a woman by the University of Berlin. The name of the lady is Fraülein Elise Taube.

The competitive plans and drawings of the new buildings of King's College Hospital will be on view in the Court Room of the Carpenters' Hall, London Wall, E.C., from May 26th to June 1st.

The opening lecture of the summer session of the Hospital for Consumption and Diseases of the Chest, Brompton, will be given by Dr. Maguire on Wednesday next at 4 p.m., the subject being the elements of prognosis in pulmonary tuberculosis, with illustrative cases.

At a meeting of the National Health Society to be held on Tuesday, May 30th, at 3.30 p.m., at Grosvenor House, Princess Christian will present the diplomas, medals, and certificates of the Society to successful candidates. The chair will be taken by the Earl of Derby, President of the Council of the Society.

The annual dinner of the Chesterfield Branch of the Midland Medical Union was held on May 11th, when the chair was taken by the President of the Union, Dr. Godfrey Macdonald. After the usual loyal toasts, that of "The Midland Medical Union" was proposed by Mr. Cheeswright and acknowledged by the President. The toast of "The Guests" was proposed by the ex President, Dr. George Booth, and responded to by Dr. J. W. Martin and Mr. Rowthorne. After these speeches the evening was spent in the discussion of matters relating to the objects of the Union and in interchange of experience in attaining a fair and reasonable remuneration for medical contract services by unity of action in particular districts.

The Shah has appointed Sir Hugh Adcock, C.M.G., Persian Consul-General at Florence. Sir Hugh Adcock, who is an old student of Guy's Hospital, and is a Member of the Royal College of Surgeons of England (1871), a Licentiate of the Royal College of Physicians of Edinburgh (1869), and a Licentiate of the Society of Apothecaries (1869), retains the rank of Honorary Consulting Physician to His Majesty. Dr. Schneider, a Frenchman, has been appointed Physician-in-Chief. We understand that the real meaning of these appointments is that Sir Hugh Adcock, who was the Shah's Physician for many years, has practically been supplanted by the French practitioner, a fact which is considered to be of some political importance.

The Typhoid Epidemic at Lincoln.—Only two cases were notified during the week ending on Friday, May 12th.

Society of Apothecaries of London.—The unveiling o St. Luke's Window in St. Ann's Church, Queen Victoria Street, will take place on Monday, June 5th, at 1 p.m. A number of guests will afterwards be entertained at luncheon in the Society's Hall, Blackfriars.

The Medical Faculty of Johns Hopkins University.—It is stated that Drs. William H. Welch, William S. Halstead, Howard A. Kelly, and William Osler, all members of the original faculty of Johns Hopkins University, will meet in London during June, and will then sit for a group portrait to be painted by Mr. John S. Sargent. The idea originated with Miss Mary E. Garrett, of Baltimore, the benefactress of the Johns Hopkins Medical School, who will bear the expense of the painting. Professor Osler's departure makes the first gap in the original faculty of the medical school.

Bequests to Medical Institutions.—Under the will of the late Mrs. Jane Maria Brooksbank, of Sydenham, which has now been proved, the Findon Village Home, near Worthing, receives a sum of £5,000, and each of the following institutions £105: The Chelsea Hospital for Women; the Hospital for Consumption, Fulham Road; the Children's Hospital, Sydenham; the National Truss Society; the Brompton Cancer Hospital; the Bexhill Convalescent Home; the St. Michael's Convalescent Home, Westgate-on-Sea; the Royal Hospital for Incurables; and the British Home for Incurables at Clapham.

Congress of German Scientists and Medical Practitioners.—The work of the German Congress of Scientists and Medical Practitioners which, as already stated in the British Medical Journal, is to be held at Meran in September (24th to 30th), is divided into two main branches, one of which is devoted wholly to medical science. This branch is subdivided into fifteen sections, as follows: 1. Anatomy, histology, embryology, and physiology; 2. general pathology and morbid anatomy; 3. internal medicine, pharmacology, balneology, and hydrotherapy; 4. history of medicine and of the natural sciences; 5. surgery; 6. obstetrics and gynaecology; 7. children's diseases; 8. neurology and psychiatry; 9. ophthalmology; 10. dermatology and syphilology; 11. dental surgery; 12. military hygiene; 13. forensic medicine; 14. hygiene, bacteriology, and tropical hygiene; 15. veterinary surgery.

A Clerical Crusade against the Cigarette.—An anti-cigarette crusade is to be started in Holyoke, Massachusetts, by Catholic and Protestant clergy working jointly. The movement, it is explained, is not against the use of tobacco, except so far as it enters into the manufacture of cigarettes. It is proposed to ask every clergyman of whatever denomination in Holyoke to use his influence against the habit in his own parish. The crusade will be conducted primarily on physiological grounds, the moral right of grown men and women to smoke cigarettes being, with a gracious tolerance for which lay folk should presumably be thankful, conceded as a matter for each person to determine for himself. The Massachusetts statutes forbid the sale of cigarettes to children under 16, and a fund will be raised for the rigid enforcement of the law. Leading tobacconists have promised to co-operate in the movement as far as it relates to the sale of cigarettes to minors.

The Mikado and Dr. Takamine.—The Japanese Government, on the recommendation of the Mikado, has presented to Dr. Jokichi Takamine, formerly of the Tokio University, but now residing in New York, three handsome buildings, valued at £10,000, which were sent to America for the World's Fair at St. Louis. The gift, it is announced, is made in recognition not only of Dr. Takamine's services to the Imperial Japanese Commission at the Exposition, but also of important scientific and medical discoveries which have been applied during the present war with great benefit in the medical department of the Japanese army. We learn from the *Boston Medical and Surgical Journal* that Dr. Takamine will have the buildings set up at his summer home in Sullivan County, near Monticello, which he purposes to convert into a typical Japanese country-place. One of them, which is constructed of the choicest woods of Japan, was the scene of a luncheon served to the Emperor and Empress of Japan at the Osaka Exposition two years ago, and recently of receptions to President Roosevelt and to Prince Fushima when they were at St. Louis.

The Training of Midwives.—The Home for Mothers and Babies which Miss Alice Gregory has founded at Woolwich, as the first step in her scheme for promoting a higher training for district midwives, was opened on May 11th by H.R.H. Princess Christian, who was received by Dr. Cullingworth and other members of the Council of the Institution. Mr. Hawkes (joint secretary with Miss Gregory) stated that it was desired to provide a school where the training should be of longer duration than that in ordinary lying-in hospitals, and the fees, if any, moderate. It was intended that the pupils should be of an educated class, and that they should have received at least one year's training in a general hospital. Until the Home was in a position to offer free training, a fee of £20 would be charged for a course of from six to twelve months, according to the requirements of each individual pupil, and it was hoped that scholarships for this amount would presently be offered by the various county councils. Her Royal Highness having declared the Home open, Dr. Cullingworth said that the Home was the beginning of the realization of a high ideal. Its objects would, primarily, benefit the densely-populated district around, and, secondarily, the country at large. The weak points in the training hitherto provided were its short duration, the non-insistence upon a previous hospital training in general nursing, and the absence of any organization for keeping the pupils in touch with their school after they left it. In Miss Gregory's scheme these defects would be remedied, and it was, further, an essential part of her plan that every pupil entering the school should undertake to devote herself to district midwifery. Before leaving the Princess went through the Home, and visited the wards, which are quite ready for patients. The building consists of two houses, adapted by being thrown into one. The rooms are light and airy, simply fitted, and spotless with white paint and enamel. Each iron, white-painted lying-in bed has a swinging cot suspended between the foot posts.

British Medical Journal.

SATURDAY, MAY 20TH, 1905.

THE AIMS OF TROPICAL MEDICINE.

It is satisfactory to record that the banquet in aid of the funds of the London School of Tropical Medicine, which took place under the presidency of Mr. Chamberlain on May 10th, proved highly successful. The response to the appeal was sufficiently liberal to free the School from a debt of £6,000, and to place £4,000 to its credit. This is something, but it is not by any means all that is required to enable the School to fulfil its destiny as a nursery of scientific pioneers whose mission it is to make the tropics habitable by civilized man. For this it is estimated that £100,000 is needed, a mere trifle to the sums given for less useful purposes by American millionaires. In this, the richest city of the world, it is strange indeed that men have not yet been found to come forward to do so much needed a service to the Empire. Well may London envy Liverpool the liberality and energy of its citizens. The sum asked for is, as Mr. Chamberlain put it, a mere drop in the bucket in comparison with the Liverpool subscriptions. Every one interested in the development of science and the continued prosperity of our race must echo the wish expressed by him that the London School had a patron as energetic, as devoted, and we will add as munificent, as Sir Alfred Jones. May we say, too, that it is much to be desired that our millionaires had the statesmanlike largeness of view which made the late Secretary of State for the Colonies perceive the Imperial importance of the study of tropical disease, and act strenuously in accordance with his perception? Mr. Chamberlain declared that his interest in that great question is unexhausted and unabated; nor can he think of any subject of scientific research and philanthropic enterprise which is more interesting. Why? Because it is indissolubly bound up with a duty which we owe to the Empire. This duty has increased in recent years with the continual extension of our territory, with the increase of our scientific knowledge and our opportunity, and also with the awakening of our Imperial conscience. We owe this duty to the peoples for whose welfare we have made ourselves responsible, and we owe it still more to those of our own race who daily risk health and life to maintain the honour and the interests of their country. Mr. Chamberlain pointed, with a natural glow of patriotic pride, to the present condition of Egypt, of the Sudan, of Nigeria and of other territories under the sway of the British crown, and compared it with what had previously existed there. "Lives of Britons," he said, "have been lost there and considerable numbers of natives have been killed, but if we take every life lost in the whole series of those campaigns it would not approach to more than a fraction of the number of the native population that were destroyed every year before our advent." Nevertheless, a large tribute of blood is still claimed from us by the tropical regions which we are attempting to reclaim. The worst dangers which the men who do the work of the Empire in those regions have to meet are unknown forms of disease, and conditions of climate which have always been fatal to Europeans. The pioneers of civilization have suffered from ignorance of the new conditions which they have to face and from inability to deal with them. To dissipate this ignorance and to remove this inability is the object of what is from an Imperial point of view the most important, and from a scientific point of view a most interesting, development of medical science. Already science has shown the way to rid the world of malaria and yellow fever, but there are many other monsters for the extermination of which we wait the coming of a scientific Hercules. The school of tropical medicine is the cradle in which the young Hercules learns to strangle the snakes of disease.

The greatness and importance of the aims of tropical medicine were set forth by Sir Patrick Manson with the simple but convincing eloquence that comes naturally from the lips of one whose heart and soul are full of the subject on which he speaks. Unfortunately his words were lost to the greater part of his audience, including the reporters, and thus the public has been deprived of a unique opportunity of learning the true meaning and scope of scientific research as applied to tropical disease. He gave a lucid account of the work of the London School, with which his name is so honourably associated, and indicated several directions in which investigation is now being made. He also sketched a plan of systematic and co-ordinated research in tropical disease centres. This consists in the establishment of colonial research laboratories in parts where they would seem most likely to achieve profitable results. Already there are three such laboratories in existence—in Ceylon; at Kuala Lumpur, in the Federated Malay States; and in Hong Kong—each with its special director. Sir Patrick Manson suggests that there be one such laboratory for every group of Crown Colonies; the director would be in organic relationship with the London School, but would be given a more or less free hand to take up any special line of investigation on tropical diseases in general or on any peculiar local disease. The directors of these laboratories would be educated in their special work at the London School of Tropical Medicine. East Africa, Uganda, and British Central Africa might form one group, the West Coast of Africa another, the West Indies and British Guiana a third, Fiji and the Pacific Islands a fourth. Thus there would be in all seven research laboratories affiliated with the London School of Tropical Medicine. The scheme, which for the present is merely tentative, appears full of promise, but its success will in great measure depend on the results achieved by the three existing laboratories.

Sir Patrick Manson also laid stress on the importance of the education of natives in tropical hygiene. He suggested that simple tuition in the rudiments of the subject should be included in the curriculum of Colonial Government schools, so that when the child grows up he may be willing to submit to sanitary measures designed for his benefit and to co-operate in carrying them into effect. Without co-operation on the part of the native it is hopeless to try to get any scheme, however good, carried out in practice. A necessary preliminary is the preparation of suitable primers for the instruction of the school teachers, who would in turn teach the children.

In conclusion, we may be allowed once more to borrow

the words of Mr. Chamberlain by confessing that it seems to us, as to him, that there could not be a more desirable application of superfluous wealth than in enabling the London School of Tropical Medicine to unite the work of the investigator and the work of the physician, which is after all the ideal union between scientific inquiry and its practical application.

THE TREATMENT OF VENEREAL DISEASE AND SCABIES IN THE ARMY.

Impressed with the serious incidence of venereal disease in the army, the Advisory Board for Army Medical Services instituted an inquiry as to the efficacy and practical value of the various forms of treatment which, from time to time, have been suggested for the cure of these diseases. Two reports published this week are the outcome of these inquiries, and for the collection of much of the detailed information which they contain the Board appear to be mainly indebted to Major C. E. Pollock, R.A.M.C., a young officer specially detailed for the duty by the Director-General. The first report deals not only with the prevention and incidence of venereal diseases, but also with the more salient points in their treatment. The second report consists mainly of details of evidence given by a number of military and civil medical men in reply to a series of questions submitted by the Board as to methods of treatment.

The earlier pages of the first report are devoted to a review of the prevention and prophylaxis of venereal disease as practised in various European countries. In the United Kingdom legislation has been tried and abandoned; it is otherwise in France and Germany. If the incidence of venereal disease in various armies is any index of the value of legislative control over prostitution, the following figures as to admissions per 1,000 of strength during 1900 are interesting: German, 17.8; French, 37.2, Austrian, 59.8; Italian, 89.7; British, 93.4. The only British colonies in which any Contagious Diseases Acts are in force are Malta and Cape Colony; in both the incidence of all venereal diseases is relatively low. The report makes no suggestions as to disciplinary measures, though pointing out some of the main causes which, apart from legislation, have apparently tended to lessen the incidence of these diseases in some British garrisons; these, in brief, seem to be increased age and better education of the soldier, including, as this does, a fuller appreciation of the dangers and risks which he runs; to these must be added lectures on temperance and continence to the men, the fostering of games and athletics, a higher standard of comfort in barracks whereby men are less tempted to resort to low places of amusement, coupled—at least so far as concerns some foreign garrisons—with power to examine and detain those suspected of suffering from disease, power to remove brothels and prostitutes from the vicinity of barracks, and the enforcement of a closer system of military police.

The first report contains also a remarkably lucid summary of the most up-to-date knowledge concerning the therapeutics of syphilis, gonorrhoea, and all their common sequelae. The various methods of exhibiting mercury—such as by ingestion, inunction, or intramuscular injection—are all fully and critically discussed. The different suggestions for intramuscular injection come in for very careful analysis, as this method of treatment has been much practised in the army of late years. We unhesitatingly say that these sections of the report are a most valuable contribution to therapeutic literature, and are worthy of very careful study by every medical man. The same care and thoroughness characterize the chapters dealing with the treatment of gonorrhoea and the exhibition of the newer remedies in that affection, while, finally, the treatment of scabies is reviewed.

Appendices to this report contain statistical tables and charts illustrating the incidence of these diseases in various garrisons. Some of the facts collated are very striking, but that the wastage and loss of military efficiency from venereal affections is very real may be gathered from the statement that on the average of the last fifteen years, we have 1,340 men constantly sick with venereal disease in the United Kingdom, and that in India the number constantly sick from similar causes is 2,300. From the two great invaliding dépôts of Netley and Woolwich, the army has an average annual loss of 180 men due to these affections. The final appendix gives the recent instructions issued by the Director-General to his officers regarding procedure in cases of syphilis; from their systematic observance we anticipate not only the gradual collection of sound information as to treatment, but not a little improvement in the thoroughness with which men who have contracted the disease will be treated in the army before reverting to civil life.

The second report is practically a statement of evidence obtained from a number of military and civil members of the profession as to methods of treatment in both syphilis and gonorrhoea. We note here a unanimity of view that mercury should not be given to a patient suffering from a doubtful sore, but only when a definite opinion can be formed that it is syphilitic. The consensus of opinion appears to be that the administration of mercury should be continued two years at least. When we come to analyse the views entertained as to what particular preparations of mercury should be used and how it should be administered, we find a notable diversity of opinion. Broadly speaking, the weight of civil experience is in favour of ingestion or inunction; on the other hand, the military evidence shows a marked bias in favour of intramuscular injections, mainly on account of rapidity of action, the securing of definite dosage, the need of fewer attendances, less time in hospital, and, in hot climates, the obviation of those disturbances of the gastro-intestinal system so incidental to the oral administration of mercury. No hesitation is shown in testifying to the superiority of soluble over insoluble salts in intramuscular injections. As to gonorrhoea, the weight of evidence is distinctly against irrigation methods of treatment, while in respect of particular preparations there is no marked divisions of opinion between the civil and military experiences. We have been able to give no more than a bare summary of these reports, but sufficient has been said to indicate their scope and nature, and we congratulate the Director-General and the Advisory Board upon their issue.

[1] Advisory Board for Army Medical Services. The Treatment of Venereal Disease and Scabies in the Army. First Report and Second Report. London: Wyman and Sons; Edinburgh: Oliver and Boyd; and Dublin: E. Ponsonby. 1s 6d. and 2s, respectively.

GENITAL TUBERCULOSIS IN GYNAECOLOGY.

Few subjects have excited more interest during recent years than that of genital tuberculosis. Lesions which were not long ago regarded as rare are now known to be fairly frequent; primary tuberculosis of most of the genital organs, once looked upon as almost impossible, is now

admitted to be possible, although not frequent; tubal tuberculosis has been found to be commoner than that of the body of the uterus, while both are much commoner than vaginal, cervical, and ovarian tuberculosis, and tuberculosis of the vulva (lupus vulvae) is the rarest of all. The clinical facts of genital tuberculosis are now the common property of the medical profession and can be studied in recent textbooks of gynaecology or read at greater length in articles such as those of Whitridge Williams[1] and J. B. Murphy.[2]

When, however, we turn to the theories of the origin, mode of propagation, and pathogenetic relations of genital tuberculosis in women, we find many differences of opinion reflecting fairly accurately the absence of certain information on many matters of considerable importance. Is there, for instance, an ascending type of tuberculous infection of the female genitals resembling the ascending type of gonorrhoeal infection? Is tuberculous material deposited in the vagina in, say, the seminal fluid of a tuberculous man during coitus capable of causing tuberculous vaginitis and cervicitis, and of setting up tuberculous lesions in the uterus and Fallopian tubes by continuity of mucous surfaces or not? Can tuberculous material on instruments or from the patient's own faeces and urine invade the genital zone in this ascending fashion? Must abrasions or wounds of the vaginal mucous membrane be present before such infection can take place? Does tuberculous peritonitis cause tuberculous salpingitis, or vice versa? And so on and so on.

In order to settle these and other moot points, recourse has been had to experiments upon animals; and, again there has been a difference of opinion, Hanau, Cornil, Guzzoni, Acconci, Cornet, Popoff, Gorrovitz, Baumgarten, and Varaldo by no means agreeing as to several important questions, such as the necessity for wounds and abrasions in order to permit of infection. Recently, G. L. Basso,[3] working in Baumgarten's Pathological Institute at Tübingen, has made experiments upon 52 rabbits in order to try to settle some of the disputed questions. Six of the animals were used for preliminary experiments and 4 died from other causes, leaving 42, divided into six series. In the first series an emulsion of bacilli from bovine tuberculosis was injected into the upper part of the vagina (which corresponds, in the rabbit, to the uterus); in the second, the same material was injected into the lower part of the vagina; in the third, some finely-divided tubercle was placed in the vagina, which was then plugged with sterilized cotton; in the fourth, some of the emulsion was injected with a syringe into one of the uterine cornua, the abdomen having been previously opened; in the fifth series (consisting of 15 rabbits), a small tubercle was introduced into one cornu; and in the sixth series a tubercle was put in the pouch of Douglas, the abdomen having, of course, been previously opened in both the fifth and the sixth groups.

From these experiments Basso was able to reach certain conclusions which differed in several particulars from those obtained by others. He found, for instance, that tubercle bacilli injected into any part of the genital tract in rabbits were capable of setting up tuberculosis without preliminary lesions. He found also that injection or the simple introduction of tuberculous matter into the unwounded vagina caused a marked tuberculous vaginitis; in this conclusion he differed from Guzzoni, Popoff, and Gorrowitz. The appearance of tubercle in one cornu was never followed by the infection of the other.

The most important deduction that Basso drew from these experiments, however, was that the tubercle bacillus always followed the course of the genital secretions, and that tuberculosis, therefore, was propagated from above downwards. Further, he showed that the propagation took place along the surface epithelium, and that the internal layers of the various parts were always more gravely affected than the external. When once the process had been established, propagation by the lymphatics, and later by the blood stream, took place. Another conclusion of considerable importance was that infection of the tubes from the peritoneum seemed to be excluded. There seemed no tendency for urinary and genital tuberculosis to be combined. These experiments, then, so far as they go, seem to disprove an ascending type of tuberculous infection, and to favour the idea of infection at the point of contact (even if no previous lesion exist), with propagation downwards along the line of the passage of the genital secretions. They leave the frequency of tuberculosis of the tubes imperfectly accounted for.

[1] Williams, J. Whitridge, *Trans. Amer. Gynec. Soc.*, xvii, 409, 1892.
[2] Murphy, J. B., *Trans. Amer. Assoc. Obstet. and Gynec.*, xvi, 201, 1904.
[3] Basso, G. L., *Annali di ostet. e ginec.*, XXVII, 277, Marzo, 1905.

THE BRADFORD AND WEST RIDING MEDICO-ETHICAL UNION AND THE ASSOCIATION.

BY way of supplement to the remarks on local societies and the British Medical Association which appeared in the BRITISH MEDICAL JOURNAL on May 6th, we have pleasure in drawing attention to the recent meeting of the Bradford and West Riding Medico-Ethical Union. It was unanimously resolved to amalgamate the society with the Bradford Division of the Association, the books and records to be handed over to the Division and the funds (about £10) to be forwarded to its treasurer for special medico-ethical or medico-political purposes. The Bradford and West Riding Medico-Ethical Union has, with a slight variation in its title, existed in Bradford for nearly forty years. Most of the prominent medical men of Bradford have been members of this society. Its object was to promote the interests and maintain the honour of the medical profession and its members. Numerous medico-political questions have been discussed from time to time, and every endeavour made to get at the feelings of the profession, and then actively to promote its wishes through all channels. The profession generally is indebted to this society for numerous advantages which are now the common privileges of all. Bradford was one of the first places to consider the advantages to the profession to be gained by the amalgamation of the local societies with the local Division. The truth of the motto that "Unity is strength" was soon perceived, and it was felt that the profession could not exert the influence it ought to possess so long as three societies were maintained locally. But naturally societies with the traditions, the number of members, and length of existence of the Bradford ones do not immediately, or without prolonged consideration, give up their autonomy. This has been the case in Bradford. The question of amalgamation has been considered by a Committee representing the Division, the Medico-Chirurgical Society and the Medico-Ethical Union, and a correspondence has taken place between its Secretary and the Central Body of the Association on the various points raised. One of the stumbling-blocks to amalgamation has been the election of members. In a large city like Bradford it is felt that the election of members should be in the hands of the local Division, and not in those of the Branch. The local societies have of course always had the right of electing their own members, and naturally they were loth to part with it; but the members of the Medico-Ethical Union, at any rate, are hoping that a proposition of the Bradford Division on this question, to be discussed at

Leicester this year, may be adopted. We are informed that a resolution in favour of amalgamation with the Division will be proposed at the annual meeting of the Medico-Chirurgical Society in June. We hope that it may be adopted, and that the profession of Bradford may shortly, under the aegis of the British Medical Association, be able to carry on, more effectively even than was possible under the local societies, the scientific and medico-political work which is so necessary for the interests of the profession and the good of the public.

FRANCE AND BRITAIN.

Those who took part last week in the visit to the hospitals and laboratories of Paris will not only have learnt much, but will carry with them always a delightful memory of the charming welcome and generous hospitality received from the medical profession in Paris. Nothing which foresight could provide was wanting to make the visit both instructive and agreeable. The Assistance Publique, the department which manages the hospitals for the sick, and the asylums for the aged and infirm in body or mind, not only opened every one of the institutions under its control to the inspection of the visitors, but issued to every member of the party guide books which gave full information as to the situation, purpose, and medical staff. The physicians and surgeons vied with each other in placing their time and their information at the disposal of their visitors, and the three mornings of the visit were most profitably spent in studying the arrangements of the newer hospitals. Some of the hospitals are established in old buildings converted from other uses to their present purpose; others in temporary erections which, owing to that eternal want of pence which seems to plague hospitals all the world over, have been allowed to exist much longer than either the administration or the staff desire; others, again, are of the very newest pattern, and the British visitors were struck by the luxurious extent of the sites. The Boucicaut Hospital, for instance, which owes its existence and its name to the munificence of Mme. Boucicaut, consists of a series of separate one-story blocks each complete in itself, scattered through a large garden. One of the most interesting visits was to the Cochin Hospital; here again the site is very extensive, and it was possible to see side by side the new and the old. Professor Chauffard was able to show his brand-new service, a miniature hospital in itself, quite detached from the other services; built of red brick in one story, with white enamelled walls, with ample window space, and its own system of lighting and warming. Hard by was the service of M. Widal, an old wooden building shortly to be replaced by a brand-new brick hospital in miniature, like Professor Chauffard's. In the course of the next few years the Cochin will be entirely reconstructed, for the money—over £400,000 sterling—has been voted. The University of Paris, the Faculty of Medicine, and the Municipal Council all joined in the welcome extended to the British party, and the seal of official recognition was set when Professor Bouchard announced that the President of the French Republic had conferred the Legion of Honour on Sir William Broadbent, who headed the British party, which included also Sir William Macewen of Glasgow, Professor Clifford Allbutt, of Cambridge; Sir Charles Ball and Sir John Moore, of Dublin; Dr. Pye-Smith, Vice-Chancellor, and Dr. Fowler, Dean, of the Faculty of Medicine of the University of London; Sir Dyce Duckworth, Treasurer of the Royal College of Physicians of London; Mr. Mayo Robson, Vice-President of the Royal College of Surgeons of England; Professor Saundby, of Birmingham; and Professor Oliver, of Newcastle. Many references were made to the fact that English students attended the University of Paris in early days, and that for generations one of the component parts of that University was the "Nation d'Angleterre." Many Englishmen and Scotchmen graduated in medicine in Paris; Henry Blackwood, a Scotsman by birth, was Dean of the Faculty from 1590 to 1594, and his son was Regius Professor. The story is well told in a beautifully illustrated quarto pamphlet presented to every member of the party. Its author is M. G. Steinheil, and he has entitled his work *Notice Historique sur l'ancienne Faculté de Médecine et du Collège des Chirurgiens jurés de Paris rédigée à l'occasion de la visite rendue par les médecins Anglais à leurs confrères Parisiens les 10, 11, 12, et 13 Mai, 1905.* The perfection of the arrangements made by the Committee in Paris could only have been attained by careful preparation and unwearying attention to every detail. To M. Liard, the Rector of the University of Paris, to Professor Debove, the Dean of the Faculty, to Professor Bouchard, and to M. Brousse, the President of the Municipal Council, gratitude is due for the official distinction which their hospitality lent to the occasion, while to the Secretary of the Paris Committee, Dr. Triboulet, the best thanks that can be offered is the assurance that his unwearying efforts were crowned by the most unqualified success.

THE CONCENTRATION OF SCIENTIFIC TEACHING IN LONDON.

The question of concentrating the teaching of the preliminary and intermediate subjects of the medical curriculum in London in a few centres has long occupied the attention of those interested in medical education, as it has been felt that such an arrangement must necessarily result in greater efficiency in teaching and large economy in expenditure. It was suggested by Huxley thirty-five years ago, but till lately it was little more than a dream. Now at last it has come within the sphere of practical politics. An impetus to the movement was given by the recent report of the King Edward VII Hospital Fund Committee on the financial relationship between the hospitals and medical schools in London. It may be remembered that the opinion was therein expressed that a broad line of demarcation ought to be drawn between the preliminary and intermediate studies and the final studies of the medical curriculum, and that the earlier studies would more properly be pursued in an institution of a university character. It is with much pleasure that we are able to announce that a step in the direction of this desirable consummation has already been taken. The credit of being the first to take definite action belongs to Westminster Hospital Medical School, which has just completed negotiations for the transfer of the teaching of physics, chemistry, anatomy, physiology, and materia medica—in a word, the subjects of the preliminary and intermediate examinations—to King's College. Students will enter Westminster Hospital Medical School as heretofore; they will remain Westminster men, and will not become matriculated students of King's College, but they will be taught the earlier subjects of study at that institution. The scheme will come into effect at the commencement of the next winter session in October. At the same time, the Westminster School is thoroughly reorganizing the teaching of the subjects of the final examination. We understand that negotiations with a like object are in progress between certain other hospital schools and King's and University Colleges. There is good reason, therefore, to anticipate that there will be three centres in London where medical students can go through the purely scientific part of the curriculum—namely, King's College, University College, and the Institute of Medical Science of the University of London. Material difficulties still stand in the way of the completion and equipment of the third of these as a place of study, but it is to be hoped that before long they may be overcome. We welcome the beginning that has been made in carrying into effect the scheme of concentrating the teaching of the preliminary and intermediate subjects of the curriculum, as we think there can be no doubt that it will help to ensure for London that leading place in medical education which properly belongs to it as the greatest centre of population in the world.

MEDICAL EDUCATION IN LONDON.

The annual *conversazione* of the Medical Society of London was given by the President, Mr. John Langton, and the Council in the rooms of the Society in Chandos Street, Cavendish Square, on the evening of May 15th. After the

reception by the President the Fothergillian Medal was presented to Sir Frederick Treves, it being awarded to him for his great services to humanity in respect of abdominal surgery. Mr. Henry Morris then delivered the oration for the year on the financial relations existing between the London hospitals and the associated medical schools, and the bearing of these relations on medical education in London. Until the last decade, he said, the medical schools of London had been practically self-supporting, but the need for the teaching of recent extensions in science had made this impracticable under existing conditions. There were two schemes formulated to meet the difficulty, one a self-supporting amalgamation scheme to include the existing medical schools, and the other an appeal to the public for funds to be applied to medical education to be administered in relation with the University of London. In referring to the instruction of King Edward's Fund, based on the finding of its Medical Schools Committee, that beneficiaries under the fund should not apply hospital moneys to medical education, he maintained that there were good reasons why some part of the hospital's income should be devoted to the associated medical school, in view of the wishes of donors that as much good as possible should be done by means of their contributions. This idea, he held, would take in the matter of medical education, for the sick poor benefited by the training given in the schools, not merely within the walls of the hospitals, but even to a much greater extent outside. As Sir Arthur Rücker had said, the medical schools were an integral part of the machinery for helping the sick poor. Moreover, if the school fees were raised so as adequately to remunerate the teachers, rich men alone could afford to enter the profession; and as the supply of medical men would thereby be lessened it followed that the very poor would almost inevitably be to some extent neglected. He vigorously combated the idea that the hospitals, by providing the so-called clinical material, sufficiently requited the obligation to the schools; clinical material was not there to be bartered, but to be relieved and cured. It was to be hoped that those hospitals which suffered by the new regulation of King Edward's Fund, which was to come into force after the present year, would at once establish separate medical school funds. At the London Hospital a discretionary fund had already been thus instituted, to which during the first week of its existence the sum transferred by supporters of the hospital was more than twice the amount ever contributed to the school by the hospital. In reference to the proposed delegation of the teaching of pure science to an Institute of Medical Sciences, he maintained that the only teaching from which the medical schools should be relieved was that of physics, chemistry, and biology, and an examination on these subjects should be required to be passed before the five years' medical curriculum was commenced. Anatomy and physiology were the keystones of surgery and medicine, and, unlike some other subjects, should never be relegated to the limbo of the forgotten. It was demonstrated that the cost of teaching these subjects under the Institute of Medical Sciences scheme would be materially greater than under the present arrangements. Moreover, any system that kept the medical student out of hospital for three years out of the five was to be condemned. A more desirable plan in his view was the founding of an institute of medical sciences for research, whether in association with the University of London alone or with it in conjunction with the two Royal Colleges; by such a foundation opportunities would be afforded to those with aptitude for research to acquire skill and technique. A vote of thanks to the Orator was proposed by Sir Lauder Brunton, seconded by Mr. D. H. Goodsall, and heartily accorded.

THE ARMY MEDICAL COLLEGE.

HOMER sometimes nods, and our usually staid and weighty contemporary the *Standard* occasionally displays some of the volatility characteristic of more frivolous newspapers in dealing with medical matters. Last week it found and exhibited a fine specimen of a mare's nest. In its issue of May 9th, after making the somewhat superfluous statement that "in the past the authorities of the War Office have had to rely for their supply of medical officers for the army on men who have taken their diplomas in one or other of the great medical schools belonging to the various hospitals of the country," it went on gravely to inform its readers that "it is now hoped, however, that under a scheme just commenced the War Office will be able to provide their own specially-trained medical officers, and that thereby the expenditure on the medical department will be reduced and its efficiency increased." Then follows an account of the military medical school to be erected at Millbank. The account is correct enough as far as it goes, and the only criticism we should be disposed to make is that it is such very ancient history. But the theory that the Army Medical Service is henceforth to grow its own doctors is quite new and original. Our contemporary has either in the innocence of its heart been misled by some evil-disposed person "with intent to deceive"; or it has, with a perverse ingenuity of which we should hardly have thought it capable, misconstrued the plain facts of a very simple case. The College is of course intended solely for the special training of officers already in the service, not for the education of medical students. Funnier even than the slip of the *Standard* is the way in which its blunder is adopted—without acknowledgement—by the *Pall Mall Gazette*, which claims the information as "special," and announces it as "an important development," worthy of a prominent position and the glory of big headlines!

THE NEW SYDENHAM SOCIETY.

THE Council of the New Sydenham Society announces some important additions to the advantages which it offers to its members. In future all members, new as well as old, will, on payment of the year's subscription, be entitled to choose one volume from the surplus stock. This will be without further payment, and will be wholly additional to works issued for the year. Part of the Society's library has long been out of print; but there remains in hand a long series of works, many of them of great permanent value, from which selection can be made. Amongst these may be mentioned: Laveran's *Paludism and its Organism*; Pierrre Marie's *Diseases of the Spinal Cord*; Bernutz and Goupil's *Diseases of Women*; Trousseau's *Clinical Medicine*, vols. iii and iv: Niemeyer's *Lectures on Pulmonary Consumption*; Charcot's *Lectures*, several vols.; Billroth's *Surgical Pathology*, two vols.; Guttmann's *Manual of Practical Diagnosis*; Koch's *Wound Infection*; Hirsch's *Geographical and Historical Pathology*, three vols.; Graves's *Clinical Medicine*, two vols.; Henoch's *Diseases of Children*, two vols.; Ewald's *Disorders of Digestion*, two vols.; Pozzi's *Gynaecology*, three vols.; Helferich's *Fractures and Dislocations*; several volumes of selected *Clinical Lectures*; Spiegelberg's *Midwifery*, two vols.; Naunyn's *Cholelithiasis*, and others. If a subscriber wishes for a work of more than one volume, the payment of one or more subscriptions in advance will enable him to secure all at once. The Council proposes to keep back a small number of all volumes to meet future needs, and the advantages now offered will of course cease in the case of each work when the irrevocable minimum is reached. The number at present in hand varies greatly in different works, and as regards some of the most valued may soon be exhausted. Under another regulation the Council now allows members to select any seven of the Society's volumes for one guinea. In order to meet the increasing work of the office and to secure greater punctuality in the discharge of its duties, the Council has appointed Dr. Alfred E. Russell, of 9, Wimpole Street, Acting General Secretary, and to him all letters of inquiry should in future be addressed. Mr. Jonathan Hutchinson will for a time retain the position of Honorary General Secretary. The preparation of the Clinical Atlas remains in the hands of a large representative Committee, and the Society's agency is as heretofore at Messrs. Lewis, 136, Gower Street.

THE QUEEN'S JUBILEE HOSPITAL.

IN another part of this issue will be found a summary of a paper in which the authorities of the Queen's Jubilee Hospital, Earl's Court Road, have published the result of their study of the report upon their affairs which was supplied to them by the Executive Council of King Edward's Hospital Fund for London. The latter body, it will be remembered, consented to hold an inquiry into the conditions prevailing at the hospital in question, and an account of its conclusions and recommendations was given at page 918 in our issue for April 22nd. From the document which we now publish, it will be seen that the Board has failed to carry out the undertaking made on its behalf to the Commissioners to the effect that it would leave matters entirely in their hands and loyally comply with their recommendations. The value of those recommendations was that they were radical, and embodied the excellent principle of securing for the institution a period of entire freedom from the operation of all the influences which have damaged it in the past. The compromise which is suggested in no way fulfils this object, and the reference to a temporary suspension of the constitution is, under the circumstances, entirely meaningless. It would appear, therefore, that the authorities of the institution are impenitent. The only other remark we have to make is that we did not imagine that the reference of the Commissioners to the conduct of the present staff in accepting their appointments was open to the interpretation which the Board has chosen to put upon it, and it does not seem to us that the profession at large is likely to accept either that interpretation or the testimonial to the staff furnished by the Board of Management itself.

SCHOOL INSPECTION AND SCHOOL DISEASES.

DRS. W. J. HERDMAN AND J. H. MCBRIDE, in a report presented to a Committee appointed at the New Orleans Session of the American Medical Association, give an account of what has been done in the United States and in other countries in the way of school inspection and isolation of diseased children and of general sanitation of school buildings and the special care of backward children. They express approval of the thorough examinations made in the Chicago schools as the high-water mark in school inspection. They find that the work is satisfactorily done in a few places, though as yet inspection methods are far from complete in most communities, and in some have never been tried. The report recommends that the American Medical Association should urge complete and systematic medical inspection of schools and school children: "(1) In the interests of the public, since it is a potent means of detecting and preventing the spread of contagious and infectious diseases; (2) for the purpose of securing to the child, while in attendance at school, the most favourable hygienic and sanitary conditions; (3) for the purpose of securing exact knowledge regarding the physical and mental capacities of each child, in order that the methods of instruction may be intelligently directed to meet individual needs."

WORKING COLONIES FOR FEEBLE-MINDED CHILDREN.

AT a meeting of the managers of the Metropolitan Asylums Board District, held on May 13th, Mr. T. Connell brought up a report from the Children's Committee as to the age at which children should be transferred from the homes for the feeble-minded in London to the working colony in the country, which at present has a temporary local habitation in some of the cottages at High Wood School. The Local Government Board, in forwarding their Order, dated March 11th, 1903, which in effect authorized the managers to make provision for the care of the feeble-minded and physically infirm children received by them before the age of 16 years until such cases attained the age of 21 years, reminded the managers of the understanding arrived at in conference on this subject: that defective children maintained by the managers after attaining the age of 16 years should be placed in separate homes from those under that age. In accordance with this understanding no children had been removed to the working colony until they have reached the age of 16, and a number of boys and girls between the ages of 12 and 16 had necessarily been retained in the London homes. The experience of the managers with the feeble-minded, as well as with the best class of improveable imbeciles, had been that the kind of training given in school was suitable chiefly for younger children, and that if the best results were to be attained with the feeble-minded they should be trained in manual occupations from the earliest possible age. For such manual training there could not be nearly so much scope in the small London homes as in a working colony, where large numbers could be dealt with and a greater variety of occupations found for both sexes. For these reasons the Committee was strongly of opinion that the managers should be empowered to deal with the children on medical advice and remove them to the colony before the age of 16 in cases where the circumstances warranted such a step. It was therefore recommended that application should be made to the Local Government Board to withdraw the restriction under which feeble-minded children over 16 years of age are to be kept in homes separate from those under that age. The recommendation was adopted.

THE PLAGUE IN SOUTH AMERICA.

SINCE the year 1903, when the bubonic plague first made its appearance on the west coast of South America, it has never entirely disappeared. During this year there seems to have been a recrudescence, particularly in the southern part. In March it began in Mollando, the Port of Arequipa, Peru. In Lima one or more cases have been discovered daily. The type of the disease is comparatively mild, but should it get a footing in the interior, it would probably be more fatal than on the coast, as the hygienic habits of the population there are worse than those on the coast. The disease has made terrible ravages at Pisagua, Chile, where it broke out some weeks ago. It has practically depopulated the town. On April 25th it was reported that there were 103 cases of plague under treatment in Pisagua; the deaths numbered from 10 to 30 a day. The authorities were unable to enforce burials, and bodies were thrown into the streets. But little headway had been made in the fight with the disease, and it seems as though the entire population of that Chilian port might be exterminated by the plague. Many persons had been shot down by the soldiers on guard while attempting to escape from the stricken city. Pisagua is in direct railway communication with Iquique. On April 27th four cases of bubonic plague were reported in Iquique, and cases were also discovered in Chanaral. More recently plague has been declared to exist at Copiapo, in Chile. A dispatch of April 23rd states that there have been no further cases of plague in Valparaiso. On the following day it was reported that the disease was declining in the northern parts of Chile, and that it had completely disappeared from Valparaiso. The Government, aroused from inaction by the appearance of some cases in Santiago, the capital of Chile, ordered the daily disinfection of all the churches of that city. The infection of these cities in Chile has apparently been very rapid, as, according to reports received from there two months ago, there were then no cases of plague in Chile. Now so many places are infected that it is probable that there will be an outbreak of some magnitude. All along the coast small-pox is also uncommonly prevalent. In Valparaiso an unusual number of cases exists and many deaths have occurred.

THE ROYAL SANITARY INSTITUTE.

THE annual banquet of the Royal Sanitary Institute took place on May 12th at Prince's Restaurant, London, under the chairmanship of the Duke of Northumberland, the new President of the institution. It was not a very large assemblage as public dinners go, but, on the other hand, a glance round the tables was sufficient to show how well the Institute fulfils at least one of its functions—namely, that of bringing together within one fold representatives of many different professions and co-ordinating their work to the common purpose of studying the subject of hygiene

and promoting its practice. The majority of those present wore the medallion of membership of the Institute, and few of them were persons who are not recognized for their eminence in one or other of the lines of work which cross and recross the common ground of sanitation—those of medicine, engineering, architecture, analysis, and executive or administrative hygiene. Medicine was represented by Sir Douglas Powell, Sir George Hare Philipson, and Mr. Andrew Clark, Chairman of the Council of the British Medical Association; the navy by Director-General Mackay-Ellis; the Public Health service by Sir Shirley Murphy and many medical officers of health; architecture by Sir Aston Webb, R.A.; engineering by Sir Alexander Binnie; education by Sir Arthur Rücker; legislation by Sir Francis Sharp Powell and the Bishop of Hereford, and administration by Sir William Collins of the London County Council, and Mr. A. S. Scovell, Chairman of the Metropolitan Asylums Board. The toast list was long, but was worked through with commendable rapidity, the principal point brought out in the speeches being the fact that the Council has decided that the Institute must find itself larger quarters. In discussing this proposition and proposing the toast of "Prosperity to the Institute," the Duke of Northumberland briefly sketched the history of its thirty years' work. The attendances at the museum were excellent, and the lectures given had been attended last year by 36,000 people. The full membership of the Institute now reached 3,200, and the income £8,000. The time had arrived when the Institute must provide itself with quarters more in keeping with the magnitude and importance of the work and its objects. Colonel Notter, R.A.M.C., Chairman of the Council of the Institute, in his reply to the toast, gave a few more details of the scope and value of the Institute. A suitable site had been selected for a new building, and £10 000 collected towards its cost. A further sum of about £15,000 is required, and contributions are invited.

MEDICAL SUBJECTS IN THE LAY PRESS.

THE disadvantage of granting interviews on medical subjects to representatives of the lay press is well exemplified in an article which recently appeared in a Manchester paper. In this article, Dr. A. W. Martin, the Medical Officer of Health for Gorton, is credited with statements with regard to consumption and its prevention which tend to expose him to the ridicule of any of his professional colleagues who might take the statements literally, but which Dr. Martin would doubtless have modified considerably if he could have looked through the proofs before publication. From the article it would appear that Dr. Martin, after eighteen years' investigation, has discovered for himself what any textbook would have taught him in eighteen minutes, namely, that there are two factors—or, as he is made to call them, two separate and distinct diseases—concerned in the production of tuberculosis—the seed and the soil. So much influence is attributed to the soil that we are told "the problem of phthisis is therefore narrowed down to the determination of the phthisical constitution, and the tubercle bacilli may be ignored altogether." We might expect to hear later that Dr. Martin had at length discovered that for the satisfactory cultivation of the chrysanthemum we require suitable soil as well as proper seeds, and that the soil is so important that the seeds may be left out. The interviewer attributes to Dr. Martin the opinion that the special factor in the production of the all-important phthisical constitution is the deficiency of fat in the dietary. This begins in infancy in the families of phthisical parents, in spite of the fact that the diet of infants consists entirely of milk. Incidentally we may point out that the inhabitants of the arctic regions are not supposed to err in the direction of deficiency of fat in their dietary, yet they are by no means exempt from phthisis. Dr. Martin evidently took some trouble to give the reporter information on the salient points of our present knowledge of the causation of tuberculosis. In return for his well-intentioned effort to instruct the public through the lay press he is credited with "discoveries" which must have surprised him as much as they will others who, like himself, have studied the causation of tuberculosis.

THE CENTENARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE centenary of the Royal Medical and Chirurgical Society will be celebrated next week. The centenary day is Monday, when at 5 p.m. the President will receive the Honorary Fellows and Fellows at the Society's house, 20, Hanover Square; he will deliver a short congratulatory address and admit the new Honorary Fellows. The centenary banquet will take place the same evening at the Hôtel Cecil, when the Prince of Wales will sign the Roll of the Society at 7.45 p.m., and will be admitted an Honorary Fellow. On Tuesday, at 8.30 p.m., Dr. Henry Head, F.R.S., Marshall Hall Prizeman, will deliver a special address on the afferent nerves under a new aspect. The conclusions which will be expressed in this address are drawn from investigations carried out in conjunction with Dr. Rivers of Cambridge, and Mr. James Sherren, F.R.C.S. On Wednesday there will be a *conversazione* in the Natural History Museum, Cromwell Road. A small historical exhibition has been formed, and will be opened for inspection in the Society's rooms on Monday, Tuesday, Wednesday, and Thursday between 11 a.m. and 6.30 p.m.

MEDICAL ETIQUETTE.

WE have previously protested against the practice of the lay press in publishing under the title of "Medical Etiquette" statements which seriously misrepresent professional opinion. In a recent number a correspondent put the case of a medical practitioner attending a signalman who was suffering from aortic disease and might die suddenly, and asked whether he ought to write to inform the railway company of the dangerous condition of their employé as he refused to give up his occupation? The answer given was that a medical practitioner is not justified in violating professional secrecy by informing the company without the consent of the patient; that it is the company's duty to secure the safety of the public by submitting men who are engaged in such occupations to periodical medical examinations, and that the practitioner could refuse to give the man a certificate of his ability to resume work. Yet our contemporary, the *Daily Mirror*, under the heading "A Question of Etiquette," represents us as willing to sacrifice the "security of thousands of passengers" to a point of medical etiquette. The want of responsibility in the lay press at the present time is a most serious evil; the sole object of the modern journalist appears to be to arouse attention, and so long as he attains this object he seems perfectly indifferent about the truthfulness of his statements.

CONTRACT PRACTICE IN SOUTH AFRICA.

WE are glad to hear that the medical profession in Pretoria is united in wishing to prevent the introduction of the club system into that city, but we are informed that an attempt is likely to be made to import a medical practitioner from England to take up the work. We are therefore giving publicity to the matter in order that no one may accept such an appointment in ignorance of the fact that by doing so he will be acting in opposition to the wishes of the local medical profession, and may find himself in an exceedingly unpleasant position.

THE PRESCRIPTION OF ALCOHOL.

THE time-honoured privilege by which the Scottish public could have intoxicating liquors supplied at illegal hours if a medical man's prescription could be got, has been threatened by the probably inadvertent use of the term "medical official" in the saving clause of the Licensing (Scotland) Act, 1903. To make the matter clear Mr. R. Wallace, M.P., at the instance of the Scottish Committee of the British Medical Association, asked the Lord Advocate whether he would give instructions to Procurators

Fiscal that the term "medical official" should be held to mean "registered medical practitioner." As the answer to the question was in the negative the medical practitioner who has no official position will be reduced to the necessity of writing a prescription for spiritus vini gallici *B.P.*, or even dispensing it under his own label instead of issuing a signed order to the publican. It might be an advantage to the public if this professional form were given to all medical orders for alcohol and not only to those arising in emergencies when the public-house is closed.

COLERIDGIUS BOMBITANS IN VACUO.

WE scarcely like to call the Honourable Stephen Coleridge a chimera; he would say we were "scurrilous" and would flaunt the name as an added thorn in the crown of martyrdom which he wears with such ostentatious meekness. Nevertheless, his speech at the annual meeting of the National Antivivisection Society, a brief report of which appeared in our last issue, recalls to our mind the scholastic problem, *Utrum chimaera bombitans in vacuo possit comedere secundas intentiones.* On that occasion Mr. Coleridge came near to solving that famous riddle, for he had an audience of such an intellectual temper that it could be truly said that he buzzed *in vacuo*, and the void is made the more perceptible by the fact that only one or two newspapers of any importance have given more than a few lines to a report of his buzzings. If he did not actually eat his intentions, at any rate there was a very distinct mitigation of the truculence with which he has been wont to express them. Over all the proceedings, indeed, the chastening influence of defeat hung like a wet blanket. Mr. Coleridge's speech consisted mainly of moral platitudes and the arithmetical exercises on the Registrar-General's reports with which he amuses the leisure left him by the discharge of the onerous duties of his legal appointment. He complained, too, more in sorrow than in anger, that Lord Rothschild had accused him of ignoring the benefits which a hospital derives from a medical school! Lord Llangattock, who only a short time ago eulogized Mr. Coleridge as one who had never made an inaccurate statement, almost damned him with faint praise. It is only fair to say, however, that this noble "torturer" of pheasants struck the only new note in the monotonous repetition of a too-familiar strain. He went out of his way to express "respect, regard, and admiration" for the medical profession. It is not, he declared, the 40,000 medical men whom he and his Society oppose, but the 340 vivisectors. Doubtless the vivisectors care as little for their opposition as the medical profession does for their respect and admiration. Lord Llangattock and Mr. Coleridge are in fact extinct volcanoes, and Mr. Christie Murray, the new one from whose eruption some effect was probably expected, proved but a sputtering fusee. Of course, as long as a sufficient number of sentimental old women of both sexes can be gathered together to hear Mr. Coleridge buzz, his occupation will not be wholly gone. But already he is like wisdom which cries out in the streets, for no man regards him.

THE NEW SPANISH MINISTER OF PUBLIC INSTRUCTION.

PROFESSOR CORTEZO, of Madrid, has been entertained by more than 200 of his brethren of the medical profession at a festival banquet in honour of his recent appointment to the office of Minister of Public Instruction. More than 300 congratulatory telegrams from local committees representing some 6,000 practitioners in all the provinces of Spain were received. Professor Calleja, Dean of the Medical Faculty of the University of Madrid, who presided, delivered an eloquent speech in praise of Dr. Cortezo, and was followed by Dr. Canalejas, President of the Association of Poor-law Medical Officers, who said he spoke in the name of more than 10,000 obscure humble doctors, true heroes waging unceasing war against popular prejudice and superstition. Dr. Cortezo, in a brief reply, said he had always been more a doctor than a politician, and his heart would always be with his profession, whose interests he would ever strive to promote.

A CURE FOR THE "ITIS."

WE remember how after submitting to the ministrations of a barber the artist pressed upon us the use of a powder which he said "allayed the face." We were young and foolish enough to be rather nettled that it should be thought that our countenance required to be "allayed" as if it were an irritation. Now, however, the "allaying" treatment appears to be a part of the higher, or at least the most highly-vaunted, therapeutics. An ingenious American recommends the "nerve-food cure" for cerebro-spinal meningitis. It is said "to allay the 'itis' in the cerebro-spinal system almost as soon as applied, and to cure by attracting oxygen from the air and feeding it to the nerves." There is a large field for such a remedy, as there are countless forms of "itis" that urgently call for something to "allay" them. Chief among them we should place the rascal-itis which leads men to sell, and the tomfool-itis which makes others buy, quack medicines.

POST-GRADUATE STUDY AT OXFORD.

UNDER the heading of Universities and Colleges we publish this week some particulars with regard to a post-graduate course in ophthalmology at the University of Oxford, arranged by Mr. R. W. Doyne, the Reader in that subject. The course has been very carefully arranged, and will be very comprehensive. It will extend over two weeks, the first being devoted to preliminary lectures and demonstrations, during which the members will have an opportunity of becoming familiar with the mode of examination of eye patients, the use of the ophthalmoscope, and the modes of estimating refraction. In the second week a number of distinguished physicians and ophthalmologists have undertaken to give special lectures on subjects to which they have given individual attention. It is exceedingly satisfactory to find the University of Oxford organizing a course of this kind, and we hope that the applications to join it will be sufficiently numerous to encourage its repetition at some future date.

PROFESSOR SAUNDBY, of Birmingham, has been elected Consulting Physician to the West Bromwich District Hospital.

THE King has been pleased to nominate Mr. William Henry Power, C.B., F.R.S., to be, for a further period of five years, from May 15th, 1905, a member of the General Council of Medical Education and Registration of the United Kingdom.

THE annual dinner of the Epidemiological Society will be held at the Grand Hotel, Trafalgar Square, on Friday, June 30th, at 7.15 p.m., when the chair will be taken by the President, Dr. B. A. Whitelegge, C.B., F.R.C.P., H.M. Chief Inspector of Factories. Application for tickets—10s. 6d. without and 21s. with wine—should be made to the Honorary Secretaries, Drs. H. Timbrell Bulstrode and W. H. Hamer.

THE SUPPLEMENT for this week contains reports of the proceedings of Branches and Divisions, as well as the programme of the annual meeting of the Association to be held at Leicester next July. There is also published a list of books presented recently to the Library of the Association, notices as to vacant scholarships, vital statistics, service notices, lists of medical vacancies and appointments, the diary, and the Association calendar.

WE are asked to state that the next general meeting of the Association of Medical Diplomates of Scotland will be held at 11, Chandos Street, Cavendish Square, London, W., at 8.30 p.m., on Wednesday, May 24th, 1905. Clinical cases, illustrating all phases of rheumatism, will be shown. A short discussion will also be held, and a petition will be drawn up to the Royal College of Surgeons of Edinburgh to consider the advisability of changing the title of Licentiate into that of Member, so as to come into line with the M.R.C.S. of the English College of Surgeons.

MEDICAL NOTES IN PARLIAMENT.

[BY OUR LOBBY CORRESPONDENTS.]

Plague in India and the Punjab.—In answer to a question by Sir Walter Foster on Friday in last week, Mr. Brodrick stated that the deaths from plague in India were, for January, 126,526; February, 126 041; and for the four weeks ending April 1st, 199,221. The deaths in the Punjab for the month of January were 29,009; for February, 31,779; and for the four weeks ending April 1st, 60,046. The four weeks ending April 1st were given, as the return for the calendar month of March had not yet been received from India.

Vivisection.—The Dogs Protection Bill, which seeks to protect dogs from being used for vivisection has been supported by several enormous petitions during the session. Last Thursday week Mr. Ellis Griffiths, who is in charge of the Bill, presented a petition which he stated contained 180,000 signatures, and was two and a half miles long! It weighed about a hundredweight, and so it was brought to the table in two enormous brown paper parcels by the hon. member and Mr. Swift MacNeill. The Dogs Bill is put down for second reading from night to night, but even if by any chance it obtained a second reading after midnight before Whitsuntide, its chances of success this session would be small.

The Public Health Acts (Amendment) Bill.—There was an interesting discussion in the Lords last week on the second reading of this Bill. Lord Hylton explained that the objects of the Bill were to exempt buildings sufficiently isolated, from building by-laws, to render exempted buildings subject to sanitary by-laws, to give the Local Government Board power, on the representation of ratepayers, to disallow by-laws where they were unsuited to local public needs. The Bill, he said, had not been instigated by Mr. Justice Grantham's case, for it had been printed before that case came on, but was an attempt to meet the difficulty of rural housing caused by restrictive by-laws, which increased the cost of providing cottages and were often unsuited to the district. Lord Zouche supported the second reading, and Lord Wolverton on behalf of the Local Government Board gave it a sympathetic reception. He, however, took some exception to Clause 5, which gave the ratepayers power to appeal to the Local Government Board against the by-laws of the local authority. Lord Tweedmouth agreed that every facility should be given to encourage building of good and cheap cottages, but there were parts of the Bill which went rather far, and would require consideration. Lord Lansdowne, on behalf of the Government, said the matter required to be handled with very great caution. It was a well-meant measure, but the Government desired to guard themselves against accepting all its provisions. Clause 5 would impose an extremely difficult and laborious duty on the Local Government Board, and Clause 2 required consideration by a Select Committee with the object of defining how far isolated buildings should be exempted from by-laws. He understood the promoters wished to steer a prudent course between the pretensions of the jerry-builder on the one hand, and pedants in architecture and building on the other. The Bill was then read a second time and referred to a Select Committee.

Nuns as Nurses.—Mr. Sloan asked the Chief Secretary to the Lord Lieutenant of Ireland last week how many nuns were acting as paid nurses in the Ballyshannon Union, co. Donegal; was he aware that one of the nuns who was in charge left off duty on February 14th last and had not returned since; and, if so, would he say if she had sent in her resignation, and, if so, on what date; who was the nurse in charge at present; and on what date was she appointed? Mr. Long replied that three nuns were employed as paid nurses in the infirmary of the Ballyshannon workhouse. The Local Government Board had no information to show that one of these nuns had vacated her position, either temporarily or permanently. The fever hospital nurse obtained a week's leave of absence at the date mentioned, but she was not a nun.

The Water Supply in Lewis.—Last week the Lord Advocate admitted, in answer to a question by Mr. Weir, that there were 22 schools in the Island of Lewis in which the water supply was defective.

The Post Office and Medical Certificates.—Sir Walter Foster asked the Postmaster-General last Monday whether he was aware that a telegraphist, named Bullamore, who was absent from duty at the Central Office from April 12th to May 4th, had had his pay stopped for this period; and whether, seeing that the telegraphist provided medical certificates showing that the absence during the whole of this period was due to illness, he would explain the reason for punishing the telegraphist for obeying the injunctions of his medical advisers, as well as for his decision to set aside the expressed opinions of two medical men. Lord Stanley answered that Mr. Bullamore had been examined by the Chief Medical Officer of the Post Office as well as by the Medical Referee to the Treasury, and both gentlemen were of opinion that he was and is fit for work and that he would not be injured by it. This opinion was not concurred in by the private practitioners whom Mr. Bullamore had consulted, but he was not prepared to set it aside for that reason. Mr. Bullamore was informed in March last that pay could not be allowed in respect of further sick absences except upon the recommendation of the official medical advisers.

Anthrax at Wellingborough.—On Monday Mr. Channing asked the Secretary of State for the Home Department whether he had received a report from either or both the local medical inspectors under the Factory and Workshop Act as to the fatal case of anthrax at Wellingborough to a shoe hand named Albert Jones; whether such report, if any, indicated any special point on which further regulations would be made to better secure the safety of those who had to handle leather; and if no such report had been received, whether he would cause a special inquiry to be held into the circumstances attending the death of Albert Jones, and take any further steps necessary to ensure greater safety in this class of work. Mr. Secretary Akers-Douglas replied that the fatal case of anthrax in a boot and shoe factory to which the hon. member referred had been the subject of careful investigation. It was impossible to trace with certainty the cause of infection; but it seemed probable that the disease might have been contracted from spores of anthrax in the leather, which had retained their vitality through all the tanning processes. As no raw hides or skins were used in the factory in question, no special rules or regulations under the Factory Act applied to it; and in view of the extreme rarity of such cases as the present one, and of the doubt as to the source of the infection, no case was yet made out for any special action.

Deaf and Dumb Lunatics and Paupers in Ireland.—On Monday last, in answer to Mr. O'Mara, the Chief Secretary stated that per 10,000 of the population in Ireland there were indoor ordinary paupers, 90.2; lunatics and epileptics, 8.8, in externe institutions deaf and dumb 1.0; blind, imbecile, and other persons sent to hospitals for special treatment, 1.4; outdoor paupers, 133 7; receiving special relief, 27.9; making a total of 263.0 per 10 000 of the population. The number per 10,000 of the population of deaf and dumb persons in special institutions for such persons on Census night, 1901 (the latest date for which figures were available), was 1 2. The similar proportion of lunatics supported in public institutions (including those in workhouses as above mentioned) on January 1st, 1904, the latest date for which figures were available, was 49.6. The numbers of births, deaths, and marriages per 10,000 of the estimated population for the year 1904 were:

Births	236
Deaths	181
Marriages	52

The Irish Poor-law Medical Service.—Dr. Thompson asked the Chief Secretary to the Lord Lieutenant of Ireland if his attention had been drawn to the recent report of Surgeon-General Evatt as to the condition of the Irish Poor-law Medical Service, and if he would grant a small committee to consider the grievances complained of. Mr. Long replied that he had nothing to add to the reply given by his right hon. friend the member for Dover to the similar question addressed to him on April 29th, 1904, which was to the effect that the recommendations in the report, even if practicable, were very costly. The views of the Local Government Board had been set out in its annual report, and it was not considered that any new facts would be ascertained by an investigation.

Unregistered Dentists.—On Tuesday Mr. Arthur Henderson asked the Secretary of State for the Home Department if his attention had been called to the death of a young woman at Carlisle whilst having teeth extracted by an unregistered dentist; and whether, in view of the frequency of deaths from anaesthetics administered by unqualified dentists, he would consider the advisability of promoting legislation for the protection of the public. Mr. Secretary Akers-Douglas said that the rider to the verdict of the jury was communicated to him by the coroner. He was sorry that he could not add anything to his previous answer about legislation. The matter was under the consideration of the Privy Council Office, who would have full information before them.

The Youghal Auxiliary Asylum.—Mr. Sloan asked the Chief Secretary to the Lord Lieutenant of Ireland on Tuesday if, in view of the fact that appointments to the office of visiting physician to Irish lunatic asylums had been abolished, he would explain how the Lord-Lieutenant had been able to sanction the appointment of a visiting physician to the Youghal Auxiliary Asylum. Mr. Long replied that the appointment of visiting physician had been abolished prior to the passing of the Local Government Act, 1898, but Section LXXXIV, 1*b*, of the Act empowered the Asylum Committee to appoint an assistant medical officer, who was under the control of the Resident Superintendent. This was the appointment which the Lord-Lieutenant had sanctioned. In reply to a second question the Chief Secretary admitted that the house built for the Medical Superintendent of this Asylum was occupied by the Roman Catholic chaplain. There was, he said, no legal provision which required that the sanction of the Inspectors of Lunacy should be obtained in such a matter.

Civilian Surgeons as a Reserve.—On Tuesday Dr. Thompson asked the Secretary of State for War if it was his intention to form a reserve of civilian surgeons in connexion with the Royal Army Medical Corps, in view of the experiences gained in the South African war. Mr. Arnold Forster replied that the subject was having consideration.

Scotland.

Outbreak of Bubonic Plague at Leith.

On Friday, May 5th, a labourer was admitted to the Leith Fever Hospital, said to be suffering from enteric fever. On Sunday, May 7th, the symptoms seemed rather to point to typhus fever, and he was treated with abundance of fresh air. On Tuesday, May 9th, a swelling was found in the left groin. Some fluid removed from this swelling by aspiration showed on bacteriological examination plague bacilli. This was verified by Dr. Buchanan of Glasgow and other observers. On Monday, May 8th, a girl of 3 years of age, the daughter of the labourer above referred to, was also sent into hospital, said to be suffering from enteric fever. This child had sickened on Saturday, May 6th. On admission, she had a swelling in the left groin, and other marked symptoms of bubonic plague. On Wednesday, May 10th, the mother and another child, a son of 6 years of age, were admitted, obviously showing plague symptoms. The boy had a swelling on the left side of the neck of long standing, but this swelling had become more acute at the time of admission, and he had other signs of the disease.

Source of Infection.

This is uncertain. On the whole, the probability is that rats are the real source. The labourer worked on the new tramway lines. His wife worked in a large rag store in Leith, and it is said that before she sickened she alleged that she saw two dead rats on the bench at which she worked. However that may be, it has to be noted that her work was confined to dealing with clean rags only.

The infected area is within a hundred yards of the water of Leith, and is well known to be infested with rats; and although the particular tenement involved in the outbreak of plague has been recently built, most of the houses within the area are among the oldest in Leith. Recently an increased trade has been developed between Leith and Eastern ports, but no case of plague, or suspected plague, has occurred on any ship coming from such ports; but there is at least the opportunity for importation of rats. There is regular bi-weekly traffic between Hamburg and Leith; and this, again, is a possible source.

Type of the Disease.

All four cases are of the bubonic variety. The most typical case was that of the man. He was well and at work one day, and on the next he was unable to go out on account of headache, vomiting, and general weakness, with a temperature of 103° F. He died on the sixth day of the disease. The *post-mortem* examination, and the subsequent bacteriological investigation of glands and other organs entirely confirmed the diagnosis. The girl of 3 had a high temperature, furred tongue, loss of appetite, and glandular swelling in the groin. The mother had high temperature, and pain in the groin, with consequent inability to put her foot to the ground. She thought she had given herself a wrench. The boy had no constitutional symptoms at the time of discovery. Indeed he was running about.

Contacts.

Twenty-five contacts were immediately isolated in the reception house, and several cases have been removed since. No case of plague has been found among them after the lapse of six days.

Rats and the Disease.

There has been no unusual mortality among rats or mice recently. Ratcatchers have been active ever since the discovery of the cases, but only negative results have been got from the examination of the destroyed rats.

Precautionary Measures Adopted.

All infected or suspected clothes have been burned. The tenement in which the disease appeared was first disinfected by sulphur to kill fleas, etc., and then sprayed with a solution of formalin. Plague has been made a notifiable disease. The local shipowners have been warned of the existence of plague, and have been advised to withdraw all gangways at night, and to place tin fenders on the mooring ropes to prevent the passage of rats. It appears there have been doubts as to the legality of removing gangways at night, but in face of the public danger this has meanwhile been got over. In addition to an Assistant Medical Officer of Health already resident, two others have been appointed to devote their whole time to plague. One of these gentlemen gives his entire attention to shipping, both outgoing and incoming, with a view to the destruction of rats, examination of crews, and granting of certificates of clean bills of health. The other confines himself to house-to-house visitation in the infected area. Medical practitioners have been notified of the existence of the disease.

Notification to Foreign Governments.

The Local Government Board for Scotland have reported the occurrence of plague at Leith to the Foreign Office, for the information of the signatories to the International Sanitary Convention of Paris, 1903. Under this Convention the immediate notification to foreign governments is obligatory. Further, when several non-imported cases of plague have occurred the area must be declared infected. This would not apply if only one case occurred, either imported or non-imported. In the present instance the cases were considered non-imported. By Article 9 of the Convention the local area shall cease to be regarded as infected when it is officially established that:

1. No death from nor fresh case of plague has occurred within the five days following either the isolation or the death or recovery of the last case.

2. That all measures of disinfection have been carried out, and that measures have been taken against rats.

These conditions having now been fulfilled, the Local Government Board for Scotland has issued the following order:

Outbreak of Plague at Leith.

The Local Government Board for Scotland have this 16th day of May, 1905, received a Medical Certificate signed by Dr. Robertson, Medical Officer of Health of Leith, officially establishing (1) that, with the exception of the death of the first case of plague—namely, John Hughes, who died in the Isolation Hospital, East Pilton, on 11th May, 1905—no death from nor fresh case of plague has occurred within the five days following the isolation, on 10th May, of Mrs. Hughes, being the last case of plague that has occurred; (2) that all measures of disinfection have been carried out; and (3) that measures have been taken against rats. The Local Government Board, accordingly, in terms of the International Sanitary Convention of Paris of 1903, hereby intimate that the Port and Burgh of Leith shall now cease to be regarded as infected with Plague.

Local Government Board,
Edinburgh, 16th May, 1905.

It should be added that some three years ago the Board issued a circular on the destruction of rats, and the Leith public health authorities have issued a further circular on the same subject, as well as a circular to shipping agents as to prevention of plague in terms of the Paris Convention.

GARIOCH AND NORTHERN MEDICAL ASSOCIATION.

The summer meeting of this Society was held at Inverurie on May 13th. The President, Professor Finlay (Aberdeen), occupied the chair, and there was a large attendance of members. Dr. William Cockburn (Old Meldrum) was admitted a member of the Society, and Dr. David Rorie (Cults), and Dr. John Levack (Medical Electrician, Aberdeen Royal Infirmary) were nominated for membership. The business was purely formal, and thereafter the members dined together, and with song and story—for which the "Garie" is famous—an enjoyable social hour was spent.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

The last meeting for the session was held in the Society's rooms on the evening of May 4th, Dr. George Rose presiding. The proceedings took the form of a pathological night. Specimens were shown by Professor Stephenson—ovaries and tubes recently removed in his wards; Dr. George Duncan, Assistant Pathologist, Royal Infirmary: Hypernephroma and sections of various tumours; Mr. Scott Riddell: Ectopic gestation, various prostates; Professor Finlay: Aortic aneurysm ruptured into oesophagus; Mr. Marnoch: Ovaries and tubes, appendices, stomach, operated on for perforated gastric ulcer from a woman who died one month after operation, no assignable cause of death being found; myoma uteri, sarcoma of thyroid, prostates, one weighing 4½ oz. from a case in which double vasectomy had been done three years before without result; pyonephrosis, tumour of thyroid, primary tuberculous disease of mammae; Dr. John Levack: A series of skiagraphs—spinal caries, sarcoma of humerus, sarcoma of femur with spontaneous fracture, etc; Dr. Fortescue: Series of skiagraphs illustrating various elbow injuries in children; Mr. Gray: Large cerebral tumour, sarcoma, hypernephroma, tuberculous pyonephrosis in which no pus appeared in urine, annular malignant stricture of small intestine, causing obstructive symptoms, sarcoma of shaft of humerus, etc.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The summer meeting is to be held this year at Newburgh next month. Arrangements for the meeting are now in progress, and it is expected that there will be a large attendance of members. After the meeting, members will dine together at the Udny Arms Hotel.

A WINDFALL FOR EDUCATION AND CHARITY.

A number of educational and charitable institutions in and around Glasgow benefit largely by the will of the late Mr. James Donald, of the firm of George Miller and Co., manufacturing chemists, which has now been proved. The Royal Infirmary, the Victoria Infirmary, and the Western Infirmary, all in Glasgow, each receive a sum of £3,000, free of legacy duty. Two other sums of £3,000 go to two societies for the benefit of old men and women, and a third sum of the same amount is left for distribution among charities at the discretion of the executors. A final £3,000 is directed to be paid to the District Committee of the County Council for the Middle Ward of Lanarkshire to be applied either to the upkeep of Bothwell Park or to some general improvement for the benefit of Bothwell. The Corporation of Glasgow receives a collection of pictures value at £45,000. The principal beneficiary, however, is the Glasgow and West of Scotland Technical College; this, in addition to being made residuary legatee, receives a specific bequest of £20,000, which is to be devoted towards supplying a sound education in practical chemistry and in practical mechanics.

BELVIDERE FEVER AND SMALL-POX HOSPITALS (GLASGOW).

Dr. John Brownlee, the Physician-Superintendent of the Belvidere Fever and Small-pox Hospitals, has issued his annual report for the year ending May 31st, 1904, and as usual it gives indication that the work is done in a thoroughly scientific spirit. In addition to the ordinary statistical information the report contains notes on (*a*) complications of enteric fever, scarlet fever, and diphtheria; (*b*) the birthplaces of patients suffering from measles and scarlet fever; (*c*) the absence of evidence of the spread of scarlet fever by schools in Glasgow; and (*d*) the leucocytosis of typhus fever as an aid in diagnosis—the last-named note being by Dr. Andrew Love.

With regard to the birthplaces of cases of measles and scarlet-fever patients, a large proportion of those at the higher ages are of country extraction. Tables are given relating to 1,245 cases of measles and 2,360 of scarlet fever at different age periods, and classified according to birth in Glasgow, birth in other towns, and birth in country villages or in the actual country. For measles the conclusions to which Dr. Brownlee arrives are, that of the native population of Glasgow all who reach the age of 20 years have already acquired immunity by passing through the disease, or are constitutionally insusceptible. Of those who come from other towns the proportion of cases at the higher ages is somewhat larger. Among immigrants from the country more than twice as many cases occur after the age of 10 years than before it, and of 102 such cases 42 were between 20 and 25 years. In scarlet fever, taking the total figures independently of birthplace, there is no fall in the numbers at the age of 10 to 15 years, but on analysis country extraction seems to be a potent factor in increasing the number at the higher ages. Up to 10 years of age cases of country extraction are only 4 per cent. of the native-born; from 10 to 15 years they are 13 per cent.; from 15 to 20 years, 36 per cent.; from 20 to 25 years, 80 per cent.; and above 25 years, 126 per cent. In both diseases the period at which the greatest number of country-born persons are attacked is between 20 and 25 years, though the proportion in scarlet fever is not nearly so great as in measles.

Regarding the absence of evidence of the spread of scarlet fever by schools, Dr. Brownlee's results differ from those of Dr. Whitelegge in Nottingham. Saturday and Sunday are the two days each week in which direct contact of children is minimized, but on noting the number of children sickening with scarlet fever on each of the seven days of the week Dr. Brownlee finds no indication that fewer children have been infected on Saturday and Sunday than on other days. It was in 1874 that Dr. Russell began to enforce isolation of scarlet fever, and to prevent school attendance from infected families, yet while in the years 1866 to 1874 the age period 5 to 15 years furnished 33 per cent. of all scarlet fever cases, in the period 1875 to 1882 it furnished no less than 35.5 per cent. These figures indicate no benefit from the precautions taken with regard to school attendance. A consideration which is probably pertinent, however, appears to have been left out of sight in making the comparison. The Compulsory Education Act of 1872 must have made a great difference in the percentage of children attending school. In the absence of the administrative measures adopted in 1874, this additional school attendance might have increased the share of scarlet fever borne by children of school age had the one new influence not been counteracted by the other. The point is at least worth investigation before the conclusion to which the figures would appear to lead can be duly discussed.

Dr. Love's note on leucocytosis in the diagnosis of typhus fever is of much interest, and it is satisfactory that his researches are being more fully published in Part III of the *Journal of Pathology and Bacteriology* for the present year. Meantime, his conclusions briefly are that the number of white blood corpuscles is regularly increased from the beginning of typhus fever, and that the increase becomes more marked after the appearance of the rash; that the type of cell which displays the most marked increase is the polymorphonuclear variety; that in fatal cases the eosinophilic cells are uniformly absent, while in those which recover they are always present, though the prognostic value of this sign is diminished by its late appearance; and that the red blood corpuscles are always present in the same numbers as in health, and tend to increase as the disease progresses. In enteric fever, on the other hand, the leucocytosis is low (unless in presence of inflammatory complications) and the difference is valuable, seeing that a positive Widal reaction is sometimes obtained in typhus. In enteric, also, the red blood corpuscles show progressive decrease. The blood conditions of typhus are not readily distinguished from those of pneumonia or bubonic plague, though influenza is characterized by an absence of leucocytosis.

The report on the Small-pox Hospital is signed by the late Dr. R. S. Thomson, whose death is so much lamented by all who were acquainted with him or his work. The total number of cases of small-pox in the year ending May 31st, 1904, was exactly 1,000. Of these 96 were unvaccinated. Their fatality-rate was 23.9 per cent. Nearly half of the unvaccinated were children under 5 years old and their fatality-rate was 34 per cent. The vaccinated numbered 867 with a fatality-

rate of 4.38 per cent. and among the 38 deaths none were of patients under 20 years old. In 37 cases vaccination was doubtful and 13 of these died. If all the doubtfuls are added to the vaccinated, the total is raised to 904 cases with 51 deaths, giving a rate of 5.64 per cent., as contrasted with the unvaccinated 23.9 per cent.

Ireland.

General Medical Council.

The Board of Governors of the Apothecaries' Hall, Ireland, have, we understand, selected their Chairman, Dr. Atock, to be their representative on the General Medical Council in succession to the late Professor Tichborne. Dr. Arthur Atock is an M.D. of the Royal University (1885) and a Licentiate of the Hall (1890).

The Royal University of Ireland.

Senate.—Dr. R. W. Leslie, Belfast, has been elected a member of the Senate of the Royal University, filling the place of Professor Sinclair, F.R.C.S., who has just retired; Dr. J. Walton Browne, Belfast, was also re-elected at the same time. Dr. Leslie was much associated with the late Dr. Alex. McKeown, and adopts the same independent and uncompromising attitude against sectarian influence. He is also a strenuous advocate for many pressing reforms. Unfortunately neither Dr. Leslie nor Dr. J. Walton Browne was put on the Standing Committee, so that the Belfast School, which sends half the medical candidates to the University, has no medical representative on the chief executive and real controlling body of the senate.

The M.B. Examination.—Considerable dissatisfaction has been caused in Belfast by the new method of examination for this degree. Formerly a pass paper was set for all candidates; a few who gained high marks were allowed to present themselves for a further examination for honours. In this spring examinations the new regulations came into force: the candidate was required to choose beforehand a "pass" or an "honour" paper. The results have been disastrous; all examiners have reported dead against the scheme; the students detest it. Many students also have complained bitterly and angrily—both the successful and the unsuccessful—of the attitude assumed towards them by some of the examiners—of one in particular.

The Irish Medical Association.

The annual meeting of the Irish Medical Association will be held in the Victoria Hotel, Killarney, on Wednesday, June 7th, and the following days. The dinner will take place in the evening, and on Thursday there will be an excursion to the Gap of Dunloe and through the upper lakes. The general proceedings are looked forward to with interest and anxiety. The report of Surgeon-General Evatt will come up for general discussion in some form, and the action of the Council in relation to it will be reviewed. Upon this question there is much difference of opinion, and this is shown in many of the letters published in the *Journal* of the Association.

Then the Enniskillen resolutions, which were adopted two years ago at the annual meeting in that town, will occupy attention. They have not been attended by the excellent results which were anticipated. The £200-a-year demand has not been yielded to; and while men have been loyal to the decision of the Association, they have in most cases had to stand by while the appointments were accepted at the advertised rates by those who were not members of the Association. They feel aggrieved, because they have lost positions which they might have secured but for the obligation which they felt bound to observe. There is a considerable number who think that the scheme was too drastic, and that more moderate action in the first instance would have resulted in a wider improvement than has been yet reached.

Last year the Association determined to publish an *Irish Medical Directory*, and it has been duly issued. As correspondence in our columns shows, it has excited a great deal of annoyance, not only to those who are not members of the Association, but to those who are. The *Directory* sets out the names of members in black type, with details of their qualifications, while the names of non-members appear in ordinary type, without lists of qualifications or contributions. This course has been defended in the Association journal, but it is certain to be challenged at the annual meeting.

It is proposed, further, to bring up the subject of direct representation and to obtain a vote hostile to Sir William Thomson's candidature, because he hails from Dublin. Dr. Kidd's friends have been active in securing such declaration from various branches of the Association. Another section, it is said, will propose that the members should support the gentleman who may be elected president of the Association in June. As he will be a provincial practitioner his candidature would satisfy the views of those who think that the direct representative should not be a Dublin man. There are only about 800 members altogether, and it is certain that a large proportion will not be bound by any resolution that may be passed, no matter what its direction may be.

It will be seen, then, that there is plenty of material for debate, and as opinions are very strong and varied the position is not without grave danger to the stability to the Association. These matters will demand wise and tactful handling, but we fear that whatever the conclusions come to may be there will be in the end many defections from the organization. There are some correspondents who in the official journal express themselves in terms of bitter hostility to the profession in Dublin, and apparently forget how that body and the colleges have helped their cause. They have only to read the records which the British Medical Association has issued in the large report on Irish medical questions to see how important the aid has been. The provincial profession cannot afford to do without it if any improvement is to be hoped for; and the desires in some quarters to depreciate it will, we fear, only end in seriously diminishing the power of the Irish Medical Association.

Election of Officers.

The following members have been elected the officers and Council of the Irish Medical Association:

President: Dr. William MacSweeny, Killarney. *Vice-Presidents:* Ulster: Dr. Leonard Kidd, Enniskillen. Munster: Dr. Cotter, Cork. Leinster: Dr. G. E. J. Greene, Ferns. Connaught: Dr. Kinkead, Galway. *Honorary Secretary:* Dr. T. Donnelly, Dublin. *Honorary Treasurer:* Dr. J. Graham Burne, Dublin. *County Councillors:* Antrim: Dr. Stanley B. Coates, Belfast. Armagh: Dr. James Taylor, Tandragee. Carlow: Dr. Richard B. Carey, co. Carlow. Cavan: Dr. Caldwell, J.P., Virginia. Clare: Dr. Joseph K. Healy, Miltown-Malbay; Cork: Dr. J. Keating, co. Cork. Donegal: Dr. H. M. Johnston, Stranorlar. Down: Dr. Olpherts, Downpatrick. Dublin: Dr. M. Strahan, Dublin. Fermanagh; Dr. F. C. Fitzgerald, Newtownbutler. Galway: Dr. Gorham, Clifden. Kerry: Dr. A. Addison Hargrave, Tralee. Kildare: Dr. Chas. Jos. O'Connor, Celbridge. Kilkenny: Dr. P. J. Murphy, Thomastown. King's Co.: Dr. G. A. Moorhead, Tullamore. Leitrim: Dr. Robert A. Rutherford, Manorhamilton. Limerick: Dr. P. J. Macnamara, Kilmallock. Londonderry: Dr. J. Tate Creery, Coleraine. Longford: Dr. J. M. S. Kenny, Granard. Louth: Dr. J. W. Adrien, Drogheda. Mayo: Dr. C. L. Birmingham, Westport. Meath: Dr. Laffan, Tara. Monaghan: Dr. Elliott, Smithborough. Queen's Co.: Dr. Thomas Higgins, Stradbally. Roscommon: Dr. G. O'Donohoe, Castlerea. Sligo: Dr. Edward Frazer, Riverstown, Sligo. Tipperary: Dr. T. Hennessey, Cahir. Tyrone: [no return]. Waterford: Dr. Geo. I. Mackesy, Waterford. Westmeath: Dr. J. Dillon Kelly, Mullingar. Wexford: Dr. W. W. Murphy, Inch. Wicklow: Dr. J. D. Ryan, Rathdrum.

The annual meeting of the Belfast and District Branch was held in the Medical Institute, Belfast, on May 10th, 1905. The President, Professor Byers, M.D., occupied the chair. Dr. Byers was re-elected President; Drs. Lindsay and Gaussen, Vice-Presidents; Dr. Gardner Robb, Secretary and Treasurer; and as Council, Drs. Osborne, Coates, Ferguson, Hall, Munn, Davidson (Ballymena), Mussen (Glenavy), St. George and Jefferson (Lisburn), Wilson (Whiteabbey).

The Hon. Secretary read a letter stating that Surgeon-General Evatt's report would be sent to those who applied for it, but it was to be regarded as confidential.

It was hoped that the representation of the Branch would be good at the annual meeting at Killarney.

It was proposed by Dr. Gaussen, seconded by Dr. Ferguson, and passed unanimously:

> That this Branch of the Irish Medical Association is of opinion that the Direct Representative for Ireland on the General Medical Council should be chosen from the ranks of the provincial practitioners.

It was proposed by Professor Lindsay, seconded by Dr. Robb, and passed unanimously:

> That this Branch disapproves of the appearance and general arrangement of the new *Irish Medical Directory*, and request the Council of the Association to reconsider these matters in arranging for the issue of the next volume.

Ulster Medical Society.

A special meeting of the Society was held in the Medical Institute on Thursday evening, May 11th, the President,

Dr. William Calwell, in the chair. Dr. Victor Fielden read a paper on The Pharmacology and Therapeutics of Ice. Dr. Singleton Darling (Lurgan) showed two cases of actinomycosis, one of which was cured by scraping externally and the internal administration of potassium iodide, although the patient still spat some blood at times. The following resolution was proposed by Dr. Cecil Shaw, seconded by Dr. Darling, and was passed *nemine contradicente*:

That this meeting is of opinion that the medical practitioners of Ireland should be represented on the General Medical Council by a provincial practitioner, and with a view of attaining this end will support the candidature of Dr. Leonard Kidd (Enniskillen).

The Royal Medical Benevolent Society.

The annual meeting of the Belfast and County Antrim Branch was held in the Medical Institute on May 12th. Dr. Nelson, President of the Branch, occupied the chair. Dr. Richard Purdon, Honorary Secretary and Treasurer, submitted the annual report and statement of accounts. The gross receipts were £154 10s. 6d., of which £144 9s. 7d. was remitted to the Central Treasurer. Claims to the amount of £127 had been recommended to the Dublin Committee for favourable consideration. Thanks were due to the Ulster Medical Society, to the Ulster Branch of the British Medical Association, and to the medical students for their kind contributions and donations. The adoption of the report was moved by the Chairman, seconded by Dr. Cecil Shaw, and passed. Dr. Nelson was elected President, and Dr. Richard Purdon was again elected Secretary and Treasurer, with a hearty vote of thanks for his past arduous and generous services.

THE QUEEN'S JUBILEE HOSPITAL.

The Board of Management of the Queen's Jubilee Hospital, Earl's Court Road, has at length issued a report which it entitles *Reply of the Board of Management to the Report of the Enquiry by the Executive of King Edward's Hospital Fund*. It states that the recommendations made by the Commissioners appointed by the King's Fund were, in the opinion of the Board of Management, so obviously detrimental to the best interests of the hospital that, after giving the matter careful consideration, it was resolved to appoint a Subcommittee to draw up a reply. This suggested reply has been adopted by the Board, and a copy sent to the Executive Committee of each of the metropolitan hospital funds, and to each of the Governors of the Queen's Jubilee Hospital. The principal statements made in it are to the following effect:

The Failure to Hold Inquiry.

On this subject it is stated that the Board, without wishing to put itself in conflict with the Commissioners as to whether or not an inquiry should have been held prior to the appointment of successors to the late medical staff, is of opinion that, owing to the finality of the resignations and to the express desire of the staff to be relieved of their duties as early as possible, it had no option but to proceed forthwith to make provision for the requirements of the hospital.

Management of the Hospital.

It is stated that the criticisms of the Commissioners on the management of the hospital are founded upon conditions which for some months have ceased to exist, and it is noted that the Commissioners state that when they inspected the hospital they found it in a satisfactory condition.

The Commissioners, it is thought, are wrong in holding that Dr. Morison was not to blame for writing to the Princess while he was still a member of the Board, and while arrangements for the laying of the foundation stone were proceeding.

The labours of the Board on behalf of the hospital are unduly depreciated by the Commissioners, and the status of its members is unfairly criticized; the statements of Mr. Tom Green, one of its members, applied to an earlier period, and were not intended to reflect on the management; they have been made use of in a spirit other than that which Mr. Green intended.

It is alleged that the first reason given by the late medical staff for resigning was refuted by evidence at the inquiry, no complaint, either verbally or in writing, having been made to the Board by the late staff in regard to the nursing. The nursing arrangements were under the control of the late matron, who showed her unsuitability for her position by engaging nurses without inquiry into their qualifications, by her erratic treatment of her staff, and by the condition the hospital was proved to be in when she vacated her post. There is no record of any report of insubordination on the part of nurses having been made to the Board by the late matron.

The Local Need for a Hospital.

The view of the Commissioners that no large hospital is required in the locality is quite wrong, and in support of this contention much capital is made out of the fact, first, that at an earlier date a subscription was given by the King's Fund towards a rebuilding fund, and, secondly, that the Saturday Fund threatened to withdraw assistance from the hospital unless the arrangements for in-patients were much improved.

The Proposed Interregnum.

It is stated that irreparable damage would be done to the institution if the recommendations of the Commissioners were adopted as to the establishment of a year's interregnum coupled with the resignation of all the lay and professional staff. Although the promise of the executive of the King's Fund to provide a sum of £1,000 towards the current necessities of the hospital is appreciated, the Board is not prepared to accept it upon the conditions laid down, and suggest that the recommendations be modified as follow:

1. That the hospital continue to exist as a general hospital for in-patients and out-patients.
2. That the constitution and by-laws be suspended for a period of twelve months.
3. That the present honorary medical staff be retained.
4. That the present Board of Management resign.
5. That a temporary Board of Management be formed to serve for one year, and then to report to the Governors.
6. That one-half of the lay members of the new temporary Board be elected by the Governors, and the other half by the executive of the King's Fund.
7. That the Chairman be nominated by the Executive of the King's Fund.
8. That the medical staff, in addition, elect representatives from their own body to serve on the Board, to assist and advise on matters relating to the Medical Department.
9. That a competent male Secretary be appointed forthwith.

The Present Medical Staff.

The position of the present medical staff is also considered. It is stated that, seeing that the Commissioners do not in any way condemn the action of the new medical staff, it is difficult to understand the suggestion that it be asked to resign. In the opinion of the Board, this is an extraordinary proposal when it is considered that the selections were made after public notification of the vacancies by advertisement. Taking into consideration the high character and qualifications of the present medical staff, the Board fails to see how the King's Fund or any other body could make a selection better calculated to serve the interests of the Hospital. In admiration of the public spirit evinced by these gentlemen in responding to the Board's appeal at a most critical time, and giving the hospital their gratuitous services, the Board feels it would be most ungrateful and un-English to invite them to resign.

THE MIDWIVES ACT.

The Payment of Medical Practitioners.

We have been requested to publish the following resolution of the Islington Medical Society, moved by Dr. Basil Morison, and seconded by Dr. L. U. Young:

That we, the members of the Islington Medical Society, are of opinion that immediate arrangements should be made under the Midwives Act, in the interest of lying-in women of the poorer but not pauper class, for the prompt attendance of a registered medical man in cases of abnormality, and that the payment of such attendance should be made by the Metropolitan Borough Councils, or, failing them, by the County Council, with powers of recovery where this is possible.

The *Local Government Board Chronicle* of May 13th, discussing the question of the payment of medical practitioners called in to assist midwives, says:

Considerable difficulty appears to have arisen owing to an omission from the rules framed by the Central Midwives Board in accordance with the Midwives Act, 1902. One of them makes it imperative that under certain circumstances of special danger or difficulty the midwife "must decline to attend alone, and must advise that a registered medical practitioner be sent for." Neither the governing Act nor the Board's rules, however, make any provision for the payment of the medical gentleman's fees, and many cases have arisen in which, owing to the known poverty of the patient, professional assistance has not been forthcoming except after a delay that might have had serious consequences. The Local Government Board have been appealed to for instruction and advice, and have intimated that the local Board of Guardians "might pay for the medical assistance required." The Boards of Guardians, however, do not all welcome the prospective

addition to their expenditure, and while Stepney Union has expressed its willingness to pay where necessary, the St. George in-the-East Board suggest that in cases of poverty the services of the district medical officer should be obtained. There also arises the question of the disfranchisement of the husband if he accepts Poor-law payment on his wife's behalf. The Midwives Act Committee can go no further than to say they are advised that the husband of the patient in respect of whom such fees are paid would not be disfranchised except in respect of guardians' elections.

EAST SUSSEX.

The report of the Public Health Committee of the East Sussex County Council contains the following reference to the working of the Midwives Act:

The Committee considered a report relative to the registration of midwives. Out of a total of 394 women known to be practising as midwives within the area at the commencement of the present year, 115 were known to have been certified. In addition to the above 115 there were a certain number of women who had become certified, but whose names were not known at present, and it would be impossible to complete the list until the publication of the official roll of certified midwives. The County Medical Officer had appointed Miss Whitlock, M.B., London, to act as woman inspector under the Act at a salary of £90 per annum, payable quarterly, with travelling expenses not to exceed £30 per annum, as from February 19th, 1905. Already Miss Whitlock had visited, at least once, every woman who was known to be acting as a midwife within the area. It was resolved that Dr. Foulerton be empowered, as executive officer to the Local Supervising Authority, to suspend a midwife in all cases in which it was the duty of the Local Supervising Authority to suspend a midwife under the rules of the Central Midwives Board, he reporting any action taken in the matter, as soon as practicable, to the Chairman of the Committee. The Committee had read a letter from the Eastbourne Town Council, stating that the Council strongly protested against the decision of the County Council not to delegate to them the powers of the County Council under the Midwives Act, 1902.

Councillor Thornton, who presented the report, explained that the expense of the operation of the Midwives Act would this year be below the estimate; it would work out at about £170. It was a matter for congratulation that no less than 50 per cent. of the women who had registered were certificated midwives; the average throughout the country was only 20 per cent., and in Lancashire it was as low as 5 per cent.

The report was adopted.

WEST SUSSEX.

At a meeting of the Midwives Act Committee on February 3rd the Clerk was directed to suggest to those authorities which have not the requisite facilities for disinfection that they should make arrangements for the purpose with authorities which have such facilities. In reference to a circular letter from the Clerk of the East Suffolk County Council, forwarding copy of a resolution passed by that Council to the effect "that the fee of 10s. required to be paid by existing midwives to enable them to obtain the necessary certificate to continue their occupation is excessive and prohibitive, and should be reduced to 2s. 6d.," it was resolved that the Committee was of opinion that the fee of 10s. should be adhered to. The Committee decided upon the appointment of Miss Elsie Hall, of 77, Southampton Street, Camberwell, as Inspector of Midwives in West Sussex, for a period of six months from March 1st, 1905, at a salary at the rate of £50 per annum, with third-class railway fare. The duties of the Inspector laid great stress on the importance of cleanliness in everything appertaining to midwifery. This was carried.

At the last meeting of the Midwives Committee for West Sussex the Clerk laid before the Committee the replies received from various sanitary authorities in the county in reply to the letter sent by him on October 4th, 1904, asking what arrangements for disinfecting facilities were in force in their respective districts. From the replies received it appeared that Chichester Borough, Worthing Borough, and Cuckfield Rural had the requisite facilities; Petworth Rural and Westhampnett Rural believed they could make arrangements with the guardians to disinfect; and Arundel Borough, Bognor Urban, Horsham Urban, Littlehampton Urban, Southwick Urban, East Preston Rural, Midhurst Rural, and Thakeham Rural had no facilities. New Shoreham Urban, Horsham Rural, Steyning West Rural, and Westbourne Rural had not replied.

It was resolved that the Clerk be instructed to suggest to those authorities which have not the requisite facilities for disinfection, that they should make arrangements for the purpose with authorities which have such facilities.

WEST RIDING.

Dr. Kaye, the West Riding Medical Officer of Health, estimates that there are some 934 midwives in the Riding who will require supervision under the new Act. There is, he says, everywhere the greatest anxiety on the part of the women to comply with all requirements, but there is room for instruction on the vitally-important question of the proper feeding and care of infants. He suggests a short series of lectures, on the lines of those recently given to sanitary inspectors. The supervision of midwives and the extra work thrown on his department by the system of medical inspection required by the Education Committee will, Dr. Kaye hints, necessitate the appointment of a second assistant medical officer and other officials.

Dr. Kaye, in reporting to the Council, also advocates the formation of a nurses' exchange in connexion with the hospitals scattered up and down the Riding. A conference of hospital authorities will be held shortly to consider this suggestion.

WARWICKSHIRE.

As far as the means at Dr. Bostock Hill's disposal have allowed, the work under the Midwives Act, 1902, has been pushed forward. Of the 24 midwives visited, 17 had had no training, 15 had not obtained the necessary appliances required by the regulations, 10 were not in the habit of using disinfectants. In 13 cases the women had no proper bag, while 8 were in the habit of attending cases in dresses which were not washable. Finally, 2 were quite illiterate. The number of applications for registration received by the county medical officer during the quarter had been 45, and the total number on the local register was now 170. Although everything had been done by circular letters, by advertisements in local papers, and in other ways to bring the information regarding certification and registration before all women in practice, Dr. Bostock Hill is afraid that a large number will be left out in the cold, and there is a possibility that for some little time at least a considerable shortage of certified midwives will be found in the administrative county. He has reason to believe that there are many more midwives, who were certified by the Central Midwives Board in the county, who have not yet registered with him, and in the course of the year he hopes to be able to visit and otherwise gradually to bring these women under supervision.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

SCOTLAND.

THE cases of plague at Leith are described at p. 1114.

INDIA.

During the weeks ending March 25th, April 1st, 8th, and 15th the deaths from plague in India numbered 53,895, 57,702, 52,841, and 51,786 respectively. The deaths recorded in the principal centres of the epidemic during the weeks ending April 8th and 15th were: Bombay City, 713 and 889; Bombay Districts, 1,849 and 1,796; Calcutta, 712 and 662; Bengal Districts, 6,722 and 5,360; North-West Provinces and Oudh (United Provinces), 17,939 and 15,884; Punjab, 22,122 and 23,942; Rajputana, 1,715 and 2,206; Kashmir, 146 and 187; Madras Presidency, 60 and 89. During the week ending April 8th the deaths from plague in Central India numbered 118 and in the Central Provinces 341. During the week ending April 15th the deaths from plague in Burma were reported to be 155.

In the Central Provinces during the week ending April 15th the deaths in the principal districts were: Multra, 3,058; Agra, 1,278; Muzaffernagar, 673; Meerut, 640; Budaun, 621; Aligarh, 553; Etah, 548; Ghazipur, 548; and Ballia, 527.

SOUTH AFRICA.

East London.—During the weeks ending April 8th and 15th, the fresh cases of plague numbered 1 and 3, and the deaths from the disease 1 and 1 respectively.

King Williamstown.—One case of plague occurred during the week ending April 15th. In no other districts was plague discovered in human beings.

In Port Elizabeth, Uitenhage, King Williamstown, and East London, rats and mice, and in some instances cats, were found to be plague-infected.

QUEENSLAND.

During the weeks ending March 25th, April 1st and 8th, the fresh cases numbered 0, 0, and 1; no deaths. The total cases of plague since the commencement of the present outbreak to April 8th have been 23. The last infected rat was found on April 6th.

HONG KONG.

During the weeks ending April 29th and May 6th, the fresh cases of plague numbered 2 and 8, and the deaths from the disease 2 and 7 respectively.

BEQUESTS TO MEDICAL CHARITIES.—The late Mr. Charrington Nicholl, of Ardleigh, Essex, whose will has now been proved, left £100 each to the Colchester Hospital and the Asylum for Idiots.

NOVA ET VETERA.

PROFESSIONAL TRAINING A CENTURY AGO.

IT is interesting, in these days of many examinations and specialization in education, to trace between the lines of an old autobiography the process by means of which a navy surgeon was evolved from a schoolboy a little more than a century ago.

John Stokoe, the writer of the memoirs, one episode in whose career formed the basis of a recent book,[1] was born at Ferry Hill, near Durham, some time in the year 1775. He evidently received such educational advantages as were within the reach of his parents, but this fact has to be deduced from later information. He himself begins the story of his life when he "had scarcely entered his thirteenth year." He says, "it was decided by my father and his younger brother that I should be a medical man, being too young myself to have any voice on the subject."

His uncle, Dr. Robert Stokoe, had retired from the navy and "commenced private practice in the village of Corbridge, on the banks of the Tyne." The lad entered his service on "the 2nd Feby., 1788, . . . on trial as his apprentice." He removed with the family, in about a year's time, to Hexham, and was formally bound "to serve an apprenticeship until I was of the age of 21," his uncle promising to complete his general education. This pledge he redeemed by sending him "to a Latin school for two hours on those days that I could be spared from the duties of compounding and distributing his prescriptions."

But, in a short time, Dr. Robert returned to the naval service, leaving his apprentice to replace him to a certain extent. "He told me that if he was likely to remain for any length of time he would send for me, and desired me to be attentive to my schooling, the posting of the books, and making up any previous prescriptions that might be demanded." The uncle's absence was a prolonged one, and he appears to have made absolutely no further arrangements for carrying out his compact with the lad's father. His nephew, thus left to his own devices, spent more time on "voyages and travels" than on "medical and surgical books." He planned a runaway expedition to the West Indies, which proved abortive, and then spent six months as assistant to a doctor in Sunderland, where he compounded medicines and made himself generally useful.

He was growing very depressed at the failure of his hopes of advancing in his profession when "Mr. William Eden, surgeon, called and asked if I had any desire to go into the Navy." He eagerly replied in the affirmative. "Well," said Mr. Eden, "I have a brother, Surgeon of the *Greyhound* frigate, at Sheerness. He has no assistant, and has written to me to recommend him one, for whom he will get an acting order from the Admiral."

Stokoe, as soon as he could obtain his parents' consent and his outfit, proceeded outside the mail for London, mention being particularly made of "two ruffeled shirts" provided by his sister. Unhappily, he was met by "the appalling news that the *Greyhound* had sailed the day before." His first idea was to seek a collier returning to the north, but, happily for his future, he bethought him of a friend in town to whom he could apply for advice. Through this gentleman he obtained an interview with Mr. Nelson, the Secretary of the Navy Board, and, ultimately, an appointment as Junior Assistant in a hospital. With recovered spirits he writes: "In twenty-four hours (on the 4th November, 1794) I was installed Surgeon's third mate on board H.M.'s Hospital Ship, the *Union*, the same rusty old hulk with brick chimneys that had so particularly excited my feelings against the Navy a few days before." Here he was one of three assistants, "the first of whom had the medical department, the second the surgical, and myself that of the dispensary, for which I was fully competent, assisting occasionally the second one."

When, in three years' time, his uncle returned from foreign service, John was prepared to leave the navy and resume his work and training under him; but Dr. Robert talked very largely about "desertion," and declared that his nephew had "forfeited all claim to his protection," so that he was once more left to his own resources. At this juncture the Mr. Eden, whom he had so tragically missed, arrived home from a successful cruise. He was now surgeon on the *Glatton*, and proposed "that I should join her, stating that she was going into dock to refit and would remain in commission. In all probability it would be six months before she would be ready for sea, and there was a vacancy for first assistant that I might fill by acting order, which he would procure for me. As it was about the time of opening the medical classes in London he would endeavour to obtain the captain's permission for me to be there as much as possible."

Stokoe had already commenced the study of foreign tongues which were later to be so valuable to him, and had applied for an appointment on a hospital ship for French prisoners. Naturally, however, Mr. Eden's offer "was not weighed for a moment in the balance with French, and in a few days I joined the *Glatton* . . . and I was permitted to go to London, under the injunction to return at given times to answer my muster by the Clerk of the Cheque. I was recommended to study under Dr. Marshall, of Thavies Inn, Holborn, and diligently attended his lectures and dissecting room, and before they were finished passed my examinations for Assistant and got my regular appointment to the ship that shortly after returned to the North Sea, and was principally employed in the blockade of the Texel."

The *Union*, Stokoe's first hospital ship, was given up to Russian sailors during the latter years of his service on her, and he succeeded in mastering their language. To this circumstance he doubtless owed an unsolicited appointment to the *Africa*, another Russian hospital ship, which was offered him during his second year under Mr. Eden. His heart was more in the naval than in the medical side of his life, and he left the *Glatton* with many regrets, but, after the appointment of Mr. Malone to be surgeon to the *Africa*, his regrets were exchanged for congratulation. He says, "Here I had every opportunity of improving myself in my profession, where the practice in both branches was extensive, and where I had a capable and able instructor, to whom I believe myself greatly indebted for my subsequent promotion."

In the early part of 1800, Stokoe came under the notice of one of the Commissioners of the Sick and Hurt Board, as a result of which he received an intimation that he would do well to go up for his examination as Surgeon. "I went up to town on the next passing day, and was fortunate enough to get through the fiery ordeal both at Surgeons' Hall and at the Sick and Hurt Board."

About a fortnight later Mr. Malone "happened to be in the Admiral's office on shore when a Captain came in to acquaint the Admiral that his Surgeon had received an appointment to a frigate at Plymouth." Mr. Malone at once pleaded the cause of his assistant, who found himself before the day was out surgeon of H.M.'s Sloop *Lynx*, on which ship he remained for almost three years (April 28th, 1800, to April 7th, 1803).

At the conclusion of this portion of his narrative Mr. Stokoe indulges in some not unnatural expressions of self-congratulation, concluding with these words: "I had thus obtained a rank above my early hopes . . . but I was proud and happy to think that after the first six months from the time of my entry into the service I had never been indebted to a friend or relative for the loan of five pounds."

Many a parent or guardian may wish on reading this last sentence that the way into the medical service of the army or navy could now be forced under such modest conditions, but it will, I think, readily be conceded that John Stokoe owed as much to his own perseverance and diligence as to his friends, and that he well deserved the success which he won. It was no mean triumph to see himself gazetted full surgeon at the age of 23.

EDITH S. STOKOE.

[1] *With Napoleon at St. Helena.* Lane.

THE PREVENTION OF CONSUMPTION.

NATIONAL SANATORIUM FOR CONSUMPTION, BOURNEMOUTH.

THE Earl of Eldon presided at the 50th annual meeting of the Governors of the National Sanatorium for Consumption and Diseases of the Chest, held at the Westminster Palace Hotel on May 11th. The annual report of the Committee of Management, which was unanimously adopted, stated that during the past year an extension of the building and considerable alterations and improvements had been carried out, by which 14 more beds had been added for patients, and more adequate and suitable accommodation provided for the nursing staff. The cost of the work, including furnishing, had amounted to over £3,000, towards which only £2,000 had been subscribed. The ordinary income for 1904 amounted to £2,999, and the ordinary expenditure to £3,094. The latter, however, was abnormally low, owing to the unavoidable closing of the sanatorium for four months in order to carry out the extension and improvements, so that a large increase

in the income was essential to enable the Committee to continue to keep the whole of the institution open. The Committee made a special appeal for new annual subscriptions to meet the current expenditure, and for donations to pay off the total debt of £1,500. They were anxious to commemorate the jubilee year of the institution by placing it in a sound financial condition. The account of the year's work showed that the results of the open-air treatment continued to be very satisfactory. Nearly 300 patients were under treatment, a very large proportion of whom were discharged considerably improved. The Committee reported with the greatest satisfaction that Her Majesty the Queen had been graciously pleased to become an annual subscriber to the funds of the sanatorium. The Duke of Portland, K.G., the Marquess of Salisbury, the Marquess of Zetland, K.T., Lord Eustace Cecil, the Bishop of Salisbury, Lord Rothschild, the Hon. T. A. Brassey, and the Right Hon. Arthur F. Jeffreys, M.P., were elected Vice-Presidents.

Australasia.

New South Wales.—The by-laws framed by the City Council of Sydney providing for the compulsory notification of consumption have been gazetted, and are now in operation. Dr. Armstrong has prepared the following circular, which is being issued to members of the medical profession: "Medical practitioners notifying cases of pulmonary consumption are invited to state whether they wish the premises occupied by the patient to be visited by the city health officer or otherwise. If otherwise, the expression of the wish will be respected, but in such cases the medical practitioner should warn the occupier of the premises in which the person notified resides that any change of residence by the patient must be forthwith notified to the city health officer on pain of a penalty of not more than £10, which is incurred by every householder who fails to so notify such removal on the part of a patient. If the notifying medical practitioner wishes the premises to be visited by the city health officer, or if he fails to express a wish in the contrary sense, the city health officer will, as soon as possible after the receipt of the notification, visit the premises occupied by the patient and make inquiries as to the precautions being adopted against the spread of infection, and will issue to the patient's friends what advice he may think desirable on the best means of checking the spread of infection. In all cases the utmost care will be taken to avoid alarming unnecessarily the friends of patients, and to impress on them the certainty that by the employment of proper precautions the danger of infection can be reduced to a minimum. In all cases coming to the knowledge of the city health officer in which death or change of residence has caused the removal from premises within the city of a consumptive person the premises will be disinfected by the staff of the city health officer."

Sanatoriums for Consumptive Workers.

On May 10th, Princess Christian of Schleswig-Holstein presided at a meeting of the Executive Committee of the National Committee for the Establishment of Sanatoriums for Workers Suffering from Tuberculosis. The Honorary Treasurer, Mr. A. W. West, stated that it was estimated that in England and Wales, amongst the working class, there is on an average one death every seven minutes from tuberculosis. It is essentially for the benefit of this class that the establishment of sanatoriums is proposed. Friendly Societies are unable to touch their invested funds for the erection of such buildings, but they are at liberty to maintain beds. This they are willing to do, and once the sanatoriums have been built the beds will be maintained by these societies without further assistance from the public, and the man or woman suffering from the disease will then be enabled to undergo the cure in its very earliest stage, because he and his family are provided for during the time in consequence of the sick-pay he receives from his society. The first sanatorium may be started and equipped for £50,000. This sum it is now desired to raise, and as soon as that has been done, everything is in readiness for an immediate start. With a view to furthering the scheme, a drawing-room meeting is to be held at Chelsea House shortly, and in the autumn a large public meeting will be arranged, both of which Princess Christian has promised to attend. The Hon. Mrs. Charles Mallet and Mr. Arthur J. Coke are acting as Honorary Secretaries.

The Russian Red Cross Society.—An idea of the enormous cost of the war to Russia may be gathered from the fact that the expenditure of the Russian Red Cross Society for the month of April alone was nearly £74,000.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 86

The Police and Sickness Certificates.

BETA writes that some members of a borough police force are also members of a Friendly Society to which he is the surgeon. During sickness a certificate is required by the police authorities. Is it part of his duty as surgeon to the Friendly Society to furnish such certificates without charging for the same? If not, what would be a reasonable fee, and who ought to pay it, the patient or the police authorities?

*** As surgeon to the Friendly Society, it is his duty to furnish any certificate required by that society for its own information. Any other certificate should be paid for by the patient. The fee should be such as he would charge to a private patient of the same social position for a similar certificate. The patient and not the police would have to pay the fee.

LITERARY NOTES.

A collection of medical aphorisms, entitled *Oslerisms*, will, it is announced, shortly be published in the United States. The editors, Dr. John Bradford Briggs and Dr. Henry Wireman Cook, have for some years past been compiling the concise expressions—clinical *obiter dicta*—that have fallen from Dr. Osler's lips on his rounds in the wards of the Johns Hopkins Hospital. Dr. Osler himself will contribute an introductory note to the volume.

The *Edinburgh Medical Journal* for May contains an interesting paper by Mr. A. Francis Steuart, advocate, on poisoning in Scotland up to the year 1625. Even when human life was held cheapest in Scotland, poison was never a common instrument of murder. Thomas Randolph, Earl of Moray, who on the death of Robert Bruce became Regent during the minority of the young king David the Second, died suddenly in 1332, and it is said by Hector Boece in his *Cronikles of Scotland* that Edward the Third, King of England, "tuk purpos to sla him be vennome." A potion was administered to him by a monk who had been sent by the English king as a physician; the result was that the earl found "certane dolouris ilk day mair increasing in his wame," and shortly died. After this there is little mention of poison till the middle of the fifteenth century, when James the Second, perhaps because he had married a foreign wife, thought it necessary to legislate against the importation of poisons from abroad. Some thirty years later we hear of "a sclandir and murmour rising in the cuntre" that the Duke of Albany, younger son of James the Third "wes posonit in oure Souerane lordis presens and palas." In 1497 Margaret Drummond, mistress of James the Fourth, is said to have been poisoned, with her two sisters, at the instigation of the nobles who wished the king to marry. In 1536 Jean Douglas, Lady Glammis, grand-daughter of "Bell-the-Cat," was tried for having removed her husband some years before *per intoxicationem*, and for having conspired to dispose in the same way of King James the Fifth, who had put the whole Douglas family under ban. She was *conuicta de arte et parte proditorie conspirationis et imaginationis interfectionis, sive destructionis nobilissime persone serenissimi domini nostri Regis per pessimum venenum lie poysone*, and condemned to "be had to Castell hill of Edinburghe and thair Brynt in ane fyre to the deid, as ane Traytour." Another case of alleged poisoning famous in Scottish history is that of the Earl of Atholl, Treasurer of the Kingdom, who died suddenly after a reconciliation feast given by the Regent, Morton. Atholl, a near kinsman of the King, was a Catholic; Morton "a licentious man, but a fervent Protestant;" the two men were besides rivals in the State. It was generally believed at the time that Atholl was poisoned by Morton; and so clamorous did the popular indignation become, that by order of the Privy Council an inquest was held in the presence of the King and his Councillors. Six surgeons were appointed to make a *post-mortem* examination. To a modern reader their evidence proves nothing but the utter ignorance of the medical profession of those days in regard to toxicology. James Owhegarty "Ireland man born leiche that ministratis medicine in the mouth and curis outward be herbis" testified that the cause of death was

"rank venom" introduced by the mouth. The testimony of Alexander Prestoun "Doctour in Medicine" and George Boswell "Medicíner and Chirurgiane in Perty" was to the like effect. Gilbert Moncrieff gave a guarded opinion; he considered the humour in the stomach to be venomous, but was unable to say whether it was exterior or interior grown within the body. David Rattray "Chirurgiane in Conpare" gave it as his opinion that death was caused by "ane extraordinarie poyson," adding that "ane spune put in the humour change it the cullour in the cullour of brass." R. Craig, "Burgess of Edinburgh, chirurgiane," cautiously opined that the Earl "to all appearance" had died of poison. A non-medical witness thought that a red matter shown to him by Dr. Prestoun was "a cauld poyson." Several ministers also gave testimony, one of them stating that he saw "strange and unnatural tokens in the stomach, black and red, as it were the dregs of bread and wine mixed," and that he had heard the dead man say "that he had got offence, and God forgive them that had done it." Bernardino de Mendoza, the Spanish Ambassador, writing to his King, gives the following description of the inquest:

> They had opened the body in the presence of five doctors, three of whom said he had been poisoned, and two that he had not. One of the latter, to assure them that he was right, by proof, took some of the contents of the stomach on his finger and put it into his mouth. The effect was that in a few hours he was thought to be dying. It is not known whether the order to poison him came from Morton or some private person.

In the end "the physicians did upon their oaths declare that his death was not caused by any extraordinary means." The result of the inquest did not, however, allay the general suspicion, and Morton thought it necessary, when he was about to die on the scaffold in 1581, to make a solemn declaration that he "would not for the Earldom of Atholl have either ministered poison unto him or caused it to be ministered unto him." Mr. Steuart mentions a number of other trials in which poison, mostly associated with witchcraft, played a prominent part. Of the nature of the poisons nothing is said; in some cases they seem to have been "herbis," but in the case of George Home, Earl of Dunbar, who died in England in 1611, it is said by Scot of Scottistarvet that he was poisoned by "tablets of sugar given him for expelling the cold by Secretary Cecil." A doctor who tested the poison "by laying his finger on his heart and touching it with his tongue," is said to have "died within a few days thereafter."

At the second annual meeting of the Philippine Islands Medical Association, held at Manila in the beginning of March, the paper which (according to the *Medical Record*) attracted most attention was one on Chinese medicine by Tee Han Kee. He said that the history of Chinese medicine dates back as far as 3000 B.C., and may be divided into three periods: (1) the dark age, which dates from the time of Emperor Sin Long, down to Confucius, a period of about 2,280 years; (2) the progressive age, which dates to the time of Emperor Shun Ti of the present dynasty, a period of about 1,800 years; (3) the retrograding age, which dates from Emperor Shun Ti to the present time, a period of 268 years. The first period is renowned for the discovery and use of many different drugs, and also for the first medical book ever written. The first man in China who ever understood medicine was the Emperor Sin Long. He was an inventor, agriculturist, philosopher, and particularly a physician. He wrote the first work upon therapeutics. For a long time his works were the standard textbooks. The second period was celebrated for its many famous physicians and surgeons. Cases of amputation at the shoulder-joint are recorded. A case that particularly attracts attention is an operation performed by Wah To on the Chinese general, Hwang Hu Choo, who was advised to have the operation performed with an anaesthetic, but he preferred to divert his mind with a game of chess while the operation was being performed. Inoculation for small-pox was practised by wearing the clothes of a person who had died of the disease, by placing fluid from the pustules in the nose, by blowing pulverized scabs directly through the nostrils, or by inserting with them moist cotton and keeping them in position for five days. During the third period, or retrograding age, the physicians became selfish and allowed their knowledge to die with them. The practice of Chinese medicine is not at present conducted upon a scientific basis. It is either learned by apprenticeship—in which case the master does not teach all he knows for fear of competition—or a few medical books are obtained and the person starts in practice. The therapeutic value of drugs is pure guesswork. No autopsies are performed upon human beings, the meagre knowledge of anatomy being derived from animals. Disease is classified as either a hot disease or a cold disease. Hot diseases require cooling drinks, and cold ones require hot drinks. This permits the layman to argue with the doctor upon an equal footing. Diagnoses are made by feeling the pulse, which is sometimes an operation of several hours' duration. The radial artery is always used for this purpose, and the wrist is divided into three parts, the pulse of each of which corresponds to particular organs of the body. The study of the pulse is made from a book, which is called the "book of eighty-one difficulties." Anatomical descriptions are vague and indefinite. Organs are described as consisting of blood and air; the heart, for instance, is said to be in front of the fifth vertebra, is attached to the trachea, and contains more air than blood, and is the seat of hearing and taste. The gall bladder contains more blood than air, and controls the will power. Tee Han Kee expressed the opinion that modern medicine would gradually force its way into China. Already the great relief which is obtained from many surgical operations has made a great impression upon the Chinese.

A year's report of the books called for at the Imperial Library of Japan shows that 166,677 volumes, or 21.6 per cent., related to mathematics, science, and medicine; 153,711, or 20 per cent., to literature and language; theology and religion 12,486, or 1.6 per cent.; while 18 per cent. of the applications were for books on history and geography. Fiction finds no place in the classified table of books in demand by readers in the library.

A new novel by Dr. S. Weir Mitchell, which the author looks upon as his best, has recently been published. It is entitled *Constance Trescot*, and is described as a thrilling, romantic story of the Reconstruction period. It is a tale of a woman's vengeance. In an interview the famous physician and writer, speaking of the book, said:

> The main fact of that story is true. It is based on a woman's vendetta that actually came under my observation. It was written first as a comparatively short story, about 100 pages, and when that was finished the larger possibilities were seen in it. The book has been almost completely rewritten three times in three successive years. I have everything set in type, and study effects from galley proofs. Then I insist upon a complete printed copy, page for page, of the entire work, and when I get that in hand I begin to see my mistakes and get a general effect of the work. It is impossible to judge a book till you see in type, in printed page.

Here, says the interviewer, a young man produced from the publishers' safe the final corrected copy, prepared by the author of *Constance Trescot*. It was one mass of mingled marginal notes, cuts, and many newly-written pages. Dr. Mitchell went on to say: "They keep this as a curiosity. If it were in my house I would burn it. The corrections were so many that they decided to retype the whole book. Every novel should be laid aside after it is written for two years, until some of the details have escaped the author's memory; then it can be reconsidered." Dr. Mitchell's previous novels have achieved great success. *The Adventures of Francois*, issued in 1898, is in its sixth printing, and the latest edition was 25,000 copies. *Dr. North and his Friends*, published in 1900, has been printed five times, and three editions have been sold in England. *Circumstance*, issued in 1901, has been printed six times; *Characteristics*, 1892, nine times; *Hugh Wynne* has been printed seventeen times.

The first number of the *Nursing Times* not merely bears the marks of viability, but gives good promise of a vigorous development. Its contents are varied, all the articles being in their several ways interesting and useful. In regard to the registration of nurses, our new contemporary seems to take up the philosophic attitude of holding no form of creed but contemplating all. Miss Blandford, the Sister in charge of the much-advertised Light Department of the London Hospital, gives an account of its work, with illustrations in which care has been taken to display the name of Her Majesty Queen Alexandra; Lady Aberdeen and Lady Minto discourse on the Victorian Order of Nurses in Canada; Mr. Danvers Power contributes a note on the Massage School of the National Hospital for the Paralysed and Epileptic, which he was instrumental in founding when he was chairman of the hospital. The rest of the contents is made up of a story by Mr. P. J. Brebner, some useful notes for midwives, and the usual "padding." We think there was room for such a journal as the *Nursing Times*, and we welcome its appearance and wish it Godspeed in the career of usefulness on which it has entered.

SPECIAL CORRESPONDENCE.

BERLIN.

New Hygienic Institute.—The Roentgen Rays.—The Schiller Centenary.

The new Hygienic Institute of the Berlin University was opened with full ceremonial on May 3rd, a large number of distinguished guests being present. In his opening address the Director, Professor Rubner, sketched the history of the Institute and of German hygienic teaching generally. Pettenkofer, at Munich, was the first who—in 1853—delivered a course of lectures on hygiene, and in 1865 he was appointed to a full Professorship of Hygiene, the first of its kind in Germany. It was not till 1885 that a Hygienic Institute was opened in Berlin, and Robert Koch was appointed its Director, a post which he held until 1891, when he was succeeded by Rubner. The old Institute was inconveniently situated in the industrial quarter, the "City" of Berlin, the new one is in the neighbourhood of most of the university medical institutes. It is a handsome three storied building, fitted with all the most modern appliances. The large lecture theatre, containing 220 seats, rises from the first floor; grouped around it are the preparing rooms, the director's own rooms, and the rooms for metabolic experiments. Beyond these the chemical and physical departments. On the second floor: rooms for special scientific research, and rooms for courses of lectures on bacteriology. The third floor contains the rooms for cholera and plague research, the photographic rooms, and the rooms containing the hygienic museum collections. A platform on the roof can be utilized for open-air research. Cages, stalls, and even stables for animals are provided. A practical safety-appliance may be noted; at either end of the chemical room there is an open, accessible shower bath. Should a mixture explode and set fire to a worker's clothes, the shower bath can be resorted to immediately. The total cost of the whole building, including all apparatus, amounts to M.700,000 (£35,000).

While the first two days of the Roentgen Congress were occupied by discussions on the Roentgen rays in diagnosis, the last day was almost exclusively devoted to their therapeutic uses. Extensive statistical material on the treatment of carcinoma was brought forward by Lassar, Unger, Kohlgemuth, Schmidt, and others. As to the real benefit to be hoped for from Roentgen treatment in cancer, opinions were much divided. Krafft and Levy-Dorn showed that different Roentgen tubes varied materially as to the depth of tissue they were capable of acting on, and that this depth was likewise influenced by the greater or smaller distance of the irradiated object from the tube. Strebel (Munich) makes use of the so-called outer cathode rays instead of Roentgen rays for the treatment of skin diseases as well as for epilation. General attention was drawn to the dangers of the Roentgen rays, and Becher (Berlin) had all voices with him when he suggested that the application of Roengen rays to human beings should never be entrusted to any but medical graduates. One evening meeting was given up to photographs thrown on the screen. Very curious were the radiographs of mummies exhibited by Albers-Schönberg of Hamburg. Though their interest is perhaps less medical than commercial, since they enable immediate detection of the "sham mummies" of which numbers are fraudulently exported from Egypt year by year; they nevertheless give testimony of methods of conservation unsurpassed by modern science. Thus the radiograph of a priest's mummy, 2,800 years old, showed with extraordinary clearness not only the skull and general skeleton, but details of the soft parts too, such as the palpebral fissure, and various muscular fasciculi, undestroyed after almost 3,000 years. The teeth were noticeably abraded; we know that the ancient Egyptians were fond of chewing hard maize corn. Levy-Dorn showed a series of ingenious kinematographic radiographs. Numerous Roentgen photographs of the consecutive phases of a limb movement—the movement of a wrist, an arm, a leg—had been combined in proper order so as to form a cinematographic film. The effect was extraordinarily realistic. The audience sat watching the displacements of radius and ulna, the up and down movements of the patella, etc., and it was not difficult to imagine the moving bones on the screen to be part of an animated Dance of Death by some Holbein of our day. Strassmann showed some excellent radiographs of twin monstrosities. That great hopes are placed on the future development of Roentgen-ray therapeutics is proved by the fact that a second Roentgen Congress is to be held in three years, as likewise by the transformation of the Berlin Roentgen Association into a German Roentgen Society of international character. Amsterdam has been chosen as the next place of meeting.

All Germany is holding festival in these early May days. It is the hundredth anniversary of the death of Schiller, the great poet, whose name, with that of Goethe, forms the dearest possession of the nation. All the world knows of Goethe's researches in natural science; that Schiller was originally intended for a doctor, that he studied medicine and wrote on medical subjects has been almost forgotten. The *Deutsche medizinische Wochenschrift* has unearthed Schiller's medical writings and published their titles, which are. (1) The Philosophy of Physiology, 1779—that is, in the author's 21st year; (2) Study of the Connexion between Man's Animal and Spiritual Nature, 1780; (3) Eight Day Reports of the Condition of a Neurasthenic Fellow Pupil at the Karlschule; (4) De Discrimine Febrium Inflammatoriarum et Putridarum, 1780. The first two titles are extremely characteristic, not only of the medical fashions of that day but also of Schiller's leaning to metaphysical speculation even thus early in his life.

SYDNEY.

The Bubonic Plague.—Vital Statistics of the Metropolis for 1904.—Health of School Children.—Additions to Gladesville Asylum.

For several weeks past the staff of the Public Health Department has captured occasional plague-infected rats on certain of the wharves in the neighbourhood of Darling Harbour. Recently, however, the infected area has extended, and rats are now being caught at twelve different points, stretching from the gasworks to the head of Darling Harbour. On March 16th a suspicious case of plague was reported to the Board of Health, the patient being a young man employed in a produce store in Harbour Street; and subsequent bacteriological examinations proved that the case was one of true bubonic plague. Cleansing operations were at once instituted at this store, but no plague-infected rats were discovered. It is surmised that infected rats were carried to the store in which the patient worked in produce obtained from business premises in the plague-rat area. In view of the serious position of affairs revealed as to the rapid extension of the plague-rat area, the President of the Board of Health, Dr. Ashburton Thompson, has recommended the Board to advise the Government to revive the payment of capitation fees for the capture of rats and mice. It is suggested that for a short period, at all events, 6d. per rat and 1d. per mouse be paid, in order to induce a vigorous crusade against these animals. These fees are double what were paid previously. The plague appears to have been completely eradicated in the northern districts of this State.

The report of the Government statistician on the vital statistics of the metropolis for the year 1904 shows that during the year the birth-rate was 25.67, and the death-rate 11.02 per 1,000 of the population. The record of births for the year is on the whole satisfactory. Numerically they were higher than for any year of the decennium; relatively to population, although not so high as in the year 1897, they were higher than the average which has prevailed since that period. The illegitimate births formed 10.16 per cent. of the birth-rate. This shows a slight increase on that for the year 1903, which was 10.02. The death-rate of 11.02 per 1,000 is 7 per cent. below the average of the preceding five years. The infantile death-rate is also well below the average, being at the rate of 98 per 1,000 births as against 123, the average rate for the last ten years. This rate has been coming down year by year and is now under 10 per cent. As regards the causes of death, the decline in the rate was general in nearly every class, the exceptions being among constitutional diseases and those of the urinary organs. Influenza, diphtheria, and puerperal fever showed slight increases, but whooping-cough, typhoid fever, diarrhoeal diseases, measles, scarlet fever, and plague all showed decreases. The zymotic death-rate was only 80 per cent. of the average prevailing during the previous five years. The returns of the Department of Health show that 665 cases of typhoid fever were notified, also 737 cases of diphtheria and 1,347 cases of scarler fever. These figures, when compared with the deaths from other diseases, give fatality-rates of 9.9, 5.7, and 1.0 per cent. respectively. The deaths from cancer numbered 382, and from phthisis 523, showing numerical increases of 6 and 2

per cent. respectively as compared with the quinquennial average.

A deputation from the various Child Study Associations of Sydney and suburbs recently waited upon the Minister for Public Instruction to ask for medical inspection of children attending the schools of the State. Dr. Carroll asked the Minister to adopt the German system of having an inspection of the children attending both State and private schools carried out before admitting them to the schools. Owing to various developmental defects and diseases many children were physically unfit to attend school, and there was great danger in allowing children suffering from tuberculosis and other grave diseases to associate with healthy companions. Defects of sight and hearing were very common, but in many cases these were remediable. Other members of the deputation also spoke. The Minister in reply expressed his sympathy with their desires, as he fully realized the national importance of noting any inroads upon the stamina of school children. Although the general public might think that the Government had been apathetic in the matter, it was not so, and proof that the Department was ready to make practical investigations of a scientific and health character was afforded by their adopting the offer of some dentists, who had recently examined the children's teeth and had reported upon them. The Department could not undertake to examine every child, but would ask the British Medical Association if it would assist the department in helping to discover whether any children in the schools were physically and mentally unfit to be there. The Minister promised that if the medical men of the State were prepared to assist them, the inquiries would be carried out as quickly as possible.

The Government have taken steps to increase the accommodation at the Hospital for the Insane at Gladesville by the erection of four new blocks of buildings—two for males and two for females. These buildings are to be used for the accommodation of patients on their admission, so that they may be kept under observation for a time before being placed in the wards most suitable for them. This will facilitate to some extent the more efficient treatment of the insane on modern lines. Two of these blocks are to be erected at once, and a tender for them at £5,549 has been submitted. They are to be of brick with stone dressings.

SOUTH WALES.

Prince of Wales's Visit to Cardiff.—Aberavon Housing.—Swansea Town Refuse.—Health of Gelligaer.—Small-pox at Cardiff.—Cardiff Infirmary.—Enteric Fever at Neath.

THE official programme in connexion with the visit of the Prince of Wales to Cardiff has just been announced. His Royal Highness, accompanied by a small suite, will arrive by special train at Cardiff on the evening of June 28th. He will proceed at once to St. Fagans Castle. About noon on the 29th he leaves St. Fagans for Cardiff, where he will be entertained at luncheon by the Marquis of Bute; this function will be of a private nature. At 2.15 the Prince leaves Cardiff Castle, and will drive round by the Great Western Railway Station and proceed through the ranks of the trades procession to Cathays Park. At 3 o'clock the ceremony of laying the foundation-stone of the new University College will take place. At 4.45 there will be the University congregation at the Park Hall, when the Prince, as Chancellor of the University, will confer the honorary degrees. At 5.30 the Prince returns to St. Fagans Castle, at which there will be a bachelor party in the evening. On the 30th the Prince will receive the freedom of the borough. In the forenoon he will inspect the docks. The King's approval of the date and the programme was intimated in a telegram from Sir Arthur Bigge to the Vice-Chancellor of the University of Wales.

On May 9th Major C. E. Norton, R.E., Inspector to the Local Government Board, held an inquiry into the subject-matter of the Aberavon Town Council's application for permission to borrow £5,600 to build houses under the Housing of the Working Classes Act. The Town Clerk (Mr. Marmaduke Tennant) appeared to support the application on behalf of the Corporation. The opposing companies and residents represented an aggregate annual rateable value of £6,000.

At a meeting of the Streets Committee of the Swansea Corporation held on May 9th the Surveyor presented a report on the carrying of town refuse out to sea. Taking the quantity that could be disposed of by the destructor at 691 tons a week, there were 323 tons left to be disposed of by other means, and if this were taken to the East Burrow Wharf instead of to Port Tennant there would be a saving of 1s. per ton—£840 a year. At the wharf it was suggested that the refuse should be handed to a contractor to be carried out six miles to sea. It was agreed to invite tenders for disposing of the refuse in the way suggested. This step is certainly not in accord with the Welsh proverb, "Awn rhagom."

Dr. W. W. Jones, the Medical Officer of Health for the Gelligaer and Rhigos Rural District Council, has just presented his annual report upon the sanitary condition of the district. Speaking of the general condition of the district Dr. Jones says:

> The house-to-house inspection of the whole district has just been completed, and now that it has been done I hope it will be possible in future to complete it once in every two years; more than this I am afraid I cannot promise, although I attach the greatest importance to it, as we are thereby enabled to take a sanitary record of every house in the district, but when it is remembered that each inspector has over 2,000 houses in his district distributed over an area of about thirty-five square miles, it will be realized that the regular routine work does not leave the time necessary to complete an annual house-to-house inspection, although that is what we aim at. I referred in my last annual report to the large number of new houses which are being erected in the different parts of your district; there is so much new work going on that it is difficult to ensure that close inspection of new buildings which is so necessary. Your efforts to obtain urban powers have not, so far, been successful. The admittedly urban character of the greater portion of the parish of Gelligaer makes it most important that the rapid development which is now proceeding should take place under the fullest urban powers, otherwise in the future the ratepayers will have to bear much expense in doing work which should be carried out by the speculative builders who are now so busy in the district.

At a meeting of the Cardiff Health Committee held on May 9th, Dr. Walford, medical officer of health, reported the number of births for the five weeks ending April 29th to be 457, and the deaths 245, giving a birth-rate of 26.4 and a death-rate of 14.1, as compared with 28.1 and 16.0 in the seventy-six large towns. The principal infectious diseases reported were 3 small-pox, 42 scarlet fever, 34 diphtheria, 4 membranous croup, 2 typhoid fever, 1 puerperal fever, 7 erysipelas, and 14 phthisis, making a total of 107, as compared with 119 during the previous five weeks. The last case of small-pox was notified on April 17th, at the Workmen's Home, Bute Street, and as the incubation period was now well over, he considered the district was free from infection. They had kept 120 people under daily observation since, and not one of them had been affected. In reply to a member, Dr. Walford said that the cases in hospital were progressing.

At the meeting of the Cardiff Infirmary Committee held on May 10th, the following donations were reported: Dr. Russel Thomas, cheque for £140, being the proceeds of the Infirmary Ball in February; Mr. D. E. Jones, Llancaiach House, near Llanbradach, 50 guineas; and the workmen of the Cymmer Steam Coal Colliery £42. The late Mrs. Williams, Court House, Llantrissant, bequeathed the value of her furs, and the executors have sent a cheque for 12 guineas, their assessed value.

At a meeting of the Neath Rural District Council, the medical officer of health (Dr. Whittington) reported outbreaks of enteric fever at Pontneathvaughan, Glyn Neath, Blaengwrach, and Resolven, due to impure water, and of measles at Crynant and scarlet fever at Broncoch, in consequence of which the schools had been closed.

LEEDS.

Inebriate Reformatory for the Three Ridings.—Convictions for Watering Milk.

THOSE who are interested in the treatment of inebriety will doubtless watch with interest the work which may be done in the inebriate reformatory which has just been opened by Lord Wenlock. The reformatory, which is pleasantly situated at Cattal, about midway between York and Harrogate, has been instituted by the county councils of the three Ridings of Yorkshire, together with the councils of the county boroughs of Leeds, Bradford, Hull, Halifax, and York. Accommodation has been provided for 80 inebriates—60 women and 20 men—but provision has been made for expansion by adapting the administration block to the possibility of the institution dealing with 300 "patients." The institution is intended to deal with persons convicted of crimes and found by a jury to be habitual drunkards, or who admit that they are, and in whose cases the court considers that drunkenness contributed to the offence, and also with habitual drunkards who have been four times convicted in one year of certain offences of drunkenness. In declaring the institution open, Lord Wenlock said that experience did not lead one to expect a larger percentage of

successful cases than about 25 or 30 per cent. of those committed, about the same as that of those discharged from our lunatic asylums. The cost of maintenance will, after the first twelve months, be met by each authority in proportion to the number of persons committed from within its area.

We are glad to note that the stipendiary magistrate has recently imposed substantial fines for the sale of watered milk. In one case, where the amount of added water was 17 per cent., and where there had been a previous conviction, the defendant was fined £5 and costs. In a second case the amount of added water was 31 per cent. In imposing a fine of £3 and costs the stipendiary said he believed that the defendant might not have been a party to the fraud, but that in view of the extraordinary extent of dilution of the milk he would impose a larger fine than usual for a first offence.

CORRESPONDENCE.

THE TEACHING OF HYGIENE IN SCHOOLS.

SIR,—As this problem is still seething in the crucible of discussion, it will be well for all concerned to put aside pet theories and prejudices and seek for a broad practical solution of the matter.

I have read with much interest the series of editorial articles recently published in the BRITISH MEDICAL JOURNAL, and with special interest that published on May 6th on the education of the teachers, which, in my opinion, strikes at the root of a number of conditions which must be remedied if the movement is to succeed. I agree with the writer that the teaching of physiology and hygiene as carried out in training colleges and under the South Kensington régime has been a failure. The necessity for training inspectors as well as teachers in hygiene is great, and this is an important point. The introduction of some elasticity into the cast-iron code of the Education Department is an imperative necessity.

For six years I have given my services as lecturer in first aid and latterly in hygiene to the London continuation schools, and have come in contact with a large number of teachers who have charge of these classes. The majority complain of the blind compliance with a meaningless mass of rules which is required, and of the consequent killing of all originality and initiative. All would welcome the subject of hygiene in the curriculum: this is encouraging.

In a report which I have before me of a discussion that took place some months ago at a meeting of the Incorporated Society of Medical Officers of Health, upon a paper read by Dr. G. A. Heron, upon hygiene in universities and schools, I find that considerable difference of opinion existed as to how this teaching should be carried out. Dr. Heron seems to lean to the view, although he did not press it, that medical men should do this work. I think he is right, and I think he has with him the opinions of the best French and American educationalists. In both countries, what work has been really well done in hygiene in schools has been accomplished by the medical man, and in the most practical manner.

More than seven years ago I was asked to deliver, during a summer term, a set of lectures in physiology to the leaving class of a large public school in one of the Eastern United States. I was surprised at the intelligent reception given to these "talks" illustrated by laboratory experiments, as attested by questions put at the end of the lectures, and by thoughtful criticism of my work in the school magazine, conducted wholly by the students. In Paris the same type of teaching obtains. In my opinion we would do well, in connexion with this subject, to take a leaf from the note-books of both these countries. Frenchmen and Americans do not wait indefinitely to avail themselves of useful scientific discoveries as do we English; and in this matter of school hygiene we are behind both nations in several respects. Take one example—the simple matter of disinfecting school premises, class-rooms, etc. This is thoroughly attended to in Paris and in New York, whilst, so far as I can learn, in London it is not attempted.

No sanitarian now questions the utility and necessity of thorough disinfection as a preventive measure in connexion with tuberculosis, diphtheria, scarlet fever, etc., and yet it is not systematically carried out where these diseases are at any moment likely to be found; even in cases of actual incidence of such diseases it is but very inadequately performed.

With the new Rideal-Walker method of standardizing disinfectants whereby competent germicides can now readily be selected, every educational authority should see that this simple method of combating infection is systematically and effectively applied.

In support of the view that medical men are not fitted for teaching hygiene to children, it was stated at the discussion just mentioned that some of the lectures on hygiene in the evening continuation classes in London were inadequate. This is doubtless true; and it is due to lack of careful selection of lecturers. Many of those classes have been highly successful. Very careful selection of lecturers is required in this work, and equally great care will be necessary in the selection of lecturers for training centres for teachers. From what I have seen in France and America, I am of opinion that both countries obtain for elementary education better teachers than those found in London, and this I believe is also due to insufficient training and careless selection with us.

With more than a dozen years' experience in teaching different sections of experimental science, nearly half of which time has been devoted to physiology and hygiene, I am forced to conclude with Dr. Heron that academic lectures merely in these subjects, apart from laboratory work, are useless. The successful lecturer in any branch of science, such as were Faraday and Huxley, must always be an enthusiastic worker in the laboratory.—I am, etc.

D. SOMMERVILLE, M.D., M.R.C.P., D.P.H.

Public Health Laboratory, King's College, May 8th.

PROPORTION OF FAT IN CONDENSED MILK WHEN DILUTED.

SIR,—I am sorry to trouble you with a final word on this matter, but as your reviewer and I got into rather a tangle of figures I thought it well to have a fresh analysis made. The result was as follows: Twelve grams (an average teaspoonful) of condensed milk of the same brand as before, when mixed with 3 oz. of water, yielded 95 c.cm. of a solution containing 1.28 per cent. of fat. Allowing for the new weight taken, this comes out practically as before. Analysis of the condensed milk before dilution showed that it contained 10.20 per cent. of fat by weight.—I am, etc.,

London, W., May 4th. ROBERT HUTCHISON.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

SIR,—The letter of Dr. Curgenven, published on April 29th, deals with a subject of both practical importance and interest. Experiments such as he performed are not conclusive, but the temperate and impartial manner with which he states his case must command respect for his views even if these fail to carry absolute conviction.

Before reading his letter personal impressions would have led me to a different conclusion to the one he arrives at; but mere impressions should not weigh against his more definite methods. His results, too, are to some extent explanatory of the success attained by Boudin and others, who find no difficulty in feeding infants from birth with undiluted sterilized milk, the only variation made being one of quantity according to the age of the child.

But there are other considerations than digestibility concerned with the question of boiling or sterilizing cows' milk for infantile use. To one of these, the possibility of the contraction of scurvy, Dr. Curgenven has rightly called attention, and his advice to give some fresh fruit juice as a safeguard against it will certainly meet with the approval of most with any experience of that complaint. That Dr. Lewis Marshall, in an experience so vast that he can write of scores of cases cured by one particular method, has never met with a single case of scurvy directly due to boiled or sterilized milk is sufficiently surprising, but his negative experience should not be allowed to override the positive one of myself and numerous others, who have not very infrequently met with cases of scurvy from the use of such milks. He may be reminded, too, that the discovery of these last cases did not originate with American authorities. At one time, indeed, American and German writers asserted that infantile scurvy was unknown in their countries, and such testimony was widely accepted as incontrovertible evidence of the safety of the boiling and sterilization of milk, coming as it did from sources where these last processes were the routine practice. It was predicted, however, that a more thorough acquaintance with infantile scurvy would lead such writers to modify their opinion, and the prediction has been amply justified by events. During recent years several infants, including a pair of twins, have been admitted to hospital under my care suffering from scurvy due to the use of milk which had been brought up merely to the boiling point. I have seen others from the

same cause in private, and still more where the complaint arose from the use of sterilized milk. In no one of these cases had any other food than the milk been employed. In the face of easily ascertainable facts, denial of the origin of infantile scurvy in the use of boiled or sterilized milk is futile, either on the part of Dr. Marshall or any one else.

Dr. Marshall again asserts that he has cured scores of cases of infantile scurvy by the administration of sterilized milk. Such a statement should mean that he followed the unusual course of not giving the ordinary antiscorbutics, otherwise his ascribing the cure to the sterilized milk is invalid. On the other hand, if he were successful in treating numerous cases of scurvy with sterilized milk alone, then I would contend his success is to be regretted if it should lead others to follow his example. To rely on sterilized milk alone for the treatment of infantile scurvy is to court speedy disaster.—I am, etc.,

London, W., May 16th. J. A. COUTTS.

SIR,—Dr. J. Sadler Curgenven's article in the BRITISH MEDICAL JOURNAL of April 29th is of great value to the practitioner. In it he shows that by experiment boiled milk is found to be more quickly and more completely digested than unboiled milk, and thereby gives us a rational method of feeding in those few cases where fresh milk disagrees.

I readily agree that if the only milk that can be obtained for feeding infants is milk in a state of lactic acid fermentation—that London milk which has undergone the treatment Dr. Curgenven so graphically describes—the vast majority of infants will benefit by the milk being boiled, the fermentation thereby being stopped, and only a very small minority will suffer from the loss of the "vital principle" caused by boiling. But boiling, sterilizing, or pasteurizing milk is a custom not confined to London and large towns. Many in the country who have their cows in a most sanitary condition adopt the plan, and they adopt it quite unnecessarily.

I am one of those who believe very strongly in *unboiled* milk, and regard it, if only it is given properly, as by far the best food for infants who cannot have their mothers' milk. But occasionally one meets with an infant who, for a time at any rate, cannot digest it, and feeding by Swiss milk or by dried preparations of milk, or by other preparations has to be substituted: but Dr. Curgenven's experiments certainly plead for a trial with boiled milk before we resort to these latter foods, and explain the known fact that sterilized milk can be given, and is best given, undiluted.

The great objection to boiled milk is the coagulation of the lactalbumen. No nurse, I take it, puts the "skim," which is the coagulated lactalbumen, into the baby's bottle, and the loss of lactalbumen, caused by boiling, by Dr. Curgenven's showing may be as much as 2 gr. in each ℥ss of milk. Now, supposing a child of 2 months is getting ℥iv of equal parts of milk and water at each meal, and has 11 meals in the twenty-four hours, the loss of lactalbumen is 88 gr.—a very appreciable amount, especially when we remember that, to start with, cow's milk contains less lactalbumen than human milk—an indication that in the child there is a greater need for lactalbumen—and a loss sufficient to cause malnutrition in an infant who may have extra need for this constituent of the food.

Because boiled milk sometimes induces scurvy or malnutrition and unboiled milk restores the infant to health (*pace* Dr. Lewis Marshall, there are sufficient cases recorded), it is not unreasonable to suppose that "the imperfectly understood vital principle" in milk lies in the lactalbumen. If this is so, then Dr. Curgenven's view that if the milk is only just brought to the boil the risk of destroying the "vital principle" is small does not hold good, for lactalbumen coagulates at about 170° F.

It would be interesting to know what degree of cold would stop lactic acid fermentation, and whether milk so cooled would be more digestible than uncooled milk; also, if it is lactic acid fermentation that hinders digestion. Dr. Curgenven has done great service in recording his experiments.—I am, etc.,

S. M. HEBBLETHWAITE, M.D.Lond.

Harewood, near Leeds, May 8th.

THE FEEDING OF INFANTS.

SIR,—Dr. Haworth's view is that natural feeding is best, and that where it cannot be obtained, the slightly diluted is better than the diluted milk method of feeding, an interesting and important statement.

My view is that natural feeding is greatly superior to the artificial, and that every effort should be made to reduce the present rate of say 50 per cent. of artificially-fed infants, to the proper rate of say 5 per cent.

Dr. Fortescue-Brickdale's view is not (as he assumes) the mid position of safety. It is the position of weakness, of knowing what is best yet not trying to obtain it. He admits the value of natural feeding, but shrinks from its advocacy. He states that "it seems illogical to hold that one milk may be substituted for another without detriment to the young," but "in many cases it is really impossible for mothers to suckle their infants." The method of nature is thus lightly dismissed, the intensity of "detriment" and the numbers of incapable mothers are unstated. Yet three out of four infants dying under 1 year of age are bottle-fed. I am afraid that such an attitude will not impress those mothers who can, but will not, nurse, and if trained in this lukewarm way it is to be feared that Bristol nurses will diminish but little the bottle feeding of Britain. Their influence for good will compare very unfavourably with the nurses of a Scottish school where the sturdy teaching was that "a healthy mother who can bear a child, can nurse it partially or entirely." The exceptions to this rule are very few. Even where illness intervenes at parturition, if the nipples have had attention beforehand, and the secretion be encouraged during the weeks of weakness, it is quite possible to put the child to the breast after a month, or even after three months, when health is restored.

The sentence from *Health in Infancy*, which Dr. Fortescue-Brickdale criticizes, amounts to this: that the best examples of healthy manhood and womanhood have been breast-fed as infants, a contention that the striking researches of Dr. Hall in Leeds (BRITISH MEDICAL JOURNAL of April 18th) tend to confirm. The Dundee report in your issue last week also shows the great need of enlightenment on the subject of nutrition. Whether or no my words be those of a "scientific physician" is a proposition that modesty prevents me discussing. I do not even aspire to be "A special pleader addressing a jury of matrons," an honour that Dr. Fortescue-Brickdale would perhaps better bear. But I sincerely hope that my book may be of some little service to the inexperienced girl-mother with her first baby, or to the ignorant mother of many, who kills her progeny, not from cruelty but from lack of knowledge. One can only wish there was more of the zeal of our medical officers of health for the badly-fed infants and underfed children of our large towns. And I for one would be delighted if, believing in the ideal of a healthy race, these matters were much more under the care and the control of our health departments. To be scientific is good, to apply science is very much better.—I am, etc.,

Newcastle-on-Tyne, April 24th. T. M. ALLISON.

THE ANNUAL ELECTIONS THROUGHOUT THE ASSOCIATION.

SIR,—A most important time of the year to the Association and its welfare is now upon us, and it behoves all to bestir themselves in their several districts to see that opportunities now offering of interesting not only capable members, but, what is far more important, those able and willing to give the necessary time, are not allowed to slip by.

As a result of some two years' intercommunication one cannot ignore the fact that there is great despondency at what is considered to be the slow progress made by the Association after the blast of trumpets with which the new era was welcomed. Many others will be able to vouch for this. The progress of the Association locally or centrally entirely depends on every member individually, for he is able by his voice and vote in all cases to control the formation of all Committees. If there has been stagnation it is because of the apathy of the electors.

One hears that in consequence of the not altogether satisfactory proceedings at previous Representative Meetings there is to be callousness as to the selection of those who will be chosen to act as Representatives this year, and their instructions will be given under the form of "a free hand." If this is done it will directly play into the hands of those who still long for the old system, and would gladly see the Representative Meeting discredited and abolished; this will prove disastrous to all progress.

Some tell you that the Representatives in the past were formed of "those with lots of money and no brains" (or, to be exactly correct, "no practice," which is, after all, very

much the same thing); that they were an unwieldy crowd of isolated atoms and not to be trusted.

Others, in order to prevent monotony of thought and deed, desire to increase the opportunities given to members of helping in the Central Committees of the Association by asking these very Representatives to elect to additional Standing Committees.

A fourth set seem to feel that if the Honorary Branch and Division Secretaries could be got together they may be able by private talks and exchange of ideas to help one another in bracing up those Divisions which are slack, to put life into others seemingly dead, and by suggestions aid to the interlocking of these local centres with the present machinery that is working at high pressure in one central office.

And there is yet a fifth and, alas! still powerful set who are seemingly quite content to allow things to drift, requesting only to be allowed to rest and contemplate the past.

Possibly others may be able say what is at the root of the difficulty and so help to the solution of the problem, but I would like to make two suggestions for consideration.

Where there is virility in these local medical societies—known as Divisions—it seems to be the wish of the members to push more to the front the political aspect of the Association, and to use for their benefit the great latent energy that has accumulated; among those who control the central machinery, on the other hand, the scientific aspect of the Association appeals still as in the past, and the political side is looked on askance and as likely, if made more prominent, to bring the whole Association into disrepute.

Again, look at the way, say, an Englishman as against an American approaches anything new. The latter looks at the suggestion, tests it by means ready to hand in consequence of his experience, and has no hesitation in throwing the old on the scrap heap. The former, on the other hand, asks: Who suggested this? What does he know? Who is he? etc., and, without any further inquiry as to the merits of the suggestion, throws it out of the window. I am afraid this is still a fault in this Association.

Here lies the line of cleavage. It is here I suggest we must look for the cause of the disappointment. Scientific development in the Association, but only at its centre, is of the highest excellency; in the majority of its local medical societies it is far in the background. On the other hand, the political development is constantly being pushed forward from the periphery; and there is little or no sympathy for it at the centre. The two schools stand apart.

If those who are at present looked to by the members of these local societies as guides would forget the past failures, and do all they can once more to return as Representatives to the meeting at Leicester members who have business aptitude combined with medico-political experience, the slurs cast on that assembly would become no longer warranted. By a little internal reorganization, which some of the topics on the agenda will allow discussion of, combined with a due appreciation of the responsible trust put into their hands, there is no reason why this medical House of Commons should not be looked to in time as sufficiently reliable and capable of electing all the Standing Committees, which would then collectively form the Central Council, and so do away with the anomaly of a dual election and a so-called Branch representation.

Given power to each such Committee to co-opt specialists in its peculiar work, the resultant would be a body of members individually helping an Association powerful for progress both in science and politics.

The question of the election of Division, Branch, and Central Council members is very much bound up in the above remarks.

Despondency at present is not warranted. It is absurd to stand gazing up to discover the fruit before the spade work has been completed.—I am, etc.,

London, S.W., May 12th. E. ROWLAND FOTHERGILL.

MEDICAL REFORM.

SIR,—Far back in the past century an Irish medical philosopher named Carmichael left a sum of money to advance the status of the medical profession. He thought corporations could do no wrong, and so he left his money to the Royal College of Surgeons in Ireland to adjudicate the question of a prizeman. Time after time aspirants for the prize have arisen to claim the interest of Dr. Carmichael's money, and time after time these works of erudition have been placed upon the shelves for the edification of the bibliophile, but certainly not for the instruction of the rank and file of the profession in whose interest ostensibly these works were designed.

The British Medical Association pre-eminently appeals to all grades, and instead of having my opinions relegated to the shelves of oblivion I prefer to ask your indulgence to place before the readers of the BRITISH MEDICAL JOURNAL the pertinent query: The Act of 1858 has given us status; the Act of 1886 has given us a limited form of self-government; how in the future are we general practitioners to avail ourselves of such limited self-government? For nineteen years the representatives of the medical practitioners have met in Oxford Street. As they have not advanced our cause by one legislative enactment we have the right to question if the present mode of election to the Council be right?

To the ordinary observer one would have thought: Here we have five men representative of the three kingdoms, men of the highest standing, outvoted and discredited, men who are not ashamed to continue the farce of direct representation. Can they do nothing? Where there is a will there is a way. Is it not open to these gentlemen to meet in committee before the biannual meetings of the General Medical Council; for all five to agree to a principle of concerted action? The suggestion is at least reasonable: such an international Committee, following a line of concerted action, should be able to act, not for the good of corporate bodies, but for the good of the profession generally. But in their nineteen years of representation the Direct Representatives have dissipated their strength, such as it is, in individual and useless action.

Nothing appeals more strongly to the layman than the fact that laymen outside consultants have the executive control of the profession. Each Registrar of our General Medical Council is a layman. When the Act of the high-souled Coroner Wakley, M.P., was carried through, he assumed that the profession would insist upon having medical men as registrars of each Branch in England, Ireland, and Scotland, but now in 1905 no medical man is registrar of any branches! The General Medical Council prefers solicitors, prefers even men that qualify in any other faculty save medicine, and the various registration offices of London, Edinburgh, and Dublin exist without the guiding head that common interest usually dictates. Do barristers, solicitors, or architects, etc., employ outsiders in their executive work? Obviously not; they all make selections from among themselves except in our profession.

It may be said that medical men are unfitted by their education to safeguard their own interests. Then why do Governments place medical men in positions of administration wherever the British flag flies? Are we to be for ever altruistic?

For sixty years we have looked to 299, Oxford Street, for government; we have supplied the General Medical Council with the money they have squandered. Has that body attempted legislation except to perpetuate a system inharmonious to the reasonable dictates of self-government?

An exalted member of the profession has written a work, *The Other Side of the Lantern*. Its scope extends from "London to Yokohama." May I ask, Is there no literary work for those of Harley Street or Brook Street nearer home? "The other side of the lantern" is a homely subject, and a critical inquiry into the government of the medical profession by such an author would help us.

Already candidates are coming forward to contest the right to sit in opposition in 299, Oxford Street. A discredited medical government has been sitting in the majority for sixty years. Its President has resigned. Doubtless even he has seen that £1,300 a year is an expensive sum to pay annually over income even from a Scotch point of view.

In 1901 13,347 registered practitioners *did not vote* in England. I refuse to believe that when the proper candidates come forward such negligence will be repeated.—I am, etc.,

London, N.W., May 11th. S. WESLEY WILSON.

PRESCRIBING OR DISPENSING IN MEDICAL PRACTICE.

SIR,—I think the fact has been overlooked that many men residing in country villages are far away from any chemist who could do their dispensing, hence there is no alternative but to do it themselves. Now with regard to the concentrated forms of medicine, if a medical man in the country prescribed these infinitesimal drugs to his patients they would say, when the bill at Christmas came in: "What! all this for those tiny little things?" Yet, on the other hand, people are eager to buy these concentrated medicines, being recom-

mended by some kind friend, and in every chemist's shop you will see cases displayed. Very few of the younger generation know how to dispense and very little of the taste, smell, or peculiarities of the drugs they dispense. A young man, acting as *locum tenens* in a country practice, is now very often at his wits' end to know what to do or give. He might be a first-rate surgeon, but knows nothing of the routine of general practice.

Fortunately, as a youth I knew pretty well all the principal drugs in the *British Pharmacopoeia*, how to dispense them, and send them out in ship-shape form; before I commenced practice for myself I acted as *locum tenens* in various parts of London and in the country without let or hindrance.—I am, etc.,

Southampton, April 30th. GEORGE STEVENS, F.F.P. and S.Glas., M. and L.S.A. Lond.

ONE-MARK VACCINATION.

SIR,—My experience as a practitioner of twenty years' standing may be of interest to "One Mark" and "General Practitioner."

I have always insisted on vaccinating my patients in four places, and never remember to have failed to convince any one of them that it is the right and proper course to pursue. Surely it is the doctor's business to protect and instruct those who put themselves under his care, and not to pander to them when their interests are at stake, and I have seen that they think very small beer of the man who does the latter. In further illustration that the scare these good gentlemen are suffering from is infinitesimal, having been a public vaccinator for the past twelve months, and having many patients who live in another public vaccinator's district, it has surprised me to find how many of them will come to me to be vaccinated, although they know that they can be vaccinated (as I frequently point out to them, the public vaccinator in question being a great friend of mine) by him free of charge in exactly the same way I should do it charging them 5s. to 7s. 6d. I do not myself think that the "one-mark" man will do himself any good by adopting his tactics. People—the thinking ones, and, therefore, those that will probably be his best patients—will argue that if the Local Government Board adopt a certain standard there is good reason for their doing so, and that if their doctor is vaccinating inefficiently for what he considers to be his own gain, how can they trust him to be honest in other cases? To my mind the letters of "One Mark" and "General Practitioner" are the best arguments against allowing every practitioner to be a public vaccinator. On the other hand, I hold very strongly that the public vaccinator should act with extreme circumspection when dealing in his official capacity with other men's patients, and that any man who notoriously abuses his position in this way should be reported to the Local Government Board, and be by them removed if the charges against him be substantiated.

With regard to the fees paid to the public vaccinator, I do not think any one can say that 5s. per each successful case is excessive if they know the amount of work entailed by the Local Government Board's regulations. I imagine there are very few public vaccinators receiving the "enormous sum of £800 a year," and I am pretty sure that those who do and do their work conscientiously cannot have much time, even if they have the inclination, to attend patients "filched" from other practitioners.—I am, etc.,

May 11th. A PUBLIC VACCINATOR.

SIR,—As the above subject has been the cause of a number of medical men expressing their opinions as to what should be done and as to what should not be done, might I be allowed humbly to suggest that it is time that the antiquated method of arm-to-arm vaccination should be discontinued by those medical men who adopt the one-mark idea? This ancient method was one of the many objections parents had to vaccination previous to the passing of the new Vaccination Act; and by medical men using calf lymph when they put the one-mark on, or the two-mark, I think they would go a good way towards removing the existing prejudice, and also towards meeting the requirements of the said Act.—I am, etc.,

A. ST. LAWRANCE-BURKE,
Late Public Vaccinator, Bushbury Parish, Cannock Union.

Netherton, May 9th.

THE MIDWIVES ACT AND THE MEDICAL PROFESSION.

SIR,—While sympathizing with Mr. St. Lawrance-Burke in the loss of his fee for attendance on a patient at the call of a midwife, I should like to enter a timely warning against his suggested remedy—the appointment of a medical man in each district and the exclusive right of attendance in such emergencies.

Surely the experience we have of the jealousy and friction created by the vaccination system of Government monopolies ought to warn us against seeking a similar remedy for the inconveniences he complains of. Personally I would much prefer to risk the loss of an occasional midwifery fee rather than face the alternative of surrendering all such cases to the dispensation of county and district councils.

Let us have free trade in midwifery since we cannot have it in vaccination. It is the inalienable right of every qualified man to attend confinements and of every lying-in woman to choose by whom she shall be attended.—I am, etc.,

May 15th. FAIR PLAY.

SIR,—In the BRITISH MEDICAL JOURNAL of May 15th, Dr. A. St. Lawrance-Burke draws attention to one of the many faults of the Midwives Act. If he looks up the SUPPLEMENT to the present number of the JOURNAL he will find that our Division (the Furness Division) is bringing this matter, amongst others, before the Representative Meeting. I would suggest to Dr. St. Lawrance-Burke the advisability of his using his influence to get his Division to back us up. If we hold well together we may be able to reform this Act in, at least, some of its grosser shortcomings.—I am, etc.,

Barrow, May 13th. JOHN LIVINGSTON.

SIR,—With reference to the case[1] where a doctor attended at the summons of a midwife, he is entitled to a fee of 5s. for his first visit, and no more. He was wrong to continue in attendance, and wrong not to ask for and obtain his fee within twenty-four hours.

Rule 17 (*b*) 4 says: "If an hour after the birth of the child the placenta has not been expelled." The nurse acted correctly.

It is desirable that a list of those registered practitioners who are willing to attend such a summons should lie at the office of the health officer, and, for convenience of access during the night, at every police-station in the neighbourhood. If any one not on the list were summoned he would be entitled to insist on first having his fee paid him. I do not think as we now stand any one could safely refuse to go.

With regard to payment being guaranteed by the local authority, this is being discussed by the Divisions. It is very important that members should make known their wishes, attending in full force. The resolutions set before us are not, perhaps, so clearly constructed as might be wished. We in our Division were clear that the duties should *not* be added to the Poor-law work (the parish doctor would attend just as any other), nor should an appointment, openly or tacitly, be prepared for some junior whose uncle, may be, is a guardian or councillor. Besides, the suffering woman should surely be allowed some choice. The matter is most important, and every doctor should be on the alert.—I am, etc.,

May 13th. G. C. C.

THE SOCIETIES OF APOTHECARIES.

SIR,—The proposed change in the title of the diploma granted by the Societies of Apothecaries is undoubtedly necessary, as your correspondents have pointed out; but should not the first step in the matter, for the honour of the profession, be to make clear in the eyes of the public the nature of the Society which grants the diploma? This might be done by changing the name of the Society, for some considerable proportion of the general public regards it at present as a body which turns out in its licentiates hybrids between a physician and a chemist.

In my opinion it is high time that the practically obsolete term "apothecary" should be omitted from the title of the Society, and that the Society of Apothecaries should be changed to the Society of Physicians and Surgeons, or the Society of Physic and Surgery, or the Society of Medical and Surgical Diplomates, or, at any rate, some society that does not introduce the inexplicit term "apothecary" into its title.

It seems to me that the titles Lic. Med., Lic. Surg.; Lic.

[1] BRITISH MEDICAL JOURNAL, May 13th, 1905, p. 1069.

Soc. Surg. and Phys.; Memb. Soc. Med. and Surg. Diplomates; or Dipl. Med. and Surg. (London or Dublin) are all preferable to the proposed "Lic. Med. Surg. and Midwifery of the Society of Apothecaries."

Surely midwifery need not be dragged into the title of the diploma, for it is a part of medicine, or, as some say, of surgery.—I am, etc.,

May 11th. INTERESTED.

THE IRISH MEDICAL DIRECTORY.

SIR,—It seems to have escaped the notice of your correspondents who have been complaining about the arrangement of the new *Irish Medical Directory* that it was published by and at the expense of the Irish Medical Association and that one of its chief objects was to enable the members of that Association to distinguish readily those who are from those who are not anxious to stand by their professional brethren of the Poor-law Service in their demand for justice, and I submit that in that respect it has fulfilled its object. It is not the fault of the Poor-law doctors that the majority of the members are in that service and we certainly have no desire to limit the objects of the Association to matters affecting the Irish Poor Law, but if medical practitioners outside that service stand aloof from us we can hardly be blamed if we distinguish them in our publication.—I am, etc.,

May 17th. T. H. M.
A Member of the Council of the I.M.A.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

IMPROVED PAY IN THE INDIAN MEDICAL SERVICE.

THE following information has been communicated to us by order of the Secretary of State for India in Council:

Certain improvements in the pay of the Indian Medical Service as specified below have recently received the sanction of the Secretary of State for India in Council.

1. In the case of military appointments carrying consolidated rates of pay, increases in those rates have been made analogous to the increases in the pay of rank sanctioned in 1903. This does not apply to appointments held by officers in the rank of Colonel or Surgeon-General, as no increase was made in the pay of those ranks.

2. The pay of the majority of civil appointments has been increased, the increases in this case also being analogous to the recent increases in the pay of rank. The changes that will affect the largest number of officers are as follows:

(i) The pay of civil and agency surgeons, first and second class, is fixed at Rs. 50 a month more and Rs. 50 a month less, respectively, than the pay drawn by officers of the same rank in charge of native regiments.

(ii) Officers in charge of first and second class central gaols will receive Rs. 100 and Rs. 50 respectively more than is drawn by officers of the same rank in charge of native regiments.

The following new rates may also be mentioned:

(*a*) Inspector-General of Civil Hospitals, Bengal, Rs. 2500.

(*b*) Inspector-General of Civil Hospitals, Punjab and Burma, Rs. 2250.

(*c*) Sanitary Commissioners, Rs. 1500-60-1800.

3. The military rates of leave-pay are revised as follows:

On first appointment, £250 a year.

After the commencement of the tenth year's service for pension, £300 a year.

After the commencement of the fifteenth year's service for pension, £450 a year.

After the commencement of the twentieth year's service for pension, £600 a year.

After the commencement of the twenty-fifth year's service for pension, £700.

4. The promotion of officers from captain to major is accelerated by six months in the case of officers who fulfil certain specified conditions.

5. The rates of half-pay have been assimilated to those drawn by officers of the Royal Army Medical Corps, namely:

Under five years' service, 6s. a day.
After five years' service, 8s. a day.
After ten years' service, 10s. a day.
After fifteen years' service, 13s. 6d. a day.

ROYAL ARMY MEDICAL CORPS.

THE SIR WILLIAM TAYLOR PRIZE, 1904.

THE Sir William Taylor prize of 25 guineas has, for 1904, been awarded to Major W. H. Horrocks, M.B., R.A.M.C., in recognition of his distinguished practical and scientific work in connexion with his article on drain flushing as contributed to the *Royal Army Medical Corps Journal* in March, 1904, and for his work on the saprophytic existence of the micrococcus melitensis outside the body, its mode of entrance into the animal body, and mode of leaving the same, as published in the Report of the Commission for the Investigation of Mediterranean Fever appointed under the supervision of an Advisory Committee of the Royal Society.

EXAMINATION OF MAJORS FOR PROMOTION.

FROM January 1st, 1906, in the examination of Majors of R.A.M.C. for promotion, failure in one technical subject will necessitate re-examination in that subject alone; failure in more than one technical subject will entail re-examination in all. The following will be substituted from January 1st, 1906, for Paras. 3 and 4 of Appendix VIII B.:—*Technical subjects:* 3. Sanitation of towns, camps, transports, and all places likely to be occupied by troops in peace or war; epidemiology, and management of epidemics. 4. The laws and customs of war, so far as they relate to the care of the sick and wounded. Para. 5 (*c*) is cancelled. The following addition will be made to the list of "books recommended": *The Laws and Customs of War on Land*, edited by Professor T. G. Holland, K.C.

OBITUARY.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Surgeon-General E. Friedrich, of the German army, aged 83; Dr. Michael Tscherinoff, Professor of Medical Diagnosis and Clinical Propaedentics in the University of Moscow, Chairman of the Sanitary Department of the Municipal Drainage Commission, and author of numerous contributions to medical literature published in *Virchow's Archiv* and various Russian periodicals, aged 66; and Dr. Eugene Hubert, Professor of Obstetric Medicine in the University of Louvain, author of a treatise on the subject and of numerous other contributions to medical literature, aged 65.

LIEUTENANT-COLONEL CHARLES WHITE, Royal Army Medical Corps, retired pay, died at 53, Carlton Hill, London, N.W., on the 9th instant, aged 64. He entered the Army Medical Department as Assistant Surgeon, March 31st, 1865; became Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1877; was granted the rank of Lieutenant-Colonel, March 31st, 1885; was made Brigade-Surgeon-Lieutenant-Colonel, September 16th, 1891; and retired from the service November 7th, 1895. He has no war record in the Army Lists.

MAJOR HUBERT DEMPSTER MASON, Royal Army Medical Corps, died in India on the 9th ultimo, in the 42nd year of his age. He was appointed Surgeon, January 31st, 1891, and Major, January 31st, 1904. He was in the South African war in 1899-1900, and had received the Queen's medal with clasp.

HOSPITAL AND DISPENSARY MANAGEMENT.

REGISTRATION OF NURSES.

EVIDENCE BEFORE THE HOUSE OF COMMONS COMMITTEE.

THE Select Committee of the House of Commons on the question of establishing a system of registration of nurses heard further evidence on May 16th. Mrs. Bedford Fenwick gave an account of the system in Cape Colony, Natal, and New Zealand, as well as in the United States. In New Zealand nursing homes were registered under the Public Health Act at the expense of the Government, and this, she insisted, was the only satisfactory method. She said a central nursing Board should be constituted by Act of Parliament, and this Board should define the minimum standard to which a woman should attain before she was allowed to describe herself as a trained nurse. She did not believe that under the system she advocated the poor would cease to have an adequate supply of nurses. In reply to Sir J. Stirling-Maxwell, the witness said a nurse who was once on the register would not be struck off unless a definite accusation was established against her. In answer to Mr. Douglas she said women could not be prevented from calling themselves nurses, but under registration they could be prevented from calling themselves registered nurses. Miss Laura L. Dock gave evidence with regard to the system of registration of nurses and nursing schools at work in the United States, and expressed the view that so far the system promised well. She thought it might be better still if the system, now permissive, were made compulsory. Sir James Crichton-Browne repudiated the idea that nurses, if they were given the distinction which State registration implied, would become amateur doctors and enter into competition with medical practitioners. The condition of the nursing world had enormously improved, and was improving, but there were still a good many incompetent nurses, and the system of registration would winnow out the ignorant, stupid, and incompetent. The system which he favoured was that the nurses should be registered on producing a certificate from the hospitals and training institutions recognized by the Central Board of Registration. This would be of great advantage to the public, because no hospital or training college would like to be struck off the list of institutions whose certificate was recognized. Although the census returns showed that there were 80,000 nurses in the United Kingdom, he thought that number included many young women who merely looked

after children. He estimated that not more than 3,000 nurses would be registered yearly. Mr. A. M. Upton, Clerk to the Society of Apothecaries speaking for that Society, declared that the registration of nurses was unnecessary and undesirable.

MEETING AT LONDONDERRY HOUSE.

A meeting was held on May 16th at Londonderry House, to consider the questions involved in the proposed State registration of nurses. The Marchioness of Londonderry, who presided, said that at the present time a nurse with six months spent in an infirmary competed against one who had gone through a full course of four or five years' training in a great hospital, and the public had no means of knowing what her real qualifications for her duties were. Miss Isla Stewart, Matron of St. Bartholomew's Hospital, said that the real control of the profession lay not with the nurses themselves, but with hospital managers. The progress of nursing had been phenomenal, but organization had not kept pace with it, and the profession had no central Board or recognized standard of education. Miss Mollett, Matron of the Royal South Hants Infirmary, Miss Hughes, Queen Victoria's Jubilee Nurses, and Mr. James Cantlie, expressed themselves in favour of registration. In the subsequent discussion one lady urged the advisability of having at least two grades of registration, and another spoke strongly as to more classification being desirable. In the absence of Lady Helen Munro Ferguson, Lady Londonderry moved a resolution approving of the formation of a lay association for promoting the State registration of nurses. Among others to form the committee the names were submitted and approved of the Duchess of Montrose, the Dowager Marchioness of Dufferin, the Countess of Lonsdale, the Countess of Yarborough, Lady Helen Munro Ferguson, Lady Gifford, Lady Loch, Viscountess Ebrington, Lady Acland, Lady Grey, the Hon. Lady Therold, and the Hon. Mrs. Stanley.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE HEALTH OF THE PORT OF LONDON.

THE annual report of Dr. Herbert Williams, Medical Officer of Health for the Port of London, to December 31st, 1904, which was presented to the Sanitary Committee on April 13th, gives an account of the cases of infectious disease dealt with during the year.

Medical Inspection of Vessels.

The total number of vessels medically inspected during 1904 at Gravesend was 2,559, the mean annual number for the past five years being 1,560. At Sheerness the total number inspected was 308, which, though slightly lower than the number for last year, is above the mean for the preceding five years.

Inspections by Sanitary Inspectors.

With regard to the inspections of vessels by sanitary inspectors, the total number of inspections of all kinds made was 35,385, a figure which is substantially above the mean for the previous five years. Of the total number of inspections, 151,685 were made on vessels from foreign ports, 4,293 on vessels from ports in the United Kingdom, 13,513 on barges, canal boats, lighters, and other vessels not engaged in sea trade, and 1,892 of buildings and other premises on shore within the area of the docks. The cleansing of crews' quarters was ordered and carried out in 3,514 instances, or 12.75 per cent. of the total number of vessels inspected.

Nationalities of Ships Inspected.

With regard to the nationalities of the vessels inspected, 83.99 per cent. were under the British flag, Scandinavia coming next with 4.99 per cent., Germany with 3.53 per cent., followed in order of importance by the Dutch, Danish, French, Belgian, Russian, Spanish, Finnish, Austrian, Italian, Greek, Americans, Japanese, and Argentine Republic.

Alien Immigrants.

The report states that there was a large influx of alien immigrants during the year, chiefly from Russian ports. In all, 7 cases of infectious diseases were found, 4 of measles, and 3 of continued fever. No relaxation took place in the inspection of vessels from ports where cholera, plague, or yellow fever was known or suspected to exist. The number of vessels at present which succeed in passing the station and proceeding up the River Medway without a visit from the medical officer is so small as to be practically unimportant.

Infectious Diseases.

As far as imported infectious disease is concerned, there were fewer cases requiring to be dealt with than in previous years, the total number of cases reported being 153, which is 76.8 below the mean for the preceding five years, while the number treated in the Port Sanitary Hospital, Denton, was 73, or 7.8 below the mean for the preceding five years. The most noticeable reduction is in the number of cases of small-pox, diphtheria, enteric fever, and measles. With regard to small-pox, the mean annual number for the past five years treated in the Port Sanitary Hospital is 12.8. During the year only five were admitted, but the quinquennial is high by reason of the cases occurring in 1902 when small-pox was epidemic in London. No cases of diphtheria were admitted. The mean for this disease is only 2.4. Thirty-three cases of enteric fever were admitted and treated, being 6.4 below the mean.

Cholera.

The number of cases of cholera reported on vessels arriving in the Port of London during the year was four.

Yellow Fever.

No cases were reported on vessels arriving during the year.

Plague.

Cases.—Three cases were reported on vessels arriving in the Port, but the bacteriological test in each case gave negative results. In another case on a vessel from Colastine, River Plate, the result was positive. The man felt ill while the ship was lying off Ferrol in Spain; at sea he became worse. Mr. Hancock, the Boarding Medical Officer at Gravesend, thinking the case suspicious, ordered his removal to the Port Sanitary Hospital. From the clinical symptoms Dr. Williams formed the opinion that the man was suffering from plague. The fluid collected from a bubo was examined by Dr. Klein, the result being positive in every respect, and he even succeeded in producing the disease of plague in a captive rat by means of this fluid. The man's condition improved in a remarkable manner after two injections of the antiplague serum, and he ultimately left the hospital convalescent and returned to Spain. The vessel proceeded to Barry to load a cargo on her outward voyage, and the fact was duly notified to the Medical Officer of Health for that port. This antiplague serum was prepared after the method of Dr. Haffkine by Dr. Klein in 1901 for the authority; about 950 doses remain, kept in a cool place. Dr. Klein reports that it is still efficient, and the opinion would seem to be confirmed by the rapid improvement in the patient after the first injection. Many rats were caught on board the voyage, but no sick or dying rats were seen. It was stated that the patient had been seen catching rats with his hands. The crew, with all their effects, were landed at the hospital, where they were thoroughly disinfected; the vessel was thoroughly fumigated from stem to stern. The names and addresses of all the men employed on the ship during the process of discharging were recorded and notified to Dr. Williams each day, and these were forwarded to the Medical Officers of Health of the districts in which they were living. The majority of the crew were paid off, and on furnishing satisfactory names and addresses were allowed to leave, this information being sent to the Medical Officers of Health of the places to which they were proceeding.

Destruction of Rats.—A man was told off to collect all dead rats, and was carefully instructed to handle them only with a pair of tongs and place them at once into a bucket containing a solution of corrosive sublimate (strength 1 in 1,000). These were then conveyed to the ship's furnace and there cremated. The vessel was visited daily, but no further cases occurred either among the crew or the men engaged in discharging the ship. After the vessel was discharged the linings of the ship were taken down and all dead rats collected and burnt, the holds were washed down with a solution of disinfecting fluid, the bilges disinfected, and the water tanks emptied and cleansed. The measures of disinfection seem to have been efficient, for no case of actual or even suspected plague arose amongst the crew or persons employed in the unloading of the ship. The number of rats destroyed was 245, of which 101 were destroyed as a result of fumigation. The total number of rats destroyed since the work of extermination of these vermin in 1901 is 328,377. The total number caught in dock warehouses, on vessels in dock, and on vessels during voyage in 1904 is given as 65,595.

Accommodation for Crews.

The medical officer again draws attention to the insufficient and unsatisfactory accommodation provided on ships for the crews, especially with regard to ventilation and lighting, and the opinion is strongly expressed that no practical reasons exist why the standard of comfort of ships should not be materially increased, and it is recommended that, when ships are being built, plans of the crew's quarters should be submitted to the local sanitary authority for their approval, and that to ensure uniformity the Government should formulate certain requirements, which will govern the sanitary authority in their consideration of such plans.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

THE Royal Commission on the Care and Control of the Feeble-minded resumed its sittings on May 12th.

After Mr. T. DUNCOMBE MANN had described the powers and duties of the Metropolitan Asylums Board in respect of imbeciles and the feeble-minded and the class of persons dealt with and the accommodation provided, Mr. J. T. HEIBY, a member of the Board, stated that he was in favour of provision being made for the detention in suitable institutions of idiots, epileptics, imbeciles and feeble-minded and mentally-defective persons of all classes, and not only, as at present, of those chargeable to the Poor-law Guardians. Subject to certain restrictions—such as medical examination and certification and the ability and desire of relatives to provide satisfactory private detention—the detention of such persons should be compulsory and permanent. In order to ensure an approach to a uniform standard the medical examination and certification should be under the control of a central authority, one which could command expert assistance. Certification of the persons in question should not be left in the hands of general practitioners. He entirely agreed wth the view adopted by the Asylums Board that permanent detention was necessary for the great majority of the feeble-minded.

Dr. E H. BERESFORD, Medical Superintendent of Tooting Bec Asylum, said he thought idiots and defectives might with advantage all be treated in the same institution, and that their detention should be permanent. Industrial colonies should be upon a large scale, and provide accommodation for from 600 to 1,000 inmates. The housing should be on the cottage system, as this lent itself to classification of patients, lessened the risk of epidemics, and facilitated the isolation of patients of vicious or unruly habits.

MILK SUPPLY.

A CURIOUS case relating to the supply of pure milk was heard in the King's Bench Division on May 15th. It appears that the plaintiff purchased a milk business from the defendant in St. John's Wood for £8,900. Before the sale the defendant had been in the habit of separating and selling the cream from 26 gallons of milk, and adding the resulting skim milk to the pure milk which she sold to her customers. In the contract of sale she had represented to the plaintiff that the daily sale of milk was 320 gallons at 4d. a quart. The defendants alleged that there had been a breach of warranty, inasmuch as the £1,800 per annum profits on which the sale price had been calculated included the profits made by the daily sale of 6½ quarts of cream abstracted from the 26 gallons of milk.

Mr. Justice Wills came to the conclusion that there was no guarantee, express or implied, that the milk which the defendant sold to her customers was as it came from the cow. The warranty which she had given only extended to a series of weeks, not to a whole year. In his opinion the defendant's books, which had been inspected by the plaintiff, clearly showed the practice, and that dispensed with further notice. The important words in the judgement are these: "I do not think that Section IX of the Sale of Food and Drugs Act of 1875 hits this practice of selling skim milk mixed with normal milk, and no one has been prosecuted for such an act; nor do I think that Section XI of the Act of 1899 made it an offence." In the event he gave judgement for the defendants.

In a case decided some years ago a man sold skim milk as milk. It was shown that the article so supplied was, as compared with normal milk, deficient in butter-fat to an extent of 60 per cent. It was held, however, that he had committed no offence against the Sale of Food and Drugs Act, 1875.

Section XI of the Act of 1899, which was apparently designed to prevent the sale of skim milk without warning to the purchaser, provides that every tin or other receptacle containing skimmed milk must have a label to that effect.

From the decision of Mr. Justice Wills it appears that a milkman is entitled to dilute good milk with skim milk and yet escape scot-free.

INSANITATION AND DUAL CONTROL.

TWO reports have recently been made to the Local Government Board by two of the Board's medical inspectors in regard to the evils of having two medical officers of health responsible for the same district. Dr. Darra Mair's report is on the sanitary administration of the Wrexham Rural District, and Dr. W. W. E. Fletcher's on the sanitary circumstances and administration of the Halstead Rural District. In both of these districts, it appears that hitherto the rural district councils have each employed two medical officers of health, both at inadequate salaries, and that the Board has pointed out to the authorities the inadvisability of this course. Both medical inspectors have no difficulty in finding a number of sanitary defects in the districts thus served, which they consider to be due, in part at all events, to maladministration. The Wrexham Rural District is one of the most populous rural districts in the country, but it is unprovided with small-pox hospital accommodation, and what is more remarkable, the rural district council makes no attempt to collect refuse, with the results that ashpits and midden privies are only cleaned at the convenience of occupiers. It is unnecessary to say that such a practice leads to gross neglect, and the occurrence of many nuisances. Dwelling-houses also require stricter attention, and building by-laws need enforcing. That new houses should be erected back-to-back seems almost incredible. Drainage of populous localities is also needed, and the keeping of systematic sanitary records is of course essential. Dr. W. W. E. Fletcher's report on the Halstead Rural District is not much more encouraging, though it concerns a less populous district. Here water supply, sewage disposal, general supervision over sanitary circumstances, and systematic inspection all require attention. Both inspectors attribute much of the unsatisfactory state of affairs to the duality of administration, and they urge combination with other districts, or the whole-time appointment of medical officers specially qualified to do public health work. We entirely concur, and trust their recommendations will be adopted.

SCARLET FEVER RETURN CASES.

AT the Liverpool Assizes on May 12th, 13th, and 15th, Mr. Justice Walton, sitting with a special jury, heard the case of "Evans *v.* Mayor, Aldermen and Citizens of Liverpool," in which the plaintiff claimed damages from the defendants for negligence in prematurely discharging a patient suffering from scarlet fever from the City Hospital, Netherfield Road.

Mr. Tobin, K.C., and Mr. Layton were for the plaintiff; Mr. Taylor, K.C., and Mr. Cuthbert Smith, for the defendants.

It appeared that on November 1st, 1904, the plaintiff's son was received into the hospital suffering from scarlet fever. He was removed to the Priory Road Convalescent Home on November 22nd, from which he was discharged on December 22nd. Shortly after his discharge three more of the plaintiff's children became infected with the same disease. One of them died. The plaintiff's case was that these children caught the infection from the first child. It was proved that the child's feet had not finished peeling when he arrived home, and that he was suffering from two small sores, one on the ear and the other at the corner of the mouth. The defendants denied that the sores had existed, and maintained that they were not responsible for the acts of the medical officer who discharged the child, and that if they were, there was no evidence of negligence.

One of the hospital rules was that "The visiting physician shall be responsible for the treatment of the patients from the beginning to the end of their stay, and also for their freedom from infection when discharged." The terms of the visiting physician's appointment were contained in a resolution of the Hospital Committee of the corporation, and were to the following effect: "That Dr. Robert Archer be engaged as Visiting Physician to the City Hospital, Priory Road, Anfield; that he be paid at the rate of £50 per annum; that the engagement be determinable by one month's notice, which may be given at any time, and which, on behalf of the corporation, may be signed by the Town Clerk and posted to his (Dr Archer's) last known place of abode; and that the engagement be also subject to the following conditions—namely, that Dr. Archer be responsible for the medical treatment of the patients, and that he visit the Priory Road Hospital every day if requisite; that he sign a book when entering and leaving the hospital; that he make such reports and give such attendances at the meetings of the Port Sanitary and Hospitals Committee as may be required by the Committee; and that he act under the general directions of the Committee."

Mr. Justice Walton left the following questions to the jury: (1) Was there any want of reasonable skill and care in and about the discharge? Yes. (2) Was it in consequence of such neglect that the plaintiff suffered damage? Yes. (3) Was there any neglect on the part of the nurses or the matron in examining and reporting? No. (4) Was it in consequence of such neglect that that the plaintiff suffered damage? No. (5) If Dr. Archer was negligent, was there any undertaking implied by the defendants with the plaintiff that Dr. Archer should act with reasonable care and skill in and about the discharge of the plaintiff's son? Yes.

Mr. Justice Walton said that he left the last question with much hesitation. The damages were agreed at £55. Judgement was reserved.

AMBULANCE WORK.

THE St. John Ambulance Association held one of its annual championship competitions on May 12th at the Portman Rooms, Baker Street, W. The competitions were two in number, the first being for representative squads from each of the six railway companies in England and Wales, and the second between squads representing the divisions of the Association throughout the country which had figured best at a preliminary test. The work done was the same in both cases, and consisted of the separate examination of each man of a squad viva voce and in bandaging, and of attendance on an injured person by the squad combined. In the event the Alexandra Dock and Railway Company proved winners of the Railway Shield, the South-Eastern and Chatham coming second, the Lancashire and Yorkshire third, the North-Eastern fourth, the Great Western fifth, and the Cheshire Lines Committee Railway sixth. The highest number of marks was 241½, and the lowest 194½. In the open competition Wales again came to the front, the shield being won by a team from Newport, Monmouthshire. The first competition was judged by Dr. Cassidy, and the second by Surgeon-Major Gibbon and Dr. Carvell.

"PHOSSY JAW."

THE International Conference for the Protection of Workmen, now being held at Berne, agreed on May 16th, upon the following provisions as the basis of an International Convention for the prohibition of the use of white phosphorus: (1) From January 1st, 1911, the manufacture, introduction, or sale of matches containing white phosphorus to be forbidden. (2) Notices of ratification to be sent in by December 31st, 1907, at the latest. (3) The Japanese Government to be invited to give its adhesion to the present convention before December 31st, 1907. (4) The validity of the convention to be conditional on its acceptance by all the States represented at the Conference and by Japan.

BOOKS FOR M.O.H.

AGONESTES asks for "the best book for a beginner medical officer of health, especially a book showing how the various calculations are arrived at in the annual reports."

*** There are several standard textbooks of reasonable dimensions, amongst which, perhaps, the most used are Whitelegge's *Hygiene and Public Health* (London: Cassell and Co. 1901. 7s. 6d.); Hamer's *Manual of Hygiene* (London: J. and A. Churchill. 1902. 12s. 6d.); and Newsholme's *Hygiene* (London: G. Gill and Sons, 1902. 4s. 6d.)

DUTIES OF NOTIFICATION.

NALLA writes: A. is called to see a child and diagnoses diphtheria, which he considers requires immediate tracheotomy. He calls in B., a brother practitioner, who does the operation. B. then personally notifies to the medical officer of health, who refused to remove the case that night, and consequently A. had to sit up with the child, as the people could not afford to get a nurse. The medical officer of health states that he must receive the notification form before he can remove the case, and also that he should have been called in to do the tracheotomy. "Nalla" asks, in an urgent case is not a personal notification enough, it, of course, being understood that the usual form will be filled up as soon as possible? Has the medical officer of health a right to demand to be called in consultation in such a case as an urgent diphtheria?

*** We do not think verbal notification complies with the Act, and the medical officer of health might ignore it; moreover there might be other reasons why the medical officer of health could not make arrangements to have the case removed that night. There is no justification for the claim of the medical officer of health to be asked to perform the tracheotomy.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Department of Ophthalmology.

MR. ROBERT W. DOYNE, M.A., F.R.C.S., Reader in Ophthalmology in the University of Oxford, has arranged a post-graduate course on that subject to occupy the fortnight beginning July 3rd. The main idea of the course is to demonstrate the whole range of ophthalmology in order to make the reading of textbooks more profitable than can be the case when the practitioner has to rely merely on pictures. The first week will be devoted mainly to demonstrate the examination of eye patients, the use of the ophthalmoscope and the work of refraction, and will be conducted mainly by the Reader. During the second week more special subjects will be dealt with, and among those who have undertaken to give lectures or clinical instruction are Sir William J. Collins, Mr. Adams Frost, Mr. Nettleship, Mr. Holmes Spicer, Mr. Sydney Stephenson, Mr C. Worth, Mr. R. M. Gunn, Mr. Priestley Smith, Dr. S. Sharkey, Mr. Treacher Collins, Mr. J. H. Parsons, and the Reader. It is hoped that the Regius Professor of Medicine, Dr. Osler, will also give an address. The fee for the course is 5 guineas, and board and residence will be provided in Keble College at the rate of 7s. 6d. a day. Further particulars can be obtained from Mr. R. W. Doyne, 34, Weymouth Street, London, W. The number of members must be strictly limited.

UNIVERSITY OF CAMBRIDGE.

THE following degrees were conferred on May 11th:

M.D.—J. A. Glover, Joh., A. C. Ingram, Joh.

Third Examination for Medical and Surgical Degrees.—Part II Surgery, Midwifery, and Medicine.—The following have now satisfied the Examiners in all three sections:

S. Barradell-Smith, B.A., F. M. Bulley, M.A., H. C. Cameron, B.A., H. J. Cardew, B.A., D. V. Cow, B.A., S. H. Daukes, B.A., H. S. Dickson, B.A., D. E. Droop, B.A., T. W. N. Dunn, B.A., W. G. P. Ellis, M.A., T. J. Fauider, B.A., N. C. Fletcher, B.A., C. R. E. French, B.A., J. R. C. Greenlees, B.A., G. Holroyd, B.A., W. R. Honeyburne, B.A., W. G. Howarth, B.A., F. A. Juler, B.A., E. Lloyd, B.A., J. A. A. Orlebar, W. E. Paramore, B.A., P. R. Parkinson, B.A.

UNIVERSITY OF LONDON.

FACULTY OF MEDICINE.

A MEETING of the Faculty of Medicine will be held at the University on Tuesday next, May 23rd, at 5 o'clock. An interim report from a Special Committee on teaching and research in the "advanced" subjects of medical education will be considered. As a first step towards securing an improvement in the teaching of the advanced or clinical subjects of the curriculum, the Committee recommend the Faculty "to press upon the Senate the desirability of such a modification of the University regulations as will admit of a much longer period being allotted for advanced studies and a proportionate curtailment of the time allotted for the early studies."

A second Special Committee will present a report embodying proposals to secure a definite plan of annual retirement by a proportion of the members of certain Boards of Studies comprised within the Faculty.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary comitia was held at the College on Thursday, May 11th, the President, Sir R. Douglas Powell, in the chair.

Fellowship.

The following gentlemen, who had been elected at the preceding comitia, were admitted as Fellows of the College: Duncan Burgess, M.B.Cantab., Bedford Pierce, M.D.Lond., Arthur Whitfield, M.D.Lond., James William Russell, M.D.Cantab., William Barnett Warrington, M.D.Lond., Wilfred John Harris, M.D.Cantab., Thomas Watts Eden, M.D.Edin., James Harry Sequeira, M.D.Lond., Edmund Ivens Spriggs, M.D.Lond., Harold Batty Shaw, M.D.Lond., Robert Arthur Young, M.D.Lond.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held May 11th, Mr. John Tweedy, President, in the chair.

Jacksonian Prize.

This prize for the year 1904 was awarded to Mr. Herbert John Paterson.

Diploma of Membership.

One hundred and eight diplomas were issued to candidates found qualified at the recent examination.

Report on the History and Work of the Conjoint Laboratories.

The report was drawn up by Dr. P. H. Pye-Smith, as chairman of the Laboratories Committee, and for its presentation a vote of thanks was passed by the Council.

University of Sheffield.

The President was elected to represent the College on the University Court of the above University.

Presentation by Mr. Thomas Bryant.

A vote of thanks was passed to Mr. Thomas Bryant for the presentation of letters and a photograph of historic interest.

Teaching of Chemistry and Biology.

It was, on the motion of Mr. Henry Morris, referred to the Committee of Management to consider and report as to the desirability of treating chemistry, physics, and biology as subjects of preliminary education and of requiring that an examination in them should be passed before the recognition of the commencement of medical studies, and to further report as to the desirability of the two Colleges approaching the Universities and other examining bodies with a view of adopting a five years' curriculum of professional study from the date of passing the preliminary science examination.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen passed the First Examination of the Board in the subjects indicated at the April quarterly meeting of the examiners, namely:

Chemistry and Physics.—Messrs. F. Basford, R. C. Clarke, W. C. Comissiong, D. M. Cox, G. de H. Dawson, H. G. W. Dawson, R. S. Doran, J. G. Edwards, F. C. Endean, B. Goldsmith, D. Hamilton, G. R. Heard, E. Howden, L. H. Khan, C. H. Knowles, G. L. Lawlor, J. D. G. Little, F. A. Lawe, P. S. Martin, J. F. H. Morgan, C. W. Morris, L. W. Mortimer, J. T. Parry, P. E. H. Patey, G. E. H. H. Philips, W. H. Pickup, W. T. Quinlan, G. G. Rigby, T. W. R. Strode, M. C. Thavara, F. C. V. Thompson, J. G. Watson, G. Whittington, A. J. O. Wigmore.

Elementary Biology.—Messrs. R. W. Annison, A. M. Barlow, T. M. Bellew, R. S. De C. Bennett, W. P. Bonner, J. W. Bowen, T. R. Bowen, T. F. Brown, E. M. Browne, S. A. Burn, H. V. Capon, G. O. Chambers, J. J. Clarke, L. K. Cooper, W. R. Cooper, D. M. Cox, R. G. Dainty, J. T. Daly, S. Danziger, T. R. Davey, G. De H. Dawson, S. B. Depree, A. Dias, R. S. Doran, H. H. Dummere, P. Dvorkovitz, G. E. D. Ellis, C. D. Faulkener, E. G. P. Faulkener, B. Flack, G. J. French, R. F. Fuller, N. H. Gilbert, B. Goldsmith, C. Hall, D. Hamilton, C. H. Hart, G. R. Heard, J. B. Holmes, J. B. H. Holroyd, E. Howden, G. J. P. Huddleston, G. Jeffreson, S. G. Johnson, J. P. Jones, J. A. Jones, L. H. Khan, C. H. Knowles, J. M. Land, W. E. Latham, S. J. Lauder, J. A. R. Lee, F. M. Lipscomb, J. D. G. Little, D. C. Lloyd, H. B. Logan, J. P. Lupton, J. C. Mackwood, P. S. Martin, R. T. Martin, V. C. Martyn, H. W. M. May, H. G. Miller, L. Milton, F. C. Morgan, M. M. Munden, H. Neame, H. C. W. Nuttall, R. J. Paget, J. T. Parry, R. A. Pittard, J. Powell, T. B. B. Price, E. H. Rainey, C. E. Reckitt, W. A. Reynolds, C. E. Rice, T. S. Rippon, A. B. Rosher, S. Shepheard, V. E. Somerset, C. G. Sprague, H. Steinbach, T. E. A. Stowell, E. L. Sturdee, F. C. Tibbs, J. M. Todesco, W. P. Vicary, G. E. Vilvandré, P. D. Warburton, T. S. Ward, A. Watson, L. F. K. Way, G. Whittington, G. E. Williams, J. P. Williams, D. Wood, and F. C. Wright.

Practical Pharmacy.—Messrs. J. H. D. Acland, C. Amarasuriya, B. N. Ash, H. P. Aubrey, C. W. T. Baldwin, E. J. Blewitt, L. H. Bowkett, T. F. Brown, S. H. Browning, P. J. Chissell, C. E. Clay, V. A. C. Costobadie, M. O. Cruickshank, G. L. Curnock, S. H. Daukes, A. H. C. Dawes, J. W. Doherty, F. N. Doubleday, G. B. Edwards, H. Granger, G. F. Greening, C. V. Griffiths, B. G. Gutteridge, R. B. Heygate, R. R. Huxtable, R. R. James, D. M. Jones, A. R. Littlejohn, A. L. Loughborough, T. F. Lumb, O. R. McEwen, A. E. McKenzie, M. Marks, E. S. Molyneux, A. C. Morson, C. W. R. Preston, H. E. Priestley, G. G. Rigby, R. M. Riggall, J. E. Smith, A. R. Snowdon, W. H. R. Streatfield, G. Thom, H. T. Treves, R. G. Vaughan, C. F. G. Willies, K. Wolferstan, H. D. Wyatt, and J. M. Wyatt.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ASSISTANT AND PRINCIPAL.

COLMEC writes that a short time ago he was acting as an assistant to a practitioner, when he heard of an opening in a distant part of the country. He obtained permission to go away for a week to look into this on condition he paid a *locum tenens* to do his work. He engaged a *locum tenens* for four guineas a week and travelling expenses, and found that the opening in question was a good one, and wrote and told his principal so. He then learnt that his *locum tenens* had been dismissed by his principal at the end of the week and paid five guineas and travelling expenses. He thereupon sent another *locum tenens*, who was also dismissed at the end of a week, and paid four guineas by him. For the next two weeks the principal found his own *locum tenens*, and later sent a claim for £14 5s. 2d., being £5 17s. 2d. for the *locum tenens's* salary for the first week and railway expenses, and £8 8s. for the third and fourth weeks. Our correspondent thereupon knocked off one guinea, as he had engaged to pay the *locum tenens* only four guineas for the first week, and sent a cheque for £2 4s. 6d., being balance due to his principal, who owed him £11 1s., being £10 for a month's salary and £1 1s. for a portion of another month. The principal has since refused to pay any portion of the salary due to him, and threatens to sue our correspondent in the county court for £11 1s., the balance he asserts to be owing.

*** If our correspondent pays for the *locum tenens*, the principal must of course pay his salary. We do not think he need fear any county court proceedings.

MEDICAL WITNESSES' FEES AT THE OLD BAILEY.

A CORRESPONDENT whose partner has recently been allowed 31s. 6d. for giving evidence at the Old Bailey asks what are the fees allowed there.

*** Under the new rules "not more than" two guineas a day may be allowed, but taxing officers are reminded that this is a maximum fee, and that they are to exercise their discretion as to paying the full fee.

AGREEMENTS NOT TO PRACTISE.

SURGEON asks whether a written agreement given by a house-surgeon to the Hospital Board on his election that he will not practise for two, five, or six years in the hospital town on vacating office is legally binding on him.

*** Yes, and the agreement might be enforced by an action at law.

TOUTING FOR PRACTICE.

MEDICUS (Lancashire) writes that a practitioner who acted as his *locum tenens* last summer during that time attended a lady in her confinement. He has recently married and settled in the neighbourhood, and has sent this lady his wedding cards with a letter, in which he says: "You may probably recollect me attending you as *locum* to Dr. S. of ——, when baby was born. Shall be pleased to see you as a visitor any time, also Mr. ——."

*** There can be no doubt that such a letter is highly injudicious.

MEDICAL ADVERTISING.

NONEX asks whether in the case of a hospital bazaar which is distributing a number of advertising booklets it would be right to print in it the names of the hospital staff.

*** We think it would be better that the list should be omitted, as it does not seem necessary.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. CHARLES P. HOOKER (Cirencester) would be much obliged if any one with local knowledge could inform him in what part of South Africa a young clergyman with very slight phthisical symptoms could spend a year or so. He would be accompanied by his wife, and would have about £400 a year to spend, or more if required. He could start the latter part of the summer.

T. H. G. would be grateful for any information regarding recent experience in treatment of Graves's disease. The case in question has existed for three years. Belladonna at first effected an improvement, which was only temporary. Hydriodic acid, ergot, galvanism, etc., have been tried without effect. There is a considerable amount of tachycardia, exophthalmos, and wasting. Can any one, he says, tell me whether the results of administration of adrenalin have been satisfactory?

TEMPERAMENT.

ANGINA asks for references to the literature of the subject of temperament, to include the ideas of the ancients on the subject.

*** He might find much that would be of interest in Galen's works (see Kühn's edition, vol. xx, p. 588 for references), especially, perhaps, in his *De Temperamentis* (περὶ κράσεων), also in Boerhaave's work on *Epilepsy and Allied Disorders.* Lavater's *L'Art de Connaitre les Hommes par la Physionomie* (Paris, 1806), Sir Charles Bell's *Essays on the Anatomy and Philosophy of Expression* (Sixth Edition was published in 1872) are classical books on the subject. There is much of interest in *Our Temperaments; Their Study and their Teaching*, by Alex. Stewart, F.R.C.S.E. (London, 1887). *The Expression of the Emotions in Man and Animals*, by Charles Darwin, the *Pedigree of Disease*, by Jonathan Hutchinson, with Galton's recent work, might be of service. More modern ideas would be represented by observations on the coexistence of certain colours of hair, iris, etc., in animals, with immunity to certain organisms.

ANSWERS.

ANTISEPTIC SOAPS.

L. F. H. writes: A cheap and efficient antiseptic soap solution can be made as follows: ℞ Lysol 2 parts; soft soap 10 parts; water to 100 parts.

INCOME TAX.

TAXATION should return his salary as district medical officer and his salary from an Oddfellows' Club separately, under Schedule E, and should not include them in his return under Schedule D.

NORMAL TEMPERATURES.

T. B.—According to Pembrey, in Schäfer's *Textbook of Physiology*, the temperature in the rectum is generally about three-tenths or four-tenths of a degree Centigrade higher than that in the axilla or mouth, although Bosanquet found that, immediately after eating, the temperature in the mouth exceeds that in the bowel, and that during vigorous exercise the heat of the mouth sank considerably, for example to 96.0° F., that of the rectum rising to 99.8° or 103.0°. Pembrey gives the mean temperatures of twenty-four hours as below 98.4° in the mouth. In health the temperature rises during the evening and early part of the morning. The average results of Thierfelder's observations upon the daily variations of temperature in subjects of different age and sex are shown in the following table:

	Morning (7 to 9 a.m.)	Noon.	Evening.
Newly born	37.41°	37.80°	37.61°
Children	37.37°	38.07°	37.12°
Adults { Men	37 0°	37.25°	36.60°
Adults { Women	37 22°	37 55°	37.10°
Aged	37.25°	37.58°	37 31°

See also Dr. Pembrey's paper, Remarks upon Temperature, BRITISH MEDICAL JOURNAL, February 27th, 1904, p. 475.

PERSISTENCE OF KLEBS-LOEFFLER BACILLI AFTER DIPHTHERIA.

MR. H. CLAYTON FOX, F.R.C.S.Ircl. (Assistant Surgeon, Metropolitan Nose, Throat, and Ear Hospital) writes: In reply to Dr. Eliot Curwen's query in the BRITISH MEDICAL JOURNAL of May 13th, I would suggest that the case is one of fibrinous rhinitis. It has been clearly established that the causal agent in this affection is a bacillus indistinguishable from the Klebs-Loeffler organism, not only being morphologically identical, it also yields during its growth virulent toxins which are capable of neutralization by diphtheria antitoxin. As regards treatment, I would advise in the first place the thorough freeing of the nasal passages of membrane by means of coarse sprays, or douching with alkaline solution, such as one of sodium sulphate ʒij to the pint, followed by careful swabbing with the following application; ℞ Acid. lactici, ʒj; acid. carbolici, ʒiij; glycerini ad ʒivss. M. Ft. pigmentum, three times weekly, having previously anaesthetized the parts with a spray of eucaine.

LETTERS, NOTES, ETC.

PRACTICE IN LABRADOR.

DR. W. GRENFELL, who has been for 16 years in Labrador, gives an interesting account of his experiences in *Leslie's Monthly.* His patients, besides Esquimaux and sailors, included some five thousand white settlers scattered up and down the coast. They seem to be a simple people, with an immense belief in the power of charm. One story he tells is as follows: A stalwart fisherman came aboard my little vessel one day holding his jaw, and stating that he was "well-nigh crazy with pain." I turned to the long row of forceps that hung in the chart room, for we do our dentistry on deck. "No, no, doctor; I only want it charmed," he said. "My good man, I don't charm people." "You can charm it, of course, if you like," he replied. Nothing I could say to the contrary would convince him, so I thought that a failure would clinch the argument. Telling him to open his mouth, I proceeded to make an elaborate flourish, and then laid my finger on the offending molar. To my utter astonishment, and, I may almost say, chagrin, he at once declared he was better. I saw him again a week later. Then he assured me "she's had ne'er an ache since."

Of hospital, and indeed other patients in England, it has often been remarked that the wisest advice is wasted upon them unless accompanied by a simulacrum in the form of a bottle of medicine or its equivalent, and of the nastier kind the better. From the following story it would appear that attention to this point is also desirable in Labrador: Late one evening a fisherman came off to our vessel, a shy sort of fellow. He had tied his boat and seated himself on the taffrail, where he had apparently been waiting a full hour or more before I happened to go up on deck to see what kind of a night it was, and stumbled against him. "Are you a doctor, sir?" he asked; "I want bleeding, please, sir." To ease his mind I called him below to examine him. Finding, however, it was only a case of impure blood, without any symptoms, and having no patience to spend time on nihilitis, I dismissed him unbled and turned in. At daylight, when we rose to get under way, he was on board again, very dejected, and coming up to me, offered me a dollar to bleed him. A dollar cash on this coast is a thing a man so seldom gets, he never parts with it if he can help it. Evidently it was best to bleed him, for his mind's sake. So I did it. "You see, sir," he said, while the operation was going on, "an old Indian squaw, she bled my feet a good spell ago, and I haven't had ne'er a pain since. So when they told me there was a doctor aboard, I thought it was a good chance." But he added, half regretfully, "it didn't feel quite the same. She bored the holes with a kind o' corkscrew."

CLINICAL METHODS OF ENUMERATING LEUCOCYTES.

CAPTAIN J. C. B. SHARHAM, R.A.M.C., writes: I have just noticed the following errors inadvertently made in my letter on clinical blood counts, published in the BRITISH MEDICAL JOURNAL of April 22nd, p. 914. Line 9 should read "of an area of $\frac{1}{16}$ sq. mm. and cubical capacity of $\frac{1}{1600}$ c.mm.," and line 16 should read "the diluting fluid I employ is Thoma's," etc.

DIGESTIBILITY OF BOILED AND UNBOILED MILKS.

DR. R. N. LYON (Lucar) writes: In the BRITISH MEDICAL JOURNAL of May 6th, p. 1017, reference is made to the induction of scurvy in children "if fed on" boiled milk. Has Dr. Curgenven ever added a little of purest cane sugar during cooking, be it boiling or sterilization, and later on one or two tablespoonfuls of chicken tea, and for children over 6 months about the same quantity of beef tea to each quarter pint of "cooked milk"? The combination at first sight may not be pleasing, but practitioners having many children under their care should try it.

THE ETHICS OF TYPOGRAPHY.

WE have come across the following announcement in the May number of the *New York State Journal of Medicine*, and have followed the excellent advice of Cap'n Cuttle—"When found make a note of." At a meeting of the Medical Society of the County of New York, held on December 27th, 1904, the following resolution was unanimously adopted: "That in any directory or list, other than a medical one, it is undesirable that any data should appear other than the name, address, and telephone number, and that the use of more prominent type for one name than another is to be severely deprecated."

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An Address
ON
ADAPTATION AND TUBERCULOSIS.

Delivered at the Annual Meeting of the Dominion Association for the Prevention of Tuberculosis, Ottawa, March 15th, 1905.

BY J. G. ADAMI, M.A., M.D., F.R.S.,
McGill University, Montreal.

IN casting around for some aspect of the tuberculosis problem upon which to address this meeting it struck me that it might be serviceable to take up the matter of adaptation in its relationship to the disease.

The term possibly is unfamiliar to you, but it embraces a series of processes, both on the part of the organism—the human body—and of the micro-organism—the tubercle bacillus—which are of the highest importance. And I am of the opinion that it is the failure to realize the existence of these processes which renders it difficult for the majority of men to appreciate the various happenings in the course of this disease, and, again, the points at issue and their significance in the controversies that have arisen of late years regarding the same. It has seemed to me that all those—and they are many—who are interested in the work of prevention would possess a more intimate appreciation of that work if they could acquire, as it were, a mental picture of the moves in the game—of those moves whereby now the organism, now the micro-organism, seeks to gain the advantage and checkmate the other.

In truth, it is a gruesome game, but one of most vital import, this of the cells against the bacilli and the bacilli against the cells. Some of our moves are instinctive, or have been practised before against other bacteria; many have to be learned and tested during the course of play. Too often, not knowing the science of the game, and playing "Bumble puppy"—I forget its equivalent in chess—we make a wrong move at a critical moment and the game is lost—and loss is death.

Let us consider first the moves on the part of the organism, and, in order to gain a clearer picture, let us take the case of a disease of briefer course and apparently more self-contained in its gross effects upon the body. Has it ever struck you, I wonder, what takes place in a case of acute pneumonia? This you know is a bacterial disease due to a micrococcus, a minute rounded or lance-head shaped organism, that hunts—if I may so express it, like the Irish Constabulary or the North-West Mounted Police of the old days—in pairs; hence we often speak of it as the diplococcus of pneumonia.

You all know that the disease develops very rapidly. That rapid development is associated with an extraordinarily rapid multiplication of the diplococci, so that these, which under ordinary circumstances are not present in the lung, come to be present in teeming millions in the air sacs of the same, and there by their poisons they set up so much irritation that all the air sacs of one or more lobes of the lung become solid through the intense inflammatory exudate that is poured out into them from the blood vessels, displacing the air that should be there. And so it is that in a very few hours the affected part of the lung comes to look more like a piece of liver than like a sponge with abundant air in its cavities. And then you know that, if all goes well, in four, six, or eight days, suddenly, in the course of a few hours, the crisis comes, the fever drops sharply, the patient feels better, and I may tell you that after this crisis we find the diplococci for the most part dead, or, if not dead, so weakened that they can have little effect on small animals.

This has always seemed to me as something approaching the miraculous, that bacteria grow abundantly in one of the tissues of the body for a few days, then as suddenly they are killed off and disappear. If they grow at first, why do they not continue to grow? If eventually killed, why not killed at the start? Years ago we found out that this was not because they had exhausted the food supply. I do not know if this has been tried in connexion with pneumonia, but it has been repeatedly tested in the lower animals in connexion with one or other of the diseases from which these may suffer; it has been found that the blood and tissues of the diseased animal will afford abundant nutriment for the bacteria. It is not, again, that they are poisoned by the products of their own growth—this occurs, it is true, when we grow them on broth in a closed test tube outside the body—but we can make an emulsion of a pneumonic lung, and while, if we add the diplococci to this, some will be killed (for, as I shall point out, there are substances poisonous to the bacteria in such a lung), yet when a certain number has been killed the rest will grow freely. If the poisons were produced by the diplococci themselves, then the greater the number of bacteria destroyed the more of these poisons would be liberated into the lung emulsion, and still less the chance would be for any to remain alive and multiply.

Neither of these explanations will suffice. The only adequate explanation for this eventual destruction of the bacteria is that of adaptation. When first the diplococci began to grow in the lung they did so because the tissues could not neutralize their poisons and kill them. By the very act of growth and production of poisons on the part of the bacteria the tissues become educated until the moment is reached when the cells of the body produce sufficient counteracting poison to kill off the bacteria and to neutralize their toxins, which toxins it is that do all the damage to the system.

And here is the interesting and important fact—a fact, I think, too little realized by most medical men, although instinctively all strive to act up to it. It is not the lungs alone that are in action in destroying the germs of the disease, and so bringing about recovery; it is not even the white corpuscles or leucocytes which, passing into the lungs, mainly accomplish the good effects: the whole organism, or practically the whole organism, is actively engaged in the process.

You have all, I doubt not, heard much of late years about these white blood corpuscles or leucocytes; how they are, as it were, at once the main avenging army and the scavengers of the body: without doubt these play a great part. We can see them in various stages full of bacteria which they have taken up, and at times we can make out that these bacteria are undergoing digestion and destruction. Nay, it is not difficult for any one to experiment on himself; as Leishman has shown, he can take a few drops of his own blood, separate off the white blood corpuscles, and taking a drop of blood serum holding these in suspension, add to it a number of disease-producing bacteria of one or other order; in fifteen minutes' time, kept at the body temperature, each little leucocyte can be seen to have taken up, it may be, a score or more separate bacteria.

But here is another fact. This eating up of the bacteria does not depend upon the white blood corpuscles alone. It depends, as Wright and Douglas have shown recently, upon a curious interaction between the cells and the fluid of the blood. And if you take the white corpuscles of a man who has not had a given disease and place some in the fluid of his own blood, and place some others in the blood serum of a man who has successfully resisted that same disease—who has recovered from an attack—you will find that these little white blood corpuscles will take up very many more of the particular bacteria causing that disease in the latter case than in the former. There is therefore something circulating in the general fluids of the body after it has gone through an infective disease—something not local but generalized, something which was not there before in any amount and has therefore been elaborated during the course of the disease, and this aids in the destruction of the bacteria of the disease.

The same was noted some years ago in connexion with typhoid fever, and that not merely after recovery, but during the process of the disease. We utilize the fact now as a most useful means in diagnosing doubtful cases. In typhoid the bacilli grow more particularly in the lymphoid tissue of the intestine—for here is an interesting point to remember, that the different bacteria of disease have their seats of election. Once they gain a footing in the body there are certain tissues in which they grow in greatest abundance, while at first they do not grow to any extent in other tissues; or, in other words, if they do find their way into the other tissues they are easily destroyed.

But while the typhoid bacilli thus grow locally, if we take the fluid of the blood of a typhoid fever patient on the fifth day or so of the disease, we find that this now has new or greatly exalted properties. Although we dilute that blood forty or fifty times, if we place in it some of the actively-growing typhoid bacilli, they become motionless and clump together in masses. The blood fluid has acted upon them. Nothing of the kind occurs in similarly diluted blood from one who has not had typhoid.

What does this all mean? It means that during the course of the disease there is gradually developed on the part of the organism as a whole the power of coping with and neutralizing or destroying the micro-organisms of that disease. Something has developed, not locally but generally, which either was not there before, or which now is developed in greater quantity than before. There is an adaptation to changed conditions. The body, as a whole, reacts and produces substances which tend to give it the advantage in the fight against its foes.

Need I remind you that the modern treatment of diphtheria makes use of this fact. We utilize the fluid of the blood of animals which have been inoculated with the diphtheria bacillus in order to give the diseased human being the antitoxic substances which those animals have produced, and produced in excess, in order to cope with the inoculated microbes.

Where precisely these antitoxic substances are produced we are still engaged in determining. We know that the leucocytes produce one set, but the substance or substances which activate these and render them effective we know less about. Some are inclined to believe that the leucocytes give origin to these. Recent evidence tends to show that certain tissue cells —of the liver, brain, etc.—elaborate them. It may well be that in tuberculosis the muscle cells play some part.

So now to return to the case of pneumonia. Let us try to translate what happens there. Through some lowering of vitality the tissues of the air sacs, which in health can destroy individual bacilli finding an entrance into the lungs, are overcome, and the bacteria multiply and set up disturbance. Then the second line of defence comes into action—not so much the lung tissue itself as the leucocytes which belong to the general circulating blood. These make their way into the damaged area, are unable to take up diplococci in sufficient numbers and destroy them—on the contrary, they themselves tend to be destroyed—and the diplococci continue to multiply.

In the meantime the poisons from the diplococci have diffused out of the air sacs into the blood and so are carried all over the body, and with this we have the development of high fever. And now the cells of other parts of the body take up the less-concentrated poisons or toxins, and taking them up proceed to manufacture counteracting bodies which neutralize, or help in the process of neutralization of, the poisons; and once they start to do this they continue and produce more and more of these antitoxic bodies, so much, in fact, that the excess passes into the blood and from the blood passes into the damaged lungs, until the moment is at last reached when sufficient of these antitoxic bodies are present there to reinforce the action of the leucocytes, and with this all the diplococci are killed, and recovery ensues. I say reinforce the leucocytes, for the leucocytes are developed largely in the marrow of the bones, and the later relays of young leucocytes have, before they reach the lungs, become accustomed and adapted to the bacterial poisons, and thus are much more powerful than the earlier drafts of leucocytes which passed into the lung. These, aided by the fluid of the blood, are effective, the former were not. It is, therefore, through the general adaptation of the tissues in the organism, and not merely through local efforts, that the body overcomes infective disease.

Once one realizes this it is all so clear, and, if I may so express it, so very human—so like, for example, what happened in the Boer war. There we had local irritation in one part of that vast organism, the Empire; local efforts were unable to quell the disturbance, and war flared up and there was great local damage and arrest of the normal local activities. It looked as though the part might be completely lost. The effects of this local disturbance rapidly diffused through and influenced the whole Empire, and, like the leucocytes, soldiers were drafted to the seat of irritation from all parts of the organism, even from such distant portions as our own Canada. We contributed, as it were, from the marrow of one of the limbs. Those soldiers, at first unused to Boer methods of warfare, were at a great disadvantage and we had Nicholson's Nek and Colenso and other terrible disasters. But as the Boer methods became better understood our soldiers adapted themselves to them; the spirit of depression gave way to one of grim determination to overcome the enemy; more and more soldiers, contingent after contingent, from all parts of the Empire were collected and sent to the front. Supplies of all kinds were produced at a distance and poured into the focus of inflammation and at last the pathogenic organisms were completely overwhelmed and recovery ensued.

Now to apply all this to tuberculosis and its arrest. The disease, it is true, is of a different type—it is of slower development and more progressive character. To pursue my simile, if I may venture to do so without offence and without wishing to give offence, tuberculosis is to the human organism something like what Irish discontent is to the body politic. If we are healthy our first line of defence, the surface cells of the nose, mouth, throat, air-passages and digestive tract, can directly destroy occasional tubercle bacilli taken up by them, only if an excessive number be taken up are they themselves overcome. Healthy people, that is, can breathe in tubercle bacilli without harm resulting. That this occurs has been proved by examining the nasal secretions of nurses and students in tuberculous wards and finding tubercle bacilli in the same; I may point out also the remarkable fact that in a well-conducted hospital for tuberculosis the nurses are found not to contract the disease. They keep themselves in good condition.

The bacilli may get beyond this first line of defence into the lymph and blood, and there may not cause any disturbance, being killed before they can multiply. Quite a number of cases are on record in which tubercle bacilli have been found in apparently healthy lymph glands showing no signs of tuberculosis.

Again we can, for example, take two healthy young dogs and feed them with milk to which we have added a fair but not excessive number of active tubercle bacilli, and, killing one two or three hours later, we can detect the tubercle bacilli in the lymphatic fluid draining away from the intestines. This is a process which, as I and others have pointed out, is constantly proceeding to a slight extent in connexion with the abundant bacteria of various kinds which people the intestines. Keeping the other dog for some weeks or months it may show not a sign of tuberculosis, and, killing it at the end of this time, we may not detect a sign of this disease in any region of its body.

But now, if even temporarily the general health is depressed, the history is very different. The tubercle bacilli at the point of entrance, or it may be when they are carried into the circulating lymph or blood, are not necessarily destroyed. In many parts of the body they are; but if an organism possesses an Ireland—a region of constitutional weakness with poor circulation and poor nutrition—if by chance the bacilli find their way into this, the cells cannot destroy them, but, on the contrary, they multiply, produce their poisons, killing the cells, and developing a focus of inflammation—a tubercle. Such a region, as every one knows, is the apical part of either lung. From its relationship to other parts there is here poor circulation and nutrition; and, added to this—although here, remembering my simile, I must speak delicately—there may be something innate in the properties of the tissue cells themselves. Certain it is that here more particularly the tuberculous process may manifest itself.

One would think, *a priori* that the bacilli having once gained a footing in a part, would continue to grow and spread from this focus; that, growing, their concentrated toxins would depress the vitality of surrounding cells, rendering them an easy prey, so that of necessity once the disease was established in the system it would go on from bad to worse with progressive invasion, poisoning and destroying the tissues throughout the body until a merciful death ended the scene. This does occur in some cases in which the tissues seem to have no resisting power, but as a matter of fact it is by no means necessarily or usually the case. Progressive invasion we know is the exception, not the rule.

As a matter of interest I looked last week through the records of the 139 *post-mortem* examinations performed last year in my department at the Royal Victoria Hospital, and I found that while there were 18 cases out of the total in which tuberculosis had assumed a progressive character, and had surely been the cause of death, there were 41 cases (29.5 per cent.), or more than twice as many, in which there were absolute evidences of old arrested and even healed tuberculosis. There were in addition 3 cases of progressive tuberculosis in which death was from some other cause. The disease, as has been often stated before, is more often arrested in man than it is fatal, and the process in this arrest and healing must from every consideration be not so much by local effort as by the co-operation of the other tissues. We have clear evidence that this is so. Just as in typhoid fever, so here it has been shown, more particularly by Courmont, that the blood and body fluids of tuberculous patients contain a substance not present in healthy blood, a substance which causes the clumping of the tubercle bacilli. And, as pointed out long ago by Koch, if an animal has localized tuberculous infection of

one region—say the eye—the injection of virulent tubercle bacilli into another region at a distance, say the skin of the flank, leads it is true to a temporary local inflammation during which the bacilli are destroyed, but it is followed by no local development of the disease proper, and by no extension from that region—a clear proof that under ordinary conditions the primary local development of the disease is accompanied by the development of increased resisting powers on the part of the rest of the tissues. Here again is adaptation, by means of which these other tissues of the organism protect themselves, and as a whole reinforces local effort, tending to produce so much antitoxic or antibacterial substance that at last the system overwhelms and arrests the local growth of the bacilli.

I have not seen this matter hitherto worked out adequately, and as I say I believe it is useful to present it to those interested in our work, even though at first hearing—being perhaps to some extent novel—it may be difficult to follow and fully grasp. Once grasped, we grasp it with the whole *rationale* of the treatment of tuberculosis. Let us just glance at this.

First, as to Koch's treatment by injections of tuberculin—that is, of the body juices and toxins of the tubercle bacilli. The basis of this treatment is clearly the carrying further of this natural process of stimulating the tissues in general to produce antibacterial substances by means of the circulating toxins. As we know by observation outside the body the individual tubercle bacilli do not produce much toxin; indeed, it is only when they die or are destroyed that much poison escapes from them.

Probably one of the reasons why tuberculosis tends to gain a foothold in the body is that the bacilli are at once so slightly irritant and so resistant. As there is no extensive diffusion of toxins at the beginning of the process the rest of the tissues are not adequately stimulated; this especially when the body as a whole is in a low state of nutrition. By injecting these diffusible toxins we stimulate the cells in general to manufacture increased amounts of antitoxic substance, and thus aid the local resistance.

But, as all now know, Koch's treatment is but partially successful. It is useless in advanced cases where the disease is extensive and where there must already be relatively abundant circulating toxins. To inject more toxins into such cases is to poison rather than to stimulate the cells. In dealing with the treatment of tuberculosis there are two factors to be taken into account. You may take a horse to the water but you cannot make him drink. You may supply a cell with the tubercle toxins which are necessary in order to stimulate it to produce antitoxins, but it may be so feeble that it will not react—will not produce these toxins. All its energies may be used up in the performance of ordinary everyday functions.

Here we have the basis of the modern treatment, in which, as you know, we do not try to do anything specifically against the disease itself; on the contrary, we leave the disease as such severely alone. But we do everything in our power to improve the general bodily condition. We enforce rest so that the cells shall not be overworked and may have spare energy; we give abundant easily-assimilable food so that they may build themselves up; we demand life in the open air with abundant oxygen, and that toning up of the system which the freshness and coolness in the air brings about more naturally than does anything else. For, just as a lax violin string will give no note, while made taut it vibrates to the slightest touch, so by improving the tone of the tissues in general they respond more immediately and more fully to the stimulus of the circulating toxins and produce the counteracting bodies which, developed in greater abundance and poured out into the blood, can now act locally on the tubercle bacilli in the areas of disease.

We, in short, do everything we can to help the body to adapt itself to the changed conditions, and this adaptation, we know, means also counteraction. The success of our modern treatment of tuberculosis—treatment, be it remarked, purely empirical in its inception and based upon no adequate theory of the modes of defence on the part of the organism—this success is the strongest proof of the correctness of the conclusion reached along other lines: that recovery from infective disease is not merely nor mainly a local reaction, but is a process in which the tissues not directly involved, and the body as a whole, take a most active part, becoming educated thereto during the course of the disease.

I have taken possibly too much of your time in discussing the moves on the part of the organism, and have delved, it may be, too deeply for a general address. I would gladly think that my digging, if deep, has also been sufficiently broad in its scope to let in the light. Before closing, some words must be said of that other matter—the moves made by the bacilli.

You must not look upon these producers of disease as fixed in their properties and unalterable; rather we have to realize that they also are capable of adaptation. For us it is a fortunate fact that their power of adaptation is not so extensive and so rapidly developed as that of the healthy human organism. This we may take as another instance of the fact that union is strength. It may well be that the individual cells of the body have not the same power of adaptation as has the tubercle bacillus; but while the bacilli are isolated and independent, the cells of the body are united and co-operate, and the sum of their reactive changes may well be greater than the adaptative changes possible in an isolated tubercle bacillus. Nevertheless, bacteria are capable of great changes, suiting them to altered conditions of their surroundings.

There is, for example, a large bacillus—the bacillus megatherium, first found, if I remember aright, upon a cabbage—this is absolutely harmless for warm-blooded animals. One can inject these by the million into the rabbit without setting up any recognizable disturbance; but, as Vincent has pointed out, place some of these in a thin-walled celloidin capsule in the abdominal cavity of the rabbit—a capsule such that the fluid part of the lymph can easily penetrate through the walls, and so afford nourishment to the bacilli while the leucocytes and antitoxic bodies cannot enter—we find that after sojourning there for several weeks the bacilli have become accustomed to their surroundings, so that now they will grow in the tissues of the rabbit without any capsule being needed. From having been perfectly harmless they are now pathogenic and can set up disease.

What is to be said regarding the tubercle bacillus in this connexion? In the first place we may have the complete assurance that Adam was not created suffering from tuberculosis. The bacillus, we may be fairly sure, from living it may be on food stuffs outside the body, accustomed itself first to living on the surface and in the passages of the organism as a harmless saprophyte, and only later gained the power of living not on but in the tissues, and from that moment it became pathogenic.

This, it is true, must have happened centuries and centuries ago; for the disease was known to, and well described by, the early Greek writers on medicine. While this is so, I do not think that we must imagine that the virulence of the bacillus has remained the same from that day to this; the probability is that were the ancient Greek to come to life again and mingle with the moderns, his would be but a brief visit to this earth; he would be carried off by fulminating malignant tuberculosis in a very short space of time, if even before that the modern influenza bacillus or the pneumonia diplococcus had not marked him for its own. I mean here that the indications are that there has been a steady adaptation of both organism and micro-organism, the one to the other; as the system has become more resistant the bacillus has become more toxic. We have a parallel to what is here suggested in the remarkable history of the way in which the South Sea Islands were devastated by measles when that most puerile disease was first introduced by Europeans. We must suppose that measles had originated in Europe and Asia at some period after the first natives found their way across to the South Sea Islands, or that the aborigines did not happen to carry it with them, and so remained free; probably it began as a mild disease, and as it became habituated to the human organism, so did that organism become more resistant, and the microbe increase in virulence *pari passu*: what continued to be a mild disease to Europeans, therefore, was most fatal to the Melanesians who had not undergone this progressive adaptation.

We have abundant evidence bearing upon this matter of modification in the virulence of bacilli by growth in the organism of one or other species; adaptation, that is, to the surroundings whereby existence is rendered more sure. The passage of a given pathogenic bacillus through a given series of animals—by inoculating one animal of a species, a guinea-pig, for example, with a feebly pathogenic microbe; then, when the disease is in full activity, taking some of the body fluids containing the germs and inoculating that into another guinea-pig, and from this, again, into another, and so on through a succession of a score or so—renders the bacilli extraordinarily virulent. Whereas the disease

in the first of the series will end in natural cure, at the end of the series the body fluids, even though diluted so as to contain only a few rare microbes, may, when injected, cause death in from six to ten hours.

By this artificial process bacteria adapt, and more than adapt, themselves to the organism of the one particular species, but this does not necessarily mean that they have adapted themselves at the same time to the conditions found in the organisms of other species. That may or may not be the case. An organism which, by passage through a series of human beings, has acquired greater virulence for man may or may not gain increased virulence, say, for oxen, and vice versa. On the whole, the reverse is more often the case. As a matter of fact, we have positive evidence that if we take two calves and inoculate them subcutaneously with equal amounts of cultures of tubercle bacilli which have been gained from the cow and man respectively the disease is much more rapid in its progress, spreads much more rapidly, and leads to earlier death when the bovine bacillus is employed than when the human strain has been used. This may be laid down as a general rule.

Nay, more, if only a moderate dose of bacilli gained from man be injected, nothing more than a local nodule is produced in the inoculated calf; there is no generalization, and after a few weeks or months no signs of the tubercle bacilli are to be made out.* So much so is this the case that von Behring is now utilizing bacilli gained from cases of human tuberculosis to vaccinate cattle and prevent them from becoming infected from their fellows by means of the bovine tubercle bacilli. This is all now freely accepted; the opposite case remains still a matter of some debate, though the two parties are coming to take a more intermediate position.

This matter was discussed very thoroughly by Dr. Ravenel in the address before this Association last year, and Dr. Ravenel, you may remember, took the position that tuberculosis is rather frequently conveyed to man from cattle. I still hold that such conveyance is not so frequent as is generally accepted. I have never from the first taken the position that it never occurs, but I still firmly believe that a tubercle bacillus which has passed from cow to cow for a long period, while it becomes more and more virulent for cattle, becomes less and less virulent for man, so that under ordinary conditions we have not so much to fear from milk and other products containing these bacilli. So far, that is, as the fully developed adult is concerned; but with weakly young children the case is different. They are susceptible, and if a large dose of tubercle bacilli be given to them in the milk, I firmly believe that even relatively slightly virulent bovine tubercle bacilli may gain entrance into their system in such large numbers that the cells are unable to kill them and that here or there they may gain a point of growth, and once they grow they may gradually adapt themselves to the human organism and so set up the fatal disease.

I doubt if this necessarily occurs in all children; we have, that is, cases brought forward in which children have been fed upon the milk of cows suffering from tuberculosis of the udder, without showing a sign of the disease.† Still, undoubtedly, the danger is there.

Here I would only say that certain very interesting observations recently published support my view that the relative frequency of tuberculosis of the intestine of children must not be ascribed positively to drinking the milk of tuberculous cows; it may equally well be due to swallowing saliva containing breathed-in tubercle bacilli, discharged into the air from the lungs of men and women suffering from the disease, or may have been sucked up by the fingers after a child has been crawling on the floor. And these are observations by one of the greatest bacteriologists of our time—the man who first gained pure cultures of the bacillus of tetanus, and who was one of the first to work out the antitoxin treatment in infections, the discoverer also of the plague bacillus, and that man is the great Japanese bacteriologist, Kitasato.

Nowadays we have a thorough and wholesome respect for the "Jap" and his methods and not the least for his thorough knowledge and practical application of bacteriology. That nation which, taking to heart the dictum, "If preventable why not prevented," has applied bacteriological methods in the conduct of warfare, sending bacteriologists with each division; which has had the wisdom to recognize that *le Général Microbe* would be for her a far more powerful ally than Czar Nicholas's *Général Février*, and that from the experience of recent wars for every one Russian killed by shot or shell or bayonet, four would be invalided by pestilence; which, accepting the warnings and advice of the bacteriologists, has managed almost to reverse these figures in her own army—that nation and the bacteriologists of that nation deserve our respect.

It is a recent paper by Kitasato that I wish to bring before you. In this, with a wealth of statistical data, he has shown that the deaths from tuberculosis in Japan are just about in the same proportion to the total deaths and the total population as are the deaths from this disease in European countries. There is, in fact, a remarkable similarity in his tables, suggesting very strongly that the factors at work are identical. In the second place, though here I confess his data might be fuller, he shows that in those under 18 years of age the number of cases of evident primary intestinal tuberculosis is certainly not less, but on the contrary rather more, than among Europeans and Americans, namely, 30 per cent. of the total deaths from this disease, whereas in Europe of late there has been a rather remarkable consensus of observations giving the proportion at about 25 per cent. But, as I have already stated, it is usual to attribute these cases in early life to infection from cow's milk, while von Behring goes so far as to attribute most human tuberculosis to this cause—the use of cow's milk in infancy. But now, says Kitasato, the use of cow's milk for feeding infants is unknown in Japan; if a mother is unable to feed her child a foster mother is employed. Singularly little milk is consumed in Japan, and a careful calculation made from the total population, from a census of milch cows throughout Japan, and the average daily amount of milk yielded per cow, indicates that the individual Jap on an average consumes daily just about three-quarters of a teaspoonful of cow's milk. Even in Tokio, the largest city, where most milk is consumed, the amount per individual works out to two and one-third spoonfuls.

Next it is shown that bovine tuberculosis is unknown among the native Japanese cattle, while by cross-breeding with imported European cattle they become infected. Experimentally, subjected to a severer test than is ever likely to occur in Nature, a certain number can be given the disease. A few, very few, cases have been reported in which the disease has been notified as found in native cattle, and this is only in Tokio and Yokohama, where most foreign cattle have been introduced, and these so-called native cattle may have been of mixed breed; for, in accordance with Mendel's law, a certain proportion of cross breeds are likely to have the characters of the native sire or dam, and be indistinguishable from the native race.

To epitomize: The facts gathered in Japan show that intestinal tuberculosis—which is as frequent there as in Europe—cannot be attributed to the ingestion of infected cow's milk, cannot, therefore, be of bovine origin, and the inevitable conclusion is that if intestinal tuberculosis is moderately frequent and not of bovine origin, than, similarly, a large proportion of the cases of European intestinal tuberculosis is in all probability not due to infection from milk. In other words, these observations support the view that I have maintained for the last six years—that undue stress is laid upon bovine tuberculosis as a source of human infection. The danger is there; do not let me be misunderstood. I am convinced that weakly children are susceptible to the disease conveyed through the milk of cows suffering from udder tuberculosis, only the danger has been exaggerated. With Koch I hold that infection in the great majority of cases is from man to man, and that our main efforts should be in the direction of preventing such infection.

This does not mean that I would restrict the legislation regarding tuberculosis in cattle. Far from it. These observations of Kitasato support what I have urged all these years—that it is possible to eradicate bovine tuberculosis indepen-

*In view of the interim report of the British Royal Commission on Tuberculosis, I would lay special emphasis upon this point: That Commission has, in quite a number of cases, caused tuberculosis in cattle by the injection of human tubercle bacilli. Because disease can be transmitted experimentally by injection of a number of bacilli far in excess of the number which in Nature could possibly gain entry at any one focus, it is by no means proved that under natural conditions these same bacilli are liable to cause infection. What the Commission should demonstrate in order to establish that human tuberculosis is dangerous to cattle is that the minimum dose of human tubercle bacilli capable of setting up tuberculosis in cattle approximates to the minimum dose of bovine bacilli producing the like effect. This, I am convinced, is not the case. There may be examples of bovine infection of man in which the bacilli still retained the high grade of virulence for cattle, but everything indicates that these are the exceptions.

† It must not be thought that I recommend that milk from tuberculous cattle should be drunk with recklessness; it is simply repugnant to our ideas that milk containing any form of infective disease should be used as a food. The fullest precautions should be taken and legislation developed to prevent the use of milk from animals suffering from any form of infective disease.

dently of our efforts to eradicate the disease in man. Kitasato points out that so far as the chronicles of Japan extend back through the centuries they tell of the existence of human tuberculosis, and yet, although the disease has been present all these centuries, the cattle of the present day are not infected. If the human strain of bacilli easily adapt themselves to existence in the bovine organism this could not be possible. This is another link in the chain of evidence which led me to urge in 1899, before the Canadian Medical Association, and repeatedly since, that we in Canada should lead the world in completely banishing the disease from among our cattle. The disease is altogether too prevalent in European countries, for example, for this to be possible—the cost there would be too great.

We are remarkably free from the disease, freer than any other Western country; still it exists, and its eradication is obviously a national and not a provincial concern. We are told that the Federal Government hesitates to interfere in the prevention of human tuberculosis, not because they do not recognize that this is a work of national import, but because, doing this, they would be trespassing upon provincial rights, and the law is above the people and their welfare. But the health of animals has been from confederation onwards a matter both of national concern and of federal legislation. I would once again urge that it is for the Government to select some one well-defined section of our country and there to root out completely the disease from among the cattle. Let them take Prince Edward Island, for example; appoint inspectors, and be prepared to superintend the health of the animals on the island for, say, five years; let those inspectors make a census of all the cattle on the island, let them apply the tuberculin test, and take over and compensate all reacting cattle; disinfect the byres, and forbid any fresh animals to be landed without rigorous determination that those animals are free from the disease.

I am convinced, first, that by the end of two years, if from the start they thoroughly entered into their work, the inspectors would find not a single case of the disease cropping up anew on the island. That disease, I say, only passes from animal to animal, and not from man to animal, under natural conditions, and if there are no infected animals to convey the disease no new case can show itself. In the second place, the farmers would be benefited materially; no longer would they be subject to loss from the disease decimating their herds, and, what is more, the certainty that their stock was free from the disease would enhance the value of that stock and afford a market for it for breeding purposes, not merely at home but in distant countries which despair of obtaining uninfected animals, their own stock being so riddled with tuberculosis.

Lastly, the experience gained in eradicating the disease in one locality, would show how it can be accomplished most economically and surely in other parts and eventually throughout the whole of the Dominion, so that Canada, our Canada, should stand before the world as the first country to solve the great problem and to possess stock wholly free from this devastating disease, so ruinous to agricultural communities throughout the world.

This is no chimerical plan: it is a perfectly feasible experiment, assured of success from the first, causing little disturbance and capable of being carried out at no great cost. If the Government has not merely the fear of the provincial politician before its eyes but possesses a statesman-like foresight; if it has the welfare of the community at heart, the well-being of this Canada of ours, then I urge that it takes up this work; that it makes a forward move fraught with advantage to what is by far the greatest industrial interest of the country, even if it does not immediately see its way to take up measures for the benefit of the greatest national interest of all—the health and well-being of the people.

NOTES ON 600 CASES OF TYPHUS FEVER.

BY

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THE interest aroused in London a short time ago by the occurrence of a few cases of typhus fever in Stepney, and in Aberdeen by the recent outbreak in that city, emphasizes the rarity of this disease at the present day in the British Isles as a whole.

INCIDENCE.

In London the notified cases have averaged only sixteen per annum during the fourteen years 1890-1903, and the smallness of the number of cases makes it probable that the accuracy of the diagnosis is frequently doubtful. Under such circumstances the knowledge of a disease becomes traditional, handed down from textbook to textbook, without regard to such change of type as may have occurred in the few foci where it still lingers. The writers have had a joint experience extending back to 1896 in the City Hospital North, Liverpool, where a number of cases of typhus is admitted each year, trifling compared with what was once the case, but still sufficient to supply a practical knowledge of the disease. They propose to record those features which they consider specially prominent rather than to enter into a detailed account of the 600 cases which have come under their observation, and upon which alone their conclusions are based.

Without dwelling on the public health aspect, it may be said that practically all the cases are drawn from the poorest and most ignorant classes, often hawkers or dock labourers, and that there are very frequently several cases admitted from the same family. This bears out the received ideas as to the environment and infectivity of typhus. The admission of several cases from the same family, adults as well as children, is a very marked feature of typhus, and in this respect reminds one of small-pox. The two families given illustrate this well, and many more might be added.

	Age.	Admitted.
Family 1.		
W. C.	10	November 4th
C. C. (mother)	40	November 28th
E. C. (daughter)	10	
M. C. ,, ...	20	
M. C. ,, ...	17	
J. C. ,, ...	6	December 24th
Family 2.		
C. F.	60	December 5th
M.	6	
E.	5	
B.	3	
J.	31	December 7th
C.	3	December 8th
J.	10	December 9th
J. } (cousins of above)	16	January 5th
J. }	10	

A similar experience is reported by Dr. Matthew Hay from Aberdeen, where, out of 100 cases, 75 were admitted from 15 families. Dr. Hay remarks that "typhus is not nearly so infectious as the public suppose," or the spread in Aberdeen would have been much more rapid, and there is much to be said in support of this view in the wider sense. At the same time its intense infectivity at close quarters is demonstrated amply by the family records such as we have alluded to, where the conditions exclude dilution of the poison by fresh air. Matters are very different where ventilation is free, as will be pointed out later when referring to the experience of the hospital staff.

As practically all known cases of typhus are isolated in hospital, the following figures may be taken as being, in the main, fairly indicative of the age incidence and mortality:

Age Periods.

	0—5	5—10	10—20	20—30	30—40	40 and upwards.	Total.
Number of cases	22	78	235	92	98	75	600
Percentage of total cases ...	3.6	13	39.1	15 3	16 3	12.5	100
Number of deaths	1	—	9	12	28	35	85
Deaths per cent. of cases in each age period	4.5	—	3.	13	28.5	46.6	14.1

Number of cases	335	265
Percentage of total cases	55.8	44.2
Number of deaths	10	75
Deaths per cent. of cases in each age period	2.9	28.3

The chief points to which we would draw attention in this table are the greater proportion of cases during the first twenty years of life, the slight mortality during that period, and the rapidly increasing fatality later in life. The number of cases during the 0 to 5 years period is small, but the 10 to 20 years period comprises close on two-fifths of the total attacks. The

tendency to death is, however, seen to be only one-tenth as great as that which prevails during the period subsequent to twenty years. It is not improbable that this disproportion should be further increased by the addition of some unrecognized fatal cases among adults, for as we shall show later errors in diagnosis are by no means infrequent in connexion with this disease.

SYMPTOMS AND TREATMENT.

Onset.

As regards the alleged suddenness of onset of typhus, we have not found that a definite date is often given as having impressed itself on the friends of the patient, or, in those cases where the latter is in a condition to give information, on the patient himself. The number of cases in which the illness proved to be more advanced than was described has exceeded those in which an accurate account was given. Partly this may be due, of course, to lack of intelligent observation in the class attacked, but probably still more to the diminution in the severity of type of the disease as compared with several decades ago. The late Dr. R. Robertson, formerly Visiting Physician, who had had an unusually wide experience of typhus during the serious outbreak in Liverpool some thirty years ago, frequently described a prevalent severe type with haemorrhage from the mucous surfaces such as has not come within our experience.

In children, whose average attack is by no means severe, the onset would appear to be frequently almost unnoticed, and the rash the first matter to attract serious attention. As this sign may be scanty in mild cases, it is evident that unrecognized cases among children may be an important factor in the spread of the disease. Professor Matthew Hay, endeavouring to trace the source of the recent outbreak at Aberdeen, has pointed out that a large number of cases seem to have started from a particular school. This is interesting in view of Sir J. W. Moore's opinion, expressed in Clifford Allbutt's *System of Medicine*, that children are comparatively immune. Of course, their close proximity in school would tend to overcome such immunity, but would hardly account for 13 per cent. of our admissions being within the 5 to 10 years age period.

Of the early symptoms, the severe headache is the one which appears to make an impression on the patient, from whom it is easily elicited. It is usually frontal, and deserves some attention as leading to early insomnia and delirium. The typhus face, too, is of great assistance in diagnosis, and is very significant to the accustomed eye. Congestion is the prominent feature, both as regards skin and conjunctiva. The marked conjunctival suffusion, frequently-contracted pupil, and the dull expression generally, form a decided contrast to the clear conjunctiva, dilated pupil, and anxious expression of the enteric-fever patient. It would seem likely that the severe headache and delirium of the earlier stages are due to a similar intracranial circulatory disturbance rather than to the toxaemia which is an important factor later in the attack. For the treatment of this condition no remedy appears to be so satisfactory as the application of leeches to the temples, supplemented by the administration of chloral hydrate and potassium bromide. The hair should also be removed. The relief following these measures is often speedy and the effects lasting.

The deafness which is present early in the attack may be recorded at this point.

In the early stages the tongue often presents a raw, "beefy" appearance, which gives way later to the usual effects of high temperature, though without the fissuring so frequent in the more prolonged pyrexia of enteric. Constipation is an early symptom, and there is a decided tendency for it to persist throughout the attack.

Respiratory System.

It is commonly thought that true pneumonia often ushers in an attack of typhus, and a number of cases of inaccurate diagnosis, especially in alcoholics, are probably due to this idea. We have seldom, if ever, seen pneumonia in the early stages, or indeed throughout the course of the attack. On the other hand, a certain amount of pulmonary disturbance is so frequent that it may be considered an essential feature of the disease. It takes the form of bronchitis of varying extent, which appears early, and is followed by hypostatic congestion, pulmonary oedema supervening in the severer cases, and constituting a tendency to death of great importance.

Myalgia.

Myalgia may here be alluded to. The commonest sites for this symptom are the calves, upper part of the chest, and the arms. It is frequently very acute; on squeezing the calves of the patient he cries out and resents the investigation violently. It is often transient in type, one being able to elicit it in the morning, while in the afternoon one may be quite unsuccessful, the symptoms returning later in the evening. It occurs in most cases, but is often absent in young children. In very severe cases it may be general in distribution, the patient resenting pressure on any part.

Rash.

Judging from those cases as to which a definite history has been obtainable, the rash makes its appearance fairly constantly on the fourth or fifth day, and, like that of small-pox, it is all out in about three days. We have been able to observe its first appearance in a fair number of cases, owing to the early removal to hospital by the health authorities of cases of sickness occurring in infected houses. In our experience the sites where the rash is first to be seen are over the pectoral muscles, the shoulders, and the back of the forearm and wrist. It is rarely met with on the face, but spreads rapidly downwards over the trunk and limbs. Unlike enteric fever, the severity of the attack is usually in direct proportion to the copiousness of the eruption, the number of maculae in a severe case probably equalling or exceeding those of a thick measles rash.

The characteristics of the typhus eruption are best seen on the back and other dependent parts. At first it disappears on pressure, is slightly raised, and is not deep in hue, and a characteristic feature is the lack of a definite outline to the individual maculae. Within a few days there is a definite haemorrhagic stain of deeper hue, which cannot be removed by pressure, and towards the crisis in severe cases the intensity of the haemorrhage forms a valuable indication as to progress. In the more favourable cases the haemorrhage begins to clear at some date during the second week, and the rash may be little in evidence at the crisis.

We are inclined to think that too much stress is laid on the "mottling," which seems to be somewhat of a stumbling-block to those unfamiliar with typhus. It is, no doubt, the appearance presented by a portion of the eruption at a deeper level in the skin, and is not observed in all cases. This subcuticular mottling on the back of the wrists and hands and dorsal aspect of the feet may be of considerable diagnostic value in children in cases where the typically developed rash is absent and the only other signs are a watery condition of the eyes and puffiness of the face. It is not unusual for the mottled condition of an ill-nourished skin, especially in children, to be mistaken for the mottling of typhus fever.

Odour.

As regards the "mousy" odour, there is certainly an odour characteristic of typhus which needs to be experienced to be appreciated, but it is not a sign that we have cared to investigate closely, as it is hardly worth the accompanying risks.

Nervous System.

As to the delirium of typhus, we would particularly point out that when the attack is well established the delirium is very active, and not infrequently so violent as to require some form of restraint. Towards the end of the attack it gives place to the low muttering of the "typhoid" state, and accompanies that extreme degree of prostration which is so marked a feature of the disease. We have avoided the use of opium to control delirium, believing that the tendency to coma in typhus renders it undesirable. After local depletion by leeches, bromidia would appear to be the most satisfactory sedative, and, where an opiate has proved absolutely necessary, nepenthe has been given.

Circulation.

No further allusion to the circulatory system will be made than to say that in our experience the changes in the heart muscle have a special incidence on cases occurring among better-class people. The medical men and nurses who have come under our observation have been small in number, but their attacks have been characterized by a marked tendency to heart failure, which may persist after the crisis.

Temperature.

The temperature chart may best be described as that of a lobar pneumonia prolonged to fourteen days, the range being high, 103° F. to 105° F., with a remission frequently towards the tenth day. The termination, by crisis in most cases, is

very rapid, and a rise usually occurs in the middle of its course. Unless there is severe lung trouble masking the crisis, the temperature reaches normal in twenty-four to thirty-six hours, and remains down. During the critical period there is often, though not always, a very considerable diaphoresis. In a minority of cases this form of crisis, even in the absence of pulmonary complications, is not observed, the fall of temperature to normal occupying several days.

Crisis.

The rapidity of the typical termination of an attack of typhus is very striking; the tongue cleans rapidly from the edges, and the patient, who has lain helplessly on his back low down in the bed, turns voluntarily on his side. The improved appearance is very observable and convalescence is rapid, the patient being able to take solid food within two or three days, and to leave his bed in a week's time. We have seen no case of relapse.

While speaking of the crisis we would express our strong conviction as to the value of alcohol as a stimulant in typhus. It is hardly necessary to say that no one familiar with infectious diseases would systematically stimulate all cases, but our experience goes to show that in severe cases of typhus, from about the tenth day, indications of circulatory failure are manifested which are most effectually combated by the free administration of alcohol. In alcoholic subjects typhus is extremely fatal, and alcohol is called for almost from the earliest stages. We have found also that frequent subcutaneous injections of strychnine have been of great value.

Complications and Sequelae.

Long lists of complications and sequelae are to be found in the textbooks, but in actual practice few are met with. Hypostatic pneumonia during the course of the attack has already been referred to, and we may here record the cases of a man and a woman, aged 63 and 80 respectively, who weathered their attacks of typhus only to succumb to rapidly-fatal hypostatic pneumonia which commenced some days after the crisis.

The meningeal congestion may at times amount to actual meningitis, but this is not common. We can recall a case of typical meningitis in a man, with a much-faded rash, where the diagnosis of typhus fever was only fully established by the admission of a typical case of that disease from the same family. Hyperpyrexia may be mentioned as a phenomenon which usually accompanies fatal toxaemia.

Retention of urine is often met with in severe cases, chiefly in males; and a careful examination daily is desirable for its detection, as the patient is not in a position to give information. The catheter twice daily is the only method of dealing with this condition. If overflow from the bladder be avoided by care in this direction, there should be small opportunity for the formation of bedsores.

Among pregnant women abortion seems almost inevitable, and appears to be beneficial rather than otherwise.

As in enteric fever, suppurative parotitis may be met with either as a complication or a sequela, and forms a dangerous though not necessarily fatal condition. After the crisis we have seen much pus accumulate without any rise of temperature. Multiple abscesses form a not infrequent sequela, more being met with in the upper extremities.

Another common sequela is thrombosis of veins of the lower extremity, which differs in no way from that met with after enteric. A striking feature of typhus is the weakening of the mental faculties which results for a time in many cases, and which we have known to persist for a considerable period in a few instances. Sir J. W. Moore refers to uraemic convulsions as not infrequent. We have not met with this complication, though we have seen uraemic coma diagnosed inaccurately as typhus fever.

DIAGNOSIS.

As might be expected in connexion with a disease so little known the proportion of cases of erroneous diagnosis to total admissions is rather high, amounting to 17.2 per cent. of the combined total. The following are the percentages of the total error:

Enteric fever	41.6
Pneumonia	17.5
"Febricula"	16.6
Meningitis	5.0
Scarlet fever	4.1
Measles	3.3
Other diseases	11.9

It will thus be seen that enteric fever stands out prominently as a source of incorrect diagnosis in a locality where typhus fever is known to exist. Certainly at times there is a difficulty in deciding between the two diseases, but this is not frequent. We may remark in passing that the spleen may be enlarged in typhus, though not to the same degree as in enteric. A copious enteric eruption probably often accounts for inaccuracy, especially when it is met with on the limbs and if the delirium be of a low type. The points with regard to the rash which distinguish typhus from enteric fever are its early appearance, the fact that the whole crop is out in three days, its typical distribution as before described, its petechial character after the first few days, the absence of definite outline to the spots, and the mottling of the subcuticular eruption when present. As a rule also the facial appearance is sufficiently distinctive; but alcoholism as a complicating factor may tend to confusion. So also in the case of pneumonia, which, after enteric fever, we have found to be most frequently diagnosed as typhus. We have so seldom, if ever, seen true pneumonia with typhus that we should almost regard its existence as exclusive of the latter diagnosis. Many of the cases so diagnosed are alcoholic, with congested face and much delirium, and are also associated with copious fleabites, which we have not infrequently known to be regarded as a typhus eruption. The febricular cases, which were hardly less frequent than those of pneumonia, were also not infrequently the subjects of petechiae of parasitic origin. Possibly a few of these were cases of abortive typhus, while others were only regarded with suspicion because they occurred in infected houses. Alcohol also plays its part in conducing to error in diagnosis in such cases. Similar factors also probably combined to bring the six cases of meningitis into hospital, as, apart from the cerebral manifestations, there is no great resemblance.

The comparative infrequency of erroneous admission of cases of measles is, at first sight, a matter for some surprise, as there is a certain resemblance between the eruptions in the early stages during which the typhus rash disappears on pressure. Measles, however, is naturally the diagnosis which would occur to one first, and the case would remain at home in consequence. Doubtless the mistake which is really made is in regarding cases of typhus in children as measles, the absence of effective isolation thus assisting in the spread of typhus. The points of resemblance are in the date of appearance and rapidity of development of the rash, the irregularity of outline and the hue of the spots, aided by facial congestion, bronchitis, and the frequent absence of typical constitutional disturbance in typhus occurring in children. The absence of rash from the face in the latter disease, and thus the difference in distribution in the early stages, is the most reliable point of distinction apart from such characteristics of measles as well-marked coryza and Koplik's spots.

Of the scarlet-fever cases we can only recall one which offered any real resemblance to typhus—a malignant case in an adult, with haemorrhages into the skin, much facial congestion, and coma. The other diseases admitted as typhus call for no special comment.

Infection.

We wish to lay stress upon the manner in which the experience of the hospital staff bears out the opinion held as to the value of the free use of fresh air in the management of typhus fever. The treatment of the cases upon which this paper is based has extended over a period of some years, during which the staff has been constantly changing, and we feel justified in expressing some satisfaction that no case of typhus has occurred among porters, nurses, or ward maids during our period of office. We do not wish it to be understood that it is not within our knowledge that at some periods members of the staff have contracted the disease. That is not the case, but we are dealing with our own experience under conditions known to us personally, and fortunately have not witnessed such an occurrence. We attribute this result to the treatment of the cases in large wards with plenty of air space, the use of smaller wards having been systematically avoided. Each bed is placed between two windows which are thrown widely open during the winter as well as in the summer months. In our opinion this is in no way prejudicial to the patient, but rather the reverse, and in that we are borne out by others of much wider experience. Care in the disposal of the sputum may have assisted, and also the avoidance of careless or rough handling of the bedclothes while preparing a patient for inspection. Unnecessarily frequent and close contact with the patients have also been discouraged.

The circumstances under which nurses have been admitted suffering from typhus fever have been those where their patient has been treated for an unrecognized attack, and unusually free admission of fresh air and other necessary precautions have not, therefore, been adopted. We can recall several such instances, notably two cases of supposed pneumonia which resulted in the admission of three and four nurses respectively with typhus, the attack in all cases being severe. Such occurrences go to prove not only the value of fresh air as a diluent of typhus contagion, but also its virulence at close quarters.

It is the duty of the hospital porters to carry patients from the ambulance to the wards, and within our experience none of these men have contracted typhus fever. Their contact is of short duration and not very intimate, so that the opportunity for contracting the disease may be slight. The case of the nurses is different, as they have to wash the patients and remove their clothing.

At Aberdeen typhus has occurred only among those who have assisted in removal and cleansing of patients, those nurses not so engaged having escaped infection. This has led Dr. Hay to regard fleas with suspicion as possible carriers of infection, but though they are in abundant evidence among the Liverpool cases the nurses have, within our experience, enjoyed immunity from typhus. They express some surprise, as a matter of fact, that they are seldom bitten by fleas, but it is hardly likely that the experience of nurses in the two cities differs greatly in this respect.

It is interesting to note also the experience of the nursing staff on another point relating to immunity, namely, the possibility of the protection by repeated small doses of the contagion, probably in a diluted condition. It has been thought that repeated headaches among those attending on typhus patients are an indication of such diluted dosage. Frequent frontal headache is complained of by nurses during their spell of typhus duty, which is now limited to a few weeks for this reason. At the same time it should be noted that the bulk of the cases are admitted during the winter months, and that the low temperature of the air, which is freely admitted, might possibly contribute to cause this. The nurses state, however, that the headache is less frequent during the coldest weather.

In conclusion, we wish to express our indebtedness to Dr. R. I. Richardson, Visiting Physician to the City Hospital North, Liverpool, for his kind permission to make use of the cases in hospital for the purposes of this paper.

SOME EXPERIMENTS IN THE TREATMENT OF TRYPANOSOMIASIS.

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The discovery of a trypanosome affecting man by Dutton,[1] and, quickly following upon this, the finding by the Royal Society's Commission[2] that trypanosomes play such an important rôle in sleeping sickness, has stimulated the efforts made to find some drug which would act on the trypanosomata as quinine does on the plasmodium of malaria.

Trypanosomiasis has for many years engaged the serious attention of the veterinary profession; the heavy loss amongst horses and cattle in tropical countries from various trypanosomic diseases naturally caused the trial of many drugs. Of all the drugs tried arsenic is the only one which seems to have given favourable results; reports concur that it mitigates the disease, and in some cases cures have been recorded.

Laveran,[3] working experimentally on trypanosomiasis, published in 1902 his results on the treatment by means of sodium arseniate of rats infected with the nagana parasite (*T. brucei*). Since that time he has published several papers on arsenic in the treatment of various experimental trypanosomic diseases. Moore[4] and Chichester[5] record their results on the treatment of cattle in Southern Nigeria with sodium arseniate. Broden[6] and others have treated cases of human trypanosomiasis with arsenic, usually in the form of Fowler's solution, with very encouraging results.

Another drug which in the last year was introduced by Ehrlich and Shiga[7] is trypanroth. The authors treated rats and other animals infected with the trypanosoma of mal de Caderas (*T. equinum*). Their results are most encouraging. Laveran has since then recorded his results with the treatment of trypan red in various trypanosomic diseases, and more recently on mixed treatment with trypan red and sodium arseniate. Wendelstadt[8] has reported on the use of malachite green. His results are not very successful, and the dangers of producing necrosis are too great to warrant its use as a therapeutical agent.

Arsenic in the treatment of the various pathogenic trypanosomic diseases in animals seems rather to mitigate the disease, to cause the parasite to apparently disappear from the animal's blood, and to prolong the life of the animal. Unfortunately the usual history is that if treatment be discontinued, even after a prolonged course of the drug, the animal after a varying length of time once more exhibits the symptoms, and finally succumbs to the disease. Undoubtedly some of the more resistant animals do recover. Laveran and Mesnil in their classic work, *Trypanosomes et Trypanosomiasis*, from their numerous experiments conclude that the administration of arsenic kills the trypanosomes which are free in the blood, but when once the drug is eliminated or fixed in the tissues the surviving parasites commence to multiply and the organisms once more reappear in the peripheral circulation unless another injection of arsenic be given. On the administration of a second dose, the parasites disappear only to reappear, and even though treatment be kept up, the majority of the animals succumb either from the disease or from the toxic effects of the drug. Some of their animals, rats and dogs, have been cured. Laveran records the extensive necrosis and the pain which is apt to follow the administration of arsenious acid.

In 1903, while at McGill University, I repeated some of the experiments with arsenic on animals infected with the nagana parasite. On my taking up trypanosomiasis research in the Liverpool School of Tropical Medicine, I started a series of experiments with sodium arseniate. My experiences were the same as Laveran's. Many of my rats either died from the disease, were killed by the drug, or succumbed to an extensive ulceration around the site of injection.

On the publication of Ehrlich and Shiga's result with trypan red, a series of animals infected with different trypanosomes were treated with the dye. The best results were obtained with mal de Caderas infected animals. The results were not so good with animals infected with surra and nagana parasites. The results were still worse with dourine, Gambian horse, and T. gambiense strains. The parasite disappeared for a few days, to reappear, and the duration of the disease was not greatly prolonged. A combination of trypan red and arsenic seemed to be worth trying; the results obtained were more promising, but unfortunately trypan red also caused a nephritis, and by its chemiotaxic properties very extensive necroses sometimes resulted. On monkeys especially, the subcutaneous injection of the dye, either alone or in combination with arsenious acid, induced ulceration, which so undermined the health of the animals that they succumbed to any outbreak of disease, which occurred only too frequently amongst my numerous animals. It was these untoward accidents which induced me to seek a preparation of arsenic less toxic, and the subcutaneous injection of which entailed less danger of necrosis. An aniline compound, meta-arsensaureanilid (atoxyl), having the formula $C_6H_6NO_2As$, attracted my attention. This preparation has been before the profession since 1900, and various workers have recorded its worth in the treatment of various skin affections and in anaemia. It contains 37.69 per cent. arsenic, and is claimed to be 40 times less toxic than liquor Fowleri. It is especially suitable for either subcutaneous or intravenous administration. It produces no necrosis, no pain, and very much higher doses of arsenic can be given without producing toxic results. (I have tried the drug in high doses intravenously on myself without ill effects.)

Tentative experiments on rats and rabbits appeared so favourable that I decided to institute a series of experiments. These observations have been in progress for the last ten months, and have on the whole been most promising. In all my therapeutic experiments certain conditions were laid down to be followed out:

1. That the animal should be well infected and the presence of parasites determinable in its blood.

2. That the disease should have been established some time (one cannot expect to treat either man or beast suffering from the disease in the very early stages when no definite symptoms are manifested

3. That some symptoms besides the presence of parasites should be in evidence.

(*a*) Anaemia.

(*b*) Loss of weight.

If the treatment of such infected laboratory animals be successful, then such a line of medication ought to be of service in the practical treatment of the disease.

Trypanosomes.

The trypanosomes experimented with are the following:

Trypanosoma Gambiense—
- (*a*) Gambian fever strain (Gunjur).
- (*b*) Congo Free State fever strain.
- (*c*) Uganda sleeping sickness.
- (*d*) Congo Free State sleeping sickness.
- *(*e*) A highly virulent strain derived from one of my cases of sleeping sickness which had only been passed through a monkey, baboon, and a rabbit.

Trypanosoma brucei (nagana).
Trypanosoma evansi (surra)
Trypanosoma equinum (mal de Caderas)
Trypanosoma equiperdum (dourine).
Trypanosoma dimorphum (Gambian horse disease).

Animals Used.

T. gambiense.—Monkeys, dogs, pups, kittens, rabbits, guinea-pigs, rats and mice.
T. evansi.†—Rabbits, guinea-pigs, dogs, rats, mice.
T. brucei.†—Rabbits, guinea-pigs, rats, mice.
T. equinum.—Dogs, rabbits, guinea-pigs, rats and mice.
T. equiperdum.—Pups.
T. dimorphum.—Dogs, pups, rabbits, guinea-pigs, rats, and mice.

It is not my intention to give a series of experiments in detail, these will appear in the forthcoming memoir of the Liverpool School of Tropical Medicine. All the animals fulfilled the conditions laid down, and all contained parasites in their blood. The lowest number was 6 to 10 trypanosomes to a field in rabbits infected with the Gambian horse disease, and pups with dourine: up to 50, 80, to 120 or more to a field, being present in the animals infected with the very virulent strain called T. gambiense (*e*)—monkeys, guinea-pigs, dogs, rabbits, kittens, rats—and with surra, nagana and Caderas—rats, mice, guinea-pigs.

I have found from experiments that the dosage which the average animal will stand is:

Rabbits (1,700 to 2,000 grams) 1.0 c.cm. 10 per cent. solution.
Monkeys (rhesus) (2,400 grams) 1.0 to 1.5 c cm. 10 per cent. solution.
Guinea-pigs‡ (600 grams) 0.3 to 0.5 to 1.0 c cm. 5 per cent. solution.
Rats (130 grams) 0.5 to 0 8 c.cm. 5 per cent. solution.
Mice (20 to 25 grams) 0.1 to 0.2 c.cm. 5 per cent. solution.

These doses are well tolerated by the animals unless almost moribund, in which case it is advisable to give half to three-quarters of the dose. With dogs, pups and kittens I have had less favourable results. The animals appear to exhibit a greater tendency to toxicity when once well infected, and the dose which the trial animals stood will set up serious symptoms in the infected ones.

In my earlier experiments, after the initial injection I waited two days and then administered half the starting dose three times a week, then gradually increasing until I attained the initial dose, and going higher if necessary. I have since tried the effect of giving the initial dose, and then administering once a week the same amount, even increasing it gradually until the animal received one and a half times as much as the primary dose without symptoms. As I have devoted more attention to the treatment of animals infected with the human strains, I have felt it was better to adopt a more rational mode of procedure, and to administer the drug regularly over a period of one, two, or three months rather than inject only when parasites reappeared in the blood. I have applied the same mode of procedure in treating animals infected with the other strains of the trypanosomes. The results are that after a course of treatment the animal survives, whilst its non-treated control dies—parasites are absent from the peripheral circulation, the blood count improves, the animal increases in weight, and the temperature becomes more regular. On injecting the blood of such an animal into a susceptible animal no infection occurs. I have not been content with inoculating small quantities of blood, as from my experience the trypanosomes are very scarce in the blood of treated animals, and for the time being are attenuated, therefore the injection in small amounts will not serve to infect the subinoculated animal. After treating some of my animals, and assuring myself that parasites were absent, and the general condition being apparently normal, after a period of three months without treatment, I have killed them and injected the whole of their blood into susceptible animals. Such subinoculation controls have not shown parasites in their blood, nor has the blood from such of these proved infective when injected into further control animals; that these animals were not immune was proved by reinoculating them with virulent blood: infection and death took place in the usual time.

The combination of trypan red and arsenic having proved of value, I have combined the dye with atoxyl. The results are satisfactory—the treatment does not need to be carried out for so long a period. The only drawback is that animals treated with the combination exhibit a far greater tendency to suffer from nephritis, and at times extensive necrosis occurs at the site of injection.*

On administration of the arsenic compound into an animal showing numerous parasites in the blood, the following action on the trypanosomes will be noted. For the first three and a half to four hours, depending on the dose used, very little change in the parasites can be noted. Between the fourth and fifth hour the effect on the trypanosomes is evident. Some trypanosomes appear to be swollen and their movement is less rapid. If now a series of blood specimens be examined, at intervals of twenty to thirty minutes, the following changes will be seen. The number of slowly-moving trypanosomes increases; many parasites will be seen to be almost motionless. The protoplasm takes on a peculiar ground-glass appearance; dark granules appear in the protoplasm; very often a whole series of granules, one behind the other, sometimes in pairs or all clumped together, are seen lying between the macronucleus and the anterior end, or distributed through the whole body of the parasite. At the same time vacuoles are observable, oftentimes being very large. The trypanosomes become deformed, assuming various shapes, the most common being a kite-shaped form with fairly long flagellum, and a tadpole-like one with hardly any free flagellum. These forms especially exhibit greatly impaired movements. At the same time, a noticeable increase of the leucocytes is discernible; phagocytes begin to appear; very often groups of five to seven will be seen.

Up to this time (sixth to seventh hours) the trypanosomes, though decreased, are still present in considerable quantities. Suddenly, in the course of an hour, the number may drop from 40 to 2 or 3 to a field or less; coincident with this is a very marked increase in the number of leucocytes, especially phagocytes. From the ninth to the fourteenth and sixteenth hours the changes are less pronounced and rapid; the trypanosomes gradually disappear. At the eighteenth hour, providing the animal has been injected with the correct amount, the parasites are absent from the peripheral circulation, and even though the blood be centrifuged, no parasites can be found.

My colleague, Dr. Breinl and myself, have observed a large number of experiments, examining the animals every one and a half hours for four and a half hours, then every half hour until the parasites were almost absent, and continuing the observations hourly until the twenty-fourth to thirty-second hour after starting the experiment. From a series of these observations we have determined that in hardly any of the forty-six continuously observed animals were parasites to be found after the eighteenth hour. Should, however, the drug be given in smaller amounts the process takes longer, lasting from thirty-six to forty-eight hours.†

Phagocytosis has been observed on three occasions; we have witnessed the engulfing of a trypanosome still alive, though almost motionless, and on the other occasions the ingesting of dead trypanosomes.

Observations on the effect of trypan red on the trypanosomes show that almost the same changes take place, though the process is somewhat slower, usually requiring forty-eight hours or more. Leucocytosis appears to be very marked in animals treated with this drug. From the marked leucocytosis which we observed in the course of our experiments, we

* So highly virulent that if delay of one or two days occurred in starting treatment the animal would generally die. It is the Gunjur strain (*a*) and this virulent one (*c*) which has been chiefly used in my experiments.

† Experiments in progress with a horse infected with surra and a cow infected with nagana parasite.

‡ Guinea-pigs appear to be more susceptible to toxic effects than the other animals, whilst rats and to a less extent mice are able to bear with impunity very high doses of the drug; it will be noticed that a rat can be injected with almost the same dose as a guinea-pig four times its weight. Professor Laveran has also noted this with the sodium arseniate-trypan red combined treatment.

* Since I have adopted the intramuscular injections of the dye I have had very few cases with necrosis.

† Blood films were made before beginning the experiment and at every examination. The results of the examination of these stained films bear out the observations on the fresh blood films. The significance of the granules seen and the phagocytosis will be discussed in our fuller report.

decided to cause a hyperleucocytosis by the injection of some leucocycotic agent. The injection of the agent alone caused a hyperleucocytosis but no appreciable diminution of the parasites. When combined with atoxyl, trypan red, or atoxyl-trypan red the blood counts showed very little, if any, increase in the leucocyte counts as compared with any of the three methods of treatment. Later experiments show that some diminution in the number of parasites does occur.

EXPERIMENTS IN PROGRESS.

The following experiments may be of interest:

T. Gambiense (Gunjur Strain).

Rabbit, weight 2,010 grams, parasites appeared on twelfth day, high numbers on forty-sixth day. September 13th—weight 1,890 grams. Blood count—reds 4,980,000, whites 8,860, haemoglobin 67 per cent. Treatment—1.0 c.cm. 5 per cent. solution three times a week in increasing doses. December 17th—treatment discontinued. January 4th—weight 2,000 grams. Blood count—reds 6,640,000, whites 6,200, haemoglobin 88 per cent. Between that date and January 13th the animal was in excellent health. Its blood in large doses was non-infective. On January 15th it was noticed to be ailing and to exhibit symptoms of tenesmus. January 17th—bled, and whole of blood injected intraperitoneally into a monkey. Up to date this animal remains uninfected. *Post mortem.*—Very severe haemorrhagic cystitis, the bladder and parts being almost gangrenous—cause unknown. Acute septic peritonitis, especially around bladder. Spleen and glands small, no evidences of a trypanosome infection. Microscopically the spleen showed slight increase in the connective tissue, but no sign of congestion. Kidneys and liver normal.

Rabbit inoculated October 26th, weight 1,860 grams. Blood count—reds 6,620,000, whites 6,700, haemoglobin 89 per cent. Parasites seen November 8th. From that date to January 10th trypanosomes always present, but usually scanty. The numbers then rose to 18 to 20 to a field. Animal had steadily lost weight, and exhibited a profound anaemia. January 10th—weight 1,540 grams. Blood count—reds 3,880,000, whites 11,800, haemoglobin 63 per cent. Injected intravenously 0.8 c.cm. 5 per cent. solution. Parasites absent at end of eighteenth hour. Treatment 0.5 c.cm, later 1.0 c.cm., until 2.0 c.cm. of 5 per cent. solution administered twice a week. Weight at present 1,980 grams. Blood non-infective. Blood count—reds 6,415,000, whites 6,600, haemoglobin 82 per cent.

Guinea-pig infected for two months, weight 610 grams; parasites 26 to 40 to a field. Received 0.3 c.cm. 10 per cent. solution. Parasites absent after fifteenth hour. Treatment, 0.3 c.cm. of 5 per cent. solution three times a week for two months. Weight 730 grams. Treatment discontinued. Sixty-two days later animal died from infective bronchopneumonia. Whole blood inoculated into three rats, which have remained uninfected for forty days.

Strain "E."

Rhesus, weight 2,815 grams, inoculated November 16th. Blood count—reds 5,220,000, whites 12,600, haemoglobin 78 per cent. Positive November 21st. On November 23rd 12 to 17 to a field; weight 2,420 grams. Blood count—reds 4,600,000, whites 7,200, haemoglobin 73 per cent. Parasites 100,000 per c.mm. Oedema of eyelids and bridge of nose. Received 0.8 c.cm. 10 per cent. solution subcutaneously. Four hours later reds 4,450,000, whites 24,800; parasites 40,000 per c.mm. At eighth hour reds 4,740,000, whites 25,200, parasites 1 to 89 fields. At twenty-fourth hour reds 5,050,000, whites 46,000. Blood negative; the eucocyte count remained high for two days and then fell. Parasites continued absent. Treatment 1.0 c.cm. of 10 per cent. solution twice a week. The animal increased in weight, the erythrocytes and haemoglobin rose. On the thirty-ninth day the animal developed dysentery, and died on the forty-eighth day. *Post mortem.*—Very severe haemorrhagic and necrotic enteritis. Spleen slightly enlarged, glands small; inguinal group haemorrhagic. Kidneys normal. Blood non-infective in amount of 1.0 c.cm., but infective if 15 c.cm. of pure blood was used.

Trypanosoma Brucci.

Guinea-pig inoculated August 1st, weight 510 grams. October 29th, weight 340 grams. Parasites 40 to 60 to a field. Received 0.4 c.cm. per cent. solution. Parasites absent at nineteenth hour. Treatment, 0.4 c.cm. 5 per cent. solution three times a week for 2½ months. Treatment discontinued. February 28th, weight 560 grams; animal killed and three rats inoculated with whole blood; animals negative. Non-treated guinea-pigs have lived on an average forty to forty-five days.

Rats infected with nagana were treated two, three, and four days after parasites appeared, when in the last stage of the disease and showing the semi-comatose condition which is so often seen. Rat, Exp. 72, weight 135 grams, parasites 200 or more to a field, received 0.5 c.cm. of 5 per cent. solution. Parasites absent at twentieth hour. Treated regularly twice a week, dose 0.3 c.cm. 5 per cent. solution; parasites never seen. Some have lived as long as 102 days, when they died from epidemics of bronchopneumonia or dysentery. Subinoculated rats remained negative. In rats not treated after the initial dose parasites appeared in seven to eleven days, but if treatment was then begun the parasites disappeared. Increase of weight and percentage of haemoglobin noticed.

T. Evansi and T equinum Animals.—Same history.

T. equiperdum experiments in progress, apparently good results.

T. Dimorphum.

With this parasite the results have not been so good. The parasites disappear usually in eighteen to twenty-four hours after injection, very degenerated forms are seen, but after a period of sixteen to thirty days they are apt to reappear, and very much higher doses have to be given to cause them to disappear. No apparent recovery can be recorded. Undoubtedly the regular administration of this drug has retarded the disease, and the animals have outlived their controls by many months, but the favourable signs—increase of weight, regular temperature, and improvement in the blood counts are wanting. Laveran also records the greater resistance of animals infected with this parasite to the sodium arseniate treatment.

Trypan Red-Atoxyl Combination.*

Rabbit infected with virulent strain "*e*," T. gambiense; weight, 2,450 grams. Parasites 80 to field. 1 c.cm. 10 per cent. atoxyl intravenously; thirty-six to seventy-two hours later 8 to 12 c.cm. of 1 per cent. trypan red subcutaneously. Treatment once every six days. Parasites have disappeared, increase of weight; the anaemia is still present, though considerably lessened. After the sixth treatment the blood is apparently non-infective. Eight rabbits have died from nephritis. One had to be killed because of extensive sloughing around injection area, its subinoculated animals are negative.

Gambian Horse.

Better results are to be recorded with the combined treatment. The trypanosomes are absent, and definite increase in weight and of the number of erythrocytes is determinable. Four rabbits have died of nephritis.

Mal de Caderas.

Guinea-pigs (two). Animals are alive six and three-quarter months from date of infection, and one month and a half after discontinuance of treatment. Parasites absent, blood non-infective. Bitch, two and a quarter months treated; no parasites seen, blood non-infective since twenty-eight days.

With five exceptions every animal has had one or more controls which were infected at the same time; the controls of T. gambiense, strain "*e*," surra, nagana, caderas, and Gambian horse parasites have all died in the usual time. It is therefore evident, from the great majority of the experiments, that the treatment of animals infected with trypanosomes with this preparation or in combination with the dye either arrests the disease, thus prolonging the life of the animals, or apparently cures them. This is especially the case in animals infected with the ordinary strain of T. gambiense, and even, though to a less extent, with the abnormally virulent strain called "*e*."

A comparison of animals infected with the same strains, but treated according to Laveran's method with sodium arseniate has made me conclude that treatment with this aniline compound is in many ways superior to the ordinary arsenical treatment, on account of the quicker action of the drug on the parasite, the fact that the action seems to be prolonged, that large doses can be given without toxic symptoms and the entire absence from any tendency to cause sloughing.

In my opinion treatment is indicated of cases of trypanosomiasis in man with this drug in high doses administered intravenously and for a long period, pushing it to the maximal amount that the case can stand without headache and nausea, at the same time building up the patient in every way possible that will conduce to a lessening of the anaemia. In the European the combination of trypan red would probably be objectionable on account of the intense colouring of the tissues and secretions, but the native exhibits only a reddening of the conjunctivae and staining of the secretions. One of my cases of trypanosome fever had been under treatment with trypan red and arsenic for a short time before he returned to the Congo with favourable results—the parasites were longer absent from the peripheral circulation; his general blood condition was better; his temperature was almost normal.

I present the results of my experiments tentatively. I have used the term "apparently cured," as any one with an intimate knowledge of T. gambiense and other forms of trypanosomes in animals knows how difficult it is to say that an animal is not infected. This is especially the case with the human parasite. In a previous paper I have recorded cases in which the blood has been negative for nearly a year in rats[9] known to have been infected, and which at the expiration of that time showed parasites once more in their blood.

I do not believe that sodium arseniate alone will be found of great practical value, nor do I think atoxyl is a perfect preparation, from its toxic effects on canines and felines, but it is an advance on arsenious acid, and, if further efforts be made to produce a substance like trypan red, but less irritating

* The experiments with trypan-red treatment are reserved for fuller report.

in action, the combination ought to be of service in the treatment of trypanosomiasis in man.

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A CASE OF CEREBRO-SPINAL MENINGITIS: LUMBAR PUNCTURE: RECOVERY.

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IN view of the increasingly-frequent occurrence during the last few weeks of cases of cerebro-spinal meningitis the following instance seems worthy of record, especially in view of the immediate improvement that followed the surgical intervention.

The patient, an English architect, aged 50, who had met with reverses of fortune, was found comatose in his lodgings on October 25th, 1904, and removed to the Holborn Infirmary, where in an interval of consciousness he was able to communicate with his friends, and was transferred to the Italian Hospital on October 26th. From his own subsequent account he was in his usual good health until October 23rd, when he was seized with shivering, violent headache, and severe pain in his neck and back. He became unconscious, and must have been in that state for nearly two days before he was found. In the hospital he lay semicomatose, but roused when spoken to and complained of intense occipital pain extending along his neck and spine. The neck was rigidly extended owing to clonic spasm of the muscles, and there was some opisthotonos, though not in a marked degree. Kernig's sign was easily elicited both in the sitting and recumbent postures. The conjunctivae were suffused and the pupils widely dilated, but reacted to light and for accommodation. There was a petechial rash all over the body, especially on the lower extremities, while the skin generally was hyperaesthetic. He was perspiring moderately, and the sweat had the peculiar odour usually associated with typhus. There was some coryza with muco-purulent discharge from the nostrils; no bacteriological examination of this secretion was, however, made. The bowels were constipated and the breath extremely foul, partly owing, no doubt, to the neglected state of his teeth and the existence of an extensive pyorrhoea alveolaris. The temperature on admission was 100.3° F. and the pulse 108. The blood count showed leucocytosis, 26,000 per c.mm. There were no pulmonary or other symptoms than those already given.

In view of the coryza, the case was at first regarded as one of influenzal cerebro-spinal meningitis; still, the possibility of it being a sporadic example of epidemic cerebro-spinal meningitis was considered, and the patient was isolated. He was given a calomel purge followed by an enema, and ice was applied to the head and along the spine. A mixture containing 20 minims of the ammoniated tincture of quinine and 5 minims of glycerine of carbolic acid in cinnamon water was given every four hours, and 20 gr. of bromide of potassium on the first two evenings. He was put on milk diet without alcohol.

On the 28th—that is, the fifth day from the seizure and within forty-eight hours of his admission—the leucocytosis having advanced to 36,000, the temperature to 101° F., and no improvement in the other symptoms having taken place, but, on the contrary, a slight degree of aphasia having presented itself, it was decided to employ the lumbar puncture. This was performed under strict aseptic conditions by Mr. G. Lenthal Cheatle, surgeon to the hospital. The fluid, about 4 oz., rushed out with considerable force, and was slightly turbid when held to the light. Its withdrawal appeared to have an immediately beneficial effect, as the patient became quite conscious in a few hours, and the pain, muscular spasm, and aphasia gradually disappeared in about two days. On the day following the puncture the temperature fell to 99°, and he said he felt quite well but weak. Next day the temperature rose to 101.6°, but fell after the bowels were relieved by an enema.

In view of the great improvement in his condition it was not thought necessary to repeat the lumbar puncture; the cutaneous hyperaesthesia, however, persisted, but disappeared at the end of the first week. He made an uninterrupted recovery in two weeks. He remained in the hospital, however, until he could be sent to a convalescent home, and was transferred to the care of the dental surgeon, Mr. McKay, who successfully treated his pyorrhoea.

A portion of the fluid removed through the lumbar puncture was examined by Mr. Cheatle at King's College, and was found to contain numerous polynuclear leucocytes, some of which enclosed the diplococcus intracellularis. A similar result was obtained from the specimen examined in the hospital laboratory by Dr. V. Pereira, Resident Medical Officer. It is perhaps to be regretted that a bacteriological examination was not made of the coryzal discharge or of the thick spongy incrustation on the teeth, as it may have thrown some light on the path of invasion.

I think it may be fairly claimed that in this case its remarkably favourable termination was due to the early employment of the lumbar puncture. The therapeutic value of this procedure has been much disputed, but it has always had a strong advocate in Netter, who advises early and repeated lumbar puncture. The value of any remedy is proverbially enhanced by its speedy employment. *Cito, bene, et recte*, and the withdrawal of the fluid at the earliest possible moment seems to be imperatively called for in cerebro-spinal meningitis. Properly carried out it can do no harm, while it is of the utmost importance to relieve tension on such essentially vital parts of the human organism. By so doing one has the best chance of avoiding pus formation, which will almost inevitably take place if the patient continues to live and the tension is not relieved.

Those who, like the writer, remember something of the Dublin epidemics of twenty years ago and over will recall the fact that patients who died on the second or third day had their meninges only congested, and the subarachnoid space more or less distended with a clear or slightly milky fluid. On the other hand, in those who did not die for a week or more the fluid varied from a yellowish creamy exudate to green pus. Had Quincke's suggestion been in vogue in those days and the tension been relieved by early lumbar puncture it is probable there would have been far fewer opportunities of viewing the last two stages of the inflammation *post mortem*. It may, perhaps, be said that patients have recovered without lumbar puncture, and that many died after several weeks in whom after death the fluid was found clear or nearly so. This, however, seems to point rather to greater resistance to probably a small initial dose of the diplococcus or one of less intense virulence. It cannot possibly be thought that the disease is in any sense self-limited, or that the adoption of measures to relieve tension as early as possible is other than imperatively necessary.

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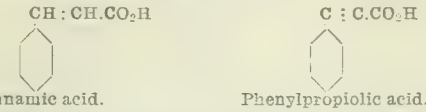
THE SODIUM SALTS OF THE COUMARIC ACIDS AS THERAPEUTIC AGENTS.

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THE hypodermic application of sodium cinnamate in aqueous solutions (hetol) or dissolved in glycerine, as recommended by the author in the *Lancet*, July 12th, 1902, p. 66, still continues to receive considerable attention, and among the more recent developments of the treatment based on the use of this therapeutic agent may be mentioned the serum obtained by the firm of Kalle and Co., of Biebrich am-Rhein, from tuberculous horses after repeated injections of the cinnamate (German patent No. 147,470).

Another point of interest bearing on the connexion between the chemical structure of cinnamic acid and its physiological action is the discovery that phenylpropiolic acid

in the form of an aqueous solution of its sodium salt (thermiol) also has a marked action in the development of leucocytosis, and can likewise be applied to the treatment of tuberculosis. Both these acids contain an unsaturated carbon chain attached to a benzene nucleus, the former acid having a double linking and the latter a treble bond, as indicated by the following formulae:

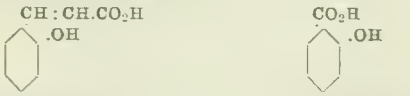


Cinnamic acid. Phenylpropiolic acid.

Since these substances are far more active physiologically than benzoic acid, $C_6H_5.CO_2H$, which does not contain the unsaturated group, one may assume as a working hypothesis that this action is in some way connected with the presence in the molecule of the double or treble linking, this junction being known to be a point of great chemical reactivity.

In the course of a series of clinical investigations carried out by Dr. Lovell Drage with the glycerinum sodii cinnamatis a demand arose for a drug having a more pronounced action, and the author was thereby led to consider in what way the physiological activity of cinnamic acid might be enhanced.

The employment of benzene derivatives as therapeutic agents has amply demonstrated the fact that the presence of an amino- (NH_2) or a hydroxy- (OH) group in the aromatic nucleus greatly increases the physiological action of the parent hydrocarbon, and it therefore seemed likely that the use of a substituted cinnamic acid containing one of these groups might bring about the desired effect. Since the employment of amino-compounds of the antifebrin type is often attended by unpleasant secondary effects, the author was in the first place led to employ a hydroxy-derivative, and to recommend the use of sodium ortho-coumarate, a substance having the structure of cinnamic acid, with a hydroxyl (OH) substituent:



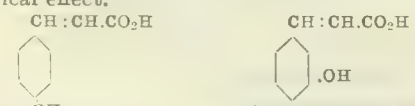
Ortho-coumaric acid. Salicylic acid.

A glance at the foregoing formulae will show that ortho-coumaric acid is likewise somewhat similar in constitution to salicylic acid, these two acids standing in the same relationship to each other that cinnamic acid does to benzoic acid. This likeness to salicylic acid was also a determining factor in the choice of ortho-coumaric acid for medicinal purposes, bearing in mind the beneficial action of the salicylates in certain pathological conditions.

For hypodermic injections the author prepares a 22 per cent. aqueous solution of the sodium ortho-coumarate containing a slight excess of the free ortho-coumaric acid. The dichroic solution is quite limpid and stable, and as the salt is extremely soluble in cold water, even a higher concentration may be employed if necessary.

In all the cases hitherto studied the solution has induced a rapid physiological action, the leucocytosis being well marked and resembling that effected by the cinnamate.

Experiments have also been instituted on the sodium salts of the two isomeric coumaric acids with the view of ascertaining whether the change in the relative positions of the active groups brings about any appreciable differences in their physiological effect.



Para-coumaric acid. Meta-coumaric acid.

Sodium para-coumarate, prepared by the Perkin-Fittig synthesis from para-hydroxybenzaldehyde, is a much less soluble salt than the ortho-compound and accordingly an 8 per cent. aqueous solution was employed. The results obtained with equivalent quantities seemed to show that the action was of a similar nature, but rather less intense than that produced by the ortho-salt.

Sodium meta-coumarate which was employed in 20 per cent. aqueous solution had a very marked physiological action, being apparently even more active than the ortho-compound. The meta-coumaric acid required for this preparation was produced synthetically from meta-nitrobenzaldehyde.

From a chemical point of view the action of the meta-acid is of special interest. It is well known that benzenoid ortho-compounds and para-compounds in general often resemble one another in their chemical and physical properties, whereas they frequently both differ markedly from their isomerides of the meta-series. In the case of the ortho-coumaric and para-coumaric acids the groups (OH) and ($CH:CH.CO_2H$) are in sympathetic positions, and might accordingly be supposed to act conjointly, but in the meta-compound these groups are in apathetic positions with respect to each other, so that the meta-acid might be expected to exhibit the dual properties of a phenol and a cinnamic acid, each substituent producing its physiological effect to some extent independently.

The three isomeric coumaric acids are certainly physiologically active, but it must be left for further experiments to decide which of these is likely to prove to be the most serviceable therapeutic agent. The investigation is being extended to other compounds of a similar type, and it is hoped that it may become possible to correlate the physiological action of these substances with their chemical constitution (compare Drage, BRITISH MEDICAL JOURNAL, April 29th, 1905).

TWO CASES OF UNILATERAL CONVULSIONS AND PARALYSIS IN YOUNG SUBJECTS ASSOCIATED WITH EXUDATIVE ERYTHEMA.

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THE following cases deserve to be recorded, both because the combination of the non-embolic hemiplegia of early life with exudative erythema seems to have escaped notice by previous writers, and because all new facts ought to be published which may help to throw a sidelight on the pathology of that variety of paralysis. The remarks on the cases will come in most appropriately after the latter have been described.

CASE I.

Severe Gastro-enteritis in a Boy of 12 years; Right-sided Convulsions and Hemiplegia with Aphasia; Bedsore; Striae Atrophicae; Erythema Nodosum; Conjunctivitis; Alveolar Inflammation.

J. T., sent by Dr. McCallum of Tarbolton, was brought to me on October 2nd. As it was afterwards found that he was making very slow progress at home, it was arranged that he should come into my wards in the Royal Infirmary, and he was admitted on November 3rd. Dr. McCallum informed me that the boy had, on several occasions, had rheumatism in subacute form, and that he was an inveterate cigarette smoker. He never, however, had scarlet fever, measles, whooping-cough, or, indeed—apart from rheumatism—any illness until June 12th, 1903. On that day, possibly as a result of prolonged bathing, he began to suffer from pain and stiffness in his joints. These symptoms subsided after a few days, and were followed, in the course of a few days more, by severe pain, vomiting, and diarrhoea, which continued for a fortnight and caused such wasting and exhaustion that the patient became almost comatose. At this time convulsions began. They involved the right angle of the mouth, the right arm, and the right leg simultaneously, and were strictly confined to the one side. The attacks recurred frequently throughout the first two days, and then became fewer and less severe, until they finally ceased, a fortnight after they began. The patient was insensible for about five days, and spoke no word for three weeks from the time when the convulsions began. During this period the evacuations were passed into the bed, a bedsore developed in the sacral region, and linear atrophy of the skin took place in numerous areas about the knees and thighs. So far as was observed, the temperature was subnormal throughout. A trace of albumen was recognizable in the urine for a time after the convulsions set in, but not before. There was no headache or vomiting. The right hemiplegia and aphasia dated from the convulsive seizures. Sensation was not affected. Before his illness patient was in the fifth standard at school, and was regarded as a smart boy.

Three weeks after the convulsions began, he first uttered the words "aye, aye," and since then he has regained a considerable amount of language. Even at the time of his original visit, on October 2nd, his mother stated that he understood everything that he heard, and this is certainly the case at present. He cannot, however, name all the letters of the alphabet, though he recognizes some words. His writing of letters is very bad, particularly when he uses the right hand.

There is still some paresis of the right side of the face. The power of the right upper limb is still defective, the dynamometer registering scarcely 5 kilos with the right hand, as against 13 with the left. There is slight contracture in the flexors of the elbow. There is some wasting of the muscles of the right forearm, and this atrophy is associated with slight tenderness, but no wasting is recognizable in the hand. The leg is scarcely affected, so that the gait is normal. The two calves are alike in girth.

The heart, lungs and urine are normal. Ophthalmoscopic examination reveals no morbid change in the fundi. Apart from the tenderness

of the weakened muscles in the right arm, there is no sensory abnormality, and there is no satisfactory evidence of neuritis. The knee-jerks are present. The striae atrophicae are still present. Over the patella and above it there are, on the right side four and on the left side five well-marked striae. Several similar striae, mostly of smaller size, are present at the outer side of the right ankle, and on the front and outside of the left leg at or above the ankle. Sensation in the region of these striae is undisturbed.

The temperature began to rise on December 26th, and reached a maximum of 102.4° on January 1st. On January 4th, an eruption of erythema nodosum was observed to be developing on the legs; and in the course of the ensuing week the lesions increased in number on the legs, a few appeared on the lower parts of the thighs, and one appeared on the right forearm. By the end of another week, the eruption had faded away, and was represented merely by haemorrhagic stains. As the eruption subsided, the temperature declined, but it scarcely attained its normal till January 24th. After the erythema subsided, patient suffered for a time from conjunctivitis.

The attack of erythema was not associated with arthritis or with subjective symptoms, but after the eruption had been out for a few days the nodules were very tender on pressure. A culture inoculated with fluid withdrawn from a nodule remained sterile after forty-eight hours. The blood which afterwards flowed from the puncture, as well as blood taken from the ear, showed merely a contamination with the staphylococcus epidermidis albus.

There was again an elevation of temperature from February 6th to 13th in connexion with a large swelling which developed on the outer aspect of the right upper jaw. Though it was punctured or incised on three occasions, no pus could be found in this inflammatory swelling, but after the third operation it rapidly subsided.

It will be seen that, so far as the unilateral convulsions and paralysis are concerned, this case is very similar to one of the so-called infantile hemiplegia. Moreover, the onset in connexion with an acute illness rather adds to the resemblance. It is well known that two opposing theories are held as to the pathology of such cases of hemiplegia, and the diversity of opinion is readily explained by the fact that the patient rarely dies while the lesion is recent. When the brain is examined at a later date it is usually found to be the seat either of sclerotic atrophy or of porencephalus, and these changes are particularly apt to involve the motor area of the cortex—namely, the cortical distribution of the middle cerebral artery. These later changes are consistent with either theory. Thus, on the one hand it is supposed that the cerebral lesion results from vascular obstruction, and Gowers favours the idea of thrombosis in the artery or in a vein on the surface. On the other hand, Strümpell has suggested that the disease is acute polioencephalitis—an inflammation of the grey cortex comparable to the poliomyelitis which gives rise to infantile paralysis.

The present case, it might perhaps be said, illustrates, rather than solves, the difficulty of determining which variety of lesion was present. On the one hand, the intense prostration, and the changes in the blood, brought about by the persistent vomiting and diarrhoea, were admirably calculated to favour thrombosis in the vessels, and particularly in the veins on the surface of the brain. Moreover, the absence of fever and of optic neuritis is, to a slight extent, in favour of a non-inflammatory affection. On the other hand, it may be urged that the remarkable series of lesions from which the boy suffered, involving, as they did, the digestive tract, the brain, the skin, the conjunctivae and the alveolus, pointed clearly to the presence in the system of an infectious agent which caused inflammation in the brain, as surely as it did in the other parts which have been named. The negative result of an examination of a small quantity of blood from the general circulation and from a cutaneous lesion cannot be regarded as sufficient evidence against this theory.

The development of linear atrophy of the skin is one of the interesting features of this case. These lines or striae are similar to those which are seen on the abdomen and breasts of pregnant women, and on the abdomen in cases of ascites in either sex. They may also develop spontaneously on the shoulders, buttocks, and thighs. As a rule, they are not associated with any disturbance of sensation, but in 1861 Wilks[1] recorded the case of a hysterical girl in whom tender striae atrophicae developed on the legs and trunk. The same writer observed striae on the limbs, and especially on the knees, of a lad who had disease of one knee-joint. A similar localized change in the skin has occasionally been reported as following an injury to a nerve (Wilson,[2] Ohmann-Dumesnil[3]), or as following herpes zoster (Barie[4]). Bradshaw[5] described a condition almost identical with that existing on the knees and thighs of the present patient as having appeared in a girl of 13 during a relapse of enteric fever; and Duckworth[6] met with hyperaesthetic striae in a lad of 15, three months after enteric. Shepherd[7] has observed atrophic striae without disturbance of sensation, after enteric fever, in a male aged 15; in this case the fever was followed in addition by double parotitis, paralysis of one facial nerve, paresis of the legs, and fits. Atrophic striae have been noted by Osler[8] after scarlet fever.

It is very likely that striae atrophicae developing in the course of acute diseases are often due, as under other circumstances, to prolonged stretching of the skin; for example, by pressure of the bedclothes upon the feet or upon the patellae. In such a case as the one just described, it is safe to assume that the vitality of the skin generally was much reduced.

CASE 2.

Right-sided Convulsions and Hemiplegia in a Girl aged 18; Strabismus; Optic Neuritis: Erythema Multiforme; Local Asphyxia.

Jeanie S., aged 18, housemaid, was admitted to the Royal Infirmary on June 11th. She had been found on the road unconscious about 5 p.m. on the 9th, and was then "kicking." There was reason to believe that she had been unconscious for five or ten minutes. With the aid of two friends she was able to walk home, a distance of two or three minutes' walk. It was afterwards ascertained that she had suffered from severe headache from the 7th until the onset of the attack just described, when her leg suddenly gave way and she fell down and remembered nothing more. A second convulsive attack set in at 9 p.m. and continued for about twenty minutes; the movements were confined to the right side, and, having begun in the arm, spread to the leg, and then to the face. The head was turned to the right. The bowels and bladder were not evacuated during the attack. Two other seizures of a similar nature took place during the night, and each was followed, after a few minutes, by vomiting. Patient was conscious and able to speak in the intervals. On the morning of the 10th she had twenty-four attacks of the same kind between 4.30 and 5.30, with continuous unconsciouness and occasional vomiting. Occasional movements took place subsequently at the right shoulder, but without loss of consciousness. On the day of admission it was noted that she was deaf. The bowels were constipated.

Condition on Admission.—Patient was conscious. The mouth was drawn slightly to the left side, and the right arm and leg were powerless. The sense of pain, however, was preserved. There was no important change in the pupils, but an occasional divergent squint was observed. There was pain in the frontal region of the head. The urine contained a faint trace of albumen, but no sugar, blood, or tube casts. The defect of hearing, which was more noticeable in the left side, was associated with retraction of the membranes, but there was no perforation and no history of a discharge from the ears. Moreover, she had been dull of hearing all her life. (A later examination by Dr. Kerr Love showed that there was no diminution of bone conduction, and suggested that any deafness present was due to a catarrhal affection of the middle ear.) The pulse, respiration, and temperature were practically normal. The heart, lungs, and abdomen were normal.

June 12th. Right hemiplegia, but sensation preserved. No hemianopia. Right plantar reflex extensor, left flexor in type. Cutaneous reflexes absent on right side of abdomen. Marked hyperaemia of the trunk, especially on the back. Ophthalmoscopic appearances normal on both sides.

Previous History.—Patient had whooping-cough in childhood. She had rheumatic fever about four years before the present illness, and at that time round, red blotches appeared all over the body. Moreover, there had been some suspicion as to the state of the heart, and instructions were given that a blister should be applied over it. It was stated by a friend that the last menstrual period had been missed altogether, while at the preceding one the flow had been scanty. Previously, however, menstruation had been regular. The family history was very good.

On June 13th and 14th there were occasional attacks characterized by twitching of the right side of the face, and preceded by a cry or by complaint of pain in the right side of the face and right limbs. From time to time the right pupil, or it might be both pupils, would be dilated and insensitive to light.

On the morning of June 15th, there was observed a cutaneous rash, which could not be referred to any such agents as drugs or enemata. It seemed to take origin in an extension of the hyperaemia of the trunk, which has been already alluded to. In front of the trunk it was measly. In the upper limbs it was mostly measly, but at the flexures of the elbows it was more a uniform redness. About the wrists and backs of the hands and fingers it was papular. On the back of the trunk and buttocks it was measly. The fauces were red, the temperature was normal, and a blood count showed: haemoglobin 90 per cent.; red corpuscles 7,233,000; white corpuscles 21,800.

On June 17th the rash was in part fading, but on the backs of the hands and forearms it presented a very characteristic serpiginous appearance, with complete and broken circles and wavy lines constituted by bright red elevated skin. On different days cutaneous haemorrhages were observed, especially in front of the shoulders.

About June 18th signs of returning power began to be noticed in the right side. The headache, however, did not pass away, and on the 24th a convergent squint developed, apparently as a result of paresis of both external recti, but especially the right.

On June 26th it was noted that menstruation had occurred since admission. The urine still contained a trace of albumen. Patient had recently begun to complain of pain between the occiput and back of the chest, extending out to the shoulder on each side, but not accompanied by tenderness or rigidity. There had been no vomiting for several

days, and there was no significant change in the pulse-rate or temperature. Nevertheless, the ophthalmoscope revealed distinct though not severe optic neuritis on both sides. There was no epistaxis, distension of superficial veins, or oedema about the head.

The strabismus came and went, and on July 7th it was associated with diplopia. About this time patient vomited any medicine she got.

On July 17th the optic neuritis showed signs of subsiding, though a good deal of whitish exudation was still recognizable. Only a few small haemorrhages were seen; the macular regions were unaffected, and vision was practically normal with each eye. The other cranial nerves were investigated in detail on July 20th, and the only changes that fell to be recorded were complete paralysis of the right external rectus, paresis of the left external rectus, and nystagmus while the eyes were being rotated from left to right.

Before the patient left hospital, on September 19th, the inflammation of the optic discs had subsided to some extent, and part of the left disc showed the pallor of consecutive atrophy. The power of both external recti had improved. Patient was able to walk, and the dynamometer registered 18 kilos for the right, as compared with 23 for the left. She continued to improve after her dismissal, but in the course of the next three months she had, on three occasions, a transient attack of right-sided pain. On December 17th the strabismus was scarcely appreciable; there was a slightly spastic condition of the right leg; vision was nearly normal with the right eye, though reduced to $\frac{6}{12}$ with the left; and the dynamometer registered 26 kilos with the right hand and 30 with the left. She was keeping free from headache and vomiting.

It may be mentioned that before she left hospital she was found to be liable to local asphyxia of the four extremities, but this liability was apparently of older standing than her recent illness.

In this case the early symptoms pointed clearly to a lesion involving the motor area of the cortex. On the one view, this would be thrombosis of a vessel on the surface of the brain, such as is met with in chlorosis. The age and sex of the patient, and the preceding amenorrhoea, would favour this hypothesis, while the subsequent optic neuritis would not be opposed to it. On the other view, the lesion would be acute localized encephalitis or meningo-encephalitis; and in favour of this hypothesis it might be urged that the paralysis of the sixth nerves showed that the meningitis had spread to the base. The optic neuritis would quite accord with this view, and the subsequent attack of erythema multiforme would suggest for the various inflammations a common origin in some blood infection.

It is to be noted that the theory of thrombosis, while opposed to Strümpell's, is not inconsistent with another theory of infection. Thus we may suppose that thrombosis is the primary local condition, and that in some cases this is, while in other cases it is not, of an infective nature. If it is infective it will tend to cause acute inflammation of the vessel wall, and this process may spread to neighbouring tissues, whether these be cortex, or meninges, or something else. Much will depend on the abundance of the infective agent in the blood, and in an individual who, through the general state of his constitution, the condition of his heart, and the state of his blood, is predisposed to thrombosis, the latter may occur in different places almost simultaneously, and in one place there may be marked signs of acute inflammation, while in other places there are not. Thus, in a man aged 55, who was sent to my wards by Dr. Edward Wright, and who showed a strong tendency to thrombosis, the process appeared to be simple in the case of the veins of the upper limbs and chest, whereas in the case of the right internal saphenous vein, the overlying skin was inflamed. This patient was the subject of right hemiplegia and almost total aphasia which set in gradually, no doubt in consequence of thrombosis in the left middle cerebral artery; and he also suffered from gangrene of portions of toes on both feet. There may also have been thrombosis of a renal vein, as he had haematuria for a few days. There was a history of prolonged alcoholic excess. The sounds of the heart were normal. Similarly, it is difficult to determine whether, and in what proportion of cases, an infective character is possessed by the thrombosis which so commonly develops in the femoral vein after enteric fever and childbirth, and in tuberculosis and other cachectic conditions.

It is likely enough that in cases of hemiplegia of the kind now under consideration the lesion is not a constant one; but it is reasonable to suppose that in many of them the primary condition is thrombosis, which may or may not, from the outset or at a later period, be infective in its nature, and thus liable to give rise to inflammation in its neighbourhood.

The association of exudative erythema with this disease does not find mention in the textbooks. In Osler's collection of twenty-nine cases of the erythema group with visceral manifestations,[8] there is one (Case xv) in which a lad suffered from recurring transient attacks of hemiplegia, but such an illness is obviously quite different from that which sets in with a series of convulsions, and leaves permanent weakness behind it. In another (Case xxi) there was meningitis from otitis media, but this again has no relationship to the disease now under consideration.

References.

[1] *Guy's Hosp. Reports*, 1861, 3rd series, vii, 297-301. [2] *Jour. Cut. Med.*, 1868, i, 140-147. [3] *Brit. Jour. Dermat.*, 1890, ii, 246-250. [4] *La Semaine Méd.*, 1888, p. 259, quoted by Shepherd, *Jour. Cut. and Genito-Urin. Dis.*, 1891, ix, 59-62. [5] *Liverp. Med.-Chir. Jour.*, 1888, xiv, 483, 484. [6] *Brit. Jour. Dermat.*, 1893, v, 357-359. [7] *Jour. Cut. and Gen.-Urin. Dis.*, 1891, ix, 59-62. [8] Quoted by Radcliffe Crocker, *Dis of the Skin*, 1903 (3rd edition), i, 648. [9] *Amer. Jour. Med. Sc.* 1895, cx, 629-646; *Brit. Jour. Dermat.*, 1900, xii, 227-245; *Amer. Jour. Med. Sc.*, 1904, cxxvii, 1-23.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

FOREIGN BODY IN THE AIR PASSAGE.

In December last I was asked to see a baby girl, aged 9 months, who, hitherto in perfect health, was stated to be beginning bronchitis. It had been suddenly seized with a violent paroxysm of coughing; several subsequent attacks had occurred, and were followed by ejection of fluid, due to reflex vomiting, in part at any rate. On auscultation and percussion no signs whatever could be discovered, and from the general appearance of the child, and an absence of all untoward symptoms, I felt able to give the friends complete reassurance. I visited the child on the following three or four days, and she still appeared well, though not quite so jolly and vigorous as usual. There was now, however, in addition to the paroxysms of coughing, a good deal of rattling in the trachea, and a distinct occasional rhoncus over a very limited area, midway down the scapula and a little internal to its inner border. At a period subsequent to this initial attack I was asked to visit the child again, and found physical signs and constitutional symptoms still lacking, though the recurrent paroxysms of coughing continued. Later on, it appears, the attacks, occurring every ten or twelve days, got more severe; copious mucus was ejected, sometimes, I learn, being stained with blood, after which the usual period of comfort and naturalness followed. The severest attack of all occurred a fortnight ago when out driving, and was so violent as to cause the nurse the greatest alarm. As the spasm of the glottis was sufficiently prolonged to effect discoloration of the face, the nurse held the child out of the carriage window, face downwards, and smacked it vigorously on the back, a procedure which produced relief. A few days later, as another attack was beginning the nurse adopted the same course, turning the child nearly upside down, and at the same time smacking the back, when, along with the usual flow of mucus, out jumped a small gold brooch! It is one fashioned like a safety-pin, $1\frac{1}{4}$ in. in length, with a circlet of tiny pearls, measuring 1 cm. in diameter. It was unclasped, and the gold had turned almost black except at the pin point, which was perfectly bright. It had been missed on the morning of December 1st, within a few minutes of my first visiting the child, and a long search had been made—needless to say, in vain. It had been constantly used to secure the child's bib, but on account of its tendency to fly open the mother had long intended to discontinue using it. It had anchored itself for $4\frac{1}{2}$ months in some portion of the air passage, and there for $4\frac{1}{2}$ months had it been exposing the child to unsuspected but none the less imminent and vital risk.

Ashford, Cheshire. Percy Withers, M.B., M.R.C.S.

PROTECTIVE POWER OF VACCINATION.

The case reported by Dr. Neilson in the British Medical Journal of April 8th reminded me of a similar case in my practice several years ago. The patient was a woman, aged about 30 years, living at Tottenham. I found her in bed, suffering from small-pox. Her baby, an infant of 6 months, was at the breast, and had not been vaccinated, so I at once fetched some lymph and vaccinated the child. At the same time I advised a sister of the patient, who was in the room and showed no evidence of having been vaccinated, that it was possible she might not be infected with the disease if vaccinated at once. However, she positively refused the operation. Exactly fourteen days afterwards she developed confluent small-pox, was removed to hospital, and under skilful treatment made a good recovery, but with such an

amount of scarring that she was almost unrecognizable when she came out of hospital, and called on me to express regret that she had not followed my advice. The baby, on the other hand, remained perfectly well, in spite of its continued intimate contact with the original patient.

London, N. W. H. PAINE, L.R.C.P., M.R.C.S.

THE CORNEAL REFLEX IN ANAESTHESIA.

IT was with considerable relief that one read the article by Mr. L. Kirkby Thomas (BRITISH MEDICAL JOURNAL, April 22nd, 1905, p. 880) confirming the opinions generally held here. While resident in the Glasgow Royal Infirmary I noted particularly the points below. They refer chiefly to chloroform administration with the open mask.

It is the exception rather than the rule to find operation practicable throughout with the corneal reflex present even in parts less sensitive than the rectum or abdomen. Perhaps Mr. H. Bellamy Gardner belongs to that school of anaesthetists, which I am assured is increasing, who do not mind an occasional struggling and noisy patient, who maintain that by this method anaesthetic deaths are unheard of and who find many surgeons complaisant and ready to put up with the disagreeable conditions. Time and again I have seen the skin "shiver" at the touch of the knife when only the slightest corneal reflex was present and most surgeons instinctively halt.

Again, in an operation prolonged over half an hour the cornea acquires tolerance, and this despite the lightest touch, the fewest examinations possible, and the making use of both eyes, renders this reflex almost useless. There is no exact depth of anaesthesia which will apply to all cases. Patients vary considerably, and the administrator at the outset should ascertain the most suitable stage.

I thoroughly agree with Mr. L. Kirkby Thomas that the moderate dilatation of the pupil is the most usual, more so than the belauded contracted pupil. Keeping as near this stage as possible and never allowing the activity of the pupil to abate, one can always feel comfortable, granted pulse and respiration are good.

Again, anaesthetists must have often observed that in many cases, even although the anaesthesia obtained with the corneal reflex present suffices for the operator, the patient remains difficult and inclined to sickness until the anaesthetic is "pushed" and lulls him into that clear to-and-fro respiration so pleasing to the administrator.

Glasgow. WILLIAM ELDER, M.B., Ch.B.

OPERATION FOR CATARRHAL DEAFNESS: RECOVERY OF HEARING AFTER TEN YEARS OF ALMOST TOTAL DEAFNESS.

MISS C., aged 35, came to me in September for relief of her deafness. She was extremely deaf in the right ear, but could hear words spoken through a speaking tube; with the left ear she said she had heard nothing at all for about ten years. She had consulted more than one London specialist, but was told nothing further could be done. I said it was possible that an operation might improve the hearing, but explained that many otologists were not in favour of such interference. The case was one of old catarrhal deafness with indrawn membranes. A tuning fork could be heard on the bone, but not at the meatal orifice.

I refer now to the left ear, which was the one I selected for operation. She was most anxious that the operation should be tried. I told her I had not hitherto operated for such a condition, but my experience of over a hundred otectomies led me to believe that there was a fair chance of permanent improvement in the hearing.

On September 9th, 1904, I removed the left membrane with the malleus. There was very little pain or other disturbance. Great care was taken to preserve asepsis and the ear was syringed once or twice daily with a solution of salufer in boiled water. She had to go home in three weeks, when there was some slight improvement in the hearing. She was advised to continue daily irrigation.

On October 5th, she wrote: "My hearing has improved so much I can understand what is said by any one 6 ft. away without much raising of the voice."

At Christmas I examined the ear which was quite healthy; improvement maintained.

On May 1st she wrote; "I think I hear more distinctly than I did when I saw you at Christmas."

This result is satisfactory, and I think the case is worth reporting, because at Oxford and elsewhere the opinion has been expressed that little permanent benefit is likely to result from such interference in catarrhal deafness. My experience of otectomy for the cure of suppurative disease has taught me that many cases retain good hearing, and often much improved hearing, after the membrane and contents of the aural cavities have been removed. I have had other cases since September, in which I have operated for bad catarrhal deafness with more or less promising results, but perhaps the time is too short to express a decided opinion on them. It is an interesting fact with regard to otectomy that the hearing will sometimes greatly improve many weeks after the operation.

Coventry. F. FAULDER WHITE.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.

Penrith, Friday, April 14th, 1905.

DAVID S. DOUGHTY (Dalston), in the Chair.

Mammary Carcinoma, with Secondary Deposit in Spinal Cord.—Dr. EDINGTON (Penrith) read a paper on a case of mammary carcinoma, with post-operative deposit in the spinal cord, with no local thoracic recurrence. The patient was aged 47, and had noticed a lump in the right breast for five years. There were marked signs of disease of the right breast, with large matted glands in the right axilla and under the pectoral muscles. Operation, July 11th, 1904: Complete removal of breast, pectorals, and contents of the axilla. Wound healed by September 20th, 1904. On October 10th, 1904, she complained of pain in the right shoulder blade; worse while up, but gone while lying down. November 9th, 1904: Retention of urine, and a few days later trouble with defaecation. November 30th, 1904: Right arm gradually became paralysed, from shoulder girdle down, then right leg, with marked increase of deep reflexes, and about same time pain in the left shoulder girdle. January 7th, 1905: Gradual paralyses of left arm, then leg. March 2nd: Intercostal paralysis gradually coming on; complete March 17th. Diaphragm quite active. March 20th: Appearance plump; very cyanosed lips and contracture of both legs. Deep reflexes gone. All the superficial gone except plantar, which are much increased. Movements of bed clothes on feet cause clonic leg spasms. April 1st: Occasional sickness, and temperature excursions. No reaction of degeneration. No real muscular atrophy. Area of hyperaesthesia for 2 or 3 in. at level of third rib. Anaesthesia below. Small sacral bedsore. Says does not know where arms and legs are—that is, loss of muscular sense. April 12th: Both biceps muscles still active slightly. Diagnosis: Secondary carcinoma (intramedullary) of cord. Intramedullary because of the little pain in the back, early effect on bladder, and quick production of paraplegia with minimum sensory disturbance. Locality: Beginning in the lower cervical region, about sixth and seventh cervical nerve rests, because musculocutaneous nerve arises from the fifth and sixth cervical, and is not yet paralysed completely on either side, while the phrenics arising from the third and fourth cervical are quite normal yet. Also because the muscles supplied by the posterior cord of plexus failed first, while those receiving nerve supply from the outer cord—that is, from the fourth and fifth cervical nerves—are still not all completely paralysed. Respiratory paralysis is due to completion of cord destruction stopping function of the upper dorsal sections of cord. Temperature excursion due to ascending cervical mischief. Loss of reflexes is due to complete—or very nearly complete—interruption between brain and cord, though, owing to the plantar remaining, there must be a small amount of communication.

Pharyngeal Tuberculosis—Dr. ARTHUR G. WILKINS (Ullswater) showed a resident patient suffering from pharyngeal tuberculosis following an operation for adenoids. He reviewed the literature on the subject, and read notes on two similar cases. Plates and water-colour drawings were also shown, illustrating the various forms of tuberculosis found in the mouth. He pointed out the great utility of country nursing homes in relieving many of the symptoms associated with chronic or incurable diseases.

Pulmonary Tuberculosis—Dr. BIRD (Carlisle) read notes of a case of tuberculous disease of the lungs, with secondary infection of the larynx.

Raw Meat in Tuberculosis.—Dr. Goodchild read a short paper calling attention to the great value of a raw meat diet in the treatment of tuberculosis. After referring to the experimental work on raw meat diet of Hèricourt and Richet in 1900, and its adoption in the routine of Woodburn Sanatorium in the same year, he mentioned the recent papers by Philip and by Galbraith, and proceeded to summarize the great clinical advantages it possesses in the sanatorium treatment of phthisis, in easy assimilation, and in repairing the special waste characteristic of the disease, incidentally advocating its use in other conditions associated with asthenia.

Ethyl Chloride as an Anaesthetic.—Dr. Graham (Carlisle) read a short paper on this subject. He said ethyl chloride as a general anaesthetic for short operations was gaining considerable popularity. It was excellent for the anaesthesia necessary for removal of tonsils, removal of easily enucleated growths, most dental operations, and in fact the whole field of minor surgery. The rapid induction and almost as rapid recovery, with no after-effects whatever in his experience, highly commended its use as a safe anaesthetic, if given with reasonable caution. He had experienced no untoward symptom in its administration, but strongly approved of the admission of air, particularly in the first administration in certain individuals. A second, third, and fourth dose of 5 c.cm. was readily and with apparent safety exhibited. Once he gave five doses extending over a period of nearly twenty minutes, the patient being perfectly well immediately after consciousness returned. Patients seem to like ethyl chloride better than nitrous oxide, ether, or chloroform as being easily respired.

South-Eastern Branch: Isle of Thanet Division.—At a meeting of the above Division, held on April 4th, at the Royal Sea-Bathing Hospital, Dr. Heaton gave a demonstration of the electrical apparatus used at the hospital, and read a paper upon the history of the application of high tension currents to therapeutics. In considering high tension currents, and especially d'Arsonval, or high frequency currents, all preconceived ideas as to the behaviour of the currents along conductors must be altered. They behaved differently from any other form of medical electricity. All the same it was necessary to measure and graduate the dose, just in the same way as in other methods. To administer it without measurement, and to prescribe it without accurate instructions, was courting failure. Although the method had been neglected in England, and, consequently, the British public shamefully exploited by charlatans and lay institutions, it was entirely the fault of the medical profession, for in some cases there was no doubt whatever the method had real value. The chief way in which it was used at the Royal Sea-Bathing Hospital was by means of small mushroom-shaped glass vacuum electrodes exhausted highly enough to give out an appreciable quantity of *x* rays. By the method of exciting these tubes from the top of the resonator and suitably adjusting them as many patients as one wished could be treated at once with the consumption of about two ampères of primary current for the whole lot of patients. The results had so far been most gratifying in cases of lupus, and the method promised to be the most economical and practical way of helping these cases without any danger of untoward results. Copies of the charts showing the physiological results of the enormous amount of research by Dr. Denoyes and others at the Montpelier Hospital were shown, and their bearing upon treatment explained.

REPORTS OF SOCIETIES.

Edinburgh Medico-Chirurgical Society.—At a clinical meeting held in the Royal Hospital for Sick Children on May 17th, Dr. Affleck, Vice-President, in the chair, the following were among the cases shown. Dr. John Thomson: A case of Still's disease in a girl aged 3 years. She suffered from an obscure febrile attack eight months ago, which was followed by a painless swelling of the ankles and knee-joints. Nearly all the joints of the body were now involved. The enlargements were of a doughy consistence, but there was apparently no destruction of the cartilage or thickening of the ends of the bones which entered into the formation of the joints. The muscles above and below were markedly atrophied, and glands in many parts of the body enlarged.—Dr. Burn Murdoch: An obscure nervous case in a child aged 1 year 9 months. When 7 months old she suffered from inflammation of the lungs. It was then noticed that her arms and legs became thin, and movements were not as free as formerly; but the child regained a fair degree of power after a time. A second attack of pneumonia when the child was aged 1 year and 7 months was followed by almost complete loss of power in the lower limbs; the abdominal and thoracic muscles were paralysed; the arms could be flexed and extended, though with difficulty. The patient had no control over her head. Intelligence was good. The supposition was that lower motor neurons were the seat of a lesion due to some toxic agent.—Mr. Stiles: Three cases of chronic hydrocephalus to illustrate the effects of treatment by ligature of the common carotid arteries. Failure of all other operative procedures had induced Mr. Stiles to adopt this line of treatment. Marked improvement had resulted in two out of the three cases; the operation on the third was too recent to permit of deductions being drawn.—Mr. E. Scott Carmichael: A baby, aged 10 weeks, after excision of spina bifida, which presented so far no signs of consequent hydrocephalus.—Dr. W. B. Drummond: A boy, aged 4 years, with interstitial keratitis; a condition very rarely encountered, he said, at so early an age. When 1 year old the child had been treated for congenital syphilis.

Epidemiological Society.—At a meeting on May 5th, Dr. Whitelegge in the chair, Dr. A. Newsholme continued the discussion on the aërial spread of small-pox by a criticism of Dr. Buchanan's conclusions as to the outbreaks at Purfleet, etc. The denial of communication there between the ships and the shore was, he said, incapable of proof. As regarded Liverpool, circles drawn around the centres of greatest aggregation gave results in no way corresponding with those of circles drawn round the hospitals. Dr. Buchanan's method of calculating incidence by the percentage of houses invaded might be misleading. By taking cases, it could be shown to be safer to reside within a quarter than half a mile, and within than beyond a mile of the hospital. On Dr. Buchanan's hypothesis, the wind carrying the infection must have always been east in the case of one hospital and west in the case of the other. He did not deny the possibility of aërial distribution of small-pox any more than of scarlatina or other infectious diseases, but it was in respect of small-pox only that it was claimed as the dominant factor. Personal infection, direct or indirect, should be excluded before its spread was ascribed to aërial conveyance; Dr. Thresh admitted the occurrence of surreptitious communication at Purfleet, though Dr. Buchanan denied it. If personal communication must be invoked to explain the occurrence of cases at great distances, why should it be excluded from the causation of cases in the vicinity of a hospital? Dr. Buchanan quoted the fact of the epidemic around the hospital as evidence of aërial connexion, but the first cases occurred before the hospital was opened, and the subsequent ones appeared around the original focus, as in St. Pancras, where there was no hospital.—Dr. J. Niven agreed with Dr. Buchanan and quoted cases which seemed to him to prove that hospitals were specially dangerous when occupied by acute cases.—Dr. E. W. Hope said that no one doubted the influence of hospitals, but the question was whether it was due to aërial convection or to the causes that operated elsewhere. It had been ascribed to "acute" cases, but all were acute at first, and the unvaccinated were most infectious during scabbing and convalescence. Small pox was intensely infectious, and according to Mr. W. H. Power the mildest cases and concealed cases contributed largely to its spread. In the vicinity of Park Hill Hospital, Liverpool, twelve distinct outbreaks occurred before the hospital was opened, and nine after the reception of patients. Why should these be ascribed to the influence of the hospital, while the twelve were evidently independent of it? Besides, four of the nine were proved to have been infected elsewhere. In fact, considerably more than half the cases occurring within a mile of one or other of the hospitals were traced to infection in other places, four had been treated as chicken-pox, others travelled in trams, worked in shops and factories, attended the out-patient departments of hospitals, or roamed the streets. Nevertheless, all who resided within a certain distance of a hospital were referred by Dr. Reece to its influence, and ascribed by him to aërial convection, even though his Fazakerley map showed the maximum incidence at a time when the hospital was empty.—Dr. J. C. McVail, referring to Dr. Ker's experience at Edinburgh, pointed out that the inmates of schools and asylums were not fairly comparable with the general population, being mostly

recently vaccinated, or of an age at which susceptibility was greatly lessened.—The PRESIDENT thought it was reasonable and safest to admit and provide against every form of communication. Of these aërial convection was one in all diseases, though perhaps it played a more important part in small-pox than in others.

NOTE.—Dr. C. B. Ker's remarks at the first debate were inaccurately interpreted in our report last week. He made no suggestion that there was any suppression of evidence in Dr. Buchanan's paper, which he thought impressive from its thorough and complete analysis of recent outbreaks.

REVIEWS.

TROPICAL DISEASES.

IN a new treatise of medicine and therapeutics published in parts under the direction of Professors BROUARDEL and GILBERT of the Faculty of Medicine of Paris, Laveran deals with the subjects of malaria and trypanosomiasis.[1] The high expectations naturally formed are perhaps accountable for the slight feeling of disappointment produced by the perusal of the chapters on malaria. The order of description usual in textbooks is adhered to. An enumeration of synonyms is followed by a discussion of the etiology, clinical form, complications and intercurrent affections, pathological anatomy, diagnosis, prognosis, treatment, and prophylaxis. The geographical distribution is given fully, and also a very short and apt synopsis of the various early theories that have been advanced by different authors at different times to explain the cause of the disease, including the author's own brilliant discovery of the parasite in Algiers in 1878, and the more recent researches of Manson and Ross, which brings the subject to the present day. It is strange that Laveran should still adhere to his original idea of the unity of species of the different malarial parasites. This view cannot be accepted, and the doctrine of the plurality of species held by the Italian, English, and other schools, has far more points in its favour. The section on the haematozoal parasites of different animals is not sufficiently full for the student of the present day. It is so short, indeed, that the critic is charitably disposed to surmise that the author must have been very much cut down as regards the number of pages at his disposal. The same remark applies to the part on the examination of the blood the author only giving the method of staining adopted by himself, while omitting other modifications of Romanowsky's stain, such as Nocard's, Leishman's, and others, which have given excellent results, and are used extensively all over the world. There is little to find fault with in the clinical description of the disease, and the same may be said of the section on pathological anatomy. Several statements in the discussion of the differential diagnosis must be challenged. Human filariasis (species not stated) is said to produce a fever comparable to that of malaria. Presumably the author is suggesting the pyrexia associated with filarial lymphangitis due to the *Filaria nocturna*, but the text would certainly never indicate this to the student. Again, the parasite of kala-azar, usually known by the name of Leishman-Donovan body, is referred to as a piroplasma and has the additional name of trypanosome superadded, but it belongs to neither group. No other views are given as to its nature, and the student would certainly acquire an erroneous idea of this parasite. The chapter on prognosis opens with the remark that the mortality of malaria varies much with the climate and with the locality; it would be more correct to say that it varied with the different species of parasite acquired, but the theory of the unity of species would be rather damaged by such an admission. The chapter on treatment occupies over fifteen pages; it is too diffuse, and much of the space might well have been used for other parts of the subject which have been too lightly touched upon. The malarial part of the book may be summed up as a rather one-sided description of the subject, and would not, for example, be of much use to a British student. The second part of the fasciculus deals with human trypanosomiasis, called now by Laveran "maladie de sommeil." It is short, but contains most of the leading points on human trypanosomiasis and sleeping sickness. The Gambian and Uganda trypanosomes are considered to be identical, contrary to the belief of Plimmer. The article on pathological anatomy does not represent our present knowledge of the disease; the mononuclear infiltrations in other organs than the brain are not described, nor is the condition of the brains of animals that have died after human trypanosome inoculations even mentioned.

A second report[2] of the Commission appointed for the investigation of Mediterranean fever is now published. The first report was noticed in our issue of April 15th, 1905, page 839. The present report contains a very interesting paper on the general sanitary circumstances of the Maltese Islands, with special reference to the prevalence of Mediterranean fever, by Dr. R. W. Johnstone, Medical Inspector, Local Government Board. Fleet Surgeon Bassett-Smith, R.N., writes on the saprophytic life of the micrococcus melitensis, and Dr. Eyre, Bacteriologist to Guy's Hospital, on the virulence of the micrococcus melitensis for the guinea-pig. Dr. Johnstone's report is very accurate and thorough, and is well worth careful perusal. One specially interesting point in it is an account of an outbreak of fever amongst the sergeants of the Essex Regiment, which illustrates the difficulty of arriving at the real cause of the spread of this disease. As Dr. Johnstone remarks in his general summary, the evidence he has been able to collect is not sufficient to lead to any final conclusion, but such careful work as he has produced will be of the greatest value to future investigators of this complex problem. He notes the inaccuracy of the civil notification returns, and the apparent lack of interest of the Maltese medical men in the work of the Commission, as evidenced by their not sending blood samples when invited. The subject of biting insects in the light of the modern researches on yellow fever is certainly worthy of a more detailed and careful study. Fleet Surgeon Bassett-Smith confirms the work of some of the first members of the commission showing that the germs of the disease can remain alive outside the human body for lengthy periods in many different media. Dr. Eyre's part of the report is also interesting. He demonstrates that by a series of intracerebral inoculations, comprising rapid passages from guinea pig to guinea-pig, the virulence of the coccus can be exalted to a high pitch for this particular animal. The eventual solution of a mystery is generally arrived at by the piecing together of different pieces of evidence obtained from many sources, and it is to be hoped that this will be the case with Malta fever. Until we know the exact source or sources by which the organism enters the human body attempts at prophylaxis must necessarily be more or less imperfect and only based on broad general principles.

Lately the subject of ankylostomiasis has been very much before the public eye, and we have to chronicle yet another report[3] on the subject, this time from Porto Rico. The history of this report is rather interesting. Anaemia was very prevalent in Porto Rico, yet no one ever seemed to take the trouble to examine the cases to see what caused this condition, until Dr. Ashford, noting a high percentage of eosinophile leucocytes in the blood, examined the faeces and found the eggs of the ankylostome. On this very patent and obvious cause being discovered, attention became fixed on the disease, and a commission of three physicians was appointed to study the condition. Their results appear in a voluminous report of 120 pages, in English and in Spanish, and an appendix of 61 pages, with a bibliography after that. The matter is good, and the records of the many valuable cases, with blood examinations, incorporated in the appendix, will prove useful for reference. Where the authors have erred is, however, in writing too much; because, after all, there is nothing new or striking in the report, and the rehearsal of old facts, however well done, is apt to be tedious. What is termed the etiology takes no fewer than thirty pages, a description of the parasite leading the way. The only point of interest about it is that the worm is the same as that found in the Southern States of South America, and named by Stiles the Uncinaria Americana. It differs from the European species in having a different buccal apparatus. The development and mode of infection by the mouth and skin are fully described, and that being so the authors might well have left

[1] *Nouveau Traité de Médecine et de Thérapeutique.* Publié en fascicules, sous la direction de MM. Professeur P. Brouardel et Professeur A. Gilbert. V. Paludisme et Trypanosomiase. Par A. Laveran, Membre de l'Institut et de l'Académie de Médecine. Paris: J. B. Bailliere et Fils. 1905. (Demy 8vo, pp. 128, Fr. 2 50.)

[2] Reports of the Commission appointed by the Admiralty, the War Office, and the Civil Government of Malta for the investigation of Mediterranean fever, under the supervision of an Advisory Committee of the Royal Society. Part II. London: Harrison and Sons. 1905. (Demy 8vo, pp. 80. 28.)

[3] Report of the Commission for the Study and Treatment of Anaemia in Porto Rico. Authorized by Act of the Legislative Assembly. San Juan: Bureau of Printing and Supplies. (Demy 8vo, pp. 191.)

out the weary pages on vegetable diets with the details of their percentages of proteids, carbohydrates, etc., as predisposing causes. The pathology, course, progress, and mortality have all their due proportion allotted to them. The part on intercurrent diseases contains interesting details on the other animal parasites found in the island. Bilharzia haematobium is comparatively frequent, a point only recently ascertained, and one which should put observers on the track of this parasite in other West Indian islands. Taenia saginata and solium appear to be rare, owing probably to the vegetable-eating habits of the natives. Prophylaxis in a place like Porto Rico will, the commissioners think, be difficult; they lay down its common-sense principles, and leave it to the Government to organize.

The rapid appearance of new editions of a book is a very good gauge of its use and popularity; this holds good for the *Practical Study of Malaria*,[4] by Stephens and Christophers, which has reached its second edition within the year. In addition to descriptions and details of new parasites, two new chapters have been added, one on the Leishman-Donovan bodies, the other on spirillar fever. The chapters on the Leishman bodies give a very fair summary of our knowledge of this important subject up to date, though much remains to be done before a solution of the many problems can be expected. Schaudinn's recent work on halteridium is given in detail; it is strange that it has been so generally accepted though lacking confirmation; in fact, the cultivation experiments of Novy and Macneal—a point not noted in the present work—make it seem probable that Schaudinn was working with mixed infections; if this be confirmed then the former observer's work is misleading and fallacious. The authors state that it has been shown that the trypanosome of sleeping sickness found by Castellani is identical with the T. gambiense, but Plimmer's recent work on this subject would seem to prove that they are different. The book, as we stated in our review of the first edition, will be of the greatest use to students of tropical medicine, especially to those engaged in the practical side of the question. The space devoted to the study of mosquitos, namely, 16 chapters, seems excessive, for the classification of these insects is now a subject more for the entomologist proper than for the ordinary student of tropical medicine. Descriptions of the commoner parasitic worms and their eggs, of amoebae, and some other common protozoal parasites are not given. If these were added, and redundant parts cut down, then the value of a really excellent textbook would be greatly enhanced. Another point of importance would be the introduction of a much more extended bibliography; this is especially noticeable in the latter chapters of the book. Such an addition would prove very useful to the more advanced students desirous of following up any individual subject. The new coloured plates are a pleasing addition, and we can strongly recommend the book to students engaged in or beginning the study of tropical medicine.

PUBLIC HEALTH.

Dr. Glaister has found it necessary to issue a second edition of his *Manual of Hygiene for Students and Nurses*.[5] The first edition was issued in 1897, and the book still retains much of the original form, though it has been revised and some additions have been made. It is well illustrated, and contains, though in simple form, a large amount of matter connected with personal and public health. It does not profess to rank with the larger textbooks now in use by those studying for the public health diplomas, but it meets the requirement of the medical student, for whom some elementary knowledge of public health is necessary. Judged from this point of view, perhaps the weakest part of the book is that dealing with infectious diseases, and in not a few other places the information given is not sufficiently precise to be of practical value. The chapter on microbes is also inadequate. House sanitation and personal hygiene appear to be the strong parts of the book.

That a fourth edition of Dr. Francis Vacher's *Food Inspectors' Handbook*[6] has been called for is sufficient guarantee of its acceptability. The book was first published in 1892, and at once became a popular book with sanitary inspectors. It sets out briefly and simply the chief facts respecting the diseases of animals, diseased and unsound meat, poultry, game, fish, fruit, vegetables and milk, and the main facts respecting adulteration of tea, coffee, condiments, spices, etc. There is also a useful chapter on statutory powers. The book is elementary and has been purposely kept short and simple.

Mr. Albert Taylor has issued a fourth edition of his well-known *Sanitary Inspectors' Handbook*,[7] which is intended to be a practical book of reference upon the duties of sanitary inspectors. The best parts of the book deal, as would be expected, with the occurrence and abatement of nuisances and the subject of drainage. The author has incorporated in his book a number of official orders and regulations, as well as numerous examples of the forms and certificates used in a public health department. It is difficult to make such a book interesting, but it certainly may be said that Mr. Taylor has improved his handbook, which is now one of the best of its kind and well deserves its popularity. Of course a book of this nature is open to criticisms as to many minor points, but on the whole the author has been successful in stating his case broadly without undue emphasis on his own particular views. We cordially commend the book for the purpose for which it is intended.

Mr. Frank Noel Keen of the Middle Temple has collected together under the title of *Urban Police and Sanitary Legislation, 1904*,[8] a number of provisions in the Local Improvement Acts obtained by English Urban District Councils in the year 1904, after consideration by the Police and Sanitary Committee of the House of Commons. The idea of the book, the author states, was partly suggested by the Committee seeking to standardize all clauses which dealt with powers relating to police or sanitary regulations in order to serve in some measure as precedents for future legislation. The book also serves to show something of the lines upon which local legislation is proceeding in various directions. It is prefaced by a table of Acts. There is indication of increased legislation in these local Acts on behalf of a pure milk supply, and the prevention of the sale of tuberculous milk, the removal of trade refuse, etc., in the sanitary sections, and of course the control of tramways and electricity claim a large space in the general provisions. The book is a careful piece of work, and will prove useful to those desiring to study local legislation as it is being laid down to-day.

DIETETIC PREPARATIONS.

Alphozone.—The name "alphozone" has been given to disuccinyl peroxide $(COOH\,CH_2CH_2\,CO)_2\,O_2$, a new organic compound manufactured by Stearns and Co., and introduced to our notice by Messrs. Thomas Christy and Co., Old Swan Lane, Upper Thames Street, E.C. This substance is a white crystalline powder which dissolves in about sixty parts of water at ordinary temperatures with formation of succinic peracid by hydrolysis. Stronger solutions may be obtained if excess of the substance be kept in contact with water for some time, but in this case the greater solubility is due to a further hydrolysis taking place with formation of succinic acid and hydrogen peroxide. Alphozone is introduced as a non-toxic germicide and antiseptic; it is claimed to be as active as mercuric chloride and 75 times more so than carbolic acid. It can be used as a germicide in the ordinary way, and may also, it is said, be employed as an intestinal antiseptic. Solutions should be freshly made, since they deteriorate in germicidal powers on keeping, the hydrogen peroxide being far inferior to the mother substance or to the succinic peracid of the fresh solution. For internal use it is recommended to add 2 gr. in a half-tumblerful of water. This solution has an acid and not unpleasant taste. For local application 1 in 3,000 to 1 in 100 solutions may be employed, or a 5 per cent. dusting powder with talc or boric acid. As an ointment it may be dispensed with soft paraffin in the proportion of 8 gr. to 1 oz.

[4] *The Practical Study of Malaria and other Blood Parasites*. By J. W. W. Stephens, M.D.Camb., D.P.H., Walter Myers Lecturer in Tropical Medicine, University of Liverpool, and S. R. Christophers, M.B.Vict., I.M.S., Members of the Royal Society's Commission on Malaria in Africa and India, 1898-1902. Second edition. London; Williams and Norgate. 1904. (Demy 8vo, pp. 440. 12s. 6d.)

[5] *Manual of Hygiene for Students and Nurses*. By John Glaister, M.D., D.P.H. Second Edition. Edinburgh: E. and S. Livingstone. 1905. (Crown 8vo, pp. 420. 6s.)

[6] *The Food Inspectors' Handbook*. By Francis Vacher. Fourth edition. London: Sanitary Publishing Company, Limited. 1905. (Crown 8vo, pp. 247. 3s. 6d.)

[7] *The Sanitary Inspectors' Handbook*. By Albert Taylor. Fourth edition. London: H. K. Lewis. 1905. (Crown 8vo. pp. 467. 6s.)

[8] *Urban Police and Sanitary Legislation, 1904*. Compiled and arranged by Francis Noel Keen. London: P. S. King and Son. 1 os. (Demy 8vo, pp. 305. 10s. 6d.)

THE UNIVERSITY OF SHEFFIELD.

In a recent issue it was announced that a Committee of the Privy Council had decided to recommend the King to grant a Charter by which the University College of Sheffield would become the Sheffield University. It is, therefore, an opportune time for giving some description of the new buildings which are in course of erection and which will shortly be completed.

The site of the new buildings is in all ways most excellent. It adjoins, and on two sides overlooks, one of the largest and best of the public parks of the city. Whilst, moreover, sufficiently removed from the bustle and turmoil of a busy industrial city, it is on an important thoroughfare and is within easy access of the centre of the city. Electric cars pass in front of the buildings, affording a ready means of passage to and from the City and the West End. It would have been difficult, from a medical point of view, to have selected a site more advantageously placed. The Royal Infirmary (255 beds) and the Royal Hospital (156 beds) are equidistant about ten minutes' walk. It is at these institutions that the students receive their hospital training. The Jessop Hospital for Women of 80 beds is within about five minutes' walk of the same centre. It is here that the students obtain their maternity experience. Immediately opposite is the Children's Hospital. Besides this the new University will be situated in close proximity to what may be regarded as the medical quarter of the city, and is therefore most conveniently placed for medical men engaged in professorial or other work at the University.

The architectural design is in the Tudor style, which has permitted of an exceedingly picturesque treatment of the frontage. The general design is of buildings surrounding a quadrangle with an annexe for a library external to it. The present buildings comprise three sides of the quadrangle. Land on the fourth side of the square has been purchased and presented by Dr. H. Clifton Sorby, F.R.S.; this will be utilized when extensions become necessary.

On the frontage facing Western Bank are the general administrative buildings and the great hall. On the west side of the quadrangle, which faces Weston Park, is the building for the arts and science department, the medical department being on the north side, and its windows also overlooking the park. The principal entrance to the buildings is in Western Bank, and is approached by a carriage drive.

The general and administrative department, consisting of the great hall, offices, common rooms, refectories, etc., is provided in the front building. The corridors here are 10 ft. wide, whereas on the other sides of the quadrangle they are 8 ft. The height of the rooms everywhere is 14 ft. from floor to ceiling, except in the upper parts of the buildings, where in some of the large laboratories and lecture rooms the space in the roof has been utilized to gain increased height.

The hall is 100 ft. by 40 ft. It is 28 ft. high at the eaves and 48 ft. high to the ridge of its open timbered roof. It has windows on both sides and oriel windows at each end, and is therefore abundantly lighted.

The arts and science departments are located in the building on the west side of the quadrangle, and provide accommodation for the arts, physics, chemical, and biological departments. Each of these sections can be approached separately. The building is 225 ft. by 65 ft. The arts department, including classics, mathematics, history, languages, law, commerce, and the normal school, has one large lecture room, fourteen class rooms, and, in addition, eight rooms for professors and advanced students, each of which is placed next to its respective class room.



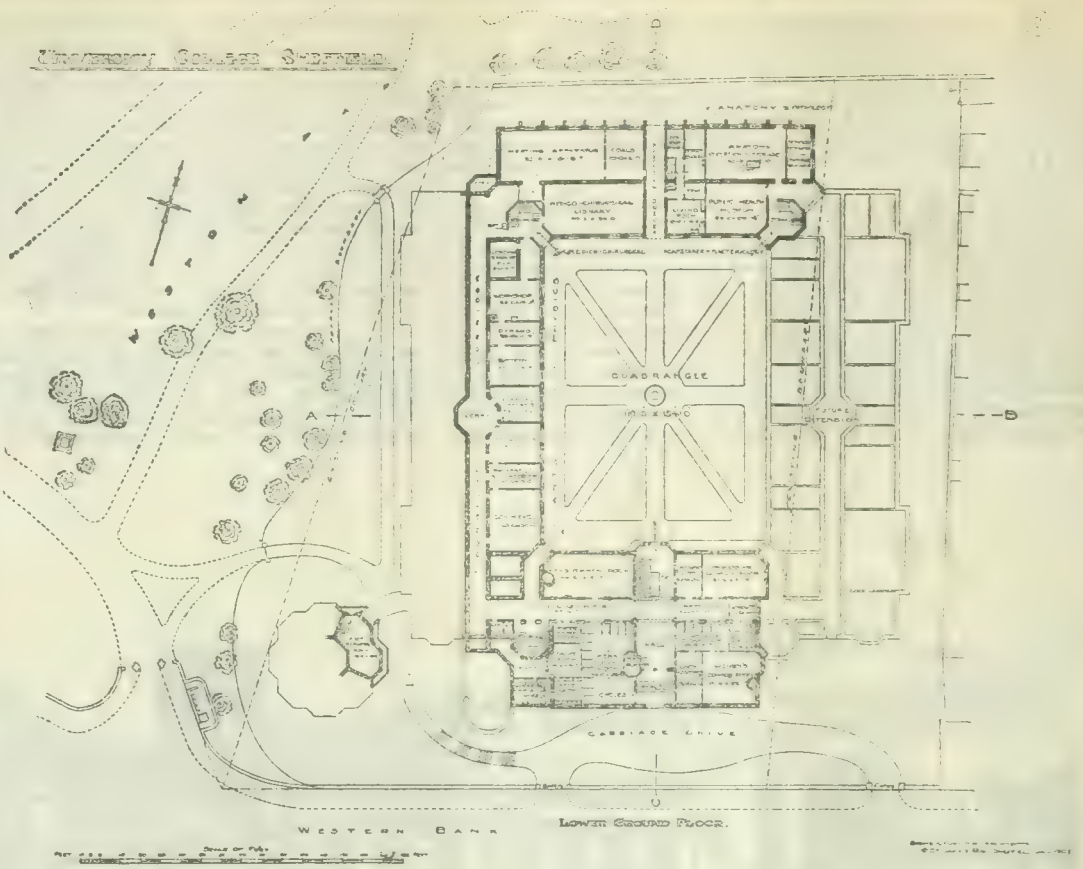
The University of Sheffield.

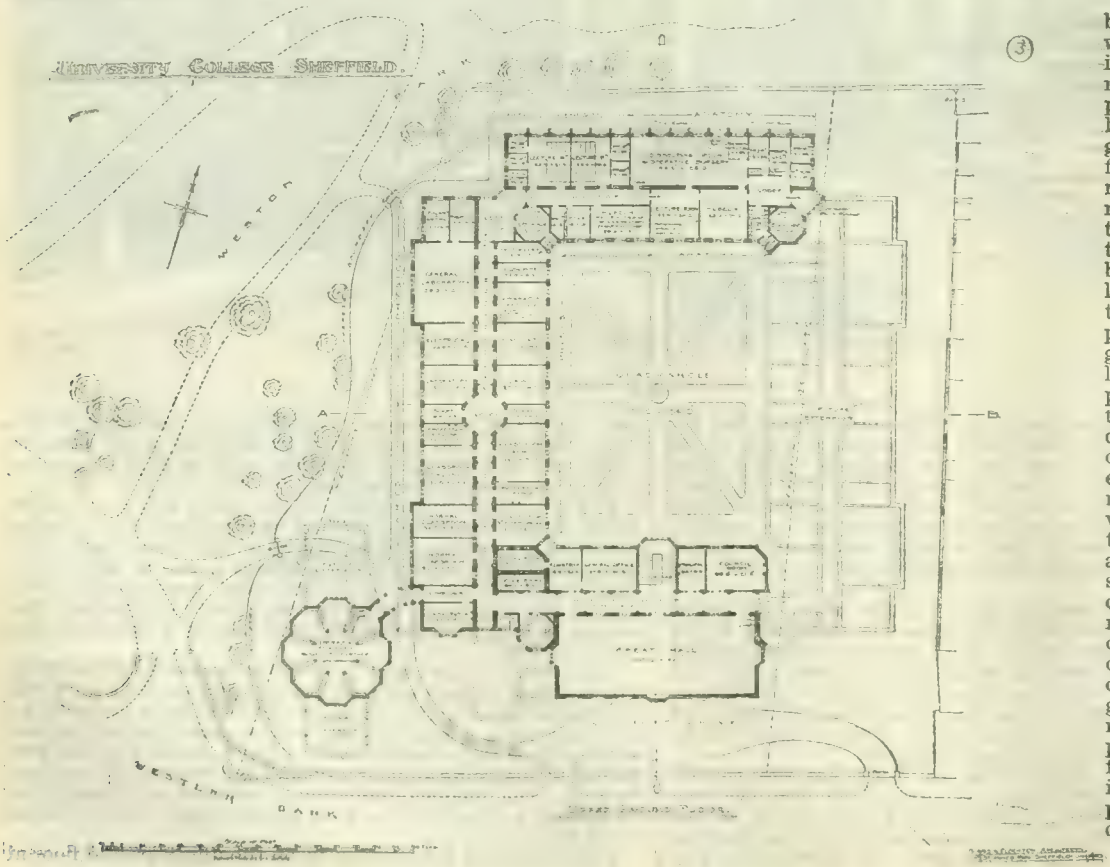
The physics department is at the north side of the same building, and comprises lecture rooms, laboratories, class rooms, etc., in all twenty-three rooms. The chemical department, consisting altogether of thirteen rooms, is also in the same building, and so is the biological department, which has, in addition to a large lecture theatre, a general laboratory, a botanical laboratory, zoological laboratory, and museum, etc.

The medical department is here of most immediate interest. The building entirely set apart for this purpose is at the north side of the quadrangle. Here accommodation is provided for the anatomical, physiological, pathological, bacteriological, and public health departments, lecture rooms for the professors of medicine and surgery, and the museum for materia medica. The Medico-Chirurgical Society has a room also for its library, and in which to hold its meetings. This building is 156 ft. by 56 ft.

The anatomical department is on the upper ground floor at

the east end of the building. This arrangement, it is held, has decided advantages over the less modern one of placing the anatomical department at the top story, thus separating it from the reception and storage room situated of necessity on the lower ground floor. The latter room is commodious and well lighted, and will serve also for purpose of research on bulky material such as anthropoids and larger mammals. The dissecting room contains, in addition to the ordinary fittings, three large wall-cases, accommodation for microscopes and stereoscopes, and a sink, placed in the centre of the room, encased in wood and surmounted by handsome pedestals which support life-sized statues of the male and female figure. This room is well lighted

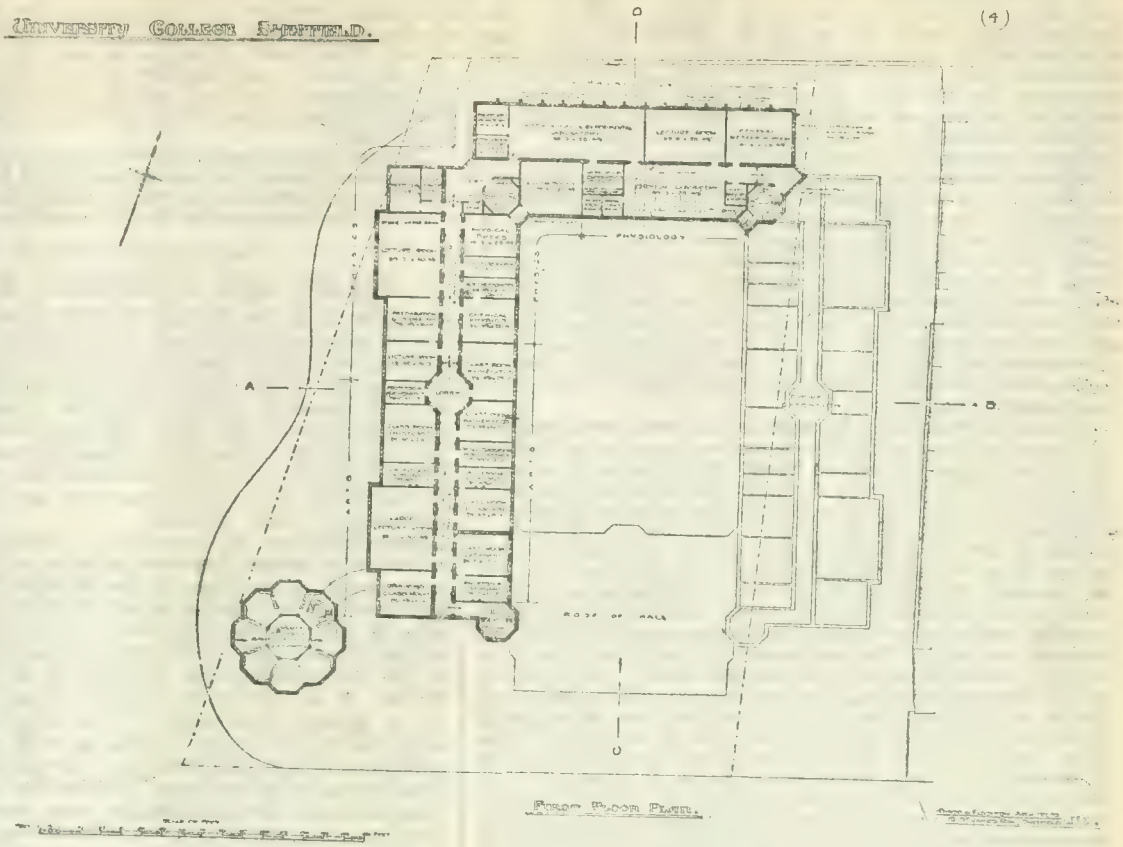


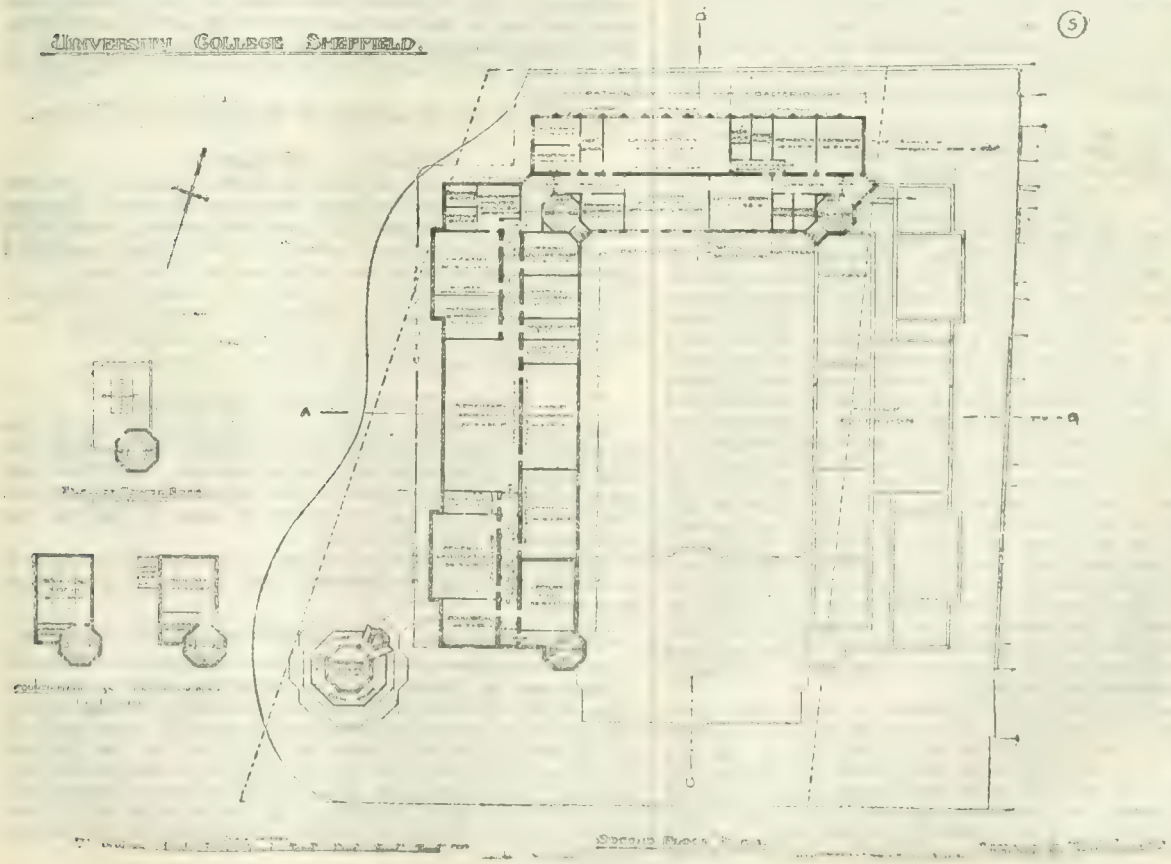


by large plate-glass windows. Adjoining the dissecting room is a spacious preparation room lined with white glazed bricks and floored with white mosaic. Into this room a lift conveys the subjects from the reception room below. There is a large lecture theatre, museum provided with a gallery, research laboratories, and private rooms for the professor and demonstrators, students' lavatories, etc. The department will be provided with a set of the most modern anthropological instruments, also incubators, and other requisites for students desirous of doing embryological work. Altogether there are ten rooms in this department. The floor of the dissecting room is of polished oak parqueterie.

The physiologi-

cal department occupies the greater portion of the first floor, having an area of some 4 800 square feet. None of this space is taken up by corridors, the nine rooms into which it has been divided opening into one another. A person entering the department finds himself in a large room, 68 ft. by 25 ft., lighted by seven large windows along its northern wall. This is the general laboratory. The bench, running the full length of the room beneath the windows, is intended for microscopical work. The light should be excellent for this object, and it is intended to provide conveniences for the purposes of histological work on a very generous scale. In the





room space are placed twelve large movable tables for experimental work, and above them, from the ceiling, depend cord belts, transmitting power from a long shaft placed on brackets upon the upper part of the southern wall. Against this wall are cupboards and lockers, a small draught chamber, and slate benches for balances, etc. The near end of the room terminates in a wall behind which are two well fitted up private rooms. In the far

wall is a door opening into the lecture theatre. The lecture theatre, 40 ft. by 25 ft., is lighted by four large windows, again upon the northern wall. Only one-third of the floor-space of this theatre is occupied by seats for students; the lecturer's bench is formed by two movable tables, which can, on occasion, be displaced backwards to permit of an extension of the seating accommodation. Normally the space behind this bench is intended for the demonstration of major experiments, and will be very well fitted up for this purpose with kymographs and other large pieces of apparatus. The blackboard screen divides this space, but it is arranged so that its constituent parts can, sliding along metal grooves in the floor, be pushed back to form quite a small projection from either side wall. The space behind this screen is lined with cupboards to contain the apparatus required for lectures, as also the more delicate apparatus for experimental work, over which it is desired to maintain stricter control. This space also affords opportunities for the preparation of experiments during the course of a lecture or preliminary description.

Besides the door already mentioned there is another opening from the theatre into the chemico-physiological laboratory placed upon its southern flank. This laboratory is 50 ft. by 25 ft., and is lighted by five large windows in its southern wall; the space being broken into by the inclusion of a photographic dark-room 10 ft. square. The laboratory is well furnished both for ordinary class work and for research work, and contains the usual benches, large fume-chamber and hood for furnaces. It opens at one end into a well-arranged balance room, and this, again, into a similar room intended for the housing and use of polarimeters, spectroscopes, etc., for research purposes. The two other rooms placed upon this floor are intended entirely for research work. One, 15 ft. by 25 ft., is arranged so that it can at any moment be converted into a perfect dark-room. It is intended for work requiring photographic record, and also for optical work, etc. The other, 30 ft. by 25 ft., beautifully lighted by windows in two of its walls, is arranged as a general research laboratory; the character of its walls and floors and ceiling is similar to that required for the purposes of an operating theatre. One special feature common to all the rooms described is the provision of frequent concealed sinks in the floors, revealing, when opened, a supply of gas, water, and electricity; in this way it has been possible to avoid fixed benches in many of the places in which they are usually found, their place being taken by movable tables. In this way a more than usual elasticity is possible in the working arrangements of the laboratory.

Placed in the basement of the medical block is a room now being fitted up for electrometer, photomicrographic and other "projection" work, in which great stability is a desideratum. There is also, on a higher floor, a workshop and animal room for the use of the physiological laboratory.

The pathological department occupies the whole length of the upper floor of the medical block. Here again no space is wasted in corridors, but all is utilized for the various rooms. The main features are the large students' laboratory for microscopical and bacteriological work; this is a lofty room facing north, 70 ft. by 26 ft., with high plate-glass windows and fitted with every modern accommodation for students' use. Adjoining this is a large laboratory, with an adjacent smaller one, both of which are fitted in a similar manner, and are intended for the bacteriological work in connexion with the City Health Department. At the north-east corner is a spacious laboratory, with windows to the north and east, to be used as a private research laboratory. A notable feature consists of an incubating room built into the centre of the department, and so arranged as to be kept at a constant temperature; it will thus replace the ordinary incubating ovens. On the south side there is, in addition to the professors' rooms, etc., a large lecture theatre, and adjoining it is the pathological museum, with excellent top and south light and gallery. The photographic rooms, store rooms, etc., connected with the department are situated in the roof and towers immediately above. A service lift extends to all floors at the north-east end of the block.

The external walls of the structure are of brick with stone dressings. The internal finish of the walls consists of buff-coloured bricks, with dados of salt-glazed bricks. In the great hall there is an oak dado with stone facing above it. The entrance hall is lined with buff bricks, with bands of stone. This stone, removed from the old house previously occupying the site and demolished for the purpose of erecting the University buildings, is of exceptional quality, and beautifully marked with veins like marble. The doors and screens of the entrance hall, great hall, and administrative offices are of oak. The council room has an oak dado and oak ceiling. The professors' room has also an oak dado with a genuine sixteenth-century plaster ceiling presented by the Duke of Norfolk. It was removed from the old Norton Hall, and has been refixed.

The architects (Messrs. Flockton and Gibbs) have produced an excellently-contrived and well-executed building, and have cordially supported the authorities in their desire to obtain the best that the money at their disposal permits.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of he Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage at which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, as far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarship must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. GUY ELLISTON, *General Secretary.*

BEQUESTS TO MEDICAL CHARITIES.—The will of the late Miss Eliza Herster Copland of Tunbridge Wells, which has now been proved, directs the payment of £1,000 each to the General Hospital, Tunbridge Wells, and to the Eye and Ear Hospital in the same town. Subject to the life-interest of sundry annuitants, the final estate of some £25,000 is to be divided in such proportions as the trustees may direct between eight or nine charities, amongst which are several hospitals.

CENTENARY CELEBRATION

OF THE

Royal Medical & Chirurgical Society.

ADMISSION OF HONORARY FELLOWS.

THE Centenary Day of this Society was celebrated on May 22nd.

The PRESIDENT of the Society, Sir R. Douglas Powell, received the Honorary Fellows and Fellows in the Secretary's Room at 5 p.m., and immediately afterwards admitted the new Honorary Fellows present—Professor Bohr (Copenhagen), Sir William Ramsay, Dr. W. H. Gaskell, and Dr. Robert Barnes—and presented to them their diplomas. On the President's platform, in addition to the two Honorary Secretaries, Dr. Newton Pitt and Mr. Stephen Paget, were three former Presidents, Mr. Jonathan Hutchinson, Mr. Thomas Bryant, and Mr. Alfred Willett. The President then delivered a short congratulatory address in the name of the six living former Presidents, Mr. Timothy Holmes, Mr. J. Hutchinson, Dr. W. H. Dickinson, Mr. T. Bryant, Dr. F. W. Pavy, Mr. A. Willett, the Council, and himself, giving a short historical survey of the corporate life of the Society, indicating the part played by it in the development and achievement of the century's medicine, and alluding to the proposed union of the sister societies into one scientific corporation. He referred to the papers, now classical, that had been contributed to the Society by Astley Cooper, John Abernethy, Spencer Wells, Marshall Hall, and many others, and to the list of distinguished Honorary Fellows, including Darwin and Pasteur, Marshall Hall and Claude Bernard.

Telegrams of congratulation were read from new Honorary Fellows unable to be present—among others, from Professor Pavloff, Professor Marchiafava, Professor Nothnagel, and from learned Societies, including the Society of Russian Physicians at St. Petersburg and Royal Medical Society of Edinburgh.

Professor CHIENE, in an eloquent speech, conveyed a message of goodwill from the Edinburgh Medico-Chirurgical Society, and, as its President, presented a congratulatory address from the Society. Congratulations were also presented from other Societies—from the Medical Society, by Mr. JOHN LANGTON; the Clinical Society, by Dr. FREDERICK TAYLOR; the Obstetrical, by Dr. BOXALL; and the Laryngological, by Mr. CHARTERS SYMONDS; the President in each case felicitously thanking the various Societies thus represented.

The SENIOR PAST-PRESIDENT, Mr. Jonathan Hutchinson, proposed a vote of thanks to Sir R. Douglas Powell, which was seconded by Mr. THOMAS BRYANT, and carried with acclamation. By the wish of the Society, telegrams were sent to the new Honorary Fellows who had been unable to attend in person, including Dr. Welch, of Baltimore; Professor Kitasato, of Tokio; Professor Ramon y Cajal, of Madrid; Lord Lister, Lord Rayleigh, Sir Samuel Wilks, and Sir William Gairdner.

EXHIBITION.

An exhibition of books, instruments, and other objects of interest illustrating the condition of medicine a hundred years ago was arranged in the Society's meeting room, in the main corridor leading to it, and in one of the side rooms. It was made to include memorials of various kinds relating to the Presidents of the Society up to recent years, and medals struck to honour or commemorate Fellows of the Society, this series being also continued up to the present time. Some 162 volumes, mostly bound in brown calf, were arranged together on shelves as being the Society's library in the year of its foundation. Among other books were *Outlines of a Course of Lectures on the Practice of Medicine, as Delivered in the Medical School of Guy's Hospital*, 1802-6, by William Babington and James Curry; *Essays on Quackery and the Dreadful Consequences Arising from Taking Advertised Medicines*, 1805, and *Observations on the Cow-pox, showing that it Originates in Scrophula, and is no Security against the Small-pox*, by an R. Squirrell, 1805. Copies of journals in publication between 1800 and 1805 were shown, and copies of the textbooks in use at the time, including the works of the brothers Bell, Denman's *Midwifery*, and Underwood's *Diseases of Children*. An extensive collection of books and pamphlets on vaccination, dating 1801 to 1806, and a series of manuscripts were other exhibited. Among the manuscripts were: Lectures on Anatomy, by Henry Cline, transference of indenture of Astley Paston Cooper, accounts and minutes of the Medical Faculty of the Liverpool Royal Infirmary down to 1827, which contains a list of the so called African surgeons, persons who had passed an examination in medicine and surgery (as required by Act of Parliament) at the infirmary, and were considered competent to act as surgeons on vessels engaged in the slave trade; an autograph testimonial by John Abernethy, prescriptions of Sir Benjamin Brodie and others, a volume of notes by Dr. Matthew Baillie on his patients in St. George's Hospital, beginning in 1790, and several autograph letters of Edward Jenner were also exhibited. Several certificates and diplomas were shown, including a diploma from the University of Edinburgh to John Bostock, signed in 1769 by Cullen, Black, Monro, Gregory, Hamilton, Robertson, Blair, and others. Many historically-interesting instruments were shown, with instruments formerly belonging to Abernethy, Jenner, Chamberlen, and others. Many valuable portraits were exhibited, including those of the first twenty-five Presidents of the Society, with personal effects of medical and surgical practitioners flourishing a hundred years ago.

CENTENARY BANQUET.

The centenary banquet of the Royal Medical and Chirurgical Society was held in the Hotel Cecil on May 22nd, with the PRESIDENT of the Society, Sir Richard Douglas Powell, in the chair. The fact that the Prince of Wales was present ensured the success of the dinner, and covers were laid for about 500 guests. To the right of the Chairman were seated the Prince of Wales, Lord Alverstone, and Lord Strathcona and Mount Royal, and to the left the Duke of Northumberland, the Bishop of Oxford, and Mr. John Morley. Amongst others present were: Sir W. Huggins, the Rev. W. W. Merry, Mr. J. Langton, Professor John Chiene, Professor Pierre Marie, the Rev. A. Traill, Sir W. Ramsay, Mr. T. Holmes, Dr. D. MacAlister, Mr. J. Tweedy, Professor Christian Bohr, Sir W. S. Church, the Hon. Sydney Holland, Dr. Pye-Smith, General Lord Cheylesmore, Surgeon-General Keogh, Sir A. Rücker, the Very Rev. R. H. Story, Sir T. Barlow, Mr. W. W. Ouless, Inspector-General H. M. Ellis, Mr. T. Bryant, Sir Dyce Duckworth, Professor Clifford Allbutt, Mr. A. Willett, Dr. F. Taylor, Dr. Pavy, Sir John Moore, Sir J. Williams, Sir W. Foster, M.P., Sir B. Savory, Professor Sir J. Dewar, Sir F. Semon, Sir J. B. Tuke, Sir T. Smith, Sir H. Norbury, Sir F. Laking, Sir F. Treves, Sir W. Collins, Sir Patrick Manson, Surgeon-General Sir W. Taylor, Mr. Godlee, Mr. H. T. Butlin, Sir J. Reid, Mr. Andrew Clark, Mr. Pearce Gould, Dr. Newton Pitt (Honorary Secretary), and Mr. S. Paget (Honorary Secretary).

After the CHAIRMAN had proposed the toast of "The King" he gave that of "Queen Alexandra, the Prince and Princess of Wales, and the other Members of the Royal Family"; both were drunk with great enthusiasm.

The PRINCE OF WALES, when he rose to reply, was greeted with continued loud applause. After the cheering had died away, the Prince, speaking clearly and distinctly so that his voice carried to every corner of the vast hall, said: My Lords and Gentlemen, I am greatly touched by the words of Sir Richard Douglas Powell, and in the name of the Queen and the Princess of Wales and the other members of my family, and on my own behalf, I heartily thank him for the sentiments to which he has given expression, and this distinguished assembly for the kind manner in which they have received this toast. I am very happy to be present on this occasion, memorable in the history of the Royal Medical and Chirurgical Society, when we celebrate on the exact date, May 22nd, the anniversary of the day on which this Society was founded just one hundred years ago. I consider it a great honour to have been enrolled among its Honorary Fellows, and to be associated with the names of men eminent both in our own nation and in almost every other nation of the world. And I am very pleased to meet some of them here to night. It is a further satisfaction to me to be identified with a society with which my family has been connected ever since its incorporation by Royal Charter in 1834. Sir Richard has kindly referred to my position as President of King Edward's Hospital for London. I regard it as a precious trust transmitted to me by the King, its founder; and I shall always endeavour to the best of my power to further its work, the gradual but steady development of which I watch with keen interest and satisfaction; for it is my firm conviction that there is no better way in which we can help our poorer brethren and sisters than through the healing work and humanizing influences of our great hospitals. With regard to the Imperial Cancer Research Fund, I am glay to say that we are working in close touch with similar undertakings in

other countries. Considerable and valuable results have been attained during the past year; and I trust that we may look forward to the day when medical and surgical knowledge will have unravelled the mysterious cause of this terrible disease, and have acquired the power to deal successfully with it. I must congratulate this famous Society on celebrating the one hundredth anniversary of its foundation. In spite of its years it is still full of the vigour, enterprise, and enthusiasm of youth. The advances which have been made in the science of medicine and surgery during the last one hundred years are almost without a parallel in the history of human progress. During this period physiology has been established as a precise branch of learning, while the new science of bacteriology would seem to have laid bare the very foundations of disease. Antiseptics and the clinical thermometer have been invented, and methods of investigation introduced of which, I am sure, the medical profession of 1805 had never even dreamt. In the foundation of antiseptic surgery by Lord Lister, this country can claim one of the greatest achievements in the cause of humanity. In the sphere of public hygiene nothing short of a revolution has been effected. Our hospitals, which one hundred years ago were little more than mere refuges for the sick, have become institutions in which the most beneficent treatment is carried out with scientific thoroughness. With this great century of progress this Society has indeed been actively concerned, and it can look back upon its record of one hundred years with the assurance that it has taken no little share in a memorable scientific advance. Its deliberations can only result in a widening of the capabilities of medicine and surgery, and in a lessening of the mass of human suffering. With it also rests the grave responsibility of passing judgement upon new projects and new theories, of directing investigation into right channels, and of keeping a jealous watch upon the scientific reputation of a great profession. I feel confident that the Royal Medical and Chirurgical Society will maintain this trust as faithfully in the future as it has in the past. I heartily wish the Society every continued prosperity. Gentlemen, I am most grateful for the hearty welcome you have given me, and I assure you it has given me the greatest possible satisfaction and pleasure to have come here this evening, and to be present on this memorable occasion.

The CHAIRMAN then proposed the toast of "The Society," and said: I have already this afternoon touched upon the history of the great Society the centenary of whose existence we are now celebrating; in the chronicles of the Society and the personal records of the fifty Presidents who have presided over its proceedings that history has been most interestingly set forth by Dr. Norman Moore and by Mr. Stephen Paget in the volume which is now in the possession of every Fellow. These chronicles not only give a faithful account of the difficulties the Society has passed through, and of its growth and mental and moral development through the century to its present ripe and distinguished and vigorous old age, but also very faithfully reflect the history of medicine in the last hundred years. The Society was founded at a meeting of physicians and surgeons one hundred years ago at the Freemasons' Tavern, with Dr. Saunders as its first President, for the purpose of conversation on professional subjects, for the reception of communications, and for the formation of a library. Abernethy, Babington, Blane, Astley Cooper, and others were present. Its field of work rapidly extended to the reading of papers, the receiving of communications for discussion from various parts of the world, and, above all, the accumulation of a library of English books and of foreign literature, in those early days difficult to obtain, bearing upon medicine, surgery, and the associated sciences. Premises were soon required for the meetings of the Fellows and for the housing of the growing library; and in the year 1834 the Berners Street House was taken, and the Society attained its present position as the premier Society of Medicine, with a Royal Charter granted by His Majesty King William IV, who graciously consented to become its first Patron. Since then it has never ceased to enjoy the patronage of the Sovereign, and to-day it has achieved the additional distinction of numbering your Royal Highness amongst its Honorary Fellows. The Society has always regarded the purchase of books as a primary object, and the library now contains more than 50,000 volumes, and its current literature includes the journals and proceedings of every country and learned medical society in the world. Its Fellowship includes the workers in the van of medical and surgical science in the metropolis and the provinces. There has been no advance in medicine that the Society has not been instrumental in promoting. Single cases of immense interest, and, looking back, of great historical importance, have been recorded in the first half of the century; they are as the streaks of light that usher in the dawn of great movements and discoveries in every department of science. To discuss the history of these and other landmarks of medical and surgical advance, to which you, Sir, have alluded, would be out of place here. They may be said to culminate in three fundamental accessions to a development of our knowledge, momentous and far-reaching in their consequences to the well-being of humanity: (1) The attainment of a safe anaesthesia in the later Forties; (2) the establishment of the antiseptic method in surgical practice; (3) the recognition of the microbic origin of specific diseases. It would be impossible even approximately to count the lives that have been saved, nor to estimate the suffering that has been spared by the performance of operations now of daily occurrence throughout the civilized world, not one of which could have been attempted thirty-five years ago—before our long-time Fellow, and now our Honorary Fellow, Lord Lister, interpreted, extended by elaborate researches and reduced to terms of surgical procedure the great discovery by Pasteur of the essential rôle played by living organisms in fermentation and decomposition processes. In 1859 pyaemia accounted for 42 per cent. of fatal cases of amputation; its occurrence is now practically unknown in such cases, and death from amputation is almost unknown. Ovariotomy, which in the early days of Spencer Wells was protested against as unjustifiable from its enormous mortality, became within his time a fairly successful operation, owing to his cleanly methods, but still with a mortality in 1871 of 22 per cent. As the antiseptic method developed, however, the mortality fell in 1881 to 4 per cent., and it is now probably less. Numerous abdominal operations, including those for the radical cure of hernia and for appendicitis, have only become possible and safe within this period. I take abdominal surgery as but the type and illustration of the vast progress made in the relief of suffering throughout the world, brought about by the introduction of anaesthesia and antiseptic methods. On the same lines has medicine—and particularly preventive medicine—advanced. We were not acquainted in my student days with the exact nature of a single specific disease—small-pox, glanders, lockjaw, anthrax, diphtheria, cholera, typhoid, consumption, ague, plague, influenza, septicaemia, and the rest were equally obscure to us as regards the exact nature of the poison which gave rise to them. Now we can see projected on the screen the exact portraits, including side whiskers when worn, of the particular organisms responsible for the majority of these diseases, the habits, food, appetite, degree of virulence, methods of multiplication, and mode of growth of each of these minute organisms are as well known to us as though they were beasts in a menagerie. We are learning to circumvent them as foes, and are beginning to police them as undesirable aliens; nay, we even recognize some of them as friends when restricted to their own proper sphere of activity. I have heard of grumbles at medical fees and at the increased costliness of hospital administration. But when you remember as I do the weeks of illness, with necessary doctor's visits, consequent upon a simple surgical operation thirty years ago, the bottles of medicine and the pints of wine consumed in the long and suffering days and nights of hectic fever spent in hospital or at home whilst the wounds were tardily healing; and when you contrast this suffering and loss with the smarter methods of to-day dictated by more exact science under which the most appalling wounds are healed and the patient up and about in a few days, it will be confessed at least that the labour and thought of a century have not been wasted. The average time of healing for a breast amputation used in my early days to be from six to twelve weeks; it is now from one to three weeks, the bed accommodation in hospitals for such cases being thus increased fourfold. Similarly on the physicians' side thousands of cases of disease never occur, whole regions, formerly the pleasure grounds of the typhus, typhoid, cholera, diphtheria, and ague organisms, know them no more. Consumption is a diminishing, some even think a vanishing, disease; the rates of mortality and the prevalence of illness are steadily falling. And why? Because every doctor is a sanitarian and works loyally with those who organize State medicine for the prevention of disease. Methods of treatment are more precise, and the time seems

rapidly approaching when the doctor's occupation will be gone, and he himself can neither live nor die. In a recent letter to the *Times*, Dr. Ronald Ross, speaking of "another victory against malaria," achieved in one of our possessions in the Malay Straits, quotes the medical officer—Dr. Watson—in charge, who, as an illustration of the decline of fever in the locality, relates one fact which "he cannot help recording, although with less satisfaction, namely, that the fees resulting from his private practice in connexion with malarial fever have fallen to zero!" Well, I may truly say that the Royal Medical and Chirurgical Society has taken a large share in bending to the service of medicine all the great discoveries in science of the century that have emanated from the fertile brains of Faraday, Darwin, Pasteur, Kelvin, Lister, Koch, and many more. Many of these great men are gone, others are developing and extending their work. I must here again allude to two of the greatest of them at the present time, our Honorary Fellows, Lord Lister and Lord Kelvin, whose work has been more far-reaching in beneficence to humanity than any work done within their century, and who perhaps, alone of all men within the century, have lived to enjoy the sweets of immortality. With your permission, Sir, and that of this great gathering, I should like to send a telegram to Lord Kelvin expressing our best wishes for his complete recovery from his recent illness. We may be forgiven, then, on this unique occasion—not to be repeated within the lifetime of any one here—a somewhat self-assertive and jubilant note; but in our hearts we are not unmindful of much undone that might have been achieved, of opportunities lost, of adventures unwisely checked; they are recorded in our chronicles. We fully acknowledge the strenuous labours in the same field of others—our sister Societies in the service of humanity. We are humbly mindful of the increasing responsibilities of the next century, and we are solicitous, if it may be, that by the union of forces that now overlap we may advance at a steeper gradient to higher realms of achievement.

Dr. PYE-SMITH, in proposing the toast of "Literature and Science," said that there had always been a close connexion between the medical profession and literature. In the time between the Wars of the Roses and the Reformation there were four men who directed the new learning and the national education—Erasmus, Sir Thomas More, Dean Colet, and Linacre. These were followed by Dr. Caius of Cambridge and of Datchet. In the following century the medical profession contributed an author of the first rank, Sir Thomas Browne, who wrote *Religio Medici*, and other works. The next great literary physician was Arbuthnot, the friend of Swift, of Pope, and of Gay. Heberden was the friend and physician of Johnson. Sir Thomas Watson also was a medical writer of high literary merit. There were still learned physicians in the present day, and he mentioned Dr. Payne the Harveian Librarian, Dr. Norman Moore, Mr. Tweedy, Mr. Stephen Paget, and Mr. D'Arcy Power. Though literature still afforded relaxation and delight to medical men, the art of medicine depended for its progress and its existence upon science. By science the present condition of progress had been reached and by science new successes in the prevention and cure of disease would be discovered in the future. Science was the very breath of life to medicine and investigation would continually proceed. Medical men were not without encouragement, for much had been done in the prevention of diphtheria and of many tropical diseases since a Royal critic had asked why preventable diseases were not prevented. At that banquet they gratefully acknowledged the interpretation put by the eldest son of England on the ancient motto of the Black Prince "Ich Dien," by serving with strenuous efforts on the Council of the Association formed to study the origin, and it was trusted in time the prevention, of that terrible disease termed malignant.

Sir ARTHUR CONAN DOYLE responded to the toast in a witty speech. He supposed that he was chosen to reply to the toast because he had the honour to be a medical man. That was true, but an unkind critic had once remarked that in spite of the fact that he was a medical man no living patient of his had ever been seen. Sir Arthur Conan Doyle then discussed what he called novelist's law, and described it as being almost more strange than the law with which they were familiar in ordinary life. If, however, the law of the novelist was peculiar it must be admitted that the medicine of the novelist was equally so. The novelist only recognized certain diseases, the remainder were of no use to him. The diseases the novelist described were all of the upper part of the body, for the novelist never hit below the belt. The medical treatment of the novelist was always simple. The patient who was melting away in a decline was generally restored to health by the return of the great and good man who had been so cruelly misunderstood in Chapter IV of the novel. Another disease which was most useful to novelists was fits. Novelists never descended to details as to whether the fits were epileptic or apoplectic, but it was fits that generally carried off the heavy and stertorous father. There was also that mysterious malady known as brain fever, and he wondered what novelists would do without that wonderful complaint. In regard to gout, novelists only recognized that affection as occurring in the ball of the great toe. As to small ailments, novelists did not deal with them. No one was ever known in novels to suffer from mumps, or sore throat, or nettle-rash, because novelists, if they do hit at all, hit hard. They claimed, moreover, to be kindly-minded towards the medical profession, for villain doctors were not known, and, instead, they described the village practitioner who slapped his patients on the shoulder with a merry twinkle in his eye. In novels they would also find the solemn consultant who was summoned down from town, who said nothing, shook his head, and then returned again to the upper regions from whence he came with a large fee in his pocket.

Sir WILLIAM HUGGINS (President of the Royal Society) also replied to the toast. He said that the Royal Society for two centuries and a half with untiring energy had pursued the objects for which the Royal Society was formed towards the improvement of natural knowledge. It was not inappropriate for the Royal Society to be present on that occasion, for the connexion between the Society and the medical and surgical profession had always been an intimate one. The roll of the Fellows of the Royal Society had always contained many names of men distinguished in the medical profession. That great man, Lord Lister, was his immediate predecessor in the office of President of the Royal Society. Lord Lister, by the introduction of scientific methods into the operating room, had rendered comparatively safe operations which before had been followed by very grave risk, and had also made possible many operations which could not be performed without an anaesthetic. Lord Lister was a man honoured throughout the whole world, not only by his own countrymen, but by mankind at large. The wonderful progress of the art of healing in modern times had followed closely on the advances made in chemistry and physics. The introduction of the accurate methods of physics and chemistry into the clinical laboratories and medical schools had raised medicine to the position of an exact science. The discoveries of science had enabled medicine to diminish disease and prolong life. The work carried out by the Royal Society in the investigation of diseases seemed to show that it was in the power of man so to control the conditions of the propagation of disease as to make it possible for Europeans to live and work in parts of the world where hitherto the sacrifice of health and the loss of life had been fearfully great. In the future they must look to a more intimate acquaintance with Nature in order to triumph over disease and premature death, and so secure for man a longer and a fuller life.

Mr. H. T. BUTLIN then proposed "The Guests." He said he must first mention the guest of the evening—His Royal Highness the Prince of Wales—to whom the Society was indebted for his presence there that night, and for his acceptance of an Honorary Fellowship of the Society. The Prince of Wales was the first Royal Honorary Fellow of the Society, and the Society had taken one hundred years to achieve that honour. Every one, however, would admit that the time had not been ill spent. Mr. Butlin then proceeded to mention the most important of the guests by name, and concluded by calling upon the Duke of Northumberland to reply.

The DUKE OF NORTHUMBERLAND, in responding to the toast, said that there were four great professions in this country at the head of all other professions—the navy, the army, the medical, and the legal professions. They were respected and valued, but no one wished to avail themselves of their active services. There was, however, the preventive side of these four services which made every one feel safer and value the care given in the safeguarding of the common interests. If that side of their work was less known to the world than the more showy side, nevertheless all were conscious of the debt owed to these professions, and to none of them did they owe a greater debt than to the science, the energy, and devotion expended on preventive medicine by the medical profession. The Duke of Northumberland concluded by praising the great

work done by the Royal Medical and Chirurgical Society in the last century.

Lord Alverstone then proposed "The President," and observed that a new coincidence was to be remarked in the circumstance that the Presidency of the Royal Medical and Chirurgical Society was held by the same gentleman who was also President of the Royal College of Physicians. The position occupied by the President was one that commanded the respect of all, and would induce the company to accord the toast the most hearty welcome.

Sir Richard Douglas Powell, in acknowledging the toast, thanked the Honorary Secretaries of the Society for all they had done. He acknowledged the services rendered by the Secretary, Mr. MacAlister, and drew the attention of those present to the picture on the menu card, which was designed by Mr. Bernard Partridge.

The formal proceedings then terminated, and the company separated at a late hour.

The Marshall Hall Address.

Dr. Henry Head, F.R.S., Marshall Hall Prizeman, delivered an address on the afferent nerves under a special aspect, the conclusions expressed having been drawn from investigations carried out by him in conjunction with Dr. W. H. Rivers and Mr. James Sherren. Division of a peripheral nerve, such as the median, caused total loss of sensation over the greater part of the index and middle fingers, and over part of the thumb on its palmar aspect. In addition, sensation was partially lost over a larger area. This area of partial loss was in reality one of complete insensibility to certain stimuli, such as light touch, intermediate degrees of heat and cold, and to the two points of the compasses. Recovery of sensation after complete division of a peripheral nerve began with disappearance of the analgesia, and with the return of sensation to the extreme forms of temperature. But the hand remained exactly as insensitive as before to the higher stimuli, such as light touch. The characteristics of a part which had again become sensitive to prick and to the extremes of heat and cold were: (1) the sensation radiated widely, was referred to remote parts, and could not be accurately localized; (2) a prick produced a more unpleasant sensation than over normal parts; (3) the sensation produced gave no measure of the intensity of the stimulus by which it had been evoked, but only of its extensity. This sensibility was called protopathic, and as far, at any rate, as heat and cold were concerned, was due to the presence of minute areas (hot and cold spots), each of which could be stimulated by heat or cold alone. With further recovery a second form of sensibility appeared. This was associated with accurate localization of cutaneous stimuli and the discrimination of two compass points. With the return of this form of sensation, light touch and intermediate degrees of heat and cold could be again appreciated. This sensibility was called epicritic. A third form of sensibility was investigated in a case of complete experimental division of the radial and external cutaneous nerves at the elbow. After the radial half of the arm and back of the hand had been rendered totally insensitive to cutaneous stimuli, the denervated parts of the hand remained sensitive to pressure or to any stimulus that deformed the subcutaneous structures. Localization of those stimuli, which could be appreciated, was remarkably good. The fibres upon which the sensibility depended must run with the motor nerves. This was called deep sensibility. Protopathic and epicritic sensibility probably depended also each on a separate system of nerve fibres for the following reasons:—(1) Occasionally, after division of a peripheral nerve, sensibility to pain, to ice, and to 50° C. might be abolished, but that to light touch and to water at 40° C. remained. (2) After complete division of a nerve protopathic sensibility returned before epicritic, whereas after functional division (incomplete destruction of the nerve) the two forms of sensation returned *pari passu*. A part deprived of its nerve supply was liable to injuries, and the sores and ulcers so produced healed slowly. Such sores healed rapidly and permanently as soon as protopathic sensibility returned to the part, even though all epicritic sensation was still absent. The growth of nails was materially diminished by want of movement, deficient blood supply, and muscular paralysis. There was nothing to show that destruction of the sensory nerves materially diminished the normal growth of the nails. Irritation of a peripheral nerve, on the contrary, produced the condition known as glossy skin, and the nails grew excessively. Every peripheral afferent nerve of the limbs contained protopathic and epicritic fibres. Towards the periphery the latter tended to fall into certain groups, and the area supplied by each group did not overlap that of another group materially. The protopathic fibres, on the contrary, overlapped to the greatest amount on the periphery of the limb. This overlapping became less as the posterior roots were approached, showing that these fibres still maintained to a certain extent their segmental arrangement. The threefold arrangement of deep, protopathic, and epicritic sensibility ceased in the central nervous system at the first cell junction. The impulses conducted along these three lines become sorted out into paths for light touch, for localization and stereognosis, for pain, for heat, and for cold. Observations on the applicaiion of temperature stimuli to the intestine seemed to show that its sensibility resembled that which, in the skin, had been called protopathic. But it was entirely insensitive to all those stimuli which evoked epicritic sensation. In conclusion, it was suggested that the body within and without was supplied by afferent nerves which belonged to the protopathic system. This could be divided into somatic and splanchnic; the latter included all that had previously been known as the afferent sympathetic. The protopathic system was peculiarly associated with the reflexes and with feeling tone (pleasure and pain). The sensations evoked from it in answer to appropriate stimuli were widely diffused, and were not infrequently referred to parts at a distance. Its fibres regenerated with greater ease and rapidity than those of the epicritic system, or those of the motor nerves to voluntary muscle. This system retained to a considerable degree its original segmental arrangement. The external surface of the body and limbs was innervated by a second system of fibres, the epicritic. This system was of later development, and regenerated more slowly than the protopathic. It was peculiarly associated with the localization and discrimination of cutaneous stimuli. All subcutaneous structures were also innervated from afferent fibres that ended in organs peculiarly susceptible to pressure. These fibres, in the limbs and body wall, ran in conjunction with the motor nerves to voluntary muscles, and this deep sensibility was not materially diminished by the destruction of the sensory nerves to the skin.

Dr. Ferrier proposed a vote of thanks for Dr. Head's revolutionary paper. The results were certain to receive consideration very favourable to his view, which he believed would be only a half-way to its entire acceptance. He congratulated him on his brilliant original work.

Dr. Gaskell, in seconding the proposal, congratulated Dr. Head on his acute reasoning and his scientific enthusiasm which had led him to experiment on himself. It had seemed necessary that there must be two sets of nerves, one to explain Dr. Sherrington's results and another to correspond with Dr. Head's former work. His work in his experiment on himself meant the inauguration of a new epoch. In the paper there was a series of observations of great importance. It explained the alleged immediate return of sensation after division of a nerve, and it put on an understandable basis the question of trophic nerves.

Dr. Head, in reply, referred to the important part taken in the work by Mr. Sherren and Dr. Rivers.

Centenary Volume.

A book has been written and prepared, at the request of the President and Council of the Royal Medical and Chirurgical Society, for the centenary festival, by its Honorary Librarian, Dr. Norman Moore, and its Junior Honorary Secretary, Mr. Stephen Paget. It contains an outline of the history of the Society compiled from its minute books, proceedings, and transactions, and a series of memoirs of its Presidents, affording, by way of quotations from their writings and contributions from the prevalent knowledge of their day, a characteristic picture of each, excepting only those seven who are happily able to aid in person the present celebration. The volume has chapters on the mode and circumstance of the origin of the Society by fissiparous division from the Medical Society, on its life in Verulam Buildings, in three different homes in Lincoln's Inn Fields, in Berners Street, and in its present stately house in Hanover Square. There are also chapters on two previous proposals of union with kindred societies, the earlier in 1860 and the later in 1868, while in the latest chronicles of the Society there is record of the occasion and circumstance of the ventilation of the present plan for drawing together the medical societies in London and an account of the ensuing meeting at the Royal College of Physicians. The Society, the

authors believe, is now not unwilling to say its *Nunc Dimittis*, if it could be sure that it would thereby promote the advancement of the whole profession in London, "looking forward, not to extinction, but to unity in that new Royal Society of Medicine which it has often seen as in a vision." The volume in its subject-matter is worthy of the occasion; it is tastefully executed and charmingly illustrated. The frontispiece is a photogravure of "William Saunders, M.D., First President of the Medico-Chirurgical Society, 1805," and in the body of the book there are pictures of the exterior and interior of its several homes. The *motif* of the book, the writers say, is that of the sage of old: "Let us now praise famous men, and our fathers that begat us." By the Honorary Fellows and Fellows of the Society, with doubtless many more, it will assuredly be received with much satisfaction and delight.

CONVERSAZIONE.

On the evening of May 24th a *conversazione* was given by the President and Fellows of the Society in the Natural History Museum, Cromwell Road, by permission of the trustees of the British Museum, which was very largely attended by the Fellows and their friends and the guests of the Society. There was a reception by the President and Lady Powell in the Central Hall. Several of the galleries were thrown open, and made an admirable promenade. Music was provided by the Band of the Royal Artillery, and the Meister Glee Singers. The recent gift of Mr. Carnegie, the model of the gigantic diplodocus, which is placed in the reptile gallery, attracted much attention. The *conversazione* was acknowledged to be an unqualified success.

CANCER STATISTICS IN STUTTGART.

To the statistical aspects of the cancer problem Drs. Weinberg and Gastpar have added a valuable contribution (*Zeitschr. f. Krebsforschung*, Bd. 2, Heft 3, 1904), which is based upon the evidence collected in Stuttgart during the years 1873-1902.

INCREASE OF MALIGNANT DISEASE.

During the period 1893-1902 the number of deaths from malignant disease amongst the natives of Stuttgart amounted to 588 males and 886 females, the corresponding figures for the decade 1873-82 being 221 and 492 respectively; in the intermediate period, 1883-92, the male deaths had risen to 332 and the female to 630. The absolute number of deaths from new growths, therefore, shows a well-marked increase during the whole period under review. The importance of this increase is further emphasized by comparing cancer mortality with deaths from other causes; here, again, the records show that there has been a steady increase in the ratio which cancer bears to other causes of death. Corresponding with this absolute and relative increase in the part which cancer plays in the death-rate, there is also an increase in the incidence of cancer when considered in its relation to the living population. The yearly death-rate from new growths per million inhabitants works out as follows:

	Males.	Females.
1873—1882	411	866
1883—1892	526	909
1893—1902	733	1,009

RELATION TO SEX AND AGE.

A point of considerable interest, in which the Stuttgart records agree with statistics collected from other sources, is that the increase of cancer has been relatively greater amongst males than amongst females. There also appears to be a difference between carcinoma and sarcoma as regards their incidence upon the two sexes. Whilst the female organism is still shown to be more liable to carcinoma than the male, this greater susceptibility does not appear to hold good for sarcoma; and it is also found that amongst males the increase of sarcoma has been steadier and more pronounced than amongst females. Thus, taking each of the three decades under review, and commencing with the earliest, the numbers of deaths from sarcoma amongst the male inhabitants of Stuttgart were found to be 10, 33, and 64 respectively, the corresponding figures for the females being 22, 39, and 46.

Comparing the age-incidence of carcinoma and sarcoma, it is found that the ratio between the number of cases occurring during the first forty years of life and the total number occurring at all ages is very much higher for sarcoma than for carcinoma. It is nevertheless true that mortality from sarcoma increases with age, though the rise is not so rapid as in carcinoma. These facts are illustrated in the following table, which gives, for the decade 1893-1902, the yearly death-rates per million of the living population from all forms of malignant disease taken collectively and from sarcoma alone.

Age (in Years).	All Malignant Disease.		Sarcoma Alone.	
	Males.	Females.	Males.	Females.
0—9	28	35	14	14
10—19	44	12	44	—
20—29	44	59	20	15
30—39	238	431	70	55
40—49	851	1,787	144	66
50—59	3,247	2,961	323	121
60—69	6,457	5,826	419	217
70—79	8,276	7,983	493	420
80—89	7,143	8,023	585	573

INCIDENCE ON PARTICULAR ORGANS.

The increase of malignant disease appears to be to a large extent attributable to cases of cancer affecting the alimentary tract. The number of these cases has increased to a remarkable extent, whereas the incidence of cancer of the breast and genital organs has remained almost stationary. In illustration of this point the following figures from the yearly death-rate per million in the three decades under observation may be quoted:

Period.	Organs of Digestion.		Mammary Gland.		Genital Organs.	
	Male.	Female.	Male.	Female.	Male.	Female.
1873—1882	262	294	4	93	11	264
1883—1892	349	390	2	87	11	297
1893—1902	532	473	1	103	7	261

It is pointed out that these figures must be interpreted with caution. Probably the great increase of cancer of the digestive tract is, at least partially, accounted for by the greater frequency with which these cases have been diagnosed in recent years. On the other hand, the fact that women suffering from cancer of the breast or uterus more readily submit to operation and often undergo more radical operations than in former years accounts for the greater prolongation of life in persons suffering from these diseases. Moreover, when death takes place at some later period owing to the spread of metastases the primary site of the disease may be overlooked, and consequently its specification may be omitted in entering the cause of death. Both these considerations must be borne in mind when endeavouring to estimate the true incidence of mammary and uterine cancer.

SOCIAL STATUS, INFECTION, AND HEREDITY.

The authors endeavour to elucidate by the statistical method the alleged influences of these three factors in the production of cancer. Their details, which are too elaborate for brief summary, are carefully put together and analysed. They serve to illustrate the care which must be exercised before any dogmatic conclusions can be asserted as regards the influence of any one of these three factors.

BEQUESTS TO MEDICAL CHARITIES.—Under the will of the late Mr. Horace Downey Harrel, of Chobham, which has now been proved, the following institutions each receive a sum of £500: The London Fever Hospital, the Home for Incurables, Streatham; the Cancer Hospital, the East London Hospital for Children, the East Suffolk and Ipswich Hospital, the Suffolk Convalescent Home, Felixstowe, and the St. Luke's Home for the Dying. The residue of his estate in excess of £1,000 he left to such hospitals and charities in England as his trustees in their absolute discretion might select. The amount likely to be thus available would appear to be about £30,000.

MEDICAL NEWS.

The Cuban House of Representatives has recently passed a Bill appropriating £300,000 to assist the municipalities in the work of sanitation.

The annual dinner of the British Balneological and Climatological Society will take place on Wednesday next at 7.30 p.m. at the Criterion Restaurant, and will be followed by a smoking concert.

The festival dinner of the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., will be held in the Whitehall Rooms, Hotel Métropole, on June 15th, under the presidency of Lord Strathcona and Mount Royal.

The annual extra-metropolitan gathering of the Otological Society of the United Kingdom will be held on June 3rd at Manchester. By permission of the Vice-Chancellor, the meeting will take place in the Pathological Theatre of the Victoria University.

According to latest advices, Professor Koch is now at Iringa, in the interior of Africa, and will not return to the coast till the end of July. He has still a number of investigations to complete, and is not expected to return to Germany before the spring of 1906.

At a meeting of the Cardiff Division of the South Wales and Monmouthshire Branch of the British Medical Association, held on May 18th, Dr. A. D. Griffiths, of Bridgend, was presented with the sum of £70, which had been subscribed to defray some of the legal expenses entailed on him by an action brought to resist attempted blackmail. The action was tried at the Glamorgan Assizes in December last, when the jury found a verdict for Dr Griffiths with £500 damages, or five times as much as he had asked. Particulars of the case were published in our columns of December 17th, 1904, p. 1673.

Typhoid Fever at Lincoln.—Only three cases were notified during the week ending Friday, May 19th.

Order of St. John of Jerusalem.—Mr. Charles Cotton, M.R.C.S. (from Honorary Associate), and Major George Lane Mullins, M.D., have been appointed Knights of Grace of the Order of St. John of Jerusalem in England.

Bequests to Medical Charities.—By the will of Miss Gertrude Hatfield, of Sussex Square, W., which has now been proved, St. Mary's Hospital, Paddington, receives a sum of £250, and the Western General Dispensary, Marylebone, and the Brompton Hospital for Consumption £100 each.

An Antiquackery Manifesto in Italy.—At a congress of Italian *medici condotti* who correspond more or less closely to our Poor-law medical officers, held recently at Bologna, the question of quacks and their advertisements in newspapers was discussed. It was urged that a distinction should be drawn between the "honest" and the unscrupulous "*réclame*." Resolutions were passed declaring it to be desirable that the "moral prestige" of the medical profession should be raised, and calling on the proper authorities to exercise strict vigilance in the repression of the manœuvres of quacks.

Serumtherapy in Cerebro-spinal Meningitis.—According to *American Medicine*, it is reported that Professor Ludvig Hektoen, at a recent meeting of the American Association of Pathologists and Bacteriologists, suggested that a portion of the cerebro-spinal fluid should be withdrawn from the spinal canal, and that pure serum taken from human blood should be injected in its place, so that an immediate phagocytic effect should be obtained. Although the treatment has not yet been tried on human beings, Dr. Hektoen says he has experimented successfully on animals and has wrought many cures which he believes to be permanent.

Rural Midwives' Association.—Dr. Handfield Jones, in the absence of the Earl of Harrowby, President, occupied the chair at the annual meeting of the Rural Midwives' Association held last week. The report of the Committee, which was read by Mrs. Heywood Johnstone, showed that the working of the institution during the past year had been satisfactory. Twenty-six women were sent to training institutions, making 51 in all since the work was started. Of these 35 were now at work in eleven counties. The Committee had had several applications for assistance in the initial expense of training, which seemed to be one of the chief difficulties in working the Midwives Act in rural districts, but their funds were insufficient to enable them to do more than give the reduced training fee to subscribers. The report was adopted and the Executive Committe was re-elected.

King's College Hospital.—The annual festival dinner of King's College Hospital took place at the Hotel Cecil on May 18th, Earl Roberts occupying the chair. After the customary loyal toasts, Lord Roberts proposed "Success to King's College Hospital." He said that seven years ago it was determined that the hospital must be removed to some site south of the river. The next question was to find a site, and fortunately one of 12 acres had been presented to the hospital by the Hon. W. F. D. Smith, M.P. The only thing which remained to be done was to find means to remove the hospital. A certain sum had been given for the purpose, and the total required was something like £300,000 or £400,000. When the value of the site was included in the money already given a very large sum was still wanting. The yearly income of King's College Hospital did not meet the expenses; there was a deficit last year and there would be another deficit this year. He earnestly appealed for funds to meet the large sum which was wanted for the removal. Lord Methuen, Chairman of the Committee of Management, who replied, said that military hospitals compared well with civilian hospitals. The requirements of the hospitals were far greater now than at any former time, and those requirements would increase. Unless the people of London came forward and supported its great hospitals, the time might come when those institutions would go upon the rates, and they could depend upon it that the expenses would then increase and the general management would not improve. Mr. Justice Warrington submitted the toast of "The Medical and Nursing Staff of the Hospital." Mr. Watson Cheyne, in replying, said that unless they removed the hospital they would have to face the question of rebuilding it on the present site to bring it up to modern requirements. This would necessitate a large reduction in the number of beds. Mr. C. Awdry, the Treasurer, announced that the subscriptions amounted to £1,711.

The Pharmaceutical Society of Great Britain.—The Pharmaceutical Society of Great Britain held its annual dinner in the Whitehall Rooms on May 16th. Among the various toasts was that of "The Medical Profession." In proposing this, the President of the Society, Mr. Alderman R. A. Robinson, J.P., L.C.C., alluded to the satisfaction which was felt at the fact that the Society, in conjunction with its sister in Ireland, had within the past year been accorded by the General Medical Council more definite recognition than formerly in connexion with the task of keeping the *British Pharmacopœia* thoroughly in accord with the best modern knowledge. In his reply Sir Richard Douglas Powell mentioned as one reason why the medical profession had reason to be grateful to those whose education and advancement the Pharmaceutical Society endeavoured to promote was the fact that physicians could always feel certain that their prescriptions were faithfully carried out. Moreover, they always had the assurance that if any error or mistake or point of doubt appeared to exist in a prescription as written the attention of the writer would be called to the matter at once. The duties of pharmacists in respect of poisons were a great safeguard to the public, and he would be glad to see their position in this connexion strengthened. The Pharmacy Bill now before the House of Commons was dealt with by several speakers at considerable length, and especially by Mr. T. Lough, one of the several members of Parliament present, who is in charge of the Bill. He thought that it ought to be brought up again and again until it was passed. This Bill, it may be noted, has the support of the British Medical Association; the chief point in it is that it seeks to put limited liability companies upon the same footing in regard to the practice of pharmacy as private persons and to provide the same safeguards for the public in the one case as in the other. The action of the *Times* in respect of certain advertisements which it is publishing on behalf of a company which is opposing the Bill came in for sharp criticism, but it was suggested that in the long run these advertisements would help to get the Bill passed rather than prevent its success. In a final speech the President mentioned that the Society was increasing in numbers, though somewhat slowly. It had 6,000 members at present, and spent a large sum annually in promoting pharmaceutical education, and not less than £3,000 a year in helping those in their community who had been less fortunate than their fellows.

British Medical Journal.

SATURDAY, MAY 27TH, 1905.

THE GENERAL MEDICAL COUNCIL.

THE spring session of the General Medical Council commenced on Tuesday last, and the address with which the new president, Dr. Donald MacAlister, opened the proceedings will be found in the SUPPLEMENT to this issue of the BRITISH MEDICAL JOURNAL. Judging from it and from the progress made by the Council on the first day it seems possible that his forecast that the session may be shorter than usual will be fulfilled. If this should happen, the somewhat rosy view which Dr. MacAlister takes of the financial position of the Council may be strengthened. He informed the Council that the accounts for the year 1904 were more favourable than those for any year since 1895, and pointed out that whereas the deficit at the end of 1903 was over £2,000, at the end of 1904 it was a little over £200; this result, he said, was attributable not to any increase of ordinary income but to a great economy in expenditure, and he reiterated the opinion that equilibrium between income and expenditure is possible of attainment even without the aid of fresh legislation. He further stated that satisfactory arrangements had been made for letting the Council's house in Hanover Square at an enhanced rate, and was able also to announce that Dr. Mackay's suggestion that fees for the restoration of lapsed names to the *Registers* and for the registration of higher titles should be slightly raised, had resulted in adding over £400 to the receipts of the year. Another proposal to which the President referred was that a fee should be charged for the entering of a name on the *Students' Registers*. It appears that the custody of these registers costs the Council about £400 a year, and that the receipts, from fees for late or exceptional registration, only amount to some £20 a year. The President appeared to favour the proposal to impose a fee of 5s. in ordinary as well as in exceptional cases, and estimated that in this way the actual cost of students' registration would be covered and the Council's funds relieved to the extent indicated.

Perhaps the most important business which has so far come before the Council is that relating to the abuse of the Companies Acts by medical and dental companies who use or propose to use titles calculated to lead the public to suppose that the business is carried on by qualified persons. It will be remembered that in April, 1904, Chief Baron Palles, in the King's Bench Division, Dublin, decided that a dental company whose proposed title was such as to mislead the public into supposing that its business was carried on by qualified persons, might lawfully be refused registration under the Joint Stock Companies Act. On February 15th last the Master of the Rolls in Ireland went a step further and granted an injunction to restrain a company entitled "Mr. Appleton, Surgeon-Dentist, Limited," remaining registered on the Joint Stock Companies Register under its present name, or any such name, style, title, or description. In delivering judgement the Master of the Rolls said that it was not an answer to the application to say that the offence was an indictable misdemeanour, although he had no doubt that it was, and that at common law the defendants could all be prosecuted for conspiracy. The Attorney-General was entitled to apply to stop the fraud, and was entitled to succeed. It would seem to be now necessary that similar action should be taken in England, and, judging from a letter written so recently as May 19th by the Clerk of the Privy Council, it would appear that the Attorney-General in England, whose approval is necessary, would not offer any objection.

The Council had before it the further letter published in the SUPPLEMENT on March 18th, 1905, p. 112, addressed to the President by the Medico-Political Committee of the British Medical Association with reference to the granting by a chemist of what purported to be a medical certificate to an education authority. The letter, it will be remembered pointed out that the case was not one in which an education authority had accepted a certificate from an unqualified person; on the contrary, the authority having found out that the certificate form had been so signed, reported the matter to the British Medical Association. The Council, in accordance with the request of the Association, has now entered the form of certificate on its minutes together with the Medical Secretary's letter.

A petition from Licentiates of the Apothecaries' Society of London requesting that the holders of the diploma of that Society should be entered on the *Register* as "Licentiates in Medicine, Surgery, and Midwifery of the Society of Apothecaries" was received and considered. The Council, however, felt itself bound by the terms of the schedule of the Medical Act, 1858, and it would appear that a change in the designation can be legalized only by fresh legislation.

Another matter of some general importance was a petition from the County of Durham Medical Union, asking that, on being assured by any medical society that the facts had been carefully investigated and that the case was one which the General Medical Council should take up, the Council should accept such assurance and summon the defendant before it and require an explanation of the complaint made. On this the Executive Committee reported that in all proceedings before the Council the rules of evidence in judicial proceedings in courts of law must as far as possible be followed, and that accordingly the suggestion could not be accepted; this view was adopted by the Council without a division.

On Wednesday the whole time of the Council was occupied by the consideration of penal cases. One of these was a charge of covering a firm of chemists trading at various addresses as the Acme Medical Hall and Pharmacy. The Council found the allegation proved, but adjourned its decision until next November, to give the accused practitioner time to reconsider his position.

We are compelled by the pressure of official matter to hold over the full report of the proceedings of the Council subsequent to the delivery of the President's address.

A NEW SPIROCHAETE IN SYPHILITIC LESIONS.

MUCH interest attaches to the recent observations recorded[1] by Dr. Fritz Schaudinn and his assistant, Dr. Erich Hoffmann, on the presence of a peculiar spirochaete in the juice of syphilitic lymphatic glands. The results

[1] *Deut. med. Woch.*, May 4th, 1905, p. 711.

now published have been obtained in the course of a continuation of the research which was initiated by the observations upon which Dr. Schaudinn and his colleagues published a preliminary report a short time ago.[1] In the earlier investigations it was shown that the presence of spirochaetes was demonstrable, both in the fresh condition and after staining with a strong solution of azure blue and eosin, not only on the surface of syphilitic papules and primary sores, but also in the depth of the affected tissue, and, in two instances, within the specifically-affected inguinal glands. The significance of these organisms was, however, at first regarded as doubtful, owing to the fact that spirochaetes have also been found in several other types of lesions which are not syphilitic. But on closer examination it was discovered that two distinct types of organisms could be recognized; the one was larger than the other, and stained deeply, whereas the other was much more slender, and could only be made to stain with extreme difficulty; only the latter of these two organisms was demonstrable in the interior of syphilitic lesions. Dr. Schaudinn, to whom this discovery was due, proposed to distinguish these two parasites, provisionally, by separate names, the pale, slender form being termed spirochaete pallida, and the deeply-staining organism spirochaete refringens.

Drs. Schaudinn and Hoffmann now assert, on the strength of later investigations, in which they directed their attention to the affected inguinal glands of syphilitics in the primary and secondary periods, that they are becoming more and more convinced of the validity of this differentiation into two types, and that "the pale form, apparently, is uniformly present in syphilitic primary affections, papules, on the genitals, and indolent inguinal glands." They have obtained their material for examination either by extirpating the affected inguinal glands, when the patient would consent to this operation; or, when this procedure was not permitted, by puncturing the glands with a large needle and aspirating a few drops of material. In each of the eight cases which they have investigated by this method and have now placed on record, they succeeded in demonstrating the presence of the spirochaete pallida. In six of these cases the lesions were from four and a half to eight weeks old, and there were no secondary manifestations on the skin or mucous surfaces; in the two remaining cases infection had occurred from three and a half to four months before the patients were examined. In no lesions other than those produced by syphilis has the spirochaete pallida as yet been found. The total number of cases of syphilis in which Dr. Schaudinn and his collaborators have searched for this organism now amounts to twenty-six; and in none of these have they failed to find it.

The organism is described as being extremely delicate, almost transparent in the living condition, actively mobile, and, on account of these properties, difficult to recognize. It is long, thread-like, and spiral, and has pointed extremities. Its length varies from 4 to 14μ; its breadth is so slight as to be almost unmeasurable, and does not amount to more than 0.25μ even in the thickest forms. The number of curves in each organism varies between six and fourteen. A point of distinction from spirochaete refringens is that in spirochaete pallida these curves are always more numerous, and are narrow, sharp, and corkscrew-like; whereas in the former organism they are less abrupt, and are broad and undulating.

[1] *Arbeiten aus dem kaiserl. Gesundheitsamt*, 1905, Bd. 22, pp. 527-534.

As would naturally be expected from cautious and accurate observers of such high repute, Drs. Schaudinn and Hoffmann by no means rush to the conclusion that they have actually proved the organism which they describe to be the specific parasite causative of syphilis. They make it very clear that they do not wish to be misunderstood upon this point. They place their observations upon record on account of their obviously great scientific interest, but are fully aware that investigations on a much more extensive scale must be conducted before coming to a decision as to the part which their organism plays in the etiology of syphilis.

An additional interest is imparted to this research by the fact that it has engaged the attention of Professors Metchnikoff and Roux, and has formed the subject of an address which they delivered before the Academy of Medicine in Paris on May 16th. Our readers will find on another page (p. 1178) a report of this meeting furnished by our Paris correspondent, who tells us that the communication of MM. Metchnikoff and Roux created a profound impression upon a crowded scientific audience. They stated that they had examined specimens of the spirochaete pallida sent to them by Drs. Schaudinn and Hoffmann, and had looked for the same organism in the apes kept at the Pasteur Institute, which have been inoculated with syphilitic viruses. Out of six animals examined, they have been able to confirm the presence of this parasite in four. One of the animals which gave a negative result was almost completely cured when the examination was made; it may be said, therefore, that they have only met with failure in one instance. Professor Metchnikoff and his colleague have also searched for Dr. Schaudinn's parasite in the human subject in cases where the disease has been of long standing, and, in four instances out of six cases investigated, have succeeded in demonstrating the presence of the spirochaete within secondary skin papules far removed from the seat of primary infection.

Another observation of exceptionally great interest which was announced at the same meeting was the discovery of the spirochaete pallida in the lesions of congenital syphilis. A specimen obtained from a child suffering from this disease had been prepared by M. Levaditi of the Pasteur Institute, and the presence of the parasites was demonstrated to the audience under the microscope.

Like Dr. Schaudinn, the authorities of the Pasteur Institute are probably not prepared to draw general conclusions from these preliminary observations; but in view of their very interesting confirmation of Dr. Schaudinn's results, they appear to be distinctly hopeful that the spirochaete pallida will ultimately be established as specific. There certainly appears to be a strong probability that a discovery of primary importance concerning the etiology of syphilis has at last been made.

OPERATIVE TREATMENT OF PROSTATIC HYPERTROPHY.

The April number of the *Annals of Surgery* contains a series of original memoirs on the pathology and treatment of prostatic hypertrophy, reviewing the present aspects of the surgery of the prostate, and discussing the relative merits of the different surgical methods of dealing with this common disease. Careful study of these memoirs, many of which are from representative American writers,

cannot fail to be profitable, as the subjects, especially those relating to treatment, are regarded from different points of view, and are discussed in turn by the opposed advocates of rival methods of surgical intervention. From such study the general conclusion will be drawn that, with regard to prostatic surgery of the present day, though considerable difference of opinion exists as to the best operative method, there can be no doubt that prostatic hypertrophy, in spite of its unfavourable associations with advanced age and general decay, may, with surprising freedom from serious risk, be brought within the range of radical treatment.

In this, as in some other branches of surgical work, there is a tendency in the advocates of thorough and radical methods to ignore or discourage older and less heroic alternatives to such treatment. Even many of those who are disposed to overrate the dangers of "catheter life" will probably hesitate to maintain, with Dr. L. S. Pilcher, that the use of this instrument should, in the light of present-day experience, be allowed rather under protest than as a measure recommended by the surgeon. That this view of the use of the catheter is not generally accepted in the United States is shown in a paper by Dr. Thorndike, who points out several conditions under which the catheter should not be thrown aside for procedures of a more radical kind, but should still be recommended and used. There is, however, throughout these contributions a predominant feeling of distrust of the catheter treatment, which, in the opinion of Dr. Watson of Boston, is attended by greater risks than prostatectomy. It is very evident that in the States, as on this side of the Atlantic, castration and vasectomy, and also incision of the prostate by the galvano-cautery, have ceased to retain the confidence of a large majority of practical surgeons. Amongst the few allusions to Bottini's operation we come across a statement by Dr. Young that, whereas this is the simplest and quickest method for a limited number of cases, it is neither so safe nor so uniformly successful in relieving obstruction as enucleation of the gland.

With increasing trust in prostatectomy and an improved and simpler technique in the performance of this operation, there is, of course, associated a tendency to reduce to a minimum the number of contraindications of such treatment. In this direction Dr. L. S. Pilcher goes so far as to maintain as the indication for prostatectomy a degree of urinary obstruction interfering materially with comfort or entailing notable disability. Great age, which, it is pointed out, is a very relative term, is not regarded in itself as a serious objection. Advanced renal disease is acknowledged to be the most serious complication, but this, it is held, need not exclude an attempt to give relief by a rapidly-executed suprapubic section for drainage. In cases of intense general depression due to physical suffering and septic poisoning, the general health and local disturbances may in this way be so far improved as to render prostatectomy after a time both possible and curative.

The modern treatment of the enlarged prostate by direct exposure and extirpation has evidently stimulated further study of the pathological anatomy and also of the objective diagnosis of the different forms of prostatic disease.

The advocates of direct surgical attack on the hypertrophied prostate naturally attach much importance to a preliminary determination—so far as this may be possible—of the volume, form, and consistency of the enlarged and obstructing gland. In considering the indications and contraindications of prostatectomy in a case of severe senile dysuria it would certainly be well for the surgeon to remember the fact, pointed out by Dr. Chelwood, that the train of symptoms usually met with in prostatic hypertrophy may exist without any enlargement of this gland, and be really the result of another morbid condition in which a serious cutting operation would be quite unnecessary. It is an open question whether rectal palpation, though often very useful in the diagnosis of prostatic disease, will in many cases enable the surgeon to distinguish the part or parts of the affected gland which cause the obstruction, or help him to select the most suitable method of operation. Dr. Young of Baltimore believes in the advisability of preliminary cystoscopic examination, and states that in this way alone has he been saved from making several serious blunders. In the concluding memoir Dr. Cunningham has done his best to give help in this direction by an elaborate description, aided by copious illustrations, of the technique of cystoscopic investigation in cases of prostatic hypertrophy. Most surgeons, however—even if they do not agree with Dr. Wiener that the cystoscope in such cases is not only an unnecessary but often a dangerous instrument, or with Dr. L. S. Pilcher, who also deprecates its routine use—will probably find a serious stumbling-block in the difficulties and uncertainty of this method of investigation.

The chief points of interest in these memoirs are the views of the different authors with regard, in the first place, to the supposed superiority of operative over milder and less heroic treatment in cases of enlarged prostate; and in the second to the relative claims of the suprapubic and perineal methods of prostatectomy. On the first question there is a general agreement that, as a rule, the risks of catheterism are as great as, and indeed even greater than, those of the thorough and radical treatment by enucleation of the gland. Even Dr. Thorndike, who still regards catheterism with favour, feels that it is true that radical operations upon the prostate are superseding the catheter and other methods of palliative treatment, and are giving them a smaller and smaller field of usefulness. The second question is fully discussed, and as both the suprapubic and the perineal operations are favoured by American surgeons, we are afforded good grounds for forming an opinion of their rival merits. The suprapubic method, it would seem, has a wider range of application than the perineal in the United States, for whilst the advocates of the former seldom if ever resort to the latter, those who practise the perineal method are less exclusive, and evidently recognize the fact that it is not applicable to all the varied and complex forms of prostatic disease.

Whilst recognizing the force of much that is stated by Drs. L. S. Pilcher and Young in support of perineal prostatectomy, the evidence as a whole tends to the conclusion that the suprapubic method presents many decided advantages. It is certainly a simpler procedure, and may be performed quickly—an important point in very old and exhausted subjects. Dr. Wiener assures us that he has not the slightest doubt that any prostate can be readily removed under nitrous oxide gas in a few minutes by the suprapubic operation. The prostate can be more freely and readily attacked by this method, and, consequently, there is a better chance of removing the whole of the diseased gland. The risk of laceration of the rectum is certainly less, and if the views of Dr. Ruggles on the cause of incontinence as a sequel to prostatectomy be correct, the surgeon may by care assure himself against the occurrence of this evil. Again, the conditions

of wound healing, though far from perfect, must be more favourable with the suprapubic incision than in the large and deep perineal wound necessarily exposed to more or less violence during the operation, and in close proximity to the anal orifice. The difficulties of the perineal operation to those not possessed of the skill and experience of Drs. Pilcher and Young must be great, and we think most surgeons who have done much perineal surgery will hardly agree with the former that in the method he so strongly advocates, the prostate can always be freely exposed and its enucleation effected under direct visual control. Some of the writers assert that the mortality of the perineal operations is smaller than that of the suprapubic method. This, however, is not supported by the scanty statistical information at present available. The tables published by Albarran, Young, and Pilcher show a death-rate of rather more than 5 per cent. after perineal prostatectomy, whilst those of Freyer show five fatal results in one hundred and seven cases of operation by the suprapubic route. The results of one and of the other operation are, it is reported, equally good, and, indeed, there can be no doubt that in a very large proportion of cases prostatectomy, whether suprapubic or perineal, is capable of removing the urinary obstruction, and of thus affording an immense amount of relief. It still remains to be determined whether the sequelae, such as incontinence and persistent fistula, which occasionally mar these good results, are influenced by the method of operation, and whether they can be prevented by an improved technique.

THE SUPPLEMENT.

THE SUPPLEMENT of this week contains a large number of important documents, including the Annual Reports of the Council, the Medico-Political Committee, the Ethical Committee, and the Medical Defence Committee to the Annual Representative Meeting. The Annual Report of the Council reviews the work of the Association throughout the year; that of the Medico-Political Committee gives details of the political work done by the Association since the last Annual Representative Meeting. On pages 236, 237, and 238 will be found a tabular statement showing the subjects dealt with, and the progress made in dealing with them. Appended to the report are memoranda on all these subjects, together with copies of Bills promoted by the Association, including that for the Reorganization of the Local Government Board, the Coroners Bill, and the Medical Acts Amendment Bill. The interim annual report of the Ethical Committee details the principal matters dealt with by it, and the report of the Medical Defence Committee consists of a draft scheme for medical defence, with an explanatory memorandum. The SUPPLEMENT also contains the proceedings of the Council at its adjourned meeting on May 17th, and of certain committees; the proceedings of other committees will be reported in a subsequent issue. The text of the address delivered by the President of the General Medical Council at the commencement of its session is published at p. 283, and at p. 285 the report of the proceedings of the Central Midwives Board at its last meeting.

EPSOM COLLEGE.

EPSOM COLLEGE, founded by the late Mr. John Propert, a well known medical practitioner in London, celebrates its jubilee this year, for it was opened to the profession and the public in 1855. The institution now consists of Epsom College, a public school with a medical foundation, and of a fund for pensioners. The school has been very successful, and is self-supporting, although the whole of the debt upon the building has not been extinguished. Unfortunately the Council recently had to face the fact that the sanitary arrangements of the College buildings have become unsatisfactory. When first laid down they were good, according to the lights of fifty years ago. They are not such as would now be approved, and have, moreover, owing to the lapse of time, got out of order. The Council have, therefore, had to expend over £3,000 on various sanitary improvements during the last two years, and have now to face a further expenditure of £3,300 to make the sanitary condition of the College such as that of a school with a medical foundation should be. The difficulties have been met as they arose, but to defray the expenditure thus forced upon them they have been obliged to increase the mortgage on the College property from £10,000 to £14,000. Dr. John H. Galton, the Chairman of the Finance Committee, has therefore issued an appeal to the profession and to the public to make the jubilee year of the College memorable by wiping off the mortgage, and repaying the sum of £2,000 due to the bankers, so that Epsom College may be enabled to pursue its beneficent work free from debt. While it is hoped that past Epsomians will be more especially ready to sympathize with the Council in the heavy responsibility which it has to accept at this time, it is expected that others also will open their hearts and purses to the needs of the pension fund, which makes provision for members of the medical profession who have broken down, and for their orphans and widows left without adequate provision. Subscriptions will be received by the Secretary of the College, at the London Office, 37, Soho Square, London, W.

THE ADMINISTRATION OF ANAESTHETICS BY UNREGISTERED DENTISTS.

WE are compelled much more frequently than is desirable to call attention in the public interest to the manner in which certain coroners conduct their inquiries. They constitute a small minority, but the publicity their utterances in court receive in the press gives a fictitious importance to their *obiter dicta*. In one recent instance a coroner complained of a medical witness for coming to the court at the cost of a guinea to the ratepayers without being willing to give a satisfactory explanation of the cause of the death although no *post-mortem* examination had been allowed; in default of medical evidence he proceeded to give his own explanation of the cause of death and obtained a verdict from his jury in conformity with his instructions. Quite recently, also, the Coroner for Carlisle, who held an inquest upon the body of a young woman who died on the premises of an unregistered firm of dentists while under the influence of nitrous oxide gas, is reported in the *Carlisle Journal* to have said in his summing-up to the jury that "It was at one time held that these anaesthetics should only be administered by medical men, but a ruling to the contrary had been prevalent of more recent years. The more recent decisions of the judges had held that medicines were invented before doctors. The latest decisions tended to show that if a person died under the influence of anaesthetics administered by an unqualified person the case was not one of manslaughter but of misadventure. . . . It was for the jury in this case to consider whether there had been proper care, whether the person who admitted being an unqualified dentist had acted with due skill, or whether he was liable to be called to account by being charged with manslaughter." The jury returned a verdict of death by misadventure, of which under the circumstances we do not complain, but the coroner's remarks are not conducive to the public safety. It is generally admitted that no one should administer dangerous drugs without proper training, and although there is no law to forbid their administration, the effect of public opinion and the danger of a verdict of manslaughter has been in the past sufficient to check the practice. In this case certain persons are evading the Dental Act by calling themselves a "Teeth Supply Association"; under cover of this name they perform dental operations and administer anaesthetics, so that when a fatal accident occurs it is in the public interest that the

impropriety of the proceedings should be emphasized. The coroner's summing-up was opposed not only to the legislation embodied in the Medical and Dental Acts, but to the principle of common law, which, by holding every one responsible for his actions, tends to prevent untrained persons from undertaking operations which are fraught with risk. The dictum that "medicines were invented before doctors" may possibly be true in a general sense but not in this instance; moreover, it is irrelevant, as it is not the invention but the administration which is here in question. If every one is to be allowed to administer dangerous drugs the safety of the public will be gravely compromised. We trust that local public opinion will be sufficiently strong to put bounds to the further proceedings of this particular firm of unregistered dentists in that city.

EPIDEMIC SORE THROATS TRACED TO INFECTED MILK.

AN extensive and severe outbreak of a disease of which the most prominent symptom was sore throat occurred in Colchester during the second half of April. The epidemic was very fully inquired into by the medical officer of health for Colchester, Dr. Savage, and formed the subject of an interesting paper read by him before the Colchester Medical Society on May 16th. The outbreak involved apparently 500 to 600 persons, and was sharply localized to the western parts of the town, the cases of sore throat in other parts being not above the average. The essential symptoms were those of septic sore throat with considerable constitutional disturbance and high temperature. Bacteriologically they all showed streptococci. Some of the cases clinically very closely resembled diphtheria, and could be diagnosed only by bacteriological investigation. The outbreak began about April 16th, and ceased about April 29th, but the greater number of the cases occurred between April 20th and April 25th. Many cases were very severe, but there were no deaths. Females were particularly attacked, being attacked about three to four times as frequently as males, while adults were more affected than children. A consideration of the possible causes led the medical officer of health to suspect milk as the cause, and by information supplied to him by medical men in practice in the town, and by the result of house-to-house inquiries he was enabled to confirm this hypothesis. Of 140 cases of sore throat reported to the Medical Officer of Health from all over the town, 123, or 88 per cent, were from one particular milk vendor, while of those from the part of the town specially affected, no less than 96.6 per cent. of the households had their milk from the same milkman. The house-to-house inquiries showed the same incidence even more clearly. In the 57 houses supplied by this milk vendor there were 53 cases of sore throat, while in the 217 houses from all the other milk dealers, there were only 13 cases, and this among a population of 941 people. The implicated milk vendor obtained his milk from six farms, and Dr. Savage in his paper showed that one particular milk round was especially affected, and that this usually received the milk from one particular farm. All the six farms were visited and the cows examined. One of the cows of the suspected farm had extensive mastitis, while there had been and were a number of cases of sore throat on this farm. All the cows on the other farms were apparently healthy. After the milk from this diseased cow was stopped, there were no further cases, as far as could be made out. Dr. Savage in his paper discussed the cause of the outbreak, and said that he could come to no other conclusion than that the outbreak was due to consumption of milk infected from this diseased animal. The outbreak caused a considerable amount of disturbance and inconvenience in the town, the more particularly as it was the better part, socially speaking, which was mainly attacked.

A SECOND INQUEST.

IN a case which recently came before the Divisional Court, their lordships granted a rule *nisi* for an order that a second inquest should be held upon the body of a man who died in Durham Gaol. The facts which were stated to the court went to show that the deceased was injured in a fight, the result of the injury being an abscess of the brain which eventually caused paralysis and death. In these circumstances the court granted the rule, but it may well be that the rule will not be made absolute if it can be shown that there is no sufficient reason for a second inquest. The power to order a second inquest has long been vested in the High Court, but, according to an old case, a coroner has no power, after holding an inquest *super visum corporis* and recording the verdict, to hold a second like inquest, *mero motu*, on the same body; the first inquiry not having been quashed, and no writ of *melius inquirendum* having been awarded. The circumstances under which a writ of *melius inquirendum* was granted were generally that there had been a miscarriage of justice. So, in an other old case, when material evidence had been rejected and fresh evidence which would throw light upon the inquiry was forthcoming, the court quashed the inquisition, and sent it down to the coroner to hold a fresh inquiry before a fresh jury. In one case, however, a new writ was granted on the ground that the inquest did not state who had killed the deceased, in consequence of which, according to Lord Hale, it became customary in his day for the jury to return "some fictitious name, as John-a Noke, which serves the turn." The present statutes enable the jurors to return an open verdict, while the Coroners Act, 1887, enables the High Court to order a second inquest upon application made by, or under the authority of, the Attorney-General, if it is satisfied that, "by reason of fraud, rejection of evidence, irregularity of proceedings, insufficiency of inquiry, or otherwise, it is necessary or desirable, in the interests of justice, that another inquest should be held."

HUMAN TRYPANOSOMIASIS.

LAVERAN AND BRODIN report two new cases of trypanosomiasis in Europeans, the former in the *Bulletin de l'Académie de Médecine* of April 25th, 1905, the latter in the *Publications de la Société d'Etudes Coloniales de Belgique, 1905*. The first, a case of Martin's and Girard's, was a missionary from the French Congo. The illness commenced as a gradual feebleness; the patient returned to France in April, 1904, eventually entering the Hôpital Pasteur on December 19th. Trypanosomes were very scanty in the peripheral blood, but they were easily found in the fluid taken from a lymph gland, and also in the cerebro-spinal fluid. Animals were infected by inoculations of blood. The treatment consisted of hypodermic injections of arsenic, trypanroth not being tried because the urine contained albumin. The patient after leaving hospital became rapidly worse, and towards the end delirium supervened without lethargy or coma. A necropsy was not made. During life some of the symptoms of sleeping sickness, namely, asthenia, apathy, feeble memory, somnolence, pruritus, enlarged glands, were present. Brodin's patient, the fourth he has seen in two years, was also a missionary on the Congo. The illness began with an irregular fever, the lymphatic glands were enlarged and the examination of the blood showed trypanosomes. The patient is now being treated at Leopoldville with arsenic, and Dr. Brodin hopes to communicate later the evolution of the disease, and the effects of the treatment.

THE PRETENSIONS OF OPTICIANS.

WE have received an advertisement, issued by Spiers and Pond's Stores, entitled "Fair Prices in the Optical Trade," in which we find the following statement:—"We have at our disposal a staff of the highest skilled opticians, fully qualified by examination to efficiently prescribe for all errors of refraction, however complicated." This is the sort of claim against which we shall not cease to protest, for, as has repeatedly been pointed out in this JOURNAL, it is impossible to estimate correctly the true refraction of many eyes without the use of some drug for paralysing the muscle of accommodation. In the interests of the safety of the public it is undesirable that non-medical persons should use the highly poisonous drugs needed for this

purpose; so far the organs of the trade have uniformly disclaimed all desire to do so, and we believe that the examining bodies which issue these certificates forbid the use of these drugs. These so-called skilled opticians are, therefore, in this dilemma: They are either violating the rule under which they obtained their certificates; or they are making claims which are misleading to the public. In either case they come under the censure of those bodies from which they profess to hold their authority.

THE L.G.B., THE M.O.H., AND HIS DISTRICT COUNCIL.

ONE of the strongest arguments in favour of the abolition of the existing practice of electing provincial medical officers of health for limited periods is the fact that in the majority of instances the Local Government Board becomes aware of default in the administration of the Public Health Acts only through the annual report of the medical officer of health. If the results which are likely to follow this arrangement were less grave the matter would be distinctly humorous, for the official who is required by the terms of his appointment to report the default, remains in office only so long as he secures the goodwill of the defaulting authority. The position will be better understood when it is remembered that Section XCII of the Public Health Act, 1875, requires a sanitary authority to enforce the provisions of that Act in order to abate such nuisances as may be found to exist in the district, while Article 18 of the General Order of the Local Government Board, dated March 23rd, 1891, requires a medical officer of health to include in his annual report (a copy of which must be sent to the Board), a summary of the action taken during the year for the prevention of the spread of disease, and an account of the inquiries he has made as to conditions injurious to health existing in the district. It has been the custom at the end of each year for the Medical Officer to the Board to remind medical officers of health of their duties in this respect, and in doing so he usually points out that a vigilant health officer has an opportunity in making his annual report of stating and restating facts as to insanitary conditions prevailing in the district. When the vigilant health officer carries out his instructions faithfully the result is very frequently that which is reported to have happened to Dr. J. W. Burdwood, the Medical Officer of Health to the Bourne Rural District. At the last meeting of the council which has charge of the sanitary condition of this district a letter was read from the Local Government Board calling attention to the fact that the annual report of the medical officer of health disclosed several sanitary defects, and the observations of the district council on the report were asked for. One member of the council observed that they ought to reduce the salary of the medical officer of health for mentioning the matters to the Local Government Board, and ultimately it was decided to inform the Board that the conditions referred to were receiving attention. We do not comment on this incident on account of its rarity, for there are few medical officers of health in rural districts who have not gone through a similar experience, but in order to emphasize the difficulties of officials who have to carry out their duties between the devil and the deep sea.

ANTITYPHOID INOCULATION.

MUCH interesting work is being done by German investigators on antityphoid inoculation, with the twofold object of estimating the amount of protection afforded by inoculation and ascertaining the most trustworthy method of inoculation which will yield lasting results. Upon the permanent value of the method it is too early to decide, but upon the question as to the best technique to adopt fairly definite opinions appear to have been already formed. From a critical survey[1] of the latest results which have been obtained, Professor W. Kolle has come to the conclusion that the inoculation of dead agar cultures in doses as large as is compatible with safety affords the best prospect of securing a protracted period of immunity. This opinion is based on the observation of animal-immunization experiments and on the results obtained with human inoculations. Since inoculation on three successive occasions with increasing doses gives promise of a higher and more lasting degree of immunity than a smaller number of inoculations, this procedure should be adopted when possible. But in practice time may not allow for three inoculations, and then it will be necessary to be content with two, allowing an interval of from eight to ten days between each. The dose for the first inoculation should be 2 mg. and for the second 6 mg. of dead, phenolized agar culture. If, as may exceptionally be the case, there is a complete absence of general reaction after the second inoculation, a third dose of 10 mg. should be given. In spite of the increase in dose, the second and third reactions are both locally and generally of relatively slight intensity. The use of smaller doses is not to be recommended; they do not produce a sufficient degree of reaction, nor is a sufficiently high increase obtained of the specific protective material in the blood. To obtain an immunity of long duration it appears necessary to secure a good general and local reaction of the organism. It is important to control the purity of the cultures inoculated, which is more easily done with agar than with broth cultures; for this reason, amongst others, the use of bouillon cultures is not recommended.

[1] *Klinisches Jahrbuch.* Bd. xiv. Heft 2. Jena. 1905.

A NEW STOCK OF VARIOLA VACCINE.

DR. L. VOIGT, Chief Vaccination Medical Officer at Hamburg, has succeeded recently in raising a fresh stock of variola vaccine.[1] It will be remembered that the Lyons Commission (Dr. Chauveau's) in 1863 decided that human small-pox could not be transferred to the cow, and this opinion has persisted in France ever since, although numerous conversions of small-pox into cow-pox have been effected since then in Germany, in Switzerland, in England, and even in France itself. In 1881 Dr. Voigt succeeded in this in the Hamburg State Institution, and the lymph thus obtained had had a great success, for there is no lymph more powerful against small-pox than fresh variola vaccine lymph. Since 1881 Dr. Voigt has tried seventeen times in vain to effect another transference, but at last succeeded in the summer of 1904. Two attempts by him in the winter of 1893 to transfer variola from apes to calves were unsuccessful, although De Haan Eilerts in the Netherlands[2] and Monckton Copeman in London[3] have procured variola vaccine in this way. The new stock has been procured by first inoculating a rabbit with an emulsion of small-pox crusts in glycerine, shaving off the nodules thus produced (after killing the rabbit) and inoculating calves with the material thus acquired. The health of the calves was not affected, the temperature did not rise, and there was no sign of general eruption, except a trace in the second remove. The lymph from the second and third removes was used in August, 1904, in numerous revaccinations (of school children) with success, as the illustrations show, and then used for primary vaccinations with equal success. The vesicles appear much more slowly than with ordinary lymph. The possibility of accidental vaccination was excluded in these experiments.

[1] *Monatshefte für practische Dermatologie*, 40 Band, 1905.
[2] Eilerts, De Haan, Jaarsverslag II and III van het Pare vaccinogene te weltevreden. Ernst and Co., Batavia. 1893-4.
[3] C. Monckton Copeman, the Interrelationship of Variola and Vaccinia. *Centralbl. f. Bakteriol. u. Par.* 1903. No. 20.

THE ROYAL SOCIETY.

THE Royal Society gave last week in its rooms at Burlington House the first of its two annual conversaziones, that to which it is the custom to invite male guests only. There were in all some forty different sets of exhibits, and they may be taken as fairly representative of the year's work and present directions of research in various branches of science. Taken as a whole, their interest was quite up to the general average of former occasions, though there were,

perhaps, fewer specimens the full import of which could be appreciated in the brief time which it was possible to devote to their examination. Among the specimens of more direct medical interest were those of Professor J. B. Farmer, J. E. Moore, and C. E. Walker, who showed some slides and diagrammatic pictures, calculated to destroy any claim made for certain "bodies" to be regarded either as parasitic organisms or as cellular elements peculiar to malignant growths. They were shown as present also in normal reproductive tissue; in one of the sections made, it was understood, from the testicle of a pig, they were very clearly seen and believed to be a stage in the formation of a spermatozoon. Lieutenant-Colonel Leishman, R.A.M.C., exhibited an excellently prepared series of slides showing the protozoal organism to which it is believed kala-azar is due, both in morbid tissues and in artificial culture. In the latter its resemblance to a trypanosome was very marked, while there was so little noticeable in its appearance in the tissues as to make it seem more remarkable that it should have ever been discovered than that it should so long have escaped the notice of pathologists. Mr. H. S. Wilson's exhibited specimens were intended to show the use to which alum may be put in isolating B. typhosus from water. Alum in the proportion of 6.5 grammes to the litre is added to the suspected water. When sufficient time has elapsed for the complete precipitation of aluminium hydrate, the water is centrifugalized, the resulting sediment spread on plates of suitable media, and incubated at 42° C. B. typhosus, it is stated, is resistant to aluminium hydrate, but the majority of water organisms are destroyed. Skiagraphs taken by Mr. Lyster, of the Middlesex Hospital, of the hands of Machnow, a Russian giant, who has recently been in London, were shown by Mr. S. G. Shattock, and compared with the skeletal hand of O'Brien, the Irish giant, whose skeleton is in the Museum of the Royal College of Surgeons. Machnow when measured in 1903 at the age of 22 years, by Professor von Luschan of Berlin, was 7 ft. 11 in.; O'Brien's skeleton measures 7 ft. 8½ in. In the skiagrams of Machnow's hand, the middle finger of which was slightly longer than that of O'Brien's, there was nothing which apparently indicated acromegaly. On the side of physical appliances Mr. Carl Zeiss showed an interesting mechanism for use with a microscope, designed to facilitate the perception of ultra-microscopic objects; it was stated that particles of far less than a wave length could be made visible. An exhibit which attracted a good deal of attention was one collected by Sir William Crookes from various sources. It showed firstly the violet tint assumed after many years' exposure to sunlight by plate glass, which, as is usually the case, has been made white by the introduction of manganese binoxide to neutralize the yellow and green tints caused by iron and other metals; and secondly, that the same amethystine hue may be produced in a very short time by exposure to radium. During the evening there were several demonstrations, of which one was of lantern slides by Dr. E. A. Wilson, medical officer of the *Discovery*, in illustration of the work of the expedition to the Antarctic region during 1902-4. It proved very popular, the pictures of penguin and other bird life being specially good and interesting. At another demonstration, Sir Oliver Lodge showed how by the use of a series of mercury vapour vacuum valves, a current of electricity may be forced solely in one direction, and thus be entrapped and stored at a steady high potential. In this way, among other advantages, small portable coils may be given some of the value of larger ones.

THE LAWS OF HEALTH.

IT is somewhat unusual to find a medical man nowadays who is prepared to oppose the teaching of hygiene, but this is what seems to have happened at a recent meeting of the Chitheroe Education Committee. A proposal for the introduction of such instruction was brought up and supported on the ground that thousands of lives were lost annually through ignorance of the elementary laws of health on the part of parents and others. Dr. Musson, a medical member of the Committee, is reported to have contested this view, maintaining that parents were not ignorant, their breaches of the laws being due simply to carelessness. It may be true that most parents are aware of the broader rules of a healthy life, but this is a very different matter from adequate recognition of their importance or a comprehension of the considerations upon which they rest. It is instruction in these points that is now required. People will not do what they are told unless they know why in their own interest they should do so. It is this information which they may be expected to gain from the teaching of hygiene if properly conducted, and the information should be given to children betimes. Ingrained carelessness can doubtless not be eradicated, but though details of early lessons may be forgotten, their general effect sticks and to some extent insensibly influences a man's conduct through life, even in spite of himself.

AN ITALIAN CONGRESS ON TUBERCULOSIS.

A NATIONAL Congress on the Social Struggle against Tuberculosis will be held at Milan in September, 1906. There will be four Sections, dealing respectively with the spread and etiology of the disease, prophylaxis, institutions for the aid of persons suffering from tuberculosis or predisposed thereto, and sanitary and social legislation directed to the prevention of the disease. In the first of these Sections the following questions will be discussed: The spread of tuberculosis among the labouring classes, introduced by Professor G. Bordoni-Uffreduzzi and Dr. F. Gatti, of Milan; predisposition to tuberculosis, introduced by Professor A. De Giovanni, of Padua, and Professor Zagari, of Perugia; the dwelling and tuberculosis, introduced by Dr. A. Frassi, of Parma; and the hygienic conditions of schools in Italia, with special reference to the etiology and prophylaxis of tuberculosis, introduced by Professor A. Lustig. The programme of the second Section is as follows: The struggle against tuberculosis in Italy: what has been done and what remains to be done, introduced by Professor Sclavo, of Siena; the financial problem in relation to the struggle and the action of various social entities in its solution, introduced by Professor F. Abba, of Turin; the food problem in prophylaxis and treatment, introduced by Professor Devoto, of Pavia; the teaching of hygiene in schools, with special reference to the prophylaxis of tuberculosis, introduced by Professor Di Vestea, of Parma; bovine tuberculosis in relation to the prophylaxis of human tuberculosis, introduced by Professors Angelo Fiorentini and Elia Garino; disinfection in tuberculosis, introduced by Professor Sormani, of Pavia; the importance of an early diagnosis of pulmonary tuberculosis in the prophylaxis of the disease and the means of securing it, introduced by Professor A. Riva, of Parma. The questions proposed for discussion in the third Section are the hospitalization of consumptives, introduced by Dr. G. Bessone, of Florence; dispensaries for tuberculosis, their hygienic and social action, introduced by Professors Foà, of Turin, and Mya, of Florence; the transformation of seaside homes into permanent sanatoriums for anaemic and scrofulous children and those predisposed to tuberculosis, introduced by Drs. Hayech, of Milan, and De Hyeronimis, of Lucca; institutions for open-air treatment in the struggle against tuberculosis, introduced by Dr. A. Randi, of Padua, and Dr. Costanzo Zenoni, of Milan; Alpine colonies, introduced by Professor Foà, of Turin, and Dr. A. Tibaldi, of Milan. The fourth section will discuss the question of social legislation with reference to the struggle against tuberculosis, on a report to be presented by Professor V. de Giaxa; and a debate on the expediency of State intervention by the establishment of sanatoriums for its employés affected with tuberculosis while they are on the active list will be introduced by Signor Camera, Advocate, of Florence, and Professor Pietro Canalis, of Genoa. The Secretary of the Congress is Dr. C. Zenoni, Via Leopardi 14, Milan.

CEREBRO-SPINAL FEVER.

Since our last reference to cerebro spinal fever a fortnight ago a good many alarmist telegrams about the disease have been published in some of the daily papers. Most of them relate to Germany, where a considerable epidemic has been in progress ever since last November, mainly in Silesia. Outside that large province there have been but few cases, and within it the total number reported in the past six months a little exceeds 2,000 in a very large working-class population living amid anything but favourable hygienic surroundings. The great majority of the patients have been children from 1 to 10 years of age, and Professor Kirchner, the Prussian Commissioner specially appointed to investigate the matter, has stated that the cases include many of ordinary tuberculous meningitis. The average mortality, as is commonly the case with cerebro-spinal fever, has been high, but the facts do not appear to justify phrases such as "thousands dying," "alarming increase," "dreadful ravages of the scourge," etc. In England, too, there have been occurrences which, until such an attractive term as "spotted fever" came into use, would have passed unnoticed by the newspapers. Thus in Ireland we have had an outbreak "of the dread disease," the importance and reality of which seemed in its reporter's mind to be increased by the fact that bacteriological investigation had shown "the victims'" blood to give the "true Widal reaction." On the other hand, there have been some real and recent but sporadic cases reported by medical men. One of these was in Norfolk and another in Battersea. This week, too, Dr. Reginald Farrar, of the Local Government Board, has completed a preliminary inquiry into some cases which Dr. Robb, of Irthlingborough, a Northamptonshire village, has had under observation. Four deaths occurred in one family, the first on February 9th, the second on February 21st, the third on May 6th, the fourth on May 17th. The first two patients were respectively a young serving maid and a female school teacher lodger, aged 41; the others were two of five brothers and sisters. Two ladies who had helped to nurse the patients also fell ill, though only slightly, and in their families again several persons suffered in minor degree. It is now stated that all these cases—15 in number—were cases of cerebro-spinal fever. It may be so, but the incidence of the cases, their extreme severity, all fatal in one house, and their extreme lightness in all others, do not suggest cerebro spinal fever in an ordinary epidemic form. Should Dr. Farrar's report, when officially published, afford good ground for regarding all the cases in the village in this light, the outbreak will be one of especial interest. There will still, however, be no reason to believe that extensive epidemics of the disease are to be anticipated in England, for there is ample evidence that many cases have occurred in recent years without such result. An account of one appears elsewhere in this issue.

ASYLUM WORKERS' ASSOCIATION.

The annual meeting of this Association was held on May 19th at 20, Hanover Square, under the presidency of Sir John Batty Tuke, M.D., M.P. The report stated that though there had been some falling off in the number of ordinary members the number of life members and of associate members had increased, and the finances were in a sound condition. Gold and silver medals had been awarded to three attendants and one nurse for long and meritorious asylum service; and grants had been made from the Homes of Rest Fund to no less than twenty-four members who were convalescing from illness or had broken down in the discharge of their duties. Reference was made to the proposed State Registration of Nurses, and to certain Bills before Parliament relating to lunacy matters. Sir John Batty Tuke, in moving the adoption of the report, adverted to the growth of lunacy in England, and to the inadequacy of the methods proposed by Government for dealing with it. He insisted upon the importance of an ample staff of inspecting commissioners, and of a well-trained corps of nurses and attendants, in order to cope with the necessities of the case. It was specially necessary to devise practical means, as had been done in Germany, and to some extent in Glasgow, promptly to bring under medical care incipient cases of insanity, at the same time affording opportunity for clinical study. Sir James Crichton-Browne, in seconding the adoption of the report, spoke of the necessity of raising the social and professional status of asylum workers, and the Archbishop of Canterbury, who had made a point of attending the meeting in order to testify his sympathy with those engaged in ministering to their afflicted fellow-creatures in asylums, animadverted upon the comparative lack of public interest in what went on in these institutions. Sir John Batty Tuke had spoken of mental as the highest order of nursing. If so much was expected from those who worked within the walls of asylums, then surely the people outside should show a more constant interest, a livelier and keener sympathy towards the workers on whom so much depended. Sir John Batty Tuke was re-elected President of the Association and Dr. G. E. Shuttleworth reappointed Honorary Secretary, and the rest of the meeting was devoted to the transaction of formal business.

OPHTHALMIA IN EGYPT.

From a passage in Lord Cromer's report on Egyptian affairs for 1904 it appears to be the intention of the Government shortly to extend the scheme which was initiated in 1903 for the reduction of the ophthalmia which in Egypt causes so much suffering among the native population and ruins so many lives. The scheme, which was made possible by a gift of £40,000 by Sir E. Cassel, consisted in a perambulating tent hospital, under the charge of an English ophthalmic surgeon, with native assistants. Wandering ophthalmic surgeons, skilled in some respects, such as couching operations, but densely ignorant and dangerous in others, have ever been a feature of the East. To see that these men could be replaced by a skilled itinerant surgeon with a tent and a trained staff only required a little imagination. Sir Horace Pinching, head of the Sanitary Department of the Government of Egypt, had sufficient influence to obtain the acceptance of a somewhat unconventional project, and Lord Cromer's report contains ample evidence of its success in practice. A second medical officer, in addition to Dr. MacCallan, who was first selected, is at work, and we do not doubt that Dr. MacCallan is right in feeling certain that extension of the scheme would be as sound from an economic as from a philanthropic point of view, since the number of persons in Egypt who are either totally or partly incapable of efficient labour by eye disease is enormous, and every village child who can be saved from the effects of trachoma and allied disease is a distinct gain to the State.

INTERNATIONAL CONGRESS OF PSYCHOLOGY.

The fifth meeting of the International Congress of Psychology was held in Rome from April 25th to May 1st, under the presidency of Professor Sergi. The attendance numbered about 450, among them being delegates of all civilized countries. In addition to general addresses, some two hundred and fifty communications were presented. The Italian Minister of Public Instruction, Professor Bianchi, the distinguished neurologist, in an inaugural address, said that biologists did not say with Comte that, owing to inability to know the intimate essence of things and the true causes of changes, we should restrict ourselves to the analysis of phenomena and to the determination of the order of their sequence. Nor did they—like certain modern Positivists—content themselves with analysing our mental images and our consciousness and that of our fellow beings, determining the sequence of the former and the changes of the latter. On the contrary, they concentrated their efforts on the knowledge of mental phenomena, considered as phenomena of functions, and of the organ from which that function originates, its development, its structure, the conditions of its existence and activity, its relation with the world and with history. It was not enough for them to verify facts

of consciousness, those outside consciousness and their mutual relations, any more than they could limit themselves to the analysis of hypotheses on mental phenomena, on the faculties as results of dynamic development, in the relations between the cerebral process and the product of consciousness. Their tendency was more and more towards the determination of the laws of psychic phenomena regarded as effects of the dynamism which divide with all the other forces of Nature the observance of the laws of time and space, and which, like all manifestations of life, obeyed the laws governing activity and exhaustion. Among the general addresses, those of Professor Flechsig, of Leipzig, on cerebral physiology and the theory of the will; of Professor Janet, of Paris, on the oscillations of the mental level; and of Professor W. James on the conception of consciousness, deserve special mention. Professor Sciamanna, of Rome, gave an account of experiments which went to show that the frontal lobes are not rightly regarded as the seat of the intelligence. In monkeys removal of the frontal and prefrontal cortex did not cause typical disorders of the intelligence, which the Italian investigator holds to be connected with absolute integrity of the cerebral cortex. Professor Sommer demonstrated the relation between muscular movements and psychic phenomena. Professor Lipps of Munich dwelt on the importance of introspective methods in the study of psychology, and insisted that a science of psychology based solely on the study of the physiology of the brain is no longer possible. It is absurd, he said, to pretend to hope by that means to explain the facts of consciousness; the investigation of physiological phenomena which accompany psychical facts can in his opinion have only a secondary value. This declaration coming from one who like Professor Lipps has been a leading investigator in the field which he pronounces to be barren, caused a profound impression. The President, Professor Sergi, thought it necessary later to make a vigorous pronouncement that experimental research is the only sure way in the study of psychology. Professor Lombroso discussed the causes of Athenian genius, which he traced to the combination of several factors, climatic, social, economic, but especially political. The Father of Criminal Anthropology was doubtless specially interested in a paper subsequently read by Dr. Ingegneros on the basis of classification of criminals. He held that organic degenerative characters should no longer be regarded as the outward and visible marks of innate depravity, and urged the necessity of a systematic study of the elements of criminality. It was decided that the next meeting of the Congress should be held at Geneva in 1906.

THE ARMY MEDICAL COLLEGE.

In a note under this title last week we ventured to jest at a complicated blunder made by our contemporary the *Standard*, and were led to draw the inference that the appearance of the same blunder a little later in the *Pall Mall Gazette* must have been due to the latter having copied from the former. We have been informed on the best authority that this inference was not correct, and we hasten to express our regret that it should have been drawn. We may, perhaps, be allowed to take this opportunity of calling attention to the difficulty of stopping the dissemination of such a blunder when it has been set going by newspapers of the highest standing like the *Pall Mall Gazette* and the *Standard*. The *Lancet* of May 20th contained an announcement, apparently founded on the *canard* which we thought it our duty to expose, that "under a new scheme about to be introduced the War Office authorities will provide their own specially-qualified medical officers and hope thereby to reduce the expenditure on the medical department and to increase its efficiency." What remarkable results, however, can be achieved by the journalistic fancy working on such material is best illustrated by the following extract from *Reynolds's Weekly Newspaper*, May 21st: "The recently-established Royal Army Medical College has just undergone a strange metamorphosis. It was originally established to train probationers for service in the Royal Army Medical Corps, the want of such an institution being clearly demonstrated during the South African war. It has just been announced, however, that for the future the College will not be used for this purpose, but to instruct officers already in the Service, and to enable them to gain greater experience. The reasons for this sudden and retrograde step are not very obvious, and the general impression is that medical officers already serving would gain much more experience in one of the large military hospitals—such as Netley, or the Herbert Hospital, Woolwich—than theorizing within the walls of a college." Like the costermonger of the legend, whose flow of profane language never failed till his barrow was upset thrice in one afternoon, we cannot do justice to the situation.

OPERATIONS FOR APPENDICITIS IN PREGNANCY.

An interesting discussion took place at a recent meeting of the Société d'Obstétrique, de Gynécologie et de Pédiatrie de Paris following the reading of a report by M. Mauclaire.[1] A woman, aged 30, was seized with characteristic abdominal symptoms in the middle of the fourth month of pregnancy. There was marked tenderness on palpation at McBurney's spot, and also close to the umbilicus. The uterus was extremely tender. An incision was made in the middle line over the fundus; turbid fluid escaped. The uterus was congested, but showed no other morbid sign. A second median incision was made above the pubes, not continued into the upper wound; no further pathological condition was revealed. Then a third incision was made, in the right iliac region. Fetid fluid with shreds came away, and a gangrenous appendix full of pus was discovered and resected. Clearly peritonitis was generalized, at least over the whole abdominal cavity below the umbilicus. On that account Mauclaire, after ensuring the drainage of the right lumbar region and the pelvis, made a fourth incision into the left iliac fossa; great quantities of fetid turbid fluid flowed away, then drainage tubes were passed into the pelvis and left loin. The patient recovered and was delivered at term. This case was a brilliant instance of prompt operation by a surgeon who feared delay, but did not hesitate to make as many free incisions for exploratory purposes as appeared necessary, and to ensure thorough drainage. The patient was saved and the pregnancy was not interrupted. Pollack and Ferner have shown that abortion occurs in half the cases of women subjected to any subumbilical abdominal operation. We may add the advice of Dr. Stewart McKay in his valuable work on *Section Cases*: "In preparing a pregnant patient for a section it is well not to subject her to extensive disinfection of the vagina, as the excessive irritation of a thorough disinfection of this region may bring on labour." Mauclaire reported a second case in which a woman aged 26 underwent an operation in the fourth month of pregnancy for chronic appendicitis. The diseased appendix was removed; it contained stercoral calculi. Three months later the patient was delivered of a fetus apparently dead for two months. In the discussion on Mauclaire's paper, Segond observed that though surgeons doubted if immediate operation were advisable in all cases of acute appendicitis, there could be no doubt that it was imperative when the patient was a pregnant woman. The disease was often masked more or less in pregnancy. He had recently operated on a case where the only marked symptom was intense pain between the umbilicus and the right groin. To his surprise there was nearly a pint of pus around the appendix. Yet the pulse was 80, and the temperature under 100° F. In a second case the appendix was found to be gangrenous; the patient was in the first month of pregnancy, and the temperature had not been above normal before operation. Severe inflammation of the parotid developed afterwards. Faure added that general peritonitis in pregnancy always demanded immediate operation, and it was not easy to be sure of diagnosis, for palpation was impeded by the presence of the gravid uterus. He had operated five years ago on such a case, where localization was not certain. A yellow fluid escaped from the incision,

[1] Péritonite appendiculaire généralisée au 5e mois de la Grossesse Laparotomie, Guérison avec accouchement à terme. *Annales de Gynéc. d'Obstét.*, April, 1905, p. 243.

and then it was found that the gall bladder was perforated although the cause of the perforation was not evident. The patient was delivered at term. The triumphs of ovariotomy and hysterectomy in pregnancy are well known; in appendicitis operation is even more urgent.

METABOLISM DURING PREGNANCY, LABOUR AND THE PUERPERIUM.

AN important monograph bearing this title has recently been published.[1] The author is Dr. J. Morris Slemons, Assistant in Obstetrics at the Johns Hopkins University. It includes the report of a series of researches made with great care in the laboratories of the celebrated institution in Baltimore which has already done so much for medical science. The conclusions are of some importance. The quantity of urine, Dr. Slemons observes, is best considered in its relation to the amount of fluid ingested. During the last days of pregnancy the voidings represent a smaller percentage of the fluid intake than do the voidings of a subject who is not pregnant. A marked diuresis precedes and follows delivery, but a relative suppression of renal activity exists while labour is in progress. The excretion of urine is higher in the puerperium than in pregnancy, though it continues below the normal if the mother suckle the child. The total nitrogen elimination of the urine during the last days of pregnancy is less than in a non-pregnant subject. There is a further decrease at the time of labour, whilst a marked rise follows delivery. This rise, usually beginning on the second day of the puerperium, attains the normal level in about two weeks. A study of the elimination of ammonia will prove that during pregnancy there is a change in the relations existing between the compounds of nitrogen. The percentage of the total nitrogen thus excreted is increased in pregnancy. The increase, at its height during labour, falls afterwards, and a temporary rise in the puerperium may be due to increase in the diet or to permitting the patient to get up. The nitrogen balance during the days of pregnancy is positive, indicating a strong capacity for storing the nourishing elements of the food. The puerperium commences with heavy losses of nitrogen, but storage begins again in about two weeks. Twin gestation accentuates the points which characterize the single pregnancy, storing more nitrogen and water, and eliminating more nitrogen as ammonia; while the puerperium presents no essential difference in metabolism. The death of the fetus *in utero* is accompanied by the disappearance of the phenomena exhibited when the child is alive. The ability to store water and nitrogen is impaired, and the alteration in the percentage of ammonia does not occur as in normal cases. In short, when the fetus dies, there is a return to the non-pregnant type. The findings in the puerperium resemble those which are obtained after a live child has been born.

THE EDUCATION OF CRIPPLES.

IN the BRITISH MEDICAL JOURNAL of April 22nd, 1905, p. 896, the action of the municipal authorities of Leeds in providing for the education of their physically-defective children was described. In connexion with this subject it is of interest to note the good work which is being done in London in teaching cripples in hospital. The school established by private benevolence in the wards of the National Orthopaedic Hospital in 1900 was taken over by the late School Board for London on January 1st, 1904, has been continued by the London County Council, and it is now possible to survey a year's working under the Education Authority. Ninety-three children—49 boys and 44 girls—have been under the care of the two teachers. Of these, 32 have come from London and district and the remainder from all parts of the kingdom. The age at which patients are entered on the register is 5 years, and there have been 16 children of this age. The average time under tuition in the wards was three months. A large number of children on admission knew absolutely nothing; 35 did not know their letters and nearly as many were unable to count up to ten. A small proportion of the children were mentally defective, but even these have benefited by teaching. Most of the patients were ignorant only from neglect and owing to the difficulties in the way of sending them to school, a great number having had absolutely no previous teaching. Only 12 have been fit for Standard III and upwards on entering; of these 1 was a candidate for a pupil teachership, and 1 in the Seventh Standard. Of the children who have left hospital and who have been traced, 4 have been advanced two standards on returning to their old schools and several have been advanced one standard. One boy, 7 years old, suffering from paraplegia, was unable to use his hands, but learned to write quite distinctly and do easy sums with his toes. When in the course of treatment his legs had to be confined in splints he used a pencil with his teeth. Although mentally defective, he learned to read an easy book and showed signs of developing intelligence. The subjects taught are the "three R's," singing, Nature lessons, history, drawing, Scripture, and recitation. These lessons are given from 10 a.m. to noon; the afternoon, from 1.30 to 3 p.m., is devoted to hand work, which consists of rug-making, string-work, sewing and knitting for the boys; and sewing, knitting, marking in cross-stitch and fancy stitches on needlework for the girls. Several of the girls have shown aptitude in cross-stitch marking, and it is hoped to make a speciality of this subject. Apart from the knowledge or skill acquired by the pupils, the educational value of the tuition has been most marked. The variety of the stages of progress of the children prevents classification, and adds to the difficulties of the teachers; it has rendered individual instruction necessary, and has thus much enhanced the value of the training, which the teachers appointed by the late School Board have carried on with an enthusiasm and love of their work worthy of all praise. From the clinical point of view the results have been beneficial. The occupation of the mind reacts favourably on the general condition, and it is of interest to note that the teaching has been carried on without interference with the surgical work of the wards, while it has facilitated the maintenance of discipline, and is, therefore, welcomed by the nursing staff, whose cordial co-operation has been necessary to the success of the scheme. The results achieved show that in such hospitals as the National Orthopaedic a cripple school can be successfully carried on, and it is to be hoped that considerations of expense will not be allowed to interfere with the continuance of the work; in comparing results with other cripples' schools it should be remembered that the Education Authority has only to provide for the salaries of the teachers and the cost of materials, as the provision, maintenance, and warming and lighting of the building falls upon the hospital authorities. Immense progress in the education of physically-defective children has been made in a few years by the Educational Authorities since Mrs. Humphry Ward first started a cripples' school in Tavistock Place, but some organization is still needed to provide comprehensively for the technical instruction of cripples in such sedentary crafts as surgical bootmaking, tailoring, etc. There has long been a great demand for trustworthy and sober workmen in the first of these trades, in which only too many of the best workmen are notoriously untrustworthy on account of their drunken habits.

[1] Johns Hopkins Hospital Reports, vol. xii, 1904.

THE Romanes Lecture before the University of Oxford will be delivered by Edwin Ray Lankester, M.A., F.R.S., Honorary Fellow of Exeter College, Director of the Natural History Museum, South Kensington, in the Sheldonian Theatre, on Wednesday, June 14th, at 2.30 p.m. The subject selected is Man and Nature.

THE Harveian Oration before the Royal College of Physicians of London will be delivered this year by Dr. Frederick Roberts on Wednesday, June 21st, at 4 p.m. The Croonian Lectures will be delivered by Dr. Ernest H. Starling at the College on Tuesdays and Thursdays, June 20th, 22nd, 27th, 29th, at 5 p.m. The subject of the course will be the Chemical Correlations of the Functions of the Body.

MEDICAL NOTES IN PARLIAMENT.

[BY OUR LOBBY CORRESPONDENTS.]

Vaccination Marks.—Last week Sir John Rolleston asked the President of the Local Government Board whether he was aware that the recently-published opinions of Dr. S. Monckton Copeman and of the Commissioners appointed by the *Lancet* in 1900 and 1902 to examine the various lymphs on sale in this country, supported the view that large marks were not an evidence of efficient vaccination, and that small marks were not an evidence of inefficient vaccination; and that the same authorities had shown that, in consequence of the modern methods of vaccination, it was possible to produce the Board's stipulated area of vesiculation, namely, not less than half a square inch, without leaving anything like a corresponding area of marks; and whether he proposed to take any steps to amend the Board's Vaccination Order of 1898 so as to make it more consistent with the latest medical evidence on these points. Mr. Gerald Balfour answered that Dr. Copeman informed him that in his opinion large scars were not necessarily evidence of efficient vaccination, and small scars were not in themselves evidence of inefficient vaccination, but that usually the area of the scar corresponded fairly closely with that of the vesicle which preceded it. These opinions did not, as he was advised, render it necessary or desirable to amend the Vaccination Order, 1898, which did not make the area of the scar a criterion of successful vaccination.

Surgeons in the Royal Navy.—Mr. Reginald Lucas asked the Secretary to the Admiralty whether it was intended to alter the conditions of service of surgeons in the Royal Navy by abolishing the present system of making appointments for twelve months only, and, if so, when details of the new scheme would be announced. Mr. Pretyman replied that no change was anticipated in the present regulations, but the question seemed to be asked under a misapprehension as appointments were not now made for twelve months only.

Health Reports in Scotland.—Mr. Weir asked the Lord Advocate last week if the medical officer of health for the Parish of Uig, Island of Lewis, would be requested to send in his report in future sufficiently early to enable the county medical officer of health to include it in his annual report. Mr. Scott Dickson answered that it was desirable that reports of the nature referred to should be sent in early, and the Secretary for Scotland would request the Local Government Board to communicate in this sense with the local authority.

Disinfecting Chambers.—Mr. Donal Sullivan asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to the fact that the Irish Local Government Board now stated that the disinfecting chamber erected in 1895 in the Athlone workhouse, under the system known as Dr. Scott's Patent Hot Air Disinfecting Chamber, and approved by the Board, was useless; and whether, seeing that the amount of the loan, £175, was then granted by the Board for this purpose, he would explain why the Board sanctioned the loan. Mr. Long replied that the Board had not stated that this disinfecting chamber was useless, but in reply to the guardians' inquiry whether it was sufficient for the purpose of disinfecting the clothing of small-pox patients they had stated that such a chamber was not to be depended upon, and that disinfection after small-pox required special efficiency. The Board understood that disinfection by hot air was rapidly falling into disuse. Experience had shown that such disinfection was not as efficient as disinfection by steam, as the hot air did not penetrate the clothing so thoroughly as steam. When sanctioning a loan in 1895 the Board imposed no conditions upon the guardians as to the description of disinfector which they should obtain.

Septicaemia in Cootehill Union Infirmary.—Mr. Sloan last week asked a question about the outbreak of blood poisoning at Cootehill and its causes. Mr. Long answered that cases of septicaemia occurred in this workhouse in January, 1904. The Medical Officer was of opinion that the germs of the disease were in the floors and possibly in the walls. The Local Government Board's Inspector inquired into the matter, and reported that it was difficult to find the direct and definite cause of the outbreak as there were several ways in which infection of the kind could be conveyed. He advised the guardians to make certain alterations, and thereupon they decided to obtain an estimate of the cost. No further action had, however, been taken by the guardians, but the new Board would come into office next month, and the Local Government Board would urge them to take the matter in hand.

Uncertified Deaths in Ireland.—Mr. Weir asked the Chief Secretary to the Lord Lieutenant of Ireland if he would state the number of uncertified deaths in Ireland for each year since 1900. Mr. Long replied that the numbers of deaths from uncertified causes in Ireland were as follows:

In the year	1900	26,614
,,	1901	20,527
,,	1902	21,461
,,	1903	21,873
,,	1904	22,481

Plague in India.—Mr. Herbert Roberts asked the Secretary of State for India whether he would state the number of deaths from plague in India from January 1st, 1905, to the week ending April 1st last; whether he would give the latest information in his possession as to the mortality from plague during the month of April; and whether he would arrange for the publication of the weekly tabular returns of plague in the English newspapers. Mr. Secretary Brodrick said that from January 1st to the week ending April 1st inclusive the number of plague deaths was 471,744. In April, for the four weeks ending April 29th, the mortality was 215,961. Under arrangements lately made the plague mortality in each calendar month would be reported to him by telegraph, and he hoped to communicate it regularly to the press for the present. The weekly statements were not in a form suitable for the requirements of the press, and they were three weeks old when received.

Poor-law Children.—Sir Walter Foster asked the President of the Local Government Board on Monday if he would state the number of children at present maintained in the district and separate Poor-law schools of the metropolis and of the provinces respectively. Mr. Gerald Balfour replied that on January 1st last, the latest date for which information was at present available, there were 7 805 pauper children chargeable to Poor-law Unions in London, and 4,329 children chargeable to Poor-law Unions in the rest of England and Wales, who were maintained in district and separate schools. In answer to a question by Sir John Gorst, Mr. Gerald Balfour stated that on January 1st, the latest date for which the information was available, the number of pauper children in workhouses and workhouse infirmaries in England and Wales were (excluding insane and idiots), in workhouses otherwise than in infirm wards, in London 1,090, outside London 14,638, total 15,728. In infirm wards or infirmaries in London 1,878, outside London 4,069, total 5 947; insane and idiots in workhouses in London 12, outside London 288, total 300; making a total in London of 2 980, outside London 18,995, and a grand total of 21,975, exclusive of 736 children in the imbecile asylums of the Metropolitan Asylums Board. Mr. Gerald Balfour, in answer to other questions, also stated that the number of pauper children in England and Wales on January 1st last, who were boarded out beyond the union and within the union, were 1,806 and 6 814 respectively, and that the Local Government Board had issued orders authorizing expenditure by boards of guardians in respect of the emigration to Canada of 374 children during the year 1904.

Beer Manufacture.—Dr. Hutchinson asked the Chancellor of the Exchequer whether he could state the results of the analysis made by the officials of the Inland Revenue during the past two years ended April 30th, 1905, of all the ingredients used in the manufacture of beer, including regenerators and yeast foods, and whether the Inland Revenue officers had full knowledge of all the substances used by brewers in the manufacture of beer; and would he state what penalties, if any, there were against the brewer for not making a full return of all the materials he uses. The Chancellor of the Exchequer replied that during the two years ended April 30th, 1905, the following samples of materials used in brewing had been examined at the Government Laboratory:—1,893 samples of malt, rice, and maize in various forms, sugar, glucose, invert sugar, syrups, etc.; 238 samples of yeast foods, heading powders, and liquids, antacids, antiseptics,

hop substitutes, etc. The object of the analysis of these samples was either the determination of the brewing value for Revenue purposes, or to test their purity, particularly as regards freedom from arsenic. The results of the analysis might be summarized as follows: In 1,972 cases no objection was raised to the articles of which samples were examined. In 79 cases the articles submitted were not objected to, but the applicants were informed that the non-interference of the Board would not protect the user from any action which might be taken under the Food and Drugs Act. In the remaining 80 cases objection was raised to the use of the articles submitted on some one of the following grounds—(1) that the samples examined showed the presence of arsenic beyond the limit recommended by the Royal Commission on Arsenical Poisoning; (2) the presence of copper; (3) the presence of quillaia bark or extract; or (4) that they were alcoholic flavouring essences. Inland Revenue officers had full knowledge of the substances used by brewers for sale in the manufacture of beer. The penalty incurred by a brewer for not entering a full account in his brewing book of the materials used in brewing was £100.

Medical Aid in the House of Commons.—Mr. Patrick O'Brien asked the honourable member for Chorley, as representing the First Commissioner of Works, whether, in view of the fact that on the physical disablement of any member of Parliament there was at present no means of summoning immediate professional aid other than the services of any honourable member connected with the medical profession who might happen to be on the premises, he could make a statement as to erecting a telephone to Westminster Hospital, and as to the intention of the Treasury to make an adequate money grant to the hospital to secure prompt medical assistance in the House when needed. Lord Balcarres replied that telephonic communication with Westminster Hospital was arranged on Friday last. The Post Office would make the connexion early this week. As regards the provision of an adequate money grant, that point would be referred to the Treasury.

Pathological Specimens by Post.—Dr. Hutchinson asked the Postmaster-General on Monday if he could see his way to rescind the regulation as to the compulsory registration of pathological material sent by post, and allow in its place some distinctive mark upon the envelope. Lord Stanley replied that in view of the risks attending the transmission of pathological material by post, it was important that special precautions should be taken. The regulation which required that such material should be registered was in his opinion a necessary one, and he regretted that he could not see his way to modify it. Dr. Hutchinson pressed the matter by further question and illustration, but the Postmaster-General adhered to his answer.

The Dangers of Flock Bedding.—Mr. Fuller asked the President of the Local Government Board whether his attention had been drawn to the insanitary condition of certain cheaper kinds of flock used in the manufacture of cheap mattresses; and whether he would take steps, by legislation or otherwise, for the prevention of the spread of infectious disease arising from the use of insanitary and unwashed materials. Mr. Gerald Balfour answered that his attention had been drawn to the sale and use of unwashed flock for bedding and other purposes. The compulsory cleansing of the materials referred to could not be generally secured under the existing law. The point had been noted for consideration, but he could not at present hold out any prospect of legislation on the subject.

Evasions of the Medical and Dentists Acts.—Sir John Tuke asked the Secretary of State for the Home Department whether he had received an opinion from the Law Officers of the Crown concerning evasions of the Medical Acts and of the Dentists Act under the provisions of the Companies Acts; and, if so, whether he would communicate it to the House. Mr. Secretary Akers-Douglas answered that the Board of Trade had received an opinion from the Law Officers, but he was unable to accede to his honourable friend's request, as such opinions were treated as confidential.

Insanitation at Crossgar.—Mr. Charles Craig asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware of the insanitary condition of Crossgar, co. Down, owing to bad water supply and want of a sewage system; and whether he would have a Local Government Board Inspector sent to report on the state of the town. Mr. Long answered that representations as to the defective sewerage and unsatisfactory water supply of Crossgar had been made to the Local Government Board. The matter had been brought to the notice of the district council, who, the Board understood, were carrying out works to improve the sewerage and provide a water supply.

Teachers and Vaccination.—Mr. Weir asked the Secretary for Scotland on Tuesday last whether he was aware that Miss Haines was appointed a pupil teacher by the Peterhead Burgh School Board in the month of July last, and commenced her duties in the following September, but had recently been informed that her appointment could not be confirmed until it could be certified that she had been successfully vaccinated; and would he explain why this rule had been imposed. Mr. Scott Dickson replied that it was the fact that in accordance with a general rule to that effect the Department had refused to confirm Miss Haines's appointment on the ground that she had not been vaccinated. The rule was imposed in the interests of the health of the children.

Scotland.

CREMATION IN SCOTLAND.

THE thirteenth ordinary meeting of the Scottish Burial Reform and Cremation Society, Limited, was held in Edinburgh, on May 19th, Sir Henry D. Littlejohn presiding.

In moving the adoption of the report, Sir Henry said that as Medical Officer of Health for Edinburgh he found that all the cemeteries were being filled up, and that some of them were enlarging their dimensions. Socially, he held that that was of the greatest possible importance. Only members of his profession knew of the awful changes that took place in the human body and the human face when buried in the ground. He himself had records of a hundred country churchyards, the condition of which he had investigated, and some of the details were most horrible. He had personally made inquiry into the system of cremation, and as director of the Society he had gone through the crematorium and had watched the process, and seen how nicely and rapidly the whole thing was managed. During the last few months he had cremated the body of one of his own children, and everything was most pleasant to a father's eyes. In the course of twenty minutes the whole of her body was reduced to fine ashes, and in the course of one and a half hours he was returning to Edinburgh with the urn in his possession. Cremation he held to be a barrier against foul play passing undetected, because before being cremated the body must be seen by two doctors, who certified the cause of death. Public education on the matter, he was sorry to say, was advancing very slowly, but he was becoming more and more convinced of the importance of cremation as contrasted with burying in earth, and he would to the end of his days go on advocating the principles of the Society. It was a disgrace to Edinburgh that they should have to go to Glasgow to have their cremations carried out.

Dr. Ebenezer Duncan, Glasgow, who seconded, said that quite recently he went to look at the ground on which an extension of the grounds of the Royal Infirmary of Glasgow was to take place. The new building was to be erected in the vicinity of the existing Royal Infirmary, on a place which was once a graveyard. He had seen with his own eyes some of the remains unearthed, and in particular the remains of one person who had been buried thirty or forty years before, and the state of that body was simply indescribable. All over the country there were places which used to be graveyards being used for building upon, and he did not think that this could be commended by any one on any ground. Dr. Duncan said that people looked upon the putting of a body on a furnace as a very repulsive idea As a matter of fact, the body was not put on a furnace at all. The process was really the decomposition of the body by hot air. The body was consumed by the gases from the furnace. There was no element that was offensive to any mind, however sensitive, and he thought it only required a little more enlightenment to make this method of interment a very popular one. They were making progress, he was glad to say, in Scotland, and during the last six months they had had a larger number of cremations than they had had in any previous six months. He had no doubt that in the near future they would get rid of a great

deal of these very natural prejudices which at present prevented relatives from carrying out the wishes of those who had expressed a wish to be cremated. He mentioned that the late Duke of Argyll, and the late Marquis of Bute, had both expressed the wish that their remains should be cremated, but their wishes were not carried out.

The report, which was adopted, showed that twenty-two cremations were carried out at Maryhill during the last financial year, being an increase of four over the previous year. The total since the opening of the crematorium was 167.

Edinburgh Royal Infirmary.

The annual general meeting of members of the Residents Club will be held in the Caledonian Station Hotel, Edinburgh, on June 30th, 1905, at 6.30 p.m. The eleventh annual dinner will follow at 7 p.m. Professor Annandale, President of the Club, will occupy the chair.

At the weekly meeting of the managers on Monday, May 22nd, Dr. Carnegie Dickson was appointed one of the University clinical tutors in medicine for the present summer session.

The Channel Fleet in the Forth.

In connexion with the visit of eighteen of the finest vessels of the British Navy to the Forth, the Royal College of Physicians had the surgeons of the Fleet as their guests at luncheon on May 22nd, in the Hall of the College, Queen Street. The President, Dr. John Playfair, occupied the chair, and the Vice-President, Dr. Clouston, and the Treasurer, Dr. P. A. Young, acted as Croupiers. The guests were: Fleet Surgeons W. E. Home, E. R. D. Fasken, E. H. Meaden, J. D. Hughes, C. Bradley, H. Holyoake, J. H. Acheson, R. T. A. Levinge; Staff Surgeons P. M. May and H. N. Stephens; Surgeons H. R. Gardiner, E. F. Elles, T. E. R. Lockwood, F. M. N. Smith, J. E. Johnston, and Stone Herkert. Fleet Surgeons Luther and Maitland, who are resident in Edinburgh, were also included in the party.

Edinburgh Harveian Festival.

The 123rd Harveian Festival will be held in the Hall of the Royal College of Physicians, Queen Street, on June 6th, at 6.30 p.m., when the President, Charles E. Underhill, M.B., F.R.C.P.E., F.R.C.S.E., will deliver the Harveian Oration on "Harvey as a Teacher." Dinner will follow at 7.30. Harveians who intend to be present should intimate their intention to Dr. F. D. Boyd, 22, Manor Place, the day before the festival.

Bubonic Plague at Leith.

The three patients—mother and two children—suffering from plague in the hospital for Leith at East Pilton, continue to make satisfactory progress towards recovery.

No further case of plague has occurred either among the contacts or the general community. The houses of the contacts have been thoroughly disinfected. Notwithstanding the very extensive destruction of rats, no evidence of plague has been found in any of those destroyed. The source of the present outbreak, therefore, remains a matter of conjecture.

Glasgow and District Branch of the National Association for the Prevention of Consumption.

The fourth annual general meeting of this Branch was held in Glasgow on the afternoon of May 16th, the Hon. the Lord Provost, Sir John Ure Primrose in the chair.

The annual report of the Council gave an interesting account of the work of the year. Many district public meetings had been held and lectures and addresses given at these by prominent medical men; also in connexion with these meetings and in other ways large numbers of the pamphlets of the Association had been distributed. The most interesting part of the report related to the work of the Sanatorium at Bellefield, Lanark. Although formally opened in June last, delay in the arrangements for the necessary drainage and water schemes prevented the admission of patients till the beginning of November. Since then it has been maintained in active operation, and the accommodation for thirty which the present pavilion and châlets afford has been in constant use. There have been fifty admissions, and the results, given in detail, are very encouraging and satisfactory.

Indeed, the accommodation is so incommensurate to the numerous applications received, even suitable applications, that plans are in course of preparation for the erection of an additional pavilion, together with a laundry and other premises, which will largely increase the number of patients that may be admitted. The Council appeal for further subscriptions to meet the large expense involved by these extensions and their equipment, and by the greater number of patients that will have to be maintained.

The Lord Provost, in moving the adoption of the report, referred specially to the work of this sanatorium and to the educational value of residence there to the patients who were sent back to the world and their friends with a knowledge of the care required for the prevention of the disease; they might be expected to do a good work in co-operation with the Society.

Lord Inverclyde seconded the adoption of the report. Mr. Henry E. Clark, President of the Faculty of Physicians and Surgeons, also spoke, and the various office-bearers for the ensuing year were elected.

Ireland.

Irish Medical Association.

The annual meeting of the North Down Branch of the Irish Medical Association was held in the Medical Institute, Belfast, on May 18th. The President, Sir William Whitla, occupied the chair. Dr. Heron proposed, and Dr. McComiskey seconded, a resolution recognizing the appreciation of some of the Boards of Guardians of the inadequacy of medical officers' salaries, and calling for the repeal of Clause 6 of the Local Government Amendment Act. Resolutions were also passed objecting to any proposal whereby a dispensary medical officer should, without fee be required to give a certificate under the Compulsory Education Act; declaring that the scale of fees for factory surgeons was inadequate; and recommending members of the Branch to refuse to accept Post Office medical appointments under the present scale of fees, which would not even compensate for car hire. Sir William Whitla was elected President; Dr. Olpherts, Honorary Secretary; and Dr. McComiskey and Dr. Olpherts, delegates to the Annual Meeting.

The Direct Representative.

Another candidate for the position of Direct Representative for Ireland on the General Medical Council has declared his intention of seeking this honour. The Mayo Branch of the Irish Medical Association has issued a circular in favour of Dr. R. B. Mahon, of Ballinrobe, in that county. Dr. Mahon is an M.D. of the Royal University and F.R.C.S.Eng. The circular declares that, "while the thanks of the Poor-law medical men of Ireland are due to Sir William Thomson for his efforts on their behalf, so many portals exist for his admission to the General Medical Council that it is unlikely that body will be for long without his assistance in the event of his non-election as Direct Representative," and it suggests that there should be a preliminary poll between Dr. Mahon and any other Poor-law candidate who may come forward.

National Children's Hospital.

The annual meeting of this institution was held in Dublin on May 16th. The report showed that the average number of beds occupied during the year was 29. The dispensary patients were 3,751. A new *x*-ray department has been equipped. The speakers were Mr. Vere Brown (Chairman), Mr. Hunt, B.L., Sir Lambert Ormsby, Mr. Casson, Colonel Backhouse, F.R.C.S., Colonel Dopping, Colonel Lestrange, and Dr. Wayland.

Dublin Hospital Sunday Fund.

The report of the Council of this fund, which has just been issued, shows that since the foundation of the society thirty-one years ago £119,665 15s. 9d. has been distributed to various hospitals in the City of Dublin. Sir Patrick Dun's received £10,831 0s. 10d., the City of Dublin £18 330 14s. 2d., the Meath £14 090, the Adelaide £19 161, and various other hospitals the balance. This fund was collected entirely in 273 churches of various Protestant denominations in the diocese of Dublin. The society appoints visitors, who inspect the hospitals and report on their general efficiency, and the amount of the contribution depends upon this, and the amount of aid given to the sick poor.

St. John Ambulance Association.

The annual inspection of the Belfast Fire Brigade Division of the St. John Ambulance Association was held by Mr. Derham, one of the Assistant Commissioners of the Association. In congratulating the men subsequently, he said it was one of the most effective divisions he had examined this year. Councillor Dr. Williamson said he regretted that Belfast was the only representative of fire brigades in connexion with the

St. John Ambulance Association in the North of Ireland; they had trained their men and formed them into a corps for the citizens' use; every one recognized their efficiency and the great value of their services. He congratulated Dr. Monypeny on his training of the men. In 1893, when the fire brigade was first requisitioned for public ambulance work, the ambulance was called 68 times; in 1904, 2,393 times. Through the kindness of various gentlemen several ambulances had from time to time been given for public use, and these were ready at a moment's notice, horsed by the fire brigade, and turning out with the celerity of a fire alarm.

The Recent Small-pox Outbreak at Portadown.

A committee appointed to investigate certain charges of neglect against workhouse officials in connexion with the recent outbreak of small-pox at Portadown reported to the weekly meeting of the guardians on May 18th, 1905, that the ambulance complained of was old and required repair; that there was unnecessary delay and negligence as regards the preparation of the hospital for patients' reception; that the hospital had been recently whitewashed and was in proper condition, but that there had not been time to air sufficiently the blankets and bedding. More nursing help should have been requisitioned on the evening of arrival of the patients. It was agreed to lay the whole report before the Local Government Board.

The Sanitary Defects in the County-court House, Belfast.

The marked sanitary defects, and the pressing necessity for several alterations, to which the High Sheriff of Belfast (Dr. Henry O'Neill) recently drew attention, have now been defined, and the measures to be adopted have been settled. The alterations are estimated to cost £13,600, but, in addition to remedying all sanitary flaws, they will greatly improve the accommodation of the court-house.

Inspection of Dairies in Cork.

The recent outbreak of typhoid fever in Cork has once more raised the question of the necessity for more thorough dairy inspection. It seems the Public Health Committee of the Cork Corporation have no control of the dairies situated in the country, and as most of the milk supplied to the citizens comes in from the farmers in the surrounding districts, either directly to the customer or through the medium of a milk vendor in the city, the power of controlling the suspected contaminated milk supply is a difficult matter. The rural district council, in whose area most of these dairy farmers reside, has only one inspector of dairies for the entire district, and this much-overworked official could not possibly act over the enormous extent of ground laid out for him. Recognizing this, the Cork Corporation went so far as to offer to pay the salary of a second inspector if the Rural District Council would make another appointment, but this unfortunately the District Council regarded as showing a want of confidence in their powers of looking after their own affairs. After the typhoid scare it became necessary that some action should be taken to safeguard the health of the citizens, and the Public Health Department of the Corporation sent a circular to 240 registered dairymen, asking them if they would submit to have an inspection of their cowsheds and surroundings made by an officer of the Public Health Committee, and adding that a list of those purveyors who should consent or otherwise would be published from time to time for the guidance of the citizens. A few only of those who replied refused to submit to the terms of the circular. By this means the Corporation hope in future to be in a better position to control the milk supply of the city.

The Site for Sanatorium for Consumption.

The Cork Joint Hospital Committee has not yet been able to arrive at a conclusion as to the best site for the proposed sanatorium for co. Cork. Of the three sites selected after much trouble by the consultant, Dr. Smyth of Kilpedder, co. Wicklow, any of which were thought to be suitable, Coolkelure was found to have an excessive rainfall, 60 in. to 80 in. yearly, or double that at Queen's College, Cork. Mount Massey was objected to by Dr. Donovan, M.O.H., on account of danger of drainage into the river which might contaminate the water supply of Cork. The drinking water at Mount Massey was not so good as Dr. Donovan would like, but this was due to water running through a rubble sewer which the architect said could be corrected. The third objection alleged to this site was the danger to the inhabitants of the town of Macroon by propagating the disease there. It was eventually decided to advertise again and see if other sites could not be found.

VISIT OF BRITISH PHYSICIANS AND SURGEONS TO FRANCE.

VISITS TO FRENCH WATERING PLACES.

Vichy, Evian, Aix-les-Bains.

The Farewell Banquet given on Saturday, May 13th, by the French physicians and surgeons to their British colleagues, brought to a close only that part of the visit which related to Paris itself. The next day the cordial hospitality which had been so lavishly offered during the previous three days was recommenced, when as many of the visitors as were able to stay divided into two parties to visit some of the most picturesque watering-places in France.

One party, including amongst others, Sir William Broadbent, Sir John Moore, Sir William Macewen, Mr. Chance (President of the Royal College of Surgeons in Ireland), Sir John Tyler, and Dr. Jobson Horne, and accompanied by Dr. Triboulet and several members of the French Committee, left Paris on the afternoon of May 14th, by special train for Vichy and Evian. The train was accompanied by one of the chief engineers of the Paris, Lyons, and Mediterranean Railway, and every detail was considered for the luxurious travelling of the party. Lunch was served shortly after leaving, and at 5 o'clock, in deference to the English custom, tea was provided.

The party arrived at Vichy shortly after 7 p.m., and was received at the station by Dr. Gardet, President of the Medical Society of Vichy, where eighty-two doctors are in practice. After a brief speech of welcome the visitors were driven to the several hotels where rooms had been reserved for them as the guests of the Compagnie Fermière de Vichy. At 8 p.m. the party reassembled in the handsome Casino which has recently been built, and where a banquet was held. After speeches by M. Marty, and M. Lasterat, the Mayor, which were responded to by Sir William Broadbent and others, the company adjourned to the theatre in the Casino and witnessed a representation of Edmond Rostand's "Les Romanesques."

The following morning the various springs and the Thermal Establishment of Vichy were visited, and the department for the exportation of the mineral waters was inspected; the excellent arrangements for rinsing, cleansing, and filling the bottles, and the rapidity of labelling and packing for export were followed with much interest.

In the afternoon some of the party returned to Paris, whilst others went on to Geneva, arriving on Monday night. Next morning Evian was reached by boat, and the new hydropathic institution which is situated at the border of the lake, in a charming position, was inspected. At mid-day the visitors were entertained at a luncheon given in their honour at the Splendide Hotel which has recently been erected on rising ground, looking across the lake to Lausanne. The Chair was taken by M. Giraud, Managing Director of the Evian Company, who gave the toast of the Visitors, which was responded to by Sir John Tyler, Sir John Moore, and Mr. Chance. Later on in the afternoon the party re-embarked, and were taken round the lake, returning shortly to dinner at the Splendide Hotel. Some remained at the hotel, whilst others returned by special train to Paris.

Some members of the party, however, visited Aix-les-Bains. They were met at the station by Dr. Sillonville, and were conducted over the Etablissement by Dr. Coze, President of the Medical Society, and other medical men, and afterwards entertained at tea by Dr. and Madame Sillonville.

The next morning the visitors were taken round in carriages to various sights in the town, including another Source and Établissement and the Zander Institute where the various machines used in mécano-thérapie were explained. After lunch, a charming excursion by steamer was made on the beautiful Lake Bourget as far as its junction with the Rhône. In the evening a banquet was given, presided over by the Mayor, and attended by most of the medical men in the town, including Dr. Blanc and Dr. Massée, a veteran practitioner who came to London with the French doctors last October.

After congratulatory speeches of welcome by the Mayor and President of the Medical Society, which were responded to by

Dr. Boyd Joll in French and by Dr. Deighton of Cambridge, the party was conducted to the Casino, where there was a vocal and orchestral concert, into which the National Anthems of both countries were introduced, and the visitors left next morning by the new train de-luxe for Paris, with very pleasing and grateful remembrances of their delightful welcome.

Visits to Biarritz, Pau, Cauterets, and Salies.

Another party of medical men and ladies left Paris on the morning of May 14th on a visit to Biarritz, Pau, Cauterets, and Salies. The party, numbering forty, travelled in special cars, and every arrangement had been so carefully thought out that the journey was performed without undue fatigue.

Biarritz was reached in the evening, and the town was illuminated in honour of the visitors, who were taken in carriages to the Casino, passing through cheering crowds. At the Casino the Mayor of Biarritz and the medical practitioners entertained the party to a vin d'honneur. The morning of May 15th was spent in driving about the vicinity of Biarritz, and at mid-day a banquet was held in the old palace of the Empress Eugenie.

In the afternoon the guests left for Pau, where they were accorded a cordial reception by the Municipality, and afterwards attended a splendid banquet at the Winter Palace.

Surgeon-General Keogh, in the course of a speech delivered on this occasion, took the opportunity of expressing the thanks of the party for the hospitality and many kindnesses they had received.

On the morning of May 16th the guests were taken in motors to visit the town of Pau and the country round. Shortly after mid-day they left for Cauterets, where they spent some time in making an excursion to the waterfalls on the way to the Lac de Gaube. In the evening a banquet was held in their honour at Cauterets. On May 17th the party left for Lourdes, where they spent one hour and then departed for Salies de Bearn. In the evening a magnificent reception was much enjoyed, and many speeches were delivered. On May 18th Arcachon was reached, and a short time was spent in this noted health resort, after which most of the party returned to Paris.

The courtesy of Dr. Meillon of Cauterets, who accompanied the travellers from Paris, was greatly appreciated.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

THE twenty-second annual general meeting of this Society was held at the rooms of the Medical Society of London on May 18th, under the presidency of Dr. DE HAVILLAND HALL, Chairman of the Executive Committee.

The CHAIRMAN said it was with very great pleasure that he could again present a good account of the work done during the year. The membership of the Society now numbered 2,336, as against 2,274 in the previous year; the death-rate had been rather higher than in former years, but was still very much below the expectation. He had always hoped that the Society would number 5,000, and he urged the members to induce their friends to join, not for the sake of the Society, which was perfectly sound, but for the sake of the profession at large. During the past year £10,566 7s. 1d. had been disbursed in sickness claims; this formed a record for the Society; since its foundation twenty-two years ago over £100,000 had been paid in sickness claims. It was, he thought, almost impossible to exaggerate the amount of good which had been done to the profession by these payments. The sickness fund had grown in the past year from £80,309 12s. 2d. to £85,783 6s. 9d. With regard to the annuity and life assurance branch, there had been a small growth in the funds; no fresh business had been done; the business of the Society under this head had been transferred to the Rock Assurance Company, who treated them as agents. The investment fluctuation fund had increased from £10 483 2s. to £12,126 11s. 8d.; to this fund was transferred all money earned over 2½ per cent. on the sickness fund and 3 per cent. on the annuity and life assurance funds. The Society's funds now amounted to £186,657 19s. 11d., being an increase of £10,010 11s. 9d. on the preceding year, notwithstanding they had paid bonuses amounting to £850 10s to those members who had attained the age of 65, the age limit for participating in sickness benefits. The cost of management was still only 5 per cent. of the premiums, whereas at the initiation of the Society 10 per cent. was allowed. The Committee had decided that those members who had not been sufficiently long in the Society to participate in the bonus allotted on December 31st, 1898, were justly entitled to their share of the bonus and had returned them 10 per cent. of their premiums. About 250 members had participated in this bonus. The votes of the Society for Epsom College were being used on behalf of the son of the late Dr. E. P. Norman, of Yardley-Hastings. He wished to thank the BRITISH MEDICAL JOURNAL and the *Medical Press and Circular* for the great assistance they had given the Society. The Chairman concluded his remarks by moving that the report of the Committee and the audited accounts for the twelve months ending December 31st, 1904, be received.

The motion was seconded by Dr. W. WINSLOW HALL and carried.

On the motion of Dr. BRYDEN, seconded by Dr. BOND, the officers proposed were elected.

Votes of thanks to the Chairman and the Secretary brought the proceedings to a close.

ON THE INHERITANCE OF INSANITY.

By Professor KARL PEARSON, F.R.S.,
Biometric Laboratory, University College, London.

WILL you permit a layman to draw attention to the first part of a paper by Dr. Otto Diem of Herisau, which has recently appeared in the *Archiv für Rassen-und Gesellschafts-Biologie?* This new journal does not yet appear to have been fully noticed in England, but it is doing excellent work in the field where medicine, biology, and sociology meet, and thus of necessity excite the interest of the statistician.

Dr. Diem's paper is entitled Die psychoneurotische erbliche Belastung der Geistesgesunden und der Geisteskranken. It is impossible at present to consider at length Dr. Diem's work, for it is not yet complete, but it suggests one or two points which I think are worth referring to at the present time, when there is a considerable movement in the direction of collecting ampler and more reliable medico-sociological statistics.

In dealing from the standpoint of the theory of statistics with the inheritance of any character, say a special form of disease, it is needful to start with a "general population" or a random sample of a general population, which has been determined in absolute independence of the presence or absence of this disease. If we wish to determine the hereditary influence in the case of cancer we must start with a random sample of the general population, or in some manner reconstruct this sample of the general population. We cannot obtain any definite conclusions as to inheritance from the case-books of a cancer specialist or the records of a cancer hospital *alone*. I venture to think this point is sometimes overlooked in the treatment of inheritance by medical specialists. It is also overlooked by writers on the inheritance of ability, if they tell us only of the able members of certain stocks, and do not refer to the failures and "blacksheep" of these stocks, or enumerate the proportions of able men and blacksheep which are to be found in the population at large.

Now, all those who have worked at family records of any kind know that it is extremely difficult to get moderately-accurate information with regard to 1,000 individuals, and yet this number is by no means too large for an inquiry of this sort; but in the case of even 1,000 individuals those suffering from a special disease will not be very numerous, and accordingly we shall have a large probable error in any result deduced from the small percentage of such individuals which may much distort the true intensity of inheritance.

It seems best accordingly to obtain a random distribution of the population in an entirely different manner, one in which we can make proper use of the experience of specialists. We can proceed in the following way to construct a random sample of the general population:

1. Ascertain the prevalence of the disease or character in the population at large. This may be roughly found from mortality statistics, or more exactly from combined medical experience.

2. Take a sample, say, of 1,000 persons with the disease and record the incidence of the disease among their ancestry and collaterals. This can be done from the case-books of the specialist, or by careful inquiry in the hospitals for special diseases.

3. Take a sample, say, of 1,000 persons without the special disease and investigate the distribution of the disease among their ancestry and collaterals. This may be done by a special inquiry, or very simply from information with regard to per-

sons suffering from other complaints already contained in the general practitioners' case-books.

Too often the medical treatise by a specialist confines its information to (2), and we are wholly unable therefrom to measure the quantitative intensity of inheritance in the case of the disease dealt with.

Now, Dr. Otto Diem's paper gives information corresponding to my heading (3) above, and thus for the first time we are able to obtain some approximate value of the comparative intensity of heredity in the case of insanity. We may hope that in the second part of his paper he may not only amplify his statistics of (2) and (3) but provide some information as to (1) in his own district.

He deals in his family records of sane and insane with parents, grandparents, brethren, uncles, and aunts. It is not possible to make use of his data for brethren, because he does not state how many brethren there were in each case and how many of these were insane. This is a vital point, if we are to determine quantitatively the bearing of cases of fraternal insanity. The same remark applies to the statistics he provides of uncles and aunts. We cannot assume that his 370 sane and 370 insane persons had the same number of brethren and of uncles and aunts; we do not even know yet the relative fertility of sane and insane stocks, but since the insane are often removed for years from family life, it is unlikely that the actual net fertility will be as great in the insane as the sane stocks. On the other hand the insane, as the sane, will always have two parents and four grandparents. The correctness of the record as to the former, however, will usually be greater than as to the latter, especially when the record is that of a working-class case. Few people, in my experience, can state the cause of death of all four of their grandparents, and many have not known personally one or more of them. Written records fail almost entirely for the working classes. I have therefore for the present confined my attention to Dr. Diem's statistics of parentage. Here Dr. Diem tables the data of Dr. J. Koller. He considers the parents of 370 sane and insane under the headings of (1) insane, (2) nervous disorders, (3) alcoholism, (4) apoplexy, (5) dementia senilis, (6) eccentric characters, (7) suicides.

In the case of each one of these divisions much discussion on the nature of the cases to be included may naturally arise,[1] and no doubt the boundaries between different classes are not sharply defined. For our present purpose, let us allow them to pass for what they are worth. Now Dr. Diem's tables show that nervous disorders are more numerous in the parentage of the sane than in that of the insane, and that apoplexy is as common in the parents of the sane as in those of the insane. It is therefore very unlikely that the groups of diseases he has thus constituted are the direct precursors of insanity in offspring. On the other hand, classes (1), (3), (5), (6), and (7) are in all cases at least double as frequent in the parents of the insane as in those of the sane. The occurrence of insanity, alcoholism, dementia senilis, "eccentricity," and suicide in parents marks something which is likely to appear as insanity in the offspring. Suppose, for the time being, we classify all these groups together as "want of mental balance," it is clear that each one of them may arise from a variety of conditions, and that our terms may be worth little from the medical standpoint; then Dr. Diem has told us how often "want of mental balance" is to be found among the parents of sane and insane respectively. But he has not told us how often parents with "want of mental balance" produces offspring "wanting in mental balance" otherwise than in the insane class. We cannot, therefore, determine the intensity with which "want of mental balance" is inherited. It may be said, Why not consider the inheritance of insanity proper? The answer is that, whatever be insanity proper, the source of it appears in the parents frequently as "eccentricity" or alcoholism, or a suicidal tendency.

From the standpoint of theory we must have for the problem of inheritance the occurrence of the same range of characters in parents and offspring, but in the present case the parental range is what we have termed "want of mental balance" and the filial range insanity proper. If, therefore, we correlate the occurrence of insanity in the offspring with the occurrence of want of mental balance in the parents we shall not have the full intensity of the inheritance coefficient, but a lower limit to its value.

I have taken Dr. Diem's data given in Table I below and found the intensity of correlation between "want of mental balance" in the parents and insanity in the offspring, using various values for the ratio of the mentally normal to the mentally abnormal in the population. The values found range from about 0.25 to 0.30.

TABLE I.—*Parents of Sane and Insane.*

	Parents of 370 Sane.	Parents of 370 Insane.
1. Insanity	17	68
2. Alcoholism	32	63
3. Dementia senilis	1	10
4. Eccentricity	22	67
5. Suicide	2	4
6. Total abnormal	74	212
7. Total normal	666	528
Total of all parents	740	740

Now how does this minimum of 0.25 to 0.30 for the coefficient of heredity compare with other cases of inheritance in man? The coefficient of inheritance, the correlation between a character in parent and offspring, can theoretically take any value between zero, or absolute absence of resemblance, and unity, or complete resemblance of offspring to parent. The following are the values I have found in the case of several physical characters:

TABLE II.—*Parental Inheritance.*

Stature	0.51
Span	0.46
Cubit	0.42
Eye colour	0.49

Lower limit for insane diathesis, 0.25 to 0.30.

Now it seems to me that the statistics at present available suggest—I will not at present assert they do more—that we may ultimately find the insane diathesis, or, more roughly, "want of mental balance," is inherited with precisely the same intensity as the physical characters in man. But if this quantitative definiteness could be given to the hereditary factor in the case of insanity, would it not in itself be a solid step in advance in our definite knowledge of inheritance, and ultimately of the medical and social treatment of the insane and the mentally defective?

It appears to me that the time has now come when some definite attempt should be made to obtain reliable family records for the solution of the inheritance of pathological characters. Such an attempt requires, as I have pointed out before, knowledge of three kinds. The rough percentage of the mentally unbalanced in the community can, I think, be found; it makes a sensible but no substantial difference whether we take it, for example, 0.5 or 2 per cent. But the other two kinds of information require the aid of the mental specialist and of the general practitioner. On the one hand, the family history of at least 1,000 individuals wanting in mental balance must be worked out, and, secondly, the family history of the same number of mentally normal individuals. I can fully understand that many objections may be raised to Dr. Otto Diem's individual classification from the specialist standpoint, but we have to remember that the classification must be simple and approximate, for ultimately it is the layman who has to provide the answer to the medical inquirer's questions, and he can only answer from family tradition and lay experience. If we are to determine the intensity of inheritance for a definitely specific type of insanity, we may at once give up the problem, for few laymen can be trusted to give a medically accurate account of the mental illness of an ancestor, and a medical man does not often know personally two or three generations with insane tendency. The solution, since it can only be sought from family records, must be of the broadest kind. Is it not possible, then, to obtain by co-operative effort of mental specialist, general practitioner, and statistician, some more definite estimate of the quantitative intensity of inheritance in the case of want of mental balance? Success in such work in the present case would lead at once to the application of like methods to other special diseases, in particular to cancer and tuberculous disease.

I am fully convinced that our knowledge of inheritance and of statistical theory is now such that the time is ripe for the solution of problems in the heredity of pathological characters. The chief essential of success is co-operative effort; the experience of the individual cannot provide the

[1] Dr. Diem gives very full statements as to how his groups were composed.

amount of data requisite for the solution of these problems, but the pooled experience of many men can do so. Is it not time that some organization was created for collecting in bulk and reducing medical statistics bearing on inheritance? I put the question as a layman, and it may seem an impertinence on my part. But an intense interest in the problems of inheritance in man, and a very strong consciousness of how helpless in certain directions investigators in this field must remain without the cordial co-operation of medical men, must be my excuses.

LITERARY NOTES.

A SCHOLARLY physician has called our attention to a slight mistake in a paragraph which appeared in the BRITISH MEDICAL JOURNAL of May 20th under the heading "*Coleridgius bombitans in vacuo.*" He says the chimera was "bombinans," and is kind enough to add that "the JOURNAL is immaculate enough to render the error visible. In most papers it would not matter." That it is an error we freely admit, but we may perhaps be allowed to plead, in mitigation of damages, that we were led into it by over-carefulness. Writing *urgente diabolo*—we hasten to explain, lest equivocation should undo us, that we use the phrase purely in a typographic sense—and feeling doubtful about the word, we referred to Forcellini, as we had no Rabelais at hand. In the *Lexicon totius Latinitatis* we found only "bombilo" and "bombito," and in an unguarded moment we allowed ourselves to be led away by a prosaic lexicographer into profanation of a classic text. By way of making some amends to the great shade of Rabelais, we think it right to give the exact title of the work which Pantagruel found in the "very magnificent library" of Saint Victor in Paris. It runs as follows: *Quaestio subtilissima, utrum Chimaera, in vacuo bombinans, possit comedere secundas intentiones: et fuit debatuta per decem hebdomadas in concilio Constantiensi.*

We have received from the Fine Art Society a copy of Part I of what promises to be a truly magnificent publication, entitled *The Empire's Cricketers*. It is to appear in sixteen parts, at weekly intervals. Each number will contain four portraits by Mr. Chevallier Taylor, reproduced from original drawings in coloured crayons. The price of each part is 1s. Mr. Taylor, who is himself a cricketer, has been assisted by Mr. G. W. Beldam, of the Middlesex Eleven, who has written biographical sketches of the players. Each player is represented in his most characteristic attitude. In Part I portraits of the Hon. F. S. Jackson, Mr. A. O. Jones, J. T. Hearne, and J. T. Tyldesley are given. Part II will contain portraits of Dr. W. G. Grace, Mr. P. F. Warner, Mr. G. McGregor, and W. Rhodes, while Mr. J. Darling, Lord Harris, Mr. R. H. Spooner, and S. Haigh will figure in Part III. The original drawings will be exhibited at the Fine Art Society's Galleries in New Bond Street from the middle of June, and subscribers to the complete series will receive a free pass to the exhibition. Cricket has no direct relation to medicine, except in as far as it is a splendid form of physical exercise and a school of moral discipline, in which control of the emotions is learnt. But an announcement of *The Empire's Cricketers* will probably not be regarded as out of place in the BRITISH MEDICAL JOURNAL, as there are at least as many patrons and active exponents of the noble game among us as in any other profession. Is not the greatest of all cricketers one of us? And have not many other doctors won distinguished places in the cricket roll of fame? To all interested in cricket we recommend the work as a most interesting collection of admirable examples of artistic portraiture.

The first number of the *University Review* presents a handsome appearance, which is not belied by its interior, as its contents are of quite exceptional interest and importance. An introductory note on the University Movement is contributed by the Right Hon. James Bryce, the concluding passage of which gives the keynote of the new periodical. He says there is at this moment not only a far larger public in Britain directly interested in University matters than ever existed before, but also a greater need for the exchange of ideas and suggestions between those who are at work in different centres, and a greater need for all the help that can be drawn from a knowledge of what is passing in other countries. The aim of the *University Review* is both to supply information as to what is passing here and abroad and to express University opinion, focussing the views of those who think upon questions of the higher education. Professor Arthur Schuster of Manchester deals with universities and examinations. Professor Sonnenschein, of Birmingham, in an excellent paper on Shakespeare and Stoicism, shows cause for believing that Portia's famous speech on the "quality of mercy" is "neither more nor less than a beautiful rendering of the leading ideas" of the treatise *De Clementia*, written by Seneca by way of teaching mercy to the youthful Nero! Sir Oliver Lodge discusses the best time for examinations, inclining to the opinion that it is not the end of the summer term or session, but just before the beginning of the new session in October, when candidates have been "given time for revision and digestion, and perhaps oblivion." In an article entitled Malaria and a Moral, Professor Ronald Ross confesses that his own experience in research has left him with some most unchristian grudges, which he says he keeps carefully wrapped up in cotton wool in his soul, ready for use at the proper moment. This intimation that he has more rods in pickle will doubtless be alarming news to those official Gallios whose misdeeds he is now exposing in the *Journal of the Royal Army Medical Corps*. Even in the article under review not a few grudges find expression. Thus Professor Ross tells us that in 1899 immediately after the mosquito theory was established, he advised "earnestly and repeatedly that every malarious municipality should at once take steps to drain or fill up mosquito-breeding waters within its limits, at least as quickly as means allowed." He can say without vanity that his advice was at least worthy of consideration, because at that time he was certainly the only man who possessed a really intimate personal knowledge of malaria and mosquitos; and withal, he had had an opportunity of becoming very well acquainted with practical tropical sanitation in general. He even preached a crusade against malaria in Sierra Leone and elsewhere, but nothing approaching adequate general action has been attempted by his countrymen. He does not know who is to blame. His advice was never asked for, and certainly seldom followed. He suggests that perhaps the cause of failure lies in the multitude of councillors. The number of people, he says, who have studied malaria and mosquitos (in England) is quite large—and they all have their own schemes. This is surely very unreasonable of them, particularly as we gather that they generally condemn Professor Ross for what Sir Toby Belch would call the exquisite reason that it is impossible to reduce mosquitos in a town by stopping their propagation! So much for malaria. The "moral" of the paper is that if we do not take care we shall follow Spain. If we ask why we are doomed to this terrible fate, we are told that "we as a nation seem to have lost the power of prompt and resolute action; we ponder too much; are too much ruled by vacillating committees consisting of partially-informed gentlemen anxious to get home to tea; are too conceited to take the advice of the men of experience; are quite above getting to the bottom of the business; and, above all things, dislike and despise anything of practical utility." To all this we reply, with Falstaff, by denying the major—not, of course, the military title of the distinguished author, but the first term of the syllogism to which his paper may be reduced, and which may be stated as follows: All Governments are hostile to deserving scientific investigators; *atqui*, the learned professor is a deserving scientific investigator; *ergo*, etc. To speak seriously, Professor Ross undoubtedly suffered a good deal from the pedantry of Indian officialdom. But he has received ample recognition since, and if authorities are not yet prepared to take counsel of him as of an oracle, he may comfort himself with the reflection that nothing great was ever accomplished in this world save in the face of strenuous opposition. In conclusion, we heartily congratulate all concerned in the production of the *University Review* on the result of their labours.

Dr. P. Just Navarre has unearthed some records of an old Medical Dinner Society which feasted in Lyons at the dawn of the nineteenth century. By the statutes of the Society the membership was never to exceed fifteen, and two black-balls excluded candidates for vacancies. The dinners took place on the first duodi of each month. Among the members were numbered most of the leading Lyons physicians and surgeons of that day. The dinners were doubtless triumphs of gastronomic science, as well as feasts of reason and flows of soul. One rule, however, opens up appalling possibilities to the modern mind: it was to the effect that every member might at dessert read a literary composition of his own in French or Latin, as he chose. The banquet always ended with the singing of the "foundation song" by Dr. Martin, sen. The first stanza will serve as a specimen both of the sentiments,

which are mildly Bacchanalian, and of the versification, which is easy and flowing:

Mes chers amis, chantons gayment
Couplets et chansonettes;
Disons quelques goguettes,
Au plaiser donnons ce moment.
Si dans la vie
Grain de folie
Ne venait dérider nos fronts,
On trouverait les jours trop longs.
Çà, buvons à pleins verres
Comme faisaient nos pères.

The invitations were in Latin verse, which was also used as the vehicle of apologies for non-attendance. Of one of the invitations, founded on Horace's Ode, *O qui canoro blandius Orpheo*, a part may be quoted to show how ingeniously the original is adapted to the circumstances of medical life:

Jam seu solutos in numerum pedes
Cogis, vel aegrum et vix animae tenax
Corpus tueris; seu cadaver
Luminibus penetras acutis:

Opus relinquens eripe te morae
Frontemque curis sollicitum explica
Scyphumque jucundus require
Purpureo gravidum Lyaeo.

Omitte tandem triste negotium
Gravesque curas heu! nimium pius:
Nec coeteros cautus mederi
Ipse tuam minuas salutem.

Frustra cruorem pulsibus incitis
Ebullientem pollice comprimis,
Attentus explorare venam
Quae febris exagitat tumentem;

Frustra liquores quot chemica expedit
Fornax, et error sanguinis et vigor
Innatus herbis te fatigant;
Serius aut citius sepulchro

Debemur omnes, vitaque deseret.
Expulsa morbis, corpus inhospitum
Lentumque deflebunt nepotes
(Relliquias animae) cadaver.

The MacMillan Company, New York has recently published a handsome volume of 351 pages entitled *Chinese Made Easy*, by Walter Brooks Brouner, A.B., M.D., of Columbia University and Fung Yuet Mow, Chinese missionary, with an introduction by Herbert A. Giles, M.A., LL.D. Hitherto, it is said, there has been no suitable handbook of the Chinese language that would enable the student to acquire, without a teacher, a working knowledge of Chinese. Dr. Brouner and Mr. Mow have taken great pains to provide a work by means of which may be exemplified the famous Chinese saying that "a scholar can make himself acquainted with all things, without ever leaving the four walls of his study"; in other words, the intention is that any one with an interest in linguistic studies may gain, with the assistance of this book, a knowledge of the genius of the Chinese language, colloquial and written. To begin with, there are thirty-three lessons on all manner of subjects; these consist of sentences in clearly-printed Chinese characters, accompanied in every case by the sounds in the Canton dialect, transliterated according to ordinary English requirements, and also by the literal meaning of each character, the whole surmounted by an adequate grammatical rendering such as would be employed in colloquial English. Then follows the famous classical primer, the "Sarm Chee Kun," a curious epitome of Chinese philosophy, history, and biography, embracing nearly 600 different Chinese characters in the reading. There is also a list of about 100 well-chosen characters written on a broad scale.

The Hospice de Bicêtre, which is now a vast refuge for infirm old people, with a large department for lunatics and epileptics, was in the reign of Louis XVI a hospital for men and prostitutes suffering from venereal disease. It is stated by certain French authorities that before being dressed by the surgeons these unfortunate beings were flogged. The question has recently been asked whether this punishment was not enforced under an administrative ordinance of the Hôpital Général passed in 1679, against which the surgeons were the first to protest. According to M. Eugène Grécourt, as quoted in the *Journal de Médecine de Paris* of May 21st, the whipping ordered by that ordinance was continued into the early part of the eighteenth century. It was, he says, neither by order of the king, nor by order of the magistrates, nor by order of the police, that that inhuman treatment was inflicted on the patients, but solely by order of the surgeons to the hospital, who at that time thought it a dishonour to have to minister to syphilitics. The principal reason of the flogging, however, seems to have been that it might deter patients from applying for admission in too great numbers. Yet the hospital at that time could scarcely have been looked upon as an earthly paradise. The inmates were heaped together as many as six in a bed, while six others lay on the ground waiting their turn of rest. The wards were dark and unventilated, and the patients waited whole months for the application of baths and inunctions which seldom cured them. It is more than hinted that the surgeons took bribes from such as were able to pay for early attention. The first attempt at reform was made in 1787 by Michel Cullerier, who strove successfully to secure better treatment for the patients.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 79

Accidents to Club Members.

Kentish Man writes that he is the surgeon to a Friendly Society, many of the members of which work at a quarry where frequent accidents arise. He has to attend the sufferers and wishes to know whether the members of his club can claim such attendance from him as club surgeon or whether the quarry owner ought to pay him.

*** In most clubs, in the absence of a special agreement to the contrary, the members can claim attendance in the case of accident. If the members of a Friendly Society are nearly all employed in a factory or works where accidents are common, the surgeon should always stipulate for special payment for accidents when elected. In colliery clubs there is nearly always a special subscription for attendance on accidents.

Competition for Club Appointments.

C.—We see no reason why a medical practitioner should not compete for a club appointment, provided he does not do so by underbidding the previous holder of the office.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: MM. Roux and Metchnikoff on Recent Microbiological Research on Syphilis.

The last meeting of the Académie de Médecine was chiefly occupied by MM. Metchnikoff and Roux, who made a most important communication on "Microbiological Research on Syphilis," which was quite a scientific event, and created a deep impression at a crowded meeting.

They first recalled the history of the work of Schaudinn of Berlin and of Bordet and Gengow of Brussels. The researches of Schaudinn, which have recently culminated in the discovery of a spirochaete which must be considered as most probably the pathogenic agent of syphilis started from a research to verify the existence of a minute protozoon already described by Siegel. While using the same colouring agents as indicated by Siegel, Schaudinn did not succeed in finding the protozoon in question, but his attention was attracted by certain spirilla, which he set himself to study methodically. Many spirilla have been found on the surface of the body, but Schaudinn suggested that in the mucous membranes of the generative organs two species are found which he classes among the spirochaete—one which is found in papillomata of these organs, in balanitis, and in syphilitic products, and even in normal smegma, while the other is only found in syphilis; the first he names the spirochaete refringens, relatively large in size, of a form recalling waves, and easily coloured by the common colouring agents; the second he names the spirochaete pallida, which is small in size, of a corkscrew form, and very difficult to stain, requiring special colouring agents such as azure blue and eosine of Giensa. Up to the present time Schaudinn and his collaborators have studied 26 cases of primary sores and mucous patches of the genital organs, and have always found the spirochaete pallida, although the latter were often present in very small numbers, and difficult to find; sometimes they had to examine four preparations before finding a single spirochaete. The presence of this microbe was noted not only in the moist discharge from syphilitic lesions of the

genital organs, but also in the deep layer of chancrous and mucous patches, as well as in eight inguinal glands of syphilitics in the primary and secondary period.

Not having any anthropoid apes at his disposal, and thinking that microbiological research on these animals might advance the question, Schaudinn sent to MM. Roux and Metchnikoff some of his preparations, and communicated to them the details of his method before his first publication. Six of the apes at the Pasteur Institute were examined and positive results obtained in four cases, one of the failures being a chimpanzee which had been treated by serum and was on the high road to recovery. The first positive result was obtained in a Macacus cynomolgus, with a typical primary lesion on the eyebrow; the lesion was covered with a thick crust, and had rosy serous fluid escaping from it, in which numerous spirilla were found. The lesions of experimental syphilis obtained in monkeys on other parts of the body than the mucous membrane of the genital organs form a strong argument in favour of the etiological rôle of spirochaete in this disease. MM. Roux and Metchnikoff then began to look for spirochaete pallida in scrapings from the secondary papules in the human subject, developing on the skin at a distance from the primary sore on the genital organs. In four cases out of six examined so far a positive result had been obtained. Sometimes they were numerous and were alone present, without any other microbe. The fact that the spirochaete were found especially in very young papules, not covered by a crust, showed that these microbes could not be considered as impurities from the exterior, but that they were brought by the lymph or blood stream. The preparations were stained by the method of Giensa, prolonged for sixteen to twenty hours; to obtain quicker results they used the method of Marino, which consists of a mixture of azure blue in solution in methylic alcohol, and a weak aqueous solution of eosine. By the latter methods the microbes were not stained so easily, but in some cases a positive result was obtained in a quarter of an hour. In spite of the rarity of the spirochaete pallida in many cases of syphilis, MM. Roux and Metchnikoff think that the discovery of these microbes may be utilized for diagnostic purposes, and they count on this method for the differential diagnosis in monkeys of secondary syphilitic manifestations from the various skin affections to which they are subject. They are strengthened in this opinion from the fact that it has been impossible to obtain these spirochaete in any non-syphilitic diseases in man, such as psoriasis, acne, and the itch.

It would be a very important point to obtain cultures of this spirochaete pallida, but it has hitherto been impossible to cultivate any of the spirochaete which are found in abundance in recurring fever and in spirillosis of birds. Until cultures are obtained, MM. Roux and Metchnikoff will continue to employ in the preparation of an antisyphilitic serum virulent products such as lymphatic ganglia and fluids from primary and secondary accidents. In the absence of pure cultures, a large number of facts must be collected before coming to a definite conclusion on the etiological rôle of the spirochaete pallida. But all the above facts are a strong argument in favour of the thesis that syphilis is a chronic spirillosis produced by the spirochaete pallida of Schaudinn.

MANCHESTER.

Hospital Saturday.—St. Helen's Hospital.—Physique of Salford School Children.—Meeting of British Dental Association in Southport.

Manchester Hospital Saturday Fund collections were made on May 19th, and the amounts contributed will be divided amongst the nineteen medical charities which are recognized by the administrators. These treated during the last year 234,000 persons, including 37,500 accidents, and together incurred a deficit of £10,000. The first collection, made in 1872, brought in £1,499; since then the amount has increased year by year until in 1903 it reached the sum of about £4,500; last year, however, there was a drop of £200. During these years the sister fund—the Hospital Sunday Fund—was decreasing. This fund reached its maximum in 1873, when the amount collected was £6,000; last year it was only £3,626. These figures show that the gradual increase in the Hospital Saturday Fund does not represent a pure gain to the hospitals.

The annual report of St. Helen's Hospital states that the annual income was £3,718, and the expenditure £2 915. The number of patients treated was 466, and the hospital has now accommodation for 100. About £4,000 is still required to pay off the cost of the enlargement, which was completed in December last.

The medical officer of health of Salford has presented a report on the physical condition of Salford school children. The anthropometric measurements were made in six Salford schools, three being of the better class and three of the poorer class. The accommodation in the non-provided—the old voluntary—schools is quite insufficient, and the ventilation unsatisfactory. Indeed, many of these schools in the poorer districts are as dirty and insanitary as are the overcrowded tenements from which the children come. There are at present 4,000 children under 5 years of age being "educated" in Salford. Apart from other aspects of the question, this aggregation of very young children helps considerably to spread infectious diseases. The report also confirms the statement that there is a great increase in the short sight amongst children in the higher standards. Taking height, weight, and chest girth as fair general criteria of general health and physique, children of the ages of approximately 8, 10, and 13 were examined. At 8 years of age it was found that the average height and weight were much the same in each school, but at 13 there was a marked difference. The average height of the scholars of 13 at a school frequented chiefly by the sons of clerks and shopkeepers was found to be nearly 3 in. more than that of the scholars in schools of lower social scale; while as to weight the average boy weighs 15 lb. more in the better class school. The average weight of these Salford boys at the age of 13 is 67 lb., compared with 79 lb. which is the average weight of the public school boy of the same age. In the three better class schools the children are decidedly superior in physique to the children in the three poorer schools. By way of rendering the report more useful for purposes of comparison figures derived from other sources are supplied.

The British Dental Association opened its meetings at Southport on May 19th, when nearly four hundred members attended the Congress. The total membership is now about fourteen hundred, as compared with thirteen hundred and forty in August last. A new Branch—the Northern Counties Branch—covering Northumberland, Cumberland, Westmorland, and Durham, has been formed. The President was Dr. E. Gaddes, who welcomed several guests representing the Canadian Dental Association. An important fact was brought out clearly by the President in his address. He stated that within the area of the North Midland Branch there were in 1899, 125 unregistered persons practising dentistry, and in five years (1904) the number had increased to 303. The figures indicated that in the United Kingdom the quacks and evaders of the Dentists Act had more than doubled in five years. Mr. C. W. Glassington said the advertising dentist was now too artful to use the words "dentist," "dental surgeon," or "dental practitioner," but he might call himself an extractor or adaptor of teeth, and set up in business without having gone through any hospital practice. At the dinner, which was held on Saturday evening, it was announced that the Association had been asked to visit Canada in 1906 or 1908. Dr. Dubeau, of Montreal, one of the delegates, stated that in Canada, and especially in Ontario, dentists were so protected that they could hardly believe the state of things they were told existed in this country. Dr. L. Matheson was elected to succeed Dr. Gaddes as President.

SOUTH WALES.

Bubonic Plague.—University of Wales Court.—Llandrindod Wells Water Bill.—Barry District Nursing Association.—Housing at Tredegar.—South Wales and Monmouthshire Sanitary Inspectors' Association.

It is agreed that bubonic plague may spread by rats. In Cardiff splendid work is and has been done in the direction of destroying rats for a long time past. Thus, in the year 1904, no less than 3,046 rats were killed at Cardiff, and at the present time large numbers are being killed each week. Very few ships from Leith (in which place bubonic plague has recently occurred) come direct to Cardiff; in fact, only two have come during the past few months, one in October of last year, and one in March, 1905. Special precautions have been observed in regard to all vessels arriving from Leith at Barry. Precautions of a special character have been in force in Newport during the past three years, following instructions from the Local Government Board. The ordinary routine of the

Port Sanitary Authority is considered adequate to guard against the possible importation of plague.

At the annual extra-collegiate meeting of the Court of the University of Wales, held at Newport, on May 18th, Sir Isambard Owen was reappointed Senior Deputy Chancellor for the year 1905-6, and Lord Kenyon Junior Deputy Chancellor. The special report of the Standing Executive Committee with regard to the administration of the University was discussed, but Sir Marchant Williams and Mr. Henry Lewis, Bangor, strongly urged the Court not to come to a decision that day, and eventually further action was postponed until the feeling of the country had been made known.

The Llandrindod Wells Water Bill, which is promoted by the Urban District Council, was further considered on May 19th by the Select Committee of the House of Lords. Mr. Wedderburn (for the promoters), replying to the Chairman, said it was proposed to take from the Chwefri 150,000 gallons a day, which worked out at 15 gallons per head per day of the population. The promoters also agreed that when the flow was less than 200,000 gallons a day they would take nothing. Mr. E. Brough Taylor, civil engineer, said that the proposed point of catchment was very good indeed, and would give a good supply of pure and soft water. In twenty years the population of Llandrindod would probably be 20,000, which meant that long before the twenty years were out the Council would have to come to Parliament again. It was only reasonable that the Council should come with a modest scheme consistent with their financial position, and later on come for a wider scheme. If the promoters took 150,000 gallons it would always leave 225,000 gallons in the stream—a flow sufficient for all purposes. Evidence in support of the Bill was also given by the Surveyor, Chairman, and a member of the Urban District Council. This closed the case for the promoters on the water portion of the scheme. Mr. Rees, Water Engineer of Newport, who appeared on behalf of the Builth Rural District Council, said he had never heard of a case of taking water from a stream without compensation water being given. The Committee refused to sanction the water portion of the scheme and the golf links. The preamble in all other respects was declared proved.

The annual report of the Barry District Nursing Association, presented at its meeting on May 19th, showed a credit balance of £141. Workmen's contributions had increased £56, and amounted to £450. There was a falling-off in receipts from Friendly Societies, public bodies, and private individuals, the last named to the extent of £94. Nevertheless, receipts exceeded expenditure by £97.

On May 19th a special meeting of the Tredegar District Council was held to consider the adoption of Part III of the Housing of the Working Classes Act, in view of the appeal recently made to them by the local federation lodges and members of Association of Railway Servants. A member considered that the first thing to be done was to consider the financial position of the Council. The Chairman agreed, but at the same time he thought they should consider the providing of better dwellings for the people, for all knew there were many houses unfit for human habitation. The Clerk questioned whether the Council would be justified in adopting Part III. On voting 4 members were for adopting Part III of the Act and 6 against.

The first meeting of the session of the South Wales and Monmouthshire Sanitary Inspectors' Association was held at Swansea on May 20th. A letter was read from Mabon, M.P., saying he would with pleasure back the Public Health Bill. At the conference Mr. W. J. Lambert read a paper on the Food and Drugs Act. He emphasized the necessity for (1) an alteration in the law with regard to proceedings against the givers of written warranties for milk, saying it should be made an offence to send milk by rail unless the churns were securely locked, while the givers of warranties should be compelled to attend the police-courts at the hearing of summonses against vendors, and the magistrates should be empowered to convict them if they were to blame; (2) the revision of the law which renders a publican free from prosecution for adulterating spirits if he puts up a notice saying he sold diluted spirits; (3) that in the Act the words "condensed milk" should be read in conjunction with "skimmed milk."

Standardization of Disinfectants.—Judging by the forms which are now being used, the principle of standardization of disinfectants has already been approved by the War Office, the tenders of contractors being directed to contain a guarantee that the disinfectant supplied will give when tested with B. typhosus a coefficient stated in terms of carbolic acid.

CORRESPONDENCE.

THE ANNUAL ELECTIONS THROUGHOUT THE ASSOCIATION.

Sir,—There is much food for thought both in the letter of Dr. Fothergill which appeared on May 20th last and in that of Dr. Buist published on May 6th, but I am more disposed to agree with the latter in the Representative Meeting having the power of electing some members of all Standing Committees than with Dr. Fothergill, who would have it to elect all, even the Council. My idea is to let the present system go on gradually, and steadily extend it as found desirable and useful in certain directions.

I would keep to the Branches electing, for a while at least, the Central Council, and I would let it co-opt certain members as it does, as this all tends to keep the members of the old Council in good humour and give them a certain hold of the conduct of affairs, which they, of course, think essential to good government. Without their influence they would expect all to go to pieces.

But this is no reason why, to extend Dr. Buist's idea—although he is not in favour of enlarging the Council—the Representative Meeting should not elect certain members of the Council, say not less than four nor more than six. I agree with him that the election by the Meeting of the members on certain Standing Committees has been a great success and has worked well, and I would support his suggestion that it should be empowered to elect some members to all Standing Committees.

I don't see any reason for the despondency Dr. Fothergill speaks so much of. As I said in a previous letter, there is very much greater interest manifested throughout the country since the new constitution than previously, and I consider the two letters I have referred to have fallen in very opportunely, and would like to see them vigorously followed up. Such letters give members who know nothing of the working of the Association an interesting insight into it. There is always a danger in those who know such things thinking that every one else knows what is familiar to them, and so they do not take the trouble to write about them. There are many points dealt with by Drs. Buist and Fothergill which go down to the very foundations of the Association, and I am sorry they have not appeared earlier.

As to the latter's fear of the inequality in the scientific and political men working together, this presents no difficulty to me. What I say is, let each section work with all their might in their own line, and, above all things, let each be tolerant to the other, and eventually they will find that it will end in their common benefit, and even for the benefit of those who do nothing at all.

In the election of the Central Council by the Branches there are always local influences—and, if you will, local prejudices—at work. In the election of certain members of Standing Committees by the Representative Meeting these influences are knocked on the head, and we have already seen at the meeting these influences trying to assert themselves, but in vain. I contend, therefore, that in the happy mixture of members elected from various sources to our committees and on the Central Council consists the future welfare of our great Association, which, if it is to succeed at all, must be based on a wide, solid, and deep foundation.

Dr. Fothergill need not trouble himself about adverse criticisms of the Representative Meeting. It is much better than the old annual meeting. Much more solid work is done, and we are happily freed from the perennial ebullitions of irresponsible cranks. As a matter of fact, what most of us complain of is that we have to do too much work in too little time. Attempts have been and are being made to correct even this, and no doubt this year the business will be better arranged.

It must not be forgotten that the work of the Representative Meeting does not all spring from itself. It comes from the Divisions, from the various Standing Committees, and the Council, which have all been working month by month during the past year.

It must have often occurred to many busy practitioners throughout the area covered by the Association to inquire how many energetic members does it require at head quarters to manage its affairs. I would say twenty, or at the most fifty, and granted that the work falling to them is done faithfully by the Divisions and Branches, there are always sound men enough to manage and co-ordinate at 429, Strand.

Much of course depends upon the tact and industry of the

Chairman of Council. When the term of the present occupant of that office expires it will be difficult to fill, as he never seems to be absent when there is work to do.—I am, etc.,

Manchester, May 22nd. G. H. BROADBENT.

THE MIDWIVES ACT AND THE MEDICAL PROFESSION.

SIR,—I am much obliged to your correspondent who signs himself "Fair Play" for his sympathy in reference to my letter on the above subject. Probably if I suggest that there should be some fund from which we can be paid in cases as I have reported, then he may still be able to have the free trade in midwifery which he so seems to desire.

I am also much obliged to Mr. John Livingston, and shall do my best to get my Division to back him up as regards certain amendments of the Act.

Your correspondent "G. C. C." states that my fee should have been 5s. I should like to know who has given him the authority to fix our fees. He also states I should have demanded my fee within twenty-four hours, "and obtained it." May I ask who was I to have obtained it from? If "G. C. C." reads my letter more carefully, he will see that that was my grievance.

He refers to Rule 17 (*b*) 4, and states the nurse was right; did I say she was wrong? In fact, that was one of my chief points, showing where the midwife was protected. He also states that as we now stand none of us can safely refuse to go when sent for by a midwife. I should like to know why?—I am, etc.,

Netherton, May 22nd. A. ST. LAWRANCE-BURKE.

THE DUTIES OF MIDWIVES.

SIR,—In the BRITISH MEDICAL JOURNAL of May 13th, p. 1069, Dr. Burke says that as the Midwives Act stands, a midwife must, in certain abnormal confinements, send for a medical practitioner. The Act enacts nothing of the kind. At present any registered midwife can turn, use forceps, or perform any obstetric operation. Section 1 of the Act states that the registered midwife "is a person specially qualified to practise midwifery." Does any sane person suggest that if this midwife, in a case of urgency, use forceps, she does an illegal act? No doubt Section 1 (3) enacts that the midwife "is not by law recognized as a medical practitioner," such enactment being mere "piffle." Further, if we turn to the *Rules of the Central Midwives Board* (Spottiswoode and Co., New Street Square, London, price 7d.), we find that the midwife is only recommended (Rule 17) to "advise" that a medical practitioner be sent for, and on p. 20 of these Rules is a form in which the midwife says nothing about asking for a practitioner to help her, or agreeing to pay a fee.

It may be of interest to Dr. Burke and others to know that the Liverpool City Council, on September 7th, 1904, has, under the Public Health Act, 1875, agreed to pay—if the patient or the Poor-law authorities will not pay—a fee not exceeding 21s. to a medical practitioner when called in to see a patient regarding whom the midwife has notified that the patient requires help.—I am, etc.,

Liverpool, May 18th. ROBERT R. RENTOUL.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

SIR,—In Dr. Hebblethwaite's letter on the above subject, published in the BRITISH MEDICAL JOURNAL of May 20th, he states that the "skim" formed on boiled milk consists of the coagulated lactalbumen, and infers that when this "skim" is removed all the nourishing properties of the lactalbumen are lost, and that it may be this loss which accounts for the cases of scurvy and malnutrition in boiled-milk-fed babies. Has it ever been demonstrated that this skim is composed of lactalbumen? I would suggest that it consists of casein, a large amount of fat, and a due proportion—but only a due proportion—of lactalbumen, which substances have become solidified on account of the evaporation of the water from the top layer of milk, whilst in a warm state.

The formation of this "skim" can be entirely prevented—a point that very few people seem to know—if, directly after the milk has been boiled, it is put into a basin or jug, standing in running water, or on ice, and stirred until cold, *skim will not form*, any more than it will on cold unboiled milk. On the other hand, any number of skims can be formed by keeping milk warm in an open vessel and removing each one as it appears. They will go on forming until every drop of milk has dried up, it being merely a matter of evaporation.

In the feeding of infants and young children this "skimming" should always be prevented, on account of the horror and repugnance generally displayed by a young child on getting a piece of this skim into its mouth. It will as often as not refuse another mouthful from the same cup. As regards the loss of nourishment consequent on the formation of a skim, I am not clear in my own mind that there is any. Does not the skim if removed merely balance the H_2O evaporated, leaving the remaining milk in its full strength?

I have tried to form a skim from coagulated lactalbumen, but have failed to do so. I raised milk to a temperature of 98° F., added some rennet, and then filtered off the whey. This I raised to the boiling point, to coagulate the lactalbumen, and allowed it to stand in an open vessel; no skim was formed on its surface, but the coagulated lactalbumen sank to the bottom.—I am, etc.,

London, W., May 21st. J. SADLER CURGENVEN.

SIR,—In the correspondence on the above subject there are several factors deserving of consideration—namely, the effects of heat on the coagulability of milk with rennet, on the digestion by gastric juice, and on the antiscorbutic properties. Further, the clinical results are complicated by the effects of the alkalies which are so commonly added, usually after the heat has been applied. Various statements have been advanced in the BRITISH MEDICAL JOURNAL. Dr. F. G. Haworth (p. 856) asserts that "milk should not be boiled, nor should any water be added, even for the youngest infant." He adds 5 per cent. of lime water and of sugar. Dr. J. S. Curgenven (p. 969) found, as the result of laboratory experiments, that boiled milk curdled more slowly and less firmly with rennet; that the curd of boiled milk was the heavier, due to the albumen; that the curd was more readily digested than that of unboiled milk. Hence, as it formed more slowly and less firmly the gastric juice had a better chance to act. Dr. J. A. Coutts recalls the fact that Budin feeds infants on undiluted sterilized milk. Dr. S. M. Hebblethwaite asks whether lactic acid stops digestion.

I think that the underlying factor of importance is the effect of heat, applied to milk, on the processes of gastric digestion, and that it is possible to find an explanation of the various views held by different writers.

Many years ago I carried out laboratory experiments (vide *The Feeding of Infants*) to ascertain the effects of heat and attenuants on the curdling of milk. I found that the longer milk was heated and the higher the degree of heat, the greater was the amount of rennet required to coagulate a given quantity. The rate of coagulation was slowed and the resulting curd was softer. Heat also reduced the coagulability of milk with acetic acid to a small extent. Old milk forms curds more quickly and of greater density than new milk.

From this it follows that the longer milk is heated and the higher the temperature to which it is exposed, the less readily will it coagulate in the stomach. Curds are small or absent, and the fluid will pass easily and quickly through the pylorus. Gastric digestion is improved to the extent that the juice can mix more easily and thoroughly with the uncurdled milk, but is impaired to the extent that the milk stays a less time in the stomach. Herein lies the explanation of the impunity with which undiluted sterilized milk can be given. Gastric digestion is replaced by intestinal.

A similar explanation holds good when a considerable quantity of alkali is added to milk. Lactic-acid fermentation is bad for digestion; tough curds are formed in the stomach and are not easily digested by the gastric juice, or by the intestinal secretions if the curds succeed in passing the pylorus. Alkali will neutralize this lactic acid, and prevent the formation of these curds. If only just enough alkali is added to neutralize the acid, coagulation by rennet is not affected. Almost invariably an excess of alkali is added, and coagulation by rennet in the stomach is interfered with. If bicarbonate of soda is used, carbonic acid is given off in the stomach, permeates any curd formed, makes it lighter and more easily acted on by the gastric juice.

Hence a diet of undiluted fresh milk, with the addition of just sufficient alkali to neutralize the lactic acid present, may be digestible if the gastric juice contains only a weak amount of rennet and a rich supply of pepsin and hydrochloric acid. If an excess of alkali is added, the food will be more easily digested, for curdling will be deficient, and again we find intestinal taking the place of gastric digestion. This is not an

unnatural process in early life. It is clear from these observations that old milk requires the addition of a greater amount of alkali than new milk. The impunity with which undiluted milk can be given depends, therefore, on a powerful gastric juice or the prevention of coagulation in the stomach by heat or alkalies. Although it can be thus given, I cannot accept the view that it is a good system, for it involves the ingestion of an excess of proteid.

Feeding experiments by Weber on calves showed that skimmed milk possessed as much nutritive value as sterilized milk, and that both were inferior to uncooked milk. Confirmatory results were obtained by Vassilieff on young men and by Koplik on infants. The antiscorbutic properties are destroyed in proportion to the degree of heat and the duration of exposure of the milk to it. This is now so generally accepted that it needs no further amplification. It is amply confirmed by clinical experience.

The effects of heat on micro-organisms is of importance. A moderate degree of heat, as in pasteurization, destroys the comparatively harmless lactic acid bacillus and most pathogenic organisms. Milk thus treated may not go sour—an obvious change—but may decompose from the presence of undestroyed organisms or spores, giving rise to putrefactive changes which are not always obvious to taste or smell. Even sterilized milk may be unsafe, for the spores of various peptonizing bacilli may escape destruction and set up changes likely to produce fatal diarrhoea.

From the practical point of view I would urge that milk need not be boiled if it can be obtained reasonably pure and fresh, and that attention should be devoted to securing a supply of clean fresh milk rather than to the manipulation of a stale and filthy fluid. Under unfavourable conditions the milk should be boiled, cooled rapidly, and kept in the cold, or should be boiled immediately before use.—I am, etc.,

London, W., May 22nd. EDMUND CAUTLEY.

Sir,—May I ask to be allowed a brief space for a few comments on Dr. Coutts's letter of May 20th? In that letter I am made to say by him that the Americans discovered scurvy as a result of sterilization of milk. That is certainly not what I wish to express. I simply say what I believe to be a fact, namely, "that in the main the American writers have been answerable for the statement that sterilization of milk impairs its nutritive value." I consider that, granting the fact that milk is so impaired, it does not in my experience lead to scurvy, and up to a certain age development is normal. Beyond the ninth month variety in food is essential or disasters will follow. The "mysterious antiscorbutic power of milk" (Cheadle) is to me a fact, and one which may be relied on when a good milk is used and properly given. In the reprint of a paper kindly sent to me by Dr. Walter G. Smith, of Dublin,[1] I am reminded that Henkel in 1888 demonstrated the presence of citric acid in milk, and Dr. Smith remarks upon this discovery that it is suggestive. I regret that Dr. Coutts finds it difficult to credit the facts as stated by me, but the opinion I have expressed is not one hastily arrived at, and I therefore see no reason to do other than repeat my convictions.—I am, etc.,

Nottingham, May 23rd. LEWIS W. MARSHALL.

THE FEEDING OF INFANTS.

Sir,—If milk is boiled, scalded, or pasteurized, and is administered to an infant within a few hours of such heating, and, above all, is not put into hermetically-sealed bottles for the purpose of keeping, then the antiscorbutic property is not destroyed, and scurvy will never arise. But food out of hermetically-sealed vessels will always give rise to scurvy in due course if no fresh food be administered.

In all towns and cities it is much wiser and safer to sterilize cows' milk before using it for feeding infants. But those who have the luxury of their own cows certainly need not alter the character of fresh milk by boiling. It must be understood that all such milk must be heated to blood heat, and kept at that temperature whilst being given to infants. In my paper on the effects of various feedings upon the teeth,[2] I proved beyond question that breast feeding in infancy is the only way to ensure adults having really good teeth; also, my notes proved that cow's milk or goat's milk unmixed with any artificial food gave best results in the matter of sound teeth as compared with every other kind of food as usually given to infants.

One of the most important details in the heating of milk for the hand feeding of infants is to add a small quantity of bicarbonate of soda to the milk before it is heated. This is the only way of combating successfully the tendency to constipation which is the most difficult problem one is confronted with in all infants on heated milk diet. From 5 to 50 gr. of bicarbonate of soda to each quart of milk is required; the quantity being regulated entirely by the consistence of the child's stools. The alkaline salt also removes the acidity which is always found in town-delivered milk, and lastly this alkali has the effect of delaying bacterial changes in scalded milk that is not put into sealed bottles. A little water added to the bottle diminishes the excess of albumen constituents of cows' milk and the addition of sugar of milk (but not any other kind of sugar), to make up for the lack of sufficient sugar, makes a most easily-digested artificial food. If the specific gravity of the contents of the infants' bottle be taken from time to time the amount of sugar of milk it is necessary to add can be quickly determined, as the mixture of food should be of a specific gravity of about 1033.

Laboratory-prepared food or percentage-food preparations cannot compare with the above simple methods either in safety or economy.—I am, etc.,

J. KINGSTON BARTON, M.R.C.P.Lond.

London, S.W., May 22nd.

Sir,—This subject is so important, and is fortunately attracting so much attention at present, that I trust you will allow me a little space in which to correct a somewhat erroneous impression as to my views which my letter in your issue of April 15th has produced on the mind of Dr. Allison. I had when writing no intention of shrinking from the advocacy of breast feeding; in fact, the first part of my letter was devoted to showing that no form of artificial feeding could possibly equal it, and if Dr. Allison thinks my attitude "lukewarm," I can only apologize to him for not having made my meaning clearer. I may, however, point out that my letter was not, as far as I am aware, addressed to "mothers who can, but will not nurse," but to you, Sir, and the readers of the BRITISH MEDICAL JOURNAL, few of whom I imagine would come under that category.

Now as to the question of number of "incapable" mothers, those who would but cannot nurse. I see that so high an authority as Dr. G. F. McCleary, in his recent work states that, though "there is little doubt that breast feeding is increasingly difficult to obtain," he is "not in the possession of any statistics which support this view." He goes on to give various estimates of the number of mothers who are physically incapable of suckling; von Bunge, from particulars of 2 000 families in the cities of Central Europe, places the percentage at 50; Holt in New York believes that among the intelligent and well-to-do classes not more than 25 per cent. can suckle their infants for as long as three months; Marfan in Paris and Nordheim in Munich put the physically incapable at 10 per cent.

Then besides the physically incapable there are the economically incapable; mothers who are employed all day in factories and elsewhere. Many of these women are no doubt physically capable, but short of supporting them out of the rates during the whole period of lactation, there does not appear to be any method of compelling them to suckle their children which could not easily be evaded, and would not inflict great hardship and injury both on the mother and the rest of the family dependent on her earnings. I do not wish to dismiss this difficult problem by any means lightly. Let us advocate breast-feeding by all means in our power; such advocacy will no doubt do much good, but it will not by itself suffice to meet present conditions. The sturdiest teaching will not alter physical and economic disabilities, and it is therefore highly important that the proper methods of artificial feeding should be known and understood as widely as possible. Dr. Allison's own statement that 3 out of 4 infants dying under one year are bottle-fed entirely supports this view. Even under the somewhat unfavourable conditions of an infant milk dépôt, the mortality rate was only 78 per 1,000 in Liverpool during three years, and other milk dépôts in England can show very similar results. Apart from the general question of the utility of these institutions, the figures at least show that more careful methods are capable of greatly reducing the mortality among bottle-fed children.

With regard to the sentence from Dr. Allison's book which I ventured to criticize, I gather that Dr. Allison was a little hurt by some words which I used towards him: at any rate he replies by a *tu quoque*. If this is so I must ask him to accept my apologies, and assure him that his published

[1] *Dublin Journal of Medical Science*, June, 1904.

[2] See BRITISH MEDICAL JOURNAL, 1895; *Medical Press Circular*, 1890.

writings show him to be what his modesty does not allow him to admit.—I am, etc.,

J. M. Fortescue-Brickdale, M.A., M.D.Oxon.

Clifton, Bristol, May 20th.

THE CORNEAL REFLEX IN ANAESTHESIA.

Sir,—Since my short article on this subject in the British Medical Journal for February 4th, 1905, two letters, from Mr. Kirkby Thomas and Mr. S. C. Legge respectively, have appeared to some extent traversing the view which I then expressed that with careful testing the corneal reflex should not be completely abolished in chloroform and ether anaesthesia.

I do not think there could be two opinions upon this subject, if the corneal reflex were properly elicited by the majority of those who undertake anaesthetic administration; but the mistake of holding the upper eyelid open with one finger, and thereby fixing it from all movement, whilst the cornea is touched with another finger, is so universal and shows such lack of appreciation of the delicacy and varied strength of the response yielded by the upper eyelid to corneal stimulation in different degrees of anaesthesia, that I am not surprised when other signs are regarded as more reliable.

May I venture to assert that the lower eyelid does not and is not intended in the human subject to protect the centre of the cornea, and cannot therefore in surgical anaesthesia be expected to move when the latter is touched, and that it is only when the margin of the upper eyelid is gently lifted by the finger pulp brushing against the cornea and let go immediately that any delicate response can be elicited from this reflex protective mechanism?

No straining or muscular movements take place in a patient whose corneal reflex is only weakly active when taken in this manner; but at any moment when a weakly active closure of the upper eyelid cannot be evoked and demonstrated in response to the touching of either of the corneae, I consider that a patient is too nearly overdosed to be in a safe degree of anaesthesia.—I am, etc.,

London, W., May 23rd. H. Bellamy Gardner.

THE IRISH MEDICAL DIRECTORY.

Sir,—As the *Irish Medical Directory* has given offence to many members of the profession, and I, as a candidate for the honour of the direct representation of Ireland on the General Medical Council, have been challenged to express my views on the matter, I beg leave to say the *Directory* was never at any time submitted to the Council for their approval, and that its publication was never authorized by the Council.

At their last meeting the Council, on my suggestion, passed a resolution prohibiting any further issue of the *Directory* until it had received their approval in every detail.

This should be ample evidence that the Council do not approve of the book in its present form, and a sufficient guarantee for the respectability of future editions.—I am, etc.,

L. Kidd,

Enniskillen, May 21st. Member of Council, I.M.A.

THE SOCIETIES OF APOTHECARIES.

Sir,—It makes little difference what the change of title is so long as *some* change is made calculated to let the public know that an L.S.A.Lond. or an L.A.H.Dub. qualified under the Medical Act of 1886 is a duly qualified physician and surgeon or medical and surgical practitioner. At present the public generally is in doubt, and the benefit of that doubt is certainly not given to the L.S.A. or the L.A.H.

I cannot see that the title of Lic. Fac. Phys. and Surg. (London or Dublin) could interfere with the charter of the London College of Physicians as suggested by some of your correspondents. Surely the London College of Physicians do not control the right of title of all other medical corporations.

At all events, I invite the opinion of all Licentiates of either the London or Dublin Societies of Apothecaries as to what should be done, for it is high time a change of title came about for all concerned.—I am, etc.,

May 21st. A Licentiate.

Sir,—That a change in the title of the diploma granted by the Society of Apothecaries is, to say the least, highly desirable was forcibly brought home to my mind some time ago when applying for a public appointment. A rival candidate did not hesitate to try to damage my prospects of success by informing some of the district councillors with whom the appointment rested that I was not a properly qualified medical man. No change of title will, in my opinion, prove satisfactory in which the word Apothecary appears in any shape or form. It is misleading to the public as to our real status, and presents many difficulties in connexion with public appointments, as I have no doubt many other Licentiates have found to their cost.—I am, etc.,

May 22nd. Play-the-Game.

THE ETIOLOGY AND TREATMENT OF CANCER.

Sir,—In the British Medical Journal of May 13th, p. 1,056, under the heading "The Parasitic Theory of Cancer," attention is drawn to Professor E. von Leyden's belief in the parasitic origin of cancer, to the chemical investigations being carried out in Berlin, and to the fact that the cells in malignant disease are "susceptible in an exceptionally high degree to tryptic digestion."

I should be much obliged if you will allow me to point out that Dr. J. Beard (Edinburgh) and I had both previously and independently arrived at similar conclusions regarding the import of trypsin, and moreover its indication in the treatment of cancer, which does not appear to have suggested itself to Professor E. von Leyden or his colleagues.

The conclusions of Dr. J. Beard are founded on embryological research, and having already received strong support on the cytological and pathological side, appear now to be reinforced by the recent chemical investigations in Berlin.

As regards my own conclusions, I may remind your readers that in the Journal of January 7th, p. 48, under the heading "Local Irritation and Cancer," I referred to the presence of glycogen in new growths. At that time, in view of its known excess in malignant disease, investigations were being made for me by Mr. F. W. Gamble, pharmaceutical chemist, on the action of various ferments, including those of the pancreas, on this substance. As a result, it was found that while pepsin and diastase had little action, the proteolytic ferment of the pancreas effectually broke up glycogen, and this fact led me to commence trial of hypodermic injections of trypsin in cases of inoperable cancer. It was further found that the bile salts considerably aided the reducing action of trypsin.

While details of this treatment by trypsin alone, or aided by other substances which increase its action, require to be more fully worked out and put to the test, its indication in the treatment of cancer would appear to rest upon the independent work of different observers, and on conclusions reached by different routes, namely (1) the embryological facts, and those of suppression of "trophoblast" with its intracellular acid secretion by the alkaline ferment of the pancreas (J. Beard); (2) the chemical and solvent action on glycogen, clinical and therapeutic considerations (myself); (3) the results of investigations of physiological chemistry and solvent action on the cancer cell (Blumenthal and his colleagues).—I am, etc.,

London, May 15th. John A. Shaw-Mackenzie, M.D.Lond.

OBITUARY.

JOHN FRANCIS SCOTT FOWLER, M.B., C.M.

Public Hospital, Georgetown, British Guiana.

To many of our readers the news of the death of Dr. J. F. S. Fowler, of British Guiana, which took place on March 2nd, must have come with the shock of a personal loss. It was hard to associate the idea of death with one in the prime of an exceptionally vigorous manhood. He had been ailing for a few days; but till just before the sudden end, he scarcely thought himself ill, and those about him felt no alarm. The symptoms pointed to nothing worse than hospital sore throat, and less than an hour before his death he was listening with interest to an account of a cricket match which he had hoped to see. Then oedema of the glottis supervened, and although tracheotomy was performed, he died almost immediately after the operation.

The respect in which he was universally held in Georgetown was shown by the large attendance at the funeral, which took place on March 3rd. Among those present were the Surgeon-General, the majority of the medical practitioners of the town, the medical staff and nurses of the Public Hospital, several of the medical officers from the neighbouring country districts, and many of the general public. Dr. Fowler was buried in a grave adjoining that of his former chief, the late Sir David Palmer Ross.

Dr. Fowler, who was 40 years of age, was born at St. Helena with which his family had a long official connexion. He was at school in Switzerland, and studied medicine at the University of Aberdeen, where he took the degrees of M.B and C.M. in 1885. At the age of 22 he entered the army as a medical officer. He served for ten years, earning, wherever the needs of the service called him, the highest opinion of his superior officers by his professional skill and strict attention to duty, and the greatest popularity among all ranks by his personal qualities. Dr. Fowler was in fact a medical officer of the best type, at once keenly interested in his work, and in every way well fitted to take his place in the social life of the army. He was, moreover, thoroughly imbued with military traditions as he had several near relatives in the service. The circumstances under which he left the army were fully set forth in the BRITISH MEDICAL JOURNAL at the time and need not be recalled here. The case was brought before Parliament by Sir Walter Foster, and so strongly were the private sympathies of members in Dr. Fowler's favour that the Government, which upheld the War Office on the ground of discipline, made a party question of the matter to prevent an adverse vote. The case helped to bring about the state of things which made reform imperative.

That Dr. Fowler was entirely free from blame and was offered as a sacrifice to a perverted notion of military discipline was conclusively proved by the fact that Mr. Chamberlain almost at once offered him an appointment in the Colonial Service. That service gained by the army's loss. As a member of the staff of the public hospital at Georgetown Dr. Fowler made himself remarked as an indefatigable worker who never shirked his duty, and an excellent practitioner. The following extract from a notice of his career which appeared in the *Demerara Argosy* of March 4th, two days after his death, shows the feelings with which he was regarded by those who knew him best:—

> Of a singularly happy disposition, genial, kind, and hospitable to a degree, Dr. Fowler had always a cheery word for his patients, and made his regular round of the hospital wards with a jovial smile and a hearty greeting for the inmates, to whom he greatly endeared himself. In the Service he was regarded as an energetic officer, and his sterling good qualities won the respect and esteem of his colleagues, whilst in social circles he was a general favourite. His loss is keenly felt by the Medical Department. The Surgeon-General testifies to the regard to which he held the deceased, not only as a friend, but as a very efficient officer who could always be depended upon, and who never spared himself in the discharge of his onerous duties.

Dr. Fowler was for several years Honorary Secretary of the British Guiana Branch of the British Medical Association and discharged the duties of that office with characteristic zeal and efficiency. He contributed several papers to the *British Guiana Medical Annual*.

Dr. Fowler leaves a widow and young daughter for whom much sympathy is felt by all who knew him. The British Guiana Branch at a meeting held on March 13th, on the motion of the President, the Hon. Dr. Godfrey, seconded by Dr. Hugh Ross, unanimously passed a vote of condolence with Mrs. Fowler on the death of her husband.

LIEUTENANT-COLONEL CHARLES WHITE, R.A.M.C.

A CORRESPONDENT sends us further notes respecting Lieutenant-Colonel White, of whom a brief obituary notice was published in the BRITISH MEDICAL JOURNAL of May 20th, at page 1128. He was born in Brompton Square, London, and was educated partly at home and partly at a private school at Horsham. He went to the County Hospital, Ipswich, at the age of 17 for a year, afterwards to Guy's Hospital, and finally for a year to the County Asylum, Thorpe, Norwich. He joined the Army Medical Service (as it was then called) in March, 1865, and retired as Lieutenant-Colonel, R.A.M.C., in 1895, a little over twenty years of that time being spent in India and two-and-a-half years in Aden. He took part in the Sikkim Expedition of 1889-90. In the summer of 1892, when in medical charge of the Station Hospital, Ferozepore, he, with the staff under him, received the thanks of the Indian Government for his and their services during bad outbreaks of cholera among the English troops and residents of that place. In June, 1896, he received the retired appointment of medical officer in charge of the battery R.H.A., at the St. John's Wood Barracks, Ordnance Road, N.W., which he held until his death on the 9th instant, being on sick leave at that time.

He was very musical, and well known throughout the chess world as "C.W. of Sunbury," being the oldest living British chess composer; his problems had been published since he was 13 years of age. He was an ardent sportsman with both rod and gun, and a great racquet and Badminton player, both of which games, with cricket, he thoroughly enjoyed till he left India in 1893. He was twice married; first, in 1872, to Edith L. Seaton, daughter of Dr. Seaton, owner of the private asylum at Halliford House, Sunbury-on-Thames, who died in 1877, leaving one daughter; secondly, in 1883, to C. May Gibbs, daughter of the Hon. James Gibbs, C.S.I., C.I.E., senior member of the Viceregal Council in India, 1880-85, by whom he leaves two sons.

GEORGE LONGBOTHAM, M.R.C.S.ENG., L.S.A.LOND.

"The actual possession of one virtue is preferable to the bare speculative knowledge of all arts and sciences together."

IN the death of Mr. George Longbotham the profession has lost a member whose example, even in one direction alone, can ill be spared. His code of ethics, both professional and general, was truly Aristotelian; and the writer (who knew him intimately for over thirty years) can affirm that never was he even suspected of doing any of the hundred-and-one things which less conscientious men resort to for personal advantage, or to attempt to benefit himself, either for immediate profit or future reputation, at the expense of others. The writer could tell stories of his amazing over-scrupulousness, which seemed to indicate to his friends an almost morbid conscientiousness and hypersensitiveness, and he is fully convinced that his ethical actions and examples formed the chief glory of his life, and will remain his greatest claim to remembrance.

Born at Chester-le-Street in 1845, Mr. Longbottom was educated at the Newcastle School of Medicine, and, after obtaining the diplomas of M.R.C.S. and L.S.A., joined his uncle in practice at Seaton Carew, county Durham. As that small place was not congenial to his tastes and requirements, he removed to Leeds, and subsequently to Middlesbrough, where he practised for twenty-six years, leaving five years ago, first for Ilkley, then for Harrogate, where soon afterwards unmistakable signs of declining health became evident. He was Medical Officer to the Union Infirmary, and on the staff of the North Riding Infirmary, Middlesbrough, for many years, and a Past Master of the Ferrum Lodge of Freemasons.

A handsome man of excellent physique and presence, his death in Harrogate on May 10th at the age of 59 years from abdominal cancer has come as a surprise as well as a grief to all who knew him. His funeral at the Middlesbrough Cemetery on May 13th was one proof of the regard in which he was held. He leaves a widow, one daughter—married to a respected practitioner of Middlesbrough—and eight sons, the eldest of whom is practising in Middlesbrough. S.W.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

VOLUNTEER AMBULANCE CHALLENGE SHIELD.

THE competition for the challenge shield annually awarded by the Volunteer Medical Association will take place at Wellington Barracks on Saturday, June 17th, at 3 o'clock. The Director-General R.A.M.C. has promised to be present, and will, it is hoped, present the badges to the winning teams. Regiments intending to send in teams to compete should send notice without delay to Captain Montgomery Smith, 36, Abbey Road, St. John's Wood, from whom all particulars can be obtained.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE annual banquet of the staff and members of the School took place at the Trocadero Restaurant on May 18th, Surgeon-Colonel P. B. GILES, 30th Field Army Brigade, Senior Medical Officer, being in the chair. The attendance was a record one, and included Surgeon-General W. Charlton, Principal Medical Officer, Eastern Command; Colonel A. T. Sloggett, C.M.G., Principal Medical Officer, London District; Colonel W. Babtie, V.C., C.M.G.; Colonel Walter Horsley; Surgeon-Colonels Andrew Clark, G. S. Elliston, W. Gandy, W. H. Bull, F. Humphreys; Surgeon-Lieutenant-Colonel R. R. Sleman; Majors H. Thurston, C.M.G.; W. Price, C.M.G., R. Luce, S. Hoyland, and Dr. Galloway.

Colonel GILES, in responding for the school, said his first duty was to thank those commanding officers who had so kindly placed their drill halls at his disposal. Nowadays, with the extra requirements, drill halls were in great request

for regimental purposes, so when a commanding officer practically gave up all the accommodation for one night a week for thirteen weeks, he was deeply grateful for the concession; he wished therefore to thank the officers commanding the London Rifle Brigade, the 3rd City of London R.V., and the Queen's Westminster; and last, but not least, Colonel Horsley, Artists' R.V., who was present. He was glad to say that the school was very prosperous, and that nearly 700 medical officers from all parts of the Empire had passed through it, and some 4,000 stretcher-bearers. He recognized that the prosperity and efficiency were due to the loyalty of the instructors, officers, and non-commissioned officers. He thought that the new examination for promotion would be beneficial, as it required further study and a more intimate acquaintance with the interior economy of the Royal Army Medical Corps, and that the examination was popular with medical officers was evident, for at the present moment the school had a large class preparing for it. The chief difficulty to be faced was the dearth of officers entering the service, and he felt certain from his knowledge of affairs that the regulation course at Aldershot or elsewhere was an impossibility; not 1 per cent. of officers could afford the time required to attend; he thought and hoped that the Government might see their way to issue allowances to officers attending the school, provided that they attended regularly and passed the required examination. Such a concession would induce a greater number to join the service, which at the present moment was imperilled wholely and solely by reason that the Government did not hold out sufficient inducement for well-qualified men to join. He was glad to read in a recent speech of the Director-General that he intended to bring the Volunteer Medical Service more into line with the Royal Army Medical Corps, and so obtain a higher state of efficiency from the senior medical officers. Intelligent and liberal treatment of volunteer medical officers would create an efficient corps to supplement the R.A.M.C. in time of national danger. During the late war, had the Volunteer Medical Service been as it should and very easily could be made, then there would have been officers and men sufficiently trained to supplement the R.A.M.C. and no need for the employment of civilians.

During the evening the string band of the Cadet Battalion of the Royal Fusiliers gave an excellent selection of music. The arrangements for the banquet were made by the Mess President, Surgeon-Captain E. M. Callender, and a very enjoyable evening was spent.

ARMY MEDICAL SERVICE.

EXAMINATION FOR CANDIDATES.

AN examination of candidates for not less than 40 commissions in the Royal Army Medical Corps will he held on July 27th next and following days.

Applications to compete should be made to the Secretary, War Office, 68, Victoria Street, London, S.W., not later than July 17th, on which date the list will be closed.

Candidates who are over the regulated limit of age at the date of the examination will be permitted to deduct from their actual age any period of service in the field after October 1st, 1899, that they could reckon towards retired pay and gratuity, if such deduction will bring them within the age limit.

The presence of candidates will be required in London from July 25th.

UNIVERSITIES AND COLLEGES.

VICTORIA UNIVERSITY OF MANCHESTER.

MATRICULATION.

A MEETING of the University Court was held on May 11th, when an important statute regarding the Matriculation Examination was approved. The statute is in substitution of that already included in the statutes of the Universities of Liverpool, Manchester, and Leeds. This change has been necessitated by the granting of a charter for the University of Sheffield. The Joint Matriculation Board will be portal for entrance to all the four northern Universities.

Statute in substitution of that already included in the Statutes of the Universities of Liverpool, Manchester, and Leeds as regards the Matriculation Examination. (Statute XII):

1. The Joint Board shall consist of eighteen members: five to be annually elected by each of the Universities in Liverpool, Manchester, and Leeds, and unless by agreement between all the four Universities it shall be otherwise determined, three by the University in Sheffield, with power to co-opt persons of educational experience to the number of three.
2. When any change in the regulations regarding the Matriculation Examination is carried in the Joint Board by a majority consisting of less than two-thirds of the members who are present, the question at issue shall be referred to each of the four Universities, who shall each then nominate two additional members on the Board for the purpose. The decision of the Board so constituted shall be final.
3. The Board shall send annual reports to each University.
4. The regulations of the Board regarding the Matriculation Examination shall not affect the power of each University to admit students to such classes and courses as it may think fit.
5. The four Universities shall contribute to the expenses of the Joint Board in such proportions as may be hereafter determined.
6. Provided that this Statute shall continue and be in force for seven years from the date of its approval by His Majesty in Council.

Additional Statute:

1. Any Committee to be constituted for considering objections made by the Universities of Manchester, Liverpool, or Leeds, to proposed Statutes and Ordinances of the University of Sheffield shall consist of twelve members, three to be appointed by each of the said Universities.
2. Such Committee shall be convened by the Registrar of the Victoria University of Manchester.

The Joint Matriculation Board for the four northern Universities have issued the following regulations for candidates wishing to matriculate for the Faculty of Medicine:

Candidates are required to satisfy the Examiners in:

A. (1) English (Language or Literature) and English History.
(2) Mathematics.
(3) Latin.
(4) Two of the following, one of which must be a language:
i. Greek.
ii. French.
iii. German.
iv. Some other Modern Language approved by the Board.
v. Elementary Mechanics.
vi. Chemistry.
vii. Geography or Natural History.

B. Candidates who have passed the Matriculation Examination in five subjects, but have not included both Latin and Greek or a modern language, will be deemed to have passed the Matriculation Examination (Faculty of Medicine), provided they satisfy the Examiners in the subject omitted.

C. The Secretary of the Board is authorized to grant a certificate for the purpose of registration by the General Medical Council to candidates who have satisfied the Examiners in English subjects, Mathematics, Latin, and another language, although they may not have passed the Matriculation Examination. This certificate shall not entitle the candidates to proceed to degrees in any of the Universities.

D. Candidates for entrance to the Faculty of Medicine who have already obtained the certificate of having satisfied the Examiners in English subjects, Mathematics, Latin, and another language, will be deemed to have passed the Matriculation Examination (Faculty of Medicine), provided they satisfy the Examiners in one other subject in the Matriculation Examination.

E. For the present year the existing regulations shall apply to any candidate who desires to enter under them.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE TITLE OF DOCTOR.

AT the annual meeting of Fellows and Members of the Royal College of Surgeons of England the following resolution was moved by Mr. T. Garrett Horder, seconded by Mr. F. W. Collingwood, and carried unanimously:

> That the Council be asked to take the necessary steps, in conjunction with the Royal College of Physicians, to ensure that all persons who passed the conjoint examination shall be legally entitled to call themselves "Doctors."

Mr. Garrett Horder informs us that he has received the following letter from the Secretary of the College:

Royal College of Surgeons of England,
Lincoln's Inn Fields, London, W.C.,
May 17th, 1905.

Dear Sir,—With reference to my letter informing you that the resolution, moved by you at the annual meeting of Fellows and Members in November last, was receiving the careful consideration of the Council, the result of which would be communicated to you in due course, I have now to inform you that the Council, while believing it to be impracticable to obtain a legal right to the title of Doctor for any persons who do not hold the degree of M.D., determined to bring under the consideration of the Royal College of Physicians the views expressed by some of those who supported your resolution with regard to the by-law of the Royal College of Physicians forbidding licentiates, not being graduates in medicine, to call themselves "Doctors."

I am now directed by the Council to communicate to you the terms in which the Royal College of Physicians was asked to take this matter into consideration, and accordingly have to refer you to the enclosed copy of a report adopted by the Council on December 8th last, and I am further to report to you that the Council have now been informed that the Royal College of Physicians, having fully considered the matter, has decided not to alter the by-law in question.

I am, dear Sir,
Yours faithfully,
S. FORREST COWELL,
Secretary.

T. Garrett Horder, Esq.

The following is the text of the terms in which the resolution was communicated by the Royal College of Surgeons to the Royal College of Physicians:—

That the terms of the Resolution be communicated to the Royal College of Physicians, and that that College be informed that the Council, while they believe it to be impracticable to obtain a legal right to the title of Doctor for any persons who do not hold the degree of M.D., suggest it may not be expedient to enforce any measure prohibiting the use of the title by duly qualified medical men.

The Council therefore desire to call the attention of the Royal College of Physicians to the complaint made by Members of the Royal College of Surgeons holding the Licence of the Royal College of Physicians of London that they are forbidden by Bye-Law 177 of the latter College to call themselves "Doctors."

These Members point out that for generations the title of Doctor has by public consent been accorded to medical men generally, and that it is used by those holding the degree of M.B., although they have no legal right to it. It is also stated that the Royal College of Physicians of Ireland officially sanctions the use of the title by its Licentiates, and that Licentiates of the Royal College of Physicians of Edinburgh are encouraged to use it.

Those who have taken the diplomas of the two Royal Colleges under the regulations of the Conjoint Board therefore regard themselves as placed at a disadvantage as compared with the Licentiates of other Institutions, and they moreover believe that the prohibited use of the title has in many cases the effect of preventing students from seeking the Diplomas of the two Colleges.

The Council therefore beg that the Royal College of Physicians will take the matter into consideration, and they trust that it may be possible to remove a prohibition which affects and is resented by a large number of Members of the Royal College of Surgeons.

HOSPITAL AND DISPENSARY MANAGEMENT.

REGISTRATION OF NURSES.

Evidence before the House of Commons Committee.

On May 18th evidence was given by Sir Victor Horsley and Dr. Langley Browne as representatives of the British Medical Association.

Sir Victor Horsley said the Association consisted of close on 20,000 practitioners, and was, in their opinion, the only voice of the medical profession. At a meeting of Representatives, chosen by each Division of the Association, held at Oxford in July, 1904, a resolution was passed *nem. con.* approving of the principle of the registration of nurses, although they kept an open mind as to the details of the two Bills which had been introduced into Parliament. Notice had been received from one district that at the meeting to be held at Leicester next July a motion would be proposed to rescind the Oxford resolution, but he thought that motion had no chance of being carried. The matter had been before the Association twenty years, and ten years ago, at a general meeting held in London, a resolution was adopted, with one dissentient, declaring that it was expedient that as soon as possible an Act of Parliament should be passed to provide for the registration and education of medical, surgical, and obstetric nurses. It might, therefore, be assumed that that was the settled opinion of the British Medical Association. The machinery necessary for the working of the scheme would be a Central Board or Council. He did not think any difficulty would arise as to the removal from the *Register* of the name of a nurse because of misconduct, as no doubt the Council would appoint a committee to consider whether there was a primâ-facie case against her prior to the exercise of the disciplinary control of the Central Board or Council. The registration of nurses would not bring them more into competition with doctors. There should be an examination of nurses by a statutory authority, and the passing of that examination alone should entitle a nurse to registration.

The Chairman (Mr. Tennant) having said that it had been suggested that the ordinary general practitioner did not hold the same view as to the registration of nurses as did the consultants,

Dr. Langley Browne, speaking as a general practitioner, and President of a very large society of general practitioners, said he could assert that these practitioners felt even much more strongly that nurses should be registered. The feeling was stronger in the provinces than in London.

Sir Victor Horsley, proceeding to deal with other proposals as to which his opinion was asked by the Chairman, declared himself in favour of the registration of nursing homes in which patients were treated, and that matter might be entrusted to the county or borough councils, or whatever the local sanitary authority might be. He saw no particular advantage, however, in registering nurses' homes which sent out nurses. So long as the nurses were on a State *Register*, he could suggest nothing to test the efficiency of a nurse other than an examination. The general council could lay down a curriculum, and unless there was a certain course of lectures given and other satisfactory arrangements made by institutions, the training at such institutions should not qualify for examination. His experience was that untrained nurses charged the same fees as qualified nurses, because they thought that their charging the same fees carried with it the idea that they were fully trained. In conclusion, Sir Victor Horsley said he would make it a penal offence to nurse for gain unless the person so doing had been for three years in a hospital and had passed an examination. It would be fair to allow five years to elapse before this penal provision came into force. He would not have two *Registers*. As to cottage nurses and as to women who, being friendly neighbours, were paid to attend a sick person who was not dangerously ill, they were doing a public service. That he would not call nursing. What he would prevent would be the assumption of nursing responsibility, but it would be a matter entirely for the Court before which the case was brought to say what was the nursing which involved responsibility. It was not necessary to define "nursing" in the Act of Parliament.

Dr. W. B. Thorne, representing the British Nurses' Association, concurred, although he thought it hardly time to make it penal for an unregistered woman to practise nursing.

Dr. Percy Allan, who was the next witness, said he was entirely opposed to the registration of nurses, as the poorer class of patients would not be able to pay for a skilled nurse.

On May 23rd Mrs. Hobhouse, a member of the Committee of the Rural Nursing Association of Wiltshire, expressed the opinion that registration would be extremely detrimental to nursing. There was a great shortage of trained nurses of a high standard, largely owing to the value attached to the training certificate of the London Hospital. In many provincial hospitals the training was as good as that given in London, but it was difficult to convince the public of the fact. Nurses trained in London were wanted everywhere, but there were not enough to meet the demand. If the rules of registration were too stringent the shortage would be intensified, but if they were reasonable, registration would be helpful, because it would tend to give provincial hospitals a status they did not now possess. In rural districts doctors often feared competition by nurses, and people were apt to send for the nurse when they might send for the doctor. Within the last twelve years the standard of character and training among nurses had considerably improved, and the poor now got much more efficient nursing than formerly. Of 400 nurses whom she knew in country districts, only 12½ per cent. were fully trained, yet they did their work satisfactorily. Trained nurses could not be got to stay in the country. She did not think the poor needed any protection against the untrained nurse. Rural nursing was only in its infancy. The great majority of those employed were old women, who could neither read nor write, and the proportion of those over thirty-five who had passed the midwifery examination was very small. Mrs. Hobhouse thought it would be necessary to have two standards of training. It would be most harmful to prevent a woman from nursing unless she held a certificate.

Dr. Dickinson, a London practitioner, expressed the opinion that registration was neither necessary nor desirable. If the wealthy got bad nurses it was entirely their own fault, and if the poor got bad nurses it was the fault of the committee who engaged them. It would be much better to register houses where the sick were received for treatment and the institutions where nurses were trained than the nurses themselves. Such institutions should be under some sort of public control. Financially, he considered the scheme of the Bill impracticable. The estimate of 60,000 registrations was ridiculous; it would be nearer 6,000.

Miss Kemp, a nurse of considerable experience, said that all the nurses she came across were in favour of registration, which would distinguish the trained from the untrained. She thought a clause ought to be inserted in the Bill prohibiting unqualified persons from running a nursing institution. Many so-called "co-operative" homes that were springing up were carried on by persons who knew nothing of nursing, and who claimed a very high percentage on the earnings of the nurses they employed.

MEDICO-LEGAL AND MEDICO-ETHICAL.

TIME LIMIT FOR INQUESTS.

MEMBER (Birkenhead) encloses copies of newspaper reports of an inquest in which the question arose as to the time limit when an inquest can be held after the death of the deceased following injury from which he may have died. Our correspondent was of opinion that if twelve months and a day elapsed after the date of the injury that the medical attendant could if the patient afterwards died give a certificate of the cause of death, and that the registration would take place in the usual way, that an inquest was unnecessary, and consequently no notice to, or communication with, the coroner was required.

*** This opinion is by no means uncommon, but it is not correct, as explained by the coroner at the inquest. There is no limit of time which interferes with the holding of an inquest should the statute law require one, or the coroner in his discretion elect to hold one; and exhumation may take place at any time after burial if the view, or the *post-mortem* examination of the body, or analysis of the organs would be likely to afford evidence as to the cause of death. It will be within the recollection of many that a few years since a derelict body was found in a wooden casement or coffin in London at one of the railway termini. It was unclaimed at the time, and reported to the coroner as "a body found dead," and at the inquest that followed, to the surprise of all concerned, it was found to be the body of an Egyptian mummy embalmed about a thousand years before. It had gone astray, the label lost, but was ultimately restored to its owner. The point with regard to twelve months and a day refers to criminal proceedings, and an accused or suspected person cannot be charged with causing the death of another if the deceased person survived over the period of time mentioned. Should death, however, take place within that limit of time, then any person may be charged with causing it at any period of time afterwards. With regard to the medical practitioner who is in attendance on a patient whose death is caused or accelerated by injuries or from their secondary effects, although he may be quite prepared to give a certificate of the cause of the death, it is generally the wisest course to communicate the facts to the coroner without delay and leave the matter in his hands, for if the death is registered, and an inquest ultimately held, delay and inconvenience may be caused to the friends, and cases have been known where the funeral has had to be postponed.

FEES FOR ATTENDANCE ON DOMESTIC SERVANTS.

"BEACON" writes that some time ago a servant of wealthy people called at his surgery for treatment, saying that she had been sent by her mistress. He attended to her, and it became necessary for him to call on her at her employer's house. There he saw the daughter of the house, who inquired as to his patient's ailment, and accompanied him into her room. He sent in an account to the patient's employer twice, and as no notice was taken, wrote about it. He received an answer denying liability, and stating that the servant had left. Can he sue the employer?

*** Such an action would probably fail. The facts disclose no legal liability on the part of the employer. A practitioner, when attending a servant, unless he has confidence in the employer, should make a point of ascertaining whether he is to look to him or the servant for payment.

PAYMENT OF DOCTORS' BILLS.

A CASE recently came before the Dewsbury County Court that well illustrates the injustice the ordinary medical practitioner too often experiences in recovering payment for his services. Dr. La Touche claimed six guineas for attendance on a patient during his last illness. He showed that the widow had received £30 as insurance money on the life of her husband had paid £13 for funeral expenses, £5 5s. to a consultant, and satisfied other creditors, but had paid nothing to the plaintiff. The registrar said the way doctors were treated was simply infamous. They were sent for by day or night, and kept in regular attendance for weeks, and when they sought payment, the rule was to pay anybody but them. He would give judgement for the full amount, which ought to have been paid when the insurance money was received.

*** It is satisfactory to find that medical men may sometimes obtain justice in the county courts, and we wish there were more Registrars throughout the country like Mr. Registrar Chadwick.

PROPERTY IN DAY BOOKS.

RETIRED asks if the purchase of a practice entitles the purchaser to all the old day books.

*** Not necessarily, unless specially stipulated in the purchase.

MEDICAL WITNESSES AND MINORS.

THE Governor of New York State has signed a Bill amending the code of civil procedure relative to disclosure of information of medical practitioners and nurses by providing that where the patient is a child under 16 years of age the practitioner or nurse may be required to testify fully in relation to evidence of a crime.

PUFFING OF MEDICAL MEN IN THE LAY PRESS.

EAST ANGLIAN sends us a cutting from the *Lowestoft Journal*, which contains a reference to a medical practitioner who has lately become partner to one of the resident medical men.

*** It must not be assumed that such paragraphs are inspired without evidence. The matter will be referred to the Ethical Committee.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

J. M. writes: I should be grateful for any references to memoirs, such as that on Surgeon Stokoe in last week's BRITISH MEDICAL JOURNAL—memoirs dealing with the life of the naval surgeon in the eighteenth century, but especially in its latter half. References to any kind of literature, however, dealing with the ship's surgeon of this time will be very helpful. I am familiar, of course, with the immortal *Random*.

EPSOM COLLEGE.

SALOPIAN will be thankful for information from parents who have had experience of Epsom College as a school for boys entering the profession.

ILLUSTRATED WORKS ON BOTANY.

CELANDINE asks to be recommended a good illustrated book on botany, giving the popular and botanical names of plants, and some coloured illustrations for identification.

*** We know of only two books which would meet "Celandine's" requirements. The one is Sowerby's well known work, *English Botany* (London: George Bell and Sons. Thirteen Volumes. £21). The other is *The Flowering Plants, Grasses, Sedges and Ferns of Great Britain*, by Anne Pratt, edited and revised by Edward Step, F.L.S. (London: Frederick Warne and Co. £2 2s.) In four volumes, with 319 coloured plates, representing over 1,500 species. Messrs. Sotheran, Piccadilly, W., might be able to get it second-hand. This latter work would meet all "Celandine's" requirements.

INCOME TAX.

RUSTICUS, who receives £14 per annum as medical officer of health under a Board of Guardians, asks whether, in making his income-tax return, he should insert the full £14 as his income, or £13 14s. 4d., the net amount received after deducting his contribution for purposes of superannuation; also, whether he should base his return on the average for the last three years, or on the actual sum received last year?

*** He should return the gross amount of his salary, £14, but in the space provided for "expenses" may claim an allowance for the 5s. 8d. contributed towards superannuation, the effect being that he will be taxed on £13 14s. 4d. only. The return should be based on the present annual salary, not calculated on an average.

ANSWERS.

E. S.—It cannot be said that the island of Trinidad is suitable for children. Its climate partakes more of the nature of that of the mainland, and fever is very prevalent.

FISTULA.—The only proper method of treating a branchial fistula is to dissect it out to its termination. The operation is difficult, owing to the proximity of important vessels and nerves, and many authorities recommend that such fistulae should be left alone unless they are particularly troublesome to the patient.

R. F. T.—There is no accredited agent for getting employment for nurses at home or abroad. There are several agencies of more or less repute that find employment for nurses at home. For those seeking employment in the Colonies there is the Colonial Nursing Association at the Imperial Institute, than which nothing can be better. For those who seek employment in foreign countries there are nursing homes working in the health resorts of the Continent which employ a large number of nurses during the season. All such addresses can be found in *The Englishwoman's Yearbook*. (London: A. and C. Black. 2s. 6d.)

TREATMENT OF GRAVES'S DISEASE.

DR. HARBURN (Buxton) writes: In reply to "T. H. G.," who asks for information regarding the treatment of Graves's disease, I have obtained the best results from central galvanization given in combination with effervescing saline baths. If "T. H. G." will communicate with me I shall be happy to furnish further details.

AMENORRHOEA.

DR. FRANCIS HARE (London) writes: In the BRITISH MEDICAL JOURNAL of March 25th, p. 696, "W. S." asks for advice in the treatment of amenorrhoea of eight months' duration in an otherwise healthy woman. I would suggest the following procedure: Let the patient sit or lie in a cold bath immersed to the neck and have administered simultaneously

a prolonged hot vaginal injection. This should be done when the increased backache marks the time of the missing menstrual period; it may be repeated several times. The procedure operates by increasing the power of the vasomotor mechanism of menstruation, which in all probability consists of an increase of the normal peripheral vasoconstriction or vascular tone, combined with, and in part compensated by, pelvic, especially uterine, vasodilatation. It has proved immediately successful in several cases and no bad results have been observed.

BOOKS ON MEDICAL DISEASES OF CHILDREN.

IN the reply to "Berkshire" published in the BRITISH MEDICAL JOURNAL of April 22nd, 1905, p. 920, the two works by Dr. Eustace Smith and Dr. L. E. Holt, which were intended as likely to meet our correspondent's requirements were the following, and not the two mentioned in the reply published: *Practical Treatise on Disease in Children*, By Eustace Smith, M.D., second edition (London: J. and A. Churchill. 1889. 22s.); *Diseases of Infancy and Childhood*, by L. E. Holt, M.D., second edition (London: Henry Kimpton. 1902. 25s.)

ADIPOSIS DOLOROSA.

DR. HENRY DOBSON will find a useful bibliography relating to adiposis dolorosa in Allbutt's *System of Medicine* (vol. vi, p. 577), and valuable articles on osteomalacia in the same *System* (vol. iii, p. 147), in the *Encyclopaedia Medica* (vol. ix, p. 5), and a somewhat longer one than in either in *Twentieth Century Practice of Medicine* (vol. iii, p. 235).

SOUTH AFRICA FOR EARLY CASES OF PHTHISIS.

D. O. C. writes: In reply to Dr. Charles Hooker, of Cirencester, I can speak from some personal knowledge of South Africa and also from six months' experience as a patient in an English sanatorium. The disadvantages of South Africa as a residence for invalids, compared with the much more excellent prospects to be obtained from sanatorium treatment in this country, would induce me to dissuade any one from choosing the former. If Dr. Hooker's patient has only slight symptoms, a six months' course in any well-ordered sanatorium would probably lead to complete arrest of symptoms. There are numerous good sanatoriums in Wales and the West of England. I would be glad to send to Dr. Hooker privately the name of one where I was cured by a six months' residence. I have since been hard at work in a large city for two years.

TREATMENT OF HAEMOPTYSIS.

DR. FRANCIS HARE (London) writes: In the BRITISH MEDICAL JOURNAL for March 18th Dr Edward Green enters a rational protest against the use of adrenalin in haemoptysis, and suggests as part of the treatment morphine hypodermically and "turpentine in large doses with nitrite of amyl inhalations, or a dose or two of sp. etheris nit., until the stimulating effect of the turpentine has passed off." There is at least one recorded case in which there seems little doubt that the use of adrenalin served to prolong haemoptysis (Dr. J. Gray Duncanson, JOURNAL, March 12th, 1904). And in the *Lancet* (August 20th and October 1st, 1904, January 21st, 1905) I contributed a series of 9 cases in which 17 attacks of haemoptysis (16 phthisical, 1 mitral) had been, with one exception, stopped within three minutes by amyl nitrite inhalation. The cessation of bleeding was for the most part instantaneous or practically so, and in many there was no recurrence. There is, however, a serious objection to the use of morphine, which, by diminishing or abolishing cough, favours retention and subsequent septic pneumonia. Amyl nitrite operates in spite of the continuance of cough; hence the effused blood is rapidly expectorated. Accordingly, no case has occurred in which there has followed the least additional rise in the temperature range.

PRACTICE ABROAD.

ALPHA.—(1) The following are the restrictions placed on the practice of medicine and surgery by foreign medical men in the countries mentioned: (*a*) In Algiers the foreign medical graduate who desires to obtain legal authority to practise must pass the same examinations as those to which ordinary French medical students are subject; (*b*) in Switzerland the same conditions exist; (*c*) in Monaco permission to practise is accorded to holders of the M.D. degree of the Universities of "the United Kingdom of Great Britain," and to Fellows of the various Royal Colleges of Physicians and Surgeons and of the Faculty of Physicians and Surgeons of Glasgow who are prepared to enter into an agreement to practise their profession in the Principality during May, June, July, August, September, and October; (*d*) in Italy and on the Italian Riviera no restrictions are imposed upon foreign graduates provided they restrict themselves entirely to work among patients other than those of Italian nationality. If they desire to practise generally, they must obtain an authorization from one of the Royal Universities in Italy; (*e*) in Cairo, British graduates can obtain legal authority to practise upon application to the Director-General of the Sanitary Department. (2) In none of these countries would established practitioners have a right to regard a newcomer as an interloper. It is all "squatter" territory.

LETTERS, NOTES, Etc.

TREATMENT OF PNEUMONIA BY ACETATE OF IRON.

DR. R. N. LYON (Lucan) writes: With regard to the treatment of pneumonia by acetate of iron coming under the head of new treatment, during my term of studentship, now over thirty years back, I saw it frequently given to patients by the late Dr. G. A. Stoker, Dublin.

ACUTE POISONING BY A SINGLE CASTOR-OIL SEED.

DR. A. GORDON GULLAN (Liverpool) writes: In reply to Major G. H. Fink's letter on the above note, which was published by me in the JOURNAL of May 6th, I can assure him that there is absolutely no doubt that the man ate a castor-oil seed and not a croton-oil one, as he suggests. Some of the seeds were immediately brought to the hospital, accurately recognized (I have them in my possession now), and identified the next day by the patient, as being the same as the one he had eaten. I am surprised Major Fink "has not read in textbooks of these properties in castor-oil seeds." I can refer him to Taylor on *Poisons*, and Professor Dixon Mann's work on *Forensic Medicine and Toxicology*. The latter records that three seeds proved fatal to an adult aged 32. Since writing my note on the subject I have learnt from a trader in castor-oil seeds that his firm always labels them "poison," and that the husks, after the oil has been expressed, are used as a valuable dressing for vines, as they possess most powerful properties destructive to the insects which attack those plants. I need only refer again to the fact that the poison is contained in the embryo of the seed, and I trust that neither Major Fink nor any one else will use the "castor-oil seed therapeutically in the tropics" or elsewhere.

MR. GEO. MITCHELL, a consulting engineer, has favoured us with a communication, in which he expresses the conviction that in Dr. Gullan's case, published in the BRITISH MEDICAL JOURNAL of May 6th, a croton-oil bean has been mistaken for one of castor oil. He has been studying the latter for some years, and considers that its oil-free meal has a high nutritive value. He has found rabbits to flourish on it, while he has himself taken 7 grams of it daily for many consecutive days without ill-effect. In places where the plant grows, he says, native children often eat castor-oil beans without other effect than occasional griping pains.

THE FORCE OF HABIT.

WE take the following story, it is almost needless to say, from a French journal, and we give it *sous toutes réserves*. A young laryngologist was consulted by a lady whose trouble turned out to be situated in a part lying far outside his special province. Patients were yet too few, however, to allow him to live up to his ideal of specialization, and he therefore proceeded to make an examination involving the use of a vaginal speculum. Having successfully introduced the instrument, the force of habit proved too much for him, and in his most insinuating tone he invited his astonished patient to say "Ah!" What the lady *did* say is unfortunately not recorded.

THE SURGICAL ANATOMY AND OPERATIVE TREATMENT OF TUBERCULOUS GLANDS OF THE NECK.

DR. J. W. MARTIN (Newbridge, Dumfries) writes: In the latter part of Dr. Sutcliffe's paper on The Surgical Anatomy and Operative Treatment of Tuberculous Glands of the Neck, he points out that general tuberculous infection from primary glandular enlargements is rare. I think that is a point generally conceded, and he might have gone a stage further and said that it is owing to the glands becoming a receptacle for the manufacture of antitoxins or antisubstances, which are carried by the circulation to the distant organs and prevent implantation of the tubercle bacilli. This is a point that should be borne in mind by surgeons, for the early eradication of affected glands is now too frequently practised, to the future detriment of the individual to resist the invasion of the tubercle bacillus. The fact that glands are affected in cancer when the disease is becoming too disseminated, and therefore more dangerous to the organism, points in the opposite direction to tubercle, and therefore is against the germ theory of this disease.

MEDICAL SUBJECTS IN THE LAY PRESS.

DR. A. W. HARRISON (Mossley, near Manchester) writes: This week you have an annotation on the subject of medical errors in the lay press, as recently exemplified in a Manchester paper. The following appeared in the Manchester *Daily Dispatch* about the same time, and may perhaps interest your readers. It gravely stated that the pigmies from Central Africa, who were in Egypt awaiting permission to come to England, were all "suffering from anchylostuma (*sic*) or anchylosis, which is a disease of the bones, a kind of creeping paralysis." Would it not be difficult to get more errors into one short sentence?

AUTOMOBILES FOR MEDICAL MEN.

EX-MOTORIST, commenting on a note signed "Sparking Plug," which appeared under the above title some weeks ago, says that it is too optimistic. His own experience of motors lasting for nearly three years was not nearly so fortunate. He does not consider motors suitable for medical men unless they are fond of and understand mechanics, or are prepared to keep an expensive chauffeur. In editorial references to motoring several cautions have been given as to accepting too blindly the views of optimists; those of pessimists may equally be misleading.

BAD TIMES AND GOOD SANITATION.

WE gather from an account in the *British and Colonial Druggist* that the following interesting sidelight was thrown recently upon the present position of the profession of medicine during the hearing of a case in Lambeth County Court. "Things are so bad with doctors now," said the bottle-dealing defendant, "that my takings are nothing to what they used to be." Judge Emden: Why is business so bad with doctors? The Defendant: They tell me that the sanitary arrangements have been made so good that business is not now what it used to be. Judge Emden: I am sure the London County Council and the Borough Councils will be glad to hear that. The Defendant: Of course, when they have not to supply so much medicine, they do not want so many bottles. Judge Emden: Pay 10s. a month until the doctors' business gets better.

THE USE OF A MEDICAL MINISTER.

IN reference to the appointment of Dr. Cortezo to be Minister of Public Instruction in Spain, the *Heraldo de Madrid* lately published among its caricatures of the week one representing an anxious inquirer asking an official how the Government is going on. The reply is, "From bad to worse. We have had to call in a doctor."

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THE MEDICAL PROFESSION ABROAD,

IN ITS

EDUCATIONAL, SOCIAL, AND ECONOMIC ASPECTS.

GENERAL VIEW OF THE SITUATION.

THE state of the medical profession in this country is known to practitioners already engaged in the battle of life from their own experience, and, for the instruction of those about to enter the arena, is reflected week by week in the pages of the BRITISH MEDICAL JOURNAL. It is a feature in human nature that some measure of relief from one's own troubles is often derived from the knowledge that others are in like case. It may tend to make the just man struggling with adversity—that spectacle which the philosopher deemed specially pleasing to the gods—more contented with his lot if he will look abroad, and compare it with that of his professional brethren in other countries. A higher motive for this comparative study may be found in the fact that, more than any other profession, medicine unites its professors in a solidarity of interests, material as well as scientific. Nothing that concerns its members in any country can be looked upon as foreign to ourselves. In certain aspects the profession already has something of the character of an international organization; and it may perhaps be anticipated that its future development will probably lie more and more in that direction. The more we strive towards a larger community of effort, the more confidently may we hope to succeed in raising the whole profession to a higher social level and to greater political importance. A first step towards this solidarity is the knowledge of the conditions of medical practice, and of everything appertaining to the professional life of practitioners throughout the civilized world. This number of the BRITISH MEDICAL JOURNAL is intended as a contribution to such knowledge. With that object the greater part of its space is devoted to a series of articles by writers in a position to speak with the authority of personal knowledge on the actual state of the medical profession in Europe and in British Colonies.

It will be noted that neither North nor South America falls within the purview of this Special Number. We regret the omission, in extenuation of which we can only plead the force of circumstances. The United States present so wide a diversity in regard to the conditions of medical practice, the standard of scientific education and practical training, and the relations of practitioners to the State and the public, that they would require a number all to themselves. There were difficulties which seemed insuperable in the way of getting accurate information as to South America. Even in regard to Europe the survey is incomplete. Russia has other, perhaps more important, things to think about at the present moment; Norway and Sweden appear to be on the verge of civil war; Greece was, we confess, overlooked, and we failed in our endeavour to obtain first-hand information about Switzerland.

If, however, we cannot boast that we have been able to survey medical mankind from China to Peru, we hope we may justly claim to have brought together a large mass of authentic information that will be interesting and possibly useful to many of our readers.

The points as to which information was sought may be summarized as follows: 1. The conditions of medical practice, university degrees, State diplomas, curriculum, examinations, graduation, registration of diplomas. 2. The rights and duties of medical practitioners (*a*) in regard to the public; (*b*) in regard to the State and the administration. 3. Public medical services, exclusive of the sanitary services of the Army, Navy, and Colonies (hygiene, prisons, lunatics, etc.). 4. The financial position of practitioners; tariffs of fees, average professional incomes (*a*) of general practitioners in towns; (*b*) of general practitioners in rural districts; (*c*) of consulting physicians; (*d*) of surgeons; (*e*) of specialists; (*f*) for operations. 5. The medical profession and the service of justice; medical witnesses; fees for expert evidence. 6. Quackery and illegal practice; laws, regulations, penalties, persons charged with the application of the law, magistrates, police. Is the law strictly applied? Defects of the law. 7. Practitioners and Friendly Societies; gratuitous medical assistance; fees of medical officers to such bodies. 8. Protection of professional interests; associations, syndicates, benefit fund, medical providence. 9 Social position of practitioners; doctors in politics. 10. Statistics; overcrowding of the profession.

The articles which follow embody the replies to these questions which have been received. Naturally they differ considerably in the amount of information supplied, but, taken as a whole, they cover the ground pretty completely. It is impossible even to summarize them here with any approach to fullness; but it may be useful to indicate their general purport in regard to the more important of the points enumerated above, so as to give the reader a sort of bird's eye view of their contents which may serve as an introduction to the study of them in detail.

TRAINING AND QUALIFICATION.

In France, Germany, Austria, Hungary, Holland, Denmark, Italy, Spain, and Belgium, entrance to the profession is by one portal, and the real licensing body is the State. In France and Italy the State licence carries with it the title of Doctor of Medicine, while in Austria, Hungary, Denmark, Belgium, and Spain the degree carries with it the State licence. In Germany the Staats-Examen, which gives the right to practise, confers only the title of "Arzt." The doctor's degree, which is merely an academic distinction, must be conferred by a University; it is, however, taken by nearly all German practitioners. In Holland a State examination gives the successful candidate the title of "Arts"; the degree of

Doctor has a purely scientific significance, and the way to its acquisition is barred by an obstacle akin to the "compulsory Greek" which is felt as a grievance nearer home. In Belgium the only legal qualification is the degree of Doctor conferred by one of four Universities—Liége, Ghent, Brussels, and Louvain. In Spain there are two diplomas—Licentiate and Doctor—which are conferred by the State after the statutory examinations have been passed at a university. In Portugal there is only one University—that of Coimbra—which grants degrees. Most graduates are satisfied with the M.B.; as a rule the M.D. is taken only by aspirants to professorships. The title of Physician and Surgeon is conferred by two schools—Lisbon and Oporto. The diploma of any of these three institutions carries with it the right to practise without any further intervention on the part of the State. In Hungary, where the degree of M.B. or Ch.B. was once common, all practitioners are now *Universae Medicinae Doctores*. In Turkey the diploma is conferred by the Imperial Faculty of Medicine of Constantinople.

The length of the curriculum is generally from five to six years, and it will be noted that in most of the countries under review a high standard of preliminary education is required—at least on paper. The professional examinations are also very numerous and formidable-looking. It is impossible, from the mere enumeration of the subjects of the curriculum, to judge of the actual amount and quality of knowledge represented by a given degree; *il est avec les dieux des accommodements*, and it is possible that there may, in certain instances, be mitigating circumstances of one kind or another which make the series of ordeals less superhuman than it appears. The German "Staats-Examen" strikes us as being altogether the most thorough and the most practical. The searching character and protracted duration of the clinical tests is especially remarkable. A candidate who had not a sound knowledge of disease, acquired at the bedside, could scarcely hope to undergo them successfully.

Registration.

In most countries registration of the diploma which gives the right to practise is required. In Austria, before the doctor begins his professional career he must register his diploma at the office of the chief magistrate. In Holland the diploma must be sent to the chief inspector of public health, and must afterwards be shown to the burgomaster of the commune in which the practitioner proposes to settle. In Belgium diplomas, before they can be held legally valid, must receive the ratification of a Special Commission which sits in Brussels. In Spain the diplomas are registered by the Minister of Public Instruction before they are issued. In Portugal the diploma must be registered for police purposes by the administrative authorities within whose sphere of jurisdiction the practitioner habitually resides. In Italy the diploma must be registered at the prefecture of the district in which its possessor intends to practise. In Turkey foreign diplomas must be registered at the Constantinople School of Medicine.

In most of our Colonies registration is enforced, but in some of them the meshes of this legal net are perhaps a trifle wide. Graduates of foreign universities are almost everywhere admitted.

Rights and Duties of Practitioners.

The rights of practitioners are virtually the same in all countries. Having complied with the conditions required of them in the way of qualification and registration, they are at liberty to practise their profession without let or hindrance, unless they come into collision with the law by some breach of its ordinances. In France, Germany, Austria, Italy, Holland, and most other countries the practitioner is expressly forbidden to dispense medicines except when there is no pharmacy within reasonable distance; in such a case he is allowed to supply medicines, but only to his own patients. Partnerships are generally unknown, and practices cannot be bought or sold.

The duties of the practitioner in regard to the public are also practically the same everywhere, but in some countries, such as Austria, Denmark, Portugal, the obligation is expressly laid upon him by the law to render professional aid in urgent cases of illness and accident. He has to give certificates of death, except in France, where that function is discharged by a special official who is generally known by the gruesome name of *Médecin des morts*. In France, Germany, Denmark, Austria, Hungary, Holland, Belgium, Portugal, the practitioner is obliged to notify cases of infectious diseases to the proper authority. He is also bound to help the administration by acting as an expert witness when called upon to do so by competent authority. The remuneration is fixed at a uniform tariff, with allowances for loss of time and expenses. The scale is by no means liberal. In most countries medico-legal experts are employed by the courts in cases of special difficulty.

Public Services.

In every country, apart from the medical services of the army and navy, there are many other public services which offer fields more or less promising for the professional activity of practitioners. The chief of these are concerned with the preservation of the public health and the promotion of sanitation, general and local; the administration of charitable medical aid provided by the State or by the municipality; the care of lunatics and the medical charge of prisons. Everywhere the doctor plays an important, though for the most part subordinate and poorly-paid, part in the work of administration. In France, in addition to the hospitals and dispensaries of the Assistance Publique there are organized services for the medical care of nurslings and "boarded-out" children, for the sanitary supervision of ships, for the medical inspection of schools, and for the supervision of charitable establishments. There are also medical officials for the verification of births and of deaths and for vaccination. Every department of State, every railway company, every industrial concern, and every important theatre has its own staff of doctors. In Germany there are highly-organized public health and Poor-law medical services which give complete or partial employment to a vast number of practitioners. In many towns there is a staff of medical inspectors of schools. In Austria the public services are of comparatively recent origin and are not yet very numerous. There is, however, a regular public health service. Italy has an extensive Poor-law medical service; *medici condotti* are appointed by local authorities whose duty it is to give gratuitous medical aid to all inhabitants of a commune who stand in need thereof. Besides these there are sanitary officers appointed by the State, who combine the functions of medical officers of health and public vaccinators. In Spain there is a large service of *medicos titulares* who are Poor-law medical officers and something more; there are general and local sani-

tary services, a ship sanitary service, a body of medical inspectors of watering places, and officials for the verification of births and deaths. In Belgium, in addition to the ordinary public health services, there is a body of medical inspectors of labour who discharge the functions of factory surgeons, apparently with a somewhat larger measure of direct authority. In Denmark there are general and local health officers, whose duties include, in addition to ordinary sanitary administration, the performance of vaccination and the supervision of dentists, midwives, apothecaries, the making of autopsies for medico-legal purposes and the giving of expert assistance required by the law. In Turkey there is a service of municipal medical officers, serving under the direction of a Board of Hygiene; their duties are to give free medical advice, carry into effect the vaccination laws, report on the course of epidemic and endemic diseases, and take measures for the control of them, and generally to supervise the sanitation of their district. There is also a sanitary service, to which admission is obtained by competitive examination, which works under the control of the International Board of Health of Constantinople; the special function of this service is the defence of the Ottoman Empire from invasion by infectious disease.

Professional Incomes.

Everywhere the financial situation of the profession is unsatisfactory. In most of the European countries under review a practitioner appears to be fairly well off if his professional earnings amount to £250 or £500 a year. In Austria such an income means, we are told, a good, easy life, free from financial cares. In Hungary £200 to £300 a year is sufficient to enable a country doctor to lead a tolerably comfortable life, and to save something for old age. In Holland £250 to £350 is said to be a fair estimate for the general practitioner. In Denmark the average practitioner is better off his annual earnings being estimated at £300 to £600. In Belgium the earnings of country doctors range from £80 to £400 a year. In Germany the average professional income may perhaps be estimated from the following particulars as to practitioners in the Prussian capital, which we take from the *Allgemeine medizinische Zentralzeitung*: Of the 2,060 medical practitioners in Berlin, 54 earn from £45 to £52 a year; 261 from £52 to £105; and 206 from £105 to £150. Of practitioners earning from £150 to £250 there are 286; but two-thirds of these have an average income of £210. In the case of 994 practitioners the income exceeds £250. In other countries the average income is lower. In Italy the earnings of most of the large class of *medici condotti*, or Poor-law medical officers who are not allowed private practice, is £100 a year or even less. In Portugal the general practitioner both in town and country is passing rich on £200 a year. The lowest depth appears to be reached in Spain, where incomes of £40, £60, and £80 are common. Dr. Pulido's statement that of the 1,000 doctors practising in Madrid 800 find it difficult to live is, as Carlyle would have said, significant of much. What a return for an education which, including the period of preliminary study, occupies eight or nine of the best years of life, and means, or ought to mean, a competent knowledge of a large number of subjects by no means easy of apprehension, and at least elementary notions *de omni scibili!*

The chief causes of the poor estate of the medical profession are the overcrowding which exists everywhere except in Portugal and perhaps Hungary; the abundant supply of gratuitous medical assistance by hospitals and institutions of one kind or another maintained by the State or by charitable organizations; the exploitation of the practitioner by Friendly Societies and the prevalence of quackery.

Contract Practice.

Everywhere the system of contract practice is one of the worst evils with which the profession has to contend. In Austria the *Krankenkassen*, or clubs, which are by law established, have, we are told, brought it to the verge of ruin. In Holland, in addition to the ordinary abuses, there is a special one due to the existence of clubs maintained by undertakers in large towns. In Denmark, the Friendly Societies, which are very numerous and strongly supported by the State, have "very considerably reduced the incomes of the practitioners." In Germany more than a quarter of the whole population share in the benefits of free medical aid. The profession has for a long time been striving to find a solution of what is a veritable Sphinx-riddle. The professional societies throughout Germany have at various times made recommendations as to the appointment and payment of medical officers to the clubs, the effect of which, it is hoped, would be to mitigate some of the evils of which the profession justly complains. In one point our German brethren are better off than we are: a wage-limit has been fixed for all clubs by law. But the scale of payment is very low. In Belgium the relations between the profession and the benefit societies are in general very tense. In addition to them, the practitioner has to struggle against very gross abuses of the law of Public Assistance. By the terms of that law medical aid is given to indigent persons by the commune in which they happen to be. In some communes leading inhabitants are not ashamed to inscribe themselves on the roll of paupers, so that they may claim gratuitous attendance from the doctor, who is paid a pittance by the authorities. In Portugal the pay of the medical officer to a Friendly Society not infrequently works out at an average of 2d. or 3d. a visit! In Spain things are a little better, for the average appears to be from 2½d. to 4d.! Many of the Friendly Societies in that country are frauds, according to Dr. Pulido, who, having been Director-General of Public Health, is in a position to know the truth about these associations. In Italy clubs are practically non-existent, but this is attributed to the facility with which cheap and even gratuitous advice can be obtained.

Unqualified Practice.

In all countries there are laws which prohibit medical practice by unqualified persons under more or less severe penalties, and everywhere the law is made virtually a dead letter by the inertness of the authorities entrusted with its administration and the indifference or active hostility of the public. The country in which the law is most effectually carried out is Italy; the cause of this is doubtless to be found in the fact that in that country quackery does not appeal strongly to the popular mind. This is believed by Dr. Burton-Brown to be due to "the deep imprint left behind by the old classic civilization of Italy, in which, as in the architecture of its own temples, there is a dislike for those vagaries, picturesque though they may often be, so often indulged in under the plea of individual liberty by the more barbarous, albeit more hardy, North." In Germany and

France, where the law against quackery is especially stringent, quackery flourishes just as rankly as elsewhere. The reason is that it is by no means easy to secure a conviction, as generally no one except members of the medical profession takes any particular interest in bringing quacks to justice; even those who have suffered by their malpractice are often ashamed to have their folly proclaimed *urbi et orbi*. Doctors, again, are disinclined to take the trouble to set the law in motion or to face the innumerable vexations that may be the consequences of such a step. The existence of regularly "approved" lower-grade practitioners of one kind or another—*Heildiener*, chiropodists, masseurs, etc.—doubtless contributes to the prevalence of quackery in Germany. We do not agree with Professor Bombarda that the only solution of the difficulty of dealing with quackery is to repeal all laws against it and throw the practice of the healing art freely open to all. It is the duty of the State to protect citizens against fraud and imposture, and in the matter of the treatment of disease the public needs in an especial manner to be safeguarded against its own ignorance and stupidity. The mere fact that a law exists and can be put in motion must act in some degree as a deterrent to irregular practitioners, and to that extent the public will be benefited. On the other hand, the remedy which Dr. De Jace regards as urgently needed for the situation—namely, "a Draconian law forbidding every act of medical practice of any kind whatsoever, even under the guise of friendship or charity"—would probably defeat its own purpose if the legislature of any country could be got to pass it.

Protection of Professional Interests.

Although the profession is nowhere perfectly organized, almost everywhere associations have been formed for the protection of the interests of practitioners and for the provision of material aid in case of need. In Germany there are Medical Chambers or Councils, bodies representing the profession of each province and district. These Chambers exist to safeguard the interests of the medical profession, to exercise a disciplinary power over medical men, the extent of which differs greatly in the different States, and to co-operate in the promotion of measures for the defence and improvement of the public health by sending representatives to the advisory health authorities. Then there is a Union, which at present comprises 279 medical societies, with a total membership of 15,282 practitioners. Its object is the promotion of medical science, the protection of the material interests of the profession, and the foundation of Medical Chambers in those States in which no body of the kind exists. In France there is the Association Générale des Médecins de France, a federation of local societies, with its centre in Paris; this body has a Committee of Medical Defence. In addition to this Association there are many local syndicates; till lately, however, the law would not sanction the formation of such bodies. It is expected that they will now increase and multiply. A proposal for the creation of an Order of Medical Practitioners for the adjustment of disputes between members of the profession, and the maintenance of a high standard of professional conduct, has been under consideration for some years, but so far no definite step has been taken in that direction. In Austria the profession shows scarcely any trace of organization. The only bodies which watch over its interests are the Medical Councils which exist in each of the fourteen countries and kingdoms of the Austrian Empire. These Councils have no disciplinary power and can only arbitrate in disputes between members of the profession, denounce advertising, and deliver pious opinions on points of medical ethics. In Hungary there is in each county or *Comitat* an association of the local practitioners, but there is no central council. So weak is the organization that it cannot even stop unprofessional advertising. In Denmark there are eighteen local medical associations, which conjointly form the general Danish Medical Association. Although this organization is not authorized by law, it has considerable influence, because it is held that every practitioner is morally bound to become a member. The organization has on several occasions used its influence to the great advantage of the profession. Holland has the Dutch Association for the Promotion of Medicine, whose function it is to watch over professional interests and uphold the dignity of medicine. In Belgium the Belgian Medical Federation does work of the same kind. In Portugal there is an Association of Portuguese Medical Practitioners which defends the interests of the profession. In Spain there is a Medical College in each province, but the powers of those bodies are somewhat indefinite. In Italy there is an Ordine dei Medici in each province, which watches over the interests of the profession. A general meeting of delegates representing each province is held every year, and the resolutions passed are brought to the notice of the Legislature.

Social Position.

The social position of the profession, as a whole, appears to be lowest in Italy, where the doors of "Society" are closed against a doctor, unless he is of great eminence, and in Hungary; in Germany doctors are held in high esteem by the public; in Austria, though their standing is fairly good, it is not so high as it is in France or even in England; in Denmark the position of the doctor is between the minister and the judge; in Belgium a certain prestige still attaches to the profession. The countries in which the medical profession stands highest socially are Spain, where the doctors are the most enlightened class, and Portugal, where they are at the top of the social ladder. In most of the Colonies the position of the medical practitioner is, in a social sense, better than that of his professional brother at home.

The Doctor in Politics.

France is unquestionably the country in which the doctor plays the greatest figure on the political stage. The medical Senators and Deputies are numerous and active enough to form an influential Parliamentary group. Three members of the present Government are members of the profession; the late Prime Minister, M. Combes, the redoubtable Radical leader, M. Clemenceau, and M. de Lanessan, formerly Minister of Marine and Governor of Cochin China, are all doctors of medicine. In Portugal the present Minister of Marine, Senhor Moreira, is a doctor; Dr. Teixeira de Sousa has been Minister of Marine and of Finance; Dr. Mattoso dos Santos has been Minister of Foreign Affairs and of Finance; and Dr. Barbosa du Bocage has been Minister of Foreign Affairs. In Italy and in Spain the present Ministers of Public Instruction are members of the profession; and in the Legislature of both countries there is a fair sprinkling of medical Senators and Deputies. In Belgium the profession stands aloof from political life, and neither in Germany nor in Austria are doctors prominent therein, though there is the great example of Virchow to show what splendid work, both in general statecraft and in municipal affairs, can be accomplished by a medical man. In the Colonies medical men have played a great part in politics. The Prime Minister of Cape Colony is a doctor; in the Australian Parliament some of the most prominent members of the State Legislative Councils and Assemblies are medical men. In Canada we need only mention the name of Sir Charles Tupper.

The Medical Profession in Europe

AND

The British Colonies.

FRANCE.

THIS article is based on an analysis of the law relating to the practice of the healing art in France. The terms of the law include dentists and midwives, as well as medical practitioners; here reference is made only to the latter. Acknowledgement of indebtedness must be made to various authorities, in particular to *La Profession Médicale: Ses Devoirs, Ses Droits*, by Dr. G. Morache, Professor of Forensic Medicine in the Medical Faculty of the University of Bordeaux (Paris, 1901); *L'Exercice de la Médecine et le Charlatanisme* (Paris, 1899), and *La Profession Médicale au Commencement du XXe Siècle* (Paris, 1903), by Dr. Paul Brouardel, late Dean of the Medical Faculty and Professor of Forensic Medicine in the University of Paris; and *L'Æsculape: Guide Pratique à l'Usage des Etudiants et des Docteurs en Médecine*, by Drs. E. de Lavarenne et F. Jayle (Paris, 1905).

LEGAL QUALIFICATION TO PRACTISE.

The practice of the healing art in France is regulated by the law of November 30th, 1892, the first article of which runs as follows:

> No one can practise medicine in France unless he possesses a diploma of Doctor of Medicine issued by the French Government, after examinations passed before a State institution of higher medical teaching (faculties, schools with full curriculum, and preparatory schools reorganized in conformity with regulations made after conference with the Superior Council of Public Instruction).

By the terms of Article 5 of the same law practitioners with diplomas obtained elsewhere than in France, whatever be their nationality, can practise their profession in France only provided they have obtained the diploma of Doctor of Medicine in France and conform to the ordinances which apply to French students. Certain dispensations, both in regard to curriculum and to examinations, may be granted by the Minister after consultation with the Superior Council of Public Instruction. In no case, however, can such exemptions extend to more than three of the examinations required for the degree of Doctor. Foreign students who are candidates for the degree of Doctor of Medicine are subject to the same regulations in regard to curriculum and examinations as French students. Nevertheless, in view of their inscription in faculties and schools of medicine, they may be granted either recognition of equivalence of the diplomas and certificates obtained by them elsewhere than in France, or exemption from the examinations in arts and science required for such inscription, as well as partial exemption from such parts of the curriculum as correspond to the period of study gone through elsewhere than in France.

A more recent ordinance establishes two diplomas of Doctor in Medicine: the normal diploma which alone gives the right to practise medicine in France and which can be acquired only by compliance with the same conditions of curriculum and examination that apply to French students; and a purely academic diploma which does not give the right to practise in France. To candidates for this ornamental diploma exemptions in regard to preliminary subjects are, in accordance with the terms of a Ministerial Circular of July 21st, 1896, granted even more freely than they were before. The effect of this regulation has been to diminish to a considerable degree the number of foreigners pursuing their studies in French schools. On this account the protectionist policy which inspired the change in the conditions of graduation for foreign students has not found unanimous approval in France.

By Article 9, doctors of medicine are required within a month of settling in any place to register their diplomas at the Prefecture or Subprefecture, and at the office of the Clerk of the Civil Tribunal of the district. If a doctor removes to another department he must again register his diploma with the local authorities. By Article 22, whosoever practises medicine without having had his diploma registered in conformity with the regulations stated above makes himself liable to a penalty of £1 to £4.

Any doctor who has not practised for two years must, if he wishes to resume practice, again register his title in the same way.

Practice under a pseudonym is strictly forbidden.

Article 10 prescribes that every year there shall in each Department be drawn up under the direction of the prefects and judicial authorities a list of doctors with their names and surnames, their place of residence, and the date and source of their diploma. This list must be posted every year—in the month of January—in all the Communes of the Department; certified copies of it are sent to the Ministries of the Interior, Public Instruction, and Justice. A statistical record of the members of the medical profession in France and the Colonies is compiled every year under the direction of the Minister of the Interior.

A yearly tax proportionate to the rental value of the premises used for professional purposes has to be paid by every practitioner.

It will thus be seen that by the terms of the law of 1892, the only legal qualification to practise is the degree of Doctor of Medicine granted by the State after examination at a recognized Faculty of Medicine. By that law the lower grade diploma of *Officier de Santé*, which conferred a restricted right to practise within the boundaries of a certain specified district, was abolished. Those who had obtained that diploma before the new law came into force, were allowed to retain the rights and privileges conferred by it. For nearly forty years before the passage of the law of 1892, the number of *Officiers de Santé* has been steadily diminishing, and in 1897 there were only about 600 in the whole of France.

MEDICAL SCHOOLS.

Although the legal qualification can now be obtained only from a French Faculty, part of the curriculum can be taken, and certain examinations can be passed elsewhere than in France.

There are at present seven Faculties of Medicine in France, namely, those of the Universities of Paris, Montpellier, Nancy, Lyons, Bordeaux, Lille, and Toulouse. The two first formed part of the Imperial University of France created by decree of Napoleon I, dated March 17th, 1808. That of Nancy is the old Faculty of Strasbourg, which was transferred to France in 1872. Those of Lyons and Bordeaux were established in 1874, but the Lyons Faculty was not organized till 1877, and that of Bordeaux till 1878. The Faculty of Lille was created in 1875, that of Toulouse in 1878. Lyons, Bordeaux, Lille, and Toulouse are mixed Faculties of medicine and pharmacy, and provide a full curriculum for the diploma in each of these branches. The Faculties of Paris, Montpellier, and Nancy, on the other hand, are purely medical, and have no official connexion with the higher schools of pharmacy of the same universities. In addition to the schools of these Faculties, there is a free Faculty of medicine and pharmacy at Lille which is recognized as far as the full curriculum is concerned, but does not give diplomas. These can be obtained from the State only on the ordinary conditions of examination before a body duly constituted for the purpose.

There are sixteen preparatory schools of medicine which include four—namely, Marseilles, Nantes, Algiers, and Rennes—of what is called "full exercise"—that is to say, which give the complete course of education; and twelve so-called Reorganized Schools, namely, Caen, Besançon, Dijon, Poitiers, Rouen, Tours, Amiens, Limoges, Reims, Angers, Clermont, and Grenoble.

In the schools of full exercise students can go through the whole curriculum and can be "signed up" for the sixteen inscriptions required for the Doctor's degree. In accordance with a decree of July 31st, 1893, candidates for that diploma can pass the two first examinations for the doctorate at the school before a jury consisting of professors in the school, but presided over by a Professor of a Faculty.

In accordance with a decree of August 1st, 1883, a student can be "signed up" only for twelve of the sixteen statutory inscriptions in a reorganized school. Their students, however, can pass the first two examinations there under the same conditions as in the schools of full exercise.

MEDICAL EDUCATION.

The curriculum of medical study was regulated by a decree dated July 4th, 1899. Before commencing medical study the

candidate must produce either a diploma of bachelor of secondary classical education (letters, philosophy) and a certificate of study in physics, chemistry, and natural science; or, in case of dispensation from the bachelor diploma, four certificates of higher studies obtained from a Faculty of Science in physics, chemistry, botany, zoology, or general physiology or general embryology.

The examinations for the degree of Doctor in Medicine are as follows:

The first examination must be taken between the sixth and eighth inscriptions; there is a practical test in dissection and a viva voce examination in anatomy, not including regional anatomy.

The second examination must be taken between the eighth and tenth inscriptions; the subjects are histology, physiology, including biological physiology, and biological chemistry.

The third examination, for which the candidate must present himself between the thirteenth and sixteenth inscriptions, is divided into two parts. Part I includes a practical test in operative surgery and regional anatomy, and a viva voce examination in regional anatomy, external pathology, and midwifery. Part II consists of a practical test in pathological anatomy and a viva voce examination in general pathology, animal and vegetable parasites, microbes, and internal pathology.

The fourth examination, taken after the sixteenth inscription, consists of a viva voce examination in therapeutics, hygiene, forensic medicine, materia medica, pharmacology, with applications of physical and natural sciences.

The fifth examination is divided into two parts: Part I comprises clinical surgery, clinical midwifery; Part II, clinical medicine.

Lastly, a thesis on a subject chosen by the candidate must be presented. When this final ordeal has been successfully undergone, the candidate is declared *dignus entrare in nostro docto corpore* and the diploma is conferred.

Practically the period of medical study extends over six years. The total necessary cost of professional education may be estimated as follows:

Four yearly inscriptions at Fr.47.50 each, Fr.190, or for four years	Fr.760
Seven examinations at Fr.55	Fr.385
Thesis	Fr.240
	Fr.1,385
	(or a trifle over £55)

Medical Women.

The practice of the healing art by women was common in France in the Middle Ages. An ordinance relative to the practice of medicine issued in 1322 by King John is based on the fact that he had received many complaints about medical practitioners *utriusque sexus*, and about women who had repaired to Paris to practise the healing art in the capital. Later the universities and medical corporations—inspired, it would appear, by no higher motive than jealousy—succeeded in excluding women from the practice of medicine. The women continued for some time afterwards to practise surgery, but in 1484 an ordinance of Charles VIII deprived them of this right. Nevertheless, for two centuries longer practice by women was tolerated or winked at by the authorities. It was only in 1694 that the privilege was formally withdrawn from the "widows of masters" unless they had sons or assistants who were found capable of carrying on the business. That the law was not very rigorously applied is, however, shown by the fact that the Parliament of Tournay confirmed the decision of the magistrate of Lille authorizing a woman to dress wounds with an ointment of her own. The prosecution had been instituted by the surgeons of Lille. Again, in 1782 the Parliament of Brittany authorized a woman skilled in the treatment of fractures and dislocations to practise surgery.

In the eighteenth century great ladies studied medical science, and, according to M. Brunetière, the Marquise Voyer d'Argenson attended demonstrations of anatomy, and the Countess de Coigny dissected with her own hands, while Madame de Staal de Launay was a really distinguished anatomist.

In 1750 Mdlle. Thècle-Félicité du Fay defended a thesis which she afterwards published under the title of *Mémoire sur l'Identité du Fluide Nerveux et de l'Electricité*. When the Crown Prince of Sweden—afterwards King Gustave III—paid a visit of ceremony to the Académie Royale des Sciences, after discourses by d'Alembert and Lavoisier, a woman, Mdlle Bihéron, gave an anatomical demonstration on artificial preparations made by herself, which were so remarkable in their truth to nature that it was said at the time that nothing was wanting in them but the smell. Madame d'Arconville wrote a number of papers on surgery, physiology, septic and antiseptic substances, etc.; the latter were published in 1761. The practice of midwifery was for centuries in the hands of women, and the names of Mesdames Boivin and Lachapelle are deservedly famous in the history of the art at the end of the eighteenth and the early part of the nineteenth century. The medical woman is, therefore, not a new thing in France. So far, however, few French women have availed themselves of the privileges offered them by the Paris Faculty of Medicine. Of 77 "doctoresses" practising in France in 1898 the vast majority were foreigners. Since the establishment of the Medical School for Women in St. Petersburg the number of Russian female students of medicine in Paris has markedly decreased.

Responsibilities of Practitioners.

The diploma of Doctor of Medicine confers certain rights, the exercise of which entails corresponding responsibilities. The responsibility of the doctor *in foro conscientiae*, heavy as it undoubtedly is, need not be discussed; in France, as everywhere else, he is bound to do his best for the patient who entrusts himself to his care. The doctor's legal responsibility in the practice of his profession, except in one or two definite directions, does not extend beyond the possession and exercise of reasonable skill and care in the treatment of his patients. Except in the case of manifest malpraxis, gross negligence, or crimes which bring the offender within the scope of the Penal Code, the law takes no cognizance of methods of treatment adopted by a practitioner. The legal position may be taken as expressed in a judgement of the Seine Tribunal in an appeal against a decision of a lower court in a case of alleged malpraxis:

> In view of the fact that if the courts have the unquestionable right to inquire, in cases submitted to them, whether a medical practitioner has been guilty of fault or imprudence, or has acted against the rules of his profession, it does not belong to them to decide a question of scientific truth, or medical practice; that moreover they could not pronounce as to the expediency of an operation, the method which should be preferred, and the best treatment to use; that purely technical questions are not within their competence, and they must confine themselves to inquiring whether there has been, on the part of the man of art, imprudence, negligence, want of care or manifest unskilfulness.

The communication of disease, especially syphilis, when due to want of care or the omission of precautions, such as the sterilization of instruments, fingers, etc., makes a practitioner liable to imprisonment. The experimental inoculation of disease without the patient's consent is punishable under the articles of the Code relative to the wilful infliction of injury.

By Article 25, temporary suspension or absolute withdrawal of the right to practise may be ordered by courts and tribunals, in addition to the penalty imposed for breach of the law. This law applies to any doctor of medicine convicted of an "infamous" offence, such as forgery, theft, swindling, procuring abortion, rape and indecent assault, incitement to debauchery, etc. When a practitioner has been convicted of any such offence in a foreign country, he may, at the instance of the Public Ministry, be punished by the public authorities in the same way. Candidates, male or female, for the diploma of Doctor of Medicine who have been convicted of any of the offences above specified may be excluded from institutions of higher education. In no case, however, are political crimes punishable either by suspension or withdrawal of the right to practise, or by exclusion from medical schools. Persons who have been punished by such temporary suspension or withdrawal and who continue to practise are subject to the same penalties as those who are guilty of unqualified practice in the ordinary way. This is a new principle introduced by the law of 1892; before that time a medical practitioner convicted of a crime could resume practice immediately on his liberation from prison. All these regulations apply with appropriate modifications to dentists and midwives, as well as to medical practitioners.

Professional Secrecy.

In regard to professional secrecy the French law is especially strict. It has always been recognized as an un-

questionable principle that the relation between patient and practitioner is of the most confidential character, like that between the penitent and the priest, or the client and the notary or the advocate. The Penal Code recognized this principle, and gave it legal sanction by making breach of professional confidence a punishable offence. Article 378 of the Penal Code (February 26th, 1806) is to the following effect:

> Medical practitioners, surgeons and other officers of health, as well as pharmacists, midwives and all other persons who become, by reason of their state or profession, depositaries of secrets entrusted to them, who, except in cases in which the law compels them to act as informers, shall reveal these secrets, shall be punished by imprisonment from one to six months and a fine of 100 to 500 francs (£4 to £20).

The words "except in cases in which the law compels them to act as informers" were a relic of a much older enactment, which applied to "conspiracies formed and crimes projected" against the internal or external safety of the State. This was abrogated by the law of April 28th, 1832. But, as it stands, the law of professional secrecy is oppressive to the practitioner and lends itself to abuses that may be injurious to individuals and even to the community. In regard to the notification of communicable diseases, it was found necessary in the public interest to override the obligation of professional secrecy. By Article 15 of the Law of 1892, practitioners are compelled to notify cases of infectious disease which come under their observation. The list of diseases which can be so notified without breach of professional secrecy is drawn up by order of the Minister of the Interior, after consultation with the Academy of Medicine and the Consultative Committee of Public Health in France. The Minister also determines the manner in which such diseases shall be notified. The introduction of the duty of compulsory notification of certain diseases was an absolutely new principle in the law relative to medical practice.

The following are the diseases the notification of which is compulsory:—(1) Typhoid fever; (2) petechial typhus; (3) variola or varioloid; (4) scarlatina; (5) diphtheria; (6) miliary fever (*suette miliare*); (7) cholera and choleriform diseases; (8) plague; (9) yellow fever; (10) dysentery; (11) puerperal infections in cases where secrecy with regard to the fact of pregnancy is not claimed; (12) ophthalmia neonatorum. It has been proposed that measles and tuberculosis should be added to this list.

The notification must be made to the mayor and to the prefectoral authority on a form, books of which are issued gratuitously to practitioners. By Article 21, failure to notify a disease in the official list is punishable by a fine of from £2 to £8.

PUBLIC MEDICAL SERVICES.

The State, the Departments, the Communes have each medical organizations at their service for various purposes; some of these are connected with each other, while some work side by side but independently. A step towards administrative co-ordination has been taken by the creation of the Board of Control, of Public Assistance and Hygiene, which under the direction of the Ministry of the Interior exercises control over all institutions that receive and treat sick persons. For this purpose it appoints special officials, known as general inspectors of charitable establishments, whose duty it is to supervise the working of hospitals, public or private homes, lunatic asylums, and the organizations for the help and protection of children.

The Academy of Medicine, though from the official point of view it is only an advisory body, assists the various administrative departments when its advice is asked for, by making recommendations; these are always received by the highest authorities with the greatest deference, and for the most part adopted in their entirety. The same thing may be said in regard to the Consultative Committee of Hygiene of France. This is a department of the Ministry of the Interior, but has a large moral independence, and sometimes claims corresponding authority.

By a decree dated January 4th, 1896, a service of ship medical officers was established. They act as medical officers of the ships, and further as a sanitary police, whose duty it is to keep vigilant watch on board the ships to which they are appointed, with the object of preventing the importation of infectious and contagious diseases into France. They must be legally qualified, and must have passed a special examination on epidemic and tropical diseases, bacteriology, disinfection, and international sanitary law. There is also a special organization consisting of one or more doctors, with the local sanitary council, to look after seaports and quarantine stations.

In accordance with the law of December 23rd, 1874, on the protection of infants and particularly of nurslings, there is a service of medical inspectors under the direction of the Ministry of the Interior, whose duty it is to look after babies put out to nurse, and supervise the manner in which the nurses discharge their duties. There are medical inspectors who perform a like function in regard to "boarded-out" children.

By a law dated July 15th, 1893, provision was made for gratuitous medical attendance at the homes of poor patients. The duties of the doctors appointed for this purpose and the scale of their remuneration correspond more or less to those of our parochial medical officers.

There is in every department a central council of hygiene which is, in theory at least, the sanitary authority corresponding to the Health Committee of a county council. But practically things are left in the hands of municipalities which differ greatly in the vigour with which they discharge these functions. They appoint medical officers at fixed salaries.

The *médecin de l'état civil* is a functionary found in most large towns, whose duty it is to verify births and inspect newborn children. It is his business also to verify deaths and notify them to the proper authority, as the practitioner who has been in attendance on the deceased is prevented by the law of professional secrecy from stating the cause of death.

The Bureaux de Bienfaisance have medical departments for the treatment of poor patients either at dispensaries or at their own homes.

In France vaccination is not compulsory, but there are numerous vaccine stations to which official vaccinators are attached. The post of official vaccinator may be held by midwives as well as by medical practitioners.

There is in all large towns of France a service euphemistically known as "dispensaries of salubrity" for the examination of registered prostitutes. In Paris the staff of this institution comprises a chief medical officer, a chief assistant officer and six assistants. In most places there is no very eager competition for these posts.

Medical inspectors of schools are appointed by municipal and cantonal authorities. In Paris these inspectors form a distinct service; they make surprise visits to all the schools in their district at least twice a month, and it is their duty to look after the health of the children and the sanitary arrangements of the schools. The remuneration for the work is as a rule small. The lycées and other large schools have their own medical officers.

Attached to most of the administrative departments of Government are doctors who have charge of the health of the employés, and give certificates when required. Railway companies and large businesses have a medical staff; theatres also have their medical officers, but as a rule they receive no remuneration beyond free admission to all performances.

The care of the insane is still regulated by the law of June 30th, 1838, modified in certain details concerning the internal working of asylums by later regulations. At the present moment, in almost all public asylums, the functions of medical superintendent and director are combined in the same person. The career of practitioners who become officers of public asylums begins with the appointment of interne, which, while giving the candidate the means of livelihood, affords exceptionally favourable opportunities for the clinical study of mental diseases. On completing his term of office as interne, and getting his diploma of doctor, he may pass an examination that will open to him the post of assistant physician of asylums. Nominations to the medical staff of asylums are made by the Minister of the Interior. The Prefects of Departments and Supervising Committees take part in the consideration of the names proposed for nomination. By the law of 1838 it was enjoined that every Department should have a public asylum, or make arrangements with a public or private institution of the same or some other Department for the reception or care of its lunatics. This enactment is still carried out in some departments in one of the hospitals of which there is a branch for lunatics. The medical officers attached to these are appointed by the hospital authorities, but their selection must be sanctioned by the prefect, without whose consent they cannot be removed. They receive salaries and allowances in kind, which vary according to the different establishments. The lunacy service has the advantage for the young doctor that it offers him an immediate livelihood. On the other hand, he is forbidden private practice.

The Profession and the Service of Justice.

By Article 23 of the law of November 30th, 1892, every doctor of medicine is bound to comply with the requisitions of justice under penalty of a fine varying from Fr. 25 to Fr. 100. As, however, many practitioners feel themselves incompetent to act as medico-legal experts, by a later decree power was given to the Courts of Appeal to select certain doctors to act in that capacity, and to them are entrusted all examinations required for the service of justice, except in cases such as the immediate verification of violent death. The following is the tariff of fees for medico-legal expert evidence in criminal cases: For a visit with first dressing, Fr.8; for every operation other than the autopsy, Fr.10; for autopsy before burial, Fr.25; for autopsy after burial, Fr.35; for autopsy on a newborn child, Fr.15 to Fr.25, according as the operation is carried out before or after burial. Every written report entitles the expert to a minimum fee of Fr.5. Nothing is paid for medical treatment given either after the first dressing or after the visits ordered by the authorities. In case the practitioner has to travel more than two kilometres from his residence, payment is made at the rate of 20 centimes if the journey has been made in the train, or 40 if otherwise, for every kilometre traversed in going and coming. In cases where the practitioner is detained on the way, he receives an indemnity of Fr.10 for each day. In addition to the travelling expenses, medical witnesses are allowed a fee of Fr.5 for their requisition before a court or a magistrate. If they are detained in the town where the judicial authority sits, an allowance is made of Fr.10 for each day.

Unqualified Practice.

By the terms of the law no one not possessing the diploma of Doctor of Medicine or *Officier de Santé* obtained before the law of 1892 came into force, who habitually or by taking continuous charge undertakes the treatment of diseases or surgical affections, or of women in labour, except in cases of manifest urgency, is guilty of illegal practice. Moreover, every person having a regular title or legal qualification who covers unqualified practitioners commits an offence against the law.

In times of epidemic the services of students of medicine may be claimed by the administration, and they may be sent to attend on patients in town or country. For this purpose such practice by internes of French hospitals appointed by competitive examination and of the standing represented by twelve inscriptions, and students who have completed the curriculum is sanctioned by Article 6 of the law of 1892. Further, the law does not apply to students of medicine or nurses who act as assistants under the direct supervision of a doctor, or who are placed by a doctor in attendance on his patients.

Breaches of the law relative to unqualified practice render a person so offending liable to prosecution. By Article 18 whoever practises medicine illegally is punishable by a fine varying from £4 to £20. Repetition of the offence makes him liable to a fine of £20 to £40, and to imprisonment from six days to six months, or to one of these penalties.

By Article 19 the unqualified practice of the healing art with usurpation of the title of Doctor or *Officier de Santé* is punishable by a fine of £40 to £80. Repetition of the offence makes the offender liable to a fine of from £80 to £120, and imprisonment for six months to one year, or to one of these penalties.

By the terms of Article 20 any one is regarded as having usurped the French title of Doctor of Medicine who, practising the healing art, puts before or after his name the title of Doctor of Medicine without indication of a foreign source. For such offence the penalty is £4 to £8.

The law is strict enough—on paper. But in practice there is great laxity in its administration, and it is easy for quacks to keep out of the grasp of the law. The magistrates are disinclined to apply it with rigour, and in many places it is almost a dead letter. The sympathy of the public in France, as in other countries, is openly or covertly against what is looked upon as medical monopoly.

Contract Practice.

Friendly Societies are numerous and widespread in France, and the relations between them and the medical profession are as unsatisfactory as elsewhere. The abuses complained of are of precisely the same kind that are too prevalent among ourselves. Attempts at conciliation have, however, been made, and in some places a better state of things exists and equitable agreement has been arrived at between the contending parties.

Protection of Professional Interests.

The first local medical association formed in France was that of the Seine, on the initiative of the famous toxicologist, Orfila. Its object was threefold—to uphold the dignity of the profession, to supply help to members of the profession who had fallen on evil days, and to fight quackery. The Association was successful in the first of these aims, and to some extent in the second, though it was crippled by want of funds; in the third it completely failed. In 1857 the Association Générale des Médecins de France was founded, largely owing to the efforts of Professor Rayer and the well-known medical journalist, Amédée Latour. The object of the founders was "to unite all medical practitioners for the defence of their professional interests, to secure for those who might fall in the struggle for existence assistance for the relief of temporary distress; lastly, to create for the future a fund for the provision of retiring pensions sufficient to place all members of the Association in a position of security against want." Later a fund for widows and orphans was established without any increase being made in the annual subscription of Frs.12. The Association is a federation of local societies under the direction of a General Council which has its seat in Paris. In 1898 there was formed within the Council a permanent Committee of professional defence. The law of 1892 legalized the formation of medical syndicates for the defence of professional interests "against all persons other than the State departments and communes." In consequence many local syndicates have been formed, which have a common centre in a "Union" formed of representatives of the local bodies. The movement is still in its commencement. In addition to these there exist numerous provident associations, pension and sick pay funds, etc.

It has been proposed to establish an Order of Medical Practitioners, analogous in character to the Order of Advocates, for the adjustment of disputes among medical practitioners and for the maintenance of a high standard of professional conduct. The question was discussed at the Congress of Deontology held in Paris in 1900, and the proposal was accepted in principle. So far, however, nothing definite has come of it.

Social Position.

On the whole, the social position of medical practitioners is distinctly better in France than it is among ourselves. This is due partly to the comparative absence of the snobbish element in French society, but chiefly to the footing of equality with other professions on which medicine stands in point of general education. All have gone through the same scholastic mill as the members of other liberal professions and the well-to-do classes generally. Moreover, there are no differences of grade in the profession itself, all having gone through precisely the same course of training, undergone the same examinational tests, and obtained the same diploma.

The Doctor in Politics.

Members of the medical profession take a much more prominent part in political life than in any other country. There are three in the present Cabinet; M. Combes, the late Prime Minister, and the famous radical leader M. Clemenceau, are doctors. For many years past there has hardly been a Government in France without a representative of medicine among its members. In the Senate the profession is represented by Professor Cornil and several other men of leading position. The Chamber of Deputies contains some sixty medical members. The profession is strong enough in the Legislature to form a Parliamentary group which has to be reckoned with when questions affecting public health or the interests of science or of the profession come up for discussion.

Statistics.

The following statistics were published by the Ministry of the Interior some years ago:

Year.	Doctors.	Officiers de Santé.	Total Number of Practitioners.
1847	18,099	7,456	25,555
1866	16,822	5,568	22,390
1876	14,376	3,633	18,009
1881	14,846	3,203	18,049
1886	14,799	2,804	17,603
1891	14,538	2,114	16,652
1896	10,757	1,534	12,291

These figures, though official, can scarcely be taken as representing the true state of things. In particular, it is difficult to believe that the total number of doctors diminished by some 400 between 1891 and 1896, especially in view of the fact that statistics published by the Minister of Public Instruction show that during the corresponding period the annual number of diplomas conferred by all the French Faculties increased from 635 in 1891-2 to 1,163 in 1896-7. There has been a steady increase ever since, and in towns there can be no doubt that the profession is greatly overcrowded.

GERMANY.

THE number of laws, orders, and regulations relating to the medical profession in the German Empire is very considerable. The system contains many points of interest, and the following account is based upon the excellent work entitled *Aerztliche Rechts- und Gesetz-kunde* (Medical Jurisprudence and Forensic Medicine), edited by Drs. Rapmund and Dietrich, in co-operation with Dr. J. Schwalbe, the Editor of the *Deutsche medicinische Wochenschrift*.

PERMISSION TO PRACTISE.

The ordinary legal qualification in Germany, corresponding to our "double qualification," is known as an "Approbation," and must be obtained by all medical men in order to be recognized by the State.

The Ministries of those Federal States which possess one or more State Universities constitute the central authorities for granting the legal "Approbation," which, however, is not dependent on the previous attainment of a Doctor's degree.

The Federal Council reserves to itself the right, in exceptional cases, to exempt individuals, on account of special scientific attainments, from the examination required of all candidates for qualification.

Examinations.

This examination takes place every year in November, and can be held by a Medical Board of Examiners at any German university. This Board is composed of suitable specialists chosen by each university. The President of the Board conducts the examination, and sees that all the regulations are carried out.

The application of a candidate for admission to the examination must be accompanied by certificates of admission to the university from a German public school, and of at least nine half-yearly terms of medical study at a German university. In exceptional cases only are certificates of study at a school or university outside the German Empire accepted. The candidate must also have passed the previous medical examination, and immediately afterwards have taken out at least four half-years' study at the university. He must also have taken practical part for at least two half-years in medical, surgical, and midwifery clinics, have personally attended two labour cases in the presence of his teacher, have had half a year's practice in an ophthalmological clinic, and have been instructed in vaccination and acquired dexterity in its practice.

The examination comprises the following parts: Anatomy, physiology, pathological anatomy and general pathology, ophthalmology and surgery, medicine, midwifery and gynaecology, hygiene.

It is very similar to most qualifying examinations in this country, but the clinical part is a better test for general practice than is the case in most of our examinations. In both the medical and the surgical parts the candidate has on two succeeding days to examine a patient in the presence of the examiner, to give the etiology, diagnosis, and prognosis of the disease, and to arrange a plan of treatment, immediately after which he draws up a report of the result, which is countersigned by the examiner; then on the same day he prepares a critical report at home, which is presented to the examiner next morning, with the date and the candidate's signature affixed. During the next seven days he has to visit both the patients assigned to him at least once, or if required by the examiner, twice daily. He must also write an account of the progress and treatment of the disease, and in case the patient dies within the seven days he must give a written opinion of the cause of death.

A similar clinical examination is required in ophthalmology and in midwifery, as is also a knowledge of children's diseases and of mental diseases.

At the end of each part of the examination a report is given, and the mark "very good," "good," "satisfactory," "unsatisfactory," or "bad" assigned to each candidate. If two examiners are examining together, and one of them gives the mark "unsatisfactory" or "bad," his vote decides the result. If a section of the examination, or a part thereof, is "bad" or "unsatisfactory," the candidate is rejected for six months in the first case, three months in the second if the mark refers to the whole section; for half the time if it refers to a smaller part.

No candidate can enter for an examination after two rejections except in very special cases. Each part of the examination must be entered for separately in order; a succeeding part cannot be entered for until each previous one has been passed.

The cost of the examination is 206 marks. Women are allowed to enter for it, provided they have fulfilled the same preliminary conditions as men.

The names of the successful candidates are published officially.

Graduation.

The German universities confer a doctor's degree (*Doctorwürde* or *Doctorpromotion*). Although the possession of this degree is not essential for practice, yet most men try to obtain it, partly with a view to improving their professional standing, and partly because in many of the Federal States a certificate of graduation is required previous to entrance for the examinations in State medicine; and in Prussia for the position of assistant at a university institution also. The graduation examination can be passed either before or after qualification, but the candidate must apply for admission to enter previous to qualification. With the application he must present certificates of preliminary education, of matriculation, and four years' university study, as well as of having passed the previous medical examination. He must also produce what is called a *Lebenslauf*, or short sketch of his career; and in some universities certificates of good conduct and of social standing are required.

The examination (*examen rigorosum*) is entirely viva voce, and takes place before the Dean and an appointed number of Fellows of the University—from three to six. It is held in German, or occasionally in Latin. If the candidate is already qualified, the examination is often only of the nature of a colloquium. On the other hand, at some universities candidates not already qualified are required to write an essay and to do practical work.

The dissertation or thesis—an independent scientific work—must be written in German, and 50 to 100 copies of it printed. In Leipzig only is it allowed to be in manuscript. In the Universities of Berlin, Breslau, Königsberg, Greifswald, and Marburg public disputations are held for this degree.

If the examination is not passed it can be entered for again in from three to six months; though at some universities only a single re-entry is permitted. The costs of the examination are M. 300 in most of the universities, M. 440 in Berlin, half the fees being returned to unsuccessful candidates. The cost of printing the thesis and the diploma—about M. 100—is extra.

Examinations in State Medicine.

Those who wish to obtain appointments as health officials or forensic physicians are in most German States required to pass an examination in State medicine. In Saxony, Würtemberg, and Hesse, the appointment of medical superintendent of a State asylum, and in Saxony, Baden, and Hesse, a similar appointment at a central prison, is made dependent on the passing of this examination.

Of late years the requirements have become more stringent with regard to preliminary education in legal medicine and psychology. In some States—for example, Bavaria and Saxony—practical courses are officially established in preparation for the State medical examination, while in other States these courses can only be taken out privately at the university. This examination cannot be entered for until two years after qualification, and then only if the examination marks were "good" or "very good." Only those are admitted to it who have obtained their doctor's degree. The candidate must have attended lectures in State medicine, and acquired a sufficient preliminary education in psychology. He must also produce evidence of having attended after qualification for at least three months at an asylum containing not less than 150 beds, and having not less than 150 yearly admissions. He must also produce his medical "approbation," a short sketch of his career, and a printed copy of his doctor's diploma and of his inaugural thesis.

The examination consists of three parts—written, practical,

and viva voce; and is concerned entirely with State and psychological medicine. Those candidates who receive the marks "very good," "good," or "satisfactory" are granted a certificate of qualification for the appointment of *Physikus*.

The cost of the examination is M.95.

The above regulations apply to Prussia. There are slight differences in other States.

PRIVILEGES AND OBLIGATIONS.

A doctor who has obtained the legal qualification is allowed to settle in any place he selects in the German Empire, though he is bound to notify the fact to the medical authorities of the district in which he settles, and if he changes his dwelling place he is also bound to notify the authorities. He is allowed to keep a branch surgery, but is bound to notify this also to the local officials.

This duty is known as "*An-und Abmelde-pflicht*," neglect of which renders a medical practitioner liable to a fine of from M.1 to M.60. This duty must also be fulfilled by medical men who undertake a temporary practice away from their own home—for example, at a hydropathic institution; and also by those who undertake *locum tenens* duty for any length of time. The practice of employing unqualified substitutes has been condemned since 1893, and fines are imposed on those who undertake such work.

Medical men in Germany are bound to pay income-tax, which is calculated, as in this country, on the average practice of three years. They are required to keep books, in order to show their gross receipts at the end of each year, from which they are entitled to deduct various outlays—as, for instance, that of keeping horses and carriages, wear and tear of instruments, etc., premiums for life and fire insurance. Medical men are not required to pay the *Gewerbe-steuer*, or trade tax, their business being looked upon as scientific. Private hospitals and asylums carried on for profit come under the tax.

Military Service.

Medical men in Germany are required to serve in the army for one year as volunteers. They can serve this time either altogether in the ranks, or for six months in the ranks and six months as junior surgeon (*Unterarzt*) if they have obtained a good-conduct certificate from their commanding officer. Only those who possess this certificate and the legal qualification may serve as junior surgeon. If not already qualified, after six months' service in the ranks, they are allowed leave of absence conditionally as hospital orderlies of the reserve, in order to obtain their qualification. When a medical man has completed his year's active service as a volunteer he retires into the reserve as a junior surgeon, ranking as a non-commissioned officer. There are various regulations as to promotion in the reserve and medical service in the militia, which need not be entered into here.

Professional Secrecy.

In Germany medical men are legally bound to professional secrecy. The penalty for revealing secrets entrusted to them professionally is a fine not exceeding M.1,500, or imprisonment for a period not exceeding three months. A medical man renders himself liable to this punishment even if he reports crimes, such as criminal abortion, which have come to his knowledge confidentially in the course of his practice. The penalty would not be inflicted, however, if he acted in good faith, and on the assumption that he was bound to report such crimes, and that the omission to do so would render him liable to punishment. If a medical man is required by a judge to give evidence in a court of law, that is not considered as an unauthorized revealing of professional secrets.

The obligations of professional secrecy apply also to midwives, apothecaries, and their assistants, as well as to veterinary surgeons, and even to quacks.

Death Certification.

In many large towns in Prussia the holding of an inquest is the usual course in case of death; and in many of the German States inquests are compulsory, and in all cases a medical certificate of death is required prior to burial. In this certificate the medical practitioner must state that he has attended the patient before death, has examined the corpse after death and found no evidence of death from unnatural causes.

Most of these inquests are held by laymen, and there is a regular table setting forth the usual signs of death for their guidance. If these signs are absent they are bound to send for a medical man, who must apply other tests, the most recent of which is the fluorescin test of Dr. Jeard.

Notification of Infectious Diseases.

Compulsory notification of certain infectious diseases is enforced in all the German States. The following come under this head in Prussia: Cholera, small-pox, leprosy, epidemic cerebro-spinal meningitis, relapsing fever, enteric fever, diphtheria, puerperal fever, ophthalmia and pemphigus neonatorum, trichinosis, hydrophobia, anthrax, glanders.

Voluntary notification is recommended in scarlet fever, measles, rötheln, dysentery, granular ophthalmia, syphilis, scabies, influenza, whooping-cough, croup, pneumonia, mumps. The notification is sent to the police authorities in all cases except in puerperal fever, when it is sent by a medical practitioner to the district surgeon, by a midwife to the police authorities. In cases of cholera the medical attendant notifies both to the district surgeon and the police. The heads of families, innkeepers, and landlords are also bound to notify infectious diseases.

Isolation.

Compulsory isolation of persons suffering from infectious diseases is not enforced in Germany against the will of the head of the family of the affected person, except in cases of dangerous epidemic diseases—for example, cholera. When isolation is not enforced a black label is fixed on the house, with the name of the disease stated, in cases of dangerous infectious disorders. This label is not removed until all danger of infection has ceased.

Privileges of Registration.

The special privileges conferred by the legal qualification are, on the whole, much the same in Germany as those conferred by registration in this country.

Medical men are not required to serve upon juries. With regard to the acceptance of unpaid municipal offices, such as those of magistrate, town or district councillor, the regulations differ in different States; but the general rule is that medical or surgical practice in a town confers the privilege of declining such offices. On the contrary, the country practitioner is bound to serve in such capacities, unless he can prove his inability to do so owing to the demands of an extensive practice.

If a medical man is a paid municipal official the regulations of nearly all towns, parishes, etc., preclude him from being chosen as a municipal representative, an exception being made in the case of the offices of public vaccinator or parish medical officer.

The following two regulations are peculiar, according to British ideas. Medical men are exempted from the necessity of giving up to the military authorities, in case of mobilization, any horses which they require for professional use; or of supplying remounts to the standing army. So also the duties of supplying relays of horses for fire engines in case of fire, or of assisting in working the fire engine, are not incumbent upon medical men.

Prescriptions and Dispensing.

There are several most excellent regulations in Germany with regard to medical prescriptions which might well be adopted in this country. The repetition of a prescription containing drugs for internal use is not allowed, unless it is expressly stated on the prescription that it may be renewed, and how often.

Prescriptions containing such drugs as morphine, chloral, cocaine, paraldehyde, sulphonal, trional, urethan, etc., can only be renewed on the written order of a medical man or dental surgeon, with date and signature attached. This does not apply to prescriptions containing morphine or its salts in addition to other remedies, so long as the quantity of morphine does not exceed 0.03 gram; nor does it apply to hypodermic injections of morphine. The regulations order that the fluid drugs prescribed by a physician, surgeon, or dental surgeon must only be dispensed in round bottles with white labels, fluid drugs for external use in hexagonal bottles with three smooth and three ribbed sides and with red labels.

German doctors are as a rule not allowed to dispense their own medicines—in fact, they are liable to punishment for doing so—except under very special circumstances; for instance, in places where there is no chemist's shop near, and there are too few inhabitants for a chemist to make a living.

When a medical practitioner is permitted to keep his own medicines, he must supply them only to his own patients, and must obtain them from a chemist in Germany, in some places from the nearest chemist. He is required to set up in a special corner of his surgery, lighted by daylight, a cupboard which can be locked, fitted with separate shelves and drawers, and must have the necessary apparatus, such as scales and weights, pestle and mortar, etc.; as well as a *Pharmacopoeia*, a drug price list, the regulations about home dispensing, a receipt-book, and a day-book for entering prescriptions and their prices, as well as the written permission to keep drugs, which is granted by the President of the Provincial Government Board after an inquiry into the circumstances of the case. The medical officer of health is entitled to inspect these surgeries, at stated intervals, in the same way as in the case of apothecaries' shops. The medical man must charge the same price for drugs as the apothecaries do. He is not allowed to keep a dispenser.

Qualified medical men who wish to do so are allowed to keep a homoeopathic dispensary, and to dispense drugs according to that system, but not in that case "allopathically" also. In order to do so they must pass a special examination in homoeopathy, and are bound by similar regulations to those relating to the keeping of home dispensaries.

PUBLIC MEDICAL SERVICES.

Besides the army and navy medical services there are two public medical services in Germany—the Poor-law Medical Service and the Public Health Service.

Poor-law Medical Service.

In nearly every district in Germany a special medical officer (*Armenarzt*) is appointed by the parish for the care of the poor of the district. His salary and duties are laid down in a special contract. He is either paid a fixed yearly salary, or by fees according to the minimum of the legal tariff. His duties are to look after the sick poor, and to take care that they are housed in a suitable institution if necessary; he must also investigate the causes of their illness, and if these are traced to insanitary conditions, take steps to remedy them by all means in his power. This he is the better able to do through his influence with the Poor Commission, of which he is a member. In Alsace-Lorraine, Würtemberg, and some Prussian districts, the parish medical officer is also entrusted with definite public health duties. If he is from any cause unable to attend a case and another medical practitioner is called in, the latter has no claim on the parish authorities for fees unless he at once informs them of his attendance. The parish is only bound to pay his fees in cases of urgency, such as confinements or accidents, and he cannot undertake the further treatment of the case unless at the special request of the parish authorities.

Public Health Service.

There is no special medical ministry in any of the German States, but there is a well-organized system of public health administration, which is carried out on similar lines all over the Empire, though there are different regulations in the individual States.

Imperial Health Department.

The Imperial Chancellor is the nominal head of the Imperial health authorities. But the Secretary of State for the Interior has special charge of matters relating to public health. The staff of the Imperial Health Office consists of one director, who is a lawyer; ten regular well-paid members, of whom seven are medical men; one veterinary surgeon, and two analytical chemists, as well as twenty subordinate officials—one lawyer, eight medical men, mostly retired army surgeons; one veterinary surgeon, and ten analytical chemists. Associated with these there are thirty-five honorary members, who are appointed every five years by the Kaiser, and consist partly of medical officials of high standing from the different States, and partly of representatives of the various scientific, technical, and governing departments. These officials are called in to advise in specially weighty questions.

There is a Standing Committee for the preparation of the *German Pharmacopoeia*, presided over by the Director of the Imperial Health Office, with the higher medical officials as extraordinary members, and fifteen specially-appointed members—professors of medicine, pharmacology, and veterinary surgery, apothecaries, and representatives of the chemical and pharmaceutical industries.

The Imperial Health Department has its office in Berlin in a new building containing four different laboratories—chemical, hygienic, bacteriological, and pharmaco-physiological.

State Public Health Departments.

In each German State there are two special courts for managing medical affairs—the upper, or *Zentralinstanz* and the lower, *Lokalinstanz*. In Prussia and a few of the other larger States there is a middle court, which specially controls the lower courts. The upper court is in most States administered by a special Public Health Department of the Ministry of the Interior. In Prussia this Department belongs to the Ministry of Public Instruction. The Department is presided over by a lawyer, with whom are associated one or more medico-technical advisers. These latter officials are in the larger States—for example, Prussia, Bavaria, Saxony—restricted in private practice, their salaries ranging from 5,000 marks per annum to 15,000 in Hamburg, and they are entitled to pensions. In the smaller States—for example, Mecklenburg-Strelitz, Saxe-Coburg-Gotha, etc.—they are not restricted in private practice, are only semi-official, and the salaries range between 500 and 5,000 marks. They are entitled to pensions in all the States except Mecklenburg-Strelitz, Brunswick, and Lübeck.

Besides these officials there is a Medical Commission appointed by the universities as advisory body to the central court. This Commission, as a rule, presides over the examinations in State medicine. It is known as the Scientific Deputation for Medical Affairs, and is the highest authority in the State on matters of medical jurisprudence.

Local Boards.

The lower courts are under the government of the local authorities in their respective districts (for example, mayor, magistrate, governor of a district, etc.), the executive authorities being the district police. A medical official, who is answerable to the higher court, acts as adviser to the authorities in matters relating to the public health, and, as a rule, also acts as *Gerichtsarzt*, or medico-legal official. In Berlin, Cologne, and many of the larger towns, a special *Gerichtsarzt* is appointed.

The medical official is known as *Kreis-physikus* in Prussia and several other states. In some places he is called *Bezirks-arzt* or *Oberamts-arzt*, all of which titles mean "district surgeon." There is a great difference in the position of these officials in different States. In most their position is only semi-official; they depend for their livelihood on private practice, and are not entitled on their own initiative to find out the condition of the public health in their districts. Their salaries range from M.100 to M.2,100, the average being about M.500 or M.600, but they are entitled to certain extra fees detailed in the tariff.

The district surgeon holds a very much better position in the States of Bavaria, Saxony, Baden, Hesse, Anhalt, and Hamburg, where he is entrusted officially with the carrying out of public health duties. He is also better paid, the salary ranging from M.1,200 to M.8,000, private practice being as a rule allowed, except in Hesse, where the official salaries range from M.2,620 to M.5,140, and in Hamburg, where the port medical officer receives M.10,000 and is not allowed private practice.

These officials have a great number of duties to perform, many of which are similar to the duties of an English medical officer of health. The following are the most important: Inspection of apothecaries' shops, and of the trade in drugs, poisons, and secret remedies; inspection of midwives, sick nurses, masseurs, disinfectors, etc.; control of quackery; preparation of medical statistics, investigation of climate, soil, and water supplies; prevention of infectious disease; looking after factory and school hygiene; inspection of reformatories, prisons, public and private hospitals, lunatic asylums, homes for the blind and infirm; inspection of baths and spas; control of *post-mortem* examinations and burials. As a rule the district police authorities have to carry out measures relating to the public health. In many places, especially in the towns, they are superseded in these functions by health commissions, composed usually of one or more of the resident medical practitioners and some persons chosen by the municipality, such as architects, engineers, and apothecaries, so that the lay element is represented. The district surgeon is, as a rule, a voting member of this Commission, and can always take part in its sittings.

TARIFF OF FEES.

There is a very complete tariff of medical fees, which is

fixed by various legal regulations, and may be divided into two sections—official and private.

Official.

For official sanitary duties carried out at their own homes, or within 2 kilometres from the same, public health officials receive no fees from the Treasury beyond their regular salary, except M. 1 Pf. 50 as journey money for each duty performed.

If the duty is undertaken in a private interest—for example, giving qualification certificates to chemists' apprentices, medical examination of women and children working in glass-works, rolling mills, etc., teaching midwives, examining inspectors of meat, masseurs, etc.—besides the journey money the official is entitled to a fee of M.15 a day. The parish authorities must pay the same fee for duties performed in the interests of the district police—for example, examination of prostitutes, etc.

For official business undertaken not less than two kilometres from their houses the district surgeons are paid M.9 a day in legal affairs, M.12 a day in all other cases, and journey money, if by rail or steam, Pf.13 per kilometre, and M.3 for going and returning; in other cases Pf.60 per kilometre.

If the surgeon has to wait for a time he receives M.6, and M.1½ for every hour beyond three. The fee for examining a dead body, without a necropsy, is M.6; with necropsy, M.12. If the corpse has been buried for six weeks, or lain in water for fourteen or more days, the fee is M.24.

Medical men who are not officials, and are called in to perform any of the above duties, receive the same fees in the absence of a special agreement.

If an analytical chemist is required for a consultation in a medico-legal case, he receives 10r his work, including the report, from M.12 to M.75. The reagents, etc., are paid for also. For inspection of chemists' shops in his own district the medical official receives M 6 a day; if outside his district, journey money also. The pharmaceutical official associated with him receives the same fees, with the addition of M.1½ for every shop inspected to pay for the reagents required.

For a first bacteriological examination of the bowel contents of a person supposed to have died from cholera the official receives M.20, or, if more than one case is examined, M.10 for each case.

Fees in Private Practice.

There is a regular tariff of fees fixed by law in all the German States except Baden, Alsace-Lorraine, Hamburg, Lübeck, Saxe-Altenburg, Saxe Coburg, and Schwarzburg-Sondesshausen. The following general principles are more or less in force for all regulations as to fees, and have been fixed by the highest legal decisions:

A medical practitioner can always make a special agreement with his clients as to payment for his services. If such an agreement does not exist, fees are regulated according to the tariff, if one exists. As a rule family medical practitioners are paid a fixed sum per annum for their services.

A medical man is entitled to his fee even if the patient declines to see him, so long as he is sent for by the patient's family or lawful representative. He is not so entitled if he has undertaken treatment which he knew to be unnecessary, or against the patient's wish, or if he performs an operation against the express wish of the patient or his family.

If a surgeon has agreed to perform a simple operation for a fee agreed upon, and finds during the progress of the operation that a further and more difficult one is required, if he cannot obtain the consent of the patient, on account of his being under the influence of the anaesthetic, or that of his representatives on account of absence, he may only undertake the operation if the case is urgent, but is then entitled to the full fee for the major operation.

An employer is responsible for fees for medical attendance on his servants for a period of six weeks if they do not belong to a sick club.

If a married woman calls in the aid of a medical practitioner without the consent of her husband—for instance, in confinement or when an operation is urgently required—the husband is bound to pay for professional attendance.

In nearly all the regulations about fees it is laid down that people who are of proved poverty shall only pay fees on the lowest scale. This applies to cases in which it is not absolutely impossible to pay the full fees, but in which such payment would seriously hamper the means of subsistence of the individual or his family. As so many of the working classes belong to sick clubs, probably such a case very seldom occurs.

In all other cases the amount of the fee within the fixed limits is determined by the special circumstances of each case—that is to say, the nature and difficulty of the treatment, the financial position of the person liable, and the local circumstances—for example, the difference between the cost of living in town and country, etc.

If a medical man wishes to enforce payment of his fees by law he must bring forward the claims in the law courts, either verbally or by an account, and the payment of the fees will not be enforced unless the claim is made within three months after the attendance.

Under the bankruptcy laws a medical man has a first claim on the estate for fees, provided his attendance dates from the last year before proceedings were commenced and the fees are not above the limits of the tariff. The same rule applies to the nursing charges in private hospitals.

The following is extracted from the Prussian tariff of fees. There are some differences in the other States which have a tariff:

	Marks.
For the first visit paid to a patient	2 to 20
Every subsequent visit during the same illness...	1 to 10
First consultation at the doctor's house... ...	1 to 10
Every subsequent consultation	1 to 5

The above fees include examination of the patient and the prescription. If there is a special examination, necessitating the use of microscope, ophthalmoscope, laryngoscope, ear or vaginal speculum, an extra fee of M.2 to M 5 is charged. For every extra half-hour beyond the first that a medical man is required to spend at a patient's house he can claim M.1.50 to M.3. If there is more than one patient in a house he can claim a half fee for each extra one. A double (sometimes treble) fee is charged for visits paid between 9 p.m. and 7 a.m., also for visits paid urgently or at any special hour at the request of the patient or his friends.

In consultations between two or more medical practitioners each is entitled to the same fee of M.5 to M.30; for further consultations in the same illness, M.5 to M.20; for assistance at an operation, M.5 to M.20; for giving an anesthetic, M.5 to M.15. No special fee is given for anaesthetics if the surgeon receives M.10 or more for the operation.

As a rule, a medical man cannot claim travelling expenses within his own district, except in the case of night visits, special day visits, consultations, or assisting at operations, when he can charge M.1.50 to M.3 for every half-hour on the way, if the patient lives within 2 kilometres of his house. If the patient is outside the district, and not less than 1 kilometre from its bounds, and at least 2 kilometres from the practitioner's house, the latter can charge travelling expenses in all cases.

If he uses his own carriage, the charge must be according to the fares customary in the district. For railway journeys, second-class fare is charged, and saloon for steamers, with 1.50 marks for going and returning. For a journey which takes more than ten hours, a fee of 30 to 150 marks a day can be charged, besides the journey money.

	Marks.
Fee for a short certificate about a person's health or illness	2 to 5
Fee for complete report	3 to 10
Letter written about a patient...	3 to 10
Examination of a dead body, with a short certificate, exclusive of fee for visit	3 to 6
Post-mortem examination	10 to 30
Report thereon	3 to 10
Efforts to restore suspended animation	4 to 20
Vaccination	3 to 6
Massage	2 to 5
Electrical treatment	2 to 10
Hypodermic injections	1 to 3
Surgical Fees:	
Opening a superficial abscess	2 to 10
Opening a deep abscess	10 to 50
Stitching and first dressing of a small wound ...	2 to 10
Stitching and first dressing of a large wound ...	10 to 30
Ligature of a large artery	20 to 100
Tenotomy	10 to 50
Nerve stretching	10 to 50
Tapping a hydrocele	5 to 10
Tapping bladder, ascites, pleural effusion, or ovarian cyst	15 to 30
Removal of small tumours on the outside of body ...	3 to 15
Removal of larger and more complicated tumours ...	20 to 200
Removal of tonsil	3 to 15
Removal of nasal or throat polypi	10 to 30

	Marks.
Removal of adenoids	10 to 50
Major laryngeal operations and removal of tumours	20 to 300
Setting fractures of clavicle, ribs, or humerus ...	10 to 20
Setting fractures of forearm or leg	10 to 25
Setting fractures of femur	15 to 30
Setting fractures of femur (intra or extra capsular)...	20 to 50
Setting fractures of patella	15 to 30
Setting fractures of patella with suturing ...	20 to 100
(Fees for compound fractures, 10 to 50 marks more.)	
Amputation of upper or lower arm or leg ...	30 to 200
Amputation of foot or hand	20 to 150
Amputation of finger or toe	10 to 30
Opening a joint for drainage, etc.	10 to 100
Resection of joints or of upper or lower jaw ...	30 to 300
Opening the cranial cavity	30 to 200
Reducing dislocation of lower jaw	10 to 20
Reducing dislocation of shoulder	10 to 30
Reducing dislocation of hip	30 to 50
Reducing dislocation of forearm, leg, wrist, or ankle	15 to 30
Major plastic operations, for example, eyelids, nose, complicated hare-lip	20 to 200
Removal of tongue, whole or part	20 to 200
Tracheotomy or laryngotomy	20 to 200
Partial or complete removal of larynx	30 to 500
Operation on internal abdominal organs... ...	50 to 500
Reducing a simple hernia	3 to 10
Reducing a strangulated hernia	10 to 50
Operation for strangulated hernia, or radical cure ...	30 to 200
Lithotomy or lithotrity	60 to 500
Eye Surgery:	
Examining vision, including colour blindness, field of vision, etc.	3 to 15
Operation for trichiasis	10 to 100
Removal of foreign body from conjunctiva ...	2 to 10
Removal of foreign body from cornea	3 to 20
Removal of foreign body from interior of eyeball ...	20 to 150
Iridectomy	20 to 150
Operation for cataract or glaucoma	50 to 300
Removal of eyeball	30 to 150
Selecting and fitting artificial eye	2 to 5
Obstetric and Gynaecological:	
Attending a natural confinement	4 to 10
Half as much more in the case of twins.	
For each half hour delayed beyond two hours ...	1.50 to 3
Manual extraction of infant	15 to 50
Turning or forceps	15 to 100
Turning and forceps together, or perforation with or without cephalotripsy or dismemberment or symphysiotomy...	30 to 150
In cases of placenta praevia	10 to 50
Attendance at a miscarriage	6 to 50
Induction of premature labour or abortion ...	10 to 50
Caesarean section in a living woman	50 to 500
Caesarean section in a dead woman	20 to 50
Removal of after-birth only	10 to 20
Attending *post-partum* haemorrhage only... ...	10 to 100
Suturing the perineum	5 to 20
Suturing an old case	20 to 200
Operation for recto-vaginal, vesico-vaginal, or urethro-vaginal fistula	30 to 500
Inserting a pessary	2 to 20
Curetting	10 to 100
Partial removal of uterus	20 to 100
Complete removal of uterus	50 to 500

UNQUALIFIED PRACTICE, ETC.

According to the *Reichsgewerbe-ordnung*, or regulations of the medical profession:

Whoever, without being qualified thereto, designates himself as physician, surgeon, eye surgeon, obstetrician, dental surgeon, veterinary surgeon, or attributes to himself similar titles, through which it can be thought that the possessor of the same is a qualified medical person, will be punished by a fine not exceeding M. 300, or, in case of insolvency, by imprisonment.

The qualified practitioner is accordingly alone authorized to describe himself not only in the usual way as practising physician, surgeon, and obstetrician, but also by other similar titles, such as eye, ear, women's or children's doctor, hydropath, homoeopath, etc. He is only restricted to the extent that he cannot appropriate any title which is specially conferred (for example, sanitary, medical, or court adviser, court physician, professor, etc.), or for the attainment of which a special examination is required (Doctor of Medicine, dental surgeon, veterinary surgeon).

Medical practitioners in Germany are allowed to use only titles conferred by the medical authorities of that country, and it is not permitted to use foreign titles or titles abbreviated or difficult to understand for example, "Med. non approb.," "in Americ. approb.," "Dtr. med.," etc. Only when the title reads, "Doctor or dental surgeon qualified abroad, or in America," can there be no objection to its use. Women also can be fined if they arrogate to themselves a medical title; for instance, midwives may not call themselves *Geburtshelferinnen*. It is not permissible to designate any business by a title which gives rise to the idea that the manager is a qualified medical man—for example, "dental surgeon's surgery," "clinic," "electro-homoeopathic institution," etc. On the other hand, such titles as it is considered cannot deceive the public are permissible—for example, "*Diätetiker*," "*Zahntechniker*," "Dentist," "American Dentist," "Stud. Med.," etc.

It appears that the title "Dentist" in Germany is applied to unqualified men. Qualified men are known as *Zahnarzt*, or dental surgeon. It is not necessary to prove intentional deceit or even negligent treatment against the unqualified users of the above titles; it is quite sufficient to prove that they represented themselves as being duly qualified.

The following are further legal regulations against unqualified practice occurring either in the *Reichsgewerbe-ordnung* or the *Strafsgesetzbuch* (criminal code):

No unqualified person can hold any official medical or public health position, nor can his treatment ever be recognized as medical treatment. The practice of the healing art in travelling is specially prohibited to all unqualified persons. Travelling quacks are forbidden to seek out patients in their own homes without a previous appointment, or to advertise to the public their houses of call or consulting hours.

Whoever causes the death of another person through negligence may be imprisoned for a period not exceeding three years; if bodily injury is caused the punishment is imprisonment for not more than two years, or a fine of not more than M.900.

If the guilty person was bound to special care by virtue of his profession, the above periods of imprisonment can be increased up to five and three years respectively; or, if the injured person demands it, the fine can be increased to M.6,000. This law applies to medical men and also to quacks.

If a result dangerous to health ensues from a quack's treatment, the law requires the following questions to be answered:

1. Could the defendant, by taking such care as was in his power, owing to his knowledge, intelligence, and experience, anticipate or prevent any untoward result? 2. If he was bound, on account of the nature of the illness, to call in the advice of a legally-qualified medical practitioner before undertaking treatment, could the injurious consequences have been avoided or lessened had he done so?

Even if only one of these questions is answered in the affirmative the defendant is charged with neglect.

A quack can be prosecuted for imposture, but it would be difficult to prove that he did not himself believe in his knowledge and capacity, as well as in the suitability of his treatment. He can also be prosecuted for unfair competition by means of swindling advertisements.

In some of the German States, and in some Prussian districts, unqualified persons who undertake the treatment of the sick as a profession are bound to give notice of their business both to the parish authorities and to the district surgeon. They are also bound to notify cases of infectious disease occurring in their practice.

Chemists and Druggists.

All unqualified persons who undertake medical practice are bound to pay the trade tax, from which qualified medical men are exempt. Chemists are not allowed by law to practise medicine themselves, but in urgent cases, such as dangerous accidents or poisoning, they may, in the absence of proper medical aid, use such remedies as they think right. They are not allowed to dispense the prescriptions of unqualified persons, unless these contain only such ingredients as can legally be sold by retail. In Bavaria there is a law that prescriptions written by persons who notoriously do not belong to the medical profession, as well as prescriptions which show by their appearance that they are not written by qualified men, shall be unconditionally returned. Secret remedies cannot be sold retail by chemists, unless the composition is known to them, the constituent parts being drugs which can be legally retailed, and so long as the price of the remedy is no higher than is warranted by the price of its component parts.

Secret Remedies.

In Hesse and Hamburg the sale of secret remedies is forbidden, yet they can be supplied exceptionally on the expressly-written prescription of a medical man, dental surgeon, or veterinary surgeon, which must be repeated every time the remedy is sold.

Administration of the Law.

One of the duties of the medical health officials is the control of quackery, and the law can be set in motion by their reporting cases which come to their knowledge to the police authorities.

Yet in spite of all these regulations against unqualified practice, quackery flourishes in Germany, partly owing to the laxity of the medical profession, who often do not take the trouble to fight against it, and partly to the cleverness of quacks in evading the law. They are greatly aided by the fact that there is no restriction of the practice of minor surgery, and that there exists a whole army of *Geprüfte Heildiener*, or approved medical helpers, authorized by law to practise minor surgery. This expression, however, does not mean quite the same as it does in this country. It includes such things as tooth-drawing, bandaging simple wounds, applying leeches, setons, and issues, wet and dry cupping, massage, etc.

There is a regulation of the Medical Minister in Prussia, dating from 1869, to the effect that all persons who wish to practise minor surgery can receive a certificate from the district surgeon after passing an examination, and are then entitled to call themselves qualified medical helpers. Hospital orderlies, on production of a certificate from the principal medical officer that they have served satisfactorily in that capacity for five years consecutively, can receive a similar certificate without passing an examination.

Chiropodists can receive a certificate as such after passing an examination. So also can masseurs and masseuses. All these people are entitled to fees on a fixed scale. The majority of so-called masseurs and masseuses, however, have passed no regular examination, except that of a private medical practitioner. In this case they are called *Aerztlich Geprüfte Massör* or *Massörin*, and are not considered properly qualified. This free permission to practise the healing art given to persons who have not enjoyed any proper preliminary education or training no doubt greatly assists quacks in evading the law, and favours their usurious charges to a very great extent.

Contract Practice.

According to the *Krankenversicherungs-Gesetz*, or law of insurance against sickness, all workmen whose yearly wages amount to less than M.2,000 a year are entitled to belong to one of the numerous *Krankenkasse*, or sick clubs, in Germany. As very many of these clubs grant free medical treatment to the relatives of the members, it happens that more than a quarter of the whole population of Germany participates in the benefits of free medical aid.

There are the following different kinds of clubs:

1. *District Sick Clubs*, established by the municipality for the several branches of trade represented in a particular place. These clubs can act for all the trades in common, or for individual industries, so long as more than 100 workmen are employed.

2. *Workmen's Mutual Relief Societies*, which the contractor of works with more than 50 employés has to establish.

3. *Building Sick Societies*, established by the master builders for their employés.

4. *Trade or Guild Sick Clubs*, established under the imperial trade regulations.

5. *Colliery Clubs*, established by the mining regulations of the different States.

6. *Parish Sickness Insurance Societies.*

7. *Voluntary Charitable Funds* (*Freiwilligen Hilfskassen*).

All these clubs are self-governed, and the costs of management come out of the funds, except in the case of the parish clubs, when they are paid by the parish, and of the workmen's mutual relief societies, when the contractor has to pay them. The contributions of the insured persons are restricted by law to from 1 to 1½ per cent. of the daily wages ruling in each district, in the case of the parish societies, and in all the compulsory clubs to 2 or 3 per cent. of the daily wages of the different classes of workmen for whom the clubs are established. The employer has to pay a contribution equal to half that paid by the workmen.

Practically all operatives engaged in any kind of manufacture are bound by law to insure against sickness. Managers, foremen of works, engineers, commercial clerks, and apprentices are only bound by this law so long as their daily wages are not more than M.6⅔, or if they have a yearly salary not more than M.2,000. Apothecaries' assistants and apprentices, and also the crews of ships, are exempt.

Soldiers are exempt from compulsory sickness insurance so long as they are in the employment of the Empire, a State, or a municipality, and are entitled in case of illness to payment of their wages for a period of at least thirteen weeks from the onset of illness, or to any of the benefits detailed later.

Any persons who are not bound by the obligation of compulsory insurance against sickness, and whose yearly income is not more than M.2,000 can join the parish sickness insurance society belonging to the district in which they work. They must make a written declaration to the managing committee of the society, and are not entitled to benefits if they are already suffering from illness at the time of this declaration. The parish authorities are entitled to submit such persons to a medical examination.

Members of one of the charitable funds (*Hilfskasse*) registered by law are not required to join the parish sickness society or one of the other clubs if their fund grants the same relief as the parish club of their district. Members of such a fund, who also belong to one of the compulsory sick funds, may, instead of free medical relief and drugs, receive an increase of sickness pay up to half the amount of the daily wages ruling in the district.

The amount of sickness relief granted to members differs in different societies. In the parish sick clubs and the voluntary charitable funds only free medical advice, drugs, and such remedies are granted, as well as, in the case of inability to work, sickness pay from the third day after the commencement of the illness to the amount of half the daily wages, or in place of this free medical attendance and nursing in a hospital, together with half the above-mentioned sickness pay for the sick man's family.

In the compulsory sick clubs the members also receive a grant for funeral expenses to the amount of twenty times their daily wages, and sick relief for four weeks for lying-in women. The funeral expenses may in special cases be doubled and relief to lying-in women increased. Medical relief and sickness pay are, as a rule, granted only for a period of thirteen weeks from the beginning of the illness, but the district sick clubs may extend this to one year, and may also grant free treatment in a convalescent home for a period of one year from the termination of the sick relief.

The club medical officer (*Kassenarzt*), which every such club must at the present time appoint, is, in the case of the parish sickness societies, appointed by the respective unions; in the case of all other organized sick clubs, by the committee, according to a previous resolution of a general meeting of the club. A special agreement is drawn up, which states the medical officer's salary, and, as a rule, defines his rights and duties.

Medical aid includes medical treatment of all kinds. The doctor, however, is not bound to treat cases of hereditary deformity, such as harelip, club foot, naevi, squint, etc.; nor is he bound to undertake "minor surgery," using the term in the sense explained above. Illnesses which are brought on intentionally, or as the result of drunkenness, immorality, etc., are not relieved by the sick clubs. The medical officer is bound to attend midwifery cases if the midwife is unable to terminate the labour and expressly sends for him.

If a sick member is able to go out he must consult the medical officer at his own residence. The latter is particularly enjoined to keep rigidly to his surgery hours, so as to avoid keeping his patients waiting. He is also required, as far as possible, to exercise economy in the use of drugs, and not to order expensive medicines if the same result can be attained by the use of cheaper ones. In particular, wines and such remedies are only to be ordered if he considers them necessary for the cure of the patient, not merely as tonics.

Spectacles, trusses, and such appliances are supplied to club members if required.

The club medical officer is bound to report to the Committee any deception or malingering on the part of his patients, and also to report those who retard their recovery by their own fault. Members who disobey medical orders are fined up to M.20.

The law requires that every *Kassenarzt* shall be a qualified medical man. In Saxony, however, a club member is allowed, with the consent of the Committee, to employ unqualified medical aid at the expense of the club; but sickness pay is only granted on the certificate of a qualified medical man, except in certain cases where the nature of the illness is such as to be obvious even to a layman.

If the club medical officer requires the assistance of an ophthalmic or dental surgeon, or of masseurs, midwives, etc., the club is bound to pay for such assistance on his demand.

The payment of medical officers of clubs is at present regu-

lated by contract, the amount as a rule being fixed by dividing the sum total of members' weekly contributions for the year by 52 and giving this to the medical officer.

The medical profession in Germany appears to be as much exercised about this question of contract as is the profession in this country. There also the profession is overstocked; competition for these club appointments is keen. It is considered that the abolition of the post of club medical officer, and the substitution of the principle that every member had the right to choose his medical attendant, would greatly raise the status of the profession, and do away with disgraceful competition. The various medical societies in the Empire have given expression to this opinion at different times; and they likewise recommend that medical treatment of club members should be paid for at the minimum rate of the legal tariff of fees, and that in the case of necessitous sick clubs, or in the event of medical fees amounting to more than 33½ per cent. of the members' contributions, a rebate of 10 to 15 per cent. should be made.

It is recommended that if the clubs wish to adhere to the system of a yearly honorarium this should in no case be less than M.3 for each individual, and M.9 for a family, which all sick clubs could easily pay, and which many clubs do actually already pay.

This scale of payment appears to be very low, but it must be remembered that in Germany medical officers of clubs do not have to supply medicine as they do in England. Whatever may be the case with regard to the fees for attendance on club members, they are, at any rate, ahead of us in Germany in fixing a wage limit by law for all clubs.

There are special sick clubs connected with all the railways and post-offices in the German Empire. The regulations are similar to those of the district sick clubs, except that the railway surgeons are allowed second-class free passes on the line.

Only in a few States, and even then only in some of the larger towns—for example, Breslau, Dresden, Frankfort, Königsberg, Leipzig, Nuremberg, and Wiesbaden—are special school physicians appointed to look after the health of the scholars and the hygiene of schools, although this is one of the duties of the *Kreisphysikus* in places where he is specially entrusted with official public health functions. The necessity of an extension of these appointments to all schools in the Empire seems to be more fully recognized in Germany than in Great Britain.

VOLUNTARY MEDICAL ORGANIZATIONS FOR THE PROTECTION OF PROFESSIONAL INTERESTS.

There do not appear to be any special medical protection societies in Germany such as exist in England, but there are two organizations which exist for the protection of professional interests:

1. *Aerztekammern.*

The first is the State representation of the medical profession by *Aerztekammern* or medical chambers. This representation only exists in the States of Prussia, Saxony, Bavaria, Würtemberg, Baden, Hesse, Oldenburg, Braunschweig, Hamburg, and Alsace-Lorraine, not in any of the other sixteen States.

One of these representative bodies is established for each province or district in these States. In Prussia the members are chosen by vote of all the medical men in the respective districts, except military and naval surgeons. Every 50 voters elect one member and one deputy.

The objects of the *Aerztekammern* are to represent the interests of the medical profession, to exercise a disciplinary power over medical men, the extent of which differs greatly in the different States, and to co-operate in matters of public health by sending representatives to the advisory health authorities—namely, the provincial medical Boards and the scientific deputations for medical affairs. These representatives are paid at the rate of M.18 a day for taking part in the conferences of the scientific deputation for medical affairs, and M.15 a day for attending the provincial Boards, with travelling expenses at the rate of fourth-class officials.

2. *Aerztevereinbund.*

The *Aerztevereinbund*, or Union of Medical Societies, founded in Leipzig on September 13th, 1873, was the original of all the voluntary medical unions. This union now comprises 279 medical societies with 15,282 members. Every medical society whose members are properly qualified and recognized by the State is at liberty to join the union. Persons of a different professional standing, such as veterinary surgeons, apothecaries, analytical chemists, or engineers, who belong to one of the subordinate societies, cannot take part in the affairs of the union, or vote. The objects of this union are:

The furtherance of medical science and art, as well as of the material interests of the profession.

Participation in public health duties and medical legislation, both in State and local affairs.

The endeavour to obtain a proper medical representation by founding *Arztekammern* in those States in which up to now they do not exist.

The Medical Union holds every year at least one general meeting (*Arztetag*), the place and time of which is arranged beforehand by the Committee and announced to the various societies.

Any proposals which are supported by at least ten of the Societies belonging to the Union must be placed on the agenda at least three months before the general meeting. Urgent business which is not on the agenda can be discussed at the general meeting, if brought forward by the delegates of fifteen societies.

The *Arztliche Vereinsblatt für Deutschland*, established by Professor Richter in Dresden, is the official journal of the Union.

Medical Relief Societies.

The struggle for existence among medical men in Germany, owing principally to overcrowding of the profession and the immense amount of quackery, becomes every year more keen, and the necessity of a system of medical relief is urgently felt. There is a very good system already in some of the States, especially Saxony and Bavaria, but in others, especially in Prussia, it is somewhat deficient. There are 82 medical relief societies in the German Empire; 20 of them are established on more or less mutual principles, and only extend benefits to contributors, while the other 42 societies call themselves charitable relief societies, as they also extend their benefits to needy medical men or their widows and orphans who do not belong to the society.

One of these societies, the Central Charitable Society for German Medical Men, extends over the whole German Empire, and has its head quarters in Berlin. It insures its members against sickness, infirmity, death, and old age. It grants sickness pay of from M.5 to M.10 a day to members who are unable to work on account of an illness lasting more than eight days—up to 182 days. Fifty times the above amount is granted as funeral money in case of a member's death, and for chronic infirmity or old age from M.500 to to M.1,500 a year, for the lifetime of the member, with funeral money as above. Those who have insured against both infirmity and old age receive double the above amounts. Any medical man qualified in Germany can become a member of this society, if he is at the time living in Germany and in possession of civil rights, and according to his own declaration and a medical certificate is free from any sickness or infirmity which could prevent him practising his profession, and so long as he is under 50 years of age. There is an entrance fee of M.10, unless a medical man joins within three years of qualifying, when entrance is free. The amount of premiums to be paid is reckoned according to a regular tariff, in the same way as in life insurance societies.

In Prussia there are 6 medical relief societies, with members enjoying equal rights, including 4 funeral expenses clubs, 1 relief society for widows of medical men, and 1 pension and aid society for medical men and their survivors, 16 mutual relief societies (3 for medical men, 1 only for survivors, and 12 for both), as well as 23 charitable societies (3 for medical men, 7 for survivors, and 13 for both). The subscriptions range from M.3 to M.25, the right to benefits being forfeited by unpunctuality of payment.

The funeral clubs grant funeral expenses of from M.3 to M.800; the other societies grant relief of from M.25 to M.400, but in most of them it is not more than M.200 or M.300, and is looked upon more or less as alms.

In Bavaria medical relief is better looked after than in Prussia. There are there three small local societies and three belonging to the whole country—namely, a society for the relief of Bavarian medical men in sickness, a pension fund for the widows and orphans of Bavarian medical men, and a funeral club. The membership of the first of these is in most districts in Bavaria compulsory, so that nearly three-fourths of all the medical men in Bavaria belong to it. The state grants a subvention to this society. The subscription is M.5 a year, and the relief, which is only given to doctors in need, amounts to between M.50 and M.120 a month. The other

societies grant widow's pension M.220, and orphans' pension M.44 to M.66, and M.100 to M.300 for funeral expenses.

The best medical sickness societies in Germany are in the Kingdom of Saxony, where, except for two small relief clubs and one funeral club in Leipzig, there is one sickness relief society for the whole kingdom for medical men, who all are bound to join, and one relief society for widows and orphans. Both are obligatory State clubs. The yearly subscription for the first society is M. 10, and for the second M. 20. They grant M. 50 to M. 100 a month to members unable to work on account of illness and unable to provide sufficient means of support. Widows in need of relief are granted from M. 26 to M. 50 a month, and orphans from M. 5 to M. 25 a month.

In the other German States there are various other medical relief societies, differing from the above in details.

AUSTRIA.

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MEDICAL EDUCATION.

BEFORE the study of medicine can be undertaken, the entrance examination or "Matura," without which no student can matriculate, has to be passed. It comprises a knowledge of Greek and Latin, besides arithmetic, geometry and geography, to say nothing of a severe examination in chemistry and physics. Once this ordeal has been got through, the curriculum is nearly the same for all students. As all the medical schools are attached to public hospitals, and are owned and governed by the State, teaching is, as far as can be said in regard to medicine, on a uniform scale. After spending 11 semesters (five and a half years), which is the minimum period of study in the laboratories and hospital wards, and passing all examinations, the student receives his diploma, which entitles him to prefix "Dr." to his name, and at the same time allows him to set up in practice wherever he likes. We have no lower and no higher diplomas here. Owing to the cheapness of medical education, numbers of young men who, in other industrial and less agricultural countries, would turn to business or a handicraft, enter the profession by hundreds, especially in the larger cities. The fees and other expenses of the whole curriculum are covered easily by the sum of £65. The diploma costs about £8. The expense of living is low, except in Vienna, where the sum of £50 a year will scarcely be sufficient even to defray the expenses of theatre and modest amusements. It is much lower in the smaller university towns. The student may cover all his expenses by giving private lessons in one of the classical languages to boys in the public Latin schools. These circumstances tend to popularize the profession, and enable small tradesmen and even peasants to make their sons doctors. Foreign diplomas are recognized here only after all the examinations have been passed; this may be done within any time the applicant chooses. This holds good especially of the diplomas of ladies obtained abroad (till 1902 we had no female members of the profession who had graduated in Austria) and of the Italian diplomas. But in the frontier places, or at the Spas, any medical man, after notifying his intention to the local magistrates, may practise—in the latter places, however, only for the season. Very few foreigners, however, or holders of foreign diplomas, apply for recognition. The conditions of the profession are not sufficiently brilliant to attract them.

FEMALE PRACTITIONERS.

The admission of women to the universities has led several ladies to study medicine, but as yet there are only 29 women in Austria who hold the M.D. degree. They have to go through the same curriculum as the male students, but the privileges enjoyed by the men are not yet extended to the ladies. Thus only two have succeeded in obtaining posts as hospital officers, and they had to struggle hard for this coveted post. But the spirit of the time is working slowly, and is doing away with old prejudices. The prospects of a lady doctor are improving year by year; hence the number of female students is increasing. Two years ago there were in all the seven universities 21 female students of medicine, now there are 43.

PRACTITIONERS AND THE PUBLIC.

Before starting in practice, the doctor has to register his diploma at the office of the chief magistrate. His duties in relation to the public do not differ much from those of practitioners in England. Until some time ago the doctor had to attend any case he was called to, unless there was reasonable ground for refusal, such as his own illness, and he was bound to give help, for instance, in cases of accidents happening in the streets, even when he knew he would receive no fee. Things have improved lately, especially as regards night calls and accident work.

The rules of professional secrecy are much the same as elsewhere. The Government and the administrative authorities require a fair share of the practitioner's work for their own purposes. He has to notify every case of infectious disease—diphtheria, typhoid fever, influenza, cholera, etc., and now also chronic progressive consumption. The death certificate must be filled up without payment, and in cases of emergency he has to call the ambulance or hospital car. He is taxed and rated to the extent of from 4 to 5 per cent. of his income, and doctors who practise in two different places at different seasons—practising at the same time at two or more different places is strictly forbidden—such as in Karlsbad, Marienbad, Baden, and other Spas, are more highly taxed.

OVERCROWDING OF THE PROFESSION.

Altogether the material situation of the profession is not a very bright one at present, but a better time seems to be dawning. As long as the Vienna school was at the height of its fame, it attracted such numbers of students, that soon the output of doctors became excessive. Of the extent of the overcrowding of the profession which resulted, an idea may be formed from the following facts:—

In 1875 the number of practitioners in Austria was 6,400 to a population of about 20,000,000; in 1900 it was 11,500, or nearly double the number, to 25,000,000 inhabitants. The increase is due to the greater influx of students coming from the poorer classes of the population. The present number for the whole country is 11,765, which works out at an average of one doctor to every 2,300 inhabitants. The proportion of course differs for different parts of the Empire. Whilst Bohemia has one practitioner for every 2,000 of population, other parts show one for each 3,000, even one for 3 900, or one for 1,500. In the towns and cities the distribution is altogether different. Thus, Vienna has 2,800 registered practitioners to 1,600,000 inhabitants or one to 600, Prague one to 800, Innsbruck one to 1,100, Graz one to 750. In the majority of the larger towns, the ration is fairly constant, being something like one practitioner for every 1,000 to 1,500 inhabitants. In the rural districts there are fixed appointments under the Poor Law. For this purpose the whole country is divided into districts, roughly estimated at about 3,000 inhabitants each. These posts are open to the young doctor, the salary ranges from £50 to £100 a year. Private practice is allowed, but it does not often amount to more than £100. The poor prospect offered by country practice naturally tends to restrict the newcomers to the larger towns, where the overcrowding is very great. These circumstances have caused a falling off in the number of medical students during the last five years. Medical societies have published warnings which have been effectual to a large extent. Moreover, the commercial and industrial development of the country within the last few years has tempted many away who might otherwise have entered the profession. Thus the number of students who entered the first semester in their curriculum was in the year 1897 (in Vienna) 450, in 1904, 112. The diplomas granted in 1902 (in Vienna) numbered 168, in 1904, 108, and these figures show a constant downward curve.

PUBLIC SERVICES.

The public services open to the practitioner in Austria are not very numerous, and have sprung up only lately. It is now a principle with the Government that every public institution shall have its medical adviser. Thus every prison has its doctor, or even two, and there are three prison hospitals each with about 120 beds, with full provision for surgical and gynaecological work. Moreover, school doctors are appointed by the magistrates who are responsible to the State. But the most important of these services is the Department of Public Health. We have a special examination in this kind of work, something akin to that of D.P.H. in England, and only those who have passed this examination are eligible for public service. Each municipality has its *Stadtphysicus* (medical officer of the town), who has to keep a lookout after the sanitation of his district. He has to give his vote in all affairs concerning his department. In case of epidemics his advice must be followed. The registration of causes of deaths, the condition of the water supply, the hygienic conditions of public institutions—in short, the duties

of the English medical officer of health fall to his lot. Such posts in the rural districts are well paid, as private practice is not allowed, but the work is very heavy.

Another branch of public service is that of the hospitals. As mentioned above, the care of the sick is almost entirely in the hands of the Government, and also the teaching in schools and at the universities and the hospitals attached to them. Accordingly, the professors, lecturers, assistants, and teachers of medicine are appointed and paid by the State. They have the title of "royal and imperial professor, lecturer," and so on, and they are regarded as members of a public service. Furthermore, a large scope is open for the police doctor, who is in a fairly good position as regards income, while at the same time he is entitled to a superannuation allowance. He is also eligible to posts in infirmaries, workhouses; and his testimonials, for instance, are regarded as public documents, the forging of which is severely punished by law. The greatest influence in all affairs concerning medicine is exercised by the *Sanitäts-Räthe* or health council, an independent body elected and appointed by the Minister of the Interior. The directors of the chief hospitals in every city are members of this council, besides the three senior of the medical officers of health of each of the countries forming the Empire. All important changes in the regulations for admission to practice, the laws about compulsory vaccination, the abuse of the sale of poisons, have been made on the recommendation of the Council.

Professional Earnings.

The average financial position of medical men in Austria is that they are able to earn a livelihood, but cannot save money for their old age. Things are, however, improving. Those who have an appointment in the country, where living is mostly very cheap, may make both ends meet, and not very seldom, even be able to buy a house and to save a little money. The fees are small, 3s. 4d. (4 kronen) being reckoned a good remuneration for a visit, and, if they have to drive a fair distance, the better-class shopkeeper or peasant will pay as much as 5s. (6 kronen), for minor operations, gynaecological work; they hardly ever get more than 8s. to 15s. (10 to 20 kronen). It must be borne in mind the country people prefer to use their own herbs and poultices before they consent to see a doctor. Sometimes such a country practitioner does not get more than 1s. or 1s. 6d. for a visit. His fee for a visit at his office is very small—1s. to 2s. being the average. Taking all in all, his income may amount to as much as £250 a year or in the richest parts of the Empire, £300. This is regarded as a good easy life, free from financial cares, as a good many practitioners spring from the poorer classes. The case is different in cities and in the capital. There a fee of about 2s. for a consultation at the office is the minimum a busy doctor would accept; as a rule it is 2s. to 2s. 6d., and 3s. 6d. for a visit at home. Quite a number receive 3s. 6d. to 5s. for a consultation and 5s. to 7s. 6d. for a visit. The latter figures hold good for the capital itself. But the competition caused by the overcrowding is very keen, and if a man earns £360 a year he is considered to be doing well.

Contract Medical Practice.

It is not too much to say that the *Krankenkassen* or clubs, the establishment of which has been enforced by law, have brought the profession to the verge of ruin. In 1887 the Government brought in a bill, ordering all commercial and industrial establishments to form Friendly Societies for the purpose of ensuring for their employés free medical aid, medicines, and sick pay. The costs were to be defrayed partly by the establishment, partly by the employés. This was done, and a number of young doctors for whose benefit it was originally intended were appointed to these societies. Everywhere such societies sprang up like mushrooms, especially in the capital, with 200 to 500 members, and one doctor. Later, these clubs combined, the number of their members increased by leaps and bounds, as all and every business concern, all artisan and factory hands, in short everybody not engaged in a profession, was bound to become a member of a club. Thus it happened that the societies numbered from 1,000 to 3,000 members, with only one to two or, exceptionally, three medical men, who kept their posts as long as possible. At first they kicked against the pricks, but when one resigned his appointment, there were twenty others ready to accept it, and the keen competition lowered the pay. Thus an average salary is from £60 to £100 a year, which in the year 1902 worked out at 4d. for a visit and 3d. for a consultation for the larger clubs! The quality of the work done when 40 patients have to be seen within the two hours of consultation, and from 10 to 15 to be visited at their homes may easily be imagined. This does not, however, induce the holders of the appointments to give them up, since it is a rule that the members of the club send their families and relatives to their club doctor: this work is paid for at a proper rate. Such an appointment is, therefore, worth £200 besides the fixed salary. To make things worse, of late years there has been a further falling-off in the income of the general practitioner who holds no post. Some classes of business people, such as agents, bank clerks, joiners, boot makers, mostly the better class of the bourgeoisie, have also formed clubs for themselves. They could not get doctors because the organization of practitioners, which was recently called into existence by the exigencies of the situation, did not allow its members to accept these posts. Therefore these clubs combined with the pre-existing lawfully-formed clubs, whose doctors had to take the new members amongst their clients. The medical organization is not yet powerful enough to counteract such a move, and a proposed strike of all medical men in Vienna came to nothing quite recently. Till 1904 the grievances of the profession failed to excite any attention on the part of the Government, but a ray of hope is now visible. The Government has it in contemplation to revise and modify the *Krankenkassen* law of 1887 in accordance with the wishes of the medical profession. The state of matters will be made clearer by a few figures. In Vienna there are 1,600,000 inhabitants, of which fully one-third, 500,000, are members of one or another *Krankenkassa*, as father, mother (if she is earning money), sons, daughters must have some kind of employment away from home. There are 2,800 practitioners in Vienna, but only 310 appointed by the *Kassa*. Thus 2,500 doctors have 1,100,000 inhabitants as possible patients, or 1 for 400! And of these quite one-third look for help from the public hospitals, infirmaries, charitable institutions, and dispensaries, leaving very little room for the professional worker. Otherwise the condition of the practitioners would be much better in Vienna, and is not so bad in other towns where the abuse of the *Kassa* is not so extensive, where the doctors have 1,000 or 1,500 *Kassa* patients and a good number of private patients besides. Still, £300 to £400 is regarded everywhere throughout the Empire as a good income.

Specialists.

As regards the specialists their number is not small in Vienna and other university towns. The University of Vienna favours the growth of specialism. Any doctor who is attached to a hospital may do scientific work there and after the lapse of at least three years from the final (M.D.) examination be promoted to the title of *Privat-docent* or lecturer at the university in his special field if his work is worthy of such a high distinction. It is an honour which is coveted for its own sake, and which besides enables a man to charge higher fees. A *Privat-docent* ranks not much below a professor, and confines himself mostly to his speciality—otology, or ophthalmology, or surgery, or gynaecology, and so on. Only sound scientific work is taken into account, and a good many applications are rejected yearly by the Senate of the faculty on the ground of the insufficiency of the work done. The fees of specialists vary from 5s. to 10s. for a *Docent*, and from 10s. to £1 5s. for a professor. Hardly any professor in Austria charges £2 2s. for a consultation at his own office. The fees for a visit vary between 10s. and £4 4s. Other specialists who have no university title may charge from 5s. to 10s. for a consultation, and to 10s. for a visit, but the ordinary fee is rather below these figures. It must be said also that only a few hospital physicians and specialists confine themselves to a strictly consulting practice, especially in towns where there is no university. The line of demarcation between a general practitioner and consultant is not very sharp in the cities. Ten pounds is the minimum fee for any surgical operation under anaesthetics, but sometimes the fee is much smaller, especially for minor surgery. As regards payments bad debts are frequent in poor practices, and a long delay on the part of the richer patients in discharging their accounts is customary all over the Continent. Besides, we have the system of yearly payments of a stipulated sum by people to their family doctor, who must be prepared to be called to do all kinds of professional work. Thus the earnings of some professors amount to £10,000 and more, some specialists without title earn from £2,000 to £4,000, whilst about 30 practitioners in Vienna have more than £1,200 a-year, and about 250 have between £600 and £1,000 a-year. But the cost of keeping up appearances is not low in Vienna, and saving is not the rule, as the social position of a busy

better-class doctor requires a good standard of living. The time when the practitioner is expected to be at his office is as a rule any two hours between 1 and 5 o'clock in the afternoon; this holds good wherever German is spoken, as the arrangement of meals is different from that which prevails in England. In Austria dinner is at noon and supper late in the evening. The medical staff pay their visits to the hospitals nearly always between 8 and 12 a.m., thus leaving all the afternoon free for business or work.

Practices not Negotiable.

A practice cannot be sold to another practitioner in Austria. It is regarded as contrary to medical ethics even to change posts with another practitioner without sufficient reason for doing so. Therefore, if a man builds up a practice and dies suddenly his family derives no benefit from his life-work, and all they can obtain is a smaller or larger sum for the good-will, *i.e.*, for moving out of the flat occupied by the deceased, or for giving up the cottage or house. The system of partnership and of assistants is unknown. Several attempts have been made to establish medical practices by combination of two or more specialists, but these have always failed. A *locum tenens* may, of course, be asked to practise for some time and in due course he may be lucky enough to obtain the bulk of the practice, and perhaps pay a sum for it, but this cannot be claimed in court, and the *locum tenens* may settle next door to the old doctor without incurring any penalty. Agreements not to practise within a certain radius are void, as *contra bonos mores*: several lawsuits have ensued from such undertakings, and the Court of Appeal has always declared such agreements not to be binding. If a man, especially the overburdened specialist of some *Krankenkasse* who is paid better than his ordinary brethren, takes an assistant or two, he is likely to be told that the patient wants to be seen by the doctor himself, not by a substitute.

The Profession and the Law.

As regards the relation of the profession to the service of justice, the conditions do not differ widely from those which exist elsewhere. Special men are appointed, besides the police doctors, to give evidence in court in regard to medical matters. *Post-mortem* examinations, equivalent to coroners' inquests, are held only at the request of the officers of justice by the duly qualified men mentioned above, and no jury is present. Experts are heard on all cases where insanity or mental disturbances are made responsible for a crime. If necessary the practitioner who attended an accused or deceased person may be heard in court. Professional secrecy is enforced by law, and the doctor may not disclose to the judge or court secrets learned in the course of his professional practice unless authorized to do so by his patient. The practice of criminal abortion, treatment *contra legem artis* may lead to withdrawal of the diploma for a year or for ever, but on the whole, the relations between medicine and justice are not bad in Austria. The tariff for expert evidence is very low. Thus the fee for a *post-mortem* examination is 20 kronen (£1), for a written report from 10 to 50 kronen (10s. to £2 2s.), according to the length; the fee for giving evidence is from 6 to 20 kronen (5s. to £1). It may be mentioned that the experts of the high courts are invariably chosen from amongst the professors of the university. The absurdly small fees and payments for their work are founded on the regulations of 1846, when professional work was not so much recognized as it is now. New tariffs are now under consideration, and when in force will make a radical change.

Unqualified Practice.

Quacks give but little trouble in large cities, but much more in the country. The terms of the law against charlatans and non-qualified men dispensing or giving medical help are as follows:—

"Any one who habitually, or for the sake of earning his living by it, without being duly qualified by a university, gives medical aid or help to sick or unhealthy people, shall be guilty of an offence and be punished by imprisonment from six weeks to six months. If the health of the person treated is seriously injured, or if he dies, the quack is considered guilty of a crime for which the punishment is imprisonment from one to five years."

A later clause of the civil law is still more elastic, making prosecution for quackery possible in only a few cases. Usually an old woman in a village or a herb gatherer is the offender, and is let off with a small fine, mostly a few shillings, as the authorities, charged with the application of the law, are rather biassed against the profession. It is the duty of the police to institute such prosecutions, but hardly any instance is known in which the police have spontaneously moved in the matter. More inconvenience is felt throughout the profession from the followers of Kneipp or water healers. These people are wont to style themselves "professor of the art of natural healing," or something of the kind, they attract great numbers of patients, they have even grown bold enough to demand a licence to practise without passing the State examinations. This permission has not been granted, but under cover of hydropathic establishments, with an unscrupulous member of the profession, who is glad of the advertisement thus obtained for himself, to keep up appearance of a medical institution, they thrive and are not disturbed by the local magistrates. The chief defect in the law is that it requires proof of habitual offence for the sake of earning a living. It is the custom of the quacks to assert that they never ask for payment, and that their patients offer them a present in acknowledgement of their advice. Thus in the majority of cases they escape punishment. They are caught only when they undertake to sell nostrums. In such a case the law is stringent, imposing hard labour for a term of from one to six months. But secret advertising in the daily papers is not forbidden.

Prescribing and Dispensing.

The subject of medicines and remedies gives generally only little trouble to doctors in Austria. As a rule the practitioner does not dispense. Every village or townlet has its apothecary, who has passed the apothecary's and chemist's examination, and who is responsible to the Sanitary Authorities for the quality of the goods in his shop. The prices are nearly uniform throughout the whole country, and the prescription, which must be written in Latin, cannot be dispensed anywhere else than in one of these authorized shops. It is regarded as contrary to medical ethics if a doctor competes with these shops by dispensing medicines to his patients. Exceptions are allowed only in places where there is no chemist's shop.

Organization of the Profession.

As regards the organization of the profession it is as yet in a deplorable state. The only body watching over its interests is the *Aerztekammer* or Medical Council in each of the 14 countries and kingdoms of the Austrian Empire. The council is elected every six years, and consists of 68 members in Vienna, and between 25 and 60 members in the other parts. Its power is limited. It may give its opinion in medical matters, but if it ever undertakes to try to punish an offender in the profession, its verdict is nearly always quashed by the civil authorities, the magistrate or sheriffs. Thus the only way in which it can give proof of its existence is by arbitrating in disputes between members of the profession, the condemnation of advertising, and giving its opinion on medical ethics. The latter two subjects give ample scope for the activity of the transactions of the *Aerztekammern*. Advertisers are looked at with unfriendly eyes by the bulk of practitioners. But there are some in every town. They are mulcted by the *Kammer* in fines amounting to £20, but they have never yet paid a single farthing, and there is no way of forcing the payment. Professional boycotting is the only procedure of any use in such cases. Therefore the doctors hardly pay any attention to these representative bodies, knowing that their present organization is not even worth the sum of £1, which every practitioner has to pay towards their maintenance.

Medical Providence.

Greater interest is taken in the institution whose object is the provision for the wants of the needy or sick practitioners or their orphans or widows. There is now in each country of the Empire a *Pensionskassa* or old-age pension club of which any medical man may become a member; further the mutual help club, whose members have to contribute in case of the death of one of the members a certain sum for the benefit of the family of the deceased. Thus a sum of at least £100 is obtainable for the family within a day or two. Apart from such clubs, which are all founded on a similar basis, and which we may call social clubs, the profession enjoys a good many privileges from certain tradesmen. A medical man may obtain in any of the health resorts large reductions for his family for baths, mineral waters, etc. Officers of hospitals have an association which gives them early information of any vacancy in the appointments in the country, and which is prepared to negotiate for them. Then there are the *Sanitäts-behörden* or the Health Departments in Local Govern-

ment Boards, which are constituted by the medical officers of health and the hospital directors.

MEDICAL SOCIETIES.

The new law which fixes the responsibility of the doctor for his work more exactly than was the case before, has brought about the foundation of a corporation whose object is to protect its members against lawsuits. The body is still very young and its working capacity has not yet been demonstrated to the public. But it may be mentioned that actions for alleged or actual damages by medical intervention are very rare among us.

SOCIAL POSITION.

Taking all in all the position of a practitioner in Austria is not very bad, though it cannot compare, with a limited number of exceptions, with the position of his English or French *confrères*. The social position, however, is not lower than anywhere else. The overcrowding in the capital naturally makes it more hard and difficult to obtain the proper standard of estimation, but even here a man is thought as much as he is personally worth. If anywhere, so it is in our profession, that a man must stand for himself. If only the material aspects were better no doubt only the better classes would put their sons into the profession. Quite a number of doctors and professors have received the knighthood or a baronetcy; in the Parliament we have about fifteen members of our profession. The names of many doctors can be read amongst the most distinguished men, and wherever a private or public undertaking for social and political work is formed, one or two doctors are sure to be asked to join it. I might add that the leaders of some of our numerous political parties are, or have been, active practitioners.

HUNGARY.

By GUSTAV DINTENFASS, M.D.,
Vienna.

HUNGARY, being a part of the empire of Austria-Hungary, is, as far as medical matters are concerned, subject to the same laws as Austria; only the grievances are a little more pronounced, and less effort is made to remedy them. The candidate for the profession has to pass an examination comprising Latin, Greek, mathematics, geography, physics, and history. Then he enters a university. Of these there are only two, one in the capital, one on the eastern frontier. This naturally tends to centralization of the medical teaching, and the Government is always willing, for political reasons, to strengthen the position of the university in Buda-Pesth, so as to weaken the other institution.

PROFESSIONAL STUDY AND GRADUATION.

The course of study, which lasts five years, comprises all the branches of the science and art of healing. The examinations are not severe. They are three in number: the "State examinations" or *Rigorosum*, and a few minor ones of little importance. The student may take up any course he likes first, but for military reasons must finish before his 28th year. When he has passed his last *Rigorosum* he is admitted to the degree of Universae Medicinae Doctor. There are no intermediate diplomas. The few holders of old diplomas, who styled themselves M.B. or Ch.B, are dying out fast, so that within a few years there will be no practitioners who are not Doctors of Medicine. As regards the university teachers and lecturers, there are two degrees, the first corresponding to the German and English professor, and the second to the German *Privat-docent* or lecturer on a certain branch of the medical studies. They are also the examiners for the diploma; both are paid by the Government, and receive besides a certain amount in examination fees. It must be borne in mind that in Hungary the Government alone keeps up the universities, and thus exercises its influence upon all medical teaching. Therefore the lecturers are paid, not as in Austria, where the *Privat-docent* is really a private lecturer. This is perhaps the only difference in university administration between the two closely-allied countries.

The standard of life, to which the young doctor is generally accustomed, is that of the lower middle class. The population finding its chief occupation in agriculture and pasture, the business class is not very numerous except in the towns, and from the latter the practitioners mostly come. Lately the industrial element has been coming to the front, but the sons of well-to-do tradesmen, higher factory officials, and Civil Service employés form the bulk of the medical students, whilst the so-called gentry or nobility turns with scarcely an exception to the study of law. As the cost of medical study is comparatively low, the expense can be met without too much effort on the part of the student's family, and his requirements are not of a very luxurious kind. It may be taken for granted that £60 a year will cover all the expense of living in one of the two university cities, whilst the fees for lectures, examinations, registration and special courses in surgery, and laryngoscopy, together with the cost of the diploma, are easily covered by another £80. Thus a capital of £400 is enough to "make a doctor."

RIGHTS AND DUTIES OF PRACTITIONERS.

If the young doctor wishes to begin to practise he merely is required to announce his intention to the local magistrate. His obligations towards the public are the same as anywhere else. He is not asked to work for nothing, but is bound to answer any call, unless there is a reasonable ground for refusal. He is responsible for what he does in that he may be sued in cases of gross neglect; otherwise he is left a free hand to act according to the best of his knowledge and ability. His duties towards the State are also not very onerous. The signing of death certificates, the notification of cases of infectious disease, do not take up too much of his time. For all other medical functions there are specially-appointed medical officers, whose duty towards the State is strictly defined. Most country practitioners not only have their private practice, but are also medical officers of health, paid by the State. They thus combine several more or less well-paid appointments, and are at once private doctors and public functionaries.

By law every district of a certain area must have a medical officer who has to be paid by the State. For the benefit of the profession several districts are combined into one *comitat*, or large district, for which a chief divisional medical officer and two subordinate officers are appointed. They have to share the work of the district doctor. There are several thousands of such divisions, each extending over an area of 26 to 40 square miles, and offering good prospects for medical men. The pay is small, being only £36 a year for the district doctor and about £120 for the head officer. It must, however, be taken into account that £30 in Hungary will go further than £90 in England.

PROFESSIONAL EARNINGS.

The average receipts of a middle class practitioner in the country amount to £200 or £300 a year, and this sum is mostly sufficient to enable him to lead a tolerably comfortable life and to save something for his old age. As there is no fixed scale of fees he may charge any reasonable amount. The ordinary charges are a shilling or two for a consultation in his office, sometimes even double that amount; at least 2s. for a visit, with increased pay if he has to travel overland a mile or so. The country people are very slow to call in a doctor, but once he is called they do not spare the money, and take a pride in rewarding his skill. After all, the money is not too hardly earned in rich districts. The case is altogether different in the poor mountainous *comitats* where the people have to labour hard for their daily bread. There £100 must suffice; more cannot be made, and the doctor must turn to agriculture or take up some other calling in addition to his profession. Not seldom they come after many years to own large estates simply by combination of profession and business. In the towns, of which there are not many with more than 50,000 inhabitants, the practitioner has no easy position. The competition is not very keen, but prices are low, on account of the system of yearly payments of a fixed sum from a family. They pay as much as £4 to £8 a year, for which all members of the household have to receive medical attendance! On the other hand, the fee for a visit in a strange family is hardly more than 2s. Taking all in all, the income of a town doctor is not more than £300, rather less, and his expenditure is higher than that of his colleague in the country. Friendly Societies' clubs, which employ medical men at a fixed fee, are not very numerous; still they are somewhat tyrannical, as there is no organization among the medical associations. There are several men in every town who have something like a consulting practice, mostly the senior surgeon and senior physician of the hospital. They hardly ever possess the title of *Privat-docent* or professor, and in addition to consultations they keep up a general practice. Hungary is hardly ripe for specialization. These practitioners get better

fees, even as much as a pound sterling for a consultation. Their income is generally a good one, amounting even to £600 to £800 a year. In particular the surgeons are comparatively well paid, £10 to £30 being a not infrequent fee for a difficult operation. Of course in the capital, where the university is, and where there are over half a million inhabitants, things are altogether different. The general practitioner may charge from 2s. to 5s. for a visit, and if he has a good reputation he may charge double the amount. His average income is hardly under £300, and the professors and *Docenten*, who are really specialists and have generally consulting practices, earn as much as £1,000 a year or more. Still a fee of more than £1 10s. is even for a professor a rarity. Some are said to earn as much as £1,000 a year, but this is only a legend.

STATISTICS.

The total number of medical men in Hungary at the last census accessible to me (1903) was 6,800 for a population of about 19 millions, which works out at an average of 1 in 2,800. This figure must be corrected for the larger towns. Whilst Buda-Pesth, with its university and its hospitals, shows a proportion of 1 in 850 to 1 in 700, other towns like Klausenburg, Sopron, Szegedin Fiume have a ratio of from 1 in 1,200 to 1 in 1,600. In the flat country, where villages of 2,000 or 3,000 inhabitants are very numerous, with perhaps only one practitioner, the ratio is still more favourable, as these villages are many miles distant from each other. Thus there is no overcrowding in the profession, but there is also no large influx into it on account of the moderate prospects it offers. In spite of the scarcity of hospitals and charitable institutions, quite a number of patients cannot be counted on from the point of view of medical practice, as the population is rather unintelligent, and calls the doctor only when the necessity for doing so is urgent. On the other hand, the district doctor has to treat gratuitously all the poor of the district and the abuse of his position is enormous, with but little possibility of improvement in the existing state of affairs.

THE PROFESSION AND THE LAW.

The relation between the profession and the service of justice may be touched upon briefly. Naturally, medical experts are required in suitable cases, such as murder and insanity. Nobody can be sent to an asylum or deprived of his lawful and material rights unless after examination by a specially-appointed medical commission, which reports to the judge. The tariff for expert reports is low, not so much as a guinea a day, and only 2s. 6d. for each sheet of paper in written reports.

UNQUALIFIED PRACTICE.

Turning to quackery and illegal practice, it may be said of Hungary that it is a veritable land of promise for that sort of business. The few medical organizations have scarcely any influence, and the vast stretches of flat country inhabited by a population of little or no education form a happy hunting ground for all sorts of healers and herbalists, bonesetters, and nostrum-vendors, who wander about from place to place to look up their customers. In the cities now and then a magnetizer or an old woman is credited with the gift of supernatural diagnosis and healing, and the law concerns itself little about them, because they cannot be brought to court unless somebody complains of having been permanently injured by their practices. The text of the law is to the following effect:

Whosoever practises the art of healing publicly, without being duly qualified by his studies and without a licence from a university, or applies narcotic medicines, ether, chloroform, shall be guilty of an offence, and, according to the length of time he has been infringing this law, he shall be punished by imprisonment from one to six weeks. If the death of a person is the result of such practice the punishment may be increased from one to five years. Midwives especially are cautioned against undertaking manipulations within the body of the mother before the child is born.

The regulations, however, are rather imperfect. Thus, the law requires publicity of the offence; it does not state anything about the necessity for the intervention of the magistrate, even without complaints being lodged; and practitioners are not always eager to take cases into court. Moreover, the law is not very strictly applied, and not uniformly throughout the country. In the west the effects of European civilization demand up to date proceedings; in the east and south the magistrates, whose duty it should be to punish such breaches of the law, are more lenient. Only when there has been gross neglect and bad mistakes have been committed do they refrain from shutting their eyes to the proceedings of quacks. Patent medicines are not abundant, as the industry is not well developed, and drugs and medicines can be had only from apothecaries or the country doctors. Each "nostrum" must show in its name its action, and its constituents must not be kept secret.

CONTRACT MEDICAL PRACTICE.

Clubs, Friendly Societies, and other combinations for securing medical aid at reduced prices are not numerous, except in the towns and industrial places, and they pay only moderately—hardly more than £40 a year. But a pleasant, not ill-paid appointment is that of a family doctor to the very numerous gentry and lower and higher grades of nobility. The pay is perhaps £30, but the number of people to be looked after is small—40 to 50 at the utmost. Appointments to insurance companies are also very much sought after, as they pay 8s. for each examination, and more in proportion for any special report. These figures contrast favourably with the pay received for medical attendance on workhouses, Government factories, railway companies, and collieries. As has already been said, the sum of £300 earned by a practitioner in the country is partly derived from such appointments, and it is not a high proportion that comes from fixed sources.

PROTECTION OF PROFESSIONAL INTERESTS.

For the defence of the interests of the profession there is in each county or *Comitat* an association of the local practitioners, but there is no central council. The medical department of the Ministry of the Interior is controlled by a doctor, but he has no right to interfere with the private associations, and a good many laws and regulations are passed after consultation with the Buda-Pesth Faculty alone. Funds for the widows and orphans, for mutual aid in court, for the sick members of the profession there are none, and only feeble attempts to unite the different county Boards have been made. So weak is the organization that even advertising by a few medical men, which is commonly regarded here as a breach of medical etiquette, cannot be stopped. Needless to say, the provident arrangements for the members of the profession are not very important. There are a few insurance companies which offer certain advantages to the relatives of diseased practitioners, but that is about all. Naturally, owing to the influence of Western principles, the ideas of organization and provision for old age are getting a firm hold on the members of the profession, but they are still only in their infancy.

MEDICAL PRACTICE BY FOREIGNERS.

As regards foreign diplomas there is but little difficulty in obtaining the *venia practicandi*. The applicant is required to pass an examination in the Hungarian language, and also in materia medica, as the Hungarian *Pharmacopoeia* differs materially from that of other countries. Otherwise the examinations in medical matters which are required of Hungarian candidates are not very severe, and a diploma of, say Paris or Berlin, is a good passport. There are as yet no diplomas in medicine for ladies; the few attempts on the part of the League of Emancipation of Women to obtain for their clients admission to the hospital wards and dissecting rooms have, so far, proved fruitless.

SOCIAL POSITION.

The social position of a doctor is, take it all round, not particularly good, but it is not so bad as might be supposed from the facts above stated. People still are accustomed to see in him, especially in the country, a representative of knowledge and duty, and hold him in no less esteem than the local judge or any other magistrate. They sometimes even honour him so much as to elect him for Parliament. Amongst 380 members of the Lower House five seats are held by members of the profession, all of whom belong to the Liberal or Progressive Party.

ITALY.

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EDUCATION AND QUALIFICATION TO PRACTISE.

THE only qualification recognized by the law in Italy for Italian medical men consists in the degree of M.D., which is granted by seventeen Royal Universities and the Royal Institute of Florence.

The period of study required consists in six academic years, during which the medical student has to attend courses in twenty-two subjects, and to pass examinations in these before he is admitted to the final examination for the "Laurea in Medicina e Chirurgia"—that is, the M.D. The use of the word "Laurea" in this connexion is reminiscent of the Bachelor's degree, though that, as a matter of fact, is not granted in Italy. Certain of the preliminary subjects may be studied at universities which do not grant the M.D. degree—for example, Perugia—and the preliminary examinations may be passed in any order the student prefers, so that failure in any particular one does not put the student out of his year; he goes on with his regular course of studies, and can make further attempts at the end of the following years until he passes.

The preliminary subjects in which examination is necessary are: Zoology, comparative anatomy and physiology, botany, physics, general chemistry, histology, human anatomy, human physiology, materia medica, general pathology, pathological anatomy, special medical pathology, special surgical pathology (these two latter subjects include the clinical teaching of the physical examination, and also the clinical history of disease, the technical term for which in Italy is *propedeutics*), surgical anatomy and practical operations, clinical medicine, clinical surgery, clinical obstetrics, clinical diseases of the eye, clinical mental diseases, clinical diseases of the skin and syphilis, legal medicine. The academic year lasts from the middle of October to the end of July. Of this period the first fortnight and the last six weeks are given over entirely to examinations; and there are as well vacations at Christmas and Easter of about a fortnight each, so that the actual teaching year consists of about twenty-seven weeks. The obligatory official courses of instruction are in general annual, except that of pathological anatomy, which is always biennial; physiology, which is always biennial; human anatomy, which is usually triennial; clinical medicine and surgery, which are always triennial.

Certain other official courses are given which are not obligatory; these are termed complementary. Besides the official there are others termed "free" (which the student has to pay for); some of these are given by the professor or by his assistants, but in the majority of cases by the *privat-docents*. Some of these latter courses are legally equivalent to the official, that is, the student can be "signed up" for attending them, while others again are complementary; the student, however, is not allowed to attend more than a certain number of free courses, usually only three in the year, and their hours must not interfere with any official course.

The universities are all directly under the control of the Minister for Public Instruction, who is always a Cabinet Minister; they are nowise independent as regards the standard of their examinations or recognized courses of study, so that the standard of medical education is, in theory, remarkably uniform throughout Italy. The Minister is assisted by the Superior Council of Education, which is a permanent body.

The value of the instruction varies very much. Thus, in some of the large universities the laboratories and institutes are excellent, and the teaching staff comprises men of great, even of European, repute. In others, again, the teaching is not so good, and the institutes quite inferior. In some the hospitals are good, and belong to the university; in others, again, the university has only certain wards set aside for the purpose of teaching in the municipal hospital which necessarily limits the material, though in certain cases an attempt is made to improve this state of things by using these as observation wards, and sending the cases back to the general wards as soon as they have been diagnosed. These "clinical" wards are shut up during the vacations of the university. The system throughout is one of demonstrations, which in many cases are most admirably illustrated by specimens, diagrams, lantern exhibitions, experiments, etc., but the student does comparatively little practical work on his own account, except in private classes which he is not bound to attend. This system enables the demonstrator to cover a wider field of illustration, and this is particularly facilitated by the greater licence in demonstration experiments than is permitted in England, and, at the same time, it permits of more time being spent in original research. On the other hand, it is very deficient in that element of precision in observation which can only be obtained by practical work by the student himself under the guidance of teachers—a system which requires much more individual teaching. The same difference is also to be observed on the clinical side: the student is taught how to examine patients, but actually examines them for himself, and on his own responsibility very little. The system of ward or house appointments is practically unknown, and only in a few is there any system of case-taking carried out. The student turned out by this system is not of much use unless he has further and more practical opportunities of learning, and thus it is that every professor has several assistants attached to him who for the most part consist in newly-fledged M.D.'s anxious to obtain a wider acquaintance with that department of medicine which they wish to specialize in, or simply desirous of further improvement. It is from men who are holding, or who have held these assistantships that the *privat-docents* are chosen, and indeed all holders of special posts are thus selected.

The professors are chosen by the "Superior Council of Public Education," and once elected, are irremovable, except at their own instance, or for grave misconduct. They thus enjoy a great measure of independence, and this is the more necessary, since for the most part the various institutes and hospitals of the medical faculties are to a large extent dependent on municipal funds. Of this fact a striking example is afforded by the magnificent institutes belonging to the medical faculty of the University of Turin, which were built at the cost in equal shares of the University, the State, and the Municipality.

When the student has passed all of these twenty-two examinations he may supplicate to be admitted to the Final or examination for the M.D. This consists of a written and two oral theses, all of which are selected by the student. Failure in this examination is very rare. The M.D. diploma has to be registered at the "Prefettura" of the district in which the practice is taken up; this registration is necessary as a local recognition, and no official certificate is valid without it, so that it has to be repeated in case of change of abode to another district.

PUBLIC MEDICAL SERVICES.

The system of public medical appointments, exclusive of the university, is partly municipal and partly State. The occupants of the former are the *medici condotti*, who correspond more or less closely with the Poor-law medical officers; those of the latter are the *ufficiali sanitarii*. Each commune and municipality appoints its own *medico condotto*, who in all except the larger municipalities is also the *ufficiale sanitario*. The duties of the *medico condotto* in the smaller communes consist in affording medical treatment to all of the inhabitants of the commune who may require it. In the larger this is usually restricted to the poorer inhabitants, the richer paying fees, and the stipend of the *medico condotto* is fixed according as he gets fees in addition or not. Two or more of the smallest communes may unite together to engage a *medico condotto*, while in larger there are two or more *medici condotti*, or "*comunali*," and a separate district is assigned to each. In such, one of the *medici condotti* has to act as *ufficiale sanitario*, but in the larger municipalities separate *ufficiali sanitarii* are appointed who give up their whole time to the work. The *ufficiali sanitarii* are also public vaccinators, and in the large municipalities where municipal laboratories are provided certain are appointed entirely for analytical work. In such laboratories analyses are carried out for the public service, and also for private individuals at moderate fees. There may also be a service of sanitary inspectors attached to the municipal health bureau, whose services may be claimed by the public at a reasonable tariff.

No interment can be carried out without the certificate of a public health officer who has actually satisfied himself as to the cause of death, and in the largest municipalities a special officer is appointed for this purpose. There are also statistical officers, whose duty it is to compile the municipal health statistics. All these *ufficiali sanitarii* are directly under a provincial head, the *medico provinciale*. This officer is appointed by the State, and reports through the *Prefetto della Provincia* to the Home Office, *Ministero degli Interni*, where the *Consiglio Superiore di Sanità*, the supreme authority on all questions of hygiene, deals with his reports. As a general rule the *ufficiale sanitario* who devotes his whole time to his work, is a man of especial training and experience; he is usually elected after an examination, and at many universities special courses lasting from three to six months are held to train such candidates. The *medico provinciale* is, of course, a man of especial training and is elected after an examination. There are small pensions attached, on the lines of the State services.

The *medici condotti* undergo a probationary period, which is usually for three years, and are then permanent except for reasons of grave misconduct. They can only claim small and quite inadequate pensions, so that inefficient *medici condotti* are to be met with from this cause. On the other hand, it is astonishing how in remote and scattered districts a *medico condotto* may be frequently met with whose love of his work has led him to do his best on his scanty means to keep himself abreast of modern scientific progress. Such a one I found at La Verna, the steep robber-infested mountain which St. Francis and his friars seized and converted into a retired centre of devotion. There in a wretched inn lived the *medico condotto* of the wild district; in the morning, early as I was in rising, for the accommodation afforded no incentive to prolonged slumber, he was yet earlier, and had already started for an outlying village. There, on a few shelves in his miserable room, was his small but very select library, including a fine translation of the well known *Medicine* by Dr. Taylor.

The hospitals are for the most part municipal institutions, and their medical and surgical staff is appointed and paid by the municipality; private practice being allowed, their stipends are very small, but the post of "*Medico primario degli Ospedale*" is, of course, much sought after as leading to much practice.

The prisons and lunatic asylums are under the *Medico provinciale*, and have a special service of medical officers attached. There is also a State Emigration Service, with medical inspectors at the chief emigration ports, and medical men who serve on the emigrant ships. These latter posts are usually filled by young medical men desirous of a voyage or two before settling down.

Professional Earnings.

In Italy, being an ancient and historic country, there is no professional class in our sense of the word. "Society" is still recruited almost entirely from families of noble birth, although, of course, wealth does not knock at its doors altogether in vain. The celibate Church stands on a different footing, but medicine and law are studied chiefly by those who are not of birth, and in both these professions it is only those who achieve exceptional renown who are admitted to the social status with which the learned professions are associated in England.

The incomes of medical men are for the most part exceedingly low; most of the *medici condotti* make about Fr.2,500 a year, in the smallest communes even less, while in the larger towns the average is probably nearer Fr.5,000. A good many, however, make much more than this, especially in the cities frequented by foreigners and in the wealthy cities of the north. There are few consulting physicians, as we understand the term, in Italy, but those few are in great demand, and make large fees. A surgeon in fair practice in a large city makes about Fr.20,000, and a few considerably more than this.

I give a few notes which have been afforded me from a very well-informed source:

Ordinary fees Fr.2 to Fr.5 a visit, consultants and specialists Fr.15 to Fr.50 per consultation. The *medico comunale* (that is, *condotto*) in a town for the service of the poor, Fr.1,800 to Fr.2,100 yearly; the *condotto* in the country, Fr.1,800 to Fr 3,600 (the latter, for instance, in the unhealthy Campagna Romana). Some average operation fees are: For a laparotomy, Fr.500 to Fr.2,000 and more; for excision of the breast, Fr.500 as an average; for radical cure of hernia, Fr.200 to Fr.500, and in exceptional cases Fr.1,000.

Unqualified Practice.

Charlatanism and the illegal exercise of medicine is strictly prohibited by the law, and is kept in check by the *Guardie della Pubblica Sicurezza*, or police, who report to the police magistrate at the *Questura*. He may deal with the case summarily himself, usually giving a warning for the first offence, or may refer it to his superior magistrate at the *Prefettura*, whence it may in extreme cases be brought before the *Corte d'Assise*. The punishment is usually imprisonment for periods varying from two months to a year. The law is usually well carried out, whence it arises that charlatanism is rare in Italy. The law relating to the sale of drugs undoubtedly aids, since none but duly qualified chemists may keep a pharmacy, and all patent medicines must have their composition clearly printed on the enclosing wrappers.

Another factor which undoubtedly tells strongly against irregular practice consists in the deep imprint left behind by the old classic civilization of Italy in which, as in the architecture of its own temples, there is a dislike for those vagaries, picturesque though they may often be, so often indulged in under the plea of individual liberty by the more barbarous, albeit more hardy, North. Hence the welfare of the many is not subordinated to the idea of possibly interfering with what might be, in certain cases, a justifiable liberty of the individual. The two ideas by no means seem incompatible, and it is probable that a solution of the difficulties of the English laws relating to quackery may be arrived at by a study of the conditions which enable charlatanism to be prohibited in Italy.

Contract Practice.

In Italy "clubs" are practically non-existent. One of the reasons for this undoubtedly consists in the extreme facility in obtaining cheap, and even gratuitous, advice. Thus, nothing is commoner than for a chemist to dedicate a back-room of his shop to the purposes of a consulting room, where various members of the medical profession—for the most part junior in standing—give at certain hours gratuitous advice to all who come. This is termed an "*ambulatoric*," and each member of such an association gives advice on his own subject on his own days—in fact, constituting an out-patient department in miniature. In this way many specialists are made. The out-patient departments of the public and private hospitals are also free. In-patients in the municipal hospitals have to pay varying amounts, according to their accommodation, except those who are pauper members of that municipality. In some private hospitals in-patients are admitted free; in most small charges are made. In this way some few private hospitals are self-supporting, while others again depend on private subscriptions to eke out their incomings. These latter constitute a most valuable, albeit little conspicuous, form of medical charity, which might well be more frequently imitated in England. The inmates of such do not feel that they are entirely dependent on charity, while a very considerable amelioration in their treatment is made possible by the subscriptions of the charitable. In such hospitals the position of the medical staff is very satisfactory, since on their efficiency much of the success of the institution patently depends. The charitable public have a reasonable control over the expenditure of their donations. The sick poor are benefited without being pauperized.

Most medical men belong to the "Ordine dei Medici" of their province. This is an association for watching over the interests of the medical profession. There is an annual meeting at which attend delegates elected by the various provincial branches. Discussion is carried on, and resolutions passed thereat, and the necessary steps taken for bringing the results of the meeting before the proper authorities; frequently motions in accordance with such results are brought before the Chamber of Deputies. Of late years several medical accident and sickness insurance societies have been formed, and in some cases there are connected with these widows' funds. At Perugia there is an orphanage for the children of deceased medical men, supported by voluntary subscriptions. This seems to be well managed and does good work.

The Doctor in Politics.

Although individual medical men not infrequently occupy prominent positions in the world of politics, it cannot be said that the medical profession as such has much political power at present. There are not many medical men in the Chamber of Deputies, though there are quite a fair proportion in the Upper House, and most really prominent medical men have the honour of Senatore del Regno conferred on them in the midst of their professional career. Of late years several medical men have filled posts in the Cabinet, about them the most that can be said is that they have been conspicuous. The Minister of Education in the present Cabinet, Professor Bianchi, is well known as an admirable alienist, who fills the chair of mental diseases in the University of Naples, and under whose management the large asylums of that city have reached a very high standard of excellence. His great abilities should prove of great service to the State, as well as to the medical profession in Italy. Dr. Santini, the deputy for one of the districts of Rome, is well known as an ardent advocate for the rights of the medical profession, amongst which, of course, he includes the total exclusion of all foreign medical practitioners. The law, as it stands, permits of all properly-qualified medical men to register their diplomas at the *Prefettura* of the district they wish to practise in, after which they are permitted to practise among foreigners, and, subject to this limitation, have equal rights with the native medical men.

Dr. Santini desires to alter this so as to allow only those who have obtained an Italian diploma to practise. As a preliminary he has succeeded in making the obtaining of this diploma far more difficult for foreign medical men. By the law of 1859 graduates of a foreign University of the first rank were permitted to enter for the final examination, which, if they passed, entitled them to the diploma of M.D. By Dr. Santini's modification foreign graduates will be examined in one of the subjects of the second biennial period of the Italian medical curriculum —namely, physiology, pathological anatomy, general and special pathology, and materia medica, chosen by lot, and also in any of the subjects in which it may be considered that they have not been properly instructed at their own university. This modification renders it necessary for each Medical Faculty to examine into the course of studies pursued at the university whence the candidate comes, an undertaking which permits of the greatest possible deliberation. Thus the Medical Faculty of the University of Rome has taken in one instance over three years to examine into the value of an Oxford M.D. curriculum without coming to any decision.

Dr. Santini has succeeded in uniting all the various *Ordine dei Medici* on this subject, and by skilfully utilizing it as a *point d'appui*, has almost succeeded in welding together a politico-medical party under his leadership, which, although it owes its birth to a retrograde idea, may yet become an instrument of the greatest use, and may even develop new political ideals of great consequence to the well-being of the people. In the meanwhile it is by no means unlikely that he will pass his measure in the near future for the exclusion of foreign medical practitioners from Italy.

SPAIN.

By ANGEL PULIDO FERNANDEZ, M.D.,

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EDUCATION AND QUALIFICATION.

To practise medicine in Spain it is necessary to possess the title of Licentiate or Doctor in Medicine and to pay the occupation tax, which, in the case of the medical profession, is done in a special manner by means of a patent or licence, in accordance with a Royal decree of August 13th, 1894, as to the creation of patents for the practice of medicine and surgery in the Peninsula, the Balearic Islands and the Canaries. In addition, there exists as subordinate professions those of *practicantes* and midwives, who go through elementary studies of surgery and obstetrics, and practise with a restricted prerogative in villages where there are neither licentiates nor doctors; or under the direction of these in more important centres of population. Both *practicantes* and midwives must for that purpose obtain a diploma or title after having passed examinations in the subjects with which they have to deal in their work.

The University degrees for practitioners of medicine and surgery are two: namely, Licentiate and Doctor, which imply the possession of two titles or diplomas conferred by the State after examinations have been passed in the subjects of the curriculum. (See Appendix I.)

To enter the faculty of medicine it is necessary first to give evidence of having been engaged during six years in the general studies which constitute the curriculum of secondary education, and are comprised in the so-called degree of Bachelor. It is customary to go through these between the ages of 9 and 15. Afterwards four courses of chemistry and natural science, constituting one year of "preliminary study," have to be gone through. Lastly come the higher or faculty studies, which generally extend over six years for the degree of licentiate, and one more for that of doctor. The examinations are partial, one for each subject. They take place in the months of June and September, and are arranged in fixed order. Students can pursue the study of their subjects officially by matriculating in the official schools; or freely, that is to say, how and where they please so long as in the examinations they give proof of possessing the knowledge necessary to obtain the titles and pass the several examinations.

In the last year of the curriculum the candidate has to undergo a conjoint examination covering all the subjects in two acts which generally consist of (1) theory, (2) practice. When these are passed the title of Licentiate or Doctor is acquired. The Ministry of Public Instruction sends out the diplomas after registering them, charging for them a sum amounting approximately to 750 pesetas (£15).

In former days it was customary to hold an academic Act for the formal conferment of the degree of Doctor. This Act was held in the presence of doctors assembled in the Paranymph, and there was a special ceremony in which the candidate was invested with his academic robes; discourses were read and delivered, the thesis or dissertation which the graduate had presented for his degree was distributed in printed form and the proceedings were enlivened by orchestral music. Such Acts were costly, and the democratic spirit awakened after the revolution of 1868 suppressed the practice of this investiture. The right of claiming to be admitted in this way still exists if the candidate wishes to conform to the ancient usage, but nowadays no one is invested in the old ceremonial fashion.

RIGHTS AND DUTIES OF PRACTITIONERS.

The medical practitioner has the right as soon as he has acquired his title and obtained his patent, to practise his profession freely in the whole of Spain without any one having the power to compel him to practise if he does not wish to do so, excepting in regard to those purely humanitarian attentions imposed by the penal laws on every citizen. The tribunals of justice can, in the absence of police doctors, and the authorities or their agent in case of serious accidents, ask the help of the practitioner, who gives it as a matter of course.

Apart from this, the obligations of practitioners towards the public, the municipality, the province and the State, are determined by the creation of a series of organisms or bodies properly constituted and regulated by means of decrees, royal orders, etc.

The following is an account of the principal bodies created for that purpose:

The service of municipal beneficence, that is, attendance on the poor classes who are a charge on the municipality, is discharged by special medical officers known as *medicos titulares*, who in large towns, such as Madrid, form numerous corporate bodies elaborately regulated; in addition to the care of the poor in their own homes, they are charged with the duty of looking after cases of accident in the public streets by means of the so-called "Houses of Succour," one of the finest and most useful foundations of public assistance in Spain.

The institution of the *titulares* in rural districts or small towns is one of the things that most constantly engage the attention of the municipal medical assistance, and in the sanitary instructions promulgated in July, 1903, provision is made for municipalities obtaining the greatest ability on the part of practitioner by means of competitive examination for admission to the service, and also guaranteeing to the practitioners security of tenure, without their being exposed to interference and high-handed dealing on the part of mayors and councillors.

For the administration of the provincial Poor Law, or that enjoined by law on provincial councils within whose jurisdiction is hospital assistance, there is a special service into which admission is obtained by competitive examination, and promotion goes on a strictly graduated scale of seniority. The State has another system of beneficence called general, by means of which medical assistance is given to a certain class of patients in various hospitals (incurables, lunatics, patients suffering from acute non-eruptive diseases), and for this purpose it employs another body of practitioners, constituted in the same way, by means of competitive examination, which is the method whereby all medical services in Spain are constituted.

In addition to those bodies which subserve the fundamental requirements of sickness, there are in Spain many special medical organizations charged with special functions with regard to health:—

The Army Sanitary Corps (land forces); the Navy Sanitary Corps (sea forces); the Medical Directors of Watering Places, consisting of some 200 practitioners; forensic practitioners, who aid in the administration of justice, organized in Madrid, Barcelona, and Valencia, and in other towns replaced by the *medicos titulares*, or by those of the prison and penitentiary service.

The body recently created by the Sanitary Instructions of 1903, called Provincial Inspectors of Health, to whom is entrusted the execution of the public sanitary duty which devolves on the Governors.

That of marine sanitation, for the supply of medical officers to merchant and passage ships.

Here may be mentioned the Corps of Subdelegates of Medicine who are medical authorities representing the official power whose function it is to see that the sanitary laws are obeyed. There is one to each judicial district of Spain, and they receive sanitary perquisites.

Public Medical Services.

In addition to the public services mentioned in the foregoing section we may refer to the following:—

The Medical Officers of the Civil Register, whose function it is to verify deaths and births in private dwellings.

The Medical Officers of Special Hygiene, whose function is the examination of women inscribed on the register of prostitution.

That of the Penal Service, who attend gaols and prisons.

In addition to these bodies there are many others of free constitution which have their own rules, and whose object it is to facilitate and diffuse medical assistance. We may cite as examples the Institute of Doctor Rubio in Madrid, and the Medical Corps of the Press Association.

The Rubio Institute is composed of many distinguished practitioners who give specialized assistance (uterus, bones, eyes, stomach, nerves, urinary passages); it has a special hospital.

The Medical Corps of the Press Association is composed of twenty practitioners among the most distinguished in Madrid, both general and special, gives assistance on a system so perfectly and completely organized that all members of the Madrid press have at their service the most renowned practitioners who attend them in their own homes, and the most famous specialists whom they can consult in their offices.

Professional Earnings.

The material situation of medical practitioners in Spain is bad, owing to overcrowding and the small esteem in which medical services are held, and the consequent low rate at which they are paid. Four-fifths of the profession live in a very modest way, and in the large towns there is a very numerous medical proletariat. In Madrid, for instance, it may be reckoned that about 1 000 doctors practise the profession, and of these some 800 find it difficult to live. There are no official tariffs for public medical assistance in Spain. The practitioner makes known his fees either by means of cards, etc., or through his patients, and generally the fees are in proportion to the importance of the town, the reputation of the practitioner, and the class of institution that supplies the service. In this way the charge for a visit may range from 25 pesetas,* which is generally received by specialists in their consulting rooms from patients whom they see a first time, to 50 or 60 centimes, and even less, which is the scale of payment per visit for many practitioners attached to Friendly Societies.

(*a*) Thus the earnings of medical practitioners in Spain differ very widely, for example:—

Independent general practitioners in a suburb, district, or town, of whom there are some in Madrid who earn more than 100,000 pesetas by the practice of a speciality or of major surgery, whilst there are very many others whose professional income does not exceed 1,000, 1,500, or 2,000 pesetas per year.

(*b*) The earnings of country doctors present just as little uniformity. The municipalities pay them small salaries of 500, 1 000, and 1,500 pesetas for attendance on poor families, and they make up the rest by attendance on well-to-do families, either in a system of contract, according to which they are paid for the whole attendance by a fixed sum at the end of the year, or else they receive fees of 1 to 2 pesetas for each visit.

In Spain the manner of payment and the amount paid vary in different regions. There are some, such as for instance, Catalonia and Asturias, where the yearly income of country doctors reaches such figures as 4 000, 8,000, 9,000, and even 10,000 pesetas, and there are others, as is the case in many provinces of Castille, where they make no more than 2,000 or 2,500 pesetas a year.

(*c*) Consultations vary in price according to where they take place, under what circumstances, and the individuality of the practitioner.

The fees for journeys from a town to more or less distant places are 1,000, 1,500, or 2,000 pesetas and much more in case of operations.

Within thickly-populated areas the payments also vary according to the town, the families attended, and the professional rank of the practitioner. In Madrid fees vary from 10 to 20, 25 and 30 pesetas.

(*d*) Surgeons value their operations on very different scales, according to the nature of the operation and according to the operator. The charge for major operations may be from 3,000 to 4,000, and even 5 000 pesetas downwards, to other lesser sums, determined by the charity of the practitioner and the poverty of the family.

* A peseta is equivalent to a franc.

The Profession and the Service of Justice.

It has already been stated that the administration of justice has for its service in large cities a body of forensic practitioners. Their annual salary is in Madrid 3,000 pesetas. In the rest of Spain they receive the fees fixed by the decree of May 13th, 1862. By a Royal Decree of 1889 the forensic doctors and the medical officers of district prisons were amalgamated into a body of "Medical Officers of the Administration of Justice and the Penal Code," who are paid fees according to the tariff of 1862.

In addition to what is paid to these practitioners by the municipalities or benches of magistrates they receive a small extra remuneration, which varies from 200 to 1,500 pesetas, the latter sum being the maximum.

For the scale of fees to expert witnesses see Appendix II.

Unqualified Practice.

In Spain, as everywhere else, quackery in all its forms abounds; bogus charitable associations, advertisements in the press, offers of cures more or less guaranteed, etc.

The law forbids the practice of medicine to every one who does not possess a legal qualification, but there are many who infringe this law, and as such infraction is considered not as a crime, but as a misdemeanour punishable by small fines not exceeding 125 pesetas, the result is that the law does not inspire any real terror, nor is it a corrective even moderately effectual against quacks. Moreover, the sanitary authorities, and principally the subdelegates of medicine, whose business it is to prosecute quacks and unqualified practitioners, as a rule regard the matter with little interest; being convinced that for the most part the quack or the unqualified practitioner laughs at their proceedings and escapes punishment, they ultimately become tired, and relax in their zeal to such a degree as no longer to concern themselves about the matter.

The provisions for the punishment of quackery and unqualified practice are contained in the Sanitary Instructions, the Public Health Law of the Kingdom, the Pharmaceutical Ordinances, the Provincial and Municipal Regulations, and the Penal Code.

In all these there is an abundant arsenal of laws for the safeguard of the public health and the proper treatment of the sick; but up to the present it is practically a dead letter owing to the want of strictness with which it is applied.

Those charged with the application of the law are the governors and mayors, and it is the business of the tribunals of justice to interpret the law and determine its application.

The law has notable defects, the chief being that it regards simply as a misdemeanour what ought to be treated as a crime.

In Spain the concept of sanitary crime is as yet ill-defined, and in the interest of public health a considerable development in that direction is required.

Contract Medical Practice.

In the large cities there are many bodies which call themselves benefit societies, and for a small monthly, and even weekly, payment provide medical assistance, medicines, and even supply funeral necessaries and means of burial in case of death. A special investigation, however, which was carried out by order of the author of this paper when he was Director-General of Public Health, showed that the greater part of these societies were a farce which served to deceive and exploit their members. A good sanitary police would dissolve most of them, and hand their directors and administrators over to the tribunals of justice.

In addition to these societies there are many Mutual Aid Associations which fulfil their object more honourably and efficaciously than those just mentioned, and therefore deserve more attention. Almost all guilds tend to form such associations, and as they lead to the reduction of the emoluments and the considerations enjoyed by the practitioner, it may be said that to their influence is due the bad economic conditions from which in general the medical profession suffers in large centres or towns.

Gratuitous medical assistance is most abundant in Spain. The larger part of the assistance rendered by the medical

profession is gratuitous, whether it is administered by hospitals and charitable bodies or by policlinics, which are found in every street and which require from the patient no certificate or document proving his poverty.

The practitioners who serve these associations are helots or professional slaves. For a miserable wage of 1,000, 1,500, or 2,000 pesetas at most they give an attendance, the payment for which works out at scarcely 25, 30, or 40 centimes per visit. A description of the work sometimes done by medical officers of the so-called benefit societies would excite pity for their hard lot and poor pay whilst the organizers and directors divide large profits.

Protection of Professional Interests.

Medical interests are protected by the following agencies:

(*a*) The professional journals.

(*b*) The Medical Colleges, there being generally one of these to each Province; they have regulations the basis of which has been approved by the Government.

(*c*) The Board of Government and Patronages of Poor-law medical officers, instituted by Royal decree of July 14th, 1903. This Board is elected by votes, and is charged with the defence of the interests of municipal medical officers.

The medical Monte Pio, which has existed for half a century and has rendered many and useful services to widows, orphans, and persons incapable of earning their living.

The Philanthropic Society of the Medical Classes gives help in case of death.

All these associations are insufficient and are as yet of slight development. For the defence of the interests and provision against the misfortunes of practitioners, the third (*c*) is the most important.

Social Position.

The medical class is one of the most enlightened and most intellectual in Spain. It may, perhaps, be looked upon as that which of all others has most advanced in the direction of progress. It is that which supports the largest number of publications and causes the greatest amount of literary activity, and it expresses better than any other scientific class the spirit and advance of European science.

As is natural, this produces a number of social advantages which increase from day to day. This is seen in politics better than in any other department of public life.

Doctors in Politics.

The influence of doctors in local politics is great, and often they are the chiefs of parties in electoral areas and districts. By virtue of this their presence is beginning to make itself felt in the legislative chambers, principally in the Senate. There are usually from four to eight medical deputies and from six to eight or ten senators—a fact which shows that medical influence is becoming exercised to an increasing degree in the public affairs.

The author of this paper has been five times Deputy and twice Senator, at this moment representing in that body the University of Salamanca, and he has several colleagues who always represent some district or university in each of the two legislative chambers. This very day (April 28th) a partial crisis has brought about the elevation to the Ministry of Public Instruction of a distinguished physician, Member of the Cortes, Don Carlos M. Cortezo.

Statistics.

In Spain the medical profession is overcrowded, and the numbers of practitioners who collect in the large towns causes a most lamentable plethora.

In Madrid it may be estimated that there are about 1,000—perhaps a little more—and as the total population is 540,000 it is difficult for them to gain a livelihood, and the professional struggle for life leads to undervaluation of their services.

The law lays down that there must be at least one municipal medical officer in each municipality, and as these number in Spain more than 9,000 it is obvious that there must be at least 9,000 Poor-law officers in rural districts.

No formal and authenticated statistics of the whole medical profession in Spain are available, but it may be estimated that the number of doctors fluctuates between 16,000 and 18,000.

APPENDIX I.

Official Curriculum of Medical Studies in Spain.

Preparatory.

Physics.
General chemistry.
Mineralogy and botany.
Zoology.

For the Degree of Licentiate.

Descriptive anatomy (1st course).
Normal histology and histo-chemistry.
Anatomical technique.
Descriptive anatomy and embryology (2nd course).
Human physiology.
General pathology with clinical attendance.
Therapeutics and materia medica.
Morbid anatomy.
Surgical pathology.
Medical pathology.
Obstetrics and gynaecology.
A course of diseases of childhood.
Clinical surgery.
Clinical medicine.
Diseases of the nose, ear, and larynx.
Regional anatomy and operations.
Hygiene with statistics and sanitary legislation.
Forensic medicine.
Dermatology and syphilography.

For the Degree of Doctor.

Critical history of medicine.
Chemical analysis.
Biological chemistry.
Anthropology.
Experimental psychology.

APPENDIX II.

Tariff of May 13th, 1862.

Official Tariff of Fees to Medical Witnesses (partly obsolete).

	Madrid.	Populations of More than 30,000.	Populations of Less than 30,000.
	Reals.*	Reals.	Reals.
For an inspection	20	15	10
For a certificate	20	15	10
For a deposition	30	20	15
For statement as to condition of health	16	12	8
For first dressing of non-penetrating wounds	16	12	8
For a report not occupying more than one sheet of stamped paper	50	40	30
For each additional sheet	20	15	10
Daily Attendance.			
For a visit with dressing	12	8	6
For a simple visit	8	6	4
For two or more visits a day without dressing	16	12	8
For each consultation	40	30	20
For a minor surgical operation	8	6	4
For an operation of moderate importance	80	60	40
For each major operation	200	160	120
Autopsies: *Within 48 hours of death.*			
External examination	60	50	40
Internal examination of one or two cavities	100	80	60
Complete internal examination	160	120	100
In cases of poisoning	200	160	120
More than 48 hours after death.			
External examination	80	70	60
Internal examination limited to one or two cavities	160	140	120
Complete examination	200	160	140
In cases of poisoning	300	260	240
Exhumations:			
Simple inspection of corpse or skeleton	120	100	80
Autopsy or more detailed examination	240	220	200
Analyses:			
For each analysis within the precincts of the Court by one or more doctors or licentiates in pharmacy	140	120	100
For the assistance of a medico-legal expert	20	20	20
For analyses made in universities, and corresponding certificate	300	300	300
For each day not exceeding ten	60	60	—
For each day over ten	40	40	—
For each Consultation given by the Medico-Legal Expert.			
If it does not occupy more than one sheet of stamped paper	100	80	60
For each sheet after the first	40	30	20

* The value of a real may for practical purposes be taken as 2½d.

PORTUGAL.

By Miguel Bombarda,

Professor of Histology, Medico-Chirurgical School, Lisbon; Editor of *Lisboa Medica*.

Legal Qualification.

There is in Portugal only one university faculty of medicine, that of Coimbra. There are two medico-chirurgical schools, one at Lisbon and one at Oporto. In the Portuguese dependencies there are also two schools which confer only a partial right to practise; one of these is at Funchal in Madeira, the other at Goa in India. The three schools in Portugal confer exactly equal rights and impose equal duties on the medical practitioners whom they send forth. At most, in competitions for public appointments, preference is given, other things being equal, to practitioners holding the diplomas of the medico-chirurgical schools if the duties are surgical, and to graduates of the Faculty if they are medical. The courses which give full right to practise cover a period of five years. The practitioners who graduate at Coimbra are Bachelors; those who qualify at Lisbon and Oporto are Physicians and Surgeons. Coimbra gives the degree of Doctor, but for that it is required that the candidate should have taken honours in the ordinary course and studied for a sixth year, at the end of which he has to pass an examination for the Doctor's degree. From the Doctors are chosen the professors of the Faculty. In the schools there is no restriction as to the source of qualification in candidates for the professorship. In both cases a public competitive examination is required.

The diploma of any one of these three schools at once gives full right to practise without any supplemental intervention on the part of the State. The diploma given by the school or the Faculty is the only legal document required for practice. For police purposes that document must be registered by the administrative authorities within whose jurisdiction the practitioner habitually resides.

The five years of study comprise the period extending from the month of October to the month of July. Before medical study can be commenced the candidate must present documents showing that he has gone through a complete course of secondary education (seven years of study, which includes Latin, French, and German), and in addition various courses of the Polytechnic Schools or of the Faculties of Philosophy and Mathematics of Coimbra. At Lisbon and Oporto these courses include physics, chemistry, zoology, and botany; at Coimbra they cover the same subjects, with a course of mathematics in addition. This lengthens the medical curriculum by one or two years at Lisbon and Oporto, and by three at Coimbra.

The schools of Funchal and Goa only give the right to practise in towns where there are no doctors with diplomas from the regular schools. They are really second-grade medical schools. A reform of the school at Goa is under consideration. It may be mentioned that it is certainly one of the first, if not the very first, medical school that has been established in tropical regions.

Rights and Duties of Practitioners.

In regard to rights, there is no restriction on the full liberty to practise unless it be when the practitioner comes in conflict with the common law by being guilty of negligence, want of proper skill, breach of professional secrecy, etc. As regards duties, there is first the obligation to render professional services in urgent cases of illness or accident; and secondly, the obligation of furnishing medico-legal evidence when called upon to do so by the proper authority. Further, the practitioner must co-operate in the work of the sanitary services; he must comply with the compulsory duty of notifying cases of zymotic diseases; he must give certificates of death, and he must give his professional help to the sanitary authority in case of epidemics by attending patients and suggesting and superintending the use of prophylactic measures.

Public Medical Services.

There is a sanitary organization for the whole country, which has its centre or General Board of Health in the Ministry of Interior, and a Department of General Inspection, which has its seat at the Institute of Hygiene. This department centralizes the work of all its local agents, and controls the Institute, with its post-graduate course for sanitary appointments. The sanitary agents are stationed at the chief town (prefecture) of a district, and there are subordinate agents at the *Concelhos* (subprefectures). The former are called Delegates of Health; the latter, Subdelegates. In addition to the general direction and inspection, there is a Public Health Committee.

Outside this organization there is at the Ministry of Public Works a Council of Sanitary Improvement, devoted especially to matters of construction, to water supply, and for fiscal purposes, to the supply of non-medical agents, such as wines, oils, cereals, etc.

The Profession and the Administration of Justice.

There are public morgues and medico-legal Boards, one for each of the three cities, Lisbon, Oporto, Coimbra. These Boards make all the autopsies and examine lunatics, besides making the examinations that may in exceptional cases be required. Moreover, they constitute for the three districts into which Portugal is divided tribunals of second instance, which receive medico-legal reports sent in by the ordinary experts. These experts are any doctors who may be duly called upon by the tribunals to give evidence. They must reply question by question to the legal interrogatories drawn up for different cases (autopsies, toxicological examinations, cases of mental derangement, etc.) All doctors may be called as expert witnesses. In the case of mental disease, however, the law readily accepts a plea of non-competence, which is very frequently put forward, and sends criminals suspected of insanity to the asylums where the examination is made by the medico-legal Boards. The tariff of fees for medical evidence differs according to the nature of the examination, but never exceeds 8s.

There are medical services in the important prisons, both ordinary prisons and penitentiaries. There is nothing special to be said about these.

For the treatment of insanity there are two asylums, one at Lisbon, the other at Oporto; the former has accommodation for eight hundred, the latter for four hundred patients. There is nothing connected with them that calls for particular remark, unless it be the Portuguese law relative to criminal lunatics, which is unique in Europe—first, by reason of the facilities given for the medical examination of all criminals suspected of insanity; secondly, by reason of the treatment which is carried out in consequence. From this point of view there are two classes of criminal lunatics: First, in case of minor offences, the convict is treated as an ordinary patient, sent back to his family or placed in a lunatic asylum; secondly, in the case of great crimes, when the fact of lunacy has been established, the patient is placed in the Lisbon Asylum, where he remains during the whole period of confinement under the jurisdiction of the court, not being allowed to leave except by an order of the judge, which must be communicated to the Director. This discharge is granted only when the patient has completely recovered, or when, owing to advanced age or other cause of physical weakness, he has ceased to be dangerous.

Professional Earnings.

There is no regular tariff of fees; they are regulated only by custom. At Lisbon the fee for an ordinary visit may be from about 5s. to 11s., according to the standing of the practitioner and the means of the patient. In the country the fees are much lower. The following figures convey the personal impression of Professor Bombarda, but they must be taken as only approximate:—The average income of general practitioners in a town is about £200; that of country doctors about the same. Consulting physicians, surgeons, and specialists may make from £2 000 to £3,000. In regard to operations, the amount varies greatly according to the operator and the operation. For a laparotomy, for instance, the inclusive fee might be from £100 to £150.

Unqualified Practice.

The following is the text of the Penal Code relating to quackery:

> Whoever shall perform an act belonging to a profession for which a diploma is required, behaving in such a manner that he is erroneously believed to be a member of that profession, shall be condemned to imprisonment for a period varying from six months to two years, and to the fine corresponding to that penalty.

The application of the law belongs to the Tribunals of Justice. It is not by any means applied strictly; in fact, notwithstanding the abundance of quacks, cases in which it has been applied are rare. The defect of the law is, in

Professor Bombarda's opinion, in its very existence. It has never been possible to stop quackery, and legal persecutions only serve to surround the head of the "victim" with the halo of the martyr. Therefore, Professor Bombarda would prefer to throw the practice of the healing art freely open to all comers. He would, in fact, apply John Bright's favourite maxim, *Caveat emptor*, to medicine. It is for the public to look after itself in the matter.

Contract Practice.

Mutual help organizations are numerous and active in Lisbon, and to a much smaller extent at Oporto; elsewhere such associations are rare. In 1903 there were in all 590 friendly societies in Portugal. The existing societies, in Professor Bombarda's opinion, represent a very limited and very badly-thought-out system of mutual help. With very few exceptions the contributions are small and the assistance given is proportionately small. As a general rule help is given only in case of illness. The medical officers of the societies are very badly paid, and often have to fight against the oppressive regulations and high-handed ways of societies. In not a few cases the fees work out at an average of 2d. to 3d. per visit!

The system of free medical assistance is largely developed in Portugal. In the first place, in Lisbon, the Subdelegates of Health are obliged to visit the indigent poor gratuitously. In the provinces there are everywhere municipal medical officers who fulfil the same function. At Lisbon and Oporto the *Misericordia*, an essentially Portuguese organization for charitable purposes, also provides for gratuitous attendance at the patient's own home. This ancient organization, which exists everywhere in Portugal, has hospitals and refuges for the reception of poor patients; it takes care of aged persons and abandoned children; and supplies help for poor mothers; in a word, it provides care and help for the poor in every possible form. The *Misericordia* organizations are private institutions whose revenues are derived from legacies, subscriptions, etc. The intervention of the State is confined to fiscal supervision.

Protection of Professional Interests.

There is at Lisbon an Association of Portuguese Medical Practitioners which defends the interests of the profession. At Braga there is a local Association having the same object. In the way of medical providence there is only an attempt, not yet realized, to establish a pension fund for disabled members of the profession. In this movement the Association of Portuguese Medical Practitioners has taken the initiative.

Social Position.

Medical practitioners in Portugal enjoy general consideration. As regards social position they are at the top of the ladder. It should be said that the Portuguese profession is very well educated, and keeps itself well abreast of the advance of science. French is a mother tongue to them, and thus they are in a position to make themselves acquainted with the whole medical literature of France. A knowledge of English is very common, but not as a spoken language. The same may be said in regard to German. Portuguese doctors travel much, especially in Central Europe.

The Doctor in Politics.

Portuguese practitioners do not concern themselves much with politics, especially in the capital. It may, however, be said in general terms that advanced opinions are often found among members of the profession. The Chamber of Deputies has always a certain number of medical members. Several members of the profession have attained to seats in the Cabinet. The present Minister of Marine, Senhor Moreira, is a doctor; Dr. Teixeira de Sousa has been Minister of Marine and of Finance; Dr. Mattoso dos Santos has been Minister of Foreign Affairs and of Finance; and Dr. Barbosa du Bocage has been Minister of Foreign Affairs. This list might possibly be extended.

Statistics.

Professor Bombarda does not think that the medical profession in Portugal is overcrowded. A note published in *Medicina Contemporanea*, No. 8, for 1899, gives to Lisbon one doctor to 1,035 inhabitants, and to Oporto one in 1,335. In the rural districts the ratio is much less.

The following figures are taken from recent official statistics:

Districts.*	Population (1900).	Number of Practitioners.
Aveiro	302,181	85
Beja	161,602	79
Braga	356,819	84
Braganza	185,586	95
Castello Branco	216,629	42
Coimbra	333,505	111
Evora	127,232	60
Faro	254,851	42
Guarda	263,292	46
Leiria	240,167	41
Lisboa	708,750	379
Oporto	601,688	273
Portalegre	124,697	43
Santarem	383,676	83
Vianna do Castello	214,599	42
Villa Real	243,584	66
Vizeu	402,799	78
Azores { Augra	73,452	17
Azores { Horta	55,456	7
Azores { Ponta Delgada	127,566	23
Funchal (Madeira)	150,528	92
City of Lisbon	357,000	276

* For administrative purposes Portugal is divided into districts.

BELGIUM.

By L. De Jace, M.D.,
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As in most countries of Europe, there is a plethora of medical practitioners in Belgium. It is the marked tendency of all social classes towards the liberal professions that drives young people towards the medical profession, which in Belgium does not entitle to any reduction in the curriculum. In certain countries medical studies bring certain relaxations of the military law in favour of students. This is not the case in Belgium. Nevertheless, the medical student who is serving as a soldier has the right to continue his studies in a town which is the seat of a university, being drafted into a special battalion formed of students. He follows the courses of instruction, wearing his uniform, but this is not a matter of special favour to students of the Faculty of Medicine. It is granted indiscriminately to students of all Faculties. The Belgian student has so many facilities for attending universities that there is nothing surprising in this movement of all social classes towards the higher studies.

Legal Qualifications.

In our country with its small territory there are four Universities, two of these form part of the education system of the State. These are the Universities of Liége and Ghent. Two have been founded in conformity with the constitutional principle of liberty of teaching. These are the free University of Brussels and the Catholic University of Louvain. The extension of the railway system and of district tramway lines makes it possible for the large majority of university students to follow the courses without leaving the family abode. These economic conditions suffice to explain the constant increase in the number of students in Belgium.

For the practice of medicine in Belgium it is necessary to have obtained the diploma of Doctor in Medicine, Surgery, and Obstetrics from one of the Universities of the kingdom. (Law of March 12th, 1818.)

Doctors holding a foreign diploma must pass an examination before a special jury or obtain the authorization of the Government. Students in medicine, before beginning their professional studies, must follow during at least one year the courses of the Faculty of Science. They must pass an examination on the following subjects: (1) Logic, (2) experimental physics, (3) elementary zoology, (4) general chemistry, (5) elementary botany, (6) elementary notions of mineralogy, geology, and physical geography. Candidates have also to pass a practical test in chemistry and have to make a microscopic demonstration. Having obtained the diploma of Candidate in Science the student must follow prescribed courses of medical study. The subjects are the following: (1) Embryology; (2) human anatomy, systematic and topographic; (3) histology, general and special; (4) elementary comparative anatomy; (5) psychology; (6) physiology. Candidates have to pass in addition a practical test consisting in

ordinary macroscopic anatomical demonstrations and microscopic demonstrations. These subjects may be taken either in one or in two examinations, and must be studied for at least one year. In point of fact no student passes the examination at one sitting; all take the two and give two years to the period of Candidateship. In any case the curriculum for Candidates in Science and in medicine extends over three years. The examination for the degree of doctor in medicine, surgery, and obstetrics comprises the following subjects: (1) General pathology and therapeutics; (2) elementary pharmacology and pharmaco-dynamics; (3) morbid anatomy; (4) medical pathology and special therapeutics of internal diseases, including mental disorders: (5) surgical, general and special pathology; (6) theoretical midwifery; (7) hygiene, public and private; (8) forensic medicine; (9) clinical medicine: (10) clinical surgery; (11) theory and practice of surgical operations; (12) ophthalmology and clinical ophthalmology; (13) clinical obstetrics. Besides, candidates have to pass three practical tests consisting in macroscopic and microscopic demonstrations of pathological anatomy and demonstrations of regional anatomy. The several matters indicated form the subject of three examinations and the study of them extends over at least three years. The diplomas corresponding to all these degrees are granted either by a State university, a free university or by juries appointed by Government. A university can grant diplomas only on its own students.

Diplomas, before they can be held to be legally valid must have been ratified by a special commission which has its seat in Brussels. That commission is composed of magistrates and academicians, but does not include professors of universities. Its business is to see that the diplomas have been regularly delivered, that the courses have been regularly given, that the subjects taught have been studied during the years prescribed by the law relative to the conferment of academic degrees.

There are in Belgium official medical commissions charged with the supervision of the laws and regulations concerning the practice of the art of healing. Doctors in medicine, before practising their profession, must have their diplomas registered in the offices of the medical commission of the district in which they practise.

Regulation of Medical Practice.

The rights, duties, and obligations of medical practitioners are regulated in Belgium by an old law of the Netherlands dating from March 12th, 1818, which has never been amended. Numerous royal decrees have been issued in conformity with that old law which remains the medical charter of Belgium. On December 10th, 1894, a Royal Decree appointed a commission, consisting of twenty-one members, to draft a scheme of amendment of the laws and regulations relative to the practice of the art of healing. The commission presented its report and its scheme in 1897. The Minister of Agriculture laid the scheme on the table of the Chamber of Deputies, where ever since it has been awaiting discussion and putting to the vote. The law of 1818, which was passed before the constitution of the Kingdom of Belgium, gives to medical practitioners the monopoly of the practice of medicine in Belgium and grants to doctors practising in places which are not towns the right to keep a supply of drugs exclusively for the use of their own patients.

Duties of Practitioners.

The law does not specify any duty on the part of the practitioner towards the country. He is free to give or to refuse attendance as he pleases.

There is in Belgium no council of the medical profession. The medical commissions exercise their control only under the form of watching the operation of the laws, but have no authority over the conduct of practitioners.

Practitioners are compelled to inform the medical commissions and the authorities of cases of "pestilential" diseases. That is the term used in the text of the law, but as there is no sanitary law, but only administrative regulations in Belgium, it has been necessary to interpret the term by applying it to the following diseases: plague, cholera, and typhoid fever.

Outside those prescriptions of the law the Belgian practitioner has only moral and voluntary duties in regard to the families and authorities. He can make contracts for medical attendance with private individuals, trading companies, and mutual benefit societies.

Professional Earnings.

The financial position of practitioners is unfavourably influenced by the considerable number of doctors in Belgium. It is impossible to state an average figure representing the professional earnings of doctors. In the country certain practitioners may make an income varying frrm £80 to £400. Doctors in large towns sometimes earn large fees, but their income very seldom reaches £2 000.

There are few consultants in Belgium, even the University professors taking general practice. Consultants ask a fee of from Fr.10 to Fr.20 for advice given at their own houses. Specialists charge at the same rate. Practitioners in towns charge from Fr.3 to Fr.20 for a visit; country doctors ask from Fr.2 to Fr.10 a visit, according to distance. Surgical operations have not been affected by competition. That department of practice is, together with midwifery, the best paid of all.

Public Health.

The Ministry of Agriculture includes the service of Public Health which is managed by a special department. It has issued numerous regulations for the supervision of medical affairs, alimentary products, etc. Two doctors, with the title of Inspectors of Hygiene, are attached to this service. The Department of Industry and Labour has likewise attached to it officers called Medical Inspectors of Labour. These officers visit industrial establishments and supervise them in regard to hygienic conditions. They supervise dangerous and unwholesome industries, visit the workmen, and in case of necessity insist on their discontinuing manipulations and work harmful to health. Every month they go to the establishments where poisonous products—lead, salts of lead, phosphorus, arsenic, etc.—are handled. These officers receive a fixed remuneration of Fr.5 per visit, in addition to a grant of some centimes for every workman examined in the course of their inspection.

Medical Service of Prisons.

There is in Belgium a special medical prison service connected with the Department of Justice. The medical officers visit every person that has been arrested at the time of his imprisonment. They treat sick prisoners, the warders and their families, and for this they receive a fixed yearly salary.

Lunatic Asylums.

The medical superintendence of lunatic asylums is left to private initiative. The Government, however, names the doctors to whom is entrusted the supervision of houses in which insane persons are confined. These doctors, who are independent of the establishments which they inspect, are charged with the duty of supervising the execution of the law as to the care of lunatics.

There are in Belgium two free colonies of lunatics. They are boarded out with families which undertake the care of them. These colonies are situated at Gheel and Lierneux. A medical director and assistant medical officers under the jurisdiction of the Ministry of Justice are placed at the head of the infirmaries where the lunatics at Gheel and Lierneux are looked after when ill.

Unqualified Practice.

The Belgian law relative to unqualified practice of the various branches of the healing art is to the following effect:

Art. 1. There shall be in each province of the kingdom one or more commissions, under the name of medical commissions, entrusted with the examination and supervision of all that has relation to the art of healing.

Art. 15. No public sale including drugs or chemical preparations used only in medicine can take place without permission obtained from the local administration, which shall grant it only after having seen the report made by a medical commission.

Art. 17. No medicament compounded under any name whatever can be sold or offered for sale except by persons authorized for that purpose by the law.

Art. 18. All unqualified persons who shall practise any branch whatsoever of the art of healing shall be punishable for a first offence by a fine of 20 to 100 florins.

According to the law the courts are charged with the repression of quackery and illegal practice. It is within the competence of the Medical Commissions to call the attention of the courts to acts contrary to law. Notwithstanding those formal provisions, quackery and unqualified practice are rife in Belgium. I do not speak of charlatanism in doctors of medicine; such acts belong only to the domain of conscience and personal morality. Under cover of charity numerous persons distribute remedies and give advice to sick persons. The very numerous convents have little dispensaries with

secret ointments and medicines, and attract a numerous *clientèle*. Institutes are established, often under cover of a regularly-qualified practitioner, which practise the most shameless quackery. Popular journals swarm with pharmaceutical advertisements for the cure of all diseases and all infirmities. And in face of this abundance of charlatans and quack doctors acting quite openly, the courts take no action, because delation is held to be odious, and because in order to undertake serious prosecutions, the complainants must establish facts and must prove that the unqualified practice is habitual. The remedy urgently needed for this situation—and it is one which has been indicated in all countries—is a Draconian law forbidding every act of medical practice of any kind, even under the guise of friendship or charity. If this cannot be accomplished, it would, in my opinion, be better to leave the practice of medicine unrestricted, protection being given to individuals by the articles of the code relating to civil responsibility. In this way regularly-qualified doctors alone could escape civil responsibility, except in case of gross negligence. It is possible that civil responsibility might kill unqualified practice.

CONTRACT MEDICAL PRACTICE.

The relations between practitioners and mutual benefit societies are generally very tense. The reason is to be found in the false notion which the leading spirits of the mutualist movement have as to the social action of Friendly Societies. The majority of them look upon such societies as an extension of the Bureau de Bienfaisance which in return for a fixed monthly subscription ensures for its members medical attendance, medicines, sick pay, and help in various forms. Few societies have understood the power of the social lever which they handled, and very rare are the benefit associations which have understood the admirable part they might have made their medical officers play by entrusting them with a prophylactic and sanitary, instead of a healing mission. Long years will yet have to pass before Friendly Societies and practitioners can frankly work hand in hand on their true field of action.

At present the societies pay their medical officers in various ways: (1) By fixed salary: (2) by payment per head—the medical officer receives a fixed sum varying from 2 to 6 francs for each individual or family enrolled on the books of the society; (3) by payment for work done. Some societies pay their medical officers at the rate of 50 to 55 centimes for advice given in the consulting room, and at the rate of 1 franc per visit to the patient's house, with a small allowance for distance in addition.

Public charity in Belgium in regulated by the law on Public Assistance, dated November 27th, 1891, of which the first Article is to the following effect: The help of Public Charity is given to indigent persons by the commune within the area of which they may be at the moment when help becomes necessary. The assistance given by public charity includes among other things medical aid and hospital treatment.

The law is clear, but is very badly applied. The communes have to contribute to the cost of the Assistance by making up the deficit of the Bureaux de Bienfaisance. In reality the expenses of the Public Assistance rest, to the amount of nine-tenths, on the shoulders of the doctors.

There are communes where leading inhabitants are inscribed on the list of the indigent, and such persons do not blush to claim gratuitous attendance from the practitioners who are miserably paid by the Bureau de Bienfaisance.

There are such differences in the amount of fees of the medical officers of the Bureau de Bienfaisance that every year the reports of the Medical Commissions point out the abuses of which the doctors are victims. It has been proved that in certain communes medical practitioners do not receive more than 10 centimes for visits made to the poor. Things are still worse in certain places where there are no pharmaceutical chemists. The doctor receives an inclusive payment for attendance and medicine. Often in these cases his budget represents a deficit. The large towns and important communes have usually well-organized services of public assistance, but in the country communes political favouritism reigns, when it is not anarchy. Nevertheless Belgium is a country rich enough to take upon itself the responsibility of a soundly-organized charitable service without exploiting the generosity and devotion of its medical practitioners.

PROTECTION OF PROFESSIONAL INTERESTS.

The medical practitioners of Belgium have founded numerous associations and syndicates for the protection of their professional interests. The Belgian Medical Federation centralizes the work of the scattered syndicates and actively labours at the solution of the problems to which the difficulties of professional life give rise. A pension fund founded thirty-five years ago includes many practitioners who, by paying a subscription of £4 a year, acquire the right to a pension after the age of 64. From this fund, on the death of a member, grants are made to the widow and orphans. The practitioners have also founded a society called "La Médicale," which is an assurance company against accidents. The object of the society, which has a capital of £88,000, is to prove to the financial insurance companies that it is possible to make profits while at the same time adequately remunerating the services of doctors. The future will show whether the doctors are justified in their claims in regard to insurance companies.

SOCIAL POSITION.

The social position of medical practitioners continues to be surrounded by a certain prestige. The advances of public hygiene and the discoveries of science have made the part which it plays in society more conspicuous, and restored to it its authority, which had been a little impaired.

THE DOCTOR IN POLITICS.

In Belgium the majority of medical practitioners remain outside active politics. Among the members of the Chamber of Representatives there are at the present moment only four medical men. The provincial councils and communal administrations number more doctors among their members. For my own part, I think that medical men are wrong to disdain the great parliamentary stage where their social, philosophic, and scientific ideas would find a large field of action. Unfortunately, the necessities of life keep away the best of them from Parliament, the salary paid to members being only sufficient to supply the needs of a modest existence.

HOLLAND.

By M. W. PYNAPPEL, M.D.,
Chief Inspector of Public Health, Zwolle, Holland.

QUALIFICATION TO PRACTISE.

EVERY medical student in Holland has to present himself for examination in practical medicine, surgery, and midwifery at the end of his studies. This examination, when successfully passed, gives him the right to bear the title of "Arts," and confers on him the legal qualification for general practice. The title of doctor (in one of the three branches of medical science) is a purely scientific one, and has nothing to do with the right to practise. It can only be obtained by writing a scientific thesis, and defending it before the medical faculty of the university, and no one is entitled to attempt it without having shown his knowledge in classical scholarship by passing through the "Gymnasium," or submitting himself to a similar examination. This state of affairs is an object of serious annoyance to a great number of medical men, who assert that knowlege of the classics has nothing to do with a real scientific frame of mind—the only true reason for conferring the right to write a thesis and obtaining the title of doctor.

REGISTRATION: PRIVILEGES.

Before practising, the "Arts" has to send his diploma to the Chief Inspector of Public Health in order to get the *visa* of this official, who has to insert his name in his register. After having shown the signed diploma to the burgomaster of his commune, he is ready to start in the way he likes best—as a general practitioner, or as a specialist if he deems himself fit to practise as such. A special licence or examination for such practice is not required.

The privilege conferred on him by the legal qualification consists in the permission to practise, that no one else has. Only the medical man may announce publicly that he exercises medical practice or bear a title that makes him known to the public as such. To unqualified persons all practice is forbidden, except in some urgent cases of epidemics, by special allowance of the Crown. Practice by foreigners, qualified in neighbouring countries, is allowed on the frontiers. This matter is regulated by contract with Belgium and Germany on the basis of reciprocity. I will show further on that the privilege of exercising practice is merely theoretical, illegal practice flourishing in Holland as strongly as can be.

Obligations.

The obligations of the medical practitioner towards the State, municipalities, etc., are numerous and not at all theoretical. He is bound to sign a death certificate of every patient that dies under his care, and to mention thereon as exactly as possible, but with due regard to his oath of secrecy, the cause of death. That oath, pledged at the end of the successfully-passed examination, runs to the effect that he promises to practise to his best knowledge and capacities in accordance with the regulations of the law, and to divulge to no one what in this exercising is as a secret confided to him or has come to his notice, unless his declaration be required in court or his giving of information be asked by law in another way.

He has to notify to the Chief Inspector of Public Health of his district, and to the authority of his commune, without delay, and at the latest within three days, when he has observed a disease menacing public health. He is bound to give within fourteen days a certificate to the party concerned of the result of a vaccination he has performed, or of the fact that he has treated the individual for small-pox. He retains a duplicate, and sends it to the municipal authority within a month after the end of the year. He is obliged to mention on his prescriptions the date of prescribing, the mode of use, and to sign his name or initials. The supply of medicine is forbidden to him, and only allowed to the practitioners established in places where no dispensing chemist lives. When using this privilege he is subject to the supervision of the State authorities. In the case of "secret diseases" only is the supply of medicine by medical men allowed on certain conditions.

All these obligations are imposed by the law of 1865, regulating the exercising of medical practice. Another results from the law of 1872, providing against epidemic diseases. This law obliges a medical man to notify within twenty-four hours to the burgomaster of his commune every case of cholera, small-pox, or plague that comes to his notice. For the fulfilment of all these duties no payment is given.

Judicial and military anthorities have the right to require the aid of every medical man for forensic purposes and the examination of recruits. There are no forensic doctors, legally appointed as such, but commonly each court of justice secures the regular aid of the same men, in order to have experienced helpers. So do the military authorities, in requiring the aid of civil practitioners for the assistance of the army doctors. These services are all paid according to a fixed tariff.

Likewise municipal authorities cannot make use of their power to order the expropriation of contaminated effects, without medical declaration that such is necessary. For some other measures also they are bound to ask medical advice.

Lunacy.

Medical intervention is necessary for the admission of patients to a lunatic asylum. This is granted by the order of a justice, who is bound to assure himself of the urgency of the case by a formal declaration of a medical man, stating that the patient suffers from mental alienation.

Public Health Service.

Apart from these obligations, the same for all medical practitioners, other obligations exist in some other branches of the public service. In order that this may be understood it is desirable to say a few words about a service that is not a medical service, strictly speaking, but that stands at the top of all. I mean the State supervision of public health, instituted by the Public Health Act of 1902.

It consists of the Central Board of Health, with seven members, sitting in Utrecht. Four of them bear the title of chief inspector of public health and reside in other towns of the country. These officials have the supervision over the whole kingdom and each of them has four inspectors for the special branches of the service in his district, two for the housing of the people, one for the pharmaceutical affairs and the control of human food, and one, a medical man, for the control of epidemic diseases and all other affairs concerning public health. The last named and the chief inspector have the administration of the laws affecting the practitioners, with one exception only, that the pharmaceutical inspector controls their apothecary shops, if they possess such.

The local survey is entrusted to Municipal Boards of Health, under the supervision of the chief inspector, one in each town of 18,000 inhabitants and upwards, and in each group of smaller communes of 40,000 inhabitants together.

Public Medical Services.

A law instituting a public medical service is the Quarantine Law of 1877. A practitioner is appointed in every seaport to control the state of health on board ships arriving from abroad, under the supervision of the medical inspector. Another is the law concerning the burial of the dead (1869). It provides that no permission for burial shall be granted without the certificate of death, mentioned before, and that, failing this, the patient having died without medical assistance, inspection of the dead body must be made, and a certificate given by a medical man appointed annually to this office and sworn by the municipal authority. By this regulation security is given that no one shall be buried without a medical man having certified his death. Such an official for *post-mortem* examinations exists in every commune, and in most cases the office is combined with that of the parish doctor appointed for the medical assistance of the poor, whose function is also to perform the task of public vaccinator. There is no compulsory vaccination in Holland, at least, not directly. The compulsion is given indirectly by the prohibition to teachers and pupils to enter schools without a certificate of vaccination. In each commune, every three months opportunity must be given for vaccination and revaccination without payment. When small-pox is declared epidemic in the commune, which has to be done by the medical inspector when he judges it necessary, this opportunity must be given every week, and every month when the Minister has made publicly known that the disease has epidemically spread in a part of the kingdom. In larger communes there are several such officials, and Amsterdam has a regular medical service with a director, and a large staff of doctors, chemists, midwives, and nurses. Some of the doctors—one being a lady—have the special function of giving certificates as to the good health of every official entering the municipal service.[1]

A medical service is also created by the "Accident Law" of 1901. There is a medical adviser to the Central Council, and nine controlling doctors all over the kingdom.

Remuneration.

The average earnings of medical men are very difficult to state. I guess that a yearly income of £250 to £350 is a fair estimate for the general practitioner; some in large towns or wealthy surroundings gain far more, up to £1,000 or £1,500 perhaps. The average earnings of consulting physicians (professors), surgeons, and specialists mount higher generally, but do not reach the amounts gained in other countries. I think a sum of, say, £2,000 will be surpassed in few cases only.

The State officials have a fixed income of £250 to £420, and are not allowed to practise. Officials of the municipalities are paid according to the extent of their work, and few only are nominated with a rather high salary, with a restricted permission for other practice. A very large increase in the number of general practitioners has taken place in recent years, and, without equalling the conditions of the medical proletariat in some other countries, the yearly numbers of medical students are great enough to say that fears for such a proletariat in future are not wholly unfounded.

There is no tariff of fees—at least, not an official—only a conventional tariff. The Medical Association in Amsterdam instituted a tariff that runs from 1s. 8d. to 8s. 4d. for the visit of the general practitioner. In the provinces the rate of fees is lower—to 10d. and less.

Contract Practice.

Club practice is paid by subscription—generally 3s. 4d. per adult a year. Some practitioners earn a good deal of money in that way, having thousands of members on their list. The State Insurance Bank, supervising the accident law, has a fixed tariff for medical services paid to the insured.

Every town of any importance, and many villages even, have their clubs for the benefit of workmen. Abuses as to persons well able to pay regularly entering the clubs, and many other abuses exist, especially with regard to the clubs maintained by undertakers without any supervision in large towns. Amelioration may be got by a law now before Parliament, regulating the compulsory insurance of illness, much on the same plan as in Germany. Large factories, railway companies, and such organizations have their own medical service.

Illegal Practice.

I have mentioned already that quackery and illegal practice

[1] Some further particulars concerning this service, of great interest from many points of view, may be seen in an article in the *Lancet*, 1904, vol. i. p. 796.

is against the law, but I stated at the same time that unlawful practice is in no wise interfered with by this prohibition. Many reasons can be brought forward in explanation.

The law states that it understands as exercising practice, which is only allowed to qualified persons, the giving of medical or obstetrical advice or assistance as employment, and it is accepted in court that the employment will be legally established if proof is given of at least two separate acts of practising. Now, the bringing forward of stringent proof is very difficult, and the necessity of providing at least two proofs makes the prosecution of a quack as good as impossible in most cases. Medicine or midwifery is not exercised publicly, and witnesses ready to be taken on oath can only be got by accident or by *agents-provocateurs* going to the quack on purpose, feigning an illness. This last expedient is deemed inappropriate, however, by most public prosecutors as beneath the dignity of law. So the only possibility of gaining a proof is if the patient will bring forward a complaint, or consenting to bring such forward if asked when it has become known that the quack was consulted by him. Such a witness can be found in rare cases only, hardly ever does he do so, because he feels ashamed of his act; in most cases his aid will not be obtained because he holds his quack in high esteem and opposes strongly the idea that he is a malefactor who ought to be punished. This last cause lies at the bottom of the whole lack of success of quack prosecuting in our country. The legal prohibition of his practising is against public opinion, that deems *bonâ fide* quackery—that is, when the quacks are not manifestly deceivers—a boon instead of an evil. A very famous quack—a farmer—practising all over the country, is living in the district of which I am Chief Inspector of Public Health, quite near my dwelling place, and I have never found an opportunity of opening a law suit against him. The man is held in very high esteem in the highest circles, and considered all round as a benefactor of mankind. In recent years, having had to undergo a prosecution elsewhere, which resulted in his being condemned to pay the maximum fine stated by the law—£25—he secured the assistance of a medical man, and the prosecution has now come to an end altogether. The fine was immediately paid by one of his lady admirers, so that no financial loss need be feared; he, however, wanted rest and security, the chance of his being imprisoned existing had he been found guilty as a recidivist within the period of a year after a first condemnation.

Many wish for the abolition of the prohibition paragraph altogether, deeming that medical practice ought to be free, and some medical men wish for it also, not, of course, because they have a rather low opinion of medical science as the former, but believing very firmly that nothing can be gained from it at the present day. They are of opinion that a well-arranged crusade against the consequences of quackery, cheating of the public, lying advertising, etc., would prove much more useful against the evil, believing that the followers of practising laymen, thinking these things an evil too, will never oppose them on this ground.

Defence of Professional Interests.

The defence of professional interests is the task of the Dutch Association for the Promotion of Medicine. It has altered its statutes recently in order to be able to keep guard more effectively over these interests than was possible before. At the same time, it is bound to watch that nothing is done which is against medical dignity. A special committee of three members—"Committee for Professional Interests"—is instituted for that purpose. The Association is divided into sections, working throughout the country, each in a definite district, and each has also such a committee. There is nowaday a strong feeling in favour of the protection of mutual interests and the safeguarding of professional dignity. All these committees have no official rights, however; they can try to arrange quarrels, give warning or a verbal rebuke to a member who is in fault, and even propose his expulsion by the Association, assembled in pleno, but have no rights whatever as to his practising—in fact, no one has, not even the law. A practitioner once registered can never be deprived of his right to practise, except in one case only—if he is found guilty of intentionally provoking abortion. An association is to be founded, under the name of "Unitas Medicorum," to watch over the financial interests of the members with regard to the buying of instruments, medicines, etc.

Benevolent and Insurance Funds.

A fund for the support of widows and orphans of medical men is created by the Dutch Association, and is under direction of the Treasurer. Attempts to found an insurance institute for medical men belonging to the Association, with compulsory participation for every member, are being made, but their utility is judged differently, and success is not yet certain. A private company of medical men on a small scale for invalidity assurance has been founded already, and works well.

DENMARK.

By Søren Hansen, M.D.,
Police Surgeon, Copenhagen.

Medical Graduation.

The medical graduation examination is the only legal title to practise every branch of the medical profession with the exception only of obstetrics for which a supplementary course at the Royal Lying-in Hospital must be passed. Higher academical degrees or testimonies of advanced education at public hospitals come into consideration by the appointment to an office, but are no indispensable condition for obtaining such. Female physicians are in every regard placed on an equality with the men.

No dispensation from the above rules are granted to foreign physicians.

Anybody wishing to pass the medical graduation examination must be a B.A., and besides having taken the philosophical degree at the University of Copenhagen have gone through the prescribed educational course for medical students, which embraces not only lectures and training in the subjects for examination, but also courses in (1) dissection, (2) physiological chemistry, (3) practical physics, and clinical courses of (4) medicine, (5) surgery, (6) dermatology and venereal diseases, (7) ophthalmology, (8) oto-laryngology, (9) epidemic diseases, (10) psychiatrics, (11) obstetrics and paediatrics, and further courses in (12) bacteriology, (13) topographic anatomy and (14) vaccination.

The medical examination is divided into two parts, which must be absolved within a space of time not exceeding six years.

The first part embraces oral examination in (1) anatomy, (2) physiology, (3) physics, (4) chemistry, and practical trials of (5) dissection and (6) inorganic qualitative analysis. The character for physiology is reckoned double, and for the trials of chemistry and physics is given one common character, thus making the aggregate number of characters for this part of the examination five. The second part embraces written theses in (1) general pathology, (2) surgery, and (3) medicine; practical trial in (4) clinical medicine, (5) clinical surgery, and (6) surgical operation; oral trial in (7) general pathology, (8) pathological anatomy, (9) forensic medicine, (10) surgery, (11) medicine, (12) obstetrics, and (13) pharmacology.

Special characters are given for these thirteen trials, which are added to the characters for the first part of the examination to make one main character.

When the examination has been absolved the candidate has *ipso facto jus practicandi*, but he makes a solemn declaration that he will exercise his profession conscientiously.

Medical Practitioners and the Law.

The Danish medical man has no general obligation to render anybody his aid on demand, but in cases where peril of life is entailed and where any other person by stipulation of common law is obliged to aid as far as possible; he is, however, bound to attend the poor sick who cannot be referred to the Poor-law medical officer of his jurisdiction. The natural duty of secrecy of every medical man is not imposed on him by law.

All practitioners in Denmark are subordinate to the royal board of health in all matters connected with their official duties and the practice of their profession, and have to be guided in this regard by the injunctions of the Board who are supervising the execution of their duties.

Besides certain prescribed regular weekly or annual reports of the occurrence of infectious or other diseases and other sanitary matters every physician is obliged to notify at once and gratuitously any case of the more serious infectious diseases (such as variola, Asiatic cholera, the plague, dysentery, yellow fever, typhus, puerperal fever, enteric fever, and meningitis cerebro-spinalis), and if desired to give the Board information on subjects relating to other medical matters. It is his duty to follow the advice and directions which the

Board may find occasion to issue, and in everything adhere to the ruling laws and regulations of our medical and sanitary administration. He is subject to suspension from practice if he is neglecting his duties as a physician or found guilty of other illegal action, but he cannot lose his *jus praticandi* even if he has undergone sentence for a crime.

Every practitioner is obliged to give notice of establishment and change of domicile to the local medical authorities.

Sanitary Service.

For the public supervision of the sanitary condition of the population 13 *physici* (one of which is the chief medical officer of health at Copenhagen) have been appointed, and below them again about 100 district medical officers. These officials are appointed by the King and receive a fixed smaller remuneration from the State, but their principal income is derived from private practice. It is their duty to superintend the sanitary conditions in their jurisdiction as far as these are not attended to by the local boards of health, to register infectious diseases and conduct public measures for their prevention, including vaccination, which is obligatory for all children compelled to attend school, to have supervision with dentists, midwives, apothecaries, and other persons in connexion with the medical profession, to undertake the legal *post-mortem* examination, and to perform other medical acts required by law. The district medical officers are further obliged to treat without a special fee the poor of their district, and also sick prisoners in the local gaols. This accumulation of many various duties has in the course of time become more onerous, and so little in accordance with the interests of the population that the institution may justly be considered as quite antiquated and ripe for a repeal. A thorough reform of the whole public medical institution has long been standing on the order of the day, but the medical profession has not yet succeeded in awakening the interest of the legislative power for this matter.

A perceptible improvement in the above-mentioned state of affairs has, however, taken place by the fact that the care of the poor sick in a large measure has been transferred to the private practitioners, because the local authorities prefer paying such resident physicians to incurring the travelling expenses of the district medical officer, who is often living at a considerable distance from the patients. The erection of numerous infirmaries throughout the country has tended to bring about the same result, as the surgeon in charge of such is often another than the district medical officer. The medical attendance at the State prisons is undertaken by special physicians beside their private practice, and is remunerated with an annual salary of about £85.

At the State lunatic asylums is appointed a staff of physicians of which the chief is also acting as the managing director of the establishment.

They are all living at the establishment, and receive a salary which is considered sufficient to preclude the necessity to look for private practice. For the physicians in chief it is varying from about £200 to £350; for assistant physicians, from about £35 to £150, besides lodging and various other emoluments.

Professional Incomes.

The statistics in our possession of the income of Danish medical men are not very instructive, because a large number of those with a small income are young men who have not yet become independent practitioners, whilst several of those who have a large income are no longer carrying on a practical business.

In general we may, however, assert that the greater part of common acting practitioners have an annual income of between £300 to £600, and that higher incomes than these are chiefly found in the metropolis, lower ones in the country and in the smaller towns.

Most practitioners derive their income both from loose casual practice, and from contract practice with private families or a friendly society.

In the towns, and especially in the metropolis, the casual practice is of small importance, because greater part of the less well-to-do people, though still able to pay, have joined one or more of the Friendly Societies, whilst the wealthier people engage a family doctor. In the country the casual practice is of greater importance. Contract with families is not common. Contract with Friendly Societies is generally made on conditions little cheaper than the ruling conditions for casual practice. The stipulation of fees is regulated throughout the country by the tariffs of the local medical associations. There is, indeed, a still valid summary tariff stipulated by an Act of 1672, but this is only of importance in special cases when award for payment has to be given by the tribunals.

The fee of a common practitioner for a consultation or a sick visit is 2s. 6d. to 5s., with a deduction for repeated visits, and an addition of 50 to 100 per cent. for night service and service on Sunday afternoon. For sick visits at a distance from the residence of the physician is charged throughout the country an additional fee of 1 krone (about 1s. 1d.) per mile besides carriage expenses. Cycling, which is very common, is charged at the rate of ordinary carriage fare.

The fee for ordinary medical aid, as well as for making out certificates and the like, is fixed by specified stipulations in the tariffs of the local medical associations. The usual remuneration for medical attendance in obstetrical cases, for instance, is about £1.

The annual fee for medical attendance to families is varying according to their economical circumstances from about £2 and upwards. As a general norm is taken 1½ per cent. of the yearly income or 10 per cent. of the house rent.

Renowned specialists are generally receiving a fee of 10s. to £1 for a consultation.

The fee for operations is varying according to the renown of the surgeon and the circumstances of the patient. Fees of £50 to £100 are not uncommon. Fees of £200 to £300 have been paid, but very seldom.

Medico-Legal Practice.

The medico-legal functions are in Copenhagen incumbent on the Professor of Forensic Medicine at the University; elsewhere on the local medical officers.

The fee for attendance at a coroner's inquest and other medico legal examinations and declarations is about 5s., with added travelling expenses and a daily pay of about 5s. For medico-legal *post-mortem* examinations, which require two physicians, a fee of about 10s. is paid to each.

Unqualified Practice.

The Kingdom of Denmark has already for years been well supplied with skilled physicians and the popular education has attained so high a standard that small opportunity is left for illegal medical practice, and real quackery is very little practised. The medical profession has of later years felt not a little inconvenienced by an excessive advertising of foreign patient medicines, but this seems to have stopped now, especially through measures taken by the Board of Health for the analysis of such preparations and the publication of their real value. The legislation about quackery is of a remote date. The principal enactments are contained in an Act of 1794, which is still in force; the provisions of punishment are set down in an Act of 1854. A quack is according to Danish law any person who, without having the right to practise medicine, takes sick people under medical treatment, whether payment is asked or not; whilst it is not implied to be necessary for making him subject to punishment that the quack has injured the patients through the treatment. The stipulations of punishment are very lenient. As a rule, the punishment consists in fines not exceeding £12, and only in particularly grievous cases does the punishment amount to imprisonment eventually with additional application of the provisions of the common civil penal code about punishment for inadvertent bodily harm to a person or manslaughter. The law is, on the whole, enforced with much leniency, and as its application depends in a large measure on the greater or lesser zeal of the medical officers, uniformity is not the rule.

No change is desired by the medical profession in the legislation on quackery, as it is evident that it is yielding sufficient protection to the practitioners as well as to the population.

Contract Practice.

Friendly Societies are very numerous and strongly supported by the State. They have very considerably reduced the income of the practitioners; but these have, especially during the last few years, succeeded in raising the salaries for such contract practice in the rural districts to a tolerable amount. In the metropolis there has also during late years been aimed at an improvement by the introduction of a free choice of medical attendant. The usual salary has till now been about 3s. 6d. per annum for single members and about 7s. for families.

In the case of poor sick the physicians are not bound by the local tariffs, but receipt is given according to tariff charges with stipulation of the deduction granted. When

public Poor-law authorities employ private medical aid no larger deduction is usually granted than that accorded in other contract practice. In the metropolis and a few larger provincial towns the gratuitous policlinics for the poor deprive the physicians of some of their paying clientage, but in consideration of the amount of good accruing from such institutions the profession has not found occasion to discourage them.

MEDICAL ASSOCIATIONS.

The interests of the medical profession as such are protected through eighteen local medical associations, who conjointly form the general Danish Medical Association. Although this organization is not authorized by law, its power is nevertheless considerable, because every practitioner is held morally bound to join it. The organization has on several occasions asserted its influence when public authorities have infringed the interests of the profession, and has taken the lead in arrangements for the public benefit. The aim of the organization is further to promote a friendly intercourse by meetings and assemblies, it allays professional disputes by arbitration, and has created order and firmness in the question of salaries through local tariffs, and on the whole been of much use.

The association was formed as early as 1858, but has developed from a still older union, and the professional relations between Danish medical men has for years been good. It is a matter of course that purely personal controversies in everyday life cannot be entirely avoided here, likewise elsewhere, but the feeling of good general fellowship is highly developed, and there is solidarity without. Testimonies of good fellowship are a considerable number of mutual-aid societies for the support of old and infirm colleagues, widows, orphans, and sick members of the profession.

SOCIAL STATUS OF THE PROFESSION.

Although the great influx to the profession during the last decades in connexion with the development of the institution of Friendly Societies have had a bad influence upon the social position of the physicians, this must still be considered good, but the close competition and the high standard of popular enlightenment in all parts of the country make it ever more difficult to the members of the profession to maintain their present cultural superiority. In general the position of the medical men may be said to be between that of the ministers of the church and the judges.

Outside of the town councils, in which the physicians often play a prominent part, their participation in politics is very limited, and for years only a single medical man has held a seat in Parliament.

STATISTICS.

The number of Danish physicians at the last census was 1,350, or in proportion to the population of the country about 1 in 1,800. The distribution over the metropolis, the towns, and the rural districts is indicated in the subjoined table, which are also showing the development of the last twenty years:

	1880.	1901.
Copenhagen	287, or 1 in 818	... 468, or 1 in 808
Towns in the Isles	188, or 1 in 914	... 278, or 1 in 1,054
Towns in Jutland	136, or 1 in 1,068	... 219, or 1 in 1,221
Rural districts in the Isles ...	118, or 1 in 5,880	... 197, or 1 in 3,583
Rural districts in Jutland ...	90, or 1 in 8,037	... 193, or 1 in 4,216

We must, however, call attention to the fact that a number of physicians, especially in the metropolis, are not acting practitioners.

TURKEY.

By F. G. CLEMOW, M.D.,
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THE conditions regulating the practice of medicine in the Turkish empire are laid down in the law of 7th *Rebi-ul-Akhir*, 1278 (October 11th, 1861).

Under this law no one is allowed to practise medicine or any of its branches in any part of the Ottoman Empire unless he is provided with a diploma from the Imperial Faculty of Medicine of Constantinople, or from some foreign Faculty. Persons holding the degree of Doctor of Medicine or of Surgery of a foreign Faculty and who arrived in the country after the publication of this law, must, in order to obtain the right to practise, first, register their foreign diploma at the Constantinople School of Medicine (at the same time showing their passport, which must be visa'ed by their consular authority), and secondly, must undergo a "colloquium" at the same school. When this viva-voce examination is passed, a "permis d'exercice" is delivered, on payment of a fee of five hundred piastres—a sum equal to about £4 10s.

The examination is held in either French or Turkish, and the candidate is permitted to take an interpreter with him from his consulate. The examination is conducted by a committee specially appointed for the purpose, and it is said to be usually fairly conducted and not excessively stiff.

Doctors of Medicine or of Surgery are not permitted to supply drugs, unless it be in places where no legally-established pharmacy exists.

The conditions under which midwives are allowed to exercise their calling are laid down by the same law, and are closely analogous with those regulating the practice of medicine—that is to say, foreign midwives must present a diploma from some recognized foreign body; this must be registered at the School of Medicine. An oral examination must be passed, and a fee of 100 piastres (18s.) must be paid.

Under the above law a second class of medical practitioner was recognized; but it appears that if this class of *médecins de second rang*—which might perhaps, be compared with the subordinate medical service in India, or with what are known as *feldschers* in Russia—ever existed in Turkey, it does so no longer, at any rate in or near the capital. These subordinate practitioners were of three classes: (1) Those who had the title of "officers of health" from the Constantinople School of Medicine (a title no longer granted); (2) those who already were in practice by virtue of a permit granted by one of the Sultan's chief physicians; and (3) those who had been appointed by the School of Medicine to practise in hospitals or in provincial towns. Such practitioners were permitted to do minor surgery, but not to perform any major operations.

Any one infringing the above law by practising without a diploma is subject to a fine of from 2 to 7 medjidiés gold (from about 7s. to 25s.); the fine is doubled if the offence is repeated, and an additional punishment of from two to six months' imprisonment is imposed. The penalties are proportionally smaller in the case of midwives and subordinate practitioners.

A list of registered practitioners is prepared by the School of Medicine, and furnished to every registered pharmacy, and it is forbidden by the law to make up any prescription which is not signed by a practitioner whose name appears in the list.

The right to practise pharmacy is conferred in a precisely analogous manner to the right to practise medicine or midwifery.

MEDICAL SCHOOLS.

Frequent mention has been made above of the Imperial Faculty or School of Medicine in Constantinople, as the only Turkish official body which may grant the right to practise medicine, midwifery, or pharmacy. This school forms a department of the Ministry of War. It has hitherto been housed in buildings on Seraglio Point, in Stamboul, but has quite recently moved to the magnificent structure which has been erected for it at Scutari, on a site close to the English Cemetery, and not far from the hospital, still existing, which will always be associated with the name of Florence Nightingale and with the sufferings of our men during the Crimean war.

There are two classes of students at this school; the first and larger class is made up of students who are paid for and supported by the Government, at whose charge they are fed, lodged, clothed, and educated; they subsequently enter the Army Medical Service. The second class are ordinary medical students who are under no special obligation to the State. They pay no entrance fees and no examination fees; all that they have to pay is a sum of five Turkish pounds (say £4 10s.) for their diploma. The teaching is given mainly in the Turkish language, but recently some of the lectures have been given in French by German professors. There are also professors of French. All the students wear a military uniform. The curriculum lasts for six years, the first of which is preparatory. There are two classes of examination—year-end examinations and examinations for the Doctorate of Medicine. There are four of the latter, and at the fourth two theses have to be presented.

In addition to the Imperial School of Medicine in Constantinople there are two foreign provincial schools in Turkey—the French and the American Medical Schools in Beirut—which have now the privilege of conferring degrees and a consequent right to practise. Their examinations are conducted

with the assistance of a Commission sent annually by the Constantinople School of Medicine, so that their degrees are equivalent to those conferred by the latter. The larger number of practitioners in Syria and Palestine are said to be bearers of degrees conferred by one of these schools.

MEDICAL ADMINISTRATION.

While these schools of medicine grant the right to practise, the control of all civil, medical, and pharmaceutical matters lies with a special department of the Ministry of the Interior, known as the "Administration Médicale Civile de l'Empire" (*Idarei-tibié-i-mulkié*). The Director of the School of Medicine is *ex-officio* Director of this Administration. This body has powers to control all questions connected with the practice of medicine or the allied callings; to pronounce judgement in any question relating to medicine, hygiene, chemistry, or other scientific matter that may be referred to it by any department of the State; to make analyses of foods and drugs; to conduct medico-legal inquiries, etc.

PUBLIC HEALTH COUNCIL.

Connected with this department is a "Conseil d'Hygiène," which deals with all matters connected with public health and the control of epidemics in the interior of the country. A class of *médecins municipaux* was created in 1871. In every town forming the centre of a *vilayet*, or province, there is a sanitary inspector, named by the Government; and in the chief towns of the *sanjaks* and of the principal *cazas* there is a municipal medical officer. In Constantinople there are 52 such officers; they are under a Board of Hygiene attached to the Prefecture of the city, which has existed since the cholera epidemic of 1893-4. The pay of these municipal medical officers, whether in the capital or the provinces, varies from 500 to 3,000 piastres a month (say, from £50 to £300 a year). Their duties, as laid down by the law, are to give free medical advice, administer the vaccination laws, report on the course of epidemic and endemic diseases and take measures for their control, and generally to supervise the public health and sanitation of their districts. In practice their action is seriously hampered by many difficulties, and municipal sanitation is in an extremely backward state, both in the capital and in the country towns.

INTERNATIONAL BOARD OF HEALTH.

The external defence of the Empire from infectious disease is provided for by an elaborate organization, under the control of the International Board of Health of Constantinople. The Board is composed of delegates from the Foreign Powers having shipping in Turkish waters, and of a certain number of Turkish members. It administers the affairs of 135 sanitary offices, distributed in all parts of the Turkish Empire, and of eleven lazarets. It employs some 600 or 700 persons, of whom over 60 are medical men. The latter are admitted to the Sanitary Service by competitive examination. Candidates must be already qualified, and must not be more than 35 years of age. The examination is only held when occasion requires; the intervals between examinations vary from one to three years. The examination is conducted by a committee of medical members of the Board of Health; it is purely competitive, and is usually held to fill up not more than seven or eight vacancies. After passing this examination the candidate must further undergo a colloquium at the Imperial School of Medicine to obtain the right of practice. The medical posts in the service carry pay which varies between (in round figures) £150 and £600 a year. The average value of such posts is not more than about £300 a year. In some posts there is a certain amount of general practice to be had; and all carry the right to a small pension after thirty years of service, or at any time in case of incapacitation *à cause du service*. (The pensions and other regulations of the Sanitary Service are now in course of modification; the changes will probably be in the direction of greater generosity to the employé.) Medical men entering this service are liable to be sent to any part of the Turkish Empire, including such trying climates as the Red Sea, the Persian Gulf, Mesopotamia, and Tripoli (Africa).

UNQUALIFIED PRACTICE.

It has been comparatively easy to set forth in the above paragraphs the provisions of the law for the regulation of medical practice in Turkey. It is less easy to state exactly how far these provisions are carried out. In an oriental country there are ways of getting round or driving through any law, however good its intention may be. It is certain that much unqualified practice does exist both in the capital and in the country. There are many villages without any doctor, where sick persons are treated by the "wise man" or "wise woman" of the village. The Government prohibits the importation of many foreign quack medicines, ostensibly because their composition is unknown and they might contain harmful ingredients; but in spite of the prohibition, most of the familiar pills and potions, the advertisements of which disfigure the countryside at home, are to be found on sale in Constantinople and elsewhere. In like manner, a paternal Government absolutely forbids the entrance to the country of many pharmacopoeial drugs—such as cocaine, phenacetin, cacodylate of soda, sulphonal and many others; yet these drugs do manage to penetrate the country.

PROFESSIONAL EARNINGS.

In the capital the usual fee for a medical visit is one medjidié, or three shillings and fourpence; sometimes double or treble this; but there are practitioners who will take less, and some will even pay a visit for five piastres (tenpence). The fee for a consultation is usually one Turkish pound (eighteen shillings.) Some consultants take more; fees for operations vary widely; there are a few distinguished operators who command very high fees. Some specialists do well in the capital. Speaking generally, the conditions of general practice for a foreign graduate in Turkey are not attractive, unless he be attached to an Embassy or Legation, to one of the foreign hospitals in Constantinople or other large town, to the Board of Health, or to some other foreign or international institution. Competition is intensely keen, medical etiquette is practically unknown, and bad debts are constantly occurring, while, in the provincial districts, the obstacles put in the way of the foreign practitioner, from red-tapeism, and official obstructionism and ignorance, in some instances reach extraordinary dimensions. The Sanitary Service, under the Board of Health, offers interesting work and a moderate competence, with the prospects of a small pension, to the foreign medical man.

MEDICAL ASSOCIATIONS.

Contract practice and workmen's clubs do not exist. The only organizations for the protection of professional interests are the Medical Societies, of which there are two in Constantinople—the Imperial Society of Medicine, founded in 1856 (officially recognized by Government, from which it receives a subsidy), and the Medical Club, instituted two years ago.

BULGARIA.

THE medical profession in Bulgaria is under the control and supervision of the Minister of the Interior, who is assisted by a medical council; this meets at Sofia and is formed of some six medical men selected by Government. Practice is restricted to legally qualified medical men, and the latter are deemed to be the holders of degrees acquired in a foreign university who have subsequently passed an examination in medicine and surgery in Bulgaria itself. Every candidate must show that he has obtained his degree after a regular course of study, and that he has passed also an examination in Arts, while it is open to the authorities to refuse registration simply on the ground that the candidate is not a Bulgarian subject. The examination is held in the Bulgarian language, and costs 100 francs, subsequent registration by the medical council costs another 100 francs.

Every registered practitioner is bound to attend any patient who asks his aid on his fee being tendered, and in an urgent case it is expected that he shall attend without first being paid, but he is not deprived from asking for it afterwards. Any demand made upon a medical man for his professional services on behalf of the Government must be met, the fees being fixed subsequently; and medical men of Bulgarian nationality are also bound to serve in their medical capacity with the army if this be required.

The public medical services consist of:

1. A public health department.
2. A chemical and bacteriological department.
3. District medical officers.
4. Hospital appointments.
5. Education medical officers.
6. Lunacy medical officers.
7. Quarantine officers.

SANITATION.

As regards sanitation, the central department supervises sanitation throughout the country, doing its executive work

through the district medical officers and in the towns through the municipal medical officers. In addition, there is in each district and subdistrict a hygienic council. It is composed of the civil, military, and veterinary doctors and the local heads of all Government Departments. It meets once a month, and is the sanitary authority of its area.

DISTRICT MEDICAL OFFICERS.

Both district and municipal medical officers act as general advisers within their areas, and fulfil the part both of medical officers of health and Poor-law medical officers. There are twelve districts in the country, and in each of these there is one principal Government district medical officer and a varying number of assistants: in all, throughout the country, and excluding the towns, there are about 100 of these officers—a number which is amply sufficient in the present circumstances, especially in view of the fact that the *Commission Permanente* or county council of each district also pays a certain number of medical men to live in the smaller villages and hamlets. Each district medical officer, whether a chief or assistant, has also at his disposition a certain number of subordinates who have received training as hospital attendants.

HOSPITALS.

Furthermore, the medical needs of the country are met by the provision in nearly every town of the Government hospital. These are classed, according to the importance of the town, as either first, second, third, or fourth rate.

At Sofia there is a very well-appointed hospital—the Alexander—which has 500 beds and a staff of 16 medical men, and also a lying-in hospital, which was opened last year. There are in the country eight first-class hospitals, each of 100 beds, twelve second class with 40 beds, thirty-five third class with 20 beds, and twenty-nine fourth class, each with 3 beds and a supply of ambulances. The latter are really first-aid stations. Two sanatoriums for consumption are also being built. Of these the first and second classes are practically independent institutions so far as the district medical officer is concerned, but those of the third and fourth classes are responsible to him for their administration and work.

LUNACY.

There are only three public asylums. One of these has 200 beds and five medical attendants, and is excellently equipped and managed; the two others each provide accommodation for 100 patients, and are reserved for incurable cases. The practice is for all persons certified to be insane to be sent in the first instance to Sofia, where they are kept for a time for observation and report in a special block of the Alexander Hospital, which is not to be confounded with the 200 bed asylum first mentioned.

PRISONS.

These, wherever situated, are placed under the professional care of the medical officer of the town in which they are situated.

EDUCATION.

There are in Bulgaria altogether fifteen gymnasia for boys and eight for girls. They are all under the control of the Minister of Public Instruction, and to each of them is attached a medical man. In addition to supervising the health of the pupils it is the duty of the medical attendant to give lectures and instruction in hygiene, anthropology, and physiology; in the majority of the girls' schools a lady doctor is employed.

FEES AND PRACTICE.

The ordinary pay of a chief district medical officer is £168 a year, an assistant district medical officer receiving £144 a year. As regards private practice there is no tariff; a common fee is Fr.3 a visit, whether the patient be seen at the doctor's or the patient's house. In the former case, however, Fr.2 is sometimes accepted; while there are a certain number of people who are prepared to pay Fr.4 and Fr.5 fees. The fees in short are low, and outside the largest towns few medical practitioners would be able to confine themselves to private practice alone. The majority of them either have private means or hold some public appointment such as those mentioned. Taken all round, it may be estimated that men who are successful in general practice make some £14 or £15 a month. In country districts the holder of a Government appointment usually has no competitors, and may perhaps make some £4 or £5 a month in addition to his Government pay.

The practice of pure medicine or surgery is rare. The fees for operations are a matter of private arrangement, and the few pure surgeons or physicians probably make more than the average practitioner. The majority of specialists, ordinarily so called, are to be found at Sofia, but few of them confine themselves entirely to the exercise of the speciality which they profess.

Expert evidence in the courts of justice is usually given by a district medical officer or by one of the medical men employed by the municipalities; his fees for giving evidence are very low, ranging from 2s. 6d. to 7s. 6d., according to the time for which he is detained. *Post-mortem* examinations are paid at the rate of 8s. for a complete examination and report, and half that sum if the body has only been examined externally.

QUACKS AND ILLEGAL PRACTICE.

The law against the illegal practice of medicine and surgery as it stands is sufficiently stringent, and a certain number of prosecutions are from time to time brought at the instance of the local authorities. As a rule, however, the authorities do not put the law into practice as often as might be. The penalties on conviction of illegal practice are for the first offence a fine of £1, and on the second conviction a fine of £3 and imprisonment for one month. The third offence, if proved, entails a penalty of £4 and imprisonment for three months. In a case in which the illegal practitioner has both prescribed and administered medicine these penalties are doubled.

CLUBS AND SOCIETIES.

There is nothing in the nature of contract medical practice in Bulgaria. A few societies have been started from time to time, but they have all failed. The poor depend for medical attendance upon the hospitals and upon municipal or district medical officers.

Nearly all the medical men belong to the medical union—an association which was started some two or three years ago, but so far has not led a very active existence. It has its head quarters in Sofia and branches in the principal towns; the hope is that it will develop into a society capable of defending both the individual and general interests of the profession. At present nothing of this kind is done, nor are ordinary medical societies to be found.

THE GENERAL POSITION OF THE PROFESSION.

As regards the general position of the medical profession in Bulgaria, it may be stated that socially it is good; its members are admitted into all classes of society, and they are accorded the same social consideration as officers and lawyers. In Bulgaria, however, not less than in other cases, the means of a medical man counts for not a little, and the man who is making from one way or another a large income possesses more influence than his fellows. Medical men as a body are not supposed to take much part in politics, but it is not rare for them to be influenced by changes in the position of political parties. Although they may not commonly seek political power themselves, they endeavour to help their friends, and in some cases appointments are lost or won as a consequence of one or other political party having come into power. This wire-pulling, however, is not common, and it could not safely be exercised unless supported by the personal qualities or defects of the medical men in question.

Since 1878, when Bulgaria broke away from Turkish rule, the number of medical men has risen from 71 to 560. As, however, the total population of Bulgaria is nearly 4,000,000, the ratio of medical men to population is not great. Nevertheless, it may be considered that Bulgaria is supplied with as many practitioners as it can at present support, for great numbers of the population are scattered throughout the villages, and though in these additional medical men might be considered to be necessary, there is no temptation to medical men to establish themselves in such places, since it would be impossible for them to earn a living. In the larger towns, on the contrary, and in such places as Sofia, Varna, and Phillipopolis there are far too many medical men; so many, in fact, that it is impossible for them all to make a living wage.

SERVIA.

SANITARY ADMINISTRATION.

THE general supervison of the sanitary condition of the country, as well as of all medical practitioners, comes under the duties of the Minister for the Interior, and for this purpose he has control over:—

(*a*) Central administration:

(1) The Sanitary Department of the Ministry for the Interior.
(2) The State Chemical Laboratory.
(3) The Chief Sanitary Council.

(*b*) In the districts, departments, and the capital:
(4) The district doctor.
(5) The departmental doctors.
(6) The parish doctors.
(7) The parish midwives.
(8) Institutions for prevention of disease.
(9) All hospitals and lunatic asylums.
(*c*) On the frontiers:
(10) All quarantine establishments.

The Minister of the Interior has also rights of supervision over all doctors in private practice and midwives.

The duties of the Sanitary Department are:

The provision of the country with the necessary staff for medical, pharmaceutical, and veterinary purposes; the examination and approval of the scientific and professional qualifications of this staff; the granting of authorization for private practice; the selection for State service; and the support of medical societies for scientific and medical research.

The provision of schools for the training of the secondary staff as nurses and midwives.

The selection of the foreign university to which medical students shall be sent to complete their training.

The study of the sanitary condition and of the mortality in the country and the taking of all necessary measures for diminishing and preventing sickness.

(1) *The Central Sanitary Department.*

The head of the Sanitary Department must be qualified in medicine and surgery and when possible in midwifery also, and have completed eight years' service under the State.

The inspector of hospitals must have similar qualifications and six years' State service. For the first five years his pay is 3 000 dinars (£120), increasing every five years by 500 dinars (£20) up to 6 000 dinars (£240). After thirty years' service he can retire on a pension equalling his full pay.

The secretaries also of the Sanitary Department must be doctors fully qualified in medicine and surgery, with four years' State service.

(2) *The State Chemical Laboratory.*

The State chemical laboratory is under the direction of two chemists appointed by the State. Their duties are to undertake all analyses for sanitary, criminal, and judicial purposes. They are responsible for the proper maintenance of the laboratory and all necessary reforms in their department, and have the supervision of all public and private apothecaries' establishments and chemical manufactories.

(3) *The Chief Sanitary Council.*

The Chief Sanitary Council consists of seven ordinary members, who must be doctors, either in the State service or in private practice, and have the power to summon as extraordinary members any persons whose special qualifications would be useful, as chemists, veterinary surgeons, engineers, etc.

The duties of the Council consist in giving an opinion on all medical questions which concern the State, the general public health of the country, and on all those cases laid down by the sanitary laws; in prescribing the qualifications for medical and veterinary students; and in assisting the working out of the yearly sanitary budget.

Ordinary members receive a yearly honorarium of 350 dinars (£14), and the President and Secretary of 450 dinars (£18).

Recognition of Medical Degrees.

Servia having hitherto had no university, all those who wished to obtain a degree in any Faculty have been obliged to study abroad. As regards doctors' degrees for medicine, surgery, etc., Servia recognizes only diplomas acquired at the universities of Paris, Vienna, and Berlin. Degrees conferred by the universities of other countries are only recognized after the holder has passed an examination in Servia before a commission appointed for the purpose.

Only Servian subjects can practise as doctors.

(4) *District Doctors.*

Each of the fifteen districts in Servia as well as the capital must be provided with a district doctor, who is appointed by the Minister for the Interior. He must be fully qualified in medicine and surgery, and if possible in midwifery also. The district doctor acts as the sanitary adviser of the prefect, and his general duties consist in the supervision of the sanitary condition of the district. For the first five years his pay is £100, which is increased every five years by £20 until it reaches the maximum of £200. After thirty years' service a district doctor can retire on a pension equal to his full pay.

(5) *Departmental Doctors.*

Each of the seventy-four departments must have a departmental doctor, and it is one of the duties of the Minister of the Interior to see that they are so provided. The qualifications for the post are the same as those for the office of district doctor. The duties are also, on a smaller scale, similar. Both district and departmental doctors must treat free of charge all those who are certified as poor—that is, those who pay no taxes or taxes not exceeding 10 francs a year. In their districts they can only charge private persons whom they attend 1 franc a visit, outside their districts 3 francs. The charge for consultations is 12 francs.

The pay of a departmental doctor is for the first five years £90, rising to a maximum of £160 after thirty years' service, when he may retire on a pension equalling his full pay.

(6) *Parish Doctors.*

Every commune in Servia numbering 10 000 souls must provide a doctor at the expense of the commune, where the population numbers 20,000 three doctors, and where 30,000 five doctors are necessary.

The Minister of the Interior must see that, where necessary, every commune has a doctor. The pay of the latter is arranged between the communal authorities and the doctor.

That the larger towns may not have more doctors than are necessary, while whole districts are under-supplied, the permission to practise will be refused where there is already one doctor to every 1 000 persons. Exceptions will only be made when all departments and the larger communes are provided with the full number of doctors necessary.

The chief duties of the communal doctor are to treat the poor of the commune, as well as all other sick persons, to supervise the general sanitary condition of the commune, with control over slaughterhouses, butchers' shops, markets, etc., vaccination, to act in conjunction with the police authorities for the prevention of the sale of food and drinks unfit for consumption, and to propose any such measures as he may think necessary for the bettering of the general sanitary conditions of the commune.

He is a member of the communal council, which can pass no sanitary measures regarding either the population or live stock unless the communal doctor is present at the sitting.

(7) *Midwives.*

Every parish of 5,000 souls must have a properly-accredited midwife.

Private Practitioners.

These, as before mentioned, must be Servian subjects, and must have received a permit to practise from the Minister for the Interior. Every doctor in private practice must keep a diary containing all the details of cases treated by him, giving the number of visits to each patient, and, where he has done so, of the medicines provided, and this diary must be submitted to and signed and sealed by the sanitary department of the Ministry at certain intervals. This diary serves as evidence in the event of an action before the law courts for non-payment of fees. Should this diary be proved to have been falsified the doctor can be punished for fraud.

The fee for doctors' visits in Belgrade is fixed at a minimum of Fr.2, and a maximum of Fr.5 by day, and by night between Fr 3 and Fr.10. In the interior the fees for day visits are fixed between Fr.1 and Fr.2, and night visits between Fr.1½ and Fr 3.

Specialists must give proofs of their capacity before the Chief Sanitary Council, and require a special permit to practise, which is given by the sanitary department.

Any one practising without the necessary permission can be punished by a fine of from Fr.50 to Fr.200, or from 10 to 20 days' imprisonment, according to the seriousness of the offence. Should he in the course of such illegal practice have injured the health or brought about the death of any person he is liable to prosecution in the criminal courts.

Every doctor must, according to the oath of his profession, give his assistance to all who need it, without distinction of persons or classes.

A doctor, suddenly summoned to a sick person who is in sudden and unforeseen danger, is bound to go to the help of such a person, be he whom he may, as quickly as possible. Should he not do so, and any misfortune happen which the presence of a doctor might have averted, he can be proceeded against in the criminal courts.

There is no division of classes in Servia, and a doctor's social position depends on his own character, reputation, and means.

ROUMANIA.

THE law of Roumania restricts the practice of medicine and surgery to qualified men, and specifies what constitutes qualification. In the case of men who have pursued their education at medical schools other than those in Roumania this qualification consists in the possession of an M.D. degree and in addition a certificate of having subsequently passed a State examination in Roumania itself.

The ordinary medical man of the country pursues his studies at the University of Bucharest, and before being admitted as a student at its medical faculty he must have passed his *baccalauréat*, or examination in arts. At the end of five years' study in the medical faculty, and after having passed various examinations, he is entitled to present himself for the M.D. examination; if successful at this he is in a position to begin practice. Junior appointments in the in-patient and out patient departments of hospitals are awarded on the results of open competition, but their tenure is not compulsory.

OFFICIAL APPOINTMENTS.

Medical men are employed by the State and by public bodies in a variety of capacities. The medical employés of the State belong either to:

(*a*) The public health department,
(*b*) The prison medical department,
(*c*) The lunacy department.

The latter two departments are quite small, but the former exercises supervision over the administration of the laws of the country in respect of hygiene, and has as its colleagues and assistants the medical officers of health employed by the municipalities and by various town councils. The municipalities also employ medical men, but in a very limited number, to give gratuitous assistance to the poor; in country districts the State itself also has corresponding officers. It is also the practice among large manufacturers to engage medical men as attendants upon their workers. These appointments carry payment of from Fr.150 to Fr.300 a month, or from £70 to £144 a year.

FEES AND SALARIES.

There is nothing in the nature of a tariff of fees in the country. Fees from private patients range from Fr.2 to Fr.10, according to circumstances, while medical men who are employed as Poor-law medical officers often receive little or nothing beyond their official salary, which is never large. Thus, a district medical officer employed by the State receives Fr.300 a month, or £144 a year, and is rarely in a position to make anything further. There are very few men in the country who practise pure medicine or pure surgery. Those who exceptionally do so in some cases make a fair income, one reaching, perhaps, as high as Fr.20,000, or £800 a year.

Operation fees run from Fr.10 (8s.) to Fr.1,000 (£40). A fair estimate of the sum received by the average medical practitioner may be made from the figures given, £121 being taken to represent the minimum on the one hand and about £800 the maximum on the other.

Medical men called in to give expert opinions in the law courts receive fees varying from Fr.8 to Fr.50 (6s. to £2).

QUACKS AND UNQUALIFIED PRACTICE.

Charlatanism, quackery, and practice by unqualified men and women, such as pharmacists and midwives, is exceedingly common, in spite of the laws which exist. The laws are sufficiently exacting, but no trouble is taken to put them into practice, and it is rare for charges of illegal practice by any class of persons to be brought by the police.

THE POSITION OF MEDICAL MEN.

There is no body in existence which undertakes to protect the interest either of the profession at large or of individual practitioners, and it cannot be said that the position of the medical profession in Roumania is satisfactory. There are too many medical men, and very few of them are financially successful except those who engage in politics, or in some other way step outside the limits of the ordinary practice of medicine.

CANADA.

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A GLANCE at the history of the medical profession in Canada will show clearly the difficulty experienced in representing concisely the legal status of practitioners in the Dominion.

MEDICAL ACTS.

As early as 1788 an "Act to prevent persons practising physic and surgery within the Province of Quebec or Montreal without a licence," was passed, and under the Act Boards of district examiners were appointed for the districts of Quebec and Montreal. The physicians and surgeons practising in the country at this time were either Canadians who had served their apprenticeship with a medical man of good standing, and then gone to Britain for graduation and further study, or were Englishmen and Scotchmen who had received their entire training at home, many of the latter being retired army surgeons.

This Act was essentially local in its influence, for Bishop Strachan, writing of the Province of Upper Canada some twenty years later, says: "The province is overrun with self-made physicians who have no pretensions to knowledge of any kind, and yet there is no profession that requires more extensive information. They comprehend not the nature or causes of disease, are totally ignorant of anatomy, chemistry, or botany, and many know nothing of classical learning or general science. It is indeed preposterous to expect judgement and skill, a nice discrimination of disease and a proper method of cure, from men who have never been regularly taught, who cannot pronounce—much less explain—the terms of the art they practise, and who are unable to read the books written on the subject."

The British North America Act eventually settled the question of licence by consigning all matters affecting education to the various provinces of Canada as distinguished from the Federal Parliament, and these separate Legislatures have from time to time passed certain Acts governing the profession of medicine and surgery, so that each province of the Dominion has its own College of Physicians and Surgeons, whose duty it is to regulate all matters relating to the legal qualifications of practitioners in the district under its jurisdiction. In consequence of this system a practitioner may be licensed in one province and yet in another be unable to follow his calling until he has passed the local examination and paid the requisite fees. Ever since confederation in 1867 attempts have been made to bring about a system of reciprocity between the provinces, but they have signally failed, owing to the fact that the provinces of Quebec and Ontario have been unable to agree. Recently Dr. Roddick drafted a Bill for presentation to the Federal Parliament at Ottawa, whereby he sought to bring about the creation of a General Medical Council for Canada, and under it to set up a standard for practice by a Central Examining Board, the holder of such a licence to be qualified to practise in any part of the Dominion. The fate of the Bill is well known, and, although at least five provinces have so arranged their Medical Act that when the Bill is passed it will at once come into effect, yet thus far it has remained a dead letter.

As matters now stand it is necessary to take up each province in detail in order that the main differences in the qualifications required may be appreciated. The differences are not great either in the preliminary or professional examinations, but the qualifications which are considered sufficient to render an examination unnecessary vary considerably according to the province or territory concerned.

ONTARIO.

By an Act of the Legislature the medical profession of the province of Ontario was incorporated under the name of the College of Physicians and Surgeons of Ontario. The Council of the College is composed of thirty persons, and has the power to regulate the medical education of the Province, to admit and enrol medical students, to determine the curriculum of studies, to appoint examiners, and to define the manner of admission of those holding degrees from other provinces or countries.

In order to register as a matriculated student, the applicant must hold one of the following qualifications: A certificate that he has passed the examination conducted by the Educa-

tion Department for honour matriculation in Arts, with Physics and Chemistry; a certificate from any university in Canada, conducting a full Arts course, that he has passed the senior matriculation, or the examination at the end of the first year; and graduates in Arts in any university in His Majesty's dominions. The fee for registration is 20 dollars, and the course of medical studies dates from the time of registration.

Every student must spend five years in the actual study of his profession, excepting graduates in Arts and Sciences, who have spent two years in the study of Physics, Chemistry, Biology, and Physiology.

The fifth year must be devoted to clinical work in a hospital, or six months with a physician and six months in a hospital or dispensary. During this final year the student is required to take twenty-five lectures on each of the following subjects: medical cases, surgical cases, obstetrical and gynaecological cases, and pathological work. The four winter sessions must be eight months each.

Homoeopathic students are required to spend four sessions, of not less than six months each, in a college, approved of by the homoeopathic representatives on the Council.

The following persons are entitled to register:

1. Those who have complied with the course of study described at length in the rules and regulations of the college.

2. Graduates of medicine from recognized medical colleges outside the Dominion of Canada must pass the matriculation required by the Council, must attend one or more full winter courses of lectures in some Ontario Medical College, must complete the practical and clinical curriculum after the fourth year, and pass all the examinations.

3. British-registered practitioners of five years' standing from date of registration may register on payment of all fees and passing the intermediate and final examinations. Those who have not been five years in practice must pass all the professional examinations.

4. Homoeopaths who have spent four sessions of six months each in some college approved of by the homoeopathic members of the Council, and have passed the matriculation and professional examinations laid down for homoeopaths.

5. Licentiates under the Acts of Upper Canada, 8 George IV; or under the consolidated statutes of Upper Canada 2 Vict.; or under the consolidated statutes of Lower Canada 10 and 11 Vict.

Quebec.

The College of Physicians and Surgeons of Quebec is the qualifying body for the Province of Quebec, and all registered practitioners resident in Quebec are incorporated under this name.

The Board of Governors, consisting of forty persons representing the profession and medical colleges, regulates the study of medicine, surgery, and midwifery by determining the nature and extent of preliminary qualification, the duration of study, and the curriculum of professional studies. It examines all credentials, certificates of study, all documents and diplomas submitted for registration or purporting to entitle the person to a licence to practise. It keeps a proper register of all duly qualified practitioners, and appoints examiners and assessors to attend the examinations in universities and colleges and report upon the same.

The following are the regulations for admission to practice:

"Every member of the medical profession possessing at the time of the passing of the law 40 Vict., cap. 26, a licence of the College of Physicians and Surgeons of Lower Canada, and who did not consequently register, shall be entitled to be registered upon payment of 1 dol. for registration fee, and of all indebtedness to the College, upon producing his qualifications to the registrar. Every person who shall neglect or omit to thus register shall be liable to a fine of 5 dols. per annum; shall be debarred from practising medicine, surgery, or obstetrics; shall not be entitled to claim any right or privilege granted to the medical profession, and shall be liable to all penalties imposed by law upon any person practising medicine without being legally registered.

"Every person possessing or who shall obtain a medical degree or diploma from any university, college, or medical school mentioned in Art 3973, Revised Statutes, P.Q., shall be entitled to such a licence without examination, provided such diploma be obtained, only after at least four years of medical studies from the date of admission to study, and provided his examinations have been passed in presence of the assessors, according to the requirements of the law. The Provincial Medical Board shall have the power of extending the same privilege to the holders of medical and surgical degrees and diplomas from other British and Colonial universities and colleges, or from those of France, provided they evidence that such medical and surgical degrees or diplomas have been obtained after fulfilling, as regards the preliminary examination, formalities at least equivalent to those required by the present section. Nevertheless, the Medical Board shall always oblige foreign candidates to undergo the professional examination.

"No one shall be entitled to the licence of the College on the mere presentation of a diploma, unless he has been previously admitted to the study of medicine in accordance with the provisions of the law, or unless he has passed, at least four years previously, an equivalent preliminary examination before a College, a school or Board authorized by law in His Majesty's possessions outside the Province of Quebec.

"The duration of the medical studies, fixed at four years by this and the preceding article, shall be of five years as soon as the law governing the College of Physicians and Surgeons shall be modified so as to allow such extension, and such modification in the length of the curriculum shall then apply to any person admitted to the study of medicine after the sanction of such law.

"Those whose names are inscribed in the *Medical Register* of England, pursuant to the Imperial Act of 1886 (49 to 50 Vict., cap. 48), or to any amendment thereof, upon producing proof of their inscriptions and paying the required fees, will be entitled to a licence of the College without undergoing an examination before the Board, provided the same privilege be granted in England to holders of a diploma or licence from this province.

"Candidates who do not hold medical degrees or diplomas as aforesaid, and who wish to obtain the licence to practise medicine in the province, shall be required to pass the professional examination before the Board, and evidence that they have complied with the rules and regulations of the Provincial Medical Board in an institution authorized to teach medicine in His Majesty's possessions.

"Any person coming from a college or university recognized by the Board in the British colonies or in a foreign country who desires to obtain the licence of the College must first pass the preliminary examination before the examiners appointed by the Provincial Medical Board, or evidence to the Board that an equivalent examination has already been passed. He shall moreover attend in an institution of this province such courses as may be necessary to complete the curriculum required by the Board, and then undergo the professional examination before the Provincial Medical Board. Such examination, however, may be passed immediately after the preliminary examination."

Before being entitled to study medicine in the Province of Quebec, a candidate is obliged to prove that he is a holder of a diploma of bachelor of arts, of sciences, or of letters from a Canadian or British University, or that he has received a liberal classical education, and to pass with success an examination on the following subjects:—French and English, Latin, geography, history, arithmetic, algebra, geometry, *belles-lettres*, botany, chemistry, natural philosophy, moral philosophy, elements of zoology and mineralogy.

New Brunswick.

The Council of Physicians and Surgeons of New Brunswick is the name given to the body established by the New Brunswick Medical Act of 1881, and the affairs of the profession are managed by this Council, which consists of nine persons.

The following are entitled to register:

1. All persons who have practised for 20 years prior to the passing of the Act.

2. All persons who were practising at the time the Act was passed, and who held a degree or diploma from a chartered college or university in any country where such was recognized.

3. Non-resident regular practitioners residing in the State of Maine, or in the Provinces of Quebec or Nova Scotia, near the boundary line of New Brunswick, whose practices extend into the province.

4. Those who comply with the preliminary and professional curriculum of the Council as laid down in full in the book of regulations.

5. Those who have passed the examinations required by the sole examining body of another province, wherein the curriculum is equal to that of New Brunswick, provided the same

privilege is extended to those holding the licence from the Council of New Brunswick.

NOVA SCOTIA.

The Medical Board of Nova Scotia consists of 13 persons, and regulates the practice of medicine and surgery in this province.

The following may register:

1. Those who are duly registered by the General Medical Council of Great Britain.

2. Those who hold the licence of any Council or Board recognized by the sole examining body for any province in Canada, if the curriculum for such be equivalent to that for Nova Scotia, may register, provided the same privilege is extended to the registered practitioners of Nova Scotia.

3. Persons who have passed the preliminary examination of the Board, and after four years' course of eight months each have passed the examination required. The Board accepts in part the professional examinations of a recognized university.

PRINCE EDWARD ISLAND.

The Medical Council of Prince Edward Island regulates the practice of medicine on the island, and it consists of seven members.

The following may register:

1. All persons duly registered by the General Medical Council of Great Britain.

2. Those who pass the matriculation examinations, attend a recognized medical college for at least four years, and pass the professional examination.

3. Persons holding the qualification of the sole examining body of another province, wherein the curriculum is equal to that approved of by this Council, provided the same privilege is accorded by such province to those registered in Prince Edward Island.

MANITOBA.

The College of Physicians and Surgeons of Manitoba is the sole licensing body of this province, and its licence to practise is granted upon the certificate of Manitoba University that the holder is a graduate of the said university by examination, or that the person is a licentiate of a College of Physicians and Surgeons in a province of the Dominion where reciprocal rights are granted to graduates of Manitoba University by examination, and licentiates of the College of Physicians and Surgeons of Manitoba.

BRITISH COLUMBIA.

The College of Physicians and Surgeons of British Columbia was the name given in 1898 to the licensing body of this province.

The following are entitled to register:

1. All persons who are registered to practise in Great Britain under the Imperial Medical Act (Vict., XLIX and L), and who have not lost the benefit of such registration by any misconduct or otherwise.

2. Any person who has a diploma or qualification from a college or school requiring a four years' course of study or its equivalent shall be entitled to register on passing an examination as laid down fully in the regulations.

Homoeopathic students must hold a diploma from a college or school requiring four years' study, and pass an examination laid down in the regulations of the college.

The newly-formed provinces of Alberta and Saskatchewan have as yet no Medical Act, but in all probability they will legislate along similar lines very shortly.

In the above list of qualifications the full college course required and subjects of examination have not been stated at length in order to avoid repetition; but the requirements of the Quebec College, which follow, embrace practically the whole subject matter which has been omitted:

The primary course shall comprise: Chemistry, descriptive anatomy, practical anatomy, normal histology, and philosophy; it will also be optional for the universities to add bacteriology, histology, morbid anatomy, general pathology, hygiene, and materia medica.

These courses shall be distributed as follows:

1. One hundred and sixty lectures in chemistry, of which forty at least must be practical.
2. Two six months' courses in descriptive anatomy.
3. Two six months' courses in practical anatomy or dissection.
4. Two three months' courses in general and special physiology, comprising ten practical lessons at least.
5. A course in normal histology of sixty lessons.

The final courses shall comprise:

1. Two courses in general pathology of sixty lessons each.
2. A course in hygiene of ninety lectures, including at least ten practical lessons.
3. Two courses in materia medica, comprising twenty lectures in pharmacology, one hundred in general therapeutics, and one hundred and twenty in materia medica itself.
4. Two courses of ninety lectures in obstetrics and in diseases of infancy.
5. Two six months' courses in medicine and clinical medicine.
6. Two six months' courses in surgery and clinical surgery.
7. A course of six months in medical jurisprudence and toxicology.
8. At least two courses of nine months in clinical surgery in a hospital having not less than fifty beds.
9. At least two courses of nine months in medical clinics in a hospital with not less than fifty beds.
10. A course of forty-eight lectures in clinical obstetrics in a lying-in hospital. Moreover, the student shall be held to attend at least twenty confinements.
11. A course in operative and minor surgery of sixty lectures.
12. A course in ophthalmology, otology, and rhino-laryngology of eighty lectures, including forty clinical lectures.
13. A course in mental and nervous diseases of forty lectures, including twenty clinical lectures.
14. A course in pediatrics of forty lectures, including twenty clinical lectures.
15. A course of sixty lectures in gynaecology, including forty clinical lessons.
16. A course of at least ten lectures in the history of medicine and medical ethics.
17. A course of thirty lectures in dermatology and syphilitic diseases. This course will form part of that in surgery.
18. At least ten attendances at the morgue.
19. A course of fifty lectures in bacteriology, comprising twenty practical lessons.
20. A course of fifty lectures in histology and morbid anatomy, including twenty practical lessons.
21. A course of at least ten lectures in theoretical and practical medical electricity.

The theoretical part of the teaching of materia medica, medicine, surgery, and toxicology must be finished by the end of the fourth year so as to allow the students to pass their final examination on these subjects.

The student taking a five-year course shall specially devote his fifth year of studies to clinical work, to laboratory work applied to clinics, and to complete the study of the special courses.

No course or hospital card will be recognized by the Board unless accompanied by a certificate of constant and regular attendance.

Each six months' course comprises one hundred and twenty lectures of one hour duration, except in the case of medical and surgical clinics, the length of which is not determined. Each three months' course comprises sixty lectures.

PUBLIC MEDICAL SERVICE.

Apart from the army or militia force, there are several public medical appointments. One series is in connexion with the Federal Government at Ottawa, and the other with each provincial government.

The Ottawa appointments are regulated by the departments of Agriculture, Interior, and Justice, and to some extent by the Inland Revenue Department.

The provincial service is that of the Local Department of Public Health in each province.

Among the more important Federal Government positions are the following:

- General Director of Public Health, Ottawa, with a salary of 4,000 dols.
- Chief Medical Inspector, salary, 2,200 dols.
- Surgeons of North-West Mounted Police (at present five appointments), salaries ranging from 1,000 dols. to 1,400 dols.
- Quarantine officers:
  - Superintendent B.C., salary 2,500 dols; Assistant Medical Officer, 1,500 dols.
  - Medical Superintendent Grosse Isle, 2,400 dols.; Assistant, 1,700 dols.
  - Charlotte-town, 400 dols.
  - Rimouski, 15 dols. per inspection.
  - St. John, N.B., 1,800 dols.
  - Chatham, 400 dols.
  - Halifax, Chief Inspector, 1,000 dols.; Assistant, 800 dols.
  - Vancouver, 400 dols.
  - Louisburg, N.S., 900 dols.
  - Sydney, C.B., 1,200 dols
  - Physician Tracadie Lazaretto, 1,600 dols.
- Indian Affairs:
  - Medical Inspector, 1,000 dols.
  - Medical Officers (at present eight appointments), from 200 dols. to 1,800 dols.

In addition, there are positions in connexion with the penitentiaries.

In the provinces, the Board of Health has salaried officers whose income varies with the work entailed, as, for example,

in the Province of Quebec: President, 400 dols.; Secretary, 2,400 dols.; Inspector, 1,500 dols.; Assistant Inspector, 1,000 dols.; Statistician, 1,000 dols.; Analysts, 500 dols.

There are in addition the municipal health officers appointed and paid by the municipalities according to the importance of their services and the size of the place, for example, in Montreal, Health Officer, 3,000 dols.; in Quebec, Health Officer, 1,400 dols. per annum.

Tariff of Fees.

At one time or another during the development of the country tariffs of fees have been set up in the different provinces and districts, and at the present time several medical societies have adopted a schedule of more or less fixed rates which is supposed to be followed by the members of the Association. To exemplify legislation on this matter we find the following in the regulations of the Province of Quebec College:

"Respecting the tariffs of rates to be charged in towns and country for medical, obstetrical, or surgical advice, or for attendance, or for the performance of any operation, or for any medicines prescribed or supplied.

"To be valid such tariff must be approved by the Lieutenant-Governor in Council, and can only come into force six months after its publication once in the *Quebec Official Gazette*, and that of the Order in Council approving the same."

A few items taken from a tariff approved as above, and in force for some fourteen years, will perhaps give a better idea of the earning power of a physician in this district than the bare statement of an average yearly income. The district is that of country practitioners and practitioners in small towns, and does not refer to any large city practice.

For one visit, 8 a.m. to 8 p.m., distance not exceeding half a mile, 1 dol.

For one visit, 8 p.m. to 8 a.m., distance not exceeding half a mile, 2 dols.

For every additional mile, 0 50 dol. to 100 dols.

Consultation with another physician, 5 dols. to 10 dols.

For all major operations, 50 dols. to 100 dols.

For all minor operations, 10 dols. to 25 dols.

Introduction of catheter, 2 dols.

Administration of anaesthetic, 2 dols.

Accouchement (detention under four hours), 5 dols. to 10 dols.

Instrumental labour or turning, 10 dols. to 20 dols.

Average Earnings of General Practitioners.

Figures are notoriously misleading when an attempt is made to strike an average from sums which from their very nature cannot be definitely ascertained, and the following figures, compiled from the opinions of several practitioners, are put forward with extreme diffidence:

A good income for a country practitioner, 2,000 dols.

A first-class country practice might bring from 3,000 dols. to 4,000 dols.

Average throughout the country about 1,500 dols., or perhaps 100 dols. per month would be more accurate.

In a town of 3 000 to 4 000 inhabitants, a first-class practice 2,500 dols. to 3 500 dols.; average practice, 1,500 dols. to 2,000 dols.

In a small city of 12 000 to 14,000 inhabitants a successful practitioner might gain 3 500 to 5,000 dols.; average practitioner, 1,500 dols. to 2,500 dols.

When one comes to a city practice the limits are very much wider apart, and the average income is apt to be greatly overestimated. There are a few general practitioners who make 10,000 dols. per annum, and quite a number who are considered to be very successful who make 5,000 dols. a year.

From this class there is a quick drop to those whose income is about 2,000 dols., and then to the large majority who make about 100 dols. a month. It has been estimated and placed in print, and, so far as can be ascertained, never denied, that the average income of a Montreal practitioner is 700 dols. a year.

Generally speaking, it may be said that a very good professional income in Canada is 4,000 dols., and that any one making 2,000 dols. a year may consider himself financially successful.

The incomes of public officers have been mentioned in dealing with the positions in a former section of the article, and they give a very good idea of the income of the general practitioner in similar surroundings.

Consulting physicians, surgeons, and specialists, when successful and popular among the profession, certainly command larger incomes than the successful general practitioner, but there are a great many specialists and surgeons whose incomes must be placed alongside those of the average practitioner. It has been more difficult to obtain accurate figures for this branch of the profession than any other, and greatly-exaggerated ideas of the earning powers of specialists and surgeons are held. A few make 15 000 dols. a year, others 10,000 dols.; then there is a rapid drop to those who make 3,000 dols. to 5,000 dols., and the remainder must be classed with the average practitioner.

Among first-class surgeons and specialists the following fees are usually charged:

Office consultation, 5 dols. to 10 dols.

Consultations with other physicians, 10 dols. to 50 dols.

Minor operations, 25 dols. to 100 dols.

Major operations, 100 dols. to 500 dols., or even to 1,000 dols.

A quotation from a paper by Dr. Frank Buller, read before the Undergraduates' Society of McGill University, will give an idea of a country doctor's practice, as seen by a man who has studied very carefully the question of the earning capacity of physicians both in the city and in the country.

Concerning a graduate of some thirty years' standing he says:

> I knew him well; he was of the sort the people out West would call a hustler. He would work more cheaply, and do more work than any one in his neighbourhood, driving on an average not less than fifty miles a day, Sundays included. He never was a good collector, and although nominally making 8,000 or 10,000 dols. per annum, this is how the relentless logic of figures sums up the result. After thirty years' practice he died, leaving an estate valued at 25,000 dols., to obtain which he drove in the thirty years 525,000 miles, his net reward being, therefore, rather less than 5 cents per mile, or if we allow for his cost of living, certainly not more than 3,000 dols. per annum, his total earnings were 115,000 dols.; which, again translated into mileage, gave him just 22 cents per mile, or 3 cents less than ordinary cabman's fare, leaving office work and all fees as a professional man out of the reckoning. His only advantage over the cabmen was his more constant employment and corresponding hardship in the way of exposure and loss of rest.

Privileges Conferred by the Legal Qualification.

All persons obtaining licence to practise in any of the provinces become members of the Provincial College of Physicians and Surgeons, and are entitled to vote for the election of the members of the Board of Governors. The latter must have been at least four years in practice in the Province of Quebec, but this term varies in other provinces, and in some seven years is the limit required by law. The governors are elected as a rule for a period of three or four years, according to the regulations in force.

Under the direction of this Board of Governors the Registrar of the College causes to be printed, published, and distributed to the members, from time to time, a copy of the register of the names of the registered physicians and surgeons, which he places in alphabetical order, inserting their names and surnames, residences, and qualifications with dates. A printed copy of this register, certified under the hand of the Registrar as such, is prima facie evidence before all courts that the persons therein named have been registered according to the law of the province concerned. Every person thus registered is entitled to practise medicine, surgery, and midwifery, or any of them as the case may be, and to demand and recover in any court, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicine or other medical or surgical appliances rendered or supplied by him to his patients.

No duly registered member of the College of Physicians and Surgeons is liable to any action for negligence or malpractice by reason of professional services requested or rendered, unless such action be commenced within one year from the date when in the matter complained of such professional services terminated.

Obligations of Medical Practitioners.

The obligations of the medical practitioner vary considerably with the number and nature of the by-laws passed in the municipality to which he may belong. In every case, however, he is required to furnish death certificates for cases in which he gave professional services during their last sickness, unless a coroner's inquest is deemed necessary. Further, he must notify the health authorities when he ascertains that a person whom he is called upon to visit professionally has an infectious disease. In some districts he is also compelled to notify the authorities of every birth occurring in his practice.

UNQUALIFIED PRACTICE.

The Medical Act of each province has a punitive clause in regard to persons practising without a licence, and this provides against all quacks. Any person has a right to lay information against such practitioners before a magistrate, and the penalties for so practising are set forth in the various Acts. The following, which refer to the Province of Quebec, are practically identical with those of other provinces:

"Any person not entitled to be registered in this province, who is convicted, upon the oath of one or more witnesses, of having therein practised medicine, surgery, or midwifery in contravention of the provisions of this section, for hire, money, goods, or effects generally whatever, or in the hope of receiving money, goods, or effects, or in the hope of reward, or who receives any reward whatever for practising medicine, surgery, or midwifery, shall incur a penalty of fifty dollars.

"A like penalty of fifty dollars is incurred by every person who assumes the title of doctor, physician, or surgeon, or any other name implying that he is legally authorized to practise medicine, surgery, or midwifery, in this province, if unable to establish the fact by legal proof, as required by the present section, and the other laws of the country.

"Any person who, in advertisement published in a newspaper or in written or printed circulars, or on business cards, or on signs, assumes a title, name, or designation of such a nature as to lead the public to believe that he is duly registered or qualified as a practitioner of medicine, surgery, or midwifery, or any one of these branches of the medical profession, or any person who offers or gives his services as physician, surgeon, or accoucheur, for hire, gain, or hope of reward, if he be not duly authorized and registered in the province, shall, in each case, incur a like penalty of fifty dollars.

"In every prosecution under this section the proof of registration is incumbent upon the party prosecuted.

"The warrant of imprisonment in such cases shall issue under the hand of the clerk of the said event, on a written application of the advocate of the prosecutor, and may, *mutatis mutandis*, be according to Form (O 1) in the Schedule to cap. 178 of the Revised Statutes of Canada, and shall be executed in the usual way."

The question of the effectiveness of the administration of these laws depends a great deal upon the energy of the practitioners most concerned in the infringement of the law. In districts influenced by a vigorous medical society the quacks are conspicuous by their absence, but where no such influence is felt there is but little attention paid to them, unless they become very obnoxious. Fortunately, the chief field for irregular practitioners is to be found in centres guarded by a well-organized medical society.

The chief difficulty in dealing with such cases is found in the definition of the term "practising medicine," for "osteopaths" and "paths" of that ilk deny that they are medical practitioners, surgeons, or midwives; and, in consequence, they are practically immune so long as they do not prescribe drugs. Hence, in the larger cities, such people reap great profits by what is really unqualified practice.

In regard to quack medicines, nothing that the medical profession has done can prevent the country from being flooded with "cures" of diseases of every description—from piles to consumption.

Contract practice for fraternal societies, workmen's clubs, etc., flourishes in many parts, although many voices have been raised with no uncertain sound in condemnation of this class of medical work. At least one society has protested against the custom, and no member of the District of St. Francis Medical Society P.Q. will conduct a general practice for a salary paid by any society or club, although there is no legislation against this wholesale method of treating patients.

PROTECTION OF PROFESSIONAL INTERESTS.

In 1901 the Canadian Medical Protective Association was organized, and at that time all local protective associations were merged into one. The object of the association is to protect its members from prosecution where such action appears to the counsel and solicitor as well as the committee in charge to be unjust, harassing, or frivolous.

The following are the regulations governing the association:

"All expenses arising out of the defence shall be paid out of the funds of the association, and the treasurer shall be empowered to pay out of the treasury of the body such sums as may be required to carry on the defence to a final or proper termination, upon receipt of an order signed by the president and secretary.

"A sum of 2.50 dols. shall be levied annually on each member of this protective association.

"Every member of the profession in good standing in Canada, excepting as hereinafter provided, shall be eligible for membership in this association. Anyone desiring to become a member can do so by sending the treasurer the amount of the annual fee, when he shall be enrolled as a member and be entitled to all the protection that this association affords.

"No physician can become a member of this association after having a charge made against him for any offence that may be covered by the rules of this body until after his case has been disposed of. If he still remains a registered medical practitioner, he may become a member of this association, but not when action is or may be pending against him.

"It shall be the duty of any member of this association pending the defence of any action by this body to aid the defence in every legitimate manner.

"Upon an action being brought for malpractice against any member of this Protective Association, it shall be competent for the defendant to communicate the facts to the secretary, who shall thereupon convey the same to the Committee, whereupon such Committee shall submit the case to the solicitor, who shall decide upon the nature of the defence if any defence is to be made.

"It shall be the duty of the Committee to follow the case through any and all courts until a correct judgement shall be obtained if, in the opinion of counsel, such a course would be judicious. In no case will the association compromise.

"When a member neglects or refuses to pay his annual dues at a proper time, he shall cease to be a member of this body and forfeit such protection as this association may afford. As soon as he has paid all arrears he shall be reinstated if still eligible."

The association does not receive as much support as it should from the Canadian medical profession, but the membership is increasing year by year, and the excellent record of its work which is found in the present annual report will certainly strengthen the association both numerically and financially.

In obtaining the material for this article my sincere thanks are due to the following gentlemen, without whose aid I should have been unable to collect the information necessary:

Dr. T. G. Roddick, Dean of the Faculty of Medicine, McGill University.

Dr. R. W. Powell, President, Canadian Medical Protective Association.

Dr. E. P. Lachapelle, President, College of Physicians and Surgeons, P.Q.

Dr. F. Montizambert, Director-General of Public Health, Ottawa.

Dr. Ed. Archibald, Surgeon, Royal Victoria Hospital, Montreal.

Dr. E. J. Williams, Surgeon, Protestant Hospital, Sherbrooke.

H. B. Ames, Esq., M.B.

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SOUTH AFRICA.

By W. DARLEY HARTLEY, M.D.

CAPE COLONY.

MEDICAL practice in the Cape Colony is mainly regulated by the Medical and Pharmacy Act of 1891, which was supplemented by an amending Act passed in 1899. Previously to the former Act the only medical statute was an extremely loose ordinance passed in 1830.

Colonial Medical Council.

Under the existing Act the control of the medical and dental professions is in the hands of the Colonial Medical Council, which consists of three members nominated by the Governor in Council, one *ex-officio* member, the Colonial Medical Officer of Health, four members elected by the medical practitioners of the Colony voting as one constituency, and one dental member nominated by the Governor in Council. All hold office for a period of three years, the President being elected by the Council. The

President receives a yearly allowance of £150, each member one of £75. This is paid by the Government itself. Theoretically, the Council is supposed to be an Advisory Health Board, but in practice this function has dropped into abeyance since the establishment of a Health Department. The Council is, however, still consulted on new regulations under the Public Health Act, such as an addition to the list of notifiable diseases. As regards the control of the profession, the powers of the Council are extensive, and in practice very much less limited by Government control than is the case in the United Kingdom. All the Government can do is to veto regulations, but it would be quite impossible for it to act as the Privy Council did in the case of Italian diplomas, and force the Council to accept a measure. At present admission to the *Register* is given on any diploma covering five years' study, providing that this diploma entitles the holder to practise in the country where it was granted. This was limited in February, 1902, by what is known as the Reciprocity Regulation, under which no diploma is registrable unless "equal rights and advantages are given in such country to the holder of any British registrable degree." Persons born in the Colony or being children of parents domiciled in the Colony, who commenced or completed their studies before the adoption of this regulation, are, however, exempted from its operations. In practical working, therefore, this regulation excludes all but British diplomas. An Italian diploma was refused some time ago on the ground that Italy did not offer "equal rights and advantages." Diplomas, or in lieu thereof the British registration certificate, have to be lodged with the Council, together with a sworn declaration of identity, which also has to contain an affirmation that the applicant has not been debarred from practice in any country by reason of misdemeanour or professional misconduct. This latter affirmation was added on account of the discovery that, in at least one case, a practitioner who had been removed from the British *Register* on account of a very disgraceful crime, had obtained registration. The Council has no power to issue a licence under the hands of its own officials. It recommends to the Colonial Secretary, who in due course gazettes the applicant, and forwards him his licence signed by the Minister. Although that is a mere formality, it leads to very inconvenient delay, and it is probable that, in contemplated fresh legislation upon medical matters, this will be one of the points brought up. A fee of £5 is paid for registration. There is no further impost upon medical practitioners, saving an annual licence of £2 10s., if they dispense. This is a distinct thing from that issued to chemists and druggists, and only entitles the holder to dispense medicines prescribed by himself or by his partner in practice. Consequently the keeping of open surgeries by medical men is illegal, unless with the aid of a registered chemist and druggist. A similar rule to the British one is in force with reference to removal from the *Register* in default of a reply within six months to a periodical inquiry as to address, but, as the Act distinctly specifies that such removal shall not disqualify any person from practising, this makes the regulation very much a dead letter, especially as the *Register* is unfortunately not taken as prima facie proof of a man being a registered practitioner, or the reverse. The Courts have recently ruled that a medical man must actually produce his registration certificate to establish his standing in a court of law, and in order to establish the fact that a person charged with illegal practice is not licensed, a special certificate, *ad hoc*, is required in each case, under the hand of the Under Colonial Secretary. Some magistrates have, indeed, gone so far as to exact the personal testimony of an official from the Colonial Office to the fact.

Unqualified Practice.

The law as regards illegal practice is not only much more effective than that of the United Kingdom, but well carried out. Not only the pretending to be registered but the mere act of practice is illegal, and the use of any title "implying" that a man is registered or qualified to practice brings him under the provisions of the Act. Either the Council or any of the ordinary officials of the law can initiate a prosecution, and, as a matter of fact, the police are generally laudably active in this direction, the major portion of the prosecutions being taken up by them on their own motion. The consequence is that open quackery can hardly be said to exist, although a certain amount is carried on under various quibbles. But counter prescribing by chemists is very largely carried on. When the last Act was drafted it contained a provision directed against this practice to the effect that it should be no defence for a person charged with unlicensed medical practice to plead that he was a registered chemist and druggist, but this was violently opposed by the chemists, and thrown out in the House of Assembly under circumstances which made it fairly clear that it was the intention of the majority of the legislators to legalize counter practice. The penalty for unlicensed practice is a fine not exceeding £100, with imprisonment in default up to six months, with or without hard labour. There are no provisions protecting native herbalists, and, as a matter of fact, they are frequently prosecuted, although within the last few weeks the Native Affairs Department has issued a circular deprecating such prosecutions. The legality of this circular, however, is very doubtful, and in any case it can only apply to the Native Territories and not to the Colony proper.

The Council has fairly elastic disciplinary powers. For "improper or unprofessional conduct" it can reprimand or caution. For "infamous or disgraceful conduct in any professional or other respect" it can remove from the *Register*. But if the conduct under the minor charge is persisted in after reprimand, it can inflict the major penalty, and it can convert the minor into the major charge in the course of the inquiry should it see fit.

Dentists come under exactly the same regulations as medical practitioners.

State Registration of Midwives and Nurses.

There is a State registration of midwives, trained nurses, and mental attendants, administered by the Council under regulations framed by it, subject to approval by the Governor in Council. The Council conducts fairly stringent half-yearly examinations for midwives and nurses, and likewise accepts certain recognized certificates from well-known European bodies, such as the London Obstetrical Society and the British Nurses' Association. Thus far it has not held any examinations for mental attendants, but has registered several on the certificate of the Medico-Psychological Society. Midwifery candidates for examination must have attended twelve labours. Trained nurses must have three years' training at a medical or surgical hospital with not fewer than twelve beds, or two years at such hospital and one year under a registered practitioner. This latter alternative has, however, just been cancelled by the Medical Council, although it has not yet gone through the formality of confirmation by the Government. As there is no law against unlicensed practice in midwifery, nursing, or mental nursing, registration confers no legal privileges, but in practice it operates considerably to the advantage of the holder, at least in the larger towns.

Public Health Act.

The other important enactment affecting medical men is the Public Health Act. This is mainly on the lines of British legislation, and is administered, very badly, by local bodies under the supervision of the Public Health Department. Unfortunately the powers of this Department to bring into line careless or recalcitrant local authorities are very limited. The Department itself is commendably efficient. It is under the ministerial control of the Colonial Secretary, a minister roughly corresponding to the Home Secretary in the United Kingdom. It is under the direct administration of the Assistant Under-Colonial Secretary for the Local Government and Health Branch of the Colonial Office, and the executive head is the Colonial Medical Officer of Health. He has under him an assistant, who is also inspector of hospitals, and some other subordinates for special duties. The department has two vaccine establishments, and supplies lymph free of charge. Moreover, the bacteriologist and pathologist will examine specimens for private practitioners, so far as his time allows. Plague administration is under this Government Department, part of the cost being recovered from local bodies. But the powers of the Department only extend to the disease itself, and it can do nothing in the way of collateral sanitary reform without the co-operation of the authorities. For plague purposes it employs a certain number of temporarily-engaged medical officers. There is compulsory notification of various scheduled diseases, the schedule now including tuberculosis. A fee of 2s. 6d. is paid for notification, and there is a penalty of £10 for neglect. But the enforcement of notification depends entirely on the municipal bodies, and many of them are very remiss in this respect.

There is a compulsory vaccination law, but it is very badly carried out, except in the panics which accompany an epidemic. Vaccination is performed gratuitously by the district

surgeons, and, in Capetown, by a special officer. All persons, however well-to-do, can avail themselves of the services of the district surgeon in this connexion, and that official receives no special fee for the work. Moreover, there is the extraordinary anomaly that, although he is required to certify to successful vaccination, he is only paid travelling allowance for the journey round his district that he takes for the actual purpose of vaccinating, and for a second journey for inspection. Consequently, if he desires to give an honest certificate, he must make a second journey at his own expense—a matter almost of impossibility when we remember that in many districts a week's continuous travelling would be involved in a vaccination tour.

There is a fairly strong law for the registration of births and deaths, but it is somewhat feebly carried out, except in some of the large towns. It has also the very grave defect that it records causes of death in uncertified cases, which constitute a large proportion—in some districts the vast majority—of the whole. The registrar—a magistrate's clerk, or farmer—puts down just such cause as in his wisdom he thinks likely, after hearing what the relatives say. This renders the returns absolutely misleading. Inquests are only held when there is definite suspicion of foul play, or in cases of accident.

An increasing number of municipalities have their own medical officers of health, but only two—Capetown and Kimberley—employ "whole time" officials. They are appointed and dismissed by the town councils, and consequently are extremely hampered in their action. Kimberley is peculiar in being governed in the dealing with infectious diseases by a special Board of Health, but the town councils of it and its sister town Beaconsfield retain ordinary sanitary administration.

Lunacy Law.

The lunacy law is very much on all fours with that of England, but detention of mild cases in private control is permissible, although scarcely, if at all, made use of. No private asylum for actually certified insane exists. The Government asylums, of which there are six, are entirely under central Government control, and the head of the principal one—that at Valkenberg, near Capetown—acts as Inspector of Lunacy. There is no body corresponding to the British Commissioners.

Leper Asylums.

There are two asylums for lepers—one on Robben Island, the other in the Transkeian Territories, both maintained and controlled by Government. The segregation of lepers in these is compulsory, and strictly carried out.

Convict Stations.

Besides the medical officers employed in the departments named, who are mostly on the permanent service of the Government, there are surgeons to convict stations and gaols, port medical officers, officers of the Cape Medical Corps, police surgeons, district surgeons, and others. Of these, by far the most important are the district surgeons. These are, with one or two exceptions, private practitioners, receiving in the majority of cases salaries of £75 per annum. In a few cases more is paid, usually in out-of-the-way districts where there is little private practice. They are a sort of mixture of police medical officer and health officer, performing all Government duties, including attendance on prisoners, medico-legal work, attendance on paupers, attendance on police and gaol officials, lunacy certification, vaccinations, health work outside municipalities, and the like. There is one in each "fiscal division," corresponding roughly to an English county, except that it is usually infinitely larger, and in some of the larger divisions what are known as additional district surgeons are appointed, at lower salaries corresponding to the amount of local work. These latter, however, are in no sense subordinates of the district surgeon. They perform exactly the same functions in one portion of the division. They receive extra allowances for certain duties, the principal being one of 7s. 6d. per hour for actual travelling beyond one hour from the seat of magistracy, an hour being considered to correspond to six miles; 1 guinea for *post-mortem* examination, 1 guinea for lunacy certificates, 7s. 6d. per hour for attendance in courts of law up to a maximum of 2 guineas per diem, and 7s. 6d. per month for attendance on venereal cases dealt with under the Contagious Diseases Act, if paupers. With two or three exceptions, they have to provide drugs at their own expense, and if on leave have likewise to provide a substitute.

One or two of the convict stations have special medical officers, in the rest the duties are discharged by the district surgeon. The port medical officerships are, except in the case of Capetown, attached to the district surgeoncies, a very small additional emolument being paid. The Cape Medical Corps is a small body of three medical officers, and its duties are, in peace, confined to the Cape Mounted Rifles. The officers of this corps are in the permanent service. In Capetown there is no district surgeon, but there are two police surgeons and an assistant police surgeon. One of the former attends to the gaol and the members of the police force, and the other does the medico-legal duties. The assistant is attached to the latter, and acts in addition as port medical officer. The medico-legal police surgeon is likewise medical officer to the Old Somerset Hospital, an institution for chronic sick. All these are "whole time" officials.

It must be noticed that in this Colony the Government does not recognize the private practitioner in medico-legal work or accidents. It pays for nothing done by any one except the district surgeon, except in very special cases at a distance from the magisterial town.

Of late there has been a great tendency for the Colonial Medical Officer of Health to assume, or have thrust upon him, the position of an official head over all the medical officials of the Government, and this is being vigorously protested against by other medical officers, especially by the district surgeons.

NATAL.

Medical Act.

Natal has a Medical Act much like that of the Cape. The Council is, however, somewhat differently constituted, the Colonial Medical Officer of Health not being a member, whilst the medical officer of the Royal Army Medical Corps in charge at Maritzburg is one *ex officio*. Moreover, its conditions for registration differ in that the Act provides for registering all diplomas registrable in the United Kingdom, and none others. In consequence an Italian diploma is registrable in that Colony. The disciplinary and penal clauses are much the same, but the latter not nearly so effectively administered.

Public Health Service.

Health matters, which in the Cape are entirely administered by the Medical Officer of Health, are in Natal under a mixed medical and lay Board of Health, the medical element being in the majority. The Medical Officer of Health is really a subordinate of that Board. The Health Department is fairly well administered, although, having only been recently constituted, it has not had the time to develop to the same point as that of the Cape. The public health laws are much the same.

Registration of births and deaths is in Natal a mere sham, perhaps owing to the huge preponderance and semi-independent condition of the native population.

The medical officials are much the same in Natal as in the Cape, with the exception that the larger hospitals in the former Colony are Government institutions employing a permanent staff, whereas in the Cape they are managed by local Boards, receiving a Government grant in aid. The district surgeons also, whilst still private practitioners, are in a somewhat more official position, being entitled to small pensions, and being often promoted from one district to another, whereas in the Cape a vacant district surgeoncy usually is transferred either to some other legal practitioner or to the incumbent's successor in practice.

ORANGE RIVER COLONY.

Medical Ordinance.

The Orange River Colony has recently passed a medical ordinance which is much stronger in its provisions against unlicensed practice than those of the Cape and Natal, but otherwise is much on the same lines. It has adopted the same reciprocity provisions, but has somewhat strengthened them by making it clear that reciprocity must operate as far as equal privileges throughout the country of origin of a diploma which is intended to meet the case of one individual State—say in America or the Canadian Dominion—granting the privilege when other States in the same federation do not. The Orange River Medical Council takes pharmacy under its wing, and has members from that calling, whereas in the Cape there is a separate Pharmacy Board. The medical officer of health is not an *ex-officio* member, although the present

incumbent of that office is one of the Government nominees. In addition to the registration fee an annual licence of £15 has to be paid, whether the practitioner dispenses or not.

Transvaal.

Medical matters in the Transvaal are at present in a very inchoate condition, and is administered by the Colonial Secretary under the advice of the Colonial Medical Officer of Health, but the reciprocity regulation of the Cape has been taken over bodily. Moreover, the health administration is more under the central Government, which has district medical officers of health in various parts, independently of the district surgeons. These latter officers are, moreover, both in the Transvaal and Orange River Colony, paid much more highly than in the two older Colonies.

Rhodesia.

Rhodesia has adopted the Cape Act and regulations generally, and in particular as regards registration. The administration of both health and general medical matters is entirely in the hands of the Medical Director, a permanent official who has no analogue in the other South African Colonies. Registration has only been tentatively introduced, and can but be worked very feebly, and health administration is in a very undeveloped condition.

MEDICAL PRACTICE IN SOUTH AFRICA.

[From a Correspondent.]

It appears to me that the devotion of one letter to a few notes upon the conditions and prospects of practice in this country would not be a waste of space, inasmuch as many readers of the Journal must, for various reasons, at times contemplate the possibility of seeking their fortune here. Judging, however, by the remarkable diminution during the last two or three months in the number of new arrivals, it seems certain that the unreasonable rush of last year must have had its natural effect in the filtering home of private information, and the consequent discouragement of would-be medical immigrants; and, as a matter of fact, I know of several men who, after a few months or a year's trial of South Africa, have returned to the Mother Land, avowing an intention, which they may or may not keep, of staying there. Their accounts will doubtless be pessimistic in the extreme, those of the permanent medical residents who are at this season of the year taking their European trip, probably equally optimistic, for if there is one thing which my countryman can at all times be trusted to do, it is to give all and sundry to understand that he is making money hand over fist. The habit of unreasonably boasting of wealth permeates most classes, and I think is the result of the example of your Johannesburger of the days "befo' de wah."

The truth probably lies between the two extremes. There is no doubt whatever that the country is, medically, terribly overstocked; indeed, a rough calculation I have made with regard to the Cape Colony—the only one about which even approximately accurate data are available—gives an average of one medical man to about every 650 white people, or about half the average English *clientèle*. The coloured and black races count, apart from official work, for very little in the way of medical incomes. But fees in the country districts, and especially the charges made for medicines, are still appreciably higher than in Great Britain, even when reckoned with regard to purchasing power, and it is easier to get some sort of a footing without the expenditure of much capital than at home.

My general conclusion would be that it is easier to get on the first rungs of the ladder here, but much more difficult to mount higher. By this I mean that the man without money, who in England would find it almost impossible to get a living at all, otherwise than as an assistant or *locum tenens*, can generally rely on dropping into bare bread and butter in South Africa—that is, bread and butter for a bachelor; but that, there being so little scope for advance, he will probably find himself, in two or three years, about as high as he is likely to get. Consequently, taking two men starting even in the two countries, the South African is the better off for the first five years or so, but after that his British *confrère* takes an increasing lead. The vast majority of South African practitioners are in tiny villages, the centres of scattered farming districts, wherein no possible increase can take place, so that they very soon reach a maximum. In such villages you find one, two, or three medical men more or less fixed, with a floating population of another or two juniors, who "squat" in opposition until they are fairly starved out, and then depart for pastures new; but, as they are always succeeded by new "squatters," the result is that the incomes of the permanent men are kept down. Further, of late years, a country practitioner is always exposed to having a slice of his district cut off by the settling of an opponent in an outlying part—a very serious thing to him, and not a very advantageous one for the newcomer. So far has this process gone that I know of several medical men who have commenced practice in places which are not even hamlets—just a farm or a roadside hotel. A man so situated does nothing whatever but visit the surrounding farms at variable distances. He has no contiguous patients, and very few coming to his consulting-room, whilst even the journeys come most erratically, the man being perhaps for days hardly off the "trek," and for weeks afterwards absolutely idle. Comfort is out of the question, and advancement equally so, such a man being lucky if he reaches £400 a year income. He soon tires of this sort of thing, and wanders off elsewhere, with not much better prospects, inasmuch as it is now becoming almost as much a matter of capital as in England to get into a decent practice.

Practices with a living income now command something like two-thirds purchase if in a country village, a full year's if in a town with any social advantages. This is widely different from what used to be the case half a dozen years ago, when, except in a large town, a man who sold his practice for half a year's purchase was very lucky, and would not do that unless he had appointments. Purely country practices were hardly saleable at all. Men are beginning to find out that it is in the end much cheaper to give £200 or £300 over getting something tangible at once than to spend that money over twelve months' attempt to make a practice, with nothing to show at the end. But as a rule practices are sold on easier terms here than at home, much more liberal credit being allowed. It is a mistake, however, to suppose that, except in the large towns, practices touch very high figures. I have before me figures, as given by the sellers, of ten practices all over the country, and of these only one exceeds £1,000, and that is a partnership practice of £1,750. The single-handed practices range from £400 to £1,000, the average being about £700; and, with the exception of the smallest, every one of these is in a village above the average size, established for years, and held by a practitioner of fifteen to twenty years' standing; and all these include appointments. Except the partnership, not one has the slightest potentiality of increase.

When one considers that money has not, all things considered, at least for a married man, more than half the purchasing power that it has in England, these are not glowing figures. Except in the large towns, where, of course, single-handed practices of a couple of thousand may be met with, and in the Transvaal, where the appointments are much more valuable than in the Cape, I believe that a practice exceeding £1,000 gross is the exception, and I am speaking of well-established connexions. But, curiously enough, one occasionally meets with larger practices in out-of-the-way corners where one does not expect to find them. I know of one man who came out some years ago with £300 or £400. He fixed on a promising place to commence practice, and, after working his hardest for nearly two years, found himself fairly stranded, and not making even bread and cheese. He heard of a little village which had no doctor and never had had one. He went there with a wife and family, £30 in cash, and a number of unpaid bills. His first year he made over £1,500 single-handed, and he is now doing well over £2,000 with an assistant. This was a sheer piece of luck. As there are now medical agencies in both Capetown and Johannesburg, it is not likely that such openings will for the future go overlooked.

As regards practices in the few large towns, some of them are very good indeed, but it is just as difficult to get into them as in England. To commence practice as a "squatter" in a large town is suicidal, unless a man just happens to hit a new suburb on the flowing tide, before any one else hears of it. It must be remembered that the old proverb about the growing grass and the starving horse holds very good in a country where living is so expensive.

Fees vary very much. In the towns they range from 2s. 6d. to 5s.; and in Capetown, Kimberley, and one or two other of the largest centres go higher. One or two practitioners in Capetown get 10s. a visit regularly. But one or two others visit for even 1s. 6d. In Johannesburg the minimum fee is supposed to be 10s., but I am informed that recently much

visiting is done for less. Midwifery fees are high, usually 5 guineas for the 5s. patient, therein contrasting remarkably with the ratio in England. But midwifery bulks very much less in a practice than at home. The writer did an almost purely private town practice of 1,500 with never more than 10 or 12 cases in a year. This is, of course, a great advantage. In the country there is very little midwifery indeed. Journeys are, in the western and midland districts of the Cape Colony, charged for at £1 an hour of 6 miles, counting one way. In the Eastern Province the same rate is counted both going and returning (or was a year or two ago), although I am told that there has been some undercutting of late. I believe that this latter rate is that usually obtaining in the Transvaal. Expenses differ a good deal. They are higher in the towns than in the country, owing mainly to the exorbitant rents. It would hardly be possible for the medical practitioner to get the humblest dwelling in Capetown under £12 per month, even if a bachelor. And they are higher in the western districts of the Cape than the eastern, owing to the less fertile nature of the country, and the more scattered population, both medical and lay, which entails more expenditure on horse keep. In the Transvaal they are highest of all, in Natal lower than anywhere else. Dispensing is the rule in all but the large towns, where it is practically tabooed by professional sentiment, and in the country districts, especially in the Dutch ones, an average-sized bottle of medicine is charged for at a higher rate than advice.

The appointments are fairly numerous, in the shape of district surgeoncies, appointments which are a combination of district health officer and police surgeon. But the usual salary is only £75 per annum, with extra fees which vary very much. There are a few permanent appointments in connexion with the health department, the prisons, the asylums, and the like, which are fairly well paid, and are much sought after, offering much better chances than private practice.

Locum tenens-ships are paid at a rate which compares very badly with that of England, usually a pound a day for a short term, £20 a month for a long one. This latter rate is sometimes exceeded, all depending on whether there is an influx of newcomers or not, or whether the principal is urgent about going away or not. If he is, he often has to give £30; if not, he waits till he can get a man at a lower figure. It must, of course, be borne in mind, that all being found, a *locum tenen's* salary has not much less spending power than at home. Of assistants there are not many. They get about £250 indoor.

It must be remembered that to one class of man South Africa offers a distinct advantage. I allude to the jolly good fellow of the hospitals, the man who is more distinguished in the football field and the smoking concert than in the lecture room. He takes very badly in British private practice. He often does much better here than his more studious *confrère*, owing to securing more personal popularity. A knowledge of Dutch is essential everywhere except in the large towns, in the Kaffrarian part of the Cape Colony, Natal and Rhodesia. But it is not the difficult Dutch of Holland, but a patois of the simplest character which is very easily acquired, especially by the Scotchman.

In conclusion, I would strongly warn all newcomers of two pitfalls. One is settling in the towns; the other, being led to set up in some up-country village in opposition to existing men, on the invitation of a layman. In the former case he will eat his heart out and spend all his capital in a very short time. In the latter he is apt to secure little else than bad debts, and the animosity of his local *confrères*. I should strongly advise every newcomer, even though he have a little capital, to go for a while as *locum tenens*, irrespective of the remuneration. He will be amply repaid by the opportunity of gaining a knowledge of Dutch, of the modifications which diseases undergo in this country, and of the peculiar way of dealing with the patients, which differs very much from European practice. And, most important of all, he will get a knowledge of the country and the possible openings, and when he does settle, either by purchase or otherwise, he will be much less likely to make a mistake. I would emphatically lay it down that no man not a born South African ought to start independent practice at once. A dozen pitfalls, any one of which may give him a set back for years, await him if he does. And this is doubly true if he starts in a Dutch district. The Dutch require a lot of understanding, and the newly-arrived Englishman may easily make a false step, however scientifically competent he may be, which will fatally impair their confidence in him.

AUSTRALIA.

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MEDICAL ACTS.

ALTHOUGH the federation of the Australian Colonies was accomplished in the year 1901, no legislation directly bearing upon medical practice has been considered by the Federal Parliament. The only legislation in existence at present is comprised in the various Medical Acts and Amending Acts passed at various times by the State Parliaments, and as these Acts vary somewhat in detail a brief outline of their main provisions will be of some interest.

In New South Wales, up to the year 1898, the Medical Act only gave power to a Board to register those who cared to apply for registration. The only privilege which registration conferred was the right to sue for fees, but this power was also in the hands of the unqualified practitioner, who could sue for work done, and, as a rule, recover. In 1898 an Act was passed which provided for the appointment of a Medical Board, and specified what qualifications should be registered. In 1900 an amending Act was passed, which imposed a penalty on any person who, not being a legally-qualified medical practitioner within the meaning of the Medical Practitioners Act of 1898, or entitled to be registered as a legally-qualified medical practitioner within the meaning of that Act, takes or uses any medical title or any addition or description implying that he is a legally-qualified medical practitioner. It also gives power to the Medical Board to remove from the *Register* the name of any person who has ceased to possess or does not possess the qualification in respect of which he was registered, or has been convicted of any felony or misdemeanour; the person whose name may have been so removed has, however, the right of appeal to the Supreme Court. The Victorian Medical Act gives power to a Medical Board to register persons possessed of certain medical qualifications, and imposes a penalty on any person, not being registered, who assumes any medical title which would imply that he is a legally-qualified medical practitioner. Power is also given to the Board to cancel or suspend the certificate of any registered person convicted of a felony or misdemeanour, or who has been deprived of his qualifications by the college or body which may have granted the same. In South Australia the Medical Act is practically on the same lines as the Victorian Act. The Queensland Act provides for the registration of any medical practitioner practising in Queensland who shall prove to the satisfaction of the Board that he has passed through a regular course of study and has received, after examination, a degree or qualification to practise; or who has been, or is, a medical officer duly appointed and confirmed, of His Majesty's sea or land service. Once a person is registered there is no power to remove his name from the *Register* whatever offence he may be guilty of, penal or otherwise. In Tasmania and in West Australia the Medical Acts are much more stringent. In the former State the Medical Act is an old one. It provides for the registration and licensing of medical practitioners by a Court of Examiners, prevents any one not so registered and licensed from prescribing medicines or performing surgical operations for fee or reward; but this Act does not specifically give power to the Court of Examiners to cancel the certificate of any registered person convicted of an indictable offence, or guilty of infamous conduct in a professional respect. In West Australia the Medical Board has power to register the names of all applicants whose qualifications are comprised in a schedule, and the Board has also the power to erase from the register the name of any person who has been convicted of a felony or misdemeanour, or of an offence which, in the opinion of the Board, renders him unfit to practise, or who, in the opinion of the Board, is guilty of infamous conduct in a professional respect.

It will thus be seen that persons with a legal qualification to practise may be registered and licensed to practise, but if these persons depart from the recognized rules of the profession and advertise as quacks and "specialist," no power is conferred upon the Medical Boards to remove their names, or, if they have the power, it can only be enforced at the possible risk of having to defend a Supreme Court action.

UNQUALIFIED PRACTICE.

As regards unqualified practice, in each of these Acts some attempt to restrain unqualified practice is apparent. For example, in Queensland any person not being registered who

represents himself to be a medical practitioner, and at the same time practises, shall, upon conviction before two or more justices of the peace, for every such offence pay a sum of £20. It is obvious that, under this Act, a man may call himself a medical practitioner with impunity so long as he is not caught practising, or he may practise with impunity so long as he does not call himself a medical practitioner. In New South Wales the Act makes it compulsory for persons advertising or notifying that they treat disease, injury, or ailment, to state their christian and surnames in full in every such advertisement or notification, and to place and maintain the said names upon any house (if any) referred to in the said advertisement or notification. It is clear that no attempt to stop unqualified persons practising is intended; and provided that they do not make use of any title implying that they are qualified medical practitioners, and state their names in full on every advertisement, no action against them can be taken. In Victoria no restriction is placed upon unqualified practice so long as the unqualified practitioner does not make use of any medical title. In West Australia the Act is framed evidently to prohibit unqualified practice. Under it, no one, unless he be a registered medical practitioner, is allowed to assume any medical title whatever, or to advertise directly or indirectly in any manner whatsoever, as being entitled or qualified to practise medicine or surgery in any of the branches; and every assistant, servant, or agent or manager is liable for any infringement of the Act. Advertising is prohibited, and the publisher is liable, provided that he has been notified by the registrar. In Tasmania the Act, although it prevents unqualified persons practising ordinary medicine or surgery, does not affect clairvoyants, hypnotists, and such like, who do not administer medicines nor perform surgical operations. Although some attempt is made to put down unqualified practice by these Acts, it must be admitted that prosecutions for breaches of the Acts by unqualified practitioners have not been very frequently instituted. In New South Wales, under the more recent Act several prosecutions have taken place against unqualified men for falsely using medical titles, and although the penalty for a breach of the Act in this respect is a fine of £50, in most cases, if the prosecution has been successful, the fine has been in part or whole remitted. And even in West Australia, where, as has been already mentioned, there is a stringent Act, two leading "specialists" residing in another State advertise freely, and all the notorious patent medicines are also freely advertised. It would thus appear that the Act is more honoured in the breach than in the keeping. Some attempt to put down unqualified practice as regards the abortionmonger and the venereal-disease specialist was made some time ago by the passage of an Indecent Advertisements Act in New South Wales, and since then an improvement has taken place in this class of advertisement. Still, much remains to be done, and in view of the faith in all sorts of quackery and unqualified practice freely expressed by some of our legislators as well as the "palm oil" freely bestowed upon the legislators by the unqualified practitioners whenever an Amending Medical Act is before Parliament, there does not appear much hope at present of any legislation which will effectually check unqualified practice. As an illustration of the influence of these unqualified practitioners upon the legislators, it may be mentioned that in the last Medical Act passed in New South Wales an amendment was actually passed providing for the registration of unqualified practitioners who could produce evidence of having studied for a certain period at a recognized medical school, but who for various reasons were unable to finish their course and obtain a legal qualification. The Medical Board is compelled to register these persons, though their names are registered upon a separate list, in which they are specifically referred to as unqualified practitioners. Still it appears that these persons can make use of the title of "Dr."

PUBLIC HEALTH SERVICE.

In each of the States there is a Government Department of Public Health presided over by a medical man, who is variously styled "President of the Board of Health," "Principal Medical Officer to the Government," "Public Health Commissioner," etc. These departments are generally under the administration of one of the Ministers of the Crown, who, however, is guided entirely by the advice of the medical officers of the Health Department.

In connexion with the Public Health Department there is, in most of the States, a well-equipped laboratory and one or more assistant medical officers and bacteriologists, whose duties are to investigate epidemics of infectious diseases, and all matters pertaining to the public health. The Boards of Health are composed partly of medical men and partly of Government officials. In some of the States, in addition to the Government health departments, there are departments of health in connexion with the municipal councils, the health of the cities proper being their chief concern. These departments are presided over by the city health officers and their assistants, and are administered by the health committees of the city councils. These medical officers are concerned with the question of food supplies, abattoirs, garbage collection and destruction, drainage, etc. In Sydney, in addition to these departments, there is a medical officer to the Board of Water Supply and Sewerage, whose duties are to report upon water and sewerage matters as they occur in connexion with epidemics of infectious disease, and also to supervise the sanitary conditions of the catchment area of the water supply. In the country towns there are medical officers of health who are medical practitioners, and devote a part of their time to sanitary and public health matters, and are paid a small salary. The Boards of Health and the country medical officers of health administer the Public Health Acts, which are mostly based upon the English Acts, and deal with the regulations for quarantine, control of infectious disease epidemics, etc.

In addition to the special medical officers of the health departments, there are other Government medical officers who devote the whole of their time to Government work. In the large cities they are chiefly concerned with visiting the gaols and asylums, the recommending of pauper patients to the various hospitals and Government institutions, and in general discharge the duties of police surgeons. They also certify the cases of insanity occurring in paupers or criminals brought before the courts of justice. In the country towns the senior medical practitioner is the Government medical officer, and, in virtue of this, he is the visiting surgeon to the gaol (if there happen to be one in the town), and is called upon to act as police surgeon, and perform *post-mortem* examinations for coroners' inquests. He is paid a small salary for the performance of these duties. The duties of port health officers, public vaccinators, etc., are performed by the medical men already referred to. But in this connexion I may mention that all the hospitals for the insane are under Government control, there being only a very few small institutions for private patients of this class. The medical officers of these hospitals are all Government servants, and are under the same rules and regulations as the other members of the Civil Service. The whole of the Government Medical Service, then, consists of the medical officers of the Board of Health, the Government medical officers, the medical superintendents and assistant medical officers at the hospitals for the insane. Promotion in the service may take a man from one of these departments to another. Speaking generally, these officers are poorly paid, particularly the medical officers at the hospitals for the insane, and great difficulty is experienced in securing and retaining the services of young and efficient medical officers at these institutions. Within the last two or three years there has been established a Department of Pathology in connexion with the lunatic asylums, and some good work has already been done by the pathologist. In addition, however, to the resident medical officers at the hospitals for the insane, there are official visitors appointed by the Government who visit the various hospitals, and at times the services of these official visitors have been of great value in effecting needful reforms in the management of these institutions.

Public Hospitals.

In all the large cities there are one or more large public hospitals which are supported partly by public subscriptions and partly by Government grants. In some of the cities these institutions are entirely Government institutions, and are controlled by a committee appointed by the Government. In cases where the hospital is not a Government institution entirely the committee of management is elected by the subscribers, and the Government appoint a certain number of representatives on the committee. In all the large hospitals there are staffs of honorary physicians and surgeons, and assistant physicians and surgeons, as well as specialists in all the special departments, such as diseases of women, disease of the eye, ear, nose and throat, skin, etc. The resident medical officers are mostly graduates of one of the Australian universities, the medical superintendents being senior residents. There are also special hospitals, which are also supported by the general public, and in most cases receive

Government aid, £1 being paid by the Government for every £1 paid by the general public. In the large general hospitals the visiting officers are all honorary appointments, but in most of the country hospitals there are one or more visiting medical officers who are paid a small salary. In some of the States these small country hospitals are grossly abused, and the resident medical officer, who may be paid a salary of, say, £300 a year with the right of private practice, finds that the latter is non-existent, since the hospital committee is composed of all the leading men in the town, who think that if they contribute to the hospital they are entitled to attendance at the hospital for no extra fee. This condition of affairs is specially prevalent in some parts of West Australia and in Queensland. In addition to the public hospitals there are a large number of private hospitals in all the large cities and country towns. These are mostly owned and managed by trained nurses, and are supported by various medical men. At these institutions the patients are of course attended by their own medical men, who receive the ordinary fees for attendance. In some of the large cities there are hospitals with private wards attached, to which private patients are admitted, and are attended by the members of the hospital staff, who receive a portion of the fees paid to the hospital by the patients. These private wards are used to provide the means for the maintenance of the general hospital.

The public hospitals are intended for the care and treatment of the sick poor, but many patients are admitted who can afford to pay a certain amount towards their support in hospital. If the patients are paupers, then the Government contributes a certain amount per diem to the hospital for their support. Usually this amounts to about a guinea a week, and the large amount contributed by the Government to the hospitals for this purpose can be gathered from the fact that last year the New South Wales Government contributed over £9,000 to the Prince Alfred Hospital for the support of the pauper patients in it. In all cases where a pauper is acutely ill, he is sent to the public hospital on a Government order. If the case be one of infectious disease, he is sent to an infectious disease hospital, or to a general hospital which has accommodation for such cases. If the case be a chronic one, he may be sent to a Government hospital, such as the Coast Hospital in Sydney, or to one of the asylums for the old and destitute, where he may remain for the rest of his life if he wish, and if he continue to need medical treatment. There are no recognized Poor-law medical officers, but the Government medical officers visit paupers in their own homes at the request of the police, and advise as to their treatment. In many cases, however, the pauper sick are visited and treated in their own homes by medical men who act gratuitously for some of the charitable societies, such as city missions, medical missions, benevolent societies, etc. To meet the case of persons who for various reasons are unable to become members of the ordinary Friendly Societies, provident medical associations have been established, which in a sense provide for the treatment of the sick poor in their own homes. The Sydney Provident Association, which has now been in existence for some years, and is founded and managed on the lines of the similar institution at Eastbourne in England, has been very successful.

Lunatic Asylums.

In all the States there are hospitals for the insane which are maintained at the Government expense, the contributions from patients or their friends constituting but a small part of the amount required for the support of these institutions. There are a few private asylums for those able to pay higher fees for their maintenance and treatment. In each State there is a medical man who is an Inspector-General of the Insane, who takes general supervision of all the asylums, both public and private, and furnishes an annual report on all matters pertaining to the asylums, and on the insane generally in the State. Each hospital has a medical superintendent and one or more assistant medical officers, who rise by degrees to the positions of medical superintendents. The salaries of these medical officers are in most cases inadequate to the responsibility and the amount of work necessitated by their positions. In some cases the medical officers, even after some years of service, resign their appointments to enter upon private practice, the prospects of remaining in the service being not sufficiently tempting to really efficient medical men, especially as their salaries are voted each year by Parliament, and are liable at any time to be reduced in case of any general retrenchment in the public service.

Contract Medical Practice.

In all parts of Australia the Friendly Societies, such as the Oddfellows, Foresters, Druids, etc., are well represented, and, as a rule, the relations between these societies and the medical profession are harmonious and satisfactory. The custom is for the medical officer to be paid from 14s. to £1 per member per annum exclusive of medicine, and where the medical man dispenses his own medicines or undertakes to provide medicine he is paid from 20s. to 28s. per member per annum. This amount is paid for attendance upon the member, his wife, and children up to the age of 16 years, and also attendance on any relatives who may be directly and entirely dependent upon him for their support. Then the medical officer receives additional fees for some operations and midwifery, the amount varying in different districts from 10s. 6d. to £1 1s., or sometimes £2 2s. Where satisfactory fees are paid per member per annum to the medical officers things go on smoothly as a rule. But in some cities and towns the different lodges of the same order, or lodges belonging to different orders, have combined together with a view to a reduction in the rates of payment to the medical officers, and have formed institutes. The medical officers to these institutes are paid by salary with some few extra fees for midwifery, etc., but in many places where these institutes have been formed the conditions are most degrading to the medical officers, and the wonder is that any medical men can be found who are willing to sell themselves into such slavery. Some of these conditions are as follows: The medical man's consulting and waiting room must be furnished to the satisfaction of the committee; the medical man must attend *at once* on any call, and if he be unable to attend *at once* he is required to pay the fee of any medical man who may be called in in his place. He must perform *all* operations, administer *all* anaesthetics, and consult with any medical man *without any extra fee*. It is the establishment of institutes of this kind, with obnoxious conditions of this nature, that are objected to by the medical profession, and medical men who take these appointments are not recognized by the main body of the profession and are ineligible for membership of the British Medical Association. In recent years serious attempts have been, and are being, made to induce the Friendly Societies to see the folly of continuing these objectionable institutes, and we believe that before very long some improvements in this respect will be effected.

But the medical profession in Australia has another serious enemy to contend against, and that is the organizations which are not legitimate Friendly Societies, which are not founded upon a philanthropic basis, but which are political in their aims, and only make use of the services of medical men to secure cheap medical attendance and medicine for their members as a means of attracting new members and retaining their old ones. In Victoria, an organization known as the Australian Natives' Association aims at securing for natives of Australia all positions of influence, whether Parliamentary, municipal, or social. It seeks to influence every election, and takes an important part in the election of the medical officers to the Melbourne hospitals. It embraces in its membership all classes of the community, and is a powerful organization. It is said to be the strongest and wealthiest Friendly (?) Society in Victoria. This organization has done more harm to the profession in Victoria than any other society; it has, in many of the country towns, reduced the private practice of the medical practitioner to a vanishing point. The profession in New South Wales, and in some of the other States, recognizing the true aims and objects of this organization, has refused to recognize it as a society having any claims on the medical profession for medical attendance on its members at reduced rates, and the opposition of the profession has been successful in preventing its gaining a footing to any extent in New South Wales. The true Friendly Societies, recognizing that the Australian Natives' Association is not a legitimate Friendly Society, and that it is a serious opponent to them, are now beginning to see that the attitude adopted by the British Medical Association in New South Wales towards the Australian Natives' Association is a rational one. It is against organizations of this class and medical aid societies that the profession is waging war. The question of a wage limit for all members of Friendly Societies participating in medical benefits has been under consideration for some years past, and in one or two instances the lodges have conceded the principle of a wage limit of £200 per annum. This is one of the questions which will probably come up for further consideration at some future time; and it is also hoped that

in time the Friendly Societies will see the wisdom of paying their medical officers by results—that is, at a small fee per visit or per consultation, instead of an annual fee per member. We may say that, in spite of the increasing competition amongst medical men, there never was a time of greater activity on the part of the profession in maintaining its rights against encroachments of all kinds, and the outlook for the profession from this point of view may be considered most hopeful.

Medical Schools.

In three of the Australian States—namely, Victoria, New South Wales, and South Australia—there are medical schools attached to the universities, and a full course of instruction in all the subjects of the medical curriculum is furnished, and degrees in medicine and surgery are conferred. In consequence of this, the ranks of the profession in Australia are gradually being filled with the medical graduates of these universities, the number of medical men arriving from abroad to take up practice here rapidly diminishing. Formerly a large number of students left Australia to proceed to Europe for their education, but now the rule is for the students to obtain the medical degree in Australia, and then to proceed to Europe and America for further study. The facilities afforded locally for securing medical education has led to a great increase in the number of men entering the profession, and at the present time the profession in Australia may be said to be crowded, if not overcrowded.

Members of the medical profession have taken a leading part in University affairs. In the Sydney University at the present time the Chancellor (Sir Norman MacLaurin) and the Vice-Chancellor (Dr. Sydney Jones) are both medical men. In other States medical men have been, and are, prominent members of University senates and councils.

Medical Men in Parliament.

In Parliament some of the most prominent members of the State Legislative Councils and Assemblies are medical men. So far, in the Australian Commonwealth Parliament, the medical profession is unrepresented. In municipal affairs we find also occasionally medical men occupying positions of influence and importance. On the occasion of the recent visit to Australia of the Prince and Princess of Wales the Mayor of Sydney was a medical man—namely, Sir (at that time Dr.) James Graham.

The British Medical Association.

As a result of the efforts of the New South Wales Branch of the British Medical Association, the State Governor agreed to recognize this Branch of the British Medical Association as one of the public bodies to be presented on the occasion of levées and State functions. Whilst in these various ways individual medical men have taken prominent and important positions in parliamentary, municipal, university, and social life, the profession, as a whole, lacks that organization and cohesion which is necessary to enable it to exert its full force for good upon the community at large. But the way is gradually being prepared, and we look forward in the future to the profession being well organized, mainly by the British Medical Association, and holding a still more important and useful position in the Australian Commonwealth.

NEW ZEALAND.

By J. M. MASON, M.D., D.P.H.Camb.,
Chief Health Officer for the Colony.

THE practice of medicine in New Zealand is governed by the Act of 1869, which was modelled upon the lines of the Imperial Act then in force. It sets out that the following are entitled to registration upon the production of the proper certificates:

Fellow, Member, Licentiate, or Extra Licentiate of the Royal College of Physicians of London, England.

Fellow, Member, or Licentiate of the Royal College of Physicians of Edinburgh, Scotland.

Fellow or Licentiate of the King's and Queen's College of Physicians of Dublin, Ireland.

Fellow, or Member, or Licentiate in Midwifery of the Royal College of Surgeons of England.

Fellow or Licentiate of the Royal College of Surgeons of Edinburgh, Scotland.

Fellow or Licentiate of the Faculty of Physicians and Surgeons of Glasgow, Scotland.

Fellow or Licentiate of the Royal College of Surgeons of Dublin, Ireland.

Licentiate of the Society of Apothecaries of London, England.

Licentiate of the Apothecaries' Hall of Dublin, Ireland.

Doctor, or Bachelor, or Licentiate of Medicine, or Master in Surgery of any university of the United Kingdom of Great Britain and Ireland, or Doctor of Medicine by Doctorate granted prior to the second August one thousand eight hundred and fifty-eight by the Archbishop of Canterbury.

A medical officer duly qualified of Her Majesty's land or sea service.

Any person registered under The Medical Practitioners Act, 1867.

* Any person who has passed through a regular course of medical study of not less than three years' duration in a school of medicine or surgery, and has received (after due examination from some university, college, or other body) a diploma, degree, or licence other than those before specified entitling him to practise medicine or surgery, whether within His Majesty's dominions or not.

Any person who shall have been registered as a legally-qualified practitioner in England, Ireland, or Scotland under any Act of the Imperial Parliament.

Any person desiring to be registered shall give notice of his intention to apply for that purpose to the Registrar-General or Registrar as aforesaid, and shall state in such notice his residence, his qualification, and the date of his intended application, and that his diploma or other evidence of qualification is deposited for public inspection in the office of the Registrar-General or Registrar, as the case may be, and shall affix to such notice his name in full.

The diploma, or other evidence of qualification, shall be produced to the Registrar, and a copy thereof, certified by a Justice of the Peace, shall be deposited, as stated, in the notice, and such notice shall be published in a newspaper circulating near the place of the applicant's residence at least one month before the date of his application, and in the *New Zealand Gazette*.

Several attempts have been made to obtain some modification of the present Act, mainly in the direction of limiting the force of the paragraph marked (*). In virtue of this section, almost any one with the smallest amount of medical knowledge can obtain a place upon the register. Some of the colleges in America—at least, until quite lately—were in the habit of granting diplomas after three years' study, and there are cases on record where ill-qualified men—ill-qualified in several senses of the word—have obtained a place upon our register. It will be seen that here in New Zealand no distinction is made between British and other degrees. A man may study where he will, and all that is required of him is that he holds "a degree, diploma, or licence, received, after due examination, from some university, college, or other body." The Registrar-General has always endeavoured to ascertain and assess the status of all authorities granting degrees, etc., but it is obvious that such a task is beset with many difficulties—more especially when one bears in mind the vast number of manufactories which exist in that Continent which has given us so many brilliant surgeons, scholarly physicians, and men of doubtful degrees.

The students of our own University are required to spend five years in study before they can be admitted to examination, and the obvious unfairness of exacting from them a standard of study and education so much greater than that asked for from those who may oppose them in practice was clearly set out by the Minister of Health last session in moving the second reading of an amending Act. It is greatly to be regretted that this Bill did not become law. It would, in an easy and effectual way, have removed the unfairness which the home-grown practitioners suffer. The persons entitled to registration in this amending Act were:

1. A graduate in medicine and surgery of the New Zealand University; or

2. Registered on the register kept in accordance with provisions of the Acts regulating the registration of medical practitioners in the United Kingdom; or

3. Eligible for registration on such last-mentioned register; or

4. The holder of a diploma granted by a university in any British possession after a course of not less than five years' study of the subjects pertaining to a medical or a surgical degree or licence; provided that by the law of that possession registered medical practitioners of New Zealand are in like manner entitled to registration.

The Bill came on towards the end of the session, and although it seemed as if it might see the light, it shared the fate of many other suggested improvements of our statutes.

Though our hopefulness has received many checks, still it is great, and in the fullness of time, whereof only legislators may judge, justice will be done to the young man who chooses the harder path of our own university. There is, as a matter of fact, very little—comparatively speaking—unqualified practice going on in New Zealand. There are so many men holding the highest qualifications of this and the old country

that the public have little excuse. Till, of course, the people will have ceased to believe the specious advertisement, till they come to understand that there are no short cuts to health, quackery and self-deception will continue. The young man seeking after his lost manhood, or the toper who is looking for something which will enable him to drink and yet keep sober, belong to the new just as to the old, and just as surely as there are such searchers, so will there be gentlemen to assert in heavy leaded type that they hold the longed-for article.

PUBLIC HEALTH.

Previous to the passing of the Public Health Act of 1900, sanitary matters and the protection of the general health was looked after by a Health Board, with the Colonial Secretary for its head. The new Act provided for a Minister of Public Health holding Cabinet rank, a Chief Health Officer, District Health Officers, Port Health Officers, etc. Greater powers have been given these several officials than in any other department of State in any English-speaking country. Such extraordinary powers are, of course, only to be used in times of peril. The everyday work which falls to the lot of a health official can be carried out with an ease and rapidity which none of the older systems permitted of. With one or two exceptions the health officers are Government officials, who do no private practice, and in this way many of the ticklish and difficult questions which crop up in England and Scotland between the health officer and the private practitioner cannot be reproduced here. The health department undertakes much of the work which municipalities look after in Britain, such as the supply of serums to poor people, the reporting upon pathological specimens sent in by medical men, the subsidizing of doctors in districts where the population is sparse, down to the condemning of insanitary buildings. All schemes of drainage, water supply, etc., have to be approved by the Minister for Public Health, and the defence of the whole colony against infectious disease from the outside world is immediately under his control. In a word, simplification and central responsibility has replaced the multitudinous authorities which obtained under the old régime.

HOSPITALS.

All hospitals are maintained out of funds allocated by Parliament and the rates collected from the several districts. With the exception of one or two homes for incurables, which are supported by the Catholic Church, Church of England, and the Salvation Army, the hospitals are State institutions. In the larger cities there is a paid medical superintendent, and an honorary staff elected by a hospital Board. The pauper sick are looked after by the Hospital and Charitable Aid Boards, and the expenditure is shared by the Government and the several rateable areas. For every pound obtained by rates, the Government give one pound subsidy, and the general supervision is entrusted to the Inspector-General of Hospitals. The asylums are on exactly the same footing, with this exception—that the whole cost of such institutions is borne by the State.

WORKMEN'S CLUBS.

The various Friendly Societies have made arrangements with medical men on much the same lines as obtain in the old country, and in one city (Auckland) they have joined together and employed medical men whose services are wholly at their disposal.

One point worthy of mention, and one which is fruitful of occasional heartburning amongst the profession, is that any one may enter the hospital who cares to. The fact that the hospitals are maintained by all would seem to require this, and as there is very much less class distinction in the Colonies than there is at home many well-to-do people do not hesitate to avail themselves of the advantages which always accompany treatment in a well-conducted hospital as against that outside. On the whole, however, the life of a general practitioner here is very much more pleasant and, within certain limits, more profitable than in the old country.

There is little or no actual poverty in this Britain of the South, and, as has been set out, the poorer members when sick are looked after by the State. The club difficulties which so often occur in the old country, and in the larger cities such as Sydney and Melbourne, touch the profession in New Zealand but lightly. Rarely do we find a medical man who has practised in this Colony seek other pastures, unless it be his homeland, and then not infrequently because of reasons other than professional.

The general standard of work here is high, and a man soon finds that he must do things which only the specialist gets an opportunity of doing in the home country; the result is that there is less danger of one lapsing into a mere looker at tongues or writer of prescriptions. Greater reading is required in order to keep abreast of what the leaders are saying and doing in the bigger world outside, and less likelihood of learning the bitter lesson which comes to one in general practice occasionally in the old country that "man cannot live by bread alone" if he would save his soul.

CROWN AND MINOR COLONIES.

THE following account of some of the Crown and minor Colonies from the medical point of view is based upon an investigation undertaken some time ago at the instigation of Dr. J. Groves, of Carisbrooke, Isle of Wight.

In some details it may not be absolutely in accordance with the conditions prevailing at the present moment, as in certain Colonies new legislation has been proceeding; but for the main purposes for which the information conveyed in this number has been provided, the particulars given will suffice.

It deals principally with the points which are fundamental in the medical organization of every country, and it has not been thought necessary to give an account in each instance of what may be called the side issues of medical life with the same fullness as in connexion with some other places. It is also taken for granted, too, that the broader conditions of administration and life in the Crown Colonies are sufficiently well known to the majority of our readers.

Many of the places which receive mention are in a state of social and legislative transition. Others which have attained a high degree of economic and political development are so conditioned by essentially local circumstances that they offer few lessons of general application. The medical legislator, therefore, can gain little by a close study of such medical organization as may exist.

Nor is the case materially different if they be regarded merely as possible outlets for the surplus medical population of the United Kingdom.

Of course the Colonial Office annually selects and sends out a certain number of men to work in the official medical departments of the various Colonial Governments, but the annual number of vacancies is not great, and it is principally for the smaller Colonies that the Colonial Office thus acts as recruiting officer for the local medical profession. In these there is usually not enough work to occupy the energies of men independent of Government employ; for the bulk of private practice, such as it is, commonly falls to the Government officers. In many of the larger Colonies Government officers do only certain classes of work, and there is room for other practitioners; but in these cases the needs of the population are usually fully met by native-born practitioners, who have either been locally trained, or who, as is very commonly the case now, have come to Great Britain to pursue their studies.

As a general rule, medical men in the Colonies indicated occupy quite as good a position as do their fellows in England, if not better; the latter indeed is commonly the case, for any medical man is likely to be of much more individual professional importance to his neighbours than he would be in a town or ordinary country district in England, and few of those amongst whom he lives are likely to be of superior social origin, or, so far as the practical needs of the place are concerned, financially better off. A feeling, moreover, such as is common in Great Britain that medical men are unfitted by their education and experience for administrative and business positions, has not grown up in them, and hence they are not seldom selected by Government for legislative and other allied functions.

So far as the financial results of medical work in the Colonies mentioned are concerned, they cannot on the whole be held to differ very materially from those which exist at home. The fees received may actually be very much higher or very much lower; but relatively to the needs of the place, to the standards of life in vogue, and to the expenses of living in it, it will usually be found, if the matter is examined with sufficient care, that there is little material difference. Nevertheless, it is probable that in the great majority of the Colonies particulars of which are given here, the proportion of medical men who have great difficulty in living on the

same terms as their neighbours of the same social status would be found to be smaller than in England. This is a point which may perhaps be regarded as of increased import when it is remembered that all Europeans in tropical and semi-tropical Colonies live under conditions which to some extent represent a more luxurious mode of existence than is common at home. It is, however, largely due to the fact that practitioners independent of Government are for the most part men who have either been born in the place and regard it as their natural home, or those who have definitely adopted it as their country. For men who have close ties with England either in their own persons or through their wives, the financial difficulties of life may be different, for trips home to England and the dispatch of children for educational purposes constitute a heavy drain upon the resources of any man.

So far as economic medical organization is concerned in certain of the places to which attention is drawn the existing legislation may appear to be of a very elementary and insufficient character. This, however, is not only inevitable, but as it should be, for the number of Europeans in them will be found on examination to be comparatively small and the mass of the population to be made up of semi-civilized persons to whose modes of life and pre-existing habits any elaborate codes would be inapplicable. In all such cases a great deal of power—which is in England carefully defined and limited by legislation and left to the administration of carefully-specialized departments—rests in the hands either of the Governor or of the Governor in Council, and is exercised by him through his Principal Medical Officer, who commonly represents in his own person all the heads of the various departments among which the medical work of a Government is elsewhere divided.

The East and West Coasts of Africa.

There are some half a dozen colonies or protectorates on the East and West Coasts of Africa. Widely separated as they are geographically, they may, for present purposes, be taken together. They are on the West Coast—Gambia, Lagos, Sierra Leone, Southern Nigeria, which has lately been brought under the same administration as Lagos, and Northern Nigeria. On the East Coast certain protectorates, such as Zanzibar, Uganda, and the East African Protectorate. In none of these places is there any Medical Act or any form of medical education beyond that of the training of dispensers, and the power commonly exercised by a medical board usually rests in the hands of the Principal Government Medical Officer. The vast majority of the inhabitants are still in a state of semi-civilization, and such needs as are recognized by them to exist for medical men versed in Western medicine are amply met by practitioners more or less closely connected with the Government service.

Questions concerning the regulation of medical practice have scarcely been touched. The efforts of the Government up to the present have mainly been directed to putting a stop to the more dangerous practices of native medicine men, and more particularly of the witch doctors who in former days, and even quite recently, did so much to injure the people and to propagate disease. This was especially the case in connexion with small-pox, which was at one time the scourge of the West Coast.

Gambia, the most northerly colony, and at the same time the smallest, has, however, introduced a register for men who claim to be qualified practitioners; but, like all the rest, it has not seen any need up to the present to make any provision other than that supplied by the common law for examining into complaints or charges against practitioners alleged to be guilty of improper conduct in connexion with their work. The medical work of its Government is carried on by a chief medical officer with three assistants and some dispensers.

In Lagos, where there are a certain number of practitioners with British qualifications who have little connexion with Government, the question of professional ill-conduct has been considered, but the decision reached is that all such cases should be referred to the General Medical Council for its consideration. The question of death certification has been dealt with to a certain extent, but there is no fully-developed system of certification, and certificates when called for at all can be given by other than medical practitioners.

On the Gold Coast a medical officer in charge of a hospital must give certificates in respect of deaths which occur within its wards. At Lagos any regular medical practitioner must give a certificate in respect of cases which have died while under his care. At Sierra Leone there is little in the way of certification, and in Southern Nigeria the same condition prevails. In none of the colonies except in Lagos is any attempt made to register stillbirths. All colonies have made provisions for inquiries relative to cases of sudden death or death by violence which come to official notice, the procedure adopted differs in each of them to a certain extent, but for the most part it is much on the lines of that in England.

In each of the West Coast colonies vaccination is practised, and, except in Gambia and Nigeria, it is nominally compulsory. Of late years its practice has greatly extended, the operation for the most part being trusted to trained but otherwise unqualified vaccinating officers.

The notification of infectious diseases naturally does not exist in the same sense as in England. Sierra Leone expects cases of small-pox to be brought to official notice, but for the most part all power in the matter rests in the hands of the Governor in Council. If he sees fit he may order any cases of infectious disease, the prevalence of which may have attracted attention, to be reported by any official for the moment administering a district, or part of one, for on the West Coast the offices which a man may have to fill are multiple; lay administrators frequently find themselves in the position of having to act as medical officers of health and to look after the physical well-being of the inhabitants under their control, just as medical men may occasionally be called upon to act as administrators.

In Sierra Leone, the Gold Coast Colony, and Gambia there are regulations in respect to the sale of poisons, but not in the others.

With regard to legislative measures for the protection of the public health no great progress has been made, but the situation is met, so far as it can be met, by the authority vested in the Governor in Council exercised through the chief medical officer, and by him through his subordinates. The latter are in many cases numerous, for of late years the value of medicine and sanitation as civilizing and developing agencies has been realized, and the medical departments of the various Colonies are assigned an important position. Thus, in Lagos the Government medical department consists of 17 medical officers, dispensers, an analytical chemist, a registrar of Vital Statistics, and a hospital staff, in addition to sanitary inspectors and a sanitary engineer. On the Gold Coast the department is even larger, the medical officers alone numbering 40. Sanitary measures occupy much of their time, the power to carry them out being supplied by ordinances introduced by Government from time to time.

As for the East African Protectorates, they are at present in a very undeveloped condition, and all medical men are either Government officers or missionaries. Excellent work is being done by both in the way of practical medicine and surgery and in studying, and inculcating among the people some elementary knowledge of, sanitation as regarded from the Western standpoint. The stage at which these views can usefully be crystallized for the inhabitants into the form of legislative regulations of any character has not yet been reached.

British New Guinea.

British New Guinea occupies part of the coast of an island which is the largest in the world except Australia, and some neighbouring small islands; the greater part of this island is still in the stone age, and is still practically almost an untouched land. There are no medical Acts, nor has any form of death certification been introduced; but vaccination is nominally compulsory within the limits of British influence. Opium is the only poison the sale of which is not perfectly free, and medical subjects which in other more developed colonies are dealt with by regulation and local enactment are settled by the Government itself with the assistance of quite a small medical department.

Fiji.

In Fiji things are very much more developed and medical practice is subjected to control by the Government; it has even got as far as providing medical education for natives and there is a Medical Board which examines the medical students, who undergo a three years' course at the hospital at Suva, the capital town. A medical register has been established and to this any medical man entitled to practise in the United Kingdom or in the British Colonies can claim admission. A register is also kept for native practitioners, and a fine of £100 may be inflicted upon any medical man who practises without having previously obtained permission. The right conduct in a pro-

fessional sense of medical practitioners is supervised by the Medical Board. Certification of deaths has also been introduced and is compulsory in the case of the death of a patient when under treatment by a practitioner; stillbirths have also to be registered. Cases of sudden death or death by violence are the subject of inquiry by the local magistrates, inquests in such circumstances being sometimes held. Vaccination is practised, and is a compulsory measure as regards the primary operation. The sale of poisons is also controlled to a certain extent. The public health is entrusted to a Board of Health, which has very wide powers, and, when necessary, applies to the Governor to increase them. The Government Medical Department consists of, besides seventeen medical officers, a lunatic staff, a hospital staff, an analytical chemist, and the machinery for the control of leprosy.

British Honduras.

In British Honduras a Medical Act has been introduced and a Medical Register established, any one practising without registration being subjected to a fine of 100 dols. The admission of medical men to the register is under the control of a Medical Committee, which also has power to supervise practice and to recommend the erasure of a name from the register by the Governor. Certification of deaths is also necessary, but certificates can be given by a magistrate or district officer in the case of persons who have not been medically attended before death; stillbirths are not registered, but a 100 dol. fine may be inflicted on any person burying a body without a certificate. Vaccination is compulsory, as is also the notification of infectious diseases. The sale of poisons is regulated by an Act, and there are various enactments which provide machinery for the control of disease and the preservation of the public health. The country is at present hardly opened up, and only about 500 of the population are of European origin. The medical department is small.

Ceylon.

Up to the present in this colony no Medical Act has been passed, but there is, on the other hand, a Medical Board for the control of medical education. The latter is carried on at the Ceylon Medical College, which grants a licence in medicine, surgery, and midwifery to successful students on passing the examinations. Apart from this, however, it has up to the present been open to any one to practise medicine with or without a diploma, and no attempt has been made to regulate practice. Legislation on this point is now in progress. Death certification is in force, but rests in the hands not only of medical men, but of a number of officials, such as police officers, head men of villages, and certain officers known as Inquirers into death. Stillbirths are registered, but only in towns. Vaccination is compulsory, and also notification of infectious disease. A considerable amount of control is exercised over the sale of poisons, and there are numerous enactments which deal with public health, the executive power in connexion with which rests in the hands of the Government officers and is exercised through the subordinate medical service. The Government exercises further control by placing upon municipalities its own representatives. The Medical Department is a very large one, consisting of over 100 medical men in addition to other officials, and the whole medical organization of the Colony very fully developed.

Hong Kong.

In Hong Kong medical practice is controlled by an Act, and there is a Medical Board which looks after Chinese practitioners. A register has been established to which any European practitioner, upon proof of qualification and of identity, can obtain admission. Failure to register or practise by an unqualified person may be punished by a fine of 100 dols. The Medical Board may, if it sees fit, make representations to the Colonial Secretary that a practitioner should be removed from the register. Medical certificates of death are required from practitioners who have been in attendance upon a deceased person. Stillbirths are registered and provision made for inquiry in the case of sudden or violent death. Vaccination, but not revaccination, is compulsory, so also is the notification of infectious diseases. Various enactments are in force for the regulation of the sale of poisons, and legislative machinery is provided for the safeguarding of the public health. From a medical point of view this is a very advanced Colony, its medical department comprising officers of all characters—analysts, bacteriologists, sanitarians, surveyors, etc. Medical education for Chinese students has been provided for some twenty years past, and a more ambitious project of the same character has lately been under consideration.

Cyprus.

A Medical Act exists in this island, and there is a Medical Board which deals with what are called second-class practitioners. Registration is necessary, and admission to it may be secured by any person in possession of a qualification which entitles him to practise in the country in which it was conferred. The Chief Medical Officer exercises a general supervision over medical practice, and in case of necessity can obtain the erasure of a second-class practitioner from the *Register* upon cause shown to the High Commissioner. Deaths have to be registered with the principal official of each village or township, but need not necessarily be signed by a medical man. Stillbirths are registered, and provision made for inquiry by the police and other officials into cases of sudden or violent death. Vaccination is not compulsory, but is freely practised. Notification of infectious diseases in the ordinary sense of the word is not enforced, but from time to time special ordinances are made for dealing with certain diseases recognized to constitute a public danger. Matters of public health are looked after by the chief medical officer and his subordinates, who are armed with certain powers from time to time by enactments of the Legislative Council of the island; various municipalities have also by-laws which deal with the matter in conjunction with the Government's Commissioners of each district. Each of the six districts into which the Colony is divided has its own small hospital and dispensary for the treatment of out-patients of the poorer class under the charge of a Government medical officer. There is also a leper farm in which lepers are segregated.

The medical department is not large, but for so small an island the medical machinery is fairly complete. The majority of the medical practitioners are of Levantine origin, and the majority of the inhabitants likewise.

Falkland Islands.

In the Falkland Islands there is no special Medical Act, but that of the United Kingdom is considered to be in force; qualified medical men need not be registered, and death certificates may be given by persons other than medical men. Stillbirths are not registered. Vaccination is enforced, and the occurrence of infectious diseases has to be notified to the authorities. There are a certain number of regulations which provide for sanitation and for the protection of the island from infectious diseases, but there are no regulations for the control of the sale of poisons. The whole Colony is a very small one, the population scarcely exceeding that of an English village.

Gibraltar.

In Gibraltar a register of qualified medical practitioners has been established, and a Medical Act introduced. It places medical practitioners, as regards unqualified rivals, upon the same terms as their brethren in the United Kingdom. There is, however, no Medical Board, and no provision for examining into complaints against medical practitioners alleged to be guilty of infamous conduct in a professional sense. Death certification is in force, and all certificates must be by medical men. Stillbirths are not registered. An ordinance corresponding to that in England with regard to sudden deaths exists. Vaccination is enforced, but not revaccination. Numerous regulations for the safeguarding of the public health exist, and the sale of poisons is regulated. Any outbreak of a disease of an infectious character has to be brought to the notice of the authorities. It is a military colony and most of its medical machinery is of a military character and under War Office administration. The military authorities find representation on the civil side of the Government in a Board of sanitary commissioners made up of army officers and unofficial members.

The Leeward Islands.

In the five Leeward Islands—Antigua, Dominica, Montserrat, St. Kitts and Nevis and the Virgin Islands—the practice of medicine, surgery and dentistry, and of pharmacy are all regulated by an Act dated 1903. This limits the legal practice of medicine to such persons as would be entitled to practise in the United Kingdom, and the same observation may be made in respect to dentists. In the latter case, however, it is open to the Governor to recognize under certain circumstances a diploma in dentistry which has been granted by a foreign country. As for pharmacy, the sale or dispensing or compounding of medicines is forbidden, except to those who have obtained special licences from the Governor, given on a certificate from two duly qualified practitioners that

the person for whom the license is asked is qualified to dispense medicines according to the *British Pharmacopoeia*. Excepting by such persons, and by registered medical practitioners, no medicines, other than "patent medicines," Epsom salts, senna, and castor oil can be sold by any one. Death certification has been introduced, but certificates may be signed by other persons than medical men. Stillbirths are registered in Dominica and Montserrat. Sudden or violent deaths are dealt with upon the same lines as in the United Kingdom. Vaccination is practised and is compulsory as a primary operation. Regulations as to notification of infectious diseases exist except at Dominica, Montserrat, and St. Kitts. Various provisions have been made by the legislatures of each island for the protection of the public health. Each of the islands has its own medical department, and in most of them the machinery provided is fairly complete.

Malta.

In this island, which is the seat of a university and a medical school, all departments of medicine are very fully represented in the Government. A Medical Act has been introduced, and there is a Medical Board for the control of medical education, as also a schedule of qualifications which entitle to practise. Registration is compulsory, and machinery provided for inquiring into allegations of infamous conduct other than those which constitute criminal acts in the eye of the common law. Death certificates can only be signed by medical practitioners, and stillbirths are registered. Full provision is made for dealing with cases of sudden death, and numerous regulations exist for dealing with the question of public health. The administration of these latter rests in the hands of a very completely-organized department of public health. The sale of poisons is carefully regulated by legislative enactments, and notification of infectious diseases is compulsory. The medical men of the place, whether in Government employ or engaged in private practice, are almost without exception natives of Malta itself or of Italian origin. The position occupied by the medical profession is good; its members are for the most part well educated, and in number they fully suffice for the needs of the place.

Mauritius.

In Mauritius there is no Medical Act, but registration of medical men is in force, the register being kept by the chief of the Medical Department of the Government. A heavy fine may be inflicted upon persons convicted of unregistered practice. There is no strict rule as to death certification; but those given must be signed by medical men. Stillbirths are registered and vaccination is enforced. Notification of infectious disease and regulations for the sale of poisons are all provided. The medical organization of the place is very complete, and the Government Medical Department a large one, covering in one way or another all the ground covered elsewhere. It is a highly developed colony; the language in use is French, as is also the basis of the existing law. The majority of the inhabitants are of Indian origin, but the European element native to the place is greater than in most colonies similarly situated.

St. Helena.

In St. Helena, which is a very small place, little in the way of legislation has been introduced with reference to medical matters, but stillbirths are registered and vaccination enforced. The sale of poisons is subjected to the same regulations as in the United Kingdom, and provision is made for maintaining control over epidemic disease. Its medical department is small.

West Indian Islands.

There are Medical Acts in force throughout all the West Indian Islands, except Bahamas and Bermuda, but no scheduled qualifications entitling to practise have been established, except in Jamaica, where they are those registered in the United Kingdom. In Bahamas and Bermuda there is no register, but no medical man can recover fees-at-law, unless he can show that he has a qualification registrable in the United Kingdom. Death certificates are not required in any of the islands, but stillbirths are registered, except in Jamaica. Full provision exists in all the islands for inquiries into cases of sudden death, and in all vaccination is compulsory. The sale of poisons is regulated except in Turk's Island, and notification of infectious disease compulsory except in Bahamas and Turk's Island. Public Health Acts of various characters have been introduced in all the islands. Each of them has its own medical establishment, and in several the public health services are extensive and well organized, including well-equipped hospitals and allied institutions.

British Guiana.

In British Guiana, one of the colonies organized with considerable thoroughness from a medical point of view, there is a register of medical men to which are admissible persons who are already registered in the United Kingdom. A medical Act has been introduced for control of the practice of medicine and surgery, and in addition there is a Medical Board which is responsible for the examination of persons who wish to act as dispensers, as nurses or as midwives. Death certificates cannot be given by other than qualified medical practitioners, and stillbirths are registered. The equivalent of a Health Act is in existence as is also one for dealing with the sale of poisons. Vaccination is enforced, but except in the case of common lodging houses notification of infectious disease is not compulsory. The medical department is a large one and has under its charge various hospitals and asylums. Much of the country still awaits complete development.

Windward Islands.

The regulations with regard to medical matters throughout the six Windward Islands are practically identical. In all of them there is a Medical Act in force, and in Tobago there is a Medical Board which regulates the education of druggists and midwifery nurses. Medical registers have been established, and regulations laid down as to admission thereto and removal therefrom; allegations of conduct infamous in a professional sense may also be dealt with in various ways—in Trinidad and Tobago by the Medical Board, and in the other Colonies for the most part by the Governor in Council, on representations made to him by the Medical Department. In Barbados and St. Lucia death certification is not necessary, but it is so in St. Vincent, Granada, Trinidad, and Tobago. Certificates in most of the islands can be given by various officials in cases which have not been medically attended. In all the islands stillbirths are registered. In Barbados a limited form of notification is in existence, but in other islands notification is not compulsory upon private medical practitioners, and it rests with the Government medical officers of various districts to keep the lay authorities, through the chief medical officer, duly informed of the outbreak of infectious disease. Numerous Acts dealing with the public health exist, and the sale of poisons is everywhere regulated. Each island has a medical department and public health service of its own.

Seychelles.

In the Seychelles Islands a register for medical men has been established, admission to which is granted by the administrator upon the recommendation of the chief medical officer. The medical certification of deaths has not been made necessary by law, but owners or occupiers of premises in which deaths take place have to report the fact to the chief authority of the district in which the habitation is situated. All births, including stillbirths, have to be registered; while inquiry in respect of cases of sudden death rests in the hands of the civil district officer, who depends for information upon the police. The interests of the public health are protected by various ordinances, and the sale of poisons duly regulated. The occurrence of any cases of infectious disease has also to be notified to the sanitary authority of each town and district. Vaccination is enforced, and the Board of Health, if small-pox appears in epidemic form, may compel all persons to be revaccinated, if it is thought necessary, or pay a fine. Each of the principal islands has its own Board of Health, all working under the general supervision of the central authority. Though the number of islands is large, the total population is quite small.

Straits Settlements.

In the Straits Settlements vaccination is compulsory, and stillbirths have to be reported to the local authority, though they are not registered. There is a law imposing registration of deaths, but medical certificates are not a necessary part of them. A death certificate which is given in respect of a person dying when under medical treatment must be signed by a medical man. Infectious disease must be notified, while on the occurrence of a case of sudden death, or of one due to violence, the same procedure is followed as in the United Kingdom. No Medical Act has been introduced, nor has any

schedule been established of qualifications which entitle their holder to be regarded as a legal medical practitioner. It is stated that the Malay Branch of the British Medical Association would be expected to deal with any cases in which a charge of conduct other than such as could be dealt with under the common law was brought against a recognized medical man. This Branch is an active one, and includes in its membership practically all the medical men scattered throughout the Straits Settlements and British North Borneo and the Federated Malay States. Most of these have medical establishments, and more or less complete machinery for dealing with the public health. From a medical point of view the economic development and conditions in this part of the world are not essentially dissimilar from those of the West Coast of Africa, except that among the native inhabitants who form the vast majority of the population there are many who are thoroughly civilized from the point of view of the East and subjected to the ideas and sentiments and binding customs imposed by Oriental ethical codes.

SURGERY IN PARIS.

[FROM CORRESPONDENTS.]

THE opportunities which the surgeons to the Paris hospitals offered to their British guests during their recent visit to Paris to see the surgical work were numerous. Indeed, if a fault could be found with the arrangement, it was that so much was provided that each individual among the guests must have deplored his inability to be in two places at the same time.

On each of the mornings of Thursday, Friday and Saturday, at least one dozen of the surgeons attached to the hospitals of Paris had arranged to operate at hours beginning from 8.30 to 10 a.m., and ending at 1 p.m. An abundant choice was therefore afforded; there was a surfeit of work. In making one's selection, therefore, one was guided in part by the character of the work to be seen, and in part by the desire to see those whom one had previously had the opportunity of knowing.

On Thursday morning, a visit was paid to the Hôtel-Dieu. Professor Le Dentu performed the operation of cholecystectomy, and subsequently removed a fibroma from the scalp.

The features in his technique may briefly be mentioned. The hands and arms are scrubbed in hot water and soap, and are then steeped in potassium permanganate solution, which is decolorized by oxalic acid. Gloves are not worn. The hands during the operation are rinsed in a solution of mercury biniodide. The patient's skin is similarly prepared, the friction with a brush being hard and long continued. Sterilized towels are packed round the wound area, and in close proximity to the wound larger pieces of gauze are laid which are changed frequently. The surgeon and his assistants wear caps, and there is a particularly neat arrangement for covering the mouth: a sort of bib attached to the upper end of the apron is tied over the mouth by tapes, which, passing over the ears, are knotted behind the neck.

The case of cholecystectomy was a perfectly straightforward one. There were no adhesions, and no stones in the gall bladder. A sandbag was placed behind the back, Kocher's incision was made, and the right lobe of the liver, with the gall bladder, lifted well out of the wound. The cystic duct was divided with the cautery, and the peritoneal attachments to the liver were similarly cut through. There was no bleeding from the denuded liver surface. The wound was stitched up by interrupted sutures throughout, drainage being established.

On the same morning, a visit was paid to the clinique of M. Lucas-Championnière, who operated upon two cases of hernia by his "overlapping" operation, and then demonstrated a large series of orthopaedic cases.

M. Lucas-Championnière was an early advocate of the antiseptic methods of Lister, and to these he is unswervingly loyal. Carbolic acid in solutions of 1 in 20 is still used in abundance. Catgut is prepared by soaking in oil of turpentine and in carbolic solutions, and much use is made of carbolic solutions with glycerine. In the radical cure of hernia the stitches are all of stout catgut, and the overlapping method which is associated with the name of Professor Lucas-Championnière is used. Marine sponges wrung out of carbolic solution are employed throughout and are handed by an assistant. The wound is swabbed out with strong carbolic lotion and a drainage tube is inserted. The orthopaedic cases were of much interest. Several excellent examples of excision of the knee were shown; 130 cases of this kind have been operated upon without a death. In performing the operation the patella is always removed. The tibia and the femur are sewn through until at least three-quarters of the thickness of the bone is divided. The remainder is divided with a chisel made after Macewen's pattern, but the blade is at least twice the usual breadth. This form of division is practised so as to prevent any stripping of the back of the bone by the saw. The bones are wired, the limb placed in plaster-of-paris for two months, and subsequently into a leather splint with a metal strip along it for a year or eighteen months. The results in the cases shown were admirable.

In fracture of the patella wiring is always performed; the wire, if the case will allow of it, perforates both fragments of bone, but if that is not possible it surrounds one or both of the fragments. The surrounding of the fragments is not considered satisfactory or desirable. The wire remains permanently.

In cases of fracture of the limbs massage is employed from the first in almost all cases. In many no splint is applied, and massage to the damaged parts alone is begun within a few hours of the occurrence of the fracture. In fracture of the clavicle, for example, or in Colles's fracture, a sling is applied, but no splints and no bandages. The parts concerned in the fracture are massaged, and the deformity, which at first may have been conspicuous, becomes gradually reduced and in a week's time disappears entirely. A case of recent fracture of the clavicle was shown.

In cases of clubfoot of an extreme type the operation practised consists in a removal of the whole of the tarsus except the posterior two-thirds of the os calcis. Skiagraphs, plaster casts, and patients were shown to illustrate the operation. The feature of conspicuous interest in Professor Lucas-Championnière's very lucid demonstration was that which dealt with the treatment of fractures. For his work in this matter the highest credit is due.

On Friday morning a large number of surgeons visited the Hôpital de la Pitié to see Professor Terrier and Dr. Walther.

Professor Terrier performed gastro-enterostomy for advanced malignant disease of the stomach. The posterior operation was selected, and the details of the operation were carried out in the manner described in the work on diseases of the stomach by Terrier and Hartmann. In making the anastomosis two layers of sutures are used—an inner, which includes all the coats of the intestine, and an outer, supporting suture, which unites the serous and muscular coats only. Straight needles and fine silk threads were used. In both sutures the stitch was interlocked at intervals of about three-quarters of an inch. The whole operation was conducted with the utmost neatness; all things were done methodically and deliberately. The time occupied in the performance of the entire operation was about an hour.

The second operation was an abdominal hysterectomy, performed for fibroid enlargement of the uterus, with right pyosalpinx. The patient was in the Trendelenburg position, the operator standing upon the patient's right. The operation was difficult, owing to the number of the adhesions around the right appendage, in separating which a pus-containing cavity was opened. The operator proceeded with extreme caution, separating adhesions slowly and methodically until the inflammatory mass was free. The operation then proceeded upon ordinary lines. The ovarian arteries were ligatured, the broad ligaments opened up, the uterine arteries secured, and the uterus cut away. The cavity of the cervix was cauterized with Paquelin's knife; silk was used for all ligatures. In the cut cervix about six interrupted silk sutures were introduced. The peritoneum was closed over with a continuous suture of silk. The parietal wound in both cases was closed with interrupted buried silk sutures and silk sutures.

Professor Terrier's technique is of the most modern kind. The hands are thoroughly cleansed in water and soaked in biniodide lotion. Sterilized towels, swabs, etc., are used, and a series of small cloths are placed in and around the wound so that no skin surface is seen during the operation. Conversation upon the part of operator, assistants, and spectators is rigidly forbidden. Gloves are not worn nor are caps. Much use is made of Reverdin's needle in its various forms.

The operation table is one of a special pattern made by Collin, on the pattern suggested by Dr. Gosset, Professor Terrier's assistant.

A special word of emphatic praise is due to Dr. Gosset.

It is not invariably that such accomplished assistance at operative work is to be seen elsewhere. The admirable manner in which he worked with Professor Terrier, anticipating all his movements, preparing for them, and helping in their accomplishment, was the subject of frequent comment among those who were privileged to see these operations.

Dr. Walther performed three appendectomies upon women. In the first case the uterine appendages had been removed some years ago by a provincial surgeon, and it was interesting to see the result of the previous operation as regards adhesions between the abdominal scar and the viscera. Dr. Walther copied in some respects the technique and also possessed the natural modesty of his illustrious master, Professor Terrier. All admired the sound conservatism which he displayed in treating the cystic ovaries which co-existed in the last two cases of relapsing appendicitis. No masks and no gloves were used in operating, but the patient's skin was protected from contact with the operator's and his assistants' hands by gauze clamped on by special forceps to the raw surface of the opening into the abdominal cavity. "Silence is golden" seemed to be the motto during operations.

In every operation for relapsing appendicitis, the median incision was used, and the patient was placed in Trendelenburg's position as soon as the abdomen was opened and the conditions of the involved viscera were recognized. The appendix and the meso-appendix were tied in two halves; afterwards a peritoneal flap was turned down towards the ligature round the appendix, and the submucosa and mucosa were removed by a Paquelin's cautery, the seared stump was invaginated by appropriate sutures, and the dimple of the invagination was then covered with the meso-appendix. In two of the cases the ovaries were cystic, and each cyst was opened and its interior burnt with the cautery; afterwards peritoneum was drawn over by means of sutures properly applied. Ovaries showing less evidence of disease have frequently been removed by surgeons who do not fully realize the importance of the duty that maimed uterine appendages can perform in the perpetuation of the human race, and to the comfort and joy of the individual who is allowed to retain them. Dr. Walther was evidently fully alive to the extraordinary limitations of conservative surgery of the ovaries. In two of the cases the uterus was retroverted and top-heavy, and in both ventrifixation was performed by passing longitudinally a strand of silkworm gut on each side of the anterior aspect of the uterus, and a slack loop formed by tying it over a pair of forceps, which were then withdrawn. The ends of the silkworm gut were passed through the abdominal wall and fixed to the anterior sheath of the corresponding rectus near the linea semilunaris. The abdominal wall was closed in tiers. The anterior sheath of the rectus on one side was overlapped by the other, the whole process being neatly performed by a sharply-curved Reverdin's needle.

The operation table was of the type illustrated in Fig. 10 in the *Petit Manuel d'Antisepsie et d'Asepsie Chirurgicales*, by F. Terrier and M. Peraire (1893). A Krug's frame was placed upon the longer of the two tables, in order that Trendelenburg's position might be obtained when required. The abdomen was covered with a liberal dressing of sterilized gauze and fixed by bandage.

On Saturday some visited Dr. Doyen's private clinic. He performed a radical cure of hydrocele by incising the tunica vaginalis and delivering the testis through the opening made and fixing the inverted sac by points of suture behind the testis. Two abdominal sections were performed—one for appendicitis and the other for malignant disease of the uterus. Those who have seen Dr. Doyen's work remark upon the very free and liberal incisions he makes in exposing every intra-abdominal organ. The method he adopted in closing the abdominal wall was interesting: A thick silk was passed through the skin about 1 in. from the upper extremity of the abdominal incision, and its end was attached to a perforated shot about ¾ in. in diameter, then the peritoneum and the fascial layers of the abdomen were closed by a continuous suture, and the other free end of the ligature was passed out through the skin about 1 in. from the lower end of the skin incision and anchored to another large perforated shot. The skin incision was closed by a separate suture, and the dressing was completed by covering the field of operation by adhesive plaster. In about ten to fourteen days one shot is detached from the silk, and by pulling at the other one the silk is removed.

The abdominal hysterectomy for carcinoma of the cervix uteri consisted in free removal of both broad ligaments from the sigmoid flexure on the left side to the brim of the pelvis on the right, with total removal of the uterus; a glass drain with iodoform gauze was passed downwards into the vagina, and afterwards the peritoneum was sutured by a continuous silk stitch from side to side and the sigmoid flexure fixed to it in order to prevent prolapse into the rectum.

Three vaginal hysterectomies were performed for myomata and other conditions, and one point in the technique may be copied with advantage: the rectum was blocked at the beginning of the operation by clamping the anus with ring forceps, so that no contamination of the field might take place through straining. No gloves, masks, or caps were used.

GENERAL MEDICAL COUNCIL.

NOTES.

[*The full Report of the Proceedings of the Council is published in the* Supplement *for this week, page 306.*]

Proposed Declaration as to Advertising and Canvassing.—On an application from the Council of the British Medical Association that the General Medical Council should make some pronouncement in the form of a warning to practitioners that a serious view would be taken of any methods of advertising or canvassing for patients, the Executive Committee were requested to draft such a notice in conference with the legal advisers. Though the Council has no power to frame rules of conduct, it was, nevertheless, claimed that their declaratory resolutions in the matter of the employment of unqualified assistants, and of association with medical aid societies, had been productive of much good. At present the only reference in the minutes to the matter of advertisement occurs in relation to a pronouncement about advertising dentists. It is there pointed out that heretofore no action has been taken against medical men for mere advertisement apart from its intrinsic nature. This might be read as in a measure countenancing advertisement, though it was evidently not intended to do so.

Disciplinary Cases.—A case of considerable interest in connexion with the subject of advertisement was that of William Patrick Kirwan, L.R.C.P. and L.R.C.S.Edin. This gentleman had three places of business at which unqualified persons sold on his behalf bottles of medicine made up for various ailments, while sundry announcements in connexion with these places constituted a system of advertisement of his name and qualifications. The charge was found to have been proved, and the Council suspended its final judgement until its next session, when the defendant will be required to show that he has discontinued all such practices. William Jones, registered in virtue of having been in practice prior to 1878, was found by the Statutory Dental Committee to have attracted business by extensive public advertisement of an objectionable character, and the General Medical Council after hearing the report of the Dental Committee upon the facts, the complainant and defendant being represented by Counsel, held that these advertisements amounted to conduct infamous or disgraceful in a professional respect and directed the erasure of his name. This is the first occasion upon which the penalty of erasure has been inflicted, previous cases having been dealt with by postponement in order to afford a *locus penitentiae*. The action of the Council will, it is hoped, have a very salutary effect. Two painful cases, in which it was considered that medical practitioners had abused their professional position in relation to married ladies whom they were attending in a professional capacity, were heard and resulted in the erasure of their names from the *Medical Register*.

Direct Representation.—A motion brought forward by Mr. Brown that the Council should exercise its power of applying to the Privy Council for the appointment of an additional direct representative met with more support than upon previous occasions, though it was lost by a considerable majority. His argument that, although many members had been added to the Council as representatives of new licensing universities, yet no additional direct representatives had been given, notwithstanding an increase in the numbers of medical men on the *Register*, was met by the protest that members did not conceive their duties to be to fight the battles of their own corporations, but interpreted them in a larger sense, and as being themselves representatives at least

of the mass of persons qualified by their respective bodies. It was also pointed out that only 50 per cent. of the voting papers were returned; the profession manifested a lack of interest in elections for direct representatives. And further, that although under the Act precisely similar phrases were used as to the Council requesting the Privy Council to give representation to new qualifying bodies, this had never been done in any instance, the additions having been in a measure forced upon the Council, already unwieldy in its numbers, by special Acts of Parliament.

Mortality in Childbirth.—An important motion was brought forward by Sir John Williams for an inquiry into the operation of the rules as to the midwifery practice required of candidates for medical qualifications. He pointed out that notwithstanding the advances in asepsis in other departments, the puerperal mortality of the whole country showed no diminution over a very considerable number of years, and was indeed actually a little higher than some years ago. Although it was acknowledged that the figures may be in some degree misleading owing to improved accuracy in certification, yet there was probably a real want of progress in this direction which might well be due to imperfect training in the prevention of what should be a preventable disease. The Council appointed a special committee to report on the subject.

University of Oxford.—It may be remembered that in face of an unfavourable report upon the final examination of the University of Oxford, which was stated to be "not sufficient," the Council decided to reinspect the examination before fully discussing the report. The second inspection has been made, and the report is altogether favourable. The conclusions contained in these two reports were viewed in different aspects by Sir Christopher Nixon, the original Visitor, and Dr. Thomson, the representative of the University. The former expressed satisfaction that the result of the strictures had been so great an improvement in the examination, while the latter repudiated the idea that there had been any raising of the standard, and would only admit that the general arrangements had been made more methodical. However, be this as it may, the examination as it now stands was highly spoken of, which is the chief thing in which the profession is interested.

Examinations in Operative Surgery.—The report on the University of Oxford gave rise to a somewhat warm discussion on examinations in operative surgery. It was urged that to ask candidates to mark out lines of incision on living patients was inadequate. Sir Thomas Myles entered a heated protest on behalf of the College of Surgeons in Ireland, where, as he stated, actual operation upon the cadaver was always required, and Dr. Bennett animadverted upon the examinations of the English Conjoint Board as wanting in this respect. To this Mr. Morris replied that the experience gained in examinations for the Fellowship of the College of Surgeons of England, in which the cadaver was used, had led the College to attach little value to these operations as tests, quite apart from the difficulty of obtaining an adequate supply of subjects for a large examination. Dr. Thomson took the line that, so far as Oxford was concerned, it was a counsel of perfection, since it was impossible to get the subjects.

Teaching without Examination.—The Education Committee reported on a reference to them as to the advisability of including in the curriculum subjects upon which no specific examination was held. It appears that at present there is no subject included of which it can be said that there is no examination upon it. It seems that on the Continent the examination is never divorced from the student's record at his school, which with slight exception, always plays an important part in the ultimate decision, and Dr. Heath, of the Education Department, sarcastically observes that the only parallel to the methods in vogue in the United Kingdom is to be found in the examination system of China. Reading between the lines it would seem that the Education Committee view with some favour the proposal that the previous record of the student should be taken into account in his pass examinations.

Preliminary Examinations.—The University of London having instituted a junior schools examination, somewhat in the nature of the Scottish leaving certificates, applied for its recognition by the Education Committee. This Committee, though competent to deal with the matter itself, brought it before the Council as being of some general importance, and did not recommend recognition of the examination. The reasons were that it was a junior examination, some of the candidates being only 15 years of age; that it was not recognized by the University of London itself as in any way serving the purposes of the University, and that, taking the analogy of Oxford and Cambridge, there was reason for refusing recognition, since the similar examinations held at schools by these Universities were not recognized by the Council. What had happened was that the two latter Universities held at the same times and places special examinations in different subjects and of greater stringency, and these, in which the percentage of rejections was far higher than in the ordinary examination, were alone recognized. Dr. Pye-Smith, on behalf of the University of London, promised that these arguments should be laid before his governing body, and intimated that it would come into line with Oxford and Cambridge in this respect.

Public Health.—The Committee having recommended the reinsertion of a note giving exemption to a candidate for a public health diploma from producing evidence that he has studied under some one else if he has himself held for three years a public health appointment in a place within the British dominions with a population of at least 15,000, led to a protest being raised. It was alleged that this would be a whittling down of the requirements, and the shade of the late Sir John Simon was invoked against the proposal. This was unfortunate, as it was pointed out that Sir John Simon himself had originally moved this exemption. A further addition to the rules was made recognizing as teachers medical officers of health outside the United Kingdom with districts having a population of not less than 30,000. This matter arose in connexion with an application from the Medical Officer of Health of Johannesburg, who appears to be able to afford exceptional opportunities of acquiring experience.

Examinations for the Public Services.—We have often pointed out that, the examinations for the Royal Navy, Army, and Indian Medical Services being of the nature of post-graduate examinations, a moral may be drawn from the percentages of rejections amongst those who had obtained qualifications from various licensing bodies, and have endeavoured to indicate the conclusions which may perhaps be drawn. Mr. Brown has persistently pressed this aspect of the question upon the Examination Committee, though with small success. At last, on the motion of the Chairman of that Committee, it has been instructed regularly to consider the returns, and to offer such suggestions as occur to it. It is unfortunate that, coincidently with the adoption of this course, such considerable changes have been made in the examinations as to render them of little use for purposes of comparison at the moment.

The Pharmacopœia.—The sale of the *Pharmacopœia* goes on satisfactorily, and it has become necessary to order the printing of 3,000 more copies. As a consequence, the balance-sheet of the *Pharmacopœia* account is satisfactory, and funds available for the cost of the next edition are accumulating. The work of revision, for which a sum of £100 is set aside annually, is going on steadily and continuously, the Committee having the advantage of the co-operation of Mr. Walter Hills, Dr. Inglis Clark, and Mr. Beggs. The reports received from the experts engaged will be published from time to time, so that when the time for revision arrives, the Committee may have had the advantage of criticism and suggestions upon moot points.

Finance.—For the first time for many years the expenditure of the Council has only exceeded its receipts by a small amount, a result due to the shorter sessions and to economy in various directions. The President may in this connexion be congratulated upon his prompt conduct of business during the present session, which, notwithstanding that a good deal of time was taken up by penal cases, has lasted for a shorter time than usual. Owing to legal difficulties it was not possible to recover the whole of a sum due to the Council for dilapidations on its property in Hanover Square. Three-fourths of the amount have been placed at the disposal of the Council under circumstances which show a highly honourable feeling on the part of a gentleman concerned, though not legally liable.

Higher Degrees in Dentistry.—The University of Dublin and the Victoria University of Manchester have instituted degrees in Dentistry. As the former body grants them only to persons possessed of an Arts degree of the University, its requirements are more stringent than those of the latter. Though the greater may be assumed to include the less, the wording of the Dentists Act appears to provide for admission to the *Dentists' Register* only by possession of a "licence" in Dental Surgery, and for the registration of additional qualifications "implying a higher degree" of knowledge. Hence for the present the Council has only authorized the recognition of these degrees as additional qualifications. But as both universities have also instituted a lower qualification or "licence" the remedy for the difficulty lies in their own hands, as they can, if they chose, grant the licence simultaneously to any who proceed to take the higher degree in the first instance. The legal point is to be referred to the legal advisers of the Council. Incidentally, this raises the old question whether it is expedient for University degrees to be granted to persons other than those who are already registrable, that is to say, whether by the adoption of this plan the University degrees would not more markedly take their proper place as "higher" qualifications. Dental diplomas of Victoria, Australia, were accepted for registration upon the Colonial list of the *Dentists' Register* at the last session of the Council. An offer made by the Australian Dental Board to forward to England candidates' papers, marks and other returns, in lieu of inspections, which distance renders hardly practicable, was accepted in the same spirit as it was offered.

MEDICAL NEWS.

The forty-fifth annual dinner of King's College, London, will be held at the Hotel Cecil on Monday, June 26th, when the chair will be taken by Colonel Richard H. Jelf.

A discussion on sanatoriums for consumption, their design and location, will be opened by Mr. Edwin T. Hall, F.R.I.B.A., at the Royal Sanitary Institute on Friday, June 16th; the chair will be taken by Lord Cheylesmore at 4.30 p.m.

Dr. Howard Kelly, of Baltimore, is to give an address on tuberculosis of the urinary tract in females, at a meeting of the British Gynaecological Society on Thursday next. It will be followed by a *conversazione*.

The fifth annual South African Civil Surgeons' dinner will take place on Tuesday, July 4th, at the Imperial Restaurant, Regent Street, London, W., at 8 p.m., under the presidency of Mr. W. Watson Cheyne, C.B. Further particulars can be obtained from the Honorary Secretaries. Dr. F. E. Fremantle and Mr. R. C. Gordon Watson, 44, Welbeck Street, London, W.

A workman engaged on the construction of the new docks at Cardiff was found on May 24th to be suffering from small-pox. He was promptly taken to the Small-pox Hospital, whilst all contacts have been revaccinated, and are now kept under daily observation. The patient had been in Cardiff only ten days, and it is believed that he had contracted the disease at Southampton.

The Laryngological Society of Vienna is about to take steps to organize a festal celebration to be held in 1908 in honour of the jubilee of medical, as distinguished from physiological, laryngoscopy. It was in 1858 that Professor Turck showed the far-reaching applications in the domain of medical practice of Manuel Garcia's great discovery. It is hoped that all the leading representatives of laryngology throughout the world will be present on the occasion.

At the annual meeting of the Factory Girls' Holiday Fund, held on May 30th at the Mansion House under the chairmanship of the Lord Mayor, it was stated that last year 4,090 girls and women employed in factories were enabled by the Fund to get a holiday in country air, where they are housed among cottagers. The girls themselves paid £1,183 towards the expenses, but in spite of this, the year ended with a deficit of £140. The attempt made is to send the girls away for a week, and, if possible, for a fortnight, at a time when work is slack. The Fund deserves the support of which it stands in serious need. The honorary secretary is Miss Paget, 28, Campden Hill Square.

The twenty-ninth annual meeting of the British Medical Temperance Association was held on Tuesday, May 30th, at the London Temperance Hospital. Dr. Heywood Smith occupied the chair in the unavoidable absence of Professor Sims Woodhead, the president. The Honorary Secretary, Dr. J. J. Ridge, read the annual report, which showed a membership of 568 medical practitioners and 288 medical students, all abstainers. Dr. V. H. Rutherford was elected treasurer in place of the late Dr. T. Morton. A paper by Professor Woodhead was read appealing to the medical profession to assist more actively in the promotion of temperance, and it was resolved to ask him to allow this to be printed and issued.

The members and friends of the Glasgow University Club, London, dined together on May 26th at the Trocadero Restaurant, London, under the genial chairmanship of Sir William Ramsay. After the usual loyal toasts had been duly honoured, Mr. Ure proposed the toast of "The Imperial Forces," which was replied to by Brigadier-General Sir Ronald Macdonald, the officer in command of the expedition to Thibet. Sir William Ramsay, the Chairman, then proposed "The University and the Club." He delighted his audience with racy reminiscences of the time when he was at Glasgow University. He congratulated the club on the satisfactory progress made during the year. According to the annual report 32 new members had joined, the total membership amounting to 301. Lord Kelvin was elected president of the club for the ensuing year. The next toast on the list was that of "The Guests" which was proposed by Principal John Yule Mackay. He referred in humorous terms to his old teacher, Sir William Ramsay, who had helped him to understand Professor Ferguson's Lectures on Chemistry. Professor A. Ewing, in acknowledging the toast, declared that Sir William Ramsay was always discovering new elements and had almost exhausted the Greek lexicon in finding names for them. Professor McCall Anderson next submitted the toast of "The Chairman," and declared that Glasgow did not grudge its great men to London because what was good for London was good for Scotsmen. After Sir William Ramsay had duly acknowledged the toast he proceeded to tell some Scotch stories, and the formal proceedings terminated.

Lincoln Typhoid Fever Epidemic.—Two cases were notified during the week ending Friday, May 26th.

West London Post-graduate College and Hospital.—The Past and Present Post-graduate College and West London Hospital dinner will take place on Wednesday, June 7th, at the Trocadero Restaurant, Piccadilly Circus, W., at 7.30 p.m. Gentlemen desirous of attending should apply to the Dean, Mr. L. A. Bidwell.

Bubonic Plague at Leith.—The three plague patients at Leith continue to make satisfactory progress towards recovery. No further case has occurred since May 10th. No evidence of the disease in rats has yet been found, nor has any other light been thrown on the cause of the outbreak. Great credit is due to Dr. Robertson, the Medical Officer of Leith, for his early recognition of the disease, and his vigorous action to prevent its spread.

Diphtheria Antitoxin in Cerebro-spinal Meningitis.—We learn from the New York *Medical Record* that at a recent meeting of the Commission appointed to investigate the etiology and prevention of cerebro-spinal meningitis, the conclusion was reached that the use of diphtheria antitoxin is of no value in the treatment of cerebro-spinal meningitis. Fresh air seems to be the greatest desideratum for the patients, and the records of the Health Department show that the severe epidemics of the disease have always occurred during very cold winters, when the houses are shut up tighter than usual. This was true of the years 1872, 1881, 1893, and the past two winters, in all of which years cerebro-spinal meningitis was rife.

Convalescence from Scarlet Fever.—Special notice of the utility of the Mary Wardell Convalescent Home at Stanmore, which receives none but those recovering from scarlet fever, was given in these columns last year. In the report of the institution for 1904 it is shown that 131 patients were received, and that the number has been steadily falling for three years, owing to the absence of scarlet fever around London in an epidemic form during that period. Nevertheless, it remains essential to keep the home ever ready for a call upon its full resources, so expenses cannot be cut down. Hence special attention is directed to a meeting at the Mansion House on July 13th next, in commemoration of the 21st anniversary of the opening of the home, which it is claimed has contributed largely to a diminution in the incidence of scarlet fever. The Lord Mayor will preside.

British Medical Journal.

SATURDAY, JUNE 3RD, 1905.

THE ANNUAL MEETING AT LEICESTER.

IN the SUPPLEMENT for this week is published the programme of the twelve Sections of the annual meeting of the British Medical Association to be held at Leicester at the end of July; the Sections will meet on Wednesday, Thursday, and Friday, July 26th, 27th, and 28th. It will be observed that on this occasion there will again be a Section of Industrial Hygiene and Diseases of Occupation, and it is most appropriate seeing that Leicester is itself a manufacturing town and is within easy reach of many other important industrial centres. In the case of each Section particulars are given with regard to the principal subjects of discussion selected, and we would draw attention in this connexion to one of the recommendations of the Scientific Co-ordination Committee printed in the SUPPLEMENT of March 4th, 1905, page 79. The Committee suggested that members should endeavour to bring before their Divisions as many cases as possible illustrating the subjects selected for discussion in the Section. It is hoped that secretaries of Divisions will bear this suggestion in mind during the interval which has still to elapse before the annual meeting. The SUPPLEMENT opens with an illustrated article on Leicester in continuation of that published last December, giving particulars especially with regard to modern Leicester, and the enterprises of its municipality. We would venture to invite special attention to the paragraph in this article on the Pathological Museum; well-lighted rooms have been allotted to it in the building in which the Sections are to meet, and the Committee in Leicester is affording facilities to members reading papers or taking part in the discussions of the Sections to exhibit and demonstrate illustrative pathological specimens in the Museum. It is hoped that in this way the practical character of the discussions will be increased.

GLOUCESTERSHIRE COMBINED SANITARY DISTRICT.

EVEN the most ardent supporter of decentralization will admit that occasions may arise when local government fails in some of its most important attributes, and that it is then the duty of the central authority to intervene for the purpose of preventing injustice to an individual or disaster to the community, or it may be both. Although the sanitary administration of England and Wales has been placed by the Public Health Acts almost entirely in the hands of local authorities, it was deemed prudent, not only by those who framed the Public Health Act of 1875, but later on by those responsible for the Local Government Act of 1888, to provide such safeguards as would prevent an abuse of their powers by the administering authorities. The Act of 1888, under which County Councils were formed, enabled these bodies to exercise, under certain circumstances, the powers conferred upon local sanitary authorities in 1875, and the Public Health Act of 1875 gave to the Local Government Board certain very definite powers in connexion with local sanitary administration. The Board has always used these powers very sparingly, and has shown wisdom, amply justified by subsequent events, in exhausting all other means before resorting to compulsory measures. It will be remembered[1] that Dr. Francis T. Bond has been medical officer of health for a combination of districts for 32 years, and during that time has devoted himself entirely to public health work. Since 1888, under the pernicious system of periodical re-election, which the British Medical Association is seeking to bring to an end, he has been subject to re-election annually at the hands of the district councils. One of the councils—the Chipping Sodbury—now proposes to withdraw from the combination. The Local Government Board protested strongly against the withdrawal, and a medical inspector of the Board attended a meeting of the District Council for the purpose of ascertaining the reason, which appears to be that Dr. Bond very properly declined to undertake, without extra remuneration, the administration of three parishes, with a combined population of about 4,600 persons, which were last year added to the Chipping Sodbury district through the absorption of the greater part of the Barton Regis district by the city of Bristol. In order to obtain from the Gloucestershire County Council a moiety of the salary of the medical officer of health, the District Council must first obtain the sanction of the Local Government Board to the appointment of the gentleman elected; but so far that sanction has not been forthcoming. The Board might quite justifiably withhold its consent, and the local ratepayers would thus be fined to the extent of £60 annually, or, if certain representations are made, the Board is empowered by Section CCLXXXVI of the Public Health Act, 1875, to make an order for the formation of a combined sanitary district, and there is at least one precedent for this step on the part of the central body. Before taking any definite action it has been decided to ascertain the views of the eleven councils remaining in the combination, and the Board has accordingly requested the Clerk of the Gloucester Rural District Council to convene a conference of delegates appointed by all the constituent councils. This meeting will take place on June 19th; the Chipping Sodbury Council has declined to be represented. There can be little doubt that public opinion, as it will find expression at the conference, will justify the Board in using the powers conferred upon it by the Legislature to their very fullest extent.

[1] BRITISH MEDICAL JOURNAL, April 29th, p. 953.

A SIDELIGHT ON MEDICAL EDUCATION.

THERE will be found at page 307 of the SUPPLEMENT to this issue an analysis of the returns respecting the examinations for admission to the medical services of the Royal Navy, the Royal Army Medical Corps, and the Indian Medical Service placed on record in the minutes of the recent session of the General Medical Council. They relate to all the examinations held since its autumn session, namely, two for the Indian Medical and one for each of the other services. The analyses have been prepared on the same lines as those followed in regard to earlier returns. What has been said about them before could almost be said again, for the results shown are practically the same as those brought out in an analysis covering all the examinations held since June, 1902, published on January 7th, 1905. The competition for the Royal Navy remains at 5 candidates for 4 vacancies, while that for the Royal Army Medical Corps is practically the same as for the Indian Medical Service, or 5 candidates for every 2 commissions. Candidates from English colleges and universities continue to form rather less than half the total, and to carry off rather more than half the commissions offered. As regards the candidates who totally fail at the examinations, or, in other words, who do not obtain half marks and are classed as rejected, the English candidates thus failed to the extent of 12 per cent. of their number, the Scotch to 24 per cent., and the Irish to 19 per cent., the average of all candidates being 35 per cent. These figures are somewhat higher than in the past for English candidates and slightly lower for the rest. As regards the candidates representing individual examining bodies, those holding the diploma of the English Conjoint Board are seen to have been, as heretofore, much more numerous than those of any other corporation or of any university. They number 50 out of a total of 153 candidates of all classes, and still come out well, but not so pre-eminently well as in former analyses. In view of the correspondence which took place early in the year, the

results of the competitions for the Indian Medical Service taken alone are worth noting. At the two examinations there were altogether 68 candidates for 27 vacancies. Of these candidates 33 held University degrees but no diploma, 17 degrees and diplomas together, and 18 the diploma of the English Conjoint Colleges alone. Of the latter 16 passed the qualifying standard, 2 were rejected and 7 won places; of the 33 graduates 23 passed the standard, 10 were rejected and 14 won commissions. At the earlier competition the first, and at the later competition the second, third, fifth, and seventh places fell to the English candidates holding Conjoint diplomas alone. The figures do not bear out the suggestion made by some correspondents that if the Indian examinations were taken alone the results would put the English Conjoint candidates in a position of less credit than that to which they seemed to be entitled by the result of all the examinations taken together.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

We are informed by the Secretary of the College that a meeting of Fellows will be held at the College on Thursday, July 6th, at 2 p.m., for the election of four Fellows into the Council of the College. The resignation of Sir Henry Howse, re-elected in 1897 and not seeking re-election, leaves only one representative of Guy's Hospital, Mr. Clement Lucas, on the Council, and we understand that Mr. Golding-Bird will be a candidate. The other members of Council who being elected in 1897 now retire are Mr. Edmund Owen and Mr. R. J. Godlee. We understand that they will seek re-election. We are further informed that Sir Alfred Cooper has resigned his seat on the Council. Mr. Tweedy, though "substitute member" for Mr. Davies-Colley until last year, retains his seat, being President. Blank forms of the requisite notice from a candidate of his nomination may be obtained on application to the Secretary, and the same must be received by him, duly filled up, not later than Monday, June 12th. A voting paper will be sent by post to each Fellow whose address in the United Kingdom is registered at the College, on Friday, June 23rd, and Fellows will not be required to apply for voting papers. The Secretary requests that Fellows be careful to furnish him with their correct addresses.

The King approved the charter for the constitution of the University of Sheffield on May 29th.

We learn with great regret that Dr. J. Murphy, of Sunderland, one of the representatives of the North of England Branch on the Central Council of the British Medical Association, died of pneumonia on May 30th.

We regret to record the death of Dr. Eustace Talbot, formerly casualty physician to St. Bartholomew's Hospital, from acute appendicitis; he was only 31 years of age. We shall hope to publish an obituary notice in an early issue.

Owing to the demand made upon the space of the British Medical Journal this week by the series of articles on medical legislation and conditions of medical practice in various countries of Europe, we are compelled to ask the indulgence of correspondents who may find the publication of their communications postponed.

MEDICAL NOTES IN PARLIAMENT.

[By Our Lobby Correspondents.]

Beer *v.* Tea.—Last Friday, in the course of the debate on the Sunday Closing Bill, there were some remarkable statements made by opponents of the Bill. Sir James Fergusson, a very old member of the House, went so far as to say that he believed "far more deterioration was caused to our race by the excessive use of tea than by the excessive use of beer." It is true the statement excited some laughter, but the hon. baronet went on to attribute the loss of teeth in his part of Scotland to the use of strong tea and the want of a sufficiently plentiful milk diet. "When the people lived on porridge, it was a common thing to see men with strong teeth, and capable of hanging on to a rope by them." He apparently forgot to attribute the strong teeth to the porridge and milk, for which tea and white bread are admittedly bad substitutes. Another member referred to tea as a cause of insanity, and Sir William Tomlinson asserted that tea was doing far more injury to the health of the public than beer. Even Mr. Cochrane, speaking for the Government, before the Bill was rejected by a narrow majority of six, said that one of the greatest experts in insanity had said to him, "I am coming to the conclusion that drinking is not so much the cause of insanity as that insanity is the cause of drinking." Altogether, the debate was decorated by several remarkable assertions of very doubtful physiological or medical value, which can hardly add to the general respect for the wisdom of Parliament.

Aliens and Infectious Diseases.—Last week Mr. Levy asked the Secretary of State for the Home Department if he would state how many of the alien immigrants who arrived in London during March and April were reported by the Medical Officer of Health for the Port of London to be suffering from infectious or contagious diseases, and what were the diseases of the immigrants so reported. Mr. Secretary Akers-Douglas replied that he was informed, on making inquiry of the authorities of the City of London, that the following cases of alien immigrants suffering from infectious or contagious diseases were reported by the Medical Officer of Health of the Port of London during March and April: March, 1 case of erysipelas; April, 5 cases, namely, chicken-pox 1, measles 1, and enteric fever 3.

Small-pox Hospitals and the Spread of the Disease.—Mr. Thomas Bayley asked the President of the Local Government Board whether he had supplied a copy of the recent report of Dr. Reece, one of the medical inspectors of the Local Government Board, on the Liverpool small-pox hospitals to the local authority of that city; and whether, in view of Dr. Reece's conclusion that the influence of the hospitals had been responsible in material degree for the sustained prevalence of small-pox in Liverpool in 1902-3, he had made any representations to the local authority as to the desirability of discontinuing the use for small-pox purposes of the two hospitals situated within the city—namely, the Priory Road and Parkhill Hospitals—which were especially condemned by Dr. Reece, and of making such other arrangements for the treatment of small-pox cases as would be less likely to be a source of danger to the inhabitants than those which now exist. Mr. Gerald Balfour replied that the Local Government Board had sent copies of Dr. Reece's report to the Town Council of Liverpool, but they did not deem it necessary in connexion with it to make any special representations to the Council of the kind suggested in the question. The Board had issued a memorandum containing their views as to the liability of small-pox hospitals to disseminate the disease, and as to the desirability of their being placed outside towns as far distant from any populated neighbourhood as considerations of accessibility permitted. The Board had sent copies of this memorandum in 1902 to the Town Council of Liverpool, amongst other local authorities, and in the circular which accompanied it they had expressly stated that small-pox hospitals should be placed in sparsely-populated situations.

Coroners and Inquests.—Mr. Weir asked the Secretary of State for the Home Department last week whether his attention had been called to the fact that the coroner for South-West London and City of Westminster was in the habit of employing a pathologist to determine the cause of death, in preference to the medical practitioner last in attendance on the deceased, and would he state why the practice adopted by other coroners throughout the country was departed from by the coroner for this district. Mr. Secretary Akers-Douglas said that he had had under his notice certain statements made with regard to the procedure at inquests held by the coroner in question, but he did not know how far these statements were accurate; and, in any case, he had no authority to interfere with the discretion of a coroner in the conduct of inquests.

The Sanitation of the Thames Estuary.—Sir Joseph Dimsdale asked the Secretary of State for War whether he was aware that the estuary of the Thames was being polluted by the discharge of crude sewage from forts and barracks at Tilbury and

Gravesend; and whether, if the War Office was unable to proceed with the works necessary for the purification of the sewage during the current financial year owing to funds not being available for the purpose, he would take steps by a Supplementary Estimate, or otherwise, to remove this difficulty, and in the interest of the public health have the works carried out without further delay. Mr. Secretary Arnold-Forster answered that schemes had been prepared for the septic treatment of sewage from the War Department barracks and forts at Gravesend and Tilbury, and part of the work at Gravesend had already been done.

Insanitation at Lewis.—Mr. Weir asked the Lord Advocate, in view of the statement contained in the Report of the County Medical Officer of Health for Ross and Cromarty concerning the insanitary condition of the Island of Lewis, if he would state when the Local Government Board's medical inspector proposed to visit the island. Mr. Scott Dickson replied that the medical inspector and inspecting officer of the Local Government Board visited the Island of Lewis in April and inspected a number of townships. Their report was now under the consideration of the Board.

The Public Health Acts (Amendment) Bill.—The Select Committee appointed to consider this Bill, which was read a second time in the Lords recently, is composed of Lord Zouche, Lord Digby, Lord Kenyon, Lord Stanley of Alderley, Lord Hylton, Lord Burghclere, and Lord Allerton.

Spotted Fever.—Mr. T. Taylor last week asked the President of the Local Government Board what action he had taken with reference to the Northamptonshire cases of cerebro-spinal meningitis, or spotted fever; and whether, in view of the rapidity of its spread and fatal effects in Germany, special means would be taken, and, if so, what means, to prevent its spread in the United Kingdom. Mr. Gerald Balfour said that the Local Government Board had caused one of their medical inspectors to visit the district affected for the purpose of ascertaining the facts and of giving advice to the district council and their officers. As a result of the inspector's visit the Board had expressed their willingness to entertain any proposal from the district council to make it compulsory during a limited time to notify to them cases of the disease referred to which occurred in their district. He might add that the Board would be prepared to entertain similar applications from other local authorities who might deem it desirable to adopt this course and thus to safeguard their districts from the importation and spread of the disease. In answer to a further question suggesting that notification should be made national, Mr. Gerald Balfour said that up to the present he had not thought it desirable. On Monday last Mr. Channing asked the President of the Local Government Board whether he would publish, as a parliamentary paper or in the press, the report of Dr. Farrar, the Local Government Board inspector, into the cases of cerebro-spinal meningitis at Irthlingborough, Northants; and whether he would state what steps, if any, were being taken to prevent, so far as possible, the introduction of the disease into this country, and to isolate and stamp out outbreaks of this disease. Mr. Gerald Balfour replied that Dr. Farrar's report on this subject would, he hoped, shortly be completed. He proposed that it should then be printed and published. Communications had been made to the medical officers of health of the ports at which immigrants from the Continent were usually landed, with a view to these officers being on the watch for the possible importation of cases of cerebro-spinal meningitis from abroad. As stated on Thursday last, in reply to a question by the honourable member for the Radcliffe Division, the Local Government Board was prepared to entertain proposals from the local authorities to make compulsory for a limited time the notification to them of cases of this disease where they deemed it desirable.

Medical Certificates and the Post Office.—Sir Walter Foster asked the Postmaster General whether he was aware that a telegraphist named Bullamore had submitted certificates from various medical men stating that he was suffering from nervous disorder and needed complete rest; that these certificates had been set aside by the Medical Department of the Post Office; that Bullamore had had a sum exceeding £9 sterling deducted from his wages by reason of his remaining from duty in obedience to the injunctions of his medical advisers; and that since that period the official medical officer had informed him that he could have six months' holiday without pay; whether he could state why Bullamore, after being treated as a malingerer, was now being treated differently; and explain why he should not be treated as regards sick leave in the same manner as other civil servants, seeing that Bullamore had been compelled to decline the offer upon financial grounds. Lord Stanley replied: For the information asked for in the first part of the honourable member's question, he must refer him to his answers of the 15th instant and 5th ultimo. Mr. Bullamore could not be allowed pay for the period during which his absence was not covered by official medical certificate. Recently Mr. Bullamore had been offered six months' leave without pay. In view of the opinion expressed by the chief medical officer of the Post Office, and the medical referee to the Treasury, he would not be justified in granting him sick leave with pay. There was no ground for considering that he was not being treated in the same manner as other civil servants under similar circumstances.

Vaccination Marks.—Sir John Rolleston asked the President of the Local Government Board whether, in view of the importance attached by medical vaccinist authorities to the existence of an adequate area of marks as an evidence of efficient vaccination, and in view of the practice of the Board in awarding a bonus to public vaccinators on similar evidence of the efficiency of the vaccination work, he would consider the desirability of specifying the cicatricial area necessary to a successful vaccination, and of requiring the public vaccinators to inspect their vaccinations at the end of three months after the performance of the operation with a view to satisfying themselves that the specified area had been produced; and whether he would consider the desirability of embodying a definition of successful vaccination in the Board's instructions to vaccinators under contract, and in Form E required by the Board to be filled up by medical practitioners who are not public vaccinators. Mr. Gerald Balfour replied that awards were made to public vaccinators on other considerations besides the "existence" in cases vaccinated by them "of an adequate area of marks." He had no power to define successful vaccination, or to prescribe the duties of private medical practitioners in the matter referred to in the question, but he would consider to what extent it might be practicable to give effect to the honourable member's suggestion, so far as public vaccinators were concerned, whenever it became necessary to revise the regulations respecting their duties.

Magistrates and the Vaccination Act.—On Monday Mr. Corrie Grant asked the Secretary of State for the Home Department whether he was aware that Edward Robinson, a blacksmith, of Warmington (Warwickshire), applied four times (on January 25th, February 8th, February 22nd, and March 29th, 1905) for a vaccination exemption certificate to the Kineton bench of magistrates for his child born on December 4th, 1904, and on each occasion was refused; and whether, in view of the frequency of such cases before certain magistrates, he would bring in a Bill substituting a statutory declaration by the applicant to be filed by him at the time of the registration of the birth for a certificate of exemption. Mr. Gerald Balfour said, in reply for the Home Secretary, that he had no information concerning the case mentioned. Proposals of the kind suggested were fully discussed when the Vaccination Act, 1898, was before the House, and were rejected. He was not prepared to introduce legislation dealing with the matter.

Plague in India.—There has been a good deal of conversation among members on the gravity of the situation in India as regards plague. From time to time Sir Walter Foster and Mr. Herbert Roberts have put questions to the Secretary of State as to the numbers dying from the disease, and promises have been obtained of more regular and full publication of the statistics. What is really wanted to clear up the position is a debate on the subject by which the facts of the enormous and increasing mortality would be disclosed, and the methods being employed to check the outbreaks fully described. Unfortunately, all chance of such a debate being raised has been destroyed by two so-called blocking motions on the plague in India and the outbreak at Leith, which have been put down by supporters of the Government. There remains, therefore, only the opportunity afforded by the Indian Budget, discussion of which it is hoped will come on soon after Whitsuntide.

The Liverpool Small-pox Hospitals.—On Tuesday Mr. Austin Taylor asked the President of the Local Government Board whether he was aware that the report of Dr. Reece on the Liverpool small-pox hospitals was based entirely on spot maps, and that the Medical Officer of the Local Government Board had stated that other sources of infection ought to be taken into consideration; and whether, seeing that the Fazakerley Hospital, condemned in the report of Dr. Reece, received the approval of three of the Board's inspectors, he would take steps to withdraw the report in question in view of the above facts. Mr. Gerald Balfour replied that Dr. Reece's report set out the facts with regard to the incidence of small-pox in the neighbourhood of the three hospitals referred to in it, and these facts were illustrated by means of the spot maps annexed to the report. He had stated the circumstances in relation to the Fazakerley Hospital, but he had not condemned it, and he saw no sufficient reason for withdrawing the report as suggested. He might add that the Medical Officer of the Local Government Board had not expressed any opinion in explanation of the facts recorded by Dr. Reece.

Vaccinated Calves as Food.—Mr. Weir asked the President of the Local Government Board on Tuesday, whether having regard to the fact that the carcasses of upwards of 1,000 calves which were vaccinated at the Local Government Board vaccine station for the production of lymph had recently been sold for food in London, he would arrange for the carcasses of all animals which had been used for the production of vaccine lymph to be destroyed. Mr. Gerald Balfour answered that he was advised that there was no evidence whatever that the carcasses of animals used for the purpose referred to were thereby rendered unfit for food. The destruction of the carcasses would, moreover, involve a large additional charge upon the Exchequer, amounting probably to some £4,000 a year, and, having regard to these considerations, he was not prepared to adopt the suggestion of the honourable member. He might add that the carcasses were thoroughly examined by a veterinary surgeon before being allowed to be sold for food.

Ireland.

DIRECT REPRESENTATIVE.

At the meeting of the King's County Branch of the Irish Medical Association, the candidature of Sir William Thomson, as Direct Representative for Ireland, was adopted.

It is announced that Dr. G. E. J. Greene, of Ferns, co. Wexford, a Vice-President of the Irish Medical Association, will be a candidate for the office of Direct Representative on the General Medical Council. There are now four candidates in the field—Sir William Thomson (sitting member), Dr. Leonard Kidd, Dr. Mahon, and Dr. Greene.

IRISH MEDICAL ASSOCIATION.

At the annual general meeting, to be held at the Victoria Hall, Killarney, on June 7th, at 2 o'clock, the following motions, of which notice has been given, will be submitted for approval.

Recommendation by the Council:

That Poor-law unions whose scales of salaries have been adopted as satisfactory to their medical officers, and approved by the Irish Medical Association, be exempted from the operation of the rule passed at Enniskillen in June, 1903, fixing the minimum salary for dispensaries at £200; for workhouses at £120; and for both combined at £300 per annum.

Dr. Donnellan: That the Council be instructed to formulate a policy that will enable the Association to carry to a successful issue measures which may be adopted for the improvement of members.

Dr. Donnelly: To make arrangements with regard to the next issue of the *Irish Medical Directory*.

Dr. Hugh Harris: (*a*) That a Parliamentary Fund be raised for the purpose of aiding the election of a member of the medical profession to a seat in the House of Commons, and his attendance during the Parliamentary Session; and that the British Medical Association be asked to assist financially in this object.

(*b*) That it is expedient the Reserve Fund should, with the least possible delay, be raised to a sum the interest of which would enable the Association to aid financially the County Branches or individual members in securing adequate remuneration for their professional services.

The annual report to be presented states that there are on the roll 869 members, being an increase of 35 over 1903. The loss in membership by deaths and resignations numbered 46. The Association has entered into an agreement with the Poor-law Association in respect to the drafting of a Joint Superannuation Bill, the liability of the Association not to exceed £50. In the practical working of the Enniskillen resolutions it has been found that it would serve the purposes of the Association if a discretionary power, to a limited extent, were given to county Branches. Regarding Surgeon-General Evatt's report, it is said:

When the report reached the hands of the Council it was found not to contain any reference to either meetings or interviews held during the course of his tour, nor any suggestion as to the best way of dealing with the removal of grievances connected with the Poor-law service.

With reference to the *Irish Medical Directory*, it has been decided that any medical practitioner—member or non-member—who before September 1st send in the form attached to his *Directory*, shall have the qualifications, etc., written thereon inserted after his name in the next issue. The accounts show a credit balance of £90 7s. 5d.; but against this and the income for 1905, law costs estimated at £645 must be charged. The Organization Committee recommends that the country should be divided into five voting areas for the election of councillors; that the Council should have power to co-opt three members, and the president and hon. secretary should be elected by the entire body of members. The Council would consist of 25 members, as follows:—Ulster, Munster, Connaught, and Leinster (excluding Dublin County and City), 4 members each; Dublin County and City, 4; president, hon. secretary, and 3 co-opted members. As members shall hold office for two years, half retiring annually, the areas will elect, after the first year, two members for each area. A minority of the committee,

being anxious that the representative character of the Council should be maintained, propose that electoral areas should be formed by grouping, if necessary, small branches, each group to elect one member of Council.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 131.

DICHOTOMY.

A CORRESPONDENT writes that when he meets another medical man in consultation in the case of a club patient, the consultant sometimes divides the fee with him. He wishes to know if this is usual, or whether he is entitled to charge his patient a fee, as it is no part of his duties as club surgeon to meet a consultant.

*** It is not usual for a consultant to divide his fee in any case, and such a course is not to be recommended. A club surgeon is not obliged to meet a consultant, and no consultation can take place without his consent. If he recommends a consultation, or even consents to it, it is to be feared that, in the absence of a special agreement beforehand, he would not be able to claim a fee.

CANVASSING FOR CLUB PRACTICE.

ETIQUETTE writes that new works have recently been started in his district, in which about thirty men are employed. A local practitioner, Dr. L., interviewed the manager and foreman, and also asked each man to make him his doctor at 3d. a week. Later on Dr. M. also visited the works, but put up a notice at the entrance gate, asking the men to sign. As a result seven men signed for Dr. L. and one for Dr. M.; the remainder abstained from signing for either. Drs. N. and O., also local practitioners, spoke to the manager and foreman, but did not speak to the men. "Etiquette" wishes to know whether L. and M. acted properly, and, further, whether N. and O. were correct in calling upon the manager or foreman of the works?

*** There seems to be some want of dignity in the action of all four. The proper course would be to send a written application.

MIDWIVES ACT.

PAYMENT OF MEDICAL PRACTITIONERS CALLED IN TO ASSIST MIDWIVES.

At a recent meeting of the West Derby Guardians, the clerk stated that the guardians wished it to be distinctly understood by the medical profession that in no case would they recognize any claim for fees under the Midwives Act, 1902. Section XV of the Act said: "Any expense under this Act payable by the council of a county or county borough shall be defrayed out of the county fund, or out of the borough fund or borough rate, as the case may be."

CORRESPONDENCE.

ANTIVACCINATION FIGURES.

SIR,—A letter has been going the rounds of the provincial papers from the antivaccinist, Mr. J. West. In it he quotes from a "Dr. J. H. Hensal, a surgeon in the German army," as follows: "In June, 1888, I was on duty at Strasburg, and over 2,000 cases of small-pox were in the first house."

In face of this statement, it is well to know that in 1888 there were but 184 cases of small-pox in the whole German Empire, and that only 50 of these were in Alsace-Loraine, of which Strasburg is the capital. Two of the five were in St. Médard, one in Metz, one in Plappeville, and one in Rüssingen. Not one case occurred in Strasburg.—I am, etc.,

E. GARRETT ANDERSON, M.D.,
Honorary Secretary, I.V.L.

London, W., May 25th.

KNOWLEDGE OF PLAGUE IN INDIA.

SIR,—In your issue of April 29th, p. 954, you state that since March 25th the *Times of India* has published no tabulated statements of the plague returns throughout India, and you add: "Is it an omission from 'want of space in our columns,' an inadvertency, or a deliberate withholding of information on the part of the newspaper authorities themselves or at the request of the Government?"

I wish to explain that the omission on two or three occasions of the plague returns from our weekly mail edition has been due entirely to an inadvertency resulting from some changes in our editorial staff. The returns have been published as usual in our daily edition, but on three occasions have been left out of the mail edition. I did not even notice the accidental omission until I saw your comment upon it.

May I add that, so far from withholding information, the newspapers of India have always published, as far as possible, the fullest and most detailed information regarding the progress of the various plague epidemics in India, and if there is one journal to which your suggestion ought never to have been applied it is the *Times of India*, which first announced the presence of plague in India, and for a long time fought the authorities when they contended that the epidemic was one of "bubonic fever not amounting to plague," and declined to take the necessary precautions on a large scale. If we and other Indian papers do not at the present moment devote more space to plague, it is because the presence of the disease all around us has become so much a part of our daily life that news concerning it ceases to have much interest for our readers. When one has lived constantly in the midst of plague for nine years, it no longer occurs to one to be continually referring to it. I should be afraid to say how many miles of articles and reports the *Times of India* published concerning plague in the first five or six years of the epidemics. It was certainly an enormous quantity.

The reason why the home papers do not publish more information about plague is by no means impossible to fathom, as you seem to think. My experience is that home editors, as a class, care little for Indian news unless it is sensational, and it is often impossible to attract any attention in England regarding matters vitally affecting the welfare of India or her people. The almost invariable answer is: "It would not interest the British public." I should also like to say that your idea that the Government of India would request the newspapers here to withhold the truth concerning plague is quite unwarranted. There is a very erroneous impression prevalent in England that the various administrations here maintain close and confidential relations with the Anglo-Indian press. Such is by no means the case. Such relations are not sought by the authorities, and are not desired by the papers themselves. After a considerable number of years of experience of India, I am able to say that I have never personally known a single instance where Government have preferred a request of the kind you suggest, and I am tolerably sure that if they did it would be disregarded. There is no good object to be served in concealing the truth about the plague epidemics in India. Government, so far as I am aware, have never shown the slightest desire to do so. The original suppression of the truth which the *Times of India* fought against was committed not by the Government, but by the Bombay municipal authorities. The Government returns are published weekly, and are promptly supplied to the press. I do not believe that they represent the whole mortality from plague, but that is not the fault of Government. It is due to the difficulties of diagnosis and registration in rural areas. At the same time, I fancy the figures, as a rule, are approximately a fairly safe guide.—I am, etc.,

LOVAT FRASER,
Editor, *Times of India*.

Bombay, May 13th.

EPSOM COLLEGE.

SIR,—As a Life Governor, I trust that past Epsomians will in this, the jubilee year of the opening of the College, in a substantial manner give expression to their sympathy with the Council in the heavy responsibility described by you in the JOURNAL of May 27th.

At the same time, I feel strongly and have often expressed the opinion that more might be done to enlist the sympathy of Old Epsomians, many of whom, like myself, would doubtless be very pleased to have a chance of visiting the old school on an occasion such as "Founder's Day," instead of as in the past only being recognized when an appeal for assistance was considered necessary. I must own that it was with feelings of great satisfaction that I recently received an invitation from the Council and Head Master to be present on July 1st at the jubilee celebration. It is more than thirty years since I left the school, and, as far as I know, this is the first time an attempt has been made for a reunion, and I feel sure it will be conducive of good to all concerned.

While fully conscious of the many calls specially on the general practitioner, Epsom College is so intimately associated with the profession that I think especial efforts should be made to get every medical man to subscribe annually, even if it were only 5s. In going through the list of candidates for the coming election for Pensioners and Foundation Scholars, I note that in only one instance is there a record of a candidate's father having subscribed, and then only "for a few years." If every medical man could be induced to send even a small subscription each year I feel sure the Council would be saved much anxiety.—I am, etc.,

L. G.

May 30th.

CHRISTIAN SCIENCE.

SIR,—There is an obvious inaccuracy in the letter on this subject published over my signature in your issue of May 6th—namely, in the ninth line, the word "latter" having been substituted for the word "former," which is the word intended by me to have been used.

I have since been informed that it was not a "healer" who called on my patient with my written opinion in view of the case being placed under the care of the Christian Scientists, but that it was as a fact the person who called upon me on April 28th.

I understand that this person claims to have had the authority of my patient and his wife to call upon me on April 28th and obtain the written opinion from me, but this was distinctly denied by the wife when she called upon me on May 1st, and the patient is still under my care. *Verb. sap.*—I am, etc.,

H. STANLEY TURNER.

London, W., May 31st.

THE SOCIETIES OF APOTHECARIES.

SIR,—While we who are Licentiates of the Society of Apothecaries are aware of an urgent necessity for some designation which would indicate that we are legally entitled to pursue our avocation in medicine, surgery, and midwifery, I quite agree with your correspondent, "Tempora Mutantur" that that suggested, namely, L.M.S.M.S.A., is much too cumbrous for ordinary use. While some such title as L.F.P.S.Lond. would clearly indicate our right to practise, it does not in any way indicate the examining body, nor could it be allowed, as Mr. Rivers-Willson shows. As we are fully-qualified physicians and surgeons under the new regulations of the Society, I would beg to suggest the title Licentiate of the Apothecaries' Society of Physicians and Surgeons—L.A.S.P.S.—which at once shows by whom we are qualified and our right to rank as practitioners. Trusting this suggestion may lead to some solution of the difficulty.—I am, etc.,

LEX.

May 6th.

LUNATIC ASYLUMS IN PHILADELPHIA.—The Senate of the Pennsylvania State Legislature has concurred in a joint resolution creating a commission to investigate the various charitable institutions maintained, wholly or in part, by State appropriations. The commission will make suggestions to correct abuses, carry out reforms, and to make recommendation with respect to the management, improvement, enlargement, and control of the institutions.

OBITUARY.

GEORGE STAMP TAYLOR, M.R.C.S.Eng., L.R.C.P.Edin.

It is with a very genuine feeling of regret that we have to record the death of Mr. George Stamp Taylor, one of the best known and most respected of the practitioners of Leeds. The news of his serious illness came as a shock to his medical brethren, many of whom had quite recently seen him in the full and vigorous exercise of his professional work. About a fortnight ago he went to the seaside for rest and change, but, serious symptoms supervening, he returned home; it soon became apparent that his illness must terminate fatally, and he died on May 25th, at the age of 58. He was born at Acomb, near York, and was educated at the old Leeds Medical School; he took the diploma of M.R.C.S.Eng. in 1870. In those days the junior resident posts at the Leeds Infirmary were held by senior students, and Mr. Taylor had one of these positions at the time when the transference of the work from the old institution to the present building was carried out. After some experience as assistant to Dr. Ford Holmes he began practice in Leeds exactly thirty-five years ago. In a few years, symptoms of phthisis appeared, and, acting on the advice of Dr. Clifford Allbutt, he made successive voyages to Australia and the Cape, with the happy result that his restoration to health was complete, and certainly no one who for the last twenty years has been familiar with his fine presence and robust aspect would have suspected that at any time anxiety had arisen on this account.

Mr. Taylor was a member of the Leeds Division of the British Medical Association, and was held in the highest esteem not only by his numerous patients and friends, to whom he was endeared by his unvarying kindness, courtesy, and geniality, but by his professional brethren, who looked on him as an example of the best type of practitioner, and who respected him for his professional skill, for his straightforward dealing and ethical bearing. The funeral took place on May 27th, and was attended by a great many of the medical men of Leeds. Mr. Taylor leaves a widow and six children. Of his three sons one had been associated with him in his practice for some years, another is studying medicine at the Leeds University, and a third served in the South African War.

The late Dr. J. E. Dutton.—Further details of the death of the late Dr. J. E. Dutton are supplied in messages brought by the last mail from the Congo. It appears that Dr. Dutton persisted in working during his convalescence from a severe attack of spirillum fever, which he was at the time investigating. The final attack was sudden, and, after four days of unconsciousness, Dr. Dutton died in the presence of Dr. Todd and Dr. Heiburg, the other members of the expedition. The account of his death sent home shows the esteem in which Dr. Dutton was held even by the natives. There were twelve bearers, all native sergeants, and over 1,000 people came to see the coffin pass to its resting-place. At the graveside Commandant Verdick delivered a farewell eulogy in French. He told how Dr. Dutton had found trypanosomes in man, and described how death came to him while working in the hope of learning that which might save hundreds of black men who were dying of sleeping sickness; and he concluded by saying that, though Dr. Dutton had passed away, his name would always be remembered for the services he had rendered mankind.

We regret to announce the death of Dr. Thomas Creed, which took place at Boscombe, Hants, on April 20th, after a lingering and painful illness, borne with great fortitude. Dr. Creed, who was 79 years of age, became a Member of the Royal College of Surgeons of England in 1850, a Licentiate of the Society of Apothecaries in 1853, and M.D. of the University of Saint Andrews in 1862. He began practice at Greenwich in 1851, and there for forty-five years he did noble work amongst the poor of that neighbourhood. For more than forty years he was one of the Honorary Medical Officers of the Royal Kent Dispensary. At the centenary of that institution in 1883, and upon the foundation of the Miller Hospital, he was appointed Honorary Physician. On his resignation in February of the present year, in order to retire to a quieter practice at Boscombe, he was elected a Consulting Physician to the combined institutions, and a testimonial consisting of a purse of sovereigns with an address was presented to him by the Very Rev. Canon O'Halloran on behalf of his numerous old friends, and in token of the respect in which he was held by his professional brethren. Dr. Creed was a member of the British Medical Association, and in 1876 he was President of the West Kent Medico-Chirurgical Society, in the meetings of which he took a keen interest for many years.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Chevalier Dr. Andreas von Huttenbrenner, formerly Director of the Caroline Hospital for Children, Vienna, and a well-known paediatrist, aged 63; Professor Hilger, of the University of Munich, a distinguished chemist, aged 66; and Dr. Eduard von Fichte, formerly Surgeon-General of the Würtemberg Army, a grandson of the famous philosopher Johann Gottlieb Fichte, on whom he published a monograph in 1863.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

The Title of Doctor.

Dr. Harry Rainy, Secretary, writes as follows: My attention has to-day been directed to a statement which appears in the text of the terms in which the resolution carried at the annual meeting of the Fellows and Members of the Royal College of Surgeons of England regarding the use of the title of "Doctor" was communicated to the Royal College of Physicians of London. The statement is in the following terms:[1] ". . . and that Licentiates of the Royal College of Physicians of Edinburgh are encouraged to use it"—that is, the title of "Doctor." I desire to point out that this statement is entirely misleading, and I enclose a printed extract from the Laws of the College which is sent to any Licentiate who makes inquiries regarding this matter, from which you will be able to learn the attitude which the College has always taken.

Regarding Diplomas.

[Excerpt from Laws, cap. ii, par. 19; cap. iii, par. 13; cap. iv, par. 9.]

The Diploma granted by the College shall not entitle the holder, by virtue of such Diploma, to assume the title of Doctor or to append to his name the title of Doctor of Medicine, or the letters M.D., or other abbreviation, which might suggest that the holder had obtained the degree of Doctor of Medicine from a University.

Harry Rainy, *Secretary.*

Note.—Chapter ii, 19, deals with Diplomas granted to Fellows; Chapter iii, 13, deals with Diplomas granted to Members; Chapter iv, 9, deals with Diplomas granted to Licentiates.

UNIVERSITY OF OXFORD

Examination for the Degree of M.Ch

The examination for the degree of Master in Surgery will commence at 10 a.m., in the Medical Department, University Museum, on Thursday, June 29th.

The names of candidates must be sent in to the Secretary to the Boards of Faculties not later than 10.30 a.m. on Friday, June 9th.

Particulars are obtainable on application to the Secretary of the Boards of Faculties at his office, Clarendon Buildings, Broad Street, Oxford.

CAMBRIDGE UNIVERSITY.

Dr. MacAlister and Mr. Shipley have been appointed members of the Syndicate to consider the establishment of a Diploma in Forestry.

The following degrees were conferred on May 28th:

D.Sc.—J. J. H. Teall, Joh.

M.D.—G. L. Tuck, Eman.

M.B.—G. T. Western, Pemb.; K. H. A. Kellie, Caius; W. V. Braddon, Trin. H.; W. V. Naish, Eman.; J. H. F. Wilgress, H. Selwyn.

B.S.—R. E. French, King's; D. V. Cow, Trin.; J. R. C. Greenlees, Joh.; W. R. Honeyburne, Pet.; W. V. Braddon, Trin. H.; N. C. Fletcher, Queens'; W. G. P. Ellis, Cath.

In the Medical Department Lectures and Demonstrations will begin on July 3rd for Students who have passed the Second M.B. Examination.

UNIVERSITY OF LONDON.

Physiological Laboratory.

Dr. George Oliver will lecture in the Physiological Laboratory, University of London, South Kensington, S.W., on Monday, June 5th, at 5 p.m., on Haemomanometry in Man. Admission to the lecture is free. Students of any school of the University and medical men will be admitted on presentation of their cards.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Coming Council Election.

The Council is at present constituted as follows:

President.

Mr. J. Tweedy: C, (1) 1892, (2) 1900 (substitute for Mr. Davies-Colley till 1904, but retains his seat, being President).

Vice-Presidents.

Mr. A. W. Mayo Robson; C, (1) 1893, (2) 1901.

Mr. H. T. Butlin; C, (1) 1895, (2) 1903.

[1] British Medical Journal, May 27th, 1905, p. 1180.

Other Members of Council.

Sir H. G. Howse; C. (1) 1889, (2) 1897, P, 1901-3.
Mr. J. Langton; C. (1) 1890, (2) 1898.
Mr. F. Howard Marsh; C, (1) 1892, (2) 1894, (3) 1902.
Mr. H. Morris; C, (1) 1893 (substitute), (2) 1898.
Sir Alfred Cooper; C, (1) 1895 (substitute), (2) 1900.
Mr. Edmund Owen; C, 1897.
Mr. R. J. Godlee; C, 1897.
Mr. W. Watson Cheyne, C.B.; C, 1897 (substitute), (2) 1901.
Mr. F. Richardson Cross; C, 1901.
Mr. Herbert W. Page; C, 1899.
Mr. J. Ward Cousins; C, (1) 1895 (substitute), (2) 1897 (substitute), (3) 1900.
Mr. A. Pearce Gould; C, 1900.
Mr. R. Clement Lucas; C, 1901.
Mr. J. H. Morgan, C.V.O.; C, 1902.
Mr. H. H. Clutton; C, 1902.
Mr. C. W. Mansell Moullin; C, 1902.
Mr. Clinton T. Dent; C, 1903
Mr. G. H. Makins, C.B.; C, 1903.
Mr. F. S. Eve; C, 1904.
Mr. A. A. Bowlby, C.M.G.; C. 1904.
Mr. Gilbert Barling; C, 1904.

Thus Sir H. Howse, Mr. Edmund Owen, and Mr. Godlee retire, having held their seats for eight years since re-election or election in 1897. Sir Alfred Cooper has resigned his seat. There will consequently be four vacancies, two of which will, we understand, be contested by the members retiring from their seats. The President, Mr. Tweedy, being in the chair, does not retire, otherwise his term as substitute for the late Mr. Davies-Colley would have expired last year.

The following list shows the proportional representation of metropolitan medical schools, of special hospitals in London, and of the provinces:

St. Bartholomew's	3
Charing Cross	1
Guy's	2
King's College	1
London	2
Middlesex	2
St. George's	1
St. Mary's	2
St. Thomas's	2
University College	2
Total number attached to London Schools ...	18
Members attached to special hospitals in London	1
Provincial members (Birmingham, Bristol, Cambridge, Leeds, and Southsea) ...	5
Total	24

HOSPITAL AND DISPENSARY MANAGEMENT.

STATE REGISTRATION OF NURSES.

EVIDENCE BEFORE THE SELECT COMMITTEE OF THE HOUSE OF COMMONS. At a sitting of the Committee on May 25th Sir Henry Burdett gave it as his opinion that the registration of nurses as proposed was altogether undesirable. He said that, according to the census returns, there were 74,844 nurses in the United Kingdom. Of this number he would knock off 9,000 as too old or too young. Of the remainder, two-thirds could not, he held, be regarded as trained nurses at all. Sir Henry Burdett attributed the present evils in the supply of nurses mainly to the large profits which could be made by private nursing homes. That made the pseudo-nurses possible, and the greater the demand the more variegated the supply. He suggested that Parliament should enact that all training schools for nurses, and all hospitals and institutions which trained nurses, should be registered and inspected; that the registration of each such establishment should be conditional on the training of nurses being carried out in such a way as to fulfil a standard laid down; and conditional, too, on examinations being held, and their due inspection on some such system as that which governed the proceedings of the General Medical Council at present; on the granting of certificates in a certain form; on the publication of a register each year of all nurses trained and certificated by each such school and hospital; on the post-graduated training of certificated nurses who desired such facilities by the school where they were trained, provided that each training school and hospital should afford its nurse graduates the opportunity, if they wished, of joining the private nursing staff attached to the institution, and of having secured to them in liberal measure the payments received for their work. It was essential that some provision should be made for the floating army of irregulars who had never had the advantage of the three years' training in a hospital, but who might possess excellent technical and moral qualities. Examinations should be organized for this floating army, and those who passed should be granted certificates enabling them to rank as qualified nurses. With reference to the suggestion that nurses now in practice might register without examination, he stated that of the 60,000 who it was said would register, 30,000 were probably trained nurses; but if the other 30,000 who had never been trained were let loose on the community as registered nurses the consequences would be extremely serious.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ALLEGED NEGLECT OF A CLUB PATIENT.

AT the Lewes County Court there was tried, on May 17th, an action for compensation for loss of wages brought by A. J. Friend against Dr. E. C. Garman of Hailsham. The details of the case, as reported in the *Sussex Daily News*, are to the following effect:

The plaintiff alleged that when suffering from an inflammation of the eye he had been negligently treated by the defendant, and also that there had been a breach on the part of the latter of an agreement between himself, as medical officer of the Foresters' Court, Hurstmonceaux, and the plaintiff, as one of its members.

The plaintiff had been under the treatment of the defendant for a disease of the eyes from October 20th to November 24th, the condition in the eyes being at first regarded as of local origin, and being treated from that point of view. Not being satisfied with the results obtained, Dr. Garman insisted upon examining the patient's body. He then found that he was suffering from "a certain complaint," to which he believed the eye trouble was attributable. On discovering this, he told the plaintiff that he could no longer remain on the club funds, and ceased to attend him, advising him to go to the hospital; the plaintiff did so, and the diagnosis made was confirmed. The plaintiff denied that he had ever suffered from the constitutional disease in question, and stated that, even if he had done so, the defendant ought to have found it out earlier. It also came out, both in evidence and incidentally, that the plaintiff had written a number of letters to the defendant and to the Court, and it was suggested that some of the former were of a threatening character. In addition, he had summoned a meeting of the Foresters' Court in connexion with his allegations against the defendant; while he stated also that he had spent £100 in fighting his club over it. The Judge dismissed the action, with costs, adding: "A more preposterous and unfounded action I have never heard."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DUTIES OF NOTIFICATION.

WE published in the BRITISH MEDICAL JOURNAL of May 20th, 1905, p. 1130, a complaint by a medical practitioner that a case of diphtheria, upon which tracheotomy had been performed, had been refused admission to the local infectious hospital on the ground that no proper notification form had been received, and that the medical officer of health should have been called in to do the tracheotomy. We suggested that perhaps there were other reasons why the medical officer of health could not make arrangements to have the case removed that night, and added that of course there was no justification for the claim of the medical officer of health to be asked to perform the tracheotomy. We have since received a letter from the medical officer of health, who believes he is the official referred to. He denies absolutely, as totally unfounded, the charges that he refused to remove the child because he had not received a formal notification, and that he had not been asked to perform the tracheotomy, which he characterizes as "preposterous." He says he considered the child would be running an unnecessary risk if removed to the infectious hospital, which was "more than a mile distant" from its home, that night, and that, as there were no other children in the house, there was no danger to the public health which would have justified exposing the child to this risk. He further states that he has frequently removed cases for the complaining practitioner, as well as for others, without any statutory notification certificate, but on the receipt of verbal or telephonic intimation. He sends us a cutting from a local newspaper, containing an article in which the complaint is repeated that the child was not removed, the words of the article being:—"The hospital authorities refused to have it admitted, giving as the excuse that they would take no responsibility, as the case had been already treated." The medical officer of health states that he told the complainant that, if he had any grievance, he should bring the matter before the local authority. This would seem to have been the proper course; the reasons given for not removing the child appear to be satisfactory.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

THE Royal Commission on the Care and Control of the Feeble-minded held a meeting on May 21st. The first witness was Sir EDWARD FRY. After relating the circumstances which had led him to study the provisions for imbecile pauper children, he gave an account of them. He thought the number maintained by out-door relief probably exceeded those in workhouses and asylums put together, while the number in workhouses probably exceeded those in asylums. The provision for such children as were maintained in special institutions was in itself probably all that could be wished. Its defect lay in the fact that it was too limited and too expensive. He favoured compulsory segregation of the feeble-minded, but was not certain that the public mind was yet ripe for such a strong measure. The feeble-minded should not be allowed to marry, and if in the case of children of the upper classes it was permitted that they should remain in the custody of their parents the authorities ought to have assurance that segregation in this sense was enforced. He added, "I have a strong impression and an increasing impression that the law ought to allow the absolute segregation or imprisonment for life of persons who will go on committing crimes. My view may be wrong, but it is that one of the rights of the State is to inflict punishment for the protection of society from the depredations of a certain class of persons, whether imbecile or not imbecile, and the State ought to have the right to imprison a person for life whenever the evidence goes to show that he is an habitual criminal who, directly he comes out of prison, is committing crime again. In all cases, therefore, whether the man is sane or insane, imbecile or not imbecile, I should be prepared to give the judge the power of trying the question whether the man was an habitual criminal, and if he was found to be such the judge should have the power to protect society from him for life."

Evidence was also given by Miss MARY HARGREAVES, head school mistress and matron of Rochester House Asylum since 1900, who advocated that the State should have the custody for life of all imbecile and feeble-minded persons who could not be satisfactorily provided for by their relatives, and that these persons should be received into institutions at as early an age as possible. Speaking of the methods adopted at Rochester House Asylum, the witness said there could not be too much apparatus in the teaching of the children. She had heard of letters in phosphorus on the walls of a darkened room being used to vividly impress the sluggish brain, and she had found that a home-made letter of a foot in length, which a child could nurse, was well remembered, where a printed capital letter of the ordinary size was immediately forgotten.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

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EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

AFTER-TREATMENT OF GASTRIC ULCER.

CELTIC asks: When would it be safe for a young lady who has been suffering from gastric ulcer since January to resume her usual mode of living—pain and vomiting all gone?

REGISTRATION OF MIDWIVES.

GLOUCESTER asks how a village nurse can obtain a midwife's certificate. She has been attending confinements for fifteen years, and is a sensible, reliable person.

*** The exemption provisions for existing midwives expired on April 1st, 1905 (see Section 11 of the Midwives Act of 1902). Every woman must now undergo a course of training and pass the examination of the Central Midwives Board before she can obtain the certificate and have her name entered on the midwives' roll (see Section C of the rules framed by the Central Midwives Board). A copy can be obtained from the Secretary of the Board, 6, Suffolk Street, S.W.

A CASE FOR DIAGNOSIS.

UNCONVINCED writes: I have been attending an acute case of traumatic cellulitis of hand and arm in an elderly man with much constitutional disturbance. During the illness his wife became laid up with an ulcerated throat, which she attributed to close attendance on her husband, and the foul-smelling discharges. She was replaced by a daughter, who after a few days fell a victim to the same "bad throat." Two neighbours who then came to help subsequently developed similar symptoms, and the daughter's child who had been playing about the room all the time finally fell ill with sore throat; temperature 104° F.; a bright rash suggesting scarlet fever, and a hard swelling at the angle of the jaw. After several days this swelling softened, was incised, and large quantities of pus escaped. Thus five septic cases appeared to be dependent on the first. Shortly before the neighbours and the baby developed symptoms I was myself attacked with sore throat; temperature 102° F.; severe malaise and a whitlow. On the fourth day from the sudden onset of these symptoms a bright uniform discrete red rash appeared. When discovered the temperature was normal, the sore throat had gone, but the finger was gradually getting worse. I called in an experienced medical friend who unhesitatingly declared that I was suffering from scarlet fever. Accordingly, though unconvinced, I isolated myself to await events. The only event was the steady progress of suppuration in the finger, which two days later required free surgical treatment under an anaesthetic. From this point all symptoms disappeared, and now, eighteen days from the onset, there is no sign of desquamation. To the best of my knowledge there is no case of scarlet fever anywhere in the district; certainly I had not seen one, and during the three days' illness preceding the rash I mixed freely with my family and patients, and no one else suffered. Would this not point to a diagnosis of septic and not scarlet fever?

ANSWERS.

I.M.S.—The climate of India varies so much within its wide area that it is difficult to say how it would agree with hay fever, but there is no known reason why an Eastern climate should disagree with such a case. As a rule hay fever is met with much more frequently in the temperate climates of Northern Europe and America than in Eastern and tropical countries. Many people live in the East who, owing to the condition of their ears or for other reasons, are unable to take quinine.

EPSOM COLLEGE.

DR. W. J. FLEETWOOD (Aintree) writes: In reply to "Salopian," I should like—as a parent whose son was educated at Epsom College—to bear my testimony to the very excellent system of education and *esprit de corps* existing there, and I have much pleasure in recommending that institution to any parent who is desirous of having his son well educated and well cared for during the process. The present head master of the preparatory school was my son's house master, and was simply worshipped by the boys, whom he treated as reasonable beings, taking a personal interest in all that affected their welfare.

SISTERS AND NURSES.

INTERESTED.—(1) The term "sister" as applied to a nurse has its origin in the fact that formerly the majority of hospitals were semi-religious institutions, the nursing being superintended though commonly not actually performed by nuns. (2) The term has been applied to lay women engaged in nursing for certainly upwards of twenty-five years. As now used it indicates a definite grade among nurses who are employed in hospitals, and is incorrectly applied to a nurse in any other connexion. (3) The number of nurses and probationers who are placed in charge of a sister is not the same in all general hospitals, the average number of beds varying in English hospitals between two and four to each member of the nursing staff.

EVOLUTION AND HEREDITY.

E. T., who is making a study of this subject, asks to be referred to books containing an account of work done since Darwin's day, and, in particular, to the work of Beard, Bateson, and Welldon. He may gain a useful preliminary idea of modern views from Chapter IX of Wilson's *The Cell in Development and Inheritance* (London: Macmillan and Company. 14s.). Some of the following references may also prove of service to him: Bateson, *Materials for the Study of Variation* (out of print) (London: Macmillan and Company. 1894. 21s.); Mendel's *Principles of Heredity* (out of print) (London: C. J. Clay and Sons); Beard, The Determination of Sex in Animal Development (*Zool. Jahrb. Abt. f. Anat. u. Ontog. der Thiers.* Bd. xvi. Heft 4. 1902. Fischer); *The Span of Gestation* (Jena: Gustav Fischer. 1897. 3s.); Galton, *Hereditary Genius* (London: Macmillan and Company. 7s.); *Natural Inheritance* (London: Macmillan and Company. 9s.); Huxley, Evolution in Biology (*Enc. Brit.* 9th ed. 1878); Poulton and Shipley, *Weismann on Heredity* (London: Clarendon Press. Vol. i. 1891. 7s. 6d. Vol. ii. 1892. 5s.); Romanes, *An Examination of Weismannism* (London: Longmans, Green and Company. 1893. 6s.); De Varigny, *Experimental Evolution* (out of print) (London: Macmillan and Company. 1895. 2s.); Weismann, *Germ Plasm: a Theory of Heredity* (London: Walter Scott. 1893. 6s.); Welldon, *vid. Biometrika* (Cambridge).

LETTERS, NOTES, Etc.

MEDICAL OFFICERS OF PASSENGER SHIPS.

MR. ARTHUR S. DALE (Managing Director, Royal Agricultural Hall, London) writes: As one who often travels on our "big liners," might I suggest that the medical officers should receive more consideration at the hands of the passengers than at present exists? I learn that the surgeons on ships receive a certain remuneration from the shipowners to look after the passengers' health, but I take it that that remuneration should only cover services arising from the trip; and I notice that often passengers, many with chronic complaints, demand the attention of the doctor, and leave without recognizing the service that he has rendered. Has not the time arrived when some one or other of the medical societies should lay down a rule as to what is expected from ships' doctors? I am sure, indeed, if passengers knew the small remuneration paid to ships' medical officers they would in many instances tender that gentleman something like a decent fee, but I understand that on the "liners" the doctors are not allowed to render any account, and I do not think this is fair.

THE MIDWIVES ACT.

DR. ROBERT R. RENTOUL (Liverpool) writes: Relating to the above Act and to my letter in the BRITISH MEDICAL JOURNAL of May 27th, a number of members have asked me for a full reference to the rule made by the Liverpool City Council relative to the payment of fees. You will save me much correspondence if you will publish it. It is as follows:

"That in cases of urgency in which medical practitioners have been called in by certified midwives, as contemplated by Rule 17 of the rules issued by the Central Midwives Board, pursuant to Section 3, Subsection 1, of the Midwives Act, 1902, a fee of not exceeding one guinea be paid, on the certificate of the medical officer of health, to each such medical practitioner, in the event of his failing to obtain payment of his fee from the patient or the Poor-law authorities."

This rule was made on September 7th, 1904. As it is made under the Public Health Act, 1875, it can therefore, if the public auditors think it lawful, be adopted by each county or borough or district council. I have suggested that the maximum fee for a severe obstetric operation should be 84s.

The Midwives Act, 1902 (price 2d.), and the Rules of the Central Midwives Board (price 7d.) can be obtained from Eyre and Spottiswoode, New-Street Square, London, E.C.

OPHTHALMIA NEONATORUM.

DR. ALBERT CORNER (Forest Gate, E.) writes: What an immense amount is gained if the cleansing of the eyes is carried out during the child's sleep, and the congestion of eyelids and conjunctiva, caused by crying, so avoided. Surely this is a reason for not using, in the treatment of this disease, strong and heroic caustics (argent. nitrat. gr. 20 ad 3j and stronger).

ERRATUM.—Dr. A. Garland writes to say that in a note by him published at page 396, under the heading "Serum per Rectum," on February 18th, "constitution of the aneurysm" was incorrectly printed for "consolidation of the aneurysm."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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An Address
ON
ERRORS OF DIAGNOSIS IN MEDICINE.

Delivered before the Bradford Medico-Chirurgical Society, November 23rd, 1904.

BY J. R. BRADFORD, M.D., F.R.C.P., F.R.S.,
Professor of Medicine in University College, London.

MR. PRESIDENT AND GENTLEMEN,—In seeking a subject upon which to address you in response to the kind invitation of yourself and the Council of the Society I thought it desirable to choose one of general interest, and therefore I have selected after consideration the subject of "Errors of Diagnosis in Medicine." This is a matter of importance to all practitioners, not only from the frequency of our errors dependent largely on the complexity of the subject of medicine, but also, I think, because every one will admit that we learn more from a consideration of our errors than from the study of cases where the diagnosis is verified. One of the great advantages of hospital practice lies in the fact that we can so frequently verify our diagnosis. I think it is very uncommon for a *post-mortem* examination not to reveal something that was quite unsuspected even in those cases where the diagnosis may be looked upon as practically accurate. This, of course, is especially the case where as a matter of routine a complete pathological examination is made, however localized the fatal disease may have been. It is impossible to exaggerate the importance of this procedure if we desire to place medicine on a secure basis. One of the great advantages of the surgeon or the gynaecologist lies in the fact that he is constantly able to correct or amplify the conclusions that he has formed by the actual study of the parts exposed in an operation. It is unnecessary at the present day to dilate on the great improvements that have taken place in the art of diagnosis or on the fundamental importance of diagnosis in the practical treatment of disease. Almost all real difficulties in practice arise from doubts and uncertainties, not to mention errors in diagnosis.

The diagnosis of disease is based either on a study of the symptoms or of the physical signs, and as I have pointed out elsewhere there seems to be an increasing tendency to rely more and more on physical signs and less and less on symptoms. This change is, of course, mainly due to improvements in the methods of examination and the various instruments that are now available for this purpose. Still, the study of symptoms ought never to be neglected, since many diseases only produce symptoms, and in many where the physical signs are marked they only become obvious and easy to detect in the later stages, and it may be at a time when the opportunity for successful treatment has passed. Thus the study of symptoms also is of fundamental importance.

Errors in diagnosis may arise from a great variety of causes, some of them dependent no doubt on ourselves, others on the statements of the patients and others, intrinsic to the very nature of the disease itself. Some errors—perhaps most—are avoidable, but still a considerable number of errors—at any rate in medicine, and especially in visceral diseases—are quite unavoidable in the present state of our knowledge, owing sometimes to the complexity of the conditions present, sometimes to the association in the most remarkable manner of very rare diseases in one and the same patient, and sometimes—what is perhaps still more common—the fact that ordinary diseases may run an extremely anomalous course or produce anomalous signs. Thus, I remember the case of a patient who suffered from a diffuse malignant infiltration of the stomach producing the so-called leather-bottle stomach; when first seen the gastric tumour was detected and the diagnosis of malignant disease of the stomach made. A few months afterwards she again came under observation with enlargement of the liver, ascites, and dropsy, and the diagnosis was confidently made of secondary deposits in the liver, but on *post-mortem* examination the gastric carcinoma was found to be of the rare diffuse form, and the enlargement of the liver was dependent on a hydatid. An error of diagnosis in such a case as this was probably unavoidable, as there was not only the great rarity of the association of hydatid disease with cancer but the further extremely rare phenomenon of a hydatid in the liver, causing ascites and general anasarca from pressure on the vena cava.

Putting aside rarities such as this we may consider first of all errors of diagnosis arising from the mistakes that arise in the interpretation of symptoms.

Neglect of Symptoms.

Many of our most serious errors arise from neglect of or paying little attention to the statements of patients with reference to their symptoms. Thus such a serious disease as angina pectoris may be entirely overlooked owing to insufficient importance being attached to the statements of patients as to precordial uneasiness. In all cases of dangerous or even of fatal angina the pain or discomfort is not necessarily severe, and attention should be directed rather to the situation of the discomfort than to its severity. Thus, fatal cases of angina associated with extensive fatty degeneration of the heart have often been entirely overlooked, and the discomfort that existed attributed to myalgia, when a very slight study of the characteristic distribution of the pain, not only in the chest but down the arm, should at any rate have aroused suspicions of the presence of angina. Vomiting is a symptom frequent in its occurrence and often apparently trivial, but sometimes of great importance in diagnosis. Many a case of cerebral haemorrhage ushered in by vomiting has been erroneously looked upon as mere dyspepsia or indigestion from overloading of the stomach. I have known of a case of cerebral haemorrhage fatal in some four hours from its onset where such an error was made owing to the severity of the vomiting at the onset and where the entire train of symptoms of vomiting, followed by drowsiness and coma, were attributed to such gastric disturbance.

Another symptom which is often neglected and may be of great value in diagnosis is the occurrence of retention of urine in cases of local peritonitis, or even sometimes in cases of general peritonitis where the disease is running a more or less latent course. A patient with a perforated duodenal ulcer and with his abdomen full of pus once walked into hospital presenting no very obvious signs of profound illness, and seeking advice simply on account of inability to pass water. No doubt it requires considerable discretion to attach just the right degree of importance to patients' statements, but it is probably always very unsafe to neglect a patient's symptoms simply because obvious signs of serious disease are not present at the time.

Many errors in the interpretation of symptoms arise from bad cross-examination, with the result that undue importance is attached by the patient to the questions, and by the practitioner to the answers. In order to elicit a history it is of course essential to have a suspicion of the nature of the ailment for which the patient is seeking advice, but it is very necessary to so frame the questions as not to suggest the answers. This is, perhaps, most important in eliciting a history as to pain, the questions as to this should always be framed in such a manner as not to suggest the situation in which the pain is expected to be. In some instances it may even be advisable to put the question in a negative form.

Absence of Symptoms.

A far more important cause of error in diagnosis is the very frequent presence of serious organic disease without the occurrence of symptoms of sufficient intensity to attract notice, and we should never allow the absence of symptoms to influence our opinion unless definite signs pointing to the existence of disease are also absent. No doubt in the majority of cases of latent organic disease slight symptoms may be present, but the point of fundamental importance is that the leading symptoms characteristic of the malady are very often absent. Latent forms of common disease are seen not only in numerous chronic, but also in many acute, affections. Thus general suppurative peritonitis, dependent even on such a serious lesion as perforation, may be present, and yet the cardinal symptoms, pain and vomiting, may be entirely absent. No doubt in many of these cases the peritonitis involves mainly, if not entirely, the visceral peritoneum; in others, perhaps, the virulence of the inflammation has led to the destruction of the nerve-endings; but whatever the explanation, it is a fact of the utmost importance that the abdomen may be full of pus, and a perforation of the stomach, duodenum, or intestine exist, with few or no symptoms.

Although acute diseases occasionally run a latent course, this very much more often happens in the case of chronic maladies. I will only mention a few: cerebral tumour, abscess of the brain, and the more rare condition of cerebral aneurysm may all reach a high degree of development, or may even run their entire course without the production of any symptoms sufficiently severe to attract attention. Every one

has seen or heard of cases of cerebral abscess running a latent course, and either discovered accidentally in the *post-mortem* room or else causing death, perhaps suddenly by rupture into the ventricles, and some have gone so far as to say that cerebral tumours perhaps more often exist without producing symptoms than with the well-known clinical picture of headache and vomiting associated with their presence.

Amongst affections of the chest apt to run a latent course pleural effusion is especially worthy of attention, as it is no uncommon thing to see cases where a gradual effusion has taken place into the pleural cavity and no marked symptoms have been produced till one side is full. This perhaps is especially seen in cases of valvular disease of the heart, but it is not uncommon as an accompaniment of tuberculous or of malignant disease. In many of these cases the physical signs ultimately produced are rather anomalous owing to the large amount of fluid present, and this characteristic, together with the absence of symptoms, is often responsible for errors in diagnosis.

Amongst abdominal affections, gastric ulcer, cirrhosis of the liver, tuberculous peritonitis, renal disease, may all be quoted as common instances of very serious organic diseases liable to run a latent course and not producing characteristic symptoms. Even in such a common and severe affection as cancer of the stomach it is not rare for the disease to advance to a very high degree of development without producing any serious symptoms, and I have known of a case of extensive cancer of the stomach that sought advice simply and solely on account of a secondary deposit in the umbilicus which the patient attributed to the rubbing of a button, where death occurred within a few days owing to profuse haematemesis.

Some of the most typical instances of latent disease are seen in renal affections. Thus Bright's disease and granular kidney are both of them very apt to run a latent course, and in many instances the first warning of the existence of such a serious malady is the occurrence of acute uraemia, or it may be an acute inflammatory complication, such as pericarditis, pneumonia, etc. Other renal affections running a latent course are such diseases as cystic kidney, double hydronephrosis dependent on pelvic disease; the latter perhaps is especially important to recognize, as very often the prognosis of the pelvic disease is falsified, owing to the latent renal affection.

The importance of recognizing the frequent absence of symptoms in gross organic disease lies in the fact that we must never allow the absence of symptoms to lead us to neglect examining the patient. In most of these latent diseases definite physical signs revealing the presence of serious organic disease can be elicited.

Perhaps the most important source of error with regard to the interpretation of symptoms arises from the attribution of acute symptoms to the onset of acute disease, whereas in a very large number of instances acute symptoms arise in the course of chronic disease, or, as just mentioned, in that of latent disease. Observations of this kind can be made in almost all chronic diseases, but they are especially noticeable in some affections of the nervous system. A sudden onset of paralytic or other signs is often regarded as dependent on a vascular lesion when we really have to deal with such a condition as tumour or abscess of the brain, or even in some instances with meningitis. In some of the rare forms of meningitis it is not uncommon for the first onset to be marked by the occurrence of palsy, closely simulating in its suddenness a vascular lesion. A still more striking instance is perhaps afforded by the occurrence of epileptiform seizures in an apparently healthy person, which, instead of being dependent on epilepsy are really due to uraemia from chronic progressive disease of the kidney. Such epileptiform seizures may also be the first phenomena to attract attention in such a condition as general paralysis of the insane, or even in disseminated sclerosis, and both these diseases may readily be overlooked if we are in the habit of regarding acute symptoms occurring in the apparently healthy as always dependent on the onset of acute disease.

Some of the most remarkable instances of the occurrence of acute symptoms in the course of chronic diseases are afforded by diseases of the abdomen. Thus, every surgeon recognizes that cases of acute intestinal obstruction occurring suddenly, and in those apparently healthy, are sometimes dependent on obstruction produced by tuberculous peritonitis of a most chronic character. Again, there is a remarkable variety of acute general peritonitis, often suppurative, and not dependent on any gross perforation which is associated with cirrhosis of the liver, especially, perhaps, in young persons, and where, prior to the onset of the peritonitis, there have been no reasons to suppose the existence of grave underlying disease. In many cases the occurrence of acute symptoms in the course of chronic disease is dependent really on the malady having run a latent course until some complication has developed. This is well seen in cases of gastric ulcer where perforation occurs. In a large proportion of such cases there have been no symptoms to attract attention to the possibility of the presence of a gastric ulcer prior to the perforation.

Many other instances of the onset of acute symptoms in the course of chronic disease could be quoted, but I will only mention some cases of spinal disease where paraplegia occurs quite suddenly, simulating an acute transverse myelitis, and yet the nervous lesion is dependent on such a chronic and progressive disease as malignant disease of the spine or even aneurysm. Instances are met with where one or other of these maladies has produced extensive destruction of the bones of the vertebral column without leading to the production of any marked symptoms until paraplegia has suddenly occurred. In one instance that I know of, though sarcoma of the spine was present, the patient practically presented no symptoms until, on turning one day in bed, fracture of the spine with complete paraplegia suddenly developed.

To turn now to the consideration of errors in diagnosis that may arise from errors in the interpretation of physical signs. *Want of examination* is perhaps the most fertile cause of errors in diagnosis, and one for which, of course, we are ourselves solely to blame. Numberless cases of carcinoma of the stomach or of the rectum especially are overlooked owing to want of examination, and in the former disease it is no uncommon thing for cancer of the stomach to be overlooked when the mere inspection of the abdomen would reveal the condition, without any palpation, the mass being actually visible through the wall. No case of a patient presenting gastric symptoms should ever be dismissed without an examination of the abdomen. Numberless cases of cancer of the rectum are also looked upon simply as due to piles owing to want of examination. It is probably unnecessary to dwell at any length on this subject of want of examination, and I need only further emphasize the great practical importance of always examining the urine as a mere matter of routine, and, although it may be a counsel of perfection, it is yet very desirable to examine the fundus oculi.

Mistakes in diagnosis arise not only from want of examination, but also from what may be called the *want of repeated examination*. In many organic diseases, especially acute diseases, the physical signs do not become well developed until several days or sometimes several weeks have elapsed. Pneumonia may be taken as an instance of the first and tuberculosis of the second. Many who are alive to the danger of confounding pneumonia with meningitis in children still fall into the error owing to not making repeated examinations. Thus, perhaps, at the onset pneumonia is suspected and the chest carefully examined and nothing found. The symptoms become more marked and the diagnosis of meningitis at first only hazarded is subsequently believed in when a second examination of the chest after the lapse of a few days would have revealed the physical signs characteristic of pneumonia. We must all of us be aware of errors of this kind, and it cannot be too much insisted on that physical signs do not necessarily occur until a considerable time has elapsed since the onset of the malady.

Repeated examination is also necessary, because in organic disease the signs are sometimes transitory, or at any rate not persistent. One of the best instances of this is afforded by the physical signs seen in disseminated sclerosis. The ankle clonus, the diplopia, even the hemiplegia so often seen in this disease, are variable and transient in their occurrence, and repeated examination is most necessary in order to detect their presence. Similarly, no one could safely exclude the presence of granular kidney owing to the absence of albumen in the urine from a single examination; further, in such a well-marked condition as aortic regurgitation there can be but little doubt that the murmur is far more readily audible on some occasions than on others. This is well known in the case of mitral murmurs, especially, perhaps, in mitral stenosis, but it is also a characteristic of some of the slighter cases of aortic regurgitation. Hence repeated examination is not only necessary at the onset of acute diseases in order to avoid errors, but it may also be necessary in order to determine the existence of chronic and progressive maladies.

The study of physical signs may also lead us astray owing to

the fact that they alter considerably at different stages in one and the same disease. Perhaps the best illustration of this is afforded by the abdominal physical signs in cases of perforation. If such a case is seen early the abdomen is apt to be rigid and retracted, at a slightly later stage it may be almost normal, being neither distended nor retracted. Later still the well known clinical picture of distension of the abdomen with absence of the liver dullness will be present. If this fact of the alteration in the character of the signs be neglected valuable time may be lost, as it is quite possible to suspect or even to diagnose with certainty the presence of perforation long before the rigidity of the abdominal wall has passed off. In connexion with this subject it may be pointed out that diminution or disappearance of the liver dullness is a more important sign of perforation when associated with a retracted condition of the abdominal wall, or, at any rate, when it is present in the absence of general distension of the abdomen. Cases are seen sometimes of perforation with very great diminution in the area of the liver dullness, if not of complete disappearance, where the abdomen is otherwise natural, neither distended nor retracted, and where pain and tenderness may be absent. In such cases as these the diminution or disappearance of the liver dullness may be the solitary physical sign that draws attention to the very serious and dangerous condition in which the patient is. It is possible that in many of these cases where other symptoms are absent the peritonitis is limited to the visceral peritoneum.

There are numberless instances in which the alteration of physical signs at different stages of the malady may cause errors in diagnosis. Time will not allow me to allude to many of these, but I may draw attention to the fact that in some cases of pneumonia, during the stage of resolution, cavernous breathing, sometimes almost of an amphoric type, may be heard, together with such an abundance of bubbling râles as to lead to the idea that the whole lung is breaking down, and that one is dealing rather with a tuberculous than with a simple pneumonic infiltration; and yet in the course of a few hours, or at most a day or two, the signs all clear up, and the subsequent history as well as the previous course of the illness show that one has been dealing with pneumonia.

Erroneous Interpretation of Physical Signs.

Another very common source of error is, of course, the erroneous interpretation of physical signs, and perhaps this applies more especially to the chest, and, most of all, to fluid in the chest. At the present time our teaching lays down certain so-called characteristic signs of fluid in the chest, but these—as every one knows—are apt in different cases to vary considerably, and, for my part, I think it would be simpler if, instead of talking of the physical signs of fluid in the chest as a whole, we were rather in the habit of detailing the physical signs characteristic of the different conditions and positions in which fluid is present in the chest. In other words, the physical signs depend very largely not only on the amount of effusion present, but especially on its anatomical relation to the surrounding structures.

Thus the physical signs of an empyema are often quite different to those of a pleural effusion. This does not depend on the fluid in the one case being purulent and in the other serous, but to a far greater extent on the fluid in the one case being localized and in the other case free. With an ordinary pleural effusion the lung, as is well known, is compressed towards the root or pushed upwards, whereas in the case of an empyema the purulent effusion is, so to say, hung up between the chest wall, on the one side, and the lung on the other side. This is probably the reason why breath sounds are absent in one case and loud tubular or blowing breathing is so often heard in the other. It is very unsatisfactory to have to teach that fluid in the chest may be accompanied by absence of breath sounds or by loud tubular breathing, and such apparent uncertainties as this make the student regard the whole subject as an airy fancy; but if we do not describe these physical signs as those of fluid in the chest, but talk of the physical signs of a simple free pleural effusion, on the one hand, and of those of empyema on the other, the gain is great; and we further emphasize the well-known fact that empyema is infinitely more likely to be confounded with pneumonia than the latter with pleural effusion. The physical signs of fluid, then, depend to a great extent on the anatomical relationships of the fluid. Further, the physical signs of a moderate effusion are totally different to those of a very large effusion. In the latter case loud bronchial breathing is very apt to be heard, perhaps all over the chest, owing to the free conduction of the sounds through the fluid; and hence, again, large pleural effusions are apt to be confounded with solidification of the lung.

Another fertile cause of error in diagnosis of diseases of the chest is an erroneous interpretation of skodaic resonance. This is a physical sign of great value, but in order to detect it light and careful percussion must be employed.

To pass from diseases of the lungs, it is well to remember that aneurysms of the aortic arch are liable sometimes to increase in an anomalous fashion and to produce physical signs which may be readily misinterpreted. Aneurysms of the arch usually enlarge upwards and forwards and present to the right of the sternum; such cases give rise to little difficulty. Exceptionally, however, the main growth takes place in a downward direction and to the left, so that the pulsating tumour presents to the left of the sternum in the precordial area, and the heart may be displaced in such a fashion that the aneurysmal pulsation occupies more or less the situation of the normal cardiac impulse. Such cases are often extremely difficult to recognize.

Pericardial effusion, if of a latent type, may present many points of resemblance both in physical signs and symptoms to those of dilatation of the right side of the heart. Indeed, cases of chronic bronchitis and emphysema associated with dilatation of the right side of the heart may sometimes present very close resemblances to the train of symptoms and signs seen in a large chronic pericardial effusion. This is one of the many reasons why it is much safer to treat a large pericardial effusion by incision than by paracentesis pericardia, and serious accidents may happen from paracentesis where such an error in diagnosis as just mentioned has been made.

In the case of diseases of the abdomen, the number of errors in diagnosis from erroneous interpretation of signs is so great that it would be quite impossible to deal with them here, and I will only draw attention to one or two. In some cases it is difficult to distinguish between an abdominal growth and a mass that is liable to be produced as a result of various chronic inflammatory processes. This may be seen not only in diseases in the vicinity of the appendix, but also in the great thickening that sometimes takes place round about a gastric ulcer, the gall bladder, or the pancreas. In many of these conditions the mass may be so hard as at once to suggest the presence of growth. The normal pancreas is not uncommonly palpable in patients with thin abdominal walls; it is often exceedingly hard and may be mistaken for a growth, but of course such an error is much more likely to be made when the organ is enlarged from chronic pancreatitis; many of the cases of supposed recovery from malignant disease are undoubtedly to be explained by such errors.

Strange as it may seem, movable kidney is often confounded with new growth. This mistake is apt to arise for several reasons. Many patients with movable kidney are wasted and not a few present marked gastric symptoms from dilatation of the stomach, and after all a pyloric tumour may sometimes present points of superficial resemblance to a movable kidney. At any rate the mistake is not infrequently made.

In some instances considerable difficulty may be experienced in distinguishing between splenic and renal tumours. This arises principally from the fact that in exceptional cases splenic enlargement does not follow the usual course, in an oblique direction across the abdomen, but the spleen becomes more or less vertical in position; in such instances there may be considerable resemblance to a renal tumour.

Mimicry in Disease.

We have now considered the errors that may arise in the interpretation of symptoms and of physical signs, but in addition to these there are many other causes of errors in diagnosis and in many of these conditions it is not so easy to avoid falling into error. Amongst the first in importance is what may be called perhaps mimicry in disease. We meet with at least two forms of this; functional diseases very often produce a clinical picture closely resembling that of organic, and in the second place organic disease of one organ may produce effects mimicking organic disease of some other and distant part of the body.

The mimicry seen between functional and organic diseases is especially important owing to the fact that not only may there be considerable points of resemblance between the two, but also because it would seem that in some instances definite organic diseases in the initial stages of their evolution present nothing but so-called functional symptoms or signs. The difficulty in distinguishing between functional and organic

diseases is recognized in the case of the nervous system; but, as a matter of fact, this difficulty is also experienced in many other maladies—as, for instance, in diseases of the heart, and also in diseases of the kidneys.

No better instance in the case of the diseases of the nervous system could be quoted than the very close resemblance sometimes seen in the phenomena of functional and hysterical palsies on the one hand and the phenomena of disseminated sclerosis on the other hand. Many of the errors in confounding these two maladies arise from the neglect of the fact already mentioned—that in disseminated sclerosis the signs may be transient, and hence the disappearance of a certain physical sign for a time is not to be regarded as conclusive evidence of the functional nature of the malady.

In the case of diseases of the nervous system the usual mistake is to regard what is really an organic disease as a functional affection, although of course the opposite error is occasionally made. In some organic diseases the incipient stages of the malady are often mainly characterized by the occurrence of functional effects, and a notable instance of this is seen in the case of general paralysis of the insane, where it is by no means uncommon for the earliest manifestations to be of a neurasthenic type.

Passing on to the consideration of other affections, it may be noted that the more severe effects produced by tobacco on the heart may sometimes closely resemble the signs and symptoms of mitral disease, the heart may become dilated, the pulse irregular, and even a murmur be present, and yet the whole condition be functional and transient; with the cessation of the cause the heart soon returns to its normal condition.

In diseases of the kidney so-called functional or postural albuminuria may be confounded with the albuminuria of the granular kidney, since the latter may present well-marked postural characteristics, being most marked in the morning and diminishing or disappearing in the late afternoon. In other words, the postural characteristic is not necessarily to be regarded as a sign of so-called functional or physiological albuminuria. Further, many a patient with granular kidney or some other forms of chronic Bright's disease may present at the time when he seeks advice only so-called neurasthenic symptoms.

These instances are sufficient to illustrate the point that errors in diagnosis may arise from confounding functional and organic diseases.

Mistakes may not only arise from confounding functional diseases with organic affections, but also from organic disease in one organ simulating an affection of some distant organ. Numerous instances of this are seen in medicine, and some of our gravest errors in treatment arise from mistakes of this kind. One of the best known instances of this kind of error is afforded by the confusion which sometimes exists between typhoid fever and meningitis. Although usually there is really no great resemblance between these two maladies, sometimes there is a marked similarity, especially at the onset, and it is a mistake that is far more likely to be made in the case of children than in adults. In fact, it may be said that it is an error that is really more associated with the age of the patient than with the particular disease, as there are a number of affections which may simulate meningitis very closely in the case of children. This error may be made not only in the case of enteric fever, but also, as is well known, in the case of pneumonia, and to a less degree with other affections, as, for instance, otitis. The more usual error is to diagnose meningitis when either enteric fever or pneumonia is really present; but sometimes the mistake is made in the opposite sense, and typhoid is diagnosed when meningitis is really present complicating such a condition as tuberculous disease of the abdomen with tuberculous enteritis. No doubt modern methods of diagnosis, and especially the occurrence of the Widal reaction, diminish the frequency with which such errors as these are made, but the difficulty very often is most marked during the first week of the illness, when the Widal reaction is often absent. In the case of pneumonia the mistake can be avoided, as already pointed out by frequent examinations, and very frequently a shrewd guess that the affection is really pneumonic, and not meningeal, may be hazarded from the presence of the characteristic frequency of the respiration seen in pneumonia.

One of the most difficult class of cases is that in which otitis dependent on pneumococcal infection is present, together with high fever, really dependent on the onset of pneumonia, but where sufficient time has not yet elapsed for the development of the characteristic pneumonic signs. Such cases are very apt to be diagnosed as otitis complicated by meningitis. A few days' delay will often reveal the true nature of the case, but on the other hand such delay is dangerous if the ear affection is really complicated by some intracranial affection.

Another most important group of cases is that in which inflammatory mischief in the chest—as, for instance, pleurisy or pneumonia—simulates an acute abdominal affection such as peritonitis. It is now well recognized that basal pleurisy is extremely liable to be accompanied by symptoms referred to the abdomen, such as pain and even tenderness; and, inasmuch as the onset of acute inflammatory affections is very liable to be accompanied by vomiting, the occurrence of pain, tenderness, and vomiting, is very prone to suggest an acute local peritonitis when an examination of the chest reveals commencing pleurisy or pneumonia. Laparotomy has been performed more than once under the impression that typhlitis was present, when pneumonia was really the cause of the abdominal symptom. Sometimes such errors are made simply from want of examination of the chest, but in rare instances the physical signs in the chest at the onset are very slight and may even be absent. Such mistakes are most likely to be made in cases of right-sided pleurisy and pneumonia, but errors of a similar kind may be seen in other thoracic diseases. Thus pulmonary thrombosis and pulmonary embolism may sometimes be ushered in with very severe pain in the upper part of the abdomen, and the degree of collapse may be so great as to suggest the possibility of the occurrence of a gastric perforation. I have known a case of pulmonary embolism dependent primarily on thrombosis of the iliac vein in chlorosis to be mistaken for perforation of a gastric ulcer, and have seen more than one case of thrombosis of the pulmonary artery where the pain was entirely referred to the epigastrium and upper abdominal area. Another thoracic disease, which may cause very severe pain referred to the abdominal area, is pneumothorax, and I have known an instance where the occurrence of pneumothorax in a case of early phthisis was erroneously diagnosed as renal colic owing to the pain, very severe in character, being referred to the left hypochondrium and lumbar region.

In many of these cases of abdominal pain in thoracic diseases the explanation is to be sought in the anatomical distribution of the lower intercostal nerves. These nerves supply the abdominal wall, and, inasmuch as they are only covered by the pleura in the posterior part of their course, the inflammatory mischief in the chest may directly implicate the trunk of the nerve and so cause the reference of the pain to the apparently anomalous situation.

In pelvic diseases pain is often referred down the leg, and, therefore, is apt to be mistaken for sciatica. This is a very serious error, as most of the pelvic diseases causing referred pain in the leg are of a severe type. Such important diseases as caries of the spine, malignant disease of the rectum, and malignant disease of the bones of the pelvis, may all produce symptoms closely simulating so-called sciatica; and although when the patient is first seen the serious organic disease underlying the pain may not have produced signs sufficient to cause their detection, yet repeated examinations at suitable intervals will often enable their presence to be detected. Most of the mistakes of this kind arise either from the serious causes being entirely overlooked, or else from the want of repeated examination; nothing being found the first time, it is too hastily assumed that no serious cause is present.

Many other instances might be quoted illustrating the confounding of one organic disease with another, but I will only emphasize the great danger there is of confounding carcinoma of the stomach with chronic gastritis. We do not usually experience much difficulty in distinguishing between cancer of the stomach and ulcer, but there is often great difficulty in distinguishing between cancer and simple gastritis.

Anomalous Symptoms in Common Diseases.

Another potent cause of error in diagnosis arises from the fact that many common diseases are apt to exist in anomalous forms, and it is more especially common for their onset to occur in an anomalous manner. Thus enteric fever may begin in a great variety of ways very different from the typical insidious onset, and it is important to remember that at its onset anomalous initial rashes may be present very closely resembling those seen in measles and in scarlet fever. If this is not recognized very serious errors may be made affecting not only the patient but the community. In some instances enteric fever may begin with marked joint symptoms, pain

and even effusion into some of the joints being present and producing a considerable resemblance to rheumatic fever. Usually some symptoms very soon occur that show that the case is not one of ordinary rheumatic fever or of scarlet fever or measles, but the fundamental point is that we should not adopt any form of treatment which may be harmful should the case turn out to be one of enteric fever.

Tuberculous peritonitis is a disease that is apt to be very protean in its manifestations, sometimes coming under observation simulating cirrhosis of the liver, in other cases presenting resemblances to malignant growth, in others simulating acute intestinal obstruction under a band.

Again, many very chronic diseases of the nervous system, tabes for example, sometimes may have an apparently sudden onset, in other words the patient quite suddenly becomes ataxic, although it is not very obvious to what this sudden onset of symptoms is due. On examination such patients show well-marked signs of the disease, and very often a history is obtained that points to the conclusion that the malady has really long been present. It cannot be too frequently urged that acute symptoms may occur quite suddenly both in the course of chronic and of latent diseases as well as at the onset of acute maladies.

Errors Dependent on Treatment.

We must also, I am afraid, admit that some of our errors in diagnosis are dependent on our treatment. It is well recognized that some of the most disastrous errors in the diagnosis of abdominal diseases arise from the too-ready administration of morphine to relieve the pain, so that all the symptoms and sometimes even the signs of the underlying condition are masked.

Belladonna is a drug which not uncommonly produces very marked symptoms in the course of its use in the treatment of disease. Thus, meningitis may be erroneously diagnosed in a case of phthisis where the whole trouble is really dependent on the employment of belladonna administered to relieve the cough. Again, in Graves's disease the use of belladonna may produce excitement almost of a maniacal kind and simulating very closely the profound psychical disturbance that is seen in the more serious forms of Graves's disease.

Alcohol is not uncommonly pushed to an extent to produce coma, which is then regarded as dependent on the underlying malady, and sometimes anomalous symptoms may be dependent, as every practitioner knows, on the patient secretly obtaining some variety of alcohol.

The Natural History of Disease.

In order to avoid as far as possible errors in diagnosis, we must not only be cautious in interpreting the value of symptoms and careful in our examinations to detect physical signs, but it is of paramount importance to be familiar with the natural history of disease, and especially to know thoroughly the various modes of onset of particular affections, and the very diverse clinical pictures that are produced by one and the same disease in different individuals. Gastric ulcer, phthisis, malignant endocarditis, general paralysis of the insane, tuberculous peritonitis, and granular kidney are all instances of common maladies which may present very different modes of onset, and it is far more important to recognize the various clinical types or groups of symptoms presented by common diseases than to remember all the various symptoms which may be produced by any given disease. The important point is that these symptoms may in different instances of the same disease be differently grouped. Thus, one patient with gastric ulcer will present symptoms of a haemorrhagic type, another simply those of chronic gastritis, a third perhaps will only present signs of anaemia, and a fourth no signs at all until a perforation occurs. What is true of gastric ulcer is true of many other common chronic diseases, and the importance of studying the natural history of acute or chronic diseases cannot be overestimated if we wish to avoid errors of diagnosis.

DESTRUCTION OF A BRAZILIAN MEDICAL SCHOOL.—The Medical College of Bahia, Brazil, with all its equipment and valuable library, was almost totally destroyed by fire in March. The loss of the reference books and numbers of rare works of the early masters and files of medical journals is irreparable, but the Government is already taking steps to replace the building and to equip it with modern appliances. The official medical journal published there—the *Gazeta Medica da Bahia*—was founded in 1866, and is now in its thirty-seventh volume.

SOME OBSERVATIONS UPON THE MICRO-ORGANISMS OF MEAT POISONING AND THEIR ALLIES.

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THE typical representative of the bacterial flora of the normal intestine is the colon bacillus, its natural habitat being the digestive tract of man and animals. The typhoid bacillus is the most familiar example of those organisms which from time to time invade the intestine of man and produce disease. The colon and the typhoid bacillus, besides this contrast in infective properties, present biological and cultural features by means of which they can be differentiated outside the body. In addition to these established types, there occur in the healthy, and diseased, intestine a large number of organisms of an intermediate character, some approaching to the colon, others to the typhoid type. The colon group, for example, has been found to embrace a number of varieties of undoubtedly the same species. These varieties do not, however, appear to possess any special pathological significance. On the other hand, there occur amongst the intermediate forms, species of micro-organisms with distinct pathogenic properties for man and animals, of which the dysentery, the hog cholera, the meat poisoning and the paratyphoid group have now been identified. It has further been shown that relationships exist between certain of these groups of organisms, as evidenced by the possession of common biological properties. This is particularly the case with regard to the agents of various septicaemias in the lower animals, notably the hog cholera group, and the affinity its members bear to the meat poisoning, and paratyphoid, group of bacteria.

The life-history of such of these organisms as are pathogenic for man and their possible derivation from animal sources—cattle and swine—is a subject that merits careful and prolonged investigation. The problems raised are akin to those met with in other fields of research on the intercommunicability of disease agents—for example, bovine and human tuberculosis, rat plague, and human plague. The refinement of bacteriological methods has enabled a considerable advance to be made in the classification of the septicaemic organisms, whilst the agglutination test has furnished a delicate method of sifting out the homologous species of such pathogenic bacteria. At the same time but little definite knowledge exists as to the distribution of these organisms outside the actual morbid process.

The main object of the present research was to investigate the distribution of organisms of the meat poisoning and paratyphoid groups, more particularly in the intestines of healthy animals. I have endeavoured to determine in how far the organisms isolated from the normal intestine conformed in type to those met with in certain septicaemias of animals, and in meat poisoning, and paratyphoid infections in man.

HISTORICAL.

Meat poisonings are those diseases in man, usually epidemic in character, due to the consumption of meat from unhealthy animals—generally cattle (cow, calf), and more rarely the horse, pig, and goat. The animals commonly suffered from enteritic or septic processes. The agents of these diseases in animals produce at times in man a septic or infective enteritis.

Ostertag[1] records from 1880-1903 ninety outbreaks of this form of meat poisoning, with about 4,000 cases. One may assume that the number of unrecorded cases was also considerable.

The symptoms vary in character and severity, and three forms of the disease have been described, namely, a gastro-enteritic, a choleraic, and a typhoidal.

An important fact to be noted is that such cases of poisoning are not due to putrid meat or its toxins. The meat appears to be healthy, and is without smell or unpleasant taste. The poisoning is due to virulent bacteria present in the meat which invade the intestines and body.

One must differentiate from this another form of food poisoning due to a *post-mortem* multiplication of saprophytic bacteria in a foodstuff, resulting in the production of highly toxic substances. The latter is usually termed allantiasis, botulism, or sausage poisoning. The disease is caused by eating decomposed sausages, or other forms of preserved meat

(hams, etc.). The attack is characterized by nervous symptoms of central origin, disturbances of secretion, motor disturbances, mydriasis, ptosis, etc. The researches of van Ermengem[2] have shown that this disease is due to the toxins of an anaërobic saprophyte—the bacillus botulinus. The meat comes from apparently healthy animals, and acquires its poisonous properties subsequently. The symptoms are due not to an infection, but to an intoxication with a poison produced by the B. botulinus in the meat consumed. In botulism the nervous symptoms predominate, whilst in true meat poisoning the gastro-intestinal symptoms constitute the main clinical feature. The infective organisms in meat poisoning also produce a toxin, as cases are recorded after the consumption of cooked meat or of soup made from it.

The first exact bacteriological investigation of meat poisoning was made by Gaertner[3] during an outbreak at Frankenhausen in 1888. Fifty-eight individuals became ill after eating the meat from a cow which had sickened and been slaughtered. The symptoms were those of an acute gastro-enteritis, with severe general symptoms. Gaertner found in the muscles and spleen of a fatal case a bacillus and also large numbers of the same organism in portions of the meat. This organism he termed the B. enteritidis. Its cultures were fatal to mice on feeding, and also on inoculation into guinea-pigs and rabbits. The necropsy showed acute enteritis, haemorrhages in the serous cavities, lungs and kidneys, and pneumonia. The killed cultures were likewise fatal to experimental animals, and contained a toxin. This toxin, it is stated, may be heated to boiling point without destruction. The B. enteritidis thus differs from the colon organism in its marked virulence and in the production of heat-resistant toxins.

Organisms identical with, or closely allied to, the B. enteritidis have been isolated by a number of observers in subsequent outbreaks of meat poisoning. Of these a very full account will be found in a paper by Professor Bernhard Fischer, Zur etiologie der Sogenannten Fleischvergiftungen, published in the *Zeitschrift für Hygiene*, vol. xxxix, p. 447, 1902.

There is general agreement as to the main characteristics of the meat-poisoning organisms of the B. enteritidis type. They are motile short rods, non-sporing, non-liquefying, and decolorized by Gram's method. They differ from typhoid in their colon-like growth on potato and their fermentation of grape sugar, and, on the other hand, from colon in their fermentation of grape sugar, but not of cane and milk sugar. The organisms do not curdle milk, and the majority produce no indol. They further differ from colon and typhoid in their marked infectivity for experimental animals and the property they possess of forming heat-resistant toxins. The B. enteritidis is infective per os and penetrates into the blood and organs, producing a haemorrhagic septicaemia.

The infectivity of the meat-poison organisms and their biological characters point to an affinity with the hog-cholera group of bacteria. I have obtained cultures of many of these organisms and controlled their biological and cultural characteristics.

The study of the meat-poisoning and hog-cholera group has received added importance through the discovery of the paratyphoid infections in man—that is, those forms of disease which, although presenting the clinical symptoms of a mild attack of enteric fever, are due not to an infection with the typhoid bacillus, but with organisms termed "paracolon" or "paratyphoid." These organisms have been isolated directly from many of the cases recorded, and the blood of the patients gives a marked agglutination with their cultures, but not with those of the B. typhosus. Attention was first drawn to the paracolon or paratyphoid bacilli by Achard and Bensaude.[4] These organisms have been particularly studied in Germany by Schottmüller, Brion and Kayser, and others, and in America by Gwyn, Cushing, Buxton, and Coleman, etc. A good summary of the literature is given by Libman in the *Journal of Medical Research*.[5] These organisms likewise present affinities to the Gaertner and hog-cholera group, and suggest a possible interrelationship of paratyphoid with analogous animal diseases. The mouse typhoid bacillus of Loeffler is another organism that presents similar relationships, and also the B. psittacosis. Psittacosis is a contagious disease of parrots, communicable to man, marked by pulmonary disorder and high fever. The organism is fully described by Nocard and Leclainche.[6]

We have, therefore, in meat poisoning, and in psittacosis, diseases derived from animal sources. It remains to be determined in how far the paratyphoid infections have their origin in analogous diseases of the lower animals.

Author's Experiments.

Morphologically, the bacilli of the enteritidis groups are practically indistinguishable from B. coli; they are actively motile, and do not retain the stain by Gram's method.

Their cultural peculiarities were found to be as follows: When grown on peptone beef broth and incubated for twenty-four hours at 37° C., universal turbidity of the broth is produced, with or without the formation of a pellicle. If grown on this medium for five days at 37° C., no indol—or the merest trace—is found to be present. If, however, this five days' old broth be filtered through a Pasteur-Chamberland filter a toxic filtrate is obtained, as can be readily proved by injecting 2 c.cm. intraperitoneally into a guinea-pig, the animal dying within twenty-four hours. Van Ermengem (loc. cit.) states that in the case of the meat poison bacillus he isolated in the Moorsele epidemic, this toxin did not lose its virulence when heated to 100° C., or even 120° C. The growth on agar and gelatine is creamy and moist, resembling that of the bacillus coli, there being no liquefaction of the gelatine. When grown on the various sugar media at 37° C., this group of organisms will be found to produce acid and gas on dulcite, mannite, and glucose broths, but not to affect lactose or cane-sugar broths. The most characteristic reaction, however, is that on litmus milk, which, incubated at 37° C., becomes acid in twenty-four hours, and then, after a few days, strongly alkaline. No clotting occurs even at the end of a month. The period at which this alkaline reaction takes place varies with the different members of the group, the B. enteritidis of Gaertner, for instance, generally completing the reaction within forty-eight hours, whilst the B. paratyphoid B of Schottmüller may take from eight to ten days.

The reactions on Petruschky's litmus whey are similar to those on litmus milk, except that the change from acid to alkaline is more rapid in the former medium, taking place in some members of the group at the end of twelve hours.

It will be noticed from the table of cultural reactions that the enteritidis group, with a few notable exceptions, includes most of the food-poisoning bacilli. It includes also B. typhi murium, B. psittacosis, B. hog cholera of Evans, B. hog cholera "Maryland" of Theobald Smith, and the B. paratyphoid B of Schottmüller.[7] This latter differs slightly from the rest of the group, producing marked indol when grown in broth at 37° C. for five days.

Some of the organisms under consideration, though nearly allied to the enteritidis group, do not conform to them in their cultural reactions. The B. paratyphoid A of Schottmüller, for instance, and the B. paratyphoid of Brion and Kayser[8] have both been isolated from cases clinically resembling typhoid fever. These two bacilli are culturally indistinguishable from each other, and differ from the rest of the enteritidis group in that they produce indol when grown on broth for five days, and when grown on litmus milk the acid reaction is not followed by any alkaline reaction, even at the end of a month, the milk remaining acid without clotting. The other bacilli, from those under consideration, whose cultural reactions do not conform to those of the enteritidis group, are the food-poisoning bacilli of Wesenberg, Grünthal, and Friedeberg,[9] and the hog-cholera bacilli of McFadyean and the "Arkansas" of Theobald Smith.

The B. Wesenberg has practically no resemblance to the members of the enteritidis group; it produces acid on all the sugars, producing gas, however, only on glucose and cane sugar. Litmus milk is rendered acid without clotting; no alkaline reaction takes place, and, when grown on broth, indol is produced at the end of five days.

The B. Grünthal resembles the members of the colon group in cultural reactions, being, except for its motility indistinguishable from B. acidi lactici of Hüppe. It produces acid and gas on glucose, mannite, and lactose, broth, acid and clot on litmus milk, and indol on beef broth when grown for five days at 37° C.

The B. Friedeberg differs from the rest of the series in producing no change on any of the before-mentioned sugars, excepting cane sugar, on which it produces acid, but no gas. It creates general turbidity on peptone broth at 37° C. in twenty-four hours, but no indol at the end of five days.

The hog-cholera bacillus of McFadyean differs widely in cultural reactions from the rest of the enteritidis group, as well as from the other hog-cholera bacilli. It produces acid, but very slight gas on glucose broth, no reaction on mannite, or dulcit broth, acid without clotting, and no alkaline change on litmus milk, and slight indol on broth at the end of five days; in fact, its sole resemblance to the enteritidis group consists

Cultural Reactions of known Intestinal and Food Poisoning Bacilli.

Bacterium.	Morph.	Broth.	Glucose	Mannite	Lactose.	Saccharose.	Dulcit.	Lit. Milk.	Indol.	Agar.	Gelatine.	Litmus Whey.	
B. enteritidis, Gaertner, Original A.	B. Motile	G. T.	A. G.	A. G.	Nil.	Nil.	A. G.	A. then Alk	o	Creamy, raised, moist, translucent	No Liq. Creamy, raised, moist, translucent	4 hrs. A.	8 days. Alk.
B. enteritidis, Gaertner, Original B.	B. Non-Motile	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	,,
B. Gaertner, L.I.P.M. ...	B. Motile	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	,,
B. Gaertner, "Guy's" ...	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	,,
B. Gaertner, "Van Ermengem"	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	,,
B. typhi murium	,,	,,	,,	,,	,,	,,	,,	,,	+ trace	,,	,,		
B. Moorsele	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,		
B. psittacosis, Nocard ...	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,		
B. Haustedt, "Fischer"...	,,	,,	,,	,,	,,	,,	,,	,,	+ trace	,,	,,		
Food poisoning, Abel ...	,,	J. T. S.	,,	,,	,,	,,	,,	,,	+ Slt.	,,	,,		
B. Rennfleth, "Fischer"...	,,	G. T.	,,	,,	,,	,,	,,	,,	,,	,,	,,		
B. icteroides, Sanarelli ...	,,	J. T. S	,,	,,	,,	,,	Nil.	,,	+	,,	,,		
B. epidem. jaundice ...	,,	,,	,,	Nil.	,,	,,	,,	,,	+	,,	,,		
B. Aertrycke, "Van Ermengem"	,,	G. T.	,,	A. G.	,,	,,	A. G.	,,	Trace	,,	,,	,,	A
B. hog cholera, Evans ...	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,		
B. hog cholera, Maryland. Theobald Smith	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,		
B. hog cholera, Arkansas, Theobald Smith	,,	J. T. S	,,	,,	,,	,,	Nil	,,	o	,,	,,		
B. hog cholera, McFadyean	,,	G. T.	A. G. Slt	Nil	,,	,,	,,	A.	Trace	,,	,,	,,	A.
B. Breslaviensis	,,	,,	A. G.	A. G.	,,	,,	A. G.	A. then Alk.	o	,,	,,		
Food poisoning, Gunther	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	Alk.
B. paracolon, "Day" ...	,,	J. T. S	,,	,,	,,	,,	Nil	,,	o	,,	,,		
B. paratyphoid A, Schottmüller	,,	G. T.	,,	,,	,,	,,	A. G.	A.	+	,,	,,	,,	A.
B. paratyphoid B, Schottmüller	,,	,,	,,	,,	,,	,,	,,	A. then Alk.	+ Slt.	,,	,,	,,	Alk.
B. paratyphoid, Brion and Kayser	,,	,,	,,	,,	,,	,,	,,	A.	Trace	,,	,,	,,	A.
B. morbificans bovis ...	,,	J. T. S	,,	,,	,,	,,	,,	A. then Alk	+	,,	,,	,,	Alk.
B. Wesenberg	,,	G. T.	,,	A.	A.	A. G.	A.	A	,,	,,	,,	,,	A.
B. pseudo-tuberculosis, "Pfeiffer"	B. Non-motile	,,	A.	,,	Nil	Nil	Nil	Nil	,,	,,	,,	Nil	Nil
B. Friedeberg, Gaffky and Paak	,,	,,	Nil	Nil	,,	A.	,,	,,	o	,,	,,		
B. Grunthal	B. Motile	,,	A. G.	A. G.	A. G.	Nil	,,	A. C.	+	,,	,,		
B. coli, Escherich	,,	,,	,,	,,	,,	,,	A. G.	,,	,,	,,	,,		
B. acidi lactici, "Hüppe"	B. Non-motile	,,	,,	,,	,,	,,	Nil	,,	,,	,,	,,		
B. lact. aërogenes ... [key]	,,	J. T. S	,,	,,	,,	A. G.	,,	,,	o	,,	,,	A.	A.
B. coli, T. W. F. 6 MacConkey	B. Motile	G. T.	,,	,,	,,	,,	A. G.	,,	+	,,	,,		
B. coli, T. W. F. 13 MacConkey	B. Non-motile	,,	,,	,,	,,	,,	Nil	,,	+	,,	,,		
B. cloacae	B Motile	,,	,,	,,	,,	,,	,,	,,	o	,,	,,		
B. pyogenes foetidus ...	B. Non-motile	,,	A.	A.	A.	A.	A.	,,	+	,,	,,		
B. typhoid, Delépine ...	B. Motile	,,	,,	,,	Nil	Nil	Nil	A.	■	,,	,,	,,	,,
B. typhoid L.I.P.M. ...	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	,,
B. dysentery, Shiga ...	B Non-motile	,,	,,	Nil	,,	,,	,,	A. then Slt. Alk.	■	,,	,,	,,	Alk.
B. dysentery, Kruse ...	,,	,,	,,	,,	,,	,,	,,	,,	o	,,	,,	,,	,,
B. dysentery, Flexner, Philippines	,,	,,	,,	A.	,,	,,	,,	,,	+	,,	,,	,,	,,
B. dysentery, Gray ...	,,	,,	,,	,,	,,	,,	,,	,,	+	,,	,,	,,	,,

A. = Acid.
Alk. = Alkaline.
G. T. = General turbidity.
A. G. = Acid and gas.
A. C. = Acid and clot.
A. then Alk. = Acid then alkaline.
S. = Scum.
Slt. = Slight.

in its producing no change on lactose or cane-sugar broth, and in its being a motile bacillus which does not stain by Gram's method.

The B. hog cholera "Arkansas" of Theobald Smith differs from the enteritidis group in producing no change on dulcit broth when grown at 37° C. for fourteen days, in which respect it differs also from his "Maryland" culture, as well as by its production of a scum on peptone beef broth at 37° C. at the end of twenty-four hours. In other respects the hog cholera "Arkansas" resembles the rest of the enteritidis group. It produces acid and gas on glucose, and mannite, broths, no change on lactose, or cane sugar broth, acid and subsequently alkaline on litmus milk, and no indol on peptone beef broth at the end of five days.

To recapitulate, therefore: As far as morphological and cultural reactions are concerned, the following bacilli fall into the enteritidis group: The food poisoning bacilli of Gaertner, Aertrycke, Moorsele, Hanstedt, Breslaviensis, B. morbificans bovis, Günther, Abel, and Rennfleth; also B typhi murium, B. psittacosis, B. hog cholera "Maryland" of Theobald Smith, and B hog-cholera of Evans.

The remaining bacilli that have been experimented with for the purposes of this research differ culturally from the above, and also from each other, excepting B. paratyphoid A of Schottmüller and B. paratyphoid of Brion and Kayser, which are culturally identical.

Having determined, therefore, that, as regards cultural and biological characteristics, the bacilli of the enteritidis group and of the Paratyphoid A group of Schottmüller include most of the organisms that give rise to food poisoning, and to cases of disease resembling typhoid fever, I proceeded to investigate the question as to whether the bacilli of these two groups were represented by analogous types in the intestines of normal animals.

To this end the following intestinal material was submitted to investigation: The faeces of guinea-pigs, rabbits, sheep, and pigs obtained from a large number of the various animals; also the scrapings from the mucous surfaces of the large and small intestines of three pigs, three sheep, two bullocks, one horse, one calf, and of a child that died in Guy's Hospital from bronchopneumonia.

The method adopted was as follows: An emulsion of the substance under examination was made with distilled water, and about ½ c.cm. of the emulsion was added to tubes of bile-salt dulcit broth coloured with neutral red (MacConkey), and incubated for twenty-four hours at 42° C. Of this culture 4 c.cm. was then injected subcutaneously into a number of guinea-pigs. The guinea pigs that died within four days were opened, aseptic precautions being taken, and the heart exposed and seared with a hot iron. The heart blood was pipetted with a sterile pipette into tubes of bile-salt dulcit broth, and incubated at 42° C. for twenty-four hours. If at

the expiration of this time acid and gas were produced, neutral-red bile-salt agar plates were inoculated and incubated at 42° C. for twenty-four hours. The colourless colonies were then picked off (the bacilli of the two groups for which the search was made producing no acid on lactose, their colonies are colourless), and from them bile-salt dulcit-broth tubes were inoculated, and incubated at 42° C. for twenty-four hours. The tubes that gave the acid-and-gas reaction were then used to inoculate the following media: Glucose broth, dulcit broth, mannite broth, lactose broth, cane-sugar broth, peptone-beef broth, litmus milk, agar, and gelatin, in order to determine in how far the cultural reactions of the organisms isolated agreed with those of the B. enteritidis and Paratyphoid A groups. All the tubes were incubated at 42° C., excepting the gelatine, which was incubated at 20° C.

It will be noted that only those guinea-pigs were tested that died within four days after injection, those dying from a more chronic infection being rejected. This naturally considerably diminished my positive results, but at the same time excluded any possibility of error which might arise through an accidental infection from the sick to the healthy animals, or other causes, though all precautions against such infection were of course taken. The positive results were, however, fairly numerous, and were as follows:

Twenty-one cultures of bacilli, of the enteritidis type, and answering to the characteristic morphological and cultural tests were isolated, namely, motile bacilli of the size and appearance of the B. enteritidis of Gaertner, not staining by Gram's method, producing a cream-coloured growth on agar and gelatine, and not liquefying the latter medium, giving acid and gas on glucose, dulcit and mannite broths, but not affecting lactose, or cane sugar broths, and rendering litmus milk at first acid and then alkaline, without clotting.

Also ten cultures of the Paratyphoid A type were isolated, which agreed culturally and morphologically with the former, excepting in their reaction on litmus milk, which remained acid without clotting, and in the production of indol on broth at the end of five days.

A. CULTURES OBTAINED FROM FAECES.

From rabbits' faeces, 3 cultures of the Paratyphoid A type;
,, guinea-pigs' faeces, 1 culture of the Paratyphoid A type;
,, sheep's faeces, 1 culture of the B. enteritidis type; and
,, pigs' faeces, 1 culture of the B. enteritidis type of organisms.

B. FROM THE SCRAPINGS OF THE MUCOUS SURFACE OF LARGE INTESTINES.

From 3 pigs, 4 cultures of B. enteritidis, and 1 of the Paratyphoid A type;
,, 2 bullocks, 4 cultures of the B. enteritidis type;
,, 3 sheep, 1 culture of the B. enteritidis, and 1 of the Paratyphoid A type; and
,, 1 calf, 1 culture of the B. enteritidis group.
The results in the case of the child's and horse's intestine were negative.

C. FROM THE SCRAPINGS OF THE MUCOUS SURFACE OF SMALL INTESTINES.

From 3 pigs, 7 cultures of the B. enteritidis group;
,, 2 bullocks, nil;
,, 3 sheep, 1 culture of the Paratyphoid A type;
,, the calf, 1 culture of the B. enteritidis, and 2 of the Paratyphoid A type;
,, a child, 1 culture of the B. enteritidis; and
,, the horse, 1 culture of the Paratyphoid A type.

It will be noticed from the above tables that the scrapings from the intestines yielded a larger number of positive results than the faeces. This has been observed by other workers in searching for the dysentery group of organisms, and is no doubt due to the fact that the bacilli are parasitic on the mucous surfaces of the intestines. Ford, in his paper,[10] states that amongst other bacteria the B. enteritidis of Gaertner has been isolated from the human caecum, and that it is practically never found in any other part of the intestines. Curiously enough the culture I obtained of the enteritidis group was from the small intestine of a child, the large intestine yielding no result. As regards the relative frequency of these bacilli in the large and small intestines it may be noted that in my experiments, both the large and small intestines of the various animals, regarded collectively, yielded nearly the same number of cultures of the enteritidis group, or 9 cultures from the small intestines and 10 from the large intestines. The same also applies to the Paratyphoid A group, 3 cultures being obtained from the small and 2 from the large intestines.

These tests being completed, the cultures of the organisms were tested as regards their pathogenicity, 2 c.cm. of a twenty-four-hours broth culture being injected intraperitoneally into a guinea-pig. This injection, in the case of the cultures of the B. enteritidis type proved uniformly fatal in a few hours. The cultures of the Paratyphoid A type proved, however, much less virulent, 75 per cent. of the guinea-pigs dying at the end of two to four days, the remaining 25 per cent. recovering. The cultures which did not kill guinea-pigs were therefore tested on mice, ½ c.cm. of a twenty-four-hours broth culture being injected intraperitoneally, and with an invariably fatal result in from one to three days. No difference could be found between these two varieties of the Paratyphoid A type other than that shown by their virulence.

As was previously mentioned when describing the characteristics of the B. enteritidis group, a toxin is present in broth cultures of these organisms.

The bacilli of this group isolated by me from the intestines of animals were further subjected to the following test *re* toxicity. Two of the cultures were selected at random and grown on peptone beef broth at 37° C. for five days. The broth culture was then filtered through a Pasteur-Chamberland filter, and 2 c.cm. of the filtrate injected intraperitoneally into guinea-pigs, with the result that the animals died within twenty-four hours. A similar experiment was made with the toxin produced by the B. enteritidis of Gaertner (original strain), with the same result, proving that the bacilli of the enteritidis group obtained from the intestines of healthy animals are capable of producing a soluble toxin similar to that produced by other known members of the same group.

From the experimental tests upon the bacilli obtained from the intestines of animals, it will be seen that 21 of the organisms found agree biologically, culturally, and morphologically with the known members of the B. enteritidis group, and 10 with the members of the Paratyphoid A group. The sources of the cultures with which comparison was made were quite reliable. I am indebted to Professor Gaertner for two cultures of the B. enteritidis of Gaertner, to Professor van Ermengem for a culture of B. Aertrycke, to Professor Theobald Smith for cultures of hog cholera "Maryland" and "Arkansas," and to Professor J. McFadyean and Dr. Evans for cultures of their hog-cholera bacilli. The cultures of B. typhi murium and B. psittacosis were obtained from the Pasteur Institute, and a large number of the food-poisoning bacilli were obtained from Kral.

From the account of the foregoing experiments, it will be seen that bacilli of the B. enteritidis type were more frequently met with than bacilli of the Paratyphoid A type, and it occurred to me that this was probably due to the much greater virulence of the former, as proved by inoculation experiments. It was therefore determined to test their relative frequency in the normal intestine of animals by direct cultivation from the scrapings of the intestines without passage through guinea-pigs. By this means the proportionate increase of the more virulent bacilli was prevented, and their relative frequency could be more accurately determined. The colourless colonies were picked off from the plates, planted on dulcit broth, and incubated at 37° C. for twenty-four hours. Tubes giving acid and gas at the end of this time were put through the various sugar media and litmus milk, as in former experiments. Two experiments were made with pig's intestines. In the first, 1 colony out of the 95 isolated from the plates proved to be of the Paratyphoid A type, and none of the B. enteritidis type. In the second experiment, out of 38 colonies 25 were of the Paratyphoid A type, and none of B. enteritidis type. This tends to show that, although in experiments where passage through animals was used the B. enteritidis type appeared to be more common than B. paratyphoid A type, it is nevertheless not so common in the intestines of animals as the latter.

The absence of bacilli of the enteritidis group, in experiments where passage through an animal was not used, is readily explained by the small amount of the culture employed for the inoculation of the plates—namely, a platinum loopful of a broth culture for two plates. In this small amount of material they might easily escape detection, and yet, through their greater virulence, far exceed the others after their passage through an animal. In fact, it may be as difficult to detect bacilli of the B. enteritidis type by plating directly from a dulcit-broth culture as it is to detect the B. typhosus in drinking water.

Up to the present the cultures obtained from the intestines of healthy animals have been classified broadly, as of the enteritidis or of the Paratyphoid A type, no attempt having been made to define particular species. In the present state of our knowledge, it seems better to base such classification upon the agglutination reactions of the organisms, for although so-called cross agglutinations may occur, as in the

case of hog cholera, and typhoid, as instanced by Theobald Smith,[7] they occur, as a rule, only in low serum dilutions. If high dilutions of serums are used—1 in 1,000 or 1 in 20,000—the bacilli generally refuse to react with heterologous serums, but continue to react with homologous serums. These serum reactions have been of great value in grouping the organisms in question, as well as in proving the identity of the bacilli isolated in various food poisoning epidemics, as instanced by Durham[11] in his account of the Chadderton outbreak, and again in his account of an epidemic in which 185 persons were affected.[12]

Perhaps one of the most complete classifications of the food-poisoning and paratyphoid bacilli based upon agglutination reactions is that given by Trautmann.[13]

The organisms are found by Trautmann to fall into one or other of five groups—namely:

A. *Enteritidis (Gaertner).*
1. Gaertner (Frankenhausen).
2. Van Ermengem (Morseeler).
3. Fischer (Haustedt).
4. Abel (Hamburg).

B. *Breslaviensis.*
1. Kaensche (Breslau).
2. Günther (Prov. Posen).
3. Lochmann (Giessen, "caseolyticus").
4. Trautmann (Düsseldorf).

C. *Hamburgensis.*
1. Schottmüller (Hamburg, Fall Seeman).
2. Bac. bremensis febris gastricae Kurth.
3. Hünermann (Saarbrüken-Coblenz).
4. Conradi u. Drigalski und Jürgens (Saarbrücken). Type B of Feyfer and Kaysers.

D. *Strassburgensis.*
1. Schottmüller (Hamburg) } Type A of Feyfer and Kayser.
2. Brion and Kayser (Strassburg) }

E. *Morbificans Bovis* (Basenau).

Agglutination Table of known Bacilli with—(1) Gaertner Serum; (2) Aertrycke Serum; (3) Serum of Rabbit Immunized with a Bacillus of the Enteritidis Group Isolated from the Large Intestine of a Pig; (4) Paratyphoid A Serum.

These serums caused a distinct reaction with their own bacilli in dilutions of 1 in 100,000.

Bacterium.	Gaertner Serum.		Aertrycke Serum.		B. from Pig's Intestine Serum.		Paratyphoid A Serum.	
	1 in 200	1 in 1,000	1 in 200	1 in 1,000	1 in 200	1 in 1,000	1 in 200	1 in 1,000
1. *Organisms of the Gaertner Type.*								
B. ent., Gaert., L.I.P.M.	3	3	0	0	0	0	—	—
B. Gaertner, Guy's ...	2	2	0	0	0	0	—	—
B. Gaertner, van E.	3	3	0	0	0	0	—	—
B. typhi murium ...	2	2	0	0	0	0	—	—
B. Moorsele	3	3	0	0	0	0	—	—
B. psittacosis, Nocard	3	3 (3, 1 in 100,000)	3	3 (3, 1 in 100,000)	3	3 (3, 1 in 100,000)		
B. Haustedt	3	3	0	0	0	0	—	—
Abel	3	2	0	0	0	0	—	—
B. Rennfleth... ...	3	3	0	0	0	0	—	—
B. icteroides... ...	0	0	0	0	0	0	—	—
2. *Organisms of the Aertrycke Type.*								
B. Aertrycke... ...	2	2	3	3	3	3	—	—
Hog cholera, Evans	0	0	3	3	3	3	—	—
Hog cholera, "Maryland"	0	0	2	2	2	0	—	—
Hog cholera, "Arkansas"	0	0	1	1	1	0	—	—
Hog cholera, "McFadyean"	0	0	2	1	2	1	—	—
B. Breslaviensis ...	0	0	3	2	3	2	—	—
Günther	0	0	3	2	3	3	—	—
3. *Organisms of the Paratyphoid Type.*								
B. paratyphoid A ...	0	0	0	0	0	0	3	3
B. paratyphoid B ...	0	0	0	0	0	0	0	0
B. paratyphoid, Brion and Kayser	3	2	3	0	0	0	3	3
4. B. morbificans bovis	0	0	0	0	0	0	0	0
5. B. Wesenberg ...	0	0	0	0	0	0	0	0
6. Grünthal	0	0	0	0	0	0	0	0
B. typhoid, L.I.P.M	2	2	0	0	0	0	0	0
B. Shiga (dysentery)	0	0	0	0	0	0	0	0

N.B.—1 = slight reaction; 2 = distinct reaction; 3 = complete reaction.

The following attempt was made to ascertain to which group, or groups, of organisms the cultures obtained by me from the intestines of animals belonged: Three rabbits were immunized—the first with B. enteritidis of Gaertner, the second with B. Aertrycke (a food-poisoning bacillus of the Breslaviensis and Günther group), and the third with bacilli of the enteritidis group, which I had isolated from the large intestines of a healthy pig. The rabbits were immunized by subcutaneous injection of the respective cultures, and a monovalent serum was obtained, giving an agglutination reaction with its own bacillus in the dilution of 1 in 100,000. These three serums were then used to test the reactions given by the bacilli of the enteritidis and Paratyphoid A type that had been isolated from animals' intestines, the known bacilli of these two groups also being tested individually against the same serums. The results of these experiments are shown in the accompanying agglutination tables.

ORGANISMS ISOLATED BY AUTHOR FROM THE INTESTINES OF HEALTHY ANIMALS TESTED AGAINST THREE SERUMS.

A.—*Bacilli of the Enteritidis Type giving no Reaction with Gaertner Serum.*

Source of Bacilli.	Gaertner Serum.		Aertrycke Serum.		B. from Pig's Intestine Serum.	
	1 in 200.	1 in 1,000.	1 in 200.	1 in 1,000.	1 in 200.	1 in 1,000.
Pig's faeces	0	0	3	3	3	3
Pig's small intestine (α) ...	0	0	3	3	3	3
Pig's small intestine (β) ...	0	0	2	1	3	3
Pig's small intestine (γ) ...	0	0	3	2	3	3
Pig's small intestine (δ) ...	0	0	2	2	3	3
Pig's large intestine (α) ...	0	0	3	3	3	3
Pig's large intestine (β) ...	0	0	3	3	3	3
Calf's large intestine (α) ...	0	0	3	3	3	3
Sheep's large intestine (α)...	0	0	3	3	3	3

B.—*Bacilli of Enteritidis Group giving a Partial Reaction to Gaertner Serum.*

Source of Bacilli.	Gaertner Serum.		Aertrycke Serum.		B. from Pig's Intestine Serum.	
	1 in 200.	1 in 1,000.	1 in 200.	1 in 1,000.	1 in 200.	1 in 1,000.
Pig's small intestine (ε) ...	2	2	3	3	3	3
Pig's small intestine (ζ) ...	2	2	3	3	3	3
Pig's large intestine (γ) ...	1	1	3	3	3	3
Bullock's large intestine (α)	2	0	2	2	3	3
Bullock's large intestine (β)	2	0	3	2	3	3
Bullock's large intestine (γ)	2	0	2	2	3	3
Bullock's large intestine (δ)	2	0	2	2	3	3
Sheep's faeces (α)	1	1	2	2	3	3
Calf's small intestine (β) ...	1	1	2	2	3	3

C.—*Bacilli of the Enteritidis Type giving a Complete Reaction to both Gaertner and Aertrycke Serum, like B. Psittacosis.*

Source of Bacilli.	Gaertner Serum.		Aertrycke Serum.		B. from Pig's Intestine Serum.	
	1 in 200.	1 in 100,000.	1 in 200.	1 in 100,000	1 in 200.	1 in 100,000.
Child's small intestine (α)..	3	3	3	3	3	3
Pig's small intestine (η) ...	2	2	2	2	3	3

N.B.—1 = slight reaction; 2 = distinct reaction; 3 = complete reaction.

On comparing the agglutination table of the known food-poisoning bacilli with Trautmann's list it will be found that the results as regards the enteritidis or Gaertner group, and the Breslaviensis or Aertrycke group, are identical with my own, and it is with these two groups that the present research is most concerned, as all the bacilli of the enteritidis group isolated from animals' intestines reacted quite as well to the serum of the second rabbit (Aertrycke serum) as to the serum of the third rabbit immunized by one of the cultures obtained from the large intestine of a healthy pig. It is true that about

half the cultures of the enteritidis bacilli reacted to a certain extent to the serum of the first rabbit (immunized against B. Gaertner), but in the higher dilutions it was shown that the Aertrycke serum had a much greater effect. In the same way the Aertrycke culture itself gave a moderate reaction with the Gaertner serum, and a complete reaction with the Aertrycke serum, in a dilution of 1 in 1,000.

These results, together with the previously-mentioned cultural reactions, indicate that 18 of the 20 cultures examined belong to the Aertrycke, or Breslaviensis, species of the enteritidis group. The remaining two cultures of this group, from the small intestine of a pig and from the small intestine of a child, were found to react equally well either to the Gaertner or to the Aertrycke serum, even in a dilution of 1 in 100,000. This peculiarity was also observed in the B. psittacosis, pointing to the conclusion that these two cultures were nearly allied to that bacillus. It will be noticed that the 10 cultures of the Paratyphoid A group gave no reaction with the three serums above mentioned. A fourth rabbit was therefore immunized with a culture of B. paratyphoid A of Schottmüller, and each of these cultures tested against the serum. None of the ten cultures, however, gave any reaction, thus giving no reaction at all with the four serums experimented with. It is certain that, according to their cultural reactions, they belong to the Paratyphoid A group, but in their serum reactions they do not agree with two known cultures of the group—Schottmüller's Paratyphoid A and the paratyphoid of Brion and Kayser. They belong possibly to yet another species of the same group.

The agglutination tests furnish one of the best laboratory methods of classifying the different organisms, and are much more delicate than the cultural methods, as is shown in the case of the four organisms of the hog-cholera group "Maryland," "Arkansas" of Theobald Smith, Evans's bacillus, and McFadyean's bacillus, which all differ in their cultural reactions, but, as will be seen on reference to the table, react equally well to the Aertrycke serum. The agglutination reaction, however, does not necessarily indicate the specific virulence for different animals, the B. of mouse typhoid, for example, giving the same agglutinative reaction as the B. enteritidis of Gaertner, although the virulence of the mouse typhoid bacillus is, so far as we know, confined to mice and rats. The hog-cholera bacillus of McFadyean is virulent for pigs, but not for guinea-pigs. This specific virulence may possibly be acquired by passage through certain definite animals, but this is a matter for further research.

It will be observed that the cultures of the enteritidis group isolated from animals' intestines agree in agglutination reactions with the hog-cholera bacilli, as they are both agglutinated with Aertrycke serum; they also agree culturally with the hog-cholera bacilli of Evans, and "Maryland" of Theobald Smith.

It was decided to test, therefore, whether these bacilli from animals' intestines could produce hog cholera in the pig. A broth culture of bacilli of the Aertrycke type isolated from the large intestine of a pig being selected, 500 c.cm. of this culture, mixed with milk, was given to a young pig 4 months old, that being the most susceptible age. The animal, however, did not contract hog cholera. A second feeding experiment was tried with another young pig, a litre of a forty-eight hours' broth culture being administered. This produced violent diarrhoea and loss of appetite on the following day, which passed off in thirty-six hours, but on the animal being killed a week later no trace of the lesions peculiar to hog cholera was found in the intestines. The *post-mortem* examination was kindly performed by Professor McFadyean, of the Royal Veterinary College. The violent diarrhoea in the second feeding experiment seems a further proof of the relationship of these bacilli with those of the food-poisoning group.

GENERAL CONCLUSIONS.

1. There exist in the intestines of healthy animals organisms conforming morphologically and biologically to the enteritidis and Paratyphoid A types.

2. These organisms, as regards their agglutination reactions, fall into the following groups:

   1. B. enteritidis, Aertrycke, or hog-cholera type.
   2. B. enteritidis, psittacosis type.
   3. B. paratyphoid A, unknown type.

3. The nomenclature adopted by different observers is unsatisfactory, but is based on the principal differentiating criterion we at present possess—namely, specific virulence.

My best thanks are due to Dr. Allan Macfadyen for many valuable suggestions during this research.

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SPIROCHAETAE IN SYPHILIS.

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In the number of the German Imperial Health Office Publications just issued,[1] Schaudinn and Hoffmann have a paper (dated April 10th) describing organisms of Spirochaetae type which they find constantly present in syphilitic lesions. Of these Spirochaetae they distinguish two sorts, one larger, thicker, and more readily stained, the other smaller, thinner, and taking up dyes with difficulty. The former they find mainly in cases of *condyloma acuminatum*; the latter they find exclusively in genuine syphilitic chancres and efflorescences, not only on the surface of the primary sore but also on its deeper aspect (laid bare by excising it). They also find this organism in the secretion of the so-called "mucous tubercles," and in the depth of indolent buboes. This very slender, delicate, stain-resisting organism is provisionally named by Schaudinn, *Spirochaete pallida*.

Through the courtesy of Dr. Pugin Meldon, Surgeon to the Westmorland Lock Hospital, Dublin, I have been placed in a position to verify Schaudinn's statements, and in view of the extreme theoretical and practical importance of any clue to the hitherto mysterious question as to the causation of syphilis, I think it right to at once communicate the results I have hitherto obtained. I may say at once that in every one of the 9 cases of undoubted syphilis in the primary and secondary stage which I have examined, spirochaetae were readily demonstrable. In a case of advanced tertiary ulceration of the palate I failed to find the spirochaete, and I also missed it in a case of muco purulent vaginitis, unaccompanied by ulceration and considered by the medical attendant (Dr. Meldon) not to be of syphilitic nature. Admittedly the number of non-syphilitic control cases examined is far too small, but this objection I hope to speedily meet. It is accounted for by lack of time for more extensive examinations.

Method.

The patient (hitherto I have only examined adult females) having taken her position in the examination-chair, thin film-preparations were made on slides from the secretion of any sores, etc. In a few of the cases a trace of the material was suspended in sterile broth, and put up as a hanging-drop, when the movements of the spirochaetae could readily be observed. The dried films were (in accordance with the suggestion of Schaudinn) fixed in absolute alcohol for ten minutes and stained for several hours (usually till next day), in very strong Giemsa stain[2] (Giemsa's azur I azur II eosin, dissolved in methyl-alcohol and neutral glycerine, 3 drops of the compound to the c.cm. of water). The highest powers are required on account of the tenuity of the object and its weak staining affinity. I used an oil immersion $\frac{1}{12}$th of Leitz.

Description of Spirochaetae Found.

Spirally twisted, extremely delicate organisms, actively motile, with peculiar corkscrew movement in either direction. Length from 7 to about 18 μ, averaging about 12 μ. Thickness too small to measure. Some were equally thick throughout; others, more especially the longer ones, were decidedly thicker in the middle, and tapered, slowly at first, afterwards more rapidly, towards the ends. The coils were often seven or eight in number, not regularly spiral, more open towards the extremities, sometimes nearly effaced. The smaller spirochaetae looked like detached flagella of the typhoid bacillus in a Pitfield preparation.

As regards structure, with the magnification at my disposal, I could make out no more than a granular appearance, more highly alternating with less highly refractive dots, in the fresh preparation. In certain specimens I convinced myself that nearer to one end lay a granule larger than the others and

projecting from the sides of the organism (? a nucleus or blepharoplast). In certain other specimens an excessively thin line seemed to fringe the concavity of some of the coils, and to suggest a trace of an undulating membrane. These may have been double forms (see lower down).

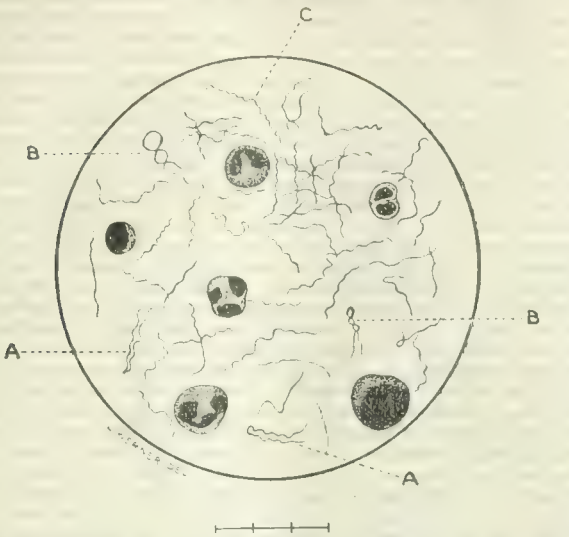


Fig. 1.—Secretion of condyloma from Case I (S., aged 20). The divisions are those of the stage micrometer viewed with the same power; each = 0.01 mm. The number of spirochaetae is reduced, and special forms found in other preparations are sketched in; A A, parallel forms joined at one end; B B, forms joined at one end, but crossing (cf. Schaudinn's fig., loc. cit.); C, double-length, end-to-end form. There is another such individual below the centre of the field.

Staining Reaction.

Gram, negative. Carbol-fuchsin, acting for an hour undiluted, gave poor results on the only occasion I tried it. The best results were obtained with the Giemsa mixture, which imparted to the spirochaetae a distinctly reddish-violet tinge, similar to that of the neighbouring leucocytic nuclei (the Romanowsky chromatin stain), whilst the bacteria in the preparation came out blue. From this behaviour, I would infer that the spirochaetae are composed of "chromatin." I did not observe the above-mentioned granule in stained specimens.

Reproduction.

Hitherto, attempts at artificial culture of pathogenic spirochaetae—for example, those of relapsing fever and *angina Vincenti*—have failed, owing to the special precautions necessitated by the protozoal nature of these parasites having been ignored. None of the material that has hitherto passed through my hands was sufficiently free from bacteria for attempts at culture on human-blood-agar, and I accordingly made no trials in this direction. In several of the stained preparations made (especially from Cases I and VI) there were forms to be seen which agreed closely with those figured by Schaudinn[3] in his description of the reproduction of his *Sp. Ziemanni*. Thus, I saw pairs of individuals lying close together and almost parallel, but united at one end (A). At the first glance the pair might have readily been mistaken for a trypanosome. Again, some of the longer forms presented a gap or unstained spot exactly in the centre, as though composed of two individuals that had been united end to end and were in the act of coming apart.

Relation to Cells.

The spirochaetae were extra-cellular. In the fresh state they were often attached to the pus cells by one end and caused them to sway to and fro, or even dragged the cells along a little way by their vigorous movements. The end of the organism was sometimes seen to be completely buried in the cell protoplasm. Both ends of the spirochaetae were sometimes attached to cells.

CASES.

CASE I.—S., aged 22. Large condyloma of right labium. Mucous tubercles on surrounding skin. This, the first case examined, produced a deep impression owing to the unusual character of the microscopic picture. The secretion from the interpapillary recesses of the condyloma contained myriads of spirochaetae. The pus cells were literally embedded in a tangle of these organisms, of which many millions must have been present in each slide film. Large, distinctly-staining forms predominated, but the thinnest, palest sorts were readily found on careful search. Here and there were agglomerations, but I failed to trace a radial or any definite arrangement. The moisture on the surface of the mucous tubercles also contained spirochaetae in smaller numbers and of smaller size than those of the condyloma. This patient had received several subcutaneous injections of mercury.

CASE II.—F. Typical mucous tubercle of buccal mucosa. The scrapings contained small pale spirochaetae in relatively small number, and hard to see owing to their tenuity.

CASE III.—C. Mucous tubercle of left labium, and a sore which might be the remains of the primary chancre. Spirochaetae numerous, small, pale, in both lesions.

CASE IV.—M. Condyloma of left labium. Same result.

CASE V.—O'G. Same lesion. Same result.

CASE VI.—L. L. Early secondaries. Remains of primary sore on left labium, which was greatly tumefied. Secretion on surface of sore swarming with bacteria, amongst which were many pale, unevenly-coiled spirochaetae, some of which presented a typical end-to-end appearance.

CASE VII.—B. This girl had ulcers, papules, and condylomata on the genitals, as well as an enormous suppurating left inguinal bubo, which had burst just previous to examination. The pus seemed sterile, and the most careful examination failed to detect spirochaetae. The secretion from the sore, however, was found to be swarming with the organism, some of the individuals being very long (18 μ (?) a double form).

CASE VIII.—N. Sore on genitals, abundant leucorrhoeal discharge, crusts somewhat like rupia over back and chest. The pus obtained by raising one of the crusts proved to contain streptococci and staphylococci, also diphtheria-like bacilli in "Chinese-letter" groups, but spirochaetae were absent. In the vaginal secretion and the exudate covering the ulcer on the labium were many large stiff-looking segmented bacilli like anthrax, smaller bacilli, and numerous spirochaetae, some agglomerated in clumps, the components of which were very small and faintly stained, so that the arrangement could not be definitely ascertained.

CASE IX.—N——n. Sore on genitals; spirochaetae numerous.

CASE X.—B——l. Tertiaries; very extensive destruction of palate. Spirochaetae could not be found in the secretion covering the ulcer.

CASE XI.—L——t. Abundant vaginal discharge not regarded as syphilitic; no sore; ? gonorrhoea (gonococcus not observed in my preparation). Spirochaetae not found.

CONCLUDING REMARKS.

1. A species of spirochaete has lately been shown by Schaudinn (loc. cit.) to be a stage in the life-history of a trypanosome (*T. Ziemanni*) of the stone-owl. This raises the question whether *all* spirochaetae—for example, those of relapsing fever, pseudo-diphtheritic angina, and of tropical spirillosis (to which the lamented death of Dutton was due)—are also protozoa, and mere stages in the life-history of flagellates.

2. A species of trypanosome (*T. equiperdum*, Doflein) is the cause of a sexual disease of the horse—known in France as *mal de coït*, or dourine. This malady is not unlike syphilis in some of its manifestations (oedema of genitals, cutaneous plaques, and subsequent degeneration of the spinal cord).[4]

3. Although trypanosomes are, as a rule, conveyed by an invertebrate intermediate host, such as the blood-sucking flies, *Glossina* and *Stomoxys*, this need not be the case. The trypanosome of dourine is conveyed from stallion to brood-mare by direct contact, and can even pass the unbroken mucosa, as was first shown by Rouget.[5]

4. Kala-azar, a disease due to Leishman-Donovan bodies, which are almost certainly a stage in the life-history of a trypanosome, has, even as I write these lines, been shown by Leonard Rogers[6] to be propagated by sexual cohabitation.

5. Metchnikoff has found spirochaetae in the syphilitic lesions which he has recently succeeded in producing in apes.

The above considerations would seem to render it not at all improbable that the spirochaete may be etiologically connected with syphilis. It would, therefore, be most important to make careful search for it in deeply-situate lesions beyond the reach of surface contamination, and to establish its absence in non-syphilitic ulcers of the genital tract. Possibly the tertiary and congenital forms of the disease may prove to be chronic intoxications, due to the metabolic products of the spirochaete. I desire, in conclusion, to express my deep sense of gratitude to Dr. Pugin Meldon for the material he so kindly placed at my disposal; to Dr. Gray, house-surgeon at the Lock Hospital, for all the help he gave me, and to my colleague, Dr. Werner, for the accompanying sketch he was good enough to make from one of my preparations (Case I).

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THE PHARMACOLOGY AND THERAPEUTICS OF ICE.*

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The subject of this paper suggested itself to me as a result of hearing Dr. McKisack read notes of some cases of pneumonia which he had treated by the applications of ice; and the discussion which followed prompted some questions which have made me feel that a fuller consideration of the subject from a pharmacological point of view would be of benefit to the members of the Society.

Pharmacology.

Ice is used in the treatment of many inflammatory and other lesions, and the beneficial results obtained from it have marked it as a valuable therapeutic agent.

It may be employed:

(A) *Internally*, for example, by swallowing small pieces in the treatment of haematemesis, or sucking for the relief of thirst.

(B) *Externally*, either:

(*a*) Locally, as in the treatment of synovitis or of pneumonia; or

(*b*) Generally, as a pack in treating hyperpyrexia, say, of typhoid or rheumatic fever.

Before, however, going into its therapeutics, I shall refer to its pharmacological effect.

(*a*) When used locally its action may be divided into:

(1) Superficial local or direct; and

(2) Deep local or reflex effect.

1. *Superficial or direct local action* is exemplified in the effect produced by the application of ice to inflamed piles or to prolapse of the rectum, also in its formerly more extensive use (either alone or with salt) as a local anaesthetic. Of course, a similar but milder effect may be obtained by an evaporating lotion, but with ice, or ice and salt, we can obtain the much greater effect because of the much greater degree of cold. The four cardinal symptoms of inflammation are markedly diminished by a timely application of cold. (*a*) The pain is relieved because the smaller amount of blood to and effusion into the part causes less tension upon the nerve terminals; (*b*) the heat, and (*c*) the redness, are lessened because of the contraction of the blood vessels; and (*d*) the swelling is prevented or decreased on account of the lessened blood supply with consequent diminution of the effusion. The earlier the application the more pronounced will be the effect of the ice in cutting short or preventing the inflammatory process.

On the other hand, the inflammation may be of some duration, and the application of ice may not have the desired effect of relieving the pain, heat, and swelling, and, to some extent, of the redness. Why? The ice will so constrict the afferent and efferent vessels that the products of inflammation become imprisoned and the trouble may be increased, the first symptom complained of being discomfort, or increase of pain, instead of ease. This is, no doubt, the explanation of the empirical fact that the use of ice to an inflamed tissue only does good so long as it gives ease, whilst increase of pain or discomfort contraindicates its employment, and should be replaced by moist warmth, in order that the tissue may be flushed out and the inflammatory products carried off by a more liberal supply of blood. I must insist, however, upon an interval (longer or shorter, according to the extent of the trouble) between the removal of the ice and the application of heat, the interval being employed in gradually reducing the degree of cold, and then increasing the degree of heat (which is analogous to the treatment of frostbite), otherwise the remedy might possibly prove worse than the disease. A reversed graduation must be adopted if hot poultices be replaced by ice, else the sudden cold applied over dilated vessels, which have been further dilated by the heat, causes such a "water-logging" that moist gangrene be rapidly produced.

2. *Deep Local or Reflex Effect.*—When ice is applied to the chest wall, as, for instance, in the treatment of pneumonia, or to the abdominal wall for abdominal or pelvic inflammation, it is not for its direct effect one looks. I question if it would cause much, if any, direct constriction of even the superficial vessels of the subjacent viscus unless the wall was very thin. I am convinced that we are justified in considering the effect produced a reflex one upon the diseased organ, and not due entirely, if at all, to a general reduction of pyrexia as the result of the limited application of cold. In fact, it is analogous to, and probably identical with, that of counter-irritation. In a word, I think ice should be classed as a counter-irritant. What do we find writers on pharmacology and therapeutics say on the matter? Hale White writes: "The effects of a cold compress are the same as those of a linseed poultice." (A linseed poultice, I may remind you, is a rubefacient, or mild counter-irritant.) Hare says that the action of ice is "closely associated with the subject of counter-irritation." Sollman speaks of cold compresses and the icebag as "useful counter-irritants." An important fact in support of ice being counter-irritant is gleaned from a statement made by Ringer when referring to Arnott's use of ice and salt. He says: "If applied too long, this mixture may vesicate, but this will not occur under five or six minutes." Now the degree of counter-irritation obtained by a drug (whether it be rubefaction or vesication) is due to its potency, the duration of its application, and the greater or less delicacy of the skin to which it is applied. Therefore if ice and salt will cause vesication (an intense degree of counter-irritation), is ice not a milder counter-irritant? If this is so, let us briefly consider how a counter-irritant, for example, a linseed and mustard poultice, acts. Such an application does not produce a direct effect when applied over deep-seated disease such as pneumonia. The old idea that pneumonia, being a humoral disease, was benefited by a poultice drawing the "humour" from the lung to the surface, gave place to the theory that the hot poultice drew such an amount of blood to the surface that it depleted the lung tissue. Were this latter correct, hot applications to any part of the body should be equally successful, but even the originator of the theory, I am sure, would hardly have treated pneumonia by poulticing the leg or other independent region.

A later theory was that the poultice not only dilated the cutaneous but, to an equal extent, the pulmonary capillaries by penetration of the heat. This could not be held good, for the application of a fly blister over the seat of disease produces an equally good, if not better, result than a poultice—a result which could not be put down to moist warmth extending to the deeper tissues.

How, then, can the effect of hot applications to the surface in deep-seated inflammation be explained? By a reflex action through the vasomotor centres. This is believed to be the true explanation of the action of counter-irritants. The vasomotor centres are situated in the spinal cord and medulla, and when an impression is made upon the superficial vessels by counter-irritants (including ice) it is transmitted by the afferent nerves to the vasomotor centres and reflected to the viscera in association with that portion of the skin irritated; for it has been pointed out "that a distinct relation exists between irritation of an internal organ and that part of the skin which is supplied by the same segment of the spinal cord or brain" (Head quoted by Cushney).

Foster states that there are few, if any, vaso-constrictor fibres to the skeletal muscles, although he mentions that "all or nearly all arteries of the body have vasomotor fibres." "The action of these vasomotor fibres is more manifest and probably more important in the case of small arteries than in large ones." However, vasomotor fibres are supplied to all the viscera. Those in the abdomen through the splanchnic nerves have long been known, but those of the thoracic contents are of recent acquaintance. Indeed, Foster says: "Concerning the vasomotor nerves of the thoracic viscera we know at present very little." And Schäfer, in his later work, says that proof of vasomotor control of the lung circulation is extremely difficult, so much so that some physiologists maintain that the vascular system of the lungs is not under the control of the nervous system. But, he continues, the evidence of Bradford and Dean, who have made most exhaustive research, appears conclusive in favour of a vasomotor mechanism. Bradford and Dean found that vasomotor fibres for the lungs are from the third to seventh thoracic nerves inclusive. Schäfer also states that the pulmonary vascular system is undoubtedly innervated from the upper thoracic nerve roots, and thus comes under the influence of the central vasomotor mechanism. After quoting various experiments upon vasomotor nerves and centres he says, "it is thus evident that the pulmonary circulation can be affected to a certain extent by sensory stimulation of the chest wall."

In order to get as pronounced an effect as possible upon the

* Read before the Ulster Medical Society.

subjacent viscus, whether abdominal, thoracic, or cranial, a more or less extensive area of the skin is utilized for the action of the remedy, for "reflexes are more easily and more completely discharged when the specific end organ of the afferent (sensory) nerve is stimulated than when the trunk of the nerve is stimulated in its course" (Landois and Stirling). Chapman, however, as quoted by Ringer, has claimed excellent results by using an icebag over or along the spine. According to Foster the impulses transmitted to the vasomotor centres are not merely reflected, but "act afresh, as it were, as a stimulus to the nerve centre, producing, according to circumstances and conditions, either a few weak efferent impulses or a multitude of strong ones." Landois and Stirling make a similar statement in different words—"the vasomotor centre, therefore, primarily regulates the condition of the blood vessels, but through them it obtains its importance by regulating and controlling the blood supply, according to the needs of an organ."

I have endeavoured to show, by quoting from the works of recognized physiologists, that reflex action and the vasomotor mechanism are the important, if not the sole, factors in the effects produced upon deep-seated organs by counter-irritants applied to the skin.

Is it now possible to obtain an idea of what actually occurs in these deep-seated organs? There seems to be little doubt that when applied to the surface ice causes a reflex diminution of the blood supply to the viscus innervated from the same segment or segments of the spinal cord as that portion of skin to which the application is made. Bartholow points out that when one hand is immersed in cold water the temperature of the other falls by reflex action, and quotes that Brown-Séquard has experimentally shown that ice applied to the lumbar region causes contraction of the arterioles of the kidneys. Hale White says "cold appears to contract not only the vessels of the skin to which it is applied but also those of the organs under it. Most often this is reflex, but if the intervening tissues are thin it may be due to conduction, and perhaps this explains the utility of an icebag to the head for concussion and the fact that some writers strongly recommend ice poultices to the chest for pneumonia." And later on he repeats that cold contracts the vessels and lowers the temperature at the point of application and in the parts beyond.

Exceedingly valuable observations were made by Rossbach upon the condition of the mucous membrane of the trachea by the application of ice to the abdomen of cats, and are recorded by him in his paper upon "the formation of mucus and the treatment of diseases of the mucous membranes in the air passages." In his studies of the effect of various remedies upon the mucous membrane of the air passages he devised the plan of actual inspection of the mucous membrane by laying open the whole of the trachea and keeping it exposed to view by retraction of the edges with hooks. Amongst the substances studied was included ice. After quoting his procedure and the effects noticed, he says: "It may be concluded without doubt that the vessels of the mucous membrane of the larynx and windpipe can be influenced in a marked degree in a reflex manner by strong irritation of cold applied to the skin. For we conclude from the quick appearance immediately after the application of the irritant that the primary contraction can only be a reflex result of the irritation of cold." The primary contraction he found was later followed by redness, and still later by a bluish-red colour, but contraction was again obtained, though not to so great a degree, by a renewed application of ice, which, he maintains, shows that the vessels are not paralysed. That vaso-dilator fibres are stimulated later than vaso-constrictor he does not consider the explanation, "for a stagnation (backwards) of the blood from the extreme degree of the second stage might rather point to that the arteries going to it might have remained contracted, and that the veins passing from it might be greatly dilated, or that only the capillaries were enormously dilated and the vessels to and from them had remained contracted."

It is evident, then, that when local contraction of the cutaneous vessels is caused by ice a reflex contraction of the arterioles occurs in the associated viscera. Had the reverse been the fact—namely, reflex dilatation caused by the local application of cold—it would have been impossible to explain the effect of an icebag to an inflamed tissue with but a thin covering, for example, in synovitis of the knee-joint in which both the direct and the reflex actions are concerned direct contraction with reflex dilatation would indeed be a hard nut to crack. Having seen, however, that the reflex effect is contraction of the arterioles, we are thoroughly able to understand that an icebag to an inflamed joint has both directly and reflexly just such an effect as I explained when dealing with the purely local action of ice—namely, reduction of the four cardinal symptoms of inflammation.

The same dual action (direct and reflex) comes into play without a doubt in the treatment of meningitis, etc., by an icebag to the head.

Besides these effects upon the local circulation it is necessary before passing to glance at other effects of ice. One of the chief and most beneficial is the rise of blood pressure which it causes, and so gives tone to the general circulation, including, of necessity, the heart. Respiration is stimulated, and, as pointed out by Ringer, cold causes the lungs to absorb more oxygen. Again, has ice any beneficial effect upon inflammatory exudates? This is doubtless difficult to answer. Lees, writing in the *Lancet*, of 1889, stated that there was reason to believe that the icebag over pneumonic lung had a directly curative influence; that it did not simply reduce the general temperature, but that it distinctly tended to repress the inflammatory process in the lung with more or less success according to the severity of the case, and the height which the inflammation had already reached. Mays, in the same journal in 1893, spoke most highly of this same treatment, and stated that the resolving power of ice on the exudation is one of the strongest factors in its curative influence.

(*b*) *General External Application.*—When ice is employed for its general effect—for example, in the treatment of hyperpyrexia—its great action is that of abstraction of heat; but I cannot help believing that it has also a second or reflex action, according to the conditions present, upon the heat centres (the thermogenic, thermolytic, and thermotaxic). My reason for this belief is that when the temperature is lowered by an icepack it is sometimes permanent, or, at any rate, the temperature may not rise so high as before the pack. Now, if it were simply a matter of abstraction of heat, the diminished temperature should be temporary, and on removal of the ice should gradually, and in a comparatively short time, rise again to its original height. Instead, however, it is found that a more or less permanent reduction is obtained which may last for days, and this could only be accounted for by a reflex effect produced upon the central nervous system. I admit that hyperpyrexia may recur during an acute fever in spite of icepacks, but the explanation, doubtless, is that the illness is so acute that it affects to such a degree the heat centres, which had been benefited by the ice, that they once more give way under the strain and require further aid by another liberal use of ice. With an icepack the tonic effects to respiration and circulation already referred to are obtained to even a greater degree, and prove valuable in asthenic cases. This improved tone may be all that is necessary in many cases to ultimately bring to a successful termination an illness which might otherwise have proved fatal.

THERAPEUTICS.

I have dealt at such length with the pharmacology of ice that I can only briefly refer to its therapeutics. We find it recommended in a great variety of conditions.

Internally.—Small lumps sucked prove most grateful to the patient parched with thirst, and also after operations upon the stomach. In the latter condition it is even more grateful than sips of water during the first twenty-four or forty-eight hours. It is recommended also in assisting to control haemorrhage from the mouth, throat, lungs, and stomach. For haematemesis, however, small pieces may be swallowed. In these conditions, not only is the action direct, but also markedly reflex. Iced drinks are more refreshing than the same liquids without the addition of ice. In painful conditions of the stomach pieces swallowed possess a sedative action, and they may prove valuable in vomiting from various causes.

Externally we may employ this valuable adjunct to treatment in the form of compress, poultice, icebag, or ice cradle. As a local anaesthetic prior to the opening of abscesses, etc., or for the performance of paracentesis it has fallen into disuse since the introduction of the ether spray and of ethyl and methyl chlorides. It is well to remember that a piece of ice dipped into salt and held against the skin will prove a valuable local anaesthetic should ethyl chloride, etc., not be available.

To the head it may be applied in the treatment of heat stroke, convulsions, delirium, headaches, otitis media, in certain cases of insomnia and in meningitis (simple and tuberculous). In meningitis the icecap is said to be "most

efficacious," lowering temperature and modifying intracranial circulation. It is recommended to be kept applied till the temperature remains subnormal for some time. In the British Medical Journal of April 15th, 1899, Professor Lindsay reported the recovery of a case of probable tuberculous meningitis in which the main treatment was continuous application of cold to the head. Although continuous cold was obtained by using Leiter's tubes (and not an icebag), I refer to the case to illustrate the value of cold in the treatment of meningitis which may be almost doubtless tuberculous. The icecap is suggested in cerebral haemorrhage; but it is pointed out by Bartholow that it is harmful if the "face is pale, the surface cool, and the circulation depressed."

The icebag is useful in treatment of wounds of the eye to prevent inflammation, and is frequently employed in inflammatory diseases of that organ, and, as mentioned by Shaw, seems to do good so long as it allays the pain.

Dr. Gardiner Robb says that he has found ice to the face in small-pox give greater relief than any other application. In spinal and cerebro-spinal meningitis ice may be applied along the whole length of the spine, and has been found of great service. In this case there is (as when applied to the head) both a direct and a reflex action.

Ringer recommends ice poultices to the throat in tonsillitis, scarlet fever, and diphtheria, especially if the glands are likely to suppurate.

To the chest in the cardiac region ice is of great benefit in treating pericarditis, and some writers speak of its usefulness in endocarditis. It has been found to give great relief in the palpitation of exophthalmic goître, and of functional heart troubles.

More extensive application to the chest has given decidedly beneficial results in cases of haemoptysis. I have already spoken at some length of the use of ice in pneumonia. Several writers have seen no bad symptoms from its use, and the existence of pneumonia is no contraindication to the use of icepacks for hyperpyrexia. As it was a paper on pneumonia treated by ice applications which led me to write this paper, I should like to briefly quote some statistics regarding mortality in this disease. I have not found any more recent than those quoted by Mays in the *Lancet* of July 8th, 1893. He collected 50 cases treated with ice applications of which 2 were fatal—that is, a mortality of 4 per cent. Besides these, he quotes from a paper by Fieandt, a Finnish medical man, who treated 106 cases (10 of which were double pneumonia), with 3 deaths, equal to 2.82 per cent. Together these constitute 156 cases with 5 deaths—that is, a mortality of 3 2 per cent. In comparison with these figures Osler puts the mortality at from 20 to 40 per cent. In the Johns Hopkins Hospital it was 29.8 per cent. Taylor estimates the mortality at 17 per cent. Certainly a striking difference in favour of ice.

I have not found any statistics regarding the efficiency of early as compared with late application of ice in this disease, but theoretically I should imagine that a more beneficial action would be obtained if applied in the early stage, when we might expect a smaller amount of inflammatory exudation to be thrown out. On the other hand, if consolidation has already occurred, it might be found that moist warmth by flushing the blood vessels would tend to a more rapid absorption of the effused products. I am unable to speak from personal experience, but make this suggestion from theoretical considerations.

The treatment of pneumonia by the ice cradle and not by direct application to the skin has been used, and in 43 cases treated by this method the mortality was 7 per cent. For its mode of use I refer my hearers to Sir William Whitla's *Dictionary of Treatment*. In the *Medical Annual* of 1899 it is pointed out that if ice is used in the treatment of pneumonia the patient needs careful watching; if the feet are cold hot bottles must be used; if the temperature falls below 99°, and the hands are cold or the lips bluish, the icebag should be removed.

The pains associated with pleuritic complications or affections are frequently greatly relieved with ice, but in some cases have been found to be aggravated.

To the abdominal wall ice has been employed in treating appendicitis and other painful inflammatory conditions of the viscera and peritoneum; also in splenic hypertrophy, haematemesis, and for the relief of vomiting from various causes. It has also been found of great service in haemorrhage from the bowel or uterus, and in the latter case pieces may be introduced into the uterus or rectum.

Locally, ice may greatly benefit painful conditions of the testis, and is recommended to assist reduction of prolapse of the uterus and rectum. It has been found useful in some cases of lumbago, also to assist in the reduction of strangulated hernia, and for the relief of haemorrhoids which are swollen, painful, and bleed.

To the limbs the icebag may be applied when neuralgia of various nerves requires immediate relief by active treatment, but it is for inflammations in joints and bursae that we find the icebag more frequently pressed into service. After excisions of joints and other operations upon bone the application of an icebag over the dressings will greatly diminish the oozing which is sure to occur, as well as lessen the pain which might otherwise follow. As an alternative to moist warmth ice may be employed in the expectant treatment of osteitis, myositis, and inflammation of other tissues prior to the formation of pus.

An icepack to the trunk or trunk and limbs will be found of the utmost value, as already mentioned, in treating hyperpyrexia occurring during typhoid, acute rheumatism, scarlatina, and other febrile conditions. Even if pneumonia occurs as a complication the icepack is not contraindicated. The rectal temperature must be watched, and when it falls to 100° the pack must be removed, when a still further decrease will be noticed. If kept on too long collapse is liable to occur.

THE SANATORIUM TREATMENT OF PHTHISIS: IS IT WORTH WHILE?

AN ANSWER FROM THE WESTMORLAND SANATORIUM.

By WILLIAM S. PAGET-TOMLINSON,
M.D.Lond., M.R.C.P.,
Treasurer of the Sanatorium.

It seems very desirable that all who have had any considerable experience in this matter should, at the present time, record the conclusions at which they have arrived. My chief interest in, and practical experience of the question having been almost entirely in connexion with the consumptive poor at our Westmorland Sanatorium, it will be readily seen that I have no pecuniary axe to grind, but simply desire to arrive at the truth concerning the value of the treatment—a subject which is just now agitating the professional mind. My knowledge of sanatoriums for the well-to-do classes is limited to visits paid to various institutions in this country and to a study of their statistics, but I have followed much more closely the work of such sanatoriums for the poor as exist in Great Britain, and especially, of course, that of our own in Westmorland, which was one of the first in England to deal with the poor upon any extensive scale. The result of its five years' work is briefly recorded in the British Medical Journal of March 4th, but of this more presently.

To me it seems incredible that any one having any considerable acquaintance with the subject should speak of the treatment as being productive of no good, and indeed positively harmful. It is doubtless true that seven or eight years ago an exaggerated estimate was probably formed as to the extraordinary cures that would be made. This is not surprising; it is nearly always so with any new method of treatment. A few years' experience, however, has taught us our limitations, and although we may have had a few disappointments in connexion with the treatment, I unhesitatingly affirm my belief that not only does the sanatorium treatment hold the field, but I would go further and say that I strongly suspect that other methods of cure, brought forward from time to time, owe their chief success to observance of open-air principles as an adjunct to whatever other means may be adopted.

I entirely agree with the views expressed by Dr. Ransom, of Nottingham, in a paper published in the British Medical Journal of January 14th, 1905, that we were probably, in the first instance, a little too sanguine, and chiefly in three directions: (1) As to the general applicability of the treatment; (2) as to the time required to arrest the disease; (3) as to the permanence of the arrest.

With regard to the first of these, quite apart from the particular stage of the disease, it would seem that there are some cases which do not respond to treatment as we should expect, owing to causes not always easy to determine; as to the second point, it is certain that cases (even early ones) require a longer period of treatment than was originally expected; if this be kept in view, there will be a far better chance of fulfilment of the third condition—permanence of arrest—though in

the case of the poor we have often to contend with the further difficulty of a return to unhealthy home surroundings and possibly an injurious trade. But if we concede all this, there still remains the fact that sanatorium treatment, even among the poorer classes, provided the patients are treated at a sufficiently early stage, has been the means of restoring hundreds to good health and normal working power.

Among other curious criticisms, we find sanatorium patients described as "a herd of miserable creatures." Now, if there is one thing thing that has struck me more than another since I became interested in this matter, it is the robust, weather-beaten appearance of the majority of patients who have been a few weeks in the sanatorium; so much so, that I have sometimes told visitors that they must not attach too great importance to external appearances, though it is one of the valuable indications of general well-being.

Again, it has been urged that the treatment is a practical impossibility in this climate, and that for about three months of the year only can it be satisfactorily carried out. Here I am able to endorse what has been said over and over again by those best qualified to judge, that patients do better in the winter than in the summer. Our experience is that the most trying time for them is the very close weather in the late summer.

But there is no occasion to labour these points. The real question at issue is—What are the results of treatment among the poor? I take it that if we prove our case for them, it goes without saying that the well-to-do classes fare still better. In order to estimate the true comparative value of the treatment, it would be necessary to show what were the results of phthisis treatment in former days before open-air methods came in vogue. This is scarcely possible, but I think most medical men are prepared to admit that in the old days, when once phthisis was thoroughly established, the course of the patient was, as a rule, progressively downhill. It is doubtless true that results have improved of late years, apart from regular sanatorium treatment, but is not this probably due, as already suggested, to the fact that, whatever treatment is adopted, scarcely any medical man has the courage to omit the abundant use of fresh air as an important adjunct? This is the great point, and it is not of vital importance whether the treatment is carried out at home or in the sanatorium, although experience teaches us that, so far as the poor are concerned, home treatment is almost impossible.

This brings me to the statistics of our work at the Westmorland Sanatorium, which are, so far as I can judge, not widely different from those of kindred institutions for the poor in this country. The difficulty with regard to statistics (as pointed out in a recent article in the BRITISH MEDICAL JOURNAL), is, that we have no consensus of opinion either as to what terms shall be used to denote the condition of patients before, during, and after treatment, or as to the precise sense in which they shall be used. The value of statistics in consumption must largely depend upon correct diagnosis, accurate grouping of the patients into classes, in each of which the extent of disease is stated as definitely as possible; and lastly, upon the care taken in following up the history of patients for several years after discharge.

Before referring to our results, I may mention that our sanatorium is in no way exceptional as regards climate, position, or general arrangements. In a pleasantly wooded district three miles from Grange-over-Sands, it stands 200 ft. above sea level, and enjoys perhaps more sunshine than most northerly districts, though the rainfall is fairly high, and the winds at times are strong. Some half a dozen patients of either sex sleep outside in shelters; the remainder (about 12) in the wards. The shelters are generally preferred, both in winter and summer.

Referring to the five years' work just completed, it must be clearly understood that every case from the commencement has been carefully followed, thanks to the energy of our Secretary, Dr. W. R. Parker, and therefore the value of the report as a test of the permanence of results is undoubted.

Of the 224 cases which have passed through our hands, 40 may at once be excluded, 21 being so hopelessly advanced that most of them died shortly after coming under observation, and 19 being so seriously complicated with other complaints that they are useless as test cases.

Of the remaining 184, 55 were early cases, described as "consumption slight" (slight lung affection; bacilli not easily found; no high fever).

The second group contains 62 cases, described as "consumption moderate" (consolidation not extensive; no cavity; no high fever; bacilli commonly found).

The third group—67 cases. "Consumption advanced" (cavity, or extensive consolidation; often considerable fever; bacilli usually abundant).

Of the 55 early cases, all are now, almost without exception, strong and well and able to do full work; not one has died, and the solitary case that is doing badly left the sanatorium against the strongest advice, and has since taken no pains to carry out the treatment. Of course, the hypercritical may say that some of these cases were not consumption at all, but merely debility from some cause, especially in the absence of bacilli; but it is quite certain that almost without exception they presented physical signs of incipient lung mischief, together with the other well known symptoms strongly suggestive of early consumption. Besides, I suppose the best authorities are now agreed that bacilli cannot be found in the early stage in most instances, simply because they have not made their way into the air cells, and there is no sputum to examine. I should be sorry to trust any relative or friend to the tender mercies of a doctor who refused to diagnose phthisis and to take any precautionary measures until sputum was plentiful and bacilli easily discoverable.

With regard to the 62 "moderate cases," 23 had better be excluded, some being still under treatment, others not having been discharged sufficiently long to show whether their improvement is permanent or not.

This leaves 39 to account for. It is true 9 of these have died, but of the remaining 30, all of whom were discharged upwards of two years ago (some, even three and four years ago) we have this result: 19 report themselves as "perfectly well," 4 as "well," 3 as "fairly well," and only 4 as "invalids." This, briefly stated, means that 60 per cent. of the patients under treatment upwards of two years ago, are now able to report themselves as well, and able to do full work—a result very satisfactory in this group of cases.

As to the 67 "advanced cases," little need be said; with one or two notable exceptions, all have done badly; out of 46 admitted up to two years ago, only 9 survive. Yet even in connexion with these advanced cases, there is this noteworthy fact, that many whilst in the sanatorium hold their own in a surprising manner, and even improve to some extent. It is only when they return to their homes that they quickly relapse and generally die in a few months. This surely points out what life-giving things are fresh air and good wholesome food. It is very interesting to note that the results of treatment of these advanced cases appear to be strikingly different in sanatoriums for the well-to-do classes, if we may judge from the report of Dr. Thurnam (Nordrach-on-Mendip) published in the JOURNAL of March 4th. He appears to have had, during his four years, an exceptionally large number of advanced cases (183 out of 289), and yet he has the satisfactory result that 35 of these (19.1 per cent.) were perfectly well and in full work at the close of the four years, and 39 (21.3 per cent.) in fair health, and able to do a certain amount of work. This discrepancy can only be explained by the fact that whereas the well-to-do can stay on almost indefinitely in the sanatorium, and continue the treatment in their own homes, perhaps also altering their whole mode of life, the poor too often return to the very conditions which originally brought on the malady.

In conclusion, I think we may fairly say:

First, that although sanatorium treatment as applied to the poor is, for reasons already stated, less satisfactory than in the case of the rich, it is undoubtedly of great value. It is not too much to say that by its means, when judiciously applied, nearly all the early cases, and a considerable proportion of the medium cases, can be restored to comparative health and the power of earning a living.

Secondly, it is of no small importance that all these cases are prevented drifting into the advanced stage, when they would become a much greater source of infection to all about them.

Thirdly, the lessons learnt in the sanatorium as to open-air methods cannot fail to have a beneficial influence on the future home-life; thus is the gospel of fresh air spread far and wide, manifesting its healing effects in other diseases besides consumption.

Fourthly, knowing as we do that the great difficulty we have to contend with in treating the consumptive poor is the return to the old conditions of life, I think more pains should be taken to consolidate the cures: (1) By a more prolonged residence in the sanatorium; (2) by urgently advising an alteration in the occupation, whenever possible, if this has been an injurious one. The difficulties are often great; indeed, sometimes insurmountable—for example, in the case of a married

woman with a family, whose prospects, as regards relapse, are perhaps least favourable of all. It would seem that sufficient organized effort has not been made in the direction of providing agricultural or horticultural colonies for patients leaving sanatoriums, and especially those who have previously followed an unhealthy trade. There are many difficulties in the way, but it seems a very important adjunct to sanatorium treatment, and, if widely adopted, we should probably hear of fewer relapses.

Lastly, it is of the first importance that "homes" for advanced cases should be provided in all large towns and county districts, where patients may pass their closing days in comparative comfort, and, above all, where they will cease to be a source of dangerous infection to the inmates of their own crowded homes. If this scheme were complete throughout the land, combined with an adequate provision of sanatoriums and colonies for the establishment of health, there is every reason to believe that consumption would be abolished in a comparatively short space of time—a happy result, carrying with it the extinction of much misery and suffering, and, in the long run, proving a considerable financial gain to the country.

In the foregoing observations I am fully aware that there is nothing really new. It is simply the record of five years' experience in sanatorium treatment among the consumptive poor, together with a general review of the question from the unprejudiced standpoint of one who retired from practice fifteen years ago, but who is much interested in watching the developments of a method of treatment the results of which are so infinitely superior to any obtainable during the period he was in active practice.

AN ANSWER FROM THE DURHAM COUNTY SANATORIUM.

BY WILLIAM ROBINSON, M.D., M.S., F.R.C.S.,
Chairman of the Committee.

ON April 30th last the Committee of the above sanatorium instituted their annual inquiry through Dr. Gray, their medical officer, as to the condition of all the patients who had been treated in and discharged from the sanatorium during the previous five years. The following is a summary of the condition of the patients:

I.—*Cases who had, on admission, consolidation only of the lungs—early cases.*

In 1900-1 16 cases were treated; 14 were enabled to return to work, and of these 12 are still at work, after more than four years, and 4 are dead.

In 1901-2 30 cases were treated; 23 were restored to work, 17 are now at work, and have been so between three and four years, 5 are at home, and 8 are dead.

In 1902-3 41 cases were treated; 30 had their working power restored, and 23 of these have been following their occupations between two and three years, 4 are at home, and 14 are dead.

In 1903-4 59 cases were treated; 46 were restored to work, 41 are still at work (between one and two years), 11 are home, and 7 are dead.

In 1904-5 75 cases were treated; 57 were restored to work, and all of these are still at work, 15 are at home, and 3 are dead.

Totals.—Of 221 early cases treated, 170 were restored to the ranks of workers, 150 are still at work, 35 are at home, and 36 are dead.

II.—*Advanced or cavity cases.*

In 1900-1 20 cases were treated, and 9 returned to work; 3 are and have been at work more than four years, 1 is at home, and 16 are dead.

In 1901-2, of 25 cases treated, 12 were returned to work; 4 of these have been at work between three and four years, 4 are at home, and 17 are dead.

In 1902-3, of 38 cases treated, 23 were enabled to return to work, 9 have been at work between two and three years, 11 are at home, and 18 are dead.

In 1903-4, of 39 cases treated, 16 were restored to work, and 10 of these have been at work between one and two years, 7 are at home, and 22 are dead.

In 1904-5 37 cases were treated; 14 were enabled to work, and all of these are still at work, 18 are at home, and 5 are dead.

Totals.—Of 159 cavity cases, 74 were restored to the ranks of workers, 40 are at work, 41 are at home, and 78 are dead.

REMARKS.

Practically all the patients (men and women) belong to the working classes; a very large percentage went back to insanitary and poor homes, hence relapses, especially among the advanced cases, are common and to be expected; almost all the cases had definite physical signs of lung disease, more than half had disease in both lungs, and many were complicated cases; all but a very few were unable to work on admission. Our great difficulty has been to get working-class patients to apply in the initial stage of the disease, and to find them suitable work afterwards.

The average age of the patients was about 28 years, the average stay in the sanatorium was fifteen weeks, the average gain in weight was about 18 lb., and the average cost per patient per week was approximately 25s.

Our sanatorium has been practically self-supporting from the beginning, and we have enabled the working men of this county to provide for themselves, and those over the age of 15 years depending upon them, sanatorium treatment, should they require it, at the nominal cost of 1s. per year per man.

We are fully satisfied with the excellent results obtained.

DRUG TREATMENT FOR INEBRIETY.*

BY J. S. BOLTON, M.D.,
Nottingham.

EARLY in August, 1904, I was asked if I could do anything for a man who was addicted to drinking habits, and was likely to lose his situation on that account. Having read in the BRITISH MEDICAL JOURNAL of April 30th, 1904, a paper by Dr. McBride upon the Treatment of Inebriety by Hypodermic Injections of Strychnine and Atropine, I determined to try it in this case. Dr. McBride wisely recommends that patients should be treated in some institution where oversight is possible and attention can be given to food, exercise, and environment. But as this man was unable to pay for such treatment, and wished also to continue his daily work, I decided to attempt to treat him as an out-patient. His history as given by himself is as follows:

I am 45 years of age, a tailor's cutter by trade. My father was a moderate drinker till he was 30, after which he was a total abstainer till his death. My mother was a moderate drinker all her life. I was a total abstainer till I was 20, then a moderate drinker for ten years, at which time I commenced to drink whisky, and this gradually got hold of me till I could not give it up. I can do my work for several weeks, taking gradually a little more liquor, till the mad crave comes upon me, and I throw up all work and have a drinking bout, eating no food, but living on whisky for days. After the bout I am left prostrate with morning sickness, and loathing all food. I should be glad if I could give up the drink, but I am not able. I have tried many times, but it has always ended in failure. I am quite willing to submit to the treatment.

Finding his organs free from organic disease I commenced treatment at once by injecting into the biceps muscle of his left arm a watery solution containing $\frac{1}{30}$ gr. of strychnine hydrochloride and $\frac{1}{50}$ gr. of atropine sulphate. I also gave him a mixture to take every four hours containing red cinchona bark. I arranged that he should come to my house twice a day for treatment, told him to take as little alcohol as he could, and instructed his wife to give special attention to his diet, feeding him on eggs and milk, soups, cocoa, etc., until he had appetite for solid food.

He took a little stimulant for the first few days, but the desire soon left him, though he did not entirely give it up for about ten days. I soon found that the atropine not only made his mouth dry, but so affected his eyes that it interfered with his work. Dr. McBride keeps a supply of spectacles for his patients. I got over the difficulty by injecting a large dose at night and a small dose in the morning.

Although the atropine made his mouth so dry it did not lead him to take alcohol to moisten it. He drank hop bitters or cold water for that purpose.

After a fortnight's treatment he complained greatly of shortness of breath on the least exertion. This gradually passed off during the next two weeks. His appetite soon returned, and his appearance, which had been that of a heavy drinker, improved remarkably. He told me that "I had taken away one appetite and given him another."

He visited my house twice daily for forty days, only missing once, after which he came once a day, then every second day till October 13th, when I told him he need not come again for

* Notes of a case read before the Nottingham Medico-Chirurgical Society on April 19th, 1905.

treatment, but only to report himself, unless the craving returned, in which case he was to come at once. He told me that he felt well and strong, had no desire for stimulants, but felt that it would be very unsafe to taste any, or the old craving might return.

I saw him again just before Christmas. He was keeping right, but said he did not like to be too confident till the festive season was over. He, however, passed through it satisfactorily. I hear of him now every few weeks, and he is keeping straight.

It is quite evident that under favourable conditions some of these cases can be successfully treated as out-patients by the family doctor if he has sufficient time and patience to give to them.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE LATE RESULTS OF AMPUTATION OF BOTH LEGS.

THE following notes of the present condition of a man, both of whose legs were amputated by me twenty-five years ago, may be of interest to many readers.

The patient, a dockyard hand, was run over by a train in 1880, and sustained a compound comminuted fracture of both lower limbs. I found it necessary to amputate the left leg a little below the knee, the right a little below the mid leg. For the left stump he was supplied on recovery with an ordinary kneeling peg leg; for the right, a peg leg with leather bucket. He came to see me last month after a long visit to the South Kensington Museum. He had enlarged the tread of his pegs to 3½ in. diameter by a round of sole leather backed by an equal-sized disc of indiarubber. At my request he furnished me with some particulars of his capabilities with his two stumps. He can, he said, get anywhere—train, tram, 'bus, boat, steps, in fact, almost everywhere. As an example of what he could do, he mentioned one out of what he said were common incidents of his life. Commencing in the early morning with a walk of nearly a mile, partly through a market strewn with vegetable litter (which is not the best walking for any one), he entrained at Portsmouth for London, visited Westminster Abbey, the Houses of Parliament, National Gallery, St. Paul's Cathedral, walked to the Tower of London, thence by underground train to South Kensington for Imperial Institute, thence by train to the Earl's Court Exhibition. At all the places mentioned he saw all that was permissible, ascending and descending all stairs unaided, and returned home the same night. The first year the Tower Bridge was opened, he ascended and then descended the stairs of one of the towers of that bridge without assistance. He tricycles, and takes long country walks over fields and sands. Obviously the man's power of locomotion is very complete, and, in view of the severity of the anterior accident, somewhat noteworthy. He is willing to be inspected by any professional man who may desire to do so.

A. TURNBULL, M.D., R.N.,
London, W. Late Inspector-General Royal Navy.

TETANUS TREATED BY ANTITETANUS SERUM: RECOVERY.

ON February 28th a boy aged 3 years and 4 months, son of a gardener, was brought to me suffering from a crush of the last joint of the middle finger of the left hand. The finger was washed carefully in perchloride solution and dressed with cyanide gauze. On March 10th I found that the tip of the finger had sloughed; it was removed, and the stump dressed as before.

On March 13th the wound appeared quite healthy, but on March 14th, his mother tells me, the child was fretful, refused food, complained of his throat, and passed very little urine. When putting him to bed she noticed his neck was stiff, and later on there was some stiffness of the left side, especially the hip, which prevented him from sitting up. During the night he did not sleep, cried out frequently, and had some convulsions; when lifted the left side of his body was observed to be rigid. On the morning of March 15th his head was retracted and the muscles of his back affected.

I was called to see the child in the evening, and found him lying in bed stiff, with marked trismus, and the head much retracted; the least touch set up spasms affecting the whole body; sweating was profuse after each spasm. The temperature was 100° F., and the pulse 120. My partner, Dr. Green, saw him with me, and we decided to amputate the finger at the interphalangeal joint; this was done at 6 p.m. Potassium bromide gr. ijss, with chloral hydrate ½ gr., was ordered to be given every hour with egg and milk. During the night he had six or seven violent spasms, and frequent twitchings of the arms and legs at intervals between the spasms.

On March 16th antitetanus serum, 10 c.cm., was injected under chloroform. The spasms were less violent; nourishment was taken every hour in small quantities. The convulsions became more severe again about 9 p.m. The dose was increased to—potassium bromide gr. iv, chloral hydrate gr. j, every hour. On March 17th the temperature rose to 102° F. in the morning; the patient was very drowsy, the spasms fewer and less violent; serum 10 c.cm. was again injected under chloroform. The progress was satisfactory till the evening of March 19th, when violent spasms recurred. At 10 p.m. serum 10 c.cm. was injected under chloroform. Slight spasms occurred during the next day (20th), but more violent at night, when a bromide rash was also noticed. Sulphonal gr. j was substituted for the bromide and chloral.

Since then the recovery has been uninterrupted, though occasional twitchings in the limbs and severe cramps at night continued till April 3rd. The patient first took solid food on April 5th, and began to move his limbs voluntarily. On April 12th he sat up in bed, and on April 27th was able to walk a little, though a slight stiffness in the hips was observable.

Weymouth. JAMES MILLER, M.B., Ch.B.

A FACTOR IN SEA-SICKNESS.

IN all that has been written about the treatment of sea-sickness no mention has been made of congestion of the liver, which seems to me an important factor. After two years' seagoing practice I have come to the conclusion that sea-sickness is much aggravated and prolonged in people suffering from hepatic congestion or biliousness. Most writers have dismissed this subject after ordering a mercurial purge, followed by a saline as routine treatment prior to administering cerebral depressants on an empirical basis.

I have frequently observed that where fine weather has been experienced for the first two or three weeks of a voyage, followed by a little rough-and-tumble, sea-sickness comes on sooner, is more distressing and prolonged than when the voyage is begun in rough weather. This I have always attributed to the hepatic congestion set up by the over-eating, excessive sleeping, and lack of exercise so general among passengers, especially so when the voyage begins with fair weather. Sluggishness of the portal system is one of the attendant results and troubles of a sea trip to those who are not warned in time.

As to treatment, by experience I have found the exhibition of calomel gr. ¼ to gr. ½ every hour until a grain has been taken, followed by a saline, is the best way of ameliorating sea-sickness—I do not say cure, as I firmly believe there is no specific cure for a condition which has such a varied etiology. The causes of sea-sickness are psychical as well as physical, evidence as to the latter pointing to the cerebrum as being primary, and other organs only secondary, in producing this condition. As to psychical causes, cases are known of sea-sickness occurring shortly after going on board a vessel, before she is under way even; also those cases which occur when the vessel enters a locality notorious for bad weather, such as the Bay of Biscay, Great Bight of Australia, etc., quite regardless of the state of the sea at that particular moment.

In conclusion, I thoroughly endorse the remarks of Surgeon Metcalfe Sharpe, of the R.M.S. *Ultonia*, published in the BRITISH MEDICAL JOURNAL of May 20th, on the acidity of the vomit and danger of pushing cerebral depressants.

R.M.S. *Orontes*. A. VAVASOUR ELDER M.R.C.S., L.R.C.P.

INTERNATIONAL CONGRESS OF HYDROLOGY.—The seventh International Congress of Hydrology will be opened at Venice on October 10th under the presidency of Professor De Giovanni, Senator of Italy. In connexion with the Congress there will be an exhibition of waters and hydrotherapeutic appliances.

CHOLERA INSURANCE FOR MEDICAL PRACTITIONERS.—The Russian Government has established a system of life assurance for the benefit of the medical practitioners employed in fighting the cholera in Minsk. The amount payable at death from cholera is, in the case of qualified medical men, £800, and in that of medical students £500.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Wolverhampton, Thursday, May 11th, 1905.

EDWARD DEANESLY, M.D., President, in the Chair.

Radical Operation for Cancer of Mouth.—The PRESIDENT showed cases of cancer of the mouth treated by radical operation, with preliminary removal of glands:

1. Epithelioma of maxillary antrum in a woman of 51. The external carotid was first tied, and the upper jaw then removed in the usual manner. Five years had now elapsed since the operation, and there was no sign of recurrence of the disease, the nature of which was certified by the Clinical Research Association. This patient had been shown to the Branch before.

2. Advanced epithelioma of back of tongue involving soft palate and tonsil, together with the glands of left side of neck. After removal of the glands, together with the whole of the internal jugular vein, the lingual and facial arteries were tied close to their origin. Nine days later the jaw was divided at the angle, and the disease, with a wide margin of healthy tissue, removed with knife and scissors, the wound being subsequently cauterized. The parts removed consisted of the posterior half of the tongue on the left side, the tonsil, and soft palate. The patient was fed for a fortnight entirely by means of a stomach tube. The operation was performed in December, 1903. The mouth was now quite sound, and speech hardly affected.

3. Advanced epithelioma of tip and left side of tongue, together with glands of neck in a man of 46 years. In this case, although glands were palpably enlarged only on the left side, both anterior triangles were cleared out and the lingual vessels tied. Then the jaw was divided at the symphysis and the affected parts of the tongue and floor of mouth freely removed. The operation was performed on September, 1904. In April, 1905, an enlarged gland was found under the right sterno-mastoid close to the sternum. The recurrent gland had been recently removed, the operation was difficult and involved ligature of the internal jugular close above the innominate vein. This case emphasized the importance of thorough clearance of the neck, even when no enlarged glands could be felt.

4. Epithelioma of the fauces in a man aged 63. In October, 1904, the anterior triangle was cleared out and the cheek then split from the corner of mouth to the anterior border of the masseter. The growth, including portions of the anterior pillar of fauces, soft palate, gum, and the alveolar border of the lower jaw, was freely removed and the wound cauterized. In the following February a recurrent nodule was felt in the scar and was freely removed without opening the oral cavity. The parts were now perfectly sound. The nature of the growth was confirmed microscopically.

5. Epithelioma of fauces in a man aged 48. This case almost precisely resembled the last and was treated in the same way. The operation was performed in February, 1905.

Stricture of Transverse Colon.—Dr. DEANESLY also showed a case of stricture of the transverse colon in a man aged 33.

He had suffered from attacks of abdominal pain and distension for eight years, becoming more frequent and severe. In August, 1904, the belly was opened and a hard mass found at the commencement of the transverse colon. It was densely adherent to the liver, and had the usual appearance of a malignant stricture. Removal was not thought practicable, and the lower end of the caecum was anastomosed laterally to the sigmoid flexure. All symptoms were completely relieved for four months, then pain and distension reappeared. The abdomen was reopened and the small intestine divided a few inches above the caecum. The upper end was implanted into the sigmoid flexure and the lower end closed and dropped back. Two weeks afterwards the abdomen was again opened to relieve acute obstruction caused by a coil of small intestine having passed beneath a band of adhesions. He had since remained well and the bowels were acting normally.

Cases of Gastric Surgery.—Dr. DEANESLY also reported the following:—

1. Perforation of chronic ulcer near the pylorus in a man aged 26. The abdomen was opened about six hours after sudden onset of pain and collapse, which occurred five hours after a light meal. The perforated ulcer was completely excised and the wound sutured transversely to avoid contracting the pylorus. The peritoneum was wiped clean and drained through the left loin. Recovery was uninterrupted and digestion was now good..

2. Recurring attacks of epigastric pain and vomiting due to cicatrized ulcer near pylorus in a young man; gastro-enterostomy. The symptoms were at first thought possibly due to gall stones or to chronic appendicitis. Through a right-sided exploratory incision the gall bladder and vermiform appendix were found normal, but a chain of tuberculous glands was found at the base of the mesentery. A second incision was made five weeks later in the epigastric region, and the scar of an old gastric ulcer found near the pylorus. A posterior gastro-enterostomy was performed, and the old symptoms have now disappeared. The operation was performed in November, 1904.

3. Gastro-enterostomy in an elderly woman for relief of symptoms lasting twenty years. This was a typical example of the brilliant results of gastro-enterostomy for chronic ulcer of the stomach. The only lesion found at the operation was a puckered and contracted cicatrix in the centre of the posterior wall of the stomach, but the patient had seldom eaten without suffering pain for twenty years. The relief given by the operation was immediate and permanent.

Perineal Prostatectomy.—Dr. DEANESLY also reported the following two cases of perineal prostatectomy:

1. A man, aged 63, shown at a meeting of this Branch a year ago. He was shown again in order to demonstrate that the result of the operation was durable. He had completely regained his health, was no longer dependent on the catheter and had no recurrence of the phosphatic calculi for which he had previously undergone three operations.

2. Another man, aged 50, in whom the enlargement of the prostate was chiefly intravesical, and co-existed with uric calculus. In this case the prostate was exposed by Proust's perineal method and the intravesical portions only removed, together with a stone about 1 in. in diameter. Since the operation a year ago patient had not been troubled by any urinary symptoms.

Urethral Polypus.—Dr. DEANESLY also related a case of myxomatous polypus projecting from the prostatic urethra into the bladder removed by suprapubic cystotomy:

A man aged 35 had suffered for fifteen months from pain in hypogastrium at commencement of micturition. Occasionally he was unable for a time to micturate, and on several occasions during micturition the stream had suddenly stopped. Cystoscopically a long-stalked translucent polypus was seen springing from near the internal orifice of the urethra, apparently about 1½ in. long and ⅜ in. in diameter. By suprapubic section the polypus was easily seen and removed by scissors. The bladder was sutured and drained through the urethra by Cathcart's apparatus. The wound healed primarily, and recovery, though retarded by cystitis, was eventually complete

Epidural Haemorrhage.—Dr. DEANESLY also related a case of epidural haemorrhage from rupture of a branch of the middle meningeal artery.

The patient, a miner aged 48, received a blow on the right temple from a falling piece of timber. He was admitted to hospital a week after the accident with severe pain in the head, an oedematous swelling in the right temple and commencing optic neuritis. There were no focal brain symptoms and no stupor. A vertical fracture was found traversing the anterior portion of the squamous bone. A portion of the bone was removed, a large epidural clot scooped out and the bleeding anterior branch of the middle meningeal artery tied. Recovery was complete and uneventful.

Incontinence of Urine.—Dr. DEANESLY communicated a case of incontinence of urine and trophic ulcers of the foot in a boy of 10 who underwent an operation for spina bifida at 18 months.

In 1901 the bladder was opened on a suspicion of tuberculous ulceration, but nothing abnormal was discovered. In 1904, while in hospital for troublesome ulceration of the foot, the scar of the operation for spina bifida was noticed for the first time. The parent had omitted to mention the fact of an operation during infancy. The case was shown as an instructive error in diagnosis,

Cerebral Tumour.—Mr. CHOLMELEY showed the following case: The patient was an engine driver, aged 40, who on January 27th, 1903, was operated on for gall stones; 174 were removed. He progressed very well and went out in hospital grounds. On March 18th, while out of doors, he had a fit and lost consciousness. The fits recurred the same night and the following day and night, leaving him in an unconscious condition for nearly twelve hours. The fits always began in the right hand and leg, and then became general. There was some weakness of right arm and leg. The optic discs were reddened and the margins blurred. He had first fit two months previously. The fits were almost typically Jacksonian, so the advisability of trephining was therefore discussed, but as the urine was found to contain albumen and tube casts it was thought that the fits might possibly be uraemic. The patient was transferred to the medical ward, where his kidney condition was treated. During his time in the medical ward he steadily gained strength. The right arm at first was weak and rigid, but gradually became normal. The albumen almost completely cleared from the urine. He had one fit on April 12th. He was discharged on May 30th much relieved. He was readmitted in June and again in August for a recurrence of fits. They had the same character, but the urine was normal. He was readmitted on December 6th, 1903. The fits again recurred. He says he knows when the fits are coming on; he has a feeling of great depression. The fits always began by a twitching in ring finger of the right hand. He had an injury to his head some years ago, the scar of which is painful, and situated over the motor area on the left side. He has severe headache. He has lately had some difficulty in speech and some motor aphasia. On the date of admission he had cerebral vomiting; pulse 60; reflexes and sensation normal. No motor paralysis. Double optic neuritis. The fits are of the same character as when he was first seen. Urine normal. The Jacksonian character of the fits, continued headache,

and double optic neuritis were considered to point to a cerebral tumour, most probably in the cortical motor area on the left side. It was decided to explore the brain in that region, which Mr. Cholmeley did in two stages. On January 4th he removed a portion of the skull over the motor area on the left side somewhat larger than a five-shilling piece. The dura mater was tense and did not pulsate; otherwise, it was normal. The bone removed was also normal. January 5th: Headache better. January 11th: Mr. Cholmeley completed the operation by turning down again the flap of scalp and incising the dura mater. Brain bulged very much through the opening, but appeared normal. He explored the brain in every direction, but could find no sign of tumour or abscess. The brain tissue itself was quite healthy; also the meninges. The scalp was sutured, and the patient was sent back to bed. The next day the headache was gone, but there was complete motor aphasia. February 8th: No headache or vomiting; speech normal again; optic neuritis subsiding: one small fit since operation; sent out of hospital. About six weeks later he had a very bad recurrence of the fits and was not expected to recover. He has had no more since. At the present date (May 11th) the patient is not so well, is feeling depressed as before, just previous to recurrence of fits. Speech was very slow, and sometimes wrong words were used. No muscular weakness; no headache. The mental condition was quite good: the fits had been kept under control lately by bromides and iodide.

Pyonephrosis: Abdominal Nephrectomy.—Mr. CHOLMELEY also related the following case. A man, aged 44, had had slight pain in the right side about two months. The pain was never acute. The urine contained no albumen or pus, only excess of urates occasionally. He was getting thinner. He first noticed tumour a month previously. On the right side of the abdomen there was a large fluctuating swelling reaching from the ribs to 2½ in. below the umbilicus, and across the middle line above the umbilicus for about 2 in. Externally it filled the loin. The tumour was freely movable. It moved up and down on respiration. The man had had a fall six months before on the right side. The diagnosis seemed to lie between some fluid kidney tumour and hydatid. Mr. Cholmeley therefore opened the abdomen above the umbilicus. Thinking that he had felt the normal kidney in the right loin through the abdominal wound, he proceeded to explore the tumour, where it was projecting between the stomach and the transverse colon. On tapping it about 3½ pints of thin purulent fluid came away. The opening being enlarged, some fragments of renal calculus were felt. For fear of soiling the peritoneum he removed the pyonephrosis through the abdominal wound; and this method proved the best, as the tumour stretched almost as far across as the spleen, and was in places so densely adherent to the transverse colon that a knife had to be used. The wound in the abdomen was closed, and drainage provided for through the loin. The patient made an uninterrupted recovery.

Sympathetic Ophthalmitis.—Dr. CRIDLAND showed a case of a woman of 26, who, at the age of 7, lost the vision of the right eye from an injury in the ciliary region caused by a piece of glass from a broken bottle. The eye became quiet after a few weeks, but was useless, in the patient's opinion, as an organ of vision. The left was good, and she was able to read and sew. There was no trouble for eighteen years, then slight attacks of serous iritis occurred in the left eye, culminating in a severer one, which reduced the vision to perception of light; vision of left: she counted fingers at half metre. After treatment with atropine locally and mercury and potassium iodide internally the vision improved in seven weeks to R. $\frac{6}{36}$ and L. $\frac{6}{6}$. Internal treatment was then stopped, and subconjunctival injections of cyanide of mercury (1 in 5,000) and acoine 1 per cent., given in each eye, were made every fourth day. In ten days vision was, R. $\frac{6}{12}$ and L. $\frac{6}{6}$, and three weeks later both eyes were quiet, and on correction of some hyperopic astigmatism vision was, R. ⅔ pl. J1, L. ⅔ pl. J1. Nine months later another attack occurred in the right eye, with increase of tension. It was treated with an iridectomy upwards, and in a fortnight vision was, R. and L. $\frac{6}{12}$ J1, and had remained so until now, nine months later. Points: (1) Length of time (eighteen years) the right was free from inflammation; (2) the satisfactory result obtained with subconjunctival injections in each eye.

Infective Vaccination.—Dr. CRIDLAND also showed this case. A woman of 28 with a vaccination pustule on the left lower lid, affecting the edge of the upper lid. Intense brawny swelling of lids and cheek, enlargement of preauricular and submental glands. She had not been vaccinated since childhood. Her baby, aged three months, from whom the infection was incurred, had been vaccinated two weeks previously.

Paralysis of Third Nerve.—Dr. CODD showed a boy admitted with total intrinsic paralysis of the left third cranial nerve. There was no optic neuritis or vomiting. He was also stuperose and could not answer questions. Six weeks previously he had had an attack of influenza, since which his symptoms had supervened. Under potassium iodide he speedily recovered the use of the eye muscles, the ptosis disappeared, and he became quite intelligent again. The case was one of influenzal neuritis.

X Rays in Acne.—Dr. CODD also showed two sisters with acne treated with *x* rays. The elder had her face studded with brawny indurated acne pustules as shown by a photograph. Except for the inevitable scars the face was clear. Four months ago the younger sister's face was clear, but now a few non-indurated spots were present.

Epithelioma of Ear.—Dr. CODD also showed a case of epithelioma of the ear, which was confirmed microscopically, and which had lost all induration and growth, though it had not yet healed up. A stereograph of the original condition was shown.

X Rays in Ringworm.—Dr. CODD also showed four typical cases of ringworm treated with *x* rays. The same sequence occurred in each case. The *x* rays were applied in strong doses until all the hair over the patch came off; the treatment was then stopped, and the hair gradually grew again. In multiple patches each patch or group of patches was treated up to alopecia, then the next group attacked, and so on until they were all cured.

X Rays in the Treatment of Hairy Mole.—Dr. CODD also showed a large black hairy mole treated with *x* rays. The thickness and blackness of the mole had much diminished and the hairs had disappeared. A stereograph showed the original condition.

Separation of Epiphysis of Metacarpal.—Dr. CODD also exhibited a radio-stereograph showing separation of epiphysis of metacarpal, with dislocation of the proximal fragment backwards and a ring of callus around the fractured end.

Bullet in Calcaneum.—Dr. CODD showed a radio-stereograph of a case of Dr. Deanesly's where a bullet was lodged in the calcaneum twenty years ago, and lay there unsuspected until he was seen by Dr. Deanesly for recurring pains that had hitherto been attributed to gout. The stereograph showed exactly the position of the bullet in space, which was also correctly localized by Mackenzie Davidson's apparatus.

Foreign Body in Sigmoid Flexure.—Dr. CODD showed a radiograph of a key lying in the sigmoid flexure, and other radiographs and stereographs of cases treated with *x* rays.

Oesophageal Obstruction.—Dr. CODD showed specimens of a case of oesophageal obstruction for which a Symonds tube was inserted early in 1904. The stricture was tortuous and only occasionally could any bougie be passed. The Symonds tube remained *in situ* and the patient took his food comfortably up to the last. He eventually entered the Workhouse Infirmary, and died of cachexia nine months after. Through the courtesy of Dr. Galbraith, Dr. Codd was enabled to make an autopsy, though as the corpse was frozen hard the exact relations of parts were difficult to make out. The growth extended for 3 in. along the oesophagus, the lowest part being 2 in. above the cardia. The tube was soft, but still had a serviceable lumen.

Demonstrations of Some Minor Points of Surgical Technique.—Dr. DEANESLY gave demonstrations of the following points of surgical technique: (1) Use and management of various kinds of rubber gloves: The wearing of thin wet cotton gloves over the rubber gloves was strongly recommended. It obviated entirely the great difficulty of rubber gloves, their slipperiness when wet and stickiness when dry. It also greatly reduced the liability of puncturing or tearing the rubber gloves which rendered the use of them otherwise a very costly matter. After a little practice it was quite easy to perform every kind of operation wearing both rubber and cotton gloves, and a single pair of the former would last with care for thirty or forty operations. Punctures and tears could be mended with ease in a few minutes by any one who was capable of some attention to detail. (2) The use of flexible collodion as a wound dressing: Most surgeons use this for purposes of minor surgery, but its value as a routine dressing for all surgical wounds not drained was not sufficiently appreciated. For the last four or five years Dr. Deanesly had employed flexible collodion as the only

dressing for wounds of this kind, such as hernias, laparotomies, and arthrotomies. All bandages and external coverings were discarded and the hermetically-sealed wound was left exposed to sight. For hernias in young children the method was invaluable, and rendered elaborate devices for preventing the soiling of the wound with urine unnecessary. The dressing must consist chiefly of collodion and not of pads of wool or gauze imperfectly fixed to the skin by means of collodion, as used by many surgeons. The skin incision must be accurately and completely closed, and then brushed over with collodion strengthened with a few fibres of cotton-wool. The dressing was applied on the table, and only removed on the seventh to tenth day, when the stitches were taken out. (3) Use of adhesive rubber strapping as an aid to skin grafting: This was a useful device which he had employed for some years to obviate the difficulty of unrolling and flattening out the graft after it had been cut. A piece of the best rubber strapping the size and shape of the graft required was carefully fixed to the skin after cleansing the latter with benzole or with ordinary commercial benzoline in order to remove grease and ensure close adhesion. The whole piece of strapping was then shaved off with a sharp razor, taking a sufficient thickness of skin with it. The strapping with the skin graft on its under surface was applied in the ordinary manner with the greatest ease. At the end of three or four days the superficial layers of the epidermis exfoliated and came away with the strapping, leaving the graft in place. This method greatly facilitated the grafting of bony cavities, such as the mastoid, and was applicable to all purposes for which Thiersch's grafts were used. (4) Demonstration of Nitze cystoscope: The manner of using the cystoscope and the precautions necessary for its efficient use were demonstrated on a rough model of the bladder and urethra devised for the purpose. The superiority of the new form of cold lamp was pointed out and the use of the cystoscope recommended to all surgeons who aspired to really efficient work in genito-urinary surgery. Sketches were shown of (*a*) bladder and enlarged prostate, (*b*) mucous polypus of the prostate, and (*c*) epithelioma of base of bladder from actual cases. The value of the cystoscope as an aid to efficient lithotrity was insisted on in order to detect residual fragments, especially in cases of prostatic enlargement. (5) Use of Luys's segregator: The construction and use of this instrument were demonstrated and the mode of using it described. It was an aid to diagnosis of the greatest possible value. Cases to illustrate its use were mentioned: (*a*) A woman with symptoms pointing to obstruction of the left ureter; diagnosis confirmed by complete absence of secretion from the left side and normal secretion from right side. (*b*) A woman with symptoms of stone in the right kidney or ureter. With the segregator urine normal in quantity and mode of expulsion was obtained from the left side and only a few drops containing pus from the left. At a later date symptoms of suppuration in the right kidney necessitated a lumbar exploration and a disorganized and suppurating kidney was removed. A stone was felt in the upper end of the ureter, but the critical condition of the patient prevented its removal. The patient was shown. After her nephrectomy, the segregator was again used. In ten minutes 2 drachms of clear urine passed from the left catheter, none from the right. (*c*) A young man with symptoms of stone in the bladder was examined with the cystoscope. The bladder contained no stone, but an ulcer was seen round the right ureter, and the right kidney could be felt enlarged. The segregator showed normal secretion from the left kidney, and practically no secretion from the right. A week later a large tuberculous kidney was removed. The ureter was found completely filled with caseous pus. The removed kidney was shown. (*d*) A middle-aged woman was admitted to hospital with violent right-sided colic and vomiting. The character and position of the pain and tenderness suggested renal colic. The urine collected by the segregator contained a few pus cells, but there was no difference in quality or quantity in the specimens from the two sides. The abdomen was opened, and two large gall stones removed from the cystic duct.

Specimens.—Dr. Deanesly showed the following specimens: (1) Four calculi removed by lithotrity in male children, the youngest aged 2 years and the eldest aged 6 years. The largest stone from a child aged 3 was ⅝ in. in diameter. Dr. Deanesly had never had to repeat the operation on any child, except the first case in which he performed lithotrity in a child. He had ascertained the subsequent histories of almost all his cases, and could not find a single recurrence. Lithotrity should be regarded as the normal operation for stone at all ages, except in cases of very large stones. (2) Two specimens of calculi removed from the lower end of the ureter in young men. These cases were published in the British Medical Journal of March 25th. (3) Two specimens of calculi removed from the common bile duct for obstructive jaundice. Both cases were middle-aged women, and both recovered normally. One was five months pregnant at the time of the operation and afterwards had a normal confinement at term. The operation of choledochotomy was a much more difficult matter than a mere cholecystotomy, but was greatly facilitated by Mayo Robson's method of placing a pillow beneath the loins and rotating the liver towards the middle line. Dr. Deanesly always employed a median epigastric incision, and found it more convenient than a lateral incision. (4) A gall stone measuring 1⅝ in. by 1 in., removed by operation from the lower end of the ileum in an elderly woman, and causing acute intestinal obstruction. (5) A typical specimen of advanced tuberculous disease of the right kidney removed by lumbar nephrectomy. The patient recovered from the operation and left the hospital, but was now suffering from tuberculosis of one lung. (6) Kidneys, ureters, and bladder from a case of prostatectomy fatal in the third week after the operation. Kidneys and ureters were both much dilated and full of pus. The prostate, which was very large, had been removed without complication by the perineal operation. (7) A uterus with multiple fibroids, the largest of which was cystic and contained many pints of clear fluid. Removed through the abdomen. Recovery uneventful. (8) Six inches of rectum, including an epitheliomatous ulcer, removed by Kraske's operation from a woman of 35. The patient recovered.—Mr. Cholmeley showed a villous tumour of the bladder from a woman aged 63. There was a history of haematuria for six weeks; no other signs or symptoms. The urine only contained blood and epithelium. With great difficulty the patient was induced to give permission for cystoscopy. A tumour was seen and removal advised. Suprapubic cystotomy was performed with immediate suture of bladder. The bladder was drained by Cathcart's apparatus. Two tumours were found, the larger about the size of a Tangerine orange on right side of base, the other the size of a hazel nut about an inch to the left of the larger one. The patient made a good recovery and the bladder healed well.—Dr. Nesfield Cookson showed the ovaries from a case he had lately operated on. Two solid ovarian tumours, right weighing 25 oz., left 8 oz. On microscopic examination it was seen to be a columnar-celled carcinoma. The growth had extended on to the Fallopian tube; many of the rugae were thickened by this cancerous invasion. Colloid degeneration had taken place in many places. The patient was aged 52. Ascites was present and fifteen pints were withdrawn two days before the operation. Tapping had been required twice since, seven and eight pints respectively. The patient was now fairly well and getting about, but fluid was again reaccumulating.

South-Eastern Branch: Brighton Division.—At a meeting held at Brighton, on May 24th, Dr. W. A. Hollis in the chair, Dr. Donald G. Hall showed three patients and read notes of the cases: (1) A man, aged 56, with locomotor ataxy, optic atrophy, and aortic incompetence. There was a history of syphilis thirty-one years previously, and patient's wife had had six miscarriages and one child, which died at 12 months. His sight began to fail twenty years ago, and he had been totally blind for fourteen years. Shooting pains in legs began ten years ago, four years after patient had become totally blind. Ataxy more marked in arms than legs, lost reflexes, areas of anaesthesia, and other evidences of tabes dorsalis. The aortic incompetence was considered to be due to syphilitic sclerosis of the valves. (2) A man, aged 42, with bronchiectasis of old standing, who showed secondary hypertrophic osteo-arthropathy. The bony enlargement was confirmed by skiagraphs. (3) A man, aged 26, with enlarged spleen and liver, and great arrestment of bodily, but not mental, development. Height, 4 ft. 11 in.; weight, 4 st. 8 lb.; no sexual development. Blood showed red corpuscles 1,120,000 per c.mm., white corpuscles 11,000, haemoglobin 15 per cent. Myelocytes were present, forming 8.6 per cent. of the total white cells; nucleated red corpuscles also present. From the history given by parents the case had been considered one of splenomyelogenous leucocythaemia and pancreatic infantilism, but during his four weeks in hospital there had been no evidence of pancreatic inadequacy.—Dr. A. W. Williams showed a patient suffering from lichen planus. A discussion followed, in which the Chairman and several other members took part. Dr. Hall replied.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. DOUGLAS POWELL, K.C.V.O., M.D., F.R.C.P., President, in the Chair.

Tuesday, June 6th, 1905.

ABDOMINAL TUBERCULOSIS IN CHILDHOOD.

DR. W. P. S. BRANSON read a paper on this subject, the data of which were drawn from 40 children at the East London Hospital for Children, in whom the diagnosis was considered conclusive. The elementary lesions were: Ulceration of bowel, caseation of mesenteric glands, miliary tuberculosis or adhesive inflammation of the peritoneum. Genito-urinary tuberculosis and tuberculous enteritis were very rare. Large callous mesenteric glands were rare without some degree of matting of the intestines; they were the initial lesion in 7 out of 31 children who died with tuberculous meningitis. The symptomatology and course of peritoneal tuberculosis were described. An unaccountable loss of weight, with irregularity of the bowels, should call for careful examination of the belly under an anaesthetic. A hard enlargement of the mesenteric glands was almost constant. Apart from this sign and the tuberculin test, he knew no means of making an early diagnosis between this disease and simple, non-tuberculous gastro-enteritis. In the second stage the alternatives were: In the ascitic variety, cirrhosis of the liver; plastic variety, (1) diffuse peritoneal sarcoma; (2) chronic non-tuberculous gastro-enteritis. The two former were rare in children. In cirrhosis the liver was hard, in tuberculosis soft and fatty. Diffuse sarcoma could hardly be distinguished from plastic tuberculous peritonitis. Palpation was the only means of distinguishing tuberculous peritonitis from non-tuberculous gastro-enteritis. The large glands of the latter disease were always soft and impalpable. Prognosis: Of the 40 cases 24 died. In regard to treatment, it was suggested that early operation should be more often adopted, as in 6 out of 11 fatal cases the disease was limited even then to the abdomen.

Dr. WALTER CARR agreed that abdominal tuberculosis was practically an unknown disease in the first year of life. The tabes mesenterica of young children was generally marasmus from improper feeding. This threw doubt on its origin from milk. They were not insusceptible to tuberculosis, for it was common in the lungs. Abdominal tuberculosis was common later on when little milk was given. A factor was probably the crawling habit of this stage of existence. It was not uncommon to find tuberculosis of the glands without intestinal infection locally. In the acute ascitic cases the prognosis was much better, and they were sometimes, he believed, due to a blood infection.

Dr. SYDNEY PHILLIPS also thought that tuberculosis of the peritoneum occurred without primary intestinal infection. Parietal adhesions were not the only cause of intestinal obstruction in these cases. He had not seen speedy absorption of ascitic fluid in tuberculous peritonitis. The results of operation were, in his experience, favourable.

Mr. STEPHEN PAGET thought any attempt to resect the gut or remove the enlarged gland could only end in the death of the child. Incision or paracentesis seemed to be the only chance of surgical help.

Dr. A. E. GARROD from his own pathological experience emphasized the enormous preponderance of thoracic to abdominal tuberculosis in young infants. In the peritonitic cases the glands had failed to discharge their function of intercepting the tubercle bacilli.

Mr. J. D. MALCOLM referred to the presence of calcareous glands found in laparotomies on grown-up people.

Dr. BRANSON replied.

PHENYLHYDRAZIN REACTION.

Dr. P. J. CAMMIDGE made a communication on this subject, in which it was pointed out that the reaction afforded facilities for detecting the presence of other substances in the urine than dextrose, and especially for inquiring into the variations of the urine accompanying certain changes in metabolism.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting at Leeds on May 26th, Dr. LLOYD ROBERTS, President, in the chair, Dr. E. O. CROFT (Leeds) showed a myoma of the vaginal wall nearly 2 in. in diameter, which occupied a lateral position in the vagina and extended within ½ in. of the urethra. It produced no symptoms beyond slight bleeding from an excoriation on its most prominent portion. The nature of the growth was demonstrated by microscopic sections. Amongst 54 vaginal growths only three of this nature had been found. They were always single, generally occupied the middle line and were usually sessile. They developed from the muscular tissue of the vaginal wall itself. Dr. C. OLDFIELD (Leeds) described the case of a girl aged 22 from whom he had removed a hydatid mole, discovering, at the same time, bilateral ovarian cysts. Five weeks after the removal of the mole the cysts were removed by abdominal section. The uterus was found to be three times its normal size and was also removed, the cervix being left. Examination of the uterus revealed the presence in its posterior wall of a chorio-epitheliomatous growth. The cervix was, therefore, removed a week later. The ovarian cysts proved to contain in their walls a large amount of lutein tissue. Fraenkel, he said, had concluded that one of the functions of the corpus luteum was to preside over the embedding of the ovum in the uterus. In the presence of an excess of lutein tissue, with or without the actual development of ovarian cysts, there was excessive growth of the tropho-heart, the essential feature of vesicular mole, from which it was only a step further to the production of chorio-epithelioma. If the association between excess of lutein tissue and trophoblastic overgrowth could be proved by further investigation we had a most valuable contribution towards the elucidation of the pathology of at least one form of malignant disease. Dr. A. STOOKES (Liverpool) and Dr. S. BUCKLEY (Manchester) each narrated a case of pseudo-hermaphroditism, and Dr. W. G. FITZGERALD (Manchester) read a paper on Ruptures of the Vagina in connexion with Parturition.

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, May 26th, 1905.

MILKY ASCITES IN WHICH THE OPALESCENCE WAS NOT DUE TO FAT.

DRS. F. TAYLOR and J. FAWCETT described this case. The patient, a male, aged 31, was admitted into Guy's Hospital October, 1904, and died a month later. His illness commenced in May, 1904, with oedema of legs and face, followed by ascites. Paracentesis was performed nine times. The fluid removed was always milky, but under the microscope no fat globules but only granules were visible. The urine contained about 14 parts per 1,000 of albumen, and casts were present. No other signs of disease except the ascites and nephritis were found. At the autopsy there was milky fluid in both pleurae and in the peritoneal cavity. The kidneys exhibited the typical aspect of a tubal nephritis. The other viscera appeared healthy. The pancreas weighed only 60 grams, but microscopically its structure was normal. Clinical examination of the fluid by Mr. J. H. Ryffel gave the following result: Fat 0.045 per cent., proteid 0.396 per cent., iodine 0 0966 per cent., probably as potassium iodide, chlorine 0.264 per cent. as chloride. Mr. R. W. Allen had reported that no fat globules could be detected under the microscope nor extracted with ether; on precipitation with ammon. sulphate the fluid became quite clear. Remarks: The analysis and examination showed that the milky appearance was not due to fat, but probably to proteid in some form. Lactescent serous effusions of which the opacity was thought to be due to a proteid had been ascribed to (1) lecithin, (2) mucoid substances, (3) a proteid resembling casein. Joachim and von Beinert in some recent researches pointed out that albuminous bodies of the globulin group might have their solubility lessened by chemical combination with lecithin or by molecular arrangement, their conclusion being that the milkiness was probably due to a combination of lecithin and a proteid. Attention was also drawn to the association of lactescent serum and the presence of nephritis, as previously noted by Bright, Castaigne, and others.

SYPHILITIC DESTRUCTION OF NOSE TREATED BY PLASTIC OPERATION.

Mr. JAMES BERRY read a paper on this case. The patient, a gentleman, aged 33, had acquired syphilis nine months before coming under observation. For three months he had had no treatment; he had then been treated with mercury, but the whole of the left ala had by then sloughed away. Under iodide of potassium the ulceration of the nose healed, but a large hole was left exposing the interior of the nostril. The patient wore an artificial aluminium ala for three months, but being about to go to the East for some years, he was not con-

tent with this. A plastic operation was therefore performed. A thick flap of skin and muscle from the side of the nose and the cheek was twisted round, doubled on itself, and sutured in position, forming a prominent new ala which completely covered up the gap in the side of the nose. After seven days firm primary union took place. The patient was left with a prominent and fairly shapely ala with which he was pleased and a nostril through which he could breathe freely. The scar was linear in the furrow between the nose and cheek where it was scarcely noticeable. Neither lower eyelid nor upper lip were in any way drawn out of place by the operation. The paper was illustrated by several photographs of the nose before and after operation.

Mr. CAMPBELL WILLIAMS remarked that plastic operations for syphilitic ulcers usually left poor results. The brilliant success of this case was due, he thought, to the fact that the operation followed fairly early after the primary inoculation. The longer this interval was the less was the ulcer amenable to treatment. He would still advise a three years' course of mercury for this patient.

Mr. H. L. BARNARD remarked that syphilitic perforations of the palate were difficult to cure by operation.

Mr. WALTER G. SPENCER had closed such openings in the palate by plastic operations. Mr. Berry's case was a brilliant success.

Mr. BERRY, in reply, said that, unlike Mr. Campbell Williams, he would prefer to postpone operations for syphilitic ulcers. For ulcers of the palate he advised the wearing of a plate, that granulations might close the opening.

PRIMARY ADRENAL CARCINOMA OF LIVER.

Dr. S. PHILLIPS and Mr. B. H. SPILSBURY contributed this case. The patient was a woman, aged 40, who after ten months' indigestion came into St. Mary's Hospital with copious ascites and great emaciation. After removal of 386 oz. of clear ascitic fluid the liver—especially the left lobe—was found enormously enlarged, with many prominent nodules, other small nodules were also felt in the peritoneal cavity. The patient died. The necropsy showed the left lobe of the liver greatly enlarged, and consisting almost entirely of a mass of white marble-looking growth, forming irregular rounded prominent nodules on the surface; the right lobe of the liver was less extensively involved by growth. The peritoneum and omentum were studded with similar small soft nodules. Microscopic sections by Mr. Spilsbury and exhibited at the meeting showed the growth in the liver and elsewhere to consist of adrenal carcinoma; the structure was everywhere of the same character as the cortical elements of the adrenal glands. The suprarenal glands themselves were quite healthy. Schmorl and others had discovered that portions of adrenal substance might be found occasionally included in the liver substance, having been developed there during intrauterine life; such "adrenal rests" occasionally, as Pepere had shown, gave rise to malignant neoplasms of epithelial type. Pepere had recorded such a case very similar in clinical and pathological characters to the present case. Dr. Phillips remarked that there was little in the clinical characters to distinguish these cases during life from other forms of carcinoma of the liver.

Dr. PARKES WEBER inquired whether there had been any clinical evidence of excess of suprarenal secretion in the form of high-tension pulse or skin changes.

Dr. S. PHILLIPS replied in the negative.

DIABETES MELLITUS ACCOMPANIED BY XANTHOMA AND FATTY NECROSIS OF PANCREAS.

Sir DYCE DUCKWORTH reported this case. The patient, aged 23, was shown to the Society in December last. The disease ran an acute course, and terminated fatally within six months of the onset of diabetic symptoms. The xanthoma papules appeared in the fourth month somewhat suddenly. Death was preceded by toxic symptoms. An examination of the papules was made by Dr. Andrews, who found the chief changes in the dermis. These consisted of large groups of rounded cells densely packed with small fat globules, the nucleus appearing as a clear area. The autopsy in February revealed extensive fatty necrosis of the pancreas and peritoneal surfaces adjacent. The blood in the right auricle and jugular veins was milky in appearance, and chyle from the thoracic duct was very abundant and milky.

ANNUAL MEETING.

The usual business was transacted. The report of the Council showed that the Society was prospering and contained 589 ordinary members. The Treasurer's report showed that the financial position was satisfactory. The officers and members of Council for the next session were elected, Mr. H. H. Clutton being the new President, with Mr. G. H. Makins, C.B., as Treasurer, and Mr. W. G. Spencer and Dr. Archibald E. Garrod as Honorary Secretaries. Votes of thanks were passed, those to the retiring President (Dr. F. Taylor) and to Dr. W. Pasteur, the retiring Secretary, being especially hearty, as were also their replies. The session then closed.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

THOMAS E. GORDON, F.R.C.S., in the Chair.

Friday, May 12th, 1905.

CLEFT PALATE.

Sir THORNLEY STOKER read a paper on the operation for closure of the hard palate during the three months following birth, practised by Mr. Brophy of Chicago. He had performed it in 3 cases, and found it so excellent that he intended to adopt it in future in suitable cases. It could only be practised during the period mentioned, as the bones were afterwards too fully ossified to permit the necessary change in their position. It consisted in drawing the maxillae and palate bones of opposite sides together so as to close the cleft. This was done by two wire sutures passed across from one side to the other above the alveolar processes. They lay above the floor of the nasal fossae. One was inserted behind the malar ridge, the other in front of it. The bones were forced together by pressure so as to close the cleft, the edges of which had been pared. If the bones could not be approximated by pressure alone, the malar process was divided on each side. The anterior and posterior ends of the wires on each side were twisted together over a lead suture-plate fitted to the outer surface of the alveolus. The hard palate, the premaxillae, and generally the soft palate, were operated on at once. The hare-lip was closed subsequently when free access to the mouth for operative purposes was not required. The wire sutures were withdrawn after about four weeks. The operation had yielded him extremely good results, and was not a formidable one even at the tender age of its performance. He thought it on the whole an immense advance in the treatment of the cleft palate, and one which should be practised when possible.

Mr. T. E. GORDON considered the risks of the operation somewhat serious, especially in those cases where it was found at first impossible to bring the edges of the palate together, and further steps were necessary.

Mr. EDWARD TAYLOR thought the all-important thing was to operate early enough to secure closure of the cleft before the child began to speak. Those he had operated on recently were aged from 12 to 15 months, and in nearly all the results were good.

Mr. W. S. HAUGHTON had performed an operation very similar to Brophy's on a child 9 days old. The case was one of emergency, as the child was starving. He had been struck by the ease with which the parts were brought together and with the entire absence of shock.

Mr. KENNEDY alluded to the danger attending loss of blood in operations for cleft palate in young children and to the fact that in Brophy's operation the soft palate remained to be operated on after the closure of the hard palate.

Sir THORNLEY STOKER, in reply, stated that in his experience there was very much less disturbance and shock following Brophy's operation than operations performed upon older children. The operation was singularly free from risk.

VOLVULUS OF THE CAECUM.

Mr. J. L. KEEGAN read notes of a case. Mr. KENNEDY and Mr. E. H. TAYLOR discussed the communication.

KIDDERMINSTER MEDICAL SOCIETY.—At a meeting at the Kidderminster Infirmary on May 26th, Mr. C. D. FITCH, President, in the chair, the following were amongst the cases and specimens shown:—Mr. J. LIONEL STRETTON: (1) Two girls from whom he had removed large masses of tuberculous glands in the neck. The first was 17 years of age, and the glands removed necessitated a free dissection of the anterior and posterior submaxillary triangles on the right side. This was accomplished through one incision running the whole length of the sterno-mastoid and another at right angles to the tip of the chin. The glands removed weighed 1¼ lb. The second girl was 19 years of age. There was a large mass in the neck, and at its centre a small scar, where an attempt had been made to remove it six weeks previously in America.

The growth was found to involve the right sterno-mastoid muscle, and it was necessary to remove the whole of this, together with the jugular vein, through one incision along the anterior border of the muscle. The case was of interest because microscopic examination showed that the muscle was implicated; Mr. Stretton had several times before been obliged to remove the sterno-mastoid wholly or in part, whereas, in a recent paper in the BRITISH MEDICAL JOURNAL, a writer stated: "I have now operated on 25 of these necks, and have yet to find a case where it is necessary to even partially divide the sterno-mastoid." (2) A case of anthrax successfully treated with Professor Sclavo's serum without excision of the part. It was the fifth case so treated in the kingdom and the fourth successful.—Dr. EVANS: A man, aged 48 years, the greater portion of whose right elbow-joint he had removed nine years previously for an injury to the joint; the ends of the radius and ulna had been taken away, the end of the humerus left. He had a very useful arm, and could carry on his work as a farm labourer.—Mr. DYKES read notes of a case of aneurysm of the innominate artery, which was being treated by needling, and had diminished in size.

REVIEWS.

INDIAN MALARIAL MOSQUITOES.

THE realization within the last few years of the importance of blood-sucking insects as actual or potential disseminators of pathogenic organisms has produced many remarkable results, among which not the least noteworthy is the alliance between medical men and entomologists. It might almost be said that to a certain extent the two classes of scientists in question have become one, for, however perfunctorily he may have dissected a cockroach in his early days student days, the medical practitioner whose lines have subsequently fallen within the Tropics now considers it almost an essential part of his qualifications to possess something more than a nodding acquaintance with the insects with which he is daily brought into contact. The latest product of patient study and trained observation applied to mosquitoes by medical men now lies before us in the shape of a handsomely-got-up and admirably-illustrated *Monograph of the Anopheles Mosquitoes of India*,[1] by the publication of which the authors, Captains LISTON and JAMES, I.M.S., have rendered a signal service to all who are interested in the prophylaxis of malarial fever.

In a brief preface the authors state that the book has been written at the request of some of their fellow-workers in India, and add that they have attempted to describe each species in such a way that any specimen met with may be easily identified. The book is divided into two parts, "General" and "Systematic." The four chapters of "Part I" include "A General Account of Mosquitoes," well illustrated with plates giving figures of eggs and details of structure in larvae and adults; notes on collecting, mounting, examining, and identifying "*Anopheles*" mosquitoes and their larvae; an extremely interesting description of the habits of Indian "*Anopheles*"; and a discussion of the classification of "*Anopheles*," in which the authors state their reasons for not adopting Mr. Theobald's most recent scheme. "Part II," occupying forty-six pages, is devoted to the description of twenty-three species of Indian "*Anopheles*," including one new species, which receives the name *Anopheles culiciformis*. The figures of the larvae on the half-tone plates are clearly drawn, and should render the identification of the early stages of the species thus illustrated a matter of little difficulty; details of larval structure are shown, and other plates are devoted to wing-scales, etc. A "General Index" and an "Index of Species" follow. Finally, there is a series of fifteen well-executed coloured plates by Dr. Turkhud of Bombay, including a useful "descriptive diagram" of a female *Anopheles*, and illustrations of the females of fourteen species. The plates are on tinted boards, which serve to show up very satisfactorily the light and dark markings of the insects. Possibly with the object of causing the antennae, palpi, and tarsi to fall within the definition of "the line of beauty," these structures have in all cases been made to describe a curve. The effect, however, is a little grotesque, and we think it would have been better to adhere to the more usual, if equally conventional, method of representation. It is, perhaps, also a matter for regret that the natural size of the insects is not indicated in the usual way by means of crossed lines. Still, in spite of these minor blemishes, the plates are remarkably good, and, if we may venture to make the suggestion, it might be advantageous to issue them in a separate portfolio, so that the series could be framed for the adornment of the walls of the official quarters of Indian Sanitary Officers.

Returning to the text, and having said so much by way of commendation, we may notice a few minor inaccuracies which have been observed. On page 3 the statement that *Diptera* possess "piercing and sucking mouth-parts" should be qualified by the addition of the words "or sucking mouth-parts alone," while, with reference to the distinguishing characteristics of mosquitoes (page 4), it may be remarked that the possession of "a long sucking proboscis" is not peculiar to Culicidae; a similar structure is found in the case of the small, mosquito-like "daddy-long-legs" of the genus *Geranomyia*, and many horse-flies of the Sub-Family Pangoninae have an extremely elongated proboscis, in some cases greatly exceeding the length of the body. The assertion (page 5) that in the wings of the Cecidomyidae (Gall-midges) there are no fork-cells is incorrect, since these insects have one well-marked fork-cell; and the statement on the same page that the Tipulidae "have the wing-veins bare, without hairs or scales," is similarly at variance with the facts, as in some Tipulidae (*sensû latiore*) the wing-veins are clothed with hairs. On page 6 the English equivalent of Tabanidae should have been given as "horse-flies," rather than "gad-flies," since the latter term properly applies to the species of the genus *Hypoderma* (Family Oestridae). In the sentence on page 17 commencing with a reference to the scaling of the palpi, the words "of the antennae" have obviously been omitted at the end. On page 26 we notice that "fine entomological silver pins" are recommended for pinning mosquitoes; *silver* pins, however, will not go through the card discs, and ordinary entomological pins of No. 20 size are all that is required.

In attempting (pp. 59, 60) to give a working definition of the term "species," Captains Liston and James are not wholly successful, for though rightly drawing attention (p. 61) to "seasonal dimorphism," they appear to have overlooked the *polymorphism* of social insects, such as ants, bees, and termites. We would commend to the authors' notice the conception of the term recently developed by Professor Poulton, namely, a "syngamic" group, or a series of individuals that freely and habitually interbreed with one another.

To touch for a moment upon the authors' English, we are sorry to find the offence of the split infinitive not altogether conspicuous by its absence, as shown by such examples as "to carefully select," "to very carefully examine," "to accurately determine," on pp. 23 and 67; while more careful proof-reading would have detected the unfortunate slip in the sentence commencing "Two methods *of* which mosquitoes tide over the cold season . . . ," on p. 44. But, as we have said, these are after all only faults of lesser degree, which in no way detract from the sterling value of the book.

It would be out of place here to enter at length into the question of mosquito classification, but, nevertheless, we may, perhaps, be permitted to make a few general remarks on the subject, and at the outset to express our entire agreement with the authors' statement (p. 6) that, "for the student of tropical medicine, no very elaborate classification of the family *Culicidae* is necessary or desirable. . . . ." On pp. 19-21 the authors enumerate "some of the more obvious objections" to Mr. Theobald's division of the old genus *Anopheles* into eleven genera, based on the structure and arrangement of the scales on the body and wings, and they return to the subject at greater length in Chapter IV, which deals with "The Classification of *Anopheles*." In this connexion it may be remarked that a twelfth genus of Anophelinae — *Lophocelomyia*, Theobald — described last year for a species from the Malay Peninsula, has escaped the notice of the authors. The classification of Diptera in general is still so much in need of revision that it would be difficult to state with anything like precision the qualifications necessary to constitute good generic characters in all cases, and, in complaining (p. 21) that the distinctions between Mr. Theobald's genera are "not of equal value," the authors are preaching a counsel of perfection, the adoption of which in the taxonomy of this Order of Insects at any rate, cannot be hoped for at present. Yet it must not be forgotten that all classification is but the means to an end, and rests fundamentally upon the correct grouping of individuals into "species"—not into

[1] *A Monograph of the Anopheles Mosquitoes of India*. By S. P. James, M.B., I.M.S., and W. Glen Liston, M.D., I.M.S. Calcutta: Thacker, Spink and Co.; and London: W. Thacker and Co., 1904. (Demy 4to. pp. 132; 30 coloured and other plates, a map of India, 12 illustrations. 24s.)

"groups of species," as stated later on (p. 59) by the authors. With regard to the precise limits of species and genera there will always be differences of opinion among systematists, yet few will deny that little advantage is to be gained by the premature splitting-up and multiplication of genera; and one of the strongest arguments employed by Captains Liston and James against this treatment of *Anopheles* is their statement (p. 20) that: "In practice, it will be found much easier to determine the specific name of any specimen of 'Anopheles' than its generic name according to the new system." In other Families of Diptera, such as the Syrphidae and Anthomyidae, valuable *specific* characters are often found in the presence or absence and shape of peculiar hairs or bristles, but to regard such characters as of generic importance would be a step in the wrong direction, and would lead to the separation of closely-allied forms. For the reasons stated, therefore, we are disposed to agree with the authors in their conclusion that, "while differences in scale structure are undoubtedly of great value in the distinction of *species*, such differences as are present—at any rate among "Anopheles"—are not sufficiently important to be considered of *generic* value. . . ." On pages 67 to 73 the authors divide the Indian "Anopheles" into ten groups, based not upon the scale structure of the adults, upon which Mr. Theobald relies, but upon "the structure, the colour-markings, and habits of the adults, the structure and habits of the larva and pupa, and the general appearances of the eggs." This system of division has the merit of convenience, and is sufficient for practical purposes.

In conclusion, we can heartily commend this book, and, while congratulating Captains Liston and James upon their work, we would venture to express the hope that medical men in West Africa and other tropical countries, who have facilities for studying mosquitoes under natural conditions, will endeavour to emulate the authors' example, so that ere long we may be able to welcome the appearance of equally good Monographs of the Anophelinae of other regions.

Ernest E. Austen.

SURGERY.

We have received the second volume of a complete and much-elaborated report of the cases observed in Professor Hartmann's clinique at the Lariboisière Hospital, prepared under this surgeon's editorship by several of his colleagues.[1] It includes statistical returns of cases observed in the out-patient department, and of operations for the most part on the genito-urinary organs of both sexes, performed in the wards. The most important part, however, of this volume is a series of pathological and clinical studies of diseases of the urinary organs, including an instructive one by the Editor and M. Lecéne of the obscure and neglected subject of tumours of the suprarenal capsule; a long and very carefully prepared article by M. Lecéne on solid tumours of the kidney, and others of equal interest though of less extent on the surgery of the genito-urinary apparatus. The longest and most important is the article on new growths of the kidney, in which M. Lecéne considers in order the pathology, the clinical characters, and the treatment of the different forms of renal tumour, including teratoma. The reader of this will gather much useful information on practical matters such as the diagnosis, clinical history, and surgical treatment of solid tumours of the kidney, but will very probably retain but confused and uncertain notions as to the proper classification of such growths on a histological and anatomo-pathological basis. Professor Hartmann's volume will be read with interest by both the pure pathologist and the practical surgeon, and is a good instance of the service rendered by combined pathological and clinical research in improving the methods of dealing with disease.

In a third edition, Dr. Albert Hoffa's textbook and atlas of bandaging[2] has been enlarged and improved; it now contains 148 plates of illustrations. About half the book is devoted to the consideration of bandaging proper, and contains descriptions of the use of the roller and triangular bandages and of the various fixed dressings, plaster, silicate, and other forms less well known. In the rest of the book various forms of apparatus for use particularly in fractures are described. Among these are many little known in this country, while occasionally one meets with an old acquaintance under a new name; for example, a splint which is indistinguishable from Thomas's knee splint is shown on Plate 146 and credited to P. Bruns. Generally speaking, the *Atlas* is the most complete handbook on the subject with which we are acquainted; the illustrations are all drawings from photographs, and are admirably reproduced.

Dr. J. F. Binnie, Professor of Surgery in the Kansas City Medical College, has written a *Manual of Operative Surgery*,[3] which has many points of excellence. It exhibits a thorough knowledge, in particular, of the more recent advances in surgical technique, and in distinguishing between real advance and mere excursion the author displays admirable judgement. The work is, of course, a compilation, but thorough personal experience of procedure is necessary to make such a compilation a really useful book, and the author shows the possession of this personal knowledge throughout. He has evidently obtained much assistance from acquaintance with the work of those well-known surgeons the Mayos of Rochester, and he acknowledges his indebtedness to them in the preface. Room has not been found for the consideration of operations on bones and joints; although we must admit the plea that the book would have been thereby much enlarged, yet the omission is serious and unfortunate. The most complete section is that on abdominal surgery, and that on the genito-urinary affections is almost equally good, while we would place the chapter on the skull and brain among the least satisfactory. In the last there is no proper account of the complete post-aural operation. Useful short chapters are those on drainage and on ligatures and sutures. The illustrations throughout are very good, and in paper, text, and binding the book is almost elegant.

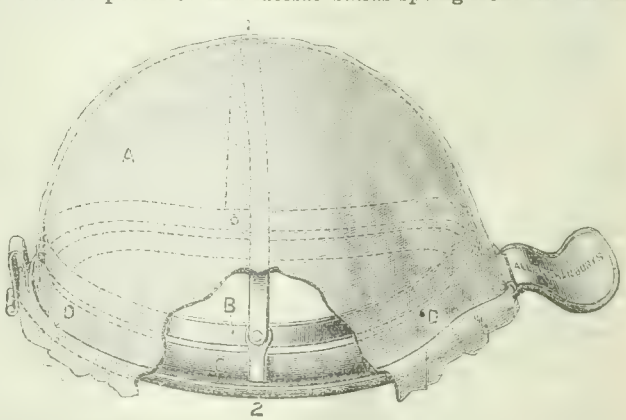
[1] *Travaux de Chirurgie Anatomo-Clinique.* Par Henri Hartmann, Professeur Agrégé à la Faculté de Médecine; Chirurgien de l'Hôpital Lariboisière. Deuxième Série. Voies Urinaires-Testicule. Paris: G. Steinheil. 1905. (Demy 8vo, pp. 340. 105 illustrations. Fr. 15.)

[2] *Atlas und Grundriss der Verbandlehre für Studierende und Aerzte.* [Atlas and Handbook of Bandaging, for Students and Practitioners.] Von Dr. Albert Hoffa. Third edition. Munich: J. F. Lehmann. 1904. (Crown 8vo, pp. 139; plates 148. M.7.)

[3] *Manual of Operative Surgery.* By J. F. Binnie, A.M., C.M.Aberd. Philadelphia: P. Blakiston's Son and Co.; and London: H. K. Lewis. 1905. (Cr. 8vo, pp. 670, 559 illustrations. 12s. 6d.)

MEDICAL AND SURGICAL APPLIANCES.

A Chloroform Mask.—The chloroform mask represented in the illustration is similar in form to that known in France as Kirchow's mask, and in Germany under the name of Schimmelbusch. It is, however, as presented by Messrs. Allen and Hanburys modified in certain ways. The mask is more solid and therefore heavier. The gutter is deeper, and the antero-posterior and lateral bands spring from the inside



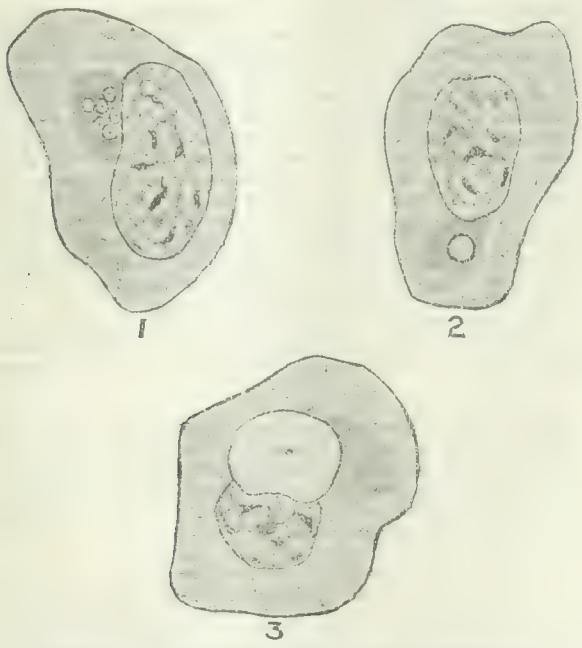
of the gutter itself and not from its inner aspect, as in the older pattern; the bands also rise to a higher dome—a manifest advantage. There is also a strengthening horizontal band carried round the frame just above the gutter, which prevents the lint sagging in upon the face. The band also helps to maintain the shape of the frame. Although the modifications are slight, they are in the right direction, and we think carry out the claims of the designer, Dr. de Prenderville. In the form described the risk of chloroform falling upon the face is materially lessened, while there is no sacrifice of simplicity.

Bequests to Medical Charities.—The late Mr. John Jack, of Liverpool left £100 each to the Royal Infirmary, the Royal Southern Hospital, the David Lewis Northern Hospital, and the Stanley Hospital, all situated in Liverpool.

THE NATURE OF MALIGNANT GROWTHS.

IN a paper to the Royal Society communicated in 1903 by Professor Farmer, F.R.S., Mr. J. E. S. Moore, and Mr. C. E. Walker, the authors pointed out the striking resemblances that exist between the forms of nuclear division found in malignant growths and in normal reproductive tissue. It had been known for many years that in the production of sexual cells the forms of nuclear division differ materially, and in a highly complex manner, from those found during the production of the cells composing the tissues of the body. This discovery of the similarity of nuclear changes in cancerous and reproductive tissues was confirmed last year by the Imperial Cancer Research Fund.

Professor Farmer, Mr. Moore, and Mr. Walker communicated another paper to the Royal Society on May 11th, in which they described the results of some further investigations with regard to the nature of malignant growths. They dealt with those remarkable vesicular structures that have been described by so many investigators. The authors in their paper designate "Plimmer's bodies" after Dr. Plimmer, who described them accurately some years ago. As is well known, these bodies consist of a well-defined wall, containing a clear fluid or substance, in which is suspended one or more darkly-staining granules. In size these vary from extreme minuteness to that of the nucleus. In number they vary from one to twenty or even more in the same cell. They



Figs. 1, 2, 3.—Plimmer's bodies in cells from carcinoma.

commonly lie adjacent to the nucleus, which they frequently press, giving it a crescentic or otherwise deformed appearance.

These bodies are very conspicuous, and have commonly been regarded as peculiar to malignant growths. They are constantly being rediscovered, and have been generally taken for some parasitic organism. They have also been interpreted as degenerated centrosomes, or at any rate as derived from the centrosomes. The latter supposition may, however, be dismissed, as it has been shown that the centrosomes co-exist independently in another part of the same cell.

The present authors interpret these bodies in quite a different way. They compare them with certain vesicular structures that occur normally in the cells during the production of the male sexual elements in man and the other vertebrates. A sketch of the appearances of these bodies during the processes of spermatogenesis will make the comparison clear. In the ordinary somatic or body cell, the archoplasm is seen lying near the nucleus as a dark mass. In it are contained the centrosomes. In the cells during the process of spermatogenesis, however, the archoplasm shows a quite different and highly peculiar appearance. In 1895 Mr. Moore showed that during the prophase of the heterotype (first maiotic) division, the centrosomes are found outside the archoplasm. In the archoplasm itself are observed a number of small vesicles. When the cell divides, the archoplasm is lost in the resulting daughter cells, to reappear during the prophases of the homotype (second maiotic) division, showing the same separation of the centrosomes from it, and the same vesiculation. After the homotype division the resulting daughter cells are transformed eventually into spermatozoa without any further division taking place, but during this process a remarkable series of changes occurs in connexion with the archoplasm. The centrosomes are again found away from the archoplasm, the latter again becoming vesiculated. These vesicles are very numerous, and at first very small. Then several fuse together, so that eventually only one large vesicle remains. This vesicle possesses a well-defined wall, the contents being clear, and in it are suspended one or more darkly-staining granules. It may attain a size equal to that of the nucleus, or possibly larger, and presses the nucleus out of shape, frequently giving it a crescentic or cupped appearance. The authors point out that these archoplasmic vesicles, as they have been called, appear during spermatogenesis in all vertebrates, and are to all appearance structurally identical with, and arise in a manner similar to, Plimmer's bodies in cancer. It may be well to point out here that the number of minute vesicles which so many investigators have interpreted as sporulation of some parasitic organism, is, according to this interpretation, the earlier stage in the process



Fig. 4.—Heterotype prophase from testis of guinea-pig.



Fig. 5.—Spermatid from testis of mouse.



Fig. 6.—Spermatid from testis of man (late stage).

of the development of these vesicles. The authors lay particular stress upon the fact that they only make a comparison between normal reproductive tissue and that of malignant growths. This they pointed out in their first paper to the Royal Society in 1903, and have in no way altered their opinion, though the statement that these tissues are to be regarded as identical has been attributed to them. They state emphatically that they do not consider true gametogenic tissue, and what they have termed "gametoid" tissue, as identical, but at the same time they point out that the similarity is too remarkable, in their opinion, to be the result of mere coincidence.

They showed in their first paper that a remarkable and peculiar similarity exists between the forms of nuclear division observed in cancerous and reproductive tissues. The present paper shows an equally remarkable similarity between these two kinds of tissue in the presence of a highly peculiar and characteristic structure which exists in the cells outside the nucleus. In both these respects malignant and reproductive tissues differ in a very complex and striking manner from the other tissues of the body, while resembling each other.

While they draw no definite conclusions from facts which

they had observed, the authors suggested that these peculiarities might be the result of phylogenetic reversion. They indicated—without, however, discussing—the probability of the retention of ancestral characters on the one hand, and the reversion to them on the other.

THE CANCER RESEARCH LABORATORIES OF THE MIDDLESEX HOSPITAL.

The Fourth Report from the Cancer Research Laboratories of the Middlesex Hospital,[1] published under the editorship of the Director, Dr. W. S. Lazarus-Barlow, contains a number of papers the majority of which are statistical. The whole volume is well up to the standard of its predecessors; it contains much good work carefully studied, analysed, and recorded.

Hospital Statistics.

The extensive records of the hospital have formed its basis, and the wisdom of the Director in thus taking advantage of the exceptionally rich store of material accumulated, is much to be commended. As in previous volumes, a tabulated synopsis is presented of the *post-mortem* examinations and operations in cases of malignant disease during the year (1904), all observations, with a few exceptions, being verified by the microscope. In the *post-mortem* records there is 1 case of carcinoma (rectum) under the age of 30, 6 (bladder, cervix, stomach) under 35, and 18 under 40 out of a total number of 114. In the last report the numbers were very similar—namely, 18 cases under 40 out of 111. In the operation records the total number of carcinoma is exactly the same as the number of *post-mortem* cases. Of the 20 cases under 40, 18 were female, and in 16 the disease was in the sexual organs. It is interesting to note that of 9 endotheliomata 6 affected the breast.

Cancer Ages.

Dr. Lazarus-Barlow contributes a paper on cancer ages, the cases dealt with being those admitted into the hospital from 1746 to 1904. The age given is that on admission, and probably approximately corresponds with the age at which the new growth made its existence known to the patient. The total number is 2,073 males and 4,659 females. The chief conclusions drawn from the tables are as follows:

1. The mean age of the males was 55.2 years, of the females 49.9.
2. Cancer of the alimentary tract is about seven times as common in males as in females, but this difference gradually and uniformly diminishes as the seat of primary growth is lower in the tract.
3. The mean age of the liability of males to cancer of the alimentary tract is 55 years, that of females 52.5 years; but in cancer of the liver and gall bladder the mean age of female cases is higher than that of males.
4. In males 80 per cent. of all cancer affects the alimentary tract; in females 80 per cent. affects the generative organs, including the breast.
5. In both sexes the generative system tends to be affected earliest, and the cutaneous system latest; the alimentary system occupies an intermediate position.
6. Cancer before the age of 35 is commoner in women than in men, and in both sexes shows a special tendency to affect the generative tract.

Sites of Carcinoma.

The second paper is on the site incidence of carcinoma, by Drs. Lazarus-Barlow and W. Gordon Taylor. It is an endeavour to ascertain whether the general increase in cancer is affecting every organ or only some organs. The statistics are based on the construction of age-thirty-five populations of the different years from 1814 to 1900. They appear to indicate that an increase in the mortality from cancer has shown itself in the following regions: the alimentary tract, stomach, colon, rectum, and anus in both sexes; the lip, tongue, floor of the mouth and cheek, and oesophagus in males; the uterus and breast in females. They indicate, on the other hand, a diminution in mortality from cancer of the lip, tongue, floor of the mouth, and vulva in females, and from rodent ulcer and cancer of the skin in both sexes. Thus the general increase would appear to be not markedly associated with any one particular organ, but most evident in connexion with the alimentary tract.

[1] *Archives of the Middlesex Hospital.* Vol. v. Fourth Report from the Cancer Research Laboratories. Edited by W. S. Lazarus-Barlow, M.D. London: Macmillan and Co. 1905. (Demy 8vo. pp. 277, 9 plates. 7s. 6d.)

Experimental Inoculations.

Mr. W. T. Hillier contributes a short note on three experimental inoculations on animals. Transplantations were made of skin, intestine, and Fallopian tube from rabbit to rabbit into the peritoneal cavity in each case. In all three the material introduced had either been absorbed or was in process of absorption at the time of death.

Elastic Fibre in Carcinoma.

The fourth paper is a histological research by Dr. G. T. Wrench, undertaken in order to determine whether elastic fibres form an essential constituent of the stroma of carcinomata. The carcinomata examined were from the breast, pancreas, lip, and rectum, and for purposes of comparison, specimens from normal and diseased tissues were examined by the same methods. The research showed that the small-meshed intra-alveolar stroma of carcinoma, whether primary or secondary, is devoid of newly-formed elastic tissue, except in the neighbourhood of vessels or ducts; secondly, that the stroma of primary carcinoma of the liver is of at least two varieties, small-meshed stroma free of elastic fibres, large-meshed stroma containing an abundance of elastic fibres.

Mammary Tumours.

Four statistical papers follow this, on the breast, liver and bile passages, prostate, and the frequency of gall stones in carcinomatous subjects.

The paper on the breast, by Drs. P. Campiche and Lazarus-Barlow, is founded on the records of 1,976 cases and the investigation includes statistical information on the relative frequency in males and females, and of carcinoma and sarcoma, on the general pathological anatomy of the disease in the male and female breast, and on the various attendant clinical phenomena. Forty-five cases of sarcoma were met with, 43 primary (42 females, 1 male), and 2 secondary (both women), of 32 cases of endothelioma, only one was haemal; the remaining 31, representing 10.3 per cent. of the total number of growths histologically examined, were of the lymphatic type. An unexpected fact was brought out by the examination of the pathological records—that the expectation of life is longer with a cellular than with a relatively non-cellular type of mammary growth.

Mr. W. Sampson Handley contributes another paper on the parietal dissemination of mammary cancer, in which he deals with the extension of growth in the lymphatics of the plane of the deep fascia.

Cancer of the Liver.

In Mr. Colwell's paper on the liver the subject is dealt with in much the same way as in the breast paper. With regard to the same author's observations on the relation of gall stones to carcinoma, it appears from autopsy records that gall stones are met with in both sexes approximately two and a half times as frequently in carcinomatous as in non-carcinomatous cases.

Cancer of the Prostate.

Mr. Thomson Walker's paper on the prostate is an analysis of 16 cases of primary cancer of this organ. The average age of the cases was 60 years and 9 months. Two of the cases were of the diffuse and the remainder of the circumscribed type. There are many important clinical and pathological facts dealt with in the paper, and it forms a valuable addition to our somewhat scanty knowledge of prostatic cancer.

X-Ray Treatment of Malignant Disease.

Mr. Cecil R. C. Lyster writes on the *x*-ray treatment of malignant disease; his general observations on the subject are of considerable interest—namely, that the treatment is only local, and does not affect deposits other than those exposed; secondly, that without injury to the skin it is impossible to administer a sufficiently strong exposure to modify growth in the viscera, although a moderate exposure often relieves deep-seated pain; thirdly, that when the disease is superficial the *x* rays almost always relieve pain, retard growth, produce retrogressive changes, and enable many patients to resume their ordinary life.

Giant Cells in Sarcoma.

Dr. W. Gordon Taylor records some observations on giant cells in sarcomata which go to show that these cells are to be expected in the metastases of the myeloid growths of bone, at any rate in cases in which they are present in considerable numbers in the primary growth.

The Blood in Malignant Disease.

A continuation of the studies of the blood in malignant

disease is contributed by Dr. J. J. Douglas; he describes some observations on precipitins made in the course of a research into the question whether a precipitin reaction specific to cancer can be obtained. The research is not concluded.

Chondrifying Carcinoma.

Chondrifying carcinoma is the subject of a paper by Mr. A. G. R. Foulerton; he describes three cases and discusses the literature of the subject.

Cancer in Iceland.

The report concludes with a note on cancer in Iceland by Dr. Lazarus-Barlow. In more than half the number of cases recorded during the last eleven years the disease affected the stomach, and the alimentary tract as a whole accounted for 82 per cent. Dr. Lazarus-Barlow comments on the varying frequency of the different local types in different geographical areas.

MEDICAL DEFENCE UNION.

ANNUAL MEETING.

THE annual general meeting of the members of the Medical Defence Union was held on May 25th, at 11, Chandos Street, Cavendish Square, with the President of the Union, Mr. M. A. MESSITER, in the Chair.

Annual Report.

The CHAIRMAN moved that the report of the Council for the year 1904, which had been circulated to all the members of the Union be received, adopted, and entered upon the minutes. According to the report the Council will be compelled to refuse election to the Medical Defence Union to any medical practitioner who practises outside the legally-defined area of "the United Kingdom," and any member now resident in the United Kingdom is warned that it will be advisable for him at once to notify to the General Secretary of the Union so that his name may be removed from the register of subscribers if he leaves the United Kingdom to practise in the Isle of Man or the Channel Islands, these places in public statutes and legal documents not being included in the expression "United Kingdom." The Council had considered the matter of a form of indemnity to cover the risk attaching to surgeons in the employment of surgical assistants and nurses whilst operating either in hospital or in private, and was of opinion that it was not to the interests of the medical profession that, by any form of indemnity or contract, it should be sought to evade, or insure against, the present existing laws in respect of liability for the act of assistants, either medical or nursing. In regard to the Employers' Liability Act, the report stated that the employer incurred no liability whatever as to payment for medical attendance, and the sooner that was realized by the members of the Union the better. The advice offered to practitioners was, after giving first-aid attendance to report to the employer what had been done and to ask for instructions as to the future visiting of the patient. In any future amendment of the Employers' Liability Act something should be done to remedy this injustice to medical practitioners; some portion of the compensation should be ear-marked to pay for the medical attendance when provision for such payment was not already made by clubs or otherwise. It was to be hoped that the medical profession would reap a reward some day from the many amending Acts which had occupied the time and skill of various Committees of the British Medical Association. The General Secretary had constantly been asked to aid in the preparation of those amended Acts, and had served upon many Committees of the Association. Now that a new constitution had been granted to the British Medical Association, it was felt that considerable progress would be made, and the Council of the Union would give any assistance in its power to help in the good work, which would add much to the prestige of the Association, and would be to the great advantage of the medical profession in the United Kingdom. Every member of the profession could now make his position one of far greater security if he joined the Association, which should give him "collective defence" and look after his general interests, and if he in addition were a subscriber to the Union by which his individual defence was undertaken, his security was amply provided for.

In the report from Mr. Hempson, the solicitor to the Union, it was stated that during the past nine years he had had placed in his hands a total of 1,376 cases, of which 383, or more than one-fourth of the whole, related to libel or slander actions either brought or defended on behalf of members. In the year's work for 1904 there had been no less than 15 cases in which slanders had been circulated concerning members of the Union relative to their professional conduct towards female patients. The difficulty in those cases always was to trace the source from which those slanders proceeded, but in every instance where the professional honour and reputation of the medical man had been thus assailed the Union had been instrumental in obtaining due reparation on the member's behalf from the slander thus uttered upon him. In regard to the Medical Acts they were still without any amendment of its penal provisions, and in the light of experience in connexion with prosecutions it was found that the unqualified more closely safeguarded themselves from the meshes of the law. The statistics given for the year 1904 showed that the number of members on the register of the Union was 6,266, the number of new members from January 1st, 1904, to December 31st, 1904, being 571. The amount of the guarantee fund was £8,844.

The resolution for the adoption of the report, having been duly seconded, was put to the meeting and carried unanimously.

Finance.

The following resolution was proposed by Dr. WETHERED, seconded by Dr. WALTER SMITH, and carried, after Dr. LANGLEY BROWNE had explained that quite recently the British Medical Association had received counsel's opinion that the Association could legally take up the question of medical defence.

That the balance sheet of accounts, as audited by Mr. Hardy, F.C.A. the Company's auditor, be received, adopted, and entered upon the minutes.

The following resolution was proposed by Dr. HARRISON, seconded by Dr. CAMPBELL POPE, and carried:

That the railway fares of members of the Council attending Council meetings from provincial centres be paid out of the funds of the Union.

Votes of Thanks.

The meeting terminated by the passing of votes of thanks to the President, to Mr. Hempson, the solicitor to the Union, and to Dr. Bateman, the General Secretary.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE annual general meeting of the above Society was held on May 22nd, at 11, Chandos Street, Cavendish Square, at 5 p.m., Mr. CHRISTOPHER HEATH, President, in the chair.

The report for 1904 was presented and the meeting was informed that during the year 9 new members were elected, 6 members died, and 5 resigned. At the end of the year there were 149 life members and 144 subscribers. Two widows were elected, and 3 widows died, there being 52 in receipt of pensions at the end of the year. Two orphans were elected and one became ineligible, leaving 16 in receipt of pensions. During the year the sum of £3,214 10s. had been distributed amongst the annuitants of the charity. The invested capital of the Society now amounted to £98,810.

The Society is open to all registered medical practitioners who, at the time of their election, are in practice within a radius of twenty miles from Charing Cross.

The annual subscription is £2 2s., payable either in one sum, or in two half-yearly payments. After election members are at liberty to live outside the twenty-mile radius, nor is their residence confined to the British Isles, there being members now on the books resident in Canada, South Africa, Rome, and Egypt.

Relief is granted only to the widow or orphans of a practitioner who has at the time of his death been a member of the Society for three years. The amount of the grant given is regulated by the two following by-laws:

The widow of a member who has no certain income or provision, exceeding altogether the yearly value of £80, is eligible to receive, half-yearly in advance, such relief from the Society as the court of directors shall determine, and in determining the amount of such relief, regard shall always be had to the age of the applicant, her ability to maintain herself wholly or partially, and to the amount of subscriptions her deceased husband shall have paid. Whenever the death of the member has been caused by a sudden accident or illness in the pursuit of his professional duties, the court of directors may decide to make an additional grant in favour of his widow not exceeding £25.

The widow of a member who is left with a child or children under sixteen years of age entirely or in part dependent on her, and whose certain income or provision does not exceed altogether the yearly value of fifteen pounds for each child, in addition to the eighty pounds men-

tioned in Bye-law lxix, is eligible to receive such additional assistance, half-yearly, in respect of each child under sixteen years of age, as the court of directors shall determine; but if such child or children have any provision independent of the mother, such provision must be distinctly stated to the directors in the usual half-yearly declaration of the widow.

Further particulars of the Society can be obtained by enclosing a stamped envelope to the Secretary, at 11, Chandos Street, Cavendish Square, W.

THE PREVENTION OF INFANTILE MORTALITY.

A conference on the prevention of infantile mortality and the welfare of nursing mothers and suckling infants, convened by the Borough of St. Pancras, was held at the St. Pancras Town Hall on Monday, June 5th.

After the Mayor had welcomed the conference Dr. R. M. Beaton, Chairman of the Public Health Committee, took the chair and gave a brief sketch of the matters proposed for discussion.

Sir William Broadbent said that he was brought to the conference by a sense of the importance of the question to be discussed, and he congratulated the borough and the medical officer of health on the extremely able way in which the business had been prepared for consideration. The question of infantile mortality was one of the most important in relation to the subject of the physical degeneration of the race which was occupying so much public attention at the present time. It must be remembered that in a battle for one killed there were half a dozen wounded, and in the case of infantile mortality for one child that died the constitutions of half a dozen were ruined by the same conditions which had caused the death of the infant. The scheme proposed endeavoured to bring up the children as useful members of the community; the whole future of thousands of these children depended on the first few weeks of life. The scheme began by taking care of the mothers, for an overworked, unfit mother could not bring into the world a strong, healthy child; then there followed the advocacy of breast feeding, in connexion with which he thought a visit of a lady inspector, official or voluntary, was of the greatest possible importance, and would have a good influence in inducing mothers to suckle their children. Everything which tended to bring into close personal relations members of the different classes of society was for the good of both.

Professor Herbert Spencer said there were two questions to be brought before the Conference, first, the feeding of children by mothers who could feed them, and, secondly, the provision of pure milk for those who were unable to do so. There was a mistaken idea among some women that children could be brought up on artificial foods equally well as on food supplied by Nature; this idea should be put down. It was an incontrovertible fact that there was no food for a child equal to that provided by Nature in the mother's milk. In cases where the mother could not suckle her child it was necessary that a pure milk should be provided.

Mrs. Scharlieb, M.D., in proposing the following resolution, spoke of the ignorance prevailing among young women of the simplest matters of hygiene:

> That it is desirable that every encouragement should be given to prospective mothers to seek advice as to the management of their health so that they may endow their offspring with good constitutions and prepare themselves to suckle their infants when born.

The resolution was seconded by Dr. McCleary, M.O.H., Battersea, and carried.

Miss E. M. Vaughan, M.D., moved the following resolution, which was seconded by Mr. Kibblewhite, and carried:

> That it is desirable that all efforts should be exhausted upon improving the health of suckling mothers before devoting attention solely to their infants.

Dr. Sidney Davies, M.O.H., Woolwich, proposed the following resolution:

> That it is desirable that births should be registered within five days of their occurrence as is required in the case of deaths by the Births and Deaths Registration Acts, and be not delayed for six weeks and longer as now by law permitted.

He stated that the returns supplied by the registrars of births were sometimes not received until five or six weeks after the birth. Returns of births should be supplied direct by the medical attendant or the midwife as the case might be.

Mrs. Owens (Royal Maternity Charity) seconded the resolution, which was carried.

The following resolution, proposed by Councillor Herbert Beddall, seconded by Mr. Burroughes, was adopted:

> That it is desirable that the municipal authority should obtain weekly returns of births from the registrars.

The Rev. C. W. Steffens said he had great pleasure in proposing the following resolution:

> That it desirable that the municipal authority should send to the addresses of all mothers, furnished in the weekly returns, cards or leaflets of advice, laying great stress on the improvement of antenatal conditions, on the preparation for and maintenance of breast feeding of infants during the first nine months of life, and strongly advising mothers not to wean their infants prematurely except upon medical advice.

Dr. Paramore, who seconded the motion, said that some restriction should be exercised upon the marrying of the unfit. The resolution was carried.

Dr. T. Orme Dudfield, M.O.H., Kensington, in proposing the following resolution, said that one difficulty was that a birth was sometimes not registered until six weeks after its occurrence:

> That it is desirable that women inspectors should be appointed with a view to the prevention of infantile mortality by selecting from the weekly returns suitable cases amongst the poor for inquiry, affording general information in the hygiene of nursing, and directing the necessitous poor where to apply for such advice and assistance as may be urgently required in order to maintain breast feeding.

The resolution was seconded by Dr. Hallowes and carried.

Miss Neville, Secretary South St. Pancras Charity Organization Society, proposed the following resolution, which was seconded by Miss Tomlinson, and carried:

> That it is desirable that medical practitioners, midwives, and nurses, the staffs of hospitals and dispensaries, and the religious, charitable, and social organizations should co-operate with the municipal authority in endeavouring to encourage breast feeding, and to diminish the infantile mortality.

Dr. Paramore moved the following resolution, which was seconded by Mr. E. R. P. Moon, M.P., and carried:

> That it is desirable that any suggestions or arrangements made by medical practitioners or by the medical charities for the purpose of advising nursing mothers with a view to preventing infantile mortality should be communicated to the municipal authority in order that they may be made known through the women inpectors.

Mr. J. E. Gladstone, M.A., Warden, Passmore Edwards Settlement, moved the following resolution:

> That it is desirable that the information should be spread broadcast that breast feeding is the most economical, easy, and safe mode of feeding infants under 9 months of age, with a view to reducing the number of hand-fed sucklings to the smallest proportion possible.

The leaflets ought to be in the simplest possible language.

The resolution was seconded by Mr. Green, and carried.

Dr. Buckell moved the following resolution, which was seconded by Dr. Paramore, and carried:

> That it is undesirable that a suckling mother should be separated from her infant, or the infant from the mother, except for reasons of ill-health and under medical advice.

A resolution proposing that where a mother was obliged to work at a trade she should do so at home was lost.

The following resolution, proposed by Miss Robertson (South St. Pancras Charity Organization Society), was carried:

> That it is desirable that when a woman inspector has reason to believe that a suckling mother is in a necessitous condition, and unprovided with sufficient food to enable her to maintain her own strength and suckle her infant as well, she should endeavour to prevent weaning by reporting the case to the charitable organization most appropriate to deal with the circumstances.

Alderman Rev. G. A. Suttle proposed the following resolution, which was seconded by Mr. Kibblewhite, and carried:

> That it is desirable that when a woman inspector finds that a suckling mother has insufficient nourishment, due to the husband being out of work, she should report the case to the labour bureau.

Miss L. B. Clapham, M.B., proposed the following resolution, which was seconded by Miss Haynes, and carried:

> That it is desirable that mothers should be urged not to wean their infants until the ninth month of age except upon medical advice.

It was moved by Miss Tomlinson, and resolved:

> That it is desirable that mothers should be warned that the hand feeding of infants is expensive, troublesome, and unsatisfactory, risky at all times, and in summer dangerous and often fatal.

The following resolution, proposed by Dr. Walter Smith, was carried:

That, with a view not to encourage premature weaning, it is desirable that milk for the hand feeding of infants provided privately or publicly by milk dépôts at or below cost should be distributed upon the orders of medical practitioners.

On the motion of Mr. KIBBLEWHITE, seconded by Miss CLAPHAM, M.B., the following resolution was adopted:

That, having reduced the number of sucklings required to be hand-fed to the smallest proportion possible, means should be devised for providing suitable milk for the remainder.

Mr. KIBBLEWHITE proposed the following motion, which was seconded by Dr. WALTER SMITH, and carried:

That it is undesirable to encourage the use of unclean, stale, or decomposing milk by pasteurizing or sterilizing it for the use of hand-fed infants who unfortunately cannot be fed with clean fresh milk directly from the breast.

Dr. ALLAN MACFADYEN proposed the following motions, which were seconded by Dr. HALLOWES and carried:

That it is desirable that cow's milk intended for hand-fed infants should be milked, transported, and distributed under special precautions.

That the special precautions required in the production of cow's milk for infants should include not only care in the selection, testing, and feeding of the cows, but also care in their pasturing, sheltering, and tending, not only extreme cleanliness in milking, but also rigid aseptic precautions, accompanied by immediate refrigeration, maintained during transport, and by prompt dispatch so that the number of micro-organisms and the lactic acid in the milk may be reduced to a minimum at the time of delivery instead of the hundreds of thousands and millions of organisms and excess of lactic acid now to be found in so-called fresh milk.

Professor H. KENWOOD moved the following resolution, which was seconded by Councillor HORNE, and adopted:

That, in order to prevent the pollution of infants' milk in distribution and in the home, it is desirable that it should be protected in stoppered bottles ready for feeding, and not be transferred to other bottles.

The following resolution, moved by Dr. HALLOWES and seconded by Professor KENWOOD, was carried:

That on account of the facilities that hand-feeding affords for the overfeeding and underfeeding of infants, due to want of knowledge, especially amongst the poor, it is desirable that the quantity and quality of milk required for each feed at the particular age should be distributed in a separate stoppered bottle, and that each basket or crate of bottles for use should be accompanied by instructions, supplemented by oral instruction by visitors, as to the frequency and manner of feeding.

Dr. A. HOWARD PIRIE proposed the following resolution, which was seconded by Mr. J. E. GLADSTONE and carried:

That the provision of cow's milk produced under aseptic conditions accompanied by extreme cleanliness, refrigeration, and dispatch, so diluted and enriched and put up in stoppered bottles in such quantities, to be administered at specified intervals suitable for suckling infants, should be regarded not only as ordinary food, but in the nature of medical assistance.

On the motion of Dr. EYRE, seconded by Mr. KIBBLEWHITE, the following motion was adopted:

That for the special protection of hand-fed infants it is desirable that municipal authorities should not only ascertain the quality of milk intended for infants by chemical analysis, and receive from the public analyst a statement of the percentage composition of each sample of milk submitted, as to fat, solids not fat, and total solids, and the absence of chemical preservatives, but also by bacteriological examination, and receive from a bacteriologist a statement in regard to each sample of milk submitted as to the number of micro-organisms per cubic centimetre and the proportion of lactic acid per cent., these being the best existing tests of cleanliness and freshness of the milk.

A vote of thanks to the Chairman, proposed by Dr. WALTER SMITH, was carried unanimously, and this brought the proceedings to a close.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 75.

THE Belgian Parliament has passed a law forbidding the sale or manufacture of absinthe as injurious to public health.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending April 22nd, 29th, and May 6th, the deaths from plague in India amounted to 54,602, 56,732, and 52,253 respectively. The principal figures during these weeks were: Bombay City, 1,021, 935, and 748; Bombay districts 1,776, 2,685 and 1,443; Calcutta, 792, 662, 650; Bengal districts, 3,559, 4,108, and 2,436; North-west Provinces and Oudh, 16,737, 15,710, and 12,909; Punjab, 27,372, 28,728 and 30,909; Rajputana, 2,406, 4,298 and 3,358; Kashmir, 215, 368 and 382; Burma, 175, 137, and 90. In the North-west Provinces and Oudh during the weeks ending April 22nd and 29th the principal figures were: Muttra district, 2,851 and 2,420; Agra, 1,329 and 1,301; Aligarh, 973 and 807; Bulandshahr, 352 and 785; Budaon, 772 and 842; Meerut, 750 and 780. In Bengal the Sarun district heads the list with 1,121 and 1,168 deaths from plague. In the Punjab the Rohtak district reports 2,273 and 3,118 respectively.

The head quarters of the Plague Commission are to be established in Bombay.

The Karachi Municipality has been advised to give a month's salary to those members of its subordinate staff who may come forward to be inoculated against plague.

In the Central and Southern parts of India plague is abating; during the week ending May 6th the deaths from plague were: Central India, 24; Central Provinces, 77; Hyderabad, 68; Mysore, 26; Madras Districts, 22.

SOUTH AFRICA.

King Williamstown.—During the weeks ending April 22 and 29th and May 6th the fresh cases of plague numbered 2, 3, and 2, and the deaths from the disease 1, 0, and 2 respectively. Two of the seizures were in Europeans.

East London.—During the weeks ending April 22 and 29th and May 6th the fresh cases of plague numbered 6, 2, and 1; and the deaths from the disease 5, 3, and 0. At the Plague Hospital 13 cases (including 3 from King Williamstown) remained under treatment on May 6th. Three of the cases were Europeans.

Port Elizabeth.—One case of plague (a European) occurred in Port Elizabeth during the week ending May 6th.

Fort Beaufort.—Two cases of plague reported during the week ending May 6th: 1 death. Both cases came from East London. In all 19 cases and 12 deaths in Cape Colony during the three weeks in question.

Plague-infected rats and mice continue to be found at Port Elizabeth, Uitenhage, East London, and King Williamstown.

HONG KONG.

During the weeks ending May 13th and 20th the fresh cases of plague numbered 17 and 20, and the deaths from the disease 12 and 18 respectively.

QUEENSLAND.

From April 6th to April 20th no cases of plague reported in Brisbane or any part of Queensland. The last case reported was on April 1st. No cases remained under treatment in hospital on April 20th. The date on which an infected rat was last discovered was April 15th, 1905.

MEDICAL NEWS.

THE annual general meeting of the Society for Training Teachers of the Deaf will be held, by permission of Lord Ludlow, at 27, Portland Place, W., on Wednesday, June 28th, at 3.30 p.m.

THE annual banquet of the Association of British Postal Medical Officers will take place in the Whitehall Rooms, Hôtel Métropole, S.W., on July 13th.

AT a meeting of the Council of the Medical Defence Union, held on Thursday, June 1st, Dr. W. A. Elliston, J.P., of Stoke Hall, Ipswich, was elected President vice Mr. Messiter, J.P., resigned. Dr. Elliston was President of the British Medical Association in 1900.

THE adjourned annual meeting of the Medico-Psychological Association of Great Britain and Ireland will take place on Wednesday, July 19th, when the report of the Statistics Committee will be received; Dr. Percy Smith will take the chair at 10.30 a.m. at the rooms of the Association. The annual meeting, under the presidency of Dr. Outterson Wood, will take place on Thursday and Friday, July 20th and 21st.

ON June 2nd, at St. Mary Magdalene's Church, Ashton-upon-Mersey, a mosaic of St. Luke was unveiled by the Bishop of Chester, in memory of the late Jeremiah Renshaw, M.R.C.S., L.S.A., M.R.C.P., who practised in that district and in Altrincham for a period of thirty years. The tablet was also in memory of his wife, and was erected by their children. The open sextile was by Powell of London.

A STRONG effort is being made in York and in its neighbourhood to obtain increased support for the county hospital. There has been an annual deficit in its income for some years past, and in view of the increasing indebtedness the trustees felt it necessary not long ago to suggest the reduction of the beds in use to 80. From the published accounts the institution would appear to be managed economically, while the efficiency of the treatment seems to be vouched for by the

fact that the average duration of each patient's stay has been steadily decreasing for several years. It would be a pity if the closing of the beds eventually proved inevitable.

We learn from the *Veterinary Journal* that glanders in horses is undoubtedly on the increase in London. At an inquest recently held Professor Hobday, F.R.C.V.S., one of the inspectors of the London County Council, said that he had been called in two days before to see certain horses belonging to an omnibus company, and that the man whose death was being inquired into had worked in the stable. He recognized from the clinical symptoms that three animals were suffering from glanders, and the mallein test applied to eleven other horses revealed the fact that seven were suffering from glanders. They had been condemned to be destroyed. It is much to be desired that this test could always be as promptly applied.

Successful Vaccination.—Dr. J. Watson Burdwood, Public Vaccinator, Bourne, has been awarded by the Local Government Board a grant for successful and efficient vaccination.

Lincoln Typhoid Epidemic.—There were no cases notified at Lincoln during the week ending June 2nd. The epidemic may be regarded as practically at an end.

Medical Magistrate.—On Thursday, June 1st, the name of Dr. Alfred James Lowe, of Home Lea, Boothstown, and a member of the British Medical Association, was added to the list of magistrates for the county of Lancaster.

Presentation.—On the occasion of the distribution of certificates to the successful candididates of the Broughton Ambulance Class, Dr. John Penny, the Lecturer, was presented with a Dieulafoy's aspirator, suitably inscribed.

Plague in Persia.—Two cases of suspected plague were landed in quarantine from H.I.M.'s ship *Persepolis*, at Bushire, Persian Gulf, on April 20th. A mild form of the disease appeared at Bahrein during the week ending May 20th, causing twenty deaths. The quarantine arrangements are under the direction of Captain Condon, I.M.S., Surgeon H.B.M.'s Residency, Bushire.

Volunteer Ambulance Shield.—The Director-General R.A.M.C., has promised to be present at the competition for the challenge shield annually awarded by the Volunteer Medical Association which takes place at Wellington Barracks on Saturday, June 17th, at 3 p.m., and it is hoped that he will present the badges to the winning teams. Regiments intending to send in teams to compete should send notice at once to Captain Montgomery Smith, 36, Abbey Road, St. John's Wood, London, N.W., from whom all particulars can be obtained.

Hospitals and the Working Classes.—During the last thirty-two years the working men of St. Helens have raised a sum of over £30,000, mainly by penny weekly subscriptions, for the support of the St. Helens Hospital. A meeting was held at the Town Hall recently, at the request of the workpeople, to consider the means which should be taken to pay off the debt of over £3,000 which remains on the recent extension of the hospital. The Mayor was in the chair, and after a full discussion it was unanimously agreed that the persons employed in the various mines in the district shall resume the payment of an extra penny a week until the outstanding debt has been wholly extinguished. It is hoped that this may be achieved in a little over twelve months.

State Children's Association.—The Earl of Crewe, who presided at the annual meeting of the State Children's Association, stated that its purpose was to secure for children under State care home life in place of that in barrack schools and institutions. In 1904 there were 21,675 children in workhouses in Great Britain, and the association wished to bring about a perfect system of boarding out in small certified homes. The association was able to board out a child for £13 6s. 8d. per annum, to place it in an individual home for from £17 to £26, and to send it to Canada and keep it there for a year for £20. At present the cost to the guardians of a child in a barrack school was £40, and one metropolitan authority had recently spent £180,000 in erecting a building which had cost £321 for each child put into it. Sir Howard Vincent, M.P., said that legislation in this country was in a very backward state as compared with the Colonies and the United States. Lord Burghclere referred to the case of vagrant children, and Canon Barnett gave a sketch of the work done by the Association during the year. The Honorary Secretary is Mrs. S. A. Barnett, Toynbee Hall, Whitechapel, E.

The French Hospital.—At the thirty-seventh annual dinner in aid of the French Hospital the French Ambassador (M. Paul Cambon) was in the chair, and had on his right the Lord Mayor and on his left the Belgian Minister, Count de Lalaing. Some 250 persons were present, among whom was Sir William Broadbent. After the toasts of the President of the French Republic and the King and Royal Family had been duly honoured, M. Cambon proposed the Founders and Benefactors of the hospital. After referring to the irreparable loss which the hospital had suffered by the death of Dr. Achille Vintras, and making acknowledgement of the services of other helpers who had worked hard to make the hospital what it was, His Excellency paid a graceful tribute to the devotion of the medical and nursing staffs. Dr. George Ogilvie made a suitable reply. M. Arthur Baume reported that during the year 1904 the number of in-patients had been 833, and that of out-patients 5,559. Some property adjacent to the hospital had been bought with a view to the future enlargement of its accommodation, and a new pavilion, called after the French Ambassador, had been added to the convalescent home in connexion with the hospital which was established by Dr. Vintras at Brighton.

The German Hospital, Dalston.—The festival dinner of the German Hospital, Dalston, took place on June 6th at the Hotel Cecil. The Chairman, Baron Bruno von Schroeder, was supported by two hundred representatives of the German-speaking colony in London. The Chairman gave the toasts of King Edward and the Royal Family, and of the German and Austrian Emperors and other patrons of the hospital abroad. The services to the hospital of the honorary medical staff met with acknowledgement, and, in responding, Dr. Gruber made special mention of the assistance which the staff receives from the Sarepta Deaconesses who are in charge of the nursing arrangements. In the course of the speeches it was shown that the institution began work in 1845 with very few beds, and has gradually grown until it now has 130 beds, a small convalescent home, and two branch dispensaries in addition to its out-patient department. What it chiefly requires at present is an enlargement of the latter and the addition to the general building of outside fire-escape staircases and open-air balconies. The Chairman stated that the benefits of the institution were not confined to patients speaking German, accidents of all classes being received, and added that the hospital was economically administered, the expenditure on each bed being under £55 a year. The subscriptions announced amounted to upwards of £5,500, a sum which included £200 from the German Emperor, and £1,100 from Baron von Schroder, the treasurer.

International Surgical Society.—The first Congress of the International Surgical Society will be held in Brussels from September 18th to 23rd, 1905, under the presidency of Professor Theodor Kocher, of Berne. The following is the programme of subjects proposed for discussion: 1. The Value of the Examination of the Blood in Surgery, to be opened by Dr. W. W. Keen, of Philadelphia; Professor Sonnenburg, of Berlin; Dr. Ortiz de la Torre, of Madrid, and Dr. Depage, of Brussels. 2. The Treatment of Prostatic Hypertrophy, to be introduced by Mr. Reginald Harrison, of London; Professor Rovsing, of Copenhagen; and Professor von Rydygier, of Lemberg. 3. Surgical Intervention in Non-cancerous Diseases of the Stomach, to be introduced by Mr. Mayo Robson, of London; Professor von Eiselsberg, of Vienna; Dr. Mattoli, of Ascoli Piceno; Professor Monprofit, of Angers; Professor Rotgans, of Amsterdam; and Professor Jonnesco, of Bucharest. 4. Treatment of Articular Tuberculosis, to be introduced by Professor Bier, of Bonn; Dr. Broca, of Paris; Dr. Bradford, of Boston; Professor Codivilla, of Bologna; and Professor Willems, of Ghent. 5. The Treatment of Peritonitis, to be introduced by Professor Lennander, of Upsala; Professor Friedrich, of Greifswald; M. Lejars, of Paris; Dr. McCosh, of New York; Professor Kroglus, of Helsingfors; and Dr. de Isla, of Madrid. 6. The Diagnosis of Surgical Diseases of the Kidney; to be introduced by M. Albarrán, of Paris; Dr. Kummell, of Hamburg; Dr. Giordano, of Venice, and Dr. Lambotte, of Brussels. Other communications of a practical character, including the presentation of patients, specimens, and instruments, may be made. The conditions of membership of the Society, and further information relating to the arrangements for the forthcoming Congress, can be obtained from the Secretary-General, Dr. Depage, 75, Avenue Louise, Brussels, or from Mr. Reginald Harrison, London, delegate for Great Britain.

British Medical Journal.

SATURDAY, JUNE 10TH, 1905.

MEDICAL AND DENTAL COMPANIES.

THE Companies Acts Committee of the General Medical Council presented no definite report during the last session, but reports of recent cases and correspondence with the officials of Government departments were communicated and placed upon the minutes. They indicate that very material progress has been made towards checking this form of infringement of the intentions of the Medical and Dentists Acts. Though they have reference mainly to dental companies, inasmuch as these only have been taken into court, yet everything that has occurred is fully applicable to medical cases.

As it was believed to be hopeless in the present state of parliamentary business to attempt to effect anything by private bills, and as the Government appeared unwilling to take any action, the Irish Branch of the British Dental Association determined to test practically what could be done under the existing law. The first step was taken in 1904, when a company, registered as "Jaffe, Surgeon Dentists, Limited," was prosecuted under the Dentists Act for the illegal assumption of title. Although the judges concurred that the company was a fraud upon the public, they arrived reluctantly at the conclusion that, on the old ground of a company not being a person within the meaning of the Act, a conviction could not be made. As a result a liberal crop of such companies were formed in Ireland, and perhaps also in England, one of these being styled "Mr. Appleton, Surgeon-Dentist, Limited," of which more hereafter. The next step was that, in consequence of representations made in Parliament and elsewhere, the Irish Registrar of Joint Stock Companies declined to register a new company as "S. G. Rowell, Dentists, Limited." The applicants endeavoured to get a mandamus to compel him to do so, but lost their case, and the Lord Chief Baron on that occasion laid down that there is no right to form a company under a name calculated to mislead the public. Subsequently the registrars of public companies in England were also instructed not to register medical or dental companies under titles of the nature referred to. This was an important step in advance, for it is not long since the General Medical Council was informed that it was no part of the duty of registrars to do more than see that the formalities of company incorporation were duly complied with. The Board of Trade, however, appears to have been advised that if a company does not offend in its title it cannot be refused registration even though its objects or its memorandum of association appear to disclose an intention of evading the Acts. This limitation waters down the advantage gained, and hardly seems to be in accord with the general tenor of the judge's remarks in the decisions quoted by which the Board of Trade was no doubt greatly influenced in altering its former attitude.

The returns obtained by Sir John Batty Tuke from the Board of Trade, of companies formed for the purpose of carrying on medical or dental practice, proved to be very incomplete for this very reason, as many of the companies which were the worst offenders had nothing in their title to indicate their real nature. This was pointed out both to the Board of Trade and to the Privy Council, and the General Medical Council sent in a supplementary list, in the preparation of which we were able to assist materially.

The last step taken in Ireland was to ascertain whether companies which had already obtained registration under titles which would now be refused could be prevented from continuing to use them. To test this the Appleton case was taken into Court (The Attorney-General v. Appleton and others). The application was for an injunction to prevent the defendants from using the title "Mr. Appleton, Surgeon-Dentist, Limited." There was no qualified person among the members of the company. The injunction was granted, and the Master of the Rolls in delivering judgement said that the Attorney-General was "entitled to stop this fraud," and further intimated his strong opinion that the offenders could probably be reached by criminal process as having conspired to defeat an Act of Parliament. If this be so, it may afford a means of reaching many of the medical companies which have refrained from usurping medical titles in their registered names. The Appleton case was not defended, except as to the matter of costs (which were ultimately given against them), but the defence is interesting even though it was directed to this point alone. It was freely admitted that the company was of the "one-man" type, counsel stating that he appeared for Appleton and his wife, the other defendants being merely nominal shareholders; and he went on to allege that there were many such companies, that they were "one-man" companies, and that they did not consider that they were doing anything fraudulent or wrong because no one had made a move to put a stop to it. We hope that we shall not seem ungrateful to our colleagues across the Channel who have done such good service if we suggest that there is a flavour of Hibernicism in this last argument.

We have, therefore, to record an unsuccessful criminal prosecution and two entirely successful procedures under civil process all in Irish courts; they do not, of course, form absolute precedents for the English courts, though they will have considerable influence in that direction. The proceedings in the Appleton case were taken in the name of the Attorney-General, who has power to intervene when anything against public policy is shown to have occurred, but in reality he intervenes on the "relation" of some person by whom the conduct and expense of the case has to be borne, and his intervention stops with the granting of permission for the use of his name. In response to the inquiries of Sir John Batty Tuke, it is hinted, with no more than the usual official reticence, that the Attorney-General in England would not refuse to adopt a similar course on presentation of a proper case.

The unsatisfactory side of the matter is that it appears that, unless under the suggested indictment for conspiring to evade an Act of Parliament—an indictment which has never yet been made use of against these companies—they cannot always be reached by criminal process under the Medical and Dentists Acts. Though in the Panhans case a police-court conviction was obtained after the culprit had endeavoured to continue the practices for which he had been fined by incorporating himself into a company, yet, according to the reservations contained in the letter from the Board of Trade, the registrars do not extend

their censorship beyond the actual registered title. It therefore remains to take cases into the English and Scotch courts, and to endeavour to obtain judgements in the same sense as those delivered in Ireland. It will also be necessary to attempt to move the Board of Trade from its present position as to the memorandum of association and the declared objects of the company. Its attitude with regard to these does not seem to be logical or in accord with common sense. Whatever there may be to say for it from the strictly technical and legal point of view, it may fairly be argued that the objects and the memorandum of association are of the nature of explanatory amplifications of the title. The title may convey much or nothing, as it is often no more than a personal name.

In spite of these reservations, the decisions of the Irish Courts are an important advance on the previous condition of things, for the position of these companies, which have driven a coach-and-four through the most essential provisions of the Medical and Dentists Acts, is now much less secure than it was a few months ago.

HOSPITAL ADMINISTRATION.

During the last few years, and especially during the last few months, the general subject of hospital administration has given rise to many acute controversies, both of a private and of a public nature. How far this really indicates an extension of true interest in the subject beyond the circle of those to whom it has ever seemed one of the highest importance, may possibly be open to question. Upon the whole, however, the expansion is probably real, and due partly to the more prominent position which almost all matters medical nowadays take in the public mind, and partly to the ever-increasing difficulty felt in meeting the numerous appeals made by various institutions for public support.

The subject of hospital administration is vast, and it has been approached from many different standpoints, and treated by disputants of varying depth of experience. Moreover, there has been a strong tendency to bring side issues strongly to the fore, and to leave fundamental considerations out of sight.

It was for this reason that we lately dealt with certain aspects of the subject in a short series of articles. They were intended to appeal more particularly to those who had already given the matter consideration, and a good deal of detail was therefore included. But as several of the conclusions reached were of general interest, it may be worth while to give a summary of them uncomplicated by other matter.

As regards the interrelation in hospital enterprise of the charitable public, the patient, and the medical profession, it was shown that matters no longer stand where they did. The patient no longer regards a hospital as a charitable institution in the ordinary sense of the word: he regards the existence of hospitals merely as a public convenience, to the benefits of which he has an inalienable right. The charitable public, for its part, is no longer supplying assistance, in injury and disease, which otherwise could not possibly be obtained. It is in reality taking upon its shoulders work which in default of such voluntary effort would have to be done either by municipalities or by the central government.

As regards the medical profession, it was shown that its connexion with hospitals is in effect a contract which could if necessary be satisfied by a return in money. This however, not being convenient, the consultant who takes up hospital work does so as the representative of the profession to which he belongs, and in effect thereby makes certain demands, the propriety of which are not open to dispute. These are as follows: That practice in the hospital shall not preclude him from opportunities of advancing medical and surgical science, and shall include the supply of all that is required for the best and most effective treatment; that he shall be given such opportunities of teaching as the hospital affords; that he shall not be required to do anything which may injure his own profession, but, on the contrary, shall be allowed every reasonable latitude in regard to the admission of cases sent to him by those with whom he is connected in his private practice. Consultants could not afford, even if they would, to disregard the wishes of general practitioners, and these, though they recognize the necessity of hospitals, naturally do not wish that they should be used for the destruction of their own sources of livelihood, damaged as those already are by numerous other forms of medical philanthropy. These are fundamental conditions which underlie hospital work, and it is essential that in any discussion of how hospitals should be administered they should be kept in view.

It will be noted that the position assigned to the hospital subscriber has become in principle very subsidiary, for the power of the purse is no longer absolutely his. If he does not open his purse strings a public authority will have to do so. Nevertheless, he still has an absolute right to be assured that the money he gives personally is properly used, and one reason at least why the system of hospital accounts at present in vogue—the so-called uniform system—was introduced was because it was supposed that it would enable subscribers to know better what was going on, and supply them with a means of accurately comparing the administration of one hospital with another. It was shown, however, in the articles that any conclusions based upon accounts kept on this system are likely to be misleading, and that the system is responsible, in part at least, for most of the quarrels which have recently occurred between the administrations of various hospitals on the subject of relative economy. It would probably be better that the system should be abandoned and ordinary commercial book-keeping substituted for it, each hospital working out annually from the details thus supplied any figures which the several hospital funds may consider desirable as data upon which to base a grant.

In the concluding article of the series, which was occupied with details of internal administration, the chief point brought out was the great value to hospitals of the periodical overhauling of their domestic affairs by persons not ordinarily connected with them, or, indeed, with any hospital. They should simply be persons versed in the intricacies of housekeeping, who have been furnished with a memorandum as to the demands and stipulations habitually made by the professional staff of the hospital with regard to the dietary of patients.

A further point of some general interest is the conclusion indicated by certain facts that the question of what amount of luxury in a diet and of daintiness on the part of a patient is permissible and really essential to perfect results has not yet received as much attention as it deserves.

Finally, it is of interest to note that since the publication of these articles the Executive Council of King Edward's Hospital Fund has decided to refer the question

of hospital accounts to the former senior partner of a well-known firm of accountants for advice and suggestions as to the way in which they could best be kept, attention to the existing system being specially indicated.

RECREATION AT THE ANNUAL MEETING AT LEICESTER.

IN addition to the usual entertainments—such as garden parties and *conversaziones*—visitors to Leicester will have the opportunity of seeing a first-class cricket match between Leicestershire and Derbyshire on Thursday, July 27th, and two following days. There are two local golf clubs. The Leicestershire Golf Club has a good course of eighteen holes over fields near the town, and can be reached from the centre by electric tram service in less than a quarter of an hour. The Committee will extend to members of the Association a hearty welcome. The annual golf match will probably be played on Friday, July 28th, if sufficient entries can be secured. The course is usually in very good condition during the summer months; the hazards are brook, hedges, etc., with long grass off the fair way, which latter, however, is of ample width. There is a commodious club house. A nine-hole course also exists at Birstall, five minutes by rail from the Great Central Station, where facilities will also be given for play. Further afield lies the most picturesque course of the Charnwood Forest Golf Club at Woodhouse Eaves, reached by taking train to Quorn and Woodhouse Station, Great Central Railway, and thence by brake to the links. Nottingham has the new and first-class links of the Notts Golf Club at Hollinwell and Annesley, and the Nottingham Corporation links, open to the public, at Bulwell Forest. For motorists there are many little-known spots worth a visit: Charnwood Forest, above mentioned, has many points of interest both to the geologist and the lover of scenery; Lutterworth, the home of Wycliffe, ten miles out, with its quaint church; Loughborough, a flourishing town, with perhaps the finest peal of bells in England; Melton Mowbray, the metropolis of hunting, almost deserted at the time of this meeting, but well known to the Nimrods of this and past times; the church is noteworthy. Stamford, with its old churches, has an interesting history, and contiguous to it is "Burleigh House by Stamford Town." At Oakham, the castle—now the Assize Court—is filled with great horseshoes suspended on the walls, many dating from Queen Elizabeth's time, having been left as tribute by distinguished visitors; the main street of the little town is said to be in the shape of a horseshoe. There is an excellent grammar school here, on the same foundation as the more widely known school at Uppingham, which is about the same distance from Leicester, and worth a visit. In another direction lie two more famous schools—Rugby to the south and Repton to the west. Roads are good, granite being one of the products of this county. In the various public parks are several excellent bowling greens, where any lovers of this quiet game can enjoy it for a small fee. The points of interest to cyclists and pedestrians were indicated in the articles published in the SUPPLEMENT to the JOURNAL of December 10th, 1904, and June 3rd last.

THE BRITISH MEDICAL PROTECTION SOCIETY.

THE British Medical Protection Society (Secretary, Mr. F. R. Firmin) was sued last November by Drs. Slimon and Hastings in the Bow County Court for the recovery of debts collected. The defendant society had been employed for two years to collect outstanding debts, after which the plaintiffs, being dissatisfied with results, employed another collector, and found that various sums collected by the defendants had not been accounted for by them. The case was heard on November 30th. The defence offered was a counter-claim for commission, postage, and one year's annual subscription. This was rebutted by the production of receipts, and the defendants were ordered to pay the full amount claimed, together with costs. Payment was not made on the date ordered, and a judgement summons was taken out. Further delay occurred, but on June 2nd the defendant Firmin paid into court the sum of £2 14s. 6d., being the amount due under the judgement obtained against him. It is desirable that it should be known, though it is perhaps scarcely necessary to add, that the British Medical Protection Society has no connexion whatever, direct or indirect, with the British Medical Association.

INTERNATIONAL CONGRESS ON ACCIDENTS TO WORKMEN.

AN International Congress on Accidents to Workmen was held at Liége last week; it was attended by 575 members, was under the patronage of the King and the Government of Belgium, and had for its Honorary Presidents the Minister of Industry and Labour and the Minister of Agriculture. The President was Dr. Moeller, and the Congress was formally opened in the hall of the University of Liége on Monday, May 29th, by a general address from Professor von Winiwarter. Dr. Poels, Secretary-General, read the report, in which reference was made to the importance of the duty imposed upon medical men by legislation which had in view the protection of workmen from injury and disease. A great number of important subjects were discussed, among others the desirability of classing cases of industrial poisoning with surgical injuries for compensation purposes, and the extent to which hernia might be considered to be influenced by occupation. The representatives of the English factory surgeons were Dr. W. F. Dearden and Dr. Scott. The sitting on Thursday afternoon was devoted to the discussion of the subject of medical investigation of accidents occurring in connexion with industrial occupations. Papers relating to this were contributed by Dr. Vulpius, of Heidelberg, and Dr. W. F. Dearden, of Manchester. The former regretted the absence of any organized system of inspection in Germany, and outlined what he considered as a model one. He insisted upon the necessity of medical investigation and supervision, in the first instance, for preventive and, subsequently, for compensation purposes, and described the advantages accruing from both functions being taken in hand by the same medical department. Dr. Dearden described the system in vogue in England, and, in speaking on his paper, confirmed the statements of Dr. Vulpius with respect to the importance of medical investigation into the causation of the accident and the nature of the injury inflicted, emphasizing the absolute necessity of obtaining the evidence of the injured person as well as that of the employer. He showed how the investigation of accidents causing apparently slight injuries had proved of immense benefit in securing the adoption of protective measures against future serious or fatal recurrences. Whilst insisting on the advantages of the English system, he quite agreed with the previous speaker as to the advisability of placing the supervision of the work of certifying surgeons, so far as accidents are concerned, under the control of a responsible and experienced medical head, and instanced the diminution of industrial poisoning cases in Great Britain as the result of such a proceeding. He also pointed out that an English Departmental Committee had recommended the utilization of the factory surgeon for the purposes of the Compensation Act. Dr. Alex. Scott, of Glasgow, agreed with the previous speakers, and insisted on the investigations being conducted by medical men who would be totally independent of both employer and employed. He was of opinion that these medical inquiries should be extended to industries other than those at present covered by the English Factory Act, and instanced cases, noted in his hospital experience, which proved the advantages which would have accrued to certain injured miners if a medical inquiry could have been secured. In the course of discussion the advantages of the Dutch dual system (put into practice two years ago) of medical inspection of the causation and the employment of an engineering expert to advise on protection of machinery for preventive purposes, were explained. The Congress heartily approved of the views expressed by

the various speakers in favour of more complete medical supervision. On Friday, at the end of the business of the Congress, a visit was paid to Spa, a watering-place of great antiquity; since the abolition of its gambling saloons the therapeutic value of its aërated iron carbonated waters have been more vigorously brought to public notice.

CLASS HOSPITALS.

A DRAWING-ROOM meeting, under the presidency of the Archbishop of Canterbury, was held at Grosvenor House on June 5th in support of an appeal for funds to provide the Hostel of St. Luke with new quarters. This institution, founded some twelve years ago, provides for the medical needs of the clergy of the Church of England and their families. It receives the free services of a number of physicians and surgeons. The payments demanded from the patients are in all cases low, and, when circumstances appear to justify it, no payment is required. The benefits which it confers upon the clergy have not passed unnoticed by other classes, and on April 21st last it was proposed by a correspondent of our contemporary, the *Surveyor*, that the Association of Municipal and County Engineers should raise a fund and start a similarly beneficial institution. It was pointed out that municipal engineers were not highly paid, and were liable to suffer severely at times from the cruel necessity of having to pay medical fees and nursing expenses. It was taken for granted that these could be avoided in the manner suggested, thanks to the characteristic noble-mindedness and generosity of the medical profession, to which attention was duly drawn. The *Surveyor*, in its editorial comments, expressed the opinion that the Association was not in a position at present to provide the initial expenses, but thought arrangements of a suitable character might be made with nursing homes throughout the country. The project, therefore, may perhaps be regarded for the moment as in abeyance, but if it be revived and were to succeed, are we to expect that similar institutions would be started for every profession and class throughout the land? If so, it would only remain to meet the needs of medical men themselves by allotting to them a special ward in an institution which already exists—the workhouse.

AN AMBULANCE SERVICE FOR LONDON.

WE rejoice to learn that a report has been brought up by the General Purposes Committee to the London County Council recommending the Council to obtain, in the next Session of Parliament, powers to supply or aid the supply of ambulance accommodation for street casualties in London. Since the report on the whole question prepared by Sir W. J. Collins was published little appears to have been done in the Committees of the Council. We now gather that a scheme has been prepared which is entirely independent of the Fire Brigade organization. It is proposed to use motor ambulances, probably electro-mobile, and to establish a ring of ambulance stations in the central zone of London at a radius of some two miles from Charing Cross. These, seven in number, will be connected with "call" posts furnished with telephones, worked in communication with a central station. Each station, it is estimated, will serve an area of some three miles radius. Additional stations in outlying districts may be established later on. It is estimated that the establishment and maintenance of such a system will be less costly than any system annexed to the Fire Brigade organization. We understand that the hospitals are to be communicated with, in order, if possible, to arrange for some dresser or senior student to accompany the ambulance and render first-aid to the injured. It is to be hoped that such co-operation will be forthcoming.

LEPROSY AND SEGREGATION.

IN the May number of the *St. Thomas's Hospital Gazette*, Dr. G. Armauer Hansen gives an interesting account of leprosy in Norway. It is not known when the disease was introduced into that country. Dr. Hansen thinks it probable that some of the Vikings caught the disease on their cruises to the North of France, England, or Scotland. Nothing positive is known about leprosy in Norway before 1277, when King Haakin V by his will decreed that the St. Catharina Hospital in Bergen should only admit lepers. Later there was a hospital at Tinsberg and one at Hamar, and that, says Dr. Hansen, is all that is known about the disease in Norway till 1840, when Danielssen and Boeck began their memorable researches. Then it was that, in the words of Virchow, leprosy entered into the number of scientifically-studied diseases. By a census of the lepers in Norway, made in 1845, they found that the total number was 1,122, and their investigations led them to the conclusion that leprosy was essentially a hereditary disease, but that it might also arise spontaneously as the result of bad living and a wet climate. In accordance with the pathological concepts of the day, they thought the disease was caused by a dyscrasia—too much albumen in the blood. At their suggestion refuges in which poor lepers could be cared for and treated were established at Bergen, at Molde, and at Trondjem; "thereby," says our author, "were taken the measures which have proved so successful." Hansen began his studies on leprosy in 1868 under the guidance of Danielssen. In 1871 and 1872 he made researches on the etiology of the disease in rural districts, and in this way he found that many facts as to the spread of the disease could be much better explained by contagion than by heredity. He was thus led to search for a parasitic agent, with the result that he made his famous discovery. At the same time he revised the statistics of the prevalence of the disease. He found that, whereas the number of lepers in 1856 had been thought to be 2,079, there really were 2,833. Careful inquiries satisfied him that no decrease in the number of lepers had taken place till that time. Since then the records have been accurately kept and they show that the disease has steadily diminished, a result which in Hansen's opinion can be explained only by the system of isolation, partial as it was, which was adopted. "It would," he says, "be highly remarkable that the improvements in the preparation of fish food should set in exactly at the same time as the isolation of lepers set in." But it is known with certainty that no such improvement in the way of dealing with fish took place at that time. When Hansen made his researches in the country districts in 1871 and 1872 he found that the peasants still consumed badly-cured fish in large quantities while leprosy was already decreasing. He sums up—and he gives his conclusion the emphasis of italics—that *the fish-diet theory of leprosy does not hold good for Norway and probably not for any other locality.* While the fish theory cannot explain the decrease of leprosy in Norway, he is inclined to consider that decrease the best argument so far available in proof of the contagiousness of the disease. This definite expression of opinion coming at this time is all the more noteworthy from the fact that by a curious coincidence Mr. Jonathan Hutchinson in a letter published in the *Times* of May 23rd quotes Hansen "who, as the distinguished discoverer of the leprosy bacillus, has long held the foremost place amongst the believers in contagion and advocates of segregation measures" as making an "avowal" which, it appears to be implied, means that he has receded from that position. Mr. Hutchinson says: "In speaking of the measures now adopted in Norway, Dr. Hansen has quite recently written: 'We have (in Norway) no particular rules for the transport of patients. I see no reason for them. *Leprosy is a disease which it is not necessary to have any particular dread of.*' The sentence which I have put into italics refers, of course, to the risk of contagion and not to the disease itself; and I submit that, now that we have so clear an avowal from so high an authority, there can be no longer any pretext for the maintenance of the Cape Colony isolation laws. Surely the misery of Robben Island may now be allowed to come to an end. It was in supposed obedience to Dr. Hansen's teaching that the law referred to was enacted, and that this and other

segregation prisons were organized. Now that, with a noble candour which is part of his nature, Dr. Hansen makes the acknowledgement just quoted, we cannot too quickly hasten to undo the evil which has resulted." Evidently there is a little misunderstanding on the part of one or both the eminent authorities whose words we have quoted. *Non nostrum tantas componere lites.* But the plain man would probably be glad to have some explanation that would tend to reconcile the discordant utterances of the oracles.

ASPHYXIATION OF BLAST-FURNACE WORKMEN.

IT is a pleasing sign of the times that mining and civil engineers are uniting with medical men to devise means for the prevention and reduction of accidents in mines and iron works. An instance of this has just been given at the meeting of the Iron and Steel Institute when Mr. B. H. Thwaite, of London, read a paper on the causes leading to asphyxiation of blast-furnace workmen. The increasing application of blast-furnace gas to power purposes has necessitated the adoption of measures of protection for workmen exposed to the gas owing to the highly poisonous carbon monoxide that it contains. The action of this gas upon the human system is cumulative and therefore much depends upon the length of time a workman is exposed to its influence. Fatal effects are generally preceded by coma. Producer gas obtained from bituminous coal is not so dangerous as the gases that escape from coke-fed furnaces, anthracite, and other fixed carbon fuels. Conde blast furnace gas, carrying with it a proportion of water vapour and siliceous, calcareous, and other materials, is fairly visible, and has a perceptible odour. Freed from these it is invisible and inodorous, but none the less dangerous. The gas can penetrate brick walls and readily passes through mortar made of sand and lime. Its permeability is rendered greater by a high temperature. Ordinary soil offers no resistance to its course, and in this way can be explained those cases of asphyxiation occurring in occupied houses close to blast furnaces. When the soil is dry the gas can travel considerable distances from the point of entry. During the tapping of a blast furnace and when the slag has all but escaped, there is often just at the end a flow of gas which may contain 1 per cent. of carbon monoxide and 8 per cent. of carbonic acid. In the environments of the furnace-bosh these gases may accumulate to a dangerous extent, hence the inadvisability of allowing single workmen to work near the bosh during the blow-out period of slag-tapping. Mr. Thwaite has designed an apparatus for the rapid detection of dangerous quantities (1 per cent.) of carbon monoxide in the air containing blast-furnace gases. It consists in the property which palladium chloride has, in contact with carbon monoxide, of precipitating carbon. It is easy of application and quick in giving results. In all large ironworks cylinders of oxygen ought to be ready to hand, and the workmen should have an ambulance training, so as to know how to treat their comrades who have become "gassed." Mr. Thwaite's pamphlet ought to be helpful to those for whom it was written. His suggestions as to how to secure comparative immunity from fatalities due to asphyxiation are good and worthy of adoption.

THE BONESETTER'S FAILURES.

ABOUT a year ago a paragraph in the BRITISH MEDICAL JOURNAL,[1] dealing with the alleged successes of a "miner surgeon," concluded by asking, as did Bion, when shown the names of those saved from shipwreck by prayer, "But where are those who were drowned?" It is not a little consolatory to find a contribution to this side of the question in the *St. Bartholomew's Hospital Journal*[2] by Dr. Colby, who sends notes of six cases treated by bonesetters, with results which are not likely to attain the publicity of the halfpenny press. Three of these are especially worthy of quotation: one was a case of fractured femur treated without extension, and resulting in three inches shortening and almost 90 per cent. of eversion; in a second instance, an obvious subcoracoid dislocation was described and treated for several weeks as a "flesh rent"; while in the third an ankle was "put in" which some weeks later needed operation for tuberculosis. The next number of the JOURNAL contained an article by Professor Howard Marsh, embodying his experiences of the bonesetting fraternity, which brings out once more the point emphasized by Sir James Paget, namely, that the bonesetter lives by breaking down adhesions. The profession should take this to heart; for if minor injuries are treated rationally, the formation of adhesions will become a less and less frequent occurrence. Professor Marsh gives details of the statements commonly made by bonesetters; for example, the crack of a ruptured adhesion is variously described as the replacement of a small bone which does not figure in anatomy books, or of a muscle which has slipped. The deltoid is a favourite scapegoat, even in disabilities of the knee and ankle; while another remarkable anatomical transformation is that suffered by our old friends the spinous processes, which become "the buttons of the back," and are in constant need of manipulation. Other anecdotes are quoted which would be entirely ludicrous were it not for the heartlessness of the frauds thus practised upon that incurably gullible community, the British public. Professor Marsh's strongest note of condemnation is reserved for the osteopath, and is entirely justified by the example quoted.

[1] 1904, ii, p. 32.
[2] *St. Bartholomew's Hospital Journal*, April, 1905.

THE LIABILITIES OF HOSPITAL AUTHORITIES.

THE case of Evans *v.* the Corporation of Liverpool, in which judgement was delivered by Mr. Justice Walton on May 30th, raised a question which is of considerable importance to those who are responsible for hospitals for infectious diseases. Put shortly, the question was: Can the proprietors of a hospital be made liable for the spread of infection due to the premature discharge of a patient? The answer can be supplied only after a careful investigation of the facts. A son of the plaintiff, who had been sent to the Liverpool Corporation Isolation Hospital suffering from scarlet fever, was, it was alleged, prematurely discharged, with the result that another son of the plaintiff became infected. The action was brought to recover damages, which had been agreed upon at £54. The medical officer of the hospital was (to quote from the terms of his appointment) "responsible for the treatment of the patients from the beginning to the end of their stay, and also for their freedom from infection when discharged," and the matron (in the absence of the resident medical officer) was "responsible for the discharge of patients under the instruction of the visiting physician." In this case the matron had discharged the boy under the instructions of the visiting physician. When the case was tried at Liverpool the jury found (*inter alia*) that there was a want of reasonable care and skill on the part of the visiting physician, and that there was an implied undertaking by the defendants that the physician should exercise reasonable care and skill. Three arguments were put forward in support of the contention that the Corporation was liable: (*a*) That the Corporation was keeping on its premises dangerous creatures—namely, infectious children—which it would allow to escape at its peril; in other words, a hospital authority could not discharge a patient until absolutely free from infection; (*b*) that the medical officer of the hospital was the servant of the Corporation, which was liable for his negligence; (*c*) that the Corporation had undertaken to use proper care, and could not escape from this obligation by handing the boy over to the medical officer. Mr. Justice Walton said, with regard to the first point, that to hold that a hospital authority was bound to keep a patient until absolutely free from infection would be to place a serious liability upon these bodies, and, in the absence of any evidence of negligence, he declined to hold that there was any such liability. With regard to the second point, he held that the medical officer merely acted as adviser to the Corporation and did not act as their servant. As to the third point, he held that it was the duty of the hospital management to

use ordinary skill and care; that they did not undertake the duties of a medical man, nor to give medical advice, but they did undertake that the patient should have competent advice and assistance. Here it was admitted that the visiting physician was a competent medical man, and, if he was guilty of negligence, the Corporation was not liable. It should be observed that the fact that fees were charged for the admission of persons to the hospital was held by the judge to have no bearing upon the case; and this is a fact which greatly extends the operation of the principle enunciated—namely, that if it can be shown that the managing body of a hospital has handed over the decision of the question whether a patient is fit to be discharged or not to a competent medical man they shall not be responsible for any damages which may follow. Suppose, on the other hand, a plaintiff were able to show that a patient was discharged from a hospital on the strength of an order given by the management without consulting their medical officer, it is quite possible that a good claim for damages might be made. In other words, if negligence can be proved, liability will be established. In a case of somewhat doubtful authority which was decided in 1896,[1] the plaintiff recovered £50 damages from the defendants in the Birmingham County Court in respect of the alleged neglect of the authorities in discharging from the hospital a child who had not fully recovered from scarlet fever, thereby causing another child to contract the disease from which it died.

THE PROPHYLAXIS OF HEREDITARY SYPHILIS.

PROFESSOR PINARD has recently expressed his decided views on the question of male syphilitics and their possible offspring.[2] Experience, he says, has shown that it is not very difficult to avoid the infection of a wife, and Pinard testifies to the fact that he has never known one single instance of that terrible accident when the husband has submitted to treatment such as Fournier advocates. It is far more difficult to guarantee the offspring against the ravages of their sires' taint. Pinard supports Fournier's recent declaration before the French Academy of Medicine that it is an error to believe that the birth of one or even several healthy children is a certificate that the father is healed of his syphilis. Diday has dwelt on what he terms spermatic syphilis; the labours of Parrot and Bertin have thrown much light on the subject, and as a result two forms of hereditary syphilis should be distinguished—the contagious and the dystrophic. The child of a syphilitic father may show very evident signs of syphilis, whilst in other cases tainted men beget children with no specific symptoms yet very cachectic. There can be no doubt of the cause of the cachexia; specific treatment cures it, and the father under treatment may beget healthier children afterwards. Another well-known phenomenon is the appearance of hereditary syphilis in a child whose elder brothers and sisters are quite free from the taint. Pinard reports two cases of this phenomenen under his own observation; in the most marked Simonet had kept the father carefully under treatment for eight years, and six children, all healthy, were begotten by the patient. When the eldest was 27 years of age his father begot a seventh, who died 2 months old with all the symptoms of hereditary syphilis. Pinard insists that we must not rely on the extinction of the syphilitic virus, though it is clear that it must very frequently occur when the prevalence of the disease amongst our ancestors is remembered. Undoubtedly the children of syphilitic fathers often manage to escape the taint, but too often it is otherwise. The guaranteeing of the wife is not invariably reliable, yet not as a rule difficult of attainment, but it is quite otherwise with the offspring. Pinard considering the interests of the possible progeny of syphilitic sires—the mothers it is understood being healthy—declares that a syphilitic husband who desires to beget sons and daughters free from taint must submit to strict specific treatment, even when all symptoms of the disease have been absent for a long period. He keeps his patient under mercury, biniodide, and potassium iodide for six months, and when the wife conceives submits her to the same treatment all through the pregnancy. This treatment of husband and wife is repeated as long as they continue to cohabit with the intent of procreating children. By this line of treatment, says Pinard, the couple are spared the great evils of non-intercourse or checks to impregnation, and the opposite evils of producing diseased or sickly offspring.

[1] Keegan *v.* Mayor, Aldermen and Corporation of Birmingham, *Local Government Chronicle*, May 2nd, 1896, p. 427.

[2] Prophylaxie de l'Hérédo-Syphilis, *Annales de Gynéc. et d'Obstét.*, April, 1905, p. 201.

THE FINANCIAL POSITION OF ARMY AND INDIAN MEDICAL OFFICERS.

WE have received a number of letters regarding the pay and expenses of medical officers, both on the Home and Indian establishments. In the case of the R.A.M.C. officers serving on both establishments the complaint is less of the nominal amount of pay received than the enormous expenses entailed on them through frequent moves, over which, of course, they have no control. The cost of these moves is simply crushing to married officers with families, not alone in passage moneys, but in forced sales of effects and in provision of suitable outfits for changing climates. Such moves, we are informed, involve an average of from £50 to £100 per annum to married officers, and as they are almost entirely caused by the exigencies of the service, under a limited establishment of officers, should not Government do something to minimize this great burden thrown on medical officers? The remedy suggested is that passages, under suitable restrictions, should be granted by sea and land to the families of medical officers on the move; such, we are informed, are granted to veterinary officers, and are usually provided for regimental officers in transit with their corps. A concession or allowance of this kind would be equivalent to an increase of pay, and would tend to check ill-considered moves, which are probably not infrequently the result of hasty administration. Indian medical officers, too, continue to have their special pay grievances, along with others common to both services. The anomalous condition of the scales of pay of medical officers in civil appointments has lately been met by revision and increase, although we hear there are still curious defects in the new scales. We are often reminded of the advantages and disadvantages of the two services in India; and some correspondents still advocate their amalgamation. As, however, little has been heard of this of late, it is not a question requiring present discussion.

A NEW CONVALESCENT HOME.

THERE has been completed during the past few weeks an important addition to the hospital machinery of London in the shape of a new convalescent home at Bexhill-on-Sea. It has been brought into existence by the Metropolitan Convalescent Institution, and brings up the number of homes which this body has established and controls to four. The new home has already been in full work for several weeks, but was formally inspected by the Board of Management of the Institution for the first time on May 27th, opportunity being then afforded for others interested in convalescent work to examine the new home likewise. The home stands on a gentle slope about half a mile from the sea, and some three miles from Bexhill. It has no houses in its immediate neighbourhood, plenty of ground of its own, and a variety of easy walks near by for those to whom they are suited. The site, in short, would be an excellent one for a country habitation of any sort, and is especially admirable for the purposes to which it has been put. The building is to house male patients only, and at present gives accommodation for 71; arrangements, however, have been made so that the addition of a block at either end of the building will be easy, and there will then be room for 47 patients more, or 118 patients in all. The total number of beds provided by the Metropolitan Convalescent Institution will then only be a few short of 600. The internal arrangements seemed to be excellent, comfort and durability being secured without

extravagance; for the total expenditure, including fittings and furniture, has not reached £250 a bed. The visitors on the day of inspection were shown round by the Chairman, Mr. Fitzgerald, and other members of the managing body, including Mr. Alfred Willett and Dr. Habershon, while the General Secretary, Mr. A. Hayes, one of the Architects Messrs. Plumbe and Harvey, and Dr. Brightman, of Bexhill, who has undertaken the medical charge of the inmates, also assisted to make the precise cost and intention of the various arrangements clear and to explain the system which is pursued in administration. The responsible resident officers consist of a matron, a trained nurse, and an employé entitled a "Captain." The Metropolitan Convalescent Institution, it may be noted, is in sympathy with the view that arrangements should be made by convalescent homes for the reception of surgical cases still standing in need of some attention, but has not yet decided how it can best meet it. Seeing the great part which the Institution plays in the convalescent work of London the decision which it may reach is one of especial importance.

PRECAUTIONS AGAINST PLAGUE IN BRITISH PORTS.

SINCE the measures of strict isolation were enforced in Leith, one death only has occurred from plague, and the port is now officially granted a clean bill of health. The prompt manner in which the municipal and port authorities dealt with the outbreak is highly commendable. The lesson to be learnt, from their success, is that constant and vigilant watch is necessary and must be maintained in home ports having commercial and shipping transactions with those parts of the world where the disease prevails. It must be remembered that in both the Glasgow and Leith outbreaks the cases of plague first observed were amongst people in quarters of the city not in any way connected with shipping, so that it will be well for all the medical practitioners in the large seaports to have in their minds the possibility of an obscure illness being plague. In Glasgow this watchfulness was shown in an eminent degree by a medical man in the course of his daily routine of practice, and it was his promptitude in reporting an unwonted illness that led to the early discovery of the disease and the speedy curtailment of the outbreak. Beyond these measures, however, others are necessary. The rat being the animal most liable to contract plague, it is necessary not only to destroy these rodents, but also necessary to have some of them caught and examined bacteriologically from time to time. Unfortunately, it is not the sick rats that are usually caught in traps; when infected with plague they are often too weak to leave their runs to go in search of food. We know, however, that plague-infected rats do frequently come to the open and speedily die, and therefore all rats found dead, without apparent cause, on all wharves, in sheds or storage buildings adjacent to harbours should be systematically examined. In a few of our ports rat catchers are employed, but we should like to see rat destruction enforced in every large port. In several seaport towns arrangements to meet a plague outbreak are well in hand. In London not only are the port officers prepared, but the London County Council has, through the energy and foresight of its medical department, a carefully-thought-out scheme ready to be carried into effect at a moment's notice whenever a suspected case of plague is met with. During the past three years some thirteen suspected cases of plague have been dealt with by the Medical Department of the London County Council, and it is satisfactory to know that, although no outbreak of the disease has occurred in the metropolis, the machinery for meeting the event should it arise is quite complete, and maintained in such a way that it can be called into immediate action. It would be well were the Government to appoint an inspector, not necessarily or even preferably a Government medical officer, but an expert accustomed to deal with plague epidemiologically, to visit the large seaports of our coasts, and report upon the arrangements that exist in these ports to cope with an outbreak, and the means of prophylaxis adopted. It is the only satisfactory method of ensuring against plague invading our coast cities, and the expense compared with that which even the threat of an outbreak would entail would be infinitesimal.

THE TREATMENT OF INEBRIETY.

A NEW departure in the treatment of confirmed inebriety has recently been made in New York. This consists of a combination of gaol and hospital to which drunkards may be committed by City Magistrates or Justices of the Supreme Court for treatment. At present there is no place to which such authorities can send habitual drunkards, or narcomaniacs—a circumstance which not only tends to perpetuate this class of offender, but also plays into the hands of proprietors of quack "institutes" and "drink cures," which cure nothing but plethora of the patient's purse, or what Rabelais called *l'imposthume pécuniaire*. Commitment to the New York hospital gaol may be for a term less than a year on complaint of a father, mother, sister, or brother, or of a child against its parent. The hospital is to be in charge of three physicians appointed by the Mayor; the chief will receive a salary of £1,200, each of the others one of £1,000 a year. By an appropriate arrangement, the building and its site will be paid for out of Excise moneys.

SYPHILIS OR SCABIES?

THE case of Hobson *v.* Bicknell, tried at the Liverpool Assizes and reported at p. 1307, will be of interest not only to medical jurists, but to every practitioner who wishes to avoid some of the pitfalls which lie in his way. Two points stand out prominently in the case. In the first place, the necessity of every practitioner being well acquainted with the manifestations of syphilis and its diagnosis from other diseases more or less resembling it; and, in the second place, the importance of avoiding anything like a breach of his patient's confidence. Where the special difficulty arose in this case was that the medical man had professional relations, both with the patient and his employers, the Golf Club, and naturally endeavoured to utilize the knowledge he had acquired in the treatment of the former in order to prevent the risk of infection of the club members. As the learned judge pointed out in his summing-up, it came out in evidence that the plaintiff himself told the club steward what the doctor was treating him for, and Mr. Justice Walton said that where there was no secret there could be no breach of confidence. On the question of negligence, the jury were reminded in the summing-up that a mistake in diagnosis was not necessarily negligence, and that unless they thought there had not only been a mistake, but a careless mistake which an ordinary skilful medical man would not make, they ought not to find for the plaintiff on this head. Yet in the face of this direction the jury found that there had been negligence in accepting Dr. Moss's diagnosis without sufficient examination, but that subsequently all reasonable care was used. The contrary opinions of experts produced on both sides might well have made the jury ask with Pilate, "What is truth?" But they contented themselves with finding that syphilis was not present in the case on August 19th—a decision of twelve laymen on a knotty medical question which will probably carry just the weight to which it is entitled.

SCHOOL CHILDREN IN NEW YORK.

THE Special Commission appointed by the New York Health Board to examine the pupils attending the public schools—some 550,000 or 600,000 in number—has reported that of 7,166 examined in April, 3,132 required some immediate medical attention if they were ever to become normal citizens; 1,273 were unable to distinguish the big letters of the ophthalmic test card at a distance of 20 ft.; 1,221 were found to be suffering from enlarged internal glands, 632 from bad nutrition, 733 from cardiac affections, 127 from pulmonary complaints, and 1,946 from toothache. Moreover, fully one-third of the pupils were prevented by defects of vision from obtaining the fullest mental and physical advantages. The department recommends that

in future skilled treatment for the eyes and teeth of all children, whether rich or poor, should be supplied gratuitously. The city authorities already supply books and stationery free.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

We understand that Mr. Andrew Clark and Mr. Bruce Clarke are candidates for seats on the Council of the Royal College of Surgeons of England at the forthcoming election.

BLUE LIGHT AS AN ANAESTHETIC.

Some of our readers may remember that at the Swiss Dental Congress at Lausanne last year M. Redard, Professor of Medicine at the University of Geneva, brought forward a novel proposal for the production of analgesia, based upon the effect of blue light upon the higher nerve centres. He has since made a further communication on the subject to the National Institute at Geneva.[1] He states that each of the primary colours has a definite and characteristic effect on the organism. In the case of red light it is exciting to the extent of being irritating. With yellow light the effect is depressing, while blue light is calming and produces a general feeling of well-being. Professor Redard now claims that the general psychic effect of the light can be converted to the uses of surgery and employed as a substitute for ordinary anaesthetics in operations, which, though naturally productive of considerable pain, are of comparatively brief duration. His procedure, whatever its advantages, is at least sufficiently simple. Nothing beyond an electric light of 16 candle-power, a blue glass globe, and a sheet of blue satinette appear to be necessary. The lamp is fixed in front of the patient's eyes at a distance of a few inches (15 cm.) and the patient told to stare at it, keeping his eyes wide open. His head and the lamp are then covered with the blue cloth, so as to exclude all natural light, and he is assured that, if he keeps on staring, he will be unconscious of any pain during the operation which is to follow. Professor Redard states that if the cloth is removed after the lapse of from two to three minutes, the patient will be found to be in a condition of general anaesthesia with dilated pupils, and that this is sufficiently deep for the painless performance of any operation of brief duration. He adds that he has had very few failures, and that he has found those which have occurred to be due to the fact that the patient has neglected the instruction to stare continuously. The idea, of course, at once occurs that the phenomenon must be due to a species of auto-suggestion, but this, taking the observations to be accurate, would appear to be negatived by Professor Redard's statement that he is unable to produce the same effect with either yellow or red light. According to the periodical from which we quote this account, other medical men have followed M. Redard's procedure, and have found it to produce the result stated.

THE NEW UNITED STATES PHARMACOPOEIA.

The eighth decennial revision of the new United States *Pharmacopoeia* will contain many changes and improvements. Assays have been introduced for alkaloidal drugs, and other drugs and preparations for which trustworthy processes can be formulated. The strengths of the tinctures have been amended so as to reduce them practically to two classes—10 per cent. for the more powerful preparations, and 20 per cent. for the others. Purity rubrics have been inserted which will tend to define the limits of innocuous foreign substances. Many obsolete drugs and preparations have been omitted. Trustworthy new synthetics have been introduced, and also average doses for the first time in the history of pharmacopoeial revision in America. The book will represent the advances in pharmacy and in medicine, and authorities and experts, not only in the United States, but abroad, have freely contributed of their knowledge to make the book as perfect and comprehensive as possible. Messrs. P. Blakiston's Son and Co., of Philadelphia, have been selected as the official distributing agents.

[1] *Revue Générale des Sciences Pures et Appliquées.*

A special Court of Governors of the Middlesex Hospital will be held on June 30th, under the presidency of the Duke of Northumberland, to consider the communications relating to the Medical School received from King Edward's Hospital Fund for London.

The Supplement for this week contains in tabular form abstracts of the annual reports and financial statements of the Branches of the British Medical Association. A superannuation scheme for the clerical staff of the central office, directed to be prepared by the Annual Representative Meeting at Oxford is also published, together with the usual service notices, vital statistics, lists of medical vacancies and appointments, the diary, and the calendar of the Association.

MEDICAL NOTES IN PARLIAMENT.

The Reform of the General Medical Council.—Mr. Weir asked the Secretary of State for the Home Department on Tuesday if, in view of the fact that under Section VII of the Medical Act of 1886 the representation of medical practitioners on the Medical Council was confined to three representatives for England, one for Scotland, and one for Ireland, and that during the interval of nineteen years medical practitioners had increased in number in England alone by 7,000, he would state whether the Medical Council had considered the expediency of representing to the Privy Council the desirability of increasing the number of representatives of medical practitioners on the Medical Council as provided for under Section x, Subsection (*c*) of the Medical Act. Mr. Secretary Akers-Douglas replied that he was informed that this question was considered by the General Medical Council last month, and on no less than six other occasions during the previous fifteen years, but that each time the decision of the Council had been that it was inexpedient to make any representation to the Privy Council.

Plague in India.—On Wednesday Mr. Field asked the Secretary of State for India whether he was aware that in India in 1901 the total deaths from plague were returned at 273,679, in 1902 the number rose to 577,427, in 1903 it reached 851,263, and in 1904 it was 1,022,299; and whether he could state what steps were being taken by the Government for the prevention of the spread of plague. Mr. Secretary Brodrick replied that he was aware of the lamentable mortality from plague indicated by the figures quoted. The Government was endeavouring, while necessarily respecting the feelings and the prejudices of the people, to assist them by every possible means to help themselves, and to bring within their reach all material means to that end. It was promoting, in the matter of prevention, the more efficient sanitation and cleansing of towns and villages, the destruction of rats and mice, and the means of inoculation. It was enlisting and organizing unofficial help by the formation of health and charitable committees, and had defined the duties of municipalities and other similar bodies in respect of giving intelligence, of providing hospitals and free sites for camps, and of succouring homeless wayfarers. On the occasion of any outbreak of plague, it encouraged and, through its medical and administrative officers, assisted the residents to disinfect their houses and property, to isolate the sick, to destroy infected materials, and to evacuate plague-stricken dwellings and sites. It gave compensation for loss of property to the poor, and assisted them to rehouse themselves. It maintained laboratories for the preparation of fluid for inoculation, and for the systematic study and diagnosis of the disease, and it had placed at the disposal of an Advisory Committee of the highest authority in this country a grant of money for meeting the expenses of a scientific expedition, which was now carrying out further plague investigations in India.

The Poor-law (Scotland) Bill, which was presented to the House by the Lord Advocate on Wednesday, has been prepared for the purpose of amending the law relating to the relief of the poor and to parish council administration in Scotland. It makes slight alterations in the mode of distributing

money given to the parish councils for medical relief and nursing. The Bill also enlarges the powers of parish councils in dealing with the maintenance of pauper lunatics.

Underfed Children.—Late on Thursday night last week when the vote for the Local Government Board came on, Mr. Crooks called attention to the recently-issued circular of the Board with regard to underfed children. He expressed great disappointment with the circular, which he said would apply to only a few children and had the evil feature of introducing the Poor-law taint into the administration of help for the children. He contended that the work should be done by the Education Authority and the charitable organizations. Sir John Gorst, who followed, thanked the President of the Local Government Board for the action taken and said the circular was the best that could have been framed under the circumstances. It established the duty on the Education Authority to look after the physical condition of the children, and as they had no funds to apply to the relief of destitute children, the Poor-law Authority was of necessity called in. He believed that the circular would result in the establishment of some organization which would, by the assistance of legislation, eventually solve the matter without Poor-law assistance. Medical aid, he argued, was of great importance, not only in connexion with feeding the children, but for the purpose of detecting infectious disease in its earliest stages, and so preventing the outbreak of epidemics, which closed the schools and cost much money. The early and easy grant of medical relief was equally important with the provision of food for the children. Mr. Macnamara afterwards expressed a fear that the circular would in practice prove almost a dead letter, on account of the incidence of the expense on the parish and not on the whole area of the metropolis. Mr. Gerald Balfour, in his reply, defended the circular as an invitation to the guardians to co-operate with voluntary associations in the work of feeding the children. They could not contribute to such associations without fresh legislation, but much could be done by co-operation and by using the associations as their agents. For any assistance so given payment could be made. With regard to the incidence of the cost of feeding the children, he admitted that it was a matter for careful consideration before any future legislation. The order as it stood was the utmost that could be done without legislation. Captain Lockwood continued the discussion, but the debate was almost immediately adjourned by the 12 o'clock rule.

Phosphorus Poisoning.—Sir Charles Dilke asked the Secretary of State for the Home Department whether he would state at what factory the case of phosphorus poisoning, chronicled in the *Labour Gazette* as occurring in March, was found, and whether the case was an old one or was a new outbreak of necrosis; and what steps he proposed to take. Mr. Secretary Akers-Douglas replied that this case occurred at the factory of Messrs. Moreland and Sons, Gloucester. The person attacked was a man who had been employed some six or seven years at a mechanical dipping machine in a well-ventilated room. The attack was the first attack and mild in character. The investigations made showed that the man had been in the habit of chewing tobacco while at work, and had recently received a blow on the jaw which had caused a tooth to come out. The man was now employed by the firm elsewhere. Stringent special rules were in force in this factory. He would take care that those rules were not transgressed, but in the circumstances of this particular case he did not think that any action on his part was called for.

The Sewage Scheme at Stratton St. Margarets.—Lord Edmond Fitzmaurice asked the President of the Local Government Board last week, whether his attention had been called to the report of the inquiry held by one of the Local Government Board's inspectors at Stratton St. Margarets, in Wiltshire, in reference to an application for a loan to meet excess expenditure for a sewage scheme, and to the conduct of the engineers employed by the Highworth Rural District Council, as disclosed in that report; and whether he could take any steps to protect local authorities from similar proceedings on the part of engineers in other cases. Mr. Gerald Balfour answered that the report referred to was no doubt that which was published in the *Sanitary Record* of the 30th March and the 6th April last. He had since received the report made to the Local Government Board by the Inspector who held the inquiry. He did not think that there were many firms employed by local authorities who would have taken the course which appeared to have been adopted by the firm referred to in the question. Possibly the publicity given to the present case might be a sufficient protection to local authorities against similar practices.

Insanitation at Killyleagh.—Mr. Sloan asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that complaints had been repeatedly made by the inhabitants of Killyleagh, co. Down, regarding the insanitary condition of their homes and the inferior supply of pure water for domestic purposes; and what action, if any, he proposed to take to remedy this state of affairs. Mr. Long replied that in February, 1902, the rural district council forwarded to the Local Government Board particulars of proposed works for the water supply of Killyleagh, and the Board fixed an area of charge for the cost of the works. So far as the Board was aware, no steps had since been taken by the council to provide the water supply, but as no formal complaint in the matter had been received the Board was unable to take action under Section XV of the Public Health Act of 1896.

The Workmen's Compensation Bill, which has passed its stages in the House of Lords, came on for second reading in the Commons a little before eleven on Monday night. Mr. Akers-Douglas, as Home Secretary, moved the second reading, and gave a careful account of the amendments in the law which the Bill proposed. He pointed out the trades which it was proposed to include in the Bill, and especially dwelt on the proposals to make more use of medical referees in order to lessen litigation. Mr. Tennant then moved—"That in the opinion of this House no Bill to amend the Compensation for Accident (Workmen) Act, 1897, can be considered satisfactory which does not contain provisions for compensation for injury to health." He especially dwelt on the injuries to health caused in the dangerous trades, and gave statistics showing the numbers disabled in several industries. Lead and mercurial poisoning came in for particular mention, and the cases of anthrax occurring in connexion with trades dealing with foreign hides and wools. The great prevalence of fibroid phthisis among certain classes of miners was also mentioned. The difficulties surrounding the proposal were fully admitted, and it was suggested that a preliminary medical examination should be made of all persons engaged in such trades. Sir John Stirling-Maxwell seconded the amendment, and the discussion stood adjourned at midnight, after a speech by Mr. John Burns in favour of the amendment. The Bill will have now to stand over till after the Whitsuntide recess

Names Restored to Medical and Dental Registers.—Mr. Weir asked the Secretary of State for the Home Department, on Monday, in view of the fact that during recent years twenty names had been struck off the *Medical Register* for infamous conduct in a professional respect, and twelve restored, whilst out of six names removed from the *Dentists' Register* for a similar cause one had been restored, would he state the nature of the offences originally preferred in the case of those whose names had been restored. Mr. Secretary Akers-Douglas replied that he could hardly specify the offences without identifying the persons implicated; and, as they had been restored to the *Register*, this would merely give unnecessary pain to individuals, without serving any useful public service.

The Expense of Lunacy.—Mr. Charles Hobhouse asked the Secretary of State for the Home Department whether the return granted in 1904 relative to the expense of lunacy was yet ready, and when it would be published. Mr. Secretary Akers-Douglas answered that this return, the preparation of which had been exceptionally difficult, was now in the printer's hands, and would, he hoped, be published shortly.

The Cootehill Infirmary.—Mr. Samuel Young asked the Chief Secretary to the Lord Lieutenant of Ireland, with reference to the suggested alterations to the Cootehill, co. Cavan, Union Infirmary, whether he could state if any public inquiry was made into the causes of death in the four cases referred to in Dr. Bigger's report; whether he had ascertained that some of the deaths were due to old age, and that in one case the medical officer operated, though a local doctor of long experience refused to administer ether; whether any petition for alterations was received purporting to come from seven

electoral divisions; and, if so, what local authorities approved of it and by how many ratepayers it was signed; what was the total amount spent in improvements during the three years ending March 31st, 1905; and whether the Local Government Board's recommendations for further expenditure would be suspended pending the report of the Viceregal Commission. Mr. Long answered that the Local Government Board had referred this question to the Clerk of the Cootehill Union, who had furnished the following information: No public inquiry was held into the causes of death in the cases referred to. The deaths were certified as having been due to septicaemia following operation. None of them were due to old age, and no local doctor refused to administer an anaesthetic in any of the cases. The only objection in writing received by the guardians in the matter of the suggested improvement was a protest by one of the guardians, representing a district electoral division in the county Monaghan portion of the union. No improvements were carried out in the infirmary during the period stated other than those effected by the house carpenter of that institution. At a special meeting of the guardians, held on April 17th last, a resolution was passed postponing the carrying out of the alterations pending the report of the Poor-law Commission. The Local Government Board would communicate with the new Board of Guardians which would shortly come into office on the subject of the proposed improvements.

Leaflets on Ventilation and Child Rearing.—Mr. Weir asked the Lord Advocate whether the Secretary for Scotland had yet considered the expediency of issuing to parochial medical officers, sanitary inspectors, and inspectors of poor, leaflets containing the opinions of the Committee on Physical Deterioration relative to ventilation and the bringing-up of young children, with a view to the dissemination of information on these subjects. Mr. Scott Dickson replied that the Local Government Board were taking steps to ascertain how far it was practicable to issue leaflets on the lines suggested by the honourable member.

The Sanitary State of Freshwater and Totland.—Mr. Martin asked the Secretary to the Board of Trade last week whether he was aware that on October 6th, 1903, the Board of Trade gave permission to the Isle of Wight Rural District Council to construct an outfall sewer upon the foreshore at Norton, near Yarmouth, Isle of Wight, in connexion with the Freshwater and Totland sewerage scheme, upon condition that the length of pipe from high water mark to the point of discharge should be 1,300 feet and that the pipe was to be laid under the surface of the shore and sea-bed for the first 1,000 ft. and partly under the surface of the sea-bed for the remaining 300 ft.; and whether, seeing that the contractor had laid the pipe above the surface of the sea-bed, what steps the President of the Board of Trade proposed to take to compel the contractor to carry out the drainage according to the plan approved by his Board, in view of the danger to the sanitary condition of Freshwater and Totland, and the obstruction caused to in-shore navigation. Mr. Bonar Law answered that the Board of Trade on the 11th instant called the attention of the Rural District Council to the facts as stated in the question, and inquired what steps the Council proposed to take in order to bring the works into conformity with the plans sanctioned by the Board. The Board were now awaiting the reply of the Council. They were, however, not aware that any danger to the sanitary condition of Freshwater and Totland could arise from the pipe as now laid.

After the Whitsuntide Holidays.—The House of Commons will resume business on Tuesday, June 20th. On that day a special meeting of the Lords will be held to announce the King's approval of the new Speaker. The first business in the Commons will be the Unemployed Bill, which will occupy, no doubt, all the Tuesday. On the next day the Indian Budget will be taken, and an interesting discussion is promised. The fearful prevalence of plague in India will be brought under the notice of the House by Sir Walter Foster. On the Thursday Scotch Estimates will be taken, and on the Friday the Consolidated Fund Bill No. 2 will be discussed. After Whitsuntide the Government takes nearly all the time of the House, and only those private members' Bills which have passed through the Committee stage have any chance. They will be taken on the second and third Fridays after the recess. On Friday, June 30th, The Shipowners Negligence (Remedies) Bill has first place, and the Public Trustee and Executors Bill stands next. On July 7th the Compensation for Damage to Crops Bill is first for consideration; and the Coal Mines (Weighing of Minerals) Bill is second; the Drunkenness (Ireland) Bill, and the Coal Mines Employment Bill are next. Other private members' Bills, if opposed, will have no chance.

Scotland.

Midwifery, Gynaecology, and Diseases of Children at Edinburgh.

We understand that Professor A. R. Simpson has expressed his intention to retire from the Chair of Midwifery and Diseases of Women and Children in the University of Edinburgh; his resignation will be considered by the University Court at its meeting next week. Professor Simpson has occupied the chair for thirty-five years, having succeeded his uncle, Sir James Y. Simpson, Bart., in 1870. He is also Dean of the Faculty of Medicine in the University. Only one of his predecessors has filled the Chair for a longer period—namely, James Hamilton, who was elected in 1800, and was succeeded by Sir James Simpson in 1840. The Edinburgh Chair is the oldest Chair of Midwifery in the world. It was founded in 1726, and Joseph Gibson was the first Professor.

There is, we understand, a strong and growing feeling in Edinburgh that in view of the recent vast development of gynaecology, the time has come for making two Chairs—one of midwifery and one of gynaecology. We may add that grounds equally good exist for the establishment of a third Chair of Diseases of Children. The subject is one of enormous practical importance, for medical students will find when they go into general practice that a large number of their patients will be children, and this fact is recognized by most of the universities on the Continent and in America. If the anatomy and physiology of parturition were fully dealt with in connexion with the classes of anatomy and physiology, it ought to be possible to give a sufficient theoretical course of midwifery in fifty lectures. The same number of lectures would suffice for gynaecology. Thus both classes might be taken in a summer session, and the too-heavily loaded later winter sessions of the medical curriculum might be correspondingly relieved. The difficulty is to find money for the endowment of the new Chair of Gynaecology. We understand that the funds available from the Carnegie Trust are ear-marked for various other purposes for several years ahead. A Chair of Gynaecology was mentioned among these purposes, but that has meanwhile been dropped in favour of what are believed to be more pressing demands. So far as we know, no formal suggestion has hitherto been made for the establishment of a Chair of Diseases of Children, but the time seems opportune for considering the subject. It would appear that if either Chair is to be established, funds must be obtained from private benefactors.

Already candidates are being named for the prospective vacancy in the Chair of Midwifery and Diseases of Women and Children, to give it its full title. Among them are Sir John Halliday Croom, Dr. J. W. Ballantyne, and Dr. F. W. N. Haultain, though there doubtless will be others. The electors are the Curators of Patronage: The Hon. Lord Stormonth-Darling, Sir Patrick Heron Watson, the Hon. Lord Dundas, Sir Thomas Cranston (Lord Provost), Sir Andrew McDonald, Mr. Brown (Treasurer), and Mr. Richard Clark.

The Royal Victoria Hospital for Consumption, Edinburgh.

The annual meeting of this institution was held in the grounds of the hospital at Craigleith on May 31st, Sir Alexander Christison, Bart., presiding. There was a large and influential attendance. The Chairman, in opening the proceedings, spoke of the value and importance of the hospital, of its small beginning in 1887, of its gradual growth, of the opening of three new pavilions in 1903, of the vast amount of good work done at the dispensary (out-patient department) and in the hospital, of the bazaar in November next, which was arousing such widespread interest, of the honour conferred on the institution by the King, who had given it his patronage, and had permitted them to add the prefix Royal to the title.

Mr. L. A. Guthrie, W.S., Honorary Secretary, submitted the fifteenth annual report. Reference was made to the interest shown by the King in the hospital, and to the fact that the Queen had consented to become Patron of the Inter-

national Fair to be held in Edinburgh in November next on behalf of the funds of the hospital. The number of individual patients received for indoor treatment in the hospital since the opening to March 31st, 1905, was 988. There were also 133 "visitant" patients, that is, patients who enjoyed the same régime as other patients, but returned to their homes at night. The need for extension of the hospital was strongly urged. A central accommodation block with quarters for the resident staff, and a general dining room and kitchen for the patients were greatly needed. It was hoped that the fund might be raised to £12 000 by the Fair in the Waverley Market. The House Committee were besieged with applications for admission much in excess of the existing accommodation. The Committee were satisfied that their duty, both to the great crowd of consumptive poor and to the public, consisted in primarily admitting those patients in whom there was reasonable ground to expect a cure, or, at least, lasting benefit. In order to enlarge the operations of the hospital, and to meet the case of patients able to contribute in part towards their maintenance, the Committee had arranged for the addition of a few beds in excess of their present ordinary resources. The contribution had meantime been fixed at a guinea a week. Further, they had proposed a method of endowment to individual benefactors, to heads of firms, and to smaller towns and communities. They were prepared to negotiate for the maintenance of a bed within the hospital for a sum of £80 a year, the contributor having immediate right of nomination to that bed throughout the year, provided that such applicants for admission conformed in other respects to the regulations of the hospital. The length of residence was considerable—generally several months, in one case over a year. The results of treatment continued gratifying; with few exceptions, the patients had done well. In a large number of instances the disease had been effectively arrested, and the patients had been able to resume regular employment. Thereafter the hospital has kept in touch with many of those, either directly or through their doctors. A number of patients, more or less certainly cured, had been retained in the service of the hospital. Thus a first step had been taken towards a scheme for the establishment of a colony for the after-life and supervision of consumptive patients. Since the date of opening, 14,329 individual patients had received advice and treatment at the out-patient department. A large number were supervised in their own homes; they received printed instructions how to treat themselves and how to prevent or lessen the risk to others; they received disinfectants and sputum bottles, and in some cases food-stuffs and the like. At the laboratory of the Dispensary the bacteriological diagnosis of the disease was carried out in every possible case. The Samaritan Committee continued to do excellent work among patients who had become impoverished by the disease. The excess of ordinary expenditure over total income for the year to March 31st, 1905, was £1,752 13s. 11d.

The Earl of Aberdeen moved the adoption of the report, Professor Chiene seconded, and the Rev. John Kelman spoke in support. The President of the Royal College of Physicians (Dr. John Playfair) moved:

> That, having regard to the frequency of consumption and its far-reaching and disastrous consequences, there is need for a powerful and well-directed organization against it, and the Royal Victoria Hospital for Consumption having through its various departments proved itself of important service, the maintenance and extension of the hospital is a necessity and a public duty.

The Convener of the Public Health Committee of the Town Council (Councillor Gibson) seconded.

The Committee of Management was re-elected for the next year.

The Local Government Board for Scotland and Pulmonary Phthisis.

In connexion with an inquiry into the administrative control of pulmonary phthisis in the districts and burghs in Scotland, the Local Government Board has issued a form for a return from medical officers of health. The return falls under three sections:

1. *Deaths from Pulmonary Phthisis.*—Are these immediately and systematically reported to the medical officer of health; what inquiry is made as the result of the information; are the houses disinfected by the local authority? Various details are asked for.

2. *Notification.*—Has any system of voluntary notification been organized; how long has it existed; what fee is paid; how many cases (exclusive of deaths) have been reported to the medical officer of health during the five years 1900 to 1904; are the cases systematically and periodically inquired into and supervised—by whom, how often; is disinfection done during the currency of the disease; are instructions on ventilation, infection and disinfection, cleansing of room, and clothing, given; are sputum vessels provided by the local authority; what arrangements are made for bacteriological examination of sputum?

3. *Hospital Accommodation.*—How many beds are available, how supervised; how many applications for admission in the five years 1900-04; how many cases removed; what varieties (incipient, advanced, etc.); what arrangements for curative treatment and for education in open-air methods exist; what hospitals, special and general, exist, and do the local authority send any cases to such institutions?

These are the main points of the inquiry.

The Chalmers Hospital, Edinburgh.

Dr. Claud Muirhead's second term of office as Physician to the Chalmers Hospital terminates on July 1st next, and the directors have appointed Dr. G. Lovell Gulland for the usual period of five years from that date. Dr. Gulland is also one of the Assistant Physicians to the Royal Infirmary and one of the Physicians to the Victoria Hospital for Consumption. The other members of the staff of the Chalmers Hospital are: Mr. Harold J. Stiles, M.B., F.R.C.S.E., Surgeon; Mr. G. Balfour Paul, M.B., F.R.C.S.E., Assistant Surgeon; Dr. D. G. A. McAllum, Anaesthetist; Dr. George Lyon, M.R.C.P.E., Pathologist; Mr. Matthew Holmes, M.B., Ch.B., House-Surgeon; and Miss M. Craig, Matron.

The Rebuilding of the Glasgow Royal Infirmary.

The action of the Royal Infirmary Board of Directors in the matter of the proposed rebuilding of the Infirmary has been subjected to much adverse criticism, the selection of plans having given grave offence to the architects in particular. It is generally understood that the directors propose shortly to proceed with the erection of the buildings according to the accepted plans, and this has led to a further appeal for reconsideration. A joint committee representing the Glasgow Archaeological Society, the Glasgow Institute of Architects, and the Art Club has had the matter in hand and is bringing before the public the injurious effect the proposed new buildings will have on the external appearance of the Cathedral. The proposed "Jubilee Block" is to occupy one side of Cathedral Square, and, being a huge pile of six stories and basement, will dwarf the Cathedral itself which is Glasgow's greatest architectual adornment. To emphasize the importance of the point the committee have had plans prepared and published in the *Glasgow Herald*, but it is feared that the Board are already committed to proceed with the work as arranged.

Glasgow Small-pox Hospital.

Dr. R. S. Thomson for many years and up till the time of his lamented death three months ago held the post of consulting physician to the Small-pox Hospital at Belvidere. At that time the duties were transferred to the physician superintendent of Belvidere Fever Hospital, and the Health Committee has now decided to continue that arrangement, and, in consideration of the extra duties involved, has raised Dr. Brownlee's salary by £50.

Bubonic Plague at Leith.

The three plague patients are still in the East Pilton Hospital, and continue to improve. There have been no new cases since May 10th. No plague-infected rats have been found. Guards are still being kept on mooring ropes and hawsers of vessels in the docks, and the systematic destruction of rats is being persevered with.

Ireland.

The Irish Medical Association.

THE *Irish Times* in a leading article on the subject of Mr. Chance's address (see page 1305), observes that the authorities of the Irish Medical Association should not have

> delivered themselves, bound hand and foot, into their envoy's charge. They did this, with the consequence that since the issue to the members of Council of Surgeon-General Evatt's report, the Council, it is understood, has been more concerned about the publication of the whole document, or of only a carefully-revised portion of it, than it has been to push to the front the claims of the Poor-law medical officers. In this we discern history—Irish history, unhappily—repeating itself.

The writer asks whether

> it is of set design, or merely an accidental combination of circumstances, that leads to one daily newspaper in Dublin being sent the monthly *Journal*, whilst the other newspapers are ignored,

and he concludes by saying:

We, upon our part, challenge the authorities to declare the port for which they would have the Association set sail. Is their endeavour to be confined to securing the greatest good for the greatest number, or may we anticipate the decline in public estimation of the Association, by reason of its inability to purge itself of sectionalism?

THE CENTRAL MIDWIVES BOARD.

At a meeting of the Central Midwives Board held on March 23rd, 1905, an application was made to recognize the Belfast Maternity Hospital as a training school for midwives, and also that nurses hitherto trained there should be placed on the roll of certified midwives. The first of these requests was granted, but the latter was refused. No reason was officially assigned for this action, but it was understood that the main reason which influenced the members of the Central Midwives Board in their decision was that the application had not been made earlier, though, legally, it was still strictly within the time limits. It was, therefore, decided to approach the Board again, and on May 19th the following memorial, which had been sent forward, was considered by the Board:

MEMORIAL.

TO THE MEMBERS OF THE CENTRAL MIDWIVES BOARD.

WE,—The Board of Governors and Medical Staff of the Belfast Incorporated Maternity Hospital beg most respectfully to ask the Central Midwives Board to reconsider their decision made at their last meeting on March 23rd, 1905, by which they have refused to place on the roll of Certified Midwives Nurses trained in the Belfast Maternity Hospital previously to April 1st, 1905, and, in support of this request, we would urge the following reasons:

1. For more than a century the Belfast Maternity Hospital has been in existence in Belfast, where it has been largely availed of by respectable women from various parts of the Province of Ulster as a place where they could be trained in midwifery nursing. These pupil midwives are obliged to reside for a period of six months in the Hospital, where they are carefully instructed by the Matron and by the Medical Staff, and at the end of their course of practical study they receive the Certificate of the Institution (which is recognized by the Irish Poor-law Authorities) provided they pass an examination conducted by the attending Physicians; in other words, the Belfast Maternity Hospital has for more than one hundred years been the training home for Nurses in the North of Ireland, in the same way as the Dublin Maternities, or the Cork Lying-in Hospital. The Central Midwives Board have placed on their roll of Certified Midwives Nurses who have been trained in the Maternity Hospitals in Dublin, in the Cork Lying-in Hospital, and in the Limerick Lying-in Hospital, but they refuse to recognize those from the Belfast Maternity Hospital. We would ask most respectfully that such distinctions should not be made.

2. We have been informed that our request has been refused because it ought to have been made earlier. In reply we beg to state that the delay arose on our part owing to the building of our new Maternity Hospital—the largest of the kind in Ireland, outside Dublin—and in answer to a letter written to the Chairman of the Central Midwives Board by a member of the Medical Staff, asking if it would do to apply after we had entered our new Hospital, he was informed in a letter dated October 14th, 1904, "If you apply when your new Hospital is ready the Board will consider the matter without delay." We entered our new Hospital at the end of last year and on February 14th, 1905, we made formal application, so that the argument of not having applied in time does not hold good.

3. It has been said that the North of Ireland is not in the same position as Dublin and the South of Ireland, as, owing to an arrangement made in Parliament by the Members representing these Districts, a special rule was made for their recognition, and that owing to this circumstance we are not in the same category: indeed, in this respect we are in the same plight as the Scottish Maternity Institutions. We ask, Is this fair? and further we would draw the attention of the Central Midwives Board to the fact that they have notwithstanding recognized Nurses trained at the Maternities in Glasgow, Dundee and Aberdeen, although in the case of the latter two a refusal was made at first.

4. We see by a Table published in the Medical Journals that of the 15,590 Midwives placed on the roll of Certified Nurses, more than one-half—8,448—are "women in bona-fide practice, July, 1901." We would respectfully deprecate the action of the Central Midwives Board in placing on their roll of Certified Midwives 8,448 women, many of whom must, from their want of proper training, have acquired very little knowledge of modern antiseptic and aseptic methods as applied to midwifery nursing, while they refuse to recognize others who have had a thorough training in such necessary minutiae, and who, as evidence of their knowledge, are, after a period of six months' probation and practical experience in a Maternity, obliged to pass an examination.

On these grounds we beg that the Central Midwives Board will reconsider their decision and see their way to recognize pupil Midwives trained in the Belfast Maternity Hospital, prior to April 1st, 1905, on presenting their Certificates.

Signed on behalf of the Board of Governors and Medical Staff of the Incorporated Belfast Maternity,

(Signed) HERBERT EWART,
Chairman of the Board of Governors.
(Signed) H. D. OSBORNE, L.R.C.P.S.Edin., L.M.,
Secretary to the Medical Staff.

In the report of the meeting of the Central Midwives Board published in the SUPPLEMENT of May 27th, p. 286, Sir William Sinclair is reported to have observed that the Central Midwives Board, in their previous decision, "had made a serious mistake—that the Belfast Maternity Hospital had a right to have its certificates recognized, and that the action of the Board was a great hardship to a considerable number of women." Notwithstanding, a reply has been received refusing the prayer of the memorial, and this reply assigns no reasons of any kind, but is of the usual red-tape official nature. It seems to be clear that a great mistake has been made by the Central Midwives Board, and that the Belfast Maternity Hospital has just reason to complain. Why should it not be treated in the same way as the Dublin Hospitals and those in Cork and in Limerick?

The subject is one upon which a question might properly be put in the House of Commons. What makes the situation still more absurd is that certain nurses trained in the Belfast Maternity Hospital have been admitted under the head "Women in bona-fide practice"; that is, in the same category as the "handy women." The main reason for the existence of the Central Midwives Board is to stamp out puerperal fever, but if they admit thousands of women of the "handy-women" type, and refuse to recognize others fully trained in modern antiseptic methods, the chances of seeing any abatement in the death-rate of this preventable disease are doomed to failure. The sooner the Central Midwives Board alter their decision in this case the better and fairer it will be.

EXPERIMENTS ON LIVING ANIMALS.*

THE reports of the Inspectors appointed by the Home Office on experiments performed on living animals during 1904 in England, Scotland, and Ireland, were issued on June 3rd.

ENGLAND AND SCOTLAND.

Professor G. D. Thane states that the total number of persons in England and Scotland holding licences granted under the Act 39 and 40 Vict., c. 77, during 1904 was 366, of whom 110 performed no experiments. These members include 26 licensees, whose licences expired on February 29th, 1904. Only three of these performed experiments in 1904. One table (I) contains the names of all "registered places" in which experiments must be performed except when inoculations are made in studying outbreaks of disease among cattle in remote districts. In two other tables (II and III) are given the names of all persons who held licences during 1904. These tables afford evidence (1) that licences and certificates were granted only on the recommendation of persons of high scientific standing; (2) that the licensees are persons who by their training and education are fitted to undertake experimental work; and (3) that all experimental work has been conducted in suitable places. A fourth table (IV) shows the number and nature of the experiments performed by each licensee; this table is divided into two parts, A and B, for the purpose of separating, in conformity with the requirements of the Act, experiments in which anaesthetics were used from those which were performed without the employment of such agents. The number of experiments included in part A of this table is 2,216; part B comprises 30,346. The total number of experiments is therefore 32,562, being an increase of 13,478 as compared with the number in 1903. Of this increase by far the largest part (13,433) belongs to the class of experiments included in part B, which consist almost entirely of inoculations and hypodermic injections. Only 45, therefore, are included in part A, in which are placed all experiments involving a serious operation.

Experiments Under Anaesthetics.

In 1,102 of the 2,216 experiments in Table IV the animals suffered no pain, the Act providing that they must be kept under an anaesthetic during the whole of the experiment, and must, if the pain is likely to continue after the effect of the anaesthetic has ceased, or if any serious injury has been inflicted on them, be killed before they recover from the influence of the anaesthetic. In 1,114 the experiments were performed under special certificates, requiring that the initial operations shall be performed under anaesthetics from the influence of which the animals are allowed to recover. The

* London: Printed for His Majesty's Stationery Office by Eyre and Spottiswoode, printers to the King's Most Excellent Majesty; and to be purchased, either directly or through any bookseller, from Wyman and Sons, Limited, Fetter Lane, E.C., and 32, Abingdon Street, Westminster, S.W.; or Oliver and Boyd, Edinburgh; or E. Ponsonby, 116, Grafton Street, Dublin.

operations are performed aseptically, and the healing of the wounds, as a rule, takes place without pain. If the antiseptic precautions fail and suppuration occurs, the animal must be killed. Experiments involving the removal of important organs, and of parts of the brain, are performed without causing pain to the animals; and it is pointed out that after section of a part of the nervous system, the resulting degenerative changes are painless. If a subsequent operation is necessary in an experiment of the category under consideration, a condition is attached to the licence requiring that all operative procedures shall be carried out under anaesthetics of sufficient power to prevent the animal feeling pain. In no case has a cutting operation more severe than a superficial venesection been allowed to be performed without anaesthetics.

Experiments Without Anaesthetics.

The experiments included in Table IV (B) are all performed without anaesthetics. They are mostly inoculations, but a few are feeding experiments, or consist in the administration of various substances by the mouth or the abstraction of a minute quantity of blood for examination. In no instance has a certificate dispensing with the use of anaesthetics been allowed for an experiment involving a serious operation. It is required that inoculations into deep parts, involving a preliminary incision in order to expose the part into which the inoculation is to be made, should be performed under anaesthetics; they are therefore placed in Table IV (A). It is pointed out that the experiment lasts the whole period—possibly extending over several days or even weeks—from the administration of the drug or injection until the animal recovers from the effects, if any, or dies or is killed. The substance administered may give rise to poisoning or may set up a condition of disease, either of which may end in death. To administer to an animal such a poison as diphtheria antitoxin, or to induce such a disease as tuberculosis, although it may not be accompanied by acute suffering, is held to be a proceeding "calculated to give pain," and therefore it is considered as coming within the scope of the Act. "It must not, however," says Professor Thane, "be assumed that the animal is in pain during the whole of this time. In cases of prolonged action of an injected substance, even when ending fatally, the animal is generally apparently well, and takes its food as usual until a short time before death. The state of illness may last only a few hours, and in some cases it is not observed at all." The results of a very large proportion of the inoculations are negative, and the experiments are therefore absolutely painless. If pain does ensue as the result of an inoculation the animal has to be killed under anaesthetics.

Medical and Sanitary Uses of Inoculation Tests.

The great increase in the number of inoculations may be taken as an index of the growing importance attached to biological tests by medical practitioners as aids in the diagnosis, treatment, and prevention of disease, and by sanitary authorities. Several county councils and municipal corporations have their own laboratories, in which bacteriological investigations are carried on, including the necessary tests on living animals; and many others have arrangements by which similar observations are made on their behalf in the laboratories of universities, colleges, and other institutions. A sewage farm is registered as a place in which experiments on living animals may be performed in order that the character of the effluent may be tested by its effects on the health of fish. The Board of Agriculture has a laboratory which is registered for the performance of experiments having for their object the detection and study of the diseases of animals. In other places, experiments were made on behalf of the Home Office, the India Office, the Local Government Board, the Office of Works in respect of the ventilation of the House of Commons, the Board of Agriculture, and the Dangerous Trades Committee. A very large proportion of the experiments in Table IV (B) were thus performed, either on behalf of official bodies with a view to the preservation of the public health, or directly for the diagnosis and treatment of disease. Thirty-three licensees return 6,296 experiments, nearly the whole of which were performed for Government departments, county councils, or municipal corporations; 1,821 experiments were made by three licensees for the Royal Commission on Tuberculosis; seven licensees performed 5,852 inoculations for testing antitoxin serums and vaccines; and 8,292 experiments, mostly inoculations, were performed on behalf of the Imperial Cancer Research Fund.

The number of injections made during the year 1904 for the diagnosis of rabies in dogs is 64; these are placed in Table IV (A).

Inspection of Registered Places.

During the year the usual inspection of registered places were made by Sir James Russell and Professor Thane, and have been severally reported. They found the animals everywhere suitably lodged and well cared for, and the licensees desirous of acting in every way in accordance with the letter and spirit of the Act.

Irregularities.

In four cases irregulaties were observed; particulars of these are given. In each case the Home Secretary received explanations from the licensees, and was satisfied that there had been no intention of evading or infringing the Act, and that the irregularities were due to inadvertence or misunderstanding. By his direction a suitable reproof was administered in each case.

IRELAND.

Sir Thornley Stoker reports that twelve licences were in force in Ireland during 1904; of these five expired, two of which were renewed. One licence in force was a new one granted during the year. All the licensed persons performed experiments. The number of experiments performed was 155, 57 being under licence alone and 98 under special certificates. The experiments performed were mainly inoculations or injections, with the exception of 11 of a physiological, and 11 of a pathological, nature. Of these, 11 were done in illustration of lectures.

Nature of Investigations.

Nearly all the inoculations and injections, says Sir Thornley Stoker, seem to have been of a useful pathological character. They embraced the investigation of canine rabies, of pneumonia, tuberculosis, and other grave conditions of disease. The physiological experiments dealt with the blood-pressure, the function of respiration, the performance of digestion, and some matters bearing on questions of disease. Some of the investigations dealt with diseases of the domesticated lower animals, and were of a useful character and of economic value.

Registered Places.

The licensed places were inspected and their condition found satisfactory. In Dublin animals are usually only procured when wanted, and their confinement is therefore short. Experiments were performed in both Belfast and Cork, and the Medical Inspectors of the Local Government Board report that matters are conducted in these cities in conformity with the provisions of the Act.

ANTIVIVISECTIONIST STAGE THUNDER.

MR. COLERIDGE, as may be gathered from his mouthpiece, the *Zoophilist*, is a little annoyed with us. He does not, indeed, call us "scurrilous," but that is, doubtless, because we anticipated that he would. But he makes up for this imposed self-restraint by saying that we are "very angry, jealous, and disappointed;" that we are "destitute of wit and deficient in manners;" that we "imitate the objurgations of an overwrought fish-fag;" and that we "wax insolent in the attempt to be funny." These are, we suppose, specimens of the "amenities of debate" which Mr. Coleridge has told us he is always careful to preserve. He appears to take it much unkindly that in his performance at Queen's Hall we likened him to a chimera buzzing in the inane; and his indignation, somewhat disturbing his grammar, leads him to assert that the average education and culture of his audience were "probably of a much higher order than that which assembles at medical conferences." Mr. Coleridge knows better, for he would certainly not have dared to talk before a medical conference the nonsense which he considers to be good enough for the members of his Society. We have more than once had occasion to show how he adapts his style and his "facts" to his audience, and how, when he has been caught thus doing by stealth what we must assume he considers to be good, he has blushed to find it fame.

Mr. Coleridge professes to believe that our "vituperation" is inspired by "rage and chagrin at the success of his crusade against the misappropriation of hospital funds to medical education, and at the growing interest which the public feels in the question of the torture of animals by methods the medical journals think it scientific to support." As to the success which he claims for his crusade, the Secretary of the

Society, of which he is always anxious to make it known that he is only "Honorary Secretary," has confided to the sympathetic ear of a representative of the *Daily News* that the battle is not yet won. With this we are not here concerned. But as a matter of fact we are not at all enraged or chagrined at the outcome of his agitation; if he will refer to the BRITISH MEDICAL JOURNAL of February 25th he will find a leading article in which it is viewed with satisfaction, as being likely to lead to a real progress in medical education. It is a curious example of the irony of human destiny that Mr. Coleridge should be the blind and unwilling instrument in bringing about this desirable consummation.

Of the "growing interest" which the public is said to feel in the movement against vivisection we fail to see any sign. The meetings may attract a number of people who go there in search of sensation as they might go to a revival meeting or to a murder trial; but among those present are there to be found any persons of real distinction in any sphere of intellectual activity? Complaints are heard from sympathizers that most of the speakers are parsons, and in most London newspapers the reports of the proceedings are cut down to a few lines. Does this indicate a "growing interest" on the part of the public? The truth is that the movement has never recovered from the exposure of the methods of antivivisectionists which was made two years ago in the High Court of Justice.

There could be no more striking proof of the indifference with which the matter is regarded by the public than the fact that the newspapers, whose business it is to give their readers what is likely to interest them, are chary even of opening their columns to correspondence on vivisection. It is significant that the denouncers of the "tortures" of the laboratory seem to be unable to find an outlet for their emotions anywhere but in the *Referee*. In that organ of sweetness and light, a writer who signs himself "Merlin" has been moved to deliver himself on vivisection. His tale has little meaning, though the words are strong, and it would be an affront to the readers of a scientific journal to treat his vapourings seriously. There is one point, however, to which we wish to refer, because it carries with it the moral of an interesting story. In the *Referee* of May 28th the writer says:

> From all parts of the country—from Aberdeen to Brighton, and from Kent to Cornwall—letters pour in upon me thanking me for having given expression to the long cherished views of their writers on the question of vivisection. It is impossible to offer even a formal acknowledgement in each individual instance, but in another page will be found a selection from my correspondence.

In this "selection" figure a few letters from people whose opinions on the subject are of no importance; almost the only writers whose names are known to all are Miss Rhoda Broughton and Mr. Walter Crane. The editor appends a note to the effect that he has received an enormous number of letters in support of Merlin's arguments. If this be the case he must thank the Secretary of the National Antivivisection Society for coming to his relief at a critical moment when, owing to lack of support, he was about to fall back from the position which he had occupied. The following letter seems to have been sent, with a copy of the *Referee* containing Merlin's article, to a number of persons who were thought likely to help in producing the appearance of an animated debate:

> [Enclos:] 92, Victoria Street, London, S.W.,
> May 25th, 1905.
>
> Dear Sir,—I am sending you herewith a copy of last Sunday's *Referee*—you may have seen it and the one of the previous Sunday. I hear that the Editor does not want to continue these articles, as there is not sufficient interest shown from the correspondence reaching his office. I hope, therefore, that you will write a letter to the Editor of the *Referee* at Victoria House, Tudor Street, Whitefriars, thanking him for noticing the subject in his columns, and referring in some way or other to the matters contained in the article. The letter should, of course, appear to be a spontaneous one. It would greatly benefit the cause if you can follow out this suggestion.
>
> Yours faithfully,
> ROB. STEWART, *Secretary*.

Clearly Merlin must be a prophet as well as a magician, for he appears to have foreseen, even before the net had been cast, the miraculous draught of letters that came to him! The letter just quoted admits us to the workshop where the antivivisectionist stage thunder is made. It is indeed an inspiring spectacle to see Vulcan Stewart forging the bolts to be hurled by the red right hand of Jove Coleridge at the sacred strongholds of research.

The best answer to the calumnies of the enemies of experimental science is to be found in the report of the Inspectors under the Act regulating the practice of vivisection, an abstract of which will be found elsewhere. The antivivisectionists distort these reports to their own ends, and when nothing else will serve, they say that the statements of the Inspectors are not to be believed. In regard to this, we will merely ask: What claim have the persons who make such charges themselves to be believed? We have seen how they try to manufacture what shall look like a spontaneous expression of public opinion. The statements made by their agents on public platforms and in the leaflets which they scatter about the waiting rooms of railway stations are either misconceptions, exaggerations, or sheer inventions.

As Dr. Greville Macdonald, a sympathizer with their objects, is fain to admit in the current number of the *Contemporary Review*:

> The tactics of the antivivisectionist societies are doing harm to their cause. They fight with any weapons they can lay hands on—soft-nosed bullets and Greek fire as well as weapons of fine steel.

This candid friend goes on to tell them that they should "use the peaceful measures of truth and shun, because hurtful to their cause, all things that are not true." The advice is sound from the ethical point of view, but as a matter of policy the antivivisectionist societies doubtless feel that its adoption by them would be tantamount to suicide. The whole agitation is based on falsehood, and if the foundation were removed the whole edifice would necessarily fall to the ground.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Special Commission Appointed to Consider the Application of Roentgen Rays by Unqualified Persons.—Election of Foreign Associates.—Société de Biologie: Spirochaete Pallida of Schaudinn in Congenital Syphilis.—Monument to Dr. Péan.

AT the last meeting of the Académie de Médecine, on the proposal of M. Debove, a special commission, composed of MM. Brouardel, Chauffard, Debove, Gariel, Guéniot, Hanriot, Motel, Perier, and Pouchet, was appointed to study the question whether it would not be advisable to invite the public authorities to take action for illegal practice of medicine against all persons who, not possessing the diploma of Doctor in Medicine, apply the Roentgen rays in the diagnosis and treatment of disease. As Professor Debove pointed out, the Roentgen rays have given undeniable therapeutic results, but they may provoke various accidents, especially grave dermatitis, eschars, and, in the female, atrophy of the ovaries, and, consequently, sterility. This last action might constitute a real social danger.

The Académie elected Ehrlich of Frankfort-on-Mein, and Ramon y Cajal of Madrid foreign associates. Sir William Broadbent obtained the next largest number of votes, being followed by Morisani of Naples, and Hansen of Bergen.

At the meeting of the Académie on May 16th, after the important communication of MM. Roux and Metchnikoff, mentioned in the BRITISH MEDICAL JOURNAL, pp. 1162 and 1178, M. Levaditi of the Pasteur Institute showed microscopical preparations, proving the presence of the spirochaete pallida of Schaudinn in the bullae of pemphigus in congenital syphilis. At the meeting of the Société de Biologie on May 20th, M. Levaditi made a communication of the subject, giving the following details of his observations:

Observation 1 (wards of Professor Pinard, Clinique Baudelocque).—J. S., 20 years of age, gave birth to a full time male child on May 8th, 1905. Her first child died at the age of 2½ months of an unknown cause. This woman denies having had specific symptoms, and can give no other information about the child's father beyond the fact that he had acute pains in the legs and that he was treated by hypodermic injections. The child weighs 3,480 grams, and was born with bullae of pemphigus in the palms of the hands and on the soles of the feet.

On May 15th M. Levaditi made his first examination, taking the opalescent fluid and the scrapings from the bottom of two closed vesicles situated on the sole of the right foot. On staining by the methods of Giensa, he found spirillae which were distinctly more numerous in the scrapings than in the liquid of the vesicles, which in some of the preparations did not contain a single specimen.

On May 17th he made a second examination, and found that the number of spirillae contained in the vesicles opened on May 15th had considerably increased, and that these spirillae existed to the exclusion of other micro-organisms in two scarcely-developed papules not yet ulcerated. In the preparations made from the scrapings of the old bullae of pemphigus he discovered, besides the free spirillae, spirochaete in veritable masses, analogous to those described by Marchoux and Salimbeni in the spirillosis of poultry. The examination of the blood gave negative results.

Observation 2 (wards of Professor Pozzi).—A male child, born of a syphilitic mother, and aged 1 month and 23 days. The infant died after showing the clinical signs of congenital syphilis. The *post-mortem* examination was performed on May 17th, and revealed hypertrophy of the spleen and liver, the latter being pale, yellow, and hard. Scrapings from the liver showed an enormous quantity of spirillae, differing from those in Observation 1 by their pale stain and by the larger amplitude of their spiral turns. (This aspect is probably due to the fact that they were taken from the dead body; analogous phenomena are seen in poultry which died before the crisis of spirillic septicaemia). The spirillae were often twisted on themselves and arranged in a ring. The spleen showed a distinctly smaller number of parasites, and among the other organs examined (kidney, testicle, lung) the lung alone contained a few rare spirochaete. A papule removed from the right side of the thorax was also fairly rich in spirillae.

M. Levaditi has since found spirochaete in the bullae of pemphigus, the spleen, and especially in the liver, of a fresh case of congenital syphilis, an infant two days old, in the wards of Professor Pinard. These observations show that the presence of spirochaete pallida in cutaneous lesions of congenital syphilis is not due to a secondary infection, since papules taken at the beginning of their development and still closed bullae of pemphigus can contain this parasite. On the other hand, the simultaneous observations of M. Levaditi with those of Buschke and Fischer[1] prove that congenital syphilis is really an affection due to the penetration of the spirillae of Schaudinn into the deep organs. The fact that the liver is in M. Levaditi's case the organ containing the greatest number of spirochaetes is a fresh argument in favour of the hypothesis that the fetus is infected through the placenta. From these observations we can conclude that congenital syphilis is really a spirillosis of the newborn infant.

The friends and pupils of the late Dr. Péan have opened a subscription to collect funds to erect a monument to him as a token of their gratitude and affection. M. Mézières has been elected President, and Professor Pozzi and Dr. Delaunay Vice-Presidents of the Organizing Committee.

VIENNA.

Lead Poisoning from Water Pipes.—Strike of Public Vaccinators.—A New Cancer Committee in Vienna.—Prize Essays on Trachoma and Venereal Diseases.

IN spite of the excellent quality of the Vienna drinking water, which comes a distance of some 116 miles from Alpine glaciers and snowfields of the Alps, several cases of poisoning have occurred in a particular district of the city. Careful investigations proved that the source of the poison was lead contained in the water-pipes supplying that district. The pipes are coated inside with tin, some even consisting entirely of a compound of lead and tin. It appeared that some time before there had been a leakage in the water supply, one main pipe having burst. This leakage had been stopped by lead soldering and thus water came into free contact with metalled lead. Altogether 3,764 analyses were made; more than 3,000 proved the water to be quite pure, in about 100 samples there was a percentage of about 1 milligram of lead in a litre of water (equal to 1 in 1,000,000), 50 showed 2 in 1,000,000 and 25 more than 3 milligrams (equal to 3 in 1,000,000). The investigations showed that the contact of water with 6 in. of pure lead was sufficient to contaminate the water and make it unfit for human use.

A remarkable strike has occurred in Lower Austria, about twelve miles from the capital. For some months a fight has been going on between the public vaccinators and the local magistrates, who obstructed them in the discharge of their duties. The public was led to believe that vaccination was performed simply for the benefit of the rural and district practitioners, and the latter were even called "poisoners of the people." As complaints addressed to the Government had no effect, the majority of the Austrian Diet being anti-medical, the vaccinators demanded from the Medical Council permission to refuse vaccination. The permission could not be given expressly, but nothing was done to stop the strike. Thus for three months past not a single child has been vaccinated in the district.

A committee for the investigation of cancer has been appointed. It consists of Professors v. Eiselsberg and Hochenegg, Breuer, Nothnagel, v. Schrötter, Neusser, and Schauta. Circulars will be sent out to practitioners, who will be requested to answer the following questions about every case of cancer coming to their knowledge: Which organ was or is believed to have been first affected? Was any operation performed, and if so what? Did the growth recur, and if so when and where? Has any relative on the mother's or father's side suffered from neoplasm? Did cancer appear among those among whom the patient lived before he fell ill? Is there any animal living in the same house that is suspected of suffering from new growth or ulcer? The name of the patient will not be given—only his initials, sex, and age. Great stress is laid upon the fact that cancer of the uterus is very often not properly diagnosed, thus making the prognosis worse. The work of the committee is in concord with the action of Professor Winter-Dührssen (Königsberg), who some time ago published a leaflet on this subject, exhorting the practitioners of Prussia to notify every case of cancer of the uterus for the purpose of statistics.

The chief of the sanitary department in Buda-Pesth has offered a prize of £90 for the best essay on the causes, pathology, and treatment of trachoma of the eyes. The paper, which may be written in any language, must represent a distinct advance on our present knowledge of the disease, at least in one of the above-named subjects. As trachoma is very prevalent in Southern and Eastern Hungary, the prize will be competed for by quite a number of specialists in Buda-Pesth itself. Other prizes to be awarded for the best short essays, written in a popular style, to instruct young people of both sexes as to the importance and prophylaxis of venereal diseases, are offered by the Senate of the University of Vienna. The prizes will be £15, £10, and £5. Every student matriculating at the University is handed a leaflet warning him of the dangers of the said diseases.

[1] *Deut. med. Woch.*, 1905, No. 18.

MANCHESTER.

Charge under the Sale of Horseflesh Act.—Appeal on Behalf of the Sick Children's Hospital.—Royal Infirmary and Ear Hospital.—The New Arrangements for the Teaching of Pathological Anatomy at the Infirmary.—Retirement of Professor Dreschfeld from Infirmary.—The Spread of Scarlet Fever.

A REMARKABLE case, involving unpleasant suggestions, was heard at the Oldham police-court on May 22nd. The medical officer of health brought a charge against an individual whose business was that of a horse-dealer. The charge was brought under the Sale of Horseflesh Regulation Act, 1889, Section 1, which provides that every person who offers for sale or keeps for sale horseflesh for human food, shall have posted over his premises words indicating the business of a horseflesh dealer for human consumption. The police found four quarters of horseflesh on the defendant's premises "dressed" in the same way as cows are dressed for human food, not as horseflesh is usually dressed for the food of animals. The contention was that the meat was intended for lions, which were performing at an adjacent theatre. The defendant was fined.

The authorities of the Manchester Children's Hospital, which was founded in 1829, have issued an earnest appeal to the benevolent public for funds to enable them to erect a new out-patient department. While the hospital itself, situate at Pendlebury, with beds for 168 in-patients, is second to none in the kingdom, it appears that the out-patients' department in the city is "lamentably inadequate for the large and increasing number of cases" taken there daily for treatment. In 1895 the number of out-patients was 11,545; last year it was 22,608, so that during the last ten years the number of patients has doubled. The total number of attendances of out-patients in 1904 was 73,300, an increase of 10,200 on the previous year. A plot of land adjoining the present site has been secured, and plans have been prepared for the erection upon it of a new building at an estimated cost of £12,000 for land, building, and furnishing. In addition, the Board has to meet an outlay of £3,500 for the entire reconstruction of drainage and provision of new sanitary appliances; £1,000 for the installation of electric light at the hospital; £1,000 for enlargement of the operating theatre. An appeal is made for £20,000; this sum is none too large, seeing that the ordinary annual income of the hospital from all sources falls short by more than £2,000 of the expenditure on maintenance.

The Board of Management of the Royal Infirmary have approved an arrangement whereby the clinical laboratory will have attached to it an electrician to deal with radiography. The director will be paid a salary of £200 a year. A satisfactory working arrangement has been come to between the Infirmary and the Ear Hospital, whereby overlapping of the ear work of the two institutions will be avoided. It was resolved:

That, provided a new hospital for aural cases be built on a site approved by this Board, in close proximity to the new Infirmary, and opened on or before December 31st, 1908, this Board will not allocate any special wards or beds in the new Infirmary to aural cases so long as adequate facilities for aural cases and for instruction thereon be maintained in the new Ear Hospital.

A very important step has been taken whereby the University and the Infirmary have been brought into more organic connexion as regards the pathological departments of the two institutions. Hitherto the Professor of Pathology has not been pathologist to the Infirmary, and, in fact, the work of the Professor was done entirely in the University. A conference was held between representatives of the University and the infirmary on May 16th, and the Board has adopted its recommendations. It was agreed that the Professor of Pathology at the University be appointed on the honorary staff of the infirmary if, and as soon as, the necessary change can be made in the rules, and that he should share in the fees paid by students. A scheme of duties drawn up by the Medical Board was adopted. A sum of £125 a year towards the expenses incurred by the University in maintaining the pathological department was voted. The proposed arrangement requires the sanction of the trustees, and is only a temporary one, pending the erection of the new infirmary, and may be rescinded by either party at six months' notice. This arrangement cannot fail to be of great advantage both to the infirmary and to the students.

Professor Julius Dreschfeld, having nearly reached the prescribed age for retirement from the honorary staff of the Infirmary, will resign his office there as from September 30th next. The Board, while accepting Professor Dreschfeld's resignation, recorded its high appreciation of his distinguished ability and the value of the services he had so long rendered to the institution, and its deep regret that the term of his services approached its close. Dr. A. T. Wilkinson will succeed Dr. Dreschfeld at the infirmary. Happily, Professor Dreschfeld will still remain Professor of Medicine at the University, where his services are invaluable.

Dr. A. W. Martin, the Medical Officer of Health for Gorton, states that hospital isolation of scarlet fever is accomplishing but little, if anything, towards the prevention of the spread of scarlet fever. "Time is proving," says the report," "more and more that scarlet fever cases carry the infection chiefly in the nose and throat, and but very little, if at all, by the desquamating skin. After recovery the patient becomes proof against a second attack. If kept at home the germs die out gradually in the fresh air, but in the hospital they are in the midst of dozens of other cases in all stages of the disease. On their return to school these germs are called into activity by the foul air in the school, and the disease is spread to others by coughing, by the saliva, and the discharge from the nose on the fingers and the handkerchief." It is also recorded that early broccoli, imported chiefly from Italy, has given rise to many cases of typhoid, due to the watering of the plants with cesspool contents to force them for the English market for the winter and early spring months.

LEEDS.

Sanitary Provisions of the New Consolidation Act: Milk: Food: Laundries: Libraries: Wakes: Inspection of School Children, etc.—The Public Dispensary.

THE Leeds Corporation Consolidation Act, which received the Royal assent in May, contains some important provisions with regard to infectious diseases; they came into operation on June 1st. Some of the most important relate to the sale and distribution of milk; every dairyman supplying milk within the city from premises within or beyond the city must notify to the medical officer of health all cases of infectious diseases among persons engaged in or in connexion with his dairy; and no person suffering from an infectious disease shall milk any animals the milk of which is intended for consumption within the city. Compensation may be paid to any dairyman who at the request of the Corporation has stopped his milk supply within the city on account of the spread or suspected spread of infectious disease, or on account of the probability that the consumption of such milk may cause tuberculosis. The hands of the medical officer of health will be greatly strengthened by the clause which provides that, if he has reasonable cause to believe that any person in the city is suffering from infectious disease attributable to milk supplied within the city, he may require every one supplying milk to the person so affected, or to the house of which he is an inmate, to furnish a list of all the farms, dairies, or places from which the milk in question comes, or has come for six weeks, and also a list of persons to whom he has within such six weeks supplied milk. Those suffering from infectious diseases are debarred from picking fruit intended for consumption within the city, or engaging in any trade or business connected with food to be so consumed, or carrying on any trade or business in such a manner as to be likely to spread infectious disease within the city. Compensation may also be paid by the Corporation to any one who has been directed to stop his occupation. Those who wash or mangle clothes may be called on by the Corporation to furnish a list of their customers, including those for the previous six weeks. Books must not be taken from any public or lending library to an infected house, and should any book from such library be exposed to infection, notice must be given and the book left with the inspector of nuisances. The provisions of Section cxxvi of the Public Health Act of 1875 are made to extend and apply to any person who, being in charge of any one suffering from any dangerous infectious disorder, permits such sufferer to expose himself, without proper precautions against spreading the disorder. No "wake" may be held over the body of any one who has died of any infectious disease. In connexion with the school attendance, it is enacted that the medical officer of health may at all reasonable times enter any public elementary school and examine the scholars attending the same, and may prohibit attendance on the part of any who may be likely in his opinion to spread infection. Powers have been obtained whereby the Corporation or the medical officer of health may remove from any house, or part thereof, any of the residents not being themselves sick on account of the existence or recent existence therein of infectious disease, or for the purpose of disinfecting such house; in such cases the Corporation are empowered to provide, free of charge, temporary shelter with any necessary attendants for such persons. Occupiers of houses in which there is or has been any person suffering from a dangerous infectious disease must, on the application of the medical officer of health at any time during the illness of such person, or within six weeks after, furnish such information to the medical officer as he may require for the prevention of the spread of the disease. Finally, the Corporation may provide, or contract with any person to provide, nurses for attendance on any persons suffering from any infectious disease within the city, and may charge a reasonable sum for the services of any nurse provided.

A very important decision has just been come to by the Board of Management of the Leeds Public Dispensary, which will result in the addition of a fourth visiting district, and will thereby give effect to an extension of the special work of the charity which has for long been in contemplation and has very frequently been discussed. The out-patients of the Dispensary come, of course, from all parts of the city and from beyond its boundaries, and the institution is favourably situated for this. Last year there were 71,813 attendances by out-patients at the Dispensary. The very special work which the Dispensary undertakes of visiting the patients at their own homes is conducted mainly by the three resident medical officers, and the area dealt with though extensive has, of course, to be limited by the amount of work that can be adequately done and by consideration of distance from the centre. For many years there have been three districts, and the work has been mainly north of the river. One important region south of the river has indeed been included. This region is to be separated from the district with which it has been hitherto associated and enlarged into a large district south of the river. The creation in this way of a fourth district will necessitate the appointment of a fourth resident medical officer. The number of new patients visited at their own homes last year was 3,352, and the number of visits paid by the resident staff was 15,950.

SOUTH WALES.

Midwives' Charges at Newport.—Enteric Outbreak at Bridgend.

INQUIRIES have been made as to the practice adopted by the maternity branch of the Newport and Monmouthshire Hospital in making charges for the services of midwives, and the Newport Sanitary Committee has decided to ask its medical officer to prepare a report on the subject.

An epidemic of enteric fever has occurred at Bridgend, 29 notifications having been reported in twelve days. The officials of the Council are doing their utmost to prevent its spread. The medical officer has been endeavouring to trace the outbreak, but so far without success. Samples of water have been regularly submitted to chemical analysis and the results have always been satisfactory. Dr. Randall advised the Council to erect a small brick furnace for the destruction by fire of the excreta from the infected persons. Instructions have been given as to the boiling of the water and the milk before use.

CORRESPONDENCE.

THE SURGICAL TREATMENT OF CHRONIC CONSTIPATION.

SIR,—In the BRITISH MEDICAL JOURNAL of May 13th Mr. J. Hutchinson, jun., records an interesting case of ulcerative colitis, in which he very successfully made use of the vermiform appendix for washing out the large bowel. The surgical treatment of chronic constipation is at present much in evidence, and in obstinate cases of this nature somewhat severe surgical measures have been adopted.

After reading the account of Mr. Hutchinson's case, it occurred to me that, as chronic constipation is one of the recognized predisposing causes of appendicitis, the appendix before it becomes diseased might be made use of in the treatment of obstinate cases of this nature.

All that would be required is to bring the appendix to the surface, fix it there, and, after opening its distal end, the large bowel could be readily washed out by means of a catheter inserted into the lumen of the appendix. Dr. George Herschell, in his book on *Constipation and its Modern Treatment*, says:

> A preliminary step in the treatment of all severe and long-standing cases is to make absolutely certain that there is no faecal matter abnormally retained in the intestine. This is the first thing to do, no matter what the cause of the constipation may be.

I can conceive of no more certain method of doing this than the one I have suggested. Once the large bowel has thus been thoroughly washed out, and has been given time for adequate physiological rest, the appendix might be completely removed and the abdominal wound closed.

If, in the matter of chronic constipation, the appendix could, by the sacrifice of its very existence, be the means of ridding the colon of its undesirable contents, it would perhaps help this much-abused organ to justify its existence by proving its usefulness in the human economy.—I am, etc.,

Liverpool, May 27th. R. W. MURRAY.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

SIR,—If my letter caused Dr. Lewis Marshall any annoyance, I regret it; and this regret is enhanced by the courteous tone of his remonstrance. He charges me with misinterpreting his meaning. If he will read his letter in the BRITISH MEDICAL JOURNAL of May 6th carefully he will see that my assumption that he imputed the discovery of scurvy from the use of sterilized milk to American sources is a natural one from his own words, and one that would occur to every one reading them. He further charges me with finding it difficult to credit the facts as stated by him, and here he unwittingly does me an injustice. I fully accept the fact that he has never in his practice met with a case of scurvy from the use of boiled or sterilized milk. On the other hand, Dr. Marshall refuses to believe the evidence of those who have met such cases; as Dr. Hebblethwaite says, "there are sufficient cases recorded," and states that he long satisfied himself that the fear of inducing scurvy from boiled milk is a myth, and one that ought to be forgotten. Far be it from me to object to his satisfaction on this score, but I repeat that a negative experience is of little value compared to a positive one on the point.

The main object of my former letter was to call attention to Dr. Marshall's statement that he had cured *scores* of cases of infantile scurvy with sterilized milk. Coming from one of his authority such a statement is an important one. I feel justified in calling upon him to substantiate it by giving a direct assurance that in such cases he refrained from giving the ordinary antiscorbutics—such as lemon juice, potato, etc. Failing such assurance, his claim for cure for the sterilized milk is certainly invalid.

In your same issue in which the second letter from Dr. Marshall occurs is one from Dr. Kingston Barton. The last-named writer says: "If milk is boiled, scalded, or pasteurized, and is administered to an infant within a few hours of such heating, then the antiscorbutic property is not destroyed, and scurvy will never arise. In such a supposition Dr. Barton is mistaken, and I have certainly known cases of infantile scurvy arise from the use of milk given soon after boiling or sterilization. For the induction of scurvy from such milks, keeping either in hermetically-sealed vessels or otherwise is totally unnecessary.—I am, etc.,

London, W., May 27th. J. A. COUTTS.

SIR,—I am indebted to Dr. Curgenven for pointing out an error in my letter in the BRITISH MEDICAL JOURNAL of May 20th. I supposed the "skim" which forms on boiled milk was the coagulated lact-albumen. Dr. Curgenven in his letter published on May 27th shows that this is not the case. I have verified his statements, and performed other manipulations, since reading his letter, which leave one to suppose that there is probably very little lact-albumen in the "skim." I do not think that this is generally known, for on turning to a standard work on midwifery, 1900, I read, "It is the coagulated lact-albumen which forms the film on boiled milk." I still maintain, however, that in the country it is quite unnecessary to boil cows' milk as a rule.—I am, etc.,

Harewood, near Leeds, May 29th. S. M. HEBBLETHWAITE.

POISONING BY A SINGLE CASTOR-OIL SEED.

SIR,—I have read with interest the article by Dr. A. Gordon Gullan on his case of poisoning by a single castor-oil seed, and my attention has been recently called to the letter of Major G. H. Fink, questioning the identity of the seed in question, and evincing surprise at the well-known fact that castor seeds contain a toxic principle not present in castor oil.

Whilst for obvious reasons Dr. Gullan was bound to reply upon the statement of the patient as to the kind of seed swallowed, there can be no doubt that the sample referred to, which I have had an opportunity of examining, was the seed of the castor-oil plant. In all cases the seeds had the mottled glossy seed-coat and the caruncle which are the diagnostic features of castor seeds; and an absence of the dull, uniformly brownish outer layer, and prominent line separating the dorsal and ventral surfaces of the seed, which are the characters of croton seeds.

I remember the case of a student who having eaten two of the seeds was ill for two weeks as a result, with symptoms of irritant poisoning and collapse.

In addition to the authority mentioned by Dr. Gullan in his reply to Major Fink, may I add the following references to the literature of the subject?

> Stillmarck (1890) a découvert récemment dans les graines de ricin une matière albuminoïde qu'il range dans les ferments non figurés et qu'il désigne sous le nom de *Ricine*. C'est à cette substance qu'il faudrait, selon lui, rapporter les phénomènes d'intoxication produits par ces graines, mais non leur propriété purgative.—Planchon et Collin: *Les Drogues simples d'origine végétale*, Paris, 1895. I, p. 326.

Speaking of castor seeds Ferrand says:

> Les semences sont beaucoup plus actives que l'huile qu'on en extrait; elles sont toxiques, une seule amande ingérée peut occasionner des vomissements avec diarrhée violente, crampes, refroidissement, etc.—Eusèbe Ferrand: *Aide-mémoire de Pharmacie*, Paris, 1891, p. 613.

A. L. Stepanoff: *Vratch*, 1900, No. 4, worked on the poisoning by ricin, and is quoted in Merck's *Annual Report*, No. 187, for 1900, p. 166, which gives a summary of his conclusions.

The danger to animals of eating the seeds is well recognized by veterinarians; in fact, the presence of the seed in pressed linseed cake is one of the chief adulterants which I teach them to look for. Fred. Smith (*A Manual of Veterinary Hygiene*, London, 1887, p. 219) on this point states that:

> The linseed cake of commerce contains a large proportion of other cakes, as . . . castor oil, curcas. . . . Some of these are actually poisonous to cattle, as in the case of castor-oil cake, curcas bean. . . ."

From a consideration of the above references it will be seen that the seeds of ricinus communis contain a poisonous principle not present in the oil, and the information is not so new or startling as one might infer from Major Fink's letter.—I am, etc.,

PROSPER H. MARSDEN,
June 5th. Lecturer on Pharmacy; Demonstrator of Materia Medica, University of Liverpool.

*** The results of Stillmarck's researches were originally published in his Dorpat thesis in 1888, and were the outcome

of his work in Professor Köbert's laboratory. Two years earlier T. Dixson communicated to the Royal Medical Chirurgical Society the results of his researches on the same subject. Both observers agreed that ricin was not the body upon which the laxative properties of castor oil depended, and showed that its virulency as a poison could be removed by heating or boiling. In view of this, Dixson suggested castor-oil meal cake might prove a useful food during famine times in India.

THE MIDWIVES ACT AND THE MEDICAL PROFESSION.

SIR,—The word "safely" refers, of course, to the woman. I claim Dr. St. Lawrance-Burke in support of my opinion, inasmuch as he obeyed the summons knowing that he would obtain no earthly reward. If, however, there were a list kept of men willing to attend, we who are seniors would comfortably turn over on the other side and go to sleep again. As the fee in any case will be small, why should not the younger men do the work?

As to the fee, the Stratford scale allows 3s. 6d.[1], and if manual removal—the rule twenty years ago—10s. 6d. in addition—that is, 14s. I reason in this way. The midwifery fee among the working classes being 1 guinea or 15s., you cannot expect a guinea for attending only the third stage of labour. In this case one visit was required. The charge should be for one visit. As this was a special visit, and necessitated about an hour's attendance, double the ordinary working class visiting fee—which is 2s. or 2s. 6d.—and you have 4s. or 5s., which, if it had been asked for at the time, might have been within the power of the husband to pay. My contention is that in practice, as in banking, every transaction should show a margin of profit, however small. To expect a week's wages from a working man for an hour's work is just nonsense.

Is it not strange that it should require a special Act of Parliament to rectify such an obvious practical matter? Is it not stranger still that a General Medical Council, so-called, should exist, and that the Central Midwives Board be a perfectly separate and independent affair? What we need is a General Medical Council which shall have more than an administrative function, which shall have the power of initiative and, within wide limits, of legislating matters affecting public health, or concerning the profession. It is absurd to take the opinion of the 650 members of the House of Commons on the question of the fee to be paid for attending the third stage of labour. Surely Dr. MacAlister and his Council are the proper parties for all such matters.

In most parishes there is a charitable fund, which might fitly be employed in this direction. As a matter of principle, an attempt to obtain payment should be made in every case. Although our fee may be moderate, it should not be *nil*.—I am, etc.,

May 29th. G. C. C.

SIR,—As the members of the Wandsworth Division (Metropolitan Counties Branch) consider that the circular they are issuing to midwives practising within this area, and which has been drawn up in co-operation with the two local medical societies, may be of interest to other Divisions, I have been requested to ask you to publish the same. Each medical practitioner, by a separate circular, will be informed that the £2 fee can be modified as he may consider desirable.—I am, etc.,

E. ROWLAND FOTHERGILL, Honorary Secretary.

London, S.W., May 27th.

Madam,—

1. The doctor's fee, if called out merely for an opinion, will be—
   (*a*) If between 10 a.m. and 8 p.m., 3s. 6d.
   (*b*) If between 8 p.m. and 10 a.m., 7s. 6d.
   If any operative interference be necessary £2 will be charged. This is to cover any interference, manual, instrumental, or otherwise.
2. The doctor's fee should in all cases be paid at the time, and will not include any further attendance.
3. It is advisable when in difficulties that you should call in the Patient's usual Medical Attendant.
4. In the case of Midwives sent out from Nursing Homes or similar Institutions, the Doctor will look to the Proprietor or Proprietors of such home for his fee.

We have advised you of these decisions at once to facilitate the working of the Act, for we consider it is only in this way your patients can receive its full benefit.

[1] BRITISH MEDICAL JOURNAL, July, 1904, p. 79.

PUERPERAL SEPSIS.

SIR,—The resolution which Sir John Williams successfully proposed at the last meeting of the General Medical Council is a fitting corollary to Dr. Dakin's address as President of the Obstetrical Society. Nevertheless, what the profession is waiting for is that some evidence may be adduced showing that an appreciable share of the mortality from puerperal sepsis can be laid to their charge. Even our direct representatives did not suggest that perhaps the blame did not rest entirely with us, and one of them is kind enough to serve on the Committee, which may be taken as proof of a humble if not a contrite spirit. I respectfully invite the attention of the Committee to my letter on this subject, which you were good enough to publish in the BRITISH MEDICAL JOURNAL of April 15th.

Sir John Williams's resolution, by implication, accuses us of what amounts—in the light of present-day knowledge—to wholesale manslaughter. We await the evidence in support of the charge—some of us dare to ask for it.—I am, etc.,

Upham, June 4th. JAMES C. HOYLE, M.B.

PS.—On the same page of the SUPPLEMENT as the one giving the report of the appointment of the Committee may be found the proceedings of the Midwives Board. It is interesting to read these two reports together.

THE SOCIETIES OF APOTHECARIES.

SIR,—Most of the signatories to this petition will have learned by this time that the General Medical Council considers that it has no power to alter the designation of the Licentiates as desired.

I am sure that I am voicing the feelings of the majority when I say that we thank the Council for the sympathetic way in which it received the petition, and for the careful consideration which was given to it. There is one member, however, (Dr. Norman Moore) who, if he is correctly reported, hardly treated us fairly when he hinted that we desired to claim titles which had not been earned. Surely it cannot justly be said that a person who has passed the examination in medicine, surgery, and midwifery at the Society of Apothecaries desires to assume an unearned title when he wishes to be registered as Licentiate in medicine, surgery and midwifery of that Society. I do not know to what he referred when he said, "They constantly heard that people who had passed a certain examination were quite as good as those who had studied at the university and who had the degree of doctor." The remark does not appear to be relevant to the subject of our petition.—I am, etc.,

A. RIVERS-WILLSON,
Oxford, May 30th. Chairman of the Petition Committee.

SIR,—It appears to me that the proposal to change the L.S.A. and L.A.H. into a licence of a Faculty of Physicians and Surgeons would be opposed by the Royal Colleges, whilst it would not receive support from the Society of Apothecaries, which is ignored. The Lic. Med. Surg. and Med., S.A. is much more likely to meet with approval, but I would propose to substitute the word *Physic* for Medicine, thus making the title read L.P.S.M., S.A. This would avoid having two M.'s in the diploma, and at the same time get rid of the resemblance to the Indian L.M.S.—I am, etc.,

London, W., May 30th. W. EGMONT KIRBY.

MOTOR CAR LEGISLATION.

SIR,—In view of the appointment of a Royal Commission, consequent upon the wave of prejudice passing over the country at present, medical motorists should see to it that their rights are not curtailed.

I would suggest that the British Medical Association, after inquiring into the number of medical men using motor cars in their practice, should present a petition in their name against any further restrictions, especially as regards the closing of roads and the imposition of an absurdly low speed limit.

The motor car has become so essential to doctors in the country that no effort should be spared to prevent any impairment of its usefulness.—I am, etc.,

June 6th. COUNTRY DOCTOR.

MEDICAL MAGISTRATE.—Dr. Morgan Evans, of Llandrindod Wells, has been placed on the Commission of the Peace for the county of Radnor.

OBITUARY.

JAMES MURPHY, M.A., M.D.DUBLIN,

Lecturer on Medical Jurisprudence, University of Durham College of Medicine; Surgeon, Sunderland Infirmary; Member of Council, British Medical Association.

MANY a reader of the BRITISH MEDICAL JOURNAL will feel a sense of personal loss when he hears of the death of Dr. Murphy, for fewer men were better known in the Association. For the last twenty years he had rarely missed an annual meeting, and wherever he went he made friends, both in the profession and out of it.

In Christmas week last he took to his bed with an attack of influenza, from which he never really recovered. For several weeks he lay in a state of apathy very unusual to a man of his temperament. He was attended most assiduously by his friends, Drs. Beveridge and Robinson, and eventually got about again just before Easter. He then went for a few weeks to Harrogate—always a favourite resort of his—and came back looking very much better. He resumed some of his work, taking his lectures at the University of Durham College of Medicine, and attended the last meeting of the Council of the Association, and as lately as the Friday before his death gave evidence as medical referee in the Sunderland County Court. He was out driving on Saturday, May 27th, took to his bed the same day, and died on Tuesday, May 30th, from pneumonia, to which he never offered the least resistance, although Drs. Beveridge, Robinson, and Hubbersty did all that affection and skill could suggest.



Dr. Murphy was only in his 52nd year. He was born at Ballenahow in county Tipperary, being the son of a doctor and the nephew of the Right Hon. Justice Murphy. He was educated at Trinity College, Dublin, and in Paris. He took the degrees of M.B., M.Ch.Dub. in 1874, the M.D. in 1877, and the M.A. in 1886. He also held the M.D.Durh., *ad eundem*. He was a corresponding member of the Société de Médecine Pratique of Paris and of the Deutsche Gesellschaft für Gynäkologie, for he had many friends on the Continent and paid several visits to various professional congresses there, from which he returned apparently having seen everything, and knowing everybody worth knowing. He was appointed as House-Surgeon to the Sunderland Infirmary in 1874, having previously served in the same capacity to Sir W. Stokes in Dublin. He resigned the position in 1876 and started private practice. Not long afterwards he was appointed Surgeon to the infirmary, and resolved to devote himself to surgery, gynaecology, and obstetrics. He was soon recognized as a most able man, and became the leading consulting surgeon in the district. He 1878 he became connected with the University of Durham College of Medicine as Lecturer in Botany, next lecturing on biology for a short time, and afterwards being transferred to the more congenial sphere of medical jurisprudence. He conducted these lectures almost up to the day of his death. He also acted frequently as Assessor in Surgery and other subjects in the examinations of the University. He cannot be said to have been a good lecturer, but he was an immense favourite with his students.

Murphy was a great supporter of all the local professional societies, and was particularly well known in the Northumberland and Durham Medical Society, of which he was at one time President. When the County of Durham Medical Union was formed, mainly for the purpose of protecting the interests of men in contract practice, Murphy, whose interests were not at all affected, was one of its first and most active members. He hardly ever failed to attend its Council meetings, and was a tower of strength in persuading men to join and in acting as conciliator in general. He was Vice-President of the Union at the time of his death, and will be sorely missed by its members.

His connexion with the British Medical Association was very close, and all that he did for it in the North of England would take long to tell. He may be said to have dominated the North of England Branch for many years, for he rarely missed a meeting of Branch or Branch Council. Other men might pass the chair and disappear, but Murphy was always to be relied on. He joined the Association in 1875, in 1892 was President of the Branch, represented it on the old Parliamentary Bills Committee from 1893 to 1899, and in the latter year was elected one of its representatives on the Council of the Association, a position he held until the day of his death. Indeed, on the very day of his death, he was elected for a further term of office. The Branch will miss him badly, for he was undoubtedly its most popular member. In 1890, he was Vice-President in the Section of Obstetric Medicine at Birmingham, and in 1893 was President of the same Section at Newcastle. Those who attended that meeting will remember how ubiquitous he was, and particularly with what success he managed the annual dinner of the Association.

The funeral, which took place on June 2nd, was attended by a large number of friends, most of the profession in Sunderland being present. The College of Medicine was represented by Professor Oliver, Drs. Lyle and Bolam, and Mr. Turner, and by a body of students; Drs. Jepson, Todd, and others represented the Durham Union, and Dr. Cox (Honorary Secretary of the North of England Branch, British Medical Association) and Dr. Hunter, its representative on the Council, represented the Association and Branch.

Dr. Cox writes: I leave it to others better qualified to speak of him in relation to the University and of the value of his scientific work, but I speak in the name of practically all the profession in the North when I say that he was to us something unique. He was without predecessor, and can have no successor. He was the kindest and most loyal of friends, and the services he rendered to many of us, often at great inconvenience to himself, are countless. As a consultant he was straightforward and the soul of honour. I remember well a story he used to tell, how, when he was in general practice, a new patient came to him with some grievance against his "rival" across the street. "I have no *rivals*," said Murphy; "which of my *friends* is it?" This was absolutely characteristic of the man. He was extraordinarily hospitable, even for an Irishman, and he was one of the few who invited you to dinner not because he owed you one, or because he would get

an invitation in return, but simply for the pleasure of the dinner and your company. His circle of acquaintances was very large, not only locally, but in London, Dublin, and in fact wherever he chanced to go. He "had a way with him" which to most people was absolutely irresistible, and even straitlaced and puritanical folk found themselves judging Murphy by a standard quite different to that set up for most of us. He was, in fact, a law unto himself, and could do and say things which would have been impossible in others. To me he always seemed a living embodiment of the essence of Lever's novels, with a considerable strain of "*la vie de Bohême*." He was very fond of the theatre and opera, and had an intimate acquaintance with many of our leading actors and singers. As to his fund of stories, it was absolutely inexhaustible, and if one happened to express a little incredulity at the more remarkable of his reminiscences he would often say, "My dear boy, I havent the least touch of inventiveness about me, but I *do* claim to have a good memory." He never forgot a face and rarely a name; often called on to speak at dinners he could always be relied on to say the graceful and witty thing, although his speaking was spoiled by a too rapid delivery. He had all the Irishman's readiness, as the following true story will show. He was called by an old pupil to see a case which eventually became the subject of a trial at Durham Assizes. The barrister on the other side, finding he was not making much of his case, got a little testy and said, "I hardly see how you come to be in this case or what you are supposed to prove." Murphy pointed out that his old pupil, feeling that this was likely to be an important case, had wished for his advice and corroboration. "Quite right," spoke up the judge, "I hope that many of your old pupils will pursue the same sensible course." "Thank you, my lord," said Murphy as quick as lightning, "I trust your lordship's remarks will obtain the wide publicity they deserve." Again, in another case where the diagnosis had been very doubtful, Murphy, in giving evidence, had ventured to hint to the barrister who was getting bewildered amongst the various hypotheses which had been put forward, the possible existence of a tumour. "Don't put a tumour on to me, sir," shouted the counsel. "Certainly not," said the witness, "it is much more in my line to take one out of you." And so one could go on if one had the space and Murphy's memory. Other men will carry on the work of the Association, and there are many who can operate and give lectures, but there was only one Murphy, and his loss leaves a gap very unlikely to be filled. He had his faults and certainly did nothing to conceal them. They were on the surface and as big as his heart, but many a more immaculate man could be better spared.

DR. DAVID DRUMMOND (Physician, Newcastle Infirmary): For the fourth time since 1899 has pneumonia robbed the staff of the University of Durham College of Medicine of a prominent and valuable member. First it was Arnison, then Williamson, then Nesham, and now it is James Murphy we mourn. Gifted with a genius for making himself agreeable and with a rare sense of humour, which combined the loveable quality of the appreciative listener with the art—in him a fine art—of the story teller, he always met with a hearty welcome, though, in truth, he was more often the host than the guest. He was generous and open-handed to a fault, and if ever there was a man who would literally "give the coat off his back" it was he. His code of honour as between man and man—as became a true Irish gentleman—was singularly high, and, his boundless good nature notwithstanding, he expected others to act in a manner as courteous and honourable as himself. Indeed, it may be said that he championed the cause of those who suffered at the hands of unscrupulous and unprofessional neighbours, for he abhorred mean and contemptible conduct; and it is an open secret that professional delinquents were wont to learn from his lips—and perhaps for the first time—what their brethren thought of them. Though extremely popular, and consequently much sought after, as a man possessing so kind a heart and so genial a manner was sure to be, he was far from allowing social matters to monopolize his life, for he was devoted to surgery, and a more earnest exponent of his art never handled a knife or debated a point. An impressive and witty speaker, his contributions to professional discussions were always valuable and entertaining, while his opponents could not fail to recognize his uniform courtesy and fairness, even if at times he did become trenchant. As a writer he was clear, forcible, and versatile, and not a few will recollect his humorous sketch published in the *Field* many years ago, "On the Moors, by one who has shot over them." We have lost a loyal friend, and great is the gap his death has left in our ranks.

PROFESSOR OLIVER (Physician, Newcastle Infirmary) writes: In the person of Dr. James Murphy, of Sunderland, there has passed away one of the most genial, kindly, and social souls it was possible to know. Another's pen will describe all that he was to, and all that he did for, the British Medical Association, and the important part he played in the development of the branch medical unions in the county of Durham. As one of his colleagues at the College of Medicine, Newcastle-upon-Tyne, for more than a quarter of a century, I am in a position to say something of the man and of those personal qualities which endeared him to those with whom fortune brought him into contact. His was, in every sense of the word, a large heart. Those of my readers who have had the privilege of enjoying his hospitality will bear testimony to the liberality with which it was dispensed, and to the total absence from it of anything like self-seeking. He was hospitable because he loved being so. No one could play with greater grace the part of host, nor dispense with greater generosity the gifts of the table than he whose loss we deplore. For upwards of twenty-six years he was one of the Lecturers in the University of Durham College of Medicine, first on the subject of Botany, subsequently Biology and Medical Botany, and latterly on Medical Jurisprudence. In his lectures he never adhered to anything like academic routine, yet they were always pleasant to listen to. It cannot be said that he was particularly happy in any of the Chairs he occupied in the College. Not one of them was of his own choice. What he would have liked, what would have suited his aspirations, and what he would probably have

adorned would have been a Chair of Surgical Gynaecology. As an Examiner of the University he was much liked by candidates, for he was always pleasant and courteous. He was an excellent *raconteur*, for he was endowed not only with a good memory but had that extraordinary gift which many Irishmen possess of being able to tell a good story uncommonly well. Many a social function which was on the point of languishing and of becoming flat could be whipped up into a pleasant evening for all if only Murphy was there. It was at his end of the table at a banquet that the laughter was loudest and the fun greatest, for such was his store of anecdotes and his special manner of reproducing them that no one could remain impassive if near him. Notwithstanding all that has just been said, and much of which applies to the lighter side of his nature, Dr. Murphy was a man of considerable ability and of practical skill as a surgeon. He was an admirer of the best work of distinguished surgeons both at home and abroad, and was ever ready to adopt new methods of surgical procedure. The numerous papers which he read at the Northumberland and Durham Medical Society's meetings and at the annual meetings of the British Medical Association showed him to be widely read in, and to be fully conversant with, the subjects he dealt with. Of his papers that at the time of their publication particularly attracted attention, mention need only be made of the Treatment of Placenta Praevia and of Pilocarpin in the Treatment of Puerperal Eclampsia. To the soundness of the advice given in these papers many medical practitioners have borne testimony. In later years he devoted himself more to general surgery. In Sunderland and in the neighbourhood his services were much in request, for he was a successful, if not a brilliant, operator.

It was perhaps more for his social qualities than for his professional attainments that Dr. Murphy was so much appreciated. Such qualities should not be under-rated. They not only help to make life run more smoothly and pleasantly, but they tend, when properly exercised, to knit together man and man; they help to prevent and dispel many of the trivialities and pettinesses which unfortunately too often mar our profession. Dr. Murphy therefore played a most important part in the medical life of the North of England. As a proof of this and of the esteem in which he was held, I need not allude to the large numbers of the medical profession, the Students' Representative Council of the College of Medicine, and the public generally who attended in the Bishopwearmouth Cemetery on June 2nd to show their last respect to the memory of a loved friend.

Mr. RUTHERFORD MORISON, F.R.C.S. (Surgeon, Newcastle Infirmary), writes: If there is such a thing as the surgical instinct, Murphy possessed it in the highest degree. On apparently the most slender grounds, and with a rapidity that ignored all existing canons in diagnostic examination, he arrived at a correct opinion as to the prognosis and treatment of a case. One of his own aphorisms was that a surgeon had two duties to perform: (1) To form an opinion as to whether an operation should be done; and if it had to be (2) to persuade his patient of the necessity for it. Those of us privileged to know him early learned that in both feats he was a master. As an operator his skill was best seen in abdominal and pelvic surgery. Possessed of a manipulative dexterity that surprised those who are apt to associate neatness and skill with dainty fingers and agility with slimness of figure, he only thought of operation as the means to an end, and that end was to get the patient well. Having once made up his mind what was the proper course to follow—and with him this never seemed to require any prolonged consideration—there was no further hesitancy; and when the operation was completed it was always apparent that the best possible thing had been done.

Murphy was one of the notable pioneers in abdominal surgery, and his work in this particular branch more than earned for him the deservedly high surgical reputation he made.

J. E. PANTON, M.D.,

Bolton.

MUCH regret is felt in the neighbourhood of Bolton and further afield at the sudden death of Dr. John Edward Panton, J.P., M.D., who, though he died in his 42nd year, had in the course of what was comparatively speaking a brief career played a prominent part in the locality which he had selected as his home. Dr. Panton was born at Horncastle, Lincolnshire, and received his education at the Grammar School of that town. He entered as a medical student at St. Bartholomew's Hospital, and in 1885 (in his 22nd year) he obtained the degree of M.B Durham, and the diploma of M.R.C.S.Eng. He did not, however, immediately cease his connexion with the hospital, but being attracted by the possibilities of electric therapeutics, obtained the position of assistant in the electrical department of the hospital. After holding this post for some time he returned to the North and eventually settled down in practice at Bolton in Lancashire, meantime having proceeded in 1889 to the M.D. degree of his University. While in practice at Bolton he did not confine his energies purely to medical work. He took great interest in politics, and was soon recognized as a staunch and valuable recruit to the Conservative party in the locality, and was elected a member of the Council of its organization. He was a member of the Bolton Division of the British Medical Association and also played his part in municipal affairs, and was an active member of several subcommittees of the Borough Council including the Tramways and the Electricity Committees. Of the latter he was chairman and he was able in connexion with this work to turn his previous knowledge of electricity to good account. He made indeed a profound study of the subject of electricity in connexion with the mechanical uses to which it might be put. A few months ago he was placed upon the Commission of Peace, a circumstance which indicates in some degree the respect and esteem in which he was held. He died of an attack of acute pneumonia which lasted only five days. Dr. Panton was married and leaves a wife and four young children.

J. L. VAN DER STRAATEN, M.D., M.R.C.P.,

Formerly Principal, Ceylon Medical College.

NEWS has been received of the death at Colombo last month of a medical man very well known in the East, Dr. J. L. Van der Straaten, for many years Principal of the Ceylon Medical College.

For some time before his death he had been a patient in the private wards of the General Hospital, Colombo, to which he caused himself to be removed for treatment of a diabetic carbuncle. He had retired from active work about six years ago, but maintained a position of prominence and influence to the end of a career which was in many ways remarkable. Quite early in the 67 years of strenuous life he attained a premier position in Colombo and its neighbourhood as a consulting physician, and in addition to holding many important offices exercised wide influence both in and outside the profession.

He was a descendant of one of the old Dutch burgher colonists of Ceylon, but as his father died when he was still young, practically he had to make his way in the world for himself. In his general education, however, he received assistance from an English friend of his father, who sent him to the Colombo Academy. Medicine attracted him when quite young, and at the age of 15 he entered the pharmacy of a retired ship surgeon. At a later date he was formally apprenticed to another firm of chemists, and remained with them for four years, thereby acquiring a knowledge of drugs to which he afterwards ascribed much of his success. All the time he was endeavouring to get sent to the Calcutta Medical College as a Government student. Meeting, however, with constant rebuffs, he finally shipped in a passenger vessel as apothecary, a step which unexpectedly led to his getting what he wanted. On one of the voyages the Governor was a passenger, and young Van der Straaten seized the opportunity to make a tactful representation of his ambitions. The result was that he soon after received a nomination, and joined the College as a medical student in 1859.

Some three years later as a senior student he came to England as surgeon of a large sailing vessel. He then entered himself as a student at St. George's Hospital, and left it early in 1863 the possessor of the M.D.St. Andrews and the diplomas of L.S.A.London and L.R.C.S. and L.M.Edinburgh. On a further visit to England some ten years later he was admitted a Member of the Royal College of Physicians of London.

On his return to Ceylon in 1863 he was given an appointment in the Medical Department of the Colony, and from that time onwards rose steadily. He occupied a position in it for upwards of thirty years, and when he retired was Colonial Surgeon of the Western Province. On three occasions he acted as Principal Civil Medical Officer, and as he was thus acting in 1897 he received the Jubilee Gold Medal.

His connexion with the Ceylon Medical College dated back to the Seventies, and he ruled its destinies for many years.

In this way there passed through his hands a very large proportion of the men by whom the Civil Medical Department was subsequently officered. It was partly perhaps owing to this circumstance, and to the fact that he was one of the first of the white native population in Ceylon to study medicine in England, that his capacities received such wide and comparatively early recognition. Of great assistance also was a book on the diseases of children, which was published by him twenty-five years ago, and soon became and still remains a general reference book in Ceylon households.

Dr. Van der Straaten's energies, however, were by no means confined to matters purely medical. He was an enthusiastic volunteer, joining the Calcutta force as a student in 1861 and the Colombo Volunteers twenty years later as Assistant-Surgeon; at the time of his retirement he was Surgeon-Major and Senior Medical Officer of this force. He also played a part in the municipal life in Ceylon; he was elected a member of the Galle Municipal Council in 1871, and some years later became a Government member of the Municipal Council of Colombo itself. In Church matters he also interested himself, and the erection of St. Luke's Church at Maradana was largely due to his efforts.

Dr. Van der Straaten is mourned by his wife and by two daughters and three sons, one of whom is a medical man.

SAMUEL RITTER VON BASCH, M.D.,

Professor of Experimental Pathology in the University of Vienna.

ON April 25th, as already announced in the BRITISH MEDICAL JOURNAL, there passed away in Vienna one who, almost up to the time of his death, with untiring devotion carried out a series of investigations—more especially on the physiology and pathology of the circulatory system—which will remain solid contributions to medical science. Born in Prague in 1837, Basch, after studying in his native city, was attracted to Vienna, where he had the good fortune to come under the immediate influence of Ernst Brücke, who represented a school of physiology which concerned itself not only with the observation of facts, but laid its foundations wide and secure as a study of comparative physiology, and dealt with some of the great problems in biology. Thus it came about that Basch published his first paper in 1858 on the chylo-poietic and uro-poietic viscera of blatta orientalis. After graduation in 1861, he became a resident hospital physician, continuing, however, his histological studies, more especially on the origin of the lacteals in the intestinal villi. His investigations secured for him a "call" to Mexico, with the prospect of becoming Professor of Pathological Anatomy in the University which was in contemplation. On his arrival in Mexico he was attached to the military hospital in Pueblo, where he saw many cases of dysentery. In 1865 he was the first to publish in *Virchow's Archiv* an account of the occurrence of microbes in the dejections in cases of dysentery, microbes which are now regarded as identical with those that cause this disease. The action of Napoleon III in the affairs of Mexico about this time led to many complications. The unfortunate Kaiser Maximilian chose Basch to be his physician. Basch saw much service in the field. In May, 1867, he was taken prisoner at the battle of Queritaro. He was present when Maximilian was shot, and was released only after his death. He returned to Europe five months later along with the body of the dead emperor. After his return he published his *Recollections of Mexico* (1868), which contained a history of the last ten months of the war. By this time Stricker, who was formerly assistant to Brücke, had become a professor, and had his own institute for experimental pathology. In that institute Basch made his well-known experiments on the movement of the intestines and the effects of drugs upon them—for example, nicotin. In 1869 he became a *Privat-docent* in experimental pathology. In summer he practised as a physician in Marienbad. In the late Seventies he became a pupil of Ludwig at Leipzig. He worked on the influence of the splanchnic nerve on the distribution of blood in the body—a theme which gave direction to the future work of Basch. He studied the changes of the circulation experimentally in animals, and sought to bring those observations in line with those observed in disease in man. Blood pressure specially attracted his attention, and by means of his sphygmomanometer he sought means to make the estimation of blood pressure in arteries, capillaries, and veins available for the practitioner.

In 1878 Basch became Professor Extraordinarius with but little equipment in the matter of laboratory accommodation. He and his pupils produced much good work, more especially on the movements of the intestine, innervation and evacuation of the bladder, and movements of the uterus. He devoted special attention to the study of cardiac dyspnoea and cardiac asthma. Perhaps his most characteristic work is *Allgemeine Physiologie und Pathologie des Kreislaufes*. With what zeal he was devoted to his work is shown by his investigations in the "summation of stimuli in the frog's heart"—a research which he completed in his 70th year.

Basch was a man of great gifts, endowed with persistent and indomitable energy, and, withal, a lovable man, tenacious of what he believed to be true and good. To science he dedicated his life's best energies, in the hope that where science leads the art of medicine may follow and humanity profit.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.

PRIZE DISTRIBUTION AT NETLEY.

THE Army Medical School was organized in consequence of a strong recommendation contained in the report of the Royal Commission appointed in May, 1857, for the purpose of inquiring into the "regulations affecting the sanitary condition of the army, the organization of military hospitals, and the treatment of the sick and wounded." It was opened in 1860 at Fort Pitt, Chatham, and transferred in 1863 to the newly-built Royal Victoria Hospital, Netley, where it remained until the year 1902, when it was transferred to London and reconstituted as the Royal Army Medical College. All officers entering the British and Indian Medical Services undergo a course of instruction and training in the School. Since the year 1902 officers entering the Indian Medical Services have, after having attended a course of two months' instruction in the Royal Army Medical College, been sent to Netley for a further two months' course of instruction.

At the close of the session which expired on May 31st, and which is understood to be the last occasion on which officers are to go to Netley for instruction and training, the presentation of prizes gained in London and at Netley was made by Surgeon-General A. M. Branfoot, C.I.E., I.M.S., President of the Medical Board at the India Office, in the presence of Surgeon-General Quill and the staff of the hospital. The following list shows the names of officers attending during the session, the aggregate marks obtained by them, and the prizes gained at the Royal Army Medical School and at Netley:

	Marks.		Marks.
A. F. Hamilton, M.B.	3,894*	M. R. C. MacWalters	3,413
A. D. White	3,641†	W. H. Boalth	3,399
M. F. Reaney, M.B.	3,504‡	G. A. Soltau	3,387
R. K. White	3,481	W. H. Hamilton	3,386
H. C. Buckley, M.B.	3,451	J. Cunningham, M.B.	3,311
N. M. Wilson	3,420	H. Falk, M.B.	3,295
J. S. O'Neill, M.B.	3,414‖	C. J. Coppinger, M.B.	3,290

* Marshall Webb medal and prize in hospital administration; second Montefiore prize in military surgery. † Ronald Martin gold medal in military medicine. ‡ First Montefiore prize in military surgery. ‖ MacLean prize in clinical medicine.

Colonel MACLEOD read a report of the work of the session and added: It is understood that this is the last occasion on which officers entering the Indian Medical Service will be sent to Netley for instruction. Under these circumstances and as the final closing of the Army Medical School coincides with the termination of my tenure of the office of Professor of Military Medicine, I venture to offer a few remarks arising from the situation. On July 29th, 1902, His Excellency Field Marshal Earl Roberts presided at the distribution of prizes at the end of the summer session which preceded the transfer of the school to London. On that occasion, which signalized the closure of the Army Medical School as originally constituted, I read a short report setting forth the history, objects, and work of the school. As that report was published at the time I need not now repeat what I then wrote. The school had been in existence for forty-two years and had completed 84 sessions; 1,687 officers of the British Medical Service, 1,191 of the Indian Medical Service, and 213 of the Naval Medical Service had passed through Netley, making a total of 3,097. In addition over 300 senior officers had come to Netley for instruction. Since the year 1902, officers to the number of 127 entering the Indian Medical Service have been sent to this hospital after studying the subjects of hygiene, pathology, military surgery, and hospital administration in the Royal Army Medical College, London, for the purpose of undergoing instruction in tropical diseases, lunacy, and ambulance drill, and obtaining a practical knowledge of the administra-

tion and management of military hospitals, and an initiation into the ways of military life and service. This has raised the total of Indian medical officers trained at Netley to 1,318. Since the Indian Medical Service was reorganized in the year 1865 all officers joining it have passed through the Army Medical School in close association with officers of the sister service. The name Netley, with all that it represents in the way of instruction, initiation, and social enjoyment must abide lovingly in the minds and memories of the officers of both services, just as the name Haileybury claimed the fond remembrance of Indian civilians and the name Addiscombe of Indian gunners and sappers in the old time: and as it is to be hoped the name Millbank, despite its ancient association with a penitentiary, will dwell kindly in the recollection of officers of the medical services in the future. During the six sessions that have elapsed since the transfer of the school to London and its reconstitution as the Royal Army Medical College, the position of what remained of the old Army Medical School at Netley has been somewhat anomalous, but with the willing and generous co-operation of the Principal Medical Officer and staff of the hospital, no friction or difficulty has been encountered—a circumstance of which I desire now to make thankful acknowledgement.

Surgeon-General BRANFOOT handed the prizes to the successful competitors, and remarked that it gave him great pleasure to preside on so interesting an occasion, and to be supported by Surgeon-General Quill, who had been at Netley with him 33 years ago and whom he had not had the pleasure of meeting since. He associated himself heartily with what Colonel Macleod had said regarding the valuable assistance which the Principal Medical Officer and hospital staff had so efficiently rendered in carrying on the work of instruction and training at Netley. The Army Medical School had served a great purpose in the past for the prevention of disease and the preservation of health in the navy and army as well as in civil life both in this and other countries; and the final closure of the institution could not fail to excite feelings of interest and regret among those who had passed through it. The removal of the school to the centre of life and progress, and its reconstitution on a broader basis and with higher aims, would no doubt conduce to the benefit of the services, of medical science and of humanity. What precise arrangements were to be made in the future for perpetuating and developing the work commenced and carried on for nearly half a century at Netley he was unable to announce, but he was in a position to say that the Indian Medical Service would share fully in the advantage to be gained from the college the erection of whose home had been commenced at Millbank. Surgeon-General Branfoot referred to the early retirement of two professors—Surgeon-General Stevenson, C.B., and Colonel Macleod, M.D. The former had been asked to preside on this occasion, but unfortunately had found himself unable to be present. He congratulated those who had now entered the Indian Medical Service, and especially the prize takers. He counselled them to maintain the habit of work in spite of climate hindrances, for once lost it was very difficult indeed to regain it. They must uphold a high standard of professional ethics in a country where the medical profession was in the stage of adolescence and development, and the force of example and guidance was peculiarly needful and effective. Notwithstanding the recent brilliant advances which had been made in knowledge of the etiology of tropical diseases they would find abundance of work awaiting them in India, more especially as regards the adaptation of increased knowledge to the circumstances and peculiarities of its inhabitants. The climate was no doubt trying to health, but more blame was perhaps laid on it than was justly due. They must, as prudent and sensible men, hold a proper balance between work and recreation, and practise moderation and a wise adaptation to their new environment. He finally wished them God-speed, in full confidence that one and all would do their utmost to maintain the fine tradition and honour of the service to which they were now admitted, "traditions which we who have retired from it very jealously cherish."

Surgeon-General QUILL thanked General Branfoot for presiding on this memorable occasion, and heartily seconded the counsels and wishes which he had addressed to them.

LIEUTENANT-COLONEL KAIKHOSO SORABJI MARIMAN, Indian Medical Service, Bombay, died at Nasik, where he was Acting Civil Surgeon, on April 24th, at the age of 53. He entered the department as Assistant Surgeon, October 1st, 1877, and became Brigade Surgeon-Lieutenant-Colonel, January 11th, 1903. He was in the Burmese campaign in 1885-7, receiving the Frontier medal with clasp.

A COMPETITIVE examination for fourteen appointments to His Majesty's Indian Medical Service will be held at the Examination Hall, Victoria Embankment, London, W.C., on July 25th and the four following days. Full particulars can be obtained on application to the Military Secretary, India Office, Whitehall S.W.

ENCOURAGING THE VOLUNTEERS.

A.M.R. WRITES: I received a few days ago a letter from the Senior Medical Officer of the Volunteer Infantry Brigade to which I belong; I inclose a copy of it. "A number of Volunteer Medical Officers will be required for duty in the station hospitals of the regular army during the training season (May to August); those officers would not, *of course* (the italics are mine), receive pay nor would any expense to the public be admissible; hence, their attendance must be entirely voluntary. Should you be willing," &c. Comment is perhaps superfluous, but one cannot help observing what an encouragement such a proposal must be to the Volunteers to perfect themselves as a reserve to the regular forces! Do our colleagues in the R.A.M.C. (M.) serve during the training season without pay and with no expense to the public? That such an offer can be seriously made to qualified medical men, with presumably some idea of a more or less favourable response, points to the urgent necessity of some strong professional combination, while the fact that the War Office considers it probable or even possible that commissioned officers of the auxiliary forces may be willing to perform public duties without any expense to the public, but at a considerable loss to themselves, and alongside officers of the regulars and militia who are receiving full rates of pay and allowances for the performance of the same duties, only points to the futility of any hope of any improved position for the volunteer or any practical recognition of him as a genuine factor in any scheme of national defence. It is to be devoutly hoped that Volunteer Medical Officers with any respect for their profession, or for the force to which they belong, will have nothing to do with this proposal.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF SURGEONS, IRELAND.

THE annual meeting of the Royal College of Surgeons in Ireland was held on Saturday, June 3rd, when the annual report of the Council was presented.

ANNUAL REPORT.

The report showed that the new Examination Hall had been finished at a total cost of £2,819 17s. 11d. Eight Fellows, forty-two Licentiates, and eight Licentiates in Dental Surgery died during the year. The total receipts were £5,977 19s. 7d., including a balance overdraft of £350 12s. 1d. The College holds investments to the amount of £10,407. The proportion of fees paid by the Conjoint Committee was £2,365 17s. 2d.; Fellowship fees were £971 5s.; dental fees, £257 5s.; and matriculation fees, £42.

The report was adopted.

THE IRISH MEDICAL ASSOCIATION.

Mr. CHANCE, the President, referred to the report drawn up by Surgeon-General Evatt for the Irish Medical Association, and to the strictures which he had passed upon the College among other Irish medical institutions. Having referred to the correspondence which had taken place between the Irish Medical Association and the Council, he said: But you will see that the comments I have read raise this serious question, Does the Association agree with the resolution of its Council in "dissociating itself from all offensive statements in the report which refer to the Royal Colleges?" We have been plainly told that this resolution was due to our coercion. Under these circumstances I think we are entitled to ask that the general body of the Association will either dissociate itself publicly from the offensive opinions put forward under its aegis, or else, if it believes these opinions to be true, will openly adopt them, and cease to any longer shelter the report under the obligation of confidence. I do not for a moment suggest that this College should be exempt from criticism. Such a contention would be absurd; but I do say that the criticism, especially when it comes from our professional brethren, should be open and should be fair. The criticism we object to does not fulfil these conditions. The original report is still confidential, and it has been pointed out, I think with justice, that inasmuch as Surgeon-General Evatt made it a condition that all or none of his report should be published, it was not fair to him to discuss the limited portion of his report which had appeared in the lay newspapers. It follows, therefore, that we are still debarred from dealing with criticism which we know to be offensive and believe to be undeserved. The College has been called a "clique." It consists of a body of 430 Fellows, an unusually extensive "clique." These Fellows are selected by examination, an examination which is open to practically every medical man in Ireland who possesses the requisite knowledge and the requisite fee. These Fellows absolutely govern the College, inasmuch as they annually elect the President, Vice-President, and Council—a con-

stituency selected by open examination and an annual general general election. Can any constitution be more democratic? If the Council of the College have committed faults it is the duty of the Fellows to elect wiser men. They have an annual opportunity. If the electorate is too small the Examination Hall is open.

THE ONE-PORTAL SYSTEM.

The President, in further commenting upon the published portion of the report, observed:—He advocates the union of all Irish qualifying bodies into a "National Faculty" as the only hope for Irish medicine. He states that a "similar movement" is at work in England, and later on comes this paragraph, which I may say refers to my statement as the Representative of the Dublin Division of the British Medical Association at Oxford:—"An office-bearer of one of the two Irish colleges declared war to the knife against so national an idea at a recent meeting in England, and, I think, threatened to use all the Irish Nationalist members to frustrate the movement." The Surgeon-General is in error—an error all the more strange as he was an officer of the body which brought forward the measure which I opposed. It is not at all "similar" to the formation of a "National Faculty." It is the reverse of "a National idea." So far from being the "only hope of of Irish medicine," it would, I think, be most injurious to it. And, finally, the threat attributed to me that I would "use all the Irish Nationalist members" would be a silly assumption of a power I do not possess if only it happened to be true. Let me deal with the last point first. What I did say, as reported in the official organ of the British Medical Association, was that "the Dublin Division were unanimously opposed to the Bill, and would use every legitimate Parliamentary influence they possessed against it." Now, what is this Bill? At present, as you are aware, Dublin University, the Royal Universities, and the Irish medical licensing bodies have the power to give degrees or diplomas which entitle the holder to be registered as a qualified medical practitioner. It is proposed by the Medical Acts Amendment Bill to take away this power and to vest it in a body of 46 representatives, of whom 28 are to be English, 9 Scotch, 6 Irish, and 3 dental; all of the latter would probably be English. It will be seen, therefore, that out of a total body of forty-six, six, or under most favourable circumstances seven, would represent Irish medical opinion. This is apparently Surgeon-General Evatt's idea of "An Irish National Faculty." The body so constituted is to have the sole power of appointing examiners, and these examiners would have the sole power of admitting men to practise medicine in these countries. It is true that our schools of medicine will be permitted to teach, but their teaching must be modelled on the pattern set by the central body. Now I attach great weight to the views of such an influential body as the British Medical Association, and, much as I love this College, I do not think that any institution should be permitted to stand in the way of real reform, and I willingly admit that the Institution of a one-portal system has great advantages. I do not think that it would materially reduce the number of medical practitioners, for any attempt to make a "corner in doctors" would, I feel certain, be properly resented by the Legislature. But the one-portal system would undoubtedly remove many anomalies; and the sole question for us Irishmen is whether its advantages or disadvantages preponderate. I hope I am not influenced in my opinion by the position I have the honour to hold in this College: but it does seem to me that we Irish are a separate race—a separate nation—and that our mental development, even in medical matters, can best proceed upon lines in sympathy with Irish sentiment and Irish aspirations. To turn the medical schools of this country into grinding establishments to prepare men for an examination based on English standards and English ideas would, in my opinion, tend to dwarf our development. I have the greatest respect for Englishmen and English surgery, but their ways are not our ways, and I prefer our own. Whether I am right in thinking that the representatives of Irish constituencies will accept this view remains to be seen. A few words more and I shall have done. During the last six months great harm has been done to the prestige and to the organization of Irish medicine. At the bidding of an irresponsible stranger we have been split into factions and set at each other's throats. The time has come when this should cease. Let us say fearlessly and openly what we have to say, and then let the controversy end. But above all things let us remember that no reform worth having can be obtained until the whole profession unites to form a solid and harmonious body.

ELECTIONS.

At a meeting of the Fellows, held on Monday, the following were elected:

President: Arthur Chance (re-elected).
Vice-President: Henry R. Swanzy (re-elected).
Hon. Secretary: Sir Charles Cameron (re-elected).
Council: Edward H. Bennett, William Stoker, Sir Charles A. Cameron, John B. Story, Sir William Thomson, Sir Charles B. Ball, Sir Thomas Myles, John Lentaigne, Richard D. Purefoy, Sir Lambert H. Ormsby, Henry G. Sherlock, Bolton R. M'Causland, John S. M'Ardle, Robert H. Woods, Thomas Donnelly, William Taylor, Edward H. Taylor, G. Jameson Johnston, R. Charles B. Maunsell.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on June 1st, Mr. John Tweedy, President, in the chair.

Diploma of Fellow.

Thirty-five candidates were found qualified for this diploma at the recent examinations.

Licence in Dental Surgery.

Fifty candidates were found qualified for the Licence in Dental Surgery, and corresponding diplomas were issued.

Election of Examiners.

The following Examiners were appointed for the ensuing year:

Board of Examiners in Anatomy and Physiology for the Fellowship.—Anatomy.—L. A. Dunn, A. Keith, C. Addison, W. McAdam Eccles. *Physiology.*—E.W. Reid, E. H. Starling, L. E. Hill, de Burgh Birch.

Conjoint Examining Board.—First Examination—Elementary Biology.—H. W. Lyle, W. G. Ridewood, T. G. Stevens, H. W. M. Tims.

Second Examination.—Anatomy.—H. J. Waring, A. Keith, C. Addison, J. E. Lane. *Physiology.*—W. H. Thompson, T. G. Brodie, J. B. Leathes.

Third Examination.—Midwifery.—W. Duncan, J. H. Targett, G. F. Blacker, A. H. N. Lewers.

Examination in Public Health.—Part I.—A. G. R. Foulerton. Part II.—H. T. Bulstrode.

Atlantic Union.

The President reported that it had been arranged to give a reception in the Museum to the members and visitors of the Atlantic Union on Wednesday, July 12th, from 5 to 7 o'clock.

Election of Council.

The President reported that a meeting of Fellows would be held on Thursday, July 6th, for the election of four Fellows into the Council in the vacancies occasioned by the retirement in rotation of Sir Henry G. Howse, Mr. Edmund Owen, Mr. Rickman J Godlee, and by the resignation of Sir Alfred Cooper, which was received with regret.

Examination in Dental Surgery.

It was determined that the Licence of the Board of Victoria be recognized, and that the holders of such licence be admitted until further notice to the First and Second Professional Examinations together, without passing the Preliminary Science Examination.

Under the conditions of the Medical Act of 1886 Colonial and Indian Graduates and Licentiates who are registered on the Colonial Register are entitled to practise in this country and are recognized, therefore, as having passed examinations equivalent to those required for degrees and diplomas in Great Britain. It appears to the Board of Examiners in Dental Surgery that, in these circumstances, such Colonial and Indian graduates and licentiates may fairly be entitled to the same privileges of exemption in the Second Professional Examination for the licence as are accorded to British graduates and licentiates, and with this view they beg to recommend that the clauses of the regulations be altered to read as follows, viz:—

Candidates who have passed the Second Examination of the Examining Board in England, or who shall produce evidence of having passed the Examination in Anatomy and Physiology for a degree or other qualification in Medicine or Surgery registrable under the Medical Act of 1886, will be exempt from re-examination in those subjects in Part I of the Second Professional Examination.

Candidates who are Members of the College or who have passed the Examination in Surgery of the Examining Board in England, or who shall produce evidence of having passed the Examination in Surgery for a degree or other qualification in Medicine or Surgery registrable under the Medical Act of 1886 will be exempt from the whole of Part I of the Second Professional Examination.

UNIVERSITY OF CAMBRIDGE.

THE following have been appointed examiners in the Third M.B., Part II:

Medicine.—Dr. Humphry, Dr. West, Dr. Hale White, Dr. Rose Bradford.
Surgery.—Mr. Mansell Moullin, Sir Hector Cameron, Professor Barling, Mr. Kellock.
Midwifery.—Dr. Handfield Jones, Dr. Rivers Pollock.

ROYAL UNIVERSITY OF IRELAND.

THE following candidates have been approved at the examinations indicated:

Third Examination in Medicine.—Upper Pass: *D. Boylan, *J. B. Butler, M. F. Caldwell, G Calwell, J. P. Carolan, J. J. Hickey, *R. Hill, B.A., T. S. Holmes, P. O'Hart, H. H. Prentiss, and *D. T. Sheehan. Pass: T. Arnold, J. Barrett, W. Carson, J. Costello, M A., C. R. Crymble, F. T. Dowling, W. S. Graham, T. Henderson, J. Hughes, J. McCausland, B.A., W. McCready, Charlotte E. Mitchell, J. F. O'Brien, J. J. O'Reilly, W. L. O'Reilly, H. J. O'Sullivan, J. Sinclair, and W. Whitfield.

* May present themselves for the further examination for Honours.

M.B., B.Ch., B.A.O.—Pass: J. F. Byrne, J. G. Campbell, P. F. Cawley, R. Chambers, LL.B., H. Gill, W. Godfrey, J. C. Hart, J. Houlihan, B.A., T. Laverty, F. A. McCammon, J. W. McFarland, S. McMurray, J. J. O'Keeffe, S. Porterfield, B A., Jane E. Reynolds, T. Rouse, M. V. Shanahan, R. J. Spence, G. W. W. Ware, W. J. Wilson, B.A.

M.D.—D. R. Campbell, B.A., J. S. Cargin, J. Clements, H. B. Steen, J. A. Williams.

The following awards were made on May 12th, in respect of recent examinations:

Second Examination in Medicine.—Second Class Exhibition of £15 and Second Class Honours: W. D. O'Kelly, Catholic University of Ireland.

Third Examination in Medicine.—Second Class Exhibition of £20 and Second Class Honours: J. B. Butler, Catholic University School of Medicine.

M.B., B.Ch., B.A.O. Examination.—Second Class Exhibition of £25 and Second Class Honours: W. J. Wilson, B.A., Queen's College, Belfast. Upper Pass: P. T. Cawley, Queen's College, Belfast, and Catholic University School of Medicine; J. C. Hart, Queen's College, Cork; I. Laserty, Catholic University School of Medicine.

UNIVERSITY COLLEGE, ABERYSTWITH.

MR. J. H. DAVIES, M.A., Cwrtmawr, has been appointed registrar of the College in place of the late Rev. T. Mortimer Green.

Miss Stephens, Lady Warden of the hostel at Owens College, Victoria University, Manchester, was appointed Lady Principal of the Alexandra Hall of Residence, in place of Miss Carpenter, resigned.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT a meeting on May 5th, Dr. A. Traill, Provost of Trinity College, Dublin, was unanimously elected an Honorary Fellow of the College.

At a further meeting on May 12th, the Licence in Medicine was conferred on Mr. J. E. St. George Queely and the Midwifery Licence on Mr. A. C. Dondy.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

FELLOWSHIP EXAMINATION.

THE following candidates having passed the necessary examination have been admitted Fellows of the College: C. A. K. Ball, J. J. Bell, J. S. Dunne, P. H. Falkner (Captain R.A.M.C.), W. H. Hornibrook, J. P. Marnell, T. J. Nicholl, and J. P. Ziervogel.

The following passed the primary part of the examination: J. M. Alcorn, C. M. Benson, J. B. Butler, H. M. Johnston, B.Ch., J. M. M'Namara, and A. A. Murphy.

TRINITY COLLEGE, DUBLIN.

THE following candidates have been approved at the final examination in Surgery:

H. H. A. Emerson, C. A. Boyd, C. R. Morris, H. English, W. F. Samuels, J. Murdoch, W. G. Harnett, C. C. Williams, T. T. H. Robinson, W. L. Myles, H. H. White, W. C. MacFetridge, F. J. Usher, J. Chambré.

Paul Carton, M.D., and Samuel Synge, M.D., passed the examination for the degree of M.Ch.

The following candidates were approved at the Trinity Term, 1905:

Final Examination in Surgery.—W. J. Powell, G. MacG. Millar, C. R. Morris, J. Murdoch, J. W. Houston, H. H. A. Emerson, W. Nunan, J. A. Pringle, C. A. Boyd, W. G. Harnett, C. Scaife, M. D. Ferguson, C. C. Williams, W. F. Samuels.

The following candidates have been approved at the previous medical examination in the subjects indicated:

Anatomy and Institutes of Medicine.—B. G. H. Solomons, A. E. Knapp.

Physics and Chemistry.—T. P. S. Eves, J. P. S. Dunn, F. W. H. Bigley.

Botany and Zoology.—R. H. Mathews, T. A. Watson, H. H. James, J. D. Murphy.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

Fourth Professional Examination.—Georgina W. Clarke, Florence M. M. Condon, M. T. Donovan, G. H. Gallagher, R. T. Gordon, W. Kelly, T. J. B. Kelly, J. A. Mescall, A. O'Reilly, P. M. Sheridan, W. J. Trimble, J. J. Vasquez.

D.P.H.—J. W. Dickson, L.R.C.P. and S.Edin.; J. J. Holt, M.B.Victoria Univ.; J. M. S. Kenny, M.B.R.U.I.; C. W. Reilly, Major, R.A.M.C., L.R.C.P. and S.Edin.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

AT a meeting of the College held on May 16th the following gentlemen having passed the requisite examinations, were admitted ordinary Fellows:

J. W. Crerar, R. D. A. Douglas, W. J. McC. Ettles, J. S. Fraser, S. G. Gomes, D. G. Newton, S. Raw, C. Retallack, L. K. Rodriguez, C. J. Taylor, J. S. Yule.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACTION AGAINST A MEDICAL MAN.

HOBSON *v.* BICKNELL.

AT the last Liverpool Assizes, before Mr. Justice Walton and a special jury, George Hobson, formerly porter at the Royal Liverpool Golf Club House, Hoylake, sued Dr. Arthur Bicknell, of West Kirby, for alleged negligence and breach of duty as a medical man, and for slander. The defendant pleaded that he was not negligent, nor was he guilty of any breach of duty; that he never uttered the words alleged; that if he did they were true; and, in the alternative, that they were privileged. Evidence having been given, the Judge, in summing up, pointed out that the plaintiff claimed damages under three heads: negligent treatment, breach of confidence, and slander. It was for him (the Judge) to say, in regard to the latter, whether or not the occasion was privileged, and if it was, and there being no evidence of malice, the jury need not trouble about the claim for slander, except that he would ask them whether or not the plaintiff was suffering as alleged. With reference to the alleged negligence, a mistake was not necessarily negligence. From the expert evidence it appeared that there were often cases in which a medical man could not be absolutely sure of his diagnosis, and he might be acting prudently in treating a patient for what it might afterwards be found he had not got. Unless the jury thought that there was not only a mistake, but a careless mistake, which an ordinary skilful doctor would not make, and ought not to make, they ought not to find Dr. Bicknell guilty of negligence. On the question of breach of confidence his lordship said that apparently the plaintiff told the club steward what the doctor was treating him for, and the steward communicated the information to the Secretary. Where there was no secret there could be no confidence, and he would leave it to the jury to say, having regard to the relations between the plaintiff, the doctor, and the club, whether the defendant had been guilty of a breach of confidence by failing to keep the secret.

HIS LORDSHIP put the following questions to the jury, which, after an absence of four hours, they answered as follows:

Was there negligence on the part of the defendant in the treatment of the plaintiff?—Yes, inasmuch as he accepted Dr. Moss's diagnosis without sufficient examination, but subsequently he used all reasonable care.

Was the plaintiff on August 19th suffering from the disease stated?—No.

Was there any breach of confidence by the defendant in telling Mr. Janion that the plaintiff in his opinion was suffering from the disease?—No.

Did the defendant tell Mrs. Hobson at the interview before September 28th—before the dismissal—that her husband was suffering from the disease?—No.

His LORDSHIP: You find there was some negligence?

The FOREMAN: Yes.

His LORDSHIP: Would you tell me what damages the plaintiff has suffered from that? The jury assessed the damages at £71 16s., for which amount the Judge subsequently entered judgement, with costs, for the plaintiff, on the issue of negligence; while, with regard to slander and breach of duty, he gave judgement for the defendant, with such costs as were attributable to those issues.

DEATH FROM JEWISH CIRCUMCISION.

A DEATH from excessive haemorrhage consequent on circumcision and "due to misadventure" was recorded in the Stepney Coroners' Court last month. From the account given in the *Jewish Chronicle*, it appears that the deceased was a baby 10 days old, which was circumcised by a registered Mohel, of Russian origin. Haemorrhage began about four hours after operation. The child seems to have died on the following day. The Mohel had redressed the case with boracic lint, and the bleeding stopped, but began again next morning, and a medical man, Dr. Gustave Michael, was summoned. He put in two stitches and again stopped the haemorrhage, but the child was already dying. The Mohel said he had had twenty years' experience in Russia and five in England. He performed about 100 circumcisions a year, and no child had hitherto died. Dr. Michael said that the case was peculiar in that the child's blood did not clot; otherwise the lint applications of the Mohel would have sufficed. The latter had not appreciated the seriousness of the case. He was not one of those who had taken advantage of the instruction afforded to Mohelim by the Society of Initiation, through its medical officer, Dr. Snowman. The Coroner, on the termination of the inquiry, told the Mohel that the jury had taken a merciful view of the case, and advised him at once to get a proper training and certificate from the Society mentioned.

TONGUE-TIE.

A BRADFORD jury last month, after a consultation of three-quarters of an hour, returned a verdict that a five-day-old baby had died from convulsions and asphyxia following an ulcer in the mouth caused by a neglected cut, and that the neglect of the cut on the part of the midwife concerned in the case was not of a culpable and criminal nature. The mother, according to an account of the case in the *Yorkshire Daily Observer*, deposed that the child had seemed to her healthy and well developed, but the day after it was born the midwife, one duly certified by the Central Midwives Council, who alleged herself to have 20 years' experience, told her it was tongue-tied. She then proceeded to cut it. The operation, as described by another witness, was very simple. The midwife took a pair of scissors out of her bag, wiped them with her fingers, and, after cutting the tongue, wiped out the child's mouth with some rags dipped in water. The child remained well until the next day, but then its chin and face began to swell, and it died some two days later. Before it died Dr. Taylor was called in, and subsequently gave the evidence upon which the first part of the verdict quoted was founded. He thought the child would not have died if its mouth had been properly treated after the cutting, and added that he thought the operation performed was unnecessary in any child.

GLASGOW EAR HOSPITAL.

A CORRESPONDENT sends us a cutting from a newspaper containing a report of the annual meeting of the subscribers to an ear hospital. He takes exception to the statement made by one of the staff respecting the frequency with which children suffer from defective hearing associated with nasal obstruction, and the success which has followed the treatment pursued at that hospital for removing this defect, and suggests that it is "advertising" or "touting for practice." We do not think there is any legitimate ground for our correspondent's suggestion.

MEDICAL ADVERTISING.

W. HARDMAN, M.B.—Such a handbill is undoubtedly advertising of the plainest kind, but the name of the practitioner which appears upon it is not to be found in the *Medical Register* for 1905. The case will be referred to the Ethical Committee.

THE RECOGNITION OF UNQUALIFIED PRACTITIONERS BY SCHOOL AUTHORITIES.

A CORRESPONDENT sends us the following letter which he states was sent to a woman whose children had been away from school with measles:

"Dear Madam,

"Will you kindly oblige by asking your doctor or chemist if it is safe for Frederick to come to school? We have to be so particular.

Yours faithfully,

——, Head Master of Boys,

—— School."

It is much to be regretted that certificates of unregistered persons should be accepted by public authorities, from the Registrar-General downwards, but we fear nothing but a change in public opinion can alter this unfortunate state of things.

RESPONSIBILITY FOR DEATH CERTIFICATES.

J. H., M.B., F.R.C.S.—If the matter upon which our correspondent writes is to become the subject of legal proceedings it is not desirable that we should comment upon it in these columns. We believe no legal penalty would attach to him for keeping silent, but he had better consult his solicitor.

MEDICAL WITNESSES' FEES AT POLICE COURTS AND COUNTY COURTS.

A Correspondent (Glamorganshire) residing eight miles from the police court, and having been detained more than four hours from home, giving evidence in two cases on the same day, is entitled, under the new rules, to not more than two guineas fee, and as travelling allowance the railway fares actually paid, or if a railway is not available, reasonable expenses of conveyance actually incurred. In the County Court the sum of £2 5s. 6d. paid him for giving evidence in two cases on the same day, including travelling expenses, seems to be the full amount to which he was entitled.

MEDICAL TESTIMONIALS TO TRADE ARTICLES.

A. W., M.D.—Although the main ethical objection is to the publication of medical testimonials as advertisements, such expressions of opinion ought to be given with the utmost caution, as it is certain that such are the fallacies attending the effects of remedies that no one should give a testimonial in favour of a new remedy until he has tried it over a long series of cases; probably the most legitimate way of showing appreciation of it is by continuing to prescribe it and not by writing a letter, which may be abused, and give the writer of it a considerable amount of trouble.

MEDICAL ADVERTISING.

Staffordshire asks the following questions: (1) Is there any objection to my putting on my brass plate "Physician and Aural Surgeon," as I have had particular experience in the ear and throat, and wish to gradually specialize for it, being in general practice at the same time? (2) Is there any objection to my putting "For Nose, Ear, and Throat, especially, Wednesday, 3 30, and by appointment," on my prescription paper and billheads, as often people come from outlying villages for this department at odd hours often inconvenient, and such a notice would necessarily only be circulated among my own patients? (3) Could a notice showing hours, etc., hang in my waiting-room. (4) A medical man in this neighbourhood has his name, address, and hours (9 to 10, 6 to 8) on his dispensing labels; is there any objection to this?

*** (1) It is not usual, and we do not think the innovation is to be commended. (2) There is no objection to the words indicated upon the prescription paper, but it would be better that they should not be on the billheads. (3) Yes. (4) Objection has frequently been taken to this practice, and except where there is a statutory obligation, as in the case of poisons, it is better to use a plain label, giving merely the directions to the patient.

SUPERSESSION.

Ajax.—The country doctor could hardly have acted otherwise. C. had a perfect right to take over the case. No ethical rule seems to have been infringed; but no doubt A. may feel he was unfairly treated. His only legitimate grievance, however, appears to be against the family and not against his colleagues.

I. D. M. writes: "A. and B. are general practitioners in a small country town. A. was attending the child of a family who had always been his patients, and this was well known to B., who lives opposite to the patients. On paying his visit one day to the child the mother informed him that she had called in B. as she was anxious about the child. She stated that B. had not asked neither had she informed him that A. was then attending. After some conversation, and in order to satisfy her, A. consented to ask B. to see the child again with him. This was done, and after consultation the mother turned to B. and said, 'I should like you to attend the child, will you do so?' B. replied, 'Well, it rests with you; I do not wish to interfere with A., but it rests with you, it rests with you.' A., seeing the attitude B. took up, felt there was nothing for him to do but retire from the case, which he did after protesting against the ingratitude of the mother after all he had done for her and her children in past years, and pointing out that instead of dismissing him she could have B.'s opinion in addition to his as often as she liked. Was B.'s attitude in the matter a correct one? If not, what should he have done?"

*** (1) B. should not have seen the patient who was under A.'s care except for an emergency. (2) B., after seeing the case in consultation with A., should not have taken charge of it himself.

A. is at present acting as a *locum tenens*: the brother of a patient under the care of another practitioner called him in consultation with the practitioner in question, who had offered to meet "any doctor whom the patient liked to call." However, when he went the usual medical attendant was not there, and at the end of three-quarters of an hour on being sent for he refused to come. A. then put it to the patient whether he wished to continue with his former medical attendant or to be examined and attended by A., and said that if the patient accepted the latter alternative he must let his own medical attendant know that his services were no longer required. The patient asked to be examined; this was done, and he was sent to the hospital as he had gangrene of the foot. A. wishes to know whether he acted rightly, and if not what he should have done and whether there is anything further he can do?

*** It is possible that there was some misunderstanding. The right course for our correspondent to have taken was to have examined the patient and to have written a letter to his medical attendant, giving his opinion as to the nature of the case and the treatment desirable, and have handed it to the patient or his friends for delivery.

MEDICAL OFFICERSHIP TO A NURSING HOME.

S. B.—1. We understand that our correspondent is *de facto* medical officer to the home, and under these circumstances there can be no objection to his announcing the fact in the *Medical Directory*. 2. The question of his right to do so having been raised and settled by the committee in his favour need not be reopened. 3. The committee was the body entitled to express a final opinion upon the point. 4. We cannot see that any useful object would be attained by sending a copy of the correspondence to each member of the committee.

THE OBLIGATIONS OF A CONSULTANT.

A. is surgeon to a small hospital, and is also in general practice. B., a neighbouring practitioner, asks A. to see a case of appendicitis. A. sees the case and recommends an operation. The patient is removed to hospital under A.'s care, is successfully operated upon, and returns home. A few months afterwards the patient called at A.'s house and stated that he wished to consult him on another matter. A. at first refused to see him, but the patient stated that although B. was in attendance at the time of consultation it was only in a temporary capacity (his own medical man having left the district), and he did not intend to requisition B.'s services again. Is A. justified in taking the patient, and if wrong what reparation can he make to B.?

*** As a general rule the fact that A. had seen the patient so lately in consultation should have precluded him from taking him as his own patient. If, as alleged, the man was not B.'s regular patient, B. might have raised no objection had the question been referred to him. The only reparation that now seems possible is that A. should express his regret to B. and offer to resign the patient to him for the future.

THE CLAIMS OF OPTICIANS.

A Correspondent sends us a letter from an optician to a lady, in which he says that he makes no charge for sight testing if anything in the way of glasses is required, otherwise his charge would be about 5s., and asks what "otherwise" covers?

*** We presume the optician means that he makes no charge for sight testing when this examination is followed by the purchase of spectacles, but that where the customer does not purchase spectacles he would charge a fee of 5s.; although, as it is difficult to see what the customer would then get for his money, it is probable that the business done under this head is not large.

ASSISTANT'S DOORPLATE.

A Correspondent who is practising in partnership with another writes that the firm has recently decided to have a qualified assistant at a neighbouring village, and while his house is being got ready they have put up his plate at the local post office. Should the plate bear the assistant's name only, or ought the name of the firm to appear as well?

*** It is not usual to put up the name of the assistant at all unless he is either a partner or is occupying the position of assistant with a view to partnership; the usual custom is to put up only the name of the firm.

ARRANGEMENTS WITH CHEMISTS.

Our attention has been drawn to a cutting from the London *Daily Mail*, headed "Tricks of the Profession," which reads:

"Many West-End physicians find it very profitable to send their patients to chemists with whom they have a share-and-share-alike agreement."—*Medical Times.*

We regret to find that the passage is correctly quoted from an article in the *Medical Times and Hospital Gazette* for May 13th, entitled "Dispensing by Medical Practitioners," and there is nothing in the context to modify the grave imputation made by the words quoted. The article goes on to say:

"We fail to see how such an arrangement can be regarded as more ethical in a professional sense than the arrangement by which a medical man supplies his patient with advice and all necessary medicines for an inclusive charge."

This strengthens the imputation that the practice is a common one among practitioners of high standing, and may be compared with dispensing. There is a well-known proverb that "It is an ill bird that fouls its own nest"; we do not believe there is any ground for this charge, but if there are individuals who enter into such contracts with chemists they are not only unethical but have been distinctly condemned by the Royal College of Physicians of London, whose By-law No. 176 reads:

"No Fellow or Member of the College shall be engaged in trade or dispense medicines or make any *arrangements with chemists or any other persons for the supply of medicines*"; the Royal College of Physicians of Ireland also forbids its Fellows "to make any arrangement with a chemist or other person for the supply of medicine."

Such vague accusations are, therefore, unfair to the general body of physicians, who are, with few exceptions, Fellows or Members of a College of Physicians and governed by their by-laws. No arrangement should be tolerated with a chemist which savours of profit-sharing; a practitioner may charge his patients an inclusive fee and send them to a chemist to dispense the prescriptions for him, or the practitioner may have an arrangement with the chemist, by which he is to charge the patients according to a fixed scale. To either of these plans there can be no objection, but neither would justify the reference made by our contemporary, whose words have evidently been taken to reflect upon the general body of consulting physicians.

NOTICES OF MEDICAL MEN IN THE LAY PRESS.

A Correspondent sends us a cutting from a local newspaper, which is in effect a puffing notice of a newly arrived practitioner. Such notices are much to be regretted. The matter will be referred to the Ethical Committee.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SCARLET FEVER RETURN CASES.

MR. JUSTICE WALTON, in giving judgement on May 30th in the King's Bench Division with reference to the case of "Evans *v.* Mayor, Aldermen, and Citizens of Liverpool" (BRITISH MEDICAL JOURNAL, May 20th, 1905, p. 1130), said that if the finding of the jury that there was an undertaking by the defendants that their visiting physician would act with reasonable skill and care in the discharge of the boy were to stand, his judgement would have to be for the plaintiff. The question which he had to decide was whether there was any evidence of such a duty on the part of the defendants as was expressed by that finding. It had been suggested that in the circumstances of this case the defendants became absolutely bound not to discharge a patient in a condition to spread infection. To hold this would be to lay a very serious burden on hospitals, and he saw no reason for holding that there was any such obligation, apart from negligence. What, then, was the duty they undertook? In his view it was the duty of those persons who manage hospitals with ordinary skill and care. They did not undertake the duties of a medical man nor to give medical advice, but they did undertake that the patient should have competent medical advice and assistance. It was admitted that Dr. Archer was a competent medical man, and if in this instance he was negligent, the Corporation was not liable for his negligence. It was said that he was their servant for the purpose of discharging the child. [His Lordship here read the conditions of the doctor's appointment and continued:] In my opinion the doctor acted as adviser to the Corporation, and in discharging the boy from the hospital did not do so as their servant, and in discharging the boy under the advice of a competent medical man the Corporation could not be said to be guilty of negligence. In his view there was no cause of action, and he would give judgement for the defendants with costs.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

THE Royal Commission on the Care and Control of the Feeble-mindad set again on May 26th, when evidence was given by Sir J. Crichton-Browne, the Lord Chancellor's Visitor in Lunacy, Mr. E. Marriott Cooke, a Commissioner in Lunacy, and Dr. G. H. Savage.

Sir J. CRICHTON-BROWNE thought no definite opinion could be expressed as to whether the number of idiots, imbeciles, epileptics, feeble-minded, and defective persons was increasing out of proportion to the population. Of all causes of idiocy and mental defects heredity was entitled to primary consideration. As to the part actually played by the hereditary transmission of mental defect, statistics seemed to show that this existed in about 5 per cent. of actual idiots and imbeciles, and it was to be remembered that idiots and imbeciles did not marry; but they had no evidence of the influence of heredity in connexion with minor mental defects. Insanity bulked much more largely as an hereditary cause of mental defect than did mental defect itself, and was probably to be traced in about 20 per cent. of the feeble-minded. Other nervous diseases were highly instrumental in the production of mental defect, more especially epilepsy and neuroticism, if that might be called a disease. The effect of alcohol in producing mental defect had, he thought, been exaggerated. He did not believe that anything like 38 per cent. of idiocy, as had been stated, was attributable to intemperance of ancestors. The provision for idiots at present existing seemed to him to be of the right kind, although capable of improvement in certain directions, and in need of extension. Of idiots and imbeciles living with relatives and others and receiving relief many were harmless, well cared for, and the objects of peculiar affection and solicitude, and it would be cruel and impolitic to disturb idiots and imbeciles of this character. Pauper idiots, however, and imbeciles residing with relatives or others who were neglected, subject to ill-usage, used for begging purposes, or who were not under proper control, should be removed to the workhouse, to the special idiot department of the county or borough asylum, or to a training school, according as their condition and capabilities might indicate. The provision for epileptics in this country required extension on certain lines. The co-ordination and control of all institutions and agencies dealing with idiots, imbecile epileptics, and feeble-minded and defective persons should be entrusted to a Government department. A new department of commissioners in special education might be called into being, and such a department should of course include a medical element.

Mr. E. MARRIOTT COOKE, Commissioner in Lunacy, thought that better provision should be made for the care and control of many of the poorer class of persons who were discharged from idiot asylums by the establishment of homes or colonies in which they could be permanently retained. Other types of the feeble-minded should also be sent to homes or colonies.

Dr. G. H. SAVAGE was of opinion that there were certain persons of unsound mind who were not under proper care and control because the judicial authority would not accept medical opinion that they were insane. Certain cases of recurring insanity, and of that due to drugs and alcohol, were also not placed under control because their temporary recovery would lead to their premature discharge. Such patients ought to be subjected to detention for specific periods after apparent recovery. There was also a class of insanity of conduct, or moral insanity, of which it was extremely difficult to obtain evidence in a form which complied with the terms of the certificate in use. To cover such cases there should be a special certificate, in which reported changes in conduct and habits were accepted as the facts indicating insanity. It seemed to him that every certificate of insanity connoted two things, namely, an opinion that the person in question was of unsound mind, and also that he was a person who ought to be subjected to control. But he thought there was a form of mental unsoundness which could not be called insanity; nor did he admit that all persons of unsound mind ought to be subjected to control. In some cases of insanity of conduct there was very little, if any, distinct intellectual defect, although it was true that such persons were so far unreasonable that they did not seem to be able to associate their acts with the consequences or to be influenced by past experience. So far, however, as memory and judgement on other matters were concerned, there was nothing wanting in them. The acts of the habitual criminal were the outcome of his surroundings, but those of the morally insane were generally in direct opposition to his education and environment. A system of colonies for the feeble-minded would be preferable to their aggregation in large establishments, and they should not be associated with the definitely insane. The feeble-minded were never likely to become completely efficient citizens. As for inebriate retreats, the best English and Scotch establishments of this class effected considerable good, but the chance of relapse was always great; in others there was too much loafing and lack of occupation for benefit to accrue.

INDUSTRY AND HEALTH.

MR. LEONARD WARD, Inspector of Factories, read at a recent meeting of the Royal Statistical Society a paper entitled The Effect as shown by Statistics of British Statutory Regulations directed to the Improvement of the Hygienic conditions of Industrial Occupations. The effect was considered from three different points of view—the effect on (1) the mortality rates, (2) the "sickness experience," and (3) the physique of the operatives employed in the several typical occupations under review. In the factories section cotton manufacture was fully dealt with. The steady improvement which had taken place in the conditions of employment in that industry during a century of statutory sanitary reform was carefully traced, and the death-rates from phthisis and respiratory diseases in certain typical cotton towns were shown to have declined. Much of the improvement was held to be due to the enforcement of the hygienic clauses of the more recent Factory Acts, especially the Cotton Cloth Factories Act, 1889. To a similar cause was attributed the relative decrease in the "sickness experience" of textile operatives in the county of Lancaster. Comparisons on the bases of weight and height were made between factory children of 1833 and factory children of 1873, and between non-factory children of 1833 and non-factory children of 1873. It was shown that the non-factory child of 1873 had an advantage over the non-factory child of 1833, and this advantage was more marked than the corresponding advantage of the factory child of 1873 over the factory child of the earlier period. Further, it was shown that even the non factory child was not so well-developed as children living under more favourable conditions. The conclusion was therefore drawn that there had been a relative retardation of growth in children employed in textile factories, but that one effect of factory legislation had been to prevent deterioration in this class of operative. In regard to pottery workers, it was shown that till about 1890 no marked improvement had taken place in the general condition of employment, as shown by the vital statistics of such workers. The statistics relating to lead poisoning alone, however, gave evidence of the immense benefits to the lead workers in potteries resulting from the working of the hygienic clauses of the obligatory special rules which were introduced subsequent to 1890 and directed to that specific danger. In regard to coal and ironstone miners, fifty years of statutory regulations were shown to have produced such salutary results that the mortality of coal miners of the present day only slightly exceeded that of agriculturalists. It was estimated that more than 15,000 lives had been saved during the last half-century solely by the prevention of explosions of fire-damp or coal dust, and this had been mainly brought about by the provision of "adequate ventilation" as required by the Coal Mines Act, 1855, and subsequent Acts.

SANITARY INSPECTORS.

SOME indication of the extent to which the field of work provided for both sexes by modern sanitation is attracting women appears to be offered by the result of the May examination for sanitary inspectors under the Public Health (London) Act, 1891, held by the Sanitary Inspectors' Examination Board. Of the thirty candidates who were successful no less than twenty were women. Of these eleven received their instruction at the hands of the National Health Society, four at the Bedford College for Ladies, and two at the Royal Sanitary Institute. The balance of three was made up by women who were already in office, one as a health visitor and the other two as inspectors. Of the ten successful male candidates, five were trained at the Royal Sanitary Institute, three at King's College, and two already held office as inspectors.

FLATS AND HEALTH.

Two papers on the subject of flats were read at a meeting of the Royal Sanitary Institute on May 9th. In the first of these Dr. Louis Parkes, medical officer of health for Chelsea, pointed out that it had been necessary to abandon the old idea that density of population was in itself an essential and necessary cause of public ill-health, and of a high death-rate. It was found that large numbers could, under favourable conditions, be housed with safety on very limited areas. There were industrial dwellings in which the population was equal to 1,000 to the acre, but which nevertheless compared favourably from a death-rate point of view with less densely populated areas. There was probably an almost equally marked crowding of population in regard to acreage to be found in many of the blocks of residential flats erected for the middle classes; but so far there was no record of such habitations being unhealthy, nor did he think that there was in them any unusual prevalence of infectious disease. In the second paper, Mr. W. Rolfe, while admitting the rapid extension of flat building, said that he did not believe London would ever be a city of flats. Such residences were in their proper place when within two miles of Charing Cross, but the wisdom of their erection in such places as Hampstead had yet to be proved.

MEDICAL INSPECTION OF TRAMPS AT WORKHOUSE.

J. P. J., who is medical officer to a provincial workhouse and lives one and a quarter miles from it, has been requested by the guardians to visit the house every evening between 8 and 9 p.m., in order the inspect the tramps and see if any have small-pox. He asks what would be a reasonable fee—(1) For each evening visit; (2) for each tramp inspected.

*** There would probably be a great difference of opinion on this question, but we consider a charge of 3s. 6d. or 5s. for each evening visit with an additional charge of 2s. 6d. or 3s. 6d. for each tramp inspected and reported on would be a fair and equitable claim to make.

GLOUCESTER SMALL-POX EPIDEMIC.

L. J. L.—The number of deaths in the Gloucester small-pox epidemic of of 1895-6, as stated in Dr. Sidney Coupland's report to the Royal Commission on Vaccination, was 434. Dr. Coupland does not report on the cost of the epidemic, but perhaps Dr. Bond, Honorary Secretary of the Jenner Society, Gloucester, could give the information. In the *Times* of September 15th, 1903, Mrs. Garrett Anderson discussed very fully the subject of Vaccination and the Rates, with special reference to the cost of the London epidemic of 1901-2. Her letter to the *Times* was afterwards published as a pamphlet by the Imperial Vaccination League, 53, Berners Street, London, W. In the BRITISH MEDICAL JOURNAL of July 30th, 1904, there is an account of a paper on the Economic Value of Revaccination, contributed by Mrs. Garrett Anderson to the Congress of the Royal Institute of Public Health.

INFECTIOUS DISEASE NOTIFICATION.

ASTERION.—If the district council should refuse to pay B.'s fee for notifying the case of scarlet fever to the medical officer of health, B. will be able to recover it in the county court. Section 111 (*i*) (*b*) of the Infectious Disease (Notification) Act, 1889, is very explicit, and requires every medical practitioner attending on, or called in to visit, a patient suffering from an infectious disease to send to the medical officer of health a certificate giving certain details as soon as he (the practitioner) is aware that the patient is suffering from the disease in question. It is quite likely that B. may have been asked by a neighbour or relative other than the parents to see the child, and as there was no rash out when he saw the patient he might have been aware of the nature of the illness only when told on the day but one following his visit, when he forthwith sent his certificate. Had he not done so he was liable to be fined. Most medical officers of health recognize that, although double notification may be abused—as, for instance, when a principal and assistant, or partners, systematically notify respecting the same patient—yet it is better to have an occasional double notification rather than miss a case through some technicality.

QUALIFICATION FOR M.O.H.

IN reply to a correspondent we must point out that Section 18 of the Local Government (England and Wales) Act, 1888, requires that, except where the Local Government Board for reasons brought to their notice may see fit in particular cases specially to allow, no person shall be appointed medical officer of health of any county or county district or combination of county districts or the deputy of any such officer unless he be legally qualified to practise medicine, surgery and midwifery. No other qualification is required except (after January 1st, 1892) as regards counties or with respect to towns or districts or combinations of districts containing according to the last published census a population of 50,000 or more inhabitants. A practitioner registered prior to June 1st, 1887 (when the Medical Act of 1886 came into operation), and who is not qualified in medicine, surgery and midwifery is eligible as medical officer of health of a district with a population of 25,000 persons, but the special consent of the Local Government Board to his appointment would be required. The Board in deciding whether such consent should be given would no doubt take into consideration the fact of previous service as a medical officer of health elsewhere, but would also in all probability ascertain whether there was any other candidate for the appointment who was qualified (and registered) in medicine, surgery and midwifery, and might require from the electing authority sufficient reasons for not electing him.

QUALIFICATION FOR MEDICAL OFFICER OF HEALTH IN SCOTLAND.

LEX.—The statutory qualification for a county or borough medical officer of health in Scotland is that the person "shall be registered on the *Medical Register* as the holder of a diploma in sanitary science, public health, or State medicine, under Section 21 of the Medical Act, 1886." "Lex" falls clearly within the category of persons so registered.

ROYAL ASYLUM FOR THE DEAF AND DUMB.—The Lord Mayor of London, accompanied by the Lady Mayoress and the Sheriffs and their ladies, will visit the Royal Asylum for the Deaf and Dumb Poor, Margate, on Saturday, June 17th. The Lord Mayor will unveil a memorial tablet to commemorate the final transference of the institution from its original home in Old Kent Road, London, to Margate, and the Lady Mayoress will distribute the prizes to the children.

INTERNATIONAL CONGRESS OF RADIOLOGY.—The first International Congress of Radiology and Ionization will be held at Liége from September 12th to 14th, under the patronage of the Belgian Government. There will be two sections: 1. Physical, dealing with (*a*) the physics of electrons, comprising the various kinds of radiations; (*b*) radio-activity and corresponding transformations; (*c*) meteorological and astronomical phenomena attributable to ionization, to radio-activity, and to various radiations. 2. Biological. The programme of this section will include the examination of the physiological properties of radio-activity and other radiations, as well as their therapeutic properties. It will be drawn up by a special subcommittee under the presidency of Professors Bouchard and d'Arsonval. The members of the subcommittee are Drs. Béclère, Bergonié, Charpentier, Danysz, and Oudin. The President of the Congress is Dr. H. Kuborn, General President of the Belgian Public Health Society and Emeritus in the University of Liége.

HOSPITAL AND DISPENSARY MANAGEMENT.

HOSPITAL FOR EPILEPSY AND PARALYSIS, MAIDA VALE.

THE annual general meeting of the subscribers to the Hospital for Epilepsy and Paralysis was held on May 26th, this, we believe, being the first annual meeting at which a full year's work, in both the in-patient and out-patient departments of the hospital, has had to be reviewed since the institution took possession of its new home in Maida Vale. Viscount Clifden presided, and in moving the adoption of the report of the Committee of Management, drew attention to the fact that the amount received from annual subscriptions remained small, though they had been fortunate in receiving some large amounts by way of legacy. They were working upon the principle of keeping the outlay of the charity within its means, a plan which he thought worthy of imitation by other institutions; many of these seemed to think that indebtedness increased their claim to support. In seconding the motion, the Rev. Canon Barker pointed out that the hospital provided for a class of patients for which general hospitals as a rule could not cater, and that they kept these patients for adequate periods of treatments, the average being seventy-five days.

BRISTOL LUNATIC ASYLUM

THE annual report for 1904, of Dr. J. V. Blachford, the Medical Superintendent of this asylum, shows that there were 838 patients on the books on January 1st, 1904, of whom 15 were private and 823 rate-paid cases, and that on December 31st, 1904, there were 951, of whom 10 were private cases. This is an increase of 113 on the previous year, or of 116 on the total number treated. The table giving the average number resident each year since 1861 shows a steady yearly increase up to the present figure, which is the largest recorded. To provide for this increase, which has caused overcrowding, particularly on the male side, plans have been submitted to the Commissioners for an extension which will bring up the total accommodation to 1,000 beds. During 1904 there were 308 admitted for the first time during the year and 48 readmitted, of whom the great majority were in fair bodily health and condition, and of the age period, 25 to 50. As regards the forms of mental disorder amongst the admissions, there were 134 cases of mania of all kinds, no less than 87 being classed as cases of acute mania; 48 of melancholia of all kinds; 28 of dementia; 12 of stupor, and 4 who were considered probably malingerers. There were also 12 cases of epilepsy, 8 of congenital or infantile defect, and 17 cases of general paralysis. The probable predisposing and exciting causes are arranged in three tables, the third relating solely to the 17 general paralytics admitted.

The first table shows a total hereditary predisposition in 77 of the 308 "first" admissions—that is, in 25 per cent. The second table shows a hereditary predisposition in 19—that is, in 30 per cent. of the readmissions. As to exciting causes, alcohol is mentioned in 33 of the total 356 admissions—that is, in 9.26 per cent. Excluding the general paralytics, syphilis does not appear as a cause in any case, and even in the 17 general paralytics syphilis is given as cause in only 1 case! Alcohol is credited with being the exciting cause in 2 of the cases, and the exciting causes of the 14 remaining cases are relegated to the category of the "unknown." During the year 133 were discharged, 112 as recovered, 20 as relieved, and one as not improved. This gives the satisfactory recovery-rate on admissions of 31.46 per cent., or excluding transfers, of 42.59 per cent. The deaths during the year numbered 110, giving a percentage death-rate on the average numbers daily resident of 12 02. In 32 cases death was due to cerebro-spinal disease, including 19 deaths from general paralysis; in 49 cases from chest diseases, including 21 deaths from phthisis pulmonalis; in 10 cases from chronic Bright's disease, enteritis, and cirrhosis of liver, and 17 cases from general diseases. There were also two deaths from asphyxia by choking. The number of casualties occurring during the year is not given. The sudden and unexpected death in September last of Dr. Benham, who for over 14 years had been the Medical Superintendent of this asylum, is chronicled in this report, which contains several graceful and fitting expressions of the grief which this occasioned to patients and officers alike, and of the universally high regard in which he was held.

DERBY BOROUGH ASYLUM.

ACCORDING to the annual report of this asylum for 1904, there were 312 patients in residence on January 1st and 320 remaining on December 31st, 1904. The number of patients admitted during the year was 88, of whom 73 were chargeable to the Derby Union, as compared with 85 in the previous year, and 93 in 1902. The Medical Superintendent, Dr. S. R. Macphail, says that admissions in 1904 were less than in any of the previous eight years, with the exception of the year 1900. Seventeen of the admissions had been previously under treatment in this asylum, 14 of these after previous recovery. About two-thirds (65) of the admissions suffered from recognizable physical disease, only 12 being in good average health when admitted. In only 10, however, was the mental illness of more than twelve months' duration on admission, excluding, of course, 6 cases of congenital defect. As to the forms of mental disorders in the admissions, there were 47 cases of mania of all forms, 21 of melancholia of all forms, 3 cases of primary dementia, 4 of general paralysis, 5 of epilepsy, and 6 cases of congenital defect. The type of mental disease was, Dr. Macphail says, more hopeful than usual, there being fewer hopeless melancholics and more acutely maniacal cases than have been received for several years. As to the causation of the insanities in those admitted, Dr. Macphail speaks in forcible terms of the gravity and importance of the rôle of heredity.

He was able to trace hereditary predisposition to insanity or allied neuroses in 32 cases, or 36 per cent. of the total. "In several of these cases the hereditary taint was denied by the relations, although to our knowledge members of the family had been under treatment in this asylum; so it may be safely assumed that 36 per cent. is an understatement and that 50 per cent is nearer the truth."

Alcoholic excess, as a predisposing or exciting cause, was ascertained in 18 cases; venereal disease in 2; various bodily diseases, including epilepsy, in 28; periodic disturbances, including pregnancy and lactation, in 17; and previous attacks in 20. During the year 31 were discharged as recovered, giving a recovery-rate on admissions (excluding transfers) of 43.6 per cent., 9 as relieved, and 5 as not improved.

Dr. Macphail draws attention to the fact that the method of calculating recoveries on the admissions does not show the proportion of permanent cures. The statistics of his asylum for sixteen years show that of 521

patients discharged as recovered 105, or 20 per cent., have been re-admitted. In the year there were 32 deaths, giving a death-rate on the average numbers resident of 10 per cent. There were 13 deaths from cerebro-spinal disease, including 6 from general paralysis; 11 from diseases of the chest, of whom 8 died from heart disease and only 2 from physis; 1 from Bright's disease; 1 from perityphilitis; and the remainder from general diseases.

The low tuberculosis death-rate is a noteworthy feature, and that this is no isolated occurrence is evident from the fact that only 50 deaths from tuberculous diseases have occurred since the opening of this asylum in 1888. *Post-mortem* examinations were made in every case, and in no case was it necessary to hold an inquest. The report contains several testimonies to the excellent management of this asylum, and, with the exception of epidemic influenza, the general health has been good.

MIDDLESBROUGH COUNTY-BOROUGH ASYLUM.

THE annual report of this asylum for the year ending March 31st, 1905, contains the report of Dr. J. W. Geddes, who succeeded to the medical superintendentship on the resignation of Dr. Pope, who had been medical superintendent since the opening of the asylum in 1898, and who was recently appointed to the Somerset and Wells Asylum. The statistical tables are for the year 1904, and show that there were 245 patients in the asylum on January 1st, 1904, and 399 on December 31st, 1904. This increase was largely due to a considerable influx of out-county patients, but nevertheless a table prepared by Dr. Geddes shows a decided increase in certified insanity in Middlesbrough, the rate to population having risen from 19.3 per 10,000 in 1894 to 26 per 10,000 in 1904. Still, this is well below the average of 34.7 per 10 000 for the whole of England and Wales. During the year 231 patients were admitted, of whom 150 were out-county patients and 5 private cases. Of the whole number, 148 were either in only moderate or feeble bodily health and condition, and not including 21 cases of congenital defect, the attack in no less than 124 cases was of more than twelve months' duration on admission. The admissions were classified according to the forms of mental disorder as follows: Mania of all forms, 102; melancholia of all forms, 30; dementia, including 4 cases of primary dementia, 44; general paralysis, 22; epilepsy, 6; and congenital or infantile defect with or without epilepsy 27. The probable causes of insanity appear to have been worked out in 86 cases, transfers not being included in this table. Alcohol is given the principal place as exciting cause, being given in 21 cases—that is, in 24.4 per cent. Moral causes are mentioned in 7, venereal disease in 2, previous attacks in 8, and in 16 cases the cause was "unknown." Hereditary influences were ascertained in 3 cases, or 3.4 per cent., an unusual percentage. The inmates of this asylum are to be congratulated on a freedom from hereditary taint probably unrivalled amongst sane communities. During the year 31 cases were discharged as recovered, giving a percentage recovery-rate on admissions (excluding transfers) of 31.31, and 10 as not improved. There were 26 deaths during the year, giving a percentage death-rate on average number resident of 10.37. Including 12 deaths from general paralysis, there were 17 deaths due to cerebro spinal disease; 10 from chest diseases, 4 of whom died of phthisis pulmonalis; 1 from carcinoma of liver; and 8 from general diseases, including in this group 2 deaths from epilepsy. There were no deaths from accident, no serious injuries had to be recorded, and the general health was good throughout the year.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—The Lord Mayor presided at the festival dinner of the City of London Hospital for Diseases of the Chest, held at the Trocadero Restaurant, London, on May 26th. The loyal toasts having been duly honoured, Mr. J. J. Hamilton, Master of the Leathersellers' Company, gave the toast of "The Medical Staff," which was responded to by Dr. E. Clifford Beale, who said that the medical staff were always anxious to take advantage of any scientific advance that might help forward the interest of the patients. In the early days at the hospital an important point from the founder's point of view was to provide an asylum for patients with consumption or heart disease. At the present time the great idea of the staff was to cure, as far as possible, the patients who came under their charge. Within the last few years the staff could show gradually-improving results. He thanked the Committee of Management for the manner in which they had met the requirements of the medical staff, and if the results were for the benefit of the patients the money was well spent. The staff would be hampered for some time by the necessity of admitting a certain number of cases which they could never hope to cure or make useful members of the community. If the local authorities would make some provision for these chronic cases it would be a great advantage to the hospital and enable the medical staff to treat patients whom they could restore to health and work. The Chairman proposed the toast of "Prosperity to the Hospital." Subscriptions amounting to the sum of £2,386 were announced. Mr. Alderman and Sheriff T. V. Strong gave the toast of "The Committee and Executive Staff," which was replied to by Alderman Sir G. W. Truscott, Chairman of the Committee of Management. The proceedings ended by Alderman Sir G. W. Truscott submitting the toast of "The Chairman," which was suitably acknowledged.

BEQUESTS TO MEDICAL CHARITIES.—The late Dr. Thomas Trollope, of St. Leonards, left £1,000 to the Hastings and St. Leonards and East Sussex Hospital, of which he was Consulting Physician. Should funds suffice after the payment of certain other legacies, he directed that a further sum of £1,000 should be paid to the same institution.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

VASO-MOTOR would be obliged if some member would kindly give a formula for using "adrenalin" as a local application in hay fever.

DR. ARTHUR G. WILKINS, M.B. (Ullswater, near Penrith), writes:—I should be very much obliged if any of your readers would send me brief notes of any cases in which the administration of ethyl chloride has proved fatal. The advantages of the anaesthetic are obviously very great, but unsatisfactory results are not always recorded in medicine.

C. L. S. A. asks how to preserve the rubber bag of a Clover's inhaler. He finds that when they are in use for two or three weeks for the administration of ethyl chloride with ether they crack and perish, especially along the seams. He has tried almost every conceivable method to preserve them, but has failed. Is it the bad quality of the rubber or the action of the ethyl chloride? Also the treatment of the bag when not in use.

CARITAS writes: I should feel indebted to any members who can advise me as to treatment (local) of long standing intense scrotal irritation, which permits little sleep at night. I have done all I know, and duly considered goutiness, which is the sole complaint of the patient (aged 65). Ointments are objectionable, as spoiling nightdress. There is a patch of depigmented skin on the left side, through contact with the skin of the thigh.

DIABETIC FOODS.

A CORRESPONDENT writes that he would very much like to send to an old lady in humble circumstances who has diabetes some of the special foods for those suffering from this complaint; he wishes to know which of them are suitable and at the same time not too expensive.

*** Probably an old lady suffering from diabetes does not require any special diabetic food, but only needs to have her diet regulated by excluding sugar and limiting to a moderate extent the quantity of starchy foods, so as to control any unpleasant symptoms. The success of such foods as those to which our correspondent refers is undoubtedly due to the fact that many elderly diabetics, after having been improperly advised to stop all starchy food, find themselves able to take these preparations with comfort and advantage. It is, of course, necessary to watch the effect of the diet, but such a patient would probably be able to take a certain amount of bread, milk, and potatoes.

ANSWERS.

SEVILLA.—Our correspondent may, perhaps, be able to obtain the further information he requires by applying to the Spanish Minister of Public Instruction.

E. A. S. E.—Some of the most important factors in the solution of this problem are not stated, and are probably unknown. The answer must, therefore, be given in general terms. If a sufferer from pulmonary tuberculosis (phthisis or consumption) has no expectoration, or if, having cough with expectoration, he knows and carries out the necessary precautions to prevent the sputum being deposited where it may become dry and pulverized, he may safely mix with other people. If, on the other hand, such a patient expectorating phlegm containing tubercle bacilli does not take proper precautions he is a constant source of danger to others. There is no conflict of medical opinion on the above points.

EVOLUTION AND HEREDITY.

DR. F. JUPE (Histon) writes: 'E. J.' will find a useful article—Mendel's Laws of Inheritance and Wheat Breeding, by R. H. Biffen—in the *Journal of Agricultural Science*, vol. i, part i (Cambridge University Press. 5s.)

A CASE FOR DIAGNOSIS.

SEPTICUS writes: I entirely agree with "Unconvinced" that his rash was a septic rash from the histories of the cases. I should further infer that the offending organisms were streptococci. One frequently sees in septic cases a scarlet fever-like eruption, often associated with pent-up pus, which rash does not end in desquamation. Such a case occurred in my practice two months ago. A youth had an abscess in the palm of his hand. Temperature, 103°. A scarlet fever-like eruption developed. I noticed, however, the absence of circumoral pallor so frequently seen in genuine cases of scarlet fever. I drained the abscess; the same day his temperature fell to normal and remained normal. There was no desquamation. He mixed freely with his family, no member of which developed scarlet fever. This is not by any means an isolated case. I have seen very many similar cases in hospital.

NEUROSES AND PSYCHOSES.

M. J. asks for references to the subject of the milder neuroses and psychoses and their management. He would probably find nearly all that he needs in Oppenheim's *Diseases of the Nervous System*, translated from the third German edition by Dr. E. E. Mayer. Second edition. (London: J. B. Lippincott Co., 1904, 21s.) which was reviewed in the BRITISH MEDICAL JOURNAL of July 9th, 1904, p. 75; about a fourth of the work is occupied with a masterly treatment of the subject. The late Dr. Hack Tuke's *Dictionary of Psychological Medicine* would probably also prove serviceable.

SOYA FLOUR.

LANARK.—Professor Saundby, in his *Lectures on Renal and Urinary Diseases*, 4th edition, page 361, gives the following: "The use of soy beans was advocated some years ago by Dujardin-Beaumetz. These resemble the haricot bean, and are obtained from soya hispida, a plant originally brought from China and Japan, but now cultivated in Austria. When originally introduced it was recommended on the ground that it contains only 2 per cent. of starch, but this statement is very misleading, as is shown from the following analysis by Professor Kinch, given in Professor Frankland's *Agricultural Chemistry*, which I have had verified:

Analysis of Soy Beans.

Water	... 11.3	Carbohydrates ...	... 24.0
Nitrogenous matter	... 37.8	Fibre	... 2.2
Fat	... 20.9	Ash	... 3.8

This great discrepancy is accounted for by the presence of a mucilaginous substance, convertible into sugar, and therefore equally obnoxious to a diabetic. Articles made from this bean should not, therefore, be allowed to patients on strict diet, but those on a modified diet may take them if they like. Some of my patients have disliked the flavour, and in others their use has been followed by relaxation of the bowels."

LETTERS, NOTES, Etc.

ACUTE POISONING BY A SINGLE CASTOR-OIL SEED.

DR. R. B. WRIGHTSON (Aldeburgh, Suffolk) writes to say that he thinks the man whose case Dr. Gordon Gullan described on May 6th cannot have eaten a castor-oil seed but probably one of croton tiglium which resembles it. The symptoms described would point much more to croton-oil poisoning than to any recorded effects from eating castor-oil seeds. As for the latter, Dr. Wrightson has seen seven boys and girls employed in shelling castor-oil seeds in a local factory who have eaten castor-oil seeds. Although some of them ate five or six at a time, none of them experienced any worse effects than one would expect from a dose of castor oil. As for the taste, Dr. Gullan's patient said the seed which he ate burnt his mouth and throat a little and made his eyes water; but Dr. Wrightson has himself tasted castor-oil seeds, and found they have an agreeable nutty flavour. It was because they liked the taste that the children mentioned ate the seeds, and they all, on being questioned on the point, said they had no burning taste.

MAJOR G. H. FINK, I.M.S. (Retired), in the course of two further communications on the same subject, reiterates his belief that castor-oil seeds in the tropics are unrivalled as a medicine for children as well as adults, and urges that Dr. Gullan should not be satisfied with the identification of the offending seed by the patient, but should prove that it is one of castor oil by testing the solubility of the oil in glacial acetic acid and in alcohol.

*** On reference to page 1299 of this issue the writers will find that the beans in question have been identified, and that some references to researches into their poisonous character are given. The correspondence must now close.

A CORRECTION.

IN the title of an article on the Medical Profession in Portugal which appeared in the BRITISH MEDICAL JOURNAL of June 3rd, the author, Professor Miguel Bombarda, of Lisbon, was erroneously described as the editor of *Lisboa Medica*. The name of the journal, of which our distinguished contributor is editor, is *A Medicina Contemporanea*. We much regret the mistake, which was due to pure inadvertence.

BABIES AS AN INVESTMENT.

IN ancient Rome the Mother of the Gracchi proudly exhibited her boys as her jewels. In America a mother will in future, if she likes, be able to put a definite value on her offspring in terms of money, and if she is fairly prolific she will be able to amass a pretty little fortune. The American Mothers' Birth Insurance Company has been, it is announced, incorporated in Massachusetts. After the tenth payment of a monthly premium of 12s. a married woman, on becoming the mother of a living child, receives £40; after the nineteenth payment, £60; after the twenty-eighth, £80; and after the thirty-seventh, £100. It is stipulated that eighteen months must elapse between the births in any one family.

DIET DURING LACTATION.

DR. G. B. JACOBI (Kensington, W.) writes: I believe that the percentage of mothers physically incapable of suckling would be considerably reduced if a little more care was given to the feeding of the mothers during the lactation period. Being struck by the number of mothers bringing their infants to the Children's Hospital who stated that they had lost their milk after a few weeks or months, I made it a rule to ask them about their diet, and found that almost invariably they had made no attempt to obtain a diet likely to influence the production of milk, neither did they appear to understand the importance of this. It was, therefore, evident that the person who had delivered them—be it a doctor or a midwife—had not sufficiently instructed them on this point. Having visited many hundreds of working-class homes in London, I have had a good opportunity of seeing what their diet is. Although I always found a good piece of meat cooking for "the husband's" dinner, I found that the mother and children generally dined off a stew made of some inferior scraps of meat and a large proportion of suet, or some variation of the horrible "potato-and-gravy" diet that I consider one of the curses of the British people. The other meals consisted chiefly of tea and bread and butter. For a woman to produce any milk on such a diet I consider a physical impossibility. Besides a liberal ordinary mixed diet, a suckling woman should drink at least a quart of milk a day. May I take this opportunity of asking: How has the peculiar fallacy arisen that a child 18 months old is believed unable to digest meat, even if finely minced? I found that among the working classes children under 3 years of age were seldom given any meat at all, but were stuffed with potato and an apology for gravy; and the same diet I have even found among the children of the well-to-do.

MODERN SURGERY.

DR. JOHN HADDON (Hawick, N.B.) writes: The publicity which has been given to the strong language used with regard to modern surgery by the late Prince Bismarck's physician deserves notice by the British Medical Association. No one in authority in this country has ventured, so far as I know, to criticize the practice of some surgeons in their precipitate use of the knife, as the only remedy in many cases which ought not to be interfered with by the surgeon at all; but perhaps the physician is as much to blame as the surgeon. I remember (about the year 1866) that Professor Hughes Bennett, in a case of intestinal obstruction, called a surgeon and said, "The physician has done all he can for this case; open the abdomen and remove the obstruction." The surgeon refused to do so. Then it was against all the principles of surgery. Now these principles have been entirely changed, and no cavity is safe from the onslaught of the surgeon. Former surgeons might be wrong in not acting upon the advice of physicians, but now, in too many cases, they are never consulted, and the very existence of the physician is threatened. Such confusion calls for inquiry, and it is a subject which our Association cannot disregard, and might with advantage be discussed at the annual meeting at Leicester.

THE LOCUM TENENS OF TO-DAY.

DR. HENRY WAITE (Armley, Leeds) writes: I suppose, as the medical man of the future is not to be a general practitioner, according to the boast of our medical officers of health, but a sanitary adviser and preventive medicine expert at £300 a year—paid, like most things appear to be, from the rates—training in the routine of general practice and the thousand-and-one details that were taught under the good old apprenticeship system is unnecessary and futile. I deplore it much. I received my medical education, such as it is, from two sources, both indispensable and each complementary to the other - my hospital training, or the scientific side, and my apprenticeship or management teaching. The result of a purely hospital training is not to the advantage of the public nor to the practitioner, and the result is seen in the type of callow youth who condescends to earn 50s. in return for 5 guineas a week and railway fare; who treats one's patients with the asperity of an overworked house-surgeon, breathes aggressive surgery at every pore, shirks all dispensing and dressings. All his ducks are medical or surgical swans: his dyspepsias are all recommended gastro-enterostomy, and his colics removal of the appendix or some portion of the abdominal anatomy, and every surgical case is urged to enter a public or private hospital, leaving the unfortunate general practitioner the doubtful privilege of telephoning there twice a day to allay the anxiety of anxious friends. And it is to this modern type of medical we unhappy practitioners have to look for our annual holiday. Small wonder we have reduced it to its minimum whilst these irresponsible and light-hearted gentry learn at our expense the lessons of how to conduct a practice and treat patients; and the lesson that complaints are most simple, and not of necessity serious; and that castor oil and rhubarb and common sense will still effect many cures.

A PECULIAR CASE OF HETEROPHTHALMOS.

CAPTAIN ALFRED J. HULL, R.A.M.C. (Shansi, India) writes: In describing his interesting case of heterophthalmos Mr. Feldman (BRITISH MEDICAL JOURNAL, April 22nd, p. 882) appears to have expected to find the pupils unequal on account of difference in the colour of the irides; and to account for their normal position appears to have used unnecessary ingenuity, when a simple anatomical explanation would have sufficed. Following Mr. Feldman's supposition that the iris with lighter colour is admitting more light than the dark, then by consensual action the reaction to light takes place in both pupils in the same way. From the retina of each eye fibres pass partly to the right and partly to the left optic tracts. From these the stimuli are transmitted to both right and left ocular motor nuclei. Each nucleus will then set up a reaction of its own eye. The consensual reaction is really as direct as the reaction to stimuli of the iris direct. As a matter of fact, the light is not cut off by the coloured portion of the iris but by the opaque posterior pigment of the iris. The variation in colour of the iris will, therefore, have no more effect upon the contraction of the pupil than the colour of the paint on a pantechnicon van will affect the furniture inside.

THE PHRASEOLOGY OF PROGRESS.

A LECTURER on English at an American college for ladies, in discoursing to the wise virgins of his class, happened to refer to the period that extends "from the cradle to the grave." After uttering these words he stopped abruptly, and, correcting himself, added, "No, that is an obsolete phrase. There are no more cradles, and soon there will be no more graves. The modern form should be, from the bassinet to the crematory."

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An Address
ON
ACUTE ABDOMINAL SYMPTOMS.

Delivered before the Walthamstow Division of the Metropolitan Counties Branch of the British Medical Association.

BY W. WATSON CHEYNE, C.B., F.R.S., F.R.C.S.,
Professor of Clinical Surgery at King's College, London.

PERHAPS there is no more difficult and responsible position that a medical practitioner can be placed in than to be confronted with a case presenting the characteristics of what we may call an "acute abdominal illness"; by that term I mean an illness with an acute onset of which the most prominent symptoms are severe abdominal pain, vomiting, and more or less collapse. In such cases the medical man must come as quickly as possible to some conclusion, firstly, as to what is the matter with the patient, and secondly, as to the advisability of immediate operative interference. In a large number of cases it is not possible to make an exact diagnosis at the early stage of the disease, but, nevertheless, the necessity of surgical intervention may be quite evident. It is, however, very advisable to come as near to an accurate diagnosis, especially as to the position of the lesion, as possible, because we can thereby form a general idea as to the sort of operative interference which is advisable, and thus may save much time and shock. At the present time there is a great tendency to trust to the results of an exploratory laparotomy for the diagnosis of abdominal affections rather than to a laborious and careful weighing of the evidence. This is in many ways a great pity, and in these acute cases it is especially important to have some idea of the part affected, for the patients are not in a condition to stand a prolonged exploration of the abdomen and one or more extensive incisions. In any case the decision as to surgical interference is exceedingly important and must be come to at once or within a few hours. In many cases if surgical treatment is too long delayed the favourable period is lost and the dangers of the patient are greatly increased, while unnecessary surgical intervention, on the other hand, may have disastrous results.

Let us suppose that one is sent for to a patient who has been suddenly taken ill with severe pain in the abdomen, vomiting, faintness, etc. On the road one passes in review a great variety of complaints which may produce these symptoms. I may enumerate some of the chief. The trouble may have to do with the urinary tract, such as calculus in kidney or ureter, displacements of a movable kidney, intermittent hydronephrosis, etc. It may be gall stones or pancreatic calculi; it may be twists of organs, such as ovary, ovarian tumours, retained testicle, etc. It may be connected with the intestine, for exampie, colic, hernia (external or internal), strangulation by bands, intussusception, obstruction by foreign bodies or tumours, etc. It may be rupture of various organs, for example, stomach, intestine, appendix, gall bladder, tubes (extrauterine pregnancy), etc.; or of ovarian, hydatid, or pancreatic cysts. It may be irritant poisoning. Or it may be some inflammatory condition, for example, appendicitis, or inflammation of other appendages, as Meckel's, the appendices epiploïcae, the uterine appendages, etc.; peritonitis from these and other causes, such as pneumococcal or tuberculous peritonitis; acute pancreatitis, gastritis, enteritis, colitis, abscess in the abdomen, liver, etc., pylephlebitis, perirenal abscess, etc. There are various other conditions which have to be taken into account as well, but they are quite rare; thus the trouble may not be in the abdomen at all but in the thorax, for example, pneumonia or pleurisy may sometimes begin with vomiting, epigastric pain, and tenderness, and symptoms resembling subphrenic abscess.

I cannot, of course, go into the differential diagnosis of all these cases to-day, but it may be useful if we consider the significance of the chief symptoms and try to separate the cases into groups and then consider the indications for immediate operation. I am taking the most difficult part of the subject from the point of view of diagnosis because I want to see what are the indications for operation when the patient is first seen, or, at any rate, within the first 12 to 24 hours after the onset of the case. As time goes on the diagnosis becomes easier, but there are many cases where one cannot afford to wait. Even if it is decided not to operate at once, the question of operation must not, however, be dismissed, but must still remain the most prominent one for consideration.

PAIN.

The character and situation of the pain are of considerable assistance. In perforations of the stomach, intestine, gall bladder, etc., the pain is usually extremely severe, constant, and of a burning character, and in the first instance usually limited to the seat of rupture, though it soon spreads over the abdomen. In rupture of cysts the pain is more diffuse from the first and not so severe, but there also it is most marked at the seat of rupture. In rupture of the appendix the severity of the pain varies much, but it may be severe and located in the appendix region; usually, however, it is from an early period associated with or may be preceded by colicky pains in the neighbourhood of the umbilicus. Other forms of appendicitis usually commence with colicky pains at or above the umbilicus, and pain develops later in the appendix region. In internal strangulations and other obstructive conditions there may be pain at the site of the lesion, but the chief complaint of the patient is recurring attacks of severe colicky pain referred to the umbilical region. Gall-stone pain is epigastric, passing through to the back and shoulder, and much less spasmodic. Renal or ureteral pain is of the same character, shooting down to the scrotum and thigh. The chief points to be noted as regards the pain are its severity and position, whether it is constant or spasmodic or both, whether localized or diffused, and whether the spasmodic pain is intestinal or not.

TENDERNESS.

This may vary according to pressure or percussion. It is marked from the first in cases of inflammation and rupture, and is generally greater on percussion than on pressure. The reverse is the case in strangulation. At first the whole abdomen may seem tender, but the seat of the disease is generally indicated by an area of marked tenderness, although this is not always so. As time goes on, unless general peritonitis sets in, the tenderness diminishes, except over the seat of the disease, where it increases. On the other hand, in the passage of biliary or renal calculi the pain may be apparently eased by pressure, and this is sometimes also the case in the early stage of strangulation before peritonitis or enteritis has set in. The points are its presence or absence, whether limited or not, its seat, its relation to pressure and percussion and its tendency to spread or to remain localized.

ABDOMINAL RIGIDITY.

Rigidity of the abdomen is a very marked symptom in peritonism. It is most marked over the seat of the disease and may be limited to that, but in the early stage it is general over the abdomen. If as time goes on the abdomen remains rigid all over, it means either rupture of some viscus or general peritonitis, or, in the early stage, strangulation; in localized inflammations it, like the tenderness, relaxes except over the area of the disease, and in bad cases of peritonitis it disappears and gives place to distension of the abdomen. The points are its presence, its situation, whether localized or diffuse, and whether in the former case it tends to spread or not.

VOMITING.

Vomiting occurs early in quite a number of these abdominal cases, and, as a sign when the patient is first seen, it is not of any very great diagnostic value. It occurs early in rupture of the stomach, and is also one of the early symptoms in various other ruptures, in appendicitis, in strangulations, etc. It is the persistence of the vomiting which is of the greatest importance. This points strongly to some mechanical obstruction, for in most other cases it is usually only an early and reflex effect which passes off very soon. The character of the vomited materials may also be a guide, for example, feculent vomiting usually means obstruction; blood indicates ulcer of the stomach, etc.

COLLAPSE.

Collapse is very indicative of a rupture or of an internal strangulation or haemorrhage and may be very marked in these cases. Its degree depends to a great extent on the severity of the case, more especially on the suddenness and amount of the extravasation. A slight leak, gradually increasing, as in an old ulcer of the stomach, will not have the same effect as a sudden and free discharge into a previously healthy peritoneal cavity, and, in the same way, in internal strangulations, the amount of collapse depends on the suddenness of the strangulation and the tightness of the cord. On the other hand, in inflammatory affections, collapse is absent or not

at all marked. If it is present with other symptoms pointing to appendicitis, for example, it indicates a very grave condition, probably either perforation or gangrene. The presence of collapse is a strong indication for operative interference, although it may be considered advisable to wait for two or three hours to let the collapse pass off to some extent. The points are its presence or absence, its degree, whether reaction sets in or not, whether when slight or absent at first it gradually increases.

RIGOR.

The occurrence of a rigor or chilliness at the commencement generally indicates some inflammatory condition and not infrequently ushers in an attack of appendicitis for example.

PULSE.

Increase in the pulse rate is very common in all these conditions, and may set in almost at once in ruptures and other grave conditions. In inflammatory conditions it usually rises more slowly, and early rapidity of the pulse is a very bad sign in these cases. In any case a rate of 120 or over indicates a very serious state of matters and is in favour of surgical intervention. The character of the pulse is also of great importance, whether full or small, regular or irregular, running, etc.; a small, running and irregular pulse is as a rule a very bad sign and in favour of immediate operation.

TEMPERATURE.

Elevation of temperature at the early stage separates inflammations from strangulations, herniae, twists, etc., but even in inflammations the temperature at an early stage may not yet have risen when the patient is first seen, and in perforations it may be subnormal. If, therefore, in a case beginning with the usual symptoms of peritonism and seen early the temperature is found to be raised, we have in all probability to do with some inflammatory condition, for example, peritonitis from various causes, appendicitis, cholecystitis, salpingitis, etc.; or if the temperature rises soon after being depressed at first, with some perforation. The temperature is not elevated in internal strangulation unless gangrene and peritonitis set in. The question of the temperature, however, is to some extent of secondary importance and must be weighed with the other symptoms. It may be elevated in other conditions, for example, I have seen temperature with renal calculi, and in patients who have had malaria it may also rise unduly.

GAS.

Presence of free gas in the abdomen may be indicated by obliteration of the liver dullness, while the abdomen is still retracted and rigid, or at any rate not distended, and is always a sign of rupture of the alimentary canal. This should also be borne in mind in operating, and if gas escapes on opening the peritoneum attention must always be directed to the intestinal tract and a rupture searched for.

GENERAL CONDITION OF THE PATIENT.

The general aspect of the patient is usually a good indication of the gravity of the condition. In cases of internal strangulation, rupture of the stomach, etc., the patient is pale, with drawn countenance and typical abdominal face, knees usually drawn up and in dorsal decubitus. In appendicitis with perforation the patient is quieter, not so bad in the early stage but getting worse later; in gangrenous appendicitis he is bad from an early stage and steadily becomes worse. In gall stones, renal calculi, etc., the patient is restless, doubled up, presses on his abdomen, and has not the typical greyish abdominal face.

PREVIOUS HISTORY.

Some assistance may also be got from the previous history. For example, there may be a history of indigestion, pain in the epigastric region after food, haematemesis, etc., indicating old ulcer of the stomach, or of previous attacks of appendicitis or of renal or biliary calculi, and so on, and if such history is obtained it may be of great assistance, but the absence of it does not preclude these affections, for we may have to do with a first attack. Again we may get a history of peritonitis which, with symptoms pointing to internal strangulation, may strengthen the diagnosis, or a history of early pregnancy, etc. Also the history of events preceding the attack is of importance, as diarrhoea, or constipation, or violent exertion, a large meal, etc. Malaise preceding the attack indicates something brewing rather than a sudden seizure such as strangulation.

AFTER HISTORY.

These are the chief symptoms which may be observed at first if the practitioner is called at quite an early period of the attack, but as the hours run on these symptoms alter and other symptoms appear which may aid the diagnosis and determine the question of surgical interference. For example, the spreading of the pain and tenderness over the abdomen indicates a grave lesion and a development of general peritonitis, while the localization of the pain to one spot or region indicates a shutting off of the inflammatory action and a much more favourable condition.

Persistence of colicky pains is another important indication; if they persist, the probability of strangulation is increased, while in appendicitis, for example, though colic may be most marked at the beginning, it soon subsides and pain and tenderness become located in the appendix region.

Continuance or subsidence of the vomiting are also of importance. Persistence of the vomiting usually indicates intestinal obstruction and there it tends to become faeculent. In rupture, appendicitis, etc., while vomiting is one of the earliest symptoms as a rule and may continue in some cases off and on for a few hours, it ceases after a time. The recurrence of vomiting, especially of dark fluid, generally indicates a grave septic condition, as in the later stages of acute peritonitis.

Persistence or deepening of the collapse indicates an extremely grave rupture or some haemorrhagic condition, such as ruptured tubal fetation or haemorrhagic pancreatitis. As a rule in other cases the initial collapse is followed by marked reaction.

Information may also be obtained from the continuance or location of abdominal rigidity. Continuance or increase of general rigidity implies a diffuse process, usually general peritonitis, while in other cases relaxation occurs over the greater part of the abdomen, and rigidity only remains over the seat of the trouble, indicating more or less localization and usually an inflammatory condition.

Elevation of temperature, whether at first or setting in within the first few hours after the seizure, is strongly indicative of an inflammatory condition, such as appendicitis, cholecystitis, etc., while continuance of a normal temperature points more to some mechanical condition. Fall of temperature after previous elevation is usually a very bad sign if other symptoms continue, and indicates profound toxaemia.

Increasing rapidity and weakness of the pulse and a tendency to running are symptoms of gravity, and, occurring during the first day, generally indicates some grave septic lesion, such as ruptures or gangrenous processes. As time goes on other characteristics also become evident.

DISTENSION OF THE ABDOMEN.

In most of these serious abdominal cases the abdomen becomes more or less distended, but when it occurs early it usually indicates either a general peritonitis and paralytic distension of the bowel with gas or else intestinal obstruction. According as we gather from the other signs that we have to do with an inflammatory or a mechanical process, this is a sign of greater or less gravity. In cases of obstruction the greater distension of one part of the abdomen than another and the consequent differences in the abdominal contour may be of considerable diagnostic value as to the site of the obstruction.

The state of the bowels is not a great aid in the diagnosis. In mechanical obstruction there is of course complete cessation of passage of faeces and gas, but if the bowel below the obstruction is loaded at the time there may be one or two actions at the early stage, either alone or after enemata, and one must not therefore be misled by this. Inflammatory conditions, such as appendicitis, although at the commencement there may be diarrhoea, are also usually accompanied by complete arrest of passage of faeces and gas, but there it is often possible with a long tube or enemata to get away at any rate some gas. It is a very common mistake to look on the constipation of appendicitis as an obstruction and make matters a great deal worse by violent purgations or irritating and distending enemata.

The character of the tongue is also some indication. In bad septic conditions, as gangrenous appendicitis, general peritonitis, etc., the tongue tends to become brown and dry, while till near the end in obstruction the tongue remains white and moist.

So much for a general consideration of the symptoms present. After some experience in these cases it soon becomes evident that they overlap very much and that there are so

many exceptional and bizarre conditions that an absolute diagnosis is often impossible, especially at the early stage, when, from the point of view of surgical treatment, it is most important. It is, however, very often possible to separate them into groups and thus to arrive at a probable diagnosis, and this we may now try to do.

Perhaps the most easily excluded are the renal group. Renal and ureteral colic are very typical. The excruciating paroxysms of pain, not limited to the back but shooting down into the thigh and testicle, frequency of micturition, scanty micturition, blood in the urine, and the absence of intestinal colic and of abdominal rigidity, are sufficiently characteristic. But even with renal colic the symptoms may not be nearly so acute or typical, and the difficulty of distinguishing between chronic appendicitis and renal or ureteral calculi is sometimes very great and mistakes in diagnosis have been repeatedly made. We need not, however, go into this subject here, because the difficulty chiefly concerns chronic cases, while we are only dealing with cases of the most acute type. Even there I have seen the greatest difficulty in deciding, owing to the development at an early period in an attack of appendicitis of pus and blood in the urine. The condition of intermittent hydronephrosis is also sometimes confusing. Here the urine becomes temporarily dammed back and the pelvis of the kidney swells up rapidly; the patient is usually seized with severe pain and vomiting, but the pain is definitely located in the loin and side, colicky pains are absent, there is tenderness and a distinct swelling can be made out much larger and better defined and developing at a much earlier period than in appendicitis, for example, or even cholecystitis, and there is no elevation of temperature. Other acute renal conditions, such as perirenal abscess, may also cause some difficulty, but are generally fairly easily separated by the position of the pain and the absence of signs pointing to other possible conditions. Abscess forming after duodenal rupture is probably the most difficult condition to separate from perirenal abscess, but at a later stage than we are speaking of.

Gall-stone colic is also pretty definite, the violent epigastric pain shooting through to the back and shoulders, doubling the patient up and relieved by pressure, absence of temperature, etc., being generally very characteristic. It is in the less acute cases, which do not concern us now, that the difficulty arises.

Relative Frequency.

Coming now to the more definite abdominal cases, it is of interest to recall the relative frequency of the chief conditions, though one must be very careful not to be influenced by that, as the case under consideration may quite likely belong to one of the rarer types. It is more as a guide to the order of investigating the cases that the relative frequency is of value. Various estimates are given of the frequency of the different causes of acute abdominal symptoms, chiefly collected from admissions to hospitals, but of course the sources of error are so numerous that they possess no sort of scientific accuracy. It is pretty clear, however, that by far the most common causes are various forms of acute intestinal obstruction, such as internal hernia, strangulation by bands, volvulus, intussusception, etc., appendicitis and its complications, and perforations of the alimentary tract. Thus Battle and Corner have put together the total number of these acute abdominal cases admitted to St. Thomas's Hospital during a period of three years, with the following result:

	Per cent.	
Appendicitis and its complications ...	37	
Intestinal obstruction	24	39 per cent.
Intussusception	15	
Perforations of the alimentary tract ...	11	
Pelvic and gynaecological cases	6	
Abdominal abscesses, other than appendix	3	
Remainder	4	

Hence it is evident that in approaching a case we should begin by considering these three conditions.

Time fails me to run over the symptoms of these various conditions, but perhaps the best way of approaching the matter is to try to determine in the first instance whether we have to do with an inflammatory or a non-inflammatory condition. The initial rigor, a rising temperature, marked tenderness, especially on percussion, and the other cardinal symptoms of inflammation will often be sufficiently distinctive, and then, in addition, the disappearance of the initial colicky pains and the steady pain in one part, perhaps only marked on movement or taking a deep breath, and the subsidence of the vomiting contrast markedly with the condition in intestinal obstruction. The situation of the pain and possibly the previous history may to some extent help in deciding the seat of the trouble. For example, previous history of gall stones, jaundice, etc., with pain over the gall bladder, and perhaps some swelling will indicate with considerable probability a cholecystitis, and pain in the right iliac fossa with rigidity and a history of previous attacks will be strongly in favour of appendicitis. With regard to the latter, however, much depends on the position of the appendix and the pain may be higher up or towards the lumbar region or near the umbilicus or in the pelvis or even referred to the left side. Rectal and vaginal examination may also throw light on the case in the way of tenderness or fullness in the pelvis, swelling of the tubes, etc.

If, as the hours pass, no temperature or other signs of inflammation develop, one must turn one's attention more especially to causes of obstruction, and this will be the more probable if vomiting persists, if severe colicky pains continue, etc. The kind of obstruction may also to a certain extent be indicated by other symptoms: for example, strangulation by a band by the severity of the collapse in the first instance; intussusception by the normal signs, lump, passage of blood-stained mucus, etc.; tumour, probably by previous history of constipation, absence of collapse, and less acute onset, etc. Among other conditions which are non-inflammatory in the first instance, we have, for example, twists, as of ovarian pedicle, retained testicle, etc. These are often most difficult to diagnose, but usually the symptoms do not present the same immediate urgency as where the intestinal canal is the seat of the trouble. Haemorrhages, as in ruptured tubal fetation, haemorrhagic pancreatitis, etc., lead to signs of loss of blood, but in the first instance the diagnosis may be difficult.

The third great group of cases, namely, perforation of the alimentary tract, rupture of cysts, etc., are intermediate between the above as regards inflammatory symptoms. They are not usually preceded by signs of inflammation, and some hours may elapse before inflammatory symptoms appear. Their chief characteristics are sudden intense local pain and collapse followed presently by signs of reaction and peritonitis. The gravity of the symptoms depends on the septic and toxic nature of the materials extravasated. Perforations of the stomach or duodenum may be indicated by the suddenness and intensity of the pain, which is fixed and steady rather than colicky, although the latter may also occur, of a burning character and tending to spread over the abdomen; by the profundity of the collapse followed by reaction, distension, elevation of temperature and signs of peritonitis. Obliteration of the liver dullness with retraction of the abdomen due to free gas in the peritoneal cavity is a very important sign. On the other hand, ruptures of cysts of various kinds are not usually followed by such acute symptoms especially in the shape of collapse and depression of vitality, the pain is not so severe and is more diffuse and the gravity of the case is not usually so great and there may be previous knowledge of a lump.

In these cases reaction follows the collapse, but in perforation of the appendix the collapse is not usually a marked feature at the very first, but gradually deepens instead of improving, the pulse quickens and becomes thready, the abdomen becomes distended, etc. Apart from the mild cases of appendicitis, which do not as a rule present the same urgent symptoms as I am referring to, we have the great group of fulminating appendicitis, due either to perforation or to gangrene of the appendix or to both, and also the group of severe acute appendicitis without perforation in the early stage. Fulminating appendicitis is generally characterized by the acuteness of the pain in the first instance which generally remains acute and localized in the appendix region for some time; in addition there are colicky pains at first which presently subside; there is rigidity and tenderness most marked over the appendix region; there may be a rigor, vomiting and considerable collapse, or rather depression of vitality, which tends to increase; in the first instance the temperature may also be depressed. As the hours pass on the general condition of the patient rapidly gets worse, the pulse quickens and becomes thready, the temperature rises, the abdomen becomes distended, etc. At the same time I have operated on cases where practically the only symptom was the intense pain and tenderness without marked depression and where a gangrenous appendix was found. In cases of severe acute appendicitis without perforation the temperature rises rapidly from the first and there is generally absence of collapse. The early pain is chiefly colicky and situated

about the umbilicus, and only as time goes on do these spasms subside and the pain settles down in the appendix region, but tenderness and rigidity are generally marked from the first.

Now, having gone as far as possible in the way of getting a probable diagnosis, the question arises: Is the case one requiring immediate surgical treatment or not? It may quite well be that it is not possible to answer this question definitely at the first visit, but in any case it should be answered if possible within the first few hours, not later than twenty-four hours. Hence, if it is not answered at the first visit, frequent visits should be made till the practitioner has come to a definite decision. May I at this point put in two pleas for the surgeon? If the practitioner intends to operate himself, should operation be necessary, good and well; he has watched the case from the first and can choose his own time and his is the responsibility. But if he intends to get someone else to operate, may I suggest that if there is a question of operation arising, the surgeon should be called in at the first and be allowed to take part in the decision. After all, if a surgeon is called in and decides to operate the whole responsibility is transferred to his shoulders. It is for him to choose what he considers the most favourable moment and therefore he ought to have the opportunity of judging as early as possible. The second plea is that, if possible, he should be called in during the daytime. Night operations are very unsatisfactory. The illumination is often imperfect, things are not ready and there is something in the atmosphere of a house at midnight which is inimical to operation and which is apt to tempt the surgeon to wait till next morning. Of course there are many cases where it is not possible to call the surgeon sooner, but it is worth while bearing this point in mind.

Operation.

Now, which are the cases requiring early operation? All ruptures of the alimentary canal, all strangulations, internal herniae, etc., and all gangrenous processes and haemorrhages should be operated on without delay, and if these can be definitely diagnosed there can be no further question. The chief difficulty as to immediate operation is in connexion with the various inflammatory conditions. Taking appendicitis as a type, if one were sure that there was a perforation of the appendix there would be no question of the advisability of immediate operation; but many cases of appendicitis which begin pretty acutely subside without suppuration and are more safely and satisfactorily operated on during the quiescent stage. Again, not all forms of peritonitis are suppurative or require operation, such as those following rupture of a simple ovarian cyst, tuberculous peritonitis beginning acutely, etc.—indeed, they would not be benefited by operation.

In these cases we must be guided by the gravity of the symptoms and the course of the case during the first day. Intense pain from the first, continuing and spreading, generally implies a grave condition. Exceptionally high temperature, where there is nothing else to account for it, has a certain importance. The usual temperature of acute appendicitis is 102° to 103°; if it is higher, from 104° to 105°, the condition is generally serious. The rate and character of the pulse are also important. Steady increase in the pulse rate and depreciation in quality are bad symptoms. A pulse of 120 or over, becoming thready, generally implies immediate operation. At the same time the very gravest conditions may exist and yet the pulse be below 100. The general condition and aspect of the patient must also have a considerable influence, especially marked depression of vitality, greyness, abdominal facies, dryness of the tongue, etc. These cases must be carefully watched during the first few hours after the onset of the disease, and if the patient's condition is becoming worse it is best to operate. In fact, the rule applied to hernia is also applicable here, namely, "When in doubt, operate," provided it is done during the first twenty-four hours. If the inflammatory process has not extended to the peritoneum, the operation during the first twenty-four hours is just as safe as in the quiescent stage; if it has already extended to the peritoneum the patient may be saved from great risk and a long illness. It is impossible to lay down absolute rules in these cases, but a careful consideration of the various points to which I have referred will guide one in atypical cases. The great point is to be fully alive to the gravity of all these cases with acute abdominal symptoms and to remember that the safety of the patient may depend on the adoption of prompt measures.

A Clinical Lecture

ON

DILATATION OF THE GALL BLADDER SIMULATING OVARIAN CYST.

Delivered at the Samaritan Free Hospital for Women.

By ALBAN DORAN, F.R.C.S.,

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The relation of cholelithiasis to pregnancy and gestation is a subject of high interest which has been much investigated of late by Potocky and other French obstetricians. I have discussed it elsewhere in respect to two cases under my own treatment—the first an example of old calculous obstruction of the common duct,[1] the second an instance of a large bile cyst in the liver apparently traceable to a blow during gestation several years before it was opened and drained.[2] The gall bladder and the three ducts were unobstructed. In a third case, on which this lecture is based, a cystic abdominal tumour developed in a multiparous woman, and proved to be a gall bladder with a calculus incarcerated in the cystic duct.

The relative frequency of cholelithiasis in women and its relation to gestation cannot be discussed in these notes. I shall confine myself to the consideration of cystic gall bladder as a form of abdominal tumour in female subjects, reviewing my own experience and that of others. For dilated gall bladder, a common result of cholelithiasis, sometimes assumes characters which may cause it to be mistaken, at least on superficial inspection, for an ovarian cyst. Hence it will be instructive for us to review all reliable reports of large cystic gall bladder in women. I need not dwell on dilatation of the gall bladder in its lesser degrees, where the question of cholelithiasis and its surgical treatment is all-important, the distension of the gall bladder being a secondary matter offering no difficulties in diagnosis. This subject is amply treated in the systematic textbooks written by Osler, Waring, Rolleston, and others, and in the well-known surgical works of such authorities as Langenbuch[3] and Mayo Robson.*

First of all I shall dwell on the history and treatment of my own case in full.

Mrs. B., aged 50, was admitted into my wards in the Samaritan Free Hospital on March 4th, 1905. She had borne eleven children, all delivered at term spontaneously and all living; the puerperium was on every occasion free from any grave complication. The youngest child was over 5 years old. Twelve years before admission she consulted Dr. W. Millar, of South Tottenham, for a small swelling in the right side of the abdomen. After that date she passed through her last five pregnancies. The tumour in the meantime grew very slowly, but became painful.

On examination, the patient seemed to me lean rather than cachectic. The conjunctivae were pearly white, and the urine contained no morbid products; the pulse 108, the temperature hardly above normal. The menopause had been complete for two years. On inspecting the abdomen, which was almost concave, a very prominent body could be seen pushing forward the parietes on the right side, between the hypochondrium and the groin. It was tender to the touch and elastic; fluctuation could not be clearly distinguished; its surface did not feel quite smooth. There was distinct resonance between its upper limits and the lower border of the liver, and also over the left half of the tumour. Not only was the tumour fairly movable laterally and from before backwards, but its lower pole could be displaced downwards till it reached Douglas's pouch. The uterus was small and freely movable, the fornices free.

When there is a doubt about an abdominal tumour in a woman, even when it lies entirely on one side of the middle line, that new growth very often proves to be ovarian.† Two of the physical signs above noted were deceptive, still I bore dilated gall bladder in mind.

I operated on March 7th, 1905, Mr. Butler-Smythe assisting and Mr. Morley administering chloroform and ether. I made a vertical incision through the fibres of the right rectus musele close to its outer border. Then a body shaped like a big cucumber was drawn out of the wound. Its lower pole was rounded and free whilst over its uppermost part ran a tongue of liver tissue, Riedl's lobe, for nearly 3 in. to the left somewhat downwards.

I laid open the lower pole of the tumour by a vertical incision. About one pint and three-quarters or a litre of a turbid pale fluid came away, specific gravity 1008, neutral, albuminous, and free from bile. I then extracted 13 big facetted calculi and 217 smaller gall stones varying

* Dropsical gall bladder is not invariably due to cholelithiasis. Charron has described a case of dropsy of the gall bladder which developed after typhoid fever as a sequence of simple inflammatory disease of the cystic duct, independent of the conditions which engender cholelithiasis.

† I find that Kocher[7] expressed the same opinion in respect to his own case of tumour in the right side of the abdomen: "The conspicuous bulk of the growth at once turns the thoughts of the observer to the commonest form of abominal tumour, ovarian cyst."

in size from the bulk of a millet seed to that of a pea, all bearing facets. On raising the walls of the cyst, which was clearly the gall bladder and was free from any kind of adhesion, I found that the cystic duct was obstructed by a big stone, which I extracted through a longitudinal incision made in the walls of the duct. The incision was closed with a continuous No. 0 catgut suture, then I united the edges of the incision in the gall bladder with the same material.* The cystic gall bladder retracted considerably; I did not attempt to fix it to the parietal wound, which was closed without drainage. The operation caused but little constitutional disturbance, and the patient was discharged on April 4th, a month later. At that date there was resonance upon the ribs and the fundus of the gall bladder had retreated under the edge of the liver so that it could not be defined on palpation.

Having related my own experience, I will now turn to the records of other observers. For clinical reasons the cases which they report may conveniently be divided into three groups:

I. Cystic tumours of great size, extending to the left of the middle line (Terrier, Lawson Tait, Gersuny).

II. Cystic tumours filling the greater part of the right side of the abdomen, liable to be taken for ovarian cysts, fixed to that side by parietal adhesions (Kocher, Tuffier, Author).

III. Relatively small dropsical gall bladders associated with a second tumour of more doubtful character (Reymond, Tischendorff, Chance).

Class I.—This class includes all cases of cystic gall bladder forming a large tumour which encroaches considerably on the abdominal cavity to the left of the middle line.

Terrier's case[4] is perfectly clear. A woman, aged 50, suffered from a very large fluctuating tumour, which was tapped in order to relieve dyspnoea; 24 litres (over 42 pints) of gamboge-coloured fluid came away. The cyst, which proved to be the gall bladder itself, was strongly adherent to adjacent structures, and a calculus was found incarcerated in the cystic duct. The greater part of the cyst was resected, the edges of the remaining portion being sutured to the integuments. The cavity was then drained, with satisfactory results.

Lawson Tait's case[5] is in one respect the most instructive in the whole series, for it misled that experienced authority himself. The patient, aged 40, was sent to him by her doctor, "with a large abdominal tumour which preserved all the appearances and physical signs of a parovarian cyst, and *as such I had no hesitation in regarding it.*" Tait operated. "On emptying the tumour, I found to my amazement that it was a gall bladder enormously distended." It contained 11 pints of a clear gluey fluid, two or three free calculi, and another "as large as a filbert nut impacted in the neck of the gall bladder. This I removed with a great deal of difficulty. . . . I stitched the opening of the gall bladder to the opening in the abdominal wall, which of course had been made in the original (*sic*) position in the middle line close above the pubes." The wound was drained, and the patient was in good health two years after the operation.

Eleven years ago Gersuny of Vienna contributed to the *Wiener med. Wochenschrift* (1894, pp. 2046, 2048) an article entitled Die Indicationen zur chirurgischen Behandlung der Cholelithiasis. Among the cases was one where the fluid in a cystic gall bladder was sufficient in amount to press seriously on the right lung, so that, as in Terrier's patient, there was dyspnoea. The sex and age are not given in this report,† but Dr. Gersuny has kindly informed me that the patient was a woman aged 50. She had a fit of colic, probably due to gall stone, and a cystic tumour developed within a few weeks. It extended to the left of the middle line and almost down to the right groin. After careful examination it was found to be connected, not with the ovary, but with the liver. According to the report recently forwarded to me by Dr. Gersuny, an incision was made in the lumbar region, because rupture of the gall bladder had been diagnosed, and there was bulging in the right loin. An enormous quantity of bile, with some small gall stones, came out. "I excised a small piece of the sac that was united to the abdominal wall; the peritoneum seemed not to be open." The excised portion proved, on microscopical examination, to be part of the wall of the gall bladder. A calculus remained encysted in the cystic duct or neck of the gall bladder, and a fistula developed; but the patient, who remained in good general health ten years after the operation, declined to submit to any further surgical treatment.

Although these cases of extreme cystic dilatation of the gall bladder seem almost confined to female patients, the very largest (Erdmann[6]), if we may feel sure of the diagnosis, occurred in a man aged 24. Sixty to eighty pounds of bile-stained fluid were removed by tapping; the fluid collected again slowly, but the patient left hospital and never returned. As no exploratory operation was undertaken, the relations of the cyst remain unknown. It was most probably a cystic gall bladder, but it might have developed inside the liver as a bile cyst, the gall bladder and ducts remaining normal. I have already reported a similar case in my own operative practice,[2] with notes on others already published. A cyst of this kind is figured without any history, in Hektoen and Riesman's *Textbook of Pathology*, p. 817.

Class II.—Cystic gall bladders forming distinct tumours of considerable size, but confined to the right side of the abdomen, are of much interest in respect to diagnosis. A tumour of this class may simulate very closely a cystic right kidney or an ovarian cyst displaced and adherent to the structures in the right lumbar region, a condition not rare in multiparae. Kocher's case[7] is the most typical of this class. A woman aged thirty was sent into hospital subject to a tumour which had been diagnosed as an ovarian cyst. On careful inquiry it transpired that during the fifteen months which had passed since the swelling was first observed the patient had sudden attacks of pain, accompanied on one occasion by transitory jaundice. Kocher detected a tense oval tumour "of the size of a man's head" in the right side of the abdomen. It was freely movable, its lower pole could be pushed down below the level of the pubes, but the uterus and appendages were not connected with it. It proved to be a large empyema of the gall bladder, with a wall about a centimetre, or nearly two-fifths of an inch, in thickness. A great quantity of pus and about forty-five gall stones were removed. A drainage tube was inserted and the track ultimately closed; no bile ever issued from it.

About ten years ago Tuffier[8] had under his care a man, aged 40, with a tumour of the size of a fetal head, situated between the false ribs and the umbilicus. It was round and smooth and followed respiratory movements. It could not be pushed back into the lumbar region. The history and the fact that dullness on percussion could be traced from the tumour to the hepatic region soon dispelled the suspicion that the tumour might be ovarian. The patient had been subject for seven years to epigastric pains coming on after meals. As in my own case, there was no history of sickness nor of jaundice. Movable kidney had been diagnosed and a belt applied; it of course gave no relief. The patient was kept at rest for several months. The swelling became enormous, and in this later stage might well have been taken for an ovarian cyst—indeed, it almost came under Class I. The result of operation was remarkable, the walls of the tumour were found to be extremely thin, so as to appear quite transparent. Hydatid cyst was suspected, and a litre of fluid as clear as crystal came away. Then 22 large calculi were extracted, and one more was found incarcerated in the upper part of the gall bladder, which was drained, the drainage track closed, permanently it is implied, on the fifteenth day. Tuffier quotes four other cases where the fluid in gall bladders obstructed by calculi was watery, as in this instance; the explanation is not mysterious, complete obstruction of the cystic duct prevented any bile from entering the gall bladder, and the mucoid secretion became watery.

Lastly my own case, already described, must be included in this class.

Class III.—Three cases where there appeared to be two tumours or a double tumour in the right loin deserve notice here, as two at least occurred in women. Diagnosis was obscure, and cystic gall bladder with a complication was detected at an exploratory operation. The first patient (Reymond's[9]) was a woman, aged 38, who, when 36, had undergone an operation for tubal abortion. A tumour developed in the right loin, another could be detected at the site of the gall bladder; the two moved together. A lumbar incision was made. A big, deeply-congested movable kidney was exposed. It adhered to a dilated gall bladder, which compressed the structures entering its hilum. The kidney was detached and fixed, then it soon diminished in size. Cholecystotomy was performed a week later; 60 grams of pus and four calculi were found in the gall bladder; the ducts were free. The drainage track was closed by operation. Tischen-

*For the latest views on the operative treatment of the cystic gall bladder see William and Charles Mayo: "A Review of 1,000 Operations for Gall-stone Disease," *Amer. Journ. Med. Sciences*, vol. cxxix, March, 1905, p. 375.

† Dr. Gersuny says that the same is the case with other reports of this case, in the *Deutsche med. Zeitung* and other journals, sometimes quoted.

dorff,* according to Reymond, likewise detected a movable kidney adherent to a calculous gall bladder. His patient also underwent two operations—nephropexy and cholecystotomy.

Chance (Manchester)[10] treated a sterile married woman, aged 30, for menorrhagia and pelvic pains. She had observed a swelling in the right side of the abdomen for about a couple of years. It was soon found to be not ovarian, as it was clearly continuous above with the liver. Ten months later Chance detected a large movable mass, behind the tumour, in the region of the right kidney. High temperature and hectic set in, so that tuberculous disease of the kidney was suspected, and on three occasions great quantities of urine were passed suddenly. Yet the urine was free from any morbid condition. Thorburn operated; the tumour in the loin proved to be a portion of the right lobe of the liver enlarged and displaced. The gall bladder contained 200 small gall stones, and a large calculus was impacted in the cystic duct. It was not completely removed. The hectic symptoms, never accounted for, disappeared, and the enlarged lobe of the liver steadily diminished in size. Dr. Chance has kindly informed me that in March, 1905, nearly three years after the operation, the patient was in very good health. The urine was normal and none of the morbid symptoms had recurred.

The sudden escape of a great bulk of retained yet healthy urine probably implied that the enlarged lobe of the liver pressed on the pelvis of the kidney, that pressure being occasionally relieved. When the gall bladder was emptied and the enlarged lobe diminished in size the relief became permanent. The case somewhat resembles Reymond's and Tischendorff's, where the dilated gall bladder pressed directly on the kidney.

Summary.—No general conclusions can be drawn from so small a series, but a few facts in association with the six cases in Classes I and II seem worth consideration. We find in regard to *age* that, with one exception, the patients were not young (Terrier, Gersuny, Author, 50; Lawson Tait, Tuffier, 40). On the other hand, Kocher's patient was but 30 years old, and it is well to bear in mind that the largest cyst of this kind on record, if the diagnosis were correct, developed in a man only 24 years of age. As to *fertility*, my own patient was a multipara phenomenally lucky in her eleven pregnancies and labours, whilst Terrier's patient had borne five children. Tuffier's, however, was a nun, and evidence in the remaining cases is defective. Thus the alleged relation between cholelithiasis and pregnancy receives no definite support from the clinical history of these cases.

We need not be surprised at the absence of *jaundice* in all these cases, for the distension of the gall bladder is due to obstruction of the cystic, not the common duct. In Kocher's case alone was there a history of a transitory attack,† but he did not detect a trace of jaundice when he examined the patient. Thus the possibility that an abdominal cyst is a distended gall bladder cannot be excluded on the ground that the patient is free from jaundice.

The *rate of development* of these cystic gall bladders is, as a rule, exceedingly slow. In my own case the tumour had been twelve years under the direct observation of the patient's doctor. A swelling had been noticed in Terrier's case for eight years, and in Tuffier's for five or six years. Kocher's patient had known of the presence of a tumour for one year and three months. According to the manuscript notes which Dr. Gersuny recently forwarded to me the gall-bladder cyst in his case developed rapidly; in the original report it is stated that the patient's doctor was not to be found when she was admitted into hospital, so that no accurate clinical history could be obtained. Unfortunately Lawson Tait published no history of his case. We must remember that when an ovarian cyst undergoes axial rotation in pregnancy and is pushed into the lumbar region its rate of growth is usually slackened, but it never remains stationary in size and harmless for several years. *Pain* and *tenderness* are variable symptoms. Local peritonitis, as Mayo Robson has shown, is, as a rule, absent in uncomplicated enlargements of the gall bladder. In Terrier's case alone was adhesive peritonitis marked, whilst in my own, though there was a total absence of any visible sign of peritonitis, the tumour was tender on pressure. This absence of peritonitis accounts for the absence of the dull, continuous pain frequent in cases of displaced ovarian cysts which nearly always set up local peritonitis. In the series of gall-bladder cysts here reviewed a distinct history of colic was not the rule.

In *shape* the dilated gall bladder is in its earlier stage always pyriform. Later on, as in my own case, it tends to assume the form of a cucumber (Langenbuch). When the distension is extreme, the gall bladder is converted into a large oval cyst extending considerably to the left of the middle line. I have already spoken of the marked *mobility* which is the rule in these cases. We are not to forget that the lower pole of the cyst may be pushed below the level of the symphysis (Kocher) or into Douglas's pouch (author),* whilst Osler has described a case where a dilated gall bladder was found attached to the right broad ligament.[11] Had it been as large as some of the cysts here described, error in diagnosis would have been easy.

As regards *resonance* and *dullness*, we should remember Mayo Robson's words: "Percussion by no means always discovers dullness coextensive with the tumour, and is especially deceptive if the surrounding intestine be distended; dullness on percussion is therefore a very variable sign, palpation will be found more trustworthy." My own case showed that intestine may slip into the groove between the edge of the liver and the gall bladder; resonance on percussion was so marked that I could not feel sure that the cyst was really a dilated gall bladder. Intestine may adhere to the front of an ovarian tumour fixed by adhesions in the right loin. In that case, however, the tumour simulates a cystic kidney rather than a gall bladder.

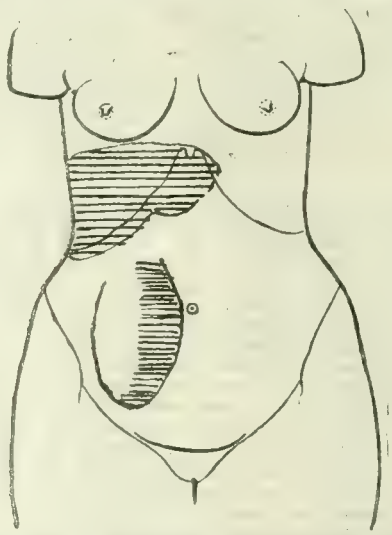


Fig. 1.—Cystic tumour of gall bladder (Author's case). Diagram indicating the area of hepatic dullness, the area of dullness over the left part of the front of the cyst, and the area of resonance over right part and between the cyst and the liver.

Fluctuation is seldom indistinguishable in an ovarian cyst, but it was also quite distinct in the very big cystic gall bladders described by Lawson Tait, Terrier, and Gersuny, where the walls were thin; it could hardly have been absent in Tuffier's case. In Kocher's and my own the tumour was firm or tense. Mayo Robson teaches that the average cystic gall bladder is too tense to fluctuate. Much depends upon the thickness of the wall of the gall bladder, very variable for well-known reasons even in typical cases of cholelithiasis; and, turning to the present series, Kocher's and Tuffier's cysts showed an extreme difference in this respect.

I need not dwell on those essential features of gall-bladder cysts which are revealed by an exploratory operation, namely, the fluid and the presence of calculi. For when once the cyst is proved to be not ovarian, but the product of cholelithiasis, the question of diagnosis, the subject of this lecture, is closed. In conclusion, I may observe that the diagnosis of a large dropsical gall bladder from an ovarian cyst occupying the right side of the abdomen is seldom attended with much difficulty. The above recorded cases, however, show that a cystic gall bladder may to a certain extent simulate an ovarian cyst, and on that account I have discussed this class of abdominal tumour at some length.

* Reymond gives the reference "Tischendorff *in* Calot, *Thèse de Paris*, 1850, p. 202." I cannot obtain this Thesis, and am not sure of the sex of the patient.

† Terrier's patient had passed dark green urine for two days during an attack of influenza six months before operation.

* It has even been found engaged in the sac of a right femoral hernia (Waring).

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SOME SURGICAL NOTES ON TUBERCULOSIS OF THE KIDNEY.*

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As earnest thinking men you will all, I feel sure, at once agree with me that it is not so much the clever and the novel as the useful we should ever hold in highest esteem in our art. And especially in these days do I appeal to your judgement, at a period in which we find ourselves literally engulfed in a chaos of new surgical procedures, evoked by the great discovery of your fellow countryman, Lister, do we not need as never before to investigate, to deliberate, to reject and finally to accept the good?

The great keynote of this earliest decade of the twentieth century ought not to be something new but the establishment of that which is good and the unification of the surgery of the world. I would far rather make all men recognize and do the well-known right thing than effect some large discovery and attract wonder and applause.

It is because of this strong conviction that I have not aspired this evening to the novel so much as the useful. May I venture also to suggest that I have come thus far hoping too for a little of that collegial fellowship which was the notable mark of English and American intercourse throughout the latter half of the eighteenth and the first half of the nineteenth centuries—in the days of the two Hunters, of Smellie and the great Blundell, of Sir Astley Cooper and Sir Benjamin Brodie, and a galaxy of departed braves whose mighty names still shine in your British firmament with ever-increasing lustre?

HISTORICAL.

It was in 1871, as you will recall, that Simon extirpated the kidney and then published that considerable work of his; and now about thirty-four years later the surgery of the kidney, as I grasp the subject, has pretty nigh reached its acme under the existing conditions of surgical science.

It is a pleasure in looking down the intervening years to recall the inestimable pioneer services of your own late lamented Knowsley Thornton, and then of David Newman of Glasgow, and of Hurry Fenwick, all in this field, and I shall be happy indeed if my conclusions merit the approval of these veterans of the service. Although, as I have said, thirty-four years have elapsed since the field of aggressive renal surgery was opened up, in reality the operation for tuberculosis is still in its teens, for our surgeons were long held back from entering this fruitful field by a total misconception as to the pathology and clinical history of the disease.

Three serious errors blocked the path of progress: in the first place renal tuberculosis was seen by the pathologist only in cases of advanced or of general tuberculosis, so that the impression obtained that the disease was either a local expression of a general condition or was almost invariably bilateral. In the second place the convenient and well-sounding but unfortunate term, "urogenital tuberculosis," was long current, conveying the false impression that the disease of necessity involved more or less of the entire urogenital tract *ab initio:* and in the third place it was commonly assumed that the tuberculosis was of an ascending character, advancing from the bladder upwards, and therefore ineradicable. The true facts did not, as we shall see, warrant the clinician in making a general application of a single one of these dicta.

Let me quote Rokitansky[1]: "Tuberculosis of the kidneys is but the partial expression of a primary tuberculosis of the urinary organs, and in the male commonly a part of a combined tuberculosis of the urogenital system." Guyon, writing in 1888, declares: "We do not know of a single case of renal tuberculosis, primitive and unilateral, without lesions of the same kind in the bladder, the seminal apparatus, or in other organs." I can but pause to note with Schede of Bonn, that Schmidtlein, writing as early as 1863, was the first to distinguish clearly between a urogenital tuberculosis arising in the male genital organs, and secondarily involving the bladder, the ureter, and lastly the kidney, and a true primary renal tuberculosis which descends the ureter to invade the bladder from the opposite direction. Even as late as 1888 Steinthal[2] showed how hopelessly at variance were the current opinions touching this vital question.

As I con the evolution of the history of our subject the following dates are important:

1. The period of recognition of the disease up to 1860.
2. The collection and sifting of a number of cases with both pathological and clinical histories in view, 1863-1885.
3. The stimulus to surgical thought given by Simon's first renal extirpation in 1871.
4. The discovery of exact methods of diagnosis from 1876-1893.
5. A period in which the development of the surgical technique has been wrought out in the hands of a few specialists, 1890-1900.
6. The final period, the gradual transportation of the perfected operation into the hands of surgeons at large, may I say from this present date on, 1905?

ETIOLOGY AND PATHOLOGY.

The nexus between etiology, diagnosis, and treatment is so close woven that I must touch upon causation if but briefly, in order to give my little sketch—taken as it were from a surgeon's diary—its due perspective.

In the first place, how does the disease reach so recondite an organ? Manifestly there are but three avenues of access:

By the blood;
By ascending the ureter;
By direct extension from some contiguous organ.

Baumgarten of Tübingen (1901), after some careful experimental inoculations of the urethra in rabbits in which he succeeded in causing a tuberculous ulceration of the bladder and the prostatic urethra, found himself utterly unable to provoke any like affection of the vasa or of the testicles on the one hand, or the upper urinary tracts on the other. He therefore insisted that the tubercle bacilli, being no *Secretionsparasiten*, never advance against the current of secretion, but always with it.

This dictum, generally speaking, is true, although there are good clinical reasons for believing that in man the disease frequently extends from the epididymis to the bladder where it may involve and cause a stricture of one or both ureteral orifices; this in turn causes a slight hydro-ureter, and then follows the invasion of the upper urinary tract. A case of Albarran's and one of my own, both with a double kidney, seem almost conclusive in this respect.

An ascending disease in women is most rare, except when the disease has first affected one side, and then when this is in an advanced state of tuberculosis, proceeds to invade the bladder and the opposite ureteral orifice in the manner depicted. I would call attention to the fact that I have never seen a primary ascending tuberculosis in upwards of fifty surgical cases, for the most part in women. I have seen several cases of vesical tuberculosis, primary or associated with a genital tuberculosis, but the kidneys were not involved.

I have also seen coincident renal and genital tuberculosis, but without other manifest liaison than the vascular system or some remote common dépôt of infection. I would therefore urge that what is commonly called urogenital tuberculosis does not exist in women.

Without any doubt the infection of the kidney is almost always hematogenous. It is important to note that the focus by which the blood becomes infected is often found in the thorax. Kelynack (1897), in a series of autopsies studied with especial reference to tuberculosis of the kidney, found the lungs affected in 70 per cent. of the cases. The primary focus, as has been shown by autopsy, is sometimes a cheesy bronchial gland, apparently dormant but for this accident.

Let me urge with these facts before us that it is most important in every case to investigate most minutely the condition of the lungs. A study of this kind will sometimes serve to check a too sanguine prognosis.

* Read before the British Gynaecological Society on June 8th, 1905.

Let me urge, too, in searching for evidences of latent disease not to neglect overhauling such a fruitful field as the submaxillary, cervical, axillary, and inguinal regions for swellings or scars, as well as looking for old joint troubles.

The involvement by contiguity has been shown by Patois (1897), who had a case of a girl of 19 with vertebral caries whose kidneys became involved by the extension of the disease through a mass of sclero-tuberculous tissue.

If for any reason the kidney becomes a *locus minoris resistentiae* it may then become affected by a tuberculosis when it would otherwise have escaped. This is proved: (1) By cases of trauma (see especially Newman), followed by tuberculosis; (2) by the occurrence of tuberculosis with calculi, in a case of Henrotin of Chicago the tuberculous disease developed years after the abstraction of the stones; (3) by the occurrence of a tuberculosis grafted on to a hydronephrosis, in instances too numerous and too entirely in accord with experimental data, to be coincidental. Before passing from this phase of the subject I would ask for further observations touching the asserted relationship between gonorrhoea and tuberculosis of the kidney.

Clinical History.

A few words with reference to two vital points in the clinical history of this pseudo-malignant renal affection.

In the first place, tuberculosis once started finds in the kidney so favourable a nidus that the disease becomes, with perhaps the rarest exceptions, progressive. Time spent in trying to cure this disease by climatic or other methods is lost time, for the affection moves *pari passu* or *saltatim*, but in any case it advances. Delay in active treatment means courting the risk of involvement of other organs.

The second is that a spontaneous cure is so rare an occurrence that Albarran could successfully challenge the French Surgical Society to produce an indubitable instance. A seeming cure is sometimes obtained with the complete caseation, destruction, and sequestration of the kidney associated with the obliteration of the lumen of its ureter, but this natural cure (*sic*) is fraught with such risks of further dissemination and is so protracted in its course that few surgeons, I think, would hazard it.

Excluding cases of general and miliary tuberculosis, rarely seen by the surgeon, and excluding those forms of the disease in which it is but a late complication of an advanced and manifest tuberculosis elsewhere, usually pulmonary, we have to deal with a disease which is local and unilateral in its onset and which may remain local and unilateral for months and even for years.

Given an affection of this character incompatible with health and in the end destructive of life located in a paired organ, one of which can readily be spared by the economy, what more fruitful field, I demand, need the surgeon look for in which to exercise his precious skill?

Diagnosis.

The real crux of the situation is the diagnosis, and upon this capital point I would like to dwell a little.

One is perhaps best able to realize the progress that has been made in the last decade and a half, in the diagnosis of tuberculosis of the kidney, upon reading such a communication as Madelung's,[3] in which he declares that the demonstration of a renal tuberculosis is a matter of extreme difficulty, while catheterization of the ureter after dilatation of the urethra is open to the serious objection that in some instances in women it has given rise to incontinence. Madelung mentions the method of making an exploratory laparotomy in order to palpate both kidneys transperitoneally (Thornton) as a procedure not likely to lead to a definite conclusion, while a bilateral lumbar exploratory incision might be of value. He further declares that the inoculation of rabbits as an adjuvant to diagnosis consumes too much time, and if negative the result would of course be valueless. In conclusion, the unsatisfactory nature of the diagnostic measures at hand (in 1890) forbid the surgeon to establish the rule of early operation in renal tuberculosis; on the contrary, only those cases should be selected "in which the disease has progressed so far that a spontaneous recovery is impossible, and in which, further, after a prolonged observation there is the utmost assurance that the disease is limited to one side." I have thus quoted so excellent an observer somewhat in detail in order, when contrasting our present status, to heighten the appreciation of the remarkable advances which we have made within such a short term of years.

We have just seen that the clinical history of this almost malignant bacterial infection of so delicate an organ is characterized by the invariable tendency of the disease to proceed step by step until the kidney has been completely destroyed, and *pari passu* with its local progress is there a tendency to become disseminated or to invade other vital organs. The careful clinical studies of the disease have further demonstrated the fact that the disease when it starts in the urinary tract always attacks one kidney first and then the ureter, then the bladder, and that the involvement of the other kidney is fortunately almost always a late secondary affection. From these considerations it at once becomes evident that if the disease can be correctly diagnosed at an early stage, while it is as yet in the one kidney, a cure may be effected by a complete extirpation. It is because of this possibility that the diagnosis becomes a matter of such paramount importance.

It is evident, therefore, that the diagnosis keeps one eye squinting in the direction of an operation.

It becomes, then, the province of the diagnostician to take cognizance not only of the presence of the tuberculous affection, but of its extensions and its limitations as well, determining with especial care the great question whether it still remains localized in one half of the urinary tract. His task is not complete until he has further determined the condition of the opposite kidney, whether it too is tuberculous or otherwise infected, or whether it is attainted with a nephritis or an amyloid degeneration. He must determine in the course of his investigation the functional coefficient of both kidneys, that is to say the amount of solids excreted by each in twenty-four hours. A diagnosis, therefore, cannot be considered as made until it has included within its realm of investigation the entire urinary tracts of both sides as well as the condition of the bladder and the ureter. The diagnostician must also search for other perhaps latent foci of the disease in the male and female genital organs, in the lungs, the superficial glands, and in the joints.

The great question of importance in every urinary tuberculosis is as to the accuracy and the thoroughness of the diagnosis; it is here if anywhere that the skill of the medical man is apparent; the worst clinical cases are often suddenly illuminated by a bright ray of hope when a careful diagnosis is made. In comparison to the difficulties encountered in making such an exhaustive analysis as is often called for, the operation is easy. In brief the diagnostician has to consider:

1. Has the patient a tuberculosis of the urinary tract?
2. Is the disease still localized?
3. If the diseased kidney is removed, is the remaining kidney able to do the work?

A satisfactory diagnosis is made when tubercle bacilli are found in the urine at more than one examination, and preferably by more than one observer, and when these are traced upwards to one kidney and positively excluded from the other. In order to do this the urine as it is collected from the bladder must first be examined, then the separated urines (I use the plural discriminately) must be collected near their sources in the pelves of the kidneys. The diagnosis must include both the character or quality of the infection, as well as the abundance of the bacteria and the question of their constant or intermittent appearance in the urine.

In an advanced case with all the signs present the diagnosis is usually quite easy. The patient, often much emaciated and cachectic, has hectic fever, sweats, a rapid pulse, a furred tongue, and anorexia, with a more or less marked low haemoglobin. There is, as a rule, constant vesical tenesmus, with the passage of urine loaded with pus and sometimes bloody. Palpation in the loin at once reveals, if it is not already apparent to the eye, a more or less manifest tumour on one side. On inspecting the body scars may be found in the neck, in the axilla, or in the groin, or there may be a swollen joint, or distinct evidences of pulmonary disease. The family history in a large percentage of cases points strongly towards tuberculosis. On making a vaginal examination, an enlarged cord-like ureter, sometimes nodular and sometimes so infiltrated and rod-like that it feels as though it would break under firm pressure, is felt through the anterior vaginal wall sweeping round the front of the cervix. Pressure upon this often induces an intense desire to urinate. The opposite fornix is as a rule soft and yielding, and here the practised touch readily detects the little normal yielding ureter slipping like a soft wet string between the fingers as it is handled bimanually or is pressed against the pelvic wall. If in a case presenting such earmarks tubercle bacilli are found in a specimen of urine taken from the bladder by a catheter, the diagnosis is assured, and it only remains to determine further the condition of the bladder and of the

opposite kidney by a cystoscopic examination, upon which I shall dwell more fully a little later. While the diagnosis of tuberculosis, renal and ureteral, becomes more easy as the disease advances, with the increasing involvement of the bladder comes the difficulty of finding the opposite orifice and analysing the separated urines and so of differentiating the two sides, and when this is not done the diagnosis must be considered incomplete.

The cases most difficult of diagnosis are the early ones, in which the bacilli are often sparse or appear in the urine only at considerable intervals. We are obliged here to depend upon repeated examinations of large quantities of urine (twenty-four hours), allowed to stand decanted and then the sediment centrifugalized. Sometimes the examiner only finds the bacillus after many hours of search repeated day after day. In this way one who has had experience and whose suspicions have been aroused by an otherwise inexplicable slight pyuria, will sometimes succeed where others have failed.

In all obscure cases one of the first steps should be to collect the urinary sediment and inject it into two guinea-pigs, one into the peritoneal cavities and one under the skin of the groin or axilla. If there is tuberculosis, after three weeks the disease will have developed sufficiently to be recognized at autopsy.

The injection of tuberculin is valuable if in addition to the fever induced there is marked local reaction in the form of intense pain in the kidney.

A practised examiner will in these early cases often detect little thickening or hardening of a ureter on one side as compared with its fellow, which is significant and yet would ordinarily escape notice.

It is in these doubtful cases, too, that the inspection of the ureteral orifices plays such an important part; a tell-tale blush or puffiness or granular condition will often mark the diseased side. The ureteral catheter may then be introduced and the urine from the infected kidney collected without dilution with that of its fellow.

In case the diagnosis is not clear, the physician can well afford to demand the important added element of time and further observation, putting off any thought of operation while he keeps his eye on the patient from week to week or perhaps from month to month. Any persistent acid pyuria, as Caspar insists, even of a mild grade, which does not yield an efflorescence of organisms on the ordinary culture media, should at once be placed under the category of suspected tuberculosis, and the urine centrifugalized, and a test guinea-pig injected. The following plan is used, adopted from Belgard, cited by Caspar[1]:—

> The urinary sediment, which has been centrifugalized and washed with sterile water, is injected both intraperitoneally and subcutaneously. The guinea-pig should at first receive 0.5 of the old Koch's T.R. If they are tuberculous when this dose is given it is deadly. One then receives an injection into the peritoneal cavity of the washed urinary sediment mixed in about 0.2 sterile water. The other receives the same quantity subcutaneously. If the urine contains tubercle bacilli in from three to four weeks following the subcutaneous injection large palpable glands can be felt in the fore or hind feet according to the point inoculated. These glands have already begun to undergo cheesy degeneration and contain tubercle bacilli. The intraperitoneal injected guinea-pigs develop a general miliary tuberculosis with characteristic nodules on the peritoneum, omentum, spleen, and in the lungs and kidneys.

Any slight persistent cystitis rebellious to treatment should also always be suspected as a possible tuberculosis, and in such a case diagnosis must be looked upon as incomplete until the condition of the kidney has been investigated.

Cystoscopic Examination.

I prefer to all other methods in these cases the direct microscopic examination of the bladder. If that viscus is badly affected it is most difficult as well as oftentimes most painful to clear the bladder and distend it sufficiently to see all parts clearly, especially the ureteral orifices. It is also still more difficult, if there is a tight ureter, as well as hazardous to attempt to catheterize the kidney through a medium of contaminated fluid.

By my direct method I can see all parts, and I do not frequently mistake a painful bladder, which screams when the effort is made to distend it, for a contracted bladder which is a rare bugbear in woman. I can also cleanse the ureteral orifices before catheterization and use hard metal as well as flexible catheters of various sizes in dealing with a rigid ureter. The ulcerated, suppurating, bleeding bladder is a common picture.

An injected ureteral orifice, an ulcerated orifice on one side, a pocketed retracted orifice, a deep hole looking like a diverticulum (Fenwick's golf-hole orifice) often tell the tale, and are finger-posts to the side diseased. If one orifice looks sound while the other is in the midst of a diseased area the case promises well.

In an advanced case when most of the work is being done by one side that orifice shows twice the normal activity, and it is easy to catch the urine as it spurts out in the lumen of the speculum and collect it below and subject it to a microscopic and bacteriologic examination. One may thus avoid catheterizing the sound side, although I have yet to see any serious harm result from so doing. The diseased side may resist the entrance of the catheter, and when it is once engaged it may bite it so tight that it feels as if held in a vice. If the urine does not flow after the catheter reaches the kidney it may be started by injecting a little bland fluid. There is no objection to leaving one or both catheters in the ureters for an hour or more. The urine collected in this way may be used for a bacteriologic as well as chemical and microscopic examination as it is uncontaminat

Summary.

Let me here present in a categorical manner some of the alternatives to be borne in mind in making a diagnosis:

1. Is the organism found the smegma bacillus? How was the urine secured? Was it by voiding or by catheterization?
2. Given the tubercle bacillus in the mixed urines, from which side does it come? Determine by catheterization the appearance of the ureteral orifice and the thickened ureter.
3. Is the opposite side entirely free from disease? Bear in mind that a simple pyelitis is not infrequent in the opposite kidney.
4. Bear in mind that the opposite ureter may show marked thickening (periureteritis) and yet the kidney be free from tuberculosis.
5. Note carefully to what extent the bladder is affected, as having an important bearing upon the operation and the subsequent treatment.
6. Determine the urea coefficient of the opposite kidney. Is it able to support life?
7. Look carefully for disease elsewhere. Is there a tuberculosis of the genital organs? Is there any pulmonary or glandular tuberculosis?
8. In injecting guinea-pigs remember that tubercle bacilli may pass out of the bladder, if your patient has phthisis, without injury to the kidney.
9. Remember that the enlarged kidney found in the loin may be the one functionally enlarged and therefore the only sound organ. Twice has such a kidney doing all the work of the body been taken out. There is a great risk of making this mistake.

With the information afforded by such a complete analysis one is then ready to proceed to the operation with confidence, or at least with full knowledge of the risks incurred.

TREATMENT.

Radical treatment, the extirpation of the disease in every case which will permit it, is the rule. But before we bring the patient to this surgical crisis, again I insist such a thorough analysis of the separated urines must have been made beforehand that the surgeon shall be able to perform this capital operation (nephrectomy) without misgivings as to the capacity of the remaining kidney to sustain life.

The supreme aim of surgery is conservatism, but in spite of some notable exceptions, it has not done well here. The difficulty is that almost all tuberculous kidneys contain scattered foci of infection which cannot be seen before the complete removal of the organ from the body. The late and eminent surgeon, Christian Fenger, tried a conservative resection of the kidney in a short series of cases, and the disease recurred and they died.

I would only be content to exsect the diseased area in rare cases in which the disease was evidently limited to one pole, as demonstrated by splitting the organ from end to end and down into the pelvis as it lay outside the body before ligation of the vessels and detachment.

Now, having spoken so strongly for radicalism, let me cite a few of the cases in which conservatism has proven brilliantly successful. Your own Morris had seven cases of partial nephrectomy, and in three of them a total nephrectomy had to follow; of the remaining four, three were living and well three and a quarter, four and a half, and two and a half years later. The fourth case was a remarkable one, which must

afford that eminent surgeon considerable satisfaction; a woman had previously had one kidney excised, when she acquired a tuberculosis of the remaining kidney and Morris excised one-third of its substance; she recovered and was living four years later in domestic service. In a case of Israel's reported as well, it was found after four years she had a tuberculous ureter as well as kidney, and the bladder was involved too. Dr. Williams, of Rochester, did a partial nephrectomy on a man with a well-marked phthisis some four years ago and he is well and working on a farm to-day.

There is one group of cases, of which several instances have been recorded, in which the tuberculosis affects one-half of a double kidney with pelvis and ureter separated from its fellow which remains sound. Albarran had such a case and I have one now under my care. I removed the double left kidney with its two pelves and two ureters, one of which was perfectly sound. The patient was so ill with the advanced disease that I do not believe I could have done a delicate resection in this broadly fused organ. She returned about a year later and I was then able to determine that the opposite right kidney had two orifices opening into the bladder, one of which was sound while the other was ulcerated, and I could feel two ureters per vaginam, one of which was greatly thickened; I could also feel the two ureters in the opposite side, the thickened one corresponding to the diseased half of the kidney removed. She would not submit to another operation without an amount of urging and an assumption of responsibility I did not feel warranted in taking.

In stating that the general experience at present shows that extirpation is the wiser rule, I am aware that I have to overcome in the minds of many of my hearers who may not have studied this question minutely, the depressing effects of the early statistics, compiled at a time when the technique was ill-defined, when the cases were always advanced and associated with pyogenic infections, and when transperitoneal operations were frequent. Thus S. Gross in 1885 collected twenty cases with an immediate mortality of 40 per cent., and of the eight recoveries only one was living after twenty months. Dr. Newman[5] gives in a list of 125 collected cases an operative mortality of 20 per cent. within the first month. Morris only lost five out of twenty-eight cases. In a series of thirty-five cases of renal tuberculosis surgically treated by myself or my associates and carefully studied by Dr. Hunner, there were four nephrotomies, of which one died in eleven weeks; there were nine nephrectomies, of which one died with evident involvement of the opposite kidney, six weeks after operation; there were nine nephrectomies and partial ureterectomies, all living; there were thirteen cases of nephroureterectomy, all living; and three of nephroureterocystectomy, of which one died on the sixth and one on the fifteenth day. This, as you see, is no bad showing for so serious an affection treated so aggressively. Albarran's splendid statistics show but two deaths in fifty cases.

Nephrotomy.

Nephrotomy or a simple incision of the kidney for drainage has been thoroughly tried as an alternative to a nephrectomy. Pousson, for example, cites 63 nephrotomies with 39 deaths from the progress of the disease within one year; of the remaining 24 some lived as long as ten years. Out of 82 cases so treated by Tuffier, with a mortality of 47.8 per cent., only 2 were cured. I had one case myself of an old cheesy tuberculous kidney in which nephrotomy, followed with a thorough currettage, was followed by a complete recovery. This, however, is not the operation of election but of necessity.

In its proper sphere, as a preliminary to a radical operation, nephrotomy is a precious life saving measure. I have had cases of patients carried in on a stretcher after years of illness, apparently in the last stages of emaciation and hectic, two of them condemned to death by eminent counsel; a nephrotomy readily done in from three to five minutes without shock under gas gave immediate relief to the distressing symptoms and enabled them to pick up and stand a radical operation at a later date.

It is important in a nephrotomy to open up all the abscesses in both poles of the kidney.

Nephrectomy.

The radical operations may be conveniently divided into five classes:

1. In the early stages of the disease.
2. In advanced renal disease.
3. With involvement of the ureter.
4. With involvement of both ureter and bladder.
5. A group of anomalous cases in which the tuberculosis complicates a hydronephrosis or a calculous kidney.

Not to enter into any unnecessary details before an audience of surgeons, let me state that I find the most satisfactory avenue for the exposure of the kidney in the absence of malignant disease, to be the superior lumbar triangle formed by the tendinous aponeuroses of the oblique muscles and lying just below the last rib. The boundaries of the triangle are the oblique muscles, the quadratus lumborum and the eleventh or twelfth ribs. Over the triangle lies the covering of the latissimus dorsi and ventrally lies the retroperitoneal fat. An oblique incision about three inches long extending from the little soft yielding spot in the angle between the quadratus and the rib exposes the latissimus, which can be lifted like a lid or separated in the direction of its fibres or simply divided transversely. The whitish area of the triangle, apex down, is then usually seen at once. A pair of closed forceps is pushed through the aponeurosis and withdrawn when the golden yellow fat pops out. The opening is then enlarged by blunt force, pulling the muscles away from the quadratus. In this way, as a rule, an opening can be made large enough to remove the kidney and give perfect command of the entire field without the ligation of a single vessel. An enlargement is easily effected by further separating the oblique muscle fibres or by dividing them in a direction downward and outward, making a sort of frying-pan incision.

Care must be taken throughout not to injure either the last dorsal nerve or the first lumbar lying under the shelter of the quadratus but varying a little in its position. It is pleasant here to acknowledge the debt we owe to Lennander for the emphasis he has placed upon the necessity of sparing the nerve trunks in the various lateral incisions in the abdominal parietes, so as to avoid such disagreeable sequelae as anaesthetic and paraesthetic areas and muscular atrophy.

In advanced disease, when the kidney is much enlarged, it is not worth while to waste time trying to remove it intact; it is best to empty it at once, reducing its size to a minimum and then after irrigating thoroughly to proceed to the extraction. The greatest difficulties are often encountered at the upper pole and on the right side in the intimate adhesion to the vena cava and the duodenum. Extreme care is necessary in effecting a detachment at these points, proceeding slowly and under direct inspection. A duodenal fistula is a serious and often fatal accident.

This brings me to a most important point connected with the extirpation of the kidney in old suppurative cases. I would here urge the more extensive use of the intracapsular enucleation.[6] Sometimes an operation which has bid fair to be hazardous in the extreme is turned into the simplest possible procedure by thrusting the fingers through the dorsum of the kidney and then breaking through the kidney substance from within out as far as the tough capsule. By following this in every direction with one or two fingers, the kidney is soon separated on all sides down to the vessels at the hilum, which are then tied. This is practically the only possible method of enucleation in those instances of sclerosis of the surrounding adipose tissue.

Removal of the Ureter.

About a year ago Dr. Hunner, my associate, reported[7] thirteen cases of nephroureterectomy, all of which recovered. In four of these the ureter was felt like a whip cord through the vagina, but on removal showed only a chronic ureteritis. I therefore recommend caution in adding the ureteral extirpation to that of the kidney. The cases best adapted to the more radical operation are those with a greatly enlarged, often strictured ureter. In my last case, a man operated upon just before leaving home, I left a large infiltrated ureter to be removed by a subsequent operation, as he could not stand more.

The first patient operated upon by me in 1893, the left kidney being removed and ureter as far as the pelvic floor, is living to-day without any return of the disease. Another operated on in 1895, by removing the left kidney and its ureter by one long incision from loin to pubis, was well eight years later and had borne two children.

I did my first operation, freeing the kidney and the upper part of the ureter by a lumbar incision, and then slipping the kidney under a wide intact bridge of abdominal muscles and extracting it with the rest of the ureter all in one piece through an opening low down on the abdominal wall, May 3rd, 1898. It is a greater pleasure, however, to accord the priority for this advance in our technique to Berlin's great renal surgeon, Israël.

A. Schwyzer[8] has effected this removal by making a long

incision above to free the kidney and the upper ureter and a vaginal incision to free the lower end of the ureter. When the ureter is entirely free the fingers in the abdominal, and those in the vaginal wound meet and the organ is extracted above.

Nephroureterocystectomy.

One of the most serious local extensions of the disease has, from the first, been deemed an involvement of the vesical walls, and a number of surgeons have considered cases of this character as beyond the pale of radical relief. My own work in some desperate cases has taught me that with careful surgery almost no case is beyond radical relief so long as the disease remains confined to the urinary tract of one side and the bladder; and to this may be added a non-tuberculous pyelitis of the opposite side.

Two of my cases looked exceedingly hopeless and had been given up to die, both were emaciated by months of night vigils, and constant intense suffering with tenesmus, and one did little else than lie moaning like a distressed animal, screaming if she was touched on the vagina, and soaked in her offensive involuntary discharges. The bladder was contracted, ulcerated, bleeding, and uniformly of a deep angry red colour characteristic of an active universal cystitis.

The first step was to relieve the pain, and that was done by making a large vesico-vaginal fistula. Next the tuberculous kidney with its thickened ureter was taken out, then in one case a large part of the bladder was excised, and subsequently another piece was taken out, both times suprapubically, between one-third and a-half in all. The fistula was closed, the bladder was irrigated and distended, and in the latter case the remaining kidney was irrigated. Both recovered over a year ago and are now well women managing their respective households. I cannot insist too strongly on the value of the prolonged bath at an even temperature of 100° F. for hours or all day as devised by Dr. Hunner for these cases, especially if the vagina is patulous.

The steps in these bad cases are the following: (1) Drain a bladder thoroughly; (2) then remove kidney and ureter; (3) use the bath when possible; (4) close the fistula; (5) treat any remaining small patches of the disease with nitrate of silver applied through the open-air speculum; (6) use distension and irrigation treatments; (7) excise any rebellious areas of disease.

As a matter of fact the small patches of cystitis and the little areas of disease around the ureteral orifice are rarely tuberculous, and this is the reason they clear up so readily without further treatment after a nephrectomy.

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CONSTRICTION OF THE URETER.

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The causes of ureteral constriction may be divided into three classes: The first, congenital anatomical anomalies; the second, morbid affections of the ureteral channel itself; the third, morbid affections which involve the ureter from the outside. The anatomical peculiarities which have been described are: Kinking of the duct over an abnormally situated renal vessel and an oblique or unusually high insertion of the ureter into the renal pelvis, giving rise to physical difficulty in the emptying of the latter. True congenital stricture of the ureter has also been recorded in a few cases. The affections of the canal itself which may cause stricture are: Ureteritis, especially the tuberculous form, injury, and the lesions set up by calculi.

Of the acquired conditions other than those of the canal itself, which may lead to ureteral obstruction, the most common at the upper pole is renal mobility causing kinking of the duct at the lower pole, new growths, and inflammatory processes of the pelvic organs.

Sooner or later obstruction to the passage of urine down the ureter is followed by dilatation of the renal pelvis and of the ureter itself above the obstruction. The degree of this dilatation will depend on the degree of obstruction and the length of time it has been established. The ureter, like other muscular organs, will not undergo dilatation until the resistance to its contractions has passed a certain limit; it will tolerate a certain degree of resistance for a certain period. That a resistance sufficient to lead to symptoms of ureteral colic may be present without any marked dilatation is shown by one of the cases which I shall relate. Under such circumstances diagnosis may be a matter of considerable difficulty, and the symptoms have been attributed to affections of the uterine appendages, of the intestinal tract, and of the appendix. The first of the three cases which I have to record is instructive chiefly from the point of view of the symptomatology and the diagnosis.

CASE I.

On August 15th, 1902, a young lady, aged 20, was sent to me with the statement that she had had several attacks of appendicitis, and with the request that I would remove her appendix during the period of quiescence which was said to be then present.

History.—In November, 1900, she had her first attack of so-called appendicitis; this came on with great suddenness, while she was in a railway station; she collapsed with very acute pain, referred to the right iliac region. She was taken home in the train and vomited several times on the journey. The same night the pain became more generalized over the abdomen, and during the next three days morphine was administered steadily. At the end of this period there was still some general abdominal pain, worst in the right iliac region; this gradually subsided, and she was soon pronounced convalescent. Since this time, that is to say for about twenty months, she had had a somewhat similar attack about every two months; these had always been attended by constipation and much nausea; the pain was of a sharp burning character. The last attack had occurred a month previous to the time of consultation; she was kept in bed for thirty-six hours, and since this she had never been free from a dull pain in the right iliac region, which was always more pronounced after exercise. The abdomen was normal to inspection and flaccid; palpation showed an area of marked tenderness over an oval area immediately inside the upper third of Poupart's ligament, but there was no increased resistance here. Except for this tenderness, abdominal examination showed nothing abnormal.

On August 21st the appendix was removed; it showed an area of eroded mucous membrane adjacent to the base, but no appearances such as were expected on reference to the history. She returned home at the end of September. During the winter she continued to have dull pains referred to the right iliac region, and either stayed in bed or lay on a couch. In March she had an acute attack; she had just got up out of bed about 5 p.m., when a sudden very acute pain came on below the operation scar and radiating to the front. For 24 hours she had retention of urine; she felt a desire to pass water, but could not. In July I saw her again, with Dr. Tellett of Ramsey. He told me that, although he considered her attack one of cystitis, he had not been able to discover any abnormality in the urine. At this time she was still suffering, and, except for an occasional walk into the garden, was unable to take any exercise. The pain remained localized as before, the only new point being that it occasionally radiated to the right loin. At this time I diagnosed either stone or stricture in the right ureter, and she came over to Liverpool for further treatment. The urine examination at this time showed: Reaction, neutral; specific gravity, 1030. Deposits: Oxalates in abundance, acid phosphate crystals, a few white corpuscles and epithelial cells of transitional type; no albumen, blood, or pus. For three days after her journey she was unable to empty her bladder voluntarily. The average amount of urine passed for ten days before operation on August 5th was 45 oz.

On August 5th I dilated the urethra and passed a ureteral catheter into the right ureter through a Kelly's speculum. I was unable to introduce this further than ¾ in. from the orifice, where it met with some resistance. I then opened the abdomen and exposed the right ureter transperitoneally, and making a small longitudinal incision passed a fine flexible bougie downwards. It was arrested about an inch from the bladder, and on exerting some pressure it was felt to be gripped in the channel, and I could pull on the ureter in the same way as one can pull on the urethra with an instrument tightly gripped by a urethral stricture. I was not able, however, to get any instrument available through the constriction. Feeling confident, however, that I could dilate the stricture from the bladder with a suitable instrument, I closed the ureteral incision, brought the peritoneum together across it, and sutured the incision in the abdominal wall in the usual manner.

For a month after this the patient was free from pain, owing no doubt to the degree of dilatation which the stricture had received. I should say by that the instrument which was introduced into and gripped the stricture was a black gum elastic filiform bougie of the smallest size. In October I successfully dilated the stricture from the bladder; this dilatation was accompanied by the sensation of something giving way at a distance of about ¾ in. from the aperture, the instrument being under the control of a finger in the vagina; finally, I was able to pass a black rubber bougie up to the kidney without difficulty. Since this time she has had no return of her former symptoms, and this fact supports the idea that the ureter was bound down by adhesion in the pelvis, being the subject of extra-ureteral and not intraureteral stricture. I regret to say that recently I have had to operate again for symptoms due to omental adhesions to the neighbourhood of the wound in the parietal peritoneum through which I incised the ureter; these gave rise to a train of symptoms quite different in character from those from which she previously suffered, and she is now well.

CASE II.

A girl, aged 21, fell downstairs and injured her left side on June 21st, 1904. Three days later she, for the first time, detected a lump in the left side of the abdomen which she had never noticed before.

She was admitted to the Northern Hospital and a firm, movable, tender swelling about the size of the closed fist was found present in the left hypochondrium reaching backwards to the loin. She had no fever, the urine was acid, of specific gravity 1020, containing no blood, albumen or other abnormal constituent.

The tumour was exposed by lumbar incision and found to consist of kidney and dilated renal pelvis. From the latter about 20 oz. of blood-tinged fluid was evacuated. The interior of the sac was inspected through the incision and the ureteral orifice was sought for but not found. After some dissection the duct was exposed on the outer wall of the sac, against which it was flattened for about 1½ in. of its length, its insertion into the pelvis being about 3 inches vertically above the lowest margin of the dilated pelvis. A small longitudinal wound was made in the ureter from the outside and a probe was then passed upwards into the renal pelvis, the opening into the latter just admitting the probe. A fine probe-pointed bistoury was then passed into the sac and pushed into the ureteral opening, and both ureter and sac wall were cut down from the inside as far as the most dependent point, and the edges thus made were sutured together in front and behind. In this way the ureter was made to communicate with the renal pelvis by a long slit-like opening about 1½ in. in length. The wound in the sac wall was then sutured, and lastly that in the parietes.

Reference.	Situation.	Symptoms.	Treatment.	Result.
Kelly (*Johns Hopkins Hosp. Bullet.*), Sept., 1900	Opposite cervix uteri	Pain; irritability of bladder	Uretero-vaginal fistula with dilatation	Permanent fistula.
Küster (*Arch. f. klin. Chir.*, 1892, p. 850) ...	One stricture near pelvis, another 2 c.cm. below	Hydronephrosis	Resection with implantation of ureter into pelvis	Recovery.
Van Hook (*Journ. Amer. Med. Asso.*, Dec. 16th, 1893)	Just below pelvis	Pyonephrosis	Resection and implantation, but second discovered lower down and nephrectomy done	—
Mynter (*Amer. Surg.*, 1893, p. 658)	Junction with pelvis	Pain every few months for 12 years; slight haematuria	Mynter's plastic procedure	Recovery.
Delbet (*Gaz. hebdom.*, 1899, p. 13)	Just below pelvis	Intermittent pain in left loin	Mynter's operation	Recovery.
Israël (*Berl. klin. Woch.*, 1899, p. 201) ...	3 c.cm. above the bladder	Frequent and painful micturition; pyuria	Implantation of ureter into bladder wound	Recovery.
Helferich (*Dissert. Kiel*, by Christensen, 1902)	Ureter obliquely inserted into pelvis	Hydronephrosis	Dilated pelvis plicated with suture	Recovery.
Helferich (*Dissert. Kiel*, by Christensen, 1902)	Stricture near pelvis	—	Section and implantation of ureter into lowest point of pelvis (Küster)	Nephrectomy.
Hildebrand (*Centralbl. für Chir.*, 1902) ...	Near pelvis; kinked and bound down	Hydronephrosis	Implantation into lowest point of pelvis (Küster)	Recovery.
Freyer (*Polyclinic*, 1903, 122)...	Kink and stricture; adhesions	Hydronephrosis: movable kidney	Dilatation; nephropexy, drainage of pelvis	Recovery in six weeks.
Fenger (*Chir. Med. Rec.*, 1893, p. 164) ...	At pelvic junction	Intermittent pain and tumour, occasional pyuria	Fenger's plastic	Recovery.
Fenger ,, ,, ,, ...	Just below pelvis	Intermittent tumour, pyuria	Fenger's plastic	Recovery.
Fenger (*Amer. Journ. Med. Sci.*, Dec., 1896)	Stricture above calculi	Pain 15 years with interval, pyonephrosis	Fenger's plastic; drainage of pelvis	Recovery.
Morris (*Surg. Dis. Kidney and Ureter*, ii, p. 444)	Oblique insertion into pelvis	Nine years' intermittent hydronephrosis	Excision of narrowed ureter and implantation; then nephrectomy	Recovery.
Morris (*Surg. Dis. Kidney and Ureter*, ii, p. 444)	Stricture at pelvic junction	Intermittent pain 5 months, frequency of micturition, pyuria	Fenger's nephropexy	Recovery.
Morris (*Surg. Dis. Kidney and Ureter*, ii, p. 444)	Valvular stricture just below pelvis	Intermittent pain, pyrexia, haematuria	Fenger	Recovery.
Morris (*Surg. Dis. Kidney and Ureter*, ii, p. 444)	Stricture just below pelvis	Pain, diminished urine, haematuria	Fenger	Recovery.
Trendelenburg (*Samml. klin. Vortr.*, 1890, p. 335)	Oblique insertion into pelvis	?	Implantation into lowest point of pelvis (Küster)	Death from ileus.
Bazy (*Rev. de Chir.*, 1897, p. 400)	At renal pelvis compressed on sac	Left hydronephrosis	Transperitoneal operation: implantation into lowest point of sac (Küster)	Recovery.
Bazy ,, ,, ,, ,, ...	Near pelvis	Anuria, calculi above stricture	Implantation into lowest point of sac (Küster)	Death; infection.
Bardenheuer (*Centralbl. f. Chir.*, 1894, p. 1145)	Near pelvis	—	Resection and implantation into sac (Küster)	Recovery.
Richardson (*Trans. Amer. Surg. Assoc.*, 1897, p. 555)	Oblique insertion into pelvis	Occasional attacks; lumbar pain	Longitudinal incision united transversely (Fenger)	Recovery.
Krogius (*Centralbl. f. Chir.*, 1902)	Kink over abnormal vessel	Pain since childhood. Haematuria	Fenger's plastic. Later ureter cut and implanted into sac	Recovery.
Morgan (*Ann. Surg.*, xxxvi, p. 528) ...	Stricture due to adhesions close to bladder	Four years. Severe pain, radiating to bladder. Frequency of micturition	Three operations. Plastic operation by extraperitoneal route	Recovery.
Young (*Amer. Med.*, Aug. 9th, 1902) ...	Close to bladder, below calculus	—	Incision of stricture. Extraperitoneal operation	Recovery.
Young (*Ann. Surg.*, xxxvii, p. 668) ...	Close to bladder	—	Dilatation	Recovery.
Hartmann (*La Séparat. de l'Urine, Laus*) ...	At pelvic junction	—	Fenger's operation	Recovery.
Harrison (BRIT. MED. JOURN., Dec. 10th, 1904)	Valvular obstruction at pelvis	—	,, ,,	Recovery.
Moynihan (BRIT. MED. JOURN., vol. i, 1904, p. 1010)	Stricture near pelvis. Adhesions to sac	Pain in loin 17 years	Longitudinal incision. Transverse suture. Later section and implantation	Recovery.
Moynihan (BRIT. MED. JOURN., vol. i, 1904, p. 1010)	Spur at pelvic junction, oblique insertion	Pain in loin 7 months	Longitudinal incision. Transverse suture	Recovery.
Monsarrat...	Close to bladder	Paroxysmal pain in right iliac region. Bladder tenesmus	Dilatation from bladder	Recovery.
Monsarrat...	At pelvic junction	Hydronephrosis. No lumbar pain	Mynter's plastic	Recovery.
Monsarrat...	,, ,,	Lumbar pain. Pyuria	Forcible dilatation. Drainage of pelvis	Recovery.

For the next ten days the urine contained blood in considerable quantity, showing the patency of the ureter; a few days after the blood disappeared pus occurred in the urine and continued for about three weeks—that is to say, she had pyelitis. This cleared up at the end of the three weeks.

The success of this plastic operation on the ureter is shown by the fact that there has been no recurrence of the hydronephrosis, and no other symptoms except occasional discomfort in the loin. It is doubtful, however, whether the kidney is doing much work.

CASE III.

A boy, aged 21, was admitted to hospital on September 19th, 1903, with a history that ten days previously he had suddenly been attacked with violent pain in the left lumbar region. This pain continued intermittently until admission.

On examination, there was marked tenderness to bimanual palpation of the left lumbar region, and muscular resistance prevented a satisfactory examination. The urine contained pus in small quantity, and microscopically a few red cells were also seen. He was examined by the *x* ray, but the radiograph showed no renal calculus.

His pain continued after admission, and on September 26th the left kidney was explored. The renal pelvis was distended and contained about 8 oz. of pus; no calculus was present. A careful examination of the pelvis and ureter showed that where the former passed into the latter was a very narrow constriction, above the level of the superior isthmus. This admitted of dilatation with a fine pair of dressing forceps pushed into the stricture from inside the pelvis. The pelvis was freely irrigated with water and the incision into its wall was closed; the wound in the soft parts was closed with drainage.

The after-history is interesting: For five days pus and blood were present in the urine in diminishing quantities, but on the sixth both had disappeared. The total amount of urine passed became markedly increased; from a mean of 30 oz. before operation it rose to an averege of over 70 oz. for the twenty days following. The wound healed satisfactorily. I have seen this patient recently. On August 19th he had some pain in the left loin again for the first time since operation. I kept him under observation for a month, during which time he had no return of the pain or discomfort and no abnormal constituent in the urine.

REMARKS.

I wish to remark on the influence of renal stasis as illustrated in this third and other cases as a factor in the production of pyelitis and pyonephrosis. Cases of pyelitis (excluding the tuberculous form) are not uncommon where the affection is primarily of the renal pelvis and where no very definite cause for the condition is discovered. Fagge is content to dismiss such cases as probably due to renal calculi which have disappeared. It is known that the kidney is a regular channel of escape for bacteria during apparent health. It has been shown in dogs that with experimental bacteriuria a unilateral pyelitis can be produced by ligature of one ureter, the opposite kidney remaining apparently normal. It appears very probable that a certain number of the cases of primary pyelitis of obscure origin are dependent on renal stasis due to some defect in the mechanical conditions under which urine is expelled from the renal pelvis.

Pyonephrosis, as distinct from pyelitis, is no evidence that there was any primary obstruction to the urinary discharge, for we know that a pyelitis which is due to ascending infection from the bladder not infrequently becomes pyonephrosis from the obstruction caused by swelling of the mucous membrane and the impaction of shreds and detritus.

In this third case I think it may be assumed that the ureteral stricture was a determining factor in the pyelitis; what we know of the kidney as a portal of escape for the bacteria of the body, and what experimental work has shown to be the effect of ureteral ligature in the presence of definite bacteriuria, justifies the supposition that interference with the mechanics of renal discharge may play an important part in the etiology of similar cases of primary pyelitis.

The plastic procedure adopted in the second case is that which is usually spoken of as Mynter's method. It is suitable for those cases in which the stricture is situated at the junction of the renal pelvis and ureter or close below. For strictures below the level of the lower pole of the sac some other method has to be adopted. For these Küster's procedure is to be recommended, or the stricture may be excised and the ends of the divided ureter brought together by ureteral anastomosis, as I have recently done in such a case.

The table on p. 1324 shows a high percentage of recoveries after plastic operations for ureteral constriction. In addition to the cases tabulated there are others quoted by other writers to which I have not been able to obtain access. They are as follows: Israel, 2 cases in his *Chirurgische Klinik der Nierenkrankheiten*, quoted by Moynihan, BRITISH MEDICAL JOURNAL, 1904, vol. i, p. 1010; Gerster, 1 case, quoted in Bryant's *Operative Surgery:* Cramer, Elliot, and Albarran, quoted by Grosset, *Gaz. hebdom.*, 1900, p. 373; and a case, quoted by Young, in which Meyer found a stricture 6 in. below the kidney, complicated by calculus in the lower part of the ureter (*Medical News*, September 22nd, 1900).

The 33 cases given in the table include 11 which are quoted by Morris. In 5 no plastic operation was done on the ureter; of the remaining 28, in 4 the stricture was situated close to the bladder, in 24 at or close to the junction of ureter with renal pelvis. The latter were treated by three methods: (1) Fenger's operation, which resembles the Heinecke-Mikulicz pyloroplasty, that is to say, longitudinal incision and transverse suture; (2) Mynter's operation, as in Case II, described in this paper, which resembles the Finney operation for pyloric stenosis; (3) Küster's operation, section of the ureter below the stricture, and implantation into the lowest part of the renal pelvis. Fenger's operation was done in 12 cases, Mynter's operation in 3, Küster's operation in 11. In 2 of the cases Fenger's procedure was first done, and Küster's operation later owing to recurrence of the hydronephrosis; in the remaining 10 cases the operation was successful. The 3 cases treated by Mynter's method were all successful. Kuster's method does not show so good a record—6 successes and 5 failures—but the operation should not be credited with some of the latter. In 1 case (Morris) nephrectomy was done on the table for the reason that the success of the plastic implantation seemed doubtful; in the remaining 4 cases the causes of failure were as follows: Ileus (Trendelenburg) after transperitoneal operation, necrosis of kidney (Helferich), second stricture lower down (Van Hook), infection (Bazy). In no case could the non-success be ascribed to a defect in the plastic operation itself, and it is to be noted that the 2 cases in which implantation was undertaken after the failure of Fenger's operation were successful.

Mynter's operation is particularly suitable for the cases in which the ureter is inserted high and obliquely into the renal pelvis; it gives a long slit-like opening, and when the incisions are extended sufficiently it has all the advantages which are afforded by implantation into the lowest point of the pelvis. The latter presents more technical difficulties; it is the method of choice when the stricture is below the level of the lowest point of the renal pelvis and involves so much of the channel that the longitudinal incision and transverse suture of Fenger is not applicable. Even where Fenger's operation is practicable, implantation is theoretically preferable, especially where the pelvis is markedly dilated, as it affords a more perfect drainage channel.

THE VALUE OF THE USE OF A SHADOWGRAPH URETERIC BOUGIE IN THE PRECISE SURGERY OF RENAL CALCULUS.

[EXTRACT FROM A POST-GRADUATE DEMONSTRATION.]

BY E. HURRY FENWICK, F.R.C.S.,

Surgeon to the London Hospital.

[WITH SPECIAL PLATE.]

BEFORE the routine employment of expert radiography in cases of renal pain, the diagnosis of stone in the kidney and ureter was merely speculative. The clinician was rarely certain as to whether a stone was present or not, or if he was assured in his own mind that a calculus did exist, he could not say whether it was imprisoned in the kidney or whether it had passed into and had become arrested in the ureter, so similar are the symptoms evoked by stone in either position. The surgeon was forced, therefore, to explore, first the kidney and then the ureter before he could declare the patient free from stone.

Expert radiography* has, however, entirely altered the

*I do not allude to amateur, but to expert work. The statistics relate to Mr. Harnack's routine in our *x* ray department.

character of the diagnosis and has modified the operative procedure. A clear shadowgraph affords the surgeon who can correctly interpret shadows a fair idea as to whether an operation is needed or not, it indicates the difficulties of the operation, affording a clue as to whether the surgeon will have to open the pelvis or cut through the kidney cortex or even remove the kidney. But it does more than this—it is able, by detecting a stone in the ureter, to draw the attention of the surgeon away from the kidney altogether, and to concentrate his efforts upon freeing that canal.

One of the most distressing of failures in urinary surgery is to cut into a kidney and mutilate it, perhaps irreparably, in order to find a stone which has long ago left that organ and travelled down the ureter; and yet this must happen in 22 per cent. at least of all cases of renal stone if the *x*-rays expert is not called upon to help in the diagnosis.

That the expert radiographist can guide the urinary surgeon with a precision unattainable by any other means is without cavil, and I assert this on an experience of 500 operations upon the kidney. In fact, I know of no obligation so great as that which the expert radiographist places the surgeon and patient under when he accurately defines a stone in the lower ureter.

But the interpretation of radiographic shadows is still in its infancy. There can be no doubt about such ureteric shadows as these I place before you. Here are half a dozen taken in the last three months. All these are stones, confirmed by operation (Figs. 1 and 2). You notice that they are in the line of the ureter, their outlines are sharp, and that their shapes are more or less oval. These are the three great features of ureteric stone shadows.

But how are we to be certain in cases when the shape of the shadow is ill-defined, when its size is small or when it is apparently away from the line of the ureter? It cannot be to the patient's benefit or the surgeon's credit to make a huge extraperitoneal flap, and search up and down the ureter for a stone which does not exist. Personally speaking, when I am in doubt I pass along the ureter a bougie which casts a shadow with the *x* ray. The patient is then radiographed. As the bougie just fills the canal of the ureter, I can tell at once by tracing the ureteric shadow of the bougie as to whether a stone is in the ureter or not.

Now, it may well happen that this expedient has been resorted to by many others. It is so simple and easy in skilled hands, that I can hardly believe it has not been utilized in cases of doubtful shadows. I have not seen any publication, but this is no matter; the idea is practical, and the procedure will save much unnecessary mutilation.

Let me illustrate. Dr. Bertrand Dawson brought me a nurse suffering from severe right renal colic. He showed me radiographs, taken separately by Mackenzie Davidson and Mr. Harnack, showing two large shadows visible in the true pelvis in the track of the right ureter (Fig. 3), and he suggested they were due to calculi in the right ureter, and that these were the cause of the renal colic. I demurred, because the shadows were large and irregular. To prove to him they were away from the region of the ureter, I passed a catheter with a lead stylet up both ureters, and Mackenzie Davidson radiographed that patient again with these hard-cored catheters in position. Here is the radiograph (Fig. 4) You notice that the ureteric bougie shadow is far away from the supposed stones, thus proving incontestably that these shadows are not stones in the ureter. I may as well tell you the sequel. Finding the passage of my right ureteric bougie obstructed 3 in. below the kidney—a point, of course, well above the pelvic shadows—I cut on to its point and found a small oxalate of lime calculus in the ureter at that spot. This is what had caused the severe right renal colic. I turned to the radiograph and found the shadow of that stone, which I had overlooked—I suppose because I was so intent in deciphering the larger shadows below the true brim of the pelvis. To make the clinical aspects of the case complete I made a small peritoneal opening in my original wound and drew up from below the pelvic brim the packet of calcified mesenteric glands which had cast the large shadows. They were then excised.

The next pair of radiographs (Figs. 5 and 6) were taken by Mackenzie Davidson from a lady who was sent to me with bilateral renal suffering by Dr. Athel Saw, from Perth, Australia. They afford a very excellent illustration of the extraordinary precision of the method.

Mackenzie Davidson drew my attention to a shadow, suspicious in shape, position, and size, of a small stone lodged in the right ureter (marked by arrow, Fig. 5). But the pelvic contents were very dense and dark, and had to be lightened up—and I want you to take this valuable hint how to clear up the radiograph of the lower pelvic contents. You see the white half moon, and on it—or in it, rather—the little supposed stone and the ureteric bougie *in situ* (Fig. 6). The clearing of the picture is entirely due to filling the bladder with air. Always fill your bladder with air in radiography if you are in doubt as to a stone in the lower ureter, whether you use a ureteric bougie or not. The air is introduced by merely passing a catheter and elevating the pelvis.

But to return. This little shadow (Fig. 6) is no stone. You see it is outside the ureter, for the ureter is filled by the bougie. Now the sequel. I had to perform laparotomy for another reason, and took the opportunity of finding out the cause of that little shadow. It was a patch of atheroma at the branching of large artery. This is a clinical fact of which I made certain—that an atheromatous calcareous patch can cast a shadow.

I propose now to take you to my operating theatre and demonstrate the technique of the procedure in the case of a girl with right renal pain and calcified mesenteric glands. The radiograph shows shadows (Fig. 7, marked by arrows) which, as she has had severe pain in the region of the right kidney and ureter, have been diagnosed as stones in the kidney and ureter—I assure you they are calcified glands and not stones.

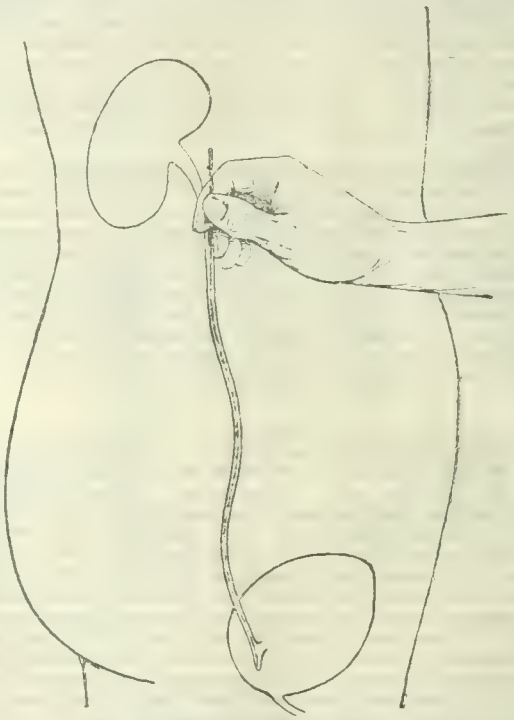


Fig. 9.—Ureteric bougie when passed from above sagging down ureter just at its bend into the bladder.

[The patient was then anaesthetized, placed in the Trendelenburg position, the ureteric catheter was passed by Kelly's method (time 10 seconds) and radiographed by Mr. Harnack (time 5 minutes). The plate was then developed and shown at the conclusion of the demonstration (Fig. 8).]

The radiographic bougie stands out plainly. Its deep shadow is due to its being a very excellent shadowgraph bougie, which was specially designed and made for me by Mr. Marshall*; it is solid, aseptic, easily passed, and proves very dense to *x*-rays. It is much better in every way than my original hard-cored catheter. It will be noticed that the point has been bent down into a lower calyx, and its entire track is far away from the shadows. Case was confirmed by exploration, calcified glands being found in mesentery.

As a last and very beautiful illustration of the value of this method I now draw your attention to a series of radiographs, in which little *round* shadows appeared in the area of the bony pelvis, shadows which lie three or four together apparently along the true brim, or one at the ischial spine, or along

* It can be obtained at Croyden s, 55, Wigmore Street. It is scheduled as the Marshall shadowgraph ureteric bougie.

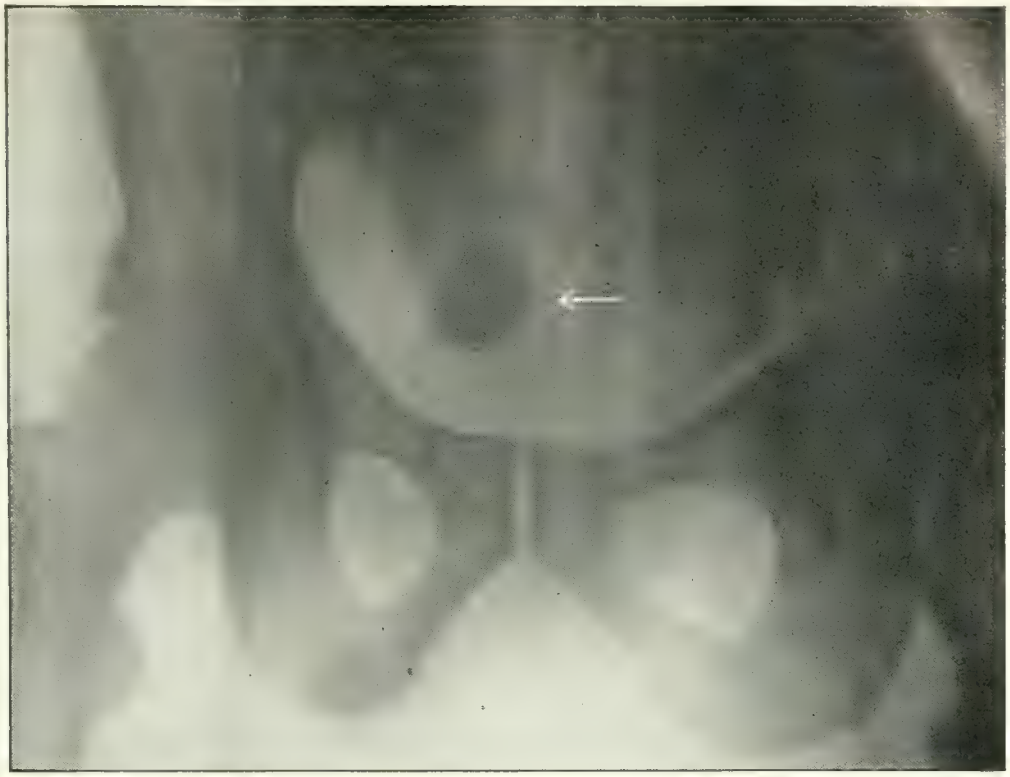


Fig. 1.—Arrested ureteric stone (shadow arrowed), severe renal symptoms for 25 years; operation; cure. (Taken by Dr. Mackenzie Davidson.)

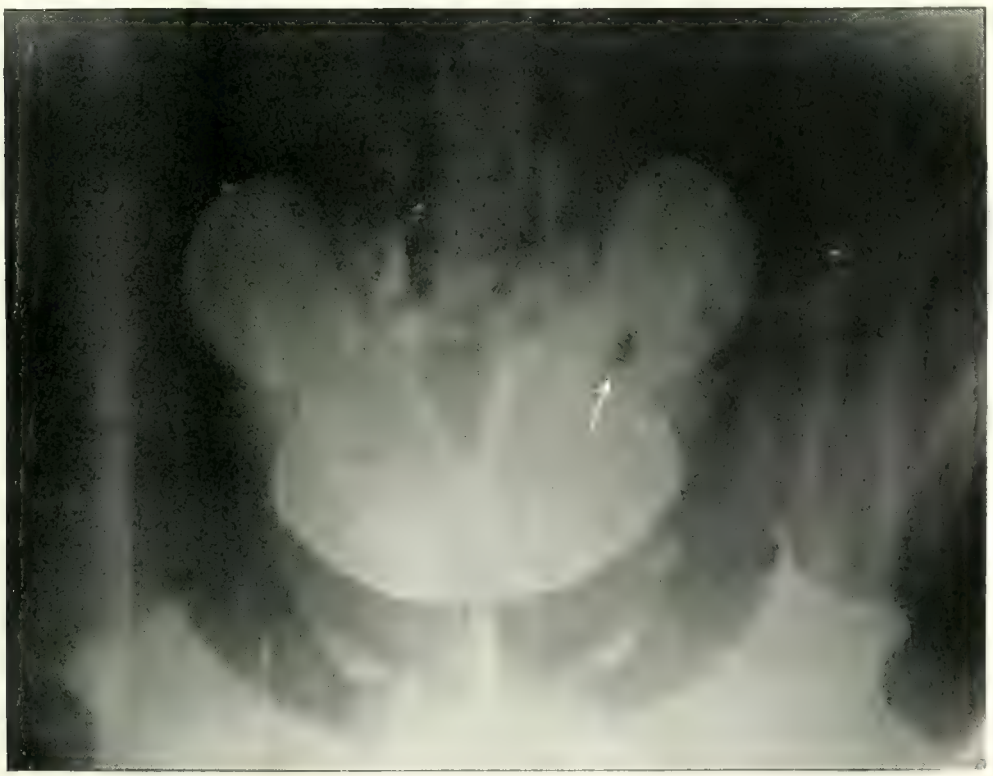


Fig. 2.—Descending ureteric stone (shadow arrowed) subsequently passed; two years' history. (Taken by Mr. Harnack, London Hospital.)



Fig. 3.—Radiograph of bony pelvis, shadows (arrowed) in track of right ureter, supposed to be calculi in ureter. (Taken by Dr Mackenzie Davidson.)



Fig. 4.—Radiograph of bony pelvis of same case; both ureters occupied by shadowgraph bougie, showing shadows to be outside ureters proved operatively to be calcareous glands in mesentery. (Taken by Dr. Mackenzie Davidson.)



Fig. 5.—A shadow (arrowed) supposed to represent small calculus in right ureter, low down. (Taken by Dr. Mackenzie Davidson

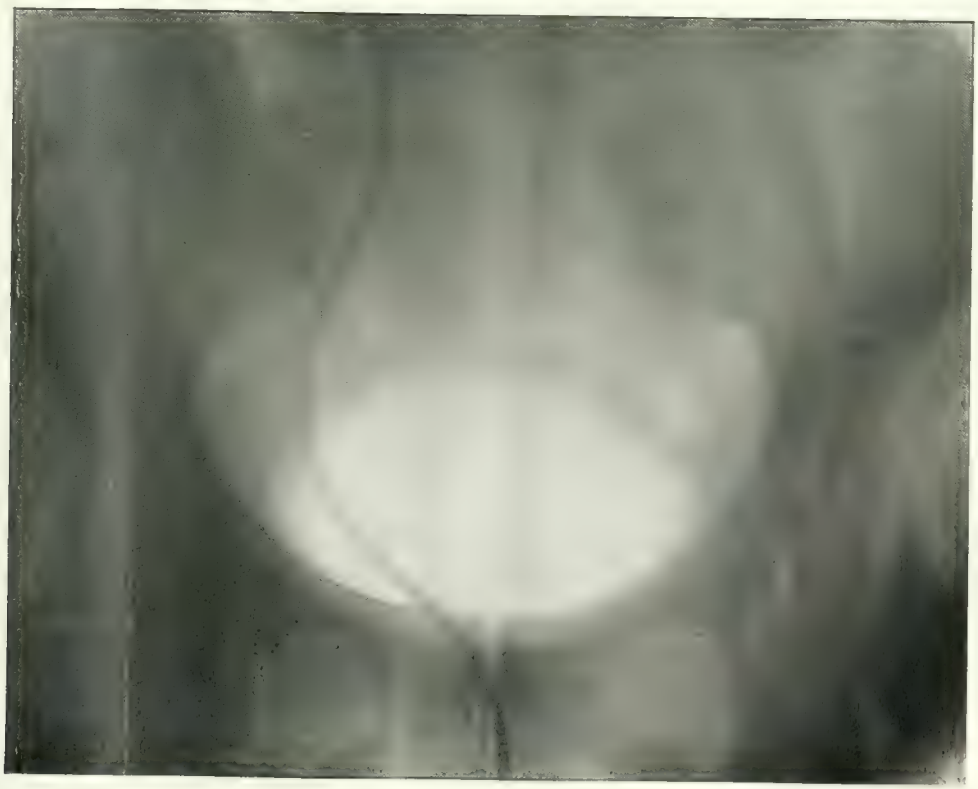


Fig. 6.—Same patient; small shadow (arrowed) shown to lie outside ureter, which is filled with a shadowgraph [illegible] be a calcareous patch in an atheromatous artery; notice semilunar clear space due to inflation of bladder. (Taken by Dr. Mackenzie Davidson.)



Fig. 7.—Shadows (arrowed) supposed to represent stone in ureter and kidney. (Taken by Mr. Harnack, London Hospital.)



Fig. 8.—Same patient; ureter occupied by shadowgraph bougie which turns down into lower calyx; shadows shown, therefore, to lie outside ureter and kidney; proved operatively to be calcareous glands in mesentery. (Taken by Mr. Harnack, London Hospital.)

the track of the ureter. These are not stones, they are calcified glands and are negatived by the ureteric bougie.

There is but little difficulty in the male in passing these bougies; they are introduced through a Caspar ureter cystoscope or through an ordinary prostatoscope or open urethroscope tube, the pelvis being elevated. In the female, a Kelly tube is used. There is decided abdominal discomfort after the bougie has been passed, just as there is after ureteric catheterization, but this is relievable by a little opium.

If you have not the *x* ray to help you, of course the kidney must be explored first, and the ureter opened and a tube passed down it, but remember these two objections: The ureteric catheter passed from above can easily glide over the mucus-covered stone—for all arrested ureteric stones are embedded in thick jelly and the surgeon may be unaware that he has touched a stone. Secondly, the bougie may never reach the bladder at all, but press the ureter down in front of it just at that spot where the tube bends upwards to enter the bladder (Fig. 9).

I do not claim any credit or originality for the shadowgraph ureteric bougie. If any is due it would fall to Kelly or Nitze. I only urge it as a valuable method, and one likely to prevent needless operation in the lower ureter.

ONE HUNDRED CONSECUTIVE LAPAROTOMIES FOR INTUSSUSCEPTION IN CHILDREN.

BY CHARLES P. B. CLUBBE, M.R.C.S.ENG.,

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IN this part of the world, as elsewhere, we now get more intussusceptions in hospital than in former years, because the condition is more readily recognized and the children are sent to us more promptly than heretofore. I find that up to November, 1904, I had performed 100 laparotomies for intussusception in children, with sixty-three recoveries and thirty-seven deaths.

The first 50 cases occurred from August, 1893, to April, 1901 (a period of seven years and eight months); of these, 25 lived and 25 died. The second 50 cases occurred from April, 1901, to November, 1904 (three years and six months); of these, 38 lived and 12 died. The great difference in the mortality in the second 50 cases is probably due to the fact that the children were sent into the hospital earlier.

		Cases that Lived.	Cases that Died.
Average time from onset of symptoms to operation	First 50	28 hours.	68 hours
	Second 50	23 ,,	48 ,,

The varieties were as follows:

	Cases.	Cured.	Died.
Ileo-caecal	64	43	21
Ileo-colic	12	7	5
Double...	20	11	9
Colic	3	2	1
Enteric	1	—	1
	100	63	37

In my cases the relative frequency of the various forms differs considerably from those collected by Weiss, who gives us the following statistics: Ileo-caecal, 43; ileac, 23; ileo-colic, 14; colic, 26.

It appears that I have met with singularly few enteric and colic varieties. Cases I have classified as "double" were primarily enteric, generally starting a few inches from the caecum. This intussusception reaching the caecum has caused the secondary infolding of the colon. I have noticed that in the ileo-caecal, the common variety, the starting point is in the large majority of cases in the caput caeci and not at the valve. This free end of the caecum is often a little difficult to unfold. The main part of the intussusception has been reduced, the lumen is free, but this small, cup-shaped depression, with its thick, hard wall, persists, and has often to be moulded into a convexity, and held in that position for a minute or two. The arrangement of the muscular fibres at this part of the caecum seems, in some way or other, to tend to the production of this small cup or dimple, since it appears to be so frequently the starting point in what is the commonest variety of intussusception. In intussusceptions beginning in the ileum the first unfolding seems frequently to start at the side of the bowel and always opposite the mesenteric attachment.

DIAGNOSIS.

This is not a matter of great difficulty. The signs and symptoms are now so well known that, even with an ordinary amount of care, the condition should not be overlooked. Indeed, the Sydney graduate is now nearly always able to "spot" the case at once. If there is any doubt, and the mass cannot be felt, chloroform should always be administered for the purposes of diagnosis. The condition of the child is apt to mislead the unwary, because in a large number of what may be called early cases, that is, cases seen within eighteen or twenty hours from the onset, the condition of the child is remarkably good. The pulse rate may not be raised, and they do not look ill. It is difficult to believe that they are suffering from acute intestinal obstruction. I think this is the reason why men sometimes miss these cases, if they are not on the watch for them, and have not paid attention to the story of the onset of the attack told by the mother. In some cases the children are collapsed from the very onset, and in later cases it is nearly always easy to see that the child is profoundly ill.

IRRIGATION.

In spite of the fact that nearly all surgeons now condemn irrigation as useless and unscientific, I always inject before operation. The patient is anaesthetized, everything is prepared for operation, and then oil or warm saline is injected by means of an ordinary Higginson's syringe. Why is it useless? It may complete the reduction. It always reduces the mass to a certain extent, sometimes very largely, and in a very gentle manner. Frequently a mass that was in the rectum or descending colon can, after the injection, be felt in the caecal region, and can, therefore, when the abdomen is open, be now got at and reduced with much less handling, and therefore much less risk, than before. But irrigation alone must never be considered a complete form of treatment, and when we irrigate we must always be prepared to operate. My experience has taught me that it will only do away with the necessity for operation in 10 per cent. of the cases. It is, therefore, always necessary where the mass disappears entirely, as the result of irrigation, to keep the child under careful observation. If these facts are recognized I fail to see how irrigation can be considered dangerous or unscientific.

INCISION.

In cases where the mass has been reduced to the region of the caecum, I usually make incision at the outer border of the rectus. The mass can then be easily delivered and reduced without any prolapse of the intestines and therefore with but little shock to the child. The advantages of the side incision are certainly less immediate shock but it is more likely to be followed later on by hernia than the central incision. Where the mass is in the transverse or descending colon the incision should be in the middle line, the umbilicus being the centre, on one or other side, of the cut. I always try to keep the intestines in, but rather than waste much time I let them prolapse, and after the intussusception has been reduced I have warm saline solution poured over them as they are being replaced. If the serous coat of the intussuscipiens is torn I stitch it with fine catgut. I notice that the appendix is nearly always discoloured, but unless it seems to be very much damaged I rarely remove it. In this series of cases I have been obliged to resect the bowel seven times, for various reasons, with but one recovery—a case I have already recorded.[1]

To close the abdomen I nearly always use through-and-through silkworm gut sutures with a Reverdin's needle. It saves much time. With a side incision, if there is not any great necessity for haste, I sometimes sew up in layers with catgut.

AFTER-TREATMENT.

They are always given morphine, $\frac{1}{30}$ to $\frac{1}{15}$ gr.; this is repeated if necessary. Strychnine is given hypodermically till the immediate shock passes; sometimes saline twelve hours the colon is washed out with a weak permanganate of potash. This nearly always motion. If there is any difficulty with the doses of calomel or castor oil are given.

Food.

I think it is most important that these children, if still on the breast, should not be weaned. For the first thirty-six hours or so they are fed on small quantities of albumen water and somatose or Mellin's food and water. Brandy in albumen water. After that, if they are doing well, the mother comes to them several times during the day. They are artificially fed at night.

Reference.

1 British Medical Journal, 1897, vol. ii, p. 1335.

THE CURABILITY OF HERNIA AT ALL AGES BY OPERATION.

By EDWARD DEANESLY, B.Sc.Lond., F.R.C.S.Eng.,

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In a previous paper in the British Medical Journal (June 27th, 1903) I attempted to show that the diversity of opinion on the treatment of hernia was largely due to the prevalence of an erroneous view of its etiology. Rupture, the popular name of this disease, expresses the popular view of its cause. According to this idea the hernial protrusion is the result of a hurt or strain. Following Hamilton Russel and other writers, I described the evidence which to my mind proves conclusively that this view is wrong, and that in the vast majority of hernias the essential cause is the pre-existence of a peritoneal sac of congenital origin. This statement applies to the various forms of oblique inguinal hernia and to femoral hernia, and has no reference to the hernias which follow abdominal incisions or similar lesions of which the traumatic origin is obvious.

If we accept the popular view and regard strain as the primary causal factor, we must admit that it is a factor which can be only imperfectly controlled, either by therapeutic or mechanical means. We can, it is true, restrain the expulsive forces by means of an external appliance, or we may by means of an operation remove the sac of the hernia, and obliterate or narrow the opening in the abdominal wall through which it protrudes. In the one case no attempt is made to cure, and in the other, however perfectly the end is achieved, the supposed primary cause, internal strain, remains. Recurrence under these circumstances is probable, if not certain, for the operation does not leave the patient in any better state than a normal person, in whom the same cause—repeated strain—may by hypothesis produce the same result. If, indeed, the operation is not well planned, or skilfully performed, the parts affected may be actually less capable of resisting strain than those of a normal person, and recurrence is then even more probable. From the same assumption—that strain is the primary cause—it follows also that many cases of hernia are unsuitable for operation because the hernial aperture is so large, or the muscular parietes so lax and enfeebled, that it is improbable that any operation will enable them to resist for long the action of the expulsive forces of the body; hence in all large hernias, and in most elderly people, a radical operation is considered unlikely to be successful.

If, on the other hand, strain is only the immediate cause of the protrusion, and if the real reason why hernia appears in some persons and not in others is that a congenital sac exists only in the one class and not in the other, then the possibilities of a radical cure are obviously very different, for the removal of the essential malformation—that is, the sac—removes the only condition which in the first instance permits the protrusion to occur. The patient after its removal is in all respects restored to a normal condition, and is no more liable to recurrence than any other. This statement must be qualified only to this extent—namely, that the long-continued presence of the hernia within the sac, especially if the hernia is large, may have caused an amount of distension and atrophy of the structures of the abdominal wall which no operation can completely remedy. To this extent the patient after operation may still have an abnormal weakness which conduces to recurrence. In answer to this I can only say that my own experience does not justify this expectation. I have operated on all hernias, large and small and without any regard to age or the condition of the parietes, and I have not found recurrence more frequent in large than in small hernias, nor in old persons than in young. In other words, the size of the opening and the condition of the parietes, are, in my experience, no bar whatever to a successful radical operation.

Stated briefly, then, the popular view is that hernia is the result of strain, that many cases are incapable of permanent radical cure, and that operation in even the most favourable cases is very likely to be followed sooner or later by recurrence, because the primary cause—strain—cannot be permanently eliminated.

It must be admitted that the practice and results of those who act on this view help to bear out their opinion. They restrict their operations except in cases of strangulation or irreducibility, to young persons, and to hernias of moderate size, and even then their percentage of recurrence is admitted high—in my opinion much too high.[1] Mr. Langton, a distinguished surgeon, and one of the most experienced operators, who has operated on 2,319 cases, has recently stated that out of 214 cases operated on in private, 26 had relapsed, and the other operators estimate their relapses as high as 20 per cent.

On the other hand, the view which I wish to urge and support is that hernia is essentially the result of a continued existence of a vestigial peritoneal sac, that it is as much a congenital malformation as a Meckel's diverticulum, and as readily curable by any operation which completely removes the sac without damaging other structures, and my object in the present paper is to support this view by a brief analysis of over 142 operations which I have followed up for two years or more after operation, and which show that by an operation which effectually removes the sac, a permanent radical cure can be practically guaranteed in 95 per cent. of all cases without respect to age or the size and duration of the hernia.

It may be objected that a duration of two years without recurrence is an insufficient test of permanence. It is, however, generally admitted, and my own experience confirms this, that recurrence nearly always takes place, when it occurs at all, within six months. I have not yet met with a single exception to this rule in my own practice, nor am I aware of any published observation in which a radical cure has remained sound for twelve months under the conditions of ordinary life and subsequently recurred. Moreover, in none of my cases has a truss been worn after the operation, and the patients have generally returned to their ordinary occupations within three or four weeks. I think, therefore, that the stability of the result in these cases has been tried by a test sufficient for all practical purposes.

The methods of performing the operations for the radical cure of hernia are legion, a sure sign that practical perfection has not yet been achieved. It is not my intention to add another method to the bewildering variety already in vogue. Probably most surgeons practise in this as in other operations a wise eclecticism. In surgery, however, no more than in philosophy, is ultimate salvation found in eclecticism, and the drift of surgical opinion is already clearly setting in favour of two principal methods, those of Bassini and Kocher, at any rate as regards essential principles.

All operations devised for the radical cure of hernia have two principal aims, the removal or obliteration of the sac and the narrowing or closure of the opening in the muscular parietes, and the criterion by which the various procedures must be judged is the greater or less perfection with which they accomplish these two objects. It must be admitted at once that many of the operations devised by different surgeons and known by their names accomplish these objects with sufficient success to obtain a large percentage of cures in selected cases, especially in young persons and recent hernias. Almost all of them, however, fail in more difficult cases where the hernia is large and of old standing and the patient's tissues enfeebled by age. For such cases the method of Bassini is at present most generally practised. This operation deals thoroughly both with the sac and the canal, and in these respects leaves little to be desired. It has, however, the great drawback that it divides important structures and that the success depends on the asepticity of the wound and of the deep sutures. Failure in this respect involves with practical certainty the production of an ordinary ventral hernia in place of that which the operation was designed to cure. Bassini's operation, moreover, is frequently lengthy and difficult, and failure of asepsis, of course, is more likely to occur from these very reasons.

The operation of Kocher is, of all the operations devised, the simplest, the most rapid, and the easiest to perform. It deals perfectly with the sac, does not enlarge the canal, and its success is not compromised by suppuration of the wound should this occur. The method of treating the sac by invagination and displacement is lucidly described and figured in the last edition of Kocher's well-known textbook of opera-

tive surgery. His earlier procedure consisted in displacement of the sac without invagination, and, although his later method is an improvement, experience of both methods shows that there is little to choose between them as regards results. Kocher's method of dealing with the parietal aperture—inguinal or femoral, as the case may be, ensures its closure, perhaps, less perfectly than that of Bassini and other methods devised especially for femoral hernia.[2] Mr. Lynn Thomas has, therefore, practised and advocated a combination of Kocher's method of treating the sac and Bassini's method of closing the canal. I have, however, practised Kocher's method in about 300 consecutive cases, and am perfectly satisfied with his method of closing the canal. This strengthens the conviction, which it is the main object of this paper to support—namely, that the essence of the hernia is the sac, and that the closure of the canal is of subsidiary importance.

Apart from its simplicity, Kocher's operation has the great merit of being applicable to all forms of hernia and to all cases. I am aware that some writers have declared it to be inapplicable to large hernias, and to certain cases of "congenital" hernia in which the sac cannot be sufficiently isolated. In 300 consecutive cases I can only say that I have not met with one in which the essential principle of the operation, displacement and fixation of the neck of the sac, could not be carried out, even where adhesions from within or without made it impossible to preserve the whole sac. I have used Kocher's method in the largest hernia but one I have ever seen, and found no difficulty whatever in applying it. This hernia was larger than a football and reached to the knees of the patient, a man of average height. It is too soon to determine the final result of this case, but at present, three months after the operation, he has no recurrence and is working without any truss or artificial support.

I will now give a brief analysis of the results of operations, which have all been tested by the lapse of two years of ordinary working life. In no case has a truss been worn, except in those in which a new hernia has formed. This number includes the whole of the cases operated on by me from the beginning of 1900 to the end of 1902, and they were selected by no test except the willingness of the patient to undergo the operation. The 142 operations were performed on 130 patients, in 12 of whom operations were performed on both sides. The youngest patient was 3 months, the oldest 70 years. Thirty-four patients were under 15 years, and 11 over 50 years. Of those under 15, 14 were infants under 2 years. Excluding strangulated cases, there was only one death, from pneumonia in an infant 18 months old after a double operation. Eleven operations were for femoral hernia, all the rest for inguinal hernia. Of the latter, 3 were "direct," the remainder of the ordinary oblique variety. In 15 cases the patients could not be traced beyond one year, and their condition is unknown; but all were told to present themselves in case of return of the hernia, and would probably have done so. The remainder were all communicated with two years after the operation, and of these a few had died without recurrence from various causes unconnected with the hernia. Recurrence has occurred in 6 cases only, in every case less than twelve months after the operation. All six were cases of inguinal hernia, the femoral hernias having been found sound at the end of two years. Of the 6 relapses, in one case, a woman with a violent chronic cough, a small ventral hernia formed at the upper end of the scar. Three were ordinary inguinal herniae, of moderate size in healthy young men. One was a direct inguinal hernia in an elderly man. One was a small inguinal hernia in a boy of 8. This case was operated on again, and remains free from recurrence fifteen months after the second operation. In all these cases except the first, in which it was an ordinary ventral hernia, the relapse precisely resembled the original hernia, and a new inguinal sac of peritoneum had been formed. In these cases it is probable that the original pouch had not been completely obliterated owing to a faulty performance of the original operation, and thus rendered the formation of a new hernia possible. In no case was the new hernia as large or as troublesome as the original one, and in all it was easily controlled by a truss. Nevertheless, the operation can be repeated, and a successful cure easily obtained if the patient's consent can be obtained. I have proved this not only in one of my own cases, as already mentioned, but in three other cases in which relapse has occurred after operations by other surgeons. Of these second operations, three have already been performed over twelve months without recurrence, and as I have previously stated, I know of no case in which recurrence, when it occurs at all, has not shown itself in less than twelve months. It is interesting to note that in no case in which recurrence took place was there any suppuration in the wound. On the other hand, in about 5 per cent. of all cases slight suppuration occurred, and in none of these did relapse occur.

Those who practise Bassini's operation admit that suppuration in the wound is extremely likely to be followed by relapse of the hernia. A careful review of all my recurrences has convinced me that they were all probably due merely to a faulty performance of the operation, and might have been avoided with more care. Most of them occurred in my earlier operations, and amidst pressure of work no surgeon is always at his best.

A percentage of 4.2 relapses is a low one, and might be considered sufficiently satisfactory, but it ought, in my opinion, to be reduced to at least 2 per cent., with proper care and skill. I am not aware of any statistics, however, in which a lower percentage than my own has yet been published in any series of consecutive unselected cases embracing all ages and varieties of hernia. A series of 103 cases with a relapse rate of 5 per cent. was published in the JOURNAL of October 1st, 1904, by Mr. Robert Kennedy of Glasgow, but of these cases only 4 exceeded the age of 7, and in children the operation for radical cure presents few difficulties.

The fact which I desire to emphasize again is that the age of the patient and the size and long duration of hernia are no bar to successful cure by operation. Out of 11 patients over 50 years, in the present series, there has been no relapse in any. Four of them were femoral hernias, mostly strangulated, and presenting no special feature. Of the other 7 cases, 2 were large scrotal hernias in men over 60 with relaxed abdomens. One was a large strangulated hernia containing the bladder in a man of 70. One was a direct inguinal hernia in a portly man between 50 and 60. One had, in addition to an inguinal hernia, a large hydrocele, which was dissected out. Only 2 had uncomplicated inguinal herniae of moderate size. Nevertheless, all 11 patients are alive and well to-day, and have never worn a truss since their operations were performed.

I think that these cases support my main contention that relapse is not a result of imperfect abdominal walls but of imperfect operations, and I again commend to the notice of surgeons the operation of Kocher as the most admirably-conceived, the simplest, the most rapid, and in its results the most satisfactory of all operations yet devised for the radical cure of one of the commonest of human ailments.

REFERENCES.
[1] Medical Society of London, October, 1904. [2] *Lancet*, August, 1902.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A NOTE ON FILARIA GIGAS.

IN the BRITISH MEDICAL JOURNAL of September 20th, 1902, Prout, in a paper entitled Filariasis in Sierra Leone, described what he believed to be two new filariae in a blood film which also contained ordinary nocturna embryos. The two objects differed in size, the larger measuring 0.34 mm., the smaller given in text as 22 mm., but evidently meant to read 0.22 mm. The provisional name of filaria gigas was given to those objects. I had the opportunity of seeing the original specimen before the paper was published, and it was then exceedingly doubtful that they were really filariae, the difference in size and shape and the absence of all the usual anatomy being all against them.

Some time later Dr. St. George Gray, when he went to Sierra Leone, followed up the case and examined the blood of other people in the same district. He found similar objects, and considering that they might represent fallacies, exposed slides with gum on them in the same huts in which he had taken the blood. On examining those he saw the same thing in several, and found out that they were hairs of an insect which had dropped on to the slides. He informed me of this in a private letter and sent me a specimen which, though bearing a superficial resemblance to a filaria, was clearly an insect's hair. Dr. Gray was averse to publishing this, and apart from mentioning the fact to the students of my different classes, I

have not brought the matter into print till now. As I have, however, noticed in Professor Blanchard's and Dr. Penel's recent works on filariae reference made to filaria gigas, I think it incumbent on some one to remove this name from the literature of filariasis into which it has passed, and I do so now being sure that Dr. Prout will agree with me that this is for the best.

GEORGE C. LOW,
Superintendent, London School of Tropical Medicine.

A THIRD STAGE IN THE SEXUAL CYCLE OF THE HAEMOGREGARINE OF JERBOAS.

I HAVE already described two stages in the life-history of the haemogregarine which I recently discovered in the jerboa—jaculus jaculus or J. gordoni, as I believe it has been renamed. These were represented by the endoglobular and the free motile trophozoite, the latter progressing by "euglenoid" movements. Seventeen jerboas have now been examined, and in all of them the infection has been found. In one a third stage has been detected in the liver—namely, the formation of schizonts in the form of cytocysts containing merozoites and residual protoplasm.

The condition appears to me to closely resemble what has been found in the case of Karyolysus lacertarum (Labbé).

So far I have only found this interesting stage of the sexual cycle in the liver. Examination of the spleen and bone-marrow proved negative. The discovery is further proof, if any were needed, that this haematozoon belongs to the Haemogregarinidae.

ANDREW BALFOUR, M.D., etc.
Director, Wellcome Research Laboratories, Gordon College, Khartoum.

CLAVICLE FRACTURED BY MUSCULAR ACTION.

A COLLIER, aged 20 years, in robust health, very muscular, and of good family history, was running at a good pace, when, turning sharply round a corner, he felt something give at his shoulder. On examination, the right clavicle was found to be fractured at the junction of its inner and middle third. The above is of interest as its occurrence in the manner described is most unusual. I am quite satisfied that there was no fall nor violence of any kind, and that the fracture was due entirely to muscular action.

Abersychan, Monmouthshire. WILLIAM BURNS, L.R.C.P. and S.

THE OPENING OF PERITONSILLAR ABSCESS.

SHORTLY after the publication of Dr. StClair Thomson's contribution to the BRITISH MEDICAL JOURNAL on the opening of peritonsillar abscess, a patient after three sleepless nights consulted me, and all the signs of peritonsillar abscess were present.

Not having cocaine spray at hand, ethyl chloride was used to produce local anaesthesia; Lister's sinus forceps were thrust in at or about the "site of election." The blades were well opened vertically, and a veritable cataract of pus was the result. The patient, a somewhat delicate server in a shop, was fit for work in three days.

Hitherto I have used the straight bistoury, but nearly always only after spending some time in persuading the patient to submit to the operation. In the case above related, although a timid subject, the forceps did not appear to excite any dread, and no persuasion was required in order to carry out that which probably cut a very painful affection short by forty-eight hours.

Farningham. T. F. HUGH SMITH.

AN EPILEPTIC FAMILY.

SIX brothers, white labourers of this island, had in all 38 children, of whom 8 are epileptic. No history of mental disease in the parents of the brothers or in themselves or sisters has been elicited.

It is noteworthy that 7 of the epileptics are females.

1. Tom—3 sons; 5 daughters, 1 epileptic.
2. Sam—1 son; 2 daughters.
3. John—6 sons; 3 daughters, all epileptic.
4. Henry—3 sons, 1 mentally deficient and probably a case of larvated epilepsy; 6 daughters, 3 epileptic.
5. Zuechariah—1 son, epileptic; 4 daughters.
6. Joe—2 sons, 1 leprous; 2 daughters, 1 leprous.

I am interested to know whether any association has been observed between leprosy and degeneracy in females. The same day I noted the above family I chanced upon a leper, whose sister was epileptic.

C. W. BRANCH, M.B., C.M.
Colony Hospital, St. Vincent, B.W.I.

RADIO-ACTIVITY OF THE HARROGATE SULPHUR WATER.

IN view of the fact that the water of what is known as "The Old Sulphur Well" plays such a valuable part in the Harrogate treatment, a recent important addition to our knowledge with regard to its properties will, I think, prove of interest.

Sir William Ramsay, who has been kind enough to examine some of this water for me, in order to ascertain whether or not it is radio-active, writes: "The water contains some radium emanation, and also, I think, a trace of thorium emanation too. . . . I evaporated the water to dryness, and the residue was not radio-active. It would appear, therefore, as if the radium emanation, dissolved in the water, produces its radio-activity."

Sir William Ramsay also states that the tests he made must be regarded as merely qualitative, and as showing that the water is radio-active, but that the radio-activity is present in sufficient amount to warrant a quantitative estimate of it being made. This, I hope, may soon be carried out.

I am indebted to Sir William Ramsay for his kindness in examining the water, and for his permission to publish the facts that he has elicited with regard to it.

Harrogate. H. DOUGLAS WILSON, M.D.

INGUINAL HERNIA: BANDAGING: RECOVERY.

D. L. E., aged 22, met with an accident whilst playing in a football match on October 29th, 1904. He fell down in a scrummage and thought he was kicked on the ground. He felt a good deal of pain in the left groin, but continued playing till the end of the game.

I saw him immediately afterwards and examined him. He had a large tense pyriform swelling in his left groin about the size of a goose's egg, with a distinct impulse on coughing and tympanitic note on percussion. The swelling was very tender to touch, and there was a good deal of discoloration present. The diagnosis was "left inguinal hernia."

I tried to reduce it at the football pavilion, but failed. He was sent home in a cab, and was told that an operation might be necessary. Soon afterwards I went to his house, taking chloroform with me. I managed with some difficulty to reduce it without the chloroform. On examination the ring on the left side was found but very slightly larger than that on the right.

I applied a pad of gauze over the external abdominal ring and bandaged him up tightly with the usual ascending spica. The patient was kept in bed for about a week, and was then allowed to get up, although still complaining of slight pain. The bandages were kept on for about six weeks, and then, on examination, I was satisfied that the rupture was all right. There was no apparent difference between the abdominal rings in size. He has had no trouble since, and is playing again at present as well as ever.

Cardiff. W. G. WILLIAMS, M.B., Ch.B. Edin.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON MISSIONARY SOCIETY'S HOSPITAL, NEYOOR, TRAVANCORE.

A CASE OF TETANIFORM CONVULSIONS.

(Reported by A. FELLS, M.B., C.M. Edin., and W. C. BENTALL, L.R.C.P. & S. Ed.)

P., a native Christian boy, 10 years of age, was admitted to hospital on January 27th, 1905, with the following history. Fifty days previously he received a cut in the left index finger whilst playing with a knife. Various native medicines were

applied and the wound healed. For the first ten days after the injury no nervous symptoms were noticed, but he then began to fall into a swoon each evening soon after dark. He remained in a semi-conscious fainting condition for about fifteen minutes. This recurred daily for about fifteen days, always at the same hour. Then, about twenty-five days after the injury, convulsions began to accompany the swoon, gradually increasing in severity and duration; at first always coming on at dusk on alternate days. Latterly the fits had recurred every evening, sometimes even during the day. In the interval the boy appeared to be quite well, attended school, ate heartily, and slept soundly.

State on Admission.—When brought to hospital he appeared to be a healthy boy. There was no rigidity of any muscles and no difficulty in swallowing. On the radial aspect of the dorsum of the left index finger running longitudinally was a firmly-healed scar, almost as long as the middle phalanx. In the evening the usual fit occurred. It began with a series of rapid forced respirations, followed by a succession of clonic spasms of the flexor muscles of all four limbs and trunk. These were so violent as almost to jerk the boy off the bed, the knees being brought close to the chin. After each spasm he tried to rise from the bed, only to fall back in another spasm. This was repeated about twelve times, and then the boy passed into a violent tonic spasm, which lasted about half a minute. It was of a pronounced emprosthotonic type, the body being acutely flexed, so that the knees touched the chin, and the boy's sacrum alone appeared to rest on the bed. This was followed by another series of clonic spasms. The muscles of the face and jaw entirely escaped. When the fit ceased the boy at once sat up, and was perfectly conscious. He could give no account of any aura; 5 gr. of chloral hydrate and 10 gr. of potassium bromide were given every three hours.

Progress.—On January 28th the boy was much worse. The fits were repeated at frequent intervals during the day and towards night became almost continuous. When free from fits the boy lay in an exhausted condition. He was somewhat delirious, but always responded when called. The former mixture was continued during the day, and at night he was given a draught containing liq. morph. hydrochlor. m12, potass. brom. 15 gr., and chloral hydrat. 7 gr.

January 29th.—The boy had ten hours' unbroken sleep after the draught, but no sooner awoke at 6 a.m. than the fits recommenced with increased violence and frequency. His temperature, which had been normal hitherto, had risen to 100° F., and his pulse was 120. He was in every way much worse. It was now noticed that in the brief intervals between the spasms, the boy, who was only semi-conscious, rubbed the back of the left hand, as though he felt the pain there, and pressure on the scar induced a fit of great severity.

Operation.—It was therefore decided to excise the scar. Chloroform was given at once (9 a.m.), and the whole scar down to the bone freely removed by an elliptical incision. The index branch of the radical nerve, which ran along the edge of the scar, though not apparently involved in it, was also excised, its proximal end being pulled out as far as possible and cut short. The incision was closed. During the rest of the day the boy had three or four spasms, which, however, were of greatly lessened severity.

Result.—The subsequent history was uneventful. Slight spasms recurred for the next four or five days, but they were infrequent and only sufficient to just slightly flex the knee or raise the head from the pillow. There was considerable instability of the nervous system for a few days; thus singing in the next ward, or the presence of a class of students round his bed, was sufficient to induce a condition of semi-consciousness and slight spasms, but progress towards recovery was rapid, and by the fifth day after the operation the boy was up and about. On the tenth day he went home free from all symptoms.

REMARKS.—The case was of much interest from the point of diagnosis. At one time it much suggested tetanus, except for the freedom of the muscles of mastication and deglutition from spasm. It is also of interest to note the extreme degree of excitability of the whole nervous system induced by what appeared to be a most trivial condition.

THE PREVENTION OF MALARIA IN ALGERIA.—The French Minister of War has decided that measures are to be taken for the prevention of malaria in the most unhealthy parts of Algeria. A systematic attempt is to be made to destroy *Anopheles* larvae in stagnant pools by the free use of petroleum, or by drainage whenever that is feasible. Sufferers from malaria are to be isolated in special parts of infirmaries and hospitals, where all openings will be protected by networks of wire. To the healthy, quinine in preventive doses will be regularly administered, with the object of making them immune in regard to infection by mosquito bites.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, June 8th, 1905.

CRIBRIFORM CHOROIDO-RETINITIS.

MESSRS. R. W. DOYNE AND SYDNEY STEPHENSON read a paper on cribriform choroido-retinitis, a rare form of fundus disease. They described 3 cases in adult patients of a peculiar clinical type of choroido-retinitis, characterized by large sheets of white exudation lying in the fundus beneath the retinal vessels, and showing few or many round or oval holes, through which the colour and markings of the underlying choroid could be recognized. In some instances the holes might be filled with pigment. There were grounds for thinking that the affection had resulted from acquired syphilis. The authors rejected the view that the condition of the fundus was the outcome of the metamorphosis of copious haemorrhages.

OPTIC NEURITIS.

Mr. LESLIE PATON read a paper on the course of optic neuritis and its subsidence after operation in cases of cerebral tumours, and in it he analysed a series of 105 cases which had occurred at the National Hospital during 1903 and 1904. Of these cases there were 30 in which it was possible to examine more or less fully the eye condition after operation, and these cases fell into four groups as regards vision: (1) There were 8 cases in which the vision was little if at all impaired. (2) In 11 cases the patients were blind or almost blind before the operation, and afterwards their vision recovered, in some even up to normal acuteness of sight. In Group 3 were those cases which were practically blind at the time of the operation and which regained no vision (6 cases), and also those in which the vision failed markedly in spite of the operation (2 cases), giving a total of 8 cases out of 30 operated upon which did not save the sight. In Group 4 were 3 cases in which one eye retained good vision while the other became blind or nearly so. A notable symptom in these cases was attacks of transient dimness of vision, which occurred most frequently in the cerebellar cases, and were most probably dependent upon interference with the vascular supply of the occipital lobes. In different cases the optic neuritis showed different appearances, and the cerebellar cases showed more swelling of the disc than did those in which the tumour was situated in the frontal or parietal lobes, while macular changes appeared only in a small number of cases, and even when these were present they were not necessarily associated with any interference of vision; this was in favour of the changes being superficial. The intradural tension was in all cases high. The swelling of the disc subsided gradually, but more rapidly in cystic cases, while in those which led to blindness the disc assumed a papery-white appearance, with arteries much diminished in size. In some cases where the sight was retained the disc had usually a muddy greyish-pink appearance, but this tended to disappear, and in some of the cases it was impossible to tell from the appearance of the disc that there ever had been optic neuritis at all; this was so in one case where there had been extensive macular changes, but the vision recovered to $\frac{6}{6}$.

RING SARCOMA.

Mr. L. WERNER (Dublin) described the case of a boy, aged 18, the sight of whose right eye had been failing for nine months before being seen, while black spots had been lately observed upon the iris. When seen the iris was covered with coal-black spots of pigment, less marked above, and in addition there was a small brown tumour wedged into the angle of the anterior chamber at the outer side. The anterior chamber was deep, although the tension was high, and there was a deep glaucoma cup; the vision was "hand-movement" only. The eye was enucleated, and the patient remained in good health one and a half years after the operation. The tumour was a spindle cell melanotic sarcoma, which affected the ciliary body, and the neighbouring parts were infiltrated with pigment cells, which extended into the canal of Schlemm. Black cells extended into the angle of the anterior chamber, and a large number of detached cells were lying loose at the bottom. The case was a typical example of a ring sarcoma, of which about seven cases had previously been recorded.

Mr. CANT (Jerusalem) read a paper on the treatment of ophthalmia in Palestine, where he showed that nitrate of

silver was commonly used, both by qualified and unqualified practitioners, in solutions as high as 20 per cent. These exceedingly strong solutions were productive of a great deal of injury to the eyes, lids, and conjunctiva, and favoured, rather than retarded, the development of organisms. He urged that it was never advisable to use a stronger solution than 20 gr. to the ounce, and seldom should one go beyond 15 gr., or 3 per cent., while a 2 per cent. solution was the most useful strength for the majority of cases.

Visual Efficiency.

Dr. G. A. Berry read a paper on visual efficiency from the point of view of indemnification after injury. He pointed out that it was impossible, having regard to the different value of good eyesight to different individuals, to formulate an invariable scale of efficiency, and suggested that, on the basis of certain statistics which could probably easily be got, a scale possessing a certain elasticity might be established. The first thing to determine was the degree of vision in one eye alone which just corresponded, for any particular employment, to a complete loss of efficiency. The second was the average loss for different occupations in efficiency, caused by complete loss of vision in one eye alone, the other having full vision. The total efficiency, taking the vision of both eyes into account, was then discussed as a particular function of the separate efficiencies of each eye.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Wednesday, June 7th, 1905.

Puerperal Eclampsia.

Surgeon-Captain J. C. Holdich Leicester, I.M.S., of Calcutta, reported a case of eclampsia, with death on the sixteenth day after delivery from general septic peritonitis, due to rupture of an abscess in the spleen.

Repeated Tubal Pregnancy.

Mr. Alban Doran reported a case which had twice been under his observation in hospital with clinical evidence of tubal gestation, first on the right side, and, after an interval of twelve months, on the left. Owing to increasing swelling with pain and haemorrhage the abdomen was opened, and clots, together with both tubes and the right ovary, were removed. The patient was the subject of pulmonary phthisis, to which she ultimately succumbed thirteen months after the operation. Mr. Doran raised the question whether, in view of the possibility of another abnormal pregnancy taking place, it was justifiable in operating for tubal gestation to remove the opposite tube even when healthy. He quoted three cases of his own in which a normal uterine pregnancy had followed removal of a pregnant tube.

Dr. Boxall mentioned a case in which a normal pregnancy and delivery occurred about a year subsequent to removal of a ruptured tubal gestation.

Dr. Herbert Spencer said he had operated on three cases of bilateral tubal pregnancy, and in two others had observed intrauterine pregnancy after tubal gestation.

Mrs. Scharlieb mentioned a case of ruptured ectopic gestation operated on in July last, the patient being now five months pregnant.

Lieutenant-Colonel Sturmer, I.M.S., referred to the case which he had recently brought before the Society, in which, at the time of operation, the opposite tube was found red and swollen, but was not removed. A year later it was discovered that ectopic pregnancy had again occurred. Hence he thought that it would have been safer to have removed both tubes at the first operation.

Mr. Doran, in reply, said that every conceivable variation had been observed in cases of tubal pregnancy—repeated in the opposite side, repeated in the same side, simultaneous in the right and left tubes, simultaneous tubal and uterine pregnancy, and, lastly, gestation in a tubal stump. Still, the evidence of those who had joined in the discussion supported his opinion that when pregnancy occurred after the removal of a tubal gestation sac it was as a rule normal; hence, when the sac was removed it was not justifiable to amputate the opposite tube.

Thyroid-like Structures in Ovarian Cysts.

Dr. R. Hamilton Bell reported two instances of thyroid-like structures in ovarian cysts. In both the cysts were multilocular, and had been removed by operation. An explanation was doubtless to be found in one of the following causes—in metastatic growth from a primary thyroidal carcinoma; in secondary growth from a normal thyroid gland; or from a simple goitre; in growth of a teratomatous nature; in endothelioma; in colloid degeneration of an ordinary cystic adenoma of the ovary. He was disposed to regard the last mentioned as the most probable explanation.

Dr. Williamson agreed that in many cases the resemblance to thyroid tissue was brought about as the result of pressure exerted by colloid contents in the smaller loculi upon the columnar epithelium of an adenoma of the ovary. But, at the same time, he thought it possible that in some cases an explanation was to be found in a teratomatous origin.

Deformed Fetus.

Mr. Charles Singer exhibited and described a case of extreme ectopia vesicae and congenital absence of the colon, combined with other deformities, in a full-time fetus which had lived for fourteen days.

Ruptured Interstitial Pregnancy.

Dr. Russell Andrews recorded a case of pregnancy in the left cornu of the uterus which had undergone early rupture. The period was but six days overdue, and the gestation cavity would but just admit the tip of one's thumb. The uterus was removed by supravaginal amputation, both ovaries being left. But he raised the question of the possibility of preserving the uterus in cases like this where rupture took place early, merely excising the affected cornu and suturing together the resulting raw surfaces.

Primary Carcinoma of both Fallopian Tubes.

Dr. Cullingworth showed and described the specimens of this condition which he had removed by operation from a woman about 41 years of age. For two years previously she had had continuous pelvic discomfort, with frequency of micturition and a constant and increasing watery discharge, sometimes blood-stained and frequently offensive. The diagnosis was obscure. A month's rest in bed having been followed by no apparent benefit, operation was decided upon. When the preliminary enema was given, about a pint of bright blood was passed by the bowel, and under anaesthesia a small fistulous opening was felt in the rectum four inches from the anus. On opening the abdomen both tubes were found to be affected with malignant disease, the left being much the larger, but the uterus was of normal size and no extension of the disease to other parts in the abdomen could be felt. There was no ascites. It was thought that the fistulous opening into the bowel would supply a sufficient drainage. Subsequently some difficulty was experienced in getting the bowels to act. The patient died suddenly eighty-four hours after the operation.

Mr. Doran thought it probable that the cancer had developed, as was often the case, in an old hydrosalpinx.

Medico-Psychological Association of Great Britain and Ireland.—The spring meeting of the Irish Division was held on May 9th at the Stewart Institution, Palmerstown, Dublin, by the invitation of Dr. F. E. Rainsford, who entertained the members to lunch after a visit to the institution. Dr. Rainsford occupied the chair, and the business of the Division having been despatched read a short note on the Stewart Institution; this was founded by the efforts of the late Dr. G. H. Kidd, aided by a number of leading men and by a bequest of the late Dr. Stewart; opened in 1869, it was a few years later transferred to its present situation. It was primarily a school for the training of imbeciles, but also included a hospital for the mentally affected. Since its opening 466 imbecile children had been admitted, of whom 129 died and 103 remain. Of the remaining 234 a fair proportion were discharged so far improved as to render their presence at home desirable.—Dr. R. A. L. Graham gave an account of a case of general paralysis complicated with syphilitic meningo-myelitis. The patient, an ex-policeman, had had syphilis twelve years before admission, and a year previously was treated for weakness in his legs, etc., the diagnosis then being disseminated sclerosis. The symptoms on admission were paresis, spasticity, clonus, scanning speech, and intention tremor, without sensory disturbance. Later there were grandiose delusions, Argyll Robertson pupil, etc., and, after outbursts of excitement, death took place from exhaustion and cellulitis. *Post mortem*, the lesions characteristic of general paralysis were found in the brain. The cord showed marked meningo-myelitis, chiefly in the cervical and dorsal regions, especially the lateral columns (the posterior very slightly). Thickening

of the dura and areas of sclerosis surrounding the thickened and thrombosed blood vessels, especially veins, were found, with hypertrophy and hyperplasia of the neuroglia in these areas and near the vessels. The case is interesting as having presented first the symptoms of disseminated sclerosis and afterwards those of general paralysis, without any to point to the meningeal lesion. The paper was copiously illustrated with microscopic preparations, photomicrographs, and lantern slides.—Dr. T. DRAPES read notes of a case of brain tumour. The patient had suffered from amblyopia of the right eye for some years. Five months before death Jacksonian epilepsy started, the fits—which rapidly increased to 30 to 40 per diem—consisting of a momentary sickness, followed by tingling in the right fingers and toes, which travelled up the leg, thigh, and right side to shoulder, arm, and ultimately right side of face, with aphasic difficulty when the lips were reached, the whole lasting about three minutes. Later there was added a "slimy taste," followed by a horrible smell, with nausea but not vomiting; on one occasion only an epileptiform convulsive seizure took place. The patient improved markedly under potassium iodide, but on stopping it the symptoms grew worse. Articulation became unintelligible, and there was paresis of the right arm and leg. Severe headache was present for a time towards the end. Sir C. Ball trephined without result, and the patient died of lung gangrene. *Post mortem*, a large glioma was found in the left fronto-parietal region, involving the island of Reil, claustrum, external capsule, and outer part of the lenticular nucleus, reaching to within 1 cm. of the uncus. Naked-eye and microscopic preparations were shown. Dr. NORMAN called attention to the close connexion between sensory and motor localization apparently shown by the case, in which there were first sensory and then motor symptoms in the same region of the body.—Dr. M. J. NOLAN then demonstrated the following specimens:

(1) Fatty heart, showing rupture at middle of left ventricle, from a female patient, aged 81, suffering from chronic melancholia, who died suddenly after a visit to the lavatory. (2) Dissecting aneurysm of the arch and descending aorta, which had ruptured into the pericardium, from a female, aged 70, who died after an illness lasting three and a quarter hours; she was the subject of hallucinatory melancholia. (3) Heart showing patency of foramen ovale and great hypertrophy from a male paroxysmal maniac, aged 59, who died in a prolonged syncopal attack. (4) Small ill-developed heart, showing patency of foramen ovale and general hypoplasia, from a boy of 8¾ years suffering from congenital mental deficiency without epilepsy.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting on June 2nd, Mr. C. M. TUKE (President) in the chair, Dr. W. H. B. STODDART read a paper on the recognition and treatment of mental disorders in private practice. Early cases of insanity were frequently overlooked by the general practitioner, and even by so-called nerve specialists, on account of there being too great a wealth of euphemisms for insanity, such as hysteria, anorexia nervosa, neurasthenia, "nerves," and even "liver." He had no objection to these terms, provided they did not lead to erroneous treatment, but he was sure that they were too often used in all seriousness when the patient was really suffering from insanity. The most fertile source of error was that sometimes a diagnosis of insanity never occurred to a practitioner, whose main object was the detection and treatment of physical disease alone. The possibility of the existence of mental disorder should always be borne in mind. In hypochondriasis, the mental disorder, was often overlooked. Loss of memory should be regarded as a more serious symptom than was commonly the case, since it was often the first symptom of general paralysis. The majority of cases of insanity were best treated in a special institution for the purpose. Travel as a means of cure in acute mental disorder he condemned absolutely, as being the worst form of treatment. Dements and chronic quiet delusional cases might be treated with benefit at the private houses of doctors, as they gave but little trouble. When the mental disorder formed part of the general break-up of an aged person, an effort should be made to treat the disease at home. Obsessional insanity should also be treated at home, as the everyday occupation in such cases was the best relief from the trouble. Other mental disorders that might well be treated at home were those of short duration, such as delirium of fever, or infection, acute intoxications, some acute epileptic states, and some of the exhaustion psychoses. Acute delirious mania could sometimes be treated at home. In such cases it was important to obtain nurses who had had plenty of asylum experience. Insomnia being one of the most troublesome symptoms, it was necessary to resort to hypnotics, after the usual measures had been taken without effect. Bromide and hyoscyamus was the best combination for nocturnal restlessness, but sulphonal and paraldehyde were the most successful drugs for the insane, the latter having the advantage of being a heart stimulant. When the usual hypnotics failed it sometimes became necessary to resort to a general anaesthetic. When the patient absolutely refused food it was necessary to feed by tube either nasally or orally, as it was a most important factor in successful treatment of insanity that nourishment should be given. The PRESIDENT agreed on the imprudence of recommending travel in cases of acute mental disorder. Dr. S. D. CLIPPINGDALE thought that in cases of anorexia nervosa occurring in private practice rectal alimentation was more suitable than nasal or oral feeding.—Dr. A. B. KINGSFORD questioned the advisability of administering hyoscine in cases of acute mania, by hypodermic injection; thus given it caused an alarming degree of depression.—Dr. H. P. POTTER in comparing methods of feeding expressed an opinion that oral feeding carried out slowly and carefully was the more advantageous.—Dr. H. CAMPBELL POPE mentioned a condition of the urine in so-called cases of neurasthenia as important; it consisted in a dark discoloration of the urine followed by a black precipitate, probably of sulphide of copper, when Fehling's test was used.

REVIEWS.

DISEASES OF WOMEN.

DR. KEHRER has produced a work of some value on the relationship between the alimentary canal and the genital tract in woman. *Die Beziehungen der weiblichen Sexualorgane zum Tractus Intestinalis*[1] should certainly be studied by the physician and surgeon, as well as by the physiologist and gynaecologist. The specialist might also bear in mind another publication issued last year—namely, Mandl and Bürger's *Biologische Bedeutung der Eierstöcke nach Entfernung der Gebürmutter*, a monograph which is really of general interest to the profession at large. Kehrer's treatise is based on a long series of chemical experiments, and he explains by means of tables the working of his problem. A uniform test-diet and the judicious use of the stomach tube were the main agents in these researches. The author insists that with the most ordinary care there need be no fear of prejudicing the course of a pregnancy. He has subjected about 650 persons to these measures without ever having caused premature labour, not even in the 38 in his series where pregnancy was under the sixth month and in a few instances as early as the second. Although the title implies that the researches are confined to the alimentary canal below the level of the gastric end of the oesophagus, ptyalism is fully discussed. Much, of course, is said about simple vomiting and hyperemesis gravidarum, and of haemorrhages from the stomach and rectum and of diarrhoea in pregnancy. The treatment is also duly considered, a number of conflicting opinions and methods are noted, and we are not surprised to find that Dr. Kehrer comes to the conclusion that there is no specific for uncontrollable vomiting. Orexin can claim the votes of the largest number of experts, but it sometimes produces the symptom which it is supposed to cure. The important question of diet in childbed is treated on more general grounds, note being made of the custom amongst certain savage races of compelling the mother to get up directly after labour whilst the father "lies in" for a week; and more is said about ancient and mediaeval authorities familiar to us all, at least in textbooks and speeches. It is interesting to note that Hippocrates dieted his patient in the puerperium, with a view to encourage uterine contraction rather than with regard to the temporary impairment of the alimentary functions. His idea of effecting involution and the free escape of the lochia was to enforce a diet of garlic boiled or roasted in oil or wine, also rue in sweet wine as a drink, preferable to rue tea once popular in this country. Garlic still has its advocates in popular medicine. Whilst the first part of Dr. Kehrer's work is practically

[1] *Die physiologischen und pathologischen Beziehungen der weiblichen Sexualorgane zum Tractus Intestinalis und besonders zum Magen* [The physiological and pathological relations of the female organs to the intestinal tract, especially to the stomach]. Von Dr. Erwin Kehrer, Privatdozent an der Universität und Assistenzarzt an der Univ.-Frauenklinik in Heidelberg. Berlin: S. Karger; and London: Williams and Norgate. 1905. (Demy 8vo, pp. 215. 5s. 6d.)

devoted to the physiology of pregnancy, the second treats of the pathological relations of the female organs to the alimentary tract. Such is the heading, but in fact menstruation is largely discussed, and although gastric disturbance during the periods is reasonably included under pathology, a certain fall in appetite may be normal, at least, in certain individuals. The author also turns our attention to digestive disturbances associated with inflammation and new growths, and to well-known general neurotic conditions. The treatise concludes with a useful summary of the author's views and conclusions. The varying proportion of hydrochloric acid in the gastric juice in different stages of gestation is remarkable. The fall in acids absorbed in bleeding uterine tumours, innocent and malignant, is only what might be expected, for much less serious disturbances in other organs produce the same effect.

The work on the treatment of inoperable uterine cancer[2] is by a grandson of the inventor—or should we say the re-discoverer?—of the vaginal speculum, a credential which makes us take it up with interest. The author treats the subject in a way which shows him to be a high-minded and sensible man, who remembers that he is dealing not only with "cases," but with patients. As illustrating the fact that the prognosis need not be always one of unrelieved gloom, he mentions that he has assisted at the removal of a recurrent growth in the scar left after the removal of a breast forty-five years previously, and the subject of this operation died at the age of 92—not of cancer, but of influenza. The proportion of cases of uterine cancer which in France are seen soon enough to make possible the hope of cure Dr. RÉCAMIER thinks is not over 7 per cent. He advises strongly against the attempts to remove by abdominal section not only the cancerous uterus, but also diseased cellular tissue and glands. Such operations, he says, may show the skill and anatomical knowledge of the operator, but they give no security for the future, and are attended with a high mortality. The tests of fitness for operation of a case of uterine cancer which he gives are those in common use in this country—namely, pulling the cervix down to the vulva and palpating the utero-sacral ligaments by the rectum. If these tests do not show that the parts around the uterus are free from cancer, the case is one for palliative treatment only. The best palliative measure is scraping the growth away, followed by the application of the actual cautery. Next comes the use of chemical caustics. This practice was initiated by Dr. Récamier's grandfather, who in 1818 treated a case of incurable cancer of the uterus by applying through a speculum acid nitrate of mercury to the growth. His grandson finds this caustic too painful, and recommends in preference zinc chloride. Space forbids us to quote the opinions of the author on the numerous methods of palliative treatment by which different persons, with more or less success, have tried to relieve the symptoms of inoperable cancer. It will be enough to say that they are fully considered, and weighed in the balance of a sound and experienced judgement. For the French general practitioner the book will be a valuable help in practice, and not less so for his English brother if only he can read French with ease.

Dr. HIRST'S *Textbook of Diseases of Women*[3] has many merits. It is very fully illustrated, chiefly by photographs. These, it is needless to say, are faithful, but they are not beautiful, nor are all of them necessary. The letterpress is concise and clear. The author's opinions are on most points sensible. Thus, in the chapter on fibro-myomata he tells us:

> If the woman has no discomfort; if the menorrhagia is moderate, does not exist, or the patient is past the menopause; if there is no further growth in the tumour, and no evidence of pathological change in it, such as necrosis, cystic or sarcomatous degeneration, even palliative treatment is uncalled for, and radical treatment is unjustifiable. . . . , Every specialist of experience has under his observation for years cases which show no increase in the size of the tumour, and no symptoms whatever, except perhaps a moderate menorrhagia. In a certain proportion of these cases, especially after the menopause, there is a decrease in the size of the tumour occasionally and almost complete disappearance (p. 338).
>
> A conscientious surgeon, who carefully considers his patients' interests alone, will probably not operate in much more than 20 per cent. of his cases (p. 351).

Haemorrhage, pressure symptoms, and great size are the indications which, in Dr. Hirst's view, call for operation upon uterine fibro-myomata. He estimates the mortality of hysterectomy as being at present about 5 per cent. This seems to us a very rational statement of the case. The least satisfactory part of the book is that dealing with abnormalities of menstruation. Dr. Hirst, in discussing amenorrhoea, fails to distinguish between causes and effects. Hysteria, according to him, is both a cause and an effect of amenorrhoea. To put down hysteria as an effect of amenorrhoea might be a harmless error, were it not that Dr. Hirst says that "the irritation of the endometrium by the introduction of the sound and the application of iodine has brought on menstruation" (p. 384). We submit that he should have said, "haemorrhage from the uterus," instead of "menstruation." Not all uterine haemorrhage is menstrual, and unnecessary local treatment is in hysteria infinitely mischievous. In the paragraphs on dysmenorrhoea the only mention of dilatation is the following:

> There was a time when every case of dysmenorrhoea was supposed to indicate a forcible dilatation of the cervix and a curettage. While it is undeniable that these measures are often of the greatest service, and should frequently be the starting-point of treatment, the physician who depends upon them alone in every case will subject himself and his patients to many a disappointment.

Dr. Hirst does not seem familiar with English literature, although it is in his own language. In this matter of dysmenorrhoea he might learn a good deal from English writers. Taken as a whole the book is a good one.

MINE AIR.

The Investigation of Mine Air[4] is, in a sense, a memorial to the late Sir Clement le Neve Foster, Professor of Mining at the Royal School of Mines. His task as editor was nearly complete at the time of his death, and the work has been seen through the press by Dr. J. S. HALDANE of Oxford, who has written a description of rapid methods of analysis. The subject of mine air is of considerable importance, for among all the dangers that threaten a miner or impede his work impure air is not the least important. The book contains papers by four different writers. The first is by Professor Brunck, of the Royal Saxon Mining College, Freiberg; the second by M. Léon Poussigue, Manager of the Ronchamp Collieries; the third paper is that by Dr. Haldane; and there is an appendix on the effects of carbonic oxide in connexion with the Snaefell Mine disaster in 1897 taken from Sir Clement le Neve Foster's report to the Home Secretary. Dr. Haldane pays a graceful tribute to Sir Clement, whose devotion to the highest ideals of duty probably cost him his life: it was through exposure to carbonic oxide during the exploration of the Snaefell Mine in 1897 and the efforts made to rescue the miners that the seeds of the illness which proved fatal were apparently laid.

Dr. Brunck in dealing with the constituents of mine air and the properties of the various gases reminds his readers that it is not until the proportion of oxygen in the air has fallen below 12 per cent. that respiration becomes difficult. With 10 per cent. of oxygen in the air the lips become cyanosed, and with a further fall of 4 per cent. violent palpitation of the heart and loss of consciousness ensue and are followed shortly afterwards by death. To the collier the presence of "methane," "mine gas," or simply "gas," as it is called, is unwelcome. This gas, which is evolved during the decomposition of organic material in the absence of air, but in the presence of water, is frequently formed by vegetable fibre. It is this which escapes in bubbles when the mud in marshes is stirred up. Methane is present in enormous quantities in coal seams, so that when a miner with his pick pierces one of the reservoirs, the gas hisses forth with a hissing noise and is known as a "blower." Methane, which may also be produced by decomposing animal matter, is a colourless and inodorous gas; it burns in an excess of air with a clear blue flame. Mixed with oxygen or air the compound when ignited explodes—a circumstance which has led to methane being called "fire damp." The maximum of the explosive force occurs when the methane reaches 9.38 per cent. of the mixture, below 6 per cent. the mixture will no longer explode. Brunck shows how methane in a mixture is gradually consumed through the continued application of heat to it. If a flame is burning in air containing methane there is a certain zone around the flame in which the methane burns, and the greater the percentage of methane and the hotter the flame the broader this

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[2] *Traitement du Cancer Utérin Inopérable.* [The treatment of inoperable uterine cancer.] Par le Dr. J. Récamier, Ancien Interne des Hôpitaux de Paris, etc. Paris: G. Steinheil. 1905 (Demy 8vo, pp. 214. Fr. 3.50).

[3] *A Textbook of Diseases of Women.* By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania, etc., with 655 illustrations, many of them in colours. London: W. B. Saunders and Co. (Demy 8vo, pp. 683; 655 illustrations. 21s.)

[4] *The Investigation of Mine Air.* Edited by Sir Clement le Neve Foster, D.Sc., F.R.S., and J. S. Haldane, M.D., F.R.S. London: Charles Griffin and Co. (Limited). 1905. (Demy 8vo, pp. 204, 44 illustrations. 6s.)

zone becomes. This zone of combustion appears to the eye as a bluish cone of light, the so-called cap. With experience miners are able to infer from the size and form of the cap the approximate percentage of methane present in the mine. It is thus that the safety lamp calls the attention of the miner to his dangerous enemy. Methane, like nitrogen, is from the physiological point of view absolutely indifferent. With plenty of oxygen in the air it can be inhaled without risk. Carbonic acid, on the other hand, not only lowers the percentage of oxygen in the air, but is poisonous. Although not a normal constituent of mine gas, carbon monoxide is found in the gases given off from underground fires, and it often forms a constituent of the "after damp" produced by an explosion of fire damp. Carbonic oxide burns with a pale blue flame; it is extremely poisonous owing to its strong affinity for the haemoglobin of the blood. When the colouring matter of the blood has become converted into carbonic-oxide-haemoglobin no more oxygen can be taken up, and as a consequence the patient dies from suffocation.

M. Poussigue describes the methods in use in his colliery for the systematic examination of the air and control of the ventilation. This paper ought to prove of considerable interest to British mining engineers. The paper on the examination of mine air, written by Dr. Haldane, is a welcome contribution to this subject. His methods of gas analysis and for the determination of moisture and the amount of dust in coal mines are as simple in their application and as reliable in their results as chemical methods can be.

The effects of carbonic oxide in connexion with the underground fire at Snaefell Mine, Isle of Man, in May, 1897, are detailed by Sir Clement Foster, whose duty at the time as chief inspector of mines for the district obliged him to go to the scene of the disaster and report accordingly. Only three days previously to the accident the mine had been inspected officially, and the ventilation found to be normal. The story of the rescue of the miners overcome by the noxious gases, and of the difficulty of getting the miners up the shaft to the surface, is graphically told. As no cylinders of compressed oxygen could be obtained potassium chlorate was thrown upon fires improvised down the pit, and the oxygen thus evolved gave strength and relief to the rescuing party. The cause of death of the twenty miners at Snaefell was carbon monoxide poisoning produced by the accidental burning of the wooden props in the pit. Sir Clement Foster describes the sensations and symptoms he experienced in his efforts to rescue the miners.

The book as a whole, although it contains some repetitions, ought certainly to be helpful to mine managers, engineers, and colliery doctors.

NOTES ON BOOKS.

LARYNGOLOGY.

WE had the pleasure of reviewing in these pages the two previous editions of Dr. SCOTT BISHOP'S textbook on *Diseases of the Nose, Throat, and Ear*.[1] We were so favourably impressed by the former issues, that we have read this last one through carefully, and, as we did so, regretted to find the impression stealing over us that progress had been so rapid in the last five years that Dr. Bishop's work had hardly succeeded in keeping pace with it. The prognosis he gives of laryngeal tuberculosis is still therefore very hopeless, and under the heading, "Prognosis in Cancer of the Larynx," the astounding statement is made that "no operation cures; starvation, haemorrhage, or asphyxia ends life!" It seems hardly credible that, in spite of all the work of authenticated lasting cures effected in this country, such a statement should still appear in an American work. Even more astounding is his remark that "the results of tracheotomy are more favourable than those of thyrectomy or thyrotomy." One can only regret that such hopeless and misleading opinions find expression in America, and we could not recommend as a guide to practitioners a book which gives expression to such views. By some curious oversight there is no mention of the use of Roentgen rays in the diagnosis and treatment of foreign bodies in the larynx, nor do we see any reference to Killian's methods of direct tracheoscopy and bronchoscopy. It also appears disproportionate in a work of this character to devote three chapters and thirty pages to the question of diphtheria. There are now so many textbooks on diseases of the throat, nose, and ear, that the selection of the best becomes a difficult matter, but we hardly think that the volume before us maintains the position it held a few years ago.

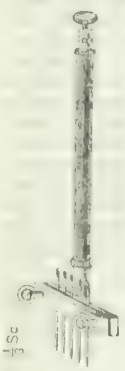
The transactions of the Society of South German Laryngologists for 1904,[2] which are edited by the Secretary, Dr. GEORGE AVELLIS, contain several interesting articles, among others one by Professor Karl Hermann on the art of right breathing and its significance in phonation, one by Professor Killian of Freiburg, who describes his radical operations on the frontal and maxillary sinuses, and one by Professor Jurasz, who recommends the radical treatment of antral disease by a large opening made through the alveolus, without counter-opening in the nose, the alveolar opening being covered up by a plate which is described by Professor Port in another article. Examination of the frontal sinuses by Roentgen rays is recommended by Professor Goldmann. Articles by Dr. Winckler on the treatment of laryngeal tuberculosis by the same rays (giving three cases in which good results were obtained), and one on removal of the palatal tonsils, together with several other articles, complete the number, which is furnished with a list of members of this flourishing society.

WE have received the edition for 1905 of the *Annual Charities Register and Digest*[3] issued by the Charity Organization Society, with an introduction by Mr. C. S. Loch. We have on many previous occasions referred to the excellence of this publication, which we are continually consulting, and seldom without obtaining the information required. The present edition, the fourteenth, contains a review of the year 1904. It deals with such subjects as the apparent increase of general pauperism, vagrancy, the cost of relief, the unemployed, and co-operative societies. A short account of similar work in the colonies and foreign countries is also given.

The Public Schools Year Book[4] in its issue for 1905 has reached its sixteenth year of publication. It is a useful compilation, since it gives particulars not only of the principal secondary schools, but also short essays on the mode of entering various professions.

MEDICAL AND SURGICAL APPLIANCES.

A Multiple Needle-holder for Electrolysis.—The annexed engraving represents a needle-holder which Mr. W. T. Freeman, M.D., F.R.C.S., Physician in Charge of the Skin Department, Royal Berkshire Hospital, Reading, has had made to his specification by Messrs. Down Bros., St. Thomas's Street, S.E., for monopolar electrolysis of large moles, naevi, and other growths. In describing the instrument Mr. Freeman says that though the single needle-holders in common use are satisfactory in themselves it is not convenient to use them in cases in which much work is required. All the other multiple holders he has been able to find have the disadvantage that the needles are of large size, widely separated, made of some metal which conducts less well than ordinary steel, and immovably fixed to the holder by solder. In his own instrument any number of needles desired from two to six or even eight can be used simultaneously, their size can be selected at will, clean fresh needles can be employed for each case, their distance apart be regulated as may be wished, a blunt needle rapidly replaced, and ordinary steel sewing needles employed. All the disadvantages mentioned are thus avoided while the parallelism and fixity of the needles is secured by the use of thin plates of malleable metal between the main screw blocks, and of these a supply is sent out with each instrument. A contact breaker is also introduced into the handle, but this is not essential.



[1] *Diseases of the Nose, Throat, and Ear.* By S. Scott Bishop, M.D., Professor in the Chicago Post-Graduate Medical School. Third edition. Philadelphia: F. A. Davis and Company. 1904. (Demy 8vo, pp. 588, 94 plates and 230 illustrations; 4 dollars.)

[2] *Verhandlungen des Vereins süddeutscher Laryngologen.* Edited by Dr. George Avellis. Wurzburg: A. Stuber. 1904. (Demy 8vo, pp. 81. M.2.50.)

[3] Longmans, Green, and Co.; and The Charity Organization Society. 1905. 5s.

[4] London: Swan Sonnenschein and Co. 1905. (Crown 8vo, pp. 612. 2s. 6d.

NOVA ET VETERA.

SMALL-POX INOCULATION IN INDIA.

A PAPER was read in 1767 before the the Royal College of Physicians in London by Mr. J. Z. Holwell, F.R.S., entitled "An Account of the Manner of Inoculating for Small-pox in the East Indies." This paper is extremely interesting, not only because it states the views of a physician on a practice which still prevails to some extent, though unlawfully, in India, but because the writer, as an early Governor of Bengal, was one of the founders of our great Empire in the East, and had during a residence of thirty years in the tropics actively practised his profession for eighteen of them.

I will commence by giving a brief summary of the paper. Mr. Holwell observes that the "the salutary method (of inoculation of small-pox) now so happily pursued in England (howsoever it has been seemingly blundered upon) has the sanction of the remotest antiquity. For five and sometimes six years together it passes in a manner unnoticed from the few that are attacked with it, for the complexion of it in these years is generally so benign as to cause very little alarm; and notwithstanding the multitudes that are every year inoculated with it in the usual season, it adds no malignity to the disease taken in the natural way, nor spreads the infection as commonly imagined in Europe. Every seventh year, with scarcely any exception, the small-pox rages epidemically in these provinces, during the months of March, April, and May; and sometimes until the annual returning rains, about the middle of June, put a stop to its fury. On these occasions the disease was of the most malignant confluent kind, from which few escaped that took the distemper in the natural way, and they commonly died on the first, second, or third day of the eruption, and the Europeans usually fled from the settlements before the return of the small-pox season. There was hardly ever an instance of a native of the island of St. Helena, man or woman, who if attacked when in Bengal with the disease in a natural way, escaped with life." This he attributed to some fundamental error of their diet.

There was reason to believe from the institution of offerings to the goddess of small-pox that the disease had existed from very remote times in India, and had, indeed, spread from it to the West. Inoculation was performed by Brahmans from Brindabun, Allahabad, Benares, etc., over the country. They arrived in Bengal early in February or March before the usual return of the disease. The people prepared the patients for the operation by a restricted diet, and the Brahmans would not operate unless this had been done. The inoculators passed from house to house and operated at the doors asking how many pocks the parents wished, and preferred to operate, for males between the wrist and the elbow, and for females between the elbow and the shoulder. Fifteen or sixteen minute scarifications were made with an iron or steel instrument, and a rag charged with variolous matter from inoculated pustules of the previous year was allowed to remain on for about six hours. The wound was also moistened with Ganges water and the part was, in the first place, dry-rubbed for about seven or eight minutes. All the time the goddess was being invoked. Cold water was poured over the patient up to the time the fever appeared, and again after the eruption came out until the scabs of the pustules dropped off; and restricted diet was ordered for a month. The pustules were opened with a sharp-pointed thorn. The patient was exposed freely to the air outside the house, and the eruptic fever was generally so slight as not to need much restriction. The operation rarely failed, nor did any one often miscarry under it, and the number of pustules was rarely less than fifty or more than two hundred.

Although very early prejudiced against the cool regimen and the free admission of air, Holwell soon came to the conclusion that any one who did not adopt that treatment would lose many patients. He suggests reasons for agreeing with the Brahmans that it was wise to disallow the use of milk during the progress of the affection and he then refers to their ideas as to the causation of the disease, which were as follow. The immediate cause of the small-pox was believed to exist in the mortal part of every human and animal form. In a footnote he states that at the time of the confluent small-pox epidemics turkeys and other poultry were carried off by the disease in great numbers, and even his own parrot was found on dissection to have as many pustules in his digestive tract as on his body. The mediate cause which stirred up the first and threw it into a state of fermentation was, it was considered, the presence of innumerable imperceptible animalcules floating in the atmosphere. These, they said, cause all epidemical diseases, and imprison most malignant spirits. These particles pass in and out of the respiratory tract without doing any harm, but cling to the food and especially to milk and the other articles which the Brahmans prohibit when the diet is restricted. Holwell himself saw no reason why such pestilent animalculae, driven by certain winds, or generated on the spot by water and air in a state of stagnation and received into the body with the food, should not be the cause of the spread of malignant epidemics at particular seasons, and that epidemical blights, which may be observed to go often hand in hand with epidemical diseases, may be due to similar causes. The friction and the dilution with water seemed to promote absorption and, as Ganges water was used, confidence was given to the patient and he was impressed with the solemnity and piety of the whole transaction.

Holwell particularly testifies to the value of the affusion of cold water from a height up to the time of the appearance of the fever, and again when the eruption comes out, and further says he was an eye-witness of its power and utility when the pustules had sunk. He agrees with the Brahmans in attaching great importance to opening the pustules with a thorn, as this mitigates or prevents the second fever. The opening with a thorn has also the advantage of the orifice being so small that there is no admission of air into the part. In conclusion, in laying again great stress on the cool regimen and on the free admission of air he trusted they might be introduced into regular and universal practice.

Holwell's papers show what a very enlightened man he was, and how he anticipated some of our modern ideas. On the departure of Clive for England in 1760 he succeeded, by his rank, to the Government, becoming President and Governor of Fort William, an honour he had once before declined in favour of a friend. He was one of those unfortunate persons who were confined in the "Black Hole," and during the terrible night of suffering within its walls he received uncommon proofs of the esteem in which he was held by his fellow captives. He not only wrote the best account of the occurence but, at his own expense, erected the monument to the memory of those who were incarcerated with him, which at a later date was allowed to fall into decay, or as some authorities state, was deliberately removed on the ground that it recalled unpleasant race feelings. Last year it was re-erected by the present Viceroy of India in its old position near the public offices of the Government of Bengal, in Calcutta, and will serve to preserve the memory of a great man. One cannot but regret, however, that there is no personal monument in the capital of India to so noble an Englishman and so worthy a member of the medical profession, although this, indeed, is not the only case of the kind. There is nothing to perpetuate the memory of Dr. William Hamilton, another of the founders of our Indian Empire, whose surgical skill induced the Great Moghul to grant the East India Company special privileges; the only memorial of him in Calcutta is the tombstone which once stood over his grave, and which is now placed in the mausoleum of Job Charnock, the founder of the city. Is it too late for the State, or failing it, the medical profession to do something to worthily commemorate these truly estimable and venerated personages?

I have referred to the fact that inoculation still prevails. This is especially the case in the native states in Chota-Nagpore and in Orissa in Bengal, and was true of certain parts of Rajputana, and, perhaps, of some other places until quite recently. In the former province it was ascertained a short time ago that a large number of professional inoculators, who lived in British districts in Orissa, periodically invaded the native States of the province, and operated though the practice was illegal. They were, it was alleged, encouraged to do so by the people, who consider inoculation a semi-religious rite, and a more efficient protection against small-pox than vaccination, because the latter is not followed by either eruption or fever. They are indeed somewhat supported in their views as to the permanent protective power of the first operation, by the fact that revaccination is now considered necessary in order to ensure lifelong immunity. Fortunately, vaccination itself in most of these States is also beginning to be looked upon in the same light as a religious act. It is most important that it should be universally practised, because, contrary to the limited experience of Holwell, we now know that inoculation keeps up and spreads small-pox, as, for example, is sufficiently proved in Orissa itself, where it extensively prevails,

and as was the case always in former days in Rajputana in those parts in which the disease was inoculated. When vaccination was introduced into India early in the last century, the religious objections were fully considered, and were met by the Government. Twining, in his *Travels in India a Hundred Years Ago*, mentions that he prevailed upon the Rajah of Shahabad, who is now represented by the Rajah of Dumraon, and who was reputed to be the lineal descendant and representative of Vikramuditya, who ruled in Ujain in the first century before Christ, to submit his grandson to the new operation. This had a most beneficial effect, as the Rajah was a man of the highest consideration. My own experience is that if the operation is done by a sympathetic vaccinator, who cannot be bribed, opposition soon disappears, especially amongst those who can recollect the ravages of the disease in former times, and the disfigurements and deformities which so often occurred even when death did not ensue. When thirty-three years ago I first went to Rajputana, many of the nobles, as well as the poorer classes, were very much disfigured from small-pox, but in recent years very few are so afflicted, and this cannot be the result of treatment or of improved sanitation, for with most of them both are the same as formerly.

I cannot find any further reference to the interesting observation on the singular fatality of small-pox in persons who came from St. Helena. On the other hand, it is stated that a short residence in the island soon led to the recovery of those who were suffering from tropical diseases.

It may be that small-pox proved so hurtful to them for similar reasons that other epidemic diseases are so fatal when first introduced into the islands of the South Seas.

The following are further interesting facts which redound to the honour and fame of Holwell. He remained in Fort William, and stood a two days' siege after the Government and senior officers had deserted it. The Nawab released him from prison at Murshidabad at the intercession of his own grandmother, "who recalled his upright treatment of the natives who had come before his court." Of him Voltaire wrote gratefully, thanking the man, "qui n'a voyagé que pour nous instruire," and he was the first European to make a study of Hindu antiquities.

T. H. HENDLEY, C.I.E., Colonel I.M.S. (Ret.)

A CLINICAL LECTURE AT THE HOTEL DIEU.

[REPORTED BY PROFESSOR SAUNDBY.]

DURING the recent visit of the members of the medical profession to Paris it was my good fortune to find myself one morning at the Hotel Dieu in company with Drs. Pye-Smith, Murrell, Guthrie Rankin, and S. Brown. We were introduced into a large ward, perhaps to our eyes somewhat overcrowded with beds, where Professor Dieulafoy was engaged with his class. The genial Professor, after ascertaining our names and expressing the pleasure he felt at our visit, drew our attention amongst other cases to that of an old man, over 70 years of age, with diabetes; he was passing a large quantity of sugar, which rapidly disappeared on strict diet, but this regimen was attended by so much constitutional depression that the patient begged to be allowed "to have his sugar back again." The Professor handed round a bottle of alcohol which he said had been distilled from the products of fermentation of the patient's urine!

On our arrival the ward visit was nearly over, and the professor and his class shortly adjourned to the lecture theatre, which was very soon packed by a crowd of students of both sexes, even the floor of the arena being so crowded that there was barely room for the professor and the patient to stand. The patient to whom attention was directed was an elderly man who had suffered from attacks of angina pectoris for the last four years. In these attacks he lost consciousness. At first he was treated at the Hôpital Tenon for five months, where he improved somewhat under treatment by potassium iodide, but his attacks did not cease, and he slept badly. He had one attack whilst going to St. Cloud on the boat, and another in the train going to St. Germain. His sleep continued to be very interrupted; he said himself that he slept for only a quarter of an hour, and then awakened from giddiness. On examination the pulse was normal; there were no murmurs in the aortic area, nor was there any abnormal dullness or pulsation or other physical sign indicating that disease of the heart or aorta was present. Under these circumstances the diagnosis suggested was disease of the suprasigmoidean region of the aorta, which condition might give rise to all these symptoms, without causing any physical signs. Although there was no syphilitic history, the patient's vision was defective; he had had iritis and traces of choroiditis; moreover, he had lost the terminal phalanx of the right index finger, probably from syphilitic panaris, and he had syphilitic scars. The lecturer said that the symptoms were not necessarily dependent upon the coronary arteries being affected; pain was the necessary consequence of arteritis, the pain being often referred to the area supplied by the terminal branches of the affected artery. He discussed the treatment for the condition; large doses of potassium iodide are frequently given, but did not affect the lesion, and he believed it to be an over-done remedy; on the other hand, mercury effects a cure in a few weeks. The lecturer had ascertained by a question from one of us that mercurial frictions were commonly used in England; he said their results were excellent; they had for long been used by him, but of late he had seen cause to prefer hypodermic injections of a watery solution of the biniodide of mercury in doses of from 0,01 to 0.02 gram every night. Since the patient had been put upon this treatment he had had in all fourteen injections, and expressed himself as being very much better, especially he could sleep as he had not been able to do for four years. The patient was remarkably self-possessed and appeared anxious to talk about himself; he was allowed to address the students and emphatically assured them of the benefit he had received. The almost instantaneous effect of the remedy was certainly remarkable; so much so as to raise the suspicion that suggestion may not have been altogether a stranger to this successful result. After the lecture, which was vigorously applauded, the Professor, with his English visitors and accompanied by his clerks and students, adjourned to the courtyard of the hospital, where the group was photographed.

Professor Dieulafoy is a brilliant example of the French medical teacher. Although his age must be very nearly threescore years and ten he preserves every appearance of youth and vigour; his lecture was delivered with the utmost vivacity, without faltering for an expression or hesitation either as to facts or opinions. Whatever might be said about the soundness of the diagnosis or the value of the treatment, it was impossible to avoid paying attention to every word and to be impressed by all the points he desired to make. He used no notes and showed the most perfect familiarity with every detail of the case. The dramatic character of the lecture and demonstration, and the clear and excellent manner in which the facts were put before the audience, were well calculated to impress the professor's teaching on the memory.

LITERARY NOTES.

BRAUMÜLLER, of Vienna, will in a few weeks publish a volume of verses by the late Professor Theodor Meynert. Meynert was known to the whole world as one of the founders of modern psychiatry. Probably few even of his most ardent admirers in this country knew that he was a poet. His poems are said to reveal a most interesting inner personality.

La Tribuna Medica, "the organ of the medical profession of Chile, Peru, Bolivia, and Ecuador," in its issue of May 1st gives a portrait of Sir William Jenner which appears to be intended to illustrate a biography of Edward Jenner. The error is made more conspicuous by the fact that the signature of the eminent physician whose name is associated not with vaccination but with typhoid fever, is reproduced underneath the portrait, and reads unmistakably "W. Jenner." A portrait of Sir William does duty for the *vera effigies* of the discoverer of vaccination in an advertisement of a certain system of exercise which is now appearing in some of the magazines; but a more accurate knowledge of almost contemporary medical history might be expected from a professional publication.

Early in July a special number of *Knowledge and Scientific News* will be issued. It will contain illustrated articles, biographies, portraits, and topics referring to the forthcoming Meeting and Itinerary of the British Association in South Africa.

We have received the second and third parts of *The Empire's Cricketers*, published by the Fine Art Society (New Bond Street) the first part of which was noticed in the BRITISH MEDICAL JOURNAL of May 27th. Part II contains portraits of Dr. W. G. Grace, Mr. P. F. Warner, Mr. G. MacGregor, and W. Rhodes. In Part III are portrayed Mr. J. Darling, Lord Harris, Mr. Reginald H. Spooner, and Schofield Haigh

We need only say that in the excellence of these portraits, and the admirable manner of their reproduction, Parts II and III are worthy successors to Part I. The whole will form a portrait gallery most interesting to cricketers. We take this opportunity of apologizing to Mr. Chevallier Tayler for having misspelt his name in our notice of Part I.

It may not be generally known that Browning's muse first found inspiration in a dose of physic. In some reminiscences of the poet recently contributed to the *Girls' Realm*, Miss Alice Corkran says that his father used to relate that his illustrious son, when a little boy, had so much in common with ordinary children that he found medicine unpleasant. Having on one occasion to take a nauseous draught, he is said to have swung the cup aloft, and looking upon his family gathered round him, burst into poetry to the following effect:

Good people all
Who wish to see
A boy take physic,
Look at me!

Readers of Browning will be tempted to regret that his maturer verse did not retain the smoothness of this early effusion.

To the current number of the *North American Review* Dr. Louis Robinson contributes an excellent article entitled An Ancient Reading of Finger Prints. He recalls the fact that more than two centuries before Francis Galton published his classic work on the subject, Nehemiah Grew read a paper on the pores in the skin of the hands and feet before the Royal Society, of which he was secretary, in which he gave the following account of observations made on the same subject:

If any one will but take the pains, with an indifferent glass, to survey the palms of his hands, very well washed with a ball, he may perceive innumerable little ridges, of equal size and distance, and everywhere running parallel to each other. And especially on the ends and first joints of the fingers and thumb on the top of the ball, and near the root of the thumb a little above the wrist. In all which places, they are very regularly disposed into spherical triangles, and ellipses. On these ridges stand the pores, all in even rows, and of such a magnitude as to be visible to the good eye without a glass. But, being viewed with one, every pore looks like a little fountain, and the sweat may be seen to stand therein as clear as rock-water, and as often as it is wiped off, to spring up within them again.

What Nature intends in the position of these ridges is, that they may the better suit with the use and motion of the hand. . . . On the ridges, the pores are very providently placed, and not in the furrows which lie between them: that so their structure might be the stronger, and less liable to be depraved by compression. . . . For the same reason, the pores are also very large, and they may still be the better preserved, though the skin be ever so much compressed and condensed by the constant use and labour of the hand.

Dr. Robinson points out that in all the reasons given by physiologists for the existence of ridges on the hands and fingers their use in giving a better grip has escaped attention. In fact, he says, the system of serried ridges on the hand gives a better security of hold such as is afforded by the artificial roughening on the haft of a knife. The position of the sweat glands on the ridges is explained by the sudden demand for adventitious moisture shown by every workman when he wishes to get a good grip of his tools. In this Dr. Robinson sees a relic of arboreal life when special provision was needed to meet emergencies of climbing where a secure grip was of supreme importance. The dampness of the hand which occurs in moments of shyness or distress is traced by him to the same origin.

The story is told of Lope de Vega—and also of Browning—that some seeker after enlightenment brought him a sonnet or poem of some kind, and asked the author what it meant. The oracle read it attentively, and then made reply as follows: "When I wrote that, God and I knew what I meant; now God alone knows." History, we know, repeats itself, and accordingly we are not surprised to find the following narrative in a recent number of the *Journal of the American Medical Association*: A physician, described as an expert in mental diseases, was called upon to give evidence in a murder trial. In cross-examination, counsel quoted the following passage from a book:

Thus development is the intrinsic law of life, which, with the extrinsic complement (environment), gives extension and expansion along the lines of affinity limited by the specific character of the entity.

"Why," exclaimed the witness, "I don't know the meaning of the stuff. It is not intelligible." Counsel insisted that he ought to know, but the doctor protested that he did not. Thereupon a grim smile lit up the legal countenance as, holding up the book, counsel said: "Why, you wrote it yourself, doctor. I took it from your own book." "Impossible," replied the witness; "that was never in my book." The book was handed to the physician, and we can well believe that "a look of embarrassment overspread his features" as he finally admitted that he had written the words.

Dr. A. Jacobi read before the first meeting of the new Historical Section of the Philadelphia College of Physicians, held on April 24th, an account of Ernst Krackowizer, whom he called "the most eminent American physician born in Europe." Krackowizer, who died thirty years ago, was born on December 3rd, 1821, in a small town in Upper Austria. He studied medicine in Vienna, Pavia, and again in Vienna, where he graduated in 1845. He was for a time clinical assistant to the famous surgeon Schuh, and he was the first person on whom the anaesthetic influence of chloroform was tried in Vienna. He took an active part in the revolutionary movement in 1848, and things were made so uncomfortable for him that in 1850 he escaped to America. In New York he acquired a large practice, and was appointed surgeon to the Brooklyn City Hospital. He was one of the founders of the *New Yorker medicinische Monatsschrift*, which was discontinued after a year. In New York no one exercised a mightier influence for good. He wrote little, but spent himself in the service of mankind. He took a prominent part in politics. When he died, Dr. Jacobi wondered what six men in the profession would take his place. "H. B. Sands was as good a surgeon; W. H. Draper was as eloquent, as classic, as erudite; Alonzo Clark as elegant, and as full of knowledge such as Anglo-Saxons had furnished to the medical profession; Austin Flint was as painstaking and industrious, but who was there with as wide a horizon, with absolute impartiality—who to equal his eagerness, to give his time and means, and strength to the service of the profession, the community, and mankind—his harmony of brain and heart, and his wonderful unselfishness? What is there of him at present? Almost nobody to remember as much as his very name."

We have before us a special issue of the *Gryphon*, which is the journal of the University of Leeds, giving an interesting account of the inauguration ceremony of last October. It has been published by request of the Council under the superintendence of a special Committee, and sets forth clearly the various stages in the development of the University. Following the title page is a short poem by Mr. Alfred Austin, Poet Laureate, and one of the first honorary graduates.

THE PRIMARY OF MIND.

Above the glow of molten steel,
The roar of furnace, forge, and shed,
Protectress of the City's weal,
Now, Learning rears her loftier head;

That Progress may at length descry
It hath no clue to guide aright,
And, conscious of its blindness, cry
Unto the Muse, "More light! More light!"

That Wealth may fitly yield the throne
To Letters, Science, artist-skill,
And Matter, willing subject, own
Mind must be lord and master still.

This is followed by the Chancellor's address at the first meeting of the University Court. There are good reproductions of photographs of the University buildings, including the School of Medicine, of the honorary graduates, the Chancellor, Pro-Chancellor, Vice-Chancellor, Dean of the Faculty of Medicine, and a group of the Senate (which numbers 31), along with those of others who are identified with the past and present work of the College and University. C. G. Wheelhouse contributes reminicences under the heading of "Medical Student Life in Leeds Sixty Years Ago." Speaking of nurses he says:

They were hard-working women, not too refined for their position, who understood their business, obeyed orders, and often won the praise of the staff for the efficiency of their work. One I remember especially—Nurse Hannah (I never knew her other name)—had been in her ward for forty years, and was an old dear, by whom I should be happy to be nursed even now when ill."

In conclusion, Mr. Wheelhouse says: "I could fill a volume with memories of those happy and pleasant days." May we assure him that such a volume would be cordially welcomed by his old students and by others who came in relationship with him after their student days were over, as well as by the profession at large?

The paper on Hogarth and Quackery, which was concluded in the BRITISH MEDICAL JOURNAL of April 22nd, 1905, has

called forth an interesting suggestion as to the true meaning of the third picture of Mariage à la Mode from a correspondent. Briefly put, this is that the Virago in the picture is the Instrumental Abortionist employed by the Quack, and that she is anxious to use the instrument which she holds in her hand on the girl whose pregnancy the pills have failed to bring to a premature conclusion. This ingenious explanation has much in its favour, but yet it does not seem to be quite conclusive. The ferocious frown of the elder woman seems to express something more than professional ardour, and the knife in her hand seems hardly the instrument which even an abortionist would choose for the purpose. What Mr. Nichols wrote of this picture in 1810, that "no two persons have hitherto agreed in their interpretation" of it appears to be still true, and it remains the striking exception to the rule that Hogarth is never obscure.

Le Radium is the name of a new monthly journal devoted to radio-activity and radiations and the sciences related thereto. The Editorial Committee comprises MM. d'Arsonval, Becquerel, Béclère, R. Blondlot, Ch. Bouchard, P. Curie, Danysz, Debierne, Ch. Féry, Ch. E. Guillaume, Oudin, Rubens, and Rutherford.

The *Annals of Psychical Science* is a new periodical, the scope of which is sufficiently described by its title. It is to appear monthly under the personal direction of Professor Charles Richet. Sir William Crookes, Professor Barrett, Professor William James, Professor Lombroso, M. Flammarion, Dr. Morselli, Dr. Maxwell, and M. de Rochas are among the active collaborators.

The first number of the *Transvaal Medical Journal*, a monthly periodical, to be published under the auspices of the Transvaal Medical Society, will appear about August 1st, 1905. It will contain among its distinctive features an epitome of all current medical literature abstracted by representatives of each of these branches from the publications of all countries and classified under the headings of Medicine, Surgery, Gynaecology and Obstetrics, Children's Diseases, Tropical Medicine, Public Health, Pathology and Bacteriology, Forensic Medicine, Diseases of the Eye, Diseases of the Ear, Nose and Throat, Skin and Venereal Diseases, etc.

THE PREVENTION OF CONSUMPTION.

A TUBERCULOSIS CONFERENCE IN AMERICA.

THE American National Association for the Study and Prevention of Tuberculosis held its first annual meeting at Washington on May 18th and 19th, under the presidency of Dr. E. L. Trudeau.

President's Address.

In his presidential address, Dr. TRUDEAU said the first means for the improvement of present conditions was the education of the people; the second, that of the State. If every one knew how great a diminution of the death-rate had already been accomplished, then there would be a demand for legislation that could not be resisted. As the result there would be better hygiene for the masses, which must constitute the basis of all tuberculous crusade work. The teaching in the public schools must be rather with regard to hygiene than tuberculosis itself, since otherwise, fantastic ideas of the danger of tuberculosis were apt to be acquired. For any further improvement the most necessary condition was the early detection of the disease. The spread of education would help to crush the vampire of quackery, which now allured the poor under the mask of philanthropy and even of science. In this way precious time was lost, and the disease, from being mild and curable, eventually became incurable. Undoubtedly one of the duties of a National Association for the Prevention of Tuberculosis must be to bring quack offenders against the public weal to justice. At the present time physicians needed to be able to recognize incipient cases with more certainty than before. The features of incipient tuberculosis must be taught in the medical schools, for the student was apt to think only of advanced cases. Further researches were needed, too, for the purpose of securing more exact methods of diagnosis, and perhaps even of treatment, or measures for the prevention of the disease.

Education in Regard to Tuberculosis.

Professor WILLIAM OSLER said there were three classes which needed education with regard to tuberculosis: the public, the medical profession, and the patient. For their further education there were three duties; First, the enactment of good laws; secondly, the proper care of early tuberculous cases, and third, the care of hopeless cases. For an example of good laws with regard to tuberculosis, he pointed to the New York laws. In regard to the education of the profession, Dr. Osler said there should be a tuberculosis dispensary in connexion with every large hospital, for the sake of its educational value. The education of the patient was often a most trying factor in the treatment of early cases. The friends of a patient said "For heaven's sake, don't tell that girl that she has tuberculosis, or it will surely kill her." There was no greater mistake than the keeping from the patient of a full knowledge of her condition. The discipline necessary in order to carry out the measures required for open-air treatment would be easy if the patient realized the danger that was ahead. The depression would last only for a time, and the reaction was good.

The Notification of Tuberculosis.

Dr. HERMAN M. BIGGS said it was now agreed that enforced registration of tuberculosis was advisable. Except in New York, however, and a few smaller cities, it was not enforced. Many cities had laws in the matter, but no action was taken. In New York the Board of Health had an Advisory Board, consisting of the most prominent physicians in the city. These gave confidence and enlisted the earnest co-operation of other physicians, since it was known that health regulations were agreed to by them. Another method that had been found to make registration easier in New York was the free bacteriological examination of sputum. This gave a return to the physician for the trouble of reporting his tuberculous cases. The first year only 500 specimens were examined. Last year 17,000 specimens were examined. This year, according to present statistics, over 20,000 specimens would be examined. There were 250 dépôts for the collection of sputum, to make the physicians' work easier. While it was required to report the disease, it was not considered contagious, but only a communicable affection. Dr. Biggs insisted that there was no danger if simple precautions were taken. In 1904, 19,000 cases of tuberculosis were reported, some of them, of course, duplicates. Registration to be successful must have certain safeguards. It must not involve publicity. The Board of Health did not communicate directly with the patient, but with the physician, who was asked to give his patient the information that the Board of Health considered necessary for the prevention of the spread of the disease. The physician was also asked to notify the Board of Health if the patient gave up treatment, or removed from one portion of the city to another, or from one house to another. This was to enable the Department to carry out proper measures of disinfection. Every year saw more and more ready co-operation between the medical profession and the authorities in these matters.

Public Health as an Investment.

Mr. HOMER FOLKS, Chairman of the Section of Sociology, said the question inevitably occurring to a layman was, If tuberculosis is a preventable disease, why is it not prevented? All the reasons given in answer to this question might be condensed into one—namely, we do not realize the value of public health as an investment; we are not yet ready to devote sufficient means to the saving of human life, even when the opportunity is placed squarely before us. Health authorities were given wofully inadequate sums of money to carry on the work they should do. After comparing the value of freedom from tuberculosis with the so-called "permanent" improvement of cities, he concluded that municipalities would be justified in using their credit for funds for the former just as they now did for the latter purpose.

The Sanatorium Movement in America.

Dr. WILLIAM H. BALDWIN (Washington) traced at length the progress of the sanatorium movement in America, from Trudeau's Saranac venture twenty years ago to the present widespread adoption of this plan of treatment. Now there were 135 institutions of various kinds, new and old, in 33 of the States and provinces in the United States and Canada, caring for the tuberculous. A third of the number was in New York and Pennsylvania. The total capacity was 8,400 persons, 30 per cent. of these being in New York. The first sanatorium established by a State or provincial association was the Muskoka Cottage Sanatorium at Gravenhurst, Ont., in 1897. The first State sanatorium was erected by Massachusetts at Rutland in 1898. The first municipal sanatorium was established by Cincinnati in 1897.

A number of scientific and clinical papers were read, abstracts of the more important of which will be published in the EPITOME.

MEDICAL NEWS.

Sir John Sibbald, M.D., at one time a commissioner in lunacy for Scotland, left personal estate in the United Kingdom valued at £12,245.

Conversaziones will be given at University College, London, on Wednesday evening, June 28th, and King's College on Thursday evening, June 29th.

The prizes of the School of Pharmacy of the Pharmaceutical Society of Great Britain will be distributed by the President at the Society's house at 3 p.m. on Wednesday, June 28th.

The foundation stone of the extension of the Tottenham Hospital will be laid on Tuesday next at 4 p.m. by the Lord Mayor of London and the Master of the Drapers' Company.

The Stephen Ralli Memorial Laboratory for Clinical and Pathological Research, in connexion with the Sussex County Hospital, will be opened on Thursday, June 29th, at 3.30 p.m.

Dr. E. J. Farmer, of Carlow, has been appointed an honorary life member of the St. John Ambulance Association in recognition of his services as gratuitous lecturer to the classes at Carlow.

At the annual general meeting of the British Balneological and Climatological Society on May 31st, Dr. Hamilton Cumming was elected President in succession to Dr. W. Bowen Davies of Llandrindod Wells.

Dr. Jose Alabern y Raspall, Physician to His Majesty the King of Spain, has been nominated an honorary member of the 4th Class of the Royal Victorian Order, on the occasion of His Majesty's visit to this country.

The Cavendish lecture before the West London Medico-Chirurgical Society will be delivered on Friday, June 23rd, in the Town Hall, Hammersmith, at 8.30 p.m., by Dr. J. F. Goodhart. The subject selected is disease of the heart.

A new out-patient department at the Samaritan Free Hospital for Women, Marylebone Road, was formally opened on Wednesday last. In addition to the arrangements for out-patients, the new building provides accommodation for sixteen nurses.

Dr. Howard Kelly, Professor of Gynaecological Surgery in the Johns Hopkins University at Baltimore, was entertained at dinner by Dr. Macnaughton-Jones at the Cafe Monaco, London, on June 8th. Immediately after dinner those present went to 20, Hanover Square, where Dr. Howard Kelly delivered to the British Gynaecological Society the address on "Some Surgical Notes on Tuberculosis of the Kidney," which is published elsewhere in this issue.

The annual general meeting of the Poor Law Medical Officers' Association of England and Wales will take place on Tuesday, June 27th, at the Trocadero, Regent Street, W., at 6.30 p.m. At 7.30 p.m. the members and their guests will dine together, Surgeon-General Evatt, C.B., the President-elect, being in the chair. Any Poor-law medical officer desiring to be present, should communicate with Dr. Major Greenwood, Hon. Sec., 9, Copthall Avenue, London Wall, E.C.

Baron Nathaniel de Rothschild, who died in Vienna on June 12th, was a great benefactor of medical institutions; he added surgical wards for injured workmen to the Rothschild Hospital founded by his father, and endowed it with a gift of 2,000,000 kr. He also contributed generously to the ambulance service of Vienna, and some time ago presented his castle of Hinterleiten, in Lower Austria, to the military authorities as a convalescent home for invalid officers, and also established a hospital for officers in Carlsbad. Baron N. de Rothschild, who was an invalid all his life, survived to the age of 69.

The annual collection of the Metropolitan Hospital Sunday Fund will be made this year on Sunday, June the 25th. Mr. Herring has again offered a donation of £25,000 on condition that the total sum of £100,000 is otherwise raised. The average amount collected in places of worship during the last two years has been about £50,000 so that if another £50,000 can be raised the fund will have at its disposal this year a sum of £125,000. To assist in raising this amount, the donor has allowed the secretary of the fund to state that any money collected in the City in answer to a special appeal about to be made to "City men," shall be considered as having been given in a place of worship, and consequently will receive the additional 5s. which Mr. Herring offers to add to each £1 collected.

Chelsea Clinical Society.—The eighth annual dinner of the Chelsea Clinical Society was held at the Criterion Restaurant, London, on June 8th, with the President of the Society, Dr. Vincent Dickinson, in the chair. The dinner was well attended by the members and friends of the Society, and was a marked success in every way, this gratifying result being largely due to the efforts of the Honorary Secretary, Mr. A. A. Cooper. The Chairman, after the usual loyal toasts had been duly honoured, proposed the toast of "The Chelsea Clinical Society," and referred to the valuable debate held under its auspices on the subject of chronic constipation. He urged upon the members the desirability of attending the meetings of the Society. In regard to the scheme for amalgamating the great metropolitan medical societies, it was important to bear in mind that Sir R. Douglas Powell, President of the Royal College of Surgeons of London and President of the Royal Medical and Chirurgical Society, had definitely stated that, in his opinion, it would be a distinct loss to the medical profession if local societies like the Chelsea Clinical Society ceased to exist. It had been, however, hinted that local societies might be affiliated in some way to the proposed Academy of Medicine. This toast was acknowledged by Dr. Barry Ball, and then followed the toast of "The Visitors and Kindred Societies," submitted by Mr. Noble Smith, which was replied to by Mr. W. Arbuthnot Lane and was also responded to by the Rev. Dr. Collison. Dr. Seymour Taylor then gave the toast of "The President and Officers of the Society," which was suitably answered by the President, after which the formal proceedings terminated.

West London Hospital Post-Graduate College.—The members and friends of the West London Hospital Post-Graduate College dined together on June 7th at the Empire Rooms, Trocadero Restaurant, Piccadilly Circus. The chair was occupied by Dr. Seymour Taylor. After the usual loyal toasts, Mr. C. B. Keetley proposed "The Imperial Forces." One of the most telling points in his remarks was his indignant rejection of the suggestion that if the British sailors and soldiers should be instructed in Japanese philosophy it would increase their courage. In responding to this toast, the Medical Director-General of the Navy described how useful the West London Post-Graduate College was; it supplied an admirable place in which surgeons in the navy could refurbish their professional knowledge when from lack of material it had become somewhat rusty. This toast was also replied to by the Director-General of the Army Medical Service. He said that the army medical officers were in a different position to the naval medical officers, because there was established the Royal Army Medical College, where the army officers attended a post-commission course of study in military hygiene, but for general medicine and surgery they had recourse to the civil side of the profession, and special arrangements had been made with the London Hospitals Association. In his opinion, the West London Hospital Post-graduate Course was well adapted for officers of his service. Surgeon-General Keogh concluded by pointing out how the West London Hospital was connected with the Volunteer Medical Staff, and emphasized the necessity there was for Volunteer Medical Officers to prepare a suitable organization in time of peace so that they might be ready for war. In submitting the toast of "The West London Hospital and Post-Graduate College," the Chairman described how ten years ago the institution was started as a teaching school. In the year 1904 the number of those who passed through the wards of the Hospital was 216, and 600 entries had been received for special classes. Men came to the institution from all quarters of the globe, and the Hospital might truly be described as a school for medicine and surgery for post-graduates from China to Peru. Mr. G. F. Marshall, Chairman of the Committee of the Hospital, replied to this toast, as also did the Dean, Mr. L. A. Bidwell, who referred with pride to the satisfactory progress of the Post-Graduate College. In the first five years of its existence the students numbered 125, in the second five years the number had risen to something like 800. Mr. Swinford Edwards proposed the toast of "The Visitors," which was acknowledged by Sir Richard Douglas Powell, who affirmed that the West London Post-Graduate College had done a great deal for medical education, and supplied a want. The health of "The Chairman" was then submitted by Dr. L. Dobson, and, after it had been suitably acknowledged, the company dispersed.

British Medical Journal.

SATURDAY, JUNE 17TH, 1905.

STYLE IN MEDICAL WRITINGS.

THAT our noble English speech is villainously misused by medical writers is a fact that must be confessed with sorrow and shame. So few, indeed, there are who can convey the knowledge that is in them in well-chosen words arranged in properly-ordered sentences that, but for two or three examples of happy union of medical thought with literary style, one might be tempted to suppose that there is a natural incompatibility between them. It is not easy to understand why the literary interpreters of medicine should be worse than those of law and divinity. The fact that medical students as a rule have to give up the study of what used to be called "polite letters" earlier than the neophytes of the other learned professions may go some way to explain their want of skill in literary expression. But though a classical training is an excellent discipline in the appreciation of the value of words, it does not of itself confer the gift of style. Great scholars, indeed, who can detect Livy's "Patavinity" and correct the grammatical eccentricities of Thucydides are often singularly clumsy and ineffective in handling their own mother tongue.

Some allowance must, we think, be made for the refractory nature of the material on which the medical writer has to work. Graces of style would be out of place in the scientific description of morbid processes and their results. But precision of language and orderly sequence in exposition will prevent misunderstanding, and smooth the reader's path through what would otherwise be a jungle of tangled statements. The subtleties of theology and law make it needful that the writer should always speak by the card lest equivocation should undo him. In medicine the cult of what Majendie called the *fait brut* makes us scornfully impatient of such verbal hair-splitting. Yet we believe that the want of accuracy in the use of words, and carelessness in definition and exactness of expression, are largely responsible for the imperfect respect in which medicine is held by many men of highly-cultivated intelligence.

In an address delivered to the students of the Leeds Medical School last October, Mr. Edmund Owen, speaking of examination papers, said that some of the answers would, as far as literary merit is concerned, scarcely reflect credit upon a boy from a Board school; he added that similar inarticulateness was occasionally met with in candidates for the highest qualifications in English surgery, and that the current style of English medical literature in general was for the most part tedious to the last degree. Testimony to the existence of this defect—more striking from the fact that it refers to candidates supposed to have had the advantage of the best literary education—is borne by the Regius Professor of Physic in the University of Cambridge. In a little book published some time ago,[1] Professor Clifford Allbutt states that in the course of the year he peruses sixty or seventy theses for the degree of M.B. and about twenty-five for the degree of M.D. "The matter of these theses," he says, "is good; it is often excellent: in composition a few are good, but the "greater number are written badly, some very ill indeed." The prevailing effect of their composition," he adds, "is not mere inelegance; were it so, it were unworthy of educated men; it is such as to obscure, perplex, and even to hide or travesty the sense itself." This is just what has been said above as to the defects of medical writing in general.

The evil being admitted, what is the remedy? Writing does not, as Dogberry thought, come by nature; nor is the art so "simple" as Mr. Owen appears to believe. The remedy which he suggests is that tutors and "coaches" should themselves learn to write decent English. This is sound doctrine. But when he goes on to say, "If they deign to inquire to what source I would refer them for style, I would say the *Gospels*, the *Pilgrim's Progress*, and the *Sentimental Journey*," the advice seems to us a little doubtful. Assuredly there is no nobler English than that of the Authorized Version of the Bible, and the inspired tinker's style has caught something of its splendour. Sterne, however, is the worst possible model of style to the writer whose Muse goes afoot, and who merely wishes to say what he has to say in the simplest and clearest way, without tricks or double meanings. Nor is the style of the *Gospels* and the *Pilgrim's Progress* made for everyday use. Mr. Owen himself, we take it, might be taken aback by a clinical report written after the following fashion:

> "At this his Relatives were sore amazed; not for that they believed that what he said to them was true, but because they thought that some frenzy distemper had got into his head; therefore it drawing towards night, and they hoping that sleep might settle his brains, with all haste they gat him to bed: But the night was as troublesome to him as the day; wherefore instead of sleeping, he spent it in sighs and tears. So when the morning was come, they would know how he did; and he told them, *Worse and worse:* he also set to talking to them again, but they began to be hardened; they also thought to drive away his distemper by harsh and surly carriages to him, etc."

If any English classic is to be taken as a model in medical writing, Swift, with his simplicity and directness, his precision and lucidity, would probably be the best. But all models of style are deceptive because their vices are easier to imitate than their virtues. Every man who thinks and observes for himself—and no one who cannot do this should write on medical things—will utter what is in him in his own way. But it will be well for him and for his readers if he has learnt what may be called the anatomy and physiology, that is to say, the vital structure and movement, of written language. The want of such knowledge makes genius inarticulate: how much of what was in John Hunter's mind died unrevealed, because he could not put his thought into words?

To help the medical writer to do this is the purpose of Professor Clifford Allbutt's book. He begins with some general hints on composition. Stress is rightly laid on an effective beginning. The writer should try to touch the keynote of his subject in his opening sentences; therefore it is recommended that the beginning should not be written until the author sees clear before him the course he means

[1] *Notes on the Composition of Scientific Papers.* By T. Clifford Allbutt, M.A., M.D., etc. London: Macmillan and Co., Ltd. 1904. (Pp. 154.)

to follow. As to endings, Dr. Allbutt says: "Let the leave-taking be easy, gracious, and impressive in proportion to the theme." Our own advice would be, Leave off when you have nothing more to say. It is almost needless to say that our author condemns archaisms, odd spellings, slang, and the foreign idioms which at the present day are making our tongue a thing of shreds and patches. Such foolish fopperies as "Goes without saying," "Leaps at the eyes," "On the carpet," which make the style too peregrinate, as Holofernes says, are painful to him as to all men of literary taste. Sometimes in the use of these gewgaws there may lurk an unsuspected danger. A letter addressed to an esteemed contemporary not long ago began with the following sentence: "The paper written by Professor —— on this subject leads one to think furiously." This is not at all what the writer meant to say, but to those familiar with his controversial temper the phrase was a delightful piece of unconscious self-revelation.

Professor Allbutt has a righteous horror of the split-infinitive, a feeling which we fully share. But does he not go a little too far when he says that the offence is never committed by authors of repute? It has recently found a defender in Professor Lounsbury, of Yale, who cites a *catena* of examples from many good writers. He explains its use by "the conscious or unconscious effort which is always going on in language to give greater precision or strength to the meaning," and on this ground he predicts that it will become universal. To us, so far from giving strength, it appears to give an air of slovenliness. Whether or not it will ultimately prevail depends on the force of usage which it is beyond the power of grammarians to control.

Dr. Allbutt complains with justice that medical authors are at little pains to find the right word to express their meaning; they take the first that comes to hand, and their vocabulary being meagre, certain words are made to serve a purpose akin to that of the "general utility man" on the stage. Professor Allbutt notes that many of the candidates for medical degrees at Cambridge are content with one general noun—"question": two adjectives—"marked" and "localized"; one verb—"involve"; one adverb—"markedly"; one conjunction—"while." "Question" may stand for a dilemma, a proposition, a subject, a case—indeed, for almost anything or nothing. "Involve" is made to serve for "attack," "invade," "injure," "affect," "pervert," "encroach upon," "influence," "enclose," "implicate," "permeate," "pervade," "penetrate," "dislocate," "contaminate," "complicate," and a number of other words expressing action or suffering of some kind. Professor Allbutt discourses at some length on what he regards as the deplorable abuse of the words "theory" and "fact." We are willing to admit that in theory (*sit venia verbo*) he is right, but we venture to plead that in practice it is convenient to have a word which can be used as the antithesis to fact.

We are glad to find that Professor Allbutt condemns as pedantic the use of Greek and Latin plurals of words which have become part of the English language. As examples of such pedantry he instances "asyla" for asylums; we take leave to add "sera" for serums, and "sanatoria" for sanatoriums. In regard to the latter word, we may state that the question was debated by the French Academy, with the result that the Latin formation was rejected. For our own part, we have long striven to hasten the naturalization of foreign words which seem likely to be useful additions to our native speech. We venture to recommend the same course to our contributors. As Brander Matthews has recently said: "One may help along the simplification of English by taking care, now and always, to use the plural form which is certain to establish itself sooner or later in the future. We can lend a hand to the inevitable process by setting a good example now and writing *cherubs, criterions, formulas, beaus, mediums* and *syllabuses*." With that authority, too, we admit frankly that there are a few foreign plurals such as *alumni, bacteria,* and *data* so solidly established in English, that it would be hopeless as well as foolish to seek to change them at this late day.

Another point on which Dr. Allbutt holds the large view of the scholar is the hybrid formation of words. He defends the much-abused "appendicitis," for instance, on the ground that "itis" is an affix which can legitimately be placed after words, just as our English affix "ly" is attached to words of Latin or Greek origin, as in "divinely." A word is not objectionable because it is a hybrid, but because it is superfluous; a useful mongrel is to be welcomed. Dr. Allbutt, as might be expected, has no liking for big words and learned phraseology, which, though they may impress the vulgar, excite the mirth of the scoffer. He earnestly advises the student to examine technical gibberish suspiciously, and to avoid it if possible. Why should one insist on saying *post mortem* when he means "after death," or speak of "tachyphagia" when he means "gobbling"? A Paris professor not long ago informed his hearers that "the cessation of the hyperthermia determines a remarkable euphoria"; would he have been less enlightening if he had said that when the fever abated the patient felt much better? Besides the literary unseemliness of medical jargon there is a sophistry in the use of big words which often misleads those who make themselves their slaves into fancying that they have explained something when they have simply restated a plain proposition in technical terms. Dr. Allbutt objects to the slang too common among us which makes us speak of the "case" when we mean the "patient," a usage which to ourselves always recalls the "corpse" of the undertaker; and he resents the unpleasant suggestion conveyed in the statement of a candidate who tells him, "You may then get secondary deposits of cancer in your liver."

There is one matter as to which we, with diffidence, find ourselves at issue with our distinguished author. He thinks what he calls the reporters' aorist, that is to say, the use of the past tense in reports of speeches and abstracts of papers, an error, because "general propositions if valid, are valid in the present and future. "To put them in a past tense," he argues, "is to suggest that even the speaker had no faith in their constancy." We submit that the real use and meaning of the *oratio obliqua* is to supply the place of quotation marks and indicate that it is not the reporter's own message that is being delivered. Would Dr. Allbutt make Hotspur say that the "popinjay" who pestered him had told him that "the sovereignest thing on earth *is* parmaceti for an inward bruise"?

Of the choice of words; of the sentence which is the elemental constituent of prose; of the order of clauses; of the arrangement of paragraphs; of the division of the subject into sections and chapters, Professor Clifford Allbutt speaks with the authority of one in whom an inborn sense of style has been developed by familiarity with all that is best in the literature of the world. Every fault, every inelegance of which a writer can be guilty, is noted; wrong emphasis, the jingling of like sounds and the jarring of discordant syllables, the abuse of quotations

and other defects, are illustrated by examples. In short, all that goes to the making of a good style is set forth in a manner at once easy and authoritative. Any one who wishes to learn the art of writing cannot do better than turn over, with daily and nightly hand, the leaves of Dr. Allbutt's little book.

Let no one, however, think that he can learn to write from any book. Professor Allbutt will show him what to avoid and what to strive after; but if he is to profit by the teaching of the master he must take endless pains to apply it in practice. And even when he may be tempted to think that he has acquired the art, he should remember that the greatest writers are those who take the greatest pains. Easy writing, it has been truly said, makes hard reading. John Henry Newman tells us that he often wrote chapters over and over again, besides making innumerable corrections and interlined additions; Huxley thought nothing of writing a page four or five times over if nothing less would bring out the words which expressed all that he meant and nothing more than he meant; Ruskin says that "a sentence of *Modern Painters* was often written four or five times over and tried in every word for perhaps an hour—perhaps a forenoon—before it was passed for the printer." It is easy enough to be verbose, turgid and tangled; it is easy to be brief and obscure: but to be at once simple and exact, concise and clear, is difficult to all, and most difficult to those who have in them the qualities that make a writer.

ANTITYPHOID INOCULATION.

THE material generally used for inoculation, with the object of producing immunity against typhoid fever, consists of a suspension of dead bacilli obtained from a typhoid culture which has been killed by heat. Inoculation is generally followed by both a local and a general reaction of considerable severity. Bassenge and Mayer are of opinion[1] that the severity of the reaction is not altogether due to the specific substances contained in the inoculated material, but is partly attributable to elements which play no part in the production of immunity, such as the products of the metabolism of the bacilli, traces of the culture medium, and the cell membranes of the bacilli themselves. They have therefore endeavoured to obtain a material which, whilst rich in the specific substances necessary to produce immunity, is free from this irritant matter which serves no useful purpose.

Starting from the results previously obtained by Brieger and Mayer, who showed that after shaking living typhoid bacilli in distilled water the germ-free filtrate possessed a high immunizing value, Bassenge and Mayer have endeavoured to apply this method for the production of active immunity in man. Their experiments have only been in progress for six months, and do not appear to have embraced a very large number of cases. Their results, so far as they go, are certainly interesting; though further investigations on a more extensive scale are requisite before it can be pronounced that the authors have established the superiority of their method over those more usually adopted.

The material they use for inoculation is a clear, watery fluid, of a yellow colour, and with a slight opalescence. Without impairment to its efficacy, it can be preserved for a long time with the addition of from 0.3 to 0.5 per cent. of phenol. Its purity is more easily controlled, even by the inexpert, than is the case with suspensions of dead bacilli, because as it is naturally clear and free from suspended matter, the occurrence of a deposit would at once indicate that it was unsuitable for use. The local reaction which follows inoculation is not excessive, and the general reaction never assumes the severe type which is observable when dead bacilli are injected; it often amounts to no more than a feeling of malaise, languor, and some headache. Among nine persons inoculated the temperature rose in one case only to 38.4° C. (101.1° F.), but in the others did not surpass 37.6° C. (99.7° F.). A single inoculation of from 2 to 5 c.cm., according to the concentration of the material, gives rise to the formation of protective substances in a high degree, as shown by the fact that 1 mg. of the person's serum, withdrawn fourteen days after inoculation, proved, on the average, sufficient to protect a guinea-pig weighing 200 grams from a dose of living typhoid bacilli, amounting to between fifteen and thirty times the normal lethal dose. The agglutinating power of the serum also rose considerably, though the rise was not parallel to that of the bacteriolytic power, and did not attain such a high degree. This increased protective power of the serum continues for at least several months; sufficient time has not yet elapsed since the commencement of their experiments to enable the authors to offer a more definite statement as to its duration. Another advantage claimed for this preparation is its stability. Suspensions of dead bacilli, on the other hand, are highly unstable; autolytic and osmotic processes are constantly at work, and, in course of time, may effect changes of very considerable importance. It is suggested that changes of this nature, gradually taking place in suspensions of dead bacilli which have been stored for a long time, may account for some of the unsatisfactory results which have followed their inoculation.

[1] *Deut. med. Woch.*, May 4th, 1905.

THE ANNUAL MEETING AT LEICESTER.

THE SUPPLEMENT for this week contains a list of lodgings available during the week of the annual meeting at Leicester, July 24th-28th. The publication of the abstracts of introductions to discussions in the Sections is delayed, owing to the fact that in the case of the majority of the Sections it has not yet been possible to obtain the manuscript from the authors. The subjects selected for special discussion in the Section of Obstetrics and Gynaecology are (1) the diagnosis and treatment of cancer of the uterus, and (2) the treatment of albuminuria and eclampsia occurring in pregnancy. The first discussion will be introduced on July 26th by Professor Wertheim of Vienna, and the second on July 28th by Dr. Robert Boxall. Members who desire to take part in these discussions or to contribute papers to this Section on other subjects are requested to communicate as early as possible with the London Honorary Secretary, Miss Garrett Anderson, M.D., B.S., 114A, Harley Street. Several visitors of gynaecological distinction are expected to take part in the work of the Section, and, amongst others, Dr. Howard A. Kelly, of the Johns Hopkins Hospital, Baltimore. The officers of the Section are still anxious to receive contributions to the pathological exhibits, and especially specimens illustrative of degenerative changes in fibroids; ectopic and particularly ovarian pregnancy; malignant disease of the uterus, including chorion-epithelioma and sarcoma; adenoma of the uterus; or slides, photographs, and models connected with these conditions.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

THERE will be six candidates for the four vacancies on the Council, two of the retiring members—Mr. Edmund Owen and Mr. Rickman Godlee—seeking re-election. As already announced, applications from

four other Fellows of the College have been duly sent in to the Secretary. In order of seniority they are: Mr. Andrew Clark (Fellow 1873, Member 1869); Mr. G. H. Golding-Bird (Fellow 1874, Member 1872), Mr. W. Harrison Cripps (Fellow 1875, Member 1872), and Mr. W. Bruce Clarke (Fellow 1879, Member 1877). All these candidates are attached to metropolitan schools and are well-known surgeons whose merits are duly recognized by the profession. Mr. Andrew Clark has been for the last three years Chairman of the Council of the British Medical Association; he had previously been Treasurer of the Association for the usual term, and his election to the office which he now holds is sufficient evidence of the high opinion formed of his administrative abilities by the members of the Council of the Association. The additions to the museum during the past year will be on view in the Council room on the day of the Council election, and the Fellows' subscription dinner will take place at the College in the evening.

EMPLOYMENT OF CHILDREN.

ON February 21st the London County Council issued by-laws made under the Employment of Children Act, 1903, to regulate (*a*) the employment of children generally, and (*b*) street trading by persons under the age of 16. Objections having been received, the Home Secretary has directed that a public inquiry shall be held by Mr. Chester Jones, opening at the County Hall, Spring Gardens, on Monday next at 11 a.m. The by-laws propose to prohibit the employment of any child under the age of 11 years absolutely, and of any child under the age of 12 years in any handicraft carried on in any house or other building otherwise than for short periods and at irregular intervals. A child liable to attend school full time is not to be employed on any day before 7 a.m., or after 7 p.m., and a child liable to attend school half time is not to be employed before or after the same hours on days when the school is open. Further, a child liable to attend school is not to be employed for more than 15 hours in any week during which the school is open, and a child exempt from school attendance must not be employed between the hours of 9 p.m. and 7 a.m., nor for more than eight hours in any one day, or forty hours in any one week. A child must not be employed on licensed premises unless liquors are exclusively sold in sealed vessels, nor in a laundry or in the business of a barber or hairdresser. With regard to street trading the by-laws would absolutely prohibit a girl under the age of 16 from being employed in street trading except when accompanied by her parent, and would provide that a child between the ages of 11 and 16 while engaged in street trading must wear a badge indicating the police division and the child's registered number. The proposed by-laws extend considerably the provisions of the Act itself, as is clearly contemplated by its first and second sections, but do not in any way violate its principle. The Act, for instance, provides that no child shall be employed between the hours of 9 p.m. and 6 a.m.—the by-laws extend this time of rest to 7 a.m., certainly a move in the right direction. The Act prohibits the employment in street trading of a child under the age of 11, but leaves it to the local authority to prohibit street trading except subject to such conditions as to age, sex or otherwise, or as to the holding of a licence, as it may determine. The London County Council, therefore, in making by-laws regulating street trading and requiring a badge to be worn, is well within the intention of the act, and the by-law which proposes to forbid any person under the age of 16 from carrying on street trading after 9 p.m. or before 6 a.m. appears to be a very reasonable provision. It will, it may be hoped, not only keep the children out of the way of temptation, but also give them a better chance of obtaining a reasonable time in bed.

THE PROTECTIVE ACTION OF SNAKE VENOM ON BLOOD CORPUSCLES.

IT is a peculiar property of snake venom that when the optimum of its haemolytic action is exceeded the degree of haemolysis which it is capable of producing diminishes progressively as the dosage of the venom increases. To this protective action of strong solutions of venom Dr. Hideyo Noguchi has recently been devoting special attention.[1] For most of his experiments he has employed horse's blood. He finds that washed blood corpuscles in a concentration of about 5 per cent. suspended in salt solution containing above 4 per cent. of cobra venom undergo changes in their resistance to certain physical and chemical agents. They become non-haemolysable by water, ether, saponin, and relatively strong solutions of lecithin, provided that the excess of venom has not been entirely removed. On the other hand, certain acids and alkalies, with the exception of ammonia, lake the venomized corpuscles more easily than normal corpuscles. Venom solutions of 2 per cent. or less exert no protective property upon blood corpuscles, but, on the contrary, render them more easily laked by the same physical and chemical agents. The changes upon which the protection depends can be removed by repeated washings of the venomized corpuscles in 0.9 per cent. salt solution, and the corpuscles are then left in a state of diminished resistance to injurious agencies. The substance in the venom upon which the protective action depends is not destroyed by a temperature of 95° C. Dr. Noguchi is of opinion that the process consists in the formation by the venom of a compound, insoluble in water, with certain of the corpuscular constituents, probably with the haemoglobin. He does not believe that the permeability of the corpuscles is greatly altered. This venom-proteid compound is soluble in acids and alkalies, and even in a large excess of salt solution; hence removal of the protective influence is easily accomplished. In addition to cobra venom, crotalus and moccassin venoms possess this protective property, but in a less degree. The protective power is not exhibited towards the blood of all species of animals. Dog corpuscles, for example, are not protected by cobra venom.

THE STORY OF THE RED CROSS MOVEMENT.

MR. ARNOLD DE LISLE has written a short but interesting account of the formation of the Red Cross movement since its foundation by Henri Dunant.[2] In these days of organized medical military departments attached to the armies of all civilized nations it is difficult to believe that it is but forty-five years since they came into existence. Before that date, in all probability ever since battles on a large scale were fought, some sort of medical assistance was attached to the forces engaged, but at the best it was inadequate and wholly wanting in system. Until recent years regimental surgeons were the only attempt at providing surgical assistance, but they were without bearers or ambulances other than those that chance or fortune threw in their way. It was at the battle of Solferino in 1859 that Dunant perceived what war meant, and it was the heart-rending scenes he saw then and his inability to cope with the sufferings of the wounded that prompted him to devote his life to alleviate the horrors of war. By indefatigable efforts, by journeys to many of the European Courts, and by earnestness of purpose, Dunant succeeded in bringing about a meeting at Geneva on February 9th, 1863. This gathering of representatives of most European Governments came to be known as the first Geneva Conference; it was followed in August, 1864, by a second meeting—the Diplomatic Convention—when twelve representatives of Sovereign States, duly authorized by their respective Governments, signed the ten articles submitted to them, and thereby laid the foundation of International Red Cross laws and observances. The rules of the Geneva Convention are simple. They consist merely of a guarantee given by the Governments which signed the Convention, that all persons and things engaged in the service of the sick and wounded should have the protection of neutrality during time of war. It is well that the work of Henri Dunant should be recorded and his memory cherished; and Mr. Arnold de Lisle has not only made an

[1] *Journ. of Exper. Med.*, April, 1905.

[2] *The Story of the Red Cross Movement.* By Arnold de Lisle. London: Office of the *Banner*, and Netherton, Worcs.: A. De Lisle. 1904. (Crown 8vo, pp. 73. 1s.)

interesting contribution to history, but has reminded us that it is to the singlemindedness of this great humanitarian that the battlefield of to-day is robbed of many of its horrors.

INFECTIVE DIABETES.

THIRTY years ago probably no disease appeared less likely to be of infective origin than diabetes mellitus, yet since that time this possibility has constantly cropped up, and after the discovery of the relation between pancreatic atrophy—apparently the result of a chronic inflammatory process—and this disease, the connexion of diabetes with microbic activity became no longer inconceivable. Some years ago Professor Debove, the present Dean of the Faculty of Medicine of the University of Paris, collected fifty cases, in five of which husband and wife were attacked simultaneously. Similar examples in which a married couple have become successively attacked have been reported by many observers, notably by the late Dr. Schmitz of Neunahr, by Naunyn, Letulle, Labbé, Klemperer, and Gaucher. Labbé has recently[1] published two cases of diabetes which originated during convalescence from an infectious disease. The first was that of a stout man aged 45 who contracted a sore throat in the month of February, 1903; at that time his urine was free from sugar, but a month later he came back from the country presenting all the classical signs of diabetes—thirst, polyuria, wasting, and failing eyesight. The urine was found to contain 8.3 per cent. of sugar, or 6,225 gr. in twenty-four hours, the total urine amounting to 200 oz. He was put on strict diet, with injections of sodium cacodylate, and under this treatment the symptoms at the end of a few weeks completely disappeared, and the man has remained well up to the present time. The second case was that of a woman aged 67, who became diabetic during convalescence from an infectious disorder of the naso-pharynx; her recovery took place in much the same manner. Labbé is of opinion that these cases warrant the acceptance of a form of diabetes of infective origin which when the infection is slight may manifest itself as mere alimentary glycosuria, or may, if this is more severe, and especially in the case of predisposed persons, become permanent diabetes. These observations should be grouped with the examples of diabetes following influenza, of which a considerable number have been recorded. Twenty-one years ago Rogers published a case of acute tonsillitis in a man aged 44, followed by diabetes, which terminated by coma supervening twenty hours after the condition was recognized. Zinn has recorded cases of diabetes following scarlatina and diphtheria. Such facts suggest that the morbid poisons of infective diseases may cause diabetes, although there is not sufficient evidence to show whether this effect is produced directly or indirectly. It is possible that under their depressing influence the vitality of the pancreas is lowered, so as to facilitate its invasion by intestinal microbes (B. coli) which set up an inflammatory process, and this, as Labbé suggests, may be slight and transitory or more severe and permanent in its effects, in accordance with the quality and intensity of the poison, and the predisposition of the patient.

[1] *La Semaine Medicale*, No. 21, p. 247.

PUERPERAL HAEMATOMA WITHOUT LESION OF UTERUS.

DANGEROUS haemorrhage associated with labour is a subject of high importance, and so is internal loss of blood due to the rupture or leakage of extrauterine sacs. Several generations of obstetricians have deserved well of humanity by handing down to us their experience of "floodings" in pregnancy, labour, and childbed, and of late gynaecological operations have demonstrated facts once absolutely unknown in respect to tubal haemorrhages. The perfecting of Caesarean section has rendered the treatment of ruptured uterus relatively easy, so that the perils of haemorrhage and sepsis may be anticipated. There remains a type of haemorrhage relatively very rare, but not on that account to be overlooked, for it has repeatedly proved fatal in instances in which it was recognized before or after death, and it must be taken into account by all who are called upon to operate on a case of internal haemorrhage following labour. This type is haematoma independent of any damage to the uterus. No less than 34 cases have been collected and tabulated by Whitridge Williams,[1] including one in his own experience. By the term "haematoma" is understood the effusion of an appreciable quantity of blood into the connective-tissue spaces of some portion of the genital tract or into the structures immediately adjacent to it, in contradistinction to "haematocele," where blood escapes into the peritoneal cavity and becomes encapsulated. The terms haematoma and haematocele should always be understood as representing this distinction in ectopic gestation as well as in pregnancy normal up to labour. Perineal and vaginal haematomas are not very rare. The subperitoneal type in which the collection of blood lies beneath the peritoneum but above the pelvic floor is far less frequent, and usually follows incomplete rupture of the uterus or deep lacerations of the cervix. In exceptional cases there is no uterine lesion, and the bleeding is caused by the rupture of vessels within the broad ligament in the neighbourhood of the supravaginal portion of the cervix, or about the base of the bladder; this is the type of puerperal haematoma about which Whitridge Williams enlightens us. His own patient, a primipara aged 28, was delivered at term of a small child by an easy forceps operation. Soon after the expulsion of the placenta the patient began to complain of intense tearing pain in the neighbourhood of the rectum. Morphine was administered, and one hour and a half later the patient seemed in good condition and the medical attendant left. Signs of acute internal haemorrhage soon set in, and two other medical men living in the patient's neighbourhood administered half a litre of sterilized salt solution subcutaneously. The uterus was firmly contracted, and there were no signs of external haemorrhage: such, too, was the condition detected by Whitridge Williams a little later. The fundus lay at the level of the umbilicus and beneath it, filling the hypogastrium and iliac fossae was a firm, rounded, slightly fluctuating tumour, somewhat sensitive on pressure. At first glance it appeared to be a distended bladder, but upon catheterization only an ounce or so of bloody urine escaped. The tumour filled the entire left and posterior portion of the pelvic cavity. Incomplete rupture of the uterus, with haemorrhage between the folds of the broad ligament, was suspected, and abdominal section was performed. Blood-stained tissue was exposed as the scalpel passed through the abdominal walls. But when the peritoneal cavity was opened the uterus and appendages showed no lesion. An "ecchymotic appearance" was noted on the serous covering of the bladder, which was contracted. Then it was discovered that the tumour lay beneath the peritoneum and in front of and below the uterus and bladder. The peritoneum was immediately closed. The finger passed along the tissues in the parietes infiltrated with blood entered a big cavity full of clot. The haemorrhage had dissected up the greater part of the pelvic cavity, and was traced to an oozing surface upon the antero-inferior portion of the bladder. Gauze packing was necessary in order to stop the oozing, counter-pressure being made by another gauze pack inserted into the vagina. The supravaginal portion of the cervix was free from any laceration. The patient recovered. According to Whitridge Williams's tables of 33 cases described by other writers, several patients died from this subperitoneal haemorrhage, but not in any case recorded later than 1880. Haematoma, or extraperitoneal haemorrhage, may assume large proportions in cases of ruptured tubal pregnancy,[2] though as a rule the haemorrhage is intraperitoneal. Large haematomas in the pelvic connective tissue are not unknown as the result of a

[1] Subperitoneal Haematoma Following Labour not Associated with Lesions of the Uterus, *Trans. Amer. Gyn. Soc.*, 1904.

[2] See *Trans. Obst. Soc.*, vol. xlvi, 1904, p. 418; and Doran, "Haematoma and Haematocele," BRITISH MEDICAL JOURNAL, vol. i, 1904, p. 1180.

wound of a large vessel by the pedicle needle in ovariotomy or hysterectomy. Whitridge Williams believes, with reason, that in a large majority of cases of haematoma in labour, not associated with damage to the uterus, the treatment should be purely expectant, but if it is clear that the haemorrhage has not subsided abdominal section and plugging of the cavity from above is safer than opening up the haematoma from below.

THE CRUSADE AGAINST TUBERCULOSIS IN SPAIN.

A MEETING organized by the Central Committee of the Spanish Antituberculosis Association was recently held in Madrid. It was presided over by the Minister of Public Instruction, on whose right hand sat Dr. Espina y Capo, President of the Association. Dr. Moliner strongly urged the enactment of the law empowering the State to establish sanatoriums. That law, he said, had been submitted by him to Señor Villaverde on the occasion of the visit made by him in the company of the King to the sanatorium at Portaceli, and would certainly be presented to the Cortes. He asked that five million pesetas (£200,000) should be allocated for the erection of sanatoriums and the development of dispensaries, the number of such institutions now existing being ridiculously inadequate. Professor Ramon y Cajal said that the laboratory had revealed the agent which produced the disease, but had not yet found a means of prevention. Many times it had been thought that the problem had been solved, but in each case faith had been swiftly followed by disillusion. He dwelt on the mistake that had been made in believing that the sole cause of tuberculosis was the drinking of milk and the eating of butter obtained from tuberculous animals. Less result had been obtained in the case of tuberculosis than in that of other diseases, because against it the organism developed no means of defence other than primitive phagocytosis. The distinguished histologist nevertheless expressed a hope that in the future the phagocytes of thought would come forth in defence of the species and would succeed in reducing Koch's bacillus to what it should always have been—a harmless parasite. Dr. Espina y Capo laid stress on the fact that the fight was not against consumptives, but against the disease. Dr. Calleja urged the importance, in relation to the prevention of tuberculosis, of schools being kept in healthy conditions. Dr. Jimeno laid the responsibility for the prevalence of tuberculosis on the public authorities and on the rich; the poor had no means of defence against it; it was the consequence of the miserable conditions in which they lived. He appealed not to the altruistic sentiment of the well-to-do but to their instinct of self-preservation for help to carry on the struggle against tuberculosis. The ex-Minister of the Interior, Señor Sanchez Guerra, said the State should occupy the first place in the line of defence against tuberculosis, because the safeguarding of the public health was the first duty of Governments. But social activity must supplement that of Governments. Señor Canalejas said God had given man the three elements necessary to combat consumption—air, water and light—but selfishness and greed had seized upon these and used them to the advantage of the few and the detriment of the many. He called upon the Government to make a definite announcement of its intentions, as the success of the movement against tuberculosis largely depended on its support. The Minister of the Interior, Señor Gonzalez Besada, stated that the Government would place itself at the head of the movement. Laws and decrees were not enough; the work must be conducted in the spirit of a self-sacrificing priesthood which looked for no reward but the inward satisfaction of the soul. He loved liberty, but he recognized that in matters of hygiene what was needed was tyranny. He concluded by exclaiming, "Enough of words; let us prepare for action! We have here and now to start a revolution that shall make an end of all routine."

MEAT EATING IN GERMANY.

DR. GOLDSTEIN and Dr. F. Joklik contribute to the March number of the *Therapeutische Monatshefte* a discussion on the diet of the German people, and more especially on the consumption of meat in Germany. Present-day opinion tends so strongly towards the view that too much meat is ordinarily eaten that it is interesting to read a carefully-worked-out article such as that by Goldstein, which is intended to prove that in Germany, at any rate, too little meat-eating is the rule. Goldstein starts on an assumption, which is not contested by his opponent, that the average amount of proteid consumed per head per year should be as much as 31 kg. He calculates that the actual amount of proteids consumed per head is 8 kg. in the form of meat, 6.5 kg. in bread, 8 kg. in potatoes and legumes, 1 kg. in milk and cheese, and 0.5 kg. in herrings. A deficit of 6.5 kg. of proteids per head is thus left. On the other hand, Joklik works out his statistics with equal confidence, and differs from Goldstein in that he puts the amount of proteids consumed as 8 kg. in bread, 5.6 kg. in legumes, and 5.6 kg. in potatoes, and he thus leaves a deficit of 2 kg. only per head. Moreover, this deficit is more than made good, according to him, by the amount of proteids taken in the form of eggs, fish other than herrings, and vegetables. It is not easy to pass judgement on figures on so large a scale, and which have been worked out with such precision to opposite conclusions. Neither author has spared trouble, as is shown by the matter of the eggs. Joklik has calculated the number of eggs eaten in Germany on the assumption that the number produced in the country is three times as great as the number imported, and he finds that the whole number of eggs consumed yield an amount of proteids greater than 1 kg. per head. Goldstein does not accept Joklik's calculation as to the number of eggs consumed, and states that the rearing of hens is only carried out on a most insignificant scale in many parts of Germany. Moreover, if the amount of proteids taken in the form of eggs is to be considered, he points out that allowance must be made for the amount of proteid which is wasted, as far as food is concerned in the eggshell. Goldstein objects, also, to Joklik's estimate of the amount of proteid taken in the form of potatoes and legumes, because, should these figures be correct, the diet of the people must contain on an average an altogether excessive amount of carbohydrates. Perhaps the most impressive objection taken by Joklik to Goldstein's arguments is that, should the results arrived at by the latter be in accordance with facts, they would denote the presence of sharp distress among the people, such as would undoubtedly cause emigration on a large scale; such emigration does not exist. On the question of alcohol the two articles are strongly opposed to one another, Goldstein being of opinion that lack of proper nourishment leads to an increased consumption of alcohol, while Joklik denies the presence in Germany of alcoholism on a large scale, and looks upon beer as an article of diet not mentioned by Goldstein which increases the total consumption of proteids.

DUST PROBLEMS.

DUST problems during the last few years have naturally in France, as in England, attracted a good deal of attention, the cause in both countries being the development of automobilism. One solution recommended is that of applying tar to the surface of the roads, and a report on the experimental work which has been done in this connexion in France, together with a critical review of the results obtained, was adopted at the end of last month by the Public Health Department of the Seine. The Inspector-General of Bridges and Roads, M. Hetier, who is the author of the report, commences by pointing out that the position of those who occupy houses abutting on macadamized roads is now almost intolerable owing to the dust by traffic. The latter has always been an evil, but by efficient sweeping and, in the case of important roads, by occasional watering, it was possible for the authorities to keep it within limits. These means, however, no longer suffice, and in view of the immense increase in the use of automobiles cannot be made efficient except at the cost of enormous outlay on labour;

some other remedy has therefore to be sought. He then gives an account of experiments with tar which have been repeated each year since 1902, the funds originally being provided by the Touring Club of France. During last year's trials in different parts of the suburbs of Paris nearly 43,000 square metres of macadamized road were treated with tar. He considers the result as a whole satisfactory from the point of view of hygiene, and also from that of economy, since the need of watering and scavenging operations has thereby been reduced almost to a minimum. In his opinion the experiments which have been made up to the present, and which are to be renewed this summer, show that by soaking half the surface with tar once at the beginning of the summer dust on macadamized roads can be kept down for nearly a year, the expenses of sweeping, watering, and mud removal being reduced to a very low figure. The amount of tar which has been used is 1 kilogram for each square metre; it has been put on while very hot and on roads which were in good condition and had recently been swept and dried; the expense has been about 1½d. for each square metre. Before the system can be considered a satisfactory solution of the problem the question of the effect of tar upon the durability of the road has, he notes, still to be settled, as also that of how the road so treated can best be kept in good condition. M. Hetier's views do not altogether chime with those enunciated elsewhere. In an article on the subject published on December 31st, 1904, an account was given of a discussion at the Automobile Club; the opinions expressed, as the outcome of experience, were not very favourable to tar as a surface dressing, though its use, as employed in the Tarmac process, met with general commendation. The latter is not a surface treatment, but consists in building the road out of slag which, while still hot from the furnace, has been soaked in tar until permeated from surface to centre. This appears to be a radical and inexpensive cure, but can scarcely be expected to be used except when roads have in any case to be remade. Certain palliatives, and, among others, Westrumite and Akonia, were also shown at the discussion mentioned to be of value and to possess qualities which seem to indicate that their use might be extended with advantage to other places than those in which dust nuisances are set up by automobiles.

A NEW HABITAT OF *GLOSSINA MORSITANS*.

CAPTAIN MORANT of the Egyptian Army has recently sent to Dr. Andrew Balfour, Director of the Wellcome Research Laboraties, Khartoum, from Southern Kordofan, flies which, on examination, prove to be *Glossina morsitans*. Captain Morant states that the "Umbogani" bogey seems to be exaggerated by the Arabs, by whom it is naturally very much feared. In the time of the old government this fly, which appears to be a species of the tsetse, infested all the Koalib Hill and extended to Umberembeita. Early in the Mahdia they are said to have died off completely and the district was exempt from them until three, or, some say, four years ago, when they seem to have reappeared at Jebel Ambri, which, however, they are now said to have left and to have gradually spread northwards, until, this year, they have reached Jabel Daheir, though in small numbers. It is thought they may go to Umberembeita, but no further. When tribute is under discussion they are said to have killed quantities of cattle, sheep, goats, pigs and dogs, especially when they first reappeared. However, now they seem less numerous, and the Nubas are not much afraid of them. He was told at Daheir that there were very few there, but numerous at Nying-Nying, whilst at Nying-Nying he was told exactly the reverse, and specimens were difficult to procure. They haunt the rocks and angal hedges near the villages, but animals can graze a mile or two away from them by day and be brought in after nightfall with immunity. The fly is present throughout the year. Dr. Andrew Balfour points out that this discovery is of considerable importance, especially as Captain Morant has answered in the negative a telegram sent him asking if there were streams or marshes in the district. He says the only water to be found in the neighbourhood is that in the wells. The region is a short distance to the south of the 12th parallel of latitude, and nearly midway between the 30th and 31st degrees of longitude, being just about 150 miles west of Renk, on the White Nile, and nearly due south of El Obeid, the capital of Kordofan. Hitherto the fly has not been known to extend north of the Bahr-el-Arab, which divides Kordofan from the Bahr-el-Ghazal Province, so that this constitutes its most northerly record for the Anglo-Egyptian Sudan, and, with the possible exception of Bathurst and Lake Chad, for the African Continent as well. It is interesting to find that the name Umbogani is also that under which it is known in the Bahr-el-Ghazal. Captain Brakenridge, of the Egyptian Medical Service, has informed Dr. Balfour that the native name is Mboogena, the accent on the oo, which is rather short, like oo in good, the g is soft. The golo name is Ngissa, the M'Bari name is Mbili, and the Dinka name is Mow. Only the last of these names is given in Austen's *Monograph*, where it is spelt Mau. It was recorded by the Pethericks in 1869, in the country of the Rbol tribe, which now is Dinka country in the Bahr-el-Ghazal Province. Later advices from Captain Morant state that the fly belt extends from a place called Kawalib to about 20 miles south, and that it is only three or four miles in breadth. Outside the belt no flies are to be found, and he could discover no evidence of their existence in adjoining districts. He further states that, if asked for specimens, natives went to the villages for them, and either found them in hedges, or on pigs, or amongst the rocks. The wells are usually situated half a mile from the villages. Further details regarding the prevalence of tsetse flies in Kordofan will be awaited with interest.

MALARIAL SANITATION.

IT is disappointing that so little should have been done in regard to the prevention of malaria and general sanitation in many of our West African and other Colonial dependencies within the last few years. The discovery of the part played by the mosquito in the dissemination of malaria and other tropical diseases is now ancient history; yet, if twelve tropical towns in Africa and the West Indies were selected, it would probably be found that practically no war had been waged against the mosquito as a sanitary danger, and that in addition the general sanitary condition was one which would not be tolerated for an instant in the smallest country village in England. Filthy cesspit tanks, rarely or never cleaned, may be seen to-day in a prosperous tropical town, and the effect on visual and olfactory senses cannot be easily effaced. One hears also of closets in important buildings being situated upstairs, off the verandah, the contents being carried daily through a mess room and hall down the common staircase for disposal. The existence of mosquito-breeding waters in towns and houses should be looked upon as a sanitary nuisance, and should be dealt with by the sanitary authority as such; but how is science to advance in those matters if local Colonial parliaments throw out a Bill for the abolition of such breeding-places, and treat the matter with scorn? The time has now come for the governments of the various colonies to treat those matters seriously. If more warning is required, the recently reported outbreak of yellow fever in British Honduras should suffice. Medical officers of health should be supported in every way, their advice should be listened to and acted upon, and the funds asked for voted for those very elementary reforms. Until this is done much preventable malaria, filariasis, and even yellow fever will go on, and the death-rate will remain high and keep up the unenviable reputation those places have acquired.

THE ROMANES LECTURE.

THE Romanes lecture was delivered in the Sheldonian Theatre, Oxford, on Wednesday last, by Professor Ray Lankester, Director of the Natural History Department of the British Museum. The subject of the lecture was Nature and Man. The signification attached to the word "nature" was first discussed, and it was pointed out that by

the professional student of modern sciences it was usually understood as a name for the entire mechanism of the universe. After protesting against unwarranted inferences drawn from the history of the evolution of man, Professor Lankester went on to discuss the progress of man in his attainment of a knowledge of his relations to Nature. He maintained that the power which this knowledge conferred had not yet been utilized, and asserted that it was a legitimate view that every disease to which animals and probably plants also were liable, except those of a transient and very exceptional occurrence, was due to man's interference with the delicate and efficient balance of Nature. Parasitic disease, he contended, if not interfered with by man, established itself as a scourge against which the diseased organism incessantly contended; the result of its prevalence was one or other of the alternatives, extinction or adjustment, death or toleration. He believed that the knowledge of the causes of diseases gained during the past few years might by the extended application of known methods of investigation and consequent controlling action abolish all epidemic disease within a period so short as fifty years. It should be as much the purpose of civilized governments to protect their citizens in these respects as to provide defence against human aggression, and where there was one man of first-rate intelligence employed in detecting disease-producing parasites and their special conditions of life and the way to bring them to an end, there should be a thousand. He passed on to a criticism of the present system of secondary and higher education in this country, and concluded by summarizing his contention in the following words: "The knowledge and control of Nature is man's destiny and his greatest need. To enable future leaders of the community to comprehend this, to perceive what the knowledge and control of Nature are, and what the steps by which they are gained and increased, is the duty of a great university. To neglect this is to retard the approach of well-being and happiness and to injure humanity."

FRENCH CONGRESS OF SOCIAL HYGIENE.

ENCOURAGED by the success of the Congress held under its auspices last year at Arras, the French Social Hygiene Alliance, of which M. Casimir-Perier is President, recently held a second Congress at Montpellier. The first Congress devoted its attention mainly to the milk supply and the action of Friendly Societies in regard to tuberculosis. This year insanitary dwellings, domestic economy, and the prevention of infant mortality were the principal questions on the programme. In the absence of M. Casimir-Perier owing to indisposition, the chair was taken by M. Jules Siegfried, Member of the Chamber of Deputies, and Vice-President of the Alliance. M. Marcel Moye, Doctor of Medicine and Professor in the Faculty of Law of the University of Montpellier, suggested that the Public Health Law of 1902 should be supplemented by a provision empowering associations of social hygiene to undertake the reconstruction of unhealthy dwellings. Dr. Pezet, a former Mayor of Montpellier, showed the close connexion that exists between such dwellings and the mortality from tuberculosis. M. Leune urged the necessity of enlarging the scope of the teaching of household management so as to produce mothers who should know how to make the home attractive, and keep their husbands from the public-house, thus combating at once drunkenness, infant mortality, and tuberculosis. M. Vieillot suggested the establishment of a model school of domestic economy for the training of teachers. The Congress also considered the part that might be played by mothers' mutual help societies in the prevention of infant mortality. A report on the subject was read by Dr. Baumel, Professor of Diseases of Children at Montpellier, and, after discussion, resolutions were passed that such societies should be formed, each with a dispensary for sucklings, and a *goutte de lait* throughout France, wherever possible; that rest for a month after confinement should thus be ensured to every working woman; and that the Legislature should make rest for women in such circumstances compulsory, and should fix the amount of the indemnity to be allowed. The Congress further expressed the opinion that the mothers' societies should be distinct from the ordinary Friendly Societies, and that the latter should expunge from their statutes the clause excluding confinement from the list of cases in which sick pay is given. In regard to tuberculosis, the Congress declared that tuberculosis constituted a formidable danger to school children, and recommended the Friendly Societies to organize prophylactic measures such as sea bathing, school colonies, and the provision of dispensaries and sanatoriums. Resolutions were passed to the effect that the number of pupils to each teacher should never exceed fifty, even in the youngest classes, and that the first efforts of the Government should be directed towards the accomplishment of this reform; that school books supplied out of school funds should not be lent but given, this assistance being confined to indigent children if the expense is found to be too heavy; and that the responsibility for the sweeping and hygienic maintenance of schoolrooms should be placed on the communes, which should be invited to see that these duties are thoroughly carried out, particularly in the matter of moist sweeping.

TETANUS NEONATORUM IN CUBA.

DR. CARLOS J. FINLAY, President of the Superior Board of Health of Cuba, published in a supplement to the biennial report for the year 1902 and 1903 a note on tetanus neonatorum. An abstract of this supplement appears in a recent number of *American Medicine*. Tetanus is a not uncommon cause of mortality in the newborn in tropical and subtropical countries. In the Southern United States there is a good deal of tetanus among infants born of ignorant parents without medical attendance. There is not, however, any registration of births or deaths in those States; hence definite statistics on the subject are wanting. In Cuba the new sanitary era was heralded by systematic registration, and in the first two years 2,902 deaths from tetanus were registered. Of this number, 2,430 occurred in the first year of life. A special investigation in the district of Havana showed, however, that of 141 deaths of infants attributed to tetanus, 131 occurred in the first and 10 in the second fortnight of life. From this it may be inferred that practically all the deaths of infants from tetanus were due to infection through the umbilicus. Dr. Finlay found that the material commonly used for tying the funis—a cheap cotton wick called *cabilo*—often carry the tetanus bacillus. Out of six balls of *cabilo* bought in shops five were found infected. The Board of Health proposes to distribute sterile ligature material to the poor throughout the island, and to inform all the population concerning the danger of using the ligature material of doubtful quality. A distribution of sterile ligatures in the city of Havana has indicated the probable results of such a measure generally applied. In 1902, 64 deaths from tetanus neonatorum were recorded in Havana; in 1903, 38 deaths; in 1904, 33 deaths. All these deaths occurred in cases which were not reached by the distribution of ligatures. Probably the number of deaths actually caused by tetanus neonatorum is larger than the figures show, for such cases usually occur among the very poor who are without medical attention, and the deaths are often recorded without medical certification. Under such circumstances, the deaths are very likely to be attributed to some vague cause, as convulsions. Other vehicles than the ligature may be concerned in these infections. In the Southern States it is said that the negro midwives sometimes apply a dressing of earth, or even of ordure, after severing the cord.

THE EVILS OF THE HIGH COLLAR.

THOSE of us whose way of life has declined into the vale of years must have observed the change of type that has taken place in young men during the last three decades. The medical student of the early Seventies was a robustious

person whose jovial face was overgrown with what Parolles calls "valour's excrement" and who dressed in somewhat free and easy style; at the present day his son is clean shaven and looks out at the world with solemn countenance over a lofty parapet of collar. We cannot produce any figures, but we have a strong impression that the average height of the masculine neck is greater now than it used to be. Has the long neck produced the high collar, or has the neck adapted itself to the new environment of the high collar? It is not within our province to discuss the high collar in its aesthetic aspects. From the sanitary point of view it may perhaps be allowed the merit of serving as a protection to the throat. If we are to believe Dr. F. B. Brubaker, of St. Louis, however, the high collar may be a source of unpleasant symptoms from pressure on the pneumogastric nerve. The effects of compression on the structures of the neck were, according to Dr. Brubaker, known to the ancient writers on medicine, but they were attributed to the carotid artery rather than to the nerve. It was observed that pressure on the side of the neck produced a feeling of want of air, deep and laboured breathing, increased rapidity of the heart's action followed by retardation, with a sense of sinking over the precordial region. The pressure, if continued, caused a deep seated numbness in the head, as if the person was about to lose consciousness. Nausea and vomiting might supervene, and the person remained listless and depressed for an hour or two. All these symptoms have been seen by Dr. Brubaker in persons wearing high, close-fitting collars. As so many wear these adornments, this observation, taken by itself, would not necessarily mean much, and Dr. Brubaker is fain to admit that the phenomena in question accompany many diseases, such as those of the lungs in which disintegration of the pneumogastric is a feature. He argues, however, that irritation due to prolonged pressure may act in a similar way. He believes that collars extremely high and tight may become an exciting cause of irritation to the pneumogastric nerve in certain cases, and that this is the cause of at least transitory symptoms in bookkeepers, writers, professional men, and others whose callings require constant stooping and bending of the neck. He says that it is not necessary to suppose, in support of his argument, that irritation or pressure upon the pneumogastric must be direct and immediate, as, "the nerves supplying the integument of the neck and the overlying skin being at least simply supplied by nervous energy which communicates with the pneumogastric, all irritation and all pressure, therefore, when of sufficient degree, must become reflected thereon to the detriment of the sufferer." Dr. Brubaker gives details of cases which in his opinion go to prove his point. To our thinking he scarcely makes out his case, but the evidence which he brings forward may perhaps be considered sufficient in certain aggravated cases of high collar to warrant some prima-facie suspicion that it is an agent of mischief.

THE CONTROL OF DIPHTHERIA.

DR. F. F. WESBROOK, Director of the Minnesota State Board of Health, describes, in a recent number of the *Journal of the American Medical Association*, the methods of managing diphtheria epidemics in that State. The principal points insisted on are the need of thorough laboratory examinations, repeated frequently, if necessary, where suspicious bacilli are found; isolation of cases and of hitherto unaffected individuals with simple sore throat; and prompt executive action, based on laboratory findings and initiated by one of the laboratory experts. After the system is well started competent local medical authorities can, if sufficiently impressed with its importance, be relied on to carry it out. The experience of Minnesota has shown that this is perfectly practicable under most varying conditions. Dr. Wesbrook's experience seems to point to the conclusion that diphtheria infection is usually transmitted by almost direct exchange of the flora of the nose and throat. In institutional and school life the more independent the individual and the easier the individual isolation the less is the diphtheria infection and the easier is its eradication.

CREMATION IN FRANCE.

THE French Society for the Promotion of Cremation held its twenty-fifth annual meeting in Paris on May 20th under the presidency of Dr. Bourneville. In his report the General Secretary, M. G. Salomon, as usual reviewed the progress of cremation throughout the world. He said there were now 90 crematories in operation in Europe and America in which some 125,000 bodies had been incinerated. This number does not, of course, include Japan and other Asiatic countries where cremation is the customary method of disposing of the remains of the dead. It was estimated that in September, 1904, in Europe alone there were 127 cremation societies. Germany has 76, and nine crematories, in which last year 1,381 bodies were incinerated as against 1,074 in 1903. Of that number 1,050 were Protestants, 142 Catholics, and 106 Jews. It is remarkable that in Prussia the movement makes little headway. In Italy, Switzerland, Denmark, Norway, Sweden, and Holland, cremation is practised. In South America some progress has been made; there were 370 cremations at Buenos Aires in 1904. Dr. Bourneville stated that in Paris during 1904 the total number of cremations was 6,364. Of that number, however, only 354 were cremations in the ordinary sense of the term, the rest consisting of the burning of limbs and other parts removed by operation in the hospitals (2,346) and fetuses (3,964). Dr. Bourneville added that during the year an active propaganda had been carried on by lectures and the distribution of leaflets. In a second report M. Salomon described the measures that, in his opinion, should be taken to give more solemnity to the ceremonies by which cremation is accompanied. Speaking of the provinces, he said that in addition to the crematories at Rheims and Rouen, others are in course of construction at Lyons, Marseilles, Roubaix, Bordeaux, St. Etienne, and Dijon. The French Society for the Promotion of Cremation has a membership of 643 and a capital of Fr.46,952. Sir Charles Cameron and Sir Herbert Thompson were elected honorary members. Since the date of the meeting Mlle. Champton, of Orleans, has died, leaving the Society a legacy of Fr.40,000. Notwithstanding the efforts of the Society cremation does not seem to gain in popularity in France. Crematories are provided by municipalities and other public authorities, but the French people make practically no use of them. The crematory at Rheims, for instance, has been in working order for two years, but, according to the *Semaine Médicale*, no body has yet been incinerated there. With the exception of a very few carried out at Rouen, which has had a crematory for three years, the 354 cremations at Paris may be taken to represent the amount for the whole of France. The advocates of cremation evidently hope that in time the supply of opportunities for this mode of disposing of the dead will create a demand.

CHEYNE-STOKES RESPIRATION.

PROFESSOR A. MOSSO has made an extensive series of observations at stations on Alpine summits of different altitudes on the influence of altitude in the production of Cheyne-Stokes breathing. His observations confirm him in the opinion[1] that this phenomenon is not due to oxygen hunger. One of the reasons which tends to invalidate this hypothesis is the fact that periodic respiration is much less perceptible during the day than at night, and in every case its intensity is greatly increased during sleep. If, however, a demand for more oxygen were the cause of the phenomenon, the reverse would be the case, because it is well known that the body requires a greater supply of oxygen when awake than when asleep. Moreover, experiments performed on himself and Professor Galeotti when sleeping on the summit of the Capanna Regina Margherita, at an altitude of 4,560 metres, have shown that the administration of

[1] *Arch. Ital. de Biol.*, vol. xliii, 1905, p. 31.

oxygen inhalations does not abolish the Cheyne-Stokes phenomenon. The possibility of anoxyhaemia being thus excluded, the only alternative left is to suppose that the phenomenon is due to a diminished excitation of the respiratory centres, consequent on a diminution in the quantity of CO_2 circulating in the blood. This hypothesis has been verified by showing that inhalations of carbonic acid constantly have a regulating effect upon the respiration; the periods disappear, and both the rhythm and the form of respiration return to the normal. Professor Mosso distinguishes two types of periodic respiration: In the one the disturbance is not confined to the respiratory mechanism, but extends to the motor centres of the extremities and the trunk, and also to the vascular and cardiac centres; in the other, the respiratory centres alone are affected. The former and more severe type is explained by the physiological fact that the disturbance of one group of nerve centres is often accompanied by a simultaneous functional disturbance of other centres; and thus, concurrently with the respiratory disorder, irregularities ensue in certain psychic centres, in the cardiac movements, and in the tonicity of the blood vessels. With regard to the latter type, where the Cheyne-Stokes phenomenon is limited to the respiratory mechanism, Professor Mosso does not agree with the view expressed by Luciani in 1879 that it is "the extrinsic expression of the oscillation in nutrition which are taking place within the respiratory centres." Whilst denying this alleged causal influence of nutritive changes, Professor Mosso is of opinion that the periodicity is comparable in character to the oscillations which take place in sensations which are near the "threshold," when the excitation of the sense is reduced to the least intensity perceptible. So, with the respiratory centre, the value of the "threshold" is lowered; and consequently, the stimulus remaining constant, its action may be efficacious or inefficacious at different periods of time.

THE CONTAGIOUSNESS OF LEPROSY.

NOTWITHSTANDING all the evidence to the contrary, there are still a few who do not admit the contagiousness of leprosy. The case brought forward by Professor Wolff of Strassburg at the International Congress of Dermatology, held last year at Berlin, should prove convincing. The facts are as follows: On November 2nd, 1903, a man suffering from undoubted leprosy attended Dr. Wolff's skin clinic. After spending five years in Tonquin he had returned to his native place, Urbach. At the end of two months he was admitted to the hospital there. Thence he had been sent on to Strassburg for treatment. In the latter city he remained in hospital till his death, which occurred on July 4th, 1898. On February 2nd, 1902, a nephew of the foregoing presented himself at the clinic. He was a robust young fellow of 19, and had always been quite healthy until recently, when he complained of sharp pains in the back. He had never resided out of Urbach. During the two months' sojourn of his leprous uncle in the house of the young man's parents in that place the lad had often played with him and kissed him. On investigation the lad was found to be suffering from leprosy. This instance of the disease occurring in a leprosy-free area is on a par with the well-known Irish case recorded by Dr. Benson. Professor Wolff at the Berlin meeting showed photographs of his two cases, which he proposed to deal with more exhaustively later on.[1]

CHEMICAL DIAGNOSIS OF THE STOMACH FUNCTIONS.

PROFESSOR H. SAHLI, of Berne, has invented a method of diagnosis called the desmoid reaction which he proposes in place of the chemical examination of the stomach by a test meal. The principle is to enclose a substance which can be easily recognized when excreted in the urine (methylene blue, iodoform) in a piece of india-rubber membrane tied at the mouth by a catgut ligature. If the digestive action of the stomach be normal, the catgut, which must not be previously sterilized or dried, will be digested by the gastric juice, and permit the contents of the little sac to escape and to appear in the urine. These "sachets" are to be swallowed after the midday meal, and the urine should be examined five to seven hours later and again the following morning. It should be added that pancreatic juice does not appear to act upon the catgut. The reaction has failed in certain cases where there was exaggerated motility of the stomach, so that its contents were hurried too quickly into the intestine. If methylene blue be used as the reagent, the permeability of the kidneys must be taken into account.

[1] *V. Internat. Dermatologen-Kongress.* Verhandlungen und Berichte. Band ii, Erster Theil. pp. 81.

HEALTH OF THE ARMY.

THE *Army Medical Department Report* for the year 1903 was issued this week. It contains the usual statistical information with regard to the health of European troops serving at home and abroad, and we shall hope to discuss the facts set forth in an early issue. Meanwhile, we may note that in India there was an increase in the admission and constantly-sick rates from enteric fever, although the death-rate showed a decrease as compared with the previous year. It is noted that the increase in the number of admissions from enteric fever occurred for the most part in young soldiers during their first year of service in India, and must be attributed to the arrival of large drafts and reliefs. Many of the men also who arrived from South Africa had been under conditions of continuous field service for two or more years, and were probably thereby rendered more susceptible to any sort of infection. Attention is also drawn to the fact that the prevalence of Mediterranean fever in Malta and Gozo was much in excess of previous years.

THE jubilee of the opening of Epsom College will be celebrated at the college on Saturday, July 1st. There will be a service in the chapel at 5.45 p.m., and a dinner at 6.30 p.m., under the presidency of Mr. Henry Morris.

A COMMITTEE, of which Professor Ed. Rosenthal of Jena is Chairman, has been formed for the erection of a memorial to the late Professor Ernst Abbe, whose improvements in the microscope have been of the greatest service to science.

THE American Medical Association will hold its fifty-sixth annual session at Portland, Oregon, on July 11th, 12th, 13th, and 14th, under the presidency of Dr. L. S. McMurtry of St. Louis. It is expected that the attendance will be the largest in the history of the Association. Already some 2,000 applications for hotel accommodation have been received, and it is anticipated that the total number of visitors will not fall short of 5,000.

ST. ANN'S CHURCH, Blackfriars, has recently been adorned by a stained-glass window representing St. Luke, the Physician. It is the gift of the Society of Apothecaries, which pays a state visit to this church on St. Luke's day each year. The window was formally unveiled last week, the ceremony taking the form of a short musical service, and being followed by a luncheon party in the hall of the Society.

A MEETING of the Neurological Society of the United Kingdom will be held at the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., on Saturday, June 24th, at 10 a.m. The morning will be devoted to the exhibition and discussion of clinical cases, and the afternoon to pathological demonstrations. Lunch will be provided for all members of the Neurological Society at the Russell Hotel. In the evening the metropolitan members will entertain the extra-metropolitan members at dinner at the Imperial Restaurant, Regent Street, at 7.45 o'clock.

Scotland.

EDINBURGH HARVEIAN FESTIVAL.

THE 123rd Harveian festival was held in the Royal College of Physicians on June 9th, when the President, Charles E. Underhill, M.B., F.R.C.P.E., F.R.C.S.E., delivered the Harveian Oration on "Harvey as a Teacher."

The subject of the oration was chosen because only on four occasions during the last twenty years had this, the primary object of the Society's existence, been referred to. There were several biographies of Harvey in existence, and his own writings, particularly those dealing with the subject of generation, were voluminous. But his work on the heart and the circulation had so far overshadowed his other contributions to science, especially in the popular mind, that one was apt to forget the immense labour and insight that he brought to bear upon other subjects. The object of the present oration was to give a brief sketch of his personal history and his achievements, directing especial attention to his work as a teacher, as exemplified in his extant Lumleian Lectures.

Born at Folkestone on April 1st, 1578, just fourteen years after the birth of Shakespeare, he might be ranked along with that band of scholars, poets, soldiers, and statesmen which adorned and illuminated the history of England at the end of the sixteenth and the earlier years of the seventeenth centuries. His father was a man of some position and influence, and his mother a large-hearted, wise, and godly woman. He was entered at Caius College, Cambridge, in May, 1593, then mainly a school of divinity and philosophy, and not of medicine. It had indeed obtained in 1564 a Royal Licence, which among other things provided that it should annually have two human bodies for anatomy; and there was a record as early as March 12th, 1566, that one "John Figgen was made anatomy at the Schools and buried in St. Mary's Churchyard." This was said to be the earliest contemporary record known of the actual performance of human anatomy in England. Whatever else Harvey may have gained at Cambridge, he carried away with him a deep love of learning, a fair knowledge of Greek, and a thoroughly accurate and intimate acquaintance with Latin both classical and colloquial. Harvey, in 1598, went to Padua, the school of Vesalius, where he learned anatomy in the class of Fabricius ab Aquapendente, who gave him much help and became his warm friend. There was no record extant of his matriculation, but in the same year was matriculated there one Joseph Lister, described as *Anglus cum parva cicatrice in palpebra dextra.*

It was highly probable that Harvey's intimacy with Fabricius instilled into his mind the love of dissection, and started him on the path of observation and research. He spent five years at Padua, and graduated M.D. in 1602. In some of the foreign universities these degrees could be purchased, at all events shortly after this time, for we read in Ward's *Diary*, which extended from 1648 to 1679, "Mr. Burnet had a letter out of the Low Countries, of the charge of a doctor's degree, which is at Leyden about sixteen pounds, besides feasting the professors: at Angier, in France, not above nine pounds, and feasting not necessary neither." Harvey having received his Cambridge M.D. in 1602, settled in London, and married in 1604 a daughter of Dr. Lancelot Browne, Physician to Elizabeth and James I. She had no family, and died in 1650. He became F.R.C.P. in 1607, and Physician to St. Bartholomew's Hospital in 1609, which position he held for thirty-five years. What manner of man he was at this time was well described by Aubrey. In 1615 he became Lumleian Lecturer in Surgery and Anatomy, a position he held for forty years. Here Harvey found the opportunity of his life; for beginning on April 16th, 1616, one week before the death of Shakespeare, there was no doubt that he at once began to teach part, at any rate, of his doctrines on the circulation of the blood, on which his undying fame rested, though he did not publish his treatise till 1628. Reference was made to the manuscript notes of one series of the lectures, bought by the nation in 1753; they were seen by one of Harvey's biographers in 1766, then disappeared until 1877, when they were found again among some printed books in the British Museum, and edited and published by the Royal College of Physicians of London in 1885. They were obviously intended for no eye but his own, and herein lay their great value, for they showed how the mind of Harvey worked, the careful and accurate way in which he divided and subdivided the subject matter of his course, his very full knowledge of the writings of ancient and modern anatomists, and the extraordinary abundance of his own observations in human and comparative anatomy. There were said to be allusions to some part of the anatomy of upwards of eighty different animals throughout the course. The anatomical details, moreover, were pointed and enriched by allusions to many cases which had come under his notice in his practice and that of others which he had seen.

That he was a good clinical observer there could be no doubt, and had he left no other record of his professional work we could learn from these notes how varied his experiences had been. One was amazed at the wide range of his knowledge and the keenness of his observation. Harvey's scientific and professional heroes were also seen in these notes. Aristotle he always spoke of with reverence, and though he sometimes disagreed with his opinions, it was always with some diffidence; unless, indeed, it be in any matter of direct observation, when he firmly held his own. Fabricius, Galen, Fallopius, Vesalius, etc., were frequently quoted, not always to their advantage. Of the modern and contemporary writers, he quoted from Dr. Wilkinson and Dr. Argent and others. He showed a close familiarity with holy writers, and had some knowledge of the Latin Fathers. Among the classical Latin writers he was at home with Plautus, Horace, and Cicero, as well as with his prime favourite Virgil. In fact, as Dr. Norman Moore, the editor of the notes, eloquently said: "The Lectures show Harvey to us at his books, seeing his patients in their beds, examining them *post mortem*, talking with other physicians, listening to the phrases of the people, and watching their sports; and, lastly, they give a picture of him as no carefully-prepared work could, delivering his lectures with a body dissected on the table before him, and a demonstrator who lifted up or exposed this or that part at his bidding. Harvey never tries to appear learned; his whole aim seems to be to make the subject clear; there is no affectation; every remark has the stamp of his own original, thoughtful, observing mind."

Dr. Underhill then went into some details in regard to the lectures, since he thought they were less known than most of Harvey's other writings. "Another series of these lectures, he said, still exists in manuscript. It is devoted to the muscles, and consists of 121 leaves with writing on both sides, and is in the Sloane collection in the British Museum. They are similar in style to those just noted, and Sir James Paget, who has analysed them, and published a description of the manuscript, has noted many quaint analogies of the various organs.

In summing up these lectures one sees that they form an epitome of the anatomical knowledge of the day, with clearly reasoned and well-balanced inquiries into the uses of the various organs and parts; and the causes of their motions and functions. One sees how Harvey was hampered by the doctrines and traditions of the schoolmen, and by the backward state of scientific knowledge; how, though bowing to authority, specially that of Aristotle, in things which were purely speculative and inductive, he allows no man's authority or judgement to interfere when face to face with his observed facts. He gives all a hearing, criticizes, accepts or rejects their views with impartiality, according as they present themselves to the judgement of his remorseless logic."

Reference was then made to his work as a physician and very briefly to his other writings. He died of apoplexy at Roehampton on June 3rd, 1657, in the 80th year of his age. "And so passed away the great man; full of years and honours, who deserved well of his country and of mankind. He had lived a strenuous, active life, serving well his King and his fellows amidst the storm and stress of one of the most stormy and painful epochs of British history. And yet he found time among all his thronging duties patiently to watch and investigate and observe, in their minutest details, the structure and functions of a great series of animals, from the lowest insect up to man himself. He found time, too, for continuous thought, and bringing to bear on his observation a mind exceptionally acute and logical, and stored with all the learning of his day, he succeeded in deducing a great and glorious scientific truth which he laid as a sure foundation for the splendid structure of modern medicine."

The President of the Royal College of Physicians (Dr. John Playfair) moved, and Dr. Joseph Bell seconded, a vote of thanks to Dr. Underhill for his oration.

Dinner.

Thereafter 53 Harveians sat down to dinner. The toasts of The King, Queen, other members of the Royal Family, and the Imperial Forces were given from the chair. The immortal memory of Harvey was proposed in an able and eloquent speech by the Orator. The Church was proposed by Dr. Douglas of

Cupar, and replied to by Canon Cowley Brown; the Guests by Dr. Urquhart and replied to by Dr. Sweeting, and the President by Dr. Crawford Renton of Glasgow. Songs were interspersed and Floreat Res Medica closed a delightful evening. Sir Halliday Croom is now President, and next Orator, while Dr. Dow of Dunfermline is Vice-President.

Royal Society of Edinburgh.

A more than usually important and interesting meeting of the Royal Society of Edinburgh was held on Wednesday afternoon at 4.30, when Professor Waldeyer of Berlin, the Permanent Secretary of the Royal Prussian Academy of Sciences, delivered, at the request of the Council, an address upon "The Present Position of the Neuron Doctrine."

Poor-law Conference in Edinburgh.

Representatives of forty-two of the principal Parish Councils of Scotland met in Edinbugh, on June 7th, to consider various important matters in connexion with the administration and reform of the Poor Law. Bailie Richard Clarke, Chairman of the Edinburgh Parish Council, presided over a company of about 120. The Lord Provost welcomed the delegates to Edinburgh, and, on behalf of the citizens, expressed appreciation of the valuable work which was being done by the administrators of the Poor Law. His Lordship referred to the scheme which had been begun for the formation of a Charity Organization Society in Edinburgh. The Chairman said that the delegates present represented parishes with a population of two millions, or about 59 per cent. of the population of Scotland. The importance of Parish Councils having powers to deal with inebriates was urged at the Glasgow Conference in 1900, and subsequently at an interview with the Secretary for Scotland (the then Mr. Graham Murray), but he would not accept the suggestion, although he indicated that the Government would be prepared to grant larger powers to Councils to deal with the "ins and outs." Unfortunately the Bill had not been carried. The Parish Councils also required power to deal with the unemployed, which would save much to the Corporations concerned. The cost to Edinburgh alone last winter was £5,000. Later a motion was adopted, calling for a Government inquiry into the general operation of the Poor Law, lunacy, and other administration in Scotland in relation to the number and class of persons dealt with under the respective statutes; the recurring number of the unemployed in relation thereto; and whether there might not be a possibility of amalgamating the various Boards dealing with this subject. The treatment of epileptics and the relief of the able-bodied were questions also discussed.

Small-pox in Edinburgh.

The Medical Officer of Health reports a case of small-pox in Edinburgh in the week ending June 10th. The patient, a child of 4, had apparently been unsuccessfully vaccinated, and showed no good marks. It is supposed that the source of infection was in Leith.

The Health of Edinburgh.—Sir Henry Littlejohn's Report.

Population, Births, and Marriages.

The estimated population of the city for the year 1904 was 331,977 (151,288 males and 180,689 females), or an increase since the middle of the year 1903 of 4,536 persons. There was an increase of 586 in the number of occupied houses. The number of births was 7,777 (3,944 males and 3,833 females), equal to a birth-rate of 23.42 per thousand of the population, the lowest birth-rate of any town in Scotland. The birth-rate has continuously fallen during recent years. The percentage of illegitimate to the total number of births was 8.0. The marriage-rate was 17.4 as against 18.5 in 1903 and 19.4 in 1902.

Deaths.

The number of deaths was 5,592, equivalent to a death-rate of 16.84 per 1,000 of the population. Deducting those who were merely temporary residents in Edinburgh, or who had come to the city for treatment in one of its many medical institutions, the death-rate would be 15.04 per 1,000, the lowest death-rate ever recorded for Edinburgh. The highest mortality was recorded during the fourth week in March, which had a death-rate of 20.5 per 1,000. The lowest weekly death-rate was 10.0, and occurred twice—namely, in the last weeks of July and August. Of the total deaths, 1,498 occurred under 5 years of age, or 30 per cent. Of these, 976 were infants under 1 year. In the second year of life 304 died, in the third 107, in the fourth 69, and in the fifth 42. The death-rate of children under 5 was 45.4 per 1,000, while the rate for all those above this age was 11.6 per 1,000. Under 5, the male deaths were 778 and the female 720; while above 5 the deaths of females number 1900, and those of males 1,597.

Causes of Death.

The zymotic death-rate was 1.14 per 1,000 of the population, which is slightly below the average of the preceding five years. There were 168 cases of small-pox, of which 15 were fatal, equal to a case mortality of 8.8 per cent. The measles death-rate was 0.19 per 1,000 of the population, considerably less than the previous five years' average. There were 31 deaths from scarlet fever, 63 from diphtheria and membranous croup, 184 from whooping-cough (none over 10 years of age, but 180 in the first five years of life), 22 from enteric fever, equivalent to a death-rate of 0.06 per 1,000; 11 from puerperal fever (of which 10 occurred in patients who were delivered at their own homes, the remaining death having taken place in the Royal Maternity Hospital).

Hydrophobia.

A death from hydrophobia occurred in March, 1904. The patient, a gentleman 28 years of age, was bitten on the wrist by a dog when on board ship on his way home from China eight months before his fatal illness. Another person on board was also bitten and died from hydrophobia. The patient in question was not treated at a Pasteur institute. The symptoms commenced with pains in the hand, and developed into typical hydrophobia, which ended fatally in three days. Ten deaths were attributed to epidemic diarrhoea or epidemic enteritis, while 33 were certified as due to simple "diarrhoea." The latter, 30 of which were in infants, were probably cases of zymotic enteritis. Tuberculous diseases caused 654 deaths (phthisis 408, meningitis 104, peritonitis 14, tabes mesenterica 16, tubercle of other organs 57, general tuberculosis 54, and lupus 1). Of the meningitis cases, 85 were in the first five years of life, the majority (56) being in infants under 2 years. Of the total deaths from tuberculous affections, no fewer than 166 were in children under 5. Alcoholism caused the death of 17 men and 20 women.

Cancer.

Cancer caused 331 deaths, of which 206, or 62 per cent., were in women.[1] By far the most common sites of cancer were the "stomach and oesophagus," and "intestines and rectum," which caused respectively 491 and 324 deaths, or a total of 815, which is more than a third of all the deaths from cancer. Cancer of the pylorus caused 57 deaths, of the liver 257 (114 males and 143 females). During the six years 2 cases of cancer of the male breast were recorded, and 195 amongst females. The face and neck, including the mouth, tongue, and throat, seemed to be much more frequently the seat of the disease amongst males than in the other sex—186 males to 50 females.

Developmental Diseases.

Of the 152 deaths attributed to premature birth (83 males and 69 females), 36 succumbed as a result of congenital defects or malformation, 6 were due to injury at birth, 15 were said to be due to atelectasis, while 13 infants were said to have died as a result of teething.

Diseases of the Nervous System.

Diseases of the nervous system caused 273 deaths. Diseases of the heart and blood vessels caused 889 deaths. "Syncope," or "heart disease," which was not particularly specified, accounted for 225 of these. Diseases of the respiratory system caused 813 deaths, of which bronchitis and pneumonia accounted for 746. Diseases of the digestive system caused 296 deaths, of the urinary organs 172, accident and negligence 122, suicide 28, ill-defined and non-specified causes 450. Among illegitimate children, out of 623 born last year 103 died, or a proportion of 165 per 1,000 as compared with a proportion of 133 deaths of legitimate children.

Notifications.

The number of cases notified during 1904 was 2,559. Six cases of typhus fever occurred in February in a family living in the Cowgate. The patients all made a good recovery and the disease did not spread. There were 196 cases of enteric fever and 752 of diphtheria, which exceeds by 177 the previous highest record, namely, 575 in 1903. The cause of this increased prevalence was not apparent. It was not connected with the milk supply, nor with any obvious sanitary defects

[1] In making a synopsis of cancer deaths for the last six years the number was 2,255, of which 1,296 were females and 959 males.

in the houses where the cases occurred. The mortality maintained a low level, 10 per cent.; 1,070 cases of scarlet fever were notified and 168 cases of small-pox.

Infectious Hospital.

The number of patients treated in the City Hospital was 2,817, as compared with 2 860 the previous year. The total deaths in the hospital numbered 163, equal to a death-rate of 5.78 per cent. of the cases treated. The bacteriological department of the hospital was opened in October. The total annual cost of each occupied bed in 1904 was £54 13s. 3d.

Inspectorial Work.

Disinfection of schools, dwelling-houses, clothing, inspection of workshops, bakehouses, and dairy cows, are, in closing, reported on. The whole report is as usual interesting and valuable reading.

ABERDEEN UNIVERSITY ANATOMICAL AND ANTHROPOLOGICAL SOCIETY.

A meeting of the Society was held on June 10th in the Anatomical Department, Marischal College. Professor Reid, the President, who was in the chair, explained a photograph of a Haussa barber-doctor treating a native for rheumatism by bleeding. The photograph was taken by Dr. Gordon Grant of Johannesburg, who has travelled extensively in the parts where this method of treatment is carried out. A paper on The Dissecting Instruments of the Greek and Roman Anatomists, by Dr. John Stuart Milne, Hartlepool, was next read by the Secretary, in the unavoidable absence of the author. It was beautifully illustrated by many lantern slides and actual specimens, and the Secretary was instructed to convey the thanks of the Society to Dr. Milne. Dr. Alex. Low, Senior Demonstrator in Anatomy and Lecturer in Embryology to the University, next described two stone cists recently found, the one in the parish of Aberdour and the other in the parish of Skene. The contents have been very kindly handed over to the Anatomical Museum, in the one case by Dr. Dingwall Fordyce of Brucklay, and in the other by Mrs. Proctor and the trustees of the Kirkville estate. Professor Reid exhibited a series of skulls from New Guinea brought home by Dr. Craigen, chief medical officer and member of the Executive and Legislative Councils, British New Guinea.

BUBONIC PLAGUE AT LEITH.

The three plague patients in Leith Hospital for Infectious Diseases at East Pilton continue to make good progress. No further case has occurred since May 10th. There is distinct evidence that the crusade against rats is having a good effect, since instances have come to the knowledge of the medical officer of health where rats have entirely ceased to give trouble. The "Liverpool" virus has been used. The total cost to Leith Public Health Department of the outbreak of plague is £230, which includes fees to experts, cost of disinfectants, and of disinfection, and the salaries of the extra staffs employed.

Ireland.

IRISH MEDICAL ASSOCIATION.

THE annual meeting of the Irish Medical Association was held at the Victoria Hotel, Killarney, on Wednesday, June 7th, when the chair was occupied by Mr. R. F. Tobin, the outgoing President. The report, a summary of which has already been published, was adopted.

President's Address.

The newly-elected President, Dr. W. MacSweeny, having taken the chair, delivered an address, in the course of which he said: The grievances affecting most seriously the welfare of the dispensary medical service are, first, insufficient salary; secondly, absence of compulsory superannuation; thirdly, want of certainty about annual holiday. To take the salary question first, we find that the great majority of dispensary doctors have a salary of £100 per annum. In some cases the salary is less, and in a few cases lately there have been moderate increases, but in the great majority of cases the salary is still £100 a year, which is exactly 5s. 5¾d. a day. For this small sum, less than the daily wages of an ordinary tradesman, the dispensary doctor has to attend and visit at their own homes all the sick poor living in his district, covering an area of thirty to fifty, or even one hundred square miles. He has to meet all the expenses of travelling over this large extent of country out of his own pocket, night and day, Sunday or weekday he is at the beck and call of every poor person in his district who is ill, or fancies himself ill—all for the sum of 5s. 5¾d. per day. One of the weakest points of the Poor-law medical system is the absence of any public recognition of the dispensary doctor's energetic discharge of his duties. If he does his work extra well, the most likely result is that he is overburdened with red tickets, many of them requiring him to attend people well able to pay. When broken-down and prematurely aged through hard work, he has no security that he will get a pension from his Board of Guardians. In the existing state of the law, the question whether he will get a pension or not, and also the amount of the pension, depends altogether on the decision of the Board of Guardians concerned, and there are at present several aged and infirm dispensary doctors who still cling to office because they well know that if they resigned their Boards of Guardians would refuse to give them a pension, and they would have nothing to fall back on but the workhouse. These are our demands: Increase of salary, compulsory superannuation, compulsory annual holiday. With reference to the question of increase of salary, I am of opinion that nothing less than the minimum of £200 per annum should satisfy us, and any increase falling short of this sum, while thankfully accepted as an instalment, cannot be looked upon as a final settlement of the question. In the interest of all we ask for an improvement in our present conditions of life. We ask for this improvement, not to make our life easier, but to make it nobler.

On the motion of Professor Kinkead, seconded by Dr. Curran, a vote of thanks to the retiring President, Mr. Tobin, was passed.

The Position and Salaries of Poor-law Medical Officers.

Dr. MacNamara proposed:

That, in the opinion of the meeting, £200 per annum for dispensaries, £120 for workhouse officers, £300 for both, are the lowest salaries that medical men should be asked to work for, but since, owing to the effect of Section VI of the Local Government Amendment Act, salaries fall on the local rates, members should not be penalized for non-compliance with the Mayo-Enniskillen resolution, pending a settlement of the question.

Dr. Kinkead seconded the resolution.

On the suggestion of Dr. Donnellan the motion was amended by declaring that the salary should be satisfactory to the local Branch, and approved by the Council.

On the motion of Dr. Donnellan, seconded by Dr. Olpherts, a motion was passed instructing the Council to formulate a policy that would enable the Association to carry to a successful issue the effort to improve the position of the Poor-law medical officers.

A resolution was proposed by Dr. Agnew approving of a deputation to the Chief Secretary, and inviting the Local Government Board to lay down a satisfactory basis for the formation of scales of graded salaries. The motion was seconded by Dr. Olpherts and passed.

The Irish Medical Directory.

The meeting considered the question of the publication of the *Medical Directory*, which it was held had done the Association harm, and it was agreed that it should not be issued next year.

A vote of thanks to Dr. Donnelly, the editor, was unanimously passed.

Proposed Reorganization.

The consideration of the reorganization of the Association was adjourned to a meeting in October.

Dinner.

A successful dinner took place in the evening.

DIRECT REPRESENTATIVE.

Dr. G. E. J. Greene, of Ferns, co. Wexford, informs us that he has not accepted the invitation to come forward as a candidate for the office of Direct Representative on the General Medical Council, and that he is supporting Dr. Mahon.

QUEEN'S COLLEGE, BELFAST.

Better Equipment Fund.

A meeting of the subscribers to this fund was held in the Council Room of the College on June 2nd. Sir Otto Jaffé, who was in the chair, said that altogether £30,000 had been given, and he hoped the Government would fulfil the pledge given at least in general terms, and see that the College received the additional funds to equip it in every department.

The adoption of the report of the Executive Committee was

proposed by the President of the College. It gave an account of the work done since its establishment four years ago, and enumerated over a dozen very important and necessary additions to the teaching power of the College; it also detailed nearly another dozen further pressing requirements to bring the College into line with sister establishments. President Hamilton explained the great importance and value of the help received, but said that much more required to be done.

Sir James Henderson, D.L., moved that:

> This meeting most earnestly desires to bring under the immediate notice of His Majesty's Government the strong and increasing claims of Queen's College, Belfast, to more generous treatment by the State.

He instanced the increase and higher differentiation of subjects, the increase of population from 100,000 when the college was built to the 350,000 of the present date; the condition of higher education in America and on the Continent, and the appreciation of the College by the growing number of students in later years.

The motion was seconded by Professor Letts and carried.

Sir William Whitla, M.D., moved a hearty vote of thanks to all who had liberally assisted the fund. He said that first and last their heartiest thanks and deepest gratitude were due to President Hamilton, to whom the project was constantly present. He had difficulty in mentioning others but could not omit on the medical side the Musgrave Chair of Pathology, the Riddell Demonstratorship, and Professor Redfern's start of £500.

The High Sheriff (Dr. Henry O'Neill) having been asked to take the chair, a hearty vote of thanks was passed to Sir Otto Jaffé for presiding.

THE BELFAST INFECTIOUS DISEASES HOSPITAL.

At the monthly meeting of the City Council held on June 1st, the appointment of Dr. Gardner Robb as Medical Officer of the new Infectious Diseases Hospital by the Health Committee was confirmed. Dr. Robb will aid the Committee with expert advice till the hospital is opened at a small remuneration; later he will take full charge. He has been acting as Consulting Medical Officer to the Committee and Medical Attendant to the Small-pox Hospital for the last two years during the various small-pox outbreaks. The appointment is received with much satisfaction by the profession.

COUNTY AND CITY OF CORK LYING-IN HOSPITAL.

A special meeting of the subscribers and friends of this hospital was held recently at the Imperial Hotel for the purpose of laying before the public the urgent necessity of raising a sum of £300 for indispensable alterations proposed to be carried out in the hospital. These alterations include the building of an isolation ward, a properly-constructed laundry, and a mortuary. The Earl of Bandon, K.P., presided, and there was a large attendance Professor Pearson, honorary secretary of the medical staff, made a short statement as to the history and working of the hospital. He recalled that it was founded in 1798 by a number of charitable ladies in a house in Nile Street, and was carried on in a very unostentatious manner for over a hundred years. In 1898 the medical staff and the lady governors determined to celebrate the centenary by removing to better surroundings, and the present hospital was bought for £2 000, rent free; of this sum £1,600 was collected at the time, but the balance of the purchase money has not yet been paid off. The building alterations now necessary will cost £300, and it was proposed to appeal to the general public to help to remove the debt. The hospital is entirely supported by public subscriptions and donations and whatever grants the Hospital Saturday and Sunday Aid Societies give it from year to year. For many years 200 women, on an average, have been treated in hospital, while in 1904 the number of admissions was 321. In 1903 the hospital authorities decided to enlarge their sphere of work, and undertook the treatment of poor women in their homes, and in that year 73 cases where thus attended, while in 1904 the number was 208, so that in all a total of 529 were treated by the medical staff and nurses last year. Sir George Colthurst proposed:

> That this meeting cordially recognizes the great work that has been done for over a hundred years by the Erinville Hospital, and calls on the County and City of Cork to support the governesses in their effort to further extend the benefits to the poorer part of the community.

The President of Queen's College seconded the resolution, and spoke of similar work being done in other cities, and urged as one of the strongest arguments in its favour that the hospital had accomplished its great and charitable work at an extraordinarily low expenditure. Before the meeting broke up several subscriptions were handed in.

ULSTER MEDICAL SOCIETY.

The eleventh general meeting was held on the evening of May 25th in the Medical Institute. The President, Dr. William Calwell, occupied the chair.

Dr. Marion Andrews showed a recent specimen of a large submucous fibroid of the uterus which she had removed the same morning; the physical examination had revealed a condition of affairs closely resembling normal pregnancy.

Professor Symmers gave a demonstration of the lesions produced by the bilharzia haematobia; a large number of lantern slides and pathological specimens of bladder, intestine, liver, and a unique one of spleen served to illustrate his remarks. They are the results of his five or six years' *post-mortem* work in Cairo. The lecture began with an account of the life-history of the parasite; the intermediate host is still unknown. The two sorts of eggs—one with a terminal spine and the other with a lateral spine—which some observers thought belonged to different species, Dr. Symmers showed were really due to different maturity, owing to fertilization and non-fertilization. The extraordinary resemblance in some of the lesions to cancer was dwelt upon.

Sir William Whitla proposed, and Professor Lindsay seconded, a cordial vote of thanks to Dr. Symmers for his interesting and instructive demonstration.

Dr. Henry said that during and after the South African war a large number of soldiers had returned to this country afflicted with this disease; several of these he had seen; and he desired much to know the danger the country ran of the affection being introduced through these soldiers.

The President, in conveying the vote of thanks to Dr. Symmers, asked whether the distribution was strictly African; and whether the remarkable superficial resemblance between these lesions and those of malignant disease gave any suggestion of the actual pathology of the latter.

Professor Symmers in replying said he thought this climate would be the best safeguard; the resemblance to cancer was present, and even true cancer was occasionally found in the other lesions. Of course, a cancerous patient might become infected.

Canada.

PROPOSED GOVERNMENT GRANT TO TORONTO UNIVERSITY.

THE Ontario Legislature, through Mr. Whitney (Premier) has announced its intention of making a substantial appropriation for the assistance of the Provincial University, as much as half a million dollars being promised. Of this a considerable sum is intended for the erection of a University Hospital, to which the City of Toronto is expected to make an equal contribution. Such an institution is greatly needed on account of the great number of students requiring clinical facilities, and it is hoped that the scheme will be rapidly consummated, although opposition has been offered by a deputation representing some members of the profession in Toronto who are not connected with the work of the University.

THE ONTARIO HOSPITAL ASSOCIATION.

An influential deputation of this Association waited upon the Government recently and pressed for an increase in the grant to hospitals, which is now and has been for years 110,000 dols. When this is divided up among those entitled to it, it amounts to 17 cents for each patient a day; municipal aid never exceeds 50 cents a day, or a total of 67 cents a day, while the cost of maintenance of all patients throughout the province is 89 cents per day. It was shown that it would not be wise to increase the municipal charge, and it was suggested that the Government aid should be increased to 25 cents a day.

TREATMENT OF PAUPER INEBRIATES.

A scheme for the treatment of pauper inebriates has been formulated by the Canadian Medical Associations and recommended to the Ontario Government; it is as follows:

(*a*) The appointment by the provincial government of an inspector of inebriate institutions. This inspector should be a qualified medical practitioner who has made the medical treatment of inebriety a special study.

(*b*) The inspector should organize in the City of Toronto a hospital for the medical treatment of pauper inebriates of

the more hopeful class, and in other cities of the province an inebriate department in the existing general hospitals.

(c) The inspector should also arrange, in connexion with each institution where inebriates are received and treated, an organization or agency for the adoption of the probation system, and giving a helping hand to the patients subsequent to treatment for inebriety.

(d) The inspector should provide for a rational course of medical treatment for inebriates, in accordance with the tenets of legitimate medicine only, to the exclusion of the use of any proprietary remedy.

At a recent meeting of the Committee, who have the matter in hand, application for assistance was made to the City of Toronto for aid, and a grant of 150 dols. was made.

TRAUMATIC HYSTERIA.

A most interesting case has just been concluded in the High Court of Justice, before Judge Chute, at the Spring Assizes—namely, Lewis *v.* Toronto Street Railway. The plaintiff, who was a healthy young negro girl, aged 23, had attained some success as an artist, and is well educated, sued for 25,000 dols. damages for injuries received while travelling as a passenger on the railway worked by the defendants.

The accident happened on June 5th, 1904. Miss Lewis was in an open electric car, about the fourth seat from the front; the car was at the time travelling at a fair rate of speed when a phenomenon occurred described as an explosion, accompanied by flames and sparks, which arose about her and flew up into her face. Overcome either by fright or shock, she fell or jumped off the car, and was picked up shortly after by a policeman, to whom she was able to speak intelligibly. After being taken home she became unconscious, and remained in that condition for four or five days, when she recovered consciousness, but was found to be paralysed, suffering very severe pain in the head and back, with marked photophobia, the eyelids being kept tightly closed. The left side was anaesthetic and completely paralysed, the right partly so. Her mother who attended her stated that her hair and lips were burned and that she was bruised severely on the left side, but there was no evidence to support this statement. She remained in this condition for ten months, the only change of importance being a slight reduction in the amount of the paralysis and some change in its exact location, and the occurrence of at least two severe convulsive seizures within two months of the accident.

Mr. I. H. Cameron was appointed to examine the patient for the court, and several medical experts were called, including Drs. Myers, Powell, Cavan, Reeve, Wishart, and Cassidy, who was the attending physician throughout the greater part of the illness. There was practically no disagreement among the experts as to the nature of the trouble, which was diagnosed as traumatic hysteria, though there was some difference as to the probability of ultimate recovery, the probable time that would still elapse before recovery, and the possibility of recurrences. No evidence was adduced to prove the existence at any time of any injury having an anatomical basis, but the court admitted the construction of the word "injury" to include not only shock but fright. The experts for the defence when pressed to set a time for probable recovery, claimed that it should not exceed one year from the cessation of litigation, as the authorities were agreed that the existence of legal proceedings had a tendency to prolong the condition.

The cause of the phenomenon was shown by electrical experts to have been in all probability the formation of an arc or circuit by the approach of a wire to the wheel caused by the jolting of the car, and the argument of negligence was based upon the condition of the apparatus that would allow such an occurrence.

The judge called attention to the rule that damages were not recoverable for merely mental injuries, but held that there was no contributory negligence on the part of the plaintiff, even if she had jumped off from fright. The verdict of the jury was for 10,000 dols.

The case is extremely interesting, as it is the first in which the condition for which damages are claimed was admitted to be a pure hysteria, and in which no physical injury was proven as the exciting cause apart from fright and shock; while from a medical point of view the history of the case and its ultimate result will be of value as affording a test of the probable duration of other similar cases.

ANAESTHESIA IN OPERATIONS ABOUT THE MOUTH.

At a recent meeting of the Toronto Clinical Society, Dr. Johnston, Anaesthetist to the Toronto General Hospital, reported three cases of operation about the mouth, either excision of the tongue, mandible, or both, in which general anaesthesia had been produced by chloroform or chloroform and ether administered by tubes passed through the nose, in a manner the details of which he had devised. The fauces as far back as the posterior pillar and the posterior part of the mouth were tightly packed with gauze, beginning by passing a loop of bandage back in the centre against which the gauze rested, then packing the sides tightly, and building up in the centre. The tubes used were the ordinary rectal tubes, with an opening in the side but not in the end, about 20 in. in length and of a diameter suited to the case; these were lubricated with vaseline, then passed into the nares, anaesthesia having been established by the ordinary method; by closing the end of each in turn their patency was demonstrated; if either was found to be occluded it was withdrawn and freed from mucus, or turned so that the opening which might have been resting on the packing was left free. They were then passed into a gauze-covered sphere on which the anaesthetic was dropped; the length of the tubes permitted the administration at a convenient distance from the field of operation. If either of the tubes became occluded during the operation it was withdrawn and cleared, the other being used in the meantime.

In the cases in which this method was used no difficulty was experienced from vomiting, though this would have to be contended with in some, and the surgeons expressed themselves as being gratified with the method, owing to the freedom it afforded from interference and the lessened danger from swallowing or inspiring the blood.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 86.

SPECIAL CORRESPONDENCE.

PARIS.

Unveiling of the Monument to Professor Tarnier.—Compulsory State Aid to the Aged and Incurable Poor.

THE monument which has been erected to the memory of Professor Tarnier was unveiled on June 1st and handed over to the City of Paris by Professor Brouardel in the name of the Committee. The monument—which is a high relief by the well-known sculptor, Denys-Pusch—represents Tarnier, in the blouse and apron he wore in hospital, standing at the bedside of a mother who holds her infant in her arms, whilst at the head of the bed is indicated an incubator. An elegant portico by the architect Scellier, of Gison, serves as a frame to the marble, and this decorates the rounded end of the Clinique Tarnier, which faces the Boulevard Montparnasse at the junction of the Rue d'Assas and the Avenue de l'Observatoire. Above the sculpture are the words, "Tarnier, 1828-1897," while below is the inscription, "To the Master, who devoted his life to the mothers and infants: his colleagues, his pupils, his friends, his admirers." Among those present were M. Bienvenu-Martin, the Minister of Public Instruction; M. Liard, M. Mesureur, Professors Boudin and Pinard, Cornil, Fournier, Joffroy, Segond, Pozzi, many physicians, surgeons, and accoucheurs to the hospitals, in particular the pupils of Tarnier, Maygrier, Bar, Bounaire, Charpentier de Ribes, Demelin. Many speeches were made. Professor Brouardel, who spoke first, summarized the work of Tarnier, referring especially to that in connexion with the prophylaxis of puerperal fever. Tarnier, in his thesis for the M.D. degree in 1857, concluded that it was an epidemic and contagious disease, contrary to the doctrine prevailing in the faculty and abroad. Fifteen years later, Tarnier, as head of the Maternity, had a pavilion built in which each patient was rigorously isolated from her neighbours. The success which followed this test proved that his theory was correct. Professor Boudin spoke in the name of the Académie de Médecine, before which body Tarnier's papers were always read, and where his thesis gave rise to so much discussion.

In 1862 he described a new method of bringing on premature confinement; in 1877 he communicated his researches on the forceps; in 1883 he presented the basiotribe; and in 1885, after having used the incubator for several years, he showed what care should be given to infants before term. His fame was such that in 1886 the University of Edinburgh bestowed on him, amid a scene of the greatest enthusiasm, the honorary degree of doctor—an honour which he shared with Pasteur and Charcot. He was one of the first, after the discoveries of Pasteur and the work of Lister, to introduce into France, following Lucas-Championnière, antiseptics into maternities; he was the first to use corrosive sublimate, which, as a simple, cheap, and easily-manipulated antiseptic, had never been displaced. Among the other speakers were Professor Pinard, M. Autran, in the name of the Municipal Council; M. Mesureur, in the name of the Assistance Publique; and M. Bienvenu-Martin, who, in the name of the Government of the Republic, rendered the homage of the nation to the man who added a pure ray to the glory of the University, and whose services placed him in the front rank of the benefactors of humanity.

The Senate has recently passed the first fourteen Articles of a new law to give compulsory State aid to the aged, infirm and the incurable who are without resources. A long discussion took place over the first Article of the proposed law, which was eventually carried by 270 votes to 1, thanks to the energetic speech of M. Millies-Lacroix, Senator of the Landes, who expressed the opinion of the majority in affirming that the law in question, being a social obligation, the State should bear the greater part of the expense entailed. The following is the text of Article I:

> Every Frenchman without resources, incapable by his work to meet the necessities of existence, and, either aged 70 years, or afflicted with any infirmity or any disease recognized as incurable, shall receive the help instituted by the present law.

The remaining Articles which were passed deal with the conditions of organization and the admissions to State help.

VIENNA.

The Cure of Cretinism.—A State Institute for the Manufacture of Serum.—A New Pharmacological Institute.—Health Statistics.

LAST year Professor Wagner, the Director of the Clinic for Mental Diseases in Vienna, read a paper on the treatment of cretins, and lately the first report of the experiments conducted on the lines laid down by him has been published. The main features of cretinism are the anomalous functions of the thyroid gland, which result in inhibition of the growth and calcification of the long bones and in hypertrophy of the subcutaneous connective tissue combined with deficient development of the mental faculties. Professor Wagner has treated 82 cretins with tablets of extract of thyroid of sheep and other domestic animals. Within three months a marked growth of the bones was noted. The children, who formed the majority of the patients, became active, the nose assumed more normal proportions on account of the growth of the upper jaw; and whereas formerly they were hardly able to speak, they improved in this respect so much so, that they could be sent to school. The hearing also improved considerably, and after treatment for periods varying from ten months to a year and a half, the cretins were practically cured. It is essential to begin the treatment as early as possible, and to continue it for a long time—for years, if possible—so as to ensure complete cure. The report emphasizes the necessity of great care in dosage. Not more than one tablet (equal to 8 gr.) of the extract should be taken daily. The Government has decided to have all idiots and cretins in the Alps subjected to the treatment. Experiments on a large scale will also be made on the treatment of goître with and without exophthalmos. The expense will be defrayed by Government.

The sanitary authorities have decided to establish a State institute for the manufacture of therapeutic serums which can be guaranteed to be innocuous. There is already in Vienna a State institute for the supply of pure cows' lymph, from which all the vaccine required is obtained. Now it is proposed to enlarge the house so as to meet all demands for supplies of diphtheria, hydrophobia, typhoid fever, and anti-streptococcus serum. The cost is estimated at £10,000, and it is considered probable that the funds will be furnished by Government.

A new pharmacological institute has lately been opened, the director of which is Professor Mayer. It contains a large theatre and lecture-hall, three laboratories, several working rooms for the students, a library, and magnificent microscopical, chemical, and experimental installations; a new feature is an arrangement for studying the effects of different drugs under different coloured light. There are now two institutions for materia medica in Vienna, but they are conducted on different lines, one being intended chiefly for the study of the action of the drugs, whilst the other affords opportunities of studying the anatomical and biological conditions of medicinal plants.

The last report of the medical officer of health dealing with the entire area of Vienna shows a mortality of 21 per 1,000 inhabitants, an increase of fully 1 per 1,000 as compared with last month. Of these 765 deaths, 154 were due to phthisis, 52 to neoplasm, 1 each to croup and diphtheria, 6 to scarlatina, and 3 to typhus. For six weeks there has been no case of cholera, enteric fever, or small-pox. Cerebro-spinal meningitis has so far been kept away; only two sporadic cases have been admitted to the hospital. But measles has steadily increased, and shows a mortality of 5 per cent., whilst 79 fresh cases were notified within the space of one day. The disease was confined to a certain district, where filthy housing and bad alimentary conditions paved its way amongst the children of weakly parents.

LIVERPOOL.

Extension of the Medical Institution.—Resignation of Dr. Bernard.—Appointments at the Royal Infirmary.—Lancashire and Cheshire Branch Meeting.

A SPECIAL meeting of the Liverpool Medical Institution took place on June 8th to consider the amended recommendations of the Council for the enlargement and improvement of the Institution buildings. The renewal of the lease from the Corporation at a nominal fine has rendered imperative a considerable expenditure to put the fabric into thorough repair to satisfy the city authorities, and it is considered that the time is opportune for carrying out certain alterations and extensions which will add to the usefulness of the Institution and promote the comfort of the members. The increase of space will be chiefly provided by absorbing the resident librarian's house, which adjoins the Institution. The alterations include the enlargement of the council room, which will be nearly double its present size, and will be a particularly fine apartment, and the provision of rooms or recesses in connexion with the library, where members can read and write without being disturbed by others passing in and out of the building. This is a want which has been long felt, and the provision which is about to be made will greatly increase the value to the members of the important collection of standard works which has been growing for several years. There will also be increased space for storing books, a pathological room, patients' waiting rooms, a room which can be darkened for ophthalmoscopic work, and additional space for receptions and clinical evenings. The builder's estimate for the work, which includes practically a new roof, is a little under £2,000, and another £1,000 will probably be required for furnishing and incidental expenses. A residence for the Librarian will also have to be provided. The bulk of the sum is to be raised by subscription, and nearly £1,000 was promised before the meeting took place.

Much regret is felt by all who are associated with the Royal Infirmary at the pending resignation of Dr. Armand Bernard, surgeon to the Lock Hospital, who had almost completed his term of office as defined by the laws of the institution. Dr. Bernard has for some years been the senior member of the staff of the infirmary, and his opinion has carried great weight with the committee of the Institution. His teaching has been greatly appreciated by the students of the infirmary, and it is hoped that it may be possible for him to continue his demonstrations, the only systematic teaching in his special subject which has hitherto existed in Liverpool.

A special meeting of the trustees of the Royal Infirmary was held recently, and a law was passed constituting a new office in the Institution—that of assistant gynaecological surgeon. Dr. C. Thurstan Holland has lately been appointed medical officer in charge of the electrical department.

The annual meeting of the Lancashire and Cheshire Branch, which takes place this year in Liverpool, will be held in the fine block of buildings which has recently been added to the medical side of the university. The meeting is certain to be one of the largest that has been held for some years. A special feature will be the exhibition of subjects of patho-

logical interest by the School of Tropical Medicine, including a colony of ticks infected with the spirillum of relapsing fever.

MANCHESTER.

The Psychology of the Dog Mind.—The Domestic Economy Association.—Progress of New Infirmary.—Death of a Foremost Vegetarian.—Whitsunside Vacation.

THE Professor of Philosophy in the University gave to an audience of teachers the results of his study of the dog mind. The tale of the dog's merits and demerits—it was an Irish terrier—his likes and dislikes, and the reason "why" of each were unfolded. How much does a dog reason? was the question all the experiments tended to answer. From observing his dog, Professor Alexander has arrived at a rather modest estimate of a dog's mental power. He said his dog had learned "how things go, but not 'the go' of them," or, in other words, his actions were intelligent, but not rational. He knew mechanically what effects followed from what causes, but not why they followed. Similarly, his virtues were not moral, they were merely habits; he did not know the reason for prohibitions—his sense of guilt was only the presentiment of a whipping.

The "Northern Union of Domestic Economy Associations" held its first general meeting in Manchester on the 27th ult. The president—a lady—bewailed the fact that in this country there existed a generation of women who knew nothing, or but little, of housekeeping, and who had no idea of economy of management. Formerly it was the custom for mothers to teach their daughters the elements of housekeeping at home, but latterly many girls got but little home training, and none at school, in the domestic arts, and on leaving school they went at once to work, with the result that they in their turn were not competent to train their children aright in these matters. A lady doctor, Dr. Merry Smith, discussed the question of "Cookery in Relation to Health." It has been said that one of the most striking things among the poor is the absence of meals. This want of regular meals, she said, implies that cooking is practically unknown in the house. Food is taken irregularly, in snatches, and consists largely of comparatively costly articles of diet, hastily cooked and eaten. Its nutritive value is small, and there is no regular stoking of the human engine to prepare it for its difficult work. British women have not been taught the value of the cheaper articles of diet, and the most striking thing in school education is the absence of systematic teaching of domestic science. If a higher knowledge of practical cookery were possessed by the women of Britain doctors would lose many of their best-paying patients, infantile mortality would decrease, much drunkenness would be avoided, and life for many would be more endurable and joyous.

The fine weather of May greatly favoured the process of excavating the foundations of the New Infirmary, which are already well advanced. The first brick was laid a fortnight ago. Four years was the original estimate for completing the building, but hopeful souls prophesy that three years and a-half will see it completed.

Manchester is a great centre of the cult of vegetarianism. By the death of the Rev. James Clarke, who was for nearly fifty years minister of the Bible Christian Church of Salford, Vegetarianism has lost one of its foremost representatives. The members of this Church are pledged to abstain absolutely from fish, flesh, and fowl as foods. One of the deacons of this Church founded the Vegetarian Society in 1847. The "Vegetarian Church," as it is called, is unique in Europe, and was founded about a century ago by the Rev. John Cowherd, who was a convinced vegetarian on biblical and moral grounds.

At the medical school all lectures cease during Whitweek, but the laboratories and dissecting rooms are open. A considerable number of medical students who are members of Volunteer corps go into camp during Whitweek. For this and other reasons, notably because Whitweek is an almost universal holiday in Lancashire, the custom of an academic vacation in Whitweek has taken root. To compensate for the shortening of the session, the courses begin at a corresponding earlier period in April.

BEQUESTS TO MEDICAL CHARITIES.—By the will of the late Mr. William Hunton Fisher, of Harrogate, which has now been proved, the Harrogate Hospital receives £1,000, and the Cottage Hospital in the same town, and the Yorkshire Home for Chronic and Incurable Diseases each of them half that sum.

SOUTH WALES.

Technical Education in South Wales.—Small-pox at Cardiff.—Underfed School Children.—Caerleon District Council.—Merthyr Council and the Housing Problem.—Measles at Rhymney.—Welsh National Library and Museum.—Typhoid Fever at Bridgend.—Glamorgan Water Supply.

THE committee recently appointed by the joint conference of the various County Councils on mining education has adopted the provisional arrangements made by Principal Griffiths for the summer school of mining, which will be held for three weeks from August 21st next, in the University College, Cardiff. Mr. J. Austin Jenkins, Registrar of the University College, Cardiff, is the Secretary.

A case of small-pox has occurred at Talygarn Street, Cardiff, the patient being the occupier of the house at which a case occurred on May 24th. The patient was removed to the small-pox hospital.

A deputation attended the meeting of the Cardiff guardians, held on June 7th, for the purpose of discussing the question of providing meals for unfed and underfed children attending the elementary schools. An outline was given of the work that had already been done in this direction by a committee representative of public bodies in the town. The committee had been at work for some six months, and had obtained information from the schools with the assistance of the National Union of Teachers. They found that there were 1,000 children in Cardiff who were unfed or underfed. The committee had decided to establish four centres—at Saltmead, Docks, Moorland, and Cathays—with an organizing secretary for each district and voluntary workers. Provision would be made for the giving of free meals through tickets served by responsible persons after investigation, and also for cheap meals at a penny or halfpenny per head. The guardians might co-operate in the direction of recovering money from parents who could but would not pay. The committee also hoped that the recent order of the Local Government Board would be interpreted liberally. In the order the Local Government Board asked the guardians to avoid the disfranchisement of the parents. The Chairman, in reply, said that the parents would be disfranchised if their children were relieved unless relief was given by way of a loan, which would have to be paid before the next Revision Court. A member of the deputation said that in that case a stigma would be cast upon the movement by the co-operation of the guardians. The Chairman said that the guardians felt personally that the committee had started a very good work, and they were deeply in sympathy with it; but, as a Board, they could not assist except by using these centres and issuing tickets to those who were necessitous. However, the statements made by the deputation would be carefully and sympathetically considered by the guardians.

At the meeting of the Caerleon District Council, held on June 7th, a letter was read from a firm, inquiring whether the Council would object to its erecting cheap dwelling houses of corrugated iron in Caerleon, the houses to have interiors lined with asbestos. The Council took no notice of the letter. A letter was also read from the clerk of the Monmouthshire County Council embodying the opinion of the Home Secretary on the gipsy question. He declined the application made to him to approve by-laws dealing with gipsies, as, in his opinion, the complaints had reference to acts punishable by local authorities. The proposed by-laws prohibiting the occupation of land would only result in moving the gipsies and transferring the trouble from one locality to another. The opinion of the Home Secretary is that gipsies are here, and cannot by degrees be exterminated by local or general legislation, though they are insanitary, pay no rates, and are a general nuisance.

At a meeting of the Public Works and General Purposes Committee of the Merthyr Urban District Council, held on June 7th, a resolution passed by the Dowlais District of Miners was read condemning the action of the Committee in favouring and granting permission to erect corrugated iron dwellings in the district, and urging the Council to proceed at once with the scheme for providing 200 additional workmen's dwellings. It was pointed out that, in regard to corrugated iron houses, the Committee had done nothing more than to ask the firm who had approached the Council on the subject to send in plans of any buildings they proposed to put up.

Owing to an epidemic of measles at Rhymney it was

decided to close the upper infants (Council) schools for three weeks.

The decision of the Committee appointed by the Privy Council to decide the location of the Welsh National Library and Museum was issued on June 9th. The Committee has selected Cardiff as the site for the National Museum and has allocated to Aberystwith the National Library. Cardiff applied for both institutions and its public subscription list has reached approximately £40 000. Much disappointment is felt in Cardiff and the locality at the decision of the Committee that the National Library should be at Aberystwith, and the Mayor of Cardiff has expressed himself very strongly in the matter. Aberystwith is said to be satisfied, whilst at Carnarvon a movement is being inaugurated to induce the Welsh members to raise the question in the House of Commons on the ground that the Commissioners did not hear evidence before deciding. The Conservatives are quite as strenuous as the Liberals in this contention.

At a meeting of the Sanitary Committee of the Glamorgan County Council held at Cardiff on June 9th, Dr. W. Williams, County Medical Officer, said that typhoid fever occurred annually at Bridgend, and had been traced to the water supply. Some years ago experts advised that the water should be filtered. A filtering bed was built on the Ogmore Downs, but it was not until now that they were ready to filter the water. The waterworks belonged to a private company.

On June 9th a Subcommittee of the Sanitary Committee of the Glamorgan County Council considered the report of Dr. Williams, County Medical Officer, on the water supplies of the county. The report, which is a most exhaustive one, was prepared about two years ago. The Chairman said that Dr. Williams had prepared a most excellent report on a very important question. It is pointed out that the gathering areas situated over the coal measures cannot be regarded as safe ones, and several authorities and a water company during recent years have secured and are making use of gathering areas situated to the north of the coal measures—namely, Cardiff, Merthyr Tydfil, Aberdare, and the Rhymney, and Aber Valleys Gas and Water Company. There are several localities—important ones—that are at present in need of water, representing a total population of over 300 000. In many of these places all the available sources are made use of. The time has therefore arrived when a supply of water for some of these districts must be obtained from north of the coal measures. That a report on the legal aspect of the whole question would be of great value, and that it is desirable to discuss the question of the expediency of the formation of a National Water Board. Alderman Lewis proposed and Dr. T. H. Morris seconded:

That an effort should be made to hold a conference with the district councils on the matter.

The motion was carried unanimously.

CORRESPONDENCE.

THE SURGICAL TREATMENT OF CHRONIC CONSTIPATION.

Sir,—Mr. R. W. Murray will be interested to learn that the plan proposed by him in the British Medical Journal of June 10th, p. 1299, had been carried out by me three months before, and that it has proved as successful as he himself could wish.

Ellen B., aged 15, in the West London Hospital, had always been constipated, going frequently more than a week, and once three weeks and three days, without a motion. When her bowels were moved the hard scybala naturally caused much pain, and she was subject to attacks of long-continued vomiting and giddiness, as well as to headaches. After a long trial of medical measures, my colleague, Dr. Seymour Taylor, transferred her to me for surgical treatment.

Operation.—The whole colon was examined carefully through a median abdominal incision. It appeared normal, except that the transverse colon hung low, nearly down to the pubes. The sigmoid, the caecum, and the appendix were easily brought out and inspected. There were no adhesions, and not a trace of past inflammatory trouble. The caecum was large. A second incision was made rather external to MacBurney's point, and the appendix pulled through it and fixed with a suture or two. Although the patient was fat, with a thick abdominal wall, as the appendix was long most of it now lay outside the skin. Care was taken to pull the base of the appendix right home to the parietal peritoneum.

After-course.—Little or no pain or inconvenience was felt. After four days the projecting appendix was cut off, and its meso-appendix ligatured. The latter was also stitched temporarily to a piece of drainage-tube as a precaution against accidental displacement inwards of the appendix stump. No anaesthetic and no pain. The bowels have now been moved regularly and easily every day, as a sequence of the injection through the appendix of 2 oz. of "white mixture" in 1 pint of warm water. I think, with brisk exercise, the hot water alone might suffice. But when in hospital it was tried once and did not act. Or more warm water might be tried. The girl is quite freed from her old pains and distresses.

The appearance of the appendicostomy is that of a minute dry pimple at the bottom of a very slight depression. It is not nearly so noticeable as the umbilicus, and it never leaks. To inject the water through, a rubber catheter—about No. 10—is passed now by the patient. It causes no pain. No reason has yet appeared why the present condition should not be left for a lifetime. In fact, it is in her old age that she would probably find her appendicostomy of special value, in particular if Professor Metchnikoff's views are right.

Although I was myself the first person to suggest ileo-sigmoidostomy as a treatment for intractable chronic constipation,[1] I believe now that there is too much to be said against that operation for the purpose in question, and that Mr. Murray is quite right in suggesting appendicostomy.

The question is not now of the general uses of appendicostomy, or I could point out other unpublished indications. On April 4th last, after reducing by laparotomy an intussusception of the ileo-caecal variety, I finished by performing an appendicostomy for two reasons: (1) to prevent recurrence of the intussusception; (2) to have a handy means of putting fluids into the intestine, either as food or as a soothing internal fomentation. It proved very useful for both purposes. After a fortnight I removed this appendix, but anchored its base to the abdominal wall by means of the two sutures, which closed the very small wound.

Appendicostomy was, I believe, first performed by Weir of New York in cases of chronic colitis, but it had been suggested by me some years before at the Medical Society of London (see the Journal for November 17th, 1894, p. 1112). I then recommended it as a substitute for caecal colotomy in the treatment of intestinal obstruction, due to cancer of the colon above the sigmoid flexure—as a spout by which to let the faeces out rather than as a pipe to pass fluids in. Appendicostomy, when the appendix was found well developed, would have over caecal colotomy for this purpose the advantages of quickness and simplicity of technique and of permitting the prevention of those distressing excoriations which are the bane of all caecal colotomies and are due to the inability of either truss or pad to control a caecal colotomy with its flow of fluid faeces. The reason I never performed appendicostomy in this class of cases is that in all those which came under me the removal of either a tumour or an ulcer formed part of the programme, the disease sometimes involving the appendix itself.—I am, etc.,

London, W., June 12th. C. B. Keetley.

EXERCISE AND OPEN-AIR TREATMENT OF PHTHISIS.

Sir,—In the British Medical Journal of May 20th, p. 1090, Dr. Thorowgood calls attention to the dangers of exercise in consumption. Dr. Hughes also opened a discussion at Barrow-in-Furness before the North Lancashire and South Westmorland Branch, and laid great stress on the importance of rest. After fresh air, rest was the most important point. Dr. Hughes showed that the heart in phthisis was not small, and that this fallacious statement had much to answer for with the theory of exercise to remedy it.

I wish strongly to endorse the statements made by Dr. Hughes and Dr. Thorowgood. Dilatation of the heart is by no means uncommon in phthisis, and on this account alone exercise should be carefully regulated. Many cases of recovery are really cases of encapsuling the trouble, and an injudicious exercise has opened up the trouble from re-infection.

Comparing phthisis to a tuberculous knee-joint, who amongst us would advise our patient a vigorous use of the joint, however complete the cure? If the lungs were given more rest, with as much fresh air as possible, cases would, I believe, improve more rapidly. Following the parallel of the knee-joint, it is like treating it without splints. Our efforts should be directed more to splinting the lungs as it were, and this can be done by limiting the exercise; in other words, resting both the number of respirations and the amount of work of the alveolar epithelium.

An increased tidal air is not the important factor in arresting the disease, but rather the increased resistance offered by the tissues. This resistance is enhanced by giving the parts

[1] *Lancet*, December 26th, 1903, p. 1833.

less work to do. If phthisis is treated on these lines, our recoveries would be as great as in our tuberculous knee-joint.
—I am, etc.,

London, May 23rd. H. KAY RAMSDEN, M.B.

OPEN-AIR TREATMENT OF CONSUMPTION IN SCOTLAND OVER ONE HUNDRED YEARS AGO.

SIR,—I was much interested in reading in the BRITISH MEDICAL JOURNAL of April 29th, 1905, the account of the open-air treatment of consumption by the Rev. Andrew Stewart, M.D., in the latter part of the eighteenth century. That method of treatment was, indeed, well known at that time. In Dr. William Buchan's *Treatise on Domestic Medicine* (the dedication of the eighteenth edition of which to Sir Joseph Banks, Bart., P.R.S., is dated 1783) the following advice is given:

On the first appearance of a consumption, if the patient live in a large town, or any place where the air is confined, he ought immediately to quit it and to make choice of a situation in the country where the air is pure and free. Here he must not remain inactive, but take every day as much exercise as he can bear. The best method of taking exercise is to ride on horseback, as this gives the body a great deal of motion without fatigue. Such as cannot bear this kind of exercise must use the carriage. A long journey, as it amuses the mind by a continual change of objects, is greatly preferable to riding the same ground over and over.

From the following it is evident that Dr. Buchan placed the importance of open-air treatment before diet and drugs; and it is also interesting to note how much he valued milk as a diet in consumption:

Next (italics mine) to proper air and exercise, he says, we would recommend a due attention to diet . . . . he must keep chiefly to the use of vegetables and milk. Milk alone is of more value in this disease than the whole *materia medica*.

This opinion many at the present day will confirm. After discussing the value of asses's milk, he mentions the following unique case where human milk was used:

Some extraordinary cures in consumptive cases have been performed by women's milk. Could this be obtained in sufficient quantity, we would recommend it in preference to any other. It is better if the patient can suck it from the breast, than to drink it afterwards. "I knew," he says, "a man who was reduced to such a degree of weakness in a consumption, as not to be able to turn himself in bed. His wife was at that time giving suck, and the child happening to die, he sucked her breasts, not with a view to reap any advantage from the milk, but to make her easy. Finding himself, however, greatly benefited by it, he continued to suck her till he became perfectly well, and is at present a strong and healthy man."

Writing of cases from Sheffield, he says: "I have frequently seen consumptive patients, who had been sent to the country with orders to ride and live upon milk and vegetables, return in a few months quite plump and free from any complaint."

Il n'y a de nouveau que ce qui est oublié.

—I am, etc.,

Bradford. WILLIAM MITCHELL.

MIDWIVES ACT AND THE MEDICAL PROFESSION.

SIR,—The circular issued by the Wandsworth Division may be interesting, but I hope will not be copied by other Divisions, unless it is desired to drive all midwife work into the hands of the parish doctor. No exception need be taken to the fees for consultation only, but such consultations are not frequent, operative assistance of some kind or other being nearly always required. Does any practitioner with experience of the class that employs midwives really believe that its average members can afford to pay two guineas to the doctor in addition to the midwife's fee? Yet this is the standard laid down, although we are told that another circular has been sent to the profession pointing out that individual practitioners may modify this fee as they think fit.

The net results of these circulars, therefore, would seem to be that Wandsworth practitioners are recommended to assist midwives for any fee they can get, but, at the same time, all midwives in the district are warned that no doctor will assist them in any practical manner unless a prohibitive fee of two guineas is forthcoming. Such circulars, I cannot help thinking, are neither good for the public nor the profession, and it is to be regretted that matters of this kind are undertaken by Divisions without consultation with the central committees of the Association, as the public is apt to think that such action represents the policy of the Association as a whole, which may be very far from the truth.—I am, etc.,

London, N.E., June 10th. MAJOR GREENWOOD.

THE PREVENTION OF MEASLES AND WHOOPING-COUGH.

SIR,—Is it not high time that sanitary authorities and School Board officials woke up to the fact that measles and whooping-cough are infectious diseases, and that not alone are they infectious, but they are very infectious? It is a matter of common fact that measles and whooping-cough are two of the most, if not the two most, destructive diseases to infant and child life which medical men at the present time have to deal with.

The mortality from both these diseases has been steadily on the increase for many years past, and sanitary authorities have, in the great majority of cases, kept their eyes firmly closed to this fact. The annual report of the Registrar-General of births, deaths, etc., tells us that while the population of England and Wales during the years 1881 to 1900 inclusive increased about one-fifth, the mortality from measles nearly doubled itself, and that from whooping-cough increased by one-tenth. Contrast with these figures those of scarlet fever during the same period. Scarlet fever is a disease which has occupied the vigilance of sanitary authorities during these years so much, that the number of deaths annually has been reduced from 14,275 in 1881 to 3,844 in 1900. In other words, scarlet-fever deaths during these twenty years have dwindled down to about one-fourth.

I think the above figures go to prove that it is not now premature to try some further measures for the suppression of such an appalling growth in mortality as these two diseases represent. It is well known that when one member of a family contracts measles, the parents often put the other members into the same room with the diseased, so that they also contract measles. This mode of procedure is not always unaccompanied by fatal results.

Again, owing presumably to the lack of notice taken of measles by the Sanitary Board, parents make light of the disease also, with the result that when a medical man is called in to see the case, life is, if not already extinct, ebbing fast away.

Sanitary authorities allow children suffering from whooping-cough to roam about in the streets and parks and places of amusement, ejecting forth, from time to time, the germs of as deadly a disease as we have in our midst at the present time. School officials and teachers ignorant, negligently ignorant, of the infectivity of whooping-cough, allow children suffering from the disease to attend school. It is a notorious fact also that the fresh-air theory with which people are so much imbued is the cause of many deaths amongst those suffering from the disease, and also amongst those who come in contact with the sufferer whilst he is taking his fresh air, be it in the park or sidewalk.

Isolation and prompt treatment have done much for us in the mitigation and prevention of disease in the past, notably scarlet fever. It is therefore not unreasonable to anticipate like results with like treatment in the case of measles and whooping-cough.—I am, etc.,

West Ham, May 28th. E. S. GALBRAITH, L.R.C.P.

ONE-MARK VACCINATION.

SIR,—I wish my experience was the same as "Public Vaccinator" in the BRITISH MEDICAL JOURNAL of May 6th, in which he states "that public vaccinators will let people think he has given up taking private patients on." If such was the case, there would be no cause of complaint as to the conduct of public vaccinators, and vaccination would be much more efficient than it is or ever will be as long as the law stands as it does at present.

One public vaccinator in this part of the country makes it a rule to call and offer to vaccinate before the child has reached the required age, and consequently before the vaccination officer can have told him to call, and when he is met with a refusal tries to persuade the parents to have it done. In January last I attended a woman of a premature baby. I saw the same child ten days ago; it weighed 5 lb. Its mother told me Dr. —— called three times to vaccinate, the first time when it was 3 weeks old; on the last occasion he urged the mother to have it done, and said "it will bring the child on." I know of dozens of cases where he has called long before the child reached the limit.

Another public vaccinator called on a large tradesman to offer to vaccinate. I met him at the door and told him the child had pneumonia; he not only went in and offered to vaccinate, but tried to examine the child; he said, "I must satisfy myself of its fitness or not." If I had not remained

in the shop talking to the child's father he would have examined the child, as the child's mother was ignorant of his powers.

An architect in London told me he was revaccinated by the public vaccinator; that he was such a nice fellow, so sympathetic, gentlemanly, etc.; he then informed me what an amount of practice it brought him, ending with "soon after my sister got typhoid, and of course we sent for him."

A practitioner near here vaccinates all his working-class patients free. I asked him why, and he replied, "because it pays."

In the JOURNAL of April 15th Dr. Arthur Maude quotes from the report of the Committee of Inquiry into Vaccination Expenses, etc., which any one can see by referring to p. 856, and goes on to say, "These are sufficiently strong terms of disapproval, but they are incontrovertible." I do not agree for a moment with him. If vaccination is necessary for the good of the community, such a word as expense should not be used; as for the argument that it would be difficult to inspect the vaccination work of private medical men, it is absurd; the Government inspector could just as well inspect my work in this district as inspect the work of the half-dozen public vaccinators.

While I do not for a moment say that all public vaccinators use their appointment unprofessionaliy, at the same time it is manifestly unfair to class our private practitioners with "one-mark men." Another grave objection I have to the public vaccinator is that the majority of people seem to think the reason he holds a Government appointment is because he is either a better qualified man, or he has some special claim to the distinction. In the JOURNAL of May 6th Dr. Maude complains that "General Practitioner" shelters himself under an anonymous signature, I shall therefore sign my name under this letter, as I think with such statements as "General Practitioner" makes, and such facts as I can vouch for, it is better to sign one's name.—I am, etc.,

Clown, nr Chesterfield, May 17th. J. A. MAGEE, L.R.C.S. and P.

THE DIGESTIBILITY OF BOILED AND UNBOILED MILK.

SIR,—It gives me much pleasure to comply with Dr. Coutts's request, and to assure him that I have not used the anti-scorbutics, "lemon juice, potato, etc.", in my cases. I give this assurance without hesitation, as such products are not included in my diet table for any age or purpose until the eleventh month, and I have hitherto succeeded in scurvy without their aid.

Why our conclusions are so much at variance is not clear to me; but that we are equally anxious to express our mutual experiences and the results we obtain from them in a fair manner is obvious to me.

I wish to thank him for his kindly reference to my opinion, and I would also say that I am conscious of the fact that whilst we differ on the point under discussion, we are united in our desire to throw a little light upon a subject about which there is yet something to learn.—I am, etc.,

Nottingham, June 13th. LEWIS M. MARSHALL.

"ANTIVIVISECTIONIST STAGE THUNDER."

SIR,—In your article in the BRITISH MEDICAL JOURNAL of June 10th, Antivivisectionist Stage Thunder, in which you expose certain tactics of the Antivivisection Society, you are good enough to quote my paper in the current number of the *Contemporary Review*. In it I plead that more truthfulness and less temper should be shown on both sides. Beyond all things we should wish our own profession to be fair in its dealings. Without just weighing of our observations we know we cannot claim to be students or servants of science. And if we really possess a fine appreciation of logic and truth because of our training, we are under definite obligation to be more just to our opponents than we can reasonably expect them, with their poorer educational opportunities, to be to ourselves. This, I doubt not, you will be the first to admit. Therefore I write to ask whether, in your frequent exposures of antivivisectionist tricks, it would not be politic to show our opponents at any rate as much fairness as may be expedient. Believe me, among many of the better educated and more thoughtful, as well as universally among the poor, I find a very genuine dislike to cutting up live animals for purposes of experiment; nor am I, of course, thinking at the moment only of that admirable class to whom the *Referee* is the mainstay of their ethical aspirations.

The point is this. If I am not misled in such estimate, I would ask you to qualify your sweeping assertion that "the whole agitation is based upon falsehood." The whole agitation, Sir, is based upon the common feelings of humanity, however wrong may be the methods employed by the supporters of the agitation for winning converts. Most people will allow this much; and, in our own interests, it seems to me that we shall be wise in agreeing as far as possible with our adversaries. Why so? Because, if we succeeded in persuading the multitude that this humanity, which makes many among them too tender-hearted towards the lower animals, is but false sentiment, we shall end in damming back the very spring from which flow the subscriptions to our hospitals. In our own interests—not to mention the needs of science and suffering men—we dare not risk alienating the sympathy and co-operation of the public.

Therefore, let us be charitable to the ignorant. They at least are often generous, and it will do our science no harm in our turn to be just. Though the antivivisectionists delightedly believe every tale told to our discredit, we can afford to be magnanimous and give them credit for possessing in over-abundance that which, when all is said, we must acknowledge to be the noblest possession of man, namely, his humanity.—I am, etc.,

London, W., June 10th. GREVILLE MACDONALD.

SIR,—Your reference to me in the BRITISH MEDICAL JOURNAL of June 10th involves a charge of falsehood. When I stated in the *Referee* of May 28th that letters had poured in upon me from all parts of the country thanking me for having given expression to the views of the writers on the question of vivisection, I recorded a simple fact. Those letters reached the office of the *Referee* and passed through my Editor's hands before Mr. Stewart's letter could possibly have influenced anybody. I have no doubt that much of the correspondence which has reached me since, and still continues to accumulate, is due to the fact that the supporters of the antivivisectionist cause have been circularized. Mr. Stewart's letter is dated May 25th. Of the eleven selected letters printed in the *Referee*, nine are dated on or before that day.—I am, etc.,

MERLIN,
June 13th. Of the *Referee*.

*** Of course we accept "Merlin's" statement. We may, however, be allowed to point out that the "simple fact" which he records makes it all the more surprising that his Editor should have thought that from the correspondence reaching his office sufficient interest was not shown in "Merlin's" articles, and that the Secretary of the National Antivivisection Society should have had to make his piteous appeal for "spontaneous" letters.

CHRISTIAN SCIENCE.

SIR,—As Dr. Turner has not published my letter to him, giving a clear outline of the facts of the case referred to in his letter published in your issue of May 6th and as his supplementary letter in your issue of June 3rd leaves my conduct still open to question in one or two points, I now ask for your courtesy in finding room for the following addition:

Both the calling in of the healer and the interview with Dr. Turner to ask for written statement as to incurability were undertaken by me at the wish of both the patient and his wife. I was not, and never pretended to be, authorized to commit them to any decision in case the doctor should refuse to continue to call and sign the Hearts of Oak paper whilst the patient was receiving Christian Science treatment. I should add that to me the wife does not deny that she authorized me to ask Dr. Turner for the written statement above referred to.

Thanking you in anticipation for doing me the justice of inserting this.—I am, etc.,

Wandsworth, June 7th. W. SUTTON.

THE IRISH COLLEGE OF SURGEONS.

SIR,—The recent address of the President of the above College, as given at pages 1305 and 1306 of the BRITISH MEDICAL JOURNAL of June 10th, indicates that the wound caused by Surgeon-General Evatt's criticism is slow in healing. Within a brief period ex-Presidents, and now the President, of the Royal College of Surgeons, have vainly tried to whip the Irish Medical Association into line with their wishes; threats and vague platitudes are useless. The trenchant critic, who, although an Irishman with Irish degrees, is called an "irresponsible stranger," did his work

too thoroughly for its effect to be ephemeral. Mr. Chance, in his address of June 3rd, is reported to have said:

> It does seem to me that we Irish are a separate race—a separate nation; and that our development, even in medical matters, can best proceed upon lines in sympathy with Irish sentiments and Irish aspirations.

Now, of the licensing corporations entitled to place qualifications on the *Medical Register* none have been so much weighed in the balance and found wanting as the college of which Mr. Chance is president. For proof one has merely to turn to the minutes of the General Medical Council. There your readers will read the story of the downfall of the conjoint scheme run by Mr. Chance's college and the Irish Apothecaries' Hall. So great indeed were the irregularities as conducted by this Board that the General Medical Council promptly ordered its suspension. One man was admitted to final examination without taking out lectures in midwifery. Others received their qualifications without completing their examinations in anatomy or physiology, and so on. I happen to be familiar with the subject, for I collected the evidence which the College of Surgeons in answer to the General Medical Council failed to deny.

The recent Fellowship incident where, owing to suspension of by-laws and charters, men were admitted wholesale to Fellowship rank, is too recent to be mentioned at length. The General Medical Council minutes also do this justice.

Mr. Chance may well say, "English ideas would tend to dwarf our development."—I am, etc.,

London, N.W., June 12th. S. WESLEY WILSON.

A NEW LEUCOCYTOZOON OF DOGS.

SIR,—My attention has been drawn to a letter from Dr. Bentley, published in the BRITISH MEDICAL JOURNAL of May 6th. I regret exceedingly that Dr. Bentley should feel that, in connexion with my memoir upon the leucocytozoön found in the blood of dogs, I have treated him unjustly, and I trust, Sir, that by permitting me to explain the circumstances under which my memoir was written, you will grant me an opportunity of regaining the good opinion both of Dr. Bentley and of other workers, without which the life of an investigator in the tropics is bereft of much happiness. Before explaining these circumstances, however, I would point out that in a prominent position on page 6 of my memoir I have stated clearly that the parasite was discovered by Dr. Bentley and that it was shown to me by him. I venture to think that no one who has read my memoir could doubt that to Dr. Bentley is due the honour of having discovered the parasite, and, for verification of this, I would beg you, Sir, to refer to the copy of my memoir which was in your hands for favour of review before the receipt of Dr. Bentley's letter.

The following is an account of the circumstances under which my memoir was written. The parasite was shown to me by Dr. Bentley in June, 1904, and we worked at it together for some days. Before leaving Borjulie I advised Dr. Bentley to work further at it, and to publish a paper as soon as he had collected sufficient material. When my visit to him was over, I worked at the parasite in other parts of Assam. I returned to Simla in July and Dr. Bentley went to England at the end of August. I fully expected that between June and August he would have done a great deal of work upon the parasite, for ample material and time were at his disposal; and I hoped that, when he reached England, where he was able to obtain the advice of leading protozoologists, he would publish a complete account of his discovery. For myself, when I reached Simla, I put my slides and notes away for some months.

My hope that Dr. Bentley would write a paper shortly after reaching England was fulfilled, for, early in December, I received from him a letter, dated the 16th of November, 1904, in which he said: "I have just sent a short preliminary note on that dog parasite to the *Lancet*." This letter is still in my possession. My memoir was not published until the 20th of March, more than five months after Dr. Bentley had sent his preliminary note to the *Lancet*, and nearly a year after the work to which it referred had been done.

I trust that the above explanation will convince Dr. Bentley that I had no desire to be first in the field with my account of the parasite.

In conclusion, I must refer briefly to Dr. Bentley's complaint that, in my memoir, I minimized his work as much as possible. Fortunately, Dr. Bentley has now published an account of his observations[1] and I can leave a decision upon this problem to those who have read his preliminary note and my memoir, but in case I have done him the injustice of which he complains I propose that the provincial name of the parasite, *Leucocytozoön canis* should be changed to *Leucocytozoön bentleyi*.—I am, etc.,

Simla, May 23rd. S. P. JAMES, Captain, I.M.S.

[1] BRITISH MEDICAL JOURNAL, May 6th, 1905, p. 988.

A FACTOR IN SEA-SICKNESS.

SIR,—Mr. A. Vavasour Elder writes in the BRITISH MEDICAL JOURNAL of June 10th: "In all that has been written about the treatment of sea-sickness no mention has been made of congestion of the liver, which seems to me an important factor." In my book on *Sea-sickness* (second edition, 1891), page 15, I mention congestion of the liver as one of the chief causes, and on page 19 (treatment and prevention):

> "The voyage," she writes, "was a pleasant one. I enjoyed my food thoroughly, and I am much improved in health, thanks to your rational treatment." She was a *very bilious subject*, and suffered from constipation. The treatment was begun fourteen days before she went on board. . . . A pill composed of podophylli resina, euonymin, and ext. hyoscyamus. . . . Three days before going on board a mixture of amm. bromid., sp. amm. ar. and sp. chlor.

After all these years I still find bromide of ammonium, when given on a "clean stomach," the most reliable remedy. Only a few weeks ago a patient wrote from India, informing me of the success of the treatment in her case.—I am, etc.,

London, W., June 12th. THOMAS DUTTON.

P.S.—If Mr. A. S. Dale had read the article on ship's surgeons in the same edition, he would understand the reason why the medical officer does not receive more consideration from passengers.

PERCIVAL POTT ON MRS. MAPP, THE BONESETTER AND ON BONESETTERS GENERALLY.

SIR,—I should like to remind your readers of some very sensible remarks on bonesetters in general, and on Mrs. Mapp in particular, made by Percival Pott, the eminent Surgeon of St. Bartholomew's, about the middle of the eighteenth century, which are very applicable to like quackery of the present day. They appear in his *Essay on Fractures and Dislocations*, and are to be found in *The Chirurgical Works of Percival Pott*. A new edition in three volumes. 1783. Vol. i, pp. 373-377. They are as follows: "No part of surgery is thought to be so easy to understand as that which relates to fractures and dislocations. Every, the most inexpert and least instructed, practitioner deems himself perfectly qualified to fulfil this part of the chirurgic art; and the majority, even of these, are affronted by an offer of instruction on a subject with which they think themselves already so well acquainted."

"This is also the opinion of a considerable part of the people. They regard bone-setting (as it is called) as no matter of science; as a thing which the most ignorant farrier may, with the utmost ease, become soon and perfectly master of; nay, that he may receive it from his father and family as a sort of heritage. We all remember the great though short-lived reputation of the late Mrs. Mapp. We all remember that even the absurdity and impracticability of her own promises were by no means equal to the expectations and credulity of those who ran after her; that is, of all ranks and degrees of people from the lowest labourer or mechanic, up to those of the most exalted rank and station; several of whom not only did not hesitate to believe implicitly the most extravagant assertions of an ignorant, illiberal, drunken, female savage; but even solicited her company; and, at least seemed, to enjoy her conversation."

"The desire of health and ease, like that of money, seems to put all understandings, and all men, upon a level; the avaritious are duped by every bubble; the lame and the unhealthy by every quack. Each party resigns his understanding; swallows greedily, and for a time believes implicitly the most groundless, ill-founded, and delusory promises; and nothing but loss and disappointment ever produces conviction. Arts, trades, and manufactures, are allowed to be learnt, in general, by those who have employed a proper quantity of time and attention in such pursuits; and it seems most singularly unjust, as well as untrue, to suppose that physical people are the only part of mankind who are all either so dull as not to be able to learn; or so profligately wicked, as not to practise their art to the best of their

judgement, and to the greatest possible advantage to mankind. Surely there are, and always have been, among us, as well as in other classes, men truly able and perfectly honest; men who well understand the science which they profess; and who practise it not only with great ability, but with strict integrity. I cannot be supposed to say or to mean this as a vindication of every individual. Different men have different powers and capacities. The multitude with us, as with all ranks and degrees (not excepting any) will always be deficient. Advancement in knowledge will always be owing to the ingenuity and industry of a few particular people; but such advancements will always, in due time, more or less influence the rest. They have done so; and notwithstanding that there remains a great deal yet to be done to bring surgery to that degree of perfection of which it is capable, yet whoever will compare the present practice of it, with that of a very few years ago, cannot justly or with any degree of candour withhold his commendations from his contemporaries."

"I remember some years since to have heard a judge from the Bench tell a jury that he believed a country bonesetter knew full as much, if not more, of the matter of his business than any the most eminent surgeon in the kingdom. I will not enter into a disquisition concerning the rightness of a judge's opinion. Perhaps his lordship might very little understand the thing concerning which he decided so peremptorily; without either injustice or partiality, I may certainly suppose him to have been a much more able lawyer than surgeon; and I believe it will also be allowed that general reflections of this kind are, and must be, the consequences of a petulent attempt to be witty, rather than of conviction; and therefore, at best, are frivolous and idle. But, on the other hand, I am very willing to allow (what, indeed, I have already allowed) that many parts of surgery are still capable of considerable improvement: and this part as much as, if not more than any, it being one of those in which a general observance of and rigid adherence to old prescribed rules, have prevented the majority of practitioners from venturing to think for themselves, and have induced them to go on in a beaten track from which they might not only safely, but advantageously, deviate."—I am, etc.,

Paignton, South Devon. W. SYKES, M.D., F.S.A.

PARASITIC THEORY OF CANCER.

SIR,—In the BRITISH MEDICAL JOURNAL of May 13th last it is stated that Professor E. von Leyden asserts "that the negro in Africa is naturally free from cancer." I can only say that the native of the Soudan is not uncommonly subject to it.—I am, etc.,

SHEFFIELD NEAVE, M.R.C.P.,
Travelling Pathologist to the Sudan Government Wellcome Laboratories.

June 4th.

AN INQUIRY BUREAU.

SIR,—I am very glad to see that Dr. Bond, in the BRITISH MEDICAL JOURNAL of March 11th, has drawn attention to the need for an inquiry bureau for the benefit of busy practitioners. I thoroughly endorse all that he has said on the subject. Such a bureau will also be of very great assistance to those who, like the writer, are far removed from medical schools and large medical libraries. I have frequently, Sir, had occasion to use your columns to elicit certain information, but, as Dr. Bond says, an inquiry bureau would be much more satisfactory, as there would be more certainty of having one's inquiries answered. The scheme suggested by Dr. Bond seems to me eminently satisfactory, and I hope the Association will take up the matter in earnest, and thus prove that it considers the interests of all its members no matter where they be.—I am, etc,

Broken Hill, Australia, May 10th. JAMES BOOTH.

HOSPITAL AND DISPENSARY MANAGEMENT.

MOUNT VERNON HOSPITAL FOR CONSUMPTION.

A FESTIVAL dinner in aid of the appeal for £100,000 for the maintenance funds of the hospitals at Hampstead and Northwood was held on June 8th at the Hotel Cecil. Lord Zetland, the President, who was in the chair, in proposing "Prosperity to the Hospital," said that founded in 1860 as the North London Hospital for Consumption, as a local hospital the institution had gradually extended its operations, and the hospital buildings at Hampstead now had accommodation for 140 patients. The Committee had been able to bring the benefits of the sanatorium treatment of consumption to the deserving poor not only of London but of the country generally. In 1901 the Committee received an offer from a gentleman to build, and partially endow, an additional hospital at Northwood, with accommodation for 120 beds, which was gratefully accepted. The expenditure on the various establishments constituting the institution had been heavy, and towards a debt of £15,000 due to the bankers, a friend, who was intimately acquainted with the work of the hospital, had promised a donation of £5,000 on condition that the remainder should be raised immediately. A special appeal was now being made for funds wherewith to continue the work, and place the finances of the hospital on a sound basis. The sum for which they appealed would be required for maintenance, and there would be no further expenditure upon buildings. At present, in the two hospitals, nearly 120 beds were vacant for want of funds, and 300 selected cases were awaiting admission. The toast of "The Medical Staff" being proposed by Mr. J. S. Fletcher and responded to by Dr. Bernard O'Connor, donations and subscriptions amounting to £12,721 were announced, and it was stated that an offer had been made of a motor car for the use of the patients at Northwood.

OBITUARY.

WILLIAM OGLE, M.D., F.R.C.P.,

Consulting Physician, Derbyshire Royal Infirmary.

WE regret to record the death, in the 82nd year of his age, of Dr. William Ogle, of Derby.

He was one of the most respected members of our profession, and was for many years the Senior Physician to the Derbyshire Royal Infirmary.

He was a Fellow of St. Catherine's College, Cambridge, M.A., M.D. of that University, and F.R.C.P.Lond. He commenced his medical career in London, and early took much interest in provident dispensaries. He worked at the Pimlico Provident Dispensary for several years. During that time he formulated a scheme for the general application of the provident system to medical practice. He also brought out an excellent method of "note-taking" of cases, and, with great industry, amassed a store of notes in which the action of the various functions of the body could be followed from day to day. In the year 1860 he removed to Derby, whither he had been invited in order to become one of the Hon. Physicians to the Infirmary; he practised as a consultant there for many years. In addition to his professional and hospital duties, to the latter of which he devoted much time and trouble, he organized and carefully watched over the deservedly famous nursing and sanitary institution of that town.

He was an ardent supporter of the Y.M.C.A. all over the kingdom, and never lost an opportunity of pressing upon young men the reality of the spiritual life. He was a deeply religious man, and was greatly beloved by the many friends who understood his strong yet simple character.

EUSTACE TALBOT, M.A., M.B.CANTAB, M.R.C.P.LOND.,

Late Casualty Physician, St. Bartholomew's Hospital.

DR. EUSTACE TALBOT, of Bentinck Street and St. Bartholomew's Hospital, died on Friday, May 26th, at the early age of 31, and as the result of an illness which lasted barely a week—an attack of acute appendicitis.

To those who knew him either personally or by repute it will not seem strange that the event has given rise to a deep wide wave of regret—regret of the kind which endures and is explicable on other grounds than those merely of sentiment and affection.

Eustace Talbot, the youngest son of the Right Hon. J. G. Talbot, M.P. for Oxford University, was educated at Winchester and Trinity College, Cambridge, and afterwards at the Medical School of St. Bartholomew's. The latter he entered in 1896, and remained closely associated with it right up to the time of his death. He became M.R.C.S., L.R.C.P.Lond. in 1899; M.A., M.B., B.C.Cambridge in 1900; and was admitted a Member of the Royal College of Physicians in the following year.

In his student days at Cambridge he edited the *Granta*, was an active member of the A.D.C., and won his "blue" at tennis; while at St. Bartholomew's he took charge of the school journal, played a large part in the amalgamation of the various clubs into the Students' Union, and was President of the Abernethian Society. During his post-graduate career he was Resident Medical Officer at the Royal Hospital for Diseases of the Chest, House Physician to Sir William Church, Assistant Curator of the Museum, and worked at the children's hospitals at Shadwell and Great Ormond Street. More recently he was appointed Assistant Physician at the City Road Hospital, Casualty Physician at St. Bartholomew's, and Assistant Medical Officer to the Sun Life Assurance Office.

Talbot was well known at Cambridge, well known in London, and specially well-known at St. Bartholomew's Hospital. He

was possessed of great personal charm, and probably no man of his age ever had more friends or was more welcome in a greater variety of circles. For his interests in life were multiple: science and literature; politics, art and sports. All of these appealed to him and he to their adherents. It is on St. Bartholomew's and its medical school that his loss falls primarily and most severely, for in connexion with that institution the flower of promise had already been followed by fruit. Those, however, who watch the careers of the younger rising men in London, less from interest in the individual than in hopes of discerning a man who is not only coming but deserves to come, think that in Talbot's death the profession at large has likewise sustained a loss.

In addition to excellent mental endowments which had not lacked ample cultivation, there was about the man an undefinable quality of strength and great purpose. He seemed unconsciously to influence those with whom he was brought into contact, and certainly was a source of inspiration to many of the younger men about him. Untrammelled as he was by those difficulties which beset so many able men, the path to success seemed to lie straight before him, for he had shaken off entirely a chest trouble which at one time threatened his career, and that anything else untoward would occur seemed unlikely.

If this were all, there might be nothing to be said, for success, financial, social, or scientific, comes to many men; and, whether it comes to one individual or to another, is usually of little interest to the world at large.

There are, however, exceptions to this rule, and Talbot would probably have proved one of them. That he would have come into prominence as a clinical physician is practically certain, but there was also that about him which seemed calculated to make his future success a thing of importance to others than himself and his friends. He seemed, in short, to those who had studied him to be a man who, when he had matured in years and experience, would, sooner or later, come to occupy a position which is not often filled—that of a physician who, though without extraordinary talent in any special medical direction, yet influences the profession widely and favourably, both in its internal relations and in its external connexion with the world around it.

He was buried at Edenbridge, in Kent, on May 30th, a second and largely-attended service being held in the Church of St. Bartholomew's at the same hour.

KONRAD ECKHARD, M.D.,

Professor of Physiology in the University of Giessen.

We have already announced the death of Professor Eckhard, the senior member of the Medical Faculty of the University of Giessen, who passed away on April 28th in his 84th year. To many of the younger generation of physiologists Eckhard was but little known, for he lived a quiet, retired, but active life in the little town of Giessen, of many happy memories associated with Bischoff, Bunsen, and many other medical celebrities. Up to the last he was a keen sportsman. His published work began to appear over half-a-century ago. Amongst the earliest was his paper on the action of heat on the motor nerves of the frog. He made many contributions to the physiology of the nervous system, and the results of his researches he published in his well-known *Experimentelle Physiologie des Nervensystems* (1867). When Eckhard first went to Giessen, he had to teach both anatomy and physiology, and in 1862 he published his *Lehrbuch der Anatomie des Menschen*. The activity of glands had a great attraction for him and his work on salivary secretion is well known.

At Marburg he published his essay on the dependence of the movements of the lymph hearts of the frog on the spinal cord. Eckhard also discovered the nervus erigius, and the first account of the action of this vaso-dilator nerve, which acts on the erectile tissue of the penis, was communicated to his teacher and friend Professor Ludwig. But perhaps the best record of Eckhard's work and that of his pupils is in his famous *Beiträge zur Anatomie und Physiologie* (Giessen), the first volume of which appeared in 1858, and was dedicated to his teachers and friends Professor L. Fick, of Marburg, and Professor C. Ludwig, then in Vienna. It contains papers on the influence of nerves on the secretion of milk, the endings of the olfactory nerves, and of the nerves in the side canals of the torpedo. Vol. II he dedicated to Dr. Bischoff, in memory of his sojourn in Giessen. In this volume will be found an account of his work—done in conjunction with Adrian—on the salivary nerves of the dog, and on sympathetic saliva. In 1863 the third volume appeared, with more work on the submaxillary salivary gland of the dog, the caudal hearts of the eel, and his famous paper—*in extenso*—on the Erection of the Penis in the Dog, with excellent plates, giving the anatomy of the nervous origins. From time to time other volumes were published. Eckhard was content with a small laboratory, and worked quietly at the subjects that interested him. He was, perhaps, the last of that great school of physiologists who based their views on a wide knowledge of anatomy, and who took as their touchstone experiment on the living animal.

Konrad Eckhard was born on March 1st, 1822, in Homburg a. d. Efze, in Hessian territory. From 1845 to 1849 he studied in Marburg and Berlin anatomy and physiology. In 1849 he took the degree of Doctor of Philosophy at Marburg, and in the same year in Giessen he took his medical degree. In 1848-50 he acted as Prosector of Anatomy in Marburg and Giessen, becoming an Extraordinary Professor in Giessen in 1855. He was invited in the same year both to Dorpat and Königsberg, but he elected to remain in Giessen, where he became Full Professor of Anatomy and Physiology in 1856, so that for nearly half a century he was an active professor. His physical endurance was such and his mental powers so active, that up to the last few months of his life he was able to pursue with zest and pleasure his chief recreations—hunting and shooting. Eckhard's chief service to physiology lay in his experimental researches, some of which were in the strict sense epoch-making. His native town conferred on him the distinction of honorary citizenship on his eightieth birthday.

The late Dr. Dutton.—The Secretary of the Liverpool School of Tropical Medicine (Mr. Milne) has received a letter from Governor-General Roume, Administrator of all the French West African Colonies, with reference to the lamented death of Dr. Dutton in the Congo while serving on the Expedition of the Liverpool School of Tropical Medicine. The following is a translation of Mons. Roume's letter:

Sir,—It is with the deepest emotion that I have learned of the death at Kasongo of Dr. Dutton, who was suddenly stricken down during his prolonged study of tropical diseases. Short as was his stay at Senegal with Dr. Todd in May, 1903, the personality of this young savant has by no means been forgotten here—no more than his works. His loss is felt deeply by all those whose dearest object is to render, with the help of science, the tropical countries less fatal to the European; and I would be much obliged, if you would assure the family of Dr. Dutton, and the Liverpool School of Tropical Medicine, of my profoundest regrets at his death and my very sincere sympathy with them.—I have the honour to be, etc.,

(Signed) E. Roumb.

Mr. John Lloyd Bullock, who died at 3, Hanover Street, on June 4th, was one of the founders of the Pharmaceutical Society. He studied chemistry under Liebig at Giessen, and Dumas in Paris. Among his fellow students at Giessen were Hofmann, Will, and Fresenius. In conjunction with Dr. John Gardner he originated, in July, 1845, the College of Chemistry. He translated Fresenius's *Chemical Analysis*, and edited the English edition. Mr. Bullock's work on amorphous quinine, pepsine, and other bodies gained for him a wide reputation as a scientific pharmacist. He was a man of great benevolence and of a simple dignity of character that shrank from any kind of display or publicity. He was the object of warm personal regard on the part of all who knew him.

Colonel Henry Comerford, late of the Royal Army Medical Corps, died in London on May 15th, aged 61. He was appointed Assistant Surgeon, March 31st, 1866; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1878; Brigade-Surgeon, April 5th, 1892, and Surgeon-Colonel, July 6th, 1896. He retired from the service May 17th, 1902. He was present in the Zulu war in 1879, and was at the battle of Ulundi (medal with clasp); he was also in the Boer war in 1881, and took part in the defence of Pretoria, being mentioned in dispatches.

Colonel William Owen Wolseley, Royal Army Medical Corps, died at Tilbury on the 3rd inst., aged 51. He entered the Army Medical Service as Surgeon, March 6th, 1880; became Surgeon-Major, March 6th, 1892; Brigade-Surgeon, Oct. 3rd, 1898; and Colonel, August 27th, 1903. He served with the Expedition to Ashanti in 1895, for which he was honourably mentioned, promoted to be Surgeon-Lieutenant Colonel, and received a star. He was also with the Tirah Expeditionary Force in the campaign on the North-West Frontier of India in 1897-8 (medal with two clasps).

Surgeon-Major-General John Warren died in London on the 4th instant in the 71st year of his age. He joined the Army Medical Department as Assistant-Surgeon November 9th, 1857; was made Surgeon March 1st, 1873; Surgeon-Major April 1st, 1873; Brigade-Surgeon June 1st, 1883; Surgeon-Colonel October 24th, 1888, and Surgeon-Major-General August 1st, 1893. He retired from the service July 6th, 1896. During the Afghan war of 1878 80 he had medical charge of the 15th Hussars (medal); in the Egyptian War of 1882 he had charge of No. 5 Movable Field Hospital (medal and Khedive's bronze star); and he was also in the Soudan campaign in 1885, when he was mentioned in dispatches and received a clasp to his Egyptian medal.

There died towards the end of last month a very old member of the profession in the person of Mr. Samuel Whitlow of Altrincham. Born at Great Budworth in Cheshire, he studied medicine at University College Hospital, and became a member of the Royal College of Surgeons some fifty-five years ago, ten years later obtaining also the L.R.C.P.Edin. He practised for a great many years at Old Trafford, and on giving up work took up his residence at Altrincham, where he was well known.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. E. Delacour, formerly delegate of the French Government to the Superior Health Council of Constantinople; Dr. Fedor Savarykine, sometime Professor of Histology and Embrology in the Military Medical Academy of St. Petersburg; Dr. Theodor Jarurtowski of Posen, an ophthalmologist whose professional career was interrupted by imprisonment for a political offence, aged 73; Dr. Pio Mingazzini, Professor of Zoology in the Florence Institute of Higher Studies, aged 41; Dr. Attilio Tassi, Professor of Botany at Siene and President of the Medical Faculty of that university; Dr. Tscherinoff, Professor of Medical Diagnosis and Clinical Medicine in the University of Moscow, aged 66; Dr. Cunha Bellem, President of the Section of Military Medicine in the Fifteenth International Medical Congress to be held at Lisbon in 1906; Dr. Jules Rehns, of the Paris Pasteur Institute; Dr. Bremaud, of the French navy, sometime professor of exotic pathology in the Naval School of Brest, and author of papers on lethargic hypnotic phenomena; Dr. Louis Momont, of the Paris Pasteur Institute, nephew of Dr. Roux, and formerly director of bacteriological laboratories in Australia, aged 41, and Dr. H. P. Stearns, till lately Medical Superintendent of the Hartford Retreat for the Insane, Medical Director of the Northern Wing of the Army of Tennessee during the Civil War, and author of parts of the *Surgical History* of the War of the Rebellion, and of works on medical examination for life insurance, insanity, etc., aged 77.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MR. TROUTBECK AS CORONER.

At an inquest held recently by Mr. Troutbeck, Dr. G. de Gorrequer Griffith, of St. George's Square, S.W., who gave evidence, said that he attributed death to ptomaine poisoning. Dr. Freyberger, who had made a necropsy, said that he was of opinion that death was due to exhaustion following general peritonitis. Dr. Griffith complained that he had not been invited to attend the *post-mortem* examination. The coroner, according to the report in the *Daily Telegraph*, replied that there would be no objection to his going to the mortuary and examining the body. Dr. Griffith said that there were no symptoms of general peritonitis, and again complained that he had no opportunity of attending the necropsy.

The Coroner said that Dr. Griffith could have communicated with him or Dr. Freyberger to learn the time of the *post-mortem* examination. He did not think Dr Griffith had any ground to complain that he did not attend the autopsy because he was no asked. He did not know whether Dr. Griffith considered himself attacked when Dr. Freyberger said death was due to some cause other than ptomaine poisoning. There were bound to be divergencies of opinion; frequently in the courts half a dozen distinguished doctors on one side gave an opinion, and half a dozen other medical men would give an opinion diametrically opposite, but neither side felt itself aggrieved. He thought it very possible that if there had been a consultation during the life of the patient any doubt as to the nature of the illness would have been cleared up.

Dr. Griffith said his sole object in not calling in another medical man was to save expense for an old patient. He was told that she could not pay for a nurse, and he sent her one without charge.

The jury returned a verdict in accordance with the medical evidence.

The report seems to us to illustrate the unfairness of the system for which Mr. Troutbeck has made himself responsible. As will be seen, he himself recognizes that differences of opinion are inevitable, but, being a lawyer, he is obviously not in a position to appreciate the extreme difficulty in diagnosis which peritonitis may, and very often does, present. There seems to have been a suggestion made that Dr. Griffith ought to have communicated with the medical officer of health, and this only emphasizes the unfairness of the procedure actually adopted by the coroner; Dr. Griffith ought clearly to have been invited to be present at the necropsy.

A CORONER'S MISTAKEN STRICTURES.

Member (Handsworth) sends an extract from the *Birmingham Daily Post*, being a report of an inquest concerning the death of a man who was found hanging by a rope attached to a windlass in his warehouse. It appears that the deceased had been married eight years, but separated two years and a half ago from his wife, who stated that he allowed her 15s. a week. She had seen the deceased occasionally during the past six weeks. He appeared to be troubled somewhat concerning a change in his business. She thought the fact that it had to be publicly announced that the deceased was only manager of the business had preyed upon his mind. She had never heard him threaten to take his life. Deceased had told her that his father committed suicide. Deceased's life was insured.—William Ethelbert Adams, an assistant, residing in the house, and who assisted Dr. Vokes to cut the body down, said the deceased told him about three weeks before that the business was about to change hands, and that it had upset him very much. In a note which deceased had pinned to his coat were the words in his (deceased's) handwriting: "The dreadful treatment of ——, of Walsall, has broken my heart. I cannot bear it.—D. Dennis." He knew the person referred to was a wholesale grocer at Walsall, and was or had been the owner of deceased's premises. Dr. Vokes took the note away with him.—Ernest Frederick Johnson, 194, Church Hill Road, said he saw the deceased on Saturday night. Speaking of his troubles, deceased mentioned the name of Mr. ——, and said he had received a letter from him which had very much upset him. Deceased, however, told him the purchasers of the business had treated him with great consideration and kindness. Other evidence having been given, the jury returned a verdict of "Suicide whilst temporarily insane." The Deputy-Coroner is reported to have said "that he wished it to be known that medical men were exceeding their duty in taking away anything from the pockets of a man who died under the circumstances as stated in that case. Everything about the body should be left until the arrival of the police." The medical man in question was not summoned to attend the inquest, and hence had no opportunity of explaining. He states that he did not take anything from the pockets of the deceased, but merely took charge of the paper pinned to the deceased's coat until the coroner's officer came, when he handed it to him. He asks, "Was I wrong in taking charge of the note that was written by the deceased?"

*** Our corespondent did right in taking charge of the paper he found and handing it to the representative of the coroner when he arrived. Bottles, wrappers, etc., should also be secured and handed to the police. We are surprised that he was not called to give evidence when he could have explained the matter satisfactorily.

MEDICAL WITNESSES' FEES IN THE HIGH COURT OF JUSTICE.

Inquirer, who is subpoenaed to give evidence in the King's Bench Division of the High Court in a railway accident case, asks what is the maximum fee he can claim, and whether he can count for payment the day previous, spent in travelling, and also the day of his return journey?

*** The fees allowed in the High Court of Justice to professional witnesses resident at a distance from the place of trial are from £2 2s. to £3 3s. a day, inclusive of all except travelling expenses. These are allowed according to the sums which are reasonable and have been actually paid, but in no case to exceed 1s. a mile one way. It is only in Scotland that one day for travelling is allowed to be added.

THE CHOICE OF AN ANAESTHETIST.

Anaesthetist writes: X. and Y. are in general medical practice and Z. is a dentist in a town where the relations between members of the profession are more than usually cordial. The three are personal friends and in the habit of meeting socially. Z. in his practice frequently requires the service of an anaesthetist, and it is his custom to have the patient's own doctor or in default to ask X. to administer the anaesthetic. In addition Z. frequently administers gas during short operations by X. When one of his patients requires the administration of a major anaesthetic Z. makes the inquiry: "Whom do you prefer to give the anaesthetic?" and has been in the habit of using such a formula for a number of years. Some weeks ago a new patient arrived with her mother at Z.'s house. It was found that she required the administration of an anaesthetic, and it was desired to have the operation completed at once. On asking the usual question, Z. got the reply from the mother that the matter was left entirely in his hands. X. was then requested to give the anaesthetic, and did so. A week later a sister of the patient required an anaesthetic, which was administered by X, at Z.'s request. Some days later Y., whose patients they were, learned these facts, and protested against the conduct of X. and Z., especially of the latter, on the ground that the question used implied a preference on Z.'s part. That he should have asked point blank who the patient's doctor was, and then said, "I presume you wish him to give the anaesthetic?" That Z.'s question puts the patient in the uncomfortable and possibly invidious position of having to state a preference on the spur of the moment. That through Z.'s action X. has received an uncalled-for and gratuitous introduction to his patient, who had recently been under his care. Neither X nor Z. was aware that the girl was Y.'s patient, nor that she had recently been ill. 1. Has Y. any just ground of complaint against either X. or Z.? 2. Admitted that he has, is there any ground for the suggestion that Z., in asking the name of the family doctor, may put the patient in an uncomfortable position should he not desire his usual attendant's services for this purpose? 3. In what terms should Z. couch his suggestion for the employment of an anaesthetist?

*** (1) We do not think Y. has any just ground of complaint against either X. or Z. He knows that they had no intention to act to his prejudice, and, whatever form of words were adopted, it would always be possible for such a mistake to occur. (2 and 3) The dentist might say, "Who is your own doctor? Should I not ask him to give you the anaesthetic?"

The same correspondent raises the following further issues: X. frequently administers anaesthetics for another dentist in the town. One day he receives a message asking him to fix an hour, which he does. On arriving at the dentist's rooms he finds a person whom he knows to be the patient of another doctor and a personal friend. What his conduct be (*a*) as regards the patient? (*b*) as regards the doctor? If he does administer the anaesthetic, is he justified in informing the usual medical attendant without permission of the patient?

*** Under the circumstances, X. was right in administering the anaesthetic, but, as the other doctor is a personal friend, he should take an early opportunity of explaining the matter to him. It would not be reasonable to expect X. to refuse to give the anaesthetic, but, in the interest of peace, he should impress upon the dentist that, as far as possible, the latter ought to obtain the services of the usual medical attendant of each patient.

RELATIONS WITH A DISTRICT NURSE AND MIDWIFE.

CALEDONIAN complains of the conduct of a nurse-midwife who does, he says, what she can secretly to undermine his influence and hurt his usefulness, and encourages the practice of a local bone-setter. He has been in the habit of helping this woman in her difficult midwifery, or of working with her in other cases which she attends in the capacity of nurse. He asks for advice and puts the following questions:—(1) Are nurses answerable to their employers alone for their conduct? (2) Have they *carte blanche* as nurses to league themselves with quacks in deluding the public and counteracting the influence and usefulness of medical men?

*** Our correspondent might seek to obtain some explanation from the nurse, but if he writes her a letter he had better submit it first to his lawyer. He should endeavour through the local clergyman, or other person of influence, to get matters arranged. He can always refuse to have any professional arrangements with her, and might introduce another nurse to work with him, if some *modus vivendi* cannot be established. The specific questions are not very well put. A nurse is presumably, in the first instance, answerable only to her employers for her conduct, but, like every one else, she is also responsible for her conduct towards every person with whom she comes in contact, including the medical man. In the absence of registration, there is no control over the conduct of nurses, except that of those who pay them, or of the medical man whose support is after all necessary to them. If a nurse associates herself with a quack, she will lose the support of legally qualified practitioners.

THE ETHICS OF CONSULTATION AND SUPERSESSION.

J. L. M. writes that on May 15th he was asked to see a lady in consultation and agreed to do so if her husband would arrange the matter with her own doctor, and at the same time he wrote to the doctor suggesting a time on the following afternoon. The next morning he received a wire from the doctor accepting the appointment, and the consultation took place, but "whilst he was upstairs saying good-bye to the patient the doctor downstairs was telling the husband that he refused to attend his wife any longer because, as our correspondent understands, the doctor considered that the husband should have spoken to him in the first instance about the consultation." He asks whether he will be justified in attending the lady in future should she ask him to do so?

*** The reason alleged for giving up the case appears quite inadequate and unjust to the patient. At the same time, as our correspondent has been called in consultation his position is a delicate one, and before accepting the case he should find out from the doctor that he has given up the case voluntarily, and does not desire to attend the patient again; if that is the case our correspondent may, if asked, attend the case.

INTERPRETATION OF CONTRACT NOT TO PRACTISE.

INCERTUS writes that a partnership has been dissolved and the retiring partner has been paid a consideration to retire under the usual undertaking that he will not engage in the practice of his profession within a fixed radius. He wishes to know what is the remedy for any infringement of the agreement. Apart from damages, could an injunction be obtained to prevent such infringement; what would be the cost of obtaining it by legal process; and whether it would be regarded as an infringement of the agreement if the retiring partner were to see old patients without making a charge with the object of getting a present instead?

*** Certainly an injunction might be sought, but our correspondent should consult a solicitor as to probable cost. It is not certain that to see patients without charging would be regarded as an infringement, unless it could be proved that it was done habitually and that presents were frequently given. Such conduct, however, on the part of a medical practitioner is reprehensible, and might be brought before the Ethical Committee of the British Medical Association.

ATTENDANCE UPON A MEDICAL MAN'S WIDOW.

M.D.—Under the circumstances we do not think the lady is entitled to gratuitous attendance.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Honorary Degrees.

THE degree of Doctor of Medicine has been conferred upon William Osler, Regius Professor of Medicine, and that of D.Sc. upon Edwin Ray Lankester, Director of the Natural History Museum, South Kensington, who delivered the Romanes Lecture on Wednesday last.

Natural Science Scholarships.

The following scholarships are announced in Natural Science: June 20th, St. John's College; July 4th, Brasenose College; December 12th, University, Lincoln, and Magdalen Colleges.

Examiner in Preventive Medicine and Public Health.

Walter W. Fisher, M.A., Corpus Christi College, Aldrichian Demonstrator in Chemistry, has been appointed an Examiner in Preventive Medicine for the examinations in 1905, 1906, and 1907.

UNIVERSITY OF CAMBRIDGE.

Honorary Degrees.

ON June 14th the Honorary Degree of D.Sc. will be conferred on Commander R. F. Scott, R.N., and Sir F. E. Younghusband, K.C.I.E.

Degrees.

The following degrees were conferred on June 8th: *M.D.*—F. A. S. Hutchinson, Trin.; J. W. Rob, John's; A. de Winton Snowden, Christ's: J. E. Molson, Emm.: H. S. Willson, Emm. *M.B.*—H. H. Clarke, Trin.; S. M. Mackenzie, Trin.; R. N. Poignand, Cai.; J. A. A. Orbebar, Magd.; H. Wales, Sid. Suss. *B.C.*—S. M. Mackenzie, Trin.; R. N. Poignand, Cai.; J. A. A. Orbebar, Magd.

Appointment of Examiners.

The following have been appointed additional Examiners for the Third M.B., Part I:

W. E. Dixon, M.A., Downing College: T. S. P. Strangeways, M.A., St. John's College. G. C. Low, M.B., C.M.Edin., has been appointed Examiner in Tropical Medicine and Hygiene.

Marine Biological Association.

A. E. Shipley, M.A., of Christ College, has been reappointed the representative of the University on the Council of the Marine Biological Association.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

THE Edinburgh University Court met on Monday, June 12th, Principal Sir William Turner in the chair. A letter of acknowledgement from Mrs. Lang Todd was read in reply to the Court's expression of condolence on the death of her late husband, Bailie Lang Todd, who had acted for several years as Assessor of the Town Council on the University Court. It was intimated that the magistrates and Town Council had appointed Bailie Robert Menzies as an Assessor on the University Court in room of the late Bailie Lang Todd.

The Court approved of plans submitted for the proposed extension of the University Union.

An application by Professor A. R. Simpson for permission to retire from the Chair of Midwifery as at August 31st next was submitted.

UNIVERSITY OF LONDON.

THE following candidates were approved at the May examinations indicated:

M.B., B.S.

Honours.—‡§V. Z. Cope, B.A., St. Mary's Hospital; ‡E. N. Cunliffe, Victoria University; *E. L. Holland, King's College; *R. H. Lee, King's College; †‖T. Lewis (University medal), University College; *J. T. Lloyd, the University and R. I. Liverpool, and University College; §A. E. Pinniger, Middlesex Hospital; *‖R. O. Williams, Guy's Hospital.

* Distinguished in Medicine. † Distinguished in Pathology.
‡ Distinguished in Forensic Medicine and Hygiene.
§ Distinguished in Surgery.
‖ Distinguished in Midwifery and Diseases of Women.

Pass.—A. M. Amsler, T. P. Baldwin, W. Ball, D. Brodie, N. Carpmael, W. H. Cazaly, B.A., A. Coleridge, D. K. Coutts, D. H. De Souza, B.Sc., J. H. Drew, H. E. Dyson, E. Evans, J. W. Evans, H. Farncombe, R. Felton, Jessie J. Francis, Margaret H. Fraser, Ruby E. Glanville, H. A. Haig, A. W. Hooker, C. E. Iles, A. H. John, T. H. Jones, C. H. Latham, F. M. Longson, H. Love, E. Mapother, C. A. Moore, C. L. Morgan, B. E. Moss, E. E. Mossop, L. E. C. Norbury, L. G. Parsons, G. H. Rees, M. de L. Robinson, W. M. Sadler, J. N. Sergeant, Ida R. Shields, W. H. Smailes, Sarah C. E. Sommer, Alice M. Sorabji, Mary M. L. Taylor, G.W. Thomas, Ethel M. Townend, E. R. Wheeler F. T. H. Wood, B.Sc.

B.S. Examination (for Students who Graduated in Medicine in or before May, 1904).

Honours.—T. P. Legg (University Medal), King's College and St. Bartholomew's Hospitals; T. Perrin, London and St. Thomas's Hospitals; H. D. Smart, Guy's Hospital; S. M. Smith, St. Mary's Hospital.

Pass.—H. Balean, M.D.; Ruth Balmer, F. Butterfield, Jean J. T. R. Félix, L. S. H. Glanville, C. H. F. Johnston, W. H. Jones, C. E. Lakin, M.D.; F. W. W. Smith, A. C. Stark, W. G. Taylor, B.Sc.; Louisa G. Thacker, F. L. Thomas, T. Walker, M. T. Williams, S. Zobel.

Supplementary Pass List.—The following candidates have passed in one of the two groups of subjects:

Group I. only.—A. W. Baker, F. Barker, J. A. Berlyn, D. Davies, Katherine R. Drinkwater, B.Sc.; C. H. M. Hughes, P. C. P. Ingram, B. R. Lloyd, G. B. McKean, A. Manuel, H. S. Matson, P. H. Seal, M. W. S. Smith.

Group II. only.—H. V. Blake, G. A. Bosson, A. H. Bradley, G. P. C. Claridge, I. R. Cook, F. B. Dalgliesh, G. de la Cour, J. R. de Pass, A. D. Edwards, D. E. Finlay, H. Isaacs, G. F. Jones, S. H. Pitcairn, R. L. Ridge, F. D. Roberts, C. C. Rushton, W. L. Scott, Barbara Tchaykovsky, B.Sc.

UNIVERSITY OF DURHAM.

MEDICAL GRADUATES' ASSOCIATION.

THE annual meeting of this Association was held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on June 9th, under the presidency of Dr. Hembrough, of Newcastle-on-Tyne

Annual Report.

The annual report and balance-sheet of the Treasurer showed that the numerical strength of the Association is steadily increasing, and that its

financial condition is highly satisfactory. The question of taking steps to obtain Parliamentary representation for the University was again brought forward, and the result of the recent appeal made to the Senate on this subject discussed. In view of the advanced stage of the session it was decided to postpone further action in the matter for the present. General regret was expressed at the retirement of Dr. T. Outterson Wood from the post of Hon. Secretary for the South, and a resolution acknowledging the excellent work he had done for some years in that capacity was unanimously passed.

Election of Officers.

The following were elected as the officers and Council for the year 1905-6: *President:* Herbert T. Herring, M.B., B.S. *Vice-Presidents:* Selby W. Plummer, M.D., and C. W. Chapman, M.D., M.R.C.P. *Council:* H. B. Angus, M.S., F.R.C.S.; John Clay, M.B., F.R.C.S.; H. Smith, M.D.; William Martin, M.A., M.D.; T. Beattie, M.D., M.R.C.P.; E. W. Diver, M.D.; John Cahill, M.D., F.R.C.S.; F. H. Carter, M.D., F.R.C.S.; F. E. Green, M.D.; F.R.C.S.; William Rawes, M.D., F.R.C.S.; W. J. Hadley, M.D., F.R.C.P.; Probyn Williams, M.D. *Honorary Secretaries:* J. W. Leech, M.D., F.R.C.S., for the North, and F. S. Palmer, M.D., M.R.C.P., for the South. *Honorary Treasurer,* R. A. Bolam, M.D., M.R.C.P.; *Auditors:* C. S. Blair, M.D., F.R.C.S.; T. M. Allison, M.D.; and H. Smurthwaite, M.D. *Watch Committee:* W. C. Beatley, M.D.; M. Mitchell Bird, M.D., M.R.C.P.; H. T. Herring, M.B., B.S.; S. W. Plummer, M.D.

Dinner.

The members and guests (numbering eighty-four) dined together the same evening at the Imperial Restaurant, Regent Street. Mr. Herbert T. Herring, the newly-elected President, occupied the chair. After the usual loyal toasts had been given, that of the University of Durham and its Medical Graduates' Association was proposed by Mr. Christopher Heath, and responded to by Sir George Bare Philipson, and Drs. F. S. Palmer (Honorary Secretary for the South). The toast of "The Visitors" was proposed by Dr. Selby W. Plummer (of Durham) and replied to by Sir Lauder Brunton. Dr. George A. Heron proposed the health of the President, and Mr. Herring replied.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates were approved at the May examination in the subjects indicated:

Surgery.—†A. Bernfeld, *J. A. Davies, J. W. Rollings, †*J. L. Schilling, *L. C. Thorburn, †*J. A. R. Wells, †*G. Wilmersdoerffer, †*R. W. L. Wood.

Medicine.—†*R. Heathcote, †W. V. Pegler, †*C. A. Sampson, †*J. L. Schilling.

Forensic Medicine.—J. B. Bradley, W. G. H. Cable, W. L. Crabtree, A. G. C. Findlay, R. J. O. Harley, R. Heathcote, W. A. King, W. S. Mitchell, W. G. O'Malley, J. L. Schilling, A. L. Walters.

Midwifery.—W. V. Pegler, J. L. Schilling, R. Spears, E. Sutcliffe.

The diploma of the Society was granted to the following candidates: J. B. Bradley, J. A. Davies, R. J. O. Harley, J. W. Rollings, J. L. Schilling, L. C. Thorburn, J. A. R. Wells, and R. W. L. Wood.

† Section I. * Section II.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE INDIAN MEDICAL SERVICE.

ANNUAL DINNER.

The annual dinner of the Indian Medical Service at the New Gaiety Restaurant on June 8th brought together some forty-eight officers of the service past and present. The chair was occupied by Surgeon-General J. Cleghorn, C.S.I., a former Director-General.

The toasts of "The King" and of "The Queen and other members of the Royal Family" having been duly honoured, Surgeon-General Sir A. C. C. DeRenzy, K.C.B., proposed "The Sister Services," making allusion to the various bonds which united them. Surgeon-General A. Keogh, C.B., having been prevented at the last moment from attending the dinner, the task of reply fell upon Inspector-General H. W. Ellis, R.N., alone. After touching lightly upon the part which each service played in the work of the empire, he recalled some memories of the time when officers of all three services alike underwent a course of instruction at Netley together.

The toast of the guests was proposed by Surgeon-General A. W. Branfoot, C.I.E., the present Director-General, I.M.S., who made grateful acknowledgement of the support and assistance which the service was accustomed to receive from the medical press, and especially from the organ of the British Medical Association. In a suitable response on behalf of himself and the other guests, Sir R. Douglas Powell pointed to the scientific work which had been done by officers of the Indian Medical Service, and reminded those present that the profession at large still looked to it to throw light on many as yet unsolved problems of tropical medicine.

The last formal toast of the evening was that of the Indian Medical Service, in proposing which Mr. John Langton said that the reputation which the service had justly attained was punctuated in his mind by the fact that many of the best men who had passed through his hands as an examiner, and in other ways, had entered its ranks. In his reply, Surgeon-General Cleghorn reminded his hearers of the honourable traditions of the services. It was through one of their predecessors that the old East India Company obtained its first concession. Broughton, the officer in question, had been instrumental in saving the life of the Emperor Jehan's daughter and named as his sole reward a concession for the Company as to trading. Since then the service by its influence on the people through its medical work had steadily been helping to oil the wheels of Government and many were the officers who had distinguished themselves in various ways. Accusations of slowness in taking advantage of opportunities for original research and in the organization of a complete sanitary system were occasionally launched at the service, but they who knew the local conditions and circumstances understood the difficulties which surrounded the path of progress in particular directions. Laboratories, however, were now being established, and other facilities offered for original investigations, and in due course results would follow. Although they had had to make bricks without straw, they had been able to meet the requirements of the country. The immensity of medical and surgical work, the number of medical institutions, the colleges, schools, hospitals, dispensaries and asylums, for which they were responsible, were practically unknown out of India. All this medical work was spread over the whole of India and Burmah, and had developed a sympathetic and kindly feeling between the members of the service and the natives of India, a feeling which extended to the Government as the Beneficent One. They had become, too, the guardians and reformers of the criminal class, for practically the whole of the Jail Department had grown up and developed under selected officers of the Medical Service. The manifold duties and responsibilities which devolved on the service, and the unique opportunities which occasionally presented themselves to the man of special talents, combined with the pay and pension, were the main inducements which attracted men to the service, but there were others not so apparent; thus, they entered the service at an impressionable age, in a land full of mysteries, with customs and beliefs different to their own. The responsibilities they had to face developed character and tended to make men of them. There were, of course, drawbacks, but on the whole, he thought they had all made a wise choice in selecting the Indian Medical Service as a career.

THE ROYAL VICTORIA HOSPITAL, NETLEY.

Major G. T. Harley Thomas, F.R.C.S.E., F.S.A. (late R.A.M.C.) writes: It was with much interest, mingled with regret, that I read in the British Medical Journal of June 10th of the recent prize distribution at Netley, it being the last occasion on which officers will be sent there for instruction, and, therefore, the final closing of the Army Medical School at that splendid institution which Queen Victoria honoured with her name. Well, indeed, may the Professor of Military Medicine say that "the name Netley must abide lovingly in the minds and memories of the officers of both services just as the names Haileybury and Addiscombe claim the fond remembrance of Indian civilians, gunners, and sappers in the old time." For myself, I feel more than the ordinary affection for Netley, because it was my late father, Mr. James Lewis Thomas, F.S.A., who designed that beautiful building, which is a quarter of a mile in length, he being at that time the Deputy Surveyor of the War Department, which appointment he was the last to hold, it being abolished in 1880. He exhibited his drawings to Queen Victoria when Her Majesty laid the foundation stone, and was presented to Her Majesty by Lord Panmure.

It was in consequence of the powerful advocacy of Miss Florence Nightingale, who had just returned from the Crimea, together with her previous reports from the Peninsula, that a Royal Commission was appointed in May, 1857, and in 1859, when that great sanitary reformer Mr. Sydney Herbert became Secretary of State for War, he encouraged as well as sanctioned the formation of an army medical school, and it may be of interest to some to know that the Convalescent Home at Bournemouth, erected as a memorial to this great statesman, was also designed by my father, who was one of Lady Herbert's guests at Wilton House on the occasion of the laying of the first stone on September 16th 1865.

The Army Medical School at Netley is no more, but the magnificent and handsome edifice with which the school has been connected for forty years, remains, together with its beautiful surroundings, and the happy times that the young medical officers spent there will, I feel sure, never be forgotten by all those who, like myself, had the good fortune to pass through the school before the ruthless hand of the reformer moved it to London.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE MIDWIVES ACT.

WESTMINSTER CITY COUNCIL.

At a recent meeting it was reported that the Boards of Guardians in the City of Westminster had given the following replies with regard to the proposed payment of fees to medical practitioners summoned by midwives in cases of difficulty: Westminster considers it inexpedient to reply at once; the matter is to be considered again at the end of six months, when further experience of the effect of the Act has been obtained. St. George's has informed the London County Council that the guardians are prepared

to apply the provisions of Section II. of the Poor-law (Amendment) Act, 1848, to cases of difficulty or emergency when medical practitioners are summoned by midwives, upon the understanding that in such cases the district medical officers will be called in, and that the guardians will pay a sum of 10s. 6d. in each case. The Strand replies that the guardians have resolved to apply the provisions of Section II of the Poor-law (Amendment) Act, 1848, in cases where medical practitioners are unable to obtain payment of their fees. In view of these replies it was decided to inform the London County Council that the Westminster County Council had determined to take no action in the matter.

ISLINGTON BOROUGH COUNCIL.

We learn from the *Islington Daily Gazette and North London Tribune* of May 22nd, that at a meeting of the Islington Borough Council on May 19th the Public Health Committee reported that they had reconsidered their recommendation that the Council should adopt the provisions of Section LXXVII of the Public Health (London) Act, 1891, by paying the fees of medical practitioners called in under the Midwives Act, 1902. The Medical Officer of Health directed their attention to the fact that soon after the Midwives Act was passed the question was raised whether the Metropolitan Borough Councils or the London County Council should administer that part of the Act which related to the registration and supervision of midwives, and that ultimately the London County Council decided to administer the Act. Since then it appeared that the London County Council had circularized the Boards of Guardians, some of whom had expressed their willingness to undertake the payments of fees to medical men called in by midwives. The Committee were of opinion that if the guardians adopted this course the midwives were likely to call in medical men who hold Poor-law appointments, to the exclusion of other members of the medical profession, and that this would not only be unfair to the general body of practitioners, but would lend a suspicion of pauperism to the assistance rendered. The total cost of administration would be small, and would make no difference to the ratepayers whether the fees were paid through the council or through the Board of Guardians. The Committee recommended that the London County Council be informed, in reply to their letter, that the Council would be prepared to render assistance by paying the fees of medical practitioners called in under the Midwives Act, 1902.

Alderman SMALLWOOD, in proposing the adoption of the report, referred to a letter received from the Board of Guardians, which stated that they (the Guardians) were of opinion that in all cases the midwives should be empowered to send to the medical officer appointed by the guardians for the district in which the poor person resided. This should be done, as far as practicable; but as to payment of fees in emergency cases where a doctor other than the appointed medical officer has been called in, the guardians would be prepared to deal with each case on its merits, and, if considered a proper one, they would pay the medical fee. A midwife should be empowered to go to the first doctor in case of emergency. They had also to bear in mind that whatever came from the Board of Guardians always bore a taint of pauperism, and this would not be the case if the midwife were allowed to call in the nearest doctor and the fees were paid by the Borough Council.

Alderman ELLIOTT said the proposition seemed to him to be an interference with the work done so many years by the Board of Guardians. There was not the slightest possible ground for suggesting that if a midwife found a case of difficulty she was bound to go to the medical officer appointed under the Poor Law. But if she did go to him she was going to one of high repute and one who had been carefully selected for the position he occupied; but she could go to any other officer and the guardians would pay. Not in one single case to his knowledge where the midwife had gone to a doctor other than the appointed medical officer in emergency cases had the Council refused to pay the fee.

Mr. SAINT thought the whole thing had been engineered by the medical profession of London. If they got the thin end of the wedge in they would not know where it would stop. The motion would encourage people who could afford to pay for doctors to go to the nearest doctor and charge the fee to the Council.

Mr. PARKER supported the Committee, describing their recommendation as a humane one.

Mr. JARVIS also supported, for the reason that he would support anything which took power out of the hands of the Boards of Guardians, because the sooner such Boards were abolished the better.

The recommendation was agreed to.

DEVON COUNTY COUNCIL.

At a recent meeting of the Devon County Council Sir THOMAS ACLAND moved that the order made by the Council on March 17th, 1904, delegating powers, under the Midwives Act, 1902, to district councils be rescinded. He said the Council had practically no control over the expenditure under the Act or over the actions of district councils although they were the body responsible for the working of the Act. The clerk said the present system was working very satisfactorily throughout the country. The resolution was defeated by a large majority.

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

THE Royal Commission on the Care and Control of the Feeble-minded held a further meeting on June 2nd, when evidence was given by Drs. C. A. Mercier, Fletcher Beach, and D. Ferrier.

Dr. C. A. MERCIER said it might be regarded as a prima-facie likelihood that the children of the feeble-minded would be more often feeble-minded than those of normal individuals; nevertheless, it did not seem to him that the probability could be rated so high as to justify the adoption of extreme measures with a view to prevent reproduction by such persons. There were persons who had peculiarities of temper or disposition which rendered them a nuisance and a burden to their friends, and unprofitable to the community, but who were intellectually able and 'cute, and were therefore very difficult to certify in a manner that would carry conviction of their insanity to a magistrate. Medical practitioners had, in his experience, refused to certify such persons, and magistrates had refused to make reception orders for such persons when certified to be insane, and asylum authorities had discharged such persons as sane after a short probation. The number of such persons was small. The reason for these refusals was that insanity was still looked upon by most medical practitioners and magistrates as a disorder of the intellect exclusively. If a person was intellectually able, could argue reasonably, and was free from delusion, such a person was not regarded as insane by reason of any peculiarity of temper or disposition, although he might exhibit peculiarities that incapacitated him from earning his living, and that rendered him a burden and a nuisance to his family and those who came in contact with him. Such persons could be, and sometimes were, certified under the present law. He did not think that they needed exceptional treatment, or that separate places of detention were required for them. In order to get them more readily and more certainly under control it was necessary that the concept of insanity, as an intellectual disorder solely, should be superseded by the understanding that it was inability—by reason of mental, not necessarily intellectual, defect or disorder—to manage oneself and one's affairs.

Dr. FLETCHER BEACH thought that the most suitable way to provide for idiots and epileptics was not to build blocks or annexes for them in the grounds of existing county or borough asylums, but to erect entirely separate institutions for them. Since county councils in London and throughout the country were now responsible for the education of normal children, it seemed advisable that they should be responsible for the care, education, and training of idiots and imbeciles, in the same way as they were responsible for most of the special schools for feeble-minded children when those schools had been provided. More voluntary contributions were required for the erection and maintenance of charitable institutions. Custodial asylums should be provided in connexion with these asylums, as was done in America, so that the cases might be retained for life. More colonies should be provided for epileptics In the interests of society, permanent homes apart from the ordinary population were, in the majority of feeble-minded cases, much to be desired.

Dr. FERRIER, in the course of his evidence, said he thought some power should be given to compel an habitual drunkard to go into a home or retreat.

SPREAD OF SMALL-POX BY VAGRANTS.

M. A. H. W.—Dr. Armstrong, M.O.H., Newcastle-on-Tyne (*Trans. San. Inst.*, vol. xxiv, 1904), showed that "of 63 towns invaded by small-pox no less than 37 owed the first importation of the disease to vagrants," and many suffered from repeated reintroductions of small-pox by the same channel, for example, Warrington 12 times, Keighley 15, Blackburn 18, and Nottingham 25 times. In 1903 the Accrington authorities received replies to a circular from 138 local authorities; 100 of these definitely attributed the introduction to visitors of the tramp class. In Sheffield, out of 28 importations of small-pox—November to May, 1902-3—no less than 21 were brought about by tramps; in Huddersfield 8 out of 13 invasions were due to this cause, and Dr. Sadler has reported that at Barnsley all the 46 cases there could be traced back to visitors of the lodging-house class. The London County Council held a conference on November 10th, 1904, and more than 100 authorities sent representatives (BRITISH JOURNAL MEDICAL, 1904, vol. ii, p. 1481). Alderman Newton of Newcastle-on-Tyne stated that "Newcastle had suffered severely from its position . . . 450 cases of small-pox . . . had been traced to tramps. The attack in Newcastle between March, 1902, and February, 1903, cost the sanitary authority £6,621 for 169 cases, besides buildings costing £3,846. Several resolutions were adopted. Dr. Boobbyer, M.O.H., Nottingham, in his report for 1903, gives several instances of the introduction of small-pox by tramps, at least nine distinct introductions were detailed. The last of these gave rise to 14 more cases in a densely-crowded part, "from which . . . . a dropping fire of cases have been coming at short intervals ever since." Dr. Pilkington, M.O.H., Preston Urban and Port Sanitary Authority, reports for 1904 an epidemic of 99 cases, beginning with the inmate of a lodging house, August, 1903; from then to end of 1903 a constant succession of fresh cases occurred. The congresses of the Sanitary Institute have passed resolutions affirming the necessity of powers to be given to sanitary authorities to detain and vaccinate tramps when it is deemed necessary.

PUBLIC VACCINATORS' FEES.

L. J. L.—At a meeting of a board of guardians (which shall be nameless) at which I was present to-day, during a discussion on vaccination fees, it was stated by the clerk, a solicitor, that there was nothing to prevent a public vaccinator vaccinating a child at his surgery if the mother did not require him to go to the home. This was in contradiction of a statement, made by myself as public vaccinator, that I could not perform primary vaccination of children under 14 years of age anywhere but at the home of the child, and that if I did so I was not entitled to any fee.

*** The interpretation of the Vaccination Act and orders by our correspondent is quite correct. In Section I, paras. 2 and 3, Vaccination Act, 1898, it is laid down that the public vaccinator must visit the child's home to vaccinate; no public vaccinator may perform a primary vaccination at his surgery, even if the parents wish it. If he does so he cannot legally recover his fees for operations so performed, and if boards of guardians pay them, such fees will be surcharged at the next audit. The provision for such payment is carefully phrased (Vaccination Orders, October 18th, 1898, para. 15, subsections 2 and 3) to cover this point. If there was any ambiguity in the wording of the Act on this point, or in the instructions of the Local Government Board in the General Orders, such doubt should be removed by the recommendation of the Departmental Committee in their Report on Vaccination Expenses, Par. 85, in which they recommend that power shall arise (under certain circumstances) to enable public vaccinators to perform primary vaccinations of children at his surgery at a lower rate of fee. This recommendation is made in the interest of economy, but no such power rests with public vaccinators now; further, no Board of Guardians is competent to allow the proceeding or to pay for it, though, under exceptional conditions of epidemic, the Local Government Board may permit primary vaccination of infants at other places than their own homes (Vaccination Act, 1898 Sect. VII).

BEQUESTS TO MEDICAL CHARITIES.—By the will of the late Mrs. Caroline Judith Stanier, of Condover, Salop, which has now been proved, the Salop General Infirmary and the North Staffordshire Infirmary each receive the sum of £1,000.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

ANGLESEA.—We should have thought the event related impossible; but we are sure that it is much more probable that the young woman's statement is inaccurate than that the event occurred as stated.

TREATMENT OF SCROTAL IRRITATION.

P. M. writes: "Caritas" should put his patient on very strict diet—12 oz. of solid food per diem, in two meals; still better in one. Thorough and prolonged mastication with good teeth is also essential. For local treatment, oatmeal gruel.

DR. O. EICHHOLZ (Harlesden) writes: "Caritas" will find a reference in a lecture by Sir Lauder Brunton (*Practitioner*, vol. l, No. 2, February, 1893), reprinted by Harrison and Sons, St. Martin's Lane, London, to skin irritation about the genitals or neighbouring parts, especially in warm weather: "Eau-de-Cologne, which should be pure spirit with a little scent in it, may be used twice or three times a day . . . . diluted with a little water if the skin be very irritable."

ETHYL CHLORIDE INHALERS.

DR. T. D. LUKE (Edinburgh) writes: I think if your correspondent, "C.L.S.A.," took care to get a good quality rubber bag he would have no difficulty with the matter he complains of, namely, the rubber material perishing under the action of ethyl chloride. In my experience ethyl chloride has no solvent or destructive action on pure rubber; at the present moment I have in my possession and in regular use two or three bags which I have been using with ethyl chloride regularly for the past two years, and also with ethyl chloride and ether, and yet they are in perfect condition apart from the effects of ordinary tear and wear.

EVOLUTION AND HEREDITY.

MR. J. BEARD, D.Sc. (Edinburgh), writes: Perhaps you will allow me to add the following recent publications to those recommended by you to your correspondent "E. T." in the BRITISH MEDICAL JOURNAL of June 3rd: H. W. Cohn, *Evolution of To-day*, New York, 1900; De Vries, *Species and Varieties: Their Origin by Mutation*, Chicago: The Open Court Publishing Company, 1905, edited by D. T. MacDougal; A. Weismann, *The Evolution Theory*, two volumes, London, 1904. Another aspect of the problem of heredity is treated of by Dr. G. Archdall Reid in his recent book on *The Principles of Heredity* (London: Chapman and Hall, 1905, price 12s. 6d.). In the latter work, natural selection is no longer depicted as going about like a roaring lion, but as an insurance agent, picking out the best lives. Much of Bateson's work will be found in Reports to the Evolution Committee of the Royal Society, 1902 and 1905 (Reports 1 and 2, published by Harrison and Sons, London). Of my own contributions to the question, the following may interest your correspondent: "A Morphological Continuity of Germ-cells as the Basis of Heredity and Variation," *Review of Neurology and Psychiatry*, vol. 2, 1904. This paper is now in course of republication by the Board of Control of State Institutions, Des Moines, U.S.A. If your correspondent will give me his name and address, I will send him a reprint some months hence. Apart from Dr. Reid's, the most recent work upon heredity is Richard Semon's *Die Mneme als erhaltendes Prinzip im Wechsel des Organischen Geschehens*, pp. 14 and 353. Leipzig: Wilhelm Engelmann, 1904. It is very favourably reviewed by the well-known physiologist, Professor Rosenthal, in No. 10, vol. 25, of the *Biologisches Centralblatt*. Its author is the Australian traveller and investigator and skilled embryologist. The theory which, like myself, he advocates is that of "unconscious memory," first formulated by Professor Hering in 1870. In my paper at Oxford last year I endeavoured to support this theory from my work. I have since extended it to tumours, and now another working embryologist, Semon, has adopted it.

FATALITIES FROM ETHYL CHLORIDE.

DR. T. D. LUKE (Edinburgh) writes: In reply to Dr. Wilkins's inquiry as to fatal results from ethyl chloride, so far as I know there have been very few fatal cases altogether, and the only cases recorded in this country are the following: (1) A stout, healthy woman of 40, at Enfield, in March, 1904; dental operation; somnoform was used. (2) A female, of spare build, aged 42, at Llandudno, in 1904. (3) A further case occurred at Swansea in the same year, but details are lacking. Olcott Allen records a case in the *Amer. Journ. of Med. Science*. A coloured man, aged 28, was to be operated on for hernia, and he was given 15 c.cm.—nearly half an ounce—of ethyl chloride to inhale, and died apparently of asphyxia just when ether was turned on. Ware records another case, and so have several Continental surgeons, but in these all the patients were suffering from grave constitutional disability. Harvey Hilliard recorded a case in which toxic symptoms very suddenly showed themselves with only a small dose (*Practitioner*, February, 1905). It is highly probable that a few more deaths have occurred in this country, but have not come to light: but there does not seem to be any manner of doubt that, when used with ordinary precautions, ethyl chloride is a very safe anaesthetic indeed. I am inclined to think that those who have no previous experience of it are wisest to begin by making use of the glass capsules containing either 3 c.cm. or 5 c.cm., as the danger of an overdose is then practically eliminated, and they are enabled to familiarize themselves with the ordinary signs and symptoms of ethyl-chloride anaesthesia, so that later they can use their judgement as to the amount of the drug which will be necessary in any individual case. I am aware that there are some eminent anaesthetists who regard ethyl chloride with more than suspicion, but after two and a-half years' systematic use of it—daily—I am unable to see the reason for this, and the only thing I am disappointed with is the comparative frequency of after-sickness, which prevents it from completely displacing nitrous oxide in dental work. For the country practitioner, however, it is an ideal anaesthetic for small operations requiring two to three minutes of anaesthesia. I am sure its use will increase as time goes on, and it will go far to do away with the reckless, "happy-go-lucky," indiscriminate use of chloroform for cases in which this drug is in no way indicated, but the contrary.

LETTERS, NOTES, Etc.

KISSING THE BOOK.

E. K. writes: It is stated in the BRITISH MEDICAL JOURNAL, April 23rd, 1898, p. 1091, that "Mr. F. A. Stringer, the highest authority on the subject, has shown conclusively that kissing the book, so far from being ancient, is comparatively modern, dating only from the middle of the eighteenth century." Shakespeare makes Stephano say, in *The Tempest* (Act ii, Scene 2), "Come, swear to that; kiss the book." To what does this refer, if not to some custom of kissing the book in taking an oath?

THE GORDON BENNETT CUP.

THE Syndicat Médical de Chatel-Guyon-les-Bains, Puy-de-Dôme, believing that there may be some medical men who will wish to witness either the eliminating trials or the actual race for the Gordon-Bennett Automobile Cup, offer to reserve rooms at hotels and garage for them if they will apply to the Président du Syndicat. For the eliminating trials seats will also be provided in the tribune of the Société Sportive.

DR. DOYEN'S CANCER TREATMENT.

DR. A. S. MORTON (London, W.) writes: I find in my letter-box this morning a pamphlet entitled, Particulars by Dr. Doyen on Cancer Treatment, emanating from the sole agent for the sale of his serum and vaccine. In view of the somewhat mixed nature of its reception abroad, I think medical men here would do well to wait until an opportunity arises of scientifically testing the value of the alleged treatment before submitting their patients to a long, painful, and expensive process of injection. In the not over-luminous particulars referred to, some amusement may be derived from the statistical observations on the last page, thus—"while of the 29 operated upon, 2 showed no result and 17 are still under observation, therefore 10 show favourable results"—is sufficiently naïve, if not exactly convincing. A special committee of the Association might be asked to accord it at least the dignity of a trial, and report as to its value or otherwise.

THE LOCUM TENENS OF TO-DAY.

ONE OF THE OLD SCHOOL writes: There are no doubt many who can sympathize with Dr. Henry Waite in his description of *locum tenentes*. Many of the *locum tenentes* now available have very little practical knowledge of the routine of general practice, such as midwifery, dispensing, teeth extraction, etc. Also their diagnoses are sometimes startling. A friend of my own had a *locum* who diagnosed hysteria as ovarian tumour, and proposed to operate next day; he so frightened the patient's friends that they called in another man, with the result that my friend lost the whole family as patients. There are plenty of retired practitioners and others willing to act as *locum tenentes*, and I always get mine from this source, and have found them good, steady, practical men. Of course it is a little more trouble than getting one from an agent, but, on the other hand, we get to know something of our man beforehand, and the least a brother practitioner can do is to answer questions when referred to. If more men followed this course I feel certain we should hear less of the "inefficient *locum*." I may add that I have always obtained my substitutes by either inserting or answering advertisements in the medical journals.

ERRATUM.—In the letter from Dr. Henry Waite on *Locum Tenens* of To-day, published last week, p. 1312, for "most," in the third line from the bottom, read "mostly."

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The Harveian Oration

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON, JUNE 21ST, 1905.

By FREDERICK T. ROBERTS, M.D., F.R.C.P. Lond.,
Consulting Physician to University College Hospital.

[ABSTRACT.]

[THE first part of the oration was devoted to a sketch of the life and work of Harvey, the second part, in response to Harvey's injunction that there should be a commemoration of the benefactors of the College by name, was devoted to a short account of some of the most distinguished presidents, officers, and benefactors of the College. He then proceeded as follows:]

My next duty is to "exhort the Fellows and Members of this College to search and study out the secrets of Nature by way of experiment." What Harvey meant by "experiment" can hardly be strictly defined, but I presume he would include under the term the methods which he himself so successfully employed, as well as any others which might in the progress of events be subsequently discovered or developed for the purpose. His methods were careful, thorough, and systematic observation; dissection of the human body; comparative dissection of a large number and of all kinds of animals, as well as during fetal life; and unquestionably inspection of the heart and vessels, as well as experiments on living animals, or what we now speak of as "vivisection." It is hardly necessary for me to defend or justify the practice of vivisection before this College; that has already been done in previous orations with great thoroughness and ability. On this question the College itself has spoken out with no uncertain sound, though not rashly or without due consideration. In confirmation of this statement I need only remind you of the way in which the question was dealt with last year, referred from the Home Office, as to the necessity for experiments on living anaesthetized animals in the teaching of pharmacology.

There can be no doubt that Harvey regarded the College of Physicians as "the great centre from which the light of medical science and skill was to shed its lustre over England; he hoped that the College was to be the teacher of her people, the adviser of her rulers, and the training school of her medical men" (Barclay). It was a long time, however, before his hopeful anticipations were in any degree realized; and I have read a scathing rebuke in one of the former Harveian orations of the Fellows of the College, and of their narrow and exclusive jealousy, as being responsible for this result. Speaking generally, however, it may be stated that a prolonged interval elapsed after Harvey's time, on account of well-known causes, during which little or nothing was done in the way of research, and comparatively few of our Fellows contributed anything to the advance of his profession. Let us be thankful to-day that this is ancient history, and that the new scientific era completely altered the face of things, and has led progressively to the marvellous developments of which we now reap the fruits.

So far as this College itself is concerned as a body, its claim to aid modern scientific research chiefly rests on its association with the College of Surgeons in founding and working the laboratories at the Examination Hall, which were established early in 1890, but ceased to exist at the end of 1902, when the results of the practical experience gained there were handed over to the Metropolitan Asylums Board, while other parts of the building are now devoted to kindred work in the Army Medical School, and to the work of the Imperial Cancer Research. An interesting report has been recently published, for which we are indebted to our distinguished Fellow, Dr. Pye-Smith, in which a list is given of the investigations carried on in the laboratories during their existence, showing that much sound and important pathological and other work has been accomplished by the liberality of the Colleges, which has had a most beneficial, direct as well as indirect, bearing on the prevention and cure of disease.

If Harvey could come on the scene at the present time, and realize what is going on in the way of "teaching and studying out the secrets of Nature by way of experiment," surely he would be amazed and amply satisfied to see the extent and thoroughness with which his exhortation is being carried into effect in all directions. On all sides the cry is for "research," usually accompanied with an appeal for "funds," and we see it carried out in relation to industrial enterprises, chemistry, physics, biology in all its branches, light, electricity, agriculture, and various other departments having no immediate bearing on our profession. Yet, even in some of these departments, new discoveries have been and are being made, and new forces or elements brought to light, not a few of which have already proved of decided value in diagnosis and treatment, and it is impossible to foretell or estimate what the future may bring forth.

Coming to the question of research in relation to the medical profession, more particularly, the existing conditions and indications are decidedly favourable and promising. In the first place the trend of modern medical education and training is distinctly of a progressively more and more scientific character, and aims at preparing the student so that he may be able in the future to carry on research with real advantage to himself and to others. The older universities have been roused into activity and revivified, being now in the van of progress in this direction. At all our newer universities and in the medical schools laboratories for scientific observations and investigations of different kinds, in relation to physiology, pathology in all its aspects, including pathological chemistry bacteriology, pharmacology, and clinical investigation, are in active work. The tendency to centralize the preliminary scientific studies for the medical profession in London in a few institutions is a move decidedly in the right direction. I trust, however, that in carrying out this object, due regard will be paid to those institutions already possessing well-established and fully-equipped scientific departments, which have done excellent work in the past, and are thoroughly "up-to-date." In most hospitals also clinical laboratories are now in existence which are of great help in diagnosis, and thus of decided advantage to the patients, while, if properly utilized, they afford excellent opportunities for the scientific training of the student in the methods and objects of research in this direction.

The establishment of independent laboratories for pathological work and research is another advance by which great results have already been achieved, and from which we may anticipate incalculable benefits in the future. These institutions are now met with all over the world, and I cannot avoid mentioning specially the "Pasteur Institut" in Paris, where those of us who recently visited that city were so kindly received, and took part in the interesting ceremony carried out on that occasion. It is certainly a wonderful place, and a worthy memorial to the great yet simple minded personality—Pasteur—whose name may fitly be ranked with that of Harvey.

In this city we have also an institution associated with an equally honoured name, which is revered and always received with acclamation in every part of the world—namely, the "Lister Institute of Preventive Medicine," which has recently been admitted as a school of the University of London in the faculty of medicine for the purpose of research in hygiene and pathology. In many of our chief provincial cities and towns similar developments are taking place, and, indeed, they give London an example of progress in this direction with which it is very difficult to keep up. Remembering the direct interests which this vast Empire has in almost all parts of the world, it is encouraging to note that institutes for research have been or are being established in our different colonies, in India, and in various tropical regions. This brings me to another important and promising feature, namely, the application of scientific research for particular purposes, and for the study of special subjects, among the most prominent of which may be mentioned tuberculosis, cancer, tropical diseases, and nervous affections, sanitation and hygiene. Other aids and encouragements to research, which I can now only enumerate without any comment, are the presentation of research scholarships to deserving individuals, by the British Medical Association, certain city corporations and other bodies, or private persons; the contribution of large donations by wealthy and sensible persons, who are well-disposed towards the medical profession and are beginning to realize their responsibilities, to particular institutions or for particular purposes; and the fact that Their Most Gracious Majesties King Edward and Queen Alexandra, as well as other members of the Royal Family, take such a warm and practical interest in research work, and in its results in certain directions.

As immediately relevant to our commemoration of Harvey to-day, it would be entirely within my province to discuss in historical sequence the progress that has been made with

regard to the circulatory system since his time, and to indicate the present state of knowledge and practice in relation to that system. To enter upon this subject, however, at any length is obviously out of the question within the time at my disposal, and I must content myself with a very general summary, leaving further discussion for the published oration.

At the onset it is necessary to bear in mind what Harvey really did discover and demonstrate, and thus to have some definite starting point for studying the results of further investigation and progress. Of course, many anatomical facts relating to the heart and vessels, as well as that there was a movement of the blood, were well known before Harvey appeared on the scene, and these facts he fully appreciated and utilized, at the same time correcting anatomical errors and controverting the erroneous conclusions and theories of his predecessors. I take it for granted that this learned assembly is familiar with the details of the work and teaching of Harvey, in establishing among other points the muscular structure and contractility of the heart, whether known before or not, and in demonstrating its mode of action and mechanism, and the effects thereby produced; at the same time proving that the blood moved in a constant stream and in a definite direction, there being a complete double circulation, pulmonary and general. He sums the matter up in the words: "By the impulse of the heart there is a perpetual movement of the blood in a circle." Though he had absolute proof that the blood did somehow find its way from the terminal arteries into the commencing veins, he did not know how, and conjectured that it was the result of percolation through the organs and tissues. With his simple magnifying lens or perspicillum he could not see the delicate network of capillaries, which were only observed when the microscope was sufficiently developed. The capillary circulation in the frog's lung and mesentery was first observed by Malpighi, and the definite continuity of the circulation thus established. Nor did Harvey understand the meaning of the pulmonary circulation, knowing nothing about the mechanism or chemistry of respiration, which were only discovered at a much later period; this constituted a most important advance. Although discovered in his time, Harvey would not acknowledge the existence of a distinct absorbent system.

[Dr. Roberts then proceeded to summarize the methods by which knowledge and practice in relation to the circulatory system had been advanced since Harvey's time, and especially those of more modern date. He insisted upon the essential value of *post-mortem* examinations in this connexion, and of the systematic study and teaching of morbid anatomy, which no doubt Harvey thoroughly recognized, but which for a long period afterwards was entirely neglected: and also nowadays of morbid histology. He further pointed out how much had been achieved by intelligent clinical observation and investigation; and how far progress had been aided by the introduction of the stethoscope, and by other instruments or special apparatus of various kinds for demonstrating or recording the movements of the blood, the arterial tension and blood pressure, and other phenomena connected with the circulation. The chief methods of examining the blood were briefly referred to.

As illustrating the advances made in our knowledge in relation to the nature, etiology, and pathology of morbid conditions of the circulatory system, the orator referred to gross organic lesions of the heart and vessels; the different forms of acute endocarditis; acute and chronic changes affecting the myocardium; functional disorders, and their relation to the nervous system; thrombosis and embolism; the mutual pathological effects produced between the cardio-vascular and other systems; the principal changes and diseases associated with the blood; and certain special morbid processes or lesions with which the circulatory system is concerned. Dealing with clinical investigation in relation to the heart and vessels, while fully recognizing the value of the various instruments and apparatus already referred to, he insisted upon the importance and sufficiency of the simpler physical methods in ordinary use as a matter of general routine, and incidentally referred to the essential help not uncommonly afforded by direct auscultation, with which Harvey was certainly acquainted. For adequate examination of the blood, special methods were, he said, usually essential, in addition to the mere use of the microscope, and the help of a skilled expert was not uncommonly required. Reference was made to the employment of the Roentgen rays in examining the heart and pericardium in certain cases, and in the diagnosis of aneurysm.

With regard to treatment, after alluding to Harvey as a practitioner, and to the remedial measures which he seemed chiefly to employ, Dr. Roberts dwelt upon the great advances which had been made in the therapeutics of the circulatory system within modern experience; how definite our knowledge now was as to what we could and could not accomplish; and how largely we are indebted to experimental pharmacology by vivisection, as well as to physiological investigation and observation, and the systematic and intelligent study of clinical therapeutics. Dealing with particular methods and agents, he glanced at the value of drugs and of the reliable active principles now to be obtained; the great importance of hypodermic and intravenous injection; the remarkable effects of certain glandular structures or their products on the circulatory system, as strikingly exemplified by suprarenal extract and adrenalin; the treatment of cardiac affections by physical or balneological methods, or a combination of both; the essential importance of rest under a variety of circumstances; the rational use of blood-letting and local removal of blood; the beneficial effects of transfusion of blood under special circumstances; and the extreme value of the modern treatment by injection or infusion of saline solution in certain grave conditions. Dr. Roberts also dealt briefly with the therapeutics of the blood, and made a passing allusion to operative treatment in relation to the circulatory system. He then referred to some of the more prominent examples of the beneficial results on an extensive scale of scientific and practical research, and drew special attention, as being closely connected with the circulatory system, to the "brilliant victories" which have been achieved against malaria in different countries and regions, many of them forming an integral part of this vast Empire. While paying a tribute of respect and admiration to all those who at the risk of life and health have gone forth to dangerous climates to study and combat this and other tropical diseases, he mentioned personally Dr. Dutton, the latest "martyr to science," as he had been aptly called, whose lamented death recently occurred on the Congo, where he had gone to study sleeping sickness on behalf of the Liverpool School of Tropical Medicine. Dr. Roberts expressed, on behalf of the College, their deep sense of the great services which Dr. Dutton had rendered to the medical profession and to humanity, their profound regret at the premature cutting-off of such a valuable life and promising career, and their heartfelt sympathy with his bereaved family and friends.]

Conclusion.

The last and most agreeable duty laid upon me by Harvey's direction is to "exhort the Fellows and members, for the honour of the profession, to continue in mutual love and affection among themselves, without which neither the dignity of the College can be maintained, nor yet particular men receive that benefit by their admission into the College which they might expect, ever remembering that *Concordia res parvae crescunt, discordia magnae dilabuntur*. Who so fitted as Harvey to give us this exhortation at the close of his noble career! Though he could be justly indignant on occasion, his whole life was an example of simple and unassuming dignity, true courtesy and politeness, unselfishness, kindness of heart, and Christian charity, and whatever may have been the state of things in days gone by, it is a satisfaction to think that we may now congratulate ourselves on fulfilling Harvey's exhortation in a fairly adequate degree. A spirit of good-fellowship prevails amongst us; and I firmly believe that we are all cordially united by the bonds of mutual respect and esteem. Thus the dignity of the College is fully maintained; and an increasing influence for good is being exerted upon the medical profession as well as in other directions. With regard to the future position and reputation of this College in relation to scientific research and the progress of medicine there can be no doubt or misgiving, when we see amongst our younger Fellows and members so many who are endowed with great abilities, who are full of energy, intellectual vigour, and enthusiasm in their works, and whose achievements have already brought them into conspicuous prominence, and in some cases into the foremost ranks of our profession. May we not confidently hope that they will also ever keep in mind Harvey's last exhortation, and unflinchingly strive to maintain the high standard of character and conduct which he has placed before them. But should they at any time feel the need of an example or a stimulus, let them steadily fix their attention and thoughts upon the personality, the life, and the work of our "immortal and beloved Harvey," whom it is our privilege and pride and happiness to commemorate to day.

An Address

ON

THE UNCERTAINTY OF POST-MORTEM EVIDENCE IN SUSPECTED LEAD POISONING.

Delivered before the North Staffordshire Division of the Staffordshire Branch of the British Medical Association.

BY S. KING ALCOCK, M.D.LOND.,

Physician to the North Staffordshire Infirmary; Certifying Factory Surgeon for the District of Burslem.

THE scope of this paper is not so wide as the title might imply. Cases of industrial lead poisoning only are under consideration, in which access to the poison and the possibility of its absorption are undisputed. It is, however, precisely in these industrial cases that conclusions are often reached on, as it seems to me, totally insufficient grounds. Dangerous occupations do not exclude the possibility of death from other causes, and, although such a statement may sound a truism, I am convinced that its applications are frequently neglected in the "lightning" diagnosis of industrial diseases. To quote Tanquerel des Planches, "Not every trouble in a lead worker is due to lead poisoning, just as not every trouble is cancerous in a cancer patient or gout in the gouty."

Nothing should stimulate accuracy and caution in judgement more than the prospect of having to enunciate one's views before a jury, and this stimulus is supplied in cases of fatal plumbism. Since the early months of 1904 compensation is payable to the relatives of workers in china and earthenware whose deaths are certified, after due inquiry, to be due to lead poisoning. Inquests are held on every suspected case, and the verdict of the jury largely guides the insurance companies in their payment of claim.

In many of the cases, little or no room for doubt exists as to the propriety of the verdict, since typical clinical histories are forthcoming. It is a reasonable assumption, for instance, that death has resulted from lead poisoning when the deceased had been for some time under suspension on account of plumbism (receiving weekly certificates to that effect) and was presumably under attendance for the original and final symptoms.

Workers are suspended for various reasons, and I append a rough classification of their value, in diminishing order of likelihood that death, if it follows, was due to plumbism.

(*a*) Headache and optic neuritis.
(*b*) Paralysis, especially when in combination with anaemia.
(*c*) Hysterical manifestations, in previously healthy subjects.
(*d*) Grave anaemia.
(*e*) Colic.
(*f*) Anaemia.

When death succeeds (*a*) and (*b*), the verdict must necessarily attribute it to lead poisoning, unless other grave intercurrent diseases were known to be present. In (*c*), (*d*), (*e*) and (*f*), where these symptoms, although justifying the suspension, had then rather a warning than a diagnostic significance, the presumption is that death was due to the supervention of the severer complications of plumbism, and probably a clinical history to that effect would be afforded by the practitioner in attendance.

In a second group, we may place those cases in which death has taken place, although the worker had presented no symptoms at the previous monthly examination which called for his suspension. Such interim fatalities, when attributable to lead, are usually due to sudden encephalopathic troubles, in which the whole interval between the sudden seizure and death may be only a few days. If a suggestive uncomplicated clinical history is given on these lines, it calls for a verdict in correspondence therewith.

There remains a third group of cases, in which death overtakes an apparently healthy worker suddenly and unexpectedly, or terminates an illness of an entirely anomalous character, *qua* lead. It is to this group that I wish particularly to direct attention, for there is danger here that an unwarrantable verdict may be given by a jury prone to *a priori* reasoning, or liable to be influenced unduly by dogmatic but unsound statements made by medical witnesses.

It is very natural that a jury should presume *post-mortem* evidence to be decisive and irrefutable, and the insignia of lead poisoning to be as visible and tangible as the bullet found in the brain of the suicide. But, as a matter of fact, the pathologist is confronted by an aggravating and perplexing uncertainty; at most, the indications found are not combined in inevitable and pathognomonic association, and, on the other hand, a decisive clinical history may have to stand destitute of any support that morbid anatomy could give.

This third group, in which obscure illnesses give ground for so much speculation and argument, embraces several morbid conditions. Some of the possibilities may be indicated here with a suggestion of the alternatives in diagnosis which should be borne in mind (apart from the direct evidence of other causes of death which a *post-mortem* examination may reveal).

(a) Death from Colic.

The rarity of the recorded instances is much against this diagnosis—only 1 in 6,000 cases being known to Tanquerel des Planches. Death following attacks of quasi-colic is more probably due to such causes as acute gastritis, appendicitis, complications of renal or hepatic colic, perforation of ulcers, rupture of ectopic gestation, etc. In those cases where the patient has died before the doctor could be called, the difficulty of deciding the true cause of death naturally becomes infinitely greater. In one such case in my experience death was assigned to colic on the *post hoc* principle so common in industrial maladies, although the previous history pointed clearly to an acute gastritis of alcoholism, resulting in vomiting and syncope.

(b) Very Rapid Paralysis.

Assuming this to be of the extensor type, the extreme rapidity of an attack contraindicates lead as its cause. Sir W. Gowers says that from lead there is never immediate considerable paralysis, complete development being always spread over some days. There should be no difficulty in calling to mind the more reasonable causes of such conditions, according to the region affected, and it is unnecessary to enumerate them here. In hemiplegia due to cerebral haemorrhage, occurring at a comparatively early age, the influence of lead in the production of granular kidney must be remembered. The possibility of alcohol as an equally important contributor must, however, be estimated, while the degenerative processes of syphilis, purpura, etc., may be responsible in some cases.

(c) Convulsions, Delirium, and Coma.

These symptoms, in true lead-encephalopathies, may exist separately or in combination. Other notable causes of such phenomena suggest themselves at once, and should be excluded or reckoned in the diagnosis. Those most frequently met with include uraemia, traumatism, true epilepsy, otitis interna, alcohol, belladonna, and other poisons.

(d) Abortions due to Lead, followed by Fatal Sepsis.

It is notorious that the abortifacient in many of these cases is not the lead absorbed during occupation, but a lead compound, such as diachylon, taken for a specific purpose. I need hardly say that it is extremely difficult to obtain evidence of this, as one is met by an impenetrable conspiracy of silence.

(e) Accidental Ingestion of Lead Compounds.

I may cite here a case in which very severe and extensive paralysis followed the consumption of the contents of a tin of sardines which, after being opened, was filled up with vinegar and allowed to stand for some hours. The resulting acetate of lead, derived from the dissolved solder, was of course responsible for the illness.

When death has resulted from one or other of these conditions, and a provisional diagnosis of suspected lead poisoning has been made, a *post mortem* examination is invoked to decide the question. We can better realize the untrustworthiness of the pathological data which will be available as material for deduction if we review the morbid anatomy of a lead worker who has died in classical fashion—that is, with symptoms of encephalopathy after previous attacks of colic and paralysis.

The body is probably pale and thin, with obvious muscular wasting. The gums show the well-known blue line. Although, clinically, its appearance under various conditions—which cannot be discussed here—may have given ground for action, recognition of this line does not help us in an industrial *post-mortem* examination, because the opportunities for absorption consequent on occupation are not in dispute.

The contents of the thorax present no abnormalities, except such as are associated with general malnutrition.

In the abdomen interest centres on the liver and kidneys. The liver is probably the seat of a cirrhosis—an inflammatory hyperplasia round the biliary tubules; but the microscope is necessary for the appreciation of this, and I question whether lead, unassisted by alcohol, ever gives rise to marked naked-eye cirrhotic appearances. Certainly, the yellow liver of typical cirrhosis is never seen.

The change in the kidneys, if there is any disease at all, will probably be of the red granular type—the organs diminished in size and weight, the cortex shrunken, and the capsule adherent, with the microscopical appearances characteristic of interstitial nephritis. In this relation, however, it is only fair to quote the late Dr. Arlidge, who says, in his *Diseases of Occupations*:—"My long and extensive experience among the victims of lead poisoning in the Potteries has convinced me that the general assumption of the connexion between plumbism and kidney disease does not hold good, at least not in the case of potters exposed to lead. Among hundreds of cases of wrist-drop and other varieties of paralysis, as well as of colic and constipation from lead, the existence of albuminuria will be looked for in vain, and when found its ratio among workers in lead is not greater than it is among the general population."

Other observers in the Midlands and the North of England have pointed out the scanty connexion between gout and lead poisoning in their districts, although the two diseases are so frequently associated in London and the South. The explanation is not clear, but alcohol seems mainly responsible for this difference in geographical pathology.

In cases of acute encephalopathy, after a short exposure to lead, Dr. Oliver has noted a true parenchymatous nephritis. I have not seen this, possibly because the few fatal cases of encephalopathy in my district have occurred in girls who have worked for some considerable time in lead, in circumstances which did not expose them to the large, immediately toxic doses associated with employment in white lead.

Dr. Dixon Mann pointed out some years ago, as the result of most careful analyses, how very small is the amount of lead found in the urine compared with that found in the faeces. Even that complement of the metal which has been absorbed into the circulation is mainly eliminated by the bowel. If, therefore, the bulk of the excretory duty falls on the intestines, the comparative immunity of the kidneys becomes comprehensible. A combination of lead and alcohol, however, is very active for evil, and enormously increases the liability of the kidneys to disease.

Assuming for a moment the possibility of death from uncomplicated colic, we should expect to find evidence of this in the intestines. In guinea-pigs experimentally poisoned the gut has been found tightly contracted at intervals, but this condition has not been seen in man. The picture of painful tetanic spasm, which we form from clinical observations, would lead us to expect areas of contraction, with practical obliteration of the calibre, but no such *post-mortem* condition has been reported. In one case at which I was present, a medical witness considered that importance was to be attached to slight contractions of the intestine at irregular intervals, somewhat like the divisions in a series of sausages. Their small length—about ¼ in.—and the ease of extensibility of the little rings, combined with the fact that the whole intestine was empty, seemed to me to negative their pathological importance entirely.

Sir W. Gowers considers that the colon is the seat of the pains of lead colic, but does not give reasons for his opinion, which, to help us, should be based on morbid appearances. It must be remembered that no diagnostic significance can be attached to contractions of the intestines, seen occasionally after illnesses whose mode of termination would suggest that the condition was a mere "agony" phenomenon.

The brain may not, and probably will not, show any abnormal appearances whatever. Occasionally its substance has been reported as appearing firm, resistant, and pale, as if compressed, with some obliteration of the convolutions. But such appearances at best are indecisive, and, moreover, are certainly not found in the majority of cases. Indeed, the absence of any visible changes becomes reasonable when we reflect how insignificant is the apparent anatomical disturbance after years of true epileptic attacks. That changes have taken place, and those of the gravest character, it is impossible to doubt; but they are concerned with bio-chemical molecular phases, of which we know practically nothing with our present methods of investigation.

The muscles and nerves, apart from the obvious naked-eye wasting, show the ordinary degenerative changes under the microscope, characterized by increase of the nuclei, fatty and granular degeneration, and, in the case of the nerves, a breaking up of the medullary sheaths and axis cylinders.

Chemical analysis of the organs, especially the brain, liver, and kidneys, discloses the presence of lead, generally in quantities estimated by milligrammes. The presence of lead in the tissues is to be expected; indeed, its absence would be a matter for surprise. It is manifestly impossible for any lead-worker to ply his occupation without constantly absorbing lead by the mouth and nasal passages. It is equally certain that there is as constant an elimination by the bowel and kidneys. Elimination, however, is slow, and cannot be considered to correspond with the daily ingestion, so that the tissues must retain a certain amount in store. We know little or nothing, however, of the conditions of storage, or of the changes which make for its solubility and the production of toxic effects. Analysis will reveal simply the presence of so much lead—a grain or two, perhaps—in an organ, which amount may lie dormant and harmless for years. And yet, in ill-comprehended conditions, a fractional quantity of this, inappreciable by the scales, may suddenly provoke a fatal toxaemia. In one recorded case of encephalopathy, actually no lead at all was found in the brain. To complicate matters, some authors (Gautier, Devergie, etc.), assert that lead is found normally in healthy tissues, as a result of the fact that each of us takes daily half a milligramme of the metal into the body. The actual amount found on analysis cannot therefore justify any conclusion as to its active toxicity, since analysis cannot distinguish between what we may call *plumbum mortuum* and *plumbum vivum*. It is more reasonable to believe that lead causes disease, not by its direct action, but rather by so reducing the excretory powers (mainly of the bowels and kidneys) that toxic products are accumulated, and a true toxaemia results. It is interesting, in this connexion, to call to mind Sir Andrew Clark's theory of the dependence of anaemia on constipation. The anaemia associated with lead may, after all, be due to its constipating effect, and not to its direct interference with haematosis.

If an undoubted case of lead poisoning can offer no better *post-mortem* evidence than this just summarized, how trivial and untrustworthy must be the appearances which are put forward as proofs of death from plumbism in workers who die suddenly of mysterious maladies. The *post-mortem* examination may, of course, disclose the existence of aneurysm, cerebral tumour, apoplexy, phthisis, etc.; but, on the other hand, an obvious cause of death may be sought in vain. Is it fair, in the absence of a clinical history suggestive of plumbism, coupled with completely negative *post-mortem* evidence, to ask a jury for a verdict of death from lead poisoning? Nothing can be more unreasonable, in my opinion.

The attempt is sometimes made to construe the statement that a certain condition of an organ was compatible with lead poisoning into an admission that the condition was caused by, and actually indicated, the disease. Without commenting on the impropriety of these ingenious perversions on the part of a legal advocate, I should like to point out how careful a medical witness should be not to allow any such unjustifiable extension of his statements. The average juryman is not likely to appreciate the exact differences between compatibility and causal connexion when specious inferences are dangled before him. To give an example *ad absurdum*, the existence of ingrowing toe-nails and a bald head is compatible with lead poisoning, but neither condition has the slightest diagnostic value in reference to it.

Again, it often happens that at certain inquests "bogus" clinical evidence is advanced by the deceased's friends, who give details of attacks of colic, headache, etc., complaints of which the worker, it is said, had suppressed during his lifetime "for fear of being stopped." When we consider that compensation is given to any worker whose suspension is deemed advisable on account of his report of suspicious symptoms, it seems hardly possible that such silly reticence should be maintained. The whole system of monthly examinations is rendered futile unless the worker co-operates by reporting honestly his subjective troubles, since these, rightly interpreted, are of more value as indications for suspension than the physical signs of plumbism which develop later on.

On the other hand, it is extremely difficult to elicit from witnesses who are related to the deceased worker a distinct history of alcoholism, even although the ravages of drink have been manifest at the monthly inspections for some time

before death. The guarded and scanty admissions of relatives at the inquest contrast forcibly with the authentic reminiscences of disinterested friends whose evidence has not been called. But, humanly speaking, it is too much to expect a really honest biography when claims for compensation are in the wind; the expectant heirs must naturally be to the "virtues very kind," to the "faults a little blind."

To sum up: In those cases where death has been preceded by well-marked signs of plumbism, with previous suspension (and it is only fair to say that such cases form a majority), the clinical history is sufficiently decisive to warrant a verdict of death from lead poisoning. A *post-mortem* examination supports the clinical evidence to the limited extent indicated above, presuming that it does not disclose another more reasonable, but previously unsuspected, cause of death.

To a minor degree the same conclusion holds for those cases of fatal illness of rapid intermensual development, with no prodromal troubles demanding suspension, but with clinical characters entirely compatible with acute lead poisoning. The *post-mortem* evidence in such instances will most probably be of an absolutely negative character, and valueless as a confirmatory contribution to diagnosis, but a verdict of death from lead poisoning will follow legitimately on the recital of an adequate clinical history.

But the vague, anomalous illnesses of which I have spoken, irreconcilable with any known form of lead poisoning, can never be delimited and defined by an appeal to the negative indications of morbid anatomy. A *post-mortem* examination will be valueless unless it happens to demonstrate the existence of independent organic lesions, discovery of which serves to exculpate the suspected lead.

If a coroner and jury expect mathematically-exact statements in these matters, where the limitations of pathological research make absolute certainty impossible, they must remain disappointed; and I hold it unworthy conduct on the part of a medical witness to maintain a dogmatic attitude, when his statements are based mainly on untested prejudices, and but slightly on observed truths.

ON OPERATION FOR CLOSURE OF CLEFT PALATE IN INFANTS.*

BY SIR THORNLEY STOKER, F.R.C.S.I.,

President of the Royal Academy of Medicine in Ireland, Surgeon to the Richmond Hospital; ex-President Royal College of Surgeons in Ireland.

OPERATIONS for the closure of clefts in the hard palate have not undergone any striking developments in late years, except in one particular, and that is the introduction by Mr. Brophy, of Chicago, of a new method of closing the cleft soon after birth by approximation of the superior maxillae and palate bones. The development of the surgical treatment of cleft hard palate divides itself readily into three periods:—

1. That commencing with the practice of closing the cleft by operation, introduced by Warren, of Boston, about 1843.

2. That dating from developments of methods during the years immediately preceding 1868.

3. That inaugurated by the operation of Mr. Brophy, described in his paper in *The Dental Cosmos* of April, 1901.

1. Dr. Warren must be regarded as the pioneer of the operations for cleft hard palate. Up to the time when his paper appeared in the *American Journal of Medical Science*, in 1843, no method existed of dealing with this deformity, except by the application of obturators, which are never satisfactory, and are only in these days resorted to where special measures have failed.

2. The work of Sir Thomas Smith has probably lent itself more to the perfection of the operation on the hard palate than that of any English surgeon. His paper, published in the *Med. Chir. Trans.* for 1868, inaugurated the second period in the history of uranoplasty. He advocated the operation in patients of tender years, recommended the use of chloroform, and devised his well-known gag to assist the surgeon; and this when Fergusson two years later could only say that he had resorted to the proceeding with partial success, and recommended it for further trial. It is true that in the list of cases published in 1868, Smith in all operated on the soft palate only, and left those in which a cleft hard palate existed, to be dealt with later on. This will be admitted by those who have practised Brophy's operation to be inadmissible to-day, when it will be found better to defer the closure of the cleft in the soft palate until the defect in the hard structures has been corrected.

Since the years preceding 1868, the age selected for closing the hard palate has steadily become earlier. At first it was usually done after puberty. In 1870 we find Mr. Pollock advising that it should be delayed for two or three years after birth, and now it is open to operate by Brophy's method at any time during the three months after birth.

3. The operation of Mr. Brophy has been done by him at from ten days to three months of age. It constitutes a new departure, not only on account of the early period of life at which it is done, but because it is novel both in principle and method. It consists essentially in drawing the upper maxillae and palate bones of opposite sides together by wire sutures, generally two in number, passed transversely through the alveolar processes above the level of the palate processes of the maxillae and palate bones. There are details of the operation which will be best understood by following Mr. Brophy's own description. The method cannot be successfully carried out after the child is three months old, as the bones are then too fully ossified to be displaced by any force that could be safely applied. I have had the opportunity of using this treatment in three cases, and may at once say that I shall use it in future when suitable subjects offer, reserving, however, a few minor points of the procedure about which to offer an independent opinion.

I may epitomize Mr. Brophy's plea for his method as follows. He advocates its employment during early infancy for the following reasons:—

1. "The surgical shock is less, because the nervous system of a child is not well developed, and it is not, therefore, capable of receiving the same impressions that it would later in life, for young children usually react better. Moreover, all mental apprehension is eliminated, and we know that alarm and dread are among the most powerful factors in producing shock."

2. "Before the bones are fully calcified they may be bent or moved without fracture, etc."

3. "If the muscles are very early brought into action they develop instead of atrophy, and hence a good return is secured, with plenty of tissue; whereas if the operation is undertaken later in life, after the parts are shrunken through non-use, they can rarely be made to subserve the same purposes as organs which develop through natural employment, etc."

4. "When the palatal processes of the maxillae are united, it will be observed that the development of the bones of the alveolar processes of the upper jaw assume a form nearly or quite normal, and when the teeth are erupted they will properly occlude with the lower ones, or nearly so. . . . It was predicted by my surgical friends that the upper jaw would be much narrower than the lower one, and that it must always remain contracted." Mr. Brophy then proceeds to show that this has not been the case, and that no such deformity is likely to occur beyond what may be corrected by orthodontal methods.

5. "Following early operations there is much less deformity, for all the tissues, bony as well as soft, develop naturally and according to accepted types."

6. "When the operation is made in early infancy, the parts are sufficiently advanced to give possibility for normal speech when the time comes for learning to articulate. If the operation is not made until faulty habits are acquired it is with difficulty that they can be overcome, even supposing the muscular parts could be made sufficient."

These arguments are too sound to require much comment. With reference to the first I may say I have been struck with the absence of shock or other grave symptoms. In none of the cases I have done has there been any cause for alarm. Even when the anaesthesia was prolonged for nearly three-quarters of an hour, or when a good deal of blood for a tender infant to lose was lost, I have seen far less disturbance than is frequent in shorter operations, with less severe bleeding, at a later period of life. One of the matters, however, requiring attention when operating on very young children is the avoidance of bleeding, and some suggestions later on in alteration of Mr. Brophy's technique are worthy of attention.

The second observation, with reference to the absence of tendency to fracture, requires a remark. In the last case I operated on the child was six weeks old, and the gap in the hard palate of great width. The sides could not be brought

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completely together, and in trying to do so I fractured the alveolus of one jaw but without tearing its soft coverings. This enabled me to get better apposition, and no deformity or ill effect ensued.

The stages of Brophy's operation as described by himself are as follows:—

1. "Thorough paring of the edges of the fissure, including in the incision the edge of the semicartilaginous bone."

2. "Then raise the cheek, and well back towards the posterior extremity of the hard palate, just back of the maxillary process, and high enough to escape all danger of not being above the palate bone, insert a large braided silk suture, carrying it through the substance of the bone to the central fissure by means of one of the strong needles,* with the opposite needle carrying a corresponding silk suture through the opposite side. We then have two silk suture-loops carried to the centre of the cleft, and passing one through the other enables us to carry the one loop through both of the maxillary bones."

"The silk is more easily introduced by the needle than wire, but a silver wire should always be substituted for it, and drawn through to take its place. The wire should be No. 20, and may be doubled in case the condition of the parts and the tension upon the tissues necessary to approximate them seem to require it. Nearer the front portion of the maxilla insert another wire, carrying it through the substance of the bone above the palate plate, and through the other side in a position corresponding to the place of entrance. Thus we shall have one wire passing over the palate in front of the malar process of the bone and another behind it."

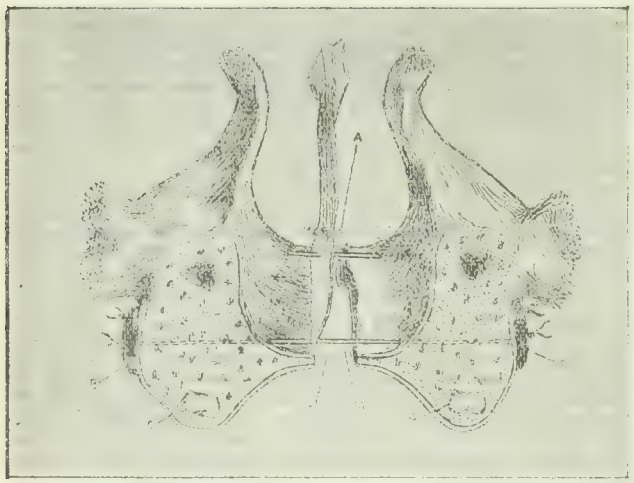


Fig. 1A.—Vertical section of the superior maxillary bones of a child five weeks of age, showing congenital cleft palate. A, A. Silver tension sutures. B, B. Lead-plates. C, C. Germs of the first temporary molar teeth. D. Cleft palate. (From the *Dental Cosmos*, April, 1901.)

With regard to this stage of the operation I may give another practical reason for using double wires of moderate gauge instead of a single thicker one. When much resistance is experienced it will be found more easy when tightening the suture to twist two thin wires than one thick one.

3. "The next step is to make lead plates (No. 17, American gauge†) to fit the convexity of the buccal surfaces of the bones. Have them provided with eye-holes, through which are passed the protruded ends of the wire on each side. Twist these together—that is, the right end of the posterior with the right end of the anterior wire, and the same on the left side. These form heavy tension sutures, and the parts when once approximated by their use, cannot be separated, as *the sutures do not cut out*. If the cleft is a very wide one, and we are not able to close it by twisting the wires together on the lead-plates, force may be exercised with the thumb and fingers, or by means of a forceps designed for that purpose. If by such force the edges of the cleft do not approximate, there is a further step to be taken which will obviate these difficulties. After the cheek is well raised, divide the mucous membrane and the bone, through the malar process, carry the knife in a horizontal direction, and when well inserted sweep the handle forward and backward. In this way a maximum amount of bone and a minimum amount of mucous membrane will be divided. This done on either side the bone can readily be moved towards the median line."

The next step in the operation is the insertion, should they be found necessary, of some points of interrupted suture in the soft coverings of the hard palate, and, if it be decided to close it at the same time, in the soft palate.

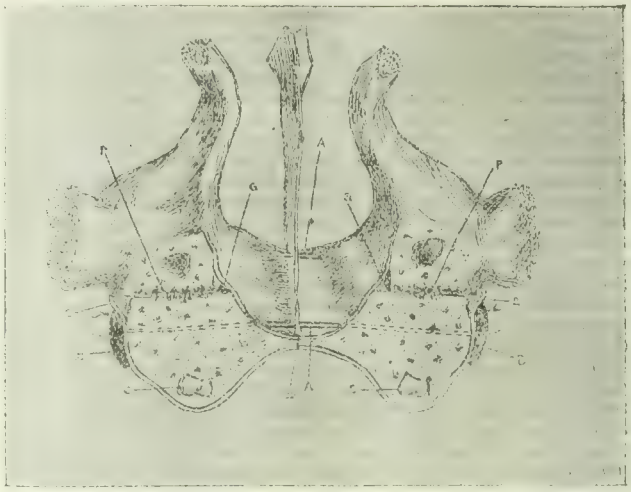


Fig. 1B.—Vertical section of the superior maxillary bones of a child five weeks of age, showing method of closing cleft of hard palate. A, A. Silver tension sutures. B, B. Lead-plates. C, C. Germs of first temporary molar teeth. D. Cleft closed. E, E. Muco-periosteum, forming extended wall of the triangular space by forcing the lower fragment of the bone inward. F, F. Lines of fracture made by approximation of the palatal process. G, G. Triangular space on nasal surface of bone made by approximation of the palatal process. (From the *Dental Cosmos*, April, 1901.)

The premaxilla is then dealt with. Its sides are trimmed, a V-shaped piece of bone removed from the vomer so as to allow it to be moved back, and a suture inserted to hold it between the alveolar processes.

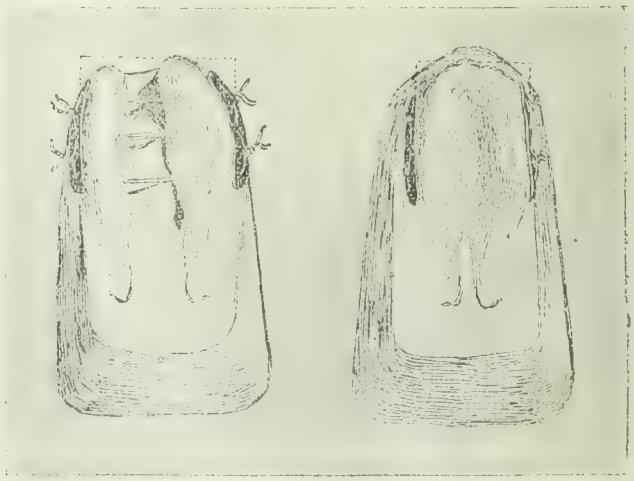


Fig. 2A.—Drawing of a plaster cast of the mouth of a child, showing lead plates and wire sutures in place.

Fig. 2B.—Drawing of a cast of the same mouth one week after cleft was closed.

(From the *Dental Cosmos*, April, 1901.)

At a later date, when the sutures have all been removed, and when no further wide access to the mouth is likely to be required, the hare-lip can be operated on.

In practice I have found certain slight departures from Mr. Brophy's methods advisable. They are as follows:—

When performing the operation, paring the edges of the palate should be deferred until the sutures have been inserted and the bones moved towards the middle line. The period

* The needles he describes are essentially those of Liston.

† The American gauges referred to in this paper are practically the same as the Imperial or B.W. gauges, and the lead plates are measured by a wire gauge and not by a lead-plate gauge.

for haemorrhage is thus lessened. Also, if it be found that the bones cannot, with reasonable effort, be brought together, it is better not to pare the soft parts at this time. It must be remembered that the sutures act in two ways, at first by drawing the parts together and subsequently by holding them fixed so that they approximate by the process of their growth. In two of the three cases I have operated on I failed to get the maxillae to touch each other, and yet union soon occurred in one, and is being completed in the other and later case. It is therefore better, where full approximation of the maxillae cannot be effected at the time of operation, not to waste tissue by an ineffectual paring, but to wait and do it later on when the bones are touching. Again, the lower edge of the vomer is often very thick and vascular, and in one instance I saw it grow into the cleft and help to close it.

Although he does not explicitly state it, I gather from Mr. Brophy's paper that he advises the soft palate to be operated on at the same time as the hard. In my first case I pared the whole palatal edge, and got union of the soft as well as the hard palate, except the uvula. In the second case the soft palate did not unite, although sutured, and its treatment has been deferred for a year or two. In the third case the gap was so wide that I could not get the sides of the hard palate into apposition. I did not pare or attempt to deal with the soft palate, and propose to operate on it later on.

The proper course seems to be to pass the sutures and move the bones. If they can be got into close apposition to pare the edge of the hard palate and fix the sutures; if they cannot be thoroughly approximated to defer the paring process until the maxillae have grown into apposition, and then do it, if necessary. If the hard palate is thoroughly closed at the primary operation it would be best to then trim and suture the soft palate, or under less favourable circumstances to defer its closure.

There can be no reasonable objection to the practice of leaving the hare-lip without operation until the hard palate has been closed. Free access to the mouth is thus obtained and the surgeon's work done under the easiest circumstances. Of course, if the soft palate remains deformed, either because the attempt to procure union has failed, or has been deferred, it would be necessary to close the lip as soon as may be convenient after the bony defects have been remedied, and postpone the closure of the soft palate until a later date.

I have made extensive use of Mr. Brophy's words, because I am not aware of any previous publication of them in this country, and wish to put his own case. The more so as I only venture to criticize some minor details, and do not take exception to any of his general principles or practice.

The operation requires some neatness, but is by no means a difficult one. In this, as in all procedures of its class, Rose's position should be employed, as it gives both facility and safety. I use no gag, except the jaws are developed enough to permit the use of one such as Lane's. The tongue is best kept out of the way by a depressor, shaped like the curved end of Fergusson's director, which is not bulky, and can be used as a tractor. No special instruments are required, as a couple of Liston's naevus needles of different curves suffice to pass the sutures. The plates and sutures do not seem to cause inconvenience to the child nor have I seen stenosis of the nasal cavity produced by their use. In the cases I have operated on, the infants have rapidly put on condition. The three cases in which I have done this operation were all of extreme deformity. In each hare-lip, projecting premaxillae, and complete and wide separation of the hard and soft palates was present.

CASE I.—J. M'K., aged 12 weeks, was admitted to the Richmond Hospital, October 6th, 1903. He was healthy and well nourished, and suffered from wide cleft of the soft and hard palates, with complete left hare-lip, fissure, and separation of premaxilla on the left side. There was much projection of the premaxilla. On October 10th the soft and hard palates were pared, the malar ridges on both sides divided and the clefts closed, the soft one by horse hair sutures, the hard by two wires and plates. The premaxillary bone was then moved back and sutured in its place. The temperature rose to 100° for two days after operation, and then became normal. On November 7th the wires were removed, and on November 11th two points of suture placed in the soft structures where they were inclined to separate. On December 10th the hare-lip was operated on, and on January 5th the child was taken home. The lip, premaxilla, hard palate, and all the soft palate except the uvula being in normal condition. Fig. 3 shows the appearance of this patient at the age of 1 year and 10 months.

CASE II.—J. M., aged 4 weeks, was admitted to the Richmond Hospital on March 15th, 1904, but, being in very poor condition, the operation was deferred to May 4th, when at the age of 9 weeks he was operated on. The condition of the child was of much deformity double hare-lip, projection of premaxillary bone, and complete and wide cleft of both hard and soft palates. The steps of the operation were the same as in the first case. There was no subsequent rise of temperature of any moment. The child was taken home five days after operation, and brought back to have the wires removed at the end of four weeks. The lip was then operated on. The result in this case was excellent, the whole of the surfaces uniting thoroughly except the uvula. I cannot show a picture of this child's condition after operation, as it died of bronchitis ten months after its treatment had concluded—a fact only discovered when we sent for it to have a photograph done.



Fig. 3.

CASE III.—I. N., aged 6 weeks, admitted to the Richmond Hospital, February 20th, 1905; suffered from double hare-lip, premaxillary projection, and complete and wide clefts of both hard and soft palates (Figs. 4 and 5). These pictures give a fair average idea of the degree of deformity in all three cases. This child was in unusually good condition, having been fed with human milk, given with a spoon. She was operated on two days after her admission in the same way as the two other cases, except that as the cleft in the hard palate could not be completely closed no attempt was made to deal with the soft palate. The premaxilla was moved into line with the alveoli. It is now eleven weeks since the operation; the cleft in the hard palate has become steadily narrower, is quite closed in front behind the premaxilla, and will probably soon be closed behind. The hare-lip was operated on on May 10th, and has united favourably. In due course I shall attempt to get union of the soft palate.



Fig. 4.



Fig. 5.

The second of the above cases is a test one, as it shows what a good result may be got in even a very feeble and ill-nourished child. It is my usual practice to defer all operations for hare-lip or cleft palate until every effort has been made to improve the condition of the child, but this was a weakly creature in spite of treatment.

Regarding the question as to when the soft palate is to be closed in those cases where it has not united, or in which it has not been thought well to attempt to include it in the primary operation, it is not possible to give a dogmatic opinion. In some instances, no doubt, it may be secondarily attacked before the lip is closed and while free access is obtainable, while in others a delay of two, three, or four years is unavoidable.

One remark may be made in connexion with this operation—namely, not to be discouraged at any unsightliness that may be present at first. It is not always possible to get the case to look pretty at the time of operation, or even always to close the hard palate cleft completely. The parts will gradually fall into line and look nicer, and, as I have before said, the cleft in the hard structures will gradually close more or less completely if it has been securely wired.

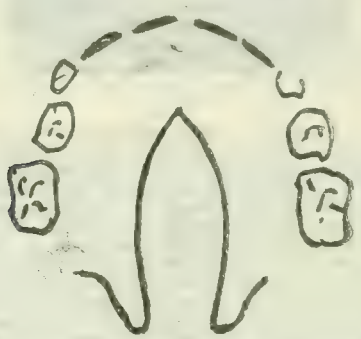
Finally, I do not think it is always possible to carry out this operation with academic perfection, but that being said, it is hardly possible to deny that it is of great importance and not to be overlooked.

REMARKS ON CLEFT-PALATE OPERATION-WOUNDS HEALING BY SECOND INTENTION.

BY EDMUND OWEN, F.R.C.S.,

Consulting Surgeon to St. Mary's Hospital and to the Hospital for Sick Children, Great Ormond Street, London.

AN incised wound which does not heal by immediate union of its apposed edges is apt, to say the least, to be associated with disappointment. If the wound is in the inguinal region, as after the radical operation upon a hernia or the removal of an appendix, the disappointment quickly gives place to a feeling of confidence, for the surgeon knows perfectly well that the wound will eventually heal, and that consolidation of the tissues will become perfect, even though somewhat delayed. So he covers up the wound with gauze and bandage, and in a sure and certain hope. Probably he does not say much to the patient or to the friends about his passing disappointment. He keeps his own counsel, and trusts to Time—Time, the Healer by granulations—and when at last the dressings are permanently removed everybody is contented.



Cleft of soft and of chief part of hard palate, the subject of these remarks.

How different is the picture when the line of suturing after an operation on a cleft-palate has given way! The surgeon is helpless and almost friendless, but he need not be hopeless. He may, perhaps, ask the parents not to look into the child's mouth for a little while, but he cannot conceal the failure. He cannot cover the wound, and hide it beneath bulky dressings. It is foul and naked, and its swollen edges are thickly covered with muco-purulent discharge. There is no getting away from the fact that the operation is a thorough failure, as any one can see for himself on getting the child to open his mouth or on looking into it when he cries; and the parents are very apt to do this.

I suppose that every surgeon who has operated on cleft palates has had this unhappy experience, especially in hospital work. The trouble is due to septic inoculation of the wound, against which no care on the part of the surgeon before the operation could make the patient proof.

In past years I used to send such children into the country as quickly as I could, so that they might get well from the septic poisoning, and then, months later, perhaps, I used to go through the whole operation again. But now if a palate operation "goes septic" (to use a student's expression), the edges of the cleft falling asunder and leaving, perhaps, the gap more widely gaping than before, I stand by the case and hopefully look forward to a cure with the help of Time—Time the Healer by second intention. Here is the short history of such a case:—

A girl of 8 years was sent to me last October by Mr. Morton Smale. She had a rather wide cleft of the soft and of the hinder part of the hard palate, and her father said that three attempts had already been made to close the cleft, the last having been made twelve months previously. He also said that he had given up all hope of the cleft ever being closed, as after each operation the wound had broken down completely.

At the operation (which I did on October 17th) I found the muco-periosteal tissues hardened by the scarring of the former operations, and the bleeding was, for some reason or other, unusually free. The breathing, too, was troubled, and I found that I could not get on with the work unless I had the child placed upon her side; the head-downward position did not answer with her. In due course, however, I got the edges together without strain, fixing them by nine silver stitches.

On the third day the edges of the wound were sloughy and foul, and the child looked ill and yellow; and on the following day thick, ropy mucus was hanging about the palate and fouling the mouth. Every stitch threatened to give way, and already the cleft looked almost as bad as it did before the operation.

On the fifth day after the operation I sent the child round to Dr. Leslie Eastes's laboratory, so that I might learn the precise nature of the septic infection. The following was his reply:

62, Queen Anne Street, London, W., October 24th, 1904.

A film preparation made directly from the swab showed numerous micro-organisms of various kinds. Diplococci occurred most frequently, in large and small forms. Staphylococci were also numerous, but rods were scanty. After incubation on agar and blood serum, the profuse growth obtained consisted in both cases of the staphylococcus pyogenes aureus.

Needless to say, the wound broke down in its entire length. All that we could do was to look after the child's general health (sending her out of doors as much as possible) and to hurry on the cleansing of the mouth by washings and swabbings.

By the end of another week she was bright and well, and the mouth was once more quite clean; so on October 29th, the twelfth day after my first operation, I did the whole business over again, cutting a thin film from the granulating edges of the wound, and bringing the freshened borders together by seven wire stitches. This time everything went well: the wound kept clean, the edges joined at once, and we got a solid union from stem to stern. The child had undergone an auto-inoculation, and her palate had, in consequence, quite lost the power of cultivating staphylococci.

I have had several cases like this of palates hopelessly breaking down after operation, the children showing much general and local disturbance, and the operations, after great anxiety and disappointment, ending as happily as a fairy tale.

The circumstances of this particular case suggest two questions: First, can anything be done before operating to make the child safe against a growth of these vexing germs? I think not. All that the surgeon can do is to get the child and the mouth into the most wholesome state possible, the injection of serums being, in the present state of our knowledge, of real danger and of doubtful value.

Secondly, what is the proper term to be given to the manner of healing which takes place when the edges of the wound are freshened up and brought together for the second time within a fortnight? It cannot be called "primary union," yet, so far as one could see, the joining was as quick and quiet as in a primary union. At any rate, it was not a "healing by granulation," for the edges which were brought together were fresh and raw, and they stuck together at once without any sign of granulation-tissue.

I have called it "healing by second intention," but I am not at all sure that this is the right term for it.

OBSERVATIONS ON DWARFISM AND INFANTILISM.

Made at the Spring Meeting of the Ulster Branch and at a Clinical Lecture in the Royal Victoria Hospital, Belfast.

BY WILLIAM CALWELL, M.A., M.D.,

Physician to the Royal Victoria Hospital; President of the Belfast Division.

THE two living cases which I bring before you to-day furnish a striking clinical contrast, and are well worthy of study. The first is that of W. M'C., a boy, for he is a boy in reality, although in his twenty-first year; he is 4 ft. 4½ in. in height, and 4 st. 7½ lb. in weight. The relative length of limb to that of trunk is about normal; his abdomen is rather full; the face has a wizened aspect, and presents a certain patchy pigment; there is no hair on face, armpit, or pubis, or but the slightest trace; there is some knock-knee, and both tibiae are rather swollen and tender, as if a chronic inactive periostitis were present. One cannot say he is deficient mentally, but he does not possess the average mental calibre of twenty-one, and is rather shy. From the photograph you can see the relative size of a well-developed boy of twelve, and of a student of 5 ft. 9 in.

On admission to hospital there was considerable paresis of

both legs, arising probably from the pain; and this man of twenty-one was carried by the sister from bed to bed. His condition greatly improved under douching and a little amateur massage. A skiagraph of the elbow shows deficient union between the head and body of the radius, and between the olecranon process and body of the ulna. The head of the radius unites with the shaft about puberty, and the end of the olecranon process about 16 years of age. As regards his epiphysial age, therefore, he is also about or under puberty. He was troubled with constipation on admission, but has considerably improved with a little cascara. His front teeth are all destroyed, so that it is impossible to say whether Hutchinson's teeth were present or not; there is no third molar, or wisdom tooth. But although all signs point to infantilism, ateleiosis or arrested development, there is one sign of progeria or premature old age: his hair is distinctly turning grey.

FIG. 1.



Healthy boy of 12. Student, 5 ft. 9 in. W. M'C., Case of Infantilism, 4 ft. 4½ in. in height.

I put him on a large and increasing dose of thyroid for some time, and subsequently on pituitary, both without the slightest effect, and he has since left hospital after being put on iodide of potassium.

The next case is a female, E. W., aged 26. She is 3 ft. 8 in. in height and 3 st. 10 lb. in weight; there is excessive scoliosis with some lordosis; the upper limbs although thin are of the length of a woman of ordinary height; they are much too long for the stunted body; the lower limbs are much bent; the breasts are developed and regularly formed, although not large; hair is present in the armpit and on the pubis, and she has menstruated pretty regularly for some years; the pelvis is large and formed; she was admitted to hospital for bronchitis, a dangerous disease for one with her deformity of chest, and was put in the children's cot, but has recovered perfectly; she is an adult woman in everything but stature; she is a dwarf from deformity.

I would now ask you to study this skeleton, which was discovered by Professor Symington in the College Anatomical Rooms, and for which we are indebted to him to-day. The head is wanting; suspended with one heel just touching the ground, it measures about 44 in., so that the person when alive measured probably under 4 ft. 4 in.; the bones are strong, of a male type, and there is advanced osteo-arthritis in most of the joints. The most striking characteristic, however, is the shortness of femur, tibia and fibula, humerus, radius and ulna, metacarpal, and metatarsal bones and phalanges. It is evidently the skeleton of a rare condition, but one now recognized and called achondroplasia or chondro-dystrophia. It was formerly described as fetal rickets, and then as fetal cretinism. The skeleton is old, and absolutely nothing is known of its clinical history. One can imagine we recognize the divergence of middle and ring finger of left hand, which forms the "trident" hand during life.

FIG. 2.



Woman, aged 26, with scoliosis; height 3 ft. 8 in.

Professor Symington has also very kindly lent us the original specimen of a fetus, with the same affection, which he and Dr. Alexis Thomson dissected, and described very fully in the *Proceedings* of the Royal Society of Edinburgh (vol. xviii), as a "Case of Defective Endochondral Ossification in a Human Foetus."

To widen our views of these conditions of dwarfism, I show you illustrations taken from Hutchinson's *Atlas*, Byrom Bramwell's *Clinical Studies*, the BRITISH MEDICAL JOURNAL, the old *Illustrated Medical News*, and elsewhere; they are of cretins, of achondroplasia, and of infantilism, due to all the known causes.

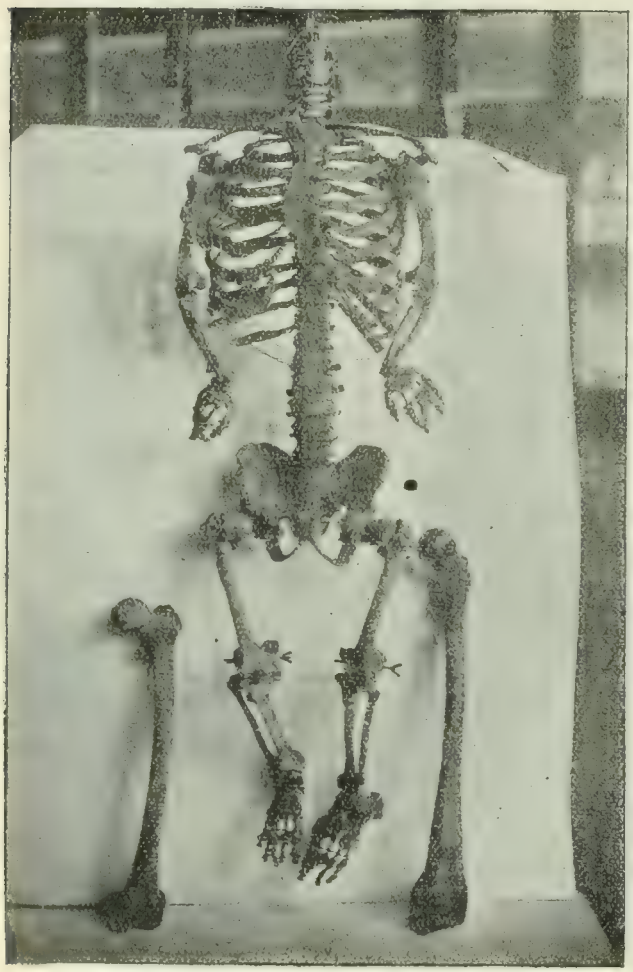
The explanation of the dwarfism in Case II, the female, is plain, and is due entirely to the extreme deformity primarily of the vertebrae, with increased curvature of the legs.

The explanation of Case I is much more interesting and difficult. It is evidently a case of infantilism or arrested development. This arrest of development may occur at any age, and different organs may stop at different periods. Mr.

Hastings Gilford says of his case,[1] of which I show you the illustration, that he was an infant as regards his generative organs; a child of 2 or 3 as regards his physiognomy and configuration of head; a little over 3 as regards height; about 6 or 7 as regards his epiphyses; and as regards his teeth, about 11. His actual age was 12.

Our patient is also an example of primary asexual ateleiosis. Others, however, become sexually mature, and so are real dwarfs, as the well-known General Tom Thumb. Dr. Byrom Bramwell details a case due to defective pancreas, of which a second case has been noted by Dr. Rentoul of Lisburn; also one associated with anaemia and enlargement of spleen. Sporadic cretinism is a well-known cause of defective growth; and hereditary syphilis is given by Bramwell; our patient looks like a case of this last condition, but the teeth, eyes, and scarred mouth are not present, although the teeth may

FIG. 3.



Short normal femur. Long normal femur.
Skeleton of achondroplasia.

have been there. I am inclined to believe the periosteal affection of the tibiae is of this nature, and I shall treat accordingly.

As regards the skeleton, of which no living sample has as yet turned up in the wards, although I have noticed two in public, without, however, an opportunity of close examination, one in a show, and one as a newspaper "boy" (!), the essential lesion of achondroplasia is in the bone development; when they grow up in years, they are generally sexually mature, are intelligent enough, and able to work. As regards the pathology, we may quote from Professor Symington's description: "The alterations present are confined to certain groups of bones, while others are quite normal. The latter are:—

"1. Those which are formed entirely in membrane, for example, the flat bones of the vault of the skull.

"2. Those which, although formed in cartilage, remain entirely or mainly cartilaginous till an advanced period of fetal life, so that their general growth is quite independent of endochondral ossification. As examples may be mentioned the sternum, costal cartilages, patella, and tarsal and carpal bones.

"The departures from the normal affect those parts which, formed in cartilages, largely depend for their growth during fetal life upon endochondral ossification, the cause of the departure being a premature arrest or absence of this process. The bones belonging to this group are the long bones of the extremities, the ribs, the posterior part of the base of the skull, and the innominate bones."

I am indebted to the photographic department of the hospital for Figs. 1 and 2, and to that of the college for Fig. 3.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, October 8th, 1904.

THE INDUCTION OF LABOUR: A COMPARISON OF SOME OF THE METHODS, WITH NOTES OF FIVE RECENT CASES.

BY J. SPENCER SHEILL, L.R.C.P. & S.I., L.M.,

Assistant Master, Coombe Maternity Hospital, Dublin.

I INTEND to refer only to methods which come under the strict meaning of the title of the paper, therefore only those which are intended to stimulate normal uterine contractions before full term will be considered, to the exclusion of all those which come under the head of "accouchement forcé."

Of the 5 cases I propose to describe, the operation was performed in 3 of them for contracted pelvis, in 1 for hyperemesis, and in 1 for eclampsia.

I shall not discuss the merits or demerits of the treatment I adopted in these particular cases, but rather wish to discuss the respective values of the various methods I used. Having definitely decided to undertake the premature emptying of the uterus, one is bound to admit that there are a certain number of cases in which it is not only advisable but necessary to induce labour before term; and, while agreeing that the responsibilities of the obstetric surgeon are great in undertaking the artificial termination of pregnancy—especially as in Case No. 1 of my series, in which the child was not yet viable—it is certain that, although the life of the child must not be undervalued, yet the interests of the mother are paramount. The operation is essentially a life-saving one—as absolutely so in intractable hyperemesis as in moderate degrees of contracted pelvis through which a full-term child cannot pass, and when the mother refuses to submit to Caesarean section. In the former case, were the operation not performed, both mother and child would be lost; in the latter, the risk of the operation of induction to the mother is no greater than in embryotomy, and there is a fair chance of delivering a living and viable child.

The cases which I record below occurred in the Coombe Maternity Hospital, Dublin, this year; and my best thanks are due to the Master, Dr. Stevens, for permitting me to publish details, and to my colleague, Dr. Wessels, who kindly allowed me to include in my series Case No. 11, which was under his care, but which I also had the opportunity of observing throughout its course:

CASE 1.

M. McM., primipara, aged 18, pregnant six months, admitted to hospital, on January 14th, 1905, suffering from excessive vomiting. She stated that the "vomiting of pregnancy" had persisted and had increased in intensity, resisting all medicinal treatment she underwent at a dispensary.

For some time after admission the usual drug, diet, and hygienic treatment was tried, but of no avail. Bismuth, calomel, ipecac., nux vomica, belladonna, salol, cocaine, cerium, etc., were administered in vain; everything which entered her stomach was promptly ejected. Rectal alimentation was powerless to prevent the retching and straining, and the patient was steadily losing ground, becoming rapidly emaciated and looking extremely ill. Her tongue was hard, dry, and brown; her urine contained 0.9 per cent. of albumen.

On January 25th at 10 p.m., without an anaesthetic, I passed into her uterus between the membranes and uterine wall two No. 10 gum elastic bougies which had previously been sterilized with the greatest care. Seven hours later labour pains commenced, which increased gradually in force and frequency. The bougies were removed twenty hours after their insertion, and twenty-three hours after the commencement of induction of labour the child was born. From that time she vomited but once. Three days after delivery her tongue was moist and almost clean, and she was using the ordinary diet of the lying-in woman.

February 4th. Discharged from hospital quite well; urine free from albumen.

CASE II.

E. M., aged 37, 7-para: no living child; contracted pelvis; true conjugate 8.4 cm. Transverse at brim, also 8.4 cm. by pelvimeter. The patient fearing Caesarean section, and being anxious to bear a living child, it was decided to induce labour at seven and a half months.

On February 11th two No. 10 G. E. bougies were passed into the uterus, and remaining *in situ* for twenty-four hours without effect, they were withdrawn, and two others inserted in a different direction to that of the first two. Twenty-four hours later, the second set having induced no uterine contractions, they were removed, and this time *three* new ones were introduced. Quinine, in quickly-repeated doses, was administered, and four hours later labour set in, resulting in the birth of a living child, delivery being assisted by hands and instruments.

CASE III.

February 25th, 1905. M. M., aged 34, 4-para: rickety flat pelvis: true conjugate 8.1 cm.: pregnant about seven and three-quarter months. Patient's wishes similar to those of Case II.

In this case three sets of three in each set No. 10 bougies were passed at intervals of twenty-four hours, but without effect. On the evening of February 28th, the os being sufficiently large to admit of the passage of a mechanical dilator, De Seigneux's instrument was inserted, and after slight dilatation, labour pains set in and continued after the removal of the dilator. Later the child was delivered with great difficulty and survived but a short time.

CASE IV.

D. C., aged 27, 9-para; about seven and a half months pregnant: contracted pelvis; true conjugate 6.8 cm. Wishes of patient also similar to those of Cases II and III.

March 8th, 1905. Three No. 12 bougies passed, and, being left in for twenty-four hours, produced but a few feeble painful contractions. On being removed, three No. 14 bougies were with difficulty inserted, as the bougies together were a tight fit for the os. Before inserting the larger bougies the membranes were digitally separated from the lower uterine segment as far as could be reached. Some weak labour pains set in—few and far between. After six hours the bougies were removed, and Frommer's dilator inserted, and the os slowly dilated up to 3½ cm. diameter. Strong pains set in soon afterwards, and as the breech was presenting the child was delivered alive as an ordinary breech case.

CASE V.

March 15th, 1905. K. B., aged 20, primipara; five and a half months pregnant; suffering from eclampsia; seven seizures. Patient had left kidney removed three years previously for (?) abscess. On admission great oedema present; urine scanty, with much albumen. Morphine and the usual measures successfully adopted. The fetal heart not being heard after careful auscultation, and as the fits had ceased, it was decided to empty the uterus by induction of labour.

March 16th. Os dilated by Hegar's dilators up to size 16, and three No. 10 bougies passed; vagina lightly plugged with iodoform gauze. Twenty-four hours later, as no pains ensued, the No. 10 bougies were removed, and after further dilatation of the os by Hegar's dilators three No. 12 bougies were introduced. This time the vagina was tightly plugged with gauze around the protruding ends of the bougies. About six hours later some irregular pains set in, and on the evening of the 18th—that is, forty-eight hours after the commencement of induction—on removing the plug and bougies the os uteri was found to be about the size of a sixpence, and the cervix to be almost fully taken up.

Frommer's dilator was then cautiously inserted through the os, and although there had been no pains for over an hour previously, strong pains set in almost immediately after commencing dilatation, in fact, so powerful were the uterine contractions that I feared rupture of the membranes from pressure against the tips of the blades of the instrument. After dilating up to 4 cm. diameter the dilator was withdrawn. Pains now continued at five-minute intervals, and three hours and twenty minutes after the commencement of instrumental dilatation the child, which had apparently been dead for some time, was born.

The convalescence of this patient was rapid, and presented no items of interest, the oedema and albuminuria quickly disappearing.

It will be seen that in this short series of cases the various methods I used to stimulate uterine contraction were: Bougies, drugs, separation of membranes from the lower uterine segment, plugging, and instrumental dilatation.

It is obvious that of these the first four can only be used to "induce labour" in the real meaning of the term; but with regard to the fifth method—namely, instrumental dilatation, it is undoubtedly on the border line between induction line and *accouchement forcé*; but I wish it to be distinctly understood that this method was used with the sole object of stimulating the "polarity" of the uterus.

Had it been my intention to make the dilator perform the office normally performed by the intact membranes, then I should have carried the dilatation to such a degree as would permit of the birth of the child, not desisting, as I did, when the os measured but 4 cm. in diameter. But I had gained the object aimed at, and was only too glad to allow Nature in her own safe method to finish the work, knowing full well the grave risks of laceration always present when artificial dilatation is practised, more especially when carried to the full degree. We are all aware of this peculiar property of the normal uterus—this "polarity," as it is sometimes called—whereby, during labour, contraction of the upper uterine segment and of the longitudinal fibres of the lower uterine segment is accompanied by a relaxation of the circular muscular fibres, thus assisting the onward progress of the presenting part, so it seems probable that, if the order be reversed, and the circular fibres were artificially dilated, we might expect, by virtue of the intimate nerve connexion between the segments, that the body of the uterus would vigorously contract, and that this has been proved to be so is shown by the last three cases of my series.

It is quite clear that the methods I thought it advisable to use in these particular cases would be unsuitable if indications were present for the rapid emptying of the uterus, excepting, perhaps, the instrumental dilatation carried to the full extent, when it would immediately come under the head of *accouchement forcé*, a proceeding which, fraught with such grave dangers, is rapidly falling into disfavour with the profession; still it has its limited—very limited—uses.

Referring to Case I: I can hardly look upon this one as typical; the comparatively quick response to stimulation. It may be that the primipara uterus is more irritable than that of the multipara—a theory supported by other evidences in obstetrics; but then Case V was also a primipara, and she responded much more slowly to more vigorous treatment. Did the fact of the fetus being dead, or of the weakened state of the woman as a result of the eclamptic seizures, account for her tardiness in getting into labour?

I believe No. 10 bougie is the size most generally used by those who catheterize the uterus. I have tried larger sizes (12 and 14) where the os would admit them, and having once got them through the cervix found they were more easily introduced and with less danger of rupturing the membranes. The larger sizes, as one would expect, appear also to irritate the uterus to a more marked degree. Whatever size is used, there is no need to injure the placenta in any way; as, if during introduction the placental site be reached, the bougie can be gently withdrawn and reinserted in another direction. Infection will not occur if proper antiseptic precautions be taken, but there is no operation in obstetrics which more severely tests the aseptic technique of the operator. The profession owe to Krause a debt of gratitude for his introduction of the bougie method of induction of labour. His method was not entirely successful in all my cases—even after repeating it a third time. We have, in digital separation of the membranes and tight plugging of the vagina, powerful and useful adjuncts. Injection of fluids into the uterine cavity is a method which seems to me to have but little to recommend it. With the sole object of stimulating uterine contraction I consider the branched dilator superior to the inelastic bag of Champetier de Ribes.

In no instance in which I have used it did the former fail to excite pains, but it has its indications and limits too. I prefer, and consider it safer, not to use it, unless the cervix is taken up largely if not entirely, gaining this end by the other means which I have spoken of.

With regard to the instruments themselves, Bozzi's, the original, has been entirely superseded by Frommer's invention—the latter with its eight blades against Bozzi's four—and therefore during dilatation the os is more nearly a true circle, consequently there is less fear of laceration. Seigneux's new instrument is a heavy, clumsy article; it also has but four blades, but they work at a considerable angle with the shaft; this angle at first sight appears to be—as the inventor claims for it—a distinct advantage, whereas in actual use I have found it most disappointing. Also in the particular Seigneux's instrument I have used—if not in others by the same maker—I have found the much greater rigidity of the antero-posterior blades as compared with the lateral blades a great drawback to its use, as the os during distension is thereby made diamond shape. Although not the newest invention, Frommer's instrument is, I believe, the best so far produced.

I have suggested and successfully used a little manœuvre with this instrument, by which the operator can estimate and control the amount of tension he is subjecting the cervix to. It is as follows: During dilatation up to say 3 cm. diameter, use the instrument with the two anterior blades entirely removed, inserting the forefinger with the nail towards the instrument into the place lately occupied by the blades removed. This finger will act as efficiently as would the blades if left *in situ*, with the added advantage that the operator can

estimate to a nicety the tension of the cervix, and so cause dilatation to proceed quickly or slowly as the occasion demands. As dilatation progresses the replacement of one of the blades removed will still allow sufficient room for the finger, until finally all the blades may be replaced, there being still room to admit the finger between any of the blades. I know of no other 8-bladed dilator on the market which will admit of one or more blades being removed or replaced without taking the whole instrument asunder.

Working upon past experience, when a case comes under my care which for one reason or another requires induction of labour, and great haste is not essential for the safety of the patient, I shall, if the os be small, dilate up to about No. 16 or 18 Kelly's dilators, inserting then into the uterus three of the largest bougies capable of passing through the os at the same time, and tightly plugging the vagina with sterilized gauze.

If this had not the desired effect in twenty-four hours I would repeat the treatment, and as soon as the cervix was partly taken up, if uterine contractions were not strong I would use the Frommer to stimulate them, and allow Nature to complete delivery if no complication arose later. Should it happen—and so far I have been fortunate in its not occurring with me—that the membranes were accidentally ruptured during manipulation with the dilator, then, and not till then, would I be tempted to use the hydrostatic dilators to assist me in the induction of labour.

THE SPREAD OF CANCER BY THE THORACIC DUCT.

By NATHAN RAW, M.D., M.R.C.P.Lond.,
Physician, Mill Road Infirmary, Liverpool.

In the British Medical Journal of April 29th, 1905, is published an interesting and instructive case by Dr. Mitchell Stevens of latent carcinoma of the stomach, spreading by means of an infected thoracic duct to the left side of the neck. It is one of the very few recorded cases of definite involvement of the thoracic duct in cancer within the abdomen, and will greatly strengthen the view advocated by Toisier and others that the thoracic duct plays an important part in the spread of cancer.

I have often observed that malignant disease of the glands of the neck occurs much more frequently on the left side than on the right, and I have frequently seen cases of apparently primary cancer in these glands, in people of middle or old age, without any evident focus of infection such as cancer of tongue, mouth, oesophagus, or tonsils. Although necropsies have been frequently made in such cases, I have never carefully examined the thoracic duct, and it is possible that some latent cancer within the abdomen may account for these glandular infections through the thoracic duct.

The writer of the case referred to was able to diagnose cancer of the stomach apparently from the appearance of enlarged glands in the left supraclavicular region, and this was confirmed *post mortem*.

In the case under my care recently I was not so fortunate, although in the light of my present knowledge I had ample grounds to suspect such a condition. The following is a brief account of it:

Primary Carcinoma of the Pancreas, with Secondary Infection of the Cervical Lymphatic Glands and Orbit.

A. H., aged 46, a labourer, was admitted into Mill Road Infirmary, March 30th, 1905, complaining of general weakness and a swelling in the left side of his neck of eight weeks' duration.

History.

Has always been a healthy and temperate man, has had to work very hard all his life as a labourer at the docks, lifting very heavy weights. No history of syphilis. For the last six months he has complained of want of appetite, constipation, and increasing weakness, with a gradual and steady loss of flesh. He has never suffered from attacks of pain or jaundice. He was treated by a medical man for anaemia, but with no good result. Four months ago he noticed a great difficulty in moving his bowels. Strong purgatives were required, but the stools were always large and well-formed; no blood. Two months before admission a hard, inflamed swelling appeared on the left side of his neck, extending upwards behind the ear and downwards to the clavicle. It was very painful. At the same time he noticed loss of vision in the left eye, with some projection of the eyeball, and considerable headache, but no vomiting. He had in the last two months lost over 2 st. in weight, but had no active gastric symptoms.

Condition on Admission.

The patient is a strong muscular man, well nourished, but somewhat anaemic. No oedema or jaundice; pulse 80, moderate tension, regular. Heart and arteries show nothing abnormal. The lungs appear healthy, and although it was thought that possibly there might be a primary mediastinal growth in the chest to account for the enlarged glands in the neck, the most careful examination failed to reveal it. There is a moderate distension of the intestines which is uniform, and on deep palpation over the splenic area there is some pain and a sense of resistance. In the left supraclavicular region there is considerable general swelling, redness and slight oedema, extending above the lobe of the ear. No pain on deep pressure and no evidence of suppuration. A diagnosis of lymphadenoma was made, and he was informed that operation was not advisable.

Progress of Case.

April 10th. The patient has become generally weaker since admission, he is losing weight, and the difficulty of evacuating the bowels continues, although no cause can be detected. Every system was carefully examined, but nothing definite could be detected to account for his condition, excepting the growth of glands in his neck.

April 20th. A curious feature has developed in the case. He complained of pain in the left orbit with inability to read with the left eye. In the course of a few days there has developed a marked proptosis with total loss of vision. The eyeball has the appearance of being forcibly pushed forwards by some intraorbital growth of very rapid development.

April 22nd. The patient is rapidly going downhill, is drowsy and partially delirious. There is some more distension of the abdomen, but the bowels are acting regularly. He died to-day after becoming comatose two hours before death.

Necropsy.

The examination was made twenty hours after death. The body was emaciated. Rigor mortis pronounced. On opening the abdomen there was found a general distension of the intestines with slight ascites. All the organs were found healthy with the exception of the pancreas, which was transformed into a large irregular cancerous mass involving chiefly the body and tail, the head remaining comparatively free from growth. Several enlarged cancerous glands were found in the locality of the pancreas, some very large and hard, and compressing the splenic flexure of the colon, thus accounting for the difficulty of evacuating the bowels. The thoracic duct in this region was not examined. There were no secondary growths in any of the viscera. On opening the chest the organs were found healthy with the exception of recent oedema of the lungs. The left side of the neck comprising all the triangles was involved in an irregular cancerous growth, evidently originating in the deep part of the subclavian region. The thoracic duct near its termination was found involved in the cancerous growth, and was greatly thickened and enlarged. Microscopically, the sections of pancreas, secondary glands in abdomen, and neck show a typical glandular (scirrhous) carcinoma.

It is possible that a more minute search in all cases of abdominal cancer would point to the more common spread to other viscera and lymphatic glands by means of the thoracic duct, and I intend in future to pursue this line of inquiry.

In this case it is easy to understand the rapid enlargement of the neck glands, but not so the secondary growth in the orbit, which was of the same nature pathologically, and was pressing forwards the eyeball without being in any way attached to it. Another point of great clinical interest was the entire absence of symptoms which would point to involvement of the abdominal viscera. The wasting without obvious cause would of course suggest malignant disease, but not until the swelling appeared in the neck was there anything definite on which to make a diagnosis. I place on record this case in association with that of Dr. Mitchell Stevens in the British Medical Journal of April 20th, 1905, as I feel certain that the question is of great importance in the investigation of the spread of cancer.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

DILATATION OF THE GALL BLADDER SIMULATING OVARIAN CYST.

The interesting clinical lecture by Mr. Alban Doran under the above heading (British Medical Journal, June 17th, p. 1316) prompts me to add a brief record of the following case upon which I operated last year.

I saw the patient with Dr. Sawyer of Bradford. On the day previous to my seeing her she was seized with acute abdominal pain, vomiting, and fever. A swelling in the abdomen of which she had been cognisant for many months had also become acutely tender. It had given rise to no symptoms previous to this attack. I found a large tender tumour on the right side of the abdomen. It extended upwards from the pelvic brim, was oviform in shape and apparently cystic. Below the umbilicus the swelling extended to the left of the middle line, forming a second rounded prominence like a small cocoanut. There was a well-marked resonance between the upper limit of the tumour and the liver margin. The abdomen was distended and there were the usual signs of peritonitis. The sudden onset of typical symptoms, together with the presence of such a tumour, seemed to admit of no other interpretation than that of ovarian cyst with twisted pedicle. On opening the abdomen the following conditions were found. The smaller prominence to the left of the middle line was a cystic left ovary. It was almost gangrenous from twisting of the pedicle. The main mass of the tumour on the right side was a dilated gall bladder reaching to the pelvic brim. It contained a little over a pint of purulent fluid, and a large stone was impacted deep in the cystic duct. The upper part of the gall bladder was overlaid with distended intestine. The two tumours and the adjacent intestine were all coherent with recent adhesions. An excellent recovery followed the removal of the ovarian tumour and the gall bladder with the cystic duct and its impacted stone.

In this case, although I recognized the symptoms of twisted pedicle, I attributed them to the wrong tumour. I was under the impression that the dilated gall bladder was a right-sided ovarian tumour, the pedicle of which had undergone torsion.

Bradford. J. BASIL HALL.

A CASE OF SPONTANEOUS EVOLUTION.

I VENTURE to think the following case may be of interest. I was called about 2.30 p.m., on May 22nd, to see a woman who had been in labour since midnight. The patient gave the following history: She had had three previous confinements, all of which were over very quickly, and one miscarriage at seven months between the second and third confinements. Labour pains were first felt on this occasion about midnight, and had been gradually getting stronger. The water had broken nine days previously, and had been running away at intervals ever since. Movements of the child had been felt up to about two hours before I saw her. The child seemed no nearer being born than three hours before.

Upon inspection a hand was seen protruding from the vagina, and on vaginal examination the shoulder was found to be jammed tightly down, the head bent forwards on to the sternum, the uterus contracting very strongly, thereby making it impossible to reach the legs. I found version impossible, as I could neither raise nor move the child at all, and I therefore called in a fellow practitioner, and the patient was fully anaesthetized with chloroform. Further attempts to move the child were made, but these were unavailing, owing to the powerful action of the uterus, and so the patient was allowed to recover from the effects of the anaesthetic. After coming round she had three very violent pains and the child was expelled at 4 p.m. The fetus, though dead, was fully developed and of average size and weight, and this I think of interest, as I believe it is generally stated in textbooks that spontaneous evolution can only occur when the fetus is small, premature, and dead, although Denman, in his original description of the process, says: "I believe, on the contrary, that a child of the common size, living, or but lately dead, in such a state as to possess some degree of resilition, is best calculated for expulsion in this manner."

Long Buckby. ERNEST A. COX, M.R.C.S., L.R.C.P.

TRIPLETS.

As the birth of triplets is comparatively rare, a certain amount of interest is attached to the circumstance. On May 11th, 1905, I was called to assist one of the local midwives, and found the patient, a multipara, already in labour. One child (male) was born when I arrived. On making a vaginal examination, I found the head of another child and the membrane intact. Active uterine contractions had ceased, so I delivered by means of the forceps. To my surprise, I found there was a third child, which presented head and right foot, the membrane being again intact and very strong. I brought down the foot after a most difficult manipulation to get clear of the enormous quantity of membrane. The placenta came away with ease. It was an extraordinary size, weighing many pounds. On examination I found it was divided into two distinct parts—one part with two cords and two separate membranes was attached to the two male children; the other part, smaller in size, complete in itself as regards cord and membrane, belonged to the female child.

The father is 34 years of age. The mother 35 years. She has had four children in addition to the triplets, now aged respectively, 10, 7, 5, and 3 years. She had a miscarriage in May, 1904. The parents and children are healthy.

The chief points of interest in the case are: (1) There was no previous evidence of multiple pregnancy. (2) The first child (male) was born at 2.30 p.m., without assistance; uterine contraction ceased immediately without haemorrhage ensuing. Six and a half hours afterwards the second child (male) was born alive also, with forceps, and half an hour later the third child (female) was born alive also by turning. (3) Each child was enclosed in a separate membrane. (4) The two male cords were attached to the same placental mass. The female cord and placenta were completely separate. (5) The first child (male) weighed 4 lb. 4 oz.; the second child (male) weighed 5 lb.; and the third child (female) weighed 5 lb. 2 oz.

F. H. COLLINS, M.D.,

Manchester. Consulting Physician, Hulme Dispensary.

ERYTHEMA SCARLATINIFORME AND GONORRHOEA.

(Communicated by the DIRECTOR-GENERAL, Medical Department, Admiralty.)

ERYTHEMA SCARLATINIFORME has been described in connexion with gonorrhoea, but the occurrence of such an eruption seems uncommon. Within recent months, however, I have met two cases in which an eruption, closely resembling that of scarlatina, was present on the whole body, arms and thighs, and very slightly on the neck. It faded in from four to seven days. In one of the cases the eruption, for which advice was sought (the venereal affection being unnoticed or concealed), was so vividly characteristic of scarlatina as almost to make one discredit the diagnosis, had it not been for the absence of any sore-throat, constitutional symptoms, and elevation of temperature, the presence of the gonorrhoeal discharges, and the subsequent task of desquamation. In these cases the eruption, if connected with the gonorrhoea at all, as appears certain, must have been directly due to it, for no drugs had been taken previous to its appearance. During fifteen years in the Royal Navy, I do not recall having seen any more cases. It would be of interest to learn whether, in the experience of others, such a gonorrhoeal exanthem is a more frequent occurrence.

W. H. S. STALKARTT, M.D., C.M., F.R.C.S.E.,
Staff Surgeon.

A METHOD FOR FREEING PARAFFIN FROM CEDAR-WOOD OIL.

IN the use of cedar-wood oil for embedding tissues in paraffin it is a disadvantage that the oil is not volatile, and is thus retained in the paraffin, rendering it unfit for further use. I have found that by the following simple method a large part of the paraffin can be recovered in a tolerably pure condition. The contaminated paraffin is allowed to solidify at room temperature. It is then placed on top of a pledget of cotton-wool in a suitable vessel and allowed to remain in the incubator at body temperature over-night. Next morning the wool will be found saturated with a melted mixture containing a great deal of oil and little paraffin, while the solid mass of paraffin above is fairly pure. This is removed and placed in the paraffin oven to filter, and the filtrate will be found quite satisfactory for at least the first paraffin bath.

WILLIAM MAIR, M.B.,

Belfast. Demonstrator in Pathology, Queen's College, Belfast.

SUSPENDED RESPIRATION UNDER CHLOROFORM.

THE following episode at an operation for removal of tuberculous cervical glands in a girl of 17 seems worth recording:

The anaesthetic was chloroform, which she took badly at first; when, however, completely under, respiration and

pulse were quiet and good, though the face was slightly cyanosed. About twenty minutes after the operation began, when the glands had been removed but the wound had not been sutured, the pupils became widely dilated; otherwise there were no untoward symptoms. A few minutes later, without further warning, respiration ceased. Artificial respiration was at once commenced, and at the same time nitrate of amyl capsules were used and a hypodermic of strychnine administered. The pulse, which had become very weak, slightly improved; respiration remained suspended. A second hypodermic of strychnine was given and a cylinder of oxygen sent for. Before the latter arrived the radial pulse ceased to be perceptible, nor could the heart be heard. After administration of three bags of oxygen, artificial respiration being kept up, the radial pulse could again be felt and feeble breathing efforts began. In about a quarter of an hour the patient had completely recovered.

Two important points seem to be emphasized by this case: (1) That the anaesthetic should be at once suspended if the pupils become widely dilated. (2) The value of oxygen in restoring respiration. I am firmly convinced, humanly speaking, that the life would have been lost but for this agent, and it is amazing to note the number of deaths under chloroform which have been reported in which it has not been used.

Belfast. H. Norman Barnett, F.R.C.S.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SHROPSHIRE AND MID-WALES BRANCH.

Shrewsbury, May 13th, 1905.

Edward Cureton, M.D., President, in the Chair.

Case.—Mr. Russ Wood showed a boy who had been under observation for some time suffering from paralysis of the sixth and seventh nerves.

Evolution in Tuberculosis.—Professor Leith, of the Birmingham University, read a paper on evolution in tuberculosis. In thanking the Branch for the honour done him in asking him to read a paper before it, he explained how he thought that the present was a favourable time to review the evidence which had gradually accumulated of late years, which went far to establish the biological position of the tubercle bacillus upon a practically incontrovertible basis. He discussed this evidence under the three headings of (1) morphological characters of the bacillus, (2) artificial cultures of the bacillus, (3) pathogenic characters and virulence of the bacillus. The special point of interest in the morphological characters was the occasional appearance of aberrant forms (filamentous, branched and clubbed) indicating a special phase in the life-history of the bacillus, a reversion to an ancestral type which showed its close relationship with the actinomyces and with various pathogenic streptothrices of recent discovery. The pathogenic characters were evidenced by noting that tuberculosis occurred naturally in a very large number of animals, namely, man, monkeys, cattle, horse, sheep, and other ungulates; dog, cat, lion, and other carnivores; rabbit, and other rodents, and that mammals were not the only animals attacked, as all the other great divisions of the vertebrate kingdom suffered, namely, birds, reptiles, batrachians, and fishes. The similarity in essentials of the lesions produced by the bacillus in all these cases was pointed out, and the conditions and characters of the artificial cultures of the bacillus in each case were contrasted. From the effect of inoculation of such artificial cultures into different animals, and after making due allowance for difference in strains, it was shown almost incontrovertibly that human, bovine, in short, mammalian, avian, reptilian and piscine tubercle were, if not modifications of one another, at least modifications of a general stock. Taking the evidence as a whole, it showed that they were descendants of a general ancestor, some hardy saprophytic germ of wide distribution in nature, the same or closely allied to some of the acid-fast bacilli, many of the members of which had been discovered only comparatively recently, for example, the Timothy grass bacillus, other grass bacilli, the butter bacillus, etc. The piscine tubercle was a little further removed from the parent bacillus by its having acquired a parasitic habit in fishes, the avian still further removed because its host was warm-blooded, and the mammalian still further because of that and other reasons. Bacillary plasm was germ plasm and hence liable to be greatly and comparatively quickly influenced by environment. That though Koch's dictum that bovine and human tubercle were entirely different was untrue at the present time, it was easy to see that in the process of time further differentiation might follow, when it would become really true. Some attention was paid to the difference of virulence shown by different strains of human bacilli, but the facts at present at our disposal were too fragmentary to entitle us to form anything like the stable conclusions we were able to draw in other branches of the study. A discussion took place on the paper, and a hearty vote of thanks was passed to Professor Leith.

Detection of Carbon Monoxide in the Blood.—Dr. Law Webb drew attention to the frequency of poisoning by illuminating gas and carbon monoxide. Often such cases were followed by legal proceedings to recover damages, and it had become necessary to be prepared with reliable tests for CO when present in the blood in poisonous amount. After describing the spectroscopic tests, he demonstrated Kunkel's very simple colour test. As this requires only a pipette, two small test-tubes, and a 3 per cent. solution of tannin, it can be readily applied by practitioners, who will find it described in Dixon and Mann's *Forensic Medicine*.

Adenoids.—Mr. Russ Wood read a short paper on adenoids, and dwelt upon the most important points in the etiology and treatment of the condition. He emphasized the fact that the operation must be done early, and that when freely removed recurrence was a rare event. In analysing 500 cases Mr. Wood inclined to the use of nitrous oxide as an anaesthetic which he had found safe and sufficient; he always operated with the head well over the end of the table. The after-treatment was important—local and general—and patients must be systematically taught nasal breathing.

Bath and Bristol Branch.—The seventh ordinary meeting was held at University College, Bristol, on May 31st, Mr. R. H. J. Scott, in the chair.—Dr. Walter C. Swayne showed the following specimens: Chorion-epithelioma, fibroids removed by myomectomy during pregnancy, carcinoma of the cervix uteri, and dermoid cyst removed simultaneously by the abdominal route, and an ovarian cyst.—Dr. J. Odery Symes exhibited a preparation showing granular degeneration of erythrocytes from a case of chronic lead poisoning, and a preparation showing trypanosomes in rat's blood obtained by inoculation.—Dr. Carey Coombs read a paper on a case of removal of gall stone from the jejunum. In the discussion which followed the following took part: Mr. Paul Bush, Mr. Monro Smith, Mr. Lansdown, Dr. Lace, Dr. J. M. Clarke, Dr. Shingleton Smith, Dr. W. C. Swayne, Dr. Theodore Fisher.—Dr. Theodore Fisher read a paper on some unusual cases of swelling of acute onset affecting the extremities. In all the oedema of the hands was ushered in by acute pain. In one pain quickly subsided, but in the others lasted several weeks. In two the oedema was recurrent and associated with hysterical stigmata. In a case which had followed a blow not only oedema, but haemorrhage, had recurred two or three times a year during two years. Dr. J. M. Clarke had not especially observed pain in connexion with hysterical oedema, and mentioned some exceptional cases where pitting had been obtained on pressure. Dr. F. H. Edgeworth laid stress on the value of the glove distribution in the diagnosis of hysterical oedema, and the sharply-defined edge of the swelling. He referred to the great variety of conditions included under the term "angio-neurotic oedema." The President and Dr. Alexander and Dr. Newman Neild also discussed the cases.—In a note on the prevention of ventral hernia after abdominal sections, Dr. Walter C. Swayne gave a summary of the methods in vogue for suturing the abdominal wall after laparotomy, giving the advantages and disadvantages of each, with especial reference to ventral hernia as a sequela. He advocated uniting the edges of the peritoneum by a continuous suture of fine silk, the rest of the structures being united by a modification of Stanmore Bishop's method. The aponeurotic expansion of the oblique muscle is freed from fat and muscle for a short distance from the margin of the incision and made to overlap that of the other side, when a long silkworm gut stitch is passed alternately up and down through the layers, the ends being brought through the skin at either end. After the skin has been sutured the ends of the long suture are strongly drawn upon and fixed one at each end of a lead plate by passing each

through a narrow slit at the opposite end and fixing with split shot or by a knot. The method was commented upon by Dr. E. H. E. STACK and Mr. LANSDOWN.—Dr. GEORGE PARKER and Dr. WATSON P. WILLIAMS read a paper on masked diphtheria and its notifiability, based on an epidemic in a school. The subject was discussed by Dr. E. H. E. STACK, Dr. C. E. S. FLEMMING, Dr. SHINGLETON SMITH, Dr. SYMONDS and Dr. ALEXANDER.—Dr. GEORGE PARKER showed the specimen from a case of aneurysm of the circle of Willis occurring in a young woman who had recently had an attack of influenza.

REVIEWS.

GENITO-URINARY AND VENEREAL DISEASES.

DR. G. F. LYDSTON'S large textbook on the *Surgical Diseases of the Genito-Urinary Tract*.[1] is the revised edition of a work that first appeared in 1899. The author states that his endeavour has been to give a practical survey of the field of genito-urinary and venereal diseases, following as closely as practicable the plan of his lectures delivered in the Medical Department of the University of Illinois. Part I deals with general principles, and following this are sections on non-venereal diseases of the penis, diseases of the urethra and gonorrhoea, chancroid and bubo, syphilis, diseases affecting sexual physiology, diseases of the prostate and seminal vesicles, diseases of the bladder, surgical affections of the kidney and ureter, and diseases of the testis and spermatic cord. On all these matters Dr. Lydston in the course of his thousand pages has naturally a great deal to say and much of it is quite worth reading. An interesting feature is the small importance attached to the host of new drugs—the so-called substitutes for mercury and the iodides for example—which have appeared of late years, and so many of which, by the way, have their birthplace in the United States. Thus with regard to syphilis, Dr. Lydston justly remarks that the proportion of cases curable by the judicious use of mercury and iodine is so large and so gratifying that the practitioner is hardly warranted in wasting much time over new and strange drugs. Among much that is good concerning syphilis, however, exception must be taken to the statement which follows a description of the operation for excision of the primary sore on p. 373: "In a week or two, if there is no penile lesion, the patient may resume his marital relations, providing some measure of protection of the wife be adopted, such as the use of protectives or antiseptic unguents and irrigations." This is dangerous teaching, which should on no account be followed. Indeed, it is difficult to understand how such a passage could have been written by an author who on another page (499) states that a man "should understand that the slightest abrasion upon his penis occurring at any time within three years after infection may infect the female." The so-called tertiary symptoms of syphilis Dr. Lydston looks upon as sequelae, and quotes with approval Otis's view that the tertiary stage should be called the period of lymphatic obstruction. In the treatment of gonorrhoea Dr. Lydston is a firm believer in the virtues of the organic salts of silver, and thinks argyrol the best of all. In the chapter on stone in the bladder it is pointed out that prior to Bigelow's demonstrations the foundation for litholapaxy was laid by F. N. Otis, who showed the tolerance of the urethra for instruments of large size. In the section on sexual disorders Dr. Lydston expresses the opinion, referring presumably to the laws of the State of Illinois, that "marriage is too easy, divorce too difficult for the physical and moral welfare of mankind." As regards the operative treatment of prostatic enlargement, Dr. Lydston considers that prostatectomy is the only truly surgical method. Taking it all round the book is a good one, and the reader, whether practitioner or student, who is interested in the subject may be assured that he will find a large amount of profitable information.

With one exception, Mr. H. C. HINDER'S *Lectures on Clinical Surgery*[2] are upon affections of the genito-urinary system. The first gives a general survey of the symptoms commonly met with in genito-urinary cases. It is followed by an account of the cystoscope which contains many valuable practical hints both on the choice of a good instrument and on various matters respecting its use. Ulcer of the bladder is next described, and is well illustrated by four pictures in colour; Mr. Hinder devotes 40 pages to the subject, and discusses it with the fullness of a textbook. The simple ulcer of the bladder is a condition which practically owes its discovery to the cystoscope, and has hitherto received little clinical study; the few cases which the author mentions are of considerable clinical interest, as are also the tuberculous cases and one of tertiary syphilitic ulcer—a rare condition. The pathology and clinical course of urethral stricture is the subject of the fourth lecture; in traumatic stricture Mr. Hinder advocates suprapubic cystotomy and the postponement of any perineal operation, but his arguments in favour of this course are not very convincing. In cases of impermeable organic stricture he prefers a combined suprapubic and perineal operation to either Cock's or Wheelhouse's. Regarding the treatment of prostatic hypertrophy, the author holds the view that "the risk (of permanent catheter life) is far greater than if he submitted to an operation at the hands of one who was conversant with this kind of work"; he considers that the Bottini operation has a definite place among the different successful methods adopted in attacking prostatic hypertrophy, that those best suited for it are the early cases in which the increase in size is not marked, and his experience goes to show that relapses occur but seldom. For prostatectomy Mr. Hinder prefers the suprapubic route; he has performed complete prostatectomy by this method in fifteen cases with four deaths, and the Bottini operation in seventeen cases with a poor result in one. The other lectures are on "Conservatism in Renal Surgery," "Suppression of Urine," "The Surgical Aspect of Floating Kidney," and "Appendicitis." All the lectures are written in an attractive style, and are interesting reading from beginning to end.

CYSTOSCOPY.

MR. E. HURRY FENWICK'S *Handbook of Clinical Electric-light Cystoscopy*[3] is a clinical study of the use of the cystoscope in the diagnosis of disease of the genito-urinary system. It commences with a historical sketch of vesical-endoscopy from the paraffin-lamp period to the adaption of the incandescent electric lamp by the inventive genius of Nitze. Mr. Fenwick then describes the present-day cystoscope and its essential modifications, the irrigating cystoscope, the catheterizing, and the operating cystoscope, and also gives some advice on the use of batteries and main current supplies. The technique of the use of the instrument is discussed in a chapter of great practical value, in which the risks and fallacies which may present themselves are also considered. Mr. Fenwick's method of keeping records of bladder tumours by means of wax models is well known, but, owing to its difficulty, has been used by few; the only method of the kind at present in use is the photographic cystoscope of Nitze, and this is apparently only successful in a minority of cases owing to the difficulties of insufficient contrast. The second part of the book is headed "Clinical." It deals with the morbid conditions of the bladder as seen with the cystoscope, and is profusely illustrated with clinical records. Mr. Fenwick expressly states in his preface that he writes exclusively on his own personal observations, and when personal experience is rich the plan has great advantages; this is proved here by the number of conditions described, which are actual additions to the knowledge of vesical and renal disease. Among these we particularly note the observations on localized cystitis, on the various types of ulcer of the bladder, and on ureteric meatoscopy in nephritis; this is but a small selection, and to give all would entail the transcribing of a great part of the book. Not only are we aware throughout that we are reading original work, but the technical instruction given is so clear and the warnings against fallacies so full that we recognize that the author's work will greatly enlarge the scope of usefulness of the instrument in the hands of others who follow him. As an example of his method we may take the chapters on bladder tumours; the first deals with points of technique in their cystoscopy and a series of cardinal rules are given, special difficulties are considered, and then the dangers and the conditions under which special care is needed. The following chapters are devoted to the three types of tumour, 30 pages are given to

[1] *The Surgical Diseases of the Genito-Urinary Tract: Venereal and Sexual Diseases.* By G. Frank Lydston, M.D. (of Chicago). Revised edition. Philadelphia: F. A. Davis Co. 1904. (Demy 8vo, pp. 1008; 7 coloured plates, 233 illustrations. 5 dollars.)

[2] *Lectures on Clinical Surgery.* By H. C. Hinder, M.B., M.Ch., Joint Lecturer on Clinical Surgery, University of Sydney. London: Baillière, Tindall, and Cox. 1905. (Demy 8vo, pp. 286; 50 illustrations. 12s. 6d.)

[3] *A Handbook of Clinical Electric-light Cystoscopy.* By E. Hurry Fenwick, F.R.C.S. London: J. and A. Churchill, 1904. (Demy 8vo, pp. 500; 31 plates, 144 illustrations, 18s.)

the benign villus-covered growth, 10 to the villus-covered malignant growth, and 31 to the "bald" malignant growth.

Part III is mainly occupied with a discussion of ureteric meatoscopy and the appearances which indicate disease in the kidney or ureter above; of special interest are the cases of naevus of the renal pelvis causing copious painless haematuria, and those which illustrate the surgical treatment of nephritis. Apart from the observation of blood and pus issuing from the ureter, Mr. Fenwick is able to describe certain characteristic changes in the ureteral orifice and its neighbourhood typically associated with certain renal affections above; he does not advocate ureteric catheterization nor the use of the various operating cystoscopes which have been invented. The whole book is a remarkable record of brilliant work and a splendid testimonial to the value of the cystoscope in the diagnosis of urogenital disease.

GASTRO-INTESTINAL SURGERY.

DR. SONNENBURG'S work on the pathology and treatment of appendicitis[4]—or, as the author, in deference to the philological objection of von Volkmann, and by the advice of von Virchow, persists in naming it, perityphlitis—has, in its fifth edition, been almost wholly rewritten. Professor Sonnenburg has been led to undertake this task in consequence of the fresh light that has been thrown on the pathology and treatment of the disease by the further experience he has gained since the publication of his first edition in 1894, and also by the abundant additions that have been made to the literature of the subject during the interim. As much of the information given in earlier editions is now common knowledge, the author has, whilst adding much that is new, excluded much old material, and thus, with the help of Dr. Hinz, in the chapter dealing with etiology, and that of Dr. Federmann, in the important section on the pathological anatomy of appendicitis, has brought out in a convenient form a thoroughly reliable and standard work on this much-studied but still, in some respects, obscure subject. Professor Sonnenburg, in considering, in the introductory chapter, the doubtful question whether appendicitis be an old or a new disease, or whether, to put it more correctly, it has or has not increased very much in frequency in recent years, holds that really the disease does not occur more frequently now than it did formerly, but that, in consequence of improved differential diagnosis of affections of the abdominal contents, it is now more readily recognized. Statistics are brought forward which show that in the German army during the past twenty-seven years a marked increase in the number of cases of appendicitis has constantly and very closely corresponded with a decrease in the number of cases of hepatic and gastric diseases, and of peritonitis. The long chapter on symptoms and diagnosis is very instructive, and has evidently been carefully prepared and elaborated both by the author himself and by some of his colleagues, who have assisted in making thoroughly practical the section dealing especially with the differential symptomatology of appendicitis and other varieties of abdominal disease which simulate it more or less closely. Much importance is attached to the blood count, which is regarded as an indispensable adjunct to the observation of pulse and temperature in both diagnosis and prognosis. Experience of this method in 600 cases of appendicitis has convinced the author that in every case of the disease—from the simple catarrhal form to acute gangrene and spreading peritonitis—there is a typical "leucocyte curve" corresponding in height and length to the intensity of the attack. Professor Sonnenburg, though recognizing the importance of prompt and early surgical intervention in intense forms of appendicitis, sets his face against indiscriminate operating in mild and doubtful cases. The surgeon is not justified, he holds, in opening the abdomen and removing the appendix in every case of appendicitis, and laparotomy is not so harmless an operation that it can be preferred to expectant treatment in a case that is taking a favourable course.

In Mr. G. R. Turner's small volume of *Clinical Lectures on Appendicitis, Radical Cure of Inguinal Hernia and Perforating Gastric Ulcer*,[5] the first two lectures on the first-named subject are prefaced by a classification of 140 cases operated on from 1895 to 1904. Among these 140 cases there were 10 deaths. Of these, 6 occurred among the acute cases with abscess and 4 among the acute cases without abscess. Mr. Turner is an advocate of early operation in all cases except those which have obviously entered on convalescence when first seen, and thinks elaborate indications for operation are liable to be more confusing than helpful. Several cases of individual interest are described in the second lecture. Of the two lectures on the radical cure of inguinal hernia, the one was delivered in 1901, the other in 1905, and the comparison is interesting. In the first Mr. Turner refers to a great variety of methods of "radical cure" performed by the surgeons at St. George's Hospital; in the second he states that they all now deal with the inguinal canal by suture. Mr. Turner performs a modified Bassini's operation, and records 3 relapses out of 122 cases about whom information was obtainable. A table of considerable interest is also given of the cases of strangulated hernia treated in St. George's Hospital during the last thirteen years; death occurred in 15.5 per cent. of the inguinal cases, in 24 per cent. of the femoral, and in 52 per cent. of the umbilical. The last two lectures are on the subject of perforated gastric ulcer. Histories of 9 cases are given, 8 of whom recovered, one being a case of chronic perforation. Mr. Turner looks upon the operation in these cases as one of such urgency that it should be done by the practitioner who first meets with the case, when the calling in of a surgeon entails a delay of some hours. There is much to be said for such a view, but it perhaps takes too little into account the technical difficulties met with in average cases. Mr. Turner is to be congratulated not only on the readableness of his lectures but also on the admirable operation results which he is able to record.

SURGERY OF THE NERVOUS SYSTEM.

The Surgery of the Nervous System[6] is the subject of the sixth volume of the treatise on operative medicine and surgical therapeutics published under the direction of MM. Paul Berger and Henri Hartmann. This volume is written by Professor GEORGES MARION. The first part of the book treats of the affections of the brain. It commences with a description of cranio-cerebral topography, the most important part of which is that on the relation of the different parts of the brain to the skull; the localization method of Chipault is that preferred, and it is one which has much to recommend it on the score of simplicity and because it depends upon relative and not absolute measurements. Cerebral localization of function is somewhat inadequately treated and no reference is made to the recent work of Sherrington and Campbell. The methods of skull resection are clearly described, in particular craniectomy with the perforator and Gigli saw. The method of Contremoulins for the localization of foreign bodies in the brain is discussed at considerable length; two Crookes's tubes placed at a known distance are used, and from the radiograph the bullet is localized by a highly ingenious mechanism; the method is somewhat complicated, but is said to be precise and accurate. On the subject of epilepsy it is remarked that all cases, partial or general, with a traumatic history should be operated on; with regard to the idiopathic type a somewhat favourable view is taken of sympathetic exsection, more favourable than that held by some surgeons who have practised it; the statement is of course very temperately put, and the author merely holds that the results are such that the operation should not be withheld from patients unbenefited by medical treatment. In tuberculous meningitis it is held that lumbar puncture is the only surgical treatment which present experience justifies, and that the improvement must only be expected to be transient; on the subject of microcephaly, the author says "whatever the procedure practised, and in whatever stage of the disease, the results are negative or so small as to be not worth consideration"; that the cranial operation for this affection was based on a fallacy, pathologists and surgeons now agree. In the second part of the book, on the spinal column and cord, the subject of vertebral tuberculosis is admirably dealt with; the treatment of cold abscesses is somewhat dogmatically discussed; and no alternative is admitted between puncture and open incision with drainage. The third part deals with the surgery of the nerves and commences with the subject of section of the posterior roots, the indications for which are clearly stated. Anastomosis of the paralysed facial nerve is well described and illustrated, and the

[4] *Pathologie und Therapie der Perityphlitis (Appendicitis)* [Pathology and Treatment of Perityphlitis (Appendicitis)]. Von Dr. Edouard Sonnenburg, Geheimer Medicinalrath, Professor der Chirurgie, etc. Fünfte Auflage. Leipzig: F. C. W. Vogel. 1905. (Demy 8vo, pp. 255. M 6.)

[5] *Clinical Lectures on Appendicitis, Radical Cure of Inguinal Hernia and Perforating Gastric Ulcer.* By G. R. Turner, F.R.C.S. London: Baillière, Tindall, and Cox. 1905. (Demy 8vo, pp. 144. 5s.)

[6] *Chirurgie du Système Nerveux, Crâne et Encéphale-rachis et moelle-nerfs* [Surgery of the Nervous System; Cranium and Brain; Vertebral Column and Cord-Nerves.] par Georges Marion. Paris: G. Steinheil. 1905. (Demy 8vo, pp. 531; 320 illustrations. Fr.18.)

anatomy and surgery of the other cranial nerves is fully given. A special chapter is devoted to the trigeminal, and the comparative advantages of the extracranial and intracranial operations are discussed at some length. For the removal of the Gasserian ganglion the Hartley-Krause operation is preferred with the addition of temporary resection of the zygoma; the advantages and disadvantages of this addition are not discussed, but it undoubtedly gives more room. We do not find any reference to the Abbe modification of this operation, which is certainly one of considerable importance. The volume as a whole is an admirable handbook and a thoroughly sound guide to the special department of surgery of which it treats.

NOTES ON BOOKS.

THE LABORATORY OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THE ninth volume of *Reports from the Laboratory of the Royal College of Physicians, Edinburgh*,[1] contains reprints of papers issued from the Laboratory since 1902 and already published in various journals. The first fourteen articles provide a record of the work which has been done at Edinburgh during the last three years on the physiology and pathology of the ductless glands, under the endowment provided for this purpose by Mr. Francis Mason. The majority of these articles are the work of Drs. Noël Paton and Alexander Goodall, and deal with the functions of the spleen, the experimental properties of adrenalin, the physiology of the thymus, and the relation of that gland to the sexual organs. The rest of the book is occupied by various articles of physiological and pathological interest, amongst which may be mentioned a study of famine foods, by Drs. Noël Paton and James Craufurd Dunlop, and a discussion of the etiology of mastitis in cows, by Mr. James Henderson, M.R.C.V.S.E.

THE PRECIPITIN TEST FOR BLOOD.

Professor UHLENHUTH holds a high reputation for his work on the precipitin test for blood, and has done much valuable service in applying this test for medico-legal purposes. A book from his pen on the recognition and differentiation of human and animal blood by the biological method[2] is, therefore, sure to excite considerable interest. But, on opening the volume, we must confess that our first impression is a feeling of disappointment. It is not a monograph on the subject, but a collection of articles and addresses which have been published in scientific journals and delivered before learned societies during the last five years. These are strung together, in as consequential a fashion as may be, and are supplemented by a selection of the records of cases in which Professor Uhlenhuth has made a diagnosis. It will undoubtedly save the time of students of the subject, which is of growing importance both biologically and in its applications to forensic medicine, to be able to consult in one volume all Professor Uhlenhuth's more important utterances on this subject. But, after all, the compilation of a book by the scissors-and-paste method, here presented in its naked symplicity, frankly undisguised, is unsatisfactory. There is a certain preliminary process of digestion which the author of a book is expected to perform before his work can be regarded as sufficiently palatable for the assimilation of the average reader. As we believe that Professor Uhlenhuth will, later on, publish a logical exposition of his matured views on the subject of blood diagnosis, we postpone, for the present, a detailed criticism of his work.

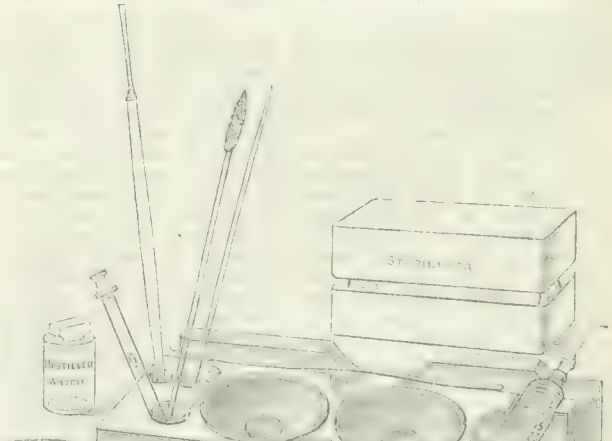
COLLES'S FRACTURE.

Dr. ANDREW FULLERTON'S *Colles's Fracture and other Fractures*,[3] though regarded by its author as simply an analysis of cases, will be found to contain much interesting and suggestive matter. In his study of Colles's fracture and of other injuries near the wrist, Dr. Fullerton has from his considerable experience and with the aid of skiagraphy, been enabled to throw some fresh light on certain disputed questions with regard to the mechanism and complications of these common lesions. Attention is directed to, amongst other points of practical import, the frequent occurrence of fracture of the styloid process of the ulna in association with fracture of the lower end of the radius, and to the frequent absence of impaction in this injury. The author describes a method of treating Colles's fracture, consisting in manipulation under an anaesthetic and in the application of a new form of appliance. By such method, it is held, fracture of the radius near the wrist may be treated without resulting deformity, and with good prospects of complete restoration of the functions of the extremity.

The fourth volume of the *Transactions of the Glasgow Obstetrical and Gynaecological Society*[4] contains a large number of valuable and interesting scientific communications, mostly records of single cases, but not a few discussions of general subjects, such as the diagnosis and treatment of medium degrees of pelvic deformity, *accouchement forcé*, the diagnosis and treatment of suppurative conditions of the pelvis, and extirpation of the uterus. Besides papers on purely obstetrical or gynaecological subjects, there are others on obstetrical paralysis, cerebral diplegia, and the *x*-ray treatment of cancer. Perhaps the most interesting of the less severely scientific papers are the two presidential addresses—the one by Dr. J. Nigel Stark, entitled Retrospect and Prospect in Obstetrics and Gynaecology, and the other by Dr. Howard A. Kelly, entitled A History of Appendicitis in Great Britain.

MEDICAL AND SURGICAL APPLIANCES.

An Aseptic Block Dressing Tray.—The annexed illustration represents in use an appliance which has been made by Messrs. Allen and Hanburys to the specification of Dr. R. E. Hanson, M.A., M.B. Little description of it is required, as the picture practically explains itself. The appliance consists of a solid glass block with a certain number of convenient hollows and grooves in which may be placed ready for use the freshly-sterilized wool-armed probes, glass rods and syringes required by the ophthalmic and aural surgeon in his consulting-room. The two centre depressions are intended for



solutions of silver or of salt, or of an antiseptic. Each of them has a capacity of one drachm, the second depression at the base of each having a capacity of exactly 5 mm., thus enabling a syringe to lap up the last drop of any solution in use. The small sterilizer seen is merely introduced to give actuality to the picture. The appliance is sent out in a box, the cover of which is washable, and may be made to protect freshly-sterilized instruments from dust while awaiting use. The price of the block is only 1s. 6d., and there are obviously others besides aural and ophthalmic specialists to whom it might be useful.

[1] *Reports from the Laboratory of the Royal College of Physicians, Edinburgh.* Edited by Sir John Batty Tuke, M.D., and D. Noël Paton, M.D. Vol. IX. Edinburgh: Oliver and Boyd. 1905. (Demy 8vo, pp. 356. 10s. 6d.)

[2] *Das Biologische Verfahren zur Erkennung und Unterscheidung von Menschen- und Tierblut.* Von Professor Dr. Uhlenhuth. Jena: Gustav Fischer. 1905. (Roy. 8vo, pp. 152. M.3.)

[3] *Colles's Fracture and other Fractures and Disjunctions at the Lower End of the Radius and Ulna.* By Andrew Fullerton, F.R.C.S. (Irel.), B.Ch., M.D. Belfast: Mayne and Boyd. 1905. (Cr. 8vo, pp. 43; 20 illustrations. 1s. net.)

[4] Glasgow: A. Macdougall. 1905. (Demy 8vo, pp. 258. 7s. 6d.)

Scotland.

PROFESSOR WALDEYER ON THE NEURON DOCTRINE.

THE third special meeting of the Royal Society of Edinburg was held on June 14th, Sir John Murray, K.C.B., F.R.S., Vice-President, in the chair, when, at the request of the Council, Wilhelm Waldeyer, M.D., LL.D., D.Sc., Professor of Anatomy, University of Berlin, and Permanent Secretary of the Royal Prussian Academy of Sciences, Honorary Fellow of the Royal Society of Edinburgh, gave an address on "The Present Position of the Neuron Doctrine." In introducing Professor Waldeyer, the Chairman, on behalf of the President, Council, and Fellows, extended a cordial welcome to one of their most distinguished Honorary Fellows, and invited him to inscribe his name on the roll of Honorary Fellows of the Society. Before proceeding to his address Professor Waldeyer expressed his thanks for the honour conferred upon him in admitting him to the Fellowship of the Royal Society of Edinburgh, a society, he said, celebrated throughout the whole world. He also expressed his thanks for the honour of being asked to deliver a scientific address to the Society, and he hoped the matter on which he had to speak, and the manner in which he would give it, would be worthy of the Society. But he was not able to speak well enough in the English language, and, therefore, he asked their pardon for using his own language, one in which he was accustomed to discuss scientific problems. Professor Waldeyer began his lecture with an historical retrospect. He referred to the earlier observations by dissection with the scalpel, such as were made by Rolando, Stilling, and Reil; to the discovery of the nerve cells by Ehrenberg in 1833, to the proof of the connexion of the nerve cells with the nerve fibres by Hannover, Helmholtz, Kölliker, and Rudolf Wagner (1844 1847); to the discovery of the axis-cylinder of the nerve fibre (axon of Kölliker) by Robert Remak in 1845, and to the medullary sheath and the sheath of Schwann in 1848. Deiters, of Bonn, in 1865, was the first to demonstrate the protoplasmic processes and the axis-cylinder processes (the dendrites and neurites of W. His, of Leipzig) proceeding from the nerve cells.

The function of the neurites or axis-cylinder processes was soon ascertained to be for the conduction of nervous impulses, but much doubt had remained with regard to the dendrites. Golgi first considered their function was for the nutrition of the cell. Then Kölliker regarded them as nervous and conducting elements. Van Gehuchten added to this the idea that the dendrites conducted towards the cell, or were cellulipetal, and that the neurites were cellulifugal or conducted away from the cell. The neurites might be of great length, even a yard or more. Golgi discovered that they gave off side-branches. These were termed collaterals by S. Ramon y Cajal, and these collaterals had small terminal branches, named terminal arborizations or telodendron by Kölliker. The dendrites were also subject to manifold transformations, especially in the same organs, of which the retina constituted a good example. With regard to nerve conduction in the central nervous system the theories of Gerlach and Golgi, which were the first in the field, were contrasted. According to Gerlach in 1871, the fibres which entered the the spinal cord broke up into a fine network, which became continuous and fused with the network entering the dendrites of the nerve cells. Golgi, in 1882, discovered the cells which bear his name, the cells of Golgi, intermediary or association cells, which lay between the terminal fibres of the afferent nerves and the motor cells, but which gave off branches, some of which entered into association without direct continuity with the nerve cells, but also became directly continuous with collaterals that entered the motor nerves without first passing through the nerve cells. Thus, according to Golgi, the nerve cell was not necessary to conduction. According to the present position of the neuron doctrine, the neuron is a unit composed of dendrites, nerve cells, and neurites. It was the influence-sphere of the nerve cell. It held that the cell was necessary for conduction. A series of neurons might be associated, however, in any particular line of conduction, and the example of the retina was cited. The objections of the opponents of the neuron doctrine—namely, Apáthy, Bethe, Nissl, etc.—were next dealt with. These observers considered that the cell was only necessary for nutrition, and that conduction could take place through a network of fibres which pass by the side of the cell. The function, then, of the nerve cell was simply to give origin to the nerve net, and then to nourish it. It was also claimed that fibres could pass through the cell without forming part of it. The investigations of G. Retzius, Schiefferdecker, Bielschowsky, and others, but especially the new discoveries of Ramon y Cajal, weighed heavily against the views of Apáthy, etc., and had shown that fibres, whether they entered by the dendrites or the axis cylinder, did not pass through the cell, but broke up in its interior; and also that fibres which came into proximity with the cell terminate in a basket-like work, but did not enter it, and that when the arborizations of one series terminated near the dendrites of another they merely intermingled, but did not fuse. There was thus no proof that conduction could take place independently of cells. It might, therefore, be held that of all the doctrines which have been advanced the neuron doctrine appears at the present moment to have the surest foundation.

The Lord Provost welcomed Professor Waldeyer to the Scottish capital. Sir William Turner moved that the large assemblage of the Society should confer a special vote of thanks to Professor Waldeyer for his address. Professor McKendrick seconded.

Among those present were the Lord Provost, Sir William Turner, Sir John Batty Tuke, M.P., Sir Arthur Mitchell, Professors Crum Brown, Chrystal, Cunningham, Schäfer, Greenfield, Cossar Ewart, Eggeling, Niecks, of Edinburgh University; Professor McKendrick of Glasgow; Professor Symington of Belfast; Drs. Clouston, Byrom Bramwell, A. Bruce, A. Buchan, J. O. Affleck, C. E. Underhill, David Waterston, etc. Apologies were received from Lord Kelvin, the President of the Royal College of Physicians (Dr. John Playfair), Professor Wylie, Edinburgh; Professor Reid, Aberdeen; and Professor Graham Kerr.

THE GIRGENTI INEBRIATE HOME.

The fourth annual report of the Girgenti Home, forwarded by the Town Clerk of Glasgow, is melancholy reading. When this institution was started its first report was very promising. The plan of management was very good, and the special report of the medical officer, who seemed to have been at great pains to diagnose and classify his patients on scientific lines, led us to believe that some excellent work was about to be done in Glasgow.

It is disappointing to find that, judging by the most recent report, this belief has not been justified. It is not to be supposed that the cases which come under treatment in the Girgenti Home differ intrinsically from those committed to other reformatories, and the question why the home has not given the very modest good results of other inebriate institutions seems deserving of elucidation. Any one reading the report with a desire to understand the exact results obtained will be puzzled to discover how the table described by the managers as "a fair indication of results," has been arrived at. The table treats of 29 persons, who have all (with one exception) been under the care of the managers for three years, and a detailed outline of the reformatory life of the 29 is given. The table gives the following figures: Doing well, 9; hopeful, 6; doubtful, 7; hopeless, 7; total, 29. On looking at the details, four cases, Nos. 6, 13, 34, 46, appear to have done very well. Two more have, during a period of about five months' freedom, not relapsed. Total, 6.

It is said of one patient who has relapsed twice during the five months following her discharge that she "seems to be doing well," and of one who had relapsed under licence and whose sentence had expired about a month before the date of the report that "she is now doing well." Of a third, "*with the exception of an occasional relapse* (the italics are ours) she is giving satisfaction."

If these three cases are included, we may perhaps admit the managers' statement that nine are "doing well," though we may think their standard of reckoning a very odd one. But in the case of the inmates of reformatories, the majority of whom are in many respects extremely disorderly persons, the phrase "doing well" may mean much or little. "Has remained a total abstainer" would perhaps be a more precise wording, though it would unquestionably alter the managers' figures. It is impossible to criticize the matter of the 20 hopeful, doubtful and hopeless cases, such categories do not seem to lend themselves easily to statistics. Indeed, on looking at the detailed report we learn that seven of the ex-inmates have been entirely lost sight of, so it is impossible to conjecture under which of these three headings they are supposed to come. Two inmates are also in the poorhouse and therefore also outside the reckoning.

There are other interesting facts in the detailed report

which are not embodied in the table. For instance, out of the 29 cases, 14 (that is, almost half) relapsed while actually under sentence and licensed out. One was licensed out three times and twice relapsed. During the year 1904, in which there were ten new admissions there were fourteen escapes, and three of these persons were not recovered. Nearly all were old cases who had been in the home a considerable time or who were licensed out.

It is, of course, impossible for the managers or officials of a reformatory to follow up the subsequent history of all cases. Still, it hardly seems necessary for them to confuse their printed "results" with such entirely indefinite statements as these : "Seems to be doing well," "Did well for a time," "So far as the managers know she has not relapsed," "So far as the managers know she has not since been found the worse for liquor," "Appears to be living a sober life," "The managers have not heard that she has relapsed," "This inmate, though promising, cannot be said to have proved a success." If only for the purpose of determining whether it is worth while to keep a reformatory or not, this kind of evidence is inadequate. Respecting the causes of the extremely poor results with their first batch of inmates, the managers appear to have nothing to say, nor do we learn from them anything about the special influences or conditions which may be supposed to have contributed to the well-doing of the satisfactory remnant.

The whole report is painfully negative, and if we turn to the medical officer's own report our disappointment reaches its climax. The managers expressly state that "the medical officer is responsible for the medical treatment of the inmates," otherwise nothing in the medical officer's own report would have led us to that conclusion, for the managers themselves tell us that the health of the patients has been good, and that there has been no serious illness during the year. The medical officer does not mention the patients' health. The real mental or physical condition of the patients, the prognosis or treatment of the cases who have been discharged or who are still under treatment, are not discussed.

The medical officer's report consists of a short, vague, and half-hearted account of an experiment which was carried out during the year on 22 patients. "A drug" was administered to these for a month. The medical officer does not state what was given, whether he himself gave it, or with what object it was given. He does not say what considerations influenced the selection of the 22 patients who were treated, why it was necessary for the 22 patients to write letters about the drug, or its effects on them, their feelings, hopes, sensations, and symptoms. He does not tell us to whom the letters were addressed, nor why he as medical officer thought it advisable to publish them in his report. Possibly the members of the Glasgow Corporation would have been none the wiser if they had known the name of the "drug" and the medical officer's reasons for trying it. But it is reasonable to suppose that persons capable of understanding the detailed account of the effects of the drug on the 22 patients which occupies almost the whole report would be able to understand all the rest.

This method of allowing the patient's own testimonies to speak for themselves is very much in vogue amongst the vendors of "cures" for alcoholism; it is not in common use in the medical profession, and it seems hardly desirable that it should be. As this report stands, it is unconvincing.

The mysterious "drug" is a very well known one. It has stood the test of time and experience, and whatever its value in treating symptoms, it is certainly no specific remedy for inebriety any more than the numerous other drugs for which an equal claim is made, while it is unquestionably a highly unsuitable drug for some cases.

When a public institution publishes a report it is hardly too much to expect that its details should be such that experts, at any rate, should be able to understand it. Statistics should be intelligible to those versed in statistics. The medical report should, however slight, be susceptible of comment by medical men, otherwise why publish it at all?

PROPOSED THREE-TERM SYSTEM AT THE SCOTTISH UNIVERSITIES.

For some years a movement has been on foot to establish the three-term system at the Scottish Universities, in place of the present winter and summer sessions. The proposal originally came from Glasgow University, and a scheme was drafted by the late Professor Adamson. The consent of all the universities concerned must be received before any definite steps towards the attainment of the change can be taken. For some reason or other the proposal has hung fire, but an important meeting of delegates from the four universities took place recently. It was private, but according to a short notice in the *Glasgow Herald* the general opinion was decidedly in favour of the proposed change. To effect it application to Parliament for permission to amend the present regulations will probably be necessary. The desire for the three-term system originated in the Arts Faculty, but the remaining faculties would also be affected. It is hoped that by instituting three terms in the year the present system of vacations would be improved, and that a better working-year would result.

PROFESSIONAL GOLF CLUBS.

One of the most popular medical institutions in Glasgow is the Medical Golf Club. It was started three years ago, and the membership now numbers upwards of a hundred drawn from the medical men of Glasgow and the neighbourhood. Monthly meetings are held on different courses, and there is always a good turn-out of members. An annual match is played against the University Golf Club, and so far the medical men have proved victorious. The clergy and legal lights have followed the example of the medical men, and now these professions also have golf clubs.

PROPOSED COLLEGE CLUB IN GLASGOW.

The old University Club which was situated in Bath Street was wound up some years ago on the termination of the lease. Since then there has been no University Club in Glasgow. It was recently resolved to establish a small club in Hillhead, composed of gentlemen connected with the University and others interested in University matters. The membership is limited to 200 resident and 50 non-resident members. The necessary funds were raised by the issue of debenture stock which was readily taken up. Premises have been secured at 2, Viewfield Terrace, Ann Street, Hillhead, and it is hoped that they will be ready for occupation in October. The club is intended to be a meeting place for those interested in University matters; it is not to be residential, but there will be a reading-room, writing-room, and billiard-room, while light refreshments will be obtainable. The name proposed is the College Club.

BUBONIC PLAGUE AT LEITH.

The three patients—mother and two children—in East Pilton Hospital continue to do well, and are now able to be out of bed, though not yet fit to be discharged. No case of plague has occurred since May 10th. Nothing definite as to the cause of the outbreak has yet been discovered.

Canada.

MALT EXTRACTS.

IN the *Sanitary Journal of the Provincial Board of Health of Ontario*, vol. xxii, Geo. G. Nasmith, M.A., Ph.D., reports the result of the examination of malt extracts with a view to determining their diastatic and food values.

All of the malt extracts obtainable in Toronto, he writes, have been examined with a view to determining their diastatic and food values. Malt extract is obtained by the evaporation of an infusion of malt, preferably in vacuo and at a low temperature. It should be light in colour, the taste characteristic of malt, and the odour pleasant like that of new bread. The solution in nine parts by weight of water should only be slightly turbid, and should give an abundant precipitate a few minutes after being mixed with an equal quantity of a cold aqueous solution of picric acid.

The diastatic value of malt extract is very variable, depending largely on its method of preparation. Too high a temperature destroys the diastase, such specimens being of little more value than an ordinary syrup. This diastatic power is the feature of greatest importance in malt extract, and is determined by allowing a definite quantity of the malt extract to act upon a fixed quantity of starch mucilage, the end-point being determined by iodine. The blue colour of the starch with iodine gradually disappears, passing through purple, red, pink, brown, and yellow before the end-point is reached. In practice about 1.5 gram of the malt extract was allowed to act on 0.1 gram of starch mucilage in 100 c.cm. of water. Preparations acting on this quantity of starch, and which will not cause the total disappearance of the starch in three hours, are condemned as being utterly worthless, in diastatic activity at least. A good preparation will give no yellow colour after

acting for half an hour. As acids destroy diastatic activity, and since the contents of the human stomach are usually acid in about half an hour, samples which will not digest a fifteenth of their weight of starch in three hours are little better than honey or other saccharine solutions.

Nine specimens of malt extract manufactured in Ontario, and eight of them by brewers, were found to be absolutely without diastatic action, although, without exception, all were claimed to be active. None of them caused the disappearance of the starch after fifteen hours, proving that not even traces of diastase were present. All were dark brown in colour, indicating that they had been sterilized by heat, the diastase of necessity being killed in the process. All contained alcohol, were of thin consistency, and contained only from 4 to 16 per cent. of solids. The only three of the thick malt extracts obtainable proved to be very different from those mentioned above. All were free from alcohol, were pleasant-smelling, had characteristic taste, and were very actively diastatic. Only one was brown, the other two being quite light coloured. These three extracts were compared with Parke Davis taka-diastase.

One fifth of a gram of taka-diastase will digest one-tenth of a gram of starch completely in four minutes at 40° C. Evans and Sons' preparation took thirty-four minutes, maltine took twenty minutes, bynin took thirty-nine minutes. From these results Dr. Nasmith concludes that the ordinary thin malt extracts sold in Ontario are to all intents and purposes ordinary beer. Some of them contain more actual solids than beer, but the medicinal qualities of the diastase for which so much is claimed are entirely lacking. The light-coloured thick malt extracts, on the other hand, are all that they are claimed to be, and are actively diastatic, besides containing large quantities of sugar.

TYPHOID OUTBREAK IN HAMILTON.

A recent outbreak of typhoid fever in the City of Hamilton, Ontario, has some interesting features. In all there were 30 cases; all but 4 were inmates of the General Hospital, the Hospital for Infectious Diseases, and the House of Refuge. The four exceptions were in one locality of the city: there was no typhoid at this time in any other part of the city. As there was no typhoid in other parts of the city, the water supply and the vegetable market can be excluded as sources of infection. The milk supply, all from one dairy, and supplied to these institutions and used by the other sufferers, was undoubtedly the cause. The milk was brought to the hospital and poured out-of-doors into the hospital cans; the cans themselves have never been brought into the building.

On analysis all the waters used by this milkman in the washing of cans were found to show some chemical pollution and infection with the colon bacillus. The wells from which the water was taken were so placed as to be liable to contamination in the case of heavy rain, and the meteorological reports show that as there were three distinct outbreaks of the epidemic, so there were three great rain storms which bore a relation in time to these outbreaks.

There was no typhoid on the farm, nor had there been any in the neighbourhood for three years, but the cases were undoubtedly typhoid, though the cause of the contamination could not be found. One of the sources of water was from an artesian well 50 ft. deep, which seems to derive its flow from a very wide radius, as much as one and one-half mile, and which showed contamination in the case of heavy rains.

DR. O'REILLY OF THE TORONTO GENERAL HOSPITAL.

Dr. Charles O'Reilly has resigned the position of Medical Superintendent of the Toronto General Hospital, a position which he has held for almost thirty years. During this period great changes have taken place in the status of the medical profession and in the size of the hospital which now has a population of over 500, and is thoroughly equipped in the most up-to-date way; over 100,000 patients have passed through the wards under his supervision and thousands of practitioners all over the world will hear with regret that such a tried friend has left the institution. Dr. O'Reilly is Examiner in Clinical Surgery for the Ontario Medical Council, Vice-President of the Association of Hospital Superintendents and of the Ontario Hospital Association. It is his intention to take a prolonged holiday travelling abroad. The City Council tendered him a complimentary banquet and presented him with a service of silver, and addresses and presentations were also made by the profession, by the Clinical Society and by the Post-Graduate Society.

THE ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1903.[1]

THIS voluminous report, which takes over a year to compile, is always comprehensive, exact, and lucid.

The relatively large amount of inefficiency, through sickness, is to be deplored; but it must not be overlooked that a very large proportion of it is directly due to venereal diseases.

If an effective system of public control over the spread of such diseases were instituted in areas where soldiers are congregated, these annual returns would present a very different aspect.

The oft-drawn comparisons between the vital statistics of the British and those of foreign conscript armies may be very misleading; first, because the conditions of service are very unlike; and secondly, because ratios are based on totals widely dissimilar in value.

In a review of French army statistics in the BRITISH MEDICAL JOURNAL of December 27th, 1904, it was pointed out that slight cases of illness among French soldiers are treated in quarters, under a classification in which there is an entry for *malades à la chambre*, and are not included in the hospital ratios, whereas in our army every case is treated in hospital and counted in the returns thereof; this alone makes an important difference in the ratio of admissions and constantly sick.

RATIO OF SICK.

On the whole the sick ratios for troops at home and abroad in 1903 compare favourably with the decennial averages, 1893-1902, notwithstanding that the general strain of the war must have adversely affected the returns for the year. The figures are as follows:

Ratio per 1,000 of Strength.

European Troops.	Admitted.	Died.	Sent Home as Invalids.	Discharg'd as Invalids.	Constantly Non-effective from Sickness.	Average Sick Time to each Soldier.	Average Duration of each case of Sickness.
						Days.	Days.
Troops at Home and Abroad, 1903	758.1	7.13	31.17	18.95	47.29	21.73	28.77
Ditto. 1893-1902	927.4	8.57	30.14	19.44	56.54	20.64	22.31

United Kingdom.

It is stated that the health ratios for 1903 for troops in the United Kingdom compare favourably with those in foreign armies; especially the death-rate of 3.41 per 1,000 of strength, which "cannot be regarded as excessive, when it is remembered that it is not a rate resulting alone from sickness originating in the United Kingdom, but also contributed to by disease contracted during service abroad."

There were 92 admissions and 28 deaths from enteric fever; and of 27 cases at Aldershot it is stated that 16 were probably contracted in South Africa; such is the difficulty statisticians have in locating sources of origin or infection in this disease.

Foreign and Colonial Stations.

In the Mediterranean stations and Egypt the health conditions in 1903 compared favourably with decennial averages.

Canada was very healthy.

Bermuda fairly so.

In Barbados there was a marked decrease in malarial fevers, partly attributable, at least, to draining and clearing carried on at St. Lucia, and "the great diminution in the number of *Anopheles* brought about by these and other antimalarial measures."

South Africa.

During 1903 the troops in South Africa had been reduced to about 28,000, and their general health was, on the whole, satisfactory.

Enteric fever was still prevalent. The disease shows decided seasonal prevalence. It begins in October, declines in May, and almost disappears in the dry, cold months following. It is emphatically reported: "As in India, so the teaching of South African experience is, that the key to the prevention of this disease is the *prevention of soil pollution*."

[1] London: Wyman and Sons. Edinburgh: Oliver and Boyd. Dublin: E. Ponsonby. 1905. (2s.).

of which the corollary is, that the germs are airborne-dust and flies, as well as waterborne; but the greater prevalence in the hot and wet months would point to water as the chief agent in diffusion.

India.

Indian service is the great factor in the health statistics of the British army; it dominates and affects those of the entire army at home and abroad. In 1903 there was an increase over 1902 in the admissions and constantly sick, but fewer deaths; yet both were under decennial averages.

There was an increase in enteric cases, attributed to large drafts and reliefs of young soldiers, and to the arrival of men who, having been on field service continuously for two or more years in South Africa, were, it is stated, probably more susceptible to any source of infection.

The causes of enteric fever in India are discussed at great length, but may practically be summed up in soil pollution, diffusion through air and water, and the marked susceptibility of young soldiers to the disease.

Malarial fevers are, as usual, the chief cause of inefficiency and health deterioration among Europeans; quinine is still the sheet anchor, and its administration hypodermically has proved "very satisfactory."

Cholera was more prevalent and fatal than in 1902, but showed little of the disastrous results of bygone years; indeed it would seem that this disease has been fairly got in hand during the last decade or so in India.

Although plague was sadly prevalent among the native population, there was only 12 admissions and 2 deaths among European troops in the Bombay Presidency.

Influenza still lingered in India, as at home, but was of a mild type.

Venereal diseases afford a black record, as shown by the following extract, which speaks for itself:

> Notwithstanding a reduction of 31.9 per 1,000 of strength, it is still to be deplored that such a very large amount of preventable disease as an admission rate of 249.5 per 1,000 due to venereal still exists. This enormous wastage of otherwise efficient troops is a subject that is engaging our closest attention; and general, commanding, regimental, and medical officers are strenuously working in concert by every means in their power to reduce it.

ARMS OF THE SERVICE.

The health statistics, according to arms of the service, present some curious and even inexplicable features. Why should the following (in order) present the greatest constant sick inefficiency and invaliding—Foot Guards, Cavalry, Infantry, Artillery, Engineers?

Officers.

The sickness and mortality among officers continues less than half that of the men.

Women.

Of 12,433 women borne on the strength of the Army in the United Kingdom, there were (excluding uncomplicated cases of parturition), 446.8 cases of sickness, and a mortality of 3.86 per 1,000.

Children.

Of 23,277 children on the strength at home, there was a sick-rate of 520.3, and a mortality of 12.97 per 1,000.

RECRUITING.

In 1903 the recruits inspected were 69,553, of whom 22,382 were found unfit, giving a ratio of 321.80 and an increase of 14.61 per 1,000 in rejections.

This high proportion of unfits is often ascribed to serious deterioration in the general physique of the population—a theory which may have some truth in the ever-increasing numbers of urban recruits; but men of wide experience in the mysteries of recruiting would rather ascribe it to much less recondite causes, which have recently been in operation. First, there is increasing difficulty in securing recruits in sufficient numbers, which slackens the vigilance of recruiters in their primary selection, whereby men with little chance of passing are hustled into the inspection rooms and needlessly swell the rejections. Secondly and concurrently, there has recently been greater stringency in the medical examination, particularly in regard to defects in chest measurement, vision, and teeth. Both of these causes together are quite sufficient to account for the increased rejections in recent years.

The report, as a whole, is replete with most interesting matter, and reflects the greatest credit on its compilers.

LITERARY NOTES.

IT is announced that a book by Mr. James Cantlie on physical degeneration and regeneration is ready for publication. It will be issued by Messrs. Putnam in this country and in America.

We are informed by the manager of the Cambridge University Press that the King has been pleased to accept a copy of Dr. W. J. Simpson's *Treatise on Plague* lately published by the Cambridge University Press. We are also informed by Messrs. John Wright and Company, of Bristol, that His Majesty has been graciously pleased to accept a copy of the volume, *Meals Medicinal*, by W. T. Fernie, M.D.

The *Medico-Technologisches Journal*, as its name imports, takes for its province the whole of medical technology, including medical and surgical instruments, microscopes, bacteriological apparatus, radiography, hygiene, nursing, physical therapeutic methods, pharmacy, and pharmacology. It is published at Leipzig under the editorship of Herr J. Hellmann, an engineer, with the co-operation of Dr. Berth. Beer.

Dr. J. W. Jordan has sent us the following extracts from *A Letter on the State of Surgery from a Gentleman in Town to his Friend in the Country occasioned by the Latter having a Design to Apprentice his Son to the Art*, published in 1752. The doctor was evidently soured, narrow-minded, and prejudiced, and a specimen of a type which was very common at one time. Referring to the multiplicity of hospitals and the influence of them and of irregular practitioners on private practice, he says: "This Article of Bleeding would be a very considerable Branch of their Business, was it not usurp'd, or was it not thus engross'd, and made the Property of Foreigners.—It carries with it its present Reward, and before the Establishment of so many new Hospitals; before it was thus become the Practice of others; it has been asserted to me, and very lately too, by a gentleman of Fifty years being in Business, that he has got by the Article of Bleeding three and four Hundred Pounds a year;—and he added, that the Profession of a Surgeon was, on account of so many Hospitals, become nothing worth, and that it was his Belief, in a very few Years there would not be ten Surgeons in this City, besides those attached to the Hospitals. That St. Thomas's, Guy's, St. Bartholomew's, and that erected at Hyde Park Corner are sufficient to receive all those who are truly pitiable objects or those who strictly and justly are entitled to the Charity and Affluence of their Fellow Creature." He argues that the new hospitals are a cause of idleness and dissipation among workmen, seeing that in "case of sickness they and their families are taken care of, and so they will only work just so much as was necessary for their subsistence, and indulgence in eating and drinking, scarce having Cloathes to their Back." He goes on to say: "I never will believe that every Governor of these Hospitals does become so from a real good motive"; he bluntly charges them with sending their servants and even their own relations to the hospital, "and that this Circumstance serves still to oppress the Private Practitioner." "All his Acquaintance (if he pleases) feel the Sunshine of his Power, and the little emoluments which would otherwise arise hereby to the Practitioners aforementioned are cast into the Lap of Monopoly."

TUBERCULOSIS CAMPS.—The Governor of Pennsylvania has vetoed a Bill passed by the State Legislature, appropriating a sum of £60,000 for the erection of two State camps for the maintenance, treatment, and cure of cases of incipient tuberculosis. He takes the ground that if it is the duty of the State to take care of persons suffering from diseases capable of becoming a source of danger to others, and likely to terminate fatally, it may in time become necessary to care also for those suffering from other infectious diseases, such as small-pox, leprosy, cholera, yellow fever, the bubonic plague, typhoid fever, pneumonia, and others. He finds a further objection to the Bill in the fact that the benefits of its provision are open to rich and poor alike. He points out further that if forestry lands are to be laid bare for the purpose of erecting buildings in one worthy cause, they may in time come to be utilized for many other such purposes. Finally, he believes that objects of the Bill would be better fulfilled by the pro Act for the creation of a State Department of Hea ample powers to carry out plans for the treatment osis and the protection of the community from t ensue from the prevalence of this disease.

MEDICAL NEWS.

The German Public Health Society will hold its annual general meeting this year at Munich from July 7th to 9th.

Dr. Clement Godson has been elected a corresponding member of the Societa Italiana di Ostetricia e Ginecologia.

The Tallerman Institute for treatment by superheated dry air has been removed from Welbeck Street to 20, Manchester Street, Baker Street, London, W.

The Lord Mayor will preside at a public meeting, to be held at the Mansion House on Wednesday, June 28th, at 4.15 p.m., for the establishment of a national league for physical education and improvement.

A deputation from the Certifying Factory Surgeons' Association had an interview on June 21st with Mr. Cochrane, Under-Secretary of State for the Home Department, with regard to the Accidents (Mines and Factories) Bill.

Dr. Axel Munthe, Physician to Her Royal Highness the Crown Princess of Sweden and Norway, has been appointed an Honorary Commander of the Royal Victorian Order, on the occasion of the marriage of Princess Margaret of Connaught and Prince Gustavus Adolphus of Sweden.

The Incorporated Society of Medical Officers of Health will hold its annual provincial meeting on July 1st at Lancaster. In addition to ordinary business there will be a discussion in the morning on the public-health aspects of motoring. The afternoon will be given up to excursions in the neighbourhood.

At the annual general meeting of the Association of Registered Medical Women, on June 6th, Miss Aldrich-Blake, M.S., M.D., was elected President for the ensuing year, and Mrs. Stanley Boyd, M.D., Treasurer. The annual dinner was held the same evening, at the Midland Grand Hotel. There were seventy-two medical women present, the chair being occupied by the outgoing President, Miss Helen Webb, M.B. Among the guests present were Miss Smith, M.D., and Miss Culbertson, M.D., of Boston, U.S.A., and Dr. Margaret Todd.

Mr. Tweedy, President of the Royal College of Surgeons of England, will distribute the prizes at the Westminster Hospital Medical School on Thursday next, at 4 p.m., and will deliver an address at 4.30 p.m. on the same day. Sir John Gorst, M.P., will distribute the prizes to the students of St. Mary's Hospital Medical School, and Mr. H. T. Butlin those gained by the students of the London School of Medicine for Women. The Rev. James Gow, Litt.D., Head Master of Westminster School, will distribute the prizes and certificates at King's College, London, on Wednesday, July 25th, at 3 p.m.

At the Sixth International Congress of Applied Chemistry, which is to be held in the spring at Rome next year, India and its work in this direction will be officially represented for the first time. The Committee in charge of matters consists of Major C. H. Bedford, D.Sc., M.D., of the Indian Medical Service, Chemist to the Imperial Government of India, as President, and of eight members, all of whom are either Professors of Chemistry at the Indian Universities or chemists to one or other of the provincial Governments. There is room for a great deal of original work in India in various branches of applied chemistry, and of late years much activity has been shown. In particular the physiological action and chemical nature of various by-products found in different kinds of native spirits is being investigated at the Country Liquors' Laboratory at Kasauli, of which Major Bedford is director, the object being to enable the Government of India to prescribe standards and tests of quality for the different forms of alcoholic liquor locally prepared.

South-West London Medical Society.—The annual Bolingbroke Lecture in connexion with this Society was delivered on June 14th by Sir R. Douglas Powell, Bart., who took for his subject, Some Clinical Lessons from the History of Medicine in the Last Half Century.

A Sanatorium for the Nervous.—The late Baron Nathaniel Rothschild, of Vienna, is said to have left £850 000 to be devoted to the foundation of a sanatorium in the neighbourhood of Vienna for persons suffering from nervous affections other than epilepsy, insanity, and incurable spinal disease.

The Albert Medal.—The *London Gazette* of June 10th contains an announcement that the King has been pleased to amend the rules governing the award of the Albert Medal by the abolition of the ordinance that the medal for saving life on land shall only be awarded for acts of gallantry performed within the British dominions.

Insanity in New York.—According to a report which has just been submitted to the New York State Commission of Lunacy by the State Charities Aid Association, the number of insane persons in the State hospitals and licensed private asylums increased by nearly 1,000 during the past year. While this increase is less than that of the previous year, it is in excess of other years, the average annual increase being 738. The total number of insane persons in State hospitals and licensed private asylums on October 1st, 1904, was 26,861—an increase of 927 over the previous year.

Mosquito Reduction in California.—The California State Board of Health, in its monthly leaflet for April, 1905, calls attention to the utility of a crusade against mosquitos in certain parts of the State for the purpose of minimizing malarial infection. Last year the marshes about San Rafael were inspected by representatives of the entomological department of the University of California, and those found infested with mosquitos were treated with crude oil, giving the most satisfactory results, until late in the year when lack of funds caused a suspension of work and a consequent increase of mosquitos. A large marsh area, extending from South San Francisco nearly to San Mateo, is the seat of operations this year. Fresh-water areas, which abound in the region under treatment, are either filled up with earth, drained, or treated with oil.

Bequests to Medical Charities.—By the will of the late Mr. Henry Hargreaves Bolton, of Newchurch-in-Rossendale, Lancashire, which has now been proved, the following legacies are directed to be paid by his executors: The Cancer Pavilion and Home Hospital Gardens, Manchester, £550; to the following institutions, £500 each: the North-Eastern Hospital for Children; Cheyne Hospital for Sick and Incurable Children; Alexandra Hospital, Bloomsbury; Victoria Hospital for Sick Children, Chelsea; Royal Hospital for Children and Women, Waterloo Bridge Road; Hospital for Sick Children, Great Ormond Street; Manchester Children's Hospital; Children's Home, Victoria Park; East London Hospital, Shadwell; the Albert Asylum, Lancaster; the Mildmay Mission Hospital, Bethnal Green; and the Royal Hospital for Incurables, Putney Heath. The Cancer Hospital, Fulham Road, is to receive £300, while £250 each goes to the Manchester Clinical Hospital, the Friedenheim Home for the Dying, and the London Homœopathic Hospital.

National Hospital for the Paralysed and Epileptic.—A dinner in aid of the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., was held at the Whitehall Rooms on June 15th, Lord Strathcona presiding. There were a great many ladies present, but the really distinctive feature of the occasion was the number of medical men who showed their interest in this hospital by attending. Plenty of explanation of the popularity of the institution was forthcoming in the speeches, both of Lord Strathcona, of Mr. F. Macmillan, the new Chairman of the hospital, and of Dr. Ormerod, who responded to the toast of "The Medical Staff." It was shown that this institution in many respects stands alone, that the scientific value of the work which is carried on in its wards is recognized not only at home but abroad, and that foreign as well as British medical men seek it as a desirable place for post-graduate study. As for the patients, they, too, were proved to be of the most diverse origin in point of nationality. Hospital economics, as illustrated by the domestic reforms recently effected in its management, also received attention, and, in speaking of them, Mr. Danvers Power, the late chairman, took occasion to mention the great assistance which in all respects he had ever received from the medical staff. During the evening subscriptions to the amount of £3,077 were announced, the sum including an anonymous donation of £500. The hospital has 160 beds in Queen Square, and 40 at its convalescent branch at Finchley. The out-patients number about 6,000 every year and there are also 90 pensioners—persons suffering from incurable nerve complaints. The annual expenditure equals about £17,000, ordinary income falling short of this sum by £5,000.

British Medical Journal.

SATURDAY, JUNE 24TH, 1905.

A REGIUS PROFESSOR'S LAY SERMONS.

THE title of "lay sermons," given by Huxley to some of his addresses, may more appropriately be applied to the collection of homilies of one kind or another to students, nurses, and practitioners which Professor Osler has now republished in permanent form.[1] It would be well for individual men and for society in general if all the sermons preached from the pulpits in Christendom showed the lofty feeling for all that is good and true, the genial wisdom and the energizing quality of these discourses. The appearance of the book is especially opportune, for it will reveal to those to whom the new Regius Professor in the University of Oxford is as yet little more than a name the secret of the vast influence which he has long exercised on the minds of his professional brethren over the whole length and breadth of the American Continent. Professor Osler is far more than a teacher of the things of the understanding; he is a moral force. Wherever he has worked he has gathered disciples about him eager to bear the torch which he has handed to them, and it surely is not vain to hope that his attractive and inspiring power will display itself at Oxford as brilliantly as it did at Montreal, Philadelphia, and Baltimore.

The addresses have, as is inevitable, a certain sameness, as they are for the most part variations on the eternal theme, Be virtuous and you will be happy. Each, however, has distinctive features and all are rich in counsels of the ripest wisdom conveyed in a style that can scarcely fail to captivate a reader of any intelligence who allows himself to be lured within range of its magnetic charm. The subject of the address which gives its title to the book is imperturbability, a quality of body and of mind most necessary in a medical practitioner, for the lack of it makes knowledge and skill of little use. Antoninus Pius, when he was dying, summed up his philosophy of life in the word *Aequanimitas*. It is, says Professor Osler, indissolubly associated with wide experience and an intimate knowledge of the varied aspects of disease. If a practitioner teaches himself not to expect too much from the people among whom his lot is cast, his equanimity will not easily be ruffled by the folly of patients or the wiles of false brethren.

About teachers and students Professor Osler naturally has much to say. He tells us that "thoroughly equipped laboratories, in charge of men thoroughly equipped as teachers and investigators, is the most pressing want to-day in the medical schools" of America; may not the same be said of our own country? He dwells in a strain which a more recent deliverance has made familiar to the world on "the disadvantages to a school of having too many men of mature, not to say riper, years." His own method of clinical teaching is individual and in the best sense practical. We gather that this cannot be said of the teaching in most American schools, as he says that the radical reform needed there is the introduction of the system of clinical clerks and surgical dressers.

He utters words of warning which may well be taken to heart by those who estimate the value of scientific research by its immediate returns, when he insists that the true test of a nation's life is not its material prosperity, but its intellectual and moral standards. "The value of a nation to the world is neither the bushel nor the barrel, but *mind*"; hence, "there is no more potent antidote to the corroding influence of Mammon than the presence in a community of a body of men devoted to science, living for investigation, and caring nothing for the lust of the eyes or the pride of life." Speaking to students, he urges upon them the virtue of method and system in their work, by which they will escape the dire necessity of cramming; he insists also on the need of thoroughness, whereby they may avoid the sloughs of charlatanism. As ignorance in lay folk breeds belief in quackery, so half knowledge engenders charlatanism in the practitioner.

Professor Osler dwells much on the advantages of seeing the cities and manners of men. We are reminded of Johnson, who was overheard by the Master of his College saying to himself that he would go and see what was being done in universities abroad, "for an Athenian blockhead is the worst of blockheads." This means, we take it, that the more famous the school a man has been trained in, the greater is the danger of his looking upon all others with that complacent superiority which is the true note of provincialism. Professor Osler has the dislike of the large-minded man for the narrowness of Chauvinism. For this a wider outlook on the world than is to be got from the windows of one's own college or hospital is the surest corrective; but if the full benefit of this experience is to be obtained, the mind must be prepared. Half-educated young men will gain as little that is worth having by running about from one foreign university to another as the pilgrims referred to by Thomas à Kempis, who, moved by nothing better than curiosity, went to divers places to visit the relics of the Saints.

One of Professor Osler's precepts to the student is to "take no thought for the morrow." In other words, let him not trouble himself with morbid apprehensions about the future, the dread of examinations, and the doubt of ultimate success. Practitioners, too, he advises to throw away all ambition beyond that of doing the day's work well. "Live neither in the past nor in the future, but let each day's work absorb your entire energies and satisfy your lives and ambitions." This advice should be engraved on every doctor's mind. It is the teaching of Carlyle: "Our duty is not to *see* what lies dimly at a distance but to *do* what lies clearly at hand," and there is no doubt that it contains the secret not only of successful achievement but of happiness.

Professor Osler recommends students "to start with no higher ambition than to join the noble band of general practitioners." It is they, he says, who "form the very sinews of the profession—generous-hearted men, with well-balanced, cool heads, not scientific always, but learned in the wisdom not of the laboratories, but of the sick room." He insists, however, that the general practitioner must keep himself posted in all new things by reading, and, if possible, by attendance at the meetings of medical societies. But he points out that there are grounds in the history of

[1] *Aequanimitas*, with other Addresses to Medical Students, Nurses, and Practitioners of Medicine. By William Osler, M.D., F.R.S., Professor of Medicine, Johns Hopkins University, Baltimore. London: H. K. Lewis. 1904. pp. 388.

the profession for believing that isolation fosters originality. As illustrations he points to Jenner, who worked out his discovery in a village; to McDowell, the first ovariotomist; Clarence Long, for whom some claim the discovery of anaesthesia; and Marion Sims, all of whom were country doctors; and to Robert Koch, who was a district officer of health.

Professor Osler gives proof of his courage by venturing to give advice to the trained nurse. Setting out with the question, "Is she an added blessing or an added horror in our beginning civilization?" he replies that she is a blessing, "with, of course, certain limitations." One of these is the want of what Sir Thomas Browne calls "the virtue of taciturnity"; it is only fair to say, however, that in this she is held to be little worse than the doctor who, both among his fellows and among lay folk, is said to be much too fond of "talking shop." In another direction the limitations of the nurse are more serious. "With the fullest kind of training," Dr. Osler says to nurses, "you cannot escape from the perils of half-knowledge, of pseudo-science—that most fatal and common of mental states." The nurse in her daily work involuntarily catches the accents and learns the language of science often without a clear conception of its meaning. Of the result of this he gives an amusing example. "I turned incidentally one day to a very fine example of the nurse learned and asked in a humble tone what the surgeon, whom I had failed to meet, had thought of the case, and she promptly replied that 'he thought there were features suggestive of an intracanalicular myxoma'; and when I looked anxious and queried, 'had she happened to hear if he thought it had an epiblastic or mesoblastic origin?' this daughter of Eve never flinched; 'mesoblastic, I believe,' was her answer. She would have handed sponges—I mean gauze—with the same *sang froid* at a Waterloo."

Professor Osler strongly advises all practitioners of medicine to have a pastime or a "hobby" which will divert their minds from professional worries and anxieties and prevent them from becoming mere drudges dead to everything outside the groove of routine. His own hobby, it is plain to see, is literature. He has bettered the instruction of the ancient counsellor, and has read *multa* as well as *multum*. His multifarious reading is reflected in his style, which is almost as allusive as that of Carlyle. It were to be wished that all members of the profession would, within the measure of their opportunities, follow his example, for, as he points out, in whatever sphere a practitioner's lot is cast, culture always tells. He recommends every one to read for half an hour before going to sleep, and in the morning to have a book open on the dressing table. He gives a list of books of which "close friends may be made"; these are the Bible, Shakespeare, Montaigne, Plutarch's *Lives*, Marcus Aurelius, Epictetus, Browne's *Religio Medici*, *Don Quixote*, Emerson, and Oliver Wendell Holmes. It is interesting to compare this list with one suggested by the famous French surgeon, Malgaigne, which is given by his son-in-law, M. Pilastre, in a recently-published work. This list comprises first of all the Gospels; then come Homer, Plutarch, Virgil, Dante, Corneille, Racine, Boileau, Molière, Shakespeare, Schiller, Lamartine's *Meditations*, and Guizot's *Civilization in Europe*. Malgaigne's list, it is true, was drawn up for a young girl, but doubtless it may be taken to represent his idea of the best literature. It will be noted that Professor Osler's taste is somewhat more austere than that of Malgaigne, but it is interesting to find them in agreement as to the greatest literature of all, the Scriptures and Shakespeare.

Want of space will not allow us to do more than skim the surface of a book which is a deep mine of golden counsel. It should be read by every one who thinks of taking up medicine as a profession, by every medical student, and by every practitioner. The young will get from it inspiration and encouragement, and their elders will find much sound advice that will help them to meet with an unruffled brow the manifold difficulties, annoyances, and trials of practice.

TUBERCULIN AS A CURATIVE AGENT.

Tuberculous disease is so prevalent that there is practically no department of practice in which the physician or surgeon is not periodically brought face to face with the problem of its amenability to treatment. Unfortunately it has to be admitted, as the outcome of general experience, that though a delay or even arrest of the tuberculous process is frequently achieved, there is still lacking a reliable method of directly attacking the bacillus in the tissues. While it cannot be doubted that the hygienic principles embodied in what is commonly called the open-air method must always form an essential feature in any successful treatment of tuberculosis, it must yet be admitted that the discovery of a specific medication might be expected very largely to increase the percentage of cases in which restoration to health is so complete as to justify the result being designated a cure.

As a direct antidote, the tuberculin introduced by Koch some fourteen years ago came nearer solving the problem of cure than any other before or since. In their eagerness and faith many all over the world prematurely arrived at conclusions concerning it which the test of time showed to be, in greater or less degree, fallacious. The extravagant optimism which welcomed the birth of tuberculin was followed by scepticism, ending in a general feeling of disappointment and perhaps unfair depreciation of its actual intrinsic merit.

Since Koch introduced what is now known as his "old" tuberculin, several other tuberculins have been elaborated, either from the secretions or from the bodies of tubercle bacilli, and extended observations, carried out carefully and accurately, go to prove that tuberculins possess distinct value as a specific means of treatment. Wright has demonstrated that by one of them it is possible to increase the defensive properties—the opsonic power—of the blood-serum against the bacillus. He has also shown how to gauge the degree of improvement, or the reverse, which is taking place in the patient's condition under the influence of tuberculin medication. Many antituberculous serums have likewise been produced, but though those of Maragliano, Marmorek, and others have attracted some attention, the results so far achieved have been inconclusive and for the most part disappointing.

The discredit which became attached to the original tuberculin of Koch led to its being very generally discarded as dangerous, but some observers who trusted in its efficacy and by prolonged observation acquired skill and discrimination in its administration, have preserved their belief in its virtues. Among these, Professor McCall Anderson, of Glasgow University, who has employed it continuously since its discovery, is confirmed in his opinion

that in suitable cases and with proper precautions it is not only a safe remedy but one which, more than any other he has tried, has been productive of striking and lasting improvement. In an address given recently at the annual meeting of the Dermatological Society of Great Britain and Ireland, Professor Anderson gave an interesting and encouraging account of the results which have followed his use of the remedy. Many of the cases of cutaneous tuberculosis which he recorded would probably nowadays be satisfactorily treated by Finsen light or x rays, but there remain other varieties of tuberculous disease which light rays cannot reach and round which it may be assumed a local reaction takes place similar to that which may be seen with the naked eye round patches of lupus after the injection of tuberculin. A striking case in illustration of this fact was related in the course of the address: a young woman suffering from Addison's disease spontaneously complained, after the third injection of tuberculin, "of pain in both hypochondriac regions, opposite the suprarenal bodies, while the day after the fourth injection she again complained of deep-seated dull pain in the same situations." Evidence of the great improvement which took place in this patient's condition was afforded by the almost complete disappearance of pigmentation contemporaneously with a notable increase of weight, strength and activity.

The treatment as carried out by Professor Anderson extends over a period of six or more months. Beginning with an initial dose of from a quarter to a half cubic centimetre of 1 in 1,000 solution, the amount is gradually increased according to the constitutional reaction obtained up to as much as one cubic centimetre of pure tuberculin. The injections are repeated every third or fourth day.

The principal objection to "old" tuberculin is the risk which its administration is alleged to involve of lighting up latent foci of disease elsewhere, but in the succession of successful cases presented by Professor Anderson there is no record of any such misadventure, and it can hardly be credited that in all the long series with which he has dealt no single patient had latent mischief in the lungs or other internal organs.

Professor Anderson does not seem to have extended the use of tuberculin to the treatment of pulmonary cases, or, if so, he does not deal with them in his address; but his experience is a valuable contribution to the subject of the treatment of tuberculosis. It raises the question whether in the very early history of pulmonary disease—when the bacillus has presumably done nothing more than become established, or in the terminal stages of cases treated by the open-air method, when improvement is great but actual cure seems incapable of achievement—the judicious use of tuberculin may not yet prove efficient as a means of inducing the development of antibodies in sufficient amount to neutralize completely the toxins which emanate from the tubercle bacilli when these are presumably feeble, either because their numbers are comparatively small or because their virulence has been diminished.

Which of the tuberculins is best adapted to this purpose is not yet ascertained, nor is it certain that some derivative of them, or even some new serum, may not eventually prove the true antidote. Professor Anderson has, however, done well to direct attention to the fact, to which his cases bear eloquent witness, that "old" tuberculin is still a valuable remedy, capable of producing satisfactory and even brilliant results.

THE PRIME MINISTER AND PUBLIC HEALTH ADMINISTRATION.

THE Prime Minister, speaking in the House of Commons on May 11th in the course of a discussion on the Committee of Defence, is reported by the *Times* to have diverged into an expression of the following views with regard to medical opinion on public health questions: "Every one who will look through the history of medical opinion as regards public health during the last fifty years, and the amount of money spent in obedience to medical opinion, will find as great a crop of errors and as large an expenditure of public money which subsequent knowledge has shown to be ill-spent as anything connected with the army and the navy. It is regrettable, but it is inevitable. As long as we are fallible, as long as the House of Commons is not entirely composed of men possessing Solomon's wisdom, so long shall we, acting on the best opinion we can obtain and which science shall give, commit errors which the science of next day will say have been of the grossest description."

Mr. Balfour was on his defence with regard to the army and navy, and his argument was that the Government's responsibility is limited by the fact that it has to accept and follow expert advice. He wished to make out that this is a general principle applicable to other departments besides the War Office and the Admiralty, and, desperate for an illustration, he by singular ill fortune pitched on the public health service as guided by medical opinion. In the exigencies of a Parliamentary debate a hard-beset Minister may be excused for a good deal that would not be pardonable if set down in cold blood; his statement, however, is being brought into prominence and quoted and gloated over as if it were unquestionably true, and it therefore becomes desirable to deal with it, lest medical silence be misconstrued into assent. We beg, then, emphatically to deny Mr. Balfour's charge.

Opinion and advice given with regard to disease prevention and the improvement of the public health within the last half-century are, indeed, among the chief glories of medicine in the present day. Everywhere throughout the world, Britain, as medically advised and guided, is regarded as having been the pioneer of sanitary reform. Fifty years ago Sir John Simon was the chief adviser of the Government. On what subject can Mr. Balfour say that Simon gave advice which resulted in "as great a crop of errors and as large an expenditure of public money which subsequent knowledge has shown to be ill-spent as anything connected with the army and navy?" The account of Simon's life-work is to be found in the reports of the Privy Council, and what his successors, Seaton, Buchanan, and Thorne, have done, along with their colleagues, Greenhow, Ballard, Netten Radcliffe, and many others, is recorded in the annual volumes issued by the Local Government Board; while the influence of men like Sir William Gairdner and Russell, who have been the medical guides of great municipalities, appears in local histories and archives, and in the general literature of public health. Mr. Balfour was himself for a time President of the Local Government Board. If there were during his period of office "crops of errors" and squandering of public money sanctioned and advocated by him whilst helplessly obeying medical opinion, let him now make confession of the facts, and accuse those who misled him and produce the proofs of his bungled administration.

The work of the men whose names we have mentioned

had reference to such matters as soil pollution, trade nuisances, water supplies, drainage, the necessity of air space and ventilation in barracks, lodging houses, and dwelling houses, building by-laws, the provision of hospitals, disinfection, vaccination, the exclusion of cholera and plague from this country, lead poisoning, anthrax, the ascertainment of the special causes and special means of prevention of the acute specific diseases, and the taking of all the other measures which have resulted in so wonderful a reduction in the death-rate and sick-rate of Britain. What "crops of errors" have been reaped from the advice of the men we have named, what great expenditure of public money has been wasted, and what sanitary work instituted on their recommendation has had to be overturned? Or can Mr. Balfour have had in his mind the statistical labours of Dr. Farr? Does he think, for example, that Farr's demonstration of the influence of density of population on health was a huge blunder, and that we should now go back to such overcrowding as once existed in Liverpool and in parts of London? Does he allege that the dividend which the nation has received in the shape of increased length of life, in the exclusion of cholera, and the almost complete disappearance of typhus, and the diminution in tuberculous diseases has been ill earned? What parts of the public health teaching of the past half century have been found to be erroneous or injurious? What reversals have taken place in our sanitary system? The whole accusation is preposterous. Coming from some men it would be beneath contempt, and coming even from Mr. Balfour it might have been passed over in forgiving silence, but now that it is being advertised as his settled conviction he owes it to himself to make a retractation as public as his accusation.

THE ANNUAL MEETING AT LEICESTER.

We have received from Dr. Gibbons, Honorary Secretary of the Local Entertainments Committee, some further particulars with regard to the social side of the annual meeting of the British Medical Association at Leicester. On Wednesday afternoon, July 26th, the Chairman of the Leicester Infirmary will give a garden party in the grounds of the infirmary, and in the evening the President and members of the Midland Branch of the Association will give an entertainment at the Museum buildings. On Thursday afternoon there will be a garden party given by the President and members of the Leicester Medical Society in the grounds of the County Asylum and another given by Mr. Maurice Levy, M.P., at Humberstone Hall. On the evening of this day the annual dinner will take place and the Ladies' Committee has arranged an entertainment at the Grand Hotel. On Friday afternoon Mr. Samuel Faire, J.P., will give a garden party at Glenfield Frith, and there will be an excursion to Belvoir Castle, the seat of the Duke of Rutland, and also a golf match on the Leicestershire Golf Club links. In the evening the Mayor of Leicester will give a garden fête in Abbey Park. On Saturday, various excursions have been arranged to Buxton and neighbourhood, and the Charnwood Forest district. On July 27th, 28th and 29th, the cricket match between Leicestershire and Derbyshire will be in progress on the County Grounds, Leicester. The Entertainments Committee has arranged that various public works and factories shall be open for inspection to members of the Association and their friends.

THE ASSOCIATION AND THE COLONIES.

The present day facilities for travel, though they cannot obliterate space nor make the world any smaller, have yet brought the distant parts of the earth into more intimate relationship one with another. The brotherhood of the citizens of our large Empire, distributed as it is over the whole globe, becomes bound more closely and is more easily realized as inter-communication becomes more easy and more frequent. Our kin from distant colonies find a more individual meaning in the term "home," as applied to the Mother Country, when they can visit it in the short term of a summer holiday; and an interest in the King's dominions beyond the seas becomes more personal when we have seen their beauties and experienced the hospitality of our Colonial brethren. In the medical profession our kinship with the colonies is not difficult to realize. Many of our Colonial brethren have come home to study their profession and take an English or Scotch degree or diploma, and our fellow students are now dotted over the whole Empire. Post-graduate classes at home are constantly attended by medical men from India and the Colonies who run over to see if there is anything now which they can take back, and at the same time enlarge our knowledge by imparting to us the experience they have gained in other climes. This personal interchange of views does more to bring home the intimate relation and the bond of kinship between the component parts of the Empire than any description of places in books or review of events in the newspapers. The British Medical Association has Branches in every part of the Empire; its Journal has readers and contributors wherever the English language is spoken. It thus keeps in the minds of its members the close relationship between the English-speaking members of the medical profession, and tends to make them forget the distance which divides one part of the Empire from another. The visits of individual medical men from the Colonies to this country, and the rarer visits of English practitioners to our Colonies, increase the mutual interest which we all feel in the doings of our medical brethren throughout the Empire. The more formal visit of a representative body of medical men from the Mother Country would do even more to strengthen and draw closer this feeling of kinship. Already the British Medical Association has held one of its annual meetings in Canada, and at the meeting at Oxford on July 28th, 1904, the Council informed a deputation from Toronto that it hoped to be able to accept the invitation to hold the annual meeting in that city in 1906. In the Kingston (Jamaica) *Daily Telegraph* of April 13th there is an account of an interview with Mr. W. D. Spanton, ex-President of the Staffordshire Branch of the British Medical Association, in the course of which the suggestion was thrown out that Jamaica might with advantage be selected for one of the annual meetings of the Association. The appreciation with which such a visit would be regarded in Jamaica is expressed in an article in the same paper, and it is probable that more will be heard of the matter. There are, of course, practical difficulties in arranging for a meeting so far away: the expenses of the British Medical Journal and the time which must be given up by those attending from this country cannot be disregarded. On the other hand, the opportunity for meeting practitioners from distant parts of the Empire, and for seeing an island which has much to recommend it as a health resort, would be valued.

NECROPSIES IN LEAD POISONING.

The address delivered before the North Staffordshire Division by Dr. King Alcock of Burslem, on the Uncertainty of *Post-mortem* Evidence in Suspected Lead Poisoning (see page 1371) brings out a new aspect of work which devolves on certain certifying factory surgeons who have special duties in relation to specified industries in which lead is used. The importance of the part played by medical supervision in these lead industries has increased by regular stages. First, in 1883, in white lead works provision for medical attendance when illness had declared itself was enjoined on the occupier. Some years later periodical medical examination was required in addition. More recently, in a number of industries, coupled with periodical examination, power was given to the examining surgeon to suspend workers in lead processes either temporarily or permanently. Last year in the case of the majority of earthenware and china works, in addition to the power of

suspending persons who "by continuous work in lead will incur special danger from the effects of plumbism," the certifying surgeon was required whenever, in his opinion, a worker "is suffering from plumbism arising out of his employment" to certify to this effect, such certificate entitling to compensation from the employer under specified conditions. Payment of compensation dates from the day of suspension and not after two weeks' incapacity to earn wages as in the Workmen's Compensation Act. This provision affects some 5,000 workers. The circumstances indicating and justifying suspension from employment in lead processes was the subject of a useful discussion opened by Dr. King Alcock at the Manchester meeting of the Association. A full report was printed in the BRITISH MEDICAL JOURNAL of September 13th, 1902. The present address follows naturally on the previous communication. Emphasis is laid on the much greater value to be attached to the clinical history of the worker during lead employment than to *post-mortem* appearances which can never be expected to give unequivocal data of lead as a cause of death; moreover, a necropsy may of course disclose another and more probable, but previously unsuspected, cause of death. It would be well, therefore, if medical men, in enunciating their views at inquests where lead poisoning is in question, were to bear in mind the absolutely negative character of *post-mortem* evidence in such instances and its valuelessness as a confirmatory contribution to diagnosis. Certificates following on the inquiry as to the cause of death given by the coroner might then be expected to mention the main symptoms indicating the action of lead during life which influenced the verdict. As it is, after elaborate inquiry, in these cases the cause of death of persons under 35 years of age is often entered simply as "lead poisoning," or use is made of some other equally vague expression.

THE DEWSBURY SMALL-POX EPIDEMIC.

IN the BRITISH MEDICAL JOURNAL of February 18th we gave some account of last year's small-pox epidemic in the Dewsbury Union, whose neglect of vaccination had for long been a subject of congratulation and boasting by anti-vaccinationists. Even in presence of increasing small-pox the guardians had continued to refuse to perform their statutory duties, and the amount of default was such as to justify the inclusion of the union in a Roll of Merit established by the *Vaccination Inquirer*. Towards the end of October the cases of small-pox had mounted to nearly 800, and by the close of the year the total had reached 1,302. Amidst the denunciations of the Antivaccination League and its supporters in the press, the Local Government Board had issued three Orders to sanitary authorities embraced in the union, the principal being the town council of Dewsbury, empowering them to take very active and efficient measures for the promotion of vaccination and revaccination throughout the population. Already, indeed, vaccination was being largely resorted to, but public facilities for its performance were most insufficient, and so the Orders included the provision of vaccination stations, the performance of vaccination and revaccination by the medical officers of health, and medical visitation for inquiry into small-pox and the reporting of suspected cases. As has been just indicated these Orders were violently attacked by the organ of the Antivaccination League, and by certain newspapers which might have known better, and which possibly by this time do know better. What, then, has been the result of the action taken under the Orders, and of the rush for vaccination and revaccination by those who had so long courted a small-pox disaster? By the end of 1904 the cases had reached 1,302, and it is well known that the seasonal incidence of small-pox epidemics is greatest in the early months of the year, January and February having a much higher prevalence than the preceding three months, so that as a rule the disease continues above its annual mean line until about the end of June. But instead of this being the experience of Dewsbury there was a remarkable decline at the very time the disease should have been increasing. In January the total cases numbered only 39, and by the end of that month small-pox had entirely disappeared from five of the seven sanitary districts embraced in the union. In February there were only 2 cases—1 in Dewsbury itself and 1 in Ossett—whilst March saw the very last case of the epidemic, and since then the union has been entirely free from small-pox. In these circumstances we suggest to the Antivaccination League that it ought to renew its attack on the Local Government Board for issuing its Vaccination Orders. It is really shameful that the Board should have interfered with the natural course of events in Dewsbury and have brought a small-pox epidemic to so precipitate and unceremonious a conclusion. Antivaccinators have an obvious right to complain of this intrusion of a Government department into the domain of Providence, and we shall look to the League, now that small-pox has disappeared where it should have continued to prevail, to lodge a formal complaint before the High Court of Parliament.

THE LATEST DRINK CURE.

AN article which appeared in a recent issue of the *Daily Mail*, under the heading of "A Cure for the Drink Habit," was not only accorded a whole column, but was supported by a leaderette commending the disinterested efforts of the clerical gentleman who signed it, and guaranteeing corroboration of his "remarkable tests" on the efficacy of the cure which he advocates, by "very careful investigations" made independently on behalf of that newspaper. The article affords no insight into the composition of this newest wonder which is to "rid the world of one of its chief scourges," nor does it record statistical results sufficient to confirm the truth of the curative virtues it is said to possess. The story, as related by its well-meaning author, is one that recalls others with which advertisements have made us familiar. A Scotchman who had migrated to Canada and there became a chemist, "when engaged in making up a medicine for neurotic patients involving abstinence from alcohol, perceived that the craving itself was considerably diminished." This ingenious chemist thought he saw his chance of becoming a benefactor of his race and so he "devoted ten years of patient labour . . . . to effect such a combination as might prove a permanent antidote," and in the course of his researches "he came across a certain plant, the leaves of which were used by the natives of the Rocky Mountains in cases of snake-bite." The writer does not initiate his readers into the secret relationships of snake venom to alcohol, but he tells them that the hero of his tale, "adding this to his previous ingredients, became at last satisfied that he had succeeded in producing an absolute cure for an evil of which no one can calculate the dimensions." We are further told that "for several years he exploited his discovery in the Dominion with distinct success," and on the invitation of a lady who must presumably have been benevolent as well as philanthropic, he came to England in order, with her assistance, to confer the benefits of the great secret which he had wrested from Nature on the English. Through this lady the author of the article first became acquainted with "Normyl," the name with which this remarkable remedy has been christened. He took every pains to analyse the evidence of its worth which the lady placed before him, and eventually, after first experimenting to his own satisfaction on a friend who "though possessed of brilliant abilities, was gradually being reduced to a pitiable position by his inability to sever himself from the bondage of drink," and after dealing during a period of eleven months with a considerable number of cases, he came to the conclusion that the merits of the treatment justified him in stating, "without fear of contradiction, that not a single sufferer from alcoholism or the drug habit who desires to be cured need despair." Though previously spoken of as composed of several ingredients, the cure is subsequently described as "consisting of a vegetable drug, which has been guaranteed to be completely innocuous, and is taken by the patient once every waking hour for twenty-four days." Its cost, "which had previously been

£10, is to be reduced to £3 3s., with the stipulation that all profits be used for the furtherance of the cause, and ultimately for the furnishing of free treatments to those who are unable to pay anything." Sufficient has been said to justify a warning to the public against putting any dependence on the powers for good of a medicament the composition of which is unknown except to its discoverer, and for the therapeutic value of which there is no better evidence forthcoming than the unskilled though well-intentioned investigations of a clergyman and a philanthropic lady. Unfortunately, this so-called discovery has prompted an attempt at the formation of a committee to push the sale of "Normyl," and we regret to see that several men of eminence have "expressed themselves as willing to give their names in support of this movement." We would seriously ask those gentlemen to consider whether in thus lending their aid to the exploitation of a secret and untried remedy they are likely to benefit those for whose welfare we know them to be sincerely solicitous. Let them rest assured that if a specific drug is ever found which can be relied upon to cure alcoholism the knowledge of it will not reach the world through the medium of a sensational article in the columns of a daily newspaper.

PATHOLOGY AT OXFORD.

Dr. Ritchie, Fellow of New College, and hitherto Reader in Pathology, has been constituted by Convocation Professor of Pathology in the University of Oxford so long as he holds the readership. A deputation consisting of Sir William Church, Dr. Sharkey, Dr. Schörstein, Dr. Collier, and Mr. Whitley, on June 20th presented an address to the Vice-Chancellor in Convocation, stating the steps taken by the medical graduates for the advancement of pathological study in the University. The address stated that the appeal for subscriptions, limited hitherto to members of the University belonging to the medical profession, had resulted in the contribution of over £500, destined to the endowment of the chair of pathology. It was hoped that the University and the colleges would eventually place the professorship on a sure footing. The generous member of the University who had already provided £1,000, had made the further liberal promise to cover the contributions of others of the Faculty by an equal amount, and it was hoped that public liberality would respond to that of the medical profession. The address was presented in an album containing two hundred signatures. The Vice-Chancellor expressed the satisfaction felt by the University at this unusual demonstration, and was glad that the importance of the chair should thus be emphasized. Thanks to the liberality of New College and the Rhodes trustees, a good, though temporary, provision for the study of pathology had been made. The spirit of the address and the appeal to the public promised perpetuity to the chair, and a great future for the study of pathology in the University. In conclusion, he said that it gave him great pleasure to welcome as a member of the deputation, Mr. Whitley, to whose generous assistance such grateful reference had been made.

THREE ABDOMINAL SECTIONS WITHIN ONE WEEK ON ONE PATIENT.

Wonderful, indeed, are the surgical records of extra-uterine pregnancy. Dr. Döderlein reports a case such as might occur to any operator.[1] He removed a tubal gestation sac, and on the third day, owing to a violent fit of coughing, the upper part of the wound yielded, and a long coil of intestine prolapsed. The protruded gut was deeply injected and soiled with plaster from the dressings. As often happens, the whole wound had to be reopened before the intestine could be satisfactorily reduced after thorough cleansing. Next day symptoms of strangulation developed, the pulse remaining good and the temperature but little above normal. Palliative measures failed, so that the abdominal wound was opened for the third time. The intestine was found to be extremely distended, so that punctures had to be made at several points. When it collapsed, some bands of adhesion were discovered and divided. The bowel was then carefully reduced. The patient was in a very exhausted condition when the third operation was performed, but the functions of the bowel were restored. She recovered, and was shown as a clinical case at a medical society. As Dr. Döderlein remarks, we must fight to the last in doubtful cases of this kind, never rejecting necessary surgical procedures nor leaving them till the case is past recovery.

[1] *Zentralbl. f. Gynäk.*, No. 17, 1905, p. 528.

AILUROPHOBIA.

The reader who has not had the advantage of treading the winepress of "compulsory Greek" may be pardoned if, on reading the heading of this paragraph, he cries with the passer-by in Milton's sonnet:

> Bless us, what a word on
> A title page is this!

For his benefit we (with the help of the lexicon) interpret it as "fear of cats." On this subject Dr. Weir Mitchell has recently contributed a paper to *American Medicine*. A case under his care led him to institute an inquiry. To his schedule of questions he received replies from 159 persons in America, England, and Germany. Many were from well-known persons—professors, army officers, physicians and the like. About a third were valueless. A few were from men or women personally well known to Dr. Weir Mitchell, who, he feels sure, may be trusted. Excluding cases of cat asthma in confirmed asthmatic sufferers, his inquiry furnished evidence, which seems to him indisputable, that there is a large number of people in whom the presence of a cat gives rise to a variety of symptoms. In such persons the feeling caused by seeing a cat is instantaneous. In the asthma victims it is slower and cumulative, and may not be felt at all for twenty minutes or more. Certain persons on seeing a cat have other symptoms, with or without oppression of breathing. There may be only fear, terror, or disgust. There may be added chilly sensations, horripilation, weakness, locked jaw, or, as in one case, fixed, open jaw, rigidity of arms, pallor, nausea, rarely vomiting, pronounced hysterical convulsions, and even temporary blindness. These pass away with the removal of the cat, but in a few cases leave the sufferer nervously disturbed for a day. Two persons report themselves as apt to have dreams of cats, what one of them calls "cat mares." Five persons, three of whom are women, are alarmed in the presence of the greater cats, caged tigers, or lions. A soldier of distinction, much given when younger to tiger hunting, is undisturbed by these great felines, but terrified by the tame cat. Few can account for the origin of their dread. Three assign it to their having been scared by a cat in childhood, and one to a prenatal incident affecting the mother. All answered that the simple fear dated from early childhood, but that the symptoms of weakness, nausea, chilliness, and the more distinct hysterical signals, like rigidity, etc., came on later and increased after puberty. Three women and two men reported that the symptoms diminished in intensity in middle age, and several have resolutely overcome that which had grown to be a serious inconvenience. At least a fourth of the persons afflicted with cat terror in grave forms speak of it as a family peculiarity. Five in a family of seven had it. In another case a maternal grandfather, two great-aunts, an uncle, and a sister were all thus troubled, and in other families, where one had it, at least one other—a brother or sister—was more or less affected. Single cases in families were, however, the rule. Sex appears to have no marked

influence, but the extreme symptoms are more frequent in women. In regard to the subtler question of consciousness of the presence of an unseen cat, Dr. Weir Mitchell, after careful sifting and weighing of the replies which he received, is satisfied that as concerns 31 persons he had evidence enough to make him sure that they could tell when a cat was near although it was neither seen nor heard; 4 of them state that the presence of a cat reveals itself to them by the smell. The remaining 27, some of whom are trained observers, physicians, engineers, and certain very intelligent and healthy-minded women, are positive that they do not smell the cat, but cannot tell how they become aware of the presence of the animal. Dr. Weir Mitchell, however, is inclined to believe that emanations from cats, odorous to some, may in others cause emotional disturbance without so impressing the olfactory nerves as to be recognized as odours. For an explanation of the terror inspired by cats in a few persons he is forced to fall back on the inherited remainders of animal instincts of protective nature. This view is, he admits, weakened by the fact that in most of the worst cases of fear of cats no terror is felt in the presence of lions.

MEDICAL SUPERVISION IN NEW YORK SCHOOLS.

AT a recent meeting of the Medical Inspectors of the New York Health Department, Dr. John J. Cronin, Chief of the Division of Medical School Inspection under the Board of Health, gave some particulars as to the work done in this direction. The physical examination conducted by the Health Department's school inspectors, all of whom are now physicians specially trained in the work, is very comprehensive. Special attention is paid to the child's nutrition, to cardiac derangements or pulmonary diseases, nervous affections, deformities of limbs or spine, and to affections of the throat and nose. Care is taken that children with heart disease are not allowed to take part in athletic games or other forms of severe exertion. Children with St. Vitus's dance and other nervous affections need special medical and educational treatment, and should be taught in classes arranged for them. The existence of adenoid growths and large tonsils is notified to the parents, so that every child may, as far as possible, be placed in the best physical condition to pursue his studies. Perhaps the greatest good accomplished is in the detection and correction of defects of vision in school children. The inspectors found within the past few months that about one-third of all children in the schools have defects of vision interfering with their studies. Of these a large number already have procured glasses. This has resulted in a noticeable improvement in their work at school, as shown by the teachers' reports. The reason why so many children have been found backward in their studies as related to their age is that there are so many with physical defects, such as deficient vision or hearing, who are unable to keep up with normal children and retard the progress of the classes. Physical defects of one sort or another are also a fruitful cause of bad habits, of truancy, and of moral obliquity in later life. It is in large measure the physically defective who either leave school prematurely or become hopeless truants.

DUST AND QUACK ADVERTISEMENTS.

THAT the advertisements of patent medicines are intended to throw dust in the eyes of the guileless persons who read them is a point which need not be laboured. It is obvious, too, that the more dust, figuratively speaking, there is, the more advertisements of this class there will be, for the vendors of nostrums do not find their prey among persons whose mental vision is clear. It appears, however, that there is a definite relation between physical dust and quack advertisements. Dr. Robert Hessler has worked out the "ethics of the dust" from a new point of view, and has embodied the fruits of several years' observation on the subject in an article contributed to *American Medicine*. A careful study of the advertisements of patent medicines in American newspapers has revealed the fact that they refer mostly to catarrh, colds, cough, "grip," sore-throat, tonsillitis, pleurisy, rheumatism, backache, "lame back," kidney disease, lumbago, muscular rheumatism, nervousness, headaches, neuralgia, nervous prostration, biliousness, gastritis, and deranged stomach. These names, he points out, are in nearly every case synonyms for dust infection of one kind or another. Even the term "malaria," as ordinarily used by town dwellers, must, he thinks, be included in this generalization. If the advertisements are classified, the dust group will be found to be the largest. To demonstrate this, Dr. Hessler measured the space occupied by advertisements of patent medicines in various newspapers of different States and counties. In this way he found that the dust group varied from 1.1 per cent. in a comparatively clean town to 10 per cent. or more in a dusty city. When an eighth of the total space of a newspaper is occupied by patent medicine advertisements whose existence rests mainly on the condition of the streets and sidewalks, it may fairly be asked if there is not something rotten in the state of the municipality. Dr. Hessler is uncertain whether the advertisers are aware of the influence of dust on public health, but he says they certainly know that it pays better to advertise in certain towns than in others. It is obvious, however, that this may be due to other factors besides dust. By observing certain advertisements for variable periods of time it will, we are assured, be found that certain names will be used exclusively, and that some one of them will appear in bold type and be followed by the other in the text in smaller type; at the next appearance of the advertisements one of the latter will be advanced to the head of the list, and so on in rotation. Thus, in one series the terms "rheumatism," "lumbago," "backache," "muscular rheumatism," and "disease of the kidney" occur; in another are found "catarrah," "colds," "cough," "grip," "weak lungs," etc. There is a seasonal variation in these advertisements; they are, at least in America, at low ebb in the summer when the dust is sterilized by the hot rays of the sun; on the other hand, high tides occur in the late autumn and early spring when the cold makes people afraid of fresh air. The study is a curious one and has been conducted in a serious manner and with a serious purpose. We cannot say, however, that the result is altogether commensurate to the labour expended on the research. Dr. Hessler has demonstrated two things, both of which were known before—namely, that dust, or rather the dried sputum and other infective matters contained in it, is a factor in the production of many diseases, and that the vendors of proprietary remedies are careful to adapt their bait to the condition of the waters in which they fish; or, in other words, to what Sydenham would have called the "epidemick constitution" of the season. The actions of the advertisers of patent medicines can scarcely be counted among those that "smell sweet and blossom in the dust."

"THE USELESS" IN MEDICINE.

A SCHOOLMASTER in Cambridge advanced a "plea for the useless" in a recent number of the *Cornhill Magazine*, and a writer in the *Spectator* has been commenting wittily and pungently upon that plea; neither the one nor the other has, we presume, the practice of medicine in his mind, and yet they both say things which the practitioner of medicine may do well to listen to if he wishes to be usefully informed as to his own uselessness. One of them, indeed, refers, in passing, to the medical profession. He says: "This is such an eminently useful age . . . . physicians would scorn to prescribe *aqua pura* or bread pills"; but after thus expressing himself he leaves the doctors alone. These writers apparently come, sadly, to the conclusion that in this present time "useful" is regarded as synonymous with "cashful." "Let us get rid of all this study of useless things and rattle ahead with something that is going to pay quickly." "What can you earn with what you know, and what can you ask and get at once in hard cash?" From this standpoint, then, medical men are to judge their usefulness or uselessness. Some, like the

writer of the *Cornhill* article, write books—"books which have never paid their expenses, as our publishers assure us, and they ought to know"—and that is obviously a useless thing to do. Perhaps in these books or in journal notes is told how lives may be saved. Probably every medical man sees voluntarily a great many people for nothing, and a great many who are seen for fees never pay. Apparently a truly useful thing is a play like *Charley's Aunt*, which "fills the author's pocket and gives honest employment to many worthy personages who otherwise might be in the workhouse." "How characteristic of this age," says the schoolmaster in *Cornhill*, "is the motor car! So useful, so ugly, so smelly, so disagreeable to every one but the owner." How useless, on the other hand, are the poets and the thinkers; how useless were the Greeks who actually fought for ten years at Troy because somebody's wife had run away, when they might have been making *oboli* at home; how useless will be the man who finds out the cure of cancer and publishes his discovery in the medical papers when he might make his discovery the chief asset of a limited company. Even medical discoveries are not always "useful" (that is, cash-earning), for when O. W. Holmes announced the cause of puerperal fever he got less than thanks for his pains; he was, perhaps, more "useful" when writing the *Autocrat*. There are subjects at the present day over which scientific medical men are spending years of labour which seem to be like the mathematical proposition of which it is said that "its beauty was that it opened out a field of research which was absolutely of no use to anybody." But, it is high time to ask, as do the writers whose thoughts we have been commenting on, whether, after all, the cash basis of value is the only or the right one. Which is better, "the power of earning cash down or the power to command credit?" Are there no pleasures which can be had for little or no money at all? Some men enjoy reading Shakespeare; and they can nowadays buy his works for a fraction of the sum that other men spend over their dinner wine; is "Hamlet" so comparatively "useless" then? The aurora borealis is to be seen in its full splendour where very few men can ever see it; would it only acquire "usefulness" if it could be turned on nightly in Hyde Park? There are gorgeous flowers that blossom in the jungle where man's eye seldom rests on them; are they "useless" till they are dug up and sold in Covent Garden? There are doctors who are doing much hard work for next to nothing in cash; have they not their happy minutes? There are scientific workers who are giving freely of the best years of their lives to discover the cause of cancer, with no thought of money or fame in their hearts. There are some, doubtless, who are thinking much of reward, but to them, it may safely be predicted, will not come the opportunity to wrest "from Nature's close reserve" this long-guarded secret. There are medical men who go willingly in the darkness of the winter night to help a poor woman in her hour of anguish, knowing that possibly their only reward may be the not very satisfactory assurance that although they have never been paid they have never been passed over for another practitioner. When we look the matter fairly in the face, are not these the most useful men in the profession, and do they not receive the reward which they hope for but which they never dare to claim? Is it not on their account that our profession gains the high place which it occupies in the hearts and minds of men with hearts and minds?

METROPOLITAN COUNTIES BRANCH.

The annual dinner of the Metropolitan Counties Branch will be held at the Trocadero Restaurant on Wednesday next, June 28th, at 7.30 p.m. At the annual meeting, to be held at 6 p.m., the result of the contested election for Representatives of the Branch on the Central Council of the Association will be announced. We are informed that the representatives elected are Mr. Andrew Clark, Mr. George Rowell, Mr. George Eastes, Dr. J. Ford Anderson, and Mr. H. Betham Robinson. At the conclusion of the formal business the incoming President of the Branch, Mr. Andrew Clark, will deliver an address on the British Medical Association and the advancement of science. It is hoped that there may be a large attendance both at the annual meeting and at the subsequent dinner. Among those who have accepted invitations to be present at the dinner are Major-General Sir Frederick Maurice, K.C.B., Sir John Batty Tuke, M.P., Dr. Hutchinson, M.P., the Director-General of the Army Medical Department, and the President, Past-President, and President-elect of the British Medical Association. The chair will be taken by Mr. Andrew Clark at 7.30 precisely. The band of the West London Rifles will play during the dinner. Tickets for the dinner can be obtained from the honorary secretary, Mr. George Rowell, F.R.C.S., 6, Cavendish Place, W., and it will be a convenience to him if applications are made early. The charge for the dinner will be payable at the time.

THE LATE DR. POORE.

A committee has been formed with Lord Reay, the president of University College, as chairman to raise a memorial in University College Hospital to Dr. George Vivian Poore, who was consulting physician to the hospital at the time of his death in October last. It is proposed, if sufficient funds are received, to name a bed in the hospital after him, as was done in the case of his lifelong friend Mr. Marcus Beck, and to place a medallion portrait in the hospital or medical school building. It is felt that his distinguished services to the hospital and medical school and the benefits which he conferred on science and on the public by his work in hygiene warrant an appeal to his numerous friends and old pupils to establish such a permanent memorial. The Honorary Secretary of the Committee is Dr. Sidney Martin, and subscriptions may be sent to the Treasurer, Mr. R. J. Godlee, 19, Wimpole Street, Cavendish Square, W.

As the result of the poll of members to represent the Edinburgh and Fife Branches on the Central Council of the Association, Dr. Norman Walker and Dr. McKenzie Johnston have been re-elected.

MEDICAL NOTES IN PARLIAMENT.

[By Our Lobby Correspondents.]

The House of Commons met again on Tuesday last after the Whitsuntide recess. The first business was to attend in the House of Lords to hear the three Lords Commissioners announce the King's sanction of the election of Mr. J. W. Lowther as Speaker of the Commons' House of Parliament. This was done with all formality, in the presence of a goodly number of peers and a crowd of members of the Lower House. Mr. Lowther on his return arrayed himself in the full wig and gown of the Speaker, and after a few words of acknowledgement, commenced the ordinary business of the day. The Unemployed Bill was the first business after questions, but was preceded by a lengthy discussion in the form of question and answer on the steps to be taken on the Report of the Butler Committee on Sales and Refunds to Contractors in South Africa.

The International Labour Conference and Phosphorus Poisoning.—Sir Charles Dilke asked the Secretary of State for the Home Department whether, at the recent International Labour Conference, the delegates of His Majesty's Government abstained from assenting to both of the two propositions agreed to, or whether their dissent was confined to the proposals as to interdiction of the use of white or yellow phosphorus in the match trade, agreed to by Germany, France, and most of the other Powers represented, and made conditional on the assent of all, and on that of Japan; and whether any further steps were contemplated by His Majesty's Government as to the five articles of the Convention on the industrial employment of women in night work. Mr. Akers-Douglas said that, in accordance with the instructions given them, the delegates of this country abstained from voting on

either of the resolutions when finally put to the vote of the Conference. As regards the employment of women at night, he understood that the restriction proposed by the Conference fell short of those already imposed by English law. The final report of the proceedings of the Conference had not yet been received, and until he had had an opportunity of considering it, he would not be in a position to make any statement as to the attitude of His Majesty's Government to the proposals adopted by the Conference.

Erasures from the "Medical Register."—Mr. Weir asked the Secretary of State for the Home Department if, having regard to the fact that during recent years 20 names had been struck off the *Medical Register* by the General Medical Council for infamous conduct in a professional respect, and 12 restored, whilst out of 6 names removed from the *Dentists' Register* for a similar cause 1 had been restored, he would state whether any of those whose names had been restored were originally charged with adultery; and, if any, how many. Mr. Akers-Douglas replied that the answer was "None." Mr. Weir questioned the correctness of the reply, and asked whether the information was from the General Medical Council. The Secretary of State said he should be glad to have the hon. member's information, but the information which he had received was as stated.

Glanders in London.—Mr. Channing asked the President of the Local Government Board whether he was aware that inquests recently held on a stableman in the Star Omnibus Company's stables, and on Elizabeth Cousins, the wife of a carman, in Pimlico, and a large number of fatal cases in London hospitals in the past two years had shown the increasing risk of glanders being communicated to human beings; and whether he would, in consultation with the Board of Agriculture, take steps by legislation or by administrative orders to deal with this danger. Mr. Gerald Balfour said that he had seen reports of the inquests referred to; but he was not aware that there had been any large number of fatal cases of glanders in London hospitals in the last two years. The number of human deaths in London from this cause appeared to have been four in 1903 and two in 1904. He was advised that the risk of the disease being communicated from horses to man was not great, and that it did not seem to be increasing. But he thought it might be desirable that when an inspector of the local authority, under the Diseases of Animals Acts, received notice of the occurrence of a case of glanders in a horse he should forthwith give information of the receipt of the notice to the medical officer of the district in which the horse was or had been, and he would communicate with the President of the Board of Agriculture and Fisheries on the subject.

Plague Regulations in Drogheda Union.—Mr. Joseph Nolan asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that the Local Government Board issued certain temporary regulations respecting plague to the Louth District Council, Drogheda Union, commencing October 1st, 1900, and that Dr. O'Keefe, who was employed to carry out these orders, furnished an account for £21 for performing the duties connected with same; and, seeing that the Local Government Board declined to sanction the payment of this amount, and that Dr. O'Keefe took legal proceedings for recovery and obtained a decree with costs, whether the Local Government Board would now make an order apportioning the respective amounts to be paid under this decree by each of the sanitary authorities affected, namely, Ardee No. 1 R.D.C., Louth (Drogheda Union) R.D.C., Meath (Drogheda Union) R.D.C., and Drogheda U.D.C. Mr. Long answered that the temporary regulations referred to were revoked on November 12th, 1900. Dr. O'Keefe claimed £21 for 21 inspections made between February 14th, 1901, and February 9th, 1903. Thirteen of these inspections were made prior to November 1st, 1901, when no such regulations were in force, and when therefore he was not required to inspect vessels from home ports. The regulations were again issued on the last-mentioned date, and were continued in force for a period of six months, during which time he made four inspections. These were the only inspections in respect of which the Board could legally sanction payment, or apportion the cost on the other contributory districts in the port of Drogheda. The remaining four inspections were made after the expiration of the six months, when there were no special regulations in force. The Louth Rural District Council failed to defend the process in respect of charges for which there was no legal warranty, and they now sought to have the amount of the decree, given through their default, apportioned on the other sanitary districts abutting on the port of Drogheda, but in the circumstances there was no power to make such apportionment.

The Plague in India.—In opening the discussion on the Indian Budget, Mr. Brodrick said, in reference to the visitation of plague, that he granted at once that if it were possible to apply all the remedies that science suggested much might be done to decrease the exceptional mortality. If the same measures could be applied to the general population which were applied to the army and others under control, the great mortality might to a large extent have been arrested, but such measures were practically impossible among a people like our Indian fellow-subjects. It was a lamentable fact that we had not yet been able to educate our Indian fellow-subjects to an appreciation of the dangers which they incurred by concealment, and also by the neglect of precautions with regard to the outbreak of this disease. He thought the statistics with regard to the native troops might be said to be wonderfully good. He had to record the loss of more than a million of human beings throughout India from the ravages of plague. But among over 140,000 native troops there had been only 115 deaths. That was an infinitesimal fraction. That showed that a special degree of credit was due to the energy and forethought of those who presided over the sanitary arrangements of the native troops. The House would be better able to appreciate these figures when they read in the Sanitary Commissioner's report that out of a total of 184 stations occupied, 57 were situated in or near towns or districts in which plague occurred among the general population, and in these 57 stations only 24 had cases among the Sepoys. Having regard to the way in which the Sepoys mixed with the general population, that fact reflected great credit on the medical authorities. In the gaols, of course, the path was much easier. The cases discovered in the gaols numbered only 34, of which 23 proved fatal, although of the 245 gaols 159 were situated in infected districts. He could assure the House that there had been no indifference on the part of the Government of India or of the local Government in regard to this matter, and there had been no neglect. Every reasonable precaution had been pressed upon the people; and he had sent out in the last few months a special commission to endeavour by bacteriological research to establish, if they could, further means for the prevention of this disease. He feared that it must be confessed that this was one of the cases in which, with the wonderful development of medical science, there were still departments of medicine in which there were countries, not altogether unexplored, but which were still to be conquered. The Government would avail themselves to the utmost of what might be learned from this Commission, who would have at their disposal the whole of the sanitary corps and appliances of the country. There was, unfortunately, no opportunity in the debate which followed of questioning the Indian Secretary further as regards the subject of plague, as the Speaker called on an amendment early, which closed the general discussion and occupied the time till midnight. There are two blocking motions on the paper, which prevent the subject being raised, and so it looks as if no opportunity would offer for the discussion of plague this Session.

The Water Supply of Woolacombe. Mr. Griffith-Boscawen asked the President of the Local Government Board whether his attention had been called to the fact that the water supply of Woolacombe, North Devon, had been condemned by the medical officer of health as unfit for drinking and all domestic purposes; whether any arrangements had been made for obtaining a fresh water supply; and whether any warning had been issued or would be issued to the inhabitants and visitors pointing out the danger to public health arising from the use of the present supply. Mr. Gerald Balfour replied that his attention had been called to the unsatisfactory character of the water supply referred to. The Ilfracombe Urban District Council, within whose limits of supply Woolacombe was situate, proposed to construct works in order to afford a new supply of water to that place. They had applied to the Local Government Board for sanction to borrow money for the purpose, and a local inquiry had been held on the subject by one of the Board's inspectors. The inspector was now engaged on his report. He was unable to answer the last part of the question.

PREVENTION OF CONSUMPTION.

A City of Consumptives.

The National Fraternal Sanatorium for Consumptives, acting in the interest of 8 000 000 members of fraternal organizations in the United States, has accepted 10,000 acres of land given by the city of Las Vegas, New Mexico. The Santa Fe railroad has given a large hotel building in the Rio Gallinas cañon, including several structures in the vicinity, several hot springs, and 1,000 acres of land, the whole representing a value of £200 000. On this site, with the 10,000 acres given by the city of Las Vegas, a city of consumptives will be founded. It is to be a huge sanatorium, maintained by per capita contributions of members of the great fraternal and religious orders. It is hoped that it will be opened in the autumn. Plans are being prepared for the reception of 5,000 patients, and this number will be increased indefinitely as far as funds will allow. It will require an expenditure of £15,000 to put the place in order for the reception of patients; a part of this sum has already been contributed in small amounts. The government of the sanatorium will be vested in a Board of Managers composed of fifteen representatives of fraternal and religious orders. It will be governed on the basis of common ownership, with profits to none. Most of the patients will come from the fraternal orders, but others will be admitted by the payment of a small fee. Those who wish to work will be given an opportunity of stock-farming, or of holding any of the numerous positions which the working of so large an establishment will make necessary.

MIDWIVES ACT, 1902.

Cardiff.

On Tuesday, June 13th, a deputation from the Cardiff Division of the South Wales and Monmouthshire Branch of the British Medical Association waited upon the Local Supervising Authority (the Health Committee) of the County Borough of Cardiff, with regard to the payment of medical practitioners called in by midwives under the rules of the Central Midwives Board. The deputation, which was introduced by Councillor Dr. Robinson, consisted of Drs. Charles Vachell (Chairman of the Division), D. R. Paterson (Vice-Chairman), W. D. J. Morris (President Cardiff Medical Society), Thos. Wallace, and Ewen J. Maclean (Hon. Divisional Secretary).

The deputation, through its spokesmen—Drs. Charles Vachell and Ewen J. Maclean—admitted there was no provision in the Midwives Act itself under which the payment might be made, but pointed out that Section 133 of the Public Health Act, 1875, was available for the purpose. The Liverpool City Council had already, under that section, passed the following resolution:—

> "That in cases of urgency in which medical practitioners have been called in by certified midwives, as contemplated by Rule 17 of the rules issued by the Central Midwives Board, pursuant to Section 3, Sub-section 1, of the Midwives Act, 1902, a fee of not exceeding one guinea be paid on the certificate of the Medical Officer of Health to each such medical practitioner in the event of his failing to obtain payment of his fee from the patient or the Poor-law authorities."

Reference was also made to the letter of the Assistant Secretary of the Local Government Board in reply to Dr. J. H. Taylor, Honorary Secretary of the Manchester Medical Guild, as set forth in the British Medical Journal, March 11th, 1905.

The Chairman of the Health Committee having expressed for himself and for the Committee their sympathy with the object of the deputation, the deputation then withdrew.

The Committee subsequently passed a resolution recommending the County Borough Council to adopt a resolution similar to that adopted by the Liverpool City Council.

Notification by Midwife of Intention to Practise as Such.

Dr. Gerard C. Taylor (County Medical Officer, Berkshire) writes: Considerable diversity of opinion appears to exist amongst local supervising authorities as to whether a certified midwife can be required to notify on Form 12, provided she acts merely in the capacity of monthly nurse under the direction of a doctor.

The accompanying reply was kindly sent me by the Secretary of the Central Midwives Board in answer to my inquiry, and the publication of it in the British Medical Journal would, I think, tend to promote uniformity of action.

In actual practice, I am glad to find that, as a general rule, when the parish nurse is a certified midwife, she registers her name with the local supervising authority, even if she does not usually attend confinements without a doctor. This is really the simplest course for her to follow, since the Act prescribes a penalty if, on any occasion, she acts otherwise than under medical direction without giving the required notice.

[Copy.]

Central Midwives Board,
6, Suffolk Street, Pall Mall,
London, S.W.
June 15th, 1905.

Midwives Act, 1902.

Dear Sir,—In reply to your letter of the 14th inst., the position of affairs appears to me as follows.

Any woman certified by the Central Midwives Board becomes *ipso facto* a midwife by the operation of Section XVIII of the Midwives Act. Being midwife, she is bound by all the Rules of the Board if she practises as such. The obligation to give notice to the Local Supervising Authority arises under the Act, not under the Rules, and it only operates in the case of a woman who practises, or holds herself out as practising, as a midwife. If she does neither of these things, but merely practises as a monthly nurse under the direction of a qualified medical practitioner, she is not bound to notify the Local Supervising Authority. If, however, on any occasion, she acts otherwise than under medical direction, she is liable to the penalty prescribed by Section X of the Midwives Act for having omitted to give notice.—Yours faithfully,

(Signed) G. W. Duncan,
Secretary.

Dr. G. C. Taylor,
County Medical Officer for Berks,
District Council Offices, Church End, Finchley, N.

Monthly Nurses.

Baby.—A nurse, who does not hold a midwifery certificate, may act as nurse to a woman in labour provided that she discharges her duties under the direction of a registered medical practitioner. The Midwives Act regulates and restricts the practice of certified midwives.

THE PLAGUE.

Prevalence of the Disease.

England.

Particulars of the case of plague which occurred in Manchester last week are given in the letter of our special correspondent at page 1401.

India.

During the weeks ending May 13th, 20th, and 27th, the deaths from plague in India numbered 42,003, 35,492, and 23,038 respectively. The principal places where a high mortality prevailed were during the week ending May 27th as follows:—Bombay Presidency, 938 deaths; Bengal, 1,040; United Provinces (North-West Provinces and Oudh), 2,941; Punjab, 16,612; Rajputana, 1,171; Kashmir, 133; Central Provinces, 7; Central India, 5; Hyderabad, 41; Mysore, 24; Madras Districts, 11; and Burma, 110.

South Africa.

East London.—During the weeks ending May 13th, 20th, and 27th, the fresh cases of plague numbered 8, 0, and 3, and the deaths from the disease amounted to 1, 1, and 1 respectively. On May 27th, 13 cases of plague remained under treatment.

King Williamstown.—During the weeks ending May 13th, 20th, and 27th, the fresh cases of plague numbered 0, 0, and 1 respectively. No death.

Queenstown.—During the weeks ending May 13th, 20th, and 27th, the fresh cases of plague numbered 1, 0, and 3; deaths, 1, 0, and 1 respectively.

No cases of plague occurred in any other part of South Africa. Rats and mice infected by plague continue to be found in Port Elizabeth, Uitenhage, East London, and King Williamstown.

Hong Kong.

During the weeks ending May 27th, June 3rd, and 10th, the fresh cases of plague numbered 20, 21, and 21; and the deaths from the disease, 19, 10, and 21 respectively.

Mauritius.

During the weeks ending June 8th and 15th, the fresh cases of plague numbered 1 and 4; and the deaths from the disease 0 and 3 respectively. No cases of plague have been reported in Mauritius since the middle of March of this year.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 75.

Dr. Eugene H. Porter, Editor of the *North American Journal of Homœopathy*, has been appointed Commissioner of Health of the State of New York, in succession to Dr. Daniel Lewis, Editor of the *Medical Review of Reviews*, whose term of office has expired.

SPECIAL CORRESPONDENCE.

BERLIN.

Hospital Provision in Berlin.—Human and Bovine Tuberculosis.—Statue of Virchow.

A LONG and very able article on Berlin and its hospitals, by A. Gottstein, which has just appeared in the *Deutsche medizinische Wochenschrift*, is being widely discussed and commented on in medical circles. By tabulated figures, carefully collected and collated, Gottstein conclusively proves that Berlin is behind all other large German towns—and, indeed, behind all but two small ones (Barmen and Plauen)—as regards the proportion between the number of available hospital beds and the population. When, at municipal meetings, attention has been drawn to the overcrowded condition of Berlin hospitals, mention of the approaching completion of the great Rudolf Virchow Hospital, with its 1,500 to 2,000 beds, and of the proposed enlargement of other municipal hospitals—an increase of about 3,000 beds in all—has been held sufficient to dispel all fears for the future. But Gottstein shows that, even when these 3,000 new beds are available, the provision will still be inadequate; and that, if pace is to be kept with the annual increase of 30,000 to 40,000 in the number of inhabitants, some great effort is imperatively called for. Gottstein does not advise the building of more huge centralized hospitals at present, but proposes the erection of smaller units, far less expensively equipped, in different parts of the town near its outskirts. These would serve a double purpose in being used for the reception (1) of comparatively light cases, and (2) of both surgical and internal cases requiring long after-treatment, which when ready for transport would be drafted to them from the great central hospitals. Above all, Gottstein thinks that in all matters concerning public hygiene, hospitals, sanatoriums, etc., the efforts of the municipal authorities should be assisted and directed by specially-elected medical advisers.

At the annual meeting of the German Central Committee for the Erection of Lung Sanatoriums, Dr. Weber, a member of the Imperial Board of Health, gave an account of results obtained in the latest official researches on tuberculosis. As regards the great problem of human and bovine tuberculosis, no definite conclusion has as yet been come to. All attempts at experimental transformation of the typus humanus into the typus bovinus, and vice versa, had been unsuccessful.

The Berlin Municipality has decided to erect a statue of Rudolf Virchow on the Karls-platz, a square close to the Charité Hospital. There is to be a public competition for the design, and three prizes of £150, £100, and £50 respectively are to be given for those approved as the best. A sum of M. 80,000 (£4,000) has been voted for the cost of the monument. May it turn out a more pleasing object than the numberless statues and monuments with which Berlin has been disfigured of late years!

SYDNEY.

Preservatives in Foods.—Vital Statistics.—The Bubonic Plague.—Queen Victoria Homes for Consumptives.—Hospital Saturday.

THE stringent regulations laid down by the Board of Health regarding the use of preservatives in foods, together with a constant vigilance on the part of the inspectors, has resulted in a marked diminution in the amount of adulteration of food. When these regulations were first introduced, several manufacturers complained that owing to the semi-tropical character of our climate it would be impossible to keep certain foods in a sound condition unless they were allowed to use more than the quantity of preservatives allowed by these regulations. The Board of Health, supported as they were by the experiments which had been carried out in their chemical laboratory, were equally confident that the use of a larger percentage of chemical preservatives than that prescribed was not necessary. The decreasing practice of adulteration, together with the fact that there have been no complaints on the part of the general public that the food supplied to them during the summer months did not keep, proves that the Board of Health have acted rightly in practically disallowing altogether the use of preservatives in foods.

The Government Statistician's Report on the vital statistics for the metropolis for the month of April shows again an unfavourable state of things in regard to the birth-rate. This corresponds to an annual rate of 23.52 per 1,000 of population. This rate is not so favourable as for last March, and, although it shows a slight increase over the rate for April of last year, it is 0.17 per 1,000 below the mean for April for the previous ten years. The illegitimate births comprised 9.2 per cent. of the total births. The death-rate was 10.44 per 1,000 of population. This is satisfactory, being, with the exception of last year, the lowest during the last ten years, and 7 per cent. below the average for that period, but is slightly higher than for the month of March. A low infantile death-rate has been a feature of the reports for the last seven months; the rate for April was 116 deaths of infants per 1,000 births.

During the past few weeks bubonic plague has appeared again in Sydney, as well as in Newcastle and on some of the Northern Rivers. Some 13 cases have occurred in Sydney and suburbs. In all of these cases the infection has been traced to contact with infected rats. Some 8 cases have occurred in Newcastle, one of the patients being a medical man, who was infected while making a *post-mortem* examination of a plague case. After a serious illness, he is now recovering. The condition of things in Newcastle is serious, owing to the enormous number of rats along the foreshores and the difficulty of securing efficient cleansing of the city. Some further cases have occurred on the Clarence River, and fresh cases have occurred at Ballina and at Lismore, two important towns on the Richmond River. All the infected places are either seaports or rivers—ports at which sea-going vessels called—and there is no ground for suspecting transport to any of them of plague-infected persons. These outbreaks in scattered parts of the State have taxed the resources of the Health Department severely, as there are constantly being received from the infected areas dead rats and pathological specimens which require bacteriological examination.

Last month the annual meeting of the Queen Victoria Homes for Consumptives was held; while the reports presented showed good work done at the sanatorium at Wentworth Falls, and at the hospital at Thirlmere, these institutions unfortunately have lost the valuable services of Dr. Cecil Purser, who has been a most energetic Honorary Secretary since the institution of these homes some eight years ago. The Executive Committee recommended the appointment of two medical men as his successor, but the meeting did not accept these nominations, and elected a layman without any special knowledge or qualifications for the position. Dr. McIntyre Sinclair, the Resident Medical Officer at the Wentworth Falls Sanatorium, has issued a very full report on the work of this institution for the past year; 53 cases were admitted and 52 discharged. The average number of patients in residence was 21. There were 13 early-stage cases, in 12 of whom the disease was arrested, and 1 was much improved. There were 33 intermediate cases, in 18 of whom the disease was arrested, 8 were much improved, 4 improved, and 3 unimproved; 5 were advanced cases, 2 of whom were much improved, 2 unimproved, and 1 died. The average residence during treatment of 51 cases was 133 days; the shortest and longest residences respectively were 18 and 395 days. The average residence in 30 cases which proceeded to complete arrest of the disease was under four months. The average gain in weight in these 30 cases was just over a stone each. Tubercle bacilli were discovered in the sputum in 50 of the 51 cases. A history of haemoptysis was obtained in 21 cases, and of these 13 made a complete recovery. A family history of tuberculosis was elicited in 19 out of the 51 cases, and in 12 of these complete recovery ensued. At the Thirlmere Home, which is used for more advanced cases occurring in both males and females, 74 males and 31 females were admitted during the year. A total of 101 were discharged; of these 85 were improved, 13 were unrelieved, and 3 died. The average cost per bed per annum at Thirlmere was £41 3s. 10d.

The annual collections in aid of the Hospital Saturday Fund were made on Saturday, May 6th. The day was most unfavourable from the weather point of view, but the collections amounted to only some £20 less than last year. Since then the amount has been increased by further contributions, and something over £4,700 has been collected.

MANCHESTER.

Case of Bubonic Plague.—University Notes and Doings.—Composition of Manchester Soot.—Birth-rate and Death-rate in Cheshire.—Dangers of Flannelette.

THE case of plague notified in Manchester last week was that of a youth about 17 years of age, belonging to Manchester, who was assistant cook on a vessel which arrived at Middlesbrough from Buenos Aires, via Hamburg, on

June 8th; the illness developed on the 9th after he had left Middlesbrough. The youth travelled by train on that day, reaching his home in Manchester on the 10th. Later in the day he became so ill that he was seen by Dr. Tempest, who recognized the serious nature of the case and at once communicated with Dr. Railton, the medical officer for Withington, and Dr. Niven, the medical officer of health for the city. It was diagnosed as a case of bubonic plague, and the patient was immediately removed to Monsall Hospital, where he died on the Monday following—that is, the 12th. On the Saturday previous a bacteriological investigation conducted by Professor Delépine confirmed the diagnosis; while Dr. Klein in London, acting on behalf of the Local Government Board, arrived at the same conclusion. The case had nothing to do with any vessel in the Manchester Ship Canal. The house in which the patient stayed was thoroughly disinfected, and so also were all the persons with whom he had come into contact.

All the courses in the medical school were resumed after Whitweek, and the first examination for the degree of M.B. is now being held. As in some previous years' the University offered a series of courses of a post-graduate nature during the vacation dealing with subjects of direct practical interest to the practitioner. Owing to want of support some of these courses have not been held, there having been a relatively poor response of medical men to avail themselves of these lectures. The University will present an address to the King on the occasion of His Majesty's visit to the City on July 12th.

Soot is generally regarded as unconsumed carbon, but Manchester soot Professor Knecht finds to consist of 50 per cent. of substances that are not carbon. Among these, he states, were "snow-white samples of ammonium chloride, ammonium sulphate, calcium sulphate, and a beautifully-crystallized paraffin hydrocarbon, similar in properties to one that exists in beeswax. The amount of heavy hydrocarbon oils in household soot was found to be no less than 13 per cent." From this *pot-pourri* of special soot a dye-stuff capable of giving fast shades of brown to cotton was manufactured.

The Medical Officer of Health for Cheshire, Dr. Vacher, in his annual report to the County Council, gives the following statistics of births and deaths in the municipal boroughs and other urban and rural areas. Of the municipal boroughs, Macclesfield has the highest death-rate, 20 4 per 1,000, and the lowest birth-rate, 22.6 per 1,000. Crewe, which is now the largest municipal borough in the county, had the lowest death-rate of the municipal boroughs, 14 6 per 1,000, and the highest birth-rate, 30.9. In the other urban districts, Hoole, near Chester, had the highest birth-rate, 38.6 per 1,000, while its death-rate was 20 per 1,000. The estimated population of Cheshire, excluding the county boroughs, is 609,316, and the county area is 644,180 acres, so that the average is slightly over one acre of land to each individual.

The City Coroner continues to take every opportunity of drawing attention to the dangers of flannelette, especially the cheap variety which is highly inflammable. Over sixty deaths from burning occur in Manchester annually, and many of these are directly due to the wearing of the cheap variety. High-priced qualities impregnated with some chemical substance are not dangerous. It is usually amongst people by whom the low-priced and low-class goods are worn that such accidents occur. The Coroner contends that for a very small cost this flannelette could be proofed against fire, but the trade seems unwilling to adopt his views.

LIVERPOOL.

The Epileptic Colony at Maghull: Satisfactory Results of the Year's Working.—Extension of Dr. Bernard's Term of Office at the Royal Infirmary.—Low Death-rate in the City.

THE annual meeting of the Epileptic Colony at Maghull took place at the institution on June 17th, when a number of visitors were given an opportunity of acquainting themselves with the work there carried on for the treatment of epilepsy. The annual report (the sixteenth) stated that there had been little change as regards the number of patients treated. The applications for admission of second and third class patients were still in advance of the accommodation, which it was so far not possible to extend. Farming operations had not been so successful as last year, and had resulted in a loss of £61 13s. A few of the patients on the farm had improved so much that they had left the home to take employment in gardens. Patients' payments amounted to £153 7s. 11d., exclusive of wages paid to patients employed as cooks. Seventeen children and backward youths were educated in the day school. The continuation school classes for adults met twice a week during the winter, and trained 122 students, of whom 112 qualified for the grant, which this year amounted to £64 18s., against £57 18s. last year. The Committee had to commend to the subscribers the work of the medical officers, the lady superintendent, and the staff generally. The general account for maintenance showed that, notwithstanding the loss on the farm account, £300 was transferred to the estate account, which also benefited by a generous donation by Mr. E. P. Thompson of £300 towards the various schemes on hand. The special farm expenditure amounted to £611 6s. 10d., including extension of the Chapel House farm buildings, etc. The total expense of keeping up the home amounted to £7,604 for the year. The account showed a net debit balance of £9,500 due on mortgage of the home property. Several extensions are urgently needed, and the Committee will be glad to receive contributions. The medical report stated that at the beginning of the year there were 209 patients in the home, and at the end 203. Four patients (3 males and 1 female) died during the year. Two of the deaths had no connexion with epilepsy. The general health of the patients was satisfactory, and there had been no epidemic or contagious disease. In no part of the house had the improvement been so marked as in the first-class patients, and in regard to the other classes there were several striking successes. The gradual diminution of attacks year after year, and the preservation of the mental and physical well-being was the primary object, the reduction of fits being secondary and taking place as a result of the improvement in the general conditions. The Chairman, Colonel H. H. Hornby, in moving the adoption of the report and accounts, said that the treatment was very much wider and more beneficial than that in the old hospitals. Liverpool was the pioneer of homes for epileptics, and it was very pleasing to know that their neighbour Manchester had also a very fine institution for the treatment of the disease. Mr. Royle (Manchester), in seconding the resolution, said that when he first became a Poor-law Guardian he was horrified at the way in which epileptics were treated by the guardians. Fortunately, steps had been taken to ameliorate their condition, and they had a wonderful instance in that institution of the way in which poor people suffering from that disease should be treated. Speaking from an educational point of view, he thought Poor-law Guardians would be well advised in sending epileptic children to such a home as that at Maghull, where, while their treatment was of the best character, there would, at the same time, be a judicious educational training. Dr. Aldren Turner (National Society for the Employment of Epileptics) congratulated the institution upon being the pioneer colony for the treatment of epilepsy, although the method employed was by no means a new one, having had its origin in France during the last century. Most of the large States in the Union had their State-endowed colonies. Sir Edward Russell said that it was a pitiful thing to contemplate that this disease, which was regarded as almost incurable, had led to such a degree of misery, neglect, and individual suffering; but in that institution they took up in a spirit of hope, and with good reason for hope, a calamity which they all knew when it occurred in one of their own families was looked upon by them with absolute despair. There was great truth and wisdom in the statement in the report that it was rather a mistake for people who had epileptics in their family to try to treat them in a private manner, inasmuch as habits were engendered by indulgence which neither tended to cure their disease nor to improve their subsequent life.

At the last fortnightly meeting of the Committee of the Liverpool Royal Infirmary the resignation of Dr. Bernard came under consideration. It was considered by the Committee that there were certain exceptional circumstances with regard to Dr. Bernard's tenure of office which called for some modification in the application of the law relating to the term of office. During the rebuilding of the infirmary, between the years 1887 and 1890, Dr. Bernard relinquished his beds in the Lock Hospital for a period of four years, in order that the ward should be used for medical cases. Dr. Bernard was thus deprived of his hospital work for four years, and unlike his colleagues—the physicians and surgeons who had to submit to a certain curtailment of their work during the reconstruction—he received no subsequent compensation in the nature of improved accommodation, since the Lock Hospital was not rebuilt. The Committee therefore resolved that Dr. Bernard

should hold office for two years longer. Since there is no assistant surgeon in Dr. Bernard's department, no one is unfairly treated by Dr. Bernard's term of office being extended. All these considerations were carefully weighed by the Committee before making their decision, and it was considered that the present case is practically unique, and that it justified the Committee in retaining Dr. Bernard's valuable services to the institution.

The mortality in Liverpool for the week ending June 10th was the lowest on record, namely, 14.5 per 1,000 per annum.

SOUTH WALES.

Cardiff Health Report.—Typhoid Fever at Bridgend.—Relief of School Children.

DR. WALFORD, Medical Officer of Health for Cardiff, in his annual report for 1904, just issued, shows that the death-rate was 15.2 per 1,000, as compared with 17.1, the average annual death-rate for the ten years 1894-1903. The natural increase in the population, or the excess of births over deaths, during the year amounted to 2,504. The infant mortality in the borough compares favourably with that of previous years, being slightly below the average. The number of deaths recorded per 1,000 births registered was 144 in the year 1904, as compared with 153 in the ten years 1894-1903. Notwithstanding the comparatively favourable character of these statistical returns, the medical officer says that there are others, from the contemplation of which so much satisfaction is not derived; these are: (1) the decline in the marriage-rate, (2) the continuous and uninterrupted decline in the birth-rate, (3) the stationary or increasing rate of infant mortality. Much of the mortality among infants could be prevented if proper attention were given to the food of infants and young children. There was much evidence to show that artificial feeding was responsible for the unnecessarily high rate of infant mortality, especially during the hot weather, when the conditions were most unfavourable for the preservation of the different kinds of foods administered. The total number of deaths from all causes included 320 from the principal zymotic diseases, equivalent to an annual death-rate of 1.8 per 1,000 persons, as compared with 1.3 in 1903. Dr. Walford directs attention to the high rate of mortality from measles, and states that this was the experience in other large towns. Eleven cases of small-pox were notified during the year, and one of these proved fatal. The mortality from phthisis was equal to an annual death-rate of 1.36 per 1,000, the highest rate of any single disease during the year. With regard to the housing question, Dr. Walford says that, Cardiff being for the most part a comparatively new town, the housing accommodation for the working classes is on the whole satisfactory, and overcrowding does not exist to any extent. A few cases, however, came to the notice of the sanitary officials from time to time.

A special meeting of the Bridgend Urban District Council to consider the typhoid epidemic was held on June 17th. Dr. Randall, Medical Officer of Health, said that the notifications during the three previous weeks had been respectively 26, 13, and 19. Three of the cases had been notified from Cardiff. Asked by a member as to whether the outbreak was subsiding, the medical officer replied that, judging from the last few days' notifications, it was, but on the morrow there might be many more notifications. It was resolved by the Council that the Local Government Board be asked to hold an inquiry at once, and that, if possible, the Inspector be Dr. Bulstrode, who investigated the water supply a few years ago. The Chairman said that he and the Surveyor had had an interview with the county medical officer, who said he was of opinion that the Council had done all they could during the epidemic, and suggested that it would be advisable to ask the Local Government Board to send down, if they thought proper, one of their medical inspectors. The resolution was carried *nem. con.* The Chamber of Trade wrote urging the necessity of improved scavenging. A resolution was passed that handbills be distributed notifying householders of the hours for collecting refuse. The Surveyor remarked that it was impossible to collect the refuse as early as it ought to be collected because householders were late putting it out. Reference was made to the theory that pollution might get into the water mains through the street fire hydrants, which were of the ball pattern. It was decided that the Surveyor prepare an estimate of the cost of changing these hydrants to the screw-down pattern. The filter beds constructed by the gas and water company are now being used, so that the town supply will in future undergo filtration.

At a meeting of the Merthyr Board of Guardians held on June 17th it was decided to petition the Local Government Board to alter or revoke the Relief of School Children Order, 1905, in such a manner as to provide that some other constituted authority than Boards of Guardians should administer the relief, and that the cost of such relief should be charged to the Imperial Exchequer and not to local rates.

CORRESPONDENCE.

LEPROSY AND SEGREGATION.

SIR,—In reference to your leader of June 10th, may I say that I do not think there need be any difficulty in making the matter "clear to the plain man"? What Dr. Hansen has in his recent writings so frankly admitted is that in the causation of leprosy we have to reckon with some powerful influence quite distinct from personal contagion. As to what that influence is he denies that we have any knowledge, but that, in comparison with it, the contagious properties of the malady are of but little importance he fully admits.[1] In thus erecting an altar for an Unknown God he obviously prepares the way for those who go further and who think that it is not difficult to recognize and name the deity which should there claim service. With true philosophic caution Dr. Hansen declines as yet to admit that the case is proven for bad fish as being the ordinary cause of leprosy. Some of us, perhaps from lack of philosophic caution, have yielded full conviction to that creed and hold that the accumulated evidence in its favour is overwhelming. In the meantime it must be satisfactory to all who are earnest in the pursuit of truth to note how very nearly the two lines of argument have come into accord. It is admitted on all hands that there must be something very peculiar in the mode of contagion since husband and wife very rarely suffer together, and further that there must be some powerful and quite special predisposing influence which enables contagion to become effective. I have ventured to suggest that the peculiarity in the mode of contagion is that it is effected, not by the skin or lungs, but by the stomach, and that it is requisite that the bacillus shall be eaten. This brings the disease into line with tuberculosis when the latter is communicated by milk or meat.

Although, however, on these more or less abstract principles Dr. Hansen and myself differ little, if at all, yet with much regret I am obliged to admit that we do differ a good deal when we come to apply them to the explanation of what is now occurring in Norway. Leprosy has long been endemic in certain districts of Norway. Up to a comparatively recent period it showed no evidences of decline, but of late years it has undergone rapid reduction. Coincident or almost so with the more definite stage of this diminution, a segregation law was at Dr. Hansen's instigation passed by the Norwegian Parliament, which empowered parishes, if they so wished, to send their lepers into asylums. It is now claimed that the present improved state of things has largely resulted from that law. I, on the other hand, am obliged to believe that the law has been a dead letter and has in reality taken no share in a result which has been due to the advance of civilization, or, in other words, to the diminished consumption of decomposing fish. If a segregation law were to be influential one would suppose that it would increase segregation. In this instance, what change has taken place has been rather in the opposite direction. No new leper homes have been built, but some have been closed and the aggregate number of those in confinement has been reduced. The bulk of Norwegian lepers have remained since the law, as they did before it, residing in their own homes. In the Sandwich Islands and in South Africa compulsory laws have been passed and carried out with the utmost rigour and the disease has remained uninfluenced by them; in Norway a merely local option law has been passed and not carried out at all, and the disease has rapidly declined. It is surely little better than an abuse of language to call that segregation which has been content to leave the leper at home with his relatives, simply enjoining him to have a bed to himself (unless he be married) and to eat at a separate table.

The dimunition of prevalence began with 1856, and during the fifteen years next following it continued at the rate of a hundred per annum. During this period not more than a sixth of Norway's lepers were in her asylums. The other five-sixths were at their own homes, and as the medical authorities of that day were non-contagionists no special

[1] "Leprosy is a disease which it is not necessary to have any particular [illegible] to avoid." Hansen, in the *Edinburgh Medical Journal*.

precautions were being observed. It was not till 1870 that Hansen's discovery of the bacillus revived the old doctrine of contagion, and not till 1875 that the law for which so much is claimed was passed. Unquestionably since this latter date the decline has been yet more rapid, but, as I have pointed out, it had not led to any increase of segregation. We must remember that during the half-century with which we are concerned the condition of the Norwegian peasant in the fishing districts was undergoing great amelioration. The methods of curing fish have been, I am assured, much improved, more salt and of better quality being now used. I shall indeed be astonished if Dr. Hansen can reaffirm as applicable to the present day the fearsome picture which Dr. Danielssen drew as to the habitual consumption of decomposing fish in his time.

In conclusion, then, I am obliged to insist that it is not in accord with sound reasoning to claim for inoperative legislation results which may easily have been due to quite other causes. More especially do I think that Dr. Hansen is precluded from doing this by his own frank avowal in reference to contagion that "leprosy is a disease which it is not necessary to have any particular dread of."—I am, etc.,

London, W., June 16th. JONATHAN HUTCHINSON.

P.S.—Since writing the above letter I have read your annotation of to-day's JOURNAL on "The Contagiousness of Leprosy." It begins by saying that "Notwithstanding all the evidence to the contrary, there are still a few who do not admit the contagiousness of leprosy." It would be difficult, permit me to suggest, to find even a few who doubt the occasional communicability of that disease. The question is not now as to the possibility of the occurrence but as to its frequency. Some of us hold that it is so infrequent that its possibility may almost be neglected, especially in European communities. We would forbid leprous mothers to nurse their offspring, would prohibit kissing, and under no circumstances would permit a leper to touch food to be eaten by others. These matters attended to, we do not think it necessary to enforce other precautions. You rightly refer to Dr. Hawtrey Benson's well-known case as a parallel to that now recorded by Dr. Woolf, and to which your comments refer. It is to be noted that Dr. Benson's is the only instance of such communication ever recorded in Great Britain or Ireland, and Dr. Woolf's would appear, from the interest it has excited, to be regarded as a great rarity on the Continent. I could myself cite several which I investigated personally in Natal, and probably such communication ("commensal," according to my creed) is more common among the half-civilized and careless than it is in Europe. I do not believe that it is anywhere really common, and may add that I think that the number is rapidly increasing of those who feel assured that personal contagion is not the sole nor even an ordinary cause of leprosy. Some expressions recently used by Dr. Hansen, to which I have drawn attention in my letter, seem to imply that he has become convinced on this point.

THE CENTRAL MIDWIVES BOARD AND THE BELFAST UNION MATERNITY HOSPITAL.

SIR,—I have read with much interest and appreciation your very just and well-deserved strictures on the action of the Central Midwives Board towards the Belfast Maternity Hospital in refusing to recognize the nurses who have been trained there. Allow me to bring to your notice what seems to me their equally unjust and harsh action in regard to the nurses trained in the Belfast Union Maternity Hospital.

This hospital has been recognized by the Central Midwives Board as a Training School for the future, as the conditions existing there fulfil all their requirements: but they have refused to enrol any of the nurses trained in this hospital prior to March 31st of this year, except those who were in "bona-fide" practice for one year prior to the passing of the Act, and (this is what makes it so absurd) who had exactly the same training as those who were refused. The Central Midwives Board have taken this action, notwithstanding that it was pointed out to them:—

1. That no change has been made in the conditions of training in this hospital for the past ten years, except that formerly the period of training was six months instead of three, as required by the Central Midwives Board.

2. That all these nurses, before obtaining certificates, had to pass the very severe examination of the Ulster Examining Board of Midwifery—a Board composed of such eminent men as Professor Byers, Dr. John Campbell, Dr. Brice Smyth, Dr. Dempsey, Dr. Andrew McConnell, Dr. Hall, and Dr. Lynass, all of them, except the last three, being unconnected with the hospital.

3. That all these nurses, prior to beginning their obstetrical course, had had two years' medical and surgical training, and passed a searching examination in these subjects.

4. That many of the nurses go each year to England to follow their profession.

It seems to me that no nurses could undergo a more thorough preparation; that this is the class of nurse the Midwives Act was intended to encourage, and that a great injustice has been done by the Central Midwives Board in refusing to place these thoroughly trained and experienced nurses on their roll of certified midwives.—I am, etc.,

JOHN MCLIESH, M.B., D.P.H.,

June 17th. Physician in Charge of Belfast Union Maternity Hospital.

MIDWIVES ACT AND THE MEDICAL PROFESSION.

SIR,—When forwarding the circular of the Wandsworth Division for publication I probably should have explained the object the members had in fixing the standard of two guineas.

It was under the clear impression that public bodies, when deciding on fees, invariably try to cut down the just requirements of the profession, and that shortly some such authority will have to take under their control the working of this part of the Act. Whether the circular to the midwives should have contained a clause that this fee was subject in the meanwhile to reduction to suit the pockets of those paying it is not for me to say now. Many thought it desirable. The majority said no. So it was omitted.

It will certainly not drive the work into the hands of the parish doctor or a whole-time medical officer quicker than is the tendency of the whole Act. Personally, I hope Divisions will all work for a high standard in view of future negotiations.

With regard to Dr. Major Greenwood's remarks as to the desirability of Divisions consulting some of the Central Committees, I would say that this attempt to again centralize the work of the Association will only tend to the state of stagnation and death throughout the provinces, both in science and medical politics, which has been the result of the past policy of the Association, and which it will take many years of strenuous endeavours, long after Dr. Major Greenwood and I have passed away, to set right.

To criticize adversely the attempts of a child to walk while at the same time encouraging him to be ready at all moments to cry out, "I'll tell my mother," will not lead to healthy growth and self-reliance—the traits it is most desirable to see cultivated in these new local medical societies. Wandsworth has for the present had enough of Central Committees and Conferences. Had "central committees" done their work better, we should not now be suffering under the incubus of the present Midwives Act.—I am, etc.,

London, S.W., June 19th. E. ROWLAND FOTHERGILL.

PUBLIC VACCINATORS AND GENERAL PRACTITIONERS.

SIR,—Can nothing be done to obviate the gross injustice to general practitioners and the unnecessary extravagance of the present system of public vaccination? There is no doubt the activity in medico-political circles of the "vested interests" militates against any reform. I am aware the subject is beset with difficulties. The public pay the piper and are entitled to call for the tune, and consequently I am afraid that the ideal solution from the doctors' standpoint of recognizing all registered practitioners as public vaccinators, subject to periodic inspection, is, except in small districts outside the field of practical politics, on the ground of increase in cost of administration.

In large centres of population the greatest efficiency and economy would be attained by appointing a public vaccinator *at a fixed salary* under control of the medical officer of health and debarring him from any other form of practice. Half a loaf is better than none, and I think the profession would be well advised in adopting such a policy. It would at any rate do away with the crying injustice of the public vaccinator visiting one's patients and ingratiating himself with them. This favoured individual is extremely well paid for his work, and has a gratuitous introduction to most of the working class and many well-to-do people in his district. I trust all general practitioners will make it their business to interview and, if possible, exact pledges for the reform of the Act from their respective candidates for Parliamentary honours before the next general election. We should all agree to sink our party

differences and work hard for the benefit of our own profession. We wax hot over fiscal reform and Education Bills and neglect our own pecuniary interests. The British public love fair play, and the injustice of the present arrangement, this *legalized poaching*, only requires to be pointed out to them in the daily press and on our daily rounds to ensure its reform.

The latest move is compulsory revaccination of all children on attaining school age *by the public vaccinator*, giving these gentlemen more fees and a second introduction to our clients.—I am, etc.,

JUSTITIA.

BLUE LIGHT AS AN ANAESTHETIC.

SIR,—In reference to the article upon this subject and the suggestion that the effects are due to hypnotism, which appeared in the BRITISH MEDICAL JOURNAL of June 10th, p. 1290, your readers may be interested to read of the results obtained by means of M. Redard's method upon English patients. Believing that I was the first in this country to use blue-light rays for producing anaesthesia, I published a short note upon the subject in the *Medical Times and Hospital Gazette* of May 23rd.

Following M. Redard's plan I have out of a total of 32 cases had 20 absolutely successful results, eight failures, and four cases in which the patients stated that they felt pain and yet showed no sign of doing so beyond "screwing up" their eyes during the operation. Most of the failures can, I think, be explained on the grounds that the patients were highly nervous, that they had while waiting their turn been told by others that some new experiment was being tried, and that they did not carry out my directions and keep their eyes fixed upon the light. The remainder may be explained, perhaps, by the fact that a different reflector was used, whereby the rays were not concentrated upon the patients' eyes, but were more widely diffused.

In addition to the evidence advanced by M. Redard against the view that the influence of the light is hypnotic, I do not believe that so large a percentage of ordinary persons are so easily hypnotized, and I find that the results vary with the technique. I do not agree with M. Redard in the opinion that a general anaesthetic effect is produced, for I have found that although sensation in the extremities is temporarily impaired, yet that there is no real analgesia, this apparently only existing over the area of distribution of the cranial nerves.

In all the successful cases dilatation of the pupils was observed, and in two or three the eyes became fixed and the lids drooped, the patient developing a somnolent condition; but in those instances in which the patient moves his eyes constantly and blinks, the pupils will not dilate and no analgesic effect should be expected.

The last case in which the method was tried is unusually interesting. The patient was a middle-aged married woman, who suffered from cardiac disease; she had been given gas on a previous occasion and is said to have taken it badly. I therefore suggested blue-light rays, and the patient, although highly nervous, agreed; when, however, the light and veil, after 2½ minutes' application, were removed and I told the operator to begin, she put up her hands to stop him and said she could not bear it. I remonstrated with her and she permitted the extraction of three teeth—putting up her hands again, as previously requested, when she had had enough. She stated afterwards that she had felt no pain, but that she was more sensible of the last than of the first two extractions, and that therefore she was afraid it might hurt her if more teeth were removed. She said that she felt better on this occasion than she did after taking gas, and that she would come up again to have the operation completed, if I would use the light rays next time.

I hope at a later date to publish my results in detail, and in the meantime that others will give M. Redard's method a trial and will also publish their experiences, so that a definite judgement may be formed as to whether blue-light rays have any real power of producing true analgesia.—I am, etc.,

HARVEY HILLIARD,
Assistant Instructor in Anaesthetics at the London Hospital, and Anaesthetist to the Royal Dental Hospital.

June 12th.

DILATED GALL BLADDER SIMULATING OVARIAN CYST.

SIR,—In my clinical lecture on the above subject which appeared in the BRITISH MEDICAL JOURNAL of June 17th, the word *nun* in the report of Tuffier's case is misprinted *man*. The "suspicion that the tumour might be ovarian" must have surprised those of your readers who happened to glance at my lecture, although very reasonably it is recorded that the suspicion was "soon dispelled." Fortunately the word *nun* is given correctly in the summary on the next page (p. 1318). I desire this correction to be made public in justice to M. Tuffier, whose diagnostic talent is impugned by the misprint.—I am, etc.,

London, W., June 18th. ALBAN DORAN.

THE SANATORIUM TREATMENT OF CONSUMPTION: IS IT WORTH WHILE?

SIR,—When this controversy was going on in your columns in January and February of this year, I sent you a short letter pointing out what I thought were some of the weak points in the statistics, and conclusions drawn therefrom, of Dr. Ransom and others, and though one or two letters from general practitioners, whose opinions went to the opposite extreme, were published, I cannot help thinking that it is extremely unfair to the profession at large that statistics from sanatorium superintendents should be given as the only index to the opinion of the profession on this important question. It has been our bane at all times that we have been too much led by specialists, whose lives are spent in institutions for the treatment of a particular disease or in consultation with the general practitioner on cases that occur in his private practice.

Pulmonary phthisis has always been, and I venture to think will, in its earliest stages, always be a disease treated almost entirely by the general practitioner, and he is, therefore, equally as well qualified to judge of the results of old and new methods of treatment as the sanatorium specialist. The latter's views are apt to be narrowed partly by his special training, partly by his necessarily short acquaintance with his patients, and in great measure by bias—for few of us like to think that our efforts are being wasted.

Your latest contributor, Dr. Paget Tomlinson, though now a specialist, can hardly plead ignorance of the advantages the general practitioner has in following up the results of his treatment, and he is not quite correct in denying to him his knowledge of the value of fresh air in the treatment of disease, for most of us freely admit its curative power and use it as freely as circumstances permit and as the disease under our care warrants. Our efforts have been considerably fostered by, and have received a vast impetus from, the energies of specialists to popularize "the fresh-air cure for consumption."

But while we still go on our humdrum way and do the best we can for each individual patient, we continue to scan the horizon for better results of treatment before we decide to commit all our cases to sanatoriums whenever we find what we believe to be "the physical signs of incipient lung mischief, together with the other well-known symptons of early consumption." I do not know how much might be included in this last clause, nor could I classify such a patient in Dr. Paget-Tomlinson's list, but assuming that we find a patient where we suspect consumption, would it be reasonable to suggest to such a one a year or two of sanatorium treatment? I am afraid that though we should undoubtedly improve our patient by such a well-regulated holiday, we should, if we all adopted such a course, soon pauperize more families than the rate-supported infirmaries and poorhouses could accomodate. As things are, we find that patients recover their normal health under our present treatment, which has always wisely included the benefits of fresh air and good food, and continue at, or soon return to their occupations—but we do not call these "cures." In time they may or may not die of consumption, and I am aware of a good many even in my own practice who have shown all the symptoms of consumption—consolidation, haemoptysis, and even the formation of cavities—and who will now say they are "perfectly well." I know two cases where haemoptysis occurred twenty-five and thirty-nine years ago, and both are still at work "perfectly well," but still phthisical. I have also come across cases that even with early sanatorium treatment have steadily gone downhill. These are called "cases which do not respond to treatment as we should expect." Could no specialist venture to say why such failures occur in their system?

As to permanence of so-called cures or arrests, I am strongly of opinion that the poor should show more speedy improvement and greater percentage of arrests than the rich, if there is any special virtue in the sanatorium method. It is to them a much greater change for the better in their surroundings, their dietary, and freedom from work and worry, and they should carry home with them the education in personal

hygiene they have got and should be able to command, even the very poorest of them, tolerably healthy surroundings, both in their homes and in their workshops. But—so argues the specialist—few of the poor stay in the sanatorium to be "perfectly well." But they are "perfectly well" to please themselves, and that "perfectly well" will be good enough for a report of their condition some years hence when statistics for a scientific paper are being compiled.

To deal more closely with the statistics of Drs. Paget-Tomlinson and Robinson. The former's first class I have spoken of already—cases where we suspect consumption—but the "lung affection is slight and no bacilli are found, etc." Such not being definitely tuberculous cannot be safely used for statistics. Dr. Paget-Tomlinson's second class corresponds to Dr. Robinson's first class. Dr. Paget-Tomlinson gives a mortality of 23 per cent. and, including invalids, one in three are now dead or dying. I am inclined to think that such results show no great improvement on the average general practitioner's, and could our patients take a year or two in the country with no thought, no care, and a little sensible advice, I believe the results would be practically similar, especially with such a lax test as the patient's "perfectly well."

Dr. Robinson's results show in four years 35 per cent. dead, and 20 per cent. invalids. In three years 46 per cent. dead and 13 per cent. invalids. In two years 15 per cent. dead and 24 per cent. invalids. In one year 5 per cent. dead and 28 per cent. invalids. It is worthy of remark that the invalids get fewer and the deaths increase as time advances, so that it is not a question here of even arrest. Taking the average time since treatment as two years we find one-third dead or dying, practically the same as Dr. Paget-Tomlinson's. His third class again corresponds to Dr. Robinson's second class. The results here are truly disappointing, and both practically admit the failure of the system. It cannot be said that the treatment is any more beneficial than the old-fashioned country holiday, while it is far more expensive. Nor do the patients seem to benefit by the education in fresh-air methods which they have had, for both your correspondents deplore their patients' return to insanitary and poor homes. These are not synonymous terms, for sanitation may nowadays be quite good even in poor localities. Over 75 per cent. deaths seems little to boast of, and still both speak of the excellent results.

The cry of "back to the land" for the consumptive is excellent, and we could all re-echo it, but is it practicable? This is just the crux of the whole question. Is the sanatorium method worth while? It is expensive, and to get full benefit as the writers suggest, almost impracticable for the poor unless charitably assisted, and the results are not one whit better than could be had from a prolonged holiday either at sea or in the country. Nor is there anything new in the method, and it would be a pity if the profession and the public should become persuaded that from this method alone can good results be expected, and all other and less expensive methods of benefiting these miserably afflicted beings should be laid aside and not used as heretofore as adjuncts to the admittedly beneficial effect of pure country or sea air and good food.

Are we getting anything more at the sanatoriums than at the hydropathics unless it be the chilling effects of our rigorous climate which nips off the weaklings in both the animal and vegetable kingdoms?—I am, etc.,

Alexander Don, M.B., C.M., F.R.C.S.

Dundee, June 16th.

THE ABUSE OF HOSPITALS AND THE REMEDIES.

Sir,—It is with great interest that I read Dr. Ford Anderson's address in your Supplement of June 3rd on the above subject. It is astonishing and sad to find that in London in the year 1903 the proportion receiving charitable medical relief (excluding paupers) reached 48 per cent. of the total population. The ventilation of this all-important subject cannot but have good results.

Though I have often seen reports of discussions on the matter, I have rarely seen reasons explaining satisfactorily how this condition of hospital abuse comes about. Before we can remedy it, the true causes of the mischief must be found.

The ever-present cause is, of course, the desire to obtain gratis medical attendance for which otherwise payment would have to be made.

In Poor-law work there is a well-known axiom, "Once a pauper, always a pauper," and similarly in medical work "Once a hospital patient, always a hospital patient" is true. Once introduce the patient into the hospital, he afterwards finds his way there only too easily, and is ever gladly welcomed.

Sometimes the introduction takes place in this wise:—

It is common knowledge that Brown never operates under £25, and Jones wants £20, whereas you can command Robinson's services for £15. Should, however, a private patient go to Brown with a simple tumour, and ask his fee for its removal, finding himself unable to pay the fee Brown requires, tell him he cannot afford it; Brown thereupon says, "then you had better come into the hospital," hands him his card, and makes the way easy. Thus the initial start is given. Afterwards he is willing to be a hospital patient as often as he has any further need of treatment. Had Brown sufficient thought for his fellows, he would say, "Well, I cannot reduce my fee, but there is an excellent surgeon Jones, and also Robinson who probably would do it for less; but if their fees are too high, for a simple tumour like yours, Smith, a general practitioner round the corner, probably might do it for you for £5 inclusive of everything; he is thoroughly competent to attend to a matter of that kind;" moreover, he might tell him he probably need not pay Smith that sum down, inasmuch as the operator would most probably be willing to accept payments by instalments, or even through a collector. It is far better to let them pay something for having it done, even if only a small sum, than to do it for nothing.

Another way in which many get their introduction to gratuitous hospital treatment is the lack of equipment on the part of many surgeons. Perhaps not possessing a suitable splint, rather than confess their deficient armamentarium for carrying on a general practice by borrowing from a neighbour, or by calling one in to assist, they assume a sympathetic attitude and advise the patient to "go into the hospital."

Again, Williams knows little about eyes, and seeing a conjunctivitis with chemosis gets frightened, and rather than confess the superior knowledge of eye diseases possessed by another general practitioner Green by sending him there or calling him in consultation, urges him to go for the best advice he can get, "at the hospital." These patients then urge their friends and relations also to go for free treatment. Why shouldn't they? The way is so absurdly easy.

The first fundamental principle suggested by the Hospitals Committee needs very careful examination. It runs as follows:—

> That inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment.

Inability to pay whom? The consulting and operating hospital surgeons? Or the newly qualified man?

Again, the unreasonably high charges often made for trivial services afford many the excuse they desire for taking advantage of hospital treatment.

True, many hospitals have an inquiry officer, but suppose there had been 94 officials to deal with the 1,646,976 out-patients in the 94 large voluntary hospitals in London, each inquiry officer would have had to deal with 54 new cases each week-day; but how can he say, "One bottle would probably set you right, and you can afford to pay a private practitioner for that;" or how can he say, "There are numbers of doctors who can and will test your eyes for you, and make for 5s. an examination quite equal to what you will get here, and 5s. cannot be beyond your means"? Or again, "You have only a slight cut of the finger. It would not likely cost you more than 4s. to have it attended privately until well. We can apply first aid here, after which you can afford to pay a doctor at home to attend to it"?

I was once *locum tenens* at a hospital where one of the staff did keep down the qualifying "free physickers" in a marvellous fashion.

This type of work can only be done by the medical staff, and until it is done thoroughly, hospital abuse will never be remedied.

The fundamental principle (6) says:—

> That except in emergencies, sufficient evidence shall be obtained on two points:—(*a*) That the patient is not in a position to pay for treatment; (*b*) that the case is from a hospital point of view, suitable for treatment.

It is hard to prove a negative; and to prove point (*a*) the proposed sympathetic lady almoner of Dr. Ford Anderson would have a task compared to which that of the income-tax officials would be mere child's play.

Seeing a widower living with his daughter, one who has not worked for five years, and no earnings, how can the almoner know he has a steady income from a nice block of property? Assuming the income is stated, showing an income of £1 weekly from invested capital, could she urge a dipping into the principle for a major operation?

In the British Medical Association, 51 Divisions, out of 67, consider that in present conditions the minimum contract rate for medical attendance should be 5s. Surely everybody can afford that sum! In 1900 the expenditure of the population per head was £3 18s. 8d. upon alcoholic drinks, a luxury, now doctors are "trying" to get 5s. per annum for a necessity!

Why drag in the creation of another form of medical abuse, the provident dispensary?

Let our leaders do their duty by their examinees whose fees they have so gladly taken; then may we hope for "unity in the profession." "Live and let live" should be their motto.—I am, etc.,

Earlestown, June 14th. J. P. WALKER, M.R.C.S., L.R.C.P.

DISPENSERS, QUALIFIED AND UNQUALIFIED.

SIR,—In the profession we are "sticklers" in distinguishing qualified from unqualified practitioners. Let us now consider the position of those who dispense for us, and their qualifications.

Of course, anybody can dispense medicine; but the question arises as to the responsibility. Any unqualified person may dispense when in the presence of, or under the superintendence of, a doctor. But a properly qualified person may dispense without the superintendence of a medical man.

Those are properly qualified dispensers and chemists who have passed the minor examination of the Pharmaceutical Society. Many are carried away with the idea that a certificate as a dispenser obtained at the Apothecaries' Hall is as good as the qualification obtained from the Pharmaceutical Society; but this is a great mistake. There is as much difference between the two as there is between a dresser in the wards and a fully qualified surgeon. The certificate from the Apothecaries' Hall does not permit of the holder acting on his or her own responsibility.

There are many unqualified dispensers employed by medical men and in provincial hospitals. The parties so employing them undertake a great responsibility, and in case of any accident occurring in the dispensing of medicine they may incur the grave censure of the coroner.

During the last few days an Association has been formed of properly-qualified lady dispensers, under the leadership of Miss Buchanan, of Gordon Square, and of Miss Hooper, of the School of Pharmacy. One of the chief objects of the Association will be to uphold the diplomates of the Pharmaceutical Society, and to secure a proper status for them.—I am, etc.,

Durham, June 19th. EDWARD JEPSON.

ESPERANTO.

SIR,—There seems to be no doubt whatever that the cause of the international language is going ahead and that Esperanto has indeed come to stay. In France they have a medical Esperantist group which includes some really distinguished members of our profession there. Every month one of their number contributes to the *Internacia Scienca Revuo* (International Scientific Review) an article on some medical, surgical, or obstetrical subject. The review has proved itself, so far, worthy of its high aim.

The profession in England is as yet not well represented in this international scheme; our conservative and insular ideas are probably responsible for the fact that there are as yet fewer Esperantists per thousand in England than in any other civilized European country. There *are* medical men here who are conversant with and who use Esperanto, but they are comparatively few, and they are scattered over the land, and generally members of one of the thirty-one lay groups.

A British Esperanto Association (office, 13, Arundel Street, Strand), has now been formed, though Esperanto was only introduced into Great Britain two years ago. It includes among its members Sir William Ramsay, K.C.B., and Dr. John Pollen, C.I.E.; and it has for President, Dr. Louis Zamenhof, author of the International Language.

At the coming Congress of Esperanto at Boulogne, August 5th to 12th, the claims of that language to be an easy international medium of communication will be definitely proved. Let him who is sceptical of the possibilities or advantages of such an international auxiliary tongue as Esperanto visit Boulogne even to-day. Preparations on a grand scale are being made to receive the 4,000 persons who, from various countries of Europe and Asia, have already definitely signified their intention to be present at the coming triumph of this wonderful language.

The French Esperanto Medical Group is about to publish an Esperanto Medical Dictionary—in Latin, French, and Esperanto, so that ere long the reading of a technical medical article in the International Language need present no difficulties.—I am, etc.,

London, N., June 17th. MARTYN WESTCOTT.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degree by Decree.

THE degree of D.M. has been conferred upon William Osler, Hon. D.Sc., Regius Professor of Medicine, by a Decree of Convocation.

Appointment of Examiners.

The following appointments of examiners have been confirmed: In Human Anatomy: Robert Howden, B.M., M.A.Durh. In Pathology: James Ritchie, M.A., B.Sc., Fellow of New College. In Surgery: D'Arcy Power, B.M., Exeter College.

UNIVERSITY OF CAMBRIDGE.

Appointments.

DR. SHORE, of St. John's College, has been reappointed University Lecturer in Physiology for five years. Mr. G. H. F. Nuttall, of Christ's College, has been reappointed University Lecturer in Bacteriology and Preventive Medicine for five years. Mr. G. C. Low, M.B., C.M.Edin., has been appointed an Examiner in Tropical Medicine and Hygiene.

Degrees.

The following degrees were conferred on June 15th:

M.D.—E. W. Hedley, King's; W. S. Fox, Trin.; W. Malden, Trin.; J. D. C. White, Trin.; T. E. Holmes, Cains.

M.B.—J. M. Hamill, Trin.; J. C. Newman, Trin.; W. E. Paramore, John's; H. L. Wilson, H. Selwyn.

B.C.—W. S. Fox, Trin.; J. M. Hamill, Trin.; J. C. Newman, Trin.; C. R. Crowther, John's; W. E. Paramore, John's; T. J. Faulder, Clare.

The following degrees were conferred on June 17th:

M.D.—W. B. Knobel, Trin.; J. Barnicot, Pemb.; G. S. Graham Smith, Pemb.

M.B.—J. Goss, Jesus.

B.C.—C. E. Droop, Trin.

The following candidates were approved at the Easter Examinations in the subjects indicated:

First Examination.

Chemistry and Physics—G. W. M. Andrew, H. J. Baldwin, B.A., H. W. Barber, A. M. Bodkin, N. L. Clarke, R. F. P. Cory, H. J. Couchman, R. Ellis, E. St G. S. Goodwin, R. E. Grice-Hutchinson, H. K. Griffith, S. J. Higgins, A. L. Hobhouse, G. N. Humphreys, R. H. Hutchinson, B.A., H. G. G. Jeffreys, A. C. Jepson, R. F. Jones, K. T. Khong, G. C. Lim, M. Maclaren, O. de B. Marsh, G. Moore, P. A. Opie, C. H. G. Philp, F. A. Powell, J. B. Pulling, A. E. Rayner, F. E. W. Rogers, J. B. Ronaldson, F. G. Rose, W. J. D. Smyth, G. N. Stathers, C. J. Stocker, F. J. Thorne, F. H. Watson, N. S. Williams.

Elementary Biology.—G. W. M. Andrew, H. W. Barber, H. G. Baynes, A. H. Birks, A. M. Bodkin, H. H. Brown, W. T. Chaning-Pearce, D. G. Cherrington, N. L. Clarke, R. F. P. Cory, H. J. Couchman, E. V. de Souza, J. Ellison, A. E. Evans, A. W. Gaye, A. C. Gemmell, B.A., R. W. B. Gibson, E. St. G. S. Goodwin, S. W. Green, H. K. Griffith, L. S. M. Habich, A. L. Hobhouse, A. C. Jepson, R. F. Jones, K. T. Khong, G. C. Kidd, G. C. Lim, N. F. Lock, H. W. Malden, C. H. Maxwell, G. Moore, C. G. H. Morse, F. C. Newman, P. A. Opie, C. H. G. Philp, B. A. Playne, T. E. G. Poynder, J. B. Pulling, A. H. Richardson, F. G. Rose, F. D. Saner, F. P. Saunders, W. Shipton, C. J. Stocker, A. W. Stott, A. D. Taylor, F. J. Thorne, W. W. C. Topley, F. Tweedale, J. van Schaikwijs, R. H. Vercoe, L. C. Walker, J. M. Wallace, P. B. Wallis, F. H. Watson, H. M. Whiting, N. S. Williams, H. F. Wilson.

Second Examination.

Human Anatomy and Physiology.—A. C. Anderson, R. R. Armstrong, A. Barker, B.A., C. T. V. Benson, B.A., W. J. Carr, B.A., A. E. A. Carver, R. M. Collinge, B.A., R. Cox, A. H. Crook, A. E. Cullen, F. C. Davies, H. Dearden, B.A., S. Dixon, M.A., G. H. Dunn, B.A., A. J. S. Fuller, B.A., T. S. Gibson, B.A., B. Haig, B.A., A. Hamilton, G. Hoffman, B.A., B. E. Ingleby, B.A., R. Knowles, F. H. Lester, B.A., C. Mackenzie, B.A., H. McLean, B.A., W. Mathieson, L. Meakin, B.A., E. E. Paget-Tomlinson, B.A., B. H. Palmer, B.A., L. B. Perry, F. S. Poole, B.A., A. V. Poyser, B.A., K. D. Pringle, B.A., R. P. M. Roberts, J. H. Ryffel, M.A., S. E. T. Shann, B.A., L. W. Sharp, B.A., O. R. Smale, B.A., E. R. Stone, B.A., R. Svensson, B.A., C. H. S. Taylor, B.A., G. W. Twigg, B.A., G. B. Wainwright, B.A., G. Walker, B.A., R. W. S. Walker, B.A., H. K. Waller, J. N. Wheeler, B.A.

Third Examination.

Pharmacology and General Pathology.—A. G. Atkinson, G. B. Bartlett, B.A., H. Becton, M.A., H. J. D. Birkett, B.A., W. T. Briscoe, B.A., R. Burgess, B.A., H. Chapple, B.A., R. G. Chase, G. G. Collett, B.A., S. H. Daukes, B.A., L. T. Dean, B.A., G. H. Drew, B.A., G. W. Dryland, B.A., T. W. N. Dunn, B.A., T. G. Elger, B.A., A. W. Ewing, B.A., R. L. Gamlen, B.A., J. F. Gaskell, M.A., H. J. Gauvain, B.A., H. E. Graham, B.A., M. Grundy, B.A., H. Hardwick-Smith, B.A., R. N. Hart, B.A., N. G. Horner, B.A., A. E. Kerr, B.A., E. Lloyd, B.A., J. H. B. Martin, B.A., L. Nicholls, B.A., C. W. de P. Nicholson, M.A., H. F. G. Noyes, B.A., A. S. M. Palmer, B.A., P. R. Parkinson, B.A., M. Phillips, B.A., E. Slack, M.A., A. C. H. Suhr, B.A., B. S. Taylor, M.A., C. H. Treadgold, B.A., A. Walker, B.A., A. C. Warren M.A., H. N. Webber, B.A., C. J. Wilson, B.A., J. F. Windsor, B.A.

UNIVERSITY OF DUBLIN.

Honorary Degrees.

AMONGST those who are to receive honorary degrees at the forthcoming commencements on July 6th are Sir Richard Douglas Powell, Bart., Mr. H. R. Swanzy, Professor E. A. Schäfer, and Professor Sydney Young. The two former receive the degree of M.D., the two latter the degree of Sc.D.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen, having passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Members of the College and have received their diplomas, namely:

S. C. Allen, F. B. Ambler, B. N. Ash, I. G. Back, A. O. Bisson, E. Brabazon, R. C. Bright, C. B. D. Butcher, H. C. Cameron, T. A. Chater, G. H. Cheyney, C. St. A. Coles, R. J. H. Cox, S. E. Crawford, V. A. Crinks, C. H. Cross, A. S. Daly, D. M. Davies, W. L. Dickson, P. A. Dingle, C. J. S. Dismorr, J. S. C. Douglas, A. M. Dowdall, S. M. Dowling, T. W. N. Dunn, W. Edmondson, J. N. F. Fergusson, G. Finch, E. V. Frederick, K. F. Gordon, H. E. Graham, S. L. Graham, G. F. Hardy, W. D. Hartley, C. F. A. Hereford, W. H. Hey, G. Holroyd, E. C. Hood, A. W. Hooker, C. W. M. Hope, A. S. Hosford, J. B. Howell, T. M. Hughes, C. W. Hutt, R. R. Huxtable, C. E. Iles, A. M. A. James, F. A. Juler, E. N. Jupp, F. W. Kemp, B. W. Lacey, L. Llewellyn, F. J. Loveday, D. G. MacGill, F. S. Machin, T. W. Maddison, H. P. Martin, J. C. Mead, W. Miles, H. Mills, P. F. Minett, B. E. Moss, R. C. Neil, A. B. O'Brien, D. C. L. Orton, V. N. Ouranofski, P. R. Parkinson, P. L. Pearce, A. H. Pinder, R. E. Pitts, G. C. Pounds, G. Raymond, A. G. L. Reade, J. D. Reid, P. G. Reilly, F. M. P. Rice, D. H. Richards, R. L. Ridge, J. C. L. Roberts, H. H. Rolle, G. F. Ruckin, J. E. Rutherford, E. Schwarz, H. E. Scoones, H. M. Scott, W. L. Scott, T. W. Sexton, C. A. Smallhorn, A. Smith, T. Stordy, S. H. Sweet, A. B. Sykes, E. C. Tatam, G. Thom, J. D. Thomas, L. C. Thompson, A. Toulmin, W. S. Tresawana, J. R. R. Trist, R. A. Veale, W. C. A. Ward, W. J. Weston, A. G. Whitaker, F. E. Whitehead, A. S. Williams, W. P. G. Williams, D. Wilson, and E. D. Wolff.

The following gentlemen passed the First Professional Examination for the diploma of Fellow at the quarterly meeting of the Examiners—namely:

Messrs. J. J. Abraham, M.B.Dub.; D. M. Aitken, M.B.Edin., F.R.C.S.Edin.; D. T. Barry, M.D.R.U.I., D.P.H.Lond.; T. H. C. Benians; W. E. Brierley, M.B.Vict.; C. Clarke, A. J. Couzens, K. H. Digby, R. L. E. Downer, G. G. Farquhar, M.B., Ch.B.; W. S. Fenwick, C. W. Greene, B.A.Camb.; E. H. Kettle, K. A. Lees, B.A.Camb.; A. Levy, B.A., M.D., C.M.; B. A. Lloyd, R. B. Lloyd, B.A.Camb; A. E. A. Loosely, M.A., M.B., B.Ch.Oxon.; W. J. O. Malloch, B.A., M.B.Toronto; H. L. Morgan, W. M. Munby, M.B., Ch.B.Edin.; H. Nockolds, C. A. Pannett, B.Sc.Lond.; R. N. Porter, M.D., Ch.B.Vict., H. V. Prynne, H. R. Rawlings, R. L. Rawlinson, B.A.Camb; J. E. H. Roberts, D. Robertson, A. B. Rooke, D. W. Roy, B.A.Camb.; H. F. Shorney, M.D., B.S. Melbourne; W. Stansfield, L.S. Talbot, M.B., Ch.B.New Zealand; H. D. Thomas, R. S. Townsend, H. F. Vellacott, J. Walker, H. G. Webb, C. E. Zundel.

122 candidates presented themselves, of whom 40 passed and 82 were referred. Of the 82 candidates who were referred, 42 failed to reach the required standard in both anatomy and physiology, 23 in anatomy only, and 17 in physiology only.

The following gentlemen having passed the necessary examination, and having conformed to the By-laws and regulations, have been admitted Fellows of the College in order of seniority as Members of the College—namely:

Messrs. F. A. Spreat, L.S.A. and D.P.H.Lond.; F. Norman, M.D.Brux., L.R.C.P.Lond.; W. Selby, D.S.O., Captain, I.M.S., L.R.C.P.Lond.; T. H. Foulkes, Captain, I.M.S., L.R.C.P.Lond.; J. M. G. Swainson, L.R.C.P.Lond.; T. Perrin, M.B., L.R.C.P.Lond.; E. Taunton, M.B., L.R.C.P. and D.P.H.Lond.; C. B. Thomson, L.R.C.P.Lond.; R. A. Walker, M.B., B.C.Camb., L.R.C.P.Lond.; C. Killick, M.B., B.C.Camb., L.R.C.P.Lond.; C. I. Graham, L.R.C.P.Lond.; C. E. Lakin, M.D., L.R.C.P.Lond.; R. V. Dolbey, M.B., B.S.Lond.; G. F. D. Smith, M.A., M.B., B.Ch.Oxon., L.R.C.P.Lond.; O. W. Richards, M.D., B.Ch.Oxon., L.R.C.P.Lond.; H. Pierpoint, L.R.C.P.Lond.; B. J. Ward, L.R.C.P.Lond.; M. T. Williams, M.B., L.R.C.P.Lond.; W. W. James, L.D.S.Eng., L.R.C.P.Lond.; O. F. H. Atkey, M.B.Lond.; W. L. M. Goldie, L.R.C.P.Lond.; T. Guthrie, M.B.Camb., L.R.C.P.Lond.; H. B. Mylvaganam, L.R.C.P.Lond.; F. S. Kidd, B.A., M.B.Camb., L.R.C.P.Lond.; L. Noon, B.C.Camb., L.R.C.P.Lond.; J. D. Cooke, M.B.Melb., L.R.C.P.Lond.; A. C. Hudson, M.B.Camb., L.R.C.P.Lond.; F. W. Daniels, L.R.C.P.Lond.; T. Bates, L.R.C.P.Lond.; T. B. Henderson, M.A., M.B., B.Ch.Oxon., L.R.C.P.Lond.; S. C. Allen, M.D.New Zealand, L.R.C.P.Lond.; J. Dundon, M.B., B.Ch.R.U.I.; F. W. Ellis, M.B., Ch.B.Aberd.; E. M. Pilcher, D.S.O., Major R.A.M.C., M.B., B.C.Camb.; A. F. Hamilton, M.D., L.R.C.P.Lond.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

VOLUNTEER MEDICAL ASSOCIATION—CHALLENGE SHIELD COMPETITION.

The annual competition for the Challenge Shield of the Volunteer Medical Association took place at Wellington Barracks on June 17th, in the presence of a good many spectators. After a keen competition, the 2nd V.B. Royal Fusiliers came out first, for the second time in succession and the sixth altogether. They were closely followed by the 1st V.B. Royal Fusiliers and the Cadet Battalion of the King's Royal Rifle Corps. At the conclusion, Surgeon-General Keogh, C.B., Director General A.M.S., addressed the teams and presented the badges to the winners. The arrangements were made by Brigade-Surgeon-Lieutenant-Colonel Thompson in the absence through illness of Captain Montgomery-Smith, the Honorary Secretary.

INDIAN MEDICAL SERVICE.

PRIVATE PRACTICE.

R. L. writes: Allow me to add my personal experience to the testimony of private practice among civil surgeons in India. I have been about seven years in India, and I have held appointments both in head-quarter towns and in the districts, yet my total private practice is embraced in the following cases: (1) One case of midwifery (in the case of a European lady). Rs 100; (2) one case of dyspepsia (in a native), Rs.5; (3) one case of incurable cancer (in a native), Rs.16; (4) a few certificates and insurance examinations, about Rs.50 in all.

VOLUNTEERS.

UNIFORM OF REGIMENTAL MEDICAL OFFICERS.

W. C. C.—The uniform described has long been out of date. Regimental Medical Officers of Volunteers wear the uniform of their corps, except that in full dress they wear the Departmental (Medical) belts (black leather with silver lines) and sword knot. When the other officers wear the Sam Browne belts they will also wear them. Commanding officers of corps cannot alter the uniform without authority.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CRIMINAL APPEALS.

The full text of the Criminal Cases (Reservation of Points of Law) Bill, as amended in the House of Lords, has recently been published, and it is probable that it will eventually become law in a form closely akin to that in which it will be presented to the House of Commons for consideration. The object of the measure is to provide a remedy for a party aggrieved by the refusal of a judge to state a case. It has always been a defect in the administration of the criminal law that if the chairman at quarter sessions, the Recorder of a borough, or even a judge of the High Court refuses to state a case upon a question of law raised at the trial, this refusal is absolute and cannot be impugned. Thus, suppose counsel for the prisoner takes the objection that certain evidence is inadmissible, the judge overrules the objection and allows the evidence to be given. After verdict found, counsel asks the judge to state a case for the consideration of the Court for Crown Cases Reserved—a court which is usually composed of six or seven judges of the King's Bench. If the judge refuses to state a case his refusal is final. One example may be given of the kind of point which it is sometimes desired to bring before the Court for Crown Cases Reserved. In a case which was heard not long since at assizes in the country a woman was charged with child murder. Evidence was tendered on the part of the prosecution and was admitted to the effect that a box containing the bodies of several other children was found in the prisoner's house. The question of the admissibility of such evidence ought certainly to have been brought to a higher court. The Bill now before Parliament is drafted with this object; but it contains the wise provision that if the court consider that no miscarriage of justice has in point of fact occurred, notwithstanding that they are of opinion that the question of law should have been decided in favour of the person convicted, they may allow the conviction to stand. This will prevent the escape of an obviously guilty person on a merely technical ground. We recall a case in which an objection was taken to an indictment because the date of the alleged offence was written in figures and not in words. The judge refused to amend the indictment, and an application was formally made to the King's Bench for an order that the conviction should be quashed. In this case the appeal failed; but it is an example of the kind of frivolous objection which was formerly taken.

A CHARGE OF NEGLIGENCE.

At the Isle of Wight County Court, holden at Newport, on June 7th, His Honour Judge Gye heard the case of Wood *v.* Bailey, which involved a charge against a medical practitioner. Mr. Minton Senhouse, instructed by the Medical Defence Union, appeared for the plaintiff and Mr. John Marsh for the defendant.

It appeared that on February 16th, 1903, the plaintiff, Dr. G. Benington Wood, who practises at Sandown, was called in to see the defendant's son, who was suffering from pleurisy. He attended the patient three or four times a week down to March 12th. On this day he was hastily summoned, and found that the lad had had a bad night, and that his parents were in a state of considerable anxiety. The plaintiff continued his visits daily down to March 27th, when Dr. Ross, of the Royal National Hospital for Consumption at Ventnor, was called in consultation with the plaintiff. He found that the previous treatment was correct, and recommended that it should be continued with certain modifications, in consequence of the affection of the lung. The plaintiff continued his visits until April 10th, on which date, as the patient got no better, he suggested that a London physician should be summoned. The defendant demurred to this, and suggested Dr. Barker, of Sandown; but before the plaintiff could arrange a consultation with Dr. Barker, the defendant intimated that he did not wish the plaintiff to attend his son any more. Since then he had from time to time sent in his list of fees, but as only £3 3s. was paid, he now brought this action to recover £13 1s. The defence was that the plaintiff's treatment was so altogether wrong that he was not entitled to any fees. It was alleged, amongst other things, that he had wrongfully subjected the defendant's son to the open-air treatment, and that he had failed to discover that the patient was suffering from empyema.

The PLAINTIFF, in giving evidence, said that he had tapped the chest and had drawn off a small quantity of clear fluid. He had seen no traces of pus. The treatment which he had adopted had been approved by Dr. Ross.

Dr. WARD COUSINS, of Portsmouth, Dr. ROSS, and Dr. TURNER, Medical Officer of the Royal Isle of Wight County Hospital, Ryde, all gave evidence to the effect that the plaintiff's treatment of the case was correct.

The DEFENDANT, in his evidence, said that the open-air treatment was not adopted until after Dr. Ross had seen his son. After the plaintiff left an operation was performed, when a considerable quantity of pus was removed.

Dr. COWPER, who performed the operation, said that he could not give any idea as to how long the pus would take to form. He would not criticize the treatment to which the patient had been subjected. He attended for some time.

Dr. HAMMOND of Shanklin was also called for the defendant.

His HONOUR, in giving judgement, said it was not sufficient for one who was sued for fees to allege that the medical man did not cure the patient, but there must be proved some want of skill or negligent act or omission to disentitle to fees. It was not said in this case that the plaintiff was generally unskilful, but that he adopted a course which was improper

under the circumstances, and he (the Judge) had no evidence before him on which he could reasonably find there was anything in the condition of the patient which necessitated any other treatment than that applied by plaintiff up to the date of the change of medical attendant, and he could come to no other decision after hearing the evidence of Dr. Cowper. Before a charge of that kind could be substantiated against a medical man, evidence of negligence must be brought home very closely to the doctor and be of such a character that no ordinary or reasonable man could possibly doubt that it had a good and solid foundation. He characterized the case as involving a serious question for medical men, and expressed a hope that his judgement would convey to the public generally the kind of case in which they might or might not hope to defeat a medical man's claim for his fees. The case had not been made out. His Honour gave judgement for plaintiff with costs on the B scale.

RELATIONS WITH HOMOEOPATHS.

SMALL WALKS.—Differences of opinion exist in the profession as to the relations to be maintained with homoeopaths, but it is well known that consulting surgeons commonly meet them and operate upon their patients, so that there is precedent for our correspondent giving an anaesthetic if required by a homoeopathic surgeon.

SUPER-SESSION.

TORO.—(1) B. had a right to make it a condition of his visit that he should not be regarded as A.'s *locum tenens*, but it was unneighbourly to do so. There is, of course, a great discrepancy between the allegation that B. refused to attend as A.'s substitute and the statement that B. told A. that he had always intended to regard the visit as paid for A., and B.'s subsequent visit to the patient's house to complain that he had not been allowed to retain the case. (2) If B. visited only upon this condition he could not be expected to hand over the case. (3) Under the circumstances B. would not communicate with A. (4) B.'s conduct in the first instance was unneighbourly, and his subsequent call after A.'s return home to insist upon his right to retain the patient was unfortunate. (5) We do not think there is anything left for A. to do beyond paying B.'s fees.

SMALL WALKS writes: A. and B. were general practitioners in the same town, but B. sells his practice and leaves. After B. has left, A. is asked to attend a case he has seen in consultation with B., and he asks whether he should be right in accepting it?

*** The consultation "taboo" must not be made too strict. We should not be inclined to insist upon its extending beyond the case of B. himself. When a practice is sold the patients are free to choose a new medical attendant, and we do not think that A. need feel that he is precluded from attending any of those who may prefer him.

C. L.—(1) A practitioner who undertakes to see a patient during the absence of a colleague is bound to restore the patient to his colleague's care on his return. (2) If the patient desired the practitioner in attendance to continue, and he in defiance of ethical rules did so we do not think the superseded practitioner could establish a pecuniary claim against him, nor do we think that such a claim would be allowed as a set-off against money borrowed. His offence is a breach of faith for which the law affords no remedy, but it could be dealt with by the Ethical Committee of the local Division of the British Medical Association.

RELATIONS WITH CHEMISTS.

J. S. D.—(1) We should not advise our correspondent to insist upon the publication of the disclaimer unless he can supervise its wording, and we have some doubt whether the editor of the newspaper would consider the matter of sufficient public interest to publish the letter. The proper place for the correction is in the next edition of the directory. (2) We would remind our correspondent that it would be absolutely essential to any charge of collusion to prove that there was a "corrupt" motive, and the evidence on this head would have to be clear. If this were forthcoming, the proper body to consider such a charge would undoubtedly be the General Medical Council, but the evidence might be laid before the Central Ethical Committee of the British Medical Association, which would, no doubt, undertake to obtain a legal opinion as to the sufficiency of the evidence tendered. We feel sure that no responsible body would maintain that a medical man must not recommend a chemist or a chemist recommend a medical practitioner; both must be done daily on perfectly legitimate grounds.

ARRANGEMENTS WITH CHEMISTS.

TORO writes: In the BRITISH MEDICAL JOURNAL of June 10th you write—"A practitioner may charge his patients an inclusive fee and send them to a chemist to dispense the prescriptions for him, or the practitioner may have an arrangement with the chemist by which he is to charge the patient according to a fixed scale: to either of these plans there can be no objection." Does not the truth of the last sentence depend on the respective character of practitioner and chemist? The following is a fact: A practitioner (A) and several local *confrères* are called on by a chemist who has just opened a shop with the request that they will do a prescribing instead of a dispensing practice. They regretfully fail to see their way to changing their previous custom. They hear from patients who are customers of this chemist that he frequently complains in his shop that the local doctors do not prescribe through him. They hear that he approaches the other local chemist with the suggestion that the two shall combine to "run a prescribing doctor," but that the second chemist declares against it. A new practitioner takes a house near the chemist's shop and prescribes only, sending his patients to the first chemist. A hears from several patients that when shopping at the chemist's he has advised them to call in B., also that patients of his going to the chemist's shop for small ailments have been advised to "go on" to B., without any inquiry as to their own doctor. A. writes to both the chemist and to B., remonstrating against these advices to his patients, and suggesting to the chemist that he shall, and to B. that he shall ask the chemist to, restrict his recommendations of B., to such persons as have not already a doctor of their own choice. The chemist replies that A must be misinformed, which is not the case. B. replies that "he is not aware of having attended any patients of A. who were satisfied with A.," but makes no reference to the touting of the chemist. It will scarcely be contended that there is no objection to such a plan as this, but I suppose nothing in the the way of prevention is possible.

*** The case related does not really conflict with the opinion expressed, which did not in any way contemplate that the arrangement between the chemist and the medical man should be an exclusive one. As medical men who dispense their own medicines are in a sense rivals of dispensing chemists, it may be that the interests of the latter will induce them to favour those practitioners who do not dispense, but there is no means of restraining them from recommending a non-dispensing medical man. The suggestion that the chemist should be told not to recommend the medical man, or that the latter should tell the chemist not to recommend patients to him, is, we fear, unpracticable.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

CERTIFICATES OF PROFICIENCY IN VACCINATION.

UNDER Article 2 of the Vaccination Order, 1898, a medical practitioner, before he can enter into a contract with a Board of Guardians for public vaccination, is required to produce a certificate of proficiency in vaccination. If such a certificate had not been obtained previously as a condition of obtaining a registrable diploma or degree, the practitioner was under the necessity of obtaining a certificate from a person authorized by the Local Government Board, and could only do so after passing through a course of instruction as well as submitting to examination. This provision was a source of inconvenience to practitioners who had taken a registrable qualification from an examining body at a date when that body did not require the production of a certificate of proficiency in vaccination. It was represented to the Board that it was a hardship to require a medical man who, as the result of experience, was fully conversant with the practice of vaccination, to devote a considerable time to receiving instruction thereon, and the Board has consequently issued a new order amending Article 2 of the Vaccination Order, 1898, as follows:

Provided that a certificate of proficiency in vaccination may be granted after examination only, and without a preliminary course of instruction, by a person whom We shall have authorized to act for the purpose—

(*a*) To any registered medical practitioner who possesses a diploma, licence, or degree conferring the right of registration under the Medical Acts, and granted by an examining body in England and Wales or Scotland prior to the date at which the examining body first required, as a condition of obtaining the diploma, licence, or degree, a certificate of proficiency in vaccination given by a person authorized by Us to act for the purpose: and

(*b*) To any registered medical practitioner who possesses a diploma, licence, or degree which confers the right of registration under the Medical Acts, and which has been or may be granted by an examining body in Ireland, before the First day of January, One thousand nine hundred and six.

In a covering letter the Board gives the following table of the dates at which the various examining bodies in England and Scotland may be regarded as having required certificates of proficiency in vaccination from candidates for a diploma or degree:—

Examining Body.	Date.
University of London	17th June, 1868.
Royal College of Physicians, London	10th April, 1876.
University of Cambridge	3rd June, 1877.
University of Edinburgh	1878.
Royal College of Surgeons, England	1st May, 1877.
University of Durham	Since 1886.
Society of Apothecaries, London	1st July, 1887.
Royal College of Physicians, Edinburgh, Royal College of Surgeons, ,, Faculty of Physicians and Surgeons, Glasgow	1st January, 1897.
University of Oxford	December, 1895.
,, Aberdeen	1st May, 1896.
,, St. Andrews	19th April, 1897.
,, Glasgow	Since 1892.
Victoria University, Manchester	From commencement.
University of Birmingham	,,
,, Leeds	,,
,, Liverpool	,,

CARE AND CONTROL OF IDIOTS AND EPILEPTICS.

THE Royal Commission on the Care and Control of the Feeble-minded held a further meeting on June 9th, when evidence was given by the Hon. Maude Stanley, a member of the Metropolitan Asylums Board, and Chairman of the Subcommittee for its Home for Feeble minded Girls, and by Dr. A. F. Tredgold, Research Scholar of the London County Council in Insanity and Neuropathology, and Physician to the Littelton Home for Defective Children, at Guildford.

Miss STANLEY thought that great improvement had been brought about by the special schools for defective children provided by the late London School Board. She was satisfied that feeble-minded children could be greatly improved in manual work and the girls made into good domestic servants, but was strongly of opinion that these children could not be sufficiently developed to understand how to protect themselves or to be safe if sent out alone into the world. She saw no alternative but to make public provision for the permanent detention, under strict regulations, of the feeble-minded. She believed that the small homes were very suitable for the younger children, but thought that as soon as they were old enough they should be taught domestic and manual work in industrial colonies. She believed that if worked on a sufficiently large scale these colonies would prove self-supporting, at any rate to a certain degree.

Dr. TREDGOLD divided amentia into two classes—primary, in which the condition was the result of morbid heredity, and secondary, in which it was the result of a disease or accident to the brain of a patient. He placed 90 per cent. of all classes of mental defect under the first heading. In 150 cases of amentia in which he personally elicited the family history for three or four generations, there were 1,269 children in the 150 families. Of these 456 were said by the parents to be mentally and bodily healthy, while 813 were socially unsatisfactory. He thought that the view that all patients suffering from whatever degree of mental defect should be subject to permanent detention was theoretically correct, but he doubted the possibility of applying this treatment to those who were merely feeble-minded. He thought that it would be better and more economical if idiots were removed from asylums and special institutions altogether and were relegated to buildings of a cheaper kind more suited to their needs. With regard to provision for imbeciles, these patients had sufficient intelligence to do a certain amount of useful work under direction; therefore, in his opinion, their requirements would be best met by means of permanent detention in farm or industrial colonies. As to provision for the feeble-minded, the providing of suitable training, followed where necessary by supervision or detention, afforded the only satisfactory means of dealing with that class. The requirements of idiots and feeble-minded persons differed much from those of lunatics, and a permanent commission to deal with the questions involved might be established with advantage on the lines of the Lunacy Commission.

THE CONDUCT OF AN AUTOPSY.

AT a meeting of the Battersea Borough Council on June 7th, reported in the *Wandsworth and Battersea District Times*, Councillor Dr. McMANUS drew attention to the record of inquests held by the Coroner for South-West London, Mr Troutbeck, within the area of the borough, in which there appeared one of cerebro-spiral meningitis or "spotted fever." When this alleged case was reported some weeks ago all London, Dr. McManus stated, was placarded with announcements that cerebro-spinal meningitis had occurred in Battersea and people were frightened. This being so he wished to ask the Medical Officer of Health whether the brain and part of the spinal cord of the boy who had died was sent to the Clinical Research Association for examination, and if so whether the organism of epidemic cerebro-spinal fever had been found.

Dr. MCCLEARY, M.O.H., replied that the parts mentioned were sent for an examination which proved negative, no signs of the germ being found.

Continuing, Councillor Dr. MCMANUS said that in any alleged case of this disease it was of the utmost importance that a proper diagnosis should be made. He had had a great deal to do with this disease in the past, and one characteristic of it was that there was an extra amount of fluid lying between the membrane which surrounded the brain and spinal cord. In any suspected case, therefore, the proper course was to examine this fluid bacterioscopically. He desired to know who removed this fluid.

Dr. MCCLEARY having replied that he believed that the pathologist was assisted by the mortuary keeper, and that the latter removed the skull-cap, Councillor Dr. MCMANUS said that the matter had not been properly cleared up. This ought to be done by a skilled hand, and a rule of the Health Committee said that the mortuary keeper was not to do it. There was an abscess in another part of the body, microscopic examination of which would have shown that the meningitis found was of another sort than that stated, but this was not carried out. The fluid in which the organism of epidemic cerebro-spinal meningitis might have been expected to be found was allowed to drain away, the brain and spinal cord in which they were not to be found being roughly removed. He wished to know whether there was any of the fluid remaining when the medical officer saw the body.

Dr. MCCLEARY having replied that when he arrived the skull had been opened some time and there was none of the fluid left, Councillor Dr. MCMANUS moved that the matter should be referred to the Health Committee for consideration, and to this the Council agreed.

THE PREVENTION OF QUACKERY.

THE following ordinance has recently been issued by the authorities of Minneapolis:

"Every person who shall treat, attend, or visit for the purpose of treating with or without physical agencies any other person who is sick or affected with any contagious or infectious disease, such as Asiatic cholera, whooping-cough, yellow fever, small-pox, scarlet fever, measles, tuberculosis, diphtheria, membranous croup, typhus or typhoid fever, within said city, there being no regularly-licensed physician in attendance, shall, within twenty-four hours after the first treatment, attendance, or visit, as aforesaid, report in writing to the Department of Health of said city the existence of such disease, the date of its appearance, and the name and address of the person affected therewith, and every person who shall so treat, attend, or visit as aforesaid any other person who is sick with any such disease, shall be presumed to have and possess such knowledge of the characteristic symptoms of said contagious or infectious diseases as is commonly possessed by physicians regularly licensed to the practice of medicine under the laws of the State of Minnesota."

This ordinance is an excellent trap for the quack, who must either confess his inability to deal with infectious diseases or run the risk of punishment for failure to notify their existence. The action taken by Minneapolis furnishes a useful hint to our own public authorities.

VACCINATION AWARDS.

NO. 3 DISTRICT.—Awards to public vaccinators are made under Section v of the Act of 1867, which stands unrepealed by the Consolidated Act of 1898. No change in the method of award has therefore been made, except that considerable importance is now attached to the aseptic character of the work. The inspectors note keenly any arms which show scars suggesting suppuration. Other points considered are "insertional" percentage of success and the general numbers. Only primary vaccinations of infants under 12 months are considered. The inspections are made at such irregular intervals that an apparent discrepancy in the payments is frequently introduced. Our correspondent might write privately to the inspector who inspected his work.

AN ASSISTANT AS PUBLIC VACCINATOR AND POOR-LAW MEDICAL OFFICER.

CANCRUM.—The appointment of an assistant to be public vaccinator and district medical officer cannot be recommended on public grounds; but the responsibility of the appointment rests with the Board of Guardians of the district. Our correspondent can hardly be in a position to prove that the appointment was made solely on the principal's recommendation. It may be that this gentleman was the only practitioner resident in the area.

VACANT POOR-LAW MEDICAL APPOINTMENTS.

UNION asks: In the event of any medical man who holds the appointments of parish medical officer and public vaccinator giving up his practice and resigning these appointments, is it in order for the Board of Guardians to appoint to the vacant posts the gentleman who succeeds to his practice without the posts in question being advertised or their vacancy being made public when there are more medical men than one resident in the district?

*** It is not necessary to advertise vacant Poor-law medical appointments, but if the guardians decide to fill up these appointments without advertising them as vacant, they can only do so after due notice of such intention has been given. It will suffice if notice is given at either one of the two ordinary meetings of the Board next before the appointment is made.

OBITUARY.

FREDERICK JAMES GANT, F.R.C.S.ENG.

MR. F. J. GANT, who died at his residence in Connaught Square on June 6th, was in his eightieth year, having been born in 1825 at Kingsland, and, as he himself has recorded, "two months before he was due." His father was Lieutenant-Colonel John C. Gant. Early in childhood young Gant, being of puny body and weakly health, was transplanted to Eastbourne, and thence to Hastings, where he acquired an intense love of nature and eventually more than average strength. Coming back to London, he was educated first at King's College School, and from the age of 16 onwards at University College. Owing to the failure of his father, Mr. Gant, who became M.R.C.S. in 1849, found himself at first in straitened circumstances; but, his financial condition improving, he took rooms in Old Cavendish Street and began practice in 1852 as a consulting surgeon. He first lectured on physiology, and soon afterwards on anatomy also in the Hunterian School of Medicine, Bedford Square; on its closure he migrated with the students to the Royal Free Hospital, which, however, was unable to obtain recognition as a school from the Royal College of Surgeons, as its museum of anatomy and pathology was insufficiently equipped. Consequently the students, about fifty in number, were in 1854 transferred to the Middlesex Hospital, whilst Mr. Gant remained as Surgeon to the Royal Free Hospital. For the last year of the Crimean war he was Civil Surgeon in the military hospitals in the Crimea and at Scutari, and returned in May, 1856, after severe illness.

In the following year he was struck with the "suffocating sighs of monstrous obesity" at the Smithfield Club Cattle Show; and purchasing at various butchers' shambles, where the prize beasts were subsequently slaughtered, their hearts, livers, etc., he demonstrated that the tissues had largely undergone fatty degeneration, and that the prizes were given for bulk and weight of fat, and not according to the quality of the meat. For this report he received letters of thanks from the Prince Consort, the Duke of Richmond, and other leading exhibitors and breeders. About 1877 he became associated with two remarkable pedestrians, E. Payson Weston (from Canada) who walked 500, 550, and even (on one occasion) 600 miles in six days, and William Gale (from Wales) who covered 1,000 and 1,500 miles, and even upwards in distances of a quarter of a mile every quarter of an hour, or every ten minutes, by day and night. He looked after both these athletes during their public performances.

Mr. Gant wrote many books. His work on *The Principles of Surgery: Clinical, Medical, and Operative*, was published in 1864, and in two later editions. The 1871 edition contained the earliest notice of the antiseptic treatment to be found in any work on surgery; it was written from monographs sent by Professor Lister to the author at the latter's request. Mr. Gant also wrote *Diseases of the Bladder, Prostate Gland*,

and Urethra (the fifth edition of which appeared in 1884), *The Student's Surgery* (1890), and a *Guide to the Examinations by the Conjoint Board in England and for the Diploma of F.R.C.S.Eng.*: this has seen seven editions. Other books of a different character came from his pen: *The Lord of Humanity* (1889), *The Mystery of Suffering, Our Dead Selves to Higher Things* (1892), *Perfect Womanhood* (1895), and *Mock Nurses of the Latest Fashion* (1900). The two last-named works were written during visitations of suffering, which perhaps coloured the author's perception of his environment, and led to his sweeping denunciation of an entire profession because of the few examples with which he was brought into contact. His *Autobiography* appeared in the spring of this year.

The London School of Medicine for Women became connected with the Royal Free Hospital in 1878, and Mr. Gant held the post therein of Clinical Teacher of Surgery for twelve years; upon his resignation in 1890 he received the warmest thanks of the Committee. He delivered the Lettsomian Lectures of the Medical Society of London in 1871, choosing for his subject Excisional Surgery of the Joints; was President of that Society in 1880-1, and was for two years a Vice-President of the Royal Medical and Chirurgical Society.

He married in 1859 Miss Matilda Crawshay (the Mabel Carlton in *Perfect Womanhood*), who was for forty years his devoted wife, and died in 1899. They had one male child, who succumbed in infancy. For the last ten years of his life Mr. Gant was a great sufferer, and retired from the active work of his profession, but followed assiduously his literary pursuits. As he himself wrote, "I generate uric acid as fast as Arabian trees their medicinal gum." He underwent lithotrity, large calculi were removed; and for years daily catheterism was necessary. Pneumonia was the immediate cause of death. The funeral took place on June 10th at the cemetery, Richmond, Surrey, where he was buried in the same grave as his wife, and beneath the tombstone on which he had placed the following words, "To the unspeakable distress of her husband, his age and bodily affliction debar him from ever visiting her grave, at a distance of ten miles from London."

DR. DONALD URQUHART MACLENNAN, Medical Officer of Health, Widnes, Lancashire, was born at Milton, Glen Urquhart, on April 5th, 1851. He was the second of three brothers all of whom became members of the medical profession. He received his early training at the parish school of his native place—a glen famous for its beautiful scenery and romantic surroundings. He attended arts classes for one or two sessions at Glasgow University, but his medical studies were pursued at the University of Edinburgh, where he graduated M.B., C.M. in 1878, and M.D. in 1882. For a year after graduation he acted as assistant to the late Dr. Cran of Salford. In the year 1880 he commenced practice at Widnes, and there he spent twenty-five busy years. In later years he became medical officer of health for the newly-formed municipal borough, and those who remember Widnes twenty years ago will be ready to appreciate how much the chemical town owes to his energy and skill. Dr. Maclennan's professional career was one of hard and strenuous work. He was an active general practitioner of the best type, and secured a large practice in the town and district. A Highlander to the backbone, Dr. Maclennan was possessed of a buoyancy and exuberance of spirits that is alien to the Scoto-Celtic temperament. Good at his work, an active and vigorous personality, and generous to a fault, he was a bright, breezy companion—a man that made friends and kept them. Deeply interested in all things Celtic, he was one of the founders and original members of the Caledonian Medical Society, and was president of the society in the year 1884. He was also chiefly instrumental in founding the Widnes and District Medical Society in 1895, and he was their first president. He often referred with pride to the fact that he had taken an active part in founding and establishing two distinct medical societies—one connected with his fatherland, the other with the town of his adoption. Eight years ago he broke down with a serious attack of pleurisy, which developed into empyema. From this he made a wonderful recovery; but about a year ago hepatic troubles manifested themselves, and despite the most careful nursing and all that his medical friends could do for him, they pursued their relentless course to the fatal end. He faced the inevitable not only with fortitude, but with a cheerfulness, brightness and patience that were marvellous, particularly in a man of his untiring and indomitable energy. He was attended in his illness by his friend Dr. Logan of Liverpool. The funeral took place on June 7th, and the ceremony was attended by the Mayor, Corporation and officials, by many hundreds of the townspeople and by numerous sorrowing friends from a distance. Dr. Maclennan is survived by his widow and five of a family. His eldest son is studying medicine at Edinburgh University.

WE regret to announce the death of Dr. W. C. LUCEY, at the age of sixty-four, on June 14th, in a nursing home in London, shortly after the completion of a severe surgical operation. He had been ill for eighteen months, and during the last few weeks had endured very severe pain. Dr. Lucey, who had practised in many suburban districts of North London, was a thoughtful, painstaking practitioner, much respected, having a handsome face and cheery voice and manner; it was no wonder, therefore, that he speedily became the friend of those who consulted him, or that his friends were staunch and many. He was the eldest son of Mr. William Lucey, shipowner, of Bermondsey, where he was born in January, 1841. He received his early education at King William's School, Isle of Man, and his medical training at Guy's Hospital. He became M.R.C.S.Eng., L.M., and L.S.A. in 1863; and graduated M.D. and C.M., at Aberdeen, in 1864. For eight years he practised in Upper Holloway; then became Resident Physician (three years) at the Ben Rhydding Hydropathic Establishment, Ilkley, Yorkshire. Afterwards he practised at Enfield for fifteen years and for seven years at Hampstead. He retired three and a half years ago, and had subsequently resided at Haslemere, Surrey. Dr. Lucey married in 1877 Eleanor, the second daughter of T. R. Harding, Esq., J.P., D.L., of Leeds; and has left his wife, five sons and two daughters to mourn his death. He was buried at Haslemere on June 17th, and was followed to the grave by his widow and children and by relatives and friends, amongst the latter being some of those whose friendship with him dated from their student days in 1860-64.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Surgeon-General A. von Wegner, formerly private physician to the late Empress Frederick; Dr. Eduard Croner, physician to Prince George of Prussia, aged 67; Dr. T. Krieger, formerly Chief of the Medical Department in Alsace-Lorraine; and Dr. R. M. King, sometime lecturer on physiology and clinical medicine in the St. Louis College of Physicians and Surgeons, and afterwards one of the founders of the Beaumont Medical College, in which he occupied the chair of Materia Medica and Clinical Therapeutics, aged 62.

HOSPITAL AND DISPENSARY MANAGEMENT.

EXTENSIONS OF TOTTENHAM HOSPITAL, N.

THE Lord Mayor of London, who was accompanied in state by the Sheriffs and the Master of the Drapers' Company, visited Tottenham on June 20th to lay the foundation stones of the extensions to the present hospital. They were received by the Chairman of the Hospital, Sir Francis Cory Wright, Bart., and by representatives of the Board of Management and of the honorary medical staff. The extensions include a north wing to the front of the hospital consisting of a residential block in its lower self-contained part for the resident, medical, and surgical officers, and in its upper part for a portion of the nursing staff; a block to the rear of the hospital consisting of two new wards and an operating theatre; of the enlargement of two of the existing twelve-bed wards so that they will hold twenty-four beds; of a new x ray and electrical department, which is largely owing to the generosity of one of the honorary surgical staff; and of a pathological department containing a spacious museum and a clinical and pathological laboratory.

Before the Lord Mayor laid the foundation stone of the front residential block, Sir F. Cory Wright said that when six years ago the hospital was reconstructed it was in a languishing condition, with only 17 patients for its 73 beds. Since then the needs of the district had increased to such a great extent that it had become absolutely necessary to increase the accommodation. It was his belief that one day the institution would become a second London Hospital. The King Edward's Fund and the Drapers' Company had come forward with most generous support, and the Committee looked forward with confidence to raising the sum of £6,000, which would enable them to bring up the number of beds to 130.

After the Lord Mayor had laid the stone, with a silver trowel presented to him on behalf of the hospital by Mr. Rowland Plumbe, the architect, a vote of thanks was proposed by the Hon. Treasurer of the hospital, Mr. J. P. Beavan, and seconded by Mr. J. Cloudsley. The vote was acknowledged by the Lord Mayor, and for the Sheriffs by Sheriff Vesey Strong.

The second stone, that of the foundation of the block in the rear of the building, which is to be called the Drapers' Block, was laid by Mr. J. Tolhurst, the Master of the Drapers' Company, with a silver trowel handed to him by the architect. The Chairman of the hospital stated that of the £20,000 required for the present extensions the Drapers' Company had given £6,000. A vote of thanks to the Worshipful Master and Court of Assistants was proposed by the Chairman of the Medical Committee, Mr. John Langton, F.R.C.S., and seconded by Mr. Charles Churchill, Vice-Chairman of the hospital.

After the ceremony the guests, who were present in large numbers, inspected the wards of the hospital, and walked through its grounds, which extend to more than three acres.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

OLD PRACTITIONER would thank in anticipation any teacher of chemistry who would recommend to him any book or books which would expound as lucidly as possible the principles of chemistry; one in which illustrative examples are given and worked out preferred, say such a book as Miller's *Chemistry* of thirty years ago.

TEXTBOOKS OF SURGICAL ANATOMY.

J. H. H asks: What is the best textbook to use for the Surgical Anatomy required for the M B., B.S Lond.? The textbook is for one who has not kept up his anatomy since passing the final "Conjoint" ten years ago, and who has not much time to devote to this branch of the examination.

*** Two books adapted to the purpose are a treatise on *Applied Anatomy*, by E H. Taylor, M.D. (London: Charles Griffin and Company, 1904, 30s.), and *Surgical Applied Anatomy*, by Sir Frederick Treves, Bart., K.C.V.O., C.B., new edition (London: Cassell and Company, 1901, 9s.).

DISEASES OF CHILDREN.

KENT asks the two following questions: (1) An apparently healthy infant, aged 4 months, frequently passes urine so alkaline and ammoniacal that the mother can hardly s and the smell. The samples sent have all been acid. Scrupulous cleanliness is observed. Our correspondent asks for an explanation of this. (2) The operation of slitting up the prepuce for phimosis leaves a very ugly, awkward, posterior flap, necessitating in the adult further operation; if done in infancy, what is the result likely to be as the child grows up?

*** From the urine being passed into the diapers, little is known about alkaline conditions of it in infancy. It is improbable, however, that urine acid when passed could so rapidly change into the ammoniacal condition described if strict cleanliness is observed. As the occurrence is said to be frequent, our correspondent should have the opportunity of obtaining a sample where alkalinity is present, and submitting it to careful chemical and bacteriological examinations. Further details, too, would be necessary before suggesting any reasonable cause. With regard to the second query, if the operation is done in infancy the posterior flap usually dwindles in the course of time, and no second operation is necessary. Occasionally, however, such a second operation has been thought desirable.

PRESERVATION OF MILK.

BOOMERANG asks: (*a*) What is the minimum amount of (1) boracic acid, (2) formalin which is necessary to preserve a pint of milk? The New South Wales law allows one-thousandth part of a grain per pint. Is that amount likely to have any effect whatever? (*b*) What is the best way of preserving milk without the use of preservatives? (*c*) How long will milk keep in a tropical climate when (1) sterilized (2) pasteurized, or (3) frozen? In the town where the inquirer lives most of the milk comes by train from stations about 100 or more miles away, and is frequently so churned up by the journey that a portion of it is converted into butter before arrival. The local milkmen have no conveniences or appliances for pasteurizing, sterilizing, or freezing the milk, and as they are not allowed to use preservatives, they are at a loss what to do.

*** (*a*) Experiments have shown that boric acid (1 in 2,000) and formaldehyde (1 in 50,000) are effective preservatives for milk for twenty-four hours. Very small proportions, such as that mentioned by our correspondent, probably exert a slight deterrent effect on the multiplication of bacteria in milk. (*b*) Refrigeration and pasteurization. (*c*) Sterilized milk will keep almost indefinitely; pasteurized and "frozen" milk only for a few weeks, and sometimes in the tropics only for a few days.

ANSWERS.

C.—Of the smaller books on dentistry, *Dental Surgery*, by H. Sewill, M.R.C.S., L.D.S., fourth edition (London: Baillière, Tindall and Cox, 1901, 10s. 6d.), may be recommended.

T. W. MAY.—It is not possible to answer definitely, so much depends upon the personal equation. In some cases ex-inebriates are able to take wine at Communion without ill-effect. In other authentic cases the dormant tendency has been revived by the taste and smell. It is fairly certain than an inebriate is never cured in the sense that he can touch alcohol in any form for the rest of his life; the safest course would therefore appear to be strict abstinence under every circumstance.

LETTERS, NOTES, ETC.

A WARNING.

DR. CLEMENT GODSON informs us that a person whom he describes as a gentleman, giving the name of Mr. E. A. Lyngham, R.N., Royal Naval College, Osborne, I.W., called upon him on June 3rd, presented his card, and after some discussion as to a fee for a suggested visit to his wife, obtained the loan of a guinea, promising to repay it that evening. Not hearing any more of the matter, Dr. Godson communicated with the Commander of the College, who has informed him that nothing is known at the Royal Naval College, Osborne, of a Mr. E. A Lyngham, R.N. The name of Lyngham does not appear in the alphabetical list of the active officers of the Royal Navy and Royal Marines, or in the list of officers of the Royal Naval Reserve contained in the monthly *Navy List* for June, nor is it to be found in the alphabetical list of retired officers of the Royal Navy and Royal Marines published in the quarterly *Navy List* for April.

PUMICE STONE AS A DEPILATORY.

A CORRESPONDENT sends the following note: A lady who was at one time obliged to use a razor for the removal of superfluous hair has reported to me on the efficacy of the daily use of a smooth, dry piece of pumice stone, firmly but not heavily applied. It was recommended to her by a nurse. The method is so simple and has proved so successful in her case, after a three years' trial, that she is anxious to pass on the knowledge to others.

A METHOD FOR PRESERVING BACTERIAL CULTURES FOR CLASS PURPOSES.

DR. E. S. G. FOWLER, M.R.C.S., L.R.C.P.Lond., Senior Assistant Resident Medical Officer, City Hospital, Seacroft, Leeds, writes: Under ordinary conditions bacterial preparations are difficult to keep, and for class purposes it is often impossible for the ordinary worker to produce them at short notice. I have often obtained almost pure cultivations from time to time, and have thought that if I could only preserve them in the stage of growth at which they show more or less typical pictures it would save considerable labour, and give me a series of specimens illustrating the outlines which it is necessary or desirable for present-day students to be acquainted with. It is now some ten or twelve months since I tried the following, and I find they are still good and to all appearances the same as when made: After subculturing the purer colonies on fresh tubes and obtaining results which show the main features of particular growths, I pour on to the sloped or straight surface (streak and stab cultures) of the medium a covering some ¼ in. to ⅜ in. deep, the following preparation: Gelatine, gr. 50; formalin (40 per cent.), mxx; water (distilled), 1 fl. oz. The gelatine is dissolved in the water by heat, and when nearly cool the formalin is gently stirred in, so as to avoid air-bubble formation. Just before it sets it is poured over the growth to the depth required, and the plugs replaced and tube left in position to cool. I next cut the wool plugs level with the tube mouth, and dip the plugged end into melting white wax and so seal them. The specimen is stored preferably in a cool, dark place. The preparation, being transparent, seems to serve the following purposes: (1) If the growth is not quite pure no further growth takes place after treatment, so that the specimen is fixed with features required; (2) no growth occurs from contamination, with ordinary care; (3) being transparent it does not interfere with good viewing of the growth; (4) it checks drying of the medium for a considerable time; (5) there is little if any action on the specific colour of the growths on which I have tried it. Only one of my preparations is at all cracked, and not so as to affect the specimen. The others seem to have dried a little, but have quite a glassy surface.

FATALITIES FROM ETHYL CHLORIDE.

DR. ARTHUR G. WILKINS (Ullswater, near Penrith) writes: Dr. Luke's letter in the BRITISH MEDICAL JOURNAL of June 17th, p. 1368, is too optimistic re ethyl chloride. I have already been able to trace a considerable number of fatal administrations, but in no case can I find that the proper precautions were taken. I therefore remain a most enthusiastic advocate of ethyl chloride for extensive extractions of teeth, empyemas, curettings, low forceps cases, etc., and never travel without a few capsules in my pocket, which, encased in a covering of lint, can easily be crushed one after another as required in the bag of a Clover's ether inhaler (without detriment to good rubber or unpleasant odour); or an equally serviceable apparatus may easily be constructed on the spur of the moment out of a towel and a few safety pins to prevent a capsule coming in contact with patient's face. In conclusion, may I again ask that notes of fatal cases be sent for tabulation to me?

ERRATUM.—In the paragraph on the Contagiousness of Leprosy published last week, p. 1350, on the sixth line, for 1903 read 1893.

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THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EPITOME

OF

Current Medical Literature.

JANUARY TO JUNE, 1905.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

INDEX TO THE EPITOME FOR VOLUME I, 1905.

The Figures in this Index refer to the Number of the Paragraph, NOT the Page.

A.

Abdominal aorta, ptosis of the, 39
——— cavity, lithopaedion 41 years in, 148
Abscess of liver in typhoid fever, 123
Acephalic monster, 275
Acetone bodies in diabetics, suppression of the, 135
Adrenal substance, action of, 296
Adrenalin, action of, 47
——— note on, 9, 230
——— toxicity of, 10
——— in typhoid, 190
——— chloride in asthma, 313
——— and cocaine in surgical practice, mixture of, 306
Adrenalogenous glands, 211
Africa, West, blood parasites in, 334
Agglutination of red corpuscles, 24
Air, entrance of into veins during surgical operations, 214
Alcohol, 278
Alglave, effect of displacement of the right kidney on the ascending colon, 55
Allaria, a rare complication of measles, 195
Allen, the platinochloride test for chlorine, 36
Amenorrhoea with eye symptoms, 234
Amstad, blood agar plates and their use in obstetric practice, 327
Anaesthesia, morphine-scopolamine, 338
——— rectal, 113
——— by water injections, 339
Anaesthetic, local, stovaine as a, 384
——— spinal, stovaine as a, 240
Anascitic cirrhosis, hypertrophic, 287
Anders, J. M., cholecystitis as a complication of lobar pneumonia, 244
Aneurysm, carotid, treated by extirpation of the sac, 288
——— traumatic, treated by injection of gelatine, 228
——— popliteal, gangrene of leg after extirpation of, 340
Angeioma cavernosum of mesentery, 345
Ankylostomiasis, 283
——— leucocytosis in, 355
Antibodies, 386
Antistreptococcus serum in erysipelas, 187; in scarlatina, 346
Antisyphilitic serumtherapy, 314
Antitoxin in diphtheria, 280
——— and cobra venom, 170
——— diphtheria, 118; in its relation to toxin, 138; in epidemic cerebro-spinal meningitis, 329
Anus, cutaneous tuberculous papilloma of, 95
Aorta, abdominal, ptosis of the, 39
Apoplexy of ovary, 165
Appendectomy, treatment of the stump in, 6
Appendicitis, simulated by inflammation of Meckel's diverticulum and uterine appendages, 117; due to a fibromyoxma, 210; treatment of, 249
——— free vesicles in peritoneum, 248
——— perforating, caused by a foreign body, 130
——— and perforating ulcer of the duodenum, differential diagnosis of, 307
——— suppurative, intestinal obstruction after, 180
Appendicular pain in pneumonia, 122
Appendix, decapsulation of, 376
——— pelvic inflammation and disease of, 100; treatment of dysentery by irrigation of colon through, 298
Applani, G., constant presence of uric acid in human faeces, 333
Applani, uric acid in liquid effusions, 300
Apyretic pneumonia, 156
Arnezzi, stovaine as a local anaesthetic, 384
Arterial pressure in malarial infection, 71
Arteriosclerosis, early diagnosis and treatment of, 210
Arthritis, pneumococcal, 337; in the newborn, 371
——— pneumococcus, in infancy, 223
Arthur, W. H., treatment of dysentery by irrigation of colon through the appendix, 298
Ascites, surgical treatment of cirrhosis of liver with, 247
Aseoli, polyglobulia with enlarged spleen and cyanosis, 125
Asthma and infectious affections of the lungs, 27
——— adrenalin chloride in, 313
Atmocausis and zestocausis, 185
Atrophy of liver, acute yellow, 208
——— in puerperium, 8
Atropine in uterine disorders, 325
Aubertin, *x* rays in leukaemia, 204
Auer, rate of absorption from intramuscular tissue, 279
Ayer, J. C., antistreptococcus serum in erysipelas, 187

B.

Babler, surgery of typhoid perforation, 357
Bacilli, dysentery, differentiation of, 222
——— plague, and pneumococci, mixed infection with, 121
——— tubercle, a new extract from, and its action; morphology of, 316
Bacillus of epidemic dysentery, the specific, 50
Bacterium coli, protective action of the liver against the toxins of, 12
Baer, tuberculin in diagnosis of surgical tuberculosis, 270
Batley, J. H., cerebro-spinal fluid in epidemic cerebro-spinal meningitis, 157
Baker, pelvic inflammation and disease of appendix, 100
Balp, Stefano, experimental thyroidism, 152
Banti's disease, 154
Baracj, Von, treatment of prolapsed and gangrenous haemorrhoids, 375
Bard, clinical forms of gastric carcinoma, 178
Barium chloride, therapeutic efficiency of, 87
Barnsby, prognosis of ovarian cystic tumours, 116
Basic meningitis, posterior, 354
Bassini's operation for radical cure of hernia, modification of, 213
Bassoe, P, acute yellow atrophy of the liver, 208
Baum, J., pathology of urticaria, 137; action of adrenal substance, 296
Beauchef, hypertrophic anascitic cirrhosis, 287
Beaujard, *x* rays in leukaemia, 204
Beck, Carl, peritoneal adhesions, 359
Beer drinker's heart, 243
Bell, R. H., torsion of the Fallopian tube, 308
Belot, Roentgen rays in skin diseases, 23
Benedict, A. L., gastric ulcers, 155
Bergey, D. H., serumtherapeutics, 101
Bertolotti, M., lumbar puncture in pertussis, 209
Betagh, G., chloroform and coal gas, 257
Bibergell, E., digalen, note on, 237
Bielonovsky, the haemolysins of plague toxin, 106
Bile duct, encysted peritonitis with compression of, 266
——— tract adhesions, 323
Birth fracture of the skull, operative treatment of, 57
Bladder, signs of hernia of, 269
Blood, effect of serum injections on, 85
——— in milk, intramammary haemorrhage, 163
——— parasites in West Africa, 334
——— pressure and milk diet, 35
——— transfusion of heterogeneous, 242
——— agar plates and their use in obstetric practice, 327
Blum, F., ductless glands and internal secretion, 245
Boeck, C., hereditary syphilis in the second generation, 29
Bokenham, action of the liver on diphtheria toxin, 51
Boldt, inflammation of Meckel's diverticulum and uterine appendages simulating appendicitis, 117; ruptured interstitial pregnancy, 145
Bone in the tonsil, growth of, 159
——— cavities, chronic, iodoform-paraffin-wax filling of, 289
——— marrow in typhoid and other affections, 260
Bossi, flat-foot, 182
Bouchacourt, blood in milk, intramammary haemorrhage, 163
Boutterville, cryogenin in typhoid fever, 64
Bouveret, cholecystocele and hepatoptosis, 109
Brain tumour and trauma, 69
Braun, the specific bacillus of epidemic dysentery, 50
Breast, malignant diseases of, Roentgen rays in, 81
Brewer, G. E., operations on the kidney and ureter, 143
Broese, P., chloride of zinc, 207
Brown, Lawrason, tuberculin in tuberculosis, 364
Brunton, Lauder, action of the liver on diphtheria toxin, 51
Bull, W. T., radical cure of hernia in children, 246
Bumm, E., the serum treatment of puerperal fever, 31; treatment of sterility, 131; ligature of pelvic veins in puerperal pyaemia, 184
Bunch, *x* rays in ringworm, 104
Burdick, G. G., radiotherapeutic nihilism, 221
Burtenshaw, James H., iodine in post-operative sepsis, 281

C.

Caesarean section, is it ever justifiable in the management of placenta praevia? 133
——— vaginal, 78; in eclampsia, 215
Caffein and theocin, note on, 218
Calculi, renal and ureteral, diagnosis of, 142
Camus, perforation of tuberculous intestine in puerperium, 147
Cancer, morphology of and the parasitic theory, 368
——— gastric, clinical forms of, 178
——— of the cervix as a complication of labour, 46
——— of the Fallopian tube, primary, 60
——— of the hard palate successfully treated by radium, 56
——— in an old hydrosalpinx, primary, 362
——— of the ovary in a young woman with undeveloped uterus, 254
——— pathogenesis of, 351
——— radiotherapy in, 373
——— of the suprarenal body, malignant thrombosis of the inferior vena cava and right auricle in, 265
Cantas, lumbar puncture in enuresis, 239
Carbohydrate metabolism, 89
Carcinoma. See Cancer
Cardiac insufficiency, causes of, 3
——— irritability in tuberculosis, 25
——— and vascular complications and sequels in typhoid fever, 264
Carli, A., hernia of the ureter, 17
Carotid aneurysm treated by extirpation of the sac, 288
Carstens, vaginal Caesarean section in eclampsia, 215
Carter, W. W., growth of bone in the tonsil, 159
Catarrhal diseases of female genitals, 309
Cathcart, the action of sodium cinnamate, 86
Caudron, tuberculosis of myocardium, 88

Celluloid, use of in the preparation of orthopaedic appliances, 199
Cephaeline and emetine, 62
Cerebral puncture, 179
——— tumour, pathological sleep in cases of, 226
Cerebro-spinal fluid in epidemic cerebro-spinal meningitis, 157
——— the phosphorus content of the, 241
——— in syphilis, 385
Cerebro-spinal meningitis, 284; treatment of, 295
——— epidemic, cerebro-spinal fluid in, 157; diphtheria antitoxin in, 329
Cerf, measles in pregnancy, 251
Cervical vertebrae, unilateral dislocation of, 40
Cervix, cancer of, as a complication of labour, 46
Charteris, action of sodium cinnamate, 86
Chauffard, inequality of pupils in pleurisy with effusion, 194, 301
Chelnisse, L., the fifth disease, 317
Chemical changes in epilepsy, 110
Chidichimo, uterine contractions, 183
Chiesi, morphology of the tubercle bacilli, 316
Children, haemorrhoids in, 30; radical cure of hernia in, 246; lesions of the digestive organs in typhoid fever in, 302
——— school, optic and ocular factors in the etiology of scoliosis of, 374
Chloride of zinc, note on, 207
Chloroform and coal gas, 257
——— anaesthesia, hedonal and, 129
Cholecystitis as a complication of lobar pneumonia, 244
Cholecystocele and hepatoptosis, 109
Cholelithiasis and the circulatory apparatus, 139
Cholera cultures, 369
——— immunity against, 153
Choline, platinochloride test for, 36
Chorea, exercises in, 206
Christian, pathology of fat and fatty degeneration, 172
Cijnozzi, surgical treatment of cirrhosis of liver with ascites, 247
Cippolina, serumtherapy in syphilis, 66, 314
Circulatory apparatus, cholelithiasis and, 139
Cirrhosis, hypertrophic anascitic, 287
——— of the liver, tuberculous, 91; with ascites, surgical treatment of, 247
Citarin in uric acid diathesis, 220
Clapp, H. C., dangers of the microscope in the early diagnosis of pulmonary tuberculosis, 72
Clarke, copious water-drinking in treatment of typhoid fever, 236
Clerici, E., theocin and caffein, 218
Coal gas and chloroform, 257
Cobb, J. O., the common house fly and tuberculosis, 318
Cobra venom and antitoxin, 170
Cocaine and adrenalin in surgical practice, mixture of, 306
Coeliac parotitis, 77
Cohn, acute yellow atrophy of liver in puerperium, 8
——— H., treatment of trachoma by radium, 168
Cole, intussusception, 267
Coley, W. B., radical cure of hernia in children, 246
Colitis, muco membranous and fatal syncope, 175
Colombo, C., radiotherapy in splenomedullary leukaemia, 191
——— K., blood pressure and milk diet, 35
Colon, ascending, effect of displacement of the right kidney on, 55
Comby, haemorrhoids in children, 30
Conti, A., cholelithiasis and the circulatory apparatus, 139
Copper foil as a purifier of water, 169
Cord, spinal. See Spinal
Cornell, the mechanism of exophthalmos, 124
Coxa vara, 126
Cranium, lumbar puncture and fractures of, 212
Crile, George, surgical physiology, 111
Crocco, mesotan in rheumatism, 68
Crocq, the reflexes in hysteria, 73
Cryogenin in typhoid fever, 64; note on, 328
Cushing, Harvey, copious water-drinking in treatment of typhoid fever, 236; extirpation of the Gasserian ganglion, 321
Cyanosis, polyglobulia with enlarged spleen and, 125
Cystic tumours, ovarian, prognosis of, 116
Cysts, gaseous, of the intestine, 41
——— mesenteric, 252
——— ovarian, complicating pregnancy and labour, treatment of, 291

D.

Da Costa, operative treatment of typhoid perforation, 127
Dacryocystorhinostomy, 160
Dahlgren, treatment of intestinal paralysis, 322
Danel, cancer of the ovary in young woman with undeveloped uterus, 254
Danio, sugar in treatment of phthisis, 110
Dawson, Percy M., sodium bicarbonate in haemorrhage, 255
De Garmo, W. B., x ray treatment of tuberculous testicle, 358
Deherain, inequality of the pupils in diseases of the lungs and pleura, 26
Delagénière, surgical treatment of epilepsy, 5
Delore, entrance of air into veins during surgical operations, 214
Dermoid, ovarian, may it be malignant? 363
——— in pelvis simulating tubal pregnancy, free, 61
D'Este, S., empyema, 193
De Waele, small-pox organisms, 70
Diabetes, contagiousness of, 52
——— and laevulosuria, 335
——— treatment of, 34
Diabetics, suppression of the acetone bodies in, 135
Diet after the age of 1 year, 205
Digalen, note on, 237
Digestive organs in typhoid fever in children, lesions of, 308
——— tract, latent haemorrhage in, 176
Dimier, experimental epilepsy, 319
Diphtheria antitoxin, 118; in its relation to toxin, 138; in epidemic cerebro-spinal meningitis, 329
——— antitoxin in, 280
——— heart complications in, 37; rapid bacteriological diagnosis of, 332
——— toxin, action of the liver on, 51
Dirk, morphine-scopolamine anaesthesia, 338
Disinfection of the human skin, the possibility of, 28
Dislocation of the cervical vertebrae, unilateral, 40
Displacement of the scapula, operative treatment of, 198
Diuretic, theobromine as a, 11
Diverticulum, Meckel's, inflammation of uterine appendages and, simulating appendicitis, 117
Dock, George, Roentgen rays in the treatment of leukaemia, 49
Donath, phosphorus content of the cerebro-spinal fluid, 241
Doran, primary cancer of the Fallopian tube, 60
Douglas, Richard, is Caesarean section ever justifiable in the management of placenta praevia? 133
Drenkhahn, atropine in uterine disorders, 325
Dreuw, treatment of lupus in general practice, 83
Ductless glands and internal secretions, 245
Duenges, asthma and infectious affections of the lungs, 27
Dührssen, A, treatment of ovarian cysts complicating pregnancy and labour, 291; catarrhal diseases of female genitals, 309
Duodenum, differential diagnosis of appendicitis and perforating ulcer of, 307
Duteil, entrance of air into veins during surgical operations, 214
Duval, operative treatment of suprapatellar ruptures of the quadriceps, 141; operative treatment of displacement of the scapula, 198
Dyball, coeliac parotitis, 77
Dysentery, treated by irrigation of colon through the appendix, 298
——— bacilli, differentiation of, 222
——— epidemic, specific bacillus of, 50

E.

Ebstein, W., active principle of exodin, 365
Eclampsia, treatment of, 162
——— puerperal, thyroid extract in treatment of, 132
——— and renal decapsulation, 115
——— vaginal Caesarean section in, 215
——— vesicular mole without fetus, 33
Eczema, chronic, as a complication of senile degeneration, 336
Edgar, J. Clifton, hepatic insufficiency in pregnancy, 326
Edsall, rectal alimentation, 189
Elsberg, Charles A., iodoform-paraffin-wax filling of chronic bone cavities, 289
Emetine and cephaline, 62
Emotional jaundice, 196
Emphysema, subcutaneous, in obstetrics, 250
Empyema, 193
Encysted peritonitis with compression of the bile duct, 266
Endocarditis, acute, congenital heart disease and, 282
——— pneumococcus, 135
Enteric ulcer, surgical treatment of perforating, 16
Enuresis, lumbar puncture in, 239
Epilepsy, chemical changes in, 110
——— experimental, 319
——— surgical treatment of, 5
Epithelioma, cutaneous, x-ray treatment of, 347
Erysipelas, antistreptococcus serum in, 187
Eucaine in sciatica, 171
Exercises in chorea, 206
Exodin, active principle of, 365
Exophthalmos, the mechanism of, 124
Extrauterine fetation, treatment of the placenta in operating for, 7
Eyelids, pigmentation of in Graves's disease, 54
Eye symptoms with amenorrhoea, 234

F.

Fabre, blood agar plates and their use in obstetric practice, 327
Faeces, human, constant presence of uric acid in, 333
Fallopian tube, primary cancer of, 60; torsion of, 308
Fat and fatty degeneration, pathology of, 172
Faure, gangrene of leg after extirpation of a popliteal aneurysm, 340; curability of tabes, 366
Fedeli, pneumonic paralysis, 225
Federmann, intestinal obstruction after suppurative appendicitis, 180
Feeding in infancy, 150
Female genitals, catarrhal diseases of, 309
——— organs, whence are they infected by tubercle? 97
Ferenczi, thyroid tetany during lactation, 99
Ferrannini, tachiol as a gastric antiseptic, 84
Fetation, extrauterine, treatment of the placenta in operating for, 7
Fetus retained beyond term in uterus septus, 79
Fever, cerebro-spinal. See Cerebro-spinal
——— enteric, rupture of the muscles in, 14; cryogenin in, 64; abscess of the liver in, 123; adrenalin in, 190; copious water drinking in, 236; bone marrow in, 260; cardiac and vascular complications and sequels of, 264; pyramidon in, 297; lesions of the digestive organs in, in children, 302
——— paratyphoid, 320
——— puerperal, serum treatment of, 31
——— scarlet, urotropine in, 219; antistreptococcus serum in, 346
Fibroid, round ligament and hernial sac, 310
——— polypus in hysterectomy stump, 380
——— tumours, uterine, 232
Fibromyxoma, appendicitis due to a, 217
Fibrous swellings, subcutaneous, 58
Fifth disease, the, 317
Filariasis in the Cameroons, 352
Filatow Duke's disease, 15
Fiori, Paolo, the latero-vaginal incision in vaginal hysterectomy, 292
Fischer, Louis, diphtheria antitoxin, 118
Flat foot, 182
Flooding from rupture of circular sinus in labour, 216

Floret, citarin in uric-acid diathesis, 220
Fluorescent light treatment, 65
——— media for transillumination of the stomach, 92
Fly, common house, and tuberculosis, 318
Foisy, puerperal dangers in undetected double uterus, 203
Fournier, suppurating kidney in pregnancy, 343
Fourth disease, the, 15
Fowler, H. A., diagnosis of renal and ureteral calculi, 142
Fractures, treatment of, 4
——— of cranium and lumbar puncture, 212
Franceschi, Fr., pathological sleep in cases of cerebral tumour, 226
Frank, Jacob, incision and suture of the liver, 112
——— myasthenia gravis, 370
French, the platinochloride test for chlorine, 36
Freund, ovarian pregnancy, 253; destruction of one fetus in twin pregnancy, 274

G

Gache, youthful primiparae, 200
Galdi, F., uric acid in liquid effusions, 300; in human faeces, 333
Gangitano, mixture of adrenalin and cocaine in surgical practice, 306
Ganglion, Gasserian, extirpation of, 321
Gangrene of leg after extirpation of a popliteal aneurysm, 340
Garmo, W. B. de, x-ray treatment of tuberculous testicle, 358
Gaseous cysts of the intestine, 41
Gasserian ganglion, extirpation of, 321
Gastric antiseptic, tachiol as a, 84
——— carcinoma, clinical forms of, 178
——— disease associated with tetany, surgical treatment of, 181
——— ulcer, medical treatment of, 367
——— ulcers, 155; late results of surgical treatment of, 305
Gaucher, radioneuritis, note on, 74
Gauthier, Paul, primary tuberculous rheumatism, 285
Gazin, emotional jaundice, 196
Gelatine, treatment of traumatic aneurysm by injection of, 228
Gemmell, J. E., amenorrhoea with eye symptoms, 234
Gengou, agglutination of red corpuscles, 24
Gerber, malignant thrombosis of the inferior vena cava and right auricle in carcinoma of the suprarenal body, 265
Ghiulamila, use of celluloid in the preparation of orthopaedic appliances, 199
Glands, adrenalogenous, 211
Glitsch, R., treatment of eclampsia, 162
Gloves, use of in manual detachment of placenta, 59
Gonococcal sepsis, 108
Gonorrhoea in puerperium, 164
Gordinier, acute myelogenous leukaemia, 372
Goss, mixed infection with plague bacilli and pneumococci, 121
Gould, G. M., optic and ocular factors in the etiology of scoliosis of school children, 374
Gout, treatment of, 381
Gowdey, Annie C., acephalic monster, 275
Gradenwitz, free dermoid in pelvis simulating tubal pregnancy, 61
Graul, laevulosuria and diabetes, 135
Graves's disease, pigmentation of the eyelids in, 54
Gravid uterus. See Uterus
Griffith, J. P. Crozer, diet after the age of 1 year, 205
Grosset, Marcel, cardiac irritability in tuberculosis, 25
Gynaecological superstitions, 114
Gynaecology, modern methods of treatment in, 341

H.

Haas, mesenteric cysts, 252
Haematometra, senile, haemorrhage in, 344
Haemolysins of plague toxin, 106
Haemorrhage, sodium bicarbonate in, 255
——— intermuscular, from muscular action, 161
——— intramammary, blood in milk, 163
Haemorrhage, latent, in the digestive tract, 176
——— at menopause, cavity in uterine wall, 272
——— in senile haematometra, 344
——— vesical, in pregnancy, 293
Haemorrhages, post-partum, 379
Haemorrhoids in children, 30
——— treatment of prolapsed and gangrenous, 375
Hahn, high-frequency currents in ozaena, 258
Hamilton, Alice, dissemination of streptococci, 299
Hartmann, laceration of the vena cava in nephrectomy, 229
Haultain, F. W. N., lithopaedion forty-one years in abdominal cavity, 148
Heart, beer-drinker's, 243
——— complications in diphtheria, 37
——— disease, congenital, and acute endocarditis, 282
Hedonal and chloroform anaesthesia, 129
Hemmeter, John C., diagnosis of pancreatic diseases, 224
Henkel, rupture of uterus twice the subject of Caesarean section, 378
Henrich, F., note on maretin, 331
Henry, Frederick P., medical treatment of gastric ulcer, 367
——— J. N., paratyphoid fever, 320
Hepatic insufficiency in pregnancy, 326
Hepato-gastrostomy, 268
Hepatoptosis and cholecystocele, 109
Hernia, radical cure of, modification of Bassini's operation for, 213; in children, 246
——— of the bladder, signs of, 269
——— of pregnant women, 311
——— of gravid uterus, Porro's Caesarean section during labour, 146
——— of the ureter, 17
Herrgott, subcutaneous emphysema in obstetrics, 250
Heterogeneous blood, transfusion of, 242
Heymans, J. F., experimental tuberculosis, 120
High frequency currents in ozaena, 258
Higley, H. A., rapid bacteriological diagnosis of diphtheria, 332
Hildebrandt, adrenalin in surgical practice, 230
Hip, displacements at, new line for determining, 324
Hirsch, A., kefir, 348
Hirschel, G., therapeutic action of radium, 149
Hirtz, juvenile tabes, 304
Hiss, differentiation of dysentery bacilli, 222
Hitschmann, eclampsia, vesicular mole without fetus, 33
Hoffmann, operative treatment of housemaid's knee, 18
Holmes, E. W., brain tumour and trauma, 69
Honoré, Ch., leucocytosis in ankylostomiasis, 355
Horowitz, pyrenol, note on, 63
Housemaid's knee, operative treatment of, 18
Howard, W. T., variola, 350
Hugue, Georges, abscess of the liver in typhoid fever, 123
Human skin, possibility of disinfecting the, 28
Hunt, J. Ramsay, pathology of sciatica, 353
Hüppe, F., alcohol, 278
Hutinet, the contagiousness of diabetes, 52
Hydrorrhoea gravidarum, 342
Hydrosalpinx, old, primary cancer, 362
Hydrotherapy and tetanus, 22
Hypertrophic anascitic cirrhosis, 287
Hysterectomy stump, fibroid polypus in, myoma of sigmoid flexure, 380
——— vaginal, latero-vaginal incision in, 292
Hysteria, the reflexes in, 73

I.

Illman, G. Morton, rheumatism, 277
Immunity against cholera, 153
Infancy, a means of thermic regulation in, 67; lobar pneumonia in, 140; feeding in, 150; pneumococcus arthritis in, 223
Infants, treatment of pneumonia in, 167
Innelmann, uses of Roentgen rays in medical practice, 286
Insomnia, treatment of, 259
Intermuscular haemorrhage from muscular action, 161
Internal secretions and ductless glands, 245
Intestinal obstruction after suppurative appendicitis, 180
——— paralysis, treatment of, 322
Intestine, gaseous cysts of the, 41
Intramammary haemorrhage, blood in milk, 103
Intramuscular tissue, rate of absorption from, 279
Intravenous administration of salicylates, 166
Intussusception, 267
Iodine in post-operative sepsis, 281
Iodoform paraffin wax, filling of chronic bone cavities, 289
Isaacs, A. E., decapsulation of the appendix, 376
Isnardi, modification of Thiersch's skin grafting, 290
Isoform, action of, 382

J.

Jaundice, emotional, 196
Jeannin, blood in milk, intramammary haemorrhage, 103
Jellinek, pigmentation of the eyelids in Graves's disease, 54
Jesivnek, fluorescent light treatment, 65
Joachim, treatment of leukaemia by x-rays, 136
Job, the specific bacillus of epidemic dysentery, 50
Journeault, muco-membranous colitis and fatal syncope, 175
Juvenile tabes, 304

K.

Kanavel, uncomplicated varicose veins in broad ligament, 377
Kaplan, D. M., adrenalin chlorine in asthma, 313
Kefir, 348
Keferstein, Georg, beer-drinker's heart, 243
Kemp, R. C., fluorescent media for transillumination of the stomach, 92
Kennard, tuberculin in diagnosis of surgical tuberculosis, 270
Kidney, operations on, 143; the physiological capacity of the, 197
——— pelvic in women, 233
——— suppurating in pregnancy, 343
——— right, effect of displacement of on the ascending colon, 55
Kissel, lesions of the digestive organs in typhoid fever in children, 302
Klein, the fourth disease, 15
Knotte, luxation of lateral peroneal tendons, 356
Koplik, posterior basic meningitis, 354
Kraemer, Henry, copper foil as a purifier of water, 169
Krause, P., gonococcal sepsis, 108
Krogius, surgical treatment of chronic ulcer of the stomach, 128
Krougiline, rectal anaesthesia, 113
Krüeger, sleeping sickness and trypanosoma, 53
Kubinyi, acute vesical haemorrhage in pregnancy, 293
Kucharzewski, the effect of serum injections on the blood, 85
Kurpjweit, treatment of leukaemia by x rays, 130
Küstner, fibroid polypus in hysterectomy stump, myoma of sigmoid flexure, 380
Kyes, Preston, cobra venom and antitoxin, 170

L.

Labour, cancer of the cervix as a complication of, 46; accidents in multiparae, 201; induction of, 202; flooding from rupture of circular sinus in, 216; treatment of ovarian cysts complicating, 291
Lactation, thyroid tetany during, 99
Laederich, inequality of pupils in pleurisy with effusion, 194, 301
Laevulosuria and diabetes, 335
Lambinet, ankylostomiasis, 283
Lancereaux, surgical treatment of gastric disease associated with tetany, 181
Lange, eucaine in sciatica, 171
Latero-vaginal incision in vaginal hysterectomy, 292
Leale, Medwin, chronic eczema as a complication of senile degeneration, 336

Lecéne, surgical wounds of cervical portion of thoracic duct, 43
Le Dentu, treatment of traumatic aneurysm by injection of gelatine, 228
Leg, varicose veins in, operation for, 76
Legueu, removal of tuberculous vesiculae seminales, 158
Lemaire, juvenile tabes, 304
Leonard, C. T., Roentgen rays in malignant diseases of the breast, 81
Lepman, gonorrhoea in puerperium, 164
Lereboullet, Banti's disease, 154
Lesage, the toxicity of adrenalin, 10
Lesser, F., tabes dorsalis and its relation to syphilis, 1
Leucocytosis in ankylostomiasis, 355
Leukaemia, Roentgen rays in the treatment of, 49, 136, 204
——— acute myelogenous, 372
——— splenomedullary, radiotherapy in, 191
L'Hôte, remissions in tuberculous meningitis, 107
Liermann, W., treatment of fractures, 4
Light treatment, fluorescent, 65 (see also *x* rays, Roentgen)
Lisle, Justin de, serum treatment of syphilis, 349
Lithopaedion 41 years in abdominal cavity, 148
Liver, abscess of in typhoid fever, 123
——— acute yellow atrophy of, 208
——— in puerperium, 8
——— incision and suture of, 112
——— protective action of against the toxins of bacterium coli, 12
——— action of on diphtheria toxin, 51
——— surgical treatment of with ascites, 247
——— tuberculous cirrhosis of, 91
——— wounds of, treatment of, 94
Lobar pneumonia in infancy, 140; cholecystitis as a complication of, 244
Loeffler, F., antibodies, 386
Loewenheim, J., phytin, note on, 102
Lomer, haemorrhage in senile haematometra, 344
Lomnitz, uterus bicornis with clinical complications, 98
Longcope, bone marrow in typhoid and other affections, 260
Loveland, H. H., post-partum haemorrhages, 379
Lovera, apyretic pneumonia, 156
Lumbar puncture, diagnostic value of, 38: in pertussis, 209; and fractures of the cranium, 212; in enuresis, 239
Lungs, inequality of the pupils in diseases of the, 26; asthma and infectious affections of the, 27
Luxation of lateral peroneal tendons, 356
Lupus, treatment of in general practice, 83

M.

MacCallum, mechanism of exophthalmos, 124
M'Curdy, new line for determining displacement at the hip, 324
Macnab, D. S. E., thyroid extract in the treatment of puerperal eclampsia, 132
——— J. C. G., thyroid extract in treatment of puerperal eclampsia, 132
Malarial infection, arterial pressure in, 71
Malcolm, J. D., treatment of the placenta in operating for extrauterine fetation, 7
Maniscalco, pathogenesis of cancer, 351
Maragliano, treatment of appendicitis, 249
Marchand, appendicitis, free vesicles in peritoneum, 248
Maretin, note on, 331
Masoin, Paul, chemical changes in epilepsy, 110
Massalongo, sugar in treatment of phthisis, 119
Mattan-Larrier, pneumococcal arthritis in the newborn, 371
Maygrier, flooding for rupture of circular sinus in labour, 216
Measles, a rare complication of, 195; in pregnancy, 251
Meckel's diverticulum and uterine appendages, inflammation of, simulating appendicitis, 117
Medical practice, uses of Roentgen rays in, 286
Mellin, thiosinamine in contraction of scars, 256
Meltzer, rate of absorption for intramuscular tissue, 279
Mendelsohn, L., antistreptococcus serums in scarlatina, 346
Mendes, treatment of carotid aneurysms by extirpation of the sac, 288
Meningitis, cerebro-spinal. See Cerebro-spinal
——— posterior basic, 354
——— tuberculous, remissions in, 107
Menopause, haemorrhage at, cavity in uterine wall, 272
Mesenteric cysts, 252
Mesentery, angeioma cavernosum of, 345
Mesotan in rheumatism, 68
Meyer, placenta praevia and laceration of pedicle of fibroid, death, 134
Microscope, dangers of in the early diagnosis of pulmonary tuberculosis, 72
Miguot, veronal, 315
Milk, blood in: intramammary haemorrhage, 163
Miller, histogenesis of the tubercle, 173: rectal alimentation, 189: uncomplicated varicose veins in broad ligament, 377
Minkowski, O., treatment of gout, 381
Mohr, tuberculous rheumatism, 2
Mole, vesicular, without fetus, associated with eclampsia, 33
Monnier, E., appendicitis due to a fibromyxoma, 217
Monro, John C., late results of surgical treatment of gastric ulcer, 305
Montané, F. G., treatment of insomnia, 259
Moreau, a means of thermic regulation in infancy, 67
Morestin, round ligament fibroid and hernial sac, 310
Morphine-scopolamine anaesthesia, 338
Morphology of tubercle bacilli, 316
Morris, R. T., bile-tract adhesions, 323
Morse, J. L., lobar pneumonia in infancy, 140
Morton, W. J., radiotherapy in carcinoma, 373
Mouisset, encysted peritonitis with compression of the bile duct, 266
Muco-membranous colitis and fatal syncope, 175
Mulen, P., adrenalogenous glands, 211
Muller, Emil, the malignancy of ovarian growths, 32
Multiparae, labour accidents in, 201
Muscles, rupture of in typhoid fever, 14
Myasthenia gravis, 370
Myelogenous leukaemia, acute, 372
Myocardial insufficiency, etiology of, 174
Myocardium, tuberculosis of, 88

N.

Nafalan, note on, 151
Nagel, ovarian tumour in child, torsion of uterus, 276
Nattan-Larrier, pneumococcus arthritis in infancy, 223
Neisser, cerebral puncture, 179
Nephrectomy, laceration of the vena cava in, 229
Nerve, trochlear, paresis of in tetanus, 177
Nerves of the pancreas, effects of resection of, 192
Neujean, action of adrenalin, 47
Neuronal, note on, 103
Nicoll, operative treatment of birth-fracture of the skull, 57
Nijhoff, G. C., quintuplets, 21
Noé, J., adrenalin, note on, 9
Northrup, W. P., feeding in infancy, 150; treatment of pneumonia in infants, 167

O.

Obstetrics, subcutaneous emphysema in, 650: use of blood agar plates in, 327; modern methods of treatment in, 341
Oesophageal stricture, treatment of, 383
——— surgery, 93
Oesophagus, pemphigus of, 90
Olshausen, labour accidents in multiparae, 201
Opitz, pyelitis in pregnancy, 231; haemorrhage at menopause, cavity in uterine wall, 272
Optic and ocular factors in scoliosis of school children, 374
Ormerod, J. A., subacute combined degeneration of the spinal cord, 303
Orth, pelvic kidney in women, 233
Orth, J., morphology of cancer and the parasitic theory, 368
Orthopaedic appliances, use of celluloid in preparation of, 199
Osler, acute tuberculous pneumonia, 263
Ovarian cystic tumours, prognosis of, 116; treatment of when complicating pregnancy and labour, 291
——— dermoid, may it be malignant? 363
——— growths, malignancy of, 32
——— pregnancy, 19, 253
——— tumour in child, torsion of uterus, 276
Ovary, apoplexy of, 165; cancer of, 254; adhesion of to enlarged spleen, 273
Ozaena, high frequency currents in, 258

P.

Padoa, G., protective action of the liver against the toxins of bacterium coli, 12
Pancreas, effect of resection of the nerves of the, 192; extirpation of, 227
Pancreatic diseases, diagnosis of, 224
Papilloma of the anus, cutaneous tuberculous, 95
Paralysis, intestinal, treatment of, 322
——— pneumonic, 225
Parasitic theory and the morphology of cancer, 368
Paratyphoid fever, 320
Paresis of the trochlear nerve in tetanus, 177
Parona, F., operation for varicose veins in the leg, 76
Parotitis, coeliac, note on, 77
Pathological sleep in cases of cerebral tumour, 226
Patschkowski, K., urotropine in scarlet fever, 219
Paulin, twin labours, seventeen days' interval, double uterus, 80
Peeble, H. B., pneumococcus endocarditis, 13
Pelham, extrauterine pregnancy, eclampsia, living child extracted at term, 294
Pelvic contraction, prophylactic version in cases of, 44
——— inflammation and disease of the appendix, 100
——— kidney in women, 233
——— veins in puerperal pyaemia, ligature of, 184
Pelvis, the white and the negro, 361
Pemphigus of the oesophagus, 90
Pennington, J. Rawson, anaesthesia by water injections, 339
Peritoneal adhesions, 359
Peritonitis, encysted, with compression of the bile duct, 266
Pérochaud, rupture of the muscles in typhoid fever, 14
Peroneal tendons, luxation of lateral, 356
Pertussis, lumbar puncture in, 209
Perugia, carcinoma of the hard palate successfully treated by radium, 56
Pesci, therapeutic efficiency of barium chloride, 87
Phlebitis, treatment of, 188
Phosphorus contents of the cerebro-spinal fluid, 241
Phthisis. See Tuberculosis.
Physiology, surgical, 111
Phytin, note on, 102
Pick, diphtheria antitoxin in its relation to toxin, 138
Pigmentation of the eyelids in Graves's disease, 54
Pinchart, lumbar puncture and fractures of cranium, 212
Pincus, Ludwig, atmocausis and zestocausis, 185
Piqué, puerperal mania or pseudo-mania, 360
Placenta, treatment of in operating for extrauterine fetation, 7
——— use of gloves in manual detachment of, 59
Placenta praevia, is Caesarean section ever justifiable in the management of? 133
——— and laceration of pedicle of fibroid: death, 134
Plague bacilli and pneumococci, mixed infection with, 121
——— toxin, haemolysins of, 106
Platinochloride test for choline, 36
Plavec, Václav, theobromine as a diuretic, 11

Pleura, inequality of the pupils in diseases of the, 26, 301
Pleurisy with effusion, inequality of pupils in, 194, 301
Pneumococcal arthritis, 337
——— in the newborn, 371
Pneumococci and plague bacilli, mixed infection with, 121
Pneumococcus endocarditis, 13
Pneumonia, acute tuberculous, 263
——— appendicular, pain in, 122
——— apyretic, 156
——— in infants, treatment of, 167
——— lobar, in infancy, 140; cholecystitis as a complication of, 244
Pneumococcus arthritis in infancy, 223
Pneumonic paralysis, 225
Podhoretzki, E. D., hedonal and chloroform anaesthesia, 129
Pollack, cerebral puncture, 179
Pólya, modification of Bassini's operation for radical cure of hernia, 213
Polyglobulia with enlarged spleen and cyanosis, 125
Polypus, fibroid, in hysterectomy stump, 380
Post-operative sepsis, iodine in, 281
Potherat, perforating appendicitis caused by a foreign body, 130
Pözl, may an ovarian dermoid be malignant? 363
Pratt, causes of cardiac insufficiency, 3; etiology of myocardial insufficiency, 174
Pregnancy, pyelitis in, 231; measles in, 251; acute vesical haemorrhage in, 293; hepatic inefficiency in, 326; suppurating kidney in, 343
——— extrauterine eclampsia, living child extracted at term, 294
——— interstitial, ruptured, 145
——— ovarian, 19, 253
——— ovarian cysts complicating, treatment of, 291
——— tubal, free dermoid in pelvis simulating, 61
——— twin, destruction of one fetus in, 274
Pregnant women, hernia of, 311
Primiparae, youthful, 200
Prolapse of ureter into vulva, 235
Prostatectomy, ultimate results of, 75
Pseudomania or puerperal mania, 360
Ptosis of the abdominal aorta, 39
Puerperal dangers in undetected double uterus, 203
——— eclampsia, thyroid extract in, 132
——— and renal decapsulation, 115
——— fever, serum treatment of, 31
——— mania or pseudomania, 360
——— pyaemia, ligature of pelvic veins in, 184
Puerperium, acute yellow atrophy of liver in, 8; thrombosis and embolism in, 20; perforation of tuberculous intestine in, 147; gonorrhoea in, 164
Pupils, inequality of in diseases of the lungs and pleura, 26; in pleurisy with effusion, 194, 301
Purgation before and after operation, 144
Pyaemia, puerperal, ligature of pelvic veins in, 184
Pyelitis in pregnancy, 231
Pyramidon in typhoid, 297
Pyrenol, note on, 63

Q.

Quadri, G., the arterial pressure in malarial infection, 71
Quadriceps, operative treatment of suprapatellar rupture of, 141
Queirel, syphilis and suckling, 45
Quénu, operative treatment of suprapatellar ruptures of the quadriceps, 141; hepatogastrostomy, 268
Quintuplets, 21

R.

Radioneuritis, note on, 74
Radiotherapeutic nihilism, 221
Radiotherapy in splenomedullary leukaemia, 191; in carcinoma, 373
Radium, carcinoma of the hard palate successfully treated by, 56
——— therapeutic action of, 149
Radium, trachoma treated by, 168
Raffaello, treatment of phlebitis, 188
Ramognini, cutaneous tuberculous papilloma of anus, 95
Ranken, R. P., double uterus and vagina, 96
Ravant, cerebro-spinal fluid in syphilis, 385
Raviart, tuberculosis of myocardium, 88
Rectal alimentation, 189
——— anaesthesia, 113
Red corpuscles, agglutination of, 24
Renal calculi, diagnosis of, 142
——— decapsulation and puerperal eclampsia, 115
Resection of the nerves of the pancreas, effects of, 192
Rheumatism, 277
——— mesotan in, 68
——— tuberculous, 2, 285
Rhodes, carbohydrate metabolism, 89
Richter, thrombosis and embolism in the puerperium, 20
Riggs, the white and the negro pelvis, 361
Ringworm, *x*-rays in, 104
Risso, serumtherapy in syphilis, 66, 314
Robinson, congenital heart disease and acute endocarditis, 282
Rochmann, H., action of isoform, 382
Roentgen rays in skin diseases, 23; in leukaemia, 49; in malignant diseases of the breast, 81; in tuberculosis, 82; in medical practice, 286; in sarcoma, 312. See also *x*-rays, light
Rohleder, note on nafalan, 151
Rosenstein, whence are the female organs infected by tubercle? 97
Rosner, hernia of gravid uterus, Porro's Caesarean section during labour, 146; hernia of pregnant women, 311
Rossiwall, surgical scarlatina, 42
Roth, Maximilian, exercises in chorea, 206
Round ligament fibroid and hernial sac, 310
Rousing, physiological capacity of the kidney, 197
Roussell, the specific bacillus of epidemic dysentery, 50
Rubens, intravenous administration of salicylates, 166
Rudis-Jicinsky, J., the Roentgen rays in treatment of tuberculosis, 82
Rupture of the muscles in typhoid fever, 14
——— of uterus. See Uterus.
Ruptured intestitial pregnancy, 145
Ruptures of the quadriceps, operative treatment of suprapatellar, 141

S.

Sabarthez, pyramidon in typhoid, 297
Sacerdote, cutaneous tuberculous papilloma of anus, 95
Sadger, J., hydrotherapy and tetanus, 22
Salicylates, intravenous administration of, 166
Salvia, influence of slight injuries on the localization of tubercle, 262
Salvioli, transfusion of heterogeneous blood, 242
Sanoform, 330
Sarcoma, Roentgen ray treatment of, 312
Sauerbruck, oesophageal surgery, 93
Scapula, operative treatment of displacement of, 198
Scarlet fever. See Fever
Scarlatina, surgical, 42. See also Fever
Scars, thiosinamine in contraction of, 256
Schiele, unilateral dislocation of the cervical vertebrae, 40
Schmidt, J. A., modern methods of treatment in obstetrics and gynaecology, 341
Schnabel, injection treatment of syphilis, 238
School children, optic and ocular factors in etiology of scoliosis of, 374
Schooler, adhesion of ovary to enlarged spleen, 273
Schwoner, diphtheria antitoxin in its relation to toxin, 138
Sciallero, M., a new extract from tubercle bacilli and its action, 48
Sciatica, eucaine in, 171; pathology of, 353
Scoliosis of school children, optic and ocular factors in the etiology of, 374
Scopolamine as a general anaesthetic, 186
Seelig, treatment of the stump in appendectomy, 8
Segré, L., note on cryogenin, 328; pneumococcal arthritis, 337
Seminales, tuberculous vesiculae, removal of, 158
Senile degeneration complicated by chronic eczema, 336
Senn, Nicholas, coxa vara, 126
Sepsis, gonococcal, 108
——— post-operative, iodine in, 281
Sérieux, veronal, 315
Serum, antistreptococcus in erysipelas, 187 in scarlatina, 346
——— antisyphilitic, 314
——— injections, effect of on the blood, 85
——— treatment of puerperal fever, 31
——— of syphilis, 66, 349
Serumtherapeutics, 101
Shepherd, signs of hernia of the bladder, 269
Shuttleworth, antitoxin in diphtheria, 280
Silvester, extirpation of the pancreas, 227
Simon, prolapse of ureter into vulva, 235
Sinus, circular, flooding from rupture of during labour, 216
Sippel, puerperal eclampsia and renal decapsulation, 115
Sjögren, T., Roentgen-ray treatment of sarcoma, 312
Skin diseases, the Roentgen rays in, 23
—— grafting, Thiersch's, modification of, 290
—— human, possibility of disinfecting the, 28
Skull, operative treatment of birth fracture of, 57
Sleep, pathological, in cases of cerebral tumour, 226
Sleeping sickness and trypanosoma, 53
Small-pox organisms, 70
Smith, heart complications in diphtheria, 37
——— A. H., intermuscular haemorrhage from muscular action, 161
Sodium bicarbonate in haemorrhage, 255
——— cinnamate, action of, 86
Sonnenburg, E., stovaine as a spinal anaesthetic, 240
Speer, G. G., cerebro-spinal meningitis, 284
Spencer, H. R., cancer of the cervix as a complication of labour, 46
Spinal anaesthetic, stovaine as a, 240
——— cord, subacute combined degeneration of, 303
Spleen, enlarged, with cyanosis and polyglobulia, 125
Splenomedullary leukaemia, radiotherapy in, 191
Stamm, vaginal Caesarean section, 78
Steiner, L., multiple subcutaneous fibrous swellings, 58
Stengel, early diagnosis and treatment of arteriosclerosis, 210
Sterility, treatment of, 131
Stern, Heinrich, suppression of the acetone bodies in diabetics, 135
Stifler, ptosis of the abdominal aorta, 39
Stricture, oesophageal. See Oesophageal
Stockton, Charles G., treatment of cerebro-spinal fever, 295
Stoeckel, hydrorrhoea gravidarum, 342
Stomach, fluorescent media for transillumination of, 92
——— chronic ulcer of, surgical treatment of, 128
Stone, I. S., purgation before and after operation, 144
Stori, gaseous cysts of the intestine, 41
Stovaine as a spinal anaesthetic, 240
——— as a local anaesthetic, 384
Strauss, J., treatment of diabetes, 34
Streptococci, dissemination of, 299
Strong, immunity against cholera, 153
Stroux, H., note on neuronal, 103
Subcutaneous emphysema in obstetrics, 250
Suckling and syphilis, 45
Sugar in treatment of phthisis, 119
Sugg, small-pox organisms, 70
Superstitions, some gynaecological, 114
Suprapatellar ruptures of the quadriceps, operative treatment of, 141
Suprarenal body, malignant thrombosis of the inferior vena cava and right auricle in carcinoma of, 365
Surgery, oesophageal, 93
Surgical operations, entrance of air into the veins during, 214
——— physiology, 111
——— scarlatina, 42
——— treatment of epilepsy, 5; of perforating enteric ulcer, 16; of chronic ulcer of

the stomach, 128; of gastric disease associated with tetany, 181; of cirrhosis of liver with ascites, 247; of gastric ulcer, 305
Surgical wounds of cervical portion of cervical duct, 43
Syncope, fatal, mucomembranous colitis and, 175
Syphilis, cerebro-spinal fluid in, 385
——— hereditary, in the second generation, 29
——— injection treatment of, 238
——— relation of tabes dorsalis to, 1
——— serum therapy in, 66, 349
——— and suckling, 45

T.

Tabes dorsalis and its relation to syphilis, 1
——— curability of, 366
——— juvenile, 304
Tachiol as a gastric antiseptic, 84
Tamerl, Roman, pemphigus of the oesophagus, 90
Tedeschi, latent haemorrhage in the digestive tract, 176
Tendons, peroneal, luxation of lateral, 356
Terrier, scopolamine as a general anaesthetic, 186
Testicle, tuberculous, *x*-ray treatment of, 358
Tetanus and hydrotherapy, 22
——— paresis of the trochlear nerve in, 177
Tetany, surgical treatment of gastric disease associated with, 181
——— thyroid, during lactation, 99
Thayer, cardiac and vascular complications and sequels of typhoid fever, 263
Theobromine as a diuretic, 11
Theocin and caffein, note on, 218
Therapeutic efficiency of barium chloride, 87
Thermic regulation in infancy, a means of, 67
Thévenet, a means of thermic regulation in infancy, 67
Thiersch's skin grafting, modification of, 290
Thiosinamine in contraction of scars, 256
Thomson, ulcus rotundum simplex vaginae, 271
Thoracic duct, surgical wounds of cervical portion of, 43
Thrombosis and embolism in the puerperium, 20
——— malignant, of the inferior vena cava and right auricle in carcinoma of the suprarenal body, 265
Thrush, adrenalin in typhoid, 190
Thyroid extract in treatment of puerperal eclampsia, 132
——— tetany during lactation, 99
Thyroidism, experimental, 152
Tilton, treatment of wounds of the liver, 94
Tirelli, V., the possibility of disinfecting the human skin, 28
Toff, E., the uses of yohimbin, 105
Tomson, primary cancer in an old hydrosalpinx, 362
Tonsil, growth of bone in, 159
Torsion of the Fallopian tube, 308
Toti, a dacryocystorhinostomy, 160
Trachoma treated by radium, 168
Trauma, brain tumour and, 69
Traumatic aneurysm. See Aneurysm
Trochlear nerve, paresis of in tetany, 177
Trypanosoma and sleeping sickness, 53
Trypanosomiasis, 261
Tubal pregnancy. See Pregnancy
Tubercle, whence are the female organs infected by? 97; influence of slight injuries on localization of, 262
——— bacilli, new extract from, and its action, 48; morphology of, 316
——— histogenesis of the, 173
Tuberculin in tuberculosis, 364
——— in diagnosis of surgical tuberculosis, 270
Tuberculosis, cardiac irritability in, 25
Tuberculosis, common house fly and, 318
——— experimental, 120
——— of myocardium, 88
——— pulmonary, dangers of the microscope in early diagnosis of, 72
——— Roentgen rays in treatment of, 82
——— sugar in treatment of, 119
——— surgical, tuberculin in diagnosis of, 270
——— tuberculin in, 364
Tuberculous cirrhosis of liver, 91
——— intestine in puerperium, perforation of, 147
——— meningitis, remissions in, 107
——— papilloma of the anus, cutaneous, 95
——— pneumonia, acute, 263
——— rheumatism, 2, 285
——— testicle, *x*-ray treatment of, 358
——— vesiculae seminales, removal of, 158
Tuffier, differential diagnosis of appendicitis and perforating ulcer of the duodenum, 307
Tumour, brain, and trauma, 69
——— cerebral, pathological sleep in cases of, 226
——— ovarian in a child, torsion of uterus, 276
Tumours, ovarian cystic, prognosis of, 116
——— uterine fibroid, 232
Typhoid fever. See Fever, enteric
——— perforation, operative treatment of, 127, 357

U.

Udolfo, appendicular pain in pneumonia, 122
Ulcer, enteric, surgical treatment of perforating, 16
——— gastric, medical treatment of, 367
——— perforating, of the duodenum, differential diagnosis of appendicitis and, 307
——— of the stomach, surgical treatment of 128
——— of the vagina, 271
Ulcers, gastric, 155; late results of surgical treatment of, 305
Ulcus rotundum simplex vaginae, 271
Ungen, note on sanoform, 330
Ureter, hernia of, 17
——— operations on, 143
——— prolapse of into vulva, 235
Ureteral calculi, diagnosis of, 142
Uric acid, in liquid effusions, 300; in human faeces, 333
——— diathesis, citarin in, 220
Urotropine in scarlet fever, 219
Urticaria, pathology of, 137
Uterine appendages and Meckel's diverticulum, inflammation of, simulating appendicitis, 117
——— contractions, 183
——— disorders, atropine in, 325
——— fibroid tumours, 232
Uterus bicornis with clinical complications, 98
——— double, twin labours, 17 days' interval, 80: puerperal dangers in undetected, 203
——— gravid, hernia of, Porro's Caesarean section during labour, 146
——— rupture of, twice the subject of Caesarean section, 378
——— septus, fetus retained beyond term in, 79
——— and vagina, double, 96

V.

Vagina, simple ulcer of, 271
——— and uterus, double, 96
Vaginal Caesarean section, 78; in eclampsia, 215
——— hysterectomy, latero-vaginal incision in, 292
Vallas, encysted peritonitis with compression of bile duct, 266
Varicose veins in the leg, operation for, 76
——— uncomplicated, in broad ligament, 377
Variola, 350
Veer, Van de, uterus bicornis with clinical complications, 98
Vena cava, laceration of in nephrectomy, 229
Venom, cobra, and antitoxin, 170
Veronal, version, 315; prophylactic, in cases of pelvic contraction, 44
Vertebrae, cervical, unilateral dislocation of, 40
Vesical haemorrhage in pregnancy, acute, 293
Vesicular mole without fetus associated with eclampsia, 33
Vilumara, apoplexy of ovary, 165
Vincenzo, tuberculous cirrhosis of the liver, 91
Von Baracj. See Baracj
Vulva, prolapse of ureter into, 235

W.

Wagener, angeioma cavernosum of mesentery, 345
Waite, Lucy, some gynaecological superstitions, 114
Wadesack, treatment of oesophageal stricture, 383
Waitzfelder, E., diphtheria antitoxin in epidemic cerebro-spinal meningitis, 329
Water injections, anaesthesia by, 339
——— copper foil as a purifier of, 169
Water-drinking, copious, in treatment of typhoid fever, 236
Webster, Clarence, ovarian pregnancy, 19; uterine fibroid tumours, 232
Wells, H. G., acute yellow atrophy of liver, 208
Werner, fetus retained beyond term in uterus septus, 79
——— R., therapeutic action of radium, 149
Wherry, W. B., cholera cultures, 369
White, heart complications in diphtheria, 37
Williams, *x*-ray treatment of cutaneous epithelioma, 347
Wolff, prophylactic version in cases of pelvic contraction, 44
Wormser, E., use of gloves in manual detachment of placenta 59
Wounds of cervical portion of thoracic duct, surgical, 43
——— of the liver, treatment of, 94

X.

X rays in ringworm, 104; in leukaemia, 49, 136, 204; in cutaneous epithelioma, 347; in treatment of tuberculous testicle, 358. See also Roentgen, Light, Radiotherapy

Y.

Yohimbin, the uses of, 105
Young, ultimate results of prostatectomy, 75
Youthful primiparae, 200

Z.

Zak, E., paresis of the trochlear nerve in tetanus, 177
Zambelli, G., diagnostic value of lumbar puncture, 38
Zamboni, effects of resection of the nerves of the pancreas, 192
Zepf, P., emetine and cephaeline, 62
Zestocausis and atmocausis, 185
Zesus, surgical treatment of perforating enteric ulcer, 16
Ziemann, Hans, trypanosomiasis, 261; blood parasites in West Africa, 334; filariasis in the Cameroons, 352
Zimmern, experimental epilepsy, 319
Zinc, chloride of, note on, 207
Zinke, induction of labour, 202

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Tabes Dorsalis and its relation to Syphilis.

F. LESSER (*Berl. klin. Woch.*, January 25th, 1904) discusses the connexion between locomotor ataxy and syphilis, chiefly from the pathological side of the question, and attempts to bring further proof from the *post-mortem* room that tabes is a syphilitic affection. In the first place, in answer to the question—How many persons who have had tabes show *post-mortem* signs of undoubted syphilis, and how many persons who have died over 35 years of age show signs of undoubted syphilis *post mortem?*—he found that 28 per cent. of the tabes cases had *post-mortem* signs, while of all persons who died over the age of 35 only 9.5 per cent. showed syphilitic signs. He realizes that a number of cases of former syphilis will not leave any signs behind, but it is clear that tabes and syphilis stand in a causal relationship together, at all events in some cases. The next question which he sets himself to answer is: Is the tabes to be regarded as a direct syphilitic affection in those cases in which the connexion can be ascertained? In order to reply to this question, he finds it necessary to go fully into the pathology of syphilitic lesions. The changes may be best divided into: (1) Simple hyperplastic growths, having the characters of inflammation, and which leave no anatomical changes behind; and (2) gummatous growths. One must recognize infiltrating papular inflammations and proliferating interstitial inflammations. He therefore classifies syphilitic lesions into the following: (1) Papular inflammations, being equivalent to secondary syphilitic lesions and affecting the skin chiefly; (2) gummatous inflammations, being equivalent to tertiary manifestations, and may affect any part of the body; and (3) interstitial inflammations, which he calls quartary manifestations, and which only affect the internal organs. The first class reacts to mercury, the second to iodide of potassium, and the third is refractory towards both. As examples of interstitial changes he quotes fibrous orchitis and syphilitic fibrosis of the liver. While the secondary changes end in absorption, the quartary changes are irreparable. After discussing the histological changes in these manifestations, he passes on to consider the changes found in tabes, and divides these into, first, parenchymatous degeneration of the nervous elements of the posterior columns of the spinal cord; and secondly, overgrowth of the interstitial tissue of the cord, the so-called neuroglia. The rest of the histological changes are not constant, and are therefore of minor importance. In deciding which of the two are primary, he argues by analogy that the interstitial changes are primary. He points out that in cirrhosis of the liver the cell degeneration is always regarded as secondary; so in chronic interstitial nephritis and in atrophia laevis of the tongue. He therefore argues that tabes is a quartary manifestation of syphilis. He next meets each of the arguments raised against the suggestion that tabes is a syphilitic affection. That it does not react to mercury or iodide of potassium is explained since none of the quartary manifestations do. The second objection is that in the majority of tabes cases there are no traces of other coexisting syphilitic lesions of the skin or internal organs, and conversely, in the severer cases of syphilis tabes dorsalis very rarely is found. In reply to this, he regards the manifestations of syphilis as being due to a microorganism, the virulence of which appears to diminish in the course of time. While the virulence is great the lesions caused are of the nature of secondary manifestations, and only when this has become much attenuated are quartary changes produced. Thus it is not likely that when interstitial changes are found that gummatous or simple inflammatory changes will also be present. The third objection is that the extraordinary frequency of syphilis, when compared with the rarity of tabes, speak against a connexion between the two diseases. He points out that all the late manifestations of syphilis are rare, and if one compares the number of syphilitics who suffer from a gummatous affection of the elbow-joint, one will find that the percentage is still less than in the case of tabes. The fourth objection is that sufferers from tabes can infect themselves with syphilis. That a want of immunity cannot be taken as proof against the previous existence of syphilis is shown by the fact that syphilitics with tertiary manifestations at times have acquired fresh syphilis. The last objection is that tabes is a system disease, and that these diseases cannot be syphilitic. According to Lesser, the characteristic of interstitial syphilitic changes is that they have a predilection for certain localizations, and that nowhere is this more clearly shown than in syphilitic fibrosis of the liver. In conclusion, he remarks on the coincidence of tabes and aneurysm. He finds that every fifth patient suffering from tabes dorsalis shows signs of an aneurysm. From its histological characters, it appears that the majority of aneurysms are interstitial syphilitic manifestations, and this he considers is evidence in favour of his views.

(2) Tuberculous Rheumatism.

MOHR (*Berliner Klinik*, November, 1904) holds that acute or subacute polyarthritis may be a manifestation of tuberculosis, just as it may, in other cases, be due to other infectious diseases, such as scarlatina, measles, gonorrhoea, puerperal fever, or syphilis. He thinks that the tuberculous origin of many joint affections is often overlooked because it is not sufficiently appreciated that lesions which afterwards develop into typical tuberculous joints may sometimes begin with acute symptoms. The diagnosis of "tuberculous rheumatism" he admits to be difficult, as the actual demonstration of tubercle bacilli in the fluid can rarely be obtained; and a tuberculin test, if positive, will only point to the presence of a tuberculous lesion somewhere in the body; it cannot absolutely prove that the joint lesions are of this nature. Nevertheless, in cases of obscure joint affections which do not yield to salicylates and cannot otherwise be accounted for, the practitioner ought to be on his guard and make a careful search for other manifestations of tuberculosis.

(3) The Causes of Cardiac Insufficiency.

PRATT discusses the causes of cardiac insufficiency in the *Johns Hopkins Hosp. Bulletin*, October, 1904. The condition of the heart muscle determines the clinical course of chronic valvular disease. As the working power of the heart is dependent on the contractility of the muscle fibres and the elasticity of the heart wall, any cause which diminishes these will tend to produce cardiac insufficiency. Fatty metamorphosis has generally been thought to be the most common cause. Fatty degeneration is of frequent occurrence, but it may be extreme without producing symptoms, and cardiac weakness may be marked in cases in which the myocardium contained little or no fat. Anatomical, chemical, and experimental evidence fails to support the theory that fatty change is the cause of cardiac insufficiency. Other anatomical alterations, especially coronary sclerosis and acute interstitial myocarditis, must be regarded as the most common causes. All cases of muscle incompetence cannot be explained on the basis of definite anatomical changes. It may be due to acute over-distension produced by sudden and violent bodily exertion. In these cases of heart strain the nature of the anatomical or chemical changes is unknown. No justification exists for attributing cardiac insufficiency to nervous disturbances or exhaustion, the nature of which we know nothing, unless demonstrable lesions in the myocardium have been excluded with the microscope. The circulatory disturbances in fevers are probably due less to cardiac insufficiency than to paralysis of the vasomotor centre in the medulla. The blood pressure falls, the flow of blood is slowed, the heart is only partially filled, and finally the circulation sinks to such a low level that life cannot be maintained.

SURGERY.

(4) The Treatment of Fractures.

W. LIERMANN (*Deut. med. Woch.*, October 20th and 27th, 1904) pleads for a rational treatment of fractures. The old recognized treatment of immobilizing the fractured bone until complete consolidation has taken place appears to be followed more from traditional than any other reasons, and in recent times several surgeons have expressed themselves very pointedly on this subject. Since 1894 the author has treated fractures of the upper extremity by "mobilization" and massage. Lucas-Championnière appears to have been the first who acted upon the idea of dealing actively with fractures (1862), and

employing movement and massage. By means of *x* rays one can learn the faults of the old method. Immobilization condemns not only the broken bone but also the soft parts, and especially the muscles, to complete rest, and while many functional results like the anatomical leave much to be desired, one can easily understand that movement of certain muscles at the proper time must lead to improved functional results. By watching the formation and absorption of callus one is able to understand the smallest detail of the healing of a fractured bone, and this can be carried out by means of *x* rays if carefully applied. The only reasonable method of treating a fracture is to attempt to influence the formation snd absorption of callus to to take place as rapidly as possible. One can see that even when movement causes apparently considerable dislocation of the fragments, the bone unites much more rapidly than with complete rest. Not only is the process of healing shortened, but the functional activity is regained at a very much earlier date. The callus, although not so massive, is just as strong. Massage is employed further to cause the extravasation of blood to absorb before it can produce adhesions in the soft parts. Liermann finds that in order to obtain the best results it is necessary to combine fixation, massage, and mobilization. Of the fixation he says little. This is to be carried out by means of specially adapted light splints made of cardboard, which can be removed easily to view the parts. The massage and manipulations need very great care and skill. In the first place, it is necessary to apply massage very gently and cautiously at first, always allowing the index of the proper application to be the painlessness of the procedure. Later, more force and deeper action must be used. He gives some details of the technique of the massage, which he thinks the surgeon himself ought to carry out. It is impossible to say how long the fixation should be kept up in any individual case, as this must depend on the rate of the formation of the callus. Roentgen photography will give the index. The fragments alone are to be kept fixed, while the mobilization must keep the soft parts and joints freely functionating. Fixation for the few days is more readily applied in fractures of the upper than of the lower extremity. As soon as the fixation can be discarded it is important to instruct the patient to apply his weight equally on both legs, so that no limping ensues. The author also gives details as to the type of active movement, which can be employed with advantage, after the callus union has taken place. The treatment which he elaborates differs materially from the inactive treatment in that it requires a considerable amount of practice and skill and constant control. At present the results of fractures are not obtained for a very long time, although the surgeon has but little to do; but by his method the course of treatment is comparatively short, but requires much personal attention. The great part of the treatment, however, can be carried out in the consulting room, the patients not being kept in bed during the course of union.

(5) Surgical Treatment of Epilepsy.

DELAGÉNIÈRE (*Arch. Prov. de Chir.*, No. 10, 1904) advocates a novel treatment of epilepsy by ligature of the superior longitudinal sinus just above the torcular Herophili. This method of dealing with epilepsy was suggested to the author by the very good results observed in a case of this disease in which, during an operation for trephining, it was found necessary, on account of an accidental wound, to apply a ligature around the longitudinal sinus. Regarding an epileptic attack as a clinical syndroma common to several pathological conditions, and holding that the various causative lesions of epilepsy tend in different ways to produce the common result of permanent dilatation of the veins of the external surface of the cerebral hemispheres, Delagénière considers it a logical step to attempt to modify the venous circulation of the cerebral cortex by practising ligature of the terminal portion of the longitudinal sinus. Under the assumption that distension of the superficial cerebral veins is probably the cause of irritation of the cortical layer of the brain, he would endeavour to overcome this venous distension by an operation analogous in its aim and mode of action to ligature of the upper part of the internal saphena vein for varicosity of the veins of the leg. The object in practising ligature of the longitudinal sinus would thus be to bring about a collapse of the over-distended veins by which this sinus is supplied with blood. The author describes the different stages of this operation, which he has performed in a single case with good results. The longitudinal sinus is exposed by trephining the cranial vault in the posterior half of a line drawn from the bregma and the external occipital protuberance, at a point about 8 cm. or 9 cm. behind the bregma.

(6) The Treatment of the Stump in Appendectomy.

SEELIG (*Ann. of Surg.*, November, 1904) holds that in the ordinary run of both acute and "interval" appendicitis cases the most rational method of dealing with the appendix consists in simple ligature followed by cauterization. The method in which, after ligature and removal of the appendix, the stump is inverted by means of Lembert sutures passed through the serous coat of the caecum is regarded as a dangerous and unreliable one. The stump, it is pointed out, is invaginated into the caecal wall and not into the cavity of the intestine. If the stump has not been cauterized the infected tissue is buried in a closed cavity; and if the stump has been cauterized and thus disinfected, the exudate that is inevitably produced is enclosed in a cavity under conditions which are particularly favourable to abscess formation. When the stump is not ligatured but inverted directly into the lumen of the caecum, the patient is threatened by two serious dangers: peritonitis from free communication of the field of operation with the faeces-laden caecum, and secondary haemorrhage. The anatomical fact that in a fair proportion of cases the appendicular artery runs in the walls of the appendix is regarded as one of great clinical importance. Reference is made to a case in which free intestinal haemorrhage followed Dawbarn's operation of complete inversion, and the author states that he has not the slightest doubt that the accident of bleeding from a large unsecured vessel in the wall of the appendix is one of not uncommon occurrence. Seelig endeavours in this paper to show by experimental and clinical proofs that the objections urged against his method of simple ligature and cauterization are not tenable. The statement that perforation is likely to occur after simple ligature of the stump is opposed by the author, who, when connected with the Mount Sinai Hospital of New York during a period of two and a half years, never met with this accident in the numerous cases in which this operation had been performed.

MIDWIFERY AND DISEASES OF WOMEN.

(7) Treatment of the Placenta in Operating for Extrauterine Fetation.

J. D. MALCOLM (*Journ. of Obstet. and Gynaec. of the Brit. Emp.*, November, 1903) describes a case of extrauterine fetation in which the operative procedure was simple and there was no doubt as to the advisability of leaving the placenta *in situ*, but where convalescence extended over five months and the patient was in danger of death from haemorrhage on several occasions during the first twenty-three days after operation. The patient, a woman of good physique, was in good health until six months after marriage, when menstruation became irregular and she began to have attacks of pain accompanied by vomiting. Malcolm first saw her in consultation on July 3rd, 1900, nine months after her marriage. A mass could be felt in the pelvis about the size of a three months pregnant uterus, extending more to the right than to the left and with its inferior border behind the upper part of the vagina. The cervix was high up, close to the pubic bones and a little to the left of the middle line, and the uterus to the left of the abnormal mass. The breasts showed no marked signs of pregnancy. The patient's pulse was good and temperature normal. A diagnosis of extrauterine fetation was made, but immediate operation was refused by the patient. Malcolm next saw her on July 17th when she had had a fifth attack of pain. The mass in the abdomen now reached half-way to the umbilicus, the parts were tender and the glazed appearance of the skin over the right side of the lower abdomen suggested the presence of pus beneath it. The temperature and pulse rate were both raised, there was frequent vomiting and a history of absolute constipation for several days. Enemata were administered without result and the operation took place next day. After opening the abdomen a sac containing fluid was exposed and about 1 oz. of pus withdrawn by an aspirating needle. Enucleation of the sac being impracticable it was incised and a living fetus extracted. The placenta could be felt to have a large attachment to the wall of the pelvis, and it was decided in

consultation not to attempt its immediate removal; the amniotic cell was washed out and packed. When this packing was renewed for the second time on the sixth day after operation very free haemorrhage occurred from the deeper part of the cavity, but stopped when the packing was reinserted. Bleeding recurred for the next few days whenever the gauze was removed, and was sometimes severe. On August 4th the placenta could be seen in the wound, but an attempt to separate it with the finger caused such profuse bleeding that it had to be abandoned. On August 10th a determined attempt at removal was made, and a small piece broken off, but the patient lost 30 oz. of blood within a few seconds, and the wound had to be hastily replugged. After this dressing the placenta must have lost its vitality, for practically no more blood was lost when the plugs were changed. On August 15th the discharge from the wound became offensive; the temperature began to rise at night. Although the placenta was still adherent it was now possible to gradually peel it off with the finger. Not much could be done at one time because of pain, but by August 26th the process was completed. The temperature then dropped, and the general condition improved. Everything went well until September 12th, when the onset of a menstrual period was accompanied by a rise of temperature on one day to 105° F., on another to 104° F., and by vomiting and constipation. The patient recovered from this attack in a few days; her condition then steadily improved, the sinus finally healed towards the end of December, and she made a perfect recovery. It seems probable that in this case the Fallopian tube burst into the cellular tissue between the layers of the broad ligament, and the placenta became attached to the wall of the pelvis without involving any portion of the intestine. The peritoneum was gradually raised out of the pelvis, the attacks of pain and intestinal difficulty being caused by tearing of the connective tissue. This case illustrates the grave danger of haemorrhage when an operation for the removal of a living fetus is undertaken after the formation of a well-defined placenta. The risk of septic infection occurring on the death of the placenta is too great to allow of the abdomen being closed and the placenta being retained. The most satisfactory way of meeting the danger is by operating at an early period of gestation, when haemorrhage may be prevented, as a rule, by tying and dividing the broad ligaments. The necessity for early operation should be strongly urged upon the patient if necessary, for the danger increases with delay. Even when the fetus is dead and gestation has only developed for a few weeks it may be wiser in some cases to operate and remove the tube and the blood clot which is often found in the peritoneal cavity. It is to be remembered that the placenta may continue to develop for some time after the death of the fetus. The case under consideration is the fourth in Malcolm's practice in which extrauterine fetation has occurred in young women soon after marriage.

8) Acute Yellow Atrophy of Liver in Puerperium.

COHN (*Zentralbl. f. Gynäk.*, No. 34, 1904) relates a case where acute yellow atrophy followed symptoms of puerperal fever. The patient was 30, the labour (her fifth) was spontaneous and quite natural. On the fifth day high fever, with rigors, set in and continued, recurring and subsiding for several weeks. On the thirty-fourth day the patient got up; ten days later she left hospital. There was slight jaundice, such as is seen sometimes after septic fever. Three days later the patient's husband noticed that she was very yellow; in the night she became delirious; there was apparently no rise of temperature, and the pulse remained strong but rather slow. Next morning she was sent into hospital and died shortly after admission. At the necropsy the liver was found remarkably reduced in size, weighing 858 grams, or a little over 30 oz.—about half the weight of a normal liver. On section no trace of normal acinous tissue could be seen: the red areas were very marked. Microscopically, all the appearances observed in advanced acute yellow atrophy were detected. The spleen was not enlarged. The right ovarian vein was completely blocked by dry, friable clot, partly dirty yellow in colour, partly deep green; it appeared as a solid cord, as thick as a lead pencil; the left ovarian vein was quite healthy and unobstructed from the pelvis to the left renal vein, but the vena cava inferior was completely plugged up to the point of entrance of the left renal, the clot was very deep yellow, and mostly organized; the hypogastric veins were likewise obstructed; indeed, they were both obliterated along their whole course. There was no evidence of syphilis in this case. Cohn notes that Paul F. Richter published in the *Charité Annalen*, vol. xxiii, 1898, reports of 41 cases of acute yellow atrophy due to that disease. Yellow atrophy remains a rare complication of pregnancy and childbirth, the interpretation of many recorded cases being doubtful. There must have been previous liver disease in some cases. Cohn quotes Hirschberg's case where acute jaundice followed abortion induced at the fourth month for uncontrollable vomiting. The patient died in forty-eight hours.

THERAPEUTICS.

19) Adrenalin.

J. NOÉ (*Archives Gén. de Méd.*, June 28th, 1904) describes the process of extraction, the physical and chemical properties, and the constitution of adrenalin, together with a process for the colorimetric estimation of the substance. He first reviews the history of the literature on the suprarenal gland from the time of Brown-Séquard, who in 1856 regarded the capsules as the essential organs of life, down to 1894, when Oliver and Schäfer made their discovery as to the blood pressure raising property of the gland. He then details the various attempts made from 1895 onwards to isolate the active principle, referring successively to the work of Moore, Gouffein, Dubois, Metzger, Salvioli, and Pezzolini (all in 1895), Frankel (1896), Abel and Crawford (1897), Von Furth (1900), and, last of all, Takamine (1901). Abel's preparation was a benzoic compound, which he called epinephrine, and Von Furth's an iron compound, which he named suprarenine or surrenine. Von Furth showed that Abel's epinephrine was an impure mixture of inert chemical substances with a minimum of active principle, while Abel affirmed that suprarenine was only a modification of epinephrine. In January, 1901, Jokiohi Takamine announced for the first time the discovery in the suprarenal capsules of the base, to which he gave the name adrenalin. Later in the same year Von Furth perfected his process for the preparation of suprarenine, and obtained an iron compound in the form of an amorphous violet powder, and after elimination of the iron by acid he produced a substance which he declared was the same as Takamine's adrenalin. Various considerations lead to the supposition that the name "adrenalin" does not correspond to products always identical in themselves, and well-defined chemically. These considerations led M. Granjon, in a thesis read before the Paris Faculty of Medicine, to state that "all these products differ considerably in their physiological action and in their toxicity. The different methods of extraction give substances very dissimilar, and to such a degree has this come that very experienced practitioners who have had occasion to use adrenalin from different sources had, with one, remarkable success, with others, complete failure. The active principles of the capsules of different animals, oxen and sheep, for example, all having approximately the same appearance and chemical reactions in common, have not the same physiological action." Reviewing this part of the subject Noé remarks that it is necessary, to avoid misconceptions, to make use only of products of which one already knows the effects. The process for the extraction of adrenalin is then considered, and considerable space is devoted to the physical and chemical reactions of the base. Adrenalin is very soluble in acids, and forms salts which crystallize with difficulty; the hydrochloride, sulphate, tartrate, and benzoate have been prepared, but the first named is preferred on account of its greater solubility in water. In commerce it is found principally as a solution (1 in 1,000) in physiological salt solution containing ½ per cent. of chloretone. Chevalier considers the use of chloretone disadvantageous from the physiological point of view, since its action is in effect the opposite of that of adrenalin; but, on the other hand, Byla remarks that he has never found a better preservative agent for adrenalin solution, but chloretone should only be added to the solution in quantity strictly necessary for its preservation, without counterbalancing by its slowly depressive action the activity of adrenalin in the opposite direction. With regard to the constitution of adrenalin, Noé quotes Jowett, who confirms Aldrich's formula, which also had been adopted by Von Furth and Pauly. The last portion of the paper deals with a colorimetric process for estimating the value of the base proposed by Battelli. This consists in dissolving 0.01 gr. adrenalin in 700 to

750 c.cm. of water, slowly acidified with acetic acid or hydrochloric acid, and if to 5 c.cm. of this liquid be added 5 drops of $FeCl_3$, in solution, a very feeble green tint is observable, which persists four or five seconds at least; but numerous critics quoted by Noé are of opinion that the process is very unsatisfactory. Von Furth estimates his suprarenine in a ferruginous combination, but this process necessitates the use of a considerable quantity of the substance.

(10) The Toxicity of Adrenalin.

LESAGE (*Arch. Internat. de Pharmacodynamie et de Thérapie*, p. 245, vol. xiii, 1904) finds that for the dog, as well as for the rabbit and the guinea-pig, the lethal dose of adrenalin intravenously inoculated is between 0.1 and 0.2 mg. per kilog. of body weight. The cat is exceptionally resistant, the lethal dose for this animal being between 0.5 and 0.8 mg. per kilog. Anaesthesia induced by morphine and chloroform makes no difference to the ultimate toxicity of a given dose, but modifies the evolution of the toxic processes. It prevents the accelerating influence on respiration and the respiratory struggles, and, in the cat, delays death. Death by adrenalin takes place rapidly in the dog, whether the animal be anaesthetized or not; on the other hand, it occurs slowly in the non-anaesthetized cat, and extremely slowly when the cat is anaesthetized. Death takes place in the dog by stoppage of the heart, and in the cat by asphyxia. Habituation of the heart to adrenalin is extremely rapid in the cat, becoming manifest a few minutes after injection. The active principle of the suprarenal capsules is regarded as being pre-eminently a poison of the nervous system.

(11) Theobromine as a Diuretic.

VÁCLAV PLAVEC (*Arch. Internat. de Pharmacodynamie et de Thérapie*, p. 275, vol. xiii, 1904) contributes a critical discussion on the action of theobromine as a diuretic. He is of opinion that theobromine is not a genuine diuretic, but a cardiac stimulant which acts upon the heart muscle and increases the force of its contractions. At the same time theobromine acts on the vasomotor systems, causing a lowering of blood pressure, and thereby rendering the work of the heart easier. The increased diuresis which follows the use of theobromine is due to the increased volume of blood in the kidneys, and this increase is due to dilatation of the renal vessels following an increased cardiac activity. The conditions indicating the use of theobromine in cardiac disease are discussed and compared with the indications for digitalis or caffeine. Whereas digitalis exercises an influence on the cardiac nerves and regulates the rhythm and frequency of the pulse, theobromine regulates the cardiac contractile power and increases the total work of the heart. Caffeine possesses this influence on the heart in a lesser degree, but is at the same time an excitant of the central nervous system. Consequently, theobromine is indicated in all cases of weak but otherwise regular cardiac action, particularly in pathological conditions of the myocardium. It is recommended in arterio-sclerosis and aortic incompetence, because in these conditions the chief strain is thrown on the myocardium, and the heart's action is facilitated by the production of a diminished blood pressure. Unfortunately the action of theobromine is only temporary, and therefore the drug must be regarded as palliative rather than curative.

PATHOLOGY.

(12) Protective Action of the Liver Against the Toxins of Bacterium Coli.

G. PADOA (*Riv. Crit. di Clin. Med.*, September and October, 1904) describes experiments which show that the liver protects the organism to some extent against the toxins produced by the bacterium coli. As the action of the liver is selective, protecting, for example, according to the author, against the poison of diphtheria, but not against that of typhoid, a separate investigation is necessary for each bacterial toxin. There is some ground for suspecting the liver of such an action in the fact that the portal vein carries blood from an area which is a likely source of infection, and yet primary infective affections of the liver are rare. The liver is apt to swell during the course of infectious diseases, but does not undergo such serious changes as the kidneys and spleen. Padoa does not attach much importance to results obtained by triturating liver substances and bacterial poisons in a mortar and comparing the toxicity of the product of this process with that of other similar bacterial products not exposed to the action of the hepatic substance. Along with these he classes experiments in which toxic serum is passed through the vessels of livers and muscles just removed from newly-killed animals. His own method consists in the injection of the same quantity of toxin into the portal vein of one rabbit and into the jugular vein of another similar rabbit, and the observation of the time each rabbit survives injection, and the comparative condition of the kidneys of the two animals after death. He arranges that the rabbits shall be really alike in breed, weight, colour, food, etc. Three separate strains of colon bacilli were used for these experiments—one isolated from the faeces of an enteric patient, and two from the dejections of a patient suffering from diarrhoea. Having satisfied himself of the virulence of these three cultivations, he very much exalted it by repeated passage through animals in which the bacilli were injected under the dura mater. The toxin was filtered off from these cultures and sterilized, and proved experimentally to be sterile. The operations were performed with antiseptic precautions, and after the death of the animals cultures were made from the spleen, the peritoneum, and the blood of the heart to ascertain that death was really due to the toxin injected and not to any error in the operations involved or to any accidental infection, and in these preparations in the case of one rabbit streptococci were found. The results obtained with the three different strains of bacteria were practically identical. The usual results of injections were that in two or three hours after injection into the jugular vein, or in six or more hours after injection into the portal vein, the animal fell into a condition of prostration, not touching food or responding to stimulation. In most cases diarrhoea soon came on, then convulsions, at first clonic, gradually changing to tonic. In those animals which survived injection for a week or more, these symptoms were succeeded by marked cachexia and loss of weight. Twenty-one experiments were made, involving forty-two rabbits. In each case the author quotes the weight of the rabbit at the time of injection and at the time of death, the date and amount of the injection, and the date and hour of death. In one experiment both animals recovered, in two the two animals died practically at the same time, in one the time of survival of the animal injected in the vena porta was only three and a half hours longer than that of the other. There remain seventeen experiments in which the rabbit injected in the vena porta lived at least twenty-four hours longer than that injected in the jugular vein, while in five of these seventeen cases the rabbit injected in the vena porta recovered and the other rabbit died. These results seem to show a marked attenuating action exercised by the liver of the rabbit on the toxin produced by the bacterium coli. The condition of the viscera varied with the length of the illness preceding death. The liver was usually found much increased in volume, of a reddish-brown colour, much congested and full of blood. In four cases fatty degeneration of the liver was visible with the naked eye. With the microscope a leucocytic infiltration was found to be common. The protoplasm of the hepatic cells was often more opaque than usual, and at some points the cellular structure of the hepatic substance could hardly be made out. Once only there was a slight increase of connective tissue in the liver. The kidneys were increased in volume and weight, usually hyperaemic, sometimes haemorrhagic. On section they appeared of a deeper red-brown colour and more full of blood than normal. In three rabbits there was increase of renal connective tissue. Sometimes large white kidneys were found. Microscopic examination of the kidneys showed usually either simple vascular repletion or haemorrhagic glomerulitis with turbid swelling and desquamation of the cells of the tubules. The tubules themselves contained the degenerate remains of cells. These changes chiefly involved the cortical zone. In rabbits injected in the jugular vein, the renal changes were usually more intense and more diffuse than in rabbits injected in the vena porta. The comparative examination of the kidneys, therefore, afforded a further proof of the protective action of the liver against the toxins concerned. Another series of three experiments is recorded, in which the author, adopting a method of which he himself disapproves, emulsified the toxin with hepatic juice and several hours later injected this mixture into the jugular vein of one rabbit, and an amount of toxin equal to that used in the first case into the jugular vein of another rabbit, and noted the time before each animal died. The results were contradictory.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(13) Pneumococcus Endocarditis.

H. B. PEEBLE in recording three cases of pneumococcus endocarditis, all of which had pneumococci circulating in the blood, and in one, the only fatal case, the pneumococcus was found in large numbers and alone in the vegetations (*Amer. Journ. Med. Sci.*, November, 1904, p. 782), gives the following conclusions based on the study of 132 cases: Endocarditis complicates pneumonia in about 1 per cent. of all cases and in 5 per cent. of the fatal cases. Endocarditis due to the pneumococcus occurs in about 25 per cent. of all cases of bacterial endocarditis. The pneumococcus may cause endocarditis of any degree of intensity, but in over three-fourths of the cases it is of the severe or so-called malignant type. The vegetations are usually massive, but there is less tendency to ulceration and perforation of the valves than in endocarditis due to streptococci and staphylococci. Although endocarditis complicating pneumonia is usually due to the pneumococcus it may be due to other bacteria. Pneumococcus endocarditis is much more often left-sided than right-sided; but involvement of the tricuspid and pulmonary valves occurs about four times as often as in endocarditis in general. The pneumococcus attacks the aortic valves more often than the mitral, and relatively twice as often as the other organisms commonly causing endocarditis; it attacks the mitral valve relatively only half as often as other organisms, while it attacks the tricuspid about twenty times as often. Infarcts occur in about 50 per cent., and meningitis in about 60 per cent. of the cases. Pneumococcus endocarditis is relatively twice as common in females as in males. Endocarditis complicates pneumonia much more frequently after 30 years of age than before. An old heart lesion predisposes, and its clinical picture does not differ from that due to any acute endocarditis. The endocarditis may develop before, during, or after pulmonary involvement, but pneumococci may infect the endocardium without there being at any time involvement of the lungs. A considerable number of cases show an afebrile period, usually of three or four days' duration, between the fever due to the pneumonia and that due to the endocarditis, and the endocarditis may be afebrile. Its duration varies from a few days up to months. The pulse is usually rapid and irritable, but bradycardia is more frequent than in other forms of acute endocarditis. Subjective symptoms referable to the heart and physical signs of the endocarditis are often entirely lacking. Signs and symptoms from other organs are either those due to an infectious process or to infarcts. Leucocytosis is frequently absent. Blood cultures will, if repeated, show pneumococci. The diagnosis is difficult or even impossible in cases in which the endocarditis develops during the course of the pneumonia and ends rapidly in death. Endocarditis should always be suspected in a case of pneumonia which is followed by an irregular temperature not sufficiently accounted for by some other complication—as empyema. The prognosis is extremely grave, seeing that 60 per cent. of the cases have a complicating meningitis, but it is probable that the percentage of recovery is higher than published reports suggest. The treatment consists merely in absolute rest, supporting food, and stimulation as required.

(14) Rupture of the Muscles in Typhoid Fever.

THIS somewhat uncommon complication of typhoid is described by Pérochaud (*Gaz. Méd. de Nantes*, No. 38). Considering the frequency of muscular lesions in typhoid, it is curious that rupture should seldom occur. Violent movements, such as take place in delirium, appear to be the chief cause, the muscle most usually affected being the rectus abdominalis. As a matter of fact the real cause is not accurately known. The male sex is most usually affected. Muscular rupture occurs in the third week or during convalescence, and sometimes accompanies degeneration of the bony structures. The author describes a most exceptional case in which rupture occurred between the fifth and sixth day of the disease. The patient's mind is usually clear; he is conscious of a feeling of prostration, and at the time of rupture of sudden pain and tenderness sufficiently severe to cause him to cry out. Examination at this time reveals an irregular depression outlined in the substance of the abdominal rectus. The size varies. A little later swelling due to haemorrhage is noticed; the condition may be unsuspected until the haematoma is noticed, which forms an ovoid tumour with the lesser extremity pointing to the pubes. It is rare for it to exceed the size of an orange. The skin is movable, and it is even possible to slightly displace the tumour laterally. In due time an ecchymotic tinge appears in the skin, varying in its intensity according to the thickness of the muscle and the impermeability of its sheath. Sometimes haemorrhagic discoloration is first noticed below the pubes and at the upper part of the thighs. Absorption may take place, but it is not so usual as suppuration, which occurred 16 times in 35 cases, and appears to be due to the presence of Eberth's bacillus. The prognosis is grave, chiefly because muscular rupture occurs in cases of severe typhoid, death being due to myocarditis or some other complication of the disease. But even in those cases where death is not due to one of the usual complications of the disease suppurating haematoma is serious, as the resulting abscess may point internally, and set up septic peritonitis. So soon as the diagnosis is made surgical interference is called for, as delay may expose the patient to risk.

(15) The Fourth Disease.

KLEIN (*Deut. med. Woch.*, November 24th, 1904) gives his experience of the fourth disease (Filatow-Duke's disease). The rash is the same colour as in scarlet fever, but the swelling of the papillae is slight, and it is not followed by desquamation. It appears first on the face, then on the back and abdomen, but is seldom found on the extremities, and lasts only from one to three days. The onset is sudden, the fever may be high at first or only slight, vomiting seldom is noticed, there are slight signs of a cold in the nose and eyes. The fever never lasts more than two or three days and then the general condition and appetite become normal; no complications or sequelae were noticed. In the mouth there is at first a deep redness of the soft palate, pharynx, and tonsils; the tongue on the third day is like the scarlatina tongue. Slight enlargement and tenderness of the glands in the neck may occur. The incubation is shorter than in rötheln, being from a few days up to a fortnight. The rash Klein believes to be the exanthem of a distinct infectious disease, and different therefore from the accidental rashes seen in influenza or tonsillitis. Isolation is necessary, and treatment as if it were a mild case of scarlatina, until the absence of desquamation allows these precautions to be relaxed.

SURGERY.

(16) Surgical Treatment of Perforating Enteric Ulcer.

ZESUS (*Wien. Klin.*, November, 1904) has collected from every available source 255 cases of perforating enteric ulcer in which laparotomy was performed, and shows, by comparing this with previous and less extensive returns, that there has of late been a decided improvement in the prognosis of the surgical treatment of this serious lesion. In 95 of the 255 tabulated cases the operation was followed by recovery. The high rate of mortality is due in some measure, the author holds, to the fact that laparotomy is often delayed until the unfavourable conditions common to all cases of perforation in enteric fever have been increased by the wide extension of peritonitis. The statistics analysed in this paper show that of 67 patients subjected to operative treatment within the first twenty-four hours 30 recovered, whilst 20 out of 23 thus treated at a later period died. The author considers the objections that have been raised to the surgical treatment of perforating intestinal ulcer in enteric fever. The possible multiplicity of perforations can hardly, he holds, be regarded as a contraindication, as the surgeon can deal just as readily with two or more perforations as with one. The subsequent occurrence of perforation in another part of the small intestine after laparotomy is very rare, and has been dealt with successfully by a second operation. In discussing the objection that it may be found difficult and indeed impossible to find a perforation on exposure of the intestines by laparotomy, the author points out that there are two classes of cases in which such an accident has occurred; one class in which the actual existence of a perforation is demonstrated by the presence of gas and intestinal contents in the abdominal cavity, the other in which no indications of perforation beyond the pathological

lesions of peritonitis are presented. In the recorded instances of the former class of cases, laparotomy resulted in complete recovery. Of the second class, 20 cases have been collected, in 12 of which operative treatment was successful. The author argues that, although in cases of this kind, in which no perforation can be found either on laparotomy or on *post-mortem* examination, it is difficult to decide whether spontaneous closure has occurred, or the peritonitis has been excited by the contiguity and not by direct infection, still, as is proved by so many cases of recovery, surgical intervention may exert a favourable influence on peritonitis developed in the course of enteric fever, and consequently exposure of the abdominal cavity is not contraindicated in cases in which the symptoms of perforation are doubtful, and in which there is a risk of failing to meet with any intestinal lesion. With regard to the objection raised that it may be found very difficult on account of the soft condition of the inflamed intestinal coats to close the perforation by suture, the author states that in 2 instances only in his large number of collected cases has such trouble been recorded. This difficulty, should it occur, may be overcome, he points out, by resection of the affected portion of intestine, or by stitching the perforated loop to the external wound.

(17) Hernia of the Ureter.

A. CARLI (*Gazz. Med. Ital.*, October, 1904) collects and classifies all the published cases of ureteral hernia which he has been able to find. The whole number is 11, including 1 not previously published. Of these cases 6 were inguinal and 5 crural. Of the inguinal herniae 2 were simple (that is, unaccompanied by vesical hernia) and external, the remainder were internal and combined with hernia of the bladder. All the inguinal herniae were on the right side. The crural herniae were all simple, 2 being on the right side and 3 on the left. The crural were all in females, the inguinal all in males. In simple ureteral herniae the constant position of the ureter on the posterior face of the sac suggests that it has been dragged into the hernia by the peritoneum. Where both bladder and ureter enter into the hernia, the ureter may be supposed to have been dragged in by the bladder. A congenital origin for these herniae has been suggested by Reichel, who supposes that during fetal life the yet undescended testicle may have become adherent to a ureter which it subsequently brings after it into the scrotum. In most cases a hernia is said to have existed for from two to four years, in one case for 20 years. The patients were aged from 9 to 63 years, the fourth, fifth, and sixth decennia containing most cases. The substance of the ureter is usually normal, though stenosis, cystic dilatation, uniform dilatation, and thinning or thickening of the walls have all been reported in different cases. In 3 cases the stenosis and kinking of the ureter were found to have caused hydronephrosis. Symptoms of the condition of ureteral hernia are often wanting, but the author considers that great importance should be attached to hydronephrosis in a patient suffering also from hernia. In one case the patient for a few days before operation suffered from difficulty of micturition, a condition which disappeared at once after operation. In another case the abdominal pains of which the patient complained may have been due to the implication of the ureter. Reichel suggests that, after reduction of the intestinal part of a hernia, the ureter may be left behind, and that one should suspect any small soft body remaining in the inguinal canal, but no case of this complication has been met with in practice. In the course of an operation it may be necessary, and perhaps difficult, to distinguish between the round ligament and the ureter. The latter is torn away from the subperitoneal tissues, and only covered by the peritoneum, while the round ligament is surrounded by the peritoneum for about three-fourths of its circumference, and adheres intimately to the subperitoneal tissue. The ureter, therefore, could be much more easily separated from the sac. The important point is that the possibility of the presence of the ureter should be kept in mind. Out of the 10 cases operated upon, in 9 the presence of the ureter in the hernia was recognized at the operation, and it was uninjured. Eight of these operations resulted in complete cure, and 1 was followed by death, not attributable to any complication connected with the ureter, but to the large size of the (irreducible) hernia and to the length of time occupied by the operation. In rare cases, especially cases complicated by severe hydronephrosis, it may be necessary to excise the kidney, but a successful result may usually be expected from the careful reposition of the ureter. If the ureter be wounded accidentally before it is recognized, the proximal end of the wounded ureter may be implanted in the other ureter, or a uretero-cystoneostomy may be performed. In choosing between these two operations, the operator will do well to be guided by the special conditions of the case, rather than by *a priori* considerations.

(18) The Operative Treatment of Housemaid's Knee.

HOFFMANN (*Amer. Journ. of Orthopaedic Surgery*, October, 1904) directs attention to a simple operation which he has practised with almost uniform success in 104 cases of housemaid's knee. This operation consists in puncturing the enlarged prepatellar bursa, thoroughly scarifying its inner surface, expressing its fluid contents, and bringing its walls in contact and keeping them together by means of a compress and strips of adhesive plaster, until their raw surfaces have contracted adhesions and have thus obliterated the cavity. No anaesthetic, it is stated, need be given, as the operation is practically free from pain, except that produced by puncturing the skin. The patient need not be confined to bed or even use crutches during the after-treatment, but may attend to almost any kind of work, except such as necessitates kneeling, immediately after the operation. The author has frequently applied this method in the treatment of distended popliteal and other bursae, but not with such uniformly good results as those experienced in cases of housemaid's knee, but he states that in a number of cases of chronic popliteal bursitis, which would otherwise have been subjected to excision, a cure has been effected by this simple operation. In conclusion, it is pointed out that the success of this method depends on thorough scarification, complete withdrawal of synovial fluid, and firm compression of the surfaces of the knee.

MIDWIFERY AND DISEASES OF WOMEN.

(19) Ovarian Pregnancy.

CLARENCE WEBSTER (*Amer. Journ. of Obstet.*, July, 1904) has carefully examined an ovary removed by Evans of La Grosse, Wisconsin, and pronounced it to be an undoubtedly genuine example of primary ovarian pregnancy. The patient was 36, and married ten years. She had been twice pregnant, the second pregnancy ended at term eight years before the present illness. The last period occurred on July 4th, 1903, then the breasts enlarged and nausea set in. There was no period in August. On September 7th she was taken with an attack of crampy pains in the abdomen when at church, the face was pale, and she felt faint. Blood escaped next day from the vagina, containing shreds of tissue. Abdominal pains persisted, and the patient had to keep in bed almost continuously. On October 1st blood again appeared, and continued to flow for several days. A rounded mass was detected on the right side of the uterus, rather larger than that organ, tender, and but slightly movable. Evans then operated; ½ oz. of dark fluid was found in the utero-vesical pouch. The mass proved to be the right ovary, adherent to the rectum and pelvic wall; the right Fallopian tube was freely movable above it, and was removed with the ovary. Webster describes that organ as an irregularly-rounded, somewhat tuberous mass, 3 in. in its vertical, and 2¾ in. in its other diameters. No indication of rupture was present. The Fallopian tube was normal. A true amniotic cavity occupied the interior; it contained turbid fluid, and lay entirely within the substance of the ovary. All the usual histological elements, syncytium, decidua cells, and villi, were present. Webster lays stress on the recent discoveries, showing that Müllerian tissue, occasionally at least, extends into the ovary. He notes also that Schmorl and himself have found decidua-like cells in the ovary in cases of uterine pregnancy, and suspects that they may be of Müllerian origin. This appearance of decidua is of great importance in relation to the implantation of the ovum, and also to the whole question of decidua as developed normally in the uterus and possibly in the tube. Lastly, in Thompson's and in Tussenbrock's cases of ovarian pregnancy, it was believed, on account of the extent of corpus luteum in relation to the outer part of the ovum, that the gestation must have begun in the ripe Graafian follicle. In the Evans and Webster specimen no such relationship of corpus luteum was found, and if the fertilized ovum developed in a Graafian follicle it was one in which there was no formation of corpus luteum.

Decidual transformation is, in Clarence Webster's opinion, peculiar to the decidual tract, and somehow a piece of tubal tissue from the surface of the ovary managed to communicate with an ovum and allow of fertilization and nidification of the oösperm on the spot.

(20) Thrombosis and Embolism in the Puerperium.

RICHTER (*Archiv f. Gynäk.*, vol. lxxiv, part 1, 1904) has studied this complication in Leopold's maternity at Dresden, and publishes valuable temperature and pulse charts. They illustrate the prevalence of Mahler's symptom, steady ascent of the pulse curve, more or less independent of temperature. Richter finds that in 16,000 lying-in women 20 cases of embolism, 78 of thrombosis, and 18 of what was written down as "puerperal pulmonary complications" were registered. Of the cases of embolism 60 per cent. were fatal, so that no less than 40 per cent. recovered. In 12 of the fatal cases death was very sudden, in only 2 were one or two milder attacks observed before that which proved fatal. In 63 per cent. of all cases Richter observed Mahler's symptom well-marked, in 34 per cent. it existed, but less distinctly, chiefly because rise of temperature due to various causes had preceded the attack. In only 2 per cent. was the sign negative, the pulse falling, and 1 case remained where the chart was lost. In 19 cases of lung complication (18 in the puerperium and 1 after ovariotomy), Mahler's symptom was marked in 42 per cent., in 10 it was less marked, being obscured as in the embolism patients by the effects of fever, and in 1 it was absent. In short, a steady rise in the pulse curve is a most important premonitory symptom, especially when dyspnoea is not marked at first.

(21) Quintriplets.

G. C. NIJHOFF (*Journ. of Obst. and Gyn. of the Brit. Emp.*, vol. vi, No. 1) has received from Dr. J. J. de Blécourt a specimen, consisting of five immature children and one placenta, which were produced at the same birth. The mother of the quintriplets was a healthy woman, aged 34 years, who had been married for eight years to a perfectly healthy man, and had previously given birth to one child. The early part of the pregnancy now to be considered was not remarkable, except that during the fourth and sixth months she had a discharge of yellowish fluid, occasionally tinged with blood. Labour set in during the sixth month, and when de Blécourt examined the case the fundus uteri was a handbreadth above the umbilicus, and fetal heart sounds could be heard at both sides and in the middle of the abdomen; at the acme of the contractions a bag of waters was visible at the vulva. Soon after the rupture of the membranes an immature female child was born, followed, after ten minutes, by the birth of a second female child. No new bag of waters was observed before the second birth. A few minutes afterwards a second bag of waters protruded in the vulva, and three more children, one male and two female, were delivered at intervals of a few minutes. The five children were all alive, but died after an hour. The placenta was expelled about an hour after the birth of the first child. The mother made a rapid and complete recovery. The placenta consisted of one continuous cake, and its uterine surface presented no more than the usual lobules; at the fetal side five separate umbilical cords were inserted, each in a distinct sac formed by the fetal amnion. Three of these sacs were enclosed by a common chorion; the two others had each a separate chorion, and the quintriplets may therefore be regarded as the product of the fecundation of three ova.

THERAPEUTICS.

(22) Hydrotherapy and Tetanus.

J. SADGER (*Zentralbl. für die gesammte Therapie*, Nov., 1904) discusses hydrotherapy in relation to tetanus. The Priessnitz directions for the treatment of tetanus by means of massage, half baths of cool water, foot baths, and later by compresses over the affected parts, etc., are most complete, but are difficult to carry out without an almost unlimited staff of helpers. Currie and Wright, and also Richter, recommend forms of treatment whose common feature is letting of cold water fall upon the patient from some distance. Much more common, however, than such methods has been the use of heat in the form of hot baths, steam baths, dry or wet packs, etc., and, indeed, warm applications have been in use for centuries. For example, Ambrosius Pareus is said to have cured a case of tetanus by enveloping the patient in warm dung. In the American war of freedom a sailor suffering from acute traumatic tetanus was taken below during a fight and then forgotten, but when next seen was found to have recovered in the stifling heat. Some authorities recommend continuous steam baths, and French authors specially recommend warm baths. Recently Ribos Perdyo has used warm baths of from two to four hours' duration, frequently repeated, at the same time keeping off all causes of irritation, and he has obtained especially good results. The long-continued hot baths or steam baths have the great disadvantage of being almost impracticable in private houses and difficult to carry out even in hospitals. In their use also there is not that alternation between heat and cold which both has a favourable effect on the nervous system and also increases perspiration and evaporation. On the other hand, they give rise to a subjective improvement in the condition of the patient, and an intermission of the cramps, and they help to get rid of the poison in the system. Some method which combines the advantages of the different treatments is needed, and in this connexion the following case, reported by J. Andresen in 1875 is of much interest. The patient was a young and strong labourer of rather more than 20 years of age. Andresen was asked to visit him in the country, and told that the upper part of the patient's body was quite stiff, that he could not turn his head or neck, and that he was supposed to be suffering from rheumatism. On inquiry it was discovered that the patient's teeth were clenched and his face distorted, and there was a history of injury to the thumb about a fortnight before. When Andresen and the doctor who had already been in attendance for a day visited the patient together they agreed that the case was one of tetanus, and told the friends of the patient that his death was to be expected in a few days. They decided not to confine themselves to drug treatment, but to try the effect of hydrotherapy. There was no bath in the cottage, but a large kneading trough formed a substitute. To get the patient into the bath was a matter of difficulty, for his body was stiffly arched. The patient was left in the warm bath until the muscular spasm was to some extent relaxed and he could lie stretched out and be put into a dry pack. The following four procedures were then carried out in turn. First, a dry pack until sweating set in; secondly, a cool bath with pouring of cold water over the patient, especially down the spine; thirdly, a wet pack; fourthly, a repetition of the cool bath. These four processes were constantly repeated for ninety-six hours. The results were excellent; the trismus had disappeared after twenty-four hours and the tetanus after forty-eight hours, and only the fear of relapse led to a continuance of treatment for the second forty-eight hours. That this fear was not groundless was shown by the fact that after Andresen's return home he was called up and told that the patient had again become stiff. This relapse was successfully treated by a repetition of the wet pack and the bath, and there was no second return of the cramp. The baths and packs were given for some hours on each of several days; the patient was soon able to leave his bed, and after fourteen days, when fully recovered, was able to visit Andresen in his own house. Some points about the case are not clear. There is no definite statement as to the time which elapsed between the injury and the first symptoms of tetanus, but the symptoms appear to have set in late, and in so far the prognosis was good even without treatment. On consideration, however, of the case as a whole, of the stiffness of the whole body, the complete, or almost complete, lockjaw and the relapse, Sadger judges the case to have been a severe one, such as ordinarily ends fatally with or without serum treatment. Of especial interest is the rapidity with which the symptoms disappeared, and no other procedure is known to the author by which the tetanic cramp could have been overcome in forty-eight hours. The treatment has the great advantage of being not difficult to carry out even in the most primitive cottages.

(23) The Roentgen Rays in Skin Diseases.

BELOT (*Annales de Derm. et Syph.*, May, June, July, 1904) writes a comprehensive survey of the present state of *x*-ray treatment in diseases of the skin. He first points out the importance of noting the quality of the rays employed and the amount absorbed. It is useless to record only the volts and ampères and the number of sittings. One instillation may produce the same effect in ten minutes as another in an hour. The quantity of *x* rays reaching the skin

may be measured by Holzknecht's chromo-radiometer, which consists of a scale of twelve divisions, or units H. established by pastilles which change colour under the effect of the rays. With regard to the cutaneous reaction, as a rule the first stage of erythema should be sufficient. Belot employs a coil giving a 25 centimetre spark, supplied by a battery of 16 volts and 5 ampères. The tube should be low vacuum, or soft, because the rays from this are less penetrating and more easily absorbed. The tube is enclosed in a wooden box covered with lead except at one part corresponding to the normal ray from the anticathode. By this means both patient and operator are protected. The distance varies with the size and form of the surface to be treated, and the edges should receive the same quantity of rays as the centre. To ensure this the distance of the anticathode should be double the largest diameter of the lesion. After the first two sittings (of twenty to fifteen minutes) an interval of two or three weeks should elapse to observe the reaction. As the lesion is modified the doses are diminished. We are ignorant of the action of the *x* rays, so that indications must be based on the objective phenomena produced. It is wrong to apply the rays to all cases indiscriminately; they should generally be reserved for rebellious cases. The following affections have been benefited by *x* rays: Cases where epilation is required, acne, psoriasis, sclerodermia, naevi, warts and keloid, pruriginous dermatoses such as lichen, prurigo, and eczema; lupus and leprosy, mycosis fungoides, cutaneous sarcoma, and epithelioma. In hypertrichosis, radiotherapy is more rapid and complete than electrolysis, and causes atrophy of the hair papilla and obliteration of the follicle. But new hair must be prevented by giving small doses afterwards. The method is uncertain, and may produce cutaneous atrophy and telangiectasis. Hence Belot only recommends it in severe cases of hypertrichosis. In ringworm the *x* rays have been extensively used by Sabouraud with good results, but they must not be strong enough to produce permanent alopecia. A sitting of twenty-five minutes is given with four or five units of Holzknecht. From the fifteenth to the twentieth day the hairs begin to fall, and new hair appears in about ten weeks. When the new hair grows, it is separated from the old by a barrier of epidermis. Thus the parasite is thrown off with the old hair without contaminating the new. The cure is hence mechanical and not bactericidal, for cultures of the parasite can be grown after expulsion. Hence reinoculation is easy, and must be prevented by further treatment of the scalp with iodine. In extensive ringworm it is best to make successive contiguous applications. The same treatment applies to favus and sycosis. In the latter a small number of sittings should be given with a hard tube. The itching ceases, and the infiltration and pustules disappear. When the inflammatory reaction has subsided, sulphur ointment should be applied. In alopecia areata the *x* rays have been used as a stimulant to growth of the hair. This at first appears anomalous, but all depends on the quantity of rays absorbed and the reaction produced. The hair papilla is sensitive to the rays, and is stimulated by a small dose but destroyed by a larger one. The action on alopecia is probably due to reactional hyperaemia, the amount of rays absorbed not being enough to have any bactericidal action. In alopecia areata the quantity of rays should be 3 or 4 H., and the intervals between the sittings fifteen days. More recent cases do best. Cases of acne and acne rosacea improved by *x* rays have been reported by several observers. The action is attributed to an atrophic effect on the sebaceous glands. Relapses appear to be frequent. In psoriasis the rays may be used in rebellious cases. The best results are obtained with small doses (four to six H.) sufficient to stimulate the skin without destroying it. The first application lasts fifteen minutes, the anticathode being at 10 c.cm. distance. The scales fall off in two or three weeks, leaving a smooth pigmented surface. It is probable that relapses occur as after other methods. In keloid, radiography, although not infallible, has given good results. Under a dose of 7 H., repeated every fifteen days, the keloid softens and diminishes in size. Cases of sclerodermia have often been improved. Pruritus may be temporarily abolished by the *x* rays, but Belot prefers high-frequency currents. In prurigo benefit has been derived from this treatment. In cases of moist eczema a dose of 3 or 4 H. has caused diminution in the itching and weeping, followed by a normal aspect of the skin. The rays are especially useful in cases rebellious to other treatment. Severe cases of lichen planus have received benefit with a dose of 4 or 5 H. Cases of leprosy have been reported as improved. The dose should in this case be as high as possible compatible with the integrity of the skin. Lupus was first treated in 1897 by Kummel and others, and since then many cases have been recorded. The methods of different operators differ, some advocating a slight reaction, while others aim at destroying the lesion by intense radio dermatitis. Belot uses rays equal to only 4 or 5 H. units, which produce slight erythema and swelling. The interval between each application should be two or three weeks. Belot does not consider that the *x* rays have superseded the older forms of treatment, and must be compared chiefly with Finsen treatment. The Finsen method requires perfect compression, while the *x* rays act at a distance. With the latter a considerable surface may be treated at one time, while in phototherapy the field of action is limited. The duration of treatment is also shorter with the *x* rays. On the other hand, the clinical results are in favour of the Finsen method, and the risk of accident is slight compared with the *x* rays. Belot concludes that, at the present time, phototherapy is preferable in lupus, and that the *x* rays should be reserved for cases unsuitable for that treatment. The changes which take place histologically consist in degeneration of the cellular elements, especially the giant cells and epithelioid cells, followed by inflammatory reaction. The bacilli, if present, are destroyed by reactional inflammation, and any primary action in the bacilli may be ignored. In lupus erythematosus radiotherapy does not seem to give any better results than other methods, and chronic cases only yield to violent reaction. In mycosis fungoides radiotherapy has been more successful, and several cases have been reported as much improved. Belot employs about 10 units H. for each tumour, enough to cause sharp reaction without risking necrosis. Pruritus diminishes in two or three days, and the tumours gradually disappear. The number of sittings varies according to the size of the tumours. They should be separated by intervals of a month. As mycosis fungoides has hitherto resisted all other methods of treatment, radiotherapy is strongly indicated in this disease. Opinions differ as to the value of *x* rays in sarcoma, but Belot considers them useful in inoperable cases. In epithelioma of the skin good results have been reported. Some of these appear to be rodent ulcer. Sequeira reported 30 cures out of 80 cases of rodent ulcer. In treating these cases a healthy border of 5 millimetres of skin should be included. Belot gives a dose of 10 to 12 H., followed by an interval of two or three weeks, then a dose of 8 to 10 H., and after another interval a smaller dose of 5 or 6 H. Out of 26 cases treated by him 14 were apparently cured and the others improved. Belot considers the *x* rays indicated in inoperable cases of cancer of the tongue. They may be applied by mouth tubes of various sizes and shapes, according to the lesion. Recurrent cancer of the breast may also be treated with benefit. In one case some axillary and subclavicular glands subsided under the treatment. Port-wine naevi are better treated by *x* rays than by electrolysis, and the dose should be about 10 H.—enough to cause a marked reaction. Good results have been reported in other cutaneous affections, including warts, xerodermia, chronic ulcer, ichthyosis, actinomycosis, and rhinophyma.

PATHOLOGY.

(24) Agglutination of Red Corpuscles.

GENGOU (*Ann. de l'Inst. Past.*, November, 1904) finds that certain chemical precipitates agglutinate and subsequently haemolyze washed red corpuscles. This agglutination has for its origin a direct action of the precipitates and the corpuscles upon each other, and it is probable that the agglutinating power of colloids upon red corpuscles is due to a similar direct interaction. Serum, even in small doses, prevents the agglutination and haemolysis of corpuscles by precipitates, and fresh serum has the property of holding in suspension certain precipitates, such as the sulphate of barium. In this dissociation of barium sulphate by serum there is an adhesion of the colloidal albuminoids of the serum to the powdered salt; thus the dissociation of barium sulphate by serum and the agglutination of barium sulphate by red corpuscles have an initial point in common, namely, the adhesion to the powder of particles in suspension (corpuscles in the one case, serum colloids in the other).

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(25) Cardiac Irritability in Tuberculosis.

THE cardiac action presents interesting and important characters in tuberculosis, and it is only recently that due attention has been paid to the subject (Marcel Grosset, *Thèse de Paris*, 1904). The most frequent symptoms are palpitation and tachycardia. These symptoms do not necessarily occur in the same patient, nor have they the same significance. They also differ in prognosis, for the evolution of tuberculosis differs in patients who suffer from palpitation and those who present an abnormally high number of beats. Palpitation is a frequent symptom in tuberculous patients, especially in young nervous subjects. In the initial periods of the disease it presents different clinical types which it is important to recognize in order to prevent errors of diagnosis. The physician is often consulted by young girls or women with a pale earthy tint, but whose nutrition appears good, on account of severe palpitation. Should he examine the lungs he may be surprised to find early signs of tuberculosis. Palpitation may only appear after forced effort, and, especially in the beginning, is not accompanied by any other vasomotor disturbance. But in a short time it becomes more frequent, and appears on the least provocation. Not infrequently attacks of palpitation appear during the earlier parts of the night, and on this account indigestion may be considered the cause. These patients soon notice a slight dry cough. Palpitation may also appear at the beginning of tuberculosis in young males from 18 to 22. These patients are often tall and thin, the thorax being particularly narrow. They are pale and effeminate in appearance, and the complaints for which they seek medical advice are palpitation and dyspnoea on making the least effort. It is very unusual for any reference to be made to possible lung disease. Another clinical type of palpitation met with in tuberculous patients is that which precedes haemoptysis. It is no uncommon thing to note disordered cardiac action for several hours, or even a day, before haemorrhage. There are frequently vasomotor dilatation and dyspnoea previous to the appearance of blood. Such are the characters of palpitation in the early stages of tuberculosis in some patients. Another variety of palpitation in tuberculous patients is that due to dyspepsia, and which appears at any time; it may be accompanied by permanent tachycardia. In tuberculous dyspeptics there is a painful spot in the fourth left intercostal space discovered on pressure, and Mathieu describes another situated in a horizontal line uniting the extremities of the ninth ribs and a little to the right of the linea alba. There are therefore four types of palpitation occurring in tuberculosis: the chloro-anaemic, that occurring in young males shortly after puberty, prehaemoptic, and in the tuberculous dyspeptic. From the point of view of prognosis, it may be said in general that palpitation does not signify severity of tuberculosis. The most significant form is that which precedes haemoptysis, as palpitation appears in cases of tuberculosis showing tendency to vascular engorgement. In this class of case haemoptysis is a danger. The second form of cardiac irritability occurring in tuberculosis is tachycardia, which may be due to tuberculosis of the trachea, bronchial glands, vagus neuritis, or tuberculous toxaemia. The latter is the most interesting and most frequent form. It may appear at any period of the disease, though not usually at an early date. The pulsations may reach 120, and are not accompanied by palpitation. The patient is unconscious of the condition—a feature which distinguishes this form of tachycardia from that due to compression of the vagus. The arterial tension is low. The prognostic importance of toxic tachycardia is in the writer's opinion great, in that it is evidence of grave constitutional disturbance, and the earlier it appears the more serious is its significance. Further, tachycardia indicates rapid and progressive disease of the lungs, while palpitation more usually presages haemorrhage. Palpitation occurs more frequently in females, especially those presenting nervous subjective symptoms, patients whose symptoms are in excess of their signs. On the other hand, tachycardia is frequent in another class of patient, namely, those who lose weight and in other ways present a more striking objective picture. Arrest of the disease may be looked forward to in the former class; in the latter it progresses.

(26) Inequality of the Pupils in Diseases of the Lungs and Pleura.

DEHERAIN has collected a series of cases of diseases of the respiratory system in which inequality of the pupils was a symptom (*Presse Médicale*, 1904. No. 79). It has been noticed that mydriasis may occur on the same side as a pneumonic consolidation. This is believed by the writer and others to have some connexion with the malar flush of that disease and to be due to vasomotor disturbances. The writer's observations, while confirming the occurrence of pneumonic mydriasis, do not bear out the statement that it occurs on the same side as the disease, as, according to his observations, it is frequent on the opposite. In a period of six months he met with 3 cases of acute bronchitis showing inequality of the pupils. When the acuteness of the symptoms subsided the pupils became equal. Pupil inequality is more frequent in emphysema complicated with chronic bronchitis; 11 cases were collected in six months showing this phenomenon. In 120 cases of pulmonary tuberculosis inequality of the pupils was present in 26. The writer refers to similar observations made by Souques, who believed that apical disease caused this inequality. This statement is not borne out by Deherain's observations, as his 26 cases showed all varieties of tuberculosis of the lungs; at the same time he believes that only cases presenting actual infiltration are likely to show inequality of pupils. There is no connexion between the side affected and the mydriatic pupil. Persistence of this symptom in tuberculous patients is remarkable, lasting sometimes for months. There may be remission of the symptom, but it reappears on the same side. Inequality of the pupils does not produce any subjective result. In 4 cases of pleurisy there was pupil inequality lasting several weeks; all these cases showed serous effusion. The suggestion offered by the writer is that a mediastinal gland irritates some branch or branches of the sympathetic.

(27) Asthma and Infectious Affections of the Lungs.

DUENGES says that if one thinks of the numerous exceptions which have been brought to light of the supposed rule that certain cardiac diseases protect against tuberculosis, one must be very careful before one accepts the supposed antagonism between asthma and phthisis, which is commonly accepted (*Deut. med. Woch.*, November 10th, 1904). He first calls up a number of authors in support of the rareness of the combination. He is sure that a phthisical patient can become asthmatic. He has been able to see a tuberculous patient develop asthma. In accepting the patient's statements as to the previous existence of consumption, he urges that one should be very cautious before relying on the correctness of the diagnosis. There are a number of points which may easily lead to an error in this direction. His observations, however, make it certain that the complication can take place although it is very rare. The next question is whether nervous asthma offers a favourable soil for the development of tuberculosis. Out of some 670 clinical histories he has only been able to find 2 cases in which asthma has been followed by tuberculosis. In 1 case he was able to see the attacks of asthma, and both were under his direct medical treatment. He comes to the conclusion that asthma cannot be regarded as a predisposing cause of tuberculosis, but doubts if the combination is really as rare as it would at first sight appear. He points out that in itself nervous asthma is not a very common disease, and it would require extensive statistical examination before one could settle how frequent the combination actually is. Turning to the combination of asthma and pneumonia, he finds that he has seen cases of asthma in which pneumonia has taken place, but these cases have one great peculiarity. In spite of the already-existing difficulty of breathing which the asthmatic suffers from, the dyspnoea during the pneumonia is not great. The pneumonia in both the cases which he reports ran a favourable course, and subjective complaints were not great. That there is some compensating regulation which should render it possible for an attack of pneumonia to run such a mild and non-dyspnoeic course in patients already affected with dyspnoea is certain, and the author carefully discusses the possible points which might play a part. He finds that the practice which the asthmatic has had in certain three-

tions to protect his respiratory organs stands him in good stead during the attack of pneumonia, and may also do so in tuberculosis. He discusses the matter fully, and refers to the action of the vicarious emphysema.

SURGERY.

(28) The Possibility of Disinfecting the Human Skin.

V. TIRELLI (*Arch. per le Scienze Med.*) discusses the possibility of freeing the human skin from micro-organisms under the usual conditions of hospital practice. Clinical results seem to show that at any rate pathogenic germs can be removed from the hands of a surgeon. The function of the skin is partly protective, and if the skin allowed pathogenic germs to become deeply imbedded in it this function would be in abeyance. The harmlessness of the usual disinfecting solutions suggests that they act only on the dead superficial layer of the skin, and their successful use argues that it is only in dead skin that micro-organisms are usually present. Any clinical facts which seem to contradict these views may be explained either as the result of haematogenous infection or of some other special circumstances. The author's experiments were made by Morpurgo's method, other methods being described as either incomplete, insufficient, or inexact. This plan consists in the cultivation separately in thick agar of horizontal and vertical series of sections, made by freezing a piece cut either from the living skin or from the fresh cadaver. Thirty-nine experiments were made, thirty on common skin and nine on di-infected skin. The skin was taken from the backs of hands, wrists, and feet, from the groins, and from female breasts. Altogether 209 sections were made and examined, both by cultivations and in some cases by direct microscopical investigation. The results are reported at some length and four figures are given to show the strictly superficial distribution of the micro-organisms found, and their absence or comparative absence after vigorous mechanical and chemical disinfection. The conclusions reached are: (1) That in the skin of ordinary hospital in-patients, and in those parts of it not subjected to traumatism or pressure, and only scantily supplied with hair, the germs are collected in the superficial strata of the corneous layer. Only exceptionally as the result of accidental lesions do they reach the deep strata. (2) That the epidermis and the hairs and cutaneous glands are proof against infection, which, however can penetrate into the more peripheral part of the hair follicles. (3) That under such conditions the germs in the skin are accessible to disinfection, and the most important element in the success of the disinfection is the maceration and removal of the corneous strata of the skin. (4) That it is reasonable to hope that further study of the technique of disinfection will, in the near future, reveal a method which can be relied upon to give uniformly successful results in the disinfection of skin, at any rate in in-patients.

(29) Hereditary Syphilis in the Second Generation.

C. BOECK (*Berl. klin. Woch.*, September 12th, 1904) contends that syphilis can be transmitted to the second generation, and that the disease may assume a virulent type. He has been able to observe 4 cases on which he has based this opinion. The first case was that of a grandmother who had acquired syphilis and showed secondary symptoms at the age of 18, in the year 1854; the mother, who in 1860, at the age of 2 months, was treated for congenital syphilis, and who later showed unmistakable signs of this form of the disease (*inter alia* Hutchinson's teeth, scars around the angles of the mouth); and the grandchild, who in 1889, at the age of from 4 to 5 months, showed distinct severe hereditary syphilis, evidenced by coryza, maculo-papular exanthem, bright red shining patches on the palmar and plantar surfaces, and rhagades on the genitals. The father of the child was examined and no signs of specific disease were found, and he assured Boeck that he had never been infected; and therefore this source of the illness could not account for the appearances in the child. Boeck goes further in stating that it is very doubtful if syphilis is ever inherited from the father. Discussing the possibility of a reinfection of the mother, he points out that she had not aborted nor miscarried. She had borne a child by another father, which child was stated to have been quite free from syphilitic symptoms, and which died, while being looked after by strange people, of convulsions, at the age of 1 month. Her second child, which was born in wedlock, was quite healthy up to the age of 2, when it acquired scarlatina and died of croup. If the mother had been reinfected, she must have acquired her syphilis after the birth of this child, and under these circumstances could scarcely have failed to infect her husband, which was not the case. That a syphilitic mother may bear healthy as well as syphilitic children is not uncommon, especially if the date of infection lies a long way back. The second case was that of a grandmother, who was treated for a chancre on the lip in 1873, at the age of 19, as well as secondary syphilis. One child was born dead, while of the three others which she brought into the world the eldest presented herself with her baby in 1897 for treatment at the Christiania Hospital. The grandchild was suffering from undoubted and severe hereditary syphilis, while the mother showed distinct signs of the same form of disease, evidenced by characteristic scars around the mouth. She was extremely surprised and shocked to learn of the nature of her baby's illness, especially so as she had no knowledge of the cause of venereal disease until it was explained to her. On questioning her mother—that is the grandmother—the latter confessed her infection, but begged the daughter not to speak of the subject to her husband, so that it was impossible in this case to examine the father of the child. The third and fourth cases were in the same family. The grandmother here again had acquired syphilis as a girl, and although she at first attempted to deny this, it was found that she was still attending hospital for a syphilitic lesion. The mother showed Hutchinson's teeth and scars around the mouth, and she bore two syphilitic children, both of which showed well-marked disease. All other sources of the disease could be excluded to Boeck's satisfaction. He points out that the children were first medically treated somewhat late, which speaks for the assumption that the disease has been inherited from the grandmother's infection. If the mother had been aware of an infection she would have anxiously watched the children for signs of disease, and would have brought them up for treatment early; while, as she did not have the least idea in each case as to the nature of the child's malady, she did not realize the necessity of treatment until the symptoms proved themselves to be lasting.

(30) Haemorrhoids in Children.

COMBY (*Arch. de Méd. des Enfants*, No. 11, 1904) insists on the fact that haemorrhoids are not so rare in children as has been supposed, and refers to cases also collected by Houzel and Lannelongue. Comby's series contains 5 cases of children from 2 to 3 years old and 1 of 15. His observations as well as those referred to by him show that haemorrhoids may appear during the earlier months of life and cause internal haemorrhage. As a rule there is no pain. Internal haemorrhoids may be present without causing any haemorrhage, and are only discovered on local examination. Many such cases therefore remain latent for a considerable time, and only make their existence felt in late childhood or adolescence. Internal haemorrhoids, therefore, must be looked for if we would form any idea of the frequency of their occurrence. External haemorrhoids sometimes appear at an early date, and their appearance is characteristic. It is rare for them to attain a large size. The prognosis of infantile haemorrhoids is good, and it is uncommon for children to suffer much from haemorrhage. Spontaneous cure, however, is not to be expected, and operative interference is necessary.

MIDWIFERY AND DISEASES OF WOMEN.

(31) The Serum Treatment of Puerperal Fever.

E. BUMM finds that the introduction of antisepsis has done less for the puerperal condition than for all other forms of wound infection. This does not apply to lying-in hospitals, which used to be hotbeds for puerperal infection, but to the large mass of confinements in private houses (*Berl. klin. Woch.*, October 31st, 1904). He believes that this failure on the part of antisepsis is not so much due to the limited understanding of midwives as to the enormous difficulty in carrying out a sufficient disinfection in a private house, especially of the poorer classes, and in the unfavourable conditions of the birth itself. A birth occupies many hours and the wounds are not like those of an operation. Coming to the conclusion that there is but little chance that the incidence of puerperal fever in private houses and in cases of midwives' attendance will be much further

reduced, he turns his attention to the best methods of dealing with the infection when it has occurred. Local disinfection has proved a failure, save in cases of retention of putrifying portions of placenta, blood clots, etc. Curetting and the recently-introduced (French) idea of *ecouvillonage*—brushing out the cavity with a sort of bottle-brush—are only dangerous and do not do more than the older antiseptic washing out. When streptococci have gained a foothold these means must fail to drive them out. The general treatment by means of plentiful nutrient food and alcohol only do temporary good, and do not really save any patients. It is, therefore, very desirable to possess a specific means of treating puerperal fever. The introduction of the antistreptococcic serum has so far led to very different opinions. Glowing accounts of its life-saving properties appear in the shape of accounts of single cases, while the trials given in clinics on large numbers of cases have not led to encouraging results. It is, however, not at all easy to decide what the real value of the serum treatment is. In spite of this difficulty and of all the deficiencies of the treatment, Bumm has employed it during the last ten years, and the bare fact that the animal experiments yield such distinct proof of its activity, impel him always to resort to this form of treatment. He has employed every variety of antistreptococcic serum, but now practically only uses Aronson's serum. His results are given as follows: In 5 cases of general septic peritonitis, starting from a septic (streptococcic) endometritis, as well as in 4 cases of operation peritonitis, all cases failed. Of 3 cases of pure septicaemia, from streptococcic endometritis, with streptococci in every blood specimen taken, 2 ended fatally, while 1 recovered. In this case the temperature fell from 41·5° to 37·5° after the first injection, and, having risen again to 40°, it fell again to 37° after the second injection. Shortly after this a localization of the process was found to have taken place. In 2 cases of septicaemia with endocarditis, the serum failed. Four patients died of pure pyaemia in spite of serum, starting from septic thrombophlebitis. The serum was not employed in those cases of parametritis and localized pelveoperitonitis, accompanied by septic salpingo-oöphoritis, as the appearance of a circumscribed tumour rendered the prognosis favourable without. In 53 cases the serum was begun early, while there was only some septic endometritis present. In each case the streptococci were detected microscopically. It was not possible to determine any spread of the infection beyond the uterine mucous membrane by clinical examination at the time of the beginning of the treatment. Six of these patients died—1 of peritonitis, 1 of pyaemia, and 4 of septicopyaemia. Of these 53 patients he deducts 21 whose symptoms were evidently mild; the remaining 32 were undoubtedly severe cases. In 17 streptococci were found in the blood, and he therefore feels justified in being highly satisfied that 26 of these women recovered. His belief of the efficacy of the serum is partly based on the observation which he has so frequently made that the temperature nearly always falls in response to the injection, even in cases which end fatally; and, secondly, because he has found twelve hours after the injection a distinct phagocytosis appears. He regards the rapid appearance of leucocytes containing streptococci as very direct evidence. He warns one to be extremely careful in applying the serum intravenously, but states that he regards the subcutaneous injection as quite safe. He believes that one is justified in giving a prophylactic injection immediately after difficult deliveries, especially after manual detachment of the placenta and decomposition of the "waters."

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(32) The Malignancy of Ovarian Growths.

EMIL MULLER (*Hospitalstidende*, Bd. 12, p. 233) records the results of some 47 operations for the removal of ovarian swellings. In all he removed and examined 6 follicular, 1 suppurating and 2 parovarial cysts, 5 embryomata, 1 myosarcoma, 6 carcinomata, and 26 cystadenomata. Of the 26 cystadenomata 13 were non-papillated, 11 containing pseudo-mucinous and 2 serous material; 10 unilateral, 3 bilateral; 3 cases being complicated with ascites, 3 with torsion of the pedicle, 1 with parovarial cyst, 1 with salpingitis with adhesions, and one with fibromyoma of the uterus: 11 patients made complete recovery; one died on the fifth day after operation from pulmonary embolism, and another on the seventh day after operation from gangrene of the ascending colon and perforation. Of the 13 cystadenomata which were papilliferous in nature, the contents of 5 were pseudo-mucinous and of 8 serous. Four were bilateral, 9 unilateral; 6 were complicated with ascites, 3 with torsion of the pedicle, and in 7 metastases were observed. Two of these patients died immediately after the operation, one on the fifth day from hypostatic pneumonia, the other on the seventh day from peritonitis. In 3 cases in which metastases were noted before the operation, death occurred in eighteen days and five months later, the remaining patient living and in good health two years later; a fourth patient died two and a half years later from general peritoneal extension. In 2 cases without metastases it was necessary to remove the other ovary two and three years later for the same type of growth; one of these died at once from pneumonia, the other surviving for a few months only. Operations were undertaken in 4 cases of bilateral cystadenoma; three patients died from cachexia within one and a half years, the fourth patient having good health for two and a half years, then becoming cachetic and dying five years after the operation.

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(33) Eclampsia: Vesicular Mole without Fetus.

HITSCHMANN (*Zentralbl. f. Gynäk.*, No. 37, 1904) publishes a case in order to show, amongst other facts, that eclampsia may occur without metamorphosis of tissues in a fetus as a cause. The patient was a girl, aged 18, who had borne a child when 14 years old normally to term. The patient was well nourished, but very anaemic, and there was suspicion of incipient phthisis. The period, when she came under observation, had been absent for four and a half months, whilst the uterus had attained the average size of the seventh month. But no fetal heart sounds could be heard, no outline of a fetus detected, and, on the other hand, there had been haemorrhages in the second month. Vesicular mole was therefore diagnosed. The urine was distinctly albuminous, therefore the patient was at once taken into Schauta's maternity clinic in Vienna. A sudden attack of eclampsia set in, and she was unconscious for fourteen hours. One hour after she regained consciousness a violent fit occurred, and lasted for three minutes. The uterus was at once emptied of a large vesicular mole, and no further eclamptic attacks occurred. The proportion of albumen dropped from 9 per cent., just before the operation, to 4 per cent. twenty-four hours later. By the seventh day no albumen could be detected. There was no trace of a fetus in the mole. Hitschmann quotes Olshausen's two cases of eclampsia associated with vesicular mole; the fits in one case ceased when the mole was expelled; in the second the mole was extracted, and eight fits occurred within the first day. The urine remained slightly albuminous for a few days.

THERAPEUTICS.

(34) The Treatment of Diabetes.

J. STRAUSS gives a full summary of the more recent work done in regard to the treatment of diabetes mellitus, and amplifies it by a complete bibliography (*Deut. med. Woch.*, November 3rd, 10th, and 17th, 1904). First he deals with dietetics. A milk treatment has been suggested, and has been carried out by several careful clinicians. It is claimed that certain cases do well on an exclusive milk diet, that the sugar lessens in quantity, and that some cases even are cured. On the other hand, Naunyn states that the idea is neither new nor are the results unchallenged. A careful analysis tends to lead to the opinion that one should be careful in testing in each case what the effect of milk is on the amount of glucose excreted, and while it may be wise to give it in considerable quantities when it is tolerated, it should not be used as the only article of diet, as it mostly leaves a loss of appetite behind, which is extremely difficult to cope with, especially in diabetics. Another dietetic treatment is the potato treatment. It is stated that by giving, instead of 500 grams of bread, 1,500 grams of potato, and at the same time excluding all other forms of carbohydrates, the glycosuria decreases, the thirst lessens, as does the quantity of urine, and the general condition improves. It is suggested that the tolerance to this form of carbohydrate depends on the contents of water and of potassium salt. Oat also has been employed as a diet for diabetes, and here, too, it has been found that the amount tolerated by diabetics is at least twice that of the corresponding amount of bread. In some cases, however, the amount of sugar passed increases during the oat treatment.

The cases which stand the oat best are very severe cases. When it is tolerated there are cases in which it is possible to get rid of the sugar out of the urine by its means, and having been freed of the glycosuria the patient is found to be able to take other forms of carbohydrates with impunity. At times it has been found that while oat does not decrease the glycosuria acetonuria is lessened, and on returning to a former diet does not tend to increase again. The peculiarities of the oat treatment and its effects are very fully discussed. Since it has been established that acetone excretion is the response of increased destruction of fats, the question of the advisability of giving fats in diabetes has been again inquired into. There appears to be considerable difference of opinion as to the wisdom of giving fats, some observers taking the standpoint that fats are well stood without interfering with the general condition, and even with a diminution of the excretion of acetone; others form the reverse opinion. It seems, however, that in severe cases the allowing of fats, in the shape of butter and the like, as the chief or only substitute for the carbohydrates is allowable. Turning to the albuminous substances, the author finds that most observers are agreed that the glycosuria is increased by excess of these bodies. It is suggested to limit the quantity of albumin to a low level. Some attempt is made to give broad lines as to the actual quantity of meat, etc., which should be allowed. It is possible in some very mild cases to remove the glycosuria by merely reducing the albumins and not limiting the carbohydrates. It appears that white of egg is the form of albumin which is best tolerated, then comes vegetable albumins, casein, and whole egg. Meat is not tolerated nearly so well as these, although in a few cases the substitution of meat for the yolk of egg has been sufficient to get rid of the glycosuria. Roborat, aleuronat, and plasmon are discussed from their albuminous values, and mention is made of the various so-called diabetic breads. The next section deals with treatment by medicines. The author warns one that too much must not be expected from drugs in causing the body to tolerate carbohydrates in diabetes. Naunyn is of opinion that the only medicament which gives anything like satisfactory results is opium. There is, however, a great objection in the long continuous employment of opium, and many other drugs have been tried. Recently the salicylates have been recommended. Aspirin, the sodium salcylate, and salol have their champions. Antipyrin is spoken well of by some French physicians. Jambul has a reputation in diabetes but is found useless by others. Suggestions to employ the perchloride of mercury have only met with failure, while the treatment by urane salts, praised by some English observers, appears to do more harm than good. Phloroglucin given in enormous doses failed to produce satisfactory results, as did methylhydrochinon. Several "teas" have been recommended, but none of these appear to have much actual influence on the disease or the glycosuria. A brief report is given of a number of patent and secret medicines which claim to cure diabetes. Most of these contain either opium, jambul, or salicylates, and the effect is in correspondence to their contents. The next heading concerns itself with the organ and ferment therapy. Pancreatic preparations, extracts of liver, yeast, and the like fill up this class. The results summed up may be taken as generally unfavourable, and the reader must be referred to the article for details. Lastly, the author deals with physical treatment. Massage, manual and mechanical gymnastics, and rest are discussed. Generally, one may accept it that muscular exercise tends to lessen the glycosuria, but cases have been recorded of youthful diabetics who have been favourably influenced by rest treatment. Home treatment by such saline waters as Carlsbad, Neuenahr, and the like are warmly spoken of by some observers. It has been suggested that, as sugars are destroyed by blood and lymph, as proved by animal experiment, diabetes could be treated by infusion of lymph and transfusion of blood taken from healthy animals. Alkalies have been extensively tried with good results. Lastly, Strauss mentions intravenous injection of saline fluid, with or without the addition of sodium bicarbonate and phosphate. This is said to have a beneficial influence on coma. It seems, however, that the effect is mostly temporary. It has been suggested to add levulose to the saline solution.

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(35) Blood Pressure and Milk Diet.

K. Colombo (*Zeit. für Diät und Phys. Ther.*, October, 1904) has carried out experiments in order to determine the effect of a purely milk diet on the blood pressure, the pulse rate, the rate of respiration and the temperature—a matter which is of importance because of the many conditions under which for a time milk is the only or at all events the principal food. The experiments were carried out as follows: The person to be experimented on was in normal health and careful observations were taken as to the state of his blood pressure, etc., under ordinary conditions at different times in the day. The bladder and rectum were emptied shortly before the drinking of milk began; 650 grams of milk was then given in the first twenty-five minutes and later 500 grams were given every half-hour. In a typical case described, the blood pressure at the beginning of the experiment, that is, at 9 o'clock in the morning, was 98 mm., at 9.30 o'clock was 100, at 10 o'clock 120, at 10 30 o'clock 118, at 11 o'clock 125, or 30 above the ordinary pressure at that hour, at 11.30 the pressure was 110. The giving of milk was then discontinued, as the patient began to complain of a feeling of tension in the stomach and intestine and of a desire to defaecate and micturate. At 12 o'clock the pressure was at 105; urine and watery faeces were then passed, and the blood pressure fell to 70, or 15 below the normal at that time. The pulse-rate was 65 at the beginning of the experiment, and rose steadily to a maximum of 79, when the blood pressure was at its maximum. It then fell, and at 12.30 o'clock was at 55. The rate of respiration changed in a manner similar to the pulse-rate. The temperature, on the other hand, which was at 36.8° C. at 9 o'clock, fell throughout the experiment until 12 o'clock, when it was at 36.4° C., but at 12.30 o'clock, after the passing of urine and faeces, it rose again to 36.9° C.—that is, to slightly above normal. That the blood pressure, the pulse-rate, and the rate of respirations should follow a somewhat similar course is contrary to the general rule that the blood pressure varies inversely as either of the other two, and it is clear that the rise of pressure in this instance cannot be due merely to changes in the abdominal vessels. The author ascribes the rise of pressure to an actual increase in the amount of the circulating fluid. In the experiment given the pressure began to fall even before the administration of milk was discontinued, but as it fell the patient felt an increasing need to pass urine and faeces, and the fall of pressure is therefore to be explained by the fact that the excess of fluid was passing into the bladder and rectum. The author did not find that giving milk in small quantities or at long intervals in larger quantities exercised any special influence on the circulation.

PATHOLOGY.

(36) The Platinochloride Test for Choline.

Allen and French (*Journ. of Path. and Bact.*, November, 1904) have applied to human blood, in health and disease, the platinochloride test for choline, following on the lines laid down by Halliburton and Mott. The last-mentioned observers have shown that lecithin, an important constituent of nerve tissue, may be broken up into choline and glycero-phosphoric acid, and have inferred that choline would appear in recognizable quantities in the circulating fluids of persons in whom nerve degeneration was taking place. The blood to be tested is extracted several times in succession with absolute alcohol, with the intention of freeing the choline from potassium; the choline is then precipitated as choline platinochloride, which is crystallized from 15 per cent. alcoholic solution in the form of yellow octahedra. Allen and French have obtained without any difficulty typical crystals from the blood of patients suffering from general paralysis of the insane, locomotor ataxia, disseminated sclerosis, compression myelitis, and chorea. But on testing perfectly healthy persons in the same way they found that yellow octahedral crystals were obtained with equal facility. They therefore consider that there is some fallacy in the test, and suggest that some of the yellow octahedral crystals consist of an inorganic platinochloride, probably the double chloride of platinum and potassium. They point out that potassium chloride is not completely insoluble in absolute alcohol, since 100 parts of the latter can dissolve 0.034 parts of this salt at 19° C. Moreover, they have shown that yellow octahedral crystals may be obtained from blood even after incineration, which would necessarily destroy any choline present; these they regard as the platinochloride of potassium.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(37) Heart Complications in Diphtheria.

WHITE AND SMITH (*Boston Med. and Surg. Journ.*, October 20th, 1904) have studied 946 cases of diphtheria, with especial reference to cardiac complications; 70 per cent. of their patients were under 10, and 10 per cent. ended fatally. Half of these deaths were due to bronchopneumonia, and only about a quarter to heart disease. They find the pulse-rate of little value in prognosis, except that of course a pulse of over 140 is unfavourable. Two-thirds had irregular pulses, and over 90 per cent. of all cases presented distinct cardiac murmurs—an observation checked by several competent observers. The murmurs were systolic and usually apical; they appeared early in the illness, and persisted till the patient's general condition was such as to allow of discharge; in some, indeed, a *bruit* could be detected months after their discharge, though no disability was present. Definite cardiac enlargement was infrequent. The few cases in which cardiac complications were important, they divide into three groups: (1) The commonest are those with gallop rhythm, vomiting, epigastric pain, and tenderness, and frequently palatal palsy—a syndrome which, they suggest, may point to vagus neuritis rather than to myocardial change. The majority of such cases die; (2) in these, tachycardia persisting for months, and easily excited by exertion, is the only symptom; (3) a very few show a rapid fall in the pulse-rate, sometimes from 110 down to 30 or even 20, at the end of the second week, with enfeeblement of the heart sounds, prostration, and death. Their conclusions may be summed up as follows: (*a*) Cardiac murmurs and arrhythmia are very frequent, and not of themselves important; (*b*) moderate cardiac disturbance is very common, but grave complications are rare; (*c*) the rhythm of the heart changes so quickly that frequent examinations are necessary; (*d*) gallop rhythm, late vomiting, and epigastric pain and tenderness, are important and unfavourable signs; (*e*) antitoxin prevents, but does not produce, cardiac complications; (*f*) the heart needs special watching during the second and third weeks; (*g*) bronchopneumonia is the commonest cause of death, sudden cardiac syncope being rare if patients are kept in bed a reasonable period; (*h*) prolonged rest in bed is necessary in all severe cases, the best guide being the patient's general condition; (*k*) care should be taken as long as a murmur or arrhythmia is present; either of these may persist a very long while.

(38) The Diagnostic Value of Lumbar Puncture.

G. ZAMBELLI (*Il Morgagni*, September, 1904) discusses the value of diagnoses made by lumbar puncture, describing briefly 28 cases in each of which lumbar puncture was performed once or oftener. He remarks that, for the most part, observers are agreed as to the interpretation of the physical and chemical problems raised by lumbar puncture, but not as yet those of a bacteriological and cytological nature. In particular, the Widal-Sicard formula, "excess of lymphocytes shows tuberculous meningitis, excess of polynuclears shows cerebro-spinal meningitis," is no longer to be accepted. In normal cases the fluid drops out gently; any such increase of tension as causes it to come in a jet is certainly pathological. The author has several times verified the fact that it is increase of tension which causes the tendon reflexes to disappear, the removal of even 15 c.cm. of the fluid being sufficient in some cases to restore the reflexes. He does not consider the colour of the cerebro-spinal fluid so valuable as most authors have stated in the differential diagnosis of tuberculous meningitis from that due to other micro-organisms. The density of the cerebro-spinal fluid was high in cases of tuberculous meningitis, usually ranging from 1009 to 1012. In other cases the density was always within normal limits. Mya's cobweb coagulation was found in every case of tuberculous meningitis, but not in the one case where meningitis was caused by Fraenkel's diplococcus. The meningeal permeability was studied only in five cases of meningitis, and without very definite results. The reaction of the cerebro-spinal fluid was always alkaline, even in cases of purulent meningitis. Albumen was always found in the cerebro-spinal fluid in greatest quantity in the cases of meningitis, whether due to tubercle or to some other cause, and it was present in greater amount in the cases of bronchopneumonia with meningeal symptoms than in the remaining cases, which the author puts together as a third class. The experience of other observers, who have sometimes found only a trace or even no albumen in cerebro-spinal fluid, Zambelli attributes to defective methods of research. In cases of tuberculous meningitis glucose was present in very small quantities, and in two cases was not found at all. In the case of meningitis due to Fraenkel's diplococcus glucose was present in the fluid removed at the first puncture and absent in that removed on a later occasion. In all other cases there was a well-marked glucose reaction. The presence or absence of glucose is not, therefore, a diagnostic fact of very great importance. In all cases leucocytes were found in considerable numbers in the cerebro-spinal fluid. In 11 cases classified as tuberculous meningitis the author found lymphocytes, but not Koch's bacillus. In the case of meningitis due to Fraenkel's diplococcus the leucocytes were chiefly polynuclears (40 per cent.). In cases of cerebral tubercle there was always found a prevalence of lymphocytes. A differential diagnosis cannot be safely based on the leucocytes alone. Of the whole number (about a hundred) of lumbar punctures made by the author most were in cases which did not admit of any serious doubt as to the diagnosis, but in 2 cases the examination of the cerebro-spinal fluid gave correct diagnostic indications not otherwise obtainable. A child of 4 years suffered for some time from a fever of irregular course. The appearances were in favour of a diagnosis of typhoid, the diazo-reaction was positive, and a positive Widal reaction was obtained twice. A few hours after cerebro-spinal fluid was extracted, a cobweb coagulum formed in it and numerous leucocytes were found in the sediment. The diagnosis of meningitis thus formed was confirmed by an autopsy. The second case was that of a child of 20 months, suffering from bronchopneumonia. Twelve hours before death convulsions and spontaneous vomiting suggested meningitis, and Kernig's sign was obtained. An examination of the cerebro-spinal fluid confirmed the diagnosis of meningitis, but at the autopsy there were no macroscopic appearances of that disease. A histological research was then made, and Koch's bacilli were found in the pia mater. In conclusion, the author states that lumbar puncture has never led him to an incorrect diagnosis of meningitis, but repeated examinations are necessary before the absence of meningitis can be affirmed. It is only when the lesions of meningitis have reached a certain grade that it produces characteristic features in the cerebro-spinal fluid, and Zambelli has several times found that a second examination gave positive evidence not obtainable from the first. The cases on which these observations were made include 11 cases of tuberculous meningitis, 1 of meningitis associated with the presence of Fraenkel's diplococcus, 2 described simply as meningitis, 1 of croupous pneumonia, 3 of bronchopneumonia, 1 of solitary tubercle of the brain without meningeal affection, 1 of cerebral tumour, 1 of cerebral diplegia, 2 of Bright's disease, 2 of hydrocephalus, 1 of infantile convulsions, and 2 in which no diagnosis is supplied. In most of the fatal cases an autopsy was made. The patients were all children.

(39) Ptosis of the Abdominal Aorta.

STIFLER (*Berl. klin. Woch.*, No. 36, 1904) describes two types of this condition—a dilated form and a contracted form. Amongst general conditions which predispose to ptosis of the abdominal aorta he enumerates constitutional weakness, convalescence, diminution or increase of intra-abdominal pressure, overstrain due to lifting and carrying in attendance on the sick, or to sport, or to tight lacing. As specially predisposing conditions, he mentions relaxation following on gynaecological or surgical interference, drastic measures for the reduction of fat, massage, water cures, other so-called "nature" cures, which interfere with the abdominal circulation, shaking of the lower part of the body, as in paralysis agitans or hystero-epilepsy, and, most frequently of all, defective supports intended for the correction of wandering kidney.

SURGERY.

(40) Unilateral Dislocation of the Cervical Vertebrae.

SCHIELE (*Deut. med. Woch.*, January 14th, 1904) has seen four cases of unilateral dislocation of the cervical ver-

tebrae, and deals with some points of interest. Three of the patients were boys who had fallen from trees and had been going about with "crooked" necks; the other was a youth of 18 years who had fallen asleep with his head hanging over the edge of the bed, and on awakening had suddenly raised his head, and felt that his neck had been injured. The position was characteristic. One ear is higher than the other, and the chin is held towards the side of the lower ear. The muscles of side of the neck on which the ear is higher feel tense. Only in the elder patient was the dislocation felt in the fauces. The dislocation is situated on the side on which the ear was higher. In spite of the advice given in the textbooks, that considerable force may be used in reducing the dislocation, and that a splint or other apparatus should be worn after the reduction has been carried out, the author finds that the treatment is easily and safely carried out as follows: (1) Anaesthetize the patient; this is always necessary, and forms the greater part of the reduction. (2) The head is placed so that it hangs over the edge of the table; this position is almost enough to allow of spontaneous reduction. (3) Movement of the head, and especially of the chin, away from the dislocated side; this produces an overstretching of the already overstretched set of muscles. On returning to the straight position one hears or feels a slight click, indicating the replacement of the dislocated bone. The patient is then allowed to awake, and no after-treatment is to be used. The patient will be found to have completely free movement, and no trouble ensues if one allows him to go about without any apparatus.

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(41) Gaseous Cysts of the Intestine.

STORI (*Clin. Mod.*, October 12th, 1904) reports 2 cases operated upon for cicatricial pyloric stenosis, where upon opening the abdomen gaseous cysts were discovered. In the first case the cyst was in the gastro-hepatic omentum and presented the appearance of inflated lung; on rupture inodorous gas escaped but no fluid. The gas was apparently pent up under considerable pressure. In the second case the cyst sprang from the mesentery and completely surrounded the small intestine near the caecum. What the exact pathology of these air-containing cysts is, remains doubtful? In some cases they may start as a primary emphysema of the intestinal wall, perhaps due to the entrance of gasogenic bacteria into the lymphatic channels—or they may start as cystic lymphangiomata. These cysts are not very common, however; the author has collected 45 cases, distributed as follows: Stomach, 2; intestine, 12; stomach and intestine, 1; intestine and vagina, 1; vagina, 21; bladder, 2; various, 6. From these figures it appears that the most frequent site for these cysts is the vagina. They are generally found in the submucosa and may cause fatal intestinal obstruction. Probably the gas is not air but some bacterial product. And the author was able to isolate a diplococcus-like organism from one of the cases, which on culture in simple broth gave rise to a few little bubbles of gas.

(42) Surgical Scarlatina.

FROM Escherisch's clinic in Vienna Rossiwall (*Jahrbuch für Kinderheilkunde*, October, 1904) describes in detail 12 cases of scarlatina in which the infection, he believes, entered through a wound and not through the throat. Some doubt as to the correctness of his diagnosis in two of the cases must be expressed, as there was no desquamation subsequently. In another the disease was possibly septicaemia. But in the remaining cases there is no doubt the disease was scarlatina, showing the typical rash, strawberry tongue, desquamation, and the usual course of febrile reaction. Nephritis also occurred in some cases. No swelling of the tonsils or submaxillary lymph glands was present, showing that the throat was not the portal of infection. On the other hand, various skin lesions, either accidental wounds, surgical incisions, or large suppurating skin vesicles, showed marked local reaction, being covered by a deposit of yellowish-grey lymph, with redness and oedema of the surrounding skin and enlargement of the corresponding lymph glands. Local antiseptic treatment was always employed. He believes that the reason scarlatina is so prone to attack surgical cases is that a wound is an exceptionally favourable soil and fosters the development of the most minute particle of scarlatinal infective material. This view is opposed to that which attributes the susceptibility in question to a lowered vital resistance of the constitution.

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(43) Surgical Wounds of Cervical Portion of Thoracic Duct.

LECÈNE (*Revue de Chirurgie*, No. 12, 1904) publishes together with a full report of a recent case treated by Terrier, abstracts of twenty-one collected instances of accidental wounding of the cervical portion of the thoracic duct in the course of a surgical operation. Cases of this infrequent, though not exceptionally rare, lesion may be arranged in two groups: one in which the nature of the injury is apparent at the time of the operation, the other in which the indications of such an accident are not made out until a later period. In cases of the first group the characteristic sign of the injury is a flow that is sometimes rhythmical, into the wound, of a clear or a white and latescent fluid. The indications in the second group of cases are a discharge from the wound of lymph or chyle, and, in course of time, intense thirst, emaciation, and general asthenia. The prognosis of this injury with regard to the life of the patient is not serious, one only of the twenty-two collected cases having had a fatal ending, but it is necessary to bear in mind, the author points out, that serious results may follow a prolonged and excessive discharge of lymph from a fistula in the thoracic duct. The treatment would vary according to the nature of the case. The surgeon, if he be aware of the nature of the injury before the completion of his operation, should endeavour to apply a ligature to the peripheral end of the wounded duct. In a very large majority of cases it would be useless, the author states, to tie the central end as the ostial valve is competent to arrest the flow of lymph. Ligature of the peripheral end, as has been proved by clinical observation and also by experiments on animals, is quite free from danger. In cases in which the injury escaped notice at the time of the operation, the best and simplest treatment, the author believes, is to pack the wound tightly and to do away with direct drainage. Free opening of the wound with the objects of exposing and closing by ligature the opening in the duct might, it is acknowledged, be found practicable and successful, but such treatment would in most cases be found very difficult and, as simple packing is usually sufficient, quite useless.

MIDWIFERY AND DISEASES OF WOMEN.

(44) Prophylactic Version in Cases of Pelvic Contraction.

WOLFF (*Berl. Klin.*, October, 1904) defines version as strictly speaking prophylactic only when, the head presenting and the pelvis being contracted, the operation is performed before any trouble has arisen in the condition of the mother or child, to avoid dangers which may possibly occur if the labour is allowed to proceed with the child's head first. The proceeding was based by its inventor, J. Y. Simpson, on the idea that, the smaller end of the cone going first, the aftercoming head would pass through a flat pelvis more easily than the head first. Moreover, in the former case the child's body is of material assistance in extracting the head. When performed before the membranes have ruptured and when the os is fully dilated, version is a comparatively simple and easy proceeding; injury to the soft parts is most exceptional and delivery is rapidly completed. On the other hand, labour if allowed to proceed head first may be prolonged for hours or even days, and yet a deferred version, high forceps, symphysiotomy, or craniotomy—all much more serious proceedings than early version—may be required. As regards symphysiotomy, Hofmeyer has declared, and all German obstetricians agree, that it has no place in private practice. It has been urged against turning that the moulding of the after-coming head is far from favourable to the child, and that the child, when extraction is difficult, is very liable to serious injury. Some obstetricians condemn prophylactic version altogether, and even those who do not do so are by no means like-minded as to the indications for it. While some do it in the interest of both mother and child, or more especially in that of the child (Gusserow, Nagel, Leopold, Runge), others (Schroeder, Olshausen, Fritsch, Bumm) perform it, chiefly or exclusively, for the sake of the mother. Some confine it to cases in which the conjugata vera is not less than 8 cm., others to those in which the contraction is more pronounced. Opinions differ also as to whether the method is better adapted to the flat pelvis or to the pelvis *justo minor*. It is generally deemed to be unsuitable for primiparae, but Runge and Dührssen perform it in such, Dührssen supplementing it with lateral incisions in the introitus, and if need be in the cervix. Most unfavourable opinions have

recently been expressed on prophylactic version by Kroenig and Menge (Leipzig), Ludwig and Savor (Vienna), and Henkel (Berlin), but it has been warmly defended by Albert, Krull and v. Magnus, and by Wolff himself, who points out that in the extern maternity of the Charité Hospital during the years 1892-1902 labour was conducted in 581 women with contracted pelves; version was performed in 243, prophylactically in 54 instances. Comparing the results in these 54 cases with each other and with those of expectant treatment, he finds that they were very much better when the contraction of the pelvis was only of the first degree, and also when performed under favourable conditions, membranes unruptured and os fully dilated, than otherwise. When all these conditions were fulfilled (30 cases) the mortality of the children was absolutely nil; on the other hand, the labours with the same degree of pelvic contraction which were allowed to proceed head first (85 cases) showed a mortality for the children of 9·4 per cent. The results of version performed after the rupture of the membranes was not so good as those of expectant treatment; and when the conjugata vera was less than 8 cm. even when performed before the rupture of the membranes gave no better results than waiting, but the number of such cases was too small to justify any definite deductions. Wolff concludes that in the conduct of labour in contracted pelves, whether prophylactic version is to be undertaken or not, it is of the chiefest importance to prevent, perhaps by the aid of a colpeurynter introduced into the vagina, the rupture of the membranes before the mouth of the womb has become fully dilated, as when this can be done the conditions are most favourable for expectant treatment as well as for version and extraction. Prophylactic version should not be attempted after, certainly not long after, the rupture of the membranes, nor unless the os uteri is sufficiently dilated to admit of the extraction of the child immediately after turning. It is, moreover, better not to turn in primiparae, in whom the operation is always more difficult, and the chances of a happy termination after expectant treatment are more favourable, nor in multiparae, though the membranes are intact and the os fully dilated, if, as sometimes occurs, the head is so well engaged that the course of the labour is almost sure to be happy, and, after the waters have come away, expeditious. But in a considerable number of cases of the first degree of contraction (C.V. not below 8 cm.), with intact membranes and a fully-dilated os, it may appear, from the history of former labours, more or less improbable, though, perhaps, not impossible, that the child can be born head first without serious difficulty or injury. In such cases prophylactic version, undertaken before the waters have escaped, offers an almost certainly favourable prognosis for both mother and child, while expectant treatment must always leave the issue doubtful, especially as regards the child.

(45) Syphilis and Suckling.

QUEIREL (*Ann. de Gyn. et d'Obstét.*, November, 1904) discusses the question of the infection of wet nurses by syphilitic infants. He feels extremely suspicious about habitual premature confinements even when the children survive. In consequence, he advises that in all doubtful cases the child should be suckled by its mother or else fed on cow's, ass's, or goat's milk, and never put under the care of a wet nurse. He classifies such cases, together with those where syphilis is known to exist in the parents or evidently shows itself in the child, as (1) children born of mothers who have had several complicated pregnancies. Queirel especially mentions hydramnion. (2) Children simply suspicious, especially premature or malformed. (3) Children born with an abnormally large placenta, even if healthy-looking and carried to term. Queirel reminds us that in recent, even secondary, syphilis in the mother the placenta may be quite small, but it is often big when the syphilis is of old standing, and in such a case the disused structure is a valuable indicator of the grave complication which might otherwise be overlooked.

(46) Cancer of the Cervix as a Complication of Labour.

H. R. SPENCER (*Journ. of Obst. and Gyn. of the Brit. Emp.*, December, 1904) has treated successfully 3 cases of cervical cancer complicating labour in advanced pregnancy. In each case the child was delivered per vias naturales, and a high vaginal amputation was subsequently performed. In the first case cancer was diagnosed after labour had begun, and the vaginal operation was performed fourteen days later. In the second case labour was induced in the seventh month, when the diagnosis was made, and the cervix was amputated eighteen days after labour. The third patient presented herself for examination four and a half months after the birth of a child, and gave a history of having lost blood every day since her confinement. She was found to be suffering from cancer of the cervix. The author's method of amputation was as follows: Two incisions were made in the vagina, one in front and one behind the cervix, and the bladder was pushed up; the base of the broad ligament was tied on each side and the part between the cervix and the ligatures divided with scissors; the cervix was divided by means of a Paquelin's cautery, and in the first case bleeding was stopped by the use of the cautery; in the other two cases ligatures were used; in the first two cases the peritoneum was not opened; in the third Douglas's pouch was opened, but was closed again with a silk suture; the vagina in each case was packed with iodoform gauze. The patients recovered from the operation, and have remained—one for 11 years, another for 8½ years, and another for 8 years. Two of the children are still alive; the premature child died soon after birth. In addition to these cases, the author has had three in which the growth was too far advanced to permit of radical treatment. In one of these the uterus ruptured into the broad ligament under spontaneous labour, but the condition was treated by gauze packing, and the patient recovered and lived for 12 months. Each of the other two patients died 7 months after labour; in one case delivery was effected by forceps, in the other Caesarean section was performed. These results compare favourably with those obtained by other methods. Sarwey has collected records of 30 cases of cancer of the cervix complicating the last two months of pregnancy. The methods of treatment adopted were: (1) Hysterectomy immediately following Caesarean section; (2) labour per vias naturales, followed by vaginal hysterectomy during the puerperium; (3) labour per vias naturales followed by immediate vaginal or combined hysterectomy; or (4) Caesarean section followed by immediate abdominal or combined hysterectomy. Twenty-three of the mothers survived operation, but only two were known to be alive after five years, and with both of these delivery had taken place per vias naturales, and had been followed by vaginal hysterectomy during the puerperium. Eighteen cases are reported from the Berlin and Liepzig clinics, and in 12 radical treatment was undertaken, which in 9 cases took the form of vaginal hysterectomy after delivery per vias naturales. The only case in which permanent recovery followed was one already given among Sarwey's cases. In 5 cases the cancer was inoperable, and these cases were treated by Caesarean section or by Caesarean hysterectomy. The total immediate mortality among the operable cases was 16.6 per cent., and among the inoperable was 80 per cent. The author ascribes the favourable results which he has obtained in part to his use of the cautery in the amputation of the cervix, in part to the use of strong antiseptic douches, and in part, perhaps, to the fact that his operations were performed during the puerperium, when the tissues were undergoing involution. In future cases he would employ the galvano-cautery knife rather than the Paquelin cautery.

THERAPEUTICS.

(47) Action of Adrenalin.

NEUJEAN, working in the Therapeutic Institute of the University of Liége, has made an elaborate experimental study of the action of adrenalin (*Arch. Internat. de Pharmacodynamie et de Thérapie*, vol. xiii, fascic. 1 and 2, 1904, p. 45), of which the following are the conclusions: The acceleration of the pulse which succeeds the initial retardation after injection of adrenalin in an animal is due to excitation of all the accelerator apparatus of the heart, as much central as peripheral. The participation of the central apparatus is not indispensable for this acceleration. The cerebral vessels, like all other vessels of the body, contract under the influence of adrenalin, and this lasts as long as the adrenalin is in action. The increase in the volume of the brain following an injection of adrenalin is probably due to a venous stasis depending on slowing of the pulse and a momentary arrest of respiration. The vasomotor centre takes part in the production of high blood pressure by adrenalin only secondarily, and this from the cerebral anaemia provoked by the constriction of the cerebral vessels. The slowing of the pulse observed to follow the injection of adrenalin in an animal whose vagi are intact appears to

be due to two factors—a direct action of the cardio-inhibitory centre, and a secondary action produced by the irritation of this centre by the cerebral anaemia set up by the constriction of the cerebral vessels. Adrenalin, without doubt, acts on the intracardiac terminations of the vagus, producing their excitation, which is demonstrated by the slowing of the heart which follows its injection into an animal whose vagi are divided. Adrenalin acts directly on the respiratory centre, producing its inhibition. The dyspnoea which follows the apnoea produced by the injection of large doses appears to be rather due to the secondary excitation of the respiratory centre by the cerebral anaemia. The fact that adrenalin may be destroyed in the organism by oxidation is far from being demonstrated.

(48) A New Extract from Tubercle Bacilli and its Action.

M. SCIALLERO (*Il Policlin.*, November, 1904) states that he has succeeded in extracting from tubercle bacilli, without the use of heat, a fatty substance to which they owe their characteristic method of staining. The bacilli from a virulent culture on glycerinated broth are collected on a filter, washed with a 1 per cent. soda solution and then with distilled water, treated with olive oil and ether and again filtered. An oily, limpid, rather dense liquid is obtained. The author injected each of two guinea-pigs with 2 c.cm. of this product. One of them gradually wasted from a weight of 318 grams to 220 grams in nine days, and then died. The other gradually wasted from 390 grams to 320 grams in fourteen days and then died. In each case the temperature after a slight rise, gradually fell to 36° on the day of death. At the site of injection the tissues were congested, and firmly matted together, showing evident signs of an energetic reaction to the poison, but stained sections showed no bacilli. Examination of the thoracic and abdominal viscera verified the idea that death was due to the injection of a tuberculous poison, and not to micro-organisms. Further experiments were made to determine the relation of the extract to tuberculin. The author injected large guinea-pigs with 1 c.cm. of his extract, thus causing prostration and torpor, reaching a maximum in about ten days, when one-twentieth of the body weight had been lost; and succeeded by recovery in the course of a few more days. He found that an animal treated with this dose of his extract, and then with three-fifths of a fatal (within two days) dose of tuberculin died on the next day. In the same way he found that an animal treated with 1 c.cm. of his extract, and then with three-fifths of a fatal (within fourteen days) dose of washed and dried dead tubercle bacilli, died on the next day. The extract therefore exercises an influence cumulative with that of tuberculin and of tubercle bacillus bodies, especially the latter. No such summation of effects were observed when the extract was first injected, and then strychnine or some other poison. Attempts at immunization were made by beginning with small doses, and gradually increasing them until from 7 to 11 c.cm. could be injected without causing death. By means of repeated bleedings, the agglutinating power of the blood was tested before and during treatment. Before treatment the serum gave an uncertain reaction with a dilution of 1 to 3. After three months of treatment, positive reactions were obtained with dilutions of 1 to 40 or 1 to 60. The guinea-pigs thus treated and tested were found to be immune to large doses of living tubercle bacilli, which then caused local reaction, transient fever, and some loss of weight, with subsequent complete recovery. No diffusion of the bacilli was found to have occurred when the animals were killed and an autopsy made. During the period of treatment the animals were in good condition, and on the whole gained greatly in weight.

(49) Roentgen Rays in the Treatment of Leukaemia.

GEORGE DOCK (*Amer. Med.*, December 24th, 1904) gives the results of an examination of 29 cases, and mentions several more not so fully reported. Two patients had acute lymphatic leukaemia. They died too soon to furnish conclusions. Two had subacute lymphatic disease, and both died, but in one longer under treatment there was temporary improvement of blood, glands, and spleen. Of 5 patients with chronic lymphatic leukaemia 2 died; 3 were much improved, the leucocytes reaching normal numbers. There were 21 cases of splenomedullary disease, only 18 of which are available for analysis. In 11 the leucocytes fell to or below 12,600; in 7 they did not go below 31,000. The methods of treatment varied greatly, and good results followed treatment of the spleen alone, as well as of the spleen, epiphyses, or long bones and sternum. It took from one to six months to get the best results. The myelocytes rarely disappeared, and in some cases continued in large proportions. Aubertin and Beaujard are the only authors who describe the minute changes in the blood. The red blood corpuscles are often increased, sometimes notably. The enlarged lymphatic glands and spleen diminished, the spleen becoming impalpable in 3 cases. The general effects were often striking. Weight and strength increased; ascites and oedema disappeared; the patients were able to return to work. No case, however, could be said to be really cured; relapses have occurred and five patients with splenomedullary leukaemia have died. In several of these, as well as in some others, there were toxic symptoms, such as chills, fever, anorexia. In 6 out of 18 splenomedullary cases, or 9 out of 25 of all kinds, there was more or less severe dermatitis, but this does not explain the toxic symptoms in all cases. Some of the best results were seen in patients without toxic symptoms. The mode of action is impossible to explain at present. The change so far seems a functional one, but treatment at earlier stages may be more radical. So far it has not given better results than arsenic or some bacterial products, but it seems more certain than arsenic. Careful observations are much needed, with known conditions of tube, current and exposure, and study of the blood and other changes in the body.

PATHOLOGY.

(50) The Specific Bacillus of Epidemic Dysentery.

BRAUN, ROUSSEL, AND JOB (*Lyon Méd.*, January 1st, 1905) have isolated the specific germ of dysentery, and studied its characters, during a recent epidemic in the garrison at Lyons. In all there were 67 cases of dysentery, and cultures were made from the stools of 19 patients. The research concerned bacillary dysentery only, and not the amoebic form of the disease. A small glairy or muco-sanguinous mass was washed with normal saline solution, and the culture was made upon a solid medium. On Drigalski's medium—lactose-tournesol-agar—the colonies were easily seen after eighteen hours in the stool at a temperature of 37° C. The reddish colonies seen were coli bacilli and certain saprophytes. The clear blue transparent colonies were either dysenteric bacilli or colonies of the bacillus faecalis alcalifinis. The distinction between these two was made by the addition of a drop of antidysenteric serum. With dysenteric bacillus this caused a white precipitate due to agglomeration of masses of bacilli. The isolated bacillus was found to be short and larger than Eberth's bacillus, non-mobile. It is rounded at the extremities. It grows easily on all media, best at a temperature of 37°. It does not take Gram's stain. It grows on bouillon in 12 hours. It does not coagulate milk nor liquefy gelatine. Guinea-pigs were resistant to subcutaneous and intraperitoneal injections of bouillon cultures, which in rabbits caused great oedema at the point of inoculation and diarrhoea with glairy stools. The agglutination reaction gave a positive result in all the garrison cases of dysentery and also in certain cases of severe diarrhoea where there was no other dysenteric symptoms. The reaction did not occur during the first eight days of the illness, and in one instance was negative on the thirteenth but positive on the fifteenth day.

(51) Action of the Liver on Diphtheria Toxin.

LAUDER BRUNTON AND BOKENHAM (*Journ. of Path. and Bact.*, November, 1904) have circulated diphtheria toxin through the freshly isolated livers of rabbits and cats and investigated the effects produced by inoculating into guinea-pigs material recovered from the livers. They find that during the circulation of diphtheria toxin through the liver its lethal action is greatly diminished. This diminution occurs whether the toxin be mixed with an indifferent fluid or with blood. The bile and the juice from such a liver have a slight antitoxic action, and nucleo-proteids separated from the liver juice possess this action in a marked degree. The behaviour of the liver in lessening the toxic power of diphtheria toxin is regarded as similar to that which it exerts in ordinary digestion in lessening the toxic action of peptones. These experiments are held to support the view that "immunity, natural or acquired, is nothing more than an extension to the cells of the tissues generally of a power which is constantly exercised during digestion by those of the intestine and liver."

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(52) The Contagiousness of Diabetes.

Cases have been recorded from time to time of the coexistence of diabetes in husband and wife. Debove in 1889 drew the attention of the profession seriously to the subject, basing his opinion and remarks upon five personal observations of what he characterized as conjugal diabetes. Since then the subject has rarely been mentioned. Hutinet (*Thèse de Paris*, 1904) has recently opened up the question with several personal observations and collected cases to the number of 161. Such well-known observers as Tessier, Marie, and Talamon are inclined to accept the possibility of contagion in diabetes. Hutinet suggests that the contagion, whatever its nature may be, is contained in the mouth, the saliva being a vehicle which serves to propagate the disease. It is noteworthy that transmitted diabetes differs in some of its characters from ordinary forms. It is less severe, more easily treated, and certainly more curable. Symptomatologically it differs in the absence of thirst and polyuria, and the glycosuria sometimes disappears spontaneously when the patient is relieved from the possible source of infection. Thus, it has been noted in conjugal diabetes that when one of the partners dies the other rapidly recovers. If the contagiousness of diabetes should become an established fact, prophylactic measures are important. The greatest care should be taken to prevent spitting, and all articles of clothing likely to have been contaminated by saliva should be disinfected. Should gingivitis appear in diabetic subjects it should be energetically treated.

(53) Sleeping Sickness and Trypanosoma.

Dr. Krüeger (*Archiv für Schiffs und Tropen Hygiene*, November, 1904) reports on the sleeping sickness in Togo, and gives details of five cases. The ages of the patients lay between 9 and 35 years. The illness began in most cases with fever and pain in the head or other parts of the body; in one case the only initial symptom was a gradually-increasing sense of fatigue. Where pain was present at the outset it disappeared later, but in all cases the sense of fatigue increased and the patients became unable to work, although there was no objective loss of strength. A great desire for sleep, more marked at first by day than by night, was the next symptom, and after a time the patients slept all day and night except when they waked to satisfy bodily needs. As a rule, they did not begin to pass urine and faeces during sleep until late in the disease. Swallowing became interrupted by fits of coughing, and finally became impossible. In the last stage the patient might be for ten to fourteen days without taking food, and would lie unconscious, with the limbs either acutely flexed or slack and stretched out, the eyes and mouth half open, the breathing deep and regular, the pulse imperceptible; no faeces would be passed during this time, and urine only in small quantities at long intervals. The illness in the three cases under observation until death lasted seven months, eight months, and one and a half years respectively. The temperature, which in most cases was raised at the beginning, fell to within normal limits later, and during the last stages oscillated about the level of 35° C. Digestion was not disturbed, except that metabolism was lowered to an extraordinary degree at the end; the urine was normal in uncomplicated cases. Examination of the blood showed a decrease in the number of red and increase of white corpuscles, the lymphocytes being twice as numerous as in normal blood. The reflexes were almost always normal, and the faradic irritability was normal, except in the final stages. In 2 cases acute flexion of joints finally led to contractures. Weakness of memory developed in 10 cases. In only 1 of the 5 cases was the trypanosoma of Castellani found in the blood, but in each case it was found in cerebro-spinal fluid removed by lumbar puncture. The trypanosoma had a marked resemblance to the trypanosoma of tsetse-fly disease, but it was smaller, scarcely ever stained so deeply, and always showed one great or two or three small vacuoles just in front of the root of the flagellum. Only ten to twenty trypanosoma could be detected, as a rule, in 15 cm. of cerebro-spinal fluid. Injections of cerebro-spinal fluid from cases of sleeping sickness were injected into nineteen animals, including apes, monkeys, dogs, domestic cats, mice, and rats. In five monkeys the presence of trypanosoma in the blood could be demonstrated after from twenty-one to thirty-nine days, and death ensued in from thirty-nine to eighty-five days after the injection. One ape developed the symptoms of sleeping sickness ten weeks after the injection, and died, but trypanosoma could not at any time be detected either in the blood or the cerebro-spinal fluid. Two monkeys were infected with the trypanosoma of tsetse-fly disease; in them trypanosoma were found in the blood after eight and ten days respectively, and death followed in the third week. The conclusions at which the author arrives are that: (1) Sleeping sickness is an infectious disease, which runs a chronic course; (2) it is caused by a trypanosoma always to be found in the cerebro spinal fluid; (3) the trypanosoma could not be demonstrated in the cerebro-spinal fluid of the dead body, even when examined at times varying from one and a half to ten hours after death, in cases in which it had been present in the fluid withdrawn shortly before death; (4) of nineteen animals into which cerebro-spinal fluid from patients suffering from sleeping sickness was injected, one ape and five monkeys died, three of them with symptoms of sleeping sickness; (5) the theory that sleeping sickness is an intoxication illness due to food was not in any way corroborated; (6) monkeys infected with the tsetse trypanosoma died in the third week, and the number of the trypanosoma in the blood was larger than in infection with the trypanosoma of sleeping sickness.

(54) Pigmentation of the Eyelids in Graves's Disease.

Jellinck (*Wien. klin. Woch.*, October 27th, 1904) states that in Graves's disease there is a uniform, diffuse, brownish pigmentation of the eyelids, which is most marked in the upper lid. The pigmentation is bounded by the eyebrows superiorly, and the lower margin of the orbit inferiorly. The conjunctiva is not affected. This is an early symptom, and frequently becomes less distinct as the disease advances; in rare cases it may be entirely absent. A tendency to pigmentation of the skin has been observed by others, both in Graves's disease and myxoedema, but the localization on the eyelids has not previously been described. Possibly the occurrence of pigmentation is related to the peculiar condition of the blood in Graves's disease described by the writer and Rosin, who found that though the percentage of red corpuscles was normal, and the percentage of iron was more or less reduced, the results of the estimation of haemoglobin were invariably higher than normal.

SURGERY.

(55) Effect of Displacement of the Right Kidney on the Ascending Colon.

Alglave (*Rev. de Chir.*, No. 12, 1904) publishes observations noted in *post-mortem* examinations of 4 cases of floating kidney on the right side, which show that downward displacement of this organ may be the cause of a faulty position, and, in consequence of this, of seriously impaired function of the upper part of the ascending colon. As a result of the anatomical connexion of the posterior surface of the hepatic flexure of the colon with the inferior pole of the kidney, this latter organ when it becomes abnormally loose and is displaced downwards carries with it the attached portion of the intestine. As the lower part of the ascending colon and the caecum remain fixed to the posterior wall of the abdomen, an unnatural and more or less fixed curvature of the depressed portion of the large intestine results. This faulty condition, which, in the author's opinion, is the result and not the cause of the renal displacement, may give rise to faecal accumulation in the caecum and adjacent portion of the ascending colon and obstinate constipation also to entero-colitis and to extensive inflammatory adhesions involving the displaced intestine with the corresponding omentum and mesentery. The author concludes with the following suggestions as to the treatment of cases of this kind. The primary remedy to be applied for the relief of intestinal disturbance accompanying renal displacement is nephropexy, by which operation the surgeon may replace in its normal position the ascending colon which it may be assumed is the initial and main seat of the disturbance in consequence of the faulty relations imposed on it by the descent of the kidney. Should this operation fail, it would be advisable, the author holds, to divide the adhesions around the displaced and

fixed portion of colon, and to restore as far as possible to the intestine its normal position, form, and calibre. In cases in which the displaced portion of intestine is much distorted, and closely fixed by adhesions, and its coats have undergone pathological change, severe and persistent symptoms of faecal accumulation, and entero-colitis would indicate operative exclusion of the ascending colon by anastomosis of the ileum and the transverse colon, or, preferably, by ileo-sigmoidostomy.

(56) Carcinoma of the Hard Palate Successfully Treated by Radium.

Perugia (*Gazz. degli Osped.*, January 1st, 1905) reports the case of a man, aged 67, who, at the beginning of last April, noticed a small lump in the left side of his palate. It grew rapidly in the succeeding two months, so that it came to fill almost all the lower half of the palate, and was very painful. The longitudinal diameter on January 29th was 3 cm. and the transverse 2.6 cm. The first application of radium (by means of a small glass bulb and using a radium that was not very powerful) was made on January 29th, and lasted ten minutes. On July 3rd (fourth application) the pain had disappeared, and the transverse diameter was reduced to 2 cm. Further applications of longer duration (twenty minutes), and on September 12th (twentieth application) the long diameter only measured 1 cm. and the short 0.5 cm. And there was complete analgesia. Ten more applications were given, and by the end of October there was no trace of the tumour, and the patient had put on 8 kilograms in weight. A small portion of the tumour was removed for examination, and found to be true carcinoma. At the present time the patient remains quite well, and there are no signs of relapse. No other treatment was adopted whilst the radium was used. No ulceration, and, except a slight erythema, no inconveniences were noted during its use. The author believes this was partly due to the use of a weak radium and beginning with sittings of short duration.

(57) Operative Treatment of Birth-Fracture of the Skull.

Nicoll (*Ann. of Surg.*, December, 1904) asserts that the statement made by a number of authors to the effect that in the majority of cases depressed green-stick fracture of the skull in infants rectifies itself if left alone, lacks substantiation. In regard to the so-called parturition cases in which the depressed fracture has been caused by compression of the cranium against the maternal pelvis during delivery, although indentation of a slight degree may spontaneously disappear within a day or two of birth, in the more marked instances such spontaneous obliteration must be regarded as problematical. The author holds that in cases of green-stick depressed fracture of the skull in infants and children, which was not remedied when the injury was recent and the bone soft, operation is justifiable, even if only for the correction of deformity. The following are the successive steps of an operation which he has performed in 10 cases with good results and without a death: The depressed area having been exposed by reflecting a single or a double flap, including scalp and periosteum, is removed by a large trephine; the detached disc of bone is inverted on a sterile swab or towel, and by thumb pressure the bend is reduced until the form of the fragment corresponds with the natural curve of the skull; the fragment still inverted is replaced on the dura, and is covered by the scalp. The rate of union of the inverted bone is rapid, and in all 10 cases bony connexion, so far as could be made out by palpation, was firm at the end of the first week.

(58) Multiple Subcutaneous Fibrous Swellings.

L. Steiner (*Archiv für Schiffs und Tropen Hygiene*, Bd. viii, Heft iv) reports the frequent prevalence among the Malays of multiple subcutaneous fibrous swellings. These form round or irregular nodules of cartilaginous hardness immediately under the skin, and are freely movable on the deeper tissues, which they never invade. In the great majority of cases the skin over the nodules is normal, but occasionally it is thickened and partially adherent. In slight cases there may be only a few isolated nodules of the size of a pea, but in severe ones the nodules coalesce to form large masses scattered over the limbs. They are found over the olecranon process, near the great trochanters, on the outer side of the knee, along the fibula, round the ankle-joint, and frequently at the upper end of the gluteal fold. The author has never seen them on the head, neck, shoulders, breast, abdomen, or back. The affection is called by some of the natives "dry framboesia," but a cursory examination shows that the two diseases have nothing in common. The fibrous swellings give rise to no symptoms, and on this account Steiner had difficulty in obtaining specimens. He finally was able to examine a small clump of nodules taken from the arm of a woman who had died of dysentery. The conglomeration of small fibrous masses was formed of fibrous tissue poor in cells and with few vessels; degeneration had taken place within the nodules. Sections were examined with a negative result for micro-organisms, but the material was scanty, and the question of their presence or absence cannot be held to be definitely settled.

MIDWIFERY AND DISEASES OF WOMEN.

(59) The Use of Gloves in Manual Detachment of the Placenta.

E. Wormser reports on the results which have been obtained in von Herff's clinic in Basel in the manual detachment of the placenta, some of which were carried out with the use of rubber gloves and some without. In all cases stringent aseptic precautions were followed (*Deut. med. Woch.*, October 27th, 1904). The operation was performed twenty times with and twenty-seven times without gloves. Of the first series 1 patient died, but inasmuch as the history of this case clearly shows that the patient was already suffering from a severe infection at the time of admission to hospital, before the intrauterine manipulation was undertaken, this case is not taken into account. In 1 case the patient had a rise of temperature from other causes, 6 others showed fever, of which 5 only suffered for one day, and the temperature did not rise higher than 38.5° C. The sixth patient became very ill but recovered. The morbidity, therefore, for the "glove" cases was 32.1 per cent., of which 5.2 per cent. showed a severe infection. Mortality was 0. Comparing these figures with those of the cases in which the placenta was removed by the naked hand, he finds that 1 patient died, but this was due to severe sepsis which developed before admission. Of the 13 patients who showed fever after the removal of the placenta, 5 must be excluded, since the cause of it lay in other directions; 38 per cent. were affected, and 4.8 per cent. showed a severe infection (1 case). Subfebrile temperatures were more common in the not-glove cases. Besides these cases, he deals with a number of patients treated in their own homes. The numbers here were small. Those dealt with without gloves gave a morbidity of 35 7 per cent., of which 14 3 per cent. were severe infections, while with gloves the fever due to genital infection covered 9.9 per cent. without any severe infections. He therefore comes to the conclusion that the use of sterile gloves for the removal of placenta diminishes the risk of severe infection. He finds that gloves are much to be recommended to the general practitioner, inasmuch as he is mostly called upon to detach a placenta manually on account of bleeding, and he has then little or no time to spend on the disinfection of his hands, while if he has sterile gloves in his bag the necessity of this falls away. He gives some details as to the sterilizing and preparation of the gloves, and claims that with care rubber gloves should stand sterilizing several times. One point he lays great stress on is that the inside of the gloves should be kept dry by means of a dusting powder. He maintains that the sense of feeling is scarcely affected, and that one very soon prefers to work in the gloves. In conclusion, he deals with the question of the cause of retained placenta.

(60) Primary Cancer of Fallopian Tube.

Doran (*Journ. of Obstet. and Gynaec. of the Brit. Emp.*, October, 1904) has compiled, for purposes of reference, a list of 62 cases of primary cancer of the tube from fairly reliable reports, mentioning several more or less incompletely recorded. The most complete essays on the subject published since 1900 are those of Quénu and Longuet, Zaugemeister, Peham, Stolz, and Le Count. The case of papilloma recorded by Kretz was probably malignant, but the after-history is wanting. Doran has collected 7 cases of primary sarcoma (or mixed tumour (Von Franqué, Schäfer) mostly doubtful, several even less authentic being rejected. The 62 cases of primary cancer are far less disputable. From this essay we find that in 24 cases a watery discharge, sanious in at least 15, was noted as a symptom, whilst in several where it was absent the tube was occluded at its uterine end. Thirty of the patients were of ages ranging from 45 to 50, 18 between 50 and 60; the youngest was 35 (Friedenheim), the eldest 70 (Pawlik);

36 had been pregnant. In 24 cases at least the disease was bilateral; pain is reported in 39 cases; in all but 1 (Peham, ascites preventing accurate palpation) a tumour was detected, but in 7 at least there was an ovarian cyst as well, and in 5 a fibroid of the uterus (Watkins 1, Quénu and Longuet 2, Bland-Sutton 2). Ascites is recorded in 4 cases, in 1 of which (Le Count) the ostium was open and secretion discharged into the peritoneal cavity, as in Doran's case of papilloma which proved innocent. The question of the origin of cancer of the tube from inflammatory products is unsolved; the theory advanced by Doran is supported by Macrez and Le Count, but opposed by Witthauer and others. In Doran's list there appears to be reliable evidence of previous pelvic inflammation in under 30 out of 56 cases with clear histories of the patients' health before operation, but the causal relation of the inflammation to the new growth is not always clear. Diagnosis is not possible at a very early stage of tubal cancer, nor when it has advanced so that masses of malignant deposit block the pelvis; but in the middle stage the watery sanious discharge, with swelling on one side of the uterus, should lead to a correct appreciation of the pathology of the case. Sixty patients underwent operation, which was exploratory for diagnostic purposes in the great majority of cases, and in twelve was really ovariotomy or hysterectomy for fibroids, the tubal disease being detected afterwards. The mortality of the remainder, where either the diseased tube or the uterus as well was removed, appears to be 4, but there is a little confusion as to which operation was undertaken in several cases. The after-histories are naturally very bad, over a quarter of the patients were dead or dying within a year after operation. As for long immunity from recurrence (seven years, Veit; three years, Dirner and Fanyó), the possibility that the tumour was really an innocent papilloma must be taken into account. Osterloch records a curious oversight, whilst Fabricius and Winter warn us lest we take the invasion of a hydrosalpinx by cancer from an ovary for primary cancer of the tube.

(61) Free Dermoid in Pelvis Simulating Tubal Pregnancy.

Gradenwitz (*Monats. f. Geb. u. Gyn.*, August, 1904) writes on the case of a multipara whose period had been seven weeks overdue, whilst during that space of time sharp attacks of sacral pain with syncope and haemorrhages occurred. On one occasion a piece of membrane was discharged, but it was not preserved. The breasts, which had been slightly distended, had become flaccid, and a little milk-like fluid escaped from them. The uterus was slightly enlarged, the right tube swollen and a doughy tumour of the size of a small fist lay in Douglas's pouch. The bleeding subsided under treatment, but the sacral pain grew so severe that the patient begged for operative relief. Tubal pregnancy was suspected, and an opening made through the vagina; the tumour appeared very unlike an ectopic gestation sac, and it was drawn out of the pelvis and vagina with ease, having no attachments. On cutting it open it was found to be filled with hair and grease, and its wall bore one tooth. No blood issued from the opened peritoneal cavity. The appendages were drawn down, but not a trace of disease or adhesion was to be detected on examination of the ovaries. The patient recovered, and all the symptoms disappeared directly after the operation. The twisting of the pedicle of the dermoid, somewhere in the neighbourhood of the uterus, accounted for the atypical haemorrhages, faintness, and pain.

THERAPEUTICS.

(62) Emetine and Cephaeline.

P. Zepf (*Arch. Inter. de Pharmacodyn. et de Thérap.*, vol. xii, Facic. v and vi) reviews the observations which have been published on the action of ipecacuanha, and especially of the alkaloids of ipecacuanha upon man, and describes his own investigations as to the effect of emetine and cephaeline when administered separately. He has given both emetine and cephaeline by mouth to phthisical patients and as suppositories to other patients. He administered emetine in the form of a freshly-prepared 1 per cent. solution, and increased the dose drop by drop. The average dose given was between five and six drops. With this dose the symptoms of headache and nausea were more frequently reported by patients than was any expectorant action of the drug. Indeed, the effect on the amount of expectoration and on the cough was in no case especially marked. Vomiting when it occurred did not affect the temperature, and was never accompanied by collapse. The lung condition was unchanged, and no effect was produced on tubercle bacilli in the sputum. Neither emetine nor cephaeline given by mouth caused diarrhoea. Both alkaloids could be given in large doses per rectum without causing vomiting, and the author is of opinion that given by mouth they cause vomiting by reflex action on the vagus nerve through irritation of the mucous membrane of the stomach and throat, but that when otherwise given they are not excreted into the stomach, etc., in large enough quantities to cause vomiting. He arrives at the following conclusions: (1) The two alkaloids have the same qualitative action, but quantitatively the action of cephaeline is the more intense, as is seen especially in the dose needed to cause vomiting; (2) the alkaloids have a locally irritating effect, whether applied to the uppermost or lowest part of the digestive tract; (3) during their administration no improvement in appetite took place, but loss of appetite and digestive symptoms of every kind, especially after internal use of the drugs, are observed; they often give rise to headache; (4) both alkaloids cause vomiting with foregoing nausea; for this purpose they are in no respect superior to the powdered root; (5) as expectorants the alkaloids rank with senega and squills, but given by mouth their expectorant action is a weak one, and their use in this way as a routine treatment in phthisis is to be deprecated; local application, by means of inhalation and gargling, is far more effective, and for this purpose the tincture or fluid extract of ipecacuanha is to be preferred to solutions of the alkaloids as being cheaper; (6) the reports of the patients supported the view that ipecacuanha preparations depress the central nervous system, but in this connexion the depression due to nausea has to be considered; (7) the author had no apparatus for estimating accurately the action of the alkaloids upon the heart.

(63) Pyrenol.

Horowitz has prepared a chemical combination of salicylic acid, benzoic acid, and thymol in the form of a sodium salt, and calls the product pyrenol. F. Loeb has studied its action in Berlin, and publishes his results in the *Berl. klin. Woch.*, October 10th, 1904. It is a white crystalline, slightly hygroscopic powder, possessing an aromatic odour and a sweet, somewhat tingling taste. It is soluble in five times its weight in water and in ten parts of alcohol. The indications for the use of this preparation are (1) in diseases of the respiratory organs—for example, asthma, pertussis, pneumonia, acute and chronic bronchitis, and putrid bronchitis; (2) rheumatic affections and those of allied infections—for example, pleurisy, angina tonsillarum, and gout. Its action as an antifebrile, antirheumatic, and antineuralgic has been worked out, and Loeb confines himself to its action on the respiratory organs. This action may be divided into (1) an expectorant; (2) to a limiting of the secretion; and (3) to a sedative in asthma. In acute bronchitis and pneumonia its antifebrile action also plays a part. Loeb gives a tablespoonful every two hours, or a teaspoonful every half-hour, of a 5 per cent. solution to adults, while for children he uses a 2 or 3 per cent. solution with syrup. The expectorant action was well seen in cases of phthisis, and the patient learned to value the drug on account of its easing effect. The dry, irritating cough of phthisis was the indication for its exhibition. Loeb states that he has not met with any ill-effects from the drug, and is in a position to warmly recommend it for acute and chronic bronchitis, asthma (especially the bronchial form), influenza, simple pleurisy, croupous pneumonia, and bronchopneumonia. He further deals with some points in connexion with the action of salicylic acid, and attempts to carry over his arguments to pyrenol. He finds that, according to Brugsch, 3 grams of salicylic acid can be tolerated without damaging the kidneys; women stand 2 grams, while febrile patients and those suffering from arteriosclerosis are less resistent. Pyrenol contains 0.4 per cent. of salicylic acid, and his maximal dose in one day was 15 grams of a 5 per cent. solution. This represents 4.5 grams of pyrenol, and Loeb reckons that this is represented by 1.8 gram (!) of salicylate. In no case were any pathological constituents found in the urine.

(64) Cryogenin in Typhoid Fever.

This drug, which has given very satisfactory results in tuberculosis, has also been used with success in typhoid by Boy, Tessier, Bruneau, Combemale. Boutterville now records a series of

cases showing the benefits obtainable by cryogenin (*Journ. de Méd. et de Chir. Prat.*, November 25th, 1904). In all his cases cryogenin was given in cachet, the doses being 1 gram on the first day, 0.6 gram on the second, 0.4 gram on the third, after which the daily dose administered was 0.2 gram. The temperature curve under these circumstances remained about 100.2° without any apparent disturbance of the patient's general condition. This effect was enhanced by the simultaneous use of cold baths. By these means typhoid fever was enabled to run its course with a lower temperature than is usually observed, which gradually improves the general condition of the patient, accelerates defervescence, and allows cold baths to be discontinued, or at any rate used at a somewhat higher temperature. The writer is of opinion that cryogenin is the ideal antipyretic in typhoid, especially in those cases where cold baths are contraindicated. A remarkable feature about the action of cryogenin is that the fall of temperature produced by any one dose is most marked when preceded by a bath or the administration of quinine, which were, however, without effect when this drug was not given. Cryogenin seems to have no undesirable effect, except a slight perspiration, which is sometimes observed in certain patients with large doses, and may be described as an antipyretic which does not cause any constitutional disturbances.

(65) Fluorescent Light Treatment.

Jesivnek (*Münch. med. Woch.*, June 7th, 1904) reports on the action of fluorescent substances, such as eosin, under the influence of light, in skin diseases. The part treated is painted with a 0.01 to 0.1 per cent. solution of eosin and exposed to light. Sunlight is used when possible; if not, an arc lamp of 220 volts, at a distance of 4 to 6 ft. The light is concentrated, and the heat rays intercepted by copper sulphate and picric acid. Nine cases of rodent ulcer and epithelioma were treated, with improvement in all but one. One case was cured in two and a half months, but 3 relapsed after improvement. Straub (ibid., June 21st) finds that if iodide of potassium and starch are added to the eosin and the mixture exposed to light, iodine is set free; but if a substance with a strong affinity for oxygen is added to the mixture this does not occur. He concludes that an eosin peroxide is formed by the action of light, and that eosin, and also quinine, can thus produce active oxygen.

(66) Serumtherapy in Syphilis.

Risso and Cipollina (*Rif. Med.*, November 30th, 1904) claim better results for their treatment of syphilis by serum than those which have been hitherto recorded. Their experiments were started last May, and 17 cases of syphilis were treated. The serum was procured from dogs by injecting them subcutaneously or intraperitoneally with blood taken from syphilitics in the active secondary period who had not received any specific treatment. The statement that animals are refractory to syphilis does not necessarily involve the corollary that an antitoxic serum cannot be obtained from them; for although hens are refractory to tetanus yet an antitoxic serum can be procured from them. Most of the cases got 5 c.cm. of serum injected daily. Nine out of the 17 cases were in the active secondary period, and had received no previous treatment. In all these the maculae and mucous patches disappeared with a rapidity much greater than under mercurial treatment. Two had partial relapses, which speedily disappeared on resuming treatment. One case of gumma in the nose got rapidly well after twelve injections; the other cases are still under treatment and rapidly improving. No greater inconveniences are met with in the use of this serum than is the case with other serums. The action of the serum is probably a specific one, but it may also act as a stimulant on the tissue elements, favouring absorption and the disappearance of specific local inflammations. How far the results obtained are constant and lasting, or whether injections would have to be given periodically, remains to be seen.

(67) A Means of Thermic Regulation in Infancy.

Thévenet and Moreau (*Lyon Méd.*, November 20th, 1904) tried various methods for regulating the body temperature of infants suffering from diarrhoea during last summer. The incubator, with ice or water below, was found unsatisfactory on account of the difficulty of ventilation. Lead tubing was too heavy to apply to the abdomen, but good results were obtained from the use of flowing water through coils of rubber tubing fastened with wire and applied over the abdominal surface. According to the age of the patient and the stage of the disease, the heat of the water used was different. Occasionally iced water, flowing drop by drop, was used, but for the most part it was found better in very young children to use water at 18 to 20° C., flowing in a faster current. In some cases where the temperature became too low water at 40° C. was caused to flow through the coils. It is advisable to place a layer of antiseptic gauze between the rubber and the skin. Unfortunately the method was only used towards the end of the epidemic of diarrhoea. Of four patients who had been treated by this means, two died, but in both cases the disease was of great severity, and distinct benefit was shown by the cessation of restlessness. In the other two cases the regulation of the temperature corresponded with a distinct amelioration of the diarrhoea.

(68) Mesotan in Rheumatism.

Crocco (*Gazz. degli Ospd.*, August 14th, 1904) speaks very favourably of the external application of mesotan in acute or subacute rheumatism. It is a transparent liquid, of penetrating smell, and contains 71 per cent. salicylic acid. It is readily absorbed from the skin, and a salicylate reaction can quickly be detected in the urine. Aspirin may be given internally at the same time, but the author records cases where the external treatment (merely painting the parts once a day and covering with wool) was quite sufficient to relieve all the symptoms. Some striking results were obtained in lumbago. The number of cases is not great—only 23—but the results generally were so good as to lead the author to highly recommend the external use of mesotan in cases of rheumatism.

PATHOLOGY.

(69) Brain Tumour and Trauma.

E. W. Holmes (*Amer. Med.*, December 10th, 1904) says the pathology of a traumatic cerebral growth is not essentially different from that of tumour elsewhere, though modified by the peculiar structures from which it may spring, by its method of nutrition, and by the very means which are intended for the protection of this portion of the nerve axis. The direct influence of the blow is indicated by the tumours appearing at the seat of injury. Where the force is excessive, the physical and anatomical conditions become a source of danger, as thereby new growths are developed at a distance from the point of the impact of the force. The effect of traumatism in producing tumour is not solely from the violence, but is also from the changes in nutrition and development, so that in the future we must look to the chemico-physiological factors rather than to bacteriology for the explanation of the mysteries of tumour growth. Of 600 brain tumours tabulated by Sachs, 48 per cent. (299), were upon the cortex of the cerebrum and cerebellum, the portions of the encephalon most exposed to injury. The time of appearance after a blow is without limit. The same variety of tumour is found here as elsewhere, though from traumatic causes, with the exception of cysts, sarcoma and gumma would seem to bear the greater proportion. The need of a carefully-kept case-book is of the utmost importance in determining the early and often insidious changes in the mental, moral, or physical habit or function of the individual.

(70) Small-pox Organisms.

De Waele and Sugg (*Arch. Internat. de Pharmacodynamie et de Thérapie*, p. 295, vol. xiii, 1904) have continued their work on the association of a particular form of streptococcus with the lesions of variola and vaccinia, and have obtained from the epidemic of variola at Anvers in 1903 material with which to control their former observations. From autopsies made during this epidemic they have been able to confirm their previous results. At every stage in the disease they obtained from the blood and from the vesicles a streptococcus which was isolated in pure culture. The serum of patients in this epidemic agglutinated in a specific manner the streptococci isolated during the same and those isolated from a previous epidemic, and also certain streptococci obtained from various vaccines. Moreover, the serum of vaccinated calves exhibited a specific agglutinative power towards the strains of organisms obtained from these three different sources. Specific agglutinins were also produced in the calf by inoculation with a broth culture of these streptococci. Other types of streptococci, obtained from various vaccines, did not exhibit this specific reaction.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(71) The Arterial Pressure in Malarial Infection.

G. QUADRI (*Il Policlin.*, November, 1904) compares the cardiac conditions in malaria with those in other diseases of bacterial origin, in which poisons are produced injurious to the action of the heart muscle, but not causing myocarditis. He traces this conception to a communication by Forlanini in 1896. So far as the subject concerns malaria, the only other work mentioned is that of Sciolla and Trovati, whose experiments and results the author criticizes. His own views are founded on the clinical observation of cases of malaria verified by the demonstration in each case of the malarial parasite in the blood. He states that (1) in malaria also there is a diminution of arterial tension, sometimes slight, more often decided; the degree of diminution of tension seems to be connected both with the duration of the disease and even more with the varying power of organic resistance possessed by the patient; it does not appear to depend in any way on the special type of malarial parasite which happens to be present; (2) the heart muscle in malaria reacts to cardio-kinetic remedies, both to those of the digitalis group and to such vascular remedies as caffeine, camphor, and ether; (3) the amount of reaction to digitalis (as shown by the rise in the blood pressure) is less in malaria than in health, the elevation due to digitalis never, even with large doses of the drug, reaching more than 20 mm., and being sometimes very slight indeed; where the tension is fairly high before treatment with digitalis there is the less response to the administration of that drug; (4) the rise of pressure due to cardio-kinetic drugs is always transient, so that whereas a suitable dose of digitalis taken during health raises the blood pressure for several days, in patients suffering from malaria the effect never lasts longer than forty-eight hours.

(72) Dangers of the Microscope in the Early Diagnosis of Pulmonary Tuberculosis.

H. C. CLAPP (*Amer. Med.*, December 10th, 1904) calls attention to the fact that even now many practitioners, no matter what their theoretical belief, often act on the supposition that absence of tubercle bacilli in the sputum on two or three examinations means absence of tuberculosis. This comforting assurance from their trusted medical advisers often induces patients to neglect proper treatment until the stage of incurability is reached. Cases are quoted from Clapp's own records in the Massachusetts State Sanatorium at Rutland showing that when tubercle bacilli have been found in the sputum of patients they are not by any means uniformly present at each examination, but often fail to appear for long periods, or are irregularly present. Microscopic examinations, which happen to be made only at such times, would, therefore, be very misleading in diagnosis. Cases of undoubted tuberculosis are quoted in which the microscope failed to disclose tubercle bacilli. If the physician should wait until the microscopic evidence were conclusive, the patient might sometimes lose the golden opportunity for recovery. Not always, but often the skilled diagnostician ought to be able to recognize the disease before enough ulceration and cavitation (surely not the very earliest stage) have occurred to allow the escape of the bacilli from the lung substance into the sputum.

(73) The Reflexes in Hysteria.

CROCQ (*Revue Neurologique*, November 15th, 1904, p. 1069) has examined minutely 100 typical cases of functional nervous disease in regard to the superficial and deep reflexes, and has arrived at the following conclusions: The abolition of the pharyngeal reflex was observed in 73 per cent. of the total number of cases; in 63 of the cases which had fits it was absent in 74 6 per cent.; in the 26 cases with paralysis and contractures in 65 per cent.; and in the remaining 11 cases with anaesthesia in 81 per cent. To this phenomenon, which was observed in a large number of other diseases, and even in the normal state, but little importance is attached. The tendon reflexes were exaggerated in 79 per cent. of the total cases; in 84 per cent. of the cases with fits, in 73 per cent. of those with paralyses and contractures, and in 63 per cent. of those with anaesthesia. The existence of this sign in many toxic states and even in healthy persons robs it of any pathognomonic value. Abolition of plantar sensibility occurred in 42 per cent. of the cases; in 63 per cent. of those with anaesthesia, in 61.5 of those with paralyses, and in 31.75 of those with fits. Plantar anaesthesia is rare in other neuroses and constitute a valuable sign. The combined abolition of the flexor plantar reflex and of the reflex of the fascia lata occurred in 59 per cent., being especially frequent in the cases with anaesthesia, 72 per cent., while it occurred in 53.7 per cent. of the cases with paralyses, and in 57 of those with fits. These reflexes being remarkably constant in the normal state, their simultaneous absence is looked upon as a special sign of hysteria. Plantar anaesthesia is not a *sine qua non* for this combined abolition; they occurred in conjunction in 57.7 per cent., but the reflexes were lost in 20 per cent. of cases in which there was no alteration of sensibility, and plantar anaesthesia occurred without loss of the reflexes in 35.5 per cent. The deep plantar reflex, otherwise known as the defensive plantar reflex, causing withdrawal of the foot from the stimulus, was exaggerated in 50 per cent. of the cases, normal in 24 per cent., weakened in 16, and abolished in 10 per cent. The variations in the abdominal reflex were inconstant; it was normal in 42, probably abolished in 24, exaggerated in 20, and weakened in 14 per cent. Ankle clonus was found in 10 per cent. of the cases, and knee clonus in 5 per cent., but wrist clonus was not observed. Ankle clonus occurred in 11 per cent. of the cases with paralysis, in 10 per cent. of those with anaesthesia, and in 9.5 of those with fits. Knee clonus occurred in 11.5 per cent. of the cases with paralysis, in 3 per cent. of those fits, and in none of those with anaesthesia. A true Babinski's extensor plantar reflex was never observed in any of the cases. The reflex of abduction of the great toe was, however, observed in 8 per cent., and this sign is considered to have nothing like the same diagnostic significance as the extensor plantar response.

(74) Radioneuritis.

GAUCHER (*Ann. de Derm. et de Syph.*, October, 1904) describes two forms of lesions which may follow the use of *x* rays. The first consists of burning after too long or too intense exposures, seen usually in patients. The second occurs in operators after continuous working with the rays and consists in trophic troubles due to ascending neuritis. The symptoms are glossy skin, fissures, and telangiectases. There is a certain amount of anaesthesia and shedding of the hairs and nails. Later on papillomata develop, which may become epitheliomatous. This radioneuritis does not usually occur before the end of a year.

SURGERY.

(75) Ultimate Results of Prostatectomy.

YOUNG (*Med. News*, January 14th) discusses the ultimate results of conservative perineal prostatectomy on the basis of a series of 75 cases. Among these were 5 of patients over 80, and 1 of 87, with one death five weeks after the operation in a man aged 84 years. Two other deaths, neither attributable to the operation, occurred, each in the third week—one in a patient walking about and ready to go home from pulmonary thrombosis, and the other in a man 77 years of age, who had been uraemic for several weeks, and autopsy showed double pyohydronephrosis. The innocuousness of the operation was thus shown. Young said the use of his double-bladed metal tractor was of great help in steadying the prostate for the incisions, drawing it down for a complete enucleation, enabling the operator to deliver and remove even large middle lobes without tearing away the mucous membrane of the bladder or urethra or the ejaculatory ducts. The advisability of preserving the floor of the urethra, the veru montanum, and the ejaculatory ducts in men whose sexual powers were well preserved (and these represented over 50 per cent. of the cases) was shown by the impotence which followed in nearly all cases of operations like Albarran's and Murphy's, in which the floor of the urethra and duct were deliberately destroyed, and by the results obtained in these 75 cases, in which, in a large proportion of them, the sexual power and ejaculation were preserved, and even spermatozoa were afterwards present in the semen. The preservation of the prostatic urethra intact did away with the necessity of post-operative passage of sounds, greatly hastened the closure of the perineo-urinary fistula (all urine passing through the penis after the sixth or eighth day in many cases), and was possibly responsible for the absence of incontinence and the early

establishment of normal urination. The frequent presence of epididymitis in Albarran's cases led to the routine ligation of the vasa deferentia in the groins after he had finished perineal prostatectomy by his method. The great rarity of testicle infection when the author's technic was employed showed, according to him, the advisability of not tearing away the terminal valve-like portions of the ejaculatory duct. The absence of mortality from the operation showed that the advantage gained by a nice exposure of the prostate by blunt dissection through an inverted V-shaped cutaneous incision, and proper traction of the prostate by means of an intra-urethral tractor with the consequent ability to enucleate the lobes without morcellement, and the saving of useful and non-obstructive structures—prostatic urethra and ejaculatory duct—was well worth the slight addition to the length of the operation as performed by a "blind, tear-out-what-will-come-out" technic.

(76) Operation for Varicose Veins in the Leg.

F. Parona (*Il Policlinico*, August and September, 1904) discusses the best method of operating on varicose veins in the leg. In considering the causation of the defect he attaches much more importance to the condition of the deep veins in the thigh and their valves than to the superficial venous supply from the external and internal saphena veins. He quotes numerous authors who have described the venous system of the lower limb, and agrees with Giacomini in his main contentions against the authority of many other writers. He states that by tying the external iliac vein and injecting into the posterior tibial veins the deep veins may be injected while the superficial veins remain empty, if there are no obvious external varicosities, but that injections into the venous arch on the dorsum of the foot inject superficial and deep veins equally. He concludes that the valves normally prevent blood passing from the deep to the superficial veins, but allow a current to pass in the opposite direction. The author examined 50 subjects, choosing males with few or no external varices, in order to investigate the mode of origin and method of spread of the disease. He frequently found deep without superficial varices, but never superficial without much more obvious deep ones. External varices, when they existed, were always in direct connexion with varicosities of the deep veins. He found that the deep varices began especially in the gemelli and soleus muscles spreading slowly and appearing at first as swollen nodes separated by muscular fasciculi which supported the intervening normal length of the veins. He states that it is common to find considerable enlargement of the articular and muscular veins before they fall into the popliteal vein, but the popliteal vein itself always maintains its form. He concludes that varices of the internal saphena vein form a very late stage of the process of failure of the venous system and its valves, while varices of the external saphena begin near the lower end of the popliteal vein and spread downwards, and he traces all varicosities ultimately to excessive work and muscular contraction. The treatment he advises is ligature of the popliteal vein in the upper part of the popliteal space, an operation of some difficulty because the vein is at a distance from the surface, is intimately connected with the homonymous artery, and is subject to the possibility of numerous anomalies. The author describes the anatomical relations of the parts, including some of the anomalies revealed by his own dissections and those of others. He recommends an oblique incision ten centimetres in length along the margin of the semimembranosus muscle. He ties the vein in two places and divides it. He prefers to have the patient lying on one side with the affected limb stretched out and the other flexed. He also treats any ulcer or eczema that may be present. After operation the limb is kept bandaged and in a splint with the foot raised. Parona has carried out this operation in 26 cases, which he describes with some detail. The results have been very good. The same treatment has been successfully employed for the cure of varicose ulcers so severe and extensive as to suggest that amputation was likely to be necessary. In some cases of very extensive varices the external and internal saphena veins were tied as well as the popliteal. Injections of chloral hydrate were also employed. When the patients leave hospital they are recommended to use the limbs moderately, to wear a flannel bandage, and to practise gentle massage night and morning, rubbing the leg from below unwards. One case is mentioned in which a leg, formerly always oedematous and ulcerated, was found healthy and free from varices two years afterwards. The operations were only begun two years ago, and it is therefore impossible to speak decidedly of permanent cures. The operation leads in four or five days to obvious improvement in the edges of old ulcers, especially if they are not adherent to the bone. Operation is not advised when varices are due to cardiac or pulmonary disease, or occur in syphilitic subjects. In other cases early operation is desirable, and the author mentions symptoms, chiefly of a subjective nature, by which deep varices may be recognized before the disease has had time to extend to the external and internal saphena veins. The anatomical results above alluded to are illustrated by numerous drawings of varicose veins in all stages dissected by the author.

(77) Coeliac Parotitis.

Dyball (*Ann. of Surg.*, December, 1904), in discussing the causation of parotitis following injury or disease of the abdominal and pelvic viscera, opposes the pyaemic theory, the oral sepsis theory, and the reflex nervous theory, none of which, he holds, affords a satisfactory explanation of all the cases. He thinks that it appears most probable that this variety of parotitis is due to the action on the gland of toxic substances absorbed into the blood and derived from (*a*) the secretions of certain organs modified by injury or disease; (*b*) toxins of microbic origin absorbed either from the alimentary canal, peritoneal cavity, or bladder, and products of deranged digestion. In any given case of injury or disease of the abdominal or pelvic viscera, the occurrence or not of parotitis will therefore depend on the presence and the absorption in sufficient quantity of some of these various toxic agents. Suppuration, it is pointed out, is not an essential feature of coeliac parotitis, but is due to the fact that the parotid gland, where inflamed by the action of these toxic agents, offers lessened resistance to infection by pyogenic organisms reaching it by the blood stream or by Stenson's duct.

MIDWIFERY AND DISEASES OF WOMEN.

(78) Vaginal Caesarean Section.

Stamm (*Amer. Journ. of Obst. and Dis. of Women and Children*, November, 1903) discusses the value of vaginal Caesarean section. The introduction of this operation is due to Dührssen of Berlin, who gives the following indications for its employment: (1) Abnormal conditions of the cervix and lower segment of the uterus (carcinoma, myoma, rigidity, stenosis, partial pouch-like distension of the lower uterine portion); (2) dangerous conditions of the mother, which may be relieved by prompt emptying of the uterus; affections of the heart, lungs, and kidneys; (3) conditions of the mother where death is imminent and can be foreseen. The last two indications are only of value where the cervix is closed and is not dilatable, or where the depressing influences of labour pains should be obviated, as in affections of the heart and lungs. Of the 4 cases reported by Dührssen, 1 was of cancer of the uterus, a second that of a moribund woman with mitral insufficiency and dilatation of both ventricles, and 2 were cases of eclampsia. He claims that after this operation 75 per cent. of cases of eclampsia are saved, as opposed to 9 per cent. where delivery is spontaneous. Simon has reported 3 cases. The first was a case of stenosis of the os uteri and vagina, due to previous operation for prolapse. The patient recovered, although the operation was not undertaken until three days after the beginning of labour. In the second case—one of rigidity of the os in a primipara—the uterus was not incised until the sixth day of labour, and, although a living child was extracted, the mother died after three days. The third case was one of eclampsia. Ruhl reports 2 successful cases, 1 of intense rigidity of the os in a primipara, the second of premature detachment of the placenta with internal haemorrhage. Bumm reports 13 cases with 1 death. The 2 cases described by the author were both of eclampsia, and he believes that this disease will in the future be the chief indication for the operation. It is probable also that rapid dilatation with Bossi's dilator or similar instruments will be to some extent superseded by vaginal Caesarean section, because in the latter the extent of incision and laceration is more under control and the wound more likely to heal by first intention. The operation is carried out as follows: The uterine portion of the cervix is exposed by a large speculum or retractors, and grasped by forceps on either side of the os. A longitudinal incision 5 to 7 centimetres in length is

made in the anterior vaginal wall down to the os uteri. The loose cellular tissue between the bladder and cervix is opened by scissors. The bladder is pushed back with gauze as far as the internal os, and at that height a sagittal incision made through the anterior wall of the cervix. The upper margins of the wound are again grasped with forceps, and a further portion of the uterus exposed. The bladder is again pushed up, and another incision made through the lower segment of the uterus. After repeating this manœuvre a few times, an incision can be made under the guidance of the eyes and without opening the peritoneum which will in most cases be large enough to admit the extraction of a mature child. Should this not be the case, a similar procedure can be followed at the posterior wall. It is probably best as a rule to wait for the natural expulsion of the placenta, but pressure on the uterus can be employed if necessary.

(79) Fetus Retained Beyond Term in Uterus Septus.

Werner (*Zentralbl. f. Gynäk.*, No. 39, 1904) attended last spring a woman, aged 26, who had once been pregnant and was delivered spontaneously. She ceased to menstruate in March, 1903, and again became pregnant. In January, 1904, sharp pains set in with fetal movements which ceased in a few days. Abdominal swelling remained, neither increasing nor diminishing. The sound passed into an empty uterine cavity, although there was evidently a fetus in the neighbourhood. Werner operated and found that a sac containing the fetus was in close connexion with an empty uterine cavity. The left appendages and round ligament proceeded from the sac. The fetus was macerated. The operator removed the sac with the fundus of the normal half uterus, the walls of the part left behind were closed by suture. The right appendages were not removed. Recovery was speedy. Werner observes that only one other case is recorded of pregnancy in an atresic half of a uterus septus or bilocularis. About a hundred instances of pregnancy in a closed half uterus of the "bicornis" variety have been reported. Wagner, in discussing Werner's case, dwelt on the difficulty sometimes experienced in distinguishing between interstitial gestation and pregnancy in a closed uterine cavity. He had operated for removal of a sac which was seen by the position of the round ligament to be interstitial or tubo-uterine; there was a process running from the cavity of the sac towards the uterine cavity suggestive of a cornu. Werner noted that the cornual cavity in his case was lined with a perfect decidua, not seen in tubo-uterine gestation, which, on the other hand, always ruptured before term.

(80) Twin Labours: 17 Day's Interval: Double Uterus.

Paulin (*Hospitalstidende*, No. 6, 1904, *Monatsschr. f. Geb. u. Gyn.*, November, 1904) reports that a woman gave birth to a female child on the evening of December 15th, 1903. The head presented, the child was living, but weighed under 5 lb.; a normal placenta followed almost immediately. Then the midwife found that there was another fetus, but the pains had ceased. Five hours after delivery Paulin examined the patient and detected in the vagina a soft mass, presumably the cervix, and also another firm cervix with the os closed. He decided to wait. No lochia came away, and the breasts secreted no milk. The second labour occurred on January 1st, 1904; the child was a female, and presented by the breech. The placenta was normal; the child weighed 5½ lb. The lochia flowed freely, and milk at once began to be secreted so abundantly that both children could be suckled. On January 18th the patient was carefully examined. About ¼ in. above the os externum a thick septum was detected separating the uterine cavity into two parts. No sulcus could be made out in the fundus on bimanual palpation. Paulin insists that superfetation was to be excluded. The patient had been discharged from a fever hospital on April 15th, 1903, convalescent from scarlatina. The smallest child, it is noted, was born first.

THERAPEUTICS.

(81) Roentgen Rays in Malignant Diseases of the Breast.

C. L. Leonard (*Amer. Med.*, December 3rd, 1904) points out the analogy between the process of healing in atrophic scirrhus of the breast and that resulting from the Roentgen-ray treatment. He believes that the indications for early thorough surgical removal of the malignant tissue and the adjoining lymphatics have not been changed by the advent of the Roentgen-ray method of treatment. This treatment in malignant disease of the breast can as yet point to only one class of cases in which its use is indicated primarily. In that class surgical intervention is counter-indicated by modern pathology and clinical experience. In all other cases surgical removal of the breast with the tumour and the adjacent lymphatic areas is always indicated. Wherever possible an attempt should be made to remove the greater part of the malignant tissue, even though the operation can be only palliative. With the aid of Roentgen treatment even large ulcerating areas can be healed, while the toxaemia is lessened and the Roentgen treatment facilitated. The profession must learn that experience is necessary in the employment of this therapeutic agent. A closer approximation to the actual technique is now possible, because new devices have been invented for measuring the efficiency of apparatus, and the amount of energy passing through the tube while in operation. This instrument is a milliamperemeter that can be placed in the circuit with the tube. The value of this instrument as a basis for comparing technic in radiotherapy cannot be overestimated. Its invention makes a marked advance in treatment possible. The results obtained in favourable cases can be measured by this standard, and similar conditions can be produced in other cases, not only by the operator himself who produced them, but by any one possessing the requisite technic and apparatus. It will simply be necessary to know the dose employed in terms of standard dosage. Of the 26 cases of malignant diseases of the breast reported in this paper, the patients having been under treatment since 1900, 12 are dead and 2 not heard from, are also probably dead. Nearly half the patients are living to-day. One, however, cannot expect to live more than six months. One has lived two years, and yet disease is certainly present. Nine remain apparently cured. Seven patients, or a large proportion, considering their condition when first seen, have lived over a year after their operations. This is not long enough to determine the permanence of the cure, but the results are encouraging, being better than those of the average operator, and the results obtained in some of these cases, even if the cure is not permanent, are enough to justify the employment of this method and to attest its value.

(82) The Roentgen Rays in the Treatment of Tuberculosis.

J. Rudis-Jicinsky (*Amer. Med.*, December 17th, 1904) uses the Roentgen rays in conjunction with the regularly-accepted treatment, and gives plenty of quinine sulphate internally to ensure better absorption of the rays. Of 20 selected cases of pulmonary tuberculosis 5 haemorrhagic cases showed improvement in ten weeks; 10 fibroid cases gave 3 deaths after a lapse of six weeks; in 5 cases of mixed infection 3 patients ceased taking the treatment, but the other 2 showed continued improvement, with steady gains in weight. In 6 cases of tuberculosis of the peritoneum 1 patient died, but the rest recovered, and there has been no recurrence. In glandular tuberculosis there were 19 failures, 8 patients cured, and 6 benefited; lupus vulgaris, 16 patients apparently cured, 3 failures. The greatest improvement was shown in tuberculosis of joints, 8 patients with simple tuberculous synovitis were cured in six weeks; 4 chronic cases showed improvement in four months; 1 case of tuberculous dactylitis showed good results after six weeks, some deformity remaining, and in 2 coxalgias the sinuses healed in four months.

(83) The Treatment of Lupus in General Practice.

Dreuw says that the treatment of lupus by means of Finsen light and by Roentgen rays is so expensive and so lengthy that it for all practical purposes does not lay in the power of the general practitioner to carry it out (*Berl. klin. Woch.*, November 21st, 1904). He has employed a method in Unna's clinic, which must be considered satisfactory to the practitioner, since it yields good results and is easy of application. The affected places are first frozen until they are snow-white with ethyl chloride and the part is thoroughly rubbed with crude hydrochloric acid, saturated with chlorine. The best method is to wrap a piece of cotton wool around a wooden match or other piece of wood and to dip the wool into the acid. The rubbing must be carried out immediately the surface is well frozen, and is to be continued until the nodules take on a greyish-white colour. As soon as the burning has been accomplished, the

surface must be covered with a powder, and the author prefers eugoform to all others. No bandage or other dressing is necessary. The wool must be repeatedly dipped into the acid, as the melting of the ethyl chloride dilutes it, and in order to protect the surrounding skin and the fingers of the surgeon, it is well to press a pledget of wool firmly on to the skin, around the nodule. Only the surface should be cauterized, as if one allows deep action to take place, the result will be unsightly scarring. In the cases of (1) lupus of the interior of the nose, (2) lupus multiplex, (3) when freezing is not tolerated, or (4) when energetic cauterization is desirable—such cases as tuberculous ulcers with purulent sloughs, lupus hypertrophicus or verrucosus—he finds it wise to employ general anaesthesia by chloroform. A day or two after the surface cauterization a greyish-brown scab forms, which falls off after from two to four weeks. With the separation of the scab the more superficial nodules of lupus fall out, while only the deep-seated ones remain. Later these may be recognized by means of the "diascope" as brown punctate formations. When many of the deep points lie close together they may be treated by surface cauterization, and the resulting surface will be freed from lupus nodules in the course of from three to six months, the surface being covered by epidermis. When the points are seen singly they can be burned by means of glass tubes, which are obliquely pointed and in which the acid is allowed to enter by the capillary attraction. One must not apply the point of the tubes closer to one another than 1 cm., as otherwise the zone of cauterization may run together. The point must be stobbed into the nodule, which has to be marked before the freezing is begun. The author relates the clinical histories of some cases by these means. Turning to the histological side of the question, he finds that the acid produces an emigration of white blood cells immediately in tuberculous or lupous tissue. The blood vessels are dilated to the greatest extent, and a marked diapedesis and a considerable collection of leucocytes outside the vessels can be observed. In conclusion, he lays considerable stress on the fact that the method is cheap, simple, and that the cosmetic results are very satisfactory.

(84) Tachiol as a Gastric Antiseptic.

FERRANNINI (*Rif. Med.*, September 27th, 1904) has made several experiments both *in vivo* and *in vitro* with tachiol in relation to gastric antisepsis and concludes that it is a valuable drug for this purpose, whether given internally or in lavage. Tachiol is an aqueous solution of fluoride of silver, colourless, odourless, and non-irritating to the skin. It has a metallic taste. As a gastric disinfectant, tachiol possesses this advantage over nitrate of silver or sublimate, that it coagulates albumen to a less degree. In the author's experiments more attention was paid to the growth-arresting property of the drug than to its bactericidal action. It always rendered the gastric juice turbid. *In vitro* a 1 in 5,000 solution of tachiol acted better as an antiseptic for the gastric juice than a 1 in 500 solution of HCl. To test its action in the presence of specific germs the typhoid bacillus was mixed with the juice. Experiments on dogs and men showed that in 1 in 3 or 5,000 solutions tachiol was an excellent antiseptic and antifermentative for the stomach, whether used in washing out or given internally. No change in the gastric functions was noted; indeed, it acted as a slight eupeptic by exciting the motor power of the stomach and slightly lessening the proteolytic and coagulating power of the gastric juice. It acts favourably on the gastric mucosa and is hence useful in chronic gastritis.

(85) The Effect of Serum Injections on the Blood.

KUCHARZEWSKI (*Arch. Internat. de Pharmacodynamie et de Thérapie*, 1904, vol. xii, p. 117) has tested the effect of injections of diphtheria, tetanus, and anti-streptococcus serum on the blood of healthy rabbits, with the following results: In all cases the serum produced a slight and transient decrease in the number of red-blood corpuscles and in the amount of haemoglobin. The specific gravity of the blood showed no constant change. Small doses of the serums produced no leucocyte reaction; larger doses produced a leucocytosis lasting a few days. The temperature of the body showed no noteworthy alteration. With the diphtherial serum the body weight was slightly diminished, but not with the others. The general state of the animals showed no pathological change, even with large doses. When the antitoxic activity of the serum was destroyed by heating precisely the same effects were observed to follow its injection, and similar effects were noticed after the injection of normal horse serum. The conclusion arrived at was that the serums had no prejudicial effect on the animal economy beyond that which the normal serum, free from any antitoxic substances, possessed.

(86) The Action of Sodium Cinnamate.

CHARTERIS AND CATHCART (*Journ. of Path. and Bact.*, November, 1904) have investigated the action of sodium cinnamate by means of intravenous inoculation into rabbits. This drug is supposed to be useful in the early stages of phthisis, on the ground that it produces a temporary leucocytosis, causes the tuberculous nodules to be surrounded with a zone of leucocytes, leads to their vascularization, and finally to their resolution into connective tissue. The rabbits experimented upon received daily for a fortnight 20 minims of a 5 per cent. solution. They remained in good health, ate well, and put on weight. Daily blood counts were made, and the tissues were examined at the end of the experiment. It was found that the drug produced a slight permanent increase in the number of leucocytes circulating in the peripheral blood. This increase was almost wholly due to the mononuclear elements, the polymorphonuclear cells being relatively diminished in number. No definite changes were produced in the marrow, but there were slight changes in the spleen, pointing to stimulation of that organ.

(87) The Therapeutic Efficiency of Barium Chloride.

PESCI (*Rif. Med.*, November 9th, 1904) finds barium chloride a most efficient diuretic in old-standing serous effusions of the pleura; it is more constant and prompt in its action than any other diuretic. It is also very useful in the early stages of failure of compensation in valvular disease of the heart, as it tones up the muscular coats of the arteries. For similar reasons it is beneficial in infective diseases where the pulse tends to become dicrotic from relaxation of the vasal parietes. The drug is contraindicated where the blood pressure is high and the force of the heart weak. These results are brought about by a direct action of the drug upon the muscular tone of the arteries and consequent increase of pressure. This result is, in the author's opinion, founded largely on sphygmographic tracings, due far more to a direct action on the arterial muscular tonicity rather than to any stimulus of the heart, such as occurs with true cardio-kinetic drugs. Barium chloride has no cumulative effect, does not disturb the digestion (in ordinary doses) or the nervous system, and does not irritate the kidneys. The author's conclusions are based on 40 cases, and the usual adult dose was 20 c.gr. three or four times a day in water. In every case the sphygmographic tracing became less full, and the polycrotism disappeared after a few doses. The effect on the pulse differed in different cases—sometimes it was lessened in frequency, sometimes increased. It had very little influence over arrhythmia.

PATHOLOGY.

(88) Tuberculosis of Myocardium.

RAVIART AND CAUDRON (*Echo Méd. du Nord*, November 6th, 1904) report the case of a man admitted to the asylum at Armentières for delusional insanity. No symptoms or signs of cardiac disease presented themselves till his death of lobar pneumonia some time after admission. At the autopsy, however, they discovered two large tubercles in the wall of the right auricle, the larger of which was at least the size of a bantam's egg, and had in several places perforated the endocardium. The foci showed no softening, but considerable fibrosis; the pericardium was unaffected, but the tubercles were not definitely encapsuled, and in their immediate neighbourhood the myocardial fibres were degenerate, shading off gradually into normal tissue. Tubercle bacilli were present, both in giant cells and in the lumen of a small blood vessel. Beyond these lesions and the fatal pneumonia, nothing was found except caseous bronchial glands and a small tuberculous focus in the convexity of the brain. The writers remark that in the absence of signs during life, and the selection of the right auricular wall as a site, their case resembles most other published ones; but in perforating the endocardium and sparing the pericardium the disease spread in a direction precisely opposite to that which it usually follows. A noteworthy point was the absence of pulmonary tuberculosis.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(89) Carbohydrate Metabolism.

Rhodes (*Amer. Med.*, December 10th, 1904) reviews the work of recent investigators, whose work has been directed to cell autolysis, glycolytic action, and other forms of metabolism, in which the ferments formed by the body are particularly concerned. He discusses the relation of the action of the different glandular extracts to the destruction of sugar. His results, after many hundred experiments, in which he used extracts of tissues from the dog, cat, beef, calf, lamb, frog, etc., showed that at times there is a marked glycolytic action when using the extract from a single organ; this action is still more marked when two or more extracts are combined, the pancreas and muscle, pancreas and spleen, muscle and liver, and other like combinations being most favourable. The extract used was prepared by taking the fresh organ, cleaned, washed free from blood; this was next ground and finely macerated, after which a mixture of three parts of glycerine and one part of alcohol was added and allowed to stand for three days or longer. It was filtered and ready for use. This extract was found to be more effective than any made by the use of alcohol, by distilled water, by hypertonic and hypotonic salt solutions, or powdered glands made by using acetone. The glycerine-alcohol extract of each organ used showed strong diastatic action, which fact, together with the knowledge that some of the extracts, as that of the pancreas, contain also proteolytic ferments, makes the work of the investigators who have tried the effect of pepsin and trypsin on the action of the glycolytic extracts seem to be of little value. Rhodes believes that the results of investigators on this form of metabolism should be received and accepted with great caution, the more so because some of the recent writers have already acknowledged errors in their work of the past year. He thinks that the great variance which has been obtained in their results may be explained by one or more of the possible conditions which appear to influence this fermentative action, and given as follows: (1) Extracts may contain bacteria; (2) blood remaining in an organ may inhibit or augment the action of the ferments: (3) the difficulty of obtaining the best method of extracting these ferments: (4) the possibility of a great variation in the strength of extracts made at different times with reference to length of time intervening between the taking of food by the animal and the time of killing; (5) the combination of extract of an organ of one animal with the extract of a different organ from a different animal; (6) importance of the presence of oxygen in the experiment; (7) value of agitation of incubating tubes; (8) the estimation and importance of the end-products of fermentation. The estimation of sugar was by the Pavy-Purdy test. Many experiments had to be thrown out on account of having used ammonium sulphate to assist in the removal of the proteids present. The salt, contrary to the statement of some recent writers, interfered with the test. The action is explained by the theory of the dissociation of the ions. He gives tables which show the general run of different experiments. He is still at work on the subject, and has as yet not come to any definite conclusion. Clinically the extract administered hypodermically has showed a very marked reduction in the amount of sugar excreted by diabetics.

(90) Pemphigus of the Oesophagus.

Roman Tamerl (*Wien. klin. Woch.*, July 21st, 1904) reports a case of pemphigus with several unusual characters. A man, aged 71, was admitted to hospital with symptoms of dysphagia. An eruption of pemphigus had appeared three years previously on the left cheek, but for two years had remained limited to the face. It then attacked the buccal mucous membrane, but caused only slight discomfort. In November, 1903—two and a-half years from the beginning of the disease—deglutition became difficult and painful. On admission he could swallow only liquids. There were a few characteristic vesicles and a number of erosions covered with crusts and cicatrices of former vesicles on the face. On the cheeks, soft palate, the neighbouring part of the hard palate, especially on the right side, and on the right side of the tongue were numerous sharply-defined ulcers with irregular edges, which were evidently produced by the confluence of a number of vesicles. The larynx and pharynx were normal; the pupils were unequal but reacted normally. The fact that even liquids were swallowed with difficulty, combined with the age of the patient, raised the suspicion of oesophageal carcinoma. But though there was at first slight resistance to the passage of a sound at the level of the cricoid cartilage and again at the diaphragm, the fact that there was no obstruction when it was passed the second time negatived this diagnosis. Through the oesophagoscope several red, easily bleeding, sharply-defined, superficial ulcers were seen. They were surrounded by loosened, ragged, greyish white epithelium, which were evidently the remnants of the vesicles. One on the posterior wall, just below the larynx, involved about a third of the circumference of the oesophagus; another was situated on the posterior surface of the arytenoid cartilage, and a third opposite the diaphragm. Though recent vesicles might produce some narrowing of the oesophageal lumen, the long continuance of the dysphagia indicated rather that the erosions produced by pemphigus, and especially those near the cardiac orifice, had produced slight cicatricial contraction.

(91) Tuberculous Cirrhosis of the Liver.

Vincenzo (*Rif. Med.*, November 16th, 1904) reports a case illustrating this disease and discusses the subject generally. Tuberculous hepatic cirrhosis may show itself anatomically by the presence of tubercle bacilli or true tubercles in the liver, and this in two ways: (1) In cases of generalized tuberculosis, when the tubercles are very small and occupy the portal spaces or the hepatic lobule, the liver is fatty and may exhibit early connective tissue neoformation around the lobules. (2) In chronic tuberculosis with caseous tubercles in the interlobular connective tissue. The liver is enlarged, smooth, yellow and fatty. Besides this we may have a hepatic cirrhosis of tuberculous origin but without any tuberculous localization in the liver. In these cases the liver is hypertrophic, intensely yellow, with smooth surface and rounded hard edge. Clinically three types have been described: (1) The cirrhosis is acute or chronic, setting in before or in the course of the pulmonary disease. The patients complain of digestive troubles, exhibit vascular changes in the skin, suffer from myalgia, subicterus, perimalleolar oedema, enlarged liver and spleen, and occasional ascites or epistaxis: urine red and loaded with urates; rapid wasting and cachexia, and finally nervous symptoms ending in coma. (2) No complaint of hepatic symptoms, but on examination the liver is found enlarged and sometimes painful; no ascites: diarrhoea is frequent. With rest in bed and suitable diet these cases often improve and the liver goes down, but they may take a turn for the worse and present symptoms very like those of the first group, and thus end fatally without any apparent change in the pulmonary signs. (3) No signs or symptoms of hepatic trouble during life, but *post-mortem* one finds marked hepatic changes. It is generally agreed now that tuberculosis may cause hepatic cirrhosis, but whether by direct bacillary action or by toxins is uncertain.

(92) Fluorescent Media for Transillumination of the Stomach.

In a paper on dilatation of the stomach and gastroptosis, R. C. Kemp (*Medical News*, New York, August 6th, 1904), holding that transillumination of the stomach is the ideal method of ascertaining its limits, advocates the introduction of fluorescent media into the stomach before the electric lamp is passed, by which means he has found that the brilliancy of the transillumination is increased over one-half. Two of the principal media are bisulphate of quinine in the strength of 10 gr. to 1 pt. of water, with preferably the addition of 5 mins. of dilute phosphoric acid or sulphuric acid. The fluorescence is a pale violet. Increased acidity intensifies its action, and fluorescence at once disappears if the solution is rendered alkaline. The other medium is fluorescin, used by ophthalmic surgeons to detect ulcers of the cornea. As is well known, it is resorcin-phthalein anhydride. In an alkaline and alcohol medium it gives a green fluorescence. The hydrochloric acid of the stomach is first neutralized by giving 15 gr. of sodium bicarbonate dissolved in 8 oz. water, or 1 or 2 oz. of lime water may be given instead, and then a second draught consisting of 8 oz. of water in which are dissolved 15 gr. of sodium bicarbonate, 1 drachm of glycerine, and $\frac{1}{8}$ gr. to $\frac{1}{4}$ gr. of fluorescin. By this means he has been able to transilluminate the stomachs of persons with thick abdominal walls, otherwise a matter of difficulty.

SURGERY.

(93) Oesophageal Surgery.

SAUERBRUCK (*Zentralbl. für Chir.*, No. 4, 1905) publishes the results of some experiments he has recently made on dogs with the object of determining the feasibility of establishing in the human subject an anastomosis between the stomach and the oesophagus, and of resecting the thoracic portion of this canal. Extended and radical operative treatment of disease, and especially stenosis, of the oesophagus, has, the author points out, been suggested by his method of preventing pneumothorax during operations on the chest by the use of the pneumatic chamber. The first attempts made in this direction by von Mikulicz have had very bad results, and have led to much scepticism as to the possibility of operating on the thoracic portion of the oesophagus in man with any success. The author, however, after repeated trials with varying results has at last, he believes, overcome the difficulties attending such application of practical surgery. The conditions of success in a surgical attack on the thoracic aorta, made within the pneumatic chamber devised by the author, are: Perfect asepsis, the use of Murphy's button instead of circular suture in practising anastomosis, and, with the object of effecting rapid adhesion of the raw surfaces, a free application to the wound of Lugol's solution. The following are the different steps of the experimental operation for establishing an anastomosis between the cardiac end of the stomach and a remote portion of the thoracic oesophagus: (1) A long incision through skin, muscle, and pleura is made between the fifth and sixth ribs; (2) these two ribs are forcibly separated, and the oesophagus, aorta, and both vagi are freely exposed; (3) the pleural and peritoneal coverings of the lower extremity of the oesophagus having been divided, a conical portion of the cardiac end of the stomach is drawn through the oesophageal opening of the diaghragm into the thoracic cavity; (4) into the lip of this displaced portion of the stomach the female segment of a Murphy's button is inserted through the smallest possible opening; (5) the male portion of the button is next inserted into that portion of the oesophagus to which it is intended to fix the stomach; (6) the anastomosis having been made by bringing the two segments of the button together, the base of the prolapsed cone of stomach is fixed by sutures to the margin of the orifice in the diaphragm; (7) Lugol's solution is applied to the raw surfaces, and the cavity of the wound having been washed out with saline solution is completely closed by sutures. Of 13 dogs thus treated 10 recovered, whilst the remaining 3 died in consequence of complete hernia of the stomach into the thoracic cavity, due to faulty suturing of the small conical prolapse to the oesophageal opening in the diaphragm. The author found in these experiments that the stomach could be readily applied to the upper third of the oesophagus, and that the lower half of this canal could be excluded by anastomosis. An operation of this kind, it is suggested, might be indicated in the human subject in a case of impermeable cicatricial stenosis of the oesophagus or of diverticula near its lower extremity. In a case of cancerous stenosis gastrostomy would be a more suitable operation. Partial resection of the oesophagus was found to be a very difficult and unsatisfactory operation on account of the inelasticity of the canal and its close attachment to surrounding structures, and of the consequent impossibility of bringing the divided ends together, and of maintaining them in contact by sutures. It is not difficult, however, after the stomach has been fixed to the upper part of the thoracic oesophagus, to resect the canal below the seat of anastomosis, and finally to invert the lower end into the cavity of the stomach, and to cover it by a row of peritoneal sutures, as is usually done in appendectomy. The upper end of the divided oesophagus is secured by a ligature. This operation was performed on 11 dogs without a single fatal result. For the removal of a close stricture or of a small tumour situated at the lower end the author suggests the following procedure to be carried out in two stages: In the first stage the affected portion of the oesophagus, after it has been exposed by thoracotomy within the pneumatic chamber, is inverted into the interior of the stomach and retained in this position by sutures. After an interval of about a fortnight gastrotomy is performed, and the inverted portion of strictured or diseased oesophagus excised. That such operations as are here described are practicable on man the author has convinced himself by experiments on the human cadaver. The stomach, he states, is sufficiently mobile, the oesophagus can be readily separated from surrounding nerves and vessels, and sufficient exposure can be attained by a single incision in the fourth or fifth intercostal space.

(94) Treatment of Wounds of the Liver.

TILTON (*Ann. of Surg.*, No. 1, 1905) has collected the cases of uncomplicated wound of the liver that have been treated in the hospitals of New York within the last ten years. These are 25 in number, and are divided as follows: Ruptures, 12; gunshot wounds, 9; and stab wounds, 4. Death occurred in 11 cases, a mortality of 44 per cent. Laparotomy was performed without delay in 20 of these cases, with a mortality of 40 per cent. The author points out that in the modern treatment of injuries of the liver the tendency is towards early laparotomy. It is stated that the prognosis of the severer cases of wounds of the liver alone has improved of late years as a result of early operative treatment. Many cases must of course be promptly fatal from shock or haemorrhage or from associated injuries of other organs. Many others can be saved by operation, which would otherwise die from haemorrhage or some complication. The treatment of all open injuries should be early laparotomy for the purpose of haemostasis, thorough examination, and prevention of infection. As regards subcutaneous ruptures, the mild cases without marked symptoms of collapse or internal haemorrhage should be treated expectantly. Cases in which there are marked collapses or signs, local or general, of internal bleeding should be treated by early laparotomy with suture or packing of the wounded liver.

(95) Cutaneous Tuberculous Papilloma of the Anus.

RAMOGNINI AND SACERDOTE (*Rif. Med.*, November 2nd, 1904) report the case of a man aged 50 who came into a hospital with a cauliflower-like growth in the anal region of one and a half year's duration. Two years ago he had a troublesome cough of four or five months' duration with pain in the left side, and he had suffered from malaria. On admission there were no abnormal physical signs in the thorax, no incontinence of faeces, and no history of diarrhoea or evidence of syphilis. The large cauliflower mass filled the whole anal region and measured 10 cm. by 7 cm. There was no ulceration, and the base was not indurated as cancer would be. The vegetations were confluent at the periphery, but isolated at the base. The surface was moist and more or less fetid. The inguinal glands on each side were moderately enlarged. The diagnosis lay between simple papilloma and malignant disease. The latter was excluded owing to the absence of sufficient inclination or of friability in the papillae. The whole mass was freely removed, and on examination was found to be clearly tuberculous in character; distinct tubercles and some caseating masses could be observed, and tubercle bacilli were detected in a fairly large number. The wound healed in about twenty days, and althoug there was a little faecal incontinence at first, this gradually disappeared.

MIDWIFERY AND DISEASES OF WOMEN.

(96) Double Uterus and Vagina.

R. P. RANKEN LYLE (*Jour. of Obst. and Gyn. of the Brit. Empire*, December, 1904) records a case of double uterus and vagina in which a fibroid tumour of the unimpregnated uterus obstructed labour and necessitated Caesarean section. The patient was 31 years of age, and had previously had three abortions at the third month. After the third abortion she suffered from prolapse of the uterus, for which she wore a Smith-Hodge pessary. She afterwards became pregnant a fourth time, and went to full term. Lyle was called to see the patient when she had been in labour for some hours. The fetal head was above the brim and was prevented from descending by the presence of a hard mass, about the size of a closed fist, situated in front of the sacrum. As felt from the vagina this mass resembled a mass of hardened faeces in the rectum, but on examination the rectum was found to be empty, and the diagnosis of a pedunculated myomatous mass in Douglas's pouch was made. Caesarean section was performed, the uterus being opened in front, and the child and placenta removed; the uterine wound and the peritoneum were sutured. The mass was next lifted from Douglas's pouch, and proved to be a myomatous uterus distinct from the other uterus, and attached to the top of the vagina on the right side. There was an ovary and tube on its outer but none on its inner side. The peritoneum passed

directly from the posterior surface of the bladder between the two uteri to the anterior surface of the rectum. Supravaginal amputation was performed and the patient recovered well from the operation. An examination made during convalescence showed that there were two distinct cervices separated by a septum, which extended downwards to the urogenital orifice, to be attached anteriorly to the vestibule and posteriorly to the perineum. Very few cases of double uterus have been recorded, and in these cases one uterus has been as a rule undeveloped and has not proved a hindrance to delivery. Chéron of Paris has collected notes of 29 pregnancies occurring in 18 patients with double uteri; 24 of these pregnancies went to full term, and delivery took place *per vias naturales* in every instance except in one, in which rigidity of the cervix was present. In all the cases of unilateral pregnancy menstruation persisted from the second uterus. The present case is of interest because in it there was amenorrhoea during the whole of the pregnancy, and because it is apparently the first case recorded in which natural delivery was completely obstructed by the unimpregnated uterus.

(97) Whence are the Female Organs Infected by Tubercle?

Rosenstein (*Monatsschr. f. Geb. u. Gyn.*, September and October, 1904) has closely examined seven cases of genital tuberculosis in women under treatment in a university hospital. He concludes that there is not sufficient evidence of tubercle confined to the ovary in any published case; ovarian tuberculosis seems always associated with similar disease either in the peritoneum or in the Fallopian tubes. As to tubal tuberculosis, the descending form—that is, infection from bowel or other organs above the tubes—is by far the most common variety. Next comes infection through the blood channels. Ascending infection, through the vagina and uterus, has rarely been authenticated. Tubal tuberculosis appears to be always bilateral and invariably begins on the mucosa. Ovarian and tubal tuberculosis soon undergoes retrogressive change, especially caseation. The adenoid growths sometimes detected in the tubal mucosa in the region of the isthmus are not necessarily associated with tubercle. The histological appearances of the tube and ovary infected with tubercle are sufficient to show the true nature of the disease without staining tests for the bacillus, which is not always present.

(98) Uterus Bicornis with Clinical Complications.

Three cases of interest where this condition existed have recently been reported. Lomnitz (*Inaug. Dissert.*, Breslau, 1903) publishes a case where a child was retained beyond term. The patient was 36, and knew that she was pregnant. The last period had occurred ten months before she was examined. The child could be defined, its breech presenting through the posterior vaginal fornix, whilst a body as big as a fetal head was pushed forwards and to the right; it was diagnosed as uterus. The patient declined operation, but died suddenly on the next day. The left appendages, very ill developed, ran on to the fetal sac, from the outer side of which proceeded the left round ligament. The sac was the occluded left cornu of a uterus bicornis bicollis. Van der Veer (*Trans. Med. Soc. State of New York*, 1904) attended a patient who had recently undergone operation for lacerated cervix, and was supposed to be suffering from gall-bladder trouble, endometritis, and fibroid. The curette was used, and then the abdominal cavity opened. A bicornate uterus was discovered, containing in the right cornu a fetus of the sixth week. The cavity of the left cornu held the gauze, which had just been introduced after the application of the curette. Supravaginal hysterectomy was performed, and several stones removed from the gall bladder. Recovery was speedy. A second patient, aged 28, was troubled with a floating kidney. Quite recently her right ovary and appendix had been removed. Abdominal section was performed, and on searching the peritoneal cavity the point of a hypodermic needle was felt and removed. This led to the discovery of a bicornate uterus with rudimentary left appendages. The stumps of the right ovary and tube and the vermiform appendix were healthy. About three weeks later nephrorrhaphy was performed with good after-results. The uterine malformation in this case played no active part in the patient's clinical history.

(99) Thyroid Tetany during Lactation.

Ferenczi (*Zentralb. f. Gynäk*, No. 45, 1904; original report, *Budapesti kér Orvosegyesület.*, December 5th, 1903) writes of a woman, aged 36, a multipara, in whom a bronchocele developed during the second pregnancy and increased until it formed a cystic tumour as big as a fist. An attack of tetany occurred in the puerperium after the third labour. Five months after the seventh, when the patient was still suckling her child, tetany appeared again, and several typical attacks were observed within a week. Ferenczi notes that a disposition to tetany pre-existed, and its source was self-evident in this case. Lactation excited the symptom in question. The treatment consisted in the administration of thyroid extract and the temporary suspension of suckling.

(100) Pelvic Inflammation and Disease of Appendix.

Baker, of Boston (*Amer. Journ. Obst.*, May, 1904), recently reported before the Woman's Hospital Society, New York, a case which showed the frequency with which disease of the appendix might be found in association with pelvic disease. The patient had been subject to prolapse for twelve years, and of late symptoms of inflammation of the appendages had been observed. The cervix was lacerated. She also suffered from attacks of what she termed "cholera morbus." Baker repaired the cervix and perineum, fixing the uterus to the abdominal wall. The right tube was found closely adherent to the appendix and the diseased parts removed. Baker considered that chronic appendicitis existed, and that the adhesions to the tube showed how Nature offers protection to neighbouring parts when the appendix is inflamed. Brown advocated abdominal section in operations on the right tube and ovary, vaginal incisions being objectionable, since the appendix may be involved. Bache Emmet considered that in this case the tube was the primary seat of disease, and that it had infected the appendix. Goffe thought that the tube was not entirely occluded, and did not appear to be much diseased; the appendix seemed, therefore, to be the primary seat of inflammation. He insisted, however, that this was not the rule; he had not found the appendix involved in cases of inflammation of the tube and ovaries so often as some writers would lead us to believe, and was surprised that so many operators removed it in all cases where they amputated the uterine appendages.

THERAPEUTICS.

(101) Serumtherapeutics.

D. H. Bergey (*Amer. Med.*, December 3rd, 1904) states that, although immune serums are usually divided into two classes—(1) the antitoxins and (2) the bactericidal immune serums—recent investigations have shown that there is a third class of serums which differ from the others, in that they lack antitoxic and bactericidal properties. (1) The Antitoxic Serums.—The purely antitoxic serums are diphtheria and tetanus antitoxin. Bacillus diphtheriae and bacillus tetani are both distinct toxin producers. The treatment of appropriate animals with either toxin leads to the formation of antitoxin by the tissues of the treated animals. Antitoxins have no marked influence upon the bacteria themselves, but serve merely to neutralize the toxin in the patient's system. The apparent inefficiency of tetanus antitoxin is traceable to the great affinity of the toxin for nerve cells, and, when once combined, it is not readily liberated by the antitoxin. Subdural administration places the antitoxin in closest relation with the toxin-laden nerve cells. Experience has demonstrated that the efficiency of diphtheria antitoxin is dependent upon the early and complete neutralization of all toxin in the patient's system. (2) The Bactericidal Immune Serums.—The immune serums which possess bactericidal properties are those of typhoid, dysentery, cholera, and tuberculosis. The bacteria producing these diseases are not distinct toxin formers, but possess a toxic myco-protein. To overcome the influence of these organisms it is necessary to produce an immune serum that has direct bactericidal properties. That has not been found especially difficult. The process of immunization increases the content of amboceptors in the blood. However, when a serum rich in amboceptors is administered to an individual suffering from the disease the excess of amboceptors finds insufficient complement in the blood. The amboceptors administered in excess of the amount needed to unite with the organisms present leads to deviation of complement by the uncombined amboceptors, thus rendering the combined amboceptors valueless. Another difficulty in the therapeutic

application of bactericidal serums is the intoxication resulting from the liberation of toxin from the bodies of the disintegrating organisms. This difficulty may be met by preparing serums that possess both antitoxic and bactericidal properties. The experiments of Vaughan and of MacFadyen and Rowland have shown that the toxins may be liberated from the bacterial bodies and that animals treated with such products produce serum with both antitoxic and bactericidal properties. Rosenthal, who employed a dysentery immune serum of this kind, reports favourable results. (3) The Non-Bactericidal Immune Serums.—The immune serums which are not distinctly antitoxic nor bactericidal in their action. These are the pneumococcus, staphylococcus, and streptococcus serums. These are of doubtful efficiency and their usefulness is limited because of the large doses required. Their mode of action cannot be stated, though the general opinion is that they stimulate the phagocytic properties of the wandering cells of the body. Much remains to be learned concerning the methods of production and the modes of action of these serums, and until this knowledge is gained through careful experimentation one should not expect too much from their therapeutic application.

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(102) Phytin.

J. Loewenheim (*Berl. klin. Woch.*, November 21st, 1904) believes that one has been forced to the conclusion that the inorganic compounds of phosphorus have not fulfilled the promises which were made in their favour. So far, the organic phosphorus compounds which have been isolated out of the animal body are either soluble in ether and alcohol, such as lecithin, protargon, and jecorin, or are recoverable from the residue of the ether-alcohol extract, such as nucleon, nuclein, paranucleine, and pseudo-nucleine. Gilbert and Posternak found that the phosphorus is for the greater part in inorganic combination in the tissues, while in the urine it was in the form of mineral salts. The sources of phosphorus in the diet of man appears to be chiefly vegetables, and only to a much less extent from milk, yolk of egg, meat, and brain. The two named observers found further that the phosphorus in vegetables takes the form of the anhydrous oxy-methylene-di-phosphoric acid. This body contains 26.08 per cent. of phosphorus, and forms salts with certain bases. In combination with calcium and magnesium, as a double salt, it has been introduced on the market under the name of phytin. According to the experiments with it, it appears to be absolutely harmless, to exercise a very favourable effect on the general tissue change, and to give the best possible chance for the storing up of phosphorus in an advantageous form. Phytin contains 22.8 per cent. phosphorus, which would make it by far the richest product, as far as phosphorus is concerned, which we have. Loewenheim has tried it in cases of rickets, neurasthenia, weakness, and anaemia. Later, he employed it in tuberculosis, and in sexual weakness following on neurasthenic conditions. In all these conditions he speaks very highly of the action of the preparation. Clinical histories are given to illustrate the effect of the preparation. The dosage recommended is 1 gram a day given in four capsules, each containing 0.25 gram, while children between 6 years and 10 take from 0.5 to 1 gram, and between 2 years and 6 0.25 to 0.5 gram. Phytin is a white powder, with no smell and very little taste, and is soluble in water. It appears to be made up in capsules of gelatine, each containing $\frac{1}{4}$ gram, by means of which the dosage is rendered very convenient.

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(103) Neuronal.

Neuronal is a new hypnotic, which has been synthetically constructed by Professors Schultze and Fuchs. H. Stroux (*Deut. med. Woch.*, October 6th, 1904) deals with its clinical value. It is a bromine compound of di-ethyl-acetamide, is a whitish grey powder, occurring in small crystals and possessing a similar taste to menthol and a rather unpleasant after-taste. It is little soluble in water, but easily soluble in alcohol, ether, and oils. In all, he tried it on forty patients for simple sleeplessness and all grades up to extreme excitation. He states that the form of disease made no difference to the action of the drug, and only separates out of his cases those suffering from epilepsy as special actions. He found that neuronal has a very small poisonous effect on the human organism. While the individuality of the patient plays a not unimportant part, as a rule from 1 to 2 grams of neuronal suffices to produce sleep, even when there is marked mania or other forms of excitement. The sleep induced is quiet and natural, and the patients wake up refreshed and without headache. He records some systematic examinations of the action of the drug, which he carried out with a few patients. In these cases it was found that less than 1 gram does not act in the majority of cases; 3 grams were well tolerated. The highest daily dose which he employed was $3\frac{1}{2}$ grams, which did not produce any bad effects. Since neuronal contains 41 per cent. of bromine, he tried it on a number of cases of epilepsy, and in one case he had to discontinue it on account of extremely severe headache. It exercised a beneficial effect on the number of fits and also on the psychical condition of the patients. He compares its strength of action with that of trional, veronal, sulphonal, and chloral, but points out a great advantage that it is non-poisonous.

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(104) X Rays in Ringworm.

Bunch (*British Journal of Dermatology*, July, 1904) describes the treatment of ringworm by the *x* rays as carried out by Sabouraud at Paris. He points out that the difficulty of treatment by antiseptics is due to the fact that they only penetrate to the depth of a millimetre, while the hair roots of a child have a depth of 4 mm. The patch of ringworm is exposed at a distance of 15 cm. from the centre of a Crookes-Villiers tube, having a resistance corresponding to the fourth division of the radio-chronometer of Benoist, until the electric power has furnished a quantity of *x* rays corresponding to $4\frac{1}{2}$ or 5 unities of Holzknecht's scale. By this rule, depilation is caused without any burning. The healthy parts of the scalp are protected. This is done by enclosing the tube in a sheath impermeable to the rays, and provided with three apertures into which a series of diaphragms can be inserted corresponding to the size of the ringworm patch. Depilation occurs after fifteen days. A new hair grows from a new papilla separated by epidermis from the diseased hair. The new hair appears about the seventh week. The only failures are due to reinoculation and insufficient depilation, but the duration of treatment in Sabouraud's clinics is said to be reduced from eighteen to three and a half months.

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(105) The Uses of Yohimbin.

E. Toff (*Deut. med. Woch.*, October 20th, 1904) considers that the alkaloid which Spiegel extracted out of the West African yohimbehe tree, and known as yohimbin, is of use in cases of toxic impotence. He has employed it in a case of impotence following the free use of mercury in a syphilitic, and after giving four tablets daily for three weeks, the full potency returned. In another case of sexual excess the taking of fifty tablets completed the cure. In a third case the impotence, which was supposed to have been caused by violent excitement, without any excesses of any kind having been indulged in, was likewise cured. In all these cases other remedies had failed to produce the desired effect. He has also tested the action of this drug in irregularities of menstruation, as he considered that the action in the former cases must be ascribed to an increase of blood supply to the genitals. Here, too, he was satisfied with the result, the insufficient and irregular periods being replaced by a sufficient loss, and the accompanying pain and nervous symptoms disappearing. Of course, he only employs it when there is no ascertainable organic lesion which can explain the irregularities.

PATHOLOGY.

(106) The Haemolysins of Plague Toxin.

Bielonovsky (*Arch. des Sci. Biol.*, Tome x, No. 4, St. Petersburg, 1904) finds that broth, agar, and serum cultures of the plague bacillus possess the property of haemolyzing the blood of normal animals. The haemolytic power of filtrates of plague cultures increases up to the thirteenth or fourteenth day, and then gradually diminishes, but without completely disappearing. Plague haemolysins are notably resistant in heat, not being destroyed at a lower temperature than 100°. They behave differently towards the corpuscles of different species of animals, but almost uniformly towards animals of the same species. Their intensity is in direct proportion to the virulence of the cultures. Different strains of B. pestis yield toxins possessed of different haemolytic power. Anti-haemolysins are obtainable. As compared with other infections plague haemolysins do not possess a specific action in the blood of plague-infected animals.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(107) Remissions in Tuberculous Meningitis.
It is well known that remissions varying from a few days to a couple of months are of frequent occurrence in the course of tuberculous meningitis, but remissions extending over several months, or even years, are certainly rare, and many observers deny their existence. L'Hôte (*Thèse de Lille*, 1904) has collected a series of three cases of tuberculous meningitis in which there were remissions lasting four and a half, five, and nine months respectively. He has further been able to collect records of 8 cases, which suffice to demonstrate the rarity of prolonged remissions. What makes these observations particularly valuable is the fact that lumbar puncture and cyto-diagnosis left no doubt as to the accuracy of the examination. Generally speaking, the characters of these cases differed in no respects in the early stages from other cases of tuberculous meningitis. At the time when aggravation of the symptoms might have been expected, there was progressive improvement. During the remission, however, certain symptoms persist, which show that it is not a case of recovery for the time being. Thus, digestive disorders are frequent; the pulse-rate continues to be rapid, incontinence of urine often persists, and there may be very slight strabismus. Lumbar puncture shows an increase of the number of lymphocytes. There is irritability on the part of the patients and change of character. They prefer solitude, refuse to take part in games, quickly suffer from fatigue. They sleep well as a rule, though occasionally there may be night terrors. There is, however, remission of all the characteristic symptoms and signs of tuberculous meningitis. Suddenly and without apparent cause, or as the result of a fall or shock, the usual clinical features of tuberculous meningitis reappear. There is hiccough, yawning cerebral vomiting, constipation, intense headache, alteration in the pulse-rate with irregularity, and in the course of a few days the patient is as bad as before. The practical lesson such cases teach is that cessation of symptoms should not be followed by cessation of treatment. The writer recommends the continuation of mercurials, small flying blisters, potassium iodide, and occasional lumbar puncture.

(108) Gonococcal Sepsis.
General infection due to the gonococcus is now freely recognized, and one regards the occurrence of such metastatic appearances as by no means uncommon. The heart appears to be most frequently affected, but as a rule it is only possible to detect the cocci in the blood after death. P. Krause reports 2 cases in the *Berl. klin. Woch.* of May 9th, 1904, in which he was able to demonstrate the cocci in the blood during life. The first patient infected himself with gonorrhoea four weeks before admission into hospital. At first the course of the disease was uncomplicated, but after fourteen days swelling of joints set in suddenly, and were soon followed by severe pains in the loins, chest, and back. The swelling did not last long, and three days before admission the patient had a rigor, and complained of severe headache. There was no swelling of any joints, no urethral discharge, and no difficulty in micturition. The temperature was raised. The first sound at the apex of the heart was not clear, otherwise the cardiac sounds were natural. In spite of no discharge being found on making specimens from the mucus of the orifice of the urethra, gonococci could be found. The symptoms persisted for some time. On the second day in hospital, 20 c.cm. of blood was extracted for bacteriological examination. Glycerine agar plates were inoculated, and after forty-four hours six small blackish colonies were seen, which proved to be morphologically indistinguishable from gonococci. Further experiments showed that the cocci only grew well on nutrient media containing haemoglobin, and on ascites fluid; that they grew badly on Loeffler's serum, and not at all on the ordinary glycerine agar. Mice inoculated with a loopful of the culture lived. The fever became intermittent. Pericarditis and endocarditis developed, and lung symptoms supervened. The patient died twenty-two days after admission. On the ninth day a second extraction of blood was made, and the bacteriological result was the same. The second case was that of a woman, who had suffered a ruptured perineum during her confinement on March 1st, 1903, and was treated on the 7th for wound diphtheria. This condition was soon recovered from, and on the 19th a sudden rise of temperature without any other signs or symptoms was noticed. In order to explain this rise of temperature, as the leucocyte count reached 9,800, 20 c.cm. of blood was taken from a vein in the arm, and examined bacteriologically. It proved to be sterile. On the 24th the right knee became slightly painful, and the temperature ran suddenly up to 105.4°. The leucocyte count was 16,400. Pain at the right costal arch, palpable spleen, and an inflammatory thickening of both uterine appendages was made out. A fresh sample of blood was taken, and this time gonococci could be demonstrated in the blood. She eventually recovered after three months' treatment. Krause points out that with attention to certain details it may be possible to detect the gonococcus in further cases during life, but emphasizes several points in the technique of the examination. It is easy to overlook the cocci, which only grow to small colonies in blood; and, again, it is necessary, when cultivating them artificially, not to heat the agar above 41° C.

(109) Cholecystocele and Hepatoptosis.
Bouveret (*Lyon Méd*, January 22nd, 1905) during the last three years has seen four instances of enlargement of the gall bladder, with rotation forwards of the liver, in women suffering from enteroptosis. In one case the hepatic dullness reached the iliac fossa, in all it extended at least a handbreadth below the ribs in the mammary line. All the other abdominal organs were lowered, the transverse colon being below the umbilicus. There were no definite symptoms attributable to the liver; subjectively the cases did not differ from ordinary enteroptosis; abdominal malaise, constipation, and muco-membranous colitis were the commonest symptoms. On examination, the vesicular swelling was found in various situations in the epigastric region to the right of the umbilicus, or even in the neighbourhood of the caecum. The volume was generally that of a hen's egg. The tumour moved downwards with inspiration. Pressure, however deep, provoked no pain, thus distinguishing the condition from cholelithiasis. From malignant disease of the duct the distinction was not easy; but the absence of jaundice, the tendency to remain stationary in size, the coexistence of enteroptosis, and the absence of cachexia sufficed for diagnosis. The tumour was mistaken in one instance for a renal tumour, in another for a new growth of the colon. The pathology is obscure. Strangulation of the duct by peritoneal band may be excluded by the complete absence of localized pain. The probable explanation is that the distension of the gall bladder is due to a sharp bend of the duct occurring during the falling forwards of the upper surface of the liver.

(110) Chemical Changes in Epilepsy.
Paul Masoin (*Arch. Intern. de Pharm. et de Thérap.*, vol. 13, fasc. v et vi, 1904) finds that in the urine of epileptics the following changes are frequently found at the onset of an attack. The phosphates of the alkaline earths are increased; nitrogenous elimination is modified (diminution of urea, increase of uric acid, creatin, and creatinin); the conjugated sulphates are increased; one or more substances are eliminated which give the diazo reaction. With regard to the blood, both the formed elements and certain of its physical and physiological properties undergo modification. The access of an attack appears to be the signal for an abundant destruction of red corpuscles; this is followed by an equally active period of reformation. The absorption of ogygen by haemoglobin is diminished; the activity of reduction is diminished in the tissues. The alkalinity of the blood is generally lowered, in correspondence with the diminution in the quantity of basic sodium phosphate, and with the augmentation of urinary phosphates.

SURGERY.

(111) Surgical Physiology.
At the fourth Pan-American Medical Congress held at Panama from January 3rd to 7th (*Med. Rec.*, February 4th) George Crile, of Cleveland, read a paper on this subject. Surgery, he said, had passed out of the empirical stage; it had learned its lessons from anatomy, histology, and pathology, and even from bacteriology; but we still had many lessons to learn from surgical physiology.

We knew little or nothing of the physiological alterations leading up to death or to recovery, or of the method of compensation in injury or disease, or of local and general assistance against infection. Surgical practice rested largely upon altered physiological actions. Good illustrations of this point were found in the surgical physiology of the two most vital phenomena, respiration and circulation. In respiratory obstruction respirations were not immediately arrested, but were stimulated in force though not in frequency; in mechanical stimulation of the laryngeal mucosa there was usually an immediate respiratory arrest; therefore, there should not be a moment of doubt in differentiating between reflex inhibition and obstruction, thus avoiding certain crises in the extraction of foreign bodies or in performing intubation. In administering anaesthetics the student must remember that if the tongue were pulled forward too forcibly respiration would be arrested. The better way was to remember also the increased respiratory action caused by divulsion of the anus and to call upon the accessory muscular apparatus to help respiration. The surgical physiology of the circulation was more vital than that of the respiration. The control of the circulation often meant control of life itself. If by any reflex action the vasomotor system was disturbed, its function was impaired and the blood pressure fell. If the surgeon remembered this he would guard against excessive manipulation, and would try to support the circulation by such mechanical means as saline infusions, posture, or bandaging. All knew that a hard pulse and high blood pressure were characteristic of increased intracranial pressure. This might lead the surgeon into a feeling of false security. Chloroform should not be pushed to full anaesthesia; if it was, the blood pressure was apt to fall and cause a sudden arrest of respiration and circulation. The heart might be inhibited from mechanical stimulation of the trunk of the superior laryngeal nerve in operations upon the larynx, and death might occur, although it should not. Again, a blow upon the lower ribs or pit of the stomach did not cause collapse or death from disturbance of the solar plexus, but from inhibition of the heart. These were only a few of the problems offered by surgical physiology. Another was that of suspended animation. The different parts of the body had varying periods of suspended animation, and death fell unevenly on the different tissues and organs. He had been able to resuscitate a dog fifteen minutes after complete stoppage of respiration and circulation—that is, apparent death. A decapitated dog had been kept alive for twelve hours by continuous slow infusion of a 1 in 15,000 solution of adrenalin in salt solution. Other experiments were reported. The great lesson to be learned was that physiology must be studied carefully to benefit surgery. Martinez of Havana said he had seen cases of inhibition of respiration after thyroidectomy. He believed inhibition was more reflex than mechanical. Crile agreed with Martinez about inhibition. It was hard to kill the animal if the heart was kept nourished by inversion, thoracic compression, etc.

(112) Incision and Suture of the Liver.

AT the Fourth Pan-American Medical Congress held at Panama, January 3rd to 7th (*Med. Rec.*, February 4th), Jacob Frank of Chicago read a paper entitled A New Method of Incising and Suturing the Liver to Establish its Continuity and for the Control of Haemorrhage. He said that all modern surgery, especially abdominal surgery, sought to secure primary union, thus minimizing infection and hernia; this principle should be applicable to surgery of the liver, provided proper technique were employed. If the surfaces were properly coapted, the continuity would be re-established, primary union secured, and haemorrhage prevented. Injuries of the liver had always been considered grave, and those of the concave surface more dangerous than those of the convex. Compression had been most usually tried to stop haemorrhage. Elliott maintained that that was the only method. Frank described five procedures: (1) Packing the wound and fixing the stump intraperitoneally; (2) packing and dropping the stump into the abdominal cavity; (3) application of the thermo-cautery to the stump and packing; (4) suturing and packing; (5) suture alone. Besides this the stump might be ligated *en masse*, or the tourniquet might be tried. It was now pretty well proven that haemorrhage could be controlled by suture, catgut being preferred to silk. He had lately experimented on dogs, making deep incisions into or through the liver; some recovered without any treatment whatever. Then he excised a wedge-shaped piece from the liver, securing the bleeding vessels by ligature. The edges were then held in contact and sutured by catgut. The results were surprisingly good. This method was particularly applicable to tumours, for they usually appeared at the edge of the liver. The incision must be free so as to be sure to remove the growth completely. Nicholas Senn congratulated the Congress on having listened to this original paper. He suggested, however, that these experiments were made on normal tissue, and that the conditions were not necessarily such as would be found in pathological tissue. In cases calling for surgical interference the chance of haemorrhage was greater because the vascular channels were enlarged. Surgery must imitate nature. Now the retraction of the cut ends of blood vessels was a mechanical impossibility in the parenchyma of the liver. A thrombus was the only thing really to be trusted to arrest liver haemorrhage. Nature would provide a thrombus when the liver was torn or lacerated. Why not, then, use a dull instrument—a dull knife, a wire, or chain—to cut the liver? The idea of excising the wedge of tissue was excellent. George Crile said that the venous circulation of the liver was low, and that even pressure was necessary to continue it. He thought that on this account haemorrhage would be checked by Frank's method of suture. Frank, in reply, said that he had not found that crushing of the liver tissue would stop bleeding; in fact, it was this very tissue that kept on bleeding. He thought that to remove crushed tissue and to get accurate approximation was the best way to stop haemorrhage and to secure primary union. He had lately received reports concerning gall-bladder surgery in which the operator had found that after removal of the gall bladder haemorrhage of the liver was best controlled by suture. In operating on man it was best to operate quickly and to control the blood, or else to prevent it from entering the peritoneal cavity.

(113) Rectal Anaesthesia.

KROUGILINE (*Voyenno med. Journ. Rec.*, 1904) recommends rectal anaesthesia by ether vapour in cases of operation on the head and neck especially. The ether flask is placed in water at 40° C. and connected with a rectal tube supplied with a receiver to collect the condensed liquid ether. In two or three minutes the patient's breath smells of ether, and soon afterwards anaesthesia is induced. If this is not sufficiently deep a few whiffs of chloroform may be inhaled. The advantages of rectal anaesthesia are rapidity and freedom from the inconveniences of inhalation. In the author's cases the duration of anaesthesia varied from 13 minutes to 1 hour 54 minutes, and the amount of ether used from 20 to 120 c.cm.

MIDWIFERY AND DISEASES OF WOMEN.

(114) Some Gynaecological Superstitions.

AT the fourth Pan-American Medical Congress, held at Panama on January 3rd to 7th (*Med. Rec.*, February 4th), Dr. Lucy Waite, of Chicago, read a paper with this title, in which she said these superstitions were hard to overthrow. The first was that the uterus had any normal position. It had not; it might lie in any position. The second was that retrodeviation was the cause of constipation. That was not so, and it could not be proved either by dissection or examination. She had had five hundred cases analysed but could not trace constipation to posture of the uterus alone. The uterus was found in anteroposition in 60 per cent., in retroposition in 40 per cent. Of the anteropositions 52 per cent. gave a history of constipation, 48 per cent. did not. Of the retropositions 66 per cent. complained of chronic constipation and 33 per cent. had normal bowel movements. The third was that backache was a symptom of retrodeviation; this was nonsense, and an examination by the speaker of 1,000 cases had disproved that superstition. The fourth was that flexion or stenosis was the cause of dysmenorrhoea; this was not so, nor was childbirth the only cure. Of 300 cases in which the question was asked, "Have you had more or less pain since the birth of your children?" the answer of 135 was more pain, of 89 less pain, of 76 no difference. Some of these 76 had had no pain before or since childbearing. Of the 135, some had had no pain before child bearing. Many women had suffered worse after childbirth than before. The mania for operating ought to be checked on the death of these superstitions. Crile quoted Head's results in the study of referred pain. He asked Dr. Waite whether all backaches were attributed to the uterus, and whether backaches were often accompanied by leg-aches. Dr. Waite, in

reply, said that not all backaches were traceable as referred pains to the uterus, but that there was usually some pelvic disturbance rather than any malposition of the uterus.

(115) Puerperal Eclampsia and Renal Decapsulation.

Sippel (*Zentralbl. f. Gynäk*, No. 45, 1904) believes that the question of nephrotomy, or else complete decapsulation in cases of anuria associated with puerperal eclampsia, is of great importance, since the surgical treatment of nephritis has been much discussed of late, whilst when once its merits and technique are established it is probable that decapsulation may prove valuable in puerperal cases. But Sippel reminds us that the merits of this operation as a cure for chronic nephritis are by no means generally admitted by surgeons and physicians, and is not certain that even if it be beneficial in chronic Bright's disease it would necessarily be of any service in morbid conditions of the kidney essentially due to pregnancy. In this sense he criticizes Edebohls's case, which Cavaillon and Trillat quote as favouring the establishment of decapsulation. The patient was a primipara, aged 23; she had an attack of typhoid fever during the fourth month, but symptoms of nephritis were not noticed until the seventh. Near the end of the eighth month uraemia and eclamptic attacks set in. Labour was induced on that account, but within forty-six hours the fits returned. Edebohls decapsulated both kidneys and no further convulsions occurred. The patient was restored to perfect health. Sippel is not satisfied even with the clinical details of this case and insists that we must feel sure whether, in these instances of puerperal eclampsia with marked anuria, kidney disease precedes increase of intracapsular pressure or increased pressure due to pregnancy damages the functions of a possibly healthy kidney. In the latter case decapsulation would be uncalled for — Edebohls (*Boston Med. and Surg. Journ.*, June 2nd, 1904) relates a second case of puerperal eclampsia successfully treated by renal decapsulation. He observes that the first patient on whom he operated was in perfect health, with urine free from albumen and casts, fifteen months after operation. The second patient was also a young primipara. Pruritus vulvae set in late in the seventh month, but neither sugar nor albumen could be found in the urine. Towards the end of the ninth, vertigo and impaired vision were complained of by the patient: the urine contained a trace of albumen. By a week later the patient was blind, and there was anasarca. Term was just at hand. The secretion of urine was very scanty, and convulsive twitchings set in. Edebohls operated; the lateral decubitus was the only position available. The advanced anasarca, and the twitchings of the muscles even under the anaesthetic, made the decapsulation very difficult. Both kidneys were much enlarged, with thick capsules loosely gathered around the organ. Acute or subacute parenchymatous nephritis was clearly present. Urine began to be secreted freely twenty-four hours after the operation, and on the second day labour set in; it was gemellar. Both twins were delivered by forceps, and one was saved. Urine was now secreted in enormous quantities; at the end of the fourth day after the operation the patient's sight was restored. Four months later the mother was in excellent health and still able to suckle the surviving twin. The urine was free from albumen. Edebohls insists that this second case proves that renal decapsulation can arrest the progress of uraemia and of puerperal convulsions of renal origin in the undelivered woman, so that the induction of abortion or premature labour need not henceforth be our only ultimate resources in the treatment of puerperal eclampsia.

(116) Prognosis of Ovarian Cystic Tumours.

Barnsby (*Ann. de Gyn. et d'Obstét.*, August, 1904) has published notes on 32 cases of cysto-epithelioma of the ovary, the common ovarian cyst. Clinically, half were diagnosed as innocent and half malignant, but sections were made from every tumour removed by the author, and carcinomatous degeneration was detected in 18, so that only 14 were benign or "simple mucoid epitheliomas." Thus, histologically, the percentage of malignancy is 56.25, far above that recorded by other operators. Turning to results, 31 recovered from the operation and 1 died, 8 patients were alive and well over four years after ovariotomy, 17 alive and well within four years, and 6 showed signs of recurrence. Barnsby lays stress on the fact that in 5 out of the 6 cases of recurrence the cyst had ruptured spontaneously or burst during extraction. He considers therefore that all suspicious cysts should be removed entirely, as though solid, without tapping. Potocki and Beuder (ib.) reported a very distinct case of sarcomatous degeneration of an ovarian cyst; the patient recovered from the operation, but no after-history was given. They referred to other cases, and quoted some where carcinomatous and sarcomatous degeneration were detected in differents parts of the same cyst, whilst in Simoff's cases there were metastases of each class, sarcomatous on the peritoneum, cancerous in the liver. The prognosis of the most innocent-looking ovarian cyst is, as these records show, a question about which we must not be too optimistic.

(117) Inflammation of Meckel's Diverticulum and Uterine Appendages simulating Appendicitis.

Boldt (*Amer. Journ. Obstet.*, July, 1904) attended a married woman 24 years old, with two children. She had suffered for two months from pain in the right iliac fossa extending occasionally to the left. Menorrhagia with profuse leucorrhoea and frequent micturition were present. Inflammation of the appendages with catarrhal appendicitis was diagnosed. There was severe pain on moderate pressure over the caecal region. The curette was applied, and then the abdominal cavity opened. The appendages, extremely inflamed, were treated conservatively by breaking down of adhesions and straightening of the distorted Fallopian tubes. A structure like the vermiform appendix was drawn out of the wound after separation of adhesions with exposure of a collection of pus, simulating a periappendicular abscess. On further inspection, the structure was found to proceed from the small intestine, being in fact a Meckel's diverticulum. There were evidences of acute localized peritonitis around the diverticulum, which was removed. The vermiform appendix itself was quite normal. The patient was convalescent when her case was reported.

THERAPEUTICS.

(118) Diphtheria Antitoxin.

At a meeting of the Section of Pediatrics of the New York Academy of Medicine (*Med. Record*, November 26th, 1904) Louis Fischer said the dose of antitoxin required must still be considered empirical, as we could not accurately determine the quantity of toxin in the system. He invited discussion as to the relative merits of large and small doses on the strength of accurate statistics kept at the Willard Parker Hospital. In July, 1903, there were treated 135 cases, 107 tonsillar and pharyngeal, with 18 deaths and 82.3 per cent. recoveries, and 34 tube cases, with 17 deaths and 50 per cent. recoveries. The average dose was 1,500 units of antitoxin. In August, 1903, 132 cases were treated, 103 tonsillar and pharyngeal, with 6 deaths and 94.5 per cent. recoveries, and 19 tube cases, with 11 deaths and 42 per cent. recoveries. The average dose of antitoxin was 1,700 units. In September, 1903, there were 104 cases treated; 88 tonsillar and pharyngeal, with 10 deaths and 88.7 per cent. recoveries, and 16 tube cases, with 14 deaths and 12.5 per cent. recoveries. The average dose was 2,500 units. In July, 1904, there were treated 134 cases; 100 tonsillar and pharyngeal, with 11 deaths and 89 per cent. recoveries, and 34 tube cases, with 20 deaths and 73.5 per cent. recoveries. The average dose was 2 500 units. In August, 1904, there were treated 121 cases; 97 tonsillar and pharyngeal, with 6 deaths and 93.5 per cent. recoveries; and 24 tube cases, with 10 deaths and 58 per cent. recoveries. The average dose was 5,000 units. In September, 1904, there were treated 137 cases; 105 tonsillar and pharyngeal, with 7 deaths and 93.3 per cent. recoveries; and 32 tube cases, with 11 deaths and 65.6 per cent. recoveries. The average dose was 5,000 to 10,000 units. This showed about 21 per cent. mortality when the small dose was used, and 14 per cent. when the larger doses were used. McCollom, of the Boston City Hospital, commenced with an initial dose of 4 cco units, repeated in from four to six hours, depending upon the severity of the attack. When the patients had been ill for some time he gave an initial dose of from 8 coo to 12 coo units, and continued to use the antitoxin until there was a marked improvement in the condition of the patient. The shortcomings mostly to be met with were the placing of too much reliance on antitoxin regardless of vital necessities: the failure to stimulate emunctories. Hot saline colonic flushing of 115° to 120° should be administered for this purpose. The heart should be watched and supported by caffeine, sodium benzoate, strychnine, and small

tonic doses of quinine. Rashes usually appeared between the fifth and seventh days after the injection of antitoxin. The size of the dose did not vary the intensity, form, or time of appearance. The average duration of the rash was about three days. In some cases two distinct rashes could be found, which corresponded in time with different injections. Before the appearance of the rash there was usually a sudden rise in temperature, although the rash might appear without any febrile exacerbation. The proper dose of antitoxin was such a one as would inhibit the extension of the pseudo-membrane, subdue the fever, and check the progress of the disease in general. For a mild case this was from 2,500 to 5,000 units. If an improvement was not noted within twelve hours this dose should be repeated. If there was a large exudate on the tonsils and pharynx, 5,000 to 10,000 units should be given on the first day, and, if improvement was not noted, the same dose should be repeated within twelve hours. This dose should be repeated from day to day until all visible exudate had disappeared, glandular swellings had subsided, and temperature became normal. The condition and not the age of the patient should be the guide to the dosage. He had never seen ill effect from large does of antitoxin. In cases of laryngeal stenosis, due to diphtheria, the primary dose should be 10,000 units. In some cases the immediate effect of antitoxin on the temperature and pulse was to produce a slight reaction, such as a rise of temperature of from one to two degrees, though in many cases a decided fall was noted after an injection of from 5,000 to 10,000 units. As a rule, the pulse-rate was not affected, but in some instances a very rapid pulse, as of 160, had fallen to 140 within twelve hours after the injection. The temperature usually fell after the required dose had been administered. Proper nutrition was highly important. Milk diluted with some cereal decoction was better borne than milk alone. In older children raw eggs might be added to the milk, and concentrated broths administered. Acid fruits seemed to be well borne. Food should be administered about every three hours. When rectal feeding was necessary, 1 oz of predigested milk, 1 oz. of starch water, and 1 minim of laudanum should be injected slowly through a colon tube after the bowels had been thoroughly cleansed. More than 2 oz. should not be given at one time, but if well retained the enema should be repeated every four hours. Henry W. Berh said the question of giving large or small doses of antitoxin depended upon whether the attack was a severe one and the lesion localized. If the lesion was severe and involved the pharynx or nose the dose should be large, but in such cases he did not believe that better results were had by 5,000 than from 3,000 units. He usually started with 3 000 units; at the end of three hours another dose of same size was given; sometimes he gave a double dose. He laid a great deal of stress upon the rapidity of the pulse. If the heart beat 140 a minute, and with a temperature of only 100°, showing a toxic myocarditis, he gave large doses of antitoxin; if at the end of twelve or twenty-four hours the pulse was not down he repeated the dose, sometimes doubling it. The temperature in diphtheria was never very high, and a typical effect of the antitoxin was to reduce it within twelve or twenty-four hours. Increase in the size of the lymph nodes was an important sign and somewhat of a guide in the giving of antitoxin. The further away from the seat of the lesion were the lymph nodes the more serious was the case, and larger doses of antitoxin were indicated. The enlargement of the glands showed an attempt of the system to prevent the spread of the toxin. The question of what constituted a large or small dose of antitoxin was not answered. Some believed 1,500 units to be a large dose. In giving such doses as 60,000 units the emunctories were overworked; they were trying to get rid of the toxin of diphtheria, and the giving of such large doses placed extra work upon them. The serum introduced was a heterogeneous one, and the emunctories must rid the system of it. The rashes were not due to the antitoxin, but to the presence of a foreign serum. If a horse's serum should be injected into healthy persons, in 25 per cent. of them would rashes occur. The rashes were the conservative expression on the part of the skin in attempting to get rid of foreign material in the blood. Louis Fischer expressed the wish that the Health Department would produce antitoxin in larger doses and in one bottle. With regard to the rashes, he said that last summer 500 instances occurred, and then the small doses were being given. With the administration of larger doses he did not think so many rashes would appear. With regard to the dosage, he said that it was his habit to give 2,000 units for the mild, 5,000 for the severe, and 10,000 for the laryngeal cases.

(119) Sugar in the Treatment of Phthisis.

MASSALONGO AND DANIO (*Rif. Med.*, December 21st, 1904) recalling the fact that sugar ranks high amongst the heat-producing substances, and that it is also a powerful dynamogenic, recommend its use in the wasting of phthisis. It should be given in considerable doses—100 to 500 grams per diem, in addition to the amount consumed in ordinary diet, the rule being from 5 to 12 grams per kilogram of body weight. Under this treatment excellent results were obtained, 8 to 15 kilograms weight being put on in some cases in the course of two or three months. No sugar was ever detected in the urine during this course of treatment. The best results were obtained in febrile forms of phthisis with slight evening rise. No dyspepsia or intestinal fermentation was experienced in the authors' cases. The excessive sweetness may be partially masked by giving it well diluted with milk or coffee or by adding some bitter tincture. It might take the place of cod-liver oil where this drug is badly borne.

PATHOLOGY.

(120) Experimental Tuberculosis.

J. F. HEYMANS (*Arch. Internat. de Pharmacodynamie et de Thérapie*, vol. xiii, fasc. v et vi, 1904) has inoculated over 1,000 rabbits with tubercle bacilli obtained from various human sources. He generally employed the intravenous method of inoculation. In animals killed from a fortnight to two months afterwards, the only lesions found, with rare exceptions, were miliary tuberculosis of the pulmonary parenchyma; and in the autopsies on animals killed or found dead in from four to six months after inoculation the pathological changes were again, in the majority of cases, limited to a more or less advanced pulmonary tuberculosis. Whilst these pulmonary lesions may progress, become disseminated, and ultimately lead to death, they may, on the other hand, undergo retrograde changes and disappear. More in detail, the process is as follows: At first the entire lung parenchyma becomes uniformly studded with red points: then grey tubercles appear; some of these retrogress very soon, whilst others develop, become white, and ultimately form abscesses of more or less considerable size. But even a tuberculous abscess of from 1 to 2 cm. in diameter may heal by resorption of the pus and fibroid organization of the necrotic focus. In spite of these retrogressive changes in the original lesions the disease often spreads to the costal pleura and also makes its way to more distant parts, such as the joints, the testicles, or the iris. Of these extrapulmonary forms periarticular tuberculous abscesses are the most frequent. Sometimes rabbits survive for two years or more, apparently in excellent health, but then gradually succumb to a tuberculous cachexia, and exhibit *post mortem* large white kidneys and enormous enlargement of the liver and spleen, with very few definite tubercles.

(121) Mixed Infection with Plague Bacilli and Pneumococci.

GOSS (*Arch. des Sciences Biol.*, St. Petersburg, vol. x, No. 5, 1904) finds that in guinea-pigs and rats which have been inoculated with both pneumococci and plague bacilli both infections develop independently; but, owing to its shorter incubation period the pneumococcal infection is apt to mask the infection with plague. Moreover, the latter infection, by lowering the vitality of the organism, may cause death to be produced by a dose of pneumococci less than the normally-minimal lethal dose. In mixed culture, on broth or agar, pneumococci and plague bacilli grow well. The pneumococcus develops more rapidly and elaborates acid substances which slightly retard the development of B. pestis, but later on the latter increases abundantly. In the simultaneous culture of the two organisms in broth faintly alkaline to litmus, the pneumococcus preserves its virulence much longer than in pure culture, owing to the alkaline products of B. pestis. In the case of old plague cultures (seven to eight weeks) the quantity of alkali is too great for the requirements of the pneumococcus, and the latter dies out, owing not to the exhaustion of nutritive material nor to the presence of bacterial enzymes, but to excess of alkali. The virulence of B. pestis is not modified by culture in association with pneumococci.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(122) Appendicular Pain in Pneumonia. UDOLFO (*Clin. Mod.*, An. x, No. 51), writing on the occurrence of symptoms of appendicitis in young children in the course of acute pneumonia, comes to the conclusion that the pain which is the chief characteristic in these cases is not due to any definite inflammatory trouble in the region of the appendix, but is nervous in nature. He believes that it is a referred pain due to some nerve connexion between the nerves supplying the respiratory area concerned and the appendix area. One may have abdominal phenomena as a reaction to high temperature or bacterial intoxication, or again as a reflex to inflamed lung or pleura through the sympathetic or the intercostal nerves. From the branches of the intercostal nerves the pain is carried to the abdominal branches of the twelfth pair of spinal nerves, and thence to the subcutaneous tissue in the right inferior quadrant of the abdomen. The anastomosis between the abdominal branches of the phrenic and abdominal sympathetic should also be borne in mind. All these various connexions would help to account for the appendicitis symptoms in pneumonia without any active inflammatory mischief of the appendix being present.

(123) Abscess of the Liver in Typhoid Fever.

GEORGES HUGUE has collected a series of observations on the occurrence of hepatic abscess in typhoid fever (*Thèse de Lyon*, 1904). The lesion is an uncommon one, is more liable to occur in cases of colon typhoid, and is met with in persons who have already suffered from some lesion of the liver, malarial or otherwise. Abscess of the liver may be single or multiple, the former resembling the large abscess of dysenteric origin, and may occur in either lobe. The contents are brown or yellowish-green pus, not always fetid. Multiple abscesses, on the other hand, present the metastatic characters, and resemble those occurring in any infectious disease. Their size varies from that of a lentil to a filbert. They may coalesce, and form a large collection of pus, which can be distinguished from the single abscess by the irregularity of its walls. The contents are fetid, and pylephlebitis is usually present. The symptoms of metastatic abscesses are indefinite, and it is therefore not surprising that they may not be detected in the course of typhoid fever. The appearance, however, between the fourth and fifth week of pyaemic symptoms, with enlargement and tenderness of the liver, suggests the presence of a multilocular abscess. Jaundice may also occur. The general state of the patient becomes more adynamic, and he dies of septicaemia. In other cases an early diagnosis is possible, and consequently surgical intervention results in good prognosis. In these favourable cases the prodromal symptoms are less marked—slight rigor with elevation of temperature, often accompanied by severe peritoneal pain. Jaundice is more frequent than in the case of solitary abscess. It appears early and progresses; the liver is enlarged and tender, and there are general signs of septic infection. Unless operated upon, all cases of typhoid abscess of the liver are liable to terminate fatally. If the patient's general condition is such that operation would be doubtfully borne, recourse may be had to puncture. The writer quotes Chatter as having had an excellent result in one case in which he punctured three times in succession. It is necessary to bear this in mind, as typhoid patients bear major operations badly. Spontaneous extravasation is liable to take place into the peritoneal cavity, the intestines, and the thorax. In conclusion, the author emphasizes the importance of thorough and repeated examination of the liver in cases of typhoid in order to avoid missing this very fatal complication.

(124) The Mechanism of Exophthalmos.

MACCALLUM AND CORNELL (*Med. News*, October 15th, 1904), as the result of experiments on animals, combined with a careful examination of the eyeball, conclude that obstruction to the outflow of blood from the veins of the orbit produces at once exophthalmos, which, however, is relieved by the establishment of a collateral circulation. This process, however, is completed so slowly that in the meantime the orbital tissues, as well as the tissues of the face, become very oedematous, thus adding to the exophthalmos. Entirely independent of any circulatory changes is the exophthalmos produced directly by the stimulation of the cervical sympathetic nerve. This protrusion is due to the peristaltic contraction of the orbital muscle. From these experiments the authors can draw no certain conclusions as to the mechanism of the exophthalmos in Graves's disease, but the possibilities are more closely defined.

(125) Polyglobulia with Enlarged Spleen and Cyanosis.

ABOUT 30 cases of the above complex of symptoms have been recorded, and Aseoli (*Rif. Med.*, December 21st, 1904) adds one more to the list. The three characteristic symptoms are as above, namely, polyglobulia, enlarged spleen, and cyanosis. The polyglobulia chiefly affects the red corpuscles, which may be enormously increased in number (12,000,000 per mm. have been observed in one case), but there is also some increase in the leucocytes in certain cases. There are also changes in the haemoglobinic index (which is usually raised), and in the specific gravity of the blood, which reaches 1083. The enlargement of the spleen is fairly constant, and may reach down to the iliac region. The cyanosis is generally the first symptom noticed, and is due not to poverty of oxyhaemoglobin, but rather to increase of colouring matter and vasal dilatation. Certain vasomotorial troubles are common, resembling erythromelalgia, and there is a true plethora. A distressing sense of thirst is occasionally one of the symptoms. The subjective symptoms are headache, vertigo, weakness, gastric disturbances, etc. The course of the disease is generally slow, and protracted over several years. The most constant lesion found has been tuberculosis of the spleen, but this does not appear to be universal, for it is not by any means present in all cases. In the author's case there was no evidence of tubercle, and no reaction was obtained after tuberculin injections. Probably there is no single and specific lesion, but it may differ in different cases.

SURGERY.

(126) Coxa Vara.

AT the fourth Pan-American Medical Congress held at Panama January 3rd to 7th (*Medical News*, February 4th), Nicholas Senn read a paper entitled "Coxa Vara and Differentiation between it and Sthenic Inflammatory and Traumatic Affections of the Hip-Joint." He stated that coxa vara was a disease of the femoral neck in adolescence, and hitherto had been rarely described in this country. Muller was the first, in 1888, to give it an earnest clinical study, and to prove that it was a disease entirely different from any other hitherto described. Hofmeister and Kocher, six years later, contributed to the study. A genuine coxa vara was characterized by a non-inflammatory softening of the neck of the femur. It was a self-limited disease, confined to the femoral neck, and characterized by anatomical changes. Senn reported two typical cases in young men, and a third in a man 42 years old. The last case presented all the classical signs, and the *x* ray showed that there was no fracture of the femur, as had been suspected before the case came under his observation. There had been the usual pains in the hip-joints referred at times to the knee, coming on in paroxysms which would last for two weeks, followed by painless intervals of several days. There was no tenderness or impairment of joint motion. The pain was not aggravated by standing or walking. After two occasions in which the patient slipped and increased the pain, he noticed that the leg was shorter. When seen by Senn he walked with a decided limp, and complained only of muscular weakness. Any infection could be excluded, and there was certainly not a complete fracture. A spontaneous recovery, as well as the degree of bending downward of the neck of the femur in its entire length, and the complete absence of neoplastic inflammatory products, excluded absolutely the possibility of arthritis or senile coxitis. Very little was known with reference to the true nature of coxa vara. The softening of the neck of the femur was the most important element. Trauma, tuberculosis, or inflammatory affections must be excluded. Life itself was never threatened, as the disease was self-limited, and sooner or later ended in spontaneous recovery. The general treatment was unimportant. Local treatment should be directed toward renew-

ing pain, and limiting the bending of the neck of the femur. Both of these were secured by absolute rest in bed combined with extension. Operative treatment should be delayed as long as possible.

(127) Operative Treatment of Typhoid Perforation.

DA COSTA (*Ann. of Surg*, No. 2, 1905) has recently reported to the Philadelphia Academy of Surgery a case of typhoid perforation successfully treated by making an artificial anus, with subsequent intestinal resection. The patient was a man, 34 years of age, who had reached the beginning of the third week of the fever. An incision made in the right iliac region, twenty-four hours after the perforation had taken place, revealed a large orifice in the ileum about 2 ft. from the ileo-caecal valve. This orifice was closed in the usual manner by two layers of sutures. Between the sutured perforation and the ileo-caecal valve there was several ulcers at the point of penetrating, one being at the extreme lower end of the ileum. As the patient's condition was desperate, and resection was not to be thought of, the author performed enterostomy on the proximal side of the closed ulcer, with a view of restoring the lumen of the bowel at a subsequent operation. Ten days later it seemed evident that another ulcer had perforated on the proximal side of the artificial anus, not into the peritoneal cavity, but into the zone of adhesions. Five months after the date of the first operation, the artificial anus was resected and the intestinal canal restored by lateral anastomosis. The patient ultimately made a good recovery. In the subsequent discussion it was held by two speakers that it would be better in cases of the kind reported by DA COSTA to surround the perforated bowel with gauze and establish thorough drainage. LE CONTE, in criticizing the paper held that where the opening is large and portions of the bowel are evidently much inflamed, the safest plan is to wall off this area of the intestine with gauze from the general abdominal cavity.

(128) The Surgical Treatment of Chronic Ulcer of the Stomach.

KROGIUS (*Arch. für klin. Chir.*, Bd. 75, Hft. 4), in concluding a review of indications of surgical treatment in cases of gastric ulcer, states that when such treatment is suggested by one or other of these indications in an instance of an open and non-constricting ulcer, the operation should be a radical one, and aim at excision of the whole of the diseased structures, and not, like gastro-enterostomy or pyloroplasty, be practised simply as a palliative measure. Even in the treatment of stenosing gastric ulcer when this is an active and open one, radical treatment should be preferred to any palliative operation the results of which in affording effectual relief have been proved to be illusory. In cases of profuse haemorrhage from a gastric ulcer by which the life of the patient is placed in danger, it is better, the author holds, to venture on operative treatment than to await without doing anything a fatal result. An attack of severe haemorrhage and, also, a frequent repetition of slight bleedings should, it is urged, lead the surgeon to take into consideration the advisability of attempting during a quiet interval a radical cure by laparotomy and excision of the ulcer.

(129) Hedonal and Choroform Anaesthesia.

E. D. PODHORETZKI (*Deut. med. Woch.*, December 8th, 1904) describes hedonal or methyl-propyl carbinol-urethan as a mild hypnotic, which has the advantage of possessing an amido group which is capable of neutralizing the depressing action of methyl-propyl group. It is completely oxydized in the body into carbonic acid and urea. The sleep induced is quiet and not dangerous, but it has no power of stilling pain. Dogs put to sleep by large doses (0.5 gram pro kilo body weight) could be subjected to severe cutting operation, without any reaction taking place, and they only wake up after from thirteen to fifteen hours. Experiments were then tried in combining the hypnotic action of hedonal with chloroform anaesthesia, and it was found that much smaller quantities of the latter were required to induce good narcosis. The same experiments were next carried out on human beings, with good results. The results obtained led Podhoretzki to try this method. He has now carried it out in 50 cases and is highly pleased with his results. He gave 2 grams of hedonal from one-half to one hour before the operation (all his patients were women) and either succeeded in producing sleep or the patients became very drowsy. Small quantities of chloroform then sufficed to induce complete anaesthesia, and to maintain it for considerable periods. The sleep took place more quickly than with chloroform alone. He was able to note that the action of the combined narcosis did not affect the heart or respiration and that the pulse kept better than it usually does with chloroform alone. Vomiting took place less frequently than when other anaesthetics are given. He advises a full hour or longer to elapse between the giving of the hedonal and the inhalation of the chloroform and thinks that, perhaps, it would be better to give the hedonal in some solution, as it resists absorption for some time, and sometimes clumps up in the stomach and when vomiting takes place, is found in adherent masses.

(130) Perforating Appendicitis caused by a Foreign Body.

POTHERAT (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 5, 1905) publishes an interesting case with the object of pointing out the risk of applying to the intestinal wall the small metallic substitutes for soft and pliant sutures that are known as Michel's "agrafes." Such bodies, after they have penetrated the coats of the intestine, are usually in course of time discharged with the faeces; but, as the following record shows, they may be retained and set up serious mischief. A woman, who three years previously had been operated on for the removal of a large ovarian cyst, came under the author's notice at the beginning of the present year, presenting well-marked symptoms of acute appendicitis. A large suppurating cavity was laid open, and the appendix, which was found surrounded by fetid pus, was removed. The organ when examined showed a large perforation on its internal surface, and, in its canal, close to the opening, were seen two small foreign bodies, which were readily recognized as small metallic hooks, or "agrafes." The patient made a good recovery. This, though a unique occurrence, ought, in the author's opinion, to be a warning against the practice, except in very exceptional circumstances, of using foreign metallic bodies in anastomising operations on the stomach and intestines.

MIDWIFERY AND DISEASES OF WOMEN.

(131) The Treatment of Sterility.

ACCORDING to E. BUMM (*Deut. med. Woch.*, November 24th, 1904) there are two causes for sterility in women, if one disregards rare causes. The first is due to developmental faults in the genital organs and the second to gonorrhoea. Turning his attention first to the second, he states that since the severe damage which gonorrhoea is capable of doing has been recognized, the importance of this disease in the causing of sterility in women has been much exaggerated. He believes that at least two-thirds of the cases are caused by developmental defects. This is very rarely the absence of the whole genital tract or part of it, but much more commonly infantile type of the organs. In some cases this infantilism affects the whole tract, while in other cases only certain parts are so affected. We have no knowledge as to how these developmental defects act inhibitorily on conception. When the ovaries are ill-developed and more like fetal organs, one must suppose that ovulation takes place at rare intervals and is never profuse. When the tubes are much convoluted and defective they probably refuse to carry out their function properly in carrying the ovum into the uterus. The sperm cells, too, may have difficulty in ascending in such tubes. When the uterus is infantile one supposes that it hinders the passage of the sperm cells, and also does not offer the impregnated ovum a chance to find a resting place. He then discusses the anatomical peculiarities of ill-developed cervix and vagina. A short anterior wall of the vagina and an insufficient vault renders the retention of semen in the vagina almost impossible, and the impediment to the semen is also met with when the cervix is sharply bent on the uterus, when the os is stenosed, and when the mucous membrane is defective. In gonorrhoea, the chief change which hinders the passage of the sperm cells is the inflammation of the mucosa of the cervix and uterus and the presence of purulent material, which latter acts directly on the cells. In treating these cases, Bumm thinks it necessary to investigate in each case whether sperm cells are to be found in the secretion of each portion of the tract. The prognosis in sterility due to infantilism must depend on the extent of the defect. When the cervix is alone affected, it is good, provided that the treatment is properly

carried out. Less good results may be expected when the uterus is affected, and when the changes are well marked, one may take it for granted that the ovaries also are infantile, and then the prognosis is bad. He has been able to observe in a few cases that the arrested development can be continued, even after a considerable time, if this is not severe. The only means which gave him any results in this direction was the application of constant electrical currents. In dealing with defects in the outer passages, including the cervix, much patience must be exercised, since the developmental defect tends to offer considerable resistance to dilatation. One can choose any method of treatment, but one must continue it for a long time. The stretching and dilatation of the vaginal vault is difficult and often very slow. Some forms of small pessaries do good at times. The prognosis in cases due to gonorrhoea depends on when and in which stage the infection is recognized. If one gets the cases early and recognizes them at once, one may expect that no sterility will follow. Since the treatment must be directed toward preventing the inflammatory changes from spreading upwards, all intrauterine measures must be avoided. Great care must be exercised; the chief points are to keep the parts as much at rest as possible, and especially during the period. Careful vaginal irrigation does good; as does discission. When the infection has already reached the tubes, all need not be given up. Cases of suppuration in the tubes have been cured with rest, application of ice, and later hot packs. The pus may become absorbed and no sterility follow. After the appendages have been generally inflamed, one must wait until everything has quieted down completely before applying massage, which then may do good. Removal of one ovary and freeing the other from adhesions has led to conception in one of the author's patients. Only when actual destruction of tissue has taken place must one consider the prognosis hopeless.

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(132) Thyroid Extract in the Treatment of Puerperal Eclampsia.

J. C. G. MACNAB AND D. S. E. MACNAB (*Journ. of Obst. and Gyn.*, November, 1904) have treated a case of puerperal eclampsia with thyroid extract. The patient was a primipara, about eight months pregnant, and when first seen at eight o'clock in the morning was in an eclamptic seizure; she had had four fits during the preceding night. Half a grain of morphine was given hypodermically, and hot water and blankets kept round her as far as possible. A little urine was withdrawn, and found to contain albumen, one-sixth by volume. The fits continued, in spite of ½ gr. of morphine being again given at 10 a.m. and ¼ gr. at 3 p.m. At 6 p.m. croton oil (mij) was placed on the tongue, and at 12 p.m. calomel gr.v, and pulv. scammon co. gr.iij were given. At 3 a.m. on the next day chloral gr.xl and potassium bromide ʒij were given per rectum, and at 8 a.m. half this dose was repeated. The fits continued to be as frequent as before, although after the chloral and potassium bromide they became slightly less severe; no action of the bowels was obtained. At 10 a.m. two pints of saline fluid, in which 75 gr. of thyroid extract had been dissolved, were injected subcutaneously. Within an hour and a-half there was decided improvement both in the frequency and severity of the fits, and in another hour the bowels moved and labour began. Under chloroform the labour was terminated with forceps as speedily as possible, and bleeding was encouraged after the removal of the placenta. The child was dead. The fits numbered 37 as far as could be counted; there was no recurrence of them after the birth of the child. The urine when examined three weeks after labour contained only a trace of albumen.

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(133) Is Caesarean Section Ever Justifiable in the Management of Placenta Praevia?

RICHARD DOUGLAS (*Amer. Med.*, January 21st, 1905) carefully weighs the dangers that attend Caesarean section in the management of placenta praevia, and limits it to placenta praevia centralis in primiparae with undilatable cervix. An exsanguinated patient, or one that has been subjected to various obstetric manipulations, repeated efforts at dilatation, or version, thus opening the channel of infection, is not a proper subject for operation. Time should be allowed for the uterus to contract and retract after the removal of the child. If this precaution is taken, there need be no fear of haemorrhage from the placental site. Should it occur, the means of controlling it are infinitely superior to what they would be after delivery by the natural channel. The cervix is easily torn in the presence of placenta praevia: an accident that is not always discovered at the time, and only recognized by its disastrous consequences. Remembering that labour is usually premature in placenta praevia, and that the mortality of premature children is very high, this operation should not be undertaken in the interest of the child alone.

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(134) Placenta Praevia and Laceration of Pedicle of Fibroid: Death.

MEYER of Copenhagen (*Monats. f. Geb. u. Gyn.*, September, 1904) reports a case where a pedunculated fibroid complicated labour. The patient was 34. After four labours, one abortion, and a few years of irregular menstruation she became pregnant once more. At term, after pains in the hypogastrium, labour set in with a little vaginal haemorrhage. The patient travelled about twenty-five miles in a carriage to a lying-in institution, and Meyer found the uterus filling the abdomen and stretching its walls, being pushed upwards by a big tumour, apparently cystic, which filled the pelvic cavity. Under anaesthesia the os could be reached. It lay high up against the symphysis. The presentation was transverse; the placenta could be felt on taking a pain. Free flooding set in, the pelvic tumour was reduced with ease and slipped up into the right iliac fossa. After dilating bags had been introduced Meyer turned, delivered, and expressed the placenta. The child was born dead and showed marked osteochondritis: there were no signs of syphilis. The uterus did not contract well after delivery, and the acute anaemia increased unaccountably, the patient dying within two hours. Much blood was found in the peritoneal cavity. A solid tumour, as big as a man's head, lay in the right iliac fossa; it sprang from the posterior aspect of the cervix, being connected with the uterus by a thick and short pedicle. A very large vein in the pedicle was lacerated, and it had bled into the peritoneal cavity. Meyer believes that the damage to the pedicle occurred during the delivery of the fetus and not during the reposition of the fetus earlier in labour.

THERAPEUTICS.

(135) Suppression of the Acetone Bodies in Diabetics.

HEINRICH STERN (*Amer. Med.*, December 3rd, 1904) says that in diabetes the acetone substances are invariably expressive of a state of under-nutrition. The latter may be the result of a long-continued one-sided diet, but it may also ensue when sufficient proteids and moderate quantities of carbohydrates are exhibited in the nourishment. The formation of acetone bodies will not occur as long as one can manage to keep the diabetic in a fair state of nutrition. Von Noorden's "oatmeal cure" contradicts the rationale of acidosis therapy, as the large amount of butter entering into the composition of the oatmeal soup yields a considerable additional quantity of acetone substances. The patients soon develop an aversion for the monotonous regimen which, moreover, does not uphold the claims of its author. Oatmeal is not better tolerated by the diabetic exhibiting acetonuria than are other farinaceous substances, as buckwheat or rice, for instance. In suppressing the acidosis we must not aggravate the diabetic condition, hence we cannot add carbohydrates to the nutriment for any length of time, nor can we in most instances increase the proteid ingesta. In this dilemma, there is nothing left but to return to fatty substances, that is, to such fatty material which does not furnish the precursors of the acetone bodies, namely, the fatty acids of low molecular weight. Butter and cream yield large amounts of these low fatty acids. The only fatty article of food which may be taken in large amounts without giving rise to low fatty acids is the yolk of the hen's egg. An increase of acetone was never observed by Stern after administration of his "yolk cure." The rationale of the "yolk cure" in diabetes complicated by acidosis depends on the following four factors: (1) Palmitin, stearin and olein, the fat substances of the yolk yield no or little butyric acid; (2) the large amount of lecithin supplied to the organism restores the nerve force and ameliorates the wasting condition; (3) a diastatic ferment occurring in the yolks aids in starch digestion; (4) the stimulating action of yolks on the digestive secretions. The "yolk cure" consists in the ingestion of from 10 to 40 yolks a day, together with some proteids and the unavoidable carbohydrates contained in green vegetables. Its technic is simple. The old diet is discontinued at once. The intestinal tract should be evacuated before the "yolk cure" is instituted. In grave cases, a yolk diet

must be partaken of for more or less protracted periods; in milder cases, one or two "yolk days" a week, alternating with proteid-fat (yolk) days, may be sufficient. The alkalies exert a mere local and limited influence; they may be administered along with the "yolk cure," but they have not the slightest influence in preventing or suppressing katabolic acidosis. A sample of a "yolk menu" full of variety is given; appended are a number of cooking recipes for diabetic "yolk dishes." Six cases of diabetes complicated with acidosis are reported. One patient, a boy, 15½ years old (who was presented to the American Medical Association), weighed 98½ lb. in March, 1904. His urine exhibited almost 400 grams of glucose, and very large amounts of acetone and diacetic acid. After everything failed, the "yolk cure" was tried, with the result that the sugar and acetone excretion had entirely ceased. His weight at the time of report was 122½ lb.

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(136) The Treatment of Leukaemia by X Rays.

HAVING treated 2 cases of leukaemia by means of Roentgen rays, Joachim and and Kurpjuweit report their results in the *Deut. med. Woch.*, of December 1st, 1904. The first case was that of a woman of 39 years, who was admitted into hospital on account of a supposed left-sided renal tumour. This proved to be a leukaemic spleen and she was thereupon transferred to the medical clinic. Her illness began twelve months previously and she had been confined five months after the beginning. The puerperium was tedious, she suffered from weakness and fever for many weeks. Later, the fever returned intermittently, and beside this, she complained of pains in various bones, loss of flesh, swelling of the feet and deafness. Her weight on admission was 48.3 kilos (about 7 st. 2 lb.), oedema was present, the skin was lax and no subcutaneous fat could be felt and the general condition was very bad. The spleen was enormous, reaching from the symphysis upwards, and crossing the middle line toward the right half of the abdomen. The blood had a definite leukaemic character, the red cells numbering 2,500,000, the white 693,000 per c.mm. and the haemoglobin value was 40 per cent. At first arsenic was given in the form of atoxyl, but the temperature rose during this treatment and it had to be stopped. The general condition having become worse in the meanwhile, Roentgen rays were then applied to the region of the spleen, and worked extremely well. The first week showed variations of the number of white blood cells, but at the end of four weeks the number had been reduced to 315,000. At this time brown points from the size of a pin's head to that of a lentil appeared over the area exposed, and it was therefore thought advisable to interrupt the treatment. After four days the rays were applied to the bones of the extremities. In spite of the improvement in the blood, fever set in, and the treatment was once again stopped. Two months after the commencement of the treatment the third application was begun, and this time the region of the spleen was again chosen. Here the skin had desquamated and was healthy. Six weeks later the blood count showed 3,400,000 red and 6,300 white cells per c.mm., and a considerable improvement in the diminution in the number of myelocytes. The uric acid secretion, which had been very high, was normal, and the spleen decreased in size enormously. Later, the white blood cells again increased in number, but at present they are again decreasing. The general condition of the patient had become excellent. (Space forbids us from giving many of the interesting minute details with regard to the blood changes.) The second case was that of a 50-years-old man, who was suffering from typical chronic lymphaemia. In this case the lymphatic glands in the axillae, under the jaw, and in the inguinal regions were enlarged, the liver was enlarged, there was a splenic tumour, and the blood changes were severe. The red cells counted 3,200,000, the white 385,000, and the haemoglobin 55 per cent.; 98 to 99 per cent. of the leucocytes were lymphocytes. The general condition was very bad. The treatment by mercury (the patient had had syphilis twenty-eight years previously) had an unfavourable effect. Roentgen rays were then applied, and iodide of potassium was given internally. The blood improved greatly as far as the white cells were concerned, but the type remained leukaemic. The weight, too, did not improve, and yet the lymphatic glands almost disappeared, and the spleen became much smaller. The treatment had to be discontinued for private reasons about a month after the beginning of the treatment. When he again turned up the improvement showed itself to have been maintained. His weight was better, the blood showed an improvement as far as the lymphaemia was concerned, only the red cells were fewer. The lymphatic glands and the spleen were about the same as they were when he left the hospital before. The authors append a consideration of the cases, and also add brief notes of a third case of anaemia splenica in which the rays did not improve the condition.

PATHOLOGY.

(137) The Pathology of Urticaria.

J. BAUM considers that he has been able to demonstrate the mode of production of urticaria (*Berl. klin. Woch.*, January 2nd, 1905). He found that the application of certain substances to the skin produced typical wheals, which could not be distinguished from ordinary nettle rash. Among these, he mentions that the first which he succeeded with was aethylene-glycol. One has to rub the skin very lightly with emery cloth, and then to paint or rub the substance in. The skin must only be rubbed enough to produce a microscopical defect. In order to decide how urticaria is produced he considers three theories: (1) Unna believed that there is a spasm of the veins, which is followed by a circumscribed stasis oedema; (2) Neisser believes in an arterial hyperaemia, caused by stimulation of vasomotor (dilator) fibres, and being accompanied by an increase of the transudation of fluid from the capillaries; and (3) Philippson and Török regard urticaria as an inflammatory change. In order to study the process carefully Baum chose the web of a frog, which he found could be rendered oedematous by means of the aethylene-glycol. The oedema thus produced appears after the application of the solution without any preliminary rubbing with emery cloth in a few minutes, and after a short time disappears again. He examined this process under the microscope. The first change seen is the dilatation of the capillaries. This is accompanied by a very slight dilatation of the afferent arteries and somewhat more of the efferent veins. At first there is also a slight quickening of the circulation. The circulation next becomes slower as the capillaries dilate more and more, until at certain places, especially at the periphery of the oedema, next the free edge of the web, complete stasis sets in. The veins remain wide, and offer no resistance to the circulation. After about ten to twenty minutes, at the angle in the web, there takes place an oedematous swelling. As this oedema spreads, the capillaries within the area contract, while both arteries and veins are rather dilated than contracted. In no situation is there the least evidence of any transudation of corpuscles. Baum believes that the changes in this acute transitory oedema of the frog's web are identical with those of true urticaria. He therefore considers that he is in a position to deny Unna's explanation that urticaria is due to a venous spasm, while he leaves it undecided whether either the inflammatory or the capillary secretory theories are correct.

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(138) Diphtheria Antitoxin in its Relation to Toxin.

PICK AND SCHWONER (*Zeit. f. Expt. Path. u. Therap.*, Bd. I, Heft 1, 1905) remark that hitherto, in most of the investigations recorded upon the inter-relationship of diphtheria toxin and antitoxin, the main stress has been laid upon the composition of the toxin, with the implied assumption that the value of the antitoxin was constant. But owing to the greater physical and chemical complexity of antitoxin as compared with toxin, the authors have felt that this assumption could not be taken for granted; they have, therefore, instituted a research with the object of discovering whether different immune serums did not exhibit differences on being saturated with one and the same toxin. As the result of their investigations they find that, on fractional saturation of different diphtheria-immune serums with one and the same toxin, saturation will in some cases be strictly proportional to the amount of the toxin added (toxostable antitoxin), whereas in others it will be disproportionate (toxolabile antitoxin), and that accordingly in the one case the progress of saturation is graphically represented by a straight line, in the other case by a curve. This difference in the mode of saturation is independent of the constitution of the toxin, but is determined by the properties of the immune serums. But, after partial saturation with toxin, toxolabile-immune serums yield toxostable antitoxin.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(139) Cholelithiasis and the Circulatory Apparatus.

A. CONTI (*Riv. Crit. di Clin. Med.*, Nos. 41-49, 1904) describes the connexion which he finds between cholelithiasis and the mechanism of circulation, quoting (with references) 162 earlier works bearing on the same point. He states that cholelithiasis may be associated with reflex circulatory disturbances. These may be of a motor or sensory kind. In the former case they are of the nature of cardiac weakness with tachycardia, in the latter they lead to anginal attacks. Biliary colic is attended by arterial spasm and high arterial tension. Similar results may be caused by acid dyspepsia, muco-membranous enteritis, and other visceral lesions within the region of the splanchnic nerves. Such acute weakness of the heart is due to irritation of the splanchnic and reflex paralysis of the vagus. An afferent impulse having similar effects may be supplied by the digestive organs, though themselves healthy. The stimulation is due to distension of a calculous gall bladder, hyperacidity of the gastric juice, or other similar cause. An anginal attack caused by a subdiaphragmatic stimulus must be referred essentially to anatomical modifications of the circulatory centre. The onset of tachycardia, cardiac weakness, or angina is determined by defective action of the heart itself. This defect may be a want of adequate nutrition of the heart muscle, easily to be recognized either during exertion or during sleep. In patients suffering from atheroma, the circulation is disturbed by a want of equilibrium between the pressure in the small vessels and that in the larger vascular trunks, and especially the low pressure in the smallest ramifications of the coronary arteries. During sleep the insufficient provision of blood to the myocardium is due to lowered arterial pressure with sudden arterial spasm and rise of pressure due to psychical acts carried out during sleep. Similar conditions may be created in the heart with the same results by colicky spasms caused by lesions of viscera supplied by the splanchnic nerves. Disordered action of the heart leading to an anginal attack is a neuro-muscular syndrome analogous to the intermittent spasm of an attack of painful cramp of the extremities. Such a cramp of the heart may be directly demonstrated by radioscopy. Physiological experiments support the hypothesis of a tetanus of the heart. In angina of subdiaphragmatic origin it is possible that the anaemia of the abdominal viscera, caused by muscular exertion, may be sufficient stimulus to the splanchnic nerves to start an attack. A differential diagnosis must be made between subdiaphragmatic angina pectoris, atheroma of the abdominal aorta, aneurysm, and intestinal angio-neurosis. True angina is associated with a sense of annihilation and of mortal oppression. Intestinal angio-neurosis is shown by meteorism in the region supplied by the superior mesenteric artery. In angina pectoris, as in painful spasm of the extremities, two factors co-operate, a permanent arterio-sclerosis and a temporary spasmodic condition. Angina pectoris is subject to intermission, improvement, and even a condition of relative cure. Such intermissions are the result of the disappearance of the temporary condition of vascular spasm, and rational treatment must be preceded by inquiry into the nature and path of the abnormal stimulation of the splanchnic nerves which excites spasm. General dietetic treatment, cardiac stimulants, vaso-dilators, and diuretics are all useful, the most difficult practical point being to distinguish the cases calling for cardiac stimulation from those needing the exhibition of vaso-dilators. The connexion traced between cholelithiasis and angina pectoris suggests the possibility of successful surgical intervention in cases of subdiaphragmatic angina, apparently due to disturbance of the functions of the liver and stomach. The removal of biliary calculi will do away with one cause of excessive arterial tension. The evil effects of cholelithiasis on heart disease are a reason why the existence of valvular disease of the heart should be considered as an additional indication for emptying the gall bladder.

(140) Lobar Pneumonia in Infancy.

J. L. MORSE (*Amer. Med.*, January 28th, 1905) believes that pneumonia is far more common during the first two years of life than is generally supposed. Its course and prognosis differ materially from the descriptions given in many of the older as well as in some of the newer textbooks. The onset is less stormy than is usually described. A chill practically never occurs; convulsions are very unusual. Cough rarely amounts to much in the beginning. High fever usually develops rapidly, and is generally accompanied by drowsiness and apathy. The most common period of pyrexia is seven days. A shorter duration is more common in infancy than later. The average duration is longer in the fatal cases. Remissions of even as much as 3° or 5° are not uncommon. Crisis is less common than later. Lysis is especially common in the cases of long duration. Collapse during the crisis is less frequent than is usually taught. The usual pulse-rate is between 150 and 170, being over 150 in 75 per cent. of cases. The usual respiratory rate is between 55 and 80. It is more often above 80 than below 55. The rate of respiration is always increased out of proportion to that of the pulse. This change in the pulse-respiration ratio is most important in diagnosis. Cough is seldom a prominent symptom. Gastro-intestinal symptoms are very common and very important. Marked anorexia is the rule. Vomiting is not very common. Diarrhoea is more common than constipation. Distension of the abdomen is frequent, difficult to relieve, and often hastens the fatal termination. The urine often shows the evidences of acute degeneration and occasionally of acute inflammation of the kidneys. The usual mental condition is one of drowsiness or apathy. Cerebral symptoms are usually functional in origin and are frequently associated with a high temperature. The nervous symptoms are often due to a complicating inflammation of the middle ear. The diminution of the respiratory sound on the affected side is often the earliest sign, and is of great importance in diagnosis. The order of frequency in which the lobes are affected is left lower, right upper, right lower, and left upper. There is no relation between the mortality and the part of the lung involved. The mortality varies directly with the amount of lung involved. Acute inflammation of the middle ear is the most common complication. The pneumonia mortality in the infants' hospital series was 25 per cent. This is higher than that in private practice. The younger the infant the worse the prognosis. The prognosis varies with the amount and not with the part of lung involved. Fever lasting more than nine days is of serious import. The prognosis is good when the temperature is not over 103° F.; it is serious when over 106° F. Variations between these two points are unimportant. The prognosis is good when the pulse is not over 140 or the respirations over 55. The amount of the increase above these limits is of little importance. The gastro-intestinal are the most dangerous of the more common complications. The treatment is hygienic and supportive rather than medicinal. Far more harm can be done by overmedication than by undermedication. The infant should not be disturbed. It must have the greatest possible amount of fresh, cool air. The diet must be regulated to suit the weakened digestion and food forced if necessary. Stimulation should be used when indicated and not as a routine measure. Strychnine is most useful, alcohol next. The fever should not be treated unless it causes marked nervous symptoms or depression. It should then be treated by cold externally and not by coal-tar antipyretics internally. Cold must be used cautiously, as infants bear it badly. Fan baths and cold packs are best borne. Local applications should be used only for pain, oxygen for cyanosis. Creosote, the various serums and other "specifics" have no effect on the course of the disease.

SURGERY.

(141) The Operative Treatment of Supra-patellar Ruptures of the Quadriceps.

QUÉNU AND DUVAL (*Rev. de Chir.*, No. 2, 1905) state that notwithstanding a full knowledge of the clinical features of rupture of the quadriceps femoris, the proper treatment of this injury has not yet been clearly defined. A study of the situation, extent, and usual form of the injury is followed by a discussion of the therapeutical questions whether the surgeon should rely solely on splints or bandages, should operate in every case, or take an eclectic position, and apply an operative or a non-operative treatment according to circumstances. Operative intervention, the authors state, has not been universally recognized by French

surgeons, some ignoring it altogether, whilst others regard it as quite an exceptional method of treatment. It is shown by reference to abundant statistics that the non-operative treatment of suprapatellar rupture of the quadriceps is very uncertain in its results, and that the prognosis of such treatment is not influenced by conditions which can in advance be recognized and prevented. On the other hand, a table of 22 cases, including three under the care of Quénu, shows that by suturing the torn muscle, the surgeon may confidently anticipate a good result. It is only by such operative treatment that the muscular continuity can be restored in a sure manner and in the least possible time. The good results of the operation, it is stated, are durable. Reference is made to one of Quénu's three cases, in which after an interval of two months from the date of the first injury, the cicatrix of the sutured quadriceps resisted the action of a second injury, in which the ligamentum patellae was torn. The authors conclude, from a study of their collected cases, and also from their personal experience, that suturing is in every case the rational treatment of rupture of the quadriceps tendon. The operation, it is held, should be deferred for some few days after the time of injury in order that the skin about the knee may be thoroughly sterilized. It is very necessary to attain perfect asepsis, as the risk of infection is greater with arthrotomy than with laparotomy, the synovial membrane of the joint being less able to protect itself than the peritoneum, and, moreover, in cases of injury being in a pathological condition. The authors insist on the use of gloves in operations for fractured patella and ruptured quadriceps. The method of operating for the latter injury is described at length. A vertical incision is preferred to a transverse one, as it allows freer access to the knee-joint, and enables the surgeon to clear the articular cavity of blood clots.

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(142) The Diagnosis of Renal and Ureteral Calculi.

H. A. FOWLER (*Med. Record*, February 4th, 1905) says that the following conditions are necessary for the formation of urinary calculi: (1) The presence in the urine of the inorganic salts—the stone-forming materials. (2) The presence in the urinary tract of a catarrhal or inflammatory condition which furnishes the organic material—the framework. (3) Changes in the urinary passages which prevent the escape of the nucleus, thus permitting its further growth. Although the severity of the symptoms and the course of the malady vary greatly in different cases, the disease is always one of the utmost gravity and danger to the patient, and the results attending the operation of nephrolithotomy are among the most brilliant in surgery. Fowler considers a good history as the most important step towards making the diagnosis, and ranks the other measures in order of importance — physical examination, urine examination, cystoscopy, radiography, ureteral catheterization, and exploratory incision. Unless there are special contraindications, cystoscopy, with or without catheterization of the ureters, should always be done in these cases, as it often yields the most important information, and is not as trying an ordeal for the patient as is usually supposed. The cystoscope gives information on the following points: (1) Presence or absence of vesical involvement—calculus, tumour, etc.; (2) difference in two sides of the trigone, suggesting a lesion higher up, either calculous or tuberculous; (3) presence of ureteral calculus at its vesical orifice; (4) in cases of pyuria and haematuria, which kidney, if the disease is unilateral, harbours the foreign body. *X*-ray examinations are valuable, but require expert interpretation, and negative results are of less value than positive ones.

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(143) Operations on the Kidney and Ureter.

G. E. BREWER (*Med. Record*, February 18th, 1905) reports a series of eighty-four operations on the kidney and bladder. The list comprises twenty-seven nephrotomies, the same number of nephrectomies, nine nephrorrhaphies, ten decapsulations, five operations on the pelvic portion of the ureter, and six emergency operations on traumatic cases. These classes are discussed in detail. From a review of the conditions present in his cases Brewer feels justified in stating that there is no single symptom nor sign, nor any group of symptoms or signs that is absolutely pathognomonic of renal or ureteral calculus, unless the calculus lies in the lower ureter and can be touched by a metal bougie or catheter. The most important factors to be considered are pain, tenderness, haematuria, the results of radiography, cystoscopy, and ureteral catheterization. While vomiting, vesical irritability, pyuria, fever, and the presence or absence of a renal tumour are important, and will often help us to confirm or lead us to exclude other pathological conditions, too much reliance must not be placed upon them in the diagnosis of calculus. While pain and tenderness were present in practically 100 per cent. of the author's cases of stone, they were also present in a large percentage of the cases in which no stone was found, and calculus may, and often does, exist without pain. Haematuria was known to be present in 52 per cent. of the stone cases, but it was also present in 45 per cent. of the cases without stone. Spontaneous haemorrhage occurring during rest and sleep generally means new growth. Haemorrhage following active exercise or jolting, and accompanied by characteristic colic, in the absence of other demonstrable pathological conditions, is strongly suggestive of calculus. Excluding imperfect plates and those in which the edges of the shadow were not distinctly defined, the *x* ray gave accurate indications in 95 per cent. of the cases, and must therefore be regarded as the most reliable means of examination which we possess. Cystoscopy helped to a correct diagnosis in about 66 per cent. of the cases examined, while it was misleading in about 33 per cent. Ureteral catheterization proved valuable in confirming the diagnosis, in definitely determining the side of the lesion, and in estimating the competence of the opposite kidney.

(144) Purgation Before and After Operation.

I. S. STONE (*Amer. Med.*, February 25th, 1905) discusses this subject at length. He says excessive purgation should be restricted because it is enervating to the general system. It produces great irritation to the mucous lining of the bowel. It may add to the danger of ileus and paresis. Purgatives have very little effect in limiting the amount of extraperitoneal exudate and fluids. Instead of calomel and saline purgation, bland evacuants, such as castor oil, should be used before abdominal section. The use of suitable bland non-fermentative foods is desirable until just before operation in weak patients. After operation limit peristalsis; give only small quantities of food and drink by mouth. Rarely give opium. Enemas should be administered to relieve distension and cause peristalsis in downward direction; after normal peristalsis laxatives should be given as required.

MIDWIFERY AND DISEASES OF WOMEN.

(145) Ruptured Interstitial Pregnancy.

BOLDT (*Amer. Journ. Obstet.*, July, 1904) recently exhibited before the New York Obstetrical Society the right cornu of a uterus ruptured by an interstitial pregnancy. The patient was 39, married twenty years, with three children, the last was 2 years old. Menstruation had been absent for seven weeks when she was seized with sudden and severe pain in the lower abdomen radiating to the epigastrium. Nine hours later Boldt saw her, she was exsanguined and pulseless. He designedly left the patient to rally from her collapse, under appropriate treatment. Then he operated; the abdomen contained a great quantity of fluid blood and clot. Boldt did not consider it advisable to operate upon patients in deep collapse and absolutely pulseless. They usually rallied from such a condition after rest and then an operation would be likely to prove successful, whereas if abdominal sections were performed before they rallied the termination was usually fatal. Boldt's patient developed a double lobar pneumonia immediately after the removal of the cornu and nearly died, but was convalescent when the case was reported. There was much difference of opinion expressed in the discussion on this case, and on another where Boldt operated for ruptured broad ligament pregnancy after the symptoms of shock had subsided. Vineberg insisted that abdominal section should be performed at once without waiting for the subsidence of the shock. In external haemorrhage the surgeon did not wait until shock had passed away, but arrested the haemorrhage at once, and the same rule should apply to internal haemorrhages. In many of these cases of haemorrhage from rupture of fetal sacs the patient's condition improved as soon as the abdomen was opened, even before the administration of an intravenous saline transfusion. This implied, in Vineberg's opinion, that the shock was in a great measure due to the pressure of the blood on the peritoneum and diaphragm. H. C. Coe, on the other hand, believed that the

majority of these cases were tubal abortions, and that there was no immediate danger to life from haemorrhage. He had seen patients recover when the abdomen had been half filled with blood, and Coe felt no doubt that if some had been operated upon at the time of rupture they would have died upon the table. In Coe's early operating days nothing was known about ectopic gestation; cases were left alone, and many recovered from the resulting haematocele. He did not question that there were instances, such as those related by Boldt, in which the patient would bleed to death unless the abdomen were opened, but the majority of these cases were not necessarily fatal.

(146) Hernia of Gravid Uterus: Porro's Caesarean Section during Labour.

Rosner (*Zentralb. f. Gynäk.*, No. 48, 1904), in a paper including notes on the literature of the subject, describes a case in his own experience. The patient was 30 years of age, and had borne four children; the last confinement occurred six years before she came under observation. For two years she had noticed a ventral hernia, and now she had become pregnant. Rosner found that she was in the sixth month of pregnancy; the increase of the hernia caused her great pain. The body of the uterus occupied the sac; the fetus lay in it entirely external to the neck of the sac, which had a sharp border. The patient imprudently refused to allow of taxis under an anaesthetic. Labour set in at term; it lingered for two days, and then it was found that reposition was impracticable. The cervical canal was patent up to the os internum, which was quite closed. Rosner opened the sac and extracted from the uterus a cyanosed fetus, which was resuscitated, but died within a few hours. The empty uterus could easily be reduced, but the os internum was stenosed, so that Rosner dreaded accumulation of septic matter in the uterine cavity; and as he found that he could not easily close the neck of the sac in front of the bulky, reduced uterus, he amputated the body above the cervix, sewed the peritoneum over the stump which he reduced, and, lastly, repaired the ventral hernia. The patient did well.

(147) Perforation of Tuberculous Intestine in Puerperium.

Camus (*Bull. et Mém. de la Soc. Anat. de Paris*, July, 1904) writes of a woman, aged 34, who was delivered in a Paris maternity, at the seventh month, of a child who died within forty-eight hours, its death being due to free meningeal haemorrhage. The mother had been ill for three years following double pleurisy and died on the tenth day of the puerperium after suffering from fever, cough, sweating, and diarrhoea. Both lungs were the seat of acute phthisis, and the pleurae were adherent. A mass existed in the right iliac fossa: it consisted of a large number of coils of small intestine united by a false intestine, from these coils a turbid fetid fluid escaped. There was marked tuberculous ulceration of the ileum near the ileo-caecal valve and one ulcer on the free border 4½ in. above the valve was the seat of perforation. The vermiform appendix was healthy, but adhered to the small intestine, whilst two ulcers were detected in the caecum.

(148) Lithopaedion 41 Years in the Abdominal Cavity.

F. W. N. Haultain (*Journ. of Obstet. and Gyn.*, Oct., 1904) describes a case of lithopaedion. The patient had become pregnant at 30 years of age, and went into labour without result at supposed full time, that is, in January, 1868. The abdominal swelling remained, and for some years gradually diminished in size. Menstruation returned a few months after the spurious labour and continued regular till the age of 45. The patient suffered from occasional bouts of inflammatory abdominal symptoms, but was otherwise not affected, and died somewhat suddenly at the age of 70 from cardiac disease. On *post-mortem* examination a calcified fetus was found behind the uterus densely adherent to the surrounding structures; it retained in a marked degree its normal configuration; the attitude of flexion was undisturbed, the limbs to the finest digits were in absolute preservation, and the nails projected over the finger tips. The tissues were contracted and calcareous on the limbs, but on the back, scalp, and breech they seemed of normal thickness. The author has found in the literature 9 cases described in which a fetus has been retained for as long as 40 years. In the majority of cases of advanced ectopic pregnancy decomposition results with subsequent disintegration and passage of the fetal members through the hollow viscera, and the reasons which in one case tend towards calcification and in the other to disintegration have not been made clear. It is still doubtful whether prolonged retention in a normal uterus with resulting lithopaedian ever occurs.

THERAPEUTICS.

(149) The Therapeutic Action of Radium.

R. Werner and G. Hirschel have employed radium in the treatment of various conditions in Czerny's clinic and report on the results in the *Deut. med Woch.*, October 13th, 1904. They worked with three capsules of radium bromide, each containing 10 mgr. Six cases of malignant tumour were treated, 5 of which being carcinomata and 1 of melano-sarcoma. In no case did the treatment prove of any value, and they state that while this appears to stand in contradiction with some published accounts, the cases in which radium is said to have healed were new growths of the skin, which did not extend beyond 1 cm. in depth. It is an open question whether the incomplete destruction of the growth by radium does not stimulate the unattacked parts to acquire a more rapid growth. They cannot recommend radium for cancer of any kind; in operable cases the knife yields infinitely more promise, and in inoperable cases radium can only do harm. With regard to benign growths, they treated 5 cases of angiomata, 7 of lupus, 2 of naevus, and 1 each of keloid and of tuberculous ulcer of the tongue. The results were very satisfactory. They attempted to see if by employing a rapid method with few sittings they could influence the scarring. This forced exposure to radium rays leads to ulceration, which takes many weeks to heal, but which does heal with a cosmetically good scar. For patients living at a distance this is worth a great deal, as the healing of the ulceration may be carried out while they are living at home. When a large surface has been treated from several points, the ulcerated surface presents many points of intact epidermis from which the scarring takes place. They point out that the radium exerts a selective action on the tissues. The forced treatment should not be applied in cases where many lupus nodules lie thickly together or in flat angiomata or naevi. All the lupus cases were cured, and if one can speak of lasting cures after from six to nine months, these would be included, since in no instance was there a recurrence within that time. The other form of cases also did well, and they feel convinced that the only question still to be answered at present is whether a benign growth should be treated rapidly or slowly.

(150) Feeding in Infancy.

W. P. Northrup (*Amer. Med.*, January 28th, 1905) discusses the methods of feeding a baby deprived of Nature's best feeding—a breast milk. The best substitute food is prepared from cow's milk from healthy herds, the milk collected clean, modified in clean surroundings, and used fresh. The laboratory method of exact modification of milk has been called the American method. Modified milk is not a patent food, but nourishment as near as possible such as the human breast furnishes, and capable of being modified or changed to fit the changing needs of the infant. The proper modification can be made only by skilled persons in a proper laboratory. The cost of laboratory milk is within the reach of all who are willing to do part of the work of dividing the quart bottles of milk into separate feeding bottles. The prescriber has responsibilities in feeding a baby. The feeding of infants is an expert's work. Three prescriptions may serve as points of departure: (1) For the new-born, to begin after the fifth or seventh day—Fats, 2 per cent.; sugar, 5 per cent.; proteids, 0.50 per cent.; feedings, 10; amount in each feeding 1 oz., alkalinity 5 per cent.; heated to 155° F. for twenty minutes, or raw if preferred; feed every two hours, twice at night. (2) "Low average" breast milk—Fats, 3 per cent.; sugar, 6 per cent.; proteids, 1 per cent.; (3) "High average" breast milk—Fats, 4 per cent.; sugar, 7 per cent.; proteids, 2 per cent.

(151) Nafalan.

Rohleder (*Therap. Monat.*, December, 1904) has employed nafalan in the treatment of diseases of the skin, and has obtained excellent results. Nafalan like the previously-introduced naftalan, consists of a pure hydrocarbon worked into an ointment by the addition of a percentage of soap. The hydrocarbon of both is free from any vegetable or animal fat, and contains no trace of acids, paraffin, or pyraloxin; the reaction of nafalan is neutral. Nafalan is an extraction product of a naphtha found in the Caucasus, and consists of about 96

per cent. of naphtha and 4 per cent. of soap. Its melting point is at above 120°. The author has used nafalan in 96 cases; 42 of these were cases of eczema, the most common form being chronic dry eczema, and especially occupation eczemas. The following is given as a typical case: The patient, a man 20 years of age, was incapacitated from work by the condition of the hands. These showed fine eczematous nodules, which formed small crusts, and were surrounded by reddened and swollen areas of skin, in places secreting pus. After removal of the scabs with olive-oil nafalan was applied. Within three days the tendency to formation of crusts had disappeared, and the redness diminished. Three days later the swelling was decidedly less; five days later the secretion of pus had ceased, and patches of normal skin had reappeared. Full healing was obtained after another ten days. The results obtained were equally good in cases of chronic eczema. In 6 cases no result was obtained, twice in chronic cases, twice in acute cases, once in eczema of the knee, and once in eczema of the face. In the two latter cases strong irritation followed the use of nafalan, although in the other cases nafalan appeared to have a sedative effect. In addition to cases of eczema the author treated cases of psoriasis, ulcera cruris, scabies, burns, impetigo contagiosa, intertrigo, haemorrhoids, erysipelas of the face, and epididymitis. In the cases of psoriasis the disease was widespread, and in the interest of the patients Rohleder did not venture to omit the customary treatment of arsenic. In these cases, therefore, nafalan was only used as a substitute for chrysarobin, pyrogallol, or their derivatives, and the result was satisfactory. Uniform success did not follow the use of nafalan in cases of ulcer. Two varicose ulcers became worse under treatment, but 4 other cases of ulcer did well. Nafalan alone was not found to be of use in scabies. Excellent results were obtained by the use of nafalan in cases of burns of the first and second degree. No cases of burns of the third degree came for treatment during the three months described in the article. For haemorrhoids nafalan was applied in the form of suppositories, and externally as an ointment, and by such means the employment of morphine, cocaine, etc., could often be avoided. Nafalan proved a failure in a case of erysipelas of the face. Four cases of gonorrhoeal epididymitis improved under treatment. After a consideration of the cases the author concludes that nafalan is useful for diseases of the skin, affecting especially the superficial layers where a sedative effect is needed, and that its use is more particularly indicated for cases of burns and of eczema. It has no effect when marked infiltration of the skin is present, and it is not good as an antiparasitic. To determine its mode of action the author has examined the composition and the action of allied substances, such as naflatan, sapolan, petrolan, etc. All these substances consist of a hydrocarbon and of soap, and the action of them all appears to be due to the hydrocarbon, while the absence of any irritating action upon the skin depends on their freedom from acids and animal and vegetable fats. The sedative effect on inflamed skin, which all these naphtha-containing substances exert, is due to the production of an anaemia of the part, and they act therefore like ichthyol, thiol, etc. Sapolan and petrolan are almost unused. Nafalan and naflatan give very similar results, and these results in suitable cases are such that their general recognition can be only a matter of time.

PATHOLOGY.

(152) Experimental Thyroidism.

Stefano Balp (*Giorn. del. R. Accad. di Med.*, September and October, 1904) publishes a record of experiments undertaken to verify his previously-expressed views suggested by clinical experience. His view is that thyroidism is an endemic malady with epidemic recurrences, caused by a living germ or by poisons produced by living germs which enter the organism in various ways, but in epidemic recurrences almost exclusively by means of drinking water. The germ is to be looked for in dark, dirty, undrained, and unventilated stables, and reaches its greatest development when it enters the body of its host during endo-uterine life. The experiments were conducted by administering to young dogs wall scrapings and other products from suitable stables belonging to families affected with goître or cretinism. In some cases these products were sterilized by filtration, the success of the sterilization being tested by repeated cultural and microscopical examination. Three puppies of the same litter were treated with the stable products mixed in very small quantities with their food, in one case unfiltered, and in the other two filtered. A fourth puppy of the same litter was kept as a control. The three first puppies began at once to waste, in spite of abundant food, and their coats became rough. One after nine days of treatment had an evident enlargement of the thyroid, which was less evident four days later. The animal died seventeen days after the treatment began. Its weight was 1,600 gr., and the weight of its thyroid 3.2 gr., or 2 gr. to each kgr. of body weight. The second lived twenty-four days, and died suffering from lobar pneumonia. It weighed 2,470 gr., and its thyroid weighed 1 gr. for each kgr. of body weight. The third, treated with filtered products, lived twenty-seven days, and weighed 2,040 gr. Its thyroid weighed 1.15 gr. for each kgr. of body weight. The control, killed on the twenty-seventh day, weighed 2,580 gr. and its thyroid weighed 0.89 gr. for each kgr. of body weight. A second series of experiments was less fortunate, two of the dogs being stolen and the two remaining ones not belonging to the same litter, and not furnishing any valuable results. A further experiment consisted in weighing the thyroids of a litter of puppies killed at birth, the offspring of a bitch kept in a dirty stable during almost the whole period of gravidity and supplied with stable filth with its food. The weight of these thyroids was respectively 0.45 gr., 0.6 gr., 0.39 gr., and 0.67 gr. for each kgr. of body weight. A microscopical examination was made of sections of the thyroids of the two first dogs in the first experiment. The structure was more compact than that of the normal gland. The blood vessels were large, dilated, and full of blood; the glandular epithelium hyperplastic and hypertrophic, the follicles of small lumen, and almost empty, containing little colloid substance. The author compares these observations with those of Lubke, Roger, Garnier and Torri, Cristiani, Virchow, and others who have made histological examinations in cases of thyroidism, but hesitates to affirm that the lesions produced in his experiments are of a nature identical with those seen either in the atrophic or in the hypertrophic form of thyroidism. He sums up his results, saying: (1) By administering to suitable animals (puppies) toxic material from stables infected with thyroidism we can produce grave alterations of the thyroid, whether the infective material be subjected to previous mechanical sterilization or not. (2) So far as we can judge by histological examination of the thyroid, the alterations obtained resemble rather those due to a local specific affection of the thyroid than those caused by a simple hyperaemia o the thyroid or than those of a general disease without special localization in the thyroid gland. Finally, he states his belief that the thyroid function may be similarly disturbed by toxic products from any stables in the hygienic condition referred to above, even without the specific infection of thyroidism.

(153) Immunity against Cholera.

Strong (*Publications of the American Bureau of Government Laboratories*, No. 16, Manila, 1904) has been endeavouring to produce a new prophylactic against cholera. Acting on the suppositions that (1) the cholera toxin exists as an integral part of the bacterial cell; and that (2) it is set free after the death of the organism, and probably partly through the action of its own proteolytic enzyme, which is not destroyed at 60° C., he determined to find out whether the other immunizing substances (agglutinine and bacteriolysine) as well as the toxin could not be separated from the bodies of the bacteria by a process of autolytic digestion. He therefore took strains of cholera vibros known to possess good peptonizing powers, placed them in an aqueous solution, carefully killed them by heat, and digested them at 37°. He found that the receptors became separated off from the bacterial cells, and might be filtered off in solution. The injection of these free receptors into both man and animals resulted in the production of highly bactericidal and agglutinative blood serums. The antitoxic value of these serums was, however, only moderate. The subcutaneous injection into man of free receptors obtained in this way was not attended with any danger, produced practically no local disturbance, and caused only a slight general reaction. Hence Strong considers his method is a practicable one for producing a cholera-immune serum in man, and thinks it is highly desirable that his cholera prophylactic should be given a thorough practical test.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(154) Banti's Disease.

Lereboullet, in an address before the Congrès de Med. at Paris, October (*Gaz. de Hop.*, November 12th, 1904), expresses his disbelief in the existence of this disease as a separate clinical entity. Together with Gilbert he had collected all the published records of the disease, in none could the existence of the splenic enlargement prior to hepatic disease be shown. Almost all showed signs of old alterations of the liver. Alcoholism, malaria, and syphilis, acquired or hereditary, were responsible for some, in many others one of the biliary group of affections were present (biliary splenomegalic cirrhosis, chronic splenomegalic jaundice or hepato-splenomegaly) and could be substituted for the diagnosis of Banti's disease; at other times cholelithiasis or affections accompanying chronic angiocholitis are present. Pathological anatomy shows no marked differences between the lesions described in Banti's disease and those secondary to hepatic conditions. If the splenic enlargement is recent there is congestion, if old-standing fibrous thickening of the capsule and reticulum with atrophy of the splenic pulp and Malpighian bodies; but these lesions are not peculiar to Banti's disease, they occur in the "hepatic spleen" which is comparable to the cardiac liver or kidney. Banti's disease has therefore no autonomy clinically or pathologically. It has been described as a separate disease from our ignorance of the frequency of latent conditions of the liver of biliary and venous origin, and the difficulty of conceiving considerable enlargement of the spleen as a result of slight lesions of the liver. Infection, cholaemia, and passive congestion cause the development of the splenic enlargement, but congestion plays the predominant part. The clinical course—frequent association of gastro-intestinal haemorrhages with considerable diminution of volume of the spleen—is one proof. Anatomical examination affords others; the spleen after such haemorrhages is reduced to a third or a quarter of its previous size, its capsule is wrinkled and its consistence soft. Histologically, in spite of this reduction, it shows persisting congestive lesions with some sclerosis. The liver, though it may appear normal to the naked eye, histologically shows lesions of the whole portal tract or of the bile ducts alone; in the first case the hypertension is easily explained, in the second Lereboullet believes there is compression of the portal vein by the hypertrophied bile duct. Experiments have shown that dilatation of the biliary passages can disturb the portal circulation and produce ascites and enlargement of the spleen. The various consequences of portal hypertension do not always develop in a parallel way. Certain conditions of soil and of age favour the development of splenomegaly. Excluding some definite splenic lesions (tumours, cysts, leukaemia, splenic anaemia, etc.) we can conclude that primary enlargement of the spleen is the exception and that Banti's disease does not exist, and that very often a careful study of the liver will reveal a cause for the splenic enlargement apparently primary but really of hepatic origin.

(155) Gastric Ulcers.

A. L. Benedict (*Amer. Med.*, February 18th, 1905) urges the same general use of the term "ulcer" in the case of the stomach as of other parts of the body: First, because there is no unanimously accepted definition of gastric ulcer; and, secondly, if there were, it would be impossible to make all cases correspond to it. Without haemorrhage or opportunity for inspection the diagnosis of ulcer can only be tentative, but a diligent search should be made for small haemorrhages. If haemorrhage is clinically demonstrated to be from the stomach, it almost always means an ulcer in the proper general sense of a solution of superficial continuity. He classifies ulcers of the stomach, including certain conditions associated with haemorrhage, as follows: (1) Peptic ulcer, the most frequent, occurs in patients who do not have apoplexy, thrombosis, embolism, and organic vascular lesions elsewhere, and in whom a primary organic basis for the necrosis is untenable. He asserts that the digestion of the necrotic area is not simply an erosion by excess of HCl, and he is also sceptical as to the uniform association of hyperchlorhydria and peptic ulcer. (2) Superficial erosions due to chemical and thermic caustics. (3) Ulcers due to vascular lesions, occurring in syphilitics and in elderly persons. He reports such a case in detail and alludes to others. (4) "Catarrhal" ulcers, analogous to eczematous ulcers of the skin, not strictly separable from the foregoing, but without definite, conspicuous, local vascular lesions. (5) Varicose ulcerations, due to venous obstruction, and, practically, almost always to hepatic sclerosis. (6) Toxaemic diapedesis, as in scurvy, purpuras, etc. (7) Vicarious menstruation. (6 and 7 are not true ulcers.) (8) Gangrenous ulcer. Such cases usually illustrate 3 and 4, and, still more frequently, cancerous ulceration, and do not really constitute a distinct pathological type. (9) Phlegmonous ulcers. Unless due to pyaemia or subphrenic or other abscess contiguous to the stomach, such ulcers are usually due to iodine poisoning. (10) Specific ulcers include exanthematous, pneumococcic, tuberculous, syphilitic, actinomycotic, and similar conditions due to special germs, and, by an extension of terms, those due to the breaking down of neoplasms, especially cancer. (11) Traumatic ulcers, due to foreign bodies, hard particles in food, crushing injuries, gross parasites, etc.

(156) Apyretic Pneumonia.

Lovera (*Gaz. degli Osped.*, January 1st, 1905) reports the case of a robust, healthy man, aged 62, who was admitted into hospital with an ordinary febrile attack of acute lobar pneumonia affecting the right lower lobe behind. This pursued an ordinary course, and resolved without complications on the tenth day. Two days later the patient developed pneumonia of the right upper lobe, which began to clear up on the thirteenth day, and completely disappeared on the eighteenth. The unusual feature about this second attack, which was accompanied by the typical signs of lobar pneumonia, was the complete absence of pyrexia during the whole period, the temperature (rectal) being always below 37.5° C. In the second attack there was considerable delirium and well-marked orange sputa. Apyretic pneumonia in the aged or prematurely broken-down subject is not uncommon, but in the author's patient the man was of robust and sound constitution, and made a complete recovery. The blood serum taken from the arm agglutinated 1 to 5 with the Fraenkel diplococcus. The author has collected 3 or 4 similar cases of apyrexia in pneumonia, but they are very rare.

(157) The Cerebro-spinal Fluid in Epidemic Cerebro-spinal Meningitis.

J. H. Bailey (*Med. Record*, February 11th, 1905) has made a cryoscopic study of 69 specimens of cerebro-spinal fluid, and though the results are not yet available for practical purposes they have scientific value. Using T as a symbol for the total freezing point of the cerebro-spinal fluid, some of the conclusions reached are as follows:—Upper limit of T is -.815; lower limit, -.50—a variation of -.315. The vast majority of cases, however—79 per cent.—ranged from -.52 to -.64, a variation of only -.12. Average T is -.575, very close to the normal freezing point of blood. T oscillates much less than the freezing point of urine. The greater part of T is due to the sodium chloride content. T varies not only in specimens from different cases, but also in specimens from the same case at different times. T is not of any prognostic significance. Some of the patients that recovered showed a high T, others a low T, while the same is true of several cases that terminated fatally.

SURGERY.

(158) Removal of Tuberculous Vesiculae Seminales.

Legueu (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 5, 1905) describes with much detail the technique, results, and indications of the operation of spermatocystectomy which he has performed in 6 cases of tuberculosis of the vesiculae seminales. He rejects the inguinal method on account of its difficulties and inadequacy, and prefers a perineal operation carried out on the same lines as the procedure for perineal prostatectomy. The latter method ensures free access to both vesicles, and the vas deferens may be thus readily liberated, so that its subsequent removal by an incision in the groin and scrotum is rendered quite easy. If the perineal operation be sometimes rendered very difficult by adhesions, the inguinal operation, it is pointed out, would, under such circumstances, be attended with still greater difficulty. The immediate results in all the author's cases were favourable. One patient died after an interval of twelve months from pulmonary tuberculosis,

four patients operated on between 1900 and the end of last year remain in a good condition, whilst in the sixth case the date of the operation is too recent to permit of any definite statement. This operation, the author states, is rarely indicated, as tuberculosis of the vesiculae seminales is usually benign and shows a natural tendency to spontaneous cure. The cases in which he would advise the operation are those (1) in which there are signs of extension of the disease from the primarily affected vesiculae to the epididymides and testicles; (2) in which the caseation of the vesiculae has occurred and a large cavity has been formed behind the bladder and prostate; and (3) in which the vesicular disease, though apparently slight and passive, has set up irritation of the bladder and frequent and painful micturition. The operation the author holds to be decidedly justified in cases of perineal fistulae, although these may close spontaneously, and surgical treatment in such cases is attended with much difficulty. He would also operate when the swollen vesiculae show signs of softening and of commencing suppuration. In cases of quiescent tuberculosis of one of the vesiculae seminales ligature of the corresponding vas deferens will, the author thinks, prevent a downward propagation of the tuberculous disease and save the testicle.

(159) Growth of Bone in the Tonsil.

W. W. CARTER (*Med. Rec.*, February 4th, 1905) reports a case in which bone and cartilage in process of transformation into bone were found embedded in the connective tissue of the tonsil. He believes that in these cases the bone originates from metaplastic changes in the connective tissue, and not from the branchial arch, for the following reasons: (1) At the time that the tonsil develops the branchial arch has disappeared. (2) If the bone came from the arch, it should be uniformly distributed through the organ, and not confined, as it usually is, to the connective tissue. (3) The natural sequence of development of osteomata is from connective tissue, through cartilage to bone. This process is clearly shown in the specimen taken from his case. (4) The analogy of other organs shows that cartilage and bone are frequently found in the connective tissue framework of such glands as the parotid, the mammary gland, and the testis, when these have been subject to chronic inflammation. But since bone does not develop in every tonsil that has been subject to proliferative connective-tissue changes, when it does occur some local predisposing tendency to its formation must be assumed.

(160) Dacryocystorhinostomy.

A. TOTI (*Il Policlin.*, December, 1905) urges the claims of his operation of dacryocystorhinostomy as the most thorough and at the same time conservative treatment for severe cases of suppuration and fistulae of the lachrymal sac. The operation was first described in *La Clinica Moderna*, 1904, No. 33. The cases (now seven in number) have been for the most part seen by numerous ophthalmologists, and the author complains that a recent writer has recommended extirpation of the sac, usually an unnecessary mutilation. The steps of the operation are not described in detail in this paper. As an illustration of the kind of cases for which his operation is suitable, Toti quotes the following: A girl, 6 years of age, had suffered for two years with purulent right dacryocystitis, complicated by very severe purulent conjunctivitis. There was a fistula of the lachrymal region produced and maintained by frequent attacks of acute peridacryocystitis. There was deformity of the angle of the eye and secondary ulcerations had formed. There was also a chronic indurated inflammation of the soft tissues of the lachrymal region. She was operated upon eight weeks before, and the lachrymal fistula is closed by a healthy and solid cicatrix. Lachrymation is at at end. The conjunctivitis has lost its purulent character, and the deformity at the angle of the eye is already modified for the better. In a final note the author states that his operation is the same in principle as that practised in similar circumstances by the ancient Greeks and Romans, but is more successful because better adapted to the anatomy of the parts concerned.

(161) Intermuscular Haemorrhage from Muscular Action.

A. H. SMITH (*Med. Record*, February 4th, 1905) says that a sharp distinction is to be drawn between those cases in which the escape of blood within the intact sheath of a muscle is the important factor, and those in which laceration of muscle and sheath plays the principal part. Contrary to what might be expected, the former sort of cases may give rise to greater immediate suffering and more lasting impairment of function than the latter. While almost any muscle may be the seat of rupture, those that act through the tendo Achillis are especially liable to the accident. The strain on this structure in walking is at certain moments equal to three times the weight of the body, and if it is brought to bear suddenly the tendon may be ruptured, or some of the muscular structures which act through it may give way. Inco-ordination of the fibres of a muscle may also cause some of them to rupture, and this irregular contraction probably is the cause of the lesion in those cases in which there is no conscious muscular effect at the moment of the accident. The author describes two cases of haemorrhage into the calf muscles due to muscular action, and two other cases, affecting the gastrocnemius and the sternomastoid muscles respectively, in which there was a demonstrable rent in muscle and sheath. In the former two cases the effusion of a moderate amount of blood into the confined space afforded by the intact sheath caused much pain and protracted disability, whereas in the latter the suffering was comparatively slight, and recovery was relatively prompt.

MIDWIFERY AND DISEASES OF WOMEN.

(162) The Treatment of Eclampsia.

IN summing up the present opinions as to the best methods of treating eclampsia, R. Glitsch (*Deut. med. Woch.*, October 6th and 13th, 1904) finds that Fehling's theses are mostly accepted. These are—(1) to deliver the patient as rapidly as possibly and at the same time carefully, without considering the life of the child too much. (2) To carry out all gynaecological manipulations under anaesthesia on account of the increased reflex irritability. (3) To employ scrupulous antisepsis or asepsis in delivery. (4) To individualize carefully in employing cardiac poisons such as chloroform, chloral hydrate, morphium, veratrum—using the smallest quantities of each. (5) To excite as carefully and conservatively as possible the secretory activity of the kidneys, skin, and intestinal tract in order to remove toxins. (6) To partially remove at least or dilute the poisonous substances circulating in the blood by venesection, or by subcutaneous, intravenous, or rectal injection of saline solution. (7) To employ excitants as camphor, ether, caffeine, in threatening cardiac failure. Some advise hot baths to be followed by "packing," chloroform anaesthesia for many hours, enemata of chloral hydrate, and in many cases large subcutaneous injections of morphine, and delivery as soon as this can be carried out without undue damage to the mother. Others believe that the delivery should be undertaken very early—as a rule, immediately after the first fit. There is much difference of opinion as to the best method of delivery. Dührssen advises his vaginal Caesarean section when a natural delivery cannot be rapidly carried out without injury to the mother; then there is the classical Caesarean section, which is now fast losing favour; and, lastly, there is the method of artificially dilating the cervix with dilators. Champetier de Ribes's bag finds favour with many, while the metal dilators have also a large following. Of the latter, Bossi's four-bladed dilator, or modification of this instrument, which dilates by a screw, is the most advised. Several observers declare that these dilators always cause tears in the cervix, which frequently are of considerable size. Incision of the cervix appears to be considered by the majority as dangerous, and likely to increase the risk of sepsis. Those who advise a conservative or expectant treatment proceed as follows: Ahlfeld applies a Jaquet packing to every woman who shows albuminuria, dropsy, anuria, and oliguria. This consists of a blanket wrung out in water and a dry blanket covering this. The patient is completely undressed, and the whole body, including the arms, are enveloped in the pack, care being taken not to impede the respiration. The pack is allowed to remain on for about three hours, and some effervescing water is given with milk. Subcutaneous infusion of saline solution may also be carried out to increase the renal activity. The delivery is completed when the os is sufficiently dilated. When the case becomes desperate the os can be dilated by the "bag," and the membranes should be punctured early. If the cervix is dilated, but not sufficiently to allow the head to pass, it may be incised by scissors, and delivery completed by forceps. Chloral is to be given in doses of from 1 to 2 grams by enema, and

morphine may be injected in doses of 1 cg. Veit advises 3 cg., but Ahlfeld considers this dose dangerous. When oedema of the lungs and cyanosis begin, bleeding may save the patient's life. Many gynaecologists consider that bleeding before the delivery is risky, since one does not know how much blood the patient may lose then. Veratrum viride is said to act well in eclampsia by English and American observers, and tropococaine injected into the subdural sac is also praised by some. Thyroidin, too, finds several supporters. Many other points are mentioned, and in most cases the various methods of treatment are ascribed by the author to the originators and to those who warmly support them.

(163) Blood in Milk: Intramammary Haemorrhage.

Bouchacourt and Jeannin (*L'Obstétrique*, January, 1905) observed this rare condition in a woman admitted pregnant into hospital, with oedema of the legs and vulva and hydramnion, but no albuminuria. Ten days later she was spontaneously delivered of a child over 7¾ lb. in weight. During delivery, a little chocolate-coloured fluid escaped from both nipples, and it appeared that this discharge had been noticed for over a week. It continued more freely during the first eight days of the puerperium; the mother's health was good, but the child was nourished artificially. At the end of a week the patient was isolated, as she showed symptoms of bilateral galactophoritis, with rise of temperature in the evening. After a week of appropriate treatment the patient regained perfect health, and the milk for the first time became white. On analysis of the red discharge, it was found, on settling, to divide into three layers, the deepest being pure blood, the most superficial milk poor in butter, the middle a mixture of blood and milk. Colonies of staphylococcus aureus and bacillus coli were developed in cultures. The blood could only have proceeded from an intramammary haemorrhage, but the cause of the bleeding was unknown, nor could the attack of galactophoritis during the puerperium be explained, as the child was not suckled, and there was no evidence of infection through the genital tract.

(164) Gonorrhoea in Puerperium.

Lepman (*Monats. f. Harnkrankh.*, Part 1, 1904) noted that in half the cases of gonorrhoea the infection did not rise above the os internum, but menstruation and the puerperium often caused this limit to be overcome. Usually in the puerperal cases the gonorrhoeal infection is of very old standing. In childbed the invasion of the uterine cavity by the gonococcus is not associated with rise of temperature, especially during the first week, but later on the tendency to ascent of the germ is greater and there is fever. The proper treatment is absolute rest in bed for a month or five weeks. The vagina must be washed out with caution; on no account should intrauterine injections be used or caustics applied to the endometrium.

(165) Apoplexy of Ovary.

Vilumara (*Zentralbl. f. Gynäk.*, No. 44, 1904) attended a patient, aged 40, for dysmenorrhoea, followed later on by convulsions during the menstrual period. The cervix was excised without any benefit. Vilumara examined the patient, and found the uterus retroverted, hard, but not enlarged. The right ovary was enlarged and tender. The right round ligament was shortened, and the right ovary removed. In its substance lay two tumours as big as cherries, of a red colour, whilst the entire ovarian tissue was infiltrated with blood. No Graafian follicles were to be found.

THERAPEUTICS.

(166) Intravenous Administration of Salicylates.

Rubens (*Deut. med. Woch.*, January 19th, 1905) has tried Mendel's method of administering sodium salicylate intravenously, and reports on the results obtained in some 60 cases. He injected 2 c.cm. of Mendel's mixture, which contains 17.5 per cent. of sodium salicylate and 2.5 per cent. of caffeine. Thus the dose of the sodium salicylate injected is 0.35 gram, or about 5½ gr. He finds that this quantity is so small that noxious effects cannot arise, that the stomach is completely protected from ill effects, that the injections are painless, and, what is more important, that the treatment is absolutely free from danger. The only conditions necessary to make the injections safe are that both the syringe and the fluid must be aseptically clean. He prefers to use a glass syringe, so that one can readily remove any air bubbles present before injecting. He buys his solution ready sterilized, in sealed tubes, under the name of "attritin." When injected into the veins one sees the specific action of the salicylates in rheumatism at its best. The action is extremely rapid. In illustration of this he quotes a case of rheumatic fever, in which many joints were reddened, painful, and swollen. The patient was suffering considerably, but about five minutes after the first injection all the affected joints became free from pain and swelling, and the patient wanted to get up. The pain, etc., however, returned again in about half an hour. He has gained the impression that the actual duration of the illness is not cut shorter by this treatment than by the ordinary methods of applying the drug. So although the ultimate results of the intravenous method are not better than those of the internal treatment in acute rheumatism, he finds that matters are different in neuralgia. He cites cases in which the intravenous injections produced rapid and complete cures. This appears to be especially true as far as neuralgia following influenza is concerned. In certain cases he employed the injections for differential diagnosis purposes, and found that he could rely on the results; this he illustrates by citing two cases of trauma, in the one of which pain in the back was said to have followed straining to lift a very heavy stone, but the pain disappeared completely on injection; while the second case complained of severe pain in the back after having strained in lifting a heavy object. Here no relief resulted from the injection, and it was found that the pain was directly due to trauma. As a rule, he found the intravenous application of use where the internal administration usually does good, but in the acute stage of influenza he found that it does not work. On the other hand, it acts well in dry pleurisy and in pleurisy with effusion. In all, he is much taken with the method, and advises others to adopt it.

(167) Treatment of Pneumonia in Infants.

W. P. Northrup (*Med. Record*, February 18th, 1905) reports two cases of pneumonia in infants, in which the windows of the sick room were kept open day and night; both children recovered. He believes it will become more and more the rule to treat pneumonia in this way. Cool, pure air, he says, reddens the blood, stimulates the heart, improves digestion, quiets restlessness, and aids in overcoming toxaemia. He concludes with the following prescription for killing a baby with pneumonia: Crib in far corner of room with canopy over it. Steam kettle; gas stove (leaky tubing); room at 80° F. Many gas jets burning. Friends in the room, also the pug dog. Chest tightly enveloped in waistcoat poultice. If child's temperature is 105° F. make a poultice thick, hot, and tight. Blanket the windows, shut the doors. If these do not do it, give coal tar antipyretics and wait.

(168) Treatment of Trachoma by Radium.

H. Cohn, in a preliminary note to the *Berl. klin. Woch.*, January 2nd, 1905, states that he has experimented with radium in the treatment of granulations of the conjunctiva, and, as far as he can discover, is the first to publish the results of this treatment. Using 1 mg. of radium bromide enclosed in a thin glass tube of 3 cm. length and 2 mm. diameter, he touched each granule in trachoma and follicular catarrh of both upper and lower lids. It is easy to pick out each granule with the end of the sealed tube. The exposure was carried out daily for from ten to fifteen minutes, and resulted in a very short time in the entire disappearance of trouble which had resisted other forms of treatment. So far he has only been able to treat 3 such cases; and while he realizes that it is impossible to form definite conclusions from such a small number, he regards the rapid and painless cure as something more than accident, and further emphasizes that neither the lid nor the sight were in the very slightest degree damaged. He thinks that it will be wise for others to try this treatment.

(169) Copper Foil as a Purifier of Water.

Henry Kraemer (*Amer. Med.*, February 18th, 1905) carried out a series of experiments for testing the efficiency of the copper method for the purification of drinking water. The experiments were made mostly with copper foil rather than copper sulphate. It was found that in every instance colon and typhoid bacilli were completely destroyed in less than four hours by placing strips of copper foil in water containing pure cultures of these organisms. In the duplicate experiments, namely, in those in which no copper foil was used, it was found that the organisms persisted and continued to multiply even for sixty days. Kraemer considers it extremely fortunate

that in the copper treatment of water a method has been devised which is so effective in destroying intestinal micro-organisms and which can be applied so easily on a large scale and so safely by the average householder. The method suggested for domestic purposes consists simply in placing a piece of copper foil 3½ in. square in a quart of water, allowing this to stand from six to eight hours, or overnight, at the ordinary temperature, and then removing the foil or drawing off the water.

(170) Cobra Venom and Antitoxin.

PRESTON KYES (*Berl. klin. Woch.*, 1904, No. 19) found, as the result of a previous investigation, that for cobra venom, which behaves like an amboceptor and needs the addition of some other substance in order to produce haemolysis, the substance which plays the most important part in developing this state of activity is lecithin. Starting from the principle that a rich lecithin content is requisite for the development of the highest activity of the cobra venom amboceptor, he thought it would be useful to adopt this optimum condition of the presence of an excess of lecithin in order to control the results obtained by partial neutralization of the venom. He accordingly mixed a fixed quantity of cobra venom with varying amounts of Calmette's antivenene, and after a definite time determined the amounts of these mixtures which haemolyzed 1 c.cm. of 5 per cent. ox-blood to which 0.2 c.cm. of a 1 per cent. lecithin solution had been added. He found that the progress of saturation between venom and antivenene observed the type of saturation which obtains between a strong base and a strong acid—that is, the saturation curve was a straight line. The inference is that the cobra-venom amboceptor is a single toxin of a high degree of avidity. The discrepancy between these results and those obtained by other authors is due to the presence in these experiments of an excess of lecithin. When the same experiments were repeated with the minimum amount of lecithin necessary to produce haemolysis quite different results were obtained. Equal amounts of antitoxin no longer neutralized equal amounts of venom, but the first 0.75 c.cm. of antitoxin added always united with a greater amount of venom than the amounts subsequently added. A saturation curve was thus obtained resembling those produced by Myers, Flexner, and Noguchi, the deviation from the straight line being, in the author's opinion, due to the deficiency in lecithin.

(171) Eucaine in Sciatica.

LANGE (*Münch. med. Woch.*, December 27th, 1904) claims good results in cases of sciatica by injection of eucaine by Schleich's method. From 70 to 100 c.cm. of a 10 per cent. solution of eucaine in saline solution are injected into the nerve at its point of emergence. At this point the nerve is about 7 cm. from the surface. The entrance of the needle causes a sensation like an electric shock, which soon passes off. The pain is said to disappear in a few hours, but the injection in most cases has to be repeated in a few days. In one case 0.15 gram of eucaine was used with no ill effect.

PATHOLOGY.

(172) The Pathology of Fat and Fatty Degeneration.

CHRISTIAN (*Bull. Johns Hopkins Hosp.*, January, 1905) discusses the recent work upon this subject. The general use of osmic acid in the past has led undoubtedly to error in our estimates of fatty changes. Its disadvantages are its imperfect penetration into tissues, the fact that it stains other substances than fat, and does not stain all forms of fat. Sudan III and Scharlach R, though having disadvantages, give more satisfactory results. The chief sites of adipose tissue are in the subcutaneous tissue, in the omentum and mesentery, retroperitoneally, especially about the kidney, and to a less extent beneath the pericardium and parietal pleura. The most striking feature of adipose tissue is its great vascularity. The intimate relation between blood capillary and fat cell must be very important, and the author regards adipose tissue not merely as a passive storehouse for fat but rather as a diffuse fat vascular organ in which great activity of fat synthesis or fat analysis may take place. In other organs a distinction must be made between fat that can be visually demonstrated in a tissue, and fat that can be extracted from that same tissue. Visually demonstrable fat is present normally in very many cells of the body, while extractive fat occurs in practically all of the tissues. Under abnormal conditions visually demonstrable fat appears in cells in increased amount, and is an index of cell injury. Fatty infiltration may be regarded as the physiological appearance of fat in normal cells, and fatty degeneration as the appearance of fat in injured cells; the fat is an index rather than the direct result of the cell degeneration. In both cases the origin of the fat is probably the same, and mainly from without the cell by transport from fat dépôts elsewhere, but may arise within the cell from fat-related bodies, not from proteid. Thus of fatty degeneration in the sense of Virchow we have no proof, but at present knowledge is too unsettled to be justified in the creation of new terms.

(173) Histogenesis of the Tubercle.

MILLER (*Journ. of Path. and Bact.*, November, 1904) publishes an account of an exhaustive research undertaken by him to determine why the tissues react in such a peculiarly distinctive and special manner to invasion by tubercle bacilli, as well as the origin and processes of development of those cells by which the tubercle is characterized. In a summary of the literature, which includes 130 references, he points out that some writers consider the action of the tubercle bacillus to be almost entirely that of a foreign body, and touches on the two schools of opinion with regard to the origin and mode of formation of giant cells, the one, led by Weigert and Baumgarten, holding the theory of progressive division of a single cell; and the other, led by Metchnikoff, that of confluence of several cells into one. His experiments consisted of injections of tubercle bacilli into a radicle of the mesenteric vein of the rabbit, and microscopical examination of the tubercles subsequently formed in the liver. Six rabbits were thus inoculated, and killed at varying intervals after; three other rabbits were similarly treated with dead bacilli, and four more with foreign bodies (cinnabar and lycopodium spores). The tissues reacted similarly in the early stages to all three irritants, except that in the two latter the reaction was not so acute as in the former. This most painstaking investigation leads Miller to some interesting conclusions, which are chiefly as follows: The earliest sign of reaction is the formation of a fibrinous coagulum, with a leucocytosis in which both polymorphonuclear and mononuclear leucocytes take part; in forty-eight hours' time the former are few, while on the latter the burden of sustaining the reaction is falling. This burden is also partly borne by the endothelial cells and the fixed connective tissue cells of the part, but they are not so important as the mononuclear leucocytes. Many of these are early changed into the "epithelioid" cells characteristic of the tubercle; these, again, fuse to form giant-cells, the peculiar prolongations of which represent the connexions of epithelioid cells with their former neighbours, stretched in the process of fusion. A giant cell is thus, according to him, formed by cell fusion, not by cell division, except for a few which possibly arise by amitotic nuclear division. He ascribes phagocytic functions and powers to the giant cells, and looks upon a tubercle as an elaborate means of phagocytosis, all its elements being principally derived from the mononuclear phagocytes, which are specially used on account of their capacity for prolonged resistance, a capacity specially needed for reaction to invasion by such a persistent irritant as B. tuberculosis. Quite a secondary part in the formation of the tubercle is taken by the fixed cells of the invaded tissues.

(174) Etiology of Myocardial Insufficiency.

J. H. PRATT (*Johns Hopkins Hosp. Bull.*, October, 1904) gives an outline of the origin and development of the theory which has attributed the symptoms of cardiac insufficiency in middle and advanced life to fatty metamorphosis of the cardiac muscle. For this he holds Rokitansky, Virchow, Quain, and others responsible; for these investigators, having found the striking appearances manifested by a heart whose muscle has undergone fatty change, thought that such a grave morbid condition could not fail to produce proportionately grave symptoms. Pratt then quotes much evidence recently collected (particularly by the Leipzig school) which goes to prove (*a*) that fat droplets within the cells of the cardiac muscle do not arise from katabolism of the cell proteid, but are deposited there by the blood, constituting, in fact, nothing more than an intracellular form of fatty infiltration; (*b*) that cardiac muscle which has undergone this change is not necessarily insufficient; and (*c*) that the symptoms of cardiac insufficiency are in reality nearly always found *post mortem* to be due to the presence of coronary sclerosis, with or without myocardial fibrosis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(175) Muco-Membranous Colitis and Fatal Syncope.

MUCO-MEMBRANOUS colitis gives rise to various crises of reflex character. Dyspnoea, vertigo, tremor, and temporary cardiac dilatation have been described by Potain, and Mathieu has observed attacks of general prostration with tendency to syncope. Journeault records the following cases (*Arch. Gén. de Méd.*, January, 1905) in support of these observations: The first case was a woman, aged 72, who suffered from slight mucous colitis. One morning she took a saline purge, which had no result. She was found dead in her bed eighteen hours after taking the medicine. She had been seen a short time before death, when restlessness and tremor were noted. She could not keep quiet. There was no pyrexia and the pulse showed no alteration from its general condition of slight irregularity, which had been present for years. There was absence of oedema and albuminuria was known not to exist. There had been no symptoms of angina pectoris. The second case was a woman, aged 53, dyspeptic and constipated. She also suffered from mucous colitis of medium severity. Following the severe fatigue of a sea journey, an acute exacerbation of colitis appeared, accompanied by severe pain the whole length of the colon, more marked on the left side. There was no pyrexia; there were general malaise and sensation of cold, but no albuminuria. An enema brought away some scybalous masses and casts. About twelve hours after the beginning of these symptoms, the pulse, hitherto normal, became feeble and irregular. There were cold sweats. The patient died of syncope within thirty-six hours of the beginning of the attack. The writer regrets that the impossibility of *post-mortem* examination in these cases renders them necessarily incomplete: but in view of the fact that syncopal attacks are by no means rare in membranous colitis, often preceding the expulsion of faecal masses and mucous casts, he raises the question of the possibility of these attacks being analogous to angina pectoris and as liable to terminate fatally. He points out the importance of being acquainted with such an event, otherwise the prognosis of membranous colitis may be regarded as too uniformly favourable.

(176) Latent Haemorrhage in the Digestive Tract.

TEDESCHI (*Gazz. degli Osped.*, January 22nd, 1905) reports researches on the detection of minute traces of blood in the faeces. He takes 20 to 25 gr. of faeces, adds 15 to 20 c.cm. of ether, shakes well and adds 5 to 7 c.cm. of acetic acid. To the extract he adds some drops of oil of turpentine and fresh tincture of guaiacum; if blood is present a violet-blue colour is seen. A similar and more delicate test is the alcoholic solution of aloin (70 per cent.), which gives a cherry-red colour if blood is present. From experiments made on the author himself, it appears that not less than 10 to 15 c.cm. of blood introduced into the intestinal canal is necessary to give the above reactions. Clinically, he found that in cancer of the stomach this test gave constant positive results, and he says that it might be of use in differentiating between simple chronic gastritis and malignant disease. Again, it is useful in distinguishing between gastralgia and latent gastric ulcer. As a corollary he affirms that if in any given case of supposed gastric ulcer traces of blood are found in the faeces in spite of adequate treatment, one should give a reserved prognosis. In typhoid some cases appeared to have a premonitory slight haemorrhage, detectable by the author's method some days before any obvious haemorrhage occurred. Similar results were obtained in jaundice and hepatic cirrhosis. In anaemia the results varied, sometimes positive, sometimes negative. On the other hand, in the anaemia of ankylostomiasis the reaction was constantly positive. In uncomplicated chlorosis no blood reaction was ever obtained.

(177) Paresis of the Trochlear Nerve in Tetanus.

E. ZAK (*Zentralbl. f. inn. Med.*, November 5th, 1904) reports the following case: A girl, aged 18, was admitted to hospital on May 6th. Four weeks previously she had trod on a rusty nail and injured the right foot while working in a garden. The wound healed in a week, and she remained in good health until May 2nd, when darting pains appeared in the right shoulder. Two days later every joint in the body was stiff, and on May 5th there was trismus. General tonic spasms followed. There were a well-marked risus sardonicus, trismus, contraction of the muscles of the back, and rigidity of the abdominal walls. The slightest touch was followed by violent general tonic convulsions. The patellar reflexes were exaggerated. The urine contained a trace of albumen and acetone. The intrinsic and extrinsic muscles of the eye were normal. The patient was anaesthetized and 50 c.cm. of a solution of Paltauf's solid antitoxin was injected deeply into the muscles at the back of the right thigh. The dural sac was then punctured, and antitoxin was injected in amount equal to the small quantity of cerebro-spinal fluid which had escaped. A linear, slightly tender cicatrix on the ball of the right great toe was excised. With it a rabbit was inoculated; it died of tetanus. The next day the upper limbs were less rigid, and on May 9th the attacks of tetanic spasms were less frequent and less painful. The patient complained of diplopia, which she stated had existed since the day of admission. Examination with coloured glasses showed that there was paresis of the right trochlear nerve. The right naso-labial furrow was also slightly less distinct than the left. The general condition improved and she was discharged on June 6th, slight diplopia persisting. On June 11th, both the trochlear paresis and the difference between the two sides of the face had disappeared. The writer does not lay much stress on the latter symptom, owing to its slightness. But the paresis of the fourth nerve was well-marked. Paresis or paralysis of ophthalmic muscles has been occasionally observed in tetanus, but hitherto only in cases in which the eyeball was injured. Similarly in tetanus following head injuries, the facial nerve may become paralysed (cephalic tetanus). According to Neumann, in paralysis of ophthalmic muscles, the oculomotor nerve is invariably, and the abducens and trochlear nerves are occasionally, affected. The muscles of the injured eye or of both eyes may be paralysed, but never those of the sound eye alone. The occurrence of ophthalmoplegia in tetanus due to a peripheral injury is probably unique.

(178) The Clinical Forms of Gastric Carcinoma.

BARD (*La Sem. Méd.*, August 24th, 1904) emphasizes the importance of grouping cancers of the stomach according to their clinical symptoms, rather than their mere pathological appearances. He divides them first into two groups: pyloric and extrapyloric; in the former troubles of motility and of passage predominate; in the latter glandular perversions and digestive troubles; hence we have two great clinical syndromes. Each group he again subdivides into forms *typiques*, *frustes*, and *larvées*. The pyloric forms, when typical, produce dilatation of the stomach; they are easy to diagnose from other cancers, difficult from other forms of stenosis. There are three varieties: (1) Annular stenotic cancer, (2) juxtapyloric cancer with secondary stenosis, (3) prepyloric ulcerative cancer. In (1) and (3) cachexia is often absent. The distinction between juxtapyloric cancer on the side of the small intestine and primary stenotic cancer is important. The former is separated by two signs. The later supervention of the syndrome of stenosis and characteristic vomiting, which in place of appearing first, as in the primary form, is preceded by a phase of simple dyspepsia, emaciation, and loss of strength; and, secondly, the production of hypertrophy of the stomach without notable dilatation and descent of the colon. Stenosis following late in a patient already anorexic, on an organ already invaded, and fixed by adhesions, cannot exercise on it an effect as powerful as on a healthy organ keeping its digestive power and subject to copious ingesta. Pyloric ulcerative cancer has a slower progress, is more subject to remittances, and it causes more severe pain and more frequent haemorrhages than the other two forms. The stenosis is more spasmodic than organic, and the cachexia is little marked. This variety is the result of cancer developing upon an ulcer. The form *fruste* is the colloid cancer. This produces pyloric insufficiency, not stenosis; there is no dilatation, habitual diarrhoea replaces the vomiting of typical forms, and cachexia is marked. The form *larvée* is represented by the cylindroidal submucous variety, its cancerous nature is still contestable. It stimulates oesophageal trouble, vomiting comes on rapidly after food, and there is considerable diminution in the size of the stomach. Extrapyloric forms: The

typical ones answer to the ordinary classical description of stomach cancer. The *formes frustes* are two: (1) a painful dyspeptic form simulating ulcer or gastritis; and (2) a cachectic form without gastric phenomena. The *formes larvées* simulate pernicious anaemia, cancer of the oesophagus or liver, tuberculous peritonitis, etc. The author thinks operative measures are most satisfactory in annular pyloric cancer, ulcerative forms, and the dyspeptic type of extrapyloric cancer.

SURGERY.

(179) Cerebral Puncture.

Neisser and Pollack (*Mitteilungen aus d. Grenzgebiet. d. Med. u. Chir.*, Bd. xiii, Hft. 4 and 5), in a lengthy paper indicating an important advance in the diagnosis and also in the treatment of cerebral disease, describe a simple method of cerebral puncture through the cranial wall, which they have systematically practised in suitable cases—106 times on 36 patients. By means of a fine borer worked under gentle pressure by an electromotor an orifice 2½ mm. in diameter is made through scalp and bone. The differences in resistance offered by the external and internal tables and the diploë can, it is stated, be readily distinguished, and, after some little practice, injury to the dura mater can be readily avoided. Through the opening thus made a fine needle attached to an aspirating syringe is introduced, and passed into the portion of the brain suspected to be the seat of disease. General anaesthesia may be dispensed with, it being necessary only to freeze the surface of the skin by ethyl chloride. The perforation of the cranial wall causes very slight, if any, pain. This method of exploration should not, it is hinted, be applied except under very decided indications, to the lowest part of the region of the middle convolutions, to the facial and hypoglossal centres, and to Broca's convolution, in order to avoid the danger of wounding a large blood vessel. In 11 cases the presence of effused blood in the brain was revealed by puncture, in some of which the clinical history and the symptoms failed to indicate haemorrhage. In 2 of these cases the effused blood was removed by aspiration, the patients making a good recovery. One case is referred to in which a large intradural haematoma, after having been diagnosed by puncture, was exposed and removed by trephining. The methodical application in cases of suspected intracranial haemorrhage of the exploratory method advocated by the authors would, it is urged, save much time and anxiety on the part of the surgeon and undue loss of blood on the part of the patient. A number of cases are reported in which haematoidial, cystic fluid, pus, sero-purulent fluid, tumour tissue, and cerebro spinal fluid were withdrawn after puncture of the cranium. Special attention is directed to 2 of these cases as being good and convincing instances of the value of this method. In an almost moribund patient presenting very acute symptoms of an unlocalizable cerebral tumour, a puncture made into the posterior cranial fossa on the left side gave exit to an albuminous fluid, and thus established the diagnosis of a meningeal cyst. The puncture of the cranial wall was repeated six times in the course of fifteen months, on each occasion with prompt cessation of the threatening symptoms. In the second case the author's method of exploratory puncture revealed in a very decided manner the situation of a cerebral tumour that could not have been otherwise localized.

(180) Intestinal Obstruction after Suppurative Appendicitis.

Federmann (*Archiv f. klin. Chir.*, Bd. 76, Heft. 4) publishes a table of six cases treated by Sonnenburg, of intestinal obstruction from adhesions, after suppurative appendicitis. This form of mechanical obstruction occurring sooner or later after appendicitis whether treated or not by operation is, the author states, a rare complication. It is usually the result of multiple adhesions formed by chronic peritonitis set up by small encapsuled inflammatory deposits, or by a large and single pelvic abscess. The symptoms of obstruction are, as a rule, so well marked that there is no difficulty in making a sure diagnosis at an early stage. The treatment can only be a surgical one; the prognosis being by no means bad and the prospects of the operation being the more favourable the sooner it is performed. The operation of election consists in laparotomy, separation of all adhesions, closure by suturing of any serous defects, cleansing with saline solution, and complete closure of the external wound. The median incision is preferred, as it affords the most ready access to the adhesions which may exist in any region of the abdominal cavity. If the condition of the patient at the time of operation be unfavourable; if it be found impracticable to divide all the adhesions; or if a purulent deposit be found in the abdominal cavity the opening of which would probably set up peritonitis, it would be advisable, the author holds, to open the small intestine and to establish a temporary fistula in the middle line, with the view of undertaking a radical operation and closing this fistula at a later and more favourable period. The formation of adhesions after suppurative appendicitis may, it is suggested, be prevented by direct and early surgical treatment of any large abscess.

(181) The Surgical Treatment of Gastric Disease associated with Tetany.

Lancereaux (*Bull. de l'Acad. de Méd.*, No. 6, 1905) reports on a communication to the Academy of Medicine by Jonnesco and Grossmann, made with the object not solely of throwing light on the pathogeny of tetany of gastric origin, but also of demonstrating the good results of surgical intervention in cases in which life is threatened by this complication. The author, who adds to the original case one under his own care, concludes his report with the following observations: There are on record, it is stated, 40 cases of gastric tetany coexistent with a mechanical obstacle to the passage of the food from the stomach to the intestine, the obstacle being due to stenosis, whether cicatricial or cancerous, of the pyloric orifice. The pyloric contraction, it is held, causes dilatation of the stomach, and, as a result of more or less advanced hypertrophy of the coats of this organ, peristaltism. It also accounts for the stasis of food in the gastric cavity, the varied fermentations which are set up in the contents of the stomach, the numerous results of such fermentations, and also frequent and profuse vomiting. Vomiting and peristaltism are suggestive of pyloric stenosis, and when these are associated with tetany there cannot, it is asserted, be any doubt as to the nature of the case. Attention is directed to some special characters of the vomiting and the peristaltism observed in the recorded cases. Tetany, it is stated, which occurs generally as a late phase, is usually localized in the muscles of the hands and feet, but it occasionally extends to the limbs and the jaw, and in exceptional instances to the trunk. This association of vomiting, peristaltism, and tetany occurs exclusively in cases of pyloric stenosis, and is never met with, so far as Lancereaux can make out, in simple atonic dilatation of the stomach. Peristaltism, he holds, is one of the most reliable signs of organic stenosis of the pylorus. The persistent occurrence of this sign associated with vomiting in a subject whose appetite is maintained, and whose general health is not such as to indicate an advanced stage of cancerous disease, should, it is thought, lead to prompt surgical intervention. The results obtained in cases of this kind from gastro-enterostomy are encouraging, as in 11 instances the operation was followed by complete recovery in 8. In the remaining 3 cases death followed as the result of post-operative peritoneal complication.

(182) Flat-Foot.

Bossi (*Archiv. di Ortoped.*, Ann. 21, No. 6), after giving an account of the pathological anatomy of the various parts affected—the bones, soft parts, ligaments, etc.—passes on to a discussion of the chief symptoms, pointing out, amongst other things, the outward displacement of the tendon of the tibialis anticus, which assumes a distinctly abductor action. Bossi lays stress on this displacement of the tendon, as it has considerable importance in considering the treatment of flat-foot. The different forms of flat foot receive separate treatment—for example, the traumatic, paralytic, spastic, tabetic, varicose, and rachitic types. A section is devoted to prognosis and diagnosis, and this is followed by an account of the various methods of treatment, with illustrative cases. Flat-foot is a deformity which leads to many and complex changes; it is to the foot what scoliosis is to the back, and might indeed be called the scoliosis of the foot. Open operation upon the tendons or bones is not sufficient; to be adequate such an operation would be too complex to be practical. The most rational treatment is forcible straightening—manual or instrumental—followed by bandaging. However, the author would not exclude all open operations in every case. Sometimes benefit is gained by tendon shortening or transplantation. On the other hand, he believes most operations on the bones are irrational, as by this

method articulations are abolished and one displacement in the system of arches merely replaced by another.

MIDWIFERY AND DISEASES OF WOMEN.

(183) Uterine Contractions.

Chidichimo (*Arch. ital. de Biol.*, vol. xlii, 1904, p. 323) summarizes the results of his experimental researches upon uterine contraction and the motor centres for the uterus. He finds that electrical stimulations of the cerebral convolutions produce no apparent influence upon the uterine musculature, and therefore affirms that cortical motor centres for the uterus do not exist. He also denies the alleged influence of the cerebellum upon uterine movement. But stimulation of the meninges, both cerebral and spinal, has the effect of intensifying uterine contractions. The medulla oblongata, again, contains no uterine motor centre, but one is to be found in dogs, in the lumbar region of the cord, between the tenth and the thirteenth dorsal vertebrae. The main results of his observations upon other modes of influencing uterine contractions are as follows: anaemia, when slight, incites uterine contractions, but when severe renders them irregular, feeble, and infrequent. The maximum of energy in the uterine contractions is obtained with temperatures of from 38° to 42°; the maximum of frequency, on the other hand, is obtained with very low temperatures (2° to 5°) and with very high temperatures (45° to 75° C.). Ligature of the carotids renders the uterine contractions more energetic, this result being due to the production of asphyxia. Stimulation of the vagus both reinforces and accelerates uterine contractions, effects which, in Chidichimo's opinion, are an indirect consequence of the inhibition of cardiac movements and the rapidly resulting uterine anaemia. Pain and traumatism intensify uterine movements. Ergot and its preparations exert their influence on the unimpregnated organ as well as on the gravid or puerperal uterus. The cornutine and ergotinine of Tauret produce a veritable uterine tetany and provoke contractions which become somewhat irregular with toxic doses. Bombelon's ergotine stimulates uterine movements, without, however, giving rise to a true tetany; Bonjean's ergotine, on the other hand, has only a very feeble influence upon the uterus. With quinine the uterine contractions become more vigorous but slower than the physiological contractions, and always remain rhythmical and regular. Morphine, in from slight to moderate doses, after a short period of excitation, renders the contractions slower but rather more vigorous than normal; in large doses it makes them irregular, feeble, and infrequent. Cocaine, in therapeutic doses, makes the contractions feeble and slow; in increased doses it paralyses them. Uterine movements are powerfully stimulated by small and moderate doses of strychnine; they are paralysed by toxic doses. Chloroform narcoses, in the case both of the unimpregnated and the gravid uterus, brings about a notable diminution in the energy and the frequency of the contractions, but they rapidly become more energetic and more frequent when the administration of chloroform is ended. Antipyrine, in therapeutic doses, stimulates movement; in toxic doses it causes paralysis. Small doses of caffeine stimulate contractions and increase their frequency; moderate doses, after a brief period of excitation, render them infrequent and feeble; toxic doses cause them to become irregular and arrhythmical.

(184) Ligature of Pelvic Veins in Puerperal Pyaemia.

Bumm (*Zentralbl. f. Gynäk.*, No. 5, 1905) successfully operated in two cases, and recently exhibited one patient before a medical society. The first patient had suffered from typical chronic pyaemia with frequent rigors, one occurring on the day of operation. The pelvis was elevated, the abdominal cavity opened, and the veins ligatured. Care was taken not to wound any of the infected thrombosed veins. A mass had been detected in the right iliac fossa on bimanual palpation, and it proved to be a plexus of plugged veins. For three days after the operation no rigors occurred; then they recurred, but in a mild form, with a rise of temperature to 104°; next day the temperature, which had fallen, rose to over 102° without rigors; then the fever disappeared altogether. In a second case, where puerperal pyaemia had existed for several weeks with rigors every day, there was complete cessation of the rigors after the operation, but the temperature fell gradually. Bumm noted that Freund had suggested this operation, which von Trendelenburg was the first to perform. He strongly advised the ligature of the vessels through an abdominal incision, as in that way a good view of the precise extent of the thrombosis could be obtained, and the vessels could be found with ease. It was clear that the veins alone should be tied; the aim of the operation was thus reached, as the infected thrombi were cut off from the circulation. The ligatured veins soon shrank up and became quite harmless. Mackenrodt observed that other operators removed the thrombi; but Bumm, who felt no doubt that the veins were plugged and not merely engorged in his case, maintained that opening thrombosed vessels was worse than useless, as it would cause peritoneal infection.

(185) Atmocausis and Zestocausis.

Ludwig Pincus (*Berl. Klin.*, Heft 198, December, 1904) has made a very extensive study of the method of treating uterine affections by superheated steam. The two modifications of this process which he employs he terms atmocausis and zestocausis; the latter procedure is adopted for the production of a more severe, localized, cauterizing effect. The indications for these methods of treatment are either absolute or relative. Atmocausis is absolutely indicated in all cases of uterine haemorrhage where other and simpler methods have not proved satisfactory. To such cases belong (1) certain forms of preclimacteric haemorrhage; (2) all cases of haemophilia; (3) certain forms of bleeding from myomata and haemorrhage from inoperable carcinoma corporis; (4) special forms of endometritis haemorrhagica; (5) atonic and endometritic haemorrhage after abortion and in the later stages of the puerperium. Atmocausis is relatively indicated: (1) For sterilizing women suffering from incurable diseases; (2) in subinvolution which does not yield satisfactorily to simpler methods of treatment; (3) in inflammatory affections, to replace or supplement curetting, special cases for consideration being endometritis tuberculosa, endometritis gonorrhoica, endometritis saprica, and endometritis puerperalis septica incipiens. Zestocausis is absolutely indicated for local cauterization of the endometrium of the uterine body and for treatment of special cases of endometritis dysmenorrhoica in nulliparous or unmarried women. It is relatively indicated (1) to replace or supplement curetting when the latter process is indicated in inflammatory affections of a small nulliparous uterus; (2) in the treatment of obstinate endometritic processes and erosions of the cervix uteri. These methods of treatment are contraindicated (1) when malignant disease has not been excluded; (2) when malignant disease has been established; (3) in inflammatory painful complications of the adnexa and parametrium; (4) in complications of the adenexa associated with menstruation; and (5) when the operation causes pain it must be abandoned.

THERAPEUTICS.

(186) Scopolamine as a General Anaesthetic.

Terrier (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 6, 1905), in a report on the use of scopolamine as a general anaesthetic in surgical practice, publishes the results of twenty-six trials of this agent. Scopolamine, the anaesthetic properties of which were brought under the notice of French surgeons by Desjardine at the end of last year, is extracted from the scopolia japonica, and is chemically identical with hyoscine, although possessing different physiological action. The anaesthetic effects were studied by injecting subcutaneously a solution of a milligram of scopolamine with a centigram of morphine in a cubic centimetre of distilled water. An injection of this solution made four hours before the time of the surgical operation is followed by a second injection after an interval of two hours, and by a third after a further interval of one hour. After the first injection the patient, in the course of half an hour, gradually falls into a deep but quite natural sleep, the respirations being quiet and the reflex movements readily excitable by external influences. After the second injection the reflexes are diminished, the respirations become less frequent, and the pulse is accelerated. The patient is now in a heavy sleep, from which he can be aroused for a moment by shaking. The third puncture, which is not felt by the patient, is followed by a still deeper but quite physiological sleep, by dilatation of the minute blood vessels of the face indicated by congestion, the pulse being full, regular, and rapid. The pupils are dilated and the eyeballs rotated upwards and a little outwards. Notwithstanding this state of intense stupor there is no

complete resolution of the limbs, and it is necessary during the removal of the patient to the table, and also during the operation, to avoid any disturbance from noise or talking, and to protect the eyes from light. There is, however, marked and persistent anaesthesia over the whole of the surface of the body, and the cutaneous sensibility to pinching and pricking is completely abolished. The patient continues to sleep deeply and quietly for four and five hours after the operation, and, after a slow awakening, is restored to a natural condition. Anaesthesia persists for some time after the renewal of the cerebral functions, so that the patient remains comfortable and free from pain in the wound for the first twenty-four hours after the operation. There is freedom also from headache and from nausea and vomiting. The author points out that this method of producing general anaesthesia has the following advantages: (1) It suppresses any apprehension of the operation; (2) the state of anaesthesia is not preceded by excitement, and thus a cause of syncope is avoided; (3) the nausea, vomiting, and malaise which so often follow other methods of producing anaesthesia are not observed after the use of scopolamine. The patient awakes in a normal manner from his deep sleep, and then does not feel the slightest malaise, and is able at once to take fluid and even solid nourishment; (4) the persistence of anaesthesia after the awakening of the patient enables him to pass the night in comfort and in freedom from pain at the seat of operation; (5) the injection of scopolamine is not followed by albuminuria; (6) this agent does not act on the heart or lungs, and causes no bronchial irritation. On the other hand, there are certain disadvantages attending this new method. Scopolamine is very uncertain in its action, and it is sometimes necessary to have recourse to the inhalation of chloroform or ether. It is, moreover, a very unstable substance, so that it is necessary to use only such that is quite fresh and pure. A serious inconvenience is the vaso-dilatation it causes, which, in operations on very vascular tissues, necessitates minute precautions for arresting haemorrhage, and prolongs the operation. Another disadvantage attending the anaesthetic action of scopolamine is the persistence during such action of contraction of the abdominal wall. This complication, which tends to contraindicate the use of scopolamine as an anaesthetic in abdominal surgery, might, the author thinks, be prevented by making only one subcutaneous injection of the solution. In conclusion, the author holds that scopolamine possesses the great advantage over all other general anaesthetic agents of being free from danger.

(187) Antistreptococcus Serum in Erysipelas.

J. C. AYER (*Med. Rec.*, March 4th) compares the results in fifteen cases of erysipelas treated by means of Marmorek's serum with those obtained in seventy-nine cases managed by the usual methods in vogue before the introduction of serumtherapy. The conclusions reached are as follows: (1) That the administration of antistreptococcus serum shortens considerably the course of uncomplicated attacks of erysipelas. (2) That it tends to inhibit extension of the disease. (3) That it has a strikingly beneficial effect upon the general condition of the patient, reducing the temperature, pain, and discomfort incidental to the disease. (4) That it rapidly reduces the pathological leucocytosis. (5) That it prevents or suppresses febrile albuminuria. (6) That its use is attended with no danger, even in large doses. (7) That the only disagreeable symptom referable to the serum observed by the writer is a transient eruption which occasionally occurs at the site of the injection. (8) That the efficacy of the serum treatment is in direct ratio to the length of time which has elapsed between the onset of the disease and the first injection of serum.

(188) The Treatment of Phlebitis.

RAFFAELLO (*Rif. Med.*, October 26th, 1904) reports two cases of phlebitis of the internal saphena vein successfully treated by local applications of a mixture of equal parts of thijenol and dilute alcohol. By painting this mixture three or four times a day over the painful area, and enwrapping the limb in gauze, oiled silk and cotton-wool, the pain was much relieved. Thijenol, which is an oleosulphonate of sodium, appears rapidly to ease the pain in phlebitis, and also, in conjunction with ordinary methods as to rest, elevation of the limb, etc., shortens the duration of the disease.

(189) Rectal Alimentation.

EDSALL AND MILLER (*Amer. Med.*, February 4th, 1905) refer to the literature and their own previous work, which indicate that nutrient enemata are very poorly absorbed and that exclusive rectal alimentation is incapable as a rule of maintaining a nutritive balance. They report a series of experiments in which they carried out rectal alimentation in dogs and also determined the absorption in isolated loops of intestines in dogs; they further record an absorption experiment in a human being. This work was done in order to determine in how far it is possible to improve fat absorption by giving the fats in the form of soaps, or by giving them in an artificial emulsion, when the emulsion is so prepared that it will not readily be broken up in the bowel. Their results were such as to convince them that it is impossible by any methods now available to administer successfully sufficient soap to make it of decided nutritive value. Their results with an artificial fat emulsion, particularly in the human subject, were somewhat encouraging, and they believe that by further study it may be possible to increase the clinical value of nutritive enemata, though it is still a question whether it will ever be possible to maintain nutrition in this way.

(190) Adrenalin in Typhoid.

THRUSH (*Therap. Gaz.*, December 15th, 1904) has employed chlorhydrate of adrenalin in the haemorrhage of typhoid fever. He considers it a powerful haemostatic and superior to other astringents, such as the salts of lead, iron, tannic and gallic acid. Adrenalin causes stimulation of the vessels and the heart and contraction of the arterioles, thus raising the blood pressure. It is injected hypodermically in the form of a 1 in 1,000 solution, 20 minims every three hours till haemorrhage is arrested. By the mouth 10 minims may be given every hour. The author considers that adrenalin is indicated in all forms of haemorrhages and that it is the most powerful haemostatic we possess.

(191) Radiotherapy in Splenomedullary Leukaemia.

C. COLOMBO (*Gazz. med. Ital.*, December 15th, 1904) mentions three cases of leukaemia treated by radiotherapy under his care. The first, after 25 applications, was no better. The second, after 60 applications, had improved in the most satisfactory manner. The third, studied by himself and by Marchiafava independently, is reported at rather greater length. After 25 sittings the red corpuscles were diminished from 2,780,000 to 2,500,000. The polynucleated leucocytes were increased from 64,000 to 140,000, and the mononuclears from 32,000 to 300,000. The spleen and temperature showed no change. Colombo recommends daily sittings of forty minutes, the rays being applied for periods of ten minutes over the sternum, the spleen, the elbow, and the knee. During the administration he keeps the patient lying on his back and the tube 10 cm. from the skin. The incidence of the rays is normal to the skin; the intensity in the circuit of the tube is 1½ to 2 milliampères (Gaiffe's apparatus).

PATHOLOGY.

(192) The Effects of Resection of the Nerves of the Pancreas.

ZAMBONI (*Rif. Med.*, January 7th, 1905) has made 24 experiments on dogs with a view to observing the results of section of the nerves to the pancreas. The animals stood the experiments well and showed no marked disturbance. No sugar was ever detected in the urine, and, although some of the animals were allowed to live for six months after the operation, yet no ill effects were observed, and, indeed, some of the dogs put on weight. At the autopsy no special resistance to the atrophic changes met with in other parts of the gland was noticed in the islands of Langerhans. Throughout the whole gland there was a marked vasal dilatation, observable even six months after operation. The glandular parenchyma did not seem much affected. Distinct retrogressive changes were noticed in the islands of Langerhans. The absence of glycosuria seems to show that these islands have no direct or specific function in relation to the internal secretion of the pancreas. Probably the pancreatic, like the hepatic, cell may be able to provide an external secretion possessing digestive properties, and also an internal one of considerable importance in the metabolism of the carbohydrates. The author regards the islands of Langerhans as embryonal remains, rudiments of organs which have a more important place in lower vertebrates.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(193) Empyema.

S. D'ESTE (*Il Moryagni*, January and February, 1905) reports in great detail 33 cases of empyema recently observed by himself, and analyses the results obtained; 18 of the patients were children under the age of 10 years—an important fact in view of the proportions in which the different micro-organisms were demonstrated. A bacteriological classification is adopted. Fraenkel's diplococcus was found in 13 cases, in 7 cases pure and in 6 associated with other micro-organisms; of the 7 cases, 5 were meta-pneumonic or para-pneumonic, the other 2 were apparently cases of primary diplococcal empyema; of the 6 cases, 2 were meta-pneumonic, 2 followed bronchitis. In most of these cases the pleura were found—by inspection and palpation—covered with pseudo membrane; bands of tissue not yet organized united the pulmonary with the thoracic membranes, and the pleural cavity was frequently loculated—conditions leaving little probability that definite cure was possible as the result of the simple thoracocentesis sometimes advocated for pneumococcal empyemata occurring in childhood. The author recommends that all cases of empyema should alike be subjected to radical operation at the earliest opportunity, however young the patient may be and to whatever condition of weakness he may have been reduced by disease. The characteristics of the pneumococcal class of cases were the uniformity of the symptoms and the favourable result following operation. The only death in this group was from pneumonia on the fifth day. The second group was that of streptococcal cases—9 in number, all but 1 in patients under 20. In this group there was a great variety in the antecedents of the disease and great difficulty in assigning a cause for it. The pus was fluid, separating readily into a more fluid and a heavier less fluid part. In 4 of the 9 cases there were bands of tissue uniting the opposed pleural surfaces, and a pseudo-membrane calling for curettage and troublesome cleansing of the surfaces. Oedema of the chest wall was present in several cases, being associated especially with those which afterwards proved most severe, but was not so constant or striking a feature of this group as of the group of putrid and putrido gangrenous cases. In several cases there seemed to be a distinct relation between a sacculated form of empyema, decided oedema confined to one part of the chest, which afterwards became red, and the presence of numerous well-marked subcutaneous veins. The fever of streptococcal empyemata was extremely variable, apparently subject to no fixed laws. The only death in this group was from septico-pyaemia, which was already established at the time of admission to hospital. The remaining cases, though sometimes reduced to an almost desperate condition by prolonged delay before surgical treatment was submitted to, did well. The third group of 4 cases was subdivided into the fetid, a comparatively innocent form associated with micro-organisms which cause a foul odour, and the putrid or putrido-gangrenous. In the latter numerous organisms were found apparently intensifying one another's action. The cough was severe. The fourth group of cases contained staphylococci alone or associated with a few streptococci. The author failed to verify the opinion of Fraenkel and others that staphylococci in an empyema are a sign of tuberculosis. A full account is supplied of observations on one case from which a pure cultivation of micrococcus tetragenus was made. The autopsy showed very little sign of the intense toxic and inflammatory changes which had been indicated during the course of the illness. In reviewing the cases as a whole the author dwells on the difference between the ideals of physicians and surgeons in regard to the treatment of empyema, and concludes that surgical treatment, early and thorough, comes as near as is practicable to a perfect cure. He attaches great importance to Forlanini's plan of injecting sterilized air into the pleural cavity. He looks to it as a means of expanding the lung so that ultimately it again comes into contact with the thoracic wall in very much its old position. To evacuate the abscess and allow the chest wall to fall in on a permanently-contracted lung is not in the full sense to cure the disease. The method of surgical treatment adopted in these cases included free removal of any part of the thoracic wall which prevented access to the pleural surface. "Wide resection of the sixth, seventh, and eighth ribs," "abundant washing with permanganate of potash solution," "toilette and curetting of the pleural cavity," "plugging with xeroform gauze" were measures commonly adopted, and the author attributes the low mortality of the series of cases to the boldness and thoroughness of the treatment. The decortication of the lungs in old contracted empyemata, as suggested by Délorme, was not carried out, but repeated curettings attained very much the same object.

(194) Inequality of Pupils in Pleurisy with Effusion.

CHAUFFARD AND LAEDERICH (*Arch. Gén. de Méd.*, March, 1905, p. 585), referring to observations of Souques on the occurrence of pupillary inequality with and due to tubercle of the apex of the lung and to the observations of Vincent on unilateral narrowing of the pupil in phlegmonous angina, has investigated the condition of the pupils in 17 cases of pleurisy with effusion. The pupils in 10 of the cases were unaffected, in 7 there was inequality. It was observed to be very variable from day to day, going and returning, but always disappearing finally when the absorption of the pleuritic fluid was complete; the degree of the inequality was moderate; it was observable only in a moderate light, for example, that from a window; but if the light to which the eyes were exposed was obtained from an electric lamp or a reflector, the pupils became equal; the same thing occurred on positive accommodation. There was no recognizable difference in their clinical features between the series of cases without pupil changes and those with them. Paracentesis in three of the positive cases did not affect the pupils. The authors ascribe the pupil change to a dilatation on one side from peripheral causes and possibly acting in the way of inhibiting the light reflex.

(195) A Rare Complication of Measles.

ALLARIA (*Gazz degli Osped.*, February 5th, 1905) records the case of a child, aged 9 years, of neurotic inheritance but otherwise healthy, which sickened with measles on February 8th, 1903. The attack lasted eight days, with high fever and delirium, and was followed by a severe attack of bronchopneumonia, which did not clear up until the end of February. During the height of the eruption the child complained of a sense of painful constriction in the left foot, which was tender. No swelling or impediment to motion was observed, and there was no evidence of rheumatism. During convalescence the child was noticed to drag its left leg, and as no improvement followed faradic treatment the patient was admitted into hospital (April 15th, 1903). The left foot was then in a position of equino-varus, the calf muscles on the antero-external side were atrophied, flaccid, and smaller than those on the right side. Dorsal flexion of the foot was abolished, abduction and adduction limited. Passive movement was free in every direction. Tactile, thermic, and dolorific sensibility was blunted over the areas of peroneal nerve. Knee jerks normal, but plantar reflex on the left side abolished. Massage and the continuous current were tried, but in July there was no improvement. In September some slight improvement was noted, and in the early summer of 1904 complete recovery had occurred. The author believes the case was an example of peripheral neuritis of the peroneal nerve, and not a localized anterior poliomyelitis. The limitation of the paralysis, the changes in sensation, and the complete recovery are more in favour of a peripheral paralysis than a spinal.

(196) Emotional Jaundice.

GAZIN gives an account of a case of emotional jaundice (*Arch. de Méd. Militaire*, No. 9, 1904). A strong, well-developed soldier was invalided for a couple of days on account of boils on the leg. He was informed on the evening of the second day that he had been convicted of some breach of orders which entailed punishment. He turned giddy and pale. Immediately afterwards his companions noticed that his face and eyes were yellow. The commanding officer noticed the same condition the following day and sent him to the military surgeon, who diagnosed emotional jaundice. The jaundice, which subsided as rapidly as it appeared, was accompanied by polyuria and pleuritis.

SURGERY.

(197) The Physiological Capacity of the Kidney.

ROVSING (*Archiv f. klin. Chir.*, Bd. 75, Heft 4) holds that none of the methods

that have hitherto been tried before an operation on one kidney can afford reliable help in the accurate determination of the functional capacity of the other renal organ. Of these methods four only are regarded as claiming consideration—namely, cryoscopy of the blood, urinary cryoscopy, the phloridzin test, and the quantitative determination of urea. Of these methods the first, in the author's opinion, is the most uncertain. The information it gives on both the positive and the negative side is held to be most misleading, and the surgeon influenced solely by the results of blood cryoscopy runs two risks, one of leaving a patient to die who might be saved by an operation, the other of hastening death by unnecessary intervention. The author strongly insists on the advisability of ignoring the results of this method in the consideration of the question whether a renal operation should or should not be performed. Urinary cryoscopy, the phloridzin test, and the test for urea, when these give positive results and show that the renal secretory function is normal, afford valuable information on which the surgeon can confidently rely. On the other hand, negative results pointing to complete arrest or considerable impairment of the renal function of secreting the specific constituents of the urine would by no means justify the surgeon in regarding the prognosis of an operation as hopeless. The fact that a kidney is not doing its work does not prove that it is permanently disabled. It is well known that unilateral renal disease may by reflex and toxic action, or in some still unknown way, disturb to a serious degree the secreting activity of the other kidney, even though this organ may not have been rendered permanently incapable of performing its normal function. The only method of restoring the function of the sound kidney in such cases would be to remove the diseased organ, or to restore it to a healthy and normal condition by some other operation. By trusting, therefore, to the negative results of these methods, the surgeon would run the risk of rejecting such treatment as would alone give his patient a chance of recovery. Of the three methods, the simplest and also the most reliable is that for the quantitative determination of urea, and this, it is held, should be used in preference to the methods of determining the freezing point of the urine and the activity of the secretion of sugar after the injection of phloridzin. In cases in which there is a question as to nephrectomy, the author attaches the greatest importance to catheterization of the ureter, and the chemical, microscopical, and bacteriological examination of the urine thus removed from each kidney. The surgeon may thus find out whether there be a fellow kidney to that he proposes to remove, whether this secretes urine, and whether this urine be free from pathological contents, such as albumen, blood, pus, and microbes. In cases in which there are decided clinical indications of bilateral shrinking of the kidney or multilocular renal cysts, and, notwithstanding a normal condition of the urine, there is reason to doubt whether the opposite kidney be capable of taking on the whole of the renal function, this kidney, before nephrectomy is performed on the other side, should be exposed by the lumbar excision, and its condition be carefully made out by sight and touch.

(198) Operative Treatment of Displacement of the Scapula.

Duval (*Rev. de Chir.*, No. 1, 1905) describes an operation he has performed in three cases of "scapula alata," or displacement of the scapula, due to paralysis of the serratus magnus and the lower portion of the trapezius. This operation consists in a combination of costo-scapular suture first practised by von Eiselsberg, with transplantation of a portion of the long lateral muscles of the spine on to the superior angle of the scapula. The vertebral border of the scapula is exposed by a skin incision extending from the root of the spine to the inferior angle, and by vertical section of the rhomboid muscles and the trapezius close to the bone. The periosteum is then detached from the corresponding part of the dorsum to the extent of 1 cm., and afterwards from the venter to the same extent, the attached portion of the serratus magnus being cut away. The sixth and seventh ribs, the former at a distance of 7 cm., the latter of 8 cm., from the median line, are denuded of periosteum on both surfaces, the portion of bone thus made bare in each rib measuring about 1½ cm. A suture of silver wire is then passed around each of the ribs in the middle of the denuded part, and one end of each suture is carried through one or other of two perforations made through the scapula at a distance of 1 cm. from the posterior border. The two ends of each suture are then forcibly twisted together, and the scapula is thus brought into close contact with the denuded portions of the sixth and seventh ribs, with the object of establishing between the former bone and the back of the thorax firm fibrous adhesions. The inner flap of skin, together with the divided rhomboid muscles and the trapezius, is now drawn inwards, and so that the long muscles at the side of the spine may be exposed. These muscles are divided high up in the wound, and detached from the spine from above downwards. A long and thick bundle of muscle, free above and attached to the spine, is thus formed. The special dorsal muscles involved in this stage of the operation are not mentioned. The upper end of this loose bundle of muscular tissue is dissected outwards and sutured to the upper angle of the scapula and the supraspinous portion of the internal scapular border. Full reports are given of the three cases in which the author performed this operation. The results cannot be regarded as very satisfactory, as in one only was it followed by complete success. In the second case there was some improvement in the functional capacity of the upper limb, but the displacement of the bone was renewed. In the third case the surgical treatment resulted in a complete failure.

(199) The Use of Celluloid in the Preparation of Orthopaedic Appliances.

Ghiulamila (*Rev. d'Orthopéd.*, No. 2, 1905) describes the method practised in Hoffa's clinique, of using celluloid in the construction of splints and spinal supports applied in orthopaedic surgery. The desired apparatus is formed by the application of bandages or layers of woven material impregnated with a solution of celluloid in acetone, to an accurate plaster model of the deformed or diseased part for which it is intended. Celluloid as a material for orthopaedic appliances has, it is stated, many advantages; it is cheap, very durable, light, and clean. A well-made and well-fitting corset or splint may last over three years, its replacement being necessitated only by the growth of the patient. As celluloid is impermeable by water, the appliance may be thoroughly cleansed from time to time. There are, however, some disadvantages in the use of the celluloid solution in this direction. Acetone has a very unpleasant smell and is apt, in children and sensitive subjects, to cause headache, but when the impregnated material has become dry and firm, the odour, it is stated, is no longer perceptible. The inflammability of celluloid is not regarded by the author as a serious objection. Acetone, it is pointed out, is very inflammable, and much care is necessary in the preparation of the solution, but the apparatus, when quite dry, is not more inflammable than any ordinary dress material. The retention of perspiration due to the impermeability of the celluloid solution may be prevented by making small perforations in the appliance, as is done in splints of gutta-percha. Celluloid appliances, it is held, are indicated in cases in which very strict and close retention of the covered parts is not absolutely necessary. In such cases a light and thin celluloid appliance is preferable to the heavy and unwieldy splint of plaster-of-paris. It may be employed with advantage as a simple supporting apparatus in any case of paralysis of a limb, and is indicated also in cases of spinal caries with curvature and of paralytic deviation. Celluloid splints will be found useful in joint disease in the upper extremity, but when applied to the hip, knee, or ankle will need some strengthening by steel supports. The chief advantage attending the use of the celluloid solution is the facility with which the appliances can be made by the surgeon himself, when, under conditions of locality and expense, the services of an expert in the construction of costly and complicated appliances are not available.

MIDWIFERY AND DISEASES OF WOMEN.

(200) Youthful Primiparae.

Gache (*Ann. de Gynéc. et d'Obstét.*, December, 1904) has attended 91 labours in patients under 17 in the Rawson Hospital, Buenos Aires. The great majority were Argentines, a race of women very prolific from childhood up to the menopause, and, with the exception of one English subject, aged 16, all the remainder were of the Latin races, Spanish, Italian, or French; of the last nationality, there were only two, both aged 16. Not one of the 91 was of German or Slavonic origin. He found that these young mothers were not more exposed than others to abortion and to other complications of pregnancy. Only

1 had marked narrow pelvis, due to defective development, and 3 slightly-contracted pelves, where the forceps expedited labour. Delivery was in other cases normal, and the only distinct feature was that its duration was distinctly above the average in adults. Caesarean section, with the rescue of both mother and child, was performed in the case of distinct pelvic contraction; the patient was a European Spaniard, aged 13. In the 91 cases the presentation was vertex in 85, pelvic in 5, and the remaining pregnancy ended in abortion at the third month. The forceps was applied six times; in the 3 cases of slight pelvic contraction, and in 3 others where lingering labour endangered the fetus. Damage to perineum, vulva, and vagina was rare, and in every instance rapidly healed. No case of placenta praevia was noted. The expulsion of the after-birth was always normal. The average weight of the fetus was 3,039 grams, a little under 6¾ lb. The sex—noted except in 2 cases, where the child was dead and macerated—was male in 44, female in 45, but other statistics of pregnancy in juvenile primiparae vary as to the proportion of males to females. The placenta weighed, on an average, 534 grams, or over 1 lb. 2 oz. Thus, physically speaking, juvenile primiparae do well; they certainly bear fine infants; indeed, Kleinwächter found that the younger the mother the bigger the child, and gave the average weight of the latter as 3,270 grams; but Gache is careful to note that his series, apparently the largest of its kind ever published, is based on practice in a warm climate and on an early-maturing prolific race.

(201) Labour Accidents in Multiparae.

Olshausen (*Zentralbl. f. Gynäk.*, No. 4, 1905) reported recently a case of spontaneous rupture of the uterus. The patient was in her seventeenth labour; the head presented. There was no collapse, and when the abdominal cavity was opened hardly any blood was found in the peritoneal cavity. The laceration was vertical, running down a great part of the posterior uterine wall into the cervix; it was closed with interrupted catgut sutures. The patient was exhibited at a medical society. In this instance, where the pelvis was wide, the rupture was ascribed to the extreme degree of pendulous abdomen, which deprived the uterus of support. Olshausen also exhibited a hereditary multipara. She had been delivered of twenty-five children in fifteen labours, twins being born in eight and triplets in one, leaving only six single child labours. Her mother had passed through seven twin deliveries, her grandmother through four or five. Olshausen considers that this hereditary tendency to twin pregnancy depends more probably on an unusual number of follicles in one ovary which manage to come to maturity than on an abnormal number of ova in single follicles.

(202) Induction of Labour.

Zinke (*Amer. Journ. Obst.*, November, 1904) considers at some length the principal methods employed to rid the pregnant uterus of its contents by force at any time from the fifth to the ninth month, and publishes his conclusions: (1) Graduated steel or vulcanite dilators and the ordinary branched or beaded dilators are mainly employed for the purpose of dilating the cervix or os preparatory to digital, manual, and bag dilatation. (2) The bag or hydrostatic dilators should only be employed when time is not an important element in the case, and when the cervix is thoroughly softened and partly or entirely effaced and an easy introduction of the bag possible. It is contraindicated in central placenta praevia and eclampsia. (3) Harris's manual dilatation and Bonnaire and Edgar's bimanual (digital) dilatation demand a soft and partially obliterated cervix and dilatable os. The manual method is to be preferred to hydrostatic dilatation whenever time constitutes an important element, but the fetus is often lost and much damage done to the mother. (4) Deep cervical incisions and Dührssen's vaginal hysterotomy are rightly coming into favour. Cervical incision is the best method where there is sepsis of the vagina, because the operation is short in duration and can be performed under a continuous flow of an antiseptic solution. Vaginal hysterotomy is indicated principally when the cervix is the seat of malignancy or extensive cicatrization. (5) Caesarean section is rarely necessary; it is required to save a vigorous viable infant when there is pelvic contraction, or placenta praevia, or eclampsia with hard closed cervix, malpresentation and primiparity. Cervical incisions and vaginal hysterotomy will supplant Caesarean section in many instances, especially when prematurity is marked. (6) The Bossi and similar metal dilators, if not entirely needless, are certainly dangerous. Rapid and complete dilatation by metal instruments will, it is hoped, never become a popular method for induction of labour.

(203) Puerperal Dangers in Undetected Double Uterus.

Foisy (*Ann. de Gynéc. et d'Obstét.*, January, 1905) removed a uterus of the bicornis unicollis type; each cornu bore a small subserous fibroid, neither obstructing the corresponding uterine cavity, and both appendages were the seat of old-standing inflammation. The clinical history is instructive. The patient was 39 years of age. At 24 she aborted at the second month. Severe septic symptoms followed: retained placenta, fetid lochia, high temperature, rigors, tympanites, and feculent vomiting. At the end of two months the patient returned to her household work, not thoroughly cured. She became pregnant again a year later; during the third month severe flooding occurred and lasted three days; but delivery took place at term, labour ending at the termination of three days by the delivery of a child strangled by the funis round its neck. The placenta was removed by traction. Severe septic complications occurred during the puerperium. Two years later the patient was delivered at term of a female child, breech presentation. Labour as before was lingering, lasting for three days, although the pains were very strong: yet the puerperium was normal. Four years afterwards another abortion occurred in the third month; the placenta was retained for four days, and mild septic symptoms were observed. At the age of 33 gonorrhoeal infection occurred, with free yellow discharge and cystitis. Henceforward the patient was harassed by the usual symptoms of chronic disease of the appendages. Latterly they were associated with vomiting. The operation proved successful.

THERAPEUTICS.

(204) X Rays in Leukaemia.

Aubertin and Beaujard (*Archives Générales de Méd.*, March, p. 577) have recorded two cases of leukaemia treated with *x* rays with observations on the effect on the different varieties of leucocytes. One case was a myelogenous leukaemia with the classical splenomegaly and the other a lymphatic leukaemia with marked hypertrophy of the cervical, subclavicular, axillary, and inguinal glands, together with considerable enlargement of the spleen. In each case identical treatment was used: for several months there was a weekly application of the rays of the same intensity, but in the one case applied over the spleen and the myelogenous tissue of the bones and in the other over the spleen and the lymph glands. The general state in each was rapidly ameliorated, the red-blood corpuscles in the course of three months were increased by one-third—from 2,000,000 per c.mm. to 3 000 000—and the leucocytes fell in the myelogenous case from 320,000 to 60,000, and in the lymphatic case from 350 000 to 10 000. In the myelogenous case there was noticed a marked increase in the leucocytosis after each of the earlier séances, reaching to 450,000, occurring three to five hours after the application of the rays, and lasting three or four hours. The polynuclear leucocytes were responsible for the principal increase, or, as the authors term them, leucocytes in histolysis. In this case the improvement in the leucocyte state was mainly qualitative, the diminution in number was established only after a long period of increase, with marked oscillations; the body weight was maintained in spite of great reduction in the size of the spleen, the appetite was increased, albuminuria and oedema disappeared, and a feeling of well-being was established from the earlier days of the treatment. In the lymphatic case a similar increase of the leucocytes was noticed a few hours after the séance—thus, starting at 349,800, at the end of five hours they numbered 372,000, falling to 346 000 at the end of the ninth hour. By the seventh day they had fallen to 253,200 by the twentieth day to 171,600, and by the twenty-seventh to 26 000; by the beginning of the third month they had fallen to 10 000, and five days later to 3 000, at which level they remained. A qualitative amelioration did not become prominent until about a month before the onset of this leucopenia of 3 000 the polynuclears increasing little by little. The red cells increased progressively to 3,100,000 from 2,130,000, and the richness in haemoglobin rose from 20 to 80 per cent., the spleen diminished considerably, the lymph glands became nearly inappreciable, the general state improved, the weight kept

up, appetite improved, and albuminuria and oedema disappeared as in the former case. As contrasted with that case the amelioration was quantitative mainly, a diminution in the leucocytes was established early, the oscillations being slight, and the curve uniformly descending. The effect of the rays on the leucocytes in the lymphatic case was to cause an early emigration of young lymphocytes with their rapid disintegration. In the myelogenous case the polynuclear leucocytes proved to be much more resistant to this disintegrating process than the young myelocytes. In the lymphatic case, on the other hand, the adult and young lymphocytes were equally affected by the rays.

(205) Diet after the Age of 1 Year.

J. P. CROZER GRIFFITH (*Amer. Med.*, February 4th, 1905) discusses the difficulties attending the feeding of healthy children after the age of 1 year. Weaning should be commenced at about the age of 10 months, only one bottle of food being given at first, and this of a strength less than mother's milk, since cow's milk is a new substance to which the child is unaccustomed. Gradually the number of bottles and the strength of the mixture should be increased until at the age of a year the food should consist of milk but slightly diluted. Systematic weighing, twice weekly, is very important during this period in order to anticipate any decided falling off of the normal gain in weight. Some form of gruel should be added to the bottle for the purpose of accustoming the infant to the digestion of starch, since it will be taking this in large quantities soon. At the age of 1 year feeding with the gruel or barley—not oatmeal—begins, this being given in the middle of the day. Later this is taken at breakfast time, and rice, bread, or hominy grits with beef juice is given for dinner. A plain dessert is added soon, such as rice pudding or junket. Eggs may be tried cautiously at 15 months. Potatoes and meat are not given until 18 months. The author gives diet tables for children of different ages up to 3 years, and a list of permissible and non-permissible articles of diet for periods beyond this. In conclusion Griffith emphasizes particularly certain general rules which seem to him of importance. Among these are: That milk must continue throughout early childhood to form the chief article of diet; that broths are serviceable as food only through the cereal addition to them; that although rashness on the part of the mother in experimenting on new foods is to be condemned, too great caution resulting in too long a continuance with insufficient food is equally harmful; that children in the second year are fed far too frequently; that too much starch is a more frequent cause of illness than too much meat, and that the age and need of the child, rather than the teeth, are to be the guide in determining when the giving of meat should be commenced.

(206) Exercises in Chorea.

MAXIMILIAN ROTH (*Zeit. f. Diat. und Phys. Therap.*, December, 1904) has found that the ataxia of tabes and the motor symptoms of paralysis agitans can be influenced by a course of exercises, and for the last four years he has employed such treatment also for cases of chorea and has obtained excellent results. Before beginning the treatment of a case of chorea he notes carefully what amount of motor affection is present and what groups of muscles are especially implicated. It is often well to explain to tabetic patients and to those suffering from paralysis agitans the reason of the treatment and to obtain their intelligent co-operation. In dealing with choreic children, however, any mental strain is to be avoided and Roth encourages them to look upon the exercises as a sort of game. With this object he places himself opposite the patient and himself performs the exercises, telling the child to imitate his movements and in the meantime talks on indifferent subjects. Either the upper or lower extremities are first brought into play as a whole. For the arms such exercises are taken as raising and lowering the arms, separating and bringing them together, stretching and rotating them. Next, movements of the forearm are practised, at first with the elbow resting on a table, then with the upper arm pressed to the side. When these movements have been mastered exercises of the wrist-joint and next of the finger-joints are undertaken. All the movements are of a simple character at first, and finer exercises are taken later on. In treating affections of the lower extremities the simplest form of exercise is that of causing the child to walk arm-in-arm with the doctor, taking along with him long, slow steps, and halting when he halts. Next the child, with hands on hips, may march and halt to the word of command in military fashion. Great patience is needed in the treatment of affections of the head and face muscles, and in these cases the doctor may bring a suggestive influence to bear on the patient. To induce the child to hold the head steady the doctor sits opposite to him, with his own head supported on the back of the chair. When under a steady gaze the patient will try with all his might to imitate the doctor. When there is twitching of the face muscles it often is helpful to the patient to be allowed to bite at a piece of wood as he carries out the exercises. All the exercises are performed slowly and deliberately, and in order to avoid fatigue no one exercise is continued for more than one minute, nor is the whole proceeding allowed to continue for more than half an hour. The author has found this treatment the surest and speediest way of effecting a cure in cases of chorea, but while advocating it he would not wish causal indications for treatment to be neglected. In addition to the exercises he recommends the use of tepid baths at bedtime, and in severe cases, especially those occurring in adolescent girls, he would administer such drugs as bromides, arsenic, and iron.

(207) Chloride of Zinc.

P. BROESE deals with the protection which the scab produced by the cauterization by chloride of zinc on aseptic wounds against infection with virulent bacteria (*Deut. med. Woch.*, December 22nd, 1904). It has been shown that chloride of zinc has practically no disinfecting action at all. Its cauterizing action is, however, particularly intense, the chief characteristic being its power of penetrating into the deeper layers of tissue. After convincing himself that this want of disinfecting power is true, he inquired into the actual behaviour of aseptic wounds which have been treated with the drug and infected. Normal aseptic wounds, when infected by various pathogenic bacteria, very rapidly absorb them, as has been shown by numerous experiments. Broese used rabbits, and infected them with bird cholera bacilli and with anthrax. The ear was shaved, a pocket-like wound was made by means of scissors sterilized in the flame, and this pocket was then cauterized with a 50 per cent. solution of chloride of zinc. Into the pocket, two or three loopfuls of the culture were placed and the pocket was then closed completely with collodium. It appears from the experiment that the scab of chloride of zinc is capable of entirely protecting infection with cholera or anthrax, while the same dose applied in the same way without the cauterization always killed. Further, he found that, if the cauterization was carried out within one minute after the infection, the animal did not become infected. For periods longer than one minute, the protection appears to be negative. The scab itself is not a nutrient medium for bacteria, as he could show that on the second or third day, when the collodium was removed, the pocket was found to be sterile. It is strange that a substance which is not a disinfectant should in virtue of its power of combining with albumin be able to protect the organism from infection with virulent bacteria.

PATHOLOGY.

(208) Acute Yellow Atrophy of the Liver.

H. G. WELLS AND P. BASSOE, Chicago (*Jour. Amer. Med. Assoc.*, March 4th) have studied 4 cases of acute yellow atrophy of the liver. While they admit that these do not throw much light on the etiology of the condition, they suggest that a better insight into this perplexing disease may be obtained through later investigations on autolysis or self-digestion of cells. They state that in acute yellow atrophy of the liver they are forcibly reminded of the processes of autolysis by the rapid absorption of the liver tissue which takes place with the appearance at the same time of the products of proteolysis in the urine. The slight involvement of the bile ducts is against the theory of an ascending biliary infection, and there are objections, such as the rarity of obstructions in the ampulla of Vater and the greater pressure of the bile as compared with that of the pancreatic secretion, to Quincke's ingenious theory of pancreatic digestion. The authors suggest that this condition may be explained by assuming the poisoning of the liver by some substance having a specific affinity for some vital ingredient of the liver cells, but not affecting the autolytic ferments of these cells. They contradict the statement often made that the chief change is fatty degeneration. The yellow colour is not due to fat but to bilirubin. In two in which frozen sections were stained for fat a surprisingly small quantity was present.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(209) Lumbar Puncture in Pertussis.

M. Bertolotti (*Gazz. Med. Ital.*, February 16th, 1905) states that recent researches into the characters of the cerebro-spinal fluid have shown that the symptoms formerly ascribed to meningismus are those of a mild form of meningitis, and that meningitis is often present when there are no symptoms clearly pointing to the spinal membranes as the seat of disease. Lumbar puncture is particularly safe in the case of children, because the yielding character of the bones allows the atmospheric pressure to supply the support necessarily withdrawn from the central nervous system when the fluid is removed. It is necessary to make the puncture with a small needle, as the dura mater is not elastic, and the insertion of a large needle may lead to persistent draining away of fluid. Bertolotti describes his own method of puncture in the median line, which he regards as decidedly superior to Quincke's lateral puncture. The needle, no larger than an ordinary exploring needle, is inserted exactly in the middle line between the apophyses of the third and fourth lumbar vertebrae, piercing the interspinous ligament (in childhood a soft and yielding structure), and then passing onwards and a little upwards through the interlaminar ligament and into the vertebral canal. The perforation of the interspinous ligament is neither painful nor dangerous. The author was led to examine the cerebro-spinal fluid in pertussis by the consideration that pertussis is a constitutional malady with a specific virus which provokes in the haematopoietic system an intense reaction. Three cases are quoted. In the first, a child of 3 years, fits of coughing were violent, and did not yield to treatment. After a few days the pulse became slow (61 to 68). The pupils were somewhat unequal, and the temperature fell below normal. Though there were none of the classical symptoms of meningitis, it was decided to make a lumbar puncture. The fluid was under considerable tension, and came out in a jet. It was perfectly limpid, and did not coagulate. Examined microscopically, it contained 30 to 40 large mononuclear cells in the field of vision, elements exactly similar to those described by Muggia and Bertolotti as characteristic of the blood of children suffering from pertussis. In this case the blood count showed 10 per cent. of polynuclears and 80 per cent. of large mononuclears. Lumbar puncture was performed three times in a fortnight, and each operation was followed by very well-marked temporary improvement. The patient recovered. The second patient had frequent fits of coughing, headache, torpor, malnutrition, and slow pulse. The fluid was not found to be under excessive tension. Six or seven c.cm. were extracted and centrifugalized, the sediment showing five to ten mononuclears and lymphocytes in the field. A satisfactory recovery was made, apparently unaffected by the puncture. The object gained was the demonstration of a specific meningeal irritation. The third patient—a child aged 2 years—had strongly-dilated pupils reacting badly to light and accommodation, slight inequality of pupils, and very slow pulse. The cerebro-spinal fluid was found to be under decided hypertension. Its microscopical characters were like those of the last specimen described. The puncture was followed by relief of symptoms. These cases establish the existence of a specific meningeal irritation as a complication of pertussis. In the first case especially the meningeal reaction had an evolution exactly parallel with that of the pertussis. The author suggests that the cerebro-spinal fluid is, in such cases as these, the vehicle by which the virus of pertussis acts on the central nervous system, and especially on the bulb and cerebrum, for in all the cases quoted the symptoms of spinal meningitis were conspicuously absent.

(210) Early Diagnosis and Treatment of Arteriosclerosis.

Stengel has contributed two overlapping papers on this subject (*Amer. Med.*, vol. vii, No. 1, pp. 9-11, and *Wiscon. Med. Journ.*, vol. iii, No. 3, 1904), in which he maintains that the diagnosis of arterio-sclerosis can often be be made with certainty at a stage antedating the changes which the crude method of palpation of the vessels allows us to recognize, and that a proper regulation of the life and habits of the individual may defer the more advanced stages, if even they cannot cause a restitution of previous conditions. He divides arteriosclerosis into two types, the normal senile form—a general process—and the pathological premature form in which progress in one part is more rapid than in another. Although, as he believes, sclerotic changes occur simultaneously in the larger and smaller vessels, it is yet those in the smaller vessels which are by far the more important. Among the causes he recognizes are laborious work, especially that involving nervous strain, overuse of alcohol, overfeeding, chronic metallic poisoning, especially from lead, and some infectious diseases, especially syphilis, and he believes that heredity has an important influence. The first effect of loss of elasticity of the blood vessels being an impediment to the easy circulation of the blood, there is an increase in the work of the heart and a consequent increase of blood pressure, although there may be a transient preliminary lowering. The means of determining this are the character of the pulse beat, the early lengthening and increased heaviness of the first sound of the heart, early accentuation of the aortic second sound, an increase of the tidal wave in the sphygmogram, the percussion wave being often less sharp and pronounced, and an increase in the mean blood pressure recognized by means of one of the instruments adapted for the purpose. The early clinical symptoms of the condition are a change of vigour and colour, and various trivial evidences of reduced vitality. It is active men of the better class, men who have achieved much and suffered much, though outwardly most successful, that fall early victims to this disease. The easy going, luxurious, and indolent may develop the disease, but not often prematurely and pathologically, except as a result of special excesses. With the loss of vigour, which may take the form of a nervous breakdown, there is a pallor particularly about the mouth, temples, and eyes, and this although there is no impoverishment of the blood. The skin, while as a rule dry, is liable to show abnormal sweating under exertion and the like. There is a tendency to alternations of polyuria and reduced renal excretion, with wide variations in the specific gravity of the urine with or without marked changes in its quantity. Later, occasional or continuous slight albuminuria may appear. When the heart muscle is affected there may be arrhythmia, increased cardiac impulse, and slight dyspnoea long before the myocardial disease becomes pronounced. Ophthalmoscopic examination may show early evidence of arterial thickening in the way of highly refracting arteries and compression of the veins where they are crossed by them. Stengel has seen cases of beginning sclerosis so much retarded by a fortunate change in the patient's life that he feels much faith in the efficacy of hygienic measures deliberately prescribed. Among such he counts restriction in diet, avoidance of alcohol, moderation in work and exercise, avoidance of undue nervous strain, and often the relaxation of a complete change of surroundings, with the use of moderate doses of saline aperients, the judicious employment of mild mercurials, occasional courses of the nitrites and alterative tonics, especially arsenic. Active drugging, and particularly the employment of digitalis, he strongly deprecates.

(211) Adrenalogenous Glands.

P. Mulen draws attention (*Arch. Gén. de Méd.*, December 27th, 1904, p. 3265) to a series of organs that may be called chromophilous because of their brown colouration with chromium salts or chromic acid, which appear to have a relation to the maintenance of arterial tension due, he believes, to the adrenalin that they contain. These glands, or the cells corresponding with them, are found in the lower animals and in mammals; they occur scattered throughout the abdominal sympathetic system, they form the medullary substance of the suprarenal bodies, and they occur in the tympanic and carotid glands, in the para-sympathetic organ of Zuckerkandl, and in the coccygeal gland of Luschka. Experiments are described apparently demonstrating the presence of adrenalin in the carotid gland of horses, and a voluminous bibliographical study of the subject is made. The following conclusions are drawn: That all the chromophilous organs are connected with the sympathetic system, and form an anatomical entity; they all show a minute structure resembling that of the glands known to have an internal secretion of this nature, they are a histological entity; they all present the colour reactions of these cells; and they are identical in their physiological reaction. The chromophilous

organs owe this identity to the adrenalin they secrete. In this connexion their relation to the vasomotor ganglia of the sympathetic system is significant. In all vertebrates, and particularly in mammals, including man, there exist multiple hypertensive or adrenalogenous glands which are entirely different from the cortical portion of the suprarenal glands. It is suggested that while the medullary portion of the suprarenal glands and the other chromophilous glands secrete adrenalin, the muscles, the liver, and probably the cortex of the suprarenals fix it.

SURGERY.

(212) Lumbar Puncture and Fractures of the Cranium.

PINCHART (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 2, 1905), inconsidering the importance of lumbar puncture in the diagnosis of head injury, points out that the presence of blood in the cerebro-spinal fluid cannot be regarded as a constant and reliable indication of fracture of the cranium. This fluid may be free from blood in certain cases of fracture, and shows signs of its presence in cases of cerebral haemorrhage of an exclusively medical kind. The differential diagnosis between fracture and apoplexy may become difficult in cases in which the attack of cerebral haemorrhage has caused a fall on the head. The author reports three cases of cranial fracture, in each of which blood-stained fluid was withdrawn on lumbar puncture. In discussing the value of this sign in regard to prognosis and the indications for operative treatment, he states that its absence in a clear case of cranial fracture, with symptoms of compression, should, from its pointing to extradural haemorrhage, lead the surgeon to trephine without delay. If, on the other hand, the fluid removed by puncture be blood-stained, then, he holds, it would be well as a rule to refrain from operative intervention, as the presence of blood would indicate diffused intradural haemorrhage and more or less laceration of the brain. In such cases lumbar puncture may prove of therapeutic as well as diagnostic value by relieving the cerebral compression. Reference is made to a case recorded by Poirier, in which grave symptoms following an injury to the head were effectually relieved after the removal by lumbar puncture of 40 c.cm. of cerebro-spinal fluid.

(213) Modification of Bassini's Operation for the Radical Cure of Hernia.

PÓLYA (*Zentralbl. f. Chir.*, No. 9, 1905) points out that Bassini's operation, though the most reliable and the most favoured method for attaining a radical cure of inguinal hernia, is apt in by no means a small proportion of cases to be followed by relapse. Failure of the operation is attributed in some cases to difficulty in closing the gap in the muscular wall of the abdomen, and in others to the results of suppuration and of accumulation of blood in the wound, to too rapid absorption of the suture material and to tearing away of the muscular tissue from the sutures in consequence of too much tension, or of a too brief rest of the patient in bed after the operation. Relapses of the second category can be prevented by strict observance of general rules in practical surgery; such, for instance, as rigorous asepsis, careful haemostasis, a right selection of suture material, prolonged confinement to bed during the after-treatment, and a careful administration of the anaesthetic in regard to the prevention of violent muscular movements in the course of the operation. The first-mentioned cause of relapse on the other hand cannot be overcome except by a thorough and successful endeavour to restore the normal anatomical conditions, and by an efficient method of establishing a permanent closure of the inguinal canal at its weak parts. The author advocates the method recommended by Bassini, but disregarded by many surgeons, of stitching to the back of Poupart's ligament the outer margin of the rectus muscle exposed by division of its fascia. The modification devised by the author is directed mainly to the prevention of a recurrent hernial protrusion along the intramuscular portion of the cord. To attain this object he stitches in the first place the upper margin of the divided aponeurosis of the external oblique to the posterior surface of Poupart's ligament, leaving a narrow slit for the transit of the cord well to the outer side of the internal ring, and he afterwards incloses the cord in a narrow passage formed by bringing over it the lower flap of the aponeurosis, which is secured in its overlapping position by sutures.

(214) Entrance of Air into Veins during Surgical Operations.

DELORE AND DUTEIL (*Rev. de Chir.*, No. 3, 1905), basing their conclusions on recent clinical operations, and on the results of the careful experiments of Bégouin made in 1898, throw some fresh light on the mechanism and the treatment of the surgical disaster known as air in veins. This rare accident, though as a rule rapidly fatal, may in some instances present a prolonged and less fulminating series of symptoms, and indeed may result in recovery. Cases have been recorded in which death, which usually occurs within ten minutes from the first appearance of the symptoms, has been retarded for intervals varying from three to thirteen hours, and, the authors assert, surgeons in the course of operations on the neck have observed the characteristic symptoms of the entrance of air into veins, after having heard the distinct hissing sound, and yet have seen their patients recover after an interval of a few hours. In discussing the cause of death in cases of air in veins, the authors hold that it exists not simply in obstruction of the pulmonary capillaries, but in an association of pulmonary embolism with weakening of the heart's action, due to distension of the cavities on the right side. The introduction of air into a vein in the course of a surgical operation is held to be the consequence of venous gaping, the result either of a normal anatomical condition as is presented in the neck and axilla, or of a pathological modification consisting in induration of the venous coats or of the perivenous tissues. The part played by this venous patency in the aspiration of air may be supported by a diminution of venous tension resulting from repeated or profuse haemorrhage. The severity of the symptoms bears a relation to the amount of air introduced into the veins, and the rapidity of this introduction. It has been shown by experiments on dogs that whilst the sudden and forcible injection of from 40 to 60 c.cm. of air will cause death in one or two minutes, a gentle injection of from 8 to 10 c.cm. will in most instances be followed by recovery. These results explain why the entrance of air into veins is not always fatal. The air slowly introduced becomes partly dissolved, and if the quantity be not excessive, the heart may continue its contractile action. In their remarks on the prevention and treatment of this accident, the authors insist on the importance in the removal of a large tumour from a vascular region of securing all visible vessels, and especially dilated veins, before these are divided. As a scientific and promising method of dealing with the serious condition caused by the entrance of air, they suggest aspiratory puncture of the heart. The most suitable part of this organ to be attacked in such treatment would, they state, be the right ventricle, as this, in in consequence of the thinness of its walls, is apt to be especially affected by over-distension, and, moreover, aspiration of this cavity may act more directly on the large venous trunks, and possibly remove some of the air. The right auricle, it is asserted, may be readily reached by introducing the needle in the third intercostal space on the left side at a distance of $1\frac{1}{2}$ c.cm. from the border of the sternum, and, after the wall of the chest has been traversed, of passing its point towards the mechosternal line. This minor operation is regarded as quite free from risk, and likely if practised without delay to be as beneficial on the human subject as it has proved to be on animals.

MIDWIFERY AND DISEASES OF WOMEN.

(215) Vaginal Caesarean Section in Eclampsia.

A DISCUSSION on vaginal Caesarean section in grave cases of puerperal eclampsia took place recently at the annual meeting of the American Association of Obstetricians and Gynaecologists. It was introduced by Carstens (*Amer. Journ. Obstet.*, November, 1904), who urged that prompt delivery would save the patient as a rule, but manual effort with the fingers and the hand was too slow, whilst powerful steel dilators were not always at hand and often caused serious injuries. Vaginal Caesarean section enabled the obstetrician to deliver the woman quickly and safely. Deep lateral incisions were dangerous; in one instance Carstens noted that the wounds were extended during the passage of the fetus into the broad ligament and its vessels, so that much haemorrhage occurred. With the careful perfection of the system of Dührssen, and by following his technique, Carstens found that only one incision was necessary, and that should run directly in the median line of the anterior part of the cervix. The

cut could be extended upwards into the body of the uterus with very little haemorrhage. It was always necessary to cut through the mucous membrane of the anterior fornix and separate the bladder from the cervix as in vaginal hysterectomy; the bladder could then be pushed out of harm's way, and the peritoneum need not be opened at all. It seemed to Carstens that any general practitioner could do this operation. Any surgeon, most assuredly, who had had experience in vaginal work, could have no trouble in delivering an eclamptic patient safely. Zinke (Cincinnati) and others denied that the average practitioner might easily undertake this operation; he was experienced in the use of the forceps, dilating bags, etc., but had seldom, if ever, opportunities of performing vaginal hysterectomy and allied operations. The dissecting off of the cervix from the bladder, not very easy in a non-pregnant subject, was very much harder during labour. Opinion was quite in favour of "vaginal Caesarean section" when it could be performed by an operator used to vaginal procedures. Schwarz (St. Louis) objected to the term itself, which completely misled practitioners who were not well informed as to the nature of the operation. It was simply an addition to our means of rapidly dilating the lower part of the parturient canal; it belonged to the same class of operation as *accouchement forcé;* it had come to stay, and was a valuable means of dilating the cervical canal. Zinke dwelt on the distinction, which all should understand, between incisions of the external os, long practised, and cervical incisions, which not only included the vaginal, but also the supravaginal, portion of the cervix and the internal os. Some scepticism was expressed about the delivery of a full-term child through Dührssen's anterior incision. Carstens replied, and insisted that all depended, as far as the discussion went, on the severity of the convulsions. If severe and not otherwise, the operation in question should be undertaken independently of the state of the os, dilated or undilated, and of the state of the patient—that was to say, whether labour had or had not begun. He considered that the young general practitioner was sufficiently instructed at his medical school in vaginal surgery to justify him in performing vaginal Caesarean section in a bad case of puerperal eclampsia.

(216) Flooding from Rupture of Circular Sinus in Labour.

Maygrier (*L'Obstétrique*, November, 1904) dwells on the diagnosis of rupture of the circular sinus, a condition defined by Matthews Duncan and Budin. As a rule the haemorrhage is but trifling, as a coagulum firm enough to plug the sinus develops rapidly. Hence the accident, frequent in this milder form, is only to be recognized by the detection of a clot on the border of the placenta traceable into the circular sinus. In exceptional cases rupture of the sinus may cause severe flooding. Maygrier finds that this form or degree of rupture can be diagnosed from detachment or vicious insertion of the placenta. In six labours, carefully reported, haemorrhage set in immediately on the completion of dilatation and the beginning of expulsion. It coincided with the beginning of a pain, ceased as long as the pain lasted, and returned more freely as soon as the pain was over. In all these six labours, which ended well, there was rupture of the sinus. The placenta was inserted laterally in one, at the margin in one, and normally in four. The presentation was "vertex" in all, and Maygrier specially notes that the children were all female, and small in size, ranging from 5 lb. to 7½ lb. in weight. The labours were spontaneous, but as the expulsion stage lasted for three-quarters of an hour in one case, there was necessarily much flooding, and therefore in some other cases of this kind it may be necessary to use the forceps. The phenomenon is easily explained as the pressure of the fetal head during a pain stops the bleeding. When the head of a large child lies against the injured sinus, its passive weight may also check haemorrhage between the pains.

(217) Appendicitis Due to a Fibromyxoma.

E. Monnier (*Corr.-Bl. f. Schweizer Aertze*, January 1st, 1905) states that benign tumours of the appendix are exceedingly rare. He has found only two cases recorded, both of which were myomata. In the following case the symptoms were those of perforative peritonitis, and no tumour was suspected: A previously healthy man, aged 29, was, after drinking cold water on the evening of April 26th, suddenly seized with severe abdominal pain. This persisted and vomiting appeared. On April 28th he was admitted to hospital. The face was drawn with pain and covered with sweat. The temperature was 101.8° F., and the pulse was 120. There was generalized pain and tenderness of the abdomen, which was distended. There was no dullness, but the abdominal walls in the caecal region were slightly more resistant than elsewhere. Appendicitis was diagnosed and laparotomy was performed forty-eight hours after the onset of symptoms. The abdominal wall was oedematous. On incision of the transversalis fascia a quantity of fetid pus escaped. The abscess was not localized and the neighbouring coils of intestine were red and dilated. The appendix, which was readily found, was adherent to the omentum. Immediately beyond its caecal insertion and opposite the mesentery was a tumour-like thickening of its wall of the size of a walnut. On the distal side of the tumour and posteriorly was a perforation which communicated with the abscess. The appendix and tumour were removed and the stump was closed with a double row of sutures. The peritoneum was cleansed, and a drain of iodoform gauze was inserted. On April 30th the pulse was 90 and the temperature was normal, but on May 1st right pleuro-pneumonia appeared. The temperature rose on May 7th to 106.5° F., and on May 12th death occurred with all the signs of septicaemia. The caecum and neighbouring intestine were still covered with fibrinous flakes, but the progress of the peritonitis had evidently been arrested. Severe toxaemia was evidenced by a subicteric tint of the skin and conjunctivae and renal infarction. The appendix was 3⅛ in. long, and at the narrowest part of the thickness of a little finger. The proximal third of its wall had been converted into a globular, hard tumour, 1½ in. in diameter. On section the surface was yellowish, gelatinous, and homogeneous. In structure it was a fibromyxoma, which had probably arisen in the peritoneal or muscular layers. It contained no muscular fibres. The lumen of the appendix was completely obliterated by the proximal part of the tumour, and no trace of mucous membrane remained at this spot. Probably while still permeable a small mass of faeces had entered the appendix. The distal half of the tumour contained a cavity formed by necrosis. The faeces became a faecal concretion, which was arrested in the lumen of the appendix opposite the distal half of the tumour and set up inflammation. Necrosis followed. The concretion ulcerated through the wall and gave vent to the septic products contained in the appendix beyond the obliteration. The writer believes that the tumour was congenital rather than due to local irritation.

THERAPEUTICS.

(218) Theocin and Caffein.

E. Clerici (*Riv. Crit. di Clin. Med.*, No. 2, 1905) states that his researches on theocin and caffein are a continuation of those previously published by Torchio on agurin and theobromin. He gives an account of the opinions with regard to these drugs of numerous observers who do not agree with one another. He divides the cases experimented upon into three groups. The first group were cases of rheumatic valvular disease of the heart, arteriosclerosis, and renal sclerosis; the second consisted of 7 cases of chronic parenchymatous nephritis at different stages of development; the third group contained cases of serous pleural effusion, of Hutinel's disease, and of hepatic cirrhosis. Each case was first observed for three days under natural conditions and without treatment by diuretic or cardiokinetic drugs, then for five days it was treated with a daily dose of 1 gram of theocin or 2 grams of caffein. Meanwhile the author noted changes in the pulse and respiration rates, the arterial tension, the quantity and density of the urine, the total area and the quantities of albuminuria, cylindruria, and transudates, and these results are separately recorded. He aimed at the determination of the degree and mode of action of the drugs, the indications and contraindications for their use, and the possibilities of intolerance in different classes of cases. He decides that theocin is simply a renal diuretic without direct influence on the heart. It has a prompt and certain diuretic action in the case of healthy kidneys, or kidneys which are acting satisfactorily; but its effect in such cases is of brief duration—it is less active in hepatic cirrhosis and in cases of pleural and peritoneal effusion of long standing. The increased elimination is rather of water than of the solid constituents of urine. Theocin never causes renal irritation; it has a beneficial effect on cylindruria and

albuminuria. Cases of intolerance of theocin are rare. Anorexia and nausea with a foul tongue were observed to follow its use in one case of diffuse arterio-sclerosis and in one case of double mitral disease. Both were relieved by purgation. Caffein is not only a direct diuretic by its action on the kidneys, but has also a concomitant action on the heart, a fact shown clinically by increase of arterial tension, improvement in the character of the pulse, and disappearance of hypostatic congestion of the lungs and of hepatic stasis. Its use is indicated in all the forms of disease mentioned above, but it should be avoided in cases of exaggerated arterial tension and in cases of dangerous frequency of pulse and respiration. It never injures the kidneys. It caused in one case of arterio-sclerosis restlessness, insomnia, palpitation of the heart, exaggerated pulse frequency, and delirium. In this case it had been administered hypodermically, ½ gram twice a day. Contrasting the actions of the four drugs—theocin, caffein, theobromin, and agurin—Clerici says that: (1) Caffein alone has a direct action on the heart as well as the kidneys, the other three having distinctly a renal action. (2) Caffein raises the pulse tension; agurin and diuretin lower it; and theocin lowers it most of all. (3) Agurin and diuretin have a moderating action on the pulse and respiration; theocin and caffein tend to increase the pulse rate more quickly in the case of theocin, for a longer time in that of caffein. (4) All four have much the same diuretic effect, influencing the transudates much more than the exudates. They none of them irritate the kidneys, but rather tend to diminish the pathological constituents of the urine. In using these drugs therapeutically he advises that: (1) In Bright's disease, with disorganized kidneys and weak heart, caffein is best; (2) in chronic granular kidney, with high arterial tension, agurin and theocin are to be preferred; (3) in mitral disease the four remedies are equally indicated; (4) in cases of inflammatory exudation and in atrophic hepatic cirrhosis these four drugs are all useless.

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(219) Urotropine in Scarlet Fever.

K. PATSCHKOWSKI (*Therap. Monat.*, Dec., 1904) recommends that urotropin be given in all cases of scarlet fever, with a view to the prevention of nephritis. Widowitz first published an account of such a use of urotropine, and claimed to have treated 102 consecutive cases of scarlet fever without the occurrence of nephritis in any case. Patschkowski has used urotropine in 52 cases of scarlet fever at the Charlottenburg Hospital. Two methods of administration were employed. To 8 of the patients the drug was given on each of from ten to twenty-one consecutive days; the dose for children being 0.25 gram, and for adults 0.5 gram, three times a day. To the remaining 44 patients urotropine was given on each of three or four consecutive days, and a break of five days was then made before the administration of the drug was resumed. The treatment was begun as soon as the patients were admitted—that is, as a rule, before the end of the third day of illness. Of these patients, 2 only, or 3.8 per cent. of the whole number, developed nephritis, in spite of the fact that the fever was of a peculiarly severe type. In no instance was any harmful side-effect of urotropine observed. In addition to the cases already mentioned 10 others are especially mentioned. One was that of a patient admitted on the seventh day of illness with nephritis already present. After two days' treatment with urotropine albuminuria permanently disappeared. The other was that of a child treated with urotropine, who died on the twelfth day of the fever. At the *post-mortem* examination, endocarditis, pericarditis, pleurisy, a recent infarct of the spleen and peritonitis were all found, but the kidneys were normal. Some statistics are given to show the frequency of nephritis in scarlet fever treated on ordinary lines, and a consideration of them shows more clearly the value of the urotropine method. Heubner states that nephritis occurred in 10 per cent. of 318 cases of scarlet fever seen by him in private practice, and in 19.6 per cent. of 393 cases in hospital practice. At the Charlottenburg Hospital, in the two years before the administration of urotropine was introduced, 225 cases of scarlet fever were treated. After substracting those cases in which death occurred soon after admission, or in which nephritis was present on admission, 177 cases remain. Among these there were 37 cases of nephritis, or 20.9 per cent., as compared with 3.8 per cent. when urotropine was used. The author suggests that urotropine may prove to be useful in cases of sepsis; for example, in puerperal sepsis.

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(220) Citarin in Uric Acid Diathesis.

SINCE it has been known that gout depends on the deposition of uric acid, many attempts have been made to find a solvent for this substance. It has been found that formaldehyde forms a compound with uric acid, which is soluble in 300 parts of water, while the acid itself is only soluble in 38,000 parts, and its sodium salt in 1,130 parts. Allowing formaldehyde to act on the citrate of sodium, the anhydro-methylene-citrate of sodium is formed, which has been introduced into therapeutics under the name of citarin. Floret (*Deut. med. Woch.*, January 26th, 1905) speaks of this preparation. It is said to be absolutely harmless, to be freely soluble, and to possess, with the addition of a little sugar, a taste like lemonade. Floret has an experience of its action in 6 cases, and gives the details of each. In each case other remedies were first tried without effect, and in 2 the diagnosis of gout was only made, when it was found that antirheumatic and other remedies proved useless, and that the citarin acted promptly. Even in the sixth case, of nephrolithiasis, and the fifth, of extremely chronic gout, the preparation did its work well. He employed it in doses of 2 grams three or four times a day. In conclusion, he recommends its further use on the ground that it acts very completely and quickly, that it is harmless, and that both in acute gout and in the acute exacerbations of chronic gout, it may be regarded as the best drug which we possess.

(221) Radiotherapeutic Nihilism.

G. G. BURDICK (*Amer. Medicine*, January 21st, 1905) believes that the destructive effects noted in the various malignant conditions are due solely to the chemical ray, and in order to get the best results the degree of penetration should be controlled in order to allow the ray to come to rest in the tissue where results are desired. He states that (1) in lupus and local tuberculosis the tube should be held within four inches of the skin, and the penetration regulated to within a half-inch, in order to take advantage of the ray of low velocity that resembles the cathode rays; (2) in carcinoma and epithelioma the tube should be at ten inches, and the penetration calculated to about the centre of the growth, producing irritation at least twice and then increasing the degree of irritation to a high velocity in order to get a cellular degeneration: (3) sarcoma requires a very high degree of penetration, depending upon the density of the growth; (4) when a lethal effect on tissue is desired a very low tube should be used; (5) the lethal effects are due to the chemic radiations; (6) the tonic effects are due to the fluorescence of the ray, fluorescence being understood as a form of motion; (7) all unbroken carcinomas should be thoroughly rayed before operation.

PATHOLOGY.

(222) Differentiation of Dysentery Bacilli.

HISS (*Journ. of Med. Research*, vol. xiii, No. 1, December, 1904) divides bacilli of the dysentery type into four main groups, each of which has fermentative and agglutinative characters distinguishing it from the rest and from the bacillus of typhoid fever. The first group, represented by B. dysenteriae of Shiga and Kruse, ferments monosaccharids readily, and at times, after many days, maltose. This group is distinguished from all of the following groups by not fermenting mannite. The second group, represented by bacillus Y, ferments monosaccharids and mannite generally within twenty-four hours. Maltose, and under special circumstances saccharose, may be fermented, but not with ease. The third group, represented by Strong's Philippine culture, ferments monosaccharids and mannite with ease; saccharose is fermented comparatively readily, and at times maltose, but slowly. The organisms composing the fourth group, represented by Flexner's Manila cultures and Duval's "Baltimore" culture, ferment monosaccharids, mannite, maltose, saccharose, and dextrin with ease, although the saccharose fermentation is usually less complete and slower than the others. Typhoid bacilli ferment monosaccharids, mannite, maltose, and dextrin, and are distinguished from the last group by not fermenting saccharose, and also by their motility. The agglutination tests are found to support, and possibly to extend, the classification indicated by differences in fermentative activities, and not only are the Shiga-Kruse bacilli differentiated from the mannite-fermenting organisms, but these latter are shown to be composed of several well-marked and easily-distinguishable varieties, if not distinct species.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(223) Pneumococcus Arthritis in Infancy.

Nattan-Larrier records what he believes to be the first published case of pneumococcus arthritis in an infant (*Archiv. Gén. de Méd.*, February 28th, 1905, p. 529). On the nineteenth day after birth the child showed evidence of affection of the right shoulder-joint; on the following day this was plainly swollen, and two days later the child, who was greatly wasted, died. In 28 out of 32 cases investigated by the author, the arthritis was obviously secondary to pulmonary or broncho-pulmonary disease, but in the above case it was not. The origin of the disease must, therefore, have been due either to direct transmission from the mother or to infection from some local lesion. The mother was perfectly healthy and the interval of twenty-one days between the birth of the child and the occurrence of the arthritis also seemed to negative this hypothesis. The only local lesion from which the child suffered was a suppurating wound in connexion with a harelip. At the autopsy the pus from this wound was found to contain pneumococci, and the fluid in the right shoulder-joint contained them in large numbers, but there was no pneumococcal infection of any other structure in the body. In view of the frequent presence of the pneumococcus in the healthy mouth, it was presumed that the organism had gained access through the wound in the lip to the general circulation, and had established itself in the right shoulder-joint, owing to its resistance having been lowered by an injury to it during a difficult labour in which the presentation was occipito-posterior. The general infection was probably favoured by the weakly state of the child, its ill-nourishment being apparently associated with the pain it experienced in the lip on being suckled. The author refers to Cave's observations, according to which there was a determined local cause in 10 out of 32 cases of pneumococcus arthritis.

(224) The Diagnosis of Pancreatic Diseases.

John C. Hemmeter (*Amer. Med.*, March 11th) fully considers the advances in the physiology of the pancreas and their application to the diagnosis of pancreatic disease. He believes that the effort to determine the degree to which protolysis is interfered with is rendered futile by the presence of erepsin, secreted in the intestinal juice, and which can break down proteids very rapidly after they are once attacked by gastric juice. Defective fat digestion as a gauge for pancreatic insufficiency is equally disappointing. Nevertheless, he believes that great aid can be obtained from the method of Adolph Schmidt. This is based upon the physiological fact that only gastric juice can digest connective tissue (collagen) and only pancreatic juice can digest the nuclear substance of meat fibre. Hence the presence of remnants of undigested connective tissue in the faeces indicates insufficiency or absence of gastric secretion and the presence of nuclei in the cells of meat fibres points to insufficient pancreatic secretion. Hemmeter tested the stools of two patients, one suffering from pancreatic cyst, comprising the duct of Wirsung and the other from a stenosis of the duct caused by an old pericholecystitis. In both cases the stools contained muscle fibres, showing well-preserved nuclei.

(225) Pneumonic Paralysis.

Fedeli (*Rif. Med.*, February 25th, 1905) reports a case of right hemiplegia occurring in the course of pneumonia in the case of a man aged 65, and due (as proved by necropsy) to haemorrhage in the left internal capsule. He then discusses the subject of pneumonic paralysis generally. A short review of various cases teaches that there are several varieties of paralysis occurring in pneumonia. Those occurring at the beginning or in the course of the disease have a different symptom-complex and a different prognosis from those which happen during convalescence. The latter are diffused in type, with a tendency to become fixed in the lower extremities, and almost always recover. The former are more often monoplegic or hemiplegic in type, and may end in death. Probably the paralyses of convalescence are of the nature of a neuritis or polyneuritis, which may or may not be of the ascending type, and occasionally leading to poliomyelitis. The muscular atrophy which sometimes accompanies these forms of paralysis tells in the same direction. As to the more serious group of paralyses—those occurring in the beginning or during the course of pneumonia—many of them are due to cerebral haemorrhage, others to thrombosis, embolism, and softening. Of those which recover some may be explained by localized anaemia of reflex origin (for example, in children), or due to vascular changes (in old people). Even the toxaemic paralyses probably act chiefly in virtue of some previous vascular weakness forming a locus minoris resistentiae. Hysteria is not a very probable cause, and may be largely discounted in these cases; and it seems fairly certain that whatever be the real pathogenesis of pneumonic paralysis, as it occurs in children, it must in their case be something different from that of old people.

(226) Pathological Sleep in Cases of Cerebral Tumour.

Fr. Franceschi (*Riv. di Pat. nerv. e ment.*, October, 1904) describes a case of cerebral tumour attended from the first by a striking tendency to somnolence, and raises numerous questions with regard to the nature both of physiological and of pathological sleep. He notes that while all authors mention pathological sleep as a symptom of cerebral tumour, it is usual to note its existence without any investigation of its cause, or any explanation of the different stages of the disease at which the symptom shows itself. Some authors do not distinguish clearly between somnolence, sleep, and coma, and it is therefore impossible to draw exact conclusions from cases reported by them. The principal questions raised are those of the mechanism of sleep and the effect of the localization and nature of cerebral neoplasms in producing sleep. Righetti has shown that pathological sleep is a more common symptom of tumours in the third ventricle and the hypophysis than of those situated elsewhere. In this case the patient suffered from somnolence, and later from mental torpor, for five months before an affection of vision and the increasing severity of the other symptoms led to her admission to hospital. At that time she presented the appearance of a continuous and tranquil sleep. She was capable of being roused, but quickly slept again. Later she suffered from headache and vomiting and she died of bronchopneumonia a month after admission. She was conscious when awake up to the end of life, and frequently executed voluntary movements. Her sleep was much disturbed by the bronchopneumonia. It was, therefore, clearly sleep and not coma. At the autopsy a sarcoma was found originating probably in the dura mater, and afterwards involving the base of the third ventricle and the neighbouring parts. The tumour was of such a size and in such a position as to be closely surrounded by the circle of Willis. The internal carotids were half their normal size, and the posterior communicating arteries were a quarter or a fifth of their normal size. The basilar arteries were compressed by the tumour. The most commonly received explanation of sleep caused by a cerebral tumour is that it is due to increased intracranial pressure, but in this case there was no appearance at the autopsy of anything beyond slight increase of tension, and no likelihood that there was any appreciable increase of tension when somnolence was first observed. One of the best established facts with regard to sleep is that it is attended, either as cause or effect, by anaemia of the cerebral cortex. That theory of sleep which regards it as caused by anaemia of the cortex fits best with the conditions observed in this case, and the frequency with which pathological sleep is associated with tumours of the optic thalami, the hypophysis and the floor of the third ventricle may be reasonably attributed to pressure on the circle of Willis, interfering with the circulation through the brain. Other theories—chemical, histological, and evolutionary—of sleep causation the author accepts as complementary to, and not incompatible with, this. A much larger number of careful and accurately recorded observations is needed before each hypothesis can be credited with its true worth. Franceschi briefly reviews the opinions of those who maintain the existence of a special centre for sleep located in the central grey substance of the brain, and points out that the observations made in this case might well be cited in support of such a theory.

SURGERY.

(227) Extirpation of the Pancreas.

Silvester (*Brit. Med.*, February 18th, 1905) has carried out a series of experi-

ments on young dogs with reference to the above question. The results obtained by various experimentors seem to differ considerably, and the deductions and theories differ correspondingly. Moreover, very similar results seem to follow extirpation of the coeliac plexus. In the author's cases the following symptoms were observed constantly in the depancreatized animals: (1) A transitory glycosuria coming on immediately after operation and lasting twenty-four to thirty-six hours, followed later by a slight glycosuria in exclusive relation to food, and ceasing in forty-five to sixty days. (2) Nutritive disturbances (wasting), polyuria, and alterations in tissue change. (3) Polyphagia and polydipsia. These disturbances are not fatally progressive, but are arrested after a certain time, and the animals appear quite well. Injections of pancreatic extract improve the general nutrition in the depancreatized animals without having the slightest influence on the glycosuria, which looks as if the pancreas exercised an influence on the regulation of tissue change through its trophic action on the nervous system. The fact that removal of the coeliac plexus produces similar symptoms points in the same direction. Probably in depancreatized animals the other glands with internal secretion take on a compensatory action, and in the fatal cases death occurs perhaps through failure of this compensatory action. In support of this hypothesis the author relates an experiment where failure of compensation occurred owing to toxic infection of other glands. The author further points out that glycosuria is by no means the most important symptom of pancreatic diabetes—may indeed be absent—so that diabetes and glycosuria cannot be used as synonymous terms. The essential symptom is a derangement of tissue change, so that there is a general breaking-down or wasting of the body—an autolysis.

(228) Treatment of Traumatic Aneurysm by Injection of Gelatine.

LE DENTU (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 10, 1905) publishes a case of large traumatic aneurysm occupying the lower half of the left popliteal space, and extending downwards to a line about 6 in. below the knee-joint. The dilatation, it was thought, involved the trunk of the posterior tibial artery above the origin of the peroneal branch, and also the lower part of the popliteal artery above the origin of the anterior tibial. An attempt, therefore, to extirpate the sac would have completely abolished the circulation in the leg, and very probably resulted in gangrene. After a prolonged and careful treatment by rest and flexion of the leg, which proved unsuccessul, the author tried repeated subcutaneous injections of sterilized gelatine serum. Seven injections were made, the intervals varying from seven to twenty days. About five days after each injection the aneurysmal tumour became smaller and firmer. The last injection was followed after an interval of about ten days by complete cure. The author, whilst of opinion that extirpation of the sac should be considered the method of election in the treatment of aneurysm in a limb, acknowledges that in the presence of conditions likely to render such treatment dangerous, and in cases in which a cutting operation is decidedly contraindicated, the injection of gelatine as practised by Lancereaux and Paulesio may be regarded as a proper and promising resource.

(229) Laceration of the Vena Cava in Nephrectomy.

HARTMANN (*Trav. de Chir. Anatomo-Clin.*, 2me série, 1904) publishes a case of recovery after accidental wounding of the inferior vena cava in the course of an abdominal nephrectomy on the right side. The haemorrhage was arrested by the application of two catgut ligatures, one above, the other below, the lateral rent in the vessel, which was situated about 2 cm. below the renal pedicle. With the object of making out whether a like treatment would be indicated in injury of the vein at or above the level of the origin of the renal vessels, some experiments have been performed by Gosset and Lecène on dogs. The results of these experiments show that (1) ligature of the trunk of the vena cava below the renal veins need not cause any pathological disturbance; (2) ligature above the pedicle is followed by severe lesions of the kidneys and death; and (3) ligature above and below the pedicle, with or without removal of one kidney, rapidly creates intense and fatal pathological changes in the opposite kidney. These results confirm the views previously held by the author, that in dealing with a laceration of the inferior vena cava in the human subject, double ligature of this vessel above and below the wound should be practised when the seat of the injury is below the renal pedicle. On the other hand, when the wound is situated at the level of the renal pedicle or above this, it should be closed by lateral sutures, and not by complete occlusion of the venous trunk.

(230) Adrenalin.

HILDEBRANDT describes the application of adrenalin in surgical practice (*Berl. klin. Woch.*, January 2nd, 1905). He says that although it is only four years since the active principle of the suprarenal capsules has been introduced into therapeutic use, it has already gained a firm footing. The ophthalmic surgeon, the laryngologist and dentist have been the first to make free use of its action, but in minor surgery one has not been far behind. He has employed the preparation called suprarenin, which he considers equal in activity to adrenalin. The maximal dose of this substance is given at $\frac{1}{2}$ mgr.—that is, 15 drops of the solution—but he considers that only very rarely is one justified in injecting such a large quantity subcutaneously; 15 to 20 drops are capable of producing toxic symptoms, such as palpitation, feeling of anxiety, and increased rate of respiration. In high concentration the preparations have the disadvantage of producing necrosis; they also may be dangerous in completely occluding larger vessels, which will bleed as soon as the reaction has passed off. If one uses doses which only act on the capillaries one avoids these dangers. For this purpose 0.0001 gram suffices. By injecting suprarenin together with cocaine, one increases the anaesthetic action, lengthens its duration, and diminishes the toxicity of the cocaine. The same naturally applies to eucaine. When applied to the mucous surface, one applies a 5 per cent. solution of cocaine or eucaine to which a few drops of sterilized adrenalin have been added to the surface, and in five minutes the field is entirely anaesthetic. The bladder may be rendered anaesthetic by filling the organ with 0.1 to 0.2 per cent. cocaine in saline solution, together with 1 c.cm. of suprarenin. The fluid must of course be removed after the anaesthesia is attained, which generally takes about a quarter of an hour. For the skin one can use Schleich's method, adding to the cocaine solution from 3 to 10 drops of adrenalin, or Hackenbruch's circular method, using rather more adrenalin. Resection of ribs can be very easily carried out without any pain by these procedures. Anaesthetizing nerves and their neighbourhood is carried out by injecting a cocaine-adrenalin mixture and waiting at least ten minutes for the full action. Adrenalin must not be used as a haemostatic when the source of haemorrhage is a large vessel, but it is of great value in bleeding from mucous membranes, such as the nasal, the tonsular, the gums, the bladder, and the like. Hamm speaks on the same subject in the *Deut. med. Woch.* of December 22nd, 1904. He says that he has experienced severe secondary haemorrhages after adrenalin, and others have obtained this result after hemisine. It is only since he has been using suprarenin that he has obtained equally good results. In comparing the adrenalin with suprarenin he finds that 10 grams of the former, having a strength of 1 in 10,000, costs 3s. 7d., while the same quantity of the latter, which has a strength of 1 in 1,000, is only 1s. 6d. He deals with the action of the preparation in surgery of the nose and ear, and also deals with some other points in its uses.

MIDWIFERY AND DISEASES OF WOMEN.

(231) Pyelitis in Pregnancy.

OPITZ (*Monats. f. Geb. u. Gynäk.*, October, 1904), after comparing 64 cases of this condition, finds that as a rule pyelitis comes on suddenly with severe symptoms, which nevertheless tend to subside, though they may last for some time. The main indications of this complication are pain running from the liver on the side of the affected kidney along the course of the ureter to the bladder and also down the thigh. Rigors occur, with very irregular temperature curves, not rarely rising over 104° F. Pus is found in the urine, which is, as a rule, secreted in abundance and is acid. Albuminuria, always present, varies in degree and is seldom very marked. Pyelitis most commonly sets in from the fifth to the seventh month, not often later, whilst it is extremely rare in the first three months of pregnancy. The right kidney is the seat of disease in 80 per cent. of the cases, in about one-sixth the disease is on the left side, whilst bilateral pyelitis of pregnancy is very rare. The majority of cases recover after delivery, sometimes with fever in the puerperium: frequently the disease disappears during gestation. The mother's life is only in danger in excep-

tional cases, but premature labour associated with rise of temperature is always probable. Pressure on one or both ureters is the most usual cause of pyelitis. The bacterium coli is, as a rule, to be found in the urine. Diagnosis is seldom difficult; when the case is not clear the cystoscope or ureteral catheter will be of service. Rest, milk diet, and urotropin are of the highest benefit, when they fail induction of labour is advisable. Nephrotomy and drainage may be practised if it is very important to save the fetus, and if the site of the disease can be clearly defined. Nephrectomy is only to be undertaken in exceptional cases. In a discussion on the subject, Döderlein believed that the pyelitis was usually ascending, and arose from infection of the bladder. Frequent and complete emptying of that organ is the best prophylaxis. Schaeffer had observed one case in a multipara with extreme cystocele, and two associated with severe influenza, where labour pains set in, which subsided after rest; Rosinsky believed that operative interference was frequently needed; von Wild, however, insisted that drainage by nephrotomy should never be preferred to the induction of artificial labour.

(232) Uterine Fibroid Tumours.

J. Clarence Webster (*Amer. Med.*, March 11th) gives the results of a study of a series of 210 cases treated surgically. He says widely-held views as to the comparative harmlessness of uterine fibroids should be greatly modified. Taking into consideration the pressure effects, the tumour degenerations, the pelvic and abdominal complications, the changes in the heart, large vessels, kidneys and liver, the chronic anaemia of haemorrhagic cases, and other occasional associations—for example, suppuration, gangrene, peritonitis, phlebitis, embolism, the influence of pregnancy and labour, the new growth must be considered as seriously increasing morbidity and mortality in women in whom they occur. Owing to improvements in technique and to careful preparation of patients, splendid results have been obtained from operative procedures, and the mortality has been greatly reduced. All large or growing tumours, or small ones which cause troublesome or serious symptoms, should be treated surgically. Whenever large tumours are to be removed, the most careful preliminary treatment is always indicated. In discussing the question of the choice of surgical procedure, the author limits himself to a few general considerations.

(233) Pelvic Kidney in Women.

Orth (*Zentralbl. f. Gyn.*, No. 1, 1905), in an article on anomalies in form and position of the left kidney, publishes a new case where a woman, aged 30, suffered from pains in the pelvis and left side of the abdomen, very familiar in type, and traced to her last confinement. There was a trifling degree of prolapse of both vaginal walls, the uterus was retroflexed, the right appendages seemed normal on palpation, whilst in the place of the left ovary and tube was a mass as big as an orange fixed to the pelvic walls; it felt relatively soft in the middle, and was diagnosed as a left tubo-ovarian cyst or hydrosalpinx with follicular cystic ovary. On opening the abdominal cavity the left appendages were found normal and pushed upwards and forwards by the tumour, which had simulated them. The uterus was retroflexed and pushed to the right; the appendages on that side were normal. The posterior layer of the left broad ligament was opened and the tumour enucleated. It was lacerated at several points, being friable in consistence. It proved to be the left kidney; the ileum was anterior, as is the rule in displaced kidney; but, contrary to the rule, there was but one renal artery and vein; they descended from above, running down alongside the aorta. The ureter was pervious and short, the renal pelvis somewhat abnormal, but the entire kidney was free from disease. The patient recovered: urine was freely secreted during convalescence. Displaced kidney is commoner in women than in men in the proportion of 17 to 5 (Küster).

(234) Amenorrhoea with Eye Symptoms.

J. E. Gemmell (*Journ. of Obst. and Gyn. of the Brit. Emp.*, vol. v, No. 5) reports a case of amenorrhoea associated with haemorrhage into both eyes. The patient was 16 years of age. Menstruation began at the age of 13, and occurred regularly every twenty-eight days until three and a half months before she was examined. At the time of the last menstrual period the patient left home to go to a boarding school, and the period lasted for eight days—that is, double the time customary for her. About the time when the next period was due she found that she was blind in the right eye, but could see quite well with the left eye. After two months she was seen by Bickerton, who found that the right vision was nil, except at the upper and inner quadrant. In the left eye was seen a faint floating vitreous cloud. When seen by Gemmell a few days later the patient was in good general health, not suffering from anaemia or constipation. The blood and urine were normal; there was no vaginal discharge, no complaint of pelvic disorder, no symptom of menstrual molimina. The only causes which could be assigned for the amenorrhoea except climatic change were increased mental activity and insufficient outdoor exercise. The treatment was mainly directed to re-establishing the menstrual flow. A mixture of iron and aloes was given three times daily and 5 gr. of thyroid in tabloid form at bedtime. The patient was kept at rest in bed in a warm room, and, as local treatment, leeches were occasionally applied to the temples. After a fortnight the left eye was found to be normal, but there was little improvement in the right eye. The author is of opinion that this case is one of vicarious menstruation.

(235) Prolapse of Ureter into Vulva.

Simon (*Zentralbl. f. Gynäk.*, No. 3, 1905) observed this condition in a married parous woman subject for several years to vaginal prolapse and to dysuria. She was obliged to press up the vagina with her finger during micturition. One day this manœuvre was followed by sudden pain, fever, and the appearance of a pedunculated mass protruding from the meatus. It was as large as a ripe fig. On bimanual palpation a swelling as thick as a fetal arm was traced along the left side of the sacro-iliac region down to the bladder. Hence prolapse of an abnormally-dilated ureter was diagnosed. Reduction of the prolapsed mass was impossible. Simon made a vertical incision through the anterior vaginal wall, laying open the urethra, the neck and about an inch of the bladder. Clear urine issued from the orifice of the right ureter; the left, as expected, formed the tumour, the base of which was nipped by the sphincter vesicae so that gangrene was commencing. An elastic catheter about 9 in. long was passed with perfect ease into the dilated left ureter. The prolapsed portion of ureter was excised, and the ureter above the line of excision united to the vesical mucosa with catgut, then a 6-in. retention catheter was placed in the ureter. The bladder and the vagina behind it were closed as low down as the sphincter. The urine which escaped from the left ureter was full of foul pus. The united parts healed and the urine could be fairly well retained. Repair of the urethra was postponed as the urine was still fetid.

THERAPEUTICS.

(236) Copious Water-drinking in the Treatment of Typhoid Fever.

Cushing and Clarke (*Amer. Journ. Med. Sci.*, February, 1905) had a large number of enteric fever patients during 1903 and 1904 in the wards of the Lakeside Hospital, Cleveland. During part of this period they have given their patients copious draughts of water, partly by systematic administration of prescribed quantities at definite intervals and partly by having iced water by the bedside for the patient to take according to his need. In this way as much as 14 pints was consumed daily in some cases without interfering at all with the ingestion of milk and other foods. As a result there was polyuria, the amount of fluid excreted in the twenty-four hours ranging from 5 to 13 pints, and closely corresponding with the amount ingested. The effects of this plan of treatment, based on an analysis of 100 cases, are given in statistical form as far as possible. Five cases were fatal, as against a mortality of 10 per cent. in 300 cases treated otherwise. The febrile period was not shortened, but relapses were less frequent—8 per cent. as against 11 per cent. of other cases. The height of the febrile curve was diminished, hence baths were less often needed; this, with the improved state of the mouth, lessened the burden of the nursing appreciably. Haemorrhage occurred with average frequency, but perforation and phlebitis were each met with in one case only. The increased frequency of urination was not a serious trouble, and the state of the bowels was not definitely affected in either direction, except that meteorism was more troublesome than in cases treated otherwise. Toxic symptoms were less marked, and the authors regard this form of hydrotherapy as a valuable adjunct to the bath treatment of typhoid fever.

(237) Digalen.

THE difficulty in the dosage of digitalis depends on the fact that there is a great variability in the different leaves, and also that the preparations of these leaves do not keep well. It has, therefore, been felt for a considerable time that a constant stable preparation which can exert the full action of the active principles of digitalis is needed. E. Bibergell says that the dialysatum digitalis grandiflorae of Golaz has not been able to take the place of the infusion of digitalis in spite of the claims made for it (*Berl. klin. Woch.*, December 19th, 1904). Cloëtta has recently succeeded in preparing from the leaves of the digitalis a white amorphous substance, which is freely soluble in water, which does not irritate, and is very diffusible. This substance, in aqueous solution with 25 per cent. glycerine added, has been introduced into the market under the name of "digalen." Its full name is "digitoxin solubile Cloëtta." He has tried the effect of this preparation on a number of patients, and reports on the results which he obtained. The application was carried out mostly in the form of subcutaneous or intravenous injections by Naunyn, who has also tried it; but Bibergell gave it mostly by mouth, either in milk, seltzer water, or a sweet wine. As a rule, 1 c.cm. was given after each meal. Unlike digitalis, it did not produce any anorexia in dyspeptics, nor were there any other bad side-effects. In one case of a patient suffering from parenchymatous nephritis with uraemic symptoms, the infusion of digitalis was vomited each time, but the digalen given in wine was retained. In cases where the stomach should be spared as much as possible, digalen can be given per rectum, and will not irritate. The preparation is stable, and acts more rapidly than digitalis; and, as far as Bibergell's observations go, there is no cumulative action. In the cases, of which he appends abstracts of the clinical histories, it appears that the action is that of a good infusion of digitalis made from an active leaf.

(238) Injection Treatment of Syphilis.

MANY patients are frequently not able to carry out a sufficiently severe course of treatment for syphilis, from private reasons, other than that of injection, and not infrequently this treatment, carried out with a 10 per cent. emulsion of the salicylate of mercury in paraffin, has the great disadvantage of producing very severe toxic symptoms, evidenced by gastro-enteric disturbances. Sometimes these symptoms are very alarming. Schnabel describes an alternative method of dealing with such patients (*Deut. med. Woch.*, December 15th, 1904). He found that if one substitutes for the paraffin an absolutely neutral and stable vaseline these unpleasant symptoms can be avoided. He finds that liquid vasenolum, which is prepared from vasenol, is capable of suspending the salicylate of mercury so perfectly that the salt remains in a very finely divided state, is permanently suspended, and the emulsion is homogeneous. The emulsion can be sterilized by boiling, without losing in quality. Using a 10 per cent. emulsion, he has not met with any of the mercury intoxication symptoms which so often caused his patients discomfort and anxiety when the old emulsion was used. The action on the syphilitic process is the same for the two emulsions. There are, however, two disadvantages for the new emulsion. The first is that after injection, a painful infiltration appears more regularly and this lasts longer than when the old emulsion is used. The second objection is merely a technical one. He has found it extremely difficult to get rid of air bubbles out of the syringe with the new emulsion. The only remedy against this is to exercise very great care in sucking the emulsion up into the syringe. On account of these two disadvantages, he has not entirely given up using the old suspension, but mostly used the new, when the patient shows intoxication symptoms after the old.

(239) Lumbar Puncture in Enuresis.

CANTAS (*Rev. Prat. des Mal. des Org. Gén.-Urin*, January 1st, 1905) has tried injections of cocaine by lumbar puncture in cases of nocturnal incontinence of urine in children. From 2 to 4 cg. of cocaine in 10 to 20 c.cm. of distilled water are injected by a graduated syringe with a steel needle 6 cm. long. The results are said to be good. As it was alleged that the effect of the injections was due to the mechanical stretching of nerves, the author tried injections of sterilized air (250 c.cm.). The results, however, were disappointing, and hence it is inferred that the mechanical action is not the only factor in paradural injections. Injections of sterilized air subcutaneously in cases of neuralgia and sciatica have been performed successfully by Cordier.

(240) Stovaine as a Spinal Anaesthetic.

E. SONNENBURG (*Deut. med. Woch.*, March, 1905) writes on this subject: Stovaine, a new local anaesthetic invented by Fourneau of Paris, with the formula dimethylaminobenzoyldimethylethylcarbinol, in 10 per cent. sterile solution, is injected into the spinal canal between the third and fourth lumbar vertebrae; the details of the injection resemble those of a Quincke lumbar puncture. Only from 4 to 8 cg. of the substance are injected; that the whole of this small amount should reach the spinal canal is ensured by first drawing off a quantity of the cerebro-spinal fluid into the syringe, mixing it there with the stovaine, and by then injecting the whole into the canal again. In from 2 to 10 minutes, most often in from 4 to 5, complete anaesthesia of the lower part of the body follows, and it usually rises to the level of the costal arch; anaesthesia from the feet up to the forehead was once noted. It lasts on the average for 1 to 1½ hours; the author supposes that it is due to the action of the drug upon the nerve roots in the spinal canal. He has used stovaine in 56 cases, successfully in 45, for surgical operations of every kind—from the amputation of toes to appendix operations and gastro-enterostomies. The 11 failures to produce satisfactory anaesthesia he attributes to the insufficiently elaborated technique of the injections. As a local anaesthetic, stovaine is slightly less active than cocaine, but it is much less poisonous and does not give rise to syncope. He recognizes in stovaine a serious rival to ether and chloroform for the purposes of surgical anaesthesia.

PATHOLOGY.

(241) The Phosphorus Content of the Cerebro-spinal Fluid.

DONATH (*Hoppe-Seyler's Zeit. f. Phys. Chem.*, Bd. 42, p. 141) has estimated by Neumann's method the percentage of phosphoric acid in the cerebro-spinal fluid of 30 patients, most of whom were suffering from diseases of the nervous system. The material examined was obtained by lumbar puncture. The highest percentage of P_2O_5 obtained was 0.0508 and the lowest 0.0026; the former was from a case of progressive paralysis, and the latter from a case of pulmonary tuberculosis with melancholia. On the whole, the phosphorus content was found to be increased in diseases associated with active destruction of nerve tissue. Thus, in progressive paralysis (3 cases) the average percentage was 0.219; in tabes dorsalis (6 cases) it was 0.0203; and in 2 cases of cerebral tumour it averaged 0.0177. In epilepsy, on the other hand, the average percentage in 7 cases was 0.0086, an amount not appreciably different from what was found in other disorders not associated with rapid breaking-down of nerve tissue.

(242) The Transfusion of Heterogeneous Blood.

SALVIOLI (*Arch. Ital. de Biol.*, vol. xlii, 1904 p 250) records a number of transfusion experiments which he has performed upon dogs with the blood of rabbits and other animals. He finds that the transfusion of heterogeneous blood produces in the blood of the dog modifications which cause a loss of coagulability, and that this anticoagulant action obtains both with defibrinated blood and with normal circulating blood, with serum, with plasma, and with red corpuscles. Heterogeneous blood is, moreover toxic for the dog, and for the exercise of this property, too, there is no difference between normal living blood and blood where coagulation has been produced; and, again, the plasma, the serum, and the red corpuscules are toxic; between these bodies there are observable merely certain differences of degree, but the ultimate effects—namely, diminution of blood pressure, cardiac and respiratory paralysis—are constant for all. These two phenomena—the loss of coagulability and the exhibition of toxic effects—go hand in hand. The demonstration that living blood and normal plasma possess the same anticoagulant and toxic properties as serum is of considerable importance, especially when taken in conjunction with further observations made by the author to the effect that certain alexines (haemolysines and spermotoxines) are present not only in the serum but also in the plasma. It tends to invalidate the theory of Metchnikoff, according to which a great many of the properties of serum belong exclusively to that substance and are imparted to it by the leucocytes during the process of coagulation.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(243) Beer Drinkers' Heart.

Georg Keferstein (*Zeit. für Diat. und Phys. Therap.*, Bd. viii, Heft 4) discusses the effect upon the heart of drinking large quantities of fluids, and especially deals with the question of how far the so-called "beer drinkers' heart" is caused by the alcohol in the beer and how far it is a mere mechanical effect of the quantity of fluid taken in. His view that the toxic effect of the alcohol is the main cause, to which other causes are only secondary, has been combated by Hueppe, who cites the occurrence of an exactly similar heart condition in excessive tea drinkers in Russia in support of the theory that the amount of fluid rather than the nature of the fluid is the harmful factor. Tea, however, may itself exert a toxic influence, and in favour of Keferstein's view is an observation of Aufrecht, who found that spirit drinkers also suffered from similar heart lesions. Certain authors have held that a plethora vera or increase in the total amount of blood in the body without change in its composition may result in part from drinking large quantities of fluid, and that such a plethora must throw more work upon the heart. Keferstein does not admit that the existence of plethora vera has been demonstrated, for we have no direct method of estimating the total quantity of blood in the body. Of the writers who describe the condition most appear to consider it the result of over-feeding, in addition to over-drinking. When occurring in combination with over-feeding, if we suppose that the need of the body for nutrition is increased and that all metabolic processes are more active than normal, the work of the heart will undoubtedly be increased, but not now by any mere mechanical process. Apart from such a supposition, it seems impossible that plethora vera can mechanically increase the work of the heart. The need of the tissues for nutrition being unaltered, the flow of blood through the capillaries will not be increased, and the only effect of the condition will be an accumulation of blood in the most distensible part of the vascular system, that is, in the veins. The condition of plethora serosa or of increase in the fluid constituents of the blood is radically different. Since the number of cells in any given mass of blood is diminished, a greater mass of blood than before must pass through the capillaries in a given time in order to sustain the nutrition of the tissues, and if other conditions are supposed constant, the heart must work harder to bring this about. On the other hand, the viscosity and cohesion of the blood being diminished, the friction with the vessel wall will be diminished and the work of the heart to this extent lessened. Both these factors act together, and we have no method of estimating the total result on the work done by the heart. Experiments on animals have shown that water injected into the veins is rapidly excreted in the urine. Forbes has carried out an experiment to determine how far a corresponding process takes place in man. He drank on successive days large and increasing amounts of water, and found that the urine passed in the six hours following increased with the increase in the amount of water drunk, but not in as rapid a proportion. When before 6 o'clock in the morning he drank 600 c.cm. of water, 513 c.cm. of urine were excreted before twelve o'clock; when 1,500 c.cm. were drunk 1,186 c.cm. were excreted. There can be no doubt that the watery contents of the blood must be temporarily increased between ingestion and excretion, and the work of the heart may be in this way temporarily increased, but it seems improbable that such an increase can overstrain a normal heart, when it is remembered that the heart is constructed to bear continually-recurring changes in the amount of work thrown upon it. Observations made in cases of diabetes insipidus seem to bear out the view that drinking large quantities of fluid has little, if any, effect on the healthy heart. The conclusions at which the author arrives are: (1) The results of experimental and clinical work go to prove that changes in the heart, such as are found in the so-called "beer heart," cannot be brought about only through the excessive intake of fluids; and (2) neither the heart changes which are recognizably due to alcohol, nor those which some authors regard as due to the intake of an excess of fluids, can be constructed and explained mechanically from a consideration of their causes.

(244) Cholecystitis as a Complication of Lobar Pneumonia.

J. M. Anders (*Amer. Med.*, March 18th) reports three cases. Although an analysis of these cases does not warrant drawing any general conclusions, still the clinical observations may serve to direct attention to cholecystitis as a complication in rare cases of lobar pneumonia. The local symptoms and physical signs are characteristic, but the type of the condition is not severe. It is to a great extent overshadowed by the pneumonic condition. Although no general or constitutional symptoms, distinctive of the lesions, are recognizable, Anders is pretty convinced that the clinical course of pneumonia cases is not, as a rule, materially modified by the complications of catarrhal cholecystitis except in cases in which chronic hepatic disease existed previously, when the toxaemic symptoms may be intensified by the development of an acute, widespread cholangitis and cholecystitis. Two of the cases terminated in recovery, but Anders states this result was not due to any special method of treatment, as attention was mainly bestowed upon the serious primary affection. A mild saline laxative was employed in one of the cases and small doses of mild mercuric chloride in the other. In the case which terminated fatally nothing but the general treatment of the pneumonia was carried out, because the grave pneumonic features and the cardiac and pulmonary complications called for active measures.

(245) Ductless Glands and Internal Secretions.

F. Blum (*Arch. f. d. ges. Physiol.*, vol. cv, 1904) argues that the thyroid gland and the suprarenals do not, as is commonly supposed to be the case, form a secretion which passes out into the blood, but that they serve only to remove poisonous substances already present in it. They thus have no internal secretion, but are glands for purifying the blood. He endeavours to prove this experimentally by tying the veins, leaving these glands in the dog. This is easily done in the dog's thyroid, and leads to disturbance of the animal's metabolism; the N. and P. excretion increase, although the input of food is diminished, for some days; this is what happens in Graves's disease. He believes that Graves's disease is due to a deficiency in the "thyreo-toxalbumen" normally formed by the thyroid, and not to the thyroid hypersecretion usually stated to occur. The experimental difficulties of tying the suprarenal veins have not yet been overcome. The author argues strongly against the view that these glands have any internal secretion. Ligature of the veins of the spleen causes much injury to the cells of the liver, as though the tied-off spleen failed to remove some toxic substance from the blood. A picture recalling Banti's hepatic cirrhosis is produced.

SURGERY.

(246) The Radical Cure of Hernia in Children.

W. T. Bull and W. B. Coley (*Med. Record*, March 18th) report in detail the results of 1,424 operations for the radical cure of hernia in children, performed at the Hospital for Ruptured and Crippled, between 1891 and 1904. All but twenty were on children under the age of 14 years. It has been the custom of the authors to treat all their cases of hernia in children, with certain few exceptions, for a period—usually one or two years—with a truss before advising operation. If at the end of this time no improvement is observed, operation is advised. Under the age of 4 years a very considerable number of cases of inguinal hernia, and nearly all cases of umbilical hernia, can be cured by truss treatment. Of the 1,424 operations reported, 1,354 were for inguinal hernia, 35 for femoral, 10 for umbilical, 8 for ventral, 2 for congenital hernia of the umbilical cord, 2 for epigastric, and 1 for lumbar hernia. The great majority of the operations for inguinal hernia were performed according to Bassini's method, using chromicized kangaroo tendon for suture material. In most cases an extra suture was placed above the cord. Excision of the veins of the cord seems unnecessary, at least in children. Operation without transplantation of the cord appears to give less satisfactory results, though this is not yet certain, owing to the disparity in the numbers of the cases treated by the two methods. Twelve operations were performed for strangulated hernia, and the cases show that strangulation is more common

during the first two years of life than during the next decade. The seat of strangulation in every instance was the result of constriction by the tight external ring. Eleven relapses in all were noted, and the authors conclude that the majority of recurrences take place during the first six months after operation, and about 90 per cent. occur during the first year. A comparison of cases operated with and without rubber gloves shows suppuration in 4.4 per cent. without gloves and 2.3 per cent. with gloves. There were four deaths in the series.

(247) The Surgical Treatment of Cirrhosis of the Liver with Ascites.

Cignozzi (*Rif. Med.*, February 18th, 1905) reports two cases of cirrhosis with ascites (one of cardiac origin and the other of toxic nature) successfully operated upon by him. He then discusses the modern surgical treatment of cirrhosis by omentopexy, and describes the various types of cirrhosis with the probable success likely to occur in each case after surgical interference. (1) Ascites due to pylethrombosis, or to stenosis of the vena porta by outside compression from scar tissue, new growth, etc., is likely to receive permanent benefit from surgical treatment if the mechanical cause of obstruction can be removed, or an efficient collateral circulation established. The great difficulty in these cases is the diagnosis before operation. (2) Atrophic cirrhosis of alcoholic origin gives the worst results of all. The mortality of the operation in these cases is itself great, and the after-results are very seldom satisfactory. (3) Hypertrophic cirrhosis, on the other hand, gives decidedly better results. The connective tissue in these cases is not of the same hard contracting character as in the previous class. (4) Cirrhosis of cardiac origin, other things being equal, may be treated surgically with a fair prospect of success. By establishing a collateral circulation, relief is given not only to the liver (mechanically and by lessening the toxaemia) but also to the mechanics of the heart as well. (5) In the cirrhosis, whether of the hypertrophic or the atrophic form due to toxic infection—for example, Budd's or Banti's cirrhosis—operation may do good. Probably in these cases some of the benefit is due to the action of the laparotomy on the peritoneum, increasing its power of absorption and so lessening the ascites. (6) Localized syphilitic gummata in the liver do not often give rise to ascites, but there is a different form, congenital or acquired, which may cause cirrhosis with ascites. No general law can be laid down for these cases; the question of operation must be left to the judgement of the individual surgeon. (7) Lastly, there is a malarial form, sometimes associated also with splenic enlargement. But, owing to the generally cachectic condition of many of these patients, they do not form suitable cases for surgical treatment, although some of these cases have derived considerable temporary benefit from such treatment.

(248) Appendicitis: Free Vesicles in Peritoneum.

Marchand (*Bull. et Mém. de la Soc. Anat. de Paris*, November, 1904) reports a puzzling condition revealed at an operation for appendicitis on a healthy single woman, aged 26. The appendix was detached from behind the caecum to which it did not adhere; in raising the caecum, a thin-walled cyst, resembling a grape in size and appearance, was pushed up by the operator's finger. It was absolutely free, and lay in the peritoneal cavity. The right Fallopian tube was drawn into the incision, and found to be healthy; another grape-like cyst was pushed out of the peritoneal cavity during this manipulation. The peritoneum was explored for more of these growths, and one, but no more, discovered; it adhered to one of the compresses which had been placed between the caecum and the other viscera. The appendix was excised, the abdominal wound closed without drainage, and the patient recovered. The three vesicles were carefully examined. They contained a lemon-coloured fluid without a trace of hydatid elements. The walls were formed of a mucoid tissue, including masses of epithelial cells undergoing proliferation; in places very well-developed tubular structures were detected. The inner wall was very irregular, and lined with the proliferating epithelium. The source of the vesicles remained unknown.

(249) The Treatment of Appendicitis.

Maragliano (*Gaz. d. Osped.*, March 12th, 1905) pleads strongly for operation in every case of appendicitis, no matter what stage the disease is in. When one considers the large variety in type in cases of appendicitis, the possibility that even a mild case may suddenly change, within a few hours or less, and become alarming, he considers operation is the only logical treatment. Those cases which would have got better if left alone are none the worse for operation, and some of the cases which are lost from too late operation might be saved. He, of course, recognizes the fact that a very large number of cases of appendicitis get perfectly well under medical treatment, and that some of these may be successfully operated upon in the quiescent stage—that is, after the acute symptoms are passed. But, on the other hand, if one waits until the acute symptoms have subsided, there is no doubt some cases will never survive, and the chance of operation has gone by for ever. Moreover, under his teaching no one need ever lament that surgical aid has been employed too late; on the other hand, he is perhaps too optimistic as to the practically harmless nature of the early surgical interference he advocates. Further, he suggests that the control of the question of operation should be left entirely to the physician, who, on his part, should obtain surgical assistance in every case of appendicitis as soon as it is diagnosed, and insist on immediate operation.

MIDWIFERY AND DISEASES OF WOMEN.

(250) Subcutaneous Emphysema in Obstetrics.

Herrgott (*Ann. de Gyn. et d'Obstét*, November, 1904) observed this condition in a primipara aged 28. On the day after delivery, where the child was a male weighing 7 lb, she complained of slight dyspnoea. Diagnosis was very uncertain; there appeared to be evidence of old pericarditis. On the second day, although the difficulty in breathing had greatly diminished, there was marked emphysema under the skin of the neck, the left supraclavicular fossa, and the upper part of both sides of the thorax at the level of the first intercostal space. It was now evident that the friction sounds heard over the precordial region were due, not to pericarditis, but to extrapericardial mediastinal emphysema. The labour had been rather lingering, and large doses of quinine had been given as an oxytoxic. The child was delivered spontaneously, and during its expulsion the mother felt something give way in the left side of her chest. Then followed distinct dyspnoea, which prevented her from bearing down as vigorously as she otherwise might have done. The emphysema disappeared in a few days. This complication of labour is rare, but its proportional frequency is not rated at the same figure by all who have collected statistics. Sinclair and Johnston report 7 cases in 13,748 labours. Herrgott himself has only observed this 1 case in 6,900 labours; but, on the other hand, Pinard declares that he attended 3 cases within two months, making 3 in 1,902 labours in the year 1893. The prognosis—when the lesion is due to rupture of an air passage—is very favourable, but emphysema due to rupture of the uterus or of an ectopic fetal sac and decomposition of the fetus is a symptom of extreme gravity.

(251) Measles in Pregnancy.

Cerf discusses the occurrence of measles in pregnancy, and the effects which this disease produces at different periods (*Annales Med. et Chir. du Centre*, No. 49). Measles occurring in a pregnant woman is always dangerous, abortion occurring in 60.3 per cent. of all cases. This usually occurs at the fifth month in 50 per cent. of cases. The more advanced the period of pregnancy, the greater danger there is of abortion, and after the seventh month the proportion of premature births is 80 per cent. An attempt has been made to establish some relation between the appearance of the exanthem and the commencement of labour, it being supposed that the former reaches its height simultaneously with the birth of the child. In the opinion of the writer, there is much variation in the onset of labour and the appearance of eruption. It would seem that the toxaemia of measles has got a very marked stimulating action on the uterine muscle, as in the majority of cases parturition is rapid, lasting from four to six hours. The writer even quotes cases occurring in his own practice in which parturition was completed within an hour. Usually speaking, *post-partum* prognosis is good, and it is uncommon for the patient to suffer from any complications, and the course of the puerperium is unaffected.

(252) Mesenteric Cysts.

Haas (*Zentralbl. f. Gynäk.*, No. 50, 1904) observed a tumour of this rare kind in a woman aged 34. She had been married eight years, and had twice borne twins. After the first twin labour, where the placenta was adherent, she suffered

from septic symptoms, and, on recovery, from jaundice. The second twin labour occurred three years before the cyst was removed, and during the pregnancy the patient complained of dragging pains in the right hypochondrium. Three weeks before the patient came under observation she had a sudden attack of pain in the right side of the abdomen, which continued, with short intervals, until admission into a hospital. There was no vomiting or nausea; the right side of the abdomen was greatly distended, so that hydronephrosis was suspected. A tense oval tumour filled the middle and right of the abdominal cavity; it was freely movable from side to side, less so vertically. It was slightly tender and gurgled on pressure; its upper part was tympanitic on percussion. Its lower limits extended to the pelvic brim, but the uterus and appendages were distinct from it, as was the liver; the left kidney could be defined, the right could not be clearly made out. On opening the abdomen the tumour was seen to be covered with bowel, the right kidney found to be normal, and a small cystic tumour of the right ovary discovered and removed. The larger tumour was enucleated from the mesentery, some of the intestine adhered to the cyst wall, and some to the parietal peritoneum, but none was resected. Large vessels had to be divided and ligatured, and there was much oozing; the peritoneal cavity was closed, and the patient made a good recovery. The contents of the cyst consisted of a yellowish, slightly milky, odourless fluid, alkaline, specific gravity 1014, and containing numerous lymph corpuscles with blood cells and particles of fat. A little flat epithelium was detected at a few points on its inner surface. Haas refers to the literature of the subject (see also Dowd, *Ann. of Surg.*, vol. xxxii, 1900, p. 515). Some mesenteric cysts undergo malignant degeneration (von Bergmann). A sudden attack of abdominal pain is as a rule the symptom which leads to the detection of a mesenteric cyst. In nearly all cases a close connexion between the surface of the cyst and a coil of intestine can be defined on palpation, the coil moving with the tumour. Enucleation is usually practicable, though haemorrhage may be formidable; in von Bergmann's and Kümmel's cases the cyst wall proved irremovable, and was fixed to the abdominal wound and drained.

(253) Ovarian Pregnancy

Freund (*Monats. f. Geb. u. Gyn.*, October, 1904) reported a case of this condition in a young primipara. The fetal sac consisted of an ovary the size of a fist connected with the uterus by a stout ovarian ligament. The wall of the sac was made up of ovarian tissue infiltrated with blood; there were many corpora lutea and follicles. The main cavity was lined with amnion and chorion, and contained a fetus ¾ in. long, with placenta. No decidua nor layer of lutein could be found; but Freund, in another case where there was an apoplectic ovum, detected large pale cells, in his opinion altered lutein cells, although there was no further evidence of gestation. Veit, in discussion, believed that decidua did develop in the ovary, but if none could be traced in the tissues of an apoplectic ovum such negative evidence was of no value. Freund stated that the effusion of blood in the substance of the ovary was moderate in his case, and, in reply to Veit, added that the ovum in the ovary was normal, and not the seat of haemorrhage.

(254) Cancer of Ovary in Young Woman with Undeveloped Uterus.

Danel (*Journ. des Sci. Méd. de Lille*, January 21st, 1905) observed this condition in a young lady, aged 25, of good general development, but she had never menstruated nor felt any molimen or pelvic pain. For eighteen months progressive emaciation was noted, with swelling of the abdomen, caused by a tumour which felt like a gravid uterus. Ovariotomy was performed and a solid medullary mass, weighing nearly 6 lb., removed, but portions of malignant tissue remained in the pelvis, where firm adhesions had to be separated, the caecum and adjacent part of the ileum were strongly adherent. The uterus and appendages opposite the tumour were entirely undeveloped. The patient died the day after the operation. Under the microscope the tumour appeared to be a typical lobular epithelioma.

THERAPEUTICS.

(255) Sodium Bicarbonate in Haemorrhage.

Percy M. Dawson (*Journ. of Exper. Med.*, vol. vii, 1905, p. 1), using dogs for the purpose of his experiments, has investigated the cardio-vascular effects of intravenous infusion, after severe haemorrhages of solutions containing sodium bicarbonate. He finds that whereas sodium chloride alone has the immediate effect of raising blood pressure, with the addition of sodium bicarbonate to the chloride solution the rise in pressure is markedly increased. Dawson suggests that in some extreme cases of shock due to haemorrhage the addition of from ½ to 1 per cent. of the bicarbonate to a 0.8 per cent. sodium chloride solution may be of advantage in two respects. In the first place, the rise in all the pressures, but especially in the diastolic pressure, is more pronounced than when the pure chloride is used; and, secondly, the quantity of fluid required is smaller than is the case with the pure chloride; the greater, therefore, is the rapidity with which the solution can be hurried into the circulation—a matter which may be of importance in desperate cases. There is, however, one possibility which ought not to be overlooked in the employment of bicarbonate—namely, the danger of overworking the heart. From experiments not yet concluded Dawson finds reason to believe that very strong solutions of sodium carbonate and bicarbonate act very powerfully as cardiac stimulants. Before employing the bicarbonate, therefore, in cases of haemorrhage the physician ought to decide whether a cardiac stimulant is or is not contra-indicated.

(256) Thiosinamine in Contraction of Scars.

Mellin discusses the value of thiosinamine in the treatment of scars, which produce symptoms by contracting, illustrating his remarks by the history of a successful case (*Deut. med. Woch.*, February 2nd, 1905). As a rule, the substance is given in a 15 to 20 per cent. alcoholic solution, of which ½ to 1 c.cm. is injected. The dose is rapidly increased, and, as a rule, a course consists of from twenty to thirty injections. From 2 to 3 grams of thiosinamine is thus given in all to the patient. Watery solutions with glycerine in 10 per cent. strength are also used, the advantages being that the injections are less painful than the alcoholic. The site of injection is immaterial, but the scar itself must be avoided. Important ill-effects do not arise, but occasionally one sees an urticaria and also anaesthesia of the skin follow its use. It is necessary to allow the inflammatory process to pass off completely before attempting the treatment. When the process has ceased, thiosinamine will be found to soften the scar tissue and at the same time not to exert any action on other forms of tissue. The case which he records consists of a woman who had suffered extensive burns of the face, arms, and hands. Twenty-five injections were given in all, bringing the total dose of the preparation up to 2.3 grams. The arm had been contracted to a right angle, and could not be extended, the fingers were quite stiff, and the mouth could scarcely be opened. Massage and medico-mechanical exercises helped to a certain extent, but the complete cure which took place was, in Mellin's opinion, chiefly due to the prompt action of the thiosinamine.

(257) Chloroform and Coal Gas.

G. Betagh (*Il Policlinico*, December, 1904) describes a research undertaken to determine the effects of administering chloroform in the near neighbourhood of a gas flame. The inquiry was suggested by the result of the installation of a gas stove in an operating theatre so large as to be unduly cold. The stove was situated more than three metres from the head of the operating table. Two operations were performed under chloroform. The anaesthetist suffered from headache during the administration and afterwards vomited. His two assistants also suffered from headache and a sense of illness. One of the patients, a woman of 23, underwent laparotomy for an ovarian cyst. The operation was completed without any mishap, but afterwards the patient suffered from severe vomiting and convulsions. For some hours her pulse was very feeble and frequent. Her urine, which before the operation was free from albumin, now contained albumin, and on the next day haemoglobinuria, haematuria, and cylindruria were observed. For some days the skin showed a slight yellow tint. Chronic nephritis was established. The other patient was a man, aged 43, suffering from malaria and an enlarged spleen, and operated on for inguinal hernia. Some hours after the operation he showed signs of collapse. In spite of prompt treatment he died twelve hours after operation. Much blood was found in the abdomen and in the tissues at the seat of operation, and no mechanical explanation for this haemorrhage could be discovered. The author supplies references to several somewhat similar cases of injury which

have been attributed to poisoning by oxychloride of carbon, a product of the evaporation of chloroform in the presence of the products of combustion of coal gas. But blood changes have been attributed as early as 1848 to chloroform itself without gas, and more recently albuminuria and cylindruria, but not haemoglobinuria, have been ascribed to the action of chloroform alone. In the case of Stempel febrile haemoglobinuria and albuminuria lasting for some weeks have resulted from the inhalation of the fumes from a gas stove, the causation of the symptoms being as far as possible substantiated by experiments on animals. To clear up these ambiguities, Betagh experimented upon twelve dogs and rabbits, sometimes chloroforming them in the immediate neighbourhood of a gas jet and sometimes leading to the chloroform mask the products of combustion of a distant gas jet. By poisoning with the products of the combustion of gas much less harmful effects were produced than by evaporating the chloroform in close proximity to the gas jet, and Betagh suggests the possibility that Stempel may be mistaken in attributing his symptoms to coal gas without chloroform. Microscopical examination of the tissues of animals dying soon after the administration of chloroform near a gas jet showed small extravasations of blood into the lungs, and passage of the blood elements into the interstitial tissue between the alveoli, enlargement of the spleen, with many red corpuscles in the pulp, and some true extravasations of blood, changes in the liver, sometimes including the formation of necrotic areas. The most important changes were in the kidneys. The Malpighian capsules were full of blood, and there was much congestion, especially in the cortical substance. There were extravasations of blood into the connective tissue, with red corpuscles inside the tubules. In some places the tubular epithelium was turbid, swollen, or necrosed. An illustration shows some of these changes. The principal point established by the experiments and by the clinical cases described is that the decomposition of chloroform by a gas flame liberates products which are not only harmful to the lungs, as the cases of other observers would tend to suggest, but also poison the internal organs, causing in them haemorrhagic lesions.

(258) High-Frequency Currents in Ozaena.

Hahn (*Gaz. degli Osped.*, March 5th, 1905) has treated 7 cases of typical ozaena by means of the high-frequency current with distinct success, and although he does not venture to assert the cases were permanently cured, at any rate a temporary cure was obtained. He applied the current either directly by a naked electrode, or in a more diffused method by means of a specially-devised glass electrode, which could be held *in situ* by the patient—an important point when the applications are prolonged. He never used cocaine or adrenalin as a preliminary. The electrode was inserted for 1 m., or further in the case of the glass electrode, kept in position for half to one minute, and then removed. The patient usually cleared his nostril then by sneezing, blowing, etc., and afterwards the current was applied for a longer period, in some cases as much as fifteen minutes. The treatment was carried out at intervals of two to seven days, and after the ninth or tenth application a marked diminution in the fetor was observed. The number of applications varied from 18 to 30. In every case a diminution of fetor up to complete disappearance, a marked lessening in the number of the crusts, increased capacity for blowing the nose, disappearance of reflex headache and cough were noticed; and, objectively, a cicatrization of superficial ulcerations and a greater juiciness of the mucous membrane. The author suggests that possibly a more prolonged trial of this mode of treatment might not only alleviate the symptoms for the time, but prove a permanent cure.

(259) The Treatment of Insomnia.

F. G. Montané (*Rev. de Med. y Cir. Pract.*, March, 1905) distinguishes six degrees of soundness of sleep, according to the varying extents to which the sensation, the intelligence, the will, and the organic activities of the subject are laid to rest. In normal sleep all four faculties are quiescent; the various hypnotics, of which the author mentions thirty-two, differ in the extents to which they act upon each of these four faculties, and his classification of them gives indications for their exhibition in particular cases. He concludes that the more simple is the construction of any diseased organ, speaking histologically, the more readily will it be acted upon by drugs such as hypnotics; hence the brain, the most complex of organs, presents many problems for solution, and cerebral insomnia can at best be treated empirically.

PATHOLOGY.

(260) The Bone Marrow in Typhoid and other Infections.

Longcope (*Pennsylvania Hosp. Clin. Lab. Bull.*, January, 1905) has studied the histo-pathology of the bone marrow in 26 cases of typhoid fever, 24 cases of pneumonia and other infections, 5 cases of chronic disease, and 2 normal individuals, paying especial attention to the fact that in enteric fever there is leucopenia as contrasted with the leucocytosis present in most infections. In the typhoid cases the lesions were constant and characteristic, closely resembling the changes met with in Peyer's patches, the mesenteric glands, and the spleen. The most prominent features were a marked preponderance of lymphoid cells over granular myelocytes—an observation of significance in view of the relatively high proportion of lymphocytes in typhoid blood—foci of necrosis, and the presence of large phagocytes. In the cases of pneumonia, peritonitis, septicaemia, etc., on the contrary, necrotic and degenerative changes were not observed, and large phagocytic cells were absent, while granular myelocytes overshadowed lymphoid cells, as might be expected from the polymorphonuclear type of leucocytosis met with in such infections. In cases of chronic nephritis and cancer of the gall bladder, the marrow did not materially differ from that of normal individuals.

(261) Trypanosomiasis.

Ziemann (*Centralbl. f. Bakt.*, I. Abt., Orig. Bd. 38, 1905), after reviewing the literature on various forms of pathogenic trypanosomes, describes the investigations he has made in the Cameroons on the trypanosoma vivax. He finds that infection with this organism is seasonal. During the earlier period of the rainy season, from the end of April to the beginning of July, no fresh outbreaks occur; but at the height and towards the end of the rainy season, from the end of July to the beginning of September, he has found a severe outbreak of the disease. Cattle, sheep, and goats are liable to the infection, which may assume either an acute or a chronic form. In the milder types of the disease the animals may survive some months, or even more than a year; and in the case of sheep and goats recovery appears to be possible. All cases are characterized by anaemia, which in the acute infections is described as "colossal." The percentage of haemoglobin diminishes more rapidly than the number of red corpuscles; the count of the latter may fall as low as 2,130,000, and the haemoglobin may diminish to 22 per cent. Ziemann's article, which is in itself a highly condensed summary of results, and does not lend itself to further abbreviation, ought to be consulted by those who are interested in trypanosomiasis, and wish to learn the author's reasons for distinguishing his trypanosoma vivax from other better-known trypanosomes.

(262) The Influence of Slight Injuries on the Localization of Tubercle.

Salvia (*Gaz. Med. Lomb.*, February 6th, 1905) has made a series of experiments on rabbits bearing upon the above question. The animals were first injected with a pure culture of tubercle and then subjected to slight injuries of the liver, bones, etc. The results showed clearly that such small injuries tended to produce distinct localization of tubercle in the injured parts. As regards the liver, it was found that clearly-marked localization occurred with the formation of rapidly-growing nodules of considerable size, surrounded by groups of smaller microscopic nodules. Histological examination showed that the nodules were not due to haemorrhagic foci, which, indeed, were very rarely seen, but to disturbances of the lymphatic circulation. Similar localizations were observed in the ribs, flat and spongy bones, but more circumscribed in extent. These lesions affected the periosteum, medulla, and whole thickness of the rib. Moreover, their influence was seen in the subjacent pulmonary tissue, for in these places the turbercles were more abundant than in other parts of the lung and their development more rapid. In the long bones of the limbs, and especially in articular heads and in the synovial membrane of the knee, no localization occurred after small injuries. If a small quantity of ammonia was added to the injured parts, the above-noticed localizations were found to become more extensive than after simple injury, and this applied particularly to the soft parts.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(263) Acute Tuberculous Pneumonia.

Osler, in an address published by the *Brooklyn Medical Journal* for February, 1905, under the above title, follows Stokes in dividing acute pulmonary tuberculosis into (*a*) miliary, (*b*) broncho-pneumonic, (*c*) pneumonic, and gives a general description of the last form, of which he has seen only fifteen cases. *Post mortem* it is characterized by cheesy consolidation, tending towards softening, of a large block of tissue—sometimes a lobe, sometimes even a whole lung. It is found most often in the upper parts of the lung, and is rarely bilateral. There is usually an old focus present in the lungs or bronchial glands or elsewhere; but an acute disseminate infection is rarely met with. Its mode of origin is not clear; very likely it is due to aspiration of débris from the bursting of an old focus, but Tenderloo has recently upheld that it is a blood infection. It attacks chiefly males of middle age not suspected of tuberculosis; there is, however, often a history of alcoholic or other excess. Clinically, it usually sets in with the symptoms and signs of lobar pneumonia. No distinction is possible at first, but after a week the crisis fails to occur, the sputum acquires a characteristic green colour, tubercle bacilli are present, and signs of softening and excavation appear at the apex. Occasionally, however, the clinical picture is that of typhoid fever; in such instances the serum reaction and the bacteriological examination of the blood are to be relied on for diagnosis. The disease runs one of three courses: (*a*) fulminating or malignant, ending fatally in a fortnight; (*b*) "galloping consumption," which runs its course in ten or twelve weeks; and (*c*) recovery sufficient to allow the patient to be up and about, but with signs of softening at an apex. Two things adding to the difficulty of the diagnosis are the marked leucocytosis which is often present, and the occasional delay in resolution of a frank lobar pneumonia. Most cases are hopeless; but any in which there is a reasonable prospect of recovery should be treated with rest, fresh air, and a proper diet.

(264) Cardiac and Vascular Complications and Sequels of Typhoid Fever.

Thayer (*Johns Hopkins Hosp. Bull.*, October, 1904), as the result of a study of 1,458 cases, says that typhoid fever is often associated clinically with symptoms of a grave weakening of the heart muscle. These changes, whatever may be the cause, result in many cases in a temporary insufficiency of the mitral valve, as indicated by the appearance of apical systolic murmurs. These murmurs develop especially at the height of the disease, during the latter part of the first and in the second, third, and fourth weeks, and disappear usually with convalescence. Over one fifth of the old typhoids in whom, during their illness, a systolic apical murmur was heard showed on subsequent examination evidence of organic disease. The average systolic blood pressure was higher in every decade among the old typhoids than in healthy individuals who had never had typhoid fever. The radial arteries were palpable with strikingly greater frequency than in individuals who had not had the disease and of the same age. Endocarditis, while not common, is probably more frequent than generally supposed. It was present without being suspected in 3 out of 95 cases coming to necropsy, while in 3 out of the remaining 1,303 the clinical symptoms suggested its presence. In the 3 cases discovered at the necropsy the lesion was due to a secondary mixed infection—in 2 instances staphylococcus aureus, in 1 staphylococcus albus. Pericarditis is an unusual and unimportant complication; 3 instances only were noted. Phlebitis and venous thrombosis is frequent, occurring in over 2.6 per cent. The onset occurs usually in the third week or later, and is in most cases associated with fever, leucocytosis, and local pain. Not infrequently the leucocytosis and fever may precede the localizing symptoms. The complication was ushered in by or associated with chills in 28.9 per cent. Chills otherwise unexplained occurring during the latter part of typhoid fever or in the early stages of convalescence, especially if associated with a leucocytosis, should always suggest the possibility of developing phlebitis. The phlebitis is in the majority of cases localized in vessels of the lower extremity, especially on the left side, and is particularly frequent in the femoral veins (about one-half the cases). Thrombosis of the iliac and femoral veins is always serious, and the after-results are often grave. The affected extremity is always considerably and permanently enlarged, and there is usually more or less persisting disability—extensive varicosities, often resulting in ulceration, marked weakness of the limb, frequent cramps in the muscles, especially at night and after over-exertion. Arteritis and arterial thrombosis is a more frequent complication of typhoid fever than is generally recognized. It is especially common in the cerebral vessels, although it may occur in the extremities. It is commoner in the third week or later. It is often ushered in by fever and leucocytosis. In the extremities it is followed by gangrene, in the cerebral vessels by hemiplegia. A survey of the pathological material suggests that typhoid fever may be a not infrequent cause of focal arterio-sclerotic changes. While the deleterious influence of typhoid fever upon the cardio-vascular system is not so great as that of acute rheumatism, yet through the unfortunate frequency of the disease it is probable that post-typhoid cardio-vascular defects are not uncommon.

(265) Malignant Thrombosis of the Inferior Vena Cava and Right Auricle in Carcinoma of the Suprarenal Body.

Though irruption into the venous system is the rule in malignant tumours of the suprarenal bodies, the growth is rarely so extensive as in a case reported by Gerber (*Wien. med. Woch.*, November 5th and November 12th, 1904). A woman, aged 47, was admitted to hospital on February 8th, 1904, with symptoms of heart failure and diffuse bronchitis. For eighteen months she had suffered from attacks of cardiac palpitation with dyspnoea, and for some time before admission from headache, anorexia, and vomiting, asthenia, insomnia, emaciation, and neuralgic pains in the limbs and sacral region. For three months the legs had been swollen. The skin was not pigmented. The heart's apex was outside the nipple line in the fifth interspace, and the cardiac dullness was slightly increased to the right. There was no thrill. At the apex and over the tricuspid valve were presystolic and diastolic murmurs and an accentuated first sound. Over the pulmonary area there was a systolic murmur with a muffled second sound. At the aortic area was a presystolic murmur and a muffled diastolic sound. The pulse was irregular. The abdomen was distended, and there was dullness in the flanks, but there was no tenderness. No free fluid could be found. The urine was normal. Vision and the sense of smell were defective. She was treated with digitalis and strophanthus, but the dyspnoea, oedema, and cyanosis increased, and death occurred on February 19th in coma. At the necropsy a nodular carcinoma of the left suprarenal body, about 6 in. long and 3 in. wide, was found. It had grown into and caused thrombosis of the left suprarenal vein, which was distended to the size of the little finger. Thence it had invaded and distended the left renal vein, and sent a blunt process into the orifice of the right renal vein. In the vena cava the thrombus completely obstructed the lumen and was continued as a cylindrical structure of the thickness of a finger as far as the right auricle, into which it projected a considerable distance as an irregular polypus. The thrombus of the vena cava and auricle was of a bright yellow colour, and was covered with small structures somewhat resembling chorionic villi. The growth had also formed multiple malignant thrombi of embolic origin in numerous branches of the pulmonary artery, which were continued into the smallest branches. There were reddish-white nodules of the growth in the pulmonary parenchyma. Extensive changes in the suprarenal bodies have frequently been found *post mortem* without having produced any characteristic symptoms during life. A diagnosis of new growths in this position is, therefore, usually impossible. Oedema, which has been noted as a rare symptom of malignant tumours of the suprarenal bodies, was in this case evidently due to occlusion of the inferior vena cava. Virchow and others have shown that metastatic nodules are the exception in cases of malignant thrombosis of veins; in this case there were a few in the liver and a number in the lungs, and especially the right lung. A case closely resembling this has been reported by Sternberg. A woman, aged 60, died with symptoms of ascites, bronchitis, and jaundice. *Post mortem* there was found a malignant growth of the right suprarenal body, which had penetrated through the renal vein and

the vena cava (which was completely occluded) into the right auricle. Malignant growths of the liver and kidneys have also reached the right auricle through the inferior vena cava. In a case published by Springer a tumour of the thyroid gland descended through the superior vena cava into the right auricle and ventricle, and after being bent on itself at the apex, terminated near the conus arteriosus. Metastatic growths—for instance, those secondary to carcinoma of the breast—have also caused malignant thrombosis.

SURGERY.

(266) Encysted Peritonitis with Compression of the Bile Duct.

MOUISSET AND VALLAS (*Lyon Méd.*, February 5th, 1905) record the surgical cure of an unusual case of encysted peritonitis. Their patient was a man, aged 31, who had lived some years in Africa, and suffered from malaria and alcoholism. He had had periodical attacks of abdominal pain and vomiting for four years before his admission into hospital in 1903. At this time there was intense jaundice, and on examination a mass was found extending four fingerbreadths below the right costal margin, which was taken for a hypertrophied liver. Meteorism made palpation difficult. A diagnosis of hepatic cirrhosis was made at first, but the violence and persistence of pain was thought to point to the coexistence of cholecystitis, and laparotomy was performed as a palliative measure. A mass was found below and continuous with the lower border of the liver. This was cystic, covered with greatly distended blood vessels, and limited below by the stomach and transverse colon. This cyst was evidently the distended lesser peritoneal cavity, and contained a greenish serous fluid. A double drainage tube was inserted into the cavity. The patient improved quickly, lost all traces of jaundice within a few days, and regained his appetite and nutrition. The nature of the discharge through the drainage tube, its intermittent character, and its periodic increase at a definite interval of time after food had been taken, showed that the subphrenic inflammation had been caused originally by the rupture of a duodenal ulcer, and that the jaundice was merely a secondary symptom due to the increasing pressure of the cystic accumulation upon the bile duct.

(267) Intussusception.

COLE (*Intercolonial Medical Journal of Australasia*, November and December, 1904) gives an interesting analysis of 110 cases of intussusception admitted to the Melbourne Children's Hospitals. Ninety per cent. were infants under 1 year, and males were in a majority. The ileo-caecal variety was the commonest by far. The most important factor in causation is congenital anomaly of the mesentery, an unusually long ascending mesocolon in particular. Of the symptoms, the most important is an abdominal tumour, which is usually present, though the patient may need an anaesthetic to make its discovery possible. The presence of such a swelling, in conjunction with paroxysms of pain, vomiting, and passage of blood and slime without faeces, leaves no room for doubt as to the diagnosis. With regard to treatment, he advocates laparotomy, and looks upon irrigation as admissible only during the first six hours after onset; even then everything should be ready for incision if any doubt remains as to the success of the irrigation. The earlier laparotomy is performed the better its results—a fact entirely supported by Cole's figures, which also show that if those cases in which collapse, etc., made the outlook hopeless from the very first are excluded, recovery followed 73 per cent. of the laparotomies, as against 46 per cent. of the cases treated by irrigation only. No case in which enterectomy was performed proved successful, and in general it might be said that the longer and more complicated the operation, the smaller the chance of recovery. In one case the appendix was found damaged at the operation, but was not removed: about three weeks after operation, suppurative appendicitis developed and proved fatal. In another case the caecum became adherent to the parietal scar, causing acute and fatal obstruction, while a third patient developed a second intussusception after the first had been reduced, which necessitated a second laparotomy, happily successful.

(268) Hepato-Gastrostomy.

QUÉNU (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 8, 1905) reports a case in which he operated for the relief of symptoms of biliary retention resulting, not from calculous obstruction of the choledochus or of the hepatic duct, but from an inflammatory constriction, probably due to long-standing lithiasis of the first part of the choledochus. On exposure of the liver by lateral laparotomy, the author observed at the hilus a rounded tumour somewhat resembling a distended gall bladder, from which was removed by an aspirator 350 grams of thick bile of a dark brown colour. This tumour having been diagnosed as a dilatation of the hepatic duct, as the gall bladder by reason of its extreme atrophy could not be utilized for the purpose of re-establishing the biliary circulation, the author, finding it difficult to bring the duodenum in contact with the distended canal, performed hepato-gastrostomy. The patient (a woman, aged 43) died within a few hours after the operation from pulmonary congestion and dyspnoea, which, in the author's opinion, may be partly attributed to the action of the anaesthetic. In his comments on this case the author points out that the circumstances in which the surgeon finds it necessary to operate on the hepatic duct are infinitely rare. Until quite recently hepato-enterostomy has been regarded as a theoretical operation, the possibility and the indications of which had been considered, but the realization of which had not received in actual practice any definite sanction. It is easier, the author believes, to establish an anastomosis with the stomach than with the small intestine. It has been shown by several recorded cases of gastro-biliary anastomosis that the direct passage of bile into the stomach does not cause inconvenience, and does not excite any disturbance of digestion. In duodeno-biliary anastomosis it is necessary to drag up the small intestine, and consequently, as has occurred in one case, a flexure may be produced.

(269) Signs of Hernia of the Bladder.

SHEPHERD (*Ann. Surg.*, December, 1904), in a paper on hernia of the bladder complicating inguinal hernia, directs attention to certain points he has observed which, it is thought, might enable the surgeon to avoid mistakes whilst operating for radical cure. The inguinal ring, he states, is always large, and out of proportion to the size of the protruding intestines. The cord is not intimately associated with the sac of the tumour, but can be readily held aside without dissection; it is usually situated to the outer side of the herniated bladder. In 2 of 4 cases observed by the author the hernia was a direct one, and in all the cases it had been produced by a sudden strain. There is difficulty in finding a neck to the sac, the anterior portion of which stretches towards the pubes, and is perhaps covered by granular and very vascular fat. In one of the author's cases the condition was complicated by the presence of a collection of fluid in front of the sac.

(270) Tuberculin in the Diagnosis of Surgical Tuberculosis.

BAER AND KENNARD (*Johns Hopkins Hosp. Bull.*, January, 1905) have tested the value of tuberculin in 40 cases of suspected tuberculosis, chiefly of spine and joints. In 25 of these a positive reaction was obtained, the diagnosis of tuberculosis being confirmed in 24 by the results of operation or the subsequent course, while the remaining case was of too short a duration to allow of any definite statement as yet. A general reaction—pyrexia with nausea, restlessness, and other toxaemic symptoms—has been described by other writers as occurring sometimes in leprosy, syphilis, and other non-tuberculous conditions; but if tuberculosis be present, to this general reaction will be added a local one consisting of intensification of the local signs (loss of mobility, muscular fixation, pain, and tenderness), which does not occur in the absence of tuberculosis. The minimum dose needed varies, but rarely exceeds 6 mg.; this should be injected deep into the deltoid, and care must be taken to use reasonably fresh tuberculin, as failure is likely to follow the use of stale material. The technique is simple, and in no case has any harmful result been apparent. The authors claim, in conclusion, that in lesions of the spine and joints, the nature of which is doubtful, the injection of tuberculin will lead to the diagnosis of tuberculosis or otherwise at an earlier stage than is possible by the use of radiography.

MIDWIFERY AND DISEASES OF WOMEN.

(271) Ulcus Rotundum Simplex Vaginae.

THOMSON (*Zentralbl. f. Gyn.*, No. 50, 1904) believes that this form of ulcer is much more frequent than supposed, because it causes little or no pain or discharge—a remarkable fact, as the disease itself is pathologically a true ulcer. About 9 cases have already been described, but in the majority

the ulcer was detected after death. Thomson claims to have observed 2 authentic cases in living subjects. The first patient was 22; she was troubled with a trifling amount of hypogastric pain and with distinct dyspareunia; she was sterile, the period was regular, the appendages were tender on touch. On examination, a round ulcer about two-fifths of an inch in diameter was detected on the mucosa of the posterior fornix, a little to the left of the middle line. The border was sharp cut and not adherent to deep structures; the base, dull red and clean, consisted of the subjacent muscular coat; there was no infiltration or induration. The patient was fairly nourished but slightly anaemic. A piece of the ulcer was excised; nothing could be detected but vascular connective tissue with epithelium thickened at points; no bacilli were seen. The ulcer showed little tendency to heal, and therefore was touched with the thermo-cautery. The second patient was an anaemic, ill-nourished woman, aged 31, subject to menorrhagia; she had been four times pregnant. She complained of slight hypogastric pain. A round ulcer with sharp borders was found on the mucosa of the posterior vaginal wall; it was deep enough to admit the bulb of the finger, otherwise it precisely resembled the ulcer in the first case. Thomson notes that in these cases the patients were young; in those already described they were nearly all elderly. There was no evidence of local or constitutional disease, nor of the use of caustics or irritation by injections. The dyspareunia in the first case might not have been due to the ulcer. Cardiac and renal disease were not present, but both patients were anaemic. Probably the ulcer is the effect of pure debility. Thomson turns attention to the small holes sometimes seen in the labia minora; but in a case in his practice a large perforation of this kind seemed due to damage during labour.

(272) Haemorrhage at Menopause: Cavity in Uterine Wall.

Opitz (*Monats. f. Geb. u. Gyn.*, November, 1904) reports the case of a virgin, aged 49, who suffered from very severe haemorrhages which set in three months after the last menstrual period; previously the catamenia had been free and irregular. The haemorrhages lasted five weeks, till the patient's life was in danger. Then she was examined under an anaesthetic, as the tightness of the hymen interfered with a thorough exploration of the parts. The vagina was full of clots, and so was the cervix, indeed, the condition suggested an abortion until it was found that the coagula contained no trace of any kind of tissue. The uterus was somewhat enlarged and retroflexed. The os internum admitted the finger, which entered a cavity full of broken-down tissue, a condition so suspicious that the uterus was removed. The anterior wall was found to be extremely thickened through diffuse hypertrophy, and contained a cavity 3 in. in diameter, which communicated with the uterine cavity immediately above the internal os, and was lined with a layer of young granulation tissue. It seemed as though a myoma or sarcoma had existed and broken down, escaping with the blood, which had run away for five weeks before the operation. A few elongated cells were found in groups mixed up with the granulation tissue. Still definite evidence of a new growth was wanting. The patient had recently recovered from the operation when the specimen was exhibited.

(273) Adhesion of Ovary to Enlarged Spleen.

Schooler (*Amer. Journ. Med. Sciences*, October, 1904) performed an exploratory operation on a woman, aged 24, who had recently aborted at the third month, when a tumour existed, complicating diagnosis of the stage of pregnancy. Pain and rise of temperature followed, and the tumour increased; it lay mostly to the left of the median line. When the incision was made it was found that the abscess was dragged upwards and to the left, its left cornu being greatly stretched. The Fallopian tube, also much elongated, and the ovary adhered firmly to the spleen, which was at least six times its normal size, and appeared black and glistening, like an old blood clot. The adhesions were separated, but the spleen was wounded and had to be packed with gauze. The patient recovered, but symptoms of intestinal obstruction set in within two months, and, after temporary relief, a second operation was needed a few weeks later. The obstruction was due to extensive adhesions along the greater part of the descending colon. These adhesions were carefully ligatured and divided; the liberated bowel was then filled with saline solution given as an enema. The uterus lay in its normal position and was not enlarged. The spleen was also found occupying the region of the abdomen, where it is naturally placed, and showed no signs of "wandering." The unnatural dark colour had disappeared entirely. The patient recovered. She had twice been pregnant before and had never suffered from malaria; the blood showed no signs of malarial infection. Schooler adds that he cannot explain how the spleen and left appendages came into contact.

(274) Destruction of One Fetus in Twin Pregnancy.

Freund (*Zentralbl. f. Gynäk.*, No. 8, 1905) reports a case of spontaneous delivery at the fourth labour of a woman, aged 24, at term. Her mother had borne twenty children, passing through three twin pregnancies. In her own case, after the child was expelled, a big normal placenta followed. Then another placenta, smaller and mostly necrotic, was discharged. No trace of a second fetus could be found; it had either been destroyed and discharged in the second or fourth month of the pregnancy, when floodings had occurred, or had remained as a fetus papyraceus and broken down, so that its fragments were lost in post-partum clots. The twins in this case were probably from separate ova; the early loss of one was due either to compression or some other damage to its cord, or to local disease of the endometrium at the point of its attachment to the maternal tissues. A small structure not unlike an embryo was found attached to a piece of membrane belonging to the necrotic placenta, but it was carefully examined under the microscope and proved to be made up entirely of chorionic tissue. Fetus papyraceus is relatively frequent in triplet pregnancy.

(275) Acephalic Monster.

Annie C. Gowdey (*Journ. of Obst. and Gyn.*, November, 1904) records a case of acephalic monster which was remarkable in that both upper limbs were present, and it therefore did not conform to any of the three main types—namely, the acephalus monobrachius, in which there is one superior extremity; the paracephalus, with no superior extremities; and the mylacephalus, a shapeless mass of flesh covered with skin. The mother was an unmarried woman, aged 21, who had five years before given birth to a normal child by a different father. At the labour described in the present article a female child was delivered, and a few minutes later the acephalic female monster. There was only one chorion, and the two cords were attached close together towards the edge of the placenta. The monster weighed 3 lb. 3 oz. It was absolutely devoid of even a rudimentary head, nor could any trace of a cranial bone be felt. At the upper end there was a circular line of hair with a central depression. The forearm was absent in the right upper limb, the hand, with only three digits, being in contact with the lower end of the humerus. The left upper limb consisted of a very short humerus, a forearm and hand with five digits. Talipes varus was present in both feet. There were five toes on the right foot, all webbed; the left foot had only three toes. On the abdominal end of the cord was a semitransparent cyst, about the size of a large orange, through which a part of the intestine could be seen and felt. According to Ballantyne, fetal malformations are associated with tubercle in the parents, and in this case there was a suspicion of tuberculosis on the father's side.

(276) Ovarian Tumour in Child: Torsion of Uterus.

Nagel (*Zentralbl. f. Gynäk.*, No. 4, 1905) performed ovariotomy on a child aged 8. There had been abdominal pain, with swelling for a year, but for three days the child had suffered from vomiting, constipation, and tympanites, with great increase of the pain. Acute axial rotation was diagnosed. At the operation only one trifling omental adhesion was discovered, and the cyst came out easily after tapping. It showed no degenerative changes, but its pedicle was twisted half a turn. On close inspection that pedicle proved to be the left broad ligament and the uterus involved in the torsion; owing to the tumefaction the limits between the uterus and the pedicle were at first hard to distinguish. The uterus and the right appendages, which showed no sign of disease, were saved. There was hardly any rise of pulse or temperature during recovery; the bowels were opened freely on the second day by Karlsbad salts.

THERAPEUTICS.

(277) Rheumatism.

G. Morton Illman (*Amer. Med.*, March 11th), discussing the etiology and treat-

ment of acute and chronic rheumatism, says it is necessary to investigate promptly and carefully all gastro intestinal conditions occurring previous to or associated with rheumatism, based upon the fact now being established that a diseased alimentary tract is the pathway by which the infection enters the circulation. Many members of one family or community are affected not by direct contagion or heredity, but because of the fact that they usually live under identical hygienic and dietetic conditions favouring the development of rheumatism. The treatment should be prompt and vigorous even though the symptoms be slight, special attention being given to the hygiene and diet. Meat, condiments, too ripe and too green fruits, alcoholic and cold drinks and dishes are to be modified or prohibited. A process of "drainage" or elimination from the bowel, kidneys, and skin is to be instituted before resorting to the salicylates. Salol following magnesium sulphate is productive of excellent results in patients with catarrhal bowel.

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(278) Alcohol.

F. HÜPPE (A. Hirschwald, Berlin, 1904) argues that civilized man cannot exist without a stimulant of some kind or another, and distinguishes between the harmful consumption of "alcohol," made so prominent by temperance reformers, and the beneficial use of alcoholic liquors, even though the latter may contain as much as 60 per cent. of alcohol. He shows that alcohol can be a food, and can replace the fat or carbohydrate of a diet to a certain extent, just as it can act as a poison when taken in excess. It is not a protoplasmic poison, as HCN is, for example, and at the worst may be compared to a whip; for just as a whip stimulates a tired horse, so alcohol can stimulate tired muscles and nerves to further exertion. The connexion between beer-drinking and cardiac hypertrophy is not proven, and the author states that many medical men—Strümpell, for example—who at one time advocated teetotalism, now advise instead the moderate use of alcoholic liquors. Recommending the temperate use of alcohol himself, he says that it is entirely bad for children, for invalids of certain kinds, and for nervous persons in general; its use should be interrupted by periods of abstinence. He produces figures to show that alcoholic excess does not tend to shorten life, or to the commission of offences against the law, and that it has no connexion with the occurrence of insanity. But he strongly recommends abstinence from alcohol to all weak-minded persons, and thinks that their education in this respect should be seen to by the State.

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(279) Rate of Absorption from Intramuscular Tissue.

MELTZER AND AUER (*Journ. of Exper. Med.*, vol. vii, 1905, p. 59) have studied upon rabbits the rate of absorption of adrenalin, curare, fluorescein, and morphine, after these substances had been administered by intramuscular injection. Comparing intramuscular with subcutaneous tissue, they find that the rate of absorption is "incomparably" faster from the former than from the latter. "The effect of an intramuscular injection," they state, "stands in value very near that of a direct injection into the circulation." It is urged that the intramuscular method of injection ought to be more largely employed therapeutically, as offering the advantages of intravenous administration without its dangers, and the suggestion is made that by a combination of intramuscular and subcutaneous injections long duration of action might be secured, together with rapidity and intensity.

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(280) Antitoxin in Diphtheria.

PROFESSOR SHUTTLEWORTH, bacteriologist to the Toronto Board of Health, gives (*Canadian Practitioner and Review*, January) the results of the use of diphtheria antitoxin in the Toronto Isolation Hospital (*Medical News*, February 4th). The first experiments were made in 1894 and were continued up to the close of 1898, during which time 157 cases were treated with the diphtheria antitoxin, with a mortality of 21.6 per cent., and an average hospital term of 25 4 days for non-fatal cases. The average hospital mortality for the period was 14.3 per cent., and the term was 23.5 days. The treatment on these results not being satisfactory, it was almost abandoned in 1899, but was revived in 1900, when 62 patients were treated in the hospital, and 20 others to whom it had been given before admission. Of this series of 82 cases, 20.7 per cent. were fatal. The ordinary hospital mortality for that year was 14.8 per cent. The following year there were 119 hospital and 35 outside cases, of whom 17.5 per cent. died, the annual hospital rate being 13.4 per cent. In 1902 there were only 105 antitoxin cases, most of which had been treated by their own physicians before admission. In this year the mortality was for the first time under that of the ordinary hospital rate, being 14 3 and 15 6 respectively. The total number of antitoxin cases treated since 1894 in the Toronto Hospital amounted to 508, with 95 deaths, or 18.7 per cent. The average hospital mortality for the same period is 14.0.

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(281) Iodine in Post-operative Sepsis.

JAMES H. BURTENSHAW (*Amer. Med.*, March 11th) says his own experience with iodine in cases of post-operative sepsis has been disappointing, but he is convinced that further development along the lines indicated will eventually yield brilliant results. During the past year he has used iodine in three cases, two of which ended fatally. In the first case, which was probably due to the use of defective ligatures, the patient recovered, a result which the author attributes more to her robust constitution than to the curative measures employed. In one of the fatal cases the infection was traceable to the unavoidable soiling of the peritoneum from the rupture of an enormous pelvic abscess during operation, and in the other case the source of infection was undiscoverable. In this case the iodine was given its most extended trial and with absolutely negative results.

PATHOLOGY.

(282) Congenital Heart Disease and Acute Endocarditis.

ROBINSON (*Penn. Hosp. Clin. Lab. Bull.*, Jan., 1905) reports two cases of acute endocarditis attacking a heart the seat of congenital malformation, with a description of the autopsies. In each instance the patient was a male, aged 20 at the time of death, and the malformations were the same in each heart—pulmonary stenosis, with patency of the interventricular septum at the undefended space. Further, the sites of the endocarditis were the same in both instances—the conus arteriosus, the passage between the ventricles, and the aortic and bicuspid valves. Apart from these 2 cases, only 17 instances of the supervention of acute endocarditis upon congenital cardiac defects could be found in the literature; this, as Robinson remarks, is at first sight curious in view of the generally-accepted theory that damaged valves are unduly prone to become the seat of malignant endocarditis. The apparent discrepancy is, however, explained by the fact that the subjects of congenital heart disease almost invariably die before the age at which malignant endocarditis is commonest, namely, middle life. These defects, therefore, which are least incompatible with life—pulmonary stenosis and deficiencies in the cardiac septa—are most often found in association with acute endocarditis; and, again, it is principally in young adults that this association is met with, because they are at a period of life transitional between the periods of congenital heart disease and of malignant endocarditis. Lastly, a review of the nineteen autopsies on record shows that acute endocarditis, when it does occur, nearly always attacks the right side of the heart.

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(283) Ankylostomiasis.

LAMBINET (*Bull. de l'Acad. Royale de Méd. de Belgique*, January 28th, 1905) records his experiments on dogs with cultures of the larvae of ankylostoma caninum, an organism which is closely comparable to the human parasite ankylostomum duodenale. Three different modes of infection were tried—feeding, subcutaneous inoculation, and application to the surface of the skin. By all three methods infection was produced, and Lambinet was therefore able to corroborate the work of Professor Looss, who showed that intestinal ankylostomiasis could be produced as a consequence of bringing the larvae into contact with the surface of the external skin. All, or almost all, the larvae introduced subcutaneously arrived very rapidly at the intestine, where they developed into adult worms; but in the case of larvae deposited upon a limited area of the skin only a certain proportion succeeded in reaching the intestine. The seat of election of these parasites is not the duodenum, but the upper and middle portions of the small intestine. After their arrival in this situation a period of about three weeks is requisite for their development into adult sexual worms, the time being about the same whether they were introduced per os, subcutaneously, or by absorption through the skin.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(284) Cerebro-spinal Meningitis.

G. G. Speer (*Med. Record*, April 15th, 1905) discusses the various aspects of cerebro-spinal meningitis, epidemic and sporadic, in detail, and mentions an early pressure symptom which, together with Kernig's sign, he has found regularly present. It consists in a turning in of one or both feet until, if not disturbed, one lies across the other. The legs later become flexed and also tend to cross each other. The plan of treatment, which is described at length, comprises in general the use of sedatives, ice to the head and sinapisms to the body, and potassium iodide to promote absorption of the morbid products. The author's conclusions are summarized as follows : Cerebro-spinal meningitis when first recognized was purely epidemic in character, and is now endemic in large cities. Its method of transmission from place to place and person to person is unknown. According to the latest and best investigators, the exciting cause of the epidemic form is the diplococcus intracellularis meningitidis, and no evidence has been produced to prove that the case of epidemic and sporadic cases is not the same. The probable entrance of the pathogenic germ into the system is through the respiratory tract, especially that portion covered by the Schneiderian membrane. Its action is that of a septic invasion, and its symptoms are a combination of toxin poisoning, nerve irritation, and pressure. The rate of mortality in late epidemics has been about 50 per cent., which may be lowered by a better agreement among the profession regarding methods of care and treatment. Spinal puncture is a requisite of exact diagnosis, but as a method of treatment it is still in the experimental stage and leaves much to be desired. Old methods of treatment may be made effective and reliable if used with decision and pushed to the limit of therapeutic effect. Cerebro-spinal meningitis in its worst form is amenable to treatment.

(285) Primary Tuberculous Rheumatism.

Paul Gauthier (*Lyon Méd.*, April 2nd, 1905) relates a case in which pulmonary tuberculosis was preceded for many years by attacks of acute generalized polyarthritis. His patient, when 50 years of age, had apical pneumonia, followed by haemoptysis, night sweats, and progressive emaciation, with the physical signs of a large apical cavity. He had a family history definitely tuberculous, his mother having died of phthisis and a niece of tuberculous meningitis. There was no history of rheumatism among his family. The pneumonia occurred in 1903. The first attack of arthritis was in 1875, and was the most severe. Practically all the joints were affected, including the intervertebral and temporo-maxillary. The patient was bedfast for three months, and got no relief from large doses of salicylate of soda. There had been no gonorrhoea, no acute fever, nor other intoxication. The second and third attacks of acute arthritis took place in 1885 and 1896 respectively, and resembled the first closely except that they were milder in character and of less duration. In the intervals between the attacks there had been pain, stiffness, and creaking in the joints. These intermediate symptoms diminished considerably with the onset of the pulmonary lesion. Gauthier thinks that the failure of salicylic medication and the absence of any history of intoxication are enough to stamp this arthritis, occurring first in early life, as primarily tuberculous. He considers that the synovitis is exactly analogous to the pleurisy with effusion which is now universally recognized as tuberculous, and advises bacteriological examination of the synovial fluid where rheumatism occurs in young people and resists ordinary treatment.

(286) The Uses of Roentgen Rays in Medical Practice.

According to Innelmann (*Berl. klin. Woch.*, October 24th, 1904), one of the most important uses of Roentgen rays in medicine is in the controlling of the effects of accidents, in cases when claims for compensation are made. He considers it necessary to prepare a skiagraph in every such case, but inasmuch as badly-produced pictures lead to confusion, the photograph should be carried out by a skilled Roentgographist. He gives some examples of wrong deductions having been made from faulty pictures. It is also necessary for the person controlling such cases that he be acquainted with all possible abnormalities of the skeleton. As an example, he cites a case in which the existence of a so-called "os intermedium cruris" gave the impression that a fracture was present. Sesamoid bones must also be recognized as such. The existence of splinters of metal damaging bones can be recognized, but one must at the same time be careful to determine whether there is any independent disease of the bone, which has nothing to do with the accident. Sarcoma, syphilis, and tuberculosis may affect a bone which becomes injured. He points out that one must consider if the functional damage is in proportion to the supposed cause. Again, it requires a very careful judge to determine whether a healed fracture has left any avoidable laming behind. It is extremely rare to come across an ideal union of a fracture when seen in Roentgograph. In medical jurisprudence also the uses of x rays are of importance. As instances, he speaks of a case in which, although the accused stated that he only fired one shot, five bullets were found in the skull, and in another case a small portion of the blade of a knife was seen in the interior of the skull, proving that the stabbing had been carried out with a knife. Another very important point in jurisprudence can be cleared up by means of the rays. In judging whether an infant has died during or after the birth, or whether it was capable of existing (in fetal life) apart from the mother, an x-ray photograph will be able to settle at once whether the fetus has passed the thirtieth week, after which it is believed to be capable of independent life by attention to the skeleton. The ossification centre in the distal end of the femur first appears at this time, and can readily be detected by these means. The lungs of a newborn infant which has not breathed show a shadow, while those of an infant which has breathed does not do so. If the lungs have been artificially blown up, one sees transparent portions near the main bronchi. For the military surgeon and for the medical referee of a life insurance company, x rays too are of great importance. Beside changes in the skeleton, the rays are able to demonstrate earlier than other methods of examination the existence of disease of the lungs and aneurysm of the aorta. The chief point which he emphasizes is that the examination must be entrusted to one well practised in skiagraphy.

(287) Hypertrophic Anascitic Cirrhosis.

Beauchef describes this type of cirrhosis to which Gilbert drew attention in 1889 (*Thèse de Paris*, 1904). It is characterized by an irregular hypertrophy of the liver, collateral abdominal circulation, hypertrophy of the spleen, and absence of ascites during the greater part of the disease. The etiology of this form of cirrhosis demonstrates the influence of alcohol and the predisposing rôle of what is described as the cholaemic state. The disease evolves very slowly, the hepatic functions remain for a long time quite adequate, thus contrasting with the atrophic form of cirrhosis. The patient is nevertheless very liable to haemorrhages from some portion of the portal system or its connexions as oesophageal varices. Diabetes may be associated with this form of cirrhosis. The diagnosis of anascitic cirrhosis must be made from other forms of hypertrophy of the liver, especially the syphilitic. The occurrence of haematemesis with enlarged liver will at once suggest this lesion. From the anatomical point of view, the lesion consists in what the average observers call bivenous cirrhosis, but one which is less marked in its characters than the ascitic form. The hepatic cells are normal as a rule; occasionally parenchymotous hepatitis may be present. The prognosis of this form of cirrhosis is, in the opinion of the writer, good. Withdrawal of alcohol, milk diet, and calomel constitute the treatment.

SURGERY.

(288) Treatment of Carotid Aneurysm by Extirpation of the Sac.

Mendes (*Rev. de Chir.*, No. 4, 1905) holds that extirpation of the sac is decidedly the method of choice in the surgical treatment of aneurysm of the common carotid. Two cases are reported, in which the author performed this operation with complete success, and reference is made to 5 other cases put on record by different surgeons, in all of which a like treatment was followed by equally good results. Although acknowledged to be a difficult operation, extirpation of the sac in cases of carotid aneurysm is recommended as one that is attended with but little danger

and as superior to other methods in its therapeutical value. In dealing with the objection that extirpation is unnecessary, since other methods that are simpler and less difficult are also capable of affording good results, Mendes argues that only the more radical operation can suppress the cause of subsequent evils, and that it thus offers itself as both a preventive and a curative method. If the risks of ligature of the common carotid be considered, the surgeon, it is maintained, may readily convince himself that it would be better to undertake an operation which though very difficult has hitherto been invariably followed by excellent results, than to have recourse to one which though relatively simple and easy is likely to set up serious evils. The author in dwelling on these evils, especially the severe and often fatal cerebral and other nervous lesions, and also on laryngeal and pulmonary disturbances, does not explain why such bad results are less likely to follow the difficult operation of dissecting out the sac, than the simple application of a ligature around the artery. The difficulties attending the method of extirpation, especially those due to accidental rupture of the sac and to haemorrhage, may, the author states, be effectually prevented by the preliminary application of a loose ligature to the proximal portion of the affected carotid.

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(289) Iodoform-Paraffin-Wax Filling of Chronic Bone Cavities.

At a meeting of the Surgical Section of the New York Academy of Medicine on February 3rd (*Med. Rec.*, March 25th), Charles A. Elsberg read a paper on the treatment of chronic osteomyelitis and of chronic bone cavities by iodoform-paraffin-wax filling. He held that cavities or dead spaces should never be left in bones when it could be avoided. In some tissues, when cavities were left behind, the walls would collapse and come in contact with each other; but in bones where the walls of the cavities were rigid, firm, and unyielding, such would not happen, and fluid material would gain access which would serve as a nidus for bacterial growth. Long bones healing by granulation required months of treatment, and the only way to succeed in getting a speedy recovery was by keeping the cavity aseptic and changing the dressings as frequently as possible. He then referred to the various attempts made to obliterate these cavities by the introduction of substances of various kinds into them. But none gave satisfactory results except in a very few cases. The materials used often caused increased secretion or caused extrusion, and had to be removed later. Impressed by the claims made of a certain method lately exploited, he determined to give it a trial. He then described the technique of the operation, and emphasized the importance of getting the walls of the cavity perfectly dry, and thoroughly sterilized, and clearing away all dead or infected material from the hard as well as the soft tissues. Then the filling should be introduced, which consisted of a mixture of iodoform 60 parts, spermaceti and sesame oil, of each 40 parts. This mixture was poured in. It required from two to three minutes for the mixture to become hard. The soft parts were then closed, except possibly with some drainage, and dressings were applied, which were not removed for from seven to fourteen days. These wounds should heal by primary union, and the patient be discharged in from two to four weeks. The iodoform-paraffin-wax filling slowly disappeared as the new tissue appeared in the cavity, and this could be well followed by *x*-ray pictures, the iodoform making the shadow. The wax mixture in some cases became extruded in a very few weeks. Iodoform poisoning was never encountered, although small amounts of iodine could be found in the urine for a few days after operation. He said this method was applicable in all forms of chronic bone disease, but not in those acute forms in which the cavities could not be rendered aseptic. This method had been employed in 15 cases at the Mount Sinai Hospital, but the results had not been so good as those reported from abroad, although much improvement was shown over the former methods of treatment, so much so that he felt warranted in recommending it. Among the improvements that he advocated were the following: The Esmarch bandage should be removed from the limb before filling the cavity; the cavity should be flushed with peroxide of hydrogen, and then a small amount of adrenalin gauze introduced to aid in drying the cavity; he never used more than 20 per cent. iodoform in the wax; the wax should be somewhat hardened in cold water before introducing it, for he believed that by so doing he could by pressure cause it to fill more completely the little offshoots from the cavity. While his results were still far from ideal, he thought this might be due to a lack of thoroughness in preparing the bone cavity. His results were far superior than those he had previously had, and he thought that the method should have a further trial. Virgil P. Gibney said that he had never used the iodoform wax at all in these cases, but that he had used powdered iodoform packed in tightly as a dentist would fill a tooth. What failures he had had he thought were due to a faulty technique, either because he did not hammer it in well enough, or else because the iodoform was not sufficiently powdered. Howard Lilienthal said that the impression given by the reader of the paper was that he was not as enthusiastic as the results of his work would warrant. Alex. v. Moschcowitz said he had tried this treatment outlined by Elsberg, but his results had not been so good. The operation was very tedious, and required long attempts to stop the haemorrhage, and to get the cavity as dry as was necessary for ultimate success. He believed that they were using something that would not mix with blood serum, and, therefore, he employed a substance which entered into closer relationship with the blood, such as a 4 per cent. solution of agar. Elsberg, in reply, said that agar had been used for this purpose before, and that it should be remembered that in animal experimentation, what held true in the cavity of the bone of a rabbit did not hold true in the bony cavity of a human being.

(290) A Modification of Thiersch's Skin Grafting.

Isnardi (*Zentralbl. f. Chir.*, No. 14, 1905) whilst fully recognizing the superiority of Thiersch's method of skin grafting over the older method of Reverdin, holds that in cases of old and healing wounds it is quite unnecessary, and, indeed, disadvantageous to carry out the former surgeon's practice of scraping away the granulations, and of applying the large and thin flaps of skin to a raw and bleeding surface. In the course of the last eight years Isnardi has applied Thiersch's skin flaps directly to intact granulating surfaces, with results that, in his opinion, could not possibly have been improved had he removed the granulations. The condition for success in such practice are a careful and prolonged aseptic dressing of the wound and surrounding skin, and a healthy condition of the open surface, indicated by small, ruddy, and firm granulations. The author insists on the importance of keeping the flaps of skin in position by gauze attached to the surrounding parts by collodion, and of frequent application over the gauze of boric-acid fomentations. After the eighth day, when the transplanted flaps have usually become attached, the dry and covered wound is powdered with euphorin, and protected by layers of dry gauze and cotton wool. The objections to Thiersch's practice of removing granulations are the pain caused by this part of the operation, the loss of time in stopping the haemorrhage, and the delay, due to exudation, in the establishing of vascular connexions between the raw surface and the flaps of skin.

MIDWIFERY AND DISEASES OF WOMEN.

(291) The Treatment of Ovarian Cysts complicating Pregnancy and Labour.

A. Dührssen holds that the proper treatment in the majority of cases of ovarian tumours, and especially cysts, occurring as complications to pregnancy and labour, is the vaginal ovariotomy (*Deut. med. Woch.*, October 13th and 20th, 1904). He cites some cases which illustrate the ease and safety of the operation, and argues from these cases. In one case the ovarian cyst was diagnosed in the fourth month of pregnancy, and as the cyst could not be replaced into the abdomen, and therefore formed an obstruction to a future labour, he operated. The posterior vaginal vault was incised without the cervix being drawn down, and the wound secured with four pairs of pressure forceps. The direction of the incision was a median longitudinal one. The upper half of Douglas's pouch was then seized with forceps and opened. Two fingers could be easily introduced into it. Passing a Doyen's mirror into the wound, he illuminated the lower pole of the cyst, and punctured the same with a lancet. A large quantity of fluid escaped. The sac was drawn into the vagina by clamps, and the peduncle was ligatured by three catgut ligatures and divided. On account of two of the ligatures being found to include portions of cyst wall, they were replaced by others

higher up, and the rest of the cyst removed. After dividing the numerous sutures, which had been adjusted with much care, the stump receded rapidly into the abdomen. The wound was sewn up in layers, and only a small gauze drain was left in. The case did exceedingly well, and the pregnancy was not interfered with. In discussing the operation, he states that the worst that can happen to the operator is that he may not be able to get at the peduncle, either because the cyst or tumour cannot be drawn down, or because the tissue is so friable that it tears as soon as one applies any traction; in this case, one can immediately proceed to perform a ventral operation, which does not alter the chances for the patient, and for which the operator must be prepared in each case. The objection raised to the operation that the cyst may be ruptured before by attempts to reduce it into the abdomen, is met with the remark that no force should be exerted to return these tumours into the abdomen, as they are only easily got at from the vagina, when they have not been returned. When there is infection of the contents of the tumour, or of the genital passages, he advises the ventral way of operation, but all other contingencies may be best met by operating per vaginam by posterior colpo-coeliotomy. Tumours which are placed high up, which do not tend to obstruct labour, should be left alone during the pregnancy, as long as the general condition of the patient remains good, and the tumours do not grow rapidly. Myomata may be dealt with in the same way, and when it is considered best to remove the uterus as well, this may be done by his so-called vaginal Caesarean section.

(292) The Latero-vaginal Incision in Vaginal Hysterectomy.

Paolo Fiori (*Il Policlinico*, November, 1904) advocates the use of such an incision of the vaginal wall and the adjoining tissues as may be necessary to facilitate the exposure and removal of all the affected parts, especially in cases where extensive pelvic adhesions and widespread neoplastic growths make it difficult or impossible to deliver the uterus through the complete vulva. The exact operation recommended is that first performed by Ruggi. It is described by the author as superior to that of Chaput, and in every way equal to the more formidable vagino-latero-perineal operation of Schuchardt. The operator grasps between his left thumb and forefinger both the labia in the neighbourhood of the posterior angle of the vulva, compressing as much as possible of the corresponding part of the vaginal wall. An assistant does the same thing at the anterior angle. The pressure thus applied prevents any considerable loss of blood from the incision. In the space left free by the fingers an incision is now made, which starts from the junction of the posterior and left lateral fornices, divides all the lateral boundaries of the vagina and the vulva, and goes deeply into the ischio-rectal fossa, divides all the tissues of the ano-perineal region, and ends 3 c.m. from the anal orifice. The vaginal cavity and the upper segments of the portio then come well into view, so that parts can be seen which were before almost out of reach of the examining finger. Suspected tissues can be more widely removed and the uterine vessels easily tied at a little distance from the uterus. The wound, accurately united with catgut, heals in five or six days, and so completely, according to Ruggi, that, after operation on a virgin subject, there may be complete reconstitution of the hymen. Out of several cases the author quotes one in which the wide diffusion of an epithelioma would have made successful operation through the abdominal wall impossible, while the viscera were too completely fixed to have been thoroughly removed per vaginam, except by some such method as this, which proved completely successful.

(293) Acute Vesical Haemorrhage in Pregnancy.

Kubinyi (*Zentralbl. f. Gynäk*, No. 48, 1904) attended a woman, aged 32, for acute retention of urine. Previously her health had been good, and she had been delivered normally four times and aborted twice. Three days before the consultation she passed bloody urine after lifting a weight, and from that time could pass no more; the catheter brought away nothing but blood, and a swelling could be felt rising above the pubes. The patient also complained of headache, nausea, and vomiting. There were all the evidences of acute internal haemorrhage, and the bladder was clearly filling with blood, its rupture being imminent. Neither a female nor a large male catheter were of any service. A vaginal enema tube was introduced, but a double-current injection only brought away a little fetid tarry blood. The urethra was then dilated with Hegar's instruments up to No. 16; the finger brought away nearly a pound of clot and several pints of bloody urine. Free irrigation of the bladder with cold water followed. The patient suffered from varicose veins in the lower extremities, and, as the attack of haemorrhage was essentially acute, rupture of varices in the bladder was diagnosed. A retention catheter was not used, the urine was drawn off several times on the day of operation, and the bladder washed out with a 3 per cent. solution of boracic acid. The patient was kept on a milk diet. On the next day she passed water normally, and a week later she was delivered of a living child, which was reared. There was no return of the haematuria, and the urine was free from albumen. The cystoscope revealed a dilated vessel surrounded by thickened mucosa near the neck of the bladder.

(294) Extrauterine Pregnancy: Eclampsia: Living Child Extracted at Term.

Peham (*Wiener klin. Woch.*, No. 19, 1904) reports this case, where a woman suffering from nephritis and eclampsia and in labour for two days was admitted into Chrobak's wards. There was uncertainty of diagnosis, rupture of the uterus was suspected on account of the collapsed state of the patient, the tenderness of the abdomen, the escape of blood from the uterus, and a history of attempts made to turn and deliver. There was, however, no tympanitic distension, and evidence of damage to the uterus by a practitioner was defective. Abdominal section was performed, the uterus was found enlarged to the size normal at the fourth month. There was a fetal sac to the left of the uterus posteriorly; the left Fallopian tube ran on its surface. The sac was extirpated with the placenta, the child was living and developed as at term; it measured 18 in. in length, and weighed a little under 4½ lb. The abdominal wound was closed, but drainage effected through the vagina. The sac was probably tubal—just possibly ovarian—but too much damaged in the course of the operation to allow of precise definition. The insertion of the funis on the placenta was velamentous, an unfavourable condition had removal of the placenta proved impossible at the operation. The mother's convalescence was retarded by an attack of parotitis; the child was alive and in good condition six months after the operation.

THERAPEUTICS.

(295) Treatment of Cerebro-spinal Fever.

Charles G. Stockton emphasizes (*Amer. Med.*, April 1st) the importance of bringing about the best hygienic condition for the patient. This is accomplished by the absolute quiet in well-ventilated, darkened rooms, with the absence of all excitement and irritation: giving the greatest attention to secure the proper performance of the various functions of the body; the trial of the hot baths after the method of Aufrecht in all cases in which they seem to do good; the practice of intraspinal puncture, with drainage when necessary to relieve severe pressure symptoms, to be repeated, if necessary, provided benefit follows the first puncture; the use of antipyrin in cases in which the temperature is raised not only for the relief of this symptom, but for the mitigation of headache and hyperesthesia. Stockton has found this drug also useful in improving the mental state, and in his hands it has not been followed by the expected depression. The use of opium or the bromides alone, or in connexion with antipyrin, if necessary, for the relief of convulsions, pain, hyperaesthesia and pressure symptoms generally, which are not relieved by the foregoing methods of treatment. The use of mercury when needed for its laxative effect, or when needed to assist in stimulating the organs of elimination opium and the bromides are indispensable in some cases, and large doses are at times necessary.

(296) The Action of Adrenal Substance.

J. Baum has made a minute study of the action of the active substance in the adrenals, and reports on his work in the *Berl. klin. Woch.*, January 23rd, 1905. When watched under the microscope, the action of these substances can be seen to take place on the smallest arteries and veins, but the author has not been able to see the action on the capillaries, which others have described. He has come to the conclusion, after having studied the action on the skin affected with numerous diseases, that the action takes place the more rapidly, energetically, and lasts the longer the more normal the tissues, and especially the vessels are. It fails in lupus ulcera-

tion and in teleangiectatic veins. The substances do not penetrate through the unbroken skin and thus they may be used as a delicate indicator for the presence of abrasions, etc. Vulpian has pointed out that there is a certain likeness chemically speaking between suprarenal substance and "Brenz-catechin." Both colour ferric chloride dark-green or violet, iodine, in solution, chlorine water and bromine water and other substances are tinked a pinkish carmine, which colour disappears on addition of an excess of the reagent. Baum, therefore, carried out this comparative analysis further by testing the action of Brenz-catechin on the skin. Having lightly rubbed the skin with sandpaper, he applied from 1 to 10 per cent. solutions of this substance. After about five minutes complete paling and "goose's skin" appeared. The action could not be distinguished from that of adrenal substance. It appears that the active principle of suprarenal capsules is closely connected with the reducing substance, and that this reducing substance differs from the ordinary substances of this class, in that it acts in extremely small quantities, and is not dissociated itself. It therefore acts like a katalysator. It has further been shown that spermin acts katalytically as an oxydising agent, and yet, like the ferments, does not take part in the process directly itself. Baum found that spermin has the exactly antagonistic action to that of adrenal substance and Brenz-catechin, in that it produces a sudden increase of the circulation, dilating the small arteries and veins. It is extremely probable that the substance in adrenal substance, which has the same chemical and physiological properties as Brenz-catechin, is the real active principle, and that spermin is an antagonist.

(297) Pyramidon in Typhoid.

SABARTHEZ advocates the use of pyramidon in the treatment of typhoid fever (*Arch. Gén. de Méd.*, February 14th, 1905). He states that a ½ gram given to a typhoid patient in cachet, causes at first some malaise, restlessness, and a feeling of heat, symptoms which soon give place to a fall in the temperature, sweating, and a rise in arterial tension. These effects last about six hours. The antipyretic effects of pyramidon are rapid and certain, and at the end of twenty-four to forty-eight hours pyrexia has notably decreased and may remain down, an effect which is produced irrespective of complications or secondary infections. At the end of three or four days there may be slight rise of 0.5° to 1° F. Sweating and diuresis are always noted, but do not cause discomfort. Three to four litres of urine may be passed in the twenty-four hours. Intestinal fermentation is controlled by pyramidon, so that fetor is less marked, distension of the abdomen disappears, and nutrition is improved. The general effects are as satisfactory as the antithermic. The patient's appearance quickly changes for the better, and there is less stupor and prostration. The best method of administering pyramidon is to give a gram daily in 4 cachets. A larger dose is rarely necessary, and sometimes a smaller one is sufficient. For children from 6 to 8, 0.3 gram may suffice. In order to avoid a too sudden remission of temperature the writer advises commencing with 0.6 to 0.8 gram, increasing the amount till 1.25 gram is reached. In some exceptional cases no immediate result occurs with ordinary doses. The dose may then be increased ¼ gram; the temperature will, as a rule, at once respond. Pyramidon should be given regularly throughout the course of the disease, and gradually diminished during convalescence. The mode of action of this drug appears to be the active elimination by the kidneys and skin of the toxic materials which are present. Pyramidon does not appear to be in any sense a germicidal in its evolution in the presence of the drug, but, owing to the rapid elimination of toxins, the constitutional effects are gradually reduced. Compared with other drugs, as quinine and antipyrin, the result is considerably better, and is even superior to that of cryogenin, which closely resembles pyramidon in its composition. Cryogenin, while having very marked action in pleurisy, pneumonia, and tuberculous pyrexia does not appear to have so marked an effect on the pyrexia of typhoid as pyramidon. Pyramidon offers a practical advantage over the treatment of pyrexia by baths, as the patient is not fatigued to the same extent, nor is there the same difficulty in nursing that the cold bath treatment of typhoid always entails, as it is merely necessary to see that the patient is rubbed dry and his linen changed every six hours, should sweating be very abundant. The writer's observations were carried out on a series of 85 cases varying from 17 to 35 years of age. Of these 65 were treated in hospital and many were severe. There was only one death recorded—a woman who was brought into hospital in a state of profound collapse as the result of intestinal haemorrhage. Of 20 cases treated in private, all recovered. In conclusion, the writer states his conviction that pyramidon is a drug of great value in the treatment of typhoid, and that there is no contraindication.

(298) Treatment of Dysentery by Irrigation of Colon through the Appendix.

W. H. ARTHUR has published (*Med. Record*, March 25th) a preliminary report on the treatment of chronic dysentery by irrigation of the colon through the vermiform appendix or an opening into the caecum. He has carried out the treatment of dysentery by this plan in six cases, and is very favourably impressed with the results, although he considers the number too small to enable definite conclusions to be drawn. The advantages of this method of irrigation over the deep rectal injections are: (1) The irrigating fluid is delivered first at the point shown by experience at the *post-mortem* table to be the situation of the most extensive lesions, and is carried from there by the natural peristaltic movement of the colon to the outlet. Rectal irrigations, to reach even the transverse colon, must overcome this natural tendency of the bowel to drive out any foreign substance. (2) It is entirely painless, and very much easier for the nurse to administer. Indeed, the patient can soon be taught to do the irrigating himself. (3) It is possible to keep it up much longer, for rectal irrigations soon become so distressing that they must be discontinued for long periods.

PATHOLOGY.

(299) Dissemination of Streptococci.

ALICE HAMILTON (*Jour. Amer. Med. Assoc.*, April 8th) reports the results of an investigation, conducted in the Memorial Institute for Infectious Diseases, Chicago, of the dissemination of streptococci through the breath, especially in scarlet fever and sepsis. She found that these organisms are expelled in invisible droplets of sputum in coughing, speaking, whispering, crying or breathing forcibly through the mouth, to a distance of at least 36 cm. This was observed in 33 out of 50 scarlet-fever patients and in 42 out of 50 normal individuals, and Hamilton concludes that when these germs are inhaled, or when they fall on exposed tissues, they may cause disease or suppuration. It is probable, also, that their virulence may be increased by passage from one individual to another, and this would explain the conversion of a simple case of scarlet fever into one of scarlatinal sepsis, and it also would explain the cases of surgical sepsis that occur and which otherwise cannot be accounted for. Hamilton suggests the isolation of cases of scarlet fever with streptococcal complications, and the employment of a mouth guard by surgeons and nurses during operations.

(300) Uric Acid in Liquid Effusions.

GALDI AND APPLANI (*Rif. Med.*, December 14th, 1904) have examined the fluid in 14 cases of effusion with reference to the presence of uric acid. Out of the 14 cases, 11 were exudative in type, and of these 7 were clearly tuberculous in character, 2 neoplastic, and 2 probably tuberculous. The other 3 cases were transudates. In every case urie acid was found, varying in amount from a minimum percentage of 0.0055 in a case of peritoneal new growth to a maximum of 0.0714 in a case of tuberculous meningitis. The average percentage was 0.0213, corresponding to a value of 0.00379. The method used for determining the uric acid was that of Ludwig-Salkowski. The uric acid is derived in great part from the nucleins of the corpuscular elements of the effusion. Its quantity is greater in exudates than in transudates, in which latter it averages about 10 mg. It appears to be most abundant in tuberculous effusions of a comparatively recent date. In general the uric acid is directly proportional to the specific gravity to the total nitrogen and to the albuminoid content of the fluid. If we wish to select an extractive substance as a point of differential diagnosis between exudates and transudates, uric acid will serve the purpose. In two cases of tuberculous meningitis the cephalo-rachidian fluid showed a considerable proportion of uric acid, but in the absence of researches on normal cerebro-spinal fluid in this respect the value of the observation in these two cases is uncertain.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(301) Inequality of the Pupils in Pleuritic Effusion.

CHAUFFARD AND LAEDERICH have investigated the occurrence of dilatation of the pupil in cases of pleurisy (*Arch. Gén. de Méd.*, No. 10, 1905). In 17 cases observed daily this symptom was completely absent in 10; in 7 the pupil was dilated on the same side as the effusion; inequality varied from day to day, the dilatation sometimes being absent for a few days but reappearing later. In all cases dilatation disappeared when absorption of the fluid was complete. Dilatation of the pupil was always slight and occasionally required to be carefully looked for, the patient being placed opposite a window and care being taken that accommodation was relaxed. The writers point out that if strong light be allowed to fall on the eye it may be impossible to detect inequality of the pupils. Further, if the patient should fix his eyes on some close object, the pupils contract equally. It thus appears that the light reflex is sluggish rather than absent. In 10 negative cases the conditions to which the pleural effusion was due were varied—tubercle, malignant growth, pneumonia, etc. In 7 cases in which the phenomenon was noticed, effusion was due to cardiac disease in 1, the remainder being various micro-organismal infections. There thus seems to be no connexion between the nature of the pleurisy and dilatation of the pupil. Thoracocentesis seems to have little influence on the size of the pupil, for in 3 cases it was found to be the same after evacuation. It has been suggested that dilatation of the pupil in diseases of the lung is due to compression of branches of the sympathetic; but the fact that thoracocentesis has little or no effect on the size of the pupils negatives the possibility of compression of nerve fibres by the collection of fluid. The writers suggest as an explanation Schiff's law that all peripheral stimulation produces dilatation of the pupil. They believe that the mere fact of the pleura being inflamed is sufficient to account for this phenomenon irrespective of the mechanical effects of fluid.

(302) Lesions of the Digestive Organs in Typhoid Fever in Children.

KISSEL has examined 375 children suffering from typhoid whose ages varied from 1 to 13 years (Société de Pédiatrie, Moscow, October, 1904). Among the complications and sequelae of the digestive system 2 cases of noma were noted: A child, aged 2 years and 9 months, showed circumscribed gangrene of the buccal mucous membrane. Parotitis was present in 7 cases, haemorrhage from and perforation of the intestines, though less frequent than in adults, were far from rare. There were 4 cases of the former and 2 cases of perforation with haemorrhage. Perforation alone occurred in 7 cases, the earliest being on the twelfth day, the latest on the thirty-fifth. All ended fatally. The author shows that increased alimentation seemed to play no part in the causation of perforation. In a boy, aged 9, there was perforation of the appendix with subsequent peritonitis and death. Colitis occurred in 2 cases of typhoid and there was one case of cholecystitis. The writer draws attention to the fact that of cases of parotitis 6 occurred between 1890 and 1894, but from that date to 1902 there were no cases, which he attributes to the fact that care was taken to carefully cleanse the mouth. The seventh case occurred in 1903, and it was found that this rule had not been observed. *Post-mortem* examinations were held in the majority of fatal cases, and the interesting fact was elicited that intestinal perforation was found in many cases where there had been no indication during life.

(303) Subacute Combined Degeneration of the Spinal Cord.

ORMEROD, J. A., in recording an instance of subacute combined degeneration of the spinal cord (*St. Bartholomew's Hospital Reports*, vol. xl, p. 23), points out that it is a form of spinal disease which it is important to recognize, because it runs a more rapid course than most forms of spinal degeneration, and usually terminates fatally within a comparatively short time. The disease is one of middle life, and is often associated with grave anaemia, which, however, does not bear a causal relation to it. Three stages can be distinguished in the course of the disease; the keynote of the first stage is ataxic paraplegia with paraesthesiae, that of the second is marked anaesthesia with spastic paraplegia, and the third stage is characterized by flaccid paralysis with muscular atrophy and loss of the deep reflexes, total anaesthesia, paralysis of sphincters, pyrexia, coma, and death in about six weeks' time, usually after the onset of constitutional symptoms. The most characteristic features in the morbid anatomy of the cord are primary degeneration of the principal ascending and descending systems of fibres plus a diffuse degeneration of the white matter in the dorsal region, the grey matter and its cells remaining unaffected. The following is an abstract of the case reported: A compositor, aged 57, whose previous and family history were unimportant, showed, during the first stage of about a year's duration, numbness in the fingers and failing memory for the whole time, numbness in the knees for six months, and anaemia for four months. During the second stage, lasting about nine months, walking failed, then, six weeks later, there occurred incontinence of urine, anaesthesia in the lower limbs, exaggeration of the deep reflexes, with extensor plantar reflex. No further change occurred for two or three months, when there was improvement in the lower limbs for a few weeks, to be followed by more marked paraplegia and rigidity, with increase of the anaesthesia and mental deterioration. The third stage, which lasted only three days, commenced about twenty one months after the onset of the first symptoms with a rigor and succeeding pyrexia (104°), vomiting, and diarrhoea. The legs became flaccid, the knee-jerks disappeared, he became comatose, and died. *Post-mortem* examination revealed degeneration of the ascending tracts of the posterior columns (tracts of Goll and Burdach), of the ascending cerebellar tracts (ventral and dorsal), and of the pyramidal tracts. There was no characteristic alteration of the grey matter or meninges, and the peripheral nerves were normal.

(304) Juvenile Tabes.

HIRTZ AND LEMAIRE (*Rev. Neurologique*, March, 1905) have made an exhaustive critical study of the cases of juvenile tabes placed on record, and add one of their own in a youth aged 23. They give a table of the principal clinical facts of 46 cases occurring in patients whose ages range from 6 to 22 years. They occur almost invariably in the subjects of hereditary syphilis, but in one or two cases an antecedent syphilis was acquired in the early months of life. The three ways in which the condition first shows itself in early life are by urinary troubles, lightning pains, or amblyopia. Of 28 cases in which the mode of onset was noted incontinence of urine was the first symptom in 12, lightning pains in 7, and amblyopia in 4, while in 2 gastric crises were the first symptom. Thus the incontinence of urine, the first symptom in half the cases, is in contrast with the lightning pains, the first symptom in about 62 per cent. of adult cases, while it occurred in the juvenile cases in only 30 per cent. Visceral crises occurred in 19 per cent. of the juvenile cases; in all of the cases inco-ordination was slight, in only 2 cases was there marked ataxia. In regard to etiology the authors say tabes of the child or of the adolescent is dependent on syphilis, usually, of course, hereditary syphilis; in those cases in which the disease cannot be predicated with certainty it is yet highly probable. The authors cannot assert from their study that a neuropathic organization is a necessary concomitant with the specific virus in producing infantile or juvenile tables, but they have noticed sometimes in the family history of the young tabetics the occurrence of tabes, general paralysis, or epilepsy. It is probable, they consider, that tabes is an exceptional manifestation of the spinal affections due to hereditary syphilis, the diffuse form being a more common form. Infantile or juvenile tabes is an exceptional condition even in hereditary syphilis affecting the nerve centres.

SURGERY.

(305) The Late Results of Surgical Treatment of Gastric Ulcer.

AT a meeting of the New York Academy of Medicine on March 16th (*Med. Record*, April 1st) John C. Monro, of the Carney Hospital, Boston, read a paper on the late results of the surgical treatment of gastric ulcer. He believed the best results were obtained surgically and not medically, and that to-day a large part of the medical men in Boston were willing to admit this fact. The final results among 146 cases were known in 133 of them but he regretted that he could not as

yet state anything definite regarding the frequency of relapses, although he felt certain that risks of reformation of these ulcers were very small. Of these 146 cases there were about 50 of cancer; the remainder were benign lesions. In 14 cases of cancer and sarcoma the disease had advanced so far that a gastro-enterostomy was not deemed advisable. Many of the cases had been under medical treatment for a long time, and some were hopeless from the start. He believed no one could tell with certainty the conditions of the viscera without opening the abdomen. In 3 of the cases a jejunostomy was performed to avert death from starvation. In 25 cases anastomosis was performed with the Murphy button. In 5 cases death was hastened by a few days, but the operation was done in each instance with the clear understanding that the outlook was desperate. With the less hopeless cases, he said, such signally good results had been obtained that he felt more and more encouraged. In 19 of these cases the final results were known; 2 patients lived over one year; 9 lived from one month to one year; the remainder died within one month after operation, but not directly as the result of the operation. The benefit of the operation appeared at once. When gastrectomy was done for cancer of the stomach, he said he felt convinced that all of the growth could be removed. Two patients died as the result of imperfect technique, but since Mayo had improved the technique he expected better results. In 4 cases the results were very good, and it was interesting that but 4 cases out of the 50 came to them for operation in time for excision to be done. The patients did not seek surgical aid in time to get good results. Of the benign cases there were 90 operations, and the end results were known in 78. In most of these cases medical treatment had been employed for periods extending over months or years. He said that Mayo had made the statement that he never operated upon a case of ulcer of the stomach unless it had been cured at least seven times. Primary cases were rarely operated upon. There were very few typical cases, and he said that, as a result of his experience, he had grown quite accustomed to very startling revelations when opening the abdomen. Little help was to be had from either a bacteriological or a chemical examination of stomach contents. He said he had abandoned giving the test meal, and preferred to give a good meal and note the results after a few hours. The general history of the condition, the bleeding, the distress, etc., made up the sum total in determining whether or not to interfere surgically. The diagnosis could not be made from visual and tactile examination alone, because the histology of the stomach was not known. Monro here described the operations performed. Finney's operation had not given good results, and therefore had been abandoned. Moynihan's operation with the short loop gave the best results he had ever seen. In 11 cases in which the long loop was employed 7 complete cures resulted. In all the anastomosis operations one should be very cautious regarding the dietary, and he said he had had cards printed for these patients' use, informing them what they could eat, etc. In conclusion, Monro said that the results of surgery in cases of ulcer of the stomach, as well as malignant and benign growths, was certainly very encouraging. In both malignant and benign ulcers he believed that medicine must yield to surgery. One of the most important problems for solution to-day was the technique, and so soon as this was solved the results of operative work would be far better. E. G. Janeway considered the question of lavage of the stomach in gastric ulcer, and said that he had been called in consultation in two cases in which there were perforations, as the result of lavage. Both patients were in a state of collapse and died. These two cases made a very strong impression upon him as to the advisability of washing out the stomach when one did not know the depth of the lesions. He referred to the statement made by a certain doctor that he had over 300 patients under treatment, and every day the stomachs of all were washed out until clean and then 150 to 300 gr. of bismuth subnitrate were introduced and left: this man stated that he had not seen a single bad result from lavage. With regard to the employment of nitrate of silver, Janeway said he had seen 1 case in which argyria developed; this patient had cirrhosis of the liver and not ulcer of the stomach; he had a haemorrhage and the silver nitrate was given for the purpose of preventing another. Mistakes in diagnosis were often made, and sometimes, even when the abdomen was opened, mistakes of diagnosis would be made. He referred to a case in which the diagnosis of malignant disease was made, the abdomen opened, the diagnosis confirmed by inspection, the abdomen closed and the patient made a recovery, the tumour entirely disappearing. He thought it might be interesting to note the number of cases of ulcer of the stomach in New York City which terminated fatally, and he gave the following statistics: In 1895, 71 cases, 43 males and 28 females; in 1896, 81 cases, 33 males and 48 females; in 1897, 65 cases, 32 males and 33 females; in 1898, 62 cases, 31 males and 31 females; in 1899, 71 cases, 34 males and 37 females; in 1900, 73 cases, 41 males and 32 females; in 1904, 93 cases, 51 males and 42 females. In all probability a large number of cases had not been recorded because not diagnosed.

(306) The Mixture of Adrenalin and Cocaine in Surgical Practice.

GANGITANO (*Archiv. Ital. de Biol.*, March, 1905) speaks highly of a mixture in nine parts of one half per cent. cocaine hydrochloride and one part of one in a thousand adrenalin chloride for small surgical operations. Repeated injections are made about the region to be incised, up to 10 c.cm. of the fluid being used. Anaesthesia is produced in seven or eight minutes. The advantages claimed for this solution are that a smaller dose of cocaine is effectual, and therefore the risk of the appearance of poisoning symptoms is less, and that the vaso-constrictor action of the adrenalin is of great value in diminishing the haemorrhage which would otherwise obscure the field of operation. A mixture of these two drugs has already come to occupy a recognized place in this and other countries for minor surgical operations, but Gangitano holds that a larger proportion of cocaine than is necessary is frequently employed.

(307) Differential Diagnosis of Appendicitis and Perforating Ulcer of the Duodenum.

TUFFIER (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 11, 1905), in a report on a case communicated by Rouville, in which perforation of a duodenal ulcer was confounded with perforation of the appendix, points out that this error of diagnosis is of frequent occurrence, and, in many cases, cannot be avoided. In discussing the value of such indications of duodenal perforation as the seat and intensity of the abdominal pain and a history of dyspeptic troubles, Tuffier states that much in this respect depends on the period of the attack in which the patient first comes under surgical observation. If there be no doubt as to the existence of the three conditions of sudden and intense pain occurring in the epigastric region of a dyspeptic subject, perforation of a duodenal ulcer may be confidently diagnosed, but in many instances this association of symptoms cannot be clearly determined. In fifteen out of twenty-three collected cases of duodenal perforation the pain could not be precisely localized, and in six cases only was there any history of dyspepsia. As a rule the patient when first seen is suffering from acute general peritonitis, and, unless there be a rapidly-developed dullness in both iliac fossae, there is nothing to afford any indication of its origin. Fortunately, the treatment is not likely to be influenced by this uncertainty. In cases in which it is difficult to decide between acute appendicitis and perforating ulcer of the duodenum, the surgeon should first operate on the right iliac fossa, and then, if he finds the caecum and appendix quite healthy and at the same time observes a profuse discharge of sanious and fetid fluid from the pelvis, should perform superior laparotomy in the median line and search for an intestinal perforation. The first incision in the groin would not, it is held, be superfluous, as it is advisable in cases of this kind to drain both iliac fossae.

MIDWIFERY AND DISEASES OF WOMEN.

308) Torsion of the Fallopian Tube.

R. H. BELL (*Journ. of Obst. and Gynaec.*, June, 1904) deals with torsion of the pedicles of tumours of the Fallopian tubes, and describes a case which came under the care of Cullingworth at St. Thomas's Hospital. About fifty cases have been described in the literature, but up to now none have been diagnosed before operation. The signs and symptoms are almost identical with those due to torsion of the pedicle of an ovarian cyst, but the condition may be at least suspected in cases characterized by a fluctuating abdominal tumour not rising above the umbilicus, associated with paroxysmal attacks of pain, culminating in a severe attack with vomiting and constipation, and if the tumour has been previously observed marked by increase in size of the tumour, tender

ness, and some loss of mobility. Tubal rather than ovarian torsion is suggested also by irregularity in the shape of the tumour and by the presence of bilateral disease. The tumour of the Fallopian tube most commonly affected is a hydrosalpinx which is transformed into a haematosalpinx by the haemorrhage due to torsion. A certain length of pedicle is necessary to allow torsion to occur, and thus the hydrosalpinx is usually situated in the ampulla of the tube, and has, moreover, reached such a growth as to be an abdominal rather than a pelvic tumour. Tumours of the tube have, as a rule, contracted adhesions, which prevent torsion, and the rarity of the condition is thus explicable. The most usual result of torsion is a compression of the veins, followed by a rapid increase in the size of the tumour and haemorrhage both into the cyst and between the layers of the wall. The age at which this form of torsion especially occurs is that of full genital activity. The prognosis after operation is good—only three deaths have occurred in the 50 cases. In the author's case the patient's first attack of abdominal pain occurred four years before her admission into hospital, and for two years before admission the attacks were gradually increasing in frequency and severity. These attacks were probably produced by successive twists, which led ultimately, but very slowly, to complete strangulation of the pedicle and acute symptoms.

(309) Catarrhal Diseases of Female Genitals.

A. DÜHRSSEN discusses the causes of white discharge from the female genital passages and the treatment of catarrh of the organs (*Deut. med. Woch.*, November 24th, 1904). On learning of the existence of a discharge, it is the practitioner's duty to make out the source of the discharge by a thorough examination. He has first to exclude a new growth of the vagina, cervix, or uterus, and next to decide whether there is a catarrh of the vagina, uterus, or tube. The last named is rare. Acute vaginitis is easy to recognise. The pus is excoriating, the mucous membrane and the small labiae are intensely red and swollen, and there is much pain on passing the finger. Gonorrhoea is the most common form. The diagnosis can be made without the help of the microscope, if one can press pus out of the urethra and of Bartholin's glands. The treatment consists in forbidding cohabitation, and in undertaking an examination and treatment of the husband (the patients are mostly young married women, whose husbands have been told that their gonorrhoea has been cured); further, ichthargol solution (from 3 to 5 per cent. in water) is applied after irrigating with lysol (1 per cent.) by means of a pledget of wool, through a small speculum. The urethritis is dealt with by injections of the same solution. Chronic vaginitis can also be treated by the same means. The chronic form can be recognized as gonorrhoeic by the presence of punctate reddening in the neighbourhood of the Bartholin's glands or the orifice of the urethra. Irrigation with lysoform and chloride of zinc are advisable to prevent fresh infection. Non-gonorrhoeal colpitis may be treated by removing the cause; for example, a foreign body (pessary), a lacerated perineum, or a fistula of the bladder. The senile form, which is characterized by its burning purulent discharge, is best treated by instilling wood vinegar, and washing the remains of the vinegar away with lysoform solution. The normal mucosa of the uterus only excretes a small mass of a glassy clear mucus; when a speculum is passed, and one sees a fair quantity of secretion, one can be certain that there is a cervical catarrh at least. This is made certain if there is an erosion, or if the cervical mucosa appears red and swollen. Purulent or muco-purulent discharge issuing from the cervix indicates a uterine catarrh, especially when the organ is very tender, and when the cervical mucosa is much reddened. For an acute catarrh, rest in bed, ice, and aperients suffice until the acuteness has passed off. Chronic catarrh is best met with by applying the various cauteries by means of Playfair's sound. A 25 per cent. carbolic alcohol, or in obstinate cases a 10 to 50 per cent. solution of chloride of zinc are to be recommended. The author deals next with catarrh of the body of the uterus, and discusses the advisability of combined cauterization and curetting, pointing out that when the curette is used, the cervix must be scraped too. He further adds a few words on tubal catarrh, which can be recognized by feeling the enlarged tube and by noticing the large quantity of watery fluid escaping outwards. The only treatment is removal of the affected tube.

(310) Round Ligament Fibroid and Hernial Sac.

MORESTIN (*Bull. et Mém. de la Soc. Anat. de Paris*, November, 1904) operated upon a woman, aged 50, removing a tumour which had developed in the left iliopubic region, and had been noted by the patient herself for fifteen years. It had grown slowly, and attained the size of a large orange, occupying the site of the left half of the mons veneris and anterior part of the corresponding labium majus, and lying over the external abdominal ring. The tumour was spherical, very hard and regular; it could be moved both laterally and vertically, and there was no impulse transmitted to it when the patient coughed. Fibroid of the round ligament was diagnosed. It was easily dissected out, and was found to have a pedicle which ran into the inguinal canal. This pedicle was as thick as a forefinger, and made up of three bands, two being blood vessels and fibro-muscular tissue, whilst the third was the round ligament itself. On careful examination a very narrow, almost cord-like hernial sac was traced along the round ligament. The tumour proved to be a fibro-myoma developed in the outer extremity of the round ligament.

(311) Hernia of Pregnant Women.

ROSNER (*Przeglad lekarski*, October 15th, 1905, *La Gynécologie*, February, 1905) was consulted by a woman, aged 30, in the sixth month of her third pregnancy, on account of a ventral hernia which was growing larger. The fetal head could readily be felt through the thin integuments of the hernia. Operation was refused; two months later the patient returned, as labour pains had set in. Caesarean section was performed; the child was deeply cyanosed, dying directly after extraction. At the same time the uterus contracted strongly and regularly, but its reduction proved unsatisfactory, so that a Porro's operation was performed. The patient made a good recovery.

THERAPEUTICS.

(312) Roentgen-Ray Treatment of Sarcoma.

T. SJÖGREN (*Zentralbl. für die gesamte Therap.*, January, 1905) reviews the Roentgen-ray treatment of sarcoma, and describes 3 cases in which he has himself successfully employed the light. Krogius in 1903 appears to have been the first to describe a case of inoperable sarcoma in which the use of Roentgen rays led to a cure. The growth was a recurrent sarcoma of the occipital bone which involved the periosteum, and secondary growths had occurred in the frontal region and over the vertex. Operative treatment was obviously useless. Roentgen-ray treatment was carried out for five months and the result was excellent. The swelling in the frontal region disappeared in the course of two weeks and the primary tumour in six weeks. Krogius, who had been very sceptical as to the effect of the Roentgen rays, likened the disappearance of the tumours to the melting of snow in the sunlight. Four months after the conclusion of the treatment the patient was still free from relapse. Many other cases have since been reported. Colley has treated 36 within a year and a quarter, and considers that round-celled sarcomata give better results than spindle-celled ones. In one of his cases of round-celled sarcoma of the ovary the patient showed well-marked cachexia before treatment was begun; but, in spite of this, she appeared to make a complete recovery, and six months after the treatment was discontinued she looked well, and no sign of the tumour could be detected. Relapses which call for fresh applications of the rays are not infrequent in Colley's experience. Of Sjögren's three cases two were sarcomata of the face, one situated at the side, the other at the root of the nose. The interest of both was theoretical rather than practical, for both were suitable for operative treatment. In one case the tumour began to perceptibly diminish in size by the end of a week's treatment, and soon completely disappeared. In the other case the patient lived at a distance, and the treatment could only be carried out irregularly, but in spite of this, after thirty five sittings, the growth had diminished in size, and appeared to be on the point of disappearance. The third case was that of a man, 32 years of age, who was twice operated upon for sarcoma of the upper arm. The growth again recurred, and disarticulation at the shoulder-joint was recommended, but was refused by the patient. Roentgen rays were then brought into use. At this time there was a hard tumour about the size of an orange in the left axilla; hard infiltration could be felt at the inner side of the upper arm along the old operation scar, and the outer side of the

arm, from the shoulder to the bend of the elbow, was hard, infiltrated, and tender. The whole arm was practically useless, active movements being greatly restricted, and even passive movements being only possible up to the horizontal. The rays were applied first to the inner side of the arm and to the axilla. After a week the patient found the pain lessened and the power of movement increased. After three weeks the improvement was such that the treatment of the axilla was discontinued and applications to the outer arm were begun. After another four weeks the rays were again used for the axilla. The strength of the inflammatory reaction finally became so great that treatment had to cease. By that time the infiltration on the outer and inner sides of the arm had practically disappeared and only some induration, due to shrinking of scar tissue, was left in the axilla. The power of movement of the arm was almost normal except in so far as it was limited by the scar in the axilla. The size of the arm was still somewhat less than that of the other, probably because of its long disuse. The question of whether or not these cures are permanent cannot be answered until more time has elapsed. The author considers that treatment by means of Roentgen rays is suitable for cases of inoperable sarcoma and of sarcoma where for any reason operation is not indicated or is refused by the patient. Great importance attaches to the mastery by the doctor of the technique of the treatment. The use of the rays should never be discontinued too quickly, for improvement, which went on to cure, has been known to begin as late as two months after the beginning of the treatment.

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(313) Adrenalin Chloride in Asthma.

At a recent meeting of the New York Academy of Medicine (*Med. Rec.*, March 18th) D. M. Kaplan read a paper on the hypodermic use of adrenalin in asthmatic attacks. The following is a summary of his conclusions: (1) That adrenalin has a distinct place in the therapeusis of asthmatic seizures. (2) That the effect produced by it apparently substantiates in certain cases the vasomotor origin of the seizures. (3) In his experience the contraindications to the drug were generally overstated. (4) Even large doses freely used do not give rise to glycosuria, although relieving the paroxysms with greater promptness and certainty than most of the other drugs at our command. (5) The hypodermic use of adrenalin is in no sense curative of the disease as such. In discussing the paper W. Gilman Thompson said he had used adrenalin to some extent, and had been rather disappointed in the effect of its hypodermic use in asthma, which he thought was perhaps due to the fact that he had not employed it in sufficiently large doses. The results of animal experimentation with the drug, as compared with the clinical results in man, were very contradictory. Several writers had recently questioned the ability of the organism to absorb much of the drug when given hypodermically, its local effect on the neighbouring vessels being such as to constrict them. He was not convinced that it was very active in controlling any form of internal haemorrhage. It was a rather curious fact that for years vaso-dilators, such as amyl nitrite, had been recommended in the treatment of asthma, and that now a remedy was brought forward for the same condition which produced a diametrically opposite effect. Andrew H. Smith said that some years ago he made a series of observations with the use of oxygen gas in asthma, and he was soon struck by the fact that while certain patients were immediately relieved by the inhalation of the gas, others remained entirely unaffected by it. He attributed this to the fact that we had to deal with different varieties of asthma. In some instances the asthmatic attacks were due to a constriction of the muscular tubes or of the branches of the pulmonary artery from reflex or vasomotor causes. With constriction of the branches of the pulmonary artery, the supply of blood would be interfered with, and this might produce all the clinical phenomena of asthma. John B. Huber referred to a paper by Saious on the ductless glands, in which the idea was advanced that the red-blood corpuscles, which contained the haemoglobin and perhaps oxygen, did not reach all the tissues of the body, and that the adrenal glands secreted a ferment which permeated these minute tissues and supplied them with oxygen. The good effects of adrenalin might be explained on this theory. S. Washman, who had witnessed many of the experiments made at the Montefiore Home by Kaplan, said the drug had a strikingly beneficial effect upon the asthmatic attacks as compared with the older remedies, such as hyoscine, atropine, and morphine. The President, Charles L. Dana, called attention to the experiments of Meltzer, who had produced oedema of the lungs in rabbits by injections of adrenalin. The speaker also mentioned the fact that the use of the drug was sometimes followed by certain nervous symptoms. Kaplan, in reply, said that in long-standing cases of asthma, the usual dose of adrenalin chloride was not sufficient. In such cases he had seen satisfactory results follow a dose of 25 or 30 minims. The asthmatic attack was usually cut short in less than five minutes. The cases that were mainly influenced by the remedy were those of bronchial asthma occurring in the course of emphysema. He had used the drug in pulmonary oedema with very satisfactory results.

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(314) Antisyphilitic Serumtherapy.

Risso and Cipollina (*Rif. Med.*, March 18th, 1905) give the details of their further experience of the above method of treatment. The number of cases was 21 in all; 8 of these had been under observation for a considerable period, so that the question of relapse could be ascertained. Out of 5 secondary syphilitics 3 were cured and showed no signs of relapse (since last June), 2 showed partial relapses; 1 secondary syphilitic gained some slight benefit at first, but was no better finally for the serum treatment (the same patient gave equally negative results with mercurial treatment, which was tried afterwards). One tertiary case was cured, and has remained so, and another, after slight treatment, gave it up as soon as he was better and could not be followed up. With the 13 recent cases—mostly tertiary and parasyphilitic cases—encouraging results were obtained. In some of these the gummatous lesions were rapidly and clearly beneficially influenced by the treatment, and even the parasyphilitic cases seemed rather better for the serum injections. A prolonged injection of small quantities of 2 to 5 c.cm. answers better than a more rapid use of larger quantities. No serious inconveniences followed its use. The serum was obtained by passing syphilitic blood into the circulation of dogs or asses and adding to the serum so obtained small doses of blood corpuscles from the same animals haemolytically dissolved.

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(315) Veronal.

Sérieux and Mignot (*Arch. de Neurol.*, January, 1905) have used veronal for the relief of insomnia in the insane, recording their results by the number of hours of sleep induced, in curves. They conclude: (1) Veronal gives a long and continuous sleep, beginning an hour or two after administration, in melancholics and excited dements who have been troubled by insomnia. The right dose has to be found for each patient, and is usually somewhere between 0.3 and 1 gram. The drug acts more surely after a few days' use. Patients have taken it for eight months regularly without any decrease in its effectiveness. (2) Its action in the agitation of general paresis is but slight. (3) In no case did the drug cause giddiness, cardiac depression, or albuminuria—symptoms which have been recorded in other cases. In one case its administration was followed by the appearance of a roseolous rash, vomiting, headache, sore throat, and general discomfort.

PATHOLOGY.

(316) The Morphology of Tubercle Bacilli.

Chiesi (*Gaz. degli Osped.*, August 14th, 1904), studying the above subject, finds that the morphological and chemical characters of Koch's bacilli in the sputa vary from case to case, and even in the same person. The morphological changes are as a rule more marked in sputa with abundant microbic association. These changes, moreover, are unstable in character, being liable to increase or decrease in the same sputa within the space of a few days. The most serious forms of tuberculous infection seem to be associated with a short, thick, and easily-stained type of Koch bacillus; in the less serious forms the bacillus does not stain so well, and the morphological changes are well marked. In sputa kept in a thermostat at 37° the Koch bacilli increase in number, and show signs of degeneration, finally losing their staining property. Koch's bacillus left to itself in the sputum loses its virulence gradually, and sometimes totally in twenty days. The particular individuality of the sputum should be taken into consideration in prognosis and treatment.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(317) The Fifth Disease.

L. CHEINISSE (*Sem. Méd.*, No. 18, 1905) describes in detail the results of his experience of the "fifth disease"—the fifth, that is, of the acute eruptive disorders of childhood. He maintains that it is by no means rare in the spring and early summer. He objects to the titles "acute infectious erythema" (Sticker) and "simple erythema marginatum" (Feilchenfeld), and prefers "megalerythema epidermicum," as suggested by Placht, who also described the disease. Most cases occur in children of between 4 and 12 years of age; there is one case on record in a baby of 14 months. The incubation period varies between six days and a fortnight. Prodromal symptoms occur—such as slight sore throat, a feeling of lassitude and malaise—but more usually the eruption is the all-important manifestation, and the general state of health remains unchanged. This eruption affects the skin only; the mucous membranes are never affected. Beginning on the face, the rash appears in the form of bright-red confluent patches on the cheeks, which may be slightly swollen. The redness disappears on pressure with the finger, and slowly returns again. The chin, an area round the mouth, and the naso-labial folds are pale, even white, by contrast. The puffiness and redness of the cheeks stops short of the ears, and the margin is crescentic or finely dentate in outline. To the ordinary observer, perhaps, such an appearance on a child's face might indicate no more than the rudest health. In more marked cases the rash takes the form of large blotches of varying shades of red. Then one sees that the centre of each patch is oedematous, and that as it gets better, which it does in less than forty-eight hours, the redness and tumefaction leave the central part first, and recovery takes place from the centre to the periphery. Thus, wherever there has been a red blotch there remains for a time a broad irregular red ring. The appearance of the skin at that stage has been said to be "marbled" (cutis marmorata). The rash scarcely affects the trunk at all; perhaps there will be a few discrete patches on the chest and back. On the limbs it is chiefly the extensor surfaces which are affected, and there the blotches are very large, and the marbled appearance at a later date is still more striking. The eruption disappears in the same order; first, the skin of the face recovers its ordinary hue; a day or two later the extremities do the same, though the "geographical-map" appearance persists sometimes for several days. The ordinary constitutional symptoms of an eruptive fever are conspicuous by their absence. There is no thickly-coated tongue, nor thirst, nor any appearance like the "strawberry tongue" of scarlet fever. There is no swelling of the lymphatic glands—no cough, no coryza. Nothing abnormal can be found in the urine, and there is no feverishness. The affection lasts from six to ten days; exposure to the sun and violent physical exercise during the complaint seem to make a relapse probable. In practice there would be no difficulty in the differential diagnosis from the other eruptive disorders so common in children. One of the forms of pityriasis is something like it for a few hours only. The epidemic character and short duration distinguish megalerythema from drug eruptions. Therapeutic activity is to be discouraged. The prognosis is good, and there are no complications or sequelae. Isolation of the patient is desirable only until the rash is entirely gone. There is not the least trace of pigmentation or desquamation.

(318) The Common House Fly and Tuberculosis.

J. O. COBB draws attention (*Amer. Med.*, March 25th) to the fact that several observers have demonstrated that the fly carries tubercle bacilli on its feet and in its stomach. This being true, it must be a dangerous source of infection among the poor where the food is left exposed to contamination by flies. He believes it to be the most common source of infection. Data collected from all parts of the world prove that wherever people have tuberculosis they also have the fly as a pest. He insists that special effort should be directed to the destruction of all sputum, thus removing the sources of infection, rather than to the round-about way of trying to build up bodily resistance.

(319) Experimental Epilepsy.

ZIMMERN AND DIMIER have made a communication on the artificial production of convulsions (*Arch. d'Elect. Méd.*, October 10th, 1904, p. 741) in continuation of their paper read before the Société de Biologie on June 13th and July 4th, 1903. They have shown that, by means of intermittent electrical currents of low frequency applied to the anterior part of the skull in certain animals it was possible to produce most of the symptoms of the epilepsy syndrome. The current being gradually increased a coma is induced and maintained while the current is of uniform intensity, but when irregularity is allowed to occur motor phenomena intervene, usually in the form of convulsive movements like those of Jacksonian epilepsy, with in the earlier stages glottic spasm, and in the later rise of temperature to 105° F. The negative pole has the greater influence in inducing these phenomena; with the positive pole the coma is not so deep. If the experiment be repeated the coma on the second occasion is induced much more easily and with a far weaker current than in the first instance. As bearing on the question of occasional death in epilepsy they show that if the current be only slightly increased beyond that required for the induction of coma death occurs from paralysis of the respiratory centre. Half a milliampère or less may be all that is necessary to do this. Another important fact observed is that death may follow a pulmonary engorgement with extravasation of blood into the respiratory passages and a profuse secretion of mucus, these lung phenomena being closely comparable with those of acute pulmonary oedema, or those following section of the vagi.

(320) Paratyphoid Fever.

J. N. HENRY (*Amer. Med.*, April 15th) says that there are two varieties of paratyphoid fever produced by organisms which differ from each other only in minor cultural peculiarities. These two forms are difficult to distinguish either from one another or from typhoid fever. Of diagnostic importance in paratyphoid fever is the more abrupt onset and the earlier arrival of the acme of the disease as compared with typhoid. Otherwise the symptoms and course of these two affections may be similar, though the course of paratyphoid is usually shorter. Spots, splenic enlargement, epistaxis, haemorrhages, and a large number of complications may be present in these allied infections. The question of a possibility of a double infection of typhoid fever and paratyphoid has been raised by the presence in some cases of a double agglutination reaction of about the same degree of positiveness. Before this may be assumed as a certainty, however, it is necessary either to recover simultaneously both organisms from the blood of the patients suspected of being the subject of a double infection, or to saturate out the specific and group agglutinins of one infection and demonstrate the presence of the others. As yet these double infections have not been proved, though the saturation tests have not been applied to any great extent in these diseases. The pathology differs widely from that of typhoid fever. The autopsy findings being largely those of a septicaemia. In some cases ulceration of the intestine has been found, but the ulcers have been of dysenteric type and Peyer's patches have altogether escaped. The mortality has been placed at about 6 per cent., being somewhat less than that of typhoid. Henry reports 6 cases.

SURGERY.

(321) Extirpation of the Gasserian Ganglion.

HARVEY CUSHING, Baltimore (*Journ. Amer. Med. Assoc.*, March 11th, 18th, and 25th and April 1st and 8th), discusses various operative methods for dealing with the ganglion in cases of major trigeminal neuralgia. The importance of total removal of the ganglion he considers is evident, and were the anatomic difficulties less it would be the only method free from criticism. This method alone, according to our present knowledge, insures total and permanent freedom from pain. He gives details in full of his method, which is different from that of Lexer, subsequently published and similarly successful, in the management of the meningeal artery, in that Cushing so far as possible carefully avoids injury to this artery, and generally with success. He also favours removal of the zygoma for cosmetic purposes, the slight flattening of the face thus produced being less disfiguring than the prominence of the bone with the muscular atrophy that

follows the operation. He has also been able in many of his cases to reach the ganglion without much loss of blood, and claims that the small opening made by his method affords advantages in this regard during the removal of the ganglion itself and lessens the amount of packing required. He has had little success with the use of adrenalin or other methods than packing in checking the haemorrhage. Blood-pressure observations taken before and during the use of anaesthetics are valuable in this connexion as showing the patient's condition, and Cushing thinks that possibly his one fatal case might have been saved had more attention been given to the warnings furnished by this procedure. The clinical histories of his 20 cases thus operated on are given in detail and the results summarized. He remarks that he has not in all cases followed Krause's dictum that the ganglion operation should be performed only in those cases where previous neurectomies have been given a trial. In well-developed major neuralgia he thinks temporizing inadvisable, even for the temporary relief it may afford. The most important of the post-operative complications are those of the eye, and it is well to have an understanding with regard to this before operation. The commonest sequel is injury to the abducens. For safeguarding the eye, Cushing uses rubber protective, and after the operation he advises the use of a large watch glass with the edges covered with adhesive plaster so as to exclude the air and continued as long as conjunctival irritation threatens. His paper concludes with a number of physiologic considerations on the functions of the nerves and some remarks as regards the pathology. The morbid lesions underlying true trigeminal neuralgia are not yet revealed. The paper is fully illustrated.

(322) Treatment of Intestinal Paralysis.

DAHLGREN (*Zentralbl. f. Chir.*, No. 15, 1905) insists on the importance in cases of general peritonitis of overcoming intestinal paralysis, and describes a plan of treatment which he has applied with good results to several cases, in the course of the past ten years. This plan, the object of which is to free as completely as possible the paralysed intestine of its contents, consists in opening the abdominal cavity on the left side, and, after a transverse incision about half an inch in extent has been made through the wall of the first protruded coil, in dragging out bit by bit the intestinal canal at first upwards towards the duodenum and afterwards downwards towards the caecum, and in emptying each distended loop as it is brought through the external wound by compression between the first and middle fingers. This manipulation, which the author designates as "melkin" (milking), is continued until the intestine has so far collapsed that it can be readily replaced within the abdominal cavity. As the author has often found it difficult to prevent the gaseous contents of the distended intestine from passing in a direction away from the opening made in the intestinal wall, he has devised as a substitute for the fingers an external compressor made of two cylinders of light wood held in contact by a long spring handle. After the distended intestine has been freed of its gaseous contents, the small opening in its wall, and also the external wound, are closed by sutures. The author argues that as a considerable reduction of the contents of the intestinal canal will certainly relieve the paresis of its muscular coats, and also promptly remove much infective material, this "milking" plan of treatment, though severe, may be justifiably ventured in cases of acute peritonitis. Reference is made to 15 cases of general suppurative peritonitis, in 8 of which the patients recovered. In 4 of the 8 successful cases the plan of treatment described by the author was practised for the relief of extreme distension of the intestines with abolished or much impaired peristalsis. The author also reports very favourably of the good results obtained in cases of ileus by the injection of large doses of atropine. In what was regarded as an almost hopeless case of intestinal paralysis with complete constipation and frequent and severe vomiting, after herniotomy and subsequent laparotomy, injection of atropine, practised as a last and desperate resource, was followed by rapid disappearance of the severe abdominal symptoms, and ultimate recovery. Other cases are mentioned to support the author's opinion that repeated subcutaneous injection of sulphate of atropine in a dose of 1 milligram to each injection, is a very valuable therapeutical method of dealing with severe intestinal paralysis, with or without peritonitis, in cases in which the absence of mechanical obstruction has been made quite clear. It has also been followed by excellent results in cases of perforative and general suppurative peritonitis.

(323) Bile-tract Adhesions.

R. T. MORRIS says (*Med. Rec.*, March 25th) that the new subject of bile-tract adhesions is destined to awaken the medical profession as it was awakened by the subject of appendicitis. The condition is very common, and gives rise to symptoms of local tenderness, pain, and colic that are often mistaken for gall-stone disease. The treatment is operative separation of the web of adhesions, and prevention of their recurrence by the application of either chromicized Cargile membrane or of aristol to the roughened peritoneal surfaces. Removal of the gall bladder is to be recommended. The operation is usually almost startling in its success, but care in diagnosis is necessary to avoid needless intervention. The diagnosis and treatment of these cases opens up a new vista, and biliary adhesions stand in abundance midway between the thoroughly understood adhesions of the pelvis and those of the caecal region.

(324) A New Line for Determining Displacement at the Hip.

M'CURDY (*Amer. Journ. of Orthop. Surg.*, April, 1905) states that in determining displacement of the hip in cases of suspected dislocation or fracture in this region, Nélaton's line is inaccurate in the most skilful hands, and Bryant's triangle has fallen into disuse. The line proposed in this paper, which, it is asserted, has served most satisfactorily in the author's practice, is one that crosses the pelvis through the spines of the pubic bones at right angles to the median line, the umbilicus serving as the vertical of the triangles. This line extends outwards across the hip-joints, passing over or above the trochanteric eminences when the heads of the femurs are in the acetabulum and no fracture of the neck or displacement of either femur exists. In adult life the trochanteric eminences are always at least one inch below this transpubic line. It is at this age that surgeons meet with the greatest number of injuries with upward displacement of the trochanter, so that if the upper margin of this process should be even to the line, fracture or dislocation may be suspected. If it be above then there can be no question that an injury of some sort with displacement exists. As age advances the angle of the neck of the femur diminishes in acuteness, and the trochanter ascends. In two subjects over 80, recently examined by the author for injury to the hip, whilst the trochanteric eminence on the sound side was immediately below the pubic line, on the injured side it was one inch above in one case and three-fourths of an inch in the other, showing in both instances undoubted fracture of the neck of the femur.

MIDWIFERY AND DISEASES OF WOMEN.

(325) Atropine in Uterine Disorders.

DRENKHAHN (*Therap. Monat.*, February, 1905) has employed atropine during the last ten years in many cases of puerperal fever and after abortions. It acts beneficially by giving rest to the uterus, and in this respect is more useful than opium; it is, moreover, a convenient drug to use, because it has little effect on defaecation, and the dose can be easily regulated by means of observations of the pupil reactions. The author gives 2 cases illustrative of the value of his treatment. The first was that of a woman who had a rigor on the third day of the puerperium, and whose temperature rose to 102.7° F.; the lochia were offensive. Twelve drops of a 1 in 1,000 solution of atropine were given three times a day. The temperature fell to 101.3°, but the patient complained of dryness of the throat. On the fourth day the temperature rose as high as 103.6°. The pupils were found to react promptly to light, and it was thus seen that the amount of atropine given was inadequate. The amount was increased on the evening of the fifth day to 18 drops every six hours, and on the sixth day the temperature was never higher than 100.7°. On the seventh day the temperature was normal, and the use of atropine was discontinued. Unfortunately the patient received a severe fright on this day, and on the evening her temperature was 103.8°. Atropine was again given, this time to the amount of 20 drops at a time, and on the ninth day the temperature fell as low as 97.9°. From this time the patient did well except for two rises of temperature—one after taking castor oil and the other after straining at stool. The temperature after the seventeenth day was always

subnormal, and the patient was discharged as cured at the end of an illness of three weeks' duration. This case shows well the effect of atropine, and shows also how a rise of temperature may follow any condition of unrest of the pelvic organs. In the next case the patient was seen on the fourth day of the puerperium, when the temperature was high, the pulse 156, and the lochia offensive. Under atropine the general condition and the local symptoms quickly improved, but on the tenth day there was a rise of temperature, with the formation of an abscess under the right eye. A destructive panophthalmia of the eye followed and other abscesses developed, but the patient eventually recovered. In this case the atropine treatment was begun too late to prevent the onset of pyaemia, but in spite of this the effect on the uterus was as marked as in the preceding case, and in addition the atropine led to a diminution of the general toxaemia. In neither case was an attempt made to treat the uterine inflammation by douching or by local antisepsis. In addition to its use in puerperal fever, the author has found atropine to give excellent results in cases of painful menstruation and of after-pains of labour. In the case of a patient who was as a rule confined to bed for eight days at each menstrual period on account of pain, an injection of atropine was made into the cervical canal during the early part of one of the periods, and the effect was such that the patient declared herself quite well a few minutes after the injection, and she was able to get up and do her work in the house. The same patient suffered severely from abdominal pain after labour, and after one confinement was obliged to stay in bed for a month on this account. After her next labour the pain was again very severe, and was not affected by even large doses of opium. Atropine was next tried, and the pains quickly diminished and altogether disappeared on the following day. The author has not found that atropine affects the involution of the uterus during the puerperium. It tends to affect the bladder, and overdistension of the bladder should be watched for and promptly treated by catheterization.

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(326) Hepatic Insufficiency in Pregnancy.

J. CLIFTON EDGAR (*Jour. Amer. Med. Assoc.*, April 8th) comments on the mortality occurring during pregnancy, aside from known and preventable causes. He has examined the *post-mortem* results in the case of women who have died during gestation from toxaemia of pregnancy, and he insists on the importance of the study of the symptoms of this condition. Certain women have a predisposition to hepatic insufficiency, and heredity should be considered. The excretions should be carefully examined, the mental state and nervous symptoms should be studied, and the possible periodic exacerbations should be looked for. If the symptoms of toxaemia are found, the examination should be still more detailed and thorough, and if the symptoms should indicate a progressive condition, with structural disease of the liver, the chances are against the patient. He discusses the interruption of pregnancy and the probability of an abnormal puerperium after pregnancy is successfully terminated. He concludes that the preventive treatment of much of the morbidity of pregnancy and of the puerperium depends on an early recognition of autotoxaemia as it shows itself in the clinical picture of hepatic insufficiency. No one of large experience can fail to observe that many pregnancies are really pathological, and he thinks that the specific toxaemia of the condition will soon be generally admitted. There may be more than one toxic condition, but, in any case, hepatic toxaemia should be kept in mind. It is important that a woman in this condition should be kept under the observation of the physician.

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(327) Blood-Agar Plates and their Use in Obstetric Practice.

FABRE AND AMSTAD (*Lyon Méd.*, April 16th, 1905) have found in a modification of Sittman's method of blood-agar plates a simple and certain means of detecting the streptococcus pyogenes. They examined both the blood and lochia in cases of suspected puerperal fever. The blood was obtained from a vein by means of an aseptic syringe rather than from the pulp of the finger, because there was less risk of contamination, and the required quantity could be more exactly obtained. The blood was at once mixed with heated liquid agar, and the mixture was put into the stove. After twelve to eighteen hours small colonies were seen, greyish in colour, round or slightly elongated, varying in number according to the gravity of the infection. But the characteristic feature which stamped the colonies even macroscopically as streptococci was a white aureole around each colony. This was found to be due to the absorption of haemoglobin caused by the streptococci, and was a distinctive sign whether the blood came from a case of erysipelas, or of puerperal fever, or of phlegmon. There is a form of streptococcus called parvus or gracilis, which does not cause the aureole; this is never found in puerperal fever, generally in empyema, perityphlitis, or especially in chronic ulcerative endocarditis. Microscopically the streptococci were easy to recognize and to distinguish from other kinds of micro-organism. The cultures were also obtained from the lochia; in the severer cases the colonies were fewer in the lochia than in slighter cases, where a more or less complete decidual barrier had been formed against general infection.

THERAPEUTICS.

(328) Cryogenin.

L. SEGRE (*Gazz. Med. Ital.*, December 15th, 1904) describes the properties of cryogenin. It is a meta-benzamido-semi-carbazide. Its formula is:

$$C_6H_4 \begin{matrix} CO\,Az\,H_2 \\ AzH\,AzH\,CO\,AzH_2 \end{matrix}$$

It is an odourless, white, crystalline powder, with an agreeable, bitter-almond taste. Its toxicity is very slight. In man its action is almost entirely antipyretic, though it has been erroneously described as an analgesic. In health a dose of 1 gr. produces no change in temperature, pulse, or respiration, no sweating or diuresis, some increase in the excretion of urea and uric acid, with a diminution in the urinary chlorides, phosphates, and sulphates. Its complete elimination is a matter of some time, and traces may be recognized in the urine by its property of reducing Fehling's solution six or seven days after the administration of the drug has been stopped. Its prolonged use or its use in large doses leads to a diminution in the red corpuscles and in the haemoglobin value of the blood, a slight increase in the lymphocytes and eosinophiles, and a diminution of the polynuclears. As an antipyretic its chief character is the long duration of its effect. Administered in doses of ½ gr. to 1½ gr., it causes a fall of temperature from 1° to 3°, with a sense of relative well-being, and great relief of headache and sore throat. It gives particularly good effects in cases of enteric fever and of phthisis. It is reported to have caused a condition of collapse in several cases and a pruriginous eruption in two cases, where it had been used for several weeks. There seems to be some doubt as to the nature of the mechanism by which it reduces temperature. Carrière's experiments tend to show that its action is exerted directly on the nervous mechanism. Segre found that in cases of erysipelas with high fever it produced very little effect. In enteric fever the effect was much better, lasting in severe cases three to five hours, in mild cases for more than twenty-four hours. Along with its antipyretic action it caused a transient fall in the pulse-rate with an increase of tension. In rheumatism and in two cases of empyema following pleurisy it produced little effect, but in phthisis it acted well. The author recommends its use in doses of half a gram three times a day. For cases in which, for any reason, hydrotherapeutic methods cannot be employed, cryogenin is a prompt and efficacious remedy, attended by no inconveniences.

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(329) Diphtheria Antitoxin in Epidemic Cerebro-spinal Meningitis.

E. WAITZFELDER reports (*Med. Record*, March 11th) the results following the treatment of 17 cases of epidemic cerebro-spinal meningitis by the injection of large doses of diphtheria antitoxin. Five of the patients recovered completely; 3 died, of whom 2 were adults, and 9 cases are still under treatment. Of these, 5 show such marked improvement as to indicate probable recovery, 4 being convalescent. Of the remaining 4 cases, all are in a serious condition, and prognosis is impossible at the present time. Most of the cases were severe in their onset, with well-marked evidence of profound constitutional infection, as is to be expected in the early periods of an epidemic. The doses of antitoxin given were 6,000 units to children less than 5 years of age, 8,000 to those between 5 and 12, and 10 000 units to adults. This amount was injected under the scapulae on alternate days. In some severe cases it was given daily. Usually the injection was followed by a fall of temperature and pulse and great improvement in the general symptoms. No bad effects developed as the result of the administra-

tion of the antitoxin. Should the results in these cases prove to be consistently repeated in others, the author believes that to A. J. Wolf belongs the credit of having discovered the remedy for one of the most fatal diseases, and of having evolved a plan of treatment not second in its effects to the antitoxin treatment of diphtheria.

(330) Sanoform.

UNGER (*Therap. Monat.*, March, 1905) has for eight years employed sanoform as a substitute for iodoform, especially in minor operations and in gynaecological cases. Sanoform is a white powder, without smell, having the formula $C_6 H_2 J_2 (O H) COOCH_3$; the melting point of the powder is 110.5° C., and it is therefore sterilizable. The therapeutic effect of sanoform is due to the splitting off of iodoform and salicylic acid, which occurs when the drug is brought into contact with living tissues. Like iodoform, sanoform can be obtained in the form of a powder, as an ointment, or in gauze. The cases treated included cases of senile and diabetic gangrene, skin and lymphatic gland abscesses, ulcera crurium, furuncles, etc., and cases of abortion or of profuse bleeding from uterine myomata. For tamponnade of the vagina and uterus a 10 per cent. sterilized sanoform gauze was used and was found to be without any unpleasant odour after twenty-four hours had elapsed. Surgical cases did well under sanoform, and exuberant granulations rarely developed. Sanoform thus possesses all the advantages of iodoform, and in addition it has no smell, it never gives rise to acute eczema or to erythema, and should these affections have developed under iodoform they quickly subside when sanoform is substituted in its place. Even in protracted cases a general intoxication is never seen to occur from the use of sanoform.

(331) Maretin.

F. HENRICH (*Therap. Monat.*, March, 1905) has used maretin as an antipyretic in 13 cases, having given altogether 300 doses. He finds that it acts well in cases of phthisis; the temperature often drops speedily, and although exacerbations may recur, the temperature oscillations are usually held within moderate limits. To show that the fall in temperature in such cases was not a coincidence of the disease but was due to the drug its use was discontinued at intervals during the progress of the illness. One case is described in some detail. The patient was a woman 44 years of age, who suffered from pulmonary phthisis, and whose temperature had varied between 37° and 39° C. (98.6° and 102.2° F.). Maretin was given in doses of 0.25 gr. twice a day for four days, and during this time the temperature remained subnormal. On the sixth day no maretin was given and the temperature rose to 38.9° C. (102° F.). For the next two days under renewed use of maretin the fever almost disappeared, but the temperature went up to 39.9° C. (103.8° F.) when citropen was substituted. Maretin was again given for one day and salupyrin for another without result, but on maretin being again tried the temperature at once fell and remained subnormal for four days. Later on, when the dose of 0.25 gr. failed to reduce the temperature, 0.5 gr. gave a good result. The author has tried maretin without success in cases of pelvic tuberculosis, of pneumonia, or erysipelas, and in a case of septic endocarditis. In the last case the patient suffered from palpitation after taking the powder. In a case of acute rheumatism maretin caused a fall of temperature of several degrees. The only important side-effect of maretin is the occurrence of sweats. These sweats are most marked where the fever is high; they are not constant in their appearance and they often disappear as the patient becomes accustomed to the drug. In no case were the sweats so severe as to lead to the discontinuance of the use of maretin.

PATHOLOGY.

(332) Rapid Bacteriological Diagnosis of Diphtheria.

H. A. HIGLEY says (*Medical Record*, April 1st) that by the following method it is possible to make a rapid (fifteen-minute) and sure diagnosis by the examination of stained smears made directly from deposits or false membranes in cases which present themselves for differential diagnosis of diphtheria. The material from which the smear is made is obtained by passing lightly over the false membrane a sort of curette formed from a wire-looped needle flattened by filing at its curved extremity. The following staining fluids, which should be freshly prepared, are used: No. 1: Five drops of Kühne's carbolic methylene blue in 7 c.cm. of tap water. No. 2: Ten drops of carbol-fuchsin in 7 c.cm. of tap water. Method of application: (1) Fix smear by passing three times through the flame; (2) apply stain No. 1 for five seconds; (3) wash with tap water and dry with filter paper; (4) apply stain No. 2 for one minute; (5) wash, dry, and mount in balsam. When thus stained, the diphtheria bacilli appear as dark-red or violet rods, irregularly stained, often containing polar dots. The unevenness of their contour and mode of division are regularly and distinctly brought out, and these characteristics afford the essential differential points, for other micro-organisms take varying tints, and may appear of the same colour as the diphtheria bacilli, so that upon colour alone no differentiation is possible.

(333) Constant Presence of Uric Acid in Human Faeces.

F. GALDI AND G. APPIANI (*Il Policlin.*, March and April, 1905) state that Schoenlein in 1836 described crystals of uric acid in human faeces, and the observation has been recently confirmed by Lynk, but other observers have failed to discover anything of the sort, except Weintraud, who found uric acid in meconium, but not in the faeces of the adult. Galdi, investigating the metabolism of alloxuric substances in cases of leukaemia, found uric acid in the faeces, and instituted the researches here described in order to determine whether the presence of uric acid in such cases was a part of the pathology of leukaemia or a normal phenomenon, hitherto generally overlooked. Three subjects were chosen for observation, of very different constitutions and dietetic habits—a thin, impressionable man, living chiefly on nitrogenous food, and weighing 55 kg.; a stout markedly arthritic man, weighing 97 kg., living on an almost vegetarian diet, and taking potassium iodide daily to correct his diathetic tendencies; and a particularly strong man, weighing 78 kg., a great eater and drinker of all sorts of things. All were in good health. Five sets of observations were made in each case. The faeces for twenty-four hours, carefully kept separate from the urine, were collected, treated with a 2 per cent. solution of sulphuric acid, repeatedly boiled and filtered, neutralized and tested for uric acid by the argentic process of Ludwig-Salkowski. In each of the fifteen observations uric acid was demonstrated. Tables are given supplying the daily diet of each subject, the weight of faeces passed, the total quantity of uric acid in the faeces, and other figures calculated from these. Summarizing the approximate figures, the first subject passed in his faeces from 34 to 13 mg. of uric acid daily, with an average of 22 mg.; the second from 21 to 18 mg., with an average of 20 mg.; the third from 50 to 18 mg., with an average of 28 mg. These average observations agree closely with those made by Galdi on his two leukaemic patients. A fourth table contains three similar sets of observations on the faeces of a patient with complete obstruction of the bile duct by a cancer of the head of the pancreas. In this case different methods were employed with varying results. Several determinations by different methods of the amount of uric acid in the bile of calves and in human bile are also described. From these researches the authors conclude that (1) uric acid is constantly present in the faeces of adult normal men, without any correspondence between its amount and the weight of the faeces; (2) the intestinal uric acid comes from several sources: some comes from the shedding of the epithelial cells of the mucosa, some from the nuclei of the interstitial cells of the intestinal walls, some comes from the nucleins in the food, and some from the secretions of the glands connected with the intestine; (3) the faecal uric acid is that part of the intestinal uric acid which has escaped both decomposition and reabsorption; (4) this residue is not all emitted in the form of uric acid, part of it being combined with the nucleins or the xanthinic substances; (5) the bile of mammals, as well as of man, contains uric acid amongst its ordinary constituents.

(334) Blood Parasites in West Africa.

ZIEMANN (*Arch. f. Schiffs- u. Tropen-Hygiene*, Bd. ix, 1905, p. 114) puts together a brief summary of the blood-sucking parasites of pathological importance which he has met with in West Africa—the diseases with which they are associated, the animals they are likely to infect, and the districts in which they have been found. The article is in itself a highly condensed summary, and does not lend itself to further abbreviation. It may be consulted with advantage by those interested in the etiology of tropical diseases.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(335) Laevulosuria and Diabetes.

THE simultaneous occurrence of laevorotatory substances and the dextrorotatory grape sugar in the urine is of great diagnostic importance. Graul (*Zentralbl. f. inn. Med.*, February 18th, 1905) enumerates the members of the former class:—β oxybutyric acid, which indicates an acid intoxication; glycuronic acids, which are intermediate oxidation products of grape sugar; and laevulose. The last occurs in health only if the quantities of fruit sugar ingested have exceeded the limit of assimilation, which, according to von Noorden, is 200 grams. This limit in certain individuals is lower, and 100 grams or less may produce laevulosuria. This alimentary laevulosuria is rare in health but extremely common in hepatic disease, which is therefore suggested by its presence. Evidently the transformation of laevulose into glycogen occurs in the liver. Thus, if the liver of a frog is removed glycogen is not formed after the administration of laevulose, though it appears if dextrose is given. In man also glycogen is formed from grape sugar in the muscles. Alimentary dextrosuria is much rarer than laevulosuria in hepatic disease, though diabetic dextrosuria, which is not of the alimentary type, is extremely common in hepatic cirrhosis. This disease, however, is so often complicated by pancreatic cirrhosis, that it is extremely doubtful whether the dextrosuria is of hepatic origin. And Minkowski has shown that, after removal of the pancreas of dogs, glycogen is not accumulated in the liver if dextrose is administered, but does accumulate if laevulose is substituted. This indicates the important part played by the pancreas in diabetes. Laevulosuria in diabetes is also of interest, in that, of all kinds of sugar, laevulose is usually the best tolerated. If laevulose should produce melituria, dextrose is usually the form of sugar excreted. Alimentary laevulosuria was found by Rosin and Laband once in sixteen diabetic urines. Possibly in this case there was functional derangement of the liver. In the following case the possibility becomes a probability, as the liver was enlarged and hard. A man, aged 55, was seen by the writer with well-marked symptoms of diabetes. The urine was dextrorotatory, and contained 4.5 to 6 per cent. of dextrose. With a strict diet the quantity and specific gravity of the urine were reduced and the sugar disappeared. He was then allowed small quantities of potatoes and bread without ill effect. On the addition of wine and an occasional apple to the diet sugar reappeared, but the urine was now laevorotatory. That this was due to laevulose was proved by the exclusion of all other laevorotatory substances, and also by direct tests. On omitting wine, which contains dextrose and laevulose and is laevorotatory, the urine became normal. To test the patient's power of assimilating fruit sugar 100 grams of laevulose were given. The urine next excreted gave positive Trommer's, Nylander's, Seliwanoff's, and fermentation reactions, and was laevorotatory (—0.4 per cent.). Sixty grams of cane sugar were then given. Though several tests indicated the presence of sugar, there was no polarization. Evidently dextrose and laevulose were present in such proportions as to produce optical inactivity. In the first experiment dextrose was probably present, as well as laevulose, as, though the sugar tests were well marked, the laevorotation was slight.

(336) Chronic Eczema as a Complication of Senile Degenerations.

MEDWIN LEALE (*Amer. Med.*, April 15th) says this skin lesion having its initial onset during old age can usually be attributed to the circulatory changes and their consequent degenerations. Usually it is an eczema erythematosum. The pathological changes in the skin are due to deficient nutrition, resulting in an alteration in the epithelial layers associated with a dekeratinization in the upper layers, oedema, and an immigration of exuded cells. After considering the symptoms and clinical picture of the disease, which he regards as purely a local manifestation of the circulatory and other changes, he states that although these cases often prove very resistant to treatment, yet in the majority of cases a more or less permanent cure, and in all cases a great amelioration of the symptoms can be effected by care and perserverance in a rational line of treatment. He lays great stress on making a careful general physical examination, determining accurately the condition of the heart and blood vessels, the lungs, kidneys, etc., and meeting any pathological condition by its appropriate treatment. The circulation should be properly maintained and the emunctory carefully watched. Water should be taken frequently, but in small quantities at a time, to secure rather a constant flushing, than an overdistension of the heart and blood vessels. Moderate exercise is advantageous. The local treatment should have for its object stimulating and thereby improving the peripheral circulation of the blood and lymphatics. Carefully regulated and systematic rubbings and friction best meet these conditions. Using the greatest amount of surface of the palms of the hands and fingers as can be well adapted to the affected surface, he adopts the combination of effleurage and massage à friction, the strokes of the hands following as nearly as possible the course of the veins and lymphatics. For lubrication a fine quality of olive oil is used, and with this for medication a pure finely powdered zinc oxide. Each application lasting from twenty to forty minutes, given every night, preferably just before retiring to secure sleep. Where more stimulation is necessary a strong tincture of pix liquids is used. Every second night before the application the patient is given a bath at 94° F., using a pure olive oil soap. Under these methods of procedure, if carefully followed, one may expect in most cases within from two to eight weeks a more or less permanent cure. He cites an illustrative case.

(337) Pneumococcal Arthritis.

SEGRÈ (*Gazz. degli Osped.*, Dec 25th, 1904) points out that pneumococcal arthritis may occur at any stage during an attack of pneumonia. It is a rare complication—according to the recent statistics of Herrick, not more than 1 in 800—and may vary from a very mild arthritis up to a severe disease affecting the cartilages and bones. The shoulder girdle is the most frequent site, and the lesion is usually monarticular. If a rheumatic, gouty, syphilitic, and saturnine diathesis exists, it forms a predisposing cause. Injuries also predispose. The records of cases of pneumococcal arthritis apart from pneumonia are gradually growing, and the author reports two such cases. The first case, in a man aged 18, began with sore throat, followed shortly by redness and swelling of the back of the right foot and left shoulder. Salicylate did no good. No other joint was affected. Examination of pus taken from the foot showed Fraenkel's diplococcus. The foot improved rapidly under surgical treatment, but the shoulder only progressed slowly, and went on to the formation of a bony sequestrum. In the second case, aged 51, rapid inflammation of the bursa patellae occurred, and was found due to Fraenkel's pneumococcus. A few days previously the man had suffered from dental periostitis, and many years ago had injured the affected knee. In neither of these cases could any pneumococci be detected in the blood. The extensive oedema and redness which distinguished these cases cannot be held as a differentiating point in the diagnosis. The condition of the mouth in the second case may have had some importance, for Schreier found the pneumococcus either alone or with the staphylococcus in 15 out of 20 cases of dental periostitis.

SURGERY.

(338) Morphine-Scopolamine Anaesthesia.

DISK has tested the action of the scopolamine morphine mixture as recommended for general anaesthesia by Schneiderlin, and reports on the results which he obtained (*Deut. med. Woch.*, March 9th, 1905). He preferred, in contrast to others, to employ separate solutions, using a 1 per cent. solution of scopolamine and a 2 per cent. solution of morphine. Two hours before the operation he injects ½ gram of the former and ⅔ gram of the latter, and one hour before he gives ½ gram of each, so that the patient receives 1 mg. of scopolamine and 2½ cg. of morphine. At times he gave a third injection, bringing the total quantities of the two drugs to 1½ mg. and 3 cg. respectively. He points out, however, that he does not aim at a complete anaesthesia, but intentionally leaves a little for chloroform or ether to do. He reports the results of 260 anaesthesias, which he has given since January, 1904; 227 of these were carried out with two injections, 21 with three, and 12 with only one. The patients were of all ages up to 88 years, and several were anaesthetized twice, three times, or even four times by this method. In 188 cases the operations were abdominal operations, and the average time taken by the operation

was between twenty minutes and one hour, while 47 lasted between one and two hours and 10 over two hours. The anaesthesia was completed 144 times by pure ether, others received pure chloroform, and some were put to sleep with the latter and kept asleep with ether. The quantities of these was low. In 29 instances the scopolamine sufficed by itself for the operation. The course of the anaesthesia was generally that the patient was injected for the first time while in bed, and after a short time became sleepy without a preliminary stage of restlessness. When the second injection was carried out the patient could give correct answers to questions, but obviously wished to be undisturbed. After the second hour he was taken into the operating room. The transport wakened the patient, but he appeared to be absent-minded. His face was slightly cyanotic, the pupils somewhat dilated, and the gaze fixed. The speech was slow and blurred. When laid on the table the patient at once fell asleep again. Shaving and disinfecting could be carried out with but little reaction on the part of the patient. As soon as the inhalation of chloroform or ether is begun, the patient becomes rapidly anaesthetic without any excitement (save in the case of alcoholics). The anaesthesia remains quiet, and cough, retching, collapse, and asphyxia have not been observed. The patient remembers nothing of the period after the first injection as a rule, even when no inhalation is employed to complete the anaesthesia. Among the 260 patients anaesthetized in this manner 3 died. All these were decrepit persons of from 69 to 76 years, and were all three suffering from carcinoma of the bowel. Dirk explains the condition of each patient, and leaves it to his critics to decide whether the anaesthesia has a responsibility in the death. He points out that in each case the condition calling for operation was desperate. The only disadvantage of this anaesthesia is that the method requires a skilled person to watch the patient before and after the operation, and is more troublesome to carry out than ordinary inhalation narcoses. The advantages are: (1) The psychical gain which can especially be seen in nervous patients; (2) the imperceptible going off, and the absence of feeling of fear or choking; (3) it supplies a quiet, equable narcosis, without salivation, without tracheal gurgling, without cough, retching, asphyxia, or collapse; (4) after the operation the patient lies asleep for a considerable time, and therefore does not feel anything of the wound pain; (5) for abdominal surgery a great gain is attained by the absence of vomiting; and (6) it is possible to put patients safely asleep when chloroform or ether would in all probability be dangerous to life. He therefore regards this method as a very valuable one. In the same paper the details of a discussion on Dirk's communication is reported. J. Israel has also had experience of this method, and, after saying much in its praise, states that he lost 1 patient out of 332 during the narcosis, and 2 at a later date, but under circumstances pointing to a post-anaesthetic cause. He discusses the possibilities of the method of action of the drugs in causing death. Rotter spoke in high favour of the method.

(339) Anaesthesia by Water Injections.

J. Rawson Pennington, Chicago (*Journ. Amer. Med. Assoc.*, April 8th), in selected cases has used normal salt solution and sterile water for local analgesia in minor rectal operations. Following the suggestion of Heinze, of Dresden, he has used normal salt solution instead of pure water to avoid the irritation sometimes caused by the latter. In some cases he has added eucaine lactate and adrenalin to intensify and to prolong the analgesia. He also had tests made to determine the influence of such solutions on normal tissues, and finds that when isotonic with the blood the best effects are produced. He gives a formula and method of making up the solutions. He has employed them in operations for various types of haemorrhoids, polypi, and prolapse, fissure, fistula, ulcerations, abscesses, sacral dermoids, lipomas, condyloma, and secondary operations for colostomy. He has operated altogether in about 75 cases with local analgesia, and the pain has been usually less than under general anaesthesia. He considers the method described as a valuable advance, enabling patients to receive treatment at home or at the physician's office in many cases, and without interruption to ordinary occupations and business, instead of going to a hospital, being laid up, and losing many days or even weeks of time.

(340) Gangrene of Leg after Extirpation of a Popliteal Aneurysm.

Faure (*Bull. et Mém. de la Soc. de Chir.*, Paris, No. 11, 1905) communicates a case in which the extirpation of a popliteal aneurysm in a man aged 53 was followed in the course of a few hours by gangrene of the leg. After an interval of two weeks from this operation, amputation was performed in the lower third of the thigh with good result. The aneurysm, it is stated, had a relatively high situation, as it was seated above the bifurcation of the popliteal artery and the inferior articular branches. As, in the other direction, the anastomotic branch was given off at some distance above the upper line of section, it is difficult, the author thinks, to account for the failure of the circulation after removal of the aneurysmal sac. Ligature of the femoral artery, it is held, would very probably have led to a like result, as it would certainly have interrupted the flow of blood at some distance above the adductor opening, and probably above the origin of the anastomotica magna. Faure finds it difficult to comprehend how the circulation in the leg could be more regularly established after simple ligature than after extirpation of the aneurysm. In alluding to the use of Esmarch's tourniquet during the operation, Faure states that though not disposed to attribute the bad results to this appliance, he would be disposed in a future case of this kind to dispense with it as being quite useless. In the removal of the sac only two ligatures were applied, one above, the other below the aneurysm. As after the amputation of the limb there was partial gangrene of the flaps, the arterial system in this patient was probably in a faulty condidition. The condition of the vessels in this case could not, it is stated, have been precisely determined before the operation. No definite cause of the gangrene can really be made out from the history of the case, which is published mainly with the object of showing that extirpation of a popliteal aneurysm performed under apparently favourable conditions may result in gangrene and loss of the affected limb. Lucas-Championnière in the course of the discussion of Faure's case maintained that simple ligature is less likely than extirpation of the sac to be followed by gangrene in cases of large aneurysm. A faulty condition of the tissues in the subject of an aneurysm would, he holds, be an additional reason in favour of the ligature. In a report of a successful case of ligature of the external iliac for an aneurysm at the fold of the groin, published in the same number of the *Bulletins et Mémoires*, this surgeon states that he is a very convinced advocate of ligature of the main arterial trunk above and at some distance from the aneurysmal sac.

MIDWIFERY AND DISEASES OF WOMEN.

(341) Modern Methods of Treatment in Obstetrics and Gynaecology.

J. A. Schmidt (*Medical Record*, April 15th) advocates the use of antistreptococcus serum in puerperal sepsis, though he says that it is important to use a preparation obtained by inoculating the horse directly from puerperal parturients, and to employ large doses (up to 100 c.cm.). In eclampsia, thyroid extract has been added to the list of drugs recommended, and vaginal Caesarean section affords a rapid method of emptying the uterus if the cervix is rigid. Splitting the renal capsule is suggested for cases in which, after emptying the uterus, symptoms of impending anuria develop. Gigli's operation of lateral pubotomy is described, and is praised as being less dangerous than symphysiotomy. By its means the true conjugate is increased about 3 cm., so that the lowest limit at which it is justifiable is a conjugate of 7 cm., and in a generally contracted pelvis about 8 cm. The subject of the radical operation for uterine carcinoma is also discussed, and emphasis laid on the general practitioner's responsibility in recognizing malignant disease of the uterus at a stage sufficiently early to permit of complete operative extirpation.

(342) Hydrorrhoea Gravidarum.

Stoeckel (*Centralbl. f. Gyn.*, No. 15, 1905) notes two distinct forms of hydrorrhoea gravidarum. The first is hydrorrhoea deciduale caused by free discharge from the hypertrophied glandular structures in the endometrium. The second is hydrorrhoea amniale due to a leakage from an amnion. He observed an instance of the latter condition in a woman, aged 32, married for six years and four times pregnant, but the first pregnancy ended in abortion and the curette was applied. Then followed two normal pregnancies and labours. At the third month of the fourth labour, when stepping over a puddle, the patient felt something wetting her linen. Two days later true

hydrorrhoea set in and continued in spite of rest and other treatment until the induction of labour for severe flooding at the end of the seventh month. Haemorrhage had occurred a month previously after coitus and thenceforward the fluid that ran away was often pink. When labour was induced there was no fever and the fetal heart was audible. The funis prolapsed twice, the breech presenting, the labour was lingering, but it ended spontaneously with the birth of a child weighing 2½ lb. and measuring 12½ in. in length. The funis was 21½ in. long. The labour was "dry," the placenta (markedly of the circumvallate type) was removed after pressure on the uterus. The infant died within two hours, and the puerperium was normal, although the patient was long in recovering from the anaemia caused by the floodings.

(343) Suppurating Kidney in Pregnancy.

FOURNIER (*L'Obstétrique*, March, 1905) reports two cases of pyelonephritis complicating pregnancy, instructive owing to the difference in their clinical histories. The patient in the first case had undergone hysteropexy for backward displacement of the uterus causing dysuria; the operation had proved successful. But the right ureter was compressed and infected, as was the right kidney itself. Fever set in and pus appeared in the urine. At the seventh month the patient was delivered of a dead fetus, then she was lost sight of; she declined to allow the kidney to be drained. The second patient had during pregnancy a very acute attack of pyelonephritis. The fever ran high and streptococci were found in abundance. The kidney was drained; it was found to be big, deeply congested, and friable. Within a few hours after the kidney was incised, marked amelioration was noted. Pregnancy continued almost to term, when the patient was delivered of a healthy child weighing about 5 lb. 13 oz. Fournier insists upon drainage of a suppurating kidney in a pregnant subject as the right line of treatment, far preferable to the induction of labour.

(344) Haemorrhage in Senile Haematometra.

LOMER (*Zentralbl. f. Gynäk.*, No. 17, 1905) recently reported two cases of flooding in women over 60 subject to haematometra. In both cases the cervical canal was opened, and it was found that only myomata were present without any evidence of malignancy, and no operation was attempted. Both patients were living over seven years after treatment by Lomer. In another case, where a patient with haematometra was 64, the curette was used with negative results. The same observer reports a yet more remarkable instance of flooding, where the patient was of the patriarchal age of 93. The curette was used, but with negative results, there was no odour suggesting decomposition of the retained blood. Probably atheroma of the vessels was the cause of the bleeding in these old women. Uterine haemorrhage is seen in subjects with contracted kidney. The nonagenarian lived to 100, and did not die from any uterine disease.

(345) Angeioma Cavernosum of Mesentery.

WAGENER (*Zentralbl. f. Gynäk.*, No. 51, 1904) observed a painful swelling in the abdomen of a woman aged 51. It was diagnosed as cyst of the right ovary with twisted pedicle, but proved to be a blood cyst lying between the stomach and transverse colon, which viscera lay abnormally low, the colon halfway between the umbilicus and symphysis; apparently the tumour was encapsuled in the ascending layer of the transverse mesocolon. Its inner surface was smooth, and it consisted of two loculi lined with endothelium. Histologically it was an angeioma cavernosum. Julliard (*Revue de Gyn. et de Chir. Abd.*, March-April, 1904) describes a case of mesenteric angeioma cavernosum. The intricate peritoneal relations of themselves caused intestinal obstruction.

THERAPEUTICS.

(346) Antistreptococcus Serums in Scarlatina.

L. MENDELSOHN reports his experience with Aronson's antistreptococcus serum for scarlet fever (*Deut. med. Woch.*, March 23rd, 1905). He first explains his methods of applying the serum and the dosage used. The site chosen for the injection, in the majority of cases, was the region of the interscapular space. At first he used comparatively small doses of the serum, but in the large majority of cases he injected from 50 to 100 c.cm., and even more in a single dose. When properly used, the serum has no further bad effects than other serums have. Of the 144 cases in which it was used, 32 per cent. showed the antitoxic rash. This was generally accompanied by fever and disturbance of general health. In 6 cases swelling of joints accompanied the rash, and were certainly due to the injections. In 4 cases the swelling of joints occurred without a rash, and may have been due to the serum or to the scarlatina. His general impression has been that the serum has not shown any distinct beneficial influence on the course of the disease. He appends a number of temperature curves, showing the various ways in which the fever comes to an end. To make this clear he compares the curves with others of cases in which no serum was employed, and points out the great similarity. Turning to the local throat condition, he says that the clearing up of the exudation took place somewhat quickly, but that not only did he employ local methods of treating the throat, but one must also bear in mind that the sore throat of scarlet fever often passes off rapidly. The septic and malignant cases all did badly. The only beneficial effect which he speaks of appears to be the diminished number of severe lymphadenitis cases as sequelae. Nephritis followed about as usual in the injected cases. The mortality of the whole of his clinical material was 9.2 per cent.; 3 children died within a few hours of admission, and all the rest of the fatal cases were septic or malignant cases, with one exception, where death was due to meningitis following otitis media and mastoiditis. In 4 other cases he tried Moser's serum, and says that he gained a better impression of the action of this than of Aronson's. He gives the details of these 4 cases. In one of them the serum failed utterly to do its work, but in another it certainly appeared to do considerable good. All the cases were severe. Naturally he considers that the number of cases is much too small to be of use in forming a definite opinion as to the actual value of the serum.

(347) X-Ray Treatment of Cutaneous Epithelioma.

WILLIAMS (*Amer. Journ. of Med. Sciences*, March, 1905) records the clinical features of 18 cases of cutaneous epithelioma treated by *x* rays. In dealing with lesions of small area, the distance from the tube should be as short as is consistent with the avoidance of sparking from the apparatus to the patient. This materially reduces the length of exposure, since the quantity of rays received on a given surface varies inversely as the square of the distance from the anode. The screen used to protect normal parts need not be entirely opaque to the rays, three layers of india-rubber sheeting being ample protection, while presenting the advantages of easy manipulation and avoidance of the tingling which often accompanies the use of lead screens. Of the 18 cases, 1 died of intercurrent disease and 4 were too brief in their attendance for permanent results to be obtained. The remaining 13 afforded a fair trial of the treatment and few of these showed no recurrence after periods varying from four to twenty-one months. One case—a rapidly-growing epithelioma of the lip—showed no improvement after a month's treatment, though possibly longer and more vigorous exposures might have arrested the growth. Another case was much improved but not entirely cured, and a third recurred after seven months' apparent cure. All these 3 cases presented a condition of stony hardness in the subcutaneous tissue, with apparently healthy epithelium superficially. If an ulcer is present it heals quickly under treatment, leaving the deep seated hardness almost unaffected. Such cases require intense treatment, and probably cannot be cured by the rays unless ulceration is produced. Of the 10 successful cases the superficiality of the lesion was a common characteristic, the induration being in the skin, and never deep, as in the resistant type. The treatment is invaluable for those cases which, either from age or other infirmity or refusal of operation, forbid radical interference, and its safety and painlessness, together with a reasonable hope of permanent success in superficial lesions, are its great advantages.

(348) Kefir.

A. HIRSCH (*Therap. Monat.*, February, 1905) has employed kefir with great success, especially in the treatment of whooping-cough, the eruptive stage of scarlet fever, nephritis, and typhoid fever. He has found that if kefir be given throughout an attack of whooping-cough the attack is slighter in character, although its duration is not necessarily lessened. He gives three instances of the remarkable curative effect of kefir in whooping-cough, when its administration was not begun until a late stage of

the illness. Two of the patients were infants, of whom one had been weaned a month before contracting the disease, while the second was still breast-fed. The third patient was a child 3 years of age, who was fed during the earlier part of the illness on cow's milk. When the treatment was begun the general condition in each case had suffered severely as a result of frequent vomiting and of interrupted sleep; the breathing was quick, oedema and some ascites were present, the pulse was quick and feeble, and the urine passed was high-coloured and small in amount. The children took kefir readily, and the condition in all three cases began to improve at once. In one case, for example, by the evening of the first day on which kefir was given the child was found to be sleeping well, the pulse was slower, the temperature had fallen, the oedema had markedly decreased, and more urine had been passed during the day. Oxygen had been ordered, but by the time it arrived, two days later, the child was already convalescent and no longer needed it. In such cases Hirsch believes that kefir has a distinct diuretic action, which is connected with the ease with which it is assimilated and diffused. Moreover if, as has been suggested, in the preparation of kefir, the development of the symbiotic organism leads to the destruction of the other organisms present in milk, it is easily comprehensible that kefir may have a bactericidal influence on the bacteria of whooping cough. Lastly, kefir has a narcotic action which is probably due to the removal of passive hyperaemia in the central nervous system and to the regulation of the circulation. Kefir is useful in the eruptive stage of scarlet fever, because, on account of its acid taste, it is often readily taken by patients who refuse milk and would otherwise take only water. When given in nephritis the quantity of urine passed is found to increase visibly from day to day and the albumen at the same time to diminish in amount and to disappear on an average in from two to two and a half weeks. In cases of nephritis no bad effect has been found to result from the alcohol which is present in small quantities in kefir. The author finally reports on a case of typhoid fever in which the patient vomited milk and refused eggs, but was able to take and retain kefir; the illness from the time kefir began to be used took a favourable course without complications.

(349) Serum Treatment of Syphilis.

JUSTIN DE LISLE (*New York Med. Journ.*, December 24th, 1904) has treated about 100 cases of syphilis with injections of a serum obtained from animals inoculated from cultures of the bacillus discovered by Jullien and himself. He remarks that "the bacillus of syphilis was revealed, and duly announced to the medical world in 1901." Several cases of secondary syphilis are reported in which the lesions disappeared after five or more weekly injections of 20 c.cm. of serum. The blood, when tested afterwards, was found not to agglutinate the "syphilis bacillus." In one case the patient married five months after the beginning of injections, and tore the skin over his healed chancre on the first connexion with his wife. No infection of the wife occurred, although the patient's blood came in contact with the lacerated vulva. Both were under observation for nearly a year and no evil result was noticed. A case of secondary syphilis previously treated by mercurial injections did not improve with serum. A case of early tabes with ataxia and trophic ulcers of the feet was treated with serum, and the ulcers healed and lightning pains disappeared. Also a case of tertiary syphilis which had not yielded to large doses of mercury and iodide improved quickly under serum injections.

PATHOLOGY.

(350) Variola.

W. T. HOWARD (*Jour. Amer. Med. Assoc.*, April 8th), has followed up the study of the organism found by Councilman, McGrath, Brinckerhoff, and Tyzzer in variola and its life-cycle. He finds that these bodies in their various stages are constantly present in the skin lesions of vaccinia and variola, and gives the technic of their study. Zenker's fluid is the only fixative that is satisfactory, and it is important that the section should be made so as to include the whole thickness of the skin. Mallory's is the best methylene blue eosin stain for these bodies, but other methods, such as that of Borrel and Weigert's fibrin stain, preceded by carmin, may be used. The bodies stain brilliantly, and with a good light and an oil immersion lens, should be easily recognized in properly prepared specimens. In the later stages of the disorder the Borrel stain is best. A second cytoplasmic stage recognized by Howard and Perkins is found only in well-established variola vesicles, never in vaccinia, so far as known. The other stages are the intranuclear ones, already described by Calkins, with the exception of one which was not found by Howard, and which appears in the later stages of the eruption. It is useless to look for cytoplasmic forms (excepting in local autoinfections) in late lesions, or for the intranuclear forms in early ones. The importance of these findings is in the service they may render in the early diagnosis of variola and vaccinia. Howard believes that this can be made in doubtful cases with the result of cutting short variola epidemics in their beginnings.

(351) The Pathogenesis of Cancer.

MANISCALCO (*Rif. Med.*, April 1st, 1905), by repeated chemical and mechanical irritation of the stomach in dogs, has produced a condition which he says is exactly similar to that of incipient cancer. He supposes that the process is somewhat like that which occurs in the formation of retention cysts. The irritation first sets up a process of inflammation, with proliferation of the epithelial cells of the glands; as long as these are free on the surface and can get away no cancerous formation takes place, but directly any impediment to their free removal occurs, accumulation begins to take place, and secondary spreading into the deeper tissues and incipient cancer formation. This impediment is provided by the inflammatory processes set up by prolonged irritation. The author has worked out his hypothesis to his own satisfaction in the case of the stomach, but thinks it may apply more generally. In the case of the skin, where cancer is usually said to start in the Malpighian bodies, he thinks this may be an error, and that really it starts in the glands; and he points out that in situations where there are no glands—for example, the cornea—cancer is practically unknown. Even if a blastomycete were shown to be a cause of cancer, he believes it would only act in a similar way—namely, by first setting up irritation, and causing a secondary blocking of the glands. The old germ-inclusion theory of Cohnheim is dismissed by him as quite disproved now. The secondary inflammation due to persistent irritation causes an irregularity in the process of regeneration liable to result in the conditions above described.

(352) Filariasis in the Cameroons.

HANS ZIEMANN, who holds an official medical position in the Cameroons, calls attention (*Deutsch. med. Woch.*, 1905, No. 11) to the marked difference in the incidence of the disease upon natives and Europeans. During the year 1900, 30 per cent. (54 out of 184) of the black population who came under his inspection proved to be suffering from filariasis, whereas amongst the Europeans, in spite of thousands of blood examinations, the percentage was only 1·6 (4 cases in 180 persons). This experience is in curious contrast to that of Low in the West Indies, who found that there was a higher percentage of filariasis amongst the whites than amongst the coloured population. Ziemann suggests that an explanation of the difference may be found in the nature of the insects, which act as carriers of the disease. It appears that in the Cameroons, in addition to the *Anopheles costalis loew*, another carrier of filariasis must be considered. This is a *Culex*, not yet named, which is of a black colour, sprinkled with white, and with white rings on its legs. It is an extremly vigorous biter, and in its stomach the embryos of filaria perstans and bancroftii are often found. *Culex fatigans*, another possible transporter of filariasis, is also found in the Cameroons, but its etiological significance has not yet been investigated, nor has that of certain types of *Stegomyia*, which also occur in the Cameroons.

(353) Pathology of Sciatica.

J. RAMSAY HUNT (*Amer. Med.*, April 15th) records a typical case of sciatica with careful histological study of the affected nerve. To the naked eye the nerve trunk below the sciatic patch and in the popliteal space was swollen and distinctly enlarged. A careful histological examination of the nerve by modern laboratory methods failed to reveal any structural changes of an inflammatory or degenerative nature. Hunt concludes that the so-called sciatica, or, more properly speaking, sciatic perineuritis, is not an inflammatory condition in the usual acceptation of the term; that the underlying change consists of a structureless transudate into the lymph spaces of the nerve sheath of obscure nature and origin, but probably dependent upon or closely allied to the gouty and rheumatic diathesis.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(354) Posterior Basic Meningitis.

KOPLIK (*Amer. Journ. Med. Sci.*, February, 1905) has recently seen 30 cases of epidemic cerebro-spinal meningitis. Six of these were children under 2 years of age, the usual limit for the occurrence of post-nasal meningitis as described by Still, Barlow, Lees, Gee, and Carr. These patients corresponded clinically in almost every particular with the classical descriptions given by the above writers: head retraction and opisthotonos were present, with general muscular hypertonicity, and though the patients were more or less completely blind, optic neuritis was not found. Most of the cases had a sudden onset with vomiting, fever, and convulsions; the subsequent course was chronic, ranging from five weeks to over six months, with a fatal termination. In those running a longer course hydrocephalus gradually developed, as in the sporadic cases described by the English authors. The identity of these with Koplik's cases was further shown by three necropsies, in which there was found a fibrous-purulent exudation undergoing organization at the base of the brain and around the upper part of the cord. The ventricles were distended with fluid, and in 2 cases meningococci were found in the exudate, as also in several instances in fluid withdrawn by lumbar puncture during life. The cytology of this fluid was of interest, and went to show a predominance of polymorphonuclear leucocytes in the fluid withdrawn in the earlier inflammatory stages, while mononuclear leucocytes predominated in the passive transudation of the later hydrocephalic stage. Koplik concludes from the foregoing facts that the meningococcus produces the same clinical and pathological picture in most infants under 2 years of age, whether the infection be epidemic or sporadic. As a contrast, he quotes the case of a boy of 5, who died of meningitis which *post mortem* proved to be entirely limited to the base, and to be due to a streptococcus. Here the clinical picture was in no way that of the posterior basic meningitis of infancy.

(355) Leucocytosis in Ankylostomiasis.

CH. HONORÉ (*Arch. de Pharmacodyn. et de Thérap.*, vol. xii, fac. v and vi) has examined specimens of the blood of patients suffering from ankylostomiasis, with the object of discovering whether the form of the leucocytosis met with will help in the diagnosis both of the disease and of recovery from the disease. The patients were miners working in the Cockerill mines at Seraing. As a result of his examinations he found that the number of eosinophile cells in the blood was increased in every case, that leucocytosis was nearly always present, and that abnormal cells, such as myelocytes, and polynuclear cells with basophile granules were present in small numbers. The proportion of eosinophiles varied greatly in the different cases, being sometimes as low as 5.8 per cent. and as high as 52 per cent. Where two or three blood examinations were made of the same patient the number of eosinophiles present was sometimes found to be the same at each examination, sometimes to have diminished from one time to the next, and sometimes to have increased. The most obvious explanation of these variations is that the number of eosinophiles varies with the number of parasites present, but the facts observed did not bear out such an explanation. Where the blood count was made just before an anthelmintic was taken, the number of eosinophiles certainly did not vary with the number of parasites subsequently expelled, in the stool; thus, in one case where forty-five parasites were expelled the eosinophiles were present in a proportion of 26 per cent., and in another in which only six parasites were expelled, the eosinophiles were 28 per cent. of the whole number of white corpuscles. Such discrepancies may, of course, be due in part to the uncertain action of anthelmintics, and absolute proof as to the number of parasites present at any given time could not be obtained, because there was no hospital in which the miners could be kept under constant observation out of reach of fresh infection, but instead they returned to the mines a day or two after taking the anthelmintic. In one case a patient, whose stools constantly contained the ova of the parasite, took an anthelmintic twice without passing on either occasion an ankylostomum duodenale. Between the times of taking the patient worked in the mine within reach of fresh infection. It may, therefore, be concluded that the number of parasites increased rather than diminished during the whole period. At the three blood counts the number of eosinophiles showed a steady but very slow rise, the figures being 10.7 per cent. in March, 11.8 per cent. in April, and 12.2 per cent. in June. This increase may have been due either to increase in the number of parasites or to the increased length of time during which the patient had suffered from ankylostomiasis. The patients were not under inspection with enough continuity for it to be possible to determine how soon after infection the number of eosinophiles began to increase, nor how soon after recovery the blood returned to a normal condition. The author's experiments on animals also failed to give information bearing on these points. In one case he infected two dogs with taenia serrata, and in another case he injected into a vein of a rabbit a filtered product obtained from treating ankylostoma reduced to a powder with a solution of sodium chloride. In no case did he succeed in obtaining experimentally any increase in the number of eosinophiles in the blood. There did not appear to be in any of his patients any relation between the degree of leucocytosis as a whole and the degree of increase of eosinophile cells, nor any relation between the proportion of mononuclear to polynuclear leucocytes and the increase in eosinophiles. An increase in the number of eosinophiles is met with not only in ankylostomiasis but in certain skin diseases, in infection by other parasites, as, for instance, by th taenia serrata, and as a temporary phenomenon in convalescence from certain infectious fevers. Nevertheless, such an increase may be a very useful diagnostic point. At the present time the diagnosis of ankylostomiasis rests upon the presence of ova in the stools, and, except with careful and repeated examination of the stools, these may be overlooked. An increase of eosinophiles can be readily detected, in many cases without staining or fixing the preparations, and may settle the diagnosis before ova have been discovered.

SURGERY.

(356) Luxation of Lateral Peroneal Tendons.

KNOTTE (*Arch. Prov. de Chir.*, Nos. 3 and 4, 1905) states that luxation of the tendons of the peroneus longus and brevis, which is met with most frequently in adult males who take active muscular exercise, is not so rare an injury as it is supposed to be. To a list of 25 cases collected by Tellier the author adds 4 original cases observed by himself. This injury, it is held, is always caused by indirect violence, and the consequence of a fall on the feet, a high leap, or a false step. With regard to the mechanism of the luxation, the principal part is attributed to brusque and violent contraction of the two lateral peroneal muscles, whilst the foot is flexed. In extension of the foot it is very difficult if not impossible for this injury to be produced. A certain part is also played by the layer of synovial membrane—the so-called meso—which immediately surrounds each tendon and press it to the surface of the bone. In complete luxation the mesos are always torn through, whilst in incomplete luxation they remain intact, and thus prevent the tendons from being displaced over the posterior border on to the outer surface of the malleolus. The prognosis in cases of this injury is very uncertain if the luxation is not immediately reduced. In some instances there is very little subsequent trouble; in others the patient is rendered a cripple. The treatment of a recent luxation should consist in prompt reduction, and subsequently in the application of a plaster-of-paris splint, the foot being extended. This splint may be removed at the end of the third week, and should then be replaced by some light and movable orthopaedic appliance. Reduction may almost always be readily effected by compressing the displaced tendons and pushing them backwards into their groove behind the external malleolus. In the very rare event of such an attempt at reduction being found difficult and unsuccessful, it would be necessary, the author holds, to expose the tendons by a cutting operation. In a case of old and unreduced luxation, persistent pain and impairment of function in the injured extremity would indicate an osteoplastic operation, a new sheath being formed by taking a periosteal flap from the front of the malleolus and fixing this over the replaced tendons by catgut sutures passed through holes drilled in the posterior border of the fibula.

(357) Surgery of Typhoid Perforation.

BABLER (*Bull. of Washington Univ.*, March 20th, 1905), in discussing the treatment of typhoid perforation emphasizes the following points: (1) Careful and complete bedside notes should be kept in every typhoid case; (2) any sudden change in the patient's condition should be immediately and thoroughly investigated; (3) sudden severe abdominal pain demands immediate and careful consideration; (4) morphine should never be given in typhoid fever; (5) early diagnosis and early operation are prime requisites for the obtaining of ideal surgical results; (6) drainage should be employed in every case of operation for typhoid perforation. The author insists on the importance of an hourly blood count in every patient presenting any symptoms indicative of impending perforation or in whom a perforation is suspected. It is held that a white count of more than 15,000 is an indication of the utmost significance, and if associated with pain and a high pulse-rate, demands exploratory incision. In opening the abdominal cavity, the right lateral incision will be usually found the most serviceable as it fully exposes the caecum and lower part of the ileum. Free drainage of the pelvis should be employed in typhoid, as in every other form of bowel perforation. It would depend on circumstances whether an artificial anus be made or not. If the case be seen early and operation be performed while the peritonitis is strictly localized, and no feculent material has escaped, closure of the perforation and free drainage seem to the author to constitute the best treatment. Cases, it is stated, have been reported in which suspicious areas perforated subsequently, and the drainage prevented any serious consequences.

(358) X-Ray Treatment of Tuberculous Testicle.

W. B. DE GARMO reports (*Med. Record*, April 15th) the case of a man of 56 years, who shortly after having one testicle removed for tuberculous disease developed a similar condition in the other organ. As he was unwilling to have the operation repeated, *x*-ray treatment was tried; 126 treatments of ten minutes each were given between November 3rd, 1902, and September 14th, 1903. A medium tube was used at a distance of about 10 in. The first application relieved the pain. The swelling and tenderness also gradually subsided until at the time of the last treatment the testicle was apparently of normal size and in normal condition.

(359) Peritoneal Adhesions.

CARL BECK (*Amer. Med.*, April 1st) says the study of the adhesions forming after repeated attacks of appendicitis has furnished clearer insight into adhesion formations in general, revealing many obscure ailments in their true light. Adhesions are found more frequently in the ileo-caecal region than anywhere else. As a rule there is a broad parietal adhesion, especially if there is post-operative hernia. The peristalsis of the free part of the gut elongates it until it becomes a tense, unyielding band; and if an intestinal loop becomes ensnared below it, its circulation will be under pressure, and will give rise to more or less disturbance, sometimes even to complete strangulation, especially if there is procrastination. After early operation post-operative adhesions are rarely found—another point in favour of prompt early surgical interference in appendicitis. Beck's experience in cases of chronic progressive adhesion-forming peritonitis, as observed idiopathically as well as after appendicitis, is absolutely bad. The nature of this peculiar condition, characterized by a multitude of cobweb-shaped bands, is not yet sufficiently elucidated.

MIDWIFERY AND DISEASES OF WOMEN.

(360) Puerperal Mania or Pseudo-mania.

PICQUÉ (*L'Obstétrique*, March, 1905) writes on what he terms post-partum psychoses, "false insanity," or visceral insanity—that is to say, mental disturbance during the first days or weeks after delivery, or even later. This morbid condition is now recognized as being intimately related to infection. Usually the focus lies in the uterus, but not rarely it is to be found in the breast. The mania is, in Picqué's opinion, simply a delirium, such as occurs in fevers and in infection after operations. Puerperal septicaemia of the delirious type seems a good definition of this condition. The patient must be isolated, on aseptic grounds. In investigating 14 cases of post-partum psychoses, Picqué found that all had local infection, which he treated operatively; 6 recovered, 3 were improved, the remaining cases being classed as "failures." In no case was there any aggravation of the mental symptoms. Picqué working with Febore in 1898 showed that 89 per cent. of female lunatics were subject to gynaecological diseases. All, of course, were not infective disorders, but gonococcal lesions are very common, and considering at the same time the frequency of puerperal infection it is easy to understand how psychoses in women are so often associated with lesions in the genito-urinary tract.

(361) The White and the Negro Pelvis.

RIGGS (*Johns Hopkins Hospital Reports*, vol. xii, 1904) has prepared a comparative study of white and negro pelves, with a consideration of the size of the child and its relation to presentation and character of labour in the two races. As a whole, Riggs finds that the pelves of women of the lower races are narrower but relatively deeper than in white women. In order of frequency, the normal pelvis is followed by the generally-contracted type in both races, but the simple flat pelvis is commoner than the rachitic in whites, whilst the rachitic pelvis is the more frequent in negresses. Contracted pelves are no less than three and a quarter times more frequent in negresses than in whites. The duration of labour is longer in negresses than in whites. The children of multiparae are larger than those of primiparae in both races, and children born to women having normal pelves are larger than the children of women with contracted pelves. The white child is larger than the negro child by 1.5 cm. in length, 200 grams in weight, and a few millimetres in the various cephalic measurements; but the size of the child is greatly influenced by the occupation and surroundings of the mother previous to labour. There is no definite law governing the relation of the size of the child at term to the size of the pelvis. The higher the grade of the race the greater is the proportion of male to female children. There is a higher percentage of vertex presentations among the negresses than among the whites. Stratz observed the rarity of breech and transverse presentations amongst native women in Java. In the present condition of the negro race the small size of child is a conservative provision of Nature; for were its size to approach that which is usual in white women, serious dystocia would be of almost daily occurrence. There is a higher percentage of spontaneous labours among negresses than among whites. Routine pelvimetry is an absolute necessity to scientific obstetrics.

(362) Primary Cancer in an Old Hydrosalpinx.

TOMSON (*Journ. d'Obst. et de Gyn. de St. Pétersb.*, November, 1904) detected this condition in a woman, aged 37. Eight years previously he operated on her for double hydrosalpinx, doing a salpingostomy on the right side; the left tube was fixed to the lower angle of the abdominal wound. She remained well for seven years; then a hernia developed in the scar, and irregular uterine haemorrhages and purulent vaginal discharge were noted. Latterly there was much abdominal pain. Tomson operated on the hernia, but failed to remove all of a big tumour partly in the sac. This tumour had developed in the left hydrosalpinx, which he had fixed to the parietes eight years earlier. Two months later he made a second attempt, also unsuccessful, to extirpate the tumour. The tampon was employed to check pelvic haemorrhage, and the patient lived for a month. The right tube was normal. The tumour was true cancer of the left tube.

(363) May an Ovarian Dermoid be Malignant?

PÖZL (*Centralbl. f. allgem. Pathologie u. pathol. Anat.*, No. 14, vol. xv, 1904) relates a case of much interest in respect to the question of malignant degeneration of ovarian dermoids. A patient, aged 42, had an ovarian tumour which was removed by ovariotomy. On examination it was found to be a typical dermoid, and on its wall a pavement-epithelium cancer had developed. Very rapidly swellings developed in the region of the liver and omentum, in all probability metastases. Unfortunately, when the patient died, a necropsy was forbidden.

THERAPEUTICS.

(364) Tuberculin in Tuberculosis.

LAWRASON BROWN (*Zeit. für Tub. und Heilstatt*, September to November, 1904) reports on the tuberculin treatment of tuberculosis as carried out at the Adirondack Cottage Sanatorium, where it has been in constant use under Dr. Trudeau since 1890. The different forms

of tuberculin which have been employed at different times are (1) Koch's original tuberculin; (2) a modification of it made from the cold filtered cultures saturated with ammonium sulphate; (3) tuberculoplasmin, an extract of tubercle bacilli obtained with the help of hydraulic pressure; (4) Koch's residual tuberculin; (5) Landmann's tuberculol, which represents tuberculous toxin quantitatively unchanged; and (6) Koch's "bacillen emulsion," an emulsion of one part of pulverized tubercle bacilli in 100 parts each of distilled water and glycerine. The last-named tuberculin has been the one commonly in use at the sanatorium during the last two years. The dose and the interval of time between the doses have had to be changed with each change in the particular tuberculin used. The aim has been to so give the tuberculin as to produce as little general reaction as possible. The injections have never given rise to local symptoms other than slight redness and some pain and swelling. When tuberculin was first introduced it was given in far advanced cases, in some instances as a last hope. When the danger involved had become better understood it was given only to patients who were in good general condition, without fever, and whose lungs were not extensively involved. During the last two years the cases treated have been those which, after a few months' residence at the sanatorium, have shown little or no pulmonary improvement. From 1890 to 1902 tuberculin has been given to 159 cases in all—43 incipient cases, 104 advanced, and 12 far advanced. The treatment was practically of no use for the far advanced cases; 11 out of 12 were known to be dead in 1902, and the twelfth, who was untraced, was undoubtedly also dead. Of the incipient cases, a slightly greater proportion of those treated with tuberculin than of the whole number left the sanatorium with arrested disease, the figures being 93 per cent. in the former and 89 per cent. in the latter class. Amongst the advanced cases the advantage was more decidedly on the side of the tuberculin patients, of whom 82 per cent. were discharged with the disease arrested, as compared with 57 per cent. of the total number. It must be remembered, however, that in the advanced cases tuberculin was given almost exclusively when the disease was already arrested. A comparison has been instituted between the past discharge mortality of the cases treated with tuberculin, and of the total number of cases treated at the sanatorium. To estimate the mortality the English Life Table was consulted as to the number of patients, who from their age at the time of discharge might be expected to be alive after each of several periods of time, and the proportion of the number actually alive to the number expected to be alive calculated. Among the cases discharged as "apparently cured" the number actually alive was greater for the first three years for those treated with tuberculin than the number of "expected living," being 102 as compared with 100; the number actually alive of all the patients in this stage who had been treated was 93 per cent. of the "expected living." In each successive year the proportion of tuberculin cases living to the number of healthy people who should be living grew successively smaller, but the advantage of the tuberculin-treated patients as compared with the whole number of patients treated increased, until after ten to twelve years the tuberculin cases alive were 86 per cent. of the "expected living," while the total number of cases alive was only 68 per cent. The cases in whom the disease was merely "arrested" showed a much greater past-discharge mortality than those "apparently cured," but the tuberculin cases had as great an advantage in this as in the other class. It would therefore appear that, although the selection of cases may influence the figures, tuberculin does exert an influence on the past-discharge mortality. The Etappen method of two or more causes of tuberculin treatment was tried in 29 cases, but no definite conclusions could be drawn as to its effect. In 1903, 69 per cent. of the cases which had received one course, and only 55 per cent. of the cases which had received more than one course of the tuberculin treatment were living, but it must be noted that a second course was often only undertaken when a relapse had occurred or progress was unsatisfactory. The tuberculin treatment seemed to influence favourably the disappearance of the tubercle bacilli from the sputum. The cases which reacted more or less during the treatment appeared to do no better than those which showed no reaction. An examination as to the effect of tuberculin upon the kidneys was made with a negative result. In 4 out of the 50 cases nephritis was either a primary or secondary cause of death. In 1 of these, however, the patient was admitted for renal tuberculosis, and in another the patient's doctor certified that alcoholism was the cause of the fatal nephritis. Circulars were sent to 85 old patients to ask whether any kidney trouble existed, and 5 replied in the affirmative. One of these was suffering from typhoid, and no further investigation was possible. In another case the urine had been recently examined and found normal. A third patient stated that the amount of urine was small, but that no albumen was present. Tuberculosis in its terminal stages is known to be a frequent cause of nephritis, and these figures do not suggest any special liability to nephritis in patients treated with tuberculin.

(365) The Active Principle of Exodin.

PURELY an empirical mixture of the diacetyl-rufigallic acid-tetramethyl-aether, acetyl-rufigallic acid-pentamethyl aether and rufigallic acid-hexamethyl-aether, exodin, has a well-marked purgative or laxative action, and W. Ebstein has experimented with the ingredients to discover on what this action rests. (*Deut. med. Woch.*, January 22nd, 1905.) It has been asserted that the last-named ingredient possesses the laxative action of exodin. Ebstein obtained some chemically pure samples of all three and systematically tested each on a number of persons, including himself. He found that even when given in doses of 1 gram rufigallic acid-hexamethyl-aether has no action at all. The action was compared with that of exodin in the same persons, and it was therefore proved that this substance is not the active principle. Next he tried the diacetyl compound, containing the four groups of methyl-aether; 1 gram again was given, and in one case it acted freely, in another it acted weakly, and in two not at all. In one case, after 1 gram had failed, 2 produced a copious motion. While there can be no doubt that this substance possesses a purgative action, it is clear that the action of exodin is far stronger, the dose of the pure chemical being much larger than the dose necessary to produce the same effect of exodin. Lastly he tried the penta methyl aether compound. This substance has a purgative action, but it also has the property of causing griping in persons suffering from constipation, which exodin does not possess. It therefore appears that exodin owes its peculiar action on the lucky mixture of diacetyl-rufigallic acid-tetramethyl aether and acetyl-rufigallic acid-pentamethyl-aether. The author praises the mild action of exodin, and says that he has been able to prove by experience that when exodin in repeated doses of 1 to 1½ gram does not act, the best treatment is by means of large oil enemata.

(366) The Curability of Tabes.

FAURE (*Gaz. des Hôp.*, December, 1904) points out the contradictory opinions which exist with regard to the curability of tabes. Some authorities, such as Babinski and Lerredde, maintain that it is curable by intense mercurial treatment; while others, including Fournier and most of the neurologists, hold a contrary opinion. Faure attempts to reconcile these views as follows: (1) The variety in tabetics is such that often they cannot be compared, and hence give different results with the same treatment. Also observations made on analogous cases treated by different mercurial methods give different results, and even also with the same mercurial treatment. (2) The toleration of mercury varies with the condition of the patient, earlier stages of the disease and younger patients supporting it best. (3) Mercury gives different results according to the dose and method of administration. Inunction is uncertain; injection of insoluble salts is also uncertain and may lead to accidents; soluble salts are the best for injection, as they are more under control. (4) The result varies from cure to aggravation of symptoms, according to the care exercised in treatment and according as the case is more or less favourable. Mercurial treatment well carried out may arrest the disease or lessen its severity sufficiently for the patient to go about his business. But work should be reduced and the periods of treatment and repose should be annual and prolonged. Mercurial treatment badly carried out may aggravate the disease, or even cause new symptoms which persist afterwards. By careful proportion of the dose to the patient's strength the maximum useful effect may be obtained without fatigue or malaise. (5) Some cases get worse under the most careful treatment, and probably syphilis does not play an equal part in all cases. Certain lesions are cicatricial, and are not affected by mercury, while others in the inflammatory stage will react to the drug. The improvement

under mercury does not usually prevent the persistence of certain signs, such as modified reflexes; nor further relapses under the influence of overwork, other infections, etc. (6) Mercury is not the only treatment for tabes: the general hygiene is also important, and work should be restricted. The author concludes that mercury does not cure in all cases of tabes, but under certain conditions gives favourable results. The contradictory accounts given by different observers are due to the complexity of the cases and to the different methods of treatment. It is an error to give massive doses of mercury to all cases alike, and equally an error not to give it at all. All tabetics should receive mercurial treatment combined with rest, hydrotherapeutics, and re-education of the muscles. The course of tabes is not progressive in all cases, and the author is of opinion that the classical type described by Duchenne is less common now than formerly. This is probably due to a more general adoption of mercurial treatment.

(367) Medical Treatment of Gastric Ulcer.

FREDERICK P. HENRY (*Amer. Med.*, March 11th) says the tendency of gastric ulcer is toward recovery, as is proved by the frequent presence of cicatrices in the stomach after death. The object of treatment is, therefore, to assist Nature. This is best achieved by rest, general and local. The patient is confined to bed and nourished for a longer or shorter period, according to the idiosyncracies of the case, by rectal enemas. Opium is advised during this period for the purpose of allaying pain, quieting peristalsis, and obtunding the sense of hunger. Milk and milk-gruel should be the sole articles of diet for one, two, or more weeks after nourishment per os is resumed. The milk should be mingled with lime water. Sodium bicarbonate is not recommended because of the evolution of gas attending its use. The formation of hard, indigestible curd may be prevented by mingling the milk with flour previously well boiled with milk or water, or, this failing, the milk may be peptonized. Buttermilk is sometimes an excellent succedaneum for milk. As the case progresses favourably, raw or soft-boiled eggs, meat broths, or beef peptone are added to the dietary, but the diet of health is not resumed until several weeks after the beginning of treatment. Among medicines, bismuth subnitrate, in large doses, suspended in barley water or mucilage, is believed to be of benefit. Silver nitrate is inert, because of its immediate conversion, in the hyperacid stomach, into the insoluble chloride. Mercurials are emphatically condemned. Vomiting is treated by cessation of feeding per os, by morphine hypodermically, and by cocaine hydrochlorate; hematemesis by ergot and adrenalin hypodermically and by the administration of ice, gallic acid, and acetate of lead. Carlsbad water or Carlsbad salt, dissolved in a large amount of water, should be slowly swallowed during the early morning hours. Anaemia or chlorosis, if present, is to be treated with iron albuminate, which may be prepared extemporaneously after the formula of Ewald. Leube's method of treating gastric ulcer by continuous poulticing is recommended, with some modifications which consist in "nourishing the patient during the first week of treatment either entirely or partially by rectal enemas and in the *pro re nata* employment of opium and its derivatives." Henry has seen "nothing but advantage in the judicious employment of opiates in gastric ulcers."

PATHOLOGY.

(368) The Morphology of Cancer and the Parasitic Theory.

IN a lecture delivered before the Berlin Medical Society, and listened to by over 600 persons, J. Orth detailed his views on the etiology of cancer (*Berl. klin. Woch.*, March 13th and 20th, 1905). He started by considering the general morphology of cancer, and emphasized that the cancer cell is not only functionally and structurally an epithelial-like cell, but that it obviously is derived from pre-existing epithelial cells. All cancers are therefore epitheliomata, although all epitheliomata are not cancer. He prefers to schematize as follows: Epitheliomata are either homotopic, in which case they are benign, and include adenomata, papillar epitheliomata; or heterotopic, in which case they are malignant, and include all forms of cancer. The proof that the cells are derived from pre-existing epithelial cells is not easy, since one never gets an opportunity of examining a growth in which the original cells are still present. But there are many reasons for accepting this statement. He instances the peculiarities of the structure, behaviour, and arrangement of the cells, which he can only explain on the assumption that they are epithelial derivatives. In many cases the cancer is unicentral, and here naturally one has all the greater difficulty in tracing the origin. All forms of epithelium are represented in the various cancerous growths. The generic term "carcinoma" is worth while retaining, but he considers that the scientific definition of carcinoma is a heterotopic malignant epithelioma. He divides growths which have a regular arrangement of cells from those in which the arrangement is irregular. The stroma plays an important part only in so far that variations of it cause variations of the physical properties of the growths. The cells of secondary growths are morphologically and functionally analogous to those of the primary tumour. A very important point in studying the etiology of cancer is that the arrangement and character of the metastases always follows the primary tumour. Adenomata always produce secondary adenomata; epidermoids always produce secondary epidermoid growths. Never can a tumour give rise to a secondary growth of a different histological character. Metastases are produced by the carrying to a distant part of a cell of the original cancer, and the taking on of hyperplastic development by this transported cell. There is no analogy in the metastasis of infective processes and that of cancer. In the case of tuberculous deposits the foci develop each time from transported bacilli, and are never produced by a transplantation of tissue cells. The same applies to such conditions as metastatic abscesses. That carcinoma is produced by a method differing materially from that producing tubercles suggests that, if there is a causal parasite, it must be of a very different character from the tubercle bacillus. The fact that it has been possible to graft a cancer in animals does not support the parasitic theory, but rather speaks for the suggestion that the tumour is derived from pre-existing cells, which in this case has been artificially transplanted. Orth goes on to elaborate the conditions which he considers must be fulfilled if one wishes to prove the parasitic origin of carcinoma. In conclusion he states: first, that the essentials of all cancers, whether primary or secondary, are the cancer cells: without cancer cells there can be no cancer metastasis; secondly, it is not necessary to explain the occurrence of metastases to presume a cancer parasite; all that is required is the existence of cancer cells which are capable of growth; thirdly, there is no analogy between the metastases of tubercle formation, metastatic abscess, or the like infective granulomata; therefore an analogy in support of a parasitic theory cannot be put forward; fourthly, the successful grafting of cancer on to another individual can be explained without having recourse to the parasitic theory, by supposing that the cancer cells carried on to the individual behave like the cells in metastatic growths; fifthly, the descriptions given of parasites and the claims made for these are far from satisfying a scientific theory, and he claims that the parasitic theory is still very much a "castle in the air."

(369) Cholera Cultures.

W. B. WHERRY (Report from American Bureau of Government Laboratories. No. 19, October, 1904) records some observations he has made on the biology of the cholera spirillum. He finds that the cholera spirillum is not a nitrifying organism; the successful demonstration of the "cholera-red reaction" in a solution of Witte's peptone depends on the presence of a trace of nitrates. The type of liquefaction produced in gelatine is influenced to a marked degree by the reaction and melting point of the gelatine. Sodium carbonate does not exert a more favourable influence on the proteolytic activity of the cholera spirillum than sodium hydroxide, at least so far as the liquefaction of gelatine is concerned. The proteolytic activity of a culture could not be increased by passage through a series of gelatine tubes. The optimum condition for growth is furnished by an albuminous medium containing between $\frac{1}{10}$ and $\frac{1}{35}$ gram-molecule of NaOH or Na_2CO_3 per litre, which corresponds fairly well with the optimum conditions for the tryptic digestion of fibrin. Alkali, detectable by titration with phenolphthalein, is not produced by sugar-free bouillon devoid of sodium chloride. Growth in the presence of carbohydrates reveals that the acids produced from glucose, maltose, and saccharose rapidly kill the cholera spirillum, while those produced from lactose and starch are not toxic, at least within a given time.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(370) Myasthenia Gravis.

FRANK (*Amer. Journ. of Med. Sci.*, April, 1905) records a case of myasthenia gravis in which the eyes were alone involved. The patient, a girl aged 10, suffered with double ptosis most marked on the right side, paresis of all the extrinsic muscles of both eyes, and a divergent squint of the right eye, with normal function of the intrinsic muscles. When 6 years old drooping of the right eye, followed by that of the left, was noticed, and on examination there was marked ptosis and defective motion of all the external eye muscles with the exception of the left external rectus. This ptosis occasionally disappeared for a few days, and was never present on first getting up in the morning, but gradually developed as the patient went about. Progressive impairment of power in the movements of the eyeballs was observed but no diplopia, and the eyes eventually became fixed in one position. Keeping the eyes closed for a few seconds restored the normal movement of the lids for a brief period, but after rest the improvement in the movement of the eyeballs was only slight. The previous and family history was good. That the disease is purely motor in origin and that the lesion must be situated in the muscles themselves or in the motor nuclei seems the most rational hypothesis, while the myasthenic reaction and the nature and distribution of the symptoms point to the lesion being rather in the muscles or peripheral motor neurons than in the nuclei. The study of previously published cases shows that the disease occurs most frequently in females between the ages of 20 and 30, only 3 cases under 10 having been reported. No definite cause is known, but some prostrating infectious disease or mental anxiety occasionally precede its onset, which is usually gradual. A slowly-developing ptosis is generally the earliest symptom. This is at first unilateral, but soon becomes bilateral. After sleep it may disappear, but rapidly returns, and is always worse towards the end of the day, or after the patient has been looking upwards for any length of time. Compensatory action of the occipito-frontalis muscle is absent owing to its own weakness. Later paralysis affecting the external ocular muscles, but never the internal, occurs. Reaction to light and accommodation remain normal. Diplopia and strabismus often arise. The muscles of mastication and deglutition frequently become involved. There is never any sign of muscular atrophy of the reaction of degeneration. Pain is rare, and remissions and exacerbations of the symptoms are the rule. The disease is usually fatal in from one to three years. Treatment consists in absolute rest, gentle massage, and maintenance of nutrition.

(371) Pneumococcal Arthritis in the Newborn.

OF the number of cases of pneumococcal arthritis already published, very few are stated as having occurred in childhood. Mattan-Larrier records an exceptional case in a child of 21 days old (*Arch. Gén. de Méd.*, No. 9, 1905), born at term of a healthy mother. The confinement was tedious; the infant presented a harelip with fissure of the palate which was operated upon four days after birth. General health was good till the seventh day, when a slight purulent discharge appeared at the points of suture. Three days later the stitches were removed but union had not taken place. Diarrhoea and vomiting supervened at the end of a week. It was then noticed that the right shoulder was swollen; three days later the articulation was the seat of considerable effusion, and the child died on the fifth day after the appearance of the arthritis. At the *post-mortem* examination the scapulo-humeral articulation was filled with green, viscid pus, the internal surface of the synovial was covered by a fibro-purulent deposit, and the cartilages had lost their polish. The lungs were congested and oedematous throughout, but did not show any pneumonia or bronchopneumonia. The other serous surfaces were healthy. Bacteriological examination of the pus from the joint demonstrated the presence of pneumococci. Pneumococci were also present in the pus from the harelip wound, in cover-slip preparations of the spleen, and in cultures from the blood. The writer draws attention to the somewhat exceptional circumstance of arthritis occurring without any similar pulmonary lesion, and he suggests the pneumococci in the pus exuding from the bared surfaces of the harelip as the origin of the systemic infection.

(372) Acute Myelogenous Leukaemia.

GORDINIER describes (*Bull. Johns Hopkins Hosp.*, October, 1904) a case of this very rare disease. The patient was a man of 56. He was admitted to hospital complaining of great weakness, cough, sleeplessness, and complete anorexia. Fourteen years ago he suffered from influenza, but had no other illness. He was an excessive smoker, but did not take alcohol. His illness began three and a half months before admission with severe bronchitis, followed in a few weeks by great fatigue, loss of appetite, fever and sweats, constant headache, dyspnoea on exertion, and insomnia. During this time he lost 30 lb. in weight. He was a well-built, flabby, and slightly emaciated man, with a cachectic look. The skin was pale and of a yellowish hue. The lungs showed only a few râles. The heart gave a slight apical systolic murmur. The liver was just palpable, and the spleen could also only just be felt, and was not tender. A solitary lymph gland could be felt in the left anterior triangle of the neck, and a few pin-head glands in the groin. The nervous system was normal, except for slightly-diminished knee-jerks. The urine contained a faint haze of albumin. Each retina showed flame-shaped haemorrhages. The blood was thin and coagulated slowly. The haemoglobin was 28 per cent., red cells 1,500,000, white cells 260 000 per c.mm.; it showed a typical picture of myelogenous leukaemia. There was a slight degree of poikilocytosis and polychromatophilia, but no granular degeneration; nucleated red cells were common, chiefly normoblasts, and occasional megaloblasts. Differential count gave: Neutrophile myelocytes, 61 4; eosinophile myelocytes, 4.1; transitionals, 1 8; polynuclear eosinophiles, 0.2; polynuclears, 5.8; mononuclears large, 24 4; small, 2; mast cells, 0 3. The patient died five days after admission. There was no doubt about classing this case as one of acute myelogenous leukaemia. The duration of the symptoms referable to the blood state was a little over three months, and the blood picture was typical. This case, together with those recorded in the literature, brings the number of acute cases up to 12 positive and 2 doubtful ones.

SURGERY.

(373) Radiotherapy in Carcinoma.

W. J. MORTON says (*Med. Record*, March 25th) that in the treatment of carcinoma the best interests of the patient demand a combination of *x* ray and surgery. The new growth must be removed; but the cutting-out process carries with it another most dangerous feature, and that is incision of infected lymphatics and the risk of leaving behind some of the neoplastic cells. On the other hand, radiation will not remove the tumour, but it will clear up of cancer cells all the outlying territory up to the tumour itself, and so render the operation a comparatively safe one. The plan followed by the author is as follows: Practise *x* and radium radiations thoroughly, say six weeks to two months before operation, and practise it as well after operation, say for about the same period of time. In this manner we avoid the Scylla of "soiling the wound" and the Charybdis of failure to remove the tumour. The radiation should not be carried to the point of producing destruction of tissue, but should just barely give rise to a mild dermatitis. This preoperative radiation does not interfere with wound-healing or favour the occurrence of gangrene. A number of illustrative cases are cited and figured, and the author's general conclusions are summed up as follows: (1) Radiation treatment exerts a retarding effect upon the growth of some cancers. (2) It cures some cases—the ratio to operative measures is not here discussed. (3) Preoperative radiation will increase the ratio of cures by operation. (4) Preoperative radiation transforms some inoperable cases into operable cases. (5) Preoperative radiation is recommended as a precautionary measure, probably quite as important as preoperative antiseptic preparation for surgical operation.

(374) Optic and Ocular Faeces in the Etiology of the Scoliosis of School Children.

GEORGE M. GOULD (*Amer. Medicine*, April 8th) says it has been demonstrated that 27 per cent. of all European school children—probably of American also—have lateral spinal curvature, and the fact constitutes a source of disease, suffering, and death greater than many others about which the profession and

the public are infinitely more concerned. But the cause of lateral curvature remains a most perplexing mystery. In some way or other orthopaedists and hygienists usually charge it to school life, posture in study, and more closely to the writing posture. The slanted style of handwriting is by many believed to be the source of the mischief. Gould sets forth the reasons why it is the consequence of visual function—a certain proportion being due to a peculiar axis of astigmatism compelling a lifelong canting the head to one or the other side in order to see plainly. But a larger number of cases arise in the habitual bending of the head and body to the left in writing. This necessity of bending the head to the left is caused by the impossibility of seeing the "writing-field," or what is being written when the paper is placed, the pen held, and the body postured as commanded by all teachers and writing masters of the past. This is illustrated by photographs, and can be demonstrated by observation of others or by one's self in writing. The right eye (one is right-eyed as he is right-handed) must see the writing-field. The habitual cervical curve, it is suggested, with convexity to the right, neglected by orthopaedists, by compensation creates the secondary spinal curves lower down. The prophylaxis and cure consists in placing the paper opposite the right shoulder, 14 in. from the eye, and upon a desk-leaf slanted at least at 30°, whereby the body may be kept erect, hygienically posed, and the writing plainly seen. The Oriental style of grasping the holder may be used, or, as somewhat common, hold between the first and second fingers. If this theory is true, the Oriental school children should be relatively free from spinal curvature.

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(375) Treatment of Prolapsed and Gangrenous Haemorrhoids.

Von Baracz (*Zentralbl. f. Chir*, No. 17, 1905) has recently treated with good results three cases of prolapsed strangulated and gangrenous haemorrhoids by the clamp and thermo-cautery. Such treatment was suggested to the author by the consideration that in cases of this kind the surgeon has to deal with a gangrenous condition due to arrest of the supply of blood, and associated with local infection. As in gangrene of an extremity under analogous conditions amputation of the limb is practised with the object of preventing general infection, so in the treatment of strangulated haemorrhoids general mischief may be guarded against by removal of the infecting focus. The patient having been put deeply under the influence of chloroform, the anus is dilated in order to relieve strangulation and to bring the gangrenous haemorrhoids well under view. The base of each is, in its turn, compressed by Henry Smith's clamp as far as possible beyond the necrosed portion, and then the portion of the compressed haemorrhoid on the distal side of the clamp is removed by the cutting blade of a Paquelin cautery, and the raw pedicle of the growth carefully cauterized at the level of the blades of the clamp. The author is strongly in favour of Smith's "clamp-and-cautery" treatment of internal haemorrhoids, and states that during twenty years' experience of this method he has always obtained from it very good results, and has never known it to be followed by haemorrhage, rectal constriction, or prolapse.

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(376) Decapsulation of the Appendix.

A. E. Isaacs describes (*Med. Record*, April 15th) a procedure which he has found very helpful in freeing the appendix in cases in which it is buried in dense adhesions. Having located some portion of the appendix, preferably the proximal, the capsule is incised longitudinally opposite the mesenteric attachment if possible, so as to avoid the larger blood vessels. In this situation the haemorrhage is insignificant, and hardly ever needs attention. The white, glistening surface of the middle layer is the guide to the depth of the incision. The incised serous coat peels off very easily, and with the blunt end of the scalpel handle, or with a periosteum elevator, the core can be easily separated and raised from its bed without fear of haemorrhage. This white core now serves as a guide to the capsule, inside of which it can be loosened up a short distance, then the capsule split for that distance, and the procedure repeated till the whole length is delivered. The author estimates that the method will be found of service in about 20 per cent. of the general run of cases, and describes two operations in which it proved of the greatest assistance, the appendix in one of these being 8½ in. long.

MIDWIFERY AND DISEASES OF WOMEN.

(377) Uncomplicated Varicose Veins in Broad Ligament.

Miller and Kanavel (*Amer. Journ. Obstet.*, April, 1905) has collected a series of authentic cases of this condition, including one in his own experience. Four instances of rupture of the veins are reported. In Hirst's fatal rupture of a vein in the left broad ligament occurred in association with a craniotomy labour; in Vonitugers's ectopic pregnancy was admitted, but fatal haemorrhage was traced to a ruptured varicose vein in the right broad ligament; in Le Cerc's a woman died after a haemorrhage continuing half an hour; ruptured varicose veins were detected at the necropsy; lastly, in Freund's case, a double tube was found in an operation on a patient in a state of collapse; in the septum between the tubes a mass of varicose blood vessels was discovered; one had ruptured. Serial sections of the tubes showed no extrauterine pregnancy. Miller holds that Le Cerc's is the only clear-cut case of rupture of varicose veins uncomplicated by any other condition. Menorrhagia and a feeling of weight in the pelvis, steadily aggravated by walking and standing, are the cardinal symptoms. Dudley diagnosed a boggy sensation on palpation of the broad ligament through the rectum, the patient being placed upright. This affection is not clearly homologous to varicocele in the male. Primary varix is a cause of sclerocystic ovary and subinvolution, and is a result of several pelvic lesions, such as retroversion.

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(378) Rupture of Uterus Twice the Subject of Caesarean Section.

Henkel (*Zentralbl. f. Gynäk.*, No. 15, 1905) reports a case where a woman was twice subjected to Caesarean section. For no evident reason the uterus burst at a subsequent labour. The fetus and placenta were found free in the peritoneal cavity; they were removed, and the cavity well cleansed. The laceration ran down the front of the uterus from fundus to cervix; its borders were trimmed away completely, and united with fifteen interrupted catgut sutures. A continuous sero-muscular suture of the same material was applied over them. The patient was exhibited afterwards at a medical society. On examination, the uterus could be defined as of normal size, drawn high up and fixed to the abdominal walls, but this condition involved no pain or discomfort.

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(379) Post-partum Haemorrhages.

H. H. Loveland (*Amer. Med.*, April 15th) reports three cases and concludes that the first step in the treatment of a rapid and severe case is the insertion of a hand in the uterus, the other meanwhile manipulating the fundus through the abdominal wall. Of all intrauterine treatments, except the first mentioned, hot water douching is the most convenient, the most cleanly, and the most efficient. No obstetrician's outfit is complete without apparatus for the use of saline infusion and intrauterine douching. The benefit to be gained by packing the uterus with gauze is doubtful, the dangers evident. Loveland's experience, both in the cases reported and also in other conditions when uterine haemorrhage is feared, as after curetting for abortion, or miscarriage in the early months of pregnancy, have taught him that it is not wise to put anything into the uterus that is not necessary, or to leave anything there that can be avoided, even though impregnated with antiseptics.

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(380) Fibroid Polypus in Hysterectomy Stump: Myoma of Sigmoid Flexure.

Küstner (*Zentralbl. f. Gynäk.*, No. 49, 1904) was consulted by a woman, aged 42, in November, 1903, who had undergone hysterectomy in the year 1900 for bilateral pyosalpinx. The uterus was amputated so as to leave a small cervical stump, and recovery was free from complications. A tumour developed, and Küstner, on examination, found that it was a pedunculated fibroid of the size of a small apple. It was removed in the usual manner. This case favours panhysterectomy as compared with the supravaginal operation. Küstner also operated on a woman, aged 53, who had ceased to menstruate for three years, and complained of pelvic pain. A tumour like a fibroid and of the size of a fetal head lay behind the uterus, which was greatly displaced upwards and forwards. At the operation it was found to lie in the walls of the sigmoid flexure, whence it was easily enucleated, and recovery followed. L. Fraenkel, in a discussion on this case, noted that a very large intestinal tumour was removed a few

years ago by Pfannenstiel, and another by Dienst. The tumour in Küstner's case was a myoma.

THERAPEUTICS.

(381) The Treatment of Gout.

O. MINKOWSKI discusses the treatment of gout and offers a few bases for scientific treatment (*Deut. med. Woch.*, March 16th, 1905). Uric acid is the central point around which a sound treatment must turn. The deposition of the acid urate of sodium and the increase of the quantity of uric acid in the blood are not produced by an increased manufacture of uric acid, but rather are explained by an irregular excretion of this substance. But one need not suppose that this irregularity of excretion depends on a primary disturbance of the secreting function of the kidney; it is far more likely that it depends on an abnormal combination of uric acid in blood and body juices. We must regard gout as the result of a complicated disturbance of metabolism, and not as an independent condition. The acute attack is probably the expression of a reaction on the part of the organism directed to remove the deposited urates, which attempt usually is very imperfect in its results. The inflammation on which the acute attack depends is called forth by some less well understood cause, probably of a traumatic, toxic, or infective nature. The disturbance of metabolism is regarded as being based on a hereditary disposition, and its development may be favoured by such noxes, as excessive feeding, want of exercise, alcohol abuse, and lead intoxication. Disturbances of the digestion play a very important part in the etiology of the affection. In the first place, it is necessary in the treatment of this disease to attempt to correct the metabolic fault. Regulation of the diet, withdrawal of harmful or excessive substances, stimulation of tissue change by work and exercise, hydropathic and balneopathic means form the chief factors of this part of the treatment. When the acid in the stomach is deficient, large doses of hydrochloric acid, as suggested by Falkenstein, may further assist in this direction. In dealing directly with the question of the prevention of the overloading of the organism with uric acid, one aims at the diminution of formation of it, and at the increase of the excretion. The former can be brought about by diminishing the intake of those substances (purin bases) which represent the substances from which uric acid is formed. Especially the glandular organs must be avoided in the diet, such as thymus, liver, and kidneys, and meats and meat extracts must be allowed only in moderate quantities. Fermenting drinks, especially beer, which contains nucleins, are also harmful. Purgatives act beneficially, in all probability by removing the excess of these substances. It is not certain whether this may be attained by giving medicines. It has been freely claimed of many drugs that they are capable of diminishing the manufacture of uric acid, but of the majority of them there is so far too little proof of such an action to speak with conviction on it. Quinic acid, urosin, sidonal, urol, and new sidonal are said to be efficacious. It is, however, possible that the action of quinic acid and its preparations may be explained in some other way. Increased excretion of urates may be stimulated by plentiful intake of water, and especially of mineral waters. The action of the salicylates is at times said to produce an increased excretion, but in all probability it really depends on the anodyne and soporific effects. Of these preparations, he mentions salicylic acid, salol, salipyrin, aspirin as being the most useful. One has attempted to obtain an increased oxidation of the uric acid, but with little effect. The drugs which have been employed for this purpose are alkalies, inhalation of oxygen, thyroid substance, and spermin. Another method of rendering the uric acid harmless is to attempt to alter its constitution in the body. Drugs which are capable of forming soluble compounds with urates are also mentioned. It is very doubtful whether the actual changes take place in such a way to assist the treatment of gout. Urotropin and citarin are said to have a good action, but certain formaldehyde combinations form a freely soluble diformaldehyde uric acid, which appears in the urine. Lastly, the author mentions colchicum, the action of which is purely empirical. Antineuralgics must also be employed, and of these antipyrin, phenacetin, lactophenin, citrophen, neurodin, and aspirin are especially mentioned. He adds a few words on the usual local treatment of acute gout, and also says a little on the question of diet.

(382) The Action of Isoform.

IN a previous research carried out together with Heile, F. Rochmann showed that the apparent contradiction that iodoform acted as an antiseptic in surgery but not in the test tube, could be explained by the formation of di-iodo-acetylide in the absence of oxygen, but in the presence of tissue cells, while when mixed with the nutrient medium in a test tube, the substance formed is at once oxidized and rendered inactive. Iodoform, therefore, does not act by the splitting off of iodine. From these experiments it appeared to him to be of interest to examine how far other chemical combinations having the complex $=C=CI$ (contained in di-iodo-acetylide) act antiseptically. Di-iodo-tyrol, tri-iodo-tyrol and di-iodo-cinnimate ethyl-ester proved not to have any such action (*Berl. klin. Woch.*, February 27th, 1905). He then turned his attention to the combinations of the peroxides and iodine. Iodobensol is gained by the oxidation by hydrochloric acid, and was found to be but little active, but the iodo combination of phenol and cresol-ether as found in para-iodo-anisol yielded excellent antiseptic qualities. This body has been introduced into use under the name of isoform. Its formula is—

$$C_6H_3\begin{cases}IO_2\\OCH_3\end{cases}$$

It occurs in the form of colourless crystals, little soluble in water and insoluble in both ether and alcohol, and is decomposed by explosion at 230° C. It does not irritate the skin, and acts as a potent bactericide in the presence of strongly albuminous media. Gauze impregnated with 3 per cent. isoform and infected with purulent material was placed in Petri capsules, and covered with nutrient gelatine. No growth took place, while bacteria grew when gauze impregnated with 5 per cent. carbolic acid or 0.2 or 0 3 per cent. corrosive sublimate were treated in the same way. The harmlessness of this substance to animal life was demonstrated by giving dogs 1 to 2 grams daily, which failed to produce any toxic symptoms. Human beings can take from 2 to 4 grams daily, and perhaps more without any ill-effects. Experiments with patients with artificial anus (colotomy, etc.) showed that 2 grams (contained in 4 grams of the commercial isoform) produces considerable inhibition of the intestinal bacteria. In the faeces iodo-anisol is reduced into iod-anisol, which can be detected readily by the odour. Further, iod-anisol is changed into iod-phenol, which is absorbed, and is attached to the sulphuric acid in the organism. Iod-phenol, unlike iod-anisol, possesses strong antiseptic qualities. Iod-phenol is, however, not suitable for clinical use, since it has all the disadvantages of ordinary carbolic acid; but iodo-anisol is admirably suited for wound or intestinal antisepsis, since its slow splitting up only liberates small quantities of the phenol compound at one time, while the original antiseptic qualities can be freely exercised. As an intestinal antiseptic, however, too much must not be expected, for its insolubility will probably render it incapable of inhibiting or killing the bacteria in a well-filled small or large gut.

(383) The Treatment of Oesophageal Stricture.

WADESACK (*Berl. klin. Woch.*, December 5th, 1904) relates the details of a case of fibrous stricture of the oesophagus, in which the treatment offers some instructive lessons. The patient was a girl of 17 years, who had attempted to commit suicide by drinking hydrochloric acid. She was treated in hospital and discharged after three weeks as "cured." She stated that she vomited a portion of the swallow of the size of a crown piece during her stay in hospital. Six months later she gradually developed difficulty in swallowing, and at last could only get fluids down. The difficulty was so great that she was rapidly losing weight and strength, and in spite of treatment by passing a sound, by feeding with neutrient enemata, and by injections of thiosinamine, she was in a most desperate condition when admitted under the author's care. No food at all could be swallowed, either solid or fluid. The sound passed for 25 cm., and then met with a firm resistance. Not even the thinnest sound could be passed. By means of the oesophagoscope one could see the fibrous structure; by the side of the rose-coloured mucosa there were radiating white bands of scar tissue. The oesophagus above the stricture was not much dilated, and had a capacity of about 100 c.cm. The patient was fed as well as possible per rectum, and daily attempts to pass a sound were made. She refused to allow an operation. As she tolerated

the trials of passing the sounds, the attempts were increased, and at last, after ten days, the smallest Crawcour's sound was passed through. This sound consists of a steel handle and a steel spiral, and is so constructed that it cannot double up, and with a little practice one can easily gauge the amount of force to be exercised by it. After about a quarter of an hour the pain of the pressure necessitated its withdrawal, but on the following day it was passed more easily. After repeating this daily she soon was able to swallow, and enjoyed from 6½ to 7 litres of milk daily. In response to this she put on weight at the rate of from 1 to 1½ kilograms a day. Wadesack then made an attempt to dilate the stricture further in order to render it possible for her to swallow solid food. He used Senator's "swelling" sound. This consists of a wire style, inserted into a soft sound, and carrying a laminaria tent; for safety's sake the tent has a silk thread attacked. At first a small tent could only be tolerated for a short time, but by dint of perseverance the stricture was sufficiently dilated that large sounds could readily be passed. In two months the patient had increased in weight from 41.5 kilos to 71.5 kilos. The brilliant result achieved by the Crawcour's and Senator's sounds appear to him to be worthy of recording. P. F. Richter adds an account of some tissue-change observations which he made in this case during the period of her convalescence.

(384) Stovaine as a Local Anaesthetic.

Arnezzi (*Rif. Med.*, March 11th, 1905) gives brief details of 44 cases where he used stovaine or a mixture of stovaine and adrenalin as a local anaesthetic. Stovaine was first prepared by Fourneau in 1903, and is a chlorhydrate of dimethylamidobenzoilpentanol, of white crystalline appearance, and easily soluble in cold water. The great advantage it possesses over cocaine is that it is three times less toxic and yet has quite as marked anaesthetic properties. Reclus, who uses stovaine in preference to cocaine, has frequently given 20 gr. hypodermically without any toxic effects. In addition, stovaine possesses germicidal properties and is cheaper than cocaine. In ordinary surgical use a 0.5 per cent. solution in distilled water or physiological solution is the most useful. If a minim of a 1 in 1,000 solution of adrenalin be added to every 3 c.cm. of the 0.5 stovaine solution a still better result is obtained, especially in the case of inflamed tissues. The maximum dose of stovaine is 40 to 50 gr. and of adrenalin 1 mgr., and it is not advisable to go beyond this.

PATHOLOGY.

(385) The Cerebro-Spinal Fluid in Syphilis.

Ravant (*Ann. de Derm. et de Syph.*, December, 1904) has investigated the changes in the cerebro-spinal fluid in cases of syphilis, with the following conclusions. In cases of tertiary, cutaneous, osseous or mucous lesions the cerebro-spinal fluid is normal. In ocular lesions there is always marked lymphocytosis and this is greater in recent cases, diminishing as the lesion subsides or becomes atrophic. When an atrophic lesion is accompanied by lymphocytosis it must be considered as a sign of nervous syphilis in evolution. Out of 5 cases of optic neuritis and papillary atrophy observed by Babinski, 4 presented normal cerebro-spinal fluid and 1 lymphocytosis. In the last cases the clinical characters were those of tabes. Nervous disorders, such as headache, vertigo, and even mental troubles, are sometimes accompanied by lymphocytosis. It is often difficult to determine clinically between the organic and psychic nature of the case, and here lumbar puncture may furnish evidence. In the diagnosis of nerve syphilis cytodiagnosis shows the reaction from the first. In old syphilitics with no manifestations the cerebro-spinal fluid is always normal, and the unexpected presence of cellular elements should draw attention to the nervous system and the eyes, and often leads to the discovery of unexpected symptoms, such as the Argyll-Robertson pupil, etc. Hence the important fact that "in a syphilitic all cytological reaction of the cerebro-spinal fluid, isolated or accompanied by other syphilitic manifestations, is the indication of a nervous affection (provided that the reaction can only be caused by syphilis)." Lymphocytosis in fact constitutes an early diagnostic sign of latent nervous syphilis, which may not be revealed by clinical signs till long afterwards. Also, in the presence of this reaction, after being certain that we have only syphilis to consider, we can begin energetic treatment without waiting for the appearance of other signs. "The cerebro-spinal reaction should be considered in syphilitics as a symptom as characteristic as a cutaneous or visceral lesion, and has the same therapeutic indications." Lumbar puncture in syphilitics should be practised in a systematic manner, and may, by its indication, arrest the development of otherwise formidable lesions. Again, the study of these facts throws an interesting light on the pathology of syphilis. While in secondary syphilis intense and persistent cutaneous lesions are accompanied by lymphocytosis, in tertiary cutaneous lesions the cerebro-spinal fluid remains normal. The explanation appears to be that in the secondary stage syphilis acts as a septicaemia. The nerve centres are only slightly affected, except in rare cases, and the lymphocytosis disappears with the cutaneous lesions. In the tertiary period the disease is confined more to certain organs and tissues, and causes more profound lesions, each of which constitutes a neoplasm, the consequences of which depend on the delicacy of the tissue involved.

(386) Antibodies.

F. Loeffler (*Deut. med. Woch.*, December 22nd, 1904) says that recent investigations have shown that not only living organisms but also dead ones, or portions of their substance or their products of tissue change, when introduced into the animal organism, give rise to the manufacture of various antibodies. It is a distinct advantage that dead micro-organisms can be employed, inasmuch as there is no longer any danger of infection. Koch, Macfadyen, and Rowland have utilized various methods of destroying the activity of bacteria in the production of specific antibodies. But in every method hitherto used there is always a danger that a few bacteria may escape in the grinding process, and may be capable of regenerating later. Since it is known that dried enzymes can be heated without destroying their activity, it occurred to Loeffler whether it might not be possible to kill off pathogenic bacteria by heating after they have been brought to a dried state, and yet to be able to produce antibodies with the heated substances. The simplest example which he has yet met with is that of precipitin manufacture; it was found that this could be readily formed out of heated albumin. Inquiring into whether specific agglutinins could be prepared from heated bacterial bodies, he worked with a large number of pathogenic micro-organisms. Spore-bearing bacteria were heated for half an hour to 150° C. and non-spore-bearing bacteria to 120° C. for two to three hours. Large quantities were sown on artificial nutrient media, before using for the production of antibodies, in order to assure himself of the sterility. The mass as dry substance represented from 18 to 30 per cent. of the original bacterial substance. This was then rubbed down into a very fine powder, weighed, and then suspended in physiological saline solution. This suspension was injected partly intravenously, partly intraperitoneally, and partly subcutaneously. Next he determined the toxic doses of the various substances thus prepared, and found that the activity of the original bacteria or of snake poison was not destroyed by the heating. Agglutinins were easily prepared for typhoid, coli, cholera, tubercle and other bacteria. Next he succeeded in producing bactericidal and bacteriolytic bodies for cholera. He then experimented with new growths. Taking portions of carcinomatous tissue, he prepared it in the same way as the bacteria and injected the material into an ass, and gained an antibody, which precipitated the "sole" of carcinoma at a dilution of 1 in 100. It also precipitated the "sole" of normal glandular tissue. He thought that it was worth while trying if this antibody could exercise any influence on carcinoma in the human subject. A decrepit old woman in the last stages of mammary carcinoma was the only case which he found opportunity to try the serum on. Each injection was followed by a local reaction, as well as a general reaction; the general condition undoubtedly improved considerably, but the growth continued to increase. On account of the considerable pain caused by the injected serum, in view of the spreading of this advanced case, he discontinued the treatment. It is, however, desirable to try the effect of such serums on various forms of carcinomata and on subjects who are not so decrepit as was this old woman. The new method has advantages not only for the preparation of antibacterial, antitoxic and agglutining serum but also for the preparation of precipitins for forensic purposes, in which case the blood can be taken from corpses without hesitation.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

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ETC.

VOLUME I 1905.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 7TH, 1905.

CONTENTS.

	Page.
MEETINGS OF BRANCHES AND DIVISIONS:	
Birmingham Branch: Central Division	1
Dundee District Branch	2
East Anglian Branch: West Norfolk Division	2
,, ,, South Essex Division	2
Gloucestershire Branch	2
Grahamstown and Eastern Province Branch	2
Lancashire and Cheshire Branch: Altrincham Division	3
,, ,, Rochdale Division	3
Metropolitan Counties Branch: Hampstead Division	3
,, ,, Stratford Division	4
South-Eastern Branch: Canterbury and Faversham Divisions	4
South-Eastern Branch: Dover Division	4
South Wales and Monmouthshire Branch.—Remarks on Vaccination, by T. GARRETT HORDER, L.R.C.P.Ed., M.R.C.S.Eng.	4
ASSOCIATION NOTICES: MEETINGS TO BE HELD	5
NAVAL AND MILITARY APPOINTMENTS	6
VITAL STATISTICS	6
VACANCIES AND APPOINTMENTS	7
DIARY OF THE WEEK	7
BOOKS RECEIVED	7
CALENDAR	8

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:
CENTRAL DIVISION.

A MEETING of this Division was held at the Medical Institute on Friday, December 16th, 1904, at 4 p.m., Dr. EDGINTON in the chair. Apologies for absence were received from Drs. Carter, Oakes, Saundby, Vinrace, and Vokes. There were present fourteen members: Drs. L. K. Thomas, Bracey Dale, Aldren, J. Neal, Milligan, Gamgee, Leedham Green, Heaton, W. R. Jordan, P. Whitcombe, Thomas Wilson, Hallwright, Lee Strathy, and Kirby (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Letter from Mr. Barling.—A letter was read from Mr. Barling thanking the Division for their vote of congratulation on his election to the Council of the Royal College of Surgeons.

Notices of Meetings.—The Chairman called the attention of the Division to the column in the BRITISH MEDICAL JOURNAL for the notice of meetings, and notified that it might be necessary in future to summon meetings solely through the JOURNAL.

Contract Medical Practice.—The Interim Report on Contract Practice was then considered with the view of instructing the Representative Meeting with the opinions of the Division:

Clause 1, "Necessity of Contract Practice," was passed as it stands.

Clause 2. It was recommended by the Executive Committee that this clause on, "Medical Control," should read as follows: "That where a club or association exists solely to provide medical aid, it is essential that the medical staff should be adequately represented on the management." This was carried *nem. con.*

Clause 3. Distribution of Work. The Executive Committee recommended this should read: "That it should be a fundamental principle that, where a public contract medical service exists, every medical practitioner in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service." Carried *nem. con.*

Clause 3a, "Choice of medical attendant," was approved as it stands.

Clause 4. "Minimum rate." It was proposed by the Executive Committee that this clause should stand, with the exception of 4s. instead of 5s.

Whereupon Mr. JAMES NEAL proposed, and Dr. L. K. THOMAS seconded, that clause 4 should be deleted, and instead thereof the following new clause adopted:

That in the present conditions it is unadvisable to fix a minimum fee for contract practice.

For this amendment there voted	4
Against	5
Number absent	278
Did not vote	5

Dr. KIRBY then proposed that instead of 4s. the minimum should be 5s. Dr. W. R. JORDAN seconded.

For the amendment	3
Against	5
Did not vote	6
Absent	278

The original resolution was then proposed as amended by the Executive Committee, and passed *nem. con.*

Clause 5. Exclusive of infants. Agreed to.

Clause 6. Provision against abuse. It was proposed by the Executive Committee and carried that this clause should read as follows:

That in all such contracts the right be reserved to each medical officer to decline to accept as a contract member any person whom he may consider to be unfit for membership in respect of financial position.

Clause 7. Special services. This clause was carried with the addition of the word "consultations" after the words "obstetric cases."

Clause 8. Additional clause proposed by Executive Committee. Entrance Examination:

That no person should be accepted as a contract patient without an entrance examination, for which a fee should be paid.

Consultation between Medical Witnesses.—The question of the desirability of consultation between medical witnesses in legal cases was then considered, and it was resolved to reaffirm the resolution passed by the general meeting on April 12th, 1904, viz.:

It is advisable that the patient shall be examined jointly by the medical witnesses engaged on each side in legal cases, and as recently as possible before cases are heard in Court.

Information to Coroners.—The Chairman called the attention of the members of the Division to the memorandum on this subject.

Reorganization of the Local Government Board.—It was proposed by the Chairman, and seconded by the Honorary Secretary, that the Executive Committee should be empowered to take such steps in this matter as might appear from time to time to be necessary. Carried *nem. con.*

Medical Acts Amendment Bill.—This was then considered, the Honorary Secretary reading the Epitome. This was approved of in its amended form with the exception of Part III, Section xiii, Clause 3. "Style of Doctor." Mr. Gamgee moved, and Dr. Jordan seconded, the removal of this clause. This was carried by 6 votes to 5, absent 278, neutral 4. This reversed the decision of special meeting of December 15th, 1903.

DUNDEE DISTRICT BRANCH.

An ordinary meeting of the Branch was held in the Students Union, Dundee, on November 22nd, 1904, Dr. Kinnear (Vice-President) in the chair. Eighteen members were present.

Medical Certificates of Unfitness to attend School.—Replies were submitted from seventeen Scottish School Boards to a circular issued by the Medical Secretary of the Association, inquiring whether they paid for such certificates. Three (Glasgow, Greenock, and Cambusnethan Wishaw) admitted employing medical practitioners for this purpose. Fourteen had made no provision.

After a discussion of the question, in which almost every member present took part, the following resolutions were adopted:

A.—The Branch recommends:—

1. That when a medical certificate of the unfitness of a child to attend school is required by a parent the ordinary visiting fee be charged.
2. That the medical officers of charities and other public bodies should decline absolutely to give certificates of the unfitness of a child to attend school, but explain to the parent that in the event of a prosecution they will be ready to appear in court.
3. That the nature of the illness should not be entered in any certificate of unfitness to attend school unless demanded by the parent.

B.—That the following resolution be sent to the Dundee School Board:

While the Branch recognizes fully the responsibility of the medical profession for the charitable treatment of those unable to pay for attendance, it is of opinion that the responsibility for such medical service as is required for the administrative work of the School Board rests upon the Board. The Branch has recommended the medical officers of charities and other public bodies to decline to fill up the certificates of the School Board.

EAST ANGLIAN BRANCH:

West Norfolk Division.

A meeting of this Division was held on December 15th, 1904, at the West Norfolk and Lynn Hospital, Sir Alan R. Manby in the chair. There were ten members present.

Memorandum from Exeter Division.—A memorandum from the Exeter Division was discussed and its general principles unanimously agreed to.

Minimum Fee in Midwives' Cases.—It was resolved that the minimum fee, when a medical man is called in to assist a midwife, should be two guineas; that the fee should be sent with the requisition for his services or in its place an order from the authorities administering the Act (presumably the county council) guaranteeing payment of the amount

Subscription to the Association.—It was resolved that in the opinion of this Division it is undesirable to reduce the subscription of newly-registered practitioners.

Payment of Post Office Surgeons.—Some discussion took place on this subject. The opinion was freely expressed that the payment in country districts is totally inadequate. It was resolved that the matter be put on the agenda for further discussion.

Cases.—Dr. Laver showed a male child, 2 years old, with spina bifida, treated by injection with Coley's fluid.—Dr. Chadwick showed cases of keloid tumour in vaccination scar and injury of sacro-iliac synchondrosis.—Dr. Kingdon a case of psoriasis.

Tea.—The Chairman subsequently entertained the members at tea.

South Essex Division.

A meeting of this Division was held at the Victoria Hospital, Southend-on-Sea, Dr. A. Clough Waters in the chair.

Cases.—Cases were shown by Lieutenant-Colonel Westcott, C.M.G., Dr. Waters, and Dr. Bluck.

Matters Referred to Divisions.—The meeting then considered the memorandum of matters referred to Divisions, and Sections I, II, and III were unanimously agreed to: also the recommendations contained in the report on prevention of the abuse of drugs.

GLOUCESTERSHIRE BRANCH.

A general meeting of this Branch was held at the Infirmary, Gloucester, on November 17th, 1904, Dr. Storry of Stroud, the President, in the chair. There were fifty other members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Introduction of New President.—Dr. Storry introduced Mr. Firmin Cuthbert of Gloucester, the President-elect, who then gave his presidential address. After expressing his sense of the honour conferred upon him by the Branch and of the benefit he had received from twenty years' attendance at the Branch meetings, Mr. Cuthbert dwelt on the importance of *x*-ray examinations in fracture cases, and of the immediate examination of tumours at the time of the operation by a competent microscopist. He spoke of the help he had derived from the use of the cystoscope and Louis's segregator; examination of urine, sputum, blood, etc., should nowadays be obligatory before a diagnosis is arrived at. To his mind, the operative treatment of surgical tuberculosis was not satisfactory, and in his experience hip-joints afforded the best results. He advised care in all the details in the preparation for an operation both on the part of the surgeon as well as of the patient; not the least important being the position of the patient in such operations as adenoids, nephrectomy, cholecystotomy, cholectomy, etc. In operating on pelvic disease, the Trendelenburg position he had found of inestimable value. He had kept careful notes of all his cases to his own great advantage, and, whilst deprecating a rigid avoidance of new drugs, new anaesthetics, new inventions, processes, etc., he thought that when they were indulged in it should be only after good reason had been shown, and at least a theoretical knowledge of their use; he instanced the recent method of approaching the appendix as an excellent innovation. He hoped, finally, that his year of office would be a record as regards the attendance of members at the meetings.

Vote of Thanks.—Dr. Ferguson proposed, Dr. Ellis seconded, and Mr. Howell supported a vote of thanks to the President for his instructive and humorous address, and this was unanimously carried.—The President having invited discussion, Drs. Bower, Cardew, Pruen, McCartney, Affleck, and Bond spoke; and the President replied.

Supper.—Forty-two members afterwards sat down to supper at the Wellington Hotel. The evening was on all sides voted a great success.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH.

The annual meeting of this Branch was held at Steinman's Hotel, Capetown, on November 14th, 1904, at 8 p.m., Dr. G. C. Purvis, President, in the chair. The following were present: Drs. J. T. Bays, J. A. Contts, E. G. Dru Drury, A. Edington, W. L. A. Leslie, F. D. Greenlees, R. C. Mullins, and J. H. Wroughton.

Confirmation of Minutes.—The minutes of the meeting of September 10th were read and confirmed.

Secretary's Report.—The Secretary's report for 1904 was read and adopted, stating that the Branch had held six regular and two special meetings, whilst the Council had met five times, and a special Subcommittee four times. The numbers had risen from 45 to 83, owing to the adjustment of Branch areas in the Cape Colony.

Treasurer's Report.—The Treasurer's report for 1904, which was read and adopted, stated that there was a balance in hand of £21 6s. 5d., being an increase of £1 17s. 3d. over that on January 1st.—It was resolved that the accounts be closed and audited on December 31st.

Election of Officers.—The following were elected officers for 1905:—*President:* Dr. J. A. Coutts. *Vice-President:* Dr. J. T. Bays. *Secretary and Treasurer:* Dr. E. G. Dru Drury. *Council:* Dr. A. Edington, Dr. J. B. Greathead, and T. D. Greenlees (all of Grahamstown), Dr. R. Chew (Port Elizabeth), Dr. H. M. Chute (King Williamstown), Dr. C. J. Hill Aitken (East London), Dr. C. E. Jones Philippson (Port Alfred), Dr. J. L. Ritchie (Queenstown), Dr. J. C. Young (Riebeck East).

Vote of Thanks.—A vote of thanks to retiring office-bearers was passed.

Communications.—Various letters were read, and a communication from Dr. Hill Aitken on ethyl chloride anaesthesia.

President's Address.—Dr. G. C. PURVIS delivered his presidential address on trypanosoma and the etiology of cancer, strongly supporting the parasitic theory of cancer.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE quarterly meeting (being the ninth general meeting) of this Division was held on Wednesday, December 14th, 1904, at the Angel Hotel, Northwich, at 5 p.m., Dr. JOYNSON in the chair. There were present Drs. C. J. Renshaw, Hassall, Cooper, Luckman, C. W. Jones, Browne, Gough, Smith, and Garstang (Honorary Secretary). Five other members had intended to be present, but were prevented; and twenty-three members had intimated their inability to attend.

Confirmation of Minutes.—The minutes of the last meeting (September 29th) were read and confirmed.

State Registration of Nurses.—Replies were read from Sir J. Batty Tuke, Dr. Ambrose, M.P., Hon. Sydney Holland, and H. J. Tennant, M.P.

Committee.—The report of the Committee meeting of November 23rd was read and accepted.

Finances.—The Honorary Secretary was instructed to inform the Branch Council that an increased grant was necessary to cover the expenditure of the Division, and to ask the Branch Council to take into consideration the advisability of making a "sliding scale" of payments to Divisions (as suggested by the Wandsworth Division) in inverse ratio to their membership, subject to the safeguard that the Council need not make any payments unless satisfied that the work done by the respective Divisions warrants them.

Nurses.—The Honorary Secretary was instructed to write to the Medical Secretary to inquire if there was any legitimate way of reopening the subject of registration at the next Representative Meeting; and if so, to give notice that this Division would move a resolution.

Correspondence.—Read circulars from Kendal and Dover Divisions, and a large number of other letters.

Cases.—Dr. LUCKMAN then described a successful case of splenectomy, and showed the specimen.—Dr. COOPER read a paper on an operation for the radical cure of empyema of the antrum of Highmore, with notes of 5 cases. Both readers were cordially thanked for their interesting papers.

Other Matters.—Circulars received from the General Secretary and the Medical Secretary on a number of matters were referred to the Committee for consideration and report; a Special General Meeting to be called afterwards if thought necessary.

ROCHDALE DIVISION.

A MEETING of this Division was held in Rochdale on December 15th, 1904. The President, Dr. HENRY, was in the chair, and there were present Drs. Baldwin, Bateman, Brown, Brooks, Ewart, Hitchon, Harris, Kerr, Melvin, Menzies, Pooley, Standing, Wallace, and the Honorary Secretary.

Letters of Apology.—Letters of apology were read from Dr. Thorp, Vice President, and Dr. Lord.

Confirmation of Minutes.—The minutes of the previous meeting were read and adopted.

Correspondence.—The HONORARY SECRETARY read a letter from Manchester (West) Division, submitting the following resolutions for consideration:

1. That this Division regrets to learn that under the new constitution of the British Medical Association, the Branch Councils have no legal control over the distribution of their own surplus funds.
2. That in view of the increasing cost of the organization department of the Association, this Division urges upon the Council the strong advisability of distributing the effort to increase the membership of the Association; and in consideration of the amount of work thrown upon the Honorary Secretaries of Divisions, the necessity of appointing secretaries in several centres for groups of Divisions, whose duties shall be to help the Divisional Secretaries, and who shall be paid an honorarium of £50 a year.

Dr. BROWN proposed that this Division support these two resolutions of the Manchester (West) Division. There was no seconder, and the matter dropped. Letters were also read from the Exeter, Dover and Kendal Divisions. The HONORARY SECRETARY submitted the suggested circular letter to non-members as drafted by the Organization Committee and he was instructed to use it at once in the Division.

Contract Medical Practice.—Dr. HENRY proposed, and Dr. WALLACE seconded:

That in the opinion of this Division, contract practice is not necessary.

All present supported it.

Consultation between Medical Witnesses.—Dr. KERR proposed, and DR. BALDWIN seconded:

That we support the recommendations of the Medico-Political Committee.

This was passed by a majority.

Report re Coroners.—Dr. BROWN proposed, and Dr. HENRY seconded:

That we recommend the British Medical Association to bring these recommendations before the proper authorities, and specially Section III.

This was unanimously adopted.

Report re Local Government Board.—Dr. BROWN proposed, and Dr. HENRY seconded:

That we support the recommendations on the question, and that we shall be prepared to take local action when the proper time arrives.

This was unanimously adopted.

Drug Abuse.—Dr. POOLEY proposed, and Dr. KERR seconded:

That we approve of these sentiments.

Resignation of Honorary Secretary.—Dr. A. B. McMaster tendered his resignation as Honorary Secretary, as he was leaving the Division. Dr. W. H. Bateman was unanimously appointed to the post.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of this Division was held at St. Peter's Lecture Hall, Belsize Square, N.W., on Tuesday, December 13th, 1904, at 4.30 p.m. Dr. HEATH STRANGE presided and fifteen members were present.

Confirmation of Minutes.—The minutes of the meeting of November 4th were read and confirmed.

Contract Medical Practice.—The PRESIDENT invited discussion on the propositions respecting contract practice as printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904. Dr. FORD ANDERSON said that since the subject had occupied considerable attention of the Committee, he thought it might hasten matters if he were to move the adoption of the resolution, with the addition that—

The Local Divisions should manage the contract practice of their respective Districts.

He proceeded to read the resolution and to offer a few explanatory remarks. After some discussion, chiefly from Dr. MORTON, Dr. Anderson's addition was modified into—

That it is desirable, should any such services be organized, that the management of contract practice be carried out by the respective Divisions.

This was seconded by Dr. MORTON and carried. Dr. HUMPHREYS objected on account of the abuse which might and which did arise from people claiming the right to continue as members of clubs, in spite of their circumstances having altered. He considered that the medical men who attended the contract institutions should be local practitioners.

Consultations between Medical Witnesses in Legal Cases.—The report on this subject having been read by the SECRETARY, Dr. FORD ANDERSON proposed that the meeting accept the part referring to questions of fact. This was seconded by Dr. MORTON, and the resolution was carried unanimously.

Dr. HUMPHREYS proposed that the portion relative to questions of opinion be adopted. Dr. HILL seconded. After some discussion this was also carried, only one dissentient vote being recorded.—Dr. HUMPHREYS then moved that the con-

sideration of the remaining two subjects on the agenda referring to the report on information supplied to coroners, and the report on the reorganization of the Local Government Board should be adjourned till the next meeting. Dr. Hill seconded, and the resolution being put was carried.

Paper.—Dr. Soltau Fenwick read a very interesting paper on siphonage of the stomach, its uses and abuses. He dealt first with the technique of passing the tube, the choice of tube, and the uses of various apparatus. Next he spoke of the diagnostic and therapeutic uses of the procedure, and briefly demonstrated the simple tests for free acid, lactic acid, etc., in the gastric contents. Lastly, he spoke very definitely on the abuses of siphonage. There was a short discussion.

Vote of Thanks.—The Chairman offered in a few well-chosen words a hearty vote of thanks as expressing the feelings of all present, and the Assistant Secretary seconded it. The meeting then broke up.

Stratford Division.

A meeting of this Division was held on Thursday, December 15th, 1904, at the Laboratory of the School of Tropical Medicine, Royal Albert Docks.

Demonstration.—Sir Patrick Manson, M.D., K.C.M.G., gave a most interesting demonstration, showing the value of the microscope in the diagnosis of tropical diseases. A very large and comprehensive selection of specimens was under the microscopes (twenty-eight in number), and the demonstration embraced such subjects as filaria, guinea worm, bilharzia, distoma, the Leishman-Donovan bodies, and trypanosomes. Sir Patrick Manson gave a most graphic description of the life-history of the various groups, and rendered his remarks absolutely fascinating by the most excellent specimens under the microscope. To the ordinary hard-worked practitioner it was a rare treat, this peep into a comparatively unknown region, and one could not but feel proud to belong to a profession that had achieved such results in the pursuit of knowledge in a peculiarly difficult phase. Considering the great interest attached to the subjects under demonstration and the amount of trouble and inconvenience Sir Patrick Manson must have put himself to, it is to be regretted that the Division did not avail itself more generally of the opportunity at its doors.

Vote of Thanks.—Dr. Grogono, Chairman of the Division, in proposing a vote of thanks to Sir Patrick Manson, expressed the unanimous feelings of all present as to their delight at what they had seen and heard. Dr. Stocker seconded, and Sir Patrick Manson replied. The thanks of the Division are likewise due to the Resident Staff who prepared the microscopes, etc., for demonstration.

SOUTH-EASTERN BRANCH:

Canterbury and Faversham Divisions.

A combined meeting of these Divisions was held at the Chartham Asylum, on December 1st, 1904, Dr. Fitzgerald presiding. The following members were present: Drs. Fitzgerald, Reid, Gogarty, Gange, Alexander, Gosse, Evers, Weatherhead, Everett, Bremner, S. Wacher, Hackney, Larking, Tyson, and Henchley, and one visitor.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Next Combined Meeting.—It was decided to hold the next combined meeting at Faversham early in March.

Paper.—Dr. Fitzgerald read a paper on borderland cases, which was discussed by eleven members.

Votes of Thanks.—Votes of thanks were passed to Dr. Fitzgerald for his paper and hospitality.

Dr. and Mrs. Fitzgerald kindly provided refreshments after the meeting.

Dover Division.

A meeting of this Division was held at the Royal Victoria Hospital, Dover, on Thursday, November 24th, 1904, Dr. Parsons, the Chairman, presiding. There were present: Drs. Robinson, Menzies, Molesworth, Wood, J. R. Long, Murphy, Todd, and Osborn.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Proposed Division of the Branch.—Dr. Larking's proposal was considered, and after some discussion Dr. Robinson moved:

> That in the opinion of this Division it is not advisable to divide the Branch.

—Mr. Wood seconded this proposal, which was carried unanimously.

State Registration of Nurses.—After some discussion of this question in its several points, Mr. Wood moved:

> That this Division does not consider the State registration of nurses advisable.

—Dr. Murphy seconded this proposal, which was carried unanimously.

Reduction of Subscription for Junior Members.—The resolution of the Wandsworth Division—

> That an alteration be made in Article VII, in order to admit newly-registered general practitioners at an annual subscription of ten shillings for three years—

was fully discussed, when Dr. Long moved:

> That no alteration be made in Article VII.

—Dr. Robinson seconded the motion, which was then carried.

Payment under the Midwives Act.—In a discussion on the resolution passed by the Medical Guild at Manchester, and on the general question of the payment of medical men called in to aid midwives under the new Act of 1902, Mr. Wood moved:

> That in the opinion of this meeting, that as the State insists on the midwife calling in the aid of a registered general practitioner in cases of difficulty, the fee—twenty-one shillings being the minimal—should be paid by the body administering the Midwives Act.

—Dr. Parsons seconded this motion, which was passed by the Division unanimously.

The seventh meeting of this Division was held at the Granville Hotel, Ramsgate, on Thursday, December 1st, 1904, Mr. C. H. Tamplin in the chair. There were present nineteen members of the Division and three visitors.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Letter from Medical Secretary.—The Honorary Secretary read a letter from the Medical Secretary of the British Medical Association dealing with the question of medical politics and the general attitude of the profession as regards the signing of school certificates.

Future Meetings.—Mr. Tamplin proposed, and Dr. Halstead seconded, that Dr. Cotton be asked to take the chair at the clinical meeting at Ramsgate in February, and Dr. Bertram Thornton to take the chair at the meeting at Margate in March.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

REMARKS ON VACCINATION.[1]

By T. Garrett Horder, L.R.C.P.Ed., M.R.C.S.Eng.,
Public Vaccinator, Cardiff.

It appears to me that this is an opportune moment to discuss the vaccination question. We shall probably have a Bill introduced next session by the Government dealing with the Vaccination Acts, and we shall undoubtedly have a Bill introduced under the auspices of the Imperial Vaccination League dealing with revaccination. It is, therefore, highly important that the voice of the medical profession should be heard on both these important subjects.

I do not propose to-day to enter on the subject in a detailed manner, but to lay before you certain suggestions which, if carried into operation, would undoubtedly tend to increase very largely the number of vaccinated children, and would therefore lessen the risks of small-pox in the youthful population.

The first point to determine is whether the administration of the Vaccination Acts should remain in the hands of the Boards of Guardians. There appears to me several good reasons why it should not. The prevention of epidemic diseases should surely rest with a sanitary authority. That authority has to deal with the question of providing hospitals for the isolation and treatment of epidemic disorders, and consequently should have charge of all measures which are likely to prevent the occurrence of such diseases. It is obvious that sanitary authorities would be more likely to take a keener interest in the administration of an Act which, if zealously carried out, would go a long way towards the prevention of small-pox in our juvenile population. More-

[1] Read at the meeting of the Branch held at Carmarthen, December 7th, 1904.

over, much valuable time would be saved when an epidemic of small-pox did occur, if one authority was responsible not only for the treatment of the cases, but was also responsible for the vaccination of all those persons who had come into contact with the patients suffering from the disease. I have assumed that the sanitary authorities are the best authorities to administer the Vaccination Acts. I am aware that a good number of people are of opinion that the Local Government Board would be a more fitting body to carry out these Acts. That there is a good deal to be said in favour of that opinion I am willing to allow; but, after weighing all the arguments used *pro* and *con.*, I have come to the conclusion that I am right in my contention. And the fact that our county and borough councils have now become responsible for the education of the children of this country has strengthened me in this opinion. It seems to me that the new education authority has a magnificent opportunity of securing the vaccination of the many thousands of children who now escape the vigilance of the vaccination officers. It surely would not be a difficult matter for the education authorities to obtain power to insist that every child (excepting those whose parents have been foolish enough to obtain exemption orders) shall before its name is entered on the register of an elementary school, satisfy the authority that it has been efficiently vaccinated. Some of you may be surprised to hear what a large percentage of children are returned by the vaccination officers as unaccounted for. Looking at the last report of the Local Government Board, I find that the returns of the vaccination officers for the year 1901 show the following results: Of 929,882 births registered during the year 1901, 664,366 (being 71.4 per cent. of the whole) had been registered as successfully vaccinated, and the number registered as having died unvaccinated was 102,607 (or 11.0 per cent. of the whole). Of the remaining 163,509 children, 2,631 (or 0.3 per cent. of the whole) had been registered as insusceptible of vaccination, 27 as having contracted small-pox, 12,317 (or 1.3 per cent.) as having their vaccination postponed by medical certificate, and 39,925 (or 4.3 per cent.) in respect of whom certificates of conscientious objection were received, leaving 108,609 (or 11.7 per cent.) as "removed," "not to be traced," or otherwise unaccounted for. If from the 929,882 births deduction be first made of the deaths that took place before vaccination, it appears that, of the surviving 827,875 children, there were registered 80.2 per cent. as successfully vaccinated; 0.3 per cent. as either insusceptible of vaccination or as having had small-pox; 1.5 per cent. as under medical certificate of postponement; and 4.8 per cent. in respect of whom certificates of conscientious objection had been obtained; leaving 13.1 per cent. as at that time still unaccounted for as regards vaccination.

How do these figures compare with previous years?

Table of Registered Births for the Thirty Years 1872-1901, showing the Proportion not Finally Accounted For in Regard to Vaccination (including Cases Postponed).

Year.	Metropolis.	Rest of England.	Year.	Metropolis.	Rest of England.
1872	3.8	4.5	1887	9.0	6.7
1873	8.7	4.2	1888	10.3	8.2
1874	8.8	4.1	1889	11.6	9.6
1875	9.3	3.8	1890	13.9	10.0
1876	6.5	5.0	1891	16.4	12.9
1877	7.1	4.1	1892	18.4	14.3
1878	7.1	4.3	1893	18.2	15.7
1879	7.8	4.5	1894	20.6	19.0
1880	7.0	4.5	1895	24.9	19.8
1881	5.7	4.3	1896	26.4	22.3
1882	6.6	4.5	1897	29.1	21.6
1883	6.5	4.9	1898	33.0	19.0
1884	6.8	5.3	1899	27.7	15.4
1885	7.0	5.5	1900	25.8	13.9
1886	7.8	6.1	1901	24.1	11.2

In 1901 the proportion of cases unaccounted for (excluding the postponed cases) in the Metropolis and in the rest of England was 22.8 and 9.8 per cent. respectively.

These figures are worth consideration. You will notice that from 1872 to 1886 the percentage of cases unaccounted for is small and varies very little either with regard to the Metropolis or to the rest of England. From 1887 to 1898 the percentage shows a very decided yearly increase in both cases. The years from 1899 to 1901 show a decrease, but not a very marked one—especially when it is remembered that the last Vaccination Act was passed in 1898 and came into force the following year.

Let us now take some of the returns for particular registration districts for the year 1901.

List of Unions and Registration Districts in which the Proportion of Children Unaccounted For with Respect to Vaccination is Abnormally High.

Mile End Old Town	66.1	St. Pancras	32.8
Leicester	62.6	Derby	31.8
Bedford	53.1	Wilts	32.0
Bethnal Green	52.2	St. George's-in-the-East	30.6
Northampton	50.9	St. Giles	30.7
Poplar	49.1	Gloucester	29.0
Shoreditch	44.7	Holborn	27.6
Stepney	44.3	Southwark	26.8
Hackney	38.5	Essex	23.2
Radnor	36.5	Nottingham	22.5

With regard to Wales as a whole, the returns are, with the exception of Radnorshire, very satisfactory, the percentage of children unvaccinated varying from 1.5 (the lowest) in Anglesey to 7.6 in Brecknock. Radnorshire stands out with the enormous percentage of 36.5. Taking the big towns in Glamorgan, I find that Cardiff has a percentage of 12.5, Swansea 3.7, Pontypridd 8.2, and Merthyr Tydfil of 5.0 unvaccinated children for the year 1901.

The figures I have given surely go to prove that if we are anxious to have a better protected community some further steps are urgently needed to have our first and most important line of defence against small-pox more efficiently guarded. I believe myself that many parents who object very strongly to the vaccination of their children during infancy would not raise the slightest objection to the operation when their children reach school age. However zealous and earnest the vaccination officers may be in the performance of their duties, it is manifestly impossible for them to discover, unless a periodical house-to-house visitation is made, the thousands of children whose parents remove from one town to another, or from one part of a town to another part of the same town. The education authorities have to make a periodical census of their districts, and are therefore perfectly able to discover the number of children who are not attending school. This matter is of such vital importance to the community at large that I would suggest that the Branch should formally bring it to the notice both of the Local Government Board and the Board of Education.

Association Notices.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1905.

MEETINGS of the Council will be held on Wednesdays, January 18th, April 19th, July 5th, and October 18th.

The January meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 2 o'clock in the afternoon of Wednesday, January 18th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished on application to the General Secretary of the Association, 429, Strand.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The usual clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 17th. Members desirous of showing patients or specimens will please communicate with one of the Secretaries. The annual dinner will be held in the evening, in the Royal British Hotel.—NORMAN WALKER, 7, Manor Place, Edinburgh; A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held on Thursday, January 12th, at 3.45 p.m., at Crichton's (opposite Clapham Junction Station). Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) Resolution for Representative Meeting referring to British Medical Association representation on any permanent Board newly created. (5) Consideration of memorandum from

Medico-Political Committee concerning payment of medical men called in by midwives. All general practitioners are invited to attend.—E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The next meeting will be held at St. George's Hospital, on January 20th, at 8.30 p.m.—W. KNOWSLEY SIBLEY, 70, Duke Street, Grosvenor Square, Honorary Secretary.

PERTHSHIRE BRANCH.—At a meeting of Council held on Friday, December 16th last it was decided, in view of the unsuitability of the present time for calling a meeting of the Branch, to ascertain the views of the members by writing on the matters which the Annual Representative Meeting decided should be referred to Divisions. Members are requested to send early replies to the Medico-Political Committee The questions are as follows:—1. The interim report on contract practice: (1) Necessity of contract practice: (2) medical control; (3) distribution of work; (3A) Friendly Societies—choice of medical attendant; (4) minimum rate; (5) exclusive of infants: (6) provision against abuse; (7) special services. 2. The desirability of consultation between medical witnesses in legal cases likely to be brought before the court. Details of the questions will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904. The clinical meeting will be held in the Perth Infirmary on Friday, February 10th, at 3.45 p.m. Any members wishing to show cases might kindly communicate with the Secretaries by January 31st.—WILLIAM A. TAYLOR and ALEXANDER TROTTER, Joint Honorary Secretaries, 10, Marshall Place, Perth.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Athenaeum, Plymouth, on Tuesday, January 10th, at 3 p.m., the President (Dr. J. Alexander) in the chair. The following communications are already promised:—Mr. G. C. Wilkin: The National Importance of the Thorough and Systematic Removal of Adenoids in Childhood—Dr. W. Gordon: Some Facts and Fallacies about the Climate of South-East Devon—Mr. C. Hamilton Whiteford: Intravenous Injection of Saline Solution in Cases of Haemorrhage, Shock, and Sepsis—Mr. W. Woolicombe: Post-peritoneal Rupture of Abdominal Aneurysms.—On the conclusion of the business of this meeting a special general meeting will be held (by order of the Council) to consider and adopt the Code of Rules (copies of which have been sent to members) to regulate procedure in ethical matters.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEON A. PRICHARD has been placed on the retired list, December 19th, 1904. He was appointed Surgeon May 15th, 1899.

The following appointments have been made at the Admiralty:—EDWIN R. GRAZEBROOK, Surgeon, to the *Cambridge*, additional for the *Theseus*, January 10th; FRANCIS J. MCKENNA, Surgeon, to the *Hussar*, on commissioning, January 3rd; RICHARD A. FITCH, Fleet Surgeon, and JAMES A. THOMPSON, M.B., B.A., Surgeon, to the *Drake*, on recommissioning, undated; WILLIAM G. HINGSTON, Surgeon, to the *Fire Queen*, additional, for the *King Edward VII*, January 3rd.

Fleet Surgeon J. S. LAMBERT is placed on the retired list, with the rank of Deputy Inspector-General, December 22nd, 1904. His commissions were as follows: Surgeon, June 4th, 1878; Staff Surgeon, June 4th, 1890, and Fleet Surgeon, July 25th, 1894.

ARMY MEDICAL SERVICE.

IN the *London Gazette* of January 3rd, 1905, under the heading "Royal Army Medical Corps," Lieutenant-Colonel (temporary Surgeon-General) A. KEOGH, M.D., C.B., is promoted to be Colonel, vice W. Donovan, C.B., promoted, dated December 2nd, 1904. Under "Army Medical Staff" it is further announced that Colonel (temporary Surgeon General) A. KEOGH, C.B., M.D., is promoted to be Surgeon-General, to complete the establishment, dated December 3rd, 1904. And under "Army Medical Service" we read: "Surgeon-General A. KEOGH, M.D., C.B., is appointed Director-General, vice Sir W. Taylor, M.D., K.C.B., K.H.P., retired, dated January 1st, 1905." It is not necessary here to recapitulate the particulars of the career of Surgeon-General Keogh, as these were fully given in the BRITISH MEDICAL JOURNAL of December 31st, 1904.

ARMY MEDICAL STAFF.

COLONEL W. DONOVAN, C.B., from the Royal Army Medical Corps, is promoted to Surgeon-General, vice Sir W Taylor, M.D., K.C.B., K.H.P., December 2nd, 1904. He entered the service as Assistant-Surgeon, March 30th, 1872; was made Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1884; granted the rank of Lieutenant-Colonel, March 30th, 1892; made Brigade-Surgeon-Lieutenant-Colonel, June 24th, 1896; and promoted to be Colonel, October 4th, 1901. His war record includes the Afghan war, 1878-80 (medal); the Boer war in 1881, as a volunteer; with the Chitral Relief Force in 1895 (mentioned in dispatches, medal with clasp); and the South African war in 1899-1902, as Principal Medical Officer of a Cavalry Division, including operations in the Transvaal and Cape Colony (mentioned in dispatches, King's medal with two clasps, and made C.B.).

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. I ROUTH is promoted to be Colonel, vice A. Keogh, M.D., C.B., promoted, December 3rd, 1904. Colonel Routh entered the service as Surgeon, February 3rd, 1878; was made Surgeon-Major, February 3rd, 1890; and Surgeon-Lieutenant-Colonel, February 3rd, 1898. He was present in the campaign in North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force, receiving a medal with two clasps.

Colonel A. H. ANTHONISZ, M.B., is placed on retired pay, December 22nd, 1904. He was appointed Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873: Surgeon-Major, April 1st, 1883; was granted the rank of Lieutenant-Colonel, April 1st, 1891; made Brigadier-Surgeon-Lieutenant-Colonel, May 15th, 1895; and promoted to be Colonel, November 15th, 1899. He was in the Egyptian war in 1882 (medal and Khedive's bronze star); in the Soudan campaign in 1885 (clasp); and in the South African war in 1899-1900.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

CAPTAIN A. GRANVILLE, the London Companies, is seconded whilst holding a civil appointment under the Egyptian Government, November 28th, 1904.

Surgeon-Captain E. A. SNAPE, M.D., from the 2nd Middlesex Royal Garrison Artillery (Volunteers), to be Captain in the London Companies, January 4th.

Mr. GORDON W. FITZGERALD to be Lieutenant in the Manchester Companies, January 4th.

INDIAN MEDICAL SERVICE.

MAJOR ROBERT BIRD, M.D., Bengal Establishment, Surgeon to the Viceroy of India, has been nominated a Companion of the Order of the Indian Empire.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-LIEUTENANT D. S. DAVIES, M.D., 1st Gloucestershire, resigns his commission, retaining his rank and uniform, January 4th.

Surgeon-Major H. HABGOOD, M.D., 2nd Sussex, to be Surgeon-Lieutenant-Colonel, January 4th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,617 births and 6,567 deaths were registered during the week ending Saturday last, December 31st, 1904. The annual rate of mortality in these towns, which had been 18.5, 19.2, and 19.4 per 1,000 in the three preceding weeks, further rose last week to 22.4 per 1,000. The rates in the several towns ranged from 9.6 in York, 11.7 in King's Norton, 11.8 in Willesden, 12.0 in East Ham, 12.2 in Walthamstow, 12.8 in Leicester, and 13.1 in Handsworth (Staffs) to 28.6 in Huddersfield, 29.5 in Preston, 30.0 in Sunderland, 32.4 in Middlesbrough, 33.0 in Stockton-on-Tees, 33.3 in Oldham, 35.2 in Manchester, and 36.7 in Hanley. In London the rate of mortality was 21.0 per 1,000, while it averaged 23.1 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.6 per 1,000; in London this death-rate was equal to 1.4 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.0 in Great Yarmouth, in Bristol, in Burton-on-Trent, in Oldham, and in Stockton-on-Tees, 3.2 in Liverpool, 3.3 in Hanley, 3.9 in South Shields, 4.3 in Blackburn, 4.4 in Nottingham, and 4.7 in Grimsby and in St. Helens. Measles caused a death rate of 1.3 in Gateshead, 1.4 in Devonport, in Leicester, and in Merthyr Tydfil, 1.7 in Bristol, in Nottingham, and in Liverpool, 2.0 in Tynemouth, 2.9 in St. Helens, 3.0 in Stockton-on-Tees, and 3.9 in Grimsby; scarlet fever of 1.1 in Northampton, 1.4 in Coventry, and 1.6 in Blackburn; diphtheria of 2.2 in East Ham; and whooping-cough of 1.1 in Bristol and in Middlesbrough, 1.2 in St. Helens, 1.3 in Derby, 1.5 in Oldham, 1.9 in South Shields, 2.0 in Great Yarmouth, and 2.4 in Hanley. The mortality from "fever" and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Bolton, 1 in Preston and in Bradford, but none in any other of the large towns The Metropolitan Asylums Hospitals contained 17 small-pox patients on Saturday, December 31st, 1904, against 4, 6, and 14 on the three preceding Saturdays; 5 new cases were admitted during the week, against 1, 2, and 9 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,490, 2,403, and 2,393 at the end of the three preceding weeks, had further declined to 2,386 at the end of last week: 201 new cases were admitted during the week, against 263, 242, and 242 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, December 31st, 1904, 868 births and 715 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.7, 22.6, and 21.2 per 1,000 in the three preceding weeks, rose again to 21.6 per 1,000 last week, but was 0.8 per 1,000 below the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 15.3 in Dundee and 16.2 in Leith to 25.4 in Aberdeen and 27.7 in Perth. The death-rate from the principal infectious diseases averaged 2.4 per 1,000, the highest rates being recorded in Aberdeen and Perth. The 370 deaths registered in Glasgow included 4 which were referred to measles, 2 to scarlet fever, 29 to whooping-cough, and 6 to diarrhoea. Four fatal cases of whooping-cough and 2 of diarrhoea were recorded in Edinburgh; 15 of measles and 3 of diarrhoea in Aberdeen; 2 of whooping-cough in Leith; and 3 of whooping-cough in Perth.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 24th, 455 births and 388 deaths were registered in six of the principal Irish towns against 495 births and 428 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.2, 21.4, and 27.1 per 1,000 in the three preceding weeks, fell to 20.3 per 1,000 in the week under notice, this figure being 0.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period The figures ranged from 17.5 in Waterford and 18.9 in Londonderry to 20.6 in Belfast and 25.3 in Dublin. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.6 per 1,000, or 0.2 per 1,000 higher than during the preceding period, the highest figure, 2.8, being recorded in Belfast, while Waterford registered no deaths under this heading at all. The deaths from measles showed a slight further increase, 27 being recorded in all. From diphtheria 2 deaths occurred in Belfast, 1 each in Cork and Londonderry, and 2 others in outlying districts. From small-pox, scarlet fever, and typhus no deaths were recorded in any part of Ireland.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRMINGHAM: QUEEN'S HOSPITAL.—Honorary Ophthalmic Surgeon.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Honorarium at the rate of 40 guineas per annum.

COVENTRY AND WARWICK HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.

DERBYSHIRE ROYAL INFIRMARY.—(1) House-Surgeon. (2) House-Physician. (3) Assistant House-Surgeon. Salary for (1) and (2) £100 per annum, and for (3) £60 per annum.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Senior Assistant Medical Officer, resident. Salary, £300 per annum.

GROCERS' COMPANY.—Two Scholarships in Sanitary Science. £300 a year each.

KING EDWARD VII SANATORIUM.—Medical Superintendent, resident. Salary, £500 per annum, rising to £600.

MANCHESTER: JEWISH HOSPITAL.—Resident Medical Officer. Salary commencing £80 per annum.

MILE-END INFIRMARY, Bancroft Road, E.—Male Assistant Medical Officer, resident. Salary, £150 per annum.

NEW ZEALAND: UNIVERSITY OF OTAGO.—Professor of Physiology. Salary, £600 per annum and half of the class fees.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon, resident. Honorarium, £20 for six months.

ROYAL DENTAL HOSPITAL OF LONDON.—Demonstrator in Mechanical Pupils' Department. Stipend £120 per annum, rising to £150.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL: (1) House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £60 per annum respectively.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Assistant Resident Medical Officer. Salary, £80 per annum.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon, resident. Salary, £80 per annum.

APPOINTMENTS.

BEST, W. J., M.R.C.S.Eng., D.P.H., District Medical Officer of the Louth Union.

BROOKS, R. Philip, F.R.C.S.Edin., Ophthalmic Surgeon to the Royal Berkshire Hospital, Reading.

COOPER, E. Higham, L.S.A., Honorary Radiographer to the Tottenham Hospital.

GARRICK, J. P., M.B., Ch.B.Vict., Junior Assistant House-Surgeon to the Stockport Infirmary.

HODGSON, G. G., M.D.Durh., M.R.C.S.Eng., District Medical Officer of the Chertsey Union.

HOPE, J. L. A., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Chertsey Union.

HUNTER, Jessie S. B., M.B., Ch.B.Glas., Assistant Medical Officer to the Bracebridge Lunatic Asylum, Lincoln.

JONES, E. T., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Helston District, Cornwall, and District and Workhouse Medical Officer of the Helston Union.

LOW, J. Spence, M.B., C.M.Edin., Medical Officer of Health for the Borough of Dewsbury.

PARK, A. Glen, M.D.Glasg., Certifying Factory Surgeon for the South Bolton District, Lancashire.

SHEPPARD, J. F., L.R.C.P. and S.Irel., District and Workhouse Medical Officer of the Newport Pagnell Union.

WATSON, J., M.D.Durh., F.R.C.S.Edin., Certifying Factory Surgeon for the Newbury District, Berkshire.

WOOLFENDEN, H. F., M.R.C.S., L.R.C.P.Lond., Resident Medical Officer, West Derby Union Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DARBYSHIRE.—On November 15th, 1904, the wife of Douglas E. Darbyshire, M.B., Ch.B., M.R.C.S., L.R.C.P.Lond., of a daughter.

NAESMYTH.—On New Year's Day, at "Claughbane," Ashstead, Surrey, to Flora and Donald Naesmyth, M.R.C.S., L.R.C.P. (son of Sir Michael Naesmyth, of Posso, Bart.), a son.

VOLLER.—On the 27th December, at 2, Alexandra Avenue, Battersea Park, S.W., the wife of Frank Voller, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

MARRIAGE.

CARLING—COLEBROOK.—On December 29th, at St. John Baptist Church, Kidmore End, Oxon., by the Rev. J. E. Smith-Masters, assisted by the Rev. Canon W. W. Fowler, Henry Frank Carling, second son of William Rock Carling, of Guildford, to Esther Lillie Colebrook, M.D., younger daughter of the late George William Colebrook, of Reading.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: (1) Functional Insanity and its Relation to Allied Neurosis. Dr. Robert Jones: (2) Encephalitis, by Dr. F. E. Batten.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Epidiascope Demonstration. Dr. David Lawson: Some changes which take place in the Lungs and Pleura, chiefly in Pulmonary Tuberculosis, as shown by Skiagraphy.

SOCIETY FOR THE STUDY OF INEBRIETY, 11, Chandos Street, W., 4 p.m.—Discussion on Alcohol in its Relation to Deterioration. To be opened by W. McAdam Eccles, M.S., F.R.C.S.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

HUNTERIAN SOCIETY, London Institution, 6 p.m.—The Second Hunterian Lecture by Mr. Rickman Godlee. Subject: Shifting Dullness, and its Bearing on Surgical Conditions.

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square W., 8 p.m.—Specimens by Drs. George Elder and Inglis Parsons. The President will deliver his Valedictory Address.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Dr. T. J. Walker (introduced by Professor Howard Marsh), Acute Ascending Paralyses in Cases of Chronic Cystitis. Mr. R. Clement Lucas: A Case of Accidental Electrocution, causing extensive Gangrene of all the Extremities. Dr. W. Ewart: A Case of "Soft Valve" Mitral Stenosis, in which no murmur was heard.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 4.15 p.m.—Annual General Meeting. 5 p.m., Ordinary Meeting. Cases will be shown by Dr. StClair Thomson, Mr. P. de Santi, Dr. H. Tilley, Sir Felix Semon, Dr. Fitzgerald Powell, and others.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m.—Medical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, College opens; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Tuesday, Leucorrhœa; Wednesday, The Elements of Prognosis in Pulmonary Tuberculosis; Thursday, Orthopædic Surgery.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Tuesday, 3.30 p.m., Cases in the Wards; Friday, 3.30 p.m., Hemiplegia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday, Opening Lecture by Mr. John Langton, F.R.C.S.: Points which should be considered in determining the Prospects of the Operation for the Radical Cure of Hernia. Thursday, Beri-beri.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, Thursday, 3 p.m.—Lecture: The Treatment of Patients before and after Abdominal Section.

BOOKS, ETC., RECEIVED.

Mitteilungen aus der Augenklinik des Carolinischen Medico-chirurgischen Instituts zu Stockholm. Herausgegeben von Dr. J. Widmark. Sechstes und siebentes Heft. Jena: Gustav Fischer. 1904. M. 3 and M. 4 each.

A Manual of Toxicology. By Albert H. Brundage, A.M., M.D., Phar.D. Fourth Edition. New York: The Henry Harrison Company; and London: Baillière, Tindall, and Cox. 1904. 8s. 6d.

Grundsätze für den Bau von Krankenhäusern. Von Generalarzt Dr. Thiel. Berlin: August Hirschwald. 1905. M.6.

The Crusade Against Phthisis. By A. B. de Guerville. London: Hugh Rees. 1904. 6d.

The Schoolmasters' Yearbook and Directory, 1905. Third annual issue. London: Swan Sonnenschein and Co., Limited. 5s.

The Life and Times of St. Boniface. By James Williamson, M.D. Ventnor: W. J. Knight; and London: Henry Frowde. 1904. 5s.

Mr. Watch, Pawnbroker. By George H. R. Dabbs, M.D. London Argus Library of Fiction. No. 2. London: Partridge and Cooper. 1s.

Stereoskopischer gerichtsärztlicher Atlas. Von Professor Dr. Adolf Lesser. Vierte Abtheilung. Tafel 151-200. Breslau: S. Schottlaender. 1905.

Transactions of the Association of American Physicians. Nineteenth Session, held at Washington, D.C., May 10th and 11th, 1904. Vol. xix. Philadelphia: Printed for the Association. 1904.

Transactions of the American Climatological Association for the Year 1904. Vol. xx. Philadelphia: Printed for the Association. 1904.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
January	9...MONDAY ...	
..	10...TUESDAY ..	South-Western Branch, Athenaeum, Plymouth, 3 p.m.
..	11 ..WEDNESDAY	LONDON: Co-ordination Scientific Work of the Association Committee, 2 p.m.
..	12 ..THURSDAY...	LONDON: Medical Defence Committee. Wandsworth Division, *Metropolitan Counties Branch*, Crichton's (opposite Clapham Junction Station), 3.45 p.m.
..	13.. FRIDAY ...	
..	14...SATURDAY...	
..	15...Sunday..	
..	16...MONDAY ...	
..	17...TUESDAY ...	LONDON: Premises and Library Committee.
..	18...WEDNESDAY	.. Journal and Finance Committee. .. Central Council.
..	19..THURSDAY...	LONDON: Meeting of Secretaries and Treasurer of the Metropolitan Counties Branch and its Divisions, 5 p.m.
..	20...FRIDAY ...	Westminster Division, *Metropolitan Counties Branch*, St. George's Hospital, 8.30 p.m.
..	21...SATURDAY...	
..	22 . Sunday..	
..	23 ..MONDAY ...	
..	24...TUESDAY ...	
..	25...WEDNESDAY	
..	26...THURSDAY...	LONDON: Hospitals Committee.
..	27...FRIDAY ...	
..	28 ..SATURDAY...	
..	29...Sunday .	
..	30 ..MONDAY ...	
..	...TUESDAY ...	Latest day for sending Divisional Annual Report and Financial Statement to Branch Secretary (By-law 9).
February	1 ..WEDNESDAY	
..	2 THURSDAY...	
..	3...FRIDAY ...	
..	4...SATURDAY...	
..	5...Sunday..	
..	6 ..MONDAY ...	
..	7 ..TUESDAY ...	
..	8...WEDNESDAY	
..	9 THURSDAY...	
..	0 ..FRIDAY ...	Perthshire Branch, Clinical Meeting, Perth Infirmary, 3.45 p.m.
.	11 ..SATURDAY...	
..	12 . Sunday .	
..	13 MONDAY ...	
.	14 TUESDAY ...	LONDON: Organization Committee.
..	15...WEDNESDAY	
..	16 ..THURSDAY ..	
..	17.. FRIDAY ...	Edinburgh Branch, Royal Infirmary.
..	18 ..SATURDAY...	

Month.	Day of Week.	Meetings to be Held.
February	19...Sunday..	
..	20...MONDAY ...	
..	21...TUESDAY ...	
..	22...WEDNESDAY	
..	23 ..THURSDAY...	
.	24...FRIDAY ...	
..	25 ..SATURDAY...	
..	26 ..Sunday .	
..	27...MONDAY ...	
..	28...TUESDAY ...	
March	1...WEDNESDAY	
..	2...THURSDAY...	
.	3...FRIDAY ...	
..	4 ..SATURDAY...	
.	5 . Sunday..	
.	6...MONDAY ...	
.	7...TUESDAY ...	
..	8 ..WEDNESDAY	
..	9 ..THURSDAY...	
..	10...FRIDAY ...	
..	11 ..SATURDAY...	
.	12 ..Sunday..	
.	13 ..MONDAY ...	
..	14 ..TUESDAY ...	
..	15 ..WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
..	16...THURSDAY...	
.	17 ..FRIDAY ...	LONDON: Ethical Committee
..	18 ..SATURDAY ..	
.	19 . Sunday .	
,	20 ..MONDAY ...	
.	21 ..TUESDAY ...	
..	22 ..WEDNESDAY	LONDON: Medico-Political Committee
..	23 ..THURSDAY...	
..	24 ..FRIDAY ...	
..	25 ..SATURDAY...	
„	26 . Sunday..	
..	27 . MONDAY ...	
.	28 TUESDAY ...	
.	29 . WEDNESDAY	
..	30...THURSDAY...	
..	31...FRIDAY ...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretary is Dr. Astley V. Clarke, 37, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Saundby, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.



Fig 5.—Male worm. Note smooth cuticle.

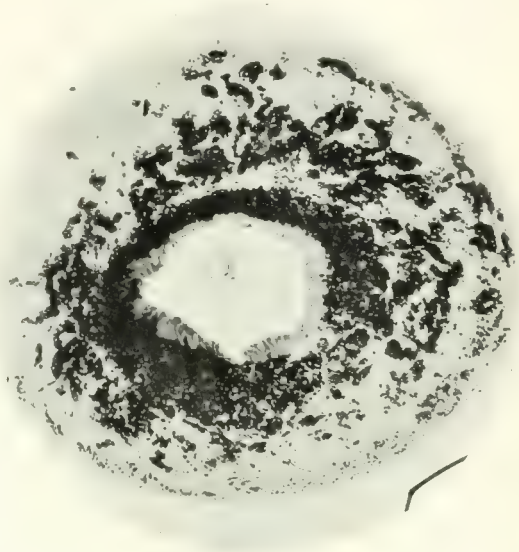


Fig. 6.—Section of appendix (stained), showing ova in masses, a dense submucous layer, and a less-marked subperitoneal layer.

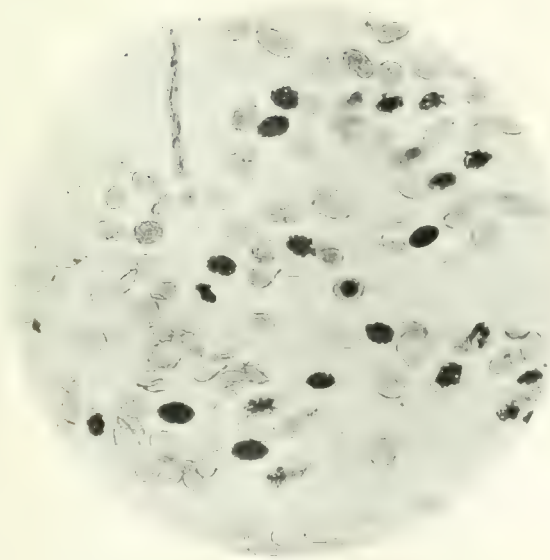


Fig. 7.—Magnified view of Fig 5, showing ova.

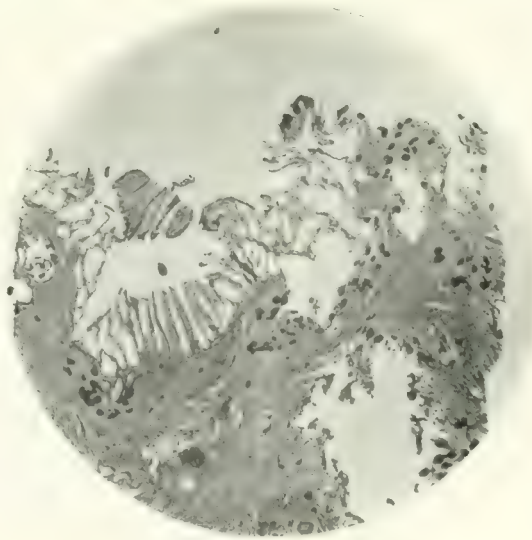


Fig. 8.—Ova in process of extrusion from intestinal mucosa.

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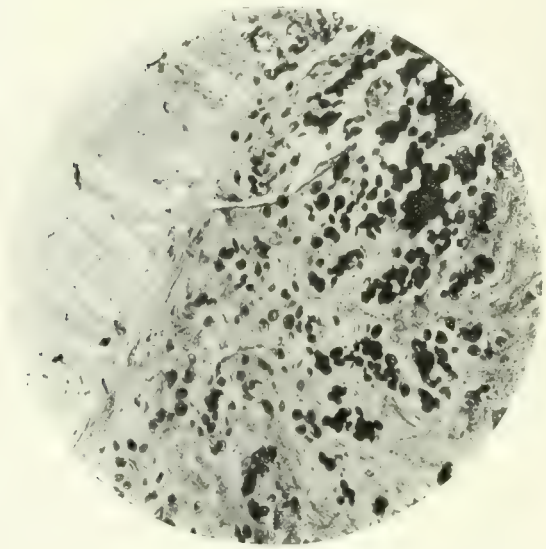


Fig. 1.—Ova in intestinal submucosa. At first taken to be coccidia.

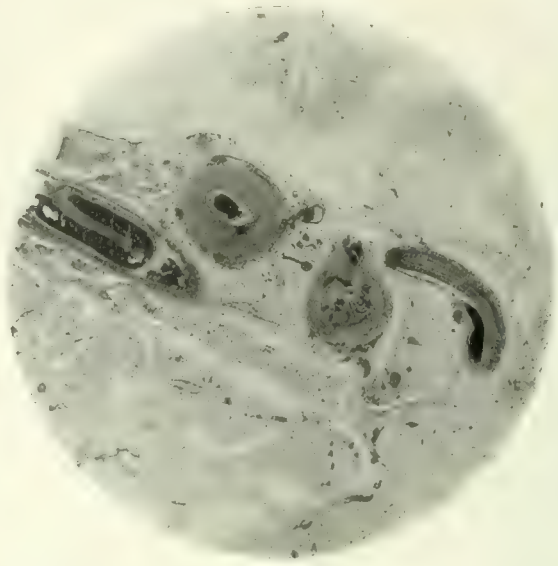


Fig. 2.—Section of mesentery. Worms seen lying in blood vessels in transverse and longitudinal section. Note difference in thickness of vessel walls.

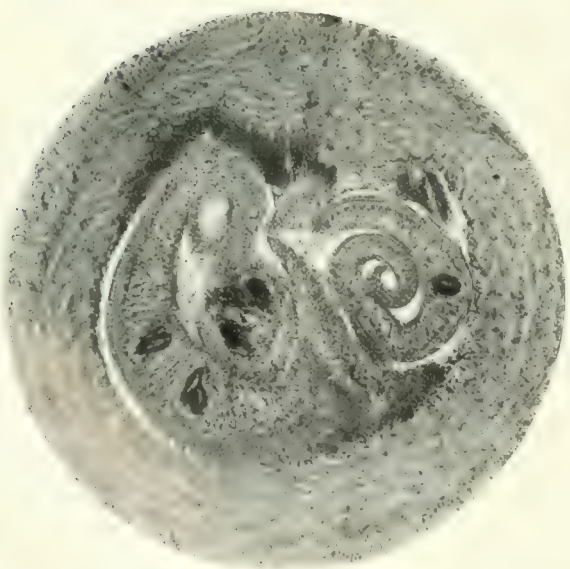


Fig. 3.—Magnified view of Fig. 2, showing transverse section of blood vessel with worms *in situ*. Note smooth cuticle.



Fig. 4.—Male worm with a portion of female.
A. Male worm showing cæca.
B. Female.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 14TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS: NATIONAL DEPOSIT FRIENDLY SOCIETY.—Memorandum by the Medico-Political Committee on Proposals for Concerted Action by the Divisions of the British Medical Association with respect to the National Deposit Friendly Society.—Recommendations.—Appendix.—Conclusion	9
PUBLIC HEALTH BILL.—Qualification and Tenure of Office of Medical Officers of Health.—Memorandum.—Bill	10
REVACCINATION BILL.—Memorandum.—Bill	11
MEETINGS OF BRANCHES AND DIVISIONS: Fife Branch and Division	12
ASSOCIATION NOTICES: BRANCH AND DIVISION MEETINGS TO BE HELD	13
NAVAL AND MILITARY APPOINTMENTS	14
VITAL STATISTICS	14
VACANCIES AND APPOINTMENTS	14
DIARY OF THE WEEK	15
BOOKS RECEIVED	15
CALENDAR	16

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NATIONAL DEPOSIT FRIENDLY SOCIETY

Memorandum

BY THE

MEDICO-POLITICAL COMMITTEE

ON

Proposals for Concerted Action by the Divisions of the British Medical Association with respect to the National Deposit Friendly Society.

THE Annual Representative Meeting of the Association at Oxford in 1904, having considered the appended Report of the Medico-Political Committee on the National Deposit Friendly Society, approved the same and passed the following resolution in reference thereto:—

> That the Medico-Political Committee be instructed to transmit the resolution of this Meeting respecting the Report on the National Deposit Friendly Society to the Divisions, with proposals for concerted action.

Before the Committee had the opportunity of considering this instruction a communication was received from the National Deposit Friendly Society which showed that they had misconceived the intention and purport of the Report of the Committee. The Committee therefore thinks it desirable, in presenting the proposals which it was instructed to submit, to make clear the principles to which those proposals are intended to give effect.

In the opinion of the Committee the relation of the profession to the Society should be that which is apparently contemplated by some of the rules of the Society, but with which other of its rules and the action of some of its local agents are inconsistent.

No medical practitioner should be regarded or treated as specially an officer of the Society or as under any obligation to charge to a patient who happens to be a member of the Society the fees laid down in the Society's scale. One of the rules of the Society specifically lays down that any member may call in any medical practitioner, and this rule should be consistently carried into effect by the Society.

RECOMMENDATIONS.

The Committee therefore recommends that the Divisions should by Rules or by resolutions require their Members to observe the following procedure with respect to the Society:

(*a*) That no Member of the Association should give an undertaking to charge members of the National Deposit Friendly Society according to the scale laid down by the rules of the Society instead of the ordinary fees proper to their circumstances;

(*b*) That in dealing with members of the Society the medical practitioner should look to the patient absolutely for his fees and should not recognize the Society in the matter. The member of the Society should himself

pay the doctor according to the ordinary scale of fees for persons in his circumstances, and should recover, independently, from the Society the amount due to him in respect of the attendance under the Society's scale;

(*c*) That no Member of the Association should permit his name to be used by the officers of the Society as specially acting, in any honorary capacity or otherwise, for the Society in any district, and that it should be left to each patient to choose his medical attendant without bias from the Society;

(*d*) That Divisions should use their utmost endeavours to induce members of the profession within their area who do not belong to the Association to act upon these Rules.

APPENDIX.

REPORT ON NATIONAL DEPOSIT FRIENDLY SOCIETY.

(*Considered by the Annual Representative Meeting at Oxford, 1904.*)

The Medico-Political Committee has fully inquired into the relation of the work of the National Deposit Friendly Society to that of the medical profession.

Regarded in its relation to the medical profession, the National Deposit Friendly Society differs from other friendly societies (1) in the fact of paying in each district, to certain members of the profession, fees for services rendered; also (2) in that the Society professes to recognize no individual practitioner as distinctly an officer of the Society, but represents that every member may be attended by any registered medical practitioner in the district whom he may select. The medical men thus acting for the Society do so under the special circumstances about to be described.

The scale of fees paid by the Society is determined by Rule XVI, Section XIV, Subsection 1, as follows:—

Subsection 1.—The following charges are authorized to be made by the medical practitioners. They are subject to modifications by the General Committee for special reasons, on the application of any medical officer, and the recommendation of any Divisional Committee:—

MEDICAL CASES.

	£	s.	d.
One visit and medicine for two days	0	2	6
Each intermediate visit in dangerous cases ...	0	1	0
Extra per mile, if beyond two miles (outward). (This charge also applies to surgical cases)	0	0	6
One attendance at surgery and medicine for two days	0	1	6
One fresh supply of medicine for two days ...	0	1	0
If the member is entitled to over 5s. daily sick pay, extra per visit or attendance for every 1s. above 5s.	0	0	6
Extra per visit between the hours of 9 p.m. and 8 a.m. the following day	0	1	0
Extra per attendance at surgery between the same hours	0	0	6

SURGICAL CASES.

Compound fracture of the thigh			
Compound fractures or compound dislocation of the leg	5	0	0
Amputation of leg, arm, foot, or hand			
The operation for strangulated hernia (or rupture) ...			
Treatment of simple fractures or simple dislocations of thigh or leg	3	0	0
Removal of cancerous or other tumours of magnitude	3	0	0
Treatment of dislocations or fractures of the arm ...	1	0	0
Treatment of fracture of clavicle or ribs	1	0	0
Treatment of dislocation of lower jaw	0	10	6
Minor operations without anaesthetic (teeth extraction excepted)	0	10	6
Minor operations with anaesthetic	1	1	0
Passing catheter	0	2	6
Passing catheter, if at patient's house, extra ...	0	2	6
Tooth extraction, if at surgery, or by qualified dentist	0	1	0
Fee to be paid by candidate for examination: For a contribution of 2s. per month	0	1	0
For each 1s., or part thereof, above that amount, extra	0	0	6

The rates prescribed under the said rules are, in the opinion of the Committee, too low.

The local agent of the Society often visits the practitioners in a district, and invites them to accept work under the terms of the Society—that is, according to the scale of fees determined by the rule above mentioned.

It naturally follows, when it becomes known that individual medical practitioners will accept the Society's scale, that those members of the public who belong to the Society will employ those practitioners, to the exclusion of their neighbours, and thus underselling is brought about.

There is the further danger that the scale of fees of the Society will become recognized in the district as adequate and customary.

To be consistent with the claim stated in Clause (2), the wording of the rule cited should be altered so as to make clear that the provisions as to fees, stated therein, relate entirely to the agreement between the Society and its members, and do not affect the charges made by medical practitioners to members of the Society.

The Committee has had evidence before it, moreover, that in point of fact medical officers are appointed by the Society, either as consultants or otherwise, and that their names have been published in prospectuses issued by Divisions of the Society. On this point it is stated by the general secretary of the Society that the appointment of these medical officers is purely honorary.

It is also to be noted that the Society does, in fact, in each district distinguish between those medical practitioners who have indicated willingness to accept the scale of charges drawn up by the Society, and those who have not.

CONCLUSION.

Until the rules of the Society are amended it is not, in the opinion of the Committee, desirable that individual medical men should allow themselves to be recognized, directly or indirectly, as specially acting for the Society in any district, or as willing to accept payment on the scale laid down in the rules of the Society.

PUBLIC HEALTH BILL.

QUALIFICATION AND TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH AND SANITARY INSPECTORS.

The Annual Representative Meeting at Oxford approved the principle of seeking legislation to give security of tenure to medical officers of health and sanitary inspectors. The matter has since been under the consideration of the Public Health and Medico-Political Committees, and the following Bill prepared by these Committees has been approved by the Council. The Bill is now brought under the notice of the Divisions in order that they may seek for it the support of the Members of Parliament and candidates for Parliamentary representation in their respective districts.

MEMORANDUM.

The main objects of this Bill are to ensure that none but those properly qualified shall be appointed as medical officers of health or sanitary inspectors and to give all such officers and inspectors similar security in their tenure of office to that enjoyed by poor law medical officers and metropolitan medical officers of health. As the law stands no qualification is required for a sanitary inspector except in London and as a general rule a medical officer of health or sanitary inspector is appointed from year to year only and thus has no true security of tenure. Poor law medical officers and metropolitan officers of health are not appointed for limited periods only and are removable only by or with the consent of the Local Government Board.

The duties of medical officers of health and inspectors are so important and responsible that they ought to be entrusted only to fully qualified persons whose position is satisfactorily secured.

Except in London urban sanitary authorities have no legal power to appoint more than one sanitary inspector. It is

desired to extend the metropolitan powers to all urban sanitary districts.

In London the sanitary inspector is so called by law but outside London the law names him "inspector of nuisances." It is proposed that the London name shall be universally used.

ARRANGEMENT OF CLAUSES.

	CLAUSE.
Qualification of medical officers of health and sanitary inspectors	1
Tenure of office	2
Urban authority may appoint several sanitary inspectors ...	3
Administrative provisions	4
Definition of "sanitary inspector"	5
Saving for officers of Local Government Board and County Councils	6
Repeal of enactments	7
Extent of Act...	8
Construction of Act	9
Short title and commencement of Act	10

A BILL

To amend the law relating to the qualification and tenure of office of Medical Officers of Health and Inspectors and for other purposes.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

1. *Qualification of medical officers of health and sanitary inspectors.*—(1) A person shall not after the twenty-ninth day of September One thousand nine hundred and eight be appointed a medical officer of health unless he is a duly qualified practitioner and unless either—

(*a*) He is registered on the medical register as the holder of a diploma in sanitary science public health or state medicine under section 21 of the Medical Act 1886 or

(*b*) He has for three successive years before the commencement of this Act served as a medical officer of health of a district or combination of districts with a population according to the last published census of not less than fifty thousand or

(*c*) The Local Government Board consents to his appointment.

(2) A person shall not after the twenty-ninth day of September One thousand nine hundred and eight be appointed a sanitary inspector unless either

(*a*) He is the holder of a certificate of such body as the Local Government Board may from time to time approve that he has by examination shown himself competent for the office or

(*b*) He has for three consecutive years before the commencement of this Act served as a sanitary inspector of a district or combination of districts with a population according to the last published census of not less than twenty thousand or

(*c*) The Local Government Board consents to his appointment.

2. *Tenure of office.*—(1) A medical officer of health or sanitary inspector shall not hold office nor be appointed for a limited period only and shall be removable only subject to an appeal to the Local Government Board.

(2) This section shall apply to every medical officer of health or sanitary inspector whether appointed before or after the commencement of this Act and notwithstanding any contract to the contrary.

3. *Urban authority may appoint several inspectors.*—An urban authority shall have power to appoint two or more sanitary inspectors.

4. *Administrative provisions.*—(1) Section 24 of the Local Government Act 1888 shall be construed as if in subsection 2 thereof the reference to regulations made by order under the Public Health Act 1875 included a reference to this Act or regulations made by order hereunder.

(2) Save as in this Act expressly provided nothing herein contained shall abridge or diminish the powers conferred upon the Local Government Board by the Public Health Acts or the Public Health (London) Act 1891.

5. *Definition of "Sanitary inspector," 38 and 39 Vict. c. 55, 54 and 55 Vict. c. 76.*—In this Act the expression "sanitary inspector" includes an inspector of nuisances and a sanitary inspector appointed under the Public Health Act, 1875, or the Public Health (London) Act, 1891, and an inspector of nuisances shall henceforth be designated a sanitary inspector.

6. *Saving for Officers of Local Government Board and County Councils 51 and 52 Vict. c. 41.*—Nothing in this Act shall apply to a medical officer of health or sanitary inspector appointed by the Local Government Board or by the council of any county under the Local Government Act 1888.

7. *Repeal of Enactments.*—The enactments specified in the schedule to this Act are hereby repealed as from the twenty-ninth day of September One thousand nine hundred and eight to the extent mentioned in the third column of that schedule.

8. *Extent of Act.*—This Act shall not extend to Scotland or Ireland.

9. *Construction of Act, 54 and 55 Vict. c. 76.*—This Act shall be read as one with the Public Health Acts and so far as this Act applies to London with the Public Health (London) Act 1891.

10. *Short Title and Commencement of Act.*—This Act may be cited as the Public Health (Officers) Act 1905 and shall come into operation on the twenty-ninth day of September One thousand nine hundred and five.

SCHEDULE.

ENACTMENTS REPEALED.

Section and Chapter.	Title or Short Title.	Extent of Repeal.
54 and 55 Vict., c. 76 (1891)	... The Public Health (London) Act, 1891.	Section 108, subsection (2).

REVACCINATION BILL.

The following is the text of the Revaccination Bill promoted by the Imperial Vaccination League. It was reported to the Representative Meeting at Oxford, and approved. It passed through the House of Lords last year, but was not considered by the Commons. The Medico-Political and Public Health Committees recommend that the Divisions should seek to enlist the support of Members of Parliament and Parliamentary candidates for their respective districts for the Bill, which will be reintroduced in the next session of Parliament.

MEMORANDUM.

This Bill proposes to apply to revaccination the provisions of the Vaccination Acts, 1867 to 1898, subject to the same safeguards, penalties, and exemptions, and subject in particular to the provisions of the first paragraph of Section 2 of the Vaccination Act, 1898, exempting the "conscientious objector" from penalties.

ARRANGEMENT OF CLAUSES.

	CLAUSE.
Revaccination within six months after age of twelve. ...	1
No penalties in certain cases	2
Certificate of successful revaccination to be transmitted to vaccination officer	3
Lists of school children to be furnished	4
Contracts to be made by guardians...	5
Appointment of public vaccinators and vaccination officers ...	6
Incorporation of certain provisions of Vaccination Acts, 1867 to 1898	7
Application of Act to children whether primarily vaccinated or not	8
Saving as to provisions of Vaccination Acts, 1867 to 1898, with regard to revaccination	9
Scotland or Ireland	10
Commencement...	11
Short title	12
SCHEDULE.	

A BILL

To provide for the Revaccination of Children after the Age of Twelve.

Whereas it is expedient to provide for the revaccination of children after the age of twelve years:

BE it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Revaccination within six months after age of twelve.*—From and after the commencement of this Act the parent or other person having the custody of a child shall cause the child within six months of its attaining the age of twelve

years, to be revaccinated either by a public vaccinator in the manner hereinafter provided, or by some medical practitioner, and in the event of the revaccination being unsuccessful, such parent or other person shall cause the child to be forthwith again revaccinated.

2. *No penalties in certain cases.*—(1) No parent or other person shall be liable to any penalty under section twenty-nine or section thirty-one of the Vaccination Act, 1867, as incorporated with this Act, if, within four months from the time of such child attaining the age of twelve years, he satisfies two justices in petty session that he conscientiously believes that revaccination would be prejudicial to the health of the child, and within seven days thereafter delivers to the vaccination officer for the district a certificate by such justices or magistrate of such conscientious objection.

(2) This section shall come into operation on the passing of this Act, but in its application to a child who shall have attained the age of twelve years before the passing of this Act there shall be substituted for the period of four months from the date of such child attaining the age of twelve years the period of four months from the passing of this Act.

3. *Certificate of successful revaccination to be transmitted to vaccination officer.*—Every public vaccinator who shall have performed the operation of revaccination upon any child, and have ascertained that the same has been successful, shall, within twenty-one days after the performance of the operation, transmit by post or otherwise to the vaccination officer a certificate in such form as may be prescribed by the Local Government Board, certifying that the said child has been successfully revaccinated, and the fee or remuneration to be received by the public vaccinator in respect of such revaccination shall be determined in accordance with section twenty-two of the Vaccination Act, 1867, as incorporated with this Act.

4. *Lists of school children to be furnished.*—(1) The local education authority of every district as defined in the Education Acts, 1870 to 1903, the headmaster or headmistress of every school which is not under the control of the local education authority, the master of every workhouse, and the head of every orphanage in every district, within fourteen days after the *first day of May*, and also within fourteen days after the *first day of November*, in each year, shall prepare or cause to be prepared a list of all children attending any school, or who may be in any workhouse or orphanage under their or his or her supervision, direction, or care, who shall have attained the age of twelve years in the six months then next preceding, and shall transmit such list by post or otherwise to the vaccination officer of the district in which such school, workhouse, or orphanage is situate.

(2) There shall be paid by the guardians to every person forwarding any such list in accordance with this section such fee as may be ordered by the Local Government Board.

(3) Every person who shall refuse or neglect to prepare and forward, or cause to be prepared and forwarded, any such list in accordance with the provisions of this section, shall be guilty of an offence, and shall be liable to be proceeded against summarily, and upon conviction to pay a penalty not exceeding forty shillings.

5. *Contracts to be made by guardians.*—The guardians shall, with the consent of the Local Government Board, make stipulations and conditions in their contracts to secure the due revaccination of all children between the ages of twelve and thirteen, and the observance of all the provisions of this Act on the part of the public vaccinator; and no contract for such revaccination shall be valid until the same has been approved of by the Local Government Board, and such Board may, at any time after such contract shall have been approved of by them, determine the same either forthwith or at a future day.

6. *Appointment of public vaccinators and vaccination officers.*—The provisions of the Vaccination Acts, 1867 and 1898, relating to the appointment, duties, and remuneration of public vaccinators and vaccination officers shall be construed as applying to this Act.

7. *Incorporation of certain provisions of Vaccination Acts, 1867 to 1898.*—Subject to the provisions of this section the provisions of the Vaccination Acts, 1867 to 1898, mentioned in the schedule to this Act are hereby incorporated with and declared to form part of this Act: Provided that in each and every of such incorporated provisions there shall be substituted for the words "vaccinating," "vaccinate," or "vaccinates," wherever they occur, the words "revaccinating," revaccinate," or "revaccinates" respectively; for the word "vaccinated," wherever it occurs, the word "revaccinated"; and for the word "vaccination," wherever it occurs (except when it occurs in conjunction with the word "officer"), the word "revaccination";

Provided also that there shall be inserted after the words and figures "Vaccination Act, 1867," wherever they occur in the said incorporated provisions, the words "as incorporated with this Act";

Provided also that there shall be substituted for the forms marked "B," "C," and "D," referred to in sections eighteen, twenty, and twenty-three respectively of the Vaccination Act, 1867, as incorporated with this Act, such forms as may be issued by the Local Government Board; Provided also that in section thirty-one of the Vaccination Act, 1867, as incorporated with this Act, there shall be substituted for the words "under the age of fourteen," which occur in the said section, the words following, that is to say, "above the age of twelve."

8. *Application of Act to children whether primarily vaccinated or not.*—The provisions of this Act with regard to revaccination shall apply to every child between the ages of twelve and thirteen years, whether or not such child shall have been previously vaccinated, either in accordance with the provisions of the Vaccination Acts, 1867 or 1898, or otherwise, and whether or not such child shall have been granted a certificate of exemption in accordance with section two of the Vaccination Act, 1898.

9. *Saving as to provisions of Vaccination Acts, 1867 to 1898, with regard to revaccination.*—Nothing in this Act shall be taken to repeal or modify any of the provisions of the Vaccination Acts, 1867 to 1898, with regard to revaccination.

10. *Scotland or Ireland.*—This Act shall not extend to Scotland or Ireland.

11. *Commencement.*—This Act shall come into operation on the *first day of January one thousand nine hundred and five.*

12. *Short Title.*—This Act may be cited as the Revaccination Act, 1904.

SCHEDULE.

Table of Provisions of the Vaccination Acts, 1867 to 1898, which are Incorporated with this Act by and Subject to the Provisions of Section 7 of this Act.

Session and Chapter.	Short Title.	Provisions Incorporated.
30 and 31 Vict. c. 84	The Vaccination Act. 1867	Sections 10, 18, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 33, 34, and 35.
34 and 35 Vict. c. 98	The Vaccination Act. 1871	Sections 4, 5, 6, 7, 11, 12, 14, 15, 16, 17, and so much of the schedule of repeals as affects Section 23 of the Vaccination Act, 1867.
61 and 62 Vict. c. 49	The Vaccination Act. 1898	Section 2, Subsection (1), Sections 3, 5, 6, and 9, and so much of the schedule of repeals as affects Sections 20 and 29 of the Vaccination Act, 1867, and Section 11 of the Vaccination Act, 1871.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

FIFE BRANCH AND DIVISION.

An ordinary general meeting of this Branch was held at Thornton on December 14th. Dr. T. G. Nasmyth, Medical Officer of Health for the County, President, occupied the chair. There was a small meeting, only nine members being present, although twenty-five had intimated their intention of being present, and apologies for absence were received from twenty-nine others.

Matters Referred to Divisions.

The meeting considered the various matters referred to the Divisions from the Representative Meeting, namely:

I. *Contract Medical Practice.*—As this subject had already been before the Division, in the shape of circulars to which replies were requested, it was not considered further.

II. *Consultation between Medical Witnesses.*—The Division had already considered this subject also, at a general meeting held on April 7th, and saw no reason to alter the opinion then expressed, namely, "that even if legal, such a course was not advisable, so far as Scotland is concerned."

III. and IV. *Information to Coroners*, and *Reorganization of Local Government Board.*—As these do not refer to Scotland, the Division agreed not to offer any opinion thereupon.

Medical Acts Amendment Bill.—The HONORARY SECRETARY reported that the Division had on two occasions considered the Bill, first on October 15th, 1903, and again on June 30th last, and on each occasion had expressed its general approval of the measure; that on the first occasion exception was taken to the vagueness of the information regarding the State Final Examination, but that this has been remedied in the rearranged Bill now published; and also that the Division had objected to the impracticability of the proposal to display various nameplates of assistants, and *locums*, and that this has also been amended in the later Bill. On the present occasion the Division had before it this Bill, and the explanatory memorandum of the Medico-Political Committee, and, as requested therein, considered, *seriatim*, the epitome of the Bill as contained in certain propositions stated in the memorandum. The Division expressed its approval of all these, with the exception of Clause D, No. 2, in the epitome, relating to the State Final Examination, annual registration and fee, and the privilege of using the prefix "Dr.," and Dr. DICKSON moved the deletion of this clause *in toto*, seconded by Dr. AITKEN. Dr. LAING moved the approval of the clause, seconded by the SECRETARY, and on a vote the motion was carried by 7 votes to 2, sixty-four members being absent. With regard to the schedule of electoral areas as contained in the Bill, the Division expressed its entire approval.

Prevention of the Abuse of Drugs.—The Division expressed its approval of the report of the Medico-Political Committee on this subject, as also of their recommendations regarding prescriptions, and proprietary articles, and drugs. The Division also considered the question of circularizing non-members of the Association, resident in the Division, with a view to their becoming members, and the SECRETARY suggested that he might prepare a list of all such, to be submitted to the Council of the Branch, with a view to such action being taken as was considered advisable, and this was agreed to. Dr. LAING, the Representative of the Division at Representative Meetings, gave a verbal report of his attendance at these meetings at Oxford, and agreed to submit a written report for the consideration of the Division at a later meeting. He was accorded a vote of thanks.

Address by Mr. Chiene.—At the conclusion of the meeting, the members present were joined by Professor Chiene, C.B., Edinburgh, and by several additional members of the Branch. Mr. CHIENE gave an address, the subject of which was Movement is Life, and dealt with the treatment of sprains and fractures, accidental and operation wounds, in which he recommended that massage with gentle early movement of the parts should always be carried out. He advocated the employment of voluntary movement in preference to passive movement. He spoke of rheumatic pains after injury as due to a toxin formed in the intestines, giving rise to a local toxaemia, and pointed out that stagnation in the great gut predisposed to the formation and absorption of the toxin. He also spoke on the subject of appendicitis, and advanced the theory of its causation which he had advocated for the last ten years. This was the position usually adopted at defaecation, which he said was unnatural, and tended to dilatation of the caecum, consequent inertia of the part, and escape of toxic material into the appendix and its surroundings. With regard to prevention, he recommended for all, and especially for children, who, as they grew older, departed from their original method of defaecation, the "cuddy-hunker" position during that operation—a position which permitted of a much freer and more copious evacuation of the bowel. He related his experiences in South Africa amongst the soldiers which bore out these statements, and mentioned the fact that appendicitis had been, so far as his knowledge went, almost an unknown affection in that country during the war. Stagnation and stasis of the blood and lymph flow in the immediate neighbourhood of the injured area retarded healing after surgical injuries and operations. The inability to use the limb after a fracture had united was due to the immobility of the soft tissues around the fracture. The same held true after operations and accidental wounds.

At the termination of Mr. Chiene's address several members took part in a discussion, and Mr. Chiene was accorded a hearty vote of thanks.

Dinner.—The members thereafter dined together, Dr. Nasmyth, President, occupying the chair, and Dr. Hay, President-elect was croupier. In addition to Professor Chiene, there were also present as guests Mr. Joseph Budge, Vice-Convener of the county; Mr. Niel Ballingal, County Councillor; Rev. D. M. Wilson, Parish Church, Thornton; and Dr. Mair, Assistant County Medical Officer of Health.

Association Notices.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1905.

MEETINGS of the Council will be held on Wednesdays, January 18th, April 19th, July 5th, and October 18th.

The January meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 2 o'clock in the afternoon of Wednesday, January 18th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

The following Committees will also meet:

Tuesday, January 17th, 1905.—Premises and Library Committee, 2.30 p.m.—Superannuation Committee, 5.0 p.m.—Trust Funds Committee, 4.30 p.m. *Wednesday, January 18th, 1905.*—Journal and Finance Committee, 10.0 a.m.

January 10th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The usual clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 17th. Members desirous of showing patients or specimens will please communicate with one of the Secretaries. The annual dinner will be held in the evening, in the Royal British Hotel.—NORMAN WALKER, 7, Manor Place, Edinburgh; A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CENTRAL DIVISION.—A general meeting will be held at the rooms of the Medical Society of London, Chandos Street, W., on Thursday, January 19th, at 4.30 o'clock. Agenda: (1) Minutes. (2) Correspondence. (3) Consideration of a letter from the Organization Committee, with reference to increasing the membership of the Association. (4) To consider matters referred to Division by instruction of the Annual Representative Meeting. (*a*) Report on contract practice. The Division is asked to consider what resolutions the Representative Meeting should adopt. (*b*) Consultation of medical witnesses in legal cases. (*c*) Note regarding information to coroners communicated with a view to future action, if required. (*d*) Reorganization of the Local Government Board. To consider the advisability of urging the appointment of a Royal Commission on the subject. (*e*) Medical Acts Amendment Bill. To pronounce on the principles as formulated in an epitome prepared by instruction of the Representative Meeting. (*f*) Prevention of the abuse of drugs. Consider recommendations by the Medico-Political Committee. (*g*) Payment of medical men called in to assist midwives. Consider how statutory provisions, if any, can best be made.—COMYNS BERKELEY, M.B., M.R.C.P., 35, Wimpole Street, Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—A meeting will be held at St. George's Hospital, Hyde Park Corner, on Friday, January 20th, at 8.30 p.m.—Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) To receive resignation of Chairman and a member of Committee; Executive Committee's appointments to the vacant posts. (5) To hear statement by the Representative *re* Oxford Meeting. (6) To consider Memorandum on the Payment of Medical Practitioners called in to assist Midwives, and record votes on the questions raised. (7) To consider Memorandum on matters referred to Division by Medico-Political Committee (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904). (8) Dr. William Ewart opens a discussion on the Place of Sugar in our Dietary in Health and in Disease (cases and specimens will be shown). Members are invited to bring friends.—W. KNOWSLEY SIBLEY, 70, Duke Street, Grosvenor Square, Honorary Secretary.

PERTHSHIRE BRANCH.—At a meeting of Council held on Friday, December 16th last, it was decided, in view of the unsuitability of the present time for calling a meeting of the Branch, to ascertain the views of the members by writing on the matters which the Annual Representative Meeting decided should be referred to Divisions. Members are requested to send early replies to the Medico-Political Committee. The questions are as follows:—1. The interim report on contract practice: (1) Necessity of contract practice; (2) medical control; (3) distribution of work; (3A) Friendly Societies—choice of medical attendant; (4) minimum rate; (5) exclusive of infants; (6) provision against abuse; (7) special services. 2. The desirability of consultation between medical witnesses in legal cases likely to be brought before the court. Details of the questions will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904. The clinical meeting will be held in the Perth Infirmary on Friday, February 10th, at 3.45 p.m. Any members wishing to show

cases might kindly communicate with the Secretaries by January 31st. —WILLIAM A. TAYLOR and ALEXANDER TROTTER, Joint Honorary Secretaries, 10, Marshall Place, Perth.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—A clinical meeting will be held at the Cardiff Infirmary on Thursday, January 19th, at 3.30 p.m. Members are reminded that medical friends will be made welcome. Tea will be provided. Agenda: (1) Minutes of previous ordinary and special meetings. (2) To elect an assessor to represent the Division on the Maternity Committee of the Queen's Nurses Institute. (3) Thomas Wallace: A Case of Trephining for Old Head Injury (patient shown). (4) Cornelius A. Griffiths: A Case of Operation for Perforated Gastric Ulcer (patient shown). (5) William Sheen: A Case of Rupture of the Pancreas: Operation; Recovery (patient shown). (6) R. Russell Thomas: A Case of Tumour of the Orbit (patient shown). (7) J. Tatham Thompson and F. P. S. Cresswell: Pathological Specimens. (8) D. R. Paterson: Two Foreign Bodies removed from the Larynx by means of Direct Laryngoscopy. (9) William Martin: (*a*) A Case of Closure of the Mouth due to Ossification of the Masseter Muscle; Operation (skiagraph and patient shown); (*b*) a Case of Thrombosis of Sigmoid Sinus; Excision of nearly Five Inches of Internal Jugular Vein (patient shown). (10) Ewen J. Maclean: A Case of Elephantiasis of Vulva and Right Leg (specimen and patient shown).—EWEN J. MACLEAN, Cardiff, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON J. O. F. WHICHER has been placed on the retired list at his own request, January 1st. Appointed Surgeon, August 21st, 1884, he was made Fleet Surgeon, August 21st, 1900.

The following appointments have been made at the Admiralty: VIDAL G. THORPE, Fleet Surgeon, to the *Victorious*, January 20th; THOMAS C. MEIKLE, M.B., B.A., Staff Surgeon, to the *Majestic*, January 4th; CHARLES J. E. COCK, Surgeon, to the *Vernon*, additional, for the *Furious*, on commissioning, January 6th; JOHN WHELAN, Surgeon, to the *Vivid*, January 4th; THOMAS H. VICKERS, Surgeon, to the *Wildfire*, additional, for the *Endymion*, on commissioning, January 18th; JOHN H. LIGHTFOOT, Surgeon, to the *Excellent*, January 6th; NELSON J. ROCHE, Surgeon, to the *Vivid*, additional, for Plymouth Hospital, January 6th; WILLIAM H. THOMSON, Surgeon, to the *Russell*, January 6th; GEORGE M. D. RICHARDS, Surgeon, to the *Fire Queen*, January 6th; ARTHUR D. C. CUMMINS, Surgeon, to the *Drake* on recommissioning, February 1st; HENRY WOODS, M.B., Surgeon, to the *Vivid*, additional to be lent to the *Circe*, February 1st; EDWARD H. MEADEN, Fleet Surgeon, to the *Brilliant*, January 1st.

ROYAL ARMY MEDICAL CORPS.

SURGEON-LIEUTENANT-COLONEL J. MAGILL, M.D., C.B., from the Coldstream Guards, to be Lieutenant-Colonel, vice J. I. Routh, promoted, with seniority next above P. H. Johnston, M.D., C.M.G., December 3rd, 1904. Lieutenant-Colonel Magill entered the service as Surgeon, May 3rd, 1876; became Surgeon-Major, December 9th, 1885; and Surgeon-Lieutenant-Colonel, May 3rd, 1896. He was first appointed to the Coldstream Guards, and has served continuously with that regiment until now. He was in the Soudan expedition in 1884-5, with Guards Camel Regiment; action of Abu Klea (severely wounded, mentioned in dispatches, medal, with two clasps, bronze star). He was also in the South African War, 1899-1902, as P.M.O. of Division, from April 16th, 1900, including actions at Belmont, Enslin, Modder River, and Magersfontein; in the Orange Free State, February to May, 1900, including actions at Poplar Grove, Dreifontein, Vet River (May 5th and 6th) and Zand River; in the Transvaal in May and June, 1900, including actions near Johannesburg, Pretoria, and Diamond Hill (June 11th and 12th); east of Pretoria, July to November 29th, 1900), including action at Belfast, (August 26th and 27th); west of Pretoria, November, 1900; and in Cape Colony (mentioned in dispatches, Queen's medal with 6 clasps, King's medal with 2 clasps; C.B.).

Captain W. J. P. ADYE-CURRAN is placed on temporary half-pay on account of ill-health, December 23rd. He joined as Lieutenant, April 25th, 1900, and became Captain, April 25th, 1903. He was in the South African war in 1899-1901.

Captain A. J. M. CUDDON-FLETCHER resigns his commission, January 11th. His commission as Lieutenant dates from December 4th, 1899, and that of Captain from December 4th, 1902. He served in the South African war in 1899-1900.

Lieutenant L. COTTERILL is promoted to be Captain (provisionally), December 5th, 1904. His first appointment dates from December 5th, 1901.

A CORRECTION.—In the notice of the resignation by Surgeon-Lieutenant Colonel D. S. Davies, M.D., of his commission in the Royal Garrison Artillery (Volunteers) last week he was incorrectly described as Surgeon-Lieutenant.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,181 births and 5,955 deaths were registered during the week ending Saturday last, January 7th. The annual rate of mortality in these towns, which had been 19.2, 19.4, and 22.4 per 1,000 in the three preceding weeks, declined again last week to 19.9 per 1,000. The rates in the several towns ranged from 10.0 in Leyton, 10.5 in Hornsey, 10.8 in Smethwick, 12.6 in Walthamstow, 12.7 in King's Norton, 12.8 in Leicester, 13.0 in Northampton, and 13.4 in Bournemouth, to 25.0 in Hanley, 25.8 in Huddersfield, 26.9 in Great Yarmouth, 27.8 in Coventry, 28.7 in Sunderland, 28.8 in Nottingham, 30.0 in West Bromwich, 31.4 in Grimsby, 31.8 in Stockton-on-Tees, and 37.4 in Merthyr Tydfil. In London the death-rate was 18.5 per 1,000, while it averaged 20.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.3 per 1,000; in London this death-rate was equal to 1.0 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.2 in Stockport and in Preston, 3.4 in East Ham, 3.5 in Nottingham, 4.6 in Grimsby, 6.0 in Stockton-on-Tees, and 6.2 in Merthyr Tydfil. Measles caused a death-rate of 1.1 in Middlesbrough, 1.3 in East Ham, 1.5 in Grimsby, 1.8 in Plymouth, 1.9 in Nottingham, 2.0 in Burton-on-Trent, 4.0 in Stockton-on-Tees, and 4.9 in Merthyr Tydfil; scarlet fever of 1.4 in Southampton, and 1.7 in Northampton; diphtheria of 1.1 in Bradford, 1.2 in Rochdale, 1.3 in East Ham, and 2.0 in Stockton-on-Tees; whooping-cough of 1.2 in Nottingham, 1.8 in Norwich, 1.9 in South Shields and in Tynemouth, 2.7 in Preston, and 3.2 in Grimsby; and diarrhoea of 1.3 in Derby, 1.7 in Handsworth (Staffs.), and 2.1 in Merthyr Tydfil. The mortality from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Oldham, 1 in Burnley, and 1 in Bradford, but none in any other of the seventy-six towns. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 6, 14, and 17 at the end of the three preceding weeks, had further risen to 18 at the end of last week; 1 new case was admitted during the week, against 2, 9, and 5 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital at the end of last week was 2,308, against 2,403, 2,393, and 2,386 at the end of the three preceding weeks; 187 new cases were admitted during the week, against 242, 242, and 201 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 7th, 955 births and 690 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.6, 21.2, and 21.6 per 1,000 in the three preceding weeks, declined again to 20.6 per 1,000 last week, but was 0.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 15.4 in Leith and 16.3 in Greenock to 21.3 in Perth and 22.8 in Glasgow. The death-rate from the principal infectious diseases in these towns averaged 2.4 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 354 deaths recorded in Glasgow included 3 which were referred to measles, 26 to whooping-cough, 4 to "fever," and 6 to diarrhoea. Two fatal cases of measles, 3 of diphtheria, 2 of whooping-cough, and 4 of diarrhoea were recorded in Edinburgh; 2 of diarrhoea in Dundee; 7 of measles, 3 of scarlet fever, 2 of whooping-cough; and 1 of typhus in Aberdeen; 2 of whooping-cough in Paisley; 2 of measles in Leith; and 2 of whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 31st, 1904, 521 births and 407 deaths were registered in six of the principal Irish towns, against 455 births and 388 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.4, 27.1, and 20.3 per 1,000 in the three preceding weeks, rose to 20.4 in the week under notice, this figure being 1.0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 12.6 in Londonderry and 17.8 in Limerick to 25.0 in Dublin and 25.3 in Waterford. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.8 per 1,000, or 0.2 per 1,000 higher than during the preceding period, the highest figure, 4.3, being recorded in Dublin, while Londonderry and Limerick registered no deaths under this heading at all. The deaths from measles showed a further increase, 35 being recorded. From small-pox 1 death occurred in Belfast, from diphtheria 2 deaths in Belfast, from scarlet fever 1 in Dublin, 2 in Belfast, and 1 in Waterford.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ABERGAVENNY: MONMOUTHSHIRE ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £150 per annum.

BIRMINGHAM: JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill.—Resident Medical and Surgical Officer. Salary, £150 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—Resident Medical Officer. Salary, £70 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon, resident. Salary, £100 per annum.

CAMBERWELL INFIRMARY.—Assistant Medical Officer, resident. Salary, £110 per annum, increasing to £120.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—(1) House-Surgeon, non-resident. Honorarium, 40 guineas per annum. (2) Second Assistant Anaesthetist.

CHESTER GENERAL INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—(1) Anaesthetist. (2) Clinical Assistant.

COVENTRY AND WARWICK HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.

DUDLEY DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Senior Assistant Medical Officer, resident. Salary, £300 per annum.

FRENCH HOSPITAL AND DISPENSARY, Shaftesbury Avenue, W.C.—Assistant Resident Medical Officer. Honorarium £40, and full board.

GROCERS' COMPANY.—Two Scholarships in Sanitary Science. £300 a year each.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Assistant Casualty Medical Officer, resident. Salary, £20 for six months and washing allowance. (2) Assistant Physician.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Physician.

HUDDERFIELD DISPENSARY.—(1) One Physician. (2) Two Surgeons. (3) One Ophthalmic and Aural Surgeon.

LIVERPOOL DISPENSARIES: Head Surgeon, resident. Salary, £200 per annum.

LIVERPOOL COUNTY ASYLUM, Rainhill.—Assistant Medical Officer, resident. Salary, £150 per annum, increasing to £250.

MANCHESTER: CHORLTON-UPON-MEDLOCK DISPENSARY.—Honorary Medical Officer.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Medical Officer to In-patient Department at Bowdon. Salary, £100 per annum.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Anaesthetist.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Director of Neuro-Pathological Research. Salary, £250 per annum.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, £180 afterwards.

NEW ZEALAND: UNIVERSITY OF OTAGO.—Professor of Physiology. Salary, £600 per annum and half of the class fees.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL: (1) House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £60 per annum respectively.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS, AND WESTOE DISPENSARY.—Senior House-Surgeon, male, resident. Salary, £100 per annum.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon, resident. Salary, £80 per annum

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—Honorary Surgeon-in-Ordinary.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea, S.W.—House-Surgeon, resident. Honorarium, £25 for six months.

APPOINTMENTS.

CORNER, Edred M., M.A., M.B., F.R.C.S., Consulting Surgeon to the Bowes Park Cottage Hospital, vice W. H. Allingham, F.R.C.S., deceased.

CUNLIFFE, W., L.R.C.P. and S.Edin., L.F.P.S.Glas., Medical Officer and Public Vaccinator for the Eleventh District of the North Bierley Union, vice J. Jackson, L.R.C.P., F.R.C.S.Edin.

GOODCHILD, N. J., M.R.C.S., L.R.C.P., Medical Officer, St. Pancras Guardians' Receiving Home for Children.

GREIG, Lila S., M.B., Ch.B.Glasg., D.P.H.Camb., Inspector under the Midwives Act, 1902, in the Administrative County of Stafford.

HAY, A. G., M.D.Glasg., Certifying Factory Surgeon for the Maryhill (Glasgow) District, Lanarkshire.

HIGGINSON, J. W., M.R.C.S., L.R.C.P., Medical Officer of Health for the Hayes Urban District.

TYLECOTE, Frank E., M.D., Assistant Medical Officer, Lancashire County Asylum, Winwick.

WATERFIELD, N. E., M.B., B.S.Lond., F.R.C.S.Eng., Inspector (Supernumerary) under the Sudan Government.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ARMOUR.—On the 6th Jan., 1905, at 89, Harley Street, W., the wife of Donald John Armour, M.B., F.R.C.S., of a daughter.

MACLEOD.—On the 10th inst., at 11, Harley Street, Cavendish Square, the wife of T. M. H. MacLeod, M.D., M.R.C.P., of a daughter.

SALEEBY.—On January 5th, at 7, Mandeville Place, W., Monica, the wife of C. W. Saleeby, M.D.Edin., of a daughter.

WILSON.—At 4, Richmond Terrace, Felling-on-Tyne, on the 3rd inst. the wife of James Wilson, M.B., Ch.B., of a son.

MARRIAGES.

CAMPBELL—TAIT.—On 7th inst., at St. Marks, North Audley Street, London, W., by the Rev. J. H. Ellison, M.A., Vicar of Windsor, assisted by the Rev. R. H. Hadden, B.A., Vicar of the Parish, Robert Brown Campbell, M.B., Physician Superintendent, District Asylum, Inverness, to Margaret Amelia, only daughter of William Tait, M.V.O., Shaw Farm, Windsor.

FOWLER—PHILP.—At Bombay, on the 3rd December, 1904, by the Rev. Ryder-Smith, B.A., George Fowler, Captain, Indian Medical Service, to Henrietta Louisa, second daughter of the late Alfred Philp, of Nottingham, and of Mrs. Philp, of Falmouth.

HOLYOAK—NIXON.—On January 5th, at St. Peter's Church, Claybrooke, by the Rev. C. F. Hayter, Vicar, assisted by the Rev. W. J. Thompson, Vicar of Holy Trinity, Leicester, Ernest William Holyoak, M.B.Lond., L.R.C.P., M.R.C.S., to Evelyn Mary Grace, only daughter of the late Thomas Nixon, Claybrooke, and of Mrs. Nixon, Abbotsford, Nestleigh Road, Leicester.

WATKINS—YOUNG.—On the 4th January, at S. Saviours, Pimlico, by the Rev. Alan P. Watkins, M.A., Arthur M. Watkins, M.R.C.S., L.R.C.P., of Whitchurch, Salop, eldest son of the late John Webb Watkins, M.D., of Newton-le-Willows, to Laura Annie Burdett, second daughter of the late John Frederick Young and Mrs. Young, of Reading.

DEATHS.

BRAIDWOOD.—On January 7, at Henwick, Newbury, P. Murray Braidwood, M.D., F.R.C.S., only son of the late Rev. John Braidwood of Madras and Edinboro', aged 63. No cards.

WILSON.—On New Year's Day, very suddenly, at his residence, 22, High Street, Wavertree, Liverpool, aged 64 years, Henry Wilson, M.D., M.R.C.S., L.S.A.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY, 20, Hanover Square, 8.30 p.m.—Papers:—Messrs. W. C. C. Pakes and F. H. Joseph: A Note on the Use of Acid Media in the Isolation of B. Pestis. Mr. F. H. Joseph: Fugent—a New Stain. Dr. G. G. MacDonald: On the Development and Course of the Opsonins in Cases of Acute Lobar Pneumonia. Dr. W. Bulloch: The Variations in the Opsonic Index in Cases of Tuberculosis.

MEDICO-LEGAL SOCIETY, 22, Albemarle Street, W., 8 p.m.—A Case of Disputed Fracture of the Clavicle, and a Demonstration on the Development of Invisible Finger-prints: Dr. J. G. Garson. Discussion: The Law Relating to the Criminal Responsibility of the Insane, to be opened by Mr. A. Douglas Cowburn.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, W., 5.30 p.m.—Ordinary Meeting. Paper, Climatology from a Medical Standpoint, by Dr. Chas. W. Buckley (Buxton).

ROYAL METEOROLOGICAL SOCIETY, Institution of Civil Engineers, Great George Street, S.W., 7.30 p.m.—Annual General Meeting. Presidential Address: The Connexion of Meteorology with other Sciences.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, 8 p.m.—President's Address.

FRIDAY.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5.30 p.m.—Cases and specimens will be shown by Dr. W. H. Kelson, Dr. A. Morison, Dr. Leonard Guthrie, Mr. George Pernet, Mr. Francis Jaffrey, Mr. Donald Armour, Dr. Eric Pritchard, Dr. J. G. Emanuel, and Dr. George Carpenter. Paper by Mr. Douglas Drew: On a Case of Vesical, Ureteral, and Renal Calculus in a Child.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Wednesday, 5 p.m.—Practical Demonstration on Nasal and Aural Accessory Sinuses.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m.—Surgical Cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—The Effects of Physical Exercise on the Chest in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Surgery of Simple Ulcer of the Stomach and of its Complications; Tuesday, The After-treatment of Abdominal Operations; Wednesday, The Treatment—especially Intranasal—of Suppuration in the Nasal Sinuses; Thursday, Recent Improvements in the Treatment of Painful and Deformed Feet.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patients' Department and Offices, 7, Fitzroy Square, W.—Thursday, The Examination of the Heart and What may be Learned from it.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Tuesday, 3.30 p.m., Bulbar Paralysis; Friday, 3.30 p.m., Speech Defects in Nervous Diseases.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Monday, Dysentery; Thursday, Uterine Displacements.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road.—The following Lectures have been arranged for next week: Monday, 5 p.m., Treatment of Various Diseases; Tuesday, 3 p.m., Clinical Varieties of Insanity, with Demonstration, in Pathological Laboratory, Claybury Asylum; Wednesday, 5 p.m., Practical Medicine; Thursday, 5 p.m., Diagnosis in Cardiac Murmurs; Friday, 5 p.m., Treatment of Various Diseases.

BOOKS, ETC., RECEIVED.

Lehmann's medicin. Handatlanten. Band xvi. Atlas und Grundriss der chirurgischen Operationslehre. Von Dr. Otto Zuckerkandl. Dritte Auflage. München: J. F. Lehmann. 1905. M.12.

Lehmann's medicinische Handatlanten. Band xxxii. Atlas und Grundriss der Kinderheilkunde. Von Dr. R. Hecker und Dr. J. Trumpp. München: J. F. Lehmann. 1905. M.16.

A Manual of Fever Nursing. By Reynold Webb Wilcox, M.A., M.D., LL.D. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1904. 4s. 6d.

Meals Medicinal, with "Herbal Simples" (of edible parts). By W. T. Fernie, M.D. Bristol: John Wright and Co.; and London: Simpkin Marshall, Hamilton, Kent, and Co., Limited. 1905. 9s.

The Public Schools Year Book. 1905. London: Swan Sonnenschein and Co., Limited. 2s. 6d.

Premature Burial and How it May be Prevented. By William Tebb, F.R.G.S., and Colonel Edward Perry Vollum, M.D. Second Edition. By Walter R. Hadwen, M.D. London: Swan Sonnenschein and Co., Limited. 1905. 6s.

Sanitary Law and Practice. By W. Robertson, M.D.Glas., D.P.H., and Charles Porter, M.D., B.Sc (Pub. Health), M.R.C.P.Edin. London: The Sanitary Publishing Company, Limited. 1905. 10s. 6d.

Simple Methods of Testing Sewage Effluents. By George Thudichum F.I.C. London: The Sanitary Publishing Company. 2s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
January	15...Sunday..	
,,	16...MONDAY ...	
,,	17...TUESDAY ...	LONDON: Premises and Library Committee, 2.30 p.m. ,, Trust Funds Committee, 4.30 p.m. ,, Superannuation Committee, 5.0 p.m.
,,	18...WEDNESDAY	,, Journal and Finance Committee, 10 a.m. ,, Central Council, 2 p.m.
,,	19..THURSDAY...	LONDON: Meeting of Secretaries and Treasurer of the Metropolitan Counties Branch and its Divisions, 5 p.m. Cardiff Division, *South Wales and Monmouthshire Branch*, Cardiff Infirmary, 3.30 p.m. Central Division, *Metropolitan Counties Branch*, Rooms of the Medical Society of London, Chandos Street, W., 4.30 p.m.
,,	20...FRIDAY ...	Westminster Division, *Metropolitan Counties Branch*, St. George's Hospital, 8.30 p.m.
,,	21...SATURDAY...	
,,	22..Sunday..	
,,	23...MONDAY ...	
,,	24...TUESDAY ...	
,,	25...WEDNESDAY	
,,	26...THURSDAY...	LONDON: Hospitals Committee.
,,	27...FRIDAY ...	
,,	28...SATURDAY...	
,,	29...Sunday..	
,,	30...MONDAY ...	
,,	31...TUESDAY ...	Latest day for sending Divisional Annual Report and Financial Statement to Branch Secretary (By-law 9).
February	1...WEDNESDAY.	LONDON: Scientific Grants Committee, 3.30 p.m.
,,	2 THURSDAY...	
,,	3...FRIDAY ...	
,,	4...SATURDAY...	
,,	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	
,,	8...WEDNESDAY	
,,	9 THURSDAY...	
,,	10...FRIDAY ...	Perthshire Branch, Clinical Meeting, Perth Infirmary, 3.45 p.m.
,,	11..SATURDAY...	South-Eastern Counties Division, *Edinburgh Branch*, King's Arms Hotel, Melrose, 3.30 p.m.
,,	12..Sunday..	
,,	13..MONDAY ...	
,,	14..TUESDAY ...	LONDON: Organization Committee.
,,	15...WEDNESDAY	
,,	16...THURSDAY...	
,,	17...FRIDAY ...	Edinburgh Branch Royal Infirmary.
,,	18...SATURDAY...	
,,	19..Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	
,,	23...THURSDAY...	
,,	24...FRIDAY ...	
,,	25...SATURDAY...	

Month.	Day of Week.	Meetings to be Held.
February	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...WEDNESDAY	
,,	2...THURSDAY...	
,,	3 ..FRIDAY ...	
,,	4...SATURDAY...	
,,	5 ..Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	
,,	8...WEDNESDAY	
,,	9...THURSDAY...	
,,	10...FRIDAY ...	
,,	11...SATURDAY...	
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	
,,	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...THURSDAY...	
,,	17...FRIDAY ...	LONDON: Ethical Committee.
,,	18 ..SATURDAY...	
,,	19 . Sunday .	
,,	20 ..MONDAY ...	
,,	21 ..TUESDAY ...	
,,	22...WEDNESDAY.	LONDON: Medico-Political Committee.
,,	23 ..THURSDAY...	
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26 ..Sunday..	
,,	27...MONDAY ...	
,,	28 ..TUESDAY ...	
,,	29...WEDNESDAY	
,,	30...THURSDAY...	
,,	31...FRIDAY ...	
April	1...SATURDAY...	
,,	2...Sunday..	
,,	3...MONDAY ...	
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretary is Dr. Astley V. Clarke, 37, London Road, Leicester: the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 21ST, 1905.

CONTENTS.

	Page
MEETINGS OF BRANCHES AND DIVISIONS:	
Metropolitan Counties Branch: Wandsworth Division	17
Staffordshire Branch.—Some Problems of Public Health, by Edward Deanesly, B.Sc., F.R.C.S...	17
Southern Branch: Portsmouth Division	20
Ulster Branch: Belfast Division	20
ASSOCIATION NOTICES: BRANCH AND DIVISION MEETINGS TO BE HELD	20
VITAL STATISTICS...	21
NAVAL AND MILITARY APPOINTMENTS	21
VACANCIES AND APPOINTMENTS	22
DIARY OF THE WEEK	23
BOOKS RECEIVED...	23
CALENDAR	24

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

METROPOLITAN COUNTIES BRANCH:

Wandsworth Division.

An additional ordinary meeting was held at Clapham Junction on Thursday, January 12th. Present: Dr. George Walker, Chairman; Drs. Swallow, Williams, Robertson, Deas, Powell Evans, Dillon, McManus, Biggs, Wallace, McConnell, Purcell, Spurgin, and the Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Remuneration of Patients Exhibited.—The Committee reported their suggestion of third-class railway fare, an honorarium of 2s. 6d., and light refreshments being offered to patients brought to meetings for exhibition. This was approved.

Selection of Representatives of Association on Boards and Councils.—The following resolutions were proposed by the Honorary Secretary, duly seconded, and approved unanimously, and it was decided to have them put on the agenda of the Representative Meeting at Leicester:

That in all cases where the British Medical Association is given by Act of Parliament or otherwise, a representative position on any permanent Board or Council, the selection of the Representative or Representatives shall rest ultimately with the Representatives Meeting.

That it be an instruction to the Central Council to prepare a scheme suitable for all such contingencies and to submit it to the Divisions for consideration before March 31st, 1906.

Circular to Local Midwives re Fees Expected by General Practitioners in the Divisional Area.—It was decided to invite the two local medical societies to co-operate in issuing a similarly-worded circular as the one proposed.

Memorandum from Medico-Political Committee re Midwives Act, 1902.—A subcommittee of Drs. McManus, McCleary, and Llewellyn Williams reported their suggestions, and these were approved and ordered to be sent in. Recognizing the fact that the tendency of all public medical contracting was to reduce fees, the Division recommended that the minimum fee to be arranged for and expected when called in to attend in difficult labour should be that allowed by the Poor-law—namely, £2; at other times and for subsequent visits the fee should be 3s. 6d. a day visit, and 7s. the night visit, as allowed by the police regulations.

Registration of Nurses and Nursing Homes.—Depending on the above debate, and as a consequence of circulars being issued by homes offering registered midwives for ten days at 10s. 6d., the following resolution was unanimously passed and ordered to be sent in to the General Secretary:

In the case of the registration of nurses and nursing homes that the British Medical Association take steps to have clauses added to any Bill that will allow of supervision and inspection of those registered with the object of preventing crime.

STAFFORDSHIRE BRANCH.

SOME PROBLEMS OF PUBLIC HEALTH.

By Edward Deanesly, B.Sc., F.R.C.S.,

Honorary Surgeon, General Hospital, Wolverhampton; President of the Branch.

[Abstract.]

In the course of some introductory remarks, Mr. Deanesly said: To the science of public health belongs everything bearing on the nature and causation of disease, and by implication everything concerning the conditions of normal or healthy being. The art, or applied science, consists of a body of general measures, recommended or practised, with the object of removing or diminishing the various causes of disease in so far as they can be dealt with by collective action.

Public health, although good, is like other things, in that it can be bought too dear; and if we seek to obtain it by measures which are ruinous alike to financial interests and to individual liberty, society will rebel at our benevolent tyranny, and cry aloud to be once more sick, solvent, and free.

The devising of practicable measures of public health is still hampered in many directions by the imperfection of our knowledge. In some important directions our ignorance is fundamental. The transmissibility or non-transmissibility of acquired characteristics, for example, is not only a funda-

mental problem in pure biology but of supreme importance in matters of public health. If the evil which men do to themselves lives after them in their offspring and is not interred with their bones, the problem of maintaining a healthy race without selective breeding, and public measures directed to this end, becomes under modern conditions of society almost insoluble. If, on the other hand, the acquired characteristics of parents are transmitted to their offspring, the influence of environment or the physical and moral welfare of the race becomes of transcendent importance, and must form the basis of all public measures for the improvement of it.

Our want of certainty on this point fatally hampers our treatment of many urgent practical problems. If conditions and surroundings admittedly injurious not only injure those who are exposed to them, but impart characteristics transmissible to their offspring, then very few generations bred under such conditions must permanently vitiate the stock beyond hope of recovery. If, on the other hand, unfavourable surroundings injure only the generation actually exposed to them, improvement of the conditions will allow the race to recover its former vigour in a single generation.

Another serious gap in our knowledge which hinders public health at every step is the total absence of detailed statistical knowledge of the actual physical condition of our population. A census which, in addition to age, sex, occupation, and income, mentioned the kind of education received, would provide most of the data for constructing a tolerably accurate idea of the intellectual and moral resources of the nation, and would be of great value.

The greatest public health problem of the future is how to improve the personal habits of the population in matters affecting health. The mere statement of the problem shows that economic and social considerations are even more closely involved than purely medical questions. The real task of hygiene is to teach men how to live and be healthy under the conditions which social and economic necessities impose; or, if that is impossible, to devise practicable means of modifying them.

The efforts of practical men towards a better future will be directed in two main directions: First, they will continue to pursue those investigations into the exact causes and conditions of health and disease, which have already in our own day yielded such abundant fruit; and, next, they will strive to make the fruitful applications of those researches the common possession of mankind. He then proceeded as follows:

By what means, then, can we hope to impart to every member of our population those simple laws of personal hygiene which are the commonplaces of every educated medical man? How can we render them not merely a matter of common knowledge, but of common individual practice—an affair of ordinary habit and routine? The first and most obvious means are the public elementary schools. Nine-tenths of the population pass through them at the most plastic age, and lie ready for the moulding hand of every species of social reformer; and remember every man has the instinct of a reformer in his profound sense of his fellow-creatures' imperfections. Let us cheerfully admit that the public elementary schools have achieved a by no means despicable improvement in the habits of our population, and that we may look to see still greater improvement in the future; but we are only at the beginning of a gigantic task, and those who have studied this subject most closely will not be too sanguine as to the possibility of imparting civilized habits to a whole population through the agency of schools alone. There is the economic difficulty of which I have already spoken. Poverty has its vices and blemishes as well as its virtues, and poverty is not eradicated by schools. Civilized habits in large urban communities involve not only a great cost, but a high level of intelligence, of personal effort, and of individual self-respect. Then there is the fatal difficulty of the perpetual struggle between the two rival influences—the influence of the home and the influence of the school. It is impossible to lead a life with one standard of civilization at home and a life with a totally different standard at school, and to expect the latter standard to survive the more permanent and fundamental influences of home. Habits are formed by familiar and common practice and not by listening to lessons on hygiene, even if given by the most accomplished teachers. These are obvious considerations, and it is idle to ignore them, but attention is not called to them in order to counsel inaction. Much more might and should be done by the agency of schools to impart the rudiments of healthy habits to every man and woman in the nation. The first need is to impart more direct medical influence into the counsels of all the educational authorities in the country, central as well as local. Locally the presence of medical men on the education committees may be of some little service in this direction, though my own humble experience does not lead me to take any very extravagant view of the beneficial influence likely to be exerted in this way, but for any real and effectual influence of medical knowledge on elementary education we must look to the appointment of competent and independent expert medical advisers to all the larger education authorities in the country. The great weakness of the attempts to teach hygiene and domestic economy in schools which have hitherto been made is the unreality of the teaching and the incompetence of the teachers. Domestic economy is taught from a prescribed syllabus by well-meaning single young women who have never had any experience of managing a household, and who merely repeat parrot-like the lessons they have learned from equally unpractical teachers. Hygiene and physiology are similarly taught by young persons of both sexes, who have never dissected a rabbit or examined a sheep's heart. It may be doubted, indeed, if a superficial knowledge of physiology is any assistance to healthy living. Our ancestors contrived to be tolerably healthy in spite of their simple and grotesque conceptions of our inward mechanisms, and little joy is to be gained by knowing that "the liver is the lazaret of bile, and very rarely executes its function." For practical hygiene it is not necessary to know the chemical composition of air, water, and food, subjects which figure largely in the syllabus, nor other matters which fitly occupy the attention of students of medicine. What is wanted is insistence at every point on the one great practical maxim of hygiene, "Thou shalt be clean and shalt abhor dirt, above all the organic dirt which emanates from the bodies of the living and the dead." But to preach cleanliness, either in person or domestic arrangements, is by implication to impute the opposite, and it is small wonder that teachers shrink from offending the susceptibilities of parents who are also ratepayers and paymasters. Above all, matters of personal hygiene are not instilled by maxims and theoretical instruction, but by constant practice and example; and when we find, as we often do, hygiene taught by teachers who themselves flagrantly defy every maxim they teach and permit their pupils to do the same, little practical good can be expected. Personal habits conducive to good health require in the first place to be enforced by compulsion, and in the second to be inculcated by teachers who believe and habitually practise their own doctrines. We see these conditions in effectual operation in the army, where discipline is strictly enforced by officers who, whatever their failings, are fastidiously clean and good models of physical culture.

The two things needful, therefore, for any improvement of the influence of schools in promoting healthy personal habits are first, efficient medical inspection of all schools, including periodical examinations of all scholars; and secondly, the instruction of teachers in hygiene by competent medical teachers, and not by teachers in training colleges who have acquired a smattering of the subject for the purpose of imparting a still smaller smattering to others.

There is another powerful influence for good to which we may look for promoting those improved habits and modes of life we desire to see, the influence of fashion, to which all contribute, and which the medical profession should deliberately seek to mould. Always great, the whole course of modern civilization tends to make it greater still. The incurable tendency of men and women to copy the customs of those above them in social rank is one of the threadbare themes of the satirist. But it has its uses. There are men and women who will yield to the dictates of fashion an obedience which they cheerfully withhold from the Decalogue; and, though we may never wish that fickle goddess to popularize the more austere and difficult virtues, we may look for much help in promoting those minor virtues of life—those small observances, personal and domestic, which mean so much to health. Fashion may take tithe of mint and cummin and neglect the weightier matters of the law, but we need not despise her aid. The greater virtues may exist in minds uncouth and bodies far from clean, but, even if cleanliness comes after godliness, it is the first, the most elementary, and the most vital necessity of civilized life. The majority of civilized men have not yet reached as high a standard of per-

sonal cleanliness as the wild beasts of the field, or even the domestic cat, with his scrupulous hygiene and his ninefold tenacity of life.

It should be the hope and aim of those who strive to promote human health to so impress on every civilized human being habits of cleanliness, in person, in home, in raiment, and in food, that they may come to have almost the sanction of primary instincts. Towards this aim fashion has already achieved much. The first aim to-day of every man or woman who has any ambition is to be a gentleman or lady. We all smile at the hospital patient who speaks of the gentleman in the next bed, or of the other lady who threw half a brick at her, but there is a good side to this foible. The desire to copy something believed to be superior is, after all, worthy of praise, and if the obvious and external are most easily copied, truth compels candour to admit that the resemblance of a flunkey to his master is sometimes more than superficial. To this great faculty of imitation, at any rate, we owe most of the improvements in manners and habits witnessed in the last few generations. In order to have even the appearance and manners of a gentleman or lady nowadays one must exhibit a fastidious cleanliness of clothes and person, which is no small gain from the point of view of health. Gross intoxication, too, fashion no longer permits in any decent society, and that is a greater practical triumph than any legislation has achieved.

It is not only in clothes and personal habits that fashion exerts a beneficial influence. In all things concerning the house and the management of the household fashion is supreme, and its influence spreads from top to bottom. The various grades of society successively adopt and copy the cast-off fashions of those above them. In nothing is this more amusingly seen than in the furniture and trappings of houses, for in small middle-class houses and suburban villas still survive in their perfection early and middle Victorian fashions; but to-day the copying process is vastly accelerated, partly by the perishable nature of modern cheap furniture, which fortunately no longer survives the generation which created it, partly also by the popularization, through photographs and cheap illustrated papers, of the greatly-improved and simplified appointments of the best private houses. Long after the movement of the population into great cities had begun, architects and builders continued to design and build houses with the same disregard for light, air, and facility of cleanliness as characterized the city dwellings of our ancestors. To these faults they added all the inconveniences and dangers of cheap and perishable materials, and of bad workmanship. Remember that the influence of these fashions extends downwards to the humblest cottage and tenement in the country. A carpet is still the first essential of respectability, and to ask a workman to live in a house without a wall paper is to offer him an indignity. Remember, too, that the middle-class house, its furniture and arrangements, all assume the existence of one or more domestic servants, and that the inconveniences and dangers of such a house can be mitigated by constant laborious cleanliness under the supervision of an exacting mistress. But when similar arrangements exist where there are no servants, and where the mistress is not too fastidious, we all know the result: a house where the window is never opened and the sun never shines, where the air reeks of stale humanity, and dirt lurks in every corner.

All these things we still have with us, but they are on the decrease, and, thanks partly to a better artistic influence, and partly to medical influence, fashion is strongly setting in a more healthy direction. A great part of that influence in recent years is undoubtedly due to the sanatorium treatment of consumption, which has popularized many ancient truths which medical and other men mumbled with their lips while their hearts were far from them.

One of the greatest services which science can render to healthy living at the present day is to devote its knowledge and inventive power to the problem of simplifying, improving, and if possible cheapening, first the ordinary middle-class house, and secondly the homes or tenements in which the masses of our city population must not only live but rear their children. Adult men and women reared in decent conditions can live out their days in very unhealthy abodes. But what is possible to a seasoned adult is impossible or highly prejudicial to children, to whom the dwelling-house is, next to the parent, the thing of most importance in life.

Another way in which the medical profession may help to promote healthy habits is by gradually popularizing not only by precept but by example those more accurate notions of hygiene and pathology which we owe to the labourers of the last thirty years. The average man furnishes his mind as he does his house with the cast-off notions and ideas of a more or less remote past. Like Lepidus, he feeds on abject sorts and imitations; things out of use and staled by other men begin his fashion. Popular pathology and hygiene consist usually of the ideas and practices of a period varying from 20 to 150 years ago. Some of these venerable ideas exist in their crudest forms, I regret to say, even in the minds of some medical men, the Rip Van Winkles of our day. One of the most difficult ideas to instil, even into an intelligent and educated man, is that the human body is a very complicated piece of mechanism, but with considerable powers of self-adjustment if not grossly maltreated. He, on the contrary, regards it as comparatively simple, and regards any medical man who is not prepared to oil every wheel of it on demand as a bungler ignorant of the rudiments of his art. Every doctor knows the obstacles which this attitude of mind creates both for therapeutics and hygiene. In the stress of practice we too often yield to the temptation to treat the fool according to his folly, to give him his prescription, and abandon all attempt to give him rational views. In the interests of public health, every conscientious practitioner should resist this temptation, and, as opportunity occurs, correct when possible the ignorant notions of health and disease which so greatly hamper all progress.

The suggestions I have been making will probably seem to you rather vague and useless. When we see all the glaring evils around us we naturally long for something more direct and immediate than a benevolent encouragement of a stream of tendency. We cannot wait and do so little. Pressing evils demand immediate remedies. Let me admit some force in this contention. We cannot permit the grosser sanitary evils to endure even if they can be only remedied by means which, economically and socially, bring other evils in their train. If the cost of the elementary needs of civilized life is beyond the power of individuals to bear, the cost must be borne, wholly or in part, by the community, if only in self-protection. Hospitals and schools are elementary necessities of this kind. Parks and open spaces and public baths are others. But if the State gives so much it should also exact more. The masses should not only be bribed, but where public health is concerned they should be mercilessly dragooned into elementary cleanliness and decency. It is folly to provide good houses at the public charge and permit them to be inhabited by people whose habits render useless every means provided for their convenience. But public opinion in countries governed by democratic representative bodies is much too flabby and tolerant. We often hear bad landlords denounced, but never the bad tenants, who are equally culpable. And running through all the measures, proposals, and speeches of the great party of radical socialistic philanthropy is the profound disbelief in the individuals of whose cause they are the self-appointed champions. The working classes are treated as if they were utterly incapable either of helping themselves or of resisting the smallest temptation to evil. These ardent champions are actually at the present time basing their proposals of temperance reform on the assumption that it is practically impossible for the poor British workman to pass a public-house without going in for a drink. The great humorist of their party has unkindly held up their cause to public ridicule by proposing with admirable gravity that the brewers and publicans should compensate the family of the virtuous weaklings whom they have wickedly seduced.

In matters of public health let us admit that socialistic measures cannot be avoided, in spite of the dangers they bring in their train. But let us not ignore the evils, and let us, before advocating or sanctioning new measures of reform, weigh well the unseen evils against the visible good, and remember always that we may buy the benefits too dear.

There is one fundamental evil of all collectivist methods of dealing with problems of public health, and with it I shall conclude these observations, which have already outrun the virtuous resolves of my preface. I mean the tendency to ignore the family and the home, and to put in their stead the town and the State. In our frantic eagerness to abate obvious and visible evils by the agency of the State, we are sapping the very foundation of society. Instead of enforcing the responsibility of parents for their children, we relieve them of almost every necessity except that of begetting them. We look to the State to keep them in health, to train them, and even to feed and clothe them in many instances. But

there are things which the State can never do; it can never replace the influence of the family and the home. We all know Lamb's pathetic description of the home that is no home, of the clamouring wife made gaunt by famine, and the child who is only another mouth to feed, a pair of little hands to be inured betimes to labour; but for all that, there is something in every home save the very worst which cannot be found in the best-ordered institution. And the basis of the home is the mother. To the father we look for wise example and counsel, and when needful for helpful chastisement—precious things all of them, and the want of them a sore loss, but not irreparable. But the child, rich or poor, who has no mother or a mother only in name, who has never sucked at her breast or known her personal care, sustains a loss, moral and physical, for which nothing in after-life can make amends.

With moral influences my observations are not immediately concerned, but the most vital influences for good or evil of the home life as they affect health and healthy habits are the direct creation of the woman. The health, habits, and happiness of every generation depend on the devotion and capacity of the mother more than on any other single thing. In spite of these obvious facts, we deliberately encourage married women to earn money away from home, and assist them to do so by maintaining infants' schools at the expense of the community, a policy not only economically wasteful but ruinous to the children. We rob them of their mother, poor creature though she may be, and offer them a stepmother trained, certificated, and accomplished in the special method of amusing young children laboriously invented by a German pedant with the intention of imparting moral and intellectual ideas to children under 5 years of age. The intellectual fruits of this admirable system are not yet obvious, but the effects of it in spreading two of the greatest scourges of young children—measles and whooping-cough—with their terrible mortality at that age, are plain enough; and this, with a birth-rate already declining and certain to decline still further, represents a national loss which we can ill afford. A more striking example of the unforeseen results of well-meant philanthropic plans it would be hard to find. In this, as in so many other social matters, there is urgent need to throw off the sway of habit and doctrinaire philanthropy, and to look at things as they are with open eyes and common sense. To that much-needed return to common sense the medical profession, of which sanity is the very aim and goal, should lend its powerful aid.

The first ordinary meeting of this Branch was held at the North Stafford Hotel, Stoke-on-Trent, on Thursday, November 24th, 1904. Thirty-five members and two visitors were present.

Communications.—Dr. McAldowie showed (1) a case of acromegaly and (2) a case of syringomyelia, and Dr. List exhibited radiographs in connexion with these cases.—Dr. Hatton showed a case of cranial injury followed by head symptoms.—Mr. Spanton read a paper on ergophobia, which will be published shortly.—Mr. H. H. Folker read notes on ophthalmic cases, illustrated by lantern slides.—Dr. Menzies read a paper on some points in connexion with puerperal insanity.

SOUTHERN BRANCH:

Portsmouth Division.

A meeting of this Division was held at 130, Commercial Road, Portsmouth, on December 6th, 1904, Dr. Hackman in the chair. Fourteen other members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Retirement of Dr. Blackman.—Mr. C. P. Childe was unanimously elected Honorary Secretary and Treasurer in the room of Dr. J. G. Blackman resigned.

Mr. Rundle moved:

> That the best thanks of this Division be given to Dr. J. G. Blackman for the satisfactory manner in which he had discharged the duties of Honorary Secretary and Treasurer for the past five years.

—This was seconded by Dr. L. Maybury and carried unanimously.

The late Dr. Wilmer Phillips.—The following resolution was proposed by Dr. J. G. Blackman and seconded by Dr. L. Maybury, and carried in the usual way:

> This meeting of the Portsmouth Division of the Southern Branch of the British Medical Association desires to express the loss it has sustained by the death of Dr. E. Wilmer Phillips, and to convey to Mrs. Phillips its sincere sympathy with her in her bereavement.

ULSTER BRANCH:

Belfast Division.

The autumn meeting of the Division was held in the Medical Institute, Belfast, on Wednesday, November 23rd, 1904. The chair was occupied by Dr. William Calwell, the incoming President, and there was a large attendance of members.

The Work of the Division.—The President's address, The Work of the Division in its Relation to the Practitioner, received favourable criticisms from Dr. G. B. Mitchell, the Representative of the Division, and from Dr. Frazer.

Paper.—A paper was presented by Dr. Fielden on the Personal Element in the Administration of Anaesthetics, and a discussion followed in which Drs. Simpson, John Campbell, Mitchell, and Kirkhope took part.

Magnets.—Dr. Nelson exhibited the Sweet magnet in use in the Royal Victoria Hospital for the removal of particles of iron and steel from the eye, and Dr. Killen contributed a short statement on the working of the Haab magnet. Dr. Shaw and Mr. Craig offered comments on the relative merits of the two magnets.

Papers by Drs. John Campbell, McKisack, and Storar had to be postponed owing to the lateness of the hour.

Association Notices.

COUNCIL MEETING.

A special meeting of the Council will be held at 2 o'clock in the afternoon on Wednesday, February 15th, 1905.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Guy Elliston, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

Bath and Bristol Branch.—The third ordinary meeting of the session will be held at the Medical Library, University College, Bristol, on Wednesday evening, January 25th, at 8 o'clock, Mr. R. J. H. Scott, President, in the chair. The meeting will be devoted to the exhibition of lantern slides. Slides are expected from the following: Dr. J. Michell Clarke, Mr. Paul Bush, Dr. G. Parker, Mr. Munro Smith, Dr. Symes, Mr. James Taylor, Dr. Theodore Fisher, and Dr. Newman Neild. A meeting of the Branch Council will be held at 7.50 p.m. Business: To elect the following candidates: A. C. Falkiner, B.A., M.B. (Portbury), C. H. Osmond, L.S.A. (Bristol), B. C. Kelly, M.B., C.M. (Wells). The following is proposed as a new member: G. E. Bracey, Wedmore. A meeting of the Executive Committee of the Bristol Division will be held at the close of the meeting.—Newman Neild and W. M. Beaumont, Clifton, Honorary Secretaries.

Dundee Branch.—The Branch will meet in the Students' Union, Dundee (entrance from Small's Wynd) on Thursday, January 26th, at 8.30 p.m. Local meetings will also be held as follows: At the Infirmary, Forfar, on Tuesday, January 24th, at 5 o'clock; at the Imperial Hotel, Arbroath, on Wednesday, January 25th, at 8 p.m.; at the Infirmary, Montrose, on Friday, January 27th, at 5 o'clock. The reports published in the Supplements of November 26th and January 14th will be considered.—R. C. Buist, 166, Nethergate, Dundee, and A. P. Low, 3, Strathmartine Road, Dundee, Honorary Secretaries.

Edinburgh Branch.—The usual clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 17th. Members desirous of showing patients or specimens will please communicate with one of the Secretaries. The annual dinner will be held in the evening, in the Royal British Hotel.—Norman Walker, 7, Manor Place, Edinburgh; A. Logan Turner, 27, Walker Street, Edinburgh, Honorary Secretaries.

Edinburgh Branch: South-Eastern Counties Division.—There will be a meeting of this Division on February 11th, at 3.30 p.m., in the King's Arms Hotel, Melrose. It is particularly requested that members read and consider carefully the Supplement to the British Medical Journal of November 26th, 1904, as the decision of the Divisions will determine the policy of the Association in respect of the medico-political matters therein contained. Business: (1) Consideration of the medico-political matters above mentioned referred to the Divisions. (2) The fixing of the date of the annual meeting of the Division, and also to arrange for the suggested Branch meeting in one of the county towns within the area of the Division. (3) Dr. Tyrrell (Galashiels) will read notes of an interesting case.—W. Hall Calvert, Melrose, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—A meeting of this Division will be held on Friday, January 27th, at 9.15 p.m., at White Lodge, Enfield (close to G.E.R.). A discussion on Vaccination and Revaccination will be opened by Mrs. Garrett Anderson, M.D. A discussion on the Pharmacy Acts Amendment Bill, Abuse of Drugs and Repetition of Prescriptions will be opened by the Honorary Secretary. Visitors are cordially invited.—FRED. TRESILIAN, White Lodge, Enfield, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held on Thursday, January 26th, at Worple Hall, Wimbledon, at 8.30 p.m. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) Resolutions for Representative Meeting referring to JOURNAL and SUPPLEMENT. (5) Contract practice debate. Dr. Hett (Metropolitan Provident Medical Association), Dr. Lauriston Shaw (member of the Central Hospital Council for London), and Mr. Smith Whitaker (Medical Secretary) will be present and speak. (6) Resolutions referring to the National Deposit Friendly Society. (7) Other business. All registered medical practitioners are invited.—E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

PERTHSHIRE BRANCH.—At a meeting of Council held on Friday, December 16th last, it was decided, in view of the unsuitability of the present time for calling a meeting of the Branch, to ascertain the views of the members by writing on the matters which the Annual Representative Meeting decided should be referred to Divisions. Members are requested to send early replies to the Medico-Political Committee. The questions are as follows:—1. The interim report on contract practice: (1) Necessity of contract practice; (2) medical control; (3) distribution of work; (3A) Friendly Societies—choice of medical attendant; (4) minimum rate; (5) exclusive of infants; (6) provision against abuse; (7) special services. 2. The desirability of consultation between medical witnesses in legal cases likely to be brought before the court. Details of the questions will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904. The clinical meeting will be held in the Perth Infirmary on Friday, February 10th, at 3.45 p.m. Any members wishing to show cases might kindly communicate with the Secretaries by January 31st. —WILLIAM A. TAYLOR and ALEXANDER TROTTER, Joint Honorary Secretaries, 10, Marshall Place, Perth.

ULSTER BRANCH.—The winter meeting of this Branch will be held in Derry on Wednesday, February 1st, at 11.30 a.m.—CECIL SHAW, Belfast, Honorary Secretary.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,044 births and 5,251 deaths were registered during the week ending Saturday last, January 14th. The annual rate of mortality in these towns, which had been 19.4, 22.4, and 19.9 per 1,000 in three preceding weeks, further declined last week to 17.5 per 1,000. The rates in the several towns ranged from 7.6 in Willesden, 8.1 in Hornsey, 8.6 in Hastings, 10.1 in Reading, 10.5 in Leyton, 11.0 in Handsworth (Staffs), and 11.2 in Walthamstow, to 24.3 in Newport (Mon.), 24.7 in Rochdale, 25.3 in Hull, 25.4 in Merthyr Tydfil, 26.5 in Middlesbrough, 26.7 in Warrington, 27.6 in Swansea, and 35.8 in Stockton-on-Tees. In London the rate of mortality was 15.8 per per 1,000, while it averaged 18.3 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.3 per 1,000; in London this death-rate was equal to 1.0 per 1,000, while among the seventy-five large provincial towns the death-rates from the principal infectious diseases ranged upwards to 3.0 in East Ham, 3.2 in Middlesbrough, 3.3 in Nottingham, 3.5 in Merthyr Tydfil, 3.6 in Bury, and 9.0 in Stockton-on-Tees. Measles caused a death-rate of 1.0 in Bristol, 2.1 in Liverpool, 1.2 in Wigan and Cardiff, 2.7 in Nottingham, 2.8 in Merthyr Tydfil, and 6.0 in Stockton-on-Tees; diphtheria of 1.5 in Kings Norton, 1.7 in East Ham and in Northampton, and 2.0 in Stockton-on-Tees; whooping-cough of 1.0 in South Shields, 1.2 in Hull, 1.6 in Huddersfield, and 2.3 in Grimsby; "fever" of 2.7 in Bury; and diarrhoea of 1.1 in Middlesbrough. The mortality from scarlet fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in each of the following towns, namely: London, Oldham, Bradford, West Hartlepool, and South Shields, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 19 small-pox patients at the end of last week, against 14, 17, and 18 at the end of the three preceding weeks: one new case was admitted during the week, against 9, 5, and 1 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been, 2,394, 2,387, and 2,308 at the end of the three preceding weeks, had further fallen to 2,192 at the end of last week; 194 new cases were admitted during the week, against 242, 201, and 187 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 14th, 981 births and 723 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.2, 21.6, and 20.6 per 1,000 in the three preceding weeks, increased again to 21.6 per 1,000 last week, and was 4.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 13.4 in Paisley and 15.6 in Greenock to 23.0 in Glasgow and 27.7 in Aberdeen. The death-rate from the principal infectious diseases in these towns averaged 2.5 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 371 deaths registered in Glasgow included 4 which were referred to measles, 2 to diphtheria, 38 to whooping-cough, 4 to "fever," and 11 to diarrhoea. Two fatal cases of diphtheria and 4 of whooping-cough were recorded in Edinburgh, 3 of diarrhoea in Dundee, 7 of measles and 2 of scarlet fever in Aberdeen, and 2 of whooping-cough in Perth.

HEALTH OF IRISH TOWNS.

DURING the week ending January 7th, 1905, 551 births and 412 deaths were registered in six of the principal Irish towns, against 521 births and 407 deaths in the preceding period. The mean annual death-rate in these towns, which had been 27.1, 20.3, and 20.4 per 1,000 in the three preceding weeks, rose to 20.6 in the week under notice, this being 0.0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 18.5 in Waterford and 20.7 in Cork to 24.6 in Limerick and 25.1 in Dublin. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.7 per 1,000, or 1.1 per 1,000 lower than during the preceding period, the highest figure—2.0—being recorded in Belfast, while Londonderry, Limerick, and Waterford registered no deaths under this heading at all. The deaths from measles showed a marked decrease, only 9 being recorded. There were no cases of death from small-pox or scarlet fever; and from diphtheria, 5 in Belfast and 1 in Cork.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments havs been made at the Admiralty: HORACE X. BROWNE, Fleet Surgeon, to the *Vivid*, additional, for Devonport Yard, January 30th; HORATIO S. R. SPARROW, Fleet Surgeon, to the *Cambridge*, January 30th; EDWARD C. CRIDLAND, M.B., Staff Surgeon, to the *Forte*, on recommissioning; ARTHUR E. KELSEY, M.B., B.A., Staff Surgeon, to the *Scylla*, January 24th; EDWARD T. MEAGHER, Staff Surgeon, to the *Fire Queen*, additional, for the *Hercules*, for voyage to Gibraltar, January 19th; WILLIAM B. MACLEOD, M.B., Surgeon, to the *Hermione*, for voyage to Ascension and back, January 23rd; GEORGE C. C. ROSS, M.B., B.A., Surgeon, to the *Leviathan*, additional, January 12th, and on replacing the *Bacchante*, undated; LLEWELLYN LINDOP and FREDERICK E. ANLEY, Surgeons, to the *Bacchante*, additional, for duty on the passage home, January 12th; GEORGE H. S. MILLN, M.B., Surgeon, to the *Fire Queen*, additional, for disposal, January 12th; EDWARD A. G. WILKINSON, B.A., Surgeon, to the *Vivid*, additional, for disposal, January 12th; MONTAGUE H. KNAPP, Staff Surgeon, to be Instructor of Sick Berth Staff at Plymouth Hospital, January 17th; GEORGE LEY, Surgeon, to the *Flora*, on commissioning, January 17th; NELSON J. ROCHE, Surgeon, to Plymouth Hospital, January 17th; FRANK A. FEATHERSTONE, Surgeon, to the *Fire Queen*, additional, for disposal (lent to Royal Naval College, Osborne), January 12th; EDMUND C. COX, M.B., B.A., Surgeon, to the *Pembroke*, additional, for disposal, January 16th; ROBERT HUGHES, Surgeon, to the *Penguin*, additional, January 14th, and on recommissioning, undated; HUGH C. ROSS, Surgeon, to the *Ganges*, temporary, January 14th; ARTHUR F. FRASER, M.B., Surgeon, to the *Surprise*, on recommissioning, undated; EDWIN FOLLIOTT, Surgeon, to the *Imogene*, on recommissioning, undated.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN C. J. O'GORMAN, D.S.O., from the Seconded List, to be Captain, January 1st. He was seconded for service with the South African Constabulary, September 13th, 1902.

Captain P. G. STOCK resigns his commission, January 14th. He joined as Lieutenant, April 25th, 1900, becoming Captain three years thereafter. He was in the South African war in 1899-1902, receiving the King's medal with two clasps.

Lieutenant H. B. CONNELL is seconded for service under the Foreign Office, December 31st, 1904.

The Secretary of State has approved of the revival of the appointment of Second Secretary to the Principal Medical Officer of His Majesty's Forces in India.

INDIAN MEDICAL SERVICE.

SURGEON-GENERAL D. SINCLAIR, C.S.I., M.B., Madras Establishment, has retired from the service, from November 15th, 1904. Appointed Assistant Surgeon, October 1st, 1869, he became Surgeon-Major-General, October 11th, 1899. He has no war record in the Army Lists.

Colonel B. O'BRIEN, M.D., Bengal Establishment, has also retired, from December 3rd, 1904. He joined as Assistant Surgeon, October 1st, 1872, and was made Colonel, November 1st, 1902. He also has no war record.

The retirement from the service, from December 4th, 1904, is also announced of Lieutenant-Colonel W. L. PRICE, M.B., of the Bengal Establishment. His first commission bears date October 1st, 1884; that of Lieutenant-Colonel, as mentioned in another paragraph, October 1st, 1904.

The undermentioned Majors of the Bengal Establishment, whose first commissions dates from October 1st, 1884, are promoted to be Lieutenant-Colonels from October 1st, 1904: J. T. W. LESLIE, M.B., D. PRAIN, M.B., A. T. BOWN, U. N. MUKERJI, M.B., and W. L. PRICE, M.B. The following are their war records in the Army Lists: Lieutenant-Colonel Leslie, Burmese campaign, 1885-6 (medal with clasp); Lieutenant-Colonel Bown, Hazara Expeditions, 1888 and 1891 (medal with two clasps), Chitral Relief Force, 1895, including the capture of the Malakand Pass and the action near Khar (medal with clasp), and the campaign on the North-West Frontier of India in 1897-8 (clasp); Lieutenant-Colonel Mukerji, Zhob Valley Expedition in 1890 and Manipur Expedition in 1891 (medal with clasp); Lieutenant-Colonel Price, Burmese campaign in 1886-8 (medal with clasp).

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-LIEUTENANT A. W. SCOTT, 2nd East Riding of Yorkshire, to be Surgeon-Captain, January 7th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

LIEUTENANT (Honorary Lieutenant in the Army) S. T. BEGGS, Belfast District Company, to be Captain, December 10th, 1904.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANTS H. G. PARKER, W. R. N. SMITHARD, M.B., and C. W. S. SABERTON, M.B., to be Captains, January 7th.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during last month:

		From.	To.
Lieut.-Col.	R. H. Forman, M.B.	Madras	Woolwich.
,,	W. J. Macnamara, M.D.	Jersey	South Africa.
,,	E. O. Milward	Barbados	Southampton.
,,	W. Hefferman	Fermoy	South Africa.
,,	H. J. R. Moberly	O. R. Colony	Aldershot.
,,	G. F. A. Smythe	Mullingar	Newry.
,,	J. Gibson, M.B.	Dublin	Cork.
,,	R. P. Hetherington, M.D.	Egypt	Dublin.
,,	T. E. Noding	Parkhurst	South Africa.
,,	F. H. M. Burton, M.D.	—	Transvaal.
,,	D. V. O'Connell, M.D.	Chester	Gibraltar.
,,	A. Dodd	Gibraltar	Chester.
,,	J. M. Reid, M.D.	Canterbury	Dover.
,,	S. F. Freyer, M.B., C.M.G.	Home District	Aldershot.
Major	B. F. Zimmerman	Punjab	Portsmouth.
,,	H. A. Haines, M.D.	Sheffield	Punjab.
,,	G. M. Dobson, M.B.	Kilkenny	,,
,,	F. D. Elderton	Devonport	Newport.
,,	N. C. Ferguson, M.B., C.M.G.	—	Cape Colony.
,,	M. O'Halloran, M.D.	Newbridge	South Africa.
,,	J. Kearney, M.D.	Chester	Wrexham.
,,	A. Kennedy	Dublin	Bombay.
,,	T. H. Corkery	Bombay	Devonport.
,,	C. J. MacDonald, M.D.	Cork	Fermoy.
,,	R. J. D. Hall	Bombay	Dublin.
,,	W. S. Dowman	Brighton	Bengal.
,,	E. A. Burnside	Winchester	Punjab.
,,	R. C. Thacker	Dublin	Bombay.
,,	S. F. Clark, M.B.	Devonport	South Africa.
,,	J. Thomson, M.D.	Madras	Edinburgh.
,,	G. S. McLoughlin, M.B., D.S.O.	Aldershot	West Africa.
,,	B. Forde, M.B.	—	Cape Colony.
,,	F. J. Wade-Brown	Gibraltar	Portsmouth.
,,	C. W. Duggan, M.B.	Edinburgh	Bengal.
,,	C. T. Pollock	Home District.	Woolwich.
Captain	J. R. McMunn	Curragh	South Africa.
,,	H. W. Grattan	Wrexham	West Africa.
,,	W. E. Hudleston	Bulford	Bombay.
,,	P. M'Kessack, M.B.	Punjab	Devonport.
,,	J. G. Berne	Dublin	Bombay.
,,	R. Selby, M.B.	Madras	Woolwich.
,,	A. E. Thorp	,,	Portsmouth.
,,	M. H. G. Fell	—	Transvaal.
,,	G. M. Goldsmith, M.B.	Bengal	Dublin.
,,	A. Chopping	Punjab	Home District.
,,	J. J. W. Prescott, D.S.O.	Madras	Devonport.
,,	P. H. Falkner	,,	Dublin.
,,	J. W. Longstaff	Bombay	Chester.
,,	H. H. Norman	—	Woolwich.
,,	B. F. Wingate	Bengal	Aldershot.
,,	R. L. Argles	—	Bulford.
,,	F. S. Walker	—	Fermoy.
,,	F. H. Hardy	Aldershot	Alton.
,,	H. R. Bateman	Egypt	Malta.
Lieutenant	F. W. W. Dawson, M.B.	—	Cape Colony.
,,	F. C. Lambert	—	Transvaal.
,,	J. F. Skey	—	,,
,,	T. S. Dudding	—	O. R. Colony.
,,	O. Ievers, M.B.	—	Cape Colony.
,,	H. H. J. Fawcett	—	Natal.
,,	N. D'E. Harvey, M.B.	—	Cape Colony.
,,	S. E. Lewis, M.B.	—	Transvaal
,,	J. T. M'Entire, M.B.	Cork	South Africa.
,,	F. M. G. Tulloch	Aldershot	Uganda.
,,	P. J. Hanafin	Belfast	South Africa.
,,	E. M. Glanvill, M.B.	,,	,,
,,	M. C. Wetherell, M.B.	Shorncliffe	Canterbury.
,,	G. S. Mackay, M.B.	Salisb'ry Plain	South Africa.
,,	F. H. Noke, M.B.	On probation	Aldershot.
,,	D. Le Bas	Netley	South Africa.
,,	E. H. M. Moore	Aldershot	,,

Major A. E. C. Spence, M.B., retired pay, has been placed in medical charge of troops at Warwick.

Lieutenant-Colonel W. H. B. Clapp, retired pay, has relinquished the medical charge of troops at Pontefract.

VOLUNTEER RIFLES.

Supernumerary Brigade-Surgeon-Lieutenant-Colonel W. D. Waterhouse, 4th Volunteer Battalion the Royal Fusiliers (City of London Regiment), Senior Medical Officer, 2nd London Volunteer Infantry Brigade, is granted the honorary rank of Surgeon-Colonel, January 7th.

Surgeon-Lieutenant H. B. Roderick, M.B., the Cambridge University, to be Surgeon-Captain, January 4th.

Supernumerary Surgeon-Major (Brigade-Surgeon-Lieutenant-Colonel) W. H. Bull, 1st Bucks (Senior Medical Officer, Home Counties Volunteer Infantry Brigade), to be Surgeon-Lieutenant-Colonel, and to remain seconded, January 4th.

Surgeon-Lieutenant S. Elliot, M.B., 1st Sutherland (the Sutherland Highland), resigns his commission, January 4th.

Surgeon-Lieutenant-Colonel J. Cantlie, M.B., 7th Middlesex (London Scottish), resigns his commission, and is granted the honorary rank of Surgeon-Colonel, retaining his uniform, January 4th.

Surgeon-Captain T. Wood, M.B., 5th Volunteer Battalion the Royal Scots (Lothian Regiment), resigns his commission, January 14th.

Mr. Hubert R. R. Fowler is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Worcestershire Regiment, January 14th.

Surgeon-Lieutenant-Colonel R. Grant, 2nd (Angus) Volunteer Battalion the Royal Highlanders (Black Watch), resigns his commission, January 14th, and he is granted the honorary rank of Surgeon-Colonel and retains his uniform.

Edward F. MacL. Neave, M.D., to be Surgeon-Lieutenant in the 3rd Dundee Highland) Volunteer Battalion the Royal Highlanders (Black Watch), January 14th.

Surgeon-Lieutenants H. Allan and J. H. Maclean, 2nd Volunteer Battalion the Nottinghamshire and Derbyshire Regiment (Sherwood Foresters), to be Surgeon-Captains, January 14th.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ABERGAVENNY: MONMOUTHSHIRE ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £150 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon, resident. Salary, £100 per annum.

CHESTER GENERAL INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Hon. Ophthalmic Surgeon.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Pathologist and Registrar. Honorarium £105.

FARRINGDON GENERAL DISPENSARY.—Honorary Dental Surgeon.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Assistant Casualty Medical Officer, resident. Salary, £20 for six months and washing allowance. (2) Assistant Physician.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Clinical Assistants.

HUDDERSFIELD DISPENSARY.—(1) One Physician. (2) Two Surgeons. (3) One Ophthalmic and Aural Surgeon.

LIVERPOOL COUNTY ASYLUM, Rainhill.—Assistant Medical Officer, resident. Salary, £150 per annum, increasing to £250.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer to In-patient Department at Bowdon. Salary, £100 per annum.

MANCHESTER: CHORLTON-UPON-MEDLOCK DISPENSARY.—Honorary Medical Officer.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Anaesthetist.

NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—Honorary Assistant Anaesthetist.

LIVERPOOL DISPENSARIES.—Assistant Surgeon, resident. Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho.—Honorary Dental Surgeon.

ROYAL LONDON OPHTHALMIC HOSPITAL.—Assistant Surgeon.

SUNDERLAND INFIRMARY.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Surgeon. Resident. Salary, £100 per annum.

TOTTENHAM HOSPITAL.—(1) Honorary Assistant Physician in Out-patient Department. (2) Pathologist; honorarium 20 guineas per annum.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea, S.W.—House-Surgeon, resident. Honorarium, £25 for six months.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—Honorary Surgeon-in-Ordinary.

APPOINTMENTS.

Ballantyne, Thomas, M.B., Ch.B.Glasg., Senior House-Surgeon at the Blackburn and East Lancashire Infirmary.

Barrett, Wm. A. H., L.R.C.P., Health Officer for the Boroughs of Newtown and Chilwell and Meredith, Victoria, vice B. B. Hoggan, L.R.C.P., resigned.

Bell, H. C. R., M.B., M.Ch.Syd., Government Medical Officer and Vaccinator at Wilcannia, N.S.W., vice Dr. Robert Dey, resigned.

Bennett, J. M., L.R.C.P.I., L.S.A. Certifying Factory Surgeon for the Ruddington District, Nottinghamshire.

Daman, Thomas Walter Alfred, M.A.Camb., M.B., C.M.Edin., Honorary Physician, Lincoln County Hospital, vice Charles Harrison, M.D., resigned.

Davies, T. A., M.B., Resident Assistant Medical Officer, Woolwich Union Infirmary.

Fisher, W., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Government Medical Officer and Vaccinator at Weston, N.S.W.

Gill, J. M., M.D.Lond., Honorary Physician, Royal Alexandra Hospital for Children, Sydney, N.S.W.

Hignett, L. W., M.B., C.M.Edin., Medical Officer of Health for the Ruislip-Northwood Urban District.

Jones, P. S., jun., M.B., Ch.B.Syd., Honorary Surgeon to the N.S.W. Deaf, Dumb, and Blind Institute, Sydney.

Lees, Harold C., M.R.C.S., L.R.C.P.Lond., M.B., B.S.Lond., Junior House-Surgeon at the Blackburn and East Lancashire Infirmary.

Maclean, J. D., M.B., C.M.Edin., District Medical Officer of the Settle Union.

Owen, Lloyd, M.D.Edin., Medical Officer and Public Vaccinator for the Combined Whitford and Llanasa District of the Holywell Union.

Park, Alex. Glen, M.D.Glasg., Certifying Factory Surgeon for the South Bolton District.

Perkins, Richard, M.B.Syd., Medical Superintendent, Newcastle Hospital, N.S.W., vice R. E. Woolnough, M.B.Syd., resigned.

Pinchin, J. L., L.R.C.P. and S.Ed., L.F.P.S.Glasg., Government Medical Officer and Public Vaccinator at Brewarrina, N.S.W., vice Dr. R. W. McCredie, resigned.

RANDELL, A. E., M.B., B.S., Medical Officer of Health for Maylands, South Australia.

ROBBS, Charles H. D., B.A.Oxon., M.B.Lond., appointed Surgeon to the Grantham Hospital.

ROBINSON, W. T. G., M.D., District and Workhouse Medical Officer of the Poole Union.

SADLER, E. A., M.D.Lond., Certifying Factory Surgeon for the Ashbourne and Mayfield District of the Counties of Derby and Stafford.

SMITH, F. W. W., M.B.Lond., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer, Lambeth Parish Infirmary.

TRINDER, Alfred Probus, M.R.C.S., L.R.C.P., Surgeon and Agent at Bembridge, Isle of Wight.

WILDE, A. N., M.R.C.S., L.R.C.P.Lond., Medical Officer for the Barry East District of the Cardiff Union, vice E. Treharne, L.R.C.P. and S. Edin., deceased.

WOOLNOUGH, Robert E., M.B.Syd., Resident Medical Officer at the Coast Hospital, Little Bay, Sydney, N.S.W.

YOUNG, T. B., M.D.Brux., M.R.C.S.Eng., Certifying Factory Surgeon for the Halesowen District, Worcestershire.

DAVID LEWIS NORTHERN HOSPITAL, Liverpool.—The following appointments have been made:

House-Physicians.—Stanly Brown, M.B., Ch.B.Liverpool; R. Manwaring-White, M.B., Ch.B.Edin.

House-Surgeons.—H. W. Gush, M.B., Ch.B.Edin.; W. L. Hawksley, M.B. Ch.B.Liverpool; and B. N. Murphy, M.R.C.S., L.R.C.P., L.D.S.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W. 8.30 p.m.—Discussion on Haematuria, introduced by Dr. Archibald E. Garrod and Mr. Bruce Clarke.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Mr. Hugh Lett: An Analysis of 99 Cases of Inoperable Carcinoma of the Breast treated by Oöphorectomy.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8 p.m.—Clinical Evening. Patients in attendance.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, W., 8 p.m.—Card Specimens. Dr. L. Cole-Baker: (1) Modification of Clark's Speculum; (2) Needle-holder for Straight and Curved Needles. Mr. W. H. Jessop: Changes at Macula and Disc. 8.30 p.m.—Papers: Dr. Freeland Fergus: A Case of Malignant Disease of the Conjunctiva. Mr. Arnold Lawson: Treatment of Corneal Ulcers with Quinine. Mr. C. Worth: Notation of Prisms. Dr. D. J. Wood: Two Unusual Cases of Detachment of the Retina.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Clinical Evening for the Exhibition of Clinical Cases, followed by Discussion. Patients will be in attendance from 8 p.m. till 9 p.m.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Wednesday, 5 p.m.—Practical Demonstration on Naso-Pharynx.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m.—Dr. Abercrombie: Medical Cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—Dr. Voelcker: Typhoid Fever in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Fractures and Dislocations; the Additions to our Knowledge since the Introduction of X Rays (with Lantern Illustrations); Tuesday, Cystic Affections of the Breast; Wednesday, Glaucoma (with Lantern Illustrations); Thursday, Anaesthetics.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patients' Department, 7, Fitzroy Square, W.—Thursday, Adventitious Sounds in Pulmonary Diseases and their Significance.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Tuesday, 3.30 p.m., Aphasia; Friday, 3.30 p.m., Cerebral Surgery.

NORTH-EAST LONDON POST GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday: Lecture on Endometritis and Erosion. Thursday: Lecture on Gastric Surgery.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., 3 p.m.—Thursday: Some Points in Pelvic Diagnosis.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road.—The following Lectures have been arranged for next week, each at 5 p.m.: Monday, Cardiac Disease, Organic; Tuesday, Treatment of Various Diseases; Wednesday, Thursday, and Friday: Tumours of the Groin.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

EVANS.—On January 17th, 1905, at Berth Dhu, Cottenham Park, Wimbledon, the wife of David Robert Powell Evans, M.R.C.S., L.R.C.P., L.S.A., of a son.

SCOTT.—On 14th January, at 62, Belsize Park Gardens, Hampstead, the wife of Sydney Scott, M.S.Lond., F.R.C.S.Eng., of Welbeck Street, Cavendish Square, W., of a son.

DEATHS.

CHADWICK.—On the 9th inst., at 118, Wellington Road, South Stockport, George Frederick Chadwick, Physician and Surgeon, in his 38th year. Interred at Chadderton Cemetery, near Oldham, on the 14th inst.

FISHER.—(By telegraph.) On the 11th instant, at the English Nursing Home, Cairo, Egypt, Stephen Henry Fisher, of Tiverton, Devon, M.R.C.S., L.R.C.P., aged 51. Funeral at Cairo, 12th inst.

PERCIVAL.—January 5th, at his residence, Ash Grove, Knottingley, Yorkshire, aged 62, Thomas Percival, M.R.C.S., L.S.A.

STEDMAN.—At The Croft, Wallington, Surrey, on January 16th, Sarah Stedman, widow of Arthur Stedman, Surgeon, of Great Bookham, in her 80th year. No flowers, by request.

BOOKS, ETC., RECEIVED.

The Destruction of Mosquitos: Being an Account of the Drainage and Other Works carried out during 1902 and 1903 at St. Lucia, West Indies. By Major W. M. Hodder, R.E. Chatham: Royal Engineers Institute. 1904.

Avogadro and Dalton: The Standing in Chemistry of their Hypotheses. By Andrew N. Meldrum, D.Sc.; with a Preface by Francis R. Japp, M.A., LL.D., F.R.S. Edinburgh: William F. Clay. 1904. 3s.

Autobiography of Frederick James Gant, F.R.C.S. London: Baillière, Tindall, and Cox. 1905. 3s. 6d.

The Preparation and After-Treatment of Section Cases. By W. J. Stewart McKay, M.B., M.Ch., B.Sc. London: Baillière, Tindall, and Cox. 1905. 1s.

Les Etudes Médicales dans les Pays Anglo-Saxons. Par F. G. Friedel. Paris: Henri Jouve. 1904.

A Short Essay on Insanity. By Charles Williams, L.R.C.P., L.R.C.S., L.S.A. London: Henry J. Glashier. 1905. 1s.

Handbooks for the Clergy. Edited by Arthur W. Robinson, B.D. Intemperance. By Henry Horace Pereira, Bishop of Croydon. London: Longmans, Green, and Co. 1905. 2s. 6d.

Manual of Hygiene. By John Glaister, M.D., D.P.H.Camb. Second Edition. Edinburgh: E. and S. Livingstone. 1905. 6s.

Sun Pictures of the Antilles and British Guiana. By A. E. A. London: The West India Committee Rooms. 1905. 2s. 6d.

Chemistry in Daily Life. Popular Lectures by Dr. Lassar-Cohn. Translated by M. M. Pattison Muir, M.A. Third Edition. London: H. Grevel and Co. 1905.

Hazell's Annual for 1905. Twentieth year of issue. Edited by W. Palmer, B.A.Lond. London: Hazell, Watson, and Viney, Limited. 3s. 6d.

England's Future. By W. Culver James, M.D. Fifth Edition. London: Harrison and Sons.

Massage des Membres. Par le Dr. Dagron. Paris: G. Steinheil. 1905. Fr.12.

L'Œuf Humain et les Premiers Stades de son développement, Eléments d'embryogénie. Par J. Potocki et A. Branca. Paris: G. Steinheil. 1905. Fr.10.

The Plenum or Propulsion System of Heating and Ventilation. By Harold Griffiths. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 4s. 6d.

Ship Surgeon's Pocket Book. By W. E. Dawson. London: Baillière, Tindall, and Cox. 1905. 2s. 6d.

The Sewage Problem: A Review of the Evidence Collected by the Royal Commission on Sewage Disposal. By Arthur J. Martin, A.M.I.C.E., M.R.S.I. London: The Sanitary Publishing Company, Limited; and New York: D. Van Nostrand Co. 1905. 8s. 6d.

The Cookery Annual for 1905. Eleventh year of issue. Founded and edited by C. Herman Senn, G.C.A. London: The Food and Cookery Publishing Agency. 1905. 6d.

The Harveian Oration, delivered before the Royal College of Physicians on June 21st, 1904. By Richard Caton, M.D., F.R.C.P. I. Imhotep and Ancient Egyptian Medicine. II. Prevention of Valvular Disease. London: C. J. Clay and Sons. 1904.

Précis de Chimie Physiologique. Par Allyre Chassevant. Paris: Félix Alcan. 1905. Fr.10.

Les Nerfs du Cœur. Par Elie de Cyon. Paris: Félix Alcan. 1905. Fr.6.

The Edinburgh Medical Journal. Edited by G. A. Gibson, M.D., F.R.C.P.Edin., and Alexis Thomson, M.D., F.R.C.S.Ed. New Series. Vol. xvi. Edinburgh and London: Young J. Pentland. 1904.

Atlas and Epitome of General Pathologic Histology. By Docent Dr. Hermann Dürck. Authorized translation from the German edited by Ludvig Hektoen, M.D. Philadelphia, New York, and London: W. B. Saunders and Co. 1904. 21s.

Materia Medica of Vegetable and Animal Origin. By John Humphrey. With an Introduction by E. M. Holmes, F.L.S. London: Henry Kimpton. 1905. 5s.

The Arm of the Leopard: A West African Story. By Mary Gaunt and John Ridgwell Essex. London: Grant Richards. 1904. 6s.

"*" In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
January	22...Sunday..	
,,	23...MONDAY ...	
,,	24...TUESDAY ...	Dundee Branch, *Local Meeting*, the Infirmary, Forfar, 5 p.m.
,,	25...WEDNESDAY	Bath and Bristol Branch, University College, Bristol, 8 p.m. Dundee Branch, *Local Meeting*, Imperial Hotel, Arbroath, 8 p.m.
,,	26...THURSDAY...	LONDON: Hospitals Committee, 2.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 8.30 p.m. Dundee Branch, Students' Union, Dundee, 8.30 p.m.
,,	27...FRIDAY ...	Tottenham Division, *Metropolitan Counties Branch*, White Lodge, Enfield, 9.15 p.m. Dundee Branch, *Local Meeting*, the Infirmary, Montrose, 5 p.m.
,,	28...SATURDAY...	
,,	29...Sunday..	
,,	30...MONDAY ...	
,,	31...TUESDAY ...	Latest day for sending Divisional Annual Report and Financial Statement to Branch Secretary (By-law 9).
February	1...WEDNESDAY	LONDON: Scientific Grants Committee, 3.30 p.m. Ulster Branch, Derry, 11.30 a.m.
,,	2 THURSDAY...	
,,	3...FRIDAY ...	LONDON: Committee of Chairmen: 2 p.m., Amendment of Council Standing Orders: 4 p.m., Consider Alteration of Memorandum of Association.
,,	4...SATURDAY...	
,,	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	
,,	8...WEDNESDAY	LONDON: Premises and Library Committee, 2.30 p.m.
,,	9 THURSDAY...	,, Medical Defence Committee, 3 p.m.
,,	10...FRIDAY ...	Perthshire Branch, Clinical Meeting, Perth Infirmary, 3.45 p.m.
,,	11...SATURDAY...	South-Eastern Counties Division, *Edinburgh Branch*, King's Arms Hotel, Melrose, 3.30 p.m.
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m. ,, Colonial (Joint) Constitution Committee, 2.0 p.m.
,,	15...WEDNESDAY	,, Medico-Political Committee, 10.0 a.m. ,, Central Council (Special Meeting) 2 p.m.
,,	16...THURSDAY...	
,,	17...FRIDAY ...	Edinburgh Branch: Royal Infirmary.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	
,,	23...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...WEDNESDAY	
,,	2...THURSDAY...	
,,	3...FRIDAY ...	
,,	4...SATURDAY...	
March	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	
,,	8...WEDNESDAY	
,,	9...THURSDAY...	
,,	10...FRIDAY ...	
,,	11...SATURDAY...	
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	
,,	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...THURSDAY...	
,,	17...FRIDAY ...	LONDON: Ethical Committee, 2.0 p.m.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	LONDON: Medico-Political Committee, 3.0 p.m.
,,	23...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	
,,	29...WEDNESDAY	
,,	30...THURSDAY...	
,,	31...FRIDAY ...	
April	1...SATURDAY...	
,,	2...Sunday..	
,,	3...MONDAY ...	
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	
,,	11...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	12...WEDNESDAY	
,,	13...THURSDAY...	
,,	14...FRIDAY ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted today.
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Premises and Library Committee. ,, Trust Funds Committee.
,,	19...WEDNESDAY	,, Central Council, 2 p.m.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 87, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 28TH, 1905.

CONTENTS.

	Page
PROCEEDINGS OF COUNCIL	25
MEETINGS OF BRANCHES AND DIVISIONS:	
Cambridge and Huntingdon Branch	26
Lancashire and Cheshire Branch: Manchester (West) Division ...	26
Southern Branch: Winchester Division	27
South-Eastern Branch: Chichester and Worthing Division ...	27
South Wales and Monmouthshire Branch: Monmouth Division ...	27
Sydney and New South Wales Branch: Special Meeting... ...	27
Ulster Division: Portadown and West Down Division	27
Yorkshire Branch: Bradford Division	27
MEMBERS ELECTED DURING THE LAST THREE MONTHS ...	28
ASSOCIATION NOTICES: BRANCH AND DIVISION MEETINGS TO BE HELD	29
NAVAL AND MILITARY APPOINTMENTS	30
VITAL STATISTICS	30
VACANCIES AND APPOINTMENTS	30
BIRTHS, MARRIAGES, AND DEATHS	31
DIARY OF THE WEEK	31
CALENDAR	32

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, January 18th, 1905.

Present:

Mr. ANDREW CLARK, D.Sc., Chairman of Council, in the Chair.
Dr. WILLIAM COLLIER, President.
Dr. T. DRYSLWYN GRIFFITHS, D.Sc., Past-President.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meetings.
Dr. E. MARKHAM SKERRITT, Treasurer.

Dr. JOHN FORD ANDERSON, London.
Dr. EDGAR G. BARNES, Eye.
Dr. JAMES BARR, Liverpool.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. J. BRASSEY BRIERLEY, Old Trafford.
Dr. H. LANGLEY BROWNE, West Bromwich.
Dr. R. COCHRANE BUIST, Dundee.
Dr. DUNCAN BURGESS, Sheffield.
Mr. JAMES CANTLIE (Hong Kong Branch), London.
Dr. W. A. CARLINE, Lincoln.
Dr. JAMES CRAIG, Dublin.
Mr. PEARSON R. CRESSWELL, C.B., Dowlais.
Dr. H. RADCLIFFE CROCKER, London.
Lieutenant-Colonel E. F. DRAKE-BROCKMAN, I.M.S., ret. (South Indian and Madras Branch), London.
Dr. G. BAGOT FERGUSON, Cheltenham.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Mr. C. E. S. FLEMMING, Bradford-on-Avon.
Dr. E. ROWLAND FOTHERGILL, London.
Dr. H. A. FRANCIS (Queensland Branch), London.
Dr. EDWARD LAWRENCE FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. JOSEPH J. GIUSANI, Cork.
Dr. BRUCE GOFF, Bothwell.
Dr. MAJOR GREENWOOD, London.
Dr. JOSEPH GROVES, Carisbrooke.
Dr. JAMES HAMILTON, Glasgow.
Dr. T. ARTHUR HELME, Manchester.
Dr. JAMES H. HUNTER, South Shields.
Dr. R. MCKENZIE JOHNSTON, Edinburgh.
Mr. R. H. KINSEY, Bedford.
Dr. C. W. MARRIOTT, Reading
Dr. C. J. MARTIN, F.R.S. (Sydney and New South Wales Branch), London.
Dr. C. G. DRUMMOND MORIER (South Australian Branch), London.
Mr. W. JONES MORRIS, Portmadoc.
Professor J. T. J. MORRISON, Birmingham.
Dr. CHARLES JAMES MORTON, London.
Mr. D. A. O'SULLIVAN, London.
Mr. EDMUND OWEN, London.
Mr. C. H. WATTS PARKINSON, Wimborne Minster.
Dr. FRANK M. POPE, Leicester.
Dr. EDWIN RAYNER, Stockport.
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham.
Professor W. R. SMITH, M.D. (Malta and Mediterranean Branch), London.
Mr. W. D. SPANTON, Hanley.
Fleet-Surg. J. LLOYD THOMAS, R.N., Portsmouth.
Mr. JOHN LYNN THOMAS, C.B., Cardiff.
Dr. G. E. TWYNAM (Sydney and New South Wales Branch), London.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.
Captain C. E. WILLIAMS, I.M.S. (Burmah Branch), London.

The minutes of the last meeting having been printed and circulated, and no objections received, were taken as read and signed as correct.

Read letters of apology for non-attendance from the President-elect, Professor J. W. Byers, Dr. G. W. Crowe, Dr. P. Maury Deas, Dr. D. Goyder, Sir Francis Lovell, K.C.M.G., Dr. C. H. Milburn, Dr. J. Murray, and Dr. J. Maxwell Ross.

Dr. C. W. Marriott, the representative of the Oxford and Reading Branch, was introduced to the Council on attending for the first time.

Resolved: That the Council of the British Medical Association desires to express its sympathy with Mrs. Lush on the death of her husband, William Vawdrey Lush, M.D., F.R.C.P. The Council deplores the loss of one who has rendered such valuable services to the Association during his membership of the Council from 1883 to 1889, and also as Honorary Secretary and Treasurer of the Dorset and West Hants Branch since its formation twenty-one years ago.

Resolved: That the Council of the British Medical Association has learned with deep regret of the death of Dr. Ogilvie Grant, who represented the Northern Counties of Scotland Branch on this Council from 1886 to 1900. Dr. Ogilvie Grant was also President of the Branch in 1903. The Council desires to place on record its appreciation of his valuable services and to sympathize with the family in their loss.

The Chairman of Council reported receipt of nominations for co-option on the Council in accordance with By-law 31. A ballot was taken, but neither candidate obtaining the necessary majority, the vacancy was not filled.

Dr. T. D. Griffiths reported that he would be unable to attend the proposed Conference on School Hygiene, when the Chairman of Council consented to attend in his place.

Read acknowledgement from Sir Constantine Holman to the intimation that the Council had decided to award him the Gold Medal of Merit at the Leicester meeting, which was ordered to be entered on the minutes.

Read communication from Dr. Pope, offering on behalf of the Midland Branch to present to the Association a President's badge.

Resolved: That the offer of the Midland Branch made through Dr. Pope be accepted, subject to a Committee appointed by the Council approving the design.

Resolved: That the Trustees of the surplus funds of the Midland Branch be thanked for their kind offer to present to the Association a Badge to be worn on public occasions by the President of the Association for the time being.

Resolved: That the minutes of the Coat of Arms Committee be received.

On the motion that an application for a Coat of Arms should be made, an amendment was moved that the question of the Association making an application for a Coat of Arms be brought before the Annual Representative Meeting. This, however, was lost.

On the substantive motion coming before the meeting, a further amendment was moved and carried, that the design of the Seal of the Association be adopted as the official mark or Badge of the Association, and that the application to Heralds College be not proceeded with.

The President reported that he had received a communication from Colonel Long, M.P., asking for the co-operation of the Association with a Committee formed to promote an inquiry into venereal diseases in this country and the best means of counteracting the evil. The Committee desire the Association to again approach the Government with a view to granting an inquiry on the lines suggested in a previous memorial forwarded to the Prime Minister in 1899 by the British Medical Association.

Read communications from the Imperial Vaccination League and the Norwich Division asking the Association to support the Revaccination Bill, when the Chairman reported that the question was being dealt with by the Medico-Political Committee.

Resolved: That the Council recommend the amendment of By-law 22 by the Annual Representative Meeting at Leicester to read as follows:

22. Composition and Powers.

The Council shall be composed of the officers and ex-officers named as members of the Council, *ex-officio*, in Article XXXVIII of the foregoing Regulations, together with the members duly elected or appointed by the Branches and other bodies authorized by the By-laws to elect or appoint members of the Council, and of members annually co-opted by the Council in manner hereinafter provided. The Council may also elect, if it thinks fit, at any of its meetings all or any one of the following, namely, one medical officer on the active or retired list of each of the following Services: the Royal Navy Medical Service, the Royal Army Medical Service, and the Indian Medical Service. In each case he shall not have retired from the active list more than three years previously.

The election of candidates was then considered, and the twenty-one candidates whose name appeared on the circular convening the meeting were duly elected members of the British Medical Association.

The report of Subcommittee as to the arrangements for the Leicester Meeting in 1905 was then considered, recommending that the Annual General Meeting commence at 2 p.m. on Monday, July 24th, to be followed immediately by the Representative Meeting. This should enable the Representative Meeting, if it thinks fit, to adjourn for dinner and then to resume its session. The Popular Lecture is to be given at 8 p.m. on Friday.

An amendment to the report was moved that the time of the commencement of the General Meeting be altered to 5 p.m. This, however, was not carried.

The minutes of the Premises and Library Committee were then considered.

Resolved: That the accounts for the quarter be received and the Treasurer be empowered to pay them.

Resolved: That the Bournemouth Medical Society be informed that the Council regrets it is unable to accede to their application for duplicate volumes, the custom being to restrict the distribution of the duplicate volumes to the Branches and Divisions of the Association.

Resolved: That Dr. Sandwith (London School of Tropical Medicine) be informed that it is now customary to distribute the duplicate volumes only to Branches and Divisions of the Association, but if the local Division would form a library (it being the desire of the Association for Divisions to do so) this Council suggests that the London School of Tropical Medicine might be asked to find the necessary space to house the same.

Certain alterations in the rooms of the editorial department were duly sanctioned.

On the consideration of a recommendation of the Committee for the rebuilding of the Agar Street property, it was resolved that the whole question be referred back, and that the Committee be enlarged for this special purpose.

The minutes of the Trust Funds Committee were then considered.

Resolved: That the Stewart Prize, consisting of an illuminated address and a cheque for 40 guineas, be awarded at the forthcoming annual meeting.

The minutes of the Journal and Finance Committee were then considered.

Resolved: That in the opinion of this Council it is desirable that steps be taken to alter the Articles and By-laws of the Association so as to authorize the payment of the expenses of members attending Councils and Committees.

Resolved: That the Branch Councils should have sole control of the capitation grant, subject to the Memorandum, Articles and By-laws.

Resolved: That the accounts for the quarter ending 31st December last, amounting to £10,723 19s. 5d., be received and approved, and the Treasurer be empowered to pay those remaining unpaid, amounting to £2,990 6s. 3d.

The Council then rose to meet again on Wednesday, February 15th, 1905, at 2 p.m.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

CAMBRIDGE AND HUNTINGDON BRANCH.

A meeting of this Branch was held at the University Arms Hotel, Cambridge, on January 17th. The President took the chair, and there were nine members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

President-elect.—The question of a President-elect was left in the hands of the Council.

Contract Medical Practice.—On considering the interim report on contract practice the following resolution was passed:

> That this meeting admits the necessity of contract medical service for the poor, and approves generally of the propositions referred to the Division; but is of opinion that the subject is too complex to be summed up in these seven propositions, and that the Association is not in a position to make its proposals effective without the loyal co-operation of every medical practitioner.

Consultation between Medical Witnesses.—The report on consultation of medical witnesses in legal cases was then discussed. It was unanimously decided that in the opinion of the meeting a system of medical assesors was the best mode of meeting the difficulty, if it could be carried out.

Coroners and Medical Practitioners.—The report on information supplied to coroners by medical practitioners was then considered and agreed to.

Reorganization of Local Government Board.—The meeting also unanimously approved of the report on reorganization of the Local Government Board.

Luncheon.—About fourteen members then lunched together.

Sleeping Sickness.—Afterwards they adjourned to the new medical schools, where some forty members and friends listened to a very interesting and instructive paper by Dr. Nuttall on Recent Investigations on Sleeping Sickness and other Protozoal Diseases, illustrated by lantern slides.

Vote of Thanks.—The President proposed a vote of thanks to Dr. Nuttall, which was seconded by Dr. Allbutt, and carried unanimously.

LANCASHIRE AND CHESHIRE BRANCH:

Manchester (West) Division.

A general meeting of this Division was held on Tuesday, November 18th, 1904.

Branch Councils and Surplus Funds.—As the outcome of a statement made to the meeting by Dr. Brassey Brierley to the effect that the Council of the Lancashire and Cheshire Branch had not been able to use money for defraying certain expenses of their Representatives as they had decided to, the following resolution was unanimously adopted:

> That this Division regrets to learn that under the New Constitution of the British Medical Association the Branch Councils have no legal control over the distribution of their own surplus funds.

The Cost of the Organization Department.—The question of

expenditure in connexion with the Organization Department was discussed, and it was resolved:

That in view of the increasing cost of the Organization Department of the Association, this Division urges upon the Council the strong advisability of distributing the effort to increase the membership of the Association; and in consideration of the amount of work thrown upon the Honorary Secretaries of Divisions, the necessity of appointing Secretaries in several centres for groups of Divisions, whose duties shall be to help the Divisional Secretaries, and who shall be paid an honorarium of £50 a year.

SOUTHERN BRANCH:

WINCHESTER DIVISION.

AN ordinary meeting of this Division was held in the Board room of the Royal Hants County Hospital on November 25th, 1904. Eighteen members were present.

Suggestion of More Frequent Meetings.—After a short discussion, an opinion was expressed that it was desirable for the Executive Committee to arrange for more frequent meetings, either in Winchester or in some other part of the Division.

Annual Representative Meeting.—Dr. BROWNE read some details of the business transacted at the Oxford delegate meeting, where he had represented the Division, and impressed on those present the very great importance of the work done there.

Communications.—Dr. GODWIN read a paper on a case of anthrax, where life had been saved by an amputation of the arm.—Dr. JOLLYE read notes of a case of chlorotic thrombosis of cerebral veins, followed by exhaustive remarks on the grounds for his diagnosis. He also read notes on a case of traumatic tetanus, and pointed out various circumstances of interest.—Dr. BEVAN made some remarks on two cases of Graves's disease which had died somewhat suddenly. In the discussion which followed it was thought that these results were unusual.—Several patients were shown to the meeting, and their cases discussed.—Dr. GODWIN, a case of double congenital dislocation of the hip and a case of malignant disease of both tonsils.—Dr. FULLER ENGLAND, a case of thoracic aneurysm with anomalous symptoms.—Mr. HARVEY HILLIARD, anaesthetist to the London Hospital, read a paper on the use of ethyl chloride in general practice. Lively discussions followed the various subjects.

SOUTH-EASTERN BRANCH:

CHICHESTER AND WORTHING DIVISION.

A MEETING was held at the Beach Hotel, Littlehampton, on Thursday, November 24th, 1904. Mr. W. S. SIMPSON was in the chair.

Confirmation of Minutes.—The minutes of the Worthing meeting were read and confirmed.

Next Meeting.—It was decided to hold the next meeting at Worthing.

The "Medical Register."—A communication from the Bradford Division with regard to the *Medical Register* was read and approved of.

Proposed Division of Branch.—The question of dividing the South-Eastern Branch was adjourned to the annual meeting.

Papers.—Dr. CHARLES (Chichester) read a paper on the Incidence and Effect of Some Diseases on Others.—Dr. HINDS (Worthing) read a paper on Uterine Fibroids.—Dr. STEEN (West Sussex County Asylum) read a paper on the Treatment of Mental Cases.

Dinner.—After the meeting six members dined together at the hotel.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

MONMOUTH DIVISION.

A QUARTERLY meeting of this Division was held in the Newport Hospital on Friday, November 25th, 1904, at 5.30 p.m., Dr. G. A. BROWN in the chair.

Members Present.—The following members were present: Drs. Hamilton, Coulter, Griffith, Tonks, Neilson, Essex, D. G. Lloyd, Vines, Morrell Thomas, W. D. Steel, Glendinning, Mulligan, D. J. Jones, Wilson, McGinn, Dunlop, Howard Jones, Gratte, and Greer.

Confirmation of Minutes.—The minutes of the last meeting, held at Pontypool, were read and confirmed.

Model Rule.—The meeting was then resolved into a special meeting to consider the Model Rule 7. This was passed unanimously.

SYDNEY AND NEW SOUTH WALES BRANCH.

SPECIAL MEETING.

A SPECIAL general meeting of the Branch was held at the Association Rooms on Friday, October 14th; Dr. W. H. CRAGO in the chair. There were thirty-two members present.

The Notification of Pulmonary Tuberculosis.—The CHAIRMAN stated the business for which the meeting was convened, and called upon Dr. SINCLAIR GILLIES to move the following resolutions:

1. That until such time as the Board of Health declares pulmonary tuberculosis to be a notifiable disease, the honorary medical officers of the metropolitan hospitals be requested to voluntarily notify to the Board of Health all cases of pulmonary tuberculosis occurring in their hospital practice.
2. That a copy of this resolution be sent to the President of the Board of Health, with a request to co-operate in the prevention of the disease, the detection of early, and the housing of advanced, cases.

—Dr. SYDNEY JONES seconded the resolutions.—Dr. G. E. RENNIE moved the following amendments:

1. That in the opinion of this meeting compulsory notification of pulmonary tuberculosis is essential for the successful conduct of the fight against tuberculosis. That the New South Wales Branch of the British Medical Association hereby accords its hearty support to the new by-laws proposed by the Health Committee of the City Council.
2. That the resolution be communicated to the Lord Mayor and the City Council.

—Dr. GREGORY O'NEILL seconded the amendment.—A discussion ensued, in which Drs. WILKINSON, MILLS, ARMSTRONG, FIASCHI, POCKLEY, STORIE DIXSON, and TIDSWELL took part.—Dr. SINCLAIR GILLIES replied.—Dr. RENNIE'S amendment was then put to the meeting and carried.—Dr. WORRALL proposed:

1. That this meeting of the New South Wales Branch of the British Medical Association respectfully request the Board of Health to take steps to provide for the compulsory notification of pulmonary tuberculosis.
2. That it be an urgent recommendation that hospitals for advanced cases of phthisis should be erected without delay.

—Seconded by Dr. HANKINS, and carried.

ULSTER BRANCH:

PORTADOWN AND WEST DOWN DIVISION.

A MEETING of the Portadown and West Down Division was held in Portadown on January 4th; sixteen members present. It was unanimously decided (*a*) not to discuss the report of the Medico-Political Committee on Contract Practice, but to leave the Representative free to vote as he thought best on the subject. It was unanimously decided (*b*) to agree with the recommendations of the Committee as to the advisability of consultation between medical witnesses. (*c*) The recommendation of the Committee was communicated to the meeting. (*d*) That the Division support the Bill for Reorganization of the Local Government Board.

YORKSHIRE BRANCH:

BRADFORD DIVISION.

A MEETING of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, January 10th. Dr. MOSSOP (Chairman) presided, and the following members were present:—Drs. and Messrs. Bronner, J. H. Bell, J. J. Bell, Mitchell, Hime, Clow, Beckton, Eames, Rutherford, Miall, Craig, Walker, Oliver, Logan, and the Honorary Secretary (Dr. Metcalfe).

Confirmation of Minutes.—The minutes of the last meeting were read and adopted.

National Deposit Friendly Society.—The CHAIRMAN ruled that the resolution on the National Deposit Friendly Society was not in order, as the procedure adopted in regard to it had not conformed to Rule B of the Ethical Rules of the Division requiring that fourteen days' notice of such a resolution should be given to all members.

The Administration of Anaesthetics for Registered Dentists.—The discussion on the following resolution, proposed by Dr. MITCHELL at the last meeting, was then proceeded with:

That in the case of registered dentists requiring a medical man to administer an anaesthetic, as far as possible preference should be given to the ordinary medical attendant of the patient to be operated on, and that the fee tendered should be one guinea except in the case of poor patients.

DRS. HIME, RUTHERFORD, J. J. BELL, CRAIG, CLOW, and WALKER discussed the question in its various aspects. Two amendments were proposed but were negatived, and eventually the original resolution was adopted unanimously.

MEMBERS ELECTED DURING THE LAST THREE MONTHS.

BY THE COUNCIL ON JANUARY 18TH, 1905.

Banatvala, Hormasjee Edaljee, Lieut.-Col., I.M.S., M.D., L.R.C.P., M.R.C.S., Nagpur, C.P., India
Bevor, Walter Calverley, Lieut.-Col., R.A.M.C., M.B., M.R.C.S., Karachi, India
Brown, Henry Coddington, Lieut., I.M.S., M.B., B.C.Cantab., Sialkot, Punjab, India
Conyngham, Henry Francis, L.R.C.P. and S.I., Maruda Bay, B. N. Borneo
Davidge, George Sandys, Surg., R.N., H.M.S. "Perseus," East India Station
Duncan, George Ernest, Surg., R.N., c.o. Admiralty.
Gowans, Francis Jollie, M.B., B.S.(Dunelm.), H.M.S. "Leda"
Hudson, Corrie, Capt. I.M.S., D.S.O., M.R.C.S., L.R.C.P., 2nd Queen's Own Rajput L.I., c.o. Messrs. Grindlay and Co., Calcutta
Jordan, John Gregory, Major, I.M.S., M.B., C.M.Edin., c.o. Messrs Grindlay and Co., 54, Parliament St., S.W.
Lowe, Percy Roycroft, M.B., B.C.Cantab., Le Nid, Monte Carlo
Macpherson, John Duncan Graham, Capt., R.A.M.C., M.B., C.M., c.o Messrs Holt and Co., 3, Whitehall Place, S.W.
Maunsell, Edward Charles Cecil, Lieut., I.M.S., Aden
Pinchard, Michael Biddulph, Capt., I.M.S., M.R.C.S., L.R.C.P., 84th Punjabis, Secunderabad, Deccan, India
Roberts, Vivian Heathcote, Capt., I.M.S., L.R.C.P. and S.E., L.F.P. and S.G., L.M. and S.Bomb., Mooltan
Rundall, Lawrence, Lieut., I.M.S., M.B., Ch.P.Edin. c.o. Messrs. H. S. King and Co., 9, Pall Mall, S.W.
Sheward, Charles Railton, Surg., R.N., M.B., C.M., c.o. H. B. M. Consul, Moscow
Stewart, James Falloon, M.B., C.M., Medical Officer, Southern Nigeria
Thwaites, Henry, M.R.C.S., L.R.C.P., Lebanon Hospital, Asfuriyeh, Beyrout, Syria
Walsh, George Delavel, Surg., R.N., M.R.C.S., L.R.C.P., c.o. G.P.O., London
Willmore, William Southwick, Capt., I.M.S., M.R.C.S.E., L.R.C.P.Lond., Bulandshahr, United Provinces, India
Wilson, John Stevenson, M.B., B.Ch.Dub. Univer., P. & O. Service

BY BRANCH COUNCILS.

Aberdeen Branch.

Brown, William, M.B., Braemar
Gray, C. W. F., M.B., Aberdeen
Pretsell, Thomas, M.B, Scalloway

Bath and Bristol Branch.

Spreat, J. H., L.S.A., 6, Tyning Road, Bath

Birmingham Branch.

Bennett, Joseph Henry, L.R.C.P., L.R.C.S., 145, Birchfield Road, Birmingham
Flewitt, Charles York, M.R.C.S., L.R.C.P., Sutton Coldfield
Hosegood, William, M.B., Cheslyn Hay, Walsall

Bombay Branch.

Munday, J., M.D.Durh., 22, Apollo Street Fort, Bombay

Border Counties Branch.

Coulthard, W. J. C., M.B., Aspatria, Cumberland
Glen, T. M., L.R.C.P., L.R.C.S.Ed., Hesket New Market

Brisbane and Queensland Branch.

Marks, Dr. Alex., Brisbane
Penny, Dr. Gervaise, Clayfield, Brisbane
Tarleton, Dr. J. W., Nanango

Cambridge and Huntingdon Branch.

Myers, Charles S., M.A., M.D., B.Ch., Melrose, Grange Road, Cambridge

Cape of Good Hope Branch.

Arenhold, Dr. A. S., 43, Kloof Street, Cape Town
Murray, Dr. C. M., Hunsdon, Kenilworth, near Cape Town
Parkhurst, A. Usk, L.S.A., Swellendam, Cape Colony
Peirson, Dr. D. J., Box 561, Johannesburg
Plessis, P. H. du, L.R.C.P., Be-Rust, Oudtshoorn
Ritter, Dr. C. H. G., 1, Upper Union Street, Cape Town
Rogers, Dr. W., Williston, Fraserburg, Cape Colony
Thornton, Dr. E. N., 55, Parliament Street, Cape Town
Whyte, Andrew, M.D., Swellendam, Cape Colony

Ceylon Branch.

Aryaratne, D. M., L.M.S., Ragama, Ceylon
Ekanayaka, Dr. L. A., Lunngalla, Ceylon

Dorset and West Hants Branch.

Blackstone, C. E., M.R.C.S., L.R.C.P., Ringwood
Bushman, F. C. A., L.R.C.P.I., etc., Wentbridge, Bournemouth, W.
Gibb, J. A., M.B., Dorset County Asylum, near Dorchester
McCarthy, Thomas, M.R.C.S., Greenhill, Sherborne
Rey, Jules F., Esq., the Hospital, Boscombe, Bournemouth

Dundee Branch.

Anderson, Alfred W., M.B., 17, Briarwood Terrace, Dundee
Buist, Henry, M.B., 3, Springfield, Dundee
Burns, Samuel, M.B., Royal Asylum, Dundee
Jamieson, J. W. M., M.B., Royal Asylum, Dundee
Mitchell, T. J., M.B., University College, Dundee
Simpson, W. B., M.B., University College, Dundee

East York and North Lincoln Branch.

Davies, A. D., M.R.C.S., 301, Hessle Road, Hull
Eve, F. C., M.D., 14, Albion Street, Hull
Holt, J. L., M.R.C.S., Royal Infirmary, Hull
Turton, E., M.D., 1, Albion Street, Hull
Watson, G. H., L.S.A., Cottingham

Edinburgh Branch.

Cathels, Mildred, M.L., M.B., Leith Hospital
Doig, W., M.D., 7, Roxburgh Street, Galashiels
Green, John L., M.B., 16, Mayfield Gardens, Edinburgh
Rutherford, C. W. V., M.B., 25, Hatton Place, Edinburgh
Titterton, J. T., M.B., 8, Brighton Place, Portobello

Fife Branch.

Dickson, Dr. Margaret Scott, St. Kildas, Rathelpie, St. Andrews
Musgrove, Professor James, M.D., University St. Andrews

Glasgow and West of Scotland Branch.

Campbell, J. J. Y., M.B., 1, Buckingham Square, Govan
Conner, J. B., L.R.C.P., 43, Regent Street, Greenock
Head, Dr. L. C. Broughton, 17, Wilton Mansions West, Glasgow
Russell, David, M.B., 1, Ardgowan Street, W. Greenock
Smart, Margaret H., M.B., 21, Holyrood Crescent, Glasgow West
Watson, E. McLeod, L.R.C.P., Langside, Glasgow

Gloucestershire Branch.

Ball, C. P., M.D., Oakfield, Lydney
McLannahan, James G., L.R.C.P. and S.I., Stonehouse
Moriarty, Dr. G. I., General Hospital, Cheltenham
Robinson, H. J., M.R.C.S., General Hospital, Cheltenham
Williamson, Agnes, M.B.Lond., 6, Oriel Terrace, Cheltenham

Griqualand West Branch.

James, Rupert, M.R.C.S., L.R.C.P., 42, Estcourt Buildings, Johannesburg

Halifax and Nova Scotia Branch.

Corston, Dr. James R., 111, Gottingen Street, Halifax
Smith, Dr. A. C., Tracadie, N.B.

Hong Kong and China Branch.

Bateman, Geo. D., L.R.C.P., L.R.C.S., Surg., R.N., H.M.S. "Tamar," Hong Kong
Cooper, Florence Mary, L.S.A., Lo'nguong City, Foochow
Forsyth, Charles, M.B., Alexandra Buildings, Hong Kong
Grône, Frederick, M.B. Hong Kong Club
Josling, C. L., L.R.C.P., M.R.C.S., Major, R.A.M.C., Station Hospital, Hong Kong
Patrick, H. C., M.B., C.M., 18, Yangtszepoo Road, Shanghai
Thomson, G. S., M.B., Major, I.M.S., Kowloon, Hong Kong
Weir, Hugh H., M.B., Chemulpho, Corea

Lancashire and Cheshire Branch.

Auden, A. W. M., M.B., C.M., Birch House, Leigh
Bickerton, J. M., M.B., B.S., 6, Shaw Street, Liverpool
Bradley, H. P., M.B., B.C.Cantab., Lyndhurst, Reddish, Stockport
Brebner, C. S., M.D.Edin., D.P.H., Farnworth, Widnes
Donnell, J. H., M.B., B.C., Park Hill, Disley
Dunn, J. E., M.R.C.S., L.R.C.P., 25A, Winckley Sq., Preston
Ferriday, W., L.R.C.S. & P., Longsight, Manchester
Foley, John, L.R.C.P. & S.I., 54, Audley Range, Blackburn
Gamble, M., M.B., Ch.B., Fallowfield, Manchester
Grant, Alex., M.B., C.M., 31, Alberc Road, Colne
Jones, J. Grant, M.D., 47, Church Street, Padiham
Judson, J. E., M.R.C.S., L.R.C.P., Park View, Ashton-under-Lyne
Lund, J. K., M.R.C.S., L.R.C.P., Gorse Hill, Stratford
Mills, Wilton, L.R.C.P. & S., Lyncroft, Milnrow, near Rochdale
Okell, G., L.R.C.P., Don Lodge, Winsford
Robertson, G. O., M.B., Ch.B., Levenshulme
Roger, John, M.B., Ch.B., Waverley House, St. George Street, Chorley
Rotherham, W., L.R.C.P. & S., Sandy Lane, Skelmersdale
Smith, H. S., M.B., Ch.B., Haversham, Levenshulme
Smith, R. Burnham, L.R.C.P. & S., 55, Preston New Road, Blackburn
Smyth, James C., L.R.C.S. & P., Manchester Rd., Altrincham
Stewart, John, M.B., Ch.B., Warwick Road, North Shore, Blackpool
Sykes, Walter, L.R.C.P. & S., 20, Fox Street, Fishergate, Preston

Leinster Branch.

Burrell, A. A., M.B., St. Edmundsbury, Lucan
O'Riordan, J. P., L.R.C.P.I., Rathcoole
Palmer, F. J., L.R.C.P.I., Captain, R.A.M.C., Clontarf, Dublin
Reilly, C. W., L.R.C.P., Major R.A.M.C., 67, Cabra Road, Dublin
Stevenson, Walter C., M.D., 21, Upper Fitzwilliam Street, Dublin

Metropolitan Counties Branch.

Annand, William Fraser, M.B., E. London Hospital for Children, Shadwell, E.
Basan, Conrad, M.D.Brux., 330, Roman Road, Bow, E.
Bellamy, Gerald Eade, M.R.C.S., Glengariff, Kew Road, Richmond
Bensusan, Ruth Levy, M.B.Lond., 2, Harcourt Buildings, Temple, E.C.
Blakie, J. Landells, M.R.C.S., Medical School, Middlesex Hospital, W.
Buchanan, Robert James Bertram, L.R.C.P., St. Peter's Hospital, Henrietta Street, W.C.
Bulger, Lawrence Q., M.D., 70A, Osnaburgh Street, N.W.
Coleman, Frank, M.R.C.S., 129, Harley Street, W.
Cook, E. T., M.R.C.S., L.R.C.P., Rothley, Macaulay Road, Clapham, S.W.
Cooper, Robert Higham, L.S.A.Lond., 109, Oxford and Cambridge Mansions, Marylebone Road, W.
Cran, Hugh Rose, M.R.C.S., 37, Canfield Gardens, Hampstead, N.W.
Cyriax, Edgar, M.D.Edin., 4, Craven Hill, Lancaster Gate, W.
Drury, William Henry, L.R.C.P.Edin., 21, Hoe Street, Walthamstow
Evans, John H., M.B., F.R.C.S., 21, New Cavendish St., W.
Fayrer, Joseph, M.D., F.R.C.S.Edin., Major, R.A.M.C., Officers' Quarters, Millbank, Westminster
Foy, Harry Andrew, L.R.C.P., 52 Torrington Square, W.C.
Furnivall, Henry Wallace, M.B., 211, Lower Road, Rotherhithe
Gervis, Arthur Frederick, M.R.C.S., L.R.C.P., 1, Steeles Road, S. Hampstead, N.W.
Gilford, Sydney, M.B., Paddington Green Children's Hospital, W.
Glanville, Francis F., M.R.C.S., 10 Hill Street, Rutland Gate, S.W.
Greenwood, Major, jun., M.R.C.S., L.R.C.P.Lond., 243, Hackney Road, N.E.
Grundlach, John, M.R.C.S., L.R.C.P., 138, Upper Clapton Road, N.E.
Hallows, Stuart P., M.B., C.M.Edin., 32, Stamford Hill Mansions, N.
Hamilton, Louisa, M.B., B.Sc., 4, Compton Mansions, 17, Hunter Street, W.C.
Hedley, Edward William, M.B., 56, Hans Place, S.W.
Hume, W. A., M.R.C.S., L.S.A., 12, Sutton Place, Hackney
Hunt, Richard Brinsley, L.R.C.P., L.R.C.S., 1, Gladstone Avenue, Wood Green, N.
Jones, William W. C., jun., L.R.C.P., 41, Craven Hill Gardens, Lancaster Gate, W.
McDonnell, James, M.R., M.R.C.S., 57, Battersea Rise, S.W.
Maggs, William Adolphus, L.R.C.P., M.R.C.S., 14, Upper Wimpole Street, W.
Markus, Charles, M.R.C.S., L.R.C.P., 28, Wimpole St., W.
Moritz, Arnold, M.B., 39, Fitzjames Avenue, W. Kensington
Nias, Joseph Baldwin, M.D., M.R.C.P., 5, Rosary Gns., S.W.
Pike, D. R., M.B., 3, Cromwell Crescent, Kensington, S.W.
Russ, Charles, M.B., M.R.C.S., L.R.C.P., 31, Lancaster Gardens, West Ealing
Russell, John Hutchinson, M.R.C.S., 362, Romford Road, E.
Smith, Harry Gordon, M.B., 17, Dartmouth Park Rd., N.W.
Stark, A. C., M.B., L.S.A., Westminster Hospital, S.W.
Stevenson, Thomas H. C., M.D., 239, Sternhall Street, Walthamstow
Turnbull, Jane Holland, M.B., B.S., 23, Mecklenburgh Square, W.C.
Twigge, Caroline, M.B., 34, Woodland Villas, Muswell Hill Road, Highgate
Will, John Kennedy, M.D., C.M., Bethnal House Asylum, N.E.
Wilson, A. W., M.B., C.M.Edin., 202, Tufnell Park Road, N.
Woodcock, Louisa, M.B., B.S., South Sq., Gray's Inn, W.C.

Midland Branch.

Allan, A. W., M.D.Brux., Wainfleet
Austin, E. C., F.R.C.S., Broughton Astley, Rugby
Barron, Thomas A., M.R.C.S., L.R.C.P., Spondon, Derby
Clarke, Sidney H., M.R.C.S., L.R.C.P., Stoneygate, Leicester
Corcoran, Thomas, L.R.C.S.I., Loughborough
Crofts, George H., M.R.C.S., L.R.C.P., 59, Highcross Street, Leicester
Crossfield, Arthur M., L.R.C.P. & S.Ed., Belgrave, Leicester
Crossley, Charles, L.R.C.P. & S.Ed., M.R.C.S., New Walk Gates, Leicester
Dutton, William, M.R.C.S., L.R.C.P., Leicester
Ellis, Leonard E., M.D., 48, Queen's Road, Leicester
Flint, Thomas B., M.R.C.S., L.R.C.P., 22, Hardwick Street, Buxton
Gill, G. B., M.B., The Gables, Belper
Green, A. S., M.B., 9, West Parade, Lincoln
Hadley, Frederick A., M.R.C.S., L.R.C.P., Royal Infirmary, Derby
Harrison, Leonard K., B.A., M.B., 320, Humberstone Road, Leicester
Hedley, Wallace T., M.B., Hallaton, Uppingham
Holmes, William M., M.B., 2, Equity Road, Leicester
Holyoak, E. W., M.B., 2, Tower Street, Leicester
Hutchinson, Frederick E., M.R.C.S., L.R.C.P., Belgrave, Leicester
Jenkins, Evan L., M.B., B.S., Hinckley
Johnson, Smeeton, M.B., Kirby Muxloe, Leicester
Lankester, Francis J., M.R.C.S., L.R.C.P., D.D.S., Penna, 41, Belvoir Street, Leicester
Lilley, E. L., M.B., F.R.C.S., London Road, Leicester
Lockhart, John, M.B., Sherwood Rise, Nottingham
Lovett, John M., M.B., 73, Cromwell Street, Nottingham
MacAlevy, William C., L.R.C.P., L.F.P.S.Glasg., 121, London Road, Leicester
Macleod, Alexander L., M.B., 59, Hinckley Road, Leicester
Murray, Donald N. W., M.D., The Infirmary, Leicester
Mussen, William, L.R.C.P., L.R.C.S.Edin., 57, Welford Road, Leicester
Nevin, John, M.B., 85, Narborough Road, Leicester
Parsons, John Arthur, M.D., Market Overton, Oakham
Peace, Percy C., M.R.C.S., L.R.C.P., Norton Woodseats
Peacock, James, M.B., 335, Humberstone Road, Leicester
Peake, W. Pemberton, M.R.C.S., L.R.C.P., 21, Oxford Street, Leicester
Pickering, William C., M.R.C.S., L.R.C.P., The Infirmary, Leicester
Plant, James R., M.R.C.S., L.R.C.P., 107, Hinckley Road, Leicester
Shelley, Percy W. G., M.R.C.S., L.R.C.P., Narborough Road, Leicester
Smith, H. Walter, M.R.C.S., Pleasley
Vice, William A., M.B., 10, Belvoir Street, Leicester
Waite, Joseph E., M.B., Westcotes Drive, Leicester
Warner, Allan, M.D., Borough Fever Hospital, Leicester

North Lancashire and South Westmorland Branch.

Stevens, B. C., M.D., Lancaster

Northern Counties of Scotland Branch.

Balfour, Archibald Craig, L.R.C.P. & S.Ed. & Glasg., Aviemore
MacDonald, Donald, M.B., C.M.Edin., Craig Villa, Laggan, Kingussie
Macleod, William, M.B., C.M., Helmsdale

Oxford and Reading Branch.

Coleman, M. W., M.D. Castle Street, Reading
Hawkesworth, T. A., M.B., Watlington
Meade, F. E., M.R.C.S., 106, London Street, Reading
Secretan, W. B., M.B., 62A Castle Hill, Reading
Waterhouse, A. T., M.B., The Court, Tattendon
Winslow, Walter, M.B., North Stoke, near Wallingford

Perth Branch.

Christie, B. R. Craig, M.D., Earnhope, Comrie
Martin, Dr. H. C., Royal Infirmary, Perth

South Midland Branch.

Baker, J. C., M.B., Ceely House, Aylesbury
Bailey, C. H. F., M.R.C.S., 126, Foster Hill Road, Bedford
Bell, V. S. A., M.R.C.S., 4, Harpur Place, Bedford
Bellamy, H. F., M.D., Abbots Langley
Dupont, J. M., M.B., Bedford
Goldsmith, A. F., M.R.C.S., 48, Harpur Street, Bedford
Kerr, H., M.D., County Asylum, Stone, Aylesbury
May, H. E., M.B., Victoria Street, St. Albans

Matheson, J. C., M.B., Moulton
Nicholson, C. H., L.S.A., Clop Hill, Ampthill
Parbury, W. K., M.R.C.S., The Grange, Sharnbrook
Relton, Bernard, M.R.C.S., Gleve House, Rugby

South Wales and Monmouthshire Branch.

Andrew, A. J., M.R.C.S., L.R.C.P., 7, Park Place, Cardiff
Begg, A. Clarke, M.B., Lismore, Swansea
Bethell, H. W., M.R.C.S., Newport, Mon.
Davies, Naunton W., F.R.C.S.Edin., Carmarthen
Griffith, D. R. T., L.S.A., County Infirmary, Brecon
Hackett, E. L. M., L.R.C.P., Usk
Jones, R. Gabe, M.R.C.S., Clydach Vale
O'Donovan, T. J., L.R.C.P., Blaina
Paterson, H., M.B., 100, Crwys Road, Cardiff
Phillips, E. L., M.B., Ystrad Rhondda
Price, J. T., M.D., Bury Port
Walters, Joseph, M.R.C.S., Bedlinog, near Treharris
Wright, W. Dundas, M.B., Newport, South Wales

South-East of Ireland Branch.

Strangman, Mary S. P., F.R.C.S.I., 15, Beresford Street, Waterford

South-Eastern Branch.

Baker, Alfred Eaton, M.B., Forfield House, Hastings
Barham, Percy Cornelius, M.R.C.S., The Chestnuts, East Dulwich Grove, S.E.
Hall, John Spencer, M.D., B.S.Durh., Frensham Vale, Farnham
Martin, Antony Alexander, M.D.Lond., B.S., 15, Victoria Place, Eastbourne
Moore, Samuel James, M.D., Lisdoon, Eastbourne
Ward, Stanley Edward, M.R.C.S., Brasted, Sevenoaks

South-Western Branch.

Bickford, B. R., M.R.C.S., Surgeon, R.N., R.N. Barracks, Devonport
Cooper, C. E., M.B., Ivybridge
Ellis, C. I., M.D., Dartmouth
Fleming, J. C., M.R.C.S., Didworthy, South Brent
Francis, J. E., M.R.C.S., L.R.C.P., Northam
Gardner, E. F., M.R.C.S., L.R.C.P., Ilfracombe
Horsfall, W. N., M.B., R.N. Barracks, Devonport
Hunt, A. W. D., M.R.C.S., L.R.C.P., Chagford
Johnson, H. S., M.R.C.P.I., Totnes
Johnston, J. E., M.B., Surgeon, R.N., Devonport
Miles, H. P., M.R.C.S., Modbury
Pardiy, K. M., M.R.C.S., L.R.C.P., Truro
Pearse, E. M., M.R.C.S., L.R.C.P., Liskeard
Valentine, W. A., M.D., Appledore

Southern Branch.

Armitage, J. J., M.R.C.S., L.R.C.P., The Infirmary, Salisbury
Bacon, R. A. E., M.R.C.S., Bitterne Park, Southampton
Dally, J. F. H., M.B., Ventnor
Hall, E. S., M.B., Bath Lodge, Bitterne
Hoey, J. C., L.R.C.P., Emsworth Road, Shirley
Plummer, B. C., M.R.C.S., Rowley, Alresford
Robinson, J. H., M.R.C.S., L.R.C.P., Capt. R.A.M.C., Hazelwood, Carisbrooke Road, Southsea
Straton, A. W. K., M.R.C.S., L.R.C.P., Winchester
Watson, Miss Hamilton M., L.R.C.P. and S.E., Borough Asylum, Portsmouth

Staffordshire Branch.

Bearblock, P. E., M.R.C.S., The Lodge, Oakamoor
Burnett, Reuben, M.R.C.S., Leek
Hartley, Harold, M.D., Basford, Stoke-on-Trent
Izard, H. E., M.R.C.S., Cheddleston Asylum, Leek

Stirling Branch.

Philp, W. C., L.R.C.P., Dunblane

Sydney and New South Wales Branch.

Bell, Dr. H. C. R., Wilcannia
Bobardt, A. O., M.D., Staff Surg. R.N., H.M.S. "Wallaroo
Harris, Dr. M. H., Wee Waa
Hinsley, Dr. P. L., Glebe
Kinpers, Dr. T. C., Hillston
Lethbridge, Dr. P., Camperdown
Roos, Dr. J. MacBain, Tibooburra

Toronto Branch.

Coke, C. Eugene, M.D., Ignace, Ontario
Fisher, Dr. John H., 18, St. Patrick Street, Toronto
Hayden, Edgar W., M.D., Roseneath, Ontario
Kinghorn, Dr. Allan, 89, Geoffrey Street, Toronto
Palmer, Dr. S. Murray, Florence, Kansas, U.S.A.
Ruppert, Dr. Andrew, Preston, Ontario
Todd, Dr. J. A., 165, College Street, Toronto
Trebilcock, F. C., M.D., Enniskillen, Ontario

Yorkshire Branch.

Bateson, Vaughan, L.R.C.P., 89, New Cross St., Bradford
Bristow, George H., F.R.C.S.I., 4, Alma Sq., Scarborough
Crowe, J. T., L.S.A., Sackville House, Skipton
Firth, A. H., M.B., Wadsley Asylum, Sheffield
Gillespie, D. M.B., Wadsley Asylum, Sheffield
Greaves, R. B., M.D., 263, Cemetery Road, Sheffield
Sharpe, S. H., M.D., Wadsley Asylum, Sheffield
Waite, W. A. H., M.B., Richmond Hill, Leeds
Wilson, A. G., F.R.C.S., 53, Riverdale Road, Sheffield

Association Notices.

COUNCIL MEETING.

THE Special Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 2 o'clock in the afternoon of Wednesday, February 15th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

January 26th. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, February 7th, at 8.30 p.m. At the termination of the Ordinary Meeting, a Meeting of the Book Section will be held to determine the conditions of the continuation of the Section after April 1st. Members of that Section who are unable to attend, and who wish to renew their subscriptions, are requested to inform the Secretary prior to the meeting. Non-members who wish to join are asked to communicate their wishes to the Secretary. Agenda: 1. Specimens. (*a*) Calculus and prostatic outgrowth removed at one operation, with brief notes of the case (Dr. Bankes Price); (*b*) fragments of bone from a comminuted fracture of the upper extremity of the femur in a female patient, with marked tabetic symptoms (Dr. Bankes Price); (*c*) aneurysm of the aorta (Dr. J. Orton); (*d*) sutured typhoid ulcer (Mr. W. E. Bennett). 2. The Committee will recommend that the Division shall give notice of the following motion to be moved at the next Annual Representative Meeting: That By-law 16 shall be altered by the substitution of the word "Council" for "Branch Council." To be moved by the Secretary. 3. Dr Kendrick will propose the following resolution: That it is hereby resolved that no member of the profession in the area of the Division shall act as medical officer to a Friendly Society at a less remuneration than 4s. per member per annum. 4. Dr. Harman Brown will propose the following resolution: That the attention of all medical men practising within the area of the Division be called to the regulation of the General Medical Council prohibiting the administration, by registered medical practitioners, of anaesthetics for unregistered dentists; and that the Committee of the Division be hereby authorized to communicate to the General Medical Council any infringement of the regulation which is reported to it. 5. Matters referred to the Division: (*a*) Payment of medical practitioners called in to assist midwives. Certain recommendations of the Committee concerning the questions set forth in the Memorandum of the Medico-Political Committee will be moved by the Chairman. (*b*) Interim Report on Contract Practice. The recommendations of the Committee on the Report will be moved by Dr. J. Orton (SUPPLEMENT, November 26th, 1904, p. 179). (*c*) Consultations between medical witnesses in legal cases. Approval of the Report by the Medico-Political Committee will be moved by the Chairman (SUPPLEMENT, November 26th, p. 179). (*d*) The furnishing of certain information to Coroners. Approval of the Report will be moved by Dr. Milner Moore (SUPPLEMENT, November 26th, p. 180). (*e*) Reorganization of the Local Government Board. Approval of the Report of the Medico Political Committee will be moved by the Chairman (SUPPLEMENT, November 26th, p. 180). (*f*) Medical Acts Amendment Bill will be explained by the Secretary, and resolutions thereon dealt with (SUPPLEMENT, November 26th, p. 183). (*g*) Prevention of the abuse of drugs. Dr. Pickup will move the approval of the Memorandum of the Medico-Political Committee (SUPPLEMENT, November 26th, p. 191). (*h*) National Deposit Friendly Society. Report will be explained by Dr. Harman Brown (SUPPLEMENT, January 14th, 1905, p. 9.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

EDINBURGH BRANCH.—The usual clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary on Friday, February 17th. Members desirous of showing patients or specimens are requested to communicate with one of the Secretaries. The annual dinner will be held in the evening, in the Royal British Hotel.—NORMAN WALKER, 7, Manor Place, Edinburgh; A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: SOUTHERN DIVISION.—A meeting of this Division will be held in the Oddfellows' Hall, Forest Road, on Tuesday, February 7th, at 8.15 p.m. Business: 1. Minutes of two previous meetings. 2. Correspondence. 3. Report of Representative to Representative Meetings. 4. Consideration of matters referred to Divisions (see SUPPLEMENT, November 26th, 1904). (*a*) Report on Contract Practice; (*b*) report on consultation of medical witnesses in legal cases; (*c*) report on information supplied to coroners by medical practitioners; (*d*) report on reorganization of Local Government Board. 5. Medical Acts Amendment Bill. 6. Prevention of the abuse of drugs, and recommendations of the Medico-Political Committee. 7. Any other competent business.—MICHAEL DEWAR, 24, Lauriston Place, Edinburgh, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—There will be a meeting of this Division on February 11th, at 3.30 p.m., in the King's Arms Hotel, Melrose. It is particularly requested that members read and consider carefully the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904, as the decision of the Divisions will determine the policy of the Association in respect of the medico-political matters therein contained. Business: (1) Consideration of the medico-political matters above mentioned referred to the Divisions. (2) The fixing of the date of the annual meeting of the Division, and also to arrange for the suggested Branch meeting in one of the county towns within the area of the Division. (3) Dr. Tyrrell (Galashiels) will read notes of an interesting case.—W. HALL CALVERT, Melrose, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—A meeting of this Division will be held on Friday, January 27th, at 9.15 p.m., at White Lodge, Enfield (close to G.E.R.). A discussion on Vaccination and Revaccination will be opened by Mrs. Garrett Anderson, M.D. A discussion on the Pharmacy Acts Amendment Bill, Abuse of Drugs and Repetition of Prescriptions will be opened by the Honorary Secretary. Visitors are cordially invited.—FRED. TRESILIAN, White Lodge, Enfield, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: NORTH CARNARVONSHIRE AND ANGLESEY DIVISION.—A meeting of this Division will be held at the British Hotel, Bangor, on Wednesday, February 1st, at 2 p.m., John Roberts, M.D., J.P., in the chair. Agenda: 1. To read the minutes of the last meeting of the Division. 2. To read letters of apology. 3. To confirm election by Council of the Branch of five members to serve on the Court of Governors of the University College of North Wales. 4. To consider "Memorandum on the payment of Medical Practitioners called in to assist Midwives." 5. Dr. G. W. Kendall, Holyhead, will open a discussion on "Infantile Diarrhoea."—H. JONES ROBERTS, Llywenarth, Penygroes, Honorary Secretary.

PERTHSHIRE BRANCH.—At a meeting of Council held on Friday, December 16th last, it was decided, in view of the unsuitability of the present time for calling a meeting of the Branch, to ascertain the views of the members by writing on the matters which the Annual Representative Meeting decided should be referred to Divisions. Members are requested to send early replies to the Medico-Political Committee. The questions are as follows:—1. The interim report on contract practice: (1) Necessity of contract practice; (2) medical control; (3) distribution of work; (3A) Friendly Societies—choice of medical attendant; (4) minimum rate; (5) exclusive of infants; (6) provision against abuse; (7) special services. 2. The desirability of consultation between medical witnesses in legal cases likely to be brought before the court. Details of the questions will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904. The clinical meeting will be held in the Perth Infirmary

on Friday, February 10th, at 3.45 p.m. Any members wishing to show cases might kindly communicate with the Secretaries by January 31st. —William A. Taylor and Alexander Trotter, Joint Honorary Secretaries, 10, Marshall Place, Perth.

South-Eastern Branch: Isle of Thanet Division.—A special meeting of this Division will be held at Barfield House, Broadstairs, on Thursday, February 2nd, at 4 p.m. Agenda: 1. To elect the Chairman of the meeting. 2. To elect a member of the Executive Committee in place of Dr. Courtney (resigned) 3. To consider matters referred to the Divisions. (*a*) The interim report on contract practice; (*b*) the report on consultation between medical witnesses in legal cases: (*c*) the report on information supplied to coroners by medical practitioners; (*d*) the report on reorganization of the Local Government Board; (*e*) the Medical Acts Amendment Bill; (*f*) the report on the prevention of the abuse of drugs; (*g*) the memorandum on the payment of medical practitioners called in to assist midwives; and if time permits—(*h*) *the memorandum with regard to the National Deposit Friendly Society; (*i*) *the Public Health Bill; (*j*) *the Revaccination Bill. *See Supplement to the British Medical Journal, January 14th, 1905.—Hugh M. Raven, Barfield House, Broadstairs, Honorary Divisional Secretary.

Ulster Branch.—The winter meeting of this Branch will be held in Derry on Wednesday, February 1st, at 11.30 a.m.—Cecil Shaw, Belfast, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Surgeon E. Haines has been allowed to withdraw from the service, with a gratuity. Dated January 21st. He joined as Surgeon, November 10th, 1896.

The following appointments have been made at the Admiralty: Alfred Patterson, Fleet Surgeon, to the *Vivid*, January 30th; Frederick J. Lilly, Fleet Surgeon, and Robert W. G. Stewart, Surgeon, to the *King Edward VII.* on completing, February 7th; Oswald Rees, Staff Surgeon, to the *Thames*, February 7th; Llewellyn A. Baiss, Surgeon, to the *Barham*, on commissioning, January 24th; Robert T. Gilmour, Staff Surgeon, to the *Egmont*, for laboratory work at Malta Hospital, January 21st: Henry C. Whiteside, Surgeon, to Malta Hospital, January 21st; Richard T. A. Levinge, B.A., Fleet Surgeon, to the *Edgar*, on commissioning, February 1st; Henry Wood, M.B., Surgeon, to the *Vivid*, additional, January 24th.

ROYAL ARMY MEDICAL SERVICE.

Colonel A. H. Anthonisz, M.B., is struck off the Indian Establishment on having handed over his duties as Principal Medical Officer, Secunderabad Division, to Lieutenant-Colonel J. R. Yourdi, M.B., from December 22nd, 1904.

Colonel (temporary Surgeon-General) W. F. Stevenson, M.B., C.B., Professor of Clinical and Military Surgery, Royal Army Medical College, has been appointed Honorary Surgeon to the King.

Major T. H. F. Clarkson has been appointed Senior Medical Officer, Jersey.

INDIAN MEDICAL SERVICE.

Surgeon-General G. Bomford, M.D., C.I.E., Bengal Establishment, is appointed Director-General, Indian Medical Service, from January 1st. He was born July 19th, 1851, and entered the service as Assistant Surgeon, September 30th, 1874, was made Lieutenant-Colonel, September 30th, 1894, and selected for increased pay, March 29th, 1900. Previous to his present appointment he was officiating as Inspector-General of Civil Hospitals, Punjab, with the rank of Colonel. He is promoted to be Surgeon-General from January 1st. He served with the Perak Expedition in 1875-6, receiving a medal with clasp, and was nominated a Companion of the Order of the Indian Empire, January 1st, 1903.

Major A. J. Macnab, Bengal Establishment, is appointed Surgeon to the Governor-General of India from December 13th, 1904.

Surgeon-General Sir B. Franklin, K.C.I.E., Bengal Establishment, Director-General Indian Medical Service, is permitted to retire from the service, from January 1st. He was appointed Assistant Surgeon, April 1st, 1869, and became Surgeon-Major-General, December 2nd, 1901, and Director-General, January 1st, 1902. He was nominated a Companion of the Order of the Indian Empire, May 20th, 1896, and made a Knight Commander of the same Order, January 1st, 1903. He has no war record in the Army Lists.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,405 births and 5,419 deaths were registered during the week ending Saturday last, January 21st. The annual rate of mortality in these towns, which had been 22.4, 19.9, and 17.5 per 1,000 in the three preceding weeks, rose again last week to 18.1 per 1,000. The rates in the several towns ranged from 6.7 in King's Norton, 10.8 in Smethwick, 11.2 in Walthamstow, 11.8 in Leyton, 11.9 in Burton-on-Trent, 12.4 in Hornsey, and 12.6 in Bournemouth, to 24.4 in St. Helens, 25.0 in Hanley, 25.8 in Walsall, 26.0 in Grimsby, 27.5 in Swansea, 27.8 in West Hartlepool, 32.3 in Middlesbrough, and 32.5 in Merthyr Tydfil. In London the rate of mortality was 16.6 per 1,000, while it averaged 18.7 in the seventy-five large provincial towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.2 per 1,000; in London this death-rate was equal to 0.9 per 1,000; while among the seventy-five other large towns the rates ranged upwards to 2.3 in Preston and in St. Helens, 2.4 in Hanley, 2.5 in West Ham and in Salford, 3.9 in Nottingham, 4.0 in Stockton-on-Tees, 5.4 in Grimsby, and 6.4 in Merthyr Tydfil. Measles caused a death rate of 1.2 in St. Helens, 1.4 in Leyton, 1.5 in West Bromwich and in Grimsby, 1.9 in Nottingham, 2.0 in Stockton-on-Tees, 2.2 in Ipswich, and 4.9 in Merthyr Tydfil; scarlet fever of 1.1 in Northampton and 1.2 in St. Helens; diphtheria of 1.2 in Rochdale and 1.5 in Grimsby; whooping-cough of 1.0 in Bristol, in Halifax, and in Sunderland, 1.1 in Bradford, 1.3 in East Ham, and 2.3 in Grimsby; "fever" of 1.1 in Salford; and diarrhoea of 1.4 in Preston. One fatal case of small-pox was registered last week in Burnley and 1 in Hull, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 18 small-pox patients on Saturday, January 21st, against 17, 18, and 19 on the three preceding Saturdays; 1 new case was admitted during the week, against 5, 1, and 1 in the three preceding weeks. The number of scarlet fever cases under treatment in these hospitals and in the London Fever Hospital, which had been 2,390, 2,309, and 2,192 at the end of the three preceding weeks, had further declined to 2,174 at the end of last week; 225 new cases were admitted during the week, against 201, 187, and 194 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 21st, 903 births and 674 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.6, 20.6, and 21.6 per 1,000 in the three preceding weeks, declined again last week to 20.1 per 1,000, but was 2.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 10.7 in Perth and 16.7 in Edinburgh to 22.1 in Aberdeen and 24.5 in Greenock. The death-rate from the principal infectious diseases averaged 2.1 per 1,000 in these towns, the highest rates being recorded in Glasgow and Aberdeen. The 341 deaths registered in Glasgow included 27 which were referred to whooping-cough, 12 to diarrhoea, 4 to measles, and 1 to small-pox. Three fatal cases of diarrhoea occurred in Dundee; 7 of measles, 3 of whooping-cough, and 1 of typhus in Aberdeen; and 3 of measles in Leith.

HEALTH OF IRISH TOWNS.

During the week ending January 14th, 511 births and 397 deaths were registered in six of the principal Irish towns, against 551 births and 412 deaths in the preceding period. The mean annual death-rate in these towns, which had been 20.3, 20.4, and 20.6 per 1,000 in the three preceding weeks, rose to 21.0 in the week under notice, this being 3.5 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 11.2 in Londonderry and 20.5 in Limerick to 23.4 in Waterford and 25.8 in Belfast. The zymotic death-rate during the same period and in the same six Irish towns averaged 2.1 per 1,000, or 1.4 per 1,000 higher than during the preceding period, the highest figure—3.9—being recorded in Waterford, while Londonderry and Limerick registered no deaths under this heading at all. The deaths from measles showed an increase, 28 being recorded. There was 1 case of death from scarlet fever in Belfast, 1 from typhus in Waterford, and from diphtheria 2 in Dublin and 2 in Belfast.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where fu particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRKENHEAD BORO' HOSPITAL.—Assistant Honorary Medical Officer.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon resident. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House Surgeon resident. Salary, £70 per annum.

CAIRO: SCHOOL OF MEDICINE.—Professor of Pathology and Bacteriology. Salary, £800 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Hon. Ophthalmic Surgeon.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Pathologist and Registrar. Honorarium £105.

ECCLES AND PATRICROFT HOSPITAL.—House-Surgeon, resident. Salary, £70 per annum

EDINBURGH: CRAIG-LEITH POORHOUSE AND HOSPITAL.—Medical Officer, resident. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Resident Medical Officer. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House Physician, resident. Salary, £20 for six months, and £2 10s. washing allowance.

KENT AND CANTERBURY HOSPITAL.—House Surgeon.

KING'S COLLEGE, London, W.C.—(1) Professor of Anatomy: (2) Professor of Zoology; (3) Assistant Physician or Assistant Surgeon for Diseases of the Throat.

MANCHESTER: ANCOATS HOSPITAL.—(1) Resident House-Surgeon; (2) Resident House-Physician. Salary, £100 and £80 per annum, respectively.

MANCHESTER, Township.—Junior Resident Assistant Medical Officer at the Workhouse, Crumpsall. Salary, £110 per annum.

MARINE BIOLOGICAL ASSOCIATION OF THE WEST OF SCOTLAND.—Director for the station at Millport.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Surgeon, resident. Salary, £100 per annum.

ROCHDALE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho.—Honorary Dental Surgeon.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Clinical Assistants.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, resident. Salary, £50 per annum.

SOMERSET AND BATH LUNATIC ASYLUM, Wells.—Medical Superintendent. Salary commencing at £600 per annum.

SUNDERLAND INFIRMARY.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Surgeon. Resident. Salary, £100 per annum.

TEIGNMOUTH HOSPITAL.—House Surgeon, resident. Salary, £70 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician, resident. Salary, £30 per annum.

CORRECTION.—In the list of vacancies published last week the office advertised at the Hospital for Epilepsy and Paralysis, Maida Vale, was incorrectly stated; it should have been Resident Medical Officer.

APPOINTMENTS.

ARCHER, S. H. L., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Nantwich Union.

ATKINSON, J. P., M.D.Glas., District Medical Officer of the Barnstaple Union.

BARTON, Guy D., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., House-Surgeon No. 2 to the Derbyshire Royal Infirmary.

BENNETT, Thomas, M.A., M.B., Ch.B.Glasg., House-Physician to the Derbyshire Royal Infirmary.

CONWAY, J. P., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Greenwich Union.

HODGSON, H., M.B., B.S.Lond., Certifying Factory Surgeon for the Alresford District, Hants.

HOPKINS, G. H., F.R.C.S., Honorary Visiting Surgeon, Brisbane Hospital, Queensland.

JOHNSTON, R. B., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the West Ward Union.

KNIGHT, John, M.D.Glasg., D.P.H.Camb., Medical Officer of Health for Scarborough, vice F. Dittmar, M.D.Glasg.

SCOTT, C. R., M.B., C.M.Edin., Certifying Factory Surgeon for the Abingdon District, Berks.

SKIRVING, A. A. Scot, C.M.G., M.B., F.R.C.S.Edin., Surgeon to the Leith Hospital.

SNELL, E. H., M.D., B.Sc.Lond., D.P.H., Honorary Sanitary Officer to the Coventry and Warwickshire Hospital.

STEWART, William, M.D., F.R.C.S.Edin., Consulting Surgeon to the Leith Hospital.

WATSON, Charles Heron, M.B., F.R.C.S.Edin., Assistant Surgeon to the Leith Hospital.

WILLIAMS, F. B., M.D., Medical Officer and Vaccinator at Nyngan, N.S.W., vice Dr. E. R. Roseby, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

EMMS.—On January 17th, at 132, Winson Green Road, Birmingham, the wife of Harry Robert Emms, M.R.C.S., L.R.C.P., of a daughter.

GORDON-GREEN.—On January 23rd, at Westerton, 46, Beach Road, Southsea, Hants, the wife of Staff Surgeon H. W. Gordon-Green, R.N., M.R.C.S.Eng., L.R.C.P.Lond., of a son.

PASSMORE.—On January 20th, at "Felbrig," Carshalton, Surrey, the wife of William Henry Passmore, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

MORRIS—SMYTHE.—January 3rd, at All Saints', Trysull, by the Rev. A. T. Greenstreet, vicar of Pattingham, assisted by the Rev. J. W. Andrews, vicar of the parish, Richard Brindley Morris, M.R.C.S., to Anne Blanche, youngest daughter of the late Thomas Smythe, Lieutenant-Colonel, Royal Engineers, of Hilton, near Bridgnorth, and The Manor House, Trysull, Staffordshire.

SOPER—ASH.—On January 21st, at St. Levan Church, Cornwall, George Bertram Spencer Soper, L.S.A., L.R.C.P., son of William Soper, Surgeon, of 307, Clapham Road, S.W., to Frances, only daughter of Mr. H. Ash, Superintendent of the Eastern Telegraph Station, Porthcurno, Cornwall.

WATT—BESEKE.—On January 19th, at St. Leonard's Church, Streatham, by the Rev. A. N. Armstrong, James George Watt, Surgeon, Royal Navy, eldest son of Andrew Watt, Inspector of Machinery, R.N. (retired), to Constance Besecke, youngest daughter of Charles William Beseke, Esq.

WOOD—BALL.—On the 18th inst., at the Church of St. John the Baptist, Penshurst, by the Rev. Canon G. Maberly Smith, Rector, assisted by Rev. E. H. Vigors, Louis Edmund, eldest son of Louis Henry Wood, of Dulwich, to Mary Georgiana, widow of Major Francis Ball, and eldest daughter of the late G. W. M. Liddell, of Sutton-in-Holderness, and Keldy, Yorkshire.

DEATHS.

BIRMINGHAM.—On January 23rd, in Dublin, Ambrose Birmingham, M.D., Professor of Anatomy, Catholic University of Ireland, aged 40 years. R.I.P.

BRAGA.—On Saturday, January 7th, at his residence, "The Larches," 138, Croydon Road, Anerley, S.E., John Francis Braga, L.S.A., L.A.H.Dublin., D.P.H. London and Cantab., F.C.S., F.L.S., F.G.S., F.R.G.S.

GRIFFITH.—On January 19th, at Bodlondeb, Portmadoc, Enid Gwendolen, the youngest daughter of Samuel Griffith, M.D., J.P., aged 26.

MOUNCEY.—At Earlestown, Lancashire, on the 21st inst., Louisa Elizabeth Ainley Mouncey, eldest daughter of Chas. I. Mouncey, M.B., and Mrs. Mouncey, aged 19 years.

WILEY.—On December 1st, at 4, Duncairn Terrace, Bray, co. Wicklow, Arthur Ormsby Wiley, J.P., L.R.C.P., L.R.C.S.I., suddenly of heart failure. Interred at Dean's Grange, co. Dublin.

DIARY FOR NEXT WEEK.

TUESDAY.

THERAPEUTICAL SOCIETY, Apothecaries' Hall, E.C.—3.30 p.m., Council Meeting. 4 p.m., General Meeting. Papers:—Dr. Dixon: On the Action of Alcohol on the Heart. Dr. Caley: Some Salts of Bismuth.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Annual meeting. A short communication will be read by Dr. E. W. Hey Groves on A New Operation for the Cure of Vaginal Cystocele. The following specimens will be shown:—Mr. Targett: Two Retroperitoneal Tumours. Mr. Handley: Right Ovarian Abscess secondary to Appendicitis. Dr. F. E. Taylor: Wandering Spleen forming Pelvic Tumour. Mr. Bland-Sutton: Tuberculous Disease of the Body of the Uterus (probably primary). The President (Dr. Malins) will deliver the annual address.

THURSDAY.

ROENTGEN SOCIETY, 20, Hanover Square, W., Ordinary General Meeting, 8.15 p.m.—Dr. Clarence A. Wright will read a paper on Some Points in the Construction of a High-frequency Machine, and will probably show some novel exhibits.

FRIDAY.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 p.m.—Cases and specimens will be shown by Mr. C. A. Parker, Dr. Frederick Spicer, Mr. de Santi, and others.

SOCIETY OF ANAESTHETISTS, 20, Hanover Square, 8.30 p.m.—Papers:—Mr. Wade: On the Presence of Ethyl Chloride in Commercial Chloroform. Mr. Beatson Hird: Ethyl Chloride in Eye Practice, with an account of a fatality. Dr. Barton: On Continuous Administration of Ethyl Chloride in Operations about the Upper Air Passages. A discussion will follow, to be opened by Dr. McCardie. Before and after the meeting there will be an exhibition of Ethyl Chloride Inhalers.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Wednesday, 5 p.m.—Practical Demonstration on Oro-Pharynx and Laryngo-Pharynx.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m.—Surgical Cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—Glioma of the Retina.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, Nasal Catarrh: its Causes, Diagnosis, and Treatment; Tuesday, On Diseases of Ducts of the Breast; Wednesday, Pancreatic Cysts and Pancreolithic Catarrh; Thursday, Acute Torsion of the Pedicle in Pelvic Tumours.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patients' Department, 7, Fitzroy Square, W., Thursday.—Murmurs not Dependent on Diseases of the Heart.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Tuesday, 3.30 p.m., Polioencephalitis, its Relation to Poliomyelitis. Friday, 3 p.m., Nerve Terminations in Muscle.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., Tuesday, 4.30 p.m.—Diseases of the Naso-pharynx.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., 3 p.m.—Thursday: The Treatment of Pruritus and Allied Conditions.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road.—The following Lectures have been arranged for next week, at 5 p.m. each day: Monday, Congenital Syphilis and its Treatment; Tuesday, Anterior Displacement and Stenosis: Wednesday, Practical Medicine: Thursday, Cardiac Disease, Treatment: Friday, Surgical Treatment of Chronic Gastritis.

BOOKS, ETC., RECEIVED.

An Outline of the Theory of Organic Evolution. By Maynard M. Metcalf, Ph.D. New York: The Macmillan Co.; and London: Macmillan and Co. 1904. 10s. 6d.

Radium Explained. By Dr. W. Hampson, M.A. London: T. C. and E. C. Jack. 1905. 1s.

The Diseases of Society (The Vice and Crime Problem). By G. Frank Lydston, M.D. Philadelphia and London: J. B. Lippincott Co. 1904. 15s.

The Surgical Treatment of Facial Neuralgia. By J. Hutchinson, Jun., F.R.C.S. London: John Bale, Sons, and Danielsson, Limited. 1905. 7s. 6d.

The Local Government Annual and Official Directory, 1905. Edited by S. Edgecumbe Rogers. London: The "Local Government Journal" Office. 1s. 6d.

Local Government Handy Series. No. 9.—The Valuation Bill, 1904: Striking Criticisms by a Leading Expert. London: The "Local Government Journal" Office. 1d.

The Edinburgh Stereoscopic Atlas of Anatomy. Edited by David Waterston, M.A., M.D., F.R.C.S., F.R.S.E. In five sections. Section I. Edinburgh: T. C. and E. C. Jack. 1905. £1 5s. per section. Five sections, £6 5s.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
January	27...FRIDAY ...	Tottenham Division, *Metropolitan Counties Branch*, White Lodge, Enfield, 9.15 p.m.
,,	28...SATURDAY ...	
,,	29...Sunday..	
,,	30...MONDAY ...	
,,	31...TUESDAY ...	Latest day for sending Divisional Annual Report and Financial Statement to Branch Secretary (By-law 9).
February	1...WEDNESDAY	LONDON: Scientific Grants Committee, 3.30 p.m. North Carnarvonshire and Anglesey Division, *North Wales and Shropshire Branch*, British Hotel, Bangor, 2 p.m. Ulster Branch, Derry, 11.30 a.m.
,,	2 THURSDAY...	Isle of Thanet Division, *South-Eastern Branch*, Barfield House, Broadstairs, 4 p.m.
,,	3...FRIDAY ...	LONDON: Committee of Chairmen: 2 p.m., Amendment of Council Standing Orders; 4 p.m., Consider Alteration of Memorandum of Association.
,,	4...SATURDAY ...	
,,	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	Coventry Division, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. Southern Division, *Edinburgh Branch*, Oddfellows' Hall, Forest Road, 8.15 p.m.
,,	8...WEDNESDAY	LONDON: Premises and Library Committee, 2.30 p.m.
,,	9 THURSDAY...	,, Medical Defence Committee, 3 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Special General Meeting, Board Room, Infirmary, Altrincham, 5 p.m.
,,	10...FRIDAY ...	Perthshire Branch, Clinical Meeting, Perth Infirmary, 3.45 p.m.
,,	11...SATURDAY...	South-Eastern Counties Division, *Edinburgh Branch*, King's Arms Hotel, Melrose, 3.30 p.m.
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m. ,, Colonial (Joint) Constitution Committee, 2.0 p.m.
,,	15...WEDNESDAY	,, Medico-Political Committee, 10.0 a.m. ,, Central Council (Special Meeting) 2 p.m.
,,	16...THURSDAY...	
,,	17...FRIDAY ...	Edinburgh Branch: Royal Infirmary.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	
,,	23...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...WEDNESDAY	
,,	2...THURSDAY...	
,,	3...FRIDAY ...	
,,	4...SATURDAY...	
March	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	
,,	8...WEDNESDAY	
,,	9...THURSDAY...	
,,	10...FRIDAY ...	
,,	11...SATURDAY...	
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	
,,	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...THURSDAY...	
,,	17...FRIDAY ...	LONDON: Ethical Committee, 2.0 p.m.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	LONDON: Medico-Political Committee, 3.0 p.m.
,,	23...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	
,,	29...WEDNESDAY	
,,	30...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
,,	31...FRIDAY ...	
April	1...SATURDAY...	
,,	2...Sunday..	
,,	...MONDAY ...	
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	
,,	11...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	12...WEDNESDAY	
,,	13...THURSDAY...	
,,	14...FRIDAY ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted to-day.
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Premises and Library Committee.
,,	19...WEDNESDAY	,, Central Council.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 4TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
THE RELATIONS OF THE MEDICAL PROFESSION TO AMBULANCE WORK.—Memorandum by the Medico-Political Committee for Consideration by the Divisions	33
MEETINGS OF BRANCHES AND DIVISIONS:	
Metropolitan Counties Branch.—Amendment of Rules	33
,, ,, Westminster Division	34
,, ,, Wandsworth Division	34
,, ,, Hampstead Division	34
East Anglian Branch: West Suffolk Division	35
Sydney and New South Wales Branch	35
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	35
NAVAL AND MILITARY APPOINTMENTS	36
VITAL STATISTICS...	37
VACANCIES AND APPOINTMENTS	38
BIRTHS, MARRIAGES, AND DEATHS	39
DIARY OF THE WEEK	39
BOOKS RECEIVED...	39
CALENDAR	40

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains a matter specially referred to Divisions, until the subject has been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

THE RELATIONS OF THE MEDICAL PROFESSION TO AMBULANCE WORK.

Memorandum

BY THE

MEDICO-POLITICAL COMMITTEE

FOR CONSIDERATION BY THE DIVISIONS.

UNTIL a few years ago the services of medical practitioners in the work of the Ambulance Association were clearly a matter of philanthropy. No honorarium was paid to lecturers, and the examiners received an honorarium which was an acknowledgement but not remuneration for the work done beyond actual instruction. The services of the medical profession were recognized by the conferring of Honorary Life Membership of the St. John Ambulance Association, and in other similar ways.

Within the past few years, owing to the recognition of ambulance work as a subject of technical education, and its consequent claim to participate in local grants, the medical instructors are now in some cases paid a fee for their services. Recently, also, the establishment of ambulance brigades and shield competitions has materially altered the demands of the ambulance services upon the medical profession. Ambulance work has, however, never lost its character of being in part, at least, a philanthropic service by the medical profession. The value to employers of ambulance knowledge in the employés, and the financial responsibility of employers for accidents to workmen, are now greatly extended.

The time seems opportune for a decision by the profession as to (1) how far the ambulance work of the profession should remain philanthropic, and (2) how far it should now be dealt with as a matter of business. The Medico-Political Committee, therefore, thinks it well to refer the whole matter for the consideration of the Divisions, with a view to its decision by the Representative Meeting at Leicester.

Each Division is asked to answer these specific questions:

(1) Which (if any) of the following services—

(*a*) Ambulance Instruction,

(*b*) Ambulance Examinations,

(*c*) Judging in Ambulance Competitions,

should be treated as a matter of philanthropy?

(2) What arrangement as to fees and other matters would be suitable in each district for those services which the Division considers should be treated as a matter of business?

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

METROPOLITAN COUNTIES BRANCH.

AMENDMENT OF RULES.

A SPECIAL general meeting was held on January 24th for the purpose of discussing the rules of the Branch as proposed by the Council of the Branch. Several amendments to individual rules were proposed and agreed to. The rules as thus amended were then agreed to *en bloc* and thereby became the rules for the time being of the Metropolitan Counties Branch.

METROPOLITAN COUNTIES BRANCH:

Westminster Division.

A meeting of this Division was held at St. George's Hospital on Friday, January 20th, at 8 30 p m. Mr. J. Bland-Sutton was in the chair, and there were twenty-two members and guests present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Nomination of Representatives of Branch on Central Council.—In reply to a communication received from the meeting of the Secretaries and Treasurers of the Metropolitan Counties Branch, Dr. Cautley and Mr. Lloyd-Williams were nominated as two representatives of the Division to attend a meeting to be called for the purpose, if possible, of coming to some arrangement which may prove satisfactory to all the Divisions with regard to the nomination of representatives of the Branch on the Central Council of the Association.

Resignation of Chairman.—Letters of resignation were read from the Chairman, by reason of his leaving London to take up the Principalship of the Armstrong College, and from Dr. Seaton of his position as a member of the Executive Committee. It was announced that according to the rules, the Executive Committee had nominated Mr. J. Bland-Sutton as Chairman and Dr. William Ewart Vice-Chairman, and Dr. des Voeux and Dr. Hilliard to vacancies on the Executive Committee.

Matters Referred to Divisions.—The attention of the meeting was then drawn to the memorandum of matters referred to the Divisions by the Medico-Political Committee as published in the Supplement to the British Medical Journal on November 26th, 1904. It was decided to postpone the consideration of these matters for a future meeting.

Wandsworth Division.

An ordinary meeting was held at the Worple Hall, Wimbledon, on Thursday, January 26th. There were present: Dr. G. Walker, Chairman; Dr. Lauriston Shaw (Guy's Hospital); Mr. Smith Whitaker, Medical Secretary; Dr. Howell and Mr. C. H. Warren (Secretary), Metropolitan Provident Medical Association; Drs. Cowie, Williams, Verdon Roe, Powell Evans, D. Roe, Hill, Smith, Kendall, Deas, Milne, Busfield, Bickford, Purcell, and the Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Nomination of Branch Representative on Central Council.—A communication was read from the meeting of the London Division secretaries suggesting a conference of Division representatives to arrange, if possible, for the nomination of selected candidates for the representation of the Branch on the Central Council. Dr. G. Walker and Dr. M. G. Biggs were elected to represent this Division.

Educational Number of the "British Medical Journal."—Resolutions suggesting that the Educational Number of the Journal should be issued in book form, independent of the weekly issue of the Journal, were not approved.

The "Supplement."—It was proposed, seconded, and resolved to place on the agenda of the Representative Meeting the following resolution:

> That the Supplement of the Journal, containing as it does the private business of the members, be not issued with the Journal otherwise than to members.

It was thought distinctly desirable, and if the only question was one of postage it should be well considered, even if this would be increased through the post-office regulations, which was doubtful, whether the extra printing and subsequent postage of private references to Divisions (vide Midwives Memorandum) did not greatly outweigh that difficulty. At present the members were debarred through lack of privacy from intercommunication, and those opposed to the interests of the profession were gratuitously provided with information in a condensed form.

Medical Contract Practice.—The Chairman announced the very sad news that only the day previously Dr. Hett, who had promised to read a paper on this subject, had passed away. A vote of sympathy with Mrs. Hett was at once unanimously passed. The Secretary to the Provident Association then read Dr. Hett's paper. Dr. Llewellyn Williams explained the system of the Wandsworth Medical Aid. Mr. Whitaker briefly explained the suggestions of the Medico-Political Committee. Dr. Lauriston Shaw referred to contract practice in so far as it bears on the question of hospital reform. The resolutions of the Committee were then submitted and approved.

National Deposit Friendly Society.—Owing to the late hour the consideration of the references as to the National Deposit Friendly Society were postponed.

Votes of Thanks.—A hearty vote of thanks to Dr. Shaw and Mr. Whitaker and Mr. Warren for attending and helping in the debate was proposed by Dr. Randall, seconded by Dr. Lowder Hill, and passed unanimously.

Hampstead Division.

A meeting of this Division was held at 329, High Road, Kilburn, on Friday, January 27th, at 4.30 p m., Dr. Heath Strange in the chair. Fourteen members and one visitor were present.

A Fixed Day for Meetings.—Dr. Macevoy moved that a definite day should be fixed at the beginning of each session for meetings of the Division. He said that it was very inconvenient not to know beforehand when the meetings were to be held. In seconding the motion, the Assistant Secretary said that the matter had been discussed in Committee, and that he was authorized to support Dr. Macevoy's suggestion officially.—The full suggestion which Dr. Macevoy had put forward was that there should be a meeting once in every two months, and he proposed that the day be the second Friday in each alternate month, and that the time be 9 p.m. He enlarged on the advisability of making this move, as a means by which it might be possible to improve the numbers of members attending the meetings.—Dr. Ford Anderson preferred a before-dinner time, but would not wish to press his personal convenience on others. He thought that the greatest good ought to be for the greatest number.—Dr. Macevoy's complete motion was put to the meeting, and carried.

Coroners and Medical Men.—The report on information supplied to the coroners was next discussed. The Secretary explained briefly the points of the report, and in recommending the meeting to adopt the report, said that he thought that the consideration of the following questions might ease the discussion:—(1) Is it reasonable to expect practitioners to supply information to coroners, save in court, as long as no legal responsibility to do so exists and no remuneration is offered? (2) If a coroner requires a practitioner to give information outside the court, should such inquiry be regarded as an integral part of the proceedings, and should there be a legal responsibility on the part of the authorities to adequately remunerate those assisting in such inquiry? (3) Is it desirable for this meeting to disapprove of practitioners supplying such information without receiving remuneration?—Dr. Humphreys considered that the matter required reorganization, but that the onus of obtaining legislation should not be placed on their shoulders. He moved the following resolution:

> That the Council of the British Medical Association be requested to bring the Memorandum III, printed in the Supplement to the British Medical Journal of November 26th, 1904, to the notice of the Coroners Society and of the coroners throughout the country, with a view to a conference, so that some common understanding may be arrived at.

—Dr. Morton objected to an affirmative answer to the Secretary's third question.—Dr. Ford Anderson seconded Dr. Humphreys's resolution, which was carried.

Reorganization of Local Government Board.—This subject was also discussed. The Assistant Secretary briefly explained the points of the resolutions of the Representative Meeting of the British Medical Association and of the documents attached to it. He thought that before the meeting could accept the resolutions and act on them, they must approve of the suggestions embodied in the documents, and in order to facilitate the proceedings he put the following questions, which, if answered in the affirmative, would lead to the adoption of the two resolutions: Is the present constitution of the Local Government Board such as may be deemed incapable of disposing of those duties of a Governmental department, dealing with the important question of the public health? Secondly, Is it desirable to so organize the Board that it may actively carry out business relating to these questions? Thirdly, Does this meeting approve of the suggested scheme for reorganizing the Local Government Board? Fourthly, Should the President of the Board be equal in rank to a Secretary of State?—Dr. Humphreys considered the present Board impossible, and considered it necessary to put pressure on members of Parliament to support the appointment of a

Royal Commission. He embodied this in his resolution to accept the two resolutions before the meeting.—Dr. Ford Anderson seconded, and the motion was carried unanimously.—Dr. Ford Anderson raised the question as to how the members of Parliament could be best approached, and asked if the Secretary had a list of M.P.s included in the Division. —The Assistant Secretary replied in the negative, but stated that the list was easily obtained. He moved that the method of approaching the M.P.s be referred to the Committee.—Dr. Ford Anderson seconded this, and it was carried.

The Memorandum of the Medico-Political Committee.—This subject was next brought up. The Assistant Secretary explained briefly the proposals of the Committee and the reasons for them.

[The questions submitted with the Memorandum were discussed separately, but it is thought advisable to delay publication of the conclusions arrived at by Divisions till all the reports have been received by the Committee.]

Infant Feeding.—Dr. Edmund Cautley read a very instructive paper on the artificial methods of infant feeding. He sketched out the lines of rational feeding, and made suggestions for assisting to remember the various proportions of milk, cream, lime water, and water which should make a mixture capable of serving as a substitute for mother's milk. He spoke of the methods of giving the food, and then spoke of variations suitable for various conditions. Reference to the advisability of sterilizing milk and the best ways of preserving it were also made.—Dr. Humphreys, Dr. Winslow Hall, and the Assistant Secretary took part in a short discussion.—The President thanked Dr. Cautley very heartily, in the name of the meeting, for his interesting and useful address.

EAST ANGLIAN BRANCH:

West Suffolk Division.

A meeting of this Division was held in the Angel Hotel, Bury St. Edmunds, on January 27th, Mr. R. H. Lucas in the chair.

Medical Certificates under the Workmen's Compensation Act.—It was resolved that application be made to the General Secretary in order to ascertain if some means could be adopted to secure uniformity with regard to payment of fees.

Payment for School Certificates.—The question of payment for school attendance certificates was discussed, and the Secretary was instructed to communicate with the Branch on the matter.

Financial Statement.—The Secretary presented the financial statement, which was passed.

Annual Meeting of Branch.—The annual meeting of the Division was fixed for the end of March.

SYDNEY AND NEW SOUTH WALES BRANCH.

The regular monthly meeting of this Branch was held at the Royal Society's Room, Sydney, on Friday, September 30th, Dr. A. MacCormick, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The President announced the election of the following members: Dr. R. R. P. S. Bowker, Stroud; Dr. F. S. Fange, Mosman; Dr. J. K. Osborne, England, and Dr. G. B. Thomas, Ashfield; and the nomination of Dr. P. L. Hipsley, of the Children's Hospital, Glebe.

A Personal Explanation.—Dr. Charles MacLaurin explained his unavoidable absence from the last meeting of the Branch.

The Certification of Pulmonary Tuberculosis.—Dr. Sinclair Gillies asked if he would be allowed to give notice of a special general meeting, if so he would move:

> That a special general meeting of the Branch be held on Friday, October 14th, for the purpose of discussing the resolutions with reference to the notification of cases of pulmonary tuberculosis.

This was carried.

Communications.—Dr. Sinclair Gillies exhibited a case of congenital deficiency of the clavicle.—Dr. Tidswell read notes (for Dr. MacCormick and himself) on a case of malignant pustule.—Dr. Worrall read notes on a case of deciduoma malignum.—Dr. Windeyer read pathological notes of the same case. Drs. Jamieson and George Armstrong discussed this paper, and Dr. Worrall replied.—Drs. Jamieson, Leahy, Bennet, and Bowker discussed the paper read by Dr. Tidswell, and Dr. Tidswell replied.

The regular monthly meeting of this Branch was held at the Royal Society's Room, Sydney, on Friday, October 28th, Dr. MacCormick in the chair. There were 35 members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The President announced the election of Dr. Hipsley, of the Children's Hospital, as a member of the Branch.

Case.—Dr. Mills exhibited a patient suffering from aneurysm of aorta.

Communications.—Dr. Mills read notes of a case of hydatid of the brain. Dr. Mills (for Dr. MacCormick) read notes on the case. Drs. Crago, Hinder, Jenkins, and Fiaschi discussed the case, and Dr. Mills and Dr. MacCormick replied. —Dr. Charles MacLaurin read a paper on lumbar hernia, with notes of a case of strangulation. A discussion ensued, in which Drs. MacCormick, Fiaschi, Gordon Craig, and Maitland took part. Dr. MacLaurin replied.—Dr. Thring read a paper on myomectomy during pregnancy. Drs. Maitland, Worrall, Gordon Craig, and MacCulloch discussed the paper, and Dr. Thring replied.

Association Notices.

COUNCIL MEETING.

The Special Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 2 o'clock in the afternoon of Wednesday, February 15th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

January 26th. Guy Elliston, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch: Coventry Division.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, February 7th, at 8.30 p.m. At the termination of the Ordinary Meeting, a Meeting of the Book Section will be held to determine the conditions of the continuation of the Section after April 1st. Members of that Section who are unable to attend, and who wish to renew their subscriptions, are requested to inform the Secretary prior to the meeting. Non-members who wish to join are asked to communicate their wishes to the Secretary. Agenda: 1. Specimens. (*a*) Calculus and prostatic outgrowth removed at one operation, with brief notes of the case (Dr. Bankes Price); (*b*) fragments of bone from a comminuted fracture of the upper extremity of the femur in a female patient, with marked tabetic symptoms (Dr. Bankes Price); (*c*) aneurysm of the aorta (Dr. J. Orton); (*d*) sutured typhoid ulcer (Mr. W. E. Bennett). 2. The Committee will recommend that the Division shall give notice of the following motion to be moved at the next Annual Representative Meeting: That By-law 16 shall be altered by the substitution of the word "Council" for "Branch Council." To be moved by the Secretary. 3. Dr. Kendrick will propose the following resolution: That it is hereby resolved that no member of the profession in the area of the Division shall act as medical officer to a Friendly Society at a less remuneration than 4s. per member per annum. 4. Dr. Harman Brown will propose the following resolution: That the attention of all medical men practising within the area of the Division be called to the regulation of the General Medical Council prohibiting the administration, by registered medical practitioners, of anaesthetics for unregistered dentists; and that the Committee of the Division be hereby authorized to communicate to the General Medical Council any infringement of the regulation which is reported to it. 5. Matters referred to the Division: (*a*) Payment of medical practitioners called in to assist midwives. Certain recommendations of the Committee concerning the questions set forth in the Memorandum of the Medico-Political Committee will be moved by the Chairman. (*b*) Interim Report on Contract Practice. The recommendations of the Committee on the Report will be moved by Dr. J. Orton (Supplement, November 26th, 1904, p. 179). (*c*) Consultations between medical witnesses in legal cases. Approval of the Report by the Medico-Political Committee will be moved by the Chairman (Supplement, November 26th, p. 179). (*d*) The furnishing of certain information to Coroners. Approval of the Report will be moved by Dr. Milner Moore (Supplement, November 26th, p. 180). (*e*) Reorganization of the Local Government Board. Approval of the Report of the Medico-Political Committee will be moved by the Chairman (Supplement, November 26th, p. 180). (*f*) Medical Acts Amendment Bill will be explained by the Secretary, and resolutions thereon dealt with (Supplement, November 26th, p. 183). (*g*) Prevention of the abuse of drugs. Dr. Pickup will move the approval of the Memorandum of the Medico-Political Committee (Supplement, November 26th, p. 191). (*h*) National Deposit Friendly Society. Report will be explained by Dr. Harman Brown (Supplement, January 14th, 1905, p. 9.—E. H. Snell, Knighton House, Coventry, Honorary Secretary.

Edinburgh Branch.—The usual clinical meeting will be held in the Royal Infirmary on Friday, February 17th. The Museum will be open from 11 a.m. There will be short demonstrations in some of the departments between 11.30 and 1. At the general meeting in the University Clinical Medicine Theatre at 4 p.m., Professor Schäfer will demonstrate

his method of artificial respiration. Dinner in the Royal British Hotel Princes Street, at 6.30; tickets, 5s.; morning dress. Gentlemen who propose being present at the dinner are requested to intimate their intention as soon as possible to Dr. Norman Walker. Intimation of patients and specimens to be exhibited should be sent at once to one of the Secretaries. The meeting is open to all members of the Association. —Norman Walker, 7, Manor Place, Edinburgh; A. Logan Turner, 27, Walker Street, Edinburgh, Honorary Secretaries.

Edinburgh Branch: Southern Division.—A meeting of this Division will be held in the Oddfellows' Hall, Forest Road, on Tuesday, February 7th, at 8.15 p.m. Business: 1. Minutes of two previous meetings. 2. Correspondence. 3. Report of Representative to Representative Meetings. 4. Consideration of matters referred to Divisions (see Supplement, November 26th, 1904). (*a*) Report on Contract Practice; (*b*) report on consultation of medical witnesses in legal cases; (*c*) report on information supplied to coroners by medical practitioners; (*d*) report on reorganization of Local Government Board. 5. Medical Acts Amendment Bill. 6. Prevention of the abuse of drugs, and recommendations of the Medico-Political Committee. 7. Any other competent business.—Michael Dewar, 24, Lauriston Place, Edinburgh, Honorary Secretary.

Edinburgh Branch: South-Eastern Counties Division.—There will be a meeting of this Division on February 11th, at 3.30 p.m., in the King's Arms Hotel, Melrose. It is particularly requested that members read and consider carefully the Supplement to the British Medical Journal of November 26th, 1904, as the decision of the Divisions will determine the policy of the Association in respect of the medico-political matters therein contained. Business: (1) Consideration of the medico-political matters above mentioned referred to the Divisions. (2) The fixing of the date of the annual meeting of the Division, and also to arrange for the suggested Branch meeting in one of the county towns within the area of the Division. (3) Dr. Tyrrell (Galashiels) will read notes of an interesting case.—W. Hall Calvert, Melrose, Honorary Secretary.

Lancashire and Cheshire Branch: Altrincham Division.—Special General Meeting: In consequence of the accumulation of important business the Executive Committee has ordered (Rule 12) an extra meeting to be held. Notice is therefore hereby given that a special general meeting will be held at 4.50 p.m. on Thursday, February 9th, in the Board Room of the Infirmary, Altrincham. No business may be transacted except that which appears on the agenda. Agenda: 1. Minutes of meeting of December 14th, 1904. 2. Verbal amendments in Rules 4, 8, and 11, to allow for a second representative on the Branch Council. 3 Amendment of Rules 4 and 9 to allow six elected members of the Executive Committee instead of four. 4. If the above be carried: (*a*) To elect a second representative on the Branch Council; (*b*) to elect additional members of the Executive Committee. 5. Memorandum from Medico-Political Committee as to payment of medical practitioners called in to assist midwives. Decide upon answers of Division to certain specific questions. 6. Supplement of January 14th: (*a*) National Deposit Friendly Society; (*b*) Public Health Bill; (*c*) Revaccination Bill. 7. Supplement of November 26th: (*a*) Report on contract practice; (*b*) report on consultation between medical witnesses in legal cases; (*c*) report on information supplied to coroners by medical practitioners; (*d*) report on reorganization of Local Government Board; (*e*) Medical Acts Amendment Bill; (*f*) prevention of abuse of drugs. 8. Circular from Tyneside Division: (*a*) Suggested ethical rule for a Division; (*b*) suggested resolutions on contract practice for a Division. N.B.—The Executive Committee will be prepared with suggestions or recommendations on each point. The Board Room is in the Nurses' Home, which is next to the Infirmary, in Market Street, four minutes' walk from Altrincham Station. The Committee hopes to see a large attendance, on account of the importance of the business; but, large or small, the meeting will pass resolutions which will be transmitted to the Central Council as embodying the views of the whole of the members of the Division. Subsequent general meetings are provisionally fixed for March 30th and June 22nd. A dinner will be held at 7 p.m. on February 9th, at the Unicorn Hotel; open to all members—whether attending the special meeting or not—and guests of members. Tickets, 5s. each, exclusive of wine—each member to order and pay for his own wine. Those intending to dine will please inform me not later than Monday, February 6th.—T. W. H. Garstang, Honorary Secretary.

Metropolitan Counties Branch: Wandsworth Division.—An ordinary meeting will be held at the Balham Hotel (close to the station) on Thursday, February 23rd, at 8.30 p.m. Tea and coffee provided. Agenda: 1. Minutes. 2. Correspondence. 3. Questions 4. Resolutions from the South London Medical Committee for approval before submission to King's College Hospital Medical Board. 5. Resolutions for Representative Meeting at Leicester with reference to suggested Benevolent and Provident and Medical Agency Departments of the Association. 6. Address by J. W. H. Eyre, M.D., Guy's Hospital, on Bacteriology. 7. Other business. Members are invited to bring non-members.—E. Rowland Fothergill, Honorary Secretary, Torquay House, Southfields, S.W.

Perthshire Branch.—At a meeting of Council held on Friday, December 16th last, it was decided, in view of the unsuitability of the present time for calling a meeting of the Branch, to ascertain the views of the members by writing on the matters which the Annual Representative Meeting decided should be referred to Divisions. Members are requested to send early replies to the Medico-Political Committee. The questions are as follows:—1. The interim report on contract practice: (1) Necessity of contract practice; (2) medical control; (3) distribution of work; (3A) Friendly Societies—choice of medical attendant; (4) minimum rate; (5) exclusive of infants; (6) provision against abuse; (7) special services. 2. The desirability of consultation between medical witnesses in legal cases likely to be brought before the court. Details of the questions will be found in the Supplement to the British Medical Journal, November 26th, 1904. The clinical meeting will be held at the Perth Infirmary on Friday, February 10th, at 4 p.m. Business: 1 Minutes. 2. Dr. Urquhart: Rupture of the heart. 3. Dr. Robert Stirling: (*a*) Excision of shoulder-joint; (*b*) appendicitis; (*c*) acute osteo-myelitis following injury; (*d*) mycosis fungoides. 4. Dr. Paton: (*a*) Molar pregnancy; (*b*) case of disseminated sclerosis. Council meeting at 3.45 p.m.—William A. Taylor and Alexander Trotter, Joint Honorary Secretaries, 10, Marshall Place, Perth.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Aloysius F. Fleming, Surgeon, to the *Lapwing*, additional, and on recommissioning, February 1st; Arthur D. C. Cummins, Surgeon, to the *Empress of India*, January 25th: Elijah R. L. Thomas, Surgeon, to the *Sphinx*, additional, and on recommissioning, February 1st; William N. Hobsfall, M.B., Surgeon, to the *Exmouth*, January 25th; H. F. Iliewicz, Fleet Surgeon, to the *Cressy*, on recommissioning with nucleus crew, February 8th; Richard Miller, M.B., Fleet Surgeon, and Douglas V. Lowndes, Surgeon, to Bermuda Hospital and Dockyard, on reduction of establishment, March 1st; Robert Hardie, M.B., Fleet Surgeon to the *Vivid*, additional, for the *Commonwealth*, January 31st, and on recommissioning, February 28th; William R. Trythall, Staff Surgeon, to the *Diamond*, on commissioning; Edwin S. Miller, Staff Surgeon, to the *Vivid*, additional, for Devonport Dockyard, undated; Arthur R. Schofield, M.B., Surgeon, to the *Vivid*, additional, for disposal, undated; Edward D. J. O'Malley, Surgeon, to the *Pembroke*, additional, for Chatham Dockyard, January 30th.

ARMY MEDICAL SERVICE.

Surgeon-General W. J. Fawcett, M.B., C.B., Army Medical Staff, is appointed Deputy Director-General, vice Surgeon-General A. Keogh, M.D., C.B., appointed Director-General, January 20th. Surgeon-General Fawcett entered the service as Assistant Surgeon, April 1st, 1871; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; Surgeon-Lieutenant-Colonel, April 1st, 1891; Colonel, May 10th, 1899; and Surgeon-General, April 1st, 1903. He was in the Soudan campaign in 1885 (medal with clasp and Khedive's bronze star), and with the Hazara expedition in 1888 (mentioned in dispatches, medal wih clasp).

ARMY MEDICAL STAFF.

Surgeon-General W. Donovan, C.B., is appointed Principal Medical Officer in South Africa, vice Surgeon-General J. D. Edge, M.D., C.B., who has been appointed Principal Medical Officer on the staff of Lord Grenfell, commanding the forces in Ireland, where Surgeon-General Edge succeeds Surgeon-General W. J. Fawcett, M.B.

INDIAN MEDICAL SERVICE.

The following gentlemen were the successful candidates at the examination for admission to the Indian Medical Service, held on January 24th and the four following days:

	Marks.		Marks.
A. F. Hamilton, M.B.	3,572	M. R. C. MacWatters, M.B. ...	3,145
A. D. White...	3,279	J. S. O'Neill, M.B.	3,140
R. K. White	3,223	W. H. Boalch	3,125
M. F. Reaney, M.B.	3,180	W. H. Hamilton	3,118
U. M. Wilson	3,166	C. J. Coppinger, M.B.	3,026
H. C. Buckley, M.B.	3,150	J. Cunningham, M.B.	3,024
G. A. Soltau	3,149	H. Falk, M.B.	3,010

Thirty-five candidates (seventeen of whom had university degrees) competed for the fourteen vacancies.

The undermentioned officers are appointed Honorary Surgeons to the Viceroy of India from December 13th, 1904: Sir B. Franklin, K.C.I.E., Indian Medical Service; Surgeon-General W. F. Burnett, Army Medical Staff; Colonel S. H. Browne, M.D., C.I.E., Indian Medical Service; Colonel J. T. B. Bookey, C.B., Indian Medical Service; Lieutenant-Colonel F. F. Perry, Indian Medical Service; and Lieutenant-Colonel W. G. H. Henderson, Indian Medical Service.

Colonel B. O'Brien, M.D., Bengal Establishment, is permitted to retire from the service from December 3rd, 1904. He was appointed Assistant Surgeon, October 1st, 1872, and became Colonel, November 1st, 1902. He has no war record in the Army Lists.

ROYAL ENGINEERS, SUBMARINE MINERS (VOLUNTEERS).

Surgeon-Lieutenant R. Jones, the Mersey Division, resigns his commission, January 21st.

VOLUNTEER RIFLES.

Supernumerary Brigade-Surgeon-Lieutenant-Colonel G. H. Turnbull, M.D., 1st Roxburgh and Selkirk (the Border) Regiment, Senior Medical Officer, Scottish Border Volunteer Infantry Brigade, is granted the honorary rank of Surgeon-Colonel, January 21st.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant J. Bruce, M.B., to be Surgeon-Captain, November 16th, 1904.

Surgeon-Lieutenant T. Beard to be Surgeon-Captain, December 21st, 1904.

Surgeon-Lieutenant T. Beard, 4th (Stirlingshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), to be Surgeon-Captain, January 21st.

Surgeon-Major S. Linton, M.B., having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve, January 28th.

ROYAL ARMY MEDICAL CORPS.

Colonel W. A. May, C.B., Principal Medical Officer in Egypt, has been selected to succeed Surgeon-General W. Donovan, C.B., as Principal Medical Officer, Salisbury Plain District.

Captain E. B. Knox, M.B., has been appointed additional Secretary to the Principal Medical Officer in India, from December 11th, 1904.

Colonel W. E. Saunders, C.B., is appointed to officiate as Principal Medical Officer, Eastern Command, India, with the temporary rank of Surgeon-General, from December 7th, 1904.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1904.

[Specially Contributed to the British Medical Journal.]

In the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London based upon the Registrar-General's returns for the fourth, or autumn, quarter of last year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 31,471 births registered in London during the three months under notice were equal to an annual rate of 27.2 per 1,000 of the population, estimated at 4,648,950 persons in the middle of 1904; in the corresponding quarters of the three preceding years the rates had been 28.0, 27.8, and 27.4 per 1,000 respectively, the average rate for the fourth quarters of the ten years 1894-1903 being 28 7 per 1,000. The birth-rates last quarter ranged from 16.0 in the City of Westminster, 16.1 in the City of London, 16.8 in Hampstead, 18 0 in Kensington, 19.4 in Chelsea, and 19 9 in Paddington, to 31 5 in Fulham, 31.6 in Poplar, 32.3 in Bermondsey, 34.5 in Bethnal Green, 34.7 in Stepney, and 36.9 in Finsbury.

The 19,054 deaths, of persons belonging to London, registered during last quarter were equal to an annual rate of 16 4 per 1,000, against 17.9, 17.2, and 16 1 per 1,000 in the fourth quarters of the three preceding years; in the corresponding quarters of the ten preceding years the mean rate was 17.6 per 1,000. The death-rates last quarter in the various boroughs ranged from 10.4 in Hampstead, 12 8 in Wandsworth, 13.1 in Lewisham, 13.5 in Stoke Newington, 13.6 in the City of Westminster, and 13.7 in Battersea, to 20.2 in Stepney, 20.3 in Bermondsey, 20 4 in Holborn, 20.5 in Bethnal Green, 22 0 in Shoreditch, and 22.2 in Finsbury.

During last quarter 1,205 deaths were referred to the principal infectious diseases: of these, 287 resulted from measles, 116 from scarlet fever, 206 from diphtheria, 155 from whooping-cough, 105 from enteric fever, 1 from ill-defined pyrexia, and 335 from diarrhœa, but not any from small-pox or from typhus. These 1,205 deaths were equal to an annual rate of 1.04 per 1,000, against an average rate of 1 90 per 1,000 in the corresponding quarters of the ten preceding years. The lowest death-rates last quarter from these infectious diseases were 0.34 in the City of London, 0 38 in Kensington, 0.46 in Hampstead, 0.47 in the City of Westminster, 0 52 in St. Marylebone, and 0.53 in Hackney; the highest rates were 1.78 in Shoreditch, 1 87 in Bethnal Green, 1.90 in Finsbury, 1 96 in Poplar, and 2.04 in Bermondsey. Measles showed the greatest proportional mortality in St Pancras, Finsbury, Shoreditch, Bethnal Green, Bermondsey, Wandsworth, and Lewisham; scarlet fever in Hammersmith, Bethnal Green, Stepney, Poplar, Bermondsey, and Woolwich; diphtheria in Hammersmith, Bethnal Green, Stepney, Poplar, and Woolwich; whooping-cough in Hammersmith, Fulham, the City of London, Bethnal Green, Southwark, and Bermondsey; "fever" in Stoke Newington, Hackney, Finsbury, Southwark, Bermondsey, and Greenwich; and diarrhœa in Paddington, Fulham, Holborn, Shoreditch, Stepney, and Poplar.

During the three months under notice 2,079 deaths from phthisis were registered equal to an annual rate of 1 79 per 1,000; the rates in the corresponding quarter of the three preceding years having been 1.77, 1 64, and 1.64 per 1,000 respectively. Among the various boroughs the lowest death-rates from phthisis last quarter were recorded in Hammersmith, Hampstead, the City of London, Wandsworth, and Lewisham; and the highest rates in St. Pancras, Holborn, Finsbury, Shoreditch, Stepney, Southwark, and Bermondsey.

Infant mortality, measured by the proportions of deaths among children under 1 year of age to registered births, was equal to 128 per 1,000 last quarter, against 152, 155, and 152 in the three preceding quarters, the mean rate in the fourth quarters of the ten years 1894 to 1903 being 148 per 1,000. The lowest rates of infant mortality last quarter were recorded in St. Marylebone, Hampstead, Stoke Newington, the City of London, and Wandsworth; and the highest rates in Kensington, Hammersmith, Chelsea, Shoreditch, Bethnal Green, Southwark, and Bermondsey.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,914 births and 5,520 deaths were registered during the week ending Saturday last, January 28th. The annual rate of mortality in these towns, which had been 19 9, 17.5, and 18.1 per 1,000 in the three preceding weeks, further rose last week to 18.4 per 1,000. The rates in the several towns ranged from 9.0 in Walthamstow, 9.3 in Handsworth (Staffs.), 10.5 in Hornsey, 12.0 in King's Norton, 12.3 in Southampton, 13.2 in Willesden, and 13.7 in Leyton and in Portsmouth, to 23.3 in Bootle, 24 1 in West Hartlepool, 24 2 in Nottingham, 24 9 in Stockton-on-Tees, 25.4 in Rochdale, 27.1 in Rhondda, 28.9 in Merthyr Tydfil, and 29.7 in Middlesbrough. In London the rate of mortality was 18.9 per 1,000, while it averaged 18 1 per 1,000 in the seventy-five other large towns. The death rate from the principal infectious diseases in the seventy-six towns averaged 1.3 per 1,000; in London this death-rate was equal to 1.2 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2 7 in Leyton, in Plymouth, and in Sunderland, 2.9 in Nottingham, 3.4 in East Ham, 4.2 in Bootle, 4.6 in Grimsby, 5.0 in Stockton-on-Tees, and 7.8 in Merthyr Tydfil. Measles caused a death-rate of 1.4 in South Shields, 1.6 in Bristol, 1.8 in Leyton, 2.1 in Burnley, 2.3 in Nottingham, 2.5 in East Ham, 3.0 in Stockton-on-Tees, and 7.1 in Merthyr Tydfil; diphtheria of 1.5 in Grimsby and 1.7 in Bootle; whooping-cough of 1.3 in Aston Manor, 1.4 in Hull, 1.6 in Hastings and in Hanley, 1.7 in Barrow-in-Furness and in Sunderland, 1.8 in Preston, and 3.1 in Grimsby; "fever" of 1.7 in Bootle; and diarrhœa of 1.3 in Plymouth and 1.5 in Ipswich. The mortality from scarlet fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, 1 in Leeds, 1 in Gateshead, and 1 in Newcastle-on-Tyne, but none in any other of the seventy-six towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 18, 19, and 18 at the end of the three preceding weeks, had further declined to 15 at the end of last week; no new case was admitted during the week, against 1 in each of the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,096, against 2,309, 2,192, and 2,174 at the end of the three preceding weeks; 251 new cases were admitted during the week, against 187, 194, and 225 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 28th, 954 births and 681 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20 6, 21.6, and 20.1 per 1,000 in the three preceding weeks, increased again last week to 20 3 per 1,000, and was 1.9 per 1,000 above the mean rate during the same

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1904.

Boroughs.	Estimated Population middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,648,950	31,471	19,054	27.2	16.4	1.04	1,205	—	287	116	206	155	—	105	1	335	2,079	128
Paddington	146,975	728	535	19.9	14.6	1.14	42	—	—	2	10	6	—	5	—	19	54	124
Kensington	179,236	805	657	18.0	14.7	0.38	17	—	—	3	3	3	—	1	1	6	69	145
Hammersmith ...	117,412	790	484	27.0	16.5	1.55	45	—	2	5	11	14	—	2	—	11	35	156
Fulham	152,482	1,196	600	31.5	15.8	1.37	52	—	3	2	4	10	—	3	—	24	60	125
Chelsea	74,329	360	312	19.4	16.8	0.55	10	—	—	2	2	2	—	2	—	2	31	181
City of Westminster ...	177,321	708	603	16.0	13.6	0.47	21	—	—	1	3	5	—	1	—	11	67	119
St. Marylebone ...	130,337	994	536	30.6	16.5	0.52	17	—	—	3	3	3	—	—	—	8	56	85
Hampstead	86,663	363	224	16.8	10.4	0.46	10	—	—	—	2	4	—	2	—	2	19	105
St. Pancras	235,936	1,502	1,107	25.5	18.8	0.98	57	—	24	3	11	8	—	3	—	8	152	125
Islington	341,044	2,126	1,416	25.0	16.7	0.91	77	—	30	10	10	10	—	7	—	10	152	125
Stoke Newington ...	52,445	280	176	21.4	13.5	0.53	7	—	2	—	2	—	—	2	—	1	19	104
Hackney	226,266	1,515	877	26.9	15.5	1.02	57	—	17	9	11	2	—	10	—	8	92	122
Holborn	57,161	394	290	27.6	20.4	0.56	8	—	—	—	—	1	—	1	—	6	51	137
Finsbury	98,958	909	547	36.9	22.2	1.90	47	—	23	4	4	—	—	6	—	10	64	129
City of London	23,482	94	100	16.1	17.1	0.34	2	—	—	—	—	2	—	—	—	—	7	74
Shoreditch	117,033	904	643	31.0	22.0	1.78	52	—	23	2	3	5	—	4	—	15	83	176
Bethnal Green	130,207	1,120	664	34.5	20.5	1.87	61	—	17	6	12	10	—	3	—	13	69	144
Stepney	303,791	2,631	1,531	34.7	20.2	1.50	114	—	22	14	26	6	—	10	—	36	188	135
Poplar	169,905	1,337	760	31.6	17.9	1.96	83	—	11	7	26	4	—	5	—	30	78	124
Southwark	207,937	1,589	1,102	30.7	19.3	1.09	56	—	4	5	5	13	—	9	—	20	124	149
Bermondsey	139,397	1,043	655	32.3	20.3	2.04	66	—	30	8	4	8	—	5	—	11	84	165
Lambeth	310,359	2,256	1,216	29.2	15.7	0.76	59	—	10	3	10	10	—	4	—	22	109	126
Battersea	175,465	1,175	600	26.9	13.7	0.60	26	—	7	2	3	1	—	4	—	9	68	113
Wandsworth	257,348	1,685	823	26.3	12.8	0.98	63	—	32	4	14	4	—	3	—	6	76	56
Camberwell	268,384	1,772	1,020	26.5	15.2	0.69	46	—	—	8	6	10	—	4	—	18	102	132
Deptford	113,509	813	414	28.7	14.6	0.64	18	—	1	4	2	1	—	2	—	8	39	112
Greenwich	101,651	690	370	25.7	14.6	0.72	18	—	4	1	1	3	—	4	—	5	42	114
Lewisham	140,401	870	458	24.9	13.1	0.98	34	—	16	2	5	1	—	—	—	10	33	111
Woolwich	123,416	862	434	28.0	14.1	1.31	40	—	9	6	13	3	—	3	—	6	56	119

period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 15 8 in Paisley and 16.5 in Dundee, to 23.8 in Greenock and 26.5 in Aberdeen. The death-rate from the principal infectious diseases in these towns averaged 2 4 per 1,000, the highest rates being recorded in Greenock and Perth. The 309 deaths registered in Glasgow included 4 which were referred to diphtheria, 25 to whooping-cough, 2 to "fever," and 5 to diarrhoea. Three fatal cases of diphtheria, 3 of whooping cough, 3 of diarrhoea, and 2 of scarlet fever were recorded in Edinburgh, 3 of measles, 2 of scarlet fever, 3 of whooping-cough, and 2 of "fever" in Aberdeen; 3 of whooping-cough in Paisley; 7 of whooping-cough and 2 of "fever" in Greenock; and 3 of whooping-cough in Perth.

HEALTH OF IRISH TOWNS.

DURING the week ending January 21st, 514 births and 375 deaths were registered in six of the principal Irish towns, against 511 births and 397 deaths in the preceding period. The mean annual death-rate in these towns, which had been 20 4, 20 6, and 21 0 per 1,000 in the three preceding weeks, fell to 18 8 in the week under notice, this being 0 7 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 13 6 in Waterford and 15.0 in Limerick to 22 4 in Belfast and 24 7 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 1 0 per 1,000, or 1 1 per 1,000 lower than during the preceding period, the highest figure—3 2—being recorded in Belfast, while Cork, Londonderry, and Limerick registered no deaths under this heading at all. The deaths from measles showed a decrease, 17 being recorded. There were from scarlet-fever 2 cases of death in Dublin, and 2 in Belfast, from typhus fever 1 in Waterford, and from diphtheria 2 in Dublin and 2 in Belfast.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BARNSLEY: BECKETT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

BRADFORD POOR LAW UNION.—Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £125 per annum.

BRISTOL ROYAL INFIRMARY.—Resident Obstetric Officer. Salary, £75 per annum.

CAIRO: SCHOOL OF MEDICINE.—Professor of Pathology and Bacteriology. Salary, £800 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Honorary Ophthalmic Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Physician to Out-patients.

DERBY BOROUGH ASYLUM, Rowditch.—Assistant Medical Officer. Salary, £120 per annum.

EDINBURGH: CRAIGLEITH POORHOUSE AND HOSPITAL.—Medical Officer, resident. Salary, £100 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Three Resident Medical Officers.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Physician to Out-patients.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL. — Assistant House-Surgeon, resident. Salary, £50 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Resident Medical Officer. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House Physician, resident. Salary, £20 for six months, and £2 10s. washing allowance.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £90 per annum.

KING'S COLLEGE, London, W.C.—(1) Professor of Anatomy: (2) Professor of Zoology; (3) Assistant Physician or Assistant Surgeon for Diseases of the Throat.

LONDON COUNTY COUNCIL.—Medical Officer to Employés in District No. 4

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill Assistant House-Surgeon, resident. Honorarium, £25 for six months.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Surgeon, resident. Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho.—Honorary Dental Surgeon.

ROYAL NAVY MEDICAL DEPARTMENT.—Three Dental Surgeons. Inclusive salary, £1 per diem, and when necessary travelling expenses.

ST. ALBANS: NAPSBUTY ASYLUM.—First, Second, and Third Assistant Medical Officers, all resident. Salaries, £300, £220, and £160 per annum respectively.

ST. MARY'S HOSPITAL, Paddington.—Surgeon in charge of Out-patients.

SALFORD UNION.—Assistant Resident Medical Officer. Salary, £130 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, resident. Salary, £50 per annum.

SOCIETY OF APOTHECARIES.—Gillson Scholarship in Pathology. Value, £90.

SOMERSET AND BATH LUNATIC ASYLUM, Wells.—Medical Superintendent. Salary commencing at £600 per annum.

TEIGNMOUTH HOSPITAL.—House Surgeon, resident. Salary, £70 per annum.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.

APPOINTMENTS.

ALLPORT, Wilfrid, M.B., B.S.Lond., F.R.C.S.Edin., M.R.C.S., L.R.C.P., Honorary Ophthalmic Surgeon to the Queen's Hospital, Birmingham, vice Priestley Smith, F.R.C.S., resigned.

ANDERSON, Louisa Garrett, M.D., B.S.Lond., Assistant Surgeon to Out-patients at the New Hospital for Women, London.

ATKINSON, J. P., M.D.Glasg., Certifying Factory Surgeon for the Lynton District, Devonshire.

BIRMINGHAM, C. L., M.D.R.U.I., Certifying Factory Surgeon for the Westport District, Mayo.

BLACKLOCK, J., M.D., Medical Officer of Health to Wigton Urban District.

BOKENHAM, T. B., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Wokingham District, Berks, and District and Workhouse Medical Officer of the Wokingham Union.

BORROWMAN, Philip, M.D., Medical Referee under the Workmen's Compensation Acts for the Central District of the Sheriffdom of Perth.

BOYD, W. R., M.D., M.R.C.S., Physician to In-patients at the Melbourne Hospital.

BROWN, A. Carnarvon, M.R.C.S.Eng., L.R.C.P.Lond., Casualty Officer and House-Surgeon to the North-Eastern Hospital for Children, Hackney Road.

CUNNING, Joseph, M.B., B.S.Melbourne, F.R.C.S.Eng., Assistant Surgeon to the Royal Free Hospital, London.

DODSON Arthur E., M.R.C.S., Medical Officer to the St. James's Branch Workhouse of the Wandsworth Union.

FENNELL, Charles H., M.A., M.D.Oxon., M.R.C.P.Lond., Senior Assistant Medical Officer to the East Sussex County Asylum, Hellingly.

FERGUSON, William, M.D., Medical Referee under the Workmen's Compensation Acts for the District of Banff.

FINUCANE, M. I., M.R.C.S.Eng., L.S.A., Medical Officer of the Fourth District and Buckingham Palace Road Workhouse of the St. George's Union.

FRASER, J. H. P., B.A., M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Physician to the Royal South Hants and Southampton Hospital.

GRIFFITHS, T. R., L.R.C.P.&S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Kidwelly District, Carmarthen.

JACKSON, James J. H., F.R.C.S.I., Medical Referee under the Workmen's Compensation Acts for the City and County of Waterford.

LEGGE, S. C., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Workhouse and Cottage Homes of the Worcester Union.

LENNANE, E. O., F.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

LISTER, Harold, M.B., District Medical Officer and Public Vaccinator at Jarrahdale, West Australia, vice T. J. Ick, M.B., resigned.

MACKENZIE, Marion E., M.B., Ch.B.Edin., Resident Medical Officer to the Hanley, Stoke and Fenton Hospital for Infectious Diseases, at Bucknall, Stoke-on-Trent.

MACLENNAN, Alex., M.B., C.M., Full Dispensary Surgeon, Western Infirmary, Glasgow.

MAWSON, J. H., L.R.C.P.&S.Edin., District Medical Officer of the Bishopthorpe Out relief Union.

MICHIE, George, M.A., M.B., C.M.Aberd., Honorary Assistant Physician to the Johannesburg Hospital.

MYOTT, Edgar C., M.B., B.S.Lond., M.R.C.S., L.R.C.P.Lond., Assistant House Surgeon to the Derbyshire Royal Infirmary.

ORR, A. W., M.D., L.R.C.P., Honorary Assistant Surgeon to the Eye, Ear, Nose, and Throat Department of the Brisbane Hospital, Queensland.

PARSONS, J. Herbert, B.S., D.Sc., F.R.C.S., Assistant Surgeon to the Royal London (Moorfields) Ophthalmic Hospital.

REISSMANN, C. H., M.D., M.R.C.P., Honorary Assistant Physician to the Consumptive Department, Adelaide Hospital.

RIGBY, W. H., M.B., Health Officer at Collie District, West Australia.

ROBERTSON, A. S., M.B., C.M.Glasg., Certifying Factory Surgeon for the Peterborough District, Northampton.

RODLEY, J., L.R.C.P.Edin., M.R.C.S.Eng., District Medical Officer of the Rochdale Union.

RAWLEITE, Robert J., B.A., M.D.Dub., Pathologist to the Rotunda Hospital, Dublin, vice Dr. W. C. Neville, deceased.

SADLER, E. A., M.D.Lond., Medical Officer of Health to the Ashbourn Urban District Council, vice P. R. Littleton, M.R.C.S., resigned.

SEARANCKE, N. F., L.R.C.P.Edin., M.R.C.S.Eng., Certifying Factory Surgeon for the Mitcheldean District, Gloucestershire.

SEYMOUR, H. F., M.B.Lond., M.R.C.S., District Medical Officer of the Worcester Union.

SINCLAIR, H. W., M.D., Assistant Medical Officer of the Bermondsey Parish Infirmary.

STURROCK, Peter S., M.B., Medical Referee under the Workmen's Compensation Acts for the Dunfermline and Kinross District.

THURSFIELD, Hugh, M.B., [illegible] Hospital for Sick Children, Great Ormond Street, [illegible].Oxon., M.R.C.P., Assistant Physician to the

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

DRINKWATER.—On January 26th, at 75, Kennington Road, S.E., the wife of E. Harold Drinkwater, L.S.A., of a son.

MARRIAGE.

WHITE—BOWYER.—On January 31st, at All Souls, Langham Place, W., by the Rev. Hayman Cummings, Ernest White, M.B.Lond., M.R.C.P., of 40, Margaret Street, Cavendish Square, W., and Ferndale, Sevenoaks, to Harriett Bowyer, of Gobowen, Salop, late Nurse Matron, City of London Asylum, Dartford.

DEATHS.

SUTTON.—On January 30th, at Dharmsala, Punjab, suddenly, Margaret Emily Jessie, the beloved wife of S. W. Sutton, M.D., B.S., Medical Mission, C.M.S.

YOUNG.—On January 30th, at Bognor, Louie, wife of John Young, M.D., Stamford Hill. Funeral at Putney Vale Cemetery 1.30 on Friday. No flowers, by request.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 9 p.m.—First Lettsomian Lecture by G. H. Savage, M.D., F.R.C.P., on Functional Mental Disorders.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON.—Laboratory meeting at St. Mary's Hospital Medical School, Paddington, 5 p.m.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

SOUTH-WEST LONDON MEDICAL SOCIETY, Bolingbroke Hospital, Wandsworth Common, 8.45 p.m.—Mr. G. H. Makins: Some Remarks on the Indications for Gastro-jejunostomy and its Results.

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Specimens by Dr. Macnaughton-Jones. The President's (Dr. William Alexander) Inaugural Address.

HARVEIAN SOCIETY, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Papers: Dr. G. A. Sutherland, Clinical Observations on Lobar Pneumonia in Children; Mr. E. Laming Evans, Anterior Metatarsalgia with Notes on 7 Cases.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, W., Annual General Meeting, 8.30 p.m.—Presidential Address by Sir John Batty Tuke on The Relation of the Lunacy Laws to the Treatment of Insanity.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, W.—General meeting. Card specimens, 8 p.m. Papers, 8.30 p.m.: (1) Mr. Edgar Stevenson, Notes on a Case of Large Orbital Exostosis removed by Operation, with Specimen. (2) Mr. C. Wray, The Treatment of Tobacco Amblyopia. (3) Messrs. E. Treacher Collins and Rayner Batten, Neuro-fibroma of the Eyeball and its Appendages. (4) Mr. A. Ogilvie, Exostosis of Orbit.

BRITISH CHILD-STUDY ASSOCIATION, Parkes Museum, Margaret Street, W., 8 p.m.—Paper:—Dr. G. E. Shuttleworth: Some Physiological Problems in Education.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Papers: (1) Dr. William Ewart, A Case of "Soft Valve" Mitral Stenosis in which no Murmur was heard. (2) Mr. A. Percy Paton, A Case of Accessory Thyroid Laterally Placed in the Floor of the Mouth. (3) Mr. H. Betham Robinson, Extraperitoneal Uretero-lithotomy in a Child, aged 3 years. (4) Mr. Douglas Drew, Calculous Anuria in a Child.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH, 9, Adelphi Terrace, W.C., 8 p.m.—Paper by Dr. G. F. McCleary: The Reform of the Milk Supply.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m.—Medical Cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—Muscular Atrophy in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Congenital Hypertrophic Stenosis of the Pylorus; Tuesday, The Diagnosis of Tumours and other Enlargements of the Long Bones; Wednesday, The Relationship between Suicide and Insanity; Thursday, Orthopaedic Surgery.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patients' Department, 7, Fitzroy Square, W., Thursday, 5 p.m.—Laryngeal Paralyses with their Value for Diagnosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Tuesday, 3.30 p.m., Epilepsy; Friday 3.30 p.m., Syphilis of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday: Pleural Effusions. Friday: Myopia.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—Malformations of the Genital Tract considered Clinically.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road.—The following Lectures have been arranged for next week, at 5 p.m. each day: Monday, Myxoedema and Cretinism; Tuesday, Posterior Displacement and Prolapse; Wednesday, Practical Medicine; Friday, *X* Rays.

BOOKS, ETC., RECEIVED.

A Laboratory Guide in Elementary Bacteriology. By William Dodge Frost, Ph.D. Third edition. New York: The Macmillan Company; and London: Macmillan and Co., Limited. 1903. 7s.

A German-English Dictionary of Terms used in Medicine and the Allied Sciences. By the late Hugo Laug, B.A. Edited and completed by Bertram Abrahams, M.B., B.Sc., F.R.C.P. London: J. and A. Churchill. 1905. 15s.

Tabulae Gynaecologicae. Herausgegeben von Dr. Friedr. Schauta und Dr. F. Hitschmann. 20 mehrfarbige auf Pauseleinwand gedruckte lithographische Tafeln mit kurzem erläuterndem Text. Leipzig und Wien: Franz Deuticke. Preis in Mappe 120 mark=144 kronen.

St. Thomas's Hospital Reports. New series. Edited by Dr. H. P. Hawkins and Mr. W. H. Battle. Vol. xxxii. London: J. and A. Churchill. 1904. 8s. 6d.

Religion and Health: Their Mutual Relationship and Influence. By Norman Porritt, M.R.C.S., L.R.C.P., F.N.S.A. London: Skeffington and Son. 1905. 3s. 6d.

A Dictionary of New Medical Terms: Being a Supplement to "An Illustrated Dictionary of Medicine, Biology, and Allied Sciences." By George M. Gould, A.M., M.D. London: Baillière, Tindall and Cox. 1905. 21s.

Cancer and its Treatment. The Bradshaw Lecture, delivered before the Royal College of Surgeons of England, December 1st, 1904. By A. W. Mayo Robson, D.Sc., F.R.C.S.Eng. London: Baillière, Tindall and Cox. 1905. 3s. 6d.

Die Histologischen Untersuchungsmethoden des Nervensystems. Von Dr. P. G. Bayon. Würzburg: C. Kabitzsch. 1905. M. 3.60.

Les Méthodes de Rééducation en Thérapeutique. Par le Dr. Contet. Paris: Vigot Frères. 1905. Fr. 3.50.

Traitement des Hémorrhagies Puerpérales. Par le Dr. G. Keim. Paris: Vigot Frères. 1905. Fr. 3.50.

L'Anesthésie Locale pour l'Extraction des Dents. Par le Dr. Sauvez. Paris: Vigot Frères. 1905. Fr. 4.

L. Landois' Lehrbuch der Physiologie des Menschen. Elfte Auflage. Bearbeitet von Professor Dr. R. Rosemann. Erste Hälfte. (Bogen 1–33.) Berlin und Wien: Urban and Schwarzenberg. 1905. M. 11=13 k. 20 h.

The British Journal of Children's Diseases. Edited by George Carpenter, M.D. Vol. 1. London: Adlard and Son. 1904. 15s.

A Monograph of the Anopheles Mosquitoes of India. By S. P. James, M.B., I.M.S., and W. Glen Liston, M.D., I.M.S. Calcutta: Thacker, Spink and Company; and London: W. Thacker and Company. 1904. 24s.

The Principles of Chemistry. By D. Mendeléeff. Third English edition. Translated from the Russian by George Kamensky, A.R.I.M., and edited by Thomas H. Pope, B.Sc., F.I.C. In two vols. London: Longmans, Green and Company. 1905. 32s.

Die Desinfektion der Hände. Von Dr. med. Eugen Engels. Abdruck aus dem klinischen Jahrbuch. Dreizehnter Band. Jena: Gustav Fischer. 1905. M. 5.50.

Alcohol and Life. By F. H. Shoosmith, B.Sc.Lond. London: Charles and Dible. 2d.

Lehrbuch der Kinderkrankheiten. Von Dr. Adolf Baginsky. Achte Auflage. Leipzig: S. Hirzel. M. 24.

Lehrbuch der speciellen Chirurgie. Von Dr. Franz Koenig. Achte Auflage. III Band. Berlin: August Hirschwald. 1905.

Ambidexterity: or Two-handedness and Two-brainedness. By John Jackson, F.R.I.S. Introduction by Major General R. S. S. Baden-Powell, C.B. London: Kegan Paul, Trench, Trübner and Company, Limited. 1905.

Sociological Papers, 1904. By Francis Galton, E. Westermarck, P. Geddes, E. Durkheim, Harold H. Mann, and V. V. Branford. With an introductory address by James Bryce. London: Macmillan and Co., Limited. 1905. 10s. 6d.

Appendix XVIII to Second Edition of Descriptive Catalogue of Pathological Specimens contained in the Museum of the Royal College of Surgeons of England. By Samuel G. Shattock. London: Taylor and Francis. 1904.

The Treatment of Nervous Disease. By J. J. Graham Brown, M.D., F.R.C.P.E., F.R.S.E. Edinburgh and London: William Green and Sons. 1904. 15s.

The Other Side of the Lantern: An Account of a Commonplace Tour Round the World. By Sir Frederick Treves, Bart., K.C.V.O., C.B., LL.D. London: Cassell and Co., Limited. 1905. 12s.

Principles of Physiological Psychology. By Wilhelm Wundt. Translated from fifth German edition (1902) by Edward Bradford Titchener. Vol. I. London: Swan Sonnenschein and Co., Limited. 1904. 12s.

First Aid. By R. J. Collie, M.D., and C. F. Wightman, F.R.C.S.Eng. Second Edition. London: George Gill and Sons, Limited. 1905. 3d.

Museums: Their History and Their Use. By David Murray, LL.D., F.S.A. In Three Volumes. Glasgow: James MacLehose and Sons. 1904. Three Volumes. 32s.

The Scottish Medical and Surgical Journal. Edited by Norman Walker, M.D., F.R.C.P., and Harold J. Stiles, M.B., F.R.C.S. Vol. XV (July to December). Edinburgh: The Scottish Medical and Surgical Journal, Limited. 1904.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
February	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	Coventry Division, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. Southern Division, *Edinburgh Branch*, Oddfellows' Hall, Forest Road, 8.15 p.m.
,,	8...WEDNESDAY	LONDON: Premises and Library Committee, 2.30 p.m.
,,	9 THURSDAY...	,, Medical Defence Committee, 3 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Special General Meeting, Board Room, Infirmary, Altrincham, 4.50 p.m.
,,	10...FRIDAY ...	Perthshire Branch, Clinical Meeting, Perth Infirmary, 4 p.m.
,,	11...SATURDAY...	South-Eastern Counties Division, *Edinburgh Branch*, King's Arms Hotel, Melrose, 3.30 p.m.
,,	12...Sunday..	
,,	13..MONDAY ...	
,,	14..TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	15...WEDNESDAY	,, Medico-Political Committee, 10.0 a.m. ,, Central Council (Special Meeting) 2 p.m.
,,	16...THURSDAY...	City Division, *Metropolitan Counties Branch*, Conjoint Meeting with Tottenham Division, Tottenham Hospital, 9.15 p.m.
,,	17...FRIDAY ...	Edinburgh Branch: Royal Infirmary, 4 p.m.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	
,,	23...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 8.30 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...WEDNESDAY	
,,	2...THURSDAY..	LONDON: Hospitals Committee, 2.30 p.m. ,, Hospitals Conference, 3 p.m.
,,	3...FRIDAY ...	
,,	4...SATURDAY...	
,,	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	
,,	8...WEDNESDAY	
,,	9...THURSDAY...	
,,	10...FRIDAY ...	
,,	11...SATURDAY...	

Month.	Day of Week.	Meetings to be Held.
March	12..Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	
,,	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...THURSDAY...	
,,	17...FRIDAY ...	LONDON: Ethical Committee. 2.0 p.m.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY.	LONDON: Medico-Political Committee, 3.0 p.m.
,,	23...THURSDAY...	City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28..TUESDAY ...	
,,	29...WEDNESDAY	
,,	30...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
,,	31...FRIDAY ...	
April	1...SATURDAY...	
,,	2...Sunday..	
,,	3...MONDAY ...	
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	
,,	11...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	12...WEDNESDAY	
,,	13...THURSDAY...	
,,	14..FRIDAY ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted to-day.
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Premises and Library Committee.
,,	19...WEDNESDAY	,, Central Council.
,,	20...THURSDAY...	
,,	21...FRIDAY ...	*Good Friday.*
,,	22...SATURDAY...	Notices of Motion for Annual Representative Meeting appear in JOURNAL.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 11TH, 1905.

CONTENTS.

	Page
MEETINGS OF BRANCHES AND DIVISIONS:	
Lancashire and Cheshire Branch: Liverpool Southern Division...	41
,, ,, North Manchester Division ...	41
Metropolitan Counties Branch: Tottenham Division	41
Bath and Bristol Branch: Bath Division	42
Dundee Branch	42
Glasgow and West of Scotland Branch: Glasgow North-Western Division	42
North of England Branch: South Shields Division	42
North Wales and Shropshire Branch: North Carnarvonshire and Anglesey Division	42
South Wales and Monmouthshire Branch: Monmouthshire Division	42
Ulster Branch	43
CORRESPONDENCE.—Divisional Work	43
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	43
VITAL STATISTICS...	44
NAVAL AND MILITARY APPOINTMENTS	46
VACANCIES AND APPOINTMENTS	46
BIRTHS, MARRIAGES, AND DEATHS	47
DIARY OF THE WEEK	47
BOOKS RECEIVED...	47
CALENDAR	48

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:

LIVERPOOL SOUTHERN DIVISION.

A MEETING of this Division was held on December 10th, 1904, Dr. STEEVES in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Contract Practice.—It was resolved that this Division take no action in the matter.

Consultations between Medical Witnesses.—Some strong views were expressed against the proposal, but it was agreed that no further action be taken.

Information to Coroners.—The Division endorses the suggestions which are made, and considers that action in accordance with them should be taken at an early date.

Local Government Board.—The Division approves of the appointment of a Royal Commission to inquire into the whole question of the constitution and procedure of the Local Government Board.

The Prevention of the Abuse of Dangerous Drugs.—The Division considers that steps towards this end should be taken, and approves of Section 1 of the recommendation.

Annual Representative Meeting.—Dr. LOGAN, as representative at the annual meeting, submitted a brief report. He pointed out that although the representatives had devoted a good deal of time to their meetings, exceedingly little business had been done, and that practically all important questions were referred back to the Divisions. Dr. Logan was strongly of opinion that the Representative Meeting was not a good working or workable machine, and that in order to secure efficiency some radical reorganization was required. He would prefer to see the membership reduced to about one-third or one-fourth of the present number, that the business meeting should be dissociated from the annual meeting and the distractions of scientific papers and social functions, that it should last for ten to fourteen days if necessary, and that each representative be paid £3 3s. per day.

Second Representative of Division in Central Division.—As this Division is now entitled to a second member on the Branch Council, it was proposed by Dr. LOGAN, and seconded by Dr. WESTBY, and carried, that Dr. Given, the Honorary Secretary, should be the second representative on the Branch Council.

Lantern Slides.—After the meeting was over, Dr. LOGAN showed some lantern slides taken in Oxford and the neighbourhood at the annual meeting, which were much appreciated.

NORTH MANCHESTER DIVISION.

A MEETING of the North Manchester Division was held at Palatine Hotel, Manchester, on Thursday, February 2nd. In the absence of Dr. S. Buckley, Dr. H. W. BODDY was elected to the chair.

Contract Medical Practice.—The propositions regarding contract practice referred to the Divisions from the Annual Representative Meeting were considered and the following resolutions were adopted:

Paragraph 1. That the words "of the poor" should read "for those unable to pay ordinary medical fees."

Paragraph 4. That all the words after "should be 5s." be deleted, and that in this and all preceding paragraphs the word "individual" should mean "male adult."

It was distinctly the feeling of the meeting that composition fees and attendance upon women and children at contract rates should be definitely discouraged.

Paragraph 5. That this paragraph be deleted.

Paragraph 6. That after the word "position" the following be inserted: "in which case the matter should be referred to the governing body of the service, and if the said person be by them considered unfit for membership, steps should be taken to prevent his being attended as a member by any other medical officer of the service."

The remaining propositions were unanimously agreed to, and the meeting adjourned to the following Thursday.

Eight members were present, and regrets received from four members.

METROPOLITAN COUNTIES BRANCH:

TOTTENHAM DIVISION.

A MEETING of the Division was held at White Lodge, Enfield, on Friday, January 27th, at 9.15 p.m., Dr. C. CHAPPEL, presided.

Paper.—Mrs. GARRETT ANDERSON read a paper on vaccination and revaccination. A short discussion ensued. A hearty vote of thanks was given to Mrs. Garrett Anderson for her paper.

BATH AND BRISTOL BRANCH:

Bath Division.

A meeting of this Division was held at Bath on January 31st, Dr. E. J. Cave in the chair. There were seven members present.

Report to Branch Council.—The report of the Division to the Branch Council was considered and adopted.

Resignation of Honorary Secretary.—The Honorary Secretary resigned office, and Dr. McDonogh Ellis was appointed in his place.

Medical Practitioners and Midwives.—A memorandum from the Medico Political Committee on the payment of medical practitioners called in to assist midwives was then considered. The answers to the questions have been handed to the Medical Secretary for submission to the Medico-Political Committee.

DUNDEE BRANCH.

An ordinary meeting of this Branch was held in the Students' Union, Dundee, on January 26th, Dr. Kinnear, Vice-President, in the chair. Twelve members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Medical School Certificates.—A letter was read from the Dundee School Board with regard to the granting of medical certificates of unfitness to attend school.

Votes at Local Meetings.—It was resolved to include the votes at the following local meetings in the record of the Branch meeting: At the Infirmary, Forfar, on January 24th, Dr. Peterkin in the chair, and three other members. At the Imperial Hotel, Arbroath, on January 25th, Dr. Dewar in the chair, and two other members. At the Infirmary, Montrose, on January 27th, Dr. Stone in the chair, and three other members.

Matters referred to the Divisions.—The reports on contract practice and Medical Acts Amendment Bill were approved with amendments. The reports on consultation of medical witnesses and abuse of drugs were approved. The reports on information to coroners, the Local Government Board, and the National Deposit Friendly Society have no local bearing and were not considered. The Branch agreed to support the Revaccination Bill and the Public Health Bill.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Glasgow North-Western Division.

An ordinary meeting of this Division was held in one of the rooms of the Hillhead Halls, Byres Road, on Tuesday, January 24th. Dr. T. Richmond, Chairman of the Division, presided. Sixteen members were present.

Annual Representative Meeting.—The representative to the Representative Meeting at Oxford (the Honorary Secretary) gave his report and submitted the annual report of the Division to the Branch.

Contract Medical Practice.—Thereafter the first of the matters referred to the Divisions—namely, Contract Practice—was considered. The various resolutions contained in the memorandum were passed unaltered, with the exception of Resolution (1). It was adopted with the omission of the words "of the poor," and read thus:

> That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service.

It was further resolved:

> That the Division think the Representative Meeting should adopt the foregoing resolutions on behalf of the Association.

NORTH OF ENGLAND BRANCH:

South Shields Division.

A meeting of this Division was held on January 18th, Dr. Crisp in the chair. The following members were present: Drs. Gowans, Crease, sen., Drummond, Crichton, Bain, O'Callaghan, Appleton, Jones, Kendall, McNabb (Honorary Secretary).

Matters Referred to Divisions.—In regard to the interim report on Contract Practice it was resolved:

> That this Division approves of the propositions of the Medico-Political Committee with regard to contract practice, which have been referred to the Divisions by instruction of the Annual Representative Meeting.

This was carried unanimously.—As to Consultation of Medical Witnesses no resolution was proposed; such consultation was considered desirable generally.—On the question of Information Supplied to Coroners no resolution was proposed.—On the question of the Reorganization of the Local Government Board it was resolved:

> That this Division approves of the Local Government Board Bill 1904

This was carried unanimously.

NORTH WALES AND SHROPSHIRE BRANCH:

North Carnarvonshire and Anglesey Division.

A meeting of this Division was held at Bangor on Wednesday, February 1st. In the unavoidable absence of the Chairman (Dr. John Roberts, Menai Bridge), Dr. Emyr O. Price (Bangor) was voted to the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

University College of North Wales.—The election of the following gentlemen by the Branch Council to serve for five years from January 1st, 1905, on the Court of Governors of the University College of North Wales was confirmed: Drs. Richard Jones (Festiniog), A. Eyton Lloyd (Rhyl), R. Arthur Prichard (Conway), H. Jones Roberts (Pen-y-groes), and John Roberts (Chester).

Medical Practitioners and Midwives.—The Memorandum on the Payment of Medical Practitioners called in to Assist Midwives was considered. The replies to the questions submitted by the Medico-Political Committee have been handed to the Medical Secretary.

Discussion.—Dr. G. W. Kendall (Holyhead) opened a discussion on Infantile Diarrhoea, in which the following members took part: The Chairman, Drs. Price Morris, J. Craig, H. Jones Roberts, H. M. Roberts, and Professor White.

Specimens.—Professor P. J. White (University College, Bangor) showed several pathological specimens from the zoological museum of the College, which included a very interesting specimen of an apparently extrauterine fetation in a rabbit.

Vote of Thanks.—A hearty vote of thanks was accorded to Dr. Kendall for his opening of the discussion, and to Professor White for his exhibition of specimens.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

Monmouthshire Division.

A special meeting of this Division was held in the Newport and County Hospital on Thursday, February 2nd, Dr. G. A. Brown in the chair. The members who attended were: Drs. Brown, Hamilton, Howard-Jones, Frost, Neilson, Gratte, Coulter, Neville, Buckner, Vines, Coumbe, Tonks, Ryan, Gamble, Garrod-Thomas, Muir, Lloyd, Rees Morgan, Morrell-Thomas, D. J. Jones, Lewis, James, Donovan, H. C. Bevan, Mulligan, Greer.

Confirmation of Minutes.—The minutes of the last meeting at Newport on November 25th were read and confirmed.

Proposed Memorial to Lord Tredegar.—A letter was read from the Honorary Secretary Newport Medical Society, forwarding the following resolution of the Society:

> That the Newport Medical Society highly approves of the suggestion that the proposed memorial to Lord Tredegar should take the form of a sanatorium for the treatment of phthisis, and begs to call attention to the necessity for such an institution in this district, where there is at present practically no provision for the treatment of consumptive patients of the poorer classes.

The meeting unanimously resolved that this resolution be brought before the next meeting at Abergavenny on February 24th.

Matters Referred to the Divisions.—The recommendations of the Medico-Political Committee in regard to the National Deposit Friendly Society were adopted. The question of the payment of medical men called in to assist midwives was considered, and the result of the voting has been communicated to the Medico-Political Committee. In regard to the interim report on contract practice it was proposed by Dr. Coumbe, seconded by Dr. Hamilton, that this matter be considered in three months' time. An amendment was moved by Dr. Gratte, seconded by Dr. Howard-Jones, that the meeting should proceed to the next business. The proposition was carried by 13 to 3, 5 not voting, 59 absent. As to consultation of medical witnesses, the previous opinion of the Division, that consultation between medical witnesses is impracticable, was confirmed, 21 members voting—none against; 59 were

absent. The HONORARY SECRETARY read the memorandum as to the position of practitioners giving information to coroners. With respect to the reorganization of the Local Government Board, on the proposition of Dr. HOWARD-JONES, seconded by Dr. COUMBE, the Honorary Secretary was instructed to bring the views of the Association before the local Members of Parliament. The meeting resolved unanimously to approve the Medical Acts Amendment Bill.

ULSTER BRANCH.

THE winter meeting of this Branch was held in the Harbour Office, Derry, on February 1st, at 11.30 a.m. The President, Professor LINDSAY (Belfast), occupied the chair, and twenty-eight members were present. Dr. Kidd (Enniskillen) and Dr. Martin (Portrush) apologized for absence.

Confirmation of Minutes.—The minutes of the autumn meeting were read and confirmed.

Report of Council.—The Honorary Secretary (Dr. CECIL SHAW) presented the report of Council, which stated that the following new members had been elected: Andrew Hegarty, M.D. (Magherafelt), John Rankin, M.B. (Newtownstewart), John J. McNicholl, L.R.C.P. and S.E. (Strabane), R. McCaudless, M.B. (Rathfriland), Samuel F. Lusk, M.B. (Ballymoney), and Samuel A. D'Arcy, L.R.C.P. and S.I. (Rosslea, Clones).

Royal Medical Fund of Ireland.—The Council recommended a grant of five guineas from the funds of the Branch to the Royal Medical Benevolent Fund of Ireland.

Future Meetings.—The Council have arranged that the spring meeting of the Branch should be held in Belfast and the annual meeting in the country. The report was moved by the HONORARY SECRETARY, seconded by Dr. MCLAUGHLIN (Derry), and passed.

Statement of Accounts.—The Honorary Treasurer, Dr. DARLING (Lurgan), read the statements of accounts, which showed a balance of £65 to the credit of the Branch.

DIVISIONAL WORK.

SIR,—In the Division to which I belong there has been only one meeting since last September. Up to the present date there has been no notice of any other meeting. At the rate of two meetings in six months and about two hours devoted to the discussion of the agenda, how is there to be any intelligent participation in the affairs of the British Medical Association?—I am, etc.,

London, Feb. 6th. W. U.

Association Notices.

COUNCIL MEETING.

THE Special Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 2 o'clock in the afternoon of Wednesday, February 15th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

January 26th. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—A meeting of the Division will be held in the Board Room of the District Hospital on Tuesday, February 14th, at 3.45 p.m. As several important subjects are to be considered, the Executive Committee hopes that members will make a special effort to be present, and bring with them the SUPPLEMENT to the JOURNAL dated November 26th, 1904.

Business.

Consideration of the following reports referred to the Division:

1. Memorandum *re* payment of practitioners called to assist midwives. Memorandum enclosed.
2. Interim report *re* contract practice ... SUPPLEMENT, Nov. 26th, 1904.
3. ,, ,, consultation of medical witnesses ... ... ,, ,, ,,
4. Report on information supplied to coroners ... ... ,, ,, ,,
5. Report on reorganization of Local Government Board ... ... ,, ,, ,,
6. Consider principles of Medical Acts Amendment Bill... ... ... ,, ,, ,,
7. Report on prevention of abuse of drugs and the recommending of drugs, etc., by name ... ... ,, ,, ,,

To receive a report from Executive Committee. To receive a report from the Representative of the Division, Dr. H. Manley. Dr. Stephens will draw attention to some ethical points in the examination of insurance cases. Other business:—Library: The Executive Committee has pleasure in announcing that, having received a gift of about 30 volumes of medical works from the Library of the Association, through Dr. H. Langley Browne, and also a generous gift of about 100 volumes from Dr. H. Manley, they have presented them to the Board of Management of the District Hospital to form the nucleus of a medical library for the use of members of the West Bromwich Division. They have drawn up the following rules:—Rules: 1. That any member of the West Bromwich Division of the British Medical Association or of the hospital medical staff may have access to the books, and may borrow one volume at a time. 2. That the borrower must enter his name, the name of the volume, and date of withdrawal in a book to be kept for that purpose by the house-surgeon. 3. That he will be entitled to keep the volume a fortnight. 4. That the date of return shall be entered in the book and initialled by the house-surgeon. 5. That the honorary secretary from time to time supply the house-surgeon with a list of the members of the Division. The Executive Committee hopes that other members of the Division may supplement the number of books by further gifts.—H. B. W. PLUMMER, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—A meeting of this Division will be held in the Victoria Cottage Hospital, Maryport, on Thursday, February 23rd, at 3.30 p.m. Agenda: 1. Minutes. 2. Dr. Proud (Maryport) will (*a*) read some notes on a case of puerperal eclampsia, and (*b*) exhibit some surgical cases. 3. Dr. Crerar (Maryport) will (*a*) read some notes on the treatment of appendicitis, and (*b*) exhibit some pathological specimens. 4. Consider memorandum from Medico-Political Committee as to the payment of medical practitioners called in to assist midwives. 5. Consider other matters referred to Divisions (see SUPPLEMENTS of the BRITISH MEDICAL JOURNAL for November 26th, 1904, and January 14th, 1905): (*a*) Report on contract practice; (*b*) consultation of medical witnesses; (*c*) report on information supplied to coroners by medical practitioners; (*d*) report on the reorganization of the Local Government Board; (*e*) Medical Acts Amendment Bill; (*f*) prevention of abuse of drugs; (*g*) National Deposit Friendly Society; (*h*) Public Health Bill; (*i*) Revaccination Bill. 6. Consider circular from the Kendal Division. 7. General.—G. BERTRAM MURIEL, Honorary Secretary, Whitehaven.

EDINBURGH BRANCH. — Meeting on February 17th in the Royal Infirmary. Provisional Arrangements.—The Museum (in Ward 22) will be open at 11 a.m. Professor Simpson will operate (Ward 35) at 12. Dr Allan Jamieson will give a short clinic in the Skin Department at 12.30. In the Eye Department Mr. G. A. Berry will operate at 11.30, and Dr. George Mackay will demonstrate the use of the Volkmann's magnet and Zeiss corneal microscope. Mr. Wallace, C.M.G., will give a demonstration in the Lock at 1 o'clock. At 3.30 in the Ear and Throat Department Dr. M'Kenzie Johnston will operate on some cases under ethyl-chloride anaesthesia. Dr. Dawson Turner will show the Electrical Department from 11 to 12. At the meeting in the University Clinical Medicine Theatre at 4 p.m. a large number of interesting cases will be shown, and Professor Schäfer will demonstrate his method of artificial respiration. Dinner in the Royal British Hotel at 6.30; tickets 5s.; morning dress. Those who desire to attend, and have not intimated their intention of doing so, will oblige by informing Dr. Norman Walker not later than Wednesday, February 15th. The meeting is open to all members of the Association.—NORMAN WALKER, 7, Manor Place, Edinburgh; A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—There will be a meeting of this Division on February 11th, at 3.30 p.m., in the King's Arms Hotel, Melrose. It is particularly requested that members read and consider carefully the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904, as the decision of the Divisions will determine the policy of the Association in respect of the medico-political matters therein contained. Business: (1) Consideration of the medico-political matters above mentioned referred to the Divisions. (2) The fixing of the date of the annual meeting of the Division, and also to arrange for the suggested Branch meeting in one of the county towns within the area of the Division. (3) Dr. Tyrrell (Galashiels) will read notes of an interesting case.—W. HALL CALVERT, Melrose, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BIRKENHEAD DIVISION.—A meeting of the members of the above Division will be held on Thursday, February 16th, at 14, Hamilton Square, Birkenhead, at 4.30 p.m. Agenda: Consideration of memoranda from the Medico-Political Committee: (1) On the payment of medical practitioners called in to assist midwives; (2) re National Deposit Friendly Society; (3) Public Health Bill; (4) Revaccination Bill, see SUPPLEMENT, BRITISH MEDICAL JOURNAL, January 14th; (5) the relations of the medical profession to ambulance work, see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 4th. J. H. PARDON, Honorary Secretary, 59, Grange Mount, Birkenhead.

LEINSTER BRANCH.—The annual general meeting will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 25th, at 4.30 p.m.—Professor WHITE, Honorary Secretary and Treasurer, Dublin.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held at the Balham Hotel (close to the station) on Thursday, February 23rd, at 8.30 p.m. Tea and coffee provided. Agenda: 1. Minutes. 2. Correspondence. 3. Questions. 4. Resolutions from the South London Medical Committee for approval before submission to King's College Hospital Medical Board. 5. Resolutions for Representative Meeting at Leicester with reference to suggested Benevolent and Provident and Medical Agency Departments of the Association. 6. Address by R. Tanner Hewlett, M.D. (King's College Hospital and Jenner Institute of Preventive Medicine). 7. Other business. Members are invited to bring non-members.—E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

Metropolitan Counties Branch: Tottenham and City Divisions.—A conjoint meeting of these Divisions will be held on Thursday, February 16th, at 9.15 p.m., at the Tottenham Hospital. Agenda:—1. Two members from each Division will be nominated to attend a conference on the representation of the Branch on the Central Council. 2. The following subjects will be discussed:—(*a*) Fees for examination for life insurance; (*b*) medical defence scheme, (*c*) abuse of hospitals. Mr. J. Smith Whitaker, the Medical Secretary of the Association, will be present. Tea and coffee will be provided. Visitors will be cordially welcomed.—Fred. Tresilian, Honorary Secretary, Tottenham Division; E. W. Goodall, Honorary Secretary, City Division.

South Midland Branch.—The Council of this Branch will meet at Franklin's Restaurant, Guildhall Road, Northampton, on Tuesday, March 7th, at 3.30 p.m.—E. Haines Jones, Secretary, Northampton.

South-Eastern Branch: Eastbourne Division.—The next meeting will be held on Wednesday, February 22nd, in the Library, Grand Hotel, Eastbourne, at 6.15 p.m. Agenda and programme—6.15 p.m.: 1. (*a*) The reorganization of the Local Government Board; (*b*) memorandum on the payment of medical practitioners called in to assist midwives. 7.15 p.m.: 2 Dinner, 5s., exclusive of wine. 8.30 p.m.: 3. Paper by Mr. Cuthbert Wallace, F.R.C.S. (St. Thomas's Hospital), on enlarged prostate. Lantern slides will be exhibited to illustrate the paper. All members of the South-Eastern Branch are entitled to be present, and to introduce professional friends. Members intending to be present will much facilitate arrangements by communicating their intention to the Honorary Secretary, W. J. C. Merry, 2, Chiswick Place, Eastbourne.

South Wales and Monmouthshire Branch: Cardiff Division.—A special meeting of the Division will be held in the rooms of the Cardiff Medical Society, 141, Queen Street, on Thursday, February 16th, at 3.30 o'clock.

Agenda.

1. To consider the Memorandum of the Medico-Political Committee on the "Payment of Medical Practitioners called in to assist Midwives."

2. To consider the following reports of the Medico-Political Committee which have been referred to the Divisions by the last Annual Representative Meeting. (Members are asked to bring with them to the special meeting the Supplement to the British Medical Journal for November 26th, 1904, which contains the reports here indicated.)

(1) Interim Report on Contract Practice. Propositions to be voted on:

(*a*) *Necessity of Contract Practice.*—That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor.

(*b*) *Medical Control.*—That where the department of contract practice relates wholly to medical work, it is essential that medical men should be adequately represented on the management.

(*c*) *Distribution of Work.*—That it should be a fundamental principle of the constitution of all such departments, that every medical practitioner in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service.

(*d*) *Friendly Societies: Choice of Medical Attendant.*—That the individual members of Friendly Societies be entitled to choose the medical man by whom they desire to be attended.

(*e*) *Minimum Rate.*—That, in present conditions, the lowest fee to be fixed in any district, as the minimum to be paid to each medical officer annually for each individual whom he is under contract to attend, should be 5s., subject to such composition fee, if any, as may be locally determined upon in the case of families having more than three children.

(*f*) *Exclusive of Infants.*—That children under the age of five should not be admitted under contracts at minimum rates, except in the case of the family composition fees included in Clause (*e*).

(*g*) *Provision against Abuse.*—That in all such contracts the right be reserved to each medical officer to decline to attend as a member of such service any person whom he may consider to be unfit for membership in respect of financial position, but that such provision should be made as the governing body of the service may approve to prevent hardship resulting from the retrospective application of this rule.

(*h*) *Special Services.*—The rates above specified are not intended to apply to night visits, obstetric cases, operations, or serious accidents (by the term "serious accident" being meant an accident which causes incapacitation for more than a week).

(2) Report on Consultation of Medical Witnesses in legal cases.

(3) Report on Information supplied to Coroners by Medical Practitioners.

(4) Report on Reorganization of the Local Government Board.

Propositions to be voted on:

(*a*) That the President of the Local Government Board should be a Secretary of State, and that the Department in all matters of status and emolument should be raised to an equality with the existing Departments of Secretaries of State.

(*b*) That the President should be assisted and advised by a Board, meeting for the transaction of business, and consisting of, in addition to himself, a Vice-President and a Parliamentary Secretary, each of whom should be a Peer or a Member of the House of Commons, and of a certain number of expert members. It will be observed that such a constitution would be in accordance with the precedent established by the creation of the Scottish Local Government Board, and follows also the analogy of the Admiralty Board and the Army Council.

(*c*) That, inasmuch as Public Health Administration would be an important function of the Board, one of such experts should be a Registered Medical Practitioner, who should have had special experience in Public Health Administration.

Tea will be provided by the Committee, and members are asked to invite Medical friends to attend and take part in the discussion of the very important items of the Agenda.

Ewen J. Maclean, Honorary Divisional Secretary.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 9,190 births and 5,387 deaths were registered during the week ending Saturday last, February 4th. The annual rate of mortality in these towns, which had been 17.6, 18.1, and 18.4 per 1,000 in the three preceding weeks, declined again last week to 18.0 per 1,000. The rates in the several towns ranged from 9.0 in King's Norton, 11.6 in Bury, 11.8 in Handsworth (Staffs.), 12.0 in York, 12.1 in Walthamstow, 12.2 in Rotherham, 12.3 in Southampton, and 12.4 in Hornsey, to 23.6 in Wolverhampton and in Nottingham, 23.8 in Middlesbrough, 26.5 in Swansea, 28.1 in Norwich, 28.8 in Stockton-on-Tees, 31.3 in Middlesbrough, 31.7 in Rhondda, 33.1 in Hanley, and 33.2 in Merthyr Tydfil. In London the rate of mortality was 17.5 per 1,000, while it averaged 18.2 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.2 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.1 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.4 in Devonport, 3.7 in Middlesbrough, 3.8 in Grimsby, 4.1 in Nottingham, 4.2 in Merthyr Tydfil, 4.8 in Hanley, and 5.0 in Stockton-on-Tees. Measles caused a death-rate of 2.8 in Merthyr Tydfil, 2.9 in Nottingham, and 4.0 in Stockton-on-Tees; scarlet fever of 1.6 in Hanley; diphtheria of 1.1 in Swansea and 1.6 in Bournemouth and in Middlesbrough; whooping cough of 2.3 in Willesden and in Preston, 2.4 in Hanley, 2.6 in Barrow-on-Furness, and 3.1 in Hastings and in Grimsby; "fever" of 1.1 in Middlesbrough; and diarrhoea of 1.5 in West Bromwich. One fatal case of small-pox was registered in Leeds, 1 in Hull, 1 in South Shields, and 1 in Newcastle-upon-Tyne. The Metropolitan Asylums Hospitals contained 13 small-pox patients on Saturday last, the 4th inst., against 19, 18, and 15 on the three preceding Saturdays; one new case was admitted during the week, against 1, 1, and 0 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,102, 2,174, and 2,096 at the end of the three preceding weeks, had further declined to 2,070 at the end of last week; 229 new cases were admitted during the week, against 194, 225, and 251 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 4th, 889 births and 668 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.6, 20.1, and 20.3 per 1,000 in the three preceding weeks, declined again last week to 19.9 per 1,000, but was 1.9 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 14.1 in Greenock and 15.8 in Paisley, to 24.5 in Dundee and 32.0 in Perth. The death-rate from the principal infectious diseases averaged 2.5 per 1,000 in these towns, the highest rates being recorded in Glasgow and Perth. The 205 deaths registered in Glasgow included 5 which were referred to measles, 6 to diphtheria, 31 to whooping-cough, and 12 to diarrhoea. Two fatal cases of diphtheria, 4 of whooping-cough, and 3 of diarrhoea were recorded in Edinburgh; 2 of whooping-cough and 2 of diarrhoea in Aberdeen; and 2 of whooping-cough in Paisley, 2 in Greenock, and 3 in Perth.

HEALTH OF IRISH TOWNS.

During the week ending January 28th, 509 births and 438 deaths were registered in six of the principal Irish towns, against 514 births and 375 deaths in the preceding period. The mean annual death-rate in these towns, which had been 20.6, 21.0, and 18.8 per 1,000 in the three preceding weeks, rose to 23.5 in the week under notice, this being 5.1 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 11.7 in Waterford and 20.5 in Limerick to 27.4 in Cork and 32.2 in Londonderry. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.5 per 1,000, or 0.5 per 1,000 higher than during the preceding period, the highest figure—2.8—being recorded in Belfast, while Waterford registered no deaths under this heading at all. The deaths from measles showed an increase, 24 being recorded. There were 2 cases of death from scarlet fever in Dublin and 2 in Belfast, and from diphtheria 1 in Belfast.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1904.

The vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending December last, 107,012 births were registered in these towns, equal to an annual rate of 28.1 per 1,000 of their aggregate population, estimated at 15,271,287 persons in the middle of last year; in the corresponding quarter of the preceding year the rate had been 28.6 per 1,000. In London the birth-rate last quarter was 27.2 per 1,000, while it averaged 28.5 in the seventy-five other large towns, and ranged from 16.1 in Bournemouth, 16.5 in Hastings, 18.1 in Hornsey, 19.9 in Blackburn, in Halifax, and in Bradford, 21.3 in Bury, and 21.9 in Rochdale, to 33.2 in Willesden, 33.3 in Walthamstow, 33.5 in Wigan, 34.7 in Tynemouth, 35.9 in Middlesbrough, 37.1 in Merthyr Tydfil, 39.0 in St. Helens, and 39.3 in Rhondda.

During the quarter under notice, 66,445 deaths were registered in these towns, corresponding to an annual rate of 17.5 per 1,000 living, against a rate of 17.3 in the fourth quarter of the preceding year. In London the rate of mortality was 17.0 per 1,000; in the seventy-five other large towns it averaged 17.7 per 1,000, and ranged from 8.4 in Hornsey, 11.3 in Willesden, 11.4 in Kings Norton, 11.6 in Walthamstow, 12.1 in Barrow-in-Furness, 12.2 in Bournemouth, 12.7 in Leyton, 13.1 in Handsworth (Staffs.), and 13.2 in Southampton, to 21.2 in Salford and in Sunderland, 21.7 in Manchester and in Tynemouth, 22.0 in Liverpool, 22.2 in South Shields, 22.4 in Middlesbrough, and 23.0 in Hanley.

The 66,445 deaths from all causes in the seventy-six towns last quarter included 5,970 which were referred to the principal infectious diseases; of these, 37 resulted from small-pox, 1,608 from measles, 569 from scarlet fever, 933 from diphtheria, 699 from whooping-cough, 580 from "fever" (principally enteric), and 1,552 from diarrhoea. The death-rate from these diseases, which had been 1.66 in the corresponding quarter of the preceding year, was 1.56 per 1,000 last quarter. In London this death-rate was equal to 1.05 per 1,000; while it averaged 1.80 in the seventy-five large provincial towns, amongst which

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the Fourth Quarter of 1904.

Towns.	Estimated Population middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	15,271,287	107,012	66,445	28.1	17.5	1.56	5,979	37	1,608	569	933	699	581	1,552	147	1.2
75 Provincial Towns	10,622,337	75,541	46,770	28.5	17.7	1.80	4,761	37	1,319	453	725	543	470	1,214	155	1.6
London	4,648,950	31,471	19,675	27.2	17.0	1.05	1,218	—	289	116	208	156	111	338	130	0.3
Croydon	144,419	950	516	26.4	14.3	0.56	20	—	—	1	9	1	4	5	102	—
Willesden	132,566	1,098	373	33.2	11.3	0.45	15	—	—	—	3	4	4	4	87	0.8
Hornsey	81,221	366	171	18.1	8.4	0.50	10	—	—	—	6	1	1	2	77	—
Tottenham	112,981	840	411	29.8	14.6	1.17	33	—	11	2	5	4	4	7	137	—
West Ham	288,424	2,249	1,170	31.3	16.3	1.52	109	—	26	15	19	9	9	31	145	—
East Ham	116,902	938	397	32.2	13.6	2.02	59	—	17	2	23	3	6	8	134	0.5
Leyton	110,844	773	352	28.0	12.7	0.90	25	—	5	2	2	4	6	6	83	1.7
Walthamstow	111,282	925	321	33.3	11.6	0.98	27	—	—	6	8	5	6	2	105	—
Hastings	66,503	274	237	16.5	14.3	0.36	6	—	—	—	—	1	—	5	128	0.4
Brighton	126,286	738	504	23.4	16.0	0.36	11	—	—	—	2	3	3	3	111	—
Portsmouth	198,038	1,422	901	28.8	18.2	1.30	64	—	—	4	20	7	13	20	127	1.1
Bournemouth	64,645	259	197	16.1	12.2	0.30	5	—	—	1	2	—	—	2	81	0.5
Southampton	112,500	712	371	25.4	13.2	0.35	10	—	—	—	4	—	—	6	100	—
Reading	76,373	494	277	25.9	14.5	0.68	13	—	—	—	5	—	1	7	117	1.1
Northampton	91,146	542	333	23.9	14.7	1.23	28	—	—	14	5	6	—	3	105	1.2
Ipswich	69,805	488	286	28.0	16.4	1.14	20	—	11	—	5	—	2	2	127	2.1
Great Yarmouth	52,099	357	214	27.5	16.5	1.30	17	—	4	1	2	3	2	5	137	—
Norwich	115,538	798	498	27.7	17.3	0.79	23	—	—	—	5	8	5	5	143	1.2
Plymouth	114,003	719	536	25.3	18.9	3.14	89	—	50	16	4	3	3	13	142	—
Devonport	75,334	567	258	30.2	13.7	1.29	24	—	17	2	—	1	2	2	101	—
Bristol	343,204	2,184	1,522	25.5	17.8	1.89	162	—	78	8	27	31	8	10	148	0.4
Hanley	63,932	498	367	31.2	23.0	3.57	57	2	11	9	9	8	3	15	223	2.2
Burton-on-Trent	51,934	332	221	25.6	17.1	1.32	17	—	5	3	3	5	—	1	151	2.7
Wolverhampton	98,194	658	362	26.9	14.8	1.79	44	—	—	4	12	3	4	21	138	0.8
Walsall	91,432	696	440	30.5	19.3	2.59	59	—	27	—	7	2	4	19	139	0.7
Handsworth	59,634	359	195	24.1	13.1	0.88	13	—	—	1	7	—	4	1	156	1.0
West Bromwich	67,186	554	276	33.1	16.5	1.32	22	—	1	4	—	—	4	13	170	1.8
Birmingham	537,965	4,026	2,608	30.0	19.5	1.43	193	—	23	11	46	26	20	67	188	3.0
Kings Norton	66,667	417	190	25.1	11.4	0.36	6	—	1	1	2	—	1	1	122	1.6
Smethwick	60,691	474	226	31.3	14.9	0.60	9	—	—	2	1	—	3	3	158	1.3
Aston Manor	80,363	583	260	29.1	13.0	0.60	12	—	—	3	—	3	2	4	142	0.4
Coventry	73,904	567	314	30.8	17.0	0.93	17	—	—	6	—	6	1	4	150	2.5
Leicester	224,186	1,362	819	24.4	14.7	1.16	65	—	22	4	2	6	3	28	148	1.1
Grimsby	66,958	448	294	26.8	17.6	5.22	87	—	57	1	7	4	6	12	179	1.7
Nottingham	248,811	1,636	1,095	26.4	17.7	1.87	115	1	37	14	22	18	9	14	152	0.6
Derby	120,449	754	454	25.1	15.1	1.32	40	—	4	1	13	7	3	12	142	—
Stockport	97,008	604	499	25.0	20.6	1.82	44	—	13	10	7	—	5	9	177	0.2
Birkenhead	114,814	929	543	32.5	19.0	1.97	57	—	17	7	9	4	5	15	166	0.6
Wallasey	60,354	457	221	30.4	14.7	1.47	22	—	2	4	7	1	3	5	127	2.7
Liverpool	723,430	5,858	3,964	32.5	22.0	3.47	625	—	322	48	71	26	45	113	168	4.0
Bootle	61,755	457	276	29.7	17.9	2.14	33	—	12	5	4	2	—	10	153	5.1
St. Helens	88,545	861	453	39.0	20.5	3.16	70	—	31	6	5	14	4	10	178	4.9
Wigan	62,800	524	309	33.5	19.7	3.07	48	—	21	4	3	4	7	9	155	0.3
Warrington	67,331	520	288	31.0	17.2	1.55	26	—	—	7	—	2	—	17	146	4.5
Bolton	175,744	1,126	753	25.7	17.2	1.83	80	1	9	7	10	6	19	28	147	0.4
Bury	58,450	310	244	21.3	16.7	1.51	22	2	5	2	2	2	5	4	200	1.6
Manchester	557,938	4,128	3,016	29.7	21.7	1.72	239	—	53	27	37	40	18	64	170	2.1
Salford	228,983	1,742	1,209	30.5	21.2	3.61	206	—	83	22	36	3	17	45	167	0.7
Oldham	139,497	834	702	24.0	20.2	2.61	91	7	5	6	7	13	9	44	194	—
Rochdale	85,601	467	389	21.9	18.2	1.50	32	—	9	7	4	—	5	7	152	2.1
Burnley	100,569	640	507	25.5	20.2	3.04	76	—	21	4	6	3	7	35	261	1.6
Blackburn	132,134	656	611	19.9	18.5	2.14	71	—	10	9	4	6	11	31	252	1.1
Preston	115,055	758	560	26.4	19.5	2.81	81	5	1	—	6	21	8	40	212	3.6
Barrow-in-Furness	59,654	459	180	30.9	12.1	1.27	19	—	—	2	—	8	2	7	83	1.7
Huddersfield	94,925	554	438	23.4	18.5	1.04	25	1	2	6	6	2	4	4	126	2.1
Halifax	107,580	533	461	19.9	17.2	2.30	62	5	18	10	7	10	6	6	154	1.3
Bradford	285,089	1,414	1,235	19.9	17.4	2.11	150	1	14	15	54	19	24	23	147	0.6
Leeds	450,142	3,021	1,828	26.9	16.3	0.78	89	2	2	7	14	15	16	33	158	—
Sheffield	432,940	3,318	1,802	30.7	16.7	1.40	151	—	4	31	16	22	16	62	143	3.2
Rotherham	58,498	469	205	32.2	14.1	0.62	9	—	1	—	—	—	3	5	154	2.9
York	81,268	519	304	25.6	15.0	2.22	45	—	10	19	3	—	8	5	123	—
Hull	253,865	1,832	1,249	28.9	19.7	2.67	170	—	54	6	21	23	19	47	182	1.3
Middlesbrough	96,684	865	540	35.9	22.4	3.43	83	—	35	2	3	3	5	35	192	1.5
Stockton-on-Tees	52,192	416	259	32.0	19.9	4.30	56	—	25	8	14	—	2	7	156	1.0
West Hartlepool	69,251	549	252	31.8	14.6	2.33	40	—	6	—	15	2	1	16	129	—
Sunderland	151,157	1,235	800	32.8	21.2	1.71	64	—	4	1	7	17	12	23	201	3.1
South Shields	107,334	879	595	32.8	22.2	3.26	87	3	22	1	5	38	1	17	191	3.5
Gateshead	118,067	963	557	32.7	18.9	1.76	52	3	25	4	5	6	1	8	186	3.8
Newcastle-on-Tyne	225,362	1,700	1,140	30.3	20.3	1.34	76	4	17	7	17	21	2	8	174	0.5
Tynemouth	53,060	459	287	34.7	21.7	2.74	36	—	27	1	1	3	1	3	174	1.4
Newport (Mon.)	71,543	590	250	33.1	14.5	0.85	15	—	1	2	5	1	1	5	129	0.4
Cardiff	176,313	1,237	623	28.1	14.2	0.84	37	—	11	4	4	3	2	8	132	0.3
Rhondda	122,310	1,197	528	39.3	17.3	2.66	81	—	14	4	8	13	24	18	145	0.6
Merthyr Tydfil	72,745	673	320	37.1	17.6	1.99	36	—	6	6	4	3	4	13	140	—
Swansea	95,931	731	398	30.6	16.6	1.21	29	—	—	4	11	—	2	12	145	1.0

the rates ranged from 0.30 in Bournemouth, 0.35 in Southampton, 0.36 in Hastings, in Brighton, and in King's Norton, 0.45 in Willesden, and 0.50 in Hornsey, to 3.14 in Plymouth, 3.16 in St. Helens, 3.26 in South Shields, 3.43 in Middlesbrough, 3.47 in Liverpool, 3.57 in Hanley, 3.61 in Salford, 4.30 in Stockton-on-Tees, and 5.22 in Grimsby. The 37 fatal cases of small-pox registered last quarter included 7 in Oldham, 5 in Preston, 5 in Halifax, 4 in Newcastle-on-Tyne, 3 in South Shields, 3 in Gateshead, and 2 each in Hanley, Bury, and Leeds. The 1,608 deaths from measles were equal to an annual rate of 0.42 per 1,000; in London the death-rate from this disease was 0.25 per 1,000, while it averaged 0.50 in the seventy-five large provincial towns, amongst which measles was proportionately most fatal in Plymouth, Grimsby, Liverpool, St. Helens, Wigan, Salford, Middlesbrough, Stockton-on-Tees, and Tynemouth. The 569 fatal cases of scarlet fever corresponded to an annual rate of 0.15 per 1,000; in London the scarlet fever death-rate was only 0.10 per 1,000, while in the seventy-five large provincial towns it averaged 0.17, and was highest in Northampton, Plymouth, Hanley, Stockport, Warrington, York, and Stockton-on-Tees. The 933 deaths from diphtheria were equal to an annual rate of 0.24 per 1,000; in London the death-rate from this disease was 0.18 per 1,000, while it averaged 0.27 in the seventy-five other large towns, among which diphtheria was proportionally most fatal in East Ham, Hanley, Wolverhampton, Handsworth (Staffs), Wallasey, Salford, Bradford, Stockton-on-Tees, and West Hartlepool. The 699 fatal cases of whooping-cough were equal to an annual rate of 0.18 per 1,000; in London the rate of mortality from whooping-cough was 0.13 per 1,000, while it averaged 0.21 in the seventy-five large provincial towns, among which the highest death-rates from this disease were recorded in Hanley St. Helens, Preston, Barrow-in-Furness, South Shields, Sunderland, and Rhondda. The 581 deaths referred to different forms of "fever" were equal to an annual rate of 0.15 per 1,000; in London the "fever" death-rate was 0.10 per 1,000, while in the seventy-five other large towns the rate averaged 0.18 per 1,000, the highest rates being recorded in Grimsby, Wigan, Bolton, Bury, Blackburn, Bradford, York, and Rhondda. The 1,552 deaths from diarrhœa corresponded to an annual rate of 0.41 per 1,000; in London the rate of mortality from this disease was 0.29 per 1,000; while it averaged 0.46 in the seventy-five large provincial towns, among which diarrhœa was proportionally most fatal in Hanley, Warrington, Oldham, Burnley, Blackburn, Preston, Middlesbrough, and West Hartlepool.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 147 per 1,000 last quarter, against 167 in the corresponding quarter of the preceding year. In London the rate of infant mortality was 130 per 1,000, while it averaged 155 in the seventy-five other large towns, and ranged from 77 in Hornsey, 81 in Bournemouth, 83 in Leyton and in Barrow-in-Furness, 87 in Willesden, 100 in Southampton, 101 in Devonport, and 102 in Croydon, to 191 in South Shields, 192 in Middlesbrough, 194 in Oldham, 200 in Bury, 201 in Sunderland, 212 in Preston, 223 in Hanley, 252 in Blackburn, and 261 in Burnley.

The causes of 788, or 1.2 per cent., of the deaths registered in the seventy-six towns last quarter were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Hornsey, Tottenham, West Ham, Walthamstow, Brighton, Southampton, Great Yarmouth, Plymouth, Devonport, Derby, Oldham, Leeds, York, West Hartlepool, and Merthyr Tydfil; while the largest proportions of uncertified deaths were registered in Liverpool, Bootle, St. Helens, Warrington, Preston, Sheffield, Sunderland, South Shields, and Gateshead.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The appointment of Inspector General H. M. Ellis, Director-General, to be Honorary Physician to the King, in place of Inspector-General Sir J. J. L. Donnet, K.C.B., M.D., deceased, is gazetted, dated January 13th.

Sir James Dick, K.C.B., K.H.S., retired Director-General Royal Navy Medical Service, has been awarded the good service pension of £100 a year, vacant by the death of Inspector-General Sir James Donnet, M.D., K.C.B., K.H.P., retired, on January 11th.

The following appointments have been made at the Admiralty: Montague L. B. Rodd, Staff Surgeon, to the *President*, for three months' hospital course at the West London Hospital, January 30th; Adrian A. Forrester, M.B., Surgeon, lent for duty at the New Hospital at Chatham, February 1st; George A. Dreaper, Fleet Surgeon, and Arthur D. C. Cummins, Surgeon, to the *Prince George*, on completing, February 14th; Walter S. H. Sequeira, M.B., Staff Surgeon, to the *Vindictive*, February 14th; Herbert L. Geoghegan, M.D., Surgeon, to the *Goldfinch*, additional, February 2nd, and on recommissioning, undated; Matthew L. M. Vaudin, M.B., Surgeon, to the *Defiance*, February 27th; Henry Woods, M.B., Surgeon, to the *Vivid*, additional (lent to the *Circe*), February 2nd; Edward F. Power, Surgeon, to the *Sphinx*, additional, February 1st, and on recommissioning, undated; John Stoddart, M.B., Surgeon, to the *Caledonia*, undated; Bertram R. Bickford, Surgeon, to the *Lapwing*, additional, February 1st, and on recommissioning, undated; Charles E. M. Beadnell, Fleet Surgeon, and Charles M. Woods, Surgeon, to the *Sapphire II.*, on commissioning, undated; Alexander F. Harper, Fleet Surgeon, to the *Latona*, February 21st; John C. G. Reed, Staff Surgeon, and Ramsey M. Richards, Surgeon, to the *Vulcan*, on recommissioning, February 21st; Fairman R. Mann, Surgeon, to the *Fire Queen*, additional, for disposal, February 21st; David H. Vickery, Surgeon, to the *Wildfire*, additional, for disposal, February 7th.

The appointment of Surgeon Alexander G. W. Bowen, M.B., to the *Vernon*, from the *Seagull*, has been cancelled.

ROYAL ARMY MEDICAL CORPS.

Colonel J. M. Beamish, M.D., is placed on retired pay, January 26th. He was appointed Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; Brigade-Surgeon, February 27th, 1895; and Colonel, December 9th, 1898. He served in the Afghan war in 1878-9, with the Cabul Expeditionary Force in Dadur and the Bolan Pass (medal), and with the Burmese Expedition in 1885-6 (medal with clasp).

Lieutenant-Colonel C. B. Hill is placed on temporary half-pay on account of ill-health, January 29th. He joined the department as Surgeon, March 6th, 1880, was made Surgeon-Major, March 6th, 1892, and Lieutenant-Colonel, March 6th, 1900. He was in the Waziri Expedition in 1881.

Lieutenants W. J. S. Harvey and B. A. Craig, having completed three years' service, are promoted to be Captains, from January 24th and January 29th respectively.

Lieutenant-Colonel H. R. Whitehead, at present stationed at Woolwich, has been appointed an Administrative Medical Officer in India.

Major C. H. Hartt, the Woolwich Companies, is granted the honorary rank of Lieutenant-Colonel, January 28th.

Captain (Honorary Captain in the army) M. Taylor, M.B., the Woolwich Companies, is granted the honorary rank of Major, January 28th.

Captain E. Blake Knox, M.D., has been appointed Secretary to Surgeon-General Sir Thomas Gallwey, K.C.M.G., C.B., A.M.S., Principal Medical Officer His Majesty's Forces in India.

Surgeon-Lieutenant-Colonel J. Magill, M.D., C.B., Senior Medical Officer of the Coldstream Guards, has been approved for the appointment of Principal Medical Officer in Egypt.

The following gentlemen were successful at the recent examination in London for commissions in the Royal Army Medical Corps:

	Marks.		Marks.
C. P. Thomson	669	R. J. C. Thompson	509
G. W. Heron	590	E. G. R. Lithgow	504
R. J. B. Buchanan	565	P. Power	502
G. B. F. Churchill	563	C. W. O'Brien	496
W. S. Nealor	555	R. P. Nash	495
J. E. Hoar	539	J. S. Pascoe	491
R. G. Meredith	538	C. D. M. Holbrooke	490
F. E. Roberts	538	J. M. B. Rahilly	487
G. S. Wallace	531	G. G. Tabuteau	487
W. Parsons	517	R. E. Humphrey	484
A. A. McNeight	514	W. G. Maydon	482
E. B. Booth	513	G. Ormrod	479
T. H. Gibbon	512		

Sixty-eight candidates entered for the competition.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant P. J. O'Sullivan, 1st City of London Royal Garrison Artillery (Volunteers), to be Surgeon-Lieutenant, February 4th.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel R. D. Murray, M.B., Bengal Establishment, is appointed to officiate as Inspector-General of Civil Hospitals, Bengal, during the absence of Colonel S. H. Browne, M.D., C.I.E., on privilege leave.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Captain H. W. Laing, M.B., 1st Fifeshire, resigns his commission, January 28th.

William D. Watson, gentleman, to be Surgeon-Lieutenant in the 1st Essex Regiment, February 8th.

VOLUNTEER RIFLES.

Surgeon-Captain S. J. J. Kirby, from the 2nd Volunteer Battalion the Suffolk Regiment, to be Surgeon-Captain in the 2nd Volunteer Battalion the Norfolk Regiment, January 28th.

Messrs Frederic T. Walmsley and George H. Lewis are appointed Surgeon-Lieutenants in the 1st Volunteer Battalion the Loyal North Lancashire Regiment, and the 1st Battalion the Northamptonshire Regiment respectively, January 28th.

Surgeon-Captain C. R. Keyser, 16th Middlesex (London Irish), resigns his commission, January 7th.

The undermentioned officers are granted the honorary rank of Surgeon-Colonel, dated February 8th: Surgeon-Lieutenant-Colonel W. H. Webb, M.D., 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment; Surgeon Lieutenant-Colonel P. E. Hill, 1st (Brecknockshire) Volunteer Battalion the South Wales Borderers (Brigade Surgeon-Lieutenant-Colonel, Senior Medical Officer South Wales Border Volunteer Infantry Brigade); Supernumerary Surgeon-Lieutenant-Colonel W. H. Bull, the 1st Bucks Regiment (Brigade Surgeon-Lieutenant Colonel, Senior Medical Officer Home Counties Volunteer Infantry Brigade).

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House-Surgeon; resident. Salary, £100 per annum, rising to £120.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer; resident. Salary, £100 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon; resident. Honorarium, £100

BIRMINGHAM: GENERAL HOSPITAL.—(1) Resident Medical Officer. Salary, £70 per annum. (2) Two House-Physicians. Salary at the rate of £50 per annum each.

BRISTOL ROYAL INFIRMARY.—Resident Casualty Officer. Salary at the rate of £50 per annum.

CAIRO: SCHOOL OF MEDICINE.—Professor of Pathology and Bacteriology. Salary, £800 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant House-Surgeon; resident. Salary at the rate of £70 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House-Physicians (male); resident. Salary at the rate of £30 per annum each.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Physician to Out-patients.

DERBY BOROUGH ASYLUM, Rowditch.—Assistant Medical Officer. Salary, £120 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Three Resident Medical Officers.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Resident Medical Officer. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House Physician, resident. Salary, £20 for six months, and £2 10s. washing allowance.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £90 per annum.

KING'S COLLEGE, London, W.C.—(1) Professor of Anatomy; (2) Professor of Zoology; (3) Assistant Physician or Assistant Surgeon for Diseases of the Throat.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon; resident. Salary, £50 per annum.

MANCHESTER CORPORATION.—Fourth Medical Assistant at the Monsall Fever Hospital; resident. Salary, £100 per annum.

METROPOLITAN ASYLUMS BOARD.—Second Assistant Medical Officer at the Asylum, Tooting Bec; resident. Salary, £180, rising to £200 per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill Assistant House-Surgeon, resident. Honorarium, £25 for six months.

OLDHAM BOROUGH.—Assistant Medical Officer of Health. Appointment for six months.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Surgeon, resident. Salary, £100 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Curator and Librarian. Salary, £120 per annum.

ROYAL NAVY MEDICAL DEPARTMENT.—Three Dental Surgeons. Inclusive salary, £1 per diem, and, when necessary, travelling expenses.

SETTLEMENT OF WOMEN WORKERS, Canning Town, E. (Medical Mission Hospitals).—Assistant Doctor for Dispensary; resident.

SHEFFIELD: CHILDREN'S HOSPITAL.—House-Surgeon to the East End Branch; resident. Salary, £70 per annum.

SOCIETY OF APOTHECARIES.—Gillson Scholarship in Pathology. Value, £90.

ST. MARYLEBONE DISPENSARY, Welbeck Street, W.—Honorary Physician.

ST. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—Junior House-Surgeon; resident. Salary at the rate of £50 per annum.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.

APPOINTMENTS.

BARBER, R. A., M.D., M.Ch., R.U.I., Medical Officer for the Dronfield District of the Chesterfield Union, vice S. B. Booth, M.D., R.U.I., resigned.

BROOMHEAD, C., M.D.Aberd., District Medical Officer of the Oldham Union.

CARSBERG, A. E., M.B., B.C.Camb., District Medical Officer of the Wincanton Union.

CHAPMAN, W., M.B., B.Ch.Birm., District Medical Officer of the Totnes Union.

COLLIE, R. J., M.D.Aberd., Examining Medical Officer of the Metropolitan Water Board.

CROSLAND, G. W. Kilner, M.R.C.S., L.R.C.P.Lond., Honorary Surgeon to the Huddersfield Infirmary.

GRIFFITHS, H. T., M.D., District Medical Officer of the Basingstoke Union.

JACKMAN, James Joseph H., F.R.C.S.I., Medical Referee under the Workmen's Compensation Acts for the City and County of Waterford.

KENT, P. W., M.R.C.S., L.R.C.P.Lond., Police Surgeon for Barry, vice E. Treharne, L.R.C.P. and S.Edin.

LAIDLAW, A. B., L.R.C.P., L.R.C.S.Ed., Medical Officer to Palmaise Collieries, Stirling.

RYAN, J. F., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Loughrea District, County Galway.

ROWELL, J. George, M.R.C.S., L.R.C.P.Lond., Honorary Surgeon to the Huddersfield Infirmary.

SHANNON, David, M.B., Ch.B., Clinical Assistant to the Chelsea Hospital for Women.

WALKER, Edward, M.D.Edin., M.R.C.S., Honorary Physician to the Huddersfield Infirmary.

WOODS, F., L.R.C.P.Lond., M.R.C.S.Eng., District Medical Officer of the Isle of Thanet Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ANDERSON.—On February 3rd, at Copeland Street, Stoke-upon-Trent, the wife of T. Brighten Anderson, M.B., C.M., of a daughter.

KELYNACK.—On February 1st, at Northwood, Middlesex, Violet Kelynack (*née* Violet McLaren, M.B., Ch.B.Edin.) wife of T. N. Kelynack, M.D., M.R.C.P., of 120, Harley Street, W., of a daughter.

LIGHT.—On February 1st, at 2, Wilton Place, Belgrave Square, S.W., the wife of Edwin Mellor Light, M.A., M.D.Cantab., of a son.

DEATH.

DREW.—On February 4th, at Beaufort West, Cape Colony, South Africa, of enteric fever, Cecil Bolton Drew, M.B., Ch.B.Edin., third son of Dr. Henry William Drew, Mocollup Castle, Ballyduff, co. Waterford. (By Cable.)

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Clinical Cases.

TUESDAY.

MEDICO-LEGAL SOCIETY, 22, Albemarle Street, W., 8.15 p.m.—Discussion: Privileged Communications and Professional Secrecy, to be opened by Dr. A. G. Bateman.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 4 p.m.—Hunterian Oration by the President.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Dr. W. A. Turner: The Influence of Stigmata of Degeneration upon the Prognosis of Epilepsy. Dr. A. E. Garrod and Dr. Ll. Wynne-Davies: On a Group of Associated Malformations, including Almost Complete Absence of the Muscles of the Abdominal Wall, and Anomalies of the Genito-urinary Apparatus.

WEDNESDAY.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Paper by Mr. J. E. Stead, F.R.S., on Practical Micro-Metallography, with experimental demonstration.

THURSDAY.

CHILDHOOD SOCIETY, Parkes Museum, Margaret Street, W., 8 p.m.—Discussion on Proposed Anthropometric Survey.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, W.—Annual General Meeting, 8.30 p.m. Presidential address by Sir John Batty Tuke on the Relation of the Lunacy Laws to the Treatment of Insanity.

FRIDAY.

EPIDEMIOLOGICAL SOCIETY, 11, Chandos Street, W.—Paper: The Protozoa in Relation to Disease, by Professor E. J. McWeeney.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Larynx.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Surgical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Phthisis and its Morbid Anatomy.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Rickety Deformities of the Long Bones.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5 15 p.m. each day will be given as follows: Monday, Colitis, Acute and Chronic; Tuesday, The Medical Treatment of Insanity; Wednesday, The After-effects of an Attack of Mental Disease; Thursday, Ocular Headache: its Causes, Diagnosis, and Treatment.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Demonstration of Selected Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Selected Cases; Friday, 3.30 p.m., Cerebral Tumours.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Monday, Electro-diagnosis; Tuesday, Pleural Effusions; Thursday, Electro-diagnosis; Friday, Myopia.

WEST LONDON HOSPITAL POST GRADUATE COLLEGE, Hammersmith, W.—The following lectures have been arranged for next week, each at 5 p.m.—Monday and Tuesday, Some Complications of Middle-ear Suppuration, with lantern slides; Wednesday, Ocular Operations; Thursday, Practical Surgery; Friday, High-frequency Currents, with lantern slides.

BOOKS, ETC., RECEIVED.

The Surgical Diseases of the Genito-urinary Tract. Venereal and Sexual Diseases. By G. Frank Lydston, M.D. Revised edition. Philadelphia: F. A. Davis Company. 1904. 5 dols.

In Loco Parentis. Chapters on Institution, Life, and Work. By the Rev. Marshall George Vine, B.A. Preface by James Granville Legge, Esq. London: John Murray. 1905. 2s. 6d.

Elements of Anatomy and Physiology: especially adapted for Nurses. By W. Bernard Secretan, M.B.Lond., F.R.C.S.Eng., L.R.C.P. London: The Scientific Press. 1905. 2s.

Les Indications des Interventions Chirurgicales dans les Maladies Internes. Par le Professeur Dr. Hermann Schlesinger. Traduction Française par les Drs. L. Lichtwitz et J. Sabrazès. Première Partie. Paris: Vigot Frères. 1905. Fr. 4.

Lehrbuch der allgemeinen Pathologie und der pathologischen Anatomie. Von Dr. Ernst Ziegler. Elfte Auflage. Erster Band. Allgemeine Pathologie. Jena: Gustav Fischer. M. 13.

Urban Police and Sanitary Legislation, 1904. Being a collection of Provisions contained in the Local Improvement Acts obtained by English Urban District Councils in the year 1904. Compiled and arranged by Frank Noel Keen. Westminster: P. S. King and Son. 1905. 10s. 6d.

Sammlung klinischer Abhandlungen über Pathologie und Therapie der Stoffwechsel und Ernährungsstörungen. Herausgegeben von Professor Dr. Carl von Noorden. 6 Heft. Ueber Dursicuren, besonders bei Fettleibigkeit. Von Dr. H. Salomon. Berlin: August Hirschwald. 1905. M. 1.20.

An Elementary Treatise on the Light Treatment for Nurses. By James H. Sequeira, M.D.Lond., M.R.C.P.Lond., F.R.C.S.Eng. London: The Scientific Press, Limited. 1905. 2s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
February	11...SATURDAY...	South-Eastern Counties Division, *Edinburgh Branch*, King's Arms Hotel, Melrose, 3.30 p.m.
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m. West Bromwich Division, *Birmingham Branch*, Board Room, District Hospital, 3.45 p.m.
,,	15...WEDNESDAY	LONDON: Medico-Political Committee, 10.0 a.m. ,, Central Council (Special Meeting) 2 p.m.
,,	16...THURSDAY...	Birkenhead Division, *Lancashire and Cheshire Branch*, 14, Hamilton Square, Birkenhead, 4.30 p.m. Cardiff Division, *South Wales and Monmouthshire Branch*, Cardiff Medical Society, 141, Queen Street, 3.30 p.m. City and Tottenham Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Tottenham Hospital, 9.15 p.m.
,,	17...FRIDAY ...	Edinburgh Branch: Royal Infirmary, 4 p.m.
,,	18..SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	
,,	22...WEDNESDAY	Eastbourne Division, *South-Eastern Branch*, Grand Hotel, Eastbourne, 6.15 p.m.
,,	23..THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 8.30 p.m. West Cumberland Division, *Border Counties Branch*, Victoria Cottage Hospital, Maryport, 3.30 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	Leinster Branch, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28...TUESDAY ...	Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...WEDNESDAY	
,,	2...THURSDAY...	LONDON: Hospitals Committee, 2.30 p.m. ,, Hospitals Conference, 3 p.m.
,,	3...FRIDAY ...	
,,	4...SATURDAY...	
,,	5...Sunday..	
,,	6...MONDAY ...	
,,	7...TUESDAY ...	South Midland Branch, Council Meeting, Franklin's Restaurant, Guildhall Road, Northampton, 3.30 p.m.
,,	8...WEDNESDAY	
,,	9...THURSDAY...	
,,	10...FRIDAY ...	
,,	11...SATURDAY...	
,,	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	
,,	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...THURSDAY...	
,,	17...FRIDAY ...	LONDON: Ethical Committee, 2.0 p.m.
,,	18...SATURDAY...	
March	19..Sunday..	
,,	20...MONDAY ...	
,,	21..TUESDAY ...	
,,	22...WEDNESDAY.	LONDON: Medico-Political Committee, 3.0 p.m.
,,	23..THURSDAY...	City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26...Sunday..	
,,	27...MONDAY ...	
,,	28..TUESDAY ...	
,,	29...WEDNESDAY	
,,	30...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
,,	31...FRIDAY ...	
April	1...SATURDAY...	
,,	2...Sunday..	
,,	3...MONDAY ...	
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	
,,	11...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	12...WEDNESDAY	
,,	13...THURSDAY...	
,,	14...FRIDAY ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted to-day.
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Premises and Library Committee.
,,	19...WEDNESDAY	,, Central Council.
,,	20...THURSDAY...	
,,	21...FRIDAY ...	*Good Friday.*
,,	22...SATURDAY...	Notices of Motion for Annual Representative Meeting appear in JOURNAL.
,,	23...Sunday..	
,,	24..MONDAY ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25..TUESDAY ...	Matters for consideration by Organization Committee on May 9th, should be notified to Medical Secretary on or before this day.
,,	26...WEDNESDAY	
,,	27...THURSDAY...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...FRIDAY ...	
,,	29...SATURDAY...	List of Members closed for publication.
,,	30...Sunday..	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 18TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
ETHICAL COMMITTEE: Report to the Annual Representative Meeting, 1905, on the Advertising of the Names of Medical Practitioners in Connexion with Hydropathic and Similar Establishments.—Recommendation.—Question Submitted	49
MEETINGS OF BRANCHES AND DIVISIONS:	
Edinburgh Branch: South-Eastern Counties Division	50
Lancashire and Cheshire Branch: Liverpool Western Division ...	50
,, ,, Manchester (North) Division ...	51
South-Eastern Branch: Isle of Thanet Division	51
ASSOCIATION NOTICES.—NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.—BRANCH AND DIVISION MEETINGS TO BE HELD	51
CENTRAL MIDWIVES BOARD	53
NAVAL AND MILITARY APPOINTMENTS	53
VITAL STATISTICS...	53
VACANCIES AND APPOINTMENTS	54
BIRTHS, MARRIAGES, AND DEATHS	54
DIARY OF THE WEEK	55
BOOKS RECEIVED...	55
CALENDAR	56

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains a matter specially referred to Divisions, until the subject has been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ETHICAL COMMITTEE.

REPORT TO
THE ANNUAL REPRESENTATIVE MEETING, 1905,
ON THE

ADVERTISING OF THE NAMES OF MEDICAL PRACTITIONERS IN CONNEXION WITH HYDROPATHIC AND SIMILAR ESTABLISHMENTS.

THE Committee, by a circular letter in March, 1904, asked the Divisions in the United Kingdom to express their opinion upon the advertising of medical practitioners in connexion with hydropathic establishments.

The inquiry of the Committee was accompanied by the following memorandum:

Complaints frequently reach the Editor of the JOURNAL of the advertising of medical practitioners in connexion with hydropathic establishments. These complaints usually come from other medical men in the neighbourhood who are not connected with any hydropathic establishment, and the grievance seems to be that the practitioners so advertised are also engaged in general family practice, and are thus the competitors of the complainants who feel that these advertisements are therefore unfair.

A connected grievance is that many of the hydropathic establishments try to compel all their visitors to accept the services of the medical officer of the establishment, and oppose the employment by visitors of any outside medical practitioner.

So long as the medical officers of hydropathic establishments were resident officials, and gave their whole time to the work, these complaints do not seem to have been made, although the way in which they were and still are advertised at railway stations and in railway guide books is not in accordance with the general rules of the profession respecting advertising. This seems to have been the thin edge of the wedge, by means of which a very undesirable practice has grown up, until it has obtained dimensions which make it necessary to consider whether any steps can be taken to check it. It would be obviously unfair to condemn without due notice those who have been allowed for many years to have their names advertised; but, by a reference to the Divisions, full consideration will be obtained before any pronouncement by the Association is made.

112 Divisions have communicated their opinion on the subject, and these replies have been classified as follows:

54 Divisions, without reservation or qualification, express themselves as adverse to the advertising of medical practitioners in connexion with hydropathic establishments.

25 are not only adverse to such advertising, but think that the same rule should be applied to similar institutions.

16 Divisions would restrict their condemnation to the advertising of those practitioners who do not give their whole time to the work.

There are thus 95 Divisions who condemn the practice.

On the other hand—

3 Divisions express the opinion that this subject cannot advantageously be considered apart from the wider one of the ethical position of proprietary institutions in general.

11 Divisions state that they have no experience of the matter, and therefore do not feel competent to express an opinion,

and 1 Division, "That the advertising of medical practitioners in connexion with hydropathic establishments does not call for any interference."

1 Division is of opinion "That there is no occasion for prohibiting the advertising of the names of medical attendants in connexion with hydropathic establishments provided that it is made clear that other medical practitioners than those advertised are at liberty to attend."

1 Division has resolved "That this Division is of opinion that all medical practitioners living in the town where hydropathic establishments are advertised should be allowed to attend cases in such establishments."

With these may be mentioned a rider, added by one Division included above, to the effect "That all visitors to such establishments should have the option of choosing their own medical attendant."

The result of the inquiry would thus appear to be to justify a pronouncement on behalf of the Association that the names of medical practitioners should not be advertised in connexion with hydropathic establishments.

Recommendation.

The Committee is of opinion that members of the profession who act as medical officers to hydropathic and similar establishments should make it a condition of their engagement that their names shall not be inserted in any advertisements of such institutions except in advertisements in medical journals.

The suggestion of certain Divisions that the practice of hydropathic establishments should be thrown open to all practitioners in the district in which they are situated raises quite a different issue from that submitted by the Committee, and may perhaps be made the subject of a separate inquiry when professional opinion shall appear to be ripe for a pronouncement thereon.

Question Submitted.

Is the Division of opinion that a definite pronouncement should be made by the Representative Meeting on behalf of the Association to the same effect as the opinion of the Committee stated above, namely:

That members of the profession who act as medical officers of hydropathic and similar establishments should make it a condition of their engagement that their names shall not be inserted in any advertisements of such institutions except in advertisements in medical journals?

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

EDINBURGH BRANCH:

South-Eastern Counties Division.

A meeting of this Division was held in the King's Arms Hotel, Melrose, on Saturday, February 11th, at 3.30 o'clock, Dr. Carlyle Johnstone, of the Roxburgh District Asylum, presiding. There were five members present: the Chairman, Dr. Cullen (Vice-Chairman), Drs. Hamilton, Tyrrell, and Calvert.

Matters referred to Divisions.—The following motions were unanimously carried on the motion of the Chairman:

1. That the Division expresses its general approval of the propositions submitted by the Medico-Political Committee in regard to contract medical practice.
2. That the Division approves of the report of the Medico-Political Committee in regard to the consultation of medical witnesses in legal cases, and again records its opinion that medical witnesses, when practicable, should meet in consultation, and also approves of the proposal that medical assessors should be appointed for the assistance of courts.
3. That the Division approves of the memorandum of the Medico-Political Committee in regard to information supplied to coroners by medical practitioners, and adds that the Division considers that the question of the position of medical practitioners in Scotland in the matter of submitting information to procurators-fiscal should be dealt with by the Scottish Standing Committee.
4. That the Division supports the proposal that a Royal Commission be appointed to report upon the whole question of the reorganization of the Local Government Board.
5. That the Division approves of the principles of the Medical Acts Amendment Bill as stated in the explanatory memorandum and in the epitome of the principles of the Bill.

Registration of Medical Students.—Dr. Hamilton then moved that the age of 16 be substituted for 17 in the paragraph, "That the minimum age of registration of students be 17." Dr. Cullen seconded, and the motion was carried by 4 votes to 1.

Electoral Areas.—The Chairman then moved that the Division approves the schedule of electoral areas so far as Scotland is concerned. This was unanimously agreed to.

Abuse of Drugs.—In regard to the prevention of the abuse of drugs, the Chairman moved that the Division approves of the recommendation of the Medico-Political Committee in regard to this matter. This was carried unanimously.

Other Matters.—The consideration of the memoranda regarding the National Deposit Friendly Society, the Local Government Amendment Bill (Scotland Act), and the Relation of the Medical Profession to Ambulance Work was delayed until next meeting.

Future Meetings.—Saturday, June 17th, was the date fixed for the annual meeting, and June 24th for the social meeting, and it was agreed that the Hawick practitioners be requested to form themselves into a committee to make suitable arrangements for the social meeting of the Branch.

LANCASHIRE AND CHESHIRE BRANCH:

Liverpool Western Division.

A meeting of this Division was held at the Liverpool Medical Institution on December 16th, 1904, under the chairmanship of Dr. James Barr.

Matters Referred to Divisions.—The memorandum of the proceedings of the Medico-Political Committee, referred to the Divisions, as printed in the Supplement of the British Medical Journal of November 26th, 1904, p. 170 *seq.*, was considered. In regard to Contract Medical Practice the following are the conclusions arrived at:

Proposition 1.—Agreed to conditionally to the word "poor" being suitably defined.

Proposition 2 agreed to conditionally to the word "adequately" being suitably defined.

Propositions 3, 3A, 4, and 5, agreed to.

Proposition 6.—Cannot be agreed to until the meaning of such phrases as "of the poor" and "financial position" are clearly defined. (The Division is of opinion that for the purpose of such definition a wage-limit will have to be decided upon.)

Proposition 7.—The Division is of opinion that this proposition as it stands at present is absurd. To call all operations special services not included in the contract would render the contract useless unless to any working-class community, in whom the opening of abscesses, or the stitching, or removal of foreign bodies from wounds, and such-like trivial proceedings are of frequent occurrence, and would have to be included in any contract that is of any use to the people; also the definition of a serious accident as one that incapacitates a man from work for a week would practically exclude attendance on all accidents. A sprained ankle would be a special service not included in the contract, while the attendance in the case of typhoid fever would be included. We are unable to agree to this proposition unless "night" be defined in hours, the word "operation" be defined, so as to exclude trivialities, and "serious accidents" be defined in some more reasonable way than at present. When special services are to be charged extra for the rates should be arranged.

—As to the Desirability of Consultation between Medical Witnesses in Legal Cases likely to be brought before the Court, the Division considers that the analysis of the figures given in the first paragraph is misleading; for example, under (*a*) to say that 46 Divisions consider such consultations "unreservedly" desirable, when 15 of them make a reservation, is not correct. Further, the questions of "fact" and "opinion" are often so intimately intermixed in medicine that it is impossible to separate them, and medical witnesses are generally called to state opinions, especially so in relation with prognosis. We therefore think that while there is no harm in the consultation of the medical witnesses of both

sides, no practical good will come from it.—In regard to the Present Position of Registered Medical Practitioners in the Matter of Furnishing Certain Information to Coroners, the Division agrees with the opinions expressed in the Memorandum.—The question of the Reorganization of the Local Government Board was referred to a Subcommittee to report to the Division.

MANCHESTER (NORTH) DIVISION.

A meeting of this Division was held on Thursday, February 9th; Dr. FRAZER in the chair.

Vacancies among Officers.—A suggested new model rule *re* vacancies among officers was approved and adopted.

Communication from Exeter Division.—A communication from the Exeter Division was read and considered. The Secretary was instructed to reply that this Division agrees with the principles stated, and with increased representation of general practitioners on the General Medical Council, but is unable to approve the wording of the last paragraph of the memorandum.

Information to Coroners.—The report on information supplied to coroners was considered. An official pronouncement by the Association was approved of; and it was suggested that the duties of a practitioner as a citizen and as a medical man should be clearly defined and distinguished therein. It was suggested that a circular be sent to each member containing such pronouncement, with a note to the effect that any misunderstanding between any member and the coroner would, if required, be carefully considered by this Division. It was felt that the present relations between the coroner and medical men in this district are so satisfactory that no further action is desirable.

Reorganization of the Local Government Board.—The report on reorganization of the Local Government Board. The appointment of a Royal Commission was approved, and on the proposition of Dr. JUNK, seconded by Dr. BROADBENT, it was resolved that a circular letter be sent to each Member of Parliament and candidate directing their attention to the matter; such circular to be signed by the Chairman and Secretary of the Division, and by two members resident in each Parliamentary division concerned.

Consultation between Medical Witnesses.—The report on consultation between medical witnesses was considered. It was resolved that this Division agrees with the report, and would suggest that a publication of the steps necessary to put it into practical effect might help to remove any further obstacles to its unanimous acceptance.

SOUTH-EASTERN BRANCH:

ISLE OF THANET DIVISION.

A SPECIAL (ninth) meeting of the Isle of Thanet Division was held at Barfield House, Broadstairs, on Thursday, February 2nd, six members being present.

Chairman.—Dr. HALSTEAD proposed, and Dr. BIDDLE seconded, that Dr. Nichol take the chair at the meeting. This was carried.

Executive Committee.—A letter was read from Dr. Courtney, resigning his position as a member of the Executive Committee as he had left the Divisional area, and Dr. HALSTEAD proposed, and Dr. BIDDLE seconded, that Dr. Street be appointed to fill the vacancy. This was carried unanimously.—Dr. RAVEN proposed, and Dr. HALSTEAD seconded, the following new rule:

> In the event of the death or resignation of any officer of the Division, or of his ceasing to be a member of the Division, the Executive Committee shall appoint some member of the Division to hold the office thereby vacated until the next annual meeting.

This was approved unanimously.

Letters.—Letters were read from Drs. Street and Watts.

Contract Medical Practice.—A discussion took place on this subject and the propositions referred to the Division were all approved except that under No. 4 the minimum fee should be 6s. This was proposed, seconded, and carried unanimously.

Consultations between Medical Witnesses.—Dr. HALSTEAD proposed and Dr. CROSS seconded, after discussion:

> That it is desirable that in all medico-legal cases consultation between the medical witnesses be requested by the medical men.

This was carried unanimously.

Information Supplied to Coroners.—After discussion Dr. BIDDLE proposed and Dr. NICHOL seconded:

> That in the opinion of this meeting it is considered desirable that, when members have sent in a report to the coroner in cases of uncertifiable deaths to assist him in deciding whether an inquest be necessary, they should send in an application for a fee of 10s. 6d., when no inquest is subsequently held

This was carried unanimously.

Reorganization of Local Government Board.—Dr. HALSTEAD proposed and Dr. RAVEN seconded and it was carried unanimously:

> That the scheme for reorganization of the Local Government Board be approved, and that the member of Parliament for Thanet be approached and urged to support the same.

The Honorary Secretary was instructed to write to the members enclosing memorandum and draft of Bill.

Medical Acts Amendment Bill.—Dr. RAVEN proposed, and Dr. HALSTEAD seconded:

> That the Bill be approved with the exception of the last sentence of Section (*c*), Part D ("among the privileges . . . and unjust") which should be deleted.

This was carried unanimously.

Abuse of Drugs.—Dr. NICHOL proposed, and Dr. HEMMING seconded, the following recommendations:

> That (*a*) be not approved as being useless for the purpose.
> That (*b*) be not approved as being useless for the purpose.
> That (*c*) be approved.

This was carried unanimously.

Medical Practitioners and Midwives.—The question of the payment of medical practitioners called in to assist midwives was discussed, and the conclusions arrived at have been communicated to the Medico-Political Committee.

National Deposit Friendly Society.[1]—It was decided that the report of the Medico-Political Committee with regard to the National Deposit Friendly Society be brought before the Division at its next meeting, with a recommendation for approval.

Public Health Bill.—Dr. HALSTEAD proposed, and Dr. BIDDLE seconded:

> That the Public Health Bill be approved.

This was carried.

Revaccination Bill.—Dr. NICHOL proposed, and Dr. RAVEN seconded:

> That the Revaccination Bill be approved.

This was carried.

Vote of Thanks.—The meeting ended with a vote of thanks to Dr. Nichol for taking the chair.

Association Notices.

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.

THE following changes have been made in accordance with the regulations of the Association, and take effect from the date of publication of this notice:

1. That the area of the present Richmond and Northallerton Division of the Yorkshire Branch shall form part of the Darlington Division of the North of England Branch.

2. That Winsford and Middlewich be transferred from the Crewe Division to the Altrincham Division of the Lancashire and Cheshire Branch.

3. That Ashley be transferred from the Mid-Staffordshire Division to the North Staffordshire Division of the Staffordshire Branch.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Museum (North Parade entrance), Bath, on Wednesday, February 22nd, at 8 o'clock, Mr. R. J. H. Scott, President, in the chair. The following communications are expected: C. Begg, M.D.: Sprue. E. J. Cave, M.D.: A Case of Acute Pneumococcic Nephritis. Wilson Smith, M.D.: A Case of Thrombosis of the Left Common Carotid. R. Llewellyn Jones, M.D.: A Case of Slow Pulse, with Epileptiform Convulsions.—W. M. BEAUMONT, NEWMAN NEILD, Honorary Secretaries, Bath.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—A meeting of this Division will be held in the Victoria Cottage Hospital, Maryport, on Thursday, February 23rd, at 3.30 p.m. Agenda: 1. Minutes. 2. Dr. Proud (Maryport) will (*a*) read some notes on a case of puerperal eclampsia, and (*b*) exhibit some surgical cases. 3. Dr. Crerar (Maryport) will (*a*) read some notes on the treatment of appendicitis, and (*b*) exhibit some pathological specimens. 4. Consider memorandum from Medico-Political Committee as to the payment of medical practitioners called in to assist midwives. 5. Consider other matters referred to Divisions (see SUPPLEMENTS of the BRITISH MEDICAL JOURNAL for November 26th, 1904, and January 14th, 1905): (*a*) Report on contract practice; (*b*) consultation of medical witnesses; (*c*) report on information supplied to coroners by medical practitioners; (*d*) report on the reorganization of the Local

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, January 14th, 1905.

Government Board; (*e*) Medical Acts Amendment Bill; (*f*) prevention of abuse of drugs; (*g*) National Deposit Friendly Society; (*h*) Public Health Bill; (*i*) Revaccination Bill. 6. Consider circular from the Kendal Division. 7. General.—G. BERTRAM MURIEL, Honorary Secretary, Whitehaven.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The next meeting will be held at the Victoria Hospital, Southend-on-Sea, on Thursday, March 2nd, at 4 p.m. Business: Cases will be shown by Dr. Waters, Dr. Leonard, Dr. Walker, Dr. Bluck, and Dr. Raper. Dr. J. T. C. Nash will read a paper on Some Points of Interest in Infectious Disease. Consideration of Memorandum enclosed. Memorandum in BRITISH MEDICAL JOURNAL SUPPLEMENT of February 4th. Remaining items of Memorandum partially considered at last meeting. Members are requested to preserve SUPPLEMENTS and bring them to the meeting.—W. CARDY BLUCK, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH SUFFOLK DIVISION.—A special meeting of this Division will be held at the Crown and Anchor Hotel, Ipswich, on Wednesday, February 22nd, at 4 p.m. Business: 1. To receive the annual report of the Executive Committee. 2. To consider a memorandum on the payment of medical practitioners called in to assist midwives. 3. To consider reports referred to the Divisions as published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904. 4. To consider proposed methods of increasing the membership of the Association. 5. To adopt a rule for filling up vacancies amongst officials of the Division. 6. To consider a suggestion for co-ordination of the work of Divisions. 7. To consider the relations of the medical profession to ambulance work (vide SUPPLEMENT to JOURNAL of February 4th; members are requested to bring this SUPPLEMENT and that of November 26th, 1904, with them to the meeting)—JOHN GUTCH, 28, Fonnereau Road, Ipswich, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER DIVISION.—A meeting of the Division will be held in the Board Room of the Chester General Infirmary on Friday, February 24th, at 5 p.m. Business: To read the minutes of the last meeting. To consider the reports contained in the SUPPLEMENT of November 26th, 1904, upon: (1) Contract practice; (2) consultation between medical witnesses; (3) information supplied to coroners; (4) the reorganization of the Local Government Board; (5) the principle of the Medical Acts Amendment Bill; (6) the abuse of drugs, etc; (7) the payment of practitioners called in to assist midwives; (8) any other business. Tea provided by the Chairman, Mr. J. Taylor, at 4.30, in the dining room. It is requested that members will make a special effort to be present, and will bring with them the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904.—H. W. KING, Chester, Honorary Secretary of the Division.

LEINSTER BRANCH.—The annual general meeting will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 25th, at 4.30 p.m.—Professor WHITE, Honorary Secretary and Treasurer, Dublin.

SOUTH-EASTERN BRANCH: EASTBOURNE DIVISION.—The next meeting will be held on Wednesday, February 22nd, in the Library, Grand Hotel, Eastbourne, at 6.15 p.m. Agenda and programme—6.15 p.m.: 1. (*a*) The reorganization of the Local Government Board; (*b*) memorandum on the payment of medical practitioners called in to assist midwives. 7.15 p.m.: 2. Dinner, 5s., exclusive of wine. 8.30 p.m.: 3. Paper by Mr. Cuthbert Wallace, F.R.C.S. (St. Thomas's Hospital), on enlarged prostate. Lantern slides will be exhibited to illustrate the paper. All members of the South-Eastern Branch are entitled to be present, and to introduce professional friends. Members intending to be present will much facilitate arrangements by communicating their intention to the Honorary Secretary, W. J. C. MERRY, 2, Chiswick Place, Eastbourne.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—An ordinary meeting of the Division will be held at the Kensington Town Hall, High Street, Kensington, on Thursday, February 23rd, at 5 p.m. Business: (1) To confirm minutes of last meeting. (2) A paper by Mr. Edmund Owen, F.R.C.S., on Affections of the Joints as met with in General Practice, to be followed by a discussion. (3) To elect two representatives of the Division to attend a meeting of representatives of all the Divisions of the Branch, with reference to the forthcoming election of members of the Branch on the Central Council of the Association. The Executive Committee of the Division has decided that a dinner for members of the Division be held at the Royal Palace Hotel, Kensington, on Thursday, May 18th. The charge will be 7s. 6d. per head, exclusive of wine. It is earnestly requested that members of the Division will make every endeavour to be present and bring guests, whether members of the Association or not. Further particulars will be issued later on.—G. CRAWFORD THOMSON, M.D., Honorary Secretary, 111, Sinclair Road, West Kensington, W.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.—An ordinary meeting will be held on Friday, February 24th, at 4.30 p.m., at North-West London Hospital, Kentish Town Road. Sir Hugh Beevor, Bart., M.D., F.R.C.P.: Items of Treatment. Dr. Buckell: On Contract Practice. Tea 4.15.—R. C. M. POOLEY, M.R.C.P., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held at the Balham Hotel (close to the station) on Thursday, February 23rd, at 8.30 p.m. Tea and coffee provided. Agenda: 1. Minutes. 2. Correspondence. 3. Questions. 4. Resolutions from the South London Medical Committee for approval before submission to King's College Hospital Medical Board. 5. Resolutions for Representative Meeting at Leicester with reference to suggested Benevolent and Provident and Medical Agency Departments of the Association. 6. Address by R. Tanner Hewlett, M.D. (King's College Hospital and Jenner Institute of Preventive Medicine). 7. Other business. Members are invited to bring non-members.—E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

SOUTH MIDLAND BRANCH.—The Council of this Branch will meet at Franklin's Restaurant, Guildhall Road, Northampton, on Tuesday, March 7th, at 3.30 p.m.—E. HAINES JONES, Secretary, Northampton.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in February (22nd), March (22nd), April (26th), May (24th), June (28th) annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 p.m.; J. H. Galton, M.D., of Upper Norwood, in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine.

AGENDA.

1. Minutes of last meeting.
2. To decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat.
3. Report of the South London King's College Hospital Committee.

Resolutions.

(1) That in connexion with the establishment of King's College Hospital at Camberwell there should be no issue of subscribers' letters.

(2) That sickness and poverty should be the qualifications for hospital relief.

(3) That no charge should be made for the treatment of any patient of the hospital, or for the supply of medicines or dressings.

(4) That urgent cases should receive attention without inquiry.

(5) That applicants for relief should, on their first visit, be seen by a registered medical practitioner, and, if expedient, attended to; and that the name, age, address, and occupation or position should be then entered in a register.

(6) That, on a second visit, the patient should bring with him a certificate, signed by a medical practitioner, stating that such patient is a suitable person for hospital relief.

(7) That such certificate should not necessarily be written on a form supplied by the hospital.

(8) That such certificate, duly filled up, should be appended to each patient's prescription sheet or attendance card.

(9) That the following certificate should be submitted to the authorities of King's College Hospital as the ordinary form to be supplied to patients attending the hospital for the first time:

MEDICAL CERTIFICATE.

For the Sick and Poor. Not to be used for Begging Purposes.

I hereby certify that.....aged.....
is a suitable case for treatment at the.....
Hospital.

.....Registered Practitioner.

.....19.....

No Charge is made for this Certificate.

In signing this certificate the practitioner is requested to keep in view two points:

(1) That the applicant is not in a position to pay for treatment;
(2) That the case is, from a hospital point of view, suitable for treatment.

Further Resolutions suggested by the Wandsworth Division.

(1) That the recommendations as submitted by the South London Medical Committee are approved.

(2) That the form of letter covering these recommendations be left to the decision of that Committee.

(3) That that Committee are requested to take into their consideration, before sending in their recommendations to King's College Hospital Medical Board, the question of the maternity charity that will be attached to the hospital, and its probable effects on the general practitioners of the surrounding district.

(4) That it is desirable that a recommendation be added that no arrangements be made by King's College Hospital Committee for attending patients at their houses, except for maternity cases.

(5) That the South London Medical Committee are requested not to dissolve until a satisfactory arrangement be come to with King's College Hospital.

(6) That before dissolving this Committee are requested to form a permanent Watch Committee by nominating one representative from each of the medical Societies and charities at present represented.

(7) As no scheme of hospital reform will prove effective that has not contingent to it a satisfactory arrangement for providing medical treatment in their own homes for those of the lower middle classes who do not need hospital treatment, upon terms which would be satisfactory both to the general practitioner and the patient, the South London Medical Committee is requested to extend its deliberations with the view to suggesting some organized system for South London as a solution of this problem.

4. Consideration of various matters referred from Medico-Political Committee (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904; members are requested to bring this to the meeting):

(*a*) The Interim Report on Contract Practice.
(*b*) Consultation between Medical Witnesses.
(*c*) Memorandum *re* Information to Coroners.
(*d*) The Report on Reorganization of the Local Government Board.
(*e*) Memorandum *re* Drug Abuse.
(*f*) Memorandum on the Payment of Medical Practitioners called in to assist Midwives (Memorandum enclosed).

The following papers, etc., will be read: Dr. Pye-Smith: Auscultation of the Chest and its relation to General Symptoms. Mr. E. M. Corner: Common Causes of Failure in Surgical Proceedings. Dr. Mercier: A Problem in Diagnosis. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANGLEY, Honorary Secretary; ARTHUR W. SUPER, Assistant Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Red Lion Hotel, Truro, on Thursday, March 2nd, at 3 p.m., the President, Dr. J. Alexander, in the chair. The following communications are already promised:—Mr. G. C. Wilkin: Syphilitic Laryngitis. Mr C. Hamilton Whiteford: (1) Intravenous Injection of Saline Solution in Haemorrhage, Shock, and Sepsis. (2) Old-standing Rectal Incontinence

cured by Perineorrhaphy and Suture of the Anal Sphincter. Mr. M. R. Taylor: Notes on an Unclassified Infectious Disease in Children; and an Anomalous Exanthem.—G. Young Eales, 1, Matlock Terrace, Torquay, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on February 9th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

Teachers of Midwifery and Training Schools for Midwives.

The report of the Standing Committee dealing with the applications for recognition as teachers of midwifery, and the applications for approval of various institutions as training schools for midwives, was received by the Board.

Mr. Parker Young said that, in regard to the applications from Poor-law infirmaries to be approved as training schools for midwives, he considered that each infirmary should be judged on its own merits. He objected particularly to applications being so often postponed. He urged that, instead of postponing, the Board should come to some conclusion.

Sir William J. Sinclair said his reasons for declining to discuss in detail the applications before the Board were that in his opinion the Board had recognized such unsatisfactory applicants as teachers of midwifery, and had approved such unsuitable institutions as midwifery training schools, that he did not see on what principle any applicant for recognition as a teacher, or any application from any institution to be approved as a training school, could now be objected to. He could only look forward to the Board continuing its present policy, so that an unanswerable case would soon be made out for reconstitution of the Board by an amendment of the Midwives Act, 1902.

Dr. C. J. Cullingworth said that Sir William Sinclair was absent from the meetings of the Board when decisions were arrived at in regard to institutions concerning which Sir William Sinclair had local knowledge. What had happened was due to the accident of Sir William Sinclair not having been present at the Board.

Sir William Sinclair said that the Board could have utilized the local knowledge of the local supervising authority. It was no answer to say that the Board approved of unsuitable institutions in ignorance.

The Chairman said that, in defence of the unfortunate Central Midwives Board, he would remind them that it had not sprung from Jove fully fledged. The Board had done its best, and perhaps, in spite of much care and great trouble, it had made some mistakes.

The report of the Standing Committee was then approved by the Board.

Poor-law Infirmaries as Training Schools for Midwives.

On the suggestion of Dr. C. J. Cullingworth, the Board decided that all Poor-law institutions before being approved as training schools for midwives should be the subject of investigation and report.

After some further discussion, the Board accepted Sir William Sinclair's suggestion that, in considering an application from a Poor-law institution to be recognized as a training school for midwives, a report should be asked for from the chief medical officer, and the local supervising authority should be requested to inspect and report to the Central Midwives Board on the institution.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Deputy Inspector-General G. J. Irvine has been promoted to be Inspector-General, February 7th. He entered the service as Surgeon, March 7th, 1871; became Staff Surgeon, March 7th, 1883; Fleet Surgeon, June 14th, 1891; and Deputy Inspector-General, January 1st, 1900.

Fleet Surgeon A. W. May has been promoted to be Deputy Inspector-General, February 7th. He was appointed Surgeon, March 30th, 1878; Staff Surgeon, March 30th, 1890; and Fleet Surgeon, August 21st, 1894. He was Surgeon of the *Achilles* during the Egyptian war of 1882, receiving the medal and the Khedive's bronze star. He served with the Naval Brigade (Camel Corps) in the expedition for the relief of General Gordon at Khartoum in 1884-5, and was present at the relief of Sir C. Wilson (mentioned in dispatches for his attention to the wounded under fire, clasp).

The undermentioned Surgeons have been promoted to be Staff Surgeons from the dates specified: A. G. W. Bowen, M.B., and G. Ley, November 21th, 1899; R. D. Jameson, May 16th, 1902; W. B. Macleod, M.B., H. Spicer, M.B., and J. A. L. Campbell, November 14th, 1902; H. H. Pearse and C. J. E. Cock, May 15th, 1903; J. W. Craig, M.B., May 13th, 1904; E. R. Grazebrook, November 10th, 1904. The first commissions of these officers are in each case dated eight years previously.

The following appointments have been made at the Admiralty:—Alfred E. Weightman, Fleet Surgeon, to the *Spartiate*, February 28th; Harold P. Jones, Staff Surgeon, to the *Hermes*, on commissioning, February 28th; Percival K. Nix, M.B., Staff Surgeon, to the *Blake*, February 13th; Arthur W. B. Livesay, M.B., Staff Surgeon, to the Royal Marine Dépôt at Deal, February 9th; Henry W. G. Green, Staff Surgeon, to the *Dido*, on recommissioning, February 28th (appointment since cancelled); William Hackett, M.D., Staff Surgeon, and Edward A. G. Wilkinson, Surgeon, to the *Hecla*, on commissioning, February 22nd; Alfred J. Hewitt, Surgeon, to the Royal Marine Artillery Barracks at Eastney, February 13th; Percy F. Alderson, Surgeon, to Plymouth Hospital, February 13th; George D. Walsh, Surgeon, to the *Scylla*, additional, for the *Halcyon*, on recommissioning, February 16th; George A. Dreaper, Fleet Surgeon, to the *Vivid*, for the *Nile*, February 13th (his appointment to the *Prince George* has been cancelled); John D. Hughes, Fleet Surgeon, and Frederick M. V. Smith, Surgeon, to the *Dido*, on recommissioning, February 28th; Horace B. Marriott, Staff Surgeon, to the *President*, additional, for three months' course of hospital study, February 13th; George Gibson, Surgeon, to the *Assistance*, on commissioning, February 22nd; John E. Coad, M.B., Fleet Surgeon, and George H. S. Milln, Surgeon, to the *Barfleur*, additional, February 21st, and to the *Vengeance*, on recommissioning, undated; Henry C. Woodyatt, Surgeon, to the *Barfleur*, on passage home, undated.

Civil Practitioner Arthur E. Taylor, M.B., has been appointed Surgeon and Agent at Cardiff, February 13th.

ROYAL ARMY MEDICAL CORPS.

The undermentioned Captains are promoted to be Majors, from January 30th: C. T. Samman, H. A. Berryman, C. G. Spencer, M.B., C. E. P. Fowler, T. H. J. C. Goodwin, D.S.O., A. E. C. Keble, D. J. Collins, M.B., J. B. Anderson. The first commissions of Majors Samman and Berryman bear date January 30th, 1893; all the others, July 29th, 1893. The following are their war records, as given in the Army Lists: Major Spencer: Ashanti expedition, 1895-6 (star); China war, 1860 (medal). Major Goodwin: North-West Frontier of India campaign, 1897, including operations against the Mohmands and the action near Shabkadr (mentioned in dispatches, D.S.O., medal with clasp). Major Keble: North-West Frontier of India campaign, 1897-8 with the Mohmand field force and with the Tirah expeditionary force (medal with two clasps). Major Berryman: South African war, 1901-2 (Queen's medal with five clasps).

Captain R. E. G. Phillips, from the Seconded List, to be Captain, February 1st.

Lieutenant R. G. Anderson, from the Seconded List, to be Lieutenant, January 30th.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel (temporary Colonel) H. K. McKay, C.I.E., Bengal Establishment, is promoted to be Colonel, from December 3rd, 1904. He was appointed Assistant Surgeon, September 30th, 1873, and became Brigade-Surgeon-Lieutenant-Colonel, October 30th, 1899. He was with the Naga expedition in 1875; in the Afghan war of 1878-80 (medal); and with the Mahsood Waziri expedition in 1881.

Surgeon-General W. R. Browne, M.D., Madras Establishment, and Lieutenant-Colonel C. P. Lukis, M.B., Bengal Establishment, are appointed Honorary Surgeons to the Viceroy of India.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Lieutenant-Colonel H. Draper, 1st East Riding of Yorkshire, is granted the honorary rank of Surgeon-Colonel, February 11th.

VOLUNTEER RIFLES.

Surgeon-Major J. R. Thomas, M.D., 4th Volunteer Battalion the Devonshire Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Devon Volunteer Infantry Brigade), to be Surgeon-Lieutenant-Colonel, February 10th. He is granted the honorary rank of Surgeon-Colonel, February 11th.

Surgeon-Lieutenant-Colonel W. Gandy, 2nd Volunteer Battalion the East Surrey Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer, East Surrey Volunteer Infantry Brigade), is granted the honorary rank of Surgeon-Colonel, February 11th.

Surgeon-Lieutenant A. K. Traill, 3rd (Dundee Highland) Volunteer Battalion the Black Watch (Royal Highlanders), resigns his commission, February 11th.

Surgeon-Lieutenant J. Aitken, M.B., 1st Volunteer Battalion the Essex Regiment, to be Surgeon-Captain, February 11th.

Surgeon-Captain W. Rose, M.B., 13th Middlesex (Queen's Westminster) resigns his commission, February 11th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Major C. H. Hartt, V.D., R.A.M.C. (Vol.), Woolwich Division, is granted the honorary rank of Lieutenant-Colonel.

Lieutenant H. S. Collier, the London Companies, resigns his commission, February 11th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 9,001 births and 5,220 deaths were registered during the week ending Saturday last, February 11th. The annual rate of mortality in these towns, which had been 18.1, 18.4, and 18.0 per 1,000 in the three preceding weeks, further fell last week to 17.4 per 1,000. The rates in the several towns ranged from 8.1 in Hornsey, 8.5 in Walthamstow, 9.2 in Smethwick, 9.3 in Handsworth (Staffs), 9.7 in East Ham, 10.9 in Croydon, and 11.8 in Leyton to 24.2 in Hastings and in Rhondda, 24.6 in Norwich, 24.9 in Middlesbrough, 28.2 in Merthyr Tydfil, 29.0 in Hanley, and 20.8 in Stockton-on-Tees. In London the death-rate was 17.6 per 1,000, while it averaged 17.4 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.3 per 1,000; in

London this death-rate was also equal to 1.3 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.9 in West Hartlepool and in Rhondda, 3.1 in Burnley, 3.2 in Southampton, 3.7 in Nottingham, 4.0 in Hanley, 4.2 in Merthyr Tydfil, and 5.0 in Stockton-on-Tees. Measles caused a death-rate of 1.3 in Portsmouth, 1.4 in Cardiff, 1.5 in West Hartlepool, 1.8 in Southampton, 2.0 in Reading, 2.1 in Merthyr Tydfil, 2.3 in Leyton and in Nottingham, and 3.0 in Stockton-on-Tees; scarlet fever of 1.1 in Northampton and 2.0 in Stockton on-Tees; diphtheria of 1.1 in Middlesbrough, 1.3 in East Ham and in Birkenhead, 1.4 in Merthyr Tydfil, and 1.7 in Walsall; whooping-cough of 1.2 in West Ham and in St. Helens, 1.3 in Rhondda, 1.4 in Merthyr Tydfil, 1.9 in Willesden and in South Shields, 2.3 in Hastings, and 3.2 in Hanley; "fever" of 1.4 in Devonport; and diarrhoea of 1.5 in Burnley. One fatal case of small-pox was registered in Oldham, 1 in Burnley, and 1 in Bradford, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 9 small-pox patients on Saturday last, February 11th, against 18, 15, and 13 on the three preceding Saturdays; 1 new case was admitted during the week, against 1, 0, and 1 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,174, 2,096, and 2,070 at the end of the preceding weeks, had risen again to 2,077 at the end of last week; 260 new cases were admitted during the week, against 225, 251, and 229 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 11th, 921 births and 612 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.1, 20.3, and 19.9 per 1,000 in the three preceding weeks, further declined to 18.2 per 1,000 last week, but was 0.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.4 in Paisley and 14.7 in Leith to 21.3 in Perth and 22.7 in Aberdeen. The death-rate from the principal infectious diseases in these towns averaged 1.5 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 288 deaths registered in Glasgow included 7 which were referred to measles, 2 to diphtheria, 17 to whooping-cough, 4 to "fever," and 4 to diarrhoea. Three fatal cases of whooping-cough were recorded in Edinburgh, 3 of diarrhoea in Aberdeen, and 2 of diarrhoea in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 4th, 631 births and 389 deaths were registered in six of the principal Irish towns, against 509 births and 438 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.0, 18.8, and 23.5 per 1,000 in the three preceding weeks, fell to 22.8 per 1,000 in the week under notice, this figure being 4.8 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.9 in Belfast and 19.1 in Limerick to 25.2 in Dublin and 32.9 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.1 per 1,000, or 0.4 per 1,000 lower than during the preceding week, the highest figure—2.1—being recorded in Cork, while Londonderry and Limerick registered no deaths under this heading at all. The deaths from measles numbered only 11, against 24 in the previous period. From scarlet fever 1 death occurred in Dublin and 1 in Belfast. Diphtheria caused 1 death in each of the same towns.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House-Surgeon; resident. Salary, £100 per annum, rising to £120.

BARNSLEY: BECKETT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer; resident. Salary, £100 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon; resident. Honorarium, £100

BRIDGWATER INFIRMARY.—House-Surgeon, resident. Salary, £80 per annum.

BRIGHTON THROAT AND EAR HOSPITAL.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant House-Surgeon; resident. Salary at the rate of £70 per annum.

CHELTENHAM GENERAL HOSPITAL.—(1) Junior House-Surgeon, resident. Salary, £50 per annum. (2) Surgeon-in-Charge of the Branch Dispensary, resident. Salary, £90 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House-Physicians (male); resident. Salary at the rate of £30 per annum each.

DURHAM COUNTY HOSPITAL.—House-Surgeon, resident. Salary, £120 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—(1) Medical for Casualty Department. Salary at the rate of £100 per annum. (2) House-Surgeon, resident. Honorarium, £25 for six months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—Physician to Out-patients.

FRENCH HOSPITAL, Shaftesbury Avenue, W.C.—Honorary Physician.

LEEDS GENERAL INFIRMARY.—Resident Surgical Officer. Salary, £100 per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon, resident. Salary, £100 per annum.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.—Jenner Memorial Studentship in Bacteriology, value £150.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon, resident. Salary, £30 for six months.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon; resident. Salary, £50 per annum.

MANCHESTER ROYAL INFIRMARY.—House-Physician, resident. Appointment for six months.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Pathologist and Bacteriologist. Salary, £50 per annum.

OXFORD: RADCLIFFE INFIRMARY.—Junior House-Surgeon, resident. Salary at the rate of £40 per annum.

QUEEN'S JUBILEE HOSPITAL, Earl's Court, S.W.—(1) Surgeon; (2) Physician; (3) Surgeon, Nose, Throat, and Ear; (4) Gynaecologist; (5) Ophthalmic Surgeon.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—(1) Curator and Librarian. Salary, £120 per annum. (2) Clinical Assistants.

ROYAL NAVY MEDICAL DEPARTMENT.—Three Dental Surgeons. Inclusive salary, £1 per diem, and, when necessary, travelling expenses.

ST. MARYLEBONE DISPENSARY, Welbeck Street, W.—Honorary Physician.

SHEFFIELD: CHILDREN'S HOSPITAL.—House-Surgeon to the East End Branch; resident. Salary, £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon, resident. Honorarium, £41 for six months.

STOCKPORT INFIRMARY.—Assistant House and Visiting Surgeon, resident. Salary, £80 per annum.

TEIGNMOUTH HOSPITAL: House-Surgeon, resident. Salary £70 per annum.

WESTMINSTER GENERAL DISPENSARY, Soho.—Honorary Surgeon.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

WREXHAM INFIRMARY.—Resident House-Surgeon. Salary, £80 per annum.

APPOINTMENTS.

BOWMAN, L., M.B.Edin., Certifying Factory Surgeon for the Cardenden District, Fifeshire.

BROADBENT, John H., M.D.Oxon., F.R.C.P.Lond., Physician in charge of out-patients at St. Mary's Hospital, Paddington.

BROWNE, Ada M., L.S.A., Anaesthetist to the Chelsea Hospital for Women.

BUNTING, W. H., M.D., F.R.C.S.Edin., Surgeon to the B Division of the City Police and Fire Brigade, Birmingham, vice N. H. Turner, L.R.C.P.Lond., M.R.C.S.

BURNETT, Arthur H., M.R.C.S.Eng., L.R.C.P.Lond., House-Surgeon to the Rochdale Infirmary.

CAMERON, A. G. R., M.B.Durh., D.P.H.Camb., Medical Officer of Health for the West Sussex Combined District, vice C. Kelly, M.D.Lond., deceased.

CHAPMAN, Walter, M.B., B.Ch., M.R.C.S., Public Vaccinator, No. 4 District, Totnes Union.

CLAPHAM, Lucy B., M.B.Lond., reappointed Assistant Anaesthetist to the New Hospital for Women.

FORTESCUE-BRICKDALE, J. M., M.A., M.D.Oxon., Physician to Out-patients and Pathologist at the Royal Hospital for Sick Children and Women, Bristol.

HARRIS, Wilfred J., M.D.Camb., M.R.C.P.Lond., Physician in charge of Out-patients at St. Mary's Hospital, Paddington.

HEATH, P. Maynard, B.S., F.R.C.S., Surgical Registrar to University College Hospital.

PARSONS, Lawrance D., M.B., Ch.B.Edin., Assistant Surgeon, Colonial Hospital, Police and Port Surgeon of Gibraltar, vice J. E. Ker, M.R.C.S.Eng., L.R.C.P.Lond.

SCOTT, T. Graham, M.R.C.S., L.R.C.P., Junior Anaesthetist, Central London Throat and Ear Hospital.

SYKES, Walter, L.R.C.P., L.R.C.S., L.F.P.&S.G., Honorary Ophthalmic and Aural Surgeon to the Preston and County of Lancaster Royal Infirmary.

WIELD, David, M.A., M.D.Edin., Honorary Physician to the Lady Bowen (Maternity) Hospital, Brisbane, Queensland.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

GOMEZ.—On February 15th, at The Cottage, South Petherton, Somerset, the wife of F. J. Gomez, M.R.C.S., L.R.C.P., of a son.

MARKS.—On February 6th, at Rosebank, Mumbles, Glamorganshire, the wife of L. Freeman Marks, M.B., M.R.C.S., of a daughter.

NEIL.—On February 13th, at 17, Church Lane, Hornsey, N., the wife of William Herbert Neil, M.R.C.S., L.R.C.P., of a son.

MARRIAGE.

LEVER—FRIEND.—On February 9th, 1905, at All Souls, Langham Place, John Temple Lever, M.D., to Katherine Mary Friend.

DEATHS.

ARMSON.—On January 29th, at Brook House, Yoxall, Burton-on-Trent, Charles Greasley Armson, aged 68.

HARLOCK.—On February 6th, at Summersdale Lodge, Chichester, of pneumonia, Harry Harlock, M.R.C.S., L.R.C.P., aged 44 years.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 9 p.m.—The second Lettsomian lecture will be delivered by Dr. G. H. Savage. Subject: Toxic Mental Disorders.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—First Erasmus Wilson Lecture: Peritonitis, a Bacteriological Study, by Mr. Leonard S. Dudgeon.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Papers:—Dr. Arnold Lorand (Buda-Pesth): Blood Glands as Pathogenic Factors in the Production of Diabetes and Obesity. Dr. C. H. Melland: Leucocythaemia, with change of type from Spleno-Medullary to Lymphatic. Dr. N. Dalton: Patchy Syphilitic Cirrhosis in an Infant. Dr. J. Fawcett: Carcinoma of Cardiac Orifice of Stomach. Mr. S. G. Shattock: Prehistoric Calculus. Card specimen:—Dr. Price: Gangrene of Lung.

Therapeutical Society, Apothecaries' Hall, Blackfriars, E.C., 4 p.m.—Paper: Herbals and Herbaria, by Dr. T. E. Burton Brown.

WEDNESDAY.

Hunterian Society, London Institution, Finsbury Circus, 8.30 p.m. Paper by Mr. A. H. Tubby.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Second Erasmus Wilson Lecture: Peritonitis, a Bacteriological Study, by Mr. Leonard S. Dudgeon.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of clinical cases followed by discussion. Patients will be in attendance from 3 p.m. to 9 p.m.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Third Erasmus Wilson Lecture: Peritonitis, a Bacteriological Study, by Mr. Percy W. G. Sargent.

POST-GRADUATE COURSES AND LECTURES.

Central London Throat and Ear Hospital, Gray's Inn Road, W.C.—Wednesday, 5 p.m.: Ear.

Charing Cross Hospital, Thursday, 4 p.m.—Medical Cases.

Hospital for Children, Great Ormond Street, W.C.—Thursday, 4 p.m., Haematuria and Albuminuria in Children.

Hospital for Consumption and Diseases of the Chest, Brompton, S.W.—Wednesday, 4 p.m., Emphysema.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Paratyphoid Fever; Tuesday, Infective Diseases of Joints; Wednesday, A case of Concealed Menstruation, with remarks on Treatment; Thursday, Ocular Headache—its Causes, Diagnosis, and Treatment.

Mount Vernon Hospital for Consumption and Diseases of the Chest, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., The Diagnosis and Treatment of Pulmonary Cavities.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m. The Nature of Tabes; Friday, 3.30 p.m., Selected Cases.

North-East London Post-Graduate College, Tottenham Hospital, N., 4.30 p.m.—Tuesday, Seborrhoea and Seborrhoeic Dermatitis; Thursday, Demonstration of Skin Cases.

Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m., Some Points in Pelvic Diagnosis.

West London Hospital Post-Graduate College, Hammersmith, W.—The following lectures have been arranged for next week, each day at 5 p.m.—Monday, Practical Surgery; Tuesday, Some Complications of Middle-ear Suppuration; Wednesday, Practical Medicine; Thursday, Urinary Cases; Friday, Finsen and Ultra-violet Treatment.

BOOKS, Etc., RECEIVED.

International Clinics. A quarterly edited by A. O. J. Kelly, A.M., M.D., Philadelphia, U.S.A. Vol. IV. Fourteenth series, 1905. Philadelphia and London: J. B. Lippincott Co. 1905.

Guy's Hospital Reports. Edited by J. H. Bryant, M.D., and F. J. Steward, M.S. Vol. LIX, being Vol. XLIV of the third series. London: J. and A. Churchill. 1905.

Bad Kissingen as a Health Resort. By A. Rosenau, M.D. Würzburg, L.R.C.P. Lond. London: Bailliere, Tindall, and Cox. 1904.

A Case of Multiple Personality. By Albert Wilson, M.D. Reprinted from the Proceedings of the Society for Psychical Research. London: Society for Psychical Research.

The Infectivity and Management of Scarlet Fever. By W. T. Gordon Pugh, M.D., B.S. Lond. Issued by the Medical Officers of Schools Association. London: J. and A. Churchill. 1905. 1s.

"N" Rays. By R. Blondlot. Translated by J. Garcin. London: Longmans, Green, and Co. 1905. 3s. 6d.

Essays in Puritanism. By Andrew Macphail. London: T. Fisher Unwin. 1905. 6s.

Transactions of the American Ophthalmological Society. Fortieth annual meeting. Atlantic City, N. J., 1904. Vol. X. Part 2. Hartford, Conn.: American Ophthalmological Society. 1904.

Le Danger de la Mort Apparente sur les Champs de Bataille. Par le Dr. Icard. Paris: A. Maloine. 1905. Fr. 2.50.

About Dreaming, Laughing, and Blushing. By Sir Arthur Mitchell, K.C.B. Edinburgh and London: William Green and Sons. 1905. 5s.

Neolithic Dew-ponds and Cattle-ways. By Arthur John Hubbard, M.D., and George Hubbard, F.S.A., F.R.I.B.A. London: Longmans, Green, and Co. 1905. 3s. 6d.

Journal of the British Fire Prevention Committee. No. 2, February, 1905. The Record of the Special Commission formed by the British Fire Prevention Committee to visit the Principal Cities of Central Europe on the Occasion of the International Fire Service Congress at Buda-Pesth, 1904. By Edwin O. Sachs, F.R.S.Ed.: Horace S. Folker, and Ellis Marsland. London: Office of British Fire Prevention Committee. 5s.

A Handbook of Clinical Electric-light Cystoscopy. By E. Hurry Fenwick, F.R.C.S. London: J. and A. Churchill. 1904. 18s.

The Mosquito malarial Theory and Malarial Prophylaxis from the Latent Stage. By Major G. H. Fink, I.M.S. (ret.), M.R.C.S.Eng., L.S.A.Lond. London: W. Straker, Ltd.

Das Chlorom. Von Robert Heyden. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 1s. 3d.

Die Gesichtspunkte und die Tatsachen der psychophysischen Methodik. Von G. E. Müller. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 4s. 9d.

Horprufungs und Empfindlichkeits-Tabellen des Schwerhörigen Ohres unter zugrundeligung meines Objektiven Hörmasses. Von Professor Dr. Paul Ostmann. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 1s. 6d.

Die Fettleibigkeit (Korpulenz) und ihre Behandlung nach physiologischen Grundsätzen. Von Dr. Wilhelm Ebstein. Achte Auflage. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 3s. 9d.

Die Ostosklerose. Von Dr. Alfred Denker. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 4s. 9d.

Handbuch der Embryologischen Technik. Von Dr. med. Paul Röthig. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 10s. 9d.

Die Funktionsprüfung des Darmes mittels der Probekost. Von Professor Dr. Adolf Schmidt. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 2s. 9d.

Belastungslagerung Grundzüge einer nichtoperativen Behandlung Chronisch-entzündlicher Frauenkrankheiten und ihrer Folgezustände. Von Dr. Ludwig Pincus. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1905. 3s. 9d.

Grundzüge der Anatomie und Pathogenese der Taubstummheit. Von Dr. Friedrich Siebenmann. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 3s. 9d.

Die Anatomie der Taubstummheit Herausgegeben im auftrage der Deutschen otologischen Gesellschaft. Erste Lieferung. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 5s. 9d.

Uber Gummiknoten im Herzfleische bei Erwachsenen. Von Wilh. Stockmann. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1904. 4s. 9d.

Die Wirkungen von Arzneimitteln und Giften auf das Auge. Von Dr. L. Lewin und Dr. H. Guillery. II Band. Berlin: August Hirschwald. 1905. Mk. 26.

Le Traitement des Aliénés dans les Familles. Par Ch. Féré. Troisième édition. Paris: Félix Alcan. 1905. Fr. 4.

Le Traitement de l'hypertrophie Sénile de la Prostate. Par le Dr. A. Guépin. Paris: Félix Alcan. 1905. Fr. 2.50.

The Thompson-Yates and Johnston Laboratories Report. Edited by Rubert Boyce and Charles S. Sherrington, etc. Vol. VI. (New series.) Part 1. January, 1905. London: Williams and Norgate. 1905.

The Open-air Treatment of Pulmonary Tuberculosis. By F. W. Burton-Fanning, M.D. Cantab. London: Cassell and Co. 1905. 5s.

Lateral Curvature of the Spine and Pelvic Deviations. By Richard Barwell, F.R.C.S. Sixth edition. London: Bailliere, Tindall and Cox. 1905. 3s.

The Diagnosis and Modern Treatment of Pulmonary Consumption. By Arthur Latham, M.A., M.D. Oxon., M.A. Cantab., F.R.C.P. Lond. Second edition. London: Bailliere, Tindall and Cox. 1905. 5s.

Progressive Medicine: a Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., assisted by H. R. M. Landis, M.D. Vol. IV. December, 1904. London: Rebman, Limited. 1904. 12s. 6d.

Clinical Haematology. By John C. Da Costa, jun., M.D. Second edition. London: Rebman, Limited. 1905. 22s. 6d.

The Intestinal Catarrhs: being a Clinical Study of Colitis, Appendicitis, and their Allies, with a special new section on Sprue. By Edward Blake, M.D. Second edition. London: Henry J. Glaisher. 1905. 5s.

Untersuchungs- und Behandlungsmethoden der Kehlkopfkrankheiten. Von Dr. Theodor Heryng. Berlin: Julius Springer. 1905. M. 12.

Burdett's Hospitals and Charities, 1905. By Sir Henry Burdett, K.C.B. London: The Scientific Press, Limited. 5s.

De l'Endométrite et de la Métrite Parenchymateuse Infectieuses. Par le Dr. E. Ozenne. Paris: A. Maloine. 1905. Fr. 4.

La Guérison et la Prophylaxie de la Tuberculose, au Sanatorium de Banyuls-sur-Mer. Par Georges Lafargue. Extrait des Comptes Rendus de l'Association Française pour l'Avancement des Sciences. Congrès d'Angers, 1903. Paris: A. Maloine. 1904. Fr. 1.

L'Organisation de la Lutte contre la Tuberculose. Par G. Lafargue. Congrès d'Angers, 1903. Paris: A. Maloine. 1905. Fr. 1.

Le Béribéri. Par le Dr. H. Vivian Dangerfield. Paris: A. Maloine. 1905. Fr. 12.

Textbook of Insanity. By Dr. R. von Krafft-Ebing. Authorized translation from last German edition by Charles Gilbert Chaddock, M.D. Introduction by Frederick Peterson, M.D. Philadelphia: F. A. Davis Company. 1905. 4 dols.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
February	19...Sunday..	
,,	20...Monday ...	London: Royal Naval and Military Committee, 4 p.m.
,,	21...Tuesday ...	
,,	22...Wednesday	Bath and Bristol Branch, Museum (North Parade Entrance), Bath, 8 p.m. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. Eastbourne Division, *South-Eastern Branch*, Grand Hotel, Eastbourne, 6.15 p.m. South Suffolk Division, *East Anglian Branch*, Crown and Anchor Hotel, Ipswich, 4 p.m.
,,	23...Thursday...	Kensington Division, *Metropolitan Counties Branch*, Kensington Town Hall, High Street, Kensington, 5 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 8.30 p.m. West Cumberland Division, *Border Counties Branch*, Victoria Cottage Hospital, Maryport, 3.30 p.m.
,,	24...Friday ...	Chester Division, *Lancashire and Cheshire Branch*, Board Room, Chester General Infirmary, 5 p.m. St. Pancras Division, *Metropolitan Counties Branch*, North-West London Hospital, Kentish Town Road, 4.30 p.m.
,,	25...Saturday...	Leinster Branch, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
,,	26...Sunday..	
,,	27...Monday ...	
,,	28...Tuesday ...	North Northumberland Division, *North of England Branch*, Elder House, Ravensdowne, Berwick-on-Tweed, 2.30 p.m. Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...Wednesday	
,,	2...Thursday...	London: Hospitals Committee, 2.30 p.m. ,, Hospitals Conference, 3 p.m. South Essex Division, *East Anglian Branch*, Victoria Hospital, Southend-on-Sea, 4 p.m. South-Western Branch, Red Lion Hotel, Truro, 3 p.m.
,,	3...Friday ...	
,,	4...Saturday...	
,,	5...Sunday..	
,,	6...Monday ...	
,,	7...Tuesday ...	South Midland Branch, Council Meeting, Franklin's Restaurant, Guildhall Road, Northampton, 3.30 p.m.
,,	8...Wednesday	
,,	9...Thursday...	Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m.
,,	10...Friday ...	
,,	11...Saturday...	
,,	12...Sunday..	
,,	13...Monday ...	
,,	14...Tuesday ...	
,,	15...Wednesday	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...Thursday...	
,,	17...Friday ...	London: Ethical Committee, 2.0 p.m.
,,	18...Saturday...	
,,	19...Sunday..	
,,	20...Monday ...	
,,	21..Tuesday ...	
March	22...Wednesday	London: Medico-Political Committee, 3.0 p.m. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	23...Thursday...	City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...Friday ...	
,,	25...Saturday...	
,,	26..Sunday..	
,,	27...Monday ...	
,,	28..Tuesday ...	
,,	29...Wednesday	
,,	30...Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
,,	31...Friday ...	
April	1...Saturday...	
,,	2...Sunday..	
,,	3...Monday ...	
,,	4...Tuesday ...	
,,	5...Wednesday	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6..Thursday...	
,,	7...Friday ...	
,,	8...Saturday...	
,,	9..Sunday..	
,,	10...Monday ...	
,,	11...Tuesday ...	London: Organization Committee, 10.30 a.m.
,,	12...Wednesday	
,,	13...Thursday...	
,,	14...Friday ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...Saturday...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of Journal should be posted to-day.
,,	16..Sunday..	
,,	17...Monday ...	
,,	18...Tuesday ...	London: Premises and Library Committee.
,,	19...Wednesday	,, Central Council.
,,	20...Thursday...	
,,	21...Friday ...	*Good Friday.*
,,	22...Saturday...	Notices of Motion for Annual Representative Meeting appear in Journal.
,,	23..Sunday..	
,,	24...Monday ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...Tuesday ...	Matters for consideration by Organization Committee on May 9th, should be notified to Medical Secretary on or before this day.
,,	26...Wednesday	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...Thursday...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...Friday ...	
,,	29...Saturday...	List of Members closed for publication.
,,	30..Sunday..	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 25TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
REPRESENTATIVE MEETING AT LEICESTER: NOTICES OF MOTION.—A. Notices Concerning Alteration of the By-laws of the Association.—B. Other Notices of Motion	57
PROCEEDINGS OF COUNCIL	58
PROCEEDINGS OF STANDING COMMITTEES:	
MEDICO-POLITICAL COMMITTEE.—Medical Attendance in Criminal Cases.—References to Divisions.—The *Medical Register*.—Payment for Medical Certificates of Unfitness of School Children.—Amendment of the Indecent Advertisements Act.—Matters Referred to Divisions.—The National Deposit Friendly Society.—Preliminary Medical Education.—Proceedings of Subcommittees.—Payment of Medical Men called in to Assist Midwives.—The Coroner for South-West London.—Supply of Government Lymph to all Medical Practitioners.—Security of Tenure of Medical Officers of Health.—The Revaccination Bill.—The Medical Acts Amendment Bill.—School Certificates.—Vacant Appointments.—The Registration of Nurses.—Consultation of Medical Witnesses in London.—Medical Men and Ambulance Competitions.—Provident Medical Services.—Coroners and Medical Men.—Medical Witnesses and Police Fees.—The Medical Attendant in Criminal Cases.—Publication in the SUPPLEMENT of Matters Referred to Divisions.—The Revaccination and Public Health Bills.—The Medical Profession in Parliament.—Action Concerning a Colliery Appointment.—Supplying Reprints of Reports of the Committee.—Death Registration and Coroners' Law.—Parliamentary Representation.—Medical Secretary's Visits to Divisions.—Medical Acts Amendment Bill and Pharmacists.—Colliery Disputes.—Local Authorities and *Post-mortem* Examination.—Medical Assistance to Midwives.—Fees Paid by the Police for Emergency Attendances.—Parliamentary Matters Affecting the Profession.—Contract Practice Inquiry.—Agreements as to Contract Practice	60
PROPOSED SECONDARY EDUCATION CERTIFICATE	63
ROYAL NAVAL AND MILITARY COMMITTEE.—Election of Chairman.—New Member.—Militia Medical Service.—Indian Medical Service	64
HOSPITALS COMMITTEE.—New Members.—Hospital Management.—Hospital Letters.—Conference on Principles of Hospital Management.—Poor-Law Service and Provident Dispensaries... ...	65
ANNUAL MEETING (SECTIONS) COMMITTEE	65
MEETINGS OF BRANCHES AND DIVISIONS:	
Edinburgh Branch: Southern Division	65
East Anglian Branch: West Norfolk Division	66
Lancashire and Cheshire Branch: Altrincham Division ...	66
" " " " Burnley Division	66
Metropolitan Counties Branch: City and Tottenham Divisions ..	66
" " " Stratford Division	67
South Wales and Monmouthshire Branch: South-West Wales Division	67
South-Eastern Branch: Dover Division	67
Sydney and New South Wales Branch	67
Yorkshire Branch: Harrogate Division and Richmond and Northallerton Divisions	68
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	68
CENTRAL MIDWIVES BOARD	68
NAVAL AND MILITARY APPOINTMENTS	69
VITAL STATISTICS...	70
VACANCIES AND APPOINTMENTS	70
BIRTHS, MARRIAGES, AND DEATHS	71
DIARY OF THE WEEK	71
BOOKS RECEIVED...	71
CALENDAR	72

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. ***BY ORDER.***

MATTERS REFERRED TO DIVISIONS.

REPRESENTATIVE MEETING AT LEICESTER.

MONDAY, JULY 24TH, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following notices of motion have been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

A.—Notices Concerning Alteration of the By-laws of the Association.

BY THE COUNCIL OF THE ASSOCIATION:

That the Council recommend the amendment of By-law 22 by the Annual Representative Meeting at Leicester in the following respect, namely: That the words "and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council," occurring in the sixth line and onwards thereof, be deleted, and the following words be added to the by-law: "*The Council may also elect, if it thinks fit, at any of its meetings all or any one of the following, namely: 'One medical officer on the active or retired list of each of the following services: The Royal Navy Medical Service, the Royal Army Medical Service, and the Indian Medical Service. In each case he shall not have retired from the active list more than three years previously.*"

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

(*a*) By-law 23.—"Any Branch, or group of Branches, having an aggregate membership of not less than 200 may elect one member of Council, and any Branch or group of Branches having an aggregate

membership of not less than 400 may elect two members of Council, and an additional member for each complete 600 members in excess of 400, etc."

For "600" read "300."

(*b*) By-law 25.—"Each member of Council elected by a Branch in the United Kingdom shall be elected for one year, and at the end of that time shall be eligible for re-election unless he have served as such member of Council for eight years successively, in which case he shall for one year be ineligible for election as such member of Council."

For "one year" read "three years." For "eight years" read "six years."

B.—Other Notices of Motion.

By the Wandsworth Division (Metropolitan Counties Branch):

Additions suggested to Standing Orders of Representative Meetings:

(1) All Representative Meetings, if not concluded by 6.30 p.m., shall stand adjourned either to 8.30 p.m. of the same day, or to the next day, as may be decided by a show of hands; all such meetings shall stand adjourned at 10 p.m. until the next day.

(2) Any resolution or notice put on the Agenda of a Representative Meeting by the Council or a Branch or Division can be temporarily withdrawn from discussion at any evening meeting, if the Chairman of the Council or the Representative of the Branch or Division, as the case may be, give notice at 6.30 p.m. that he so desires it.

(3) That the Representative Meeting do elect biennially a Chairman-elect for two years, who shall become Chairman during the third and fourth years, and Vice-Chairman during the fifth and sixth years, when he shall be ineligible for election for two years.

(4) That in the absence of the Chairman, the Vice-Chairman do take the chair, and should the Vice-Chairman be also absent, the Chairman-elect shall do so. In the absence of all these the meeting to elect its own Chairman.

(5) That there be a Business Committee to consist of the Chairman, Vice-Chairman, and Chairman-elect, who shall arrange the order of business and other details.

(6) That where necessary the Articles of Association, By-laws, and Standing Orders be altered so as to incorporate the above resolutions.

That the Supplement of the Journal, containing as it does the private business of the members, be not issued with the Journal otherwise than to members.

That in all cases where the British Medical Association is given by Act of Parliament or otherwise a representative position on any permanent Board or Council, the selection of the Representative or Representatives shall rest ultimately with the Representatives Meeting.

That it be an instruction to the Central Council to prepare a scheme suitable for meeting all such contingencies, and to submit it to the Divisions for consideration before March 31st, 1906.

By the Southern Branch:

That this meeting of the Southern Branch considers that the British Medical Association should afford all possible facilities to town and districts for starting and carrying on local provident medical services embracing all forms of club practice; that an official from the head office should be sent, whenever desired, to co-operate with local medical men in the inauguration of such services, and that model rules and regulations for their working should be drafted by the Medical Secretary and supplied from the head office on request.

By the Salford Division (Lancashire and Cheshire Branch):

1. That the proceedings of the Central Council ought to be published in as much detail as those of the Annual Representative Meeting, in order to stimulate interest in its doings.
2. That all increases of salary or alteration of status among the chief paid officials of the Association ought first to be submitted for approval to the Annual Representative Meeting before any definite action is taken by the Council.

By the Walthamstow Division (Metropolitan Counties Branch):

1. That to ensure adequate consideration of resolutions brought forward by Divisions, notices of motion be taken in future at a more convenient time, and, if possible, before the annual report of Council.
2. That the Ethical Committee be requested to consider the relative ethical position of consultants and the medical practitioner in attendance to each other and to the patients, and report.

Guy Elliston, *General Secretary.*

February 23rd.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a special meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, February 15th, 1905.

Present:

Mr. Andrew Clark, D.Sc., Chairman of Council, in the Chair.
Dr. William Collier, President.
Sir Victor Horsley, F.R.S., Chairman of Representative Meetings.
Dr. E. Markham Skerritt, Treasurer.

Dr. John Ford Anderson, London.
Dr. Michael Beverley, Norwich.
Dr. H. Langley Browne, West Bromwich.
Dr. R. Cochrane Buist, Dundee.
Dr. James Craig, Dublin.
Dr. H. Radcliffe Crocker, London.
Professor David W. Finlay, M.D., LL.D., Aberdeen.
Mr. C. E. S. Flemming, Bradford-on-Avon.
Dr. E. Rowland Fothergill, London.
Dr. Edward Lawrence Fox, Plymouth.
Dr. H. A. Francis (Queensland Branch), London.
Dr. John H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. David Goyder, Bradford.
Dr. Major Greenwood, London.
Dr. Joseph Groves, Carisbrooke.
Dr. R. McKenzie Johnston, Edinburgh.
Mr. R. H. Kinsey, Bedford.
Dr. C. H. Milburn, Hull.
Mr. W. Jones Morris, Portmadoc.
Professor J. T. J. Morrison, Birmingham.
Dr. Charles James Morton, London.
Dr. James Murray, Inverness.
Mr. D. A. O'Sullivan, London.
Mr. Edmund Owen, London.
Mr. C. H. Watts Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Raynes, Stockport.
Professor Robert Saundby, M.D., LL.D., Birmingham.
Dr. Cecil E. Shaw, Belfast.
Mr. W. D. Spanton, Hanley.
Fleet-Surg J. Lloyd Thomas, R.N., Portsmouth.
Mr. T. Jenner Verrall, Brighton.
Captain C. E. Williams, I.M.S. (Burmah Branch), London.

The minutes of the last meeting having been printed and circulated, and no objections received, were taken as read and signed as correct.

Read letters of apology for non-attendance from the President-elect, the Past-President, Dr. E. G. Barnes, Dr. James Barr, Dr. J. Brassey Brierley, Dr. W. A. Carline, Mr. P. R. Cresswell, C.B., Dr. P. Maury Deas, Lieutenant-Colonel E. F.

Drake Brockman, I.M.S (ret.), Dr. G. B. Ferguson, Dr. J. J. Giusani, Dr. James Hamilton, Dr. T. S. Kerr, Dr. C. W. Marriott, Dr. C. G. D. Morier, Dr. James Murphy, Mr. J. Lynn Thomas, C.B., Dr. Norman Walker, and Dr. Denis Walshe.

On consideration of the minutes of the Organization Committee it was resolved:

That the Agenda of all Representative Meetings be issued to the Secretaries of Branches and Divisions.

That the Rules submitted by the Dundee Branch, the South-West Wales, Aylesbury, Newton Abbot, and Tunbridge Wells Divisions be approved.

That the Shropshire Division be constituted a separate Branch.

That the rules of the Cape of Good Hope (Western Province) and Hong Kong Branches be approved with the exceptions stated; and that the amended rules submitted by the Metropolitan Counties Branch be approved, subject to the attention of the Branch being drawn to the wording of Rule 1.

That the proposed union of the Canterbury and Faversham Divisions be approved.

The recommendation that the Council be advised to propose that the limit for a separate constituency to elect a Representative under Article XXVII be reduced to 30, was referred back to the Organization Committee with instructions to consider the question of area as well as of number.

That the Council approve the suggestions made by the Medico-Political Committee in response to the communication of the Organization Committee. (See proceedings of Medico-Political Committee, November 16th, 1904, p. 178.)

That such matters as are specially referred to Divisions should occupy first place in the SUPPLEMENT, and that bold type be used in order to draw attention to them.

That it is advisable that a conference of the Honorary Secretaries of Divisions and Branches should be held at Leicester, and that the arrangements for this year be made by a Committee of those members of Council who are Secretaries of Branches or Divisions with power to co-opt other Honorary Secretaries.

That the Council approve, as a suggestion to the Branches, the form of voting paper submitted for the election of members of Council by Branches.

That the forms of annual reports of Branches to the Central Council appended to the Minutes be approved.

That the Council refer back to the Committee of Secretaries and Treasurers of the Metropolitan Counties Branch the resolution addressed to the Council, with an intimation that such proposals should first be submitted for the consideration of the Branch Council by which the Committee was appointed.

On consideration of the minutes of the Colonial Committee it was resolved:

That the General Secretary be instructed to communicate with the Colonial Office, pointing out the objection to Clause 2 (2) (*b*), of the Draft Ordinance:

> (*b*) In the case of a person claiming to be qualified otherwise than under the said Acts, a certificate of the Council of the Ceylon Medical College that such person is entitled to be registered under this Ordinance.

and to suggest that the Ceylon Council might be pleased to eliminate it from the Ordinance.

That the General Secretary communicate with the Branches concerned with a view to obtaining copies of the Medical Bills for Queensland, New South Wales, and the Straits Settlements. Also to obtain information from the Colonial Office of any medical legislation now under the consideration of the Colonial Governments.

The minutes of the Medical Secretary Committee were received, and the recommendation that the Medical Secretary should act as Secretary to the following professional Committees, namely, Medico-Political, Public Health, Royal Naval and Military, Ethical, Hospitals, and Organization Committees, also the Representative Meetings was approved.

On consideration of the minutes of the Public Health Committee it was resolved:

That the Local Government Board be approached in order to secure their support to the Public Health Bill prepared by the Association, and that they be invited to receive a deputation thereon.

On consideration of the minutes of the Royal Naval and Military Committee it was resolved:

That the Council, having duly considered the reply of the War Office, dated August 12th, 1904, relative to the pay of officers of the Militia Medical Service, is of opinion, and strongly recommends, that in any future embodiment of the Militia, officers of the Militia Medical Service should be entitled to and receive the rates of pay of corresponding ranks in the R.A.M.C. as a matter of course, and not as an exceptional measure.

On consideration of the minutes of the Medico-Political Committee it was resolved:

That the support of the Association be given to the Public Health Bill, as laid before the Council by the Public Health Committee, including provisions as to qualification as one of the conditions of security of tenure.

That in reference to the matters referred to the Committee under Minute 701 of the Council of July 6th, 1904, the Council reply to the Midland Medical Union in the terms stated in the report of the Medico-Political Committee.

That the Council approve that the memorial on the Indecent Advertisements Act be submitted to the Home Secretary.

That the names and numbers of members attending the meetings of Divisions be not included in the reports of Divisions published in the JOURNAL.

The minutes of the Hospitals Committee were then considered, and the verbal alterations in the principles of hospital management were approved.

The minutes of the Medical Defence Committee and of the Chairmen of Committees on the Alteration of the Memorandum of Association were received, and further consideration deferred until the next meeting.

On consideration of the minutes of the Chairmen of Committees on the Alteration of the Standing Orders, certain new Standing Orders for the appointment of Committees by the Council were approved.

That this year, to facilitate the procedure of the Council for the appointment of Committees, Branch Secretaries be requested to send in the election returns of their Branch Representatives by June 27th.

On consideration of the minutes of the Ethical Committee in reference to the following:

> The report of a Branch Council on the case of a member who, on the ground of unethical conduct, had been called upon by the Branch Council, in pursuance of the Rules of the Branch, to make a suitable apology to the members of the Division of which he is a member, and, after the expiration of over three months, had failed to make the apology,

it was resolved that the member be informed that this Council will reconsider the report made to it at the April meeting, and trusts that in the meanwhile he will see his way to make the apology required, as otherwise the Council will of necessity have to take a most serious view of the case.

The Council approved the Rules of Ethical Procedure of the South-Western Branch and the South-West Wales Division; Special Ethical Rules (as adopted by the Bradford Division) for the Cardiff, Coventry, Southampton, and Isle of Wight Divisions; and Rule Z for the Dundee Branch and the Consett, Gateshead, Monmouth, Tyneside, and South Shields Divisions.

It was decided that the General Medical Council be requested to consider the advisability of issuing a general warning against canvassing and advertising for practice.

The minutes of the Superannuation Committee were received, and further consideration was postponed pending the report of an actuary.

The minutes of the Annual Meeting (Sections) Committee were received and approved.

In consideration of the minutes of the Scottish Committee it was resolved:

That the report of the Departmental Committee on Poor-law Medical Relief in Scotland be submitted for the consideration of the Scottish Divisions.

That the attention of the Central Criminal authorities in Scotland be drawn to the variations in local practice in granting permission for medical representatives of the defence to be present at the official autopsies and criminal cases.

The minutes of the Colonial (Joint) Constitution Committee were received and approved.

On consideration of the minutes of the Scientific Co-ordination Committee, it was resolved:

That the Therapeutic Committee (Special) shall consist of ten members appointed annually by the Council. The Committee shall have power to co-opt three others, whether members of the Association or not, and may also elect corresponding members. Its functions shall be—(1) To furnish members of the Association with information regarding new remedies; (2) to institute the definite investigation—experimental, clinical, or statistical—of new remedies; (3) to make suggestions for the revision of the *British Pharmacopœia*.

That in April of each year it shall submit to the Council a report of the work done and a programme for the ensuing year, together with an estimate of the expense of each proposed investigation. The Committee shall appoint its own Chairman and Secretary, who shall be members of the Association but not necessarily members of Council.

That it is desirable to encourage the formation of Division Libraries, and to facilitate exchange of duplicate books the Librarian at the Head Office in London should so far as possible keep a list of duplicates in Division and other Medical Libraries.

That the attention of Division Secretaries be called to the subjects of discussion at the Annual Meeting, and it is suggested that members bring before their Divisions as many cases as possible illustrating these subjects.

That it be suggested to the officers of Sections that problems arising in course of discussion be suggested to the Division as subjects for further consideration.

That it is desirable to form a lending library for research by duplicating the leading special periodicals.

That the Scientific Grants Committee should consider the question of supplying or aiding in the purchase of the necessary literature for individual scientific researches with a view to the formation of a special library for research.

The minutes of the Scientific Grants Committee and of the Premises and Library Committee were received and approved.

Read letter received from the New Zealand Branch, which was referred to the Organization Committee.

It was resolved to publish in the SUPPLEMENT of the JOURNAL notices of motion for Representative Meetings as soon after they are sent in as possible.

An acknowledgement of the resolution of condolence passed at the last meeting upon the death of Dr. William Vawdrey Lush was read and ordered to be entered on the minutes.

Certain other matters were deferred to the next meeting of the Council, to be held on Wednesday, April 19th, at 11 o'clock in the forenoon, while the Journal and Finance Committee will meet a week earlier.

The Council rose at 6.35 o'clock.

Proceedings of Standing Committees.

MEDICO-POLITICAL COMMITTEE.

November 16th, 1904.

A MEETING of the Medico-Political Committee was held at the offices of the Association on November 16th, 1904, when there were present: Dr. R. C. BUIST in the chair, Dr. W. Collier (President of the Association), Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. Major Greenwood, Mr. T. Garrett Horder, Dr. J. A. Macdonald, Mr. W. Jones Morris, Mr. E. H. T. Nash, Mr. D. A. O'Sullivan, and Mr. C. H. Watts Parkinson.

APOLOGIES FOR ABSENCE.

Letters of apology for non-attendance were read from the Chairman of Council, Mr. G. Jackson, Dr. L. Kidd, Mr. M. A. Messiter, and Dr. J. Murphy.

MEDICAL ATTENDANCE IN CRIMINAL CASES.

A communication from the Council of the Midland Medical Union enclosing a Memorandum and resolutions concerning the position of medical attendants in criminal cases, referred by the Council of the Association to the Committee, was referred to the Subcommittee on the payment of medical witnesses and of practitioners called in to emergency cases by the police.

REFERENCES TO DIVISIONS.

The Committee considered a communication from the Organization Committee, asking their opinion on the matters raised by the following resolution passed by the Walthamstow Division which had been referred by the Council to the Organization Committee:

> That it is the opinion of this Division that the present method of referring business for its consideration is not satisfactory, and that the Central Council be requested to forward periodically to the Secretary a memorandum of such business together with a concise statement of the facts and of the essential points on which an opinion is required.

In reply the Medico-Political Committee made the following suggestions:

1. That matters to be referred to Divisions should be issued as soon as they are ready, rather than periodically, and that each reference should conclude by a categorical statement of (*a*) the points on which action by the Divisions is suggested, or (*b*), when the opinion of the Division is desired, by questions in such form if possible, as admits of direct affirmative or negative answer.

2. That, before each quarterly meeting of Council, a tabular statement of the matters referred to Divisions be furnished in the BRITISH MEDICAL JOURNAL, the matters to be arranged under the names of the Council or the Committee which sent them down.

3. That a calendar of the prospective meetings of Standing and Special Committees for the next three months appear in the JOURNAL each week.

4. That to secure the attention to the SUPPLEMENT which is necessary, if reports referred to Divisions are to appear therein and not be separately issued, weekly SUPPLEMENTS are desirable.

THE MEDICAL REGISTER.

The Committee received from the Bradford Division an intimation of a resolution which that Division was circulating to the Divisions generally with a view to concerted action.

PAYMENT FOR MEDICAL CERTIFICATES OF UNFITNESS OF SCHOOL CHILDREN.

The MEDICAL SECRETARY reported the results of inquiries which had been addressed to Scottish School Boards as to provision made by them for payment of medical practitioners for certificates of unfitness of school children to attend school, and the matter was referred to the Scottish Committee. The Medical Secretary reported also a communication from the Aylesbury Division notifying the action taken by them in the matter, and it was resolved that the legal opinions which have from time to time been obtained with reference to the subject be collated and circulated to the Committee prior to its next meeting.

AMENDMENT OF THE INDECENT ADVERTISEMENTS ACT.

Mr. T. Garrett Horder and the Medical Secretary were requested to draw up a memorial suitable for presentation to the Home Office in favour of the amendment of the Indecent Advertisements Act.

MATTERS REFERRED TO DIVISIONS.

The Committee approved the Memorandum[1] which had been prepared by the Chairman and Secretary to accompany resolutions and reports on medico-political matters referred by the Annual Representative Meeting to the Divisions.

THE NATIONAL DEPOSIT FRIENDLY SOCIETY.

Correspondence with the National Deposit Friendly Society was read, and it was resolved that it be pointed out to the Society that the form in which their communication dated October 31st had been couched precluded the Association from replying on the subject of the communication.

The Committee approved for circulation to the Divisions the epitome which the Medical Secretary had prepared of the Medical Acts Amendment Bill, and also a Memorandum[2] on the unduly repeated dispensing of prescriptions and the recommendation of drugs and proprietary articles by name.

PRELIMINARY MEDICAL EDUCATION.

The minutes of the Subcommittee on Preliminary Education were received, and the Subcommittee were authorized to forward to the Board of Education their Memorandum on the proposed Government certificate of secondary education when ready.

PROCEEDINGS OF SUBCOMMITTEES.

The minutes of the Subcommittees on (B) Fees to Medical Witnesses and Police Fees, and (C) Coroners' Law and Death Registration were received.

PAYMENT OF MEDICAL MEN CALLED IN TO ASSIST MIDWIVES.

The CHAIRMAN submitted a Memorandum on the payment of medical men called in to assist midwives, and the Memorandum was approved as the basis of a communication to the Divisions, which the Chairman and Secretary were authorized to prepare.

THE CORONER FOR SOUTH-WEST LONDON.

The Committee received a report of the proceedings of a Conference of Medical Societies on November 3rd in the matter of the Coroner for South-West London.

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[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904 p. 178.

[2] The Memorandum sen in pursuance of this instruction will be found on pages 63-4.

Supply of Government Lymph to all Medical Practitioners.

The Chairman of Committee, the Chairman of Representative Meetings, and the Medical Secretary, who had been appointed a deputation to wait upon the Medical Officer of the Local Government Board with reference to the supply of Government lymph to all medical practitioners, reported that they had accordingly met the Medical Officer of the Local Government Board and the Assistant Secretary of the Board on November 2nd.

Security of Tenure of Medical Officers of Health.

The Chairman of the Public Health Committee brought before the Committee the Public Health Bill as prepared by that Committee, and it was resolved to recommend that the support of the Association be given to the Bill, including provisions as to qualifications as one of the conditions of security of tenure.

The Revaccination Bill.

The Medical Secretary reported that, acting upon the instructions of the Public Health Committee, he had inquired of the Imperial Vaccination League and the Public Vaccinators' Association as to the action which they proposed to take in the next session of Parliament with reference to vaccination, and stated the replies received.

December 21st, 1904.

A furtner meeting of the Committee was held on December 21st, 1904, when there were present: Dr. R. C. Buist, in the chair; Sir Victor Horsley, F.R.S., Chairman of Representative Meetings; Dr. Major Greenwood, Mr. George Jackson, Dr. Leonard Kidd, Dr. J. A. Macdonald, Mr. Jones Morris, and Mr. C. H. Watts Parkinson.

Apologies for Absence.

Letters of apology for non-attendance were read from the Chairman of Council, the Treasurer, Mr. T. Garrett Horder, Dr. J. Murphy, Mr. E. H. T. Nash, and Mr. D. A. O'Sullivan.

The Medical Acts Amendment Bill.

The Medical Secretary reported that in reply to an inquiry he had stated that the exception in Clause 11, Section III, of the Medical Acts Amendment Bill related only to officers of the army and navy who were not engaged in private practice, and that the inquirer had suggested that certain civil officers should be permitted to claim exemption. The Committee decided that the matter should be considered when the Bill was again before them.

School Certificates.

A communication was received from the General Medical Council forwarding, as the reply of the Council to the communication from the Committee concerning a medical certificate given by an unregistered chemist, an opinion by Mr. Muir Mackenzie.[1] It was decided that the reply of the General Medical Council should be entered on the minutes. It was resolved also that the attention of the President of the Council should be drawn to the inaccuracy of certain statements reported to have been made in the debate on the subject in the General Medical Council, to the effect that the certificate in question was given on a chemist's memorandum form, and did not on the face of it purport to be a medical certificate, the fact being that the certificate was given on a printed form issued by the educational authority, and headed "Form of Medical Certificate," there being nothing throughout to indicate that the person who had signed it was not a medical practitioner.

Vacant Appointments.

The Medical Secretary reported inquiries which he had received as to whether there was any objection on the part of the Association or the local profession to certain appointments which were advertised as vacant, and drew attention to the importance of his being placed in a position, as far as possible, to answer such inquiries promptly. The Committee recommended that a standing notice be inserted in the Journal asking those who were in possession of such information to communicate with the Medical Secretary.

The Registration of Nurses.

In reply to a communication from the Altrincham Division, the Committee instructed the Medical Secretary to state that the question of the approval by the Association of the registration of nurses having been determined by the Representative Meeting, the matter could only be opened by a notice of motion from a Division to the next Representative Meeting to rescind or otherwise modify the resolution.

Consultation of Medical Witnesses in London.

The Medical Secretary reported an inquiry from a Division as to the procedure followed in London in the matter of consultation of medical witnesses in legal cases, and that Sir Victor Horsley and Mr. Herbert Page, as members of the Subcommittee which inquired into the matter, had kindly furnished him with information which enabled him to answer the inquiry. The Committee thanked Sir Victor Horsley and Mr. Herbert Page for their assistance, and entered the following *précis* of the information given upon their minutes:

> It is in most cases possible to arrange for a joint examination of the patient and for a free discussion of the case. Usually agreement is arrived at upon the facts, and frequently also upon the matters of opinion. It is not the custom to put this agreement into writing.
>
> The medical witnesses report separately to the agents by whom they are employed.

Medical Men and Ambulance Competitions.

A communication from a Member of the Association having been considered with reference to fees paid to medical men for services in connexion with ambulance competitions, a Memorandum by the Chairman was considered and approved by the Committee and was ordered to be circulated to the Divisions. The Committee decided that it would be desirable that attention should be drawn in the Journal to the proposals now being made that medical practitioners should undertake the duty of teaching hygiene in schools or to teachers.

Provident Medical Services.

The following resolution of the Southern Branch was considered:

> That this meeting of the Southern Branch considers that the British Medical Association should afford all possible facilities to towns and districts for starting and carrying on local Provident Medical Services, embracing all forms of club practice; that an official from the head office should be sent, whenever desired, to co-operate with local medical men in the inauguration of such services, and that model rules and regulations for their working should be drafted by the Medical Secretary and supplied from the head office on request.

The Committee expressed the opinion that the assistance desired by the Branch falls within the scope of the duties of the Medical Secretary which the Committee was instructed by the Annual Representative Meeting at Swansea to direct him upon occasion to perform, and that the Chairman of the Committee was at present authorized to sanction such assistance. The Medical Secretary was instructed to prepare a special report on the various forms of provident medical services (as distinct from registered Friendly Societies) now in operation in different parts of the country.

Coroners and Medical Men.

A communication from the Tottenham Division suggesting certain action in the matter of a coroner was read. The Committee instructed the Medical Secretary to inform the Division that the Association was already taking action in reference to certain matters named, and with reference to the rest to ask for further information.

The National Deposit Friendly Society.

The Secretary reported a letter written to the National Deposit Friendly Society in pursuance of the instructions of the Committee at its last meeting, and a reply received thereto. The Editor of the British Medical Journal informed the Committee of communications which he had received from the Society desiring the publication of certain correspondence in the Journal, and his reply that he did not consider it proper to publish in the Journal correspondence which was under consideration by a Committee of the Association. A Memorandum drafted by the Chairman and Medical Secretary was approved for submission to the Divisions, in order to give effect to the instruction of the Annual Representative Meeting at Oxford—that the report of the Committee on this matter, which was approved by the Meeting, should be communicated to the Divisions with proposals for concerted action. (The memorandum was published in the Supplement of the British Medical Journal for January 14th, 1905, p. 9.)

[1] Ibid, December 3rd, 1904, p. 212.

MEDICAL WITNESSES AND POLICE FEES.

The Subcommittee on Medical Witnesses and Police Fees presented a further interim report stating that some of the subjects of reference required further consideration. The Subcommittee reported that as the result of inquiry it was found that the police authorities of large towns in England and Wales paid fees to medical practitioners when summoned by the police to give medical attendance, and that the scales were usually adequate.

THE MEDICAL ATTENDANT IN CRIMINAL CASES.

The same Subcommittee reported that they had considered a communication from the Midland Medical Union containing the following note prepared by Dr. Duncan, and resolutions of three Branches of the Union referred by the Council to the Committee:

The criminal cases that appear from time to time in the courts where the crux of the charge rests on the evidence of the medical attendant seldom fail to bring into prominence the unsatisfactory state of things at present prevailing in regard to medical attendants coming forward with suspicions of foul play which they may entertain.

If, as in the Maud Marsh trial, the judge or the jury comment adversely on the fact of the medical attendant not having given information earlier, the publicity given to such comments brands the practitioner as incompetent in the eyes of quite a number of the public and of his patients.

If, on the other hand, he does communicate his suspicions to the police as soon as they are aroused (and while the patient in, say, a supposed poisoning case, is still alive), the suspicions expressed will almost certainly reach the ears of the party concerned. Should they be well founded, a crime may be frustrated; but, should the symptoms be capable of an innocent explanation, the medical man finds himself in an awkward fix indeed: and even if no legal proceedings are taken against him, he is bound to alienate a large number of his patients, and may have to leave the district altogether.

The knowledge of the above may well make a man put off saying anything from day to day, in the hope that each day will bring clearer evidence, till perhaps the patient dies; and, while still discussing with himself the *pros* and *cons* and unable to be certain that the symptoms are *not* capable of a natural explanation, he signs a death certificate bearing the most prominent symptom, and his unspoken suspicions remain unsolved.

This is not as it should be. In the interests of justice it is essential that a medical attendant's suspicions should be voiced at once; in the interests of the practitioner it is also essential that while those suspicions are being weighed and sifted there should be no possibility of anything leaking out till the suspicions become practical certainties; while, in the event of their proving unfounded, they would remain as if they had been unspoken.

Such a state of things can be easily attained by the appointment of "Crown consultants," selected and paid by the Home Office, not by the local authorities. They would be in every centre, and would be drawn from the ranks of medical men who have made themselves specially proficient in forensic medicine.

It would be open to the perplexed practitioner to discuss his case with one of these consultants, and be guided by expert advice. If the suspicious symptoms cleared up, or could be explained away by the consultant, there would be an end of the matter. If, on the other hand, the consultant saw grounds for supposing criminal intent, he would, as soon as his suspicions were confirmed, inform the police, and take the responsibility for doing so.

The foregoing will make it clear in what cases it would be intended for the practitioner to make use of the services of the Crown consultant, viz., in those cases where a crime is being committed under his nose, and in which an attempt is being made to use him as a covering instrument.

In other cases where he is consulted openly and straightforwardly, and where no attempt is being made to interfere with the medical man's first duty—the cure of the sick or injured—any information gleaned in a professional capacity would be under the seal of professional secrecy, as at present.

The following resolution was passed by the Chesterfield and Mansfield Branches of the Midland Medical Union:

That a statement setting out the unsatisfactory position of the medical attendant in criminal cases be submitted to the British Medical Association and the General Medical Council, together with a suggestion that a memorial be presented to the Home Secretary that Crown consultants be appointed and paid by the Home Office, the duty of such Crown consultants being to undertake the responsibility of examining in cases of suspicion and of reporting to the police authorities.

The following resolution was passed by the Nottingham Branch of the Union:

That (1) the Nottingham Branch of the Midland Medical Union is of opinion that the note prepared by Dr. W. Duncan is worthy of consideration, but the Branch does not definitely adopt his particular suggestion; (2) the Branch is further of opinion that the whole question of the relation of medical men to criminal cases needs investigation, and is specially drawn to this conclusion by observation of the alarming increase of the practice of using preparations of lead, such as diachylon, for the purpose of procuring abortion.

The Committee approved and adopted as their recommendation to the Council the report of the Subcommittee to the following effect:

(1) That in cases of suspected crime the right of the practitioner to demand a consultation is a sufficient safeguard if he will use it;
(2) That the appointment of Crown consultants would probably defeat its own object, inasmuch as (*a*) the calling in of such a consultant in any individual case would be regarded by the public as equivalent to a statement that crime was suspected, and (*b*) private conference with the Crown consultant without personal examination of the patient by him could in no condition be considered satisfactory.

SECRETARY'S REPORT OF MEETINGS ATTENDED.

The MEDICAL SECRETARY reported as to meetings which he had attended since the last meeting of the Committee at which his assistance had been desired in respect of medico-political matters.

PUBLICATION IN THE SUPPLEMENT OF MATTERS REFERRED TO DIVISIONS.

The MEDICAL SECRETARY reported that in forwarding to the Honorary Secretaries of Divisions various Memoranda ordered by the Committee at its last Meeting to be circulated, he had, by instruction of the Chairmen of the Medico-Political and Organization Committees, included an inquiry as to the comparative advantages of relying on publication in the SUPPLEMENT as a means of bringing such reports to the notice of Members, or, in the alternative, having copies separately printed for issue to Members with the notices of Meetings, and that the majority of Honorary Secretaries who had replied thought publication in the SUPPLEMENT on the whole preferable.

The Committee resolved that it was desirable that when SUPPLEMENTS contained matters referred to Divisions, the following words be put in bold type:

Members will please carefully preserve this SUPPLEMENT until the Division has discussed the matters contained therein.

PAYMENT OF MEDICAL MEN CALLED IN TO ASSIST MIDWIVES.

The Committee approved the Memorandum on the payment of medical men called in to assist midwives as submitted to the Divisions.

It was decided that a communication from a Division concerning an advertisement of a nursing institution should be reported to the Central Midwives Board.

THE INDECENT ADVERTISEMENT ACT.

The Committee approved the memorial prepared by Mr. T. Garrett Horder and the Medical Secretary on the Indecent Advertisement Act, and recommended the Council to forward the same to the Home Secretary.

PAYMENT FOR MEDICAL CERTIFICATES OF UNFITNESS OF SCHOOL CHILDREN.

The MEDICAL SECRETARY submitted a report prepared by instruction of the Committee on the present state of the law with reference to certificates of unfitness of children to attend school, and it was resolved that the same be communicated to the Divisions for their information.

THE REVACCINATION AND PUBLIC HEALTH BILLS.

The Medical Secretary was instructed to bring under the notice of Secretaries of Divisions the Revaccination Bill and the Public Health Bill, and to make certain suggestions as to action which should be taken in reference thereto.

THE MEDICAL PROFESSION IN PARLIAMENT.

The Committee considered communications received with reference to the improvement of the representation of the profession in Parliament, and referred the matter for further investigation to the following Subcommittee: The Chairman, Dr. W. Gordon, Dr. E. Jepson, Dr. J. A. Macdonald, and Mr. E. H. T. Nash.

February 15th, 1905.

A further meeting of the Medico-Political Committee was held at the office of the Association on February 15th, 1905, when there were present: Dr. R. C. BUIST (in the Chair); Dr. W. Collier (President of the Association); Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings); Mr. Andrew Clark, F.R.C.S. (Chairman of Council); Dr. E. Markham Skerritt (Treasurer); Dr. Major Greenwood, Mr. T. Garrett

Horder, Mr. George Jackson, Dr. J. A. Macdonald, Mr. W. Jones Morris, Mr. E. H. T. Nash, Mr. D. A. O'Sullivan, and Mr. C. H. Watts Parkinson.

Apologies for Absence.

Letters of apology for non-attendance were read from Dr. L. Kidd, Mr. M. A. Messiter, and Dr. James Murphy.

Action Concerning a Colliery Appointment.

The Medical Secretary reported an application from a colliery surgeon for advice and assistance with respect to new terms which were being offered by the workmen's committee of a colliery, the principal provisions being that the salary was fixed, no private practice was to be allowed, the general public were to be admitted for medical attendance at the same subscription to the fund as miners (the medical officer receiving 12½ per cent. of such subscriptions), and if the medical officer received public appointments, the salary, except 12½ per cent., was to go to the fund. The Medical Secretary reported the action which on his advice had been taken by the applicant, and also by the Honorary Secretary of the Division, and that as a result the workmen's committee had applied to the Division to ascertain the objections of the profession to the appointment. Meetings of the Division and of the officers of the Branch and its Divisions were being held to consider the subject. The Committee approved the action of the Medical Secretary.

Supplying Reprints of Reports of the Committee.

The Committee approved the action of the Chairman in instructing that copies of certain reports of the Committee should be supplied as desired by the Honorary Secretary of a Division for circulation to all practitioners in the Division area.

Death Registration and Coroners' Law.

The Committee received the minutes and report of the Subcommittee appointed on October 5th, 1904, to consider the matters arising out of instructions of the Annual Representative Meeting at Oxford respecting death registration reform, and amendment of the coroners' law, and adopted the report of the Subcommittee as the report of the Committee on the subject for circulation to the Divisions.[1]

Parliamentary Representation.

The Committee received the minutes of a Subcommittee appointed on December 21st, 1904, to consider the matters arising under the instruction of the Annual Representative Meeting at Oxford to the Council concerning the improvement of the parliamentary representation of the profession, which the Council has referred to the Committee. The Committee adopted a report for presentation to the Council in April.

Medical Secretary's Visits to Divisions.

The Committee approved the report of the Medical Secretary as to meetings which he had attended or promised to attend for the consideration of medico-political matters.

Medical Acts Amendment Bill and Pharmacists.

The Committee approved also the report of the Chairman and Secretary of a conference with officers of the Pharmaceutical Society with reference to amendments in the Medical Acts Amendment Bill which might be required to protect the legitimate interests of pharmacists.

National Deposit Friendly Society.

The Committee considered a communication from the Editor of the British Medical Journal with respect to the publication in the Journal of certain letters which had passed between the Committee and the National Deposit Friendly Society, and resolved that they be published with an accompanying report from the Committee to the Association.

Colliery Disputes.

A communication from a Division was ordered to be filed for reference with respect to the action by Divisions in cases in which miners' associations may intervene with the object of reducing the payment to colliery surgeons.

Local Authorities and Post-mortem Examination.

The Medical Secretary reported the action which had been taken on the application of a Division to oppose the following clause which a corporation had inserted in a private Bill to be introduced into Parliament:

> No *post mortem* examination shall be performed in any private dwelling-house within the borough without the written authority of the medical officer of health. Any person performing or assisting in performing any *post-mortem* examination without such authority shall be liable to a penalty not exceeding ten pounds;

and that as a result the corporation had undertaken to have the clause deleted.

The action taken was approved, and the Chairman and Secretary were authorized to take such further action as might be necessary to prevent the enactment of such a clause.

Medical Assistance to Midwives.

A member of the Committee drew attention to the following form issued by the Central Midwives Board which had been sent by a midwife to a medical practitioner when applying for his assistance:

CENTRAL MIDWIVES BOARD.

Record of Sending for Medical Help.

No.....3... Date.....

Name of Patient.....

.....

Address .....

.....

.....

Requires medical assistance on account of.....

.....

.....

.....

Signed .....

(Certified Midwife).

Sent to (doctor) .....

At (address) .....

.....

Time of sending message .....

The Committee resolved that it should be pointed out to the Midwives Board that while it is desirable that midwives should keep documental record of cases in which medical help is obtained, such a document should not be transmitted to a practitioner as a summons to attend.

Fees Paid by the Police for Emergency Attendances.

The Committee received a further report on replies of police authorities to the inquiries of the Committee concerning the fees paid to medical practitioners in emergency cases, and resolved that the Medical Secretary should be instructed to communicate with the Divisions in the area of which no payment was made, and furnish them with the information which had been received by the Committee.

Parliamentary Matters affecting the Profession.

The Committee approved the report of the Medical Secretary on the present position of parliamentary matters affecting the profession.

Contract Practice Inquiry.

A report on the present position of the contract practice inquiry was received, and it was resolved that the attention of those Divisions from which few or no replies had been received be drawn to the matter.

Agreements as to Contract Practice.

The Committee approved the heads suggested by the Medical Secretary and Solicitor for a model form of agreement between medical practitioners and contract practice organizations.

PROPOSED SECONDARY EDUCATION CERTIFICATE.

The following memorandum on the circular issued by the Board of Education in July, 1904, on the proposed institution of a Government certificate of secondary education has been forwarded on behalf of the British Medical Association to the Board of

[1] The report will appear in the next issue of the Supplement.

Education and acknowledged. The memorandum of the Board was published in the British Medical Journal *of August 6th, 1904, page 292.*[1]

MEMORANDUM TO THE BOARD OF EDUCATION CONCERNING THE CIRCULAR ISSUED BY THE BOARD IN JULY ON THE PROPOSED INSTITUTION OF A GOVERNMENT CERTIFICATE OF SECONDARY EDUCATION.

The British Medical Association, having for some considerable time given very careful attention to the question of the standard of Secondary Education which should be required as a condition of entrance upon the technical studies for professions, and having upon this subject arrived at certain definite conclusions which are set forth in a Memorandum communicated to the Board of Education on July 6th, begs to submit for the consideration of the Board of Education the following comments on the proposals contained in the Report of the Consultative Committee issued by the Board in July.

(1) The British Medical Association would represent that those bodies which have so far been consulted by the Consultative Committee are chiefly teaching or examining institutions, and that the Board of Education should have equal regard to the experience of bodies like the British Medical Association which have special opportunities of ascertaining the results of various systems of tuition and of various examinations, as exhibited in the after-history of those who have been submitted to them.

(2) The Medical profession, from its long experience of the system of multiple examining bodies in professional subjects, has special knowledge of the resultant inequalities of standard, and of the difficulty of effecting improvements in face of the opposition of established interests.

(3) The British Medical Association is unable to concur in the proposal that, in lieu of a single standard examination as originally suggested by the Head Master's Conference, there should be an indefinite number of examinations managed by separate bodies, and it is in a position to say that a large majority of Members of the Medical profession hold that the standard of Secondary Education required for entrance to the Mecical profession should be uniform, and that any system which so constantly tends, as does that of multiple examining bodies, to degradation of the standard, should be avoided.

(4) The Association would therefore submit that the examination in Secondary Education should be conducted by a central body, appointed by the Board of Education, and including representatives of the Universities and teaching bodies, and that on the results of examinations so conducted a Secondary Education certificate should be given.

(5) To serve the purposes of Medical Education, the Association would also submit that candidates should be required to be over 17 years of age, and that the standard prescribed for the Secondary Education Certificate should be one suitable for candidates of this age. This does not exclude the possibility of providing a lower certificate for professions for which such provision may be thought desirable.

(6) The inspection of schools contemplated in the proposals of the Consultative Committee should, in the opinion of the Association, be organized independently of the conditions of admission to the examination for the Secondary Education Certificate, in order to avoid interference with the uniformity of examination standards.

(7) A system of retrospective reports such as is proposed, especially if partly confidential, must also be regarded as quite foreign to the purpose of an examination intended to serve as the gateway to professional education, and it may be questioned whether it would not confer a most dangerous power upon the teacher, and have a perilous influence on the *morale* of the school. Testimonials of character when required have their own value, which is and should be quite separate from the results of examination.

(8) In any satisfactory system of tests for entrance on professional education, examiners and teachers should, so far as the individual candidates are concerned, be separate persons. Absolute purity is an essential condition for the acceptance of such tests, and this cannot be guaranteed unless examiner and teacher are separate.

[1] Supplement to the British Medical Journal, December 3rd, 1904, p. 217. The matter was discussed during the last session of the General Medical Council.

ROYAL NAVAL AND MILITARY COMMITTEE.

November 15th, 1904.

A meeting of the Royal Naval and Military Committee was held at the office of the Association on November 15th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, Surgeon-Lieutenant-Colonel Decimus Curme, Lieutenant-Colonel E. F. Drake-Brockman, I.M.S. (retired), and Fleet Surgeon Lloyd Thomas, R.N. The following officers of the Indian Medical Service attended by invitation of the Committee: Lieutenant-Colonel Andrew Duncan, Lieutenant-Colonel J. F. Tuohy.

Election of Chairman.

The Chairman of Council was appointed Chairman for the ensuing twelve months.

New Member.

The Chairman reported that Fleet Surgeon Lloyd Thomas, R.N., having become the representative of the Royal Navy Medical Service on the Council, became *ipso facto* a member of the Committee.

Militia Medical Service.

The General Secretary reported that he had communicated with the War Office, as directed by the Committee on June 30th, 1904, and that he had received a reply from the Army Council to the effect that during the war embodied Militia Medical Officers received, as an exceptional measure, rates of pay of corresponding ranks in the Royal Army Medical Corps, and that in time of peace, when officers were not liable to be separated from their units, such a concession would not be justifiable; employment otherwise than with a unit was voluntary, and it was not considered necessary to vary the terms. After discussion the Committee adopted the following resolution:

> That this Committee, having duly considered the reply of the War Office, dated August 12th, 1904, relative to the pay of officers of the Militia Medical Service, is of opinion, and strongly recommends, that in any future embodiment of the Militia, officers of the Militia Medical Service should be entitled to, and receive, the rates of pay of corresponding ranks in the R.A.M.C. as a matter of course, and not as an exceptional measure.

Indian Medical Service.

It was reported that a communication had been received from the India Office stating that the representations made by the Association regarding charge allowance for station hospitals would be referred to the Government of India.

The Chairman reported that he had communicated with the medical licensing bodies with reference to the new Order of the Governor-General in Council as to fees to be paid by native princes and noblemen to officers of the Indian Medical Service, stating that the British Medical Association deplored this improper interference between the patient and the medical attendant. Replies had been received from certain corporations. The Colleges of Physicians in London, Edinburgh, and Ireland had replied to the effect that they were unable to deal with the matter; the Royal College of Surgeons of England, after stating that it was the policy of the College to abstain from interfering in questions relating to fees, added that the Council sympathized with the views held by the British Medical Association, and recognized the propriety of a body such as the Association taking the matter up. The Apothecaries' Hall of Ireland did not find itself in possession of sufficient knowledge to deal with the matter, while the replies from the Royal Colleges of Surgeons of Edinburgh and Ireland, the Faculty of Physicians and Surgeons of Glasgow, and the Society of Apothecaries of London were to the effect that the matter should have consideration.

The General Secretary reported that he had communicated with the India Office on this subject—that is to say, the question of fees and the violation of professional secrecy involved in the recent Order, and that he had received the following reply:

India Office, Whitehall, London, S.W.,
August 11th, 1904.

Sir,—I am directed by Mr. Brodrick to acknowledge the receipt of your letter of the 8th July last, taking exception to the wording of a recent regulation made by the Government of India regarding the remuneration of Government medical officers for attendance on native

chiefs and nobles and native gentlemen of high position in a native State.

In reply, I am to point out that the regulation referred to was made with the express object of guarding against the disclosure of matters of a confidential nature relating to the ailments of native chiefs and their families, and that it was issued in substitution for a previous regulation which, in the opinion of the Government of India, did not sufficiently secure this object. The medical statement of the case attended is to be furnished by the medical officer to a member of his own profession, and his official superior in that profession; and the statement is to go no further, but to be used only by the Administrative Medical Officer as a guide in advising the local government as to the appropriateness of the fee proposed to be taken.

The correspondence will, however, be forwarded to the Government of India in order that it may be considered whether the wording of the regulation can be further modified so as to emphasize more strongly the strictly confidential character of the report, and to prohibit the disclosure of its details by the officer to whom it is addressed.

I am, Sir, your obedient Servant,

The Secretary, HARDWICKE.
British Medical Association, 429, Strand, W.C.

HOSPITALS COMMITTEE.

December 1st, 1904.

A MEETING of the Hospitals Committee was held at the office of the Association on December 1st, 1904, when there were present: Dr. M. BEVERLEY (Chairman) in the chair, Mr. Andrew Clark (Chairman of Council), Dr. J. Brassey Brierley, Dr. E. L. Fox, Dr. John R. Hamilton, Mr. T. Garrett Horder, and Dr. F. M. Pope.

NEW MEMBERS.

Dr. Ford Anderson, Mr. E. F. White, and Dr. E. B. Hastings were added to the Committee.

HOSPITAL MANAGEMENT.

It was resolved to invite a number of laymen interested in hospital management to meet the Committee in conference, and also to invite certain members of the medical profession to attend the conference and to meet the Committee beforehand.

January 26th, 1905.

A meeting of the Hospitals Committee was held at the office of the Association on January 26th, when there were present: Dr. M. BEVERLEY (Chairman) in the chair, Dr. William Collier (President), Mr. Andrew Clark (Chairman of Council), Dr. John Ford Anderson, Dr. J. Brassey Brierley, Dr. E. Lawrence Fox, Dr. John R. Hamilton, Dr. E. B. Hastings, Dr. T. Arthur Helme, Mr. T. Garrett Horder, Mr. Edmund Owen, Dr. Frank M. Pope, and Mr. E. F. White.

HOSPITAL LETTERS.

Further correspondence with Dr. Roberts Thomson with reference to the letter system in use at the Royal Victoria Hospital, Bournemouth, was read, and the General Secretary was instructed to convey to Dr. Roberts Thomson the thanks of the Committee for his reply.

CONFERENCE ON PRINCIPLES OF HOSPITAL MANAGEMENT.

The GENERAL SECRETARY reported that in accordance with the instructions of the Committee he had invited certain members of the profession resident in various parts of the country to meet the Committee for the purpose of a preliminary discussion of the resolutions adopted by the Hospitals Committee with a view to a conference with lay representatives of hospitals. The following attended: Sir William S. Church, Bart., K.C.B., P.R.C.P., Mr. Timothy Holmes, Mr. A. W. Mayo Robson, Dr. Lauriston E. Shaw, Dr. W. Knowsley Sibley, Dr. Mary Scharlieb.

After discussion, and as the result of the opinions expressed, the principles originally formulated by the Hospitals Committee were amended and adopted as follows:

1. That inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment.
2. That no charge for the treatment of any patient shall be made.
3. That the production of subscribers' letters shall cease to be compulsory, and that where possible the system shall be abolished.
4. That some means of investigation into the circumstances of the applicants for relief by means of an almoner or other agent shall be employed in all medical charities.
5. That the foregoing recommendations (resolutions Nos. 1, 2, 3, 4) apply to both in-patients and out-patients.
6. That, except in emergencies, sufficient evidence shall be obtained on two points: (*a*) that the patient is not in a position to pay for treatment; (*b*) that the case is, from a hospital point of view, suitable for treatment.
7. That all cases of serious accident and severe sudden illness shall be attended to on their first application, and, if deemed eligible for further treatment, shall be referred to the appropriate department of the hospital, but if ineligible shall then be referred for treatment elsewhere.
8. That all cases of trivial accident or illness deemed ineligible for the out-patient department shall, after having been attended to, be referred for treatment elsewhere.
9. That it is inexpedient that any patient be permitted to leave a hospital without having been seen by a registered medical practitioner.
10. That where possible the number of new cases to be seen on any one day by an honorary medical officer shall be limited.
11. That Special Hospitals shall treat only those cases that come strictly within the scope of their work.
12. That in all hospitals there shall be an age-limit for the retirement of the medical officers.

The Council was recommended to transmit the above resolutions to the conference which is to be held on Thursday, March 2nd, at 3 p.m., between lay representatives and medical representatives.

POOR-LAW SERVICE AND PROVIDENT DISPENSARIES.

The Committee adopted a resolution expressing its readiness to discuss the question of the relationship between hospitals, the Poor-law Service, and provident dispensaries, at a later date.

ANNUAL MEETING (SECTIONS) COMMITTEE.

December 16th, 1904.

A MEETING of the Committee was held at the office of the Association on December 16th, 1904, when there were present: Professor ROBERT SAUNDBY, M.D. (Chairman), in the Chair; Mr. Andrew Clark (Chairman of Council); Dr. E. Markham Skerritt (Treasurer), and Dr. W. J. Tyson.

The GENERAL SECRETARY reported the arrangements that had been made with reference to the Sections at the Annual Meeting.[1]

The Committee adopted the two following resolutions:

That the General Secretary be instructed to print on all the sectional circulars, the regulation stating that all papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL without special permission.

That this Committee is of opinion that only titles of papers which have been accepted by the officers of sections, and which may reasonably be expected to be read, should be included in the programme of sectional proceedings.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

EDINBURGH BRANCH:

SOUTHERN DIVISION.

A MEETING of this Division was held in the Oddfellows' Hall, Forrest Road, on Tuesday, February 7th, at 8 15 p.m. There were present: Dr. Duddingston Wilson (Chairman), and Drs. Simla Paterson, Proudfoot, Lundie, Duncan, Abeyesinhe, and the Honorary Secretary.

Confirmation of Minutes.—The minutes of the annual and adjourned meetings were read and approved.

Apology for Absence.—An apology for unavoidable absence was received from the Vice-Chairman, Dr. Matheson.

Letters.—Letters were read from the Medical Secretary, the Bradford Division, and the Manchester Medical Guild, which the Secretary was instructed to acknowledge.

Annual Representative Meeting.—The Representative to the Representative Meetings (Dr. SIMLA PATERSON) gave in his report, and, on the motion of the CHAIRMAN, received the hearty thanks of the Division for his services.

[1] BRITISH MEDICAL JOURNAL, December 10th, 1904, p. 1584.

Matters referred to Divisions.—The report on Contract Practice was generally approved, on the motion of Dr. Lundie, seconded by Dr. Proudfoot. The report on consultation of medical witnesses in legal cases was discussed, and the meeting adhered to its former resolution. The reports on information supplied to coroners, and on the reorganization of the Local Government Board, were laid on the table. Though not affecting Scottish Divisions, the meeting desired to give its support to the schemes, and its sympathy with the English and Welsh Divisions. The various propositions of the Revised Medical Acts Amendment Bill were unanimously approved. The meeting heartily agreed with the desire to prevent the abuse of drugs, but came to no definite decision as to the best way of carrying it out. The question of school certificates was submitted by the Secretary, and the subject was remitted to the Executive Committee to consider. Consideration of the memorandum on ambulance work was referred to next meeting.

Vote of Thanks.—The meeting closed with a vote of thanks to the Chairman.

EAST ANGLIAN BRANCH:

West Norfolk Division.

A meeting of this Division was held at the West Norfolk and Lynn Hospital on February 16th, Sir Alan R. Manby in the chair.

Matters Referred to Divisions.—On the question of the payment of medical practitioners called in to assist midwives (1) Dr. Chadwick proposed and Dr. Lister seconded the following resolution:

> That this Division considers it desirable that public provision made for the payment of medical men called in to assist midwives should, in the first instance, cover every case.

—Dr. Gardiner proposed the following amendment, which was seconded by Dr. Thomas:

> That it was undesirable to have any public provision except the Poor-law.

The amendment was lost by a majority of one. The resolution was then carried. (2) This clause of the memorandum was unanimously considered unnecessary. (3) It was proposed by Dr. Wales, seconded by Dr. Parry:

> That the provision should be made through the County Council.

This was carried. (4) It was proposed by Dr. Chadwick, seconded by Dr. Gardiner, and carried unanimously:

> That in the event of the provision being through the Poor-law authorities it should be left open for any medical man whom the patient desires, and who is willing to act, to be called in.

(5) It was resolved that payment should be made by fee, and that the minimum fee be £2 2s., as per resolution of the December meeting.—In regard to the Medical Acts Amendment Bill it was proposed by Dr. Gardiner, seconded by Dr. Cross, and carried unanimously:

> That the revised draft of this Bill be approved

Remuneration of Post-Office Surgeons in Country Districts.—It was unanimously agreed that the fee of 8s. 6d. per head per annum, at present paid in this rural district for attendance, reports, etc., on the servants of the Post Office, was altogether inadequate. Some members present had already refused the appointment, while some others had resigned after learning the rate of remuneration. It was unanimously passed, on the motion of Dr. Thomas, seconded by Dr. Laver:

> That the payment should be the same as paid by the army for attendance of their men on furlough.

National Deposit Friendly Society.—It was proposed by Dr. Thomas, seconded by Dr. Roddis, and carried unanimously:

> That no member of this Division shall act as medical officer to the National Deposit Friendly Society, nor allow his name to be used directly or indirectly by the Society.

Tea.—The Chairman subsequently entertained the members to tea.

LANCASHIRE AND CHESHIRE BRANCH:

Altrincham Division.

A special general meeting was held in the Board Room of the Altrincham Infirmary on Thursday, February 9th, 1905. In the absence of Dr. Joynson (Chairman) from illness, Dr. Luckman (Vice-Chairman) presided. There were six letters of apology for absence.

Confirmation of Minutes.—The minutes of the last meeting were read and signed as correct.

Second Representative on Branch Council.—It was unanimously agreed to make verbal alterations in Rules 4, 8, 9, and 11, to provide for a second representative on the Branch Council, and to have six elected members of Committee instead of four.

Matters Referred to Divisions.—The questions submitted by the Medico-Political Committee, as to assistance to midwives, were unanimously answered, and the answers forwarded to the General Secretary.—The recommendations as to the National Deposit Friendly Society were unanimously adopted, as were the propositions in the report on contract practice, and the considerations in the report on information to coroners.—It was unanimously resolved to ask all members of Parliament for Cheshire constituencies to support the Public Health Bill, the Revaccination Bill, and the Reorganization of the Local Government Board Bill.—The desirability of consultation between medical witnesses in legal cases was again unanimously approved.—The following resolution was unanimously carried:

> That the Altrincham Division is of opinion that the practical value of the Medical Acts Amendment Bill (as published in the Supplement of November 26th, 1904) lies in Part V, Section xxiii; but is very doubtful whether a lay Parliament will ever give such protection to the medical profession. If Part V be passed, the Division would accept Part III, Section xi, but otherwise would strongly oppose it. The Division approves Parts I, II, and VI.

Several members having left, the following resolution was carried by a majority of 7 to 5:

> With regard to Part IV of the same Bill, in the opinion of this meeting it has not been shown that the one-portal system is a sufficient advantage to the community, or better than the present system.

Dr. Luckman, in closing the meeting after a session of upwards of two hours, congratulated the members on the large attendance, on the vigorous debates, and on the importance and unanimity (save on one point) of the resolutions passed.

Burnley Division.

A meeting of the Division was held at Burnley on February 9th; Dr. Holt in the chair. There were six members present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Matters Referred to Divisions.—A memorandum from the Medico-Political Committee, "on the payment of medical practitioners called in to assist midwives," was considered. The answer to the questions submitted have been forwarded to the Medical Secretary. The question of information supplied to coroners was also discussed. It was unanimously resolved:

> That the last medical man in attendance upon the case should always be called as an expert witness.

METROPOLITAN COUNTIES BRANCH:

City and Tottenham Divisions.

A conjoint meeting of these Divisions was held at the Tottenham Hospital on Thursday, February 16th, at 9.15 p.m. Dr. G. Chappel presided. Mr. J. Smith Whitaker, the Medical Secretary, attended the meeting.

The Association and Medical Defence.—A discussion on the question of the present attitude and opinion of the British Medical Association on the Medical Defence scheme was opened by Mr. J. S. Whitaker, who, in a short, interesting, able, and impartial speech, described the present position of the Association, the work it did in defence, its legal position with regard to Medical Defence, and the policy or otherwise of its taking on individual as well as collective defence.

After a brisk discussion, a resolution was proposed by Dr. Major Greenwood and seconded by Dr. J. W. Hunt:

> That at present the British Medical Association should continue its present position of taking up matters of collective defence only, and should not undertake individual defence as well.

An amendment, proposed by Dr. Fuller and seconded:

> That the Association do now undertake individual defence as well,

was only supported by two votes. The original resolution by Dr. Greenwood was carried.

Nomination of Branch Representatives.—Drs. F. Wallace and E. Goodall were elected as delegates of the City Division, and Drs. G. Chappel and J. R. Fuller as delegates of the Tottenham Division, to meet members nominated by other Divisions at a meeting to be held in March at the Central Office, in order, if possible, to come to some arrangement that

will prove satisfactory to all the Divisions with regard to the nomination of Representatives of the Branch on the Central Council of the Association.

Hospital Abuse.—A discussion on the subject of abuse of hospitals was opened by Dr. J. S. Fuller and taken up by other members. Finally, a resolution was moved by Dr. Fuller and carried unanimously, declaring it to be the opinion of the Division—

1. That special hospitals should as much as is possible be centralized and amalgamated, and that the opening of new special hospitals should be discouraged and deprecated.
2. That a Central Board for inquiry and inspection of hospital patients should be formed, consisting of members nominated by the King's Hospital Fund, and of certain members of the medical profession, to form a Board which could carry out efficient inspection of the suitability or otherwise of applicants for hospital treatment, especially in the out-patient departments, as the present methods of inspection are quite inefficient to check the great amount of hospital abuse prevalent everywhere and which involves enormous expenditure of hospital funds for people who are not suitable applicants for such.

It was decided that this resolution should be forwarded to the Board of Control of the King's Hospital Fund.

Fees for Examination for Life Insurance.—A short discussion of fees for examination for life insurance occurred, but no resolution was taken on the matter.

Stratford Division.

A meeting of this Division was held on Thursday evening, February 9th, in the Alexandra Hotel, Stratford, E., at 9 p.m., Dr. Grogono, Chairman of the Division, presiding. The following were present: Drs. Grogono, Fredericks, Beadles, Hay, Dale, Black, Taylor, Corner, Wareham, Sanders, Troup, Brown, Couzens, Stocker, Rose, and Nicoll.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Address.—Mr. Betham Robinson (St. Thomas's Hospital) delivered a very interesting address on some troubles in the breast, recent and remote, following pregnancy. The address was an excellent and thoroughly practical one, and was greatly appreciated. Mr. Robinson replied to a number of questions at the end, and was accorded a hearty vote of thanks.

Annual Representative Meeting.—Dr. Percy Rose then presented his report on the annual meeting of the Association, which had been unavoidably held back from a previous meeting. He gave in clear and terse language a very lucid and comprehensive summary of all the business of importance transacted at the Oxford meeting, and received the thanks of the Division.

Medical Practitioners and Midwives.—The meeting thereafter considered the memorandum submitted to the Division by the Medico-Political Committee on the payment of medical practitioners called in to assist midwives, and after considerable discussion it was decided to postpone coming to any decision until the matter had been fully discussed at the next meeting.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

South-West Wales Division.

A special meeting of the South-West Wales Division was held at the Ivy Bush Hotel, Carmarthen, on Wednesday, December 7th, 1904, Mr. D. J. Williams in the chair. A meeting of the Executive Committee was held first.

Election of Member of Branch Council.—The Chairman (Mr. D. J. Williams) was unanimously elected.

Post-Office Appointments.—A report from the Medical Secretary upon Post-Office appointments and South Wales Clerks' Association appointments was read. The following resolutions, proposed by Dr. Hopkin, seconded by Dr. Owen Williams, were carried:

That members be allowed to accept the appointments recently offered, but only for attendance upon employés living within a radius of two miles from the post-office.

That all medical men living within the area of the Division be notified to that effect.

It was proposed by Dr. Cooke, seconded by Dr. Naunton Davies, and resolved:

That this Division does not approve of the scale of pay by the South Wales Clerks' Association as offered, nor of the principle that would justify the extension of contract practice to others than working men.

Matters Referred to Divisions.—In regard to the question of information to be given by medical practitioners to coroners, it was proposed by Dr. R. D. Evans, and resolved:

That no information, upon which decisions as to the propriety of holding inquests may be based, be given to coroners or the police without a fee of 10s. 6d.

It was agreed that these resolutions be formally placed before the meeting at Whitland in March, to be adopted under Clause A of Bradford Rules.

Votes of Thanks.—A vote of thanks to Mr. Smith Whitaker for his lucid report was proposed by the Chairman, seconded by Dr. Hopkin, and carried unanimously.

SOUTH-EASTERN BRANCH:

Dover Division.

A meeting of this Division was held on January 19th, at the Royal Victoria Hospital, Dover, Dr. Parsons in the chair. There were present Drs. Best, Larking, Robinson, Dodd, and F. A. Osborn (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Matters Referred to Divisions.—The memorandum on the Payment of Medical Practitioners called in to assist Midwives was discussed. The conclusions arrived at have been transmitted to the Medico-Political Committee. On the agenda were the other matters referred to the Divisions, but considering the small attendance of the members the meeting was adjourned, so that all the members might have an opportunity of discussing them at an evening meeting to be held shortly.

SYDNEY AND NEW SOUTH WALES BRANCH.

The regular monthly meeting of this Branch was held at the Royal Society's Rooms, on November 25th, 1904. Dr. Scott Skirving was in the chair, and 41 members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The Chairman announced the election of Dr. Lethbridge of Royal Prince Alfred Hospital.

Communications.—Dr. W. H. Read exhibited a patient suffering from Friedreich's disease and read notes on the case.—Dr. Vallack read a paper on some problems in asepsis: (1) Wound infections of high virulence; (2) the sterilization of catgut.—Dr. Hinder (for Dr. Lethbridge) read a paper on the results of six months' surgical work at the Royal Prince Alfred Hospital.—Dr Worrall exhibited a sterilizer. A discussion ensued in which Drs. Hinder, McKay, Bowker, Hankins, Worrall, Leahy, Corlette, Gordon Craig, and Crago took part. Dr. Vallack replied.

Next Meeting.—The Chairman announced that the next meeting of the Branch would be held on Friday, December 16th, 1904.

The regular monthly meeting of the Branch was held at the Royal Society's Room on December 16th, 1904, Dr. MacCormick, President, in the chair. There were thirty-four members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The President announced the election of Drs. Kuipers and Bohardt.

Communications.—Dr. Newmarch exhibited a patient suffering from nevus of face, and explained the treatment of the case. Drs. W. H. Read, Wade, and MacCormick made some remarks upon the case, and Dr. Newmarch replied.—Drs. Litchfield and Hipsley read a paper on the relation of Shiga's bacillus to the summer diarrhoea of infants. A discussion ensued, in which Drs. Flashman, Millard, Sinclair Gilliks, Binney, and Wade took part; Dr. Litchfield replied.—Dr. Corlette read a paper—a review of the subject of starch digestion in young infants. Dr. Litchfield made some remarks on the case, and Dr. Corlette replied.

Widows' and Orphans' Fund.—Dr. Hankins moved that this meeting approves of the formation of a medical practitioners' widows' and orphans' fund. Dr. J. A. Dick seconded the resolution, which was carried.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished on application to the General Secretary of the Association, 429, Strand.

YORKSHIRE BRANCH:

HARROGATE DIVISION AND RICHMOND AND NORTHALLERTON DIVISIONS.

A COMBINED meeting of these Divisions was held at the Prospect Hotel, Harrogate, on December 15th, 1904, Dr. LIDDELL in the chair.

Matters Referred to Divisions.—The report on information supplied to coroners by medical practitioners was considered, and the resolutions of the Medico-Political Committee of the British Medical Association were unanimously approved of. The memorandum with regard to the reorganization of the Local Government Board was unanimously approved of, and it was resolved:

That a Royal Commission be appointed to consider public health administration.

The Medical Acts Amendment Bill was considered and Sections A, B, and C were approved of unanimously.

Dinner.—The meeting was then adjourned and the members dined together.

Adjourned Meeting.—The adjourned meeting was held on January 19th.

One-Portal System.—The one-portal system was approved of unanimously.

Annual Certificate for Practitioners.—The following resolution was passed:

That in place of further mulcting the profession, the General Medical Council should grant an annual certificate at a small charge, and that the General Medical Council, in consideration thereof, should protect the registered medical practitioner against persons illegally practising for gain, to the great danger of the public.

This was carried unanimously.

Spectacle Makers and Sight Testing.—The recommendation of the Medico-Political Committee of the British Medical Association—

That the Association should express its disapproval of the proposal of the Spectacle Makers Company on sight testing as being fraught with special risk to the public—

was approved of.

Arrangement of Divisions.—A proposal that in the arrangement of the Divisions of the British Medical Association individual members be permitted to join the Division most convenient to themselves was carried unanimously.

Abuse of Drugs.—It was resolved that the report on prevention of the abuse of drugs be adopted, with the following addition to Recommendation A:

That the prescription be not dispensed to any other person than the person prescribed for.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, March 7th, at 8.30 p.m. Agenda: 1. Mr. W. E Bennett will read a paper on rickets. 2. Dr. Kendrick will move the following resolution: That it is hereby resolved that no member of the profession in the area of the Division shall act as medical officer to a Friendly Society at a less remuneration than 4s. per member per annum; that the Division, in interpreting this rule, will consider that any return or donation of any kind to the society or any officer of the society is an infringement of the rule; that no member of the medical profession in the Division take over or apply for any club appointment during the time the present holder is applying for an increase in the salary. 3. Matters referred to the Division: (*a*) Interim report on contract practice; the recommendations of the Committee on the report will be moved by Dr J. Orton (SUPPLEMENT, November 26th, 1904, p. 179). (*b*) The Medical Act Amendment Bill will be explained by the Secretary, and resolutions thereon will be dealt with (SUPPLEMENT, November 26th, 1904, p. 183).—E. H. SNELL, Coventry, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The next meeting will be held at the Victoria Hospital, Southend-on-Sea, on Thursday, March 2nd, at 4 p.m. Business: Cases will be shown by Dr. Waters, Dr. Leonard, Dr. Walker, Dr. Bluck, and Dr. Raper. Dr. J. T. C. Nash will read a paper on Some Points of Interest in Infectious Disease. Consideration of Memorandum enclosed. Memorandum in BRITISH MEDICAL JOURNAL SUPPLEMENT of February 4th. Remaining items of Memorandum partially considered at last meeting. Members are requested to preserve SUPPLEMENTS and bring them to the meeting.—W. CARDY BLUCK, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: NORTH MANCHESTER DIVISION.—A meeting of the members of the above Division will be held at the Palatine Hotel, Manchester, in the Clinical Society's rooms, at 4.15 p.m. on Thursday, March 2nd. Agenda: To consider (1) A communication from the West Manchester Division *re* Ancoats Hospital. (2) Medical Acts Amendment Bill (SUPPLEMENT of the BRITISH MEDICAL JOURNAL for November 26th, 1904). (3) Prevention of drug abuse (SUPPLEMENT, November 26th, 1904). (4) Memorandum *re* payment of medical practitioners called in to assist midwives. (5) Report on National Deposit Friendly Society (SUPPLEMENT, January 14th, 1905). (6) Public Health and Revaccination Bill. (7) Other business.—R. G. MCGOWAN, Honorary Secretary of the Division.

LEINSTER BRANCH.—The annual general meeting will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 25th, at 4.30 p.m.—Professor WHITE, Honorary Secretary and Treasurer, Dublin.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—A special meeting of the above will be held on Tuesday, February 28th, at the residence of Dr. Charles Fraser, Elder House, Ravensdowne, Berwick-on-Tweed, at 2.30 p.m., for the consideration and adoption of new rules suggested by the Northumberland Committee of the North of England Branch of the British Medical Association. The usual quarterly meeting will be held immediately afterwards. Business: 1. Confirmation of minutes. 2. Consideration of memorandum from Medico-Political Committee. 3. Any other business.—B. B. ROBSON, Alnwick, Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in March (22nd), April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of this Division will be held at the house of Dr. Perry, 1, Castle Hill Avenue, on Friday, March 3rd, at 8.30 p.m. Agenda: Minutes. Correspondence. Letters. Paper: The Work of the Association, by Dr. P. Vernon Dodd. The question of dividing the South-Eastern Branch, as proposed by Dr. Larking. Proposed ethical rules. To discuss matters recommended by the Executive Committee regarding contract practice. Matters referred to the Divisions by the Representative Meeting. All Members of the South Eastern Branch are invited to attend, and to introduce professional friends.—P. VERNON DODD, 14, Manor Road, Folkestone, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 p.m.; J. H. Galton, M.D., of Upper Norwood, in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine.

AGENDA.

1. Minutes of last meeting.
2. To decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat.
3. Report of the South London King's College Hospital Committee. (This report was published in the SUPPLEMENT for February 18th, p. 52.)
4. Consideration of various matters referred from Medico-Political Committee (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904; members are requested to bring this to the meeting):
   (*a*) The Interim Report on Contract Practice.
   (*b*) Consultation between Medical Witnesses.
   (*c*) Memorandum *re* Information to Coroners.
   (*d*) The Report on Reorganization of the Local Government Board.
   (*e*) Memorandum *re* Drug Abuse.
   (*f*) Memorandum on the Payment of Medical Practitioners called in to assist Midwives (Memorandum enclosed).

The following papers, etc., will be read: Dr. Pye-Smith: Auscultation of the Chest and its relation to General Symptoms. Mr. E. M. Corner: Common Causes of Failure in Surgical Proceedings. Dr. Mercier: A Problem in Diagnosis. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANGLEY, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary.

SOUTH MIDLAND BRANCH.—The Council of this Branch will meet at Franklin's Restaurant, Guildhall Road, Northampton, on Tuesday, March 7th, at 3.30 p.m.—E. HAINES JONES, Secretary, Northampton.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held at the Red Lion Hotel, Truro, on Thursday, March 2nd, at 3 p.m., the President, Dr. J. Alexander, in the chair. The following communications are already promised:—Mr. G. C. Wilkin: Syphilitic Laryngitis. Mr C. Hamilton Whiteford: (1) Intravenous Injection of Saline Solution in Haemorrhage, Shock, and Sepsis. (2) Old-standing Rectal Incontinence cured by Perineorrhaphy and Suture of the Anal Sphincter. Mr. M. R. Taylor: Notes on an Unclassified Infectious Disease in Children; and an Anomalous Exanthem.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on February 16th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

POOR-LAW INFIRMARIES AS TRAINING SCHOOLS FOR MIDWIVES.

Miss J. WILSON proposed, and Dr. C. J. CULLINGWORTH seconded, a resolution to the effect that the Secretary of the Central Midwives Board should write to the Local Government Board asking for a copy of all printed instructions and circulars issued by the Local Government Board dealing with the question of midwifery nurses. Miss Wilson explained that she particularly wished to procure a copy of a certain

circular issued by the Local Government Board at the time Sir Walter Foster was Parliamentary Secretary to the Local Government Board, in which it was clearly laid down that the Local Government Board recognized the medical officers in infirmaries as responsible in regard to births, midwives being recognized and described as midwifery nurses.

Mr. Parker Young said he saw no use in writing to the Local Government Board. The Central Midwives Board had to carry out a certain Act, and had nothing to do with circulars issued by the Local Government Board, which, after all, merely amounted to suggestions; and the circular particularly referred to by Miss Wilson was sent out years before the Act of Parliament was passed which the Central Midwives Board had to carry out. If the suggested letter were sent to the Local Government Board, it would look as if some special arrangement was to be made in regard to the midwives in the Poor-law infirmaries; but all the midwives in the kingdom must be treated by the Central Midwives Board in the same way, and no distinction was possible between Poor-law institutions and any other institution. The Local Government Board knew the rules of the Central Midwives Board, and his advice to his colleagues was to remember that it was unwise to bark unless you were prepared to bite.

With the consent of the Board, Miss Wilson's proposition was withdrawn.

It was then moved by Dr. Cullingworth, seconded by Miss Wilson, and carried:

> That no Poor-law infirmary should be approved as a training school for midwives unless the average number of deliveries reached not less than 75 per annum—that is, sufficient to ensure the necessary number of cases for training at least 3 pupils.

On the motion of Miss R. Paget, seconded by Mr. Parker Young, it was decided that no application from a Poor-law institution to be approved as a training school for midwives should be entertained unless it was in the form of an official communication from the Board of Guardians concerned and signed by the Clerk of the Board.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Evelyn R. H. Pollard, Inspector-General, and Standish T. O'Grady, Deputy-Inspector-General, to the Royal Naval Hospital at Chatham, February 16th; James Porter, M.D., C.B., Deputy-Inspector-General, to Gibraltar Hospital, March 1st; Horace Elliott, M.D., Fleet Surgeon, and Fred. C. B. Gittings, M.B., Surgeon, to the *Hannibal*, on recommissioning, February 28th; John McElwee, M.D., Fleet Surgeon, to the *Empress of India*, February 28th; Frederick J. Burns, M.D., Fleet Surgeon, to the *Bacchante*, February 23rd; Richard F. Bate, Staff Surgeon, to the *President*, for three months' course of hospital study, February 17th; Kenneth H. Jones, M.B., Surgeon, to Hong Kong Hospital, March 1st; John A. L. Campbell, Surgeon, to the *President*, for three months' hospital course, February 20th; Charles S. Facey, M.B., Staff Surgeon, to the *Europa*, March 4th; Thomas D. Halahan, M.B., Staff Surgeon, and Edmund Cox, M.B., Surgeon, to the *Diadem*, March 4th; Henry J. Hadden, M.B. Fleet Surgeon, to the *Renown*, on commissioning, with nucleus crew, February 21st; Malcolm Cameron, M.B., Surgeon, to the *Pembroke*, additional (lent to Chatham Hospital), February 21st; Thomas W. Myles, M.B., Surgeon, to the *Vivid*, additional (lent to the Royal Marine Infirmary at Plymouth); Archibald D. Spalding, Surgeon, to the *Vernon*, additional, for the *Niger*, February 21st; Eustace Arkwright, Surgeon, to the *Flora*, February 21st.

Staff Surgeons L. Bidwell, E. H. de Courtmacsherry, M.D., W. J. Bearblock, W. Hackett, M.D., C. G. Matthew, M.B., T. Austen, and J. Chambers, M.B., are promoted to be Fleet Surgeons, February 21st. Their commissions as Surgeon bear date February 21st, 1889; as Staff Surgeon, February 21st, 1897. Fleet Surgeon Matthew, as Surgeon of the *Sparrow*, was present at the bombardment of the Sultan of Zanzibar's Palace in 1896. The other officers cited have no war record.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. Magill, M.D., C.B., is promoted to be Colonel, *vice* A. H. Anthonisz, retired, December 22nd, 1904. Full particulars of the commissions and war services of Colonel Magill were given in the British Medical Journal of January 14th.

Lieutenant-Colonel H. R. Whitehead, F.R.C.S.Eng., is also promoted to be Colonel, *vice* J. M. Beamish, retired, January 26th. Colonel Whitehead was appointed Surgeon, July 29th, 1882; Surgeon-Major, July 29th, 1894; and Surgeon-Lieutenant-Colonel, May 20th, 1901. He served in the campaign on the North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force, and was at the action at Dargai, the capture of the Sampagha and Arhanga Passes, and in the operations against the Kham Khel Chamkannis, and in the Bara Valley (mentioned in dispatches, promoted to be Surgeon-Lieutenant-Colonel, medal with two clasps)

The undermentioned Lieutenants, appointed on probation from the dates specified, are confirmed in that rank: D. D. Paton, M.B., J. A. Longley, M.B., and N. E. Dunkerton, August 31st, 1903; S. C. Bowle and G. S. C. Hayes, January 30th, 1904; C. Ryley, P. Dwyer, M.B., P. C. T. Davy, M.B., W. H. Hilis, M.B., J. F. C. Mackenzie, M.B., H. T. Wilson, R. C. Hallowes, M.B., J. Campbell, M.B., G. A. D. Harvey, H. C. Winckworth, H. W. Russell, M.B., E. J. H. Luxmoore, H. C. Sidgwick, M.B., M. Sinclair, M.B. G. R. Painton, N. Low, A. H. Fraser, M.B., R. H. L. Cordner, A. T. Frost, M.B., K. A. C. Doig, P. A. Jones, H. O. M. Beadnell, C. R. Millar, G. H. Richards, and J. St. A. Maughan, July 30th, 1904.

The undermentioned gentlemen are appointed Lieutenants on probation, dated January 31st: Charles P. Thomson, M.D., George W. Heron, Robert J. B. Buchanan, George B. F. Churchill, William S. Nealor, James E. Hoar, Richard G. Meredith, M.B., Frederick E. Roberts, George S. Wallace, M.B., Wilfred Parsons, Arthur A. McNeight, M.B., Ernest B. Booth, M.D., Thomas H. Gibbon, M.D., Richard J. C. Thompson, Ernest G. R. Lithgow, Pierce Power, M.B., Charles W. O'Brien, Ryder P. Nash, James S. Pascoe, Cecil D. M. Holbrooke, John M. B. Rahilly, M.B., George G. Tabuteau, Richard E. Humfrey, William G. Maydon, M.B., Garfield Ormrod, M.B.

Lieutenants G. W. Heron, J. M. B. Rahilly, M.B., and R. J. C. Thompson are seconded under the provisions of Article 349, Royal Warrant for Pay and Promotion, October 26th, 1900, dated January 31st.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during last month:

		From.	To.
Surg.-Gen.	W. J. Fawcett, M.B., C.B.	Irish Comd.	War Office.
,,	J. D. Edge, M.D., C.B.	South Africa	Irish Comd.
,,	W. Donovan, C.B.	Salisb'ry Plain	South Africa.
Colonel	G. D. N. Leake	Bombay	Oudh.
,,	F. W. Trevor, M.B.	Poona	Bombay.
,,	W. A. May, C.B.	Egypt	Salisb'ry Plain.
Lieut.-Col.	W. J. Macnamara, M.D.	—	O. R. Colony.
,,	J. Gibson, M.B.	Cork	Templemore.
,,	Sir A. A. Brooke-Pechell, M.B.	Belfast	Portsmouth.
Major	F. W. G. Hall, M.B.	Chester	Manchester.
,,	J. S. Davidson, M.B.	Madras	Portsmouth.
,,	H. W. Austin	Templemore	Bombay.
,,	G. Bent	Warwick	Bengal.
,,	T. B. Beach	Bengal	Chatham.
,,	C. A. Stone, M.D.	Bombay	Dover.
,,	H. E. Winter	Cardiff	Bombay.
,,	G. A. T. Bray	Newport	Bengal.
,,	C. Dalton	Curragh	Punjab.
,,	F. J. Wade-Brown	Portsmouth	Gosport.
,,	H. W. K. Read	Belfast	Madras.
Captain	J. B. Anderson	Shorncliffe	Bengal.
,,	R. J. Blackham	Bulford	R.A.M. Coll.
,,	P. J. Probyn, D.S.O.	—	,,
,,	S. A. Archer	Dublin	Belfast.
,,	H. Hewetson	R.A.M. Coll.	Dover.
,,	R. E. G. Phillips	South Africa	R.A.M. Coll.
,,	J. M'D. M'Carthy, M.B.	R.A.M. Coll.	Chester.
,,	J. Poe, M.B.	Dublin	Newbridge.
,,	A. W. N. Bowen	R.A.M. Coll.	Chester.
,,	W. H. S. Nickerson, M.B., V.C.	Salisb'ry Plain	R.A.M. Coll.
,,	E. T. Inkson, V.C.	Portsmouth	,,
,,	H. G. Martin	R.A.M. Coll.	Dublin.
,,	F. F. Carroll, M.B.	,,	Devonport.
,,	J. D. G. Macpherson, M.B.	,,	Portsmouth.
,,	S. D. C. O'Grady, M.B.	,,	Dublin.
,,	A. H. O. Young	,,	Chester.
,,	A. C. Lupton, M.B.	Hounslow	York.
,,	G. B. Carter, M.B.	R.A.M. Coll.	Madras.
,,	P. H. Collingwood	,,	Dublin.
,,	C. J. O'Gorman, D.S.O.	South Africa	R.A.M. Coll.
,,	G. B. Crisp	Netley	,,
,,	S. O. Hall	R.A.M. Coll.	Madras.
,,	A. E. Weld	,,	Devonport.
,,	A. E. Thorp	Portsmouth	R.A.M. Coll.
,,	H. Merrick	Deepcut	,,
,,	E. J. Dobbin	Aldershot.	,,
,,	L. E. L. Parker	Hong Kong	,,
,,	M. H. G. Fell	Transvaal	,,
,,	W. B. Winkfield	Portsmouth	,,
,,	H. D. Packer	Dublin	Cork.
,,	H. K. Palmer	,,	,,
,,	F. J. Palmer	Edinburgh	R.A.M. Coll.
,,	W. A. Woodside	Straits Settmt.	,,
,,	W. R. Blackwell	Bengal	,,
,,	H. M. Nicholls, M.B.	R.A.M. Coll.	Dublin.
,,	A. Chopping	Home District.	Windsor.
,,	O. W. A. Eisner	Punjab	R.A.M. Coll.
,,	H. S. Anderson	Madras	,,
,,	L. W. LLoyd	R.A.M. Coll.	Portsmouth.
,,	E. P. Connolly	Bengal	R.A.M. Coll.
,,	M. H. Babington	Madras	,,
,,	H. H. Norman	Woolwich	,,
,,	H. S. Roch	Bengal	,,
,,	F. Harvey	Malta	,,
,,	F. H. Merry, M.B.	Natal	O. R. Colony.
,,	H. C. R. Hime, M.B.	Netley	R.A.M. Coll.
,,	C. S. Smith, M.B.	R.A.M. Coll.	Madras.
,,	C. S. Cato	Transvaal	Chester.
,,	F. S. Walker	Fermoy	Punjab.
,,	H. F. Shea, M.B.	Mauritius	Salisb'ry Plain
,,	P. S. Lelean	—	Aldershot.
,,	O. Challis	R.A.M. Coll.	Malta.
,,	H. H. Scott, M.B.	O. R. Colony	Natal.
Lieutenant	J. E. Powell	Woolwich	Bengal.
,,	O. Ievers, M.B.	Cape Colony	St. Helena.
,,	H. C. Hildreth	Longmoor	Madras.
,,	A. C. Osburn	Portsmouth	Bengal.
,,	F. H. Noke, M.B.	Aldershot	Madras.
,,	W. F. H. Vaughan	,,	,,
,,	R. B. Hole, M.B.	Woolwich	Bombay.
,,	T. C. Lucas	Aldershot	,,
,,	G. E. Cathcart	,,	Punjab.
,,	H. Harding, M.B.	Woolwich	Bombay.
,,	M. F. Grant	,,	,,
,,	F. J. Garland, M.B.	Netley	Bombay.
,,	H. B. Connell	Woolwich	King's Af. Rifl.

ROYAL ARMY MEDICAL CORPS (MILITIA).

JOHN C. M'CARROLL, M.B., is appointed Lieutenant, February 18th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL G. BOMFORD M.D., C.I.E., Bengal Establishment, to be Surgeon-General, from January 1st. His appointment as Director-General, Indian Medical Service, was announced in the BRITISH MEDICAL JOURNAL of January 28th, where particulars of his commissions and war services are also given.

Colonel W. R. BROWNE, M.D., Madras Establishment, is gazetted to be Surgeon-General from October 11th, 1904, as stated in the BRITISH MEDICAL JOURNAL of December 31st last.

Lieutenant-Colonel P. H. BENSON, M.B., Madras Establishment, is also promoted to be Surgeon-General, from October 11th, 1904. Particulars referring to Surgeon-General Benson are also to be found in the BRITISH MEDICAL JOURNAL of December 31st.

Lieutenant-Colonel J. MCCLOGHRY, Bombay Establishment, is granted the temporary rank of Colonel while officiating as Principal Medical Officer, Kurrachee Brigade, from November 28th, 1904.

The following are appointed Lieutenants from September 1st, 1904: HORACE S. MATSON, DONALD STEEL, FRANCIS H. STEWART, HAMPTON A. DOUGAN, ALEXANDER CAMERON, ALFRED H. PROCTOR, ROBERT T. WELLS, IAN M. MACRAE, CHARLES C. C. SHAW, RODERICK D. MACGREGOR, JAMES W. H. BABINGTEN, ALEXANDER S. M. PEEBLES, FRANCIS B. SHETTLE.

The surname of Lieutenant C. I. BRIERLEY, whose admission to the Indian Medical Service was notified in the *London Gazette* of February 5th, 1904, is as here given, and not as in that *Gazette*.

The retirement from the service of Surgeon-General Sir B. FRANKLIN, K.C.I.E., K.H.P., which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

IMPERIAL YEOMANRY.

SURGEON-LIEUTENANT W. F. L. A. HOLCROFT, M.B., Royal North Devon (Hussars), is seconded for service under the Colonial Office, January 21st.

Surgeon-Captain H. KELLY, M.D., Lanarkshire (Queen's Own Royal Glasgow) Regiment, to be Surgeon-Major, February 18th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

THE following announcement is substituted for that which appeared in the *London Gazette* of January 3rd: Surgeon-Lieutenant-Colonel D. S. DAVIES, M.D., 1st Gloucestershire, resigns his commission, and is granted the honorary rank of Surgeon-Colonel, retaining his uniform, January 4th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT-COLONEL G. WESTBY (Brigade Surgeon Lieutenant-Colonel, Senior Medical Officer, Liverpool Volunteer Infantry Brigade), 2nd Volunteer Battalion the King's (Liverpool Regiment), is granted the honorary rank of Surgeon-Colonel, February 18th.

Surgeon-Lieutenant-Colonel J. S. MUIR, M.B., 1st Roxburgh and Selkirk (the Border) Regiment, resigns his commission, and is granted the honorary rank of Surgeon-Colonel, February 18th; he retains his uniform.

Mr. RALPH R. BRUNSKILL is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Prince of Wales's Volunteers (South Lancashire Regiment), February 18th.

Surgeon-Major A. CLARK (Brigade Surgeon Lieutenant-Colonel, Senior Medical Officer, 3rd London Volunteer Infantry Brigade), 4th Middlesex (West London), to be Surgeon-Lieutenant-Colonel, August 23rd, 1893.

Surgeon-Captain S. NESFIELD, 5th (Ardwick) Volunteer Battalion the Manchester Regiment, to be Surgeon-Major, February 18th.

Surgeon-Lieutenant J. MACLENNAN, M.B., 1st Sutherland (the Sutherland Highland), resigns his commission, February 18th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Mr. WILLIAM DARLING is appointed Lieutenant in the Edinburgh Company, February 18th.

CORRECTION.

THE name of Honorary Surgeon-Colonel W. Draper, 1st East Riding of Yorkshire Royal Garrison Artillery (Volunteers), is as now printed, and not as published last week, p. 53.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,809 births and 5,189 deaths were registered during the week ending Saturday last, February 18th. The annual rate of mortality in these towns, which had been 18.4, 18.0, and 17.4 per 1,000 in the three preceding weeks, further declined last week to 17.3 per 1,000. The rates in the several towns ranged from 7.1 in Aston Manor, 7.5 in King's Norton, 7.6 in Handsworth (Staffs), 8.3 in Coventry, 9.3 in Hornsey, 10.5 in Leyton, 10.8 in Smethwick, 11.0 in East Ham, and 11.2 in Walthamstow, to 24.1 in West Hartlepool, 24.7 in Merthyr Tydfil, 25.8 in Ipswich, 25.9 in Stockton-on-Tees, 26.1 in Preston, 28.2 in Hanley, 30.5 in Portsmouth, and 35.0 in Rhondda. In London the rate of mortality was 16.8 per 1,000, while it averaged 17.6 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.1 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.0 in Stockton-on-Tees, 3.2 in Preston, 3.4 in Reading, 3.5 in Merthyr Tydfil, 3.8 in South Shields, 4.0 in Hanley, 9.9 in Portsmouth, and 5.4 in Nottingham. Measles caused a death-rate of 1.3 in Gateshead, 1.4 in Southampton and in Cardiff, 1.8 in Leyton, 2.0 in Stockton-on-Tees, 2.1 in Merthyr Tydfil, 2.7 in Reading, 3.3 in Nottingham, and 3.6 in Portsmouth; scarlet fever of 1.4 in Merthyr Tydfil; diphtheria of 1.1 in Salford, 1.4 in Coventry, and 2.2 in Swansea; whooping-cough of 1.2 in Wigan and in Hull, 1.3 in Rhondda, 1.7 in Rotherham, 1.9 in Halifax and in South Shields, 2.7 in Preston, and 3.2 in Hanley; and diarrhoea of 1.8 in Bury. The mortality from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London and 1 in Bradford, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 8 small-pox patients on Saturday last, February 18th, against 15, 13, and 9 on the three preceding Saturdays; 3 new cases were admitted during the week, against 1 in each of the two preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 2,096, 2,070, and 2,077 at the end of the three preceding weeks, had declined again to 2,016 at the end of last week; 241 new cases were admitted during the week, against 251, 220, and 260 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 18th, 880 births and 633 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.3, 19.9, and 18.2 per 1,000 in the three preceding weeks, increased again to 18.9 per 1,000 last week, and was 1.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.8 in Leith and 16.3 in Edinburgh and in Greenock, to 22.2 in Dundee and 24.4 in Perth. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in these towns, the highest rates being recorded in Glasgow and Leith. The 305 deaths registered in Glasgow included 3 which were referred to measles, 20 to whooping-cough, 3 to enteric fever, and 6 to diarrhoea. Four fatal cases of whooping-cough were recorded in Edinburgh; 2 of diarrhoea in Dundee; 3 of typhus in Aberdeen; and 3 of diarrhoea in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 11th, 502 births and 419 deaths were registered in six of the principal Irish towns, against 631 births and 389 deaths in the preceding period. The mean annual death-rate in these towns, which had been 18.8, 23.5, and 22.8 per 1,000 in the three preceding weeks, fell to 20.1 per 1,000 in the week under notice, this figure being 2.7 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 11.7 in Waterford and 12.3 in Limerick to 25.2 in Dublin and 27.4 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.0 per 1,000, or 0.1 per 1,000 lower than during the preceding week, the highest figure, 2.5, being recorded in Londonderry, while Limerick and Cork registered no deaths under this heading at all. The deaths from measles exhibited a further general fall, but 9 occurred in Belfast. In Dublin 2 deaths were recorded from scarlet fever.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer, resident. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Two Assistant Honorary Medical Officers.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer to act as House-Physician and House-Surgeon for six months each. Salary, £80 and £100 per annum respectively.

CHELTENHAM GENERAL HOSPITAL.—(1) Junior House-Surgeon, resident. (2) Surgeon-in-Charge of Branch Dispensary. Salary, £50 and £90 per annum respectively.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House-Physicians (male); resident. Salary at the rate of £30 per annum each.

DURHAM COUNTY HOSPITAL.—House-Surgeon, resident. Salary, £120 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—(1) Medical for Casualty Department. Salary at the rate of £100 per annum. (2) House-Surgeon, resident. Honorarium, £25 for six months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) Physician to Out-patients; (2) Clinical Assistants.

KENSINGTON UNION.—Second Assistant Medical Officer for the Workhouse and Infirmary, resident. Salary, £80 per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon, resident. Salary, £100 per annum.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.—Jenner Memorial Studentship in Bacteriology, value £150.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon, resident. Salary, £30 for six months.

LONDON HOSPITAL, WHITECHAPEL, E.—Assistant Surgeon.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon, resident. Salary, £50 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Senior Assistant House-Surgeon, resident. Honorarium, £20 for six months.

QUEEN'S JUBILEE HOSPITAL, EARL'S COURT, S.W.—House-Surgeon, resident. Salary at the rate of £52 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. Salary £60 per annum.

ROYAL EAR HOSPITAL, SOHO.—Honorary Assistant Anaesthetist.

ROYAL NAVY MEDICAL DEPARTMENT.—Three Dental Surgeons. Inclusive salary, £1 per diem, and, when necessary, travelling expenses.

STOCKPORT INFIRMARY.—Assistant, House and Visiting Surgeon, resident. Salary, £80 per annum.

APPOINTMENTS.

ALLEN, J. Lynn, M.B., B.Sc., Medical Officer and Public Vaccinator for the Second District of the Ongar Union.

BRAUND, A. M., M.R.C.S., L.R.C.P.Lond., District and Workhouse Medical Officer for the Stratton Union.

BROWN, A., L.R.C.P.I., M.R.C.S.Eng., Certifying Factory Surgeon for the Masham District, Yorkshire.

BROWN, F. H. Burton, M.D., Clinical Assistant to the Chelsea Hospital for Women.

COOK, H. G. G., M.D.Lond., F.R.C.S.Eng., Medical Officer to the Cardiff Prison, vice Dr. J. Ll. Treharne, M.R.C.S.Eng., resigned.

DOORLY, P. F., L.R.C.P. and S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Carrick-on-Shannon No. 2 District, Roscommon.

DOUGLAS-CRAWFORD, Douglas, M.B., F.R.C.S., Honorary Consulting Surgeon to the Liverpool Dental Hospital, vice F. T. Paul, F.R.C.S., resigned.

FRAMPTON, Trevethan, F.R.C.P., Clinical Assistant, Chelsea Hospital for Women.

HEPBURN, D., M.D.Edin., F.R.S.E., Examiner in Anatomy and Anthropology in the University of Edinburgh.

JONES, A. W. L., M.R.C.S., L.R.C.P., District Medical Officer of the Salisbury Union.

JONES, W. H., M.B., Resident Medical Officer, Mile End Old Town Infirmary.

KNAGGS, Francis Henry, M.R.C.S., L.R.C.P.Lond., Ophthalmic and Aural Surgeon to the Huddersfield Infirmary.

LAWRIE, W. J., M.D.Glas., Certifying Factory Surgeon for the Ayr District, Ayrshire.

MCLANNAHAN, J. G., L.R.C.P. and S.Ire., District Medical Officer of the Stroud Union.

OYSTON, W. F., M.B., Ch.B.Vict., District Medical Officer of the Hemsworth Union.

PERCIVAL, A. P., M.B., C.M.Edin., Certifying Factory Surgeon for the Knottingley District, Yorkshire.

PIERCE, R. W. C., M.D., B.Sc.Lond., D.P.H.Camb., Medical Officer of Health for the Borough of Guildford.

POPE, G. Stevens, L.R.C.P., etc., Medical Superintendent to the Somerset and Bath County Asylum, Wells, Somerset.

SLOAN, A. Bankier, M.D.Glasg., Extra Dispensary Physician, Glasgow Western Infirmary.

SMITH, Hugh, L.R.C.S.Edin., L.S.A., Resident Medical Officer, Dudley Dispensary, vice T. K. Williams, M.R.C.S., L.R.C.P.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

CHAMBERLAIN.—On February 5th, at Pateley Bridge, Yorkshire, the wife of E. B. Chamberlain, M.R.C.S., L.S.A.Lond., of a daughter.

MARRIAGE.

LEON—FRIEND.—On February 9th, 1905, at All Souls, Langham Place, John Temple Leon, M.D., to Katherine Mary Friend.

DEATH.

PARRY-JONES.—On February 8th, at Brynhawddgar, Pontyberem, Llanelly, William Richard Parry-Jones, L.R.C.P.and S.Edin., and L.M., L.S.A., aged 47 years.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—(1) An analysis of 300 Consecutive Gynaecological Laparotomies, by Dr. A. H. N. Lewers. (2) Some Remarks on Caesarean Section, by Dr. W. J. Gow.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Changes produced by Inflammation in the Conjunctiva, by Professor Stephen Mayou.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, 8.30 p.m.—Discussion on The Subsequent Course and Later History of Cases of Appendicitis after Operation, to be opened by Sir Frederick Treves; other speakers, Sir William Broadbent, Mr. Charters Symonds, Sir Lauder Brunton, Mr. Pearce Gould, Sir William Bennett, etc.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square W., 8 p.m.—Short communications: Surgeon-Captain J. C. Holdich Leicester: A Case of Chyluria with Pregnancy. Dr. A. H. N. Lewers: A Case of Pregnancy in a Rudimentary Uterine Cornu. Specimens: Dr. Giles: Extrauterine Pregnancy at Term. Dr. Herbert Williamson: Grape Sarcoma of the Cervix Uteri. Inaugural address by the President (Dr. W. R. Dakin) on the Present Teaching of Practical Midwifery in England.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Changes produced by Inflammation in the Conjunctiva, by Professor Stephen Mayou.

THURSDAY.

CHILDHOOD SOCIETY, Parkes Museum, Margaret Street, W., 8 p.m.—Mental Faculty of the Child, its Growth and Culture, by Dr. Francis Warner.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, 4 p.m.—Paper: Mr. A. De Prenderville: Anaesthetic Difficulties and how to combat them.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Changes produced by Inflammation in the Conjunctiva, by Professor Stephen Mayou.

SOCIETY OF ANAESTHETISTS, 20, Hanover Square, 8.30 p.m.—Dr. Flux: A Fatality associated with Ethyl Chloride. General discussion on Ethyl Chloride; to be opened by Dr. McCardie.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Practical Demonstration of the Nose.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Dermatological Demonstration.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 3 p.m., The Treatment of Chronic Cardiac Affections.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Cardiac Disease in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Chronic Abscess of the Maxillary Antrum—its Causes, Diagnosis, and Treatment; Tuesday, Infective Diseases of Joints: Wednesday, Dyspepsia and its Treatment; Thursday, Ocular Headache—its Causes, Diagnosis, and Treatment.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Bronchial Affections of Children—I, Primary.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Thursday, 3 p.m., Cases from the wards.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m, Syringomyelia; Friday, 3.30 p.m., Cerebellar Disease.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.,—Tuesday, 3.30 p.m., Demonstration on General Paralysis of the Insane (at Colney Hatch Asylum, New Southgate, N.).

POST-GRADUATE COLLEGE, WEST LONDON HOSPITAL, Hammersmith, W.—The following lectures have been arranged for next week.—Monday, 5 p.m., Practical Surgery; Tuesday, The Question of Responsibility and Moral Insanity; Wednesday, Practical Medicine; Thursday, 2 p.m., Mr. Keetley; Friday, 3 p.m. (at Hanwell Asylum), Insanity at the Epochs of Life.

BOOKS, ETC., RECEIVED.

The Gardening Year Book and Garden Oracle, 1905. By the Editor of "The Gardeners' Magazine." 47th year. London: "The Gardeners' Magazine" Office. 1s.

Congenital Dislocation of the Hip. By J. Jackson Clarke, M.B.Lond., F.R.C.S. Second edition. London: The Practitioner, Limited. 1905. 1s. 6d.

Zur Chirurgie der Ureteren. Von Dr. M. Zondek. Berlin: August Hirschwald. 1905. Mk. 2.

The Naked-Eye Anatomy of the Human Teeth. By Thos. E. Constant, L.R.C.P.Lond., L.D.S., M.R.C.S.Eng. Bristol: John Wright and Co. 1905. 7s. 6d.

Transactions of the Epidemiological Society of London. New series Vol. xxiii. Session 1903-4. London: Williams and Norgate. 1904. 6s.

Essentials of Nervous Diseases and Insanity: Their Symptoms and Treatment. By John C. Shaw, M.D. Fourth edition. Thoroughly revised by Smith Ely Jelliffe, M.D., Ph.D. London: Henry Kimpton. 1904. 4s.

Lectures on Diseases of the Stomach and Intestines. By Boardman Reed, M.D. Bristol: John Wright and Co. 1905. 21s.

The Undesirable Alien from the Medical Standpoint. By Robert R. Rentoul. Liverpool: Cornish and Sons. 1905. 6d.

The Splendour of the Human Body: A Reparation and an Appeal. By the Right Rev. C. H. Brent, D.D., Bishop of the Philippine Islands. London: Longmans, Green, and Co. 1904. 2s. 6d.

Manual of Operative Surgery. By John Fairbairn Binnie, A.M., C.M. Aberd. Philadelphia: P. Blakiston's Son and Co.; and London: H. K. Lewis. 1905. 12s. 6d.

Steilt die Bottinische Operation einen Fortschritt in der Behandlung der chronischen Urinretention bei Prostatikern dar? Von Professor Dr. Max Jaffé. Abdruck aus dem Klinischen Jahrbuch. Dreizehnter Band. Jena: Gustav Fischer. 1904. Mk. 2.

Bacteriology and Surgical Technic for Nurses. By Emily M. A. Stoney. Second edition, revised and enlarged by Frederic Richardson Griffith, M.D. Philadelphia, New York, and London: W. B. Saunders and Co. 1905. 6s. 6d.

Diet in Health and Disease. By Julius Friedenwald, M.D., and John Ruhräh, M.D. Philadelphia, New York, and London: W. B. Saunders and Co. 1905. 18s.

A Textbook of Legal Medicine. By Frank Winthrop Draper, A.M., M.D. Harv. Philadelphia, New York, and London: W. B. Saunders and Co. 1905. 18s.

The Practical Study of Malaria and other Blood Parasites. By J. W. W. Stephens, M.D.Cantab., D.P.H.; and S. R. Christophers, M.B.Vict., I.M.S. London: Williams and Norgate. 1904.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
February	25...Saturday...	Leinster Branch, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
,,	26...Sunday..	
,,	27...Monday ...	
,,	28...Tuesday ...	North Northumberland Division, *North of England Branch*, Elder House, Ravensdowne, Berwick-on-Tweed, 2.30 p.m. Secretaries of Sections for the Annual Meeting must send in to the General Secretary, 429, Strand, on or before this day preliminary statement of arrangements made for their Leicester discussions.
March	1...Wednesday	
,,	2...Thursday...	London: Hospitals Committee, 2.30 p.m. ,, At the Metropolitan Asylums Board, Hospitals Conference, 3 p.m. Manchester (North) Division, *Lancashire and Cheshire Branch*, Clinical Society's Rooms, Palatine Hotel, Manchester, 4.15 p.m. South Essex Division, *East Anglian Branch*, Victoria Hospital, Southend-on-Sea, 4 p.m. South-Western Branch, Red Lion Hotel, Truro, 3 p.m.
,,	3...Friday ...	London: Chairmen of Committees *re* Alteration of Memorandum, 3 p.m. Folkestone Division, *South-Eastern Branch*, 1, Castle Hill Avenue, Folkestone, 8.30 p.m.
,,	4...Saturday...	
,,	5...Sunday..	
,,	6...Monday ...	
,,	7...Tuesday ...	Coventry Division, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. South Midland Branch, Council Meeting, Franklin's Restaurant, Guildhall Road, Northampton, 3.30 p.m.
,,	8...Wednesday	London: Secretaries of Branches and Divisions on the Central Council, 3 p.m.
,,	9...Thursday...	Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m.
,,	10...Friday ...	
,,	11...Saturday...	
,,	12...Sunday..	
,,	13...Monday ...	
,,	14...Tuesday ...	
,,	15...Wednesday	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9).
,,	16...Thursday...	London: Metropolitan Counties Branch Division Secretaries, 5 p.m.
,,	17...Friday ...	London: Ethical Committee, 2.0 p.m.
,,	18...Saturday...	
,,	19...Sunday..	
,,	20...Monday ...	
,,	21...Tuesday ...	
,,	22...Wednesday	London: Medico-Political Committee, 3.0 p.m. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	23...Thursday...	City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...Friday ...	
,,	25...Saturday...	
,,	26...Sunday..	
,,	27...Monday ...	
,,	28...Tuesday ...	

Month.	Day of Week.	Meetings to be Held.
March	29...Wednesday	
,,	30...Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
,,	31...Friday ...	
April	1...Saturday...	
,,	2...Sunday..	
,,	3...Monday ...	
,,	4...Tuesday ...	
,,	5...Wednesday	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...Thursday...	
,,	7...Friday ...	
,,	8...Saturday...	
,,	9...Sunday..	
,,	10...Monday ...	
,,	11...Tuesday ...	London: Organization Committee, 10.30 a.m.
,,	12...Wednesday	,, Journal and Finance Committee.
,,	13...Thursday...	
,,	14...Friday ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...Saturday...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of Journal should be posted to-day.
,,	16...Sunday..	
,,	17...Monday ...	
,,	18...Tuesday ...	London: Premises and Library Committee.
,,	19...Wednesday	,, Central Council, 11 a.m.
,,	20...Thursday...	
,,	21...Friday ...	*Good Friday.*
,,	22...Saturday...	Notices of Motion for Annual Representative Meeting appear in Journal.
,,	23...Sunday..	
,,	24...Monday ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...Tuesday ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...Wednesday	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...Thursday...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...Friday ...	
,,	29...Saturday...	List of Members closed for publication.
,,	30...Sunday..	
May	1...Monday ...	
,,	2...Tuesday ...	
,,	3...Wednesday	
,,	4...Thursday...	
,,	5...Friday ...	
,,	6...Saturday...	
,,	7...Sunday..	
,,	8...Monday ...	
,,	9...Tuesday ...	London: Organization Committee.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 4TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
REPRESENTATIVE MEETING AT LEICESTER: NOTICES OF MOTION...	73
PROCEEDINGS OF STANDING COMMITTEES:	
ORGANIZATION COMMITTEE.—Matters Referred to Divisions.—Rules of Divisions and Branches. Amalgamation of Divisions.—Representation on Central Council.—Meetings attended by the Medical Secretary.—Interpretation of an Article.—Advisability of Medical Secretary's Visits.—Form of Voting Paper.—Representation of Division.—Annual Report Forms.—Circulars to Non members.—Amalgamation of Provincial Societies with the Association.—Proposed Conference of Branch and Division Secretaries.—Membership of the Association.—Circulation of Matters referred to Divisions.—Divisions and Branches and the Alterations of By laws.—Divisional Changes.—Voting Paper for the Election of Members of Branch Council.—Agenda of Representative Meetings.—Branch and Division Maps.—Division Expenditure.—The SUPPLEMENT.—Increasing the Membership of the Association.—Special Rules of Colonial Branches.—Changes of Boundaries.—Annual Reports of the Branches to the Central Council.—Annual Reports of the Divisions to the Branches.—Non-members and the *Medical Directory*.—Grouping of Divisions and Branches for Representative Purposes for 1905-6.—Communication from a Committee of a Branch ...	74
ETHICAL COMMITTEE.—Ethical Inquiries.—Copyright of the JOURNAL.—Notices under Rule Z.—Assistance by General Practitioners at Operations.—Refusal to Obey Decision of Branch Council.—Divisions and Non-members.—Rules of Divisions and Branches.—Professional Advertising.—Sanatorium for Inebriates.—Secretary's Report of Visits.—Advertisement by Handbills.—Appeal to General Medical Council respecting Canvassing.—Complaints as to a Hospital.—Dispute as to a Club Appointment.—An Agreement as to Club Appointments ...	76
PUBLIC HEALTH COMMITTEE.—The Public Health Bill.—Vaccination Legislation	78
SCIENTIFIC CO-ORDINATION COMMITTEE.—Appointment of Chairman.—Therapeutic Committee.—General Organization of Scientific Work	78
COLONIAL COMMITTEE.—Election of Chairman.—Election of Members.—Registration in Australia.—Registration in Ceylon.—Colonial Medical Legislation	79
COLONIAL (JOINT) CONSTITUTION COMMITTEE.—Reference to the Committee.—Colonial Members of Central Council.—Subscription to Australian Branches	79
SCOTTISH COMMITTEE.—Election of Officers.—Medical Certificate of Unfitness to Attend School.—Scottish Poor-law Medical Service.—Medical Evidence in Criminal Cases	80
MEETINGS OF BRANCHES AND DIVISIONS:	
Birmingham Branch: Coventry Division	80
" " West Bromwich Division	80
Conjoint Meeting of Scottish Branches	81
East Anglian Branch: South Suffolk Division	82
Lancashire and Cheshire Branch: Birkenhead Division ...	82
" " " " Chester Division	82
" " " " Liverpool (Central) Division...	82
" " " " Southport Division ...	83
Metropolitan Counties Branch: Wandsworth Division ...	83
" " " Stratford Division	84
ASSOCIATION NOTICES.—NOTICE OF CHANGES IN DIVISIONS AND BRANCHES.—BRANCH AND DIVISION MEETINGS TO BE HELD ...	84
CENTRAL MIDWIVES BOARD	85
NAVAL AND MILITARY APPOINTMENTS	85
VITAL STATISTICS...	85
VACANCIES AND APPOINTMENTS	86
BIRTHS, MARRIAGES, AND DEATHS	87
DIARY OF THE WEEK	87
BOOKS RECEIVED...	87
CALENDAR	88

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICES OF MOTION.

THE following additional notices of motion have been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

[*Notices previously received were published in the* SUPPLEMENT *of February 25th, page 57.*]

BY the WANDSWORTH DIVISION (Metropolitan Counties Branch):

A. (I) That in the opinion of this Representatives' Meeting it is desirable that this Association should have some Fund from which assistance could be given to widows, children, and others formerly dependent on deceased Members of the Association.

(II) That this Fund should be formed from grants made from the Funds of the Association, grants from Branch Funds, and gifts and legacies from individuals.

(III) That the Memorandum of Association, Articles and By-laws be altered, where necessary, to allow of the above being carried out.

(IV) That this Meeting do elect six who, with an equal number elected by the Central Council, shall prepare a scheme for such a Fund, and submit it to the Members by 31st March, 1906.

B. (I) That in the opinion of this Representatives' Meeting it is desirable that this Association should have as soon as possible a properly equipped Medical Agency department for the use of its Members.

(II) That the special Committee appointed to consider a Benevolent Fund Scheme do take this matter into their consideration and report.

In view of the fact that this Association is considering the question of Medical Contract Practice and also Hospital Reform, this Meeting of Representatives is of the opinion that some scheme might be evolved, under the control of the Central Office, and worked through the Division Committees, that would provide for those of the lower and lower middle classes, who do not need Hospital treatment, Medical treatment in their own homes, upon terms which would be satisfactory both to the Members of the Association and their Patients, and that could eventually embrace the whole of the United Kingdom.

This Meeting therefore decides to appoint a Committee of six (geographically representative) who shall, with six others to be appointed by the Central Council, investigate the matter, and report to the Divisions, not later than 31st March, 1906.

By the Coventry Division (Birmingham Branch):

That By-law 17 be altered by the substitution of the word "Council" for "Branch Council."

Guy Elliston, *General Secretary.*

March 2nd.

Proceedings of Standing Committees.

ORGANIZATION COMMITTEE.

November 8th, 1904.

A meeting of the Organization Committee was held at the office of the Association on November 8th, 1904, when there were present: Mr. T. Jenner Verrall, in the chair, Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Professor J. T. J. Morrison, Dr. E. Rayner, and Professor A. H. White.

Apologies for Absence.

Letters of apology for non-attendance were received from the President, Dr. E. J. Cave, and Dr. J. Hamilton.

Matters Referred to Divisions.

The Medico-Political Committee was requested to favour the Committee with its opinion upon the following resolution of the Walthamstow Division referred by the Council to the Organization Committee for consideration and report:

That it is the opinion of this Division that the present method of referring business for its consideration is not satisfactory, and that the Central Council be requested to forward periodically to the Secretary a memorandum of such business, together with a concise statement of the facts and of the essential points on which an opinion is required.

Rules of Divisions and Branches.

The Chairman reported that the Council had approved the Rules recommended by the Organization Committee, and also the Rules of the Gloucestershire Division relative to the formation of a Section for the Forest of Dean, received after the Committee meeting.

The Council was recommended to approve rules submitted by the Dundee Branch, and the South-West Wales and Aylesbury Divisions.

Amalgamation of Divisions.

The Council was also recommended to approve the combination of the Canterbury and Faversham Divisions in one Division, provided that the Branch Council approved of the same.

Representation on Central Council.

The consideration of a communication from the Fife Branch asking for independent representation on the Council was deferred until the Committee had before it the general question of grouping of Divisions and Branches for representative purposes for the year 1905.

Meetings attended by the Medical Secretary.

The Medical Secretary reported as to meetings which he had attended and had been invited to attend, and his attendance thereat was approved.

Interpretation of an Article.

Arising out of the report of one meeting, the Committee considered the proper interpretation of the provision of Article XLIV, Section (e), that:

No member in regard to whom a representation as aforesaid has been made, or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch, shall be capable of effectively resigning his membership of the Association until the decision of the Council or Branch be made known.

It was resolved that the advisability of altering the wording of Article XLIV, Section (e), in order to provide for inquiry by a Division, and to give some specific definition of the "commencement" of the inquiry, be noted as matters requiring consideration on some future occasion.

Advisability of Medical Secretary's Visits.

Attention having been drawn to objections which had been raised to the attendance of the Medical Secretary at meetings of Divisions and Branches as being unnecessary, the Committee expressed the opinion that the attendance of the Medical Secretary at such meetings as had from time to time been reported to it was advantageous to the Association.

Form of Voting Paper.

Upon the consideration of an instruction from the Council to prepare a model form of voting paper for the election by Branches of members of the Central Council, the Medical Secretary was instructed to draft a form for submission to the Committee at its next meeting, the form to contain only such matters as were required by By-law 24 to appear on the voting paper, together with the necessary directions to the voter.

Representation of Division.

The Committee resumed the consideration of the following application from the East Anglian Branch with reference to the limit of size of a Division for independent representation in the Representative Meeting:

East Anglian Branch: Council Meeting held at Kelling, Holt, on Thursday, September 29th, 1904.

Resolved (unanimously):—That this meeting of the East Anglian Branch Council desires to draw the attention of the Central Council to the unsatisfactory position in which certain Divisions are placed by reason of the regulation in accordance with which a Division must possess a Membership of not less than 50 to obtain independent representation at the Representative Meeting.

In the grouping of two or more Divisions each of which has a Membership of under 50 for the purpose of forming a Constituency according to Article XXVII, it happens, owing to the difficulty of railway communication between neighbouring Divisions, that, when a conjoint meeting of these Divisions is held to elect a Representative for the Constituency, only those Members will attend who reside in the Division in which the meeting takes place, and thus it follows that at the present time certain Divisions are practically disfranchised, and that, in the case of one of the most important meetings that Members of the Association should attend, a main principle of the New Constitution is unfulfilled, namely, that provision be made for the meeting together of Members in a locality without an undue sacrifice of their time.

In view of the fact that the total number of Representatives is very far from reaching the limit of 300 laid down in Article XXVII, the East Anglian Branch Council suggests for the earnest consideration of the Central Council the desirability of so altering this Article that the present minimum limit of 50 Members to a Division, necessary for it to secure independent representation, may be lowered to 30, or to a smaller number, and that by this means a cause of serious dissatisfaction in certain Divisions may be removed.

The Committee had before it particulars of the present membership of Divisions and of the grouping as determined in May, 1904. It was resolved that the Council be advised to propose that the limit for a separate constituency to elect a representative under Article XXVII be reduced to 30.

Annual Report Forms.

An instruction from the Council to prepare annual report forms suitable for use by Divisions received preliminary consideration.

Circulars to Non-members.

The Committee instructed the Medical Secretary to issue to Honorary Secretaries of Divisions a letter concerning the

issue of circulars to non-members and a model form of circular which had been prepared by the Chairman and the Medical Secretary in accordance with the instructions of the Committee.

Amalgamation of Provincial Societies with the Association.

A letter from the Honorary Secretary of the Bradford Division, making inquiries as to certain points which had arisen in connexion with the proposed amalgamation of the Bradford Medico-Chirurgical Society and Medico-Ethical Society with the Bradford Division of the Association, was further considered, together with an opinion by the Solicitor which had been obtained on certain of the points raised. The Medical Secretary was instructed to forward to the Bradford Division a statement of the effect of the regulations as to the matter submitted.

Proposed Conference of Branch and Division Secretaries.

The Committee considered the following resolution, referred by the Council to the Committee:

> That the Council be asked to sanction a meeting of the Division and Branch Secretaries at the Annual Meeting to be held at Leicester.

and instructed the Medical Secretary to address a circular letter to the Honorary Secretaries of Divisions and Branches, inviting their opinion as to the advisability of the proposed conference, and making certain suggestions as to the nature of the conference.

December 13th, 1904.

A further meeting of the Committee was held on December 13th, 1904, when there were present: Mr. T. Jenner Verrall, in the chair, Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Dr. J. Hamilton, Professor J. T. J. Morrison, Dr. E. Rayner, and Professor A. H. White.

Apologies for Absence.

Letters of apology for non-attendance were received from the President and Dr. E. J. Cave.

A letter was read from the Honorary Secretary of the City Division, containing the following resolution of a meeting of Secretaries and Treasurers of the Metropolitan Counties Branch and its Divisions:

> That this meeting of the Secretaries and Treasurers of the Metropolitan Counties Branch and its Divisions does most strongly disapprove of the suggestion that the number of members necessary to constitute a Division having separate representation at the Representative Meeting of the Association be for the present less than fifty.

The resolution was directed to be entered on the minutes.

Membership of the Association.

Having considered a letter from the Devonport Division communicating the following resolution of the Division:

> That where a medical firm is represented by one member at full subscription, any other member of the firm, or their assistant, may be admitted to membership of the Association at a reduced fee, a second copy of the Journal not being sent or required,

the Committee instructed the Medical Secretary to reply that the regulations of the Association did not admit of the proposed arrangement.

Circulation of Matters referred to Divisions.

The Committee received the reply of the Medico-Political Committee[1] to the inquiry as to the matters arising out of the resolution of the Walthamstow Division, and expressed its concurrence therein.

The Committee had before it a report on the replies received from the Honorary Secretaries of Divisions and Branches to an inquiry which, by instruction of the Chairmen of the Medico-Political and Organization Committees, the Medical Secretary had made as to the relative advantages of publication of matters referred to Divisions in the Supplement, or the circulation to members of separate reports. In addition to the resolutions of the Medico-Political Committee, the Committee recommended that such matters as are specially referred to Divisions should occupy first place in the Supplement, and that bold type should be used in order to draw attention to them.

[1] Supplement to the British Medical Journal, February 25th, p. 60.

Proposed Conference of Branch and Division Secretaries.

On consideration of replies received from the Honorary Secretaries of Divisions and Branches to the inquiry of the Committee concerning the proposed conference of Division and Branch Secretaries at the time of the Annual Meeting, it was resolved that it would be advisable that a conference should be held at Leicester if possible, and that the arrangements be left to the Honorary Secretaries.

Meetings Attended by the Medical Secretary.

The report of the Medical Secretary as to meetings of Divisions and Branches which he had attended, and had been invited to attend, was received and approved.

Rules of Divisions and Branches.

The Council was recommended to approve the Rules submitted by the Newton Abbot (Torquay) and Tunbridge Wells Divisions.

Divisions and Branches and the Alterations of By-laws.

The Committee instructed the Medical Secretary to issue a circular to Divisions and Branches calling their attention to those alterations in the by-laws which specially affected their rules and proceedings.

Divisional Changes.

The Committee approved of the change of name of the Newton Abbot Division to the Torquay Division, as desired by the Division, subject to the approval of the Branch Council; the transference of Willoughbridge and Ashley from the Mid-Staffordshire Division to the North Staffordshire Division, subject to the concurrence of the Divisions; and that the Shropshire Division be constituted a separate Branch, as desired by the Division, subject to the approval of the North Wales Branch Council, and subject to an agreed definition of boundaries being supplied by the two bodies concerned to the Committee.

Voting Paper for the Election of Members of Branch Council.

The Council was recommended to approve the following model form of voting paper for the election of members of the Central Council by Branches.

BRITISH MEDICAL ASSOCIATION.

ELECTION OF COUNCIL FOR 1905-6.

Voting Paper.

.....Branch(es).

(The Branch is entitled to elect Members of Council.)

The Members named below, being eligible under By-law 27 for election by the Branch as Members of the Central Council, have been duly nominated in accordance with By-law 24.

Directions to Voters.

Place a mark thus × against the name or names of those for whom you desire to vote (being not more than candidates), sign the paper, and return to not later than next.

If these conditions are not observed your vote cannot be counted.

(Signed).....

Hon. Sec. ..... Branch.

Voter's Mark.	Name of Candidate.	Address.

Signed by

Name.....

Address .....

.....

Model Form of Annual Reports.

The Committee approved and ordered the Medical Secretary to forward to the Honorary Secretaries of Divisions model forms of Annual Reports from Divisions to Branches.

The Committee recommended the Council to instruct the Committee to prepare model forms of reports from Branches to the Central Council, and resolved that the matter of the form of annual reports of Divisions to Branches and of Branches to the Central Council be considered again by the Committee at the October meeting in 1905. An instruction of the Council with reference to the Divisions that have not appointed Secretaries was referred to the Chairman and Medical Secretary for investigation and report.

AGENDA OF REPRESENTATIVE MEETINGS.

On consideration of the question of forwarding the agenda of Representative Meetings to the Secretaries of Divisions and Branches referred by the Council to the Committee, the Committee resolved:

That it is desirable that the Secretaries of Branches and Divisions receive agendas of all Representative Meetings.

February 14th, 1905.

A FURTHER meeting of the Organization Committee was held at the office of the Association on February 14th, 1905, when there were present: Mr. T. JENNER VERRALL (in the chair); Mr. Andrew Clark (Chairman of Council); Mr. H. A. Ballance, Professor J. T. J. Morrison, and Professor A. H. White.

APOLOGIES FOR ABSENCE.

Letters of apology for non-attendance were received from the President, Dr. E. Rayner, and Dr. J. Hamilton.

BRANCH AND DIVISION MAPS.

In reply to an inquiry from the Honorary Secretary of a Division, the Medical Secretary was instructed to state that a copy of the office map showing the boundaries of the Branch or Division would be forwarded to any Honorary Secretary of a Branch or Division who desired it.

DIVISION EXPENDITURE.

A letter was read from the Honorary Secretary of a Division as to the distribution of Division expenditure between the scientific and other objects of the Division. The reply which had been given by the Medical Secretary was approved.

THE SUPPLEMENT.

The Committee considered a report on the replies from Honorary Secretaries of Divisions regarding the issue in the SUPPLEMENT of reports referred to the Divisions, as contrasted with the proposed alternative of having such reports separately printed and supplied to Honorary Secretaries of Divisions for distribution to their members with the notices convening the Division meetings. The replies indicated that a considerable majority of Honorary Secretaries considered publication in the SUPPLEMENT the preferable method—at all events, for the present.

The Committee expressed its agreement with the suggestion of an Honorary Secretary that there should be a standing notice on the front of the JOURNAL drawing the attention of members to the importance of reading and preserving the SUPPLEMENT.

INCREASING THE MEMBERSHIP OF THE ASSOCIATION.

The MEDICAL SECRETARY reported that sixty-one Honorary Secretaries had replied to the circular letter addressed to the Divisions on December 1st by the Committee. Fifty-six of these approved of the suggested circular letter to non-members, and asked for copies for issue. In all 3,390 copies had been supplied.

The Committee approved the action reported.

MEDICAL SECRETARY'S VISITS TO DIVISIONS, ETC.

The Committee approved the Medical Secretary's report of meetings which he had attended of the Southend Medical Society and of the Wandsworth and Marylebone Divisions, and visits arranged to the Tottenham Division and the Isle of Wight.

RULES OF BRANCHES.

It was resolved that the attention of the Hong Kong and Cape of Good Hope (Western Province) Branches be drawn to certain proposed rules which were *ultra vires*. With these exceptions, the Council was recommended to approve the rules submitted.

The Council was recommended to approve the rules submitted by the Metropolitan Counties Branch.

SPECIAL RULES OF COLONIAL BRANCHES.

The Medical Secretary was instructed to suggest to the Colonial Branches named that if in the interests of the Association in their respective areas they thought it desirable that they should be allowed to adopt rules which were in conflict with existing regulations, the most convenient course would be that they report to the Council the alterations of the regulations of the Association which they consider advantageous, in order that such alterations might receive the attention of the Special Committee which has been appointed to consider what changes, if any, in the regulations are required to meet the special needs of the Colonial Branches.

CHANGES OF BOUNDARIES.

The Committee approved of the inclusion of the area of the Richmond and Northallerton Division in the Darlington Division, regarding which there was local agreement; the transfer of Winsford and Middlewich from the Crewe to the Altrincham Division; the transfer of Weaverham from the Warrington to the Altrincham Division, if the Warrington Division shall intimate that it does not object; the transfer of Ashley from the Mid-Staffordshire to the North Staffordshire Division; and the transfer of Handley from the Bournemouth to the Salisbury Division, subject to the approval of the local bodies concerned.

The Committee considered a communication from a member who was of opinion that the Division of which he was a member had at present too extensive an area, and that it would be advisable for part of it to be formed into a separate Division. It was decided that the applicant should be informed that the Committee was in entire sympathy with his desire to extend the usefulness of the Association locally, but that it was preferable that the initiative in respect of such changes as he proposed should be taken by the members directly concerned.

ANNUAL REPORTS OF THE BRANCHES TO THE CENTRAL COUNCIL.

Forms for use were decided upon for recommendation to the Council.

ANNUAL REPORTS OF THE DIVISIONS TO THE BRANCHES.

The Committee instructed the Medical Secretary to lay before the Committee at its April meeting a report on all the copies of these received.

NON-MEMBERS AND THE "MEDICAL DIRECTORY."

With reference to a communication from the Honorary Secretary of a Division concerning certain practitioners who are erroneously stated in the *Medical Directory* to be members of the Association, the MEDICAL SECRETARY reported that on inquiry it appeared that the practitioners named had all been members of the Association, but that two had resigned and two been struck off for arrears, at dates between 1885 and 1901.

The GENERAL SECRETARY stated that it was his practice in all cases of the kind brought to his notice to draw the attention of the publishers of the *Medical Directory* to the false description, and that they always very courteously corrected the error.

The Committee resolved that the inquirer should be informed of these facts.

GROUPING OF DIVISIONS AND BRANCHES FOR REPRESENTATIVE PURPOSES FOR 1905-6.

The Committee gave instructions that the same inquiries as in previous years be issued on this subject.

COMMUNICATION FROM A COMMITTEE OF A BRANCH.

Communications from a Committee of a Branch, addressed to the Central Council and to the Organization Committee respectively, were considered, and it was decided to recommend that the Branch Committee should be asked to submit them to their Branch Council for consideration before they came before the Central Council or Committee.

ETHICAL COMMITTEE.

December 16th, 1904.

A MEETING of the Ethical Committee was held at the office of the Association on December 16th, 1904, when there were present: Professor R. SAUNDBY, in the chair; Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Dr. A. G. Bateman, Mr. G. H. Broadbent, Dr. W. A. Elliston, Dr. Bruce Goff, Dr. E. Jepson, and Mr. D. A. O'Sullivan.

Apologies for Absence.

Letters of apology for non-attendance were received from the President and Dr. Ferguson.

Ethical Inquiries.

The Medical Secretary reported on the following questions submitted to the Committee since the last meeting on which replies had been given:

(*a*) A medical practitioner who had asked that the question of the use of the title "Dr." might be reopened, had been informed that, as the matter had been decided by the Annual Representative Meeting, it could not be reopened by the Committee.

(*b*) A member of the Association, having inquired what view would be likely to be taken by the General Medical Council as to the employment of an unqualified person at a branch surgery, had been informed that, having regard to previous decisions of the General Medical Council, such employment would expose him to considerable risk of having the matter brought under the notice of the Council, and, if the Council should take an unfavourable view of his action, the consequences to himself must be very serious.

(*c*) To an inquiry from the Chairman of a Division as to the prospect of successful action by Divisions in questions concerning the professional conduct of non-members, the reply had been given that such action had been taken successfully by some Divisions, and the procedure adopted was indicated.

(*d*) A member of the Association, who inquired whether there was any rule of ethics forbidding a registered medical practitioner to act as director of a limited company formed to carry on the business of a pharmaceutical chemist, was informed that, while no definite rule had been laid down on the subject, there was evidence that the feeling of the profession generally was adverse to the carrying on by medical practitioners of the business of retail chemists (except so far as this might be held to be involved in the dispensing of their own prescriptions), and there were also objections to the practice of pharmacy by limited companies, which was an evasion of the Pharmacy Act.

(*e*) A member of the Association, who inquired as to the propriety of allowing his portrait to be published in a periodical specially devoted to first aid and ambulance work, was advised that a medical practitioner who desired to avoid giving any ground of complaint as regards advertising would be wise to decline.

(*f*) The Honorary Secretary of a Division transmitted an inquiry from a non-member as to whether the fact that he attended members of a Medical Aid Association which stopped canvassing or enlisting some years ago, would debar him from election as a member of the Association, and the reply was given to the Honorary Secretary that in such cases two questions generally arise for consideration:

(i) Canvassing.

(ii) The question of rates.

Canvassing would be an absolute bar, while the question of rates would only arise if the Division in the area of which the applicant practises had adopted resolutions defining rates for such practice.

(*g*) In reply to the President of a Branch who asked how disputes between members of different Divisions should be investigated, it was stated that:

(i) If the dispute involves a charge of unethical conduct against one member only, the case should be tried in the first instance by the Division of which the accused is a member, or if agreeable to both parties may be tried by a joint committee appointed in part by the Ethical Committee of each Division.

(ii) If there are cross-accusations a joint committee is necessary.

The replies given were approved in each case.

Copyright of the Journal.

A letter was read from the Manager of the Journal informing the Committee that in a case of infringement of the copyright of the Journal which had been brought by the Committee to his notice, the action which he had taken had resulted in an undertaking to withdraw the circular in question, and not to repeat the offence.

Notices under Rule Z.

The Committee considered a communication from a Division concerning the circulation of certain notices in accordance with Rule Z, and approved the issue of the proposed notices.

Assistance by General Practitioners at Operations.

A communication was read from the Birmingham and District General Medical Practitioners' Union conveying the following criticisms on opinions expressed by the Committee at its last meeting:

The four expressions of opinion of the Ethical Committee, British Medical Association, published on p. 164 of the Supplement to the British Medical Journal of November 5th, have been under the consideration of the Ethical Committee of the Union, who resolved:

1. That this Committee considers that, whilst fully recognizing that a patient in a public and purely charitable institution is entitled to absolutely free treatment from the hospital staff, yet when a general practitioner is present in any capacity at an operation at such an institution, at the request of the patient, the general practitioner is entitled to receive or charge a fee for such services.
2. That this Committee considers that when a surgeon is called in to operate in a private house by a general practitioner, he has no right to exclude such practitioner from taking part in the operation, either as anaesthetist, or in some other capacity.
3. That the third expression of opinion be accepted.

The Council of the Union approved the above resolutions, and desire further to point out to the Ethical Committee, British Medical Association, that the case of Byrne *v.* Thorne does not apply to the act of a qualified medical assistant, and that the Council of the Union cannot admit that, when calling in a consultant, either surgical or medical, the general practitioner in charge of the case divests himself of all further responsibility.

The Council of the Union hope that the Ethical Committee, British Medical Association, will reconsider the "expressions of opinion" above referred to.

The Committee resolved that a reply be sent as follows:

The opinions expressed by the Union are couched in language which raises slightly different issues from those which the Committee had before it.

1. The Committee agrees that, if a medical practitioner is present at the request of the patient during an operation performed upon the patient in a hospital, he has the right to be paid for his attendance, but this is a different matter from the claim originally put forward and adjudicated upon by the Committee, that a medical practitioner had a right as the private medical attendant upon a patient to be present and administer an anaesthetic, and to make a charge for such administration; and, further, to complain of the action of the hospital surgeon, who preferred that the anaesthetic should be administered by the hospital anaesthetist.
2. In the second paragraph the wording is also different; the Committee does not approve of an operating surgeon excluding a practitioner from being present at the operation, but cannot admit that the practitioner has a right to interfere in the operation, or take any part in it, except that to which he may be invited by the operating surgeon.
3. The question raised as to the applicability of the Judge's ruling in Byrne *v.* Thorne is one of interpretation; the Committee understands that the Judge held that the operator takes sole responsibility, and cannot disburden himself of it upon any assistant, whether qualified or unqualified.

Refusal to Obey Decision of Branch Council.

In a case in which a Branch Council reported that a member had been required by them to make an apology for certain unethical conduct and had failed to do so, the Committee recommended the Central Council to call upon the offender to make the apology required by the Branch Council.

Divisions and Non-members.

The Honorary Secretary of a Division asked for guidance for the Division in the case of a non-member whose conduct was regarded as unethical, particularly as to whether notice of a resolution of a general meeting of the Division should be sent to all members of the Division. The Committee resolved that it be pointed out to the inquirer that the procedure which should be adopted by a Division in such cases is indicated by the Model Rule Z.

Rules of Divisions and Branches.

The Chairman reported that the Council had approved the Rules recommended by the Committee, and also Rules of the Monmouth, North Glamorgan, and South-West Wales Divisions, which had been submitted since the last meeting of the Committee. The Council was recommended to approve rules submitted by the South-West Wales, Cardiff, Coventry, Isle of Wight, Consett, Gateshead, and South Shields Divisions, and by the Dundee Branch.

Professional Advertising.

The Committee received and approved the Medical Secretary's report on the action taken since the last meeting under standing instructions concerning (*a*) trade advertisements containing the name of practitioners, (*b*) newspaper announcements concerning practitioners.

Sanatorium for Inebriates.

The following replies were given to inquiries from the manager of a sanatorium for inebriates:

(i) Whether it would be in accordance with the opinion of the medical profession in such matters for the sanatorium to be advertised in the daily newspapers under the name of the medical superintendent? Reply: That exception would certainly be taken to such advertisement.

(ii) Was it the fact that the use of the word "cure," as applied to systems of treatment—for example, for inebriety—was disliked by the profession? Reply: That such was the fact.

(iii) Whether there would be any objection to issuing circulars to members of the medical profession drawing attention to the treatment

pursued at the sanatorium? Reply: That there would not be, provided that the nature of the treatment was made clear or a reference given to accessible literature in which it was described.

(iv) Whether in such circulars an article in the British Medical Journal could be quoted? Reply: That matters appearing in the Journal are copyright, and could not be used without the sanction of the Manager, to whom application should be made.

(v) Could handbooks be issued containing, in a convenient form, information for the public about the sanatorium? Reply: That if the medical superintendent's name was mentioned in such handbook complaints would probably be made.

Secretary's Report of Visits.

The report of the Medical Secretary as to meetings attended by him at which ethical matters had arisen for consideration was received and approved.

Advertisement by Handbills.

The Committee received and approved the report of action taken in respect of the following matters:

(*a*) The issue of handbills by a Friendly Society advertising the name of a medical officer: these were found to have been issued without the knowledge of the medical practitioner in question, and the issue was stopped at his instance, as soon as his attention was called to it.

(*b*) The issue of handbills by a medical practitioner containing particulars of his surgery hours, fees, etc.; the practitioner, as a result of representations made to him, undertook to desist from issuing such handbills, and, in consideration of this undertaking, the case was not reported to the General Medical Council.

Appeal to General Medical Council respecting Canvassing.

In connexion with the second case, the Council was recommended to ask the General Medical Council to consider the advisability of issuing a general warning against canvassing and advertising for practice.

An Advertisement Reported to the General Medical Council.

In the matter of the continued appearance of an advertisement in a local guide, to which, as reported to the Committee at its last meeting, the attention of the General Medical Council had been drawn, and the Registrar had asked for proof that the copies now produced were of a later edition than that previously considered by the Council, the Chairman had instructed the Secretary to point out to the General Medical Council that while the publishers could not be asked to destroy copies already printed, the advertiser might reasonably be called upon to request them to omit his advertisement whenever reprinting, and to produce evidence satisfactory to the General Medical Council that he had taken every step in his power to prevent the repetition of the advertisement. The Registrar of the General Medical Council had replied that the Penal Cases Committee had taken the action suggested, and the advertiser had forwarded a letter from the publishers undertaking not to repeat the advertisement in a reprint unless at his request.

Complaint as to a Hospital.

Complaints with reference to the mode of establishment of a hospital were referred for investigation to the Division in the area of which the hospital is situated, and the Medical Secretary was instructed to attend for the assistance of the Division if desired by them.

Dispute as to a Club Appointment.

The Committee considered complaints from two medical practitioners, C. and D., in respect of the medical officership of a Friendly Society. C., the present holder of the appointment, complained that D. had consented to accept it before C. received notice of dismissal, and D. complained that C. had issued a letter to the members of the Society, which D. submitted was tantamount to touting for practice and offering to undersell. The Committee expressed its disapproval of the action of D. in consenting to accept an appointment which had not been declared vacant, and stated that, having closely considered the letter from C. to the Society, the Committee regarded it as an appeal by him to his patients, and were of opinion that his action in writing this letter did not amount to touting or unprofessional conduct.

An Agreement as to Club Appointments.

The Committee was asked to consider the propriety of the action of a medical practitioner in accepting certain club appointments, having regard to an agreement into which his partner had previously entered with another practitioner in the district, and the Committee advised as to what, in its opinion, was the correct interpretation of the agreement.

PUBLIC HEALTH COMMITTEE.

November 15th, 1904.

A meeting of the Public Health Committee was held at the office of the Association on November 15th, 1904, when there were present: Mr. C. H. Watts Parkinson in the chair, Dr. William Collier (President), Mr. Andrew Clark (Chairman of Council), Dr. Herbert Jones, Dr. F. C. Martley, and Dr. T. G. Nasmyth.

Apologies for Absence.

Letters of apology for non-attendance were received from Dr. J. C. McVail, Dr. J. Herbert Manley, and Dr. Roberts Thomson.

The Public Health Bill.

The Committee considered the Public Health Bill as drafted by counsel, in pursuance of the instructions of the Committee at its meeting on October 7th, and received a report from the Chairman and Medical Secretary as to the action which had been taken to carry out the instructions of the Committee as to certain matters with respect to which the Committee on October 7th decided that the draft then submitted should be amended.

After approving certain amendments the Committee recommended the Council to approve the Bill and bring it before Parliament at the first opportunity. The Chairman and Secretary of the Sanitary Inspectors' Association, by invitation of the Committee, attended to assist the Committee in considering those matters which specially affect sanitary inspectors.

The Committee recommended the Council to approach the Local Government Board in order to secure its support for the Bill.

Vaccination Legislation.

The Medical Secretary reported replies received from the Imperial Vaccination League and the Public Vaccinators' Association to the inquiries of the Committee as to the action which those bodies propose to take in Parliament next session.

SCIENTIFIC CO-ORDINATION COMMITTEE.

January 11th, 1905.

A meeting of this Committee was held at the office of the Association on January 11th, 1905, when there were present: Dr. R. C. Buist; Mr. Andrew Clark, F.R.C.S., Chairman of Council; Dr. E. Markham Skerritt, Treasurer; Dr. James Barr, Dr. H. Langley Browne, and Dr. Cecil E. Shaw.

Appointment of Chairman.

Dr. R. C. Buist was appointed Chairman of the Committee.

Therapeutic Committee.

The Committee resolved to recommend the Council to appoint annually a special Therapeutic Committee consisting of ten members, with power to the Committee to co-opt three others and to elect corresponding members. The duties of the Committee would be (1) to furnish members of the Association with information regarding new remedies; (2) to institute the definite investigation—experimental, clinical, or statistical—of new remedies; (3) to make suggestions for the revision of the *British Pharmacopoeia*.

It was recommended that the Committee should consist of Dr. J. B. Bradbury (Cambridge), Dr. T. E. Burton Brown (London), Dr. R. Crawfurd (London), Dr. C. R. Marshall (Dundee), Dr. Sidney Phillips (London), Dr. Walter Smith (Dublin), Dr. Stockman (Glasgow), Dr. Tirard (London), Dr. Hale White (London), and Dr. R. B. Wild (Manchester).

General Organization of Scientific Work.

A memorandum drawn up by Dr. Buist, and an analysis made by the General Secretary, of the returns of the Branches and Divisions with regard to their library facilities were considered, and the following report to the Council adopted:

A. The Scientific Work of the Divisions and Branches.

That it is desirable to encourage the formation of Division Libraries. That to facilitate exchange of duplicate books the Librarian at the head office in London should keep a list of duplicates so far as possible in Division and other Medical Libraries.

In the Divisions the Hospitals will form natural centres.

Experience shows that the forms of meeting most attractive are :

(*a*) Clinical demonstrations, with very succinct commentary, of cases where the important features can be demonstrated, and

(*b*) Occasional addresses by teachers and those actively engaged in research.

Longer accounts of cases with interesting history would still form the programme of ordinary meetings.

The suggestion has been made that Divisions which desire it may form Sections for Clinical and Pathological work with or without additional voluntary subscription. Further information is needed as to the desires of the Divisions.

B. Sectional Work at the Annual Meeting.

This might be brought more into contact with the research work and the collective investigations of both the preceding and succeeding years, summing up the work of the preceding year and suggesting some of the problems for further research or investigation.

The attention of Division Secretaries should be called to the subjects of discussion at the annual meeting, and it is suggested that members bring before their Divisions as many cases as possible illustrating these subjects.

It is also suggested to the officers of Sections that problems arising in course of discussion be suggested to the Divisions as subjects for further consideration.

C. Special Research Library.

That it is desirable to form a lending library for research by duplicating the leading special periodicals.

The Committee recommend to the Scientific Grants Committee that they should consider the question of supplying or aiding in the purchase of the necessary literature for individual scientific researches with a view to the formation of a special library for research.

COLONIAL COMMITTEE.

November 24th, 1904.

A meeting of the Colonial Committee was held at the office of the Association on November 24th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair; and afterwards Mr. Edmund Owen (Chairman) in the chair; Mr. James Cantlie, Lieutenant-Colonel E. F. Drake-Brockman, I.M.S. (ret.), Dr. C. G. D. Morier, Professor W. R. Smith, and Dr. G. Twynam, together with the following Colonial members at present in England: Mr. Donald Armour, representing Canada; Dr. R. Fox-Symons, representing South Africa; Dr H. A. Francis, representing Queensland; and Dr. T. S. Kerr, representing Malaya.

Election of Chairman.

Mr. Edmund Owen was elected Chairman for the ensuing twelve months.

Election of Members.

The Chairman reported that the representatives of the Colonial Branches on the Council had met on Thursday, November 10th, 1904, and, in accordance with By-law 39 (4), appointed the following five members to serve on the Colonial Committee: Mr. James Cantlie, representing the Far East; Lieutenant-Colonel E. F. Drake-Brockman, I.M.S. (ret.), representing India; Dr. C. G. D. Morier, representing Australasia; Professor W. R. Smith, representing Malta and the Mediterranean; and Dr. G. E. Twynam, representing New South Wales.

The Chairman reported that in accordance with recommendations made by the Organization Committee and the Constitution Committee, and with the resolution of Council, the Committee was required to elect three of its members on the Joint Colonial Constitution Committee: the Chairman, Mr. Cantlie, and Dr. Morier were chosen. The names of Mr. Donald Armour, representing Canada, Dr. R. Fox-Symons, representing South Africa, and Dr. R. Humphrey Marten, New South Wales, were nominated for co-option on the same joint committee.

Registration in Australia.

The Chairman reported that in reference to the representations made by the Council urging on the Colonial Office the expediency of registering in Australia only those medical qualifications which are available for registration in Great Britain and Ireland, he had received a reply stating that Mr. Lyttelton had transmitted a copy of the Association's letter to the Governors of the States of the Australian Common wealth for the consideration of their Ministers.

It was resolved that the matter be postponed pending the replies of the Governors of the States of the Australian Commonwealth.

Registration in Ceylon.

The General Secretary reported that he had received from the Honorary Secretary of the Ceylon Branch a copy of a draft ordinance for the registration of medical practitioners in Ceylon. Inquiries at the Colonial Office had elicited the information that the draft ordinance would probably be taken into consideration during the winter session of the Ceylon Council. The Committee considered the draft, and resolved to express to the Colonial Office its objection to the following clause in the draft ordinance, and to suggest its elimination :

(*b*) In the case of a person claiming to be qualified otherwise than under the said Acts, a certificate of the Council of the Ceylon Medical College that such person is entitled to be registered under this ordinance.

Colonial Medical Legislation.

The General Secretary was instructed to obtain information from the Colonial Office of any medical legislation now under the consideration of the Colonial Governments, and also to apply to the Branches concerned for copies of the medical Bills for Queensland, New South Wales, and the Straits Settlements.

Mr. Cantlie reported that the Subcommittee appointed to prepare questions for transmission to the various Crown Colonies with regard to the compulsory registration of practitioners had met, but desired to postpone its report until the Committee had before it the replies from the Colonial Office regarding registration in Australasia.

COLONIAL (JOINT) CONSTITUTION COMMITTEE.

A meeting of this Committee was held at the office of the Association on December 18th, 1904, when there were present: Mr. T. Jenner Verrall (Chairman of the Organization Committee), in the chair; Mr. Andrew Clark (Chairman of Council), Mr. Edmund Owen (Chairman of the Colonial Committee), Mr. Donald Armour, Mr. H. A. Ballance, Mr. James Cantlie, Dr. R. Fox-Symons, Dr. C. G. D. Morier, Professor A. H. White, and Captain C. E. Williams, I.M.S.

Apologies for Absence.

Letters of apology for non-attendance were read from the President, and Dr. R. Humphrey Marten, representing Adelaide.

Reference to the Committee.

The Chairman reported that the Joint Committee had met to confer in pursuance of the following references from the Council :

(*a*) A joint recommendation of the Colonial Committee and the Organization Committee that a special committee be appointed, as proposed in the final recommendation (C) of the Constitution Committee in 1901, to consider the modifications, if any, which should be made in the present constitution of the colonial Branches.

(*b*) Resolved : That the Special Committee consist of three members of the Colonial Committee, three members of the Organization Committee, with power to add not more than six other members, three of which members shall be conversant with Colonial matters.

(c) Recommendation (C) of the Final Report of the Constitution Committee.

A Committee to further consider the organization of the Colonial and Indian Branches and their relation to the Association, and to recommend such further changes in the regulations of the Association in reference to these matters as such Committee may think desirable.

The Chairman also reported that in accordance with the foregoing references the Colonial Committee had appointed its Chairman (Mr. Edmund Owen), Mr. James Cantlie, and Dr. Morier. The Organization Committee had appointed its Chairman (Mr. T. Jenner Verrall), Mr. H. A. Ballance, and Professor White. Further, that these members had jointly co-opted the following: Mr. Donald Armour, representing Canada; Dr. R. Fox-Symons, representing South Africa; Dr. R. Humphrey Marten, representing Adelaide; and Captain C. E. Williams, I.M.S., representing India.

Colonial Members of Central Council.

The Committee adopted the following resolution :

That the proportion of Colonial members of the Council be regulated on the same numerical basis as obtains with home Branches.

Subscription to Australian Branches.

It was resolved :

That the question of the alteration of the subscription of members attached to the Australian Branches be referred to the following

for consideration and report, namely: Dr. R. Humphrey Marten (Adelaide), Dr. C. G. D. Morier (South Australia), and Dr. G. E. Twynam (New South Wales). Further, that the General Secretary be instructed to inform the Australian Branches that the matter is *sub judice*, but that in the meantime the Committee would be glad to receive a definite expression of opinion from each Branch concerned.

A meeting of this Subcommittee was held on January 4th, 1905, when there were present: Dr. C. G. Drummond Morier (in the chair), Dr. G. E. Twynam, and Dr. R. Humphrey Marten.

The Committee considered the matter referred to them, and resolved before coming to any decision to obtain further information on various points from the Australian Branches.

The Subcommittee also adopted the following resolution:

That it is undesirable that any member of the Association should be eligible to represent a Colonial Branch on the Central Council except such member has been in practice for a period of not less than five years in the Colony he is returned to represent.

SCOTTISH COMMITTEE.

January 6th, 1905.

The Scottish Committee met in the Station Hotel, Perth, on January 6th, 1905, when there were present: Dr. Bruce Goff, in the chair; Dr. R. C. Buist, Professor D. W. Finlay, Dr. R. Balfour Graham, Dr. A. P. Low, Dr. J. Munro Moir, Dr. W. A. Taylor, and Dr. Norman Walker.

Election of Officers.

Dr. Bruce Goff was elected Chairman of the Committee and Dr. R. C. Buist Honorary Secretary.

Medical Certificate of Unfitness to Attend School.

The Committee, having considered the opinion of the Solicitor on questions submitted, together with certain resolutions adopted by the Dundee Branch, passed the three following resolutions:

That it be recommended that when a medical certificate of unfitness to attend school is given to a parent or guardian the ordinary visiting fee be charged.

That the nature of the illness should not be entered in any such certificate, except on the special demand of the parent.

That it is no part of the duties of the medical officers of charities or other public bodies to give such certificates.

Scottish Poor-law Medical Service.

The Committee, having considered various matters with regard to the Scottish Poor-law Medical Service, resolved to recommend the Council to submit the report of the Departmental Committee on Poor-law Medical Relief in Scotland for the consideration of the Scottish Divisions.

Medical Evidence in Criminal Cases.

The Committee resolved to recommend the Council to call the attention of the central criminal authorities in Scotland to the variations in local practice in granting permission for medical representatives of the defence to be present at the official autopsies in criminal cases.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Coventry Division.

A meeting of this Division was held at the Coventry and Warwickshire Hospital, on February 7th, at 8.30 p.m., the chair being occupied by Dr. Webb Fowler.

Specimens.—Dr. Bankes Price showed a calculus and prostatic outgrowth removed by operation, and read notes about the case. He also exhibited large fragments of bone from a comminuted fracture of the upper extremity of the femur in a female patient with marked tabetic symptoms.—Dr. J. Orton exhibited an aneurysm of the aorta.—Mr. W. E. Bennett showed a sutured typhoid ulcer from a patient who died eight days after the operation from haemorrhage from another portion of the intestine.

Notice of Motion for Annual Representative Meeting.—On the recommendation of the Committee of the Division the Secretary proposed that the Division give notice of the following notice of motion to be moved at the next Annual Representative Meeting:

That By law 17 be altered by the substitution of the word "Council" for "Branch Council."

This was carried unanimously.

Contracts with Friendly Societies.—Dr. Kendrick proposed, and Dr. Collington seconded, the following resolution:

That it is hereby resolved that no member of the profession in the area of the Division shall act as medical officer to a Friendly Society at a less remuneration than 4s. per member per annum.

Dr. Pickup proposed, and Dr. Fenton seconded, the following rider:

That the Division in interpreting this rule will consider that any return or donation of any kind to the society or an officer of the society is an infringement of the rule.

Dr. Hawley proposed, and Dr. Pickup seconded, the following rider:

That no member of the profession in the area of Division take over or apply for any club appointment during the time the present holder is applying for an increase in the salary.

The discussion was joined in by the Chairman, Drs. Soden, Milner Moore, Pickup, Callaghan, etc. Both of the riders, with the consent of the meeting, were adopted by the proposer and seconder of the original proposition. Dr. McGlashan then proposed that the discussion be adjourned to the next meeting. This was seconded by Dr. J. Orton, and carried unanimously.

Unregistered Dentists.—The following resolution was proposed:

That the attention of all medical men practising in the area of the Division be called to the regulation of the General Medical Council prohibiting the administration by registered medical practitioners of anaesthetics for unregistered dentists, and that the Committee of the Division be hereby authorized to communicate to the General Medical Council any infringement of the regulation which is reported to it.

This was seconded by Dr. Fenton, and carried unanimously.

Payment of Medical Practitioners in Midwives' Cases.—The recommendations of the Committee were proposed by the Chairman, and the resolutions adopted have been communicated to the Medical Secretary.

Interim Report on Contract Practice.—This was adjourned to the next meeting.

Consultations Between Medical Witnesses in Legal Cases.—Approval of the report of the Medico-Political Committee was moved by the Chairman, seconded by Dr. Pickup, and carried.

Information to Coroners.—Approval of the report was moved by Dr. Milner Moore and carried unanimously.

Reorganization of the Local Government Board.—Approval of the report of the Medico-Political Committee was moved by the Chairman, seconded by the Secretary, and carried *nem. con.*

Medical Act Amendment Bill.—The discussion of this question was adjourned to the next meeting.

The Abuse of Drugs.—Dr. Pickup moved the approval of the memorandum of the Medico-Political Committee; this was seconded by Dr. Callaghan, and carried unanimously.

National Deposit Friendly Society.—Approval of the report was moved by Dr. Harman Brown, seconded by Dr. Callaghan, and carried unanimously.

West Bromwich Division.

A meeting of this Division was held in the Board Room of the District Hospital on Tuesday, February 14th, at 3.45 p.m.; Mr. S. T. Darley Weston in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed, and signed by the Chairman.

Matters Referred to Divisions.—The different reports referred to the Division by the Medico-Political Committee were then discussed. The question of the payment of medical men called in to assist midwives was discussed, and the opinions have been forwarded to the Medico-Political Committee. In regard to contract medical practice, the proposals of the Medico-Political Committee were approved with the exception of Clause 5, which was considered unnecessary, Clause 7 be amended by the addition of the words "necessitating administration of a general anaesthetic," after "operations," and instead of "a week," to read "two weeks." On the question of consultation of medical witnesses, after a long discussion, it was resolved that:

The consultation between medical witnesses is desirable.

As to the reorganization of the Local Government Board, it was resolved that as the scheme is impracticable, the proposed resolutions be not sent to the local members of Parliament. In regard to the Medical Acts Amendment Bill, Dr. H. MANLEY explained the principles of the Bill, and these were unanimously approved. In the report on prevention of abuse of drugs, propositions 1 and 2 were approved, while 3 was considered unnecessary. In regard to the report on ambulance work, it was resolved that the time had now arrived when this work need no longer be considered a matter of philanthropy. That the fee for a course of lectures be £5 5s.; that the fee for examinations be £2 2s. and expenses.

The Ethics of Examination for Life Insurance.—Dr. W. H. STEPHEN drew attention to the ethical procedure in examination of insurance or compensation cases while under the care of another medical man. It was resolved that no examination should take place without first acquainting the medical attendant, but that this was not necessary if the patient came to the surgery.

Nomination of Branch Representative on Council of Association.—It was proposed by the CHAIRMAN, and resolved: That the Honorary Secretary take steps to nominate Dr. H. Langley Browne as one of the Rrepresentatives of the Branch on the Council of the Association.

CONJOINT MEETING OF SCOTTISH BRANCHES.

A MEETING of the Edinburgh and other Scottish Branches was held in the Royal Infirmary, Edinburgh, on February 17th, under the presidency of Dr. UNDERHILL. This conjoint meeting was largely attended, and proved to be most interesting and enjoyable.

Demonstrations.—An excellent collection of pathological specimens had been brought together in Ward 22, and demonstrations were given in many of the special departments by members of the staff. In Ward 35 Professor SIMPSON performed an ovariotomy. In the eye department Mr. BERRY operated for cataract and Dr. MCKAY demonstrated the use of Volkmann's magnet and Zeiss's corneal microscope. Mr. WALLACE showed some interesting cases in the lock wards. Dr. ALLAN JAMIESON held a clinique in the skin department. Dr. MCKENZIE JOHNSTON operated on adenoids, tonsils, etc., under chloride of ethyl anaesthesia. Dr. LUNDIE also demonstrated his anatomical bicycle pedals to many interested members. The museum attracted a great deal of attention. Professor ANNANDALE showed the following specimens, which had been beautifully prepared and mounted by Dr. Shepherd: (1) Tuberculous bones and synovial membrane; (2) sarcomata: (*a*) myeloid of the femur, (*b*) periosteal of the femur, showing spontaneous fracture; (*c*) periosteal of the tibia, with exostosis on femur of the same limb, (*d*) chondro-sarcoma of elbow; (3) epitheliomata, (*a*) external ear, (*b*) following a burn in the axilla, (*c*) following lupus of the face, (*d*) epithelioma from arm of a paraffin worker; (4) a series of appendices illustrating various pathological changes; (5) foreign bodies removed from the oesophagus with the coin catcher; (6) recurrent sarcoma of thigh originating in the internal intermuscular septum and secondarily affecting the femur; (7) cancellous exostosis of the femur; (8) two specimens from circumcision. (*a*) pinpoint opening, (*b*) warts; (9) femoral hernia resembling a gland in the groin.—Dr. BEATTIE: (1) Organs from a case of experimental rheumatism; (2) culture and slide of micrococcus neoformans.—Dr. EDWIN BRAMWELL: Photograph of a case of cerebral softening.—Dr. ALEX BRUCE: (1) Thrombosis of the middle cerebral artery; (2) secondary sarcoma of lung and mediastinum, involving both recurrent laryngeal nerves.—Mr. CAIRD: (1) Carcinoma of stomach and pylorus removed by resection; (2) drawings illustrative of preparations removed from stomach in cases of carcinoma and the operative procedure; (3) parts removed in excision of the knee for chronic tuberculosis.—Dr. MALCOLM CAMPBELL: (1) A series of preparations illustrating pathological conditions of the ovaries associated with uterine fibroids; (2) microscopical preparations showing junction of Mullerian ducts to form the uterus.—Mr. CATHCART: (1) Specimen from case of multiple tuberculous ulcers of the intestine; (2) specimens and drawings from a case of melanosis of the finger.—Professor CHIENE: A physiological watercloset; the seat is lower than usual and the hunker attitude is obtained while defaecating.—Mr. GEORGE CHIENE: (1) A series of appendices illustrating various pathological changes; (2) tuberculous ulceration at the base of the appendix which caused acute peritonitis; (3) acute miliary tuberculosis of the lower end of ileum and caecum which gave rise to symptoms simulating acute appendicitis.—Mr. J. DOWDEN: (1) Multilocular ovarian cyst with twisted pedicle; (2) acute torsion of the spermatic cord (two cases); (3) halfpenny after a month in the oesophagus; (4) hernia into the superior duodenal fossa; (5) (with Dr. J. S. FOWLER) hair ball from the stomach of a child aged 5 years.—Dr. F. W. N. HAULTAIN: A series of cervical fibromyomata.—Dr. HARVEY LITTLEJOHN: (1) Cases of poisoning—stomachs illustrating action of various irritant poisons; (2) accidental, suicidal, and homicidal wounds of the heart; (3) injury to the brain from a toy revolver.—Dr. STUART MCDONALD: (1) pyonephrosis in a child 8 months old; (2) biliary cirrhosis with photomicrographs; (3) specimens from a case of suppurative pancreatitis.—Mr. MILES: (1) Kidney removed for hydronephrosis due to stone impacted in the pelvis; (2) kidney removed for hydronephrosis due to a stone impacted at lower end of ureter; (3) kidney removed for tuberculous disease; (4) calculus removed from calyx of kidney by nephrolithotomy; (5) three specimens of caecum excised for tuberculous disease; (6) three specimens of strangulated intestine; (7) twenty-five appendices illustrative of various pathological processes; (8) hydatid cyst of liver removed by operation; (9) two family trees of haemophiliacs; (10) series of stereoscopic photographs illustrative of clinical surgery.—Drs. FORD ROBERTSON and WADE: (1) Bodies resembling plasmodiofora in carcinomatous tumours and in cultures prepared from those tumours; (2) the life-cycle of the plasmodiofora brassica.—Dr. SHENNAN: (1) Organs from a case of lymphadenoma; (2) Kidney from argyria case with microscopic specimen; (3) coarse cirrhoses of the liver; (4) extradural haemorrhage; (5) preparations illustrating the morbid anatomy of lobar pneumonia, and other conditions caused by the pneumococcus.—Dr. SIMPSON: Uterus from a case of fatal prolapse.—Mr. SCOTT SKIRVING: Improved pattern of drum for sterilizing dressing.—Mr. ALEX. THOMSON: Several prostates removed by prostatectomy.—Dr. JOHN THOMSON: Blood film from a case of leukaemia in a child 22 months old; leucocytes 2,187,000, haemocytes 240,000.—Dr. LOGAN TURNER: (1) Temporal bone showing necrosis and perforation of tegmen antri; (2) temporal bone showing unusual position of the sigmoid groove; (3) tumour removed from the naso-pharynx; (4) middle turbinated bone showing two large air spaces; (5) middle turbinated bone with mucous polypus in air spaces; (6) accessory sinuses of the nose.—Mr. WALLACE: (1) Three appendices; (2) Richter's hernia, bowel enterectomy.—Dr. CHALMERS WATSON: Histological demonstration of recent work on gout. A clinical meeting was held in the University Clinical Medicine Theatre, when the following members demonstrated cases:—Dr. JAMES: (1) Case of Recklinghausen's disease; (2) case of elephantiasis of the leg; (3) case resembling one of epidemic cerebro-spinal meningitis which was treated by lumbar puncture.—Professor SCHÄFER demonstrated his method of artificial respiration which has been published.—Dr ALLAN JAMIESON: (1) Case of hydroa vacciniformae; (2) two cases of lichen planus.—Mr. CATHCART: Patient after trephining for epilepsy, marked improvement has followed the operation.—Dr. R. W. PHILIP: Cases of tuberculosis of lung which had been treated by Professor Béraneck's fluid; all had improved under this line of treatment.—Mr. MILES: (1) Patient who had been operated on for tuberculous disease of the caecum; (2) girl, aged 16 after operation for perforated gastric ulcer.—Dr. JOHN THOMSON: (1) Sporadic cretin, aged 2½ years, who is improving slowly under rectal administration of thyroid; (2) sporadic cretin, aged 3½ years, who shows marked improvement under thyroid treatment (continued since she was 7 weeks old); (3) girl, aged 1 year, showing marked cranial bossing (Parrot's nodes) and splenic anaemia.—Mr. ALEX THOMSON: (1) Vicious circle after posterior gastroenterostomy, necessitating entero-anastomosis; (2) intestinal obstruction due to Meckel's diverticulum, the latter being used to empty the distended bowel; (3) excision of the gall bladder for relapse after cholecystotomy.—Dr. GIBSON showed a case of angina pectoris with unusual symptoms. This has been published.—Mr. GEORGE CHIENE: (1) Case operated on eighteen months ago for intestinal obstruction due to tuberculous strictures; (2) patient after operation for a divided median nerve.—Dr. BRUCE: Case of primary myopathy.—Dr. CAVERHILL: Cases of pulmonary tuberculosis illustrating capacity for work after sanatorium treatment.—Mr. SCOTT SKIRVING: Two patients after paraffin injection for depressed bridge of the nose, in one

case due to trauma and in the other to syphilis.—Dr. BYROM BRAMWELL: Case of infantilism, non-pancreatic in origin.—Mr. STILES: (1) Identical twins with identical and symmetrical deformity; (2) child showing early myositis ossificans; (3) child six months after ligature of both common carotid arteries for hydrocephalus; (4) patient after excision of tuberculous kidney and ureter.—Dr. W. B. DRUMMOND: Case of Erb's paralysis.—Mr. CAIRD: (1) Patient after operation for coxa vera; (2) patient after recent resection of pylorus for carcinoma; (3) patient four years after resection of the pylorus for carcinoma; (4) patient after operation for old dislocation of the shoulder.—Mr. WALLACE: Patient showing marked improvement as a result of open-air and conservative treatment in tuberculous disease of the wrist joint.—Dr. NORMAN WALKER: Two cases of lupus treated by uranium.—Dr. EDWIN BRAMWELL: Two cases of brachial plexus palsy.

Dinner.—The members of the Association dined together in the evening at the North British Hotel. The meeting, both in regard to interest and numbers attending, proved to be an unqualified success, and this was in no small measure due to the untiring energies of the local secretaries, Drs. Norman Walker and Logan Turner.

EAST ANGLIAN BRANCH:

SOUTH SUFFOLK DIVISION.

A SPECIAL meeting of this Division was held at the Crown and Anchor Hotel, Ipswich, on Wednesday, February 22nd, Dr. HAVELL, President, in the chair.

Executive Committee.—The report of the Executive Committee was received.

Matters Referred to Divisions.—The memorandum on the payment of medical practitioners called in to assist midwives was considered, and the resolutions passed have been conveyed to the Medico-Political Committee. The other reports (SUPPLEMENT, November 26th, 1904) were next considered, with the following results: (*a*) Contract medical practice—propositions 1 to 5 approved; proposition 6 voted impracticable; proposition 7 altered to read thus: "The rates above specified are not intended to apply to obstetric cases or operations." (*b*) The desirability of consultation between medical witnesses in legal cases—report approved. (*c*) The present position of medical practitioners in the matter of furnishing certain information to coroners—memorandum approved. (*d*) Reorganization of Local Government Board—resolutions 52 and 53 approved.

The Medical Profession and Ambulance Work.—The memorandum on the relations of the medical profession to ambulance work was considered and the following decisions with regard to fees arrived at:

(*a*) That members are at liberty to use their own discretion as to whether they accept payment or give ambulance instruction free.
(*b*) That judging in ambulance examinations and in ambulance competitions should be paid for.
(*c*) That the fees for the above should be according to the St. John Ambulance Association scale.

Membership of the Association.—A proposed circular for sending to non-members with the object of increasing the membership of the Association was approved and directed to be sent to all such in the Division.

Vacancies among Officials of Divisions.—A model rule was adopted for filling up vacancies amongst the officials of the Division.

Co-ordination of Work of Divisions.—A suggestion for co-ordination of the work of Divisions was rejected as impracticable.

LANCASHIRE AND CHESHIRE BRANCH:

BIRKENHEAD DIVISION.

A MEETING of this Division was held on February 16th. Dr. CRAIGMILE, Vice-Chairman of the Division, presided, in the unavoidable absence of Dr. G. S. Stansfield (Chairman).

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Medical Practitioners and Midwives.—The question of the payment of medical practitioners called in to assist midwives was discussed. The conclusions arrived at have been handed to the Medical Secretary.

National Deposit Friendly Society.—It was resolved that the recommendations of the Medico-Political Committee be approved.

Public Health Bill.—It was resolved that the Public Health Bill be approved.

Revaccination Bill.—It was resolved that the Revaccination Bill be approved.

Ambulance Work.—It was resolved that all matters connected with ambulance work should be dealt with as matters of business.

CHESTER DIVISION.

A MEETING of the Division was held in the Board-room of the Chester General Infirmary on Friday, February 24th, at 5 p.m. Mr. J. TAYLOR, Chairman of the Division, presided.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Matters Referred to Divisions.—The interim report on contract practice was discussed. It was proposed by Dr. ARCHER and seconded by Dr. DUFF:

> That the report be approved, with the addition of the words "or other grounds" after "financial position" in paragraph 6; and that the Representative be instructed to bring this before the Representative Meeting.

In regard to consultation between medical witnesses, the resolution passed on May 31st, 1904, namely:

> That it is desirable that, with the concurrence of the principals on both sides, consultation between the medical witnesses on both sides should take place,

was unanimously confirmed. In respect to information supplied to coroners, the conclusions embodied in the report were unanimously supported. The Bill for the Local Government Board Act (1904) was, on the proposition of the CHAIRMAN, seconded by Dr. PARRY, unanimously agreed to. The principles of the Medical Acts Amendment Bill were also, on the proposition of the CHAIRMAN, seconded by Dr. DUFF, unanimously agreed to. The recommendations of the report on prevention of the abuse of drugs were adopted, and it was proposed by Dr. PARRY, seconded by Dr. ARCHER, and carried unanimously:

> That some means should be adopted to prevent chemists from supplying strong drugs without the prescription of a medical practitioner.

The question of the payment of practitioners called in to assist midwives was discussed, and the conclusions arrived at have been communicated to the Medico-Political Committee. This concluded the business of the meeting.

Tea.—Tea was kindly provided by the Chairman, Mr. Taylor.

LIVERPOOL (CENTRAL) DIVISION.

A MEETING of this Division was held on Wednesday, February 15th, to consider the report of the Executive Committee of the Division. Dr. T. DRAKE LEIGH, Vice-Chairman, occupied the chair.

Matters Referred to Divisions.—The matters referred to the Divisions were considered. With regard to contract medical practice, the propositions, p. 179, SUPPLEMENT, November 26th, 1904, received the approval of the Division. With reference to the consultation of medical witnesses in legal cases, the members decided that it should be left to the discretion of the medical witnesses engaged on each side in legal cases whether they should meet in consultation or not. As to information supplied to coroners by medical practitioners, the members resolved to support the purport of the four sections set forth on p. 180 of the SUPPLEMENT, November 26th, 1904. On the question of the reorganization of the Local Government Board, the Division approved of this important proposition. It was the unanimous opinion that the medical profession should have more influence in the State than it at present possesses, not only in matters of public health, but in every matter that concerns the well-being and welfare of the inhabitants of the country. The members also approved of the principle of the Medical Acts Amendment Bill, with some few exceptions noted below, and regarded it as a distinct step towards the unification of the medical curriculum. The exceptions are: A. That in Subclause 1, Clause 2, p. 188 (SUPPLEMENT, November 26th, 1904), the annual fee be 10s. instead of £1. B. That Subclause 3, Clause 13, p. 188, referring to the bestowal of the title "doctor," be deleted. C. That the operation of Subclause 2, Clause 27, p. 189, that an assistant or deputy should be obliged to affix his name on premises belonging to his principal, is impracticable, and in some cases would be unfair.—In regard to the report on prevention of the abuse of drugs, the Division approves of the recommendations A, B, C, set forth on p. 191, SUPPLEMENT, November 26th, 1904.—The conclusions arrived at with respect to the memorandum on the payment of medical practitioners called in to assist midwives have been transmitted to the Medico-Political Committee.—The

relations of the medical profession to ambulance work were discussed. The Division considered the three clauses set forth in the Supplement, February 4th, 1905, and concluded that medical services should not be rendered gratuitously and as a matter of philanthropy. It was, however, impossible to fix definitely the fees for such services.

Southport Division.

A meeting of this Division was held at the Temperance Institute, London Street, Southport, on February 21st, Dr. Russel, President, in the chair.

Matters Referred to Divisions.—The memorandum of the Medico-Political Committee on the matters referred to Divisions, published in the Supplement to the British Medical Journal of November 26th, 1904; also the memorandum respecting statutory provision for the payment of medical practitioners called in to assist midwives, were considered.—With regard to contract medical practice the propositions were unanimously affirmed with the following alterations: In proposition (1) the words "of the poor" were omitted. In proposition (7) the words after "obstetric cases" were exchanged for "and operations involving the use of anaesthetics."—In regard to the desirability of consultation between medical witnesses in legal cases likely to be brought before the courts, the resolution passed on May 26th last to the effect

> That this Division is of opinion that the consultation of medical witnesses engaged on each side in legal cases is impracticable and undesirable as a rule for general observance,

was unanimously reaffirmed.—On the question of the present position of registered medical practitioners in the matter of furnishing certain information to coroners, it was unanimously resolved:

> That this Division considers that the British Medical Association will be doing a decided disservice to the medical profession in encouraging medical practitioners to refuse to give information to coroners, thus encouraging their antagonism; that such refusal will lead to unnecessary inquests being held, and the discredit awarded to practitioners by coroners, and also to interference with effectiveness of inquests and with the interests of the public; but the Division is of opinion, as already resolved on July 13th, 1904, that it is desirable that coroners should be empowered to pay fees for information obtained privately from medical practitioners, and that when inquests are held the medical practitioners should be called as witnesses.

—On the question of the reorganization of the Local Government Board, it was unanimously resolved:

> That this Division, not having special knowledge and experience of the gravely defective constitution and status of the Local Government Board, is willing to leave the matter in the hands of the Medico-Political Committee, who will doubtless act under the advice of those who have such knowledge.

—In regard to the Medical Acts Amendment Bill, it was unanimously resolved:

> That this Division approves the Bill as a whole, but objects to the imposition of an annual registration fee of £1, being of opinion that a fee of 10s. would provide a sufficient annual income, and also strongly objects to Section xxvii, Clause 2, respecting the displaying of the names of assistants.

—On the report of the prevention of the abuse of drugs, it was unanimously resolved:

> That this Division disagrees with all the recommendations of the Medico-Political Committee on this subject.

—There not being time to discuss the midwives question, the meeting was adjourned for three weeks to consider that question, and also the hydro question, referred to Divisions in the Supplement to the Journal of February 18th.

METROPOLITAN COUNTIES BRANCH:

Wandsworth Division.

A meeting was held on Thursday, February 23rd, at the Balham Hotel. Present: Dr. George Walker (Chairman), Drs. Ker, Dewar, Swallow, Biggs, McManus, Dunville Roe, Turner, Hollist, Wallace, Spurgin, Richards, Johnson, and the Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Correspondence.—Correspondence from Mrs. Hett; the Medical Secretary, with reference to Coroner Troutbeck; the General Secretary, with reference to the annual dinner; and Mr. Marks, with reference to a proposed local medical journal, were read and dealt with.

National Friendly Society.—The recommendations with reference to the National Deposit Friendly Society of the Medico-Political Committee were considered, when the following resolution was proposed by Dr. Biggs, seconded by Dr. McManus, and carried;

> That this meeting affirms the resolution passed by the Representatives' Meeting at Oxford in July last, and agrees with the report presented by the Medico-Political Committee at that meeting, but considers the resolutions submitted for the consideration of the Division are too drastic.

King's College Hospital.—The report of the South London Medical Committee was presented. This Committee was formed a year ago at the request of King's College Hospital to draw up suggestions for the regulation of their new hospital at Camberwell. It consists of Drs. Nelson Hardy, Prangley, and Verdon (Norwood Division), Drs. Capes, Taylor, and Stoddart (Lambeth Division), Drs. Biggs, Fothergill, and Lyster (Wandsworth Division), Dr. Mackintosh (South-West London Medical Society), Dr. Simpson (Brixton Medical Society), Dr. Taylor (Medical Officer of Camberwell Dispensary). The following recommendations were submitted: (*a*) That in connexion with the establishment of King's College Hospital at Camberwell there should be no issue of subscribers' letters. (*b*) That sickness and poverty should be the qualifications for hospital relief. (*c*) That no charge should be made for the treatment of any patient of the hospital, or for the supply of medicines or dressings. (*d*) That urgent cases should receive attention without inquiry. (*e*) That applicants for relief should, on their first visit, be seen by a registered medical practitioner and, if expedient, attended to; and that the name, age, address, and occupation or position should be entered in a register. (*f*) That, on a second visit, the patient should bring with him a certificate, signed by a medical practitioner, stating that he (she) is a suitable person for hospital relief. (*g*) That such certificate should not necessarily be written on a form supplied by the hospital. (*h*) That such certificate, duly filled up, should be appended to each patient's prescription sheet or attendance card. (*i*) That the attached certificate be submitted to the authorities of King's College Hospital as the ordinary form to be supplied to patients attending the hospital for the first time. (*j*) That it would be satisfactory if a system could be arranged at the hospital by which obscure and interesting cases might be brought, or sent with a note, by practitioners in the neighbourhood, for an opinion, where a consultation fee cannot be paid. (*k*) That all cases of trivial accident or illness deemed ineligible for the out-patient department shall, after having been once attended to, be referred for treatment to one of the local general practitioners or the neighbouring dispensaries. (*l*) That, should a general practitioner report in writing the attendance of a person well able to pay, the letter, if duly signed, be treated as confidential and the matter investigated. (*m*) That the hospital authorities use every means in their power to prevent unsuitable cases receiving hospital treatment, and appoint such officers as they consider desirable to make inquiries with a view to checking hospital abuse. (*n*) That the regulations for the treatment of patients be displayed in conspicuous places. Dr. Biggs explained the various points, and then submitted the following resolutions for approval. They were duly seconded, and, after discussion, carried unanimously:

1. That the recommendations as submitted by the South London Medical Committee be approved.
2. That the form of letter covering these recommendations be left to the decision of that Committee.
3. That that Committee are requested to take into their consideration, before sending in their recommendations, the question of the maternity charity that will be attached to the hospital and its probable effects on the general practitioners of the surrounding district.
4. That it is desirable that a recommendation be added that no arrangements be come to with King's College Hospital Committee for attending patients at their homes, except for maternity cases.
5. That the South London Medical Committee are requested not to dissolve until a satisfactory arrangement be come to with King's College Hospital.
6. That before dissolving that Committee are requested to form a permanent Committee.
7. That, as no scheme of hospital reform will prove effectual that has not contingent to it a satisfactory arrangement for providing medical treatment in their own homes for those of the lower and lower middle classes who do not need hospital treatment, upon terms which would be satisfactory both to the general practitioner and the patient, the South London Medical Committee is requested to extend its deliberations with a view to suggesting some organized system for South London as a solution of this problem.

8. That the South London Medical Committee be requested to lay before the King's College Hospital Medical Board some suggestion by which the attendance on patients well able to afford small fees in a home could be carried out outside their hospital, and so not necessitate any paying patients wards.

Annual Representative Meeting.—The resolutions published at p. 73 under the head of Notices of Motion at the Annual Representative Meeting were proposed by Dr. E. ROWLAND FOTHERGILL, duly seconded, and unanimously carried; and it was decided to send them in to the central office to be placed on the Annual Representatives Meeting Agenda for July next.

Expenses of Representative of Division at Annual Representative Meeting.—The CHAIRMAN then submitted the following resolution for the consideration of the meeting, it having been prepared by the Committee. After discussion it was unanimously approved:

That the Honorary Secretary is hereby authorized to ask all the members of this Division to contribute not less than 2s. 6d. to a special fund to allow of (1) the Division's Representative at the Annual Representatives Meeting at Leicester in July receiving a fee of seven guineas to meet his out-of-pocket expenses; (2) entertaining guests at the Annual Dinner on May 25th next; and (3) to meet all incidental expenses incurred in providing refreshments at the remaining meetings during 1905.

Paper.—The CHAIRMAN reported that, owing to illness, Professor Hewlett was unable to be present to read his paper on the Etiology of Summer Diarrhoea of Infants.

Vote of Thanks.—The meeting closed with a hearty vote of thanks to the Chairman.

STRATFORD DIVISION.

A MEETING of the Stratford Division was held on Thursday, February 23rd, in the Alexandra Hotel, High Street, Stratford, E., Dr GROGONO, Chairman of the Division, presiding.

Medical Practitioners and Midwives.—The questions submitted by the Medico-Political Committee to the Division in their memorandum on the payment of medical practitioners called in to assist midwives, referred from last meeting, were again considered, and the resolutions arrived at have been conveyed to the Medico-Political Committee. Dr. ROSE stated that the practical working of the Midwives Act in the area of the Division was satisfactory.

Address.—Dr. F. J. SMITH (London Hospital) then delivered an address on *post-mortem* examinations with no pathological appearances. The lecture was of a particularly interesting and thoroughly practical character, and was highly appreciated by the meeting. A number of questions were put to the lecturer at the close, and a hearty vote of thanks to Dr. Smith, on the motion of the CHAIRMAN, terminated the proceedings.

Association Notices.

NOTICE OF CHANGES IN DIVISIONS AND BRANCHES.

CHANGES OF BOUNDARIES.

THE following changes have been made in accordance with the regulations of the Association, and take effect from the date of publication of this notice:

1. That the Canterbury and Faversham Divisions be united to form one Division.

2. That the Shropshire, Montgomeryshire, and Radnorshire Division of the present North Wales and Shropshire Branch henceforth constitute a separate Branch, to be known as the "Shropshire and Mid Wales" Branch, and that the remaining three Divisions of the present North Wales and Shropshire Branch henceforth constitute the "North Wales" Branch.

3. That Handley be transferred from the Bournemouth Division (Dorset and West Hants Branch) to the Salisbury Division (Southern Branch).

CHANGE OF NAME.

4. That the name of the "Newton Abbot" Division be changed to the "Torquay" Division.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, March 7th, at 8.30 p.m. Agenda: 1. Mr. W. E. Bennett will read a paper on rickets. 2. Dr. Kendrick will move the following resolution: That it is hereby resolved that no member of the profession in the area of the Division shall act as medical officer to a Friendly Society at a less remuneration than 4s. per member per annum; that the Division, in interpreting this rule, will consider that any return or donation of any kind to the society or any officer of the society is an infringement of the rule; that no member of the medical profession in the Division take over or apply for any club appointment during the time the present holder is applying for an increase in the salary. 3. Matters referred to the Division: (*a*) Interim report on contract practice; the recommendations of the Committee on the report will be moved by Dr J. Orton (SUPPLEMENT, November 26th, 1904, p. 179). (*b*) The Medical Act Amendment Bill will be explained by the Secretary, and resolutions thereon will be dealt with (SUPPLEMENT, November 26th, 1904, p. 183).—E. H. SNELL, Coventry, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in March (22nd), April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: CANTERBURY AND FAVERSHAM DIVISIONS.—A combined meeting of the above Divisions will be held at the Cottage Hospital, Faversham, on Thursday, March 9th, at 2.45 p.m. Important medico-political matters, referred to the Divisions by the Annual Representative Meeting, are on the agenda for consideration. Kindly make a note of the date of the meeting in your engagement list. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends.—A. R. HENCHLEY, WILLIAM GOSSE, Honorary Division Secretaries.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Greyhound Hotel, on Thursday, March 16th, at 4 p.m., Dr. W. Rosser in the chair. Dinner at 6 p.m.; charge, 5s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by post card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. Agenda: (1) Minutes of the last meeting. (2) To decide when and where the next meeting shall be held, and to elect a chairman. (3) Consideration of various matters referred from the Medico-Political Committee (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904): (*a*) Interim report on contract practice; (*b*) consultation between medical witnesses; (*c*) memorandum *re* information to coroners; (*d*) report on reorganization of the Local Government Board; (*e*) memorandum *re* drug abuse; (*f*) memorandum on the payment of medical practitioners called in to assist midwives. The following papers will be read: Dr. Dundas Grant, Some Practical Points in the Treatment of Diseases of the Throat, Nose, and Ear; Mr T. H. Kellock, Intussusception. Golf Competition: It is proposed to hold a golf competition amongst members of the Croydon Division. Those members willing (*a*) to take part in the competition, (*b*) to serve on the committee, are requested to communicate with the Honorary Secretary on or before March 16th. Exhibition of pharmaceutical products by Messrs Parke, Davis and Co. Surgical instruments by Messrs Evans and Wormull.—E. H. WILLOCK, Honorary Secretary, 113, London Road, Croydon.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 p.m.; J. H. Galton, M.D., of Upper Norwood, in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine.

AGENDA.

1. Minutes of last meeting.
2. To decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat.
3. Report of the South London King's College Hospital Committee. (This report was published in the SUPPLEMENT for February 18th, p. 52.)
4. Consideration of various matters referred from Medico-Political Committee (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904; members are requested to bring this to the meeting):
   (*a*) The Interim Report on Contract Practice.
   (*b*) Consultation between Medical Witnesses.
   (*c*) Memorandum *re* Information to Coroners.
   (*d*) The Report on Reorganization of the Local Government Board.
   (*e*) Memorandum *re* Drug Abuse.
   (*f*) Memorandum on the Payment of Medical Practitioners called in to assist Midwives (Memorandum enclosed).

The following papers, etc., will be read: Dr. Pye-Smith: Auscultation of the Chest and its relation to General Symptoms. Mr. E. M. Corner: Common Causes of Failure in Surgical Proceedings. Dr. Mercier: A Problem in Diagnosis. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANGLEY, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary.

SOUTH MIDLAND BRANCH.—The Council of this Branch will meet at Franklin's Restaurant, Guildhall Road, Northampton, on Tuesday, March 7th, at 3.30 p.m. E. HAINES JONES, Secretary, Northampton.

EDINBURGH BRANCH: NORTH-EAST EDINBURGH DIVISION.—An ordinary meeting of the Division will take place on Tuesday, March 7th, at 8.15 p.m., in 5, St. Andrew Square. Adoption of rule regarding vacancies. Communications to the Secretary. School Board certificates. Various matters referred to the Division (see BRITISH MEDICAL JOURNAL SUPPLEMENTS of November 26th, 1904, January 14th, February 4th, February 18th, February 25th, 1905). Other competent business.—G. KEPPIE PATERSON, Honorary Secretary, 19, Albany Street, Edinburgh.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on February 23rd, at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

Fee for Certificate.

Letters were received from the Clerks of the County Councils of Carnarvonshire, Radnorshire, and East Sussex, and from the Town Clerks of Hanley, Ipswich, and Southampton suggesting the reduction of the certificate fee from 10s. to 5s. or 2s. 6d. A letter was also received from the Clerk of the County Council of West Sussex, urging the retention of the certificate fee at its existing amount of 10s.

The Board agreed to take no action in regard to these letters.

Stringency of Regulations.

A letter was read from the Clerk of the Lindsey County Council, enclosing a copy of a resolution of the Midwives Act Committee of that body, regretting that the stringency of the Board's regulations will involve the retirement from practice on April 1st of a large number of midwives who have hitherto satisfactorily discharged their duties.

The Board decided that the letter be acknowledged, and the Committee informed that the Board has no dispensing power in the matter.

Midwives and Laying-out the Dead.

A letter was received from the Honorary Secretary of the Herefordshire County Nursing Association enclosing copy of a resolution passed by the General County Committee of the Association protesting against Rule E, 15, prohibiting a midwife from undertaking the duty of laying-out the dead. It was decided to acknowledge the receipt of the resolution.

Attendance of Medical Practitioner.

A letter from Mary A. Bradford, a certified midwife, was received, asking for directions as to how to act in case of refusal to attend on the part of a registered medical practitioner sent for under Rule E, 17. It was decided that the letter be forwarded to the local supervising authority concerned, and that a copy be sent to the Privy Council.

Midwives to Appear before the Board.

In the case of a certified midwife, in respect of whom a prima facie case of misconduct had been established in the opinion of the local supervising authority, and in the case of another certified midwife, in respect of whom a police report was furnished, it was decided that these midwives be cited to appear before the Central Midwives Board on March 16th.

Number of Women on the Roll.

After consideration of applications for certificates, the names of 2,400 women were passed under Section 11 of the Act, and ordered for entry on the Roll. The following table shows the numbers of the various qualifications at present appearing on the Roll:

Royal College of Physicians of Ireland ...	6
Obstetrical Society of London	5,453
Rotunda Hospital	317
Coombe Hospital	73
Queen Charlotte's Hospital	282
Liverpool Lying-in Hospital	211
British Lying-in Hospital	8
Glasgow Maternity Hospital	210
St. Mary's Hospital, Manchester	159
Manchester Maternity Hospital	47
City of London Lying-in Hospital ...	78
Royal Maternity Hospital, Edinburgh ...	89
Salvation Army Maternity Hospital ...	20
National Maternity Hospital, Dublin ...	18
Limerick Lying-in Hospital	10
Cork Lying in Hospital	12
Eden Hospital, Calcutta	3
Newcastle-on-Tyne Lying-in Hospital ...	11
Dundee Maternity Hospital	23
Aberdeen Maternity Hospital	12
Women in bona-fide practice, July, 1901 ...	8,448
Total enrolled...	...15,490

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE

Deputy Inspector-General W. B. Drew has been placed on the retired list, at his own request, with the rank of Inspector-General, February 23rd. He was appointed Surgeon, September 30th, 1871; Staff Surgeon, September 30th, 1883; Fleet Surgeon, September 18th, 1892; and Deputy Inspector-General, March 13th, 1901. He was Surgeon of the *Cockatrice* during the Egyptian war of 1882 (medal and Khedive's bronze star), and served with the Royal Marine Battalion at Suakin in 1884-5.

The following appointments have been made at the Admiralty: Graham E. Kennedy, Fleet Surgeon, to the *Royal Oak* on recommissioning, March 8th; Cornelius Bradley, M.D., Fleet Surgeon, and Henry R. Gardner, M.B., Surgeon, to the *Caesar*, on commissioning, March 8th; George Ley, Staff Surgeon, to the *President*, additional, to assist in survey of stores at Yarmouth Hospital, temporary, March 11th; Fred. C. B. Gittings, M.B., Surgeon, to the *Wildfire*, for Sheerness Dockyard, February 28th; Ernest S. Reid, M.B., Surgeon, to the *Hannibal*, February 28th.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel R. D. Murray, M.B., Bengal Establishment, Professor of Surgery, Medical College, Calcutta, is granted the temporary rank of Colonel whilst officiating as Inspector-General of Civil Hospitals, Bengal, from January 18th.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

The Registrar-General has just issued his return relating to the births and deaths during the fourth quarter of last year, and to the marriages during the three months ending September last. The marriage-rate during that period was equal to 16.7 per 1,000 of the population, being 0.2 per 1,000 below the average rate for the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending December last numbered 228,413, and were equal to an annual rate of 26.8 per 1,000 of the population, estimated at 33,763,434 persons in the middle of 1904. In the fourth quarters of the ten preceding years the rates had averaged 28.3 per 1,000. The birth-rates last quarter in the several counties ranged from 20.5 in Sussex, 21.6 in Cornwall, 22.0 in Bedfordshire, and 22.1 in Cambridgeshire, to 31.3 in Staffordshire, 33.8 in Durham, 33.9 in Glamorganshire, and 35.2 in Monmouthshire. In seventy-six of the largest English towns, including London, the birth-rate averaged 28.1 per 1,000, being 1.3 per 1,000 in excess of the general English rate. In London the rate was 27.2 per 1,000, while it averaged 28.5 in the seventy-five large provincial towns, and ranged from 16.1 in Bournemouth, 16.5 in Hastings, 18.1 in Hornsey, and 19.9 in Blackburn, in Halifax, and in Bradford, to 34.7 in Tynemouth, 35.9 in Middlesbrough, 37.1 in Merthyr Tydfil, 39.0 in St. Helens, and 39.3 in Rhondda.

The births registered during the quarter under notice were 90,008 in excess of the deaths; this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 107,776 emigrants embarked during last quarter from the various ports of the United Kingdom at which emigration officers are stationed. Of these 107,776 emigrants, 39,589 were English, 7,895 were Scotish, and 13,047 were Irish, while 47,245 others were of foreign nationality. Compared with the averages in the corresponding quarters of the three preceding years, the proportion of emigrants in the population of the several parts of the United Kingdom showed an increase of 11.5 per cent. English, 25.1 per cent Scottish, and 75.6 per cent. Irish.

During the fourth quarter of the year the deaths of 138,405 persons were registered, equal to an annual rate of 16.3 per 1,000 persons living; this rate was 0.6 per 1,000 below the mean rate in the corresponding periods of the ten preceding years. The lowest county death-rates last quarter were 12.9 in Dorsetshire, 13.3 in Surrey, 13.5 in Kent, and 13.6 in Sussex, in Hertfordshire, in Somersetshire, and in Herefordshire; the highest rates were 18.0 in Northumberland, 18.4 in Staffordshire, 18.8 in Lancashire, and 19.6 in Durham. In seventy-six of the largest towns, with an aggregate population of more than fifteen millions, the mean rate of mortality was 17.5 per 1,000; in 142 smaller towns, containing in the aggregate upwards of four and a half millions of persons, the death rate was 15.9 per 1,000; while in the remaining, and chiefly rural, parts of England and Wales the rate was 15.1 per 1,000; in London the death-rate was 17.0 per 1,000, while it averaged 17.7 in the seventy-five other large towns, and ranged from 8.4 in Hornsey, 11.3 in Willesden, 11.4 in King's Norton, 11.6 in Walthamstow, 12.1 in Barrow-in-Furness, and 12.2 in Bournemouth, to 21.7 in Manchester and in Tynemouth, 22.0 in Liverpool, 22.2 in South Shields, 22.4 in Middlesbrough, and 23.0 in Hanley.

The 138,405 deaths from all causes in England and Wales last quarter included 12,317 that were referred to the principal infectious diseases; of these, 3,329 were attributed to measles, 3,014 to diarrhoea, 1,789 to diphtheria, 1,737 to whooping-cough, 1,183 to scarlet fever, 1,110 to "fever" (principally enteric), and 155 to small-pox. The rate of mortality from each of these diseases, except small-pox, was lower than the average for the corresponding quarters of the ten preceding years. Of the 155 fatal cases of small-pox, 84 belonged to one or other of the 218 chief towns; 27 of these deaths belonged to Dewsbury, 7 to Oldham, 5 to Preston, 5 to Halifax, and 5 to Batley.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 136 per 1,000, against an average of 149. In the several counties the rates of infant mortality ranged from 76 in Berkshire, 81 in Bedfordshire, 82 in Hertfordshire, and 85 in Herefordshire, to 161 in Warwickshire and in Cumberland, 163 in Northumberland, 173 in Lancashire, and 175 in Durham. In the seventy six large towns the mean rate was 147 per 1,000; in London the proportion was equal to 130 per 1,000, while it averaged 155 in the seventy-five other large towns, among which the rates of infant mortality ranged from 77 in Hornsey, 81 in Bournemouth, 83 in Leyton and in Barrow-in-Furness, and 87 in Willesden, to 217 in Preston, 223 in Hanley, 252 in Blackburn, and 261 in Burnley.

The mortality in England and Wales during the three months under notice among persons aged between 1 and 60 years was equal to an annua

rate of 8.1 per 1,000 of the population estimated to be living at this group of ages, and was 0.6 per 1,000 below the average. In the seventy-six large towns the death-rate at this age-group averaged 9 3 per 1,000; in London this death-rate was 8.9 per 1,000; while among the seventy-five other large towns the rates ranged upwards to 12 4 in Hanley, in Manchester and in Salford, 12.7 in Middlesbrough, and 13.2 in Liverpool and in South Shields.

Among persons aged 60 years and upwards the death-rate last quarter was equal to 71.5 per 1,000 of the population estimated to be living at these ages, the corrected average rate being 66.2 per 1,000. In the seventy-six towns the mean death-rate at this age-group was 78.5 per 1,000; in London the rate was 79 8 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 90.6 in Salford and in Huddersfield, 90.7 in Oldham, 90 9 in Walsall, and 101.3 in Manchester.

The mean temperature of the air during last quarter was slightly below the average in the Central, Eastern, and North-Western districts, but it was above the average in other parts of the country. The rainfall measured in London amounted to 5.2 in., or rather less than three-fourths of the average. The duration of bright sunshine in London during the quarter was 126 hours, being only 15 per cent. of the total amount possible, and 17 hours less than the average.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 7,826 births and 4,704 deaths were registered during the week ending Saturday last, February 25th. The annual rate of mortality in these towns, which had been 18.0, 17.4, and 17.3 per 1,000 in the three preceding weeks, further declined last week to 15 7 per 1,000. The rates in the several towns ranged from 3.7 in Hornsey, 8.2 in King's Norton, 8.3 in Wallasey, 8.5 in Rochdale, 9 3 in Handsworth (Staffs.), 9.9 in Walthamstow, and 10.1 in East Ham, to 21.0 in Hanley, 21.4 in Warrington and in Bury, 22 8 in Ipswich, 24.7 in Wigan, 26.3 in Portsmouth, and 29.8 in Stockton-on-Tees. In London the rate of mortality was 16.0 per 1,000, while it averaged 15.6 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six large towns averaged 1.2 per 1,000; in London this death-rate was equal to 1.0 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.7 in Middlesbrough, 2.9 in West Hartlepool and in South Shields, 3.0 in East Ham, 3.1 in West Bromwich, 4 1 in Southampton, 5.4 in Nottingham, and 5 9 in Portsmouth. Measles caused a death-rate of 1.1 in Leicester and in Stockport, 1.2 in Cardiff, 1.3 in East Ham, 1.5 in West Bromwich and West Hartlepool, 1.6 in Middlesbrough, 1.9 in South Shields, 3.2 in Southampton, 3 5 in Nottingham, and 4.6 in Portsmouth; and whooping-cough of 1.0 in Hull, 1.2 in Nottingham, 1 4 in Preston, 1.6 in Hanley, and 2.3 in Hastings. The mortality from scarlet fever, from diphtheria, from enteric fever, and from diarrhoea showed no marked excess in any of the seventy-six towns. No fatal case of small-pox was registered last week either in London or in any of the seventy-five large provincial towns. The Metropolitan Asylums Hospitals contained 15 small-pox patients at the end of last week, against 13, 9, and 8 at the end of the three preceding weeks; 7 new cases were admitted during the week, against 1, 1, and 3 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 2,070, 2,077, and 2,016 at the end of the three preceding weeks, had further declined to 1,987 at the end of last week; 224 new cases were admitted during the week, against 229, 260, and 241 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 25th, 872 births and 615 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.9, 18 2, and 18.9 per 1,000 in the three preceding weeks, declined again last week to 18.3 per 1,000, but was 2.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 13 4 in Paisley and 15.8 in Edinburgh, to 23.8 in Dundee and 25.9 in Perth. The death-rate from the principal infectious diseases averaged 1 9 per 1,000 in these towns, the highest rates being recorded in Aberdeen and Greenock. The 276 deaths registered in Glasgow included 4 which were referred to measles, 2 to scarlet fever, 16 to whooping-cough, 4 to enteric fever, and 5 to diarrhoea. Two fatal cases of measles, 3 of diphtheria, and 5 of whooping-cough were recorded in Edinburgh. Two deaths from whooping-cough were registered in Dundee; 4 from typhus, and 4 from diarrhoea in Aberdeen; and 2 from whooping-cough in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 18th, 505 births and 393 deaths were registered in six of the principal Irish towns, against 502 births and 419 deaths in the preceding period. The mean annual death-rate in these towns, which had been 23.5, 22.8, and 20.1 per 1,000 in the three preceding weeks, rose slightly to 20.2 per 1,000 in the week under notice, this figure being 2.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 14.9 in Londonderry and 17.5 in Waterford, to 23 5 in Dublin and 24.0 in Cork. The zymotic death rate during the same period and in the same six Irish towns averaged 0 5 per 1,000, or 0 5 per 1,000 lower than during the preceding week, the whole of the deaths being recorded in Dublin and Belfast, the other towns having registered no deaths under this heading at all. To measles 12 deaths were ascribed in Belfast and 2 in Dublin.

Vacancies and Appointments.

VACANCIES.

BIRKENHEAD BOROUGH HOSPITAL.—Two Assistant Honorary Medical Officers.

BIRKENHEAD UNION.—Resident Assistant Medical Officer. Salary, £120 per annum.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Physician, and if necessary Honorary Assistant-Physician.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer to act as House-Physician and House-Surgeon for six months each. Salary, £80 and £100 per annum respectively.

CHELTENHAM GENERAL HOSPITAL.—(1) Junior House-Surgeon, resident. (2) Surgeon-in-Charge of Branch Dispensary. Salary, £50 and £90 per annum respectively.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) Resident Medical Officer; (2) Pathological. Salaries, £100 and 100 guineas per annum respectively.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) Physician to Out-patients; (2) Clinical Assistants.

GLASGOW UNIVERSITY.—Grieve Lectureship on Physiological Chemistry.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) Pathologist and Curator, (2) Physician to Out-Patients, (3) Senior House-Surgeon, (4) Two Junior House-Surgeons, (5) Junior House-Physician. Salaries for (1) 50 guineas per annum, (3) at the rate of £60 per annum, and (4) and (5) at the rate of £30 per annum.

HAMPSTEAD GENERAL HOSPITAL.—Resident Medical Officer. Salary, at the rate of £120 per annum.

HERTS COUNTY ASYLUM, Hill End, St. Albans.—Junior Assistant Medical Officer. Salary, £150 per annum.

LANCASTER: COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £150 per annum.

LEEDS GENERAL INFIRMARY.—Resident Casualty Officer. Salary, £100 per annum.

LONDON HOSPITAL, WHITECHAPEL, E.—Assistant Surgeon.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant House Surgeon, non-resident. Honorarium at the rate of £75 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon, resident. Salary, £50 per annum.

MIDDLESBROUGH: COUNTY BOROUGH ASYLUM.—Medical Superintendent. Salary to commence, £450 per annum.

MIDDLESEX HOSPITAL W.—Second and Third Assistants to the Director of the Cancer Research Laboratories. Salaries, £125 and £100 respectively.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Assistant Physician to Out-Patients.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Senior Assistant House-Surgeon, resident. Honorarium, £20 for six months.

OLDHAM INFIRMARY.—Senior House Surgeon, resident. Salary, £100 per annum.

ROYAL EAR HOSPITAL, SOHO.—Honorary Assistant Anaesthetist.

ROYAL NAVY MEDICAL DEPARTMENT.—Three Dental Surgeons. Inclusive salary, £1 per diem, and, when necessary, travelling expenses.

STOCKPORT INFIRMARY.—Assistant House and Visiting Surgeon, resident. Salary, £80 per annum.

WESTMINSTER GENERAL DISPENSARY, Soho.—Resident Medical Officer. Salary at the rate of £120 per annum.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL.—Male Resident Medical Officer. Salary, £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Honorarium at the rate of £75 per annum.

APPOINTMENTS.

BANNERMAN, W., M.B., District Medical Officer of the Cirencester Union.

EVANS, H. W., M.R.C.S., L.R.C.P. Lond., Certifying Factory Surgeon for the Littleport District, Cambridgeshire.

FOLEY, J. J., L.R.C.P.& S.Irel., Certifying Factory Surgeon for the Kilbeggan District, Westmeath.

FORDYCE, A. Dingwall, M.D., F.R.C.P.Edin., Medical Registrar of the Edinburgh Royal Infirmary, vice A. Lockhart Gillespie, M.D., F.R.C.P.Edin., deceased.

HAWES, G. C. B., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Pangbourne and Whitchurch District.

MILSOME, H. B., M.B., B.C.Cantab., Certifying Factory Surgeon for the Chertsey District, Surrey.

MORRICE, George Gavin, M.A., M.D.Cantab., M.R.C.P., Honorary Physician to the Dorset County Hospital, vice William Vawdrey Lush, M.D.Lond., F.R.C.S., F.R.C.P., deceased.

OSWALD, Robert I. W., M.R.C.S.Eng., L.R.C.P.& S.Edin., Medical Officer to the Stockwell Orphanage, Clapham Road, S.W., vice W. Soper, M.R.C.S.Eng., resigned.

PATERSON, Walter H., M.D.Edin., Medical Referee under the Workmen's Compensation Acts for Grantham, Melton Mowbray, Stamford, Bourne, Oakham, and Uppingham County Courts.

PATTERSON, D. Wells, M.B., B.S.Durh., Honorary Physician to the Hospital for Diseases of the Skin, Newcastle-on-Tyne.

MANCHESTER ROYAL INFIRMARY.—The following appointments were made on February 27th:

House-Surgeons.—Alfred Irving, M.B., Ch.B.Vict.; R. T. Slinger, M.B., Ch.B.Vict.

House-Physicians.—H. S. West, M.B., Ch.B.Vict.; R. H. Swindells, M.B., Ch.B.Vict.

Accident Room House-Surgeon.—J. W. Anderton, M.B., Ch.B.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House Officers from March 7th, 1905:

Resident House-Physicians.—R. E. Whitting, M.A., M.B., B.C.Cantab.; F. A. Brodribb, M.R.C.S., L.R.C.P.

House-Physicians to Out-Patients.—H. R. Dean, B.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.; A. C. Iuman, M.A., M.B., B.Ch.Oxon.

Resident House Surgeons.—H. A. Kish, M.R.C.S., L.R.C.P.; G. R. Footner, B.A.Cantab., M.R.C.S., L.R.C.P.; R. E. G. Gray,

M.A.Cantab., M.R.C.S., L.R.C.P.; J. C. F. D. Vaughan, M.R.C.S., L.R.C.P.

House-Surgeons to Out-Patients.—L. E. C. Norbury, M.R.C.S., L.R.C.P.; D. K. Coutts, M.R.C.S., L.R.C.P.; J. H. Bletsoe, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; R. J. C. Thompson, M.R.C.S., L.R.C.P.

Obstetric House-Physicians.—(Senior) E. W. Parry, M.R.C.S., L.R.C.P.; (Junior) N. C. Carver, B.A., B.C.Cantab., M.R.C.S., L.R.C.P.

Ophthalmic House-Surgeons.—(Senior) A. B. Bradford, M.B., B.S.Durh., M.R.C.S., L.R.C.P.; (Junior) F. R. E. Wright, M.B.Lond., M.R.C.S., L.R.C.P., D.P.H.

Special Departments.—Throat.—W. G. Howarth, B.A.Cantab., L.R.C.P.; G. J. Langley, M.B., B.S.Lond. Skin.—W. Haward, M.B., B.S.Durh., M.R.C.S., L.R.C.P.; N. Carpmael, F.R.C.S., L.R.C.P. Ear.—J. H. Drew, M.R.C.S., L.R.C.P.; C. Ll. Morgan, M.R.C.S., L.R.C.P. Electrical Department.—F. Fowler, M.R.C.S., L.R.C.P., L.S.A. X-Ray Department.—H. M. Thomas, M.R.C.S., L.R.C.P.

Two other gentlemen received extensions of their appointments.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

COLMAN.—On March 1st, at 9, Wimpole Street, W., the wife of W. S. Colman, M.D., F.R.C.P., of a son.

DWYER.—On February 26th, at St. Leonard's House, Banbury, the wife of Hubert de Burgh Dwyer, M.R.C.S., L.R.C.P Lond., of a daughter.

LANGDON-DOWN.—On Sunday, February 26th, 1905, at Normansfield, Hampton Wick, to Reginald L. Langdon-Down, M.B., M.R.C.P., and wife—a son.

MOORE.—On February 25th, at Claremont, Warley, Essex, the wife of George A. Moore, M.D., Major, R.A.M.C., of a daughter.

MARRIAGES.

FORBES—PAUL.—On February 27th, at All Souls' Church, Langham Place, W., James Graham, M.D., M.R.C.P., son of the Rev. E. Forbes, Incumbent of Christ Church, Clevedon, Somerset, to Muriel Watson, daughter of the late Dr. Ernest Watson Paul, of Cowes, I. of W.

HEMMANS—TINSLEY.—On February 15th, at All Saints' Church, Holbeach, by the Vicar, the Rev. Canon Hemmans, father of the bridegroom, assisted by the Rev. A. W. Drake, Vicar of Hogsthorpe, Lawrence Fielder Hemmans, M.B., B.S.Durh., F.R.C.S.Edin., of 9, Lewisham Park, S.E., to Harriet Annie, elder daughter of the late Joseph Tinsley, of Holbeach.

DEATHS.

ALLEN.—On February 25th, 1905, at 3, Carlisle Parade, Hastings, Ella Louise Katherine, wife of Bryan H. Allen, M.D., and daughter of the Rev. R. H. Dover, late Vicar of Wilsden, Yorkshire, aged 56 years.

KERR.—At 3, Hanger Lane, Ealing Common, W., suddenly, on February 25th, in her ninth year, Helen, the only daughter of Dr. James Kerr.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Dr. G. H. Savage will deliver his third Lettsomian Lecture: Mental Disorders of Decay.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Physiology and Treatment of Surgical Shock and Collapse, by Professor J. P. L. Mummery.

TUESDAY.

PATHOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Professor W. D. Halliburton, F.R.S.: Recent Researches on Proteid Chemistry and Proteid Diet.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Milroy Lecture: Industrial Anthrax, by Dr. T. M. Legge.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, 5 p.m.—The Adjourned Discussion on The Subsequent Course and Later History of Cases of Appendicitis after Operation. Discussion will be opened by the President (Sir R. Powell), and will be followed by Dr. Hawkins, Mr. Lockwood, Mr. Battle, Sir William Bennett, Mr. Mayo Robson, and other speakers. Some further statistical tables will be provided at this adjourned meeting in addition to those which were provided at the meeting on Tuesday last. A demonstration with the epidiascope will be given by Mr. Lockwood.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—(1) Ballot for new Fellows. (2) Discussion: The Ethics of Health Resort Treatment, to be opened by Dr. Leonard Williams.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of cases of interest.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 p.m.—Pathological evening; exhibition of specimens.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—Hunterian Lecture: The Physiology and Treatment of Surgical Shock and Collapse, by Professor J. P. L. Mummery.

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Paper, Dr. Inglis Parsons; The Choice of Treatment for Fibromyomata of the Uterus. Specimens will be shown by Dr. F. Edge.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Harveian Lecture: Some Modern Therapeutic Methods in Dermatology, with exhibition of cases treated by x and Finsen rays, by Mr. Malcolm Morris.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8 p.m. Clinical evening.—The following cases will be shown: (1) Mr. Edgar Chatterton: Argyrosis of the Conjunctiva occurring in a woman working with fulminate of silver. (2) Mr. Charles Blair: Retinitis Proliferans. (3) Mr. A. Ogilvy: Case of Pemphigus with essential shrinking of the Conjunctiva. (4) Mr. J. H. Parsons and Mr. Arnold Lawson: Sarcoma of the Choroid. (5) Mr. J. H. Parsons: Some cases of Folding of the Retina. (6) Mr. R. E. Bickerton: Peculiar changes in Optic Disc and Fundus. (7) Mr. Halliburton McMullen: Congenital Defect of Internal Rectus Muscle.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Milroy Lecture: Industrial Anthrax, by Dr. T. M. Legge.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., 3 p.m.—The Treatment of Chronic Metritis.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—The following papers will be read: (1) Dr. Hale White; A Case of Acute Rheumatoid Arthritis with Epidiascope Demonstration. (2) Dr. Bertram Abrahams: Arthritis Deformans and its Allies. (3) Mr. Douglas Drew: Three Cases of Stenosis of the Ureter. Mr. James Berry will exhibit a case showing the result of a rhinoplastic operation. On view at 8.15 p.m. Paper at a subsequent meeting.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH, 9, Adelphi Terrace, Strand, 7.30 p.m.—Discussion on the causes of the increased prevalence of anthrax in Great Britain, to be opened by Professor Sheridan Delépine.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—Hunterian Lecture: The Physiology and Treatment of Surgical Shock and Collapse, by Professor J. P. L. Mummery.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nasal and Aural Accessory Sinuses.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Surgical cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., The Selection of Cases for Sanatorium Treatment.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Facial Palsy.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Aortic Insufficiency; Tuesday, Gaits and Postures in Organic and Functional Diseases; Wednesday, The Treatment of Puerperal Sepsis; Thursday, Orthopaedic Surgery.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Bronchial Affections of Children—II, Secondary.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m, Cranial Nerves; Friday, 3.30 p.m., Optic Atrophy.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—Tuesday, 4.30 p.m., Mental Affections of Childhood and Adolescence; Friday, Prognosis in Acute Pulmonary Affections.

POST-GRADUATE COLLEGE, WEST LONDON HOSPITAL, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week: Monday, 5 p.m., Indigestion; Tuesday, 5 p.m., Childrens' Teeth and their Diseases; Wednesday, 3 p.m. (at Hanwell Lunatic Asylum), Prognosis in Mental Diseases; Thursday, 5 p.m., Practical Surgery; Friday, 5 p.m., Cases of Skin Disease.

BOOKS, ETC., RECEIVED.

Dundee Social Union: Report of Investigation into Social Conditions in Dundee. Part I, Medical Inspection of School Children. Dundee: John Leng and Co., Limited. 1905. 1s.

Die Anästhesie in der ärztlichen Praxis. Von Dr. Max Martin. München: J. F. Lehmann. 1905. Mk. 1

Die in meiner Klinik geübte Technik der Gallensteinoperationen mit einem Hinweis auf die Indikationen und die Dauererfolge. Auf Grund eigener, bei 1 000 Laparotomien gesammelter Erfahrungen bearbeitet von Professor Dr. Hans Kehr. München: J. F. Lehmann. 1905. Mk. 18.

The Wisdom of the East Series. Edited by L. Cranmer-Byng and Dr. S. A. Kapadia. The Teachings of Zoroaster and the Philosophy of the Parsi Religion. By S. A. Kapadia, M.D., L.R.C.P. London: John Murray. 1905. 2s.

The Plague Prophylactic—What it is, how it is prepared, and what its Uses are. Being the substance of a lecture by Lieutenant-Colonel W. B. Bannerman, M.D., B.Sc., F.R.S.E., I.M.S. Bombay: Government Central Press. 1905.

The Radical Cure of Corns and Bunions. By E. Harding Freeland, F.R.C.S.Eng. Second edition. London: John Bale, Sons, and Danielsson, Limited. 1905. 1s.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
March	3...FRIDAY ...	LONDON: Ethical Subcommittee, 2 p.m. " Chairmen of Committee *re* Alteration of Memorandum, 3 p.m. " Premises and Library Subcommittee at the close of the 3 o'clock Committee.
"	4...SATURDAY...	
"	5.. Sunday..	
"	6...MONDAY ...	
"	7...TUESDAY ...	Coventry Division, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. North-East Edinburgh Division, *Edinburgh Branch*, 5, St. Andrew Square, 8.15 p.m. South Midland Branch, Council Meeting, Franklin's Restaurant, Guildhall Road, Northampton, 3.30 p.m.
"	8...WEDNESDAY	LONDON: Secretaries of Branches and Divisions on the Central Council, 3 p.m.
"	9...THURSDAY...	Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m. Canterbury and Faversham Divisions, *South-Eastern Branch*, Combined Meeting, The Cottage Hospital, Faversham, 2.45 p.m.
"	10...FRIDAY ...	Scottish Division, *Border Counties Branch*, Maxwell Arms Hotel, Dalbeattie, 3.30 p.m.
"	11...SATURDAY...	
"	12. Sunday..	
"	13...MONDAY ...	
"	14...TUESDAY ...	Bradford Division, *Yorkshire Branch*, Eye and Ear Hospital, Bradford, 8.30 p.m.
"	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9) Sectional Committees to send proposed subjects for discussion in the Sections at the Annual Meeting to the General Secretary by this date.
"	16...THURSDAY...	LONDON: Metropolitan Counties Branch Division Secretaries, 5.0 p.m. Croydon Division, *South-Eastern Branch*, Greyhound Hotel, Croydon, 4 p.m.
"	17...FRIDAY ...	LONDON: Ethical Committee, 2.0 p.m. " Annual Meetings Sections Committee, 5.0 p.m. " Conference of Delegates of the Metropolitan Counties Branch, 5.0 p.m.
"	18...SATURDAY...	
"	19...Sunday..	
"	20...MONDAY ...	
"	21...TUESDAY ...	
"	22...WEDNESDAY	LONDON: Medico-Political Committee, 3.0 p.m. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
"	23...THURSDAY...	City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
"	24...FRIDAY ...	
"	25. SATURDAY...	
"	26...Sunday..	
"	27. MONDAY ...	
"	28 TUESDAY ...	
"	29...WEDNESDAY	
"	30...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
"	31...FRIDAY ...	
April	1...SATURDAY...	
"	2...Sunday..	
"	3...MONDAY ...	
"	4...TUESDAY ...	
"	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
"	6...THURSDAY...	
April	7...FRIDAY ...	
"	8...SATURDAY...	
"	9. Sunday..	
"	10...MONDAY ...	
"	11...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
"	12...WEDNESDAY	" Journal and Finance Committee.
"	13...THURSDAY...	
"	14...FRIDAY ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
"	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted to-day.
"	16...Sunday..	
"	17...MONDAY ...	
"	18...TUESDAY ...	LONDON: Premises and Library Committee.
"	19...WEDNESDAY	" Central Council, 11 a.m.
"	20...THURSDAY...	
"	21...FRIDAY ...	*Good Friday.*
"	22...SATURDAY...	Notices of Motion for Annual Representative Meeting appear in JOURNAL.
"	23...Sunday..	
"	24...MONDAY ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
"	25...TUESDAY ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
"	26...WEDNESDAY	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
"	27...THURSDAY...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
"	28...FRIDAY ...	
"	29...SATURDAY...	List of Members closed for publication.
"	30...Sunday..	
May	1...MONDAY ..	
"	2...TUESDAY ...	
"	3...WEDNESDAY	
"	4...THURSDAY...	
"	5...FRIDAY ...	
"	6.. SATURDAY...	
"	7...Sunday.	
"	8...MONDAY ...	
"	9...TUESDAY ...	LONDON: Organization Committee.
"	10..WEDNESDAY	
"	11...THURSDAY...	
"	12..FRIDAY ...	
"	13...SATURDAY...	
"	14...Sunday..	
"	15...MONDAY ...	
"	16...TUESDAY ...	
"	17..WEDNESDAY	
"	18...THURSDAY...	
"	19...FRIDAY ...	
"	20. SATURDAY ..	
"	21. Sunday..	
"	22...MONDAY ...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 11TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS	
MEDICO POLITICAL COMMITTEE:—Report on Death Registration and Amendment of Coroners' Law, to Annual Representative Meeting: Questions submitted to the Divisions; Recommendations—(I) Registration of Deaths and Disposal of Dead Bodies; (II) Registration of Stillbirths and Disposal of the Bodies; (III) The (Redrafted) Coroners Bill—Appendix	89
NATIONAL DEPOSIT FRIENDLY SOCIETY: MEMORANDUM FROM MEDICO-POLITICAL COMMITTEE AND CORRESPONDENCE ...	94
NAVAL AND MILITARY APPOINTMENTS	97
CONFERENCE ON HOSPITAL ADMINISTRATION	97
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	101
VITAL STATISTICS...	102
VACANCIES AND APPOINTMENTS	102
BIRTHS, MARRIAGES, AND DEATHS	103
DIARY OF THE WEEK	103
BOOKS RECEIVED...	103
CALENDAR	104

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

MEDICO-POLITICAL COMMITTEE.

Report

ON

DEATH REGISTRATION AND AMENDMENT OF CORONERS' LAW.

To be Presented to the Annual Representative Meeting, Leicester, July, 1905.

THE Medico-Political Committee has considered the matters arising out of the following instructions of the Annual Representative Meeting at Oxford to the Committee:

Minutes 43 and 44:

On consideration of the proposals formulated by the Medico-Political Committee for the amendment of the law as to Death Certification and Registration (see Appendix A),

Resolved: That the report be referred back to the Medico-Political Committee for further consideration and report to the Divisions.

Minute 58:

With reference to the Coroners Bill (see Appendix B), as to which the Committee reported the action which they had taken during the past year, it was agreed:

That before submitting the Bill to Parliament the Medico-Political Committee should incorporate in it any provisions which the Committee might deem expedient, having regard to matters recently considered by the Committee concerning the relation of Coroners to the medical profession.

In addition to the propositions on Death Registration and Stillbirth and the Coroners Bill, named in the reference, the Committee has had before it the recommendations contained in the Report of the Select Committee of the House of Commons (1893) on Death Registration, and proposals formulated in 1895 by the Public Control Committee of the London County Council as regards Coroners Law Amendment. (See Appendices C and D.)

On further consideration of the proposals as to Death Registration it has appeared to the Committee:

(*a*) That it is desirable that the Association in moving for reform of the law on Death Registration should present a complete scheme for the amendment of the law as to the disposal of dead bodies, in order to afford complete protection to the public.

(*b*) That to effect this it is necessary, in addition to prohibiting registration without the production of medical certificates, to prohibit disposal of bodies without registration or a coroner's order, and proposals having this object have been included by the Committee among its recommendations. (See Recommendations 1—3, 15 and 16.)

(*c*) The former proposals of the Committee suggested that the same practitioner should certify as to the fact and as to the cause of death; it has appeared, however, to the Committee, on further consideration, that in many cases the practitioner whose previous knowledge of the deceased made him the proper person to certify as to the cause of death, might be unable, without making a long journey, to view the body of the deceased as required in order to certify as to the fact of death.

The Committee therefore recommends that certificates of the fact of death and of the cause of death should be entirely separate documents. (See Recommendations 4, 5, and 7.)

(*d*) The Committee has taken into consideration the views expressed in the Representative Meeting at Oxford in 1904 as to Clause 6 (see Appendix A) of the Committee's proposals as then presented, and has accordingly so framed the recommendations under this head as not to preclude the practitioner previously in attendance on the deceased, or called in at or about the time of death, from conducting, or assisting in, the *post-mortem* examination in cases in which he is unable to certify as to the cause of death. (See Recommendation 10.)

(*e*) The Committee has considered the instruction of the Representative Meeting that provision should be made in the Coroners Bill to meet the difficulties arising under the present law as illustrated by the procedure of the Coroner for South-West London.

These difficulties would in part be removed by the recommendations of the Committee to which reference has already been made.

It has appeared, however, to the Committee, that specific provision is required against the tendency to exclude from *post-mortem* examinations in which the services of a special pathologist have been thought to be required, the medical practitioner previously associated with the case.

The Committee has, therefore, recommended the inclusion, in the Death Registration proposals (see Recommendation 10), and in the Coroners Bill, of a provision that the special medical officer of the coroner, when making a *post-mortem* examination by order of the coroner, shall have associated with him the practitioner, if any, who had attended the deceased during life or was called in at or about the time of death.

(*f*) While preserving the principle that the certificate of the cause of death, and the information contained therein, shall be confidential, the Committee has provided that this shall not interfere with the right of access of the coroner and medical officer of health to such information. (See Recommendation 5 (*b*).)

(*g*) It has appeared to the Committee desirable that the proposals on Death Registration should include those Clauses of the Coroners Bill which relate to the payment of fees to medical practitioners for information supplied to coroners, and, similarly, that the Coroners Bill should include those Clauses of the proposals as to Death Registration which affect the duties and powers of coroners.

QUESTIONS SUBMITTED TO THE DIVISIONS.

The following Recommendations:

I.—*As to Registration of Deaths and Disposal of Dead Bodies;*

II.—*As to Registration of Stillbirths and Disposal of the Bodies; and*

III.—*The (Redrafted) Coroners Bill;*

are the provisions which the Committee recommends that the Association should seek to have embodied in legislation at the first opportunity. The Divisions are requested to consider them in order that a vote may be taken upon them in the Representative Meeting at Leicester.

RECOMMENDATIONS.

(I.) Registration of Deaths and Disposal of Dead Bodies.

1. It shall be made an offence to retain a dead body not buried or otherwise legally disposed of beyond a period not exceeding eight days except by permission of a magistrate or coroner.

2. It shall be made a penal offence to bury, cremate, or otherwise dispose of a body except upon a burial order issued by a registrar or coroner.

3. No burial order shall be issued by a registrar until the death has been registered.

4. No death shall be registered except upon the production to the registrar of (*a*) a certificate of the cause of death, and (*b*) a certificate of the fact of death, or, if such certificates be not produced, upon a certificate of the coroner in accordance with the Coroners Act, 1887, s. 4.

5. *Certificate of the cause of death—*

(*a*) A certificate of the cause of death shall be a certificate by a registered medical practitioner who has attended the deceased, and shall be upon a statutory form [see Schedule (i)] issued by the Registrar-General, which shall include statements as to the duration of attendance and the date of the last attendance. The medical practitioner shall transmit the certificate of the cause of death in a sealed envelope direct to the registrar.

(*b*) The certificate of the cause of death shall, subject to the discretion of the Registrar-General, be a confidential document, and the information contained therein shall be entered by the registrar in a register which shall not be open to public inspection, provided that nothing in this Clause shall affect the right of access of a coroner or medical officer of health to the register.

(*c*) For each such certificate a fee of 2s. 6d. shall be paid by the local Sanitary Authority.

6. It is nevertheless provided that should any registered medical practitioner be of opinion that death has arisen from or been accelerated by any violence, directly or indirectly, or through neglect, or poison or other unnatural cause, he shall not grant any such certificate of death as aforesaid, but shall forthwith report to the coroner for the district, and for such report shall receive a fee of 10s. 6d.

7. *Certificate of the fact of Death.*—A certificate of the fact of death shall be a certificate, upon a statutory form [see schedule (ii)] issued by the Registrar-General, by a registered medical practitioner who has viewed the body, and who shall be the practitioner who certifies the cause of death, or failing him, any practitioner who shall have attended the deceased during life or shall have been called in at or about the time of death, or otherwise a special medical officer appointed as provided in Clause 12. For each such certificate a fee of 2s. 6d. shall be paid by the local Sanitary Authority for a body seen within three miles of the practitioner's registered address, and an additional 2s. for each mile or part of a mile beyond such distance.

8. The Registrar-General shall, from time to time, furnish Forms of Certificates of Death to every registrar, who shall deliver these as required to registered medical practitioners for their use. The forms of the said certificates shall be prescribed by Statute, and no other certificates of death than those given on the statutory forms shall be accepted as valid certificates.

9. In all cases where no certificate of the cause of death is produced, or where in such certificate the date of the last attendance is more than eight days prior to the date of death, the registrar shall forthwith report to the coroner.

Where any certificate signed by a registered medical practitioner does not strictly conform in every particular with the statutory form, the registrar shall refuse to register the death, and shall at once report to the coroner.

10. The coroner on receipt of such report may call upon the practitioner in attendance, if any, to furnish a report, after making a *post-mortem* examination if so directed, and he may also, and if no medical practitioner has been in attendance he shall, instruct the special medical officer of the district to investigate and report, after making a *post-*

mortem examination if so directed. In such investigation the special medical officer shall have associated with him the usual medical adviser, if any, of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

11. (i) A coroner shall pay to any duly qualified medical practitioner whom he may consult or who may on his requisition have reported as to the cause of any death on which no inquest is held a fee not exceeding one guinea.

(ii) A coroner shall be reimbursed by the local authority any payment made under this section upon rendering within four months an account of that payment as if it was an expense reasonably incurred in and about the holding of an inquest, and Sections 26 and 27 of the Coroners Act 1887 shall apply accordingly.

12. In every coroner's district there shall be appointed by the County Council one or more special medical officers whose duty shall be to examine the body and report to the coroner in all cases of death in which the coroner shall so direct.

13. The Burial Order, after it has been acted upon, shall be returned to the registrar who issued it, with an endorsement showing the date, place, and mode of disposal of the body.

Every person in charge of a cemetery, burial ground, churchyard, crematorium, or other place legally authorized for the disposal of dead bodies (*a*) shall, after a Burial Order has been acted upon, endorse the same, and (*b*) shall keep a register of all bodies buried or otherwise disposed of, which shall show the name and age of the deceased and the name and address of the persons conducting the burial or cremation. Any person failing to obey these provisions shall be liable to a penalty.

(II.) REGISTRATION OF STILLBIRTHS AND DISPOSAL OF THE BODIES.

14. It shall be made an offence to retain the body of a stillborn child unburied or otherwise legally disposed of beyond a period not exceeding eight days except by permission of a magistrate or coroner, and it shall also be made an offence to bury, cremate, or otherwise dispose of such body except upon a burial order issued by a registrar or coroner.

15. No burial order shall be issued by a registrar until the stillbirth has been registered.

16. No stillbirth shall be registered except upon the production to the registrar of a certificate in the statutory form [see schedule (iii)] by a registered medical practitioner who has viewed the body.

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17. The foregoing provisions on registration of deaths and stillbirths referring to the coroner shall in Scotland, *mutatis mutandis*, apply to the Procurator Fiscal.

SCHEDULE.

Draft Forms of Certificates by Medical Practitioner.

(i.)

I HEREBY certify that I attended.....
of.....who, as I am informed, died on the.....
day of.....and that to the best of my knowledge and belief the cause of death was as hereunder written.

Primary disease .....
Complications .....
Duration of attendance for these illnesses.....
Date when last seen alive* .....

* When this date is more than eight days prior to the date of death, the Registrar shall forthwith report to the Coroner or Procurator Fiscal.

Witness my hand, etc. .....
Name .....
Registered medical practitioner.
Address .....
Date .....

(ii.)

I hereby certify that on the.....day of.....I personally at.....viewed a male/female dead body said to be* that of.....of.....whose apparent age was.....and that death had taken place recently.

* The words "said to be" are to be struck out when the body is identified by the practitioner signing the certificate.

Name of person identifying the body† .....
Address† .....

† This is, when possible, to be the registered medical practitioner signing the certificate.

Witness my hand, etc. .....
Name .....
Registered medical practitioner.
Address .....
Date .....

(iii.)

I hereby certify that on the.....day of.....I have at.....viewed the body of a male/female child said to be* the child of.....(Mother's name and address) and that the said child was stillborn.

* The words "said to be" are to be struck out when the body is identified by the practitioner signing the certificate.

Witness my hand, etc.....
Name.....
Registered medical practitioner.
Address.....
Date .....

(III.) CORONERS BILL.

[*As the result of further consideration of this Bill, the Committee have incorporated in it those Recommendations concerning Registration of Deaths and Stillbirths (see above) which affect the duties and powers of coroners.*]

THE CORONERS BILL.

ARRANGEMENT OF CLAUSES.

CLAUSE.

1. Notification of death to coroner.
2. Appointment and duties of special medical officers.
3. Procedure of coroner.
4. Remuneration of medical witnesses.
5. Remuneration of medical practitioner reporting to coroner in cases in which no inquest is held.
6. Regard to be had to deaths investigated without inquest in fixing salary of coroner.
7. Fee to coroner for attendance at trial.
8. Repeal.
9. Extent of Act.
10. Short title and construction.

1.—Notification of Death to Coroner.

(i) It is hereby provided that should any registered medical practitioner be of opinion that the death of any patient attended by him has arisen from or been accelerated by violence, directly or indirectly, or through neglect, or poison, or other unnatural cause, he shall not grant any certificate of the cause of death, but shall forthwith report to the coroner for the district.

(ii) In every case where no certificate by a registered medical practitioner of the cause of death is produced, or where in such certificate the date of the last attendance is more than eight days prior to the date of death, or where in any other particular such certificate does not strictly

conform with the statutory form, the registrar shall forthwith report to the coroner.

2.—Appointment and Duties of Special Medical Officers.

In every coroner's district there shall be appointed by the County Council one or more special medical officers whose duty shall be to examine the body and report to the coroner in all cases of death in which the coroner shall so direct.

3.—Procedure of Coroner.

A coroner on receipt of such report from a registered medical practitioner, or from a registrar, as is provided for in Clause 1, may call upon the practitioner in attendance, if any, to furnish a report, after making a post-mortem examination if so directed; and he may also, and if no medical practitioner has been in attendance he shall, instruct the special medical officer of the district to investigate and report, after making a post-mortem examination if so directed. In such investigation the special medical officer shall have associated with him the usual medical adviser, if any, of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

4.—Remuneration of Medical Witnesses.

(i) A registered medical practitioner who has attended at a coroner's inquest in obedience to a summons of the coroner under the Coroners Act, 1887, shall be entitled to receive such remuneration as follows (that is to say):

(A) For every day on which such practitioner so attends to give evidence at an inquest one guinea;

(B) For making a post-mortem examination of the body of the deceased without an analysis of the contents of the stomach or intestines or other part of the body one guinea;

Provided that no remuneration shall be paid to a medical practitioner for making a post-mortem examination without the previous direction of the coroner.

(ii) A registered medical practitioner shall not be required without his consent to make analysis of the contents of the stomach or intestines or other part of the body, and any such practitioner or other persons whom the coroner shall deem competent and who shall make such an analysis in pursuance of the previous direction of the coroner shall be entitled to receive such remuneration not exceeding five guineas as the coroner shall certify in writing to be reasonable.

5.—Remuneration of Medical Practitioner Reporting to Coroner in Cases in which no Inquest is Held.

(i) A medical practitioner reporting to the coroner as provided for in Clause 1, Section (i), shall for such report be paid by the coroner a fee of 10s. 6d.

(ii) A medical practitioner reporting to the coroner as provided for in Clause 3, shall for such report be paid by the coroner a fee not exceeding one guinea.

(iii) A coroner shall be reimbursed by the local authority any payment made under this Clause upon rendering within four months an account of that payment, as if it was an expense reasonably incurred in and about the holding of an inquest, and Sections 26 and 27 of the Coroners Act, 1887, shall apply accordingly.

6.—Regard to be had to Deaths Investigated without Inquest in Fixing Coroner's Salary,

At any quinquennial revision of a coroner's salary regard shall be had to the number of deaths the causes of which he has investigated without holding an inquest, as if in each case an inquest had been held.

7.—Fee to Coroner for Attendance at Trial.

A coroner attending at any court before or at the opening thereof in pursuance of Subsection 3 of Section 5 of the Coroners Act, 1877, shall be entitled to a fee of two guineas for each such attendance, and, in addition, to reasonable travelling expenses, and such fee and such expenses shall form part of the expenses of the prosecution.

8.—Repeal.

Section 22 of the Coroners Act, 1887, is hereby repealed.

9.—Extent of Act.

This Act shall not extend to Scotland or Ireland.

10.—Short Title and Construction.

This Act may be cited as the Coroners Act, 1906, and shall be construed as one with the Coroners Act 1887 and 1892.

APPENDIX.

(A.)

AMENDMENT OF THE LAW RELATING TO DEATH CERTIFICATION AND REGISTRATION.

Principles Formulated by Medico-Political Committee.

(As submitted to the Annual Representative Meeting at Oxford, 1904.)

Provisions which the Medico-Political Committee recommends for submission to the Registrar General and Government:

1. Every death must, if possible, be certified by a registered medical practitioner who has been previously in attendance upon the deceased. It shall be the duty of such practitioner to view the body after death, prior to certifying.

2. For such certificate and visit a fee shall be paid by the Local Sanitary Authority, such fee to be 2s. 6d. for a case seen within a distance of one mile from the practitioner's registered address, and an additional 2s. for each mile or part of a mile beyond such distance.

3. The medical practitioner shall transmit to the Registrar direct the certificate in a sealed envelope.

4. The certificate shall be a confidential document, subject to the discretion of the Registrar-General.

5. All deaths which are not certified by a registered medical practitioner shall be referred to the Coroner, or in Scotland to the Procurator Fiscal.

6. In every Coroner's district there shall be appointed by the County Council a Special Medical Officer, whose duty it shall be to examine the body and report to the Coroner in all cases of death where no registered medical practitioner is able to give a certificate. In such investigation the Special Medical Officer shall have associated with him the usual medical adviser (if any) of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

(B.)

THE CORONERS BILL, 1902.

(As submitted to the Annual Representative Meeting at Oxford, 1904.)

ARRANGEMENT OF CLAUSES.

Clause.

1. Notification of death to Coroner by Registrar where no medical certificate.
2. Remuneration of medical witnesses.
3. Remuneration of medical practitioner consulted by Coroner without inquest.
4. Regard to be had to deaths investigated without inquest in fixing salary of coroner.
5. Fee to Coroner for attendance at trial.
6. Repeal.
7. Extent of Act.
8. Short title and construction.

DRAFT OF A BILL

TO AMEND THE LAW IN RELATION TO CORONERS.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

1. *Notification of death to Coroner by Registrar where no medical certificate.*—A Registrar shall, in the case of every death brought to his knowledge, without a certificate of cause of death signed by a legally qualified Medical Practitioner, forthwith give notice of the death to the Coroner within whose jurisdiction the death occurred, and a Registrar shall not register the death until he has received an intimation from the Coroner that the Coroner does not think it necessary to hold an inquest.

2 (i) *Remuneration of medical witnesses.*—A legally qualified Medical Practitioner who has attended at a Coroner's inquest in obedience to a summons of the Coroner under the Coroners Act, 1887, shall be entitled to receive such remuneration as follows (that is to say):—

(A) For every day on which such Practitioner so attends to give evidence at an inquest one guinea:

(B) For making a post-mortem examination of the body of the deceased without an analysis of the contents of the stomach or intestines or other part of the body one guinea;

Provided that no remuneration shall be paid to a Medical Practitioner for making a post-mortem examination without the previous direction of the Coroner.

(ii) A legally qualified Medical Practitioner shall not be required without his consent to make analysis of the contents of the stomach or intestines or other part of the body and any such Practitioner or other persons whom the Coroner shall deem competent and who shall make such an analysis in pursuance of the previous direction of the Coroner shall be entitled to receive such remuneration not exceeding five guineas as the Coroner shall certify in writing to be reasonable.

3. (i) *Remuneration of Medical Practitioner consulted by Coroner without inquest.*—A Coroner shall pay to any duly qualified Medical Practitioner whom he may consult as to the cause of any death on which no inquest is held a fee not exceeding one guinea.

(ii) A Coroner shall be reimbursed by the local authority any payment made under this section upon rendering within four months an account of that payment as if it was an expense reasonably incurred in and about the holding of an inquest and Sections 26 and 27 of the Coroners Act 1887 shall apply accordingly.

4. *Regard to be had to deaths investigated without inquests in fixing Coroner's salary.*—At any quinquennial revision of a Coroner's salary regard shall be had to the number of deaths the causes of which he has investigated without holding an inquest as if in each case an inquest had been held.

5. *Fee to Coroner for attendance at trial.*—A Coroner attending at any court before or at the opening thereof in pursuance of Subsection 3 of Section 5 of the Coroners Act 1877 shall be entitled to a fee of a guinea for each such attendance and that fee shall form part of the expenses of the prosecution.

6. *Repeal.*—Section 22 of the Coroners Act 1887 is hereby repealed.

7. *Extent of Act.*—This Act shall not extend to Scotland or Ireland.

8. *Short title and construction.*—This Act may be cited as the Coroners Act 1902 and shall be construed as one with the Coroners Act 1887 and 1892.

(C.)

SELECT COMMITTEE OF THE HOUSE OF COMMONS ON DEATH CERTIFICATION, 1893.

SUMMARY OF PRINCIPAL RECOMMENDATIONS.

(1) That in no case should a death be registered without production of a certificate of the cause of death signed by a registered medical practitioner, or by a coroner after inquest, or in Scotland by a Procurator Fiscal.

(2) That in each sanitary district a registered medical practitioner should be appointed as public medical certifier of the cause of death in cases in which a certificate from a medical practitioner in attendance is not forthcoming.

(3) That a medical practitioner in attendance should be required, before giving a certificate of death, to personally inspect the body, but if, on the ground of distance or for other sufficient reason, he is unable to make this inspection himself he should obtain and attach to the certificate of the cause of death a certificate signed by two persons, neighbours of the deceased, verifying the fact of death.

(4) That medical practitioners should be required to send certificates of death to the registrar, instead of handing them to the representatives of the deceased.

(5) That a form of certificate of death should be prescribed, and that in giving a certificate medical practitioners should be required to use such form.

(6) That it should be made a penal offence to bury or otherwise dispose of a body, except in time of epidemic, without an order from the registrar stating the place and mode of disposal, which order, after it has been acted upon, should be returned to the registrar who issued it.

(7) That it should be made an offence to retain a dead body unburied or otherwise legally disposed of beyond a period not exceeding eight days, except by permission of a magistrate.

(8) That the practice of burial in pits or common graves should be discontinued.

(9) That stillbirths which have reached the stage of development of seven months should be registered upon the certificate of a registered medical practitioner, and that it should not be permitted to bury or otherwise dispose of the stillbirth until an order for burial has been issued by the registrar.

(10) That, subject always to the discretion of the Crown Office, the result of precognitions taken by the Procurators Fiscal in Scotland, or the precognitions themselves, should be communicated to the representatives of the deceased when application is made for the same.

(D.)

CORONERS' LAW AMENDMENT.

RESOLUTIONS PASSED BY THE LONDON COUNTY COUNCIL IN 1895.

(*a*) That in no case should a death be registered without production of a certificate of the cause of death, signed by a registered medical practitioner or by a coroner after inquiry.

(*b*) That a medical practitioner in attendance should be required, before giving a certificate of death, to personally inspect the body and identify it as the body of the person he has attended; and should include in his certificate a statement pointing to the absence of accident, poison, violence, or criminal neglect; and that the coroners be required to hear evidence from representatives of the families of the deceased whenever it is alleged that death has been caused by accident.

(*c*) That a form of certificate of death should be prescribed and that in giving a certificate, medical practitioners should be required to use such form.

(*d*) That medical practitioners should be required to send certificates of death to the registrar instead of handing them to representatives of the deceased.

(*e*) That it should be made a penal offence to bury or otherwise dispose of a body without an order from the registrar stating the place and mode of disposal, which order, after it has been acted upon, should be returned to the registrar who issued it.

(*f*) That it should be made an offence to retain a dead body unburied or otherwise legally disposed of beyond a period not exceeding eight days, except by permission of a magistrate.

(*g*) That the certificate should be endorsed by the burial authority with the date of interment or disposal and the place where the body is buried, and returned to the registrar by the burial authority.

(*h*) That when the medical practitioner is unable to certify, he should be required to report direct to the coroner. Relations, friends, and others having cognizance of suspected cases should also be required to report them to the coroner.

(*i*) That every case of death after surgical operations should be reported to the coroner with a view to preliminary inquiry and, if necessary, the holding of an inquest.

(*j*) That medical investigators should be appointed:

i. To inquire into causes of all uncertified deaths, assisted by qualified and responsible inquiry officers.

ii. To examine the body in all such cases, and make *post-mortem* examination where necessary.

iii. To report the result to the coroner sitting in

court, who will then decide as to necessity for holding formal inquest.

iv. To give evidence at inquest and act as medical adviser to the coroner.

(*k*) That London should be divided into districts so arranged as to give approximately equal amount of work, and that coroners be paid by salary not dependent on the number of inquests held.

(*l*) That franchise districts should be abolished.

(*m*) That a court or courts should be provided for each district, with a coroner, clerk, inquiry officers, and other necessary officials as in police courts.

(*n*) That one or more medical investigators should be attached to each court, and be paid by salary.

(*o*) That the office of deputy-coroner should be abolished as unnecessary in London.

(*p*) That inquests should be held and evidence taken by the coroners in all cases where the reports of the medical investigators show further inquiry to be necessary, and in all cases of violent or suspicious death.

(*q*) That viewing the body by a jury should no longer be obligatory.

(*r*) That the number of jurymen should be reduced to one-half of the present number, *i.e.*, to not less than six or more than eleven.

(*s*) That in cases involving subsequent criminal proceedings, such as murder or manslaughter, or other criminal offence, the coroner shall have full power to bind over all witnesses.

(*t*) That proper records of all cases dealt with by the court, whether inquests be held or not, should be kept as records of the county.

(*u*) That the court should have jurisdiction in cases where the body is lying in the district to which it is attached, except in cases of accident, etc., where more than one death has taken place, when the jurisdiction should be with the court for the district in which such accident, etc., occurred.

(*v*) * * * That coroners' juries should be summoned by *rota*.

NATIONAL DEPOSIT FRIENDLY SOCIETY.

Memorandum

BY THE MEDICO-POLITICAL COMMITTEE.

The Executive Committee of the National Deposit Friendly Society having requested publication in the British Medical Journal of a letter addressed by them to the Medico-Political Committee on October 31st, 1904, the Committee has handed that letter to the Editor for publication; and, in order that the matter may be placed before members of the Association with sufficient clearness, a letter of October 19th, written by the Medical Secretary on behalf of the Medico-Political Committee to the Society, and correspondence subsequent to October 31st, are also published.

The Medico-Political Committee, in handing this correspondence to the Editor of the Journal for publication, considers that the attention of members of the Association should be called to the fact that under the influence of (1) material error as to the constitutional position of the Medico-Political Committee relative to the Representative Meeting of the Association; and (2) misunderstanding of the terms and purport of the Committee's report to the Annual Representative Meeting at Oxford, the Committee of the National Deposit Friendly Society has (*vide* letter of October 31st) charged the Association with discourtesy and injustice in its treatment of the Society, and with want of seriousness in its handling of the Society's attempt to solve the question of insurance for the costs of medical attendance.

In the letter of December 13th also the Committee of the National Deposit Friendly Society shows that it has failed to understand the position of the Medico-Political Committee, inasmuch as the statement with which the letter concludes is not in accordance with the facts.

The Medico-Political Committee regrets that the Committee of the National Deposit Friendly Society should in this way have taken up a position which has made it impossible for the Medico-Political Committee, as representing the British Medical Association, to continue the discussion with the Society of the subject matter which was at issue between the two bodies.

For the assistance of members of the Association in considering the correspondence, the Medico-Political Committee thinks it desirable to recall the history of its dealings with the subject.

As a matter arising out of the general instructions received by the Committee from the Annual Representative Meeting at Swansea to investigate and report upon contract practice in its economic aspects, and also in response to communications received from members of the Association urging that the Association should adopt some definite policy with respect to the National Deposit Friendly Society, the Committee found itself called upon to investigate the relations of that Society to the profession.

Information was obtained from various sources, including the General Secretary of the Society, who very courteously answered inquiries put to him by the Committee.

The Committee thereupon drew up a report for the consideration of the Divisions, which was circulated on June 16th, 1904, and was considered in the Annual Representative Meeting at Oxford; that meeting also having before it the interim report of the Committee on contract practice generally.

The meeting, while referring the interim report on Contract Practice to the Divisions for further consideration, adopted the report with reference to the National Deposit Friendly Society, and gave instructions to the Committee to draw up proposals for concerted action by the Divisions to give effect to the recommendation stated in that report. This instruction the Committee carried out by preparing and circulating the report published in the Journal of January 14th, 1905.

From the foregoing history it will be clear to members of the Association that the complaints of the Society against the Committee of discourtesy and injustice in not communicating with them as to the proposals contained in the report and in "singling out that Society for condemnation" are without foundation in fact.

The distinction between the treatment of this Society and other societies arose, not through any action of the Committee, which reported concurrently upon this and other societies, but through the fact that the Annual Representative Meeting found itself in a position to come to a definite decision with respect to the National Deposit Friendly Society, while desiring further time for the consideration of the proposals made with respect to Contract Practice generally.

It will also be perceived that the Committee could not constitutionally communicate to the Society its report until after it had been submitted to the Annual Representative Meeting, and in view of the decision of that meeting, the duty of the Committee then was simply to carry out the instruction which had been received.

The National Deposit Friendly Society has also misconceived the position of the Association with respect to the Society as defined by the adoption by the Annual Representative Meeting of the report of the Committee.

The summary of that position is:

(1) That the Society professes that a member may select any medical attendant he chooses, and that it makes no attempt to reduce the medical charges to its special scale, which was described as insufficient in the report presented to and accepted by the Representative Meeting, but the rule of the Society reads:

"Rule XVI, Section 14, Subsection (i).—The following charges are *authorized to be made by the medical practitioner*," etc.

(2) That the Society professes that it does not directly or indirectly select medical officers, but the experience of medical practitioners in certain districts, as reported to the Medico-Political Committee, shows that the local agents of the Society have indicated to members of the Society certain practitioners as willing to accept as full payment the Society's special scale of allowances to its members.

Both of these matters could, in the opinion of the Committee, be adjusted without impairing the usefulness of the Society, and the recommendation of the Medico-Political Committee that medical practitioners should not overtly or secretly act as "officers" of the Society, or pledge themselves to acceptance of its rates, which has been erroneously read as a "condemnation," would, if adopted, have the result of making the declared intentions of the Society effective.

CORRESPONDENCE.

British Medical Association,
Medical Secretary's Office,
429, Strand, W.C.
October 19th, 1904.

Dear Sir,

In reply to your letter of October 15th, I am instructed to say that the Report which I forwarded to you contains the reasons which led the Medico-Political Committee to make the recommendation which your Society asks to have reconsidered.

The reasons, however, are not stated in the form in which they would naturally present themselves in a communication to your Society, and in this regard I am to point out that your Society appears to have misapprehended the aspect in which the Medico-Political Committee was called upon to consider the subject.

There was no question of "condemnation" of your Society.

The Council of the Association has been repeatedly asked to advise medical practitioners as to the attitude which should be adopted by the profession towards your Society, and the Medico-Political Committee considered the subject entirely from this standpoint. They had before them the evidence of practitioners in different parts of the country as to the way in which they were affected by the operation of the Society, the Rules of the Society, and the replies which you kindly gave to inquiries which I addressed to you by instruction of the Committee.

This material appeared to the Committee to be sufficient to enable them to decide as to the effect of the working of the Society with reference to the medical profession, and the advice which they should therefore give to members of the Association as to their attitude towards the Society.

The Committee recognized that according to the letter of the Rules of your Society it is open to any member of the Society to employ any medical attendant, and that the medical attendant is not bound to restrict his charges to the scale of your Society.

But the evidence of medical practitioners who have had experience of the working of the Society goes to prove that owing to, as the Committee thinks, the ambiguous wording of your Rule XVI, Section XIV, Subsection 1, and owing also to the methods by which the local agents of the Society attempt to extend its operations, sections of the public who can perfectly well afford to pay higher fees are enabled to exercise pressure upon the profession to charge them the inadequate rate suggested in your Rules.

I am to point out that the Committee previously considered it to be beyond its duty to make suggestions to your Society as to the mode in which you should conduct your business; but as your Society has asked for a reconsideration of the matter, the above statement of objections becomes pertinent.

I am,
Yours faithfully,

C. Tuckfield, Esq.,
General Secretary,
National Deposit Friendly Society.

J. Smith Whitaker,
Medical Secretary.

October 20th.—The General Secretary of the Society to the Medical Secretary, acknowledging receipt of letter of October 19th; stating that the matter will come before the Committee of the Society on Monday, October 24th; asking that, if it is desired to state reasons of the Medico-Political Committee in the form in which it is considered they can most suitably be considered by the Society, they should be forwarded on Monday morning; and stating that otherwise the previous letters and the Report of the Committee would be dealt with as representing the entire grounds of objection.

October 24th.—The Medical Secretary to the General Secretary of the Society, explaining delay in replying; stating that it has not been possible to consult the Committee, and that in the absence of instructions nothing could be added to the statements contained in the Report of the Committee, and the Medical Secretary's letter of October 19th; adding that any comments which the Committee of the Society may desire to offer upon the objections so stated will receive most attentive consideration.

October 31st.—The General Secretary of the Society to the Medical Secretary the following letter:

37, Queen Square, Southampton Row,
London, W.C.,
October 31st, 1904.

J. Smith Whitaker, Esq.,
Medical Secretary,
British Medical Association.

Dear Sir,

I am directed by my Committee to thank you for your letter of October 13th, in which you say you enclose me "a copy of the Medico-Political Committee's report, which, judging from your letter, escaped your notice when it was published in the British Medical Journal (Supplement, May 28th, p. 132)." I acknowledged your letter at once, pointing out that matters published in the British Medical Journal not unnaturally "escape the notice" of laymen who do not subscribe to, or read that strictly professional journal. I am now directed to add that my Committee take note of your tacit admission that the British Medical Association has not previously thought fit to inform us of the decisions at which its Medico-Political Committee and its Annual Representative Meeting arrived some months ago concerning this Society. My Committee cannot but feel that, by keeping it in ignorance on so important a matter, the British Medical Association has treated my Society not only with unusual discourtesy but also with grave injustice.

I at once requested you to inform me whether the report of the Medico-Political Committee of May 28th embodied all the reasons upon which it based its "recommendations," and I am directed to thank you for your further letter of October 19th, informing me that the report in question did contain those reasons.

You are also good enough to inform me that my Society has "misapprehended the aspect in which the Medico-Political Committee was called upon to consider the subject," and that "there was no question of condemnation of" my Society. Inasmuch as the Medico-Political Committee's recommendation was that "it is not desirable that individual medical men should allow themselves to be recognized, directly or indirectly, as specially acting for the Society in any district, or as willing to accept payment on the scale laid down in the rules of the Society" it is somewhat difficult to understand your assertion, or to realize in what particular form of words "condemnation" of the medical arrangements made by my Society could have been more conclusively expressed. At any rate, my Committee cannot agree to consider the matter from the humorous "aspect" in which your assertion places it.

You are good enough to inform me that the Medico-Political Committee took action because it had "repeatedly been asked to advise medical practitioners as to the attitude" they should adopt to my Society. I am informed that your Association and every medical journal has been appealed to, for

years past concerning the working of other societies, and I am directed once more to ask:

1. Why your Association has singled out my Society for condemnation?

You finally state that "the evidence of medical practitioners who have had experience of the working of the Society goes to prove that ..... sections of the public who can perfectly well afford to pay higher fees are enabled to exercise pressure upon the profession to charge them the inadequate rate suggested in your Rules." My Committee are astounded at this assertion, and find it difficult to believe that it is advanced with complete gravity. This is a Friendly Society, formed to assist and encourage providence amongst the working classes. Its members have the unfettered right to consult any medical practitioner they like, while every medical practitioner is, of course, at liberty to refuse to attend them at the Society's rate.

You admit these facts; every practitioner who has worked for the Society is aware of them. My Committee, of course, know that the scale of fees paid by my Society is greatly in excess of that paid to practitioners by any similar Society in the United Kingdom; but they altogether fail to understand the logical sequence of your argument that the fees are "inadequate" for the working classes, yet richer "sections of the public" consider the fees of the Society so high that they attempt to obtain medical attendance for themselves at the same rate. My Committee admit themselves flattered by the great influence you are good enough to assert that the methods of my working class Society is exerting upon "sections of the public" of a higher social standing—though, frankly, they were not previously aware of the fact. But as they desire to deal with the "reasons" of the Medico-Political Committee with due gravity—

2. They ask for chapter and verse to prove that the assertion in question has the slightest foundation in fact; and which, if there is one practitioner in the whole country who can, if he pleases, refuse to attend a working man on the Society's scale of fees, yet has been so influenced by the desire of a richer "section of the public" as to give his services to them on the Society's scale? Until this is actually proved, my Committee can only believe the suggestion is simply mythical.

I now pass to the specific "reasons" advanced by the Medico Political Committee for their condemnation of the National Deposit Friendly Society.

(*a*) That this Society differs from other Friendly Societies in the fact of paying practitioners "fees for services rendered." In other words, we have no contract work. My Committee are informed that practitioners consider contract work very undignified, very badly paid, and most unsatisfactory. They find it difficult to understand, therefore, why the British Medical Association condemns the one Society which has set its face against contract work, and has always treated its medical practitioners as its most respected advisers—not as gentlemen from whom a maximum of work should, if possible, be obtained for a minimum of remuneration. I am directed to ask—

3. If the British Medical Association seriously desires my Society to completely alter its methods, and adopt contract work in future?

(*b*) That "the Society professes to recognize no individual practitioner as distinctly an officer of the Society, but represents that every member may be attended by any registered medical practitioner in the district whom he may select." My Committee fail to understand why the words "professes" and "represents" are employed, when the rules of the Society and its invariable practice must have convinced the Medico-Political Committee that there was no mere "profession" or "representing" in the matter. The Divisions of the Society have consulting physicians, who are honorary officers, and advise the local Committees on medical points; but that has nothing to do with the freedom of every member to consult any practitioner he pleases. Moreover, my Committee observe that your Annual Representative Meeting resolved that it ought to be a "fundamental principle" that every medical man in any district should be eligible to attend on members of provident medical organizations. My Society is the only body which has adopted that system, and yet, directly after agreeing to this "fundamental principle," the Representative Meeting condemned my Society's methods. My Committee find it increasingly difficult to understand what the British Medical Association desires; and I am directed to ask—

4. Whether the Association definitely desires my Society to abolish this "fundamental principle" in its own system of working?

(*c*) The Medico-Political Committee then set out the scale of fees paid by my Society, but note—as they were in justice bound to do—that these "are subject to modifications for special reasons;" and conclude by expressing their opinion that "the rates are too low." That, of course, is a matter of "opinion." For a man earning 30s. a week, and joining my Society for that amount of sick pay, the Society is prepared to pay the doctor at the rate of 10s. 6d. a week, if he visits the patient six times at home, or if the man attends the surgery, the doctor receives at the rate of 7s. 6d. every six days. My Committee freely admit that the doctor probably deserves ten—or twenty—times as much for his skill and trouble; but does any reasonable being believe that such a working man, unassisted by our Society, could afford to pay the fees I have mentioned? And be it remembered, my Society pays the doctor promptly—which we are informed is not invariably the rule with patients. I am directed to ask:

5. What fees the Medico-Political Committee consider that such a patient should pay.

The other "reasons" advanced by the Medico-Political Committee may be considered later. My Society looks at this matter from a practical point of view. Its present methods have proved to be eminently popular and successful. The Society is rapidly increasing in numbers—25,000 new members joined it last year. It is accumulating great financial reserves—some hundreds of thousands of pounds. It is working in 1,200 districts with the utmost harmony with some thousands of medical practitioners, many of whom strongly advise their poorer patients to join the Society. It has not only medical practitioners on its District and Divisional Committees, but it is unique in having two representatives of its medical workers on its governing body, so that any complaint or any suggestion from them can be brought at once to and dealt with at head quarters; and thus there is little or none of the local friction which is experienced by some organizations.

It has established the first Conciliation Board—three medical practitioners, three Chairmen of Committees of the Society, and the Duke of Northumberland as Chairman—to which any serious dispute can be referred; and my Society has therefore accomplished what the medical profession have long advocated but no other body has achieved.

I might further elaborate the case for my Society; but I am now instructed to inquire what the British Medical Association definitely suggests, and what answers it will favour us with to the questions my Committee have now asked, and especially on the following points:

It has advised its members to have nothing to do with my Society.

6. Does it desire that my Society should make no payments to any member of the British Medical Association?

It hints that it wishes all arrangements to be made in future between medical practitioners and members of my Society. My Committee ask—

7. To have this desire—if it be desired—stated in perfectly definite terms.

And my Committee desire to know, categorically,

8. Exactly what "amendments" the British Medical Association does suggest should be made in the Rules of my Society.

I am, dear Sir,

Yours faithfully,

C. Tuckfield,

General Secretary.

November 1st.—The Medical Secretary to the General Secretary of the Society acknowledging the letter of October 31st, and promising to lay the matter before the next meeting of the Committee.

(The correspondence up to this point was considered by the Medico-Political Committee at its meeting on November 16th, and the following resolution was adopted:

Resolved: That a reply be prepared by the Chairman of the Committee, the Chairman of Representative Meetings, and the Medical Secretary, pointing out that the form in which the communication from the National Deposit Friendly Society, dated October 31st, has been couched by the Secretary of the Society, precludes the Association from replying on the subject of the communication.)

December 2nd.—In pursuance of the above instruction the following letter was written to the Society:

BRITISH MEDICAL ASSOCIATION,
Medical Secretary's Office,
429, Strand, W.C.,
December 2nd, 1904.

Dear Sir,—I am instructed to inform you that the Medico-Political Committee of the British Medical Association having had before it my recent correspondence with yourself, observes with regret that the representations of your Committee, as conveyed through you in your letter of October 31st, are couched in terms which preclude the Association from continuing the discussion with your Society of the subject at issue.

I am,
Yours faithfully,
J. SMITH WHITAKER,
Medical Secretary.

C. TUCKFIELD, ESQ.,
General Secretary,
National Deposit Friendly Society,
37, Queen Square, Southampton Row, W.C.

December 13th.—From General Secretary of the Society to Medical Secretary as follows:

NATIONAL DEPOSIT FRIENDLY SOCIETY,
37, Queen Square,
Southampton Row,
London, W.C.,
December 13th, 1904.

Dear Sir,
My Committee have considered your letter of December 2nd, and learn with regret and surprise that the Medico-Political Committee find it impossible to answer the questions, or afford the information as to the desires of the British Medical Association concerning our Society, which were requested in my letter of December 2nd.

Yours faithfully,
C. TUCKFIELD.

J. SMITH WHITAKER, ESQ.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON W. R. M. YOUNG has been placed on the retired list at his own request, March 1st. He was appointed Surgeon, August 21st 1884, and Fleet Surgeon, August 21st, 1900. Whilst serving as Surgeon of the *Lily* in 1888, he received the thanks of his Commander-in-Chief for "valuable report on the sanitary condition of the town of Sanshez, Gulf of Samana, San Domingo, together with most able and useful meteorological statistics."

The following appointments have been made at the Admiralty: JAMES W. W. STANTON, Staff Surgeon, to the *Gladiator*, March 1st; EDWARD T. MEAGHER, Staff Surgeon, to the *Pembroke*, to be sent to the *Ramillies*, February 27th; CHARLES J. BOUCHER, M.B., Surgeon, to the *Fire Queen*, for disposal, March 1st; ALOYSIUS F. FLEMING Surgeon, to the *Vivid*, for disposal, February 28th; CHRISTIAN B. FAIRBANK, Surgeon, to the *President*, for three months' hospital study, March 13th; JOHN VERDON, Surgeon, to the *Vernon*, March 13th; D. H. VICKERY, Surgeon lent to the *Scylla*, for the *Dryad*, March 3rd; JOHN MENARY, M.D., Fleet Surgeon, and J. H. MCDOWALL, surgeon, to the *Good Hope*, February 28th; ROBERT S. BERNARD, Staff Surgeon, to the *Terrible*, February 28th; ALEXANDER G. W. BOWEN, M.B., Staff Surgeon, to the *Amethyst*, undated; ALFRED WOOLCOMBE, Surgeon, to the *Pandora*, undated; FAIRMAN R. MANN, Surgeon, to the *Fire Queen*, March 6th.

Civil Practitioner D. B. Ross has been appointed Surgeon and Agent at Holy Loch, March 3rd.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT G. F. RUGG is seconded for service with the Egyptian army, February 10th.

Lieutenant S. M. ADYE-CURRAN to be Captain, November 28th, 1904. He joined the department as Lieutenant, July 26th, 1901. He served as a Civil Surgeon in the Transvaal during the South African war in 1900-2.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

MR. JOHN O'KEEFE to be Surgeon-Lieutenant in the 1st Monmouthshire, February 25th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT COLONEL C. GODSON, M.D., the 18th Middlesex, is granted the honorary rank of Surgeon-Colonel, February 25th.

British Medical Association.

CONFERENCE
ON
HOSPITAL ADMINISTRATION
BETWEEN
REPRESENTATIVES OF THE ASSOCIATION AND OF HOSPITAL BOARDS.

A CONFERENCE on hospital administration between the Hospitals Committee of the British Medical Association and representatives of hospitals, metropolitan and provincial, was held in the Board Room at the Metropolitan Asylums Board on Thursday, March 2nd, 1905.

Dr. WM. COLLIER, President of the British Medical Association, took the chair at 3 p.m.

The following is a list of those who attended:

REPRESENTATIVES OF HOSPITAL BOARDS AND OTHERS.

Mr. WALTER BAILY, M.A., University College Hospital.
Count BODENHAM LUBIENSKI, Hereford General Hospital.
Mr. W. G. BUNN, Hospital Saturday Fund.
Sir HENRY BURDETT, K.C.B., London.
Mr. W. G. BURGIUS, Glasgow Eye Infirmary.
Mr. ALAN CADELL, C.S.I., Royal London Ophthalmic Hospital.
Mr. W. G. CARNT, Derbyshire Royal Infirmary.
Right Hon. Lord CHEYLESMORE, London.
Mr. W. F. COLLARD, London Lock Hospital.
Mr. HOWARD COLLINS, Birmingham General Hospital.
The Rev. C. H. DANIEL, D.D., Radcliffe Infirmary, Oxford.
Mr. C. SCRASE DICKINS, Sussex County Hospital.
Mr. R. BALL DODSON, Hon. Sec., Brighton and Hove Hospitals Board.
Major MORDAUNT EDWARDS, V.C., Norfolk and Norwich Hospital.
Sir CHARLES GILMAN, Norwich.
Mr. G. J. GOSCHEN, Guy's Hospital.
Mr. EUSTACE GURNEY, Norfolk and Norwich Hospital.
Mr. G. H. HAMILTON.
Mr. H. A. HARBEN, London.
Mr. THOMAS HAYES, East London Hospital for Children.
Hon. SYDNEY HOLLAND, London and Poplar Hospitals.
Mr. J. FIELDING JOHNSON, Junr., Leicester.
Mr. STEWART JOHNSON, Hospital for Sick Children, Great Ormond Street.
Sir RILEY LORD, J.P., Newcastle-on-Tyne Royal Infirmary.
Mr. CHARLES LUPTON, Leeds General Infirmary.
Mr. Alderman MARX, Brighton.
Mr. H. W. MASON, East Suffolk and Ipswich Hospital.
Mr. T. MARK MERRIMAN.
Colonel MONTEFIORE, Charity Organization Society.
Dr. G. B. MORGAN, Sunderland Infirmary.
Mr. E. W. MORRIS, London Hospital.
Mr. S. M. QUENNELL, Westminster Hospital.
Mr. CUTHBERT RAYMOND, Worcester General Infirmary.
Mr. ARTHUR E. READE, Charing Cross Hospital.
Alderman STANSFIELD RICHARDSON, J.P., Sunderland Infirmary.
Mr. G. Q. ROBERTS, St. Thomas's Hospital.
Dr. MARY SCHARLIEB, Royal Free Hospital.
Mr. G. F. SHEPPARD, Royal Free Hospital.
Mr. A. W. SOWDEN, St. Mark's Hospital.
Mr. F. O. STEDMAN.
Mr. C. W. THIES, Royal Free Hospital.
Dr. HERBERT TILLEY, Throat Hospital, Golden Square.
Mr. J. POLLOCK TOWKER.
Lieut.-Colonel BRUCE VAUGHAN, Cardiff Infirmary.
Mr. A. B. WATSON, West London Hospital.
Mr. A. WILLIAM WEST, St. George's Hospital.
Dr. ARTHUR WHITFIELD, King's College Hospital.

HOSPITALS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

Dr. JOHN FORD ANDERSON, London.
Dr. MICHAEL BEVERLEY, Chairman of the Committee, Norwich.
Dr. J. BRASSEY BRIERLEY, Old Trafford.
Mr. ANDREW CLARK, F.R.C.S., Chairman of Council of the British Medical Association, London.
Dr. WILLIAM COLLIER, President of the British Medical Association (Oxford).
Dr. E. LAWRENCE FOX, Plymouth.
Dr. J. R. HAMILTON, Hawick.
Dr. E. B. HASTINGS, London.
Dr. T. ARTHUR HELME, Manchester.
Mr. EDMUND OWEN, M.B., F.R.C.S., London.
Dr. F. M. POPE, Leicester.
Mr. E. F. WHITE, F.R.C.S., London.

THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

Dr. MAJOR GREENWOOD, London.
Dr. J. GROVES, Carisbrooke.
Mr. R. H. KINSEY, Bedford.
Dr. C. W. MARRIOTT, Reading.
Mr. D. A. O'SULLIVAN, London.
Mr. T. JENNER VERRALL, Brighton.

MEMBERS OF THE MEDICAL PROFESSION.

Mrs. Margaret Alden, London.
Mr. H. A Ballance, M.S., Norwich
Sir Wm. Broadbent, Bart., London.
Mr. Robert Capes, London.
Dr. Julia Cock, London.
Dr. James Crabb, London.
Dr. J. Grey Glover, London.
Mr. Timothy Holmes, London.
Mr. C. R. C. Lyster, London.
Miss Christine M. Murrell, M.B., London.
Dr. Urban Pritchard, London.
Mr. A. W. Mayo Robson, F.R.C.S., Vice-President of the Royal College of Surgeons of England.
Dr. Gustave Schorstein, London.
Dr. Lauriston E. Shaw, London.
Dr. W. Knowsley Sibley, London.
Dr. F. J. Smith, London.
Dr. May Thorne, London.
Dr. Ethel Vaughan, London.
Professor Ernest Wm. White, London.
Dr. Dawson Williams, London.

Apologies for Absence.

Letters of apology for non-attendance were read from Lord Lister, O.M., Sir William Church, President of the Royal College of Physicians, Dr. Donald Macalister, President of the General Medical Council, General Shaw Stewart, Dr. W. A. Elliston, Dr. Norman Walker, and Mr. Garrett Horder.

The Chairman explained that the Hospitals Committee of the British Medical Association was appointed some years ago in consequence of numerous letters that had appeared in the medical and lay press calling attention to hospital abuse. The medical men on that Committee represented all parts of the British Isles, and included a very considerable number of medical men experienced in hospital management. The Committee had gone very carefully into the question of hospital abuse, and what reforms could be brought about in the management of hospitals. As a result they had brought forward a number of resolutions which had already been discussed with a few distinguished medical men. The Committee had invited a large number of laymen interested in hospital administration to a conference, in order to obtain their views on the subject. In taking a vote on the resolutions the Committee asked from the laymen their friendly criticism and advice, which would be very seriously considered by the Committee. It was proposed, if the principles embodied in the resolutions were accepted, to send them to the various hospitals, and it was hoped that in that way a public opinion in the matter of hospital reform would in time be created. If there was necessity for improvement, as medical men believed, it was felt that it was more likely to be brought about by friendly co-operation with the committees of management of the various hospitals, and medical men and the staffs of those hospitals. Hospital reform was desired to put an end to some of the abuses which existed. It would not benefit medical men alone; they felt very strongly indeed that it would benefit some of those who applied. If those people who could well afford to pay for medical advice could be prevented from attending the hospitals they would be taught very valuable lessons; that was to say, they would be taught the principle of self-reliance and habits of thrift. Speaking from twenty years' experience of hospitals he could say that the out-patients' departments were often so much congested, and the number of patients to be looked after was so large, that the medical officers could not give as much time as they felt they ought to give to individual patients. If the number applying were diminished the treatment of the others would be improved to a very great extent. In conclusion he explained that the members of the Hospitals Committee did not intend to vote. A vote would be taken in order to get a real indication of the feeling of the meeting on the matters under discussion.

Dr. Beverley (Chairman of the Hospitals Committee) stated that the opinion of that Committee was sufficiently expressed in the resolutions. He would not detain the meeting by any comments of his own, but would simply submit the resolutions for discussion. The first was as follows:

> That inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment.

Mr. Collins (Birmingham General Hospital) asked if the resolution was intended to include pauper cases, which should be treated by the Poor-law medical officers. This was a very burning question in provincial hospitals, and had received special attention in Birmingham for many years. As it stood, the resolution seemed to imply that the hospitals should treat all pauper cases.

Dr. Beverley said that the resolution as it stood covered Poor-law cases if they were suitable cases for hospital treatment, and were sent to the hospitals by Poor-law surgeons as such.

Mr. Mason (East Suffolk and Ipswich Hospital) asked whether the resolution carried with it the abolition of tickets for admission.

Dr. Beverley said that it did not; a later resolution proposed the abolition of subscribers' letters.

Mr. Charles Lupton (Leeds General Infirmary) wished the point to be more clearly explained before he could vote upon the resolution. In Leeds they dealt with pauper cases when they were cases of a class which could not get relief from the ordinary institutions which were provided by the Poor-law authorities; but the Leeds General Infirmary did not consider that a pauper case was a proper case for admission if of a nature to be adequately treated at the Poor-law infirmary. If the resolution covered those cases, he was definitely pledged to vote against it.

Dr. Pope (Leicester) inquired if by pauper cases was meant persons actually in receipt of parochial relief or persons in a position to receive it.

Mr. Lupton replied that they must take the test of whether a man was actually receiving relief or not.

Dr. Whitfield (King's College Hospital) stated that he had no power to vote at all. He was merely sent in order to report what took place at the meeting.

Dr. Beverley pointed out that the Committee did not suggest that all parish cases should be admitted, but only such as required special hospital treatment. It was far from the intention of the Committee that hospitals should in any way relieve Boards of Guardians from their responsibility, but he felt sure that it was the wish of all those who supported hospitals that if a parish or workhouse patient required special hospital treatment, surgical or medical, he should receive it whether he was a pauper or not.

Dr. Groves (Isle of Wight) thought Poor-law authorities should be pressed to provide proper appliances for workhouses and infirmaries, but that no person should be refused on account of his social position the hospital treatment that he required.

Sir Henry Burdett (London) said that pauper cases had been admitted to all classes of hospitals throughout the country for many years, and the practice which was enforced by hospitals, large and small, from Guy's Hospital to cottage hospitals, was that the Poor-law authorities should pay so much per day during the residence of those cases in the hospitals. As it was the duty of the Boards of Guardians to provide adequate medical treatment to the fullest extent for all pauper cases, the Conference could not pass the resolution as it stood, and then pass the second resolution. He agreed that the Poor-law authorities, as by law constituted, should provide everything that was necessary for their cases; but if pauper cases were to be provided for in general hospitals and cottage hospitals, then it was desirable that the Poor-law authorities should pay for the treatment of those cases; and, as had been done frequently in cottage hospitals, also pay the fee of the doctor.

Dr. Brassey Brierley (Manchester) was sorry that the question of Poor-law cases had entered into the discussion. No surgeon in any hospital declined to operate on an important case sent from the workhouse infirmary. There was no parallel between payment by the guardians and payment by the patient. The pauper patient was not able to pay for adequate treatment, but the guardians, as the custodian of the pauper, were not only able but willing to, and did, pay. He would regret if this should militate against the unanimous adoption of the first resolution, because it did not affect the question whatever in the smallest way; and the more so as it had been intimated that the question was to be discussed at a future time.

Sir Henry Burdett maintained that the question of Poor-law cases in a gathering called together by the British Medical Association as representing the medical profession, was the very keynote to hospital abuse. There had been in the past a robbery of the profession, because the guardians had not paid the fees which they ought to have paid to gentlemen who had performed these greater operations in the hospitals; and it was absolutely essential in a conference like that to be absolutely clear and definite as to where they stood.

Dr. Pope thought the difficulty would be met by a rider to the effect that the resolution did not apply to Poor-law cases, and that they considered anything done for the Poor-law authorities should be paid for.

This suggestion was accepted by the Chairman of the Committee.

The resolution was then put and declared carried.

Dr. Beverley then brought up resolution 2:

> That no charge for the treatment of any patient shall be made.

Mr. Walter Baily (University College Hospital) inquired whether this resolution applied to paying wards in hospitals.

Dr. Beverley replied that the question of paying wards had not yet received the consideration of the Committee. There were various questions, of which this was one, which sooner or later must be referred to the Committee. The resolutions which were before the Conference were based upon the broad principles applicable to hospitals which were originally founded as charities, and were supported on that footing.

Mr. Carnt (Derbyshire Royal Infirmary) asked how it was proposed to deal with those persons who were not in a position to pay a fee—say, for an operation, and the necessary expense of nursing—but were able and would contribute to the hospital fund in return for their treatment.

Dr. Beverley said that at present nothing was proposed with regard to the stratum between those who were unable to pay anything and those who were able to pay something. This would be considered and reported on at a subsequent meeting. The resolution was to the effect that no charge as such was to be made by the hospital authorities. Voluntary contributions from grateful patients could of course be accepted. This was originally in the resolution, but it was subsequently thought best to delete it.

The Hon. Sydney Holland (London and Poplar Hospitals) observed that if under the word "treatment" medicine was included he could not agree to the resolution, because the institutions he represented felt that it was quite fair to ask patients to contribute something towards the cost of the medicine or bandages which were supplied to them. He would support a resolution to the effect that no charge was to be made for the gratuitous advice which they received. In Scotland no medicine was supplied to the patients. A prescription was given to them, which was made up outside, and he saw no reason why in London, where they had their own dispensary, they should provide patients with medicine or bandages free. Again, with regard to cottage hospitals, there were a large number where a weekly charge of 5s. was made towards the cost of food, and if that was included under the word treatment he could not support the resolution. He knew that these views were not popular, but sometimes the unpopular view succeeded; and he was quite sure that the system of charging something for medicine and bandages was making headway in London at the present time.

Dr. Beverley observed that the matter had been thoroughly discussed by the Committee, and the resolution meant what it said, that no charge for treatment of any kind, either medicine or bandages or food, should be made.

Sir Riley Lord (Newcastle-on-Tyne) said that if by voting for the resolution he was saying that there should be no paying wards in hospitals, then he should not vote for it. In the institution he represented no charge was made for medicine or bandages; it was perfectly free, although they believed, to some extent, it was abused. It had decided to have paying wards in the new infirmary, as there were persons who were unable to pay for treatment in private homes whose own were not suitable for nursing purposes or surgical operations, but who were able and willing to pay something for the treatment they received.

Dr. Beverley remarked that the question of paying wards had not been discussed by the Committee, and was therefore not down for consideration of the Conference; they were quite prepared to report on this subject if referred to them.

Mr. Richardson (Sunderland Infirmary) stated that all the resolutions under discussion were practically now enforced in the institution which he represented. They admitted every one free. They were out of debt and were largely supported by the class most needing attendance. Out of an expenditure of £10,000 a year the working classes gave £6,300, and on the Board of Management they had the cream of the working classes, and better colleagues one need not wish to have. Owing to an arrangement with the guardians the hospital accepted cases which would otherwise be treated by the union, but the union gave a subscription of £100 per annum. His institution was an illustration of what a successful free hospital should be.

Sir Henry Burdett considered that the resolution was clearly in conflict with the first, unless it was proposed to exclude cottage hospitals altogether, and to admit by right to the wards of the hospital people who were attended in the ordinary course by their own medical man, but who, in the terms of the first resolution, were unable to pay for adequate treatment. By laying down a hard-and-fast rule that no form of payment should be made the Committee rendered it practically impossible, in view of the advance in medical science and in the face of the general opinion among the public, to introduce into hospitals the reforms required if they were to do their work properly.

Mr. Verrall (Brighton) thought it was obvious that, in framing this resolution, the Committee did not commit itself for or against the question of extension of the work of hospitals, by the inclusion of some scheme for paying wards. At present the number of those who undoubtedly could not afford to pay, and yet were not paupers, was enough to fill the hospitals; for their treatment no charge should be made. If all hospitals had been supplied with sufficient money for their purposes this question of payment would not have arisen. He could not help feeling that if it was to be followed by a paying-ward system, it was to be regarded as the thin end of the wedge.

Mr. Dodson (Brighton and Hove Hospitals Board) thought that the vote on the resolution would probably have been unanimous if the interpretation of the word "treatment" had not been narrowed down. Many who would have voted for it in the broader sense would be obliged to vote against it.

Mr. Kinsey (Bedford) said that in many country towns the hospital was the only place where patients could have the advantage of the Roentgen rays and similar new methods, for which they were prepared to pay something, and the only alternative would be for them to go to large cities, which would be an inconvenience.

Dr. Major Greenwood asked if there was any objection to sending a box round among the out-patients asking for donations.

Dr. Beverley said that the resolution was intended to prevent solicitation of the patients in any way.

Hon. Sydney Holland remarked that if boxes were not to be sent round to patients, and if they were not to be asked for contributions, the resolution became ridiculous. It was not true to say that people who went to the out-patient department were not able to pay anything at all. They could not afford to pay for adequate treatment, but they could afford to pay, and were perfectly willing to pay, something towards the expenses to which the hospital was put. The time would surely come when people who ran the hospitals would say: "We cannot do it, and if medical men persistently drive us into that position the result will be that either the medical men will cease to work or the hospitals will shut up their wards." It was only laymen who said: We are not going to be such idiots as to give people for nothing what they can afford to pay for. It is only medical men who can carry this, but we as laymen will not and never would.

Colonel Montefiore (Charity Organization Society) thought that the charge made at the London and some other hospitals materially militated against the work of the general practitioner in the neighbourhood of such hospitals; it was a decided loss to those medical men. This charge, though small, meant a large sum; otherwise those who supported it would not be so eloquent in advancing such a scheme. That sum divided amongst the medical men in the poorer districts of London was considerable, and in framing this resolution the Committee must have had in mind what the loss must be. He had had twenty years' experience of work on this subject, and he had noticed that in the East-end and in the south of London, where this charge was made, the charges of the medical practitioner had had to be reduced from something small to something very much lower. Therefore he was thoroughly in accord with the resolution.

Hon. Sydney Holland said that the loss was much greater when no charge was made.

Colonel Montefiore replied that charity was getting money which ought to go into the pockets of the medical profession.

Dr. Pope remarked that immediately a charge was made the institution ceased to be a charity, and there was a danger of undue preference. There was very little difference between 3d. paid for a box of ointment and the 3d. given to the porter to get into the medical officer's room a little quicker.

Sir Henry Burdett considered Colonel Montefiore was quite wrong from the point of view of medical men. He thought the charge of 3d. did affect medical men, for the reason that the patients would come to the hospital in greater number if it were not for that charge. After all, what was wanted, from the point of view of the medical men in a poor district, was to educate the people to pay something to somebody for medical relief.

Mr. Lupton pointed out that large contributions from the working classes were attended by the danger that they felt they were paying for treatment at the hospital. At Leeds they explained to the working classes that the hospital was provided for those who required free treatment; and there

was gradually growing up amongst people who used the hospitals a strong feeling that those who could pay should go to private practitioners. If the system was introduced of payment for medicine or bandages, or even tea and sugar, which was charged at some hospitals, he felt sure that patients would take up the old idea which was prevalent when this question was first mooted—that they were only getting what they paid for.

Mr. Bunn (Metropolitan Saturday Fund) was of opinion that it would be very unwise to pass a hard-and-fast rule against every form of payment. Most of the hospitals that received payment got it more as a thank-offering than anything else. When the system of charging 3d. in the out patients' department was introduced at the London Hospital, the Board of the Hospital Saturday Fund carefully considered the matter, and the proposal was unanimously endorsed, so that the working classes were not, as was thought, against payment of any kind. Many of the hospitals with which the Fund was connected received a sum more or less large from contributions according to the means of the patient. If a patient could not afford a large sum, he did not see any reason why he should not be permitted to give a small one. If this resolution were applied to out-patient departments, it appeared to him they would have to refuse payments which came in the form of donations. A donation to the funds of a hospital in return for benefit received was as much a payment as anything else, and if they were to say that no payment was to be accepted there was a large class of people who, if there was an opportunity of not paying anything, generally took advantage of it. He thought people should be encouraged to pay, not exactly what they could afford, but something in return for the great benefit they had received.

Dr. Brassey Brierley's experience of thirty years amongst the working classes who contributed to the funds of the hospitals led him to the conclusion that applicants for medical relief no longer went to the hospital as a charity; they demanded the services of the hospital authorities in return for their contribution.

Sir Riley Lord could not vote for the resolution as it stood. The Newcastle Royal Infirmary required a subscription of some £68,000, and the working classes of Newcastle subscribed £20,000. As Chairman of the Committee of the Hospital, he was continually met by the objection: "You admit to the hospital those who could afford to pay, and we shall not vote for the additional income required."

Mr. Mayo Robson was of opinion that it would be very objectionable to pass a resolution to the effect that patients should not be allowed voluntarily to give subscriptions, but the resolution meant that no payment should be demanded; it did not in any way say that patients might not give a voluntary subscription. He thought it ought to be put to patients who could in any way afford it that such donations were very desirable; but the handing round of a box in the out-patient's department was very undesirable. To charge patients 3d. for medicine or bandages was a very bad thing for the hospital and for the profession, because patients thought the advice they got was only worth the 3d. which they had paid. The way in which subscriptions were obtained in Sunderland and Leeds from the working classes themselves, who were then the guardians of the hospital against abuse, was a good object lesson; and the advantage of having representatives from the working classes on the Boards of hospitals was very great, because they saw that the working classes who obtained the benefit of advice and help from the hospitals also ministered to the funds of the hospitals. If this method were adopted in connexion with the London and Poplar Hospitals it would extricate the Boards and those hospitals from many of their difficulties; the resolution would also be of great help if it were passed.

Dr. Tilley (Throat Hospital, Golden Square, London) was of opinion that many people could afford to pay some small sums towards their treatment, and at his hospital that was gladly accepted. He would ask those who said that was a wrong principle how a patient was to be treated who could afford to pay, say, 2s. 6d. or 3s. for a private practitioner, but who was suffering in some way which called for special experience or skill outside his own medical man's province? Such a patient was generally sent by his medical man to the hospital. Under what circumstances was that patient to be treated? He contended that if such a patient could afford anything it should be accepted. There was no halfway house for such cases; they must either be treated by their own medical men or go to the hospital.

Dr. Urban Pritchard (King's College and Royal Ear Hospitals) endorsed Dr. Tilley's observations. At a general hospital he had seen a large number of patients who could afford something but were not asked to contribute anything; it was a great mistake to adopt a hard-and-fast rule. Both he and Dr. Tilley referred to special cases which could not, as a rule, be treated by the ordinary practitioner.

Mr. Sowden stated that St. Marks Hospital, which he represented, decided to try a small payment on the same lines as the London Hospital for a year, and no objection had been raised by anybody; it had brought in a decent sum. During the past year they had been short of funds, and it was only by getting in money one way or another that they could hope to get along

Dr. Helme (Manchester) said it seemed that already this attempt on the part of the British Medical Association to prevent abuse of hospitals was likely to be wrecked on the rock which Dr. Tilley had described as "the halfway house": that great mass of the people who were not quite poor enough to accept absolute charity, and yet had not the means to provide themselves with adequate treatment. The Hospitals Committee, in framing this resolution, was dealing only with institutions originated as charities, and intended for that class of people who could not pay for adequate treatment. The Committee recognized the fact that they must, subsequent to the adoption of this resolution, offer some provision for the other class; but would it not be wise to adopt this resolution as it was as a direct means of stimulating the provision of that halfway house which so many recognized as essential?

Dr. Beverley stated that at the end of the Conference those present would be asked to nominate twelve gentlemen to consider this and other questions in conjunction with the Hospitals Committee. He did not yield to the impeachment of the Chairman of the London Hospital—Mr. Sydney Holland—that the honorary medical staffs of hospitals had but little consideration for their financial condition. As Chairman of the Board of Management and one of the surgical staff of a provincial hospital of 200 beds (Norfolk and Norwich), he could say that many of his colleagues not only took an active interest and share in its administration, but also by their efforts very materially contributed to its funds. In his opinion it was far better to receive contributions from the working class, as in Sunderland, than to exact any kind of payment from them, as was the case at the London Hospital.

The Chairman then put the resolution to the meeting, when 17 voted in favour and 28 against, and the resolution was declared lost.

The rider suggested by Dr. Pope, to the effect that the resolution should not apply to Poor-law cases, was, at Mr. Collins's suggestion, affixed to Resolution No. 1.

Dr. Beverley then brought forward Resolution 3:

> That the production of subscribers' letters shall cease to be compulsory, and that where possible the system shall be abolished.

The Committee were aware that it could not be at once carried into effect, but it asked that the hospitals should entertain it and consider whether it was not possible to carry it into effect.

Mr. Baily (University College Hospital) considered that this system was of some use, because subscribers liked to get something for their money; the only advantage the letter gave to the applicant was that he was attended sooner than if he had not one. It made no difference as to whether he was admitted or not admitted; it simply gave a little patronage to the subscribers to the hospital.

Hon. Sydney Holland observed that any hospital that gave up subscribers' letters must be prepared to face the loss of a considerable sum of money for some time. It was manifestly the right thing to do, because it was surely wrong that a person should have to cadge for a letter before getting relief. He hoped the resolution would be adopted, as, in his opinion, it would be a step in the right direction.

Major Edwards (Vice-Chairman of the Norfolk and Norwich Hospital) agreed with Mr. Holland that it might be so in London, but he was sure that letters of recommendation were desirable in the country.

Sir Riley Lord differed entirely on the grounds put forward by Mr. Sydney Holland; the letters were very much abused.

Sir Henry Burdett looked at the question, as the profession, with which he had been associated all his life, mainly did, from the point of view of the interest of the patient. He thought the abolition of letters was a danger to patients who resided in the immediate neighbourhood of hospitals which contained only a few beds, as it was the practice of

medical men in the country to send up patients; there were first considered, and it not infrequently happened that all the beds were filled with those cases. He thought that authorities of hospitals everywhere ought to provide that the first claim for beds should be in favour of the residents in the district of the hospital.

Mr. CARNT (Derbyshire Royal Infirmary) personally would be very glad if subscribers' letters could be dispensed with, but from his experience of the system in connexion with the Derbyshire Infirmary he did not think it was possible.

Mr. COLLINS (Birmingham General Hospital) felt that this question was entirely a financial one. It seemed to him extremely difficult to take one particular vote on such a resolution and apply it to all institutions, both large and small. He was entirely in sympathy with the suggestion, but was sure that his own Board was not prepared to adopt it.

Mr. RICHARDSON (Sunderland Infirmary) stated that when the Sunderland Infirmary abolished tickets a few subscribers who liked patronage fell away, but this feeling soon wore off. He would like to do away with the tickets, as they were a great nuisance, and persons were apt to give tickets to people who were unsuitable.

Dr. BEVERLEY pointed out that the words "if possible" had purposely been inserted, as it was felt that, although it might not be possible in some places, it might be in many.

The CHAIRMAN then put the resolution, which was carried, only four voting against it.

Dr. BEVERLEY then brought forward Resolutions 4, 5, 6, and 7, which were agreed to as follows, without discussion:

4. That some means of investigation into the circumstances of the applicants for relief by means of an almoner or other agent shall be employed in all medical charities.
5. That the foregoing recommendations (Resolutions Nos. 1, 3, and 4) apply to both in-patients and out-patients.
6. That, except in emergencies, sufficient evidence shall be obtained on two points, (*a*) that the patient is not in a position to pay for treatment, (*b*) that the case is, from a hospital point of view, suitable for treatment.
7. That all cases of serious accident and severe sudden illness shall be attended to on their first application, and, if deemed eligible for further treatment, shall be referred to the appropriate department of the hospital, but if ineligible shall then be referred for treatment elsewhere.

Dr. BEVERLEY then submitted Resolution 8:

8. That all cases of trivial accident or illness deemed ineligible for the out-patient department shall, after having been attended to, be referred for treatment elsewhere.

Hon. SYDNEY HOLLAND thought that it might be said that a patient suffering from trivial accident or illness should not be treated at all in the out-patients' department.

Dr. BEVERLEY pointed out that the Committee wished that every case should have first aid from the hospital.

Hon. SYDNEY HOLLAND inquired if the Committee did not think that a medical man ought to have the power to say, "This is not a case to come here about; go and see your own medical man."

Dr. POPE thought that would be right if the medical man had any adequate means of judging.

Hon. SYDNEY HOLLAND was aware that everybody who was sent away from a hospital was supposed to die on the doorstep, otherwise the halfpenny newspapers would not be able to exist.

After some further discussion as to the meaning of the words "attended to," the word "seen" was suggested in substitution therefor. This was accepted, and the resolution was put and adopted.

Dr. BEVERLEY then brought forward Resolution 9:

9. That no patient be permitted to leave a hospital without having been seen by a registered medical practitioner.

Mr. COLLINS suggested that if taken literally this resolution could not be carried out in provincial hospitals; but if it meant on the first visit he quite agreed with it.

The CHAIRMAN observed that that was the meaning of it.

Dr. BEVERLEY said the Committee felt very strongly that every case which came to the hospital should, in the first instance, be seen by a qualified medical man—that is, one of the resident staff, who would be qualified.

After some further discussion, the resolution was put and adopted.

Sir HENRY BURDETT suggested the addition of the words "on the first visit," which Dr. BEVERLEY agreed to.

Dr. BEVERLEY then brought forward Resolutions 10 and 11:

10. That where possible the number of new cases to be seen on any one day by an honorary medical officer shall be limited. That special hospitals shall treat only those cases that come strictly within the scope of their work.
11. That in all hospitals there shall be an age limit for the retirement of the medical officers,

which were put and agreed to.

Dr. BEVERLEY then invited the Conference to appoint twelve gentlemen specially competent to help the Hospitals Committee in carrying out these resolutions or amending them, and to bring them before the Boards of Management—both metropolitan and provincial. The Committee thought it was extremely important that these resolutions should not go forth to the hospitals as simply the resolutions of the British Medical Association or any body of medical men only. They would be far more likely to be carried out if they were known to be an expression of opinion from those who, as Mr. Sydney Holland put it, were perhaps more competent to judge of the management and organization of hospitals than even medical men. If another Conference was held in the future it would be public.

The following gentlemen were then elected to serve on the Committee:

Mr. W. G. BUNN, Secretary Hospital Saturday Fund.
Sir HENRY BURDETT, K.C.B.
Mr. W. G CARNT, Derbyshire Royal Infirmary.
Mr. HOWARD COLLINS, House Governor Birmingham General Hospital.
Sir CHARLES GILMAN, Norfolk and Norwich Hospital.
Hon. SYDNEY HOLLAND, Chairman London and Poplar Hospitals.
Sir RILEY LORD, Newcastle-on-Tyne Infirmary.
Mr. CHARLES LUPTON, Chairman Leeds General Infirmary.
Mr. HERBERT W. MASON, East Suffolk and Ipswich Hospital.
Colonel MONTEFIORE, Charity Organization Society.
Mr. DANVERS POWER.
Mr. ARTHUR E. READE, Secretary Charing Cross Hospital.

The meeting sanctioned power to add to its numbers.

On the motion of Dr. BEVERLEY, seconded by Dr. MAY THORNE, a vote of thanks to those gentlemen who had attended the Conference was unanimously adopted, and the proceedings terminated.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The next meeting will be held at Whitehaven on March 31st. Mr. J. Smith Whitaker, the Medical Secretary of the British Medical Association, will deliver an address on a medico-political subject.—FRANCIS R. HILL, Honorary Secretary.

DUNDEE DISTRICT BRANCH.—A clinical meeting of this Branch will be held in the Dundee Royal Infirmary on Friday, April 28th, at 4 o'clock. Members and visitors will dine together at the close of the meeting.—R. C. BUIST and A. P. LOW, Joint Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—A general meeting will be held at the Rooms of the Medical Society of London, Chandos Street, W., on Tuesday, March 14th, at 4.30 o'clock Agenda:—1. Minutes. 2. Correspondence. 3. Matters referred to the Division. (*a*) To consider the relations of the medical profession to ambulance work, and to report to the Medico-Political Committee on the following questions: (1) Which, if any, of the following services—ambulance instruction, ambulance examinations, judging in ambulance competitions—should be treated as a matter of philanthropy. (2) What arrangement as to fees and other matters would be suitable in each district for those services which the Division considers should be treated as a matter of business (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL of February 4th). (*b*) To consider the proposals made by the Medico-Political Committee concerning the National Deposit Friendly Society, and to adopt those recommendations which are thought desirable (see SUPPLEMENT of January 14th). (*c*) To consider report of the Medico-Political Committee on Death Registration, and Amendment of the Coroners' Law (see SUPPLEMENT of March 11th). 4. To grant the Executive Committee of the Division power to send a deputation to the local Member of Parliament, when they think fit, with reference to the Public Health Bill and Revaccination Bill, which have already been approved of by the Association (see SUPPLEMENT of January 14th). 5. To appoint two delegates to attend the conference on the subject of the election of Representatives on the Central Council to be held at 429, Strand, 5 p.m., March 17th. 6. To consider other business if necessary.—COMYNS BERKELEY, M.B., B.C.Cantab., M.R.C.P., 53, Wimpole Street, Honorary Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—An ordinary meeting of the Division will be held at the Kensington Town Hall, High Street, Kensington, on Wednesday, March 15th, at 5 p.m. Business: (1) To confirm minutes of last meeting. (2) To nominate members of the Division as candidates to represent the Metropolitan Counties Branch on the Central Council. (3) To consider enclosed paper with reference to Midwives Bill, and express opinion thereon. (4) To consider matters referred to Division, by Annual Representative Meeting at Oxford, in 1904: (i) The interim report on contract practice; (ii) the report on consultation of medical witnesses in legal cases; (iii) the report on information supplied to coroners by medical practitioners; (iv) the report on reorganization of the Local Government Board (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904, p. 178). (5) Medical Acts Amendment Bill (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904,

p. 183). (*f*) Report on prevention of the abuse of drugs (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904, p. 191). Any member of the Division wishing to bring forward a notice of motion to be placed before the Annual Representative Meeting in July next, should give notice of the same to me not later than Monday, 13th inst.—G. CRAWFORD THOMSON, M.D., Honorary Secretary, 111, Sinclair Road, West Kensington, W.

NORTH WALES BRANCH.—At the last meeting of the Council of the British Medical Association, held on February 15th, it was proposed by the Chairman of the Organization Committee to confirm the following recommendation: "That the Council approves that the Shropshire Division be constituted a separate Branch, provided the Council of the North Wales Branch agrees, and that an agreed definition of boundaries is supplied." He declared that the conditions had been complied with, and the Council unanimously passed the resolution. A special general meeting of the members of the North Wales Branch will be held at the Llandudno Junction Hotel on Tuesday, March 21st, at 2 p.m., to transact all business consequent upon the reconstitution of North Wales as a separate Branch from Shropshire.—W. JONES-MORRIS, Portmadoc; H. JONES-ROBERTS, Pen-y-groes, Honorary Secretaries.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in March (22nd), April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Greyhound Hotel, on Thursday, March 16th, at 4 p.m., Dr. W. Rosser in the chair. Dinner at 6 p.m.; charge, 5s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by post card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. Agenda: (1) Minutes of the last meeting. (2) To decide when and where the next meeting shall be held, and to elect a chairman. (3) Consideration of various matters referred from the Medico-Political Committee (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904): (*a*) Interim report on contract practice; (*b*) consultation between medical witnesses; (*c*) memorandum *re* information to coroners; (*d*) report on reorganization of the Local Government Board; (*e*) memorandum *re* drug abuse; (*f*) memorandum on the payment of medical practitioners called in to assist midwives. The following papers will be read: Dr. Dundas Grant, Some Practical Points in the Treatment of Diseases of the Throat, Nose, and Ear; Mr. T. H. Kellock, Intussusception. Golf Competition: It is proposed to hold a golf competition amongst members of the Croydon Division. Those members willing (*a*) to take part in the competition, (*b*) to serve on the committee, are requested to communicate with the Honorary Secretary on or before March 16th. Exhibition of pharmaceutical products by Messrs. Parke, Davis and Co. Surgical instruments by Messrs. Evans and Wormull.—E. H. WILLOCK, Honorary Secretary, 113, London Road, Croydon.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 28th, at 3.30 p.m., when the President, Mr A. W. Sinclair, will take the chair. Agenda:—Resolution proposed by Mr. G. F. Sydenham: "That, in the opinion of this meeting, the fees offered to medical practitioners by the County Education Committees for certificates under the Education Act are inadequate." The meeting will then be asked to consider the many questions, referred from the Medico-Political Committee of the Association, which include many items of great importance to the profession as a whole and to each individual practitioner: (1) On the payment of medical practitioners called in to assist midwives; the discussion on this subject will be introduced by Dr J. A. Macdonald. (2) Contract practice; discussion introduced by Mr. A. E. Joscelyne. (3) Concerning communications with coroners; discussion introduced by Mr. H. W. Husbands. (4) On the prevention of the abuse of drugs; discussion introduced by Dr. D. Brown. (5) The Medical Acts Amendment Bill; discussion introduced by Dr. J. A. Macdonald.—W. B. WINCKWORTH, Taunton, Honorary Secretary

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,746 births and 5,123 deaths were registered during the week ending Saturday last, March 4th. The annual rate of mortality in these towns, which had been 17.4, 17.3, and 15.7 per 1,000 in the three preceding weeks, rose again to 17.1 per 1,000 last week. The rates in the several towns ranged from 8.4 in Grimsby, 9.6 in Aston Manor, 10.0 in Smethwick, 10.3 in Walthamstow, 10.5 in Hornsey and in Rotherham, and 10.7 in Northampton, to 21.9 in Stockton-on-Tees, 22.0 in Liverpool, 22.2 in Reading, 22.9 in Sunderland, 23.4 in Nottingham, 24.3 in Tynemouth, and 29.7 in Merthyr Tydfil. In London the rate of mortality was 17.1 per 1,000, and it averaged 17.1 per 1,000 in the seventy-five other large towns also. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six large towns: in London this death-rate was equal to 1.3 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 5.4 in Reading, in West Bromwich, and in Nottingham, 5.7 in Newport (Mon.), 6.5 in Hanley, 7.3 in Southampton, and 7.5 in Portsmouth. Measles caused a death-rate of 2.1 in Newport (Mon.), 2.8 in Merthyr Tydfil, 3.0 in Stockton-on-Tees, 3.7 in Nottingham, 3.8 in West Bromwich, 4.7 in Reading, 6.5 in Portsmouth, and 6.8 in Southampton; scarlet fever of 1.2 in Rochdale and in Blackburn; diphtheria of 1.1 in West Ham, 1.4 in Newport (Mon.), 1.5 in West Hartlepool, and 2.2 in Ipswich; whooping-cough of 1.3 in Bradford, 1.7 in Rotherham, 1.9 in Tynemouth, and 6.5 in Hanley; and diarrhoea of 1.4 in Newport (Mon.), and 1.5 in West Bromwich. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Leeds, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 15 small-pox patients on Saturday last, the 4th inst., against 9, 8, and 15 on the three preceding Saturdays; 4 new cases were admitted during the week, against 1, 3, and 7 in the three preceding weeks. The number of cases of scarlet fever under treatment in these hospitals and in the London Fever Hospital, which had been 2,077, 2,017, and 1,987 at the end of the three preceding weeks, had risen again to 2,102 at the end of last week; 290 new cases were admitted during the week, against 260, 241, and 224 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 4th, 965 births and 582 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2, 18.9, and 18.3 per 1,000 in the three preceding weeks, further fell to 17.4 per 1,000 last week, but was 0.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 10.2 in Leith and 15.2 in Edinburgh, to 19.0 in Aberdeen and 20.1 in Greenock. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in these towns, the highest rates being recorded in Glasgow and Paisley. The 284 deaths registered in Glasgow included 5 which were referred to measles, 2 to diphtheria, 18 to whooping-cough, and 8 to diarrhoea. Two fatal cases of measles and 4 of diarrhoea were recorded in Edinburgh; 2 of whooping-cough in Dundee; 3 of diarrhoea in Aberdeen; 3 of whooping-cough in Paisley; and 2 of "fever" in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 25th, 500 births and 441 deaths were registered in six of the principal Irish towns, against 505 births and 393 deaths in the preceding period. The mean annual death-rate in these towns, which had been 22.8, 20.1, and 20.2 per 1,000 in the three preceding weeks, rose to 23.8 per 1,000 in the week under notice, this figure being 8.1 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.5 in Waterford and 21.9 in Limerick to 26.0 in Londonderry and 27.4 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.8 per 1,000 or 0.3 per 1,000 higher than during the preceding week, the highest figure 2.1—being registered in Cork, while Limerick, Londonderry, and Waterford recorded no deaths under this heading at all. The figure for all Ireland comprise 12 deaths from measles, 1 from scarlet fever, 3 from whooping-cough, 2 from diphtheria, 3 from enteric fever, and 6 from diarrhoeal diseases.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

AYR DISTRICT ASYLUM.—Junior Medical Officer, resident. Salary, £120 per annum.

BEDFORD COUNTY HOSPITAL.—(1) House-Surgeon, (2) House-Physician. Salaries, £100 and £60 per annum respectively.

BIRKENHEAD UNION.—Resident Assistant Medical Officer. Salary, £120 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House Surgeon. Salary, £20 per annum.

BIRMINGHAM GENERAL HOSPITAL.—House-Surgeon, resident. Salary at the rate of £50 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRADFORD POOR-LAW UNION.—Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £125 per annum.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—(1) House-Physician, (2) Assistant House-Surgeon. Salaries at the rate of £50 and £30 per annum respectively.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer to act as House-Physician and House-Surgeon for six months each. Salary, £80 and £100 per annum respectively.

CHELTENHAM GENERAL HOSPITAL.—(1) Junior House-Surgeon, resident. (2) Surgeon-in-Charge of Branch Dispensary. Salary, £50 and £90 per annum respectively.

CHELTENHAM EYE, EAR, AND THROAT FREE HOSPITAL.—House-Surgeon. Salary, £200 per annum.

CHICHESTER INFIRMARY.—Honorary Medical Officer.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, resident. Salary, £130 per annum, rising to £150.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon, resident. Salary, £40 per annum.

ESSEX AND COLCHESTER HOSPITAL.—Honorary Physician.

GLASGOW UNIVERSITY.—Grieve Lectureship on Physiological Chemistry.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) Pathologist and Curator, (2) Physician to Out-Patients, (3) Senior House-Surgeon, (4) Two Junior House-Surgeons, (5) Junior House-Physician. Salaries for (1) 50 guineas per annum, (3) at the rate of £60 per annum, and (4) and (5) at the rate of £30 per annum.

GREENOCK: SOUTHSON ASYLUM AND POORHOUSE.—Assistant Medical Officer. Salary, £110 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon, resident. Salary, £80 per annum.

HERTS COUNTY ASYLUM, Hill End, St. Albans.—Junior Assistant Medical Officer. Salary, £150 per annum.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon, resident. Salary, £40 per annum.

LINCOLN COUNTY HOSPITAL.—(1) Senior Male House-Surgeon; salary, £100 per annum. (2) Junior Male House-Surgeon; honorarium, £25 for each six months.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant House Surgeon, non-resident. Honorarium at the rate of £75 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician, (2) House-Surgeon, (3) Assistant House-Physician, (4) Assistant House-Surgeon. Salaries at the rate of for (1) and (2) £40 per annum, and (3) and (4) £20 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Assistant Physician to Out-Patients.

NORTHAMPTON GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary, £50 per annum.

OLDHAM INFIRMARY.—Senior House Surgeon, resident. Salary, £100 per annum.

PENANG: MUNICIPALITY OF GEORGE TOWN.—Assistant to the Municipal Health Officer. Salary, £300 per annum, rising to £350.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—House-Physician, resident. Salary at the rate of £60 per annum.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon (male), resident. Salary at the rate of £70 per annum.

SALOP INFIRMARY.—House-Physician.—Salary at the rate of £50 per annum.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Curator of Museum and Assistant Pathologist. Salary, £100 per annum.

ST. PANCRAS PARISH.—Female Junior Assistant Medical Officer to the South Infirmary and the Workhouse. Salary, £80 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

TEIGNMOUTH HOSPITAL.—House-Surgeon, resident. Salary, £70 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) House-Physician, (2) Three House-Surgeons. Appointments for six months.

WESTMINSTER GENERAL DISPENSARY, Soho.—Resident Medical Officer. Salary at the rate of £120 per annum.

WEST RIDING ASYLUM, Menston.—Fourth Assistant Medical Officer, resident. Salary, £150 per annum, rising to £180.

WIGAN INFIRMARY.—Junior House-Surgeon, resident. Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Honorarium at the rate of £75 per annum.

APPOINTMENTS.

DYKES, C. R., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for the Buckhurst Hill Urban District.

FISHER, Turner Johnston, M.D., M.Ch., Medical Officer, General Post Office, Homerton District, N.E.

KILLICK, C. R., M.B.Lond., Certifying Factory Surgeon for the Williton District, Somerset.

MCCAUL, Geo. B., M.B., B.A.O., B.Ch.Dub., Resident Obstetric Officer, Royal Infirmary, Bristol.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BOUSFIELD.—On March 2nd, at 35, Prince's Square, W., the wife of Stanley Bousfield, M.A., M.B., of a son.

LOUDON.—On March 3rd, at Linnwood, Hamilton, Lanarkshire, the wife of J. Livingstone Loudon, M.D., C.M., D.P.H., of a daughter.

O'NEILL.—On January 3rd, at Chinwangtao, North China, the wife of Gordon O'Neill, L.R.C.P., M.R.C.S., of a daughter.

MARRIAGES.

CHANING-PEARCE—CHAPMAN.—On March 1st, at All Saints, Kingston-on-Thames, by the Rev. C. L. Edwards, Vicar of Lingen, Herefordshire, assisted by the Rev. A. S. W. Young, Vicar, David Arnold Chaning Pearce, M.D., eldest son of Joseph Chaning-Pearce, M.D., of Ramsgate, to Emily Constable, youngest daughter of William Chapman, of Knights Park, Kingston-on-Thames.

JOHNSTON—MCPHERSON.—At Wardie United Free Church, on March 1st, by the Rev. James Macleod, assisted by the Rev. James Fergusson, Corstorphine, Thomas Nicol Johnston, M.B., C.M., to Emma, daughter of Archibald McPherson, Esq., London, Canada, and niece of Sir John Murray, K.C.B., F.R.S. At home, Corstorphine House, Corstorphine, April 13th, 14th, and 15th.

STEEN—BARNES.—On March 1st, at St. Mary's Church, Twickenham, by the Rev. F. J. Birkett, M.A., assisted by the Rev. Canon Murray and the Rev. E. Lopresti, Robert Hunter Steen, M.D.Lond., Medical Superintendent of the City of London Asylum, Stone, to Alice, daughter of the late Lawrence Barnes of Ealing.

DEATHS.

GREEN.—On March 3rd, at 85, Waverley Road, Southsea, George Gordon, the infant son of Staff Surgeon H. W. Gordon Green, M.R.C.S.Eng., L.R.C.P.Lond., and Maud Gordon Green, aged 6 weeks.

HALSE-FRANCIS.—On December 27th, 1904, suddenly, Ferdinand Henry Halse-Francis, M.D.Durh., M.B., B.S., L.S.A., of Victoria Lodge, West Norwood, and Kaikoura, Marlborough, New Zealand, aged 41 years.

HUDSON.—On March 1st, at Horseley Heath, Tipton, Staffs, Daniel Stevenson Hudson, M.R.C.S.Edg., L.R.C.P.Edin., aged 65 years. Interred March 7th, at Rocester, Staffs.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Discussion on Carcinoma, to be introduced by Dr. E. F. Bashford.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Dissemination of Mammary Carcinoma, by Professor W. S. Handley.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Chelsea Dispensary, Manor Street, Chelsea, S.W., 8.30 p.m.—Annual Clinical Debate on Chronic Constipation and its Medical and Surgical Treatment.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Milroy Lecture: Industrial Anthrax, by Dr. T. M. Legge.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, 8.30 p.m.—Adjourned Discussion on The Subsequent Course and Later History of Cases of Appendicitis after Operation. The discussion will be opened by Mr. Harrison Cripps, in which Messrs. Samuel West, J. D. Malcolm, W. G. Spencer, Bruce Clarke, F. C. Wallis, and others, are expected to take part.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Dissemination of Mammary Carcinoma, by Professor W. S. Handley.

THURSDAY.

BRITISH CHILD-STUDY ASSOCIATION, Parkes Museum, Margaret Street, W., 8 p.m.—Paper: Fatigue in Children, by Miss Margaret McMillan.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Goulstonian Lecture: Some Considerations on the Nature of Diabetes Mellitus, by Dr. W. C. Bosanquet.

FRIDAY.

EPIDEMIOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Paper: Ankylostomiasis, by Dr. A. E. Boycott. (Illustrated by lantern slides.)

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 3 p.m.—Cases will be shown by Mr. Parker, Dr. Tilley, Mr. de Santi, Sir Felix Semon, Mr. Charters Symonds, Dr. StClair Thomson, Dr. Law, Dr. Milligan, Dr. Atwood Thorne, Mr. Robinson, Dr. Grant, Dr. Davis, Dr. Lack, Mr. Barwell, and Dr. Watson Williams. An exhibition of pathological specimens will be on view from 2 p.m. in connexion with the attendance of many foreign laryngologists who are coming over for the Garcia centenary.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: The Dissemination of Mammary Carcinoma, by Professor W. S. Handley.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Practical Demonstration on Naso-Pharynx.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Medical cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Bronchiectasis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Tuberculous Affections.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Mitral Stenosis; Tuesday, Therapeutic Inoculation; Wednesday, Some Injuries to the Elbow joint; Thursday, Hypnotic Suggestion and its Therapeutic Value.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., The Prognosis and Treatment of Early Pulmonary Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Cranial Nerves.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—Tuesday, 4.30 p.m., Prognosis in Chronic Pulmonary Affections; Thursday, Intestinal Obstruction.

POST-GRADUATE COLLEGE, WEST LONDON HOSPITAL, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Indigestion; Tuesday, Anaesthetics; Wednesday, Practical Surgery; Thursday, Urinary Cases; Friday, Cases of Skin Disease.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., 3 p.m.—Abortion.

BOOKS, ETC., RECEIVED.

Recurrent Effusion into the Knee-joint After Injury, with especial reference to Internal derangement commonly called slipped cartilage. A Clinical Lecture. By Sir William Bennett, K.C.V.O., F.R.C.S. London: Longmans, Green, and Co. 1905. 3s. 6d.

Thomas Carlyle: The Man and his Influence. By Percy Warner. London: Chapman and Hall, Limited. 1904. 1s.

Foods and Dietaries: A Manual of Clinical Dietetics. By R. W. Burnet, M.D. Fourth Edition. London: Charles Griffin and Co., Limited. 1905.

"*" In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
March	12...Sunday..	
,,	13...MONDAY ...	
,,	14...TUESDAY ...	Marylebone Division, *Metropolitan Counties Branch*, Rooms of the Medical Society of London, Chandos Street, W., 4.30 p.m. Bradford Division, *Yorkshire Branch*, Eye and Ear Hospital, Bradford, 8.30 p.m.
,,	15...WEDNESDAY	Latest date for furnishing Annual Report and Financial Statement of all Branches to General Secretary (By-law 9) Sectional Committees to send proposed subjects for discussion in the Sections at the Annual Meeting to the General Secretary by this date. Kensington Division, *Metropolitan Counties Branch*, Kensington Town Hall 5 p.m.
,,	16...THURSDAY...	LONDON: Metropolitan Counties Branch Division Secretaries, 5.0 p.m. Croydon Division, *South-Eastern Branch*, Greyhound Hotel, Croydon. 4 p.m.
,,	17...FRIDAY ...	LONDON: Annual Meeting (Sections) Committee, 5.0 p.m. ,, Conference of Delegates of the Metropolitan Counties Branch, 5.0 p.m.
,,	18...SATURDAY...	
,,	19...Sunday..	
,,	20...MONDAY ...	
,,	21...TUESDAY ...	North Wales Branch, Special General Meeting, Llandudno Junction Hotel, 2 p.m.
,,	22...WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m. ,, Chairmen of Committees (Standing Orders), 4 p.m. Brighton Division, *South-Eastern Branch*, Dispensary, 113 Queen's Road, Brighton, 4.30 p.m.
,,	23...THURSDAY...	LONDON: Medical Defence Committee, 3 p.m. City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 9.0 p.m.
,,	24...FRIDAY ...	
,,	25...SATURDAY...	
,,	26..Sunday..	
,,	27...MONDAY ...	
,,	28..TUESDAY ...	West Somerset Branch, Spring Meeting, Taunton and Somerset Hospital, 3.30 p.m.
,,	29...WEDNESDAY	
,,	30...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.
,,	31...FRIDAY ...	Border Counties Branch, Whitehaven.
April	1...SATURDAY ...	
,,	2...Sunday..	
,,	3...MONDAY ...	
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given on or before this day.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	LONDON: Ethical Committee, 2 p.m.
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	
,,	11..TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	12...WEDNESDAY	,, Journal and Finance Committee.
,,	13...THURSDAY...	
,,	14...FRIDAY ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted to-day.

Month.	Day of Week.	Meetings to be Held.
April	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Premises and Library Committee.
,,	19...WEDNESDAY	,, Central Council, 11 a.m.
,,	20...THURSDAY...	
,,	21...FRIDAY ...	*Good Friday.*
,,	22...SATURDAY...	Notices of Motion for Annual Representative Meeting appear in JOURNAL.
,,	23...Sunday..	
,,	24...MONDAY ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...TUESDAY ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...WEDNESDAY	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...THURSDAY...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton. 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...FRIDAY ...	Dundee District Branch, Clinical Meeting, Dundee Royal Infirmary, 4 p.m.
,,	29...SATURDAY...	List of Members closed for publication.
,,	30...Sunday..	
May	1...MONDAY ...	
,,	2...TUESDAY ...	
,,	3...WEDNESDAY	
,,	4...THURSDAY...	
,,	5..FRIDAY ...	
,,	6..SATURDAY...	
,,	7...Sunday..	
,,	8...MONDAY ...	
,,	9...TUESDAY ...	LONDON: Organization Committee.
,,	10..WEDNESDAY	
,,	11...THURSDAY...	
,,	12..FRIDAY ...	
,,	13...SATURDAY...	
,,	14...Sunday..	
,,	15...MONDAY ...	
,,	16..TUESDAY ...	
,,	17..WEDNESDAY	
,,	18...THURSDAY...	
,,	19..FRIDAY ...	
,,	20 SATURDAY ..	
,,	21..Sunday..	
,,	22...MONDAY ...	
,,	23...TUESDAY ...	General Medical Council Session commences
,,	24..WEDNESDAY	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	25..THURSDAY...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26..FRIDAY ...	
,,	27..SATURDAY...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 18TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
NOTICE OF MOTION	105
CO-ORDINATION OF THE SCIENTIFIC WORK OF THE ASSOCIATION, ITS BRANCHES AND DIVISIONS: Recommendations of the Scientific Co-ordination Committee.—A. The Scientific Work of the Divisions and Branches.—B. Sectional Work at the Annual Meeting.—C. Special Research Library.—D. Relation of the Association to other Scientific Societies	105
MEETINGS OF BRANCHES AND DIVISIONS:	
Birmingham Branch: Coventry Division	106
Border Counties Branch: West Cumberland Division	106
Cape of Good Hope Eastern Province Branch	106
Hong Kong and China Branch	106
Lancashire and Cheshire Branch: Blackburn Division	107
" " North Manchester Division ...	107
Leinster Branch	107
Metropolitan Counties Branch: Hampstead Division	108
" " Marylebone Division	108
Perth Branch	108
Queensland Branch	109
South-Eastern Branch: Brighton Division	109
" " Norwood Division	109
" " Folkestone Division	109
South Midland Branch: Aylesbury Division	109
South-Western Branch	109
South Wales and Monmouthshire Branch: Monmouth Division ...	110
" " Swansea Division ...	110
CORRESPONDENCE.—Metropolitan Counties Branch (Stratford Division): Percy Rose	110
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	110
BRITISH MEDICAL ASSOCIATION LIBRARY	111
GENERAL MEDICAL COUNCIL.—Executive Committee.—Medical and Dental Companies.—Resignation of Standing Counsel.—Appointments.—Colonial Ordinances and Acts.—A "Medical" Certificate given by a Chemist.—Dental Business	112
NAVAL AND MILITARY APPOINTMENTS	113
VITAL STATISTICS	114
VACANCIES AND APPOINTMENTS	117
BIRTHS, MARRIAGES, AND DEATHS	118
DIARY OF THE WEEK	118
BOOKS RECEIVED	119
CALENDAR	120

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICE OF MOTION.

THE following additional notice of motion has been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

[*Notices previously received were published in the* SUPPLEMENT *of February 25th, page 57, and March 4th, page 73.*]

BY the LEINSTER BRANCH:

(To be moved by the Representative of the South-Eastern of Ireland Branch.)

That an Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed—namely, an Irish Committee consisting of one Secretary from each Irish Branch and the Irish members of the Central Council. It shall have a Secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters concerning Ireland.

CO-ORDINATION OF THE SCIENTIFIC WORK OF THE ASSOCIATION, ITS BRANCHES AND DIVISIONS.

RECOMMENDATIONS OF THE SCIENTIFIC CO-ORDINATION COMMITTEE.

THE Council in November appointed a Committee with the following reference:

"To report on the co-ordination and development of the scientific work of the Association and its Branches and Divisions."

The Committee having carefully considered the subject of the reference, made the following recommendations, which were approved by the Council, and are now circulated in order that they may be considered by the Divisions and such action taken as they may deem suitable.

A. THE SCIENTIFIC WORK OF THE DIVISIONS AND BRANCHES.

That it is desirable to encourage the formation of Division Libraries. That to facilitate exchange of duplicate books the Librarian at the Head Office in London should keep a list of duplicates so far as possible in Division and other Medical Libraries.

In the Divisions the Hospitals will form natural centres.

Experience shows that the forms of meeting most attractive are—

(*a*) Clinical demonstrations, with very succinct commentary, of cases where the important features can be demonstrated, and

(*b*) Occasional addresses by teachers and those actively engaged in research.

Longer accounts of cases with interesting history would still form the programme of ordinary meetings.

The suggestion has been made that Divisions which desire it may form Sections for Clinical and Pathological work with or without additional voluntary subscription. Further information is needed as to the desires of the Divisions.

B. Sectional Work at the Annual Meeting.

This might be brought more into contact with the research work and the collective investigations of both the preceding and succeeding years, summing up the work of the preceding year and suggesting some of the problems for further research or investigation.

The attention of Division Secretaries should be called to the subjects of discussion at the Annual Meeting, and it is suggested that members bring before their Divisions as many cases as possible illustrating these subjects.

It is also suggested to the officers of Sections that problems arising in course of discussion be suggested to the Divisions as subjects for further consideration.

C. Special Research Library.

That it is desirable to form a Lending Library for Research by duplicating the leading special periodicals.

The Committee recommend to the Scientific Grants Committee that they should consider the question of supplying or aiding in the purchase of the necessary literature for individual scientific researches with a view to the formation of a special Library for research.

D. Relation of the Association to other Scientific Societies.

This question needs consideration in both its general and local aspects: How far can the Branches and Divisions work with other local societies, and under what circumstances should they be amalgamated? Further information is necessary before any recommendations can be made.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Coventry Division.

A meeting of this Division was held on March 7th at the Coventry and Warwickshire Hospital, Dr. Webb Fowler being in the chair. Apologies for non-attendance were received from Dr. Davidson and Mr. W. E. Bennett.

Cases.—Dr. Harman Brown showed a case of aneurysm of the aorta, and also a case of aneurysm of the (?) subclavian artery.—The Chairman and Dr. Milner Moore joined in the discussion.

Medical Practitioners and Friendly Societies.—Dr. Kendrick then proposed the following resolution:

> That it is hereby resolved that no member of the profession in the area of the Division shall act as medical officer to a Friendly Society at a less remuneration than 4s. per member per annum. That the Division, in interpreting this rule, will consider that any return or donation of any kind to the Society or any officer of the Society is an infringement of the rule. That no member of the medical profession in this Division take over or apply for any club appointment during the time the present holder is applying for an increase in the salary.

This proposition was seconded by Dr. Collington. A discussion followed, which was joined in by the Chairman, Drs. Orton, McGlashan, and Callaghan. The proposition was then carried unanimously.

Matters referred to Divisions.—The interim report on contract practice was considered. Propositions Nos. 1, 2, and 3 of the Medico-Political Committee were carried unanimously, as also were Nos. 6 and 7, Nos. 3*a*, 4 and 5 were amended as follows:

> 3*a*. That the Division does not agree that the individual members of Friendly Societies should be entitled to choose the medical man by whom they desire to be attended. Fifteen voted for this proposition and six against.
>
> 4. That in present conditions, the lowest fee to be fixed in any district as the minimum to be paid to each medical officer annually for each individual, when he is under contract to attend should be 5s. Carried unanimously.
>
> 5. That the Division is not in favour of Clause No. 5 of the interim report excluding infants under 5 from admission at minimal rates. Carried unanimously

The Medical Acts Amendment Bill was discussed. Approval of the Bill in its present form was carried unanimously.

Representative on Branch Council.—Dr. Milner Moore then gave a brief account of his representation of the Division on the Branch Council.

BORDER COUNTIES BRANCH

West Cumberland Division.

A meeting of this Division was held at the Victoria Cottage Hospital at Maryport on February 23rd, Mr. G. J. Muriel, Chairman of the Division, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Intercommunication between Divisions.—A circular from the Kendal Division of the North Lancashire and South Westmorland Branch concerning intercommunication of various matters between Divisions in the North-Western District was considered. On the proposition of Dr. Crerar, seconded by Dr. Proud, it was resolved:

> That the Secretary of the Kendal Division be thanked for his communication, and that the matter in question be referred to the meeting of the Branch Council.

Matters Referred to Divisions.—The memorandum of the Medico-Political Committee as to payment of practitioners called in to assist midwives was considered. The opinion of the Division has been transmitted to the Committee. In regard to the other matters mentioned in the Supplement to the Journal of November 26th, 1904, and January 14th, 1905, no decision was arrived at, and they were left over.

Next Meeting.—Next meeting was fixed to be held in Whitehaven on May 17th.

Information to Insurance Offices.—Dr. Mitchell raised the point as to the obligation resting on practitioners as to supplying information to insurance companies as to deaths of patients. It was generally thought there was no obligation.

CAPE OF GOOD HOPE EASTERN PROVINCE BRANCH.

An ordinary general meeting was held at Steinman's Hotel, Grahamstown, on Friday, January 13th, Dr. J. M. S. Coutts in the chair. There were present Drs. J. T. Bays, E. G. Dru Drury, J. T. Davies, A. Edington, G. E. Fitzgerald, J. B. Greathead, T. D. Greenlees, C. S. Hawes, W. L. A. Leslie, and G. C. Purvis.

Confirmation of Minutes.—The minutes of the meeting of December 17th, 1904, were read and confirmed.

Visitors at Branch Meetings.—It was resolved that a two-thirds majority be sufficient in the ballot for visitors to the Branch meetings under Rule III. Dr. S. Schonland, Ph.D., Professor George Cory, B.A., Mr. W. Severn, and Mr. H. Conder, having been balloted for, were duly elected visitors.

President's Address.—Dr. J. M. S. Coutts delivered a presidential address, which it was resolved to invite Dr. Darley Hartley to publish in the *South African Medical Record*.

HONG KONG AND CHINA BRANCH.

The following report on the working of the Branch in the session December, 1903—April, 1904, has been forwarded to us by the Honorary Secretary for publication:

Finance.—The accounts of the Branch were audited on October 10th, 1904, at a meeting of the Council. They were considered satisfactory. A credit balance of $163\frac{6}{100}$ was shown, being an increase of $74\frac{7}{100}$ over the last yearly balance.

Council.—The Council met seven times during the session.

Meetings.—The average attendance was 5.2 out of a total of eight members.

Branch Meetings.—There were four meetings held during the session and on the following dates: December 21st, 1903, January 25th, March 25th, and April 27th, 1904. The average attendance of members 21.2. The following papers were read and discussed: The use of adrenalin chloride, Dr. F. O. Stedman; some notes on the treatment of phthisis by the

intravenous injection of formalin, Dr. O. Marriott; mixed infection in tuberculosis, Dr. William Hunter; the paramoecium or balantidium coli, by Lieutenant F. W. Lambelle, R.A.M.C.; modern electro-therapeutics, Dr. G. P. Jordan. The following notes on cases were read: Dr. Stedman, a case of extrauterine fetation; Dr. Laing, a case of purpura haemorrhagica; Staff Surgeon Parker, a case of fracture of the head of fibula; Dr. Laing, a case of caries of the ischium. Numerous pathological specimens, skiagraphs, and photographs of cases were shown during the session.

Members.—Twenty-one members joined the Branch as follows: 14 naval surgeons, 4 army surgeons, 3 civil practitioners.

Dinners.—A complimentary dinner was given in honour of Sir Frederick Treves, K.C.V.O., C.B., during his visit to the Colony. The dinner took place on March 3rd, 1904. There were thirty-three subscribers and members of the Branch present. No annual dinner for members of the Branch took place during the session.

Rules.—The "rules" or "by-laws" of the Branch were revised on December 7th, 1903. As they did not meet with the approval of the General Council of the Association they were redrafted on October 10th, 1904. A copy is attached, and it will be seen that the recommendations of the Organization Committee have been carried out.

The report was read and approved at a Council meeting held on December 8th, 1904.—(Signed) W. E. WEBB, President; E. A. R. LAING, Honorary Secretary and Treasurer.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

A MEETING of this Division was held at the Old Bull Hotel, Blackburn, on Tuesday, January 24th, at 9 p.m., Dr. BARR, President, in the chair.

Vaccination Legislation.—Dr. MOIR read a most interesting and instructive paper on the Vaccination Acts and prospective changes. All the members present took part in the discussion, and as a result the following resolution was passed unanimously:

> That the members of this Division agree to petition the British Medical Association on the vaccination question, and that in the new Bill they favour the abolition of the conscience clause, the appointment of every general practitioner as a public vaccinator, the issuing of definite instructions from the Local Government Board as to lymph, and number of insertions, and compulsory revaccination at school age.

A MEETING of this Division was held at the Old Bull Hotel, Blackburn, on Monday, March 6th, at 9 p.m., Dr. PATCHETT in the chair.

A Medical Officer's Salary.—The position of the Darwen medical officer of the Blackburn Union was discussed, and the following resolution was proposed by Dr. WELLS and seconded by Dr. CUNLIFFE:

> The attention of this Division has been drawn to the proposed division of the Darwen District of the Blackburn Union and the reduction of salary from the hitherto nominal salary, and they desire to draw the attention of the Local Government Board to the proposed reduction, and consider that in view of the large increase of the population and area of the district, and a corresponding increase of the work, any decrease of the emolument is entirely opposed to the efficient carrying out of the work.

It was also resolved that a copy of the foregoing resolution, together with newspaper cuttings of the last meeting of the Blackburn Board of Guardians, be sent to the President of the Local Government Board, and also a copy of the resolution to the Secretary of the Darwen Medical Society.

NORTH MANCHESTER DIVISION.

A MEETING of this Division was held on March 2nd.

Communication from West Manchester Division.—A communication from the West Manchester Division concerning the recent case of blood poisoning at the Ancoats Hospital was considered. The members present thoroughly agreed with the remarks of the jury on the case, and considered it unnecessary to take any further steps in the matter.

Matters referred to Divisions.—The Medical Acts Amendment Bill was agreed to with the following suggestions: (*a*) That an optional adequate composition fee should be arranged, the necessary principle of annual identification being still carried out by annual notice. (*b*) That the right to use the title "Dr." be confined to those passing the State's examination, and not made retrospective. With regard to the prevention of drug abuse the recommendations of the Committee were cordially endorsed. The memorandum on payment of medical practitioners called in to assist midwives was discussed, and the conclusions have been conveyed to the Medico-Political Committee. In regard to the report on the National Deposit Friendly Society it was resolved to call the attention of any practitioners concerned to the suggested rules when necessary. No member of this Division is at present known to be connected with the Society. The Public Health and Revaccination Bills were considered, and it was resolved to call the attention of Parliamentary representatives and candidates to these, together with the reorganization of the Local Government Board. This Division regrets that in the Revaccination Bill no opportunity has been taken to raise the question of the distribution of public vaccination amongst all members of the profession. As to the advertising of the names of medical practitioners in connexion with hydros and similar institutions the Division considers that a definite pronouncement as suggested should be made.

LEINSTER BRANCH.

A REPORT of the annual meeting of the Leinster Branch, held on February 25th, appeared in the BRITISH MEDICAL JOURNAL of March 4th, p. 498. The following is the text of the resolutions there summarized:

An Irish Committee.—Dr. CRAIG moved that notice of motion be given for the Annual Representative Meeting at Leicester of the following resolution to be moved by the Representative of the South-Eastern of Ireland Branch:

> That an Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed, namely: An Irish Committee consisting of one secretary from each Irish Branch, and the Irish members of the Central Council. It shall have a secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matter concerning Ireland.

Dr. WALSHE seconded the resolution, which was passed unanimously.

Fees Paid by Admiralty and Commissioners of Irish Lights.—Dr. WALSHE moved, and Dr. DONNELLY seconded, resolutions relative to this subject. After a discussion, in which Drs. HILLIS, BLAKE, and BURNES took part, Sir JOHN MOORE suggested amendments, which Dr. Walshe accepted, and resolutions were unanimously passed as follows:

1. That this Branch is of opinion that the fees which are at present paid by the Admiralty to their Surgeons-and-Agents are inadequate and in need of revision; also, that the wives and families of officers, and men of the coastguard on shore be entitled to medical attendance at the cost of the Crown, and that the office of Surgeon-and-Agent may be made a pensionable one, the pension to be calculated on the average annual payments for the five years preceding the resignation of a Surgeon-and-Agent, and according to the Civil Service scale and rules.
2. That this Branch is of opinion that the fees which are at present paid by the Commissioners of Irish Lights to their medical officers are inadequate and need revision; also, that the office of medical officer to the Irish Lights Board be made a pensionable one, the pension to be calculated on the average annual payments for the five years preceding the resignation of a medical officer, and according to the Civil Service scale and rules.

Medical Officers' Superannuation.—Dr. DONNELLY moved:

> That the Medico-Political Committee of the British Medical Association be requested to urge the Government to amend section 118 of the Local Government (Ireland) Act, 1898, so as to apply to all existing officers qualified for superannuation.

Under this section only men who were sixty years of age and had twenty years' service were entitled to superannuation at the time of the passing of the Act, while in the case of those who had longer service, maybe, but were not sixty years of age at the time of the passing of the Act, and in the case of those who have since qualified for superannuation, the guardians have a permissive right in the matter, and have recently used their powers. He instanced the cases of several medical officers who had been obliged to resign owing to ill health, and who had been refused superannuation allowances although they had spent a long time in the Poor-law service. The original intention of the Government in putting this clause (118) in the Bill was to safeguard the interests of all existing officers, and the section should be amended accordingly. Sir JOHN MOORE, who seconded this proposal, said, as it meant an amendment of the Local Government Act, he was afraid they had no chance of getting it altered during this session of Parliament. Dr. M'WALTER said the reason why Boards of Guardians could not put their medical men in a better position was that the Government paid now practically nothing of the superannuation allowance, and the

guardians had to pay almost the whole of it out of the rates. Dr. Walshe asked if it were not a fact that an agricultural grant had been given to the Board of Guardians so that the whole of the poor rate did not fall upon the ratepayers. Dr. M'Walter said a portion of this grant was given, also something out of the duty on legacies, but this was not sufficient to make up the deficiency caused by the relieving of the landlord from paying half the poor-rate. The resolution, after further discussion, was adopted, and the proceedings concluded.

METROPOLITAN COUNTIES BRANCH.

Hampstead Division.

A meeting of this Division was held at the West Hampstead Town Hall, West End Lane, on Friday, March 10th, at 9 p.m., Dr. Heath Strange in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Letter.—A letter from Mr. J. Murray was read, in which the writer begged to be excused from reading his paper before the Division, on account of the serious illness of his wife.—The meeting expressed their sympathy with Mr. Murray, and requested the Secretary again to communicate with him to convey this message.

Small Attendance.—Dr. Cunnington remarked that the alteration of the hour of the meeting to 9 p.m. appeared to have had the reverse of the desired effect, there being fewer members present than on any previous occasion.—The Honorary Secretary thought that the inclement weather would have something to answer for in this direction.

Election of Members by Divisions.—Dr. Ford Anderson moved:

> That in view of the proposed alteration of By-law 2 this Division approve of the power of election of its own members be invested in Divisions consisting of over 50 members (instead of 30 as suggested at a previous meeting); and, secondly, that in view of the matter being taken up by the Bradford Division, this Division will be glad to allow the Bradford Division to propose the resolution at the annual meeting, this Division seconding.

—A question of point of order was raised, but ruled against by the Chairman, and on the resolution being put it was carried, one member voting against it.

Election of Representatives.—The report of the Executive Committee respecting the nomination of two members in response to the invitation of the meeting of Secretaries and Treasurers was presented. The Honorary Secretary having explained that the matter had been urgent in point of time, and that the Committee had therefore selected Drs. Humphreys and Macevoy to represent the Division at the forthcoming meeting, hoped to receive the approval of the meeting, Dr. Cunnington moved:

> That the action of the Committee be approved of.

This was seconded and carried.—Dr. Humphreys spoke on the subject of the best method of electing representatives for the Branch Council, and a short discussion followed.

The Relation of the Medical Profession to Ambulance Work.—The Assistant Secretary explained the memorandum and read the questions printed in the Supplement to the Journal of February 4th. Dr. Ford Anderson proposed:

> That both instruction and examination should be remunerated, while judging at competitions should be regarded as philanthropic work.

Dr. W. W. Hall seconded. This was carried.—Dr. W. W. Hall suggested:

> That a fee of one guinea per lecture and of the same amount for examination of not more than thirty candidates be considered suitable.

Dr. Hardwicke seconded, and it was carried.

Advertising in Connexion with Hydropathic Establishments.—This subject was next discussed. The Assistant Secretary explained the report of the Ethical Committee and put the question submitted. Dr. Ford Anderson then formally moved:

> That this meeting consider that medical practitioners who act as medical officers of hydropathic and similar establishments shall not allow their names to be advertised save in medical journals.

Dr. Cunnington seconded, and it was carried.

Alterations of By-laws.—The Assistant Secretary read the proposed alterations of By-law 22 and By-laws 23 and 25 (as printed in the Supplement of February 25th), and moved:

> That this meeting approve of such changes.

After a discussion, Dr. Macevoy seconded the resolution, which was carried.

Communication from the Lancashire and Cheshire Branch.—The Assistant Secretary read a letter from the Secretary of the above Branch referring to three resolutions. The subjects referred to were that the proceedings of the Central Council be published fully, that all changes of status and salary of paid officers of the Association be first submitted to the Representative Meeting, and that medical practitioners should not associate themselves with any medical charity connected with any place of worship, save as a whole-time appointment. Dr. Ford Anderson objected to the principles of all the resolutions, and Dr. Cunnington proposed:

> That the Secretary write to the Secretary of the Lancashire and Cheshire Branch to state that this meeting is opposed to the proposals, and, therefore, will not support them.

The resolution, which was seconded by Dr. Macevoy, was carried.

Canvassing the Division.—The Assistant Secretary briefly explained a scheme, which he had presented to the Executive Committee, for attempting to enlist more members from among the practitioners resident within the area of the Division, to stir old members up to attend the meetings and to take an active interest in the work of the Division and of the Association, and to make inquiries as to whether it would be practicable to either affiliate or absorb existing medical societies. He proposed to form a subcommittee to work the whole Division, which, for this purpose, he had subdivided into sixteen districts, and for each of these districts he had proposed from one to four members to act on the committee. The scheme met with the approval of the meeting. The meeting then adjourned.

Marylebone Division.

A general meeting of this Division was held on January 19th, at 4 30 p.m., in the rooms of the Medical Society of London, Mr. Andrew Clark in the chair. Dr. Buist and Mr. J. Smith Whitaker attended on the invitation of the Chairman.

Matters Referred to Divisions.—Sir Victor Horsley proposed that the Division should approve of the recommendations made by the Medico-Political Committee with respect to contract practice, and this was carried *nem. con.*—Sir Victor Horsley explained certain points with respect to the consultation of medical witnesses in legal cases, and proposed that the Division should approve of the propositions suggested by the Representative Meeting, and this was unanimously agreed to.—Sir Victor Horsley explained the note referred from the Representative Meeting concerning the giving of information to coroners, and proposed the following resolution, which was seconded by Dr. Dutton, and carried unanimously:

> That a copy of this note be sent to all registered medical practitioners resident in the Marylebone Division, with a suitable letter explaining the reason of its despatch.

—With regard to the reorganization of the Local Government Board the Chairman moved the following resolution:

> That this Division is of opinion that it is very desirable that a Royal Commission should be appointed to consider the reorganization of the Local Government Board, and that representation urging its support should be made to the members of Parliament for this Division,

which was seconded by Mr. Armour, and carried unanimously.—After a discussion on various clauses in the Medical Acts Amendment Bill, Mr. Atwood Thorne proposed, and Mr. Ernest Clarke seconded, a resolution in favour of the Medical Acts Amendment Bill as now presented to the Division, and this was carried *nem con.*—After some discussion on the prevention of the abuse of drugs, Dr. Boxall proposed, and Dr. Hugh Woods seconded, the following resolution:

> That the recommendations of the Medico-Political Committtee on this subject are approved by this Division.

On this being put to the meeting it was carried with one dissentient.—The question of the payment of medical men called in to assist midwives was discussed, and the resolutions passed have been communicated to the Medico-Political Committee.

PERTH BRANCH.

A meeting of this Branch was held at Perth Infirmary on Friday, February 10th; Dr. Borrowman, in the absence of the President, occupying the chair.

Confirmation of Minutes.—The minutes of last meetings were read, approved, and signed by the acting President.

Matters Referred to Divisions.—Four subjects referred to the Branch by the Medico-Political Committee for their opinion were now discussed. As only two of the subjects referred to Scotland, it was decided to reply to them alone.

Questions.—(1) Interim report on Contract Practice. After discussion, the finding of the meeting was that the Branch was in general agreement with the Committee's recommendations, and considered a wage limit of £100 a year the maximum. (2) Desirability of consultation between medical witnesses in legal cases likely to be brought before the Court. The decision was that it was desirable if practicable.

Votes of Thanks.—After votes of thanks to Drs. Paton and Stirling, and to Dr. Borrowman for taking the chair, Dr. Martin, the house-surgeon, entertained the members at tea in his room.

QUEENSLAND BRANCH.

THE annual meeting of this Branch was held on December 2nd, 1904; Dr. W. S. BYRNE, President, in the chair.

Report of Council.—The Council's report recorded a year of very useful work.

Treasurer's Statement.—The Treasurer's statement showed a balance of £17 on the year.

Election of Officers.—The officers for 1905 were balloted for with the following result:—*President:* Dr. W. N. Robertson. *Vice-President:* Dr. A. J. Turner. *Vice-President (ex-officio):* Dr. W. S. Byrne. *Honorary Treasurer:* Dr. A. B. Carvosso. *Honorary Curator:* Dr. Baxter-Tyrie. *Honorary Auditors:* Dr. Culpin, Dr. M. Culpin. *Council:* Dr. J. Cameron, Dr. Espie Dods, Dr. Halford, Dr. J. Little. *Honorary Secretary:* Dr. Wield.

Presentation to Retiring Secretary.—The retiring Secretary, Dr. Archibald B Brockway, was presented with a very handsome marble clock, suitably inscribed, and a gold mounted fountain pen in token of the appreciation of the members for his services during the past five years.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A MEETING of this Division was held at the Brighton Dispensary on February 22nd, Dr. W. A. HOLLIS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Cases.—Dr. MARSH showed a patient who had different coloured irides.—Mr. MARTINEAU showed a patient whom he had operated upon for frontal-sinus empyema. Several members spoke in appreciation of his skilful treatment of the case.

Medical Practitioners and Midwives.—A memorandum from the Medico-Political Committee on the payment of medical practitioners called in to assist midwives was considered. The conclusions arrived at have been conveyed to the Committee.

NORWOOD DIVISION.

A MEETING of this Division was held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 p.m.; JOHN H. GALTON M.D. (Upper Norwood) in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The late Dr. R. M. Miller.—A vote of condolence was moved from the chair with the widow and family of the late Dr. R. M. Miller, and the Honorary Secretary was instructed to write to Mrs. Miller conveying the heartfelt sympathy of the members with the loss she had sustained.

Next Meeting.—It was proposed that the next meeting of the Division should be held at Blackheath on the second Thursday in June, and that Dr. Roper of Lewisham be invited to take the chair thereat.

Clinical Evening.—It was also suggested that, if practicable, a clinical evening should be held at Greenwich on the second Thursday in April. These propositions were carried *nem. con.*

Annual Meeting of South-Eastern Branch, 1906.—It being reported that the annual meeting of the South-Eastern Branch would be held in Surrey in 1906, it was proposed by Mr. H. J. PRANGLEY and seconded by Mr. J. SIDNEY TURNER:

> That a cordial invitation should be forwarded to the Council that such meeting should take place at Norwood.

This was carried unanimously.

King's College Hospital.—The report of the South London King's College Hospital Committee was then read and submitted to the meeting. Dr. H. HETLEY proposed, and Dr. DRYSDALE seconded:

> That the resolutions be approved.

This was carried *nem. con.* Further resolutions submitted by the Wandsworth Division were then considered. It was proposed by Mr. PRANGLEY, and seconded by Dr. NELSON HARDY, and carried:

> That this meeting approves of the following resolution numbered (3): "That that Committee are requested to take into consideration, before sending in their recommendations to the King's College Hospital Medical Board, the question of the maternity charity that will be attached to the hospital, and its probable effect on the general practitioners of the surrounding district," but desires to take no action at the present time as regards the further resolutions.

Papers.—The following papers were read: Dr. PYE-SMITH: Auscultation of the chest and its relation to general symptoms.—Mr. E. M. CORNER: Common causes of failure in surgical proceedings.—Dr. MERCIER: A problem in diagnosis. These papers were discussed by the following members: Drs. GALTON, DRYSDALE, BURGESS, PRANGLEY, SIDNEY TURNER, SCOTT TURNER, HAUGHTON HETLEY, RENDALL, and SWAYNE.

Matters Referred to Divisions.—On the question of the consideration of various matters referred from the Medico-Political Committee being brought forward, it was proposed by Dr. WILKINSON, and seconded by Dr. SIDNEY TURNER:

> That this meeting be adjourned till Thursday, March 30th, 1905.

This was carried *nem. con.*

Dinner.—After the meeting nineteen members and visitors dined together.

FOLKESTONE DIVISION.

A MEETING of this Division was held at the house of Dr. Perry on Friday, March 3rd, at 8.30 p.m. Dr. PERRY occupied the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Paper.—A paper on the work of the Association was read by Dr. P. VERNON DODD.

Division of Branch.—The question of dividing the South-Eastern Branch was explained by Dr. LARKING and carried.

Matters Referred to Divisions.—The matters referred to the Divisions on contract practice were discussed with the following results: 1. Concerning the necessity of contract practice was approved. 2. Concerning medical control was approved. 3. Concerning the distribution of work was not approved. 4. Concerning Friendly Societies—choice of medical attendant was approved, with the following addition—namely, that the members be not allowed to change their medical attendant more than once a year. 5. Concerning minimum rate was approved, but were of opinion that the minimum rate be 6s. 6. Concerning the clause exclusive of infants no opinion was expressed. 7. Concerning provision against abuse on account of financial position of member no opinion was expressed. 8. Concerning special services for fractures, was approved.

SOUTH MIDLAND BRANCH:

AYLESBURY DIVISION.

A MEETING of this Division was held at the Eight Bells Hotel, Bletchley, on Thursday, February 16th, at 2.30 p.m., Dr. EAGLES in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

School Certificates.—The HONORARY SECRETARY gave the result of the replies of members to the school certificate circular. It was found that more than half the Division had replied, and that they were all unanimous in refusing certificates for those unable to pay; and it was proposed by Dr. BUXTON, seconded by Dr. EASTE, and carried unanimously:

> That this Division adheres to its decision to refuse certificates for children unable to attend school, or to give information to the school attendance officers, unless paid for by the education authority.

The Honorary Secretary was requested to send a copy of the resolution to the Education Committee.

Midwives Act.—The memorandum from the Medico-Political Committee *re* Midwives Act was next considered, and the opinions of the Division have been conveyed to the Medico-Political Committee.

Vote of Thanks.—The meeting terminated with a hearty vote of thanks to the Chairman.

SOUTH-WESTERN BRANCH.

A MEETING of this Branch was held at the Athenaeum, Plymouth, on January 10th. Dr. J. ALEXANDER, President, in the chair. Tea was provided after the meeting.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Cases.—Mr. W. Woollcombe showed two cases of excision of upper jaw.—Dr. E. L. Fox showed a case of saltatory spasm.

Papers.—Mr. G. C. Wilkin read a paper on the national importance of the thorough and systematic removal of adenoids in children.—Mr. Russell Coombe read for Dr. W. Gordon a paper on some facts and fallacies about the climate of South-East Devon.—Mr. W. Woollcombe read a paper on post-peritoneal rupture of abdominal aneurysms.

Pathological Specimens.—Dr. H. W. Webber showed a specimen of sarcoma of the lung.

A further meeting of the Branch was held at Truro on March 2nd. Tea was provided after the meeting, and a dinner was held in the evening at the Red Lion Hotel. In the unavoidable absence of the President, and there being no Vice President present, Dr. Russell Coombe was voted to the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Papers.—Mr. G. C. Wilkin read a paper on syphilitic laryngitis associated with gummatous consolidation of apex of lung. This excited an animated discussion, in which Drs. Whitworth, Russell Coombe, Stephens, Walker, and Pardhy took part.—Mr. Mark R. Taylor read notes which excited much interest on (1) an unclassified infectious disease in children, (2) an anomalous exanthem.

The Use of Contraceptives.—The following resolutions, proposed by Dr. Ratcliff-Gaylard, and seconded by Dr. W. Hammond, were carried after a great discussion, during which it became apparent that the meeting was not unanimous on the question:

1. That this Branch is of opinion that the growing use of contraceptives and ecbolics is fraught with grave danger both to the individual and to the race.
2. That this Branch is of opinion that the advertisement and sale of such appliances and substances, as well as the publication and dissemination of literature relating thereto, should be made a penal offence.
3. That a copy of these resolutions be forwarded to the Divisional Secretaries of the South-Western Branch with a view to obtaining from the separate Divisions their approval thereof; such approval to be reported to the annual meeting of the Branch for confirmation, with a view to the transmission of these resolutions to the Home Secretary, or to such other authorities as may be deemed desirable.

The opposition was directed against the first resolution, and Dr. Spain moved the following amendment, which was seconded by Dr. Sharp, namely:

That in the opinion of this Branch no evidence has been brought forward of the growing use of contraceptives, and that the time has not yet arrived for movement on the subject.

This was lost, after which the resolution was carried.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTH DIVISION.

The quarterly meeting of this Division was held at the County Asylum, Abergavenny, on Friday, February 24th, at 3 p.m., Dr. G. A. Brown in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Supervision of Midwives.—A letter was read from the Honorary Secretary of the Eastern Valleys Medical Association forwarding a resolution of the Association that "Owing to the very serious conditions surrounding the practice of midwifery the supervision of midwives should be in the hands of a registered medical practitioner."—Dr. Mulligan said that as the County Council had already settled this matter this was not a suitable time to bring it forward.—Dr. Essex thought that the supervision to be effective should be in the hands of a medical man.—Mr. Greer thought that it might be a solution of the difficulty if the County Council be urged to appoint a medical officer of health.—Dr. Brown considered that it would be best to put this matter on the agenda of the annual meeting. This was agreed to.

Proposed Sanatorium.—The question of a sanatorium for phthisis as a memorial to Lord Tredegar was discussed by Drs. Essex, Gratte, M'Ginn, Hamilton, Glendinning, S. H. Steel and the Chairman. It was resolved that the matter be allowed to stand over for the present.

Cranio-Cerebral Topography.—Professor Hepburn gave a most interesting and instructive lecture on cranio-cerebral topography. A vote of thanks to Professor Hepburn was proposed by the Chairman, seconded by Dr. Glendinning, supported by Dr. Steel and others and very heartily carried. The members thoroughly appreciated Professor Hepburn's kindness and were very grateful to him for the opportunity of revising their anatomical knowledge.

Matters referred to Divisions.—The recommendations of the Medico-Political Committee on the prevention of the abuse of drugs were adopted.

Colliery Appointments.—The matter of the Abergwynfi Colliery Appointment was considered and it was agreed to act in unison with the other Divisions of the Branch. With reference to the other colliery appointments where the conditions laid down were unsatisfactory to the profession, the Honorary Secretary was instructed to get the assistance of the Central Council and the Medical Secretary. Through the kindness of Dr. Glendinning and Dr. Nelis tea was provided for the members.

SWANSEA DIVISION.

A meeting of this Division was held on Friday, January 7th, Dr. T. D. Griffiths in the chair.

Matters Referred to Divisions.—The propositions on contract practice in the interim report of the Medico-Political Committee, and the report from the same Committee on consultation between medical witnesses were considered.—The opinions of the Division have been communicated to the Committee.

At a further meeting, held on Friday, February 3rd, Dr. D. A. Davies in the chair, the report of the Medico-Political Committee on the present position of registered medical practitioners in the matter of furnishing information to coroners and the reorganization of the Local Government Board were considered, and the Division resolved to take action in support of the principles contained in these reports.

The Division also considered the memorandum of the Medico-Political Committee on the payment of medical men called in to assist midwives, and the resolutions of the Division have been communicated to the Committee.

METROPOLITAN COUNTIES BRANCH (STRATFORD DIVISION).

Sir,—Through a misunderstanding the condensed report of our last Stratford Divisional meeting (published in the Supplement, March 4th, p. 84) ascribes to me a statement that the practical working of the Midwives Act in our Division was satisfactory.

My real statement was merely to the effect that a certain scale of fees, which has been published in the British Medical Journal, July 9th, 1904, was found to work satisfactorily as between the general practitioners and a large Midwives Training Institution in the district.—I am, etc.,

London, E., March 11th. Percy Rose.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch: Central Division.—A general meeting will be held at the Medical Institute, on Thursday, March 30th, at 4 p.m. Business: (1) To consider a scale of fees for assistance in midwives' cases. (2) The National Deposit Friendly Society; Public Health Bill; Revaccination Bill (Supplement to the British Medical Journal of January 14th). (3) Ambulance work (Supplement, February 4th) (4) Advertising names of practitioners in connexion with hydropathic establishments, etc. (Supplement, February 18th). (5) Notices of motion for Representative Meeting (Supplement, February 25th, and Supplement, March 4th). Members are requested to bring the above-mentioned Supplements with them, and also any further Supplements that may be issued before the date of meeting, containing matters referred to the Division. They are particularly requested also to note the date of the meeting, as on this occasion individual notices will not be sent out.—E. D. Kirby, M.D., Hagley Road, Birmingham, Honorary Secretary.

Border Counties Branch.—A general meeting of this Branch will be held at the Infirmary, at Whitehaven on March 31st. The Branch Council have invited the Medical Secretary of the Association, Mr. J. Smith Whitaker, to be present, and he will give an address on Some Medico-political Matters referred to the Divisions. Any gentlemen having cases of clinical or pathological interest which they would be willing to show, are requested to communicate at their convenience with the Secretary, Francis R. Hill, 62, Warwick Road, Carlisle.

Dundee District Branch.—A clinical meeting of this Branch will be held in the Dundee Royal Infirmary on Friday, April 28th, at 4 o'clock. Members and visitors will dine together at the close of the meeting.—R. C. Buist and A. P. Low, Joint Honorary Secretaries.

East Anglian Branch.—The spring meeting of this Branch will be held at the Suffolk Hotel, Bury St Edmunds, on Thursday, April 6th. Members wishing to read papers or show cases or specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. Nicholson, Honorary General Secretary, East Lodge, Colchester.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—An ordinary general meeting of this Division will be held at the Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C., on Thursday, March 23rd, at 4 p.m. Agenda: 1. Minutes. 2. Letters. 3. The Honorary Secretary will bring forward two notices of motion for Annual Representative Meeting. 4. Memorandum on payment of medical practitioners called in to assist midwives. 5. Memorandum on the relation of the profession to ambulance work. 6. Report on the prevention of the abuse of drugs. 7. Memorandum on the desirability of consultation between medical witnesses. 8. Report on contract practice. 9. Any other business.—E. W. GOODALL, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held on Thursday, March 23rd, at Wandsworth Town Hall, at 8.45 p.m. Business: 1. Minutes. 2. Correspondence and reports. 3. Questions. 4. Reference from Ethical Committee *re* hydropathics. 5 Reference from Medico-Political Committee *re* ambulance work. 6. Notices of motion appearing in SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 25th. 7. Paper by R. Hutchison, M.R.C.P., Some Perplexing Symptoms in the Diseases of Children. 8. Other business.—E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The next meeting of this Division will be held on Wednesday, March 29th, at 20, Hanover Square, W., at 4.30 p.m. Agenda: To consider the various matters referred by the Medico-Political Committee to the Divisions, etc. —W. KNOWSLEY SIBLEY, M.D., The Mansions, 70, Duke Street, Grosvenor Square, Honorary Secretary

NORTH WALES BRANCH.—At the last meeting of the Council of the British Medical Association, held on February 15th, it was proposed by the Chairman of the Organization Committee to confirm the following recommendation: "That the Council approves that the Shropshire Division be constituted a separate Branch, provided the Council of the North Wales Branch agrees, and that an agreed definition of boundaries is supplied." He declared that the conditions had been complied with, and the Council unanimously passed the resolution. A special general meeting of the members of the North Wales Branch will be held at the Llandudno Junction Hotel on Tuesday, March 21st, at 2 p.m., to transact all business consequent upon the reconstitution of North Wales as a separate Branch from Shropshire.—W. JONES-MORRIS, Portmadoc; H. JONES-ROBERTS, Pen-y-groes, Honorary Secretaries.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in March (22nd), April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting of this Division will be held at Laker's Hotel, Redhill, on Friday, March 31st, at 5 p.m., when important Association work will be considered, Dr. John Walters, J.P., in the chair.—W. A. BERRIDGE, Redhill, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH—The next meeting will be held at Kilkenny on Wednesday, March 22nd The chair will be taken by the President, Dr. Laffan, who has handed in a number of notices of motion, which will come on for consideration: (1) To give practical support to the Oxford resolutions for the prevention of hospital abuse. (2) To adopt the resolution of the Clonmel Branch of the Irish Medical Association condemnatory of Sir William Sinclair's attack on union hospital men as trainers of midwives. (3) To ask the Parliamentary Bills Committee to keep an eye on all Bills, and to communicate promptly with the Branches where the projected legislation affects medical interests. Dr. Laffan has tabled a further motion in favour of independent representation on the British Medical Association Council for the smaller Branches, so as to secure adequate protection for the interests of the general practitioner as distinct from those of the school and college monopolists.

ULSTER BRANCH.—The spring meeting of this Branch will be held on Wednesday, April 5th, in Belfast. Members wishing to read papers or show cases will please send me particulars of the same at an early date.—CECIL SHAW, M.D., Honorary Secretary, College Square, Belfast.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 28th, at 3.30 p.m., when the President, Mr. A. W. Sinclair, will take the chair. Agenda:—Resolution proposed by Mr. G. F. Sydenham: "That, in the opinion of this meeting, the fees offered to medical practitioners by the County Education Committees for certificates under the Education Act are inadequate." The meeting will then be asked to consider the many questions, referred from the Medico-Political Committee of the Association, which include many items of great importance to the profession as a whole and to each individual practitioner: (1) On the payment of medical practitioners called in to assist midwives; the discussion on this subject will be introduced by Dr J. A. Macdonald. (2) Contract practice; discussion introduced by Mr. A. E Joscelyne. (3) Concerning communications with coroners; discussion introduced by Mr. H. W. Husbands. (4) On the prevention of the abuse of drugs; discussion introduced by Dr. D. Brown. (5) The Medical Acts Amendment Bill; discussion introduced by Dr. J. A. Macdonald.—W. B. WINCKWORTH, Taunton, Honorary Secretary

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc. Presented.

Presented by the AUTHORS:
- Bosanquet, C. Serums and Toxins in Treatment and Diagnosis. 1904.
- Gould, G. M. A Collection of Ophthalmic Reprints. 1904.
- Halliburton, W. D. Physiology. 6th edition. 1904.
- Horrocks, Major. Bacteriological Examination of Water. 1901.
- Hutchison, R. Lectures on the Diseases of Children. 1904.
- Jones, H. Lewis. Medical Electricity. 4th edition. 1904.
- Marshall, C. F. Syphilis and Gonorrhœa. 1904.
- Roth, B. Lateral Curvature of the Spine. 2nd edition. 1899.
- Wellington, R. H. The Verdict of Suicide while Temporarily Insane. 1904.

Presented by Sir T. LAUDER BRUNTON, M.D., F.R.S.:
- Buckland. Health Springs of Germany and Austria. 1890.
- Maclagan. Rheumatism. 1806
- Madden. Health Resorts of Europe and Africa. 1876.
- Pereira. Materia Medica. Abridged. 1872.
- Tyson. Bright's Disease and Diabetes. 1881.
- Vintras. Mineral Waters of France. 1883.
- Yeo. Health Resorts. 1882.

Presented by Dr. R. HINGSTON FOX:
- Morgan, J. Lectures on Diseases of the Eye. 1848.

Presented by the FACULTÉ DE MÉDECINE ET DE PHARMACIE DE LYON:
- Thèses pour le Doctorat pour l'Année 1903-4.

Presented by the MEDICAL OFFICER TO LOCAL GOVERNMENT BOARD:
- Provisions of the International Sanitary Convention of Paris, regarding the Appearance of Plague or Cholera. 1903
- Dr. Farrar's Report on Sanitary Administration of Newtown. 1904.
- Dr. Haldane's Report on the Destruction of Rats and Disinfection on Shipboard. 1904.
- Dr. Low's Reports on Eight Sanitary Districts within the Penzance Registration District. 1904.
- Dr. Low's Report on the Sanitary Administration of Preesall with Hackensall Urban District. 1904.

Presented by the NEW SYDENHAM SOCIETY:
- Atlas of Clinical Medicine and Surgery. Twelfth fasciculus. 1904.

Presented by the PHARMACEUTICAL SOCIETY:
- Guy's Hospital Reports. 1867-1891.
- King's College Hospital Reports. Vols 1-8.
- St. Bartholomew's Hospital Reports. Vols. 13-26.
- St. Thomas's Hospital Reports. 1870-1889.

Presented by the WAR OFFICE:
- Surgeon-General W. D. Wilson's Report on the Medical Arrangements in the South African War. 1904.

Presented by the EDITOR of the BRITISH MEDICAL JOURNAL:
- Barwise, S. The Purification of Sewage. 1904.
- Berry, G. A. Manual of Practical Ophthalmology. 1904.
- Dalby, Sir Wm. The Morality of a Crime. 1904.
- Deaver. Surgical Anatomy of the Head and Neck. 1904.
- Edgar. The Practice of Obstetrics. 2nd Ed. 1904.
- Farabeuf et Varnier. Introduction à l'Etude Clinique et à la Pratique des Accouchements. 1904.
- Fritsch. Geburtshilfe. 1904.
- Frumerie. Cours de Massage. 1904.
- Gerrard, P. N. Beri-beri: its Symptoms and Symptomatic Treatment. 1904.
- Gibbons, E. E. The Eye: its Refraction and its Diseases. 1904.
- Grimsdale, H. B. Elementary Lectures on Errors of Refraction and their Correction. 1904.
- Lambkin, F. J. The Treatment of Syphilis. 1904.
- Lehmann and Neumann. Bacteriologie. I, II. 3 aufl. 1904.
- Lulham, P. H. Devices and Desires. 1904.
- The Medical Chronicle. Vol 6. 1903-4.
- Mummery, P. L. The After-Treatment of Operations. 1904.
- Newman, Geo. Bacteriology and Public Health. 1904.
- Otto and Neuman. The Yellow Fever Expedition of the Hamburg Medical School. 1904.
- Pernet, G. Differential Diagnosis of Syphilitic and Non-syphilitic Diseases of the Skin. 1904.
- Pharmaceutical Formulas. (Supp. vol.) 1904.
- Richardson, W. G. The Development and Anatomy of the Prostate Gland. 1904.
- Snowman. Surgery of Ritual Circumcision. 1904.
- Spratling, W. P. Epilepsy and its Treatment. 1904.
- Stoney, E. A. M. Materia Medica for Nurses. 1904.
- Sutor, W. N. Refraction and Motility of the Eye. 1904.
- Taylor, J. L. Aspects of Social Evolution. 1904
- Thresh, J. C. The Examination of Waters and Water Supplies. 1904.
- Ulecia y Cardona. Arte de Criar a los Niños. 1904.
- Williams, W. Deaths in Childbed. 1904.
- Wright, E. F. Plant Disease. 1903.

Calendars, Reports, and Transactions have been received from the following bodies:
- American Association of Obstetricians and Gynecologists. Transactions. Vol. 16. 1903.
- ——— Climatological Association. Transactions. Vol 19. 1903.
- ——— Laryngological Association. Transactions. Vol. 1903.
- ——— Laryngological and Otological Society. Transactions. Vol. 9. 1903.
- ——— Otological Society. Transactions. Vol. 13. 1904.
- Association of American Physicians. Transactions. 19. 1904.
- Caledonian Medical Society. The Caledonian Medical Journal, 1904.
- Chicago Health Department. Vital Statistics. 1899-1903.
- Chief Inspector of Factories. Report. 1903.
- Cornell University. Studies. Vol 1 1904.
- Dermatological Society of Great Britain and Ireland. Transactions. Vol. 10. 1904.
- Dublin University. Calendar. 1904-5.
- King's College Calendar. 1904-5
- Laryngological Society of London. Proceedings. 1904.
- London County Council. Fifteenth Annual Report of the Asylums Committee 1904.
- Navy, Statistical Report of the Health of the. 1903.
- New York State Board of Health. Twenty-third Report. 1903. 3 Vols.
- Ophthalmological Society of the United Kingdom. Transactions. Vol 24 1904.
- Pathological Society of London. Transactions. Vol. 55. 1904.
- Reading Pathological Society. Transactions. 1903-4.

Applications for duplicates from Branches or Divisions forming libraries may be addressed to the Librarian 429, Strand.

GENERAL MEDICAL COUNCIL.

Executive Committee.

A meeting of the Executive Committee was held on February 22nd, when there were present: Dr. MacAlister (President), in the chair; Dr. Pye-Smith, Mr. Young, Mr. Tomes, Sir John Batty Tuke, Sir Patrick Heron Watson, Sir Christopher Nixon, and Mr. H. E. Allen (Registrar).

Medical and Dental Companies.

The President called attention to the recent judgement in the Irish courts directing the removal of a dental company from the list of registered companies, and Sir John Batty Tuke read correspondence between himself and various Government departments and the Chairman of a Departmental Committee of the Board of Trade on the operation of the Companies Acts. The documents were all referred to the Companies Bill Committee.

Resignation of Standing Counsel.

The resignation of Mr. Muir Mackenzie of his position in connexion with the Council on his appointment as an official referee of the High Court was received, and the President authorized to make temporary arrangements for the attendance of counsel at the next session of the Council.

Appointments.

Mr. Young was selected to be a member of the Business Committee, and Sir Hugh Beevor and Sir William Thomson to be members of the Executive Committee.

Colonial Ordinances and Acts.

Communications from the Colonial Office in regard to Ordinances and Acts were read relating to practice in the following Colonies: British Honduras, Straits Settlements, and the Transvaal. A New Zealand Act providing for the better training of midwives, and to regulate the practice of midwifery, was also received.

A "Medical" Certificate given by a Chemist.

The Registrar made the following report: On May 24th, 1904, a communication was read to the Committee from the Medico-Political Committee of the British Medical Association forwarding a communication from the Education Committee of the Borough of Bootle in regard to the giving of a medical certificate by a person described as a local chemist and druggist in the case of a girl unable to attend school, whereupon the following resolution was passed:

> That the attention of the Medico-Political Committee of the British Medical Association be called to Section xxxvii of the Medical Act, 1858; that they be informed that on the face of it the certificate forwarded to the Council appears to be invalid under that section, and that the Council has no jurisdiction over chemists who give invalid certificates.

On November 21st, 1904, a further communication on the subject was considered by the Committee, and the whole correspondence was remitted to the General Council (Minutes, vol. xli, pp. 179-180, 206), by whom it was considered on November 24th and 25th, 1904, on the latter of which dates Mr. Muir Mackenzie gave an opinion to the effect that:

Although Section xxxvii of the Medical Act, 1858, imposes a statutory duty on public bodies not to accept in specified cases certificates given by unregistered persons, there is no statutory penalty against either a public body for accepting or an individual for giving invalid certificates, but if the public body acted so systematically in this way as to create a public mischief the Attorney-General might interfere to prevent the provisions of the Act from being contravened. If a public body is not required by statute to receive certificates signed only by medical practitioners, it can accept certificates, if it chooses, from chemists or unregistered persons (Minutes, vol. xli, App. xi).

The following further communication from the British Medical Association has now been received:

British Medical Association,
Medical Secretary's Office,
429, Strand, W.C.,
February 23rd, 1905.

Sir,—The attention of the Medico-Political Committee of the Association has been drawn to statements which are reported in the British Medical Journal as having been made by members of the General Medical Council concerning a certificate, purporting to be a medical certificate, to which the Medico-Political Committee drew the attention of the General Medical Council by a letter dated May 2nd, 1904. I enclose a copy of the Supplement of the British Medical Journal containing (pp. 207-8) the report of the debate in question, in which you will perceive that statements appear to have been made that the "certificate" was written on a chemist's memorandum form, and that it purported to be signed by a chemist and druggist.

I enclose the certificate, and am instructed to point out that it is given on a printed form issued by the Local Education Authority and headed "Form of Medical Certificate," and the document contains no indication that the person who signed it was not a registered medical practitioner.

It will also be observed that this is not a case, as was suggested in the debate in the General Medical Council, in which a Local Education Authority knowingly accepted certificates of unfitness to attend school from others than registered medical practitioners; but, on the contrary, the Local Education Authority, on finding out that the signatory was not a medical practitioner, did not accept the certificate but brought it to the notice of the British Medical Association, presumably on the ground that, having regard to the form of the certificate, the action of the signatory constituted a fraud on the Education Authority and on the public which, in the opinion of the Education Authority, should be dealt with by such authority, if any, as might be competent for the purpose.

It appears to the Medico-Political Committee that the exact form of this certificate is a matter of public importance as affecting the question whether the law at present makes adequate provision against imposition upon the public by the signing, by persons other than registered medical practitioners, of documents which purport to be medical certificates. I am, therefore, instructed to request that you will be so kind as to bring this letter before the Council in order that the form of the certificate in question may be made known to the Council, and may be reported in its public proceedings, thus correcting misapprehensions to which the report of the debate in November last is found to have given rise.

I, am, sir,
Your obedient servant,
J. Smith Whitaker,
Medical Secretary.

Dr. Donald MacAlister,
President, General Medical Council.

St. Winifrides Stnd. III.

BOOTLE EDUCATION COMMITTEE.
Form of Medical Certificate
(for Educational purposes).

Bootle: *13th Feb.*, 1904.

I hereby certify that *Elizabeth Hickey*, of 81, *Seaforth St.*, is suffering from *Impetigo on back of head*, and is not fit to attend school, but will probably be able to return in *Two* { weeks. / months.

P. Williams,
123, *Derby Road.*

The Committee resolved:

> That the communication of the British Medical Association be referred to the General Medical Council for its information.

Dental Business.

The Committee had before it a copy of a New Zealand Act in regard to the registration of dentists, a South Australian Act to amend the Dentists Act, 1902. The documents were referred to the Dental Education and Examination Committee for its information.

A resolution was adopted thanking the Colonial Secretary for forwarding the Acts, and informing him that the Committee has noticed with satisfaction the insertion of provisions in them for preventing the practice of dentistry and the use of dental titles by limited companies.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been recently made at the Admiralty: Herbert A. Julius, Surgeon, to the *Talbot*, on commissioning, undated; Arthur Davidson, Surgeon, to the *Vivid*, to be lent to the *Cambridge*, March 8th; William G. K. Barnes, Fleet Surgeon, to the *President*, for three months' hospital course, March 15th; Alastair F. Mackay, Surgeon, to the *Vivid*, for disposal, March 8th.

Civil Practitioner P. McDonagh has been appointed Surgeon and Agent at Costello Bay, March 9th; Civil Practitioner W. A. Sandys, M.B., to be Surgeon and Agent at Spiddal, March 9th.

ROYAL ARMY MEDICAL CORPS.

The undermentioned Majors are promoted to be Lieutenant-Colonels from January 31st:—J. K. Forrest, Brevet Lieutenant-Colonel M. W. Russell, G. E. Moffet, M.B.; H. A. Haines, M.D.; G. E. Hale, D.S.O.; C. W. Johnson, M.B.; A. T. I. Lilly, C. C. Reilly, A. De C. Scanlan, W. Turner, W. E. Berryman, S. E. Duncan, and R. Caldwell. The previous commissions of Lieutenant-Colonel Forrest are dated—Surgeon, February 2nd, 1884; Surgeon-Major, January 31st, 1897. Lieutenant-Colonel Caldwell's are dated—Surgeon, January 31st, 1885; Major, January 31st, 1899. The previous commissions of all the other officers cited are simultaneous, and bear date Surgeon, January 31st, 1885; Surgeon-Major, January 31st, 1897. Their war records are as follows: Lieutenant-Colonel Forrest—Soudan Expedition 1885 (medal with clasp, and Khedive's bronze star); campaign on the North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force (medal with two clasps). Lieutenant-Colonel Russell—Soudan Frontier Field Force, 1885-6, including action at Giniss (medal and Khedive's bronze star); Zhob Valley Expedition, 1890; South African war, 1899-1902, including the advance on Kimberley, and operations in Orange Free State, in the Transvaal, and in Cape Colony (mentioned in dispatches, Brevet of Lieutenant-Colonel, Queen's medal with three clasps, and King's medal with two clasps). Lieutenant-Colonel Moffet—South African war, 1899-1901 (Queen's medal with clasp). Lieutenant-Colonel Haines—Chitral Relief Force, 1895 (medal with clasp). Lieutenant-Colonel Hale—Soudan Frontier Field Force, 1885-6, including action at Giniss (medal and Khedive's bronze star); Burmese campaign, 1887-9, and again, 1889-91, with the Poukhan, Tonhon, and Wuntho expeditions (mentioned in dispatches, medal with two clasps, and D.S.O.); South African war in 1899-1902 with a yeomanry hospital, including operations in the Transvaal, Orange Free State, and Cape Colony (mentioned in dispatches, Queen's medal with three clasps, and King's medal with two clasps). Lieutenant-Colonel Johnson—Soudan Frontier Field Force, 1885-6, including action at Giniss (medal and Khedive's bronze star); campaign on the North-West Frontier of India in 1897-8 (medal with clasp); South African war, 1899-1902, including relief of Ladysmith, the battle of Colenso, and numerous other engagements and operations in the Transvaal, Orange Free State, and Cape Colony (Queen's medal with five clasps and King's medal with two clasps). Lieutenant-Colonel Lilley—South African war, 1899-1902, including operations in the Transvaal, Orange Free State, and Cape Colony (Queen's medal with three clasps, and King's medal with two clasps). Lieutenant-Colonel Reilly—Soudan Frontier Field Force, 1885-6 (medal and Khedive's bronze star); South African war, 1900-1, including operations in the Orange Free State and the Transvaal (Queen's medal with four clasps). Lieutenant-Colonel Turner—Soudan expedition 1885 (medal with clasp, and Khedive's bronze star); Isazai expedition, 1892; South African war, 1899-1902 (Queen's medal with three clasps, and King's medal with two clasps). Lieutenant-Colonel Duncan—South African war, 1900-2 (Queen's medal with clasp, and King's medal with two clasps). Lieutenant-Colonel Caldwell—Soudan Frontier Field Force, 1885-6 (medal, and Khedive's bronze star); South African war 1899-1902, including the relief of Ladysmith, several battles in Natal, and operations on the Zululand Frontier and in Orange River Colony (Queen's medal with three clasps, and King's medal with two clasps); he has also the bronze medal of the Royal Humane Society for saving the life of a private soldier who had fallen into the River Nile.

The undermentioned Majors are placed on retired pay from January 31st: B. F. Zimmermann, A. Stables, M.B., J. D. Moir, M.B., R. Crofts, D.S.O., H. D. James, and G. M. Dobson, M.B. Their commissions, which are simultaneous, are thus dated: Surgeon, January 31st, 1885; Surgeon-Major, January 31st, 1897. Major Zimmermann served in the expedition against the Yonnies, on the West Coast of Africa in 1887-8 (medal with clasp). Major Stables was with the Soudan Frontier Field Force in 1885-6 (medal, and Khedive's bronze star); with the Chitral Relief Force in 1895 (medal with clasp); and in the campaign on the North-West Frontier of India in 1897-8 with the Tirah Expeditionary Force (two clasps). Major Moir was with the Soudan Frontier Field Force in 1885-6 including the action at Giniss (medal, and Khedive's bronze star); also in the South African war in 1889-1902, including the relief of Ladysmith and subsequent battles and operations in Natal and the Transvaal (several times mentioned in dispatches, Queen's medal with six clasps, and King's medal with two clasps). Major Crofts served with the expedition against the Jebus, Lagos, in 1892 (mentioned in dispatches, medal with clasp), and with the Karene expedition, Sierra Leone, in 1898 (mentioned in dispatches, D.S.O., and clasp). Major James was in the campaign on the North-West Frontier of India in 1897-8 including the operations on the Samana Range and of the Tirah Expeditionary Force (medal with three clasps); also in the South African war in 1899-1901, including operations in the Transvaal, Orange River Colony, and Cape Colony; was Principal Medical Officer of No. 16 General Hospital, January to July, 1901 (Queen's medal with four clasps). Major Dobson was with the Soudan Frontier Field Force in 1885-6 (medal, and Khedive's bronze star), and with the Lushai expedition in 1892 (medal with clasp).

Lieutenant-Colonel G. F. A. Smythe, F.R.C.S.Edin., retired on retired pay, March 11th. He was appointed Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; and Lieutenant-Colonel, March 6th, 1900. He was with the Nile Expedition in 1898, being present at the battle of Khartoum; he was mentioned in dispatches, and received the Egyptian medal with clasp and the British medal granted for the campaign.

Major F. J. W. Porter, D.S.O., from the Seconded List, to be Major, March 1st. He was seconded for service with the South African Constabulary, July 1st, 1901.

Lieutenant R. L. V. Foster is seconded for service with the Egyptian Army, January 17th.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during last month:

	From.	To.
Colonel W. E. Saunders	Meerut	Naini Tal.
,, J. I. Routh	Aldershot	India.
,, J. Magill, M.D.	Colchester	Egypt.
,, H. R. Whitehead	Woolwich	India.
Lieut.-Col. W. Heffernan	—	Cape Colony.
,, L. E. Anderson	Ceylon	London Dist.
,, G. F. A. Smythe	Newry	Belfast.
,, H. K. Allport, M.D.	Maidstone	Bulford.
,, E. Butt	Punjab	Dublin.
,, T. E. Noding	—	Transvaal.
,, W. G. Birrell, M.B.	Bombay	Edinburgh.
,, W. L. Reade	Weedon	Bangalore.
,, H. O. Trevor	Aldershot	Longmoor.
,, J. D. T. Reckitt	Woolwich	Punjab.
,, H. S. McGill	Bombay	Simla.
,, C. E. Faunce	Bulford	Bombay.
,, G. D. Hunter, D.S.O.	Portsmouth	Egypt. Army.
Major W. E. Berryman	Bengal	Dover.
,, W. T. Swan, M.B.	Queenstown	Punjab.
,, J. M. F. Shine, M.D.	Madras	Dublin.
,, J. H. Brannigan	York	Sheffield.
,, M. O'Halloran, M.D.	—	O. R. Colony.
,, J. H. Daly	Cape Colony	Dublin.
,, H. D. Rowan, M.B.	York	Punjab.
,, F. W. G. Hall, M.B.	Manchester	Bengal.
,, J. J. Gerrard, M.B.	Transvaal	East. Com'd.
,, J. S. Davidson, M.D.	Portsmouth	Parkhurst.
,, E. Eckersley, M.B.	Transvaal	Woolwich.
,, D. M. O'Callaghan	Colchester	Bedford.
,, R. J. D. Hall	Dublin	Holywood.
,, E. S. Marder	Dover	Canterbury.
,, J. S. Edye	Aldershot	Bengal.
,, T. Browning	Limerick	Buttevant.
,, C. H. Hale, D.S.O.	Punjab	Rangoon.
,, L. E. A. Salmon	Transvaal	Portsmouth.
,, S. F. Clark, M.B.	—	Cape Colony.
,, R. J. Copeland, M.B.	Bengal	Portsmouth.
,, J. Girvin	Guildford	London Dist.
,, C. W. R. Healey	Madras	Dublin.
,, W. W. O. Beveridge, M.B., D.S.O.	Cape Colony	Loudon Dist.
,, J. D. Ferguson, D.S.O.	,,	Cork.
,, J. W. Jennings, D.S.O.	Chester	Bengal.
,, E. M'K. Williams	Home District.	Guildford.
,, C. W. H. Whitestone, M.B.	Transvaal	East Com'd.
,, A. F. Tyrrell	Bulford	Gibraltar.
Captain J. R. M'Munn	—	Transvaal.
,, C. M. Fleury	Bulford	Malta.
,, G. T. K. Maurice	Gosport	Bengal.
,, F. E. Gunter, M.B.	China	R.A.M. Coll.
,, M. MacG. Rattray, M.B.	Dover	Bombay.
,, C. H. Hopkins	Beverley	,,
,, A. W. N. Bowen	Chester	Woolwich.
,, H. G. Martin	Dublin	Cork.
,, A. H. O. Young	Chester	Dublin.
,, M. M. Lowsley	Bombay	Portsmouth.
,, P. H. Collingwood	Dublin	Chester.
,, J. G. Gill	O. R. Colony	Aldershot.
,, T. C. Lauder, M.B.	Transvaal	Dublin.
,, J. W. H. Houghton, M.B.	O. R. Colony	R.A.M. Coll.
,, R. H. Lloyd	Cape Colony	Chester.
,, L. Humphry	O. R. Colony	Dublin.
,, H. K. Palmer	Cork	Fermoy.
,, V. J. Crawford	Punjab	Dublin.
,, F. G. Richards	Bombay	Aldershot.
,, C. S. Smith, M.B.	Madras	Woolwich.
,, R. L. Argles	Bulford	Tidworth.
,, P. J. Bodington, M.B.	Ceylon	London Dist.
,, J. H. Brunskill, M.B.	Curragh	Madras.
,, C. G. Thomson	—	Dublin.
Lieutenant R. L. V. Foster, M.B.	Madras	Multan.
,, P. J. Hanafin	—	Transvaal.
,, R. T. Collins	Dover	Bengal.
,, T. J. Wright	Dublin	Madras.
,, J. Fairbairn, M.B.	Woolwich	Bombay.
,, J. H. Douglas, M.D.	Curragh	Madras.
,, A. S. Arthur, M.B.	Netley	,,
,, R. R. Lewis	,,	,,
,, D. Le Bas	—	O. R. Colony.
,, W. Wiley, M.B.	Netley	Madras.
,, J. A. Turnbull	Woolwich	Punjab
,, E. H. M. Moore	—	Cape Colony.
,, M. D. Ahern	Curragh	Punjab.
,, R. J. Cahill, M.B.	Netley	,,

The undermentioned Lieutenants, appointed on probation August 31st, 1903, are stationed as specified: D. D. Paton, M.B., Netley; J. T. McEntire, M.B., Orange River Colony; J. A. Longley, M.B., Woolwich; N. E. Dunkerton, Curragh.

Lieutenants S. C. Bowie and G. S. C. Hayes, who were appointed on probation January 30th, 1904, are now stationed, the former in Madras, the latter in the Punjab.

The undermentioned Lieutenants, appointed on probation July 30th 1904, are stationed as follows: C. Ryley, Dublin; P. Dwyer, Curragh; P. C. T. Davy, M.B., Aldershot; W. H. Hills, M.B., J. F. C. Mackenzie, M.B., and H. T. Wilson, Netley; R. C. Hallowes, M.B., J. Campbell, M.B., and G. A. D. Harvey, Curragh; H. C. Winckworth, Netley; H. W. Russell, M.B., Curragh; E. J. H. Luxmoore, Netley; H. C. Sidgwick, M.B., M. Sinclair, M.B., G. R. Painton, and N. Low, Aldershot; A. N. Fraser, M.B., Curragh; R. H. L. Cordner, A. T. Frost, M.B., and K. A. C. Dorg, Aldershot; P. A. Jones, Netley; H. O. M. Beadnell, Curragh; C. R. Millar, Aldershot; G. H. Richard and J. St. A. Maughan, Netley.

Major B. F. Zimmermann, retired pay, has been placed in medical charge of troops at Topsham, Exeter.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR A. A. WATSON to be Surgeon-Lieutenant-Colonel, February 28th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-LIEUTENANT COLONEL E. CURET N. 1st Shropshire and Staffordshire, is granted the honorary rank of Surgeon-Colonel, March 8th.

Surgeon-Lieutenant G. H. RUTTER, M.B., 1st Worcestershire, to be Surgeon-Captain, March 8th.

VOLUNTEER RIFLES.

MR. JAMES SEARSON to be Surgeon-Lieutenant in the 3rd Volunteer Battalion the Royal Fusiliers (City of London Regiment), March 8th.

Supernumerary Surgeon-Lieutenant J. G. MARTIN, M.B., 2nd Volunteer Battalion the King's (Liverpool Regiment), to be Surgeon-Captain, and to remain supernumerary, March 8th.

Surgeon-Lieutenant A. H. PIRIE, M.B., 7th Middlesex (London Scottish), to be Surgeon-Captain, February 21st.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL (temporary Colonel) H. K. MCKAY, C.I.E., Bengal Establishment, officiating Principal Medical Officer, Presidency Brigade, is confirmed in that appointment.

Lieutenants A. E. J. LISTER, T. S. B. WILLIAMS, M.B., S. H. L. ABBOTT, A. W. GREIG, M.B., R. E. LLOYD, J. E. CLEMENTS, M.B., H. B. STEEN, E. BISSET, R. J. BRADLEY, M.B., J. WOODS, A. W. OVERBECK-WRIGHT, M.B., D. MUNRO, M.B., T. W. HARLEY, M.B., J. W. MCCOY, R. L. HAGGER, R. M. CARTER, R. D. WILLCOCKS, T. G. F. PATERSON, M.B., D. G. R. S. BAKER, J. R. J. TYRRELL, M.B., D. GANPAT RAI, R. M. BARRON, W. R. J. SCROGGIE, L. P. FARRELL, T. H. GLOSTER, H. H. G. KNAPP, J. H. HORTON, D.S.O., and W. A JUSTICE, all of whom entered the department January 29th, 1902, are promoted to be Captains from January 29th, 1905.

The undermentioned Captains of the Bengal Establishment are promoted to be Majors, from January 30th: C MILNE, M.B., V. G. DRAKE-BROCKMAN, W YOUNG, M.B., J. J. BOURKE, M.B., B. R. CHATTERTON, M.D., C. B. PRALL, C. E. WILLIAMS, M.B., J. N. MACLEOD, W. H. OGILVIE, T. A. O. LANGSTON, R. HEARD, M.B., E. R. PARRY, M.B., W. H. ORR, and P. ST. C MORE. Their previous commissions bear date: Surgeon-Lieutenant, January 30th, 1893; Surgeon-Captain, January 30th, 1896.

Captain G. BIDIE, of the Madras Establishment, is also promoted to be Major, from January 30th, his previous commissions also being dated: Surgeon-Lieutenant, January 30th, 1893; Surgeon-Captain, January 30th, 1896.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANT D. RORIE, from the Black Watch Bearer Company, to be Lieutenant in the Aberdeen Company, March 8th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,513 births and 5,145 deaths were registered during the week ending Saturday last, March 11th. The annual rate of mortality in these towns, which had been 17.3 15.7, and 17.1 per 1,000 in the three preceding weeks, further rose to 17.2 per 1,000 last week. The rates in the several towns ranged from 7.5 in Wallasey, 8.1 in Birkenhead, 9.3 in Hornsey and in East Ham, 9.6 in Northampton, 10.5 in Leyton, and 11.3 in Rotherham, to 23.2 in Portsmouth, 23.4 in Hanley and in Nottingham, 23.5 in Reading, 24.9 in Middlesbrough, 27.7 in Wigan, and 28.9 in Merthyr Tydfil. In London the rate of mortality was 17.2 per 1,000, and it averaged 17.2 per 1,000 in the seventy-five other large towns also. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.4 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.9 in Hastings, 4.0 in Hanley, 4.4 in West Hartlepool, 5.4 in Southampton, 6.0 in Reading and in Nottingham, and 10.1 in Portsmouth. Measles caused a death-rate of 2.0 in Bolton, 2.1 in Merthyr Tydfil, 2.4 in Wigan, 3.7 in West Hartlepool, 5.0 in Southampton and in Nottingham, 6.0 in Reading, and 8.5 in Portsmouth; scarlet fever of 1.7 in Handsworth (Staffs); diphtheria of 1.7 in Barrow-in-Furness; whooping-cough of 1.3 in Tottenham, 1.7 in Smethwick and in Rhondda, 1.9 in Willesden, 2.4 in Hanley, and 3.1 in Hastings; and diarrhoea of 1.4 in Devonport and 1.6 in Hanley. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small pox cases under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 11th, was 16, against 15 on each of the two preceding Saturdays; 3 new cases were admitted during the week, against 3, 7, and 4 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,017, 1,987, and 2,002 at the end of the three preceding weeks, had further risen to 2,036 at the end of last week; 303 new cases were admitted during the week against 241, 224, and 290 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 11th, 913 births and 625 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.9, 18.3, and 17.4 per 1,000 in the three preceding weeks, increased again last week to 18.6 per 1,000, and was 1.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 14.4 in Edinburgh and 17.8 in Glasgow, to 23.8 in Greenock and 24.4 in Perth. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in these towns, the highest rates being recorded in Glasgow and Perth. The 276 deaths registered in Glasgow included 6 which were referred to measles, 22 to whooping-cough, and 10 to diarrhoea. Two deaths from whooping-cough and 3 from diarrhoea were recorded in Edinburgh; 2 from diarrhoea in Aberdeen; 2 from whooping-cough in Greenock; and 2 from whooping-cough in Perth.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 4th, 587 births and 485 deaths were registered in six of the principal Irish towns, against 500 births and 441 deaths in the preceding period. The mean annual death-rate in these towns, which had been 20.1, 20.2, and 23.8 per 1,000 in the three preceding weeks, rose to 26.3 per 1,000 in the week under notice, the figure being 9.2 per 1,000 higher than the mean annual rate in the seventy six towns for the corresponding period. The figures ranged from 13.6 in Waterford and 19.8 in Londonderry to 30.7 in Dublin and 39.0 in Cork. The zymotic death-rate during the same period in the same six Irish towns averaged 1.2 per 1,000, or 0.4 per 1,000 higher than during the preceding week, the highest figure—3.9—being recorded in Waterford, while Londonderry and Limerick registered no deaths under this heading at all. Of the total deaths from measles—14 in all—10 were recorded in Belfast. In Waterford 1 death from typhus was registered, and in Dublin 2 from diphtheria.

ENGLISH URBAN MORTALITY DURING 1904.

IN the accompanying table will be found summarized the vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns. During the fifty-two weeks ending December 31st last, 442,788 births were registered in these towns, equal to an annual rate of 29.1 per 1,000 of their aggregate population, estimated at 15,271,287 persons in the middle of last year; this rate was 0.6 per 1,000 below the mean rate in the preceding year. In London the birth-rate was 27.9 per 1,000, while it averaged 29.6 in the seventy-five other large towns, and ranged from 17.1 in Bournemouth, 17.4 in Hastings, 19.9 in Hornsey, 20.0 in Halifax, 22.1 in Bradford and 22.8 in Rochdale, to 34.9 in Tynemouth, 35.0 in Wigan, 36.2 in Middlesbrough, 37.6 in St. Helens, 38.1 in Merthyr Tydfil, and 39.8 in Rhondda.

During the period under notice 262,559 deaths were registered in these seventy-six towns, corresponding to an annual rate of 17.2 per 1,000, which was 0.9 in excess of the rate in the preceding year. In London the rate of mortality was 16.6 per 1,000, while it averaged 17.5 per 1,000 in the seventy-five large provincial towns, among which the rates ranged from 8.4 in Hornsey, 10.6 in King's Norton, 11.2 in Willesden, 11.8 in Handsworth (Staffs.), 12.0 in Smethwick, 12.2 in Walthamstow, and 12.7 in Leyton, to 19.8 in Middlesbrough, 19.9 in Birmingham, 20.9 in Hanley and in St. Helen's, 21.2 in Salford, 21.3 in Manchester, 21.5 in Wigan, and 22.6 in Liverpool.

The 262,559 deaths from all causes in these towns last year included 38,046 that were referred to the principal infectious diseases; of these, 208 resulted from small-pox, 7,218 from measles, 1,786 from scarlet fever, 2,925 from diphtheria, 6,065 from whooping-cough, 1,557 from "fever" (principally enteric), and 18,287 from diarrhoea. The death-rate from these diseases was equal to 2.49 per 1,000, being 0.62 per 1,000 in excess of the corresponding rate in the preceding year. In London the death-rate from the principal infectious diseases was 2.18 per 1,000, while it averaged 2.65 in the seventy-five other large towns, among which the rates ranged from 0.40 in Hastings, 0.61 in Bournemouth, 0.79 in King's Norton, 0.90 in Hornsey, 1.08 in Southampton, 1.23 in Smethwick, and 1.24 in Devonport, to 3.93 in Burnley, 4.10 in Hanley, 4.17 in Bootle, 4.21 in St. Helens, 4.37 in Salford, 4.57 in Warrington, and 4.65 in Liverpool. Of the 208 fatal cases of small-pox registered in these towns last week, 34 occurred in Gateshead, 25 in London, 18 in Newcastle upon-Tyne, 14 in Stockport, 14 in Oldham, 12 in Nottingham, and 10 in Manchester. The 7,218 deaths from measles corresponded to an annual rate of 0.47 per 1,000; in London the death-rate from this disease was 0.49 per 1,000, while among the seventy-five other large towns the highest rates were recorded in Norwich, Grimsby, Birkenhead, Liverpool, St. Helen's, Salford, and Burnley. The 1,786 fatal cases of scarlet fever were equal to an annual rate of 0.12 per 1,000; in London this disease caused a death-rate of 0.08 per 1,000, while the rate averaged 0.13 in the seventy-five other large towns, among which scarlet fever was proportionally most fatal in Northampton, Plymouth, Hanley, Warrington, Salford, York, and Merthyr Tydfil. The 2,925 deaths from diphtheria were equal to an annual rate of 0.19 per 1,000; in London the death-rate from this disease was 0.16 per 1,000, while the mean rate in the seventy-five large provincial towns was 0.21 per 1,000 the highest rates being recorded in East Ham, Great Yarmouth, Hanley, Salford, Bradford, Stockton-on-Tees, and West Hartlepool. The 6,065 fatal cases of whooping-cough corresponded to an annual rate of 0.40 per 1,000; in London the rate of mortality from whooping-cough was 0.33 per 1,000, while it averaged 0.43 in the seventy-five other large towns, among which this disease showed the greatest proportional fatality in Birmingham, Birkenhead, Wallasey, Warrington, Bolton, Blackburn, Gateshead, and Swansea. The 1,557 deaths referred to different forms of "fever" were equal to an annual rate of 0.10 per 1,000; in London the "fever" death-rate was only 0.07 per 1,000, while it averaged 0.12 in the seventy-five other large towns, and was highest in Nottingham, Wigan, Bolton, Salford, Preston, Rhondda, and Merthyr Tydfil. The 18,287 fatal cases of diarrhoea corresponded to an annual rate of 1.20 per 1,000; in London this death-rate was equal to 1.04 per 1,000, while among the seventy-five other large towns the mean rate of mortality from this disease was 1.27 per 1,000, being highest in West Ham, Birmingham, Hanley, Aston Manor, Liverpool, Bootle, Warrington, Burnley, and Hull.

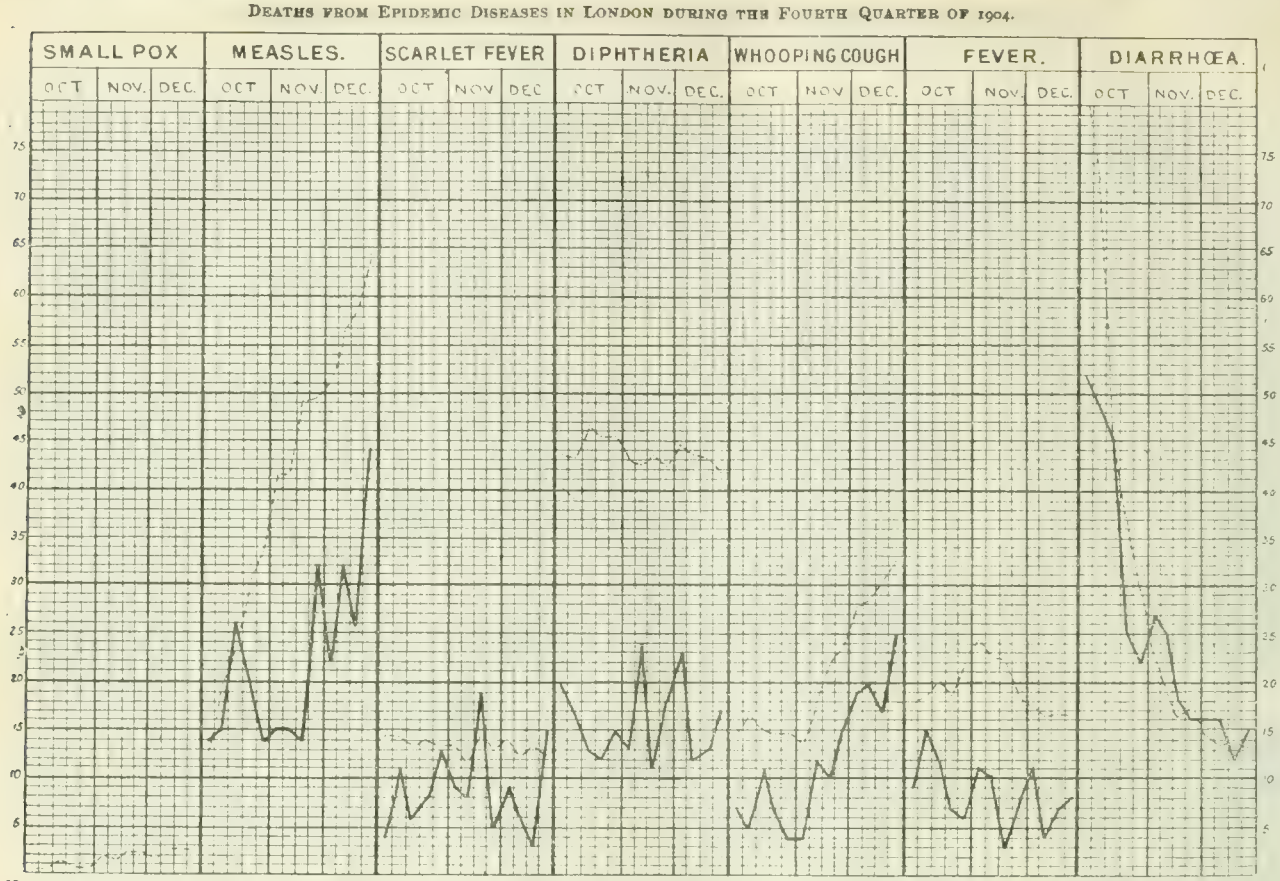
Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 160 per 1,000 last year, against 144 in the preceding year. In London the proportion during the year under notice was 146 per 1,000, while it averaged 166 in the seventy-five other large towns, among which the rates ranged from 87 in Hornsey, 100 in King's Norton, 108 in Hastings, 114 in Willesden, 115 in Southampton, and 119 in Devonport and in Burton-on-Trent to 191 in Blackburn, 192 in Salford, 196 in Liverpool, 197 in Birmingham, 203 in Stockport, 212 in Hanley, and 229 in Burnley.

The causes of 2,930, or 1.1 per cent., of the deaths registered in the seventy-six towns last year were not certified either by a registered medical practitioner or by a coroner. In London the proportion of uncertified deaths was 0.2 per cent., while it averaged 1.5 per cent. in the seventy-five other large towns. All the causes of death were duly certified in Croydon, Hornsey, and Southampton, and only 1 death was uncertified in Tottenham, in Great Yarmouth and in Derby; the largest proportions of uncertified deaths were registered in Smethwick, Liverpool, Bootle, St. Helen's, Warrington, Preston, Sunderland, South Shields, and Gateshead.

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during 1904.

Towns.	Estimated Population middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	15,271,287	442,788	262,559	29.1	17.2	2.49	38,046	208	7,218	1,786	2,925	6,065	1,557	18,287	160	1.1
75 Provincial Towns	10,622,337	313,453	185,465	29.6	17.5	2.65	28,056	183	4,957	1,421	2,196	4,558	1,255	13,486	166	1.5
London	4,648,950	129 335	77,094	27.9	16.6	2.18	9,990	25	2,261	365	729	1,507	302	4,801	146	0.2
Croydon	144,419	3,744	1,988	26.0	13.4	1.42	204	—	60	7	25	14	6	92	130	—
Willesden	132,566	4,319	1,479	32.7	11.2	1.62	214	—	39	2	19	11	7	136	114	0.6
Hornsey	81,221	1,615	684	19.9	8.4	0.90	73	—	18	2	7	16	2	28	87	—
Tottenham	112,981	3,580	1,562	34.2	13.9	2.14	242	1	41	8	23	18	7	144	139	0.1
West Ham	288,424	9 261	4,733	32.3	16.5	3.33	988	1	172	39	44	102	32	598	162	0.2
East Ham	116,902	3,703	1,525	31.8	13.1	3.13	365	—	62	10	49	26	15	203	154	0.4
Leyton	110,844	3,171	1,401	28.7	12.7	2.56	283	—	23	7	12	46	10	185	143	1.4
Walthamstow	111,282	3,667	1,351	32.5	12.2	2.87	318	1	55	15	27	33	10	177	140	0.2
Hastings	66,503	1,154	873	17.4	13.2	0.40	26	—	1	—	2	2	1	20	108	0.3
Brighton	126,286	2,961	2,090	23.5	16.6	1.64	205	—	91	2	15	36	7	54	134	0.1
Portsmouth	198,038	5 579	3,333	28.3	16.9	2.13	420	—	1	22	71	79	34	213	142	1.1
Bournemouth	64,645	1,103	877	17.1	13.6	e.61	39	—	1	1	7	6	2	22	121	0.3
Southampton	112,500	3,003	1,542	26.8	13.7	1.08	121	—	—	1	12	17	2	89	115	—
Reading	76,373	1.989	1,055	26.1	13.9	1.80	138	—	1	—	14	4	4	115	133	2.1
Northampton	91,146	2,036	1,258	23.1	13.8	1.60	145	—	1	39	10	6	2	87	132	2.2
Ipswich	69,805	1,920	1,079	27.6	15.5	1.55	108	—	20	1	9	6	7	65	143	1.5
Great Yarmouth	52,099	1,446	911	27.8	17.5	2.53	131	—	12	3	2	33	5	53	165	0.1
Norwich	115,538	3,183	2,101	27.6	18.2	2.51	334	—	132	3	8	39	16	136	180	0.7
Plymouth	114,003	2,889	2,108	25.4	18.5	2.53	288	—	79	36	14	27	16	116	172	0.1
Devonport	75,334	2,154	1,008	28.7	13.4	1.24	93	—	17	9	10	10	8	39	119	0.2
Bristol	343,204	9,155	5 346	26.7	15.6	1.64	560	1	101	38	103	116	26	175	134	0.4
Hanley	63,932	2,151	1,332	33.7	20.9	4.10	262	2	43	29	49	8	6	125	212	1.1
Burton-on-Trent	51,934	1,342	778	25.9	15.0	1.32	68	—	5	4	6	36	—	17	119	1.3
Wolverhampton	98,194	2,9·5	1,516	29.9	15.5	2.71	267	—	—	15	18	59	13	162	155	0.6
Walsall	91,432	3,033	1,630	32.9	17 9	3.22	294	—	41	15	20	61	9	148	176	0.5
Handsworth	59,634	1,424	702	24.0	11.8	1.35	80	—	3	6	14	22	6	29	134	1.6
West Bromwich	67,186	2,265	1,c90	33.8	16.3	1.90	128	—	7	9	6	15	10	81	150	1.5
Birmingham	537,965	16,933	10,666	31.6	19.9	3.42	1,838	—	204	65	127	457	40	945	197	2.7
Kings Norton	66,667	1,885	702	28.4	10.6	0.79	52	—	7	4	5	18	2	10	100	1.7
Smethwick	60,691	1,956	777	32.3	12.0	1.23	74	—	1	5	4	9	7	48	146	3.1
Aston Manor	80,363	2,323	1,203	29.0	15.0	2.97	239	—	17	10	4	57	8	143	184	1.2
Coventry	73,904	2,291	1,130	31.1	15.3	1.69	125	1	—	10	11	48	1	54	138	1.6
Leicester	224,186	5,946	3,244	26.6	14.5	1.97	443	5	32	4	6	88	14	294	167	1.0
Grimsby	66,958	1,954	1,083	29.3	16.2	3.43	230	—	74	3	18	27	13	95	186	1.0
Nottingham	248,811	6,879	4,391	27.6	17.7	2.58	643	12	45	27	70	90	58	341	176	0.8
Derby	120,449	3,285	1,838	27.4	15.3	1.40	169	3	15	4	30	28	7	82	143	0.1
Stockport	97,008	2,560	1,901	26.5	19.7	3.07	297	14	65	21	15	8	10	164	203	0.3
Birkenhead	114,814	3,796	2,249	33.2	19.6	3.71	426	1	103	20	28	84	14	176	181	0.3
Wallasey	60,354	1,673	916	27.8	15.2	2.69	162	—	34	8	12	44	7	57	160	1.5
Liverpool	723,430	24,277	16,296	33.7	22.6	4.65	3,353	1	676	141	193	418	107	1,817	196	3.2
Bootle	61,755	1,921	1,208	31.2	18.0	4.17	257	—	52	13	17	40	2	133	183	3.6
St. Helens	88,545	3,321	1,845	37.6	20.9	4.21	373	3	132	15	21	49	11	142	177	4.9
Wigan	62,800	2.188	1,345	35.0	21.5	2.91	182	1	22	8	3	31	16	101	187	0.5
Warrington	67,331	2,246	1,336	33.4	19.9	4.57	307	4	37	52	4	87	4	119	172	4.6
Bolton	175,744	4,698	2,964	26.8	16.9	2.28	399	1	13	22	28	132	38	165	168	0.5
Bury	58,450	1,386	986	23.8	16.9	2.34	136	3	26	11	7	39	7	43	164	2.1
Manchester	557,938	17,331	11,837	31.3	21.3	3.09	1,726	10	425	82	96	280	69	764	187	1.9
Salford	228,983	7,262	4,837	31.8	21.2	4.37	997	3	253	56	113	141	52	379	192	0.4
Oldham	139,497	3,466	2,531	24.9	18.2	2.31	323	14	66	21	35	38	22	127	156	0.2
Rochdale	85,601	1,946	1,512	22.8	17.7	2.03	174	1	45	14	18	34	7	55	152	2.3
Burnley	100,569	2,657	1,957	26.6	19.5	3.93	393	—	103	13	12	45	19	201	229	1.7
Blackburn	132,134	3,086	2,231	23.4	16.9	2.36	311	—	63	13	11	96	21	107	191	2.8
Preston	115,055	3,223	2,203	28.1	19.2	2.93	336	7	73	6	23	32	31	164	185	3.3
Barrow-in-Furness	59,654	1,893	818	31.8	13.7	1.34	80	—	2	11	4	18	6	39	120	2.7
Huddersfield	94,925	2,243	1,658	23.7	17.5	1.91	181	1	76	10	14	24	8	48	136	1.6
Halifax	107,580	2,143	1,658	20.0	15.5	1.50	162	9	47	23	17	19	10	37	128	1.9
Bradford	285,089	6,276	5,016	22.1	17.6	2.42	690	3	147	44	162	49	48	237	166	0.7
Leeds	450,142	12,562	8,089	28.0	18.0	2.56	1,153	2	343	59	47	209	49	444	175	0.2
Sheffield	432,940	13,802	7.450	32.0	16.8	2.20	949	1	33	87	47	148	50	583	158	2.8
Rotherham	58,498	1,927	922	33.0	15.8	2.39	139	—	36	4	7	13	12	67	163	2.8
York	81,268	2,288	1,315	28.2	16.2	2.81	229	1	13	32	13	22	14	134	172	0.2
Hull	253,865	7,855	4,619	31.0	18.6	3.52	894	5	180	13	63	67	39	527	178	1.1
Middlesbrough	96,684	3,481	1,907	36.2	19.8	2.79	269	—	43	10	12	25	17	162	169	1.4
Stockton-on-Tees	52,192	1,655	914	31.8	14.7	2.57	134	1	26	11	30	23	7	36	149	1.1
West Hartlepool	69,251	2,221	1,068	32.2	14.0	1.97	136	—	13	1	35	49	3	35	132	0.6
Sunderland	151,157	5,194	2,934	25.8	19.5	2.33	353	2	60	3	27	64	32	165	164	3.4
South Shields	107,334	3,644	1,916	34.0	17.9	1.76	188	7	29	7	13	62	8	62	145	5.0
Gateshead	118,067	4,049	2,180	34.4	18.5	2.88	339	34	40	20	14	91	7	133	174	4.0
Newcastle-on-Tyne	225,362	6,864	4,352	30.5	19.4	1.79	402	18	56	25	49	130	10	114	156	0.3
Tynemouth	53,060	1,846	1,017	34.9	19.2	1.93	102	8	30	2	4	7	7	44	154	1.9
Newport (Mon.)	71,543	2,362	1,118	33.1	15.7	1.64	117	—	1	10	18	27	5	66	152	0.4
Cardiff	176,313	5,208	2,608	29.6	14.8	1.80	316	1	64	24	31	60	9	127	146	0.2
Rhondda	122,310	4,860	2,331	39.8	19.1	3.80	466	—	103	21	31	53	43	215	190	0.8
Merthyr Tydfil	72,745	2,761	1,431	38.1	19.7	2.53	184	—	6	19	16	33	16	94	186	0.3
Swansea	95,931	2,998	1,724	31.3	18.0	2.23	214	—	—	14	24	97	5	74	174	1.2

Deaths from Epidemic Diseases in London during the Fourth Quarter of 1904.



Note.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years 1894-1903.

EPIDEMIC MORTALITY IN LONDON

The accompanying diagram shows the prevalence of the principal epidemic diseases during the fourth, or autumn, quarter of last year. The fluctuations of each disease and its relative fatality as compared with the corresponding periods of recent years can thus be readily seen.

Small-Pox.—No fatal case of small-pox was registered in London last quarter, the numbers in the preceding three quarters being 8, 12, and 5. The Metropolitan Asylums Hospitals contained 17 small-pox patients at the end of last quarter, against 74 and 3 at the end of the two preceding quarters; 23 cases were admitted during the quarter, against 252 and 39 in the two preceding quarters.

Measles.—The deaths from measles, which had been 670, 932, and 370 in the three preceding quarters, further declined last quarter to 289, and were 243 below the average number in the corresponding quarters of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in St. Pancras, Finsbury, Shoreditch, Bethnal Green, Bermondsey, Wandsworth, and Lewisham

Scarlet Fever.—The fatal cases of this disease, which had been 81, 81, and 87 in the three preceding quarters, further rose last quarter to 116, but were 59 fewer than the corrected average number Scarlet fever showed the highest proportional mortality last quarter in Hammersmith, Bethnal Green, Stepney, Poplar, Bermondsey, and Woolwich. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,546, 1,599, and 2,127 at the end of the three preceding quarters, had further risen to 2,349 at the end of last quarter; 3,610 new cases were admitted during the quarter, against 2,142, 2,598, and 3,278 in the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 207, 164, and 150 in the three preceding quarters, rose again last quarter to 208, but showed a decline of 360 from the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Paddington, Hammersmith, Bethnal Green, Stepney, Poplar, Wandsworth, and Woolwich. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 786, 681, and 871 at the end of the three preceding quarters, had declined again to 800 at the end of last quarter; 1,566 new cases were admitted during the quarter, against 1,287, 1,316, and 1,614 in the three preceding quarters.

Whooping Cough.—The fatal cases of this disease, which had been 603, 508, and 240 in the three preceding quarters further declined last quarter to 156, and were 115 below the average in the corresponding quarters of the ten preceding years. Among the various metropolitan boroughs whooping-cough was proportionally most fatal in Hammersmith, Fulham, the City of London, Bethnal Green, Southwark, and Bermondsey.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 56, 47, and 90 in the three preceding quarters, further rose to 111 last quarter, but were 141 below the corrected average number. One death from ill-defined pyrexia was recorded during the quarter under notice, but none from typhus. Enteric fever mortality was highest in Stoke Newington, Hackney, Finsbury, Southwark, Bermondsey, and Greenwich. The Metropolitan Asylums Hospitals contained 159 enteric fever patients at the end of last quarter, against 86, 62, and 237 at the end of the three preceding quarters; 315 new cases were admitted during the quarter, against 173, 137, and 383 in the three preceding quarters.

Diarrhoea.—The 338 deaths from diarrhoea in London last quarter were 65 below the average number in the corresponding quarters of the ten preceding years Among the various metropolitan boroughs this disease was proportionally most fatal in Paddington, Fulham, Holborn, Shoreditch, Poplar, and Stepney.

In conclusion, it may be stated that the 1,218 deaths in London attributed to these principal epidemic diseases during the quarter ending December last were more than 45 per cent. below the corrected average number in the corresponding quarters of the ten preceding years. The lowest death-rates from these diseases last quarter were recorded in Kensington, the City of Westminster, St. Marylebone, Hampstead, Hackney, and the City of London; and the highest rates in Finsbury, Shoreditch, Bethnal Green, Poplar, and Bermondsey.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1904.

In the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs, based upon the Registrar-General's returns for the year 1904. The mortality figures relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths occurring in public institutions in London, among the boroughs in which the deceased persons had previously resided. The 129,335 births registered in London during 1904 were equal to an annual rate of 27·9 per 1,000 of the population, estimated at 4,648,950 persons in the middle of last year; this rate was lower than that recorded in any of the ten preceding years, 1894-1903, during which the birth-rate averaged 29·7 per 1,000. Among the various metropolitan boroughs the rates showed the usual wide variations, ranging from 14·8 in the City of London, 16.4 in the City of Westminster, 16·6 in Hampstead, 19.3 in Kensington, 20·9 in Chelsea, and 21.8 in Stoke Newington, to 32·5 in Bermondsey, 32.7 in Poplar, 34.9 in Bethnal Green, 36.4 in Finsbury, and 37·0 in Stepney.

The deaths of persons belonging to London registered last year numbered 74,555, and were in the proportion of 16·1 deaths per 1,000 persons living, against 17·1, 17·2, and 15·2 in the three preceding years; the mean death-rate during the ten years 1894-1903 was 17·9 per 1,000. The lowest death-rates last year among the various metropolitan boroughs were 10.2 in Hampstead, 12·0 in Lewisham, 13.3 in Stoke Newington, 13.4 in Wandsworth, 13.5 in the City of Westminster, and 13·8 in Paddington; while the highest rates were 19·3 in Bethnal Green, 19.4 in Stepney, 20·0 in Bermondsey, 20·1 in Southwark, 20.4 in Shoreditch, and 21·3 in Finsbury.

During the year under notice, 9,906 deaths were referred to the principal infectious diseases; of these, 25 resulted from small-pox, 2,256 from measles, 365 from scarlet fever, 723 from diphtheria, 1,495 from whooping-cough, 286 from enteric fever, 6 from pyrexia of uncertain origin, and 4,750

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1904.

Boroughs.	Estimated Population middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever	Diarrhoea.	Phthisis	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,648,950	129,335	74,555	27.9	16.1	2.14	9,906	25	2,256	365	723	1,495	—	286	6	4,750	7,526	144
Paddington	146,975	3,295	2 017	22 5	13.8	1.56	229	2	40	10	19	16	—	10	—	132	176	136
Kensington	179,236	3,450	2,558	19.3	14 3	1.45	256	1	68	5	17	19	—	6	1	139	257	150
Hammersmith ...	117,412	3,146	1,840	26 9	15.7	2.53	296	—	106	6	22	36	—	5	—	121	161	152
Fulham	152,482	4.905	2,346	32.3	15.4	2.49	379	—	64	4	23	58	—	6	—	224	217	153
Chelsea	74,329	1,547	1,225	20.9	16.5	1.49	110	—	25	6	5	26	—	2	—	46	135	156
City of Westminster ...	177,321	2,898	2,396	16.4	13.5	0.87	153	—	23	9	7	18	—	10	2	84	268	125
St. Marylebone ...	130,337	3,948	2,109	30.4	16.2	1.51	197	—	50	9	14	13	—	3	—	108	218	94
Hampstead	86,663	1,431	884	16.6	10.2	0.66	57	—	17	2	4	8	—	5	—	21	72	113
St. Pancras	235,936	6,116	4,102	26.0	17.4	2.01	474	—	127	27	38	82	—	17	—	183	443	150
Islington	341,044	8,892	5,243	26.2	15 4	1.75	596	1	181	35	29	84	—	18	—	248	526	129
Stoke Newington ...	52,445	1,139	697	21 8	13.3	1.13	59	—	7	3	8	12	—	3	—	25	90	114
Hackney	226,266	6,159	3,360	27.3	14.9	2.13	481	—	76	20	55	55	—	26	—	249	314	142
Holborn	57,161	1,628	1,054	28.6	18.5	1.80	102	2	42	—	4	9	—	4	—	41	163	109
Finsbury	98,958	3,593	2,100	36.4	21.3	2.57	254	3	58	17	16	28	—	9	—	123	236	140
City of London ...	23,482	346	390	14.8	16.7	0.60	14	—	—	1	2	7	—	—	—	4	37	104
Shoreditch	117,033	3,744	2,378	32.1	20.4	3.20	374	2	81	13	18	63	—	8	—	189	254	188
Bethnal Green ...	130,207	4,526	2,530	34.9	19.3	2.95	383	7	90	18	47	52	—	6	1	162	280	157
Stepney	303.791	11,204	5,876	37.0	19.4	2.84	859	3	174	33	90	126	—	30	—	403	642	155
Poplar	169,905	5.543	3,149	32.7	18.6	3.35	568	3	91	24	84	81	—	13	—	272	295	154
Southwark	207,937	6,557	4,169	31.6	20.1	3.13	649	1	191	12	26	118	—	18	1	282	489	174
Bermondsey	129,397	4,192	2,582	32.5	20.0	3.52	456	—	136	18	16	69	—	16	1	200	274	172
Lambeth	310,359	9.059	4,884	29.3	15.8	2.10	650	—	164	16	34	109	—	11	—	316	448	138
Battersea	175,465	4.849	2,541	27.7	14 5	2.02	353	—	59	10	14	59	—	13	—	198	248	147
Wandsworth	257,448	6,928	3,435	27.0	13.4	1.73	448	—	106	14	42	50	—	11	—	225	288	122
Camberwell	268,384	7,242	3.992	27.1	14.9	1.90	509	—	110	17	21	59	—	16	—	246	368	144
Deptford	113,509	3,255	1,823	28.8	16.1	2.46	278	—	76	10	16	49	—	3	—	124	161	145
Greenwich	101,651	2,629	1,455	25.9	14.4	2.26	229	—	40	3	11	56	—	9	—	110	135	142
Lewisham	140,401	3,579	1 681	25 6	12.0	1.41	198	—	25	7	12	37	—	2	—	115	126	123
Woolwich	123,416	3,535	1,763	28.7	14.3	2.40	295	—	29	16	29	56	—	6	—	159	205	135

from diarrhoea. These 9,906 deaths were equal to an annual rate of 2.14 per 1,000, against 2.22, 2.21, and 1.75 in the three preceding years; the average annual rate in the decennium 1894-1903 was 2.47 per 1,000. Among the various metropolitan boroughs the death rates from these infectious diseases ranged last year from 0.60 in the City of London, 0.66 in Hampstead, 0.87 in the City of Westminster, 1.13 in Stoke Newington, 1.41 in Lewisham, and 1.45 in Kensington, to 2.57 in Finsbury, 2.84 in Stepney, 2.95 in Bethnal Green, 3.13 in Southwark, 3.20 in Shoreditch, 3.35 in Poplar, and 3.52 in Bermondsey. Compared with the averages in the ten preceding years, the mortality from each of the principal infectious diseases except diarrhoea showed a considerable decline; diarrhoea was more than 30 per cent. in excess. Of the 25 fatal cases of small-pox recorded during the year, 7 belonged to Bethnal Green, 3 each to Finsbury, Stepney, and Poplar, 2 each to Paddington, Holborn, and Shoreditch, and 1 each to Kensington, Islington, and Southwark. The number of small-pox cases admitted into the Metropolitan Asylums Hospitals during the year was 512, against 1,788 8,455, and 414 in the three preceding years. Measles showed the highest proportional fatality in Hammersmith, Holborn, Shoreditch, Bethnal Green, Southwark, and Bermondsey. Scarlet fever was proportionally most fatal in Finsbury, Bethnal Green, Poplar, Bermondsey, and Woolwich; 11,620 scarlet fever patients were admitted into the Metropolitan Asylums Hospitals during the year, against 14,959, 15,133, and 10,808 in the three preceding years; 3,610 cases remained under treatment at the end of December last, against 3,080, 2,327, and 1,606 at the end of the three preceding years. The greatest proportional mortality from diphtheria occurred in Hackney, Bethnal Green, Stepney, Poplar, and Woolwich; the number of diphtheria patients admitted into the Metropolitan Asylums Hospitals was 5,783 last year, against 9,090, 7,988, and 6,158 in the three preceding years; 800 cases remained under treatment at the end of the year, against 1,369, 927, and 734 at the end of the three preceding years. Whooping-cough was proportionally most fatal in Shoreditch, Poplar, Southwark, Bermondsey, Greenwich, and Woolwich. The highest "fever" death-rates last year were recorded in Hackney, Finsbury, Stepney, Southwark, Bermondsey, and Greenwich; there were 1,008 enteric fever patients admitted into the Metropolitan Asylums Hospitals during last year, against 1,480, 1,806, and 1,247 in the three preceding years; 159 cases remained under treatment at the end of the year, against 105, 210, and 246 at the end of the three preceding years. Diarrhoea showed the highest proportional fatality in Fulham, Shoreditch, Stepney, Poplar, Southwark and Bermondsey.

The deaths from phthisis in London registered during the year under notice numbered 7,526, and were equal to a rate of 1.62 per 1,000, against 1.66, 1.60, and 1.55 in the three preceding years. Among the various boroughs the death-rates from this disease ranged from 0.83 in Hampstead, 0.90 in Lewisham, 1.12 in Wandsworth, 1.20 in Paddington, and 1.33 in Greenwich, to 2.12 in Stepney and in Bermondsey, 2.16 in Bethnal Green, 2.18 in Shoreditch, 2.36 in Southwark, 2.39 in Finsbury, and 2.86 in Holborn. In the central and eastern groups of boroughs the mortality from this disease is much greater than in the other parts of London; thus the rates ranged from 1.44 in the west, 1.50 in the south and 1.55 in the north, to 2.05 in the east, and 2.43 in the central.

Infant mortality in London last year, measured by the proportion of deaths among children under one year of age to registered births, was equal to 144 per 1,000 or 9 per 1,000 less than the average. The lowest rates of infant mortality were 94 in St. Marylebone, 104 in the City of London, 109 in Holborn, 113 in Hampstead, and 114 in Stoke Newington; while the highest rates were 154 in Poplar, 155 in Stepney, 156 in Chelsea, 157 in Bethnal Green, 172 in Bermondsey, 174 in Southwark, and 188 in Shoreditch.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House Surgeon. Salary, £70 per annum.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—(1) House-Physician, (2) Assistant House-Surgeon. Salaries at the rate of £50 and £30 per annum respectively.

CANCER HOSPITAL, Fulham Road, S.W.—Two Assistant House-Surgeons.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon, resident. Salary, £40 per annum.

EDINBURGH: ROYAL VICTORIA HOSPITAL FOR CONSUMPTION, Craigleith.—Resident Physician.

ESSEX AND COLCHESTER HOSPITAL.—Honorary Physician.

GLASGOW DISTRICT ASYLUM, Woodilee, Lenzie.—Junior Assistant Medical Officer, resident. Salary, £125 per annum.

GRAVESEND HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon, resident. Salary, £80 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident House Physicians. Honorarium, £25 each for six months.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Ophthalmic Surgeon.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon, resident. Salary, £40 per annum.

LONDON COUNTY ASYLUM, Cane Hill, Surrey.—Junior Assistant Medical Officer. Salary, £150 per annum.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer for six months, and eligible for senior post. Salary at the rate of £80 and £100 per annum respectively.

MANCHESTER: NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Assistant Physician for Diseases of Children.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—House-Surgeon. £100 per annum. Candidate to state if willing to accept post of Assistant House-Surgeon, salary £75

NORTHAMPTON GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary, £50 per annum.

QUEEN'S JUBILEE HOSPITAL, Earl's Court, S.W.—(1) Honorary Physician for Department of Skin Diseases; (2) Honorary Anæsthetists: (3) House Physician, salary at the rate of £52 per annum.

SEAMEN'S HOSPITAL SOCIETY.—(1) House-Physician; (2) House-Surgeon; (3) Junior Resident Medical Officer; (4) Senior House-Surgeon; (5) House-Surgeon. First three vacancies at Dreadnought Hospital, Greenwich; the other two at the Branch Hospital, Royal Victoria and Albert Docks. Salaries for (1) and (2), £65; (3) £40; (4) £100; and (5) £50 per annum.

SOMERSET AND BATH ASYLUM, Wells.—(1) Senior Assistant Medical Officer: salary, £174, rising to £200 per annum. (2) Second Assistant Medical Officer; salary £130, rising to £160 per annum.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Physician

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

UNIVERSITY COLLEGE.—(1) Assistant Physician to the Hospital; (2) Third Honorary Anaesthetist.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—Physician to Out-patients.

WEST HARTLEPOOL: CAMERON HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Physician. Honorarium at the rate of £75 per num.

APPOINTMENTS.

ATKINSON, J. P., M.D.Glasg., Medical Officer of Health for the Borough of Lynton.

BARNETT, Bertram L. T., M.B., B.C.Camb., Assistant Inspector of Hospitals in Egypt.

CLAYTON-GREENE, W. H., B.A., M.B., B.C., F.R.C.S., Surgeon in Charge of Out-patients at St. Mary's Hospital, Paddington.

COLBORNE, G., M.R.C.S., L.R.C.P., Medical Officer of Health for the Wangford Rural District.

COOMBS, Carey F., M.D., B.S.Lond., Curator of Museum at the General Hospital, Bristol; and Registrar to the Royal Hospital for Sick Children, Bristol.

FARRANT, C., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Taunton District, Somersetshire.

FELDMAN, M., M.R.C.S., L.R.C.P., London County Council Lecturer in Midwifery to Midwives.

GARLICK, J. P., M.B., Ch.B.Vict., Assistant House and Visiting Surgeon at the Stockport Infirmary.

GEDDES, John W., M.B., C.M.Edin., Medical Superintendent of the Middlesbrough County Borough Asylum, *vice* Dr. G. S. Pope.

GLADSTONE, H. B., M.D., Public Vaccinator and Medical Officer to the Guardians for the Sydenham District of the Lewisham Union.

GRÖNE, F., M.B.Lond., D.P.H.Camb., Assistant Medical Officer of Health in Hong Kong, *vice* B. L. T. Barnett, M.B., B.C.Camb., resigned.

HANNA, G. H., M.B., Ch.B.Edin., District Medical Officer of the St. Thomas Union.

LEAF, Cecil H., F.R.C.S., Honorary Surgeon to the Cancer Hospital, London, *vice* Dr. H. Snow, resigned.

MCDADE, C. E., M.D., District Medical Officer of the Wandsworth Union.

MAWSON, S. F., M.R.C.S., L.R.C.P., District Medical Officer of the Bolton Union.

MILES, W. E., F.R.C.S., Honorary Surgeon to the Cancer Hospital, London, *vice* Dr. Purcell, resigned.

NASH, J. T. C., M.D., D.P.H., Medical Officer to the Southend-on-Sea Education Authority.

NELSON, Philip, M.D.Vict., M.D.Liverpool, Honorary Assistant Physician and Laryngologist, Liverpool Chest Hospital.

PALMER, G. F., L.S.A., District Medical Officer of the Holborn Union.

PARTRIDGE, S., M.D.Edin., Certifying Factory Surgeon for the Wednesbury District, Staffordshire.

PERCIVAL, A. P., M.B., C.M.Edin., Medical Officer of Health for the Knottinglev Urban District.

ROGERSON, O. H., L.S.A., Certifying Factory Surgeon for the Osmotherley District, Yorkshire.

SANKEY, Julius Ivor, M.R.C.S., L.R.C.P., L.S.A., Medical Officer of the South District of the Great Yarmouth Union, vice H. Collier, M.D., resigned.

SERGEANT, J. N., M.R.C.S., L.R.C.P., Assistant Medical Officer, St. George's Union Infirmary.

SERPELL, H. H., M.R.C.S., L.R.C.P., District Medical Officer of the Launceston Union.

SHELDON, E. H., L.R.C.P. & S.Edin., District Medical Officer of the Selby Union.

SHEPPARD, A. Lewin, M.B., B.S.Durh., Casualty Officer to the Bristol Royal Infirmary.

SPEIRS, H. M., M.D.Edin., District Medical Officer of the Depwade Union.

THOMSON, StClair, M.D., F.R.C.P., F.R.C.S., Physician for Diseases of the Throat in King's College Hospital.

TIERNEY, T., M.B., Ch.Vict., District Medical Officer of the Stockport Union.

TYLOR, M. F., M.B., B.Ch.Oxon., District Medical Officer of the Wisbech Union.

WANKLYN, Wm. McConnel, M.R.C.S., L.R.C.P.Lond., D.P.H., Assistant Medical Officer in the Public Health Department of the London County Council.

WILLIAMS, Leonard, M.D.Glasg., M.R.C.P.Lond., Honorary Physician to the French Hospital and Dispensary, London.

WINGFIELD-TRACY, Humphrey, L.D.S., Honorary Dental Surgeon to the West Suffolk General Hospital.

WORRALL, E. S., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer in charge of the new Electro-therapeutic Department, University College Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

HARTHAN.—On March 9th, at Tower House, Stretford, Manchester, the wife of H. D. Harthan, M.R.C.S., L.R.C.P., of a daughter.

KENDALL.—On March 6th, at Chiddingfold, Surrey, the wife of Nicholas Fletcher Kendall, M.R.C.S.Eng., L.R.C.P.Lond., prematurely, of a daughter, stillborn.

MOSS-BLUNDELL.—On March 12th, at 51, Moffatt Road, Thornton Heath, the wife of C. B. Moss-Blundell, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

SHUTTE.—On March 1st, at Rose Court, Walton-on-Thames, the wife of Malcolm W. Shutte, M.A.Cantab., M.R.C.S., L.R.C.P., of a son.

SOWRY.—On March 12th, at King Street, Newcastle, Staffordshire, the wife of George H. Sowry, M.B., B.S., F.R.C.S., of a daughter.

WHEATLEY.—March 12th, at Irwell House, Paley Road, Bradford, the wife of A. J. Wheatley, M.D., of a daughter.

MARRIAGE.

WALKER—GOADBY.—On March 9th, at St. Marylebone, by the Rev. W. Perowne Holmes, Vicar of St. Peter's, Leicester, assisted by Canon Barker, Robert Alexander Walker, B.A., M.B.Cantab., third son of Thomas James Walker, M.D., J.P., of Peterborough, to Ethel Ernestine, youngest daughter of Major Goadby (Inspector Ret. Army Schools), of Staidburn, Lancashire.

DEATHS.

CROUCHER.—On January 31st, at Malacca Straits Settlements, Ada Nellie, wife of F. B. Croucher, M.B., Colonial Surgeon, Malacca.

HALSE-FRANCIS.—On December 27th, 1904, suddenly, Ferdinand Henry Halse-Francis, M.D.Durh., M.B., B.S., L.S.A., of Victoria Lodge, West Norwood, and Kaikoura, Marlborough, New Zealand, aged 41 years.

SPENCE.—At Rio Janeiro, on March 10th, Basil Alexander Spence, M.B., Ch.B.Edin., eldest son of Robert Spence, M.B., Burntisland, aged 27.

DIARY FOR NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: Congenital Hypertrophic Stenosis of the Pylorus, and some other rarer Disorders of Children, by Professor Clinton T. Dent.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Chelsea Dispensary, Manor Street, Chelsea, S.W., 8.30 p.m.—Annual Clinical Debate on Chronic Constipation and its Medical and Surgical Treatment

PATHOLOGICAL SOCIETY OF LONDON, Royal Army Medical College, Examination Hall, 5 p.m.—Major W. B. Leishman, R.A.M.C.: Some Experiments in connexion with Stimulins. Mr. L. S. Dudgeon: Enteric Bacillus from Bone Abscess. Dr. C. F. Selous: Physical Method of Estimating Fibrin. Major Leishman: Demonstration of Cultural Forms of the Leishman Body.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Goulstonian Lecture: Some Considerations on the Nature of Diabetes Mellitus, by Dr. W. C. Bosanquet.

THERAPEUTICAL SOCIETY, Apothecaries' Hall, Blackfriars, E.C., 4 p.m.—Papers:—Dr. J. Burnet: The Therapeutics of Aspirin and Mesotan. Dr. Hutchison: The Treatment of Graves's Disease by Iodo-ether Injections.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Discussion upon Influenza, to be opened by Professor Clifford Allbutt; to be followed by a paper by Dr. Franklin Parsons on Causes of Influenza.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: Congenital Hypertrophic Stenosis of the Pylorus, and some other rarer Disorders of Children, by Professor Clinton T. Dent.

THURSDAY.

NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION, 20, Hanover Square, 4.30 p.m.—Annual General Meeting, the Earl of Derby in the chair.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Goulstonian Lecture: Some Considerations on the Nature of Diabetes Mellitus, by Dr. W. C. Bosanquet.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, London, 8.30 p.m.—The following papers will be read:—Mr. Douglas Drew: Three Cases of Stenosis of the Ureter. Dr. Norman Walker and Mr. A. D. Reid, M.R.C.S.: Examination of the Stomach by aid of the X Rays and a Tube Filled with Subnitrate of Bismuth. Mr. Arthur E. Barker: Two Cases illustrating the Condition of the Small Intestine Some Years after Extensive Enterectomies. Sir Dyce Duckworth and Mr. C. W. H. Howell, M.B.: A Case of Streptococcal Pachymeningitis.

EXAMINATION HALL, VICTORIA EMBANKMENT, W.C.—Medical Conference on the Teaching of Hygiene and Temperance, 5 p.m., Sir William Broadbent in the chair. Addresses by Sir Victor Horsley, Dr. Robert Jones, Sir Thomas Barlow, and Mr. McAdam Eccles.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture: Congenital Hypertrophic Stenosis of the Pylorus, and some other rarer Disorders of Children, by Professor Clinton T. Dent.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Oro- and Laryngo Pharynx.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Mitral Stenosis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Constipation and its Consequences in Infancy and Childhood.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5 15 p.m. each day will be given as follows:—Monday, Tuberculous Diseases of Joints, their Diagnosis and Treatment; Tuesday, Reflexes; Wednesday, Murmurs in the Chest not due to Heart Disease; Thursday, Some Surgical Observations on Referred and Reflected Pain.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., The Surgical Treatment of Empyema.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—Tuesday, 4 30 p.m., Intestinal Obstruction; Friday, Lecture-demonstration on Anaesthetics.

POST-GRADUATE COLLEGE, WEST LONDON HOSPITAL, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Practical Surgery; Tuesday, Surgical Cases; Wednesday, Thursday, Friday, Small-pox and Vaccination, illustrated by Lantern Slides.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Thursday, 3 p.m., Appendicitis in Women.

BOOKS, ETC., RECEIVED.

Le Tube Contourné du Rein. Par le Dr. Francis Rathery. Paris: G. Steinheil. 1905.

Nouveau Traité de Médecine et de Thérapeutique. Publié en fascicules sous la direction de MM P. Brouardel et A Gilbert. I. Maladies Microbiennes en Général. Par Paul Carnot. Paris: J. B. Baillière et Fils. 1905. Fr.4.

The Modern Mastoid Operation. By Frederick Whiting, A.M., M.D. London: Rebman Limited. 1905. 27s. 6d.

Shakspeare: "Testimonied in His Own Bringingsforth." By Henry Maudsley, M.D., F.R.C.P. London: John Bale, Sons and Danielsson, Limited. 1905.

Le Coryza Syphilitique. Rhino-pharyngite Purulente Septico-pyohémique chez les Nouveau-nés Syphilitiques. Par M. le Dr. Paul Gastou. Paris: O. Doin. 1904. Fr.2.

La Scrofule. Par M. le Dr. Paul Gastou. Paris: O. Doin. 1904. Fr.3.

Hygiène et Pathologie Cutanées du Premier Age. Par le Dr. Paul Gastou. Paris: O. Doin. 1905. Fr.4.

The Influence of Growth on Congenital and Acquired Deformities. By Adoniram Brown Judson, A.M., M.D. New York: William Wood and Co. 1905.

An Atlas of Dermatology. By Morgan Dockrell, M.A., M.D.Dub. London: Longmans, Green and Co. 1905. 50s.

Greek Self-taught (Modern), with Phonetic Pronunciation (Thimm's System). By Nicolaos Anastassiou. London: E. Marlborough and Co. 1904. 2s. 6d.

The King's Coroner; being a Complete Collection of the Statutes relating to the Office, together with a Short History of the same. By R. Henslowe Wellington. London: William Clowes and Sons, Limited. 1905. 10s. 6d.

How to Help the Feeble Minded. No. II—Powers of Education Authorities, Boards of Guardians: Cost of Founding and Maintaining Homes. London: National Association for the Feeble Minded. 1904. 2d.

An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology. Fasciculus XXI, or XIII of New Series—Sarcoma Melanodes of Hebra. Plates CXXXV to CXXXVI. Illustrations of Ringworm, Pityriasis, etc. Plates CXXXVII to CXLII. London: H. K. Lewis. 1904. 10s. 6d.

Abdominal Pain: its Causes and Clinical Significance. By A. Ernest Maylard, M.B., B.S.Lond. London: J. and A. Churchill. 1905. 7s. 6d.

Bibliothek v. Coler. Herausgegeben von O. Schjerning. Band 5. Leitfaden der kriegschirurgischen Operations und Verbandstechnik. Von Dr. Hermann Fischer. Zweite Auflage. Berlin: August Hirschwald. 1905. Mk.4.

The Case for Partnership Assurance. By T. P. Wansbrough. Preface by J. V. Vesey Fitzgerald, K.C. London: Charles and Edwin Layton. 1905. 1s. 6d.

To Windward: The Story of a Stormy Course. By Henry C. Rowland. London: David Nutt. 1905. 6s.

Hossfeld's New Practical Method for Learning the German Language. By C. Brenkmann. Revised and enlarged by Louis A. Happe. New edition. London: Hirschfeld Brothers, Limited. 1905. 3s.

Portuguese Self-Taught (Thimm's System). By E. da Cunha. London: E. Marlborough and Co. 1904. 2s. 6d.

A Textbook of Physiological Chemistry. By Charles E. Simon, M.D Second edition. London: J. and A. Churchill. 1905. 14s.

Five Years' Medical Work on Lake Nyasa. By Robert Howard, M.B., B.Ch.Oxon. London: The Universities Mission to Central Africa. 1904. 2s. 6d.

Lungenschwindsucht und Nervensystem. Von Dr. F. Jessen. Jena: Gustav Fischer. 1905. M. 2.

St. Bartholomew's Hospital Reports. Edited by A. E. Garrod, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xl. London: Smith, Elder and Co. 1905. 8s. 6d.

Transactions of the American Gynecological Society. Vol. xxix. For the year 1904. Philadelphia: William J. Dornan. 1904.

Transactions of the Twenty-sixth Annual Meeting of the American Laryngological Association, held at Atlantic City, New Jersey, June 2nd, 3rd, and 4th, 1904. New York: American Laryngological Association. 1904.

Proving Our Case: A Scientific Exposition of the Nature and Effects of Alcohol. By Walter N. Edwards, F.C.S. Introduction by Professor G. Sims Woodhead, M.A., M.D. Manchester: "Onward" Publishing Office, Limited, and London: S. W. Partridge and Co. 1905. 2s.

The Motoring Annual and Motorist's Year Book for 1905. First edition. London: "Motoring Illustrated." 5s.

A Scheme for the Promotion of Scientific Research. By Walter B. Priest. London: Stevens and Sons, Limited. 1905.

Peat and its Products as a National Source of Wealth. By W. A. Kerr, V.C. Glasgow: Begg, Kennedy, and Elder. 6s.

First Annual Report of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis. February 1st, 1903, to February 1st, 1904. Philadelphia: Henry Phipps Institute. 1905.

König's Lehrbuch der Chirurgie für Aerzte und Studirende. Band IV, Allgemeine Chirurgie. Zweite Auflage. Von Dr. Otto Hildebrand. Berlin: August Hirschwald. 1905. M. 21.

Hossfeld's Dutch Dialogues. New edition. Thoroughly revised by J. M. Schnitzler. London: Hirschfeld Brothers, Limited. 1904. 1s.

Hossfeld's New Practical Method for Learning the Dutch Language. By J. M. Schnitzler. London: Hirschfeld Brothers, Limited. 1902. 4s.

In Watchings Often: Addresses to Nurses and Others. By the Rev. E. E. Holmes. Preface by the Right Rev. the Lord Bishop of Lincoln. London: Longmans, Green, and Co. 1905. 2s. 6d.

Die Infektionskrankheiten rücksichtlich ihrer Verbreitung, Verhütung und Bekämpfung. Kurzgefasstes Lehrbuch für Militärärzte, Sanitätsbeamte und Studierende der Medizin. Von Oberstabsarzt Dr. Ludwig Kamen. Wien: Josef Safár. 1905. K. 1.80 = Mk 1.50.

Les Processus Généraux. Tome Second. Par MM. A. Chantemesse and W. W. Podwyssotsky. Paris: Masson et Cie. 1905. Fr. 22.

The Medical Annual: A Yearbook of Treatment and Practitioners' Index. 1905. Twenty-third year. Bristol: John Wright and Co. 7s. 6d. With stereoscope, fixed prismatic glass, 2s.; adjustable lenses, 2s. 6d.

Infantile Mortality and Infants' Milk Dépôts. By G. F. McCleary, M.D., D.P.H. London: P. S. King and Son. 1905. 6s.

Liverpool School of Tropical Medicine. Memoir XIV. Report on the Sanitation and Antimalarial Measures in Practice in Bathurst, Conakry, and Freetown. By Rubert Boyce, M.B., F.R.S., Arthur Evans, M.R.C.S., L.R.C.P., and H. Herbert Clarke, M.A., B.C.Cantab. February, 1905. London: Williams and Norgate.

Bericht der Rettungsgesellschaft "Samariter-Verein zu Leipzig" auf das dreiundzwanzigste Vereinsjahr. 1904. Leipzig: F. Gröber. 1905.

Studies in General Physiology. By Jacques Loeb. The Decennial Publications of the University of Chicago. Second Series. Vol. xv. Parts I. and II. Chicago: The University of Chicago Press; and London: T. Fisher Unwin. 1905. £1 11s. 6d.

Cold Catching: Cause and Cure. By G. W. Bacon, F.R.C.S. Revised by W. T. Ferbie, M.D. Second Edition. London: G. W. Bacon and Co., Limited. 1905.

Health at School Considered in its Mental, Moral, and Physical Aspects. By Clement Dukes, M.D., B.S.Lond. Fourth Edition. London: Messrs. Rivington. 1905. 10s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
March	19...Sunday..	
,,	20...Monday ...	
,,	21...Tuesday ...	North Wales Branch, Special General Meeting, Llandudno Junction Hotel, 2 p.m.
,,	22...Wednesday	London: Medico-Political Committee, 2 p.m. ,, Chairmen of Committees (Standing Orders), 4 p.m. Brighton Division, *South-Eastern Branch*, Dispensary, 11, Queen's Road, Brighton, 4.30 p.m. Liverpool (Northern) Division, *Lancashire and Cheshire Branch*, Dr. Richardson's, 128, Shell Road, 8.30 p.m. South Eastern of Ireland Branch, Kilkenny.
,,	23...Thursday...	London: Medical Defence Committee, 3.30 p.m. City Division, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C. 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Town Hall, 8.45 p.m.
,,	24...Friday ...	
,,	25...Saturday...	
,,	26...Sunday..	
,,	27...Monday ...	
,,	28...Tuesday ...	West Somerset Branch, Spring Meeting, Taunton and Somerset Hospital, 3.30 p.m.
,,	29...Wednesday	Westminster Division, *Metropolitan Counties Branch*, 20, Hanover Square W., 4.30 p.m.
,,	30...Thursday...	London: Hospitals Committee, 2.45 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m. Central Division, *Birmingham Branch*, Medical Institute, 4 p.m. Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m.
,,	31...Friday ..	Border Counties Branch, Infirmary, Whitehaven. Reigate Division, *South-Eastern Branch*, Laker's Hotel, Redhill, 5 p.m.
April	1...Saturday ...	
,,	2...Sunday..	
,,	3...Monday ...	
,,	4...Tuesday ...	
,,	5...Wednesday	Notices of Motion for Quarterly Council Meeting must be given on or before this day. Ulster Branch, Belfast.
,,	6...Thursday...	East Anglian Branch, Suffolk Hotel, Bury St. Edmunds.
,,	7...Friday ...	London: Ethical Committee, 2 p.m ,, Annual Meeting (Sections) Committee, 5 p.m.
,,	8...Saturday...	
,	9...Sunday..	
,,	10...Monday ...	
,,	11...Tuesday ...	London: Organization Committee, 10.30 a.m.
,,	12...Wednesday	,, Journal and Finance Committee.
,,	13...Thursday...	
,,	14...Friday ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...Saturday...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of Journal should be posted to-day.
,,	16...Sunday..	
,,	17...Monday ...	
,,	18...Tuesday ...	London: Premises and Library Committee.
,,	19...Wednesday	,, Central Council, 11 a.m.
,,	20...Thursday...	
,,	21...Friday ...	*Good Friday.*

Month.	Day of Week.	Meetings to be Held.
April	22...Saturday...	Notices of Motion for Annual Representative Meeting appear in Journal.
,,	23...Sunday..	
,,	24...Monday ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...Tuesday ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...Wednesday	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...Thursday...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...Friday ...	Dundee District Branch, Clinical Meeting, Dundee Royal Infirmary, 4 p.m.
,,	29...Saturday...	List of Members closed for publication.
,,	30...Sunday..	
May	1...Monday ...	
,,	2...Tuesday ...	
,,	3...Wednesday	
,,	4...Thursday...	
,,	5...Friday ...	
,,	6...Saturday...	
,,	7...Sunday..	
,,	8...Monday ...	
,,	9...Tuesday ...	London: Organization Committee.
,,	10...Wednesday	
,,	11...Thursday...	
,,	12...Friday ...	
,,	13...Saturday...	
,,	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	
,,	17...Wednesday	
,,	18...Thursday...	
,,	19...Friday ...	
,,	20 . Saturday ..	
,,	21 Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences.
,,	24...Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Divsion, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26...Friday ...	
,,	27 . Saturday...	
,,	28 ..Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 25TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
NOTICES OF MOTION	121
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25TH, 1905	122
MEETINGS OF BRANCHES AND DIVISIONS:	
Bermuda Branch	122
Border Counties Branch: Scottish Division	122
Lancashire and Cheshire Branch: Liverpool (Western) Division	122
" Southport Division	122
South-Eastern Branch: Croydon Division	122
Yorkshire Branch: Bradford Division	123
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	123
BRITISH MEDICAL ASSOCIATION: SEVENTY-THIRD ANNUAL MEETING	124
CENTRAL MIDWIVES BOARD	125
VITAL STATISTICS	126
NAVAL AND MILITARY APPOINTMENTS	126
VACANCIES AND APPOINTMENTS	126
BIRTHS, MARRIAGES, AND DEATHS	127
DIARY OF THE WEEK	127
BOOKS RECEIVED	127
CALENDAR	128

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICES OF MOTION.

THE following additional notices of motion have been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

[*Notices previously received were published in the* SUPPLEMENT *of February 25th, page 57, March 4th, page 73, and March 18th, page 105.*]

By the BRADFORD DIVISION (Yorkshire Branch):

A. That it is desirable to so alter By-law 2 that the Council of the Association shall, on the application of any Division with over fifty members, relegate the power of election of members to that Division; but that right of appeal to the Council shall be reserved to candidates for membership rejected by the Division.

B. That the present state of the official *Medical Register* is unsatisfactory, as it is open to considerable error, and that steps be taken to remedy this defect.

C. That the Council be instructed to transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such Divisions and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available.

By the MANCHESTER (WEST) DIVISION (Lancashire and Cheshire Branch):

1. That this meeting is of opinion that the Association would be benefited by more frequent Council meetings, to be held alternately in London and the provinces; and that the Articles and By-laws should be so altered that this resolution be carried into effect forthwith.

2. That the interests of the public and the profession equally demand that dual hospital appointments of a similar character shall not be held by any one physician or surgeon.

GUY ELLISTON, *General Secretary.*

March 23rd.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER. JULY 25, 1905.

THE Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th, at 6 p.m.—in a room to be set apart for the purpose.

The Chairmen of Committees are invited to refer to this conference any special matters on which they would like the opinion of the Branch and Division Secretaries. All matters so referred must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BERMUDA BRANCH.

A MEETING of this Branch was held in the City Hall, Bermuda, on January 15th, Dr. CHARLES H. BUTTERFIELD, President, in the chair. There were also present Colonel Rainsford, P.M.O., R.A.M.C., Drs. W. E Tucker, D. C. Trott, E C. Wilkinson, T. M. Allan, John Cann, John Gilbert, Major Cockerill, R.A.M.C, and Mr. Eldon Harvey.

The Registration of Medical Practitioners.—A draft of a Bill to be introduced into the Legislature during the next session with a view to the better registration of medical practitioners in these islands was discussed. The Bill was a transcript of an Act now in force in the Colony of Barbados.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.

A MEETING of this Division was held in the Maxwell Arms Hotel, Dalbeattie, on Friday, March 10th, Dr. MAXWELL ROSS in the chair.

Matters Referred to Divisions.—The various matters referred to the Divisions were discussed.

Paper.—Dr. CLARKE (Dumfries) read a paper on the nature and treatment of Bright's disease.

Dinner.—The members present afterwards dined together.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL (WESTERN) DIVISION.

A MEETING of this Division was held at the Liverpool Medical Institution on March 10th, Dr. JAMES BARR in the chair.

Matters Referred to Divisions.—The Subcommittee *re* Local Government Draft Bill[1] reported. The Division agreed to the Draft Bill without amendment. The Medical Acts Amendment Draft Bill (as printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904) was then considered and agreed to with the following amendments: Part II, 6—Power to Pension Officers of Council: The Division considers that for this purpose a superannuation fund should be formed to which all officials entitled to a pension should contribute, and the pension should be determined according to a fixed scale, and not depend upon a possible chance vote of the Council. Part III, 8 (3): The Division considers that a fee of 5s would be sufficient for transferring the name of a student from one part of the register to another. Part III, 11—Annual Registration Fee: It appears to the Division that the annual income of the Medical Council, if the Bill as it stands became law, would amount to something like £35,000 a year. The Division is of opinion that such an income is much larger than would be required by the Council, and therefore suggests that the amount of the annual registration fee should be so arranged as to yield an income sufficient for the requirements of the Council. Part III, 11 (3): The Division is of opinion that it would be highly desirable that the Medical Council should come into an income sufficient for the purposes of this Act as speedily as possible, and therefore recommends that those only should be exempt from the annual registration fee who have not yet completed five years of registration. This section should further cease after the word "Act" in the third line, and the rest should be embodied in a separate subsection; also the words "private practice" should, for the purpose of this and other sections of the Act, be clearly defined. Volunteer officers holding His Majesty's commission, and a volunteer medical officer might also be a medical officer of health, and as such might claim that he was not engaged in private practice and therefore exempt from paying the annual registration fee. Private practice must therefore be defined so as to include medical officers of health, medical officers of public institutions, including residents and others engaged in public medical practice. Part III, 11 (5): At the end of the last line add the words "if any." Part III, 12: The Division is unable to understand why this does not apply to medical practitioners as well as to dentists. Part V, 21: Delete in lines 4 and 6 the words "or misdemeanour." Part V, 21 (4): The Division does not understand what is meant by "a court of competent jurisdiction." Part V, 23 (2): In line 3 there is a typographical error, "physical" instead of "physician." Part V, 28: After the words General Council, insert the words "or other prosecutor." Part V, 29: Add the words "or in the event of the Council declining to do so by a medical body or a private person." The Division is strongly of opinion that this addition is necessary in order to keep the Medical Council up to its duties. Part VI: A carefully-worded definition of "private practice" should be inserted; see Part III, 11 (3).

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 18th, 1905, p. 51, col. 1, lines 5 to 7.

ERRATUM.—Page 50 of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of February 18th, 1905, column ii, proposition 7, line 4: omit the word "unless."

SOUTHPORT DIVISION.

AN adjourned meeting of this Division was held at the Temperance Institute, London Street, Southport, on March 14th, Dr. RUSSEL, President, in the chair.

Matters referred to Divisions.—The memorandum on the payment of medical practitioners called in to assist midwives was considered. The conclusions arrived at have been transmitted to the Medico-Political Committee. The memorandum respecting hydropathic and similar establishments was considered and it was resolved unanimously:

> That this Division is of opinion that a definite pronouncement should be made by the Representative Meeting on behalf of the Association to the same effect as the opinion of the Committee, namely, that members of the profession who act as medical officers of hydropathic and similar establishments should make it a condition of their engagement that their names should not be inserted in any advertisements of such institutions except advertisements in medical journals, but the Division doubts whether good will result from this pronouncement unless condemnation of the practice is obtained from the General Medical Council.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.

A MEETING of this Division was held at the Greyhound Hotel, Croydon, on March 16th, Dr. W. ROSSER in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Next Meeting.—It was arranged to hold the next meeting at the Croydon General Hospital on May 18th. Dr. Wayte was elected Chairman.

Matters Referred to Divisions.—The memorandum on the payment of medical practitioners called in to assist midwives was considered. Resolutions in answer to the questions referred to the Division were adopted. Drs. SWAN, ADDISON, SCUDAMORE, GEORGE, HUGO, MEREDITH RICHARDS, PARSONS, SMITH, and MAGAN, took part in the discussion.

Vote of Sympathy with Dr. Owen Fowler.—Dr. St. G. REID proposed that a vote of sincere sympathy be accorded to Dr. Owen Fowler on the unfortunate position in which he had recently been placed, and the hearty congratulations of members be given to him on the successful result of the case. Dr. Reid pointed out that Dr. Fowler had not only vindicated his own honour, but also that of the medical profession, and throughout had displayed dignity and courage. The pro-

posal was seconded by Dr. DUNCAN and enthusiastically adopted.

Papers.—Papers were read by Dr. DUNDAS GRANT on some practical points in the treatment of diseases of the throat, ear, and nose, and by Mr. KELLOCH on intussusception.

Dinner.—After the meeting twenty-five members dined together.

YORKSHIRE BRANCH:
BRADFORD DIVISION.

A GENERAL meeting of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, March 14th, at 8.30 p.m. Dr. MOSSOP, Chairman, presided.

Confirmation of Minutes.—The minutes of the last meeting were read and adopted.

Supplementary Grants Fund.—Dr. METCALFE proposed the readoption of the resolution on a Supplementary Grants Fund as printed in the BRITISH MEDICAL JOURNAL of April 23rd, 1904, and that the Representative of the Division should be instructed to bring the question forward at Leicester. Dr. GOYDER seconded. Drs. HORROCKS, ARNOLD EVANS, CROWLEY, and BAMPTON discussed the matter, which was adopted.

Election of Members by Divisions.—Dr. METCALFE brought forward the following resolution to be proposed at the Representative Meeting:

> That it is desirable to so alter By-law 2 that the Council of the Association may, on the application of any Division with over fifty members, relegate the power of election of members to that Division; but that right of appeal to the Branch Council shall be reserved to candidates for membership rejected by the Division.

Mr. HORROCKS seconded. Drs. BRONNER, GOYDER, HIME, ARNOLD EVANS, PARKINSON, and MITCHELL discussed the question. It was suggested that the word "may" in line 2 should be changed to "shall," and that the word "Branch" in line 4 should be deleted. Dr. Metcalfe accepted these suggestions, and the resolution, on being put to the meeting, was adopted unanimously.

Medical Register.—Mr. HORROCKS proposed that the following resolution, adopted by the Division on October 11th, 1904, should be brought before the Representative Meeting:

> That the present state of the official *Medical Register* is unsatisfactory, as it is open to considerable error, and that steps be taken to remedy this defect.

Dr. HIME seconded. Adopted *nem. con.*

Matters Referred to Divisions.—Dr. EAMES (in the place of Dr. Campbell, who was unable to be present) proposed that the Division adopt the "recommendations of the Medico-Political Committee in connexion with the National Deposit Friendly Society," as printed in the SUPPLEMENT of January 14th, 1905. Dr. GOYDER seconded, and the meeting unanimously agreed to it. Dr. HIME proposed and Dr. ARNOLD EVANS seconded that a copy of the resolutions should be sent to medical men in the Division not members of the Association. This was adopted.—The interim report on contract practice was then considered. Dr. MITCHELL proposed and Dr. METCALFE seconded that the propositions contained in the report should be approved of by the Division. Dr. HIME considered the proposals impracticable. Dr. PARKINSON also thought the proposals impracticable, and suggested an amendment to the effect "that the only way to deal with contract practice was to make it unprofessional." Dr. O'BRIEN seconded this. This was negatived.—Dr. HIME proposed that Clause 3A should be deleted from the propositions. Dr. PARKINSON seconded. Dr. MITCHELL opposed it. This was also negatived. The proposals were then adopted.—The report on consultation of medical witnesses in legal cases was then considered. Dr. HIME took exception to some of the details, which the Representative promised to bring before the Representative Meeting.

Next Meeting.—The meeting then adjourned. It was left to the Chairman and Secretaries to fix a date for a further meeting to consider other questions which would be brought before the Representative Meeting.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Association Notices.

COUNCIL MEETING.

THE Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at **11** o'clock in the forenoon of Wednesday, April 19th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

March, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting will be held at the Medical Institute, on Thursday, March 30th, at 4 p.m. Business: (1) To consider a scale of fees for assistance in midwives' cases. (2) The National Deposit Friendly Society; Public Health Bill; Revaccination Bill (SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 14th). (3) Ambulance work (SUPPLEMENT, February 4th). (4) Advertising names of practitioners in connexion with hydropathic establishments, etc. (SUPPLEMENT, February 18th). (5) Notices of motion for Representative Meeting (SUPPLEMENT, February 25th, and SUPPLEMENT, March 4th). Members are requested to bring the above-mentioned SUPPLEMENTS with them, and also any further SUPPLEMENTS that may be issued before the date of meeting, containing matters referred to the Division. They are particularly requested also to note the date of the meeting, as on this occasion individual notices will not be sent out.—E. D. KIRBY, M.D., Hagley Road, Birmingham, Honorary Secretary.

BORDER COUNTIES BRANCH.—A general meeting of this Branch will be held at the Infirmary, at Whitehaven, on March 31st. The Branch Council have invited the Medical Secretary of the Association, Mr. J. Smith Whitaker, to be present, and he will give an address on Some Medico-political Matters referred to the Divisions. Any gentlemen having cases of clinical or pathological interest which they would be willing to show, are requested to communicate at their convenience with the Secretary, FRANCIS R. HILL, 62, Warwick Road, Carlisle.

DUNDEE DISTRICT BRANCH.—An ordinary meeting of this Branch will be held in the Students' Union, Dundee (entrance from Small's Wynd), on Thursday, March 30th, at 8.30 p.m., to receive motions to be referred to the Representative Meeting and other business. A clinical meeting of this and other Scottish Branches will be held in the Royal Infirmary, Dundee, on Friday, April 28th, at 4 o'clock. Members and visitors will dine together at the close of the meeting.—R. C. BUIST and A. P. LOW, Joint Honorary Secretaries.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the Suffolk Hotel, Bury St. Edmunds, on Thursday, April 6th. Members wishing to read papers or show cases or specimens should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON Honorary General Secretary, East Lodge, Colchester.

LANCASHIRE AND CHESHIRE BRANCH; NORTH MANCHESTER DIVISION.—A meeting of this Division will be held on Thursday, March 30th, at the Palatine Hotel, Manchester, to consider matters referred to the Divisions and other business.—R. G. MCGOWAN, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—Quarterly meeting. Notice is hereby given that a general meeting will be held at 5 o'clock on Thursday, March 30th, at the Brooklands Hotel. (There will be a Committee meeting at 4.30 p.m., same day and place.) Agenda: (1) Minutes of meeting of February 9th. (2) Correspondence, etc. (3) Report of Committee and recommendations: (*a*) That notice of motion be officially given to rescind Resolution 66 of the Annual Representative Meeting at Oxford; (*b*) that notice of motion be officially given to amend By-law 17 of the Association by omitting the words "per member," and by adding words to enable an appeal to lie from a Division to the Central Council; (*c*) That the rest of the Committee's report be adopted, including particularly the decisions as to expenditure. (4) Consider matters already published in the SUPPLEMENTS to the BRITISH MEDICAL JOURNAL: (*a*) Abuse of drugs; (*b*) February 4th, ambulance work; (*c*) February 18th, hydropathics; (*d*) February 25th, notices of motion; (*e*) March 4th, notices of motion; (*f*) March 11th, death registration; (*g*) and other matters published on March 18th. (5) Representation on Branch Council. (6) Scientific papers (if any). (7) Any other business. Important notice.—The recommendations as to the National Deposit Friendly Society, published by the Medico-Political Committee in the SUPPLEMENT of January 14th, were adopted by the Special Meeting of this Division on February 9th, and are now binding on all members; similarly, the propositions as to contract practice; similarly, the considerations as to furnishing information to coroners. Whilst all members are most earnestly invited to attend, it is pointed out particularly to those resident in Sale and Ashton, that if they do not sufficiently support the local meetings, it may be necessary to diminish the number held at Brooklands. The annual meeting is fixed for June 22nd at Altrincham. The Committee will, as usual, then submit a list of recommendations for officers and committee for 1905-6; but any member is entitled to nominate, and such independent nominations may be sent to me now at any time, and will duly appear on the ballot paper. A dinner will be held at 7 p.m., on March 30th, at the Brooklands Hotel, on the usual terms. Those intending to dine should notify the Honorary Secretary as soon as possible, and in any case not later than Monday, March 27th.—T. W. H. GARSTANG, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—An ordinary meeting of the Division will be held at the Kensington Town Hall, High Street, Kensington, on Wednesday, March 29th, at 5 p.m. Business: (1) To confirm minutes of last meeting. (2) To further consider matters referred to Division by Annual Representative Meeting at Oxford in 1904: (i) The report on reorganization of the Local Government Board (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904, p. 178); (ii) Medical Acts Amendment Bill (vide SUPPLEMENT, November 26th, 1904, p. 183); (iii) report on prevention of the abuse of drugs (vide SUPPLEMENT, November 26th, 1904, p. 191); (iv) other matters referred to Division, if time permits.—G. CRAWFORD THOMSON, M.D., 111, Sinclair Road, West Kensington, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—The next meeting will be held, by kind invitation of the Principal, at Livingstone College, Knott's Green, Lea Bridge Road, Leyton, on Tuesday, March 28th, at 4 p.m. (Nearest stations—Hoe Street, G.E.R., and Leyton, Midland Railway.) The chair will be taken by Mr. Percy Warner, Chairman of the Division. Business: Minutes. Letters. Papers will be read and demonstrations given on Some Tropical Parasites and their Relation to Disease, with lantern illustrations, by Charles F. Harford, M.A., M.D.Cantab., Principal of Livingstone College and Physician to the Church Missionary Society, and Some Methods of Clinical Bacteriology Applicable to General Practice, with a demonstration in the Laboratory of the College, by G. Basil Price, M.D.Lond., D.P.H., Vice-President of the College, and Pathologist to the Tottenham Hospital. Other business.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The next meeting of this Division will be held at 20, Hanover Square, W., on Wednesday, March 29th, at 4.30 p.m. Agenda: (1) Minutes. (2) Letters. (3) Questions. (4) To receive report of Delegates *re* election of Representatives on Central Council. (5) To consider the following subjects referred by the Medico-Political Committee to the Division (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 26th, 1904): (i) Contract medical practice; (ii) consultation between medical witnesses in legal cases; (iii) the position of medical practitioners in the matter of furnishing certain information to coroners; (iv) the reorganization of the Local Government Board; (v) report of the prevention of the abuse of drugs; (vi) National Deposit Friendly Society (vide SUPPLEMENT of January 14th); (vii) ambulance work (vide SUPPLEMENT of February 4th); (viii) advertising in connexion with hydropathic establishments (vide SUPPLEMENT February 18th); (ix) death registration and coroners' law (vide SUPPLEMENT March 11th); (x) Medical Acts Amendment Bill. (6) Any other business.—W. KNOWSLEY SIBLEY, M.D., 70, Duke Street, Grosvenor Square, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of this Branch will be held on Wednesday, April 12th, at the Victoria Park Hotel, Barrow-in-Furness, at 3.30 p.m. There will be a discussion on the Modern Treatment of Phthisis, opened by Dr. Hughes, Medical Superintendent of the Westmorland Sanatorium for Consumption.—A. S. BARLING, 2, Queen Square, Lancaster, Honorary Secretary.

SOUTH-EASTERN BRANCH: DOVER DIVISION.—The adjourned meeting of this Division will be held at the Grand Hotel, Dover, on Wednesday, March 29th, at 8.30 p.m. Agenda: (1) Minutes. (2) Propositions on contract medical practice referred to the Divisions for consideration by the Representative Meeting. (3) Desirability of consultation between medical witnesses in legal cases. (4) Furnishing information to coroners. (5) Memorandum of the Committee on the reorganization of the Local Government Board. (6) Other business, if any. The opinion of this Division on certain questions affecting contract medical practice has been asked by the Medico-Political Committee, and it is most desirable that there should be a full discussion of the several points raised. It was decided at the last meeting that an invitation to attend should be sent to all medical practitioners in our area.—F. A. OSBORN, Ennismore House, Dover, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—An adjourned meeting of the above Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 30th, at 4 p.m., Mr. Sidney Turner, of Upper Norwood, in the chair. Agenda: (1) Minutes of last meeting. (2) Consideration of matters referred from Medico-Political Committee (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL November 26th, 1904): (*a*) The interim report on contract practice; (*b*) consultation between medical witnesses; (*c*) memorandum *re* information to coroners; (*d*) the report on reorganization of the Local Government Board: (*e*) memorandum *re* drug abuse; (*f*) memorandum on payment of medical practitioners called in to assist midwives (memorandum forwarded with notice of last meeting). (3) The relation of the medical profession to ambulance work (see SUPPLEMENT February 4th). (4) Advertising of the names of medical practitioners in connexion with hydropathic and similar establishments (vide SUPPLEMENT February 18th). (5) National Deposit Friendly Society (vide SUPPLEMENT January 14th), (6) (*a*) Public Health Bill (vide SUPPLEMENT January 14th); (*b*) Revaccination Bill (vide SUPPLEMENT January 14th). (7) Medical Acts Amendment Bill (vide SUPPLEMENT November 26th, 1904). (8) Death registration and coroners' law. The following resolutions suggested by the Lancashire and Cheshire Branch: (1) That this Council is of opinion that the proceedings of the Central Council ought to be published in as much detail as those of the Annual Representative Meeting. (2) That all changes in the status and salary of officers of the Association receiving annual salaries ought to be submitted to the Annual Representative Meeting before final adoption by the Central Council. (3) The Council of the Lancashire and Cheshire Branch of the British Medical Association views with the strongest disapproval the association of medical men with any medical charity in connexion with any place of worship, save as a whole time appointment for missionary work.—H. J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting of this Division will be held at Laker's Hotel, Redhill, on Friday, March 31st, at 5 p.m., when important Association work will be considered, Dr. John Walters, J.P., in the chair.—W. A. BERRIDGE, Redhill, Honorary Secretary.

ULSTER BRANCH.—The spring meeting of this Branch will be held on Wednesday, April 5th, in Belfast. Members wishing to read papers or show cases will please send me particulars of the same at an early date.—CECIL SHAW, M.D., Honorary Secretary, College Square, Belfast.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 28th, at 3.30 p.m., when the President, Mr. A. W. Sinclair, will take the chair. Agenda:—Resolution proposed by Mr. G. F. Sydenham: "That, in the opinion of this meeting, the fees offered to medical practitioners by the County Education Committees for certificates under the Education Act are inadequate." The meeting will then be asked to consider the many questions, referred from the Medico-Political Committee of the Association, which include many items of great importance to the profession as a whole and to each individual practitioner: (1) On the payment of medical practitioners called in to assist midwives; the discussion on this subject will be introduced by Dr. J. A. Macdonald. (2) Contract practice; discussion introduced by Mr. A. E. Joscelyne. (3) Concerning communications with coroners; discussion introduced by Mr. H. W. Husbands. (4) On the prevention of the abuse of drugs; discussion introduced by Dr. D. Brown. (5) The Medical Acts Amendment Bill; discussion introduced by Dr. J. A. Macdonald.—W. B. WINCKWORTH, Taunton, Honorary Secretary.

British Medical Association.

SEVENTY-THIRD ANNUAL MEETING.

THE seventy-third annual meeting of the British Medical Association will be held at Leicester on Monday, Tuesday, Wednesday, Thursday, and Friday, July 24th, 25th, 26th, 27th, and 28th, 1905.

President: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

President-elect: GEORGE C. FRANKLIN, F.R.C.S., Honorary Surgeon, Leicester Infirmary.

Chairman of Representative Meetings: Sir VICTOR HORSLEY, F.R.S.

Chairman of Council: ANDREW CLARK, D.Sc., F.R.C.S.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P.

An Address in Medicine will be delivered by HENRY MAUDSLEY, LL.D., M.D., F.R.C.P.

An Address in Surgery will be delivered by CHARLES JOHN BOND, F.R.C.S.

A popular lecture will be delivered by Professor WILLIAM STIRLING, D.Sc., M.D., F.R.S.E.

SECTIONS.

The annual meeting at Leicester will comprise 12 Sections as shown in the subjoined list. The Sections will meet on Wednesday, Thursday, and Friday, July 26th, 27th, and 28th, from 10 a.m. to 1 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

MEDICINE.

President: FRANK M. POPE, M.D., F.R.C.P., Leicester. *Vice-Presidents:* REGINALD PRATT, M.D., M.R.C.P., Leicester; ROBERT WILLIAM PHILIP, M.D., F.R.C.P.Edin., Edinburgh; WILLIAM BRAMWELL RANSOM, M.D., F.R.C.P., Nottingham. *Honorary Secretaries:* BERTRAND DAWSON, M.D., B.Sc., F.R.C.P., 32, Wimpole Street, Cavendish Square, W.; WILLIAM MITCHELL STEVENS, M.D., M.R.C.P., 21, St. Andrew's Crescent, Cardiff; FRANK HARWOOD JACOB, M.D., M.R.C.P., 28, Regent Street, Nottingham.

SURGERY.

President: Sir CHARLES BENT BALL, M.D., F.R.C.S., Dublin. *Vice-Presidents:* CLAUDE DOUGLAS, F.R.C.S., Leicester; HENRY JOHN BLAKESLEY, F.R.C.S., Leicester; JAMES HENDERSON NICOLL, M.B., C.M., Glasgow. *Honorary Secretaries:* PERCY FURNIVALL, F.R.C.S., 28, Weymouth Street, W.; CECIL EDWARD MARRIOTT, M.C., F.R.C.S., 11, Welford Road, Leicester.

STATE MEDICINE.

President: PHILIP BOOBBYER, M.D., Nottingham. *Vice-Presidents:* NINIAN MCINTIRE FALKINER, M.D., Dublin; JOHN HERBERT HAWKINS MANLEY, M.D., D.P.H., West

Bromwich; Thomas Robinson, M.R.C.S., D.P.H., Leicester. *Honorary Secretaries:* Wm. Williams, M.D., D.P.H., County Health Department, 9, The Parade, Cardiff; Chas. Killick Millard, M.D., D.Sc., Town Hall, Leicester.

Industrial Hygiene and Diseases of Occupation.

President: Hy. Wm. Langley Browne, M.D., West Bromwich. *Vice-Presidents:* Alexander Campbell, M.D., Dundee; John Colley Smyth Burkitt, M.D., D.P.H., Leicester; Thomas Morison Legge, M.D., London. *Honorary Secretaries:* Clement Frederick Bryan, M.R.C.S., 44, Humberstone Road, Leicester; Thomas Watts, M.D., 34, Church Street, Hyde.

Laryngology, Otology and Rhinology.

President: Frederick William Bennett, M.D., Leicester. *Vice-Presidents:* William Arthur Carline, M.D., Lincoln; John Middlemass Hunt, M.B., Liverpool. *Honorary Secretaries:* Alex Lewis MacLeod, M.B., 89, Hinckley Road, Leicester; Chas. Herbert Fagge, M.S., F.R.C.S., 22, St. Thomas's Street, London Bridge, S.E.

Navy, Army and Ambulance.

President: Surgeon-Lieutenant-Colonel Henry Walter Kiallmark, M.R.C.S., London. *Vice-Presidents:* Surgeon-Lieutenant-Colonel Robert Bradshaw Smith, V.D., L.R.C.P., Hinckley; Lieutenant-Colonel Edmond Monkhouse Wilson, C.B., C.M.G., D.S.O., S. Farnboro'; Fleet Surgeon Alexander J. J. Johnston, R.N., Haslar. *Honorary Secretaries:* Fleet Surgeon Edward James Biden, R.N. (Ret.), 29, Osborne Road, Southsea; Surgeon-Captain Wm. Pemberton Peake, M.R.C.S., 21, Oxford Street, Leicester; Captain Edwin Charles Montgomery-Smith, R.A.M.C.Vol., 36, Abbey Road, St. John's Wood, N.W.

Obstetrics and Gynaecology.

President: Herbert Ritchie Spencer, M.D., F.R.C.P. London. *Vice-Presidents:* Henry Meadows, M.B., Leicester; Professor Henry Corby, M.D., Cork; Francis Richard Cassidi, M.D., Derby. *Honorary Secretaries:* Montague Wm. Williams, M.R.C.S., 45, London Road, Leicester; Miss Louisa Garrett Anderson, M.D., 114A, Harley Street, W.

Ophthalmology.

President: George Andreas Berry, F.R.C.S.Edin., Edinburgh. *Vice-Presidents:* Wm. Mardon Beaumont, M.R.C.S., Bath; Edwin Collier Green, M.R.C.S., Derby. *Honorary Secretaries:* Robt. Wallace Wesley Henry, M.D., 6, Market Street, Leicester; John Herbert Parsons, F.R.C.S., 27, Wimpole Street, Cavendish Square, W.

Psychological Medicine.

President: Alexander Reid Urquhart, M.D., Perth. *Vice-Presidents:* Rothsay Charles Stewart, M.R.C.S., Leicester; Theophilus Bulkeley Hyslop, M.D., London. *Honorary Secretaries:* Arthur Molyneux Jackson, M.B., Nottingham County Asylum, Radcliffe-on-Trent; John Wigmore Higginson, M.R.C.S., Hayes Park Asylum, Hayes.

Pathology.

President: Frederick Walker Mott, M.D., F.R.C.P., F.R.S., London. *Vice-Presidents:* Theodore Shennan, M.D., Edinburgh; Professor Arthur Hamilton White, L.R.C.P.I., Dublin. *Honorary Secretaries:* John William H. Eyre, M.D., Guy's Hospital, S.E.; Thomas Villiers Crosby, M.D., 91, St. Peter's Road, Leicester.

Dental Surgery.

President: Morton Alfred Smale, M.R.C.S., L.D.S., London. *Vice-Presidents:* Edward Lloyd-Williams, M.R.C.S., L.R.C.P., L.D.S., London; Francis John Lankester, M.R.C.S., L.D.S., Leicester; *Honorary Secretaries:* Wm. Armston Vice, M.B., L.D.S., 19, Belvoir Street, Leicester; Joseph George Turner, F.R.C.S., L.D.S., 12, George Street, Hanover Square, W.

Tropical Diseases.

President: Rubert Wm. Boyce, M.B., F.R.S., Liverpool. *Vice-Presidents:* Andrew Duncan, M.D., London; Fleming Mant Sandwith, M.D., F.R.C.P., London. *Honorary Secretaries:* George Aylwin Clarkson, F.R.C.S., 173, London Road, Leicester; John M. Hendrie MacLeod, M.D., 11, Harley Street, W.

The Honorary Local Secretaries are:

Astley V. Clarke, M.D.,
37, London Road, Leicester.
Felix Bolton Carter, M.S.,
99, London Road, Leicester.

Programme of Proceedings.

Monday.

2 p.m.—Annual General Meeting followed by Representative Meeting.

Tuesday.

9 a.m.—Meeting of 1905-1906 Council.
10 a.m.—Representative Meeting.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
5 p.m.—Church Service.
6 p.m.—Meeting of Division and Branch Secretaries.
8 p.m.—President's Address. Reception of Distinguished Guests.

Wednesday.

9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Medicine. Adjourned General Meeting followed by Representative Meeting.

Thursday.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

Friday.

9 a.m.—Meeting of Council.
1 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Meetings of Divisions and Branch Secretaries.
8 p.m.—Popular Lecture.

CENTRAL MIDWIVES BOARD.

A special meeting of the Central Midwives Board, under the provisions of the rules of procedure on the proposed removal of a name from the Roll, was held at 6, Suffolk Street, Pall Mall, London, on March 16th, with Dr. F. H. Champneys in the chair.

Charges Against Certified Midwives.

The first case heard was that of M. Sulley, a certified midwife, against whom it was alleged that on January 29th, 1905, at the Cardiff Police Court, she was convicted of letting lodgings to seamen without being licensed in accordance with the by-laws of the Corporation of Cardiff in this respect, her application for a licence for such purpose having been previously refused on the ground of her bad character. It was also alleged against her that she had harboured women of immoral character. Margaret Sulley attended the meeting of the Board, and vigorously denied the truth of the allegations.

Strangers having been requested to withdraw, the Board proceeded to deliberate on the case *in camera*.

Strangers having been readmitted, the Chairman informed Margaret Sulley that the decision of the Board was that her name was to be removed from the Roll of Midwives.

The next case heard was that of H. E. Clementson, a certified midwife, against whom it was alleged that on October 22nd, 1904, while in attendance on a woman in labour she was drunk, and thereby incapable of performing her duties as a midwife. This midwife did not appear in person to answer the charge, and sent a letter denying that she was intoxicated but admitting that she might have dozed a little at the case.

After evidence had been produced for the consideration of the Board, strangers were requested to withdraw whilst the Board deliberated *in camera*.

Strangers having been readmitted, the Chairman said that the Board had decided that the name of the midwife H. E. Clementson was to be removed from the Roll. He added that the Board felt strongly that any woman who was in the habit of becoming intoxicated was a dangerous person to have the charge of women in labour. The Board was determined that the Roll of Midwives should be kept pure and above reproach.

Election of Inspector.

The Board then proceeded to consider the applications of the five selected candidates for the post of Inspector, and Miss Lucy Beatrice Clapham, M.B.Lond., was appointed.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,920 births and 4,740 deaths were registered during the week ending Saturday last, March 18th. The annual rate of mortality in these towns, which had been 15.7, 17.1, and 17.2 per 1,000 in the three preceding weeks, declined again last week to 15.8 per 1,000. The rates in the several towns ranged from 3.9 in Bournemouth, 7.8 in Walsall, 8.1 in Hornsey, 8.4 in Grimsby, 8.5 in Walthamstow, and 9.0 in King's Norton, to 22.3 in Rochdale, 22.7 in Southampton, 22.8 in Middlesbrough, 23.9 in Stockton-on-Tees, 25.1 in Barrow-in-Furness, and 27.4 in Portsmouth. In London the death-rate was 15.6 per 1,000, while it averaged 16.0 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six towns; in London, this death-rate was equal to 1.0 per 1,000, while among the seventy-five other large towns the death rates ranged upwards to 3.8 in West Bromwich, 4.2 in Middlesbrough, 4.4 in West Ham, 4.6 in St. Helens, 5.0 in Stockton-on-Tees, 5.6 in Nottingham, 7.5 in Portsmouth, and 10.0 in Southampton. Measles caused a death-rate of 1.4 in Leicester, 1.5 in West Bromwich and in Sheffield, 1.6 in Middlesbrough, 1.7 in St. Helens, 1.8 in Bolton, 1.9 in York, 3.9 in Nottingham, 4.0 in Stockton-on-Tees, 4.4 in West Hartlepool, 6.2 in Portsmouth, and 9.1 in Southampton; whooping-cough of 1.3 in Tottenham, 1.5 in Willesden, and 2.3 in Preston; and "fever" of 1.5 in West Bromwich. The mortality from scarlet fever, from diphtheria, and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Tynemouth and one in South Shields, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 23 small-pox patients at the end of last week, against 15, 15, and 16 at the end of the three preceding weeks; 9 new cases were admitted during the week, against 7, 4, and 3 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 1,987, 2,002, and 2,036 at the end of the three preceding weeks, had further risen to 2,042 at the end of last week; 262 new cases were admitted during the week, against 224, 290, and 303 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 18th, 1,000 births and 610 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.3, 17.4, and 18.6 per 1,000 in the three preceding weeks, declined again to 18.2 per 1,000 last week, but was 2.4 per 1,000 above the rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 11.5 in Leith and 12.2 in Paisley to 19.6 in Aberdeen and 22.3 in Greenock. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in these towns, the highest rates being recorded in Glasgow, Paisley, and Greenock. The 298 deaths registered in Glasgow included 7 which were referred to measles, 2 to diphtheria, 13 to whooping-cough, and 5 to diarrhoea. Three deaths from measles, 4 from diphtheria, and 3 from diarrhoea were recorded in Edinburgh; 4 from diarrhoea in Dundee; 1 from typhus in Aberdeen; 2 from diphtheria in Paisley; and 2 from whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week Saturday, March 11th, 556 births and 448 deaths were registered in six of the principal Irish towns against 587 births and 485 deaths in the preceding period. The mean annual death-rate in these towns—which had been 20.2, 23.8, and 26.3 per 1,000 in the three preceding weeks—rose to 28.2 per 1,000 in the week under notice, this figure being 11.0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 16.4 in Limerick and 21.1 in Londonderry to 34.2 in Cork and 46.7 in Waterford. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.5 per 1,000, or 0.3 per 1,000 higher than during the preceding week, the highest figure, 2.7, being recorded in Limerick. Measles remained the chief cause of death in this class, 10 cases being recorded in Belfast. In Waterford, 1 death was ascribed to typhus fever. There were no deaths in any part of Ireland from small-pox or scarlet fever.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: WILLIAM B. MACLEOD, M.B., Staff Surgeon to the *Hermione*, on recommissioning, March 16th; FREDERICK E. ANLEY, Surgeon, to the *Fire Queen*, additional, for disposal (to be lent to the Royal Marine Infirmary, Forton) temporary, March 14th; EDWARD B. PICKTHORN, Fleet Surgeon, to the *President*, for three months' hospital course, March 28th; REGINALD T. A. LEVINGE, Fleet Surgeon, to the *Montagu*, March 28th; JOHN F. HALL, M.B., Fleet Surgeon, to the *President*, additional, to be lent to the Royal Naval Rendezvous temporarily, April 6th; ALGERNON C. BEAN, Surgeon, to the *President*, additional, for three months' hospital course, March 20th; CHARLES J. BOUCHER, M.B., to the *Wye* (lent), for the voyage home, March 17th; ROBERT HARDIE, M.B., Fleet Surgeon, to the *Egmont*, and for Malta Dockyard, April 1st; HUBERT W. A. BURKE, Fleet Surgeon, and HUGH C. ROSS, Surgeon, to the *Commonwealth*, on commissioning, undated; LLEWELLYN LINDOP, Surgeon, to the *Ganges*, March 18th.

ROYAL ARMY MEDICAL CORPS.

MAJOR M. L. HEARN has been appointed Senior Medical Officer, North China.

The undermentioned officers, who are serving in India, are appointed specialists in the subjects specified: Major J. W. JENNINGS, skiagraphy, Eastern Command; Major T. MCDERMOTT, ophthalmology, Eastern Command; Captain W. E. HUDLESTON, specific fevers, Western Command; Captain J. G. BERNE, otology, Western Command.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL R. MACRAE, M.B., Bengal Establishment, is appointed Inspector-General of Civil Hospitals and Sanitary Commissioner, Burmah.

Captain W. W. CLEMENSHA, M.B., Bengal Establishment, is appointed to officiate as Sanitary Commissioner, Bengal, *vice* Major F. C. CLARKSON, who is granted privilege leave for three months, with furlough out of India for one year and five months in continuation from March 15th.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN F. E. MARSTON, Montgomeryshire Regiment, resigns his commission, March 18th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN R. J. SWAN, from the 1st Surrey (South London) Volunteer Rifle Corps, to be Surgeon-Captain, 1st Volunteer Battalion the Queen's (Royal West Surrey Regiment), March 18th.

Supernumerary Surgeon-Major G. S. ELLISTON, 1st Volunter Battalion the Suffolk Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer, Harwich Volunteer Rifle Brigade), to be Surgeon-Lieutenant-Colonel, and to remain seconded, March 18th.

Supernumerary Surgeon-Major F. H. APPLEBY, 4th (Nottinghamshire) Volunteer Brigade the Sherwood Foresters (Nottinghamshire and Derbyshire Regiment) (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Sherwood Foresters Volunteer Infantry Brigade), to be Surgeon-Lieutenant-Colonel, and to remain supernumerary, March 18th.

Surgeon-Lieutenant-Colonel W. M. ROOCROFT, 1st Volunteer Battalion the Manchester Regiment, is granted the honorary rank of Surgeon-Colonel, March 18th.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer.

BIRMINGHAM: RUBERY HILL ASYLUM.—Two Junior (male) Assistant Medical Officers; resident. Salaries, £150 per annum.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—Honorar Medic Officer in charge of Electrical Department.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Two Assistant Surgeons.

CHARING CROSS HOSPITAL, W.C.—Anaesthetist.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Medical Officer for the Casualty Department. Salary at the rate of £100 per annum

GRAVESEND HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon; resident. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident House-Physicians. Honorarium, £25 each for six months.

INVERNESS: NORTHERN INFIRMARY.—House-Sur on; resident. Salary, £100 per annum.

KENT COUNTY ASYLUM, Chartham.—Third Assistant edical Officer; male; resident. Salary, £140 per annum.

LAMBETH PARISH.—District Medical Officer. Salary, £70 per annum and fees.

LEITH HOSPITAL.—(1) House-Physician; (2) Assistant House-Physician; (3) Assistant House-Surgeon; (4) Surgeon for the Out-door Department.

LIVERPOOL DISPENSARIES.—Head Surgeon; resident. Salary, £200 per annum.

MANCHESTER: CHORLTON-UPON-MEDLOCK DISPENSARY.—Resident House-Surgeon. Salary, £120 per annum.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—House-Surgeon. £100 per annum. Candidate to state if willing to accept post of Assistant House-Surgeon, salary £75.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Physician to Out-patients.

SEAMEN'S HOSPITAL SOCIETY.—(1) House-Physician; (2) House-Surgeon; (3) Junior Resident Medical Officer; (4) Senior House-Surgeon; (5) House-Surgeon. First three vacancies at Dreadnought Hospital, Greenwich; the other two at the Branch Hospital, Royal Victoria and Albert Docks. Salaries for (1) and (2), £65; (3) £40; (4) £100; and (5) £50 per annum.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Physician.

STAFFORDSHIRE GENERAL INFIRMARY.—Honorary Ophthalmic Surgeon.

UNIVERSITY COLLEGE.—Third Honorary Anaesthetist.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

WINDSOR AND ETON ROYAL DISPENSARY AND INFIRMARY.—House-Surgeon; resident. Salary, £120 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Physician. Honorarium at the rate of £75 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

BUCHANAN, J. D., M.B., B.S., R.U.I., Assistant Resident Medical Officer, Salford Union Infirmary.

CLAPHAM, Lucy B., M.B.Lond., Inspector under the Central Midwives Board.

CONDON, R. P., L.R.C.P. & S.Irel., Certifying Factory Surgeon for the Broadford District, Limerick.

DICK, M. I., M.B., B.S Glasg., Certifying Factory Surgeon for the Staveley District, Westmorland.

DICK, William, L.R.C.S., L.R.C.P.Edin., Junior House-Surgeon to the General Infirmary, Macclesfield.

DRAPER, R. A., M.R.C.S., L.R.C.P.Lond., District Medical Officer, York (Out Relief) Union.

FELL, R., M.R.C.S., L.R.C.P.Lond., District Medical Officer, York (Out Relief) Union.

HAWTHORNE, E. S., F.R.C.S., L.R.C P.I., District Medical Officer and Public Vaccinator, Teesdale Union; Medical Officer of Health, Startforth Rural District, *vice* Dr. Dewar, resigned.

JOSEPH, H. M., M.B., Resident Medical Officer to the Hospital for Epilepsy and Paralysis, Maida Vale.

LOVELL-KEAYS, L. F., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Hailsham Union.

MACBRIDE, A., M.B., B.S.R.U.I., Certifying Factory Surgeon for the Newport District, Mayo.

MADIGAN, J. F., L.R.C.P. & S.Edin., Certifying Factory Surgeon for the Drumcollogher District, Limerick.

MAJOR, Herbert C., M.D.Edin., Honorary Pathologist to the Bedford County Hospital, Bedford.

MATTHIESON, G. B., M.B., C.M.Edin., Certifying Factory Surgeon for the Doune District, Perthshire.

MOORE, Stuart A., B.A., M.B., B.Ch., Junior House-Surgeon to the Liverpool Stanley Hospital.

NEWBOULD, N. J., L.R.C.P. & S.Edin., L.F.P.S.Glasg., District Medical Officer of the Sturminster Union.

PACE, H. E., M.B.Lond., District Medical Officer of the West Ham Union.

PHILLIPS, H. A., M.R.C.S., L.R.C.P.Lond., District Medical Officer, York (Out Relief) Union.

PURVES, W. Laidlaw, M.D., M.R.C.S., Consulting Ophthalmic Surgeon to the Hospital for Epilepsy and Paralysis, Maida Vale, W.

SANDS, H., M.B., B.Ch., R.U.I., District Medical Officer of the Wortley Union.

STEWART, B. H., M.B., B.Ch., R.U.I., District Medical Officer of the Stamford Union.

THACKRAY, C., M.D., B.S., Medical Superintendent of the Cook's Terrace Infirmary and Medical Officer of Workhouse of the St. Pancras Parish.

WRIGHT, A. R., M.B., Junior Resident Assistant Medical Officer to the Manchester Workhouse.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—The following appointments have been made:
Physician to the Out-patients.—O. F. F. Grunbaum, M.D., B.S., M.A., M.R.C.P., D Sc.
Resident Medical Officer.—George Basil Adams, M.B., B.S.Oxon.
House Physicians.—George W. Ross, M.R.C.S., L.R.C.P.; S. L. Benton, M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

GORDON.—On March 13th, at 52, Endless Street, Salisbury, the wife of James Edward Gordon, M.R.C.S., L.R.C.P., of a son.

SMYTH.—On March 12th, at 77, Falcon Road, S.W., the wife of James Smyth, M.B., C.M., of a son.

DEATHS.

EVANS.—On March 16th, at The Mount, Caerphilly, Maurice Griffith Evans, M.D., J.P., aged 73 years.

GORDON.—At 52, Endless Street, Salisbury, on March 15th, Thomas Henry, infant son of James Edward and Blanche Violet Gordon.

HARRIS.—On March 4th, at 4, Kilburn Priory, N.W., Charles James Harris, M.R.C.S., L.S.A., aged 82.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: I. Dr. H. D. Rolleston, Pericolitis Sinistra. II. Dr. A. E. Carver, Acute Infective Colitis.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W., 8 p.m.—Communication: Mr. Charles A. Clarke, L.D.S.Irel., A Sterilisable Bur-Box. Paper: Mr. J. Thornton Carter, L.D.S.Eng., The Evolution of the Vertebrate Skull, with special reference to the Development and Suspension of the Jaws (illustrated by lantern slides and specimens).

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—First Arris and Gale Lecture: The Anatomy, Physiology, Pathology, and Surgery of the Gasserian Ganglion, by Mr. Donald J. Armour.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Lumleian Lecture: Some Aspects of Malnutrition, by Dr. W. H. Allchin.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Dr. T. Oliver: Ankylostomiasis as Affecting Miners; Mr. A. W. Mayo Robson: (1) On the Operation of Jejunostomy, the description of a new method; (2) Actinomycosis of the Gall Bladder.

THERAPEUTICAL SOCIETY, Apothecaries' Hall, Blackfriars, E.C., 4 p.m.—Papers:—Dr J. Burnet: The Therapeutics of Aspirin and Mesotan. Dr. Hutchison: The Treatment of Graves's Disease by Iodo-ether Injections.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Second Arris and Gale Lecture: The Anatomy, Physiology, Pathology, and Surgery of the Gasserian Ganglion, by Mr. Donald J. Armour.

THURSDAY.

CHILDHOOD SOCIETY, Parkes Museum, Margaret Street, W.—Discussion on Provision under the Elementary Education Act, 1899, for Training of Defective Children.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, 8.30 p.m. Clinical evening. Cases in attendance at 8 p.m.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Lumleian Lecture: Some Aspects of Malnutrition, by Dr. W. H. Allchin.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Third Arris and Gale Lecture: The Anatomy, Physiology, Pathology, and Surgery of the Gasserian Ganglion, by Mr. Donald J. Armour.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Some Diseases of the Urinary Organs.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Tuberculous Diseases of Joints, their Diagnosis and Treatment; Tuesday, Some Clinical Aspects of Nephritis; Wednesday, Rectal Diseases; Thursday, Some Important Types of Deafness.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., The Administration of Chloroform.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—Tuesday and Friday, 4.30 p.m., Lecture and Demonstration on Anaesthetics.

POST-GRADUATE COLLEGE, WEST LONDON HOSPITAL, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day except Wednesday: Monday, Anaesthetics; Tuesday, Surgical Cases; Wednesday (3 p.m.), Diseases of the Cornea and Their Treatment; Thursday, Practical Surgery; Friday, Cancer of the Colon.

BOOKS, ETC., RECEIVED.

Trachéobronchoscopie et Œsophagoscopie. Par le Dr. Guisez. Paris: J. B. Baillière et Fils. 1905. Fr.1.50.

Le Traitement de l'Entérite muco-membraneuse. Par le Dr. A. Combe. Paris: J. B. Baillière et Fils. 1905. Fr.3.50.

The Blood, How to Examine and Diagnose Its Diseases. By Alfred C. Coles, M.D., D.Sc., F.R.S.Edin. Third edition. London: J. and A. Churchill. 1905. 10s. 6d.

Die direkte besichtigung der Speiseröhre. Osophagoskopie. Von Professor Dr. Hugo Starck. Würzburg: A. Stuber. 1905. M.7.

Report on the Origin and Spread of Typhoid Fever in the United States Military Camps during the Spanish War of 1898. By Walter Reed, Major and Surgeon U.S. Army, Victor C. Vaughan, Major and Div.-Surgeon U.S. Vol., and Edward O. Shakespeare, Major and Brigade-Surgeon U.S. Vol. Volumes I and II (Maps and Charts) prepared in accordance with Act of Congress, under direction of Surgeon-General Robert M. O'Reilly, U.S. Army. Washington: Government Printing Office. 1904.

The Effects of Tropical Light on White Men. By Major Charles E. Woodruff, A.M., M.D. New York: Rebman Co.; and London: Rebman Ltd. 1905. 10s. 6d.

Traitement du Cancer Utérin inopérable. Par le Dr. J. Récamier. Paris: G. Steinheil. 1905. Fr.3.50.

Surface Anatomy. By T. Gillman Moorhead, M.D.Dub., M.R.C.P.I. London: Baillière, Tindall and Cox. 1905. 4s. 6d.

Clinical Lectures on Appendicitis, Radical Cure of Inguinal Hernia, and Perforating Gastric Ulcer. By G. R. Turner, F.R.C.S. London: Baillière, Tindall and Cox. 1905. 5s.

The Conjunctiva in Health and Disease. By N. Bishop Harman, M.A., M.B.Cantab., F.R.C.S.Eng. London: Baillière, Tindall and Cox. 1905. 10s. 6d.

Pathologie und Therapie der Perityphlitis (Appendicitis). Bearbeitet von Dr. Eduard Sonnenburg. Fünfte Auflage. Leipzig: F. C. W. Vogel. 1905. M.6.

The Book of the Potato. Edited by T. W. Sanders, F.L.S., F.R.H.S. London: W. H. and L. Collingridge. 1905. 2s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
March	26...Sunday..	
,,	27...Monday ...	
,,	28...Tuesday ...	Walthamstow Division, *Metropolitan Counties Branch*, Livingstone College, Knott's Green, Lea Bridge Road, Leyton, 4 p.m. West Somerset Branch, Spring Meeting, Taunton and Somerset Hospital, 3.30 p.m.
,,	29...Wednesday	Dover Division, *South-Eastern Branch*, Grand Hotel, Dover, 8.30 p.m. Kensington Division, *Metropolitan Counties Branch*, Kensington Town Hall, High Street, Kensington, 5 p.m. Westminster Division, *Metropolitan Counties Branch*, 20, Hanover Square, W., 4.30 p.m.
,	30...Thursday...	London: Hospitals Committee, 2.45 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Quarterly General Meeting, Brooklands Hotel, 5 p.m.; Committee Meeting, 4.30 p.m. Central Division, *Birmingham Branch*, Medical Institute, 4 p.m. Dundee Branch, Student's Union, Dundee, 8.30 p.m. Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m. North Manchester Division, *Lancashire and Cheshire Branch*, Palatine Hotel, Manchester.
,,	31...Friday ..	Border Counties Branch, Infirmary, Whitehaven. Reigate Division, *South-Eastern Branch*, Laker's Hotel, Redhill, 5 p.m.
April	1...Saturday ...	
,,	2...Sunday..	
,,	3...Monday ...	
,,	4...Tuesday ...	
,,	5...Wednesday	London: Chairmen of Committees (Standing Orders), 2 p.m. Notices of Motion for Quarterly Council Meeting must be given on or before this day. Ulster Branch, Belfast.
,,	6...Thursday...	East Anglian Branch, Suffolk Hotel, Bury St. Edmunds.
,,	7...Friday ..	London: Ethical Committee, 2 p.m. ,, Annual Meeting (Sections) Committee, 5 p.m.
,,	8...Saturday...	
,,	9...Sunday..	
,,	10...Monday ...	
,,	11...Tuesday ...	London: Organization Committee, 10.30 a.m.
,,	12...Wednesday	London: Journal and Finance Committee, 3 p.m. North Lancashire and South Westmorland Branch, Victoria Park Hotel, Barrow-in-Furness, 3.30 p.m.
,,	13...Thursday...	London: Delegates of Divisions of the Metropolitan Counties Branch, 5 p.m.
,,	14...Friday ...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...Saturday...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of Journal should be posted to-day.
,,	16...Sunday..	
,,	17...Monday ...	
,,	18...Tuesday ...	London: Premises and Library Committee
,,	19...Wednesday	,, Central Council, 11 a.m.
,,	20...Thursday...	
,,	21...Friday ...	*Good Friday.*
	22...Saturday...	Notices of Motion for Annual Representative Meeting appear in Journal.
	23...Sunday..	
,,	24...Monday ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
April	25...Tuesday ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...Wednesday	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...Thursday...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...Friday ...	Dundee Branch, Clinical Meeting of this and other Scottish Branches, Royal Infirmary Dundee, 4 p.m.
,,	29...Saturday...	List of Members closed for publication.
,,	30...Sunday..	
May	1...Monday ...	
,,	2...Tuesday ...	
,,	3...Wednesday	
,,	4...Thursday...	
,,	5...Friday ...	
,,	6...Saturday...	
,,	7...Sunday..	
,,	8...Monday ...	
,,	9...Tuesday ...	London: Organization Committee.
,,	10...Wednesday	
,,	11...Thursday...	
,,	12...Friday ...	
,,	13...Saturday...	
,,	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	
,,	17...Wednesday	
,,	18...Thursday...	
,,	19...Friday ...	
,,	20 ..Saturday...	
,,	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences
,,	24...Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26...Friday ...	
,,	27...Saturday...	
,,	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 1ST, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
NOTICES OF MOTION	129
MEDICAL DEFENCE.—Memorandum by the Medical Defence Committee, together with Draft Scheme	129
MEETINGS OF BRANCHES AND DIVISIONS:	
East Anglian Branch: South-Essex Division	130
Edinburgh Branch: North-East Edinburgh Division	130
Hong Kong and China Branch	131
Lancashire and Cheshire Branch: Preston Division	131
Metropolitan Counties Branch: City Division...	131
" " Wandsworth Division	131
North Wales Branch.—Special General Meeting	132
South-Eastern Branch: Sevenoaks Division	132
ASSOCIATION NOTICES.—NOTICE OF CHANGES IN DIVISIONS AND BRANCHES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	132
BRITISH MEDICAL ASSOCIATION LIBRARY	133
CENTRAL MIDWIVES BOARD	133
NAVAL AND MILITARY APPOINTMENTS	134
VITAL STATISTICS...	134
VACANCIES AND APPOINTMENTS	135
BIRTHS, MARRIAGES, AND DEATHS	135
DIARY OF THE WEEK	135
BOOKS RECEIVED...	135
CALENDAR	136

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICES OF MOTION.

THE following additional notices of motion have been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

[*Notices previously received were published in the* SUPPLEMENT *of February 25th, page 57, March 4th, page 73, March 18th, page 105, and March 25th, page 121.*]

By the CITY DIVISION (Metropolitan Counties Branch):

1. That in Article XLIV(*e*) the words "or Division" shall be inserted after the words "a Branch"; and the words "or Division" after the words "or Branch."
2. That in Article XLV the words "or special" be inserted after the word "annual" in connexion with the words "Representative Meeting."
3. That in By-law 20 instead of the word "three" the word "nine" be read in the sentence "within the three months immediately preceding such meeting."
4. That it be an instruction to the Central Council of the Association and to those Committees of the Association which report directly to the Representative Meeting, to arrange that matters referred to the Divisions by an Annual Representative Meeting be so referred as far as possible not later than September 30th following.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

That the Finance Committee is requested, when preparing the annual accounts of the Association, to also prepare a statement containing the same details but on the lines of a rate demand note.

GUY ELLISTON, *General Secretary.*

March 30th.

MEDICAL DEFENCE.

Memorandum

BY THE

MEDICAL DEFENCE COMMITTEE,

TOGETHER WITH

DRAFT SCHEME.

AT Oxford a Committee appointed by the Council of the Association submitted to the Representative Meeting a scheme for medical defence. This scheme was referred back by the Representative Meeting with the following instructions:

That instead of appointing a new Committee, the question of the principle of medical defence be referred back to the original Committee appointed by the Council.

That it be an instruction to the Committee, in framing any scheme of medical defence, to include both collective and individual defence.

That it be an instruction to the Medical Defence Committee to state in their scheme or statement which shall be submitted for the approval or otherwise to the Divisions

in what way it provides for the amalgamation of the existing Medical Defence Societies.

That any scheme prepared by the Committee shall be submitted to the Divisions before March 31st, 1905.

Accordingly the Medical Defence Committee drafted a fresh scheme, and invited representatives from kindred Medical Defence Societies to confer as to the best steps for amalgamation of all Defence Societies with the British Medical Association. This conference took place on January 12th, when representatives from the Medical Defence Union and the London and Counties Medical Protection Society attended, but the views they expressed on behalf of their Societies were distinctly opposed to amalgamation. The Medical and Dental Defence Union of Scotland wrote saying they were of opinion that the interests of their members would be best promoted by their Union maintaining an independent existence, and the Irish Medical Association (Medical Defence Department) wrote saying that it was not at present aware of any advantages to be derived from a conference on the subject.

Concurrently with the Medical Defence Committee, a Committee, with an instruction from the Representative Meeting to alter the Memorandum of Association on the lines of the Birmingham resolutions, has been sitting. The Birmingham resolutions, it had always been understood, when confirmed by the Court, would give the necessary powers for the Association to undertake individual medical defence. However, upon these resolutions being submitted to the solicitor, he expressed the opinion that the Birmingham resolutions, even if passed by the High Court, would not necessarily give the Association such powers. This opinion was subsequently confirmed by Counsel.

The Committee on the Memorandum of Association has caused clauses to be drafted covering the various instructions of the Representative Meeting, one of which is to provide for individual medical defence. At the next meeting of the Council, the Chairman proposes to move that an Extraordinary General Meeting be summoned at Leicester to consider the proposed alterations of the Memorandum of Association. On these alterations being approved, individual medical defence will be provided for, though in addition it will be necessary to obtain the sanction of the High Court before the proposed alterations in the Memorandum can be carried into effect. Counsel has expressed the opinion that there is a doubt as to whether the High Court will sanction the Association undertaking individual medical defence.

The Committee now submits for the consideration of the Divisions the following draft scheme of medical defence:

DRAFT SCHEME MEDICAL DEFENCE.

Amalgamation of Existing Societies.

1. Invitation to the Medical Defence Union, to the London and Counties Medical Protection Society, and to the Medical and Dental Defence Union of Scotland, and other like Societies engaged in Medical Defence, to merge themselves in the British Medical Association to form one professional department for the provision of medical defence.

Election of Central Committee.

2. Election by the Representative Meeting and Council of a Central Medical Defence Committee (this Committee also to act for England and Wales). The Central Medical Defence Committee to consist of 15 members, including a representative from the Scottish and Irish Committees respectively, together with 6 members elected by the Council and 7 by the Representative Meeting.

Election of Scottish and Irish Committees respectively.

Election by the representatives from Scotland and Ireland present at the Annual Representative Meeting of a Scottish Medical Defence Committee, and an Irish Medical Defence Committee respectively. The Scottish Committee to consist of 10 members and the Irish Committee of 8 members.

Appointment of Secretaries and Additional Officers.

3. Appointment by the Council of a Medical Defence Secretary of the Association who shall be a whole-timed salaried officer of the Association.

The Central Defence Committee to have power to appoint additional officers.

Central Committee's Decision to be Final.

4. The final decision whether the Association shall take up the defence of any given case shall be vested wholly and without reserve in the Central Defence Committee.

Disputes to be Decided by Arbitration.

5. All disputes which arise between members of the Medical Defence Department of the Association and which are referred to the Defence Department shall be decided, if necessary, by arbitration.

The arbitrators shall be selected by the disputants, subject to the approval of the Central Defence Committee.

Control of Funds by the Central Committee.

6. The Central Defence Committee to have absolute control of the funds allotted for the Medical Defence Department of the Association.

Capitation Grant to Scottish and Irish Committees.

7. The Central Defence Committee to allow the Scottish and Irish Defence Committee respectively to expend a certain sum per head of the membership of the Association of that country.

Finance.

8. That the Subscription be raised to 35s.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

EAST ANGLIAN BRANCH:

SOUTH-ESSEX DIVISION.

A meeting of this Division was held at the Victoria Hospital, Southend-on-Sea, on Thursday, March 2nd, at 4 p.m., Dr. A. Clough Waters, Chairman of the Division, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Cases.—Dr. Walker showed (1) a case of erythema nodosum with unusual distribution of the eruption; (2) a case of great deformity of tibiae in a boy aged 10.—Dr. Smellie showed a larynx and trachea removed from a case of laryngeal diphtheria in a man aged 23.

Paper.—Dr. J. T. C. Nash read a paper on the treatment of diphtheria, illustrated by charts, case notes, and microscopic specimens.

Matters Referred to Divisions.—The meeting then considered the memorandum submitted to it on ambulance work. The unanimous opinion of the meeting was that none of the services concerning which an opinion was asked should be treated as a matter of philanthropy, and that the fee for each lecture should be fixed at one guinea.—The memorandum on the payment of medical practitioners called in to assist midwives was considered by the members present, and the opinions given have been transmitted to the Medical Secretary.—The consideration of the remaining memoranda was adjourned to the next meeting.

EDINBURGH BRANCH:

NORTH-EAST EDINBURGH DIVISION.

A meeting of this Division was held on Tuesday, March 7th, at 5, St. Andrew Square. Dr. James Carmichael, Vice-Chairman, presided.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Accounts.—The accounts for the year 1904 were duly audited.

Resignation of Chairman.—A letter from Sir John Sibbald was read intimating his resignation of the Chairmanship owing to the state of his health. The meeting with much regret agreed to the request, and instructed the Secretary to express to Sir John Sibbald their high appreciation of his services.

School Board Certificates.—The subject of School Board certificates was referred to the combined meeting of the executives of the three Edinburgh Divisions for consideration.

The Medical Register, etc.—No action was taken on the letter from the Bradford Division about the *Medical Register*, nor on the letter from the Medical Guild about the Midwives Act.

Circular to Non-members.—The suggested letter to medical men in the area of the Division who are not members of the Association was approved, and the Secretary instructed to carry out the proposal.

Matters Referred to Divisions.—The subjects of contract medical practice, consultation between medical witnesses, information supplied to coroners by medical practitioners, reorganization of the Local Government Board, prevention of the abuse of drugs, and ambulance work, were considered by the meeting, and the conclusions have been transmitted to the Medico-Political Committee. The question of the advertising of the names of medical practitioners in connexion with hydropathic and similar establishments was also considered, and the opinion of the Division has been communicated to the Ethical Committee.

HONG KONG AND CHINA BRANCH.

The annual meeting of this Branch was held at the Sanitary Board offices on December 21st, 1904 at 9 p.m., Colonel W. E. Webb, R.A.M.C., President, in the chair.

Confirmation of Minutes.—The minutes of a meeting held on April 27th were read and confirmed.

Branch Rules.—The rules of the Branch as revised on December 8th were considered and passed.

Election of Officers.—The following office-bearers were elected for the session 1904-5:—*President:* Dr. G. P. Jordan. *Vice-President:* Colonel W. E. Webb as retiring President. *Honorary Secretary and Treasurer:* Dr. E. A. R. Laing. *Council:* Staff-Surgeon Parker, R.N.; Dr. Wm. Hunter, Dr. Harston, Major Josling, R.A.M.C.; Dr. Francis W. Clark. Dr. F. O. Stedman was elected representative on the General Medical Council of the Association for 1904-5 vice Mr. James Cantlie, who is not eligible to serve on the Council, having represented the Branch for eight years continuously.

President's Address.—Colonel W. E. Webb, R.A.M.C., as retiring President, elected to address the meeting on the subject of malaria, after having reviewed the work of the session.

Vote of Thanks to Retiring President.—Dr. G. P. Jordan proposed a vote of thanks to Colonel Webb for his past services and for his address. This was seconded by the Hon. Dr. J. M. Atkinson, who remarked that for the past seventeen years Colonel Webb was the first Principal Medical Officer who had taken part in the work of the local Branch. The vote of thanks to Colonel Webb, R.A.M.C., as retiring President, was carried with acclamation, and then he vacated the chair, which was taken by Dr. G. P. Jordan, President for 1905.

Cases.—The following cases were read by Dr. Laing: (1) A case of extrauterine pregnancy; (2) a case of carbolic acid poisoning.

Specimens.—Pathological specimens relating to the cases were shown and demonstrated. The cases were discussed by the President, Dr. Harston, Dr. Clark, and Dr. Hunter. Dr. Laing replied.

LANCASHIRE AND CHESHIRE BRANCH:

Preston Division.

The annual meeting of the Preston Division was held on February 21st, Dr. R. C. Brown in the chair.

Election of Officers.—The following were elected officers:—*President:* Dr. R. C. Brown. *Vice-President:* Dr. J. E. Garner. *Committee:* Drs. Anderson, Dunn, Mooney, and Petyt. *Representative on Branch Council:* Dr. A. E. Rayner. *Representative at Representative Meeting:* Dr. J. E. Garner. *Honorary Secretary:* Dr. W. H. Irvin Sellers.

Matters Referred to Divisions.—With regard to the Medical Acts Amendment Bill, it was agreed that the views of the Division remain unchanged since this was considered last year.—As to advertising in connexion with hydropathic establishments the Division objected to the public advertising of the names of medical men attending at hydropathic establishments.—The question of consultation between medical witnesses was discussed, and the Division agreed as to the advisability of such consultations taking place with the consent of counsel and clients.—With regard to ambulance work the conclusions arrived at were that (1) all the services should be treated as matters of business; (2) fees would depend upon the work done, distance travelled, and time taken up.—In respect of payment of medical men called in to assist midwives the replies of the Division have been conveyed to the Medico-Political Committee.—The memorandum on information to coroners was also approved.—The Revaccination Bill and the memorandum on the abuse of drugs were approved of.

Increasing the Membership of the Division.—A Subcommittee was appointed, consisting of Drs. Brown, Collinson, Pimblett, Smith, and Sellers, to consider the best means of effecting this.

METROPOLITAN COUNTIES BRANCH:

City Division.

An ordinary general meeting of this Division was held at the Great Eastern Hotel, Liverpool Street, E.C., on Thursday, March 23rd; Mr. Hope Grant, the Chairman of the Division, presiding.

Medical Charities in connexion with Places of Worship.—A letter was read from the Honorary Secretary of the Lancashire and Cheshire Branch containing a resolution of the Council of the Branch that the Council viewed with the strongest disapproval the association of medical men with any medical charity in connexion with any place of worship, save as a whole-time appointment for missionary work. The meeting unanimously adopted this resolution.

Annual Representative Meeting.—Two notices of motion for the Annual Representative Meeting were unanimously adopted. These will be found amongst the notices of motion published in the Supplement.

Representative on Association Council.—Dr. Major Greenwood was unanimously nominated.

Matters Referred to Divisions.—The memorandum on the payment of medical practitioners called in to assist midwives was considered, and the results of the deliberation have been conveyed to the Medico-Political Committee. The memorandum on the relation of the profession to ambulance work was discussed, and it was unanimously resolved that none of the services—ambulance instruction, ambulance examination, and judging in ambulance competitions—should be treated as a matter of philanthropy. It was resolved unanimously that it should be left to each Division to make such arrangement as to fees and other matters as might be suitable. With regard to the report on the prevention of the abuse of drugs, the three recommendations suggested by the Medico-Political Committee were unanimously adopted. On the question of the desirability of consultation between medical witnesses, the following resolution was passed:

> That the Division is of the opinion that it is inadvisable that the medical witnesses engaged on each side in legal cases should meet in consultation when the matter is before the court.

Wandsworth Division.

An ordinary meeting was held on Thursday, March 23rd, at the Town Hall, Wandsworth, Mr. Geo. Walker in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Communication from Mr. Marks.—A communication from Mr. Marks was read, wherein he stated he would not at present publish and issue his periodical.

Communication from the Medical Secretary.—A communication from the Medical Secretary was read acknowledging report of amicable settlement of a difficulty caused through a nursing home touting for cheap midwifery engagements.

Nomination of Candidates for Central Council.—The delegates reported the result of the conference to formulate some plan of nomination of candidates for the Central Council that would prove acceptable to members of the Branch. They were authorized to consult the other two South London Divisions and to act accordingly.

Deputation to Local M.P.s.—The CHAIRMAN reported that various matters had to be laid before local M.P.s by deputation. It was decided to leave all the necessary arrangements to the Committee.

Matters Referred to Divisions.—Dr. LAMBERT introduced the reference concerning hydropathic establishments. After discussion it was resolved not to approve the suggested action of the Central Council.—Dr. MCMANUS introduced the reference relating to ambulance work, when it was resolved that all services given ought to be paid for, and the whole conditions to be similar to the London County Council (a guinea each lecture of one hour and a half, a guinea each examination, all bandages, splints, boys, and the halls, etc., being provided free).

Representative Meeting.—Dr. BIGGS introduced the resolutions for Representative Meeting appearing in the SUPPLEMENT of February 25th, when it was resolved to support alteration of By-law 22; the Southern Branch; and No. 1 of Walthamstow; and to oppose both resolutions of the Salford Division, and No. 2 of Walthamstow. The following resolution was proposed, seconded, and duly approved for the agenda of the Representative Meeting:

> That the Finance Committee is requested, when preparing the annual accounts of the Association, to also prepare a statement containing the same details, but on the lines of a rate demand note.

Annual Dinner Committee.—On the suggestion of Dr. BIGGS, it was resolved to have a special Annual Dinner Committee, and five members were duly elected to act.

Paper.—Dr. ROBERT HUTCHISON then read a paper on some perplexing symptoms in the diseases of children, referring to the following points:—Pyrexia (specific fevers, pneumonia, gastritis, enteric and "gastric fever," constipation, tuberculosis, rheumatism, tonsillitis, osteomyelitis, pyelitis); abdominal pain (colic, intussusception, gravel, dyspepsia, worms, appendicular colic, spinal disease, rheumatism); inability to walk (1) congenital (deformities, rickets, paralysis, mental deficiency), (2) acquired, "going off the legs" (post-diphtheritic paralysis, infantile paralysis, rheumatism, tuberculous disease of the spine or hip); haematuria (scurvy, renal sarcoma, oxaluria, haemophilia, purpura, Raynaud's disease, rheumatism). Abdominal distension (rickets, tuberculous peritonitis, cirrhosis of liver, abdominal tumours). This was followed by an interesting discussion, which, with a hearty vote of thanks to Dr. Hutchison, closed the meeting.

NORTH WALES BRANCH.

SPECIAL GENERAL MEETING.

Formation of Branch.—A special general meeting of this Branch was held at the Station Hotel, Llandudno Junction, on March 21st, to take such steps as might be necessary consequent upon the consent of the Council of the Association being obtained to form the three Divisions of the North Wales portion of the North Wales and Shropshire Branch into a separate Branch, to be called, as prior to the reconstitution of the Association, the North Wales Branch. Dr. LLOYD WILLIAMS, the ex-President of the North Wales and Shropshire Branch, presided.—Mr. JONES MORRIS, the representative on the Council, having explained the steps taken to form a separate Branch and the object of the meeting, it was, on the motion of Dr. ARTHUR PRICHARD, seconded by Dr. J. E. JONES, unanimously resolved:

> That the action of the Council of the Association in constituting North Wales as a separate Branch be confirmed.

Election of Officers.—The SENIOR HONORARY SECRETARY proposed that Dr. Emyr O. Price, of Bangor, should be elected President.—This was seconded by Dr. R. H. MILLS ROBERTS, C.M.G., and carried unanimously. The Honorary Secretaries, Drs. Jones Morris and Jones Roberts, were re-elected. The members elected by the Divisions on the Council of the North Wales and Shropshire Branch were re-elected on the Council of the North Wales Branch to hold office till the annual elections by the Divisions in May.

By-laws of New Branch.—The by-laws of the Branch were discussed and adopted.

Ethical Committee and Rules.—It was resolved that the Branch Council be the Ethical Committee of the Branch, and the Model Rules were adopted subject to any alterations the Committee may deem fit to propose at the annual meeting.

Annual Meeting.—It was resolved that the annual meeting be held at Bala on Thursday, July 6th.

SOUTH-EASTERN BRANCH:

SEVENOAKS DIVISION.

A MEETING of the Sevenoaks Division was held at Tunbridge on March 24th, under the chairmanship of Dr. MARRIOTT (Sevenoaks).

Paper.—Mr. ANDREWS (Tunbridge) gave an account of anaesthesia by ethyl chloride and exhibited apparatus. A short discussion followed.

Fees for Sickness Certificates.—The Committee made a report to the Division on the question of fees for certificates of sickness to members of clubs, and the following recommendation was passed:

> That for each and every certificate given the medical man should charge a fee of not less than 1s. to private or club patients, except in the cases where he is medical officer to the club, in which cases the certificate for the particular club should be given free.

Matters Referred to Divisions.—The meeting then considered the questions of the Medico-Political Committee relating to the Midwives Bill. The conclusions have been conveyed to the Medico-Political Committee.

Association Notices.

NOTICE OF CHANGES IN DIVISIONS AND BRANCHES.

CHANGE OF BOUNDARIES.

THE following change has been made in accordance with the regulations of the Association, and takes effect from the date of publication of this notice:

That Weaverham be transferred from the Warrington Division to the Altrincham Division of the Lancashire and Cheshire Branch.

COUNCIL MEETING.

THE Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 11 o'clock in the forenoon of Wednesday, April 19th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

March, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A special meeting of this Division will be held on Wednesday, April 5th, at 8.30 p.m., at the Coventry and Warwickshire Hospital. Agenda: (1) Mr. W. E. Bennett will read a paper on rickets; (2) report of the Committee on the Coventry United Juvenile Friendly Societies: (3) ambulance work (SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 4th); (4) death registration and coroners' law (SUPPLEMENT, March 11th).—E. H. SNELL, Honorary Secretary, Knighton House, Coventry.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the Suffolk Hotel, Bury St. Edmunds, on Thursday, April 6th. Members wishing to read papers or show cases or specimens should communicate at once with Dr. Gulch, Ipswich.—B. H. NICHOLSON Honorary General Secretary, East Lodge, Colchester.

NORTH OF ENGLAND BRANCH.—A meeting of the Branch will be held at Morpeth on Thursday, April 13th, at 4 p.m.; Branch Council at 3.30. Any member willing to read a paper or show a case will oblige by communicating with the Honorary Secretary as early as possible.—ALFRED COX, Honorary Secretary, Cotfield House, Gateshead.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of this Branch will be held on Wednesday, April 12th, at the Victoria Park Hotel, Barrow-in-Furness, at 3.30 p.m. There will be a discussion on the Modern Treatment of Phthisis, opened by Dr. Hughes, Medical Superintendent of the Westmorland Sanatorium for Consumption.—A. S. BARLING, 2, Queen Square, Lancaster, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of the South-Eastern Branch will be held on Wednesday, June 21st, at the Royal Fountain Hotel, Canterbury, at 2.15 p.m.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth

Wednesday in April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, Ryding Marsh, M.D., 49, Sackville Road, Hove.

South-Eastern Branch: Isle of Thanet Division.—The next annual meeting of this Division will be held at the Royal Sea-bathing Hospital, Margate, on Tuesday, April 4th, at 4.15 p.m., Mr Bertram Thornton in the chair. Agenda: (1) Matters referred to Divisions: (*a*) Memorandum with regard to the National Deposit Friendly Society (see Supplement to the British Medical Journal, January 14th, 1905). Dr. Street will start a discussion on the question. (*b*) Memorandum with regard to ambulance work (see Supplement, February 4th, 1905). (*c*) Consideration of report on advertising the names of medical practitioners in connexion with hydropathic establishments (see Supplement, February 18th, 1905). (*d*) Mr. A. M. Watts will move a resolution with regard to the payment of medical men for school certificates. (3) Dr. Heaton: The therapeutics of high tension currents; demonstration of apparatus. The decisions arrived at upon some medico-political questions discussed at the special meeting, held on February 2nd, were published in the Supplement, February 18th, p. 51. All other members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends, but will not be entitled to vote on Divisional questions.—Hugh M. Raven, Barfield House, Broadstairs, Honorary Secretary.

South-Eastern Branch: Norwood Division.—A clinical meeting will be held on Thursday, April 13th, at 4 p.m., at the Miller Hospital, Greenwich, Dr. Gooding of Blackheath in the chair. The staff have kindly promised to show cases. (The Miller Hospital is quite close to the Greenwich S.E.R. Station, and the trams from New Cross to Greenwich pass the door.) Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once. Agenda: (1) Minutes of last meeting; (2) to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat.—H. J. Prangley, Honorary Secretary, Tudor House, 197, Anerley Road, Anerley, S.E.

Ulster Branch.—The spring meeting of this Branch will be held on Wednesday, April 5th, in Belfast. Members wishing to read papers or show cases will please send me particulars of the same at an early date.—Cecil Shaw, M.D., Honorary Secretary, College Square, Belfast.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc. Presented.

Calendars, Reports, and Transactions have been received from the following bodies:

Royal Academy of Medicine in Ireland. Transactions. Vol. 22. 1904.
Royal College of Surgeons, England. Calendar. 1904.
Royal Medical and Chirurgical Society. Transactions. Vol 87. 1904.
St. Thomas's Hospital Medical School. Calendar. 1904-5.
Scientific Memoirs by Medical Officers in India. Vols. 11, 12. 1904.
Sheffield University. Calendar. 1904-5.
Society for Psychical Research. Proceedings. Vol. 18. 1903.
Society for Study of Disease in Children. Proceedings. Vol. 4. 1904.
United States Bureau of Animal Industry. Twentieth Report. 1904.
University College. Calendar. 1904-5.
West Kent Medico-Chirurgical Society. Transactions and 48th Report. 1904.

Books Needed to Complete Series:

The Librarian will be glad to receive any of the following volumes which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, and 11.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols 18-30, 1850; vol. 33, 1857; vol. 49, 1864-5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols 1-9
——— Laryngological Association. Transactions. Vols. 1-6, 8 9.
——— Medical Association. Transactions 1-23, 30, 31.
——— Otological Society. Transactions. Vol 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24
Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.
Annals of Surgery. Vols. 11; 13-16 and 26-27.
Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive; 1857-64 inclusive; 1-71.
——— of Ophthalmology. Vols. 1-3, 6, 7, 14-21.
——— of Otology. Vols 1-7, and 20-22.
——— of Pediatrics. Vols. 1-11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol 2, part 3.
British Laryngological and Rhinological Association. 1900-1 2.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Laffan, 1879. Kiving on, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891, Index to 1891.
——— für Bakteriologie. Bound volumes prior to 1890.
——— für klinische Medicin. 1880-3; all 1888, 1891, No. 26; 1892, No. 17.
——— für medicinischen Wissenschaften. Vols 1-19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.
——— Internat. d'Obstétrique et de Gynecologie. 3, Amsterdam, 1899.
Connecticut State Board of Health Report. Vol. xi. 1887 8.
Denman. Midwifery. 1801.
Dermatological Congress. Vienna, 1892, and Paris, 1900.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35-40.
Edinburgh Medical and Surgical Journal. Vols. 67-82. 1847-55.
Edinburgh Obstetrical Society. Transactions. Vol. 5.
Gale. Surgery. 1563.
Glasgow Medical Journal. 1833-68.
——— Pathological Society. Transactions. Vols. 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5, 1872; and 1881-1886 inclusive.
Hunterian Transactions containing 76th Report.
Indian Medical Gazette. 1866-84.
International Congress of Hygiene. Congresses 1 to 6 and 10 to 12.
——— Ophthalmological Congress. Transactions of 5th, New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1-10.
Journal of Laryngology. Vols. 1-9.
Lancet, 1850, vol 2, pages 425-6, and August 23rd, 1851.
Ophthalmic Review, January, 1882.
Pathological Society of London. Transactions, vol. iii, 1851.
Pediatrics, prior to 1902.
Pollatschek. Therapeutische Leistungen des Jahres. 1894, 1895, 1900.
Provincial Medical and Surgical Journal. March to September, 1841.
Recueil d'Ophtalmologie. 1891 Jan.-June; 1892, December.
Registrar-General's Decennial Report, 1871-80.
Revue Générale d'Ophtalmologie. Prior to 1888, and 1891-2.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette, 1-7.
St. Mary's Hospital Gazette, 1-5
Semaine Médicale. Prior to 1890, and title and index to year 1892.
South African Medical Journal. February, April, 1895. And titles for vols. 3 and 4.
Turner (D.). Art of Surgery. Vol. 2. 1725.
University College Hospital Reports. Before 1877 and 1892-3.
Virchow's Archiv. Any vols. prior to 151.
Wiener klinische Wochenschrift. Nos. 5 and 6. 1899. Title 1892 and 1888.
Willcock. Laws of the Medical Profession. 1836.
Ziemssen's Cyclopaedia. Supplem. vol.

Applications for duplicates from Branches or Divisions forming libraries may be addressed to the Librarian 429, Strand.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on March 23rd, at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

Election of Members of the Board.

Letters were read from the Royal Colleges of Physicians and Surgeons reporting the re-election of Dr. Champneys and of Mr. Ward Cousins respectively as representatives of the Colleges on the Board; and from the Society of Apothecaries reporting the re-election of Mr. Parker Young as representative of that Society.

The Incorporated Midwives Institute wrote reporting the election of Dr. W. R. Dakin as a representative of the Institute on the Board, in place of Dr. C. J. Cullingworth, who, on the motion of Mr. Parker Young, seconded by Sir W. J. Sinclair, received the thanks of the Board for the great services he had rendered that body.

Suggested Reduction of the Certificate Fee.

A letter was received from the Clerk of the County Council of the West Riding, informing the Board of a resolution of the County Council suggesting the reduction of the certificate fee to 2s. 6d. or some less sum. The Board, in view of the fact that the present certificate fee had not deterred nearly 20,000 women from certifying, decided that no action should be taken.

Belfast Union Maternity Hospital.

A letter was received from Dr. J. McLiesh, asking the Board to reconsider its decision not to recognize the certificate of the Belfast Union Maternity Hospital as an approved qualification under Section 11 of the Midwives Act. Sir W. J. Sinclair observed that after the Board had once given its decision persistent applications for reconsideration should not be entertained. The Board decided that no action was to be taken in the matter.

Examination Centres.

A letter from the President of the Liverpool Ladies' Charity and Lying-in Hospital, asking the Board to constitute Liverpool an examination centre, in which it was contended that it was an absolute injustice to force candidates to travel from Liverpool to Manchester to be examined, was read. A letter from Dr. H. Briggs, Professor of Midwifery in the University of Liverpool, forwarding a memorial to the same effect, signed by certain medical officers of health and other members of the medical profession in Liverpool and the adjoining districts, was also read. Sir W. J. Sinclair said that it was merely an expression of jealousy between Liverpool and Manchester. The cost of travelling between Liverpool and Manchester was not excessive, and he was surprised that Dr. Briggs had signed the letter. Dr. C. J. Cullingworth pointed out that in time it was quite possible that Liverpool might be constituted an examination centre. As far as could be understood, the Secretary of the Central Midwives Board was instructed to send a reply explaining that the arrange-

ments of the Board in regard to the examination centres could not be disturbed at present.

Translation of the Board's Rules into Welsh.

A letter from the Clerk of the Menai Bridge Urban District Council suggesting the desirability of having the Board's rules translated into Welsh was read, and after a long discussion the Board came to the conclusion that the County Council Association should be asked if, in their opinion, there was any necessity for an authorized translation into Welsh of the Board's rules.

Use of the Thermometer by Midwives.

A letter was received from Dr. Sergeant, M.O.H. Lancashire, as to the operation of Rules E 17 (c), I (5), providing that a midwife must decline to attend alone, and must advise that a registered medical practitioner be sent for in the case of lying-in women upon the occurrence of a rise of temperature above 100.4° F., with quickening of the pulse, for more than twenty-four hours. According to the reports received by Dr. Sergeant from his inspectors certain of the midwives did not understand the use of the thermometer. The Board advised that the right course to pursue would be to instruct the women and call their attention to the rule.

Use of Antiseptics by Midwives.

Dr. Sergeant also inquired whether a midwife who had been in attendance on a case of puerperal fever would be liable to a charge of misconduct under the Act if she refused to use antiseptics according to Rule E 7. This matter was discussed, and the opinion was expressed that such procedure would amount to misconduct under the Act.

Number of Women on the Roll.

After consideration of applications for certificates, the names of 2,741 women were passed under Section II of the Act, and ordered for entry on the Roll. The total number enrolled amounts to 18,231.

The Board adjourned to April 27th.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: JOHN ANDREWS, Fleet Surgeon, to the *Blenheim*, on commissioning, April 1st; SHIRLEY H. BIRT, Staff Surgeon, to the *Indefatigable*, April 1st; FRANK BRADSHAW, Staff Surgeon, to the *Edgar*, March 23rd; NORMAN B. V. JACOB, Surgeon, lent to the *Sapphire II.*, temporary, March 23rd; GORDON MOIR, Surgeon, lent to the *Research* for the summer season, March 23rd; ARTHUR R. DAVIDSON, M.B., Surgeon, lent to the *Triton* for the summer season, March 23rd; SAMUEL H. FACEY, Surgeon, to the *Albion*, March 23rd; NOEL H. HARRIS, Surgeon, to the *Pembroke*, March 25th; FRANK H. NIMMO, Surgeon, to Haslar Hospital, April 1st; RICHARD WILLAN, ERNEST D. RUTHERFORD, M.B. MAURICE W. HAYDON, and ROBERT H. MACGIFFIN, M.B., Surgeons, to the *Pembroke*, additional, for disposal, May 5th; HENRY M. BRAITHWAITE, M.B., DUNCAN G. ADDISON-SCOTT, M.B., and LAURENCE C. HUNT, Surgeons, to the *Victory*, additional, for disposal, May 5th; WILLIAM C. B. SMITH, FERNAND L. J. M. DE VERTEUIL, FRANCIS HERNAMAN-JOHNSON, and CHARLES R. WORTHINGTON, M.B., Surgeons, to the *Vivid*, additional, for disposal, and to be lent to Plymouth Hospital, May 5th; HENRY S. TURNER and SAMUEL H. VICKERY, M.B., Surgeons, to the *Vivid*, additional, for disposal, May 5th; PATRICK D. MACI. CAMPBELL, FREDERICK G. WILSON, M.B., JAMES M'A. HOLMES, M.B., ALFRED O. HOOPER, M.B., and EDWARD W. M. HEARN, Surgeons, to the *Wildfire*, additional, for disposal, May 5th; WILLIAM H. POPE, Surgeon, to the *Fire Queen*, additional, for disposal, March 22nd; ALEXANDER J. MACDIARMID, M.B., Surgeon, to the *Pembroke*, additional, for disposal, May 5th; JOHN H. PEAD, M.B., Staff Surgeon, to the *Charybdis*, on recommissioning, March 25th; SIDNEY T. REID, Staff Surgeon, to the *President*, additional, for three months' hospital course, March 27th.

Civil Practitioner ALFRED MASON has been appointed Surgeon and Agent at Deal, February 22nd.

ROYAL ARMY MEDICAL CORPS.

MAJOR R. H. PENTON, D.S.O., from the Seconded List, to be Major, March 1st. He was seconded for service with the Egyptian army, February 12th, 1892.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. K. MCKAY, C.I.E., Bengal Establishment, is promoted to be Colonel, December 3rd, 1904. He was appointed Assistant Surgeon, September 30th, 1873, and became Surgeon-Lieutenant-Colonel September 30th, 1893, and was selected for increased pay, October 30th, 1893. He was in the Naga expedition in 1875, in the Afghan war of 1878-80 (medal); and with the Mahsood Waziri expedition in 1891.

ARMY MEDICAL RESERVE.

LIEUTENANT M. S. W. GUNNING, Leicester and Lincoln Brigade Bearer Company, Royal Army Medical Corps (Volunteers), to be Surgeon-Lieutenant, March 29th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

DANIEL V. M. ADAMS, M.B., is appointed Lieutenant, March 25th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON LIEUTENANT-COLONEL A. K. HOPPER, 8th Lancashire, resigns his commission, and is granted the honorary rank of Surgeon-Colonel, retaining his uniform, March 29th.

ELECTRICAL ENGINEERS (VOLUNTEERS)

SURGEON-LIEUTENANT C. H. LEAF, M.B., to be Surgeon-Captain, February 28th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT-COLONEL ANDREW CLARK, 4th Middlesex (West London) (Brigade-Surgeon Lieutenant-Colonel, Senior Medical Officer 3rd London Volunteer Infantry Brigade) is granted the honorary rank of Surgeon-Colonel, March 14th.

Surgeon-Lieutenant J. B. MCBRIDE, 2nd (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment, is promoted to be Surgeon-Captain, March 25th.

Surgeon-Major G. W. BRUMWELL, 2nd (Westmorland) Volunteer Battalion the Border Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Lancaster and Border Volunteer Infantry Brigade), to be Surgeon-Lieutenant-Colonel, March 25th. He is also granted the honorary rank of Surgeon-Colonel from the same date.

Mr. CHARLES H. SEDGWICK is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion the Northamptonshire Regiment, March 25th.

Surgeon-Major H. W. ROBERTS, 2nd Volunteer Battalion the Queen's Own (Royal West Kent Regiment), to be Surgeon-Lieutenant-Colonel March 25th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,985 births and 4,752 deaths were registered during the week ending Saturday last, March 25th. The annual rate of mortality in these towns, which had been 17.1, 17.2, and 15.8 per 1,000 in the three preceding weeks, rose again to 15.9 per 1,000 last week. The rates in the several towns ranged from 7.5 in Smethwick and in Wallasey, 7.6 in Handsworth (Staffs.), 8.5 in Walthamstow, 8.7 in Hornsey, 10.0 in Great Yarmouth, 10.4 in Cardiff, and 10.5 in King's Norton and in Rotherham, to 22.7 in Southampton, 22.9 in Stockton-on-Tees, 23.0 in Nottingham, 23.8 in Plymouth, 25.8 in Hanley, 27.6 in Portsmouth, and 28.9 in Merthyr Tydfil. In London the rate of mortality was 15.3 per 1,000, while it averaged 16.1 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.2 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 4.8 in Hanley, 5.0 in Nottingham, 5.4 in Reading, 5.6 in Merthyr Tydfil, 7.5 in Portsmouth, 9.1 in Southampton and 12.0 in Stockton-on-Tees. Measles caused a death-rate of 2.0 in Sheffield, 2.1 in Merthyr Tydfil, 2.3 in St. Helens, 2.7 in Middlesbrough, 3.1 in Warrington, 3.7 in Nottingham, 5.4 in Reading, 6.5 in Portsmouth, and 7.7 in Southampton, and 12.9 in Stockton-on-Tees; scarlet fever of 1.2 in Rochdale and 1.4 in Merthyr Tydfil; diphtheria of 1.1 in Middlesbrough, 1.3 in Derby, 1.6 in Hanley, and 2.0 in Burton-on-Trent; whooping-cough of 1.1 in Willesden, 1.3 in Tottenham, 1.4 in Preston, 1.7 in Rotherham, 2.9 in Tynemouth, and 3.2 in Hanley; and "fever" of 1.5 in West Bromwich. Two fatal cases of small-pox were registered last week in London and 1 in Bury, but not one in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 20 small-pox patients at the end of last week, against 15, 16, and 23 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 4, 3, and 9 in the three preceding weeks. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital, which had been 2,022, 2,034, and 2,042 at the end of the three preceding weeks, had declined again to 2,026 at the end of last week; 274 new cases were admitted during the week, against 290, 303, and 262 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 25th, 1,043 births and 615 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.4, 18.6, and 18.2 per 1,000 in the three preceding weeks, rose again to 18.3 per 1,000 last week, and was 2.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.4 in Leith and 17.2 in Glasgow to 21.5 in Aberdeen and 26.0 in Greenock. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in these towns, the highest rates being recorded in Greenock and Perth. The 267 deaths registered in Glasgow included 3 which were referred to measles, 4 to diphtheria, 16 to whooping-cough, and 5 to diarrhœa. Two fatal cases of measles, 4 of diphtheria, and 5 of whooping-cough were recorded in Edinburgh. Two deaths from whooping-cough occurred in Dundee; 2 from whooping-cough in Paisley; 2 from diphtheria, and 4 from whooping-cough in Greenock; and 2 from whooping-cough in Perth.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 18th, 528 births and 410 deaths were registered in six of the principal Irish towns, against 556 births and 448 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.8, 26.3, and 28.2 per 1,000 in the three preceding weeks, fell to 21.8 per 1,000 in the week under notice, this figure being 6.0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.8 in Limerick and 21.2 in Cork to 23.4 in Waterford and 23.8 in Dublin. The zymotic death-rate during the same period, and in the same six Irish towns, averaged 0.4 per 1,000, or 1.1 per 1,000 lower than during the preceding week, the highest figure, 1.6, being recorded in Dublin; while Limerick, Waterford, Cork, and Londonderry registered no deaths under this heading at all. The total deaths from measles in all Ireland dropped to 12, while from scarlet fever 3 were recorded. From small-pox, typhus, or whooping-cough no deaths were anywhere recorded.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £120 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Two Assistant Surgeons.

CHARING CROSS HOSPITAL, W.C.—Anaesthetist.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer; resident. Salary, £160 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Junior House-Surgeon; resident. Salary, £50 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Medical Officer for the Casualty Department. Salary at the rate of £100 per annum.

EDINBURGH HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN.—(1) Dispensary Medical Officer; (2) Anaesthetist; (3) Resident Medical Officer.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Assistant Physician.

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon; resident. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident House-Physicians. Honorarium, £25 each for six months.

HULL ROYAL INFIRMARY.—Honorary Assistant Surgeon for Out-patient Department.

KENT COUNTY ASYLUM, Chartham.—Third Assistant Medical Officer; male; resident. Salary, £140 per annum.

LONDON COUNTY COUNCIL.—Lecturers and Examiner in First Aid, Home Nursing, and Health.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the new Crossley Sanatorium, Delamere Forest. Salary, £50 per annum.

ROYAL DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Junior Demonstrator of Practical Dental Surgery. Stipend, £100 for first year, rising to £120.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Female House Physicians; (2) Female House-surgeons; (3) Female Assistant Anaesthetist; (4) Male House Physician; (5) Male Casualty House-Surgeon. Appointments for six months.

SEAMEN'S HOSPITAL SOCIETY.—(1) House-Physician; (2) House-Surgeon; (3) Junior Resident Medical Officer; (4) Senior House-Surgeon; (5) House-Surgeon. First three vacancies at Dreadnought Hospital, Greenwich; the other two at the Branch Hospital, Royal Victoria and Albert Docks. Salaries for (1) and (2), £65; (3) £40; (4) £100; and (5) £50 per annum.

STAFFORDSHIRE GENERAL INFIRMARY.—Honorary Ophthalmic Surgeon.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £50 per annum.

WILLESDEN URBAN DISTRICT COUNCIL.—Resident Assistant Medical Officer at the Isolation Hospital. Salary, £150, rising to £200 per annum.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—House-Surgeon; resident. Salary, £65, rising to £75 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

BLACKBURN, C. Bickerton, M.D.Syd., Honorary Pathologist, Royal Alexandra Hospital for Sick Children, Sydney.

BUZZARD, E. Farquhar, M.D.Oxon., M.R.C.P.Lond., Assistant Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, W.C.

CUNLIFFE, T. V., M.D., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Pathologist to the Oldham Infirmary.

FRY, P. V., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health, Luddendon Foot Urban District.

GARDEN, W. Sim, M.B., Ch.B., Second Medical Officer of the County Asylum, Chester.

GREAVES, F. W. M., M.B., Ch.B.Vict., Resident Medical Officer to the Leeds Union Infirmary.

GRILLS, G. Hamilton, B.Ch., M.D., Senior Medical Officer of the County Asylum, Chester.

MOLLINSON, C. H., M.B., Lecturer on Forensic Medicine at the Melbourne University, Victoria.

MORRIS, T. H. P., M.R.C.S., L.R.C.P., Medical Officer of Health, Newcastle-under-Lyme Rural District.

NORRIS, W. P., M.D.Melb., D.P.H., Medical Officer to the Melbourne Board of Health, *vice* Dr. Gresswell, deceased.

PAYNE, J. R., L.R.C.P.Edin., M.R.C.S.Eng., Medical Officer of Health, Coleford Urban District.

RITCHIE, R. I., M.R.C.S., L.R.C.P., Resident Junior Assistant Medical Officer, Shoreditch Parish Infirmary.

SELBY, T. J., M.D.Durh., L.R.C.S.Edin., Medical Officer to the Frodsham Post-office and Medical Officer to the Education Authority.

SHIELDS, W. T., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Wolstanton and Burslem Union.

SPEIRS, H. Meredith, M.D.Edin., Medical Officer of Health for Diss; Medical Officer and Public Vaccinator, No. 5 District, Depwade Union; Medical Officer to the Post Office, Diss; and Surgeon to the Diss Hospital.

SUTCLIFFE, J. H., M.B., Ch.B.Vict., Resident Assistant Medical Officer to the Bradford Union.

TIBBETTS, J., L.R.C.P. and S.Edin., L.F.P.S.Glas., District Medical Officer to the Stoke-on-Trent Union.

TONGUE, E. J., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Winterton District, Lincolnshire.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

KENNEDY.—On March 22nd, 1905, at 112, Balaam Street, Plaistow, E., the wife of Angus Eudicott Kennedy, M.R.C.S., L.R.C.P., of a son.

MCKIE.—On March 28th, at 14, Arthur Street, Newton Stewart, Wigtownshire, the wife of Norman James McKie, M.D.Edin., of a son.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30. p.m.—Communications:—Dr. S. G. Scott: Acute Atrophy of the Liver. Mr. S. G. Shattock: Prehistoric Vesical Calculus. Dr. J. Cattо: Imperforate Ileocolic Valve. Dr. C. E. Adams: Carcinoma of Adrenal. Dr. F. H. Thiele: Osteoplastic Carcinoma in Bones. Dr. E. Michels and Dr. Parkes Weber: Obliterative Arteritis in the Prime of Life.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Lumleian Lecture on Some Aspects of Malnutrition, by Dr. W. H. Allchin.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., at 8 p.m.—Specimens will be shown as follows:—Dr. A. H. N. Lewers: Calcified Tumour, apparently unconnected with uterus or ovaries, removed from Douglas's pouch. Dr. H. Russell Andrews: Uterine Fibroid in a Woman of 20. Dr. Boxall: Extrauterine Fetation Reappearing in Two Places at the Fifth Month. Short communication by Mr. J. H. Targett: Hysterectomy for Severe Concealed Accidental Haemorrhage. Paper and Epidiascope Demonstration by Dr. Cuthbert Lockyer: The Development and Retrogression of the Corpus Luteum, with Special Reference to the Compound Lutein Cystomata found in Association with Vesicular Mole and Chorion epithelioma.

THURSDAY.

BRITISH CHILD STUDY ASSOCIATION, Parkes Museum, Margaret Street, W., 8 p.m.—Paper on the Health of Children *qua* Food and Management, by Dr. A. Rabagliati.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, 4 p.m. Clinical Cases.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Oliver-Sharpey Lecture on the Influence of Atmospheric Pressure on Man, by Dr. L. E. Hill.

FRIDAY.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 p.m.—Cases will be shown by Messrs. Tilley, Pegler, Robinson, de Santi, etc.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., the Larynx.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Dental Conditions in Pulmonary Tuberculosis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Rectal Diseases; Tuesday, Some Clinical Aspects of Nephritis; Wednesday, Gastric Surgery; Thursday, Some Recent Advances in Tropical Pathology.

BOOKS, ETC., RECEIVED.

The Sanitary Inspectors' Handbook. By Albert Taylor. Fourth edition. London: H. K. Lewis. 1905. 6s.

Healthy Dentition: Its Importance in Child Life. By R. Denison Pedley, F.R.C.S.Edin., L.D.S.Eng. (Excerpt from Vol. II, Part II, of the Transactions of the Childhood Society). London: Childhood Society. 1904.

The Principles and Practice of Asepsis. By Arthur Styles Vallack, M.B. & Ch.M.Sydney, L.M.Rotunda. London: Baillière, Tindall, and Cox. 1905. 2s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
April	1...Saturday ...	
,,	2...Sunday..	
,,	3...Monday ...	
,,	4...Tuesday ...	Isle of Thanet Division, *South-Eastern Branch*, Royal Sea-bathing Hospital, Margate, 4.15 p.m.
,,	5...Wednesday	London: Chairmen of Committees (Standing Orders), 2 p.m. Notices of Motion for Quarterly Council Meeting must be given on or before this day. Coventry Division, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. Ulster Branch, Belfast.
,,	6...Thursday...	East Anglian Branch, Suffolk Hotel, Bury St. Edmunds.
,,	7...Friday ...	London: Ethical Committee, 2 p.m. ,, Annual Meeting (Sections) Committee, 5 p.m.
,,	8...Saturday...	
,,	9...Sunday..	
,,	10...Monday ...	
,,	11...Tuesday ...	London: Organization Committee, 10.30 a.m.
,,	12...Wednesday	London: Journal and Finance Committee, 3 p.m. North Lancashire and South Westmorland Branch, Victoria Park Hotel, Barrow-in-Furness, 3.30 p.m.
,,	13...Thursday...	London: Delegates of Divisions of the Metropolitan Counties Branch, 5 p.m. North of England Branch, Morpeth, 3.30 p.m. Norwood Division, *South-Eastern Branch*, Miller Hospital, Greenwich, 4 p.m.
,,	14...Friday ...	North Cumberland Division, *Border Counties Branch*, George Hotel, Penrith, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...Saturday...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of Journal should be posted to-day.
,,	16...Sunday..	
,,	17...Monday ...	
,,	18...Tuesday ...	London: Premises and Library Committee. ,, Medico-Political Committee, 2 p.m.
,,	19...Wednesday.	London: Central Council, 11 a.m.
,,	20...Thursday...	
,,	21...Friday ...	*Good Friday.*
,,	22...Saturday...	Notices of Motion for Annual Representative Meeting appear in Journal.
,,	23...Sunday..	
,,	24...Monday ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...Tuesday ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...Wednesday	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...Thursday...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...Friday ...	Dundee Branch, Clinical Meeting of this and other Scottish Branches, Royal Infirmary Dundee, 4 p.m.
,,	29...Saturday...	List of Members closed for publication.
,,	30...Sunday..	
May	1...Monday ...	
,,	2...Tuesday ...	
,,	3...Wednesday	
,,	4...Thursday...	
,,	5...Friday ...	
,,	6...Saturday...	
,,	7...Sunday..	
,,	8...Monday ...	
,,	9...Tuesday ...	London: Organization Committee.
,,	10...Wednesday	
,,	11...Thursday...	
,,	12...Friday ...	
,,	13...Saturday...	
,,	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	
,,	17...Wednesday	
,,	18...Thursday...	
,,	19...Friday ...	
,,	20...Saturday...	
,,	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences.
,,	24...Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26...Friday ...	
,,	27...Saturday...	
,,	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date.
June	1...Thursday...	
,,	2...Friday ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...Saturday...	
,,	4...Sunday..	
,,	5...Monday ...	
,,	6...Tuesday ...	
,,	7...Wednesday.	London: Medico-Political Committee.
,,	8...Thursday...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9...Friday ...	
,,	10...Saturday...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 8TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
NOTICES OF MOTION	137
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Trowbridge Division	138
Dundee Branch	138
Lancashire and Cheshire Branch: North Manchester Division	138
Metropolitan Counties Branch: St. Pancras Division	139
" " " Stratford Division	139
" " " Westminster Division	139
South-Eastern Branch: Brighton Division	140
" " Dover Division	140
West Somerset Branch	140
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	141
NAVAL AND MILITARY APPOINTMENTS	141
VITAL STATISTICS	142
VACANCIES AND APPOINTMENTS	142
BIRTHS, MARRIAGES, AND DEATHS	143
DIARY OF THE WEEK	143
BOOKS RECEIVED	143
CALENDAR	144

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICES OF MOTION.

THE following additional notices of motion have been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

[*Notices previously received were published in the* SUPPLEMENT *of February 25th, page 57, March 4th, page 78, March 18th, page 105, March 25th, page 121, and April 1st, page 129.*]

By the ALTRINCHAM DIVISION (Lancashire and Cheshire Branch):

I. To amend Article of Association V (page 40 in Year Book, 1905) by inserting the words "Divisions or" before the word "Branches" in line 6 (as there printed).

II. To amend By-law 17 by adding to it the following words: "If a Division shall be of opinion that the grant annually made by the Branch Council in any year to the Division is insufficient to defray those expenses which are necessary for the proper conduct of the work of the Division, the Central Council may, upon representation having been made to it by the said Division to that effect, direct that such additional grant shall be made by the Branch to the Division as the Central Council shall deem necessary, and the Branch Council shall thereupon make such additional grant; provided that in no case shall a Branch be called upon by the Central Council to make a greater additional grant than will raise the total amount granted by the Branch to that Division for the year to three shillings per head of the membership of the Division."

By the FURNESS DIVISION (North Lancashire and South Westmorland Branch):

(To be moved by the Representative of the Furness and Kendal Divisions of the North Lancashire and South Westmorland Branch.)

That, in any steps which may be taken to amend the Midwives Act, the following considerations should receive attention at the hands of the Medico-Political Committee:

1. That as no adequate provision is made for excluding ignorant women, the most fruitful causes of septic infection, up to the year 1910; and that, as no adequate provision is made to ascertain that those put on the *Register* have any skill whatever; these should not be placed upon the same *Register* as those later ones who have presumably had some training, or, at any rate, have passed an examination.

2. That the constitution of the Central Midwives Board is open to criticism, as not having a sufficient number of general practitioners.
3. That the provision for enforcing the rules regulating the practice of midwives is not adequate.
4. That control over drugs should be withheld from those who have not passed an examination.
5. That, at present, the Act implies that medical men are *compelled* to attend upon summons by a midwife, and it is desirable that the public should know that this is not the case, and that a medical man is justified in refusing to attend cases of septic poisoning in the interests of the public as long as adequate provision is not made for the exclusion of the class of women referred to in paragraph 1.

By the North Manchester Division (Lancashire and Cheshire Branch):

That Article XLV of the Articles of Association be altered to allow the payment of the same expenses as are allowed to Representatives of Divisions out of the general funds of the Association to any officers of Divisions or Branches attending any conference of such officers at the Annual Meeting.

By the Dundee District Branch:

That for facility of reference, and to relieve the space of the British Medical Journal, the Journal Committee consider the advisability of publishing the proceedings of the Annual Meetings separately as Transactions.

Guy Elliston, *General Secretary.*

April 6th.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BATH AND BRISTOL BRANCH:

Trowbridge Division.

A meeting of this Division was held at the Halve, Trowbridge, on Friday, January 20th, at 2.45 p.m., Dr. C. R. Wood, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Balance-Sheet.—The Secretary submitted the balance-sheet for the year ending December, 1904, which was adopted.

Matters Referred to the Division.—The question of contract medical practice was discussed. It was proposed by Dr. Pearse, seconded by Dr. Tayler:

That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor.

This was carried.—It was proposed by Dr. H. Tayler, seconded by Dr. Shorland:

That where the department of contract practice relates wholly to medical work, it is essential that medical men should be adequately represented on the management.

This was carried.—The following resolutions were proposed by Dr. Tayler, and seconded by Dr. Flemming

That it should be a fundamental principle of the constitution of all such departments that every medical practitioner in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service.

That the individual members of Friendly Societies be entitled to choose the medical man by whom they desire to be attended.

These resolutions were carried.—It was proposed by Dr. Pearse, seconded by Dr. Haydon:

That, in present conditions, the lowest fee to be fixed in any district as the minimum to be paid to each medical officer annually for each individual whom he is under contract to attend, should be 5s., subject to such composition fee, if any, as may be locally determined upon in the case of families having more than three children under the age of 16.

This was carried.—The following resolutions were proposed by Dr. Flemming, seconded by Dr. Wood, and carried:

That children under the age of 5 should not be admitted under contracts at minimal rates.

That in all such contracts the right be reserved to each medical officer to decline to attend as a member of such service any person whom he may consider to be unfit for membership in respect of financial position, but that such provision should be made as the governing body of the service may approve to prevent hardship resulting from the retrospective application of this rule.

The rates above specified are not intended to apply to obstetric cases, operations requiring a general anaesthetic, or serious accidents.

The question of the payment of medical practitioners called in to assist midwives was discussed; the conclusions of the Division have been conveyed to the Medico-Political Committee.—The report on information supplied to coroners by medical practitioners was considered.—With regard to the present position of registered medical practitioners in the matter of furnishing certain information to coroners, in the opinion of this Division further action by the Association is unnecessary.

DUNDEE BRANCH.

An ordinary meeting of this Branch was held in the Students' Union, Dundee, on March 30th, Dr. Kinnear, Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Representative on the Association Council.—Dr. R. C. Buist (Dundee) was unanimously nominated as member of Council for the conjoint constituency of Perth, Stirling, and Dundee Branches.

Remuneration of Admiralty Medical Agents.—A communication from the Leinster Branch with regard to the remuneration of local Admiralty medical agents was read. It was resolved to ask that Branch for further information.

Matters Referred to Divisions.—The question of remuneration for ambulance work was considered. Dr. Buist read an extract from the minutes of the Branch of January, 1895, showing that on a representation from the Branch the Town Council of Dundee had given £30 annually from the grant for the relief of local taxation to the St. John Ambulance Association. This grant having been reduced, in recent years £25 have been given. The Association pay their lecturers a fee of four guineas and examiners one guinea, with extras for mileage and large classes. The St. Andrews Association grant no fees. It was resolved:

(*a*) That the lecturers should be remunerated.
(*b*) That examiners should receive a fee.
(*c*) That judging in ambulance competitions should be done without remuneration, as no funds are available in these competitions.

The fees of the St. John Association were considered to be suitable. With regard to the advertising of the names of medical practitioners in connexion with hydropathic and similar establishments, the proposed recommendation was agreed to. In the matter of death registration, it was resolved:

That the first part of Clause 13 relating to the compulsory return of the Burial Order issued by the Registrar to the Registrar should be deleted.

The rest of the Bill was approved. The Coroners Bill was not considered.

Co-ordination of Scientific Work.—The report on the Co-ordination of the Scientific Work of the Association was approved of generally.

Annual Representative Meeting.—The motions proposed for the Annual Representative Meeting, so far as they have appeared in the Supplement, were then considered. It was resolved to send up the following motion to the Representative Meeting for discussion:

That, for facility of reference, and to relieve the space of the British Medical Journal, the Journal Committee consider the advisability of publishing the proceedings of the Annual Meetings separately as Transactions.

LANCASHIRE AND CHESHIRE BRANCH:

North Manchester Division.

At a meeting of this Division on March 30th a resolution arising out of the minutes of the preceding meeting, as to the payment of medical practitioners called in to assist midwives,

was passed. Its terms have been communicated to the Medico-Political Committee.

Ambulance Work.—On the question of ambulance work, the following resolution was passed:

> This Division considers that no ambulance lectures should be given for any less fee than £3 3s. per course for a class not exceeding fifteen; and that any certificates granted after examination in such course shall be cancelled in the event of the holder working beyond the limits of first-aid as defined by the St. John Ambulance Association.

Notices of Motion.—The following were agreed to:

> That Article XLV of the Articles of Association be altered to allow the payment of the same expenses as are allowed to Representatives of Divisions out of the general funds of the Association to any officers of Divisions or Branches attending any conference of such officers at the annual meeting.

With regard to death registration and coroners' law, it was resolved:

(*a*) That there is no indication in this report of sufficient precautions being taken against the abuse of cremation.
(*b*) That the appointment of any special officer is unnecessary; the coroner should in each case rely on the services of a local medical man.
(*c*) That it should be clearly indicated that every medical man called to give evidence or to make a report shall be entitled to the usual fee, whether he is attached to any institution or not.
(*d*) That the report is incomplete in not indicating means of dealing with death certificates required by insurance companies in such manner as to ensure secrecy.

Branch Resolutions forwarded to the Division for Consideration.—The representative of the Division was instructed to vote in favour of these resolutions at the annual meeting.

Other Business.—The following resolution was adopted for formal proposal as a new rule at the annual meeting of the Division:

> The absence of any officer or member of Executive of the Division from two successive meetings without reason being given shall be considered as a resignation of office, and dealt with accordingly.

METROPOLITAN COUNTIES BRANCH:

St. Pancras Division.

An ordinary meeting of this Branch was held at St. Mary's Infirmary, Highgate Hill, N., on Friday, March 24th, at 4.30 p.m., Dr. Wm. Wynn Westcott, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Letter from Medical Secretary.—The Secretary read a letter from Mr. J. Smith Whitaker dated March 10th, 1905.

Case.—Mr. Sydney Stephenson demonstrated a case of softening of the cornea (keratomalacia) in an infant 8 months old weighing 9 lb. and 4 oz., also a case of obstruction of the lachrymal duct in a boy, aged 9 years, due to tuberculosis, and 2 cases of infantile glaucoma.—The Chairman moved that the Secretary enter on the minutes a hearty vote of thanks, which was seconded and carried unanimously.

Matters referred to Divisions.—On the question of ambulance work, it was decided on the proposal of Dr. Buckell, seconded by Dr. Pooley, that the British Medical Association should not interfere in the discretion of individual medical men as to their action in ambulance examinations and ambulance instruction, and in the judging of ambulance competition, as to what fees should be paid or by whom. With reference to medical practitioners called in to assist midwives the resolutions of the Division have been conveyed to the Medico-Political Committee. The question whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation was discussed and affirmed. As to death certification and registration the meeting cordially agreed with the recommendations contained in the report of the Medico-Political Committee on death registration and the disposal of dead bodies. The meeting also agreed with the proposals of reformed procedure as to coroners' inquests and approved of the Coroners Bill.

Cases.—Dr. Robinson showed several most interesting cases, also electric bath and *x* rays.

Tea.—Dr. Robinson entertained the members to afternoon tea.

Stratford Division.

A meeting of this Division was held on Thursday, March 30th, in the Alexandra Hall, High Street, Stratford, E., at 9 p.m., Dr. Grogono in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and adopted.

Address.—Dr. Dundas Grant delivered an address on some appliances for the treatment of diseases of the throat, nose, and ear in general practice. He gave an extremely interesting and practical demonstration of methods likely to be of use to the general practitioner. On the motion of the Chairman, Dr. Grant was awarded a very hearty vote of thanks.

Matters Referred to the Divisions.—The meeting then proceeded to consider some of the matters referred to the Division, with the following results: I. In regard to ambulance work, Dr. Grogono moved and Dr. Rose seconded that:

> (1) No ambulance work should be undertaken gratis.
> (2) That (*a*) 5 guineas should be the fee for a course; (*b*) 1 guinea the fee for examining, in both cases for a class not exceeding thirty members; (*c*) that the remuneration for judging be at the rate of 1 guinea per hour, or part of an hour.

This was carried unanimously. II. *Re* hydropathic establishments and advertising, it was unanimously decided that this should be permitted only in medical journals. III. Regarding consultation between medical witnesses in legal cases, some discussion arose as to whether this referred to cases in court or at the bedside, and accepting the latter view, Dr. Rose moved and Dr. Beadles seconded, a resolution to the effect that:

> Consultation between medical witnesses is desirable.

This was carried unanimously. Arising out of this, Dr. Rose moved a further resolution to the effect that:

> The fee of the patient's medical attendant (one guinea) should be paid at the time by the party asking for an examination or consultation.

This was seconded by Dr. Black, and carried. It was decided that this resolution should be put down for discussion at the Representative Meeting. After some discussion, it was decided by a majority to support the recommendations of the Committee in their report on prevention of the abuse of drugs.

Election of Representatives on Central Council.—The Chairman then gave a report of the meeting of the delegates appointed to recommend names for election as members of the Central Council.

Affiliation of Local Medical Societies with the Association.—Dr. Percy Rose proposed and Dr. Grogono seconded the following resolution, to be sent for discussion to the Annual Representative Meeting, namely:

> That with a view to furthering the organization of the medical profession, the Council be asked to consider the advisability of providing a scheme for the affiliation of local medical societies with the British Medical Association.

After some discussion this was carried. This terminated the proceedings.

Westminster Division.

An ordinary meeting of the Division was held on Wednesday, March 29th, at 4 30 p.m., at 20, Hanover Square, Mr. J. Bland-Sutton in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Matters Referred to Divisions.—The members present proceeded to the discussion of the following subjects, which had been referred to the Divisions by the Medico-Political Committee, as published in the Supplement of November 26th, 1904, January 14th, February 18th, and March 11th, 1905. 1. On the question of contract medical practice, Dr. Horace Manders proposed that:

> This Division is of opinion that all contract medical work should be based upon payment of a fixed sum for separate items, that is, visits paid or medicines, etc., given. The amount for the various items to be agreed upon for a term between the contracting parties.

This was seconded by Dr. Donald Baynes, put to the meeting, and carried *nem. con.* The other recommendations of the Medico-Political Committee were agreed to. 2. In regard to consultation between medical witnesses in legal cases, after some discussion, in which Dr. Ewart, Mr. Bland-Sutton, Dr. Manders, and Dr. Baynes took part, the meeting decided to support the principle of appointment of medical assessors. 3. In regard to the position of medical practitioners in the matter of furnishing certain information to coroners, after some remarks from Dr. Longhurst, the meeting approved the suggestions of the Medico-Political Committee. 4. On the question of the reorganization of the Local Government Board, the meeting here again approved the Committee's recommendations. 5. The report of the prevention of the abuse of drugs was considered. After some discussion, in which Dr. Ewart, Dr. Longhurst,

Dr. Manders, Dr. Dauber, and the Chairman and Honorary Secretary joined, the meeting recorded their votes in favour of the Committee's recommendations. Dr. Sibley proposed, and Dr. Dauber seconded:

That this Division recommends the insertion of a clause forbidding chemists to supply patients with copies of prescriptions.

This was carried *nem. con.* 6. In the matter of the National Deposit Friendly Society, the Division considered all the recommendations very desirable. 7. In the matter of ambulance work, the Division unanimously decided in reply to the three specific questions submitted that none of the services should be treated as a matter of philanthropy. 8. With regard to advertising in connexion with hydropathic establishments, the meeting unanimously supported the recommendation of the Committee. 9. On the question of death registration and coroners' law, after some discussion *re* death registration, it was agreed that under clause 11 subsection (i) the fee should be not less than one guinea; and with regard to the Coroners Bill, under clause 4—remuneration of medical witnesses—subsection (ii) the minimum fee should be five guineas; otherwise the recommendations were agreed to. 10. The Medical Acts Amendment Bill was considered, after some general discussion, during which Mr. Horace Manders gave notice that he would propose a resolution under Clause 28, Sections 1 and 11. It was decided to postpone the further consideration of this matter to a subsequent meeting.

Election of Representatives on Central Council.—A report was received from the delegates *re* election of Representatives on Central Council, and it was decided to leave the matter in the hands of the two delegates, Dr. Cautley and Mr. Lloyd-Williams, and the Honorary Secretary to deal with.

SOUTH-EASTERN BRANCH:

Brighton Division.

A meeting of this Division was held at the Dispensary, 113, Queen's Road, Brighton, on Wednesday, March 22nd, at 4.30 p.m., Dr. Hollis in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Matters Referred to Divisions.—The following questions, submitted for consideration by the Medico-Political Committee, were then discussed: (*a*) The relations of the medical profession to ambulance work; (*b*) death registration and amendment of coroners' law. In answer to the first question, the following resolution was proposed by Dr. Gordon Dill and seconded by Mr. V. T. Greenyer:

That whereas this meeting recognizes that (*a*) ambulance instruction, (*b*) ambulance examination, (*c*) judging in ambulance competitions, are obviously matters of philanthropy, they consider that, except in the case of officers of the auxiliary forces, police, schools, etc., who are paid for such services, no such services should be rendered gratuitously.

On being put to the meeting this resolution was carried, 6 voting in favour and 3 against.—In answer to the second question, it was proposed by Dr. Ryding Marsh, seconded by Mr. A. J. Martineau, and carried unanimously:

That this meeting approves of the main principles of the proposed new Coroners Bill, and suggests that the fee for making a *post-mortem* examination should be at least 2 guineas.

Vote of Thanks to Chairman.—The meeting concluded with a vote of thanks to the Chairman.

Dover Division.

An adjourned meeting of the Dover Division was held at the Grand Hotel, Dover, on March 29th, at 8 30 p.m. Dr. Parsons took the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Matters Referred to Divisions.—The Division proceeded to consider the propositions on contract medical practice referred to the Divisions.[1] No. 1 and No. 2 were approved. No. 3, dealing with the distribution of work among any number of men willing to serve, was then discussed. Dr. Parsons explained the suggested "fundamental principle." After remarks by Drs. Ormsby, S. Hulke, and Thornton Gilbert, Dr. Larking pointed out that the Representative sought the opinions of the Divisions on these questions, and did not wish for a moment to dictate to the Divisions the way in which these matters should be viewed. Dr. F. A. Osborn pointed out some objections to the principle: First, that as the majority of the members did not engage in contract practice, they as a body did not wish to deprive the minority of this work; secondly, that if the members of the large societies, instead of being able to rely on one or two medical men for their work, had a considerable number (say a dozen or twenty) at their beck and call, they would soon induce the public to join them in a body; thirdly, that contracts with patients would not improve or render easier the relations between medical men and their patients; fourthly, the ever-present risk of offers to work under these conditions being declined with thanks by the societies on foolishly narrow grounds. He felt so strongly that the suggested principle was entirely against the interests and dignity of the profession, that he would move that:

This Division approves of the way contract medical practice is allotted at present,

namely, by ballot of the members of the societies. After a long discussion, in which Dr. Best pointed out that were the work divided up amongst many practitioners it would be unremunerative, Dr. Ormsby begged to second the motion, which was then put and carried by a large majority. Having thus voted against proposition No. 3, the other propositions, Nos. 4, 5, 6, and 7, were not considered. It will therefore be seen that this Division closely follows the lead of the Southern Division of Liverpool as regards contract practice.—In regard to medical witnesses in legal cases meeting in consultation, Dr. Ormsby proposed and Dr. Long seconded, and the Division passed a resolution similar to that passed in March, 1904,

That it is undesirable for medical witnesses to meet in consultation in legal cases.

—With respect to the question of furnishing information to coroners, the Division agreed that in that borough they were fortunate in the excellent relations existing between the coroner (Mr. Sydenham Payn) and the profession; and that the remuneration asked for information was never refused. To aid other boroughs, however, and to fall into line with other Divisions, Dr. Best proposed:

That in all cases where it is necessary for a medical practitioner to give information to the coroner for medico-legal purposes, it shall be a legal obligation that he shall receive remuneration for such information as if he had given evidence at an inquest.

Dr. Ormsby seconded the resolution, which was passed by the Division.—On the question of the reorganization of the Local Government Board, the Division generally appreciated the services rendered by the Medico-Political Committee in bringing forward this matter, and would not venture to hamper them by any action.—As to the Medical Acts Amendment Bill, the Division generally approved of the Draft Bill.—In respect of the abuse of drugs, the Division fully agreed with the recommendations of the Committee published in the Supplement for November 26th, 1904.—With regard to the superannuation of medical officers of health, Dr. Robinson, M.O.H., brought to the notice of the Division that all mention of the superannuation of medical officers of health had been omitted by the Committee. He therefore proposed that

This Division expresses an opinion that when the Public Health Committee next consider the question it is desirable that a provision should be reinserted for the superannuation of medical officers of health such as has existed in all previous Bills.

Dr. Murphy seconded this, and it was passed unanimously. The Representative of the Division, Dr. Larking, was also asked to bring this matter forward at the Annual Representative Meeting.

Vote of Thanks.—This terminated the proceedings, a vote of thanks to the Chairman being cordially passed.

WEST SOMERSET BRANCH.

The spring meeting of this Branch was held at the Taunton and Somerset Hospital on Tuesday, March 28th, Mr. A. W. Sinclair, the President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Certificates under the Education Act.—Mr. G. F. Sydenham moved the following resolution:

That in the opinion of this meeting the fees offered to medical practitioners by the County Education Committee for certificates under the Education Act are inadequate.

This was carried unanimously, as was also the following, proposed by Dr. Macdonald:

That the Honorary Secretary of the Branch be instructed to write and suggest to the Somerset County Education Committee the following scale of fees for certificates of non-attendance at school, namely, 1s. 6d. for certificates given at a doctor's surgery, 2s. 6d. for certi-

[1] Supplement, November 26th, 1904.

ficates given at a patient's home if within two miles of the practitioner's residence, and 1s. per mile in addition for each mile or part of mile beyond two. If more than one certificate is required from the same house they shall after the first be supplied at 1s. 6d. each, irrespective of mileage.

Matters Referred to Divisions.—The payment of practitioners called in to assist midwives: A discussion on this subject was introduced by Dr. J. A. Macdonald, and a series of resolutions brought before the meeting, the results of which have been sent to the Medical Secretary of the Association. Time not permitting of the discussion of the remainder of the agenda, the meeting was adjourned until April 11th.

Association Notices.

COUNCIL MEETING.

The Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at **11** o'clock in the forenoon of Wednesday, April 19th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

April, 1905. Guy Elliston, *General Secretary.*

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished on application to the General Secretary of the Association, 429, Strand.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. Sydney Short, 35, Newhall Street, Birmingham.

Border Counties Branch: North Cumberland Division.—A meeting of the North Cumberland Division of the Border Counties Branch will be held at the George Hotel, Penrith, on Friday, April 14th, at 3 o'clock. Members desirous of reading papers, showing patients or specimens will kindly communicate with the Secretary, Norman Maclaren, 23, Portland Square, Carlisle.

Dorset and West Hants Branch.—Nominations for elective members of the Central Council must be made in writing on or before May 10th, to C. H. Watts Parkinson, Wimborne Minster, Honorary Secretary of the Branch.

Lancashire and Cheshire Branch: Chester Division.—A meeting of the members of this Division will be held in the Library of the Chester General Infirmary on Tuesday, April 11th, at 4.30 p.m. Supplements, etc., should be brought to the meeting. Business: (1) Minutes of last meeting; (2) Public Health Bill (memorandum enclosed); (3) Revaccination Bill (Supplement, January 14th, 1905); (4) Ambulance work (Supplement, February 4th, 1905); (5) Death Registration, etc., Coroners' Law (Supplement, March 11th, 1905); (6) Recommendations of "Scientific" Committee (Supplement, March 18th, 1905); (7) Notices of motion for the Representative Meeting by the Council, by the Branch, and by other Branches and Divisions; (8) Any other business.—H. W. King, Honorary Secretary of the Division.

Lancashire and Cheshire Branch: Manchester (South) Division.—A general meeting will be held in the Schoolroom of the Holy Innocents' Church, Fallowfield, at 4 15 p.m. on Tuesday, April 11th, to consider the various matters referred to the Divisions in many of the Supplements from January 14th to April 1st inclusive.—Percy McDougall, Honorary Secretary, 247, Wilmslow Road, Fallowfield.

North of England Branch.—A meeting of the Branch will be held at Morpeth on Thursday, April 13th, at 4 p.m.; Branch Council at 3.30. Any member willing to read a paper or show a case will oblige by communicating with the Honorary Secretary as early as possible.—Alfred Cox, Honorary Secretary, Cotfield House, Gateshead.

North Lancashire and South Westmorland Branch.—A meeting of this Branch will be held on Wednesday, April 12th, at the Victoria Park Hotel, Barrow-in-Furness, at 3.30 p.m. There will be a discussion on the Modern Treatment of Phthisis, opened by Dr. Hughes, Medical Superintendent of the Westmorland Sanatorium for Consumption.—A. S. Barling, 2, Queen Square, Lancaster, Honorary Secretary.

South-Eastern Branch.—The annual meeting of the South-Eastern Branch will be held on Wednesday, June 21st, at the Royal Fountain Hotel, Canterbury, at 2.15 p.m.—H. M. Stewart, Honorary Secretary.

South-Eastern Branch: Brighton Division.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, Ryding Marsh, M.D., 49, Sackville Road, Hove.

South-Eastern Branch: Norwood Division.—A clinical meeting will be held on Thursday, April 13th, at 4 p.m., at the Miller Hospital, Greenwich, Dr. Gooding of Blackheath in the chair. The staff have kindly promised to show cases. (The Miller Hospital is quite close to the Greenwich S.E.R. Station, and the trams from New Cross to Greenwich pass the door.) Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once. Agenda: (1) Minutes of last meeting; (2) to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. —H. J. Prangley, Honorary Secretary, Tudor House, 197, Anerley Road, Anerley, S.E.

South Wales and Monmouthshire Branch: Cardiff Division.—A special general meeting of this Division will be held in the rooms of the Cardiff Medical Society on Thursday, April 13th, at 3.30 o'clock. The agenda includes the consideration of certain matters referred to the Divisions and of important notices of motion for the Representative Meeting. Members are asked to invite medical friends. Tea will be provided by the Committee.—Ewen J. Maclean, Honorary Divisional Secretary, 12, Park Place, Cardiff.

West Somerset Branch.—At the meeting on March 28th time did not permit of the business being finished, and the meeting was adjourned until Tuesday, April 11th, at 3.30, at the Taunton and Somerset Hospital, when the following matters, referred to the Branch by the Medico-Political Committee of the Association will form the agenda: (1) On the prevention of the abuse of drugs; discussion introduced by Dr. D. Brown. (2) The relations of the medical profession to ambulance work (see Supplement to British Medical Journal, February 4th, 1905). (3) Contract practice; discussion introduced by Mr. A. E. Joscelyne. (4) Concerning communications with coroners; discussion introduced by Mr. H. W. Husbands. Tea will be provided after the meeting.—W. B. Winckworth, Honorary Secretary, Taunton.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Fleet-Surgeon A. Elliott, M.D., has been placed on the retired list at his own request, April 1st. He was appointed Surgeon, February 16th, 1885, and became Fleet Surgeon, February 16th, 1901. He was Staff Surgeon of the *Philomel* during the South African war in 1899-1901 (medal with clasp); he had medical charge of blockhouses at Lambart's Bay, and of wounded after the attack on and destruction of a convoy to Clanwilliam, near that place, in 1901; and on two occasions he had medical charge at Lorenzo Marques of released sick and wounded prisoners of war from the Transvaal.

The following appointments have been made at the Admiralty: James W. O. Underhill, M.B., Fleet Surgeon, to the *President*, additional, for three months' course at the West London Hospital, April 3rd; Joseph Chambers, M.B., Fleet Surgeon, to the *Duncan*, April 3rd; William H. Pope, Surgeon, lent to Osborne College, temporary, April 1st.

ROYAL ARMY MEDICAL CORPS.

Captain H. W. Vaughan Williams, M.B., retires on a gratuity, April 5th. He joined the Department as Surgeon-Lieutenant, July 28th, 1894, becoming Surgeon-Captain three years thereafter. He was in the South African war in 1899-1902, and has received the Queen's medal with four clasps.

ARMY MEDICAL RESERVE.

Surgeon-Captain C. R. Lawrie is promoted to be Surgeon-Major, March 25th.

INDIAN MEDICAL SERVICE.

Colonel C. Little, M.D., Madras Establishment, has retired from the service from March 12th. He was appointed Assistant Surgeon, March 30th, 1872, and became Colonel, February 12th, 1900. He has no war record in the Army Lists.

Major H. W. Elphick, M.B., Bengal Establishment, is transferred to the temporary half-pay list, March 6th. He was appointed Surgeon-Captain, September 30th, 1889, and Major twelve years thereafter. He served with the Manipore Expedition in 1891, receiving a medal with clasp.

ROYAL ENGINEERS, SUBMARINE MINERS (VOLUNTEERS).

Mr. John Owen to be Surgeon-Lieutenant in the Mersey Division, April 5th.

VOLUNTEER RIFLES.

Surgeon-Lieutenant-Colonel J. L. Crombie, M.D., 7th Volunteer Battalion the Royal Scots (Lothian Regiment), resigns his commission, and is granted the honorary rank of Surgeon-Colonel, retaining his uniform, April 5th.

Surgeon-Lieutenant W. F. Byford, 1st Volunteer Battalion the Royal Welsh Fusiliers, resigns his commission, March 29th.

Surgeon-Captain W. Moxon, 2nd Volunteer Battalion the Sherwood Foresters (Nottinghamshire and Derbyshire Regiment), resigns his commission, March 29th; he is granted the honorary rank of Surgeon-Major, and retains his uniform.

Surgeon-Lieutenant V. J. Greenhough, M.B., 2nd Volunteer Battalion the Sherwood Foresters, to be Surgeon-Captain, March 29th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Captain R. H. Luce, M.B., the Sherwood Foresters Bearer Company, is granted the honorary rank of Major, April 5th.

VOLUNTEER OFFICERS' DECORATION.

The Volunteer Officers' Decoration has been conferred upon the following; Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel (Honorary Captain in the Army) R. R. Sleman, 20th Middlesex (Artists') Volunteer Rifles; Surgeon-Lieutenant-Colonel D. S. Davies, M.D., retired, 1st Gloucester Royal Garrison Artillery (Volunteers).

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,860 births and 4 711 deaths were registered during the week ending Saturday last, April 1st. The annual rate of mortality in these towns, which had been 17 2, 15 8, and 15.9 per 1,000 in the three preceding weeks, declined again last week to 15 7 per 1.000. The rates in the several towns ranged from 6 8 in Handsworth (Staffs), 7.4 in Hornsey, 8.0 in East Ham, 9 8 in Bury, 10 5 in Leyton, 10 7 in Grimsby, and 10.9 in Burton-on-Trent, to 23 3 in Middlesbrough, 24.3 in Coventry and in Tynemouth, 24 6 in Sunderland, 24.7 in Wigan, 25.8 in Hanley, and 27 5 in Merthyr Tydfil. In London the rate of mortality was 15.1 per 1,000, while it averaged 16 0 per 1.000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1 6 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.1 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 4.1 in Bolton, 4.7 in Reading, 4.8 in Hanley, 6.0 in Wigan and in Stockton on-Tees, 7.8 in Merthyr Tydfil, 8.0 in Middlesbrough, and 8.6 in Southamp on. Measles caused a death-rate of 3.1 in West Bromwich, 3 9 in Portsmouth, 4 7 in Reading, 4.8 in Middlesbrough, 6.0 in Wigan and in Stockton-on-Tees, 7 1 in Merthyr Tydfil, and 7.3 in Southampton; scarlet fever of 1.1 in Northampton and in Oldham; diphtheria of 1.1 in Stockport and in Middlesbrough; whooping-cough of 1.1 in Stockport, 1.1 in Middlesbrough, 1 4 in Preston, 1 8 in Tottenham, and 4.0 in Hanley; and diarrhoea of 1.5 in Oldham. The mortality from "fever" showed no marked excess in any of the seventy-six towns. One fatal case of small-pox was registered in Burnley and 1 in Hull, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 20 small-pox patients at the end of last week, against 16, 23, and 20 at the end of the three preceding weeks; 2 new cases were admitted during the week, against 3, 9, and 3 in the three preceding weeks. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital, which had been 2,036, 2,042, and 2,034 at the end of the three preceding weeks, had further fallen to 2,022 at the end of last week; 254 new cases were admitted during the week, against 303, 262, and 274 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 1st, 1,014 births and 568 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18 6, 18.2, and 18 3 per 1,000 in the three preceding weeks, declined again to 16 9 per 1,000 last week, but was 1.2 per 1 000 above the mean rate last week in the seventy-six large English towns. Among these Scotch towns the rates ranged from 10.7 in Perth and 16.5 in Paisley to 17.9 in Leith and 18 6 in Greenock. The death-rate from the principal infectious diseases averaged 1 3 per 1 000 in these towns, the highest rates being recorded in Glasgow and Perth. The 258 deaths registered in Glasgow included 5 which were referred to measles, 3 to diphtheria, 14 to whooping-cough, 2 to "fever," and 5 to diarrhoea. Two fatal cases of whooping-cough were recorded in Edinburgh, and 2 of whooping-cough and 2 of diarrhoea in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 25th, 499 births and 410 deaths were registered in six of the principal Irish towns, against 528 births and 410 deaths in the preceding period. The mean annual death-rate in these towns, which had been 26.3, 28.2, and 21 8 per 1,000 in the three preceding weeks, rose to 23 4 per 1 000 in the week under notice, this figure being 7.5 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 7.8 in Waterford to 37 2 in Londonderry. The zymotic death-rate during the same period in the same six Irish towns averaged 0 6 per 1,000, or 0.2 per 1,000 higher than during the preceding week, the highest figure—1.9—being registered in Belfast, while Londonderry, Limerick, and Waterford recorded no deaths under this heading at all. The total number of deaths from measles fell to 9, while from small-pox, typhus, diphtheria, and pyrexia no deaths were recorded in any part of Ireland. Scarlet fever accounted for 1 death at Belfast, and enteric for 1 in Dublin and 4 in Belfast.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon; resident. Salary £80 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (Male). Salary £80 per annum and notification fees.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £120 per annum.

BIRMINGHAM CITY ASYLUM, Ruberry Hill.—Junior Male Assistant Medical Officer. Salary £150 per annum.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

BRISTOL DISPENSARY.—Vacancy in the Medical Staff.

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon. Salary £60 per annum.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer; resident. Salary, £160 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Junior House-Surgeon; resident. Salary, £50 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Assistant Physician and Honorary Assistant Surgeon.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary £30 for six months.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House Surgeon. Salary £80 per annum.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—Resident Clinical Assistant.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the new Crossley Sanatorium, Delamere Forest. Salary, £50 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—(1) Resident Surgeon (as Junior for six months, and then as Senior): salary at the rate of £80 and £120 per annum respectively. (2) Honorary Visiting Surgeon.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary £70 per annum.

RICHMOND, SURREY: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Two House Surgeons (Male). Salaries £100 and £75 per annum respectively.

SOUTHWARK UNION.—Assistant Medical Superintendent of the Infirmary. Salary £150, rising to £160 per annum.

ST. MARK'S HOSPITAL FOR FISTULA, City Road, E.C.—House-Surgeon. Salary £80 per annum.

SUNDERLAND BOROUGH ASYLUM, Ryhope.—Assistant Medical Officer. Salary £120, rising to £160 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon; resident. Salary 80 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £50 per annum.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—House-Surgeon; resident. Salary, £65, rising to £75 per annum.

APPOINTMENTS.

BOX, W. F., M.B.Lond., Resident Assistant Medical Officer of the Camberwell Parish Infirmary.

BRUCE, H. W., M.D.Lond., F.R.C.S.Eng., Medical Superintendent of the Southwark Union Infirmary.

FERGUSON, J. P., L.R.C.P. and S.Edin., L.F.P.S.Glas., Medical Officer of Health of the Misterton Rural District.

GARRATT, G. C., M.B., District Medical Officer of the Westhampnett Union.

HOLGATE, Percy, M.B.Durh., Public Vaccinator to the Tynemouth District of the Tynemouth Union, vice Dr. J. E. Gofton, resigned.

HOLMES, Gordon M., M.D.Dubl., Director of Neuro-pathological Research, National Hospital for the Paralysed and Epileptic, Queen Square, London, W.C.

JOHNSTON, J. M., M.B., Third Resident Assistant Medical Officer of the Bethnal Green Parish Infirmary.

McDONAGH, THOMAS, L.R.C.S. and P.Ed., L.F.P. and S.Glas., L.A.H.Dub., Surgeon and Agent to H.M. Coastguard, Costello Bay, Ireland.

MEADOWS, R. T., M.D Edin., D.P.H., Medical Officer of Health of the St. Germans Rural District.

MILLS, J. A., B.A., M.B., B.Ch., B.A.O., Assistant Medical Officer and Pathologist to the Durham County Asylum.

OWEN, E. L., M.D., District Medical Officer of the Holywell Union.

PARKER, H. F., M.D.Camb., M.R.C.S., L.R.C.P., Honorary Assistant Medical Officer to the Royal Surrey County Hospital, Guildford.

PRICE, Ernest H., L.S.A., Assistant House-Surgeon to the Northampton General Hospital.

SPEERS, W. Gordon, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer to the Hospital Samaritano, Sao Paulo, Brazil.

WATKINS, Ernest M., M.B., C.M.Glas., House-Surgeon to the Wrexham Infirmary.

WHITELAW, Robert G., L.R.C.P., L.R.C.S.Edin., L.F.P. and S.Glas., Medical Officer to the Post Office for Kirkintilloch and Torrance District.

EDINBURGH ROYAL INFIRMARY.—At the weekly meeting of the Managers of the Edinburgh Royal Infirmary, held on March 27th, the following appointments, for six months from April 1st, were approved:

Resident Physicians.—Robert A. Chambers, M.B., Ch.B., to Professor Sir T. R. Fraser; Lindsay S. Milne, M.B., Ch.B., to Professor Greenfield; James Lochhead, M.A., B.Sc., M.B., Ch.B., to Professor Simpson; Arthur J. Lewis, M.B., Ch.B., to Professor Wylie; F. H. Stewart, M.B., Ch.B., to Dr Smart; James M. Graham, M.B., Ch.B., to Dr. Bramwell; H. A. Stewart, M.B., Ch.B., to Dr. Gibson; D. P. D. Wilkie, M.B., Ch.B., to Dr. Bruce.

Resident Surgeons.—James Blacklay Lockerbie, M.B., Ch.B., to Professor Annandale; L. H. I. Bell, M.B., Ch.B., to Professor Chiene, C.B.; Thomas E. Coulson, M.B., Ch.B., to Dr. MacGillivray; Arthur C. Strain, M.B., Ch.B., to Dr Berry Hart; V. T. Carruthers, M.B., Ch.B., to Mr. Cotterill; W. A. Wilson Smith, M.B., Ch.B., to Mr. Cathcart; D. Browe, M.B., Ch.B., to Mr Caird.

Non-resident House-Surgeons.—John L. Green, M.B., Ch.B., to Mr Berry; A. W. Beveridge, M.B., Ch.B., to Dr. Mackay.

Clinical Assistants.—Hugh R. Macintyre, M.B., Ch.B., to Professor Greenfield; Archibald D. M'Callum, M.B., Ch.B., to Professor Wylie; Archibald Oliver, M.B., Ch.B., to Professor Chiene, C.B.; W. W. Greer, M.B., Ch.B., to Dr. Bramwell; John Cunningham, B.A., M.B., Ch.B., to Dr Gibson; Fred Douglas Crosthwaite, M.B., Ch.B., to Dr. Bruce; Geoffrey Cowan, B.A., M.B., B.C., to Mr. Cotterill; F. H. Borthwick, M.B., Ch.B., to Mr. Cathcart; William Darling, M.A., M.B., Ch.B., to Dr. Philip (Ward 6); James John Galbraith, M.D., to Dr. Philip*; Arthur J. Brock, M.B., Ch.B., to Dr. Murdoch Brown*; John M. Bowie, M.D., etc., to Dr. Lovell Gulland*; John Sullivan, M.B., Ch.B., to Dr. Graham Brown*; J. H. Montgomerie Bell, M.B., Ch.B., to Dr. Boyd*.

* Medical Waiting Room.

ST. BARTHOLOMEW'S HOSPITAL.—The following staff appointments have been made:

House-Physicians: E. H. White, B.A., B.M., B.Ch.Oxon., M.R.C.S., L.R.C.P.; B. Hudson, M.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.; C. A. Anderson, B.A.Camb., M.R.C.S., L.R.C.P.; F. A. Hepworth, M.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.; C. F. Hadfield, M.A.Camb., M.R.C.S., L.R.C.P.

Junior House-Physicians: C. H. Fielding, M.R.C.S., L.R.C.P.; T. G. M. Hine, M.A., B.C.Camb.; A. W. Brodribb, M.A., B.M., B.Ch.Oxon., M.R.C.S., L.R.C.P.; J. K. Willis, B.A.Camb., M.R.C.S., L.R.C.P.; J. G. Slade, M.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.

Intern Midwifery Assistant: A. R. Neligan, M.B.Lond., M.R.C.S., L.R.C.P.

Extern Midwifery Assistant: R. B. Etherington-Smith, M.B., B.C.Cant.

Senior House-Surgeons: H. J. D Birkett, B.A.Camb., M.R.C.S., L.R.C.P.; C. T. M. Plowright, B.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.; W. L. Cripps, B.A., B.C.Camb., M.R.C.S., L.R.C.P.; J. Burfield, M.B., B.S Lond., M.R.C.S., L.R.C.P.; G. H. Colt, B.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.

Junior House-Surgeons: R. H. Bott, M.R.C.S., L.R.C.P.; B. B. Riviere, M.R.C.S., L.R.C.P.; A. W. D. Coventon, M.A., B.C.Camb., M.R.C.S., L.R.C.P.; W. I. Cumberlidge, B.A.Camb., M.R.C.S., L.R.C.P.; H. P. Gibb, B.A.Camb., M.R.C.S., L.R.C.P.

Ophthalmic House-Surgeon: R. F. Moore, M.B., B.C.Camb., M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CAMPBELL.—On March 21st, at the Caterham Asylum, the wife of Patrick E. Campbell, M.B., Medical Superintendent, of a son.

DARLINGTON.—On April 1st, at Douglas Road, Handsworth, Birmingham, the wife of H. E. Darlington, Surgeon, of a son.

PEAKE.—On April 1st, at Northleigh, Henley-on-Thames, the wife of Arthur E. Peake, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

WATKINS.—On March 25th, at Stone-Legh, Newton-le-Willows, the wife of Harold E. Watkins, M.R.C.S.Eng., of a son.

MARRIAGES.

CARSLAW—REID.—At Park Parish Church, Glasgow, on March 30th, by the Very Rev. Donald Macleod, D.D., and the Rev. W. H. Carslaw, D.D., James Carslaw, M.A., M.B., to Margaret Stewart, daughter of James R. Reid, 10, Atholl Gardens, Glasgow.

GRAY—COTSELL.—On April 4th, 1905, at the Congregational Church, Balham, by the Rev. Henry Oakley, John Henry Gray, M.D., to Matilda Adelaide Margaret (Lily), eldest daughter of James Cotsell, M.I.N.A., Naval Constructor, Admiralty, both of Upper Tooting, London, S.W.

DEATHS.

BRADLEY.—On March 26th, suddenly, in his 67th year, Daniel Bradley, L.R.C.P., L.R.C.S.Edin., of the Wren's Nest, Clifton Road, Weston-super-Mare, formerly of Dudley.

KINSEY-MORGAN.—On April 2nd, at Hillcote, Richmond Hill, Bournemouth, Annie Isabel, wife of Augustus Kinsey-Morgan, M.D., etc.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical cases.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W., 8 p.m.—Communications:—Mr. John Ackery, M.R.C.S., L.D.S.Eng.: Two Cases of Delayed Eruption and Extreme Malposition of Upper Incisors, illustrated by models, etc. Mr. Norman G. Bennett, M.A., M.B., M.R.C.S., L.D.S.Eng.: (1) Twin Dentitions; (2) A Primitive Type of Dentition; both illustrated by models. Mr. Vernon Knowles, L.D.S.Eng.: (1) An Automatic Anaesthetic Capsule Breaker; (2) A Further Modification of Mr. Brunton's Gag.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W., 5 p.m.—Meeting re amalgamation of medical societies in London.

TUESDAY.

MEDICO-LEGAL SOCIETY, 20, Albemarle Street, W., 8.15 p.m.—(1) Exhibition of Specimens by Members; (2) Paper:—Mr. Justice Walton (Vice-President): Notes on the Law of Evidence.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 17, Bloomsbury Square, London, W.C., 8 p.m.—Papers:—(1) Mr. E. H. Farr and Mr. Robert Wright: Powdered Alcoholic Extract of Belladonna Root; (2) Mr. Robert Wright: The Occurrence and Distribution of a Mydriatic Alkaloid in Lactuca Muralis; (3) Mr. Hermann C. T. Gardner: The Displacement by Water in the Preparation of Certain Tinctures. Additions to the museum and library during the past month will be on view.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Mr. A. W. Mayo Robson: (1) Actinomycosis of the Gall Bladder; (2) Adenoma of the Gall Bladder; (3) On the Operation of Jejunostomy, the description of a new method; (4) a series of 123 cases of choledochotomy for calculi in the common duct (demonstration on the epidiascope).

SOCIETY FOR THE STUDY OF INEBRIETY, 11, Chandos Street, Cavendish Square, W., 4 p.m. (afternoon meeting)—Discussion: Medico-Legal Aspects of Alcoholism, to be opened by Mr. Stanley B. Atkinson, M.A., M.B., B.Sc., Barrister-at-Law.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 5 15 p.m.—Demonstration of cases of interest.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 p.m.—Clinical evening.

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Paper: Professor Jacobs (Brussels): Cancer of the Uterus: Surgical Treatment and Results. Illustrated by specimens of various forms of cancer of the uterus.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—The following papers will be read:—(1) Professor Howard Marsh: (*a*) A Joint Affection, Possibly Due to Malaria: (*b*) Cases of Intermittent Hydrops of Joints. (2) Mr F. J. Steward: Two Cases of Hydronephrosis Due to Movable Kidney. (3) Mr. Mayo Robson: A Biliary Pulmonary Fistula Cured by Hepatodochotomy.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., the Ear.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5 15 p.m. each day will be given as follows:—Monday, Rectal Diseases; Tuesday, The Visual Fields in Health and Disease; Wednesday, Gastric Surgery; Thursday, The Visual Fields in Health and Disease.

BOOKS, ETC., RECEIVED.

Lovegrove's edition of Dick's Street Guide to London. London: John Dicks. 1d.

Transactions of the Glasgow Obstetrical and Gynaecological Society. Volume IV. Sessions 1902-3, 1903 4. Glasgow: Alex. Macdougall. 1905.

Exploration des Fonctions Rénales. Par J. Albarran. Paris: Masson et Cie. 1905. Fr.12.

A Student's Textbook of Zoology. By Adam Sedgwick, M.A., F.R.S. Vol. II. London: Swan Sonnenschein and Co., Ltd. 1905. 21s.

Poisonous Plants of All Countries; with the active chemical principles which they contain, and the toxic symptoms produced by each group. By A. Bernhard Smith. Bristol: John Wright and Co. 1905. 2s. 6d.

Essai de Coprologie clinique. De l'Exploration fonctionnelle de l'Intestin l'Analyse des Fèces. Par René Gaultier. Paris: J. B. Baillière et Fils. 1905. Fr.6.

Der Aderlass. Eine monographische Studie von Dr. Alexander Strubell. Berlin: August Hirschwald. 1905. Mk.5.

Decorating and Furnishing: What they often are, and what they might be. Notes by T. Myddelton Shallcross. London: Elliot Stock. 1s.

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*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
April	9...Sunday..	
,,	10...MONDAY ...	
,,	11...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m. Chester Division, *Lancashire and Cheshire Branch*, Library of the Chester General Infirmary, 4.30 p.m. Manchester (South) Division, *Lancashire and Cheshire Branch*, Schoolroom of the Holy Innocents' Church, Fallowfield, 4.15 p.m. West Somerset Branch, Taunton and Somerset Hospital, 3.30 p.m.
,,	12...WEDNESDAY	LONDON: Journal and Finance Committee, 3 p.m. North Lancashire and South Westmorland Branch, Victoria Park Hotel, Barrow-in-Furness, 3.30 p.m.
,,	13...THURSDAY...	LONDON: Delegates of Divisions of the Metropolitan Counties Branch, 5 p.m. Cardiff Division, *South Wales and Monmouthshire Branch*, Rooms of the Cardiff Medical Society, 3.30 p.m. North of England Branch, Morpeth, 4 p.m. Norwood Division, *South-Eastern Branch*, Miller Hospital, Greenwich, 4 p.m.
,,	14...FRIDAY ...	North Cumberland Division, *Border Counties Branch*, George Hotel, Penrith, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 9.0 p.m.
,,	15...SATURDAY...	Notices of Motion for Annual Representative Meeting must be sent by Divisions to General Secretary on or before this day In view of Easter Week, notices of Branch and Division Meetings for insertion in the next issue of JOURNAL should be posted to-day.
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Premises and Library Committee ,, Medico-Political Committee, 2 p.m.
,,	19...WEDNESDAY.	LONDON: Central Council, 11 a.m.
,,	20...THURSDAY...	
,,	21...FRIDAY ...	*Good Friday.*
,,	22...SATURDAY...	Notices of Motion for Annual Representative Meeting appear in JOURNAL.
,,	23...Sunday..	
,,	24...MONDAY ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...TUESDAY ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...WEDNESDAY	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	27...THURSDAY...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...FRIDAY ...	DUNDEE: Scottish Committee. Dundee Branch, Clinical Meeting of this and other Scottish Branches, Royal Infirmary Dundee, 4 p.m.
,,	29...SATURDAY...	List of Members closed for publication.
,,	30..Sunday..	
May	1..MONDAY ..	
,,	2...TUESDAY ...	
,,	3...WEDNESDAY	Bournemouth Division, *Dorset and West Hants Branch*, 7.45 p.m.
,,	4...THURSDAY...	
,,	5...FRIDAY ...	
,,	6...SATURDAY...	
May	7...Sunday..	
,,	8...MONDAY ...	
,,	9...TUESDAY ...	LONDON: Organization Committee.
,,	10...WEDNESDAY	
,,	11...THURSDAY...	
,,	12...FRIDAY ...	
,,	13...SATURDAY...	
,,	14...Sunday..	
,,	15...MONDAY ...	
,,	16...TUESDAY ...	
,,	17...WEDNESDAY	Dorset and West Hants Branch, Meeting.
,,	18...THURSDAY...	
,,	19...FRIDAY ...	
,,	20 . SATURDAY...	
,,	21...Sunday..	
,,	22...MONDAY ...	
,,	23...TUESDAY ...	General Medical Council Session commences.
,,	24...WEDNESDAY	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	25...THURSDAY...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26...FRIDAY ...	
,,	27..SATURDAY...	
,,	28...Sunday..	
,,	29...MONDAY ...	
,,	30...TUESDAY ...	
,,	31...WEDNESDAY	Scientific Grantees have to report to Council on or before this date.
June	1...THURSDAY...	
,,	2...FRIDAY ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...SATURDAY...	
,,	4...Sunday..	
,,	5...MONDAY ...	
,,	6..TUESDAY ...	
,,	7...WEDNESDAY.	LONDON: Medico-Political Committee.
,,	8...THURSDAY...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9..FRIDAY ...	
,,	10...SATURDAY...	
,,	11...Sunday..	
,,	12..MONDAY ...	*Bank Holiday.*
,,	13...TUESDAY ...	
,,	14...WEDNESDAY	
,,	15...THURSDAY...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 15TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
NOTICES OF MOTION	145
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25TH, 1905	146
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Bristol Division	146
Malta and Mediterranean Branch	146
Metropolitan Counties Branch: Chelsea Division	146
South-Eastern Branch: Isle of Thanet Division	147
Ulster Branch	147
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	147
BRITISH MEDICAL ASSOCIATION: SEVENTY-THIRD ANNUAL MEETING	148
VITAL STATISTICS...	149
NAVAL AND MILITARY APPOINTMENTS	150
VACANCIES AND APPOINTMENTS	151
BIRTHS, MARRIAGES, AND DEATHS	151
DIARY OF THE WEEK	151
BOOKS RECEIVED...	151
CALENDAR	152

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICES OF MOTION.

THE following additional notices of motion have been received for discussion by the Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

[*Notices previously received were published in the* SUPPLEMENT *of February 25th, page 57, March 4th, page 73, March 18th, page 105, March 25th, page 121, April 1st, page 129, and April 8th, pages 137 and 138.*]

By the ALTRINCHAM DIVISION (Lancashire and Cheshire Branch):

That Resolution 66 of the Annual Representative Meeting at Oxford be rescinded; and that the question of the State Registration of Nurses be referred to the Divisions.

By the LEIGH DIVISION (Lancashire and Cheshire Branch):

Whereas an infirmary is being established in Leigh, and the Infirmary Committee have, after hearing the views of the medical men in the District and in open opposition to their unanimously expressed opinion, decided to provide an out-patient department, although no necessity has been shown to exist for such, we hereby, in Representative Meeting assembled, strongly assert that no member of our profession should take any appointment under this Committee, either Surgeon or Physician, Resident Medical or Surgical Officer, or Honorary Medical or Surgical Officer, until the Infirmary Committee make such an arrangement as will agree with the wishes of the local medical men as expressed through the Leigh Division of the British Medical Association.

By the SALFORD DIVISION (Lancashire and Cheshire Branch):

That, inasmuch as the only legislation existing (according to a communication from the Local Government Board to the Manchester Medical Guild) which enables local authorities to pay fees to medical men when summoned under the Midwives Act to assist midwives is permissive in character, the Government be requested to take the necessary steps for amending the Midwives Act by introducing a section, or otherwise, ordering local authorities to pay such fees, and further that such fees ought to be fixed according to the present Poor law scale.

That it shall be inconsistent with membership of the Association for any medical practitioner to be associated with any institution providing medical attendance on contract or provident principles which employs official canvassing either privately or collectively or any other method of advertising for the purpose of obtaining members.

By the Stratford Division (Metropolitan Counties Branch):

That, with a view to furthering the organization of the medical profession, the Council be asked to consider the advisability of providing a scheme for the affiliation of local medical societies with the British Medical Association.

That consultation between medical witnesses in legal cases is desirable, and that the fee of the patient's medical attendant at the consultation (one guinea) should be paid at the time by the party asking for an examination or consultation.

By the Ulster Branch:

The Branch agrees to the adoption of the following resolutions, referring to the proposed formation of an Irish Committee (see Supplement to British Medical Journal, March 18th, p. 105):

1. That we approve of the principle of an Irish Committee.
2. That this Committee shall consist of one Secretary from each Branch, and the Irish members of the Central Council, with one elected member from each Branch, and that in the case of the Leinster and Ulster Branches such elected members should be practitioners not resident in Dublin or Belfast.
3. That meetings of this Committee should be held in different parts of the country, as may be arranged.

By the Isle of Thanet Division (South-Eastern Branch):

That the Isle of Thanet Division of the British Medical Association, while cordially appreciating the work of the Medico-Political and other Standing Committees of the Association, would respectfully urge upon the Representative Meeting the advisability of limiting the number of questions brought before the Association for consideration, as it is impossible for all the Divisions to give sufficient time to the adequate discussion of so many important subjects at the same time.

Guy Elliston, *General Secretary.*

April 13th.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25, 1905.

The Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th—at 6 p.m., in a room to be set apart for the purpose.

Branch and Division Secretaries are invited to notify any subjects they may wish to bring before this conference. All matters to be considered must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BATH AND BRISTOL BRANCH:

Bristol Division.

A meeting of this Division was held at Bristol on April 6th, Dr. E. Markham Skerritt, Vice-Chairman, in the chair.

Matters Referred to Divisions.—In regard to the National Deposit Friendly Society, the recommendations (*a*), (*b*), and (*c*) were adopted, and it was decided to send the same to the members and, as far as possible, the non-members, in the area of the Division. The answers to the questions submitted as to the payment of medical practitioners called in to assist midwives have been communicated to the Medico-Polical Committee. The relation of the medical profession to ambulance work was discussed, and the following resolutions were passed:

1. That ambulance lectures and ambulance examinations be paid for, and that the question of judging in ambulance competitions be decided on the merits of each case.
2. That the fees paid be similar to those paid by the St. John Ambulance Society.

The question of advertising in connexion with hydropathic establishments was considered, and the Division reaffirmed its resolution passed on March 4th, 1904, to the following effect:

That the Division is of opinion that the question of advertising of medical practitioners in connexion with hydropathic establishments cannot be advantageously considered apart from the general question of the publication of the names of medical men in connexion with proprietary institutions of various kinds.

With respect to the report on death registration and amendment of the coroners' law, the recommendations were agreed to, with the exception that no opinion was expressed upon: (1) The reimbursement of coroners for fees paid to medical practitioners for consultation where no inquest is held; (2) regard being had to deaths investigated without inquest in fixing the coroner's salary; (3) fee to coroners for attendance at trial.

MALTA AND MEDITERRANEAN BRANCH.

A meeting of this Branch was held on Monday, March 13th, at 4 p.m., Major Lawson, R.A.M.C., in the chair.

The Secretary explained that the meeting was held on that day, and not on the 6th as previously arranged, owing to the Carnival holidays.

Confirmation of Minutes.—The minutes of the preceding sitting were read and confirmed.

Paper.—The Chairman then called upon Major Austin, R.A.M.C., to read his paper. Major Austin then read a paper on physiological exercises for misused voices. After discussing a few points concerning the mechanism of voice, the lecturer described the exercises which tended to strengthen the muscles of the cords. After the reading of the paper, a few questions were asked and replied to by Major Austin.

Adjournment.—The Order of the Day being exhausted, the Chairman adjourned the meeting to Monday, May 1st.

METROPOLITAN COUNTIES BRANCH:

Chelsea Division.

A meeting of this Division was held at the Chelsea Town Hall on April 4th, at 4 p.m., Dr. R. A. Gibbons, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Matters Referred to Divisions.—The Secretary then read a communication from the Medical Secretary on "matters referred to the Divisions," and circulars relating thereto. With regard to the National Deposit Friendly Society, the Division "cordially agrees with the conclusions arrived at at Oxford." In the matter of "the advertising of medical men in connexion with hydropathic establishments," it was resolved to answer the question submitted in the affirmative, and to send it on to the Representative Meeting. With regard to the "relations of medical men to ambulance work," the first question asked was decided to be answered, "All to be paid," and the second was voted "too wide to deal with." On the question of "contract practice inquiry," no steps were taken as it was felt that it did not concern the Division. The draft scheme for medical defence was read, and ordered to be laid on the table for further consideration.

Communication from Lancashire and Cheshire Branch.—A communication from the Lancashire and Cheshire Branch was read, and the Division recorded their cordial agreement with the resolutions mentioned therein—namely, (*a*) relating to the proceedings of the Central Council; and (*b*) changes in the status and salary of officers of the Association.

Nomination of Representative on Central Council.—The Division then *nem. con.* nominated Dr. O'Sullivan as candidate for the Representative for the Branch on the Central Council, and instructed the Division's delegates to bring this nomination before the meeting of delegates to be held on April 13th.

Sir C. Gage Brown.—It was moved by the PRESIDENT, and carried *nem. con.*, that a letter of condolence should be sent to Sir C. Gage Brown on his recent bereavement.

Instruction to Honorary Secretary.—The Secretary was instructed that, on any important point referred to the Division, he might ascertain the views of the members of the Division by means of reply post-cards.

Forthcoming Election of Officers.—Intimation was given that at the next meeting the election of officers of the Division would be held.

Vote of Thanks to Chairman.—After a vote of thanks to the Chairman the proceedings terminated.

SOUTH-EASTERN BRANCH:
ISLE OF THANET DIVISION.

THE eleventh meeting was held at the Royal Sea-bathing Hospital, Margate, on Tuesday, April 4th, Mr. BERTRAM THORNTON in the chair.

Confirmation of Minutes.—The minutes of the meeting at Ramsgate (December, 1904) and of the special meeting at Broadstairs (January, 1905) were read, confirmed, and signed.

Reorganization of Local Government Board.—The HONORARY SECRETARY read a letter from Mr. H. H. Marks, M.P., in which he promised to support the proposal for a Royal Commission to report upon the question of reorganizing the Local Government Board.

Matters Referred to Divisions.—Dr. STREET introduced the consideration of the recommendations of the Medico-Political Committee with regard to the National Deposit Friendly Society. He moved that the recommendations be approved, pointing out that under the rules of the Society (1) touting was encouraged; (2) the claim of the Society to authorize medical men to accept fees, some of which were too low, was absurd; (3) under the Society's rules underselling might be brought about. Dr. THORNTON seconded the motion. After considerable discussion, in which Drs. NICHOL, POWELL, RICHARDS, and RAVEN took part, Dr. HEATON proposed, and Dr. HEMMING seconded, the amendment that the consideration of the recommendations of the Medico-Political Committee be postponed to a future meeting. This was carried.—In regard to the relations of the medical profession to ambulance work, Dr. STREET proposed, and Dr. SUTCLIFFE seconded, the following resolution, which was carried unanimously:

> That it be left to the judgement of each medical man, whether he should receive fees for ambulance instruction, ambulance examinations, or judging in ambulance competitions, but that if he is paid, the minimal fee, in addition to all out-of-pocket expenses, should be not less than (*a*) one guinea for each instruction, (*b*) one guinea for the examination, if not more than fifteen persons, and (*c*) one guinea for each hour or part of an hour of actual judging in competitions.

—In the matter of advertising of the names of medical practitioners in connexion with hydropathic establishments, Dr. THORNTON proposed, and Dr. STREET seconded:

> That members of the profession who act as medical officers of hydropathic and similar establishments should make it a condition of their engagement that their names shall not be inserted in any advertisements of such institutions except in medical journals, and that those medical officers who have entered into engagements should call the attention of the proprietors of such institutions to the above recommendation, and use their best endeavours to see that it is carried out.

This was carried.—The subject of the payment of medical men for signing school certificates was introduced by Dr. WATTS, who proposed the following resolution:

> That the following opinion be forwarded to the various education authorities of the Isle of Thanet:
> "The members of the Isle of Thanet Division of the British Medical Association representing a large majority of the medical men in Thanet, having carefully considered the question of the payment by the educational authorities for medical certificates required in cases of the absence of children from the elementary schools, are willing to give certificates on condition that they are paid the sum of 2s. 6d. for each certificate by the education authorities."

Dr. POWELL seconded the resolution, which was carried unanimously.

Medico-Political Questions.—Before passing on to the scientific part of the agenda a discussion took place upon the large amount of medico-political questions which had been coming before the Division during the last two years, and Dr. WATTS proposed, and the CHAIRMAN seconded, the following resolution, to be forwarded to the Medical Secretary of the Association for insertion into the agenda of the business of the Representative Meeting:

> That the Isle of Thanet Division of the British Medical Association, while cordially appreciating the work of the Medico-Political and other Standing Committees of the Association, would respectfully urge upon the Representative Meeting the advisability of limiting the number of questions brought before the Association for consideration, as it is impossible for all the Divisions to give sufficient time to the adequate discussion of so many important matters at the same time.

The resolution was carried unanimously.

Paper.—Dr. HEATON read a paper entitled The Therapeutics of High-tension Currents, with demonstration of apparatus. The paper was discussed, and Dr. HEATON replied.

Next Meeting.—It was decided to hold the next meeting of the Division at Birchington, and that Dr. J. S. Harris be asked to take the chair, the date and other arrangements to be left in the hands of the Honorary Secretary and Dr. Harris.

Vote of Thanks to Chairman.—A vote of thanks was passed to Mr. Thornton for taking the chair at the meeting.

ULSTER BRANCH.

THE spring meeting of this Branch was held in the Medical Institute, Belfast, on Wednesday afternoon, April 5th. The PRESIDENT (Professor Lindsay, F.R.C.P.) occupied the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Report of Council.—The HONORARY SECRETARY (Dr. Cecil Shaw) presented the report of Council, which stated that Dr. J. B. G. Mulligan (Belfast) had been elected a member of the Branch. The Council recommended that first-class railway fare should be paid to members attending special meetings of the Branch Council—that is, those held on days when there is no general meeting of the Branch.

Proposed Irish Committee.—*Re* the proposed formation of an Irish Committee on the lines of the present Scottish Committee (see SUPPLEMENT, March 18th, p. 105), the Council recommended the following resolutions:

1. That we approve of the principle of an Irish Committee.
2. That this Committee should consist of one Secretary from each Branch, and the Irish members of the Central Council, with one elected member from each Branch, and that in the case of the Leinster and Ulster Branches such elected members should be practitioners not resident in Dublin or Belfast.
3. That meetings of this Committee should be held in different parts of the country, as may be arranged.

The adoption of the report was proposed by the HONORARY SECRETARY, seconded by Dr. DARLING (Lurgan), and passed.

Attendance of Office-bearers at Council Meeting.—On the motion of Dr. DARLING, seconded by Dr. FRASER (Belfast), the Honorary Secretary was instructed to prepare a list showing the attendance of the various office-bearers of the Branch at the various Council meetings, etc., and to circulate the same with the voting papers for the next election of office-bearers.

Association Notices.

COUNCIL MEETING.

THE Meeting of the Council, by kind permission of the Metropolitan Asylums Board, will be held in their Board Room at 11 o'clock in the forenoon of Wednesday, April 19th. The offices of the Metropolitan Asylums Board are situated on the Victoria Embankment, at the corner of Carmelite Street and near to Blackfriars Bridge.

The following Committees will also meet:

Tuesday, April 18th, 1905.—Medico-Political Committee, 2.0 p.m.—Premises and Library Subcommittee, 4.0 p.m.—Premises and Library Committee, 4.30 p.m.

April 11th, 1905. GUY ELLISTON, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished on application to the General Secretary of the Association, 429, Strand.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES.—Nominations for elective members of the Central Council must be made in writing on or before May 10th, to C. H. WATTS PARKINSON, Wimborne Minster, Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at Blandford on Wednesday, May 17th. Notice of any communication and case should be sent before May 7th to the Honorary Secretary, C. H. W. PARKINSON.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The annual meeting will be held at the Medical Societies' Rooms, Bournemouth, on Wednesday, May 3rd, at 7.45 p.m. Agenda: Election of officers, consideration of matters referred to the Divisions; cases, if any. Members are requested to bring their SUPPLEMENTS.

SOUTH-EASTERN BRANCH.—The annual meeting of the South-Eastern Branch will be held on Wednesday, June 21st, at the Royal Fountain Hotel, Canterbury, at 2.15 p.m.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of elective members of the Council of the Association for this Branch must be made in writing on or before May 1st, to T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of the Lincoln Division will be held on Thursday, April 20th, at 3.30 p.m., at the Guildhall, Lincoln. The election of officers for the ensuing year will take place, and certain subjects referred to the Divisions for consideration will be discussed.—J. S. CHATER, 10, Steep Hill, Lincoln, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 11th. The President, Dr. E. Deanesly, will take the chair at 3 p.m. Business: (1) Minutes of the last general meeting; (2) Correspondence; (3) Exhibition of living cases. The meeting will be a clinical one. Notice has been received that several cases will be exhibited. Gentlemen having interesting cases are invited to exhibit them. (4) Exhibition of pathological specimens, etc. Dinner, 6.30 p.m.; charge 5s. Council meeting: a meeting of the Council will be held at 2.45 p.m. for election of members, etc. —G. PETGRAVE JOHNSON, Honorary General Secretary, Stoke-on-Trent.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of members for the office of Representatives on Central Council, each signed by not less than three members, must reach me not later than May 15th. The present Representative, Mr. R. H. Kinsey, is eligible for re-election. E. HARRIES JONES, Honorary Secretary, Northampton.

SOUTH-WESTERN BRANCH: BARNSTAPLE DIVISION.—The annual meeting will be held at the Barnstaple Infirmary on Wednesday, April 19th, at 3.30 p.m. Clinical agenda: Dr. Toye will contribute a paper on some practical points in the treatment of heart disease. Dr. Morris will exhibit several interesting cases from the infirmary wards and contribute short clinical notes. The Honorary Secretary will exhibit a successful case of skin grafting from the frog to the human subject. Messrs. Allen and Hanburys, Limited will exhibit a selection of the most recent improvements in surgical instruments and appliances. At the conclusion of business the members and visitors will be conducted over the hospital by Dr. Morris. Business: To read and confirm minutes. To receive the Honorary Secretary's report. To elect Chairman and officers. To consider the two following resolutions, referred to the Divisions by the South-Western Branch: (1) "That this Division is of opinion that the growing use of contraceptives and ecbolics is fraught with grave danger both to the individual and to the race." (2) "That the advertisement and sale of such appliances and substances, as well as the publication and dissemination of literature relating thereto should be made a penal offence." To consider: (1) Which (if any) of the following services: (*a*) Ambulance instruction, (*b*) ambulance examination, (*c*) judging in ambulance competitions, should be treated as a matter of philanthropy? (2) What arrangements as to fees, etc., would be suitable in this district for those services which the Division considers should be treated as a matter of business. To consider the suggestion of the West Norfolk Division (BRITISH MEDICAL JOURNAL, February 4th): "That the General Council be asked to permit every Division with a membership of 30 and over to send its own representative to the annual general meeting." To consider what steps this Division will take with respect to the forthcoming Conference of Divisional Secretaries at Leicester (JOURNAL, March 25th). To consider the following resolution, proposed by Dr. Tucker: "That the present regulations of the school attendance authorities, compelling parents, etc., to obtain a medical certificate in case of the absence of a child from school through illness press heavily both on the parents and the medical practitioner, and that therefore the authorities administering the Education Act should in the first instance be made responsible for all expenses entailed by granting such certificates." To consider what instructions shall be given to our representative respecting the report of the Medico-Political Committee on death registration and coroners' law (JOURNAL, March 11th).—F. WELLESLEY KENDLE, South Molton, Honorary Secretary and Treasurer.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of this Branch will be held at the Church Institute, Exeter Road, Exmouth, on Wednesday, April 26th, at 3 p.m. Tea will be provided after the meeting. The following communications have been already received:—Dr. Russell Coombe: A paper on perforations of the stomach and intestines, and notes of (1) a case of pyosalpinx with an unusual complication; (2) a case of trephining of the maxillary antrum for a lost cannula, with subsequent drainage into the nose. Dr. J. Delpratt Harris: A paper on the results of *x* rays on epitheliomata, ulcerated papillomata and ulcerated duct cancer. Mr. A. C. Roper: Notes on four cases of nephrorrhaphy. Dr. W. Sykes: A paper on overcrowding of the medical profession in England; its nature and extent; illustrated by maps and statistics. Dr. J. Delpratt Harris will show some pathological specimens, and Mr. A. C. Roper will show skiagraphs of two cases of fractured patella treated respectively by plaster and wiring. Gentlemen desirous of joining the Branch are requested to communicate with Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

British Medical Association.

SEVENTY-THIRD ANNUAL MEETING.

THE seventy-third annual meeting of the British Medical Association will be held at Leicester on Monday, Tuesday, Wednesday, Thursday, and Friday, July 24th, 25th, 26th, 27th, and 28th, 1905.

President: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

President-elect: GEORGE C. FRANKLIN, F.R.C.S., Honorary Surgeon, Leicester Infirmary.

Chairman of Representative Meetings: Sir VICTOR HORSLEY, F.R.S.

Chairman of Council: ANDREW CLARK, D.Sc., F.R.C.S.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P.

An Address in Medicine will be delivered by HENRY MAUDSLEY, LL.D., M.D., F.R.C.P.

An Address in Surgery will be delivered by CHARLES JOHN BOND, F.R.C.S.

A popular lecture will be delivered by Professor WILLIAM STIRLING, D.Sc., M.D., F.R.S.E.

SECTIONS.

The annual meeting at Leicester will comprise 12 Sections as shown in the subjoined list. The Sections will meet on Wednesday, Thursday, and Friday, July 26th, 27th, and 28th, from 10 a.m. to 1 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

MEDICINE.

President: FRANK M. POPE, M.D., F.R.C.P., Leicester. *Vice-Presidents:* REGINALD PRATT, M.D., M.R.C.P., Leicester; ROBERT WILLIAM PHILIP, M.D., F.R.C.P.Edin., Edinburgh; WILLIAM BRAMWELL RANSOM, M.D., F.R.C.P., Nottingham. *Honorary Secretaries:* BERTRAND DAWSON, M.D., B.Sc., F.R.C.P., 32, Wimpole Street, Cavendish Square, W.; WILLIAM MITCHELL STEVENS, M.D., M.R.C.P., 21, St. Andrew's Crescent, Cardiff; FRANK HARWOOD JACOB, M.D., M.R.C.P., 28, Regent Street, Nottingham.

SURGERY.

President: Sir CHARLES BENT BALL, M.Ch., F.R.C.S., Dublin. *Vice-Presidents:* CLAUDE DOUGLAS, F.R.C.S., Leicester; HENRY JOHN BLAKESLEY, F.R.C.S., Leicester; JAMES HENDERSON NICOLL, M.B., C.M., Glasgow. *Honorary Secretaries:* PERCY FURNIVALL, F.R.C.S., 28, Weymouth Street, W.; CECIL EDWARD MARRIOTT, M.C., F.R.C.S., 11, Welford Road, Leicester.

State Medicine.

President: Philip Boobbyer, M.D., Nottingham. *Vice-Presidents:* Ninian McIntire Falkiner, M.D., Dublin; John Herbert Hawkins Manley, M.D., D.P.H., West Bromwich; Thomas Robinson, M.R.C.S., D.P.H., Leicester. *Honorary Secretaries:* Wm. Williams, M.D., D.P.H., County Health Department, 9, The Parade, Cardiff; Chas. Killick Millard, M.D., D.Sc., Town Hall, Leicester.

Industrial Hygiene and Diseases of Occupation.

President: Hy. Wm. Langley Browne, M.D., West Bromwich. *Vice-Presidents:* Alexander Campbell, M.D., Dundee; John Colley Smyth Burkitt, M.D., D.P.H., Leicester; Thomas Morison Legge, M.D., London. *Honorary Secretaries:* Clement Frederick Bryan, M.R.C.S., 44, Humberstone Road, Leicester; Thomas Watts, M.D., 34, Church Street, Hyde.

Laryngology, Otology and Rhinology.

President: Frederick William Bennett, M.D., Leicester. *Vice-Presidents:* William Arthur Carline, M.D., Lincoln; John Middlemass Hunt, M.B., Liverpool. *Honorary Secretaries:* Alex Lewis MacLeod, M.B., 89, Hinckley Road, Leicester; Chas. Herbert Fagge, M.S., F.R.C.S., 22, St. Thomas's Street, London Bridge, S.E.

Navy, Army and Ambulance.

President: Surgeon-Lieutenant-Colonel Henry Walter Kiallmark, M.R.C.S., London. *Vice-Presidents:* Surgeon-Lieutenant-Colonel Robert Bradshaw Smith, V.D., L.R.C.P., Hinckley; Lieutenant-Colonel Edmond Monkhouse Wilson, C.B., C.M.G., D.S.O., S. Farnboro'; Fleet Surgeon Alexander J. J. Johnston, R.N., Haslar. *Honorary Secretaries:* Fleet Surgeon Edward James Biden, R.N. (Ret.), 29, Osborne Road, Southsea; Surgeon-Captain Wm. Pemberton Peake, M.R.C.S., 21, Oxford Street, Leicester; Captain Edwin Charles Montgomery-Smith, R.A.M.C.Vol., 36, Abbey Road, St. John's Wood, N.W.

Obstetrics and Gynaecology.

President: Herbert Ritchie Spencer, M.D., F.R.C.P. London. *Vice-Presidents:* Henry Meadows, M.B., Leicester; Professor Henry Corby, M.D., Cork; Francis Richard Cassidi, M.D., Derby. *Honorary Secretaries:* Montague Wm. Williams, M.R.C.S., 45, London Road, Leicester; Miss Louisa Garrett Anderson, M.D., 114 A, Harley Street, W.

Ophthalmology.

President: George Andreas Berry, F.R.C.S.Edin., Edinburgh. *Vice-Presidents:* Wm. Mardon Beaumont, M.R.C.S., Bath; Edwin Collier Green, M.R.C.S., Derby. *Honorary Secretaries:* Robt. Wallace Wesley Henry, M.D., 6, Market Street, Leicester; John Herbert Parsons, F.R.C.S., 27, Wimpole Street, Cavendish Square, W.

Psychological Medicine.

President: Alexander Reid Urquhart, M.D., Perth. *Vice-Presidents:* Rothsay Charles Stewart, M.R.C.S., Leicester; Theophilus Bulkeley Hyslop, M.D., London. *Honorary Secretaries:* Arthur Molyneux Jackson, M.B., Nottingham County Asylum, Radcliffe-on-Trent; John Wigmore Higginson, M.R.C.S., Hayes Park Asylum, Hayes.

Pathology.

President: Frederick Walker Mott, M.D., F.R.C.P., F.R.S., London. *Vice-Presidents:* Theodore Shennan, M.D., Edinburgh; Professor Arthur Hamilton White, L.R.C.P.I., Dublin. *Honorary Secretaries:* John William H. Eyre, M.D., Guy's Hospital, S.E.; Thomas Villiers Crosby, M.D., 91, St. Peter's Road, Leicester.

Dental Surgery.

President: Morton Alfred Smale, M.R.C.S., L.D.S., London. *Vice-Presidents:* Edward Lloyd-Williams, M.R.C.S., L.R.C.P., L.D.S., London; Francis John Lankester, M.R.C.S., L.D.S., Leicester; *Honorary Secretaries:* Wm. Armston Vick, M.B., L.D.S., 19, Belvoir Street, Leicester; Joseph George Turner, F.R.C.S., L.D.S., 12, George Street, Hanover Square, W.

Tropical Diseases.

President: Rubert Wm. Boyce, M.B., F.R.S., Liverpool. *Vice-Presidents:* Andrew Duncan, M.D., London; Fleming Mant Sandwith, M.D., F.R.C.P., London. *Honorary Secretaries:* George Aylwin Clarkson, F.R.C.S., 173, London Road, Leicester; John M. Hendrie Macleod, M.D., 11, Harley Street, W.

The Honorary Local Secretaries are:

Astley V. Clarke, M.D.,
37, London Road, Leicester.
Felix Bolton Carter, M.S.,
99, London Road, Leicester.

Programme of Proceedings.

Monday.

2 p.m.—Annual General Meeting followed by Representative Meeting.

Tuesday.

9 a.m.—Meeting of 1905-1906 Council.
10 a.m.—Representative Meeting.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
5 p.m.—Church Service.
6 p.m.—Meeting of Division and Branch Secretaries.
8.30 p.m.—President's Address. Reception of Distinguished Guests.

Wednesday.

9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Medicine. Adjourned General Meeting followed by Representative Meeting.

Thursday.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

Friday.

9 a.m.—Meeting of Council.
1 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Meetings of Divisions and Branch Secretaries.
8 p.m.—Popular Lecture.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1905.

[Specially Reported for the British Medical Journal.]

In the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London based upon the Registrar-General's returns for the first, or winter, quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 33,304 births registered in London during the three months under notice were equal to an annual rate of 28.5 per 1,000 of the population, estimated at 4,684,794 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates had been 30.8, 29.1, and 28.7 per 1,000 respectively, the average rate in the first quarters of the ten years 1895-1904 being 30.6 per 1,000. The birth-rates last quarter ranged from 15.7 in the City of London, 16.5 in Hampstead, 18.4 in the City of Westminster, 20.4 in Kensington, and 21.8 in Paddington and in Stoke Newington, to 34.2 in Bethnal Green, 34.7 in Poplar, 35.5 in Shoreditch, 35.7 in Bermondsey, 36.4 in Finsbury, and 37.3 in Stepney.

The 18,968 deaths of persons belonging to London registered during last quarter were equal to an annual rate of 16.2 per 1,000, against 21.3, 16.8, and 17.8 per 1,000 in the first quarters of the three preceding years; in the corresponding periods of the ten preceding years the mean rate was 20.2 per 1,000. The death-rates last quarter in the various boroughs ranged from 10.1 in Hampstead, 13.2 in Wandsworth, 13.5 in Stoke Newington, 13.6 in Woolwich, 14.3 in Greenwich and in Lewisham, and 14.4 in Paddington, to 19.4 in Bethnal Green, 19.6 in Shoreditch, 20.2 in Finsbury and in Southwark, 21.0 in Holborn, and 22.9 in the City of London.

During last quarter 1,286 deaths were referred to the principal infectious diseases: of these, 5 resulted from small-pox, 352 from measles, 134 from scarlet fever, 162 from diphtheria, 433 from whooping-cough, 49 from enteric fever, and 151 from diarrhœa. These 1,286 deaths were equal to an annual rate of 1.00 per 1,000, against an average rate of 2.92 per 1,000 in the corresponding quarters of the ten preceding years. The lowest death-rates last quarter from these infectious diseases were 0.48 in the City of Westminster, 0.51 in Hampstead, 0.54 in Deptford, 0.61 in Lambeth, 0.63 in Woolwich, and 0.64 in Paddington; the highest rates were 1.52 in Bermondsey, 1.54 in Bethnal Green, 1.57 in Poplar, 1.65 in Stepney, 1.80 in Fulham, and 2.51 in Shoreditch. The five fatal cases of small-pox belonged respectively to Islington, Hackney, Shoreditch, Stepney, and Lewisham. The greatest proportional mortality from measles occurred in Hackney, Finsbury, Shoreditch, Stepney, Poplar, Bermondsey, and Wandsworth; from scarlet fever in Fulham, Chelsea, Finsbury, Shoreditch, and Bethnal Green; from diphtheria in Hammersmith, Bethnal Green, Stepney, Poplar, and Southwark; from whooping-cough in Hammersmith, Fulham, Chelsea, Shoreditch, and Southwark; from enteric fever in Kensington, Holborn, Finsbury, Stepney, Wandsworth, and Deptford; and from

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1905.

BOROUGHS.	Estimated Population middle of 1905.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Birth.
COUNTY OF LONDON	4,684,794	33,304	18,968	28.5	16.2	1.09	1,286	5	352	134	162	433	—	49	—	151	1,816	114
Paddington	147,935	803	530	21.8	14.4	0.64	24	—	2	2	—	16	—	—	—	4	41	113
Kensington	180,083	916	743	20.4	16.6	1.01	45	—	2	3	3	26	—	4	—	7	52	153
Hammersmith	119,037	796	436	26.8	14.7	1.17	35	—	6	1	9	18	—	—	—	1	29	111
Fulham	157,210	1,265	601	32.3	15.3	1.80	70	—	14	7	7	31	—	1	—	10	50	122
Chelsea	74,496	417	314	22.5	16.9	1.08	20	—	1	4	—	12	—	1	—	2	27	118
City of Westminster ...	175,606	804	674	18.4	15.4	0.48	21	—	2	2	1	10	—	1	—	5	69	106
St. Marylebone ...	129,453	1,007	575	31.2	17.8	0.80	26	—	8	5	2	9	—	2	—	—	59	89
Hampstead	88,142	363	222	16.5	10.1	0.51	11	—	3	1	—	6	—	—	—	1	18	116
St. Pancras	236,183	1,557	1,049	26.4	17.8	0.97	57	—	20	4	7	18	—	2	—	6	104	129
Islington	342,994	2,242	1,318	26.2	15.4	0.99	84	1	26	10	11	24	—	3	—	9	125	101
Stoke Newington ...	52,828	287	178	21.8	13.5	0.69	9	—	3	2	1	3	—	—	—	—	13	108
Hackney	228,479	1,529	849	26.8	14.9	1.38	78	1	34	7	5	24	—	2	—	5	83	109
Holborn	56,481	417	296	29.6	21.0	0.70	10	—	2	1	1	4	—	2	—	—	44	96
Finsbury	98,207	891	495	36.4	20.2	1.46	36	—	16	6	1	7	—	2	—	4	51	125
City of London	22,425	88	128	15.7	22.9	0.72	4	—	1	—	1	1	—	—	—	1	11	159
Shoreditch	116,565	1,032	570	35.5	19.6	2.51	73	1	30	9	6	24	—	1	—	2	63	127
Bethnal Green	130,401	1,111	629	34.2	19.4	1.54	50	—	10	10	9	16	—	—	—	5	76	135
Stepney	305,466	2,838	1,394	37.3	18.3	1.65	126	1	40	11	26	20	—	7	—	21	139	121
Poplar	170,280	1,472	781	34.7	18.4	1.57	67	—	25	4	15	12	—	1	—	10	69	136
Southwark	208,528	1,663	1,050	32.0	20.2	1.50	78	—	5	8	17	40	—	—	—	8	121	137
Bermondsey	129,006	1,148	620	35.7	19.3	1.52	49	—	18	5	4	13	—	2	—	7	63	115
Lambeth	313,045	2,334	1,188	29.9	15.2	0.61	48	—	1	10	5	18	—	1	—	13	116	93
Battersea	177,532	1,237	671	28.0	15.2	0.80	35	—	11	4	3	10	—	3	—	4	78	89
Wandsworth	265,392	1,776	876	26.9	13.2	1.31	86	—	41	8	10	15	—	5	—	7	67	102
Camberwell	271,240	1,870	1,027	27.7	15.2	0.93	64	—	10	3	5	36	—	1	—	9	98	111
Deptford	114,495	840	442	29.4	15.5	0.54	15	—	3	—	3	4	—	3	—	2	34	123
Greenwich	103,493	715	370	27.7	14.3	0.75	19	—	2	3	2	8	—	1	—	3	32	102
Lewisham	144,420	988	516	27.4	14.3	0.74	26	1	14	2	1	4	—	2	—	2	35	96
Woolwich	125,372	898	426	28.7	13.6	0.63	20	—	2	2	7	4	—	2	—	3	49	105

diarrhoea in Fulham, the City of London, Stepney, Poplar, and Bermondsey.

During the three months under notice 1,816 deaths from phthisis were registered, equal to an annual rate of 1.55 per 1,000; the rates in the corresponding quarters of the three preceding years were 1.84, 1.66, and 1.77 per 1,000. Among the various metropolitan boroughs the lowest death-rates from phthisis last quarter were recorded in Hammersmith, Hampstead, Stoke Newington, Wandsworth, and Lewisham; and the highest rates in Holborn, Finsbury, Shoreditch, Bethnal Green, and Southwark.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 114 per 1,000 last quarter, against 132, 127, and 133 in the three preceding first quarters; the mean rate in the corresponding periods of the ten preceding years was 135 per 1,000. The lowest rates of infant mortality were recorded last quarter in St. Marylebone, Islington, Holborn, Lambeth, Battersea, and Lewisham; and the highest rates in Kensington, St. Pancras, the City of London, Shoreditch, Bethnal Green, Poplar, and Southwark.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,301 births and 4,688 deaths were registered during the week ending Saturday last, April 8th. The annual rate of mortality in these towns, which had been 15 8, 15 9, and 15 7 in the three preceding weeks, was again 15.7 per 1,000 last week. The rates in the several towns ranged from 7.4 in Hornsey, 8 5 in East Ham and in Plymouth, 9 6 in Leyton, 9.7 in King's Norton, and 10 0 in Wallasey, to 19 5 in Burnley and in Sheffield, 20.1 in Oldham, 21.1 in Wigan, 24.2 in Hanley, and 26.1 in Merthyr Tydfil. In London the death-rate was 15.8 per 1,000, while it averaged 15 6 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1 000 in the seventy-six towns; in London, this death-rate was equal to 1 3 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.7 in Middlesbrough, 4 1 in Portsmouth, 4 4 in Sheffield, 4 6 in West Bromwich, 4.8 in Wigan, 5.0 in Southampton, 6.0 in Stockton-on-Tees, and 9 2 in Merthyr Tydfil. Measles caused a death-rate of 2 0 in Bolton, 2.7 in Reading and in Middlesbrough, 3.0 in Wigan and in Sheffield, 3 4 in Portsmouth, 4.1 in Southampton, 4.6 in West Bromwich, 6.9 in Stockton-on-Tees, and 8.5 in Merthyr Tydfil: diphtheria of 1.6 in Hanley; and whooping-cough of 1.3 in Tottenham, 1.5 in Willesden, 1 6 in Hanley, and 1.9 in Tynemouth. The mortality from scarlet fever, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, 1 in Bradford, and 1 in South Shields, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 21 small-pox patients at the end of last week, against 20 at the end of each of the two preceding weeks; 4 new cases were admitted during the week, against 9, 3, and 2 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,042, 2,035, and 2,032 at the end of the three preceding weeks, had risen again to 2,086 at the end of last week: 292 new cases were admitted during the week, against 262, 274, and 254 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 8th, 996 births and 556 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2, 18.3, and 16.9 per 1,000 in the three preceding weeks, further declined to 16.6 per 1,000 last week, but was 0.9 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death rates ranged from 11 5 in Leith and 14.0 in Edinburgh to 17 7 in Paisley and 21.5 in Aberdeen. The death-rate from the principal infectious diseases in these towns averaged 2.2 per 1,000, the highest rates being recorded in Glasgow and Greenock. The 272 deaths registered in Glasgow included 8 which were referred to measles, 2 to diphtheria, 19 to whooping-cough, 2 to "fever," and 10 to diarrhoea. Four fatal cases of measles, 2 of diphtheria, and 3 of diarrhoea occurred in Edinburgh; 3 of diarrhoea in Dundee; 2 of "fever" and 4 of diarrhoea in Aberdeen; and 3 of whooping-cough in Paisley and in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 1st, 686 births and 427 deaths were registered in six of the principal Irish towns against 499 births and 410 deaths in the preceding period. The mean annual death-rate in these towns, which had been 28.2, 21.8, and 23.4 per 1,000 in the three preceding weeks, rose slightly to 23.9 per 1,000 in the week under notice, this figure being 8.2 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.5 in Waterford and 20 5 in Limerick to 24.9 in Dublin and 34.9 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.9 per 1,000, or 0.3 per 1,000 higher than during the preceding weeks, the highest figure—1.9—being recorded in Waterford, while Limerick and Cork registered no deaths under this heading at all. From measles 6 deaths were registered in Belfast and 4 in Dublin. In Waterford 1 death from typhus was recorded.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Arthur W. May, Deputy-Inspector-General, to the *President*, additional, for service at the Admiralty from April 17th to 30th, and Deputy M.D.G., May 1st; Henry J. Hadden, M.B., Fleet Surgeon, and Harry A. Kellond-Knight, Surgeon, to the *London*, on recommissioning, April 26th; Alexander F. Harper, Fleet Surgeon, to the *Renown*, April 26th; Alexander G. Wildey, Fleet Surgeon, to the *Ramillies*, on recommissioning, April 26th; Edward H. H. de Courtmacsherry, Fleet Surgeon, to the *Powerful*, April 5th; William E. Home, Fleet Surgeon, to the *Hannibal*, April 5th; Arthur H. H. Vizard, M.D., Staff Surgeon, to Bermuda, for service in Ireland Island and Dockyard, April 5th; Percy V. Jackson, Staff Surgeon, to the *Latona*, April 5th; Edward T. Meagher, Staff Surgeon, to continue to be lent to the *Ramillies*, on recommissioning, April 26th; Eustace Arkwright, M.B., Surgeon, to the *Sentinel*, on recommissioning, undated; Patrick W. MacVean, M.B., Surgeon, to the *Flora*, April 5th; Alastair F. Mackay, M.B., Surgeon, to the *Ringdove*, on commissioning, April 7th; Cyril J. Mansfield, Fleet Surgeon, to the Royal Naval Engineering College, April 22nd; Beauchamp F. Parish, Staff Surgeon, to the *President*, additional, for a three months' hospital course, April 10th; George A. S. Bell, Staff Surgeon, to the *Victory*, to be lent to the *Brilliant*, temporary, April 10th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL P. J. DEMPSEY, M.D., is placed on retired pay, March 28th. He was appointed Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890; and Lieutenant-Colonel, August 4th, 1898. He was in the Afghan war of 1878-80 (medal) and with the Burmese expedition in 1886-7 (mentioned in dispatches, medal with clasp).

Captain W. J. P. ADYE-CURRAN, from half-pay, to be Captain, March 23rd. He was placed on temporary half-pay on account of ill-health on December 23rd last.

Lieutenant J. A. LONGLEY, M.B., resigns his commission on April 8th. He was appointed Lieutenant, August 31st, 1903.

Surgeon-General Sir EDMOND TOWNSEND, M.D., K.C.B., C.M.G., retires on the 22nd instant. It is understood that Colonel R. H. QUILL, M.B., will succeed to the vacancy thus created.

INDIAN MEDICAL SERVICE.

COLONEL C. LITTLE, M.D., Madras Establishment, is permitted to retire from the service, from February 12th. He was appointed Assistant-Surgeon, March 30th, 1872, and became Colonel, February 12th, 1900. He has no war record in the Army Lists.

The undermentioned officers, appointed Lieutenants on probation, having completed the course of instruction at the Medical Staff College, and being reported qualified, are admitted to the service and posted to the commands specified, from September 1st, 1904: H. S. MATSON and D. STEEL, Eastern Command; F. H. STEWART, H. A. DOUGAN, A. CAMERON, A. H. PROCTOR, and R. T. WELLS, Northern Command; I. M. MACRAE, C. C. C. SHAW, R. D MACGREGOR and J. W. H. BABINGTON, Secunderabad Division; A. S. M. PEEBLES and F. B. SHETTLE, Western Command.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon, resident. Salary £80 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (Male). Salary £80 per annum and notification fees.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Surgeon; (2) House Surgeon for Special Departments. Salaries at the rate of £50 per annum.

BRISTOL DISPENSARY.—Vacancy in the Medical Staff.

BUXTON: DEVONSHIRE HOSPITAL.—House-Surgeon. Salary £100 per annum. Assistant House-Surgeon. Salary £70 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Junior House-Surgeon, resident. Salary at the rate of £50 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum.

GERMAN HOSPITAL, Dalston, N.E.—Honorary Assistant Surgeon.

GLASGOW ROYAL INFIRMARY.—Anaesthetist. Salary, 50 guineas.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon, resident. Salary, £20 for six months and £2 10s. washing allowance.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary £30 for six months.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary, £50 per annum.

MACCLESFIELD: CHESHIRE COUNTY ASYLUM.—Temporary Assistant Medical Officer.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Resident Medical Officer. Salary £100 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary £70 per annum.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer, resident. Salary £200 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-upon-Trent.—Assistant House-Surgeon, resident. Honorarium, £25 for six months.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—(1) House Physician; (2) House-Surgeons. Salaries at the rate of £50 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SUNDERLAND BOROUGH ASYLUM, Ryhope.—Assistant Medical Officer. Salary, £123, rising to £160 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) Two vacancies on the Surgical Staff to Out-patients; (2) Honorary Anaesthetist.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £50 per annum.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—(1) Additional Administrators of Anaesthetics, honorary; (2) Fourth Assistant Physician.

APPOINTMENTS.

ADAMS, F. C., M.B., Senior Resident Medical Officer, Sydney Hospital, N.S.W.

BAINES, Captain Francis E., L.R.C.P., I.M.S., Clinical Assistant to the Chelsea Hospital for Women.

BALDWIN, Mary, M.B., Resident Medical Officer, Lady Bowen Hospital, Brisbane.

BOLTON, Charles, M.D., B.S.Lond., M.R.C.P., Assistant Physician, University College Hospital.

BOWEN-JONES, L. M., L.R.C.P., M.R.C.S.Eng., D.P.H., Certifying Factory Surgeon for the Carmarthen District.

COATES, C. J. A., L.R.C.P. and S.Edin., District Medical Officer of the Brixworth Union.

COOKE, F. A., M.D., District Medical Officer of the Aylesbury Union.

EARLE, R. C., M.R.C.S.Eng., L.S.A., Health Officer for the port of Wanganui, New Zealand, *vice* Dr. Hatherley, resigned.

EVERETT, Maud V., L.R.C.P. and S.Edin., L.F.P.S.Glas., Assistant Surgeon, Elder Cottage Hospital, Govan, Glasgow.

FERGUSON, J. P., L.R.C.P., L.R.C.S., Certifying Factory Surgeon for the Misterton District, Nottingham.

MOON, R. O., M.D.Oxon., M.R.C.P., Physician to the Out-patients at the Royal Waterloo Hospital.

SHARP, G. G., M.B., Resident Pathologist, Sydney Hospital, N.S.W.

TONGUE, E. J., M.R.C.S., L.R.C.P., Medical Officer for the Winterton District of the Glanford Brigg Union.

WELLS, C. V., M.B., L.R.C.P., Health Officer and Public Vaccinator for the District of Laura, South Australia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DOWSETT.—On April 5th, at St. Dunstan's, Lebanon Park, Twickenham, the wife of Ernest B. Dowsett, M.R.C.S., L.R.C.P., L.D.S., of a daughter.

EVANS.—On April 5th, at St. Clear's, Manor Road, Edgbaston, the wife of J. Jameson Evans, M.D., F.R.C.S., of a son.

SWORDER.—On April 6th, at Aldenham, 2, Clifton Road, Folkestone, the wife of Dr. Ernest Sworder, of a daughter.

WALKER.—On April 8th, at 16, Pembroke Road, Clifton, Bristol, the wife of Cyril H. Walker, M.B., F.R.C.S., of a daughter.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY, Hanover Square, 8.30.—Dr. T. G. Horder: (1) Bacillus Influenzae as a Cause of Endocarditis; (2) Gonococcus Endocarditis. Professor E. Klein: The Vitality of the Typhoid Bacillus in Shellfish.

THERAPEUTICAL SOCIETY, Apothecaries' Hall, 4 p.m.—Papers:—Dr. George Herschell: The Application of Drugs to the Interior of the Stomach by means of Sprays or Nebulae. Dr. J. H. Bryant: Alginoid Iron and its Therapeutical Uses.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, W., 5.30 p.m.—Papers:—Dr. Henry McClure: The Climatology of the Sahara. Dr. Robert Felkin: Sea Voyages for Invalids.

ROYAL METEOROLOGICAL SOCIETY (at the Institution of Civil Engineers, Great George Street, Westminster, S.W.), 7.30 p.m.—Papers:—Mr. W. H. Dines: An Account of the Observations at Crinan in 1904, and Description of a New Meteorograph for use with Kites. Dr. Hugh Robert Mill: Rate of Fall of Rain at Seathwaite.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—(1) Paper:—Mr. A. E. Conrady: The Application of the Undulatory Theory to Optical Problems; (2) an Exhibition of Pond Life.

POST-GRADUATE COURSES AND LECTURES.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, College closes. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Modes of Death in Heart Disease; Tuesday, Pitfalls in the Examination of Urine; Wednesday, Gastric Surgery.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith.—Monday, 4 p.m., Practical Ophthalmology. Tuesday, 11 a.m., Bacteriology; 3.30 p.m., Skiagraphy. Wednesday, 10 a.m., Clinical Haematology; 3 p.m., Intestinal Surgery. Thursday, 11 a.m., Bacteriology; 3.15 p.m., Intestinal Surgery; 4.15 p.m., Practical Ophthalmology. Friday, 2 p.m., Clinical Haematology; 3.30 p.m., Skiagraphy. Saturday, 10.30 a.m., Bacteriology.

BOOKS, ETC., RECEIVED.

The Treatment of Diseases of the Eye. By Dr. Victor Hanke. Translated by J. Herbert Parsons, B.S., D.Sc., F.R.C.S., and George Coats, M.D., F.R.C.S. London: Hodder and Stoughton. 1905. 3s. 6d.

Wharton and Stillé's Medical Jurisprudence. Vol. II., Poisons. By Robert Amory, A.M., M.D., and Robert L. Emerson, A.B., M.D. Fifth edition. Rochester, N.Y.: The Lawyer's Co-operative Publishing Company. 1905.

Beiträge zur Chirurgie der Gallenwege und der Leber. Von Professor Dr. Werner Körte. Berlin: August Hirschwald. 1905. Mk. 18.

Author and Printer. A Guide for Authors, Editors, Printers, Correctors of the Press, Compositors, and Typists. By F. Howard Collins. London: Henry Frowde. 1905. 5s.

A Treatise on Plague. By W. J. Simpson, M.D.Aberd., F.R.C.P.Lond., D.P.H.Camb. Cambridge: University Press. 1905. 10s.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
April	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	LONDON: Medico-Political Committee, 2 p.m. ,, Premises and Library Subcommittee, 4 p.m.; Committee, 4.30 p.m.
,,	19...WEDNESDAY	LONDON: Central Council. 11 a.m. Barnstaple Division, *South-Western Branch*, Barnstaple Infirmary, 3.30 p.m.
,,	20...THURSDAY...	Lincoln Division, *Midland Branch*, Guildhall, Lincoln, 3.30 p.m.
,,	21...FRIDAY ...	*Good Friday.*
,,	22...SATURDAY...	Notices of Motion for Annual Representative Meeting appear in JOURNAL.
,,	23...Sunday..	
,,	24...MONDAY ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
,,	25...TUESDAY ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...WEDNESDAY	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South-Western Branch, Church Institute, Exeter Road, Exmouth, 3 p.m.
,,	27...THURSDAY...	City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...FRIDAY ...	DUNDEE: Scottish Committee. Dundee Branch, Clinical Meeting of this and other Scottish Branches, Royal Infirmary Dundee, 4 p.m.
,,	29...SATURDAY...	List of Members closed for publication.
,,	30...Sunday..	
May	1...MONDAY ...	
,,	2...TUESDAY ...	
,,	3...WEDNESDAY	Bournemouth Division, *Dorset and West Hants Branch*, Annual Meeting, Medical Societies' Rooms, Bournemouth, 7.45 p.m.
,,	4 ..THURSDAY...	
,,	5...FRIDAY ...	
,,	6...SATURDAY...	
,,	7...Sunday..	
,,	8...MONDAY ...	
,,	9...TUESDAY ...	LONDON: Organization Committee.
,,	10...WEDNESDAY	
,,	11...THURSDAY...	Staffordshire Branch, Victoria Hotel, Wolverhampton, 3 p.m.
,,	12...FRIDAY ...	
,,	13...SATURDAY...	
,,	14...Sunday..	
,,	15...MONDAY ...	
,,	16...TUESDAY ...	
,,	17...WEDNESDAY.	Dorset and West Hants Branch, Blandford.
,,	18...THURSDAY...	
,,	19...FRIDAY ...	
,,	20 ..SATURDAY...	

Month.	Day of Week.	Meetings to be Held.
May	21...Sunday..	
,,	22...MONDAY ...	
,,	23...TUESDAY ...	General Medical Council Session commences.
,,	24...WEDNESDAY	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m.
,,	25...THURSDAY...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26...FRIDAY ...	
,,	27...SATURDAY...	
,,	28...Sunday..	
,,	29...MONDAY ...	
,,	30...TUESDAY ...	
,,	31...WEDNESDAY	Scientific Grantees have to report to Council on or before this date.
June	1...THURSDAY...	
,,	2...FRIDAY ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...SATURDAY...	
,,	4...Sunday..	
,,	5...MONDAY ...	
,,	6...TUESDAY ...	
,,	7...WEDNESDAY.	LONDON: Medico-Political Committee.
,,	8...THURSDAY...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9...FRIDAY ...	
,,	10...SATURDAY...	
,,	11...Sunday..	
,,	12...MONDAY ...	*Bank Holiday.*
,,	13...TUESDAY ...	
,,	14 ..WEDNESDAY	
,,	15...THURSDAY...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester.
,,	16 ..FRIDAY ...	LONDON: Ethical Committee.
,,	17...SATURDAY...	
,,	18...Sunday..	
,,	19...MONDAY ...	Election of Representatives: July 3rd.
,,	20...TUESDAY ...	
,,	21...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Royal Fountain Hotel, Canterbury, 2.15 p.m.
,,	22...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m.
,,	23...FRIDAY ...	
,,	24...SATURDAY...	
,,	25...Sunday..	
,,	26...MONDAY ...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 22ND, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
NOTICES OF MOTION	153
MEETINGS OF BRANCHES AND DIVISIONS:	
South Eastern of Ireland Branch	155
East Anglian Branch—General Meeting	156
Yorkshire Branch: Bradford Division	156
South-Eastern Branch: Canterbury and Faversham Division ...	156
ASSOCIATION NOTICES.—1905 ANNUAL GENERAL MEETING—ANNUAL REPRESENTATIVE MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	157
VITAL STATISTICS...	157
NAVAL AND MILITARY APPOINTMENTS	158
VACANCIES AND APPOINTMENTS	158
BIRTHS MARRIAGES, AND DEATHS	159
DIARY OF THE WEEK	159
BOOKS RECEIVED...	159
CALENDAR	160

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

NOTICES OF MOTION

FOR THE

REPRESENTATIVE MEETING AT LEICESTER.

MONDAY, JULY 24TH, 1905, AT 2 P.M.

THE following notices of motion have been given for discussion by the Annual Representative Meeting at the Annual Meeting of the Association to be held at Leicester, July 24th, 1905, and following days.

A.—NOTICES CONCERNING ALTERATIONS OF THE ARTICLES OF ASSOCIATION.

By the COUNCIL OF THE ASSOCIATION:

1. That the Council give notice to amend Article XXVII in order to give to the Council a discretionary power to give separate representation to Divisions below 50 in number in those cases in which special difficulties exist for the holding of joint meetings with neighbouring Divisions

2. That Article XXXVI be amended to read as follows:

XXXVI. OFFICERS.

There shall be the following officers of the Association, namely: a President, a President-elect, a Past-President, Vice Presidents, a Chairman of Representative Meetings, a Chairman of Council and a Treasurer. The officers aforesaid for the time being, other than the Chairman of Council, shall hold office for such period, and shall have and enjoy such duties, powers, and privileges as shall be determined from time to time by the Association in its By-laws.

3. That Article XXXVII be altered to read as follows:

XXXVII. OFFICERS (*continued*).

The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such period and discharge such duties as shall be determined by the Council. During this period and for one year thereafter he shall *ex officio* be a member of the Council, and any Branch of which at the time of his election he was a Representative shall be entitled to elect another in his stead.

4. That Article XXXVIII be amended by deleting the words "if any," also by inserting after the words "Chairman of Representative Meetings" the words "Chairman of Council."

5. That Article XLI be altered to read as follows:

XLI. Committees.

Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Council, subject to the provisions of the By-laws, may think proper. The President of the Association, the Chairman of the Representative Meetings, the Chairman of Council, and the Treasurer shall be *ex-officio* members of all Committees of the Association.

6. That the question of the advisability of altering the wording of Article XLIV, Section (*e*), in order to provide for inquiry by a Division, and also the question of making some specific provision in the Articles or By-laws to define the "commencement" of an inquiry be noted for future consideration.

B.—NOTICES CONCERNING ALTERATIONS OF THE BY-LAWS OF THE ASSOCIATION.

1. That By-law 16 be amended by the insertion of the following words at the end of the first paragraph: "The grants made under this clause shall be applied to the expenses of the bodies to which they are made at the discretion of those bodies and within the limits of the objects of the Association as defined in paragraph 3 of the Memorandum of Association except for the purpose of winding up. The Association shall not have power to call for the return to its general funds of any surplus accruing from such grants."

2. That the Council recommend the amendment of By-law 22 by the Annual Representative Meeting at Leicester in the following respect, namely: That the words "and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council," occurring in the sixth line and onwards thereof, be deleted, and the following words be added to the by-law: "The Council may also elect, if it thinks fit, at any of its meetings all or any one of the following, namely: 'One medical officer on the active or retired list of each of the following services: The Royal Navy Medical Service, the Royal Army Medical Service, and the Indian Medical Service.' In each case he shall not have retired from the active list more than three years previously."

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3. That By-law 22 be amended to open as follows:

Council.

22 *Composition and Powers.*

The Council shall come into office on the first day of the Annual Meeting and shall be composed of.....

4 That By-law 28 be amended by substituting the words "twenty-eight days" in place of "fourteen days" as follows:

28. *Election Return.*

The return of the election of each elective Member of Council shall be communicated in writing to the Secretary of the Association by the President or Secretary of the Branch by which he is elected not less than twenty-eight days prior to the Annual General Meeting of the Association.

5. To amend By-law 40 (7) by inserting in brackets after the opening words "An Ethical Committee," the words "otherwise designated the Central Ethical Committee."

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6. That By-law 42 be amended as follows:

42. *Salaried Officers.*

All salaried officers shall be appointed by the Council and subject to the Articles and By-laws shall hold office for such period and perform such duties and receive such remuneration as the Council may from time to time determine.

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7. That By-law 27 be amended by adding at the end thereof the following words, "and if no such Rule shall be adopted the regulations as to eligibility shall be the same as for the Branches in the United Kingdom," namely:

27. *Qualification.*

No person shall be eligible for election as a Member of Council by a Branch in the United Kingdom unless at the time of his election he shall be a Member of such Branch. The eligibility for election as a Member of Council by a Branch not in the United Kingdom shall be such as may be determined by the Rules of the said Branch, and if no such Rule shall be adopted the regulations as to eligibility shall be the same as for the Branches in the United Kingdom.

By the Portadown and West Down Division (Ulster Branch):

To support the amendment of the Ulster Branch to the resolution of the Leinster Branch requesting the establishment of an Irish Committee on the lines of the Scottish Committee together with the following rider:

"That where the Secretary of a Branch is also a member of Council there be given power to the Branch to appoint a further Representative on the Committee."

C.—OTHER NOTICES OF MOTION.

By the Bradford Division (Yorkshire Branch):

That in the opinion of the Representative Meeting it is desirable that the Council should transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such

Divisions and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available; and that the Council be instructed at the first opportunity to bring before the Representative Meeting such alterations of the By-laws as may be necessary to give effect to this resolution.

By the Blackburn Division (Lancashire and Cheshire Branch):

(*a*) That in the opinion of this meeting it is desirable that a department of the British Medical Association be formed for carrying out a benevolent and provident scheme for the benefit of the members of the Association.

(*b*) That the funds for these purposes be set aside from the annual income, and that if necessary the annual subscription be increased to such sum as be necessary to efficiently carry out the work.

(*c*) That this meeting do appoint a Committee to formulate a scheme for carrying this into effect, and to obtain if necessary the advice of a competent actuary, and to report to the Divisions not later than May 1st, 1906.

(*d*) That the Memorandum of Association, Articles, and By-laws be so altered as to allow this to be carried out.

2. (*e*) That in the case of any Representative or member of Council or Committee being summoned to a meeting at headquarters, the Secretary of the Division shall notify the fact to all members of the Division practising in the same district, three clear days beforehand, on forms specially supplied for this purpose, in order that the members may be prepared to watch the interests of their Representative during his absence.

3. (*f*) That it be an instruction to the Finance and Journal Committee to publish the report of the annual meeting in the form of transactions in the Annual Year Book, which shall be published on September 1st every year, the medical year to be reckoned from one annual meeting to the next.

(*g*) That the headquarters be known as the office of the "British Medical Association," not of the British Medical Journal.

The following additions be made to Standing Orders:

1. That no session of the Representative Meeting last for more than three hours consecutively, and should there be more than one session in a day, there shall be an interval of at least one and a half hours between them.

2. That smoking be not allowed during such time as the Chairman is in the chair.

By the Cardiff Division (South Wales and Monmouthshire Branch):

(*a*) That the Representative Meeting is of opinion that the community is exposed to a grave danger by the entrance into and detention in this country of aliens suffering from trachoma, and urges the Council to take steps towards having the disease scheduled as "a loathsome and contagious disease" in the Alien Immigration Bill or other legislative measure.

(*b*) That the Representative Meeting notes with satisfaction the action of the Council in transferring to the Medical Secretary's department the secretarial work of the Representative Meeting, and of the Public Health, Hospitals, and Naval and Military Committees, thus giving effect more fully than before to the principle that the secretarial work of the Association, except in matters purely of business and finance, should be discharged by a medical man.

(*c*) The Representative Meeting further expresses the opinion that the office of the Medical Secretary should have equal recognition in the regulations of the Association, and as regards the conditions under which it is held, with those of the Editor and General Secretary; and requests the Council to take into early consideration the measures necessary to carry out this resolution.

By the Manchester (West) Division (Lancashire and Cheshire Branch):

That this meeting considers that the establishment of a benevolent fund for the benefit of the widows and children of members of the Association is urgently needed; and that for this purpose a subscription of 2s. 6d. per annum should be levied on each member, and an additional sum of £2 000 per annum should be set aside out of the income of the Association.

By the West Bromwich Division (Birmingham Branch):

That in the opinion of this meeting it is not advisable for the British Medical Association to undertake Medical Defence in competition with the existing Defence Societies.

Guy Elliston, *General Secretary.*

April 19th.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

SOUTH-EASTERN OF IRELAND BRANCH.

A meeting of the Branch was held in the Club House, Carlow, on March 22nd, Dr. Mackesy in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and signed.

Letters.—Letters of apology for non-attendance were read from the President (Dr. Laffan) and Dr. J. A. Oakshott. Letters were also read from the Medical Secretary of the British Medical Association, Dr. Rowland Fothergill, and the Secretary of the Irish Lights Office.

Annual Report.—The Secretary also read the annual report of the Branch which was drawn up at the previous Council meeting.

Amendment of Branch Rules.—A discussion took place about changing and amending some of the rules of the Branch, and

it was decided to leave the matter over till the annual meeting.

Leinster Branch.—The following resolution was proposed by Dr. D. Walshe, seconded by Dr. Morris, and carried *nem. con.*:

> We beg to offer our best thanks to the Leinster Branch and to the Leinster Secretary for the very energetic and sympathetic action they have taken with regard to the resolution sent forward by the South-Eastern Branch.

The Secretary was instructed to forward the resolution to the Secretary of the Leinster Branch.

EAST ANGLIAN BRANCH.

The spring meeting was held at the Suffolk Hotel, Bury St. Edmunds, on Thursday, April 6th, Mr. H. B. Walker (Lowestoft) in the chair.

Meeting of Council.—A meeting of Council was held before the general meeting.

New Member.—Dr. F. H. Hand, of King's Lynn, was elected a member of the Branch.

Annual Meeting.—It was decided that the annual meeting should be held at Norwich on June 22nd.

General Meeting.

The general meeting was then held.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Resolution of Leinster Branch.—A resolution from Leinster Branch was considered.

Papers.—Mr. R. H. Lucas (Bury St. Edmunds) read notes on three cases of appendicitis, and showed a case of lupus treated by Finsen's light.—Sir Alan Reeve Manby (East Rudham) read a paper on three cases of rodent ulcer treated by radium.—Dr. Havell (Felixstowe) read a paper on pulmonary consumption and the profession.—Dr. W. W. Sinclair (Ipswich) read papers on (1) a family case of congenital night blindness with ophthalmic changes, and (2) the use and misuse of atropine.—Dr. Hinnell (Bury St. Edmunds), notes on cases of strychnine poisoning.

Exhibits.—Surgical instruments were exhibited by Messrs. Down Brothers, and drugs by Messrs. Burroughs, Wellcome, and Co.

Tea.—Subsequently, at Moyses' Hall Museum, Mr. and Mrs. Lucas entertained the visitors to afternoon tea.

YORKSHIRE BRANCH:

Bradford Division.

A special meeting of this Division was held at the Eye and Ear Hospital, Bradford, on Thursday, April 13th, at 4 p.m. Dr. Mossop (Chairman), presided.

Confirmation of Minutes.—The minutes of the last meeting were read and adopted.

Supplementary Grant Fund.—Dr. Metcalfe proposed the following modification of the resolution in connexion with a "Supplementary Grants Fund" adopted by the last meeting of the Division:

> That the words "That the Council be instructed to" be deleted, and that the following words be inserted in their place: "That in the opinion of the Representative Meeting it is desirable that the Council should"; and at the end of the notice shall be added "and that the Council be instructed at the first opportunity to bring before the Representative Meeting such alterations of the By-laws as may be necessary to give effect to this resolution."

This was seconded by Dr. Bronner, and carried.

Matters Referred to Divisions.—The report on information supplied to coroners by medical practitioners was approved of, and it was determined to send copies to all medical men in the Divisional area. The Local Government Board Bill, the Public Health Bill, and the Revaccination Bill were all approved of, and it was agreed that a *précis* of these Bills should be sent to local members of Parliament and candidates for Parliamentary election. The Division decided that a definite pronouncement should be made by the Representative Meeting on the question of "advertising of medical practitioners in connexion with hydropathic and similar establishments" in the manner suggested by the Ethical Committee. The proposals for preventing the abuse of drugs were considered. Clause (*a*) was approved of. It was carried that the Division should suggest the deletion of Clause (*b*). Clause (*c*) was approved of. The questions on ambulance work were considered. It was agreed that all forms of ambulance instruction ought to be given by medical men and paid for. The Division suggests also that volunteer medical officers should be placed on the same footing as other ambulance officers. The Division approved of the report on death registration and amendment of coroners' law. The meeting, having left the time for a further adjourned meeting to the Chairman and Secretaries, then terminated.

SOUTH-EASTERN BRANCH:

Canterbury and Faversham Divisions.

A combined meeting of these Divisions was held at Faversham on March 9th.

Amalgamation of Divisions.—The approval of the Council (Supplement, March 4th) to the amalgamation of the Divisions was received with satisfaction, and it was resolved that the combined Division be called the Canterbury and Faversham Division.

Matters Referred to Divisions.—The interim report on contract medical practice was considered, and all the propositions of the Medico-Political Committee (Supplement, November 26th) were agreed to excepting the provision against abuse; this did not seem clear to the meeting, as it did not definitely make the right to choice reciprocal (vide rider 3A), and suggest that the proposition should read thus:

> That in all such contracts the right be reserved to each medical officer to decline to accept as a patient any member of such service, and that provision should be made by the governing body of the service to exclude those who are considered to be unfit for membership in respect of financial position.

In regard to the National Deposit Friendly Society (Supplement, January 14th), Recommendations 1, 3, and 4 were agreed to, but 4 was considered unworkable. The question of the payment of medical practitioners called in to assist midwives was considered, and the opinion of the Division has been conveyed to the Medico-Political Committee. In regard to furnishing information to coroners, it was resolved that a fee of 10s. 6d. should be paid to medical practitioners for information given to coroners where the medical man is not called in to give evidence at the inquest. On the relations of the medical profession to ambulance work, the Division came to the following conclusions:—That no ambulance work should be treated as a matter of philanthropy. That the scale of fees offered by the St. John Ambulance Association would be suitable to this district. That the local secretaries be informed of the above decisions. The recommendations on the prevention of the abuse of drugs were approved. The Medical Acts Amendment Bill (Supplement, November 26th) was approved, with the exceptions that Part III, 11, 1, that there be no annual registration fee. Part III, 13, 3, relating to the general adoption of the title of "Dr." be deleted. [The two last resolutions were passed at an adjourned meeting at Canterbury on March 16th.]

1905 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Hall of the Y.M.C.A., London Road, Leicester, on Monday, July 24th, at 2 o'clock in the afternoon, and on Tuesday, July 25th, at 2 p.m.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Hall of the Y.M.C.A., London Road, Leicester, on Monday, July 24th, immediately after the Annual General Meeting, which will be held at 2 o'clock in the afternoon; on Tuesday, July 25th, at 10 a.m.; on Wednesday, July 26th, at 3.30 p.m.; on Thursday, July 27th, at 3.30 p.m. if required; also at 2 p.m. on Friday, July 28th, if required.

By Order,

April 20th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday evening, April 26th, Mr. R. J. H. Scott, President, in the chair. The following cases will be shown at 7.45: (*a*) Morphoea C. E. S. Flemming; (*b*) Essential Shrinking of the Conjunctiva, W. M. Beaumont. Papers at 8 p.m.: (1) Practical Notes on Skin Grafting, J. R. Benson; (2) Cases of Joint Swelling simulating Rheumatism, R. Llewellyn Jones, M.B.; (3) A Case of Removal of Gall Stone from the Jejunum, Carey Coombs, M.D.; (4) Lumbago, C. E. S. Flemming. —W. M. BEAUMONT, NEWMAN NEILD, Honorary Secretaries.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at Blandford on Wednesday, May 17th. Notice of any communication and case should be sent before May 7th to the Honorary Secretary, C. H. W. PARKINSON.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The annual meeting will be held at the Medical Societies' Rooms, Bournemouth, on Wednesday, May 3rd, at 7.45 p.m. Agenda: Election of officers, consideration of matters referred to the Divisions; cases, if any. Members are requested to bring their SUPPLEMENTS.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES.—Nominations for elective members of the Council must be made in writing on or before May 10th, to C. H. WATTS PARKINSON, Wimborne Minster, Honorary Secretary.

DUNDEE, PERTH AND STIRLING BRANCHES.—The nomination of candidates for the office of elective member of Council for the ensuing year must be made in writing on or before May 8th to Dr. J. E. Moorhouse, 1, Glebe Avenue, Stirling.—A. P. LOW, Secretary Dundee Branch, W. A. TAYLOR, Secretary Perth Branch, J. E. MOORHOUSE, Secretary Stirling Branch.

EAST YORK AND NORTH LINCOLN BRANCH (with the CAMBRIDGE AND HUNTINGDON BRANCH).—Nominations for the office of Representative on the Central Council must reach me before May 14th, 1905. The present Representative, Dr. C. H. Milburn, is eligible for re-election.—E. M. HAINWORTH, Honorary Secretary, East York and North Lincoln Branch.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of elective members of the Council of the Association for this Branch must be made in writing on or before May 1st, to T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY AND WALTHAMSTOW DIVISIONS. —A conjoint meeting of these Divisions will be held, by the kind invitation of Dr. J. O. Adams, at Brooke House, Upper Clapton, on Thursday, April 27th, at 8.30 p.m. Dr. J. H. Sequeira will give a demonstration on some cases of skin disease.—C. J. MORTON, M.D., E. W. GOODALL, M.D., Honorary Secretaries.

MIDLAND BRANCH.—The last day for sending in nominations for the two members of the Central Council to which this Branch is entitled is May 8th. They should be sent to the Acting Honorary Secretary, Dr. FRANK POPE, 4, Prebend St., Leicester.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Canterbury on Wednesday, June 21st, Dr. Whitehead Reid, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. [This will be done by voting papers sent to each member of the Branch. Nomination by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 13th.] (2) To receive the annual report of the Branch Council. (3) To consider the business of the Annual Representative Meeting. (4) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex officio* members of the Branch Council." (5) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Saturday, May 13th.—H. M. STEWART, Walton House, Lordship Lane, S.E., Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in April (26th), May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: CANTERBURY AND FAVERSHAM DIVISIONS.—A clinical meeting will be held at the Canterbury Hospital on Thursday, May 4th, at 3 p.m. Members are asked to notify to Dr. Henchley any case of interest that they will show, so that he can put it on the agenda.—WILLIAM GOSSE, A. R. HENCHLEY, Honorary Secretaries.

SOUTH-EASTERN OF IRELAND BRANCH.—The next meeting of the Branch will be held in Waterford on April 26th. The annual meeting will be held at Kilkenny on May 24th.—E. J. FARMER, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of members for the office of Representatives on Central Council, each signed by not less than three members, must reach me not later than May 15th. The present Representative, Mr. R. H. Kinsey, is eligible for re-election. —E. HARRIES JONES, Honorary Secretary, Northampton.

SOUTH-WESTERN BRANCH.—At a special meeting of the Branch Council held on April 15th, it was unanimously resolved that in consequence of the untimely death of the President of the Branch and the sad circumstances under which it occurred, the intermediate meeting of the Branch, summoned for April 26th, be abandoned as a mark of respect to the memory of the deceased President.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

STAFFORDSHIRE BRANCH.—Nominations of Representative on Central Council: Notice is hereby given that nominations must be sent in to me on or before May 25th.—G. PETGRAVE JOHNSON, Honorary Secretary, Stoke-on-Trent.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 11th. The President, Dr. E. Deanesly, will take the chair at 3 p.m. Business: (1) Minutes of the last general meeting; (2) Correspondence; (3) Exhibition of living cases. The meeting will be a clinical one. Notice has been received that several cases will be exhibited. Gentlemen having interesting cases are invited to exhibit them. (4) Exhibition of pathological specimens, etc. Dinner, 6.30 p.m.; charge 5s. Council meeting; a meeting of the Council will be held at 2.45 p.m. for election of members, etc. —G. PETGRAVE JOHNSON, Honorary General Secretary, Stoke-on-Trent.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,560 births and 4,958 deaths were registered during the week ending Saturday last, April 15th. The annual rate of mortality in these towns, which had been 15.7 per 1,000 in each of the two preceding weeks, rose last week to 16.6 per 1,000. The rates in the several towns ranged from 9.0 in King's Norton, 9.3 in Handsworth (Staffs.), 9.6 in Leyton, 9.9 in Hornsey and in Burton-on-Trent, 10.3 in Walthamstow, and 10.6 in East Ham, to 21.0 in Hanley, 21.2 in Middlesbrough, 21.3 in Manchester, 21.4 in Ipswich, 21.9 in Stockton-on-Tees, 23.8 in St. Helens, 26.3 in Tynemouth, 26.7 in Rhondda, and 31.1 in Merthyr Tydfil. In London the death-rate was 16.1 per 1,000, while it averaged 16.8 per 1,000 in the seventy-five other large towns. The death rate from the principal infectious diseases in the seventy-six towns, averaged 1.8 per 1,000; in London also this death-rate was 1.8 per 1,000 while among the seventy-five other large towns the rates ranged upwards to 4.3 in Sheffield, 4.6 in St. Helens, 5.0 in Stockton-on-Tees and in Newport (Mon.), 6.2 in West Bromwich, 6.4 in Southampton, and 7.1 in Merthyr Tydfil. Measles caused a death-rate of 2.7 in Middlesbrough, 2.9 in Nottingham, 3.0 in Wigan, 3.1 in Portsmouth and in Sheffield, 3.5 in Coventry, 4.5 in Southampton, 4.9 in Merthyr Tydfil, 5.0 in Stockton-on-Tees and in Newport (Mon.), and 5.4 in West Bromwich; scarlet fever of 1.2 in Blackburn and 1.4 in Merthyr Tydfil; diphtheria of 1.5 in Ipswich and 1.9 in Tynemouth; whooping-cough of 1.3 in Reading, 1.4 in West Ham, 1.6 in Hanley, 1.8 in Tottenham, and 2.3 in Hastings: and diarrhoea of 1.7 in St Helens. The mortality from "fever" showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Southampton, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 15 small-pox patients at the end of last week, against 20, 20, and 21 at the end of the three preceding weeks; no new cases were admitted during the week, the numbers being 3, 2, and 4 for the three preceding weeks. The number of scarlet-fever cases in these hospitals and in the London Fever Hospital, which had been 2,035, 2,032, and 2,086 on the three preceding Saturdays, had further risen to 2,133 on Saturday last, the 15th inst.: 290 new cases were admitted during the week, against 274, 254, and 292 in the three preceding weeks.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Surgeon C. H. Rock is promoted to be Staff Surgeon from May 15th, 1903. He was appointed Surgeon, May 15th, 1895.

Surgeon H. H. Gill, M.B., is also promoted to be Staff Surgeon from November 12th, 1903. His first commission dates from November 12th, 1895.

Surgeon A. T. Wysard is likewise made Staff Surgeon from May 13th, 1904. His commission as Surgeon dates from May 13th, 1896.

The following appointments have been made at the Admiralty: Hubert Stone, M.B., Surgeon, to the *Swiftsure*, April 12th; James L. Smith, M.B., M.V.O., Fleet Surgeon, John K. Raymond, M.B., Surgeon, and John Verdon, Surgeon, to the Royal Marine Division at Chatham, May 2nd; William E. Home, M.D., Fleet Surgeon, and Elijah R. L. Thomas, Surgeon, to the *Exmouth*, on recommissioning, May 2nd; Daniel J. P. McNabb, Fleet Surgeon, to the *Hannibal*, May 2nd; Frederick A. Capps, M.B., Staff Surgeon, to the *Sapphire*, May 2nd; Hugh S. Burniston, M.B., Staff Surgeon, to the *Vernon*, May 2nd; Montague L. B. Rodd, Staff Surgeon, to Plymouth Hospital, May 8th.

Civil Practitioner M. M. Taylor has been appointed Surgeon and Agent at Porthleven and Gunwalloe, April 12th.

ARMY MEDICAL STAFF.

Surgeon-Major-General Sir James A. Hanbury, M.B., K.C.B., retired, has been granted a distinguished service reward of £100 a year. His commissions were thus dated: Assistant-Surgeon, September 30th, 1853; Surgeon, February 20th, 1863; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General, May 5th, 1881; Surgeon-Major-General, June 14th, 1887. He retired from the service, January 13th, 1892. He served in the Afghan war of 1878-80, taking part with the Bazar Valley Expedition, in the march from Kabul to the relief of Kandahar, and the battle of September 1st. He was mentioned in dispatches, received the medal with clasp, and the bronze decoration, and was made a C.B. He was Principal Medical Officer during the Egyptian war in 1882, and was at the battle of Tel-el-Kebir (twice mentioned in dispatches, medal with clasp, Khedive's bronze star, second class of the Order of the Medjidie, and K.C.B.).

ROYAL ARMY MEDICAL CORPS.

Major W. B. Leishman, M.B., Professor of Pathology, Royal Army Medical College, is appointed Brevet Lieutenant-Colonel, in recognition of his services and the distinction attained by him in original investigation and research, April 15th. He was appointed Surgeon-Captain, July 27th, 1887, and made Major, July 27th, 1899. He served with the Waziristan Expedition in 1894-5, receiving a medal with clasp.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during last month:

		From.	To.
Lieut.-Col.	J. G. Harwood	—	Portsmouth.
,,	H. G. Hathaway	Jhansi	Poona.
,,	J. Battersby, M.B.	Curragh	Chester.
,,	R. H. S. Sawyer, M.B.	Dublin	S. Africa.
,,	A. F. Russell, M.B., C.M.G.	Colchester	London.
,,	J. M. Reid, M.D.	Dover	Salisbury.
,,	G. F. Gubbin	Shahjehanpore	Dover.
,,	J. R. Forrest	Poona	Ahmedabad.
,,	W. E. Berryman	Dover	Shorncliffe.
Major	R. H. Penton, D.S.O.	Egypt. Army	Portsmouth.
,,	E. G. Browne	Kasauli	Dublin.
,,	R. C. Thacker	Bombay	Jhansi.
,,	C. W. H. Whitestone, M.B.	East Com'd.	Colchester.
,,	F. J. W. Porter, D.S.O.	S. Africa	,,
,,	F. M. Maugin	Dover	Jamaica.
Captain	K. B. Barnett, M.B.	Alton	N. China.
,,	E. W. W. Cochrane, M.B.	Curragh	W. Africa.
,,	T. H. M. Clarke, M.B., C.M.G.	London Dist.	Colchester.
,,	A. H. O. Young	Dublin	Belfast.
,,	M. M. Lowsley	Portsmouth	Devonport.
,,	P. H. Collingwood	Chester	Ashton.
,,	C. W. Mainprise	Bengal	Tidworth.
,,	G. M. Goldsmith, M.B.	Dublin	Londonderry.
,,	R. A. Cunningham, M.B.	Crete	Edinburgh.
,,	F. S. Irvine, M.B.	Allahabad	Aldershot.
,,	A. M. MacLaughlin, M.B.	Egypt	Dublin.
,,	G. Baillie, M.B.	Aden	Quetta.
Lieutenant	R. L. V. Foster, M.B.	Mooltan	Egypt. Army.
,,	J. D. Richmond, M.B.	Bombay	Quetta.
,,	H. Harding, M.B.	,,	Karachi.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel R. D. Murray, M.B., Bengal Establishment, is appointed Inspector-General of Civil Hospitals, United Provinces, from March 29th.

Lieutenant-Colonel R. H. Charles, M.D., Bengal Establishment, is appointed Professor of Surgery in the Medical College, Calcutta, and *ex-officio* Surgeon to the College Hospital.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon, resident. Salary £80 per annum.

BRISTOL GENERAL HOSPITAL.—(1) Senior House Surgeon; (2) Assistant House Physician. Salaries, £120 and £60 per annum respectively.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) House-Physician. Salary, £90 per annum. (2) Second Honorary Physician.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Junior House-Surgeon, resident. Salary at the rate of £50 per annum.

COSFORD UNION.—(1) Medical Officer of the Workhouse. Salary, £50 per annum and fees. (2) Medical Officer and Public Vaccinator for the Bildeston District. Salary at the rate of £72 per annum and fees.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Assistant Medical Officer. Salary, £170 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon, resident. Salary, £20 for six months and £2 10s. washing allowance.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Salary, £100 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £120 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—(1) Resident Medical Officer of the Branch Hospital, Northwood. (2) Senior Resident Medical Officer. (3) Junior Resident Medical Officer. Honorariums, £80, £100, and £50 per annum respectively.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Resident Medical Officer. Salary £100 per annum.

NORTHAMPTON: ST ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer, resident. Salary £200 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-upon-Trent.—Assistant House-Surgeon, resident. Honorarium, £25 for six months.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Physician. Salary, £100 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Surgery.

TOTTENHAM HOSPITAL.—Honorary Anaesthetist.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) Two vacancies on the Surgical Staff to Out-patients; (2) Honorary Anaesthetist.

WANDSWORTH UNION.—Senior Assistant Medical Officer at the Infirmary. Salary, £145 per annum.

APPOINTMENTS.

Bainbridge, F. A., M.D., D.Sc., M.R.C.P., Gordon Lecturer in Experimental Pathology, Guy's Hospital.

Clutterbuck, L. A., M.B., B.S., Clinical Assistant to the Chelsea Hospital for Women.

Coddon-Fletcher, A. J., M.R.C.S Eng., District Medical Officer of the Melton Mowbray Union.

Cridland, Arthur Bernard, F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Ophthalmic Surgeon to the Staffordshire General Infirmary.

Curl, Sydney W., M.A., M.D.Cantab., M.R.C.P.Lond., Honorary Physician to the Essex and Colchester Hospital.

Evans, John Howell, M.Ch., F.R.C.S., etc., Assistant Surgeon to the Cancer Hospital.

Giles, J. Dudgeon, M.B., B.S.Edin., House-Surgeon to the North Riding Infirmary, Middlesbrough.

Gladstone, H. B., M.D.Edin., District Medical Officer of the Lewisham Union.

Higson, J. R., M.B., C.M.Edin., D.P.H.Camb., Certifying Factory Surgeon for the Lewisham District.

Hughes, R., M.B.Lond., M.R.C.S., Medical Officer of Health, Fenton Urban District.

Hunt, A. W. D., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Chagford District, Devonshire.

Hutley, A., M.B., C.M., Senior House Surgeon to the West Bromwich District Hospital, *vice* Dr. Brunton, resigned.

Jackson, A. J., L.R.C.P., L.R.C.S.Edin., Second Assistant Medical Officer to the St. Marylebone Infirmary, *vice* D. Ross, resigned.

Jones, J. Kenrick, L.R.C.P. and S., L.F.P.S.Glas., Medical Officer of Health Llansilin Rural District Council, *vice* Dr. J. Thos. Jones, resigned.

Keyser, Charles R., F.R.C.S.Eng., Assistant Surgeon to the Cancer Hospital, Fulham Road, S.W.

Knight, F. C. R. M., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Holborn Union.

Lathbury, E. Browning, M.R.C.S., L.R.C.P.Lond., House-Surgeon to the Herefordshire General Hospital.

Lett, Hugh, M.B., Ch.B.Vict., F.R.C.S., Assistant Surgeon to the London Hospital.

Mackenzie, F. S., M.B., Ch.B.Edin., House Surgeon to the County Hospital, York.

Marsh, H. S., M.B., First Senior Resident Medical Officer, Sydney Hospital, N.S.W.

Mayou, Stephen, F.R.C.S., Ophthalmic Surgeon to the Hospital for Epilepsy and Paralysis, Maida Vale.

McLarty, A. A., M.D. (U.S.A.), Clinical Assistant to the Chelsea Hospital for Women.

Meadows, R. T., M.D.Edin., D.P.H., Medical Officer of Health, St. Germans Rural District.

MITCHELL, Alex., M.B., Ch.B., Assistant House-Surgeon to the West Bromwich District Hospital.

MORRIS, T. H. P., M.R.C.S., L.R.C.P., Medical Officer of Health, Newcastle-under-Lyme Rural District.

PAGE, E. F., M.B., B.S.Birm., District and Workhouse Medical Officer of the Solihull Union.

PHILLIPS, G. A., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for the Walsall District, Staffordshire.

SWAN, R. H. J., M.S., F.R.C.S., etc., Surgical Registrar to the Cancer Hospital.

THOMPSON, William, M.B., Ch.B.Vict., Medical Officer of Health, Mytholmroyd Urban District.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BASSANO.—On April 11th, at Grove House, Ventnor, the wife of Dr. Harold F. Bassano, of a daughter.

MASON.—On April 15th, at 45, George Street, Portman Square, the wife of G. A. Mason, M.A., M.B., B.C.Cantab., of a son.

MARRIAGES.

LUARD—MCVEAN.—On Thursday, April 13th, at S. Oswald's Church, Edinburgh, by the Rev. H. Wotherspoon, M.A., assisted by the Rev. C. A. A. McVean, M.A., Captain Hugh B. Luard, Indian Medical Service (half-pay), second son of Rev. B. G. Luard, Rector of Birch, Colchester, to Flora, fourth daughter of Colin A. McVean, Esq., Kilfinichen, Isle of Mull, Argyleshire.

ORMOND-EASON.—On April 15th, at St. Paul's Church, Forest Hill, S.E., by the Rev. Canon W. A. Moberly, Vicar of St. Bartholomew's, Sydenham, and Rural Dean, assisted by the Rev. Douglas Scott, LL.D., Head Master of the Mercers' School, Arthur W. Ormond, F.R.C.S., of 37, Queen Anne street, Cavendish square and Guy's Hospital, to Mary Charlotte (May), daughter of Edward H. P. Eason, of Eversley, Forest Hill, S.E.

DEATH.

O'BRIEN.—On April 1st, at Bognor, Sussex, Bartholomew O'Brien, M.D., M.Ch., late Indian Medical Service, aged 56 years.

DIARY FOR NEXT WEEK.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases, followed by discussion. Patients will be in attendance from 8 to 9 p.m.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Paper: Dr. G. S. Buchanan: The Spread of Small-pox occasioned by Small-pox Hospitals during 1900-1904.

POST-GRADUATE COURSES AND LECTURES.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith.—The following are the arrangements for next week:—Tuesday, 11 a.m., Bacteriology. Wednesday, 10 a.m., Blood and Urine Examination; 3 p.m., Intestinal Anastomoses; 4.30 p.m., Surface Anatomy. Thursday, 11 a.m., Bacteriology; 3.15 p.m., Intestinal Anastomoses. Friday, 2 p.m., Blood and Urine Examination; 5 p.m., Intestinal Anastomoses. Saturday, 10.30 a.m., Bacteriology.

BOOKS, ETC., RECEIVED.

The Principles and Practice of Medical Jurisprudence. By the late Alfred Swaine Taylor, M.D., F.R.S. Fifth edition. Edited by Fred J. Smith, M.A., M.D.Oxon. Vol. I. and Vol. II. London: J. and A. Churchill. 1905. 36s.

Lectures on Clinical Surgery. By H. C. Hinder, M.B., M.Ch. London: Baillière, Tindall and Cox. 1905. 12s. 6d.

Dr. Grenfell's Parish; the Deep-Sea Fishermen. By Norman Duncan. London: Hodder and Stoughton. 1905. 5s.

How to keep "Fit," or the Sailor's Guide to Health in all Parts of the World. Compiled by Fleet Surgeon W. G. K. Barnes, M.D., R.N. London and Portsmouth: Gale and Polden, Limited. 3d.

Colles's Fracture and other Fractures and Disjunctions at the lower end of the Radius and Ulna. By Andrew Fullerton, B.Ch., F.R.C.S.Irel. Belfast: Alexander Mayne and Boyd. 1905. 1s.

Chirurgie du Système Nerveux. Crane et encéphale. Rachis et moelle. Nerfs. Par Georges Marion. Paris: G. Steinheil. 1905. Fr. 18.

Hay Fever. By Walter Herries Pollock and Guy C. Pollock. London: Longmans, Green and Co. 1905. 3s. 6d.

Médecine de l'Enfance jusqu'a l'Adolescence. Par Dr. E. Monin. Paris: A. Maloine. 1905. Fr. 5.

Manual of Psychiatry. By J. Rogues de Fursac, M.D. Authorized translation from the French by A. J. Rosanoff, M.D., Edited by Joseph Collins, M.D. First edition. New York: John Wiley and Sons; and London: Chapman and Hall. 1905. 10s. 6d.

Annual Reports on the Progress of Chemistry for 1904, issued by the Chemical Society. Edited by G. T. Morgan, D.Sc., and A. J. Greenaway. Vol. I. London: Gurney and Jackson. 1905. 4s. 6d.

Scientific Memoirs by Officers of the Medical and Sanatary Departments of the Government of India. New series. No. 13. Oriental or Delhi Sore; and No. 14. On a Parasite found in the White Corpuscles of the Blood of Dogs. By Captain S. P. James, M.B., I.M.S. Calcutta: Office of Superintendent of Government Printing, India. 1905. Annas 10, or 1s. each.

Surgical Case-Book Charts for Rectal Diseases. By Cecil H. Leaf, M.A., M.B.Cantab., F.R.C.S.Eng. London: Archibald Constable and Co., Limited. 1s. 6d.

Radiotherapy and Phototherapy, including Radium and High-frequency Currents, their Medical and Surgical Applications in Diagnosis and Treatment. By Charles Warrenne Allen, M.D., with the co-operation of Milton Franklin, M.D., and Samuel Stern, M.D. London: Henry Kimpton. 1905. 22s. 6d.

A Practical Treatise on Diseases of the Skin. By James Nevins Hyde, A.M., M.D., and Frank Hugh Montgomery, M.D. Seventh edition. London: Henry Kimpton. 1905. 25s.

Infectious Diseases: Their Etiology, Diagnosis, and Treatment. By G. H. Roger. Translated by M. S. Gabriel, M.D. London: Henry Kimpton. 1905. 30s.

Traitement des Ankyloses par la Résection Orthopédique et l'Interposition Musculaire. Par le Dr. Alphonse Huguier. Paris: G. Steinheil. 1905.

Reports of the Commission appointed by the Admiralty, the War Office, and the Civil Government of Malta for the Investigation of Mediterranean Fever under the Supervision of an Advisory Committee of the Royal Society. Part I. London: Harrison and Sons. March, 1905. 3s.

Hautkrankheiten bei Stoffwechsel-Anomalien. Referat erstattet dem V. Internationalen Dermatologen Kongress in Berlin (September, 1904). Von Professor Dr. J. Jadassohn. Berlin: August Hirschwald. 1905. Mk. 3.

Trixy. By Elizabeth Stuart Phelps Ward. London: Hodder and Stoughton. 1905. 6.

The History of the Society of Apothecaries. By C. R. B. Barrett, M.A. London: Elliot Stock. 1905. To subscribers £1 1s.

Alcoholic Poisoning and Degeneration. By Professor G. Bunge, M.D., Ph.D. London: A. Owen and Co.

Röntgenologisches Hilfsbuch. Gesammelte Aufsätze von Ingenieur Friedrich Dessauer. Band I. Würzburg: C. Kabitzsch. 1905. Mk. 3 50.

Die physiologischen und pathologischen Beziehungen der weiblichen Sexualorgane zum Tractus intestinalis und besonders zum Magen. Von Dr. Erwin Kehrer. Berlin: S. Karger; und London: Williams and Norgate. 1905. 5s. 6d.

An Introduction to Physiology. By L. A. Hodgkinson Lack, M.B., Ch.B. Edinburgh and London: William Green and Sons. 1905. 8s.

Les Dégénérescences des Fibro-myomes de l'Utérus. Par G. Piquand. Paris: G. Steinheil. 1905.

Ueber den Zusammenhang zwischen Ovarialfunction, Wellenbewegung und Menstrualblutung und ueber die Entstehung des Sogenannten mittelschmerzes. Von Dr. Th. H. van de Velde. Haarlem: F. Bohn; und Jena: Gustav Fischer. 1905. Mk. 3.

Dental Surgery. By A. W. Barrett, M.B.Lond., M.R.C.S., L.D.S.E. Fourth edition. London: H. K. Lewis. 1905. 3s. 6d.

Elementary Microscopy: A Handbook for Beginners. By F. Shillington Scales, F.R.M.S. London: Baillière, Tindall, and Cox. 1905. 3s.

A Practical Course of Instruction in Personal Magnetism, Telepathy, and Hypnotism. By George White. London: George Routledge and Sons, Limited. 1905. 3s.

The Food Inspectors' Handbook. By Francis Vacher. Fourth edition. London: The Sanitary Publishing Co. and New York: D. Van Nostraud Co. 1905. 3s. 6d.

Les Indications des Interventions Chirurgicales dans les Maladies Internes. Par le Professor Dr. Hermann Schlesinger. Traduction Française par les Drs. L. Lichtwitz et J. Sabrazes. Deuxième Partie. Paris: Vigot Frères. 1905. Fr. 4.

Précis de Radiographie Dentaire suivi de Notes sur l'Endodiascopie. Par René Darmezin. Préface du Dr. Foveau de Courmelles. Paris: Vigot Frères. 1905. Fr. 3.

Die angeborene Pylorusstenose im Säuglingsalter. Von Dr. Jussuf Ibrahim. Berlin: S. Karger; und London: Williams and Norgate. 1905. 3s. 6d.

Die Färbetechnik für das Nervensystem. Von Dr. Bernhard Pollack. Dritte Auflage. Berlin: S. Karger; und London: Williams and Norgate. 1905. 3s. 6d.

The City of London Directory for 1905. Thirty-fifth annual edition. London: W. H. and L. Collingridge. 12s. 6d.

The Book of Prescriptions (Beasley). Rewritten by E. W. Lucas, F.I.C., F.C.S. Introduction by Arthur Tatham, M.A., M.D., F.R.C.P. Eighth edition. London: J. and A. Churchill. 1905. 5s.

Divine Dual Government: A Key to the Bible, to Evolution, and to Life's Enigmas. By William Woods Smyth. New edition. London: Horace Marshall and Son. 1905. 6s.

The Profitable Farm and Garden Handbooks. No. 9. The Horse: Its Care and Management; with a chapter on the donkey. By Henry E. Fawcus. Edited by T. W. Sanders, F.L.S. London: W. H. and L. Collingridge. 1s. 9d.

A Woman's Words to Women on the Care of their Health. By Mary Scharlieb, M.D., M.S.Lond. London: George Routledge and Sons, Ltd.; and New York: E. P. Dutton and Co. 1905. 1s.

What Venereal Diseases Mean and How to Prevent Them. Five Lectures given at the University of Copenhagen by Professor Erik Pontoppidan. Translated from the Danish by W. Jessen. London: John Bale, Sons and Danielsson, Ltd. 2s.

"*" In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
April	2 .. Sunday..	
,,	24...Monday ...	*Bank Holiday.* Elections by Divisions of Representatives for Representative Meetings are required to be held between this date and July 3rd.
	25...Tuesday ...	Matters for consideration by Organization Committee on May 9th should be notified to Medical Secretary on or before this day.
,,	26...Wednesday	Bath and Bristol Branch, Museum, Bath, 7.45. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South Eastern of Ireland Branch, Waterford.
,,	27...Thursday...	London: Hospitals Committee 2.30 p.m. City and Walthamstow Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	28...Friday ...	Dundee: Scottish Committee. Dundee Branch, Clinical Meeting of this and other Scottish Branches, Royal Infirmary Dundee, 4 p.m.
,,	29...Saturday...	List of Members closed for publication.
,,	30...Sunday..	
May	1...Monday ...	
,,	2...Tuesday ...	
,,	3...Wednesday	Bournemouth Division, *Dorset and West Hants Branch*, Annual Meeting, Medical Societies' Rooms, Bournemouth, 7.45 p.m.
	4...Thursday..	Canterbury and Faversham Divisions, *South-Eastern Branch*, Canterbury Hospital, 3 p.m.
,,	5...Friday ...	
,,	6...Saturday...	
,,	7...Sunday..	
,,	8...Monday ...	
,,	9...Tuesday ...	London: Organization Committee.
,,	10...Wednesday	
,,	11...Thursday..	London: Hospitals Committee. Staffordshire Branch, Victoria Hotel, Wolverhampton, 3 p.m.
,,	12...Friday ...	
,,	13...Saturday...	
,,	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	
,,	17...Wednesday	London: Central Council, 10 a.m. Dorset and West Hants Branch, Blandford.
,,	18...Thursday...	
,,	19...Friday ...	
,,	20..Saturday...	
,,	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences
,,	24...Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South Eastern of Ireland Branch, Annual Meeting Kilkenny
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, preceded by a dinner, Clapham Junction, 7.15 p.m.
,,	26...Friday ...	
,,	27..Saturday...	

Month.	Day of Week.	Meetings to be Held.
May	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	
,,	31 ..Wednesday	Scientific Grantees have to report to Council on or before this date.
June	1...Thursday...	
,,	2...Friday ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...Saturday...	
,,	4 .Sunday..	
,,	5...Monday ...	
,,	6 ..Tuesday ...	
,,	7 ..Wednesday.	London: Medico-Political Committee.
,,	8 ..Thursday...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9...Friday ...	
,,	10 ..Saturday...	
,	...Sunday..	
,,	12 ..Monday ...	*Bank Holiday.*
,,	13 ..Tuesday ...	
,,	14 ..Wednesday	
,,	15 ..Thursday...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester.
,,	16 ..Friday ...	London: Ethical Committee.
,,	17...Saturday...	
,,	18 ..Sunday..	
,,	19...Monday ...	Election of Representatives: July 3rd.
,,	20 ..Tuesday ...	
,,	21...Wednesday	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Royal Fountain Hotel, Canterbury, 2.15 p.m.
,,	22...Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m.
,,	23 ..Friday ...	
,,	24 ..Saturday ...	
,,	25...Sunday..	
,,	26...Monday ...	
,,	27...Tuesday ...	Matters for consideration by Organization Committee on July 11th should be notified to Medical Secretary on or before this day.
,,	28 ..Wednesday	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m.
,	29 .Thursday...	
,,	30...Friday ...	Association Research Scholarships expire.
July	1...Saturday...	Research Scholarships date from now.
,,	2 ..Sunday..	
,,	3 ..Monday ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4 ..Tuesday ...	
,,	5...Wednesday	
,,	6...Thursday...	
,,	7...Friday ...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 29TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
PRELIMINARY AGENDA FOR THE REPRESENTATIVE MEETING AT LEICESTER	161
PROCEEDINGS OF STANDING COMMITTEES:	
THE CENTRAL COUNCIL OF THE ASSOCIATION	161
JOURNAL AND FINANCE COMMITTEE.—Research Scholarship in Tropical Medicine.—Office Clerical Staff Superannuation.—Medical Defence.—Financial Statement	162
HOSPITALS COMMITTEE.—Procedure for Conference with Representatives of Hospitals.—Conference.—Lay Representatives appointed to Confer with Committee.—Additional Members of Committee.—Conference Amendments to Committee Scheme.—Further Deliberations of Committee	162
PREMISES AND LIBRARY COMMITTEE	162
MEETINGS OF BRANCHES AND DIVISIONS:	
Birmingham Branch: Dudley Division	162
Lancashire and Cheshire Branch: Chester Division	163
,, ,, Manchester (South) Division ...	163
,, ,, Liverpool (Southern) Division...	163
Glasgow and West of Scotland Branch: Renfrewshire Division ...	163
Leinster Branch: Dublin Division	164
South-Eastern Branch: Norwood Division	164
Ulster Branch: Belfast Division	164
ATTENDANCES OF COUNCIL, COMMITTEES, AND SUBCOMMITTEES FOR 1904-5	165
ASSOCIATION NOTICES.—COUNCIL MEETING.—1905 ANNUAL GENERAL MEETING.—ANNUAL REPRESENTATIVE MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	169
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER	170
MEMBERS ELECTED DURING THE LAST THREE MONTHS ...	171
VITAL STATISTICS...	172
NAVAL AND MILITARY APPOINTMENTS	174
GRANTS FOR SCIENTIFIC RESEARCH	174
VACANCIES AND APPOINTMENTS	174
BIRTHS, MARRIAGES, AND DEATHS	175
DIARY OF THE WEEK	175
BOOKS RECEIVED...	175
CALENDAR	176

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

PRELIMINARY AGENDA

FOR THE

REPRESENTATIVE MEETING AT LEICESTER.

JULY 24TH, 25TH, 26TH, 27TH, AND 28TH.

Honorary Secretaries of Divisions are requested to note that, in compliance with the desire expressed at the Annual Representative Meeting at Oxford, a Preliminary Agenda of the forthcoming Annual Representative Meeting will be forwarded to them in the course of the week ending May 13th, and will be published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for that week.

In this will be included all matters for consideration by the Meeting which have already appeared in the SUPPLEMENT, together with all additional matters of which due notice has been given on or before Monday, May 8th.

By instruction of the Chairman of Representative Meetings,

J. SMITH WHITAKER, *Medical Secretary*
(Secretary of the Representative Meeting).

April 26th, 1905.

Proceedings of Standing Committees.

THE CENTRAL COUNCIL OF THE ASSOCIATION.

THE quarterly meeting of the Central Council of the British Medical Association was held in the Board Room of the Metropolitan Asylums Board on Wednesday, April 19th. The Council assembled at 11 a.m., and sat, with a short interval for luncheon, until 6.30 p.m. As the business was not then concluded the Council adjourned until Wednesday, May 17th, at 10 a.m.

Owing to the Easter holidays it has been found impossible to prepare the report of the proceedings of the Council on April 19th for publication in this issue. Notices of the proceedings of certain Committees which were considered and approved by the Council are published below.

JOURNAL AND FINANCE COMMITTEE.

April 12th, 1905.

A meeting of the Journal and Finance Committee was held at the office of the Association on April 12th, 1905, when there were present: Mr. Andrew Clark, D.Sc. (Chairman of Council) in the chair; Dr. William Collier (President); Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings); Dr. E. Markham Skerritt (Treasurer); Dr. Edgar Barnes, Dr. James Barr, Dr. J. H. Galton, Dr. J. Groves, Mr. R. H. Kinsey, Mr. W. Jones Morris, Mr. C. H. W. Parkinson, Dr. Norman Walker.

Research Scholarship in Tropical Medicine.

The Committee resolved to recommend the Council to make a grant of £200 towards the establishment of a research scholarship in Tropical Medicine provided that the Government would contribute at least an equal amount from the Imperial exchequer.

Office Clerical Staff Superannuation.

The Committee resolved to request the Council to recommend the members at the annual general meeting of the Association to vote a sum of £300 to the office clerical staff superannuation scheme.

Medical Defence.

The Committee adopted a resolution recommending that a further opinion be taken in the matter of the proposed alteration in the Memorandum of Association, and that the case be submitted to Mr. Beaufort Palmer.

Financial Statement.

The financial statement for the year ending December 31st was received, approved, and transmitted to the Council, and the Council was recommended to empower the Treasurer to pay the outstanding accounts for the quarter ending March 31st.

HOSPITALS COMMITTEE.

Meeting: March 2nd, 1905.

A meeting of the Hospitals Committee was held by kind permission of the Metropolitan Asylums Board in their Board room on March 2nd, 1905, when there were present Dr. M. Beverley, Chairman in the chair; Dr. W. Collier (President); Mr. Andrew Clark (Chairman of Council); Dr. J. Ford Anderson, Dr. J. Brassey Brierley, Dr. E. Lawrence Fox, Dr. J. R. Hamilton, Dr. E. B. Hastings, Dr. T. Arthur Helme, Mr. Edmund Owen, Dr. Frank M. Pope, and Mr. E. F. White.

Procedure for Conference with Representatives of Hospitals.

The Committee considered the procedure to be adopted at the Conference to be held the same afternoon, and decided (*a*) that a vote be taken on the resolutions to be submitted to the Conference, but that the members of the Hospitals Committee be asked to refrain from voting; (*b*) that the Conference be asked to name twelve laymen to confer with the Hospitals Committee.

Conference.

The Committee then entered into conference with the representatives, lay and medical, who attended in response to the invitation of the Committee on behalf of various medical institutions and societies throughout the United Kingdom. The proceedings of the Conference were published in the Supplement of the British Medical Journal of March 11th, 1905, p. 97.

Meeting: March 30th.

A further meeting of the Committee was held at the office of the Association on March 30th, 1905, when there were present Dr. M. Beverley, Chairman, in the chair; Dr. W. Collier (President of the Association); Mr. Andrew Clark (Chairman of Council); Dr. J. Ford Anderson, Dr. J. Brassey Brierley, Dr. E. Lawrence Fox, Dr. E. B. Hastings, Dr. T. Arthur Helme, Mr. Edmund Owen, and Mr. E. F. White.

Lay Representatives appointed to Confer with Committee.

The Medical Secretary reported that the following gentlemen, nominated by the Conference on March 2nd to confer with them, had accepted the invitation of the Committee: W. G. Bunn, Esq., Sir Henry Burdett, K.C.B., W. G. Carnt, Esq., Howard Collins, Esq., Sir Charles Gilman, the Hon. Sydney Holland, Sir Riley Lord, Charles Lupton, Esq., Herbert W. Mason, Esq., Colonel Montefiore, and Arthur E. Reade, Esq., but that Mr. Danvers Power was unable to accept the invitation of the Committee. It was resolved that Mr. Walter Bailey and Mr. Neville Chamberlain be also invited to confer with the Committee.

Additional Members of Committee.

The Committee resolved to invite Dr. Kingston Fowler, Dr. Lauriston E. Shaw, Dr. Norman Walker, and Mr. R. H. Wolstenholme to become members of the Committee.

Conference Amendments to Committee Scheme.

The Committee then considered their scheme of hospital reforms, together with the amendments thereto proposed in the Conference held on March 2nd, and resolved to accept those amendments, except that affecting Resolution 2 of the Committee scheme, with reference to which it was resolved that the Committee are still of opinion that no charge for the treatment of any patient should be made, but regret that this opinion was not confirmed by the Conference.

Further Deliberations of Committee.

The Committee agreed to report to the Council that, in accordance with the undertaking given at the Conference to consider suggestions then made, it would now proceed to the consideration of (*a*) cottage hospitals, (*b*) pay wards, and (*c*) the relation of hospitals to (i) provident dispensaries, (ii) free dispensaries, and (iii) the Poor-law medical service. It was decided that the subject of the relation of hospitals to provident and free dispensaries and to the Poor-law medical service, should be considered at a meeting to be held on Thursday, April 27th, and the subject of cottage hospitals, nursing homes, and pay wards at a meeting on May 11th.

The Ethical and Medico-Political Committees were invited each to send a representative to confer with the Committee on the subject of provident dispensaries.

PREMISES AND LIBRARY COMMITTEE.

April 18th, 1905.

A meeting of the Premises and Library Committee was held at the office of the Association on April 18th, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair: Dr. Wm. Collier (President); Dr. T. D. Griffiths (Past-President); Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings); Dr. Edgar Barnes, Dr. H. Langley Browne, Dr. H. Radcliffe Crocker, Dr. E. Rowland Fothergill, Dr. J. H. Galton, Dr. Bruce Goff, Dr. McKenzie Johnston, Dr. F. M. Pope.

The quarterly report of the Librarian was received. It stated that there had been 1,522 attendances to the Library during January, February, March, as compared with 1,440 for the corresponding period of 1904. As the attendances for the past year had been nearly 800 in excess of any previous record, so the attendances of the past three months had exceeded those of any previous March quarter since the foundation of the Library.

A list of books presented during the last three months was submitted, and the Librarian further reported that the *Thèses de Paris* now numbered 228 for the present session, and that 384 reports for the year 1904 had been received from medical officers of health in Great Britain.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Dudley Division.

A meeting of this Division was held at Stourbridge, on March 30th, Dr. D'Arcy Ellis in the chair.

Matters Referred to Divisions.—In regard to ambulance work, it was resolved that it is desirable that in all cases a fee should be charged, and that all gratuitous work be done away with.—

With reference to advertising in connexion with hydropathic institutions, it was decided to instruct the Representative to vote against advertising names unless the appointment of medical officers to institutions was a whole-time one.—On the question of giving information to coroners, it was decided to ask for copies (40) of the memorandum for distribution to members.—In regard to consultation between medical witnesses, it was decided that consultations should be a matter of agreement between men engaged in the case and the principals concerned.

Payment for School Certificates.—Deputations were appointed to wait on local members of the Worcester County Council and the Dudley County Council to urge upon them the advisability of appointing certifying medical men.

LANCASHIRE AND CHESHIRE BRANCH:

Chester Division.

A meeting of this Division was held on Tuesday, April 11th, at 4 30 Dr. Taylor, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Amalgamation of Crewe and Chester Divisions.—A letter from the Organizing Secretary was read dealing with the question of the amalgamation of Crewe with Chester. The Honorary Secretary then stated that he had attended a conference at Manchester between the Honorary Secretaries of the Branch and of the Crewe and Stockport Divisions, and had said that the members of the Chester Division would be quite willing that the Crewe members should join the Division. This was confirmed by the meeting. Dr. Laird was then invited by the Chairman to give some further information to the meeting. He stated that he had communicated with the 19 members at present forming the Crewe Division, that 12 of them had replied, 11 stating that they were quite willing to join the Chester Division, and 1 (at Sandbach) the Stockport Division.

Matters Referred to Divisions.—The Public Health Bill was discussed and unanimously approved of, with the following additions proposed by Dr. Mann and seconded by Dr. Butt:

> That this Division is strongly of opinion that the appointment of a medical officer of health should carry with it the right to a pension at the termination of service after the age of 65; and that all sanitary areas should receive frequent and periodical inspection by inspectors appointed by the Local Government Board.

The Revaccination Bill was also unanimously approved of. The memorandum upon ambulance was considered. It was proposed by Dr. King, Honorary Secretary, and seconded by Dr. Butt:

> That it should be the rule that in all ambulance work, instruction, examination, and judging, a fee of not less than one guinea, with travelling expenses, be charged.

This was unanimously agreed to. The memorandum on death registration and coroners' law was considered and approved of.

Recommendations of Scientific Committee.—With regard to recommendations of the Scientific Committee, it was considered that the present Chester Medical Society fulfilled the requirements of most of the members of the Division in the various ways suggested.

Notices of Motion.—Notices of motion for the Representative Meeting by the Council were approved of, as were also the first two resolutions of the Lancashire and Cheshire Branch. It was considered that the third did not apply to Chester. The notices of motion by the other Branches and Divisions were left to be dealt with by the Representative as he might think best. This concluded the business of the meeting.

Manchester (South) Division.

An ordinary general meeting of this Division was held on Tuesday, April 11th.

Matters Referred to Divisions.—In regard to the National Deposit Friendly Society, the various recommendations of the Medico-Political Committee (*a*, *b*, *c*, *d*) were approved. In regard to the Public Health Bill and Revaccination Bill, the principle was approved that the favourable opinion of parliamentary candidates in the Division at the next general election should be solicited for these Bills, and the Executive Committee was authorized to carry out the principle in practice. The question of ambulance work was considered, and it was resolved:

> That, as a general rule, lecturers on ambulance work should be paid for their services, but that each case should be judged on its merits, and that it is open to any member to give his services freely.

The question as to the advertising of the names of medical officers and hydropathic and similar establishments was answered in the affirmative. In the matter of death registration and coroners' law, it was left to Dr. Bagley to use his discretion at the Annual Meeting.

Alteration of By-laws of Association.—The alterations suggested by the Central Council (Supplement, February 25th) were approved. With regard to the alterations proposed by the Wandsworth Division, it was left to the Representative of the Division (Dr. Bagley) to use his discretion in voting at the Annual Meeting.

Notices of Motion.—The motions proposed by the Wandsworth Division (Supplement, February 25th) were approved; those proposed by the Southern Branch (*ibid.*) were approved; those proposed by the Salford Division (*ibid.*) were approved. With regard to those proposed by the Walthamstow Division (*ibid.*), it was left to Dr. Bagley to use his discretion. In regard to the motions proposed by the Wandsworth Division (Supplement, March 4th), the Division approved in principle of (*a*) a benevolent fund; disapproved in principle of (*b*) a medical agency department; and approved in principle of (*c*) a committee to inquire into the scheme to provide medical service (contract practice) under control of a central office. As regards the motion of the Coventry Division (*ibid.*), Dr. Bagley was instructed to oppose it. In regard to motions by the Leinster Branch (Supplement, March 18th) and Bradford and Manchester (West) Divisions (*ibid.*, March 25th), it was left to Dr. Bagley to use his discretion.

The Association and Medical Defence.—In the matter of the draft scheme for medical defence, a discussion took place as to the proposed annual subscription of 35s., Dr. Bagley and others thought that 30s. would be enough, but the members present decided not to commit the Division to that opinion.

Liverpool (Southern) Division.

A meeting of this Division was held on April 14th at the Liverpool Medical Institution, Dr. Steeves in the chair.

Matters Referred to Divisions.—The question of the payment of medical practitioners called in to assist midwives was considered, and the resolutions passed by the Division have been communicated to the Medico-Political Committee.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Renfrewshire Division.

A special meeting of this Division was held at 3.30 on March 28th, Dr. Munro, Chairman, presiding.

Matters Referred to Divisions.—The question of the payment of medical men called in to assist midwives was considered. The conclusions arrived at have been communicated to the Medico Political Committee. The report on the consultation of medical witnesses in legal cases was considered, and it was unanimously agreed that such consultation was desirable, no reservation of any kind being made. The proposals for the prevention of the abuse of drugs were discussed and the following decisions on the three recommendations of the Medico-Political Committee were come to:

(*a*) That this be left to the discretion of the medical attendant. (6 voted for and 5 against; present, 13.)
(*b*) Did not see any good to be derived from signing name in full instead of initialling.
(*c*) Approved unanimously.

In regard to ambulance work, the following resolutions were passed:

1. (*a*) Ambulance instruction—
That classes conducted under the auspices of local authorities, school boards, public works, and co-operative societies be paid for.
(*b*) (*c*) Ambulance examinations and judging in ambulance competitions should in all instances be paid for.
The following minimum fees were agreed upon: 10s. 6d. per lecture; £1 1s. for examiner; and £1 1s. for each assessor in a competition.

The propositions regarding contract medical practice were next considered, and were all approved of, with the exception of 3 and 3A. After some discussion the previous question was carried by 7 against 4, 13 being present. The memorandum of the Medico Political Committee regarding the position of registered medical practitioners in the matter of furnishing certain information to coroners was considered and approved. The recommendations as to (1) registration of deaths and disposal of dead bodies were considered and approved; (2) registration of stillbirths and disposal of bodies also met with approval. It was thought advisable that the term "stillbirth" should be defined. The Coroners Bill was

approved, but as it applied to England and Wales only it was not discussed in detail. There were other five items on the Billet, but time did not permit of their being considered; they were accordingly postponed till the annual meeting in May.

LEINSTER BRANCH:

Dublin Division.

A general meeting of the Division was held at the Royal College of Physicians, Dublin, on April 12th, Mr. Chance in the chair.

Confirmation of Minutes.—The minutes of the last general meeting were read and signed.

Proposed Formation of an Irish Committee.—Dr. Craig proposed and Dr. Thompson seconded:

That an Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed—that is, an Irish Committee consisting of one secretary from each Irish Branch, and the Irish members of the Central Council. It shall have a secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters concerning Ireland. At the same time, the Dublin Division have no objection to the formation of the Committee on the lines suggested by the Ulster Branch.

This was passed unanimously.

Matters Referred to Divisions.—It was proposed by Dr. Oulton, and seconded by Dr. T. N. Smith:

That the Dublin Division approve the propositions contained in the interim report on contract medical practice.

Passed.—It was proposed by Dr. Martley, seconded by Dr. Ternan:

That the Dublin Division approve the memorandum submitted to them on the present position of registered medical practitioners in the matter of furnishing certain information to coroners.

Passed.—It was proposed by Sir John Moore, seconded by Dr. Thompson:

That the Dublin Division disapprove the proposed Medical Acts Amendment Bill.

Passed.—It was proposed by Dr. Thompson, and seconded by Dr. Burns:

That the Dublin Division is of opinion that ambulance instruction and ambulance examinations should not be treated as matters of philanthropy.

Passed unanimously.—It was proposed by Dr. Peacocke, and seconded by Dr. Gunn:

That we are of opinion that the medical officers of hydropathic and similar establishments should be bound by the ethical laws governing the general body of the profession.

Passed unanimously.—The members present declined to discuss or to express any opinion on the National Deposit Friendly Society.

SOUTH-EASTERN BRANCH:

Norwood Division.

An adjourned meeting of this Division was held on March 30th, 1905, at the Queen's Hotel, Upper Norwood, Dr. J. Sidney Turner (Anerley) in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Matters Referred to Divisions.—The interim report on contract practice was discussed. Dr. Galton proposed, and Dr. Stewart seconded:

That we approve of the report.

—Dr. Adams Clark proposed, and Dr. Wilkinson seconded:

To add to Clause 7, "and notifiable infectious diseases."

The voting for and against the motion was equal.—In regard to consultation between medical witnesses, Dr. Annis proposed, and Dr. Galton seconded:

That this Division approves of the principles of medical witnesses meeting in consultation in cases likely to be brought before the Courts, *if the parties consent.*

—On the question of giving information to coroners, Dr. Burgess proposed, and Dr. Pocock seconded:

That we take no action in this matter.

—The questions of the reorganization of Local Government Board, the Revaccination Bill, and the Public Health Bill, were considered. Dr. Stewart proposed, and Dr. Galton seconded:

That we approve of these three Bills, and forward copies to our local members of Parliament.

This was carried unanimously.—As to drug abuse, Dr. Sidney Turner proposed, and Dr. Annis seconded:

That we do not approve of this memorandum.

—The memorandum on the payment of medical practitioners called in to assist midwives was considered. The conclusions arrived at by the Division have been conveyed to the Medico-Political Committee.—The relation of medical practitioners to ambulance work was discussed. Dr. Annis proposed and Dr. Umney seconded:

That none of the three questions submitted should be treated as a matter of philanthropy.

Mr. Prangley proposed, Dr. Wilkinson seconded, and it was carried unanimously:

That the scale of fees be not considered.

—In regard to the advertising of the names of medical practitioners in connexion with hydropathic and similar establishments, Dr. Stewart proposed, Dr. Wilkinson seconded, and it was carried unanimously:

That the report be approved.

—In the matter of the National Deposit Friendly Society, Dr. Adams Clark proposed and Dr. Wilkinson seconded:

That we approve of the recommendations.

Carried *nem. con.*—The Medical Acts Amendment Bill was considered. Dr. Galton proposed, and Dr. Adams Clark seconded:

That this Bill be approved.

Carried unanimously.—In regard to death registration and coroners' law, it was unanimously agreed to instruct the Representative of the Division that it agreed with the report.

Resolutions of Lancashire and Cheshire Branch.—The resolutions suggested by the Lancashire and Cheshire Branch were then considered. The meeting was unanimously of opinion that Resolution 1 was harmless, and might be supported; but it very strongly disapproved of the resolutions numbered 2 and 3.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman concluded the meeting.

ULSTER BRANCH:

Belfast Division.

A special meeting of the Division was held in the Medical Institute on Wednesday, April 19th.

Matters Referred to Divisions.—The business of the meeting was confined to the discussion of certain matters referred to the Division for consideration. The question of the payment of medical men called in to assist midwives was discussed, and the resolution passed has been transmitted to the Medico-Political Committee. In regard to the relations of the medical profession to ambulance work, the following resolution was adopted:

That none of the services mentioned—that is, ambulance instruction, ambulance examination, or judging in ambulance competitions—should be treated as matters of philanthropy.

With regard to the question as to what arrangement as to fees and other matters would be suitable in each district, for these services, it was decided that the arrangements should be left to the local Division subject to the minimum fee adopted by the Representative Meeting. In regard to the report on the prevention of the abuse of drugs, it was decided that the propositions submitted by the Medico-Political Committee should be approved of. On the question of the advertising of medical practitioners in connexion with hydropathic and other similar establishments, the Division was unanimously of opinion that a definite pronouncement should be made by the Representative Meeting on behalf of the Association to the same effect as the opinion of the Medico-Political Committee. In regard to contract medical practice the propositions as to (1) necessity of contract practice; (2) medical control; (3) distribution of work, were unanimously adopted. An amendment to the propositions as to minimum rate was adopted, fixing this at 4s., instead of 5s., as proposed. An alternative amendment:

That the question of minimum rate be left to the decision of the proposed Irish Committee, in the event of this being formed,

was defeated. The propositions as to exclusion of infants, provision against abuse and special services, were unanimously adopted.

Resolution of Leinster Branch.—A resolution passed at the annual meeting of the Leinster Branch on February 25th, 1905, was considered, and the resolution as amended by the Ulster Branch was adopted.

ATTENDANCES OF COUNCIL, COMMITTEES, AND SUBCOMMITTEES FOR 1904-5.

COUNCIL ATTENDANCES, 1904-5 (8 MEETINGS).

Member.	July 27, 1904.	July 28, 1904.	June 30, 1904.	Oct. 19, 1904.	Nov. 16, 1904.	Jan. 18, 1905.	Feb. 15, 1905.	April 19, 1905.	Total.
Collier, Dr. Wm., Oxford, President	1	1	1	1	1	1	1	1	8
Franklin, G. C., Esq., Leicester, President-elect	–	–	–	1	–	–	–	1	2
Griffiths, Dr. T. D., Swansea, Past-President	1	1	1	1	1	1	–	1	7
Horsley, Sir Victor, F.R.S., London, Chairman of Representative Meetings	1	1	1	1	1	1	1	1	8
Clark, Andrew, Esq., F.R.C.S., London, Chairman of Council	1	1	1	1	1	1	1	1	8
Skerritt, Dr. E. Markham, Bristol, Treasurer	–	1	1	1	1	1	1	1	7
Anderson, Dr. John Ford, London	1	1	1	1	1	1	1	1	8
Barnes, Dr. E. G., Eye	1	1	1	1	1	1	–	–	6
Barr, Dr. James, Liverpool	1	1	1	1	–	1	–	1	6
Beverley, Dr. M., Norwich	1	1	1	1	1	1	1	1	8
Brierley, Dr. J. Brassey, Old Trafford	1	1	1	–	–	1	–	–	5
Browne, Dr. H. Langley, West Bromwich	1	1	–	1	1	1	1	1	7
Buist, Dr. R. C., Dundee	1	1	1	1	1	1	1	1	8
Burgess, Dr. Duncan, Sheffield	1	1	1	1	–	1	–	1	6
Byers, Professor J. W., Belfast	1	1	1	–	–	–	–	–	3
Cantlie, James, Esq., F.R.C.S., London (Hong Kong Branch)	1	–	–	1	–	1	–	–	3
Carline, Dr. W. A., Lincoln	1	1	1	1	1	1	–	1	7
Cave, Dr. Edward J., Bath	1	1	1	1	–	–	–	–	4
Craig, Dr. James, Dublin	1	1	–	–	1	1	1	1	6
Cresswell, Pearson R., Esq., C.B., Dowlais	1	1	1	1	1	1	–	1	7
*Crocker, Dr. H. Radcliffe, London	–	1	–	1	1	1	1	1	6
Crowe, Dr. G. W., Worcester	1	1	1	1	–	–	–	1	5
Deas, Dr. P. Maury, Exeter	1	1	1	–	–	–	–	–	4
Drake-Brockman, Lieutenant-Colonel E. F., London (South Indian and Madras Branch)	1	1	1	1	1	1	–	1	7
*Ferguson, Dr. G. B., Cheltenham	–	1	1	1	1	1	–	–	5
Finlay, Professor David W., M.D., LL.D., Aberdeen	–	–	–	1	1	1	1	1	5
Flemming, C. E. S., Esq., Bradford-on-Avon	1	1	1	1	1	1	1	1	8
Fothergill, Dr. E. Rowland, London	1	1	–	1	1	1	1	1	7
Fox, Dr. Edward Lawrence, Plymouth	1	1	–	1	–	1	1	1	6
Francis, Dr. H. A., London (Brisbane and Queensland Branch)	–	–	–	1	–	1	1	–	3
Galton, Dr. J. H., London	1	1	1	1	1	1	1	1	8
Giusani, Dr. Joseph J., Cork	–	–	–	1	1	1	–	1	4
Goff, Dr. Bruce, Bothwell	1	1	1	1	1	1	1	1	8
Gooding, Dr. C. G., London (Barbados Branch)	–	–	–	–	–	–	–	–	–
Goyder, Dr. D., Bradford	1	1	1	1	1	–	1	1	7
Greathead, Dr. J. B., London (Cape of Good Hope Branch)	–	–	–	1	–	–	–	–	1
Greenwood, Dr. Major, London	1	1	1	1	1	1	1	1	8
Groves, Dr. J., Carisbrooke	1	1	1	1	1	1	1	1	8
Hamilton, Dr. James, Glasgow	1	1	1	1	1	1	–	1	7
Helme, Dr. T. Arthur, Manchester	1	1	1	1	–	1	–	1	6
Hunter, Dr. J. H., South Shields	1	1	1	1	–	1	–	1	6
Johnston, Dr. Robert McKenzie, Edinburgh	–	–	–	1	1	1	1	1	5
Kerr, Dr. Thomas, London (Malaya Branch)	–	–	–	1	1	–	–	–	2
Kinsey, R. H., Esq., Bedford	1	1	1	1	1	1	1	1	8
Lorenz, Dr. C. B. (Colombo, Ceylon Branch)	–	–	–	–	–	–	–	–	–
Lovell, Sir Francis, K.C.M.G., London (Trinidad and Tobago Branch)	–	–	–	1	–	–	–	–	1
Malabre, Dr. P. O. (Jamaica Branch)	–	–	–	1	–	–	–	–	1
Marriott, Dr. C. W., Reading	–	1	–	–	–	–	1	–	3
Martin, Dr. C. J., F.R.S., London (Sydney and New South Wales Branch)	–	–	–	–	–	–	1	–	1
Milburn, Dr. C. H., Hull	1	1	1	1	1	–	1	1	7
Morier, Dr. C. G. Drummond, London (South Australia Branch)	1	–	1	–	1	1	–	1	5
Morris, W. Jones, Esq., Portmadoc	1	1	1	1	1	1	1	1	8
Morrison, Professor J. T. J., Birmingham	–	–	–	1	1	1	1	1	5
Morton, Dr. C. J., London	1	–	1	1	1	1	1	1	7
Murphy, Dr. James, Sunderland	1	1	–	1	–	–	–	–	3
Murray, Dr. J., Inverness	1	1	1	1	–	–	1	1	6
*O'Sullivan, D. A., Esq., London	–	1	1	1	1	1	1	1	7
*Owen, Edmund, Esq., F.R.C.S., London	–	–	–	1	–	1	1	1	4
Parkinson, C. H. W., Esq., Wimborne	1	1	1	1	1	1	1	1	8
Pope, Dr. F. M., Leicester	1	1	1	1	1	1	1	1	8
Rayner, Dr. Edwin, Stockport	1	1	1	1	1	1	1	1	8
Ross, Dr. J. Maxwell, Dumfries	1	1	1	1	–	–	–	1	5
*Saundby, Professor Robert, M.D., LL.D., Birmingham	–	1	1	1	–	1	1	1	6
Shaw, Dr. Cecil E., Belfast	1	1	1	1	1	–	1	1	7
Smith, Professor W. R., M.D., London (Malta and Mediterranean Branch)	1	1	1	1	1	1	–	1	7
Spanton, W. D., Esq., F.R.C.S., Hanley	1	1	1	–	1	1	1	–	6
†Stedman, Dr. F. O., Torquay (Hong Kong Branch)	–	–	–	–	–	–	–	1	1
‡Thomas, Fleet Surgeon J. Lloyd, R.N., H.M.S. *Excellent*, Portsmouth (Representative of the Royal Navy Medical Service)	–	–	–	–	1	1	1	1	4
Thomas, John Lynn, Esq., C.B., Cardiff	1	1	1	1	1	1	–	1	7
Twynam, Dr. G. E., London (Sydney and New South Wales Branch)	–	–	–	1	–	1	–	1	3
Tyson, Dr. W. J., Folkestone	1	1	1	–	1	1	1	1	6
Verrall, T. Jenner, Esq., Brighton	1	1	1	1	1	1	1	1	8
Walker, Dr. Norman, Edinburgh	1	1	1	1	1	1	–	1	7
Walshe, Dr. Denis, Graigue	1	1	1	–	–	–	–	–	3
Williams, Maj. C. E., I.M.S., London (Burma Brch.)	–	–	–	–	1	1	1	1	5

* Co-opted members. † Vice Mr. Cantlie, resigned. ‡ Elected by Council, October 19th, 1904.

ANNUAL MEETING (SECTIONS) COMMITTEE (2 MEETINGS).

Member of Committee.	Dec. 16, 1904.	April 7, 1905.	Total.
Saundby, Professor R., Birmingham (Chairman)	1	1	2
President (*ex officio*)	1	1	2
Chairman of Council (*ex officio*)	1	1	2
Treasurer	1	1	2
Tyson, Dr. W. J., Folkestone	1	1	2
Walker, Dr. Norman, Edinburgh	1	–	1

ARRANGEMENT COMMITTEE (2 MEETINGS).

Member of Committee.	Oct. 6, 1904.	Oct. 18, 1904.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	2
President (*ex officio*)	1	1	2
Buist, Dr. R. C., Dundee	1	1	2
Craig, Dr. James, Dublin	–	–	–
Crocker, Dr. H. Radcliffe, London	1	1	2
Ferguson, Dr. G. B., Cheltenham	–	–	–
Galton, Dr. J. H., Upper Norwood	1	1	2
Thomas, J. Lynn, Esq., C.B., Cardiff	1	1	2
Together with Six Local Members:			
President-elect, Leicester	1	–	1
Bond, C. J., Esq., Leicester	1	–	1
Carline, Dr. W. A., Lincoln	1	–	1
Clarke, Dr. A. V., Leicester	1	–	1
Pope, Dr. F. M., Leicester	1	–	1
Pratt, Dr. R., Leicester	1	–	1

COAT OF ARMS COMMITTEE (1 MEETING).

Member of Committee.	Dec. 21, 1904.	Total.
Ferguson, Dr. G. B., Cheltenham (Chairman)	1	1
President (*ex officio*)	1	1
Chairman of Council (*ex officio*)	1	1
Treasurer	1	1
Cresswell, Pearson R., C.B., Dowlais	1	1
Galton, Dr. J. H., Upper Norwood	1	1

COLONIAL COMMITTEE (1 MEETING).

Member of Committee.	Nov. 24, 1904.	Total.
Owen, Edmund, Esq., F.R.C.S., London (Chairman)	1	1
President (*ex officio*)	1	1
Chairman of Council (*ex officio*)	1	1
Groves, Dr. J., Carisbrooke	1	1
Colonial Representatives in England:		
Cantlie, James, Esq., London	1	1
Drake-Brockman, Lieutenant-Colonel E. F., London	1	1
Morier, Dr. C. G. D., London	1	1
Smith, Professor W. R., London	1	1
Twynam, Dr. G. E., London	1	1

COLONIAL (JOINT) COMMITTEE (1 MEETING).

Member of Committee.	Dec. 12, 1904	Total.
Verrall, T. Jenner, Esq., Brighton (Chairman) ...	1	1
President (*ex officio*)		
Chairman of Council (*ex officio*)		
Armour, Donald, Esq., F.R.C.S., London		
Ballance, H. A., Esq., M.S., Norwich	1	1
Cantlie, James, Esq., F.R.C.S., London	1	1
Fox-Symons, Dr. R., London		
Marten, Dr. Robt. Humphrey, London		
Morier, Dr. C. G. D., London		
Owen, Edmund, Esq., F.R.C.S., London	1	1
White, Professor A. H., Dublin	1	1
Williams, Major C. E., I.M.S., London	1	1

SUBCOMMITTEE OF THE COLONIAL (JOINT) COMMITTEE (1 MEETING).

Member of Committee.	Jan. 4, 1905.	Total.
Morier, Dr. C. G. D., South Australia (Chairman) ... ... (Now in London)	1	1
Marten, Dr. R. Humphrey, Adelaide (Now in London)	1	1
Twynam, Dr. G. E., New South Wales (Now in London)	1	1

COMMITTEE OF CHAIRMEN OF COMMITTEES.

(*a*) Medical Secretary Committee.
(*b*) Alteration of Memorandum of Association.
(*c*) Amendment of Standing Orders, etc.

(*a*) Medical Secretary Committee (2 Meetings).

Member of Committee.	Oct. 4, 1904.	Nov. 10, 1904.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	2
Collier, Dr. W., President (*ex officio*)	1		1
Past-President		1	1
Chairman of Representative Meetings	1	1	2
Treasurer	1	1	2
Beverley, Dr. M., Norwich	1	1	2
Crocker, Dr. H. Radcliffe, London	1		1
Goff, Dr. Bruce, Bothwell	1	1	2
Groves, Dr. J., Carisbrooke	1	1	2
Owen, Edmund, Esq., F.R.C.S., London	1		1
Saundby, Professor R., Birmingham			
Verrall, T. Jenner, Esq., Brighton	1		1

(*b*) Alteration of Memorandum of Association (3 Meetings).

Member of Committee.	Dec. 8, 1904.	Feb. 3, 1905.	Mar. 4, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	1	3
President (*ex officio*)	1			1
Chairman of Representative Meetings	1	1		2
Treasurer	1	1	1	3
Beverley, Dr. M., Norwich	1			1
Buist, Dr. R. C., Dundee	1	1		2
Crocker, Dr. H. Radcliffe, London				
Goff, Dr. Bruce, Bothwell	1	1	1	3
Griffiths, Dr. T. D., Swansea	1			1
Groves, Dr. J., Carisbrooke	1	1	1	3
Owen, Edmund, Esq., F.R.C.S., London			1	1
Parkinson, C. H. W., Esq., Wimborne		1		1
Saundby, Professor R., Birmingham				
Verrall, T. Jenner, Esq., Brighton	1			1

(*c*) Amendment of Standing Orders (4 Meetings).

Member of Committee.	Dec. 22, 1904.	Feb. 3, 1905.	Mar. 22, 1905.	April 5, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	1	1	4
President (*ex officio*)	1				1
Chairman of Representative Meetings	1	1	1		3
Treasurer		1	1	1	3
Beverley, Dr. M., Norwich	1				1
Buist, Dr. R. C., Dundee	1	1	1	1	4
Crocker, Dr. H. Radcliffe, London					
*Fothergill, Dr. E. Rowland, London	1	1	1	1	4
Goff, Dr. Bruce, Bothwell	1	1	1	1	4
Griffiths, Dr. T. D., Swansea			1	1	2
Groves, Dr. J., Carisbrooke	1	1	1	1	4
Owen, Edmund, Esq., F.R.C.S., London	1			1	2
Parkinson, C. H. W., Wimborne	1	1	1	1	4
Saundby, Professor R., Birmingham					
*Rayner, Dr. Edwin, Stockport	1	1	1	1	4
*Thomas, John Lynn, Esq., C.B., Cardiff	1		1	1	3
Verrall, T. Jenner, Esq., Brighton			1	1	2

* Co-opted members.

ETHICAL COMMITTEE (3 MEETINGS).

Member of Committee.	Sept. 30, 1904.	Dec. 16, 1904.	April 7, 1905.	Total.
Saundby, Professor R., Birmingham (Chairman) ...	1	1	1	3
President (*ex officio*)	1			1
Chairman of Council (*ex officio*)	1	1	1	3
Ballance, H. A., Esq., M.S., Norwich	1	1	1	3
Bateman, Dr. A. G., London	1	1	1	3
Broadbent, G. H., Esq., Manchester	1	1	1	3
Elliston, Dr. W. A., Ipswich		1	1	2
Ferguson, Dr. G. B., Cheltenham				
Goff, Dr. Bruce, Bothwell, N.B.	1	1	1	3
Jepson, Dr. E., Durham		1	1	2
O'Sullivan, D. A., Esq., London	1	1	1	3
Spanton, W. D., Esq., Hanley	1			1

ETHICAL ORGANIZATION SUBCOMMITTEE (2 MEETINGS).

Member of Committee.	Dec. 16, 1904.	Mar. 3, 1905.	Total.
Members Originally Appointed:			
Saundby, Professor R., Birmingham (Chairman) ...	1	1	2
Bateman, Dr. A. G., London	1	1	2
Ballance, H. A., Esq., M.S., Norwich	1	1	2
Broadbent, G. H., Esq., Manchester	1	1	2
Members Co-opted for One Meeting:			
Cox, Dr. A., North of England Branch		1	1
Fothergill, Dr. E. Rowland, Wandsworth Division ...			
Greer, W. J., Esq., Monmouthshire Division		1	1
Mackeith, Dr. A. A., Southampton Division		1	1
Metcalfe, Dr. J., Bradford Division		1	1
Smith, Dr. Fred. J., Metropolitan Counties Branch ...		1	1
Thomas, Dr. F. G., South Wales Branch		1	1

TRUST FUNDS COMMITTEE (1 MEETING).

Member of Committee.	Jan. 17, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1
President (*ex officio*)		
Treasurer	1	1

HOSPITALS COMMITTEE (5 MEETINGS).

Member of Committee.	Oct. 13, 1904.	Dec. 1, 1904.	Jan. 26, 1905.*	Mar. 2, 1905.†	Mar. 30, 1905.	Total.
Beverley, Dr. M., Norwich (Chairman)	1	1	1	1	1	5
President (*ex officio*)	1	1	1	1	—	4
Chairman of Council (*ex officio*)	1	1	1	1	—	4
Brierley, Dr. J. Brassey, Old Trafford	1	1	1	1	1	5
Fox, Dr. E. Lawrence, Plymouth	1	1	1	1	1	5
Hamilton, Dr. John Rogerson, Hawick, N.B.	1	1	1	1	1	5
Helme, Dr. T. Arthur, Manchester	—	—	1	1	1	3
Horder, T. Garrett, Esq., Cardiff	—	—	1	1	1	3
Owen, Edmund, Esq., F.R.C.S., London	1	1	1	—	—	3
Pope, Dr. F. M., Leicester	1	1	1	1	—	4
Co-opted Members (December 1st, 1904):						
Anderson, Dr. John Ford, London	—	—	1	1	1	3
Hastings, Dr. E. B., London	—	—	1	1	1	3
White, E. F., Esq., F.R.C.S., London	—	—	1	1	1	3

* Conference with Medical Representatives of Hospitals.

† Conference with Lay and Medical Representatives of Hospitals.

JOURNAL AND FINANCE COMMITTEE (3 MEETINGS).

Member of Committee.	Oct. 19, 1904.	Jan. 18, 1905.	April 12, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	1	3
President (*ex officio*)	1	1	—	2
Chairman of Representative Meetings	1	1	1	3
Treasurer	1	1	1	3
Barnes, Dr. Edgar, Eye	1	1	1	3
Barr, Dr. James, Liverpool	1	1	1	3
Brierley, Dr. J. Brassey, Old Trafford	1	1	—	2
Galton, Dr. J. H., Upper Norwood	1	1	1	3
Groves, Dr. J., Carisbrooke	1	1	1	3
Kinsey, R. H., Esq., Bedford	1	1	1	3
Morris, W. Jones, Esq., Portmadoc	1	1	1	3
Parkinson, C. H. W., Esq., Wimborne	1	1	1	3
Saundby, Professor R., Birmingham	1	1	—	2
Verrall, T. Jenner, Esq., Brighton	1	1	—	2
Walker, Dr. Norman, Edinburgh	1	1	1	3

MEDICAL DEFENCE COMMITTEE (4 MEETINGS).

Member of Committee.	Oct. 6, 1904.	Dec. 1, 1904.	Jan. 12, 1905.	Mar. 23, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	1	1	4
President (*ex officio*)	1	1	—	—	2
Chairman of Representative Meetings	1	1	—	1	3
Treasurer	1	1	1	—	3
Beverley, Dr. M., Norwich	1	1	1	1	4
Goff, Dr. Bruce, Bothwell	1	1	1	1	4
Heron, Dr. G. A., London (resigned)	—	—	—	—	—
Hunter, Dr. J. H., South Shields	1	—	1	1	3
Marshall, Dr. G. Balfour, Glasgow	—	1	1	1	3
Messiter, M. A., Esq., Dudley	—	—	1	1	2
Morris, W. Jones, Esq., Portmadoc	1	—	—	1	2
Walshe, Dr. Denis, Craigue	—	—	—	—	—

Conference between Representatives of Medical Societies and the Committee held on January 12th, 1905.*

MEDICO-POLITICAL COMMITTEE (6 MEETINGS).

Member of Committee.	Oct. 5, 1904.	Nov. 16, 1904.*	Dec. 21, 1904.*	Feb. 15, 1905.	Mar. 22, 1905.	April 18, 1905.	Total.
Buist, Dr. R. C., Dundee (Chairman)	1	1	1	1	1	—	6
President	1	1	—	1	1	—	5
Chairman of Representative Meetings (*ex officio*)	1	1	—	1	1	—	5
Chairman of Council (*ex officio*)	1	1	1	1	1	—	6
Treasurer (*ex officio*)	1	1	1	1	1	—	6
Greenwood, Dr. Major, London	—	—	1	1	1	—	3
Horder, T. Garrett, Esq., Cardiff	—	—	1	1	1	—	3
Jackson, George, Esq., F.R.C.S., Plymouth	1	1	1	1	1	—	5
Kidd, Dr. Leonard, Enniskillen	1	1	1	—	—	—	3
Macdonald, Dr. J. A., Taunton	1	1	1	1	1	1	6
Messiter, M. A., Esq., Dudley	1	1	1	1	1	—	5
Morris, W. Jones, Portmadoc	—	—	1	1	1	1	4
Murphy, Dr. James, Sunderland	1	1	1	1	1	—	5
Nash, E. H. T., Esq., Accrington	1	1	1	1	1	1	6
O'Sullivan, D. A., Esq., London	1	1	1	1	1	—	5
Parkinson, C. H. W., Esq., Wimborne	1	1	1	1	1	1	6

* With respect to the meeting on December 21st, certain members of the Medico-Political Committee came to town for the purpose of attending the meeting, but owing to dense fog were prevented from arriving in time. Having regard to the special circumstances these members have been credited with attendance on that date.

MEDICO-POLITICAL SUBCOMMITTEE (A)

ON GOVERNMENT CERTIFICATES OF SECONDARY EDUCATION (1 MEETING).

Member of Committee.	Nov. 2, 1904.	Total.
Buist, Dr. R. C. (Chairman)	1	1
Chairman of Representative Meetings	1	1
Morris, W. Jones, Portmadoc	1	1
*Gordon, Dr. W., Exeter	1	1
*Editor of the BRITISH MEDICAL JOURNAL	1	1

* Co-opted by Medico-Political Committee.

MEDICO-POLITICAL SUBCOMMITTEE (B)

ON THE PAYMENT OF MEDICAL WITNESSES AND OF PRACTITIONERS CALLED TO EMERGENCY CASES BY THE POLICE (2 MEETINGS).

Member of Committee.	Nov. 2, 1904.	Dec. 21, 1904.	Total.
Dr. R. C. Buist (Chairman)	1	1	2
Chairman of Council	—	—	—
Horder, T. Garrett, Esq., Cardiff	—	—	—
Morris, W. Jones, Esq., Portmadoc	—	—	—
Macdonald, Dr. J. A., Taunton	1	—	1
Nash, E. H. T., Esq., Accrington	—	—	—
Parkinson, C. H. W., Esq., Wimborne	—	—	—
*Hardy, H. Nelson, Esq., London	—	—	—
*Lowndes, F., Esq., Liverpool	—	—	—
†Barnes, Dr. Henry, Carlisle	1	—	1
†Morrison, Professor, J. T. J., Birmingham	—	—	—

* Co-opted by the Medico-Political Committee.

† Co-opted by the Subcommittee.

MEDICO-POLITICAL SUBCOMMITTEE (C) (3 MEETINGS).

ON DEATH REGISTRATION AND THE AMENDMENT OF THE CORONERS ACT.

Member of Committee.	Nov. 2, 1904.	Dec. 21, 1904.	Feb. 2, 1905.	Total.
Buist, Dr. R. C. (Chairman)	1	1	1	3
Greenwood, Dr. Major, London	1	1	1	3
Messiter, M. A., Esq., Dudley	1	—	—	1
Macdonald, Dr. J. A., Taunton	1	1	1	3
Parkinson, C. H. W., Esq., Wimborne	1	1	1	3
*Bateman, Dr. A. G., London	1	1	1	3
*Westcott, Dr. W. Wynn, London	—	1	1	2
†White, E. F., Esq., F.R.C.S., London	—	—	1	1

* Co-opted by the Subcommittee. † Co-opted on December 21st, 1904.

MEDICO-POLITICAL SUBCOMMITTEE (D) (1 MEETING).

ON REPRESENTATION OF THE PROFESSION IN PARLIAMENT.

Member of Committee.	Jan. 19, 1905.	Total.
Buist, Dr. R. C. (Chairman)	1	1
Macdonald, Dr. J. A., Taunton	1	1
Nash, E. H. T., Esq., Accrington	1	1
*Gordon, Dr. W., Exeter	1	1
*Jepson, Dr. E., Durham	1	1

* Co-opted by the Medico-Political Committee.

ORGANIZATION COMMITTEE (5 MEETINGS).

Member of Committee.	Oct. 11, 1904.	Nov. 8, 1904.	Dec. 13, 1904.	Feb. 14, 1905.	April 11, 1905.	Total.
Verrall, T. Jenner, Esq., Brighton (Chairman) ...	1	1	1	1	1	5
President (*ex officio*)						
Chairman of Council (*ex officio*)	1	1	1	1	1	5
Ballance, Hamilton A., Esq., M.S., Norwich ...	1	1	1	1	1	5
Cave, Dr. E. J., Bath	—	—	—	—	—	—
Hamilton, Dr. James, Glasgow	1	—	1	—	—	2
Morrison, Professor J. T. J., Birmingham ...	—	1	1	1	1	4
Rayner, Dr. Edwin, Stockport	1	1	1	—	1	4
White, Professor A. H., Dublin	1	1	1	1	—	4

PREMISES AND LIBRARY COMMITTEE (6 MEETINGS).

Member of Committee.	Oct. 18, 1904.	Nov. 30, 1904.	Dec. 21, 1904.	Jan. 17, 1905.	Feb. 8, 1905.	April 18, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	1	1	1	1	6
President (*ex officio*)	—	—	—	1	1	1	3
*Chairman of Representative Meetings	—	—	—	—	1	1	2
Barnes, Dr. Edgar, Eye	1	1	1	—	1	1	5
*Browne, Dr. H. Langley, West Bromwich	—	—	—	—	1	1	2
Crocker, Dr. H. Radcliffe, London	1	—	—	1	1	—	4
*Fothergill, Dr. E. Rowland, London	—	—	—	—	1	1	2
Galton, Dr. J. H., Upper Norwood	1	1	1	1	1	1	6
Goff, Dr. Bruce, Bothwell	1	1	1	1	1	1	6
Griffiths, Dr. T. D., Swansea	1	—	—	1	—	1	3
*Johnston, Dr. B. McKenzie, Edinburgh	—	—	—	—	1	1	2
Pope, Dr. F. M., Leicester	1	—	1	—	—	1	3
Treasurer (added October 19th Council)	1	1	1	1	1	—	5

* Added by Council, January 18th, 1905.

PREMISES AND LIBRARY SUBCOMMITTEE (2 MEETINGS).

APPOINTED BY COUNCIL ON FEBRUARY 15TH, 1905.

Member of Committee.	Mar. 3, 1905.	April 18, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	2
President (*ex officio*)	—	1	1
Chairman of Representative Meetings	—	1	1
Browne, Dr. H. Langley, W. Bromwich	1	1	2
Crocker, Dr. H. Radcliffe, London	1	1	2

PUBLIC HEALTH COMMITTEE (2 MEETINGS).

Member of Committee.	Oct. 7, 1904.	Nov. 15, 1904.	Total.
Parkinson, C. H. W., Esq., Wimborne (Chairman) ...	1	1	2
President (*ex officio*)	1	1	2
Chairman of Council (*ex officio*)	1	1	2
Jones, Herbert, Esq., Hereford	1	1	2
Manley, Dr. Herbert, W. Bromwich	1	—	1
Martley, Dr. F. C., Dublin	1	1	2
McVail, Dr. J. C., Glasgow	1	—	1
Nasmyth, Dr. T. G., Fife	1	1	2
Thomson, Dr. J. Roberts, Bournemouth	1	—	1

ROYAL NAVAL AND MILITARY COMMITTEE (2 MEETINGS).

Member of Committee.	Nov. 15, 1904.	Feb. 20, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1	2
President (*ex officio*)	—	—	—
Curme, Surgeon-Colonel D., Blandford	1	1	2
Drake-Brockman, Lieutenant-Colonel E. F., London...	1	1	2
Elliston, Brigade-Surgeon-Colonel G. S., Ipswich ...	—	1	1
Evatt, Surgeon-General G. J. H., C.B., London ...	—	1	1
Thomas, Fleet Surgeon J. Lloyd, R.N., H.M.S. *Excellent*, Portsmouth	1	—	1

SCIENTIFIC CO-ORDINATION COMMITTEE. (1 MEETING).

Member of Committee.	Jan. 11, 1905.	Total.
Buist, Dr. R. C., Dundee (Chairman)	1	1
President (*ex officio*)	—	—
Chairman of Council (*ex officio*)	1	1
Chairman of Representative Meetings	—	—
Treasurer	1	1
Verrall, T. Jenner, Esq., Chairman of Organization Committee	—	—
Barr, Dr. James, Liverpool	1	1
Browne, Dr. H. Langley, West Bromwich	1	1
Pope, Dr. F. M., Leicester	—	—
Shaw, Dr. Cecil E., Belfast	1	1

SCIENTIFIC GRANTS COMMITTEE (1 MEETING).

Member of Committee.	Feb. 1, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1
President (*ex officio*)	1	1
Ballance, C. A., Esq., M.S., London	1	1
Barr, Dr. J., Liverpool	1	1
Burgess, Dr. D., Sheffield		
Cave, Dr. E. J., Bath		
Griffiths, Dr. T. D., Swansea		
Helme, Dr. T. A. Manchester		
Johnston, Dr. R. McKenzie, Edinburgh		
Robinson, H. B., Esq., M.S., London	1	1
Ross, Dr. J. Maxwell, Dumfries		
Saundby, Professor R., Birmingham		
Starling, Professor E. H., F.R.S., London	1	1
White, Professor A. H., Dublin	1	1

SCOTTISH COMMITTEE (1 MEETING).

Member of Committee.	Jan. 6, 1905.	Total.
Goff, Dr. Bruce, Bothwell (Chairman)	1	1
Buist, Dr. R. C., Dundee	1	1
Christie, Dr. J. F., Aberdeen		
Finlay, Professor, D. W., Aberdeen	1	1
Fraser, Dr. T., Aberdeen		
Graham, Dr. R. Balfour, Leven	1	1
Hamilton, Dr. James, Glasgow		
Hill, Dr. F. R., Carlisle		
Johnston, Dr. R. McKenzie, Edinburgh		
Low, Dr. A. P., Dundee	1	1
Moir, Dr. J. Munro, Inverness	1	1
Moorhouse, Dr. J. E., Stirling		
Murray, Dr. J., Inverness		
Nicoll, Dr. J. H., Glasgow		
Ross, Dr. J. Maxwell, Dumfries		
Taylor, Dr. W. A., Perth	1	1
Trotter, Dr. A., Perth		
Turner, Dr. A. Logan, Edinburgh		
Walker, Dr. Norman, Edinburgh	1	1

COMMITTEE CONSISTING OF THE SECRETARIES OF BRANCHES AND DIVISIONS ON THE COUNCIL (1 MEETING).

Member of Committee.	Mar. 8, 1905.	Total.
Buist, Dr. R. C., Dundee (Chairman)	1	1
President (*ex officio*)	1	1
Chairman of Council (*ex officio*)	1	1
Crowe, Dr. G. W., Worcester	1	1
Fothergill, Dr. E. Rowland, London	1	1
Hamilton, Dr. James, Glasgow	1	1
Helme, Dr. T. Arthur, Manchester		
Morris, W. Jones, Esq., Portmadoc		
Morton, Dr. C. J., London	1	1
Parkinson, C. H. W., Esq., Wimborne	1	1
Rayner, Dr. Edwin, Stockport	1	1
Shaw, Dr. Cecil E., Belfast	1	1
Walker, Dr. Norman, Edinburgh		

SPECIAL CHLOROFORM COMMITTEE (1 MEETING).

Member of Committee.	Nov. 4, 1864.	Total.
Crocker, Dr. H. Radcliffe, London (Chairman)	1	1
President (*ex officio*)	1	1
Chairman of Council (*ex officio*)	1	1
Barr, Dr. J., Liverpool		
Brodie, Dr. T. G., F.R.S., London	1	1
Buxton, Dr. Dudley, London		
Dunstan, Professor, F.R.S., London	1	1
Harcourt, Professor Vernon, F.R.S., Oxford	1	1
Horsley, Sir Victor, F.R.S., London	1	1
McCardie, Dr. W. J., Birmingham		
Sherrington, Professor C. S., F.R.S., Liverpool		

SUPERANNUATION COMMITTEE (1 MEETING).

Member of Committee.	Jan. 17, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)	1	1
President (*ex officio*)	1	1
Treasurer	1	1
Browne, Dr. H. Langley, West Bromwich	1	1

Association Notices.

COUNCIL MEETING.

A SPECIAL Meeting of the Council will be held at 10 o'clock in the forenoon of Wednesday, May 17th.

April 27th, 1905. GUY ELLISTON, *General Secretary.*

1905 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Hall of the Y.M.C.A., London Road, Leicester, on Monday, July 24th, at 2 o'clock in the afternoon, and on Tuesday, July 25th, at 2 p.m.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Hall of the Y.M.C.A., London Road, Leicester, on Monday, July 24th, immediately after the Annual General Meeting, which will be held at 2 o'clock in the afternoon; on Tuesday, July 25th, at 10 a.m.; on Wednesday, July 26th, at 3.30 p.m.; on Thursday, July 27th, at 3.30 p.m. if required; also at 2 p.m. on Friday, July 28th, if required.

By Order,

April 20th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held on Friday, May 26th, at 3.30 p.m., in the County Hotel, Carlisle. Dr. Maclaren (Carlisle) will read a paper on the Relations of Medical Men to Public Bodies; and Dr. Bird (Carlisle) a paper on Some Ethical Points in the Work of a Medical Officer to the Educational Board. The meeting, as last year, will be confined to the discussion of general ethical and medico-ethical subjects. It is also hoped that an exhibition of pathological specimens may be got up. Members desirous of reading papers or showing specimens will kindly communicate with the Honorary Secretary, NORMAN MACLAREN, 23, Portland Square, Carlisle.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at Blandford on Wednesday, May 17th. Notice of any communication and case should be sent before May 7th to the Honorary Secretary, C. H. W. PARKINSON.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The annual meeting will be held at the Medical Societies' Rooms, Bournemouth, on Wednesday, May 3rd, at 7.45 p.m. Agenda: Election of officers, consideration of matters referred to the Divisions; cases, if any. Members are requested to bring their SUPPLEMENTS.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES.—Nominations for elective members of the Central Council must be made in writing on or before May 10th, to C. H. WATTS PARKINSON, Wimborne Minster, Honorary Secretary.

DUNDEE, PERTH AND STIRLING BRANCHES.—The nomination of candidates for the office of elective member of Council for the ensuing year must be made in writing on or before May 8th to Dr. J. E. Moorhouse, 8, Glebe Avenue, Stirling.—A. P. LOW, Secretary Dundee Branch, W. A. TAYLOR, Secretary Perth Branch, J. E. MOORHOUSE, Secretary Stirling Branch.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th, not on the 22nd, as stated in last week's SUPPLEMENT.

EAST YORK AND NORTH LINCOLN BRANCH (with the CAMBRIDGE AND HUNTINGDON BRANCH).—Nominations for the office of Representative on the Central Council must reach the Honorary Secretary before May 14th, 1905. The present Representative, Dr. C. H. Milburn, is eligible for re-election.—E. M. HAINWORTH, Honorary Secretary, East York and North Lincoln Branch.

EDINBURGH AND FIFE BRANCHES.—Notice is hereby given that nominations of elective members of the Council of the Association for these Branches must be made in writing on or before June 3rd, 1905, to A. LOGAN TURNER, M.D., 27, Walker Street, Edinburgh, Honorary Secretary Edinburgh Branch.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of elective members of the Council of the Association for this Branch must be made in writing on or before May 1st, to T. ARTHUR HELME, M.D., 3, St. Peter's Square Manchester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—The annual meeting will be held at Crichtons, Clapham Junction, on Thursday, May 25th, at 9.30 p.m. Agenda: (1) Minutes, (2) correspondence, (3) questions, (4) additional rules (5) election of officers and committee of the Division. The meeting will be preceded by the annual dinner at 7 p.m., at which the following guests of the Division will be present: Sir Henry Kimber, Bart., M.P. for Wandsworth; Percy Thornton, Esq., M.P. for Clapham; the Mayor of Wandsworth; Chairman of the Wimbledon District Council; Chairman of the Wandsworth Guardians; J. Hunt, Esq., and Lieutenant-Colonel A. Rotton, J.P., members of the L.C.C.; Mrs. and Miss Garrett Anderson, M.D.; Sir Walter Foster, M.P.; Dr. Michael Taylor, Coroner; Chairman of Central Council; President of the Branch; Drs. A. P. Beddard, George Carpenter, Lauriston Shaw, and R. Hutchison; Shirley Benn, Esq.; the Editor of the JOURNAL; the Medical and General Secretaries; and others. Tickets on application to E. ROWLAND FOTHERGILL, M.B., Honorary Secretary, Southfields, S.W. (Telephone 868 Battersea.)

MIDLAND BRANCH.—The last day for sending in nominations for the two members of the Central Council to which this Branch is entitled is May 8th. They should be sent to the Acting Honorary Secretary, Dr. FRANK POPE, 4, Prebend St., Leicester.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Canterbury on Wednesday, June 21st, Dr. Whitehead Reid, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. [This will be done by voting papers sent to each member of the Branch. Nomination by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 13th.] (2) To receive the annual report of the Branch Council. (3) To consider the business of the Annual Representative Meeting. (4) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex officio* members of the Branch Council." (5) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Saturday, May 13th.—H. M. STEWART, Walton House, Lordship Lane, S.E., Honorary Secretary.

SOUTH-EASTERN BRANCH: CANTERBURY AND FAVERSHAM DIVISIONS.—A clinical meeting will be held at the Canterbury Hospital on Thursday, May 4th, at 3 p.m. Members are asked to notify to Dr. Henchley any case of interest that they will show, so that he can put it on the agenda.—WILLIAM GOSSE, A. R. HENCHLEY, Honorary Secretaries.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting will be held at the Croydon General Hospital on Thursday, May 18th, at 4 p.m., Dr. J. Wayte in the chair. Dinner at Greyhound Hotel, 6.15 p.m.; charge 5s., exclusive of wine. Agenda: (1) Minutes of the previous meeting; (2) to decide when and where the next meeting shall take place, and to elect a chairman; (3) election of officers for the ensuing year; (4) clinical meeting. Gentlemen willing to exhibit cases are requested to communicate with the Honorary Secretary not later than May 13th. Details will be announced subsequently. All members of the South-Eastern Branch are entitled to attend and introduce professional friends. Tea at four o'clock by kind invitation of Dr. Wayte. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements, and promote the success of the meeting.—E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A clinical meeting will be held on Thursday, May 11th, at 4 p.m., at St. John's Hospital, Morden Hill, Lewisham, Mr. L. Stokes (Blackheath) in the chair. The staff have kindly promised to show cases. Agenda: (1) Minutes of last meeting; (2) to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat; (3) consideration of various resolutions to be brought forward at Annual Representative Meeting at Leicester (see SUPPLEMENTS of BRITISH MEDICAL JOURNAL). Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once.—HENRY J. PRANGLEY, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary, Tudor House, Anerley, S.E.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A special meeting will be held at Laker's Hotel, Redhill, on Friday, May 19th, at 6 p.m., H. J. Blackler, M.B.Lond., etc., of Redhill, in the chair. Agenda: To elect a Representative of the Division for the Annual Meeting of the Association. An address will be given by Dr. J. H. Bryant, Assistant Physician to Guy's Hospital, on Electro-therapeutics. Clinical cases will be shown by Drs. J. H. Pegg, A. R. Walters, and W. A. Berridge. A Short Note on an Unusual Case of Femoral Hernia by Dr. F. Curtis, F.R.C.S.Eng. Dinner at 7.30 p.m.; charge 5s. (exclusive of wine). The Honorary Secretary will be much obliged if members will kindly inform him whether they intend, if possible, to be present at the meeting, and if they are likely to remain to dinner.—W. A. BERRIDGE, Honorary Secretary, Station Road, Redhill.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting will be held at Kilkenny on May 24th.—E. J. FARMER, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of members for the office of Representatives on Central Council, each signed by not less than three members, must reach me not later than May 15th. The present Representative, Mr. R. H. Kinsey, is eligible for re-election.—E. HARRIES JONES, Honorary Secretary, Northampton.

STAFFORDSHIRE BRANCH.—Nominations of Representative on Central Council: Notice is hereby given that nominations must be sent in to me on or before May 25th.—G. PETGRAVE JOHNSON, Honorary Secretary, Stoke-on-Trent.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 11th. The President, Dr. E. Deanesly, will take the chair at 3 p.m. Business: (1) Minutes of the last general meeting; (2) Correspondence; (3) Exhibition of living cases. The meeting will be a clinical one. Notice has been received that several cases will be exhibited. Gentlemen having interesting cases are invited to exhibit them. (4) Exhibition of pathological specimens, etc. Dinner, 6.30 p.m.; charge 5s. Council meeting; a meeting of the Council will be held at 2.45 p.m. for election of members, etc.—G. PETGRAVE JOHNSON, Honorary General Secretary, Stoke-on-Trent.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25, 1905.

THE Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th—at 6 p.m., in a room to be set apart for the purpose.

Branch and Division Secretaries are invited to notify any subjects they may wish to bring before this conference. All matters to be considered must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

MEMBERS ELECTED DURING THE LAST THREE MONTHS.

BY THE COUNCIL ON APRIL 19TH, 1905.

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Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,916 births and 4,664 deaths were registered during the week ending Saturday last, April 22nd. The annual rate of mortality in these towns, which had been 15.7, 15.7, and 16.6 per 1,000 in the three preceding weeks, declined again last week to 15.6 per 1,000. The rates in the several towns ranged from 6.7 in King's Norton, 7.2 in Newport (Mon.), 9.1 in Willesden, 9.2 in Burnley, 9.3 in Handsworth (Staffs.), 9.6 in Leyton, and 9.9 in Hornsey, to 20.3 in York, 21.0 in Hull, 22.3 in West Bromwich, 22.8 in Middlesbrough, 24.1 in Wigan, 24.3 in Tynemouth, 26.4 in Huddersfield, and 28.9 in Merthyr Tydfil. In London the rate of mortality was 14.9 per 1,000, while it averaged 15.9 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns was equal to 1.5 per 1,000; in London this death-rate was 1.3 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 4.6 in West Bromwich, 4.8 in Hanley, 4.9 in Sheffield, 5.6 in Oldham, 6.4 in Southampton, 7.6 in Warrington, and 7.8 in Merthyr Tydfil. Measles caused a death-rate of 2.0 in Reading, 2.1 in Coventry, 2.3 in St. Helens, 3.3 in Oldham, 3.6 in Wigan, 3.7 in Sheffield, 3.8 in West Bromwich, 4.5 in Southampton, 6.9 in Warrington, and 7.1 in Merthyr Tydfil; scarlet fever of 1.3 in Plymouth; diphtheria of 1.5 in West Hartlepool, 1.6 in Hanley, and 1.7 in Bootle; whooping-cough of 1.1 in West Ham, 1.5 in Ipswich, 1.6 in Hanley, and 1.7 in Smethwick; "fever" of 1.6 in Huddersfield; and diarrhoea of 1.6 in Hanley. Two fatal cases of small-pox were registered in Southampton and 1 in Oldham, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 17 small-pox patients on Saturday last, April 22nd, against 20, 21, and 15 on the three preceding Saturdays; 6 new cases were admitted during the week, against 2, 4, and 0 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,032, 2,086, and 2,133 at the end of the three preceding weeks, had declined again to 2,128 at the end of last week; 253 new cases were admitted during the week, against 254, 292, and 290 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, April 15th, 1,073 births and 603 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.3, 16.9, and 16.6 per 1,000 in the three preceding weeks, rose again to 18.0 per 1,000 during the week under notice, and was 1.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 14.0 in Paisley and 15.9 in Dundee to 24.4 in Perth and 24.5 in Greenock. The death-rates from the principal infectious diseases averaged 2.1 per 1,000 in these towns, the highest rates being recorded in Glasgow and Paisley. The 289 deaths registered in Glasgow included 11 that were referred to measles, 2 to diphtheria, 26 to whooping-cough, and 3 to diarrhoea. Two fatal cases of measles, 2 of diphtheria, and 4 of whooping cough were recorded in Edinburgh; 2 of diarrhoea in Dundee; 2 of measles and 2 of diarrhoea in Aberdeen; and 2 of whooping-cough in Greenock.

During the week ending Saturday last, the 22nd inst., 939 births and 597 deaths were registered in these eight towns. The annual rate of mortality, which had been 16.9, 16.6, and 18.0 per 1,000 in the three preceding weeks, declined again last week to 17.8 per 1,000, but was 2.2 per 1,000 in excess of the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.2 in Leith and 15.3 in Aberdeen to 24.4 in Perth and 26.0 in Greenock. The death-rate from the principal infectious diseases averaged 2.1 per 1,000, the highest rates being recorded in Leith and Greenock. The 290 deaths registered in Glasgow included 17 which were referred to measles, 15 to whooping-cough, 3 to "fever," and 3 to diarrhoea. Six fatal cases of measles, 3 of diphtheria, and 3 of diarrhoea were recorded in Edinburgh; 3 of whooping-cough and 2 of diarrhoea in Dundee; 2 of whooping-cough and 2 of diarrhoea in Leith; and 2 of diphtheria and 2 of whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 8th, 491 births and 402 deaths were registered in six of the principal Irish towns, against 686 births and 427 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.8, 23.4, and 23.9 per 1,000 in the three preceding weeks, fell to 20.5 per 1,000 in the week under notice, this figure being 4.8 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 15.0 in Limerick and 17.4 in Londonderry to 21.9 in Cork and 25.5 in Dublin. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.1 per 1,000, or 0.2 per 1,000 higher than during the preceding weeks, the highest figure—2.3—being recorded in Belfast, while Limerick registered no deaths under this heading at all. From measles 12 deaths in all were recorded throughout Ireland, 11 of them being registered in Belfast. From scarlet fever 1 death occurred in Belfast, and from enteric fever 6 in various parts of the island. No deaths from small-pox or typhus were anywhere recorded.

During the week ending Saturday, April 15th, 491 births and 424 deaths were registered in six of the principal Irish towns, against the same number of births and 402 deaths in the preceding period. The mean annual death-rate in these towns, which had been 23.4, 23.9, and 20.5 per 1,000 in the three preceding weeks, rose to 22.5 per 1,000 in the week under notice, this figure being 5.9 per 1,000 above the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 9.7 in Waterford to 27.3 in Limerick and 27.4 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.0 per 1,000, or 0.1 per 1,000 lower than during the preceding week, the highest figure—2.9—being recorded in Belfast, while Londonderry, Limerick, and Waterford registered no deaths under this heading at all. The deaths from measles rose to 19, Belfast accounting for 11 of them and Dublin for 4. No deaths from small-pox occurred anywhere, but in Cork there was 1 from typhus, in Belfast 2 from diphtheria, and in Dublin 1 from scarlet fever.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1905.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending March last, 114,396 births were registered in these towns, equal to an annual rate of 29.4 per 1,000 of the population, estimated at 15,609,377 persons in the middle of the year; in the corresponding quarter of the preceding year the rate had been 29.7 per 1,000. In London the birth-rate last quarter was 28.5 per 1,000, while it averaged 29.8 per 1,000 in the seventy-five other large towns, among which the rates ranged from 16.7 in Bournemouth, 17.9 in Hornsey, 19.5 in Halifax, 19.9 in Hastings, 21.8 in Bradford, 21.9 in Northampton, and 22.7 in

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the First Quarter of 1905.

Towns.	Estimated Population middle of 1905	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	15,609,377	114,396	67,120	29.4	17.2	1.39	5,425	31	1,855	509	825	1,374	310	521	127	1.3
75 Provincial Towns	10,924,583	81,092	47,533	29.8	17.4	1.52	4,130	26	1,501	375	663	938	259	368	132	1.7
London	4,684,794	33,304	19,587	28.5	16.8	1.09	1,295	5	354	134	162	436	51	153	116	0.3
Croydon	147,794	1,072	535	29.1	14.5	0.65	24	—	—	2	12	7	1	2	89	—
Willesden	138,080	1,061	486	30.8	14.1	1.32	45	—	3	1	5	31	3	2	110	0.4
Hornsey	84,070	376	192	17.9	9.2	0.54	11	—	3	1	1	2	2	2	64	—
Tottenham	110,232	952	433	32.8	14.9	1.57	40	—	3	1	8	23	1	4	118	—
West Ham	294,997	2,384	1,195	32.4	16.2	1.83	134	—	46	5	27	39	8	9	118	—
East Ham	123,381	1,001	377	32.5	12.3	2.19	107	—	30	7	16	12	2	—	107	0.3
Leyton	114,555	866	334	28.2	11.7	1.45	41	—	21	3	5	8	4	—	76	1.5
Walthamstow	116,297	853	310	29.4	10.7	0.80	23	—	3	4	4	4	2	6	80	0.3
Hastings	66,820	331	288	19.9	17.3	1.56	26	—	—	1	1	21	1	2	142	0.3
Brighton	127,183	750	492	23.7	15.5	0.25	8	—	1	—	1	1	1	4	105	0.4
Portsmouth	204,975	1,419	1,070	28.2	21.2	4.26	214	—	167	5	16	17	4	5	154	0.9
Bournemouth	66,168	276	240	16.7	14.5	0.54	9	—	2	—	7	—	—	—	94	0.4
Southampton	114,897	754	494	26.3	17.2	3.90	112	—	93	6	4	7	1	1	113	—
Reading	77,674	525	351	27.1	18.1	2.42	47	—	41	—	3	1	—	2	179	3.7
Northampton	92,441	505	345	21.9	15.0	1.21	28	—	1	12	6	8	—	1	111	1.7
Ipswich	70,802	494	328	28.0	18.6	1.62	18	—	9	1	5	1	—	2	172	2.4
Great Yarmouth	52,353	369	219	28.3	16.8	0.31	4	—	—	—	—	1	2	1	117	—
Norwich	116,741	837	545	28.8	18.7	0.69	20	—	—	—	2	12	2	4	197	0.9
Plymouth	116,000	743	571	25.7	19.7	1.03	30	—	7	11	5	—	1	6	143	—
Devonport	70,864	548	313	28.6	16.3	1.04	20	—	4	4	2	5	2	3	120	—
Bristol	358,515	2,470	1,485	27.6	16.6	1.62	145	—	58	9	17	51	1	9	128	0.3
Hanley	64,667	585	388	36.3	24.1	3.41	55	—	2	0	5	38	—	4	185	1.3
Burton-on-Trent	52,424	370	195	28.3	14.9	1.00	13	—	8	—	4	1	—	—	105	1.5
Wolverhampton	99,456	751	382	30.3	15.4	0.92	23	—	1	3	6	4	—	9	121	0.3
Walsall	92,998	699	382	30.1	16.5	0.60	14	—	3	—	7	—	—	4	142	0.8
Handsworth	61,721	409	179	26.6	11.6	0.46	7	—	2	2	1	—	—	2	56	2.8
West Bromwich	67,823	582	314	34.4	18.6	2.01	34	—	18	2	1	—	5	8	137	0.6
Birmingham	542,959	4,291	2,291	31.7	16.9	1.08	146	—	42	5	25	39	9	26	135	4.8
Kings Norton	69,630	446	196	25.7	11.3	0.87	15	—	2	3	4	4	—	2	96	0.5
Smethwick	62,605	471	194	30.2	12.4	0.63	10	—	3	1	—	4	1	1	117	2.6
Aston Manor	81,320	519	285	25.6	14.1	0.60	12	—	5	2	—	4	1	—	119	2.5
Coventry	75,134	540	316	28.8	16.9	0.58	11	—	2	1	5	1	1	1	111	1.8
Leicester	228,132	1,502	787	26.4	13.8	1.27	72	—	44	7	2	10	2	7	142	1.5
Grimsby	68,153	488	283	28.7	16.7	2.19	37	—	4	—	9	22	1	1	125	2.8
Nottingham	251,671	1,735	1,404	27.7	22.4	4.45	279	—	189	5	30	45	4	6	177	0.8
Derby	122,207	822	512	27.0	16.8	1.19	36	—	8	3	10	7	2	0	162	—
Stockport	98,320	705	427	28.8	17.4	1.18	29	—	7	3	3	7	3	6	121	0.7
Birkenhead	116,035	966	423	33.4	14.6	0.93	27	—	3	8	13	—	1	2	85	0.5
Wallasey	62,460	551	210	29.0	13.5	0.57	9	—	1	3	2	2	—	1	71	0.5
Liverpool	730,143	6,201	3,721	34.1	20.4	1.55	282	—	89	50	58	16	24	39	123	3.5
Bootle	62,758	552	275	35.3	17.6	1.28	20	—	4	2	9	1	3	1	123	5.1
St. Helens	89,843	872	434	38.9	19.4	1.87	42	—	19	3	4	10	1	5	123	5.8
Wigan	86,581	866	420	37.3	19.5	2.31	50	—	30	2	2	6	5	5	125	0.2
Warrington	68,301	632	291	37.1	17.1	0.77	13	—	8	1	3	1	—	—	112	9.6
Bolton	178,111	1,185	741	26.7	16.2	1.62	72	—	45	1	8	4	13	1	130	0.4
Bury	58,594	336	250	23.0	17.1	0.76	11	1	1	1	—	1	4	3	122	1.6
Manchester	631,185	4,756	2,891	30.2	18.4	1.26	198	—	42	16	40	54	20	26	125	2.1
Salford	231,514	1,865	961	32.3	16.6	1.43	84	—	13	16	21	6	10	18	114	0.8
Oldham	140,225	852	623	24.4	17.8	1.37	48	3	9	9	4	12	4	7	119	—
Rochdale	86,390	488	396	22.7	18.4	1.03	22	—	—	6	14	—	1	1	90	2.0
Burnley	101,682	695	447	27.4	17.6	1.70	43	4	10	5	6	2	2	10	151	1.3
Blackburn	133,067	797	615	24.0	18.5	1.05	35	—	3	14	6	4	3	5	153	4.1
Preston	115,721	855	561	29.6	19.4	2.15	62	—	—	1	4	45	4	8	149	3.2
Barrow-in-Furness	60,306	480	268	31.9	17.8	1.06	16	—	—	1	2	11	—	2	154	4.5
Huddersfield	94,888	570	414	24.1	17.5	0.76	18	—	3	3	1	5	4	1	137	1.0
Halifax	108,419	526	464	19.5	17.2	0.09	27	—	—	2	9	14	—	2	143	1.9
Bradford	286,709	1,560	1,260	21.8	17.6	1.62	115	4	6	7	35	47	14	2	158	1.1
Leeds	456,787	3,255	1,789	28.6	15.7	0.77	88	3	9	14	21	19	16	6	122	0.2
Sheffield	440,414	3,434	1,951	31.3	17.8	1.74	191	—	82	27	15	4	17	9	133	2.9
Rotherham	59,794	516	226	34.6	15.2	1.20	18	—	—	3	3	10	—	2	101	1.8
York	82,362	599	333	29.2	16.2	0.88	18	—	7	6	2	1	1	1	100	—
Hull	258,127	2,067	1,188	32.1	18.5	1.63	105	3	9	4	21	51	6	8	130	0.9
Middlesbrough	98,369	903	608	36.8	24.8	3.22	79	—	32	3	16	7	8	13	186	0.7
Stockton-on-Tees	52,425	400	341	30.6	26.1	5.21	68	—	52	6	7	—	2	11	218	0.9
West Hartlepool	71,313	531	350	29.9	19.7	1.91	34	1	21	2	2	2	—	1	168	1.1
Sunderland	152,761	1,322	744	34.7	19.5	1.26	48	—	2	—	11	26	6	3	129	3.9
South Shields	109,360	905	499	33.2	18.3	2.17	59	3	16	4	3	26	7	—	154	4.4
Gateshead	120,620	957	472	31.8	15.7	1.03	31	1	13	2	7	6	—	2	136	4.4
Newcastle-on-Tyne	264,511	2,141	1,265	32.5	19.2	0.94	61	2	5	10	15	21	1	7	140	0.9
Tynemouth	53,595	435	279	32.6	20.9	1.63	22	1	5	—	2	12	1	1	143	0.4
Newport (Mon.)	72,880	595	327	32.7	18.0	0.50	16	—	7	1	4	—	1	3	134	—
Cardiff	180,054	1,291	688	28.8	15.3	1.55	70	—	44	2	7	10	2	5	119	0.1
Rhondda	124,988	1,228	684	39.4	21.9	1.90	59	—	19	3	4	19	9	5	230	1.3
Merthyr Tydfil	73,848	772	513	41.9	28.0	4.77	88	—	60	8	7	3	1	9	219	0.6
Swansea	96,384	855	491	35.6	20.4	0.91	22	—	—	3	10	3	1	5	157	0.4

Rochdale, to 36 3 in Hanley, 36.8 Middlesbrough, 37.1 in Warrington, 37.3 in Wigan, 38 9 in St. Helens, 39.4 in Rhondda, 41.9 in Merthyr Tydfil.

During the quarter under notice, 67,120 deaths were registered in these towns, corresponding to an annual rate of 17.2 per 1,000 living, against a rate of 18.7 per 1,000 in the first quarter of last year. In London the rate of mortality was 16 8 per 1,000; in the seventy five other large towns it averaged 17 4 per 1,000, and ranged from 9.2 in Hornsey, 10.7 in Walthamstow, 11.3 in Kings Norton, 11.6 in Handsworth (Staffs.), 11.7 in Leyton, 12.3 in East Ham, and 12 4 in Smethwick, to 21.2 in Portsmouth, 21 9 in Rhondda, 22.4 in Nottingham, 24 1 in Hanley, 24.8 in Middlesbrough, 26.1 in Stockton on-Tees, and 28 0 in Merthyr Tydfil.

The 67 1:0 deaths from all causes in the seventy-six towns last quarter included 5,425 which were referred to the principal infectious diseases; of these, 31 resulted from small-pox, 1,855 from measles, 509 from scarlet fever, 825 from diphtheria, 1,374 from whooping-cough 310 from "fever" (principally enteric), and 521 from diarrhoea. The death rate from these diseases, which had been 1.66 per 1,000 in the corresponding period of the preceding year, declined to 1 39 last quarter. In London this death-rate was equal to 1.09 per 1,000; while it averaged 1 52 in the seventy-five other large towns, among which the rates ranged from 0 25 in Brighton, 0.31 in Great Yarmouth, 0.46 in Handsworth (Staffs), 0 54 in Hornsey and in Bournemouth, 0 67 in Wallasey, and 0 58 in Coventry to 3.22 in Middlesbrough, 3.41 in Hanley, 3 90 in Southampton, 4.26 in Portsmouth, 4.45 in Nottingham, 4 77 in Merthyr Tydfil, and 5 21 in Stockton-on-Tees. The 31 fatal cases of small-pox registered last quarter included 5 which belonged to London 4 to Burnley, 4 to Bradford, 3 each to Oldham, Leeds, Hull, and South Shields, 2 to Newcastle-on-Tyne and 1 each to Bury, West Hartlepool, Gateshead, and Tynemouth. The 1,855 deaths from measles were equal to an annual rate of 0 48 per 1,000; in London the death-rate from this disease was 0 30 per 1.0:0, while it averaged 0.55 in the seventy five other large towns, and was highest in Portsmouth, Southampton, Reading, Nottingham, Stockton-on Tees, and Merthyr Tydfil. The 509 fatal cases of scarlet fever corresponded to an annual rate of 0.13 per 1,000; in London the scarlet fever death-rate was 0.11 per 1,000, while it averaged 0.14 in the seventy-five large provincial towns, among which this disease was proportionately most fatal in Northampton, Plymouth, Hanley, Blackburn, Stockton-on-Tees, and Merthyr Tydfil. The 825 deaths from diphtheria were equal to an annual rate of 0 21 per 1,000; in London the death-rate from this disease was 0.14 per 1,000, while it averaged 0 24 in the seventy-five other large towns, among which diphtheria was proportionally most fatal in East Ham, Grimsby, Bootle, Rochdale, Bradford, Middlesbrough, and Stockton-on-Tees. The 1,374 fatal cases of whooping-cough were equal to an annual rate of 0 35 per 1,000; in London the rate of mortality from whooping-cough was 0 37 per 1,000, while it averaged 0 34 in the seventy-five large provincial towns, among which the highest death-rates from this disease were recorded in Willesden, Hastings, Hanley, Grimsby, Preston, Hull, South Shields, and Tynemouth. The 310 deaths referred to different forms of "fever" were equal to an annual rate of 0 08 per 1,000; in London the "fever" death-rate was 0.04 per 1,000, while it averaged 0 10 per 1,000 in the seventy-five other large towns, and was highest in West Bromwich, Wigan, Bolton, Bury, Middlesbrough, South Shields, and Rhondda. The 521 fatal cases of diarrhoea corresponded to an annual rate of 0.13 per 1,000; in London the death-rate from this disease was also 0 13 per 1,000: while among the seventy-five large provincial towns diarrhoea was proportionally most fatal in Wolverhampton, West Bromwich, Salford, Burnley, Middlesbrough, and Merthyr Tydfil.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 127 per 1,000 last quarter, against 145 in the corresponding quarter of the preceding year. In London the rate of infant mortality was 116 per 1,000, while it averaged 132 in the seventy-five other large provincial towns, and ranged from 56 in Handsworth (Staffs.), 64 in Hornsey, 71 in Wallasey, 76 in Leyton, 80 in Walthamstow, and 85 in Birkenhead, to 185 in Hanley, 186 in Middlesbrough, 197 in Norwich, 218 in Stockton-on-Tees, 219 in Merthyr Tydfil, and 230 in Rhondda.

The causes of 851, or 1.3 per cent., of the deaths registered in the seventy-six towns last quarter were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Hornsey, Tottenham, West Ham, Southampton, Great Yarmouth, Plymouth, Devonport, Derby, Oldham, York, and Newport (Mon.); while the largest proportions of uncertified deaths were registered in Birmingham, Bootle, St. Helens, Warrington, Blackburn, Barrow-in-Furness, South Shields, and Gateshead.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon A. Cropley has been placed on the retired list, April 22nd. He was appointed Surgeon, February 16th, 1885 and became Fleet Surgeon, February 16th, 1901. He was Surgeon of the *Calliope* at Apia, Samoa, in 1889, when, according to the report of the officer in command, there occurred a "terrible hurricane which caused disaster unprecedented since the introduction of steam." The conduct of the officers and men on this occasion received the high approval of the Lords of the Admiralty.

The following appointments have been made at the Admiralty: Robert J. Bowie, Fleet Surgeon, to the *Goliath*, on recommissioning, May 2nd; George A. S. Bell, Staff Surgeon, to the *Victory*, additional, for the *Trafalgar*, April 25th, and on recommissioning, May 16th; Alfred T. Gaillerton, Surgeon, to the *Ganges*, additional, for dental duties, April 20th.

ROYAL ARMY MEDICAL CORPS.

Colonel H. R. Whitehead assumed charge of the office of Principal Medical Officer, Secunderabad and Belgaum Brigades, and also of the current duties of the office of Principal Medical Officer, 9th Secunderabad Division, on March 29th.

INDIAN MEDICAL SERVICE.

Surgeon-General G. W. R. Hay, M.D., Bombay Establishment, is permitted to retire from the service from December 27th, 1904. He was appointed Assistant Surgeon, April 1st, 1868, and became Surgeon-General, April 1st, 1900. He has no war record in the Army Lists.

Lieutenant J. H. Gill, M.B., Indian Medical Service, is transferred to the temporary half pay list, from March 27th. He joined the department as Lieutenant, July 26th, 1902.

Major W. B. Lane, Bengal Establishment, is appointed Inspector-General of Prisons, Central Provinces.

Major D. M. Moir, M.D., Bengal Establishment, is appointed Professor of Surgical and Descriptive Anatomy in Calcutta Medical College, in succession to Lieutenant-Colonel Charles.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage at which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, as far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

Research Scholarships.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. Guy Elliston, *General Secretary.*

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

Belgrave Hospital for Children, Clapham Road S.W.—Senior and Junior Resident Medical Officers. Honorarium at the rate of £20 and £10 a year respectively.

Canterbury: Kent and Canterbury Hospital.—(1) House Physician. Salary, £90 per annum. (2) Second Honorary Physician.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon. Salary £60 per annum.

DERBY COUNTY ASYLUM, Mickleover.—Junior Assistant Medical Officer. Salary, £120, rising to £150 per annum.

GLAMORGAN COUNTY ASYLUM, Bridgend.—Assistant Medical Officer. Salary, £170 per annum.

HASTINGS: FAIRLIGHT HALL CONVALESCENT HOME.—Visiting Physician, honorary.

HELLINGLY: EAST SUSSEX COUNTY ASYLUM.—Assistant Medical Officer and Pathologist. Salary, £175 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon, resident. Salary, £20 for six months and £2 10s. washing allowance.

HULL: ROYAL INFIRMARY.—House-Physician, resident. Salary, 100 guineas per annum.

KENT COUNTY ASYLUM, Chartham.—Third Assistant Medical Officer. Salary, £140 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Salary, £100 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, W.—Physician, honorary.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—(1) Resident Medical Officer of the Branch Hospital, Northwood. (2) Senior Resident Medical Officer. (3) Junior Resident Medical Officer. Honorariums, £80, £100, and £50 per annum respectively.

NEWCASTLE-UPON-TYNE DISPENSARY.—Resident Medical Officer. Salary, £250 for first year.

NEWCASTLE-UPON-TYNE, UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Demonstrator of Bacteriology.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Pathologist and Bacteriologist. Salary, £75 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Physician. Salary, £100 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W. Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

ROYAL EAR HOSPITAL, Dean Street, W.—Ophthalmic Surgeon.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Surgery.

THROAT HOSPITAL, Golden Square, W.—Senior Clinical Assistants.

APPOINTMENTS.

AMBROSE, J. M., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Ardagh District, Limerick.

ASHTON, George, M.D. Manchester, M.R.C.S. Eng., L.R.C.P. Lond., reappointed Assistant Surgical Officer to the Manchester Royal Infirmary.

BARFORD, A. M., M.D., D.P.H., L.R.C.P., M.R.C.S., Physician to the Chichester General Infirmary.

CHATTERTON, Edgar, M.R.C.S. Eng., L.R.C.P. Lond., Pathologist to the Western Ophthalmic Hospital, Marylebone Road, W.

ELDER, Douglas, M.B., C.M. Liverpool, Assistant Medical Officer to the Crossley Sanatorium, Delamere Forest, Cheshire.

HARNETT, Charles John, M.D. Lond., M.R.C.S. Eng., L.R.C.P. Lond., Honorary Visiting Surgeon to the Royal Sea-Bathing Hospital, Margate.

HEWKLEY, Frank, M.B., Physician to the St. Luke's Medical Mission, vice R. Hingston Fox, M.D., M.R.C.P. Lond., resigned.

HEYWOOD, Charles Christopher, M.A., M.B. Cantab., M.R.C.P., Honorary Assistant Physician for Children at the Manchester Northern Hospital.

JONES, O. Wynn, M.R.C.S., L.R.C.P., Assistant Medical Officer in the Derby Borough Asylum.

MCCARTHY, W., M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the Abbeyfeale District, Limerick.

SEXTON, Miss I. G., M.B. Lond., Junior Assistant Medical Superintendent of the St. Pancras Infirmary and Workhouse.

SMYTH, T. Duncan, M.B., M.Ch., R.U.I., Medical Officer for the No. 7 District of the Lambeth Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BURNETT.—On March 31st, at Karwar, Kanara, India, the wife of Major S. H. Burnett, I.M.S., of a son.

BURTON.—On April 20th, at Granville House, Longton, Staffs, the wife of Leonard Lamming Burton, M.D. Brux., F.R.C.S. Edin., two sons.

MARRIAGE.

REYNOLDS—BROOM.—On April 26th, at the Parish Church, Ottery St. Mary, Devon, by the Rev. W. E. Pryke, Vicar, and the Rev. F. Parham, Vicar of Chardstock, Francis Mortimer Reynolds, M.B., C.M., son of Herbert John Reynolds, C.S.I., J.P., to Annie, daughter of the late John Broom, C.C., and of Mrs. J. Broom, Stafford House, Ottery St. Mary.

DEATHS.

SIBBALD.—At 18, Great King Street, Edinburgh, on April 20th, Sir John Sibbald, M.D., F.R.C.P.E., late Commissioner in Lunacy for Scotland, aged 72. Friends will kindly accept this, the only, intimation.

WARNER.—On April 17th, at 11, Broadway Road, Bristol, of pericarditis, Edward Henry Warner, M.D. Edin., of 26, Lawrence Hill, Bristol, aged 48.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, meeting at the Middlesex Hospital at 5 p.m. Communications: Dr. Bonney: Nuclear Division in Nerve Formations. Dr. A. G. R. Foulerton: Squamous-Celled Carcinoma Associated with Exposure to *x* Rays; New Species of Streptothrix Isolated from the Air; Further Contribution to the Pathology of Streptothrix Infections. Dr. W. S. Lazarus-Barlow: Self Regulating Warm Stage; Mr. C. R. Lyster: Electrical Warm Stage.

WEDNESDAY.

HUNTERIAN SOCIETY, Great Eastern Hotel, Liverpool Street, 6.30 p.m.—Delivery of the Annual Oration by Dr. Rowland Humphreys. Subject: Excretion, with Special Reference to Vicarious Excretion in Bright's Disease.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., at 8 p.m. Short communication: Dr. C. E. Purslow: Repeated Tubal Pregnancy; Abdominal Section on each Occasion. Specimens: Dr. Victor Bonney: (1) Rupture of an Ovarian Cyst which had undergone Axial Rotation; (2) Uterus Removed for Semi-malignant Overgrowth of the Endometrium. Mr. Foulerton and others. Paper: Dr. Boxall: Mortality in Childbed, both in Hospital and General Practice.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, 4 p.m.—Papers: Dr. J. W. Hunt: Personal Errors in Diagnosis and Treatment. Dr. F. Trevelyan: Certain Points in Diagnosis.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: Dr. Leslie Buchanan: (*a*) Choroiditis; (*b*) Results of Birth Injury to the Cornea. Dr. Arthur J. Ballantyne: Anterior Synechia of the Papillary Membrane. Mr. S. Johnson Taylor: Notes on a Case of Pulsating Exophthalmos Cured by Ligature of the Common Carotid. Card specimens will be on view at 8 p.m.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Medical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows:—Monday, Tuberculous Diseases of Joints, their Diagnosis and Treatment; Tuesday, Some Clinical Aspects of Nephritis; Wednesday, Cystoscopy and Urethroscopy; Thursday, Diseases and Dislocations of the Hip-joint.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following are the arrangements for next week:—Monday, 2.30 p.m., Surface Anatomy; 4 p.m., Practical Ophthalmology. Tuesday, 11 a.m., Bacteriology. Wednesday, 3 p.m., Intestinal Anastomoses. Thursday, 11 a.m., Bacteriology; 3.15 p.m., Intestinal Anastomoses; 4.30 p.m., Surface Anatomy. Friday, 2 p.m., Blood and Urine Examination; 5 p.m., Intestinal Anastomoses. Saturday, 10.30 a.m., Bacteriology.

BOOKS, ETC., RECEIVED.

A Pictorial and Descriptive Guide to London and its Environs. 26th Edition. London: Ward, Lock and Co., Limited. 1905. 1s.

Traité d'Hygiène et de Pathologie du Nourrisson et des Enfants du Premier Age. Publié sous la direction du Dr. Henri de Rothschild. Tomes i, ii, and iii. Préface de M. Paul Strauss. Paris: Octave Doin. 1904. Fr. 15 per volume.

U. S. Department of Agriculture, Bureau of Animal Industry. D. E. Salmon, D.V.M., Chief of Bureau. Special Report on Diseases of Cattle. By Drs. Pearson, Murray, Atkinson, Lowe, Harbaugh, Law, Dickson, Mohler, Trumbower, Salmon, Smith, and Stiles. Revised Edition. Washington: Government Printing Office. 1904.

Sinnesorgane. Erste Abteilung: Geruchsorgan (Organon olfactus) und Geschmacksorgan. Von Professor Dr. E. Kallius. Handbuch der Anatomie des Menschen. Herausgegeben von Professor Dr. Karl von Bardeleben. Fünfter Band. Erste Abteilung, Zweiter Teil. Jena: Gustav Fischer. 1905. Subskr. M. 5.40, Einzelpreis M. 6.40.

The Diagnosis and Treatment of Some of the Common Diseases of the Rectum and Anus. By Cecil H. Leaf, M.A., M.B. Cantab., F.R.C.S. Eng. London: E. H. Blakeley. 1905. 3s. 6d.

The Shilling Library of Psychical Literature and Enquiry. III. Automatic Speaking and Writing. A Study. By Edward T. Bennett. London and Edinburgh: Brimley Johnson and Ince, Limited. 1905. 1s.

The Simplest Cure; Suggestions for a Rational View of the Prevention and Treatment of Disease. By F. Marsden Burnett, M.D. Lond., D.P.H. Cantab. London: Lawrence and Bullen, Limited. 1905. 2s.

The Historical Relations of Medicine and Surgery to the End of the Sixteenth Century. An address delivered at the St. Louis Congress in 1904. By T. Clifford Allbutt, M.A., M.D., F.R.S., etc. London: Macmillan and Co. 1905. 2s. 6d.

Lo Sgombero degli ammalati e dei Feriti in Guerra. Memoria dei dottori Luigi Bernardo, e Giuseppe Brezzi. Onorata dal 1° premio nel Concorso Riberi del 1902-1903. Roma: R. Esercito. 1905. L. 3.50

The Origin and Nature of Man. By S. B. G. McKinney, M.A., L.R.C.P. Edin. Part V. The Bible. Edinburgh and London: Oliphant, Anderson and Ferrier. 1905. 6d.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
May	1...Monday ...	
,,	2...Tuesday ...	
,,	3...Wednesday	Bournemouth Division, *Dorset and West Hants Branch*, Annual Meeting, Medical Societies' Rooms, Bournemouth, 7.45 p.m.
	4...Thursday...	Canterbury and Faversham Divisions, *South-Eastern Branch*, Canterbury Hospital, 3 p.m.
,,	5...Friday ...	London: Special Chloroform Committee, 5.30 p.m.
,,	6...Saturday...	
,,	7...Sunday..	
,,	8...Monday ...	
,,	9...Tuesday ...	London: Organization Committee.
,,	10...Wednesday	
,,	11...Thursday...	London: Hospitals Committee. Norwood Division *South-Eastern Branch*, St. John's Hospital, Morden Hill, Lewisham, 4 p.m. Staffordshire Branch, Victoria Hotel, Wolverhampton, 3 p.m.
,,	12...Friday ...	
,,	13...Saturday...	
,,	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	London: Medico-Political Committee, 3 p.m.
,,	17...Wednesday	London: Central Council, 10 a.m. Dorset and West Hants Branch, Blandford.
,,	18...Thursday..	Croydon Division, *South-Eastern Branch*, Croydon General Hospital, 4 p.m.
,,	19...Friday ...	Reigate Division, *South Eastern Branch*, Laker's Hotel, Redhill, 6 p.m.
,,	20...Saturday...	
,,	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences.
,,	24...Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South Eastern of Ireland Branch, Annual Meeting, Kilkenny.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, Crichton's, Clapham Junction, 9.30 p.m., preceded by Annual Dinner, 7 p.m.
,,	26...Friday ...	North Cumberland Division, *Border Counties Branch*, County Hotel, Carlisle, 3.30 p.m.
,,	27...Saturday...	
,,	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date.
June	1...Thursday...	
,,	2...Friday ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...Saturday...	
June	4...Sunday..	
,,	5...Monday ...	
,,	6...Tuesday ...	
,,	7...Wednesday.	London: Medico-Political Committee.
,,	8...Thursday...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9...Friday ...	
,,	10...Saturday...	
,	...Sunday..	
,,	12...Monday ...	*Bank Holiday.*
,,	13...Tuesday ...	
,,	14...Wednesday	
,,	15...Thursday...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester.
,,	16...Friday ...	London: Ethical Committee.
,,	17...Saturday...	
,,	18...Sunday..	
,,	19...Monday ...	Election of Representatives: July 3rd.
,,	20...Tuesday ...	
,,	21...Wednesday	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m.
,,	22...Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m.
,,	23...Friday ...	
,,	24...Saturday...	
,,	25...Sunday..	
,,	26...Monday ...	
,,	27...Tuesday ...	Matters for consideration by Organization Committee on July 11th should be notified to Medical Secretary on or before this day.
,,	28...Wednesday	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m.
,,	29...Thursday...	East Anglian Branch. Annual Meeting, Norwich.
,,	30...Friday ...	Association Research Scholarships expire.
July	1...Saturday...	Research Scholarships date from now.
,,	2...Sunday..	
,,	3...Monday ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...Tuesday ...	
,,	5...Wednesday	
,,	6...Thursday...	
,,	7...Friday ...	
,,	8...Saturday...	
,,	9...Sunday..	
,,	10...Monday ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Last day for Branch Secretaries to send General Secretary returns of election of Members of Council.
	11...Tuesday ...	London: Organization Committee.
,,	12...Wednesday	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 6TH, 1905.

CONTENTS.

	Page
PROCEEDINGS OF COUNCIL	177
PROCEEDINGS OF STANDING COMMITTEES:	
ETHICAL COMMITTEE.—Apologies for Absence.—Exclusion from a Local Medical Society.—Report of Cases Dealt With.—Publication of Names in Trade Advertisements, Etc.—Division and Branch Rules.—Organization of the Association for Dealing with Ethical Matters.—Alleged Canvassing in Connexion with Dispensaries.—Inquiry as to a Hospital.—"Specially Skilled Pathologists."—Warning Notices in the JOURNAL.—Alleged "Covering."—Students and Medical Ethics	179
APPENDIX.—Memorandum on the Present Ethical Organization of the Association	181
MEDICAL DEFENCE COMMITTEE	183
ORGANIZATION COMMITTEE.—Letters of Apology.—Meetings Attended by the Medical Secretary.—Division Rules.—Changes of Boundaries.—Constituencies for Representative Meetings for 1905-6.—Grouping of Branches for Election of Members of Council for 1905-6.—Principle Adopted in Grouping Colonial Branches.—Qualification for Members of Council Elected by Colonial Branches.—Proposed Reduction of Limit of Membership of Divisions for Independent Representation in Representative Meetings.—Division and Branch Finance.—Circulation of Reprinted Addresses to Non-Members.—Suggested Payment by Divisions of Election Expenses of Candidates for the Central Council.—Alteration of Article XXXVIII	183
MEETINGS OF BRANCHES AND DIVISIONS:	
Glasgow and West of Scotland Branch: Eastern Division ...	186
North Lancashire and South Westmorland Branch: Furness Division	186
Lancashire and Cheshire Branch: Liverpool Western Division ...	187
NOTICE OF CHANGE OF BOUNDARIES	187
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER	187
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	187
CENTRAL MIDWIVES BOARD	189
NAVAL AND MILITARY APPOINTMENTS	190
VITAL STATISTICS...	190
BIRTHS, MARRIAGES, AND DEATHS	191
VACANCIES AND APPOINTMENTS	191
DIARY OF THE WEEK	191
CALENDAR	192

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, April 19th, 1905.

Present:

Mr. ANDREW CLARK, D.Sc., Chairman of Council, in the Chair.
Dr. WILLIAM COLLIER, President.
Mr. G. C. FRANKLIN, F.R.C.S., President-elect.
Dr. T. DRUSLYN GRIFFITHS, D.Sc., Past-President.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meetings.
Dr. E. MARKHAM SKERRITT, Treasurer.

Dr. JOHN FORD ANDERSON, London.
Dr. JAMES BARR, Liverpool.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. H. LANGLEY BROWNE, West Bromwich.
Dr. R. COCHRANE BUIST, Dundee.
Dr. DUNCAN BURGESS, Sheffield.
Dr. W. A. CARLINE, Lincoln.
Dr. JAMES CRAIG, Dublin.
Mr. PEARSON R. CRESSWELL, C.B., Dowlais.
Dr. H. RADCLIFFE CROCKER, London.
Dr. W. G. CROWE, Worcester.
Lieut.-Colonel E. F. DRAKE-BROCKMAN, I.M.S. (ret.) (South Indian and Madras Branch), London.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Mr. C. E. S. FLEMMING, Bradford-on-Avon.
Dr. E. ROWLAND FOTHERGILL, London.
Dr. EDWARD LAWRENCE FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. JOSEPH J. GIUSANI, Cork.
Dr. BRUCE GOFF, Bothwell.
Dr. DAVID GOYDER, Bradford.
Dr. MAJOR GREENWOOD, London.
Dr. JOSEPH GROVES, Carisbrooke.
Dr. JAMES HAMILTON, Glasgow.
Dr. T. ARTHUR HELME, Manchester.
Dr. J. H. HUNTER, South Shields.
Dr. R. MCKENZIE JOHNSTON, Edinburgh.
Mr. R. H. KINSEY, Bedford.
Dr. C. W. MARRIOTT, Reading.
Dr. C. H. MILBURN, Hull.
Dr. C. G. D. MORIER (South Australia Branch), London.
Mr. W. JONES MORRIS, Portmadoc.
Professor J. T. J. MORRISON, Birmingham.
Dr. CHARLES JAMES MORTON, London.
Dr. JAMES MURRAY, Inverness.
Mr. D. A. O'SULLIVAN, London.
Mr. EDMUND OWEN, London.
Mr. C. H. WATTS PARKINSON, Wimborne Minster.
Dr. FRANK M. POPE, Leicester.
Dr. EDWIN RAYNER, Stockport.
Dr. J. MAXWELL ROSS, Dumfries.
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham.
Dr. CECIL E. SHAW, Belfast.
Professor W. R. SMITH, M.D. (Malta and Mediterranean Branch), London.
Dr. F. O. STEDMAN (Hong Kong Branch), Torquay.
Fleet-Surg. J. LLOYD THOMAS, R.N., Portsmouth.
Mr. JOHN LYNN THOMAS, C.B., Cardiff.
Dr. G. E. TWYNAM (Sydney and New South Wales Branch), London.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.
Major C. E. WILLIAMS, I.M.S. (Burmah Branch), London.

The minutes of the last meeting having been printed and circulated, and no objections received, were taken as read and signed as correct.

Read letters of apology from Sir Francis Lovell, Dr. E. G. Barnes, Dr. Brassey Brierley, Professor Byers, Dr. E. J. Cave, Dr. Maury Deas, Dr. G. Bagot Ferguson, and Mr. W. D. Spanton.

A letter of acknowledgement to the resolution of condolence passed by the Council upon the death of Dr. Ogilvie Grant was read and ordered to be entered on the minutes.

It was decided that in future the Council should meet at ten o'clock.

The President-elect announced that at the Church service at Leicester the sermon would be preached by the Right Rev. Dr. Gore, Bishop of Birmingham.

Attention having been called to an anonymous circular which had been circulated to the Divisions, the following resolution was passed and ordered to be sent to the Secretaries of Divisions:

> That the Council having been informed that an anonymous circular has been issued impugning the construction of the Council as well as the motives of its members, do express their regret that any one professing friendship for the Association should have adopted such a course of action in preference to a more straightforward one.

The election of candidates was then considered, when 39 of the candidates whose names appeared on the circular convening the meeting were duly elected members of the Association.

The financial statement for the year ending December 31st, 1904, as certified by the auditors, was approved and ordered to be circulated, together with the estimate of receipts and expenditure for the current year, to the Secretaries of Branches and Divisions and published in the JOURNAL, in accordance with By-law 34. This statement will appear in a future issue of the SUPPLEMENT.

The reply from the Prime Minister to the Memorial of the Association as to the best means of counteracting the evil of venereal disease was read and ordered to be entered on the Minutes together with a copy of the Memorial.

10, Downing Street, Whitehall, S.W.,
February 27th, 1905.

Dear Sir,—Mr. Balfour desires me to acknowledge the receipt of the Memorial which you have forwarded on behalf of the Council of the British Medical Association, urging the Government to carry into effect

Recommendation 50 of the Report of the Inter-Departmental Committee on Physical Deterioration.

In reply, he desires me to say that he notes the views which the memorialists have expressed upon the subject, and they will receive careful consideration.

I remain, yours faithfully,
WILFRID M. SHORT.

Guy Elliston, Esq.

MEMORIAL
TO THE
RIGHT HONOURABLE ARTHUR JAMES BALFOUR, P.C., M.P.,
Prime Minister.

THE MEMORIAL of the British Medical Association

SHEWETH that on May 11th, 1899, the British Medical Association, a body now numbering over 19,000 of the medical practitioners of the British Empire, urged upon the Government of Her late Majesty Queen Victoria the great need that existed for an inquiry into the prevalence and the treatment of venereal disease among the civil population of this country, a disease which not only undermines the constitution of those who contract it in the first instance, but by reason of the many ways in which it may be transmitted, destroys the health and happiness of countless other persons, and induces in the children of those originally infected diseases of a most formidable character.

In the Report of the Inter-Departmental Committee on Physical Deterioration which recently sat and took evidence on the question of the prevalence and spread of venereal disease, the evidence adduced by the expert witnesses emphasized the grave importance of inquiry, when Recommendation 50 was passed as follows:

> The Committee recommend the appointment of a Commission of Inquiry into the prevalence and effects of syphilis, having special regard to the possibility of making the disease notifiable and to the adequacy of hospital accommodation for its treatment.

The British Medical Association would therefore respectfully urge upon His Majesty's Government the necessity of granting this inquiry as suggested by the Inter-Departmental Committee of the Government, and as prayed for by the British Medical Association in 1899.

And your memorialists will ever pray.

ANDREW CLARK, F.R.C.S.,
Chairman of Council,
British Medical Association.

Mr. W. E. Hempson was unanimously reappointed Solicitor to the Association for the ensuing twelve months.

On consideration of the minutes of the Journal and Finance Committee it was decided to make a grant of £200 towards the establishment of a Research Scholarship in Tropical Medicine, provided that the Government will contribute at least an equal amount from the Imperial exchequer.

The accounts for the quarter ending March 31st last, to the total of £10,611 2s., were approved, and the Treasurer empowered to pay those remaining outstanding, amounting to £3,380 11s. 11d.

The Council decided to recommend the members at the annual general meeting to vote a sum of £300 to the office staff superannuation scheme.

On consideration of the proposed alteration in the Memorandum of Association, it was resolved to take a further opinion and to consult Mr. Beaufort Palmer.

The minutes of the Premises and Library Committee were approved, and the recommendation to paint the Strand property was ordered to be carried out.

The accounts for the quarter were received and the Treasurer empowered to pay them.

The minutes of the Hospitals Committee of March 2nd and 30th, 1905, were then considered, and the following resolutions approved:

> That Dr. Kingston Fowler, Dr. Lauriston E. Shaw, Dr. Norman Walker, and Mr. R. H. Wolstenholme be added to the Committee.
>
> That, except in emergencies, sufficient evidence shall be obtained on two points: (*a*) That the patient is not in a position to pay for adequate treatment; (*b*) that the case is, from a hospital point of view, suitable for treatment.
>
> That all cases of trivial accident or illness deemed ineligible for the casualty department shall, after having been seen, be referred for treatment elsewhere.
>
> That, on the first visit, no patient be permitted to leave a hospital without having been seen by a registered medical practitioner.

On consideration of the minutes of the Committee of Chairmen on the alteration of the Memorandum of Association, it was decided to take a further legal opinion before reporting to the Representative Meeting that the alterations proposed on the lines laid down in the Birmingham resolutions would not give the Association the power to undertake individual medical defence.

The Council approved certain alterations to the Standing Orders, and decided to give notice to amend Articles XXVII, XXXVI, XXXVII XXXVIII, XLI, XLIV, and By-laws 22, 27, 28, and 42, notice of which was published in the SUPPLEMENT of April 22nd, p. 153. The proposal to amend Article XLV was referred back, and the proposal to amend By-law 40 relating to Standing Committees was not approved.

It was decided to publish annually in the SUPPLEMENT a return showing for each member of the Central Council his possible and actual attendances at Council, Committee, and Subcommittee meetings not later than the last week in April. This return appeared on pp. 165-9 in the SUPPLEMENT of April 29th.

It was resolved that no report of a Committee be discussed by the Council unless it has been three days in the hands of the members, except by the special permission of the Council.

The minutes of the Royal Naval and Military Committee were received and approved.

On consideration of the minutes of the Organization Committee of April 11th it was resolved that the Rules submitted by the Altrincham, North Manchester, and South Suffolk Divisions be approved.

It was decided to adopt the resolutions with respect to the formation of constituencies for election of Representatives in Representative Meetings for the year 1905-6, and as to the election of members of Council for the year 1905-6 by Branches in the United Kingdom, and by Branches not in the United Kingdom.

The Council approved the expression of opinion that it is desirable that Branches not in the United Kingdom should frame, under By-law 27, Rules providing that qualifications for representation on the Central Council shall include personal knowledge of the requirements of such Branches.

It was decided that the Organisation Committee should investigate and report on the working of the present system of Division and Branch income and expenditure.

With reference to the minute of the Council of February 15th, that the Chairman of Council and Chairman of Representative Meetings be empowered, if they consider necessary, to take any steps, including the engagement of legal assistance, to oppose the application of "The Incorporated Society for the Promotion of Higher Education and Training of Nurses" to the Board of Trade, it was reported that in pursuance of the instruction of the Council application had been made to the Board of Trade for permission to oppose the proposition, and the following reply had been received:

(635) Board of Trade,
April 10th, 1905.

Sir,

The Incorporated Society for Promoting the Higher Education and Training of Nurses.

I am directed by the Board of Trade to refer to your letter of the 22nd ultimo, in which you expressed a wish on behalf of the British Medical Association to be heard in opposition to the granting of a licence to the above named Society to incorporate without the word "Limited" after its name, and to inform you that the hearing of objections will take place on Friday, May 5th, at 11.30, in the Deputation Room of the Board, at 7, Whitehall Gardens, S.W.

I am also to say that the Board desire to hear the objectors personally, and not solicitors or counsel on their behalf.

I am, Sir, your obedient servant,
(Signed) G. S. BARNES.

J. Smith Whitaker, Esq., Medical Secretary,
British Medical Association,
429, Strand, W.C.

The Board of Trade have been informed that the Chairman of the Representative Meetings, the Chairman of Council, Dr. Langley Browne, and Dr. Galton will attend at the time and place stated for the purpose of laying before the Board the objections of the Association to the registration under the Companies Act of the Society in question.

The minutes of the Medical Defence Committee were received, and the action of the Committee in circulating to the Divisions the Explanatory Memorandum and Draft Scheme was approved. The Memorandum and Draft Scheme was published in the SUPPLEMENT, April 1st, p. 129.

The minutes of the Ethical Committee were then considered, and the adoption of Rule Z by the Cardiff and Isle of Wight Divisions was approved. Also the following Rule submitted by the Blyth Division:

> No member of this Division shall enter into an agreement with any person or persons, other than members of the medical profession, which shall contain restrictions on the right of such member to practise in the Division after the termination of any appointment held or to be held by such member.

The Council approved a modified form of Rule Z as suitable for adoption by Branches.

It was decided to advise Branches to make definite pro-

vision in their rules for appeals from their decisions to the Central Ethical Committee and Council, and that the term "Central Ethical Committee" be inserted in the regulations of the Association as an alternative designation of the Ethical Committee of the Association.

It was resolved that in the special circumstances of a case referred to in the Minutes of the Committee, the resignation of the member in question be accepted.

It was resolved to insert warning notices in the advertisement columns of the JOURNAL with respect to appointments under the Poor-law and sanitary authorities, and with respect to hospital appointments, under the same regulations as have been prescribed by the Council concerning contract practice appointments.

With regard to the recommendation that the Council should memorialize the medical schools of the United Kingdom on the necessity for having addresses given to students once a year on medical ethics, it was resolved that the terms of the proposed memorial be first submitted to the Council at its meeting in July next.

It was resolved that the Council disapproves of the action of specially-skilled pathologists who have agreed to make *post-mortem* examinations, and to give evidence at special inquest cases, for the ordinary fee of two guineas.

On the recommendation of the Medico-Political Committee the Council decided to take steps to have trachoma scheduled as a loathsome and contagious disease in the Aliens Bill.

Also, with reference to a Congress on School Hygiene which it was proposed to hold in 1907, and which it was thought desirable that the British Medical Association should co-operate in organizing, it was decided that the Council should take steps so that the British Medical Association should be represented on any Committee formed for the organization of the proposed Congress.

At half-past six the Council rose, to meet again on Wednesday, May 17th, at 10 o'clock in the forenoon.

Proceedings of Standing Committees.

ETHICAL COMMITTEE.

A MEETING of the Ethical Committee was held at the office of the Association on April 7th, when there were present: Professor SAUNDBY, Chairman, in the chair, Mr. Andrew Clark, Chairman of Council, Mr. H. A. Ballance, Dr. A. G. Bateman, Mr. G. H. Broadbent, Dr. W. A. Elliston, Dr. Bruce Goff, Dr. E. Jepson, Mr. D. A. O'Sullivan.

APOLOGIES FOR ABSENCE.

Letters of apology for non-attendance were read from the President of the Association, Dr. Ferguson, and Mr. Spanton.

EXCLUSION FROM A LOCAL MEDICAL SOCIETY.

The Committee had before it a correspondence which the Editor had forwarded for their consideration, between himself and a medical practitioner who complained of his exclusion from a local medical society because he refused to subscribe to a regulation as to rates and contract practice which in his view was not duly observed by members of the society, and was also, he considered, objectionable in principle. The Editor had replied that in his opinion the member in question should have joined the local medical society and then made such representations as he thought proper as to the advisability of certain rules or the allegation that they were not properly observed. The Committee concurred in the views expressed by the Editor.

REPORT OF CASES DEALT WITH.

The Committee also approved the replies which had been given in the following cases dealt with by the Chairman and Secretary since the last meeting:

Ethical Rules of Divisions with Respect to Appointments, etc.

The Honorary Secretary of a Division—who stated that some of the Executive Committee of the Division, on consideration of various proposals from the Medico-Political Committee relating to contract practice, etc., failed to see that there was any agreement which bound members of Divisions to act in accordance with any resolutions which might be adopted in reference to such matters—was advised that if Rules similar to the Bradford Ethical Rules (of which a copy was forwarded) were adopted, it would be possible to pass resolutions in reference to contract practice and other matters which would be binding upon members of the Division.

A Circular Intimating Partnership.

A member was advised that a circular intimating that he had taken a partner ought only to be sent to patients who had been on the books of the applicant within the previous two years, and who were not known to have placed themselves under the regular care of any other practitioner; also that it was permissible in such a circular to refer to the actual previous experience of the incoming partner in any speciality in which he might desire to practise.

Prizes to Members of Clubs for Canvassing.

A medical officer of a club who inquired as to the propriety of presenting a prize to the members of the club who brought in the most new members, he and his partner and assistant being the only medical practitioners in the district, was advised that the offer of such a prize was undesirable in any case, as being liable to operate in effect as canvassing even in the special circumstances stated.

An Exhibition of Medico-Electrical Appliances.

To a medical practitioner who sought advice as to the propriety of taking charge and giving a short demonstration daily (for which he would be paid) at a department of "medical electricity" in an electrical exhibition shortly to be held in the town in which he practised, and stating that his name would not be published in the advertisement, the following reply had been sent:

BRITISH MEDICAL ASSOCIATION.
Medical Secretary's Office,
429, Strand, W.C.

Dear Sir,—Having consulted the Chairman of the Ethical Committee, I am authorized to state that for a medical man to take charge of a so-called department of medical electricity, and to give a short demonstration daily in an exhibition open to the public, is a course which would probably provoke much unfavourable comment, and would in his opinion be distinctly open to objection.

I am to suggest for your consideration that in point of fact electrical apparatus used in the treatment of disease can only be considered specially medical in respect of its application, the mere working of the apparatus can be shown by any competent electrician, and the only matter for which medical knowledge might be necessary would be in the demonstration of its actual use in the treatment of disease, which is not desirable in a public exhibition.

I am,
Yours faithfully,
(Signed) J. SMITH WHITAKER,
Medical Secretary.

The Committee ordered that the reply be entered on the minutes.

Division and Branch Rules.

The CHAIRMAN reported that he had submitted to the Council the following Rules received subsequent to the last meeting of the Committee, and his action was approved: South-Western Branch (Rules of Procedure), Southampton Division (Bradford Rules), Tyneside Division (Rule Z), Monmouth Division (Rule Z).

PUBLICATION OF NAMES IN TRADE ADVERTISEMENTS, ETC.

The report of the Medical Secretary was received and approved with reference to cases of publication of the names of medical men in trade advertisements, and cases of newspaper notices of medical practitioners, in which action had been taken under the standing instructions of the Committee since the last meeting.

The following cases among others received special consideration:

Cases in India.

A complaint from the Punjab as to an advertisement of a medical hall, in which case the complainant had been informed of the difficulty which the Committee experienced in dealing with cases of the kind from India and

the Colonies owing to the differences of local standards, and it had been recommended that these cases should be brought before the local Branches of the Association; also a complaint of advertising by a medical practitioner in Bengal, in reference to which the Medical Secretary drew attention to the fact that there was at present no organized Branch in Bengal, and it was resolved that in cases in which there is no Branch the attention of the medical man concerned in the advertisement be drawn to the objections thereto.

Announcement of Commencing Practice.

A medical practitioner who had been informed that the attention of the Committee had been drawn to a notice in a newspaper intimating that he was commencing practice in a district, had replied that until receiving this communication he was not aware that objection was taken to such notices, and expressed his regret that through ignorance he had unintentionally transgressed a rule of the profession.

Assistance in an Investigation by a Division.

The Medical Secretary's report was approved of a visit to the Isle of Wight to assist the Division in the investigation of an ethical case.

DIVISION AND BRANCH RULES.

The Committee recommended the Council to approve the adoption of certain model Rules by the Cardiff and Isle of Wight Divisions, and the following Rule submitted by the Blyth Division:

No Member of this Division shall enter into an agreement with any person or persons other than members of the medical profession, which shall contain restrictions on the right of such member to practise in the Division after the termination of any appointment held or to be held by such Member.

With reference to other Rules which had been submitted by the Blyth Division the Committee approved the advice already given to the Division, that such matters were more suitably provided for by resolution than by Rule, and that by adopting Rules similar to the Bradford Ethical Rules they would be enabled to make such resolutions binding upon their members.

ORGANIZATION OF THE ASSOCIATION FOR DEALING WITH ETHICAL MATTERS.

The Committee received the report of the Subcommittee appointed to consider the present organization of the Association for dealing with ethical matters, and the changes required therein. A memorandum prepared by the Medical Secretary for the Subcommittee was approved and ordered to be entered on the minutes of the Committee (see page 181).

Branch Form of Rule Z.

On the advice of the Subcommittee the Council was recommended to approve the following modified form of Rule Z as suitable for adoption by Branches:

MODEL RULE FOR BRANCHES *RE* CIRCULATION OF NOTICES IN CERTAIN CASES.

Rule Z.—In every case in which the Branch Council shall, after due inquiry in accordance with the Rules of the Branch, have passed a resolution declaring that in the opinion of the Branch Council the conduct of any medical practitioner or practitioners, whether by contravention of the Rules of the Branch, or otherwise, is detrimental to the honour and interest of the medical profession, it shall be the duty of the Ethical Committee of the Branch to submit a report of the whole facts of each particular case to the Central Ethical Committee, and, subject to the approval of the said Committee, or, if the opinion of the said Committee be adverse, subject to the approval of a three-fourths majority of those present and voting in a Special Meeting of the Branch Council, convened to consider the comments of the Central Ethical Committee, to cause such resolution to be brought directly to the knowledge of every member of the Branch, by means of a notice in the following form, which notice it shall be the duty of the Honorary Secretary of the Branch to authenticate by his signature.

BRITISH MEDICAL ASSOCIATION.

_____ *Branch.*

(PRIVATE AND CONFIDENTIAL.)

NOTICE.

In pursuance of Rule Z of the Branch, Notice is hereby given by the Ethical Committee of the said Branch that at a meeting of the Branch Council, held at , on the of , a resolution in the following terms was duly passed:—

"*That in the opinion of this Branch Council the conduct of Dr. of is (in contravention of the Rules of the Branch, and)* detrimental to the honour and interests of the Medical Profession, within the meaning of the Rule(s).....*"

Signed by order of the Ethical Committee of the Branch of the British Medical Association,

Honorary Secretary.

* Delete words in ( ) if not required.

Model Ethical Rules of Divisions and Branches.

It was decided that Rules 1 and 3 of the model Rules of ethical procedure of Divisions be reconsidered, and that an amended draft be submitted to the Committee at its next meeting; also that it be recommended to the Council that Branches be advised to make definite provision in their Rules for appeals from their decisions to the Central Ethical Committee and Council.

Amendment of Article XLIV (e).

The Council was recommended, when opportunity should occur, to propose an alteration of Article XLIV (*e*) in order (*a*) that the Article may expressly refer to an inquiry by a Division as well as by a Branch, and (*b*) to make clear that the "commencement" of an inquiry is the time when it is brought officially under the notice of a body authorized under the regulations of the Association to investigate ethical matters.

Designation of "Central" Ethical Committee.

The Committee also recommended that the regulations of the Association should be altered so as to provide for the use of the term "Central Ethical Committee" as an alternative designation of the Ethical Committee of the Association.

Procedure of the Central Ethical Committee.

The Committee instructed the Medical Secretary to draw up and submit to the next meeting a short statement of the procedure of the Committee in dealing with ethical cases of various kinds, suitable for the information of those who may have occasion to bring cases before the Committee.

Alleged Canvassing in Connexion with Dispensaries.

On consideration of the report of a Branch Council with reference to the position of medical officers of certain dispensaries in respect of which canvassing was alleged, the Committee concurred in the report of the Branch Council that on the facts as stated by that Council it was inconsistent with membership of the Association to hold appointments in connexion with the said dispensaries as at present conducted. With respect to the question whether the dispensaries were or were not medical aid associations the Committee accepted the following reply of the Branch Council:

> "On June 6th, 1899, the General Medical Council passed the following resolution:
>
> 'That the Council strongly disapproves of medical practitioners associating themselves with Medical Aid Associations which systematically practise canvassing and advertising for the purpose of procuring patients.'
>
> The General Medical Council does not define the term 'Medical Aid Association,' and it must therefore be taken that the characteristic feature of the conduct of which the General Medical Council, by the above resolution, expresses its disapproval, is defined by the words 'which systematically practise canvassing and advertising for the purpose of procuring patients.'"

and expression of opinion that in the case in question there was evidence of systematic canvassing and advertising for the purpose of procuring patients. The Committee were of opinion that the evidence available was insufficient to justify reporting the matter to the General Medical Council.

Inquiry as to a Hospital.

The Committee considered the report of a Division on the mode of formation of a special hospital, and resolved: That the Committee disapproves of the method of formation of the hospital in question, by which the rest of the medical profession in the district was wholly ignored, and the medical practitioner who took part in the promotion and his partner were elected to form the entire staff of the proposed hospital, as set forth in the report of the Division, and concurs in the opinion of the Division that the conduct of the medical practitioner named in the report of the Division has been in this respect detrimental to the honour and interests of the profession.

A Question in connexion with the Post-Office Medical Service.

In a case reported by the Executive Committee of a Division as to the alleged interference by a post-office medical officer with the patient of a private practitioner, it was resolved that it would be necessary for the Ethical Committee of the Division to hear the post-office medical officer's case before an opinion could be pronounced affecting him personally, but that, if the facts were as stated, the conduct of the officer in question was improper.

"Specially Skilled Pathologists."

The Committee resumed consideration of the question, deferred from the last meeting, as to the position of special pathologists acting for coroners at ordinary fees, and resolved: That the Committee disapproves of the action of specially-skilled pathologists who have agreed to make *post mortem* examinations, and to give evidence at special inquest cases, for the ordinary fee of two guineas.

Warning Notices in the Journal.

On consideration of a request from the Honorary Secretary of a Branch that the warning notices in the Journal should be inserted for a longer period than a month without renewed application from the Honorary Secretary of the Division or Branch concerned, the Committee resolved that they could not recommend the Council to modify the regulations as to the warning notices in the Journal in the manner proposed.

Extension of Scope of Warning Notices.

On consideration of an application from a member of the Association, and an expression of opinion by the Chairman of the Public Health Committee in reference thereto, it was decided to recommend to the Council that warning notices in the Journal should in future be inserted in respect to public health and Poor-law appointments under the same regulations as with regard to contract practice appointments; also, in response to the application of a Branch Council, that warning notices as to hospital appointments should similarly be inserted.

Issue of Circulars Applying for Contract Practice Appointments.

The Committee considered a complaint with reference to the issue of circular letters of application for a contract practice appointment. The Medical Secretary reported that he had notified the practitioners concerned that the case would come before the Committee for consideration, and that one had challenged the right of the Committee to consider the case until it had been considered by the Division of which he was a member. The Honorary Secretary of the Division had also written, taking the same view of the case, and by instruction of the Chairman it had been pointed out to the Honorary Secretary that, while the Committee always refers to the Divisions for primary investigation cases in which there is doubt as to matters of fact, the Committee deals in the first instance with complaints received by it as to advertisements when the documents laid before it appear to afford sufficient evidence of the facts; also that the Rules of the Division, which had been cited in the matter are only binding upon members of the Division, and that the complainant in this case was not a member of the Division in question. The Committee approved the reply given to the Honorary Secretary of the Division, and expressed the opinion that the distribution of such circular letters of application to all members of a society is most undesirable.

Alleged "Covering" by the Employment of an Unqualified Assistant.

The Committee received the report of a case in which a member of the Association had asked the Association to bring before the General Medical Council a charge of covering by employment of an unqualified assistant. By instruction of the Chairman of the Committee the solicitor had been consulted in the matter and preliminary steps taken to prepare a case for consideration by the General Medical Council, but the practitioner against whom the complaint was made had now discharged the assistant in question.

The Committee approved the action of the Chairman, and recommended the Council to authorize the Committee to go to such expense, not exceeding £10, as may be necessary in preparing for the consideration of the General Medical Council any case in which there should appear to the Chairman and the Solicitor to be sufficient prima-facie evidence to justify further investigation.

Application for Advice.

The Committee considered the following application for advice:

> Two Members of the Association are respectively Chairman and Treasurer of a High School for Girls. The staff, governing body, scale of fees, and other particulars regarding the School are advertised in a local paper.
>
> In the same paper are advertisements of two Slate Clubs, in which the names of the medical officers of the clubs appear as such.
>
> A question having been raised as to the ethical propriety of the advertisement of the names of medical men in connexion with the Slate Clubs, one of these medical men attempted to justify himself by pointing to the publication of the names of the medical practitioners who hold the offices above stated in connexion with the school.
>
> The applicant submits that, from an ethical standpoint, the two cases are not analogous, inasmuch as in the case of the Slate Clubs the medical men are advertised in their professional capacity, while in the case of the school the names of the medical men are simply given along with those of lay persons holding similar positions.

The Committee concurred in the view taken by the applicant that his case is not analogous to the advertisement of names in connexion with a slate club, and expressed the opinion that there was no objection to the publication in connexion with the school.

Interpretation of an Agreement.

The Committee took into further consideration a case before it at its last meeting, concerning the interpretation of an agreement between two medical practitioners in respect to club appointments, a communication having been received from the respondent in the case subsequent to the last meeting of the Committee.

The Committee decided that the circumstances stated by the respondent did not affect their view of the interpretation of the agreement, but in their opinion the respondent, if dissatisfied with the operation of the agreement, might give reasonable notice to terminate it.

Non-medical Bodies and Sight-Testing.

After consideration of the resolution of a general meeting of the Metropolitan Counties Branch the Committee expressed the opinion that no medical practitioner should be associated with the examination of any non-medical bodies which profess to give certificates in eye-testing.

Students and Medical Ethics.

The Committee resolved to represent to the Council the desirability of memorializing the medical schools of the United Kingdom on the necessity of having addresses given to students once a year on medical ethics.

APPENDIX.

MEMORANDUM on the present organization of the Association for dealing with ethical matters, as determined I. by the Regulations of the Association; II. by the Rules of Divisions and of Branches; and III. by the procedure adopted by these bodies and by the Central Ethical Committee.

I.—Regulations of the Association.

A.—Contained in the Articles and By-laws.

The action of the Association in ethical matters rests fundamentally upon the following regulations:—

BY-LAW 1.—" . . . Every candidate for Membership of the Association shall apply . . . stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong. . . ."

This By-law deriving its force from—

ARTICLE II.—" . . . elected in such manner and upon such conditions as may be prescribed . . . by the By-laws";

and from—

ARTICLE XLVII.—" . . . the rights and obligations of every Member . . . shall be such as may . . . be prescribed and determined by or in accordance with By-laws . . ."

BY-LAW 11.—

(*a*) "Subject to the Regulations and By-laws of the Association, each Division and each Branch shall be free to govern itself in such manner as it shall think fit, and for that purpose to make . . . such Rules as it think fit, and to repeal or alter the same. . . ."

(*b*) "The Rules so made and for the time being in force shall be binding on the Members constituting the Division or Branch. . . ."

BY-LAW 12.—"The Rules made by Divisions and Branches shall be submitted for approval to the Council, and shall not come into operation unless and until they are approved by such Council."

ARTICLE XXXV.—"A Resolution of any Representative Meeting . . . which . . . relates to . . . matters affecting the honour or interests of the Medical Profession, and is carried by a majority of two-thirds of the votes given thereon . . . shall be deemed to be a decision of the Association. . . ."

ARTICLE XLII.—"Any Member of the Association . . . convicted in a Court of Justice of any felony or misdemeanour, or whose name shall have been erased from the *Medical Register* under Section XXIX of the Medical Act, 1858, or who shall have forfeited by misconduct the Medical Qualification by virtue of which he became eligible for Membership . . . shall, *ipso facto*, cease to be a Member of the Association."

ARTICLE XLIII. "Any Member of the Association whose conduct shall, upon due enquiry, be deemed . . . detrimental to the honour and interests of the Medical Profession, or calculated to bring the profession into disrepute, may be expelled from Membership. . . ."

ARTICLE XLIV.—

(*a*) "The Council shall have power on the representation of any Branch . . . to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII."

(*b*) "Each Branch out of the United Kingdom having a Membership of not less than 30 shall have power . . . to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII."

(*c*) "A majority of two-thirds of those present and voting whether in the Council or in a Branch Meeting shall be required for the purpose of exercising the powers conferred by the last two preceding clauses."

(*d*) "When a Member is expelled he shall *ipso facto* cease to be a Member, but shall be liable to pay to the Association all sums due from him to the Association or any Division or Branch thereof, at the time of his expulsion."

(*e*) "No Member in regard to whom a representation as aforesaid has been made or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch, shall be capable of effectively resigning his Membership of the Association until the decision of the Council or Branch be made known."

ARTICLE IX.—" . . . No person whose former Membership shall have been forfeited under the provisions of Articles XLII, XLIII, and XLIV, or any of them, shall be eligible for re-election by any Branch Council without the sanction previously obtained of the Council of the Association."

BY-LAW 40, SECTION (7).—" An Ethical Committee shall be appointed . . . which shall advise the Council on proposed Rules of Divisions and Branches relating to Professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by Members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of Professional conduct. . . ."

A Member is bound, therefore, as regards matters of professional conduct:

(*a*) By any Articles and By-laws specifically relating thereto, of which there are at present only the above-quoted Articles XLII, XLIII, XLIV, and IX;

(*b*) Under Article XXXV he is bound by a resolution of the Representative Meeting specifically relating to professional conduct, provided that such resolution is carried by a majority of two-thirds of those present and voting;

(*c*) He is bound by the Rules of the Division and Branch of which he may at any time be a Member;

(*d*) By By-law 40 (7) the Ethical Committee has power to adjudicate in disputes between Members.

B.—Existing Regulations affecting Professional Conduct, other than those contained in the Articles and By-laws.

On taking up its duties under the new Constitution the Ethical Committee considered two general questions:

Whether it was desirable to attempt at once to frame an ethical code for the Association.

Whether it was desirable to require all Divisions and Branches to be subject to the same Rules, or to allow these to vary according to local conditions and opinions.

As regards framing an ethical code for the Association, the Committee decided that it was not desirable to attempt at once to frame a code.

The Committee has from time to time made pronouncements upon questions submitted to it, and these when approved by the Council and by the Representative Meeting become binding upon the Members.

These decisions have come before the Representative Meeting in the Annual Report of the Committee, which has each time been approved *en bloc*. It is perhaps a question for consideration whether such approval should be deemed to make all the decisions set forth in the Report binding as laws under Article XXXV. The Ethical Committee has no power to make general rules binding on the conduct of all Members. Such rules would have to be duly submitted to the Representative Meeting.

In general, matters are only decided by the Representative Meeting after three months' notice. The Report of the Ethical Committee, on the other hand, must be brought as nearly up to date as possible, and therefore can only be issued shortly before the meeting.

It might perhaps be convenient that expressions of opinion which were intended to have the effect of laws of the Association should be brought before the meeting by definite recommendations issued by the Committee at least three months before the meeting.

II.—LOCAL REGULATIONS—RULES OF DIVISIONS AND BRANCHES.

As regards these the Committee advised that Rules should be allowed to vary in different districts, provided that the Central Council, when asked to sanction Rules as to professional conduct, should be satisfied that they were approved by a sufficient majority of those concerned.

The Committee has not made, and has not recommended the Council to make, any suggestions to Divisions and Branches except upon questions of *procedure* purely (as to which see below, Section III).

Different Divisions have adopted Rules often taken from the rules of local Ethical Societies. These have been approved from time to time by the Council (subject to modification in some instances), and have served as models upon which other Divisions have based their Rules.

Early in 1904 the Bradford Division asked the Medical Secretary to draft for them a short set of Rules relative to questions of Contract Practice and Appointments. These were based entirely upon Rules already sanctioned by the Council, and have been found convenient as suggestions for other Divisions who required Rules of the kind.

Several Rules of Divisions have contained provisions that

members of the profession who violated generally-accepted laws of professional conduct, or special local Rules, should be excluded from professional recognition. To give proper effect to these decisions it was found that they must be communicated to all Members of the Division concerned, and as this raised certain questions of great difficulty, special consideration was given to this matter in the spring of the year 1904, with the result that a special Rule dealing with the subject was drafted as a suggestion to the Divisions, known for convenience as Rule "Z."

In at least three districts the question has arisen whether Branches could adopt some analogous rule, and it was in connexion partly with this question that the Subcommittee was appointed.

III.—PROCEDURE IN ETHICAL CASES.

The general principles underlying the present procedure of the Association are as follows:—

1. Inasmuch as the only sanction by which a body like the British Medical Association can enforce its decisions as regards its own Members is the power of expelling an offender from Membership, and as this power, as regards Members in the United Kingdom at least, is vested absolutely in the Central Council, every decision must in the last resort be enforced by an appeal to the Central Council.

2. On the other hand, it is recognized that questions of fact should be investigated in the first instance on the spot, and that for this purpose the Division furnishes the most convenient instrument available for the Association.

3. In many instances also the Division is quite competent to deal with the case entirely.

4. In a Division, while the Ethical Committee thereof may conveniently make the first investigation and report as to the facts, the finding of the Division must be that of a general meeting of the whole Division, to which the Committee reports.

5. In a Branch, on the other hand, by hypothesis a general meeting cannot be representative of the whole Branch, and, therefore, in the Model Rules which have been suggested by the Committee, the decision of ethical matters as regards a Branch rests with the Branch Council, acting upon a report furnished by the Ethical Committee of the Branch.

6. A dispute or complaint would in general come in the first instance before the Ethical Committee of a Division, who report upon the facts to a general meeting of the Division. The Division in pronouncing judgement may either (*a*) endeavour to decide the matter, or (*b*) may postpone decision pending an application to the Central Ethical Committee for advice on a question of principle, or (*c*) may report to the Branch Council that the matter is one that in their judgement should be brought before the Central Council under Article XLIV.

In case of decision by a Division it is open to either party to appeal to the Branch, which means, as explained, the Branch Council.

Thus a matter may come before a Branch Council (*a*) on appeal from the decision of a Division, or (*b*) on a Report by a Division that a matter should be brought before the Central Council under Article XLIV.

A matter may come to the Central Ethical Committee, either (*a*) on an appeal from the decision of a Branch Council, or (*b*) on an application from a Division for advice on a question of principle, or (*c*) in consequence of representations having been made by a Branch Council to the Central Council under Article XLIV.

A matter may also come before the Central Ethical Committee on a direct appeal from the parties to a case asking that it should adjudicate, but if there is a dispute as to facts the Committee refers it to the Division for preliminary investigation.

MEDICAL DEFENCE COMMITTEE.

April 1st, 1905.

A MEETING of the Medical Defence Committee of the British Medical Association was held at the offices of the Association on Thursday, March 23rd, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair; Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. M. Beverley, Dr. Bruce Goff, Dr. J. H. Hunter, Dr. G. Balfour Marshall, and Mr. M. A. Messiter.

A resolution was adopted directing that the memorandum, together with the scheme of medical defence, be forwarded to the Divisions. This was published in the SUPPLEMENT of April 1st, p. 129.

ORGANIZATION COMMITTEE.

April 11th, 1905.

A MEETING of the Organization Committee was held at the office of the Association on April 11th, 1905, when there were present: Mr. T. JENNER VERRALL in the chair, Mr. Andrew Clark, Chairman of Council, Mr. H. A. Ballance, Professor J. T. J. Morrison, and Dr. E. Rayner.

LETTERS OF APOLOGY.

Letters of apology for non-attendance were read from Dr. James Hamilton and Professor A. H. White.

MEETINGS ATTENDED BY THE MEDICAL SECRETARY.

The MEDICAL SECRETARY'S report as to meetings which he had attended was received and approved.

DIVISION RULES.

The Council was recommended to approve Rules submitted by the North Manchester and South Suffolk Divisions.

CHANGES OF BOUNDARIES.

It was resolved that Tadley be transferred from the Winchester Division of the Southern Branch to the Reading Division of the Oxford and Reading Branch if no objection be received from the Winchester Division.

Consideration of certain other proposals was deferred pending receipt of further information.

CONSTITUENCIES FOR REPRESENTATIVE MEETINGS FOR 1905-6.

It was recommended to the Council that the following be provisionally approved as the list of constituencies for election of Representatives in Representative Meetings for the year 1905-6, and that, after the publication of the official list of members in May, the Organization Committee be authorized to make such changes in the list as may be found necessary to provide for the grouping of Divisions which shall appear in that list to have fewer than fifty members, or for the independent representation of Divisions which shall appear in that list to have more than fifty members:

(*a*) CONSTITUENCIES IN THE UNITED KINGDOM.

ABERDEEN:—
- Aberdeen.
- Orkney.
- Shetland.

BATH AND BRISTOL:—
- Bath.
- Trowbridge.
- Bristol.

BIRMINGHAM:—
- Bromsgrove.
- Dudley.
- Central Birmingham.
- Coventry.
- Nuneaton and Tamworth.
- Warwick and Leamington.
- West Bromwich.

BORDER COUNTIES:—
- North Cumberland.
- West Cumberland.
- Scottish.

CAMBRIDGE AND HUNTINGDON.

CONNAUGHT:—
- * Mid Connaught.
- * North Connaught.
- * South Connaught.

DORSET AND WEST HANTS:—
- Bournemouth.
- West Dorset.

DUNDEE.

EAST ANGLIAN:—
- North-East Essex.
- Mid Norfolk.
- Mid Essex.
- South Essex.
- Norwich.
- West Norfolk.
- East Norfolk.
- North Suffolk.
- South Suffolk.
- West Suffolk.

EAST YORK AND NORTH LINCOLN:—
- East York.
- North Lincoln.

EDINBURGH:—
- Lothians.
- North-East Edinburgh.
- North-West Edinburgh.
- South-East Counties.
- South Edinburgh.

FIFE.

GLASGOW AND WEST OF SCOTLAND:—
- Ayrshire.
- Dumbartonshire and Argyllshire.
- Glasgow, Central.
- Glasgow East.
- Glasgow North-West.
- Glasgow South.
- Lanarkshire.
- Renfrewshire.

* Grouped with the Enniskillen group (Ulster Branch) to form one constituency.

Gloucestershire.

Lancashire and Cheshire:—
Altrincham.
Ashton-under-Lyne.
Glossop.
Birkenhead.
Blackburn.
Burnley.
Blackpool.
Isle of Man.
Bolton.
Chester.
Crewe.
Bury.
Rochdale.
Leigh.
Wigan.
Liverpool (Bootle).
Liverpool (Central).
Liverpool (Northern).
Liverpool (Southern).
Liverpool (Western).
Manchester (Central).
Manchester (North).
Manchester (Salford).
Manchester (South).
Manchester (West).
Oldham.
Preston.
Southport.
Stockport, Macclesfield, and East Cheshire.
St. Helens.
Warrington.

Leinster:—
Dublin.
East Leinster.
Mid Leinster.
North Leinster.
North-West Leinster.
South-East Leinster.

Metropolitan Counties:—
Chelsea.
City.
Ealing.
Hampstead.
Kensington.
Lambeth.
Marylebone.
Richmond.
St. Pancras.
Stratford.
Tottenham.
Walthamstow.
Wandsworth.
Watford.
Westminster.

Midland:—
Boston and Spalding.
Lincoln.
Stamford.
Derby.
Leicester.
Nottingham.

Munster:—
North Munster.
West Munster.
South Munster.

Northern Counties of Scotland.

North of England:—
North Northumberland.
Morpeth.
Blyth.
Newcastle-on-Tyne.
Hexham.
Tyneside.
South Shields.

North of England (*Continued*).
Sunderland.
Gateshead.
Consett.
Chester-le-Street.
Bishop Auckland.
Durham.
Stockton.
Darlington.
Hartlepools.
Cleveland.

North Lancashire and South Westmorland:—
Furness.
Kendal.
Lancaster.

North Wales:—
Denbigh and Flint.
North Carnarvon and Anglesey.
South Carnarvon and Merioneth.

Oxford and Reading:—
Maidenhead.
Reading.
Oxford.

Perth.

South-Eastern:—
Ashford.
Dover.
Folkestone.
Brighton.
Bromley.
Sevenoaks.
Canterbury and Faversham.
Isle of Thanet.
Chichester and Worthing.
Horsham.
Croydon.
Dartford.
Eastbourne.
Hastings.
Guildford.
Maidstone.
Rochester and Chatham.
Reigate.
Norwood.
Tunbridge Wells.

South-Eastern Ireland:—
Carlow.
Kilkenny.
Waterford.

Shropshire and Mid Wales.

Southern:—
Guernsey and Alderney.
Jersey.
Southampton.
Isle of Wight.
Portsmouth.
Salisbury.
Winchester.

South Midland:—
Aylesbury.
Bedford and Herts.
Northampton.

South Wales and Monmouth:—
Cardiff.
Monmouth.
North Glamorgan and Brecknock.
South-West Wales.
Swansea.

South-Western:—
Barnstaple.
Exeter.
Devonport.
Torquay.
Plymouth.
Truro

Staffordshire:—
Mid Staffordshire.
North Staffordshire.
South Staffordshire.

Stirling.

Ulster:—
Ballymoney, North Antrim, and South Derry.
Derry.
* Enniskillen or County Fermanagh.
Monaghan and Cavan.
Omagh or County Tyrone.

Ulster (*Continued*).
Belfast.
Portadown and West Down.

West Somerset.

Worcester and Hereford:—
Hereford.
Worcester.

Yorkshire:—
Bradford.
Halifax.
Huddersfield.
Harrogate.
Leeds.
Sheffield.
Scarborough.
York.
Wakefield and Doncaster.

(*b*) CONSTITUENCIES NOT IN THE UNITED KINGDOM.

Sydney and New South Wales.
Melbourne and Victoria.
Brisbane and Queensland.
New Zealand.
Toronto.
Montreal (independent if having 50 members by May, if not, grouped with the 2 following—)
Manitoba and West of Canada.
District of British Columbia.
Halifax and Nova Scotia.
Bermuda.
Adelaide and South Australia.
Western Australia.
Jamaica.
Barbados.
Leeward Islands.
Trinidad and Tobago.
British Guiana.
Bombay.
District of Punjab.
Bengal.
Burmah.
South India and Madras.
Colombo and Ceylon.
Malaya.
Hong Kong and China.
Cape of Good Hope (West.).
Cape of Good Hope (East.).
Griqualand West (including Orange River Colony and Transvaal).
Natal.
Malta and Mediterranean.
Gibraltar.

Grouping of Branches for Election of Members of Council for 1905-6.

I. As regards the grouping of *Branches in the United Kingdom*, the Council was recommended to grant independent representation to the Branches in the list (A), and to group the Branches in the list (B), each Branch or group of Branches electing† the number of members stated in the list.

LIST (A).

Aberdeen	1
Bath and Bristol	2
Birmingham	2
East Anglian	2
Glasgow and West of Scotland... ...	2
Lancashire and Cheshire	4
Metropolitan Counties	5
Midland	2
‡Munster	1
North of England	2
‡Northern Counties of Scotland ...	1
Oxford and Reading	1
South-Eastern	3
Southern	2

* Grouped with the Divisions of Connaught to form one Constituency.

† The number of members of Council to be elected by each Branch or group of Branches is determined automatically under By-law 23 by the membership of the Branch or group of Branches. The figures stated in the lists are based upon the membership of each Branch or group of Branches at the time when the recommendation was made, and are subject to such modification as may be necessitated by changes in the number of members shown by the Annual List made up to April 29th.

‡ Branches having fewer than 200 members.

LIST (A)—*(Continued).*

South Midland	1
South Wales	2
South-Western	2
Staffordshire	1
Yorkshire	2

LIST (B).

Border Counties	1
North Lancashire and South Westmorland	
Gloucestershire	1
Worcester and Hereford	
Dorset and West Hants	1
West Somerset	
Cambridge and Huntingdon ...	1
East York and North Lincoln ...	
North Wales	1
Shropshire and Mid Wales... ...	
Dundee	1
Perth	
Stirling	
Fife	2
Edinburgh	
Leinster	2
South-East Ireland	
Connaught	2
Ulster	

II. With reference to *Branches not in the United Kingdom*, the following lists were similarly recommended for approval—(A) for independent representation, (B) for grouping:

LIST (A).

	Members of Council.
Sydney and New South Wales	2
Melbourne and Victoria	1
Brisbane and Queensland	1
New Zealand	1

LIST (B).

AUSTRALIA:	
Adelaide and South Australia	1
Western Australia	
CANADA:	
Montreal	1
Halifax and Nova Scotia	
Bermuda	
Toronto	1
Manitoba and West of Canada	
District of British Columbia	
FAR EAST:	
Malaya	1
Hong Kong and China...	
INDIA:	
Bombay	1
District of Punjab	
Bengal (no Branch)	
Burmah	
South India and Madras	1
Colombo and Ceylon	
MEDITERRANEAN:	
Malta and Mediterranean	1
Gibraltar	
SOUTH AFRICA:	
Cape of Good Hope (Western)	1
Cape of Good Hope (Eastern)	
Griqualand West	1
Orange River Colony and Transvaal ...	
Natal	
WEST INDIES:	
Barbadoes	1
Jamaica	
Trinidad and Tobago	
Leeward Islands	
British Guiana	

PRINCIPLE ADOPTED IN GROUPING COLONIAL BRANCHES.

In connexion with the representation of the Colonial Branches the Committee resolved to report to the Council that in preparing their recommendations they had been guided by a resolution of the Joint Colonial Constitution Committee to the effect that in the opinion of that Committee the Colonial Branches should be represented on the Council on the same numerical basis as the Branches in the United Kingdom. In applying this principle to the Colonial Branches the Organization Committee had had regard also to topographical considerations, as affecting the possibility of communication with other Branches, and therefore recommended the Council in several instances to approve the grant of independent representation to Branches or groups of Branches having fewer than 200 members.

QUALIFICATION FOR MEMBERS OF COUNCIL ELECTED BY COLONIAL BRANCHES.

In connexion with the same matter the Committee reported to the Council that, in their opinion, it is desirable that Branches not in the United Kingdom should frame, under By-law 27, Rules providing that qualifications for representation on the Central Council shall include personal knowledge of the requirements of such Branches, and also recommended that the Council should propose to the Representative Meeting the amendment of By-law 27 by adding at the end thereof the following words: "and if no such Rule shall be adopted the regulations as to eligibility shall be the same as for the Branches in the United Kingdom."

PROPOSED REDUCTION OF LIMIT OF MEMBERSHIP OF DIVISIONS FOR INDEPENDENT REPRESENTATION IN REPRESENTATIVE MEETINGS.

The Committee proceeded to consider the following resolution of the Council:

> That recommendation (*c*) be referred back to the Organization Committee, with instruction to consider the question of area as well as of number.
>
> RECOMMENDATION (*c*).
>
> That the Council be advised to propose that the limit for a separate constituency to elect a Representative under Article XXVII be reduced to 30.

The Committee had before it particulars of the areas and o the grouping of Divisions in the United Kingdom, and also replies from the Honorary Secretaries of grouped Divisions to certain inquiries which had been addressed to them by the Medical Secretary by instruction of the Chairman of the Committee. It was resolved to recommend that an alteration of Article XXVII be proposed by the Council which shall have the effect of giving to the Council a discretionary power to give separate representation to Divisions below 50 which have special difficulties in holding joint meetings with neighbouring Divisions, but that the foregoing proposal should first be submitted to the Divisions with a view to a vote thereon in the Representative Meeting, notice being given that the Council would propose the alteration of Article XXVII, as stated, if approved by the Representative Meeting.

DIVISION AND BRANCH FINANCE.

On consideration of a letter from the New Zealand Branch, transmitting the following resolution of a meeting of the Council of the Branch,

> That the authorities in London be asked if a portion of the profits of the British Medical Association could not be set aside to assist the various Branches whose expenses are increasing annually,

It was resolved that the Council be recommended to instruct a Committee to investigate and report on the working of the present system of Division and Branch income and expenditure.

CIRCULATION OF REPRINTED ADDRESSES TO NON-MEMBERS.

The Committee considered a suggestion from a Division that addresses such as that by Dr. Carter, which appeared in the SUPPLEMENT of the JOURNAL of November 5th, 1904, could with advantage be reprinted and distributed amongst those practitioners who were not members of the Association, and the Committee resolved that in their opinion it is advisable periodically to republish for distribution among the non-members of the Association suitable articles which may appear in the BRITISH MEDICAL JOURNAL or in the SUPPLEMENT, having reference to the work of the Association.

SUGGESTED PAYMENT BY DIVISIONS OF ELECTION EXPENSES OF CANDIDATES FOR THE CENTRAL COUNCIL.

The Committee also considered an inquiry from a Division as to the legality of the payment by the Division of certain expenses in connexion with the promotion of the candidature of a member of the Division for election by the Branch to the Central Council, and the following reply was ordered to be sent:

BRITISH MEDICAL ASSOCIATION.
Medical Secretary's Office,
429, Strand, W.C.

DEAR SIR,

The question raised by your letter has been referred to the Organization Committee, and I have been instructed to obtain the opinion of the Solicitor of the Association thereon.

I am instructed to state that having regard to the terms of By-law 17 the question you submit is one for the Branch Council to decide.

Under that By-law the Branch is required to pay to each Division of the Branch such sum per Member as the Branch Council may consider necessary to defray the expenses of the Division.

It would, therefore, be for the Branch Council to consider whether expenditure incurred in promoting the candidature of a Member of a Division for election to the Central Council of the Association is a necessary expense of the Division. The question of legality under the regulations of the Association only arises as touching the question whether it is lawful for the Branch Council to make any payment to the Division in respect of the expenditure under consideration.

I am,
Yours faithfully,

Medical Secretary.

ALTERATION OF ARTICLE XXXVIII.

It was decided to recommend the Council to propose the following alteration of Article XXXVIII, namely, that the words "if any" be deleted, and that after the words "Chairman of Representative Meetings" the words "Chairman of Council" be inserted.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

GLASGOW AND WEST OF SCOTLAND BRANCH:
EASTERN DIVISION.

A MEETING of the Division was held on March 29th in the Religious Institution Rooms, 200, Buchanan Street, Glasgow, Dr. WILLIAM WHITELAW of Kirkintilloch (President), in the chair.

Confirmation of Minutes.—The minutes of the annual meeting held on June 1st, 1904, were read, approved, and signed by the Chairman.

Contract Medical Practice.—The SECRETARY read a communication from the Local Committee on Contract Medical Practice containing resolutions passed at the general meeting of practitioners in Glasgow on May 11th, 1904, and asking for powers to proceed with the inquiry. After some discussion, in which it was pointed out that a local inquiry was useless in view of the larger scope of the inquiry by the British Medical Association, it was agreed that the two representatives of this Division be reappointed, Drs. Service and Thomas Russell, and that the necessary powers asked for be granted.

The Medical Register.—The SECRETARY read a letter from the Bradford Division containing a resolution pointing out the present unsatisfactory state of the official *Medical Register*. It was agreed that the terms of the resolution be accepted with a view to future action.

Matters Referred to Divisions.—The matters referred to the Divisions by the Medico-Political Committee were then debated: (1) Resolutions on contract medical practice as contained in SUPPLEMENT for November 26th, 1904. These propositions were accepted with the following alterations: No. (5), instead of "children under the age of 5 should not be admitted" read "children under the age of 14. . . . ." No. (7) is altered to read, "The rates above specified are not intended to apply to obstetric cases, operations, or serious accidents"; that is, omitting "night visits" after "apply to," and omitting also any definition of "serious accidents." (2) The desirability of consultation between medical witnesses in legal cases likely to be brought before the courts. The Division decided to adhere to its finding of last meeting in this matter—namely, that the proposition is impracticable and not to be recommended to the profession. (3) The position of practitioners in the matter of furnishing certain information to coroners. The four propositions were accepted with this addition: that wherever the word "Coroner" occurs the words "or in Scotland, the Procurator-Fiscal" be added. (4) Reorganization of the Local Government Board. As this matter applies to England and Wales only it was decided that it was at present outside the knowledge and interest of the Division, and not to be discussed. (5) Medical Acts Amendment Bill. The Division considered that the following changes should still be made: Part II, Par. 6, relating to pensions of officers of the Council, to be deleted. It was considered that officers of the Council should receive adequate salaries, and look to themselves for their pensions. Part III, Par. 11, regulations for annual registration; Clause 1, instead of the words "together with a fee of one pound" read "together with the annual fee," and add a new clause 1*a*, "The annual fee shall be, to begin with, five shillings, to rise as funds are required, but not at any time to exceed one pound per annum." Part V, Par. 22, the Division considers the provisions of Clause 5 to be unfair, namely, that the costs of any inquiry may be borne by the person whose name is in question or by any complainant. The Division recommends that "all costs be paid out of the general funds of the Council." Part V, Par. 23, in Clause 2 the words "or suggesting" to be added after the word "implying." Part V, Par. 27, Clause 2 to be deleted as an unworkable arrangement.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:
FURNESS DIVISION.

A GENERAL meeting of this Division was held in the Masonic Hall, Barrow-in-Furness, on Friday, March 24th, at 3.15 p.m., Dr. CROSS in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Matters Referred to Divisions.—The SECRETARY read the report of the subcommittee appointed at the previous meeting to consider these matters. The various matters were discussed and voted upon seriatim. (1) Interim report on contract practice: The subcommittee is in favour of the principle of a public provident medical service, and considers that it would be desirable in all parts of the kingdom. Pending, however, such a consummation, the members of the British Medical Association resident in the Furness district have drawn up an agreement regulating contract practice, and anticipate that it will be signed by all practitioners in the district. The subcommittee recommends that the propositions put forward by the Medico-Political Committee be approved, with the suggestion that an addition to Clause 6 be made adopting a wage limit. The report of the subcommittee on contract practice was approved and adopted *nem. con.* (2) Consultation of medical witnesses in legal cases: This matter was discussed and reported on by the Division in 1903, when a decision adverse to the proposals of the Medico-Political Committee was arrived at; but after further discussion and consideration of the memorandum put forward by that Committee, the subcommittee recommends that the Division should approve of the consultation of medical witnesses only as to matters of fact, and not as to any conclusions that may be based thereon. Report approved, and adopted *nem. con.* (3) Information supplied to coroners by medical practitioners: The subcommittee suggests that a deputation be appointed by the Division to meet and confer with the coroners in the district with a view to ascertain their opinion as to whether an arrangement can be made locally to obtain remuneration for informal information hitherto supplied gratis, and that the deputation report to a subsequent meeting of the Division. After some discussion, the following gentlemen were proposed and appointed to act, as recommended by the subcommittee—namely, Dr. Collins (President of Branch), Dr. Patterson (County M.O.H.), and Dr. Daniel (Honorary Secretary).

(4) Reorganization of Local Government Board: "The Subcommittee recommends that the Division approve of the proposals of the Medico-Political Committee *in toto*." The report was approved and adopted. (5) Medical Act Amendment Bill: The subcommittee has gone carefully through the Draft of the Bill clause by clause, and is of opinion that it is a better worded and altogether more business-like document than that previously submitted for their consideration, and with the following exceptions, recommend that the Division report favourably to the Bill: Part I, Clause 1. The subcommittee does not approve of the constitution of the General Medical Council. It is felt that in the representation of educational bodies, undue prominence is given to "degree-giving" as distinguished from "diploma-giving" bodies, in view of the fact that diplomates greatly outnumber graduates. It is recommended that the grouping of universities as advocated in the first draft of the Bill is preferable to its present form. The subcommittee calls attention to the fact that while statutory provision is made for the election of a Vice-President, there is no mention of the election of a President or Registrar. Part III, Clause 1. Annual registration fee of one pound. The subcommittee adheres to the opinion expressed in the criticism of the 1903 draft, "that the registration fee should not be obligatory except to medical men qualifying after the passing of the Bill," and offers this comment: "That on qualifying each medical man entered into a contract with the State, on payment of a fee of £5, to be entitled to practise the profession of medicine, surgery, etc., during the term of his natural life; and further, the subcommittee feels that the profession has suffered so much in the past from an inefficient General Medical Council that it has not a sufficient guarantee that it will have an adequate return for the annual registration fee." After discussion the report was adopted. (6) Prevention of abuse of drugs: "The subcommittee recommends the approval of the proposals of the Medico-Political Committee." Report approved and adopted. (7) Payment of practitioners called in to assist midwives: This matter was fully discussed, and the replies to the questions submitted have been communicated to the Medico-Political Committee. (8) Public Health Bill and (9) Revaccination Bill: "The subcommittee recommends that a deputation be appointed to wait upon parliamentary members and candidates to enlist their support to these measures as well as to the Local Government Board Bill." It was proposed and carried that the deputation appointed to wait upon the coroners should also be instructed to interview the parliamentary candidates and members. (10) The relation of the medical profession to ambulance work: "The subcommittee is of opinion that ambulance work should be put upon a business basis, and considers that neither (*a*) ambulance instruction, (*b*) ambulance examinations, nor (*c*) judging in ambulance competitions, should be treated as matters of philanthropy. It is recommended, however, that financial arrangements should be left to individual instructors." The first part of the report was approved and adopted, and it was proposed by Dr. ANDERSON and carried:

That the scale of fees should not be less than those paid to technical instructors.

This ended the report of subcommittee. (11) Death registration, and amendment of coroners' law. It was proposed by Dr. BOOTH and carried:

That the same subcommittee that considered the other matters referred to Divisions should consider these matters and report to a subsequent meeting.

(12) School Certificates. The Honorary Secretary was requested to write to the educational authority, pointing out the objections of the medical profession to certain recently-issued certificate forms.

LANCASHIRE AND CHESHIRE BRANCH:
LIVERPOOL WESTERN DIVISION.

A MEETING of this Division was held at the Liverpool Medical Institution on April 28th, Mr. F. C. LARKIN in the chair.

Matters Referred to Divisions.—(1) Report on prevention of the abuse of drugs (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, November 26th, 1904, p. 191). The Division is strongly of opinion that the unduly repeated dispensing of prescriptions is not likely to be prevented by anything short of prohibitive legislation, but the Division sees no harm in the recommendations suggested. (2) The memorandum on the payment of medical practitioners called in to assist midwives was considered and the resolutions passed have been communicated to the Medico-Political Committee. (3) National Deposit Friendly Society: The recommendations of the Medico-Political Committee were agreed to. (4) The relations of the medical profession to ambulance work: Question 1.—None of the services (*a*), (*b*), or (*c*), should be treated as a matter of philanthropy. Question 2.—Fees: (*a*) Ambulance instruction—£1 1s. per head per course; (*b*) Ambulance examination—2s. 6d. per head; (*c*) Ambulance competition—£1 1s. to £2 2s.

NOTICE OF CHANGE OF BOUNDARIES OF DIVISION AND BRANCHES.

THE following change has been made in accordance with the regulations of the Association, and takes effect from the date of publication of this notice:

That Tadley be transferred from the Winchester Division of the Southern Branch to the Reading Division of the Oxford and Reading Branch.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25, 1905.

THE Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th—at 6 p.m., in a room to be set apart for the purpose.

Branch and Division Secretaries are invited to notify any subjects they may wish to bring before this conference. All matters to be considered must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

Association Notices.

COUNCIL MEETING.

A SPECIAL Meeting of the Council will be held at 10 o'clock in the forenoon of Wednesday, May 17th, in the Board Room of the Metropolitan Asylums Board, by kind permission of the Board. The offices of the Metropolitan Asylums Board are situate on the Victoria Embankment at the corner of Carmelite Street, and near Blackfriars Bridge.

April 27th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will be held at Trowbridge on Tuesday, May 30th. Hour and place of meeting will be announced at a later date. Business: (1) Such as is laid down in Rule 11. (2) Matters referred from Central Association.—J. TUBB-THOMAS, The Halve, Trowbridge, Wilts, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held on Friday, May 26th, at 3.30 p.m., in the County Hotel, Carlisle. Dr. Maclaren (Carlisle) will read a paper on the Relations of Medical Men to Public Bodies; and Dr. Bird (Carlisle) a paper on Some Ethical Points in the Work of a Medical Officer to the Educational Board. The meeting, as last year, will be confined to the discussion of general ethical and medico-ethical subjects. It is also hoped that an exhibition of pathological specimens may be got up. Members desirous of reading papers or showing specimens will kindly communicate with the Honorary Secretary, NORMAN MACLAREN, 23, Portland Square, Carlisle.

Border Counties Branch: West Cumberland Division.—The annual meeting of this Division will be held in Whitehaven on Friday, May 26th. Business: (1) Minutes of last meeting. (2) Receive the annual report. (3) Election of officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. (4) To consider a proposed new rule received from the Organization Committee *re* the filling up of vacancies among officers. (5) Papers and cases, etc. (6) General. The Secretary will be glad to receive particulars of papers or cases which any member will be willing to read or show. A further notice will be issued later. After the meeting a dinner will be held.—G. Bertram Muriel, Honorary Secretary, Whitehaven.

Dorset and West Hants Branch.—The annual meeting will be held at Blandford on Wednesday, May 17th. Notice of any communication and case should be sent before May 7th to the Honorary Secretary, C. H. W. Parkinson.

Dorset and West Hants and West Somerset Branches.—Nominations for elective members of the Central Council must be made in writing on or before May 10th, to C. H. Watts Parkinson, Wimborne Minster, Honorary Secretary.

Dundee, Perth and Stirling Branches.—The nomination of candidates for the office of elective member of Council for the ensuing year must be made in writing on or before May 8th to Dr. J. E. Moorhouse, 1, Glebe Avenue, Stirling.—A. P. Low, Secretary Dundee Branch, W. A. Taylor, Secretary Perth Branch, J. E. Moorhouse, Secretary Stirling Branch.

East Anglian Branch.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th.

East York and North Lincoln Branch (with the Cambridge and Huntingdon Branch).—Nominations for the office of Representative on the Central Council must reach the Honorary Secretary before May 14th. The present Representative, Dr. C. H. Milburn, is eligible for re-election.—E. M. Hainworth, Honorary Secretary, East York and North Lincoln Branch.

Edinburgh and Fife Branches.—Notice is hereby given that nominations of elective members of the Council of the Association for these Branches must be made in writing on or before June 3rd, to A. Logan Turner, M.D., 27, Walker Street, Edinburgh, Honorary Secretary Edinburgh Branch.

Metropolitan Counties Branch: Hampstead Division.—The next meeting of this Division will be held at St. Peter's Lecture Hall, Belsize Square, N.W., on Friday, May 12th, at 5 p.m. Dr. J. Ford Anderson will read a paper on the abuse of hospital out-patient departments and the remedies. Mr. C. S. Loch (Charity Organization Society), Colonel Montefiore, Dr. W. Knowsley Sibley, Dr. J. Schorstein, Dr. E. Rowland Fothergill, and others have promised to take part in the discussion. All medical practitioners and others interested in the subject of hospital abuse will be admitted on sending in their cards to the Honorary Secretary.—H. W. Armit, Assistant Honorary Secretary, Wembley.

Metropolitan Counties Branch: Wandsworth Division.—The annual meeting will be held at Crichtons, Clapham Junction, on Thursday, May 25th, at 9.30 p.m. Agenda: (1) Minutes, (2) correspondence, (3) questions, (4) additional rules (5) election of officers and committee of the Division. The meeting will be preceded by the annual dinner at 7 p.m., at which the following guests of the Division will be present: Sir Henry Kimber, Bart., M.P. for Wandsworth; Percy Thornton, Esq., M.P. for Clapham; the Mayor of Wandsworth; Chairman of the Wimbledon District Council; Chairman of the Wandsworth Guardians; J. Hunt, Esq., and Lieutenant-Colonel A. Rotton, J.P., members of the L.C.C.; Mrs. and Miss Garrett Anderson, M.D.; Sir Walter Foster, M.P.; Dr. Michael Taylor, Coroner; Chairman of Central Council; President of the Branch; Drs. A. P. Beddard, George Carpenter, Lauriston Shaw, and R. Hutchison; Shirley Benn, Esq.; the Editor of the Journal; the Medical and General Secretaries; and others. Tickets on application to E. Rowland Fothergill, M.B., Honorary Secretary, Southfields, S.W. (Telephone 863 Battersea.)

Metropolitan Counties Branch: Westminster Division.—An ordinary meeting will be held on Monday, May 8th, at 8.30 p.m., at 20, Hanover Square, Mr. J. Bland-Sutton in the chair. Smoking. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) Delegates' report of conference *re* selection of candidates for nomination by this Division for the Central Council election. (5) Dr. David Walsh will move a resolution *re* medical qualifications and hospital appointments. (6) Consideration of Medical Acts Amendment Bill. Mr. Horace Manders will move, under Clause 28: Section (1). Privileges of Registration. No person, except a registered medical practitioner, shall, save in this Act mentioned and in the Midwives Act, practise the treatment of disease by medicine, surgery, electricity, or midwifery, habitually and for gain, in the United Kingdom, and (subject to any local law) in any other part of His Majesty's dominions. Section (2). No person, except a registered medical practitioner, shall be entitled to recover in due course of law any fees or expenses he may claim for advice or treatment given in the course of his practice in medicine, surgery, electricity, and midwifery, save as provided for in the Midwives Act. (7) To consider: (i) Memorandum on the Public Health Bill of the Association; (ii) Memorandum on proposals of the Association with respect to the reorganization of the Local Government Board. (8) Any other business.—W. Knowsley Sibley, M.D., Honorary Secretary, 70, Duke Street, Grosvenor Square, W.

Midland Branch.—The last day for sending in nominations for the two members of the Central Council to which this Branch is entitled is May 8th. They should be sent to the Acting Honorary Secretary, Dr. Frank Pope, 4, Prebend St., Leicester.

North Wales Branch: South Carnarvon and Merioneth Division.—The annual meeting will be held at Dolgelly on May 31st, when the election of officers, etc., for the ensuing year will be proceeded with. Dr. Hugh Jones will open a discussion on the treatment of pneumonia.—W. Jones Morris, Portmadoc, Honorary Secretary.

North Wales and Shropshire Branches.—As these two Branches are grouped for the election of a member on the Central Council of the Association, nominations in accordance with By-law 24 will be received by either the undersigned not later than May 22nd.—W. Jones Morris, Portmadoc; H. Jones Roberts, Penygroes; H. H. B. Macleod, Clive House, Shrewsbury.

Shropshire and Mid-Wales Branch.—The spring meeting will be held at the Salop Infirmary on Tuesday, May 16th, at 3 o'clock. Members who wish to bring forward any business, to read papers, to show cases or specimens, are requested to communicate with the Honorary Secretary not later than Saturday, May 6th.—Harold B. Macleod, Honorary Secretary, College Hill, Shrewsbury.

South-Eastern Branch.—The annual meeting of this Branch will be held at Canterbury on Wednesday, June 21st, Dr. Whitehead Reid, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. [This will be done by voting papers sent to each member of the Branch. Nomination by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 13th.] (2) To receive the annual report of the Branch Council. (3) To consider the business of the Annual Representative Meeting. (4) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." (5) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Saturday, May 13th.—H. M. Stewart, Walton House, Lordship Lane, S.E., Honorary Secretary.

South-Eastern Branch: Brighton Division.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, Ryding Marsh, M.D., 49, Sackville Road, Hove.

South-Eastern Branch: Croydon Division.—The next meeting will be held at the Croydon General Hospital on Thursday, May 18th, at 4 p.m., Dr. J. Wayte in the chair. Dinner at Greyhound Hotel, 6.15 p.m.; charge 5s., exclusive of wine. Agenda: (1) Minutes of the previous meeting; (2) to decide when and where the next meeting shall take place, and to elect a chairman; (3) election of officers for the ensuing year; (4) clinical meeting. Gentlemen willing to exhibit cases are requested to communicate with the Honorary Secretary not later than May 13th Details will be announced subsequently. All members of the South-Eastern Branch are entitled to attend and introduce professional friends. Tea at four o'clock by kind invitation of Dr. Wayte. The Honorary Secretary would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements, and promote the success of the meeting.—E. H. Willock, 113, London Road, Croydon, Honorary Secretary.

South-Eastern Branch: Folkestone Division.—A meeting of the Division will be held at Hotel Wampach on Thursday, May 11th, at 8.30 p.m. Agenda for general meeting: (1) Minutes. (2) Correspondence. (3) Reference from Medico-Political Committee referring to: (*a*) Consultation between medical witnesses (see Supplement to the British Medical Journal, November 26th, 1904); (*b*) information supplied to coroners by medical practitioners (see Supplement, March 11th, 1905); (*c*) reorganization of the Local Government Board; (*d*) ambulance work (Supplement, February 4th, 1905); (*e*) abuse of drugs; (*f*) payment of medical practitioners called in to assist midwives. From Ethical Committee—Advertising by hydropathic establishments, February 18th, 1905; National Deposit Friendly Society (see Supplement, January 14th, 1905). The annual meeting will be held at Hotel Wampach on Tuesday, May 30th, at 7 p.m. Agenda for annual meeting: (1) To elect officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. (2) To receive the annual report of the Executive Committee, including the finance. (3) To make new rules or alter or repeal existing rules. (4) To transact any business that may be transacted at an ordinary meeting. A meeting of the Folkestone, Dover, and Ashford constituency will be held the same day, at the same place, at 7.30. Dinner afterwards, at 8.30; charge 5s. Agenda for the Constituency: (1) To elect Representative in Representative Meetings of the Association. (2) To elect a Secretary. (3) To consider the business of the Annual Representative Meeting. All members of the South Eastern Branch are invited to attend these meetings and to introduce professional friends.—P. Vernon Dodd, Honorary Secretary, Folkestone.

South-Eastern Branch: Norwood Division.—A clinical meeting will be held on Thursday, May 11th, at 4 p.m., at St. John's Hospital, Morden Hill, Lewisham, Mr. L. Stokes (Blackheath) in the chair. The staff have kindly promised to show cases. Agenda: (1) Minutes of last meeting; (2) to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat; (3) consideration of various resolutions to be brought forward at Annual Representative Meeting at Leicester (see Supplements of British Medical Journal). Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once.—Henry J. Prangley, Honorary Secretary; Arthur W. Soper, Assistant Honorary Secretary, Tudor House, Anerley, S.E.

South-Eastern of Ireland Branch.—The annual meeting will be he at Kilkenny on May 24th.—E. J. Farmer, Honorary Secretary.

South-Eastern Branch: Reigate Division.—A special meeting will be held at Laker's Hotel, Redhill, on Friday, May 19th, at 6 p.m., H. J. Blackler, M.B.Lond., etc., of Redhill, in the chair. Agenda: To elect a Representative of the Division for the Annual Meeting of the Association. An address will be given by Dr. J. H. Bryant, Assistant Physician to Guy's Hospital, on Electro-therapeutics. Clinical cases will be shown by Drs. J. H. Pegg, A. R. Walters, and W. A. Berridge. A Short Note on an Unusual Case of Femoral Hernia by Dr. F. Curtis, F.R.C.S.Eng. Dinner at 7.30 p.m.; charge 5s. (exclusive of wine). The Honorary Secretary will be much obliged if members will kindly inform him whether they intend, if possible, to be present at the meeting, and if they are likely to remain to dinner.—W. A. Berridge, Honorary Secretary, Station Road, Redhill.

Southern Branch: Salisbury Division.—The annual meeting of the Division will be held on Wednesday, May 17th, at the Infirmary, Salisbury, at 8.15 p.m., to be preceded by dinner at the County Hotel, at 7 p.m. (morning dress). Agenda: (1) Minutes of the last meeting. (2) Election of officers: (*a*) Chairman, Vice-Chairman, and Secretary, Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee; (*b*) to elect the representative of the Division in Representative Meetings of the Association; (*c*) to receive the annual report of the Executive Committee; (3) to make arrangements for the general meeting of the Branch in Salisbury; (4) to discuss and reply on the following matters referred to the Division: (*a*) National Deposit Friendly Society; (*b*) ambulance work; (*c*) advertising in connexion with hydropathic establishments; (*d*) report on information given to coroners (Supplement, November 26th, 1904); (*e*) consultations between medical witnesses; (*f*) proposals for preventing the abuse of drugs; (*g*) statutory provision for payment of medical men called to assist midwives; (*h*) contract practice and Medical Acts Amendment Bill; (*i*) death registration and coroners' law. (5) Cases. Members wishing to show any cases or read any papers are desired to communicate with the Honorary Secretary as soon as possible. Members intending to be present at dinner are desired to inform the Honorary Secretary not later than Saturday, May 13th.—J. E. Gordon, Honorary Secretary, 52, Endless Street, Salisbury.

South-Western Branch.—The nomination of candidates for the office of elective members of Council (Branch representatives on the Council of the Association) for the ensuing year must be made by at least three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. G. Young Eales, 1, Matlock Terrace, Torquay.

South Midland Branch.—Notice is hereby given that nominations of members for the office of Representatives on Central Council, each signed by not less than three members, must reach me not later than May 15th. The present Representative, Mr. R. H. Kinsey, is eligible for re-election. —E. Harries Jones, Honorary Secretary, Northampton.

Staffordshire Branch.—Nominations of Representative on Central Council: Notice is hereby given that nominations must be sent in to me on or before May 25th.—G. Petgrave Johnson, Honorary Secretary, Stoke-on-Trent.

Staffordshire Branch.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 11th. The President, Dr. E. Deanesly, will take the chair at 3 p.m. Business: (1) Minutes of the last general meeting; (2) Correspondence; (3) Exhibition of living cases. The meeting will be a clinical one. Notice has been received that several cases will be exhibited. Gentlemen having interesting cases are invited to exhibit them. (4) Exhibition of pathological specimens, etc. Dinner, 6.30 p.m.; charge 5s. Council meeting: a meeting of the Council will be held at 2.45 p.m. for election of members, etc. —G. Petgrave Johnson, Honorary General Secretary, Stoke-on-Trent.

Worcestershire and Herefordshire and Gloucestershire Branches.—Nominations for the office of Representative on the Central Council to be sent on or before May 21st to G. W. Crowe, 43, Foregate Street, Worcester, Honorary Secretary of the Worcestershire and Herefordshire Branch.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on April 27th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

The Printing of the Midwives Roll.

A letter was read from Dr. Kaye, County Medical Officer of the West Riding of Yorkshire, forwarding a communication from a Conference of County Medical Officers held at Birmingham on March 10th last, asking the Midwives Board to consider the desirability of including in the Roll of Midwives a column showing the geographical position in which each midwife resided. It was agreed that an answer should be sent stating that the Central Midwives Board had taken note of the suggestion.

Appliances to be Carried by Midwife.

The communication from Dr. Kaye included also an inquiry as to the construction of Rule E 2. This rule provides that:

When called to a confinement a midwife must take with her: (*a*) An appliance for giving enemata, a catheter, a pair of scissors, a clinical thermometer, and a nailbrush; (*b*) an efficient antiseptic for disinfecting the hands, etc.; (*c*) an antiseptic for douching in special cases; (*d*) an antiseptic lubricant for smearing the fingers, catheters, douche nozzles, and enema nozzles before they touch the patient.

Dr. Kaye asked if the Board considered that it was absolutely necessary for the midwives to carry all that was required by Rule E 2.

The Chairman remarked that the Rule must be carried out, and if the midwives were too ignorant to do so the question would arise whether they should be struck off the roll. After some discussion it was agreed that the answer to be sent to Dr. Kaye was that the Central Midwives Board had no dispensing power.

The Meaning of the Word "Malpractice."

A letter from Dr. Niven, M.O.H., Manchester, was received, asking the Central Midwives Board what meaning was to be attached to the word "malpractice" in Section 8 (2) of the Act. In Section 8 one of the duties of the local supervising authorities is declared to consist of investigating charges of malpractice on the part of any midwife practising within their area.

The Board decided that the answer to be returned to this question was that each case must be judged on its own merits.

Four Examinations to be Held Each Year.

Memorials were received from the Committees of the British Lying-In Hospital, the General Lying-In Hospital, York Road, Lambeth, and the City of London Lying-In Hospital representing the desirability of four instead of three examinations being held each year. After some discussion the Board decided that examinations should be held in January, April, July, and October of each year, the first examination, however, was directed to be held on June 27th next, and the date for examination in October next was fixed for the 24th.

Poor-law Medical Officers as Inspectors of Midwives.

A letter was received from the Town Clerk of Ramsgate asking whether in the opinion of the Board the appointment of a Poor-law medical officer as inspector of midwives would be suitable and proper. From what took place at the debate on this letter it appeared that the members of the Central Midwives Board did not consider that it was its business to lay down any rules in such a matter, but that on the whole the Board did not think it advisable that such an appointment should be made.

Suggested Alterations of the Rules.

A letter was received from the Council of the Association of the Poor-law Unions of England and Wales suggesting the reduction from 20 to 7 of the number of cases to be personally delivered as required by Rule C 1 (1), and suggesting the approval by the Central Midwives Board of any Poor-law infirmary as a training institution where the average number of deliveries per annum amounted to 30. The letter was discussed, but no action was decided on.

Charges of Negligence Against Midwives.

On the report of Dr. Niven that the local supervising authority of Manchester had found that a prima facie case of negligence had been established against a certain midwife in respect of a case of puerperal fever, the Board decided that the midwife concerned should be cited to appear before the Board.

The Clerk of the London County Council reported that the local supervising authority for the County of London had found that a prima facie case of negligence and misconduct had been established against a certified midwife, and the Board decided that she should be cited to appear.

Dr. W. B. Barclay reported that the Local Supervising Authority for Aldershot had found that a prima facie case of negligence and misconduct had been established against a certified midwife in respect of a case of puerperal fever, and the Board decided that she should be cited to appear.

Number of Women on the Roll.

After consideration of applications for certificates the names of 3,976 women were passed under Section 11 of the Act, and ordered for entry on the roll. The total number on the roll was reported to be 22,207.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned civil practitioners have been appointed Surgeons and Agents at the stations named: WALTER E. MANBY, M.B., at West Bay and Burton, April 20th; WILLIAM SYKES, M.D., at Paignton, April 29th; ROBERT JAMIESON, M.D., at Lamlash, April 28th; Surgeon ALFRED B. COX, M.B., has been appointed to the *Edgar*, on completing, May 2nd.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL O. E. P. LLOYD, V.C., is promoted to be Colonel, *vice* R. H. Quill, M.B., promoted, April 22nd. His previous commissions are dated: Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890; Lieutenant-Colonel, August 4th, 1898. He was in the Zulu war in 1879 with Clark's Column, and in the subsequent operations against Sekukuni including the storming of the stronghold, and was present at the capture of King Cetewayo (medal and clasp). During the Boer war of 1881 he took part in the defence of Standerton. He served in the Kachin Expedition in 1892-3, first as Medical Officer in charge of the North Eastern Column, and afterwards as Senior Medical Officer of the whole force, and was present at the attack on the Sima Post; commanded the Post during the attack after Captain Morton, the Officer Commanding, was killed (mentioned in dispatches, V.C., and medal with clasp); he was awarded the Victoria Cross for his conspicuous bravery under the following circumstances: "During the attack on the Sima Post by Kachins, on January 6th last [1893], Surgeon-Major Lloyd, on hearing that the Commanding Officer, Captain Morton (who had left the fort to visit a picket about 80 yards distant), was wounded, at once ran out to his assistance under a close and heavy fire, accompanied by Subadar Matab Singh. On reaching the wounded officer, Surgeon-Major Lloyd sent Subadar Matab Singh back for further assistance, and remained with Captain Morton till the Subadar returned with five men of the Magwe Battalion of Military Police, when he assisted in carrying Captain Morton back to the fort, where that officer died a few minutes afterwards. The enemy were within ten or fifteen paces keeping up a heavy fire, which killed three men of the picket, and also Bugler Purna Singh. This man accompanied Captain Morton from the fort, showed great gallantry in supporting him in his arms when wounded, and was shot while helping to carry him back to the fort. (The Native Officer and five Sepoys above alluded to have been awarded the Order of Merit.)"

Captain O. CHALLIS resigns his commission, May 3rd. He joined the department as Lieutenant, July 28th, 1899, and was made Captain, December 24th, 1903. He was in the South African war in 1899-1900, and was severely wounded at Rhenoster Kop in November 29th, 1900 (twice mentioned in dispatches, Queen's medal with three clasps).

ARMY MEDICAL STAFF.

SURGEON-GENERAL SIR E. TOWNSEND, M.D., K.C.B., C.M.G., is placed on retired pay, April 22nd. Sir Edmond's commissions are thus dated: Assistant-Surgeon, April 1st, 1867; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1879; Brigade-Surgeon, April 1st, 1893; Surgeon-Colonel, January 27th, 1897; and Surgeon-General, September 25th, 1901. His war services are as follow: Abyssinian Expedition, 1867-8, including action of Arrogee (medal); Perak Expedition, 1875-6, actions of January 4th, 14th, and 20th and February 4th, severely wounded (medal with clasp); Zulu War, 1879, battle of Ulundi, taking of the heights above, and capture of, Sekukuni's stronghold (mentioned in dispatches, medal with clasp); Egyptian Expedition, 1882, actions at Tel-el-Mahuta, Kassassin of September 9th, and Tel-el-Kebir (medal with clasp, and Khedive's bronze star); Burmese Expedition, 1885-6 (medal with clasp); Ashanti Expedition, 1895-6 (honourably mentioned, star); N.W. Frontier of India, 1897-8, as P.M.O., Mohmand (mentioned in dispatches, medal with clasp); Tirah, 1897-8, as P.M.O., 1st Division, including capture of the Sampagha and Arhanga Passes; operations in the Bazar Valley, December 25th to 30th, 1897 (mentioned in dispatches, C.B., clasp); S. African War, 1899-1900, P.M.O., Infantry Division advance on Kimberley, including actions at Belmont, Enslin, Modder River, and Magersfontein, and operations in the Orange Free State, at Paardeberg, and in the Transvaal, where he was dangerously wounded (several times mentioned in dispatches, C.M.G., and King's medal with two clasps). He was made a Knight Commander of the Bath June 26th, 1904.

Colonel R. H. QUILL, M.B., from the Royal Army Medical Corps is promoted to be Surgeon-General, *vice* Sir E. Townsend, April 22nd. Surgeon-General Quill entered the service as Assistant Surgeon, March 30th, 1872; became Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1884; Brigade-Surgeon, June 30th, 1896; and Colonel, March 16th, 1902. He was in the Afghan war in 1878-80 with the Kuram Field Force, and accompanied the Zaimusht Expedition, receiving the medal for the campaign.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR R. T. C. ROBERTSON, M.B., to be Surgeon-Lieutenant-Colonel, April 11th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL A. J. STURMER, Madras Establishment, is permitted to retire from the service, from April 12th. He was appointed Assistant-Surgeon, March 31st, 1875, and became Surgeon Lieutenant-Colonel, March 31st, 1895. He was in the Afghan war in 1878-9 (medal), and with the Burmese Expedition in the Chin Hills in 1892-3 (medal with clasp).

Surgeon-Lieutenant-Colonel HENRY ADEY, M.B., late of the Bombay Establishment, died at West Kensington on April 24th. He joined as Surgeon, October 1st, 1877, and was made Surgeon-Lieutenant-Colonel on retirement from the service, October 1st, 1897. His war services included the Afghan war of 1878-80 in Southern Afghanistan (medal); the Egyptian war in 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star); and the operations of the Zhob Field Force in 1890.

The undermentioned promotions, which have been already announced in the BRITISH MEDICAL JOURNAL, have received the approval of the King: Captains C. MILNE, V. G. DRAKE-BROCKMAN, W. YOUNG, M.B., J. J. BOURKE, M.B., B. R. CHATTERTON, M.D., F.R.C.S.I., C. B. PEALL, C.E. WILLIAMS, M.B., J. N. MACLEOD, M.B., F.R.C.S.E., W. H. OGILVIE, M.B., T. A. O. LANGSTON, R. HEARD, M.B., E. R. PARRY, M.B., W. H. ORR, P. ST. C. MORE, M.B., all of the Bengal Establishment, to be Majors, from January 30th: Captain G. BIDIE, F.R.C.S.E., Madras Establishment, to be Major, January 30th; Lieutenants A. E. J. LISTER, M.B., F.R.C.S., T. S. B. WILLIAMS, M.B., S. H. L. ABBOTT, M.B., A. W. GREIG, R. E. LLOYD, J. E. CLEMENTS, M.B., H. B. STEEN, M.B., E. BISSET, M.B., R. J. BRADLEY, M.B., J. WOODS, M.B., A. W. OVERBECK-WRIGHT, M.B., D. MUNRO, M.B., T. W. HARLEY, M.B., J. W. MCCOY, R. L. HAGGER, R. M. CARTER, R. D. WILLCOCKS, M.B., T. G. F. PATERSON, M.B., D. G. R. S. BAKER, J. R. J. TYRRELL, M.B., D. G. RAI, R. M. BARRON, W. R. J. SCROGGIE, L. P. FARRELL, T. H. GLOSTER, M.B., H. H. G. KNAPP, M.B., J. H. HORTON, D.S.O., W. A. JUSTICE, M.B., to be Captains, from January 29th.

Lieutenant J. H. GILL, M.B., who joined the department as Lieutenant, July 26th, 1902, is transferred to the temporary half-pay list, from March 27th.

NOTE.—Lieutenants do not belong to any particular Establishment, Bengal or otherwise, but simply to the Indian Medical Service.

ROYAL ARMY MEDICAL CORPS (MILITIA).

CAPTAIN (Honorary Captain in the army) J. DAVIES, Dublin District Company, resigns his commission, April 1st.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-LIEUTENANT G. WILSON, M.B., the Highland Regiment, to be Surgeon-Captain, April 22nd.

ROYAL ENGINEERS (VOLUNTEERS).

SURGEON-LIEUTENANT E. C. ROBERTS, 1st London, to be Surgeon-Captain, March 28th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN W. F. FISHER, M.B., 4th (Hunts) Volunteer Battalion the Bedfordshire Regiment, resigns his commission, April 22nd.

Surgeon-Lieutenant-Colonel G. P. ALEXANDER, 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders), resigns his commission, April 22nd; he is granted the honorary rank of Surgeon-Colonel, and retains his uniform.

Surgeon-Lieutenant E. C. STACK, 2nd Volunteer Battalion the Prince of Wales's (North Staffordshire Regiment), to be Surgeon-Captain, April 22nd.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,434 births and 4,954 deaths were registered during the week ending April 29th. The annual rate of mortality in these towns, which had been 15.7, 16.6, and 15.6 per 1,000 in the three preceding weeks, rose again last week to 16.5 per 1,000. The rates in the several towns ranged from 8.1 in Hornsey, 8.2 in King's Norton, 8.3 in Wallasey, 8.7 in Bournemouth, 8.9 in East Ham, and 9.6 in Northampton to 22.1 in St. Helens, 22.8 in Stockport, 22.9 in Wigan, 24.2 in Sunderland, 25.4 in Merthyr Tydfil, 25.8 in Newport (Mon.), and 27.0 in Middlesbrough. In London the rate of mortality was 15.9 per 1,000, while it averaged 16.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.5 per 1,000; in London also this death-rate was equal to 1.5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.3 in Oldham, 3.5 in Coventry, 4.7 in Sheffield, 5.2 in St. Helens, 7.1 in Merthyr Tydfil, and 7.7 in West Bromwich. Measles caused a death-rate of 2.4 in Wigan and in Sunderland, 2.8 in Coventry, 2.9 in St. Helens and in Newport (Mon.), 3.1 in Warrington, 3.8 in Sheffield, 6.4 in Merthyr Tydfil, and 6.9 in West Bromwich; and whooping-cough of 1.5 in Willesden, 1.6 in West Ham, and 2.2 in Tottenham. The mortality from scarlet fever, from diphtheria, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, but none in any of the large provincial towns. The Metropolitan Asylums Hospitals contained 16 small-pox patients on Saturday last, April 29th, against 21, 15, and 17 on the three preceding Saturdays; 4 new cases were admitted during the week, against 4, 0, and 6 in the three preceding weeks. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital, which had been 2,086, 2,133, and 2,128 at the end of the three preceding weeks, had risen again to 2,182 at the end of last week; 255 new cases were admitted during the week, against 292, 290, and 253 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 29th, 1,105 births and 632 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 16.6, 18.0, and 17.8 per 1,000 in the three preceding weeks, rose again to 18.8 per 1,000 last week, and was 2.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12.8 in Leith and 15.9 in Dundee to 20.8 in Greenock and 21.1 in Glasgow. The death-rate from the principal infectious diseases in these towns averaged 1.8 per 1,000, the highest rates being recorded in Glasgow and Paisley. The 328 deaths registered in Glasgow included 15 which were referred to measles, 18 to whooping-cough, and 6 to diarrhoea. Five fatal cases of measles and 2 of whooping-cough were recorded in Edinburgh, 2 of whooping-cough in Dundee, and 4 in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 22nd, 534 births and 385 deaths were registered in six of the principal Irish towns, against 491 births and 424 deaths in the preceding period. The mean annual death-rate in these towns, which had been 23.9, 20.5, and 22.5 per 1,000 in the three preceding weeks, fell to 20.5 per 1,000 in the week under notice, this figure being 4.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 15.6 in Waterford and 19.8 in Londonderry to 21.9 in Limerick and 23.4 in Dublin. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.4 per 1,000, or 0.4 per 1,000 higher than during the preceding week, the highest figure—2.3—being

recorded in Belfast, while Waterford registered no deaths under this heading at all. The deaths from measles fell to 16 for all Ireland, 6 of these being recorded in Belfast and 4 in Dublin. To diphtheria 5 deaths were ascribed in all, and 1 to scarlet fever. No deaths were registered from small-pox or typhus.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

DICKSON.—At Hillcrest, Lochgelly, on April 26th, the wife of D. Elliot Dickson, M.B., C.M., of a son.

MARRIAGES.

CARTER—MACMEIKAR.—On April 27th, at St. Mary's Church, Sandwich, Arthur Hunton Carter, M.D., B.S.Lond., of Wolverhampton, elder son of Thomas Carter, J.P., L.R.C.P.Lond., of Richmond, Yorkshire, to Winifred, elder daughter of John A. Macmeikar, Barrister-at-Law, of the Old House, Sandwich.

DOVE—HEAL.—On April 26th, at St. George's Church, Falfield, Gloucestershire, by the Rev. H. C. Jenner, Vicar of the parish, William Bathurst Dove, M.B., of Gothic Lodge, Leatherhead, only son of the late Dr. J. R. B. Dove, of Pinner, to Marguerite Constance, second daughter of Ambrose Heal, Esq., of Nower Hill, Pinner, Middlesex.

SUMMERS—GREEN.—On the 25th of April, at the Parish Church of Portsmouth, by the Rev. James Paul Weston Green, B.A., brother of the bride, and the Rev. R. S. Medlicott, M.A., Vicar of the parish, Alfred Henry Summers, M.A.Cantab., to Katherine Mary Green, B.A.Lond., only daughter of James Green, surgeon, of Brandon House, Mile End, Portsmouth.

SWANZY—TONNOCHY.—On March 7th, at All Souls Memorial Church, Cawnpore, India, by the Rev. M. W. Raff, Chaplain to the Forces, Henry Hubert Swanzy (Royal Army Medical Corps), elder son of James Swanzy, Esq., late of Connaberry House, Castleblayney, Co. Monaghan, Ireland, to Jessie Struan, youngest daughter of the late Major Valeus Tonnochy, 81st Foot, and of Mrs. Valeus Tonnochy, Athlone, Fleet, Hampshire.

WOOD—PETTIWARD.—On April 25th, at St. Andrew's Church, Finborough, by the Rev. E. Nelson, cousin of the bride, assisted by the Rev. T. H. Housecroft, Vicar of the parish, the Rev. Canon Blunt, uncle of the bride, and the Rev. A. Karney, Rector of Woolpit, Orby R. M. Wood, M.B., C.M., of Woolpit, fourth son of the late Rev. James Russell Wood, LL.D., of Woodbridge and Beyton, to Helen Alice, youngest daughter of R. J. Pettiward, Esq., of Finborough Hall, Suffolk.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Senior and Junior Resident Medical Officers. Honorarium at the rate of £20 and £10 a year respectively.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) House Physician. Salary, £90 per annum. (2) Second Honorary Physician.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary at the rate of £50 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon. Salary £60 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House-Surgeon.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling scholarship of £100.

HASTINGS: FAIRLIGHT HALL CONVALESCENT HOME.—Visiting Physician, honorary.

HULL: ROYAL INFIRMARY.—House-Physician, resident. Salary, 80 guineas per annum.

KENT COUNTY ASYLUM, Chartham.—Third Assistant Medical Officer. Salary, £140 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick, Warrington.—Locum Tenens Medical Officer. Salary 4 guineas per week.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.—Assistant Bacteriologist to the Serum Department, Elstree. Salary, £200 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Salary, 60 guineas per annum.

MANCHESTER TOWNSHIP.—Junior Resident Medical Officer for the Workhouse. Salary, £110 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Physician, honorary.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Honorary Assistant Visiting Surgeon.

MIDDLESBROUGH UNION.—Resident Workhouse Medical Officer and Medical Officer of Children's Home. Salary, combined, £250 per annum.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY Greenwich, S.E.—Junior Medical Officer, male. Salary at the rate of £80 per annum.

NEWCASTLE-UPON-TYNE: UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Demonstrator of Bacteriology.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Pathologist and Bacteriologist. Salary, £75 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Physician, Salary, £80 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W. Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road.—Resident Medical Officer. Salary at the rate of £100 per annum.

SOMERSET COUNTY COUNCIL.—Consulting Medical Officer of Health. Salary, £150 per annum.

SOUTHWARK UNION.—Assistant Medical Superintendent of the Infirmary, East Dulwich Grove. Salary, £150, rising to £160 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Aldershot, Hampshire.

APPOINTMENTS.

BRUCE, H. W., M.D.Lond., F.R.C.S., Medical Superintendent of the Southwark Union Infirmary.

COOK, Joseph Basil, M.D., B.Ch.Vict., M.R.C.S., L.R.C.P.Lond., Assistant Medical Superintendent to the Kensington Infirmary, Marloes Road, W.

MORIARTY, R. E., L.R.C.P. and S.Edin., District Medical Officer of the Scarborough Union.

SCHOFIELD, S. R., M.B., Clinical Assistant to the Chelsea Hospital for Women.

SKINNER, J. R., M.B., C.M.Aberd., Medical Officer No. 3 District of the Rye Union.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p.m.—General Meeting. Election of Officers and Council for Session 1905-6. Ordinary Meeting, 8.30 p.m. Discussion on the Perineal Suprapubic Methods of Prostatectomy. To be introduced by Mr. Reginald Harrison.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Dr. F. Parkes Weber: A Case of "Splenomegalic" or "Myelopathic" Polycythaemia with True Plethora and Arterial Hypertonia without Cyanosis. Dr. William P. S. Branson: Abdominal Tuberculosis in Childhood (a clinical study).

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Paper: Dr. Hugh Walsham: The Use of the Roentgen Rays in the Diagnosis of Diseases of the Chest; with lantern demonstration.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—The following papers will be read:—(1) Dr. Sidney Phillips: A Case of Typhoid Fever with Pneumonia, due to the Typhoid Bacillus (with specimen and microscopic sections exhibited). (2) Mr. J. Hutchinson, jun., and Mr. H. Lett: The Operative Treatment of certain Cases of Fracture of the Astragalus. (3) Mr. J. Hutchinson, jun., and Mr. H. Lett: A series of cases of Fracture of the Astragalus and Os Calcis.

EPIDEMIOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—The discussion on The Spread of Small-Pox occasioned by Small-Pox Hospitals during 1900-4 will be continued by Dr. Newsholme.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Surgical Cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—Tuesday and Friday, Family and Hereditary Disease.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., Thursday, 4.30 p.m.—Opening lecture of Summer Session by Dr. H. D. Rolleston: High Arterial Tension; its Results and Prevention.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows:—Monday, The Nature of Mental Derangement; Tuesday, Some Clinical Aspects of Nephritis; Wednesday, The Prevention and Treatment of *Post-partum* Haemorrhage; Thursday, When would you Operate?

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following are the arrangements for next week:—Monday, 5 p.m., Practical Surgery; Tuesday, 5 p.m., Head Injuries; Wednesday, 5 p.m., Head Injuries; Thursday, 3 p.m., General Paralysis (at Hanwell Lunatic Asylum); Friday, 5 p.m., Cerebro-spinal Meningitis.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
May	7...Sunday..	
,,	8...Monday ...	Westminster Division, *Metropolitan Counties Branch*, 20, Hanover Square, 8.30 p.m.
,,	9...Tuesday ...	London: Organization Committee.
,,	10..Wednesday	
,,	11...Thursday...	London: Hospitals Committee. Folkestone Division, *South-Eastern Branch*, Hotel Wampach, 8.30 p.m. Norwood Division *South-Eastern Branch*, St. John's Hospital, Morden Hill, Lewisham, 4 p.m. Staffordshire Branch, Victoria Hotel, Wolverhampton, 3 p.m.
,,	12...Friday ...	Hampstead Division, *Metropolitan Counties Branch*, St. Peter's Lecture Hall, Belsize Square, N.W., 5 p.m.
,,	13...Saturday...	
,,	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	London: Medico-Political Committee. 3 p.m. Shropshire and Mid Wales Branch, Salop Infirmary, 3 p.m.
,,	17...Wednesday	London: Central Council, 10 a.m. Dorset and West Hants Branch, Blandford. Salisbury Division, *Southern Branch*, Annual Meeting, Infirmary, Salisbury, 8.15 p.m., preceded by Dinner at the County Hotel, 7 p.m.
,,	18...Thuesday...	Croydon Division, *South-Eastern Branch*, Croydon General Hospital, 4 p.m.
,,	19...Friday ...	Reigate Division, *South Eastern Branch*, Laker's Hotel, Redhill, 6 p.m. Bedford and Herts Division, *South Midland Branch*, Holly Lodge, Luton, 2.45 p.m.
,,	20..Saturday...	
,,	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences.
,,	24..Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South Eastern of Ireland Branch, Annual Meeting, Kilkenny.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, Crichton's, Clapham Junction, 9.30 p.m., preceded by Annual Dinner, 7 p.m.
,,	26...Friday ...	North Cumberland Division, *Border Counties Branch*, County Hotel, Carlisle. 3.30 p.m. West Cumberland Division, *Border Counties Branch*, Annual Meeting, Whitehaven.
,,	27...Saturday...	
,,	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ..	Folkestone Division, *South-Eastern Branch*, Annual Meeting, Hotel Wampach, 7 p.m. also meeting of Folkestone, Dover, and Ashford Constituency, 7.30 p.m., Dinner, 8.30 p.m. Trowbridge Division, *Bath and Bristol Branch*, Annual Meeting, Trowbridge
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date. South Carnarvon and Merioneth Division, *North Wales Branch*, Annual Meeting, Dolgelly.
June	1...Thursday...	Note that in order to facilitate the procedure of the Council for the appointment of Committees, Branch Secretaries are requested to send in to the General Secretary the Election Returns of their Branch Representatives by June 25th.
,,	2...Friday ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...Saturday...	

Month.	Day of Week.	Meetings to be Held.
June	4...Sunday..	
,,	5...Monday ...	
,,	6...Tuesday ...	
,,	7...Wednesday.	London: Medico-Political Committee.
,,	8..Thursday...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9...Friday ...	
,,	10...Saturday...	
,,	11...Sunday..	
,,	12...Monday ...	*Bank Holiday.*
,,	13...Tuesday ...	
,,	14...Wednesday	
,,	15...Thursday...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester.
,,	16...Friday ...	London: Ethical Committee.
,,	17...Saturday...	
,,	18...Sunday..	
,,	19...Monday ...	Election of Representatives: July 3rd.
,,	20...Tuesday ...	
,,	21...Wednesday	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m.
,,	22..Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m.
,,	23..Friday ...	
,,	24...Saturday...	
,,	25...Sunday..	
,,	26...Monday ...	
,,	27...Tuesday ...	Matters for consideration by Organization Committee on July 11th should be notified to Medical Secretary on or before this day.
,,	28...Wednesday	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m.
,,	29..Thursday...	East Anglian Branch, Annual Meeting, Norwich.
,,	30..Friday ...	Association Research Scholarships expire.
July	1...Saturday...	Research Scholarships date from now.
,,	2...Sunday..	
,,	3..Monday ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4..Tuesday ...	
,,	5...Wednesday	
,,	6...Thursday...	
,,	7...Friday ...	
,,	8..Saturday...	
,,	...Sunday..	
,,	10..Monday ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
	11...Tuesday ...	London: Organization Committee.
,,	12...Wednesday	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 87, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 13TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS; PROVISIONAL AGENDA FOR ANNUAL REPRESENTATIVE MEETING:	
RECEPTION OF ELECTION RETURNS.—ELECTION OF CHAIRMAN.—STANDING ORDERS: PROPOSED AMENDMENTS.—RECEPTION OF REPORTS OF COUNCIL AND COMMITTEES	193
AMENDMENTS OF BY-LAWS.—Designation of Ethical Committee.—Grants to Branches.—Branch Subscription.—Voting in Representative Meetings.—Council Composition.—Branch Representation.—Term of Office of Branch Representatives (United Kingdom).—Qualification of Representatives of Branches (not in United Kingdom).—Election Return.—Salaried Officers.—Irish Committee	195
ALTERATION OF ARTICLES.—Constitution, etc., of Divisions and Branches.—Officers.—Composition of Council.—Committees.—Expulsion (Resignation when Inquiry Pending).—Travelling Expenses	198
NOTICES OF MOTION AFFECTING REGULATIONS AND ADMINISTRATION (Other than Notices of Amendment of Regulations).—Representative Meeting: *Officers; References to Division; Representation of Association on Outside Bodies.*—Council: *Meetings; Reports.*—Organization: *Election of Members; Local Medical Societies; Facilities for Representation.*—Finance: *Division Grants; Form of Annual Financial Statement.*—Journal and Year Book: *Circulation of Supplement; Separate Issue of Annual Meeting Report; Annual Meeting Report in Year Book.*—Designation of Central Office.—Central Officials	200
NOTICES AFFECTING THE WORK OF THE ASSOCIATION.—Medico-Political: *Midwives Act; Registration of Nurses; Consultation of Medical Witnesses; Trachoma; Contract Practice; Medical Register.*—Ethical: *Contract Practice, Canvassing, and Advertising; Position of Consultants.*—Hospitals: *Dual Appointments; Out-patient Department.*—Medical Defence.—Medical Benevolent Fund.—Medical Agency	201
ELECTION OF COMMITTEES.—Medico-Political.—Ethical.—Other Committees (if any)	203
APPENDIX: STANDING ORDERS AS ADOPTED AT OXFORD ...	203
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	205
VACANCIES	207
BIRTHS, MARRIAGES, AND DEATHS	207
DIARY OF THE WEEK	207
CALENDAR	208

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

PROVISIONAL AGENDA

FOR

Annual Representative Meeting,

TO BE HELD IN

THE HALL OF THE Y.M.C.A., LONDON ROAD, LEICESTER,

ON

JULY 24th, 1905, and following days (as may be necessary).

The Annual General Meeting is fixed for Monday, July 24th, 1905, at 2 p.m., to be immediately followed by the Annual Representative Meeting.

ORDER OF BUSINESS.

1. Receive the return of the election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives, under Article XXX and By-law 18.

2. Elect Chairman.

3. Adopt Standing Orders.

The Standing Orders as adopted at Oxford will be found appended (see page 203).

Notice has been given of the following motions for amendment :—

AMENDMENTS TO STANDING ORDERS.

I. ORDER OF BUSINESS.

AMENDMENT OF ORDER OF BUSINESS: GENERAL PROVISION.

By the Walthamstow Division (Metropolitan Counties Branch):

1. That to ensure adequate consideration of resolutions brought forward by Divisions, notices of motion be taken in future at a more convenient time, and, if possible, before the annual report of Council.

[*Supplement, February 25th.*]

AMENDMENTS TO **13**: GENERAL ORDER OF DAILY SESSIONS.

By the Wandsworth Division (Metropolitan Counties Branch):

2. All Representative Meetings, if not concluded by 6.30 p.m., shall stand adjourned either to 8.30 p.m. of the same day, or to the next day, as may be decided by a show of hands; all such meetings shall stand adjourned at 10 p.m. until the next day.

[*Supplement, February 25th.*]

By the Blackburn Division (Lancashire and Cheshire Branch):

3. That no session of the Representative Meeting last for more than three hours consecutively, and should there be more than one session in a day, there shall be an interval of at least one and a half hours between them.

[*Supplement, April 22nd.*]

RIDER TO **14**: VARYING ORDER OF BUSINESS.

By the Wandsworth Division (Metropolitan Counties Branch):

4. Any resolution or notice put on the Agenda of a Representative Meeting by the Council or a Branch or Division can be temporarily withdrawn from discussion at any evening meeting, if the Chairman of the Council or the Representative of the Branch or Division, as the case may be, give notice at 6.30 p.m. that he so desires it.

[*Supplement, February 25th.*]

III. PROCEDURE.

NEW STANDING ORDER: ELECTION OF COMMITTEES.

By the West Bromwich Division (Birmingham Branch):

(*a*) Nominations for those members of Standing Committees who are appointed by the Annual Representative Meeting shall be handed to the Secretary of the Meeting not later than one hour after the commencement of the third daily session.

(*b*) The names of all those who have been so nominated before the close of the second daily session shall be printed in a list which shall be circulated with the minutes of the Representative Meeting of that day.

(*c*) Voting papers containing all nominations received up to the close of one hour from the commencement of the third daily session shall be circulated to the members of the Representative Meeting during that session.

(*d*) Each member desiring to vote shall mark on the voting paper with a X names not exceeding the number of members to be elected to each Committee, and shall return the paper to the Secretary at such time before the close of the third daily session as shall be fixed by the Chairman.

IV. RULES OF DEBATE.

RIDER TO RULE 1.

By the West Bromwich Division (Birmingham Branch):

1. Every member shall be seated except the one who may be addressing the meeting, and when the Chairman rises no one shall continue standing, nor shall any one rise until the chair be resumed.

ADDITIONAL RULE: SMOKING.

By the Blackburn Division (Lancashire and Cheshire Branch):

2. That smoking be not allowed during such time as the Chairman is in the chair.

[*Supplement, April 22nd.*]

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4. Receive the Annual Report of the Council, presented under By-law 34, and consider motions relating thereto.

ANNUAL REPORT OF COUNCIL, 1904-5.*

---

5. Receive the Financial Estimate presented by the Council under By-law 34, and consider motions relating thereto.

---

6. Receive Additional Reports of the Council, if any in the order in which the Council shall submit them for consideration, and consider motions relating thereto.

---

7. Receive the Report of the Medico-Political Committee, and consider motions relating thereto.

MEDICO-POLITICAL COMMITTEE.

ANNUAL REPORT TO THE REPRESENTATIVE MEETING FOR THE YEAR 1904-5.*

---

8. Receive the Report of the Ethical Committee, and consider motions relating thereto.

ETHICAL COMMITTEE.

ANNUAL REPORT TO THE REPRESENTATIVE MEETING FOR THE YEAR 1904-5.*

---

9. Receive the Report of the Medical Defence Committee, and consider motions relating thereto.

MEDICAL DEFENCE COMMITTEE.*

Receive report presented in accordance with instructions of Annual Representative Meeting at Oxford.

---

10. Consider any motions placed upon the Agenda of the Meeting by which it is proposed to make By-laws or to alter or repeal existing By-laws:—

I. Amendments of a purely formal or verbal character.

II. Amendments of substance of existing By-laws.

III. Proposed new By-laws.

* The Annual Reports of the Council and Committees will be published together in the SUPPLEMENT at an early date.

AMENDMENTS TO BY-LAWS.

I.—AMENDMENTS OF A PURELY FORMAL OR VERBAL CHARACTER.

BY-LAW 40 (7): ETHICAL COMMITTEE.

Proposed Amendment.

By the Council of the Association:

To amend By-law 40 (7) by inserting in brackets after the opening words "An Ethical Committee," the words "otherwise designated the Central Ethical Committee."

[*Supplement, April 22nd.*]

Existing By-law 40 (7).

An Ethical Committee shall be appointed consisting of twelve members (five to form a quorum) which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by Members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of Professional conduct. Until the first Representative Meeting such Committee shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

By-law 40 (7) as Amended.

An Ethical Committee (otherwise designated the Central Ethical Committee) shall be appointed consisting of twelve members (five to form a quorum) which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by members of the Association, and generally shall advise, and, where so directed, act for the Council on all questions of Professional conduct. Until the first Representative Meeting such Committee shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

II.—AMENDMENTS OF SUBSTANCE OF EXISTING BY-LAWS.

BY-LAW 16: GRANT TO BRANCHES.

Proposed Amendment.

By the Council of the Association:

1. That By-law 16 be amended by the insertion of the following words at the end of the first paragraph: "The grants made under this clause shall be applied to the expenses of the bodies to which they are made at the discretion of those bodies and within the limits of the objects of the Association as defined in paragraph 3 of the Memorandum of Association. Except for the purpose of winding up, the Association shall not have power to call for the return to its general funds of any surplus accruing from such grants."

[*Supplement, April 22nd.*]

Existing By-law 16.

As from the 1st January, 1903, the Treasurer of the Association shall annually pay or allow to the Treasurer of each Branch the sum of 4s. for each Member of the said Branch who has paid to the Association the full current annual subscription for that year, and the sum of 2s. for each member elected after the 1st July, who has paid to the Association half the current annual subscription.

For the purposes of this By-law, those named in the Annual List of Members, prepared in May in any year as Members of any Branch shall be deemed to be Members of the said Branch for the said year, and those elected by any Branch Council, whose membership dates from July 1st in any year, shall be deemed to be Members of the said Branch for the ensuing half year.

By law 16 as Amended.

As from the 1st January, 1903, the Treasurer of the Association shall annually pay or allow to the Treasurer of each Branch the sum of 4s. for each Member of the said Branch who has paid to the Association the full current annual subscription for that year, and the sum of 2s. for each Member elected after the 1st July, who has paid to the Association half the current annual subscription. The grants made under this clause shall be applied to the expenses of the bodies to which they are made at the discretion of those bodies and within the limits of the objects of the Association as defined in paragraph 3 of the Memorandum of Association. Except for the purpose of winding up, the Association shall not have power to call for the return to its general funds of any surplus accruing from such grants.

For the purposes of this By-law, those named in the Annual List of Members, prepared in May in any year, as Members of any Branch, shall be deemed to be Members of the said Branch for the said year, and those elected by any Branch Council, whose membership dates from July 1st in any year, shall be deemed to be Members of the said Branch for the ensuing half-year.

BY-LAW 17: BRANCH SUBSCRIPTION.

Proposed Amendment.

By the Coventry Division (Birmingham Branch):

2. That By-law 17 be altered by the substitution of the word "Council" for "Branch Council."

[*Supplement, March 4th.*]

Existing By-law 17.

Out of the moneys received in accordance with the last preceding By-law, the Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum per Member as the Branch Council may consider necessary to defray the expenses of the Division.

By-law 17 as Amended.

Out of the moneys received in accordance with the last preceding By-law, the Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum per Member as the Council may consider necessary to defray the expenses of the Division.

BY-LAW 17 *(continued).*

Proposed Amendment.

By the Altrincham Division (Lancashire and Cheshire Branch)

3. To amend By-law 17 by adding to it the following words: "If a Division shall be of opinion that the grant annually made by the Branch Council in any year to the Division is insufficient to defray those expenses which are necessary for the proper conduct of the work of the Division, the Central Council may, upon representation having been made to it by the said Division to that effect, direct that such additional grant shall be made by the Branch to the Division as the Central Council shall deem necessary, and the Branch Council shall thereupon make such additional grant; provided that in no case shall a Branch be called upon by the Central Council to make a greater additional grant than will raise the total amount granted by the Branch to that Division for the year to three shillings per head of the membership of the Division."

[*Supplement, April 8th.*]

By-law 17 as Amended.

Out of the moneys received in accordance with the last preceding By-law, the Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum

per member as the Branch Council may consider necessary to defray the expenses of the Division. If a Division shall be of opinion that the grant annually made by the Branch Council in any year to the Division is insufficient to defray those expenses which are necessary for the proper conduct of the work of the Division, the Central Council may, upon representation having been made to it by the said Division to that effect, direct that such additional grant shall be made by the Branch to the Division as the Central Council shall deem necessary, and the Branch Council shall thereupon make such additional grant; provided that in no case shall a Branch be called upon by the Central Council to make a greater additional grant than will raise the total amount granted by the Branch to that Division for the year to three shillings per head of the membership of the Division.

BY-LAW 20: VOTING IN REPRESENTATIVE MEETINGS.

Proposed Amendment.

By the City Division (Metropolitan Counties Branch):

4. That in By-law 20 instead of the word "three" the word "nine" be read in the sentence "within the three months immediately preceding such meeting."

[*Supplement, April 1st.*]

Existing By-law 20.

In any Representative Meeting, Representatives of Divisions only shall be entitled to vote. Voting shall be, as a rule, by show of hands, unless before such vote is taken twenty of those present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are Members in the Constituency which he represents. In voting upon any matter upon which a Constituency has passed a resolution within the three months immediately preceding such meeting, the Representative of that Constituency shall be under obligation to vote in accordance with such resolution. When the vote is taken by show of hands the Chairman shall, in the case of an equality of votes, have a second or casting vote.

By-law 20 as Amended.

In any Representative Meeting, Representatives of Divisions only shall be entitled to vote. Voting shall be, as a rule, by show of hands, unless before such vote is taken twenty of those present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are Members in the Constituency which he represents. In voting upon any matter upon which a Constituency has passed a resolution within the nine months immediately preceding such meeting, the Representative of that Constituency shall be under obligation to vote in accordance with such resolution. When the vote is taken by show of hands the Chairman shall, in the case of an equality of votes, have a second or casting vote.

BY-LAW 22: COMPOSITION OF COUNCIL.

Proposed Amendment.

By the Council of the Association:

5. That By-law 22 be amended to open as follows:

The Council shall come into office on the first day of the Annual Meeting, and shall be composed of.....

[*Supplement, April 22nd.*]

By the Council of the Association:

6. That By-law 22 be further amended as follows: That the words "and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council," occurring in the sixth line and onwards thereof, be deleted, and the following words be added to the by-law: "The Council may also elect, if it thinks fit, at any of its meetings all or any one of the following, namely: 'One medical officer on the active or retired list of each of the following services: The Royal Navy Medical Service, the Royal Army Medical Service, and the Indian Medical Service.' In each case he shall not have retired from the active list more than three years previously."

[*Supplement, April 22nd.*]

Existing By-law 22.

The Council shall be composed of the Officers and ex-Officer named as Members of the Council, *ex officio*, in Article XXXVIII of the foregoing Regulations, together with the Members duly elected or appointed by the Branches and other bodies authorized by the By-laws to elect or appoint Members of the Council, and of one Member of the Royal Navy Medical Service, one member of the Army Medical Service, and one Member of the Indian Medical Service, annually appointed by the Council to represent the said Services respectively on the Council, and of Members annually co-opted by the Council in manner hereinafter provided.

By-law 22 as Amended.

The Council shall come into office on the first day of the Annual Meeting, and shall be composed of the Officers and ex-Officer named as Members of the Council, *ex officio*, in Article XXXVIII of the foregoing Regulations, together with the Members duly elected or appointed by the Branches and other bodies authorized by the By-laws to elect or appoint Members of the Council, and of Members annually co-opted by the Council in manner hereinafter provided. The Council may also elect, if it thinks fit, at any of its meetings all or any one of the following, namely: One medical officer on the active or retired list of each of the following services: The Royal Navy Medical Service, the Royal Army Medical Service, and the Indian Medical Service. In each case he shall not have retired from the active list more than three years previously.

BY-LAW 23: BRANCH REPRESENTATION IN COUNCIL.

Proposed Amendment.

By the Wandsworth Division (Metropolitan Counties Branch):

7. By-law 23.—"Any Branch, or group of Branches, having an aggregate membership of not less than 200 may elect one member of Council, and any Branch or group of Branches having an aggregate membership of not less than 400 may elect two members of Council, and an additional member for each complete 600 members in excess of 400, etc."

For "600" read "300."

[*Supplement, February 25th.*]

Existing By-law 23.

Any Branch, or group of Branches, having an aggregate membership of not less than 200 may elect one Member of Council, and any Branch or group of Branches having an aggregate membership of not less than 400 may elect two Members of Council, and an additional Member for each complete 600 Members in excess of 400. Branches in the United Kingdom having less than 200 Members shall be grouped for this purpose with neighbouring Branches, unless in the opinion of the Council the special conditions of any such Branch justify the grant of separate representation. The grouping of Branches not within the United Kingdom for the purpose of electing Members of Council shall be determined by the Council, provided that the total number of Members of Council whom such Branches are entitled to elect shall not be less in proportion to the total membership thereof than those elected by the Branches in the United Kingdom.

By-law 23 as Amended.

Any Branch or group of Branches having an aggregate membership of not less than 200 may elect one Member of Council, and any Branch or group of Branches having an aggregate membership of not less than 400 may elect two Members of Council, and an additional Member for each complete 300 Members in excess of 400. Branches in the United Kingdom having less than 200 Members shall be grouped for this purpose with neighbouring Branches, unless

in the opinion of the Council the special conditions of any such Branch justify the grant of separate representation. The grouping of Branches not within the United Kingdom for the purpose of electing Members of Council shall be determined by the Council, provided that the total number of Members of Council whom such Branches are entitled to elect shall not be less in proportion to the total membership thereof than those elected by the Branches in the United Kingdom.

By-law 25: Term of Office of Branch Representatives (United Kingdom).

Proposed Amendment.

By the Wandsworth Division (Metropolitan Counties Branch):

8. By-law 25.—"Each member of Council elected by a Branch in the United Kingdom shall be elected for one year, and at the end of that time shall be eligible for re-election unless he have served as such member of Council for eight years successively, in which case he shall for one year be ineligible for election as such member of Council."

For "one year" read "three years." For "eight years" read "six years."

[*Supplement, February 25th.*]

Existing By-law 25.

(As cited in the Notice of Motion.)

By-law 25 as Amended.

Each Member of Council elected by a Branch in the United Kingdom shall be elected for three years, and at the end of that time shall be eligible for re-election unless he have served as such Member of Council for six years successively, in which case he shall for three years be ineligible for election as such Member of Council.

By law 27: Qualification.

Proposed Amendment.

By the Council of the Association:

9. That By-law 27 be amended by adding at the end thereof the following words, "and if no such Rule shall be adopted the regulations as to eligibility shall be the same as for the Branches in the United Kingdom.'

[*Supplement, April 22nd.*]

Existing By-law 27.

No person shall be eligible for election as a Member of Council by a Branch in the United Kingdom unless at the time of his election he shall be a Member of such Branch. The eligibility for election as a Member of Council by a Branch not in the United Kingdom, shall be such as may be determined by the Rules of the said Branch.

By-law 27 as Amended.

No person shall be eligible for election as a Member of Council by a Branch in the United Kingdom unless at the time of his election he shall be a Member of such Branch. The eligibility for election as a Member of Council by a Branch not in the United Kingdom shall be such as may be determined by the Rules of the said Branch, and if no such Rule shall be adopted the regulations as to eligibility shall be the same as for the Branches in the United Kingdom.

By-law 28: Election Return.

Proposed Amendment.

By the Council of the Association:

10. That By-law 28 be amended by substituting the words "twenty-eight days" in place of "fourteen days."

[*Supplement, April 22nd.*]

Existing By-law 28.

The return of the election of each elective Member of Council shall be communicated in writing to the Secretary of the Association by the President or Secretary of the Branch by which he is elected not less than fourteen days prior to the Annual General Meeting of the Association.

By-law 28 as Amended.

28. The return of the election of each elective Member of Council shall be communicated in writing to the Secretary of the Association by the President or Secretary of the Branch by which he is elected not less than twenty-eight days prior to the Annual General Meeting of the Association.

By-law 42: Salaried Officers.

*Proposed Amendment.**

By the Council of the Association:

That By-law 42:—

42. *Officers of Committees.*

Any salaried officers to assist Committees numbered 6, 7 or 8 in By-law 40 shall be appointed by the Council and shall receive such remuneration as the Council may from time to time determine,

be amended to read as follows:—

42. *Salaried Officers.*

All salaried officers shall be appointed by the Council and subject to the Articles and By-laws shall hold office for such period and perform such duties and receive such remuneration as the Council may from time to time determine.

[*Supplement, April 22nd.*]

III. PROPOSED NEW BY-LAW.

Irish Committee.

By the Leinster Branch:

(To be moved by the Representative of the South-Eastern of Ireland Branch.)

That an Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed—namely, an Irish Committee consisting of one Secretary from each Irish Branch and the Irish members of the Central Council. It shall have a Secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters concerning Ireland.

[*Supplement, March 18th.*]

By the Ulster Branch:

The Branch agrees to the adoption of the following resolutions, referring to the proposed formation of an Irish Committee (see Supplement to British Medical Journal, March 18th, p. 105):

(*a*) That we approve of the principle of an Irish Committee.

(*b*) That this Committee shall consist of one Secretary from each Branch, and the Irish members of the Central Council, with one elected member from each Branch, and that in the case of the Leinster and Ulster Branches such elected members should be practitioners not resident in Dublin or Belfast.

(*c*) That meetings of this Committee should be held in different parts of the country, as may be arranged.

[*Supplement, April 15th.*]

By the Portadown and West Down Division (Ulster Branch):

To support the amendment of the Ulster Branch to the resolution of the Leinster Branch requesting the establishment of an Irish Committee on the lines of the Scottish Committee, together with the following rider:

"That where the Secretary of a Branch is also a member of Council there be given power to the Branch to appoint a further Representative on the Committee."

[*Supplement, April 22nd.*]

* With the proposed amendment of this By-law is to be read the proposed alteration of Article XXXVII (See page 198).

11. Consider proposed alterations of the Articles of Association which are submitted for the consideration of the Representative Meeting.

PROPOSED ALTERATIONS OF THE ARTICLES OF ASSOCIATION.

ARTICLE V.—CONSTITUTION AND GOVERNMENT OF DIVISIONS AND BRANCHES.

Proposed Alteration.

By the Altrincham Division (Lancashire and Cheshire Branch):

1. To amend Article of Association V (page 40 in Year Book, 1905) by inserting the words "Divisions or" before the word "Branches" in line 6 (as there printed).

[*Supplement, April 8th.*]

Article V as Altered.

Subject to the Regulations for the time being, Divisions and Branches shall be so constituted, managed, and governed, and shall have such powers, rights, and privileges, and shall be under such obligations, as shall be prescribed by or in accordance with the By-laws. And the By-laws may provide for contributions, grants, and subscriptions out of the general funds of the Association to *Divisions or** Branches, and may impose on the members of any Division or Branch such obligations towards the Association and the Division and Branch respectively as may seem expedient, and may empower any Division or Branch to make any Rules in relation to the affairs thereof, and to vary and repeal any such Rules.

ARTICLE XXVII.—ELECTION OF REPRESENTATIVES.

Proposed Alteration.

By the Council of the Association:

2. That the Council give notice to amend Article XXVII in order to give to the Council a discretionary power to give separate representation to Divisions below 50 in number in those cases in which special difficulties exist for the holding of joint meetings with neighbouring Divisions.

[*Supplement, April 22nd.*]

Article XXVII as Altered.

Representatives of Divisions shall be elected by Constituencies formed as follows, each such Constituency being entitled to elect one Representative:—Any Division having not less than 50 Members may form one Constituency, and *except as hereinafter provided** every Division having less than 50 Members shall be grouped by the Council with another Division or with other Divisions to form a Constituency having not less than 50 Members: *Provided that in any case in which special difficulties may exist as regards the holding of joint meetings the Council shall have power to make a Division or Divisions having fewer than* 50 *members a separate Constituency or separate Constituencies.** In no case shall the total number of Constituencies formed throughout the Association exceed 300, and the final delimitation of such Constituencies shall rest with the Council. In the case of a Constituency formed within the United Kingdom, the Representative shall be elected by a general meeting of Members of the Constituency held not more than 3 months nor less than 3 weeks before the Annual Representative Meeting, and in the case of a Constituency not formed within the United Kingdom, the representative shall be elected either in manner aforesaid or by voting papers sent to each member of the Constituency, as the said Constituency may decide. Such meeting shall be convened, or such voting papers dispatched by the Secretary of the Constituency, who, in the case of a Constituency composed of more than one Division, shall be chosen by the Secretaries of those Divisions, and if they cannot agree, by the Council. The Secretary of each Constituency shall inform, not less than 14 days before the Representative Meeting, the General Secretary of the name and address of the Representative elected by such Constituency, and the General Secretary shall issue to such Representative a ticket of admission to the Meeting.

* Words proposed to be inserted.

ARTICLE XXXVI.—OFFICERS.

Proposed Alteration.

By the Council of the Association:

3. That Article XXXVI be amended to read as follows:

XXXVI. Officers.

There shall be the following officers of the Association, namely: a President, a President-elect, a Past-President, Vice-Presidents, a Chairman of Representative Meetings, a Chairman of Council and a Treasurer. The officers aforesaid for the time being, other than the Chairman of Council, shall hold office for such period, and shall have and enjoy such duties, powers, and privileges as shall be determined from time to time by the Association in its By-laws.

[*Supplement, April 22nd.*]

Existing Article XXXVI.

There shall be the following Officers of the Association, namely: a President, a President-Elect, a Past-President, Vice-Presidents, a Chairman of Representative Meetings, a Chairman of Council, a Treasurer, [an Editor of the Journal, and a General Secretary.]* The Officers aforesaid for the time being, other than the Chairman of Council, [the Editor of the Journal, and the General Secretary.]* shall hold office for such period and shall have and enjoy such duties, powers, and privileges as shall be determined from time to time by the Association in its By-laws.

ARTICLE XXXVII.—OFFICERS (*Continued*).

Proposed Alteration.

By the Council of the Association:

4. That Article XXXVII be altered to read as follows:

XXXVII. Officers (*continued*). †

The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such period and discharge such duties as shall be determined by the Council. *During this period and for one year thereafter he shall ex officio be a member of the Council, and any Branch of which at the time of his election he was a Representative shall be entitled to elect another in his stead.*‡

[*Supplement, April 22nd.*]

Existing Article XXXVII.

The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such period and discharge such duties as shall be determined by the Council. [The Editor of the Journal and the General Secretary shall respectively be elected by the Council and shall hold office for such period and have and enjoy such duties, powers, and privileges (save in so far as the said duties, powers, and privileges are defined by these Articles) and shall receive such emoluments as shall be determined from time to time by the Council.]*

* Words proposed to be omitted.

† With the proposed alteration of this Article is to be read the alteration proposed in By-law 42 (see p. 107).

‡ Words proposed to be inserted.

ARTICLE XXXVIII.—COMPOSITION OF COUNCIL.

Proposed Alteration.

By the Council of the Association:

5. That Article XXXVIII be amended by deleting the words "if any," also by inserting after the words "Chairman of Representative Meetings" the words "Chairman of Council."

[*Supplement, April 22nd.*]

Existing Article XXXVIII

The Council shall consist of the President of the Association, the President-Elect, the Past-President, Chairman of Representative Meetings [if any],* and Treasurer, *ex officio*, and of such other Members appointed in such manner and holding office for such periods as the Association by the By-laws may from time to time prescribe.

Article XXXVIII as Altered.

The Council shall consist of the President of the Association, the President-Elect, the Past-President, Chairman of Representative Meetings, *Chairman of Council*,† and Treasurer, *ex officio*, and of such other Members appointed in such manner and holding office for such periods as the Association by the By-laws may from time to time prescribe.

ARTICLE XLI.—COMMITTEES.

Proposed Alteration.

By the Council of the Association:

6. That Article XLI be altered to read as follows:

XLI. COMMITTEES.

Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Council, subject to the provisions of the By-laws may think proper. The President of the Association, *the Chairman of the Representative Meetings*,† the Chairman of Council, and *the Treasurer*† shall be *ex-officio* members of all Committees of the Association.

[*Supplement, April 22nd.*]

Existing Article XLI.

Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Council, subject to the provisions of the By-laws, may think proper. The President of the Association and the Chairman of Council shall be, *ex officio*, Members of all Committees of the Association.

ARTICLE XLIV (*e*).—EXPULSION OF MEMBERS: *RESIGNATION WHEN INQUIRY PENDING.*

Proposed Alteration.

By the Council of the Association:

7. That when any alteration of the Articles of Association is in contemplation, notice be given to make such alteration of Article XLIV (*e*) as the Solicitor may advise to be suitable, in order (1) that the Article may expressly refer to an inquiry by a Division as well as by a Branch, and (2) to make clear that the "commencement" of an inquiry is the time when it is brought officially under the notice of a body authorised by the Regulations of the Association to investigate ethical matters.

Existing Article XLIV (e).

No Member in regard to whom a representation as aforesaid has been made or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch, shall be capable of effectively resigning his membership of the Association until the decision of the Council or Branch be made known.

* Words proposed to be omitted.
† Words proposed to be inserted.

ARTICLE XLIV (*e*) (*continued*).

Proposed Alteration.

By the City Division (Metropolitan Counties Branch):

8. That in Article XLIV (*e*) the words "or Division" shall be inserted after the words "a Branch"; and the words "or Division" after the words "or Branch."

[*Supplement, April 1st.*]

Article XLIV (e) as Altered.

No Member in regard to whom a representation as aforesaid has been made or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch *or Division** shall be capable of effectively resigning his membership of the Association until the decision of the Council or Branch *or Division** be made known.

ARTICLE XLV.—TRAVELLING EXPENSES.

Proposed Alteration.

By the North Manchester Division (Lancashire and Cheshire Branch):

9. That Article XLV of the Articles of Association be altered to allow the payment of the same expenses as are allowed to Representatives of Divisions out of the general funds of the Association to any officers of Divisions or Branches attending any conference of such officers at the Annual Meeting.

[*Supplement, April 8th*]

Existing Article XLV.

The first-class travelling expenses within the United Kingdom of Members of Council and Representatives of Divisions attending the Annual Representative Meeting shall be defrayed out of the general funds of the Association. Attendance of Representatives of Divisions for this purpose shall be construed to mean attendance at each daily Session of the Annual Representative Meeting, and at each daily Session of the Annual General Meeting, when business described under the head (A) is being transacted, unless the Council shall be satisfied that good cause existed for absence from any particular Session or Sessions. The first-class travelling expenses within the United Kingdom of all Members attending Meetings of Council or of Committees shall be paid by the Association. The Council shall determine what shall be considered an attendance for the purpose of this Clause.

ARTICLE XLV.—(*Continued.*)

Proposed Alteration.

By the City Division (Metropolitan Counties Branch):

10. That in Article XLV the words "or special" be inserted after the word "annual" in connexion with the words "Representative Meeting."

[*Supplement, April 1st.*]

Article XLV. as Altered.

The first-class travelling expenses within the United Kingdom of Members of Council and Representatives of Divisions attending the Annual *or Special** Representative Meeting shall be defrayed out of the general funds of the Association. Attendance of Representatives of Divisions for this purpose shall be construed to mean attendance at each daily Session of the Annual *or Special** Representative Meeting, and at each daily Session of the Annual General Meeting, when business described under the head (A) is being transacted, unless the Council shall be satisfied that good cause existed for absence from any particular Session or Sessions. The first-class travelling expenses within the United Kingdom of all Members attending Meetings of Council or of Committees shall be paid by the Association. The Council shall determine what shall be considered an attendance for the purposes of this clause.

* Words proposed to be inserted.

12. Consider motions placed upon the Agenda of the Meeting by Divisions or Branches, relating to the honour and interests of the Medical Profession or of the Association.

NOTICES OF MOTION

(OTHER THAN PROPOSED AMENDMENTS OF ARTICLES, BY-LAWS, OR STANDING ORDERS).

The following notices have been grouped by the Chairman of Representative Meetings according to the subjects to which they severally relate:

I.—NOTICES AFFECTING THE REGULATIONS AND ADMINISTRATION OF THE ASSOCIATION.

I.—REPRESENTATIVE MEETING.

(*a*) OFFICERS.

By the Wandsworth Division (Metropolitan Counties Branch):

1. (*a*) That the Representative Meeting do elect biennially a Chairman-elect for two years, who shall become Chairman during the third and fourth years, and Vice-Chairman during the fifth and sixth years, when he shall be ineligible for election for two years.

(*b*) That in the absence of the Chairman, the Vice-Chairman do take the chair, and should the Vice-Chairman be also absent, the Chairman-elect shall do so. In the absence of all these the meeting to elect its own Chairman.

(*c*) That there be a Business Committee to consist of the Chairman, Vice-Chairman, and Chairman-elect, who shall arrange the order of business and other details.

(6) That where necessary the Articles of Association, By-laws, and Standing Orders be altered so as to incorporate the above resolutions.

[*Supplement, February 25th.*]

(*b*) REFERENCES TO DIVISIONS.

By the City Division (Metropolitan Counties Branch):

2. That it be an instruction to the Central Council of the Association and to those Committees of the Association which report directly to the Representative Meeting, to arrange that matters referred to the Divisions by an Annual Representative Meeting be so referred as far as possible not later than September 30th following.

[*Supplement, April 1st.*]

By the Isle of Thanet Division (South-Eastern Branch):

3. That the Isle of Thanet Division of the British Medical Association, while cordially appreciating the work of the Medico-Political and other Standing Committees of the Association, would respectfully urge upon the Representative Meeting the advisability of limiting the number of questions brought before the Association for consideration, as it is impossible for all the Divisions to give sufficient time to the adequate discussion of so many important subjects at the same time.

[*Supplement, April 15th.*]

(*c*) ELECTION OF REPRESENTATIVES OF ASSOCIATION ON OUTSIDE BODIES.

4. *By the Wandsworth Division (Metropolitan Counties Branch):* That in all cases where the British Medical Association is given by Act of Parliament or otherwise a representative position on any permanent Board or Council, the selection of the Representative or Representatives shall rest ultimately with the Representatives' Meeting.

[*Supplement, February 25th.*]

By the Wandsworth Division (Metropolitan Counties Branch):

5. That it be an instruction to the Central Council to prepare a scheme suitable for meeting all such contingencies, and to submit it to the Divisions for consideration before March 31st, 1906.

[*Supplement, February 25th.*]

II.—COUNCIL.

(*a*) MEETINGS.

By the Manchester (West) Division (Lancashire and Cheshire Branch):

1. That this meeting is of opinion that the Association would be benefited by more frequent Council meetings, to be held alternately in London and the provinces; and that the Articles and By-laws should be so altered that this resolution be carried into effect forthwith.

[*Supplement, March 25th.*]

(*b*) REPORTS.

By the Salford Division (Lancashire and Cheshire Branch:)

2. That the proceedings of the Central Council ought to be published in as much detail as those of the Annual Representative Meeting, in order to stimulate interest in its doings.

[*Supplement, February 25th.*]

III.—ORGANIZATION.

(*a*) ELECTION OF MEMBERS.

By the Bradford Division (Yorkshire Branch):

1. That it is desirable to so alter By-law 2 that the Council of the Association shall, on the application of any Division with over fifty members, relegate the power of election of members to that Division; but that right of appeal to the Council shall be reserved to candidates for membership rejected by the Division.

[*Supplement, March 25th.*]

(*b*) RELATIONSHIP TO LOCAL MEDICAL SOCIETIES.

By the Stratford Division (Metropolitan Counties Branch):

2. That, with a view to furthering the organization of the medical profession, the Council be asked to consider the advisability of providing a scheme for the affiliation of local medical societies with the British Medical Association.

[*Supplement, April 15th.*]

(*c*) ARRANGEMENTS TO FACILITATE REPRESENTATION.

By the Blackburn Division (Lancashire and Cheshire Branch):

3. That in the case of any Representative or member of Council or Committee being summoned to a meeting at headquarters, the Secretary of the Division shall notify the fact to all members of the Division practising in the same district, three clear days beforehand, on forms specially supplied for this purpose, in order that the members may be prepared to watch the interests of their Representative during his absence.

[*Supplement, April 22nd.*]

IV.—FINANCE.

(*a*) DIVISION GRANTS.

By the Bradford Division (Yorkshire Branch):

1. That in the opinion of the Representative Meeting it is desirable that the Council should transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such Divisions and of such amounts as the Council may think proper, having regard to the evidences of work

done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available; and that the Council be instructed at the first opportunity to bring before the Representative Meeting such alterations of the By-laws as may be necessary to give effect to this resolution.

[*Supplement, April 22nd.*]

(*b*) FORM OF ANNUAL FINANCIAL STATEMENT.

By the Wandsworth Division (Metropolitan Counties Branch):

2. That the Finance Committee is requested, when preparing the annual accounts of the Association, to also prepare a statement containing the same details but on the lines of a rate demand note.

[*Supplement, April 1st.*]

V.—JOURNAL AND YEAR BOOK.

(*a*) CIRCULATION OF SUPPLEMENT.

By the Wandsworth Division (Metropolitan Counties Branch):

1. That the SUPPLEMENT of the JOURNAL, containing as it does the private business of the members, be not issued with the JOURNAL otherwise than to members.

[*Supplement, February 25th.*]

(*b*) SEPARATE ISSUE OF ANNUAL MEETING REPORT.

By the Dundee District Branch:

2. That for facility of reference, and to relieve the space of the BRITISH MEDICAL JOURNAL, the Journal Committee consider the advisability of publishing the proceedings of the Annual Meetings separately as Transactions.

[*Supplement, April 8th.*]

(*c*) ANNUAL MEETING REPORT IN YEAR BOOK.

By the Blackburn Division (Lancashire and Cheshire Branch):

3. That it be an instruction to the Finance and Journal Committee to publish the report of the annual meeting in the form of transactions in the Annual Year Book, which shall be published on September 1st every year, the medical year to be reckoned from one annual meeting to the next.

[*Supplement, April 22nd.*]

VI.—CENTRAL OFFICE: DESIGNATION.

By the Blackburn Division (Lancashire and Cheshire Branch):

1. That the headquarters be known as the office of the "British Medical Association," not of the BRITISH MEDICAL JOURNAL.

[*Supplement, April 22nd.*]

VII.—CENTRAL OFFICIALS.

(*a*) CHANGES OF STATUS.

By the Salford Division (Lancashire and Cheshire Branch):

1. That all increases of salary or alteration of status among the chief paid officials of the Association ought first to be submitted for approval to the Annual Representative Meeting before any definite action is taken by the Council.

[*Supplement, February 25th.*]

(*b*) POSITION OF MEDICAL SECRETARY.

By the Cardiff Division (South Wales and Monmouthshire Branch):

2. That the Representative Meeting notes with satisfaction the action of the Council in transferring to the Medical Secretary's department the secretarial work of the Representative Meeting, and of the Public Health, Hospitals, and Naval and Military Committees, thus giving effect more fully than before to the principle that the secretarial work of the Association, except in matters purely of business and finance, should be discharged by a medical man.

[*Supplement, April 22nd.*]

By the Cardiff Division (South Wales and Monmouthshire Branch):

3. The Representative Meeting further expresses the opinion that the office of the Medical Secretary should have equal recognition in the regulations of the Association, and as regards the conditions under which it is held, with those of the Editor and General Secretary; and requests the Council to take into early consideration the measures necessary to carry out this resolution.

[*Supplement, April 22nd.*]

II. NOTICES AFFECTING THE WORK OF THE ASSOCIATION.

I.—MEDICO-POLITICAL.

(*a*) MIDWIVES ACT.

By the Furness Division (North Lancashire and South Westmorland Branch):

1. That, in any steps which may be taken to amend the Midwives Act, the following considerations should receive attention at the hands of the Medico-Political Committee:

(*a*) That as no adequate provision is made for excluding ignorant women, the most fruitful causes of septic infection, up to the year 1910; and that, as no adequate provision is made to ascertain that those put on the *Register* have any skill whatever; these should not be placed upon the same *Register* as those later ones who have presumably had some training, or, at any rate, have passed an examination.

(*b*) That the constitution of the Central Midwives Board is open to criticism, as not having a sufficient number of general practitioners.

(*c*) That the provision for enforcing the rules regulating the practice of midwives is not adequate.

(*d*) That control over drugs should be withheld from those who have not passed an examination.

(*e*) That, at present, the Act implies that medical men are *compelled* to attend upon summons by a midwife, and it is desirable that the public should know that this is not the case, and that a medical man is justified in refusing to attend cases of septic poisoning in the interests of the public as long as adequate provision is not made for the exclusion of the class of women referred to in paragraph 1.

[*Supplement, April 8th.*]

By the Salford Division (Lancashire and Cheshire Branch:

2. That, inasmuch as the only legislation existing (according to a communication from the Local Government Board to the Manchester Medical Guild) which enables local authorities to pay fees to medical men when summoned under the Midwives Act to assist midwives is permissive in character, the Government be requested to take the necessary steps for amending the Midwives Act by introducing a section, or otherwise, ordering local authorities to pay such fees, and further that such fees ought to be fixed according to the present Poor law scale.

[*Supplement, April 15th.*]

(*b*) REGISTRATION OF NURSES.

By the Altrincham Division (Lancashire and Cheshire Branch):

3. That Resolution 66 of the Annual Representative Meeting at Oxford be rescinded; and that the question of the State Registration of Nurses be referred to the Divisions.

[*Supplement, April 15th.*]

Resolution 66 of the Representative Meeting at Oxford.

66. That this meeting approves of the principle of the Registration of Nurses.

(*c*) Consultation of Medical Witnesses.

By the Stratford Division (Metropolitan Counties Branch):

4. That consultation between medical witnesses in legal cases is desirable, and that the fee of the patient's medical attendant at the consultation (one guinea) should be paid at the time by the party asking for an examination or consultation.

[*Supplement, April 15th.*]

(*d*) Representations as to Trachoma.

By the Cardiff Division (South Wales and Monmouthshire Branch):

5. That the Representative Meeting is of opinion that the community is exposed to a grave danger by the entrance into and detention in this country of aliens suffering from trachoma, and urges the Council to take steps towards having the disease scheduled as "a loathsome and contagious disease" in the Alien Immigration Bill or other legislative measure.

[*Supplement, April 22nd.*]

(*e*) Contract Practice—Public Medical Services.

By the Southern Branch:

6. That this meeting of the Southern Branch considers that the British Medical Association should afford all possible facilities to towns and districts for starting and carrying on local provident medical services embracing all forms of club practice; that an official from the head office should be sent, whenever desired, to co-operate with local medical men in the inauguration of such services, and that model rules and regulations for their working should be drafted by the Medical Secretary and supplied from the head office on request.

[*Supplement, February 25th.*]

By the Wandsworth Division (Metropolitan Counties Branch):

7. In view of the fact that this Association is considering the question of Medical Contract Practice and also Hospital Reform, this Meeting of Representatives is of the opinion that some scheme might be evolved, under the control of the Central Office, and worked through the Division Committees, that would provide for those of the lower and lower middle classes, who do not need Hospital treatment, Medical treatment in their own homes, upon terms which would be satisfactory both to the Members of the Association and their Patients, and that could eventually embrace the whole of the United Kingdom.

8. This Meeting therefore decides to appoint a Committee of six (geographically representative) who shall, with six others to be appointed by the Central Council, investigate the matter, and report to the Divisions, not later than 31st March, 1906.

[*Supplement, March 4th.*]

(*f*) General Medical Council: Medical Register.

By the Bradford Division (Yorkshire Branch):

9. That the present state of the official *Medical Register* is unsatisfactory, as it is open to considerable error, and that steps be taken to remedy this defect.

[*Supplement, March 25th.*]

II. ETHICAL.

(*a*) Canvassing and Advertising in Connexion with Contract Practice.

By the Salford Division (Lancashire and Cheshire Branch):

1. That it shall be inconsistent with membership of the Association for any medical practitioner to be associated with any institution providing medical attendance on contract or provident principles which employs official canvassing either privately or collectively or any other method of advertising for the purpose of obtaining members.

[*Supplement, April 15th.*]

(*b*) Position of Consultants.

By the Walthamstow Division (Metropolitan Counties Branch):

2. That the Ethical Committee be requested to consider the relative ethical position of consultants and the medical practitioner in attendance to each other and to the patients, and report.

[*Supplement, February 25th.*]

III. HOSPITALS.

(*a*) Dual Appointments.

By the Manchester (West) Division (Lancashire and Cheshire Branch):

1. That the interests of the public and the profession equally demand that dual hospital appointments of a similar character shall not be held by any one physician or surgeon.

[*Supplement, March 25th.*]

(*b*) Local Dispute as to Out-patient Department.

By the Leigh Division (Lancashire and Cheshire Branch):

2. Whereas an infirmary is being established in Leigh, and the Infirmary Committee have, after hearing the views of the medical men in the District and in open opposition to their unanimously-expressed opinion, decided to provide an out-patient department, although no necessity has been shown to exist for such, we hereby, in Representative Meeting assembled, strongly assert that no member of our profession should take any appointment under this Committee, either Surgeon or Physician, Resident Medical or Surgical Officer, or Honorary Medical or Surgical Officer, until the Infirmary Committee make such an arrangement as will agree with the wishes of the local medical men as expressed through the Leigh Division of the British Medical Association.

[*Supplement, April 15th.*]

IV. MEDICAL DEFENCE.

By the West Bromwich Division (Birmingham Branch):

1. That in the opinion of this meeting it is not advisable for the British Medical Association to undertake Medical Defence in competition with the existing Defence Societies.

[*Supplement, April 22nd.*]

V. MEDICAL BENEVOLENT FUND.

By the Wandsworth Division (Metropolitan Counties Branch:

1. (*a*) That in the opinion of this Representatives' Meeting it is desirable that this Association should have some Fund from which assistance could be given to widows, children, and others formerly dependent on deceased Members of the Association.

(*b*) That this Fund should be formed from grants made from the Funds of the Association, grants from Branch Funds, and gifts and legacies from individuals.

(*c*) That the Memorandum of Association, Articles and By-laws be altered, where necessary, to allow of the above being carried out.

(*d*) That this Meeting do elect six who, with an equal number elected by the Central Council, shall prepare a scheme for such a Fund, and submit it to the Members by 31st March, 1906.

[*Supplement, March 4th.*]

By the Manchester (West) Division (Lancashire and Cheshire Branch):

2. That this meeting considers that the establishment of a benevolent fund for the benefit of the widows and children of members of the Association is urgently needed; and that for this purpose a subscription of 2s. 6d. per annum should be levied on each member, and an additional sum of £2 000 per annum should be set aside out of the income of the Association.

[*Supplement, April 22nd.*]

By the Blackburn Division (Lancashire and Cheshire Branch:

3. (*a*) That in the opinion of this meeting it is desirable that a department of the British Medical Association be formed for carrying out a benevolent and provident scheme for the benefit of the members of the Association.

(*b*) That the funds for these purposes be set aside from the annual income, and that if necessary the annual subscription be increased to such sum as be necessary to efficiently carry out the work.

(*c*) That this meeting do appoint a Committee to formulate a scheme for carrying this into effect, and to obtain if necessary the advice of a competent actuary, and to report to the Divisions not later than May 1st, 1906.

(*d*) That the Memorandum of Association, Articles, and By-laws be so altered as to allow this to be carried out.

[*Supplement, April 22nd*]

VI. MEDICAL AGENCY.

By the Wandsworth Division (Metropolitan Counties Branch):

1. That in the opinion of this Representatives' Meeting it is desirable that this Association should have as soon as possible a properly-equipped Medical Agency department for the use of its Members.

2. That the special Committee appointed to consider a Benevolent Fund Scheme do take this matter into their consideration and report.

[*Supplement, March 4th.*]

ELECTION OF COMMITTEES.

13. Elect six members of the Association in accordance with By-law 40 (6) to serve on the Medico-Political Committee for the ensuing year.

By-law 40. (6) *Medico-Political.*

A Medico Political Committee shall be appointed consisting of sixteen members (seven to form a quorum), which shall deal with all matters involving the public relations of the profession not specially referred to other Committees, and shall be composed of the Chairman of Representative Meeting, the Treasurer, *ex officio*, and twelve other members, all of whom shall be appointed by the Council, until the first Representative Meeting, and thereafter six of such members shall be appointed by the Council, and six by the Representative Meeting. Such Committee to report to the Council and to the Representative Meeting, to act under the Council, and to have the services of a salaried officer.

14. Elect five members of the Association in accordance with By-law 40 (7) to serve on the Ethical Committee for the ensuing year.

By-Law 40. (7) *Ethical.*

An Ethical Committee shall be appointed consisting of twelve members (five to form a quorum) which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of professional conduct. Until the first Representative Meeting such Committee shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

15. Elect other Committees, if any.

Prepared by Authority of the Chairman of Representative Meetings.

J. SMITH WHITAKER, *Medical Secretary*
(Secretary of the Representative Meeting).

May 10th, 1905.

APPENDIX.

STANDING ORDERS
RELATIVE TO
BUSINESS AT REPRESENTATIVE MEETINGS
(AS ADOPTED AT OXFORD.)

I.—ORDER OF BUSINESS.

(A) *Annual Representative Meeting.*

Except as may be otherwise determined in the manner prescribed by the Standing Orders, the order of business shall be as follows:

1. Election Returns.—Receive the return of the Election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives under Article XXX.

2. Standing Orders.—Adopt Standing Orders.

3. Annual Report of Council.—Receive the Annual Report of the Council, presented under By-law 34, and consider motions relating to the adoption thereof in whole or in part.

4. Financial Estimate.—Receive the Financial Estimate presented by the Council under By-law 34, and consider motions relating to the adoption thereof in whole or in part.

5. Special Reports of Council.—Receive Special Reports of the Council, if any, in the order in which the Council shall submit them for consideration, and consider motions for the adoption thereof in whole or in part.

6. Report of Medico-Political Committee.—Receive the Report of the Medico-Political Committee, and consider motions for the adoption of the same in whole or in part.

7. Report of Ethical Committee.—Receive the Report of the Ethical Committee, and consider motions for the adoption of the same in whole or in part.

8. Elect Members of Medico-Political Committee.—Elect six members of the Association to serve on the Medico-Political Committee for the ensuing year.

9. Elect Members of Ethical Committee.—Elect five members of the Association to serve on the Ethical Committee for the ensuing year.

10. Consider By-laws.—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by which it is proposed to make By-laws or to alter or repeal existing By-laws.

11. Consider other Motions by Divisions or Branches.—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by Divisions or Branches, relating to the honour and interests of the Medical Profession or of the Association.

12. Amendment of Standing Orders.—Consider proposed amendments of Standing Orders, other than those relating to the order of business.

13. General Order of Daily Sessions.—The matters described in the foregoing Clauses shall be considered in the order therein prescribed, or as otherwise duly determined, from day to day until the completion thereof or until the expiration of four days from the first day of the Meeting, whichever shall first occur; provided that at each daily session after the first, the Meeting shall, before proceeding to the consideration of the matters aforesaid, (*a*) confirm the Minutes of the Proceedings of the previous daily session; (*b*) consider motions, if any, relating to the order of business of the day. At the conclusion of the business of the last daily session the Meeting shall confirm the Minutes thereof for presentation to the Council.

14. Varying Order of Business.—The order of business may be varied, either at the commencement or after the expiration of two hours from the commencement of any daily session, by the vote of two-thirds of those present and voting.

15. Precedence of Motions of which Notice Given.—Motions and amendments of which notice shall have been given to the General Secretary in time for them to appear in the Daily Journal shall have precedence, in the order in which such notice shall have been given, over those relating to the same subject, or otherwise having a like claim to precedence in the order of business, of which such notice has not been given.

16. Motions on the Same Subject.—If two or more of the motions placed on the Agenda of the Meeting by the Council and by Divisions and Branches shall appear to the Chairman to relate to the same subject he shall ascertain the will of the Meeting in respect of the consideration of one of such motions as an original motion, and of the others as amendments thereto, in such order as the Meeting may determine.

17. Motions on Subjects dealt with in Reports.—If a recommendation of the Council or of a Committee, or an amendment moved that a specified portion of a report of the Council or of a Committee be not approved, shall appear to the Chairman to relate to the same subject as a motion placed upon the Agenda by the Council or by a Division or Branch, the Chairman shall ascertain the will of the Meeting as to the consideration of the said motion as an amendment to the adoption of the said recommendation, or to the approval of the said report.

(B)—*Special Representative Meetings.*

1. Read Authority for Convening Meeting.—Read the Resolution of Council, or the requisition from Divisions, in pursuance of which the Meeting is convened.

2. Notice of Substitutes.—Receive notices, if any, of the appointment of substitutes for representatives.

3. Order of Business.—If the Meeting is convened to consider more than one matter, determine the order in which such matters shall be considered.

4. Special Business.—Consider the matters which the Meeting is specifically convened to consider, in order determined by the Meeting.

5. Minutes.—Confirm the minutes of the Meeting for presentation to the Council.

II. COMPOSITION AND ARRANGEMENT OF THE MEETING.

1. Composition.—The persons constituting the Meeting, hereinafter called members of the Meeting, shall be those duly elected representatives of Divisions, or substitutes duly appointed under Article XXX and By-law 18, of whose election or appointment the General Secretary shall have received due notice, together with Members of Council for the time being.

2. Arrangement.—Distinctive seats shall be provided for the following groups of persons respectively, namely:—

(*a*) Representatives of Divisions.
(*b*) Members of Council who are not Representatives of Divisions or Officers of the Association.
(*c*) Officers of the Association, present in virtue of their office, or at the request of the Meeting, for the assistance thereof.
(*d*) Members of the Association who are not Representatives of Divisions or Members of Council.
(*e*) Reporters representing such journals as may be authorized by the Chairman subject to the approval of the Meeting.

Withdrawal of Strangers.—It shall be competent at any time for a member of the Meeting to move that persons who are not members of the Meeting be requested to withdraw, or that persons who are not members of the Association be requested to withdraw, but it shall rest in the discretion of the Chairman to submit or not to submit such motion to the Meeting.

III.—PROCEDURE.

1. Temporary Chairman.—If the Chairman of Representative Meetings be not present at the time fixed for opening any daily session of a Representative Meeting, whether annual or special, the Chairman of Council, or in his absence the Treasurer, shall take the Chair and shall forthwith call upon the Meeting to appoint a Chairman to act during the absence of the Chairman of Representative Meetings.

2. Minutes.—Minutes shall be taken of the proceedings of the Meeting, and the same shall be duly entered in a book provided for the purpose. The Minutes of each daily session of the Annual Representative Meeting shall be printed and circulated to the members of the Meeting. Minutes (if) (when) printed in the Daily Journal of the Annual Meeting shall be deemed thereby to have been circulated as required by this order.

3. Attendance.—No Representative shall leave the Meeting without permission obtained personally from the Chairman at the time of leaving. If during any daily session of a Representative Meeting it shall at any time appear to the Chairman that a quorum is not present, the roll shall be called of Representatives appointed to attend the meeting, and those Representatives who are found to be then absent, not having previously obtained leave from the Chairman, shall be deemed to have been absent from the said session. A list of members reported as absent from any daily session or sessions of a Representative Meeting shall be supplied at the close of such meeting to the Chairman and shall by him be transmitted to the Council, together with such explanations of the cause of absence as any members so reported may have furnished to him in writing.

4. Procedure as to Presentation of Reports.—A Report of the Council or of a Committee shall be brought before the Meeting by a motion or motions that the Report be received and approved, and that the recommendations to the Meeting (if any) therein contained be adopted, each such recommendation being made the subject of a separate motion. The Chairman of the body submitting a Report shall if present move the reception and adoption thereof, and of the recommendations contained therein.

5. Procedure as to other Motions.—Motions placed on the Agenda of the Meeting by the Council shall be brought before the Meeting by the Chairman of Council if present, motions so placed by a Branch shall be introduced by a member of Council elected by the Branch, and motions so placed by a Division shall be introduced by the Representative thereof.

6. Absence of Authorized Mover of Adoption of Report or other Motion.—In the absence of any member authorized to make any motion referred to in the two last preceding orders, any other member deputed by such member may make such

motion on his behalf, and if no member shall have been so deputed, such motion shall be made formally by the Chairman.

7. Seconding of Motions.—No seconder shall be required for any of the motions referred to in Sections 4 and 5. All other motions and all amendments shall be required to be moved and seconded.

8. Time Limits of Speeches.—(*a*) A member of the Meeting shall be allowed to speak for fifteen minutes in moving a resolution which does not require seconding, and for ten minutes in moving any other resolution, or any amendment. Except as aforesaid, no speech shall exceed five minutes.

Reducing Time Limit.—(*b*) The Meeting may at any period of any session reduce the time to be allowed to speakers, whether in moving resolutions or otherwise, during the remainder of such session.

9. Mode of Voting—Show of Hands.—Only Representatives of Divisions shall vote on any question before the Meeting.

Voting shall be by show of hands, except in the cases following, namely:

Vote by Card.—(*a*) If upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment any Representative of a Division shall move that the said vote be taken by card, and if ten Representatives rise in their places in support of such motion, the Chairman shall forthwith ascertain by show of hands the will of the Meeting thereon, and the vote shall be taken by card if the majority shall so determine.

Division.—(*b*) If the Chairman, after taking a vote by show of hands upon any motion or amendment, shall be of opinion that the numbers of members voting for and against such motion or amendment are not thereby ascertained with sufficient accuracy, he shall have power to direct that the Meeting shall divide upon the said motion or amendment.

IV.—RULES OF DEBATE.

1. A member of the Meeting shall stand when speaking, and shall address the Chair.

2. A member who speaks shall direct his speech strictly to the motion under discussion, or to a motion or amendment to be proposed by himself, or to a question of order.

3. A member shall not address the Meeting more than once on any motion or amendment, but the mover of an original resolution may reply, and in his reply shall strictly confine himself to answering previous speakers, and shall not introduce any new matter into the debate; provided always that a Member may speak to a point of order, or, by consent of the Meeting, in explanation of some material part of a speech made by him, which he believes to have been misunderstood.

4. A motion or amendment once made and seconded shall not be altered or withdrawn without the consent of the Meeting.

5. An amendment shall be either—

To leave out words;

To leave out words and insert or add others;

To insert or add words;

or in such form as shall be approved of by the Chairman, provided always that the amendment be relevant to the motion on which it is moved, and be not equivalent to the direct negative thereof.

6. No notice of motion, or amendment to any motion before the Meeting, not already published, shall be considered by the Meeting until a copy of the same with the name of the proposer has been handed in in writing to the Chairman.

7. Whenever an amendment upon an original motion has been moved and seconded, no second or subsequent amendment shall be moved until the first amendment shall have been disposed of, but notice of any number of amendments may be given.

8. If any amendment be rejected, other amendments may be moved on the original motion. If an amendment be carried, the amendment or motion as amended shall take the place of the original motion, and shall become the question upon which any further amendment may be moved.

9. If it be proposed and seconded that the Meeting do now adjourn, or that the debate be adjourned, or that the Meeting do proceed to the next business, or that the question be now put, such resolution shall immediately be put to the vote without discussion, except as to the time of adjournment, provided always that the Chairman shall have power to decline to put to the Meeting the motions that the Meeting do proceed to the next business, or that the question be now put.

10. A motion that the Meeting do now adjourn, or that the Meeting do now proceed to the next business, or that the debate be now adjourned, or that the question be now put, shall not be made within a period of one hour after a previous motion to the like effect, unless, in the opinion of the Chairman, the circumstances are materially altered.

V.—SUSPENSION OF STANDING ORDERS.

Any one or more of the Standing Orders, in any case of urgency, or upon motion made on notice given through the Daily Journal may be suspended at any Meeting, so far as regards any business of such Meeting, provided that three-fourths of those present and voting shall so decide.

Association Notices.

COUNCIL MEETING.

A SPECIAL Meeting of the Council will be held at 10 o'clock in the forenoon of Wednesday, May 17th, in the Board Room of the Metropolitan Asylums Board, by kind permission of the Board. The offices of the Metropolitan Asylums Board are situate on the Victoria Embankment at the corner of Carmelite Street, and near Blackfriars Bridge.

April 27th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will be held at Trowbridge on Tuesday, May 30th. Hour and place of meeting will be announced at a later date. Business: (1) Such as is laid down in Rule 11. (2) Matters referred from Central Association.—J. TUBB-THOMAS, The Halve, Trowbridge, Wilts, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 8th, at 3.30 o'clock. Nominations for offices (under Rule 4) must be received not later than the first post on May 18th by the Honorary Secretary, Dr. T. SYDNEY SHORT, 35, Newhall Street, Birmingham.

BORDER COUNTIES BRANCH.—The annual general meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 16th, at 3.30 p.m., when Sir James Crichton-Browne, M.D., will deliver his Presidential Address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held on Friday, May 26th, at 3.30 p.m., in the County Hotel, Carlisle. Dr. Maclaren (Carlisle) will read a paper on the Relations of Medical Men to Public Bodies; and Dr. Bird (Carlisle) a paper on Some Ethical Points in the Work of a Medical Officer to the Educational Board. The meeting, as last year, will be confined to the discussion of general ethical and medico-ethical subjects. It is also hoped that an exhibition of pathological specimens may be got up. Members desirous of reading papers or showing specimens will kindly communicate with the Honorary Secretary, NORMAN MACLAREN, 23, Portland Square, Carlisle.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual meeting of this Division will be held in Whitehaven on Friday, May 26th. Business: (1) Minutes of last meeting. (2) Receive the annual report. (3) Election of officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. (4) To consider a proposed new rule received from the Organization Committee *re* the filling up of vacancies among officers. (5) Papers and cases, etc. (6) General. The Secretary will be glad to receive particulars of papers or cases which any member will be willing to read or show. A further notice will be issued later. After the meeting a dinner will be held.—G. BERTRAM MURIEL, Honorary Secretary, Whitehaven.

BORDER COUNTIES BRANCH AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—Notice is hereby given that nominations for the post of Representative of these two Branches jointly on the Central Council of

the Association must be sent to me not later than May 27th. A nomination paper in favour of the present representative has already been sent in, and Dr. Maxwell Ross has signified his willingness to accept office if elected.—FRANCIS R. HILL, Carlisle, Honorary Secretary, Border Counties Branch.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th.

EAST ANGLIAN BRANCH.—Notice is hereby given that nominations of members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 31st.—B. H. NICHOLSON, M.B., East Lodge, Colchester, General Secretary of Branch.

EAST YORK AND NORTH LINCOLN BRANCH (with the CAMBRIDGE AND HUNTINGDON BRANCH).—Nominations for the office of Representative on the Central Council must reach the Honorary Secretary before May 14th. The present Representative, Dr. C. H. Milburn, is eligible for re-election.—E. M. HAINWORTH, Honorary Secretary, East York and North Lincoln Branch.

EDINBURGH AND FIFE BRANCHES.—Notice is hereby given that nominations of elective members of the Council of the Association for these Branches must be made in writing on or before June 3rd, to A. LOGAN TURNER, M.D., 27, Walker Street, Edinburgh, Honorary Secretary Edinburgh Branch.

FIFE BRANCH.—The annual meeting will be held on June 1st, at 3.15 p.m., in the Hotel, Thornton, as per circular issued to the members.—R. BALFOUR GRAHAM, Leven, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER AND CREWE DIVISIONS.—The annual meeting of the above Divisions will be held in the Board Room of the Chester General Infirmary, on Tuesday, May 23rd, at 5 p.m. Agenda: (1) Minutes of the last meeting. (2) To receive the annual report of the Executive Committee. (3) To elect officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee (Rules 5, 6, 8, and 9). (4) To elect the Representative of the two Divisions in Representative Meetings of the Association (Rule 7). (5) To consider the business of the Annual Representative Meeting (6) To consider letter from the Medical Secretary *re* representation of Divisions. (7) To consider notices of Motions, etc., in the SUPPLEMENTS of April and May. (8) Any other business.—H. W. KING, 26, Nicholas Street, Chester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A meeting of this Division will be held at Woodford Hospital, on Tuesday, May 16th, at 4 p.m. The chair will be taken by Mr. Percy Warner. Mr. W. Watson Cheyne will read a paper on Acute Abdominal Affections. Matters referred to the Division will be discussed. Visitors are cordially invited to attend.—C. J. MORTON, Oxford Road, Walthamstow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—The annual meeting will be held at Crichtons, Clapham Junction, on Thursday, May 25th, at 9.30 p.m. Agenda: (1) Minutes, (2) correspondence, (3) questions, (4) additional rules (5) election of officers and committee of the Division. The meeting will be preceded by the annual dinner at 7 p.m., at which the following guests of the Division will be present: Sir Henry Kimber, Bart., M.P. for Wandsworth; Percy Thornton, Esq., M.P. for Clapham; the Mayor of Wandsworth; Chairman of the Wimbledon District Council; Chairman of the Wandsworth Guardians; J. Hunt, Esq., and Lieutenant-Colonel A. Rotton, J.P., members of the L.C.C; Mrs. and Miss Garrett Anderson, M.D.; Sir Walter Foster, M.P.; Dr. Michael Taylor, Coroner; Chairman of Central Council; President of the Branch; Drs. A. P. Beddard, George Carpenter, Lauriston Shaw, and R. Hutchison; Shirley Benn, Esq; the Editor of the JOURNAL; the Medical and General Secretaries; and others. Tickets on application to E. ROWLAND FOTHERGILL, M.B., Honorary Secretary, Southfields, S.W. (Telephone 868 Battersea.)

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, June 15th, at 4.30 p.m. Tea will be provided before the meeting. Copy of resolution of Branch Council passed January 11th, 1905: "That a business meeting only of the Branch be held in June next." The Branch Council will meet at 3.30 p.m. Agenda: Minutes. Report of Branch Council and annual financial statement. Election of Branch officers. Any other business.—ASTLEY V. CLARKE, Honorary Secretary and Treasurer.

NORTH OF ENGLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council of the Association must reach me not later than May 30th. There are two vacancies, and the present Representatives, Drs Murphy and Hunter, are both eligible, and offer themselves for re-election.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting will be held at Dolgelly on May 31st, when the election of officers, etc., for the ensuing year will be proceeded with. Dr. Hugh Jones will open a discussion on the treatment of pneumonia.—W. JONES MORRIS, Portmadoc, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCHES.—As these two Branches are grouped for the election of a member on the Central Council of the Association, nominations in accordance with By-law 24 will be received by either of the undersigned not later than May 22nd.—W. JONES MORRIS, Portmadoc; H. JONES ROBERTS, Penygroes; H. H. B. MACLEOD, Clive House, Shrewsbury.

SHROPSHIRE AND MID-WALES BRANCH.—The spring meeting will be held at the Salop Infirmary, on Tuesday, May 16th, at 3 p.m. The President, Dr. Edward Cureton, will take the chair. Agenda: Minutes of last meeting. Read letters. Communications from Branch Council. Election of officers for 1905-6. Matters referred to Divisions: "A" *re* Information to Coroners (vide enclosed circular); "B" *re* Ambulance Work (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 4th). Mr Russ Wood will show a case of Paralysis of the Sixth and Seventh Nerves. Professor Leith, of Birmingham University, will read a paper, Evolution in Tuberculosis. Dr. Law Webb will demonstrate a simple test for the presence of Carbon Monoxide in the blood of persons poisoned by coal gas. Mr Russ Wood will give a short paper on Adenoids, with an analysis of 500 operations. Dr. Cecil Salt will read a note sent by Dr. A. Eddowes on *X*-ray burns (2 cases), with treatment, and will show photographs. By the invitation of the President, members will partake of tea at the Infirmary after the meeting.—HAROLD H. B. MACLEOD, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Canterbury on Wednesday, June 21st, Dr. Whitehead Reid, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. [This will be done by voting papers sent to each member of the Branch. Nomination by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 13th.] (2) To receive the annual report of the Branch Council. (3) To consider the business of the Annual Representative Meeting. (4) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." (5) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Saturday, May 13th.—H. M. STEWART, Walton House, Lordship Lane, S.E., Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting will be held at the Croydon General Hospital on Thursday, May 18th, at 4 p.m., Dr. J. Wayte in the chair. Dinner at Greyhound Hotel, 6.15 p.m. charge 5s., exclusive of wine. Agenda: (1) Minutes of the previous meeting; (2) to decide when and where the next meeting shall take place, and to elect a chairman; (3) election of officers for the ensuing year; (4) clinical meeting. Gentlemen willing to exhibit cases are requested to communicate with the Honorary Secretary not later than May 13th Details will be announced subsequently. All members of the South-Eastern Branch are entitled to attend and introduce professional friends. Tea at four o'clock by kind invitation of Dr. Wayte. The Honorary Secretary would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements, and promote the success of the meeting.—E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting will be held at Kilkenny on May 24th.—E. J. FARMER, Honorary Secretary.

SOUTH-EASTERN BRANCH: EASTBOURNE DIVISION.—The annual general meeting of this Division will be held on Tuesday, May 23rd, at 8.30 p.m., in the Town Hall, Eastbourne, when the matters referred to the Division will be considered. On Thursday, May 25th, at 6.30 p.m., a meeting of the Division will be held, in conjunction with the Hastings Division, at the Grand Hotel, Eastbourne, when a paper will be read by Mr. C. A. Ballance. Dinner at 8 p.m.—W. J. C. MERRY, Eastbourne, Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A special meeting will be held at Laker's Hotel, Redhill, on Friday, May 19th, at 6 p.m., H. J. Blackler, M.B.Lond., etc., of Redhill, in the chair. Agenda: To elect a Representative of the Division for the Annual Meeting of the Association. An address will be given by Dr. J. H. Bryant, Assistant Physician to Guy's Hospital, on Electro-therapeutics. Clinical cases will be shown by Drs. J. H. Pegg, A. R. Walters, and W. A. Berridge. A Short Note on an Unusual Case of Femoral Hernia by Dr. F. Curtis, F.R.C.S Eng. Dinner at 7.30 p.m.; charge 5s. (exclusive of wine). The Honorary Secretary will be much obliged if members will kindly inform him whether they intend, if possible, to be present at the meeting, and if they are likely to remain to dinner.—W. A. BERRIDGE, Honorary Secretary, Station Road, Redhill.

SOUTHERN BRANCH: SALISBURY DIVISION.—The annual meeting of the Division will be held on Wednesday, May 17th, at the Infirmary, Salisbury, at 8.15 p.m., to be preceded by dinner at the County Hotel, at 7 p.m. (morning dress). Agenda: (1) Minutes of the last meeting. (2) Election of officers: (*a*) Chairman, Vice-Chairman, and Secretary, Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee; (*b*) to elect the representative of the Division in Representative Meetings of the Association; (*c*) to receive the annual report of the Executive Committee; (3) to make arrangements for the general meeting of the Branch in Salisbury; (4) to discuss and reply on the following matters referred to the Division: (*a*) National Deposit Friendly Society; (*b*) ambulance work; (*c*) advertising in connexion with hydropathic establishments; (*d*) report on information given to coroners (SUPPLEMENT, November 26th, 1904); (*e*) consultations between medical witnesses; (*f*) proposals for preventing the abuse of drugs; (*g*) statutory provision for payment of medical men called in to assist midwives; (*h*) contract practice and Medical Acts Amendment Bill; (*i*) death registration and coroners' law. (5) Cases. Members wishing to show any cases or read any papers are desired to communicate with the Honorary Secretary as soon as possible. Members intending to be present at dinner are desired to inform the Honorary Secretary not later than Saturday, May 13th.—J. E. GORDON, Honorary Secretary, 52, Endless Street, Salisbury.

SOUTH-WESTERN BRANCH.—The nomination of candidates for the office of elective members of Council (Branch representatives on the Council of the Association) for the ensuing year must be made by at least three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of members for the office of Representatives on Central Council, each signed by not less than three members, must reach me not later than May 15th. The present Representative, Mr. R. H. Kinsey, is eligible for re-election. —E. HARRIES JONES, Honorary Secretary, Northampton.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTS DIVISION.—The annual meeting of the Bedford and Herts Division of the British Medical Association will be held at Holly Lodge, Luton, by kind invitation of T. Sworder, Esq., on Friday, May 19th, at 2.45 p.m. Agenda: (1) The minutes of the last annual meeting. (2) To receive the annual report of the Executive Committee. (3) To elect the officers for the ensuing year. (4) To consider the following new rule proposed by the Organization Committee: "In the event of the death or resignation of any officer of the Division, the Executive Committee shall appoint some member of the Division to hold the office thereby vacated until the next annual meeting." (5) To transact any business that may be transacted at an annual meeting. (6) Mr. Jonathan Hutchinson, F.R.S., will deliver an address entitled, Some of My Opinions. Drs. Sworder and Bolton Tomson invite the members of the Division to lunch at Holly Lodge at 1.30 p.m.—H. SAVORY, Bedford, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—The annual meeting of the Division will be held in the Rooms of the Cardiff Medical Society, 141, Queen Street, on Thursday, May 18th, at 3.30 p.m. The business of the meeting will be as follows: (a) To elect officers, the five Representatives of the Division on the Branch Council, and the four ordinary members of the Executive Committee. (b) To elect the Representative of the Division in the Representative Meetings of the Association. (c) To receive the annual report of the Executive Committee. (d) To consider the business of the Annual Representative Meeting. (e) To consider recommendations of the Executive limiting the tenure of office of Secretary to four years, and instituting an Assistant Secretaryship. (f) To transact other business referred to the Division.—EWEN J. MACLEAN, Honorary Divisional Secretary.

STAFFORDSHIRE BRANCH.—Nominations of Representative on Central Council: Notice is hereby given that nominations must be sent in to me on or before May 25th.—G. PETGRAVE JOHNSON, Honorary Secretary, Stoke-on-Trent.

WORCESTERSHIRE AND HEREFORDSHIRE AND GLOUCESTERSHIRE BRANCHES.—Nominations for the office of Representative on the Central Council to be sent on or before May 21st to G. W. CROWE, 43, Foregate Street, Worcester, Honorary Secretary of the Worcestershire and Herefordshire Branch.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum and notification fees.

BIRMINGHAM GENERAL HOSPITAL.—House-Surgeon, resident. Salary at the rate of £50 per annum.

BRISTOL GENERAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

BODMIN: CORNWALL COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £135, rising to £155, per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C. —House-Surgeon. Salary at the rate of £50 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—(1) House Surgeon. (2) Assistant House-Surgeon. Salaries, £100 and £60 per annum respectively.

DUNFERMLINE: CARNEGIE DUNFERMLINE TRUST COLLEGE OF HYGIENE AND PHYSICAL TRAINING.—Medical Man to Lecture in Anatomy, Physiology, and Hygiene. Salary, £300 per annum.

GUY'S HOSPITAL DENTAL SCHOOL.—Travelling scholarship of £100.

HULL: ROYAL INFIRMARY.—House-Physician, resident. Salary, 80 guineas per annum.

KENT COUNTY ASYLUM, Chartham.—Third Assistant Medical Officer. Salary, £140 per annum.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.—Assistant Bacteriologist to the Serum Department, Elstree. Salary, £200 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Honorary Assistant Visiting Surgeon.

MIDDLESBROUGH UNION.—Resident Workhouse Medical Officer and Medical Officer of Children's Home. Salary, combined, £250 per annum.

MIDDLESEX COUNTY COUNCIL.—Second Assistant Medical Officer at Napsbury Asylum, near St. Albans. Salary £220 per annum.

MUNDESLEY SANATORIUM.—Resident Medical Officer.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Two House-Surgeons. Salary at the rate of £60 per annum each.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Salary at the rate of £50 per annum each.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Physician, Salary, £80 per annum.

ROCHESTER: ST. BARTHOLOMEW'S HOSPITAL.—(1) House-Surgeon. (2) House-Physician. Salary, £110 per annum each.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road.—Resident Medical Officer. Salary at the rate of £100 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, Strand.—(1) House-Surgeon. Honorarium, £25 for six months. (2) Clinical Assistants.

SALFORD ROYAL HOSPITAL.—Honorary Physician at Branch Dispensary, Pendleton.

SOMERSET COUNTY COUNCIL.—Consulting Medical Officer of Health. Salary, £150 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon. Honorarium, £25 for six months.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM AND EPILEPSY, Welbeck Street, W.—Honorary Assistant Physician.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies in the office of Certifying Factory Surgeons at Corstorphine, Edinburgh; and Ulceby, Lincolnshire.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

DEATHS.

GOLDSTEIN.—At Bournemouth, on April 12th, Harry Vivian Goldstein, M.B., B.Ch., younger son of Rev. S. Goldstein, Auckland, New Zealand, aged 23 years.

LANE.—At Dharmsala, Punjab, on the 4th of April, killed by the earthquake, Charles Eugene (Charlie), dearly-loved little son of Major D. T. Lane, I.M.S., aged 7 years.

LLOYD.—On the 19th of April (very suddenly), at Preswylfa, Llanelly, Dr. J. Jenkin Lloyd, aged 51.

SHIMELD.—On May 2nd, at Salisbury House, Ilford, Essex, James Shimeld, L.R.C.P., L.R.C.S.(Edin.), L.A.H.(Dublin), late M.O.H., aged 57 years.

WALKER.—At 54, Maddox Street, London, W., on May 7th, of acute pneumonia, James G. Walker, M.B., C.M.Edin. Funeral service at St. George's Church, Hanover Square, W., on Saturday, May 13th, at 10.30 a.m. Friends will kindly accept this, the only invitation.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Dr. E. F. Buzzard: Morbid Anatomy of Myasthenia Gravis. Mr. C. Walker: On the Resemblance between Plimmer's Bodies in Malignant Growths and Certain Normal Constituents of the Cells in Gametogenic Tissues. Dr. W. de Korté: Morbid Growth from Angora Ewe. Mr. S. G. Shattock and Dr. C. G. Seligmann: True Hermaphroditism in a Leghorn Fowl. Mr. H. Rundle: Congenital Deformities of Lower Extremities. Dr. J. M. Berustein: Bronchopneumonia with Multiple Cavities. Card Specimen: Professor R. T. Hewlett: Spleen of large size from Tuberculous Guinea pig.

WEDNESDAY.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—(1) Paper: Mr. D. D Jackson: The Movements of Diatoms and other Microscopic Plants. (2) Exhibition of Slides of the Oribatidae.

THURSDAY.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: (1) Dr. E. F. Trevelyan: A Note on Tabes Dorsalis occurring in Husband, Wife, and Daughter. (2) Drs. C. R. Box and E. Farquhar Buzzard: An unusual case of Combined Degeneration of the Cord associated with Anaemia. (3) Dr. T. Grainger Stewart: Some Points in the Diagnosis of Tumours of the Frontal Lobes.

FRIDAY.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5.30 p.m.—Dr. Henry Ashby will deliver the Wightman Lecture; subject, Some of the Neuroses of Early Life.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Medical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Monday, The Prodromes and Early Symptoms of Insanity; Tuesday, Disseminated Sclerosis; Wednesday, Hypersecretion of the Vagina and Cervix Uteri; Thursday, Orthopaedic Surgery.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday, Diagnosis of Appendicitis; Thursday, Malignant Disease of the Large Intestine.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—Shock.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday and Tuesday, Practical Points in the Anatomy of the Ear, with lantern slides; Wednesday, Practical Medicine; Thursday, Pharyngitis, Causes and Treatment; Friday, Otorrhoea and its Treatment.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
May	14...Sunday..	
,,	15...Monday ...	
,,	16...Tuesday ...	London: Medico-Political Committee, 3 p.m. Shropshire and Mid Wales Branch, Salop Infirmary, 3 0 m. Walthamstow Division, *Metropolitan Counties Branch*, Woodford Hospital, 4 p m.
,,	17...Wednesday	London: Central Council, 10 a.m. Dorset and West Hants Branch, Blandford. Salisbury Division, *Southern Branch*, Annual Meeting, Infirmary, Salisbury, 8.15 p m., preceded by Dinner at the County Hotel, 7 p.m.
,,	18...Thursday..	Cardiff Division, *South Wales and Monmouthshire Branch*, Rooms of Cardiff Medical Society, 141, Queen Street, 3 30 p m. Croydon Division, *South-Eastern Branch*, Croydon General Hospital, 4 p.m.
,,	19...Friday ..	Reigate Division, *South Eastern Branch*, Laker's Hotel, Redhill, 6 p.m. Bedford and Herts Division, *South Midland Branch*, Holly Lodge, Luton, 2.45 p.m.
,,	20...Saturday...	
,,	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences. Chester and Crewe Divisions, *Lancashire and Cheshire Branch*, Annual Meeting Board Room, Chester General Infirmary, 5 p.m. Eastbourne Division, *South-Eastern Branch*, Annual Meeting, Town Hall, Eastbourne, 8.30 p.m.
,,	24...Wednesday	Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South Eastern of Ireland Branch, Annual Meeting, Kilkenny.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual General Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Eastbourne Division, *South-Eastern Branch*, in conjunction with Hastings Division, Grand Hotel, Eastbourne, 6.30 p.m ; Dinner, 8 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, Crichton's, Clapham Junction, 9.30 p.m., preceded by Annual Dinner, 7 p.m
,,	26...Friday ..	Manchester (South) Division, *Lancashire and Cheshire Branch*, Annual Meeting, Schoolroom of Holy Innocents' Church, Fallowfield, 4.15 p.m. North Cumberland Division, *Border Counties Branch*, County Hotel, Carlisle 3 30 p m. West Cumberland Division, *Border Counties Branch*, Annual Meeting, Whitehaven.
,,	27...Saturday...	
,,	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	Folkestone Division, *South-Eastern Branch*, Annual Meeting, Hotel Wampach, 7 p.m. also meeting of Folkestone, Dover, and Ashford Constituency, 7.30 p.m., Dinner, 8.30 p.m. Trowbridge Division, *Bath and Bristol Branch*, Annual Meeting, Trowbridge
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date. South Carnarvon and Merioneth Division, *North Wales Branch*, Annual Meeting, Dolgelly.
June	1...Thursday...	Note that in order to facilitate the procedure of the Council for the appointment of Committees, Branch Secretaries are requested to send in to the General Secretary the Election Returns of their Branch Representatives by June 27th. Fife Branch, Annual Meeting, in the Hotel, Thornton, 3.15 p.m.
,,	2...Friday ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...Saturday...	

Month.	Day of Week.	Meetings to be Held.
June	4...Sunday..	
,,	5...Monday ...	
,,	6...Tuesday ...	
,,	7...Wednesday.	London: Medico-Political Committee.
,,	8...Thursday...	Birmingham Branch, Annual Meeting, Medical Institute, Birmingham, 3.30 p.m.
,,	9...Friday ...	
,,	10...Saturday...	
,,	11...Sunday..	
,,	12...Monday ...	*Bank Holiday.*
,,	13...Tuesday ...	
,,	14...Wednesday	
,,	15...Thursday...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester. Midland Branch, Annual Meeting, Infirmary, Leicester, 4 30 p.m.
,,	16...Friday ...	London: Ethical Committee. Border Counties Branch, Annual Meeting, County Hall, Carlisle, 3.30 p m.
,,	17...Saturday...	
,,	18...Sunday..	
,,	19...Monday ...	Election of Representatives: July 3rd.
,,	20...Tuesday ...	
,,	21...Wednesday	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m.
,,	22...Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m.
,,	23...Friday ...	
,,	24...Saturday...	
,,	25...Sunday..	
,,	26...Monday ...	
,,	27...Tuesday ...	Matters for consideration by Organization Committee on July 11th should be notified to Medical Secretary on or before this day.
,,	28...Wednesday	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4 30 p.m.
,,	29...Thursday...	East Anglian Branch, Annual Meeting, Norwich.
,,	30...Friday ...	Association Research Scholarships expire.
July	1...Saturday...	Research Scholarships date from now.
,,	...Sunday..	
,,	3...Monday ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...Tuesday ...	
,,	5...Wednesday	
,,	6...Thursday...	
,,	7...Friday ...	
,,	8...Saturday...	
,,	9...Sunday..	
,,	10...Monday ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
	11...Tuesday ...	London: Organization Committee.
,,	12...Wednesday	Last day for Branch Representatives to nominate Candidates for co-option to the Council.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 20TH, 1905.

CONTENTS.

	Page
MEETINGS OF BRANCHES AND DIVISIONS:	
Cape of Good Hope (Eastern Province) Branch	209
Dundee Branch	209
Dorset and West Hants Branch: Bournemouth Division	210
Glasgow and West of Scotland Branch: Eastern Division	210
Lancashire and Cheshire Branch: Blackburn Division	210
" " Liverpool (Northern) Division	211
" " North Manchester Division	211
Metropolitan Counties Branch: City and Walthamstow Divisions	211
" " Wandsworth Division	211
" " Westminster Division	211
North of England Branch: Darlington Division	212
South-Eastern Branch: Brighton Division	212
" " Canterbury and Faversham Division	213
" " Folkestone Division	213
South-Eastern of Ireland Branch.—Council Meeting.—General Meeting	213
South Wales Branch: South-West Wales Division	213
South-Western Branch: Barnstaple Division	213
Yorkshire Branch: Sheffield Division	214
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	214
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER	216
BRITISH MEDICAL ASSOCIATION: SEVENTY-THIRD ANNUAL MEETING	216
BRITISH MEDICAL ASSOCIATION LIBRARY	217
VITAL STATISTICS	218
NAVAL AND MILITARY APPOINTMENTS	220
GRANTS FOR SCIENTIFIC RESEARCH	221
VACANCIES AND APPOINTMENTS	222
BIRTHS, MARRIAGES, AND DEATHS	222
DIARY OF THE WEEK	223
BOOKS RECEIVED	223
CALENDAR	224

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

CAPE OF GOOD HOPE (EASTERN PROVINCE) BRANCH.

A MEETING of this Branch was held at Steinman's Hotel on March 10th.

Confirmation of Minutes.—The minutes of the meeting held on January 13th were read and confirmed.

Recovery of Fees.—On the question of the desirability of medical men being able to recover professional fees after three years, under Act 6 of 1861, a resolution from the Western Branch that it was inadvisable to try to amend the law at the present time was recorded.

The Feeding of Children.—Dr. W. H. Edwards, of Port Elizabeth, in a letter, drew attention to Dr. Poynton's paper in the *Lancet* of August 14th, 1904, on the use of citrate of soda in feeding of children. The effect of this drug on milk in the presence of hydrochloric acid and the result were demonstrated.

Proposed East London Division.—It was resolved, in answer to letters from Drs. R. J. Roulston and C. J. Hill-Aitken, of East London:

> That this Branch welcomes the suggestion of forming a Division at East London, and is prepared to accept an invitation to hold a meeting at a central point (such as King William's Town).

Communications.—Dr. C. J. HILL-AITKEN (East London) read three communications: (1) On the use of Bossi's dilator. The use was easy, the action rapid, but there was a distinct disadvantage, in that uterine contractions were not set up by its use. Delivery should be postponed an hour after full dilatation to allow development of "pains." (2) On general anaesthesia by ethyl chloride. (3) On persistent blepharospasm in phlyctenular ophthalmia. In some cases this is due to carious teeth. A vote of thanks and discussion followed.

DUNDEE BRANCH.

A CLINICAL meeting of this and other Scottish Branches was held in the Royal Infirmary, Dundee, on Friday, April 28th, at 4 p.m.

Specimens, etc.—Previous to the meeting there was an exhibition of pathological specimens, radiographs, photographs, etc. By the kindness of the directors of the Infirmary tea was served.

Cases.—At the meeting, which was largely attended, the following cases were shown:—Dr. M'GILLIVRAY: A Series of Congenital Anomalies: (1) Two cases of microphthalmos; (2) bridge-shaped coloboma of iris (downwards) involving the optic disc and portion of the choroid; (3) unilateral zonular cataract; (4) lateral ectopia lentis; (5) congenital dimple of the upper lip.—Dr. HALLEY: Cases of hereditary keratosis palmaris et plantaris.—Dr. G. W. MILLER: Aneurysm of the ascending portion of the aortic arch.—Dr. PIRIE: A case of cardiac disease with *x*-ray photo.—Dr. FOGGIE: (1) Congenital dextrocardia (child); (2) a case of "late rickets"; (3) a case of disseminated sclerosis.—Dr. FRASER: Case of lupus treated by *x* rays.—Professor MACEWAN: (1) Patient thirteen months after removal of the stomach; (2) cases illustrative of the conservative treatment of tuberculous joint disease.—Dr. MACKIE WHYTE: (1) Congenital ossification of the cranial sutures with diplegia in child, aged 4; (2) symmetrical atrophy of the intrinsic muscles of the hands; (3) progressive muscular atrophy of the upper extremities; (4) multiple neuritis of doubtful etiology—partial recovery; (5) cerebral tumour in a tuberculous man; (6) spinal myelitis recurring some months after diphtherial paralysis—convalescence; (7) splenic anaemia; (8) acute form of rheumatoid arthritis with muscular atrophy.—Mr. GREIG: (1) A case of congenital high scapula; (2) a case of congenital sarcoma of cheek; (3) child after excision of a large hydronephrosis; (4) man after operation for general peritonitis

—the sequel to appendicitis.—Dr. DON: (1) Case of acromegaly, with localized epileptiform convulsions, after trephining and other treatment; (2) case of diabetes under treatment by high-frequency condensation currents.—Dr. GUILD: (1) Patient two years after thyrotomy for lupus; (2) patient with a rhinolith.—Dr. G. F. WHYTE: Boy with cerebral tumour (tuberculous).—Dr. HENDERSON (Kirkcaldy): Case of coxa vara.—Dr. ROGERS: Case of multiple superficial gummata.

Dinner.—After the meeting forty-five gentlemen sat down to dinner in the Royal Hotel, Dr. GRANT (Glamis), President of the Dundee Branch, in the chair. The following gentlemen were guests of the Branch: Mr. R. G. Kennedy, Chairman of Directors of the Royal Infirmary; Professor Finlay (Aberdeen), Drs. Nasmyth (Fife), Hamilton (Glasgow), Moorhouse (Stirling), Norman Walker (Edinburgh), Moir (Inverness), Taylor and Trotter (Perth). The toasts were: "The King," proposed by the PRESIDENT; "The Navy, Army, and Reserve Forces," proposed by the PRESIDENT and replied to by Professor KYNOCH, Surgeon R.N.V.R.; "The British Medical Association," proposed by Professor STEPHENSON (Aberdeen) and replied to by the PRESIDENT; "The Dundee Royal Infirmary," proposed by Dr. NORMAN WALKER (Edinburgh) and responded to by Mr. R. G. KENNEDY, and "The Visitors," proposed by Professor STALKER and responded to by Professor FINLAY (Aberdeen). A pleasant time was spent with song and story.

DORSET AND WEST HANTS BRANCH:

BOURNEMOUTH DIVISION.

A MEETING of this Division was held at Bournemouth on Wednesday, May 3rd, at 8.30 p.m., Dr. SNOW, Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following officers were elected: *President*, Dr. Snow; *Vice-President*, Dr. Davison; *Honorary Secretary*, Dr. E. K. Le Fleming; *Representative of Division*, Dr. Johnson Smythe; *Representatives of Division on Branch Council*, Drs. Snow, Alexander, Johnson Smythe, Mahomed, Simmons, Batterbury, and Le Fleming; *Representatives on Executive Council*, Drs. Alexander, Gott, and Marriner.

Matters Referred to Divisions.—While approving the report of the Medico-Political Committee on the National Deposit Friendly Association no further resolutions were adopted. The principles of an Irish Committee and State registration of nurses and the report on advertising in connexion with hydropathic establishments were approved. The question of death registration and coroners' law was left in the hands of the Representative of the Division at Association meetings. With regard to ambulance work it was agreed that five guineas be the lowest fee desirable for conducting an ambulance instruction course.

Case.—Mr. T. GOODALL showed an interesting specimen of cleft palate in a puppy.

Isle of Thanet Division.—It was unanimously agreed to endorse the recommendation of this Division as to the desirability of limiting the number of questions brought before the Divisions.

GLASGOW AND WEST OF SCOTLAND BRANCH:

EASTERN DIVISION.

A MEETING of this Division was held in the Religious Institution Rooms, 200, Buchanan Street, Glasgow, on April 19th, Dr. WILLIAM WHITELAW, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting, March 29th, were read and approved.

The Medical Register.—The SECRETARY read a communication from the Bradford Division regarding the present unsatisfactory state of the official *Medical Register*, with suggestions as to remedies.

Matters Referred to Divisions.—The report on the prevention of the abuse of drugs was read, and the recommendations of the Medico-Political Committee were accepted. The recommendations on the subject of the National Deposit Friendly Society were all accepted as found in the SUPPLEMENT of January 14th. The Public Health Bill was not discussed, as it has no application to Scotland. The Revaccination Bill also does not apply to Scotland, but it was agreed that the provisions of the Bill ought to be extended to Scotland. The relation of the profession to ambulance work were next discussed: (1) Teaching. The Division decided that when the instruction given is in connexion with a philanthropic institution it may be gratis, but otherwise the minimum fee should be 2s. 6d. per member per course, in addition to any sum charged for necessary expenses. (2) Examining and (3) Judging in Competitions. For this work in Glasgow the St. Andrew's Ambulance Association pays fees from one guinea upwards with expenses; the Division were therefore of opinion that these two departments of ambulance work should always be regarded as purely matters of business to be paid for at similar rates. With regard to the advertising of names of practitioners in connexion with hydropathic and similar establishments, the Division accepted the recommendation of the Ethical Committee of the Association.

Notices of Motion at Representative Meeting.—The notices of motion for the Representative Meeting at Leicester in July, published in SUPPLEMENT for February 25th, 1905, were next considered. After discussion, it was agreed that the Division's Representative be instructed to vote only for the following: (1) The motion by the Council of the Association to alter By-law 22; (2) the motion by the Wandsworth Division to alter By-law 25; (3) the motion by the Wandsworth Division that the SUPPLEMENT be not issued with the JOURNAL otherwise than to members. All the other motions in this SUPPLEMENT were to be voted against.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

A MEETING was held at the Old Bull Hotel, Blackburn, on Friday, April 14th, Dr. MARTIN in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Report of Representative.—Dr. NASH gave a brief account of his work at the General Meeting of 1904 and in Committees.

Benevolent and Provident Scheme.—It was moved by Dr. BOWEN, seconded by Dr. MACKLIN, and resolved:

That Dr. Nash should bring up the question of forming a benevolent and provident scheme before the next general meeting.

Proposed Resolutions.—Dr. NASH will move the following resolutions:

(*a*) That in the opinion of this meeting it is desirable that the British Medical Association should in every town where contract practice exists undertake and carry on a public medical service.
(*b*) That the medical officers to this service shall be, and be limited to, the members of the Association in that district.
(*c*) That a committee be appointed to draw up a scheme for carrying this into effect.
(*d*) That in the opinion of this meeting it is desirable that a department of the British Medical Association be formed for carrying out a benevolent and provident scheme for the benefit of the members of the Association.
(*e*) That the funds for these purposes be set aside from the annual income, and that if necessary the annual subscription be increased to such sum as is necessary to efficiently carry out the work.
(*f*) That this meeting do appoint a committee to formulate a scheme for carrying this into effect, and to obtain if necessary the advice of a competent actuary, and to report to the Divisions not later than May 1st, 1906.
(*g*) That the Memorandum of Association, Articles, and By-laws be so altered as to allow this to be carried out.
(*h*) That in the case of any Representative or member of Council or Committee being summoned to a meeting at head quarters, the Secretary of the Division shall notify the fact to all members of the Division, practising in the same district, three clear days beforehand, on forms specially supplied for this purpose, in order that the members may be prepared to watch the interests of their Representative during his absence.
(*i*) That it be an instruction to the Finance and Journal Committee to publish the report of the Annual Meeting and the form of transactions in the annual Year Book, which shall be published on the 1st September every year, the medical year to be reckoned from one annual meeting to the next.
(*j*) That the headquarters be known as the office of the "British Medical Association," not "BRITISH MEDICAL JOURNAL."

It was resolved that a copy of the resolutions proposed by Dr. Nash be forwarded to the Burnley Division with the hope that he may be appointed by that Division as their Representative for the ensuing year.

Proposed Additions to Standing Orders.—Dr. BOWEN proposed, Dr. TAYLOR seconded, that it be added to the standing orders that no session of the annual meeting last for more than three hours consecutively, and if there be a second meeting the same day there shall be an interval of one hour and a half. Carried. Dr. NASH proposed, and Dr. TAYLOR seconded, that no smoking be allowed during the time the Chairman occupies the chair. Carried.

Vaccination.—Dr. Nash was instructed to support the policy of the Division in respect to vaccination.

LIVERPOOL (NORTHERN) DIVISION.

A MEETING of this Division was held on April 5th at 128, Sheil Road, Dr. R. J. RICHARDSON, J.P., in the chair.

Matters Referred to Divisions.—With regard to practitioners giving information to coroners, the recommendations of the Medico-Political Committee were unanimously adopted, and the Honorary Secretary was instructed to confer with the Honorary Secretaries of the other Liverpool Divisions, and to arrange for these recommendations to be sent to all the medical men in Liverpool. The proposals for the reorganization of the Local Government Board, the Public Health Bill, and the Revaccination Bill were all unanimously approved of. The Medical Acts Amendment Bill in general was approved of, subject to the following observations and suggested alterations: Part I: There does not appear to be any provision made as to the election of President of the Medical Council. Part III, Section XI, Subsection I: The Division was of opinion that there was not sufficient evidence to enable it to come to a conclusion as to the proper fee to be paid annually for registration. Subsection III: Omit from "and this section" (line 3) to end of subsection. Part IV, Section XIV, Subsection II: The general principle agreed to, but the amount of fee left open. Part V, Section XXI, Subsection I: Omit "or misdemeanour" in both places. Subsection V: Omit "use any medical degree," and insert "act as a registered medical practitioner." Section XXIX: Add after "Council," "or in the event of the Council failing to do so, by a medical body or a private person." On the question submitted as to advertising in connexion with hydropathic establishments, the Division unanimously voted in the affirmative, and also expressed the opinion that the same rule should apply to medical men owning these institutions.

An ordinary meeting of this Division was held at the Medical Institution on May 4th, Dr. J. SHAW (Vice-Chairman) presiding.

Matters referred to Divisions.—In the matter of contract medical practice (SUPPLEMENT, November 26th, 1904), it was unanimously resolved that this Division take no action in the matter. In regard to the National Deposit Friendly Society (SUPPLEMENT, January 14th and March 11th, 1905), it was unanimously resolved that the recommendations be adopted, and the Honorary Secretary was instructed to endeavour to arrange a united meeting of all the Liverpool Divisions for concerted action. Notices of motion for discussion by Representative Meeting (SUPPLEMENT, February 25th, 1905). *A.* By Council of Association. The proposed amendment was unanimously adopted, except the words "or retired," which were recommended to be deleted. By the Wandsworth Division: (*a*) and (*b*) By-laws 23 and 25. These were unanimously adopted. *B.* By the Wandsworth Division: 1 to 6. These were left to the discretion of the Representative at the annual meeting. The remaining three suggestions were unanimously adopted. By the Southern Branch. This proposition was unanimously agreed to. By the Salford Division: 1. Unanimously voted against. 2. Unanimously approved of. By the Walthamstow Division: 1 and 2. These were left to the discretion of the Representative. By the Leinster Branch (SUPPLEMENT, March 18th, 1905): This was unanimously agreed to. With regard to the co-ordination of scientific work (ibid.) it was decided that, as regards local requirements, these matters were already provided for. By the Wandsworth Division (SUPPLEMENT, March 4th, 1905): *A.* 1 to 4. Adopted by 6 votes to 2; 46 absent. *B.* 1 and 2. Unanimously agreed to. By the Coventry Division: This proposed alteration was unanimously disapproved of. By the Bradford Division (SUPPLEMENT, March 25th, 1905): *A.* Unanimously against this proposition. *B.* and *C.* left to discretion of Representative. By the Manchester (West) Division: 1. Approved of unanimously, as regards holding meetings alternatively in London and the provinces; but disapproved of as to holding them more frequently. 2. This proposition was not adopted—by 7 votes to 1; 46 absent.

NORTH MANCHESTER DIVISION.

AT a meeting of the North Manchester Division, held on May 9th, the following business was transacted:

Notice of Motion.—The following notice of motion was adopted:

That the Medical Secretary be instructed to provide in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL a weekly record of those matters in connexion with the current work of his department which are likely to be specially interesting or useful to the members of the Association generally.

New Rule.—The following new rule was adopted:

That the absence of any officer or member of Executive of the Division for three successive meetings without reason given shall be considered as a resignation of office and dealt with accordingly.

Election of Officers.—The following gentlemen were elected officers for the ensuing year:—*Chairman:* Dr. Boddy. *Vice-Chairman:* F. B. Hargraves. *Representative to Annual Meeting:* Dr. Broadbent. *Representatives on Branch Council:* Dr. Boddy and Dr. Broadbent. *Secretary and Treasurer:* Dr. McGowan. *Members of Executive:* Drs. Barnes, Dearden, Junk, Lawson, and Wardman.

Refreshments.—It was resolved to provide refreshments at the next meeting of the Division.

METROPOLITAN COUNTIES BRANCH:

CITY AND WALTHAMSTOW DIVISIONS.

A CONJOINT meeting of these Divisions was held (by the kind invitation of Dr. J. O. Adams), at Brooke House, Upper Clapton, on Thursday, April 27th. In the absence of the Chairman of the City Division Mr. H. E. POWELL presided.

Election of Representatives on Central Council.—The HONORARY SECRETARY of the City Division reported the result of the conference of delegates appointed by the Divisions to consider the question of the election of representatives of the Branch on the Central Council of the Association. After some discussion it was resolved that the City Division do not nominate any member as a candidate in this election.

Demonstration.—Dr. JAMES H. SEQUEIRA exhibited several cases of skin disease, on each of which he gave a short demonstration.

Votes of Thanks.—The meeting concluded with hearty votes of thanks to Dr. Adams for his hospitality, and to Dr. Sequeira for his kindness in giving the demonstration.

WANDSWORTH DIVISION.

AN ordinary meeting of this Division was held on Thursday, April 27th, at Clapham, Dr. GEO. WALKER, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Nomination of Members for Central Council.—A report of delegates to conference *re* nomination of members for Central Council election, together with a letter from the Secretary to the Conference, were considered. The five candidates—namely, Dr. Ford Anderson, Mr. Andrew Clark, Dr. E. Rowland Fothergill, Dr. Percy Rose, and Mr. Geo. Rowell—recommended by the conference were nominated. Dr. WILLIAMS proposed, and it was duly resolved:

That the nominated candidates be informed that this Division will support their candidature, and that the Chairman has been authorized to sign any circulars they may decide to send to the members requesting them to give their votes.

Pathologists in South-West London.—A communication from Central Council *re* special pathologists in South-West London was considered. A resolution disapproving the action of those who had accepted these posts was read, when it was duly proposed and resolved:

That any member of the Association calling himself a pathologist who accepts these fees, which have been condemned by the Ethical Committee of the Association, should be expelled from the Association.

Matters Referred to Divisions.—The question of consultation between medical witnesses was considered. Dr. KER explained the memorandum, when the suggestions of the Committee were approved. With regard to death registration and coroners' law, Dr. M. G. BIGGS very fully explained these Bills, and, in view of there being great local interest in the matter at the present time, various amendments were approved of, and will be brought forward at Leicester.

Paper.—Dr. GEORGE CARPENTER read a short paper on alcohol in children, which was followed by a short discussion.

On account of the lateness of the hour the remainder of the agenda was deferred to a special meeting to be held on May 11th.

WESTMINSTER DIVISION.

A MEETING was held on Monday, May 8th, at 20, Hanover Square, W., at 8.30 p.m., Mr. J. BLAND-SUTTON in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications.—A communication from the Medical Secre-

tary was read *re* constituencies, stating that the Westminster Division would be independently represented.—A letter from the Chairman of the Wandsworth Division *re* the coronership question was read. It was proposed by Dr. BRUCE PORTER and seconded by Dr. HASLIP:

> That this Division is in sympathy with the principles contained in the letter; but, before taking an active part, it would be glad to have fuller particulars of the proposed meeting.

This was put to the meeting and carried *nem. con.*

"*Medical Free Lance.*"—A letter from the Editor of the *Medical Free Lance*, pointing out the special features of the paper, and inviting subscriptions, was read.

Nomination of Candidates for Central Council.—The delegates' report, signed by Dr. Cautley and Mr. Lloyd-Williams, on the question of selection of candidates for nomination by the Division for the Central Council election, was read, and it was proposed by Dr. BRUCE PORTER, and seconded by Mr. FORBES ROSS:

> That the report be adopted, Dr. Knowsley Sibley be nominated by the Division, and that members be invited to vote according to the suggestions contained in the report.

Medical Acts Amendment Bill.—The Medical Acts Amendment Bill was considered with regard to Part III, Registration, Paragraph 13, Privileges of Registered Practitioners. Dr. HORACE MANDERS moved that this should read as follows:

> (1) Subject to the provisions of this Act, no person, except a registered medical practitioner, shall, save in this Act mentioned and in the Midwives Act, practise the treatment of disease by medicine, surgery, midwifery or dentistry, or any branch thereof, habitually or for gain in the United Kingdom and (subject to any local law) in any other part of His Majesty's dominions.

—Dr. MANDERS spoke at some length on the treatment by unqualified persons at the present time, of large numbers of patients by the various electrical methods, many of which were dangerous in ignorant hands.—Dr. DONALD BAYNES seconded the motion, and referred especially to the general principle of unqualified assistants, and said these were largely employed by many of the leading consultants, who were in the habit of placing their patients in the hands of ignorant lay men and women to be treated often by elaborate and often dangerous electrical and other methods.—Mr. CHISHOLM WILLIAMS approved the general tone of the Medical Acts Amendment Bill, and considered it a big step in the attempt to stop unqualified practice. At the same time he considered it was a question of law and not one of principle. He said that in principle we were all agreed, but what of the law?—The CHAIRMAN referred to the prescribing chemists and other unqualified persons, and to the taking of quack remedies, and Dr. BRUCE PORTER to the question of doctors dispensing.—Mr. FORBES ROSS spoke of the practice of surgery by bonesetters and the like, and related some personal experience of the subject. He strongly supported the proposition, and considered the encouragement given by the heads of the profession to the unqualified practice in the branches of electricity and the like as due to jealousy and ignorance on their part, and referred to the BRITISH MEDICAL JOURNAL having recently published a letter recommending medical men to send patients to unqualified persons for electrical purposes.—Dr. BERNARD O'CONNOR explained some points on the legal aspect of the questions raised under Section XIII, after which the motion was put to the meeting and carried *nem. con.*—The HONORARY SECRETARY referred to Part V, Offences, Subsection XXVII, Prohibition of certain acts of registered practitioners, Paragraph 2, which reads: "Does not cause his name to be displayed in legible characters on the outside of that building." Dr. Sibley suggested that this paragraph should be deleted, as many men practising in residential flats were not permitted a door plate, nor would they be allowed to have their name on the windows or blinds of their residence; and so it would not be possible for them to comply. He pointed out that many of the leading men both in Paris and Berlin had no door-plate or name either outside or inside their professional flats, and he saw no reason why we should be compelled by law to advertise ourselves in this manner.

Death Registration and Coroners' Law.—A communication from the Medical Secretary was read *re* death registration and coroners' law, and one on the legal position of medical men in respect to school certificates, and it was decided to postpone these matters for future consideration.

Members of Parliament and the Association.—Dr. HASLIP proposed and Dr. BAYNES seconded:

> That it is desirable that a deputation from each Division should wait upon Parliamentary members and candidates to endeavour to obtain their promise of support of any Parliamentary Bill about to be introduced by the Association.

The Jubilee Hospital.—Mr. FORBES ROSS referred in severe terms to the treatment by the Association of himself and other members of the new staff of the Jubilee Hospital, and wished the Division to note that the present staff intended to act as it had given its word to its supporters.

NORTH OF ENGLAND BRANCH:

DARLINGTON DIVISION.

A MEETING of this Division was held on Tuesday, March 7th, Dr. THOMPSON being in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Matters Referred to Divisions.—The members were unanimously in favour of the reports and memoranda in the SUPPLEMENTS on the following subjects: Contract practice, consultation between medical witnesses, information supplied to coroners, reorganization of the Local Government Board, Public Health Bill, Revaccination Bill, prevention of the abuse of drugs and prescriptions. The subject of the National Deposit Friendly Society produced a general discussion, a majority of the members being of opinion that this Society was one to be encouraged, as in a great measure being an opponent to the ordinary Friendly Society. Dr. HERN proposed:

> That this Division considers the National Deposit Friendly Society has been discouraged by the Association more than is advisable, but that it agrees with the conclusion of the memorandum in that it is not desirable that medical men allow themselves to be recognized, directly or indirectly, as specially acting for this Society in any district.

Dr. KIRSOPP seconded, and the motion was carried, with two dissenting. The discussion of the relations of the profession to ambulance work was unanimously postponed for consideration at a future date.

Payment for School Certificates.—The Secretary was instructed to communicate with the Local Secretary of Elementary Education with a view to arranging a meeting between him and a deputation from the Division to discuss the matter of payment for school certificates.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A MEETING of this Division was held at the Dispensary, 113, Queen's Road, Brighton, on April 26th, Dr. W. A. HOLLIS in the chair.

Cases.—Mr. A. J. MARTINEAU showed a boy 11 years of age for whom he had done a radical mastoid operation on both ears, with ligature of the internal jugular vein on the left side.—Dr. A. W. WILLIAMS showed a patient suffering from lupus of the face, which was being treated by the application of eosine. He also read notes of cases of tinea tonsurans treated by exposure to the *x* rays.

Medical Acts Amendment Bill.—The revised draft of the Medical Acts Amendment Bill was then taken into consideration. The questions submitted by the Medico-Political Committee were answered as follows: Propositions under Clauses A, B, and C were approved of. The first of the propositions under Clause D was approved of. In place of the remainder the following resolution, proposed by Mr. W. W. SCOTT and seconded by Dr. F. ROBSON, was carried (7 voting in favour and 1 against):

> That this meeting distinctly objects to any further tax for registration upon practitioners in practice, and would suggest an increased fee for initial registration.

Propositions under Clauses E and F were approved of. No alteration in the electoral area was suggested.

CANTERBURY AND FAVERSHAM DIVISION.

A CLINICAL meeting of this Division was held at the Kent and Canterbury Hospital on May 4th, Mr. B. RIGDEN, Vice-Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Next Meeting.—Dr. EVERS proposed, and Dr. HAYWARD seconded, that the annual meeting be held at Canterbury Hospital on June 1st, preceded by a meeting of the Executive Committee, and followed by a combined meeting for the election of a representative for Representative Meeting.

Demonstration of Apparatus.—Mr. SCHALE, of Wigmore Street, London, W., very kindly sent a representative down with a large quantity of high-frequency and Roentgen-ray apparatus, who gave demonstrations of their uses to the members present.

Visit to the Hospital Wards.—Mr. PRENTICE, Surgeon to the Hospital, afterwards showed the members round the wards.

FOLKESTONE DIVISION.

A MEETING of this Division was held at the Hotel Wampach on Thursday, May 11th, at 8.30 p.m., Dr. PERRY in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Matters Referred to Divisions.—The question of consultation between medical witnesses was considered, and it was approved that medical witnesses engaged on each side in legal cases should meet in consultation. In regard to information supplied to coroners by medical practitioners, it was approved that the information supplied should be recognized by a suitable fee. As to the reorganization of the Local Government Board, no opinion was expressed. In regard to ambulance work, it was approved that (*a*) ambulance instruction should not be of a philanthropic nature; (*b*) there should be a fee for ambulance examination; (*c*) judging in ambulance competitions should be left to the discretion of the medical men concerned as to whether it should be a matter of philanthropy or not; (*d*) no opinion was expressed as to fees. On the question of the abuse of drugs, no opinion was expressed. The question of the payment of medical practitioners called in to assist midwives was considered; the conclusions arrived at have been communicated to the Medico-Political Committee. In regard to advertising by hydropathic establishments, it was agreed that this Division disapproves of the advertising of medical practitioners connected with hydropathic establishments. With reference to the National Deposit Friendly Society, the following resolution was carried:

> This Division considers that as the National Deposit Friendly Society is the only Friendly Society that has attempted to furnish its members with medical attendance without any contract system, and that it has received much support from many medical men, the Medico-Political Committee have acted too precipitately in terminating all negotiations with it, and trusts that efforts will be made to induce the Society to come to an agreement with the Association.

SOUTH-EASTERN OF IRELAND BRANCH.

COUNCIL MEETING.

A COUNCIL meeting was held at Waterford on April 26th, Dr. T. LAFFAN, President, in the chair.

Note of Council at Kilkenny.—The Honorary Secretary's note of the Council summoned at Kilkenny on March 8th was read and signed by the CHAIRMAN.

Nomination of Officers.—The following officers were nominated for the ensuing year:—*President-elect:* Dr. Shee (Duncannon). *Representatives on the General Council:* Drs. D. Walshe and J. Craig. *Representative at the Representative Meetings:* Dr. O'Brien (Clonmel). *Honorary Secretary:* Dr. Quirke.

GENERAL MEETING.

A meeting of the Branch was held at the same place and date, Dr. LAFFAN, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Resolutions.—The following motions proposed were carried. Proposed by Dr. LAFFAN:

> That we hereby pledge this Branch to give effect in every way in our power to the resolutions passed at the great Oxford meeting for the prevention of hospital abuses
>
> That the Parliamentary Bills Committee be asked to watch all Bills or any clause or amendment having relation to matters medical, and to send copies of same for instant publication in *précis* in the JOURNAL or to the lay papers if time do not otherwise permit.
>
> That such steps be taken as may seem practicable to secure such a modification of the laws of the Association as will give seats on the Central Council of Association to Branches with a smaller number of members than are now entitled to same. That in this connexion we would point out that the general practitioners and provincial men of Ireland have not even one independent representative on the Governing Body outside the monopolist teaching and examining caste.

Proposed by Dr. WALSH:

> That our Representative be instructed to move the following resolution at the next Representative Meeting to be held at Leicester, and that our Secretary be asked to give due notice of such motion to the General Secretary:
>
> "That an Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed, namely: An Irish Committee consisting of one Secretary from each Irish Branch and the Irish members of the Central Council. It shall have a Secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters concerning Ireland."

Letters.—Letters were read from Dr. E. J. Farmer stating that he does not wish to be re-elected as Honorary Secretary, and from Dr. Morrissey resigning membership of the Branch.

It was proposed by Dr. MACKESY and seconded by Dr. WALSHE:

> That Dr. Morrissey be asked to reconsider his resignation of membership of the Branch, seeing that he could not resign from the Branch without also resigning from the British Medical Association. Carried *nem. con.*

Luncheon.—The meeting then adjourned and were entertained at a sumptuous luncheon at the Adelphi Hotel by the Waterford members.

SOUTH WALES BRANCH:

SOUTH-WEST WALES DIVISION.

A MEETING of the Division was held at the Yelverton Arms Hotel, Whitland, on March 7th, Mr. D. J. WILLIAMS, Chairman, presiding.

Confirmation of Minutes.—The minutes of the meeting at Llandilo and the special meeting at Carmarthen were read and adopted.

Ethical Committee.—It was proposed by Dr. GOODALL, seconded by Dr. OWEN WILLIAMS, and resolved:

> That the Executive Committee act as an Ethical Committee.

Recommendations from Special Meeting at Carmarthen.—(1) Post Office Appointments: Resolved:

> That members be allowed to accept the appointments recently offered by the postal authorities, but only for employés living within a radius of two miles from the medical officer.

(2) South Wales Clerks' Association: The recommendation from Carmarthen meeting was adopted.

Matters Referred to Divisions.—Memorandum on payment of practitioners called in to assist midwives was introduced by Dr. OWEN WILLIAMS. Interim report on contract practice was introduced by the CHAIRMAN. Medical Acts Amendment Bill was introduced by Dr. D. R. PRICE.

Information to Coroners.—It was the sense of the meeting that a fee should be paid by the coroner for information from a medical man upon which the coroner would decide that an inquest is unnecessary. The consideration of the memorandum was completed, and the opinions of the Division have been forwarded to the Medical Secretary.

Papers.—Dr. E. GOODALL read a paper on Practical Observations Bearing upon Some Forms of Mental Disorder. Dr. LEWIS, Dr. O. WILLIAMS, and Dr. SANDERS took part in the discussion.—Dr. CRESWICK WILLIAMS read Notes on Twelve Successful Cases of Paracentesis of Chest, which was discussed by the CHAIRMAN, Drs. OWEN WILLIAMS, SANDERS, GOODALL, and EDGAR DAVIES.

Next Meeting.—It was resolved that the next meeting be held at Carmarthen on May 30th or May 31st.

SOUTH-WESTERN BRANCH:

BARNSTAPLE DIVISION.

THE annual meeting of this Division was held at the Barnstaple Infirmary on Wednesday, April 19th, Dr. TOYE, Chairman, presiding.

Paper.—Dr. TOYE read a paper on some practical points in the treatment of heart disease. This was followed by an interesting discussion, in which all present took part.

Case.—The HONORARY SECRETARY exhibited a case in which an extensive wound of the upper arm, involving loss of cutaneous tissue 4 in. by 3 in., had been successfully closed by grafts taken from the inside of the thigh of a frog.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual Report.—The annual report of the Honorary Secretary and Treasurer was read and adopted.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. E. J. Toye (Bideford); *Vice-Chairman*, Dr. Jos. Tucker (Chulmleigh); *Committee*, Drs. Cooke, Macindoe, Norman, Slade King, Smyth, and Valentine;

Representatives on Branch Council, Drs. E. J. Toye and F. W. Kendle; *Honorary Secretary and Treasurer*, Dr. F. W. Kendle (South Moulton).

Resolutions Referred to Division by Branch.—Two resolutions referred to the Division by the South-Western Branch:

(1) That this Division is of opinion that the growing use of contraceptives and ecbolics is fraught with grave danger both to the individual and to the race;

(2) That the indiscriminate advertisement and sale of such appliances and substances, as well as the publication and dissemination of literature relating thereto, should be made a criminal offence,

were carried *nem. con.*

Matters Referred to Divisions.—It was unanimously resolved that:

Ambulance instruction and ambulance examination should be treated as matters of business, and that a minimum fee of £1 1s. and travelling expenses be required for each lecture and for each examination.

It was decided that:

Judging in ambulance competitions might be treated as a matter of philanthropy.

School Certificates.—It was proposed by Dr. Joseph Tucker, seconded by Dr. Henry Smyth, and carried unanimously, that:

The present regulations of the school attendance authorities, requiring parents and guardians to furnish a medical certificate in the case of a child being absent from school through sickness press heavily both on the parents and the medical practitioner, and that consequently the authorities who administer the Education Act should in the first instance be held responsible for all expense entailed in obtaining such certificate.

An amendment to the effect that the Poor-law medical officer should visit absentees and report to the school attendance officer was withdrawn on its being pointed out that such a procedure might lead to friction with the practitioner in attendance upon the case.

Instructions to the Representative at Annual Representative Meeting.—The Honorary Secretary was requested to instruct the Representative of the conjoined Barnstaple and Exeter Divisions to support: (1) Report of Medico-Political Committee on death registration; (2) Report of Medico-Political Committee on coroners' law; (3) Resolution of West Norfolk Branch, reducing the limit of representative units.

Visit to Infirmary.—Dr. Mary Morris conducted the members round the wards of the infirmary, giving clinical histories of all the important cases. Messrs. Allen and Hanburys, Limited, exhibited a selection of surgical instruments and appliances.

Votes of Thanks.—Votes of thanks to Dr. Morris, the Chairman and the Honorary Secretary terminated a most instructive and enjoyable meeting.

YORKSHIRE BRANCH:

Sheffield Division.

A general meeting of this Division was held on April 11th.

The Filling of Vacancies among Officers of Division.—The suggested model rule for filling vacancies occurring amongst officers of the Division was carried unanimously.

Matters Referred to Divisions.—The question of the payment of practitioners called in to assist midwives was considered, and the resolutions passed have been communicated to the Medico-Political Committee.—With regard to elections of direct representatives to the General Medical Council, the following resolution was passed:

This Division considers that it is inadvisable that candidates should be put forward for election on the General Medical Council under the auspices of the British Medical Association.

Carried unanimously.—The report on Contract Practice was discussed with the following results:

(*a*) Representations of medical profession on the management of Clubs and Friendly Societies. Unanimously disapproved.

(*b*) The work of such societies should be open to all medical men within the area of the working of the society. Unanimously disapproved.

(*c*) Minimum fee, 5s. Unanimously approved.

(*d*) Children under 5 should be excluded. Unanimously approved.

(*e*) That medical men should exercise the right of refusing to attend persons whom they may consider unfit for membership in respect of financial position. Unanimously approved.

(*f*) Extra charges should be made for night visits, confinements, operations, and accidents. Unanimously approved.

In regard to insurance fees the following resolution was passed:

This Division considers it unadvisable to attempt to fix a minimum charge for examination of candidates for insurance.

Carried unanimously. It was pointed out that the only result of such an attempt would probably be that a large number of industrial insurance societies now paying small fees would in return dispense with any medical examination for their candidates.

In regard to the National Deposit Friendly Society the following resolution was passed:

This Division recommends that the Society should not be discountenanced by the members of the British Medical Association.

On the abuse of drugs the following were the results of the discussion:

(*a*) The number of times which it is intended that a prescription should be dispensed should be indicated on the prescription. Agreed to.

(*b*) That the prescription should be signed with full name and address, not initialled.

(*c*) Proprietary drugs should be ordered by prescription, not recommended by name.

Both these recommendations were negatived unanimously.

No agreement was arrived at on the following questions:

8. Information supplied to coroners for the purpose of preliminary investigation.

9. Nurses Registration Bill.

10. Payment for ambulance work.

It was unanimously agreed to defer the consideration of these questions.

The consideration of (11) Reorganization of the Local Government Board, (12) Medical Acts Amendment Bill, was also deferred for consideration at a future meeting.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Aberdeen Branch.—Election of Member of Council: It is requested that nominations for election of member of Council be sent to Dr. J. F. Christie, 7, Alford Place, not later than Saturday, June 1st. Each candidate must be nominated by at least three electors. If more than one member is nominated for election, then voting papers will be sent to each elector during the first week in June.

Bath and Bristol Branch: Trowbridge Division.—The annual meeting of this Division will be held at Trowbridge on Tuesday, May 30th. Hour and place of meeting will be announced at a later date. Business: (1) Such as is laid down in Rule 11. (2) Matters referred from Central Association.—J. Tubb-Thomas, The Halve, Trowbridge, Wilts, Honorary Secretary.

Birmingham Branch.—The annual meeting of this Branch will take place at the Medical Institute, Edmund Street, Birmingham, at 4 o'clock, on Thursday, June 8th. The dinner will take place at the Grand Hotel at 7 o'clock the same day.—T. Sydney Short, O. J. Kauffmann, Honorary Secretaries.

Border Counties Branch.—The annual general meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 16th, at 3 30 p m., when Sir James Crichton-Browne, M.D., will deliver his Presidential Address.—Francis R. Hill, 62, Warwick Road, Carlisle, Honorary Secretary.

Border Counties Branch: North Cumberland Division.—The annual general meeting of this Division will be held on Friday, May 26th, at 3 30 p m., in the County Hotel, Carlisle. Dr. Maclaren (Carlisle) will read a paper on the Relations of Medical Men to Public Bodies; and Dr. Bird (Carlisle) a paper on Some Ethical Points in the Work of a Medical Officer to the Educational Board. The meeting, as last year, will be confined to the discussion of general ethical and medico-ethical subjects. It is also hoped that an exhibition of pathological specimens may be got up. Members desirous of reading papers or showing specimens will kindly communicate with the Honorary Secretary, Norman Maclaren, 23, Portland Square, Carlisle.

Border Counties Branch: West Cumberland Division.—The annual meeting of this Division will be held in Whitehaven on Friday, May 26th. Business: (1) Minutes of last meeting. (2) Receive the annual report. (3) Election of officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. (4) To consider a proposed new rule received from the Organization Committee *re* the filling up of vacancies among officers. (5) Papers and cases, etc. (6) General. The Secretary will be glad to receive particulars of papers or cases which any member will be willing to read or show. A further notice will be issued later. After the meeting a dinner will be held.—G. Bertram Muriel, Honorary Secretary, Whitehaven.

BORDER COUNTIES BRANCH AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—Notice is hereby given that nominations for the post of Representative of these two Branches jointly on the Central Council of the Association must be sent to me not later than May 27th. A nomination paper in favour of the present representative has already been sent in, and Dr. Maxwell Ross has signified his willingness to accept office if elected.—FRANCIS R. HILL, Carlisle, Honorary Secretary, Border Counties Branch.

CANTERBURY AND FAVERSHAM WITH THANET DIVISIONS.—A combined meeting of the Canterbury and Faversham with Thanet Divisions will be held on Thursday, June 1st, at 4 o'clock, at Canterbury Hospital, preceded at 3.15 by a meeting of the Canterbury and Faversham Division. Agenda: For Canterbury and Faversham Division. (1) To read and confirm minutes of last meeting. (2) Time and place of next meeting. (3) To alter or repeal existing rules, or to make new ones (if desired). (4) Any other business. (5) Election of officers. For combined meeting. (1) To read and confirm minutes of last meeting. (2) Election of Representative for Representative Meeting at Leicester. (3) To consider proposed resolutions to be submitted to the Representative Meeting.—WILLIAM GOSSE, A. R. HENCHLEY, H. M. RAVEN, Honorary Divisional Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th.

EAST ANGLIAN BRANCH.—Notice is hereby given that nominations of members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 31st.—B. H. NICHOLSON, M.B., East Lodge, Colchester, General Secretary of Branch.

EDINBURGH BRANCH.—The summer meeting of the Branch will be held at Hawick on July 1st. Trains from Edinburgh (Waverley) 10.30 a.m. Provisional arrangements: Meeting of Branch, 12.15. Motor drive to Stobs, Hermitage Castle, Newcastleton, Penton Linns, Canonbie, Langholm, Mosspaul and Branxholme. Starting at 1 p.m. Golf match on Hawick Links, 1.45. Dinner at Tower Hotel, 6.30. Dr. Allan Jamieson, President, in the chair. In order to facilitate arrangements members who intend to be present are requested to intimate their intention to one of the Secretaries as soon as possible, and whether they propose to golf or to motor.—NORMAN WALKER, 7, Manor Place, Edinburgh, A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH AND FIFE BRANCHES.—Notice is hereby given that nominations of elective members of the Council of the Association for these Branches must be made in writing on or before June 3rd, to A. LOGAN TURNER, M.D., 27, Walker Street, Edinburgh, Honorary Secretary Edinburgh Branch.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—As arranged at last meeting of Division, the annual meeting will be held on Saturday, June 17th, in the Railway Hotel, Newtown St. Boswells, at 3 o'clock. Business: (1) Election of office-bearers. (2) The consideration of memoranda regarding the National Deposit Friendly Society, the Local Government Amendment Bill, the relation of the medical profession to ambulance work, etc. (3) Instructions to representative in regard to the agenda of the annual meeting of the Association at Leicester. (4) Other matters of urgent importance to the Division. It is hoped that members will do their utmost to be present. Dr. Hamilton gives notice of the following motion: "That the Division recommends to the Representative Meeting the desirability of appointing a Committee to consider the question of the formation of a fund for the relief of the widows and orphans formerly dependent on deceased members of the Association."—W. HALL CALVERT, Honorary Secretary.

FIFE BRANCH.—The annual meeting will be held on June 1st, at 3.15 p.m., in the Hotel, Thornton, as per circular issued to the members.—R. BALFOUR GRAHAM, Leven, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER AND CREWE DIVISIONS.—The annual meeting of the above Divisions will be held in the Board Room of the Chester General Infirmary, on Tuesday, May 23rd, at 5 p.m. Agenda: (1) Minutes of the last meeting. (2) To receive the annual report of the Executive Committee. (3) To elect officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee (Rules 5, 6, 8, and 9). (4) To elect the Representative of the two Divisions in Representative Meetings of the Association (Rule 7). (5) To consider the business of the Annual Representative Meeting. (6) To consider letter from the Medical Secretary *re* representation of Divisions. (7) To consider notices of Motions, etc., in the SUPPLEMENTS of April and May. (8) Any other business.—H. W. KING, 26, Nicholas Street, Chester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER (SOUTH) DIVISION.—The annual meeting of the Division will be held on Friday, May 26th, in the Schoolroom of the Holy Innocents' Church, Fallowfield, at 4.15 p.m. Agenda: The annual report of the Division. The election of officers and Committee for the coming year. Consideration of agenda for the Representative Meeting in July at Leicester (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 13th). The Committee suggests the addition to Rule 13 of the words, "and unless seven days' notice of such proposed alteration shall have been given to all members." Dr. J. M. Rhodes will give an address on the Government and the medical profession.—PERCY MCDOUGALL, Fallowfield, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The annual general meeting of this Division will be held at the Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C., on Thursday, May 25th, at 4 p.m. Agenda: Election of officers, consideration of matters referred to Division, etc.—E. W. GOODALL, The Eastern Hospital, Homerton, N.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—The annual meeting will be held at Crichtons, Clapham Junction, on Thursday, May 25th, at 9.30 p.m. Agenda: (1) Minutes, (2) correspondence, (3) questions, (4) additional rules, (5) election of officers and committee of the Division. The meeting will be preceded by the annual dinner at 7 p.m., at which the following guests of the Division will be present: Sir Henry Kimber, Bart., M.P. for Wandsworth; Percy Thornton, Esq., M.P. for Clapham; the Mayor of Wandsworth; Chairman of the Wimbledon District Council; Chairman of the Wandsworth Guardians; J. Hunt, Esq., and Lieutenant-Colonel A. Rotton, J.P., members of the L.C.C.; Mrs. and Miss Garrett Anderson, M.D.; Sir Walter Foster, M.P.; Dr. Michael Taylor, Coroner; Chairman of Central Council; President of the Branch; Drs. A. P. Beddard, George Carpenter, Lauriston Shaw, and R. Hutchison; Shirley Benn, Esq.; the Editor of the JOURNAL; the Medical and General Secretaries; and others. Tickets on application to E. ROWLAND FOTHERGILL, M.B., Honorary Secretary, Southfields, S.W. (Telephone 868 Battersea.)

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The annual meeting will be held at 20, Hanover Square, on Wednesday, June 14th, at 4.30 p.m.—W. KNOWSLEY SIBLEY, M.B., 70, Duke Street, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, June 15th, at 4.30 p.m. Tea will be provided before the meeting. Copy of resolution of Branch Council passed January 11th, 1905: "That a business meeting only of the Branch be held in June next." The Branch Council will meet at 3.30 p.m. Agenda: Minutes. Report of Branch Council and annual financial statement. Election of Branch officers. Any other business.—ASTLEY V. CLARKE, Honorary Secretary and Treasurer.

NORTH OF ENGLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council of the Association must reach me not later than May 30th. There are two vacancies, and the present Representatives, Drs. Murphy and Hunter, are both eligible, and offer themselves for re-election.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT DIVISION.—The annual meeting will be held at Ruthin on Friday, May 26th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) To receive the annual report of the Executive Committee. (3) To elect officers: the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. (4) To elect Representative of the Division in Representative Meetings of the Association. (5) To consider the business of the Annual Representative Meeting. (6) Any other business. An address will be delivered by Professor Robert Saundby, entitled, Some Broad Principles of Diagnosis and Treatment of Stomach Diseases.—E. D. EVANS, Bodeirlan, Wrexham, Honorary Secretary.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting will be held at Dolgelly on May 31st, when the election of officers, etc., for the ensuing year will be proceeded with. Dr. Hugh Jones will open a discussion on the treatment of pneumonia.—W. JONES MORRIS, Portmadoc, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCHES.—As these two Branches are grouped for the election of a member on the Central Council of the Association, nominations in accordance with By-law 24 will be received by either of the undersigned not later than May 22nd.—W. JONES MORRIS, Portmadoc; H. JONES ROBERTS, Penygroes; H. H. B. MACLEOD, Clive House, Shrewsbury.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Guildhall, Canterbury on Wednesday, June 21st, at 2.15 p.m. Dr. Whitehead Reid, President-elect, kindly invites members to lunch at the Royal Fountain Hotel, between 1 and 2 o'clock. Agenda: In addition to any business that may be transacted by an ordinary meeting. (1) To receive the report as to election of officers of the Branch. (2) To receive the annual report of the Branch Council. (3) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." After the meeting expeditious will be arranged to the Cathedral and other places of interest in the city; to the sanatorium and Sewage Farm, and to the Canterbury Asylum. Dinner at the Royal Fountain Hotel, 6.15 for 6.30; charge, 7s. Wine will be supplied by local members. Those who propose to be present are requested to signify their intention to Dr. Henchley, 1, London Road, Canterbury, not later than Saturday, June 17th.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: EASTBOURNE DIVISION.—The annual general meeting of this Division will be held on Tuesday, May 23rd, at 8.30 p.m., in the Mayor's Parlour, Town Hall, Eastbourne, when various matters referred to the Division will be considered. On Thursday, May 25th, at 6.30 p.m., a meeting of the Division will be held, in conjunction with the Hastings Division, at the Grand Hotel, Eastbourne, when a paper will be read by Mr. C. A. Ballance, F.R.C.S. Dinner at 8 p.m.; price of dinner 8s., exclusive of wine. Members intending to be present at the dinner will much facilitate arrangements if they will notify the fact to W. J. C. MERRY, Eastbourne, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Nominations for the office of two Representatives on the Central Council, in conjunction with the Leinster Branch, must be sent on or before June 3rd to E. J. FARMER, Carlow, Honorary Secretary.

South-Eastern of Ireland Branch.—The annual meeting will be held at Kilkenny on May 24th.—E. J. Farmer, Honorary Secretary.

South Wales Branch: South-West Wales Division.—The annual meeting of the South-West Wales Division will be held at the Joint Counties Asylum, Carmarthen (by kind permission of the Committee of Visitors), on Tuesday, May 30th, at 1.15 p.m. Luncheon and tea will be provided. The Executive Committee venture to hope that all the members of the Division will show their appreciation of the kindness of the Committee of Visitors by endeavouring to be present, and by intimating their intention to be present not later than the 26th inst. Agenda: (1) Election of officers, the three representatives of the Division on the Branch Council, and the ordinary members of the Executive and Ethical Committees; (2) election of representative of the Division for the Annual Representative Meeting at Leicester; (3) to receive annual report of the Executive Committee; (4) to consider the business of the Annual Representative Meeting; (5) other business. Papers: Mr. D. J. Williams, F.R.C.S.; Dr. R. Hopkin, a few cases of interest; Dr. E. Goodall, F.R.C.P., will show some cases of insanity if time allows.

South Wales and Monmouthshire Branch.—The annual meeting of this Branch will be held at Cardiff on June 8th.—Frank G. Thomas, Honorary Secretary.

South-Western Branch.—The sixty-sixth annual meeting will be held on Thursday, June 15th, at the Athenæum, George Street, Plymouth, at 3 p.m., when Dr. R. H. Clay will resign the chair to Mr. G. Jackson, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1904-5 will be presented to the meeting, and the officers of the Branch be elected for the year 1905-6. The reports from the Divisions of the Branch on the resolutions proposed and carried at the Truro intermediate meeting on March 2nd, 1905, and submitted to the Divisions for their consideration, will be brought before the meeting for confirmation. Luncheon, by kind invitation of the President-elect, will take place from 1 to 2.30 p.m. at Goodbody's Restaurant, Bedford Street. After the meeting Dr. Turner kindly invites members to inspect the ancient and historically interesting mansion, Plympton House, where tea will be provided. Trains from Millbay to Plympton, 5.5 p.m., and from Plympton to Millbay, 6.35 p.m. The annual dinner will be held at 7 p.m. at Goodbody's Restaurant, Bedford Street. Tickets, (exclusive of wine) 6s., which can be had from the Honorary Secretary of the Branch. On Friday, June 16th, the members of Plymouth, Devonport and district, cordially invite their colleagues to a luncheon, and an excursion by steamer to the breakwater, and thence up the Hamoaze to Cotehele (which will be visited by kind permission of the Right Hon. The Earl of Mount Edgcumbe). Members who accept this invitation are invited to bring their wives or lady friends (limited to two). Notice will be given at the meeting and dinner on the 15th of the time and place of departure of this excursion; and those who wish for further details should communicate with Dr. Webber, 4, Queen Anne Terrace, Plymouth. The Honorary Secretary begs to intimate to those members who purpose attending (1) the visit to Plympton House, (2) the annual dinner, (3) the excursion to Cotehele, that they must inform him on or before June 8th, and at the same time forward the amount of the dinner ticket, in order that the necessary arrangements may be made.—G. Young Eales, 1, Matlock Terrace, Torquay, Honorary Secretary.

South-Western Branch.—The nomination of candidates for the office of elective members of Council (Branch representatives on the Council of the Association) for the ensuing year must be made by at least three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. G. Young Eales, 1, Matlock Terrace, Torquay.

Staffordshire Branch.—Nominations of Representative on Central Council: Notice is hereby given that nominations must be sent in to me on or before May 25th.—G. Petgrave Johnson, Honorary Secretary, Stoke-on-Trent.

Worcestershire and Herefordshire and Gloucestershire Branches.—Nominations for the office of Representative on the Central Council to be sent on or before May 21st to G. W. Crowe, 43, Foregate Street, Worcester, Honorary Secretary of the Worcestershire and Herefordshire Branch.

Perthshire Branch.—An invitation has been received from the Knox Celebration Committee to take part in the demonstration to be held in St. John's Middle Church on Saturday, May 20th, at 3 p.m. It is requested that members desirous of taking part will meet at the Free Church Hall, Watergate, at 2.30 p.m.—William A. Taylor, Alexander Trottee, Joint Secretaries.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25, 1905.

The Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th—at 6 p.m., in a room to be set apart for the purpose.

Branch and Division Secretaries are invited to notify any subjects they may wish to bring before this conference. All matters to be considered must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

British Medical Association.

SEVENTY-THIRD ANNUAL MEETING.

The seventy-third annual meeting of the British Medical Association will be held at Leicester on Monday, Tuesday, Wednesday, Thursday, and Friday, July 24th, 25th, 26th, 27th, and 28th, 1905.

President: William Collier, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

President-elect: George C. Franklin, F.R.C.S., Honorary Surgeon, Leicester Infirmary.

Chairman of Representative Meetings: Sir Victor Horsley, F.R.S.

Chairman of Council: Andrew Clark, D.Sc., F.R.C.S.

Treasurer: Edward Markham Skerritt, M.D., F.R.C.P.

An Address in Medicine will be delivered by Henry Maudsley, LL.D., M.D., F.R.C.P.

An Address in Surgery will be delivered by Charles John Bond, F.R.C.S.

A popular lecture will be delivered by Professor William Stirling, D.Sc., M.D., F.R.S.E.

SECTIONS.

The annual meeting at Leicester will comprise 12 Sections as shown in the subjoined list. The Sections will meet on Wednesday, Thursday, and Friday, July 26th, 27th, and 28th, from 10 a.m. to 1 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the British Medical Journal *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

Medicine.

President: Frank M. Pope, M.D., F.R.C.P., Leicester. *Vice-Presidents:* Reginald Pratt, M.D., M.R.C.P., Leicester; Robert William Philip, M.D., F.R.C.P.Edin., Edinburgh; William Bramwell Ransom, M.D., F.R.C.P., Nottingham. *Honorary Secretaries:* Bertrand Dawson, M.D., B.Sc., F.R.C.P., 32, Wimpole Street, Cavendish Square, W.; William Mitchell Stevens, M.D., M.R.C.P., 21, St. Andrew's Crescent, Cardiff; Frank Harwood Jacob, M.D., M.R.C.P., 28, Regent Street, Nottingham.

Surgery.

President: Sir Charles Bent Ball, M.Ch., F.R.C.S., Dublin. *Vice-Presidents:* Claude Douglas, F.R.C.S., Leicester; Henry John Blakesley, F.R.C.S., Leicester; James Henderson Nicoll, M.B., C.M., Glasgow. *Honorary Secretaries:* Percy Furnivall, F.R.C.S., 28, Weymouth Street, W.; Cecil Edward Marriott, M.C., F.R.C.S., 11, Welford Road, Leicester.

State Medicine.

President: Philip Boobbyer, M.D., Nottingham. *Vice-Presidents:* Ninian McIntire Falkiner, M.D., Dublin; John Herbert Hawkins Manley, M.D., D.P.H., West Bromwich; Thomas Robinson, M.R.C.S., D.P.H., Leicester. *Honorary Secretaries:* Wm. Williams, M.D., D.P.H., County Health Department, 9, The Parade, Cardiff; Chas. Killick Millard, M.D., D.Sc., Town Hall, Leicester.

Industrial Hygiene and Diseases of Occupation.

President: Hy. Wm. Langley Browne, M.D., West Bromwich. *Vice-Presidents:* Alexander Campbell, M.D., Dundee; John Colley Smyth Burkitt, M.D., D.P.H., Leicester; Thomas Morison Legge, M.D., London. *Honorary Secretaries:* Clement Frederick Bryan, M.R.C.S., 44, Humberstone Road, Leicester; Thomas Watts, M.D., 34, Church Street, Hyde.

Laryngology, Otology and Rhinology.

President: Frederick William Bennett, M.D., Leicester. *Vice-Presidents:* William Arthur Carline, M.D., Lincoln; John Middlemass Hunt, M.B., Liverpool. *Honorary Secretaries:* Alex Lewis MacLeod, M.B., 89, Hinckley Road, Leicester; Chas. Herbert Fagge, M.S., F.R.C.S., 22, St. Thomas's Street, London Bridge, S.E.

NAVY, ARMY AND AMBULANCE.

President: Surgeon-Lieutenant-Colonel HENRY WALTER KIALLMARK, M.R.C.S., London. *Vice-Presidents:* Surgeon-Lieutenant-Colonel ROBERT BRADSHAW SMITH, V.D., L.R.C.P., Hinckley; Lieutenant-Colonel EDMOND MONKHOUSE WILSON, C.B., C.M.G., D.S.O., S. Farnboro'; Fleet Surgeon ALEXANDER J. J. JOHNSTON, R.N., Haslar. *Honorary Secretaries:* Fleet Surgeon EDWARD JAMES BIDEN, R.N. (Ret.), 29, Osborne Road, Southsea; Captain WM. PEMBERTON PEAKE, M.R.C.S. R.A.M.C.V., 21, Oxford Street, Leicester; Captain EDWIN CHARLES MONTGOMERY-SMITH, R.A.M.C. Vol., 36, Abbey Road, St. John's Wood, N.W.

OBSTETRICS AND GYNAECOLOGY.

President: HERBERT RITCHIE SPENCER, M.D., F.R.C.P. London. *Vice-Presidents:* HENRY MEADOWS, M.B., Leicester; Professor HENRY CORBY, M.D., Cork; FRANCIS RICHARD CASSIDI, M.D., Derby. *Honorary Secretaries:* MONTAGUE WM. WILLIAMS, M.R.C.S., 45, London Road, Leicester; Miss LOUISA GARRETT ANDERSON, M.D., 114 A, Harley Street, W.

OPHTHALMOLOGY.

President: GEORGE ANDREAS BERRY, F.R.C.S.Edin., Edinburgh. *Vice-Presidents:* WM. MARDON BEAUMONT, M.R.C.S., Bath; EDWIN COLLIER GREEN, M.R.C.S., Derby. *Honorary Secretaries:* ROBT. WALLACE WESLEY HENRY, M.D., 6, Market Street, Leicester; JOHN HERBERT PARSONS, F.R.C.S., 27, Wimpole Street, Cavendish Square, W.

PSYCHOLOGICAL MEDICINE.

President: ALEXANDER REID URQUHART, M.D., Perth. *Vice-Presidents:* ROTHSAY CHARLES STEWART, M.R.C.S., Leicester; THEOPHILUS BULKELEY HYSLOP, M.D., London. *Honorary Secretaries:* ARTHUR MOLYNEUX JACKSON, M.B., Nottingham County Asylum, Radcliffe-on-Trent; JOHN WIGMORE HIGGINSON, M.R.C.S., Hayes Park Asylum, Hayes.

PATHOLOGY.

President: FREDERICK WALKER MOTT, M.D., F.R.C.P., F.R.S., London. *Vice-Presidents:* THEODORE SHENNAN, M.D., Edinburgh; Professor ARTHUR HAMILTON WHITE, L.R.C.P.I., Dublin. *Honorary Secretaries:* JOHN WILLIAM H. EYRE, M.D., Guy's Hospital, S.E.; THOMAS VILLIERS CROSBY, M.D., 91, St. Peter's Road, Leicester.

DENTAL SURGERY.

President: MORTON ALFRED SMALE, M.R.C.S., L.D.S., London. *Vice-Presidents:* EDWARD LLOYD-WILLIAMS, M.R.C.S., L.R.C.P., L.D.S., London; FRANCIS JOHN LANKESTER, M.R.C.S., L.D.S., Leicester; *Honorary Secretaries:* WM. ARMSTON VICE, M.B., L.D.S., 19, Belvoir Street, Leicester; JOSEPH GEORGE TURNER, F.R.C.S., L.D.S., 12, George Street, Hanover Square, W.

TROPICAL DISEASES.

President: RUBERT WM. BOYCE, M.B., F.R.S., Liverpool. *Vice-Presidents:* ANDREW DUNCAN, M.D., London; FLEMING MANT SANDWITH, M.D., F.R.C.P., London. *Honorary Secretaries:* GEORGE AYLWIN CLARKSON, F.R.C.S., 173, London Road, Leicester; JOHN M. HENDRIE MACLEOD, M.D., 11, Harley Street, W.

The Honorary Local Secretaries are:

ASTLEY V. CLARKE, M.D.,
37, London Road, Leicester.

FELIX BOLTON CARTER, M.S.,
99, London Road, Leicester.

PROGRAMME OF PROCEEDINGS.

MONDAY.

2 p.m.—Annual General Meeting followed by Representative Meeting.

TUESDAY.

9 a.m.—Meeting of 1905-1906 Council.
10 a.m.—Representative Meeting.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
5 p.m.—Church Service.
6 p.m.—Meeting of Division and Branch Secretaries.
8.30 p.m.—President's Address. Reception of Distinguished Guests.

WEDNESDAY.

9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Medicine. Adjourned General Meeting followed by Representative Meeting.

THURSDAY.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

FRIDAY.

9 a.m.—Meeting of Council.
1 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Meetings of Divisions and Branch Secretaries.
8 p.m.—Popular Lecture.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc. Presented.

Presented by the AUTHORS:
Bland-Sutton (J.) and Giles. Diseases of Women. 4th edition. 1904.
Ballance and Stewart. Healing of Nerves. 1901.
Fisher, J. H. Ophthalmological Anatomy. 1904.
Gould, G. M. A Dictionary of New Medical Terms. 1905.
Griffiths, L. M. Medical Philology. 1905. I, A—E.
Hinschelwood. Letter and Word Blindness. 1900.
Lake, R. Handbook of Diseases of the Ear. 2nd edition. 1904.
McLeary, C. F. Infant Mortality and Infant Milk Dépôts. 1905.
Mann, J. D. Physiology and Pathology of the Urine. 1904.
Récamier. Cancer Utérin Inopérable. 1905.
Reinhardt and Thomson. Open-air Treatment.
Schofield. Unconscious Therapeutics. 1905.
Turner, G. R. Clinical Lectures on Appendicitis, Inguinal Hernia, and Perforating Gastric Ulcer. 1905.

Presented by Sir T. LAUDER BRUNTON, F.R.S:
The Botanic Garden. A Poem. 1799.
Brinton. Food and Its Digestion. 1861.
Eyre, Sir J. The Stomach and Its Difficulties. 1852.
Edinburgh Medico-Chirurgical Transactions. Vol. 23. 1904.
Fenwick, S. Atrophy of the Stomach. 1890.
Frey, H. Das Mikroskop. 1868.
Gresswell. Natural History of Scarlatina. 1890.
Hartshorne. Essentials of Practical Medicine. 1874.
Kidd. Laws of Therapeutics. 1881.
Kraus. Diagnose und Therapie. 1877.
——— Neueren Medicinischen Wissenschaften. 1875.
Langton, J. Inguinal Hernia. 1900.
Mercier, G. Analyse des Urines. 1893.
Moore, Sir W. Tropical Climates and Indian Diseases. 1890.
Owen. Experimental Physiology. 1882.
Pollock. Notes on Rheumatism. 1879.
Schürmayer. Harnuntersuchungen. 1893.
Seguin. Medical Thermometry. 1876.
Thin. Histology. 1877.
Vaughan. Chemical and Physiological Pathology. 1879.
And other volumes, duplicates.

Presented by Messrs. CASSELL AND CO.:
Burton-Fanning. Open-air Treatment of Pulmonary Tuberculosis. 1905.

Presented by HERBERT FRIEND, London:
Beck, T. S. On the Nerves of the Uterus. 1846.
Lee, R. Memoir on the Ganglia and Nerves of the Heart. 1851.
——— Memoir on Ganglia and Nerves of the Uterus. 1849.

Presented by the MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD: Reports by:
Dr. Farrer. On Enteric Fever at Beverley. 1904.
——— Sanitary Administration of Howden. 1904.
Dr. Fletcher. Sanitary Circumstances at Bywell. 1904.
Dr. Low. Sanitary Circumstances at Haverfordwest Rural. 1904.
Dr. Reece. On Small-pox and Small-pox Hospitals at Liverpool. 1904.
Dr. Wheaton. Small-pox at Dewsbury Union. 1904.

Presented by Dr J. J. STACK:
Monthly Journal of Medical Science. 1848, 1850, 1851.
Provincial Medical and Surgical Journal. 1845-6, 1850-1.

Presented by Dr. DE WATTEVILLE:
Andral. Maladies de Poitrine. 1834.
——— Maladies de l'Encéphale. 1834.
——— Maladies de l'Abdomen. 1834.
Anstie, F. E. On Stimulants and Narcotics. 1864.
——— On Neuralgia. 1871.
Auld, A. G. Researches in Pathology. 1901.
Bartholow. Spermatorrhœa. 1879.
Broussais. De la Folie. Vols. 1 and 2. 1839.
Centralblatt für Nervenheilkunde. 1879-85, 1887, 1888, 1889.
Chauveau. Anatomie des Animaux Domestique. 1871.
De Méric. Syphilis. 1901.
Erb. Krankheiten des Nervensystems. Vols. 1 and 2. 1878.
Eulenburg. Real Encyclopädie der Gesammten Heilkunde. 15 vols. 1880-1883.
Eulenburg and Guttmann. Sympathetic System of the Nerves. 1879.
Flower, W. H. Diagrams of the Nerves of the Human Body. 1872.
Foussagrines. Thérapeutique Appliquée. 1878.
——— Thérapeutique Générale. 1875.
Fuller. Rheumatic Gout. 1860.
Gintrac. Maladies de l'Appareil Nerveux. Vols. 1 to 4. 1871.
Grasset et Ranzier. Maladies du System Nerveux. Vols. 1 and 2. 1894.
Jahresbericht Neurologie und Psychiatrie. 1897, 1898, and 1899.
Jones, C. H. Functional Nervous Disorders. 1870.
Laycock. Medical Observations and Researches. 1864.

Leyden, E. Maladies de la Moelle Epinière. 1879.
McRae. Fathers of Biology. 1890.
Maudsley. Body and Mind. 1876.
Mitchell, P. Philosophy of Tumour Disease. 1890.
Morell, J. D. Mental Philosophy. N.d.
Neurologisches Centralblatt. 1882, 1885, 1888, 1892, 1893.
Nothnagel. Gehirnkrankheiten 1879
Ollivier. Maladies de la Moelle Epinière. 1839.
Radcliffe, C. B. Dynamics of Nerve and Muscle. 1871.
Revue Neurologique. 1893.
Reveille-Parise. Physiologie et Hygiène des Hommes. 1839.
———— Traité de la Vieillesse. 1853.
Sajous. Annual of the Universal Medical Sciences. New series, vols. 1, 2, and 3. 1898-9.
Sandras et Bourguignon. Maladies Nerveuses. 1860.
Swanzy, H. R. Value of Eye Symptoms in Localisation of Cerebral Disease. 1888.
Thomson, A. On Neuroma and Neuro-Fibromatosis. 1900.
Thorburn, W. Surgery of the Spinal Cord. 1889.
Tuke, D. H. On Sleep Walking and Hypnotism. 1884.
Vulpian. Clinique Médicale de l'Hôpital de la Charité. 1870.
———— Leçons sur l'Appareil Vasomoteur. Vols. 1 and 2. 1875.
———— Leçons sur la Physiologie. N. d.
Wernicke. Lehrbuch der Gehirnkrankheiten. Vols. 1 and 2. 1881.
Whitehead, R. H. Anatomy of the Brain. 1900.
Winslow, Forbes. Obscure Diseases of the Brain and Mind. 1864.
Ziemssen. Handbuch der Pathologie und Therapie des Nervensystems, Vols. 1 and 2. 1876.
And other volumes, duplicates.

Presented by the EDITOR of the BRITISH MEDICAL JOURNAL:
Archambault. Guide de l'Examen Gynécologique. 1902.
Atwater and Benedict. Experiments on the Metabolism and Energy in the Human Body. 1903.
Barr, M. W. Mental Defectives. 1904.
Bland-Sutton. Tumours. 3rd edition. 1903.
Blatin, M. Le Soignage Médical et les Infirmières. 1905.
Buchanan, Major A. Malarial Fevers. 2nd edition. 1903.
Caton, R. The Harveian Oration. 1904.
Cautley, E. Natural and Artificial Methods of Feeding Infants. 2nd edition. 1903.
Cole, S. W. Exercises in Physical Chemistry. 1904.
Cornil et Ranvier. Manuel d'Histologie Pathologique. 3rd edition. II. 1902.
Cullingworth. Diseases of the Fallopian Tubes. 3rd edition. 1902.
Dudley, E. C. Gynecology. 4th edition. 1905.
Dutton and Theobald. Report of Malaria Expedition to Gambia. 1902.
Edinburgh Medical Journal. Vol. 16, N S. 1904.
Fischer, L. Infant Feeding in Relation to Health and Disease. 3rd edition. 1903.
Frankland, Mrs. Percy. Bacteria in Daily Life. 1903.
Frumerie, Dr. de. Traitement Manuel. 1904.
Galabin. Diseases of Women. 6th edition. 1903.
Gibson. Nervous Affections of the Heart. 1904.
Giles, Lieut.-Col. G. M. Climate and Health in Hot Countries. 1904.
Gilliam. Practical Gynecology. 1903.
Griffith, F. R. Handbook of Surgery. 1904.
Hamilton. Railway and Other Accidents. 1904.
Herman, G. E. Diseases of Women. Revised edition. 1903.
Hewlett, R. T. Serumtherapy. 1903.
Hill, E. Plague in Natal. 1904.
Keim, G. Hemorragies Puerpérales. 1905.
Keith, A. Human Embryology. 2nd edition. 1904.
Lewers, A. H. N. Diseases of Women. 6th edition. 1903.
McFarland, J. Textbook of Pathology. 1904.
Mallory and Wright. Pathological Technique. 2nd edition. 1904.
Martin, A. J. The Sewage Problem. 1905.
Miliau. Le Liquide Céphalo-Rachidien. 1904.
Montgomery. Textbook of Gynaecology. 2nd edition. 1904.
Moullin, C. Mansell. Enlargement of Prostate. 3rd edition. 1904.
Moynac. Manuel de Pathologie Générale. I. II. 1904.
Nothnagel. System of Medicine (Diseases of the Intestines and Peritoneum). Edited by Dr. Rolleston. 1904.
Pritchard. Physiological Feeding of Infants. 1904.
Reed, C. A. L. Textbook of Gynaecology. 2nd edition. 1904.
Roosa and Davis. Handbook of the Diseases of the Eye and Ear. 1904.
Sajous, C. E. Internal Secretions and the Principles of Medicine.
Shennan, T. Catalogue of the Anatomical and Pathological Specimens in the Royal College of Surgeons, Edinburgh. III. 1903.
De Schweinitz and others. Relation of the Cervical Sympathetic to the Eye. 1904.
Sime, D. Rabies. 1903.
Stewart and Cuff. Practical Nursing. II. 1903.
Symes. Bacteriology of Everyday Life. 1904.
Tandler und Holban. Topographie des Weiblichen Ureters. 1901.
Toldt. Atlas of Anatomy. VI, concluding vol. Neurology—Organs of the Senses. 1904.
Vincent. Nutrition of the Infant. 2nd edition. 1904.
Walker, E. W. A. Inflammation, Infection, and Fever, 1904.
Wilcox, R. W. Manual of Fever Nursing. 1904.
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Calendars, Reports and Transactions have been received from the following bodies:
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———— Dermatological Association Transactions. Vols. 5, 7, 8, and 11.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 50; or any parts of these vols.
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Vital Statistics.

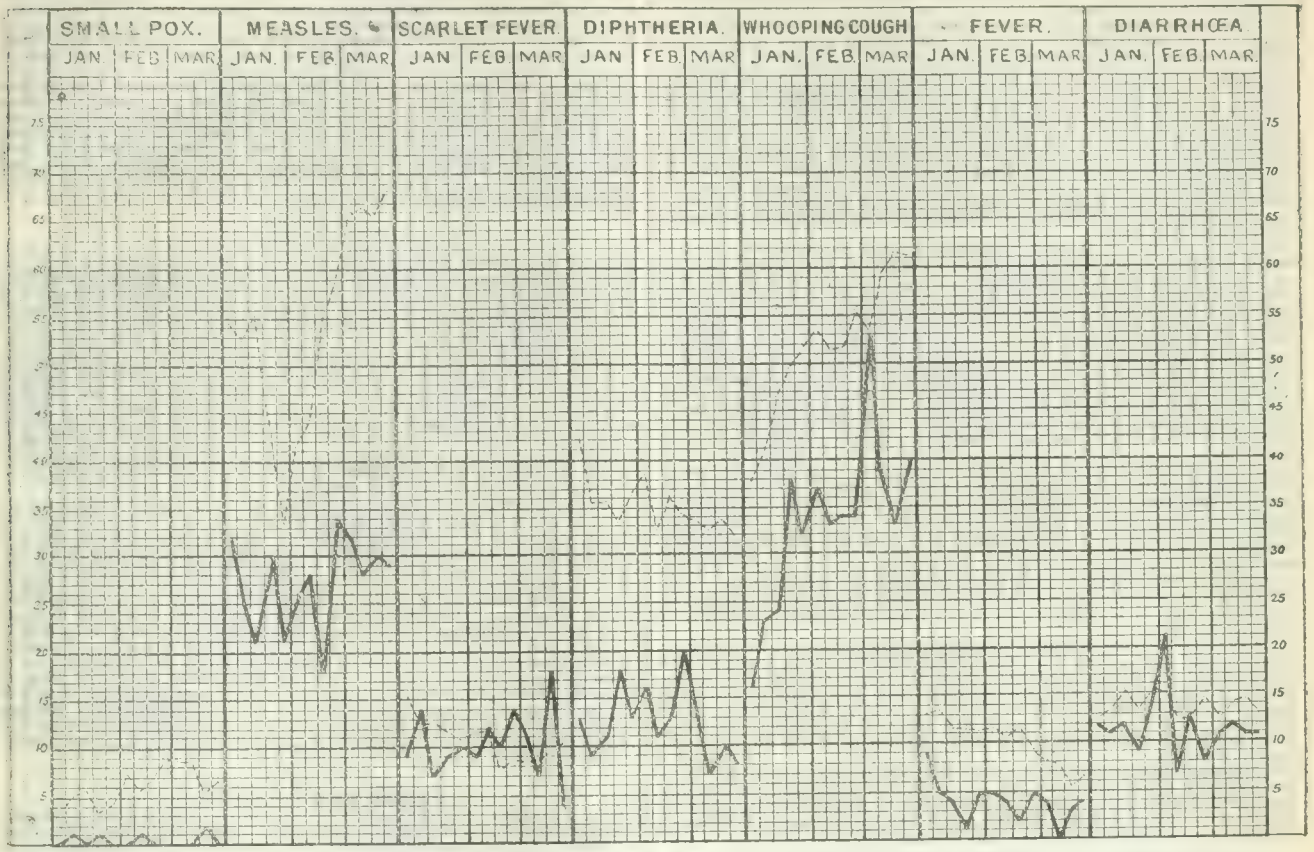
EPIDEMIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first, or winter, quarter of last year. The fluctuations of each disease and its relative fatality as compared with the corresponding periods of recent years can thus be readily seen.

Small-Pox.—Five fatal cases of small-pox were registered in London last quarter, against 12, 5, and none in the three preceding quarters; of these 5 deaths, 1 belonged to Islington, 1 to Hackney, 1 to Shoreditch, 1 to Stepney, and 1 to Lewisham. The Metropolitan Asylums Hospitals contained 20 small-pox patients at the end of last quarter, against 3 and 17 at the end of the two preceding quarters; 36 new cases were admitted during the quarter, against 39 and 23 in the two preceding quarters.

Measles.—The deaths from measles, which had been 932, 370, and 289 in the three preceding quarters, rose again to 354 last quarter, but were only one-half of the corrected average number. Among the various metropolitan boroughs this disease was proportionally most fatal in Hackney, Finsbury, Shoreditch, Stepney, Poplar, Bermondsey, and Wandsworth.

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1905.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years 1894-1903.

Scarlet Fever.—The fatal cases of this disease, which had been 81, 87, and 116 in the three preceding quarters, further increased to 134 last quarter, but were 7 below the average number in the corresponding periods of the ten preceding years. Scarlet fever showed the highest proportional fatality last quarter in Fulham, Chelsea, Finsbury, Shoreditch, and Bethnal Green. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,599, 2,127, and 2,349 at the end of the three preceding quarters, had declined again to 1,597 at the end of last quarter; 3,122 new cases were admitted during the quarter, against 2,598, 3,278, and 3,610 in the three preceding quarters.

Diphtheria.—The deaths in London referred to diphtheria, which had been 164, 150, and 208 in the three preceding quarters, declined again last quarter to 102, and were 206 fewer than the corrected average number. Among the various metropolitan boroughs this disease was proportionally most fatal in Hammersmith, Bethnal Green, Stepney, Poplar, and Southwark. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 681, 871, and 800 at the end of the three preceding quarters, had further declined to 788 at the end of last quarter; 1,425 new cases were admitted during the quarter, against 1,316, 1,614, and 1,566 in the three preceding quarters.

Whooping Cough.—The fatal cases of this disease, which had been 508, 240, and 156 in the three preceding quarters, rose again last quarter to 436, but were 236 below the average number in the corresponding periods of the ten preceding years. The greatest proportional mortality from this disease occurred in Hammersmith, Fulham, Chelsea, Shoreditch, and Southwark.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 47, 90, and 111 in the three preceding quarters, declined again to 51 last quarter, and were 81 below the corrected average number. All the deaths from "fever" during the quarter under notice were attributed to enteric, the mortality being highest in Kensington, Holborn, Finsbury, Stepney, Wandsworth, and Deptford. The Metropolitan Asylums Hospitals contained 68 enteric fever patients at the end of last quarter, against 62, 237, and 159 at the end of the three preceding quarters; 173 new cases were admitted during the quarter, against 137, 383, and 315 in the three preceding quarters.

Diarrhœa.—The 153 deaths from diarrhœa in London last quarter were 26 below the average number in the corresponding quarters of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Fulham, the City of London, Stepney, Poplar, and Bermondsey.

In conclusion, it may be stated that the 1,295 deaths in London attributed to these principal epidemic diseases during the quarter ending March last were more than 46 per cent. below the corrected average number in the corresponding periods of the ten preceding years. The lowest death rates from these diseases last quarter were recorded in Paddington, the City of Westminster, Hampstead, Lambeth, Deptford, and Woolwich; and the highest rates in Fulham, Shoreditch, Stepney, Bethnal Green, Poplar, and Bermondsey.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths during the first quarter of the year, and to the marriages during the three months ending December last. The marriage-rate during that period was equal to 16.4 per 1,000 of the population, being 1.1 per 1,000 below the average rate for the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending March last numbered 238,100, and were equal to an annual rate of 28.3 per 1,000 of the population, estimated at 34,152,977 persons in the middle of the year; in the first quarters of the ten preceding years the birth-rate had averaged 29.5 per 1,000. Among the several registration counties the birth-rates last quarter ranged from 22.3 in Sussex and in Cornwall, 22.4 in Carnarvonshire, 22.6 in Bedfordshire, 22.7 in Oxfordshire, and 22.8 in Herefordshire, to 30.4 in Nottinghamshire, 31.9 in Northumberland, 33.1 in Staffordshire, 34.6 in Durham, and 36.5 in Monmouthshire and Glamorganshire. In seventy-six of the largest English towns, including London, the birth-rate averaged 29.4 per 1,000, being 1.1 per 1,000 in excess of the general English birth-rate. In London the rate was 28.5 per 1,000, while it averaged 29.8 in the seventy-five other large towns, and ranged from 16.7 in Bournemouth, 17.9 in Hornsey, 19.5 in Halifax, 19.9 in Hastings, 21.8 in Bradford, and 21.9 in Northampton, to 36.8 in Middlesbrough, 37.1 in Warrington, 37.3 in Wigan, 38.9 in St. Helens, 39.4 in Rhondda, and 41.9 in Merthyr Tydfil.

The births registered during the quarter under notice were 89,740 in excess of the deaths; this represents the natural increase of population during that period. From returns issued by the Board of Trade it appears that 93,244 emigrants embarked during last quarter from the various ports of the United Kingdom at which emigration officers are stationed. Of these 93,244 emigrants, 34,094 were English, 6,387 Scottish, and 8,840 Irish, while 43,023 others were of foreign origin. Compared with the averages in the corresponding quarters of the three preceding years the proportion of emigrants in the total population of the several parts of the United Kingdom showed an increase of 14.7 per cent. English, 25.2 per cent. Scottish, and 120.4 per cent. Irish.

During the first quarter of the year the deaths of 148,360 persons were registered, equal to an annual rate of 17.6 per 1,000; this rate was 1.6 per 1,000 below the mean rate in the corresponding periods of the ten preceding years. The lowest county death-rates last quarter were 14.2 in Middlesex, 14.8 in Surrey, 15.1 in Essex, 15.3 in Kent and in Leicestershire, and 15.4 in Bedfordshire and in Worcestershire; the highest rates were 20.4 in Cornwall and Carmarthenshire, 20.5 in Glamorganshire, 20.7 in Denbighshire, 21.0 in Yorks North Riding, and 22.8 in Monmouthshire. In seventy-six of the largest towns, with an aggregate population of more than fifteen and a half millions the mean rate of mortality was 17.2 per 1,000; in 141 smaller towns, containing in the aggregate about four and three quarter millions of persons, the rate averaged 17.0 per 1,000; while in the remaining, and chiefly rural, parts of England and Wales, the rate

was 18.3 per 1,000. In London the death-rate was 16.8 per 1,000, while it averaged 17.4 per 1.000 in the seventy-five large provincial towns, and ranged from 9.2 in Hornsey, 10.7 in Walthamstow, 11.3 in King's Norton, 11.6 in Handsworth (Staffs.), 11.7 in Leyton, 12 3 in East Ham, and 12 4 in Smethwick, to 22.0 in Rhondda, 22.4 in Nottingham, 24.1 in Hanley, 24.8 in Middlesbrough, 26 1 in Stockton-on-Tees, and 28.0 in Merthyr Tydfil.

The 143,360 deaths from all causes in England and Wales last quarter included 10,724 that were referred to the principal infectious diseases; of these, 3,416 resulted from measles, 2,779 from whooping-cough, 1,668 from diphtheria, 1,024 from scarlet fever, 981 from diarrhoea, 783 from "fever" (principally enteric), and 73 from small-pox. The rate of mortality from measles was in excess of the average, but that from each of the other principal infectious diseases showed a decline. Of the 73 fatal cases of small-pox registered last quarter, 46 belonged to one or other of the 217 large towns; of these, 5 belonged to London, 4 to Burnley, 4 to Bradford, and 3 each to Oldham, Leeds, Dewsbury, Barnsley, Hull, and South Shields.

The rate of infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 132 per 1,000, against an average rate of 141. In the several counties the rates of infant mortality ranged from 95 in Buckinghamshire, 97 in Surrey, 102 in Middlesex and in Bedfordshire, and 106 in Sussex and in Essex, to 173 in Cumberland and in Monmouthshire, 181 in Glamorganshire, 185 in Carnarvonshire, and 186 in Carmarthenshire. In the seventy-six large towns the mean rate was 127 per 1,000; in London the proportion was equal to 116 per 1,000, while it averaged 132 per 1,000 in the seventy-five large provincial towns, among which the rates ranged from 56 in Handsworth (Staffs.), 64 in Hornsey, 71 in Wallasey, 76 in Leyton and 80 in Walthamstow, to 185 in Hanley, 186 in Middlesbrough, 197 in Norwich, 218 in Stockton-on-Tees, 219 in Merthyr Tydfil, and 230 in Rhondda

The mortality in England and Wales during the three months under notice among persons aged between 1 and 60 years was equal to an annual rate of 8.0 per 1,000 of the population estimated to be living at this group of ages, and was 1.0 per 1,000 below the average. In the seventy-six large towns the death-rate at this group of ages averaged 9.0 per 1,000; in London this death-rate was equal to 8.7 per 1.000, while among the seventy-five other large towns the rates ranged from 4 4 in Hornsey, 5.2 in Handsworth (Staffs.), 5 4 in Walthamstow and King's Norton, 5 5 in Smethwick, and 5.7 in Leyton, to 12 0 in Wigan, 12 2 in Nottingham, 12.5 in Hanley, 14.7 in Merthyr Tydfil, 14.8 in Middlesbrough, and 15.2 in Stockton-on-Tees.

Among persons aged 60 years and upwards the death-rate last quarter averaged 83.6 per 1,000 of the population estimated to be living at this group of ages, the corrected average rate being 86 6 per 1 000. In the seventy-six towns the mean death-rate at this age-group was 84 9 per 1,000; in London the rate was 82.8 per 1,000, while among the seventy-five other large towns the rates ranged from 63 6 in King's Norton, 65.1 in Hornsey, and 69.4 in Leyton, to 111.9 in Rochdale, 113 9 in Swansea, and 114.5 in Hanley.

The mean temperature of the air during last quarter was from one to two degrees above the average. The rainfall measured in London amounted to 5.3 in., and was 0.1 in. above the average. The duration of bright sunshine in London during the quarter was 220 hours, being 63 hours, or 40 per cent., in excess of the average.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 9,523 births and 4,621 deaths were registered during the week ending Saturday, May 6th. The annual rate of mortality in these towns, which had been 16.6, 15.6, and 16.5 per 1,000 in the three preceding weeks, declined again last week to 15 4 per 1,000. The rates in the several towns ranged from 6.6 in Burton-on-Trent, 6 2 in Hornsey, 8 4 in Handsworth (Staffs.), 9.6 in Leyton, in Aston Manor, and in Rotherham, and 9 9 in Grimsby, to 21.3 in Rhondda, 21.8 in Sunderland, 22.4 in Bootle, 24.0 in Merthyr Tydfil, 24 2 in Smethwick, 24 9 in Middlesbrough, and 26.8 in Oldham. In London the rate of mortality was 14.5 per 1,000, while it averaged 15.8 in the seventy-five other large towns. The death-rate from the principal infectious diseases in these towns averaged 1.6 per 1,000; in London this death-rate was equal to 1.5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 4.1 in Sheffield, 4 8 in Hanley, 4.9 in Coventry, 5 2 in Oldham, 5.6 in Merthyr Tydfil, 6 2 in West Bromwich, and 6.7 in Smethwick. Measles caused a death-rate of 2 6 in Oldham, 2.8 in Sheffield, 3.1 in Warrington, 3.3 in Smethwick, 3 5 in Coventry, 4.0 in Merthyr Tydfil, and 5.4 in West Bromwich; scarlet fever of 1.2 in Wigan and in Blackburn, and 1.5 in Burnley; diphtheria of 1 3 in East Ham; and whooping-cough of 1.4 in Leyton, in Preston and in South Shields, 1.8 in West Ham, 2.5 in Smethwick, 3 2 in Hanley, and 3.4 in Halifax. The mortality from "fever" and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, one in Nottingham, one in Oldham, and one in Bradford, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 17 small-pox patients at the end of the week, against 15, 17, and 16 at the end of the three preceding weeks; 4 new cases were admitted during the week, against 6 and 4 in the two preceding weeks. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital, which had been 2,133, 2,128, and 2,182 at the end of the three preceding weeks, had declined again to 2,152 on the 6th inst.; 235 new cases were admitted during the week, against 290, 253, and 255 in the three preceding weeks.

In seventy-six of the largest English towns, including London, 9,133 births and 4,486 deaths were registered during the week ending Saturday last, May 13th. The annual rate of mortality in these towns, which had been 15 6, 16.5, and 15.4 per 1,000 in the three preceding weeks, further fell to 15.0 per 1 000 last week. The rates in the several towns ranged from 4.0 in Burton-on-Trent, 5.9 in Leyton, 7 4 in Hornsey, 7 6 in Handsworth (Staffs.), 8 3 in Willesden, 9 0 in Aston Manor and in Stockton-on-Tees, and 9 9 in Walthamstow, to 20.8 in Oldham, 20.9 in Great Yarmouth, 21 2 in Sheffield, 21.9 in Merthyr Tydfil, 23.5 in Wigan, and 23.7 in Warrington. In London the rate of mortality was 14.7 per 1,000, while it averaged 15.1 in the seventy-five other large towns. The death-rate from the principal infectious diseases in these seventy-six towns averaged 1.3 per 1,000; in London this death-rate was 1.2 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.2 in Hanley, 3.3 in Oldham, 3.5 in Merthyr Tydfil, 3.7 in Sheffield and in West Hartlepool, 5.3 in Middlesbrough, 5.8 in Smethwick, 6.1 in Warrington, and 7 7 in West Bromwich. Measles caused a death-rate of 1.5 in West Hartlepool, 2.1 in Coventry and in Merthyr Tydfil, 2.6 in Sheffield, 2.7 in Middlesbrough, 3.3 in Smethwick, 6.1 in Warrington, and 7.7 in West Bromwich; diphtheria of 1.5 in West Hartlepool; whooping-cough of 1 4 in West Ham, 1.6 in Hastings, 1 8 in Preston, 2.1 in Middlesbrough, 2 4 in Hanley, and 2.5 in Smethwick; "fever" of 1 0 in South Shields; and diarrhoea of 1.0 in Wolverhampton. The mortality from scarlet fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered either in London or in any of the large provincial towns. The Metropolitan Asylums Hospitals contained 17 small-pox patients on Saturday last, May 13th, against 17, 16, and 17 on the three preceding Saturdays; 2 new cases were admitted during the week, against 6, 4, and 4 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,128, 2,182, and 2,152 at the end of the three preceding weeks, had risen again to 2,177 at the end of last week; 319 new cases were admitted during the week, against 253, 255, and 235 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday, May 6th, 1,147 births and 603 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18 0, 17.8, and 18.8 per 1,000 in the three preceding weeks, fell again to 18 0 per 1,000 last week, but was 2 6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.4 in Leith and 15.8 in Paisley to 18 9 in Glasgow and 21.3 in Perth. The death-rate from the principal infectious diseases averaged 2.0 per 1,000, the highest rates being recorded in Glasgow and Paisley. The 294 deaths registered in Glasgow included 15 which were referred to measles, 2 to scarlet fever, 2 to diphtheria, 16 to whooping-cough, 3 to "fever," and 5 to diarrhoea. Two fatal cases of whooping-cough were recorded in Edinburgh, 3 of whooping-cough and 3 of diarrhoea in Dundee, 2 of whooping-cough and 2 of diarrhoea in Aberdeen; 2 of whooping-cough in Paisley; and 3 of diarrhoea in Leith.

During the week ending Saturday last, May 13th, 1,023 births and 653 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.8, 18.8, and 18.0 per 1,000 in the three preceding weeks, rose again to 19.5 per 1,000 last week, and was 4 5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12.2 in Leith and 15 2 in Perth, to 21.1 in Glasgow and 22 1 in Aberdeen. The death-rate from the principal infectious diseases in these towns averaged 2.5 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 327 deaths registered in Glasgow included 26 which were referred to measles, 2 to scarlet fever, 7 to diphtheria, 20 to whooping-cough, one to typhus, and 4 to diarrhoea. Five fatal cases of measles, 2 of diphtheria, 4 of whooping-cough, 2 of diarrhoea, and 2 of "fever" (including a fatal case of plague in the Leith Infectious Diseases Hospital), were recorded in Edinburgh Two deaths from diarrhoea and 2 from whooping-cough occurred in Aberdeen; and 2 from whooping-cough in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 29th, 565 births and 417 deaths were registed in six of the principal Irish towns, against 534 births and 385 deaths in the preceding period. The mean annual death-rate in these towns, which had been 20 5, 22,5, and 20.5 per 1,000 in the three preceding weeks, fell to 19 4 per 1,000 in the week under notice, this figure being 2 0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 11.7 in Waterford and 17 8 in Limerick to 22 3 in Londonderry and 23.7 in Belfast. The zymotic death-rate during the same period and in the same six Irish towns averaged 1 2 per 1,000, or 0.2 per 1,000 lower than during the preceding weeks, Cork recording no deaths under this heading, and Belfast and Waterford each having a rate of 1 9. No deaths were anywhere ascribed to scarlet fever, small-pox, or diphtheria, but in Wexford there was 1 death from typhus, and in Belfast there were 9 from measles.

During the week ending Saturday, May 6th, 645 births and 357 deaths were registered in six of the principal Irish towns, against 565 births and 417 deaths in the preceding period The mean annual death-rate in these towns, which had been 22 5, 20.5, and 19.4 per 1,000 in the three preceding weeks, fell to 19.1 per 1,000 in the week under notice, this figure being 3.7 per 1,000 higher than the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 11 2 in Londonderry and 12 3 in Limerick to 22 6 in Cork and 27 3 in Waterford. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.6 per 1,000, or 0.4 per 1.000 higher than during the preceding period, the highest figure—3 9—being recorded in Waterford, while Londonderry registered no death under this heading at all. No deaths were anywhere recorded from small-pox, scarlet fever, typhus, or diphtheria, and the total number of deaths from measles—13—was the same as in the previous week.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon R. F. Bowie has been placed on the retired list, with the rank of Deputy-Inspector-General from May 7th. He entered as Assistant-Surgeon, February 16th, 1885, and became Fleet Surgeon, February 16th, 1901. He was Staff Surgeon of the *Tauranga*, and landed for service with the Naval Brigade in Samoa in 1899, being mentioned in dispatches.

The following appointments have been made at the Admiralty: William W. Peyn, Fleet Surgeon, and Alexander M'Cloy, M.B., Surgeon, to the *Goliath*, May 9th; Robert H. Nicholson, Fleet Surgeon, to Portsmouth Dockyard, May 9th; William Bett, Fleet Surgeon, to the Greenwich Hospital School and Royal Naval College, May 8th; Johnston H. Acheson M.B., Fleet Surgeon, to the *Russell*, May 6th; Henry N. Finlayson, M.B., Staff Surgeon, to the *St. George*, May 9th; Henry W. Stephen, Staff Surgeon, to the *Topaze*, May 9th; Lancelot Kilroy, Staff Surgeon, to the *Wildfire*, May 9th; Sydney Roach, Surgeon, to the *Cambridge*, April 27th; Hugh P. Tuanbull, Surgeon, to Haslar Hospital, May 9th; John F. Hall, M.B., Fleet Surgeon, and Thomas A. Smyth, M.B., Surgeon, to the *Canopus*, May 9th; Joseph H. Whelan, M.D., Fleet Surgeon, to the *Barfleur*, on recommissioning, undated; John H. Stenhouse, M.B., Fleet Surgeon, to the *Aboukir*, undated; George Ley, Staff Surgeon, to the

President, additional, for the Royal Naval Rendezvous, temporary, May 9th; DOUGLAS D. TURNER, Surgeon, to the *King Alfred*, on completing, May 4th; CHARLES J. BOUCHER, M.B., Surgeon, to the *Revenge*, May 9th; ARTHUR S. BRADLEY, M.B., Surgeon, to the *Victory*, additional, for Haslar Hospital, May 21st; GEORGE E. GLYNNE, M.B., Surgeon, to the *Excellent*, additional, for the *Grafton*, May 8th; CECIL A. ROCK, Staff Surgeon to Gibraltar Hospital, May 9th; JAMES C. BRINGAN, M.B., Surgeon to the *Sandpiper*, additional, and on recommissioning, May 9th; ROBERT R. FASSON, M.B., Surgeon, to the *Leander*, and for torpedo boat destroyers, May 9th; THOMAS W. JEFFERY, Surgeon to the *Diana*, May 9th; ALFRED M. PAGE, Fleet Surgeon, to the *Implacable*, May 11th; WILLIAM G. K. BARNES, M.D., Fleet Surgeon to the *Bulwark*, May 15th; JAMES W. W. STANTON, Staff Surgeon to the *Suffolk*, May 11th; CHARLES H. J. ROBINSON, Staff Surgeon to the *Gladiator*, May 11th; RAMSEY M. RICHARDS, Surgeon to Malta Hospital, May 11th; JOHN O'HEA, Surgeon to the *Vulcan* May 11th; JOHN M. ROBERTSON, M.B., Surgeon to the *Excellent*, May 11th.

ROYAL ARMY MEDICAL CORPS.

CAPTAINS H. C. FRENCH, E. M. WILLIAMS, and J. R. M'MUNN are promoted to be Majors, from April 29th. Their previous commissions are dated: Surgeon-Lieutenant, July 29th, 1893; Surgeon-Captain, July 29th, 1896. Major French served in the South African War in 1901-2, including operations in the Transvaal and Orange River Colony (Queen's medal with two clasps). Major M'Munn was with the Tirah Expeditionary Force in the campaign on the North-West Frontier of India in 1897-8 (medal with three clasps); he was also in the South African war in 1900, receiving the Queen's medal with three clasps. Major Williams has no war record.

Lieutenants L. V. THURSTON, A. W. GATER, and J. P. LYNCH who were appointed on probation July 30th, 1904, are confirmed in that rank.

Lieutenant D. S. B. THOMSON, M.B., is seconded for service with the Egyptian army, April 20th.

Major A. A. SUTTON, D.S.O., has been appointed Senior Medical Officer, Sierra Leone, in succession to Lieutenant-Colonel C. R. Bartlett.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during last month:

	From.	To.
Lieut.-Col. A. W. P. Inman, M.B.	Allahabad	Meerut.
,, H. L. Battersby	Bareilly	Ranikhet.
,, W. Rowney, M.D.	Cawnpore	Bareilly.
,, W. L. Reade	Bangalore	Weedon.
,, C. E. Nichol, M.B., D.S.O.	Ranikhet	Jubbulpore.
,, E. H. L. Lynden-Bell, M.B.	Allahabad	Dinapore.
,, A. E. Tate	Nasirabad	Simla.
,, T. B. Winter	Kamptee	Portsmouth.
,, W. Turner	Multan	Kasauli.
Major C. T. Blackwell, M.D.	Quetta	Hyderabad.
,, J. H. Curtis	Colaba	Dublin.
,, A. A. Sutton, D.S.O.	—	W. Africa.
,, J. J. Gerrard, M.B.	East. Com'd.	Brighton.
,, H. W. Austin	—	Quetta.
,, D. M. O'Callaghan	Bedford	Colchester.
,, F. R. Newland, M.B.	Hyderabad	Ahmednagar.
,, J. P. S. Hayes	Canterbury	Dover.
,, G. Raymond, M.B.	Bangalore	Wellington.
,, L. E. A. Salmon	Portsmouth	Devonport.
,, E. G. Browne	Dublin	Belfast.
,, A. L. F. Bate	Mhow	Neemuch.
,, T. Birt	Gibraltar	Chatham
,, C. W. H. Whitestone, M.B.	Colchester	Hounslow.
,, E. M. Morphew	Bellary	East. Com'd.
,, J. D. Alexander, M.B.	Pachmarhi	Dublin.
,, F. G. Faichnie	Jubbulpore	Pachmarhi.
,, C. E. Pollock	Woolwich	Malta.
,, W. J. Taylor, M.B.	Neemuch	Deesa.
,, F. A. Symons, M.B.	Jubbulpore	Mhow.
Captain C. W. Profeit, M.B.	Dagshai	Ambala.
,, A. H. Morris	Chatham	Woolwich.
,, G. B. Riddick	Aldershot	Alton.
,, H. O. B. Browne-Mason	Rawalpindi	London Dist.
,, N. H. Ross, M.B.	Dover	Canterbury.
,, H. P. W. Barrow	Ambala	Dagshai.
,, T. C. Lander, M.B.	Dublin	Cork.
,, W. W. Scarlett	Transvaal	Edinburgh.
,, E. E. Ellery	Kamptee	Portsmouth.
,, J. H. R. Bond	Colaba	,,
,, H. M. Morton, M.B.	Madras	Edinburgh.
,, E. W. Siberry	Rawalpindi	Dublin.
,, A. M. MacLaughlin, M.B.	Dublin	Belfast.
,, J. F. Martin, M.B.	Rawalpindi	Attock.
,, A. F. Carlyon	Transvaal	Devonport.
,, W. C. Croly	Secunderabad	Cawnpore.
,, A. D. Waring, M.B.	Jubbulpore	Aden.
,, A. F. Weston	Attock	Sialkot.
,, A. D. Jameson	Egypt	Malta.
Lieutenant A. E. B. Wood, M.B.	Fyzabad	Lucknow.
,, T. E. Harty	Meerut	Delhi.
,, H. H. J. Fawcett	Natal	Bloemfontein.
,, G. S. Mackay, M.B.	—	Pretoria.
,, D. S. B. Thomson, M.B.	Dublin	Egypt. Army.
,, A. L. Otway, M.B.	Curragh	Mhow.

Colonel B. B. Connolly, M.D., C.B., retired pay, has been transferred from Woolwich to London.

INDIAN MEDICAL SERVICE.

MAJORS F. J. DRURY, M.B., H. J. DYSON, F.R.C.S., F. A. ROGERS, D.S.O., and E. R. W. C. CARROLL, of the Bengal Establishment, and who entered the department as Surgeons, April 1st, 1885, are promoted to be Lieutenant-Colonels from April 1st, 1905. Their war records are as follow: Lieutenant-Colonels Drury and Dyson—Burmese Expedition 1886-8 (medal with clasp). Lieutenant-Colonel Rogers—Burmese Expedition 1885-9 (mentioned in dispatches, medal with two clasps); Chin-Lushai Expedition 1889-90 (mentioned in dispatches, clasp, and D.S.O.). Lieutenant-Colonel Carroll—Burmese Expedition 1886-7 (medal with clasp).

Colonel C. H. JOUBERT, M.B., Bengal Establishment, is permitted to retire from the service, from March 29th. He was appointed Assistant-Surgeon, March 30th, 1872, and became Surgeon-Colonel, March 29th, 1900. He has no war record in the Army Lists.

IMPERIAL YEOMANRY.

CHARLES G. ROBERT, M.B. (late Second Lieutenant), to be Surgeon-Lieutenant in the Essex Regiment, May 3rd.

Surgeon-Lieutenant R. H. ASHWIN, M.D., East Riding of Yorkshire Regiment, resigns his commission, May 3rd.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-LIEUTENANT J. GRAY, M.B., 1st Forfarshire Regiment, resigns his commission, May 3rd.

Surgeon-Lieutenant-Colonel I. MOSSOP, 2nd West Riding of Yorkshire Regiment, is granted the honorary rank of Surgeon-Colonel, May 10th.

VOLUNTEER RIFLES.

MR. WILFRID ALLPORT, to be Surgeon-Lieutenant, in the 1st Volunteer Battalion the Royal Warwickshire Regiment, May 3rd.

Supernumerary Surgeon-Lieutenant J. M. G. BREMNER, M.B., 1st Volunteer Battalion the Norfolk Regiment, to be Surgeon-Captain, and to remain supernumerary, May 3rd.

Mr. ERNEST G. D. BENSON, to be Surgeon-Lieutenant, in the 4th Volunteer Battalion the Durham Light Infantry, May 3rd.

Surgeon-Lieutenant-Colonel A. WILSON, 2nd Volunteer Battalion the Northumberland Fusiliers (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Tyne Volunteer Infantry Brigade), is granted the honorary rank of Surgeon-Colonel, May 10th.

Surgeon-Captain O. T. STEPHENSON, 2nd Volunteer Battalion the Hampshire Regiment, resigns his commission, May 10th.

Surgeon-Lieutenant J. A. K. RENSHAW, M.D., 2nd Volunteer Battalion the Manchester Regiment, to be Surgeon-Captain, May 10th.

HERBERT S. STOCKTON, M.B., to be Surgeon-Lieutenant in the 2nd Tower Hamlets Regiment.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANT G. FYFE-WATERSTON, the Manchester Companies, resigns his commission, May 10th.

ARMY MEDICAL STAFF.

SURGEON-GENERAL R. H. QUILL, M.B., is transferred on promotion from Dover to Netley Hospital as Principal Medical Officer; Colonel O. E. P. LLOYD, V.C., on his early return from India, succeeds Surgeon-General Quill at Dover.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR R. CHALMERS, M.D., to be Surgeon-Lieutenant-Colonel, May 2nd.

Surgeon-Lieutenant W. J. REID to be Surgeon-Captain, April 30th.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage at which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, as far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, of the value each of £150 per annum, tenable for

one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Applications for all Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

429, Strand, March, 1905. GUY ELLISTON, *General Secretary.*

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum and notification fees.

BODMIN: CORNWALL COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £135, rising to £155, per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant House-Surgeon. Salary at the rate of £70 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C. — House-Surgeon. Salary at the rate of £50 per annum.

CHESTER GENERAL INFIRMARY. — House-Physician, resident. Salary, £90 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL. — House-Surgeon. Salary, £100 per annum.

DUDLEY: GUEST HOSPITAL.—Two Honorary Surgeons.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—House-Physician. Honorarium, £25 for six months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Surgeon. (4) Eight qualified Clinical Assistants. Salary for (1) and (2) £80 per annum and for (3) £70 per annum.

GLASGOW ROYAL INFIRMARY.—Assistant Gynaecologist.

HUDDERSFIELD INFIRMARY.—Male Junior House-Surgeon. Salary, £40 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—House-Physician, resident. Salary, £60 per annum.

LIVERPOOL: MILL ROAD INFIRMARY.—Assistant Medical Officer. Salary, £125 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Honorary Assistant Visiting Surgeon.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officers at the Fever and Small-pox Hospitals. Salary, £180 rising to £240 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E. — Anaesthetist. Honorarium, 25 guineas per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—(1) House-Physician (2) Resident Medical Officer for Maternity Department. Must be qualified medical women.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Two House-Surgeons. Salary at the rate of £60 per annum each.

ROYAL EAR HOSPITAL, Dean Street, Soho.—House-Surgeon, non-resident. Honorarium at the rate of £40 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, Strand.—(1) House-Surgeon. Honorarium, £25 for six months. (2) Clinical Assistants.

SALISBURY: FISHERTON ASYLUM.—Junior Assistant Medical Officer. Salary, £120 per annum.

SIDLAW SANATORIUM, Auchterhouse.—Medical Superintendent. Salary, £250 per annum.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Medicine.

SURREY COUNTY COUNCIL.—Education Medical Officer. Salary, £500 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician. Appointment for six months.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WINSLEY: SANATORIUM FOR POORER CONSUMPTIVES.—Resident Medical Officer. Salary, £200, rising to £300.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Ongar, Essex.

APPOINTMENTS.

AGNEW, A. P., M.B., C.M.Glas., District Medical Officer of the Burnley Union.

ALLEN, James D. C., M.B., C.M.Edin., Medical Officer and Public Vaccinator to the Burfield District of the Easthampstead Union.

ANDERSON, John, M.D., Health Officer for the East Riding of the Council Shire of Ballan, Victoria, vice J. H. Sleeman, M.B., resigned.

BAIRD, John C., M.B., Health Officer for the Shire of Healesville, Victoria.

BARFORD, Arthur M., M.D.Brux., M.R.C.S., L.R.C.P.Lond., Honorary Medical Officer to the Chichester Infirmary, vice H. Harlock, L.R.C.P.Lond., M.R.C.S.Eng.

CLERY, J. N., L.R.C.S.I., L.R.C.P.Edin., Certifying Factory Surgeon for the Bruff District, Limerick.

CROSS, W. Foster, M.R.C.S., L.R.C.P.Lond., an additional non-resident Anaesthetist at St. Bartholomew's Hospital.

DICK, M. I., M.B., B.S.Glasg., District Medical Officer of the Kendal Union.

DOUGLAS, Alexander, M.B., M.S.Edin., Port Health Officer at Oamaru, New Zealand, vice Dr. Barclay, resigned.

FARRAR, Claude St. Aubyn, reappointed Clinical Assistant, Samaritan Hospital for Women.

GRIFFITHS, T. R., L.R.C.P.&S.Edin., L.F.P.S.Glasg., Medical Officer of Health for the Borough of Kidwelly.

HALE, L. H. D., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Eton Union.

HARRIS John, M.B., Ch.M., Honorary Assistant Physician to the Sydney Hospital, N.S.W.

HOLLAND, Joseph, M.B.Syd., Resident Medical Officer, St. Vincent's Hospital, Sydney, N.S.W.

HOPE, William M., M.R.C.S., L.S.A., D.P.H., Medical Officer of Health for the City and Port of Gloucester, vice John Campbell, M.D.Glasg.

JAQUES, Robert, F.R.C.S., House-Surgeon to the Royal Eye Hospital, Southwark, S.E.

JUDSON, J. E., M.R.C.S., L.R.C.P., Honorary Assistant Medical Officer to the District Infirmary and Children's Hospital, Ashton-under-Lyne.

KELLY, C. I., L.R.C.P.&S.Irel., Certifying Factory Surgeon to the Portumna District, Galway.

LOCK, J. L., M.B., B.C.Cantab., Certifying Factory Surgeon for the Uxbridge and Denham Districts.

MORIARTY, R. E., L.R.C.P.&S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Sherburn District, Yorks.

SAUNDBY, Robert, M.D.Edin., F.R.C.P.Lond., Honorary Consulting Physician to the West Bromwich District Hospital.

SMYTH, E. J., M.D., B.S., B.Sc.Lond., Honorary Ophthalmic Surgeon to the Royal Surrey County Hospital, Guildford.

SYKES, William, M.D., F.S.A., etc., Surgeon and Agent for Admiralty and Coast Guard at Paignton, South Devon, and Medical Examiner for Prudential Assurance Company for Paignton and District.

WAUGH, P. M., M.B., Ch.B.Glas., Medical Officer No. 4 District of the Rye Union.

WILLIAMS, T. J., M.R.C.S., L.R.C.P.Lond., Resident Assistant Medical Officer, West Derby Union Infirmary.

WILSON, W. C., M.B., Ch.B.Edin., F.R.C.S.Eng., District Medical Officer of the Huddersfield Union.

WRIGHT, William, M.B., B.C., D.P.H.Camb., Assistant Medical Officer of Health, Glasgow.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BIRD.—On May 13th, at Old Hayes, Sidmouth, the wife of Arthur C. Bird, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

HAIGH.—At Clifton Lodge, Meltham, near Huddersfield, on May 11th, the wife of H. Haigh, M.R.C.S., L.R.C.P., of a daughter.

HIGHET.—At Park Holme, Stirling, on May 8th, the wife of Robert Campbell Highet, M.D., a son.

ORMEROD.—On the 11th instant, at Beauchamp Lodge, Wimborne, the wife of Ernest William Ormerod, M.A., M.D.Camb., of a daughter.

MARRIAGES.

BEADLES—DEARLOVE.—On May 4th, at Elm Church, Cambridgeshire, by Rev. M. E. Ruston, assisted by the Rev. Arthur Beadles, cousin of the bridegroom, and the Rev. Canon Stokes, Hugh Stanley Beadles, M.R.C.S.Eng., L.R.C.P.Lond., third son of Dr. Arthur Beadles, of Forest Hill, to Violet Mary, eldest daughter of the late T. D. Dearlove, Esq., of Oxburgh Hall, and Mrs. Dearlove, of Coldham House, near Wisbech.

STRONG—HOLLAND.—April 29th, at St. John's Church, Buluwayo, by the Right Rev. the Lord Bishop of Mashonaland, assisted by the Rev. J. Hallward, Edgar Hugh Strong, M.R.C.S.Eng., L.R.C.P.Lond., youngest son of Lieut.-Col. Owen H. Strong, of "Monard," Knole Road, Bournemouth, to Agnes Beryl, third daughter of W. A. H. Holland, Esq., J.P., of Grahamstown, Cape Colony. "By cable."

DEATHS.

LANGWILL.—At 4, Hermitage Place, Leith, on the 13th inst., Amy Holmes, wife of Hamilton Graham Langwill, M.D., F.R.C.P.E.

OGLE.—On May 16th, at The Elms, Derby, William Ogle, M.D., F.R.C.P., J.P., in his 82nd year; sometime Fellow of St. Catherine's College, Cambridge, and Consulting Physician to the Derbyshire Royal Infirmary.

DIARY FOR NEXT WEEK.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Special address by Dr. Henry Head, F.R.S. (Marshall Hall Prizeman) on the Afferent Nerves under a New Aspect. The conclusions expressed are drawn from investigations carried out in conjunction with Dr. W. H. R. Rivers, Fellow of St. John's College, Cambridge, and Mr. James Sherren, F.R.C.S., Assistant Surgeon to the London Hospital. Illustrated by means of the Epidiascope.

WEDNESDAY.

ASSOCIATION OF MEDICAL DIPLOMATES OF SCOTLAND, 11, Chandos Street, Cavendish Square, W.—8 p.m., Council Meeting. 8.30 p.m. General Meeting. Clinical cases illustrating all phases of Rheumatism. Discussion and petition to the Royal College of Surgeons, Edinburgh, to alter the title of L.R.C.S.Edin. to M.R.C.S.Edin.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Annual meeting for the election of Officers and Council for the Session 1905-6. The following papers will be read: (1) The President (Dr. Frederick Taylor) and Dr. Fawcett: A Case of Milky Ascites, in which the opalescence was not due to fat. (2) Mr. James Berry: A Rhinoplastic Operation. (3) Dr. Sidney Phillips and Mr. B. H. Spilsbury: A Case of Primary Adrenal Carcinoma of the Liver (specimen and microscopic section).

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Surgical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Wednesday, 4 p.m., Opening Lecture of the Summer Session: The Elements of Prognosis in Pulmonary Tuberculosis, with illustrative cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Classification of Insanity; Tuesday, Angina Pectoris and Allied Conditions; Wednesday, Pulmonary Congestion; Thursday, The Dietetic Treatment of Diabetes.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday, Infantile Diarrhoea; Friday, Some New Ophthalmic Remedies.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Gastritis and its Treatment; Tuesday, Surgical Cases; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, X Rays Diagnosis and Treatment.

BOOKS, ETC., RECEIVED.

A System of Clinical Medicine, dealing with the Diagnosis, Prognosis, and Treatment of Disease. By Thomas D. Savill, M.D.Lond. Vol. ii. Certain General Disorders; Diseases of the Skin and Nervous System. London: J. and A. Churchill. 1905. 8s. 6d.

Laryngeal Phthisis or Tubercular Laryngitis. By Richard Lake, F.R.C.S.Eng. Second edition. By Harold Barwell, M.B.Lond., F.R.C.S.Eng. London: Baillière, Tindall, and Cox. 1905. 6s. 6d.

Facts about Flogging. By Joseph Collinson. Revised edition. London: A. C. Fifield. 1905. 6d.

Eye, Ear, Nose, and Throat Nursing. By A. Edward Davis, A.M., M.D., and Beaman Douglass, M.D. Philadelphia: F. A. Davis Co. 1905. 1.25 dollars.

Practical Pediatrics. By Dr. E. Graetzer. Authorized translation by Herman B. Sheffield, M.D. Philadelphia: F. A. Davis Co. 1905. 3 dollars.

Conservative Gynecology and Electro-Therapeutics. By G. Betton Massey, M.D. Fourth edition. Philadelphia: F. A. Davis Co. 1905. 4 dollars.

The Ritual of Temperance and State Hygiene. By H. Cooper Pattin, M.A. Norwich: Agas H. Gosse. 2s. 6d.

Bünder Oberland Illustrated (Switzerland). By Dr. Chr. Tarnuzzer, Translated by Dr. and Mrs. Spöndly-Blakiston. Zurich: Art Institut Orell Füssli. London: Hachette and Co. 1905. 1s. 6d.

The Countess of Dufferin's Fund. Twentieth Annual Report of the National Association for Supplying Female Medical Aid to the Women of India. For the year 1904. Calcutta: Office of the Superintendent of Government Printing, India. 1905. 1 rupee = 1s. 4d.

Psychological Medicine. By Maurice Craig, M.A., M.D.Cantab., M.R.C.P.Lond. London: J. and A. Churchill. 1905. 12s. 6d.

Paralysis and other Diseases of the Nervous System in Childhood and Early Life. By James Taylor, M.A., M.D., F.R.C.P. London: J. and A. Churchill. 1905. 12s. 6d.

The Law Relating to Factories and Workshops (including Laundries, Railways, and Docks). Part I. A Practical Guide to the Law and its Administration. By May E. Abraham (Mrs. H. J. Tennant). Part II. The Acts, with Notes. By Arthur Llewelyn Davies. Fifth edition. London: Eyre and Spottiswoode. 1905. 5s.

Protection and Employment. By Harold Cox. London: T. Fisher Unwin. 1905. 6d.

Nouveau Traité de Médecine et de Thérapeutique. Publié en Fascicules, Sous la direction de MM. P. Brouardel et A. Gilbert. V. Paludisme et Trypanosomiase. Par A. Laveran. Paris: J. B. Baillière et Fils. 1905. Fr. 5.

A Bristol Printing House. Spoken of in Several Fragments by Edward Everard. Bristol: Edward Everard.

Report of the Commission for the Study and Treatment of "Anemia" in Porto Rico. Authorized by Act of the Legislative Assembly, approved February 16th, 1904. Respectfully submitted to Honourable Bukman Winthrop, Governor of Porto Rico. December 1st, 1904. San Juan, P.R.: Bureau of Printing and Supplies.

Ueber die parasitäre Theorie in der Aetiologie der Krebse. Von E. v. Leyden. Vortrag gehalten in der Berliner medizinischen Gesellschaft am 8 März, 1905. Berlin: August Hirschwald. 1905.

Mucomembranous Enterocolitis. By Paul Froussard, M.D. Edited by Dr. Edward Blake. London: Henry J. Glaisher. 1905. 2s. 6d.

The Rational Almanac. Tracing the Evolution of Modern Almanacs from Ancient Ideas of Time, and Suggesting Improvements. By Moses B. Cotsworth. York: M. B. Cotsworth. 1905. 5s.

Die Pathologisch-Histologischen Untersuchungsmethoden. Von Dr. G. Schmorl. Dritte Auflage. Leipzig: F. C. W. Vogel. 1905. M 8.75.

A System of Practical Surgery. By Professor E. von Bergmann, M.D., Professor P. von Bruns, M.D., and Professor J. von Mikulicz, M.D. In Five Volumes. Translated and edited by W. T. Bull, M.D., and others. London: Williams and Norgate. £6 6s.

Golden Rules of Medical Practice. By L. Smith, M.D. Sixth Edition. Bristol: John Wright and Co. 1s.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by Sir John Batty Tuke, M.D., and D. Noël Paton, M.D. Vol. ix. Edinburgh: Oliver and Boyd.

Physiological Economy in Nutrition. With special reference to the Minimal Protein Requirements of the Healthy Man. An Experimental Study by Russell H. Chittenden, Ph.D., LL.D., Sc.D. London: William Heinemann. 1905. 14s.

Chapters in Pathology. By W. S. Greenfield, M.D., F.R.C.S.Lond. and Edin., and George Lyon, M.D., M.R.C.P.Edin. Edinburgh: William Green and Sons. 1905. 5s.

Lehrbuch der Inneren Medizin für Ärzte und Studirende. Von Dr. med. Georg Klemperer. Erster Band. Berlin: August Hirschwald. 1905. M.15

Verb. Sap." on going to West Africa, Northern Nigeria, Southern, and to the Coasts. By Alan Field, F.R.G.S. London: Bale, Sons, and Danielsson. 1905. 2s. 6d.

In Peace and War: Autobiographical Sketches. By Sir John Furley, Kt., C.B. London: Smith Elder and Co. 1905. 10s. 6d.

The Rôle of Modern Dietetics in the Causation of Disease. By J. Sim Wallace, M.D., D.Sc., L.D.S. London: Baillière, Tindall, and Cox. 1905. 2s. 6d.

Bournemouth. Edited by George W. May. London: The Health Resorts Association. 1905. Free on application to Town Clerk.

Broadstairs. Edited by George W. May. London: The Health Resorts Association. 1905. Free on application to Town Clerk.

Southport. Edited by George W. May. London: The Health Resorts Association. 1905. Free on application to Town Clerk.

Aberystwyth. Edited by George W. May. London: The Health Resorts Association. 1905. Free on application to Town Clerk.

Physician versus Bacteriologist. By Professor R. Rosenbach. Authorized translation from the German by Dr. Achilles Rose. New York and London: Funk and Wagnalls Co. 1904. 6s.

Superstition in Medicine. By Professor Dr. Hugo Magnus. Authorized Translation from the German, edited by Dr. Julius L. Salinger. New York and London: Funk and Wagnalls Co. 1905. 4s.

Electro-Diagnosis and Electro-Therapeutics. By Dr. Toby Cohn. Translated from 2nd German Edition, and edited by Francis A. Scratchley, M.D. New York and London: Funk and Wagnalls Co. 1904. 8s.

A Book of Bridge. By "Pontifex." London: Blackie and Son, Limited. 1905. 5s.

The Physiological Aspect of Dietary. By A. S. Wauchope-Watson. London: Adams Bros. 1905. 2s. 6d.

Manual of Psychiatry. By J. Rogues de Fursac, M.D. Authorized translation from the French by A. J. Rosanoff, M.D. Edited by Joseph Collins, M.D. First edition. New York: John Wiley and Sons; and London: Chapman and Hall, Limited. 1905.

The Vermiform Appendix and its Diseases. By Howard A. Kelly, A.B., M.D., and E. Hurdon, M.D. Philadelphia and London: W. B. Saunders and Co. 1905. 42s.

Nothnagel's Practice. Diseases of the Blood. By Professor Dr. P. Ehrlich, Professor K. von Noorden, Dr. A. Lazarus, and Dr. F. Pinkus. Edited, with additions, by Alfred Stengel, M.D. Authorized translation from the German, edited by Alfred Stengel, M.D. Philadelphia and London: W. B. Saunders and Co. 1905. 21s.

A Textbook of Medical Chemistry and Toxicology. By James W. Holland, A.M., M.D. Philadelphia and London: W. B. Saunders and Co. 1905. 6s. 6d.

How to Succeed in the Practice of Medicine. By Joseph McDowell Mathews, M.D., LL.D. Philadelphia and London: W. B. Saunders and Co. 1905. 15s.

Atlas and Epitome of Operative Ophthalmology. By Professor O. Haab. Authorized translation from the German, edited by G. E. de Schweinitz, A.M., M.D. Philadelphia and London: W. B. Saunders and Co. 1905. 15s.

A Reference Handbook for Nurses. By Amanda K. Bock. Philadelphia and London: W. B. Saunders and Co. 1905. 5s.

Les troubles oculaires d'origine génitale chez la femme. Par le Docteurs E. Berger et Robert Loewy. Paris: Felix Alcan. 1905. Fr.3.

Die Lokalanästhesie, ihre wissenschaftlichen Grundlagen und praktische Anwendung. Ein Handbuch und Lehrbuch von Dr. med. Heinrich Braun. Leipzig: Johann Ambrosius Barth. 1905. M.10.

"*" In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
May	21...Sunday..	
,,	22...Monday ...	
,,	23...Tuesday ...	General Medical Council Session commences. Chester and Crewe Divisions, *Lancashire and Cheshire Branch*, Annual Meeting. Board Room, Chester General Infirmary, 5 p.m. Eastbourne Division, *South-Eastern Branch*, Annual Meeting, Town Hall, Eastbourne, 8.30 p.m.
,,	24...Wednesday	London: Public Health Committee, 3 p.m. Matters for consideration by Quarterly Medico-Political Committee should be notified to Medical Secretary on or before this day. Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4.30 p.m. South-Eastern of Ireland Branch, Annual Meeting, Kilkenny.
,,	25...Thursday...	City Division, *Metropolitan Counties Branch*, Annual Meeting, Great Eastern Hotel (Lincolnshire Room), Liverpool Street, 4 p.m. Eastbourne Division, *South-Eastern Branch*, in conjunction with Hastings Division, Grand Hotel, Eastbourne, 6.30 p.m.; Dinner, 8 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, Crichton's, Clapham Junction, 9 30 p.m., preceded by Annual Dinner, 7 p.m.
,,	26...Friday ...	Denbigh and Flint Division, *North Wales and Shropshire Branch*, Annual Meeting, Ruthin, 4.30 p.m. Manchester (South) Division, *Lancashire and Cheshire Branch*, Annual Meeting, Schoolroom of Holy Innocents' Church, Fallowfield, 4.15 p.m. North Cumberland Division, *Border Counties Branch*, County Hotel, Carlisle. 3 38 p.m. West Cumberland Division, *Border Counties Branch*, Annual Meeting, Whitehaven.
,,	27...Saturday...	
,,	28...Sunday..	
,,	29...Monday ...	
,,	30...Tuesday ...	Folkestone Division, *South-Eastern Branch*, Annual Meeting, Hotel Wampach, 7 p.m. also meeting of Folkestone, Dover, and Ashford Constituency, 7.30 p.m., Dinner, 8.30 p.m. Trowbridge Division, *Bath and Bristol Branch*, Annual Meeting, Trowbridge
,,	31...Wednesday	Scientific Grantees have to report to Council on or before this date. South Carnarvon and Merioneth Division, *North Wales Branch*, Annual Meeting, Dolgelly.
June	1...Thursday...	Note that in order to facilitate the procedure of the Council for the appointment of Committees, Branch Secretaries are requested to send in to the General Secretary the Election Returns of their Branch Representatives by June 27th. Canterbury and Faversham with Thanet Divisions, *South-Eastern Branch*, Combined Meeting, Canterbury Hospital, 4 p.m.; preceded by meeting of Canterbury and Faversham Division, 3 15 p.m. Fife Branch, Annual Meeting, in the Hotel, Thornton, 3.15 p.m.
,,	2...Friday ...	Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day.
,,	3...Saturday...	
,,	4...Sunday..	
,,	5...Monday ...	
,,	6...Tuesday ...	
,,	7...Wednesday.	London: Medico-Political Committee.
,,	8...Thursday...	Birmingham Branch, Annual Meeting, Medical Institute, Edmund Street, Birmingham, 4 p.m.; Dinner, Grand Hotel, 7 p.m. South Wales and Monmouthshire Branch, Annual Meeting, Cardiff.
,,	9...Friday ...	
,,	10...Saturday...	

Month.	Day of Week.	Meetings to be Held.
June	11...Sunday..	
,,	12...Monday ...	*Bank Holiday.*
,,	13...Tuesday ...	Matters for consideration by Organization Committee on June 27th should be notified to Medical Secretary on or before this day.
,,	14...Wednesday	Westminster Division, *Metropolitan Counties Branch*, Annual Meeting, 20, Hanover Square, 4 30 p.m.
,,	15...Thursday...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester. Midland Branch, Annual Meeting, Infirmary, Leicester, 4 30 p.m. South-Western Branch, Annual Meeting, Athenaeum, George Street, Plymouth, 3 p.m.
,,	16...Friday ...	London: Ethical Committee. Border Counties Branch, Annual Meeting, County Hall, Carlisle. 3.30 p m.
,,	17...Saturday...	South-Eastern Counties Division, *Edinburgh Branch*, Annual Meeting, Railway Hotel, Newtown, St. Boswells, 3 p.m.
,,	18...Sunday..	
,,	19...Monday ...	Election of Representatives: July 3rd.
,,	20...Tuesday ...	
,,	21...Wednesday	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m.
,,	22...Thursday...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m. City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m.
,,	23...Friday ...	
,,	24...Saturday...	
,,	25...Sunday..	
,,	26...Monday ...	
,,	27...Tuesday ...	London: Organization Committee, 10.30 a.m.
,,	28...Wednesday	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m.
,,	29...Thursday...	East Anglian Branch, Annual Meeting, Norwich.
,,	30...Friday ...	Association Research Scholarships expire.
July	1...Saturday...	Research Scholarships date from now. Edinburgh Branch, Hawick, 12.15 p.m.; Dinner, Tower Hotel, 6.30 p.m.
,,	...Sunday..	
,,	3...Monday ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...Tuesday ...	
,,	5...Wednesday	London: Central Council, 10 a.m.
,,	6...Thursday...	
,,	7...Friday ...	
,,	8...Saturday...	
,,	9...Sunday..	
,,	10...Monday ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
,,	11...Tuesday ...	
,,	12...Wednesday	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.
,,	13...Thursday...	Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 27TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
ANNUAL REPORTS OF COUNCIL AND COMMITTEES:	
Report of Council, 1904-5	225
Balance Sheet for 1904	228
Annual Report by the Medico-Political Committee	235
Appendices	242
National Deposit Friendly Society	250
Report on Death Registration and Amendment of Coroner's Law	251
The Coroners Bill	253
Medical Acts Amendment Bill	256
Public Health Bill	269
Annual Report of the Ethical Committee	273
Report of Medical Defence Committee	276
PROCEEDINGS OF STANDING COMMITTEES:	
SECRETARIES OF BRANCHES AND DIVISIONS COMMITTEE	276
SCOTTISH COMMITTEE	277
ANNUAL MEETING (SECTIONS) COMMITTEE	277
PROCEEDINGS OF COUNCIL	277
MEETINGS OF BRANCHES AND DIVISIONS:	
Border Counties Branch: North Cumberland Division	278
Dorset and West Hants Branch	278
Lancashire and Cheshire Branch: Blackburn Division	279
South-Eastern Branch: Croydon Division	279
Southern Branch: Portsmouth Division	279
,, Winchester Division	279
South Wales and Monmouthshire Branch: Cardiff Division	280
Yorkshire Branch: Harrogate Division	280
ASSOCIATION NOTICES.—NOTICE OF CHANGE OF BOUNDARIES OF DIVISION AND BRANCHES.—BRANCH AND DIVISION MEETINGS TO BE HELD	280
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER	282
BRITISH MEDICAL ASSOCIATION: SEVENTY-THIRD ANNUAL MEETING PROGRAMME	282
GENERAL MEDICAL COUNCIL.—President's Address	283
CENTRAL MIDWIVES BOARD	285
VITAL STATISTICS	286
NAVAL AND MILITARY APPOINTMENTS	286
VACANCIES AND APPOINTMENTS	286
BIRTHS, MARRIAGES, AND DEATHS	287
DIARY OF THE WEEK	287
BOOKS RECEIVED	287
CALENDAR	288

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPORTS OF COUNCIL AND COMMITTEES

TO BE PRESENTED TO THE

Annual Representative Meeting,

TO BE HELD IN

THE HALL OF THE Y.M.C.A., LONDON ROAD, LEICESTER,

ON

JULY 24th, 1905, and following days (as may be necessary).

REPORT OF COUNCIL, 1904-5.

(1) ON the occasion of the seventy-third annual meeting of the British Medical Association to be held at Leicester, your Council is able to report that the activity throughout the Divisions and Branches referred to last year has been well sustained. This is evidenced in a marked degree by the increase in the number of meetings held and in the membership of your Association, not only at home but throughout the empire. Your Council has taken steps to make more widely known the advantages of membership, and has issued a number of recruiting circulars with satisfactory results. The Association now numbers 19,500 members, being an increase of 600 on the previous year. There are still members of the medical profession who fail to appreciate the necessity of joining your Association, but your Council feels confident that as the profession realizes the great influence the British Medical Association is able to exercise in all matters of common interest, the number of those who hold aloof will rapidly diminish. The activity throughout the Divisions and Branches has been reflected in the number of Council and Committee meetings held in London. Your Council desires to express again its thanks to those members who have done such excellent work in the Divisions, in the Branches, and at head quarters, and especially to the Chairmen of Committees and the Division and Branch executive officers who by their zealous and unselfish labours have contributed so largely to the continued success of your Association.

DEATHS OF FORMER MEMBERS OF COUNCIL.

(2) Your Council is glad to report that since meeting you at Oxford it has not to record the loss by death of any member of the Council. However, death has removed former

members, and your Council deplores the loss of Dr. William Vawdrey Lush and Dr. Ogilvie Grant. Dr. Vawdrey Lush rendered valuable services on the Council from 1883 to 1889 as the representative of the Dorset and West Hants Branch; also as Honorary Secretary and Treasurer of the same Branch from its foundation twenty-one years ago. Dr. Ogilvie Grant represented the Northern Counties of Scotland Branch on the Council from 1886 to 1900, and acted as President of the Branch in 1903.

Deaths of Members of the Association.

(3) Your Council regrets to have to record the deaths since April, 1904, of the following members of the Association: Dr. J. Alexander, President of the South-Western Branch; Dr. John Anderson, Mr. Robert Kendray Archer, Mr. Herbert William Allingham, Dr. Edward Adam, Dr. Charles Greasley Armson, Mr. Samuel Hollingsworth Agar, Mr. James Payne Baker, Auckland, New Zealand; Dr. Henry Briggs, Dr. R. M. Brown, Dr. George Watson Beattie, Dr. Herbert Blaxland, Lieutenant-Colonel P. H. Benson, I.M.S., Sir William Mitchell Banks, M.D., LL.D., who gave the address in Surgery at the Montreal meeting in 1897; Sir Frederick Bateman, M.D., a former member of the Association; Dr. Harry Arthur Benham, Professor Ambrose Birmingham, Mrs. Sinclair Coghill, M.B.; Dr. John Joseph Cranny, Surgeon Cecil E. C. Child, R.N.; Mr. William Henry Copley, Dr. William Carmichael, Mr. Richard J. Dearden, Dr. Nathan Smith Davis, Dr. Henry William Drew, Dr. Robert Taylor Sumner Eagar. Mr. Charles Bolton Elliott, Mr. Branford Edwards, Dr. Nicholl Evans, Dr. Maurice Griffith Evans, Dr. Alfred John Freeman, Major Alexander Samuel Faulkner, I.M.S., Dr. Thomas Greer, Major John Henry Greenway, Mr. Roger Portington Goodworth, Dr. Dan Astley Gresswell, Dr. Alexander Lockhart Gillespie, Dr. Ogilvie Grant, formerly a member of the Central Council and President of the Northern Counties of Scotland Branch; Dr. Ambrose Arnold Guillaume Gye, Mr. Alfred Vavasour Griffiths, Dr. Robert Hartley, Dr. William Alexander Hepburn, Dr. Thomas Hill, Dr. W. G. Holloway, Mr. Isaac Harthan, Mr. Samuel John Hutchinson, Dr. Frederick Henry Hume, Dr. John Harker, Dr. Geoffrey Edward Hale, Mr. Harry Harlock, Mr. Thomas Johnston, Surgeon-General J. Jameson, C.B., K.H.S.; Dr. Charles Kelly, Dr. Rustonjee Naserwanjee Khory, Mr. H. Selby Little, Mr. John Lilly Lane, Dr. William George Vawdrey Lush, Honorary Secretary and Treasurer of the Dorset and West Hants Branch from its foundation in 1883; Dr. Maurice E. Ling, Lieutenant-Colonel John Stannard MacAdam, ret. A.M.S., Dr. Alexander Dall MacDonald, Mr. David Steele Moon, former President of the Dundee Branch: Mr. John New Moore, Dr. William Alexander McKeown, Dr. Daniel Moore, Dr. Thomas Morton, Vice-President, Metropolitan Counties Branch; Dr. James Milne, Dr. James Munro, Fleet-Surgeon Donald McIver, R.N.; Mr. Hugh Prytherch, Mr. Ernest Willmer Phillips, Mr. George Edward Power, Dr. C. D. F. Phillips, Dr. George Vivian Poore, Mr. Thomas Henderson Pounds, Mr. Thomas Percival, Mr. Francis Cubbon Rogers, R.N., Chairman of the Dartford Division of the South-Eastern Branch; Inspector-General Maxwell Rodgers, Sir David Palmer Ross, C.M.G., a former President of the British Guiana Branch; Mr. George Lewis Rugg, Dr. John Ruxton, Dr. James Burn Russell, Dr. William Augustus Raper, Dr. W. A. Skinner, Honorary Secretary of the Natal Branch; Sir John Simon, K.C.B., F.R.S., Dr. George James Silver, Mr. A. Quarry Silcock, Dr. David Smith, Surgeon-General William Thom, Mr. William Turner, Dr. Eric M. Thomson, Dr. D. G. Pearce Thomson, Dr. Robert Stevenson Thomson, Lieutenant-Colonel Edward Denham Tomlinson, ret. A.M.S., Mr. Alfred Ellis Vaughan, Dr. Achille Vintras, Lieutenant-Colonel John Henderson Whittaker, ret. A.M.S., Dr. Lourenzo Whitfield, Dr. James Wallace, Dr. Henry Wilson.

The Medal of Merit.

(4) The Gold Medal for distinguished merit, founded in 1877, was instituted as a means of recognizing the efforts of members of the profession who have conspicuously raised the character of the medical profession by scientific work, by extraordinary professional services, or by special services rendered to the British Medical Association. Your Council has decided to award this medal to Sir Constantine Holman, M.D., who has been a member of your Association for over fifty years, and throughout has rendered distinguished services to your Association, through the South-Eastern Branch, as a member of your Central Council, as Treasurer, and as a Vice-President. Further, Sir Constantine Holman, by his long and successful labours, has done much to establish the medical charities on a sound financial footing.

Medical Benevolent Institutions.

(5) During the year 1904 some £700 was received through the office on behalf of the British Medical Benevolent Fund, the Royal Medical Foundation of Epsom College, and the Royal Medical Benevolent Fund Society of Ireland. Your Council sincerely hopes that each year these most deserving institutions may receive still greater support from members of the profession, and that by the influx of additional funds their sphere of usefulness may be still further increased.

The Journal.

(6) The Council believes that the maintenance of the British Medical Journal at a standard of excellence which entitles it to take a leading place among the medical journals of the world is among the most effective means which the Association possesses of promoting the medical and the allied sciences, and maintaining the honour and interests of the medical profession, the objects for which it exists. The Journal presents to members every week original articles on clinical and pathological subjects, short papers and memoranda on experiences in general practice, reports of cases from hospitals throughout the British Empire, reports of the scientific proceedings of Branches and Divisions of the Association and of medical societies, and reviews of current literature. It has the advantage of the services of special correspondents in the principal cities of Europe and the British colonies and dependencies, as well as in Scotland and Ireland and the chief cities of England and Wales; these keep members informed of the progress of medical science in these countries, and of occurrences of importance to the profession. Matters of current interest are discussed weekly in the editorial columns, and from time to time topics newly arising, upon which it is important that the profession should have trustworthy information both for its own guidance and that it may influence public opinion in the right direction, are made the subject of special reports. In this way the question of the family care of the insane poor in Scotland and on the Continent—a system as yet undeveloped in England and Wales—and the principles which should determine the attitude of the profession towards the many problems arising in connexion with school hygiene, have been reported on by experts.

The progress of medicine and the allied sciences, the great activity displayed in every department of medical investigation, and the interest in the medico-political work undertaken by the Association make calls upon the space of the Journal which become more pressing from year to year. The subject has long engaged the attention of your Council. Ten years ago the addition to each weekly issue during the autumn of supplementary pages to provide increased space for the early publication of the proceedings of the Sections of the Annual Meeting was sanctioned; the plan has been continued, with the result that the Association is enabled to publish these proceedings more speedily, it is believed, than is found possible in connexion with any other medical congress, national or international.

Rather more than two years ago the plan of publishing special Supplements to contain the business proceedings of the Association and its Council and Committees, and of Branches and Divisions, as well as Bills before Parliament and other official matter, was instituted. For the first two years these Supplements were issued at irregular intervals, as matter came to hand. This practice was found to present certain inconveniences, and since the beginning of this year a Supplement has been issued weekly. Owing to the fact that the amount of space required for the publication of the proceedings of the Association is not and cannot be uniform, it has been found desirable, in order to prevent waste of space and to allow the necessary elasticity, to transfer to the Supplement certain frequently-recurring matters of a semi-official kind.

The Library.

(7) During the past year the value of the Library has been more than ever appreciated by members, and the attendances have been the highest yet recorded. In 1903 the Library was closed for about two months, so the attendances for 1902, amounting to 4,867, are given for comparison with the year under review, in which they amounted to 5,780. The Library

still suffers from lack of space to conveniently house the books and periodicals. In addition to works of reference, the Library is possessed of a carefully-selected series of English and foreign medical journals, which are regularly filed, as well as a large collection of theses and sanitary reports. The Library has also received during the year over 1,000 volumes from members and others, and your Council desires to express the grateful thanks of the Association to these generous donors.

During the year it has been possible to present to certain Branches forming libraries over 700 duplicate volumes. Members are reminded that the Library now possesses complete sets of some of the best indices to the medical literature of the world, including the *Jahrbücher* of Schmidt and of Canstatt, the *Index Medicus* (both series), the United States Surgeon-General's Catalogue, and the parts that are more particularly interesting to members of the Royal Society's Catalogue of International Literature.

The Leicester Meeting.

(8) Your Council has arranged that the scientific work of the Leicester Meeting shall be conducted in twelve sections, as follows: Medicine; Surgery: State Medicine; Industrial Hygiene and Diseases of Occupation; Laryngology, Otology and Rhinology; Navy, Army, and Ambulance; Obstetrics and Gynaecology; Ophthalmology: Psychological Medicine: Pathology; Dental Surgery: and Tropical Diseases.

Dr. Henry Maudsley, late Professor of Medical Jurisprudence in University College, London, will deliver the address in Medicine, and Mr. C. J. Bond, F.R.C.S., Surgeon to the Leicester Infirmary, the address in Surgery.

Owing to the great success of the free and popular lecture given at Oxford by Dr. George Bagot Ferguson, your Council has invited Professor William Stirling, M.D., to deliver one at Leicester, and he has chosen as his subject "Fatigue and Repose."

Your Council has most carefully considered what arrangements can best be made for the greater comfort of the Representative Meeting, and how more time can be found for the large amount of work which will require the attention of the Representatives. It is felt this can best be arranged by commencing the business of the meeting at 2 o'clock on Monday, July 24th, instead of on the Tuesday as in former years. This will enable the Representative Meeting, should it think proper, after an adjournment for dinner, to resume its session on Monday evening, and to meet again at 10 o'clock on Tuesday morning.

The Church Service is fixed for 5 o'clock on Tuesday afternoon, the meeting of Division and Branch Secretaries for 6 o'clock, and the President's address for 8.30. The Address in Medicine for Wednesday evening at 8 o'clock, and the Address in Surgery for Thursday afternoon at 2 o'clock, while the Free and Popular Lecture will be given at 8 o'clock on Friday evening.

Year Book.

(9) The first issue of the Year Book in 1904 consisted of 168 pages. So much was it appreciated throughout the Association, that it has been published for 1905, and increased in size to 406 pages. This enlargement is due more especially to the publication of an alphabetical list of members extending to 190 pages, and the inclusion of the Memorandum, Articles, and By-laws of the Association. Various other additions and improvements have been embodied, and it is hoped each year to make it more complete as a book of ready reference for all matters connected with the Association.

Annual Exhibition.

(10) For the first time in the history of the Annual Exhibition of Food and Drugs, the management was conducted last year from the head office of the Association instead of by a local committee. This proved satisfactory, not only to the local executive but to the exhibitors themselves.

The Premises and Offices of the Association.

(11) Your premises are again threatened by coming tube railways, and have been scheduled by three companies seeking powers in the immediate neighbourhood of the Strand. The Central London (New Lines); the Great Northern, Piccadilly, and Brompton (No. 2), and Hammersmith, City, and North-East London have lodged Bills in Parliament, to all of which your Council has dissented. The last-named has been rejected by the Committee specially examining these proposed measures. It is difficult to forecast the chances of the other two companies of securing the powers they desire to attain until the Royal Commission on Underground Railways appointed some time back has made its report.

Your Council is pleased to report that the portions of your property not required for the conduct of your business have been let off throughout the year 1904.

Your Council is considering the whole question of the accommodation of all the departments at the offices of the Association, but at the time of drafting this report has not arrived at any definite recommendations.

The 1904 Balance Sheet.

(12) Your Council, in submitting the Balance Sheet for the year ending December 31st, 1904, cannot show as large an excess of income over expenditure as in the previous year. However, the estimated balance of £3,350 has been exceeded by some £1,700, and your Treasurer was enabled to invest £4,200 in Bank of England Stock, thus bringing your balance of assets up to £101,397.

In reviewing the past year it is satisfactory to note that the revenue from all sources has not only been maintained, but has shown a general expansion. This expansion also applies to the expenditure, a natural sequence of the general activity throughout the Association. The cost of printing and composing the Journal has increased by £1,000, but it happened that fifty-three issues of the Journal were published as against fifty-two in the year 1903. The compositors' wages amount to more than in 1903, as a result of the publication of more Supplements and an increase in the number of pages per week. In 1903 the total number of pages of reading matter as apart from the advertisements amounted to 3,700, while in the year under review the total was 4,024. This increase is largely due to the number of Supplements, the pages exceeding by 200 the number published in the corresponding period of 1903. Consequently the cost of machining increased, more paper was used, and a heavier Journal resulting, necessitated additional postage for the copies sent out of the United Kingdom. A variation of one halfpenny per copy on the foreign edition represents £10 per week.

The general Association expenses show an increase of nearly £1,000. At Oxford, owing to the larger attendance at the annual meeting, 8,000 Daily Journals were required, as against 3,500 at Swansea. The repairs and upkeep of your property entailed rather more expenditure. The legal expenses were greater, as it was necessary to employ counsel to draft the Medical Acts Amendment and Public Health Bills.

The Year Book cost £342 to produce and £155 for postage; but against this must be set the payments for the advertisements contained in it. The agenda and minutes of the Oxford Representative Meeting were much bulkier than those for the Swansea Meeting. The printing and circulation of the report on the Poor-law system of Ireland entailed an outlay of £50. The cost of the office postage and stationery was higher, owing to the larger number of documents sent out to the Association.

The increase in the rates is likely to be more marked, as the quinquennial revaluation is now under consideration throughout the metropolitan area. The office salaries and wages show an increase of £450; and the Representative Meeting, Council, and Committee expenses an increase of nearly £500. For the Library your Council has spent £100 in the purchase of books, and has written off £250 against depreciation.

Turning to the sources of revenue, an increase of membership must always be the most satisfactory feature for your Council to report. The increase from this source in 1904 amounts to £850, and demonstrates the growing hold of the Association upon the medical profession.

The income from advertisements shows an increase, in round figures £1,000, but this to a large extent is due to the 53 issues of the Journal as against 52 in 1903. The Journal has not escaped the effects of bad trade so general throughout the year under review. The tendency with the larger advertisers has been to curtail expenditure in advertising. Such losses, however, have been more than counterbalanced by the introduction of new clients, whereby the advertising interest of the Journal has been spread over a wider area. Your Council is pleased to report that the revenue from advertisements, amounting to some £21,500, has been earned with a minimum of loss from bad debts, represented at under one-tenth per cent. As advertisements are received from clients in all parts of the United Kingdom, on the Continent, and elsewhere, such a record will compare favourably with that of any other newspaper published.

British Medical Association.

Balance Sheet 31st December, 1904.

Dr. Cr.

LIABILITIES.

	£ s. d.
To Subscriptions paid in advance	611 8 3
,, Advertisements ditto	692 0 11
,, Contributions	760 1 3
,, Reporting	64 11 6
,, Engraving	55 15 1
,, Printing Journal	487 7 0
,, Paper for Journal	681 17 3
,, Miscellaneous Printing	173 14 7
,, Stationery	85 7 2
,, Repairs	42 18 5
,, Legal Charges	217 19 0
,, Rates and Taxes, Insurance and Electricity	464 13 5
,, Plant and Type	46 17 9
,, Editorial Expenses	36 2 4
,, Sundries	24 4 10
,, Library, Books, etc.	38 6 4
,, Loan from Bankers	446 8 10
,, Subscriptions due to Branches on December 31st, 1904	162 11 4
TOTAL LIABILITIES	5,092 5 3
,, Surplus Account—	
Balance on January 1st, 1904 96,621 7 6	
Amount voted to Office Staff Superannuation Fund for 1904 300 0 0	
96,321 7 6	
Balance of Income over Expenditure for 1904 brought from Revenue Account 5,075 14 6	
,, Balance, being total of excess of Assets over Liabilities	101,397 2 0
	£106,489 7 3

ASSETS.

	£ s. d.
By Subscriptions—Amount due	1,692 7 6
,, Advertisements—Amount due	3,290 12 8
,, Sundry Sales—Amount due	149 7 1
,, Furniture and Fixtures	1,337 0 11
,, Library	2,198 6 3
,, Plant and Type	1,217 15 0
,, Accrued Rents	110 9 6
,, Freehold, 2 & 3, Harvey's Buildings, bought at Public Auction 1894	4,640 0 0
,, Freehold of 429, Strand, 2, 3, 4 & 5, Agar Street at price paid 1898 £79,000 0 0	
,, Redemption of Land Tax 880 0 0	
,, Improvements by Alterations of General Office, 1903 1,500 0 0	
	81,380 0 0
INVESTMENTS AT COST—	
,, £1,800 Bank of England Stock at 331—bought March, 1903 5,965 10 0	
,, £1,400 Bank of England Stock at 304—bought April, 1904 4,268 7 6	
	10,233 17 6
,, Cash at Office	76 19 6
,, Cash at Bank being Branch Subscriptions in hand Dec. 31st, 1904	162 11 4
	£106,489 7 3

The above assets do not include the unexpended balances of Capitation Grants held by the various Branches.

Revenue or Profit and Loss Account for Year ending 31st December, 1904.

	1903. £ s. d.	1904. £ s. d.
Editorial See *Abstract A*	6,098 10 0	6,027 19 4
Expenses of Printing Journal ,, *B*	20,897 8 1	21,923 15 8
General Association Expenses ,, *C*	5,547 10 5	6,510 0 10
Office Salaries and Wages ,, *D*	3,892 11 4	4,349 5 5
Representative Meeting, Council and Committee Expenses ,, *E*	1,606 4 3	2,096 14 9
Library ,, *F*	257 13 9	257 4 4
,, Written off towards Depreciation	250 0 0	250 0 0
Plant—Written off towards Depreciation	500 0 0	500 0 0
Capitation Grants to Branches	2,955 16 10	3,389 11 9
Cost of Alteration to General Office 2,119 0 0		
Less amount carried to Balance Sheet 1,500 0 0		
	619 0 0	
Subscriptions:—Written off for Deaths, Arrears, &c.	611 7 5	710 6 3
	43,236 2 1	46,014 18 4
Balance of Income over Expenditure for 1904 carried to Balance Sheet	5,571 10 1	5,075 14 6
	£48,807 12 2	51,090 12 10

	1903. £ s. d.	1904. £ s. d.
Subscriptions	23,721 18 6	24,584 6 4
do. arrears of former years	442 13 10	300 17 3
Advertisements	20,480 5 5	21,465 5 2
Sundry Sales:—Journal	1,870 4 8	2,262 16 11
,, ,, Reading and Binding Covers, &c.	182 17 11	135 14 2
,, ,, Reprints	119 7 2	108 1 6
Interest on Investments and Rents	1,041 13 6	1,120 2 9
Returned Scientific Grants	66 1 3	50 4 [illegible]
Sale of Waste, &c.	32 12 8	21 10 0
Discounts on Printing, Paper, &c.	849 17 3	913 12 4
Amount unexpended on alterations as estimated for in last year's accounts		128 2 5
	£48,807 12 2	51,090 12 10

Abstract A.]

EDITORIAL.

	1903. £ s. d.	1904. £ s. d.
Salaries:—Editor	1,000 0 0	1,000 0 0
,, Assistant Editor	750 0 0	750 0 0
,, Sub-Editor	187 10 0	200 0 0
,, Clerical Staff	366 12 0	391 13 6
Contributions	2,912 10 6	2,920 0 5
Reporting	253 10 8	245 3 10
Engraving	397 5 8	287 16 5
Legal Expenses	29 14 4	27 11 2
Postage	79 19 5	78 11 3
Analyses	—	8 0 4
Travelling Expenses, Papers, &c.	118 9 11	114 5 0
Cost of Journal Slips circulated to the Press	4 17 6	4 16 8
	£6,098 10 0	£6,027 19 4

Abstract B.]

EXPENSES OF PRINTING JOURNAL.

	1903. £ s. d.	1904. £ s. d.
Compositors' Wages and Machining Journal	8,228 9 5	8,797 13 7
Paper for Journal	8,509 12 2	8,861 13 3
Postage for Dispatch of Journal	3,743 16 4	3,931 19 [illegible]
Address Bands for issuing Journal	415 10 2	332 9 10
	£20,897 8 1	£21,923 15 8

[In 1904 there were 53 JOURNALS printed, in 1903, 52 JOURNALS.]

Abstract C.]

GENERAL ASSOCIATION EXPENSES.

	1903. £ s. d.	1904. £ s. d.
Annual Meeting—Cost of *Daily Journal*, etc.	120 19 0	189 13 0
,, ,, Expenses of Sections	36 0 9	4 9 2
Architects' Fees	200 0 0	—
Auditors' Fee	105 0 0	105 0 0
Bank Charges	45 3 10	39 11 4
Cleaning Offices	158 17 0	161 4 6
Coals and Coke	52 2 6	53 0 6
Compositors' Sick Fund	—	10 10 0
Donation to Charing Cross Hospital	10 10 0	10 10 0
General Repairs	155 11 11	207 15 4
Imperial Vaccination League, grant to	100 0 0	—
Legal Expenses	200 0 6	394 13 2
Miscellaneous Printing	500 17 7	559 2 5
Year Book—Printing, &c.	—	342 18 0
,, Postage	—	155 13 6
Agenda and Minutes for Representative Meeting	8 9 0	88 12 9
Reports of Poor Law System Ireland (4,000)	—	50 16 0
Office—General Postage	476 15 11	551 19 0
Office Petty Cash	107 10 4	125 16 5
Pension, late General Secretary	600 0 0	600 0 0
Rates and Taxes, Insurance, Gas and Electric Light	794 4 4	821 18 6
Reporting Council and Finance Committee Meetings	102 18 0	101 6 [illegible]
Reprints	66 12 1	75 2 11
Research Scholarships	612 10 0	650 0 0
Scientific Grants	350 0 0	350 0 0
,, ,, Special Grant Chloroform Committee	100 0 0	100 0 0
Stationery for Office	332 13 11	453 2 7
Sundries	154 13 1	122 9 1
Travelling Expenses	156 0 8	184 16 2
	£5,547 10 5	£6,510 0 10

Abstract D.] OFFICE SALARIES AND WAGES.

	1903. £ s. d.	1904. £ s. d.
General Secretary	600 0 0	800 0 0
Medical Secretary	600 0 0	650 0 0
Assistant Medical Secretary	—	12 12 0
Assistant Secretary	—	250 [illegible] 0
Clerical Staff	2,392 11 4	2,636 13 [illegible]
Financial Secretary (the late), January to September	300 0 0	—
	£3,892 11 4	£4,349 5 5

Abstract E.]

REPRESENTATIVE MEETING, COUNCIL AND COMMITTEE EXPENSES.

	1903. £ s. d.	1904. £ s. d.
ANNUAL REPRESENTATIVE MEETING—Railway Fares	255 8 5	244 7 5
COUNCIL—Railway Fares	703 0 4	678 15 7
COMMITTEES—Railway Fares, Printing, &c.:—		
Annual Meeting Committee	15 5 2	22 11 2
Arrangement Committee	18 2 3	8 12 0
Assistant Secretary Committee	4 4 0	—
Chloroform Committee	46 6 0	10 19 0
Coat of Arms Committee	—	4 2 3
Committee *re* Dental Section	—	0 18 6
Colonial Committee	8 2 1	20 9 2
Committee of Chairmen	—	33 9 2
Ethical Committee	52 3 3	76 19 4
Hospitals Committee	19 2 10	125 7 6
Income Tax Committee	1 12 6	—
Joint Committee of British Medical Association and Medico-Psychological Association	1 17 8	—
Joint Committee on Fees to Medical Witnesses	3 14 8	—
Journal and Finance Committee—Special Meeting	20 18 4	5 9 2
Medical Defence Committee	92 16 0	116 19 10
Medical Secretary's Committee	—	19 0 [illegible]
Medico-Political Committee	122 17 5	351 9 [illegible]
Organization Committee	147 8 0	173 3 0
Premises and Library Committee	16 0 11	21 1 10
Public Health Committee	29 8 5	76 11 5
Reorganization Committee	4 9 10	—
Royal Naval and Military Committee	9 14 [illegible]	53 13 2
Scientific Grants Committee	22 19 4	35 12 2
Scottish Committee	10 12 2	17 3 4
	£1,606 4 3	£2,096 14 9

Abstract F.] LIBRARY.

	£ s. d.		£ s. d.	£ s. d.
To Balance	2,255 12 1	By Librarian's Salary	250 0 0	
,, Purchase of Books	93 11 5	,, Printing and Posting of Circulars and Insurance	7 4 4	
,, Binding Books	36 0 3			257 4 4
,, Book Shelves	63 2 6	,, Amount written off for Depreciation		250 0 0
,, Librarian's Salary	250 0 0	,, Balance carried to Balance Sheet		2,198 6 3
,, Printing and Postage of Circulars and Insurance of Books	7 4 4			
	£2,705 10 7			£2,705 10 7

TRUST FUNDS.

Stewart Fund.

Investment of £579 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1904.	£ s. d.	1904.	£ s. d.
Jan. 1. To Balance brought over from 1903	12 10 4	Dec. 31. By Balance carried down, being cash at Bank	34 11 1
,, Interest	22 0 9		
	£34 11 1		£34 11 1

Middlemore Fund.

Investment of £666 13s. 4d. 3 per cent. North British Railway Debenture Stock, in the name of the British Medical Association.

1904.	£ s. d.	1904.	£ s. d.
Jan. 1. To Balance brought over from 1903	107 13 5	July 26. By Award, John Herbert Parsons, M.B., F.R.C.S.	50 0 0
,, Interest	20 3 6	,, Mr. Stanley, Engrossing Certificate	1 17 6
		,, Balance carried down, being cash at Bank	75 19 5
	£127 16 11		£127 16 11

Office Staff Superannuation Fund.

1904.	£ s. d.		£ s. d.
Jan. 1. To Balance brought over from 1903	885 9 1	By Balance carried down—	
,, Transfer from Association Surplus Account	300 0 0	,, Investments at cost—£600 Cape of Good Hope 3 per cent. Stock, bought @ 92¾, Dec., 1902	558 1 0
,, Interest	34 14 6	,, £100 Bank of England Stock, bought Dec., 1903	318 19 4
		,, £110 Bank of England Stock, bought @ 299½, Dec., 1904	330 10 3
		,, Cash at Bank	12 13 0
	£1,220 3 7		£1,220 3 7

We certify, in accordance with the provisions of the Companies Act, 1900, that all our requirements as Auditors have been complied with. Having examined the above Balance Sheet, dated 31st December, 1904, with the books and vouchers of the Association, and having inspected the Deeds of the properties, 429, Strand, 2, 3, 4 and 5, Agar Street, and 2 and 3, Harvey's Buildings deposited with your Bankers, and having verified the investments held on account of the Association and of the above Trust Funds, we report that the Balance Sheet is in our opinion properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs as shown by the books of the Association.

3, Frederick's Place, Old Jewry, E.C., 27th March, 1905.

PRICE, WATERHOUSE & CO.

In conclusion, the revenue of the Association has increased by some £2,300, and the expenses are greater by some £2,800. As a result, the balance of income over expenditure for last year, amounting to £5,075, is £500 less than for the year 1903.

ESTIMATE OF RECEIPTS AND EXPENDITURE FOR 1905.

(13) Your Council submits the following estimate of the probable receipts and expenditure for the year ending December 31st, 1905, and for comparison the amounts actually expended and received during the year 1904:

Expenditure.

	1904. £ s. d.	1905. £ s. d.
To Printing JOURNAL	21,923 0 0	21,400 0 0
,, Editorial	6,027 0 0	6,000 0 0
,, General Association Expenses	6,510 0 0	7,000 0 0
,, Office Wages and Salaries	4,349 0 0	4,500 0 0
,, Representative Meeting, Council and Committees	2,096 0 0	2,300 0 0
,, Library	507 0 0	600 0 0
,, Plant Depreciation	500 0 0	700 0 0
,, Grants to Branches	3,389 0 0	3,400 0 0
,, Subscriptions written off	710 0 0	700 0 0
,, Estimated Balance	—	4,300 0 0
	£46,011 0 0	£50,900 0 0

Receipts.

	1904. £ s. d.	1905. £ s. d.
By Subscriptions	24,885 0 0	25,000 0 0
,, Advertisements	21,465 0 0	21,000 0 0
,, Sundries: Sales of JOURNAL, etc. ...	3,620 0 0	3,700 0 0
,, Investments and Rents	1,120 0 0	1,200 0 0
	£51,090 0 0	£50,900 0 0

PRINTING AND STATIONERY DEPARTMENT.

(14) At Oxford, the Representative Meeting passed a resolution requesting the Council to take into consideration the advisability of creating at head quarters a printing and stationery department, from which all printing could be supplied to the Divisions and Branches. The Council has carefully considered the matter, and now reports that the time is not ripe for undertaking at the central office the printings of Divisions and Branches.

OFFICE STAFF SUPERANNUATION SCHEME.

(15) Last year the General Meeting voted a further sum to the Office Staff Superannuation Fund, bringing the total up to £1,220. The Representative Meeting on considering the question passed an instruction that before the Fund be administered a scheme be formulated and submitted for approval. Your Council has now drafted a scheme on the lines of the Poor-law Officers Act as to rates of benefit, whereby it is optional on the part of your present staff to join, but compulsory on all becoming members of it subsequently to the scheme coming into operation. The benefits are to be restricted to those whose salaries do not reach £250 per annum, and contributions to the Fund will be required of 2½ per cent. on the salaries. In the case of men joining at the age of 50 and upwards a contribution of 3 per cent. will be necessary.

The scheme has been submitted to an actuary for report as to its financial soundness, but at the time of preparing this report the opinion of the actuary has not been received, although it is expected that the full proposals will be ready for the consideration of the Representative Meeting. Your Council hopes that the General Meeting will each year vote a sum of not less than £300 towards the Fund, as a recognition of the good and faithful work accomplished by your office staff.

AUDITORS.

(16) Your auditors, Messrs. Price, Waterhouse, and Co., have again examined and audited your books during the year 1904, and under Article xviii (*a*) and in accordance with the Companies Act, 1900, they seek and are eligible for re-election.

COMMITTEES.

SCIENTIFIC GRANTS COMMITTEE.

(17) During the past year your Council voted £1,000 to the Scientific Grants Committee, made up as follows: £350 in twenty-five grants varying from £5 to £40 in aid of various researches, and £650 in Research Scholarships, one scholarship of £200 per annum, and three scholarships at £150 per annum. The present holders are: Dr. J. O. Wakelin Barratt, Dr. John T. Hewetson, Miss Janet Lane-Claypon; while Dr. Thomas Evans is the Ernest Hart Memorial Scholar.

SPECIAL CHLOROFORM COMMITTEE.

(18) The Committee appointed by the Council and reappointed in July, 1904, have to report that the following work has been carried out since their last report to Council (March, 1904):[1]

The lines of the Committee's work may be briefly described:

(*a*) The effects of chloroform when perfusing the mammalian heart isolated from the body. Continuing their research upon this subject, Professor Sherrington and Miss Sowton have during the past year ascertained that chloroform exhibited in blood produces less than one-twelfth its depressant effect upon the heart's action as compared with the effect of chloroform similarly perfused when dissolved in saline solutions. And, further, that the degree of damage done to the heart is in the case of chloroform in blood less than in that of chloroform in saline. In other words, the heart is less damaged by a solution of chloroform when presented in a blood vehicle than when in a saline solution. The importance of this fact is great, since in certain conditions of the human blood its character may undergo variations approximating on the one hand to the composition of saline, and on the other to the physiological norm, and chloroform dosage would under such conditions assume the greatest importance in the direction of obviating danger.

(*b*) These observers point out that there are two possible explanations of the facts noted: (*a*) physiological salines probably favour the heart's activity less than blood, and (*b*) in equal quantities of chloroform dissolved in the two fluids the tension is greater in the saline than in the blood. Professor Sherrington and Miss Sowton are continuing this research, and their further results will later be placed before the Association.

(*c*) As was previously indicated to the Council, Mr. Vernon Harcourt's chloroform inhaler, the principle of which renders exact dosage possible, has been subjected to careful experiment. During the past year Mr. Harcourt has investigated the error arising from variation in the force and rapidity of inspiration, as well as that due to differences in the depth of the fluid in the chloroform vial. His results, which form an appendix to the Committee's report, indicate that this error is slight and is practically confined to the period of induction. The mechanical details of the structure of the inhaler have been considerably improved. With the aid of this instrument the Committee are now engaged upon what they hope will prove a useful research. The exact percentages of chloroform in the inspired air and those in the expired air during induction and maintenance of narcosis are being ascertained. It is hoped to arrive at, in this way, the interaction between chloroform of various known strengths and the tissues of the body.

(*d*) In the past year Sir Victor Horsley, Mr. Harcourt, and Mr. Byles were engaged upon a research which is germane to the question referred to above—namely, the behaviour of chloroform towards blood. The anaesthetic was inhaled, and the blood of the animal was then dealt with and chloroform recovered from it. As in the work of other observers, it was found that the chloroform could not be recovered from blood so completely as in the case of its solution in saline. It, in fact, was held or "fixed" by some constituent of the blood. Here again the Committee feel that important practical results are likely to ensue upon the prosecution of the research mentioned, as it is obviously of the greatest importance to recognize for certain whether chloroform vapour enters the lungs and the blood stream, and readily leaves when the incoming air has a negative chloroform tension, or whether a large percentage is "fixed" and so retained by the tissues of the organism.

(*e*) The work which the Committee has executed since its original appointment has resulted in showing that it is possible to regulate the dose of chloroform administered by inhalation with substantial accuracy. The Committee is now engaged upon the equally important questions of the minimal dose requisite to produce narcosis and that which is liable to induce dangerous symptoms. The investigation of these problems has evidently a practical bearing, and the work would therefore seem to be worthy of the continued support of the Association.

[1] See Report of Special Chloroform Committee of the British Medical Association presented at the annual general meeting at Oxford, July, 1904, and published in the BRITISH MEDICAL JOURNAL for July 23rd, 1904.

HOSPITALS COMMITTEE.

(19) At Oxford the Council submitted for the approval of the Representative Meeting certain resolutions relating to hospital management. At the time it was reported that your Council hoped to get these Principles approved not only by the medical profession, but by laymen specially interested in hospital management. The best means of attaining this end was considered to be to first have a conference with leading medical men not members of the Hospitals Committee. This conference took place, and as a result certain verbal alterations were made in the suggested Principles submitted to the Oxford meeting. Then invitations were sent out to the leading hospitals and institutions throughout the United Kingdom, as well as to many men known to be specially interested in hospital management. As a result, on March 2nd a conference took place, when some eighty ladies and gentlemen, drawn from all parts of the United Kingdom, were present. The conference proved of great value, and as a result twelve laymen were appointed to confer with the Hospitals Committee and consider all matters pertaining to the management of hospitals. Your Council hopes and believes that this exchange of ideas between the medical men and laymen on the proper working of hospitals will lead to improved conditions, and redound to the benefit, not only of the institutions, but of the public and the medical profession at large.

MEDICAL DEFENCE COMMITTEE.

(20) At Oxford this Committee presented a scheme of medical defence which was referred back with an instruction to make provision for amalgamation with the Association of existing medical defence societies. Accordingly the Committee arranged a conference, when representatives from the Medical Defence Union and the London and Counties Medical Protection Societies attended, but expressed views on behalf of their Societies distinctly against amalgamation.

The Medical and Dental Defence Union of Scotland and the Irish Medical Association (Medical Defence Department) did not send representatives, but the former wrote saying that they were of opinion that the interests of their members would be best promoted by their Union maintaining an independent existence, and the latter to the effect that it was not at present aware of any advantages to be derived from a conference on the subject.

The Committee has drafted a scheme of medical defence, with a covering memorandum, which has been issued to the Divisions with a request to the Division Secretaries that they will defer consideration of the scheme until the Divisions also have before them the report on the proposed alteration of the Memorandum of Association.

PROPOSED ALTERATION OF THE MEMORANDUM OF ASSOCIATION.

(21) At Oxford the Representative Meeting gave instructions for steps to be taken to alter the Memorandum of Association on the lines laid down in what are known as the Birmingham resolutions. The Committee of Chairmen on submitting these instructions to the Solicitor of the Association learned for the first time that in his opinion the provisions contained in the Birmingham resolutions would not permit of the Association undertaking "individual" medical defence, an opinion which was confirmed by counsel. Your Council was further advised that it would not be wise to go to the Court for confirmation of the Birmingham resolutions until these had been reaffirmed by the Association in general meeting, having regard to the fact that the resolutions were passed as far back as 1896. Such being the case, before going to the Court for any alteration of the Memorandum, the necessary resolutions must be passed by an extraordinary general meeting and confirmed by a subsequent meeting.

Your Council, on being advised that the Birmingham resolutions would not give the powers for the undertaking of individual medical defence, requested the Solicitor to instruct counsel to so draft an amendment to Clause 3 of the Memorandum as to cover this and other matters which your Association at some future date might desire to undertake. Certain points in this Draft have not yet been completed, but your Council hopes at an early date to be able to make a full report on the subject for the information of members of the Association.

SCOTTISH COMMITTEE.

(22) Since the last report the Committee has twice met in Perth and once in Dundee. The chief subjects dealt with have been the Poor-law medical service, the Education (Scotland) Bill, the question of certificates of unfitness to attend school, and the legal position of the medical witnesses for the defence in criminal cases. The Committee is glad to report that the necessities of the Poor-law medical service have at last received official recognition, and are now likely to be dealt with by legislation at the instance of the Scottish Local Government Board.

COLONIAL COMMITTEE.

(23) Last year the Colonial Committee reported that it proposed to investigate the question of Colonial registration and medical reciprocity in Australasia, and accordingly representations were made to the Colonial Office urging the expediency of only registering in Australasia those medical qualifications which are obtainable in Great Britain and Ireland. These representations were transmitted by the Colonial Secretary to the Governors of the States of the Australian Commonwealth for the consideration of their Ministers.

The Queensland Medical Board has replied through the Colonial Secretary to the effect that it favours the suggestion of the British Medical Association, but thinks the proposal impracticable as the law now stands. The Queensland Medical Board will, however, draft a Bill correcting the defects of the existing Act. In connexion with this it is also interesting to note that the Medical Section of the Royal Society of Tasmania has passed a resolution to the effect that it is expedient that only those medical qualifications which are available for registration in Great Britain and Ireland be registered in Tasmania. This resolution was forwarded by the Premier of Tasmania through the Colonial Secretary.

The Committee also had under consideration the draft of an Ordinance to provide for the registration of medical practitioners in Ceylon, when objection was taken to Clause **2** (2) (*b*), of the Draft Ordinance:—

> **2** (2) (*b*) In the case of a person claiming to be qualified otherwise than under the said Acts, a certificate of the Council of the Ceylon Medical College that such person is entitled to be registered under this Ordinance.

and representations were made to the Ceylon Council asking that this clause might be eliminated from the Ordinance.

The Colonial Secretary has replied that after careful consideration he regrets that he does not feel justified in inviting the Ceylon Government to entertain the suggestion of the Colonial Committee. The Colonial Secretary has, however, suggested to the Governor of Ceylon that provision should be made in the Ordinance that certificates should not be granted to persons claiming to be registered under a degree or diploma granted in a foreign country unless that country allows persons to practise who are entitled to be registered and to practise in Ceylon.

The Committee is also collecting information as to any proposed medical legislation for the registration of medical practitioners now under consideration of various Colonial Governments, and it hopes to be able to report on this on a future occasion.

MEDICO-POLITICAL COMMITTEE.

(24) The Medico-Political Committee has held seven meetings since the last Annual Representative Meeting, and has been called upon to consider a large number of important matters affecting the public relations of the profession, which have been referred to the Committee by the Annual Representative Meeting at Oxford and by your Council, or have been brought to the notice of the Committee by Branches and Divisions or by individual members of the Association.

Your Council received from the Annual Representative Meeting at Oxford the following instructions relative to medico-political matters:—

Minutes of the Representative Meeting:

Minute 93.—That the representation of the medical profession in Parliament at the present time is inadequate, and, in the interests of the public and profession alike, should be improved, and that the Council be instructed to consider how this may be effected.

Minute 104.—That it is advisable that, having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect of the Government supply of vaccine lymph.

Minute 115.—That it is desirable that the Central Council draw the attention of the medical profession individually to the fact that by recommending by name

certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

Your Council, upon consideration of these instructions, referred all of them to the Medico-Political Committee for consideration and report to your Council.

The Committee has prepared a scheme and definite proposals upon the matter of Parliamentary representation, which have been carefully considered by your Council, and are now submitted for the consideration of the Divisions, in preparation for the Annual Representative Meeting.

With reference to the supply of Government vaccination lymph to private practitioners, on the recommendation of the Medico-Political Committee, a deputation, composed of the Chairman of Representative Meetings, the Chairman of the Medico-Political Committee, and the Medical Secretary, were appointed to seek an interview with the chief medical officer of the Local Government Board. They were accorded an interview with him and an Assistant Secretary to the Board. It appears, as the result of the deputation, that whilst the Local Government Board recognizes the desirability of the provision, in the public interest, of Government lymph for all primary vaccinations by private practitioners, the opposition of the Treasury is feared on account of the expense thereby entailed.

Upon the subject of the abuse of drugs, the Medico-Political Committee submitted for the consideration of your Council a memorandum for communication to the medical journals; but, on consideration, it appeared preferable that this matter should first be considered by the Divisions, and a memorandum containing definite proposals has accordingly been submitted by the Medico-Political Committee to the Divisions. The replies of the Divisions on this matter have not been received in time for definite recommendations by your Council to be included in the present report.

The Annual Representative Meeting also gave instructions that five matters laid before them in the report of the Medico-Political Committee should again be submitted to the Divisions. As regards three of these—the interim report on contract practice, the Medical Acts Amendment Bill, and the proposals as to consultation of medical witnesses—the object of the reference was to obtain further consideration of these important matters by the Divisions prior to a definite decision by the Representative Meeting on behalf of the Association.

On the remaining two matters—namely, the legal position of medical men in the matter of supplying information to coroners, and the proposals as to the reorganization of the Local Government Board—the Representative Meeting at Oxford approved the recommendations of the Medico-Political Committee, and ordered that they be communicated to the Divisions with a view to local action being taken in support of the policy thus adopted by the Association.

The submission of these matters to the Divisions was delayed owing to the desirability, in the opinion of the Chairman of Representative Meetings and of the Medico-Political Committee, of accompanying the documents with notes which should explain the circumstances in which the matters were again referred to the Divisions, and to assist the Divisions in their deliberations.

The question of the most convenient method of bringing before the Divisions matters referred to them has been under the consideration of the Medico-Political Committee as well as of the Organization Committee, and the conclusions arrived at by the two Committees and approved by the Council will be found stated in that part of the present report which relates to the work of the Organization Committee.

The attention of the Medico-Political Committee has also been drawn to certain inconveniences resulting from the publication, before any decision by the Association has been arrived at, of the expressions of opinion of Divisions on matters referred to them for consideration, and your Council has approved a recommendation of the Medico-Political Committee that detailed reports of Divisions on references still under consideration by Committees of the Association should not be published in the Journal before they have been reported to the Committees concerned. Arrangements have been made so that in connexion with the reference of each matter Honorary Secretaries of Divisions shall be informed as to those portions of the reports of their meetings which cannot be published until after consideration by Committees.

Your Council having received from the Midland Medical Union a communication relative to the difficulties experienced by medical practitioners in dealing with cases in which crime is suspected, and suggesting the appointment of Crown Referees, the Medico-Political Committee, by instruction of your Council, considered the matter and have presented a report, which was approved by your Council, to the effect that the power of calling in another practitioner in consultation affords sufficient protection to medical practitioners in cases of the kind in question if they will use this power, and that the appointment of a special class of Crown Referees for dealing with such cases would be more likely to defeat than to promote the object in view.

On the recommendation of the Medico-Political Committee your Council have decided to approach the Home Office with a view to obtaining a much-needed reform in the law relative to the publication and display of indecent advertisements, and in this matter are co-operating with the London Council of Public Morality.

A case having been brought to the notice of the Association of the objectionable conduct of a medical practitioner not registered in the United Kingdom, your Council after careful consideration, have decided that the Association should take action for the protection of the interests of the medical profession in relation to such cases, and that in the case in question such action as might be found possible under the existing law should be taken.

With the development of the local organization of the Association it has become possible for local questions affecting the honour and interests of the profession to be dealt with through that co-operation of the Divisions as local medical societies with the central executive of the Association which was one of the principal objects of the reorganization of the Association.

The most signal example up to the present of the assistance which the Association has thus placed itself in a position to render to the profession has been the action taken in connexion with colliery appointments in South Wales. In June, 1904, the attention of the Medico-Political Committee was drawn to difficulties existing in connexion with certain appointments of medical men under the Ebbw Vale Workmen's Doctors Fund, and with the approval of your Council the Medical Secretary was instructed by the Medico-Political Committee to make a tour of investigation of the South Wales colliery districts. This was carried out in September, 1904, when the Ebbw Vale and many other appointments were investigated, and the Medical Secretary met in conference the Branch Council and officers of the various Divisions. As a result the Divisions of the South Wales Branch adopted rules to enable them to deal effectively with such disputes as might from time to time arise in connexion with colliery and other appointments. These were first applied by the Cardiff Division in respect of an appointment at Abergwynfi. Shortly afterwards circumstances led the Monmouth Division to intervene in the matter of a proposed fresh appointment to the Ebbw Vale Workmen's Doctors Fund. As a result of the action taken by the Monmouth Division and South Wales Branch, in co-operation with the Medico-Political Committee of the Association, all the medical officers of the fund and the private practitioners in the district first of all entered into an agreement to act on common lines, and under the guidance of the Monmouth Division and South Wales Branch. Secondly, those practitioners in the district who were not already members of the Association joined the Association in recognition of the efforts which it was making for the benefit of the profession; and, thirdly, medical men from various parts of England who were invited by the Committee of the fund to meet them as selected candidates, with a view to making an appointment of considerable value, unanimously declined to accept the appointment, except upon such terms as should be approved by the South Wales Branch of the Association.

Having regard to the fears which have from time to time been expressed as to the possibility of obtaining such united action by the profession, in matters of this kind, and suggestions that, even where the medical profession in the district were united, outside practitioners would always be found to accept appointments on terms which were regarded with disfavour by the local profession, your Council has placed on record its gratification at this proof of the value of the organization of the Association for promoting medical union, and its appreciation of the action of the individual practitioners who in this instance showed their loyalty to their

professional brethren in circumstances which exposed them to considerable financial temptation.

The Medico-Political Committee has reported to your Council upon many other matters which have been dealt with in pursuance of instructions received by the Committee from the Annual Representative Meeting, but it does not appear to your Council necessary that these matters should be narrated in the present report, seeing that they will be fully explained in the Annual Report presented by the Committee.

Ethical Committee.

(25) The Ethical Committee has met three times since the last annual meeting, and has advised the Council upon various rules submitted by Divisions and Branches, and has also been called upon to consider many questions submitted by members of the Association, or by Divisions, or Branches, either as touching the conduct of members of whom complaints have been made, or in connexion with applications for advice on ethical subjects.

Since the last report of your Council, 1 Branch and 9 Divisions have adopted, with slight modifications, the Model Rules of Ethical Procedure, and your Council has, on the advice of the Committee, approved such Rules.

In the same period 10 Divisions have submitted Ethical Rules to regulate the conduct of their members, including 9 Divisions who have adopted with the approval of the Council the Rules as to appointments and kindred matters originally adopted by the Bradford Division.

Ten Divisions have, with the approval of your Council, adopted the model Rule Z, relating to the issue of notices to members in certain cases, which was approved by your Council twelve months ago and subsequently by the Annual Representative Meeting at Oxford.

Difficulties which have arisen in certain Divisions in dealing with ethical cases having been brought to the notice of the Ethical Committee, the Committee appointed a Subcommittee to investigate the existing machinery of the Association for dealing with ethical matters, which Subcommittee was assisted at one of its meetings by the attendance of the Honorary Secretaries of Branches and Divisions in which difficult cases had arisen.

Arising out of the report of the Subcommittee the Committee has recommended your Council to approve, and your Council has approved, a modified form of the Model Rule Z, adapted in order to be suitable for adoption by Branches. Your Council has also approved a recommendation of the Ethical Committee, arising out of the Report of the Subcommittee, that Branches should be advised to adopt rules making specific provision for appeal from their decisions to the Central Council.

The Ethical Committee reports that certain of the model Rules of Ethical Procedure originally framed by the Committee are being reconsidered in the light of the experience now obtained of the operation of these Rules.

It having appeared that confusion has arisen between the Ethical Committee of the Association and the Ethical Committees of Branches and Divisions, your Council has adopted a recommendation that the regulations of the Association should be altered so that the term "Central Ethical Committee" shall be used as an alternative designation of the Ethical Committee of the Association.

One case has been submitted by a Branch for the consideration of the Council with regard to the possible expulsion of a member, but the Council, on the recommendation of the Ethical Committee (confirming a suggestion made by the Division to which the accused member belonged), has decided that, having regard to the special circumstances of the case, the resignation of the member, which he tendered at the time when his conduct was called in question, should be accepted.

In connexion with this case a question arose as to the interpretation of Section (*e*) of Article XLIV, and, on the recommendation of the Ethical Committee, your Council will propose in due course that the Section in question be amended by making provision for an inquiry by a Division as well as by a Branch, and specifying what shall be deemed to be the "commencement" of an inquiry.

On the recommendation of the Ethical Committee, your Council has decided to extend the scope of the warning notice which has been inserted in the advertisement columns of the British Medical Journal with respect to club and similar appointments, and in future such notices will be inserted on the application of Honorary Secretaries of Divisions or Branches with reference to Poor Law, Public Health, or Hospital appointments.

The Ethical Committee has continued to take action successfully in the matter of trade advertisements containing the names of medical practitioners and also in the matter of undesirable newspaper notices of medical practitioners.

Your Council would draw attention to the increasing number of cases submitted for the consideration of the Central Ethical Committee as evidencing the appreciation by the Association, and by the profession generally, of the existence of a central representative body for the investigation and decision of questions of medical ethics.

Public Health Committee.

(26) The principal matters affecting Public Health which have engaged the attention of your Council during the year have been the effort to improve the conditions of tenure of office of medical officers of health, and the question of revaccination.

The Bill of the Association framed some years ago, and repeatedly introduced into Parliament through the kind offices of Sir Francis Sharp Powell, failed to obtain Parliamentary support. On careful consideration the Public Health Committee advised your Council that, in their view, this was in part at least due to the inclusion in the Bill of proposals as to superannuation which incurred hostility from some who would not oppose the other provisions of the Bill. As your Council concurred in the view of the Public Health Committee that the provisions as to security of tenure of officers of health were of primary importance, it was decided that the Bill should be redrafted, omitting the superannuation proposals.

As a result of very careful consideration on the part of the Public Health Committee and of your Council, it was decided to retain in the Bill, with the provisions as to security of tenure, provisions relating to the qualification of officers of health.

It was also decided to comply with the desire of the Sanitary Inspectors' Association that provision should be made in the Bill with regard to sanitary inspectors analogous to those relating to medical officers of health.

The Bill thus modified was finally approved by your Council in November last.

Dr. Hutchinson, who consented to take charge of this Bill, was unfortunately unsuccessful in the ballot for private members' Bills, but the Bill has, nevertheless, been introduced by him, and is supported by the following influential members of Parliament: Sir Walter Foster, Sir John B. Tuke, Mr. W. Abraham, Mr. Fenwick, Mr. Ernest Gray, Major Jameson, Colonel Heneage Legge, and Mr. T. P. Whittaker.

Your Council is making efforts to obtain for the Bill the approval and support of the Local Government Board.

In pursuance of the decision of the Annual Representative Meeting at Oxford, your Council is continuing as regards vaccination the policy previously adopted, of supporting in every way possible the Bill promoted by the Imperial Vaccination League. The Divisions have been requested, as occasion may arise, to support the Bill by representations to members of Parliament in their respective districts. Inasmuch, however, as Sir John B. Tuke, who has charge of the Bill, was unsuccessful in the ballot, and, having regard to the reply given on behalf of the Government to the inquiries of the Duke of Northumberland in the House of Lords, there appears to be no prospect of the Bill receiving consideration in the present session. Your Council regrets that the dangers to the community resulting from the imperfections of the present law as to vaccination receive so little recognition from those Departments of State which are concerned in matters relating to Public Health.

Proposals having been made by the Sanitary Institute that a Congress on School Hygiene should be held in the year 1906, your Council has decided to take steps in order that the British Medical Association may be duly represented in any Committee formed to make arrangements for the Congress.

The attention of the Association having been drawn to a case of unjust treatment of a Poor-law medical officer and public vaccinator by the Board of Guardians by whom he was employed, action was taken in his support by the Division of which he was a member, and your Council has approved the recommendation of the Ethical Committee that warning notices shall in future be inserted in the advertisement columns of the British Medical Journal in reference to

appointments under the Poor-law and local sanitary authorities as have hitherto been inserted with reference to club and similar appointments.

Naval and Military Committee.

(27) Your Council, through the Royal Naval and Military Committee, has, during the past twelve months, given close attention to matters affecting the Royal Navy Medical Service, the Royal Army Medical Corps, the Indian Medical Service, and the Medical Services of the auxiliary forces. The following report deals with the principal matters considered, but action has also been taken on questions of detail submitted by individual officers of the services named:

In the annual report presented to the Representative Meeting at Oxford, your Council expressed its regret that on the new Army Council the Army Medical Service is not to be represented, and stated that action was being taken through the Royal Naval and Military Committee to make representation to the War Office, asking that this omission be rectified. Considering that the absence of direct representation on the Army Council must interfere with the efficiency of the Army Medical Service, your Council has urged upon His Majesty's Government the necessity of providing for such representation.

Communications to this effect were made to the War Office Reconstitution Committee, but the Secretary of that Committee was directed to point out to the British Medical Association that it appeared to the Committee that the Medical Service of the army would under their proposals occupy a position of distinctly greater influence than previously.

Your Council cannot agree with this statement, and has made renewed representations to the War Office, but without result.

Your Council must express its regret that the attitude of the War Office in this matter indicates a grave failure on the part of that Office to appreciate the importance of the medical service in maintaining the efficiency of an army, and the necessity for central co-ordination of that service with other departments of military administration.

On the question of the position of medical officers of the militia in respect of certain allowances, the Committee, as a result of correspondence with the War Office, made the following recommendation, which has been approved by your Council:

"That in any future embodiment of the militia officers of the Militia Medical Service should be entitled to, and receive, the rates of pay of corresponding ranks in the R.A.M.C., as a matter of course and not as an exceptional measure."

Your Council has drawn the attention of the India Office to various matters affecting the I.M.S. and officers of the R.A.M.C. when serving in India; these included the following: (*a*) the injustice to officers of the I.M.S. of the Government order restricting the fees to be charged by them to native private patients whom they may attend, and also the breach of the obligations of professional secrecy involved in the requirements of the order of the Governor-General in Council that a medical officer shall report to his official superior a full medical statement of a case of a private patient attended by him; (*b*) the ruling that an officer of the R.A.M.C. transferred to a station carrying a higher rate of charge allowance must be viewed as transferred to a more lucrative appointment for the purposes of paragraph 103 (2) of Army Regulations of India (vol. x).

Organization Committee.

(28) The Organization Committee has held six meetings since the annual meeting of the Association, and has considered and advised your Council upon various changes proposed in the boundaries of Divisions and Branches, upon Rules submitted by various Divisions and Branches for the approval of your Council, upon changes required in the Articles and By-laws of the Association, and upon other important questions affecting the organization of the Association.

As regards the boundaries of Divisions and Branches, the more important changes effected by the Council during the year were: (*a*) The North Wales and Shropshire Branches, which were united by their request at the commencement of 1903, have found it more convenient to work as separate Branches, and the Council has approved that they be reconstituted as such; (*b*) on their application the Canterbury and Faversham Divisions have been united to form one Division; (*c*) in compliance with a petition from the members the Richmond and Northallerton Division has been merged in the Darlington Division of the North of England Branch; (*d*) the Crewe Division, except Sandbach, has been absorbed in the Chester Division.

Seven Branches and four Divisions in the United Kingdom and three Colonial Branches have submitted Rules for approval. The Rules submitted by Home Branches included those adopted by the Gloucestershire Branch for constituting the Forest of Dean a Section of that Branch.

In the Rules submitted by Colonial Branches the Organization Committee has noted certain Rules which conflict with the regulations of the Association, and which in one instance the Branch has reported that it considered to be desirable, having regard to special local requirements. The Council has approved the recommendation of the Organization Committee that it be pointed out to Colonial Branches that a special Colonial Constitution Committee is sitting to consider what alterations in the regulations are necessary to meet the special requirements of those Branches, and that conditions which appear to require the adoption of Rules not consistent with the present Regulations would be most satisfactorily met by reporting to the Special Committee the alterations of Regulations which seem desirable.

The attention of the Council having been drawn to difficulties arising in Branches as to the most suitable form of voting paper for the election of members of Council, the Organization Committee was instructed to prepare a model form, which has been approved by your Council, and issued as a suggestion to Branches for this purpose.

The Committee has also been instructed by your Council to prepare and issue to the Divisions and Branches model forms of the annual reports which these bodies are required under By-law 9 to furnish. The forms of these reports will again be considered by the Organization Committee at its first meeting after the annual meeting at Leicester, and any suggestions by Divisions and Branches in reference thereto will receive the careful attention of the Committee and of your Council.

Your Council received an instruction from the Annual Representative Meeting at Oxford to consider the most effective means of increasing the membership of the Association. Having received a report from the Organization Committee thereon, your Council approved the issue of a circular to the Divisions suggesting that one means to this end would be the issue from time to time of circulars to non-members drawing their attention to the work of the Association, and the Committee prepared a draft of such a circular as a basis for consideration. At the request of various Divisions 4,860 copies of this circular have been printed and issued to the Honorary Secretaries of Divisions for circulation to the non-members in the area of those Divisions.

The Organization Committee having also been instructed to consider the difficulties experienced by Divisions in dealing with matters referred to them for consideration, consulted the Medico-Political Committee thereon, and as a result a circular was issued to the Honorary Secretaries of Divisions inviting an expression of opinion as to the relative convenience (*a*) of printing reports which are referred to Divisions for consideration in the Supplement only, or (*b*) of reprinting sufficient copies for circulation through the Honorary Secretaries of Divisions to all members of the Association. A draft letter was also submitted for the consideration of Divisions drawing the attention of members to the importance of preserving the Supplement for use at meetings at which matters referred may be under consideration. The replies of the Honorary Secretaries of Divisions were, by a large majority, in favour of the use of the Supplement rather than printing reports separately for circulation to members, and in response to applications received 6,900 copies of the circular relative to the use of the Supplement have been issued by the Honorary Secretaries to the members of their respective Divisions.

In the Minutes of the Organization Committee reports have been presented to your Council of visits paid by the Medical Secretary to the following Branches and Divisions:

Border Counties, North of England, South Wales, and South-Western Branches; and the Coventry, Eastbourne, Isle of Wight, Marylebone, Monmouth, North Suffolk, Reigate, Stratford, South Essex, Tottenham, and Wandsworth Divisions.

In discharge of the duty imposed upon your Council by Article XXVII, the Divisions of the Association have been grouped to form 170 constituencies for the election of Representatives for the year 1905-6.

Your Council has also, in exercise of the power conferred upon it by By-law 23, grouped the Branches of the United Kingdom as in the year 1904-5.

Your Council has taken into careful consideration the representation of Colonial Branches on the Council, having regard to the Report which by direction of your Council was circulated at the commencement of the year 1904 to the Colonial Branches. It has appeared to your Council that the time has now arrived when the Branches not in the United Kingdom should be represented on the Council on approximately the same numerical basis as the Branches in the United Kingdom, and representatives have been assigned to these Branches on this principle, allowance being made for special difficulties of co-operation in election.

On the recommendation of the Organization Committee that it is advisable that a conference of the Honorary Secretaries of Divisions and Branches should be held at Leicester, your Council has approved the holding of such a conference, and the arrangements have been entrusted to a Committee composed of those Honorary Secretaries who are members of your Council.

ANDREW CLARK,

May 17th, 1905. *Chairman of Council.*

ANNUAL REPORT

BY

THE MEDICO-POLITICAL COMMITTEE

To the Annual Representative Meeting, 1905.

TWELVE instructions of the Annual Representative Meeting at Oxford relating to medico-political matters have received consideration from the Medico-Political Committee during the year. Four of these were instructions that reports placed before the meeting should be referred again to the Divisions—in two cases with a view to further deliberation, and in two cases in order that action might be taken to give effect to the resolutions of the meeting; three instructions of the meeting to the Council were referred by the Council to the Medico-Political Committee for consideration and report; five matters were referred by the Meeting directly to the Committee.

The instructions were as follows:

I.—*Instructions that Matters be Referred again to the Divisions.*

1. *Minutes* 28 and 29.—Resolved: That the individual members of Friendly Societies be entitled to choose the medical man by whom they desire to be attended. Resolved: That the foregoing resolution and the propositions contained in the Interim Report on Contract Practice be referred to the Divisions.

2. *Minute* 57.—Resolved: That the Report concerning the desirability of consultation between medical witnesses in legal cases be referred to the Divisions.

3. *Minutes* 52 and 53.—Resolved: That this meeting of the Representatives of the British Medical Association, having special knowledge and experience of the gravely defective constitution and status of the Local Government Board (England and Wales) in regard to the administration of Public Health, requests the Government to show its recognition of the urgent necessity of reorganizing the Local Government Board by appointing a Royal Commission to report upon the whole question. Resolved: That a copy of the foregoing resolution, together with documents relating thereto, be sent to the Divisions with the request that their Parliamentary representatives support the proposed appointment of a Royal Commission.

4. *Minutes* 59 and 60.—Resolved: That the Memorandum on the present position of Registered Medical Practitioners in the matter of furnishing certain information to Coroners be approved. Resolved: That a copy of the Memorandum be forwarded to the Divisions.

II.—*Instructions of the Representative Meeting to the Council referred by the Council to the Medico-Political Committee.*

5. *Minute* 93.—That the representation of the medical profession in Parliament at the present time is inadequate, and in the interests of the public and the profession alike should be improved, and that the Council be instructed to consider how this may be effected.

6. *Minute* 104.—That it is advisable that, having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of vaccine lymph.

7. *Minute* 115.—That it is desirable that the Central Council draw the attention of the medical profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

III.—*Instructions of the Representative Meeting to the Medico-Political Committee.*

8. *Minute* 31.—That the Medico-Political Committee be instructed to transmit the resolution of this meeting, respecting the Report on the National Deposit Friendly Society, to the Divisions with proposals for concerted action.

(The resolution referred to was as follows: "The Chairman presented the Report of the Committee on the National Deposit Friendly Society, which was considered and approved.")

9. *Minute* 44.—A resolution to refer the Report on Death Certification back to the Medico-Political Committee for further consideration and report to the Divisions.

10. *Minute* 58.—With reference to the Coroners Bill, as to which the Committee reported the action which they had taken during the past year, it was agreed:
That before submitting the Bill to Parliament the Medico-Political Committee should incorporate in it any provisions which the Committee might deem expedient, having regard to matters recently considered by the Committee concerning the relation of coroners to the medical profession.

11. *Minute* 64.—That, as the Midwives Act, 1902, contains no provision for the payment of medical practitioners, it be an instruction to the Medico-Political Committee to take steps for the amendment of the Act, by the introduction of a section or otherwise, in order to provide just remuneration for medical men when called in to assist midwives in cases of danger or difficulty.

12. *Minutes* 69 and 70.—That the Medical Acts (Amendment) Bill, as a whole, be referred to the Divisions. That it be an instruction to the Medico-Political Committee that an epitome of the principles of the Medical Acts (Amendment) Bill be included among the documents sent to the Divisions, with a request that the Divisions will vote upon those principles.

The Committee has carefully considered each of the foregoing matters, and reports thereon have from time to time been furnished to the Divisions as they have been prepared, as well as upon certain other questions which have been brought under the notice of the Committee.

The following table exhibits succinctly the nature and origin of the matters that have come before the Committee during the past year, the action taken on each, and the result.

A.—Matters Arising out of Instructions of the Annual Representative Meeting of 1904.

I.—Instructions that Matters be Referred Again to the Divisions.

Subject.	Origin.	Action Taken and Result.
1. Interim report on contract practice	Instruction that the Report of the Committee be referred again to the Divisions for further consideration, together with a special resolution of the meeting with respect to the distribution of the work of Friendly Societies	Report issued accordingly. 76 Divisions report having considered the proposals formulated in this Report. Analysis of replies presented herewith.
2. Consultation of medical witnesses in legal cases	Instruction that the Report of the Committee concerning the desirability of such consultation be referred again to the Divisions for further consideration	Report issued accordingly. 79 Divisions have considered the matter to date. Analysis of replies presented herewith.
3. Reorganization of the Local Government Board	Instruction that the documents laid before the meeting in reference thereto be issued again to the Divisions, with a request that they approach their Representatives in Parliament with a view to securing the appointment of a Royal Commission to consider the subject	Report issued accordingly, with explanatory memorandum to be sent to members of Parliament. 22 Divisions have intimated their intention of approaching members of Parliament.
4. Legal position of medical men in respect of information supplied to coroners	Instruction that the Committee's Report on the subject be communicated to the Divisions for their information	Report circulated accordingly and copies supplied for distribution to all practitioners in the area of those Divisions who desire so to distribute it. 10 Divisions have applied.
II.—Instructions of the Representative Meeting to the Council referred by the Council to the Medico-Political Committee.		
5. Representation of the medical profession in Parliament	Instruction to the Council to consider how special representation may best be secured	A Subcommittee appointed of members of the Committee and members of the Association who have previously paid attention to the subject. Report submitted by the Committee to the Council, approved by the Council, and presented herewith.
6. Supply of Government lymph to private practitioners	Instruction to the Council that it is advisable that every practitioner should be put on the same footing as Public Vaccinators in respect of Government supply of vaccine lymph	Deputation met the Chief Medical Officer and an Assistant Secretary of the Local Government Board; application made for the President of the Local Government Board to receive a deputation.
7. Drug abuse arising through practitioners ordering special preparations by name to their patients	Resolution that it is desirable that the attention of members of the profession be drawn individually to the evils thus arising	On consideration held advisable first to bring the matter under the notice of the Divisions of the Association, together with recommendations as to prevention of drug abuse through the unauthorized repetition of prescriptions. Report presented herewith.
III.—Instructions of the Representative Meeting to the Medico-Political Committee.		
8. National Deposit Friendly Society	Instruction to circulate the Committee's report, which was approved by the meeting, for the information of the Divisions, with proposals for their concerted action	Report circulated accordingly with Memorandum containing proposals for concerted action.
9. Death certification and registration	Instruction to the Medico-Political Committee to further consider and report	The whole subject reconsidered: Report circulated to the Divisions, and presented herewith.
10. Coroners Bill	Referred for further consideration and inclusion of special provisions	Reconsidered, amplified, and referred again to the Divisions, with the Death Registration Report. Copy of amended Bill presented herewith.
11. Amendment of the Midwives Act	Instruction to take steps to obtain statutory provision for the payment of medical men called in to assist midwives	Memorandum circulated to the Divisions to ascertain the opinion of the Association on certain special points. Analysis of the replies presented herewith. Memorial prepared for presentation to the Privy Council, and submitted herewith.
12. Medical Acts Amendment Bill	Instruction to refer the Bill again to the Divisions for further consideration, with an epitome of the principles	Instruction carried out. Abstract of the replies of the Divisions will be laid before the Representative Meeting.

B.—Other Matters.

Subject.	Origin.	Action Taken and Result.
13. Fees of medical witnesses	Resumed consideration of a matter before the Committee in July, 1904	Considered Home Secretary's orders of November, 1903, and July, 1904. Evidence of the operation of these orders at present insufficient. Committee collecting further evidence.
14. Payment of medical practitioners called in by the police in emergency cases	Brought under the notice of the Committee by the Editor of the BRITISH MEDICAL JOURNAL	Inquiries made of the police authorities throughout the United Kingdom. Analysis of replies and report presented herewith.
15. Payment of medical men for certificates of unfitness to attend school	Continued Minute from Committee of 1903-4.	Analysis of the replies of Education Authorities to the inquiries of the Committee presented herewith. Also, the legal position of medical practitioners in the matter ascertained, and a report thereon has been circulated for the information of the Divisions.
16. Position of postal medical officers	Continued minute	Communication with the Postal Medical Officers' Association. On their advice action deferred.
17. Unduly repeated dispensing of prescriptions	Conference with representatives of Pharmaceutical Society in July, 1904	Report containing proposals for consideration issued to Divisions, together with Report on Abuse of Drugs due to ordering by name. Report and analysis of replies presented herewith.
18. Coroner for South-West London	Continued minute	Further communication addressed to the Lord Chancellor; no reply received. Further action in progress.
19. Government certificate of secondary education	Continued minute	Memorial sent to the Board of Education.
20. The position of medical men in connexion with ambulance competitions	Complaint by a member of a case of alleged injustice	Memorandum containing inquiries addressed to the Divisions of the Association. Report based on the replies presented herewith.
21. Indecent Advertisements Act	Brought under notice by a member of the Committee	With the approval of the Council, Home Office approached by the Association in conjunction with the London Council of Public Morality.
22. Public Health Bill ...	Action by the Public Health Committee	Bill introduced.
23. Clause in Corporation Bill for preventing *post-mortem* examinations in private houses	Application from the Division concerned	The Bill opposed by the Association, and the clause in question withdrawn.
24. Administration of Midwives Act:		
(*a*) Advertisements ...	Communication from a Division ...	Midwives Board declare the matter beyond their province. Through action of Division advertisement suppressed.
(*b*) Calls by midwives for medical assistance	Attention drawn by a member of the Committee	Communication to the Midwives Board pointing out the objections thereto.
25. Nurses' Registration: (*a*) State registration	Giving effect to resolution of Annual Representative Meeting at Oxford	The Chairman of Representative Meetings and Dr. H. Langley Browne gave evidence before the House of Commons Committee.

Subject.	Origin.	Action Taken and Result.
(*b*) Proposed Company for Registration of Nurses	Resolution of the Council	Representatives of the Association attended before the Board of Trade to oppose the incorporation of the proposed company.
26. Certifying factory surgeons	Communication from Factory Surgeons' Association	Government Bill interfering with the present position of factory surgeons opposed.
27. Insurance examination fees	Communication from Norwich Division	Report presented herewith. Further information being collected.
28. Unregistered medical practitioners	Communication from Editor of the BRITISH MEDICAL JOURNAL	Investigation commenced; offender disappeared. On recommendation of Committee, Council decided to take action in similar cases.

The Committee presents the following more detailed statement as to their deliberations and the action they have taken upon each of the matters contained in the foregoing table.

1. CONTRACT PRACTICE.

(*a*) *Interim Report.*

The proposals contained in the Interim Report submitted to the Annual Representative Meeting at Oxford (of which a copy is appended hereto for purposes of reference, see Appendix, p. 242) having been circulated to the Divisions for their further consideration as directed by the meeting, a *précis* of those findings of Divisions which have been communicated to the Committee up to the time of the preparation of the present report is appended (see Appendix, p. 242).

(*b*) *Contract Practice Inquiry.*

During the year further replies have been received to the inquiries which were originally circulated in March, 1903, as to which a preliminary report upon the earlier replies was laid before the Annual Representative Meeting at Oxford. The whole of the replies received are now in process of being completely analysed, and a final report on the matter, which it is proposed to issue to the Divisions before the end of June, will be laid before the Representative Meeting at Leicester.

Reports upon certain special aspects of the subject are also being prepared by the Committee.

2. CONSULTATION OF MEDICAL WITNESSES IN LEGAL CASES.

The Report on this matter, which was issued shortly before the Representative Meeting of 1904, having, by direction of the meeting, been again issued to the Divisions, an analysis of the replies of the Divisions received up to the preparation of this Report is presented herewith (see Appendix p. 245.)

In the Report in question the Committee pointed out that the scope of the questions submitted to the Divisions in their original Memorandum had apparently been somewhat misunderstood by some Divisions. This inference is confirmed by the fact that as a result of further explanations given in the Report, several Divisions, which previously had expressed an opinion adverse to the consultation of medical witnesses, have now replied favourably thereto.

The Committee recommends that the Annual Representative Meeting should now formulate a definite opinion of the Association on the subject.

3. REORGANIZATION OF THE LOCAL GOVERNMENT BOARD.

As directed by the Annual Representative Meeting, the documents relative to this matter have been again communicated to the Divisions in order that they might take local action in support of the resolution of the Meeting, that steps should be taken to secure the appointment of a Royal Commission to consider the whole subject.

In the memorandum accompanying the reissued Reports attention was carefully drawn to the fact that the object of the reference was to secure action by the Divisions on the matter, which had been decided in principle by the Annual Representative Meeting as the outcome of a previous reference; nevertheless many Divisions have discussed the whole subject and forwarded resolutions thereon. 22 Divisions, however, have given effect to the object of the reference, by deciding to approach local members of Parliament, or candidates for Parliament, in order to secure their support for the proposed appointment of a Royal Commission. To those Divisions which have decided to take this action a short *précis* (a copy of which is appended hereto—see Appendix p. 248) of the opinions of the Association on the subject has been forwarded, as a convenient method of bringing the matter more readily to the notice of members of Parliament and others.

4. LEGAL POSITION OF MEDICAL MEN IN RESPECT OF INFORMATION SUPPLIED TO CORONERS.

The Memorandum on this subject (see Appendix, p. 249) has again been issued to the Divisions, as directed by the Representative Meeting, in order to facilitate united action in the matter, and several Divisions have arranged for the distribution of the Memorandum to all medical practitioners within their areas; copies for this purpose were supplied from the head office.

In this matter again several Divisions have misunderstood the object of the reference, and have discussed the subject *de novo*.

5. REPRESENTATION OF THE MEDICAL PROFESSION IN PARLIAMENT.

The instruction of the Annual Representative Meeting to the Council of the Association, to consider the best means of improving the representation of the medical profession in Parliament, has received the very careful consideration of the Medico-Political Committee and of the Council of the Association.

The resolutions finally arrived at by the Council, after considering the recommendations of the Medico-Political Committee thereon, are appended to this report. (See Appendix, p. 249.)

The recommendations presented are believed by the Council and Committee to embody the most effective means of carrying out that which is desired, but it is recognized that they could not be carried into effect immediately.

The Committee has still under consideration the question of any supplementary means which can be adopted by the Association in order to increase the Parliamentary influence of the medical profession.

One effective means to this end is that which the Committee had made use of as far as possible during the last session of Parliament—namely, to co-operate in every way practicable with the present medical members of Parliament; and the Committee expresses its appreciation of the cordial co-operation which it has received from several of these gentlemen.

6. SUPPLY OF GOVERNMENT LYMPH TO PRIVATE PRACTITIONERS.

The instruction to the Council, to endeavour to secure that Government lymph should be supplied to private practitioners as well as to public vaccinators, having been referred to the Medico-Political Committee, the Committee appointed the Chairman, the Chairman of Representative Meetings, and the Medical Secretary as a deputation to confer on the subject with the Chief Medical Officer of the Local Government Board, with whom was associated Mr. Monro, an Assistant Secretary of the Board. The deputation gathered that the view of the Local Government Board was favourable

to the supply of lymph for all primary vaccinations, but not at present for revaccination, on account of the irregularity of demand, and that the difficulties in the way are chiefly due to the opposition of the Treasury.

Efforts are being made at the time of the preparation of this report to induce the President of the Local Government Board to receive a deputation on the matter.

7. DRUG ABUSE ARISING THROUGH PRACTITIONERS ORDERING SPECIAL PREPARATIONS BY NAME TO THEIR PATIENTS.

The instruction of the Representative Meeting, that the attention of medical practitioners throughout the country should be drawn individually to this abuse, was considered by the Medico-Political Committee, by instruction of the Council, and it was considered that the object would most conveniently be attained by means of a communication to all the medical journals; the Council, however, on further consideration of the matter, was of opinion that a more definite opinion by the Association should first be obtained from the Divisions. A question on this subject was accordingly included in the memorandum addressed to the Divisions on drug abuse generally, and a report on the whole matter will be found in the Appendix, p. 249.

8. NATIONAL DEPOSIT FRIENDLY SOCIETY.

The Committee gave effect to the instruction of the Annual Representative Meeting, to forward to the Divisions their previous report, as approved by that meeting, with proposals for concerted action, and a copy of the memorandum and recommendations issued with this object will be found appended (see Appendix, p. 250). At the time of the preparation of this report 26 Divisions have communicated their decision to take local action to give effect to the recommendations of the Committee. Five Divisions have intimated general dissent from these recommendations.

While the memorandum was under consideration, communications were received from the National Deposit Friendly Society, taking exception to the finding of the Annual Representative Meeting at Oxford, and to the action of the Committee in presenting a report to that meeting without first conferring with the Society.

The Committee, considering that the course thus suggested by the National Deposit Friendly Society would have been unconstitutional in respect of the relationship of the Medico-Political Committee to the Representative Meeting, and further considering that the National Deposit Friendly Society had entirely misconceived the nature and object of the action of the Association in the matter, pointed these facts out to the Society, but owing to the discourteous character of further communications received from the Society the correspondence was broken off.

9. DEATH CERTIFICATION AND REGISTRATION.

The proposals relative to death registration have been thoroughly reconsidered by the Committee, and a full report has been issued to the Divisions, and is reprinted herewith. (See Appendix, p. 251.)

10. CORONERS BILL.

The Coroners Bill has also been thoroughly revised by a Subcommittee including representative coroners, and has been circulated to the Divisions. (See Appendix, p. 253.)

11. AMENDMENT OF MIDWIVES ACT.

In pursuance of the instruction of the Annual Representative Meeting at Oxford that steps be taken to secure the amendment of the law in order to make provision for the payment of medical men called in to assist midwives, the Committee addressed a series of questions to the Divisions with a view to ascertain the opinion of the Association on certain important points (see Appendix, p. 255). On consideration of the replies of the Divisions, of which a *précis* is appended (see Appendix, p. 257), a memorial was prepared for presentation to the Privy Council, but as it appeared to the Committee that such a memorial must contain some statement of the views of the profession as to the minimum fees which should be charged in such cases, and as the replies of the Divisions do not definitely indicate what is desired under this head, it has been decided to lay the matter before the Representative Meeting prior to taking any Parliamentary action. (For Draft Memorial, see Appendix, p. 256.)

12. MEDICAL ACTS AMENDMENT BILL.

As directed by the Representative Meeting, an epitome was prepared of the principles of the Medical Acts Amendment Bill, and was forwarded to the Divisions, together with reprints of the Bill and of the Explanatory Memorandum previously issued.

The Committee now awaits the decision of the Representative Meeting on the principles of the Bill, before proceeding to finally settle the details of the draft to be laid before Parliament.

13. FEES OF MEDICAL WITNESSES.

Immediately after the Annual Representative Meeting of 1904 the question of the operation of the Home Secretary's Order of November, 1903, which had previously been raised by an individual practitioner, was brought to the notice of the Medico-Political Committee of the Association by the Police Surgeons' Association. The Committee appointed a Sub-Committee, including gentlemen who had paid special attention to the subject, to investigate the operation of the new Order of the Home Office. That Order was the result of prolonged action by the Association in co-operation with the Police Surgeons' Association to obtain more equitable remuneration for medical witnesses. At the time it was promulgated it was understood that the intention was to improve the remuneration of medical men in cases coming before the courts. Individual cases appeared, however, to indicate that the Order was somewhat illusory in this respect, and the Subcommittee, after careful consideration, has presented the following report, which the Committee presents to the Representative Meeting.

Report and Recommendations.

That no immediate action is advisable, but that the Committee should continue to watch the subject, with a view to action when sufficient evidence of the operation of the Home Secretary's Order shall be available.

That the Committee should take steps to make it known that the Association will be greatly assisted in dealing with the matter, if medical practitioners concerned in cases which illustrate the operation of the Home Secretary's Order will communicate statements of the facts to the Medical Secretary.

Subject to the approval of the Annual Representative Meeting, the Medico-Political Committee proposes to continue to watch the subject, and if evidence shall be obtained that the operation of the Order is seriously inequitable as affecting medical practitioners, the Committee will recommend that further action be taken.

14. PAYMENT OF MEDICAL PRACTITIONERS CALLED IN BY THE POLICE IN EMERGENCY CASES.

The question of the payment of medical practitioners called to emergency cases by the police was referred to the same Subcommittee, which included police surgeons of experience. At the instance of the Subcommittee enquiries have been addressed to the police authorities in all the large towns in the United Kingdom, and the result of these enquiries is stated in a special report. (See Appendix, p. 265.)

Appended is also the Report of the Subcommittee which the Committee has adopted, and submits for the consideration of the Representative Meeting. (See Appendix, p. 265.)

15. PAYMENT OF MEDICAL MEN FOR CERTIFICATES OF UNFITNESS TO ATTEND SCHOOL.

Shortly before the Annual Representative Meeting the Committee made enquiries of the Education Authorities in the United Kingdom, and a *précis* of the replies was laid before the Committee in October, and is presented herewith (see Appendix, p. 265). It appeared to the Committee that the most successful action for remedying the injustices from which the profession suffers in this matter would be taken locally rather than centrally, and the Committee, therefore, having made careful enquiries as to the legal position of medical practitioners ordered the circulation of a report on the matter to the Divisions. It was thought desirable that, as the information contained in this report was intended solely for the assistance of members of the profession, copies should be supplied to Honorary Secretaries of Divisions for circulation to the members of their Divisions. This has been done.

16. POSITION OF POSTAL MEDICAL OFFICERS.

The question of the position of Postal Medical Officers was brought before the Committee by a Division of the Association shortly before the Annual Representative Meeting at

Oxford, and the Postal Medical Officers' Association were asked to furnish the Committee with their views on the matter. That Association replied that they were, at the time, approaching the Postmaster-General on the subject, and asked that any action of the Association might be deferred until this had been done and a reply of the Postmaster-General had been received. The Committee decided to act in accordance with this suggestion, and up to the present have not been informed of the result of the communication to the Postmaster-General by the Postal Medical Officers' Association.

The Postal Medical Officers' Association pointed out that the chief difficulty in dealing with these appointments is the large number of candidates for each vacancy, irrespective of the terms on which it is offered, and the Committee are gratified to be able to report that in at least one instance a Division of the Association has taken local action to prevent candidature for such appointments upon inequitable terms.

17. Unduly Repeated Dispensing of Prescriptions.

On resuming its duties after the vacation, the Medico-Political Committee received a report of a Conference of certain representatives of the Committee with representatives of the Pharmaceutical Society as to the best means of preventing abuses which result from the repeated dispensing of prescriptions, after the time for which they were originally intended to be dispensed.

The purport of the report of the Conference was that, while the matter could only be fully dealt with by a change in the law, much could probably be accomplished by the voluntary co-operation of the medical profession with chemists. To promote such co-operation the Committee issued a memorandum to the Divisions, which is presented herewith (see Appendix, p. 265), and which contained certain recommendations. An analysis of the replies of the Divisions to these recommendations, received up to May 20th, is also presented herewith, and the Committee would ask the Representative Meeting to consider the advisability of approving the recommendations on behalf of the Association.

18. Coroner for South-West London.

The Medico-Political Committee reported to the Annual Representative Meeting at Oxford the communications with the Lord Chancellor to date, including the letter of July 1st, 1904, from the Chairman of Council and the Medical Secretary asking when a further communication from the Lord Chancellor might be expected. As no reply was received from the Lord Chancellor a subsequent letter had been written to the Prime Minister drawing his attention to the matter. Immediately after the Representative Meeting a reply was received from the Lord Chancellor (see Appendix, p. 266). This letter was acknowledged on August 4th, 1904 (see Appendix, p. 266). After a sufficient interval a further letter was addressed to the Lord Chancellor on January 5th, 1905 (see Appendix, p. 266). No reply to this letter has been received.

In November the Conference of Medical Societies when deciding again to approach the Lord Chancellor resolved also to take certain action through the London County Council. Accordingly, at the instance of the British Medical Association, a return from the Public Control Committee was asked for and a promise obtained that it would be furnished, containing particulars of the number of *post-mortem* examinations in connexion with the London Coroners in which the special pathologists elected by the London County Council had been employed. The promised return has not been received at the date of this report, but in the meantime action is being taken in another direction agreed upon by the Conference of Medical Societies, namely, that the British Medical Association is challenging at the Annual Audit of the accounts of the London County Council fees which have been paid through Mr. Troutbeck in contravention, it is believed, of the Coroners Act.

19. Government Certificate of Secondary Education.

In August of 1904 a Memorandum was addressed by the Board of Education to various Education Authorities, containing suggestions by a Committee appointed by the Board with reference to the proposed Government Certificate of Secondary Education. As several of the proposals in the report were contrary to the views of the Association with respect to preliminary general education of medical students, as stated in the Report approved by the Annual Representative Meeting at Oxford, a Memorandum, of which a copy is appended (see Appendix, p. 267), was prepared and transmitted to the Board of Education, and the Board promised to give it careful consideration.

20. The Position of Medical Men in Connexion with Ambulance Competitions.

A complaint from a member of the Association, as to inequitable treatment of local members of the profession in respect of fees paid to them in connexion with Ambulance Competitions, brought under the notice of the Medico-Political Committee the general question of the present position of the profession with respect to Ambulance Work, and it appeared to the Committee desirable that this work should now be placed on a definite basis, either of business or philanthropy as the Association may decide.

A Memorandum, of which a copy is appended (see Appendix, p. 268), was accordingly circulated to the Divisions, submitting for their consideration certain questions, and a report on the replies of the Divisions is also appended to this Report. The replies appear to indicate that opinion in the Association is ripe for a declaration that ambulance work has reached a position in which it should be treated by the profession as a matter of business and not of philanthropy. If this conclusion is approved by the Annual Representative Meeting it will rest with the Divisions to take local action to give effect to these principles.

21. Indecent Advertisements Act.

The attention of the Committee has been drawn to certain defects in the present Indecent Advertisements Act. Advertisements of an objectionable nature may be inserted in newspapers, which it would be an offence under the Act to advertise in any public place, and also the existing restraint upon the public exposure for sale of certain articles is inadequate.

The Council of the Association has resolved that action, in co-operation with the London Council for the Promotion of Public Morality, should be taken to draw the attention of the Home Office to these defects in the law, and to suggest amendments, and a memorial on the matter has been prepared, and will shortly be communicated to the Home Office accordingly.

22. Security of Tenure of Health Officers.

(*a*) *Medical Officers of Health.*

The question of security of tenure of Medical Officers of Health has again received the earnest attention of the Public Health and Medico-Political Committees. After careful consideration it was decided that the Public Health Bill should be redrafted so as to leave out the provisions as to superannuation of Medical Officers. These it was thought had previously overloaded the Bill and deprived it of some Parliamentary support that it would otherwise receive.

The redrafted Bill was approved by the Council of the Association in November, and Dr. Hutchinson has assisted the Association by introducing the Bill, supported by Sir W. Foster, Sir J. B. Tuke, Mr. W. Abraham, Mr. Fenwick, Mr. E. Gray, Major Jameson, Colonel Heneage Legge, and Mr. T. P. Whittaker.

Dr. Hutchinson was unsuccessful in the ballot, and, therefore, in the present congested condition of parliamentary business, the Bill has no prospect of being carried in the present Session unless the Government will take it up. Efforts have been made, but up to the present without success, to induce the President of the Local Government Board to receive a deputation.

The Divisions of the Association have been requested to approach local Members of Parliament and candidates to secure their support for the Bill, and for their assistance in bringing it to the notice of these gentlemen a short *précis* of the reasons in favour of the Bill and the proposals contained in it has been prepared. (See Appendix, p. 270.)

(*b*) *Public Vaccinators.*

In connexion with the question of security of tenure, the attention of the Representative Meeting is drawn to the recommendation in the Report of the Departmental Committee of the Local Government Board on Vaccination Expenses, that Public Vaccinators should enjoy the same security of tenure as medical officers of health. The defect of the present position is illustrated by a recent instance in which the Association was called upon to intervene on behalf of a Public Vaccinator, who was dismissed from his appointment because he had resigned his underpaid Poor-law appointment, the Guardians desiring to use the Vaccination appointment as a

means of inducing another medical practitioner to accept the Poor-law appointment at the low rate offered. Owing to the intervention of the Association and the action taken by the Division concerned, no practitioner applied for the appointment, and the Guardians found themselves obliged to re-appoint their former officer to both appointments, granting the increase he had asked for in his salary for the Poor-law appointment. While exemplifying satisfactorily the power of the Association, by co-operation of the Central Executive with the Divisions, to defend practitioners from injustice of this kind, the case also demonstrated the defect of the present law in permitting local authorities so to deal with medical officers.

23. PROPOSAL TO PREVENT POST-MORTEM EXAMINATIONS IN PRIVATE HOUSES.

In February the attention of the Committee was drawn by a Division of the Association to the following Clause, in a Bill promoted by the Corporation of a Borough in the area of the Division:

No *post-mortem* examination shall be performed in any private dwelling house within the borough without the written authority of the medical officer of health.

Any person performing or assisting in performing any *post-mortem* examination without such authority shall be liable to a penalty not exceeding ten pounds.

Having regard to the obstruction to the work of private practitioners which such a provision would occasion, the Committee decided to oppose the enactment thereof in every way possible, including making representations to the Home Office if necessary. Through the co-operation of Dr. Hutchinson and Sir Walter Foster, who at the instance of the Committee put down notices of objection to the Bill, and through the local action of the Division in presenting a petition from all members of the local profession to the Corporation, the Association was successful in securing the withdrawal of the Clause.

24. ADMINISTRATION OF THE MIDWIVES ACT.

Apart from the general question of the amendment of the law with respect to the payment of medical men called to assist midwives, already reported, the Committee has had under consideration various questions affecting the administration of the present Act, two of which are in a position for report.

(*a*) *Advertisements.*

The first of these relates to an advertisement issued by a Nursing Home which provides midwives. On the application of the Division concerned, the Committee addressed a communication to the Midwives Board asking them to deal with the advertisement, but the Board replied that the subject-matter of the complaint did not appear to fall within the scope of the duties of the Board. In the meantime, however, the Division had communicated directly with the proprietors of the home, with the result that they agreed not to issue any advertisement obnoxious to the medical profession.

(*b*) *Form of Call to Medical Men called to assist Midwives.*

The attention of the Committee was also drawn to the form of notice sent by midwives to medical practitioners requesting assistance in difficult cases. It appeared to the Committee that the form in question was misleading and objectionable in certain respects, and representations thereon were made to the Midwives Board. The Midwives Board pointed out that the form is that prescribed in Rule 19 (2) of the Rules of the Board, which have been approved by the Privy Council, and that the Board has no power now to alter the Rules, which are in force until August, 1906.

The Committee is still in communication with the Board on the matter, and a further Report thereon will be presented to the Representative Meeting.

25. NURSES' REGISTRATION.

(*a*) *State Registration.*

Having regard to the following resolutions of the Annual Representative Meeting at Oxford:

Minute 66:

"That this Meeting approves the principle of the Registration of Nurses,"

and Minute 67:

"That the foregoing Resolution be transmitted to the Select Committee of the House of Commons which is now sitting,"

the Chairman of Representative Meetings transmitted the former resolution to the Select Committee of the House of Commons, and offered to give evidence before the Committee. The Committee was not reappointed by the House of Commons until late in the present session, but has now resumed the investigation of the subject, and on May 18th the Chairman of Representative Meetings attended to give evidence.

In the meantime a Division of the Association represented to the Medico-Political Committee the importance of specially watching the interests of general practitioners in the matter, and the Committee requested the Chairman of Representative Meetings to associate with himself certain representatives and general practitioners. Dr. H. Langley Browne, President of the Birmingham and District General Practitioners' Union, was accordingly requested by the Chairman of Representative Meetings to accompany him, and gave evidence with him on the date named. In his evidence the Chairman of Representative Meetings mentioned the notice of motion on the Agenda of the forthcoming Representative Meeting, proposing that the resolution of the Representative Meeting at Oxford be rescinded.

After the Chairman of Representative Meetings and Dr. H. Langley Browne had given evidence, the Committee heard as a witness a representative of a medical association, who in the course of his evidence suggested that the British Medical Association did not represent general medical practitioners. The Medical Secretary thereupon tendered himself as a witness, and gave evidence as to the membership of the Association, as to the constitution and composition of the Representative Meeting, being composed almost entirely of general practitioners, and elected by local bodies the majority of whose members are general practitioners, and pointed out that one of the two witnesses who had given evidence on behalf of the Association was President of a Society composed of general practitioners exclusively.

(*b*) *Proposed Company for Registration of Nurses.*

The attention of the Association has also been drawn to the application of a proposed Company, whose object is the examination and registration of nurses, for incorporation under the Companies Act, and for the license of the Board of Trade to dispense with the use of the word "Limited."

The Council of the Association appointed a deputation composed of the Chairman of Representative Meetings, the Chairman of Council, Dr. H. Langley Browne, and Dr. Galton to attend at the hearing of the matter by the Board of Trade and to give evidence on behalf of the Association in opposition to the registration of nurses by a private Company.

26. CERTIFYING FACTORY SURGEONS.

In February the attention of the Medico-Political Committee was drawn by the Association of Certifying Factory Surgeons to the fact that a Bill promoted by the Home Office—the Accidents (Mines and Factories) Bill—was now before the House of Commons, proposing to give effect to a recommendation of the Departmental Committee on the certification of industrial accidents.

The recommendations of the Committee in question were carefully considered at the time by the Medico-Political Committee, in conjunction with the Factory Surgeons' Association, and were deemed undesirable in the public interest, as proposing to supersede medical expert examination and report by reports of lay persons in matters essentially requiring medical knowledge. The Committee applied to the Home Office to be heard by deputation on the matter. Beyond a formal acknowledgement, no reply was received from the Home Office, but medical members of Parliament, at the instance of the Association, put down notices of objection to the Bill. It is also opposed by Labour representatives, as tending to diminish the existing safeguards against accident to those employed in factories.

27. INSURANCE EXAMINATION FEES.

The matter of Life Insurance Examinations, on which the Medico-Political Committee, after consideration of a Memorandum by the Norwich Division, reported to the Annual Representative Meeting at Oxford, has again been brought to the notice of the Committee by the Norwich Division through a report of which a copy is appended to the present report. (See Appendix, p 270.)

After careful consideration of the matter the Committee recommends that the Annual Representative Meeting should call upon the Divisions to consider the question of Insurance Fees, with the suggestion that each Division should adopt

Rules and resolutions for the guidance of its members, and of those of the profession who, though not members of the Association, are prepared to support the Association in the matter.

The Medico-Political Committee has also given instructions that further information should be collected, and this when prepared will be furnished for the assistance of the Divisions in dealing with the subject.

28. UNREGISTERED MEDICAL PRACTITIONERS.

A case brought to the notice of the Committee by the Editor of the BRITISH MEDICAL JOURNAL has raised the question of action by the Association with respect to unqualified medical practitioners who bring themselves within reach of the law. The Council of the Association has approved a recommendation of the Committee that in such cases such action as is possible should be taken by the Association.

APPENDICES.

Item 1 in Report.]

INTERIM REPORT ON CONTRACT PRACTICE.

(Presented to the Annual Representative Meeting at Oxford.

The Medico-Political Committee has given careful consideration at several meetings to the matters arising out of the following instruction of the Annual Representative Meeting of 1903:

That it be an instruction to the Medico-Political Committee to investigate the economic conditions of contract practice, as carried on in various ways in this country, to report thereon to the next Annual Representative Meeting, and to present an interim report to the Council on any points which appear to call for action during the year.

It has appeared to the Committee necessary that the investigation which it was instructed to make into the economic conditions of contract practice should be conducted in two principal branches, namely:—

(*a*) By addressing direct inquiries to those Medical Practitioners who are actually engaged in such practices;

(*b*) By collating the information derived from the reports of various medical societies which have given special consideration to the subject, and from the reports of the Secretary of the Committee on the conditions found in various Divisions which he has been called upon to visit.

For the purpose of the inquiries under Head (*a*), the Committee has formulated a series of questions, of which copies are appended to this report, and which, with the sanction of the Council, and by the kind assistance of the Honorary Secretaries of Divisions, are being distributed through the agency of the Divisions to individual Medical Practitioners.

From the information obtained under Head (*b*) the Committee has been enabled to arrive at the conclusion that, while on certain aspects of contract practice, any definite pronouncement by the Association must be deferred until the results are ascertained of the inquiries addressed to individual practitioners, there are other aspects on which opinion has already ripened sufficiently for certain propositions of an axiomatic character to be formulated at the present stage for consideration by the Divisions.

These propositions are as follows:

(1) That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor.

(2) That where the department of contract practice relates wholly to medical work, it is essential that medical men should be adequately represented on the management.

(3) That it should be a fundamental principle of the constitution of all such departments, that every medical practitioner in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service.

(4) That, in present conditions, the lowest fee to be fixed in any district, as the minimum to be paid to each medical officer annually for each individual whom he is under contract to attend, should be 5s., subject to such composition fee, if any, as may be locally determined upon in the case of families having more than three children.

(5) That Children under the age of 5 should not be admitted under contracts at minimal rates, except in the case of the family composition fees included in Clause (4).

(6) That in all such contracts the right be reserved to each medical officer to decline to attend as a member of such service any person whom he may consider to be unfit for membership in respect of financial position, but that such provision should be made as the governing body of the service may approve to prevent hardship resulting from the retrospective application of this rule.

(7) The rates above specified are not intended to apply to night visits, obstetric cases, operations, or serious accidents, by the term "serious accident" being meant an accident which causes incapacitation for more than a week.

ABSTRACT OF REPLIES OF DIVISIONS UPON THE PROPOSITIONS CONTAINED IN THE MEDICO-POLITICAL COMMITTEE'S INTERIM REPORT ON CONTRACT PRACTICE, REFERRED TO THE DIVISIONS BY INSTRUCTION OF THE ANNUAL REPRESENTATIVE MEETING OF 1904.

Up to the date of the preparation of this report (May 16th, 1905), 76 Divisions had replied to some or all of the propositions. The replies are as follows:

ON PROPOSITION (1), NAMELY:
"*Necessity of Contract Practice.*

That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor."

69 *Replies.*

63 Divisions
express unqualified approval.

2 Divisions
approve the proposition, provided the words "of the poor" be omitted.

1 Division
approves the proposition, provided the word "poor" is suitably defined.

1 Division
approves the proposition, provided the word "poor" be defined to include those earning less than 25s. a week.

1 Division
approves the proposition, provided the words "of the poor" be altered to read "for those unable to pay ordinary medical fees."

1 Division
is of opinion that Contract Practice is not necessary.

ON PROPOSITION (2), NAMELY:
"*Medical Control.*

That where the department of Contract Practice relates wholly to medical work, it is essential that medical men should be adequately represented on the management."

69 *Replies.*

63 Divisions
express unqualified approval.

2 Divisions
express unqualified disapproval.

1 Division
approves, provided the words "the medical staff" be substituted for "medical men."

1 Division
approves, provided the words "or in part" be interpolated after the word "wholly."

1 Division
approves, provided the word "adequately" is suitably defined.

1 Division
disapproves the proposition as being impracticable.

ON PROPOSITION (3), NAMELY:
"*Distribution of Work.*

That it should be a fundamental principle of the constitution of all such departments, that every medical practitioner

in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service."

69 *Replies.*

57 Divisions
express unqualified approval.
9 Divisions
express unqualified disapproval. (1 of these mentions that it approves of the way in which Contract Practice is allotted at present—namely, by ballot by the members of the Societies.)
1 Division
approves, provided the proposition be altered to begin; "That it should be a fundamental principle, that where a Public Contract Medical Service exists, every medical practitioner . . . ." etc.
1 Division
disapproves the proposition, as tending to encourage Contract Practice.
1 Division
disapproves the proposition as impracticable.

ON PROPOSITION (3A), NAMELY:
"*Friendly Societies: Choice of Medical Attendant.*
That the individual members of Friendly Societies be entitled to choose the medical man by whom they desire to be attended."

64 *Replies.*

49 Divisions
express unqualified approval.
6 Divisions
express unqualified disapproval.
2 Divisions
approve, provided the members be not allowed to change their medical attendant more than once a year.
1 Division
approves, if the proposition be modified to read: "That in the event of a Friendly Society Medical Club joining such a service, the individual members of such Club shall be entitled to choose the medical man by whom they desire to be attended."
1 Division
approves, on condition that present holders of such Societies be not interfered with.
1 Division
approves if by "individual" be understood "adult male."
1 Division
approves provided "medical officer of the service" be substituted for "medical man."
1 Division
disapproves of the proposition, as tending to encourage Contract Practice.
1 Division
disapproves of the proposition as being unworkable.
1 Division
disapproves of the proposition on the ground that choice of medical attendant is "incompatible where stipulation is made for a fixed fee."

ON PROPOSITION (4), NAMELY:
"*Minimum Rate.*
That, in present conditions, the lowest fee to be fixed in any district, as the minimum to be paid to each medical officer annually for each individual whom he is under contract to attend, should be 5s., subject to such composition fee, if any, as may be locally determined upon in the case of families having more than three children."

67 *Replies.*

51 Divisions
express unqualified approval.
4 Divisions
advocate a minimum of 6s.
3 Divisions
speak of a minimum of 4s. (One of these Divisions mentions that this is the rate in force in the local Public Medical Service, for children and adults alike, and that at present the Division does not see its way to alter it.)
3 Divisions
approve of the proposition subject to there being no composition fees.
1 Division
approves subject to the local Division concerned determining the composition fee.
1 Division
approves provided that the composition fee refers to children only.
1 Division
advocates a minimum fee of 8s. 8d.
1 Division
adds, at the end of the proposition, the words, "under the age of 16."
1 Division
disapproves the proposition as not being applicable to all forms of contract work, for example, family clubs.
1 Division
disapproves the proposition as not differentiating sufficiently between Friendly Societies and Clubs.

ON PROPOSITION (5), NAMELY:
"*Exclusive of Infants.*
That children under the age of 5 should not be admitted under contracts at minimal rates, except in the case of the family composition fees included in Clause (4)."

66 *Replies.*

53 Divisions
state unqualified approval.
3 Divisions
state unqualified disapproval.
1 Division
states, as above, that a rate of 4s. is accepted for young and old in its local Public Medical Service.
1 Division prefers to read "under the age of 10."
1 Division prefers to read "under the age of 14."
1 Division
advocates that children under the age of 5 be not admitted at minimal rates.
1 Division
advocates that such children be not admitted under contract rates at all.
1 Division
advocates that children under the age of 14 be not admitted under contract rates at all.
1 Division
considers that children under the age of 5 should not be admitted at minimal rates under contracts with Friendly Societies.
1 Division
would admit children of any age at the minimal rates.
1 Division
disapproves of the proposition as not differentiating sufficiently between Friendly Societies and Clubs.
1 Division
considers the proposition unnecessary "if each child admitted at 5s."

ON PROPOSITION (6), NAMELY:
"*Provision against Abuse.*
That in all such contracts the right be reserved to each medical officer to decline to attend as a member of such service any person whom he may consider to be unfit for membership in respect of financial position, but that such provision should be made as the governing body of the service may approve to prevent hardship resulting from the retrospective application of this rule."

66 *Replies.*

46 Divisions
state unqualified approval.
11 Divisions
approve the principle with various modifications as to detail.
3 Divisions
disapprove of any retrospective clause.
2 Divisions
disapprove the proposition as impracticable.
1 Division
rejects the proposition, pending the decision of a wage limit.

1 Division
approves it, provided the right of choice is made reciprocal.
1 Division
rejects the proposition as unnecessary.
1 Division
rejects it as placing the medical officer in an awkward position.

ON PROPOSITION (7), NAMELY:
"*Special Services.*

The rates above specified are not intended to apply to night visits, obstetric cases, operations, or serious accidents, by the term 'serious accident' being meant an accident which causes incapacitation for more than a week."

65 *Replies.*

43 Divisions
state unqualified approval.
22 Divisions
approve conditionally to various alterations being made (*see below*).

Alterations Referred to.

6 Divisions
would omit "night visits."
1 Division
requires a definition of "night" in hours.
1 Division
would omit "obstetric cases."
1 Division
would omit "operations."
2 Divisions
would specify, under "operations," only those requiring an anaesthetic.
1 Division
would specifically limit "operations," so as to exclude trivialities.

5 Divisions
would omit "serious accidents."
5 Divisions
would omit definition of "serious accidents."
1 Division
requires a better definition of "serious accidents."
1 Division
approves, provided the proposition does not apply to accident clubs.
4 Divisions
would lengthen the time of incapacitation necessary to constitute a "serious accident"; of these 1 mentions "a fortnight" and 2 "a month."

2 Divisions
would insert "consultations."
1 Division
would insert "special visits."
1 Division
would insert "venereal diseases."
1 Division
would insert "notifiable infectious diseases."
1 Division
would insert "anaesthetics."
1 Division
would insert special mention of "fractures."

OTHER OPINIONS EXPRESSED BY THE DIVISIONS.

5 Divisions have passed resolutions to take no action in the meantime, or not to consider the Report.

1 Division, while generally approving the propositions, states that the subject is too complex to be summed up in these 7 propositions, and that the Association is not in a position to make its proposals effective without the loyal co-operation of every medical practitioner.

1 Division states that the proposals should be applicable only to those cases where medical men combine to form a public medical service, but that as far as possible all new clubs should be formed on the model suggested by the proposals.

1 Division states: "Contract practice is necessary for the working classes under present conditions. There should be a wage limit. The minimum fee should not be less than 5s. per member. The reforms contained in the propositions are advisable and much to be desired, but it is impossible to carry them out without the co-operation of the whole profession."

1 Division states: "That the best way of securing the reforms contemplated in sections (2), (3), and (3A) would be by forming all the practitioners in the district for which the service provides, who may be willing to take service under the organization, be it club, friendly society, or provident dispensary, into a medical board, empowered to deal with medical matters, and acting under the lay board much as the medical board of a hospital acts under the lay board. Such a medical board should have power to make representations to the lay board as to financial suitability of the beneficiaries of the club or dispensary."

1 Division mentions that the members of the British Medical Association resident in the Division area have drawn up an agreement regulating Contract Practice, which they anticipate will be signed by all practitioners in the district.

1 Division has resolved: "That it is desirable, should any such service be organized, that the management of Contract Practice be carried out by the respective Divisions."

And 1 Division resolved: "That this Division is of opinion that all contract medical work should be based upon payment of a fixed sum for separate items—that is, visits paid or medicines, etc., given. The amount for the various items to be agreed upon for a term between the contracting parties."

Item 2 in Report.]

THE DESIRABILITY OF CONSULTATION BETWEEN MEDICAL WITNESSES IN LEGAL CASES LIKELY TO BE BROUGHT BEFORE THE COURTS.

Minute 57 *of the Representative Meeting.*

That the Report concerning the desirability of consultation between medical witnesses in legal cases be referred to the Divisions.

REPORT OF THE MEDICO-POLITICAL COMMITTEE TO THE REPRESENTATIVE MEETING, REFERRED FOR CONSIDERATION BY THE DIVISIONS.

The inquiry concerning the desirability of consultations being held between medical witnesses which the Medico-Political Committee, acting upon a resolution of the Scottish Committee, addressed to the Divisions of the Association in March last, has elicited replies from 125 Divisions. 108 replies were received in time to be considered by the Committee while preparing the Report now presented, and these have been classified under seven heads:—

(*a*) Divisions who thought it unreservedly desirable that medical witnesses should meet in consultation ... 46
(Of these 15 use the phrase "desirable as a rule" or "desirable whenever possible," or some equivalent expression).
(*b*) Divisions who thought it desirable, subject to certain specified conditions 7
(The principal conditions attached were as to consent of the parties or of their legal advisers, or as to approval of the Judge).
(*c*) Divisions who thought it "desirable if practicable" ... 9
(*d*) Divisions who thought it "desirable but impracticable" 5
(*e*) Divisions who thought it undesirable 33
(*f*) Divisions who thought that the object aimed at would be better attained by the appointment of medical assessors 4
(*g*) Divisions who report that they were unable to arrive at a conclusion or declined to discuss the subject ... 4

The Committee has carefully considered the whole subject, giving special attention to the opinions expressed by the Divisions, and the difficulties which they have mentioned.

The foregoing analysis shows that while a majority of the Divisions whose replies are dealt with are in favour of the consultation of medical witnesses, a considerable minority are at present opposed to such procedure, and there is evidently doubt in the minds of some as to its practicability.

Such opposition and hesitation appear to have arisen in part from a misunderstanding of what was proposed under the term "consultation," partly, perhaps, from the fact that the question

submitted by the Committee was purposely stated in general terms, in order to elicit a full expression of opinion.

Two points appear to have given rise to special difficulty, namely (*a*) the fear that the consultation of witnesses might legally constitute "collusion," and (*b*) the fear that parties to cases or their legal advisers might object to such consultations. Both points are, therefore, specially considered in the subsequent paragraphs of this report.*

The Committee submits to the Divisions the following general conclusions on the principles of consultation of medical witnesses:—

1. Medical evidence in legal cases is of two kinds:—
   (*a*) Questions of fact, *e.g.*, as to the amount of injury or disease present in the patient.
   (*b*) Questions of opinion and expert knowledge.

2. Medical evidence at the present time suffers from the disadvantage of being occasionally conflicting under both heads, and differences between medical witnesses in their statements as to questions of fact expose them to accusations of partisanship, which are prejudicial to the credit of the profession and to the value of medical evidence.

3. The determination of matters of fact must be arrived at by the ordinary methods of medical examination, and such examination for purposes of evidence is clearly best carried out by the witnesses for the two sides simultaneously, in order that the condition of the patient may be observed by both at the same time and under the same circumstances.

4. Such associated examination has the further advantage that it diminishes the danger of any material fact being overlooked by the medical advisers of either party.

5. This system would in many cases put each party in more complete possession than they could otherwise enjoy of the knowledge obtainable by medical examination, and would thus diminish the number of cases which now only come before the Courts through imperfect knowledge of material facts by one or both parties. The diminution of litigation thereby affected would benefit not only the parties immediately concerned, but also the community.

6. Although it is not supposed that such combined examinations would necessarily be followed in every case by ordinary consultation between the medical practitioners concerned, yet such consultations should as far as possible be held.

7. The procedure above indicated has the great advantage, both to the profession and the public, that it tends to place the medical witness in his true position as a witness of scientific fact, and not as an advocate or partisan of the party by whom he is employed.

8. The above considerations have for a number of years governed the action of many medical practitioners, and the procedure now suggested for more general adoption by the Association was carried out with success by the profession in Leeds, the effect being that the estimation of professional evidence in that district was unquestionably raised, and both Judges and leading members of the Bar expressed their emphatic appreciation of the good results attained.

9. It has been feared by some that such consultations would in the eyes of the law constitute "collusion" between witnesses, but it appears to the Committee that the term "collusion" is wholly inapplicable to the case of consultations between medical men, who meet for the purpose of coming, if possible, to a joint conclusion as to the facts of the case.

10. It is the belief of the Committee that as soon as the more ethical procedure herein indicated has become the recognised practice of the medical profession, any objection which lawyers or their clients might entertain to consultation between their medical witnesses would tend to be regarded as an indication that there was some element in the case which would not bear unbiassed examination. Consequently the practice of raising such objections would prejudice the case of the party objecting, and in a short time would cease.

11. A few Divisions have suggested that the difficulties arising through the conflict of medical evidence might be met in another way, namely, through the appointment of medical assessors.

The Committee, while fully appreciating the value, both to the public and to the profession, of the regular appointment of medical assessors for the assistance of Courts when medical evidence is being submitted, is of opinion that this reform should not be proposed in substitution for the system of consultation of witnesses explained in the present Report, but should be urged as an independent reform.

The Medico-Political Committee submits the foregoing considerations to the Divisions in the hope that, as the result of their mature deliberations thereon, a procedure conducive to justice and consonant with the best traditions of the profession may receive the formal sanction of the Association.

* As to (*a*) see paragraph (9), below, and as to (*b*) see paragraph (10).

ABSTRACT OF THE REPLIES OF DIVISIONS ON THE CONSULTATION OF MEDICAL WITNESSES, AS REFERRED TO THE DIVISIONS BY THE ANNUAL REPRESENTATIVE MEETING OF 1904.

Up to May 20th, 1905, 78 Divisions have communicated their findings; of these—

I.—58 Divisions approve the principle of such consultation.

II.—6 Divisions deem it impracticable.

III.—6 Divisions deem it undesirable.

IV.—4 Divisions think no Rule should be laid down by the Association.

V.—3 Divisions prefer appointment of medical assessors. (3 Divisions approving the principle suggest assessors in addition).

VI.—1 Division considers such consultation undesirable as regards Scotland.

Item 3 in Report.]

REORGANIZATION OF THE LOCAL GOVERNMENT BOARD.

Minutes 52 *and* 53 *of the Representative Meeting.*

52. Resolved: That this meeting of the Representatives of the British Medical Association, having special knowledge and experience of the gravely defective constitution and status of the Local Government Board (England and Wales) in regard to the administration of Public Health, requests the Government to show its recognition of the urgent necessity of reorganizing the Local Government Board by appointing a Royal Commission to report upon the whole question.

53. Resolved: That a copy of the foregoing Resolution, together with the documents relating thereto, be sent to the Divisions with the request that their Parliamentary Representatives support the proposed appointment of a Royal Commission.

In pursuance of the Resolution the following documents are appended:—

(A) Local Government Board Bill. The Bill was drafted to indicate the kind of reorganisation of the Local Government Board which the Association thinks desirable.

(B) A Memorandum which was communicated, with a copy of the Bill, to the Treasury Committee which had the subject under consideration.

(C) A Memorandum by the Medico-Political Committee submitted to the Representative Meeting, in reference to the Report of the Treasury Committee.

(A.) LOCAL GOVERNMENT BOARD BILL.

MEMORANDUM.

THE object of this Bill is to substitute for the Local Government Board as at present constituted a Board containing a Parliamentary president and vice-president and four expert members. The Board would continue, as at present, to have a Parliamentary secretary, and so would have three instead of two representatives in Parliament.

The present Board was constituted in 1871 on the analogy of those Government Departments which represented as a matter of history Committees of the Privy Council. It comprises as ex-officio members the principal Secretaries of State and some other great officers of the Crown, but it is not, and probably never was intended to be, a working body for the despatch of business. It is believed never to have met.

The work of the Local Government Board is growing in variety and importance, and can only be transacted with the aid of persons possessing high professional qualifications. At present the expert officers of the Board are merely its servants, and can tender advice only upon invitation. It is considered that the efficiency of the Board would be increased if the Board itself comprised expert members who could initiate matters for discussion. A third Parliamentary representative, who might be a Peer, would also be of advantage.

A precedent for the change proposed will be found in the constitution of the Local Government Board for Scotland (*see* the Local Government (Scotland) Act, 1894), which includes two professional men. The Local Government Board as proposed to be reconstituted would also be similar to the present Board of Admiralty.

The Bill proposes to recognise the importance of the office of the President of the Local Government Board by raising him to the rank of a Secretary of State.

The amendments and repeals introduced into the Bill are merely consequential on the foregoing proposals.

LOCAL GOVERNMENT BOARD BILL, 1904.

Arrangement of Sections.

Section.

1. Changes in the constitution of the Local Government Board.
2. Amendments of Local Government Board Act, 1871.
3. Short title, construction and repeals.

DRAFT of a BILL to amend the constitution of the Local Government Board.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

1. *Changes in the constitution of the Local Government Board.*—From and after the passing of this Act the following changes shall be made in the constitution of the Local Government Board (in this Act called "the Board"):—

(1) The president of the Board shall be a Secretary of State.

(2) The ex-officio members shall cease to be members of the Board.

(3) There shall be a vice-president of the Board who shall be appointed by His Majesty at any time after the passing of this Act and shall hold office during His Majesty's pleasure.

(4) There shall be four additional members of the Board who shall be appointed by His Majesty on the recommendation of the president of the Board at any time after the passing of this Act and from time to time as vacancies shall occur, and shall hold office during His Majesty's pleasure.

(5) Of the additional members of the Board one shall be a barrister-at-law or solicitor of the Supreme Court of not less than twelve years' standing in either case, one shall be a person qualified to be appointed the medical officer of health of a county under Sub-section 2 of Section 13 of the Local Government Board Act, 1888, one shall be a member or associate member of the Incorporated Institution of Civil Engineers, and one shall be a person experienced in the administration of the Poor Law Acts.

(6) There shall be paid out of moneys provided by Parliament to the vice-president and the additional members of the Board such salaries as the Treasury may from time to time determine. An additional member shall not engage in private practice or employment, but an inspector or other officer of the Board may be appointed an additional member.

2. *Amendments of Local Government Board Act*, 1871.—The word "vice-president" shall be inserted in Section 4 of the Local Government Board Act, 1871, after the words "the president," and in the second paragraph of Section 5 of that Act after the words "the president or" and the words "and the office of vice-president" shall be inserted in Section 4 of that Act after the words "the office of president."

3. *Short title and construction.*—(1) This Act may be cited as the Local Government Board Act, 1904, and shall be construed as one with the Local Government Board Act, 1871, and that Act and this Act may be cited together as the Local Government Board Acts 1871 and 1904.

(2) The enactment specified in the Schedule to this Act is thereby repealed to the extent mentioned in the third column of that Schedule.

SCHEDULE.

Enactment Repealed.

Session and Chapter.	Short Title.	Extent of Repeal.
34 and 35 Vict. c. 70	The Local Government Board Act, 1871	Section Three from "and of the following ex officio members" to "Chancellor of the Exchequer" and from "no payment" to "the Local Government Board but." In Section Five the words "one of the ex-officio members."

(B.) MEMORANDUM.

To the Committee on the Organisation, Duties, and Pay of the Board of Trade and the Local Government Board.

I. The British Medical Association, as representative of the Medical Profession in the United Kingdom, desires most respectfully to draw the attention of the Committee appointed to consider the Organisation, Duties, and Pay of the Board of Trade and the Local Government Board to certain conclusions at which the Association has arrived concerning the organisation of the Local Government Board, which organisation in its working most materially affects the efficiency of Public Health Administration in England and Wales.

II. The conclusions of the Association are based upon the following facts and considerations:—

(1) The facts coming constantly under the notice of all medical practitioners, and especially of those who are officially concerned in Sanitary Administration, as to (*a*) the prevalence of preventable disease, and (*b*) physical unfitness, among the population of this country, due to causes which it is believed could in a great degree be removed by better central and local administration.

(2) It is recognised by the Association that the causes which have thus come under its notice as prejudicially affecting the health of the community are in part due to the ignorance and vice of individuals, in part to the lack of instructed public opinion among the electors and members of Local Authorities, and in part to a want of co-ordination of Local Authorities dealing directly or indirectly with questions of Public Health; but it is also believed that many grave evils are directly traceable to defective organisation of those Departments of the Central Government which deal with matters of Public Health, and to a want of proper co-ordination of these Departments with one another and with Local Sanitary Authorities.

(3) The British Medical Association believes that the first and most pressing need in this matter is the establishment of an efficiently constituted Central Department to which all matters affecting Public Health should be specially referred.

(4) It is not, however, suggested that this should be a new separate branch of the Government.

The Association appreciates that in this country the principle of extensive devolution of sanitary administration to Local Authorities must be fully recognised in any attempt to deal comprehensively with the organisation of such administration, and that it follows from the acceptance of this principle that the central administration of Public Health cannot, with advantage, be taken from the department which is concerned with Local Government in general, and, therefore, that attempts to make more efficient the central organisation of Public Health Administration must be directed to reform in the organisation of the Local Government Board.

(5) The defects in the present organisation of the Local Government Board are traceable chiefly to circumstances in its origin and development, to which reference must briefly be made.

In theory, the Local Government Board is a Committee of he Privy Council. In practice, the responsibilities and duties of the President of the Local Government Board are exactly analogous to those of a Secretary of State. The fact that the President is not a Secretary of State detracts from his influence with Local Authorities, and diminishes the status and emoluments of the officers of his Department. It has been said on behalf of the Treasury, that the reason why the position and salaries of officers in the Local Government Board are inferior to those of officers in the office of a Secretary of State is that the duties discharged by the officers of the Local Government Board are of less importance to the State than those discharged by the officers in the office of a Secretary of State.

The Association ventures most strongly to dissent from this view, and to assert that the duties of the Local Government Board are of the first importance to the welfare of the country, in relation especially to Public Health, using that term in its widest sense, to include not only sanitary administration, but also poor law administration, and the revision of schemes of water supply and drainage, and in addition such matters as the effect of improper conditions of housing and employment in producing disease and physical deterioration, and the organisation of locomotion as affecting the distribution of the population.

The Medical Department of the Local Government Board

was transferred to it from the Privy Council, at the time when the Act of 1875 came into force. The personnel of the Department has since been largely increased, and the responsibilities and duties placed upon it have grown in importance with the progress of sanitary legislation, but the status of the Department has not undergone any corresponding improvement.

III. Having regard to the foregoing facts and considerations, the Association has arrived at the following conclusions which it ventures most respectfully to urge upon the Committee, namely:—

(1) That the President of the Local Government Board should be a Secretary of State, and that that Department in all matters of status and emolument should be raised to an equality with the existing Departments of Secretaries of State.

(2) That the President should be assisted and advised by a Board, meeting for the transaction of business, and consisting of, in addition to himself, a Vice-President and a Parliamentary Secretary, each of whom should be a Peer or a Member of the House of Commons, and of a certain number of expert members. It will be observed that such a constitution would be in accordance with the precedent established by the creation of the Scottish Local Government Board, and follows also the analogy of the Admiralty Board and the Army Council.

(3) That, inasmuch as Public Health Administration would be an important function of the Board, one of such experts should be a Registered Medical Practitioner, who should have had special experience in Public Health Administration.

Having regard to the fundamental importance of these proposals, the Association has had prepared the Bill, embodying the said proposals, of which a copy is appended to this Memorandum.

The Association would further venture to suggest that, in conjunction with the proposed re-organisation of the Board, (*a*) the duties of the Department should be extended so as to comprehend the duties in respect of the administration of the Medical Acts, the Dentists Act, the Midwives Act, and the Pharmacy Act, which are at present imposed upon the Privy Council; and that (*b*) the propriety of transferring the duties under the Adulteration Acts and Factories Acts to the Local Government Board, as the Central Health Authority, also arises for consideration.

February, 1903.

(C.) MEMORANDUM

ON THE REPORT OF THE TREASURY COMMITTEE APPOINTED TO CONSIDER THE POSITION AND DUTIES OF THE BOARD OF TRADE AND OF THE LOCAL GOVERNMENT BOARD OF ENGLAND AND WALES.

FOR PRESENTATION TO THE ANNUAL REPRESENTATIVE MEETING.

THE British Medical Association has carefully considered the report of a Committee* appointed by the Treasury to inquire, under the chairmanship of the Earl of Jersey, into the constitution, duties, and pay of the Board of Trade and the Local Government Board. The Association, being specially interested in that part of the reference of the Committee which concerns the Local Government Board as being the Department of State chiefly responsible for the public health, has observed with disappointment and regret the omission from the Treasury report of any reference to the fact that the administration of public health is very seriously affected by the present status and organisation of the Board.

The Association regards such an omission as a matter of grave importance to which the attention of the public and of the Government should be drawn.

The Association, which includes over 15,000 members of the medical profession practising in the United Kingdom, has constantly had brought under its notice the dangerous defects of the administration in this country of public health matters, and has for a long time been profoundly impressed by the need for extensive official reform in our methods of preventing disease and degeneration if the health and physique of the nation are to be maintained at an adequate standard. The Association fully realises the magnitude and complexity of the problems that arise for consideration in this connection as affecting both the central and the local government of this country, and recognises that many years must naturally be required for the complete attainment of those reforms which medical opinion indicates as necessary or desirable.

But the Association has not merely dealt with this matter in a critical spirit. It has, through its Committees, reviewed the whole position from a medical standpoint, and has become convinced that the proper commencement of well-directed reform in this matter must be sought through the establishment of a Central Government Authority appropriately constituted in respect of (*a*) its internal organisation, (*b*) its status among public Departments, and (*c*) the arrangements for its co-ordination with those local authorities with whom in this country rest chiefly the details of public health administration. Further, the Association considers that the reforms stated under (*a*) and (*b*) are of primary consequence and yet require such relatively simple changes in the law as to be capable of immediate accomplishment if approved by the Government.

The British Medical Association, therefore, after thorough discussion of the primary questions involved, drew up certain conclusions thereon and embodied these in a Bill which was published in February of this year in the BRITISH MEDICAL JOURNAL, proposing a complete scheme for the reconstruction of the Local Government Board of England and Wales.

The Local Government Board at present is theoretically composed of the following members: a President, the Lord President of the Council, the Lord Privy Seal, the Secretaries of State, and the Chancellor of the Exchequer. As a matter of fact it never meets, and its functions are performed by the President, who acts in the name of the Board.

In the Bill of the Association (*a*) as regards the internal organisation of the Local Government Board as the Department of State chiefly concerned in the administration of public health, provision was made for the establishment, in place of the present fictitious Board, of an effective Board containing expert members, following the precedent of the Local Government Board in Scotland; and (*b*) as regards the status of the department, that the President of the Board should be made equal in rank with the Principal Secretaries of State.

Upon approaching the Government in the hope of enlisting its interest in these much-needed reforms, the Association was met with the objection that a Committee was then sitting under the chairmanship of the Earl of Jersey to report on "the position and duties of the Board of Trade and the Local Government Board; and whether any, and if so what, alterations should be made in the constitution and status of those offices; also whether, in the interests of administrative efficiency, any rearrangement of duties between those and other Government Departments is desirable."

This Committee had been appointed by the Treasury on July 18th, 1903. The other members were Sir John Gorst, M.P., Sir James Mackay, a member of the Council of India and of the Committee on the Board of Trade (1898-9), Sir Charles Ryan, K.C.B., a former Controller and Auditor-General, and Mr. Alfred Emmott, M.P. for Oldham. Sir John Gorst resigned, and was succeeded on February 1st, 1904, by Sir George Ryder, K.C.B., Chairman of the Customs Commission. The constitution of this Committee, which did not include any person acquainted with public health or Poor Law administration, and the fact that it was appointed by the Treasury, which is prone to look upon questions of policy mainly from the financial point of view, did not give grounds for any sanguine expectation that its report would deal with the questions of the status and organisations of the Local Government Board from the point of view of what was generally expedient for the public health of the country.

As, however, the Association was referred to the Treasury Committee, an application was made thereto that the Committee should hear evidence from the Association on the subject of those material changes in the constitution of the Local Government Board which appeared to the Association necessary in the interests of public health administration.

The Committee declined to hear the evidence offered by the Association, and requested instead that a written communication should be forwarded from the Association. A memorandum was accordingly presented in support of the proposals embodied in the Bill of the Association, which was also appended.

The Association also had the privilege of laying its views by a deputation before the President of the Local Government Board, who, while expressing himself as opposed to the formation of an effective Board, undertook to bring before the Treasury Committee the views of the Association as to the desirability of raising the status of his Ministerial office.

* The precise terms of the reference to the Committee are as follows:—"That there should be appointed a Committee to consider the position and duties of the Board of Trade and the Local Government Board, and to report whether any, and if so what, alteration should be made in the constitution and status of those offices; also whether in the interests of administrative efficiency any rearrangement of duties between those and other Government departments is desirable."

It appears from the report that the Treasury Committee took the evidence of Sir Michael Foster as representing the Public Health Committee of the House of Commons, who expressed the opinion that a special department of the Local Government Board should be created to deal with public health administration.

The Association regrets to find that in the report of Lord Jersey's Committee there is no evidence that the Committee gave any consideration to the constitution of the Local Government Board as affecting the efficiency of public health administration.

Further, the only reason assigned by the Committee for not recommending any change in the constitution of the present fictitious Local Government Board is that the Board consists entirely of members of the Cabinet.

The Committee, though freely condemning the imaginary nature of the Board of Trade, does not explain how the equally imaginary Local Government Board, which never meets, can possibly be rendered efficient by the fact that its members are members of the Cabinet, that is, are great officers of State, each holding an office the duties of which demand his whole attention.

Apparently in justification of its failure to recommend the termination of this fiction of the Constitution, the Treasury Committee also referred to the comparatively recent creation of two other purely nominal Boards—the Board of Agriculture (1889) and the Board of Education (1899).

Neither has the Committee dealt satisfactorily with the proposal to raise the status of the President of the Local Government Board to that of a Secretary of State, though Paragraph 16 may be taken to contain the reasons for not making this recommendation. In this paragraph, while recognizing that the administrative business of the office of the Local Government Board is laborious and important, and the parliamentary business especially heavy, the Committee has made two statements which it would seem to have thought justified it in refraining from recommending any change in the Local Government Board beyond certain increases of the salaries of the President, the Parliamentary Secretary, and the Permanent Secretary. These statements are:

(1) That "the jurisdiction of the Local Government Board is limited to England and Wales."

(2) That the Local Government Board "is not charged with the main responsibility for the decision of great questions of policy."

On both points the British Medical Association strongly dissents from the conclusions of Lord Jersey's Committee. In the matter of jurisdiction the Association would urge that questions of public health and prevention of disease affect all parts of the United Kingdom equally, and that this principle is already recognized in certain cases in regulations of the Local Government Board. In a matter of such importance as public health the present demarcation of the duties of the several Departments of State concerned should not be rigidly adhered to when modification would be conducive to efficiency of administration.

It appears to the Association that in matters of public health efficient administration would be best attained by treating the United Kingdom as an administrative unit, and that the Local Government Board should therefore be so reorganized and given such jurisdiction in health matters as would correspond to this principle of organization.

So, also, if in any other matters of Local Government it were found expedient that each part of the United Kingdom should form a separate unit, it appears to the Association that this would be better attained by reform of intradepartmental organization than by the sacrifice of the unity of public health administration.

On (2) the Treasury Committee does not define what it means by "great questions of policy," and in the absence of such information the Association is unable to understand why this term does not plainly apply to questions of national policy in relation to public health.

The prevention of epidemic and endemic disease; the protection of the kingdom from invasion by zymotic diseases, such as cholera or plague; the construction and regulation of the water supply of great centres of population; the housing of the working classes, and the purity of the food supply may be all instanced as questions which raise "great issues of policy" affecting our relations with foreign States, important commercial considerations, the constitution and administration of local public authorities, their co-ordination with one another and with the central administration, and the adjustment of the financial burdens of the country, both national and local.

Thus, for the decision of great questions of policy, the Public Health Department of a Government is as much responsible as any other office of State.

While drawing attention to the fact that the report of the Treasury Committee fails to fulfil the scope of the reference to the Committee the British Medical Association recognizes that this failure may have been due to an appreciation by the Committee of its own incompetence to deal with a problem of such magnitude as the adaptation of the Local Government Board to the present needs of the nation in respect of public health administration, and the further questions of the part to be played by central and local authorities respectively in such administration, and the duties which should be assigned to the expert members of an efficient Board.

The British Medical Association deeply regrets that the opportunity afforded by the appointment of Lord Jersey's Committee to commence the reorganization of public health affairs in this country has thus been lost.

The Association, however, hopes that inasmuch as the nation recognizes more and more the importance of social and sanitary as distinguished from purely political reforms, and that the maintenance of the physical and mental health of the people is the one true foundation of national prosperity, the question of the reorganization of the Local Government Board and of the public health administration of the country will be soon reopened and entrusted to an inquiry by a Royal Commission, the procedure of which in the opinion of the Association would be more likely to secure an adequate pronouncement on so vital a question as the safeguarding and furtherance of the health of the people.

MEMORANDUM ON PROPOSALS OF THE ASSOCIATION WITH RESPECT TO THE REORGANISATION OF THE LOCAL GOVERNMENT BOARD.

(1) It is being increasingly recognised that the health of the community is one of the greatest of national interests, and that the protection of public health is one of the most important duties of Government both centrally and locally.

(2) The central control of matters affecting public health is at present divided amongst several Departments of State. It is to the interest of the country that it should be co-ordinated by being brought under one Department.

(3) As a result of the adoption of the principle of decentralisation of public health administration in this country, the Local Government Board is the Department chiefly concerned in questions of public health, and the formation of a separate Ministry of Public Health (such as some have proposed) would probably be impracticable.

(4) It is therefore considered that the co-ordination of central administration concerning matters affecting public health would best be effected by entrusting all duties of the kind to the Local Government Board.

(5) Among the duties which could, it is thought, with advantage be transferred to the Local Government Board, if thus converted into a Ministry of Public Health, are:—

(*a*) From the Privy Council—the administration of the Medical Acts, the Dentists Acts, the Pharmacy Acts, and the Midwives Act.

(*b*) From the Home Office—the administration of the Factory Acts, and of the Food and Drugs Adulteration Acts.

(6) To enable the Department to deal efficiently with these duties, it is considered that changes should be made in the status and internal organisation of the Board.

(7) As regards status, it is held that the Board should be placed on an equality with the other chief Departments of State, and therefore that the head of the Board should be given the status and emoluments of one of the Principal Secretaries of State.

(8) As regards organisation, it is considered that the present constitution of the Board, as, in theory, a Committee of the Privy Council, which in practice does not meet, is unsatisfactory, and that for the proper consideration of the matters with which the Department should deal, specially those affecting Public Health, it is necessary that it should be administered by an effective Board including members of the Government, and experts with administrative duties.

(9) Following the analogy of the Scottish Local Government Board, which has been found to work satisfactorily, and also of the Board of Admiralty and the Army Council, it is proposed that the Board shall consist of—

(*a*) A President, who would be a Cabinet Minister, a Vice-President, and Parliamentary Secretary, all of whom would be members of one or other House of Parliament.

(*b*) Experts, of whom four are suggested, namely: a medical, a legal, an engineering, and a Poor-law, member.

(10) To secure responsibility to Parliament it would be necessary that the President of the Board should not be bound by the decisions of the Board, but should be free to override them if he thought proper, but the resolutions of the

Board would be minuted, with the decision of the President in any given case to override the resolution of his colleagues, and such minutes should be available for the information of Parliament when required.

(11) To secure the effective consideration of these and other reforms needed in the national administration of public health, the British Medical Association urges that a Royal Commission should be appointed to investigate the whole subject.

Candidates for Parliament are asked to support this proposal.

Item 4 in Report.]

THE PRESENT POSITION OF REGISTERED MEDICAL PRACTITIONERS IN THE MATTER OF FURNISHING CERTAIN INFORMATION TO CORONERS.

Minute 60 of the Representative Meeting.

Resolved: That a copy of the Memorandum be forwarded to the Divisions.

MEMORANDUM BY THE MEDICO-POLITICAL COMMITTEE.

Cases which have from time to time been brought to the notice of the Medico-Political Committee, clearly indicate the unsatisfactory position in which medical men are placed at present, in the matter of furnishing information to Coroners upon which decisions as to the propriety of holding inquests may be based.

Medical practitioners throughout the country have made a practice of supplying to Coroners such particulars of facts within their knowledge concerning the death of patients attended by them, as may assist the Coroner in deciding whether an inquest is necessary, and, if necessary, what evidence shall be called thereat. In a few districts, the services thus rendered by practitioners in their professional capacity to the State have been duly recognised by Coroners by the payment of suitable fees. This, however, is not the rule, and several instances have been reported to the Committee, in which Coroners have not even thought it necessary to accord a courteous acknowledgment of the help they have thus received. There are again cases in which Coroners have accused medical men of neglect of duty, in not supplying such information.

Such an attitude on the part of Coroners must be interpreted as indicating that they hold an entirely erroneous view of the position and duties of registered medical practitioners, in respect of cases in which the circumstances attending the death of patients under their care may be the subject of inquiry, and such an erroneous view is apparently also prevalent among the public, and even among many members of the medical profession.

The question arises, therefore, of the advisability of a pronouncement by the British Medical Association, with the object of securing a proper recognition of the true relation of medical practitioners to the State in this matter. In such a pronouncement, it would appear that the following considerations should receive notice:—

(1) That no legal obligation rests at the present time on medical practitioners, as such, to render any assistance to Coroners in the investigation of the cause of death, other than that of making a "post-mortem" examination when so ordered by a Coroner in writing, and that of attending to give evidence at an inquest when duly summoned so to do.

(2) That, under present conditions, the practice, whereby medical practitioners furnish to Coroners information of the kind considered in this memorandum, not being defined or required by law, is entirely informal and irregular.

(3) That if a preliminary inquiry by the Coroner is to be regarded as an integral part of the procedure sanctioned by the State for the investigation of the cause of death, it would appear that the procedure therein should be definitely regularised by legislation, which should prescribe the respective obligations of Coroners, medical practitioners, and others who may assist in the inquiry, and that definite provision should be made for the adequate remuneration of the several parties concerned in respect of the services thus rendered.

(4) That, pending such action by the legislature, it is necessary to lay stress upon the fact that medical practitioners, who furnish the information indicated, are rendering services to the State in excess of any obligations resting upon them; and that where the assistance thus voluntarily given is not duly recognised by Coroners, members of the medical profession may find themselves compelled to refuse to continue such assistance.

Item 5 in Report.]

RECOMMENDATIONS OF THE COUNCIL OF THE ASSOCIATION AS TO IMPROVING THE PARLIAMENTARY REPRESENTATION OF THE PROFESSION.

1. That Members whose candidature for Parliament is supported by the profession should recognise responsibility to some organised body representative of the profession.

2. That the organised body should be the British Medical Association.

3 That the British Medical Association should select two gentlemen, one on each side of politics, and arrange as to their becoming candidates at the next General Election.

4. That financial support should be given to these candidates by definite grants for election expenses.

5. That when the funds of the Association permit of it the necessary expenditure should be met from the general funds of the British Medical Association.

6. That the candidates should be selected as in the scheme for nomination for the General Medical Council.

Item 7 in Report.]

THE RECOMMENDATION OF DRUGS AND PROPRIETARY ARTICLES BY NAME.

The Annual Representative Meeting of the British Medical Association held at Oxford, passed the following instruction to the Council, which the Council referred to the Medico-Political Committee.

> Minute 115.—"That it is desirable that the Central Council draw the attention of the Medical Profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse."

Upon consideration of this instruction the Medico-Political Committee issued the following Memorandum and Recommendations to the Divisions on the subject.

For the purpose of bringing the matter to the notice of individual members of the profession, it is proposed to address a communication to the Medical Journals, but prior to taking this step the Medico-Political Committee considers it expedient that the matter should be laid before the Divisions, in conjunction with the kindred subject of the abuse of drugs resulting from the unduly repeated dispensing of prescriptions.

The Committee is of opinion that the object contemplated by the resolution of the Annual Representative Meeting would be attained if medical practitioners would observe the rule of not recommending drugs or special preparations to their patients by name, but always ordering them by prescription.

Recommendation.

"That medical practitioners should observe the rule of not recommending drugs or special preparations to their patients by name, but always ordering them by prescription."

Abstract of Replies of Divisions on the Subject.

Up to the time of the preparation of this Report (May 23rd, 1905), 57 Divisions have replied.

Of these,

43 Divisions
approve the recommendation.

8 Divisions
are definitely adverse.

2 Divisions
do not wish to express any opinion.

1 Division
states that it is impracticable.

1 Division
states that it should be amended as follows: "That medical practitioners should observe the rule of not recommending drugs or special preparations to their patients by name, but *as far as possible* always ordering them by prescription, as otherwise a doctor could not order, say, an alum douche without a prescription."

1 Division
"heartily agreed with the desire to prevent the abuse of drugs, but came to no definite decision as to the best means of carrying it out."

1 Division
"would like further information as to the scope of the proposed inquiry. The Division is unanimous that all proprietary medicines should bear a statement on the bottle, giving the ingredients and specific uses."

Item 8 in Report.

NATIONAL DEPOSIT FRIENDLY SOCIETY.

Proposals for Concerted Action by the Divisions of the British Medical Association with respect to the National Deposit Friendly Society.

THE Annual Representative Meeting of the Association at Oxford in 1904, having considered the appended Report of the Medico-Political Committee on the National Deposit Friendly Society, approved the same and passed the following resolution in reference thereto:—

That the Medico-Political Committee be instructed to transmit the resolution of this Meeting respecting the Report on the National Deposit Friendly Society to the Divisions, with proposals for concerted action.

Before the Committee had the opportunity of considering this instruction a communication was received from the National Deposit Friendly Society which showed that they had misconceived the intention and purport of the Report of the Committee. The Committee therefore thinks it desirable, in presenting the proposals which it was instructed to submit, to make clear the principles to which those proposals are intended to give effect.

In the opinion of the Committee the relation of the profession to the Society should be that which is apparently contemplated by some of the rules of the Society, but with which other of its rules and the action of some of its local agents are inconsistent.

No medical practitioner should be regarded or treated as specially an officer of the Society or as under any obligation to charge to a patient who happens to be a member of the Society the fees laid down in the Society's scale. One of the rules of the Society specifically lays down that any member may call in any medical practitioner, and this rule should be consistently carried into effect by the Society.

RECOMMENDATIONS.

The Committee therefore recommends that the Divisions should by Rules or by resolutions require their Members to observe the following procedure with respect to the Society:

(*a*) That no Member of the Association should give an undertaking to charge members of the National Deposit Friendly Society according to the scale laid down by the rules of the Society instead of the ordinary fees proper to their circumstances;

(*b*) That in dealing with members of the Society the medical practitioner should look to the patient absolutely for his fees and should not recognize the Society in the matter. The member of the Society should himself pay the doctor according to the ordinary scale of fees for persons in his circumstances, and should recover, independently, from the Society the amount due to him in respect of the attendance under the Society's scale;

(*c*) That no Member of the Association should permit his name to be used by the officers of the Society as specially acting, in any honorary capacity or otherwise, for the Society in any district, and that it should be left to each patient to choose his medical attendant without bias from the Society;

(*d*) That Divisions should use their utmost endeavours to induce members of the profession within their area who do not belong to the Association to act upon these Rules.

APPENDIX.

REPORT ON NATIONAL DEPOSIT FRIENDLY SOCIETY.

(Considered by the Annual Representative Meeting at Oxford, 1904.)

The Medico-Political Committee has fully inquired into the relation of the work of the National Deposit Friendly Society to that of the medical profession.

Regarded in its relation to the medical profession, the National Deposit Friendly Society differs from other friendly societies (1) in the fact of paying in each district, to certain members of the profession, fees for services rendered; also (2) in that the Society professes to recognize no individual practitioner as distinctly an officer of the Society, but represents that every member may be attended by any registered medical practitioner in the district whom he may select. The medical men thus acting for the Society do so under the special circumstances about to be described.

The scale of fees paid by the Society is determined by Rule XVI, Section XIV, Subsection 1, as follows:—

Subsection 1.—The following charges are authorized to be made by the medical practitioners. They are subject to modifications by the General Committee for special reasons, on the application of any medical officer, and the recommendation of any Divisional Committee:—

MEDICAL CASES.

	£	s.	d.
One visit and medicine for two days	0	2	6
Each intermediate visit in dangerous cases ...	0	1	0
Extra per mile, if beyond two miles (outward). (This charge also applies to surgical cases)	0	0	6
One attendance at surgery and medicine for two days	0	1	6
One fresh supply of medicine for two days ...	0	1	0
If the member is entitled to over 5s. daily sick pay, extra per visit or attendance for every 1s. above 5s.	0	0	6
Extra per visit between the hours of 9 p.m. and 8 a.m. the following day	0	1	0
Extra per attendance at surgery between the same hours	0	0	6

SURGICAL CASES.

	£	s.	d.
Compound fracture of the thigh	5	0	0
Compound fractures or compound dislocation of the leg			
Amputation of leg, arm, foot, or hand			
The operation for strangulated hernia (or rupture) ...			
Treatment of simple fractures or simple dislocations of thigh or leg	3	0	0
Removal of cancerous or other tumours of magnitude	3	0	0
Treatment of dislocations or fractures of the arm ...	1	0	0
Treatment of fracture of clavicle or ribs	1	0	0
Treatment of dislocation of lower jaw	0	10	6
Minor operations without anaesthetic (teeth extraction excepted)	0	10	6
Minor operations with anaesthetic	1	1	0
Passing catheter	0	2	6
Passing catheter, if at patient's house, extra ...	0	2	6
Tooth extraction, if at surgery, or by qualified dentist	0	1	0
Fee to be paid by candidate for examination: For a contribution of 2s. per month	0	1	0
For each 1s., or part thereof, above that amount, extra	0	0	6

The rates prescribed under the said rules are, in the opinion of the Committee, too low.

The local agent of the Society often visits the practitioners in a district, and invites them to accept work under the terms of the Society—that is, according to the scale of fees determined by the rule above mentioned.

It naturally follows, when it becomes known that individual medical practitioners will accept the Society's scale, that those members of the public who belong to the Society will employ those practitioners, to the exclusion of their neighbours, and thus underselling is brought about.

There is the further danger that the scale of fees of the Society will become recognized in the district as adequate and customary.

To be consistent with the claim stated in Clause (2), the wording of the rule cited should be altered so as to make clear that the provisions as to fees, stated therein, relate entirely to the agreement between the Society and its members, and do not affect the charges made by medical practitioners to members of the Society.

The Committee has had evidence before it, moreover, that in point of fact medical officers are appointed by the Society, either as consultants or otherwise, and that their names have been published in prospectuses issued by divisions of the Society. On this point it is stated by the general secretary of the Society that the appointment of these medical officers is purely honorary.

It is also to be noted that the Society does, in fact, in each district distinguish between those medical practitioners who have indicated willingness to accept the scale of charges drawn up by the Society, and those who have not.

CONCLUSION.

Until the rules of the Society are amended it is not, in the opinion of the Committee, desirable that individual medical men should allow themselves to be recognized, directly or indirectly, as specially acting for the Society in any district, or as willing to accept payment on the scale laid down in the rules of the Society.

Items 9 and 10 in Report.]

Report

ON

DEATH REGISTRATION AND AMENDMENT OF CORONERS' LAW.

To be Presented to the Annual Representative Meeting, Leicester, July, 1905.

THE Medico-Political Committee has considered the matters arising out of the following instructions of the Annual Representative Meeting at Oxford to the Committee:

Minutes 43 and 44:

On consideration of the proposals formulated by the Medico-Political Committee for the amendment of the law as to Death Certification and Registration (see Appendix A),

Resolved: That the report be referred back to the Medico-Political Committee for further consideration and report to the Divisions.

Minute 58:

With reference to the Coroners Bill (see Appendix B), as to which the Committee reported the action which they had taken during the past year, it was agreed:

That before submitting the Bill to Parliament the Medico-Political Committee should incorporate in it any provisions which the Committee might deem expedient, having regard to matters recently considered by the Committee concerning the relation of Coroners to the medical profession.

In addition to the propositions on Death Registration and Stillbirth and the Coroners Bill, named in the reference, the Committee has had before it the recommendations contained in the Report of the Select Committee of the House of Commons (1893) on Death Registration, and proposals formulated in 1895 by the Public Control Committee of the London County Council as regards Coroners' Law Amendment. (See Appendices C and D.)

On further consideration of the proposals as to Death Registration it has appeared to the Committee:

(*a*) That it is desirable that the Association in moving for reform of the law on Death Registration should present a complete scheme for the amendment of the law as to the disposal of dead bodies, in order to afford complete protection to the public.

(*b*) That to effect this it is necessary, in addition to prohibiting registration without the production of medical certificates, to prohibit disposal of bodies without registration or a coroner's order, and proposals having this object have been included by the Committee among its recommendations. (See Recommendations 1—3, 15 and 16.)

(*c*) The former proposals of the Committee suggested that the same practitioner should certify as to the fact and as to the cause of death; it has appeared, however, to the Committee, on further consideration, that in many cases the practitioner whose previous knowledge of the deceased made him the proper person to certify as to the cause of death, might be unable, without making a long journey, to view the body of the deceased as required in order to certify as to the fact of death.

The Committee therefore recommends that certificates of the fact of death and of the cause of death should be entirely separate documents. (See Recommendations 4, 5, and 7.)

(*d*) The Committee has taken into consideration the views expressed in the Representative Meeting at Oxford in 1904 as to Clause 6 (see Appendix A) of the Committee's proposals as then presented, and has accordingly so framed the recommendations under this head as not to preclude the practitioner previously in attendance on the deceased, or called in at or about the time of death, from conducting, or assisting in, the *post-mortem* examination in cases in which he is unable to certify as to the cause of death. (See Recommendation 10.)

(*e*) The Committee has considered the instruction of the Representative Meeting that provision should be made in the Coroners Bill to meet the difficulties arising under the present law as illustrated by the procedure of the Coroner for South-West London.

These difficulties would in part be removed by the recommendations of the Committee to which reference has already been made.

It has appeared, however, to the Committee, that specific provision is required against the tendency to exclude from *post-mortem* examinations in which the services of a special pathologist have been thought to be required, the medical practitioner previously associated with the case.

The Committee has, therefore, recommended the inclusion, in the Death Registration proposals (see Recommendation 10), and in the Coroners Bill, of a provision that the special medical officer of the coroner, when making a *post-mortem* examination by order of the coroner, shall have associated with him the practitioner, if any, who had attended the deceased during life or was called in at or about the time of death.

(*f*) While preserving the principle that the certificate of the cause of death, and the information contained therein, shall be confidential, the Committee has provided that this shall not interfere with the right of access of the coroner and medical officer of health to such information. (See Recommendation 5 (*b*).)

(*g*) It has appeared to the Committee desirable that the proposals on Death Registration should include those Clauses of the Coroners Bill which relate to the payment of fees to medical practitioners for information supplied to coroners, and, similarly, that the Coroners Bill should include those Clauses of the proposals as to Death Registration which affect the duties and powers of coroners.

QUESTIONS SUBMITTED TO THE DIVISIONS.

The following Recommendations:

I.—*As to Registration of Deaths and Disposal of Dead Bodies:*

II.—*As to Registration of Stillbirths and Disposal of the Bodies; and*

III.—*The (Redrafted) Coroners Bill:*

are the provisions which the Committee recommends that the Association should seek to have embodied in legislation at the first opportunity. The Divisions are requested to consider them in order that a vote may be taken upon them in the Representative Meeting at Leicester.

RECOMMENDATIONS.

(I.) REGISTRATION OF DEATHS AND DISPOSAL OF DEAD BODIES.

1. It shall be made an offence to retain a dead body not buried or otherwise legally disposed of beyond a period not exceeding eight days except by permission of a magistrate or coroner.

2. It shall be made a penal offence to bury, cremate, or otherwise dispose of a body except upon a burial order issued by a registrar or coroner.

3. No burial order shall be issued by a registrar until the death has been registered.

4. No death shall be registered except upon the production to the registrar of (*a*) a certificate of the cause of death, and (*b*) a certificate of the fact of death, or, if such certificates be not produced, upon a certificate of the coroner in accordance with the Coroners Act, 1887, s. 4.

5. *Certificate of the cause of death*—

(*a*) A certificate of the cause of death shall be a certificate by a registered medical practitioner who has attended the deceased, and shall be upon a statutory form [see Schedule (i)] issued by the Registrar-General, which shall include statements as to the duration of attendance and the date of the last attendance. The medical practitioner shall transmit the certificate of the cause of death in a sealed envelope direct to the registrar.

(*b*) The certificate of the cause of death shall, subject to the discretion of the Registrar-General, be a confidential document, and the information contained therein shall be entered by the registrar in a register which shall not be open to public inspection, provided that nothing in this Clause shall affect the right of access of a coroner or medical officer of health to the register.

(*c*) For each such certificate a fee of 2s. 6d. shall be paid by the local Sanitary Authority.

6. It is nevertheless provided that should any registered medical practitioner be of opinion that death has arisen from or been accelerated by any violence, directly or indirectly, or through neglect, or poison or other unnatural cause, he shall not grant any such certificate of death as aforesaid, but shall forthwith report to the coroner for the district, and for such report shall receive a fee of 10s. 6d.

7. *Certificate of the fact of Death.*—A certificate of the fact of death shall be a certificate, upon a statutory form [see Schedule (ii)] issued by the Registrar-General, by a registered medical practitioner who has viewed the body, and who shall be the practitioner who certifies the cause of death, or failing him, any practitioner who shall have attended the deceased during life or shall have been called in at or about the time of death, or otherwise a special medical officer appointed as provided in Clause 12. For each such certificate a fee of 2s. 6d. shall be paid by the local Sanitary Authority for a body seen within three miles of the practitioner's registered address, and an additional 2s. for each mile or part of a mile beyond such distance.

8. The Registrar-General shall, from time to time, furnish Forms of Certificates of Death to every registrar, who shall deliver these as required to registered medical practitioners for their use. The forms of the said certificates shall be prescribed by Statute, and no other certificates of death than those given on the statutory forms shall be accepted as valid certificates.

9. In all cases where no certificate of the cause of death is produced, or where in such certificate the date of the last attendance is more than eight days prior to the date of death, the registrar shall forthwith report to the coroner.

Where any certificate signed by a registered medical practitioner does not strictly conform in every particular with the statutory form, the registrar shall refuse to register the death, and shall at once report to the coroner.

10. The coroner on receipt of such report may call upon the practitioner in attendance, if any, to furnish a report, after making a *post-mortem* examination if so directed, and he may also, and if no medical practitioner has been in attendance he shall, instruct the special medical officer of the district to investigate and report, after making a *post-mortem* examination if so directed. In such investigation the special medical officer shall have associated with him the usual medical adviser, if any, of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

11. (i) A coroner shall pay to any duly qualified medical practitioner whom he may consult or who may on his requisition have reported as to the cause of any death on which no inquest is held a fee not exceeding one guinea.

(ii) A coroner shall be reimbursed by the local authority any payment made under this section upon rendering within four months an account of that payment as if it was an expense reasonably incurred in and about the holding of an inquest, and Sections 26 and 27 of the Coroners Act 1887 shall apply accordingly.

12. In every coroner's district there shall be appointed by the County Council one or more special medical officers whose duty shall be to examine the body and report to the coroner in all cases of death in which the coroner shall so direct.

13. The Burial Order, after it has been acted upon, shall be returned to the registrar who issued it, with an endorsement showing the date, place, and mode of disposal of the body.

Every person in charge of a cemetery, burial ground, churchyard, crematorium, or other place legally authorized for the disposal of dead bodies (*a*) shall, after a Burial Order has been acted upon, endorse the same, and (*b*) shall keep a register of all bodies buried or otherwise disposed of, which shall show the name and age of the deceased and the name and address of the persons conducting the burial or cremation. Any person failing to obey these provisions shall be liable to a penalty.

(II.) Registration of Stillbirths and Disposal of the Bodies.

14. It shall be made an offence to retain the body of a stillborn child not buried or otherwise legally disposed of beyond a period not exceeding eight days except by permission of a magistrate or coroner, and it shall also be made an offence to bury, cremate, or otherwise dispose of such body except upon a burial order issued by a registrar or coroner.

15. No burial order shall be issued by a registrar until the stillbirth has been registered.

16. No stillbirth shall be registered except upon the production to the registrar of a certificate in the statutory form [see Schedule (iii)] by a registered medical practitioner who has viewed the body.

17. The foregoing provisions on registration of deaths and stillbirths referring to the coroner shall in Scotland, *mutatis mutandis*, apply to the Procurator Fiscal.

SCHEDULE.

Draft Forms of Certificates by Medical Practitioner.

(i.)

Certificate of Cause of Death.

I HEREBY certify that I attended.....
of.....who, as I am informed, died on the.....
day of.....and that to the best of my knowledge and belief the cause of death was as hereunder written.

Primary disease .....
Complications .....
Duration of attendance for these illnesses.....
Date when last seen alive* .....

* When this date is more than eight days prior to the date of death, the Registrar shall forthwith report to the Coroner or Procurator Fiscal.

Witness my hand, etc. .....
Name .....
Registered medical practitioner.
Address .....
Date .....

(ii.)

Certificate of Fact of Death.

I hereby certify that on the.....day of.....I personally at.....viewed a $\frac{\text{male}}{\text{female}}$ dead body said to be* that of.....of.....whose apparent age was.....and that death had taken place recently.

* The words "said to be" are to be struck out when the body is identified by the practitioner signing the certificate.

Name of person identifying the body† .....
Address .....

† This is, when possible, to be the registered medical practitioner signing the certificate.

Witness my hand, etc. .....
Name .....
Registered medical practitioner.
Address .....
Date .....

(iii.)

Certificate of Stillbirth.

I hereby certify that on the.....day of.....I have at.....viewed the body of a $\frac{\text{male}}{\text{female}}$ child said to be* the child of.....(Mother's name and address) and that the said child was stillborn.

* The words "said to be" are to be struck out when the body is identified by the practitioner signing the certificate.

Witness my hand, etc.....
Name.....
Registered medical practitioner.
Address.....
Date .....

(III.) CORONERS BILL.

[*As the result of further consideration of this Bill, the Committee have incorporated in it those Recommendations concerning Registration of Deaths and Stillbirths (see above) which affect the duties and powers of coroners.*]

THE CORONERS BILL.

ARRANGEMENT OF CLAUSES.

CLAUSE.

1. Notification of death to coroner.
2. Appointment and duties of special medical officers.
3. Procedure of coroner.
4. Remuneration of medical witnesses.
5. Remuneration of medical practitioner reporting to coroner in cases in which no inquest is held.
6. Regard to be had to deaths investigated without inquest in fixing salary of coroner.
7. Fee to coroner for attendance at trial.
8. Repeal.
9. Extent of Act.
10. Short title and construction.

1.—Notification of Death to Coroner.

(i) It is hereby provided that should any registered medical practitioner be of opinion that the death of any patient attended by him has arisen from or been accelerated by violence, directly or indirectly, or through neglect, or poison, or other unnatural cause, he shall not grant any certificate of the cause of death, but shall forthwith report to the coroner for the district.

(ii) In every case where no certificate by a registered medical practitioner of the cause of death is produced, or where in such certificate the date of the last attendance is more than eight days prior to the date of death, or where in any other particular such certificate does not strictly conform with the statutory form, the registrar shall forthwith report to the coroner.

2.—Appointment and Duties of Special Medical Officers.

In every coroner's district there shall be appointed by the County Council one or more special medical officers whose duty shall be to examine the body and report to the coroner in all cases of death in which the coroner shall so direct.

3.—Procedure of Coroner.

A coroner on receipt of such report from a registered medical practitioner, or from a registrar, as is provided for in Clause 1, may call upon the practitioner in attendance, if any, to furnish a report, after making a *post-mortem* examination if so directed; and he may also, and if no medical practitioner has been in attendance he shall, instruct the special medical officer of the district to investigate and report, after making a *post-mortem* examination if so directed. In such investigation the special medical officer shall have associated with him the usual medical adviser, if any, of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

4.—Remuneration of Medical Witnesses.

(i) A registered medical practitioner who has attended at a coroner's inquest in obedience to a summons of the coroner under the Coroners Act, 1887, shall be entitled to receive such remuneration as follows (that is to say):

(A) For every day on which such practitioner so attends to give evidence at an inquest one guinea;

(B) For making a *post mortem* examination of the body of the deceased without an analysis of the contents of the stomach or intestines or other part of the body one guinea;

Provided that no remuneration shall be paid to a medical practitioner for making a *post-mortem* examination without the previous direction of the coroner.

(ii) A registered medical practitioner shall not be required without his consent to make analysis of the contents of the stomach or intestines or other part of the body, and any such practitioner or other persons whom the coroner shall deem competent and who shall make such an analysis in pursuance of the previous direction of the coroner shall be entitled to receive such remuneration not exceeding five guineas as the coroner shall certify in writing to be reasonable.

5.—Remuneration of Medical Practitioner Reporting to Coroner in Cases in which no Inquest is Held.

(i) A medical practitioner reporting to the coroner as provided for in Clause 1, Section (i), shall for such report be paid by the coroner a fee of 10s. 6d.

(ii) A medical practitioner reporting to the coroner as provided for in Clause 3, shall for such report be paid by the coroner a fee not exceeding one guinea.

(iii) A coroner shall be reimbursed by the local authority any payment made under this Clause upon rendering within four months an account of that payment, as if it was an expense reasonably incurred in and about the holding of an inquest, and Sections 26 and 27 of the Coroners Act, 1887, shall apply accordingly.

6.—Regard to be had to Deaths Investigated without Inquest in Fixing Coroner's Salary.

At any quinquennial revision of a coroner's salary regard shall be had to the number of deaths the causes of which he has investigated without holding an inquest, as if in each case an inquest had been held.

7.—Fee to Coroner for Attendance at Trial.

A coroner attending at any court before or at the opening thereof in pursuance of Subsection 3 of Section 5 of the Coroners Act, 1877, shall be entitled to a fee of two guineas for each such attendance, and, in addition, to reasonable travelling expenses, and such fee and such expenses shall form part of the expenses of the prosecution.

8.—Repeal.

Section 22 of the Coroners Act, 1887, is hereby repealed.

9.—Extent of Act.

This Act shall not extend to Scotland or Ireland.

10.—Short Title and Construction.

This Act may be cited as the Coroners Act, 1906, and shall be construed as one with the Coroners Act 1887 and 1892.

(A.)

AMENDMENT OF THE LAW RELATING TO DEATH CERTIFICATION AND REGISTRATION.

PRINCIPLES FORMULATED BY MEDICO-POLITICAL COMMITTEE.

(*As submitted to the Annual Representative Meeting at Oxford, 1904.*)

Provisions which the Medico-Political Committee recommends for submission to the Registrar General and Government:

1. Every death must, if possible, be certified by a registered medical practitioner who has been previously in attendance upon the deceased. It shall be the duty of such practitioner to view the body after death, prior to certifying.

2. For such certificate and visit a fee shall be paid by the Local Sanitary Authority, such fee to be 2s. 6d. for a case seen within a distance of one mile from the practitioner's registered address, and an additional 2s. for each mile or part of a mile beyond such distance.

3. The medical practitioner shall transmit to the Registrar direct the certificate in a sealed envelope.

4. The certificate shall be a confidential document, subject to the discretion of the Registrar-General.

5. All deaths which are not certified by a registered medical practitioner shall be referred to the Coroner, or in Scotland to the Procurator Fiscal.

6. In every Coroner's district there shall be appointed by the County Council a Special Medical Officer, whose duty it

shall be to examine the body and report to the Coroner in all cases of death where no registered medical practitioner is able to give a certificate. In such investigation the Special Medical Officer shall have associated with him the usual medical adviser (if any) of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

(B.)

THE CORONERS BILL, 1902.

(As submitted to the Annual Representative Meeting at Oxford, 1904.)

ARRANGEMENT OF CLAUSES.

Clause.

1. Notification of death to Coroner by Registrar where no medical certificate.
2. Remuneration of medical witnesses.
3. Remuneration of medical practitioner consulted by Coroner without inquest.
4. Regard to be had to deaths investigated without inquest in fixing salary of coroner.
5. Fee to Coroner for attendance at trial.
6. Repeal.
7. Extent of Act.
8. Short title and construction.

DRAFT OF A BILL

TO AMEND THE LAW IN RELATION TO CORONERS.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

1. *Notification of death to Coroner by Registrar where no medical certificate.*—A Registrar shall, in the case of every death brought to his knowledge, without a certificate of cause of death signed by a legally qualified Medical Practitioner, forthwith give notice of the death to the Coroner within whose jurisdiction the death occurred, and a Registrar shall not register the death until he has received an intimation from the Coroner that the Coroner does not think it necessary to hold an inquest.

2. (i) *Remuneration of medical witnesses.*—A legally qualified Medical Practitioner who has attended at a Coroner's inquest in obedience to a summons of the Coroner under the Coroners Act, 1887, shall be entitled to receive such remuneration as follows (that is to say):—

(A) For every day on which such Practitioner so attends to give evidence at an inquest one guinea:

(B) For making a *post-mortem* examination of the body of the deceased without an analysis of the contents of the stomach or intestines or other part of the body one guinea;

Provided that no remuneration shall be paid to a Medical Practitioner for making a *post-mortem* examination without the previous direction of the Coroner.

(ii) A legally qualified Medical Practitioner shall not be required without his consent to make analysis of the contents of the stomach or intestines or other part of the body and any such Practitioner or other persons whom the Coroner shall deem competent and who shall make such an analysis in pursuance of the previous direction of the Coroner shall be entitled to receive such remuneration not exceeding five guineas as the Coroner shall certify in writing to be reasonable.

3. (i) *Remuneration of Medical Practitioner consulted by Coroner without inquest.*—A Coroner shall pay to any duly qualified Medical Practitioner whom he may consult as to the cause of any death on which no inquest is held a fee not exceeding one guinea.

(ii) A Coroner shall be reimbursed by the local authority any payment made under this section upon rendering within four months an account of that payment as if it was an expense reasonably incurred in and about the holding of an inquest and Sections 26 and 27 of the Coroners Act 1887 shall apply accordingly.

4. *Regard to be had to deaths investigated without inquests in fixing Coroner's salary.*—At any quinquennial revision of a Coroner's salary regard shall be had to the number of deaths the causes of which he has investigated without holding an inquest as if in each case an inquest had been held.

5. *Fee to Coroner for attendance at trial.*—A Coroner attending at any court before or at the opening thereof in pursuance of Subsection 3 of Section 5 of the Coroners Act 1877 shall be entitled to a fee of a guinea for each such attendance and that fee shall form part of the expenses of the prosecution.

6. *Repeal.*—Section 22 of the Coroners Act 1887 is hereby repealed.

7. *Extent of Act.*—This Act shall not extend to Scotland or Ireland.

8. *Short title and construction.*—This Act may be cited as the Coroners Act 1902 and shall be construed as one with the Coroners Act 1887 and 1892.

(C)

SELECT COMMITTEE OF THE HOUSE OF COMMONS ON DEATH CERTIFICATION, 1893.

SUMMARY OF PRINCIPAL RECOMMENDATIONS.

(1) That in no case should a death be registered without production of a certificate of the cause of death signed by a registered medical practitioner, or by a coroner after inquest, or in Scotland by a Procurator Fiscal.

(2) That in each sanitary district a registered medical practitioner should be appointed as public medical certifier of the cause of death in cases in which a certificate from a medical practitioner in attendance is not forthcoming.

(3) That a medical practitioner in attendance should be required, before giving a certificate of death, to personally inspect the body, but if, on the ground of distance or for other sufficient reason, he is unable to make this inspection himself he should obtain and attach to the certificate of the cause of death a certificate signed by two persons, neighbours of the deceased, verifying the fact of death.

(4) That medical practitioners should be required to send certificates of death to the registrar, instead of handing them to the representatives of the deceased.

(5) That a form of certificate of death should be prescribed, and that in giving a certificate medical practitioners should be required to use such form.

(6) That it should be made a penal offence to bury or otherwise dispose of a body, except in time of epidemic, without an order from the registrar stating the place and mode of disposal, which order, after it has been acted upon, should be returned to the registrar who issued it.

(7) That it should be made an offence to retain a dead body unburied or otherwise legally disposed of beyond a period not exceeding eight days, except by permission of a magistrate.

(8) That the practice of burial in pits or common graves should be discontinued.

(9) That stillbirths which have reached the stage of development of seven months should be registered upon the certificate of a registered medical practitioner, and that it should not be permitted to bury or otherwise dispose of the stillbirth until an order for burial has been issued by the registrar.

(10) That, subject always to the discretion of the Crown Office, the result of precognitions taken by the Procurators Fiscal in Scotland, or the precognitions themselves, should be communicated to the representatives of the deceased when application is made for the same.

(D.)

CORONERS' LAW AMENDMENT.

RESOLUTIONS PASSED BY THE LONDON COUNTY COUNCIL IN 1895.

(*a*) That in no case should a death be registered without production of a certificate of the cause of death, signed by a registered medical practitioner or by a coroner after inquiry.

(*b*) That a medical practitioner in attendance should be required, before giving a certificate of death, to personally inspect the body and identify it as the body of the person he has attended; and should include in his certificate a statement pointing to the absence of accident, poison, violence, or criminal neglect; and that the coroners be required to hear evidence from representatives of the families of the deceased whenever it is alleged that death has been caused by accident.

(*c*) That a form of certificate of death should be prescribed and that in giving a certificate, medical practitioners should be required to use such form.

(*d*) That medical practitioners should be required to send certificates of death to the registrar instead of handing them to representatives of the deceased.

(*e*) That it should be made a penal offence to bury or otherwise dispose of a body without an order from the registrar stating the place and mode of disposal, which order, after it has been acted upon, should be returned to the registrar who issued it.

(*f*) That it should be made an offence to retain a dead body unburied or otherwise legally disposed of beyond a period not exceeding eight days, except by permission of a magistrate.

(*g*) That the certificate should be endorsed by the burial authority with the date of interment or disposal and the place where the body is buried, and returned to the registrar by the burial authority.

(*h*) That when the medical practitioner is unable to certify, he should be required to report direct to the coroner. Relations, friends, and others having cognizance of suspected cases should also be required to report them to the coroner.

(*i*) That every case of death after surgical operations should be reported to the coroner with a view to preliminary inquiry and, if necessary, the holding of an inquest.

(*j*) That medical investigators should be appointed:

i. To inquire into causes of all uncertified deaths, assisted by qualified and responsible inquiry officers.

ii. To examine the body in all such cases, and make *post-mortem* examination where necessary.

iii. To report the result to the coroner sitting in court, who will then decide as to necessity for holding formal inquest.

iv. To give evidence at inquest and act as medical adviser to the coroner.

(*k*) That London should be divided into districts so arranged as to give approximately equal amount of work, and that coroners be paid by salary not dependent on the number of inquests held.

(*l*) That franchise districts should be abolished.

(*m*) That a court or courts should be provided for each district, with a coroner, clerk, inquiry officers, and other necessary officials as in police courts.

(*n*) That one or more medical investigators should be attached to each court, and be paid by salary.

(*o*) That the office of deputy-coroner should be abolished as unnecessary in London.

(*p*) That inquests should be held and evidence taken by the coroners in all cases where the reports of the medical investigators show further inquiry to be necessary, and in all cases of violent or suspicious death.

(*q*) That viewing the body by a jury should no longer be obligatory.

(*r*) That the number of jurymen should be reduced to one-half of the present number, *i.e.*, to not less than six or more than eleven.

(*s*) That in cases involving subsequent criminal proceedings, such as murder or manslaughter, or other criminal offence, the coroner shall have full power to bind over all witnesses.

(*t*) That proper records of all cases dealt with by the court, whether inquests be held or not, should be kept as records of the county.

(*u*) That the court should have jurisdiction in cases where the body is lying in the district to which it is attached, except in cases of accident, etc., where more than one death has taken place, when the jurisdiction should be with the court for the district in which such accident, etc., occurred.

(*v*) * * * That coroners' juries should be summoned by *rota*.

Item 11 in Report.]

MEMORANDUM ON THE PAYMENT OF MEDICAL PRACTITIONERS CALLED IN TO ASSIST MIDWIVES.

The Annual Representative Meeting instructed the Medico-Political Committee to take action to secure the amendment of the law in order to provide just remuneration for medical practitioners when called to assist midwives in cases of danger or difficulty.

As a result of inquiries from the County Councils and County Borough Councils in England and Wales, the Committee has ascertained that no local supervising authority has taken any steps to make provision for such payment, and that (with the possible exception of one or two Councils who have special Acts of Parliament) the Supervising Authorities have, at present, no legal authority to make such payments. Therefore, as the law now stands, medical practitioners called in by midwives can look only to their patients for payment. The Central Midwives Board have themselves drawn the attention of the Privy Council to the omission from the Midwives Act of any provision as to the payment of medical practitioners under these conditions.

Before steps are taken in the name of the Association to obtain whatever amendment of the law may be needful for the purpose, it appears to the Committee necessary that it should be in possession of the opinions of the Divisions of the Association on certain specific questions.

Assuming that public provision of some kind for the payment of medical practitioners who assist midwives is necessary or desirable, two groups of proposals with this object have come under the notice of the Medico-Political Committee as having been made by persons who have given special attention to the subject, and the Committee considers that these should be laid before the Divisions to assist them in judging how public provision could best be made.

(1) The first proposal is that the County Councils or Local Supervising Authorities should themselves undertake to arrange that there shall be in every district some doctor or doctors on whom midwives can rely to attend when summoned, and that the County Councils should make themselves responsible to such doctors for their remuneration.

It is proposed that the County Councils, having paid the fees (or salaries, as the case might be) in the first instance, should recover from the patient, if able to afford it, or, in the case of persons unable to pay, from the Board of Guardians under some standing arrangement.

As to the mode of remuneration of the doctors it has been proposed that this might be either.

(*a*) by fee for each case according to a fixed scale; or

(*b*) by salary paid to those who undertake to act when called upon, the salaries being readjusted from time to time in accordance with the actual work done.

The reason is put forward in favour of the latter course, that it would prevent any suspicion of collusion between individual medical practitioners and individual midwives.

(2) The alternative proposal is to dispense with the intervention of the County Councils, the medical practitioner looking for payment directly to his patient, except in the case of those who may be suitable objects for medical relief, and with regard to these looking to the Board of Guardians.

The question arises as to how the practitioner is to know, when attending, whether, if the patient should prove unable to pay, the Guardians would recognize the obligation. By the nature of the case the attendance will, as a rule, be a matter of urgency, and it is essential that time should not be lost in obtaining an order from the relieving officer, and in investigations by him as to the suitability of the applicant for medical relief of the kind.

It is suggested that this difficulty can be in great part overcome by the application of the "loan system," that is, that the relieving officer should, without waiting for investigation, issue an "order on loan," the Guardians recovering the fee from the patient if able to pay.

At present, the "loan system," as regards medical relief, is only applicable to attendance by the Poor-law medical officers, and for extension to other practitioners an alteration of the law would be required.

If payments were made through the intervention of County Councils it might possibly be difficult for the local profession to determine the rates of payment, and it would probably be specially difficult for the profession to control by united action the salaries paid under proposal (1) *b*, if the Councils attempted to restrict the work in each district to a few selected practitioners.

On the other hand, it might be easier under Scheme (2) for the profession, by local agreement arrived at through the agency of the Divisions of the Association, to fix the scale of fees to be charged by medical practitioners when called in.

The Medico-Political Committee would ask each Division, after consideration of the foregoing Memorandum, to answer the following specific questions:—

(1) Does the Division consider it, on the whole, desirable that any public provision made for the payment of medical men called in to assist midwives should, in the first instance, cover every case, or should the public authority only pay in those cases in which the patient is unable to pay?

(2) If payment in all cases is to be made in the first instance by the Public Authority, should it be an absolute payment or

should the fees be recoverable from those patients who can afford to pay?

(3) Should the provision be made through the County Council or Local Supervising Authority or through the Poor Law Authorities?

(4) If through the Poor Law, should attendance, in all cases, be given by the Poor-law District Medical Officer, or should it be left open for any medical man whom the patient desires, and who is willing to act, to be called in?

(5) What scale of fees would meet the necessities of the case?

The Committee would suggest that in answering these questions, the following aspects of the subject require consideration:

(*a*) The interest of the puerperal woman.
(*b*) The question of extension of pauperism.
(*c*) The satisfaction of the individual practitioner.
(*d*) The interest of the medical profession.

In addition to answers to the above specific questions, the Committee would be glad to receive any information which each Division may be in a position to give as to the practical working of the Midwives Act in the area of the Division.

For Abstract of Replies of Divisions, see p. 257.

DRAFT MEMORIAL.

MEMORANDUM of CONSIDERATIONS to be SUBMITTED to the LORD PRESIDENT of HIS MAJESTY'S PRIVY COUNCIL concerning the PRESENT POSITION of MEMBERS of the MEDICAL PROFESSION when called by MIDWIVES to their assistance in pursuance of the requirements of the MIDWIVES ACT, 1902.

The British Medical Association begs leave most respectfully to bring to the attention of the Lord President of the Privy Council, as the body appointed by Parliament to control the administration of the Midwives Act, the following considerations with respect to the position in which registered medical practitioners have been placed as the result of certain provisions of that Act.

Under Section 3 of the Act the Midwives Board is appointed, and the duties and powers of the Board are prescribed, among these being:

Under Subclause 1 (*e*) of the Section to frame Rules regulating supervising and restricting within due limits the practice of Midwives.

Under Subclause 1 (*f*) to frame Rules deciding the conditions under which midwives may be suspended from practice. And under Subsection 5 to decide upon the removal from the Roll of the name of any midwife for disobeying the rules and regulations from time to time laid down under this Act by the Central Midwives Board, or for other misconduct, and also to decide upon the restoration to the Roll of the name of any midwife so removed.

The Board has accordingly framed Rules under Section 3, and these Rules have been approved by the Privy Council, and have thereby become valid in accordance with the provisions of the Act.

Among the Rules so approved is Rule 17, which provides that in certain specified circumstances a midwife must decline to attend alone, and must advise that a registered medical practitioner must be sent for.

It results from the operation of these Rules that medical practitioners are called upon frequently to give assistance to midwives in cases which from their nature are, as a rule, cases of urgency, and in which, therefore, there is no time either for inquiry as to the ability of the patient to pay for the services thus rendered or for obtaining from a relieving officer an order for relief under the Poor Law. It would appear, moreover, that if such provision were made under the Poor Law, in the present state of the law, only the Poor-law Medical Officer for the district could be summoned, whereas the exigencies of the case may require that the nearest medical practitioner should be summoned, or it may be thought proper that, if time permits, patients in such cases should be allowed to select their own medical attendants for the purpose.

The British Medical Association having given careful consideration to the matter, would most respectfully suggest for the consideration of the Privy Council that public provision of some kind should be made to remove the difficulties at present existing, and the Association would suggest that such provision should be made subject to the following conditions:

1. Inasmuch as the calling in of a registered medical practitioner in cases of the kind under notice is not at the discretion of the patient, but is required of the midwife under virtually a statutory regulation, public provision should be made to guarantee that the medical practitioner so called in will, in the first instance, be remunerated by some local public authority.

2. The public authority should have power to recover the fees so paid from those patients who on inquiry are found to be able to pay.

3. The payment should be made through the County Council, or the local supervising authority, in preference to the Poor-law authority.

4. In each district a list should be prepared of all medical practitioners who are willing to undertake the duty, and a copy of this list should be supplied to each midwife practising in the district.

5. It should be left to the patient to call in either the nearest practitioner or some other selected by her, through whatever authority the payment is made.

6. Where a registered medical practitioner is called in in case of emergency the fee paid should be not less than two guineas.

Item 12 in Report.]

MEDICAL ACTS AMENDMENT BILL.

The Medico-Political Committee in submitting the Medical Acts Amendment Bill for the consideration of the Divisions, preparatory to an expression of opinion thereon by the Annual Representative Meeting at Oxford, reported as follows:

1. That, as the result of the preliminary discussion of the original draft Bill by the Divisions, consequent upon the circulation of the Bill by order of the Council in August, 1903, expressions of opinion were received by the Committee from 109 Divisions, prior to April 13th, when the Committee commenced the work of revision.

2. That the Committee had given the most careful attention to the replies of the Divisions, and in revising the Bill had adopted (*a*) those changes in the draft previously submitted which had appeared to the Committee to be generally desired; (*b*) many valuable suggestions made by individual Divisions on points of detail.

3. That the Committee had also taken into consideration, and in many instances adopted, amendments in the Bill which had been put forward by the British Dental Association. The circumstances in which such amendments received consideration from the Committee were stated in the proceedings of the Committee, published in the Supplement of the British Medical Journal of May 7th, 1904 (pp. 108 and 109).

4. That the Bill as amended by the Committee had been submitted to an expert Parliamentary draftsman and by him recast into its present form.

5. That the Committee was of opinion that in a matter of such consequence to the medical profession as an extensive amendment of the Medical Acts it was highly desirable that no measure should be laid before Parliament by the British Medical Association until time had been allowed for all the consideration necessary not only to perfect every detail of the proposals made, but also to secure the greatest attainable agreement in the profession.

6. That the Committee therefore recommended to the Representative Meeting that after matters of principle had been determined by the approaching meeting at Oxford, the Bill should be referred back to the Committee for further consideration of details and points of drafting, and submitted again to the Divisions with a view to final consideration and adoption, if approved, by the Annual Representative Meeting of 1905.

7. That if the Divisions approved the foregoing recommendation they might find it sufficient at that stage to give such consideration to the Bill as would prepare the way for a decision of the principles thereof.

8. That the Committee, for the assistance of Divisions in considering the Bill, had authorized the preparation of the Memoranda presented herewith, (I) to explain the principles on which the Bill was based, (II) to explain the principal

Item 11 in Report.]

MIDWIVES ACT.

PAYMENT OF MEDICAL PRACTITIONERS CALLED TO ASSIST MIDWIVES.

Abstract of the Replies of Divisions to the Inquiries of the Committee.

Up to the date of the preparation of the present Report (April, 1905) 79 Divisions have communicated to the Committee their opinions upon some or all of the questions submitted.

Question Submitted.	Replies of Divisions.	No.
1. Does the Division consider it, on the whole, desirable that any public provision made for the payment of medical men called in to assist midwives should, in the first instance, cover every case, or should the Public Authority only pay in those cases in which the patient is unable to pay?	Payment in every case	57
	Payment only if patient unable	12
2. If payment in all cases is to be made in the first instance by the Public Authority, should it be an absolute payment or should the fees be recoverable from those patients who can afford to pay?	Fees should be recoverable	48
	Payment should be absolute	8
3. Should the provision be made through the County Council or Local Supervising Authority or through the Poor-law Authorities?	Provision through County Council	12
	Provision through County Council or Local Supervising Authority	20
	Provision through Local Supervising Authority ...	21
	Provision through Poor-law Authorities	13
	(53)	
4. If through the Poor Law, should attendance, in all cases, be given by the Poor-law District Medical Officer, or should it be left open for any medical man whom the patient desires, and who is willing to act, to be called in?	It should be left open	51
	By Poor-law Medical Officers only...	1
5. What scale of fees would meet the necessities of the case?	Poor-law Scale	7
	Poor-law Scale and 3s. 6d. for day and 7s. for night visits	2
	Poor-law Scale and mileage	2
	Minimum 1 guinea	18
	£2 or 2 guineas per case	9
	2 guineas and mileage	2
	Minimum £2 or 2 guineas	4
	Stratford Division Scale	14
	Poor-law Scale inadequate	1
	Central Midwives Board Scale (modified)	1
	Local Government Board Scale for operations, after-attendance 5s. per visit	1
	On a liberal scale, to cover increased cost of septicaemia	1

Six Divisions express opinions which cannot be classified with respect to the questions submitted by the Committee. Of these:

One Division regards statutory provision for the payment of medical men as undesirable, and proposes the following alternative: That when a registered midwife is engaged to attend a woman in her labour, it shall be her duty to see that the patient makes arrangement with a medical practitioner to the effect that in the event of the labour becoming abnormal he will attend, and also that the midwife shall enter into her engagement book the name of the medical practitioner selected. Failure to comply with this rule, or for the midwife to advise or recommend that any particular practitioner be selected, shall be a misdemeanour.

One Division considers the existing Poor-law arrangements sufficient.

One Division considers that the suggestions in the memorandum of the Committee would lead to abuse, no public provision being necessary.

One Division considers the suggestions in the memorandum impracticable.

Two Divisions state that in their view no action is necessary.

A few Divisions, in response to the request of the Committee for information as to the general working of the Act, have forwarded valuable reports, which have been filed for reference when occasion requires.

points of difference between the Bill as submitted to the Divisions in August, 1903, last, and as then submitted.

The Annual Representative Meeting, at Oxford, upon consideration of the foregoing Report, and of the Bill and accompanying Memorandum, resolved as follows:—

Minute 69.—That the Medical Acts Amendment Bill, as a whole, be referred to the Divisions.

Minute 70.—That it be an instruction to the Medico-Political Committee that an Epitome of the principles of the Medical Acts (Amendment) Bill be included among the documents sent to the Divisions, with a request that the Divisions will vote upon those principles.

An Epitome of the principles of the Bill has accordingly been prepared, and is now submitted to the Divisions, together with the Bill, and the following Explanatory Memorandum as previously submitted.

EXPLANATORY MEMORANDUM.

I.—PRINCIPLES OF THE BILL.

A.—General Remarks.

1. *Purpose and Form of the Bill.*—The Bill being framed for the amendment of the Medical Acts, is drafted in such form as to be construed with those Acts. From this principle of construction it follows:

(*a*) That it is not proposed to repeal any of the Medical Acts except so far as may be necessary to bring these Acts into agreement with the Bill.

(*b*) That provisions which are contained in the Acts are not repeated in the Bill except when needful for clearness, as, for example, certain provisions as to nomination of members of the General Council by the Crown.

(*c*) That terms, such as "the General Council," which are defined in the Acts, are used in the same sense in the Bill, without further definition.

2. *Provisions as to Dentists.*—In the Bill the precedents of the Medical Acts of 1858 and 1886, which included provisions affecting both the medical and dental professions, have been followed, in preference to that of the Dentists' Act, 1878, which affected one profession only. If this principle receives the approval of the British Medical Association, as it has that of the British Dental Association, and if it is sanctioned by Parliament, the legislation affecting the constitution, duties, and powers of the General Medical Council will be brought into more convenient form for practical purposes.

3. *Arrangement of the Bill.*—The Bill is divided, for convenience of reference, into Parts, each of which relates to a definite group of reforms. In each of the following Sections of this Memorandum one Part of the Bill is dealt with.

B.—Constitution of the General Council (Part I.).

The principles underlying this Part of the Bill are:

1. That the representation of the Crown on the Council should remain unaltered.

2. That those existing universities which have medical faculties should be represented on the Council, and that, as such representatives sit on the Council primarily as educational experts to advise the Council in its duty of controlling medical education and examinations, each university should be permitted to appoint its representative in such manner as it may deem most expedient.

3. That inasmuch as the medical corporations, with one exception, are not educational bodies, and no longer discharge those functions on behalf of the medical profession for which their charters were originally conferred, they should not be represented on the Council on an equality with the universities, but that their historic positions should be recognised by representation in a reduced degree.

4. That the direct representation of the medical profession should equal that of all the bodies above named, and that, to secure adequate representation of every part of the United Kingdom, a topographical method of election should be adopted.

5. That the principle of direct representation on the Council should be extended to the dental profession.

Other amendments have been included in this part which are consequential on the foregoing or will simplify the procedure of election.

Statutory provision is proposed for the election of a Vice-President of the Council.

C.—Branch Councils and Finance (Part II).

The objects of this Part of the Bill are:

1. To simplify the administration of the Council, and reduce expenditure by doing away with the cumbrous machinery consequent upon the Branch Council system provided by the Act of 1858. Experience has shown (*a*) that no advantage results from the division of the work of registration; (*b*) that apart from registration no duties devolve upon Branch Councils which could not be performed equally well by the Committees proposed under the Bill.

2. To simplify the financial arrangements of the Council, and thus also promote economy in administration.

3. To give statutory powers to the Council to provide pensions or contribute to superannuation funds for its officers. (Section 6 is so drawn as to enable the Council to adopt any kind of superannuation scheme which may be found suitable.)

D.—Registration (Part III).

The provisions of this Part fall under two principal heads:—(1) affecting the students' registers; (2) affecting the medical and dentists' registers.

1. The statutory creation of a students' register under the absolute control of the Council is provided for.

The necessity for such a register has long been recognised by the General Medical Council, but the efforts of the Council to establish it have been thwarted by the determination of the English Royal Colleges to maintain against the Council what they conceive to be the privileges conferred upon them by their charters.

The sections relative to the students' register would further (*a*) confer upon the Council definite control over preliminary examinations, thus securing a uniformity of standard in this most important matter; (*b*) fix the age of commencing medical study at seventeen as a minimum, in accordance with the opinion already expressed by the British Medical Association.

2. With reference to the medical and dentists' registers it is provided in this Part:

(*a*) That registration should be annual, the object being to keep the register correct and to facilitate the detection of unregistered practitioners, especially of those who personate registered practitioners.

(*b*) That an annual fee of one pound should be paid instead of a single payment of five pounds, the object being to raise the income of the Council to an adequate amount.

The necessity for this proposal is shown by the following considerations:

(i) The present income of the General Medical Council is insufficient for its present expenditure, and even under the existing law the work of the Council is crippled by want of funds.

(ii) The provisions of the Bill as to the increase of direct representation, as to the conduct of final examinations by the Council (the "one-portal system"), and as to the prohibition of unqualified practice, making it the duty of the Council to protect the profession and the public by enforcing the penal clauses (Part V), will entail considerable increase of expenditure. Such expenditure will be in the interest of the profession as well as of the public, and the only funds out of which it can be defrayed are those derived from medical and dental registration fees.

(*c*) The privileges conferred by registration upon medical and dental practitioners in respect of their practice are clearly defined, the anomalies and injustice of the existing law being removed. Among the privileges of medical registration it is proposed to include the right to use the style of "doctor" as a prefix to the name, thus recognizing by statute the customary usage of the public in reference to medical practitioners, and doing away with distinctions which the great differences in status of nominally equal qualifying examinations have rendered arbitrary and unjust.

E.—Examinations (Part IV).

The principal changes in this Part of the Bill are:

1. The institution of the "one-portal" system for admission to both the medical and dentists' registers, by means of final (State) examinations under the absolute control and sole management of the Council.

2. Definite statutory provision for complete control by the Council of the medical curriculum, beginning with the preliminary examination, and for the effective supervision and control of the intermediate examination, subject only to a possible appeal by examining bodies to the Privy Council.

F.—Offences (Part V).

The provisions of this Part fall under the heads of (1) those affecting registered persons, whether students or practitioners, (2) those affecting unregistered persons.

(1) As regards offences by registered persons:

(*a*) It is sought under Sections 21 and 22 to extend or im-

prove the powers and procedure of the General Council in certain matters, the importance of which has been shown by experience. These matters are:

(i) That the Council be enabled to inflict minor penalties, and therefore to adjust penalties to offences.
(ii) That the Council should be able to compel the attendance of witnesses, to take evidence on oath, and to award costs.
(iii) That removal from the register should involve, under penalties, disuse of medical degrees (including diplomas, etc.)

(*b*) In view of the creation of a statutory students' register, students are brought within the disciplinary powers of the Council.

(*c*) Section 27, which prohibits certain acts of registered practitioners, is directed against abuses which tend to facilitate practice by unregistered persons.

(2) Other sections of this part are designed for the more effectual protection of the public and the profession against various forms of unqualified practice, *Section* (23) definitely prohibiting medical or dental treatment for gain, and also habitual medical or dental practice, *Section* (24) dealing with invalid certificates, *Section* (25) with bogus "diplomas," and *Section* (26) with the objectionable use by traders of the names of medical or dental practitioners, while *Section* (30) provides against the growing abuses of company practice.

Sections 23 and 25 are to be read in connexion with the definition clauses in Section 31 (Part VI).

In Part VI, Section 34, the "second schedule" is referred to. It has been thought desirable to defer the preparation of this schedule, which is a highly technical matter, until the principles of the Bill have been definitely decided by the Representative Meeting.

II.—COMPARISON OF THE BILL AS NOW SUBMITTED WITH THE DRAFT SUBMITTED TO THE DIVISIONS IN AUGUST, 1903.

A.—Changes in the Bill as a Whole.

1. *Changes in Form.*—In respect of form the Bill has been entirely revised, and made more simple and concise in language. While this has necessitated some rearrangement of the Parts, the general order of the Bill has been preserved as far as possible.

Provisions as to Branch Councils, formerly contained in Part I. have been consolidated with the former Part V to form Part II of the present draft. Part II of the former draft concerning students' registration, together with Part IV, concerning the system of annual registration, together form Part III of the present draft. The other Parts retain their former order, but are renumbered.

2. *Dentists' Amendments.*—The incorporation in the Bill of amendments of the Dentists' Act has occasioned consequential changes in every Part, except Part II.

B.—Changes made in the Several Parts of the Bill.

Constitution of the Bill (Part I.)

1. Objections raised by many Divisions to the suggested *grouping of Universities*, and to the *plural voting* resulting from the system proposed in the former draft for electing university and corporate representatives, have been very carefully considered by the Committee.

The purpose of the former proposal was to reduce the size of the Council simultaneously with an increase in the ratio of direct representatives to other members of the Council.

To abandon the grouping of universities while maintaining the relative strength of the direct representatives involves the creation of a numerically large Council. Full consideration, however, of the greatly increased duties which would devolve upon the Council under the Bill leads the Committee to conclude that the Council, as now proposed to be constituted, would not have too many members for the work to be done, in Committees and otherwise. The Committee therefore has modified its former recommendation on this point as regards the universities, but, for reasons indicated in the former part of this Memorandum, still recommends the grouping of Corporations.

The Committee recognises also that the opinion of the Association, as expressed by the Divisions, is unfavourable to the proposal that each existing medical practitioner should vote (*a*) as a registered practitioner in the election of a direct representative, and also (*b*) as a graduate or diplomate in the election of a representative or representatives of any body or bodies whose degree or diploma he may hold. The Committee recommends that the direct representation of all registered practitioners should be maintained, and that no provision be made in the Bill concerning the mode of appointment of representatives of universities and corporations.

2. In accordance with the opinions expressed by many Divisions, a topographical system of election of direct (medical) representatives is proposed, and a draft schedule of electoral areas is submitted for consideration.

3. The Committee recommends that in the larger Council now proposed the dental profession should be accorded three direct representatives.

C.—Branch Councils, and Finance (Part II).

The proposals under these heads formerly submitted received the general approval of the Divisions. On the advice of the draftsman the abolition of the Branch Councils has been carried out in the present draft in form, as it was in the previous draft in substance, except for certain advisory functions for which Committees are now proposed to be constituted.

D.—Registration (Part III).

1.—*Registration of students.*—The provisions relative to the registration of students, contained in Part II of the former draft, having been generally approved, have undergone no change of substance, except that of incorporating therein (*a*) the principle approved by the Association, that medical study shall not commence before the age of 17 years, and (*b*) the provision that the name of a student who has ceased medical study shall be removed from the register, subject to provision for reinstatement.

2. *Provisions as to annual registration.*—Exception has been taken by many Divisions to different aspects of these proposals, but the majority of Divisions have approved the principle of annual registration and also the principle of an annual fee. A consensus of opinion has been shown in favour of allowing a longer period for the payment of the fee, and of facilitating restoration to the register of names removed through illness or inadvertence. Provisions to meet these requirements are contained in the draft now submitted.

3. *Privileges of registration.*—Many Divisions have pointed out that no provision is made for any recognised title to be conferred on those passing the State medical examination, and several Divisions have proposed that the title "doctor" should be accorded to all registered practitioners. The Committee recommends that this proposal be adopted, and Section 13, Subsection (3) is inserted for the purpose.

E.—Examinations (Part IV).

The provisions of this Part, which corresponds generally with Part III of the former draft, have received general approval from the Divisions. The principal changes made are:

1. *Curriculum.*—The omission, to which certain Divisions drew attention, of any specific provision giving the Council control over the medical curriculum, has been remedied (Section 19).

2. *Assistant Examiners.*—Objection having been taken by some Divisions to the clauses relative to the appointment and remuneration of assistant examiners, the Committee has withdrawn the proposal that such examiners should be paid by the examining body whom they are appointed to assist, and now recommends that they should be paid, if at all, by the Council.

3. *State Examinations.*—The section relative to the State medical examination (in which provision is also made now for State dental examinations) has been made more general in terms, the more detailed regulations being left to the Council.

F.—Offences (Part V).

The important clauses contained in this Part, which corresponds to Part VI of the former draft, have received the most careful consideration from the Committee, from the Solicitor of the Association, and from Counsel, who has redrafted the Bill. As affecting the dental profession, they have also been considered by the legal adviser of the British Dental Association, by whom valuable practical suggestions have been made. The previous draft having been generally approved by the Divisions (except as regards the former Clause 34), the changes made will be found to be mainly of a drafting nature, devised more effectively to secure the objects of this part of the Bill.

The changes of substance are:

1. In *Section* 25, corresponding with former Clause 29, provision has been inserted to exempt recognised universities from the operation of the Section, the object of which is to prevent the issue of bogus diplomas.

2. In *Section* 27, corresponding with former Clause 24, to which in its previous form exception was taken by a large number of Divisions, words have been inserted to meet the chief objections raised, namely:

(*a*) The clause will no longer apply to a *locum tenens* or assistant, acting as such for a shorter period than three months.

(*b*) Charitable institutions are exempted.

3. The important *Section* 30, to prevent medical or dental practice by companies, has been inserted.

G.—Supplementary Provisions (Part VI).

No changes have been made in this Part which appear to require comment in this Memorandum.

EPITOME OF THE PRINCIPLES OF THE BILL.

(I) Introductory.

The Bill proposes reforms:—

(A) In the composition and mode of election of the General Medical Council.
(B) In the administrative arrangements of the Council.
(C) In the control of education by the Council.
(D) In the registration of medical and dental practitioners.
(E) In the disciplinary powers of the General Medical Council.
(F) In the legal position of the practice of medicine and surgery by unqualified persons, and the rights of registered practitioners.

(II) It is Proposed as Regards:

(A) *Composition and Mode of Election of the Council.*

1. That the direct representation of registered medical and dental practitioners on the Council be increased so that direct representatives compose at least half the Council.

2. That the direct medical representatives be elected by constituencies topographically defined, each constituency electing one representative.

3. That those universities which have medical faculties continue to be represented on the Council by one representative each, elected in such manner as each body may determine.

4. That the Licensing Corporations be grouped to form three constituencies, one for England and Wales, one for Scotland, and one for Ireland, each constituency electing one representative.

(B) *Administrative Arrangements of the Council.*

1. That the Branch Councils be replaced as regards some of their functions by Committees of the Council.

2. That the financial administration be consolidated by transference to the Central Office of the Council.

(C) *Control of Education.*

1. That the Council have complete control over the standard of preliminary general education and over the medical curriculum.

2. That the registration of students be placed under the direct control of the Council.

3. That the minimum age of registration of students be 17.

4. That the intermediate examination remain in the hands of the universities or corporations under the supervision of the Council.

(D) *Registration of Medical and Dental Practitioners.*

1. That there be a one portal system of admission to the Register, through a State final examination controlled and managed by the Council.

2. That registration be annual.

3. That there be an annual registration fee of £1.

4. That the privileges conferred by registration be clearly defined.

5. That one privilege of registration as a medical practitioner be the right to use the prefix Dr.

(E) *Disciplinary Powers of the Council.*

1. That the Council have power to suspend a practitioner without absolutely removing his name from the register.

2. That the disciplinary powers be extended to include Medical and Dental Students.

3. That the procedure be made more effective by increasing the powers of the Council in respect of witnesses, and in other ways.

(F) *Unqualified Medical or Dental Practice and Protection of Registered Practitioners.*

1. That the habitual practice of medicine or dentistry for gain by unregistered persons be definitely prohibited.

2. That the granting of bogus diplomas be constituted an offence.

3. That the signing of medical certificates by unregistered persons be made an offence.

4. That the improper use of the names of registered practitioners in connection with the sale of drugs, appliances, etc., be made an offence.

5. That medical or dental practice by companies be prohibited.

(III) Recommendation as to Procedure.

The Medico-Political Committee would suggest that the Divisions should, categorically, express approval or disapproval of each of the propositions stated.

With regard to the provisional schedule of electoral areas, each Division should make any suggestion it thinks fit regarding its own district.

(DRAFT) MEDICAL ACTS AMENDMENT BILL.

ARRANGEMENT OF SECTIONS.

Part I.—*Constitution of the General Council.*

Section.
1. Members of General Council.
2. Tenure of office of members of General Council.
3. Regulations for election of direct representatives.
4. Election of Vice-President of General Council.

Part II.—*Branch Councils and Finance.*
5. Abolition of Branch Councils.
6. Power to pension officers of Council.

Part III.—*Registration.*
7. Registrar to be a medical practitioner.
8. Provision of a students' register.
9. Examinations to be confined to registered students.
10. Removal of student's name who has ceased to study.
11. Regulations for annual registration.
12. Provisions for certified copies of dentists' register.
13. Privileges of registered practitioners

Part IV.—*Examinations.*
14. Passing of examinations requisite for admission to register.
15. Provisions as to registration of persons passing examinations.
16. Provisions as to intermediate examinations.
17. Control by Council of intermediate examinations.
18. Provision for defects in intermediate examinations.
19. General Council to prescribe courses of study.
20. State medical and dental examinations.

Part V.—*Offences.*
21. Removal of name from register.
22. Procedure and powers of General Council on an inquiry.
23. Prohibition of practice by unregistered persons.
24. Prohibition of unregistered person signing certificate.
25. Penalty for granting unrecognized degrees.
26. Prohibition of improper use of name of registered practitioner.
27. Prohibition of certain acts of registered practitioners.
28. Application of penalties.
29. As to prosecutions.
30. Provision against offences by companies.

Part VI.—*Supplementary Provisions.*
31. Definitions.
32. Exception for foreign practitioners.
33. Saving for midwives.
34. Repeals and amendments.
35. Short title and construction.

A BILL to amend the Medical Acts and to further regulate the practice of Medicine, Surgery, Midwifery, and Dentistry.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

Part I.—CONSTITUTION OF THE GENERAL COUNCIL.

1. *Members of General Council.*—(1) The General Council shall consist of the following members:

(*a*) Five members nominated from time to time by His Majesty with the advice of His Privy Council three of whom shall be nominated for England and Wales one for Scotland and one for Ireland.

(*b*) One member chosen from time to time by each of the following bodies:

The University of Oxford.
The University of Cambridge.
The University of London.
The University of Durham.
The Victoria University of Manchester.
The University of Birmingham.
The University of Liverpool.
The University of Edinburgh.
The University of Glasgow.
The University of Aberdeen.
The University of St. Andrews.
The University of Dublin.
The Royal University of Ireland.

(c) One member chosen from time to time by each of the following groups of medical bodies:
(i) The Royal College of Physicians of London the Royal College of Surgeons of England and the Apothecaries Society of London.
(ii) The Royal College of Physicians of Edinburgh the Royal College of Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons of Glasgow.
(iii) The Royal College of Physicians in Ireland and the Royal College of Surgeons in Ireland

(d) Twenty-five members (in this Act called direct representatives) elected as follows:
(i) Seventeen by the medical practitioners registered as resident in England and Wales
(ii) Three by the medical practitioners registered as resident in Scotland.
(iii) Two by the medical practitioners registered as resident in Ireland.
(iv) Three by the dental practitioners registered as resident in the United Kingdom.

(2) No person shall be qualified for membership of the General Council unless he shall be a registered medical practitioner or in the case of a direct representative elected by the dental practitioners (in this Act called a dental representative) a registered licentiate in dental surgery or a person who has passed the state dental examination mentioned in this Act.

(3) If at any time by any Act of Parliament relating to any university or any medical or other body the number of the members of the General Council other than the direct representatives be increased the number of the direct representatives shall be increased by the like amount.

2. *Tenure of office of members of General Council.*—(1) The direct representatives shall be elected to hold office for the term of five years and may be re-elected.

(2) The other members shall be appointed for a term not exceeding five years and may be reappointed.

(3) Any member may at any time resign his membership by letter addressed to the President of the General Council.

(4) If any member shall be found by inquisition in England and Wales or Ireland to be lunatic or found upon inquiry in Scotland to be insane or shall become bankrupt his place shall thereupon be vacant.

(5) If the place of any member of the General Council be vacant some other person shall be elected or appointed but in the case of a direct representative that other person shall remain a member only for the remainder of the term for which the member whose place is vacant was elected provided that if a vacancy occur at a time when not more than twelve months remain unexpired of the term for which the direct representative whose place is vacant was elected an election shall not be held until the expiration of that term.

(6) The powers of the General Council shall not be affected by the happening of any vacancy.

3. *Regulations for election of direct representatives.*—(1) The direct representatives other than the dental representatives shall be elected each for one of the electoral areas specified in the first schedule to this Act by the medical practitioners registered as resident in that area.

(2) It shall be lawful for the General Council with the sanction of the Privy Council to alter the electoral areas and in the event of an increase in the number of direct representatives to increase the number of electoral areas and generally to make provision for the election of the additional representatives.

(3) The registrar of the General Council shall be the returning officer for the election of direct representatives and he shall not less than twenty-eight days nor more than three months before the expiration of each period of five years for which the direct representatives are elected provide for another election of direct representatives. The registrar shall also as soon as conveniently may be after the occurrence of any vacancy in the place of a direct representative provide for an election of a new direct representative for the vacant place.

(4) The election of the direct representatives shall be conducted in such manner as may be provided by regulations to be made by the General Council with the sanction of the Privy Council provided as follows:—

(a) The nomination shall be in writing and the nomination paper of each candidate shall be signed by not fewer than twelve persons entitled to vote in his election.

(b) If more than one candidate shall be nominated for a vacancy a poll shall be taken by voting papers and the registrar shall send a voting paper to each person entitled to vote at his registered address but the accidental omission to send a voting paper in any particular case shall not avoid the election and any person entitled to vote to whom a voting paper has not been sent in pursuance of this Act may on application to the registrar obtain one from him.

(c) In the election of dental representatives each person entitled to vote may vote for any number of candidates not exceeding the number of vacancies but not more than one vote may be given to any one candidate.

(d) In the case of an equality of votes on any poll the President of the General Council shall be entitled to a casting vote.

(5) The registrar shall certify the number of votes recorded on a poll for each candidate and the persons not exceeding the number of vacancies who have the greatest number of votes shall be certified in writing by the registrar to be and thereupon shall be elected.

(6) The registrar's expenses attending any election shall be defrayed as part of the expenses of the General Council.

(7) The existing members of the General Council shall hold office until the thirty-first day of December one thousand nine hundred and five and no longer.

(8) The first election of direct representatives under this Act shall be held in the month of December one thousand nine hundred and five.

4. *Election of vice-president of General Council.*—The General Council shall annually elect one of their number to be Vice-President.

PART II.—BRANCH COUNCILS AND FINANCE.

5. *Abolition of Branch Councils.*—On and after the thirty-first day of December one thousand nine hundred and five:—

(1) All expenses of carrying the Medical Acts into effect shall be defrayed by the General Council.

(2) The Branch Councils shall cease to exist and the local registers shall be discontinued.

(3) Subject to the provisions of this Act all such entries as would but for this Act have been made in any local register by the registrar of a Branch Council shall be made in the general register by the registrar of the General Council.

(4) All property of the Branch Councils shall pass to and vest in the General Council and all debts and liabilities of the Branch Councils shall become debts and liabilities of the General Council.

(5) The officers and servants of the Branch Councils shall become officers and servants of the General Council.

(6) The members of the General Council elected or appointed from or for Scotland and Ireland respectively shall form committees to which the General Council shall refer such matters specially affecting Scotland or Ireland as the General Council may think fit.

6. *Power to pension officers of Council.*—The General Council may award to any registrar or other officer on his retirement from office such pension or gratuity as the General Council having regard to his services may think just.

PART III.—REGISTRATION.

7. *Registrar to be a medical practitioner.*—A person shall not be qualified to be appointed registrar of the General Council unless he shall be a registered practitioner provided that this section shall not affect the tenure of office of a registrar appointed before the commencement of this Act.

8. *Provision of a students' register.*—(1) The registrar shall keep a register of medical and dental students in the same manner and on the same conditions as nearly as may be as the registers of medical and dental practitioners and shall enter therein the name of every person who shall—

(a) have passed a preliminary examination approved or held by the General Council;

(b) be not less than seventeen years of age;

(c) have paid to the General Council a fee of one pound.

(2) The register shall be in two parts one for medical students and one for dental students and shall show the place and date of birth of each student, the place where he proposes to study and the nature of the preliminary examination passed by him.

(3) The registrar shall at any time upon the request in writing of any student and on payment of such fee not exceeding one pound as the General Council may prescribe transfer his name from one part of the register to the other part.

9. *Examinations to be confined to registered students.*—(1) After the thirty-first day of December one thousand nine hundred and no person shall be admitted to an intermediate examination hereinafter provided for unless he is registered as a medical student.

(2) After the thirty-first day of December one thousand nine hundred and no person shall be admitted to the state dental examination hereinafter provided for unless he is registered as a dental student.

(3) The General Council shall have power if after due inquiry sufficient cause be shown to antedate the registration of any student.

10. *Removal of student's name who has ceased to study.*—(1) The General Council may remove from the register the name of any student who has in the opinion of the Council ceased for a period of not less than five years to pursue a course of professional study.

(2) The General Council may restore to the register any name so removed on the payment of a further registration fee of one pound.

11. *Regulations for annual registration.*—(1) Every registered medical or dental practitioner shall on or before the thirty-first day of December in each year send to the registrar an application for continuance of the entry of his name on the medical or dentists' register for the ensuing year together with a fee of one pound and the registrar shall thereupon cause the applicant's name to be entered on the register for the ensuing year and shall send to him a certificate of registration.

(2) The registrar shall on or before the tenth day of November in each year send to every registered medical or dental practitioner a form of application for registration and a notice requesting payment of the registration fee and containing a warning to the effect that if it be not paid and application made for continuance of the entry of the name before the first day of March next the name of the registered practitioner in default will be removed from the medical or dentists' register of that year and the registrar shall remove the name of a practitioner in default accordingly.

(3) A medical or dental practitioner registered before the passing of this Act shall not be affected by the provisions of this section until five years from the passing of this Act and this section shall not apply to any practitioner so long as he holds a commission in His Majesty's navy or army and is not engaged in private practice within the United Kingdom.

(4) The registrar shall at any time restore to the medical or dentists' register the name of any practitioner which has been removed under this section in consequence of his absence from the United Kingdom, illness, inadvertence, or otherwise, upon satisfactory proof being given of the identity of the applicant and on the payment of the registration fees in arrear.

12. *Provision for certified copies of dentists' register.*—If the name of any dental practitioner does not appear in the copy of the dentists' register printed under the direction of the General Council, a certified copy under the hand of the registrar of the entry of the name of that practitioner on the dentists' register shall be evidence that he is registered under the Dentists Act, 1878.

13.—*Privileges of registered practitioners.*—(1) Subject to the provisions of this Act no person other than a registered practitioner shall practise medicine surgery midwifery or dentistry or any branch thereof habitually and for gain in the United Kingdom.

(2) Registered dental practitioners who are not also registered medical practitioners, shall be limited to the practice of dentistry.

(3) A registered medical practitioner may use the style of doctor as a prefix to his name.

Part IV.—EXAMINATIONS.

14. *Passing of examinations requisite for admission to register.*—(1) After the thirty-first day of December one thousand nine hundred and no person shall be registered as a medical practitioner unless he has passed an intermediate examination and also a final examination (in this Act called the "state medical examination") and no person shall be registered as a dental practitioner unless he has passed a final examination (in this Act called the "state dental examination").

(2) Any person who shall produce to the registrar on an application for registration as a medical practitioner such evidence of his having passed the state medical examination or on an application for registration as a dental practitioner of having passed the state dental examination and in either case such evidence of identity as the General Council may require shall on payment of a fee of one pound be entitled to be registered as a medical or dental practitioner as the case may be.

15. *Provisions as to registration of persons passing examinations.*—(1) The medical and dentists' registers shall in the case of a person registered under the last preceding section show the fact that the practitioner has passed the state medical examination or state dental examination as the case may be and shall also show any medical degree granted to the practitioner by any recognized university or medical body.

(2) The registrar may require the production of such evidence and the payment of such fee as the General Council may prescribe before entering any such medical degree on the register.

16. *Provisions as to intermediate examinations.*—(1) The intermediate examination shall be an examination in such subjects as the General Council may prescribe and may be held by any recognised university or medical body.

(2) Any body by this section authorised to hold an examination may combine with any other such body situate in the same part of the United Kingdom for holding a joint examination.

(3) If in the opinion of the General Council an insufficient number of intermediate examinations shall have been held in any part of the United Kingdom before the first day of November in any year the Council may hold an intermediate examination.

17. *Control by Council of intermediate examinations.*—As to any intermediate examination held after the thirty-first day of December one thousand nine hundred and five—

(1) The General Council may give such directions as it may think fit as to the standard of proficiency to be required thereat and generally as to the conduct thereof and the examining body shall conform to any direction so given notwithstanding any special privilege or exemption contained in any Act of Parliament or Charter.

(2) The General Council may appoint examiners with or without remuneration to act with the examiners appointed by the examining body, provided that no member of the General Council shall be appointed examiner at a remuneration.

18. *Provision for defects in intermediate examinations.*—(1) The General Council may at any time on the report of an examiner appointed by them by resolution declare that the standard of proficiency required by an examining body at an intermediate examination is insufficient and thereupon unless the examining body shall within three months of the date of the resolution present an appeal to the Privy Council the examinations of that body shall on the expiration of those three months cease to rank as intermediate examinations for the purposes of this Act.

(2) On an appeal under this section by an examining body the Privy Council may after giving the General Council an opportunity of being heard report to His Majesty as to the standard of proficiency required at the examinations of that body and thereupon it shall be lawful for His Majesty by Order in Council to direct that the examinations of that body either shall or shall not continue to rank as intermediate examinations for the purposes of this Act.

19. *General Council to prescribe courses of study.*—(1) The General Council shall prescribe such courses of study as they think proper as qualifications for admission to the state examinations and shall have power to make regulations with respect to the nature and periods of such courses of study, to the order in which they shall be undertaken, whether before or after the intermediate examination, and to the places where they shall be undertaken, provided that no recognition shall be given to any course of study pursued by any student before the entry of his name on the students' register.

(2) The General Council shall have power for the purposes of this section to appoint inspectors with or without remuneration to visit any medical or dental school or hospital, provided that no member of the General Council shall be appointed inspector at a remuneration.

20. *State medical and dental examination.*—(1) The state medical examination shall be an examination held by the General Council for the purpose of testing the fitness of persons to practise in medicine surgery and midwifery and any branch thereof.

(2) No candidate shall be admitted to the state medical examination unless he shall have produced satisfactory evidence

to the General Council of having completed courses of study prescribed by the General Council and of having passed an intermediate examination and also shall have paid such fee as the General Council may prescribe.

(3) The state dental examination shall be an examination held by the General Council for the purpose of testing the fitness of persons to practise dentistry and any branch thereof.

(4) No candidate shall be admitted to the state dental examination unless he shall have produced satisfactory evidence to the General Council of having completed courses of study prescribed by the General Council and also shall have paid such fee as the General Council may prescribe.

(5) The state medical examination and the state dental examination shall each be held once at least in the year one thousand nine hundred and and every succeeding year in London Edinburgh Dublin and such other places (if any) as the General Council may think fit.

(6) The written questions in any one state examination shall be identical and set simultaneously in every place of examination, but such part (if any) of an examination as may consist of oral questions may be held at the different places of examination either in succession or simultaneously.

(7) Subject to the provisions of this Act the General Council shall have the entire management and control of the state examinations and shall have power to make regulations in respect to

(*a*) Times, places, mode of conduct and notice of examinations.

(*b*) The appointment and removal of examiners and their remuneration by fees or otherwise provided that no member of the General Council shall be appointed examiner.

(*c*) Any other matter or thing as to which the General Council may think it expedient to make regulations for the purposes of this section.

PART V.—OFFENCES.

21. *Removal of name from register.*—(1) Where a registered practitioner or student either before or after the commencement of this Act and either before or after registration has been convicted in His Majesty's dominions of any felony or misdemeanour or elsewhere of an offence which if committed in England would be a felony or misdemeanour or has been guilty of conduct infamous or disgraceful in a professional respect or unfitting him for admission to the profession that practitioner or student shall be liable to have his name removed from the register.

(2) The General Council may cause inquiry to be made into the case of a person alleged to be liable to have his name removed under this section and on proof of such conviction (not being a conviction for a political offence out of His Majesty's dominions nor for an offence which does not in the opinion of the General Council either from its trivial nature or other circumstances disqualify a person for professional practice) or of such infamous or disgraceful or unfitting conduct shall cause the name to be removed from the register.

(3) The removal of a name from the register under this section may be either indefinite in time or for such period as the General Council may think proper and the General Council may at any time, either after or without inquiry as they may think fit, restore to the register a name removed under this section upon payment of such fee not exceeding any unpaid annual registration fees as the General Council may fix or may vary the period of removal.

(4) A name removed from the register under this section shall not be restored except by direction of the General Council or by order of a court of competent jurisdiction.

(5) Any person whose name is removed from the register under this section and who shall during the period of removal use any medical degree, shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

22. *Procedure and powers of General Council on an inquiry.*—Upon or for the purposes of any inquiry held or to be held under this part of this Act:

(1) The General Council may employ such legal or other assessors or assistants as they may think necessary or proper;

(2) The registrar and the person whose name is alleged to be liable to be removed from or is sought to be restored to the register may sue out a writ of subpœna ad testificandum or a writ of subpœna duces tecum.

(3) The High Court or a judge thereof may order that any such writ may issue to compel the attendance before the General Council of a witness wherever he may be within the United Kingdom and also may order that a writ of habeas corpus ad testificandum shall issue to bring up a prisoner for examination before the General Council;

(4) The General Council may administer oaths to or take the affirmations of witnesses;

(5) The General Council may assess the costs of the inquiry and if they think fit may direct payment thereof either by the person whose name is in question or by any complainant and the person directed to pay the costs shall pay the same to the General Council or as they may direct accordingly;

(6) A certificate under the seal of the General Council that a sum is owing by any person for costs under this section shall be conclusive evidence of the fact.

23. *Prohibition of practice by unregistered persons.*—Any person other than a registered medical or dental practitioner who—

(1) applies any medical or dental treatment to any person without the supervision of a registered medical or dental practitioner and demands or receives any valuable consideration for such treatment whether by way of remuneration gratuity or otherwise or

(2) holds himself out as practising or competent to practise medicine surgery midwifery or dentistry or takes or uses the style or title of physical surgeon doctor of medicine or dentist or any other style or title whether expressed by words or by letters only implying that he possesses the skill or knowledge necessary for that practice

shall be deemed to have committed an offence under this Act and shall be liable on conviction on indictment to imprisonment for six months with or without hard labour and alternatively or in addition to a penalty not exceeding one hundred pounds for each offence and on summary conviction to a penalty not exceeding forty pounds for each offence.

24. *Prohibition of unregistered person signing certificate.*—Any person not being a registered medical practitioner who shall sign any certificate of death still-birth or sickness or any certificate purporting to be a medical certificate or by the issue of which it is implied that the person signing it as a person possessed of medical skill or knowledge shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

25. *Penalty for granting unrecognised degrees.*—Any person other than a recognised university or medical body who shall grant any medical degree to a person not being a registered medical or dental practitioner shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding fifty pounds.

26. *Prohibition of improper use of name of registered practitioner.*—Any person who shall in selling or advertising for sale any article of food or drink or any medicine drug potion wash or ointment or any preparation or apparatus intended for use in medicine surgery dentistry or midwifery or alleged to possess curative or preservative qualities when applied to the human body—

(1) make any false representation as to an act done or opinion expressed by any person then or formerly registered as a medical or dental practitioner whether alive or dead or

(2) use the name of any such person after receipt of notice from him or his legal personal representative or from the General Council requesting that the use be discontinued;

shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

27. *Prohibition of certain acts of registered practitioners.*—Any registered medical or dental practitioner who:—

(1) practises under any name other than that under which he is registered; or

(2) practises for a period exceeding three months whether as principal or as assistant to or deputy of another practitioner in or from any building not being a hospital or other institution of a charitable or public nature and does not cause his name to be displayed in legible characters on the outside of that building

shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty not exceeding twenty pounds for every day on which he has so practised.

28. *Application of penalties.*—Any sum of money arising from a conviction and the recovery of penalties under this Act shall be paid to the General Council whether the conviction takes place within the Metropolitan Police District or elsewhere.

29. *As to prosecutions.*—A prosecution for any offence mentioned in this part of this Act may be instituted by the General Council.

30. *Provision against offences by companies.*—(1) In this part of this Act the word person includes a corporation and any body of persons corporate or unincorporate.

(2) Every director or other officer of any company who shall knowingly and wilfully authorise or permit the commission by the company of an offence under this Act shall be liable to the same penalty or term of imprisonment as that to which the company is liable or would be liable if it were a natural person.

(3) If a company shall make default for seven days in payment of any penalty imposed under this Act, that company shall be deemed to be unable to pay its debts within the meaning of the Companies Act 1862 and may be wound up by the Court upon the petition of the General Council.

Part VI.—Supplementary Provisions.

31. *Definitions.*—In this Act the expression "medical or dental treatment" includes the application of any real or pretended art science method or system relating to the prevention cure or alleviation of any disease or defect of or any injury to the human body and the performance of any surgical or dental operation.

The expression "medical degree" includes every degree title diploma certificate or licence having reference to medical or dental knowledge or skill or capacity to apply medical or dental treatment.

The expression "recognized university or medical body" means a university or medical body entitled either alone or jointly to choose a member of the General Council.

32. *Exception for foreign practitioners.*—Nothing in this Act shall prevent any person not being a British subject who shall have passed the regular examinations entitling him to practise medicine or dentistry in his own country from being called into the United Kingdom for the purpose of consultation with a registered medical or dental practitioner and duly acting for the time being as a registered practitioner or from being and acting as the resident physician or medical officer or dentist of any hospital established exclusively for the relief of foreigners in sickness provided always that he does not habitually engage in medical or dental practice in the United Kingdom except as such resident physician medical officer or dentist.

33. *Saving for midwives.*—Nothing in this Act shall affect or modify the provisions of the Midwives Act 1902 or render illegal any act or thing done by any woman in connexion with midwifery which would not have been illegal if this Act had not been passed.

34. *Repeals and amendments.*—The enactments mentioned in the second schedule annexed hereto are hereby repealed to the extent mentioned in the third column of that schedule and are hereby amended to the extent mentioned in the fourth column of that schedule.

35. *Short title and construction.*—(1) This Act may be cited as the Medical Act 1905 and may be cited and shall be construed as one with the Medical Acts.

(2) The expression "the Medical Acts" shall include the Dentists Act 1878 and that Act shall be deemed to be included in the group of the "Medical Acts" mentioned in the Second Schedule to the Short Titles Act 1896.

Schedule I.

Electoral areas for the election of Direct Representatives on the General Medical Council:

A.—Electoral Areas in England and Wales.

Name.	Area.
1. North of England (1,340 Practitioners).	The Counties of Northumberland, Cumberland, Westmorland, and Durham. In the County of Lancaster, the North Lonsdale and Lancaster Parliamentary Divisions. In the County of York, the Cleveland Parliamentary Division, and the Borough of Middlesbrough.
II. West Lancashire and Cheshire (1,460 Practitioners).	In the County of Lancaster, the following Parliamentary constituencies, namely:—Blackpool, Preston, Chorley, Wigan, Hindley, Leigh, Newton, Warrington, St. Helens, Widnes, Liverpool, Bootle, Ormskirk, and Southport.
III. East Lancashire (1,450 Practitioners).	In the County of Lancaster, the following Parliamentary constituencies, namely: Darwen, Blackburn, Clitheroe, Burnley, Accrington, Rossendale, Middleton, Rochdale, Heywood, Bury, West Houghton, Bolton, Ratcliffe-cum-Farnworth, Prestwich, Oldham, Ashton, Gorton, Manchester, Salford, Stretford, and Eccles. In the County of Chester, the Hyde Parliamentary Division, and the Boroughs of Stalybridge and Stockport.
IV. Yorkshire (North and West) (1,390 Practitioners).	The North Riding of the County of York, *except* the Cleveland Parliamentary Division, and the Borough of Middlesbrough. The West Riding of the County of York, *except* the Parliamentary Divisions of Hallamshire, Rotherham, Doncaster, and Osgoldcross, and the Parliamentary Borough of Sheffield. The City of York.
V. North-East Midland (1,440 Practitioners).	The East Riding of the County of York. In the West Riding, the Parliamentary Divisions of Hallamshire, Rotherham, Doncaster, and Osgoldcross, and the Borough of Sheffield. The Counties of Derby, Nottingham, and Lincoln.
VI. Wales and the Border Counties (1,390 Practitioners).	Wales. In England, the Counties of Shropshire, Hereford, and Monmouth.
VII. West Midland (1,360 Practitioners).	The Counties of Stafford, Warwick and Worcester.
VIII. East and East Midland (1,410 Practitioners).	The Counties of Leicester, Rutland, Northampton, Bedford, Huntingdon, Cambridge, Norfolk, and Suffolk.
IX. South-Western (1,440 Practitioners).	The Counties of Somerset (*except* so much of the Parliamentary Borough of Bristol as is situated therein), Dorset, Devon, and Cornwall.
X. South Midland and South (1,400 Practitioners).	The County of Gloucester with the Parliamentary Borough of Bristol. The County of Wiltshire. In the County of Oxford, the Banbury and Woodstock Parliamentary Divisions, and the City of Oxford. The County of Hampshire, *except* the Basingstoke and Petersfield Parliamentary Divisions.
XI. South Eastern (1,420 Practitioners).	The County of Kent, *except* the Parliamentary Divisions of Sevenoaks and Dartford, and the Boroughs of Greenwich, Lewisham, and Woolwich. The County of Sussex. In the County of Surrey, the Guildford Parliamentary Division.

NAME.	AREA.
XII. to XVII. METROPOLITAN (8,400 Practitioners; to be divided into six electoral areas).	The Counties of Middlesex, Essex and Hertfordshire. The County of Surrey, *except* the Guildford Parliamentary Division. In the County of Kent, the Parliamentary Divisions of Sevenoaks and Dartford, and the Boroughs of Greenwich, Lewisham, and Woolwich. In the County of Hampshire, the Basingstoke and Petersfield Parliamentary Divisions. The Counties of Berkshire and Buckinghamshire. In the County of Oxford, the Henley Parliamentary Division.

B.—ELECTORAL AREAS IN SCOTLAND.

NAME.	AREA.
I. NORTH SCOTLAND (960 Practitioners).	The Counties of Inverness, Perth, Stirling, Clackmannan, Kinross, Forfar, and the Counties north thereof.
II. WEST SCOTLAND (1,400 Practitioners).	The Counties of Ayr, Lanark, Renfrew, Dumbarton, Argyll, and the Isles.
III. SOUTH AND SOUTH-EAST SCOTLAND (1,330 Practitioners).	The remaining Scottish Counties.

C.—ELECTORAL AREAS IN IRELAND.

NAME.	AREA.
I. NORTH IRELAND (1,200 Practitioners).	The Provinces of Ulster and Connaught. In the Province of Leinster, the Counties of Longford, West Meath, Meath, Louth, and King's County.
II. SOUTH IRELAND *(1,350 Practitioners).	The Province of Leinster, *except* the Counties of Longford, West Meath, Meath, Louth, and King's County. The Province of Munster.

Item 14 in Report.]

REPORT ON REPLIES TO INQUIRIES ADDRESSED TO POLICE AUTHORITIES AS TO THEIR RULES AND PRACTICE IN THE MATTER OF SUMMONING MEDICAL PRACTITIONERS, OTHER THAN POLICE SURGEONS, TO ATTEND EMERGENCY CASES.

I.—ENGLAND AND SCOTLAND.

Inquiries were sent to the Police Authorities of the sixty-five English towns of a population of 50 000 or more, and to the Authorities of the twenty-one Scottish towns of a population of 25,000 or more. Up to May, 1905, 68 of these Authorities had replied.

(a) As to Fees.

39 state that they hold themselves responsible in such cases for any reasonable fee charged by the doctor. This fee is stated to vary from 3s. 6d. to 10s. 6d., or more, according to circumstances.

21 have a fixed scale of fees which they pay to doctors in such cases. These vary from 2s. 6d., 3s. 6d., or 5s., for a day call, to 7s. 6d., 10s., or (in two cases) 10s. 6d. for a night call:

4 Police Authorities state that all work of the kind is done by one or other of their police surgeons or deputy police surgeons, or sent to hospital.

4 Police Authorities state that they do not hold themselves accountable for such fees.

(b) As to Conditions of Payment.

With two exceptions all the sixty Police Authorities who may in such circumstances summon a doctor other than a police surgeon, and who hold themselves responsible for his fee, make it a condition, as regards the payment of the fee by them, that the doctor has been actually summoned to attend *by the Police.*

* It will be understood that the particulars as to number of practitioners are merely approximate, and stated for the assistance of members of the Association. They would not form part of the actual Schedule of the Bill.

II. IRELAND.

The inquiries made have elicited the information that the whole of Ireland, with the exception of Dublin City, is policed by the Royal Irish Constabulary. With the exception of Dublin City, the rules and practice of the Irish Police in the matter of summoning medical practitioners, other than police surgeons, to attend emergency cases are those contained in the Regulations of the Royal Irish Constabulary. The rules and practice of the Dublin Police Authorities are similar.

(a) As to Fees in Ireland.

If the services (on a "visiting ticket," obtained from the Relieving Officer) of a dispensary doctor are not available, and some other medical practitioner has to be called, the Constabulary hold themselves responsible for the fee (£1 1s.; if detained more than three hours, £2 2s.).

The City of Dublin Police hold themselves responsible for "the ordinary fee."

(b) As to Conditions of Payment in Ireland.

If the patient is in a position to pay, he does so. Failing his so doing, the Royal Irish Constabulary and City of Dublin Police, respectively, hold themselves responsible for the doctor's fee as above.

The Regulations both of the Royal Irish Constabulary and of the City of Dublin Police make it a condition, as regards the payment of the fee by them, that the doctor has been actually summoned to attend *by the Police.*

REPORT.

The Medico Political Committee presents to the Representative Meeting the following report:

That, in the opinion of the Committee, the facts ascertained as a result of the inquiries which have been addressed to the Police Authorities throughout the United Kingdom do not indicate any grievance calling for action by the Association, but that in a few places there appears to be reason for action, and the Association should render such support to the Divisions concerned as may be required if they desire to move in the matter.

Item 15 in Report.]

REPORT ON THE REPLIES OF COUNTY COUNCILS AND COUNCILS OF COUNTY BOROUGHS CONCERNING THE PAYMENT OF MEDICAL PRACTITIONERS FOR CERTIFICATES OF UNFITNESS OF CHILDREN TO ATTEND SCHOOL.

In response to a circular which, by instruction of the Medico-Political Committee, was addressed to all the County Councils and Councils of County Boroughs in England and Wales, inquiring what provision, if any, has been made for the payment of medical men who give certificates required by the Education Authorities, of unfitness of children to attend school on the ground of ill-health, replies have been received from 39 County Councils and 59 County Borough Councils.

Among these, 11 County Councils and 11 County Borough Councils state that they pay fees for such certificates; in 6 cases it is stated that such certificates, when required, are given by a salaried medical officer appointed by the Education Authority, and in 70 cases it is stated that no provision has been made for this purpose.

The fees usually paid for such certificates vary from 1s. to 2s. 6d.

Several authorities distinguish between cases seen at the doctor's surgery and cases visited by the doctor before certifying.

A fee of 10s. 6d. is paid by the Leeds Corporation when a visit from their special medical officer is required to certify in a case of poverty, or a case in which a medical certificate obtained by the parents does not satisfy the education authorities.

A fee of 5s. is paid by the Oxford Corporation when a visit is required. These are the only cases in which the fee paid exceeds 2s. 6d.

Some authorities who make no payment state that this practice is the result of careful consideration of the question.

Item 17 in Report.]

THE UNDULY REPEATED DISPENSING OF PRESCRIPTIONS.

(a) Memorandum Circulated to the Divisions.

The Medico-Political Committee has very carefully considered the subject of the abuses which now prevail in connection with

the repeated dispensing of prescriptions beyond the intention of the prescriber, and has had the advantage of a conference with representatives of the Pharmaceutical Society.

In the present state of the law, the prescription is the property of the patient to whom it is given by the prescriber, and may be repeated as often as the owner desires.

The owner, however, can only claim the right to have prescriptions dispensed in accordance with the terms thereof, and if, therefore, directions as to the number of times for which a prescription was to be repeated or as to the period within which the prescriber intended that the administration of the drugs indicated in the prescription should be confined, were made an integral part of the prescription, the dispenser would be justified in refusing to dispense the prescription otherwise than in accordance with such instructions.

Entirely to prevent the abuses in question, certain alterations of the law would be required.

Before attempting to obtain new legislation the Committee is of opinion that a considerable improvement in the existing position could be effected by voluntary action of the medical profession in the following respects:—

(*a*) That members of the profession should adopt the practice of indicating on every prescription the period, or the number of times, for which it is intended to be dispensed.

(*b*) That, in order to prevent copying, all prescriptions should be signed by the prescriber with his full name and address, and not merely initialled.

(*b*) *Analysis of Replies of Divisions.*

46 Divisions have replied upon this subject up to the time of preparation of this *précis* (April, 1905).

Those findings of the Divisions which can be classified with reference severally to the three questions submitted by the Committee are as follows:

On Recommendation (*a*), namely:

"That members of the profession should adopt the practice of indicating on every prescription the period, or the number of times, for which it is intended to be dispensed,"

32 Divisions
approve the proposal.

4 Divisions
are definitely adverse.

1 Division
approves (as far as practicable).

1 Division
approves, but thinks it would be of no avail for the purpose.

1 Division
considers that it is not practicable.

1 Division
is of opinion that the matter should be left to individual discretion.

1 Division
suggests that it should take the form that no prescription should be repeated by a chemist without being redated and initialled by the doctor.

1 Division
would add the rider that the prescription be not dispensed to any other person than the person prescribed for.

On Recommendation (*b*), namely:

"That, in order to prevent copying, all prescriptions should be signed by the prescriber with his full name and address, and not merely initialled,"

32 Divisions
approve definitely.

6 Divisions
disapprove.

1 Division
adds the following rider: "That the Committee be asked to state whether the substitution of the full name for the initials of the prescriber at the end of a prescription will in any way prevent (1) the prescription being copied; (2) the prescription being made up without being re-signed?"

1 Division
states that they fail to see how this recommendation would prevent copying.

On Clauses (*a*) and (*b*) taken together,

1 Division
states that they should form the basis of some legal enactment.

1 Division
(which has expressed no other opinion) states that "steps should be taken to prevent, if possible, chemists repeating a prescription without orders from a medical man."

1 Division
states that there should be "a clause forbidding chemists to supply patients with copies of prescriptions."

1 Division
states that proposals (*a*) and (*b*) have been disapproved as being useless for the purpose.

Item 18 in Report.]

FURTHER CORRESPONDENCE WITH THE LORD CHANCELLOR.

$\frac{1054}{8}$

House of Lords, S.W.
29th July, 1904.

Sir,—With reference to the letter of the 1st inst., signed by yourself and Mr. Smith Whitaker, and previous communications, the Lord Chancellor has not found it possible to give time for a minute examination of all the facts and arguments which have been placed before him in the controversy. Though his Lordship's present impression is not in favour of the Coroner's practice, his Lordship does not as yet see that there is such a case as would found the exercise of the only jurisdiction which he possesses, namely, to remove a Coroner for misconduct in his office.

I am, Sir,
Your obedient Servant,
(Signed) K. Muir Mackenzie.

Andrew Clark, Esq., F.R.C.S.

British Medical Association,
Medical Secretary's Office,
429, Strand, W.C.
August 4th, 1904.

Sir,—On behalf of the British Medical Association and other Medical Societies who have jointly approached the Lord Chancellor in the matter of certain procedure of the Coroner for South-West London, I am instructed to acknowledge the receipt of your letter of the 29th July $\left(\text{No. } \frac{1054}{8}\right)$ addressed to the Chairman of the Conference of Medical Societies, Mr. Andrew Clark, F.R.C.S.

I am further instructed to request you to convey to the Lord Chancellor the thanks of the Association and Medical Societies for communicating to them the view at present taken by his Lordship upon the important matters which they have felt it to be their duty to submit for his Lordship's consideration.

Having in view the gravity of the issues involved as affecting the public welfare and the keen interest with which his Lordship's decision upon those issues is awaited by the Medical Profession at large, I beg to inform you that I have been instructed to hand your letter to the Editor of the British Medical Journal for publication in the next issue.

It is inferred from the terms of the letter in question that the favour of a further communication of the Lord Chancellor's judgement may be looked for when circumstances shall have permitted his Lordship to examine the particulars which the Association and Medical Societies have had the honour to lay before him.

I am, Sir, your obedient servant,
(Signed) J. Smith Whitaker,
Medical Secretary of the British Medical Association,
Secretary of the Conference of Medical Societies.

The Permanent Secretary,
Lord Chancellor's Office,
House of Lords.

Offices of the British Medical Association,
429, Strand, W.C.
January 5th, 1905.

My Lord,

On behalf of the Medical Societies who have on several occasions addressed your Lordship with reference to the procedure of Mr. John Troutbeck, Coroner for Westminster and South-West London, we are directed to write for the purpose of inquiring whether an opportunity has yet presented itself

for your Lordship to give the documents which we have submitted in this matter the consideration which in the letter of the Permanent Secretary to the Lord Chancellor, dated July 29th last, it was stated that you had up to that time been unable to give.

If such opportunity has presented itself we would most respectfully crave from your Lordship an early pronouncement upon the matter.

If however opportunity has not yet been afforded to your Lordship to take into your consideration the circumstances placed before you may we with all deference express the hope that the matter may be deemed by your Lordship deserving of your special and early consideration.

We append for your Lordship's information a case which further exemplifies certain of those irregularities associated with Mr. Troutbeck's procedure which have already been brought under your Lordship's notice by the communications previously addressed to you. We would most respectfully submit that an official communication to a witness for the purpose of judicial procedure should be made in writing.

We are,

Your Lordship's most humble obedient Servants,

(Signed) Andrew Clark,
Chairman of Joint Committee representing the British Medical Association, the South-West London Medical Society, the Medical Defence Union, Limited, and the London and Counties Medical Protection Society, Limited

(Signed) J. Smith Whitaker,
Secretary of Committee.

To the Right Honourable the Lord Chancellor.

Case of J. L., attended by Dr. D.

The following summary statement is based entirely upon the appended documents, which are:

(*a*) A report taken from the *Weekly Dispatch* of an inquest at which Mr. Troutbeck made reflections upon the conduct of Dr. D. in respect of the case of an infant attended by him;

(*b*) A copy of a report subsequently presented by Dr. D to the Guardians of the Poor of the ———— Union, by whom he is employed as medical officer to the workhouse.

In his capacity as medical officer of the ———— Union Workhouse, Dr. D. attended an unnamed child (afterwards named J. L.), who was eventually transferred to the ———— Infirmary, and died there on October 22nd, 1904. On October 27th Dr. D. received at his private residence at about 9 30 p.m. a telephone message from the coroner's officer, desiring certain particulars which Dr. D. then promised to furnish next day at the workhouse, where the books were kept from which the particulars must be obtained. The coroner's officer did not keep the appointment next day, and the only communication which Dr. D received from the coroner or any one representing him was the telephone message already mentioned.

The Coroner having, at the inquest on October 29th, censured Dr. D. in the terms stated in the appended newspaper report, the matter was consequently investigated by the ———— Guardians who, by resolution of which a copy is appended at the end of Dr. D.'s Report, exonerated Dr. D. from blame.

In conjunction with the foregoing case the Lord Chancellor is most respectfully requested to consider that of the inquest on M. J. C. reported to the Lord Chancellor in a communication from the Medical Societies, dated May 17th, 1904, in which case Dr. A., who had been in attendance on the deceased, furnished particulars, the receipt of which was not acknowledged, and received no communication from the Coroner until the morning of the inquest. A telephone message was then received at a time when he was not at home, asking him to go at once to the Coroner's Court as the inquest was in progress and his evidence was required.

[Copy.]

Re "Weekly Dispatch" Report of Inquest on J. L. on 29th October, 1904.

Report to Workhouse Committee, 3rd November, 1904.

At about 9 30 on the evening of Thursday the 27th ultimo someone, who stated he was the Coroner's Officer, rung me up on the telephone at my house. He stated that a young unnamed child (afterwards called J. L.), who had been in the workhouse and was, after ten days in the Infants Block, transferred to the Infirmary on the 22nd ultimo, had died there; he wanted to know the age when admitted, the state on admission, on transfer, and several other questions; as to dates I referred him to the Workhouse Master and supplied him with the telephone number, but as to the Medical particulars I said I could not possibly answer offhand, but that I must first refer to my books kept at the Workhouse and not at my private house from which I was then speaking, that I should be at the Workhouse at 9 o'clock the following morning, and could then give the required particulars. He then said he would be at the Infirmary the next morning to see the Medical Superintendent, and would see me and let me know if I should be wanted at the Inquest.

On Friday morning at the Workhouse I got out the particulars (produced) and left word at the Gate that the Coroner's Officer could see me directly he came (the Master's Clerk told me that the Officer had been to the Workhouse the previous day and had been told he could see me at my house at 2 o'clock that afternoon). At about half-past 10 Dr. N. telephoned to me at the Workhouse that he had suggested that it was necessary for me to give evidence as to the state of the child on admission and while at the workhouse, and that he was going to make a *Post-mortem* Examination at 12.30 that day.

I left the Workhouse a few minutes before 11. and asked that should the Coroner's officer call he be told that I should be at the Infirmary from 12.30 to 1 o'clock, and that after 3 o'clock I could be seen at my own house. I attended the *post mortem* examination (which confirmed my diagnosis on transfer), and later, being near the Workhouse, called again to see whether the Officer had been and found he had not.

Except for the conversation on the telephone on Thursday night I neither saw or heard from the Coroner or his officer, even as to the time and place of the inquiry.

Legally, I should have been quite justified in refusing to give any particulars whatever except in the form of evidence before the Jury, but as a matter of fact they were available for the Officer, if he had taken the trouble to come either to the Workhouse or my house.

The censuring of Medical Men in their absence is, of course, no new thing in the local Coroner's Court, but I would suggest to the mind of any person of common sense or fairness the value of any such censure would depend upon whether it was based upon a true statement of facts, or, as in this case, upon baseless insinuations.

The Coroner is reported to have said that "he could not help observing the unsatisfactory way Dr. D. does his business." After nearly twenty years' service as your Medical Officer—during which time I have received many evidences that my work has at least not been unsatisfactory to your Board—I venture to return the compliment.

(Signed) A. E D.,
Medical Officer.

Report of Workhouse Committee.

Your Committee investigated the matter, and after hearing the Medical Officer's report on the subject, are of opinion that the Coroner's remarks with regard to Dr. D. were not founded on facts, and that the want of information referred to by the Coroner was due to the peculiar way in which the Coroner's Officer dealt with the matter.

Item 19 in Report.]

MEMORANDUM TO THE BOARD OF EDUCATION CONCERNING THE CIRCULAR ISSUED BY THE BOARD IN JULY OF THE PROPOSED INSTITUTION OF A GOVERNMENT CERTIFICATE OF SECONDARY EDUCATION.

The British Medical Association, having for some considerable time given very careful attention to the question of the standard of Secondary Education which should be required as a condition of entrance upon the technical studies for professions, and having upon this subject arrived at certain definite conclusions which are set forth in a Memorandum communicated to the Board of Education on July 6th, begs to submit for the consideration of the Board of Education the following comments on the proposals contained in the Report of the Consultative Committee issued by the Board in July.

(1) The British Medical Association would represent that those bodies which have so far been consulted by the Consultative Committee are chiefly teaching or examining institutions, and that the Board of Education should have equal regard to the experience of bodies like the British Medical Association which have special opportunities of ascertaining the results of various systems of tuition and

of various examinations, as exhibited in the after-history of those who have been submitted to them.

(2) The Medical profession, from its long experience of the system of multiple examining bodies in professional subjects, has special knowledge of the resultant inequalities of standard, and of the difficulty of effecting improvements in face of the opposition of established interests.

(3) The British Medical Association is unable to concur in the proposal that, in lieu of a single standard examination as originally suggested by the Head Masters' Conference, there should be an indefinite number of examinations managed by separate bodies, and it is in a position to say that a large majority of Members of the Medical profession hold that the standard of Secondary Education required for entrance to the Medical profession should be uniform, and that any system which so constantly tends, as does that of multiple examining bodies, to degradation of the standard, should be avoided.

(4) The Association would therefore submit that the examination in Secondary Education should be conducted by a central body, appointed by the Board of Education, and including representatives of the Universities and teaching bodies, and that on the results of examinations so conducted a Secondary Education certificate should be given.

(5) To serve the purposes of Medical Education, the Association would also submit that candidates should be required to be over 17 years of age, and that the standard prescribed for the Secondary Education Certificate should be one suitable for candidates of this age. This does not exclude the possibility of providing a lower certificate for professions for which such provision may be thought desirable.

(6) The inspection of schools contemplated in the proposals of the Consultative Committee should, in the opinion of the Association, be organised independently of the conditions of admission to the examination for the Secondary Education Certificate, in order to avoid interference with the uniformity of examination standards.

(7) A system of retrospective reports such as is proposed, especially if partly confidential, must also be regarded as quite foreign to the purpose of an examination intended to serve as the gateway to professional education, and it may be questioned whether it would not confer a most dangerous power upon the teacher, and have a perilous influence on the morale of the school. Testimonials of character when required have their own value, which is and should be quite separate from the results of examination.

(8) In any satisfactory system of tests for entrance on professional education, examiners and teachers should, so far as the individual candidates are concerned, be separate persons. Absolute purity is an essential condition for the acceptance of such tests, and this cannot be guaranteed unless examiner and teacher are separate.

Item 20 in Report.]

THE RELATIONS OF THE MEDICAL PROFESSION TO AMBULANCE WORK.

Memorandum Submitted for Consideration by the Divisions.

Until a few years ago the services of medical practitioners in the work of the Ambulance Association were clearly a matter of philanthropy. No honorarium was paid to lecturers, and the examiners received an honorarium which was an acknowledgement but not remuneration for the work done beyond actual instruction. The services of the medical profession were recognized by the conferring of Honorary Life Membership of the St. John Ambulance Association, and in other similar ways.

Within the past few years, owing to the recognition of ambulance work as a subject of technical education, and its consequent claim to participate in local grants, the medical instructors are now in some cases paid a fee for their services. Recently, also, the establishment of ambulance brigades and shield competitions has materially altered the demands of the ambulance services upon the medical profession. Ambulance work has, however, never lost its character of being, in part at least, a philanthropic service by the medical profession. The value to employers of ambulance knowledge in the employés, and the financial responsibility of employers for accidents to workmen, are now greatly extended.

The time seems opportune for a decision by the profession as to (1) how far the ambulance work of the profession should remain philanthropic, and (2) how far it should now be dealt with as a matter of business. The Medico-Political Committee, therefore, thinks it well to refer the whole matter for the consideration of the Divisions, with a view to its decision by the Representative Meeting at Leicester.

Questions Submitted:—

Each Division is asked to answer these specific questions:

(1) Which (if any) of the following services—
- (*a*) Ambulance Instruction,
- (*b*) Ambulance Examinations,
- (*c*) Judging in Ambulance Competitions,

should be treated as a matter of philanthropy?

(2) What arrangement as to fees and other matters would be suitable in each district for those services which the Division considers should be treated as a matter of business?

Abstract of the Replies of Divisions to the Inquiries of the Committee.

45 Divisions have replied to the inquiries of the Committee on this subject up to the date of the preparation of the present report (April, 1905).

(1) In reply to Question (1), namely:

Which (if any) of the following services—
- (*a*) Ambulance Instruction,
- (*b*) Ambulance Examinations,
- (*c*) Judging in Ambulance Competitions,

should be treated as a matter of philanthropy?

As regards (*a*) the replies are:
- 33 Divisions as a matter of *business*.
- 1 Division as a matter of *philanthropy*.
- 1 Division as a matter of philanthropy in the case of the St. John Ambulance Association, but with Education Committees as a matter of business.
- 1 Division as a matter of business except in the case of charitable institutions.
- 1 Division that it should be left to the discretion of the individual practitioner to charge or not as he may think proper.

As regards (*b*) replies from
- 33 Divisions as a matter of business.
- 1 Division that Education Committees should be required to pay the Examiners.

As regards (*c*) the replies are:
- 30 Divisions as a matter of business.
- 4 Divisions as a matter of philanthropy.
- 2 Divisions that each case should be dealt with on its merits by the individual practitioner.

In addition to the foregoing replies, dealing with (*a*), (*b*), (*c*) severally, 6 Divisions have given general answers to question (1).

These are as follows:
- 1 Division, that generally charges should be made for the services in question, but each case should be judged on its merits, and it should be left open to Members to give their services free.
- 2 Divisions that the matter should be left to individual practitioners to decide.
- 1 Division that it must be determined according to circumstances.
- 1 Division that there is no need to alter present arrangements.
- 1 Division that it should be gratuitous, except in the case of classes where pupils pay fees, and classes arranged by employers of labour or corporations.

(2) With regard to Question (2), namely:

What arrangement as to fees and other matters would be suitable in each district for those services which the Division considers should be treated as a matte of business?

the replies vary very widely:—

5 Divisions
that it should be left to individuals to fix their own fees.

2 Divisions
that fees should be fixed according to District or Division.

2 Divisions
approve the St. John Ambulance scale.

Of those Divisions which name specific amounts—

(a) *For Lectures:*

	£	s.	d.	
2 Divisions	0	10	6	per lecture.
1 Division	0	15	0	,, ,,
10 Divisions	1	1	0	,, ,,
1 Division	3	3	0	per course.*
5 Divisions	5	5	0	,, ,,
1 Division	8	8	0	,, ,,

(b) *For Examinations:*

The fees suggested vary from a minimum of 1 guinea to a minimum of 3 guineas.

In some cases it is suggested that the fee should be 1 or 2 guineas and expenses.

One Division suggests an extra charge if the class examined is over 30.

(c) *For Judging:*

Very few suggestions have been made: 1 guinea, 1 guinea per hour, and 3 guineas, are the amounts named by some Divisions.

Item 22 in Report.]

PUBLIC HEALTH BILL.

QUALIFICATION AND TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH AND SANITARY INSPECTORS.

MEMORANDUM.

The main objects of this Bill are to ensure that none but those properly qualified shall be appointed as medical officers of health or sanitary inspectors and to give all such officers and inspectors similar security in their tenure of office to that enjoyed by poor law medical officers and metropolitan medical officers of health. As the law stands no qualification is required for a sanitary inspector except in London and as a general rule a medical officer of health or sanitary inspector is appointed from year to year only and thus has no true security of tenure. Poor law medical officers and metropolitan officers of health are not appointed for limited periods only and are removable only by or with the consent of the Local Government Board.

The duties of medical officers of health and inspectors are so important and responsible that they ought to be entrusted only to fully qualified persons whose position is satisfactorily secured.

Except in London urban sanitary authorities have no legal power to appoint more than one sanitary inspector. It is desired to extend the metropolitan powers to all urban sanitary districts.

In London the sanitary inspector is so called by law but outside London the law names him "inspector of nuisances." It is proposed that the London name shall be universally used.

ARRANGEMENT OF CLAUSES.

	CLAUSE.
Qualification of medical officers of health and sanitary inspectors	1
Tenure of office	2
Urban authority may appoint several sanitary inspectors ...	3
Administrative provisions	4
Definition of "sanitary inspector"	5
Saving for officers of Local Government Board and County Councils	6
Repeal of enactments	7
Extent of Act...	8
Construction of Act	9
Short title and commencement of Act	10

* The number of lectures constituting a course being specified by 1 Division as 5, by 1 Division as 6, the others unspecified.

A BILL

To amend the law relating to the qualification and tenure of office of Medical Officers of Health and Inspectors and for other purposes.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

1. *Qualification of medical officers of health and sanitary inspectors.*—(1) A person shall not after the twenty-ninth day of September One thousand nine hundred and eight be appointed a medical officer of health unless he is a duly qualified practitioner and unless either—

(a) He is registered on the medical register as the holder of a diploma in sanitary science public health or state medicine under section 21 of the Medical Act 1886 or

(b) He has for three successive years before the commencement of this Act served as a medical officer of health of a district or combination of districts with a population according to the last published census of not less than fifty thousand or

(c) The Local Government Board consents to his appointment.

(2) A person shall not after the twenty-ninth day of September One thousand nine hundred and eight be appointed a sanitary inspector unless either

(a) He is the holder of a certificate of such body as the Local Government Board may from time to time approve that he has by examination shown himself competent for the office or

(b) He has for three consecutive years before the commencement of this Act served as a sanitary inspector of a district or combination of districts with a population according to the last published census of not less than twenty thousand or

(c) The Local Government Board consents to his appointment.

2. *Tenure of office.*—(1) A medical officer of health or sanitary inspector shall not hold office nor be appointed for a limited period only and shall be removable only subject to an appeal to the Local Government Board.

(2) This section shall apply to every medical officer of health or sanitary inspector whether appointed before or after the commencement of this Act and notwithstanding any contract to the contrary.

3. *Urban authority may appoint several inspectors.*—An urban authority shall have power to appoint two or more sanitary inspectors.

4. *Administrative provisions.*—(1) Section 24 of the Local Government Act 1888 shall be construed as if in subsection 2 thereof the reference to regulations made by order under the Public Health Act 1875 included a reference to this Act or regulations made by order hereunder.

(2) Save as in this Act expressly provided nothing herein contained shall abridge or diminish the powers conferred upon the Local Government Board by the Public Health Acts or the Public Health (London) Act 1891.

5. *Definition of "Sanitary inspector," 38 and 39 Vict. c. 55, 54 and 55 Vict. c. 76.*—In this Act the expression "sanitary inspector" includes an inspector of nuisances and a sanitary inspector appointed under the Public Health Act, 1875, or the Public Health (London) Act, 1891, and an inspector of nuisances shall henceforth be designated a sanitary inspector.

6. *Saving for Officers of Local Government Board and County Councils 51 and 52 Vict. c. 41.*—Nothing in this Act shall apply to a medical officer of health or sanitary inspector appointed by the Local Government Board or by the council of any county under the Local Government Act 1888.

7. *Repeal of Enactments.*—The enactments specified in the schedule to this Act are hereby repealed as from the twenty-ninth day of September One thousand nine hundred and eight to the extent mentioned in the third column of that schedule.

8. *Extent of Act.*—This Act shall not extend to Scotland or Ireland.

9. *Construction of Act, 54 and 55 Vict. c. 76.*—This Act shall be read as one with the Public Health Acts and so far as this Act applies to London with the Public Health (London) Act 1891.

10. *Short Title and Commencement of Act.*—This Act may be cited as the Public Health (Officers) Act 1905 and shall come

into operation on the twenty-ninth day of September One thousand nine hundred and five.

SCHEDULE.

ENACTMENTS REPEALED.

Section and Chapter.	Title or Short Title.	Extent of Repeal.
54 and 55 Vict., c. 76 (1891)	The Public Health (London) Act, 1891.	Section 108, subsection (2).

MEMORANDUM ON THE PUBLIC HEALTH BILL OF THE ASSOCIATION.

(A) Considerations which have led to the Drafting of the Bill.

(1) The duties of Medical Officers of Health and Sanitary Inspectors are of vital importance in the Public Health Administration of the country.

(2) These Officers, particularly the Medical Officers of Health, have duties for which they are in effect directly responsible to the Local Government Board.

(3) The proper performance of these and other duties sometimes obliges Medical Officers of Health and Sanitary Inspectors to act in opposition to the private interests of individuals, when those interests conflict with the interests of the community in respect of Public Health:—for example, in the condemnation of insanitary property.

(4) The influence of such interested private persons upon local authorities is sometimes exerted to obtain the dismissal of a Medical Officer of Health or Sanitary Inspector for reasons arising not through neglect, but strict performance, of his duties.

(5) At present a large proportion of these officers are appointed annually, or for other short periods, and the Local Government Board cannot interfere if the local authority decides not to reappoint a Medical Officer or Inspector, even though the Board may be satisfied that the refusal to reappoint is due not to inefficiency, but to personal considerations of the kind already explained.

(B) The Chief Proposals of the Bill.

It is proposed, therefore, that Medical Officers and Sanitary Inspectors shall not be appointed for limited periods, and that they shall only be removable subject to an appeal to the Local Government Board.

Concurrently with this, it is proposed that the qualifications which at present are required under the Public Health Acts for Medical Officers of Health of Boroughs of over 50,000 population, shall in future apply to all Medical Officers of Health, power being given, however, to the Local Government Board to waive this condition where they think an emergency requires, as for a time there might not be sufficient supply of fully qualified Medical Officers of Health to fill all the vacancies in the country.

Similarly, and subject to like conditions, it is proposed that an adequate statutory qualification shall be prescribed for Sanitary Inspectors.

Item 27 in Report.]

REPORT OF THE EXECUTIVE COMMITTEE OF THE NORWICH DIVISION OF THE BRITISH MEDICAL ASSOCIATION

UPON THE

REPLIES RECEIVED FROM CERTAIN INSURANCE COMPANIES IN RESPONSE TO A CIRCULAR LETTER FROM THE DIVISION, CONTAINING A COPY OF THE REPORT DRAWN UP BY A COMMITTEE APPOINTED BY THE DIVISION TO CONSIDER THE FEES OFFERED FOR MEDICAL EXAMINATIONS IN CONNEXION WITH LIFE AND SICKNESS INSURANCE WORK.

THE Honorary Secretary of the Norwich Division forwarded the following letter to sixty Life and Sickness Insurance Societies throughout the Kingdom, together with a copy of the Report drawn up by a Committee of the Division upon the fees offered for Medical Examinations by Insurance Companies having offices or agents in Norwich, which Report was published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, March 19th, 1904, p. 33.

[COPY OF LETTER.]

To the Secretary of the

..... *Insurance Company.*

.....

DEAR SIR,

The Norwich Division of the British Medical Association, which comprises forty-five members of the Medical Profession in this City, appointed recently a Committee to inquire into and report on the present scales of remuneration offered for Medical Examinations by Insurance Companies in Norwich, and the character of the Examinations demanded.

An abridged Report is enclosed herewith.

This action was taken because of a feeling which has become stronger of late among the Members of the Division, that in many instances the work demanded by Insurance Companies from their Medical Examiners was disproportionate to the Fee paid for Examination.

The Committee's Report was laid before the last General Meeting of the Division, and was appoved. It was then resolved to send to the Insurance Companies doing business in Norwich a statement embodying the main facts in the Report. I should be glad to receive from you any opinions which your Board may choose to express on the points raised in this Report.

I may add that this question is one in which most of the members of the Medical Profession take a keen interest, and the view that the present rates of remuneration are in many cases unsatisfactory is widely held. You will see from the enclosed Report that many Companies* ( ) give an adequate Fee for each Examination.

I am anxious to place your reply to this communication before an early meeting of the Members of the Division, as they are naturally most desirous of knowing your views upon this matter.

I am, yours very faithfully,

H. A. BALLANCE,

46, Prince of Wales' Road, Norwich, April 27th, 1904. Hon. Sec., Norwich Division, British Medical Association.

To the sixty letters, eighteen replies were received. The replies in six cases came from offices which give a fee of not less than a guinea for each examination, but it must not be understood that this is the total number of Companies which pay upon this scale.

Of the twelve remaining offices, one pays a guinea for all examinations for proposals of over £100, two a guinea for examinations for proposals of over £200, and the other nine do not commence to give a fee of a guinea until the amount of the proposal reaches a still higher figure.

With regard to the Companies which pay a fee of not less than a guinea for each examination, the Secretary of the London Life Association writes: "The Association never pays a medical man less than one guinea, for it expects an examination to be equally carefully made irrespective of the amount of the proposal."

The Manager of the Legal and General Life Assurance Society writes: "It has always been our practice to pay the full fee for an examination, thinking as we do that the amount of the proposal concerns the Office and not the Medical Examiner."

The Medical Referee of the Hand-in-Hand Fire and Life Insurance Society writes: "My office is particularly generous in this matter; they not only always pay a guinea for a Medical Examination, but frequently, if there is much trouble in making a report, pay two or even three guineas for it."

The Executive Committee fully agrees with the reasons expressed in the first two letters for the payment of a uniform fee, and would venture to suggest that, in view of the flourishing condition of the offices concerned, the adequate remuneration by Insurance Companies of their Medical Officers is not incompatible with financial success.

The Actuary of the Northern Assurance Company encloses a circular issued by his Company to its Medical Examiners as far back as the year 1865. The circular states that the Directors felt the objections urged by the medical profession to the practice of regulating the fees of the Medical Examiners by the amount of the Insurance to be unanswerable, and that they had determined for the future to pay a fee of one guinea irrespective of the amount of the proposal. At the same time the Directors asked their Medical Examiners to accept a fee of half-a-guinea for "reports filled up by them in the character of Referee of the applicant for assurance, as distinguished from that of Examiner and Adviser of the Company." The Company was obliged to obtain both reports in the majority of cases. From the forms submitted by the Actuary it appears that, in addition to there being no personal examination asked for, there are many fewer questions to be answered

*If the Company was one which paid a fee of not less than a guinea for each examination, the words "your own being one" were here inserted between brackets.

by a medical man in the character of Referee of the applicant for assurance, than by one who is acting as Examiner and Adviser of the Company.

Of the twelve Offices which pay their Medical Examiners a fee of less than a guinea for the smaller policies, which, it would appear, not infrequently lapse at the end of the first year, the common excuse was that expressed in the reply from the Actuary of the Star Life Assurance Society, namely: "That the premium received for such policies is not sufficient to carry the initial cost of obtaining the business plus a full fee of one guinea."

In justification of this practice the same letter alludes to the varying scales of fees charged in private practice by medical men depending on the financial position of their patients. But in the case of a Medical Examination for Life Insurance the medical man is the servant of the Company, the financial status of which does not vary after the manner which is usual among patients in private practice, and the Executive Committee suggests that a complete answer is given in the second quotation from the letters received from those offices which pay a uniform fee of one guinea (*see* page 270) to the position taken up by the Actuary of the Star Life Assurance Society. In addition, it must be remembered that a small fee received by a medical man in family practice is probably one of a series of small fees for attendance upon an individual suffering from an illness of some duration; and this situation offers a sharp contrast to that in which an individual, who wishes to insure his life, pays a single visit to a medical man, and the interests of the Insurance Company for a number of years are then based upon the result of this one visit.

Three of the Companies suggest that if objection is taken by medical men on a large scale to the inadequate fees paid frequently for the smaller policies, it may be to the interest of the Insurance Societies in the future to dispense altogether with medical examinations, at any rate for these smaller policies. An interesting paper, read in February, 1904, by Mr. John Nicoll, F.F.A., A.I.A., entitled "Life Insurance without Medical Examination," together with the subsequent discussion, will be found in the *Transactions of the Faculty of Actuaries*, vol. ii, part iv, p. 57.

In the letter received from the Actuary of the Star Life Assurance Society it is stated that about two million policies for "ordinary" life business are issued every year by the Life Offices of the United Kingdom, and that the Industrial Assurance Companies issue annually an additional twenty-two millions. The volume of work done by the medical profession therefore in connexion with Insurance Societies is not small.

From one of the Offices comes the suggestion that the only way by which the Medical Referee could obtain a guinea for an examination in connexion with the smaller policies would be by the proposer paying half the fee, and this appears to be impracticable.

One Society submits the specimen forms appended.

The Executive Committee entertains the same objection to the sliding scale of fees depending on the value of the policy under the Industrial and Middle Class Branches, as it does to the fees, varying for the same reason for work done in connexion with the higher policies.

It is stated by the Secretaries of certain of the Societies that in their examination forms far fewer questions are asked than in the specimen forms submitted in the Report from the Norwich Division, published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of March 19th, 1904.

It will be conceded that Insurance Societies which do the great proportion of their business in sums of £50 to £200, cannot be expected to pay a guinea for each examination, but in these cases the amount of work which the Societies require of Medical Referees must not be so arduous as in the cases of those Societies which do a large part of their business in the higher policies.

It is quite possible that with regard to the shorter forms such as are reproduced in this Report, an understanding between the Insurance Companies and the Medical Profession could be brought about, satisfactory to both parties, by which a fixed fee of considerably less than a guinea could be agreed upon.

The Executive Committee still holds that the fee to be paid to the Medical Examiner should be proportionate to the amount of work expected from him, and recommends that this Report, if approved by the Division, be forwarded to the Medico Political Committee of the Association, with a request that that Committee should consider whether it is desirable that some action by the Association be taken upon this subject.

Norwich, January, 1905.

INDUSTRIAL CERTIFICATE.

Doctor to call.....

.....ASSURANCE SOCIETY.

No. 19

This portion to be retained by Medical Officer, and presented with account.

Name.....

Residence.....

Age.....

Dr.'s Name.....

Agency.....

Amount Assured, £ : :

Date of Examination.....

If the Proposed is not a fit and proper person, write "REJECTED" across the document.

.....ASSURANCE SOCIETY

No. 19.

CERTIFICATE OF MEDICAL EXAMINATION.

Name of Proposed.....

Age..... * Note if understated.

Address in full.....

.....

Agency.....

Signature of the person examined.....

I certify that I have this day examined the person herein specified, and find h..... free from any constitutional disease, and a fit and proper person to become a Member of the..... Assurance Society; further, that ..... affixed h..... signature hereto in my presence.

* I consider the age understated by.....years.

Signature of Referee.....

Date..... *Address*.....

.....*Secy.*

If the Proposed is not accepted, please write "REJECTED" across the document.

SCALE OF FEES.

Under	£30	2s. 6d.
,,	£50	3s. 6d.
,,	£75	4s. 6d.
,,	£100	7s. 6d.
Over	£100	8s. 0d.

MIDDLE CLASS BRANCH.

.....*ASSURANCE SOCIETY.*

MEDICAL REFEREE'S REPORT.

I have this day examined ..... , *residing at*

..... *and herewith append my report.*

Date ..... 190 *Signed* ..... , *Medical Officer.*

PARTICULARS OF PROPOSED ASSURANCE.

AGENCY

Date of Entry.	Age.	Monthly Premium.	Sum Assured.	When Payable.

AGENT

QUESTIONS.	ANSWERS.
1.—Does the proposer appear in good circumstances and able to keep up assurances?	
2.—Does the age appear to you greater than what is stated above? If so, how much?	
3. Is the proposer the subject of hernia, and if so, are you satisfied a proper truss is worn? Has the proposer any physical defect or infirmity?	
4. Has the proposer suffered from asthma, bronchitis, gout, rheumatic fever, or any serious illness? If so, please state date and duration of last attack, and whether, in your opinion, the life is affected thereby.	
5.—Is there any reason to apprehend paralysis, epilepsy, apoplexy, or insanity?	
6.—Is there any reason to suspect liver or kidney disease?	
7.—Are the heart and lungs normal in every respect and perfectly free from disease?	
8.—Have you any reason to suspect irregular or intemperate habits?	
9.—Are the parents alive? If not, state age at death and cause of death.	
10.—Have any of the brothers or sisters died from phthisis, or is any member of the family now suffering from that disease? If so, please give particulars.	
11.—Are there any other circumstances connected with the proposer with which you think the Society should be acquainted?	
12.—Can you confidently recommend the Directors to accept the proposed life as a healthy one?	

Signature of Proposed Member .....

The Medical Referee is requested to obtain the Signature of the Person to be examined, before proceeding with the Examination, in order to identify the Proposer. When Examination is completed, Referee is desired to forward this Form direct to Chief Office.

The scale of fees for this Certificate is the same as that for the Industrial.

For the "ordinary" business, in which a more detailed examination is required, a fee of ten shillings and sixpence is paid.

ANNUAL REPORT OF THE ETHICAL COMMITTEE.

[Interim Report.]

The Ethical work of the Association transacted at the three meetings of the Ethical Committee which have been held since the last Annual Meeting of the Association is reviewed in the Annual Report of the Council which is presented concurrently with this Report.

Further, a complete review of the work of the year, for presentation to the Annual Representative Meeting, will be circulated to the Divisions shortly before the Annual Meeting.

The Ethical Committee, therefore, has not thought it necessary to submit to the Divisions at the present moment a separate report containing the same matter which is set forth in the Report of the Council as regards ethical matters, but presents this interim report for the purpose of submitting to the Divisions in preparation for the Annual Representative Meeting, the following Report, Memorandum, and Letter:

(A) For the consideration of the Divisions is submitted the Report containing proposals with respect to the advertising of medical men in connexion with hydropathic and similar institutions, which has already been issued to the Divisions, and is here reprinted for convenience:

(B) For the information of the Divisions is presented a Memorandum setting forth the present organization of the Association for dealing with ethical matters.

(C) The Committee also submits, for the information of the Divisions, a communication which on the recommendation of your Committee the Council has decided to forward to the General Medical Council in order to draw attention to the importance of warning medical practitioners against canvassing and advertising.

(A.)

ADVERTISING OF THE NAMES OF MEDICAL PRACTITIONERS IN CONNEXION WITH HYDROPATHIC AND SIMILAR ESTABLISHMENTS.

The Committee, by a circular letter in March, 1904, asked the Divisions in the United Kingdom to express their opinion upon the advertising of medical practitioners in connexion with hydropathic establishments.

The inquiry of the Committee was accompanied by the following memorandum:

Complaints frequently reach the Editor of the Journal of the advertising of medical practitioners in connexion with hydropathic establishments. These complaints usually come from other medical men in the neighbourhood who are not connected with any hydropathic establishment, and the grievance seems to be that the practitioners so advertised are also engaged in general family practice, and are thus the competitors of the complainants who feel that these advertisements are therefore unfair.

A connected grievance is that many of the hydropathic establishments try to compel all their visitors to accept the services of the medical officer of the establishment, and oppose the employment by visitors of any outside medical practitioner.

So long as the medical officers of hydropathic establishments were resident officials, and gave their whole time to the work, these complaints do not seem to have been made, although the way in which they were and still are advertised at railway stations and in railway guide books is not in accordance with the general rules of the profession respecting advertising. This seems to have been the thin edge of the wedge, by means of which a very undesirable practice has grown up, until it has obtained dimensions which make it necessary to consider whether any steps can be taken to check it. It would be obviously unfair to condemn without due notice those who have been allowed for many years to have their names advertised; but, by a reference to the Divisions, full consideration will be obtained before any pronouncement by the Association is made.

112 Divisions have communicated their opinion on the subject, and these replies have been classified as follows:

54 Divisions, without reservation or qualification, express themselves as adverse to the advertising of medical practitioners in connexion with hydropathic establishments.

25 are not only adverse to such advertising, but think that the same rule should be applied to similar institutions.

16 Divisions would restrict their condemnation to the advertising of those practitioners who do not give their whole time to the work.

There are thus 95 Divisions who condemn the practice.

On the other hand—

3 Divisions express the opinion that this subject cannot advantageously be considered apart from the wider one of the ethical position of proprietary institutions in general.

11 Divisions state that they have no experience of the matter, and therefore do not feel competent to express an opinion,

and 1 Division, "That the advertising of medical practitioners in connexion with hydropathic establishments does not call for any interference."

1 Division is of opinion "That there is no occasion for prohibiting the advertising of the names of medical attendants in connexion with hydropathic establishments provided that it is made clear that other medical practitioners than those advertised are at liberty to attend."

1 Division has resolved "That this Division is of opinion that all medical practitioners living in the town where hydropathic establishments are advertised should be allowed to attend cases in such establishments."

With these may be mentioned a rider, added by one Division included above, to the effect "That all visitors to such establishments should have the option of choosing their own medical attendant."

The result of the inquiry would thus appear to be to justify a pronouncement on behalf of the Association that the names of medical practitioners should not be advertised in connexion with hydropathic establishments.

Recommendation.

The Committee is of opinion that members of the profession who act as medical officers to hydropathic and similar establishments should make it a condition of their engagement that their names shall not be inserted in any advertisements of such institutions except in advertisements in medical journals.

The suggestion of certain Divisions that the practice of hydropathic establishments should be thrown open to all practitioners in the district in which they are situated raises quite a different issue from that submitted by the Committee, and may perhaps be made the subject of a separate inquiry when professional opinion shall appear to be ripe for a pronouncement thereon.

Question Submitted.

Is the Division of opinion that a definite pronouncement should be made by the Representative Meeting on behalf of the Association to the same effect as the opinion of the Committee stated above, namely:

That members of the profession who act as medical officers of hydropathic and similar establishments should make it a condition of their engagement that their names shall not be inserted in any advertisements of such institutions except in advertisements in medical journals?

(B.)

MEMORANDUM ON THE PRESENT ORGANIZATION OF THE ASSOCIATION FOR DEALING WITH ETHICAL MATTERS, AS DETERMINED

I. BY THE REGULATIONS OF THE ASSOCIATION;
II. BY THE RULES OF DIVISIONS AND BRANCHES;
III. BY THE PROCEDURE ADOPTED BY THESE BODIES AND BY THE CENTRAL ETHICAL COMMITTEE.

I.—Regulations of the Association.

A.—Contained in the Articles and By-laws.

The action of the Association in ethical matters rests fundamentally upon the following regulations:—

BY-LAW 1.—" . . . Every candidate for Membership of the Association shall apply . . . stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong. . . ."

This By-law deriving its force from—

ARTICLE II.—" . . . elected in such manner and upon such conditions as may be prescribed . . . by the By-laws";

and from—

ARTICLE XLVII.—" . . . the rights and obligations of every Member . . . shall be such as may . . . be prescribed and determined by or in accordance with By-laws . . ."

BY-LAW 11.—

(*a*) "Subject to the Regulations and By-laws of the Association, each Division and each Branch shall be free to govern itself in such manner as it shall think fit, and for that purpose to make . . . such Rules as it thinks fit, and to repeal or alter the same. . . ."

(*b*) "The Rules so made and for the time being in force shall be binding on the Members constituting the Division or Branch. . . ."

BY-LAW 12.—"The Rules made by Divisions and Branches shall be submitted for approval to the Council, and shall not come into operation unless and until they are approved by such Council."

ARTICLE XXXV.—"A Resolution of any Representative Meeting . . . which . . . relates to . . . matters affecting the honour or interests of the Medical Profession, and is carried by a majority of two-thirds of the votes given thereon . . . shall be deemed to be a decision of the Association. . . ."

ARTICLE XLII.—"Any Member of the Association . . . convicted in a Court of Justice of any felony or misdemeanour, or whose name shall have been erased from the *Medical Register* under Section 29 of the Medical Act, 1858, or who shall have forfeited by misconduct the Medical Qualification by virtue of which he became eligible for Membership . . . shall, *ipso facto*, cease to be a Member of the Association."

ARTICLE XLIII.—"Any Member of the Association whose conduct shall, upon due enquiry, be deemed . . . detrimental to the honour and interests of the Medical Profession, or calculated to bring the profession into disrepute, may be expelled from Membership. . . ."

ARTICLE XLIV.—

(*a*) "The Council shall have power on the representation of any Branch . . . to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII."

(*b*) "Each Branch out of the United Kingdom having a Membership of not less than 30 shall have power . . . to expel from Membership of the Association any Member of such Branch whose conduct shall be held to be such as renders him liable to expulsion under Article XLIII."

(*c*) "A majority of two-thirds of those present and voting whether in the Council or in a Branch Meeting shall be required for the purpose of exercising the powers conferred by the last two preceding clauses."

(*d*) "When a Member is expelled he shall *ipso facto* cease to be a Member, but shall be liable to pay to the Association all sums due from him to the Association or any Division or Branch thereof, at the time of his expulsion."

(*e*) "No Member in regard to whom a representation as aforesaid has been made or whose conduct is under investigation, or is the subject of inquiry by the Council or by a Branch, shall be capable of effectively resigning his Membership of the Association until the decision of the Council or Branch be made known."

ARTICLE IX.—" . . . No person whose former Membership shall have been forfeited under the provisions of Articles XLII, XLIII, and XLIV, or any of them, shall be eligible for re-election by any Branch Council without the sanction previously obtained of the Council of the Association."

BY-LAW 40, SECTION (7).—" An Ethical Committee shall be appointed . . . which shall advise the Council on proposed Rules of Divisions and Branches relating to Professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by Members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of Professional conduct. . . ."

A Member is bound, therefore, as regards matters of professional conduct:—

(*a*) By any Articles and By-laws specifically relating thereto, of which there are at present only the above-quoted Articles XLII, XLIII, XLIV, and IX;

(*b*) Under Article XXXV he is bound by a resolution of the Representative Meeting specifically relating to professional conduct, provided that such resolution is carried by a majority of two-thirds of those present and voting;

(*c*) He is bound by the Rules of the Division and Branch of which he may at any time be a Member;

(*d*) By By-law 40 (7) the Ethical Committee has power to adjudicate in disputes between Members.

B.—Existing Regulations affecting Professional Conduct, other than those contained in the Articles and By-laws.

On taking up its duties under the new Constitution the Ethical Committee considered two general questions:—

Whether it was desirable to attempt at once to frame an ethical code for the Association.

Whether it was desirable to require all Divisions and Branches to be subject to the same Rules, or to allow these to vary according to local conditions and opinions.

As regards framing an ethical code for the Association, the Committee decided that it was not desirable to attempt at once to frame a code.

The Committee has from time to time made pronouncements upon questions submitted to it, and these when approved by the Council and by the Representative Meeting become binding upon Members.

These decisions have come before the Representative Meeting in the Annual Report of the Committee, which has each time been approved *en bloc*. It is perhaps a question for consideration whether such approval should be deemed to make all the decisions set forth in the Report binding as laws under Article XXXV. The Ethical Committee has no power to make general rules, binding on the conduct of all Members. Such rules would have to be duly submitted to the Representative Meeting.

In general, matters are only decided by the Representative Meeting after three months' notice. The Report of the Ethical Committee, on the other hand, must be brought as nearly up to date as possible, and therefore can only be issued shortly before the meeting.

It might perhaps be convenient that expressions of opinion which were intended to have the effect of laws of the Association should be brought before the meeting by definite recommendations issued by the Committee at least three months before the meeting.

II.—LOCAL REGULATIONS—RULES OF DIVISIONS AND BRANCHES.

As regards these the Committee advised that Rules should be allowed to vary in different districts, provided that the Central Council, when asked to sanction Rules as to professional conduct, should be satisfied that they were approved by a sufficient majority of those concerned.

The Committee has not made, and has not recommended the Council to make, any suggestions to Divisions and Branches except upon questions of *procedure* (as to which see below, Section III).

Different Divisions have adopted Rules often taken from the rules of local Ethical Societies. These have been approved from time to time by the Council (subject to modification in some instances), and have served as models upon which other Divisions have based their Rules.

Early in 1904 the Bradford Division asked the Medical Secretary to draft for them a short set of Rules relative to questions of Contract Practice and Appointments. These were based entirely upon Rules already sanctioned by the Council, and have been found convenient as suggestions for other Divisions who required Rules of the kind.

Several Rules of Divisions have contained provisions that

members of the profession who violated generally-accepted laws of professional conduct, or special local Rules, should be excluded from professional recognition. To give proper effect to these decisions it was found that they must be communicated to all Members of the Division concerned, and as this raised certain questions of great difficulty, special consideration was given to this matter in the spring of the year 1904, with the result that a special Rule dealing with the subject was drafted as a suggestion to the Divisions, known for convenience as Rule "Z."

In at least three districts the question has arisen whether Branches could adopt some analogous rule, and it was in connexion partly with this question that the Subcommittee was appointed.

III.—Procedure in Ethical Cases.

The general principles underlying the present procedure of the Association are as follows:—

1. Inasmuch as the only sanction by which a body like the British Medical Association can enforce its decisions as regards its own Members is the power of expelling an offender from Membership, and as this power, as regards Members in the United Kingdom at least, is vested absolutely in the Central Council, every decision must in the last resort be enforced by an appeal to the Central Council.

2. On the other hand, it is recognized that questions of fact should be investigated in the first instance on the spot, and that for this purpose the Division furnishes the most convenient instrument available for the Association.

3. In many instances also the Division is quite competent to deal with the case entirely.

4. In a Division, while the Ethical Committee thereof may conveniently make the first investigation and report as to the facts, the finding of the Division must be that of a general meeting of the whole Division, to which the Committee reports.

5. In a Branch, on the other hand, by hypothesis a general meeting cannot be representative of the whole Branch, and, therefore, in the Model Rules which have been suggested by the Committee, the decision of ethical matters as regards a Branch rests with the Branch Council, acting upon a report furnished by the Ethical Committee of the Branch.

6. A dispute or complaint would in general come in the first instance before the Ethical Committee of a Division, which reports upon the facts to a general meeting of the Division. The Division in pronouncing judgement may either (*a*) endeavour to decide the matter, or (*b*) may postpone decision pending an application to the Central Ethical Committee for advice on a question of principle, or (*c*) may report to the Branch Council that the matter is one that in their judgement should be brought before the Central Council under Article XLIV.

In case of decision by a Division it is open to either party to appeal to the Branch, which means, as explained, the Branch Council.

Thus a matter may come before a Branch Council (*a*) on appeal from the decision of a Division, or (*b*) on a Report by a Division that a matter should be brought before the Central Council under Article XLIV.

A matter may come to the Central Ethical Committee, either (*a*) on an appeal from the decision of a Branch Council, or (*b*) on an application from a Division for advice on a question of principle, or (*c*) in consequence of representations having been made by a Branch Council to the Central Council under Article XLIV.

A matter may also come before the Central Ethical Committee on a direct appeal from the parties to a case asking that it should adjudicate, but if there is a dispute as to facts the Committee refers it to the Division for preliminary investigation.

(C.)

REQUEST TO THE GENERAL MEDICAL COUNCIL TO ISSUE A WARNING NOTICE AGAINST CANVASSING AND ADVERTISING.

Offices of the British Medical Association,
429, Strand, W.C.
May 22nd, 1905.

Sir,—In pursuance of a resolution of the Council of the British Medical Association, confirming a recommendation of the Ethical Committee of the Association, we ask the General Medical Council to consider the desirability of issuing a general warning notice to medical practitioners against the practices of canvassing and advertising for the purpose of procuring patients.

Cases are constantly brought under the notice of the British Medical Association of such canvassing and advertising by medical practitioners, or by lay bodies by whom medical practitioners are employed, by means of door-to-door visitation, distribution of cards and handbills, or newspaper notices. These cases have been carefully investigated by the Ethical Committee of the Association, and the medical practitioners concerned have been asked to give such explanation as they think proper for the assistance of the Committee in considering whether the cases should be reported to the General Medical Council. The reply repeatedly received has been that the medical practitioner was not aware that there was any professional objection to such canvassing or advertising.

We forward, as an example, the correspondence of the Committee with a practitioner whose name, address, surgery hours, and fees were printed on cards which were distributed in the neighbourhood of his residence, and who, it will be seen, pleaded that he was not aware of any objection to such distribution. We enclose also copies of cards, handbills, and newspaper advertisements which have at times been brought to the notice of the Ethical Committee of the Association, and appear to that Committee to be of a gravely undesirable nature.

The Ethical Committee and Council of the British Medical Association would submit for the consideration of the General Medical Council:

(1) That advertising, including canvassing, by medical practitioners for the purpose of procuring patients is injurious to the interests of the public as well as of the medical profession, and that the disciplinary powers conferred upon the General Medical Council for the public protection, under Section XXIX of the Medical Act, 1858, would be exercised to the advantage of the community by the Council declaring its disapproval of systematic canvassing and advertising for the purpose of procuring patients, by cards, handbills, newspaper notices or other means;

(2) That although, as the Association recognizes, the General Medical Council possesses no statutory authority to formulate By-laws for the regulation of the medical profession, but can only deal with each case brought before the Council on its merits, nevertheless, the action of the Council in formulating from time to time declaratory resolutions (such as those adopted on November 27th, 1897, and June 6th, 1899, relating respectively to the employment of unqualified assistants, and association with Medical Aid Societies which canvass and advertise), has been of great benefit to the profession, and the present case appears to the Council of the British Medical Association to be one in which those precedents might with advantage be followed;

(3) That the issue of such a notice would not only be helpful to those medical practitioners who, under present conditions, are actually ignorant of the past decisions of the General Medical Council in cases of canvassing and advertising, and thus inadvertently offend, but would deprive those who deliberately offend of an excuse which they at present put forward.

We are, Sir,
Your obedient servants,

Andrew Clark,
Chairman of Council of the British Medical Association.

Robert Saundby,
Chairman of the Ethical Committee of the Association.

J. Smith Whitaker,
Medical Secretary.

D. MacAlister, Esq., M.A., M.D., F.R.C.P.,
President of the General Council of Medical Education and Registration, 299, Oxford Street, W.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

REPORT OF THE MEDICAL DEFENCE COMMITTEE.

EXPLANATORY MEMORANDUM.

At Oxford a Committee appointed by the Council of the Association submitted to the Representative Meeting a scheme for medical defence. This scheme was referred back by the Representative Meeting with the following instructions:

That instead of appointing a new Committee, the question of the principle of medical defence be referred back to the original Committee appointed by the Council.

That it be an instruction to the Committee, in framing any scheme of medical defence, to include both collective and individual defence.

That it be an instruction to the Medical Defence Committee to state in their scheme or statement which shall be submitted for the approval or otherwise to the Divisions in what way it provides for the amalgamation of the existing Medical Defence Societies.

That any scheme prepared by the Committee shall be submitted to the Divisions before March 31st, 1905.

Accordingly the Medical Defence Committee drafted a fresh scheme, and invited representatives from kindred Medical Defence Societies to confer as to the best steps for amalgamation of all Defence Societies with the British Medical Association. This conference took place on January 12th, when representatives from the Medical Defence Union and the London and Counties Medical Protection Society attended, but the views they expressed on behalf of their Societies were distinctly opposed to amalgamation. The Medical and Dental Defence Union of Scotland wrote saying they were of opinion that the interests of their members would be best promoted by their Union maintaining an independent existence, and the Irish Medical Association (Medical Defence Department) wrote saying that it was not at present aware of any advantages to be derived from a conference on the subject.

Concurrently with the Medical Defence Committee, a Committee, with an instruction from the Representative Meeting to alter the Memorandum of Association on the lines of the Birmingham resolutions, has been sitting. The Birmingham resolutions, it had always been understood, when confirmed by the Court, would give the necessary powers for the Association to undertake individual medical defence. However, upon these resolutions being submitted to the solicitor, he expressed the opinion that the Birmingham resolutions, even if passed by the High Court, would not necessarily give the Association such powers. This opinion was subsequently confirmed by Counsel.

The Committee on the Memorandum of Association has caused clauses to be drafted covering the various instructions of the Representative Meeting, one of which is to provide for individual medical defence. At the next meeting of the Council, the Chairman proposes to move that an Extraordinary General Meeting be summoned at Leicester to consider the proposed alterations of the Memorandum of Association. On these alterations being approved, individual medical defence will be provided for, though in addition it will be necessary to obtain the sanction of the High Court before the proposed alterations in the Memorandum can be carried into effect. Counsel has expressed the opinion that there is a doubt as to whether the High Court will sanction the Association undertaking individual medical defence.

The Committee now submits for the consideration of the Divisions the following draft scheme of medical defence:

DRAFT SCHEME MEDICAL DEFENCE.

Amalgamation of Existing Societies.

1. Invitation to the Medical Defence Union, to the London and Counties Medical Protection Society, and to the Medical and Dental Defence Union of Scotland, and other like Societies engaged in Medical Defence, to merge themselves in the British Medical Association to form one professional department for the provision of medical defence.

Election of Central Committee.

2. Election by the Representative Meeting and Council of a Central Medical Defence Committee (this Committee also to act for England and Wales). The Central Medical Defence Committee to consist of 15 members, including a representative from the Scottish and Irish Committees respectively, together with 6 members elected by the Council and 7 by the Representative Meeting.

Election of Scottish and Irish Committees respectively.

Election by the representatives from Scotland and Ireland present at the Annual Representative Meeting of a Scottish Medical Defence Committee, and an Irish Medical Defence Committee respectively. The Scottish Committee to consist of 10 members and the Irish Committee of 8 members.

Appointment of Secretaries and Additional Officers.

3. Appointment by the Council of a Medical Defence Secretary of the Association who shall be a whole-timed salaried officer of the Association.

The Central Defence Committee to have power to appoint additional officers.

Central Committee's Decision to be Final.

4. The final decision whether the Association shall take up the defence of any given case shall be vested wholly and without reserve in the Central Defence Committee.

Disputes to be Decided by Arbitration.

5. All disputes which arise between members of the Medical Defence Department of the Association and which are referred to the Defence Department shall be decided, if necessary, by arbitration.

The arbitrators shall be selected by the disputants, subject to the approval of the Central Defence Committee.

Control of Funds by the Central Committee.

6. The Central Defence Committee to have absolute control of the funds allotted for the Medical Defence Department of the Association.

Capitation Grant to Scottish and Irish Committees.

7. The Central Defence Committee to allow the Scottish and Irish Defence Committees respectively to expend a certain sum per head of the membership of the Association of that country.

Finance.

8. That the Subscription be raised to 35s.

Proceedings of Standing Committees.

SECRETARIES OF BRANCHES AND DIVISIONS COMMITTEE.

Wednesday, March 8th, 1905.

A meeting of Secretaries of Branches and Divisions who are members of the Central Council was held at the office of the Association, on Wednesday, March 8th, when there were present: Dr. R. C. Buist (in the chair), Mr. Andrew Clark (Chairman of Council). Dr. G. W. Crowe, Dr. E. Rowland Fothergill, Dr. James Hamilton, Dr. Charles James Morton, Mr. C. H. Watts Parkinson, Dr. Edwin Rayner, Dr. Cecil E. Shaw.

Appointment of Committee.

The resolution of the Council appointing the Committee was read as follows:

That it is advisable that a conference of the Honorary Secretaries of Divisions and Branches should be held at Leicester. That the arrangements for this year be made by a Committee of those members of Council who are Secretaries of Branches or Divisions, with power to co-opt other Honorary Secretaries.

It was resolved that a conference of Secretaries should be held at Leicester on Tuesday, July 26th, at 6 p.m., that all questions notified for discussion by the conference must be received by the General Secretary on or before June 15th, and

that he should circulate the list of subjects to the Secretaries of Divisions and Branches.

COMMON ROOM FOR DIVISION AND BRANCH SECRETARIES.

A resolution was adopted recommending the Council to provide a common room for the use of Division and Branch Secretaries during the week of the annual meeting.

It was also resolved that Chairmen of Committees be invited to refer to the conference any special matters upon which they would like the opinion of Division and Branch Secretaries.

SCOTTISH COMMITTEE.

April 28th, 1905.

A MEETING of the Scottish Committee was held in Dundee Royal Infirmary on Friday, April 28th, when there were present: Professor D. W. FINLAY (in the chair), Dr. R. C. Buist, Dr. Balfour Graham, Dr. Hamilton, Dr. Munro Moir, Dr. Moorhouse, Dr. Taylor, and Dr. Nasmyth (by request of the Committee).

LICENSING (SCOTLAND) ACT, 1903.

After considering an opinion from the Solicitor to the Association, it was resolved to take steps to have a question put to the Lord Advocate in the House of Commons as to whether the term "medical official" in the saving Clause 55 was intended to mean a registered medical practitioner (see BRITISH MEDICAL JOURNAL, May 20th, 1905, p. 1111).

MEDICAL REPRESENTATIVES OF THE DEFENCE AT OFFICIAL AUTOPSIES IN CRIMINAL CASES.

The Chairman of the Committee, the Secretary, and Dr. Maxwell Ross were appointed a Subcommittee to bring the matter of the medical representatives of the defence at official autopsies in criminal cases under the notice of the Lord Advocate.

ASSOCIATION HOUSE IN SCOTLAND.

The suggestion from the President of the Stirling Branch that in the interests of the members of the Association resident in Scotland an Association house, including a library, for the use of all the members of the Association should be established in Edinburgh, was referred to the Councils of the Scottish Branches for their opinions.

EDUCATION (SCOTLAND) BILL.

The following resolutions were adopted:

That steps be taken to have added as Clause 46 (4), "The school board if required by the Department shall provide for the medical examination and supervision of the pupils attending schools within their education district to such extent and under such conditions as may from time to time be prescribed by any code or minute of the Department and for the purposes of this section may appoint such medical officers to be approved by the Department as may be necessary or may arrange with any local authority acting under the Public Health (Scotland) Act to conduct the examination and supervision on their behalf."

That steps be taken to delete in Clause 46 (2), the words, "or the sanitary inspector as the case may be."

ANNUAL MEETING (SECTIONS) COMMITTEE.

April 7th, 1905.

A MEETING of the Annual Meeting (Sections) Committee was held at the Office of the Association on Friday, April 7th, 1905, when there were present: Professor SAUNDBY (Chairman), Mr. Andrew Clark (Chairman of Council), Dr. W. J. Tyson, and Dr. Norman Walker.

The CHAIRMAN reported that, in accordance with Minute of Council 731, the Sections Committee had been requested to send in for the information of this Committee the subjects it was proposed to discuss in the various Sections at Leicester, and that all the Sections had forwarded this information to the satisfaction of the Committee.

The CHAIRMAN reported that he had received and had granted a request from the Honorary Secretary of the Navy, Army, and Ambulance Section for permission to invite Lord Dundonald and Sir John Furley to read papers in that Section, and it was resolved that the action of the Chairman be approved.

On consideration of the resolution of the Dundee District Branch, that for facility of reference, and to relieve the space of the BRITISH MEDICAL JOURNAL, the Journal Committee consider the advisability of publishing the proceedings of the Annual Meetings separately as Transactions, it was resolved:

That the Council be recommended to ask the Chairman of the Representative Meeting to point out to the Representative Meeting that the proposal of the Dundee District Branch to publish the proceedings of the Sections of the Annual Meeting in a separate volume of Transactions would not only cost a great deal of money, but would injure the JOURNAL, and involve a delay in the publication of such proceedings.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, May 17th, 1905.

Present:

Mr. ANDREW CLARK, D.Sc., Chairman of Council, in the Chair.
Dr. T. DRUSLYN GRIFFITHS, D.Sc., Past-President.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meetings.
Dr. E. MARKHAM SKERRITT, Treasurer.

Dr. JOHN FORD ANDERSON, London.
Dr. JAMES BRASSEY BRIERLEY, Old Trafford.
Dr. H. LANGLEY BROWNE, West Bromwich.
Dr. R. COCHRANE BUIST, Dundee.
Dr. W. A. CARLINE, Lincoln.
Mr. PEARSON R. CRESSWELL, C.B., Dowlais.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Dr. E. ROWLAND FOTHERGILL, London.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. JOSEPH J. GIUSANI, Cork.
Dr. BRUCE GOFF, Bothwell.
Dr. DAVID GOYDER, Bradford.
Dr. MAJOR GREENWOOD, London.
Dr. JOSEPH GROVES, Carisbrooke.
Dr. JAMES HAMILTON, Glasgow.
Dr. J. H. HUNTER, South Shields.
Dr. R. MCKENZIE JOHNSTON, Edinburgh.
Mr. R. H. KINSEY, Bedford.
Dr. C. W. MARRIOTT, Reading.
Professor J. T. J. MORRISON, Birmingham.
Dr. C. J. MORTON, London.
Dr. JAMES MURPHY, Sunderland.
Mr. D. A. O'SULLIVAN, London.
Mr. C. H. WATTS PARKINSON, Wimborne Minster.
Dr. EDWIN RAYNER, Stockport.
Dr. CECIL E. SHAW, Belfast.
Professor W. R. SMITH, M.D. (Malta and Mediterranean Branch), London.
Mr. W. D. SPANTON, Hanley.
Dr. F. O. STEDMAN (Hong Kong Branch), Torquay.
Fleet-Surg. J. LLOYD THOMAS, R.N., Portsmouth.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.

The minutes of the last meeting having been printed and circulated, and no objections received, were taken as read and signed as correct.

Read letters of apology for non-attendance from the President, President-elect, Sir Francis Lovell, K.C.M.G., Dr. E. G. Barnes, Dr. James Barr, Dr. M. Beverley, Dr. Edward J. Cave, Dr. H. Radcliffe Crocker, Lieutenant-Colonel E. F. Drake-Brockman, I.M.S. (ret.), Dr. T. Arthur Helme, Dr. Thomas S. Kerr, Dr. C. G. D. Morier, Mr. W. Jones Morris, Dr. J. Murray, Dr. F. M. Pope, Dr. J. Maxwell Ross, Professor Robert Saundby, Mr. John Lynn Thomas, C.B., Major C. E. Williams, I.M.S.

The Chairman of Council reported that the deputation, consisting of the Chairman of the Representative Meetings, Chairman of Council, Dr. Langley Browne, and Dr. Galton, attended the sitting at the Board of Trade on May 5th, 1905, and stated their objections to the granting of a licence for the incorporation of the Incorporated Society for Promoting the Higher Education and Training of Nurses.

Sir Victor Horsley, F.R.S., as Chairman of the Representative Meetings of the British Medical Association was authorized to attend a deputation to the Prime Minister for the purpose of given evidence on behalf of the Association regarding the prevalence and treatment of venereal disease.

The minutes of the Committee of the Secretaries of Branches and Divisions on the Council relative to the arrangements for a meeting of Branch and Division Secretaries at Leicester were approved.

The minutes of the Medico-Political Committee were then considered, and the following recommendations approved: That Counsel's opinion be taken on certain points under the Truck Act and the Companies Act affecting Contract Practice.

That as a rule it is inadvisable that detailed reports of Divisions on references still under consideration by Committees should be published in the JOURNAL before they have been reported to the Committees concerned.

That when matters are referred to the Divisions for consideration information be given to the Divisions as to which of such matters would, by instruction, not be included in the reports of Division Meetings published in the JOURNAL.

The Chairman of the Medico-Political Committee reported, as a matter of urgency, the action taken as to a medical appointment at Ebbw Vale and the result to date, when

the Council expressed its gratification at the attitude of the medical practitioners who were candidates for the appointment and its satisfaction with the services of the Medical Secretary in the matter.

The Council approved the recommendation of the Committee relative to the insertion of a note in the British Medical Journal upon the labelling of medicines containing poison supplied by registered medical practitioners.

Having considered proposals formulated by the Medico-Political Committee, in pursuance of an instruction from the Council to consider and report upon the subject of improving the representation of the medical profession in Parliament referred to the Council by the Annual Representative Meeting at Oxford, and having made certain emendations, the Council adopted the following recommendations for the consideration of the Annual Representative Meeting at Leicester:

1. That Members whose candidature for Parliament is supported by the profession should recognize responsibility to some organized body representative of the profession.

2. That the organized body should be the British Medical Association.

3. That the British Medical Association should select two gentlemen, one on each side of politics, and arrange as to their becoming candidates at the next General Election.

4. That financial and other support should be given to these candidates by definite grants for election expenses and by approaching voters through the Divisions of the Association.

5. That when the funds of the Association permit of it the necessary expenditure should be met from the funds of the British Medical Association.

6. That the candidates should be selected as in the scheme for nomination for the General Medical Council.

The minutes of the Annual Meeting (Sections) Committee were then considered.

The Council decided to ask the Chairman of the Representative Meeting to point out to the Representative Meeting that the proposals to publish the proceedings of the Sections of the Annual Meeting in a separate volume of Transactions would not only cost a great deal of money, but would injure the Journal, and involve a delay in the publication of such proceedings.

The minutes of the Hospitals Committee were then considered and approved.

The minutes of the Scottish Committee were then considered, and the following recommendations approved:

That steps be taken to have added as Clause 46 (4), "The School Board if required by the Department shall provide for the medical examination and supervision of the pupils attending schools within their education district to such extent and under such conditions as may from time to time be prescribed by any code or minute of the Department and for the purposes of this section may appoint such medical officers to be approved by the Department as may be necessary, or may arrange with any local authority acting under the Public Health (Scotland) Act to conduct the examination and supervision on their behalf."

That steps be taken to delete in Clause 46 (2), the words, "or the sanitary inspector as the case may be."

The minutes of the Organization Committee were then considered, and the following recommendations approved:

That the South-Eastern Counties Division (Edinburgh Branch) and Lincoln Division (Midland Branch) be granted separate representation if upon inquiry it is found that the total membership formerly credited to them had been arrived at in error.

That the Rules submitted by the Sheffield Division be approved.

That the desires of the present members of the Crewe Division be given effect to as regards the absorption of that Division by the Chester and other neighbouring Divisions, and that the boundaries be such as the Lancashire and Cheshire Branch Council may define.

That the transfer of Berkhamstead, Hemel Hempstead, Abbots Langley, and King's Langley from the Aylesbury Division of the South Midland Branch to the Watford Division of the Metropolitan Counties Branch be approved.

That the Aberdeen and Staffordshire Branches be accorded independent representation in the Council.

The Annual Report of Council was then considered, and after certain amendments had been made it was approved and ordered to be submitted to the Secretaries of each Branch and Division and published in accordance with By-law 34.
(See page 225.)

The consideration of Mr. Beaufort Palmer's opinion relative to the proposed alteration of the Memorandum of Association was referred to the Officers of the Association to prepare a full report.

The reports of Branches, furnished in accordance with By-law 9, were considered and ordered to be published in the Journal.

It was further decided that it is desirable, before the annual reports received from the Branches of the Association are submitted to this Council another year, that they be considered in detail by the Organization and Finance Committees, and be presented with reports by the Chairmen of those Committees.

It was resolved that there be a Science Committee, to consist of twelve members appointed by the Council, to undertake the work at present done by the Scientific Grants, Annual Meeting (Sections), and the Science Co-ordination Committees.

That the Journal and Finance Committee shall advise the Council on the administration of, and when necessary the appointment of administrators for, any funds held in trust by the Association and of the Superannuation Fund.

That the Organization Committee shall advise the Council on the Articles, By-laws, and Standing Orders.

That the Election Returns Committee be instructed to prepare list of nominations for the following Committees: (1) Journal and Finance; (2) Premises and Library; (3) Public Health; (4) Colonial; (5) Naval and Military; (6) Medico-Political; (7) Ethical; (8) Organization; (9) Arrangements; (10) Hospitals; (11) Science.

That an Irish Committee be appointed consisting of one Branch or Division Secretary from each Irish Branch, the Irish members of the Central Council, and one elected member from each Branch. In the case of the Leinster and Ulster Branches such elected members shall be practitioners not resident in Dublin or Belfast. It shall have an honorary secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, provided that such meetings be not always held in one town. It shall report to the Council on any matters specially concerning Ireland.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BORDER COUNTIES BRANCH:
North Cumberland Division.

A meeting of this Division was held at Penrith on Friday, April 14th, Dr. Doughty (Dalston) in the chair.

Matters Referred to Divisions.—A discussion then took place on the memorandum *re* the Midwives Act, and the conclusions have been conveyed to the Medico-Political Committee. The other matters referred from the Representatives Meeting, 1904, and the Medico-Political Committee of the Association, were named to the meeting, and it was resolved that no action be taken by the Division.

Dinner.—The meeting was followed by a dinner.

DORSET AND WEST HANTS BRANCH.

The annual meeting of this Branch was held at the Crown Hotel, Blandford, on Wednesday, May 17th, Mr. A. J. H. Crespi, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Introduction of New President.—The President resigned the chair, and introduced his successor, Dr. E. Hyla Greves, of Bournemouth.

Vote of Thanks to the Retiring President.—A cordial vote of thanks was accorded the out-going President for his services, and Mr. Crespi suitably responded.

Deceased Members.—The Hon. Secretary reported the deaths of three members since the last meeting—namely, Drs. Lush, W. Turner, and Morley Rooke.—Dr. Snow, in feeling terms, referred to the great loss suffered by the Branch by the death of Dr. Vawdrey Lush, the Hon. Secretary and founder; and Mr. W. Turner, a Vice-President; and Dr. Morley Rooke, and proposed a vote of sympathy with the

relatives of the deceased. This was seconded by Mr. Parkinson, and resolved.

Representative on Central Council.—The Hon. Secretary reported that Mr. Parkinson had been duly nominated and re-elected unopposed as Representative of the Dorset and West Hants and West Somerset Branches on the Central Council of the Association.

Treasurer's Report.—The Treasurer's report was read, and on the proposition of Dr. Simmons, seconded by Dr. Humphreys, was received and adopted.

Increase of Membership.—The Hon. Secretary reported the number of members of the Branch had increased to over 200.

Summer Meeting.—Dr. Comyns Leech proposed, and Dr. Batterbury seconded, and it was resolved, that the summer meeting be held at Sturminster Newton.

President's Address.—The President then delivered an address on warning signs of organic disease.—Dr. Comyns Leech proposed, and Mr. Crespi seconded, a cordial vote of thanks to the President for his instructive and interesting address.—This was carried by acclamation.

Communications.—Dr. T. Sanderson Wells read a paper on the substitute feeding of infants. The paper was discussed by the President, Drs. Batterbury, Simmons, Fielding, and others, and Dr. Wells replied.—Mr. Parkinson made a practical suggestion as to the method of removing an adherent placenta.

Dinner.—The members subsequently dined together at the hotel.

LANCASHIRE AND CHESHIRE BRANCH:

Blackburn Division.

The annual meeting of this Division was held at the Old Bull Hotel, Blackburn, on Tuesday, May 16th, Dr. Barr, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual Report.—The Secretary read his annual report.

Election of Officers.—The officers for the ensuing year were then elected as follows: *President:* Dr. Cunliffe. *Vice-President:* Dr. Ballantyne. *Secretary:* Dr. Greenwood. *Representative for Representative Meetings:* Dr. R. C. Holt (Burnley) was declared elected as the nominee of this Division and the Secretary was instructed to send an intimation to this effect to the Burnley Division, together with an explanatory letter stating that the Divisional meeting on April 14th, 1905, was not an annual meeting, and that, therefore, the nomination of Dr. Nash at that meeting was out of order. *Members of Branch Council:* Drs. Wells and Gifford. *Executive Committee:* Drs. Bannister, Martin, Willet, and Aitken were declared elected.

Medical Officer of Darwen Division.—Resolved that the Secretary send a report to the British Medical Journal *re* the position of the Medical Officer of the Darwen Division of the Blackburn Union when the matter had been concluded satisfactorily.

Annual Dinner.—It was resolved that this Division shall have its first annual dinner next October or November.

Presidential Address.—It was resolved that the President of this Division shall give a Presidential Address each year.

Vote of Thanks to Retiring Officers.—It was resolved that thanks be given to the retiring President, Dr. Barr, and the other retiring office-bearers.

SOUTH-EASTERN BRANCH:

Croydon Division.

The annual meeting of this Division was held at the Croydon General Hospital on May 18th. Dr. Rosser occupied the chair during the transaction of the Association business.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Dr. Owen Fowler.—A letter was read from Dr. C. Owen Fowler thanking the members for the resolution passed at the last meeting.

Election of Officers.—The following officers were elected for the coming year:—*Chairman:* Dr. T. R. Adams. *Vice-Chairman:* Dr. W. Rosser. *Honorary Secretary:* Mr. Willock. *Branch Council Representatives:* Dr. T. R. Adams and Dr. S. Parsons Smith. *Direct Representative:* Dr. J. J. Macan. *Executive Committee:* Mr. Horsley, Dr. Fowler, Mr. Newby, Mr. S. G. Reid, Dr. Redfern, Dr. Duncan, Mr. Wray, Dr. Carpenter, Dr. Wayte, Dr. Gripper, Mr. Cressy, Dr. Hugo, and Dr. Meredith Richards.

Next Meeting.—It was decided to hold the next meeting at Sutton on October 19th.

School Certificates.—A resolution brought forward by Dr. Hugo that no practitioner accept a fee of less than half a crown for a certificate for school attendance was adopted unanimously.

Vote of Thanks to the Retiring Chairman.—Dr. Gripper proposed a cordial vote of thanks to Dr. Rosser, the retiring Chairman.—This was heartily agreed to.—The chair was then taken by Dr. J. Wayte.

Cases.—The following cases were then shown:—Dr. J. Wayte: (1) Teale's amputation for tuberculous disease of the ankle joint and necrosis of the lower end of the tibia; (2) parotid tumour; (3) carcinoma of the buttock; (4) loose cartilages of the knee joint.—Dr. Redfern: (1) Lymphadenoma, with detailed report of the blood; (2) lichen with zonular distribution simulating herpes; (3) spastic diplegia, two cases; (4) Raynaud's disease, early stage.—Mr. Wray: Gumma iris.—Dr. Male: (1) Rodent ulcer treated by *x*-rays; (2) Arthritis and periostitis of doubtful origin in a child, with skiagraphs.—Mr. Cressy: Notes on three cases of tubal pregnancy, and on a case of Caesarean section.—Mr. Willock: Head and neck of the femur passed per vaginam.—Dr. Addey: (1) Charcot's joint; (2) hypertrophy of the feet.

Dinner.—Twenty-one members dined together after the meeting.

SOUTHERN BRANCH:

Portsmouth Division.

The annual Divisional meeting was held at Portsmouth on May 17th, Dr. Hackman in the chair.

Election of Officers.—The following gentlemen were elected officers for the ensuing year: *Chairman,* R. Emmett, M.D.; *Vice-Chairman,* B. H. Mumby, M.D.; *Executive Committee,* Drs. Kyffin, Key, Norman, Dove, Blackwood, Routh, Carling, G. Morley, J. L. Wright, and M. Way; *Representatives on Branch Council,* Drs. Claremont, J. Green, and Blackman; *Representative in Representative Meetings of the Association,* Dr. J. Ward Cousins; *Secretary and Treasurer,* Mr. C. P. Childe.

Proposed Meeting of Southern Branch at Portsmouth in 1906.—On the motion of Dr. Claremont, seconded by Dr. McElderney, an invitation was sent to the Southern Branch to meet in Portsmouth in 1906, and Dr. Mumby was nominated President of the Branch for that year.

Matters Referred to Divisions.—The following questions referred to the Divisions were considered: National Friendly Society; the relation of the medical profession to ambulance work; the report of the Ethical Committee on the advertising of the names of medical practitioners in connexion with hydropathic and similar establishments; the report of the Medico-Political Committee on the present position of registered medical practitioners in the matter of furnishing certain information to coroners; the report of the Medico-Political Committee on the desirability of consultation between medical witnesses in legal cases; the report of the Medico-Political Committee on the prevention of the abuse of drugs; the interim report on contract medical practice; the Medical Acts Amendment Bill; the report of the Medico-Political Committee on death registration; the report of the Medico-Political Committee on the amendment of coroners' law. The resolutions passed on these questions have been communicated to the Medico-Political Committee.

Winchester Division.

A general meeting of this Division was held on April 19th at 3.30 p.m. at St. Patrick's Hall, Trafalgar Street, Winchester.

Matters Referred to Divisions.—The following matters were considered:—Medical Acts Amendment Bill: The Bill was approved of generally, but the title of "doctor" being conferred on all registered was objected to.—National Deposit Friendly Society: The recommendations of the Medico-Political Committee were adopted.—The Public Health Bill was approved.—The Revaccination Bill was approved.—With regard to advertising the names of medical practitioners in connexion with hydropathic and similar establishments, it was resolved that these names should not appear.—Death registration: Questions 1 and 2 were answered affirmatively.—Coroner's Law: Question 4, 1 (*a*) was answered affirmatively; Question 4, 1 (*b*) was answered affirmatively, fee £2 2s.; Question 5 (i) was answered affirmatively, fee 10s. 6d.; Question 5 (ii) was answered affirmatively, fee £1 1s.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:
CARDIFF DIVISION.

THE annual meeting of this Division was held in the rooms of the Cardiff Medical Society, 141, Queen Street, on Thursday, May 18th, at 3.30 o'clock.

Confirmation of Minutes.—The minutes of previous ordinary and special meetings were read and confirmed.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Charles T. Vachell, M.D.; *Vice-Chairman*, D. R. Paterson, M.D.; and *Secretary*, Ewen J. Maclean, M.D. *Representatives of the Division on the Branch Council:* Drs. J. T. Thompson, Thomas Wallace, H. R. Vachell, J. Powell, W. Randall. *Executive Committee:* Drs. T. Garrett Horder, W. Mitchell Stevens, Messrs. J. Lynn Thomas, and William Sheen. Dr. J. Tatham Thompson was re-elected the Representative of the Division in the Representative Meetings of the Association.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Annual Representative Meeting.—The consideration of the business of the Annual Representative Meeting was postponed to a special meeting.

Matters Referred to Divisions.—The meeting granted to the Executive Committee authority as to procedure with regard to the following measures: The Public Health Bill, the Local Government Bill, and the Revaccination Bill.

Vote of Thanks to Retiring Chairman.—The meeting concluded with a hearty vote of thanks to the retiring Chairman, Dr. Thomas Wallace, for the efficient manner in which he had discharged the duties of his office during the past year.

YORKSHIRE BRANCH:
HARROGATE DIVISION.

A JOINT meeting of this Division and the Harrogate Medical Society was held at the Prospect Hotel, on Thursday, May 11th, at 5.30 p.m., Dr. SOLLY, Vice-Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Solly; *Vice-Chairman*, Dr. Mouillot; *Honorary Secretary*, Dr. Gibson; *Representative for Representative Meeting*, Dr. Daggett; *Representative on Branch Council*, Dr. Solly; *Executive Committee* were re-elected *en bloc*, with the addition of Dr. Rutherford.

Matters Referred to Divisions.—The memorandum as to rendering assistance to midwives in difficult cases was considered and report made to Medico-Political Committee. The memorandum as to the relations of the medical profession as to ambulance work was considered and reported on that it should not be treated as a matter of philanthropy. The Public Health Bill of the Association was considered and agreed to.

Spa Doctors and their Professional Brethren.—Dr. MOUILLOT read a paper entitled the Relations of Spa Doctors with their Brethren. The paper, which will be published, was discussed by Drs. HUNT, GIBSON, BAIN, BRONNER, DAVEY, and SOLLY.

Dinner.—The members and friends afterwards dined together.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

NOTICE OF CHANGE OF BOUNDARIES OF DIVISION AND BRANCHES.

THE following changes have been made in accordance with the regulations of the Association, and take effect from the date of publication of this notice:

The Crewe Division to be absorbed in the Chester Division, except Sandbach which is transferred to the Stockport and East Cheshire Division.

Berkhamsted, Hemel Hempstead, Abbot's Langley and King's Langley to be transferred from the Aylesbury Division of the South Midland Branch to the Watford Division of the Metropolitan Counties Branch.

BRANCH AND DIVISION MEETINGS TO BE HELD.

ABERDEEN BRANCH.—Election of Member of Council: It is requested that nominations for election of member of Council be sent to Dr. J. F. Christie, 7, Alford Place, not later than Saturday, June 1st. Each candidate must be nominated by at least three electors. If more than one member is nominated for election, then voting papers will be sent to each elector during the first week in June.

BATH AND BRISTOL BRANCH.—The seventh ordinary meeting of the Session will be held at the Medical Library, University College, Bristol, on Wednesday evening, May 31st, 1905, at 8 o'clock, Mr. R. J. H. Scott, President, in the chair. The following specimens will be shown: Dr. Walter C. Swayne, (*a*) chorion-epithelioma; (*b*) fibroids removed by myomectomy during pregnancy; (*c*) carcinoma of cervix uteri and dermoid cyst removed simultaneously by the abdominal route; (*d*) ovarian cyst. Dr. J. Odery Symes, a preparation showing granular degeneration of erythrocytes from chronic lead poisoning. Dr. Carey Coombs, a case of removal of gall-stone from the jejunum. Dr. Theodore Fisher, some cases of oedema of unusual origin. Dr. Walter C. Swayne, the prevention of ventral hernia after abdominal sections. Dr. G. Parker, notes on a case of aneurysm of the circle of Willis. Drs. P. Watson Williams and G. Parker, on masked diphtheria and its notifiability. A meeting of the Branch Council will be held at 7.55 p.m. The following candidates will be balloted for: Basil H. Pain, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., Bath: C. E. Campbell-Horsfall, M.B., Ch.B.Vict., Clevedon.—NEWMAN NEILD, W. M. BEAUMONT, Clifton, Honorary Secretaries.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of the Division will be held at the Medical Library, University College, Bristol, on Thursday evening, June 8th, at 8 o'clock. Business: (*a*) To elect Officers, the Representatives of the Division on the Branch Council. (*b*) To elect the Representative of the Division in Representative Meetings of the Association. (*c*) To receive the annual report of the Executive Committee. (*d*) To consider the business of the Annual Representative Meeting. (*e*) To make new rules or alter or repeal existing rules. (*f*) To transact any business that may be transacted at an ordinary meeting.—NEWMAN NEILD, Clifton, Honorary Secretary.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will be held at Trowbridge on Tuesday, May 30th. Hour and place of meeting will be announced at a later date. Business: (1) Such as is laid down in Rule 11. (2) Matters referred from Central Association.—J. TUBB-THOMAS, The Halve, Trowbridge, Wilts, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will take place at the Medical Institute, Edmund Street, Birmingham, at 4 o'clock, on Thursday, June 8th. The dinner will take place at the Grand Hotel at 7 o'clock the same day.—T. SYDNEY SHORT, O. J. KAUFFMANN, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, June 6th, at 8.30 p.m. Agenda: (1) To elect officers, the Representative on the Branch Council, and the Executive Committee for the year. (2) To receive the annual report of the Executive Committee for 1904, which is to the following effect: In accordance with the requirements of By-law 8 of the Association, the Coventry Division presents the following report of its proceedings during 1904, its numbers, and a financial statement, in the form prescribed by the Council of the Association, to the Council of the Birmingham and Midland Counties Branch. During the year seven meetings of the Division have been held; at these meetings papers on medical subjects have been presented and questions of medico-political and ethical import have been discussed. The average attendance at these meetings has been 25, which is an increase on that of the previous year. The number of members of the Division is 40. In addition to these meetings there was a joint meeting of the Division with the Tamworth and Nuneaton Division for the purpose of electing a Representative for the Annual Representative Meeting. During the year the Division has instituted a voluntary book section, with an annual subscription of 10s. 6d.; 19 members have joined this section, which makes a joint subscription to Lewis's Medical Circulating Library; each member is entitled to one volume at a time. In presenting the annual financial statement, the Division takes the opportunity of drawing the attention of the Branch Council to By-law 17 of the Association, which requires the Branch to pay to each Division of the Branch such sum per member as the Branch Council may consider necessary to defray the expenses of the Division. This Division carries on, and proposes to carry on, an active series of meetings throughout the year. Totalling the ordinary meetings and the Committee meetings, the number of summonses to attend meetings amounted to 360 in 1904; the amount paid by the Branch to the Division amounts to 1¼d. for each summons to cover the total expenses in connexion with these meetings, and without making any allowance for expenses involved by the distribution of other circulars, etc., requested by the Council of the Association; the Division submits that it cannot be easy for the Branch Council to consider the allowance made sufficient to defray the expenses of the Division in accordance with the By-law. The Division also wishes to point out that the practice adopted by the Branch Council of making the grant provisional on the expenditure reaching the amount of the grant makes it impossible for a Division to have any funds in hand, but does not eliminate the possibility of a deficit; and, shortly, that an arrangement that causes economies effected by a Division to benefit not its own financial position but that of the Branch is inequitable.

Financial Statement.

Dr.	£	s.	d.	*Cr.*	£	s.	d.
Grant received from Branch Council — 40 members at 1s. per head	2	0	0	Hire of Rooms	0	0	0
Balance due to Treasurer	1	5	0	Secretarial Expenses, Stationery and Printing ...	3	5	0
				Clerical Aid, etc.	0	0	0
	3	5	0		3	5	0

F. L. HARMAN BROWN, F. A. COLLINGTON } *Auditors.*

(3) To consider the following recommendations of the Committee: (a) That in Rule 11 "December" be substituted for "January" as a month in which an ordinary meeting of the Division shall take place. (b) That the Division pass the following ethical resolution: "That in future no member of the profession in the area of the Division shall apply for the medical officership of a Friendly Society." (c) That the Division authorize the Committee to take any steps which may appear desirable to forward the passing of the Public Health Bill now before Parliament. (4) To thank the Committee of the Coventry and Warwickshire Hospital for the continued use of their Board room for the purposes of the Division.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual general meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 16th, at 3.30 p.m., when Sir James Crichton-Browne, M.D., will deliver his Presidential Address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

BORDER COUNTIES BRANCH AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—Notice is hereby given that nominations for the post of Representative of these two Branches jointly on the Central Council of the Association must be sent to me not later than May 27th. A nomination paper in favour of the present representative has already been sent in, and Dr. Maxwell Ross has signified his willingness to accept office if elected.—FRANCIS R. HILL, Carlisle, Honorary Secretary, Border Counties Branch.

CANTERBURY AND FAVERSHAM WITH THANET DIVISIONS.—A combined meeting of the Canterbury and Faversham with Thanet Divisions will be held on Thursday, June 1st, at 4 o'clock, at Canterbury Hospital, preceded at 3.15 by a meeting of the Canterbury and Faversham Division. Agenda: For Canterbury and Faversham Division. (1) To read and confirm minutes of last meeting. (2) Time and place of next meeting. (3) To alter or repeal existing rules, or to make new ones (if desired). (4) Any other business. (5) Election of officers. For combined meeting. (1) To read and confirm minutes of last meeting. (2) Election of Representative for Representative Meeting at Leicester. (3) To consider proposed resolutions to be submitted to the Representative Meeting.—WILLIAM GOSSE, A. R. HENCHLEY, H. M. RAVEN, Honorary Divisional Secretaries.

DUNDEE BRANCH.—The annual meeting of this Branch will be held in the Students' Union, Dundee, on Friday, June 2nd, at 4 p.m., to elect office-bearers and to consider the report on Medical Defence.—R. C. BUIST and A. P. LOW, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th.

EAST ANGLIAN BRANCH.—Notice is hereby given that nominations of members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 31st.—B. H. NICHOLSON, M.B., East Lodge, Colchester, General Secretary of Branch.

EDINBURGH BRANCH.—The summer meeting of the Branch will be held at Hawick on July 1st. Trains from Edinburgh (Waverley) 10.30 a.m. Provisional arrangements: Meeting of Branch, 12.15. Motor drive to Stobs, Hermitage Castle, Newcastleton, Penton Linns, Canonbie, Langholm, Mosspaul and Branxholme. Starting at 1 p.m. Golf match on Hawick Links, 1.45. Dinner at Tower Hotel, 6.30. Dr. Allan Jamieson, President, in the chair. In order to facilitate arrangements members who intend to be present are requested to intimate their intention to one of the Secretaries as soon as possible, and whether they propose to golf or to motor.—NORMAN WALKER, 7, Manor Place, Edinburgh, A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: SOUTHERN DIVISION.—The annual meeting of this Division will be held in the Oddfellows' Hall, Forrest Road (Room 6), on Thursday, June 1st, at 8.15 p.m. Business: (1) Minutes. (2) Annual report. (3) Treasurer's statement. (4) Rule for vacancies occurring among officers. (5) Election of officers. (6) Election of Representative to Representative Meetings. (7) Election of Representatives on Branch Council. (8) Election of Executive Committee. (a) Recommendation as to annual retiral of a proportion of Committee. (9) Question of medical certificates of unfitness to attend school. (10) Question of payment of medical men called upon to assist midwives. (11) Any other competent business.—MICHAEL DEWAR, 24, Lauriston Place, Edinburgh, Honorary Secretary.

EDINBURGH AND FIFE BRANCHES.—Notice is hereby given that nominations of elective members of the Council of the Association for these Branches must be made in writing on or before June 3rd, to A. LOGAN TURNER, M.D., 27, Walker Street, Edinburgh, Honorary Secretary Edinburgh Branch.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—As arranged at last meeting of Division, the annual meeting will be held on Saturday, June 17th, in the Railway Hotel, Newtown St. Boswells, at 3 o'clock. Business: (1) Election of office-bearers. (2) The consideration of memoranda regarding the National Deposit Friendly Society, the Local Government Amendment Bill, the relation of the medical profession to ambulance work, etc. (3) Instructions to representative in regard to the agenda of the annual meeting of the Association at Leicester. (4) Other matters of urgent importance to the Division. It is hoped that members will do their utmost to be present. Dr. Hamilton gives notice of the following motion: "That the Division recommends to the Representative Meeting the desirability of appointing a Committee to consider the question of the formation of a fund for the relief of the widows and orphans formerly dependent on deceased members of the Association."—W. HALL CALVERT, Honorary Secretary.

FIFE BRANCH.—The annual meeting will be held on June 1st, at 3.15 p.m., in the Hotel, Thornton, as per circular issued to the members.—R. BALFOUR GRAHAM, Leven, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Election of Representatives: Notice is hereby given that nominations must be intimated to me, as Secretary of this Branch, on or before Wednesday, June 14th.—CHAS. H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL (NORTHERN) DIVISION.—The annual meeting of the members of this Division will be held at the Medical Institution, 114, Mount Pleasant, on Wednesday, May 31st, at 4 p.m. Agenda: (1) Annual report. (2) Election of officers, Representatives on Branch Council, Executive Committee, and a Representative for the Annual Representative Meeting. (3) Alteration of Rules. (4) To consider Report on Death Registration and Amendment of Coroners' Law (see SUPPLEMENT, March 11th). (5) Memorandum as to School Certificates. (6) Notices of motion for Representative Meeting (see SUPPLEMENTS, April 1st, 8th, 15th, 22nd, and May 13th). (7) Medical Defence (see SUPPLEMENT, April 1st). (7) Any other business.—A. W. GERMAN, Honorary Secretary of the Division.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of candidates for the five offices of Representatives of the Branch on the Central Council for the ensuing year must be made in writing to GEORGE ROWELL, 6, Cavendish Place, W., on or before Saturday, June 10th. Nominations not made by a Division require, by the present Rules of the Branch, to be signed by twelve members of the Branch.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The annual meeting will be held at 20, Hanover Square, on Wednesday, June 14th, at 4.30 p.m.—W. KNOWSLEY SIBLEY, M.B., 70, Duke Street, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, June 15th, at 4.30 p.m. Tea will be provided before the meeting. Copy of resolution of Branch Council passed January 11th, 1905: "That a business meeting only of the Branch be held in June next." The Branch Council will meet at 3.30 p.m. Agenda: Minutes. Report of Branch Council and annual financial statement. Election of Branch officers. Any other business.—ASTLEY V. CLARKE, Honorary Secretary and Treasurer.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—The annual meeting of this Division will be held on Tuesday, May 30th, at the Red Lion Hotel, at 1 p.m. Luncheon will be provided at 1.45 p.m.; tickets, 3s. 6d. each (exclusive of wine). Agenda: Election of officers; programme for the year; discussion of some proposals of the Medico-Ethical Committee, etc.; any other business.—A. E. WILSON, Honorary Secretary, Boston and Spalding Division.

NORTH OF ENGLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council of the Association must reach me not later than May 30th. There are two vacancies, and the present Representatives, Drs. Murphy and Hunter, are both eligible, and offer themselves for re-election.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting of this Division will be held at the Golden Lion Hotel, Dolgelly, on Wednesday, May 31st, at 2 p.m. Agenda: (1) To read minutes of last meeting. (2) To read correspondence, etc. (3) To appoint Chairman for 1905-6, Vice-Chairman, Secretary, Representative to Representative Meeting, Representatives on Branch Council, Members of the Executive Committee of Division. (4) To nominate Representative of the North Wales and Shropshire (grouped) Branches on the Central Council of the Association. (The present Representative is eligible for re-election.) (5) To receive annual report of the Executive Committee, with its recommendations regarding the matters referred to it for consideration by the Representative Meeting. (6) To consider the agenda of the Representative Meeting to be held at Leicester on July 24th, *et seq.* Members will greatly oblige by consulting the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 13th, and note any matter they expressly wish to call the attention of the meeting to—and please bring SUPPLEMENT with them. Dr. Hugh Jones (Dolgelly) will open a discussion on the treatment of pneumonia. Dr. J. Hill Abram has signified his intention of taking part in it. It is hoped all members who intend being present at the meeting will be prepared to take part. The following papers will be read: Edgar Stevenson, F.R.C.S.: A case of exostosis of the orbit. Rushton Parker, F.R.C.S.: Case of large calculus removed from ureter by suprapubic cystotomy. W. Thelwall Thomas, F.R.C.S.: Recent cases of suprapubic cystotomy. Luncheon at 1.15 p.m.—W. JONES-MORRIS, Is-y-Coed, Portmadoc, Honorary Secretary.

NORTH WALES BRANCH: NORTH CARNARVONSHIRE AND ANGLESEY DIVISION.—The annual meeting of this Division will be held at the British Hotel, Bangor, on Tuesday, May 30th, at 2 p.m. Agenda: (1) To read the minutes of the last meeting. (2) To read correspondence. (3) To elect Chairman, Vice-Chairman, Honorary Secretary, Representative to Representative Meeting, Representatives on Branch Council, and members of the Executive Committee of the Division for 1905-6. (4) To nominate Representative of the North Wales and Shropshire (grouped) Branches on the Central Council of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider the agenda of the Representative Meeting to be held at Leicester in July. Members will please consult and bring with them the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 13th. (7) Paper by Corbet W. Owen, M.B.: Notes on a case of acute lead poisoning. A meeting of the Executive Committee will be held at 1 p.m.—H. JONES ROBERTS, Pen-y-groes, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Guildhall, Canterbury on Wednesday, June 21st, at 2.15 p.m. Dr. Whitehead Reid, President-elect, kindly invites members to lunch at the Royal Fountain Hotel, between 1 and 2 o'clock. Agenda: In addition to any business that may be transacted by an ordinary meeting. (1) To receive the report as to election of officers of the Branch. (2) To receive

the annual report of the Branch Council. (3) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." After the meeting expeditions will be arranged to the Cathedral and other places of interest in the city; to the Sanatorium and Sewage Farm, and to the Canterbury Asylum. Dinner at the Royal Fountain Hotel, 6.15 for 6.30; charge, 7s. Wine will be supplied by local members. Those who propose to be present are requested to signify their intention to Dr. Henchley, 1, London Road, Canterbury, not later than Saturday, June 17th.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—**A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in May (24th), June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.**

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of this Division will take place at the Art Club, Blackheath, on Thursday, June 8th, at 4 p.m., Arthur Roper, M.D. (Lewisham), in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine. (1) Minutes of last meeting. (2) To decide where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative Meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider business of Annual Representative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. The following papers will be read: Lauriston Shaw, M.D., F.R.C.P.: The muscle of the stomach in the treatment of its diseases. L. A. Dunn, M.S., F.R.C.S.: Some remarks upon the surgical treatment of carcinoma of the stomach. J. Purves Stewart, M.D.: The diagnosis of tabes dorsalis in its earliest stage. Exhibition of instruments, etc., by Messrs. Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. The Honorary Secretary would be much obliged if members would kindly inform him by post-card, to reach him by the first post on Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Nominations for the office of two Representatives on the Central Council, in conjunction with the Leinster Branch, must be sent on or before June 3rd to E. J. FARMER, Carlow, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at Cardiff on June 8th.—FRANK G. THOMAS, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The sixty-sixth annual meeting will be held on Thursday, June 15th, at the Athenaeum, George Street, Plymouth, at 3 p.m., when Dr. R. H. Clay will resign the chair to Mr. G. Jackson, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1904-5 will be presented to the meeting, and the officers of the Branch be elected for the year 1905-6. The reports from the Divisions of the Branch on the resolutions proposed and carried at the Truro intermediate meeting on March 2nd, 1905, and submitted to the Divisions for their consideration, will be brought before the meeting for confirmation. Luncheon, by kind invitation of the President-elect, will take place from 1 to 2.30 p.m. at Goodbody's Restaurant, Bedford Street. After the meeting Dr. Turner kindly invites members to inspect the ancient and historically interesting mansion, Plympton House, where tea will be provided. Trains from Millbay to Plympton, 5.5 p.m., and from Plympton to Millbay, 6.35 p.m. The annual dinner will be held at 7 p.m. at Goodbody's Restaurant, Bedford Street. Tickets, (exclusive of wine) 6s., which can be had from the Honorary Secretary of the Branch. On Friday, June 16th, the members of Plymouth, Devonport and district, cordially invite their colleagues to a luncheon, and an excursion by steamer to the breakwater, and thence up the Hamoaze to Cotehele (which will be visited by kind permission of the Right Hon. The Earl of Mount Edgcumbe). Members who accept this invitation are invited to bring their wives or lady friends (limited to two). Notice will be given at the meeting and dinner on the 15th of the time and place of departure of this excursion; and those who wish for further details should communicate with Dr. Webber, 4, Queen Anne Terrace, Plymouth. The Honorary Secretary begs to intimate to those members who purpose attending (1) the visit to Plympton House, (2) the annual dinner, (3) the excursion to Cotehele, that they must inform him on or before June 8th, and at the same time forward the amount of the dinner ticket, in order that the necessary arrangements may be made.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

ULSTER BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 21st, at Warrenpoint, co. Down. The meeting will elect for the ensuing year a President, Treasurer, Secretary, and (with the Connaught Branch) two members of the Central Council. Nominations for these offices must be sent to the Honorory Secretary not later than May 31st. Attention is called to Rule 4, according to which the President shall be a member of the Branch who has not held the said office during the previous five years, and who must not be a member of the same Division as his predecessor.—CECIL E. SHAW, M.D., Honorary Secretary, 18, College Square East, Belfast.

WEST SOMERSET BRANCH.—The sixty-second annual meeting of this Branch will be held at the Beach Hotel, Minehead, on Friday, June 9th, at 12.30 p.m., when Mr. Gordon Henry will preside. Agenda: Minutes of last meeting; annual report of Council; Treasurer's report; election of President-elect; election of Representative; election of other officers; election of Ethical Committee. President's address: The General Practitioner and Appendicitis. Lunch will be served at the Beach Hotel at 1.30 p.m., the cost of which will be defrayed out of the Branch funds in the case of those members who signify to Mr. Gordon Henry, Blair Lodge, Minehead, by June 6th, their intention of being present. In the case of others and of guests a charge of 2s. 6d. will be made, in all cases exclusive of wine, etc. After lunch the golf links will be at the disposal of members, or they will be driven to the polo ground, where a match will be played, and where they will be entertained to tea.—W. B. WINCKWORTH, Honorary Secretary, Taunton.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25, 1905.

THE Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th—at 6 p.m., in a room to be set apart for the purpose.

Branch and Division Secretaries are invited to notify any subjects they may wish to bring before this conference. All matters to be considered must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

British Medical Association.

SEVENTY-THIRD ANNUAL MEETING.

THE seventy-third annual meeting of the British Medical Association will be held at Leicester on Monday, Tuesday, Wednesday, Thursday, and Friday, July 24th, 25th, 26th, 27th, and 28th, 1905.

President: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

President-elect: GEORGE C. FRANKLIN, F.R.C.S., Honorary Surgeon, Leicester Infirmary.

Chairman of Representative Meetings: Sir VICTOR HORSLEY, F.R.S.

Chairman of Council: ANDREW CLARK, D.Sc., F.R.C.S.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P.

An Address in Medicine will be delivered by HENRY MAUDSLEY, LL.D., M.D., F.R.C.P.

An Address in Surgery will be delivered by CHARLES JOHN BOND, F.R.C.S.

A popular lecture will be delivered by Professor WILLIAM STIRLING, D.Sc., M.D., F.R.S.E.

SECTIONS.

The annual meeting at Leicester will comprise 12 Sections as shown in the subjoined list. The Sections will meet on Wednesday, Thursday, and Friday, July 26th, 27th, and 28th, from 10 a.m. to 1 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

MEDICINE.

President: FRANK M. POPE, M.D., F.R.C.P., Leicester. *Vice-Presidents:* REGINALD PRATT, M.D., M.R.C.P., Leicester; ROBERT WILLIAM PHILIP, M.D., F.R.C.P.Edin., Edinburgh; WILLIAM BRAMWELL RANSOM, M.D., F.R.C.P., Nottingham. *Honorary Secretaries:* BERTRAND DAWSON, M.D., B.Sc., F.R.C.P., 32, Wimpole Street, Cavendish Square, W. WILLIAM MITCHELL STEVENS, M.D., M.R.C.P., 21, St. Andrew's Crescent, Cardiff; FRANK HARWOOD JACOB, M.D., M.R.C.P., 28, Regent Street, Nottingham.

SURGERY.

President: Sir CHARLES BENT BALL, M.Ch., F.R.C.S., Dublin. *Vice-Presidents:* CLAUDE DOUGLAS, F.R.C.S., Leicester; HENRY

JOHN BLAKESLEY, F.R.C.S., Leicester; JAMES HENDERSON NICOLL, M.B., C.M., Glasgow. *Honorary Secretaries:* PERCY FURNIVALL, F.R.C.S., 28, Weymouth Street, W.; CECIL EDWARD MARRIOTT, M.C., F.R.C.S., 11, Welford Road, Leicester.

STATE MEDICINE.

President: PHILIP BOOBBYER, M.D., Nottingham. *Vice-Presidents:* NINIAN MCINTIRE FALKINER, M.D., Dublin; JOHN HERBERT HAWKINS MANLEY, M.D., D.P.H., West Bromwich; THOMAS ROBINSON, M.R.C.S., D.P.H., Leicester. *Honorary Secretaries:* WM. WILLIAMS, M.D., D.P.H., County Health Department, 9, The Parade, Cardiff; CHAS. KILLICK MILLARD, M.D., D.Sc., Town Hall, Leicester.

INDUSTRIAL HYGIENE AND DISEASES OF OCCUPATION.

President: HY. WM. LANGLEY BROWNE, M.D., West Bromwich. *Vice-Presidents:* ALEXANDER CAMPBELL, M.D., Dundee; JOHN COLLEY SMYTH BURKITT, M.D., D.P.H., Leicester; THOMAS MORISON LEGGE, M.D., London. *Honorary Secretaries:* CLEMENT FREDERICK BRYAN, M.R.C.S., 44, Humberstone Road, Leicester; THOMAS WATTS, M.D., 34, Church Street, Hyde.

LARYNGOLOGY, OTOLOGY AND RHINOLOGY.

President: FREDERICK WILLIAM BENNETT, M.D., Leicester. *Vice-Presidents:* WILLIAM ARTHUR CARLINE, M.D., Lincoln; JOHN MIDDLEMASS HUNT, M.B., Liverpool. *Honorary Secretaries:* ALEX LEWIS MACLEOD, M.B., 89, Hinckley Road, Leicester; CHAS. HERBERT FAGGE, M.S., F.R.C.S., 22, St. Thomas's Street, London Bridge, S.E.

NAVY, ARMY AND AMBULANCE.

President: Surgeon-Lieutenant-Colonel HENRY WALTER KIALLMARK, M.R.C.S., London. *Vice-Presidents:* Surgeon-Lieutenant-Colonel ROBERT BRADSHAW SMITH, V.D., L.R.C.P., Hinckley; Lieutenant-Colonel EDMOND MONKHOUSE WILSON, C.B., C.M.G., D.S.O., S. Farnboro'; Fleet Surgeon ALEXANDER J. J. JOHNSTON, R.N., Haslar. *Honorary Secretaries:* Fleet Surgeon EDWARD JAMES BIDEN, R.N. (Ret.), 29, Osborne Road, Southsea; Captain WM. PEMBERTON PEAKE, M.R.C.S. R.A.M.C.V., 21, Oxford Street, Leicester; Captain EDWIN CHARLES MONTGOMERY-SMITH, R.A.M.C.Vol., 36, Abbey Road, St. John's Wood, N.W.

OBSTETRICS AND GYNAECOLOGY.

President: HERBERT RITCHIE SPENCER, M.D., F.R.C.P. London. *Vice-Presidents:* HENRY MEADOWS, M.B., Leicester; Professor HENRY CORBY, M.D., Cork; FRANCIS RICHARD CASSIDI, M.D., Derby. *Honorary Secretaries:* MONTAGUE WM. WILLIAMS, M.R.C.S., 45, London Road, Leicester; Miss LOUISA GARRETT ANDERSON, M.D., 114 A, Harley Street, W.

OPHTHALMOLOGY.

President: GEORGE ANDREAS BERRY, F.R.C.S.Edin., Edinburgh. *Vice-Presidents:* WM. MARDON BEAUMONT, M.R.C.S., Bath; EDWIN COLLIER GREEN, M.R.C.S., Derby. *Honorary Secretaries:* ROBT. WALLACE WESLEY HENRY, M.D., 6, Market Street, Leicester; JOHN HERBERT PARSONS, F.R.C.S., 27, Wimpole Street, Cavendish Square, W.

PSYCHOLOGICAL MEDICINE.

President: ALEXANDER REID URQUHART, M.D., Perth. *Vice-Presidents:* ROTHSAY CHARLES STEWART, M.R.C.S., Leicester; THEOPHILUS BULKELEY HYSLOP, M.D., London. *Honorary Secretaries:* ARTHUR MOLYNEUX JACKSON, M.B., Nottingham County Asylum, Radcliffe-on-Trent; JOHN WIGMORE HIGGINSON, M.R.C.S., Hayes Park Asylum, Hayes.

PATHOLOGY.

President: FREDERICK WALKER MOTT, M.D., F.R.C.P., F.R.S., London. *Vice-Presidents:* THEODORE SHENNAN, M.D., Edinburgh; Professor ARTHUR HAMILTON WHITE, L.R.C.P.I., Dublin. *Honorary Secretaries:* JOHN WILLIAM H. EYRE, M.D., Guy's Hospital, S.E.; THOMAS VILLIERS CROSBY, M.D., 91, St. Peter's Road, Leicester.

DENTAL SURGERY.

President: MORTON ALFRED SMALE, M.R.C.S., L.D.S., London. *Vice-Presidents:* EDWARD LLOYD-WILLIAMS, M.R.C.S., L.R.C.P., L.D.S., London; FRANCIS JOHN LANKESTER, M.R.C.S., L.D.S., Leicester; *Honorary Secretaries:* WM. ARMSTON VICE, M.B., L.D.S., 19, Belvoir Street, Leicester; JOSEPH GEORGE TURNER, F.R.C.S., L.D.S., 12, George Street, Hanover Square, W.

TROPICAL DISEASES.

President: RUBERT WM. BOYCE, M.B., F.R.S., Liverpool. *Vice-Presidents:* ANDREW DUNCAN, M.D., London; FLEMING MANT SANDWITH, M.D., F.R.C.P., London. *Honorary Secretaries:* GEORGE AYLWIN CLARKSON, F.R.C.S., 173, London Road, Leicester; JOHN M. HENDRIE MACLEOD, M.D., 11, Harley Street, W.

The Honorary Local Secretaries are:

ASTLEY V. CLARKE, M.D.,
37, London Road, Leicester.

FELIX BOLTON CARTER, M.S.,
99, London Road, Leicester.

PROGRAMME OF PROCEEDINGS.

MONDAY.

2 p.m.—Annual General Meeting followed by Representative Meeting.

TUESDAY.

9 a.m.—Meeting of 1905-1906 Council.
10 a.m.—Representative Meeting.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
5 p.m.—Church Service.
6 p.m.—Meeting of Division and Branch Secretaries.
8.30 p.m.—President's Address. Reception of Distinguished Guests.

WEDNESDAY.

9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Medicine. Adjourned General Meeting followed by Representative Meeting.

THURSDAY.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

FRIDAY.

9 a.m.—Meeting of Council.
1 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Meetings of Divisions and Branch Secretaries.
8 p.m.—Popular Lecture.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1905.

THE eighty-first session of the General Council of Medical Education and Registration of the United Kingdom commenced at the offices of the Council, Oxford Street, London, on Tuesday, May 23rd, 1905.

PRESIDENT'S ADDRESS.

Changes in the Council.

GENTLEMEN,—At the opening of our eighty-first session it falls to me to begin with a sad announcement. By the death of Dr. Charles R. C. Tichborne, our colleague for nine years, the Council has lost the services of a member whose zeal and scientific attainments were highly valued by the Pharmacopoeia Committee. He was ever ready to give us the benefit of his special knowledge of pharmacy and pharmaceutical chemistry, and, at the instance of the Committee, he often undertook laborious researches with a view to the improvement of the *Pharmacopoeia*. His death will be felt as a loss, not only by the Council, but by all who are interested in pharmaceutical science. In your name I have ventured to address a message of condolence to his family. The Apothecaries' Hall of Dublin has appointed as his successor the Chairman of its Governors, Dr. Arthur Atock, to whom we offer a cordial welcome.

We shall miss also the genial presence and the Celtic fervour of Sir Charles Ball, who since 1900 has worthily represented the Royal College of Surgeons in Ireland. In the Council

and in the Executive Committee his sound common sense and his enlightened interest in the medical service of the Army were fully recognized. We rejoice that, not failing vigour, but increasing demands on his time and thought deprive us of his services here. We can but wish him ever-growing success elsewhere, and assure him of our grateful remembrance. The vacant seat is taken by Sir Thomas Myles, whose reputation as a surgeon and a Past-President of his College has procured him a distinguished place in Irish professional life.

The Council's Legal Adviser.

Another loss, which touches the Council nearly, I have still to announce, and I do so with deep regret. We are to lose the wise counsel and clear guidance which for some quarter of a century Mr. Muir Mackenzie has ever been ready to afford us. Soon after the rising of the Council in November, Mr. Muir Mackenzie was appointed to an important judicial office —that of Official Referee of the Supreme Court. The nature and extent of his new duties are such as to preclude him not only from advising us as Counsel, but from acting as legal assessor in our domestic forum. Personally I had hoped that for a time at least we might continue to have his aid in the latter quasi-judicial capacity; but this appears to be impracticable. With his characteristic kindness, however, he has consented to help us during the transition by such friendly assistance as an *amicus curiae* can offer; and I look forward to his presence with us during some part of our penal sittings.

Every member of the Council who has had experience of its work, and assuredly not least the member who occupies this Chair, must feel that in parting with Mr. Muir Mackenzie we are parting with a wise and trusted friend. His unrivalled knowledge of medical law, his vast experience of procedure, his practical sagacity, and his unfailing tact and courtesy to all, have made for him an enduring place in our regard. The services he has rendered for a long series of years to this Council, and through the Council to the medical and dental professions, are measured by the sense of impoverishment and personal loss of which we are all conscious to-day.

For your President, on whom, as I have learnt during the last few months, a heavy responsibility lies when the Council is not in session, the absence of so wise an adviser is especially grave. It is therefore doubly fortunate that Sir William Turner has consented to retain his seat as a member, and to afford to the Council and to myself the benefit of his ripe experience and judgement. To-morrow we hope to see him in his place at my right hand, as our Nestor who has "passed the Chair."

The Executive Committee empowered me to procure, through our Solicitor, the services of Counsel for the preparation and presentation of the cases to be deal with this Session. Mr. Sydney G. Lushington—who has succeeded Mr. Muir Mackenzie as Standing Counsel to the Board of Trade, and who has long been professionally associated with him—will accordingly attend to assist us during the inquiries of the week. Before the end of the meeting I shall ask the Council to instruct me as to the arrangements they desire to be made for the future.

Medical and Dental Companies.

I would now allude briefly to certain matters which have occupied my attention during the recess.

In accordance with your Resolution of November 29th, I addressed a communication to the Lord President of the Privy Council on the subject of Medical and Dental Companies, and of the abuses to which they give rise. The Lord President, in reply, asked for detailed evidence in support of our representations. This evidence the Registrar, with the help of members of the Companies Bill Committee, was enabled to collect and to forward. It is now under the Lord President's consideration.

It will be remembered that, according to the judgement of Chief Baron Palles, a Dental Company, whose proposed title is such as to mislead the public into supposing that its business is carried on by qualified persons, may lawfully be refused registration under the Joint Stock Companies Acts. The question arose whether a Company already registered, whose title was open to the same objection, might lawfully remain upon the *Register*. A judgement in the negative has now been given in the High Court of Justice in Ireland by the Master of the Rolls, in the case of the Attorney-General *versus* Appleton and others. This important decision was made the subject of questions in Parliament by Sir John Tuke, who has been most active in pressing the matter on the attention of the Government; and I communicated a full report of the case, courteously furnished by the British Dental Association, to the Lord President. The purpose of these questions and communications was to ascertain what steps could be taken to procure a similar declaration of the law in Great Britain. The replies will be laid before you. The last of them, received on Saturday, is of primary importance to the dental profession; but the underlying principle admits of a much wider application. The documents indicate that definite advance is being made in the direction desired by the Council in its Resolution of May 31st, 1904 (Minutes, vol. xli, p. 87), and you will doubtless refer them to the Companies Bill Committee for its information.

Anatomy Acts.

As the result of a confidential communication from the Army Council, this Council on November 22nd, 1904, appointed a Committee to inquire into the operation of the Anatomy Acts and their effect on the teaching of anatomy and practical surgery in Great Britain. A further communication from the War Office was received in March, from which it is apparent that the inquiry you directed is of pressing importance. To facilitate the work of the Committee, I have opened communications with a number of the authorities concerned, and the information thereby obtained, much of which is of a confidential character, will require careful consideration.

The Council's House.

The Office Site Committee, with the valuable aid of your Solicitor, has been occupied in arranging for the future tenancy of the Council's house in Hanover Square, the existing lease of which expires at Midsummer next. The negotiations have been protracted and sometimes difficult; but I may be allowed to anticipate the Report of the Committee so far as to say that we have now found a satisfactory tenant, at a rent considerably larger than that hitherto obtained, and on conditions which the Council has already approved in advance.

Finance.

The Council will also learn with satisfaction that the accounts for the year 1904 are more favourable than those for any year since 1895. At the end of 1903 our deficit was some £2,165; at the end of 1904 it was only £218, or about one-tenth as great. The Finance Committee will report on the items which have contributed to this substantial improvement; but it is noteworthy that the result is attributable, not to any increase of ordinary income, but to greater economy of expenditure. Whether this degree of economy can be maintained in future years without impairing the Council's efficiency it is difficult to forecast. But though I may be, as I have been, charged with incurable optimism regarding the Council's finances, I still think that, in ordinary years, equilibrium between income and expenditure is possible of attainment, even without the aid of fresh legislation; and I am strengthened in this belief by the opinion of the Finance Committee. If the vigilance of your officers is supported by the resolve of the Council to discountenance all expenditure of time and money that does not directly conduce to efficiency, it is not extravagant to hope that the accounts of the coming years may be even more satisfactory than the last. The closing year of office of my distinguished predecessor in the Chair has shown us what can be done in this direction, and it will be my ambition to assist to the best of my power in maintaining the ground we have gained under his leadership.

But while we strive after economy on the one hand, we must not neglect any legitimate means for the improvement of our income on the other. Where the equilibrium is precarious even a small addition to the right side of the balance is important. Dr. Mackay's suggestion—that the fees for the restoration of lapsed names to the *Registers*, and for the registration of higher titles, should be slightly raised —has proved to be fruitful, for it has added over £400 to the receipts of the year. The higher fee, so far as it represents a fine for negligence, will incidentally tend to keep the *Registers* more correct. The fee for recording additional qualifications, being as it were a small tax on new dignities, is paid with comparative complacency by the newly dignified. Dr. Mackay's proposal is thus abundantly justified, and the Chancellor of the Exchequer in search of fresh sources of revenue might well take counsel with him.

The Students' Registers.

The suggestion has been made from an important quarter

that one of the services gratuitously performed by the Council might be made self-supporting in a similar way. I refer to the maintenance of our *Students' Registers*. The General Registrar, with the help of the Branch Registrars, has ascertained that the ordinary expenditure on this branch of our work—for printing, postage, salaries, and time occupied in Committees and Councils over its details—may be estimated at about £400 a year. Against this outlay the only receipts are some £20 a year from fees for late or exceptional registration. If a fee, say, of 5s., were charged for the certificate of registration in ordinary as well as exceptional cases, the actual cost would just be covered and the Council's funds would be relieved to a corresponding extent. It is represented that for such a step no new legislation would be required, that the *Students' Registers* might remain on their present "voluntary" basis, that the trifling fee would be readily paid and easily collected, and that the future action of the Council and of the Licensing Bodies in regard to students' registration would in no wise be prejudiced. If these representations are just—and I offer them for your mature consideration—the Council might be well advised to make the experiment.

Structural Alterations.

The improvements in the office sanctioned at the last meeting have been carried out under the supervision of the General Registrar, and, thanks to his care and forethought, the cost has come well within the estimate. The equipment required for the better keeping of the *Registers* and of the documents relating to registration has now been provided; and the new system, already tried and approved in the Dental Department, is being rapidly applied to the others. The expense in this case will certainly contribute to efficiency. The like statement may also be made regarding the outlay on cleaning and redecorating the Council Chamber. This work had been postponed until it was certain that our occupancy of the premises would continue. When the doubt was finally removed the Registrar was instructed to put the chamber and galleries into tenantable condition. The work of the Council will go forward with greater zest when it is carried on in brighter surroundings and in purer air.

Inspections and Visitations.

The supplementary inspections of the Universities of Oxford and London have now been completed in accordance with your directions. The Reports, which will be brought before you by the Examination Committee, are in my opinion highly satisfactory. As the Final Examinations of the University of Edinburgh began on Saturday last, it became necessary to arrange for their supplementary inspection without waiting for the gathering of the Council. The Executive Committee accordingly requested Professor Howard Marsh, of Cambridge, to report as Inspector on the surgical part of the examinations, and he has kindly agreed to visit Edinburgh now, and again in June, for this purpose.

The cycle of visitations and inspections of the Final Examinations will thus be at an end during the summer. As on previous occasions, you will doubtless desire that the Examination Committee should present to you as soon as possible a general Report on the whole series, in which the results and conclusions arrived at are summarized in a convenient form.

At the close of last Session a wish was expressed that the Standing Orders relating to the Visitation and Inspection of Final Examinations might be revised, with a view to removing ambiguous or redundant expressions from the text. I have submitted to the Executive Committee an altered form of the Rules, which, after consideration and amendment, they will bring before the Council for its approval.

The British Pharmacopoeia.

The Pharmacopoeia Committee has for some time had under consideration the question of organizing in a more convenient manner than hitherto the researches and inquiries that are necessary for the effective revision of the *Pharmacopoeia*. It has decided that it is expedient to appoint Committees of Reference to advise it on points of Chemistry, Botany, Pharmacology, and Pharmacy. With the courteous assistance of the Pharmaceutical Societies of Great Britain and of Ireland, a Committee of Reference in Pharmacy has first been appointed. It consists of expert pharmacists, with Mr. Walter Hills as Chairman, and Professor Greenish as Secretary, to whom questions relating to pharmacopoeial pharmacy will be referred for investigation and report. The Pharmacopoeia Committee, acting as it does on behalf of the Council, will of course retain full freedom as to the adoption or otherwise of any suggestions which may be offered by this and other Committees of Reference. There is, however, good ground for the hope that the orderly system thus instituted may enable the Committee, in due course, to submit to you a revised *Pharmacopoeia* that will adequately represent the best pharmaceutical science and practice of the time.

Other Business.

The various Standing Committees will have Reports to present on matters referred to them, but probably none of these will offer serious difficulty or occupy much of your time.

Several penal cases will be submitted for inquiry on Wednesday and Thursday. They involve charges of a grave kind, and will require your serious consideration; but some of them at least are not likely to be protracted.

Unless unforeseen questions arise for discussion, the business of the Council should thus be compassed by Saturday. The Session we open to-day need, in fact, involve no undue strain on the time or on the finances of the Council.

The President's Duties.

Let me add, in closing, that during the recess I have paid some twenty visits to the office on the Council's business, and that I have thus endeavoured to keep in immediate touch with all that concerns its activity. My own College of St. John's, and the Medical Board of my University, have released me from certain claims upon my time and energy in order that I may be the freer to devote both to the Council's work. If I can thus be of service to the Chairmen of Committees, or to any other members of the Council, in the preparation of matters to be submitted for its consideration, I trust they will not scruple to give me the opportunity of assisting them.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on May 19th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

APPLICATIONS FOR EXTENSION OF TIME FOR CERTIFICATION.

A letter was received from a Clerk of the Privy Council transmitting an appeal for extension of time on behalf of a woman whose claim to be certified under Section 2 of the Act was made after March 31st last. A letter was also received from the Medical Officer of Health of Devonport to the same effect in a similar case. The Board decided that answers should be sent stating that the Board regretted that they were unable to comply with the requests.

MIDWIVES AND HOMES RUN FOR PROFIT BY THE LAITY.

A letter was received from Dr. E. R. Fothergill, Honorary Secretary of the Wandsworth Division of the Metropolitan Counties Branch of the British Medical Association, inquiring if midwives may legally engage themselves to homes run for profit by members of the laity. The conclusion the Board came to on the subject was that the Board was prepared to discuss any case of the kind on its merits.

THE ADMINISTRATION OF THE MIDWIVES ACT.

A letter was read from the Clerk of the Breconshire County Council enclosing a report and scheme adopted by his Council for the administration of the Midwives Act and inviting the criticism of the Central Midwives Board thereon. The consideration of this matter was postponed and the Clerk of the Breconshire County Council was asked to furnish copies of the report and scheme for distribution to the members of the Board.

THE ASTON UNION INFIRMARY.

A letter from the Clerk of the Guardians of the Aston Union was read in which inquiry was made concerning the reason why the Central Midwives Board refused to approve the Aston Union Infirmary as a Training School for midwives. The Secretary was instructed to reply that it was not the practice of the Board to give reasons in such cases.

MIDWIVES TO BE CITED TO APPEAR BEFORE THE BOARD.

The Clerk to the Farnborough Urban District Council forwarded a report from the Medical Officer of Health of that District recommending that a certain midwife should be removed from the Roll because she refused after due warning to supply herself with the necessary appliances. The Board directed that this midwife should be cited to appear.

A letter was received from the Honorary Secretary of the Birkenhead Maternity Hospital reporting that a certain midwife had been dismissed from employment as District Midwife on account of a charge of drunkenness. The Board

decided that in this case also the midwife should be cited to appear.

A Certificate Refused.

An application from a woman to be certified by the Board as a midwife was considered, together with a communication thereon from the Clerk of the Cardigan County Council. It was stated that the woman had been convicted on three successive days in one week of being drunk. This application was refused by the Board.

Recognition of Teachers.

Mr. E. Parker Young discussed in detail the applications for recognition as teachers of midwifery made by certain general practitioners. He considered that if the Board refused to sanction as teachers general practitioners who were qualified for such work an injustice would be done to women who were anxious to become midwives. Many general practitioners were perfectly competent to act as teachers of midwifery, though they might not have held any special appointments bearing on the subject. If the Board wished to make the Midwives Act work then the general practitioners who have been in practice for many years, and have attended a large number of midwifery cases, and who were perfectly competent to teach, should be recognized as teachers. Women wishing to become midwives should not be put to the expense of travelling some thirty miles to attend lectures in consequence of the refusal of the Board to sanction as teachers local general medical practitioners. Mr. Parker Young concluded by formally moving that two general practitioners whom he named should be recognized as teachers.

Dr. Dakin contended that the Board had been quite impartial in recognizing teachers, and the Chairman declared that there had been no such thing as boycotting of general practitioners.

After some further consideration Mr. Parker Young's motion was not agreed to.

The Belfast Maternity Hospital.

Sir William J. Sinclair moved that the resolution of the Board of March 23rd, 1905, refusing the request of the Belfast Maternity Hospital for the recognition of its certificate as an approved qualification under Section 2 of the Midwives Act be rescinded. He urged that the Board had refused this request of the Belfast Maternity Hospital not because of the fault of the hospital but in consequence of the delay which had been caused by the Board itself. Sir William Sinclair contended that the Board had made a serious mistake, that the Belfast Maternity Hospital had a right to have its certificate recognized, and that the action of the Board was a great hardship to a considerable number of women.

As this motion was not seconded the matter was not further discussed.

Number of Women on the Roll.

Applications for certificates under Section 2 of the Act from 82 women were considered and their names were ordered to be entered on the Roll. The total number on the Roll was reported to be 22,289.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,827 births and 4,300 deaths were registered during the week ending Saturday last, May 20th. The annual rate of mortality in these towns, which had been 16 5, 15 4, and 15.0 per 1,000 in the three preceding weeks, further declined last week to 14 4 per 1,000. The rates in the several towns ranged from 6.0 in Kings Norton, 7.3 in Wolverhampton, 7.4 in Hornsey, 7 8 in Barrow-in-Furness, 8.7 in Rotherham, and 8.9 in East Ham and in Norwich, to 19.2 in Rhondda, 19.8 in Merthyr Tydfil, 21.5 in West Bromwich, 22 4 in Tynemouth, 22 5 in Preston, and 26.0 in Middlesbrough. In London the rate of mortality was 14 1 per 1,000, while it averaged 14.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.5 per 1,000: in London this death-rate was equal to 1.3 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.2 in Leyton, 3.8 in Warrington, 4.0 in Sheffield, 4.9 in Coventry, 5 0 in Smethwick, and 7.7 in West Bromwich. Measles caused a death-rate of 1.8 in Wigan, 2.1 in Rhondda and in Merthyr Tydfil, 2.5 in Smethwick, 3 1 in Warrington, 3.3 in Sheffield, 4.9 in Coventry, and 6.2 in West Bromwich; whooping-cough of 1.1 in Willesden, 1 3 in Aston Manor, 1.4 in South Shields and in Newport (Mon.), 1.8 in Leyton and in Preston, 2.2 in Tottenham, 2.5 in Smethwick, and 2.9 in Tynemouth; and diarrhoea of 1.2 in West Ham, and 1.5 in West Bromwich and in Grimsby. The mortality from scarlet fever, from diphtheria, and from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, but none in any of the seventy-five large provincial towns. The Metropolitan Asylums Hospitals contained 15 small-pox patients at the end of last week, against 17 at the end of each of the two preceding weeks; 3 new cases were admitted during the week, against 4, 4, and 2 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital at the end of the week was 2,211, against 2,182, 2,152, and 2,177 at the end of the three preceding weeks; 319 new cases were admitted during the week, against 255, 235, and 319 in the three preceding weeks.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: John G. Peebles, M.B., Thomas W. Myles, M.B, and Charles M. Woods, Surgeons, to the *Glory*, for disposal, May 16th; William H. Pope, Surgeon, to the *Donegal*, May 16th; Elystan G. E. O'Leary, Surgeon, to the *Sapphire II*, May 16th; David H. Vickery, Surgeon, to the *Dryad*, on becoming an independent command; Francis J. Gowans, Surgeon, to the *Leda*, on its becoming an independent command; Henry Woods, M.B., Surgeon, to the *Circe*, on its becoming an independent command; Edward B. Kenny, M.B., Surgeon, to the *Hebe*, on its becoming an independent command; John Shipsey, M.B., Surgeon, to the *Speedwell*, on its becoming an independent command; Edward C. Ward, Fleet Surgeon, to the *Carnarvon*, May 25th; Henry E. South, Fleet Surgeon, to the *Emerald*, May 25th.

Edgar W. Livesay has been appointed Surgeon and Agent at Alderney, May 16th.

ROYAL NAVAL VOLUNTEER RESERVE.

Mr. G. R. Harland has been appointed a Lieutenant, and attached to the Tyneside Division, May 17th.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel A. H. Burlton retires on retired pay, May 17th. He was appointed Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; and Lieutenant-Colonel, March 6th, 1900. He has no war record in the Army Lists.

Major C. H. Burtchaell, from the Seconded List, to be Major, May 3rd. He was placed on the Seconded List for service with the South African Constabulary, May 3rd, 1902.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel R. Macrae, M.B., Bengal Establishment, is promoted to be Colonel, from February 12th. He was appointed Assistant Surgeon, March 31st, 1875, and became Brigade-Surgeon-Lieutenant-Colonel, March 31st, 1895. He served during the Afghan war in 1878-80 in the operations in the Kuram Valley, in the Jugdullack Pass, in the expedition to Sherpur in December, 1879, and in Kohistan and in the Logor and Maidan Valleys, receiving the medal with clasp.

VOLUNTEER RIFLES.

Henry M. Macnaughton-Jones, M B (late Surgeon-Lieutenant 1st Middlesex Royal Engineers Volunteers) to be Surgeon-Captain, 4th Volunteer Battalion the Royal Fusiliers (City of London Regiment), and to be borne as supernumerary whilst commanding the Bearer Company of the 1st London Volunteer Infantry Brigade, April 22nd.

Supernumerary Surgeon-Lieutenant-Colonel G. S. Elliston (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Harwich Volunteer Infantry Brigade) is granted the honorary rank of Surgeon-Colonel, May 19th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated May 19th: Archibald Auld (late Lieutenant), 2nd Volunteer Battalion the East Yorkshire Regiment; Charles A. Lees (formerly Captain), 4th (Hunts) Volunteer Battalion the Bedfordshire Regiment; John W. Leitch, 3rd Lanarkshire Regiment.

Surgeon-Lieutenant-Colonel S. B. Mason, 4th Volunteer Battalion the South Wales Borderers, is granted the honorary rank of Surgeon-Colonel, May 19th.

Mr. William Lloyd to be Surgeon-Lieutenant in the 22nd Middlesex (Central London Rangers), April 17th.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Honorarium, £25 each per quarter

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BODMIN: CORNWALL COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £135, rising to £155, per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant House-Surgeon. Salary at the rate of £70 per annum.

CHELSEA HOSPITAL FOR WOMEN, S.W.—Clinical Assistant.

CHESTER GENERAL INFIRMARY.—House-Physician, resident. Salary, £90 per annum.

DUDLEY: GUEST HOSPITAL.—Two Honorary Surgeons.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon, resident. Salary, £60 per annum.

HOSPITAL FOR DISEASES OF THE SKIN, Stamford Street, S.E.—Clinical Assistant for Out-patients.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Assistant Physician (2) Anaesthetist. Honorarium, 15 guineas.

LEEDS UNION.—Assistant Medical Officer for the Indoor Institutions in Beckett Street. Salary, £130 rising to £150 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Assistant Physician.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

NOTTINGHAMSHIRE CONSUMPTION SANATORIUM, Mansfield.—Lady Resident Medical Officer. Salary, £100 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

ROYAL EAR HOSPITAL, Dean Street, Soho.—House-Surgeon, non-resident. Honorarium at the rate of £40 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Anaesthetist. Honorarium, £20 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon, resident. Salary at the rate of £80 per annum.

SOMERSET AND BATH ASYLUM, Wells.—Second Assistant Medical Officer. Salary, £130 rising to £150 per annum.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon, resident. Salary, £120 per annum.

WINSLEY: SANATORIUM FOR POORER CONSUMPTIVES.—Resident Medical Officer. Salary, £200, rising to £300.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at New Ross, co. Wexford.

APPOINTMENTS.

BEAUMONT, W. H., M.B., B.C.Cantab., Certifying Factory Surgeon for the Sedberg District, Yorkshire.

RIDGES, E. Chittenden, M.D., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Anaesthetist to the Victoria Hospital for Children, Chelsea.

CUNNING, Joseph, M.B., B.S.Melb., F.R.C.S.Eng., Assistant Surgeon to the Victoria Hospital for Children, London, S.W.

ELWELL, R. G., B.C.Camb., Resident Assistant Medical Officer at the Lewisham Union Infirmary and Workhouse.

GITTINS, A. B., M.R.C.S., L.R.C.P., District Medical Officer of the Newcastle-under-Lyme Union.

HEATON, Charles, M.D.Brux., M.R.C.S.Eng., L.R.C.P., Honorary Assistant Visiting Surgeon to the Royal Sea-Bathing Hospital, Margate.

LAWSON, T. C., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for the Stokenchurch District, Buckinghamshire.

MANBY, W. E., M.B., B.S.Camb., Certifying Factory Surgeon for the Bridport District, Dorsetshire, and Medical Officer of Health for the Borough of Bridport.

SARGENT, P. W. G., M.A., M.B., B.C.Cantab., F.R.C.S., Surgeon to Out-patients, Victoria Hospital for Children, Chelsea.

BOLINGBROKE HOSPITAL, S.W.—The following appointments have been made to the honorary staff.
Physician: H. Campbell Thomson, M.D., F.R.C.P.
Surgeon: D'Arcy Power, F.R.C.S.
Assistant Surgeon: Charles Ryall, F.R.C.S.
Surgeon to Ophthalmic Department: W. I. Hancock, F.R.C.S.
Anaesthetist: R. C. Twigg, M.B., B.Ch.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

BATEMAN.—On the 19th May, at 86, Avenue Road, Regent's Park, N.W., the wife of A. George Bateman, M.B., C.M., of a daughter.

DEATH.

NIGHTINGALE.—On May 9th, at 9, Campden Hill Road, Kensington, W. (the residence of her son, Percy Athelstan Nightingale, M.D.), Frances Emma, widow of Percy Nightingale, Inspecting Commissioner, Cape of Good Hope.

DIARY FOR NEXT WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W., 8 p.m.—Communication: Mr. John Murray, F.R.C.S., on a Case of Odontome, and the specimen will be shown together with a lantern slide and microscopic section. Paper: Dr. W. D. Miller, of Berlin, Some Studies on the Anatomy of the Teeth, and their Practical Application.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, W., 5 p.m.—General meeting, 5.30 p.m. Paper: Dr. William Murray, The Limitations of Treatment.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, 4 p.m.—Clinical Cases.

FRIDAY.

LARYNGOLOGICAL SOCIETY, 20, Hanover Square, W., 5 p.m.—Cases and specimens will be shown by Messrs. Thomson, Waggett, Thorne, Kelson, De Santi, and others.

SATURDAY.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM, 10 a.m.—Extra-Metropolitan meeting at Pathological Theatre, Victoria University, Manchester.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Dermatological Demonstration.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Acute Nervous Diseases in Early Life; Tuesday, The Treatment of Acne Vulgaris; Wednesday, Pneumonia in Children; Thursday, Some Practical Points Concerning the Use of Midwifery Forceps.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Monday, Central and Peripheral Lesions of the Spinal Cord.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Thursday, 3 p.m., The Diagnosis of Uterine Cancer.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Mental Deficiency in Children, with cases; Tuesday, Clinical Aspects of Pneumonia; Wednesday, Question of Insanity from Standpoint of Medical Practitioner; Thursday, On Injuries of the Elbow; Friday, Finsen, Ultra-violet, and other Methods of Photo-therapy.

BOOKS, ETC., RECEIVED.

The Practice of Medicine. By James Tyson, M.D. Third edition. London: Rebman, Limited. 1905. 24s.

Mucous Membranes, Normal and Abnormal, including Mucin and Malignancy. By William Stuart-Low, F.R.C.S. London: Baillière, Tindall and Cox. 1905. 2s. 6d.

Aesthetic Acres. By C. F. Dowsett, Winklebury, Basingstoke. 1905.

Manual of Diseases of Children. By James Burnet, M.A., M.B., M.R.C.P. Edin. Edinburgh: E. and S. Livingstone. 1905. 6s. 6d.

Alcohol: A Poison. By Sir Frederick Treves, Bart., G.C.V.O., LL.D., etc. London: Church of England Temperance Society, 1d.

An Inquiry into the Phenomena Attending Death by Drowning and the Means of Promoting Resuscitation in the Apparently Drowned. Report of a Committee appointed by the Royal Medical and Chirurgical Society. London: Longmans, Green and Co. 1904. 5s.

The A.B.-Z. of Our Own Nutrition. By Horace Fletcher. Experimentally assisted by Dr. Ernest van Someren and Dr. Hubert Higgins. London: B. F. Stevens and Brown; and New York: Frederick A. Stokes Company. 5s.

The New Glutton or Epicure. By Horace Fletcher. London: B. F. Stevens and Brown; and New York: Frederick A. Stokes Company. 1904. 4s.

Weston-super-Mare. Edited by G. W. May. London: The Health Resorts Association. 1905. Free on application to the Town Clerk.

Die Krankheiten der Nase und des Nasenrachens mit besonderer Berücksichtigung der rhinologischen Propädeutik. Von Dr. Carl Zarniko. Zweite Auflage. Berlin: S. Karger; and London: Williams and Norgate. 1905. 11s. 6d.

The Maintenance of Health in the Tropics. By W. J. Simpson, M.D., F.R.C.P. Published under the auspices of the London School of Tropical Medicine. London: John Bale, Sons and Danielsson, Limited. 1905. 2s. 6d.

Transactions of the College of Physicians of Philadelphia. Third Series. Volume the twenty-sixth. Philadelphia: Printed for the College. 1904.

Methods of Morbid Histology and Clinical Pathology. By I. Walker Hall, M.D., and G. Herxheimer, M.D. Edinburgh and London: William Green and Sons. 1905.

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*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
May	28...Sunday..	
,,	29...MONDAY ...	
,,	30...TUESDAY ...	Boston and Spalding Division, *Midland Branch*, Annual Meeting, Red Lion Hotel, 1 p.m. Folkestone Division, *South-Eastern Branch*, Annual Meeting, Hotel Wampach, 7 p.m. also meeting of Folkestone, Dover, and Ashford Constituency, 7.30 p.m., Dinner, 8.30 p.m. North Carnarvonshire and Anglesey Division, *North Wales Branch*, Annual Meeting, British Hotel, Bangor, 2 p.m.; Executive Committee, 1 p.m. Trowbridge Division, *Bath and Bristol Branch*, Annual Meeting, Trowbridge
,	31...WEDNESDAY	Scientific Grantees have to report to Council on or before this date. Bath and Bristol Branch, Medical Library, University College, Bristol, 8 p.m. Liverpool (Northern) Division, *Lancashire and Cheshire Branch*, Annual Meeting, Medical Institution, 114, Mount Pleasant, 4 p.m. South Carnarvon and Merioneth Division, *North Wales Branch*, Annual Meeting, Golden Lion Hotel, Dolgelly, 2 p.m. Note that in order to facilitate the procedure of the Council for the appointment of Committees, Branch Secretaries are requested to send in to the General Secretary the Election Returns of their Branch Representatives by June 27th.
June	1...THURSDAY...	Canterbury and Faversham with Thanet Divisions, *South-Eastern Branch*, Combined Meeting, Canterbury Hospital, 4 p.m.; preceded by meeting of Canterbury and Faversham Division, 3.15 p.m. Fife Branch, Annual Meeting, in the Hotel, Thornton, 3.15 p.m. Southern Division, *Edinburgh Branch*, Annual Meeting, Oddfellows' Hall (Room 6) 8.15 p.m.
,,	2...FRIDAY ...	LONDON: Officers of the Association, *re* Alteration of Memorandum, 3 p.m. ,, Superannuation Committee, 4 p.m. Matters for consideration by Quarterly Ethical Committee should be notified to the Medical Secretary on or before this day. Dundee Branch, Annual Meeting, Students' Union, Dundee, 4 p.m.
,,	3...SATURDAY...	
,,	4...Sunday..	
,,	5...MONDAY ...	
,,	6...TUESDAY ...	Coventry Division, *Birmingham Branch*, Annual Meeting, Coventry and Warwickshire Hospital, 8.30 p.m.
,,	7...WEDNESDAY.	LONDON: Medico-Political Committee.
,,	8...THURSDAY...	Birmingham Branch, Annual Meeting, Medical Institute, Edmund Street, Birmingham, 4 p.m.; Dinner, Grand Hotel, 7 p.m. Bristol Division, *Bath and Bristol Branch*, Medical Library, University College, Bristol, 8 p.m. Norwood Division, *South-Eastern Branch*, Art Club, Blackheath, 4 p.m.; Dinner, 6 p.m. South Wales and Monmouthshire Branch, Annual Meeting, Cardiff.
,,	9...FRIDAY ...	West Somerset Branch, Annual Meeting, Beach Hotel, Minehead, 12.30 p.m.
,,	10...SATURDAY...	
,,	11...Sunday..	
,,	12...MONDAY ...	*Bank Holiday.*
,,	13...TUESDAY ...	Matters for consideration by Organization Committee on June 27th should be notified to Medical Secretary on or before this day.
,,	14...WEDNESDAY	Westminster Division, *Metropolitan Counties Branch*, Annual Meeting, 20, Hanover Square, 4 30 p.m.
,,	15...THURSDAY...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester. Midland Branch, Annual Meeting, Infirmary, Leicester, 4 30 p.m. South-Western Branch, Annual Meeting, Athenæum, George Street, Plymouth, 3 p.m. LONDON: Ethical Committee.
,,	16...FRIDAY ...	Border Counties Branch, Annual Meeting, County Hall, Carlisle, 3.30 p.m.
June	17...SATURDAY...	South-Eastern Counties Division, *Edinburgh Branch*, Annual Meeting, Railway Hotel, Newtown, St. Boswells, 3 p.m.
,,	18...Sunday..	
,,	19...MONDAY ...	LONDON: Scientific Grants Committee, 3 p.m. Election of Representatives: July 3rd.
,,	20...TUESDAY ...	
,,	21...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m. Ulster Branch, Annual Meeting, Warrenpoint, co. Down.
,,	22...THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m. City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m.
,,	23...FRIDAY ...	
,,	24...SATURDAY...	
,,	25...Sunday..	
,,	26...MONDAY ...	
,,	27...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	28...WEDNESDAY	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4 30 p.m.
,,	29...THURSDAY...	East Anglian Branch, Annual Meeting, Norwich.
,,	30...FRIDAY ...	Association Research Scholarships expire.
July	1...SATURDAY...	Research Scholarships date from now. Edinburgh Branch, Hawick, 12.15 p.m.; Dinner, Tower Hotel, 6.30 p.m.
,,	2...Sunday..	
,,	3...MONDAY ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	LONDON: Central Council, 10 a.m.
,,	6...THURSDAY...	
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
,,	11...TUESDAY ...	
,,	12...WEDNESDAY	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.
,,	13...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	14...FRIDAY ...	
,,	15...SATURDAY...	
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	
,,	19...WEDNESDAY	
,,	20...THURSDAY..	City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C. 4 p.m.
,,	21...FRIDAY ...	
,,	22...SATURDAY...	
,,	23...Sunday..	
,,	24...MONDAY ...	
,,	25...TUESDAY ...	
,,	26...WEDNESDAY	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 3RD, 1905.

CONTENTS.

	Page
BRITISH MEDICAL ASSOCIATION: SEVENTY-THIRD ANNUAL MEETING.—GENERAL ARRANGEMENTS	289
PROCEEDINGS OF STANDING COMMITTEES:	
MEDICO-POLITICAL COMMITTEE	294
HOSPITALS COMMITTEE	297
ORGANIZATION COMMITTEE	297
MEETINGS OF BRANCHES AND DIVISIONS:	
Glasgow and West of Scotland Branch: Central Division ...	298
Lancashire and Cheshire Branch: Liverpool Western Division ...	298
,, ,, Southport Division	299
South-Eastern Branch: Sevenoaks Division	299
Yorkshire Branch: Bradford Division	299
Metropolitan Counties Branch: Tottenham Division	299
,, ,, Stratford Division	299
,, ,, Wandsworth Division	299
,, ,, Hampstead Division	300
THE ABUSE OF HOSPITALS AND THE REMEDIES. By J. FORD ANDERSON, M.D., C.M.	301
MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER	303
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	304
GENERAL MEDICAL COUNCIL: REPORT OF PROCEEDINGS ...	306
CENTRAL MIDWIVES BOARD	317
VITAL STATISTICS...	318
NAVAL AND MILITARY APPOINTMENTS	318
VACANCIES AND APPOINTMENTS	318
BIRTHS, MARRIAGES, AND DEATHS	319
DIARY OF THE WEEK	319
BOOKS RECEIVED...	319
CALENDAR	320

SEVENTY-THIRD ANNUAL MEETING

OF THE

British Medical Association,

LEICESTER, 1905.

THE date of the Annual Meeting draws near and therefore it seems opportune to give further information to members with regard to the excellent arrangements that are now being made for their reception at Leicester. From the geographical point of view the town is exceptionally well situated for such a meeting, being central, with four great railway lines running into it, so that it is probable that the expectation of a large gathering will be justified.



THE CLOCK TOWER.

MUSEUMS.

In addition to the Annual, General, and Representative Meetings, and the meetings of Sections, the programme of which is already in the hands of members, essential features of the Congress will be the Food, Drug, and Instrument Exhibition, and the Annual Pathological Museum.

With regard to the latter, the Committee are doing their best to make this scientific collection what it should be, namely, an exhibition of all good work done, and progress made in the various branches of Medicine and Surgery, as well as giving an opportunity for examining the various specimens which form the groundwork of the papers read in the Sections.

In connexion with the Food, Drug, and Instrument Exhibition a motor car show will be held, at which motors specially suited to the use of medical men can be seen. At a moment like this, when the speediest and most economical means of transit is a burning question of the hour with the profession, we feel sure that the visitors will appreciate the opportunity thus afforded them of considering the matter from a practical standpoint.

These exhibitions will be held in the Drill Hall and Square kindly lent by the County Council. This position is adjacent to the Technical and Art School, where all the Sections will be housed—thanks to the kindness of the Education Committee of the Corporation. It is a fine building, opened in 1897, complete in every detail, and situated within five minutes' walk of the centre of the town.

MEETING PLACES OF COUNCIL AND REPRESENTATIVES.

The Administrative portion of the Congress will be held close to the Midland station, in the newly-erected Young Men's Christian Association, which is also a handsome, centrally-situated building. Here will be found the Reception hall and the rooms for meetings of the Council, the Representatives and the Secretaries.

PATHOLOGICAL MUSEUM.

The arrangements for the Pathological Museum are well advanced. Excellent accommodation has been allotted to the Museum on the first floor of the Technical Schools, the building in which all the Sectional Meetings are to be held. The lighting is good, and no difficulty is anticipated in arranging the exhibits so that they can be seen to the best advantage. The Museum will be easy of access, and its central position precludes the possibility of members overlooking it.

It is premature to say anything of the exhibits themselves, but many promises of most interesting specimens have been received. It will be the special aim of the Committee to make the work of the Sections at Leicester of a practical character by affording facilities for members reading papers or taking part in the discussions in the Sections, to exhibit and demonstrate illustrative pathological specimens in the Museum. In order to prevent disappointment, the Committee hope that intending contributors will give early notice of their intention to send specimens, photographs, or other material, as this will greatly facilitate the work of allotting space and of making the necessary arrangements.

MODERN LEICESTER.

Some of the attractions that the town of Leicester has to offer have already been indicated[1], and sufficient was then said to prove that on the ancient and historical side it would appeal with particular force to those visitors who have archaeological and antiquarian tastes. To-day our purpose is to show that on the modern side also it possesses features unusually distinctive and interesting to those whose sympathies lie rather with present-day developments than with the doings of our ancestors.

As a commercial town, Leicester owes much of its rapid growth and continued prosperity to the fact that it is not dependent upon any one trade or industry, but to the possession of a number of widely-differing manufactures, in several of which it stands in the front rank. A number of firms in the town have kindly arranged to allow parties from our Congress to go round their works, and thus our members will have special opportunities of seeing both the processes of manufacture and the conditions of life of the employés in a large variety of industries.



Young Men's Christian Association.

The chief of these are:—

1. *Boot and shoe* manufacture, which employs more hands than any other, some 30,000 to 40,000 being engaged in it. The chief class of work done is middle-class women's and children's shoes, though best work is also now being undertaken. Most wonderful are some of the machines employed. For instance, on one, we can see buttons running down a "race" placing themselves in position on a boot, and being affixed in the most rapid succession without being touched by hand; on another, the leather is punched, eyelets inserted, and fixed with extraordinary dexterity; and so on. Interesting, too, are the processes by which the cheap canvas shoes, for home and seaside wear, are produced by the thousand. Moreover, the boot and shoe trade has brought in its train many subsidiary trades, such as the manufacture of laces, shoe linings, blacking, etc., and the factories for these details are equally fascinating to inspect. One of Leicester's newest and best-equipped factories largely occupies itself by producing boot and shoe laces by the million.

The hosiery manufacture, though not employing quite so many hands as the boot and shoe, is yet the fundamental trade of Leicester and was the one to which it owed its early prosperity.

Both plain (stockings, socks, and underwear) and fancy hosiery (jerseys, Tam O'Shanters, wool shawls, and jackets, and so forth) are made in enormous quantities by the most up-to-date machinery. The jerseys which had so great vogue years ago, and the golf jerseys of the present day were both designed and first produced at St. Margaret Works in this town. A new departure of late years in this trade is the production of ready-made blouses by the thousand, not only in the cheaper varieties but also in the daintiest and most beautifully-finished and trimmed silk kinds.

The spinning of lambs-wool and worsted is an important industry and some of the largest works in the town are engaged solely in it.

The elastic web manufacture will have special interest for medical men, for it was in Leicester that the surgical ligatures now in use were first patented and made. A considerable export trade with the East is carried on in elastic webbing, and one can watch the evolution by the yard of "garterings" for the Celestials of brilliant blues and with patterns formed of Oriental hieroglyphics, pregnant with meaning. Another weaving trade carried on side by side with this is the production of strong tapestries for upholstering railway carriages, wagonettes, etc., and here again many purchasers are found in the East.

Cigar and cigarette making is rapidly pushing its way into the forefront of the local industries.

The printing trade has also greatly developed of late years and has travelled far beyond local requirements, especially in the matter of high-class letterpress, picture post-cards of most artistic colouring, and coloured pattern-books for China, tiles, linoleum, etc.

The making of scientific instruments is carried on by one firm in the town under particularly advantageous surroundings for their employés, the well-known Cooke lens being one of their productions.

The preparation of drugs for medicinal and other purposes, as carried on in some large works of the wholesale druggists, will doubtless be specially interesting to many of the visitors at the Congress.



New Walk and Museum.

Besides the above there are many other industrial pursuits which will present themselves, and this proffered glimpse into the inner life of a busy manufacturing town cannot fail to be a valuable asset of this year's Congress.

MUNICIPAL ENTERPRISES.

But besides the great works of private companies, the various undertakings of the Leicester Corporation will probably evoke interest, as some of them represent the "latest thing" in their own line. For instance, the Central Municipal Library in Town Hall Square is only this year completed. For the building the town is indebted to Mr. Andrew Carnegie, who generously gave £12,000 for the purpose. It provides accommodation for 40,000 books for lending purposes; there is also a fine Reference Library, capable of holding another 40,000, while a Juvenile Library, a Reading Room with the

[1] BRITISH MEDICAL JOURNAL, December 10th, 1904.

papers and magazines, and a Patents Specification Room, make up all that can be desired in a Free Library.

The Museum, too, is well worth a visit, and it is particularly strong on the natural history side, while the realistic setting of its groups of animals and birds of all description is renowned. A series of skulls, ranging from fishes to man and coloured in a uniform manner to define the various bones composing them is especially of value to students of comparative anatomy. The fossils of the county are also well treated. It is worthy of note that Leicester was one of the first towns to avail itself of the powers conferred by Act of Parliament in the earlier part of the nineteenth century to establish and maintain museums.

In the matter of swimming baths, the Corporation has been particularly generous, and the two newest, one at Belgrave and the other at West Humberstone, rank among the largest in the kingdom. It is curious that Leicester, though so essentially an inland town, has produced one or two of the champion swimmers of the day. The children in the schools are all taught to swim and there are a large number of swimming clubs.



Leicester Municipal Technical and Art Schools.

Isolation Hospital and Poor-law Infirmary.

Of purely medical objects the new Isolation Hospital will doubtless attract some measure of attention. It is situated on the Groby Road, a little distance out of the town, and provides accommodation for 160 patients suffering from typhoid fever, diphtheria, scarlet fever, and phthisis. (Small-pox is treated in a separate building a quarter of a mile away.) The pavilion plan was adopted in its erection, and it consists of five distinct buildings:—(1) Seven ward blocks. (2) An administrative block. (3) A block comprising laundry, boiler, and engine-house. Ambulance, disinfecting station, electric lighting installation. (4) A discharging block. (5) Mortuary. It is under the superintendence of the Medical Officer of Health.

The Poor-law Guardians are this year completing a Poor-law Infirmary of imposing dimensions on the Gwendoline Road on the outskirts of the town, which represents in concrete form the latest approved theories for buildings of this class. Its total cost will be over £80,000, and it will normally furnish beds for 520 patients, though at any time 300 more beds can be put into use. It has two blocks for male patients, and two for female, and each of them is divided into twelve wards: Four large containing 28 beds, four small with 3 beds, and four with only single beds for special cases. A central administrative block divides the male and female quarters, and in this are a library, committee room, kitchen, offices, and the quarters of the whole staff. Laundry washhouses and disinfectors are placed in the rear.

The whole building stands on 62 acres of ground and is on a slight eminence.

St. Martin's Church.

A word or two concerning St. Martin's Church, where the annual service is to be held, may be of interest. It stands on a site hallowed from time immemorial by religious worship. In the days of the Romans a temple dedicated to Diana stood there, and only quite recently bones of sacrificial animals have been dug up under the chancel. In the Saxon times a Christian church took the place of the heathen temple, and St. Martin's is one of the five churches mentioned in the Domesday Book. The present edifice is chiefly Early English, while the great south aisle was added about the close of the thirteenth century as a chapel for the use of the Corpus Christi Guild, and part of it is still used as a Consistory Court for the transaction of ecclesiastical business. The south-west corner of the church—formerly the Chapel of St. George, is now known as Regimental Corner, and contains the tattered flags of the Leicestershire Regiment and memorials to those soldiers who have died in warfare.

This church, often known in the middle ages as St. Crosse, has always been in intimate touch with the burgesses and associated with the municipal life of the town.

GENERAL ARRANGEMENTS.

The seventy-third annual meeting of the British Medical Association will be held at Leicester on Monday, Tuesday, Wednesday, Thursday, and Friday, July 24th, 25th, 26th, 27th, and 28th, 1905.

President: William Collier, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

President-elect: George C. Franklin, F.R.C.S., Honorary Surgeon, Leicester Infirmary.

Chairman of Representative Meetings: Sir Victor Horsley, F.R.S.

Chairman of Council: Andrew Clark, D.Sc., F.R.C.S.

Treasurer: Edward Markham Skerritt, M.D., F.R.C.P.

An Address in Medicine will be delivered by Henry Maudsley, LL.D., M.D., F.R.C.P.

An Address in Surgery will be delivered by Charles John Bond, F.R.C.S.

A popular lecture will be delivered by Professor William Stirling, D.Sc., M.D., F.R.S.E.

SECTIONS.

The annual meeting at Leicester will comprise 12 Sections as shown in the subjoined list. The Sections will meet on Wednesday, Thursday, and Friday, July 26th, 27th, and 28th, from 10 a.m. to 1 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the British Medical Journal *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

Medicine.

President: Frank M. Pope, M.D., F.R.C.P., Leicester. *Vice-Presidents:* Reginald Pratt, M.D., M.R.C.P., Leicester; Robert William Philip, M.D., F.R.C.P.Edin., Edinburgh; William Bramwell Ransom, M.D., F.R.C.P., Nottingham. *Honorary Secretaries:* Bertrand Dawson, M.D., B.Sc., F.R.C.P., 32, Wimpole Street, Cavendish Square, W.; William Mitchell Stevens, M.D., M.R.C.P., 21, St. Andrew's Crescent, Cardiff; Frank Harwood Jacob, M.D., M.R.C.P., 28, Regent Street, Nottingham.

The meetings of this Section will take place on July 26th, 27th, and 28th.

On Wednesday, the 26th, the subject for discussion will be: The Treatment of Sleeplessness and Pain. Opener, Sir Lauder Brunton, M.D., D.Sc., F.R.S., F.R.C.P.

On Thursday, the 27th, the subject will be: The Pathology, Diagnosis, and Treatment of Various Forms of Acute Meningitis. Opener not yet selected.

On Friday, the 28th, the subject will be: The Diagnosis and Treatment of Cardiac Degeneration apart from Valvular Disease. Opener, J. Dreschfield, M.D., F.R.C.P., Manchester.

It is requested by the Committee of the Section that members wishing to take part in these discussions will communicate in the case of discussion on July 26th with Dr. Bertrand Dawson, in the case of discussion on July 28th with Dr. W. Mitchell Stevens, in the case of discussion on July 27th with Dr. Frank H. Jacob at the addresses already given.

Surgery.

President: Sir Charles Bent Ball, M.Ch., F.R.C.S., Dublin. *Vice-Presidents:* Claude Douglas, F.R.C.S., Leicester; Henry John Blakesley, F.R.C.S., Leicester; James Henderson Nicoll, M.B., C.M., Glasgow. *Honorary Secretaries:* Percy Furnivall, F.R.C.S., 28, Weymouth Street, W.; Cecil Edward Marriott, M.C., F.R.C.S., 11, Welford Road, Leicester.

In this Section special discussions have been arranged on the two following subjects: (1) The Surgical Treatment of Non-malignant Diseases of the Stomach. Opener, B. G. A. Moynihan, M.S., F.R.C.S. (2) The Treatment of Malignant Disease of the Rectum. Opener, Sir Charles Ball, M.Ch., F.R.C.S. Arrangements have been made for showing lantern slides to illustrate subjects under discussion. The Secretaries will be pleased to receive as soon as possible any paper which it is proposed to submit to the Section, and also to hear from any one who desires to take part in the discussions mentioned.

State Medicine.

President: Philip Boobbyer, M.D., Nottingham. *Vice-Presidents:* Ninian McIntire Falkiner, M.D., Dublin; John Herbert Hawkins Manley, M.D., D.P.H., West Bromwich; Thomas Robinson, M.R.C.S., D.P.H., Leicester. *Honorary Secretaries:* Wm. Williams, M.D., D.P.H., County Health Department, 9, The Parade, Cardiff; Chas. Killick Millard, M.D., D.Sc., Town Hall, Leicester.

It is desired in this Section to arrange for papers and discussions on questions relating to Public Health and Forensic Medicine.

The following have been suggested:

Infants' Milk Dépôts.
The Working of the Midwives Act.
The Training of Midwives.
Elementary Education and the Teaching of Hygiene.
The Provision of Sanatoriums for Consumptives.
Small-pox and Vagrancy.
Sewer Ventilation.
The Influence of Alcohol on the Public Health.
The Formation of a National Water Board.
Isolation Hospitals.
The Etiology and Prevention of Epidemic Diarrhœa.
The *Rôle* of Shellfish in the Spread of Typhoid Fever.
River Water as a Source of Municipal Water Supply.
Ankylostomiasis.

Papers on other subjects coming within the scope of the Section are also invited.

A joint discussion with the Laryngological Section has been arranged for July 28th, on "What is Notifiable Diphtheria?" to be opened by Dr. P. Watson Williams.

Industrial Hygiene and Diseases of Occupation.

President: Hy. Wm. Langley Browne, M.D., West Bromwich. *Vice-Presidents:* Alexander Campbell, M.D., Dundee; John Colley Smyth Burkitt, M.D., D.P.H., Leicester; Thomas Morison Legge, M.D., London. *Honorary Secretaries:* Clement Frederick Bryan, M.R.C.S., 44, Humberstone Road, Leicester; Thomas Watts, M.D., 34, Church Street, Hyde.

The following discussions have been arranged in this Section:

July 26th.—Physical Deterioration, its Causes and Extent. Opener, Dr. Dawson Williams. Dr. William Hall and others will take part.

July 27th.—Anthrax. Opener, Dr. J. W. Bell, of Bradford. Dr. Legge and Mr. L. Stratton will follow.

July 28th.—Accident and Poisoning Reports. Opener, Dr. Dearden.

The Honorary Secretaries will be glad to know at as early a date as possible from any one who desires to contribute a paper, or to take part in any of the discussions.

Laryngology, Otology and Rhinology.

President: Frederick William Bennett, M.D., Leicester. *Vice-Presidents:* William Arthur Carline, M.D., Lincoln; John Middlemass Hunt, M.B., Liverpool. *Honorary Secretaries:* Alex Lewis MacLeod, M.B., 89, Hinckley Road, Leicester; Chas. Herbert Fagge, M.S., F.R.C.S., 22, St. Thomas's Street, London Bridge, S.E.

The following subjects have been selected for special discussion:

1. Wednesday, July 26th.—The Lines of Treatment in Preventing Acute Middle-Ear Suppuration from becoming Chronic.

2. Thursday, July 27th.—The Treatment of Tuberculous Disease of the Larynx.

3. Friday, July 28th.—What is Notifiable Diphtheria?

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, and which may have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

Those who desire to take part in the discussions or to read papers, or who are ready to send any object for exhibition, are requested to communicate with the Secretaries at an early date.

No paper will be finally accepted until it has been approved by the Committee of the Section. Papers will not be "taken as read," and none will be accepted in excess of the number which it is calculated it will be possible to read in the time at the disposal of the Section.

Communications relating to papers and discussions should be sent to the second secretary named above, and those relating to the exhibition of preparations, instruments, etc., to Dr. Bennett, 25, London Road, Leicester.

Obstetrics and Gynaecology.

President: Herbert Ritchie Spencer, M.D., F.R.C.P. London. *Vice-Presidents:* Henry Meadows, M.B., Leicester; Professor Henry Corby, M.D., Cork; Francis Richard Cassidi, M.D., Derby. *Honorary Secretaries:* Montague Wm. Williams, M.R.C.S., 45, London Road, Leicester; Miss Louisa Garrett Anderson, M.D., 114A, Harley Street, W.

With the co-operation of the Committee responsible for the organization of the Pathological Museum facilities will be given for the exhibition of specimens of special gynaecological and obstetrical interest. These will form the gynaecological side of the Pathological Museum.

It is thought that the interest of this collection would be increased if an attempt were made to illustrate by specimens, models, microscopic slides, and drawings a few conditions of special interest, and the following subjects have accordingly been selected for illustration:

1. Degenerative changes in fibroids.
2. Ectopic pregnancy, notably ovarian.
3. Malignant disease of the uterus, including chorion-epithelioma and sarcoma.
4. Adeno-myoma of the uterus.

Although the offer of any good gynaecological specimen will be gratefully received, the Committee is particularly anxious to enlist help in its effort to obtain an adequate collection of the conditions above mentioned.

Detailed arrangements as to the transport of specimens will be communicated to intending exhibitors at a later date.

The Museum Committee guarantee the insurance and the care of all specimens and also repacking and transport from Leicester.

Communications relating to this project should be sent as early as possible to the London Secretary, Miss Garrett Anderson.

Ophthalmology.

President: George Andreas Berry, F.R.C.S.Edin., Edinburgh. *Vice-Presidents:* Wm. Mardon Beaumont, M.R.C.S., Bath; Edwin Collier Green, M.R.C.S., Derby. *Honorary Secretaries:* Robt. Wallace Wesley Henry, M.D., 6, Market Street, Leicester; John Herbert Parsons, F.R.C.S., 27, Wimpole Street, Cavendish Square, W.

The following subjects have been selected for discussion in this Session:

Intraocular Tuberculosis; its Etiology, Diagnosis, Prognosis, and Treatment. Opener, Walter H. H. Jessop, M.B., F.R.C.S.

Capsular Complications after Cataract Extraction. Opener, E. Treacher Collins, F.R.C.S.

Papers from those who have had practical experience of the use of Finsen, X Rays, and Radium in ophthalmic work will be specially welcomed, but, of course, it is not intended to exclude papers on other subjects. The Secretaries will

also be glad to have exhibits (pathological, instrumental, etc.) and special arrangements for their care will be made by the Museum Subcommittee.

The Secretaries will be glad to hear as early as possible from any one who desires to read a paper, or to take part in the discussions mentioned.

PSYCHOLOGICAL MEDICINE.

President: ALEXANDER REID URQUHART, M.D., Perth. *Vice-Presidents:* ROTHSAY CHARLES STEWART, M.R.C.S., Leicester; THEOPHILUS BULKELEY HYSLOP, M.D., London. *Honorary Secretaries:* ARTHUR MOLYNEUX JACKSON, M.B., Nottingham County Asylum, Radcliffe-on-Trent; JOHN WIGMORE HIGGINSON, M.R.C.S., Hayes Park Asylum, Hayes.

The following discussions have been arranged by the Committee of Reference:

Wednesday, July 26th.—Clinical Study of the Heredity of Insanity. Opener, Dr. Alexander Reid Urquhart.

Thursday, July 27th.—Occupation and Environment as Causative Factors of Insanity. Opener, Dr. Theophilus Bulkeley Hyslop.

Friday, July 28th.—The Prognosis in Mental Disorders. Opener, Dr. Robert Jones of Claybury.

The time remaining after the discussion each morning will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

The Secretaries will be glad to hear as soon as possible from any one who desires to read a paper or to take part in the discussions mentioned.

NAVY, ARMY AND AMBULANCE.

President: Surgeon-Lieutenant-Colonel HENRY WALTER KIALLMARK, M.R.C.S., London. *Vice-Presidents:* Surgeon-Lieutenant-Colonel ROBERT BRADSHAW SMITH, V.D., L.R.C.P., Hinckley; Lieutenant-Colonel EDMOND MONKHOUSE WILSON, C.B., C.M.G., D.S.O., S. Farnboro'; Fleet Surgeon ALEXANDER J. J. JOHNSTON, R.N., Haslar. *Honorary Secretaries:* Fleet Surgeon EDWARD JAMES BIDEN, R.N. (Ret.), 29, Osborne Road, Southsea; Captain WM. PEMBERTON PEAKE, M.R.C.S., R.A.M.C.V., 21, Oxford Street, Leicester; Captain EDWIN CHARLES MONTGOMERY-SMITH, R.A.M.C.(Vols.), 36, Abbey Road, St. John's Wood, N.W.

The Committee of this Section has received promises of the following papers:

1. Red Cross Organization, with special reference to Preparation for War in Times of Peace. By Sir John Furley, C.B., Knight of Justice of the Order of St. John of Jerusalem in England.
2. The Collection and Distribution of Wounded in a Modern Cruiser Engagement from Observations Made in Chemulpo, February 9th, 1904. By Staff-Surgeon J. Austin, R.N.
3. Remarks on the Head Dress of Certain Ratings in H.M. Navy. By Fleet-Surgeon E. Biden, R.N.
4. The Hygiene of Modern Battleships. By Staff-Surgeon Francis Clayton, R.N.
5. (*a*) First Aid to the Injured on a Modern Battleship in Action; (*b*) Some Dynamical and Hydrodynamical Effects of the Modern Small-bore Bullet. By Fleet-Surgeon Charles Marsh Beadnell, R.N.
6. Care of Soldiers' Feet. By Brigade-Surgeon-Colonel P. B. Giles.
7. Also on the Care of Soldiers' Feet. By Major G. S. Crawford.
8. On Suggested Alterations in Stretcher Drill. By Major J. De Zouch Marshall.
9. On the Feeding of the Soldier in Active Service. By Surgeon-Lieutenant-Colonel G. F. Robinson, Scots Guards.
10. Causation, Varieties, and Treatment of Dysentery on Active Service. By Major Faichnie.
11. A Paper Bearing on the Relations between the Civil Authorities and Ambulance Associations. By Lieutenant-Colonel H. J. Barnes.

PATHOLOGY.

President: FREDERICK WALKER MOTT, M.D., F.R.C.P., F.R.S., London. *Vice-Presidents:* THEODORE SHENNAN, M.D., Edinburgh; Professor ARTHUR HAMILTON WHITE, L.R.C.P.I., Dublin. *Honorary Secretaries:* JOHN WILLIAM H. EYRE, M.D., Guy's Hospital, S.E.; THOMAS VILLIERS CROSBY, M.D., 91, St. Peter's Road, Leicester.

The following are the present arrangements in this Section:

On July 26th, the President of the Section, Dr. Mott, F.R.S., will open a discussion upon The Relationship of Heredity to Disease, in which the following gentlemen will take part: Dr. Archdall Reid, Dr. Aldren Turner, and Mr. Charles Bond.

On July 27th there will be a discussion on The Defences (Chemical, Physical, and Biological) of the Organism Against the Invasion of Bacteria and their Products. Professors C. J. Martin and A. Wright, Drs. Ritchie, Bulloch, and Boycott are expected to speak.

On July 28th various communications on subjects other than those above-mentioned will be received and discussed.

The Secretaries will be glad to hear as soon as possible from any one who desires to take part in the discussions or contribute a paper.

DENTAL SURGERY.

President: MORTON ALFRED SMALE, M.R.C.S., L.D.S., London. *Vice-Presidents:* EDWARD LLOYD-WILLIAMS, M.R.C.S., L.R.C.P., L.D.S., London; FRANCIS JOHN LANKESTER, M.R.C.S., L.D.S., Leicester; *Honorary Secretaries:* WM. ARMSTON VICE, M.B., L.D.S., 19, Belvoir Street, Leicester; JOSEPH GEORGE TURNER, F.R.C.S., L.D.S., 12, George Street, Hanover Square, W.

The following are the arrangements at present made for the work of this Section:

Wednesday, 26th.—Toothache, Neuralgia, and Remote Affections of Dental Origin. Openers: Dr. Risien Russell, M.D., F.R.C.P., and Mr. J. Howard Mummery, M.R.C.S., L.D.S.

Thursday, 27th.—Papers: J. F. Colyer, M.R.C.S., L.R.C.P., L.D.S., A Note on Dental Diseases in Horses; Sidney Spokes, M.R.C.S., L.D.S., The Teeth as a Test of Age—a Note on Eruption, and others.

The Secretaries will be glad to hear as early as possible from any one who desires to take part in the discussions or to read a paper on any subject connected with the work of the Section.

TROPICAL DISEASES.

President: RUBERT WM. BOYCE, M.B., F.R.S., Liverpool. *Vice-Presidents:* ANDREW DUNCAN, M.D., London; FLEMING MANT SANDWITH, M.D., F.R.C.P., London. *Honorary Secretaries:* GEORGE AYLWIN CLARKSON, F.R.C.S., 173, London Road, Leicester; JOHN M. HENDRIE MACLEOD, M.D., 11, Harley Street, W.

The following subjects have been selected for special discussion in this Section:

Wednesday, July 26th.—Tick Fever.

Thursday, July 27th.—Sprue and Hill Diarrhœa.

Friday, July 28th.—Tropical Diseases of the Skin.

The following is a list of the gentlemen who up to the present have expressed their desire to take part in the discussions or to contribute papers: Dr. H. E. Annett, Professor Rubert Boyce, Dr. Anton Breinl, Mr. James Cantlie, S. R. Christophers, M.B., I.M.S., Dr. Andrew Duncan, Sir Patrick Manson, Dr. W. T. Prout, Professor Ronald Ross, Dr. L. W. Sambon, Dr. F. M. Sandwith, Dr. J. W. W. Stephens, Dr. Wolferstan Thomas, Dr. T. L. Todd.

The Secretaries will be glad to hear as soon as possible from any others, and to receive pathological specimens, drawings, photographs, and microscopic preparations for exhibition at the meeting.

The Honorary Local Secretaries are:

ASTLEY V. CLARKE, M.D.,
37, London Road, Leicester.

FELIX BOLTON CARTER, M.S.,
99, London Road, Leicester.

PROGRAMME OF PROCEEDINGS.

MONDAY.

2 p.m.—Annual General Meeting followed by Representative Meeting.

TUESDAY.

9 a.m.—Meeting of 1905-1906 Council.
10 a.m.—Representative Meeting.
2 p.m.—Adjourned General Meeting, followed by Representative Meeting.
5 p.m.—Church Service.
6 p.m.—Meeting of Division and Branch Secretaries.
8.30 p.m.—President's Address. Reception of Distinguished Guests.

WEDNESDAY.

9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Medicine. Adjourned General Meeting followed by Representative Meeting.

THURSDAY.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Address in Surgery.
3.30 p.m.—Representative Meeting (if business not already concluded).
7.30 p.m.—Annual Dinner of the Association.

FRIDAY.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m.—Sectional Meetings.
2 p.m.—Meetings of Divisions and Branch Secretaries.
8 p.m.—Popular Lecture.

Proceedings of Standing Committees.

MEDICO-POLITICAL COMMITTEE.

A MEETING of the Medico-Political Committee was held at the office of the Association on March 22nd, 1905, when there were present: Dr. R. C. BUIST in the chair, Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Dr. Major Greenwood, Dr. L. Kidd, Dr. J. A. Macdonald, Mr. M A. Messiter, Dr. J. Murphy, Mr. E. H. T. Nash, Mr. D. A. O'Sullivan, and Mr. C. H. Watts Parkinson.

LETTERS OF APOLOGY.

Letters of apology for non-attendance were read from Mr. T. Garrett Horder, Mr. G. Jackson, and Mr. Jones Morris.

The Chairman was authorized to convene a meeting of the Committee in April to prepare reports of the Committee to the Annual Representative Meeting.

THE NATIONAL DEPOSIT FRIENDLY SOCIETY.

With reference to a communication addressed to a medical practitioner inquiring as to the accuracy of statements contained in a local newspaper concerning contemplated action by the National Deposit Friendly Society with respect to the employment of specialists, a reply was read from the practitioner concerned contradicting the statements in the paragraph concerning himself. The Medical Secretary was instructed to write to the newspaper, stating that the medical man referred to had been communicated with, and had contradicted the statement that he was taking part in the proposed organization.

The CHAIRMAN reported that the memorandum drawn up by himself and the Medical Secretary to accompany the correspondence with the National Deposit Friendly Society had been published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of March 11th, 1905, p. 94.

WORKMEN'S COMPENSATION BILL AND ACCIDENTS (MINES AND FACTORIES) BILL.

Communications were read from Dr. H. Langley Browne with reference to the Workmen's Compensation Bill, and from the Honorary Secretary of the Association of Certifying Factory Surgeons stating that an Accidents (Mines and Factories) Bill had been introduced into the House of Commons by the Home Office to give effect to the recommendations of the Departmental Committee on the notification of industrial accidents. The MEDICAL SECRETARY reported that, acting upon the resolution previously adopted by the Council of the Association for the notification of industrial accidents, he had applied to the Home Secretary that a joint deputation from the British Medical Association and the Association of Certifying Factory Surgeons might be received on the subject. The action of the Medical Secretary was approved, and a Subcommittee consisting of the Chairman of the Committee, the President of the Association, the Chairman of Representative Meetings, the Chairman of Council, and Dr. H. Langley Browne was appointed to take such action, in respect of a deputation or otherwise, as may be found necessary, in order to give effect to the views of the Association.

PAYMENT FOR MEDICAL CERTIFICATES OF UNFITNESS OF SCHOOL CHILDREN.

A letter was read from the Honorary Secretary of the North of England Branch stating that in consequence of communications addressed by the Branch to certain education authorities within its area, some of the bodies were initiating a system of payment for certificates of unfitness of children to attend school, and expressed the thanks of the Branch for the assistance which had been rendered by the central medico-political department, and their gratification at the result in this instance of co-operation of the local and central organizations under the new constitution.

CONGRESS ON SCHOOL HYGIENE.

The Committee recommended the Council to take steps that the British Medical Association be represented in any Committee formed for the organization of the proposed congress on school hygiene.

POST-MORTEM EXAMINATIONS.

With reference to the clause in a private Bill of a municipal authority restricting *post-mortem* examination, it was reported that blocking notices were put down on the initiative of the Association, but these had since been withdrawn on the Corporation giving a formal undertaking to strike out the clause objected to.

ADVERTISING BY A NURSING INSTITUTE.

With reference to an advertisement of a nursing home to which exception had been taken by a Division, it was reported that as a result of a communication by the Division with the principals of the nursing home, the matter had been amicably settled, and an undertaking given not to advertise in the manner to which the Division had taken exception.

MEDICAL ASSISTANCE TO MIDWIVES.

The MEDICAL SECRETARY reported communications with the Central Midwives Board in pursuance of the instructions of the Committee at its meeting on February 15th,[1] and the Chairman, Dr. Major Greenwood, and Medical Secretary were appointed a Subcommittee to prepare and send to the Midwives Board a statement of the objections of the Committee to the use of the form in question for sending to medical practitioners.

MEDICAL CERTIFICATE SUPPLIED BY A CHEMIST.

A communication was read from the Registrar of the General Medical Council acknowledging the receipt of further information from the Medico-Political Committee with reference to the matter, and stating that it had been considered by the Executive Committee, and would be brought before the notice of the General Medical Council.[2]

MEDICINE CONTAINING POISON SUPPLIED BY MEDICAL PRACTITIONERS.

A statement of opinion of the Solicitor with reference to the requirements of the Pharmacy Act concerning the labelling of medicines supplied by medical practitioners obtained in pursuance of the Committee was considered, and it was resolved that a *précis* of the opinion, together with an explanatory note, be published in the JOURNAL.[3]

REGISTRATION OF NURSES AND NURSING HOMES.

With reference to the resolution of the Wandsworth Division—that in case of the registration of nurses and nursing homes the British Medical Association should take steps to have clauses added to any Bill that will allow of supervision and inspection of those registered with the object of preventing crime—it was resolved that the attention of the Wandsworth Division be directed to be drawn to Clauses X and XI of the Bill prepared by the Royal British Nurses' Association as appearing to the Committee to contain suitable provision.

CONTRACT PRACTICE.

It was resolved that in the opinion of the Committee it was advisable in all districts where contract practice existed that a public medical service should be inaugurated under the auspices of the British Medical Association, and that the recommendation be included in the Committee's report on contract practice to be submitted to the Annual Representative Meeting.

MEDICAL AID ORGANIZATIONS CONNECTED WITH PLACES OF WORSHIP.

The Committee adopted a resolution stating that the Committee considered undesirable the association of medical men with any charity in connexion with a place of worship having for its object gratuitous medical attendance, save as a whole-time appointment for missionary work.

It was further resolved that the resolution be referred to the Ethical Committee.

[1] SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 25th, 1905, p. 63.
[2] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 18th, 1905, p. 112.
[3] BRITISH MEDICAL JOURNAL, March 11th, 1905, p. 571.

VACCINATION AND REVACCINATION.

Communications from the Imperial Vaccination League and the Norwich Division, asking the Association to support the Revaccination Bill, which had been referred by the Council to the Committee, were considered, and it was resolved that no action by the Committee was required, the subject having been already dealt with by them.

The following resolution from a Division was considered:

> That the members of this Division agree to petition the British Medical Association on the vaccination question, and that in the new Bill they favour the abolition of the conscience clause, the appointment of every general practitioner as a public vaccinator, the issuing of definite instructions from the Local Government Board as to lymph, and number of insertions, and compulsory revaccination at school age.

It was resolved that the Division in question be informed that the proper procedure was to raise the matter by resolution in the Representative Meeting.

CASE OF AN UNREGISTERED PRACTITIONER.

With regard to a case of an unregistered person describing himself as a registered American surgeon and whose card (which was of an offensive nature) was laid before the Committee, it was resolved that it was desirable that the Association should take action in such cases, and the Committee recommended that the Council should take such action as was possible in the present case.

IRISH POOR-LAW MEDICAL OFFICERS' SUPERANNUATION.

With respect to a resolution of the Leinster Branch concerning amendment of Section 118 of the Local Government (Ireland) Act, 1898, so as to apply to all existing officers qualified for superannuation, it was decided that inquiry be made as to the Bill which the Irish Medical Association are understood to have prepared on the subject, and that the Branch be asked if this meets their requirements.

INDECENT ADVERTISEMENTS.

Read a communication from the Bishop of London (President of the London Council for the Promotion of Public Morality), referred by the Chairman of Council to the Committee. The MEDICAL SECRETARY reported that he had informed the Bishop of the action which the Association was taking to obtain amendment of the Indecent Advertisements Act, and asking whether his society would support the Association. The Bishop had replied that he felt sure his Council would support the British Medical Association, and that he was handing on the correspondence to the Secretary of the Council.

A Subcommittee consisting of the Chairman, the London members of the Committee, and Mr. Garrett Horder was appointed to deal with the matter and report to the Committee.

A FURTHER meeting of the Committee was held at the office of the Association on April 18th, 1905, when there were present:—Dr. R. C. BUIST in the Chair; Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings); Mr. Andrew Clark (Chairman of Council); Dr. E. Markham Skerritt (Treasurer); Dr. Major Greenwood; Mr. T. Garrett Horder, Mr. George Jackson; Dr. J. A. Macdonald; Mr. W. Jones Morris; Mr. E. H. T. Nash; Mr. D. A. O'Sullivan; Mr. C. H. Watts Parkinson.

APOLOGY FOR ABSENCE.

Letter of apology for non-attendance was read from the President.

IRISH POOR-LAW MEDICAL OFFICERS' SUPERANNUATION.

The Medical Secretary reported that he had information that the Bill on this subject to be prepared by the Irish Medical Association and the Irish Poor-law Medical Officers' Association had not yet been drafted, and it was decided that the Leinster Branch be communicated with to this effect.

DIVISION REPORTS ON MATTERS REFERRED.

With respect to the following resolution of Committee:

> That it is as a rule inadvisable that detailed reports of Divisions on references still under consideration by Committees should be published in the JOURNAL before they have been reported to the Committees concerned,

the Editor and Assistant Editor conferred with the Committee, and the following was directed to be added to the resolution as a rider:

> That it be an instruction to the Medical Secretary that, when matters are referred by a Committee to the Divisions for consideration, information be given to the Divisions as to which of such matters would, by instruction of the Committee, not be included in the reports of Division meetings published in the JOURNAL.

ALIENS BILL.

On the consideration of the following resolution passed at a general meeting of the South Wales and Monmouthshire Branch,

> That the attention of the Parliamentary Committee of the British Medical Association be drawn to the danger to which the community is exposed by the entrance into and detention in the country of aliens suffering from trachoma: and that the Committee be urged to take steps towards having the disease scheduled as "a loathsome and contagious disease" in the Aliens Immigration Bill,

it was resolved:

> That the Council be recommended, as a matter of urgency, to take steps to have trachoma scheduled as a loathsome and contagious disease in the Aliens Bill.

MEDICAL SECRETARY'S VISITS.

The MEDICAL SECRETARY reported that, by instruction of the Chairman of the Committee, he had attended a meeting of the Executive Committee of the Monmouthshire Division and members of the South Wales and Monmouthshire Branch Council, held in connexion with a dispute concerning the conditions of employment of medical officers of the Ebbw Vale Workmen's Doctor's Fund. The following is the report of the findings of that meeting:

REPORT OF EXECUTIVE COMMITTEE TO THE DIVISION ON THE CONDITIONS OF EMPLOYMENT OF THE MEDICAL OFFICERS OF THE EBBW VALE WORKMEN'S DOCTORS' FUND AND KINDRED MATTERS.

A MEETING was held at the Griffin Hotel, Brynmawr, on Saturday, April 8th, of the Executive Committee of the Monmouthshire Division with representatives of the South Wales Branch and the Medical Secretary of the Association for the purpose of inquiring into the conditions of employment of the medical officers of the Ebbw Vale Workmen's Doctors' Fund and the general management of the Fund as affecting the medical profession. There were present:

Members of Executive Committee, Monmouth Division.	J. GLENDINNING (Vice Chairman), in the Chair. L. D. GAMBLE. J. W. MULLIGAN. R. J. PATON. E. Y. STEELE. W. J. GREER (Honorary Secretary).
Members of South Wales and Monmouthshire Branch Council.	P. R. CRESSWELL (Representative on Central Council) E. J. MACLEAN (Honorary Secretary, Cardiff Division). J. LYNN THOMAS (Representative on Central Council).

Representing Central Association—J. SMITH WHITAKER (Medical Secretary).

The medical officers of the Fund and other practitioners of the district had been invited to attend for the assistance of the Committee in its inquiry, and certain medical officers and private practitioners attended and gave valuable assistance to the Committee.

As a result of the inquiry your Committee finds:

1. That the present scheme of management of the Ebbw Vale Workmen's Doctors' Fund came into operation in July, 1903.
2. That the principal features of the scheme are:
   (*a*) That the funds are primarily derived from a poundage of, approximately, 2½d. on the wages of the miners and others employed by the Ebbw Vale Company, Limited, and are paid direct by the Company to the Trustees of the Committee.
   (*b*) That the entire management of the Fund is in the hands of a lay Committee.
   (*c*) That for the distribution of the work of the medical officers, the entire area affected by the

scheme was originally divided into seven districts.

(*d*) That the medical staffs of these districts were originally: for each of four districts, a principal medical officer at a salary of £500 and an assistant at a salary of from £220 to £240. For one district, which included the care of the hospital, a principal at a salary of £600 and an assistant at a salary of £360; for one district, a principal at a salary of £500, with no assistant; and for one small district a principal at a salary of £100.

(*e*) That the assistants are appointed and dismissed by the Committee, and are under the immediate control of the Committee, not of their nominal principals.

(*f*) That both principals and assistants were appointed without any restriction affecting private practice or the holding of appointments independently of the Fund.

3. As regards the working of the scheme the Committee has evidence that there have been constant changes in the *personnel* of the medical staff, and that these changes have been due partly to the defective constitution of the scheme, and partly to the arbitrary and capricious methods of the Committee of Management.

The principal sources of difficulty appear to have been:

(*a*) The insubordination of assistants to their principals, which was permitted and even encouraged by the Committee, for example, in receiving trivial complaints from assistants with respect to their principals, and allowing assistants to carry on private practice in direct opposition to their principals.

(*b*) Imposing restrictions not contained in the original conditions of appointment, as, for example, that medical officers must engage in no kind of practice outside their respective districts.

(*c*) In adding arbitrarily to the districts of officers without increase of remuneration.

(*d*) In allowing the work to be increased by admitting to the Fund persons not included among those for whom the Fund was originally intended, and requiring the medical officers to attend without increase of remuneration.

(*e*) By requiring the medical officers to give up private practice and appointments without offer of compensation for the loss thereby occasioned, and threatening to reduce salaries if such practice or appointments were not surrendered.

(*f*) By failing to fill vacancies, and thus increasing the work of the remaining officers without compensation.

In particular, the Committee is informed that three assistants, receiving salaries of £200 a year each, have been required to do the entire work of two of the principal districts which were originally under the care of two principal officers and two assistants, the population for whom they are responsible in these districts being about 12,000 persons.

4. As affecting the relation of the Committee to its staff and also the relation of the Committee and its staff to the medical profession in the district, the Committee notes that constant efforts have been made by the Committee of the Fund to draw into the Fund outside appointments and members of the public not connected with the Ebbw Vale Co., including tradesmen, employers of labour, and others.

5. As no properly audited accounts are published it is difficult to trace with accuracy the expenditure of the Fund, but your Committee has reason to believe that contributions from the workmen, which in past times have been used for the provision of medical attendance, have recently been diverted to other purposes, including the building of a hospital, and the salaries of the medical staff reduced in consequence.

6. Inasmuch as the poundage paid by the miners is less than in neighbouring colliery districts, and inasmuch as a part of these lower contributions is diverted to other purposes, instead of being paid to the staff, the medical staff of this Fund are doubly underpaid.

The Committee had also before them the agreement which had been entered into on the subject by certain medical officers of the Ebbw Vale Workmen's Fund, in conjunction with private practitioners in the neighbourhood, and a report of a meeting of local practitioners:

AGREEMENT OF MEMBERS OF STAFF OF EBBW VALE FUND AND PRIVATE PRACTITIONERS IN DISTRICT, CONSTITUTING EBBW VALE LOCAL COMMITTEE.

Ebbw Vale,
April, 1905.

We, Medical Officers of the Ebbw Vale Workmen's Doctors' Fund and Private Practitioners practising in the district hereby agree as follows:—

I. That we will not become applicants for the post of Hospital Surgeon to the above Fund now vacant or for any other appointment under the Fund except upon such terms as may be approved by the South Wales Branch of the British Medical Association.

II. That those of us who are medical officers of the Fund will refuse to accept any modification of the terms of our present appointment which shall have the effect of:

(*a*) Imposing upon us increased duties without corresponding adequate increase of remuneration.

(*b*) Interference with our right to private practice or appointments independent of the Workmen's Fund.

(*c*) Any reduction of our present salaries.

III. That those of us who are medical officers of the Fund will not take action in respect of our appointment without the knowledge and consent of our joint Committee.

IV. That we will support one another in any action which any of us may take with the previous knowledge and consent of our joint Committee to improve the terms of our appointments held under the Fund.

V. That as a Committee we will consult with the Executive Committee of the Monmouthshire Division of the British Medical Association with regard to any action which may be taken by any of us concerning the appointments of medical officers of the Fund, and will take no action without the previous knowledge and consent of the Division.

The action taken by the Chairman and Medical Secretary was approved.

Consultations between Medical Witnesses.

The Committee received a report on replies of Divisions regarding the consultation of medical witnesses in legal cases, as submitted to the Divisions by instruction of the Annual Representative Meeting at Oxford.[4] It was resolved that the report, in a slightly modified form, be laid before the Annual Representative Meeting.

Information Supplied to Coroners by Medical Men.

A report was presented on communications from Divisions to date, regarding the Committee's memorandum on the present position of medical practitioners in the matter of furnishing certain information to coroners, forwarded by instruction of the Annual Representative Meeting.[5]

It was resolved that the facts be reported to the Annual Representative Meeting.

Reorganization of the Local Government Board.

A report was presented on communications from Divisions on the subject of the reorganization of the Local Government Board referred to the Divisions by instruction of the Annual Representative Meeting.[6] The Medical Secretary reported that out of 52 replies received only 1 expressed disapproval of the proposals.

It was resolved that the report be included in the annual report of the Committee.

[4] Ibid. May 27th, 1905, p. 244.
[5] Ibid., p. 249.
[6] Ibid., p. 245.

MEDICAL ACTS AMENDMENT BILL.

The Committee received a report on replies of Divisions regarding the (draft) Medical Acts Amendment Bill as referred to the Divisions by instruction of the Annual Representative Meeting.[7]

The Chairman and Secretary were instructed to prepare at a suitable date a tabular report of the replies of the Divisions for presentation to the Annual Representative Meeting.

PAYMENT OF MEDICAL MEN CALLED TO ASSIST MIDWIVES.

A report was presented on the replies of the Divisions, to date, regarding the question of statutory provision for the payment of medical men called in to assist midwives, as referred to the Divisions on December 20th, 1904.

It was resolved that the report be presented to the Annual Representative Meeting, having previously been brought up to date.

It was further resolved:

That a memorial be forwarded to the Privy Council with reference to the payment of medical men called in to assist midwives, embodying those suggestions which the replies of Divisions indicate as being desired by the Association, and that a Subcommittee be appointed to prepare a draft memorial and submit it to the Committee at its next meeting.

The Chairman of the Committee, the Chairman of Representative Meetings, the Chairman of Council, and Mr. O'Sullivan were appointed a Subcommittee to prepare a memorial to the Privy Council on the subject.

ABUSE OF DRUGS.

A report was presented on the replies of Divisions received to date with reference to the question of the abuse of drugs as submitted to the Divisions.[8]

It was resolved that the report be at a suitable date completed for submission to the Annual Representative Meeting.

AMBULANCE WORK.

A report on the replies of Divisions regarding the relation of the medical profession to ambulance work as submitted to the Divisions[9] was received, and it was resolved that the report be at a suitable date completed for submission to the Annual Representative Meeting.

DRAFTING OF REPORTS.

The preparation of the foregoing reports was left to the Chairman and Medical Secretary.

VACCINATION EXPENSES.

A Subcommittee was appointed to deal with the report of the Departmental Committee on Vaccination Expenses.

INSURANCE FEES.

A draft memorandum prepared by instruction of the Committee on the report of the Norwich Division concerning insurance fees was considered, and it was resolved:

That in the opinion of the Committee the Annual Representative Meeting should call upon the Divisions to consider the question of insurance fees, with a suggestion that each Division should adopt rules or resolutions for the guidance of its own members and members of the profession, not members of the Association, who are prepared to support the Association in the matter.

It was further resolved that in the meantime further information be collected.

QUESTIONS BEFORE PARLIAMENT.

A report on matters before Parliament affecting the medical profession was received and approved.

PROVIDENT DISPENSARIES.

An invitation from the Hospitals Committee asking that the Committee should appoint a representative to confer with the Hospitals Committee on the subject of provident dispensaries was considered, and Dr. Macdonald was appointed to represent the Committee.

It was resolved:

That it be an instruction to the representative appointed, to inform the Hospitals Committee that the Medico-Political Committee has been dealing with such aspects of provident dispensaries as affect the question of contract practice, and to make such representations to the Hospitals Committee as would prevent the formulation of any proposals which might be prejudicial to the institution of public medical services.

REPORT TO ANNUAL REPRESENTATIVE MEETING.

The Chairman and Medical Secretary were instructed to prepare a draft annual report of the Committee to the Annual Representative Meeting for submission to the Committee at its next meeting.

[7] Ibid., p. 256.
[8] Ibid., p. 249.
[9] Ibid., p. 268.

HOSPITALS COMMITTEE.

April 27th, 1905.

A MEETING of the Hospitals Committee was held at the office of the Association on Thursday, April 27th, 1905, when there were present: Dr. M BEVERLEY, Chairman in the chair; Dr. W. Collier (President of the Association); Mr. Andrew Clark (Chairman of Council); Dr. J. Ford Anderson, Dr. J. Brassey Brierley, Dr. T. Arthur Helme, Dr. E. B. Hastings, Dr. F. M. Pope, Dr. Lauriston E. Shaw, Mr. E. F. White, and Mr. W. R. Wolstenholme.

APOLOGIES FOR ABSENCE.

Letters of apology for non-attendance were read from Dr. E. Lawrence Fox, Dr. John R. Hamilton, Mr. Edmund Owen, and Dr. Norman Walker.

CHARGES FOR POOR-LAW CASES.

The Committee resolved that the principle formulated by them that no charge for treatment should be made should not be deemed necessarily to apply to Poor-law cases.

PROVIDENT DISPENSARIES.

In accordance with the request of the Committee at its previous meeting, Dr. J. A Macdonald attended as a representative of the Medico-Political Committee, and Mr. G. H. Broadbent as a representative of the Ethical Committee for the purpose of taking part in the consideration by the Committee of the subject of provident dispensaries.

Dr. FORD ANDERSON submitted proposals for discussion, which, in accordance with the request of the Committee at its last meeting, he and the Medical Secretary had drafted, with respect to the relation of hospitals to provident dispensaries and the constitution of provident dispensaries. After full discussion it was resolved that the consideration of the matter should be deferred until after the Medico-Political Committee had reported on the subject of a public medical service which Dr. Macdonald stated they had under consideration.

HOSPITALS AND THE POOR-LAW MEDICAL SERVICE.

With reference to the relation of hospitals to the Poor-law medical service the following resolution was adopted:

That cases of obvious destitution, or cases already in receipt of Poor-law relief, shall, after they have been seen, be referred to the Poor-law relieving officer unless they should be retained for special hospital treatment in the wards. In these cases payment might be required from the Poor-law Guardians if deemed advisable.

The Committee also resolved:

That no scheme for the reform of out-patient departments can be successful without co-operation and co-ordination between hospitals themselves, especially those which operate in the same area.

ORGANIZATION COMMITTEE.

May 9th, 1905.

A MEETING of the Organization Committee was held at the office of the Association on May 9th, 1905, when there were present: Mr. ANDREW CLARK (Chairman of Council), in the Chair; Mr. H. A. Ballance, Professor J. T. J. Morrison, Dr. E. Rayner, and Professor A. H. White.

LETTERS OF APOLOGY.

Letters of apology for non-attendance were read from the Chairman of the Committee, the President, Dr. E. J. Cave, and Dr. James Hamilton.

MEDICAL SECRETARY'S VISITS TO DIVISIONS.

The MEDICAL SECRETARY'S report of visits to Divisions was approved.

The Committee expressed its satisfaction at the accession of new members of the Monmouthshire Division of the Association through the action taken in the matter of the Ebbw Vale colliery appointments, and at the absorption of the Southend Medical Society into the South Essex Division of the Association as the result of the visit of the Medical Secretary to the Southend Medical Society in December last.

RULES OF DIVISIONS.

The Council was recommended to approve the adoption of a new rule of the Sheffield Division.

ALTERATION OF BOUNDARIES.

As the result of further information obtained by the Medical Secretary, the Committee resolved that no action should be taken at present with reference to any alteration of boundaries of the Maidenhead Division.

It was recommended to the Council that the desires of the present members of the Crewe Division be given effect to as regards the absorption of that Division by the Chester and other neighbouring Divisions, and that the boundaries be such as the Lancashire and Cheshire Branch Council may define, and that the transfer of Berkhamsted, Hemel Hempstead, Abbot's Langley, and King's Langley from the Aylesbury Division of the South Midland Branch to the Watford Division of the Metropolitan Counties Branch be approved.

GROUPING OF DIVISIONS FOR REPRESENTATIVE PURPOSES.

Acting in pursuance of the authority conferred by the Council, and having considered the alterations in membership of Divisions shown by the annual list made up to April 29th the Committee approved the following changes:

(*a*) Warwick and Leamington Division with the Coventry and Nuneaton and Tamworth Divisions.

(*b*) South-Eastern Counties Division* (Edinburgh Branch) with Lothians Division.

(*c*) Hereford Division with Worcester Division.

(*d*) Watford Division with Ealing Division.

(*e*) Montreal Division with Manitoba and British Columbia Divisions.

The Committee also considered the position of certain Branches which were shown by the list to have on April 29th fewer than 200 members. As this appeared to be due to a temporary fluctuation the Committee recommended that these Branches should be independently represented for 1905-6, as for 1904-5, but that this decision could not be regarded as a precedent and that the Branches in question should be urged to make endeavours to enrol new members so that there may be no danger in future of the membership falling below 200.

DIVISION AND BRANCH INCOME AND EXPENDITURE.

The Committee considered the following instruction of the Council:

> That the Council instruct the Organization Committee to investigate and report on the working of the present system of Division and Branch income and expenditure.

and instructed the Medical Secretary to obtain further information to be laid before the next meeting.

NEXT MEETING OF THE COMMITTEE.

It was decided that the next meeting of the Committee should be held on June 27th instead of July 11th as stated in the *Year Book*.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

GLASGOW AND WEST OF SCOTLAND BRANCH: CENTRAL DIVISION.

THE annual meeting of this Division was held in the Faculty Hall, 242, St. Vincent Street, Glasgow, on May 26th, Dr. J. W. ALLAN, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting, held on January 20th, were read, approved, and signed by the Chairman.

Matters Referred to Divisions.—The various matters referred to the Divisions were then considered:—(*a*) From the Scottish Committee: The report of the Departmental Committee on Poor-law Medical Relief in Scotland (SUPPLEMENT, April 30th, 1904) was brought before the Division and approved. (*b*) From the Medico Political Committee: (1) The recommendations of the Committee in regard to the proposals for concerted action by the Divisions with respect to the National Deposit Friendly Society (SUPPLEMENT, January 14th, 1905) were unanimously agreed to by the Division; (2) relation of the medical profession to ambulance work (SUPPLEMENT, February 4th, 1905). The Division agreed that some honorarium should be given by the ambulance associations for instruction in ambulance work. This is already done by the St. Andrew's Ambulance Association for "examining" and for "judging in competitions." Instruction may be given without honorarium when the class is in connexion with a philanthropic institution. In regard to the information given to coroners, the Public Health Bill, the Revaccination Bill, and death registration and coroners' law, as these measures do not apply to Scotland they were not discussed. It was agreed, however, that the provisions of the Revaccination Bill ought to be extended to Scotland. The question of the advertising of the names of medical practitioners in connexion with hydropathic and similar establishments (SUPPLEMENT, February 18th, 1905) was considered. As the Division has already expressed its opinion on this question it was agreed to abide by this decision, and take no further action in the matter.

School Certificates.—The Division was informed as to the present legal position of medical men in respect of school certificates.

Medical Defence.—From the Medical Defence Committee: The draft scheme of medical defence (SUPPLEMENT, April 1st, 1905) was submitted but not discussed.

Notices of Motion.—The notices of motion for the Representative Meeting (SUPPLEMENT, February 25th, 1905) were briefly considered.

New Pharmacy Bill.—The Secretary reported that a conjoint meeting of the Divisional Secretaries and Executive Committees of the Glasgow Branch was held to consider the terms of the new Pharmacy Bill. Opinions were freely expressed, but no conclusion come to.

Election of Officers.—The following office-bearers were elected for the ensuing year: *President*, Dr. J. W. Allan; *Vice-President*, Professor Ralph Stockman; *Secretary*, Mr. James Grant Andrew; *Members of Executive Committee*, Drs. John Adams, Robert Jardine, W. K. Hunter, William Wallace, P. N. Grant, and A. W. Russell; *Representatives on Branch Council*, Professor Stockman and the Secretary; *Representative to Annual Meeting*, Mr. James Grant Andrew, 12, Woodside Terrace, Glasgow.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL WESTERN DIVISION.

THE annual meeting of the Division was held on May 24th at the Liverpool Medical Institution, Dr. JAMES BARR, chairman, presiding.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Reports.—The annual report of the Executive Committee was read and adopted. The financial statement for 1904 was presented.

Election of Officers.—The Chairman retiring, according to the rules of the Division, after two years of office, the following were elected: *Chairman:* Mr. F. C. Larkin. *Vice-Chairman:* Mr. Thelwall Thomas. *Secretary:* Dr. K. Grossmann. *Representatives on Branch Council:* Mr. F. C. Larkin and Dr. Grossmann. *Representative in Representative Meetings of the Association:* Dr. Grossmann. *Other Members of Executive Committee:* Dr. James Barr, Dr. Drummond, Dr. Raw, Dr. Lloyd Roberts.

Annual Representative Meeting.—The business of the Representative Meeting at Leicester, as given in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 13th, was then considered, and the Representative instructed how to vote.

Executive Committee's Annual Report.—The report gives an account of the meetings held during the year (five ordinary meetings, one Subcommittee meeting, one joint meeting with the other four Divisions of the Liverpool area) and of the business transacted. The following matters referred to Divisions by the Medico-Political and Ethical Committees have been considered and reported upon to the central authorities, namely: (1) Contract medical practice; (2) desirability of consultation between medical witnesses in legal cases; (3) the present position of registered medical practitioners in the matter of furnishing certain information to coroners; (4) reorganization of the Local Government Board; (5) Medical Acts Amendment Draft Bill; (6) payment of medical practitioners called in to assist midwives; (7) report on the prevention of the abuse of drugs; (8) National Deposit Friendly Society; (9) relation of the medical profession to ambulance work.

Miscellaneous.—The Division records with deep regret the death of two members, Sir W. M. Banks and Mrs. Coghill. Four other members left the Division through change of address, while three new members entered, leaving the

* When this recommendation of the Committee was considered by the Council, the Council upon consideration of further information received since the meeting of the Committee, decided that this Division, if the facts reported were found to be accurate, should be independently represented. (See SUPPLEMENT for May 27th, page 278.)

number of members at present 61. The report mentions with regret the poor attendance at the meetings, so that the meetings become practically meetings of the Executive Committee.

SOUTHPORT DIVISION.

THE annual meeting of this Division was held at the Temperance Institute, Southport, on Friday, May 26th, Dr. RUSSEL in the chair.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Election of Officers.—The officers for the ensuing year were elected as follows: *President*, Dr. Walker; *Vice-President*, Dr. Ashworth; *Secretary*, Dr. Harris; *Representative at Representative Meetings*, Dr. Gill, and, failing his ability to attend, Dr. Baildon; *Representatives on Council of Branch*, Drs. Harris and Walker; *Other Members of Executive Committee*, Drs. Baildon, Russel, Brown, and Mackay.

Annual Report.—The SECRETARY read the annual report.

Alteration of Rules.—It was decided to alter the rules of the Division so as to give the Executive Committee power in the event of the death or resignation of any officer of the Division, or of his ceasing to be a member of the Division, to appoint some member of the Division to hold the office thereby vacated until the next annual meeting. It was also decided to make the notice required of the annual meeting as of other meetings seven instead of fourteen days.

Matters Referred to Divisions.—A discussion took place on the memorandum respecting the National Deposit Friendly Society. As some of the members knew of the operation of the Society in the district, but of no interference on its part with their charges to their patients, it was decided to postpone any action until any interference should be reported. The memorandum respecting ambulance work was next considered, and it was resolved "that the services of medical practitioners for ambulance work should be paid for as a rule, but that exception should be made in the case of official appointments where ambulance duties are part of the recognized services of the medical officers." Respecting fees, the meeting considered that those paid by the St. John Ambulance Association are satisfactory. The suggestions of the Medico-Political Committee for alterations in death registration and coroners' law were approved.

Medical Defence.—The subject of medical defence was then considered. The decision arrived at has been communicated to the Medical Defence Committee.

SOUTH-EASTERN BRANCH:

SEVENOAKS DIVISION.

THE summer meeting of this Division was held at the Royal Oak Hotel, Sevenoaks, on Thursday, May 25th.

Election of Officers.—The following officers were elected for the year:—*Chairman:* Dr. Tew, M.O.H. *Vice-Chairman:* Dr. Alliott. *Representative on Branch Council:* Mr. Maude. *Honorary Secretary:* Dr. Blomfield. *Committee:* Dr. Ievers, Dr. Fraser, and Dr. Marriott.

Paper.—Dr. LEONARD GUTHRIE read a paper on mental overstrain in children, after which a short discussion followed.

Matters Referred to Division.—The relationship of the Division to the National Deposit Friendly Society was then discussed, and the conclusions arrived at have been forwarded to the Medico-Political Committee.

YORKSHIRE BRANCH:

BRADFORD DIVISION.

A SPECIAL meeting of the Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, May 23rd, at 8.30 p.m., Dr. MOSSOP, Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Matters Referred to Divisions.—The Medical Acts Amendment Bill was considered. Dr. METCALFE, one of the Honorary Secretaries, drew attention to the fact that four out of five of the suggestions of the Bradford Division for alterations in the last Bill had been adopted in the present one. He drew attention to an evident error in the printing of the present Bill, under the heading of "offences," where the words "physical surgeon" were printed for "physician and surgeon." On the proposition of Dr. GOYDER, seconded by Mr. MIALL, the Bill was adopted *en bloc*.

Notices of Motion.—The whole of the notices of motion and amendments to by-laws contained in the SUPPLEMENT for May 13th, 1905, were considered *seriatim*, and resolutions were adopted so as to give the Representative at Leicester (Mr. Horrocks) the necessary authority for voting.

Amalgamation with Bradford Medico-Ethical Union.—Dr. METCALFE stated that, since the last meeting, the Bradford and West Riding Medico-Ethical Union had determined to amalgamate with the Division. The books, records, and other assets of the Society had been handed over to the officers of the Division, and the Treasurer of the Division was to receive the funds, to be kept as a separate item for any special local medico-political or medico-ethical purposes. The CHAIRMAN remarked that it was very gratifying that this amalgamation had now taken place.

METROPOLITAN COUNTIES BRANCH:

TOTTENHAM DIVISION.

THE annual meeting of this Division was held at the Tottenham Hospital on Friday, May 19th, at 4 p.m. Dr. G. CHAPPEL presided.

Election of Officers.—The following officers were elected for the next session:—*Chairman:* Mr. C. E. Hutt. *Vice-Chairman:* Dr. G. Chappel. The *Committee* elected were Dr. E. Hooper May, Mr. R. F. Tomlin, Dr. Staunton, Mr. A. Greenwood, Dr. Fogarty, and Dr. Leonard Grant. Dr. Tresilian was elected as *Honorary Secretary*. Dr. J. R. Fuller was re-elected *Representative*.

Annual Representative Meeting.—It was proposed by Mr. R. F. TOMLIN that the Representative of the Division be instructed as to voting at the annual meeting of the Representatives at Leicester to exercise his own judgement in voting in accordance with the views expressed at the various meetings of the Division during the past session, and the resolutions expressed by votes. The Division recognizes and values Dr. Fuller's great interest on behalf of the members, and feels confident that he will vote as he feels is best for the interests of the members of the Division and Association.

STRATFORD DIVISION.

A MEETING of this Division was held on Thursday, May 11th, at 9 p.m., Dr. GROGONO in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Lantern Demonstration.—Dr. THOMAS G. LISTER gave a very interesting lantern demonstration on phthisis, and was awarded a hearty vote of thanks, as was also Professor G. Sims Woodhead of the Cambridge Laboratories for kindly lending some of the lantern slides for exhibition.

Matters Referred to Divisions.—It was unanimously resolved that the recommendation of the Scientific Co-ordination Committee be adopted. Consideration of the Local Government Bill, Public Health Bill, and Revaccination Bill was deferred, and the meeting adjourned.

SPECIAL GENERAL MEETING.

On May 19th a special general meeting was held, Dr. GROGONO in the chair. The subject of the National Deposit Friendly Society and the report on death registration, and amendment of coroners' law, were considered and the resolutions passed have been communicated to the Medico-Political Committee.

WANDSWORTH DIVISION.

THE annual meeting of this Division was held on Thursday, May 25th.

Dinner.—The meeting was preceded by a dinner. Among the twenty guests present were Sir Henry Kimber, Bart., M.P. for Wandsworth, Mr. P. M. Thornton, M.P. for Clapham, the Mayor of Wandsworth, the Chairman of the Wimbledon District Council, the Chairman of the Wandsworth Guardians, Mr. W. Hunt, L.C.C., Lieutenant-Colonel A. Rotton, J.P., L.C.C., Mrs. and Miss Garrett Anderson, Dr. Michael Taylor (Coroner), Sir Walter Foster, M.P., the Chairman of the Central Council, the President of the Branch, the General and Medical Secretaries, with thirty-five members and their guests. Dr. GEORGE WALKER was in the chair. The dinner was followed by several toasts, to which the guests responded, and a short programme of music was enjoyed.

Additional Rules.—The meeting was held subsequently, when the following additional rules were approved subject to the consent of the Organization Committee:

1. Proposals for the officers of the Branch and Representatives of the Branch on the Central Council shall be sent by any member of the Division in writing to the Secretary before April 1st.

In the event of an insufficient number of proposals being received by the secretary on the date above mentioned, the Executive Committee can, if it see fit, propose a candidate or candidates for the various posts then vacant.

The voting of the Division shall take place at the next ordinary Division meeting after April 1st, and shall in each case be determined by a show of hands of those present.

2. The Division officers and members of the Executive Committee shall be proposed by any member of the Division in writing to the Secretary before the 1st of May. In the event of an insufficient number of proposals being received by the Secretary on the date above mentioned, the Executive Committee at its next meeting shall propose a candidate or candidates for those positions still requiring nominations. The election of the above officers and members of the Executive Committee shall be by reply postcards sent to every member of the Division not less than ten days before the annual meeting, and shall be returned to the Secretary not less than six days before the annual meeting, and the result shall be ascertained by scrutineers appointed for the purpose at the previous ordinary Division meeting.
3. That there be an Ethical Committee of the Division consisting of five members, of which the Chairman of the Division and Honorary Secretary shall be members *ex officio*; they shall be elected annually at the Annual Meeting and shall deal with any question of ethics referred to them in accordance with the rules for procedure in ethical questions.

Election of Officers and Committee.—Chairman: H. R. Ker, M.R.C.S. *Vice-Chairman:* C. R. C. Lyster, F.R.C.S. *Honorary Treasurer and Secretary:* E. Rowland Fothergill, M.B. *Representative on Branch Council:* Llewellyn Williams, L.R.C.S. *Representative at Representative Meetings:* L. S. McManus, M.D. *Committee:* D. F. Shearer, M.B., A. J. Swallow, M.B., W. D. Turner, M.D., George Walker, M.R.C.S., E. F. White, F.R.C.S.

Election of Ethical Committee.—Chairman and Honorary Secretary *ex officio*, with L. S. McManus, M.D., A. D. Roe, M.B., George Walker, M.R.C.S.

Nominations for Branch Officials.—President elect, H. R. Ker, M.R.C.S. *Vice-Presidents*, M. G. Biggs, M.D., George Walker, M.R.C.S.

Hampstead Division

A meeting of this Division was held on Friday, May 12th, at St. Peter's Lecture Hall, Belsize Square, N.W., at 5 p.m., Dr. Heath Strange in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Wandsworth Resolution as to Nominated Candidates.—The Assistant Honorary Secretary read a resolution of the Wandsworth Division, and asked the members of the Hampstead Division to consider it, and either approve or refuse it. The resolution was:

> That the nominated candidates be informed that this Division will support their candidature, and that the Chairman has been authorized to sign any circular they may decide to send to the members requesting them to give their votes.

The names of the candidates who were suggested for nomination were: Drs. Ford Anderson, E. R. Fothergill, Andrew Clark, Percy Rose, and G. Rowell.—The resolution, proposed by the Assistant Secretary and seconded by Dr. Humphreys, was then put and carried.

Hospital Abuse.—Dr. Ford Anderson then read a highly interesting and important paper on hospital abuse and its remedies, which is published at p. 301.—Dr. Heath Strange offered a few remarks, congratulating Dr. Ford Anderson on his paper and inviting discussion. He approved of the idea of obtaining a co-operation of provident dispensaries and hospitals, and spoke of his experience of the former. Certain resolutions framed by Dr. Ford Anderson were then proposed. (1) Dr. Humphreys proposed:

> That this meeting approves cordially of the twelve principles of reform for hospitals, as issued by the Central Council of the Association.

He considered that reform was urgently needed, and that it was to be obtained only by co-ordinate action of the general practitioners and the hospitals. Dr. Pidcock seconded, referring to his experience in a Hampstead Provident Dispensary, mentioned by Dr. H. Strange.—Colonel Montefiore remarked that he would wish only for the general principles of the twelve axioms, and not for the actual words to be accepted. In fact, he considered them too mild. The resolution was put and carried. (2) Colonel Montefiore proposed:

> That this meeting, recognizing the existence of grave defects in the conduct of out-patient departments of hospitals, is of opinion that those departments should be chiefly used for consultations and for casualties, which, after receiving first aid, shall, if not suitable for hospital treatment, be referred in general terms to general practitioners, provident dispensaries, or the Poor-law relieving officer.

He spoke of his long struggle for reform, and of the fact that in spite of the endeavours of himself and others, the position was not improved during the course of a number of years. He welcomed Dr. Ford Anderson's attempt to gain substantial reform, and hoped for a beginning in the combined action of general practitioners and of the staffs of the hospitals. In seconding the resolution, Dr. Knowsley Sibley said that in the majority of cases the out-patient departments of hospitals were mere casualty departments, and that consultations were rare. The patients were mostly chronic alcoholic dyspeptics, who obtained stomachics, which enabled them to return quickly to their debauch. He referred to the question of giving certificates at hospitals, condemning the practice of stating on the form the nature of the disease, or the ability or inability of the patients for work. The resolution was then carried. (3) Dr. Macevoy proposed:

> That there shall be an organized system of co-ordination between hospitals and provident dispensaries, which are approved of by the profession, so that the hospitals shall refer to the provident dispensaries suitable cases of those not retained for hospital treatment, and the provident dispensaries shall refer to the hospitals cases for consultation, as well as those requiring hospital treatment and nursing, or specially suited for purposes of clinical instruction.

He spoke strongly on the necessity of co-ordination between the hospitals and dispensaries, and enlarged on the injury done to the general practitioners by the abuse of the present out-patient system. Dr. Glover seconded the resolution. He said that he was an old combatant in the field, and had worked with Colonel Montefiore and before him for reform. He doubted if the provident dispensaries could be made sufficient to deal with the masses of patients. There were a large number of difficulties in the way, and, while he wished Dr. F. Anderson's scheme success, he doubted if it would actually lead to reform. Dr. Fothergill spoke of the position of the Wandsworth Division. The general practitioners had united in action to obtain a better condition with the staff of King's College Hospital, and hoped that by mutual understanding and combined exertions reform would be carried out. Drs. Humphreys and Pidcock also spoke, and the resolution was then carried. (4) Dr. Hills proposed:

> That cases sent to the hospitals by private practitioners, providen dispensaries, or by Poor-law Medical Officers for consultation, should be exempt from the Almoner's inquiries, should have priority of consideration, and should be returned with an opinion on the condition of the patient.

He agreed fully with Dr. Ford Anderson, and was anxious that the interests of the general practitioner should be guarded. The resolution was ably seconded by Dr. W. W. Hall and carried. (5) Dr. Oppenheimer proposed:

> That the above resolutions be sent to every metropolitan Division, requesting an opinion thereon.

He welcomed Dr. Ford Anderson's endeavour to bring about reform, stating that while most attempts were merely destructive, this one was constructive as well. In seconding the resolution, Dr. Urban Pritchard spoke in favour of the scheme from the consultant's point of view. The Assistant Secretary doubted if sufficient combination between the general practitioners could be obtained to bring success to the scheme, but thought it certainly worthy of energetic attempts. He would rather have suggested sending the resolution to all the Divisions in Great Britain and not only to the metropolitan ones. The resolution was put and carried.

Vote of Thanks.—The Assistant Secretary wished to offer the visitors hearty thanks for having come to the meeting, and to Dr. Ford Anderson for having read such an excellent paper. Dr. Humphreys seconded this and it was carried. The meeting then broke up.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

An Address

ON

THE ABUSE OF HOSPITALS AND THE REMEDIES.

Delivered before the Hampstead Division of the Metropolitan Counties Branch of the British Medical Association.

BY J. FORD ANDERSON, M.D., C.M.

IN opening this discussion on the question of abuse of hospitals, I am acting on the initiative of the Executive Committee of the Hampstead Division of the British Medical Association, in the hope that, in conjunction with other Divisions, we may agree on some plan to advance reforms which have been too long delayed already.

The interest which has been taken in this subject throughout the Association and throughout the profession has been especially remarkable in the last year, and, before this interest dies out, I would strongly advise that common action be taken by the Divisions of the British Medical Association, which are the best local centres for co-ordinating professional action, to secure such a settlement of this matter as will be acceptable to the whole medical profession.

PRESENT POSITION OF THE HOSPITAL QUESTION.

I will in a few words state the present position of the hospital question as it affects London.

I am indebted for the following figures to Sir Henry Burdett's *Hospitals and Charities, 1905*, and I have only taken those which are necessary for my purpose.

The total population of London in 1903 was 4,613 812; of these, 2,302,563 (including 75 558 paupers) received medical relief at the different institutions of London—that is to say, more than one-half of the population; and whereas the population of London increased in ten years, 1894 to 1903, by 6 per cent., and the patients medically relieved in the institutions of London increased by 23 per cent., it follows that not only is the number enormous, but it is increasing by leaps and bounds, and out of all proportion to increase of population.

These figures refer to all departments, but I would like to add that the number of out-patients in the 94 large voluntary hospitals in London was, in 1903, 1 646 976, as against 1 336,416 in 1894, ten years previously—that is, in round numbers, 1,700,000, instead of 1,300,000, an increase in ten years of 400,000.

INCOME AND EXPENDITURE.

If we glance at the income and expenditure, we shall find that they have kept pace with the great increase in the number relieved, and that the payments of patients have had no effect in reducing expenditure, rather the reverse.

In the Diamond Jubilee Year of Queen Victoria, the King (then Prince of Wales) founded what is now known as "The King's Fund," and its aim was to increase the income of the hospitals by £150 000 a year. It was feared at first that this fund would diminish subscriptions to individual hospitals, but it has had the contrary effect, as the following figures will show, namely:

In 1896, the year before the King's Fund was started, the ordinary income of the 94 voluntary hospitals in the County of London was £608.362, and in 1903 it was £741,557, an increase of £133,195; let us say, an average increase of £130,000, and in 1902 the increase was £150,000. With legacies it was still more; thus, in 1903, there was a total increase of income as compared with 1894 of £525,000, or 65 per cent. increase in ten years ending 1903.

Thus it will be seen that the ideal of the King's Fund has been realized, practically the whole sum wanted—£150,000—has been obtained, and yet the hospitals are not satisfied. Instead of controlling their outlay, an increased appetite for spending has arisen, so that in 1903 the ordinary expenditure of the ninety-four voluntary hospitals of London was nearly a quarter of a million more than it was in any of the first three years of the decade beginning in 1894, and not only this, but appeals have been made every year for large sums for rebuilding; two and a quarter millions have thus been expended in ten years, and at present £1,000,000 more is wanted for these purposes, exclusive of £300,000 required for rebuilding St. Bartholomew's Hospital.

CAUSES OF THE GREAT EXPENDITURE.

"The old shibboleth," says Sir Henry Burdett, "that no hospital can well appeal for funds unless it can so arrange its accounts as to show a deficit year after year, is hard in dying, although we have striven to show the absurdity of this view," and he proceeds to recommend that an intelligent budget should be put forward each year in January, that the expenses should be kept well within the receipts, and that due reserve be made during the fat years for the lean ones which are sure to follow.

PAYMENTS BY PATIENTS.

Formerly, when hospital abuse was mentioned, reference was chiefly made to the swamping of out-patient departments and the impossibility of doing justice to the crowds of cases of an ordinary kind which could be much better treated by general practitioners, either privately or through a provident dispensary, at their homes if necessary, and it was also a grievance that a large number of patients who were financially unsuitable presented themselves for treatment. Those abuses are still complained of, but the problem has become more acute in the last few years, owing to the fact that in order to meet the increasing outlay, the hospitals have in many cases imposed a pecuniary payment on patients, with the effect that the last vestige of hesitation to apply for hospital relief is removed, as they think the small sums demanded are sufficient payment, and that there is thus no loss of self-respect in going to the hospital. This payment by out-patients has also greatly increased the competition with the general practitioners, and has done no good to the hospitals themselves. Take the London Hospital, which has imposed a charge of 3d. for medicine. It has not relieved the pressure of patients or the financial difficulties. On the contrary, the out-patients have increased and threaten to ruin the usefulness of the hospital.

It is my strong conviction that the working classes desire to pay something for their medical attendance, in order to save their self-respect, and "*hinc illae lachrymae*"; they have first tried the doctors and beaten down their fees, which have become less and less, and have approached vanishing point, and no more represent a living wage. The doctors are now often forsaken—in the East End at least—because the hospital there has entered the field, and competes with the doctors and undersells them; patients flock to the hospitals instead of to the general practitioners whom they have injured and abandoned, because their *amour propre* can be preserved at a less cost.

I am quite sure the charitable public do not realize that, in supporting hospitals which exact payment, they are doing a great injustice to a hard-worked profession; and not only that, but are perpetuating a system, in the out-patient departments at least, which is wasteful and also ineffective and demoralizing to the poor. The subscribers to hospitals often deny themselves luxuries, and even necessaries of life—for what? To support bounty-fed hospitals, which compete with the rank and file of the profession, and create a false idea of sufficient payment. This action of the hospitals shows a cynical disregard of the interests of the general practitioners, and I cannot understand—I say it with all respect—why the staffs of hospitals stand passively by, and endorse by their inaction the unfair treatment which their professional brethren receive at the hands of hospital Boards. I may add that the hospital staffs themselves, as well as their pupils, are, in my opinion, equally sufferers from the daily crowd of monotonous and unsifted cases which they have to investigate, or, at least, to see.

THE REMEDIES.

I have, so far, alluded to the defects of our present system of treating the diseases of the poor, and I now come to the most important part of my address—What can we do to check the admitted faults of our hospital system? Well, what we want most is unity in our profession. Dr. Lauriston Shaw, in a recent address on this subject, spoke of "the unfortunate absence of any co-operation between members of the profession," and there is much truth in his remark; but our great Association by its work proves the existence of aspirations towards a better state of things, and provides an organization which would secure for us the palm of victory in any good work undertaken by it, if only the whole profession would join hands under its banner.

I shall first recall the 12 fundamental principles suggested by the Hospitals Committee, and approved by the Council of the British Medical Association (corrected to May 17th, 1905), namely:

1. That inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment. *Rider:* This resolution shall not apply to Poor-law cases.

2. That no charge for the treatment of any patient shall be made. *Rider:* This resolution shall not apply to Poor law cases.

3. That the production of subscribers' letters shall cease to be compulsory, and that where possible the system shall be abolished.

4. That some means of investigation into the circumstances of the applicants for relief by means of an almoner or other agent shall be employed in all medical charities.

5. That the foregoing recommendations apply to both in-patients and out-patients.

6. That, except in emergencies, sufficient evidence shall be obtained on two points: (*a*) That the patient is not in a position to pay for treatment; (*b*) that the case is, from a hospital point of view, suitable for treatment.

7. That all cases of serious accident and severe sudden illness shall be seen on their first application, and, if deemed eligible for further treatment, shall be referred to the appropriate department of the hospital; but, if ineligible, shall then be referred for treatment elsewhere.

8. That all cases of trivial accident or illness deemed ineligible for the out-patient department shall, after having been seen, be referred for treatment elsewhere.

9. That no patient be permitted to leave a hospital on the first visit without having been seen by a registered medical practitioner.

10. That where possible the number of new cases to be seen on any one day by an honorary medical officer shall be limited.

11. That special hospitals shall treat only those cases that come strictly within the scope of their work.

12. That in all hospitals there shall be an age-limit for the retirement of the medical officers.

I should like to say a few words on these principles. Note that the inability to pay for adequate treatment is the qualification for treatment in hospitals—not poverty; the obviously destitute or the recipients of Poor law relief are unsuitable; what they want is food and lodging as much as, or more than, medicine.

Then there shall be no payment. There is not much difference of opinion on this point in the medical profession, except among a few chiefly interested in payments to special hospitals; but, for reasons already stated, they must fall into line with the strong feeling in the profession against payments.

With reference to the riders excluding Poor-law cases, the Poor-law guardians generally pay in some way for paupers, and these will be the only payments to hospitals, which I hope will all soon be charitable, with that one exception, and refer patients who can pay a little to other agencies.

Subscribers' letters have practically ceased to have any influence in London, and now that fact is officially recognized in those principles.

Almoners exist already in many hospitals, and they do excellent work. It requires special qualities, and I believe, as a rule, lady almoners are best; they have sympathy and patience and tact, and are well worth their wage in controlling the crowds in out-patient rooms, and in guiding them to select their appropriate place for treatment, under medical orders, of course.

The remaining resolutions chiefly deal with the out-patient management—cases are to be seen once, and only retained in hospital if suitable for treatment or instruction—number of cases seen on any one day to be limited—special hospitals to treat only cases coming strictly within the scope of their work.

The great pervading ideas in those principles passed by the Council of the Association are that out-patient departments are to be charitable and consultative; the further steps are still under consideration, but I would nevertheless ask this meeting to carry the matter further—to give an opinion as to the substitutes for out-patient departments, and as to the relationship between those substitutes and the hospitals.

Substitutes for Out-Patient Departments.

Patients who can pay general practitioners' fees should be referred in general terms to general practitioners, and paupers should be referred to the relieving officer under the Poor Law. But the great bulk of the out-patients of hospitals stand, as it were, between those two extremes; they are not destitute, and yet they cannot afford fees in the ordinary way. For these, provident dispensaries are the only possible provision, but to satisfy the requirements of the medical profession they must be approved by the medical profession, and it seems to me that the British Medical Association is the best organization for formulating the general principles on which such dispensaries should be constituted and conducted; the Divisions of that Association, in conjunction with other members of the profession in any given locality, are manifestly indicated for applying those principles to dispensaries within their respective areas, and I would suggest that a resolution to that effect be passed by this meeting.

The principles of provident dispensaries suitable for incorporation in the rules might be sketched as follows: The recognized object of provident dispensaries is to provide medical attendance on mutual assurance principles to those who are unable to pay the full cost of such attendance, and who are not entitled to medical relief under the Poor Law. It is not suggested that it should be a contract practice or public medical service on strict actuarial principles. Although that may be and is applicable in some districts, it requires accurate data which, so far as I know, are not yet available. In any case, the provident dispensary is much less ambitious. It aims at organizing the payments of otherwise non-paying patients who, at present, in London at least, swamp the out-patient department of hospitals. In such dispensaries all the practitioners of, say, twelve months' residence in a district should be eligible for the staff, unless there is good reason to the contrary—of course, this exclusion should be exceptional, but we can all imagine individual shortcomings which would make such a step desirable. It is a power to be exercised only after a formal vote at a meeting properly announced beforehand. Home visiting is a most important feature, as the environment of patients is known and this is useful and really essential in treatment and is also a check on abuse by patients who are financially unsuitable.

In the management, the medical profession should be predominant, but provident members and honorary members, who subscribe to the funds without sharing the benefits, should also be represented, and a lay and a medical delegate should be appointed from the neighbouring hospital. The payments to doctors work out at about 6d. or in some cases 10d. or more per visit, but in estimating those payments it should be borne in mind that such as they are, they are absolutely secured without bad debts, trouble of book-keeping, and drug bills; and it should also be noted that the patients belong to a class who at present pay nothing or next to nothing.

A wage limit should be fixed to exclude from the dispensary persons who are unsuitable, in respect of means, for admission—and the contributions of provident members, including special payments, if any, for cards, medicines or other matters, should be provided for. Provident members to select their medical attendant, and no change to take place during illness. The medical attendant may also decline to attend individual members. Surplus of contributions of provident members to be divided among medical officers, after payment of drugs and small working expenses, every quarter in proportion to the number of members entered under each respectively. Midwifery to be a special charge, also other special work as agreed.

Honorary subscriptions may be accepted in respect of buildings and other capital charges, and also, in some cases, for increasing midwifery fee.

Provident dispensaries should be confined to well-defined areas, which should not overlap, but the individual provident dispensaries should co-operate, and transference from one to another in case of change of residence should be easy, even in the case of short changes of residence due to exigencies of work. Collectors should not call at homes of patients, and canvassing should be strictly barred.

I have said enough to indicate the lines on which provident dispensaries should be conducted, and I confidently believe they are for London the only solution of the difficulty, and if failures in provident dispensaries are referred to—as they unfortunately are sometimes—we should recollect that they have not always been run in the interest of the medical profession generally, and there has been a looseness in their constitution and conduct which could not occur in what I have indicated as "approved" provident dispensaries. For example, the competition of bogus "provident dispensaries" would become superfluous and disloyal to the profession; and it should not be forgotten also that provident dispensaries have had to compete with the out-patient departments of hospitals, and success in the vicinity of these or in that of free dispensaries is well-nigh impossible. I trust the day is not far distant when all these disabilities will cease, and this brings me to what I may call the crowning of the edifice, to a scheme which I trust will not only do away with the competition of hospitals, but will co-ordinate their relations with provident dispensaries, as well as with general practitioners, and promote community of interest where hitherto there has been friction. I refer to the proposals to regulate the relationship of hospitals to general practitioners, provident dispensaries, free dispensaries, and the Poor-law medical service, which are set forth below, namely:

PROPOSALS TO REGULATE THE RELATIONSHIP OF HOSPITALS TO PRIVATE PRACTITIONERS, PROVIDENT DISPENSARIES, FREE DISPENSARIES, AND THE POOR-LAW MEDICAL SERVICE.

Scope of Out-patient Departments.

1. That Hospital Out-patient Departments shall be as far as possible Consultative (see proposals 2, 3, 4, 8, and 9 following) but cases requiring immediate attention shall be seen once, and only cases requiring special Hospital treatment or specially suitable for Clinical instruction shall be treated in the Hospital.

Reference Elsewhere of Unsuitable Cases.

2. That the remaining cases shall be seen by an almoner and each referred, in general terms, to a medical practitioner, an approved Provident Dispensary, or the Relieving Officer under the Poor Law.

"Approved" Provident Dispensaries.

3. By approved Provident Dispensaries shall be understood Provident Dispensaries the constitution and conduct of which are in accordance with such principles as may be formulated in reference thereto by the British Medical Association, or by Divisions of the Association in conjunction with other local members of the profession with respect to Dispensaries within their respective areas.

Co-inordination of Dispensaries with Hospitals.

4. That there shall be an organized system of co-ordination between Hospitals and Provident Dispensaries, especially those which operate in the same district, so that the Hospitals shall refer to the Provident Dispensaries suitable cases, of those not retained for Hospital treatment (see proposal 2 foregoing), and the Provident Dispensaries shall refer to the Hospitals cases for consultation, as well as those requiring Hospital treatment and nursing, or specially suitable for purposes of clinical instruction.

Notices of Dispensaries in Hospitals and vice versa.

5. Notices to be posted in out-patient departments of hospitals calling attention to any approved Provident Dispensaries in the neighbourhood, and the Dispensaries to advertise similarly in their premises that consultations with the staffs of hospitals can be arranged when desirable.

Home Consultations.

6. Some members of the Hospital staff shall undertake to see members of neighbouring Provident Dispensaries at their homes in consultation with the Dispensary Medical Officer in attendance when so desired by him. In such cases it might be suggested to the patients to pay a moderate fee to the Physician or Surgeon.

Representation on Committee of Management.

7. That when possible a lay and a medical representative of the Hospital shall sit on the Committee of the allied Provident Dispensary, and a lay and a medical representative of the Provident Dispensary on the allied Hospital Board.

Dispensary and Private Practitioners' Cases referred to Hospitals for special advice.

8. That a member of a Provident Dispensary or other patient referred to a Hospital for consultation, with a note, or personally by a general practitioner in attendance, should be exempt from the almoner's inquiries, should have priority of consideration, and should be referred back to such medical attendant, with a statement of the opinion of the Hospital Physician or Surgeon on the condition of the patient. In such a case drugs should not be supplied by the Hospital.

Patients' Registers to be accessible to Officials of Allied Institutions.

9. Hospitals and Provident Dispensaries shall keep registers of names and addresses of patients, noting the number of visits and the results, the registers to be open to inspection by the Dispensary and Hospital Officials respectively.

Free Dispensaries.

10. That Free Dispensaries shall as long as they exist refer suitable patients to Hospitals for consultation and for special Hospital treatment, but it is desirable that Free Dispensaries should as soon as possible be converted into Provident Dispensaries.

Poor-Law Cases.

11. That cases of obvious destitution, or cases already in receipt of Poor-law relief, shall, after they have been seen, be referred to the Poor-law Relieving Officer unless they should be retained for special hospital treatment in the wards, and Poor law patients may be referred to hospitals for consultation as in the case of Provident Dispensary patients. In these cases payment might be required from the Poor-law Guardians if deemed advisable.

Co-ordination of Hospitals.

12. That no scheme such as the foregoing or other scheme for the reform of out-patient Departments can be successful without co-operation and co-ordination between hospitals themselves, especially those which operate in the same area.

That is the scheme. It is based on the presumed cordial co-operation of hospitals on the one hand and private practitioners and provident dispensaries on the other—the hospitals to keep cases suitable for hospital treatment or for clinical purposes; the other cases, after being seen once, to be referred in general terms to private practitioners, or to provident dispensaries or the Poor Law; and the provident dispensaries, on the other hand, will refer cases for consultation or for special treatment to the hospitals. This happy understanding may be brought about by blending the managers, and in other ways mentioned, but the first requirement is to secure the co-ordination of hospitals in the same area (proposal No. 12.) If this is not done, the patients, driven from one hospital, will go to another, and it will be a case of *coelum non animum mutant.* It is not the first time that this co-ordination of hospitals has been attempted. In 1892 a Select Committee of the House of Lords recommended that a Central Hospital Board for London should be established, but the hospitals were afraid that their individual interests would suffer, and no steps were taken. It is right, however, to add that a Central Hospital Council for London has been formed during the last year or two and is doing good work.

There is one hope now that the King's Fund, carrying with it the power of the purse, will beneficently exercise its great influence, and bring the hospitals into line; at the same time, we must fully realize that no failure on the part of the King's Fund or other bodies to carry through the desired reforms will condone inaction on our part. With all respect for the requirements of hospital staffs, and with the best wish to give them their due, we must never forget that this question of hospital reform is of vital importance to general practitioners, who are by far the most numerous body in the profession, and who, having put their hand to the plough, will not turn back until their just claims have been adopted.

Before I conclude, I wish to refer to the class who can pay something for adequate treatment, although not the full fees, and are, according to three of the fundamental principles (Nos. 1, 2, and 5), excluded from hospitals. It must have happened within the experience of most practitioners that patients with moderately good incomes have gone for operations into the general or pay wards of hospitals, and their medical attendants have had no access to them. I do not pretend to submit a complete scheme for treating such patients, but I confidently think that a system of *Cottage Homes* such as have been recently started in Edinburgh, would meet the case.

The payments for these self-supporting *Cottage Homes* are moderate enough to meet the requirements of patients with small means, and are, I believe, largely managed by the profession, and admission is obtained only through the medical attendant who certifies the patient to be suitable for such a home. The practitioner sees his case through with, if necessary, the assistance of a surgeon, and the medical and surgical attendants make their own arrangements as to fees. I believe that all practitioners may use those homes. I certainly think it should be so and that the homes should be formally approved by the local members of the medical profession.

I thought it well to add those few words to complete the scheme for the treatment of the patients who will be refused admission to the wards of hospitals, but please note that they are only suggestive: and, in any case, it would be a matter for private enterprise.

MEETING OF BRANCH AND DIVISION SECRETARIES AT LEICESTER, JULY 25, 1905.

THE Council of the British Medical Association has sanctioned a conference of the Branch and Division Secretaries to be held on the Tuesday of the Annual Meeting week—namely, July 25th—at 6 p.m., in a room to be set apart for the purpose.

Branch and Division Secretaries are invited to notify any subjects they may wish to bring before this conference. All matters to be considered must be notified to the General Secretary of the Association, 429, Strand, W.C., on or before June 15th.

The General Secretary will as early as possible after June 15th circulate to the Branch and Division Secretaries a list of the subjects notified him for discussion by the conference.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

ABERDEEN BRANCH.—Election of Member of Council: It is requested that nominations for election of member of Council be sent to Dr. J. F. Christie, 7, Alford Place, not later than Saturday, June 3rd. Each candidate must be nominated by at least three electors. If more than one member is nominated for election, then voting papers will be sent to each elector during the first week in June.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of the Division will be held at the Medical Library, University College, Bristol, on Thursday evening, June 8th, at 8 o'clock. Business: (*a*) To elect Officers, the Representatives of the Division on the Branch Council. (*b*) To elect the Representative of the Division in Representative Meetings of the Association. (*c*) To receive the annual report of the Executive Committee. (*d*) To consider the business of the Annual Representative Meeting. (*e*) To make new rules or alter or repeal existing rules. (*f*) To transact any business that may be transacted at an ordinary meeting.—NEWMAN NEILD, Clifton, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will take place at the Medical Institute, Edmund Street, Birmingham, at 4 o'clock, on Thursday, June 8th. The dinner will take place at the Grand Hotel at 7 o'clock the same day.—T. SYDNEY SHORT, O. J. KAUFFMANN, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, June 6th, at 8 30 p.m. Agenda: (1) To elect officers, the Representative on the Branch Council, and the Executive Committee for the year. (2) To receive the annual report of the Executive Committee for 1904, which is to the following effect: In accordance with the requirements of By-law 8 of the Association, the Coventry Division presents the following report of its proceedings during 1904, its numbers, and a financial statement, in the form prescribed by the Council of the Association, to the Council of the Birmingham and Midland Counties Branch. During the year seven meetings of the Division have been held; at these meetings papers on medical subjects have been presented and questions of medico-political and ethical import have been discussed. The average attendance at these meetings has been 25, which is an increase on that of the previous year. The number of members of the Division is 40. In addition to these meetings there was a joint meeting of the Division with the Tamworth and Nuneaton Division for the purpose of electing a Representative for the Annual Representative Meeting. During the year the Division has instituted a voluntary book section, with an annual subscription of 10s. 6d.; 19 members have joined this section, which makes a joint subscription to Lewis's Medical Circulating Library; each member is entitled to one volume at a time. In presenting the annual financial statement, the Division takes the opportunity of drawing the attention of the Branch Council to By-law 17 of the Association, which requires the Branch to pay to each Division of the Branch such sum per member as the Branch Council may consider necessary to defray the expenses of the Division. This Division carries on, and proposes to carry on, an active series of meetings throughout the year. Totalling the ordinary meetings and the Committee meetings, the number of summonses to attend meetings amounted to 360 in 1904; the amount paid by the Branch to the Division amounts to 1½d. for each summons to cover the total expenses in connexion with these meetings, and without making any allowance for expenses involved by the distribution of other circulars, etc., requested by the Council of the Association; the Division submits that it cannot be easy for the Branch Council to consider the allowance made sufficient to defray the expenses of the Division in accordance with the By-law. The Division also wishes to point out that the practice adopted by the Branch Council of making the grant provisional on the expenditure reaching the amount of the grant makes it impossible for a Division to have any funds in hand, but does not eliminate the possibility of a deficit; and, shortly, that an arrangement that causes economies effected by a Division to benefit not its own financial position but that of the Branch is inequitable.

Financial Statement.

Dr.	£ s. d.	*Cr.*	£ s. d.
Grant received from Branch Council — 40 members at 1s. per head	2 0 0	Hire of Rooms	0 0 0
Balance due to Treasurer	1 5 0	Secretarial Expenses, Stationery and Printing ...	3 5 0
		Clerical Aid, etc.	0 0 0
	3 5 0		3 5 0

F. L. HARMAN BROWN, F. A. COLLINGTON } *Auditors.*

(3) To consider the following recommendations of the Committee: (*a*) That in Rule 11 "December" be substituted for "January" as a month in which an ordinary meeting of the Division shall take place. (*b*) That the Division pass the following ethical resolution: "That in future no member of the profession in the area of the Division shall apply for the medical officership of a Friendly Society." (*c*) That the Division authorize the Committee to take any steps which may appear desirable to forward the passing of the Public Health Bill now before Parliament. (4) To thank the Committee of the Coventry and Warwickshire Hospital for the continued use of their Board room for the purposes of the Division.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual general meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 16th, at 3 30 p m, when Sir James Crichton-Browne, M.D., will deliver his Presidential Address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary.

DORSET AND WEST HANTS BRANCH: WEST DORSET DIVISION.—The annual meeting of the Division will be held on Wednesday, June 7th, at 3 p m, at the County Hospital, Dorchester. Agenda: To elect officers, five Representatives of the Division on the Branch Council, and a Representative for Representative Meetings of the Association. To consider the business of the Annual Representative Meeting to be held at Leicester in July (see SUPPLEMENTS to JOURNALS of April 29th, May 13th and 27th). To consider other matters referred to the Divisions (see SUPPLEMENTS). General business.—T. HENRY JONES, Honorary Secretary, Oriel, Weymouth.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th.

EDINBURGH AND FIFE BRANCHES.—Notice is hereby given that nominations of elective members of the Council of the Association for these Branches must be made in writing on or before June 3rd, to A. LOGAN TURNER, M D., 27, Walker Street, Edinburgh, Honorary Secretary Edinburgh Branch.

EDINBURGH BRANCH.—The annual meeting of the Branch will be held in the Hall of the Royal College of Physicians (9, Queen Street) on Friday, June 16th, at 4 30 p m. Business: Election of office bearers; any other competent business.—NORMAN WALKER, 7, Manor Place, A. LOGAN TURNER, 27, Walker Street, Honorary Secretaries.

EDINBURGH BRANCH.—The summer meeting of the Branch will be held at Hawick on July 1st. Trains from Edinburgh (Waverley) 10.30 a.m. Provisional arrangements: Meeting of Branch, 12 15. Motor drive to Stobs, Hermitage Castle, Newcastleton, Penton Linns, Canonbie, Langholm, Mosspaul and Branxholme. Starting at 1 p.m. Golf match on Hawick Links, 1 45. Dinner at Tower Hotel, 6 30. Dr. Allan Jamieson, President, in the chair. In order to facilitate arrangements members who intend to be present are requested to intimate their intention to one of the Secretaries as soon as possible, and whether they propose to golf or to motor.—NORMAN WALKER, 7, Manor Place, Edinburgh, A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—As arranged at last meeting of Division, the annual meeting will be held on Saturday, June 17th, in the Railway Hotel, Newtown St. Boswells, at 3 o'clock. Business: (1) Election of office-bearers. (2) The consideration of memoranda regarding the National Deposit Friendly Society the Local Government Amendment Bill, the relation of the medical profession to ambulance work, etc. (3) Instructions to representative in regard to the agenda of the annual meeting of the Association at Leicester. (4) Other matters of urgent importance to the Division. It is hoped that members will do their utmost to be present. Dr. Hamilton gives notice of the following motion: "That the Division recommends to the Representative Meeting the desirability of appointing a Committee to consider the question of the formation of a fund for the relief of the widows and orphans formerly dependent on deceased members of the Association."—W. HALE CALVERT, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Election of Representatives: Notice is hereby given that nominations must be intimated to me, as Secretary of this Branch, on or before Wednesday, June 14th.—JAS. H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL (SOUTHERN) DIVISION.—The annual meeting of the Division will be held on June 20th, at 4.30 p m., at the Medical Institution, Hope Street. Agenda: Minutes of last meeting. Secretary's annual report. Election of new Chairman. Election of officers. Election of Representative for the Meeting of the Association at Leicester. Revision of rules of the Division. Consideration of the agenda of the Annual Representative Meeting (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 13th).—J. C. M. GIVEN, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of candidates for the five offices of Representatives of the Branch on the Central Council for the ensuing year must be made in writing to GEORGE ROWELL, 6, Cavendish Place, W., on or before Saturday, June 10th. Nominations not made by a Division require, by the present Rules of the Branch, to be signed by twelve members of the Branch.

METROPOLITAN COUNTIES BRANCH.—A meeting of the Council of this Branch will be held at the office of the Association, 429, Strand, W.C., on Friday, June 2nd, at 5 o'clock precisely. Agenda:—1. Minutes. 2. Letters: (1) From the Medical Secretary of the Association *re* (i) action of Central Council with regard to certain hospital appointments; (ii) an ethical case communicated to the Branch for further consideration; (2) from the Secretary to the Conference of Delegates of the Divisions *re* suggestion of candidates for nomination by the Divisions for the offices of Representatives on the Central Council; (3) from the Queen's Jubilee Hospital Board of Management; reply to the report of the inquiry by the Executive of King Edward's Hospital Fund. 3 Questions. 4. Election of members. 5 To consider an ethical matter referred from the Central Council. 6. To receive the report of the Committee appointed to consider the best means of making the annual meeting and dinner a success (report not yet ready). 7. To arrange date and place of annual meeting. 8. To nominate officers of the Branch for the ensuing year, in the event of an insufficient number of nominations having been made by May 28th. 9 Dr. Rowland Fothergill will draw attention to the two following resolutions:—Resolution, Wandsworth Division: "That the Ethical Committee of the Association are hereby requested to take into their consideration the ethical position of members who are willing to act as pathologists and toxicologists in coroners' courts at a fee authorized for *post-mortem* examinations made by general practitioners, and not intended to meet those cases requiring specially-skilled examinations and evidence." Resolution of Central Council: "That the Council disapproves of the action of specially-skilled pathologists who have agreed to make *post-mortem* examinations and to give evidence at special inquest cases for the ordinary fee of 2 guineas." And will move: (1) "This Council trusts no member of the Metropolitan Counties Branch will in any way offer or

agree to undertake these special duties at the ordinary fee of 2 guineas"; (2) "That the above three resolutions be printed on the next agenda form issued to the members of the Branch." 10. Mr Kowell will move: "That the resolution of the Branch Council, to conduct the election of Representatives by means of reply postcards, be rescinded." 11. Other business.—GEORGE ROWELL, 6, Cavendish Place, W., FREDERICK JOHN SMITH, M.D., 138, Harley Street, W., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—The annual meeting of this Division will be held at the King's Head Hotel, Chigwell, on Tuesday, June 6th, at 5 p.m. Business: (1) To elect officers. (2) To receive the annual report of the Executive Committee. (3) To consider the business of the Annual Representative Meeting (see SUPPLEMENT of May 13th, which members are requested to bring with them). (4) Other business. The meeting will be followed by the annual dinner at 6.45 p.m. Price of the dinner will be 5s., exclusive of wine. Morning dress.—C. T. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The annual meeting will be held at 20, Hanover Square, on Wednesday, June 14th, at 4.30 p.m. Mr. J. Bland Sutton will be in the chair. Smoking. Agenda: 1. Minutes. 2. Correspondence. 3. Questions. 4. (*a*) Election of officers, Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee; (*b*) to elect the Representative of the Division in Representative Meetings of the Association: (*c*) to receive the annual report of the Executive Committee; (*d*) to consider the business of the Annual Representative Meeting, vide SUPPLEMENT to the JOURNAL, May 13th, 1905 (members are requested to bring the SUPPLEMENT to the JOURNAL, dated May 13th, with them to the meeting. 5. Medical Acts Amendment Bill (Part V). 6. To consider a memorandum on the legal position of medical men in respect to school certificates. 7. Mr. Forbes Ross will (i) draw attention to the status and wrongfully alleged professional incapabilities for responsible positions of the M.R.C.S. Eng., in view of a recent derogatory ruling by the King Edward's Hospital Fund, which has been published broadcast in the lay press, and which will tend to weaken public confidence in those holding that diploma, and that it is expedient that the Ethical Committee should consider the subject and draw the attention of the King's Fund to the anomalous situation; (ii) draw the attention of the Division to the irregular methods lately adopted in the JOURNAL by its misquotation and misrepresentation of facts, and thereby persistent defamation of eight members of the Association. 8. Any other business.—W. KNOWSLEY SIBLEY, M.B. 70, Duke Street, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, June 15th, at 4.30 p.m. Tea will be provided before the meeting. Agenda: Minutes. Report of Branch Council and annual financial statement. Election of officers (Dr. Astley Clarke will not seek re-election). Any other business. Copy of resolution of Branch Council passed January 11th, 1905: "That a business meeting only of the Branch be held in June next." The Branch Council will meet at 3.30 p.m.—ASTLEY V. CLARKE, Honorary Secretary and Treasurer, Leicester.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held on Saturday, June 17th, at the Northern Infirmary, Inverness. Details of the meeting will be sent to each member by circular. In accordance with By-law 24 of the Association, nominations for the office of Representative on the Central Council must reach me, duly signed by three members, not later than June 17th.—J. MUNRO MOIR, M.D., 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—The annual meeting of this Division will be held on Thursday, June 15th, at 3.30 p.m., at the residence of the Secretary. Business: (1) Election of officers for ensuing year, etc., as per rules; (2) such items on the agenda paper, sent out to each member, as have not previously been discussed.—R. B. ROBSON, 20, Bondgate Without, Alnwick, Honorary Secretary.

NORTH WALES BRANCH.—The annual meeting of this Branch will be held in Bala on Thursday, July 6th.—W. JONES MORRIS, Is-y-Coed, Portmadoc, H. JONES ROBERTS, Llywenarth, Pen-y groes, Carnarvonshire, Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Guildhall, Canterbury on Wednesday, June 21st, at 2.15 p.m. Dr. Whitehead Reid, President-elect, kindly invites members to lunch at the Royal Fountain Hotel, between 1 and 2 o'clock. Agenda: In addition to any business that may be transacted by an ordinary meeting. (1) To receive the report as to election of officers of the Branch. (2) To receive the annual report of the Branch Council. (3) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." After the meeting expeditions will be arranged to the Cathedral and other places of interest in the city; to the sanatorium and Sewage Farm, and to the Canterbury Asylum. Dinner at the Royal Fountain Hotel, 6.15 for 6.30; charge, 7s. Wine will be supplied by local members. Those who propose to be present are requested to signify their intention to Dr. Honchley, 1, London Road, Canterbury, not later than Saturday, June 17th.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of this Division will take place at the Art Club, Blackheath, on Thursday, June 8th, at 4 p.m., Arthur Roper, M.D. (Lewisham), in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine. (1) Minutes of last meeting. (2) To decide where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative Meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider business of Annual Representative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. The following papers will be read: Lauriston Shaw, M.D., F.R.C.P.: The muscle of the stomach in the treatment of its diseases. L. A. Dunn, M.S., F.R.C.S.: Some remarks upon the surgical treatment of carcinoma of the stomach. J. Purves Stewart, M.D.: The diagnosis of tabes dorsalis in its earliest stage. Exhibition of instruments, etc., by Messrs. Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. The Honorary Secretary would be much obliged if members would kindly inform him by post card, to reach him by the first post on Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Nominations for the office of two Representatives on the Central Council, in conjunction with the Leinster Branch, must be sent on or before June 3rd to E. J. FARMER, Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting will be held at the Town Hall, St. Albans, on Thursday, June 22nd, at 2.30 o'clock, under the presidency of Dr. Lipscomb. The President invites the members to luncheon at the Town Hall at 1 p.m. sharp, and will be glad if those who intend to be present will communicate with him not later than Monday, June 19th. Dr. Boys (St. Albans) and Dr. Clement Dukes (Rugby) have promised to read papers, and Dr. Savory (Bedford) will show specimens.—E. HARRIES JONES, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at Cardiff on June 8th.—FRANK G. THOMAS, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The sixty-sixth annual meeting will be held on Thursday, June 15th, at the Athenaeum, George Street, Plymouth, at 3 p.m., when Dr. R. H. Clay will resign the chair to Mr. G. Jackson, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1904-5 will be presented to the meeting, and the officers of the Branch be elected for the year 1905-6. The reports from the Divisions of the Branch on the resolutions proposed and carried at the Truro intermediate meeting on March 2nd, 1905, and submitted to the Divisions for their consideration, will be brought before the meeting for confirmation. Luncheon, by kind invitation of the President-elect, will take place from 1 to 2.30 p.m. at Goodbody's Restaurant, Bedford Street. After the meeting Dr. Turner kindly invites members to inspect the ancient and historically interesting mansion, Plympton House, where tea will be provided. Trains from Millbay to Plympton, 5.5 p.m., and from Plympton to Millbay, 6.35 p.m. The annual dinner will be held at 7 p.m. at Goodbody's Restaurant, Bedford Street. Tickets, (exclusive of wine) 6s., which can be had from the Honorary Secretary of the Branch. On Friday, June 16th, the members of Plymouth, Devonport and district, cordially invite their colleagues to a luncheon, and an excursion by steamer to the breakwater, and thence up the Hamoaze to Cotehele (which will be visited by kind permission of the Right Hon. The Earl of Mount Edgcumbe). Members who accept this invitation are invited to bring their wives or lady friends (limited to two). Notice will be given at the meeting and dinner on the 15th of the time and place of departure of this excursion; and those who wish for further details should communicate with Dr. Webber, 4, Queen Anne Terrace, Plymouth. The Honorary Secretary begs to intimate to those members who purpose attending (1) the visit to Plympton House, (2) the annual dinner, (3) the excursion to Cotehele, that they must inform him on or before June 8th, and at the same time forward the amount of the dinner ticket, in order that the necessary arrangements may be made.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The thirty-second annual meeting of the Branch will be held at the North Stafford Hotel, Stoke-on-Trent, on Thursday, June 22nd, at 5.50 p.m., when an address will be delivered by the President-elect, Dr. G. S. Hatton. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Correspondence. (4) Address by the President. (5) Report of the Council. (6) The financial statement. (7) To decide the place of holding the next annual meeting. (8) Election of officers for the ensuing year. (9) Report on the election of the Representative of the Branch on the Council of the Association. Members have the privilege of introducing friends. Dinner at 7 p.m., charge 5s.—G. PETGRAVE JOHNSON, Honorary General Secretary, Stoke-on-Trent.

ULSTER BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 21st, at Warrenpoint, co. Down. The meeting will elect for the ensuing year a President, Treasurer, Secretary, and (with the Connaught Branch) two members of the Central Council. Nominations for these offices must be sent to the Honorary Secretary not later than May 31st. Attention is called to Rule 4, according to which the President shall be a member of the Branch who has not held the said office during the previous five years, and who must not be a member of the same Division as his predecessor.—CECIL E. SHAW, M.D., Honorary Secretary, 18, College Square East, Belfast.

WEST SOMERSET BRANCH.—The sixty-second annual meeting of this Branch will be held at the Beach Hotel, Minehead, on Friday, June 9th, at 12.30 p.m., when Mr. Gordon Henry will preside. Agenda: Minutes of last meeting; annual report of Council; Treasurer's report; election of President-elect; election of Representative; election of other officers; election of Ethical Committee. President's address: The General Practitioner and Appendicitis. Lunch will be served at the Beach Hotel at 1.30 p.m., the cost of which will be defrayed out of the Branch funds in

the case of those members who signify to Mr. Gordon Henry, Blair Lodge, Minehead, by June 6th, their intention of being present. In the case of others and of guests a charge of 2s 6d. will be made, in all cases exclusive of wine, etc. After lunch the golf links will be at the disposal of members, or they will be driven to the polo ground, where a match will be played, and where they will be entertained to tea.—W. B. WINCKWORTH, Honorary Secretary, Taunton.

YORESHIRE BRANCH.—The annual meeting of this Branch will be held at the Hotel Majestic, Harrogate, on Wednesday, June 28th, at 3.30. The officers will be elected. Candidates to represent the Branch on the Central Council of the Association must be nominated by at least three members of the Branch, and such nominations must be sent to me on or before Saturday, June 17th. The present Representatives of the Branch are Drs. Burgess and Goyder. The annual dinner will take place at the Hotel Majestic at 6.30. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate with me at once.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1905.

REPORTS OF PROCEEDINGS.

Tuesday, May 23rd, 1905.

Dr. DONALD MACALISTER, President, in the Chair.

New Members.

Sir Thomas Myles was introduced by Sir WILLIAM THOMSON as the Representative of the Royal College of Surgeons in Ireland, in place of Sir Charles Ball. Dr. Arthur Atock was introduced by Dr. LITTLE as the Representative of the Apothecaries' Hall, Dublin, in place of Dr. C. R. C. Tichborne.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered his address, which was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 27th, p. 283.

BUSINESS COMMITTEE.

Dr. NORMAN MOORE proposed, Sir JOHN MOORE seconded, and it was agreed that the President, Dr. Windle, Dr. Bruce, Sir Christopher Nixon, and Mr. Young should constitute the Business Committee.

RESULTS OF EXAMINATIONS.

A resolution thanking the officials who had supplied these tables (see page 307) was adopted, and subsequently, on the motion of Mr. GEORGE BROWN, seconded by Dr. BRUCE, the returns were referred to the Examination Committee for consideration and report.

REPORTS RECEIVED IN CAMERA.

The Council then went into *camera* to receive a report from the Office Site Committee, and to consider a report from the Executive Committee.

On strangers being readmitted:

The PRESIDENT stated that the following resolution had been come to by the Council:

That the Registrar be directed to restore to the *Medical Register* the name of Samuel Bingham Shekleton.

THE AMENDMENT OF THE COMPANIES ACTS.

The PRESIDENT then referred to a report as to the proceedings taken since November, 1904, in regard to the suggested amendment of the Companies Acts. The Council had to thank Sir John Batty Tuke for his intermediation on several important questions in bringing the attention of the Government to matters which were in issue. In the report Sir John Batty Tuke was able to incorporate a number of answers which had been received from the head of the Government Department on the subject, and also the following letter received on May 20th:

Privy Council Office,
May 16th, 1905.

Sir,—Referring to your letter of the 17th inst., on the subject of the registration of medical and dental companies, and inquiring whether, in view of the decision of the Master of the Rolls in Ireland in the case of the Attorney-General for Ireland *v.* Appleton and others, the Attorney-General for England would take similar proceedings in the Courts here at the instance of a proper repertor, I am directed by the Lords of the Council to state, for the information of the General Medical Council, that it appears to their Lordships that if a case of a like nature to that above cited arose in this country it would be open to the English Branch of the British Dental Association to move in the matter, as apparently the branch in Ireland has done.

I am, etc.

The Registrar, etc. (Sig.) A. W. FITZROY.

There was no suggestion that the Attorney-General in England would offer any objection to the British Dental Association taking action. The process was that through the Attorney-General, who must consent to act, an injunction should be asked to prevent companies already registered with a title held to be misleading from remaining on the Register of Joint Stock Companies. If the decision in England was the same as in Ireland it would mean that a number of companies carrying on dental and medical practice would be removed from the Register of Joint Stock Companies. The question was whether the British Dental Association would take up the matter. That Association was in the position to inquire whether a certain case was a clear case to present. He moved from the Chair:

That the President's report be referred to the Companies Bills Committee for consideration.

Mr. TOMES thought he ought to inform the Council that they were very deeply indebted to the President; the result had been brought about very largely through his personal efforts.

The resolution was agreed to.

On the motion of Mr. BROWN, seconded by Mr. JACKSON, it was agreed that the report should be entered on the minutes.

THE TITLE OF LICENTIATES OF THE SOCIETIES OF APOTHECARIES.

A report was received from the Executive Council in regard to a petition from 767 licentiates of the Apothecaries' Society of London, requesting an alteration in the *Medical Register* of the designation therein given to the qualification granted by the Society.

The Executive Committee expressed the opinion that without fresh legislation the Council had no power to alter the designation set forth in the Schedules A and D of the Medical Act, 1858.

Dr. WINDLE proposed, Mr. BROWN seconded, and it was agreed that the report should be received and entered on the minutes.

The prayer of the petition was as follows:

> Your petitioners therefore humbly pray that the General Medical Council will forthwith order that, in respect of all persons who have passed or shall pass the qualifying examination of the Society, conducted in manner prescribed by the Medical Act, 1886, and have received or shall receive the diploma of the Society, the qualification entered or to be entered in the *Medical Register* shall be changed from "Licentiate of the Society of Apothecaries" to "Licentiate in Medicine, Surgery, and Midwifery of the Society of Apothecaries," or such abbreviation thereof or other title as shall indicate that the persons holding the said qualification are legally qualified to practise in medicine, surgery, and midwifery.

On the motion of Dr. WINDLE, seconded by Dr. NORMAN MOORE, it was resolved:

That the Council approve of the finding of the Executive Committee in regard to the petition from 767 licentiates of the Apothecaries' Society of London.

Sir THOMAS MYLES thought the Council might suggest to the gentlemen in question in what way they might obtain an alteration of the title. He thought it would be more becoming if the Council were to point out to these gentlemen that they were adopting an erroneous method of getting their title changed.

Dr. ATOCK supported this view.

After some discussion the PRESIDENT stated that there was no intention of sending a curt reply to the petitioners whose only desire was to elicit opinion as to the legal position of the Council.

The motion was then agreed to.

PROCEDURE IN PENAL CASES.

It was reported that a communication had been received from the County of Durham Medical Union requesting that when cases had been investigated by that or any similar Society the General Medical Council should accept the conclusions arrived at and take action accordingly.

Upon that the Executive Committee presented the following report (page 308):

The following tables represent an analysis of the returns made to the General Medical Council of all examinations for the services since the date of its winter session—namely, two for the Indian Medical Service, one for the Royal Navy, and one for the Royal Army Medical Corps :

TABLE I.

Showing the Extent of the Competition for each Service.

Services.	No. of Candidates.	No. of Vacancies.	Proportion of Candidates to Vacancies.
Royal Naval Medical Service ...	32	25	5 to 4
Royal Army Medical Corps ...	53	25	5 to 2
Indian Medical Service	68	27	5 to 2
Total or average	153	77	5 to 3

TABLE II.

Showing whence the Candidates received their Qualifications.

Licensing Body.	Number of Candidates.	Proportion of Entire Number.
English Colleges and Universities...	71	46.4 per cent.
Scottish ,, ,, ...	37	24.2 ,,
Irish ,, ,, ...	37	24.2 ,,
Colonial ,, ,, ...	3	2.0 ,,
Mixed	5	3.2 ,,
Total or average	153	20.0 ,,

TABLE III.

Showing the Proportion of Commissions Gained by the Candidates of each Country.

Country.	Number of Commissions Won.	Proportion of all Commissions Offered.
England	43	55.8 per cent.
Scotland	17	22.1 ,,
Ireland	16	20.7 ,,
Colonies	0	—
Mixed	1	1.3 ,,
	77	19.1 ,,

TABLE IV.

Showing the Relative Success of the Candidates of Each Country in Proportion to their Respective Numbers.

Country.	Number of Candidates.	Number who Gained Commissions.	Proportion of Success to Candidates.
England	71	43	60.6 per cent.
Scotland	37	17	46.0 ,,
Ireland	37	16	43.2 ,,
Colonies	3	0	—
Mixed	5	1	20.0 ,,
Total or average ...	153	77	33.9 ,,

TABLE V.

Showing the Percentage of Candidates who Passed the Qualifying Standard, including those who Gained Commissions.

Countries.	Number who Entered.	Number who Passed the Standard.	Proportion to the Total.
English candidates ...	71	62	87.3 per cent.
Scottish ,, ...	37	28	75.7 ,,
Irish ,, ...	37	30	81.1 ,,
Colonial ,, ...	3	0	—
Mixed ,, ...	5	4	80.0 ,,
Total or average ...	153	124	64.8 ,,

TABLE VI.

Showing the Proportion of those who Failed Totally among the Candidates of Each Country.

Country.	Number of Candidates.	Number Rejected.	Proportion of Total Failures.
English candidates ...	71	9	12.6 per cent.
Scottish ,, ...	37	9	24.3 ,,
Irish ,, ...	37	7	19.0 ,,
Colonial ,, ...	3	3	100.0 ,,
Mixed ,, ...	5	1	20.0 ,,
Total or average ...	153	29	35.1 ,,

TABLE VII.

Showing Details of the Performance of each Class of Candidate.

Qualifications.	Number of Candidates.	Commissions Gained.	Qualified but Unsuccessful.	Rejected.	Percentage of Success.
English Conjoint Board alone	50	28	17	5	56
,, ,, and Oxford degree...	—	—	—	—	—
,, ,, and Cambridge ,, ...	2	1	1	0	50
,, ,, and London ,, ...	6	5	1	0	83
,, ,, and Durham ,, ...	—	—	—	—	—
,, ,, and Aberdeen ,, ...	1	1	0	0	100
,, ,, and Colonial ...	1	0	0	1	0
English Apothecaries' Society alone	3	1	0	2	33
,, ,, ,, and London degree	—	—	—	—	—
English Apothecaries' Society and Scottish diploma... ,, ...	—	—	—	—	—
London degree alone...	1	1	0	0	100
,, and Manchester degree ...	—	—	—	—	—
Cambridge degree alone	2	2	0	0	100
Durham ,, ...	6	4	0	2	66
Oxford ,, ...	1	1	0	0	100
Birmingham ,, ...	—	—	—	—	—
Scottish Conjoint Colleges alone... ...	8	2	4	2	25
,, ,, ,, and Colonial degree	3	0	3	0	0
Aberdeen degree alone	6	3	3	0	50
Edinburgh ,, ...	19	8	4	7	42
Glasgow ,, ...	4	4	0	0	100
Irish Conjoint Colleges alone	13	3	5	5	23
Dublin University alone	11	7	4	0	63
Royal University of Ireland	13	6	5	2	46
Colonial universities...	3	0	0	3	0
Total or average	153	77	47	29	54

TABLE VIII.

Percentage Comparison of the Work of certain Classes of Candidates.

Qualifications.	Number of Candidates.	Gained Commissions.	Qualified but unsuccessful.	Total qualified.	Number rejected.	Percentage of Winners.	Percentage qualified.	Percentage rejected.	Order.
English Conjoint diploma and English degree.	8	6	2	8	0	75.0	100.0	0.0	1
English Conjoint diploma alone	50	28	17	45	5	56.0	90.0	10.0	2
English degrees alone	10	8	0	8	2	80.0	80.0	20.0	3
Irish degrees alone	24	13	9	22	2	54.1	91.6	9.3	4
Scottish degrees alone	29	15	7	22	7	51.7	75.8	24.1	5
Irish Conjoint diploma alone	13	3	5	8	5	23.1	61.5	38.4	6
Scottish Conjoint diploma alone	8	2	4	6	2	25.0	75.0	25.0	7
Other classes together	11	2	3	5	6	18.2	45.4	54.5	—
Total or average	153	77	47	124	29	47.8	77.4	22.6	—

The Executive Committee recommend that a reply be sent pointing out that in all proceedings before the Council the rules of evidence in judicial proceedings in courts of law must as far as possible be followed, and that accordingly the suggestion of the petitioners is one that the Council is unable to adopt.

Dr WINDLE moved, Sir THOMAS MYLES seconded, and it was agreed that the report should be received and entered on the minutes.

The PRESIDENT read the preamble and the prayer of the petition. The preamble was as follows:

What the County of Durham Medical Union suggests is that the General Medical Council, on being assured by any Medical Society, Association, or Union that the facts have been carefully investigated, and that in the opinion of such Society, Association, or Union the case is one which the General Medical Council should take up, the latter body should accept such assurance and summon the offender before them and require an explanation of the complaint made.

The prayer of the petition was:

We, the undersigned duly registered medical practitioners, beg most earnestly to urge upon the Council the desirability of supporting medical men who struggle to maintain the honour and dignity of the profession, especially when opposed by others who are ready to take advantage of any dispute in contract practice by canvassing or underselling, or in the obtaining of contract appointments by similar means.

It would be observed that the prayer was of a general but the suggestion of a particular character.

Dr. WINDLE moved, Mr. JACKSON seconded, and it was agreed:

That the Council approve of the resolution of the Executive Committee with respect to the petition from the County of Durham Medical Union.

A "MEDICAL" CERTIFICATE GIVEN BY A CHEMIST.

The next business was a communication from the British Medical Association referred to the General Medical Council by the Executive Committee for its information.

On May 24th, 1904, a communication was read to the Executive Committee from the Medico-Political Committee of the British Medical Association forwarding a communication from the Education Committee of the borough of Bootle in regard to the giving of a medical certificate by a person described as a local chemist and druggist in the case of a girl unable to attend school, whereupon the following resolution was passed:

Resolved: That the attention of the Medico-Political Committee of the British Medical Association be called to Section XXXVII of the Medical Act, 1858; that they be informed that on the face of it the certificate forwarded to the Council appears to be invalid under that Section, and that the Council has no jurisdiction over chemists who give invalid certificates.

On November 21st, 1904, a further communication on the subject was considered by the Committee, and the whole correspondence was remitted to the General Medical Council (Minutes, vol. xli, pp. 179-80, 206), by whom it was considered on November 24th and 25th, 1904, on the latter of which dates Mr. Muir Mackenzie gave an opinion. The Council now had before it the further communication from the British Medical Association, printed in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of March 18th, 1905, p. 112.

Sir VICTOR HORSLEY moved, and Dr. WINDLE seconded, that this communication be received and entered on the minutes.

The PRESIDENT was afraid that he was responsible for some of the misapprehensions which had arisen in the debate, and he was extremely glad, therefore, that the whole matter was put right by the actual production of the certificate in question, which was imperfectly before the Council at the previous session.

The motion was then agreed to.

Mr. GEORGE BROWN inquired whether some action should not be taken in a matter of this kind.

The PRESIDENT replied that the Council had taken all the action that was possible.

Mr. GEORGE BROWN thought a similar thing might occur any day, and, unless the Council took some action, it was not possible to stop it.

The PRESIDENT suggested that Mr. Brown should write out a notice of motion indicating the sort of action the Council should take, and that they should consider it, but for the present the discussion was closed.

DENTAL BUSINESS.

A report of the Executive Committee on the dental business transacted since the last meeting of the Council was received and entered on the minutes.

Report.

The report stated that copies of the Dentists Act, 1904, of New Zealand, and the Dentists Act Amendment Act of South Australia had been received from the Colonial Office. The report also stated that the Committee had considered a communication from the Incorporated Society of Extractors and Adaptors of Teeth, Limited, forwarded under the impression that the Council was, in conjunction with the British Medical and Dental Associations, promoting a Bill for the amendment of the Medical Acts, requesting that a deputation might be received by the Medical Council to discuss the terms upon which provision should be made in any future legislation—to be obtained if possible in co-operation with the Medical Council—to secure to the members of their Society the right to continue their present calling, and approved the answer to this communication, which had been sent by the Registrar by direction of the President.

REVISION OF STANDING ORDERS AS TO VISITATION AND INSPECTION.

The Council then proceeded to deal with certain revised Standing Orders, drafted by the President and amended by the Executive Committee, in regard to the visitation and inspection of examinations.

The PRESIDENT stated that at the last meeting it had been suggested there was some ambiguity in the language of the Standing Orders, and he undertook to codify the existing law and practice. The Standing Orders submitted were drawn up after two meetings of the Committee.

The Revised Orders were entered on the minutes, and the Council went into Committee for their consideration.

After some discussion it was agreed that Nos. 1 and 2 should be approved in Committee in the following form:—

(1) The Qualifying Examinations of the several Licensing Bodies in the three divisions of the Kingdom shall be visited and inspected on behalf of the Council from time to time as the Council shall direct.

(2) The visitations shall be conducted by one or more members of the Council deputed as visitors for that purpose, in pursuance of Section XVIII of the Medical Act, 1858; the inspections by an inspector, not a member of the Council, appointed in pursuance of Section III (2) of the Medical Act, 1886.

The Council then went out of Committee and adjourned.

Wednesday, May 24th, 1905.

Dr. DONALD MACALISTER, President, in the Chair.

DISCIPLINARY CASES.

A Divorce Case.

THE Council proceeded to the consideration of the case of Percival Humble Watson, registered as of the Grand Hotel, Trafalgar Square, London, W.C., M.R.C.S.E., 1873, L.R.C.P.L., 1876. Mr. G. L. Lushington was present as legal assessor, and Mr. Winterbotham as solicitor, to the Council. Mr. Macmillan (Clements Lane) appeared for the complainant, Mr. Manford; Mr. Marshall (of Messrs. Wilkinson and Marshall, solicitors), Newcastle-on-Tyne, appeared for Mr. Watson.

Mr. WINTERBOTHAM read the charge against Mr. Watson, which was as follows:

That you abused your position as a medical man by committing adultery with a patient, namely, Mrs. Manford, a married woman, whom you had been and were attending professionally, of which adultery you were found guilty by decree of the Probate, Divorce, and Admiralty Division (Divorce) of the High Court of Justice.

Mr. MACMILLAN said that Mr. Manford had made a statutory declaration, and there was also a statutory declaration by Mr. Langstaffe, managing clerk to Messrs. Stanton and Atkinson, solicitors, of Newcastle-on-Tyne, who had charge of the divorce proceedings. Mr. Manford had no desire to act in any vindictive manner, but he felt that the facts were such that they should be brought to the notice of this Council. Mr. Macmillan then read the statutory declaration of Mr. Manford.

In answer to the President, it was stated that the decree *nisi* of the Divorce Court had been made absolute.

Mr. Manford was then called, and asked a few questions by Mr. Marshall.

Mr. MACMILLAN then proposed to read the statutory declaration of Mr. Langstaffe.

Mr. MARSHALL submitted that Mr. Langstaffe's declaration

could not be received, and that Mr. Manford's declaration, so far as it spoke to information and belief, could not be received.

The objections were overruled and the evidence admitted.

Mr. LANGSTAFFE proved the declaration and the correctness of the exhibits thereto.

Mr. MARSHALL stated that the absence of Dr. Watson was due to the fact that when these proceedings became public in 1903 his practice dropped off, and he had been obliged to accept the position of a ship's surgeon. The decree *nisi* did no more than establish the fact that at some time adultery had been committed; but it was no proof that it had been committed during professional relationship, and before exercising the power which the Council possessed of striking the respondent's name off the *Register* it should be established by independent evidence that the offence had been committed. No evidence had been called to establish that Dr. Watson had committed adultery with a patient on whom he was in professional attendance.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT said: Mr. Marshall, I have to inform you, as representing Mr. Watson, that the Council have found proved the facts alleged against him in the notice of inquiry; that they have adjudged him to have been guilty of infamous conduct in a professional respect, and have directed the Registrar to erase from the *Medical Register* the name of Mr. Percival Humble Watson.

Alleged Canvassing and the Employment of Unqualified Assistants.

The Council then proceeded to the consideration of the case of William Patrick Kirwan, registered as of 21, Danbury Street, Islington, N., Lic. R. Coll. Phys. Edin. 1882, Lic. R. Coll. Surg. Edin. 1882, who had been summoned to appear before the Council to answer the following charges, as formulated by the Council's Solicitor:

1. That you have associated yourself with a Medical Aid Association—namely, a firm of chemists trading at various addresses as The Acme Medical Hall and Pharmacy—which Association has systematically, by means of printed circulars, cards, labels, and notices, printed and painted, advertised your practice, name, and qualifications, and thereby canvassed for patients for you.

2. That you have enabled certain persons in the employ of The Acme Medical Hall and Pharmacy to practise medicine, and to treat patients as if qualified by law to do so.

Mr. Lushington appeared as Legal Assessor to the Council.

Mr. Winterbotham appeared as Solicitor to the Council.

Dr. Bateman and Mr. Hempson appeared in support of the charge on behalf of the Medical Defence Union.

Dr. Kirwan appeared in person.

Mr. WINTERBOTHAM having read the charge,

Dr. BATEMAN stated that in October last several medical men practising in Islington called the attention of the Medical Defence Union to certain circulars advertising that Dr. Kirwan had entered into an agreement with H. Forewell and Co., chemists, of 21 and 23, Danbury Street, Islington, N., where he could be consulted, and giving his hours of attendance, and also that the visiting cards of Dr. Kirwan, giving his hours of attendance, had been placed under the doors of houses in the district. The Medical Defence Union at once communicated with Dr. Kirwan and informed him that if this was not discontinued the evidence and facts would be laid before the General Medical Council. Correspondence then took place on the subject, with no satisfactory result, and ultimately the whole of the facts and evidence were forwarded to the Registrar with a request to lay them before the Penal Cases Committee. Having read the correspondence and other documents, Dr. Bateman called THOMAS WILLIAM TYRRELL, clerk to Mr. HEMPSON, who in reply to Dr. Bateman, said that he went to 21 and 23, Danbury Street, N., Silver Street, W., and Fulham Palace Road, where the Acme Medical Hall carried on business, and took notes of what he saw there. He told the assistant at Fulham Palace Road that he had a cough, and the assistant prescribed for him. In reply to Dr. Kirwan, he said he was unaware at the time of his visit that the shops were run by a company; they were apparently ordinary chemist's shops, but in the windows was a card, "Dr. Kirwan—Advice Gratis."

By Dr. BATEMAN: It was only at Danbury Street that he saw the name "H. Forewell" up; the others there was "Dr. Kirwan."

Dr. KIRWAN said that prior to September, 1904, he had held a position in Ireland for twenty-three years. He came to London in October last with a small capital, and in consequence of an advertisement he purchased the lease of 21, Danbury Street, which had previously been carried on as an open surgery by a doctor for nearly forty years. He was quite ignorant of the rules and regulations with regard to practice in London, and had no idea that he could not keep an open surgery. Having purchased the businesses, he returned to Ireland to sell off his household effects, and while there he received the letter from the Medical Defence Union. He immediately wrote giving instructions to destroy the circulars which bore his name, and no circulars or cards of any description had been sent out for months. With regard to the business at Fulham Palace Road he had had to give it up as he could not afford to keep it. With regard to the second charge he had brought his two dispensers who would say he had never authorized them to practise medicine, but only to sell the mixtures which he himself prescribed.

GEO. CARPENTER, in reply to Mr. Kirwan, said he was dispenser at 21 and 23, Danbury Street, N. He had never prescribed medicine or acted as a medical man. It was Mr. Kirwan's custom to enter a few prescriptions for the more common complaints in a book, and he (Carpenter) would make up the prescription according to the directions in that book.

By Dr. BATEMAN: The prescriptions were numbered consecutively; bottles of medicine were also made up to give to patients in Mr. Kirwan's absence. He did not know if they contained poison. He was not a registered chemist; he did not hold a certificate as an apothecary's assistant; he had not succeeded in passing the Pharmaceutical Minor Examination.

EDWARD PEARCE, in reply to Dr. Kirwan, said it was untrue that he had represented himself as a doctor. He was not a chemist, and merely sold the prescriptions made up at 21 and 23 Danbury Street.

By Dr. BATEMAN: He was not a druggist or dispenser. If a person said he was suffering from a particular complaint he would make up the prescription from the book which had been referred to.

Dr. Kirwan was then cross examined by Dr. BATEMAN. He accepted Mr. Tyrrell's evidence in the main. He was ignorant of the regulations of the General Medical Council, and took no interest in its proceedings. Mr. Forewell introduced the premises at Danbury Street to him; he saw them, took them, and left Mr. Forewell in charge, with *carte blanche* to do exactly as he liked. He did not know whether he was a chemist. He (Mr. Kirwan) put up the words "Acme Med. Hall and Surgery," as he saw no harm in it, and he accepted responsibility for the labels. He gave his assistants strict instructions not to sell poisons.

By the PRESIDENT: There was no firm of "Forewell and Co., Chemists." The circulars to that effect were destroyed months before last Christmas. If any profit was made in the business it was his absolutely. Forewell had been discharged.

Dr. BATEMAN foregoing his right to reply, strangers and the parties were directed to withdraw. On readmission,

The PRESIDENT said:—Mr. Kirwan: The Council has decided that the facts alleged against you have been proved to their satisfaction; they have adjourned their decision in your case till the next session in November, when their judgement on the facts will be influenced by the information which they will have received in regard to your conduct in the interval, more particularly in regard to canvassing, advertising, and the employment of unqualified assistants, with respect to which matters they will require satisfactory assurances at the adjourned hearing.

Dr. BATEMAN applied that the book should be retained by the Council, as possibly there might be some further proceedings under the Apothecaries Act.

The PRESIDENT replied that the Council had no right to impound documents.

The Council then adjourned.

Thursday, May 25th, 1905.

Dr. DONALD MACALISTER, President, in the Chair.

DISCIPLINARY CASES.

The Council heard, *in camerâ*, the case of Alexander Christie McArthur, registered as of Grafton, Clarence River, New South Wales, M.B., Mast. Surg. 1902, Univ. Glasg. The respondent did not appear.

Mr. Lushington and Mr. Winterbotham were present as Legal Assessor and Solicitor respectively to the Council.

On the parties and strangers being readmitted:

The PRESIDENT stated that Alexander Christie McArthur

had been summoned to appear before the Council to answer the following charge, as formulated by the Council's Solicitor: "That you abused your position as a medical man by eloping with a patient, Mrs. K——, a married woman, whom you had been and were at the time attending professionally." The President stated that the Council had resolved:

That the charge against Alexander Christie McArthur had been proved to the satisfaction of the Council; that the Council had judged him guilty of infamous conduct in a professional respect, and had directed the Registrar to erase from the *Register* the name of Alexander Christie McArthur.

Dental.

The Council next proceeded to the consideration of the case of William Jones, in regard to whom the Dental Committee have found the following facts:

On May 22nd, 1905, the inquiry was held. Mr. William Jones was personally present, and was represented by Counsel—Mr. Hugo Young, K.C., instructed by Messrs. Style, Lindsay, and Squarey, of Liverpool, Solicitors.

The Dental Association appeared by Counsel—Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, Solicitors.

Notice of the inquiry was read.

The Committee find that the following facts were established by the evidence:

1. William Jones was registered in the *Dentists' Register* on November 28th, 1878, as in practice before July 22nd, 1878, and his address in the *Dentists' Register* is The Arcade, 85, Lord Street, Liverpool.

2. Being a registered dentist he has sought to attract business by a system of extensive public advertisements of an objectionable character, containing his name, address, and qualifications, praising his own professional skill and preparations, instituting comparisons between his own work and that of other practitioners, and claiming superiority over other practitioners and depreciating their work.

3. The said William Jones personally and in a letter to the Solicitor to the Council, dated May 19th, 1905, undertook not to advertise in such a way as to praise his own professional skill and preparations, nor to institute comparisons between his own work and that of other practitioners, nor to depreciate their work, nor to claim superiority over them, nor to issue any advertisements containing his photograph.

4. The evidence before the Committee consisted of:

(*a*) Advertisements by the said William Jones in two pamphlets issued and circulated by the said William Jones in two editions. "The Incorporated Trade Protection Society Circular," November 3rd, 1904: "Torrey-Alexander Mission Record," November 19th, 1904; "The Porcupine," February 4th, 1905; a handbill headed Anodynol J, registered, produced by the said William Jones; and other publications admitted by the said William Jones.

(*b*) A statutory declaration of Thomas Woods, of 76, Bradford Street, Bolton, private inquiry agent, and two exhibits thereto being the earlier edition of the two above-mentioned pamphlets issued and circulated by the said William Jones.

(*c*) The statements and admissions of the said William Jones made before the Committee.

Mr. Lushington and Mr. Winterbotham were present as Legal Assessor and Solicitor respectively to the Council.

Mr. R. W. Turner, instructed by Mr. Curtis-Hayward, jun., of Messrs. Bowman and Curtis-Hayward, Solicitors, appeared for the British Dental Association. Mr. Hugo Young, K.C., instructed by Mr. Barham of Messrs. Sharp, Parker, and Co., Solicitors, London, appeared for Mr. Wm. Jones. Mr. Wm. Jones was present.

The PRESIDENT pointed out that the report was conclusive as to the facts.

Mr. HUGO YOUNG applied to the Council to be allowed to address it.

Mr. TURNER asked if it became necessary that he might also be allowed to address the Council.

Permission having been granted,

Mr. HUGO YOUNG said he did not desire to dispute the facts as found by the Committee. Mr. Jones before the Committee, and in a letter to the Solicitor to the Council, undertook not to do any of the things complained of in the report in the future. It would be an extreme measure and a hard punishment to strike Mr. Jones's name off the *Register*. Mr. Jones had inadvertently published advertisements which were found to be of an objectional character. Mr. Jones did not desire in any way to set himself in defiance of the Council. Even before the hearing by the Committee, he had issued an edition of his pamphlet which omitted many of the paragraphs that were objected to. Although the Committee had found that the advertisements were objectionable, he thought they might chiefly be characterized as objectionable because they were wanting in good taste as distinguished from being advertisements which were in any sense of the word within the meaning of the Act of Parliament—disgraceful and infamous. It had been far more an error of judgement and want of taste on the part of Mr. Jones, who desired to submit himself fully to the Council. Mr. Young suggested that the Council should give Mr. Jones a period of time in which he might so far modify his advertisements as to bring himself into line with the wishes of the Council.

Mr. TURNER pointed out that it was entirely for the Council to say whether they would, as in some cases, adjourn the matter for six months; but even if that were done, he submitted, it must be done in such a way as to show Mr. Jones and others that the Council did not recognize in any way what some people called the right of advertisement. A man who was on the *Register* was on the *Register* as a professional man, and he had his own remedy if he wanted to become a tradesman.

Strangers and the parties were then directed to withdraw. On their readmission,

The PRESIDENT said: Mr. William Jones, the decision in your case is as follows:

That on the facts found in the report of the Dental Committee it had been proved that William Jones had been guilty of conduct which was infamous or disgraceful in a professional respect, and the Council had directed the Registrar to erase from the *Dentists' Register* the name of William Jones.

REVISED STANDING ORDERS.

The PRESIDENT said that Dr. McVail had given the following notice of motion:

That the proposed revised Standing Orders relating to the visitation and inspection of qualifying examinations be remitted back to the Executive Committee for further consideration, and in particular that the Committee should consult Counsel as to the agreement of the proposed Standing Orders with Section III of the Medical Act of 1886.

Sir VICTOR HORSLEY asked whether the Executive Committee had consulted Counsel on the several points.

The PRESIDENT said that Counsel had been consulted on the original, not on the present form.

Dr. MCVAIL thought this matter might go back to the Executive Committee to ascertain definitely the position of the proposed regulations. It might be that the regulations were in harmony with Section III, but he and some other members did not quite understand the matter. He thought the course proposed by his resolution would save time and discussion.

Mr. YOUNG seconded the resolution.

Sir VICTOR HORSLEY inquired whether it would not be possible for a special meeting of the Executive Committee to be summoned on the following day, in order to complete the business this Session.

The PRESIDENT, as a member of the Executive Committee, thought he might say that the Executive Committee did not regard the matter as so urgent as to require that they should dispose of it at this Session. At present it was not quite clear what the legal difficulty was, but no doubt Dr. McVail would state it at the proper time, and then a proper case could be prepared by the Solicitor and a legal opinion taken upon it. The new provisions were not likely to be acted upon for some years, and it was quite as well that there should be no doubt about them. So far as the Committee was concerned, they had no objection to take the step which Dr. McVail proposed.

The resolution was then agreed to.

PUBLIC HEALTH COMMITTEE.

Dr. BRUCE read the report from the Public Health Committee which was as follows:

The Public Health Committee on May 23rd, 1905, considered the question referred to them by the Council on November 29th, 1904—namely, whether the following Note to Rule 3 for diplomas in Public Health should be replaced in the Council's Regulations:

*** Any candidate who shall produce evidence that he has himself held an appointment as medical officer of health under conditions not requiring the possession of a special sanitary diploma shall be exempt from this regulation.

The Committee have inquired into the circumstances which led to the disappearance of this Note from the existing Regulations, and are of opinion that it was dropped more or less inadvertently by the Council. No discussion of the Note on its own merits, apart from certain other proposals with which its retention was accidentally connected, appears to have taken place, and the consequences of its omission were not fully apprehended at the time.

The Committee think it desirable that a Note conferring a similar exemption should be reintroduced. The experience of

sanitary administration, which it is the purpose of Rule 3 to require, will be adequately secured in the case of a candidate who has himself for a sufficient time, and in a district of sufficient extent, been the responsible officer of health. In view, however, of certain changes in the conditions of public health administration, the Committee think it desirable that the period of service and the population of the sanitary district should now be more exactly defined than in the Note above cited.

Certain communications have been received by the President which suggest that provision should be made for the case of candidates studying under the supervision of medical officers of health in large centres of population outside the United Kingdom. It appears to the Committee reasonable that responsible civil health officers abroad should have the same position in regard to practical instruction as that now held by sanitary staff officers of the Royal Army Medical Corps.

The Committee accordingly recommend that the following additions be made to the Rules:

In Rule 3 after (*c*) insert:

"Outside the United Kingdom, a medical officer of health of a sanitary district having a population of not less than 30 000, who himself holds a registrable diploma in Public Health; or . . ."

2. As a Note to Rule 3 add:

"Note (3).—A candidate who shall have produced evidence that he has himself held for a period of not less than [three] years an appointment as medical officer of health of a sanitary district having a population of not less than 15,000 may be exempted from the requirement of Rule 3."

He moved that the report be received and entered on the minutes.

Sir JOHN WILLIAM MOORE seconded, and it was agreed to.

Dr. BRUCE said he would move Recommendation 2 first. This note was inadvertently omitted before. He saw no reasonable objection to it, and he moved that Rule No. 2 be added as a note to Rule 3. Rule 3 was as follows:

Rule 3. Every Candidate shall have produced evidence that, after obtaining a registrable Qualification, he has during six months (of which at least three months shall be distinct and separate from the period of laboratory instruction required under *Rule* 2) been diligently engaged in acquiring a practical knowledge of the duties, routine and special, of Public Health Administration, under the supervision of

(*c*) In England and Wales, the Medical Officer of Health of a County or of a single Sanitary District having a population of not less than 50,000, or a Medical Officer of Health devoting his whole time to Public Health work.

The Note would enable a man who had himself held an appointment for not less than three years to be exempt—to free him from being apprenticed as it were.

Dr. LINDSAY STEVEN seconded.

The PRESIDENT thought that the Public Health Committee had exercised a wise discretion in the matter. At the last session there was a discussion about a particular individual who applied for a special exemption. Such applications were undesirable, and it was not the province of the Council to go behind its own rules for the benefit of individuals. If the Council agreed with the Committee that such a note should be inserted, it should be of a general character, and apply to all cases likely to occur, so as to avoid applications in particular cases.

After some discussion, Dr. MCVAIL moved:

That the operation of the proposed Note 3 to Rule 3 be limited to five years from this date.

Sir JOHN BATTY TUKE seconded:

The amendment was then put and declared lost. At the request of Dr. MCVAIL the names and numbers were taken down, when it appeared 3 voted for, 17 against, 10 did not vote, and 3 were absent.

Sir WILLIAM THOMSON moved to insert after the word "District" the words "within the British dominions and," so that it would read "a sanitary District within the British dominions and having a population," etc.

Dr. BRUCE, on behalf of the Committee, accepted this.

The Note to Rule 3 was then put and adopted.

DISCIPLINARY CASE.

The Council then proceeded to the consideration of the case of Herbert Du Cane, registered as of 56, Bolton Road, Darwen, Lancs., Lic. Soc. Apoth. Lond., 1890, who has been summoned to appear before the Council to answer the following charge, as formulated by the Council's Solicitor:

That you abused your position as a medical man by committing adultery with a patient, namely, Mrs Taylor, a married woman, whom you had been and were attending professionally.

Mr. Lushington attended as legal assessor and Mr. Winterbotham as solicitor to the Council; Mr. F. G. Hindle, of Hindle and Son, Darwen, and Mr. T. R. Haslan appeared for Mr. Taylor; Mr. Danckwerts, K.C., and Mr. Ellis Griffith, M.P. (instructed by Messrs. Edwards and Cohen) appeared for Mr. Du Cane.

Mr. HINDLE said he did not think it would be necessary for him to go into the facts in detail which had already been placed before the Council; because the point raised in the charge had been narrowed down by the legal representatives of Mr Du Cane to a very simple one. For some time prior to 1904 Mr. Du Cane had been in professional attendance on Mr. Taylor and his family, and as such was constantly at his house. In February, 1904, Mr. Du Cane and Mrs. Taylor eloped, and in consequence a petition was filed for a divorce citing Mr. Du Cane as the co-respondent. On November 25th, 1904, the petition came on for hearing, when a confession by Mr. Du Cane was put in, admitting the adultery, and a decree *nisi* was made. He understood the contention raised on behalf of Mr. Du Cane was, that in September, 1903 he sold his practice at Darwen, and from that time ceased professionally to attend Mr. Taylor and his family, and consequently no professional offence had been committed by him, inasmuch as the adultery did not take place until February in the following year. Mr. Taylor would prove that this was not the fact, that Mr. Du Cane had attended Mr. Taylor, and especially Mrs. Taylor, in his professional capacity almost up to the time of the elopement. In support of this statement he read the declaration of Mr. Stanley, a chemist at Darwen, to the effect that in January, 1904, he had made up Mr. Du Cane's prescriptions for Mrs. Taylor; also a declaration of Alice B. Fisher, to the effect that Mr. Du Cane was in constant attendance at the house up to the time of the elopement. He contended that there could not be the least doubt in the mind of any one that Mr. Du Cane was in professional attendance on Mr. Taylor and his family up to the time of the sale of his practice, and continued to be so until he had left the town.

Mr. TAYLOR, in reply to Mr. Hindle, said that for three or four years prior to Mr. Du Cane's leaving Darwen, he was in regular attendance upon Mrs. Taylor, who suffered from an internal complaint of a delicate nature, requiring daily attendance. He remembered the elopement on February 6th, 1904. Mr Du Cane sold his practice in September, 1903, but continued to attend Mr. Taylor's family in his professional capacity up to the time of his leaving Darwen.

In reply to Mr. DANCKWERTS, who cross-examined at some length, to show that Mr. Du Cane's professional attendance ceased in September or October, 1903, Mr. TAYLOR said his son had an attack of measles early in January, 1904, and Mr. Du Cane not only attended, but nursed him throughout his illness. Mr. Du Cane left Darwen on January 28th, 1904, a week before Mrs. Taylor. Before he left he came and said good-bye, and was in the house at least a couple of hours. The Darwen Medical Society were the real prosecutors in regard to this matter, although Mr. Hindle happened to be both the solicitor to the Darwen Medical Society and his solicitor too.

Mr. DANCKWERTS said he laboured under considerable difficulties in conducting Mr. Du Cane's case, as both he and Mrs. Taylor had settled down in Australia after travelling in Japan and other parts. Consequently the instructions which he had received had filtered through from the Australian solicitors, and those representing Mr. Du Cane were not therefore in a position to test, by facts which they could put to Mr. Taylor, the allegations which he had made in his declaration and evidence, beyond the facts contained in the declarations which were before the Council. He submitted that the evidence brought forward in support of the charge was worthless, and that there was no real corroboration of it. No evidence had been placed before the Council in any shape or way of familiarities or anything of that sort between Mrs. Taylor and Mr. Du Cane, or that he ever did anything to utilize his position as a medical man in attendance upon Mr. Taylor and his family to steal the affections of Mrs. Taylor and to induce her, through the influence he had acquired in that way, to go away with him and leave her husband. It was a long step from that to the conclusion that because that state of things sprang up, therefore Mr. Du Cane was guilty of infamous conduct in a professional respect. Mr. Du Cane and his wife had separated before

this matter arose, and for that reason, and on account of his health, it was absolutely necessary for him to leave Darwen and to sell his practice, and it was sold on September 1st, 1903, but owing to difficulties the completion of the transfer was postponed until October 19th, 1903. He then obtained an appointment as a ship's surgeon, and by arrangement he was joined on that vessel at Southampton by Mrs. Taylor, on February 6th, 1904. It was on that date at the time of sailing, that he wrote the confession which had been referred to. Up to the time of their sailing—he as ship's surgeon, and Mrs. Taylor as passenger—there was absolutely no familiarity or impropriety whatever between them; but from that time he (Mr. Danckwerts) frankly admitted that they were to each other what man and wife are to each other. In support of these facts he read two declarations of Mr. Du Cane and Mrs. Taylor. In conclusion, he submitted that the case was one of great uncertainty, and depended upon Mr. Taylor's recollection, and there was absolutely nothing to show that Mr. Du Cane took advantage of his position as medical attendant, beyond the fact that at one time he was the medical attendant on Mrs. Taylor. If it was a matter of doubt, and he had the right to call upon the Council, before it deprived a member of the profession of his qualification and the means of earning his livelihood, to give him the benefit of that doubt, and more particularly so to an absent man, not absent because of the inquiry, but because of the necessities of the case.

Mr. Hindle, in reply, submitted that the point the Council had to consider was whether the professional relationship existed or not at the time the offence was committed; it could not be disputed that it did, unless Mr. Taylor had come there to perjure himself, or, at any rate, mislead the Council; because the fact of his boy's illness in January, and Mr. Du Cane's attendance upon him was indisputable; there was not the least doubt that this attendance continued up to the very eve of the elopement.

Strangers and the parties were directed to withdraw.

On readmission,

The President said:

Mr. Danckwerts, I have to inform you, as representing Herbert Du Cane, that the Council have found proved the facts alleged against him; further that they have judged him to be guilty of infamous conduct in a professional respect, and have directed the Registrar to erase from the *Medical Register* the name of Herbert Du Cane.

The Council then adjourned.

Friday, May 26th, 1905.

Dr. Donald MacAlister, President, in the Chair.

The minutes of yesterday's meeting were read and confirmed.

Public Health Committee.

The Council proceeded to the consideration of the recommendation of the Public Health Committee as Medical Officers of Health outside the United Kingdom:

Dr. Bruce thought it would be as well to read the Council's original resolution:

I.—The Council, having regard to the terms of Section xviii of the Local Government Act (1888), and of Section liv of the Local Government (Scotland) Act (1889); and observing that under those sections special privilege is to be accorded to the holders of the diplomas granted under Section xxi of the Medical Act (1886), and therein described as diplomas in Sanitary Science, Public Health, or State Medicine, thinks it essential to declare, with regard to its own future action under Section xxi of the Medical Act (1886), that it will not consider diplomas to "deserve recognition in the *Medical Register*" unless they have been granted under such conditions of education and examination as to ensure (in the judgement of the Council) the possession of a distinctively high proficiency, scientific and practical, in all the branches of study which concern the public health; and the Council, in forming its judgement on such conditions of education and examination, will expect the following rules to have been observed: . . . .

He did not think the proposal in any way relaxed the rules; it defined more particularly what was intended.

Sir John Moore, in seconding, suggested, however, that the resolution should be prefaced by the words "in the British Dominions."

Dr. Bruce accepted the addition and stated 670 diplomas in Public Health had been registered in the last ten years. In the Colonies things had grown and he did not see why men there should be put in a different position to similar men in the United Kingdom.

The President then put the motion to the Council and declared it carried.

Education Committee.

Dr. Windle moved that the report of the Education Committee be received and entered upon the minutes.

Report.

I. Teaching without Examination.

In the May Session of 1904 the following resolution was passed by the Council:

That the Education Committee be requested to collect information and report on the question of the possibility of including certain subjects in the curriculum without requiring examination in them.

The Education Committee desires to report that it has endeavoured, though without great success, to elicit the information which the Council requested. It was, in the first instance, decided that it was not advisable that any licensing body should be asked whether, in its opinion, there were any subjects of the present curriculum which might be taught without being examined upon. The inquiries made were therefore limited to what had taken place in the past.

It appears that in some cases the following subjects—vaccination, ophthalmology, mental diseases, infectious diseases—whilst required as part of the curriculum, are not specially examined upon—that is to say, there is no separate examination in one or more of these subjects. At the same time, students are given to understand that questions on any or all of these subjects may form a part of one or other of the papers set at the examination. It cannot, therefore, be said that there is any subject in the curriculum, at present, which is definitely excluded from examination.

The Education Committee has also endeavoured to ascertain whether any light could be thrown on the subject by Continental experience, and in this connexion has to thank Dr. H. Frank Heath, of the Education Department, for the information and papers which he has been good enough to supply it with. It appears that there is no country in Europe in which the certificate of a professor as to satisfactory attendance is accepted in the Faculty of Medicine, or indeed in any other faculty, in the place of an examination. The need for such a device for moderating the rigours of the examination system as it flourishes here has never presented itself; for with the possible exception of Sweden (where the system has certain resemblances with our own), the examination is never divorced from the teaching, and the record of the student's work in the schoolroom, laboratory, and hospital is always a most important factor in the ultimate decision. There is a centralized external examination in medicine held in Brussels by representatives from all the Universities in Belgium, at which medical students from any one university may present themselves if they so desire.

It would appear that there are special local reasons which may account for this examination, which in any case is very unusual in its nature.

We are informed by Dr. Heath that the only real parallel to the methods pursued in the United Kingdom is the examination system of China.

The Education Committee has therefore to report that its inquiry has led to information of a more or less negative character, save in so far that it has brought out the fact that the examination of students abroad is almost entirely—generally entirely—in the hands of those who have taught them. Some at least of those who are in favour of the system of permitting certain courses to be taken out without requiring an examination to be held in them would probably agree that no such course should be considered to have been satisfactorily followed unless the teacher of that course had certified that the student had passed his class examination. Such a method, it must be admitted, would very closely resemble that in vogue on the Continent.

II. Application from the University of London.

The Committee has received an application from the University of London for the recognition of a Junior Schools Examination not qualifying for Matriculation in the University, and has replied that it is at present unable to comply with any application of this kind.

Although the amount of information which the Committee offered to the Council in connexion with the first part was

not very great, yet it cost some trouble to obtain and he thought it answered the question submitted to the Committee. He understood that the representative of the University of London had something to say with regard to the application of the University.

Dr. NORMAN MOORE seconded.

Dr. MACKAY said that the whole question of examination had already been discussed by the Council, and what they had in the report was only a stage in the further elucidation of the matter which was of great importance. He thought the Committee ought to find out what was the custom in the different countries of Europe and America. He moved:

That it be remitted to the Education Committee to prepare and present to the Council a detailed report upon the system of examination in medicine followed in other countries, with the special object of determining the number of professional examinations demanded, the subjects included in these examinations, and the value (if any) attached to the records of class attendance and work.

The PRESIDENT said they would deal with Dr. Mackay's resolution when the general question was determined.

Dr. LINDSAY STEVEN said that he had given the matter considerable attention, and had taken the opportunity of bringing the matter personally before his constituents, and discussing it fully with them. The opinion which was prevalent was that it would be an exceedingly dangerous thing to include in the curriculum, either in the early or the later part, a compulsory course upon which there would be no examination.

Dr. PYE-SMITH, in connexion with the application of the University of London, said that the University asked that the school examination should be put on the same footing as the similar examination conducted by the Universities of Oxford and Cambridge.

Sir WM. TURNER wanted a little more explanation. Was this to be an examination conducted by the University of London through examiners appointed for that purpose, quite distinct from the matriculation?

Dr. PYE-SMITH replied in the affirmative. The examination was conducted at the school; the University of London proposed to send examiners down to the school.

Sir WILLIAM TURNER asked if it was intended to take the place of what in Scotland was called a "leaving certificate examination," as showing the state of knowledge of the candidate at 15 or 16. He further inquired what position the examination was to occupy in the scheme of graduation for the University of London.

Dr. PYE SMITH replied none at all; it was a school examination.

Dr. WINDLE said that a letter had either been sent or was about to be sent to the Registrar of the University of London, in which it was pointed out that if the University of London chose in connexion with a Junior Leaving Certificate, which might be taken by a boy or girl 15 years of age, to set up a medical preliminary examination as had been done by the Oxford and Cambridge Local Board, the Education Committee were then quite ready to examine the conditions of the examination and to accept it if they found that it was of the scope and character which the Committee had been in the habit of demanding from preliminary examinations. The present was the first of a series of cases that might arise, and the Education Committee was quite clear as to its duty in connexion with the matter.

The PRESIDENT observed that Oxford and Cambridge had also established junior school examinations, but had not applied for recognition, because they did not consider them up to the mark. These examinations were on the same level as the Junior Examination of the University of London.

The report of the Education Committee was then received and entered on the minutes.

The PRESIDENT called upon Dr. Mackay, who said that his resolution did not bind the Council to anything beyond obtaining more information.

Sir JOHN BATTY TUKE seconded.

Dr. PYE-SMITH said that while he recognized the importance of keeping up the preliminary examinations to a high level, he still thought the examination as proposed by the University of London did preserve a high level of school-leaving examination. He could not pledge the governing body of the University, but they would be the last to wish to lower the standard of examinations.

Dr. MCVAIL proposed, as the suggestion of Dr. Lindsay Steven was very important, that instead of the matter being remitted to the Education Committee, it should be referred to a Special Committee consisting of members of both the Education and the Examination Committees.

Dr. WINDLE observed that such a report would no doubt be very interesting and useful, but the Council must not disguise from itself the fact that it would be an exceedingly laborious task, and he did not think that the labour and trouble would be adequately rewarded by the information it would contain. He would not oppose the resolution, but he did not think it was a useful report to make.

The PRESIDENT doubted if it was worth their while to give the Registrar the trouble of collecting such an enormous mass of details.

Dr. PYE-SMITH agreed.

After some discussion, Dr. MACKAY sought the leave of the Council to substitute the words "a Committee" for the words "the Education" in his motion, and, having briefly replied, the motion was put and declared lost.

Dr. LINDSAY STEVEN asked whether the Education Committee had anything to report upon the remit to them on November 24th, 1904, contained in the following resolution:

That it be remitted to the Education Committee to consider and report to the next session of Council whether the adoption by the Council of one or other or both of the following resolutions would not help to secure the attainment of the object the Council had in view in instituting the five years' curriculum, namely: (1) That the Preliminary Scientific Examination in physics, biology, and chemistry should be passed before the student begins the qualifying study of anatomy and physiology. (2) That before being admitted to the Final Examination the student should produce evidence that he has devoted the last year of his curriculum exclusively to practical and clinical work and study.

Dr. WINDLE replied that the Committee was not yet in a position to report upon the matter.

FINANCIAL REPORT.

Dr. PYE-SMITH moved, Mr. TOMES seconded, and it was resolved that the report of the Finance Committee be received and entered on the minutes.

The report stated that the income of the General and Branch Councils for the year ending December 31st, 1904, was £8,062 0s. 6d. The expenditure for the same period was £8,280 0s. 7d., and that consequently there was a deficit on the year's working of £218 0s. 1d. With the exception of the year 1898, in which the *Pharmacopoeia* was published, and the receipts thereby abnormally increased, this was the first time since 1895 that the deficit had not exceeded £1,000.

The receipts from fees showed a decrease of £115 11s., the English Branch having received £93 5s. less, the Scottish Branch £195 18s. 6d. less, and the Irish Branch £173 12s. 6d. more. The sum received was practically the same as that received in 1902 (£6,613 15s. 6d.), but the average for the past three years was about £400 a year less than for the previous three, notwithstanding the raising of some of the fees.

In July, 1903, the fees for the registration of additional qualifications and for restoration to the *Register* were raised from five shillings to a pound, and it was now possible to compare a full year at the new rate with the last year at the old rate as follows:

	1902 No. of Fees.	1904 No. of Fees.	1902 Cash Received.	1904 Cash Received.	Increase.
English Branch	569	404	£142 5	£404 0	£261 15
Scottish Branch	153	150	39 10	150 0	110 10
Irish Branch	73	59	18 5	59 0	40 15
Total	800	613	£200 0	£613 0	£413 0

The English Branch showed a decrease of 46 in the number of original registration fees received, the Scottish Branch a decrease of 47, while the Irish Branch showed an increase of 30, making a net decrease of 63. The average number of original registrations during the past seven years had been 154 less than for the previous seven, and 92 less than for the seven years before that.

The fees paid to the General Council showed a decrease of £1,021 4s., owing to the fact that the sessions of the Council lasted altogether for thirteen days instead of seventeen. The reduced scale of travelling allowances also tended to economy, but, on the other hand, additional expenditure was entailed by the addition of the two new members of the Council. Owing to the shortness of the sessions the cost of the printing of the programmes, etc., showed a decrease of £124 2s. 6d.

Dr. PYE-SMITH moved, Mr. TOMES seconded, and it was resolved:

That a grant of £100, should it be required, be made towards the expenses of the Irish Branch Council during the current year,

with the proviso that it should not be paid unless it were required.

On the motion of Dr. BRUCE, seconded by Sir CHRISTOPHER NIXON, it was resolved:

That the thanks of the Council be accorded to the Treasurers for their services in the preparation of this report, and in the management of the Council's finances during the past year.

Dr. Pye-Smith observed that whatever credit was due, was due to Mr. Tomes.

Inspection of the Final Examination of the University of Oxford.

Sir Patrick Heron Watson moved, Mr. Young seconded, and it was resolved:

That the Report of the Examination Committee on the inspection of the Final Examination of the University of Oxford be received and entered on the Minutes.

Sir Patrick Heron Watson moved, Mr. Young seconded:

That the Report of the Examination Committee be approved.

Mr. Jackson thought that every examination in surgery was incomplete unless it provided for an examination upon the cadaver, and there was no mention of such an examination in the report.

Sir Christopher Nixon was rather disappointed that no reference was made in the report to the former report which was presented to the Council on the inspection and visitation by himself and the late Sir George Duffey. Any impartial mind, reading the present report, would find ample justification for the observations then made on the Oxford University. Special reference was made to the fact that the clinical examination was conducted simultaneously, both in medicine and surgery, so that there was not an opportunity for the Visitor and Inspector to make a report upon both examinations, and that the time was insufficient; but this had been rectified, as the examinations were now held on different days and at different times, and, as far as he could judge, the examinations seemed to have been completely revolutionized.

Dr. McCall Anderson thought it a source of gratification that the criticisms of the Council had been amply met by the University. The Visitor and Inspector had received the utmost consideration, and every facility was given them for drawing conclusions with regard to the sufficiency of the examination; he had no hesitation in saying that it was far above the requirements of the General Medical Council for a licence to practise.

Sir Thomas Myles stated that the Irish bodies attached great importance to operations on the cadaver. The General Medical Council, in the exercise of its duty, held them very strictly to the regulation, and they felt that they would be put in a position of inequality if an institution like the University of Oxford could grant a degree which did not include an examination in operative surgery.

Sir William Thomson could not understand how a great institution like Oxford University could not supply itself with the necessary material for the purpose of carrying out such an examination. He entirely agreed with Sir Thomas Myles, as it was a most important element in all examinations.

Mr. Morris said that the Royal College of Surgeons of England did not attach much importance to an examination in operative surgery, as it was of little value in testing candidates; apart from the impossibility of obtaining a sufficient number of subjects they had found it undesirable.

Sir Victor Horsley took it that Mr. Morris was speaking only for the Council of the College. He was quite sure that if the question was submitted to the Members of the College, Mr. Morris would find they did not agree with him. The absence of an examination in operative surgery was a great blot upon the Conjoint examination.

Dr. McVail said the Committee had no doubt that the final examination at the Oxford University was in every respect satisfactory and worthy of it, although one or two omissions had been pointed out.

Mr. Thomson remarked that it must be a matter for congratulation that the University had reinstated itself in the good graces of the Council. He agreed that the standard of examination had been raised in the direction suggested by the Council, but he held that the standard had always been high. The character had been altered so far as it affected the routine and method of the examination, but not the standard. The examination had been held on one day for the convenience of students, but the fact that there was an overlapping of subjects was not sufficient to warrant the Council in saying that the examination was not sufficient. The only difference in the examination was that it had been systematized and made a little more formal, but the general character of the examination had not been altered. With regard to the observations of the Irish representatives, he did not wish to express an opinion. There did not appear to be any unanimity of opinion on the subject, but if the Council adopted recommendations, it must provide the facilities for giving effect to those recommendations.

The motion that the report be approved was then put and adopted.

Inspection of the Final Examination of the University of London.

Sir Patrick Heron Watson moved, Mr. Young seconded, and it was resolved:

That the report by the Examination Committee on the inspection of the Final Examination of the University of London be received and entered on the minutes.

Sir Patrick Heron Watson moved, Mr. Young seconded, and it was agreed:

That the report of the Examination Committee be approved.

Summary Report on Visitations and Inspections.

Dr. McVail moved, Mr. Young seconded, and it was agreed:

That it be remitted to the Examination Committee to prepare and present to the Council at its May session next year a general report on the whole cycle of visitations and inspections of the final examinations.

Report on Service Examination Statistics.

Sir Patrick Heron Watson moved, Dr. Little seconded, and it was agreed:

That the following report from the Examination Committee on the statistics arising out of the returns of examinations for entrance to the Navy, Army, and Indian Medical Services be received and entered on the minutes.

Report.

The Examination Committee, with the advantage of Mr. Brown's aid, have considered the question regarding the percentage of rejections at the Navy, Army, and Indian Medical Service Examinations of candidates coming from the various universities and corporations.

Such changes have lately been made in the conduct of the Service that the Committee think no conclusion of practical Examination utility can at present be drawn from the statistics.

They would, therefore, at present recommend the Council to address a circular letter to the various licensing bodies drawing attention to the percentage of rejections, and to authorize this Committee in future regularly to consider the returns sent to the Council, and to offer to the Council such suggestions as occur to them.

Sir Patrick Heron Watson moved, Dr. Little seconded, and it was resolved:

That the recommendation contained in the report be adopted.

Pharmacopoeia Committee.

Dr. Norman Moore moved that the report of the Pharmacopoeia Committee be received and entered upon the minutes.

Sir John Moore seconded, and it was agreed to.

Report.

The Pharmacopoeia Committee beg leave to report to the Council as follows:

From November 22nd, 1904, to May 23rd, 1905, the sales of the *British Pharmacopoeia* (1898) were 532 copies, and of the *Addendum* (1900) 14 copies. Thus, up to May 23rd, 1905, 36,434 copies of the *Pharmacopoeia* and 4,407 copies of the *Addendum* (including the Government of India edition) have been sold. The stock remaining in hand of the *Pharmacopoeia* is 597 copies, and of the *Addendum* 987 copies. Before the next meeting of the Council the stock of the former must therefore be replenished, and the Committee recommend that the President be authorized to direct the printing of an impression of 3,000 copies. It has already been found economical to print a large number of copies at one time.

The Committee desire to record their sense of the loss they have sustained by the death of Dr. Tichborne, whose keen interest in the *Pharmacopoeia*, and whose personal labours for its improvement were greatly valued by his colleagues.

During the past year the Committee have had under consideration the question of organizing, in a more systematic fashion than has hitherto been adopted, the various inquiries and researches that are still necessary in connexion with the revision of the *Pharmacopoeia*. After full discussion, the Committee decided that it was expedient to institute expert Committees of Reference in Pharmacy, Chemistry, Botany, and other branches, as need arose, to which questions relating to their respective departments might be referred for investigation and report. As regards the Committee of Reference in Pharmacy, whose assistance was required at once, it was agreed, following to a certain extent the existing precedents, that the Pharmaceutical Society of Great Britain and the Pharmaceutical Society of Ireland should be invited, through their Councils acting jointly, to nominate a number of expert pharmacists for appointment by the Pharmacopoeia Committee. This invitation was courteously responded to by the two Councils, and their joint nominations, which were representative of all parts of the United Kingdom were at once accepted by the Committee. The mem-

bers of the Pharmacopœia Conference—Mr. Walter Hills, Dr. Inglis Clark, and Mr. Beggs—who have materially assisted the Committee for several years past, were then added as additional members. To the body of experts so appointed, and now at work, various questions bearing on the improvement of pharmacopœial pharmacy in general have been referred, and a sum not exceeding £100 a year has been set apart towards meeting its expenses. At the first meeting of the Committee of Reference on Pharmacy, which was held on February 23rd, Mr. Walter Hills was chosen as Chairman, and Professor Greenish was appointed Secretary. At this meeting the President and Dr. Tirard, Secretary of the Pharmacopœia Committee, were present, and gave explanations as to the inquiries contemplated and the methods suggested.

The Pharmacopœia Committee propose, in accordance with their practice since 1898, to publish the expert reports received from time to time from the referees, in order that they may derive information from any criticisms or suggestions which such publication may call forth. The Committee, who by the Standing Orders have charge on behalf of the Council of all matters relating to the preparation and publication of the *Pharmacopœia*, think it desirable to state that they reserve their full freedom of action as to the adoption or modification of any proposals that may be made to them by any of their Committees of Reference.

The special acknowledgements of the Committee and of the Council are due to the Councils of the Pharmaceutical Societies of Great Britain and of Ireland for the promptitude and goodwill with which they have afforded the valuable assistance desired of them in regard to the formation of the Committee in Pharmacy.

A number of useful gifts of books and pamphlets have been received for the Council's Reference Library, and the thanks of the Committee have been conveyed to the donors. There remain, however, numerous lacunae, regarding which Dr. Norman Moore will be glad to give information to members of the Council who may be interested.

REPORT OF DENTAL COMMITTEE.

Mr. TOMES moved, and Mr. BROWN seconded:

That the report by the Dental Education and Examination Committee be received and entered on the minutes, subject to any verbal corrections that may be necessary in the text.

Mr. TOMES called attention to the fact that the University of Dublin and the Victoria University of Manchester had instituted licences in Dental Surgery or Dental Science, which admitted to the *Dentists' Register*; and also additional degrees involving a higher standard of knowledge. The peculiarities of the curricula were noted in the report, and they were on the whole similar to existing curricula amongst the licensing bodies who previously granted licences in Dental Surgery, and the same was true of the higher degree. He moved Recommendation I:

That the Registrar be instructed to accept for the purposes of registration upon the *Dentists' Register* the Licence in Dental Science of the University of Dublin and the Licence in Dental Surgery of the Victoria University (Dentists Act, Sec. VI (*a*).

Dr. BENNETT seconded, and it was agreed to.

Mr. TOMES moved Recommendation II:

That the degrees in dental science and in dental surgery granted by the same universities be recognized for entry upon the *Dentists' Register* as "additional diplomas, memberships, licences . . . granted in respect of a higher degree of knowledge."—Dentists Act, Section XI (6).

To give effect to the desire of the bodies concerned that their degrees should be registrable, it seemed to the Committee that this was the only course the Council could be recommended to adopt, and it could certainly do no harm by passing such a recommendation.

Dr. LINDSAY STEVEN seconded.

Sir WILLIAM TURNER thought that legal opinion should be taken upon the subject, as the Council ought to be clear with regard to the meaning of the Act.

The PRESIDENT pointed out that by adopting the recommendation the Council was simply acting under Section XI (6) of the Act, which gave the Council power to register "any additional diploma."

The motion was then put and agreed to.

Mr. TOMES moved Recommendation III:

That inspection and visitation in the ordinary sense being impracticable, the offer of the Dental Board of Victoria, Australia, to submit candidates' papers, marks, and returns generally to the Registrar be accepted.

Dr. LINDSAY STEVEN seconded, and it was agreed.

Mr. GEORGE BROWN proposed:

That the President be authorized to take the opinion of the legal advisers of the Council as to whether degrees granted in dental science and dental surgery by universities in the United Kingdom are registrable as primary qualifications to practise dentistry.

Mr. JACKSON seconded.

Sir WILLIAM TURNER confessed that he was not quite clear upon the matter and the Council ought to be satisfied on the legal question. The motion was then put and agreed to.

CANVASSING AND ADVERTISING.

The Council then proceeded to consider the communication from the British Medical Association which was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 27th, 1905, p. 275.

Dr. WINDLE thought the matter was obviously not one to be settled in full Council; that it should be left to the Executive Committee and its legal advisers to be dealt with. He moved:

That the communication from the British Medical Association respecting the desirability of issuing a general warning notice to medical practitioners against the practices of canvassing and advertising for the purpose of procuring patients be remitted to the Executive Committee, and that they be requested to confer with the legal advisers of the Council on the subject, and, if considered advisable, to draft a form of notice of warning to medical practitioners for consideration at the next meeting of Council.

Sir VICTOR HORSLEY had great pleasure in seconding, because he thought the Executive Committee was the proper body to consider the question. Recently the Council had had a concrete case of advertising before it, and the time had come for it to see whether it should not in its wisdom issue a decree such as had proved so extremely useful in the case of unqualified asistants.

Dr. LINDSAY STEVEN supported the motion. He was very glad that the great authority of the British Medical Association had been brought to bear upon the question. He reminded the Council that the subject was not a new one, and the experience that a recent trial afforded, and also this important communication from the British Medical Association, showed the necessity of formulating such a notice.

The PRESIDENT agreed, and the motion was then put and adopted.

REMUNERATION OF MEMBERS OF COUNCIL.

Mr. GEORGE BROWN moved:

That from and after July 1st next the remuneration for attending meetings of the Council and Executive Committee shall be 3 guineas per diem instead of 5 guineas as at present, and that the Standing Orders be amended accordingly.

Mr. JACKSON seconded the motion *pro forma*, and it was then put and declared lost.

THE APOTHECARIES' SOCIETY OF LONDON.

It was moved by Sir HUGH BEEVOR, seconded by Mr. MORRIS, and agreed:

That Mr. W. McAdam Eccles, F.R.C.S., be appointed as Assistant Examiner in Surgery to the Apothecaries' Society of London for a period of four years, *vice* Mr. Bruce Clarke, who retires by rotation.

PROCEEDINGS IN CAMERÂ.

The Council then went into *camerâ* to consider private business, at the conclusion of which it adjourned.

Saturday, May 27th, 1905.

Dr. DONALD MACALISTER, President, in the Chair.

PROPOSED INCREASE IN THE NUMBER OF DIRECT REPRESENTATIVES.

MR. GEORGE BROWN moved:

That representations be made to the Privy Council that the time has arrived when the number of Direct Representatives of England, Scotland, and Ireland should be increased to the maximum number permitted by the Medical Act, 1886.

He reminded the Council that he had brought forward a similar motion four years ago. When the Act of 1886 was passed the Council numbered thirty members, whereas it was now thirty-three, so that direct representation had proportionately diminished since 1886. The number of registered practitioners had increased considerably. In 1886 there were 17,000 registered medical men in England, whereas now there were more than 21,500. In Scotland there were 5,000 as against 11,000, and in Ireland 4,317 as against 5,267. These figures did not convey quite a true impression, for by reference to the *Medical Directory* it would be found that in England and Wales there were practising at the time the Act came into force in 1886 17,395, whereas at the end of last year there were 24,351, showing an increase of 7,000. He did not think that antiquated objections, which had no basis in fact, should be allowed to prevent the recognition of a public right. He hoped it was not necessary to do more than state the plain fact that when direct representation was first granted the profession was given, roughly,

one representative for 5 500 practitioners, and, as the latter had so very largely increased since then, the time had come when they might fairly claim to have at least one additional representative for England, Scotland, and Ireland.

Mr. Jackson, in seconding, said that whenever a new university was incorporated it immediately asked to be represented on the General Medical Council, though in many instances it represented an extremely small number of graduates. If they had the right to representation for those few, how much more had the general practitioners the right to ask for an additional representative? He claimed that many things which had been done, and which tended to raise the status of the profession, had been in a great measure due solely to the action of the direct representatives, and this fact was a further justification for seeking additional representation.

Sir John Moore stated that Ireland had consistently returned as its representative one most intimately connected with the licensing bodies of that country, which he ventured to think was an unanswerable argument against the views put forward in support of the motion.

Sir Victor Horsley considered the whole question was one of logic and justice. As regards the logic, Mr. Brown and Mr. Jackson had on the details founded a logical argument, and as regards the justice, the new universities claimed it was not right that other universities should sit on the Council and not they. But the question went a great deal further than that, because the Act clearly laid down that the profession at large should be represented fully, and he contended that any resistance to the motion must be guided by a feeling that the Act did not mean that, or that, in the minds of some members of the Council, the profession did not deserve another member. That brought them to an impasse, and he hoped the Council would adopt the resolution, and represent to the Privy Council that the time had arrived to give this additional representation.

Dr. Little thought the great question to consider was how best to get a deliberative body which would do its work most efficiently and quickly. In his opinion the Council as at present constituted was, if anything, too large, and the work would probably be done better if it was not so large. As to representatives of licensing bodies being only concerned with the interests of the particular bodies they represented, those chosen by the universities and corporations had as much at heart the interests of the whole profession as the interests of their own graduates.

Dr. Bruce, in supporting the motion, pointed out that the object of the Act was to distinguish between qualified and unqualified practitioners, and he thought that since direct representation was introduced, more had been done to direct the attention of the Council to the fact that unqualified persons were practising than before.

Sir Christopher Nixon did not wish to pose as a determined opponent of the motion, but he thought more reasons should have been given for an increase of direct representation than had been given. He took it that the direct representatives at present on the Council were quite competent to bring forward any question which concerned the profession at large, and he did not see how anything would be gained by multiplying the number of members. The Council was already too large, and rather than increase the number of direct representatives, they should consider what they could do in the way of diminishing the representation of the corporations.

Dr. McVail held that the fact that the education and social status of the profession had so enormously improved since the Act was passed warranted the Council in making the desired representation to the Crown. He had not the least doubt that if the question came before Parliament at the present time it would consider that the representation given in 1886, sufficient at the time, had become insufficient now. Clause 19 of the Act of 1886 gave the Privy Council the power to do anything which the General Medical Council failed to do. He thought that if the profession at large were to directly represent to the Privy Council that this Council had refused to carry out the powers conferred by Subsection C of Section x a very strong case could be made out, and he had no doubt the Privy Council would direct that the additional representation should be given, at least in regard to England, whose claim was enormously strong, if not for Scotland and Ireland also. He had no hesitation in supporting the motion.

Sir William Thomson supported the view taken by Dr. McVail. He thought it was quite clear that the Parliament which passed the Act did intend that the question of the relation of the numbers of the direct representatives should be considered from time to time, and that they should be increased if there was justification for it. The justification for it was the increase in numbers in the body of the profession. It was a matter which the whole body of the profession was entitled to. So far all the interest and all the representation was on one side, but he hoped that those who represented the various Licensing Bodies would see that this was a matter as to which they ought not again to repeat the hostile vote of four years ago; they ought to deal with it in a liberal spirit and adopt the motion. It recognized what Dr. McVail had so ably put before them, and he was sure the Crown would deal with the matter in a generous way.

Dr. Norman Moore denied that the representatives of the Universities and Corporations were chosen to represent only the interests of their particular bodies; they were chosen as the proper persons to be concerned in the business which the Act relegated to the Council, and during the time he had been a member of the Council he had never heard an appeal to the particular interests of a particular body represented on the Council. In England he did not consider the number of universities disproportionate to the number of population; and as to the improved character and education of the profession, the Council was only one force in bringing that about; the spread of education and the general improvement of things had had their influence. One very strong reason against additional representation was that the Council was established for the purpose of considering a variety of questions, mainly concerning education, training, and conduct. In order to select persons to discuss these subjects a method of election which enabled the electing body to know everything about the person whom it was to choose was most important. This was not like the case of popular representation. The object was to choose skilled men who should be capable of dealing with complicated problems and could be absolutely trusted to do so. They had been most fortunate in the direct representatives with whom they had the honour of sitting, but this was the more surprising when they considered how little the constituencies knew about them. He therefore would vote against the proposal.

Dr. Lindsay Steven, while admitting the great force of the argument of Mr. Brown, could not vote upon the matter one way or the other. He asked himself the question: Was there any demand on the part of the general practitioner for additional representation on the Council at the present? He had no means of knowing that from what Mr. Brown had said, and it occurred to him to turn up the last election, because if there was such a demand they would find an enormous poll. At the election in 1901, 28,305 voting papers were sent out for England and Wales; of those 8,271 were returned and 13,337 did not come back, making 57 per cent. that took no interest whatever in this question. This was a fact which could not be got over. In 1902, when Sir Victor Horsley was returned, the total number of voting papers sent out was 23,400, and the number returned 10,956, or 46 per cent. roughly; and at the last election over 50 per cent. of the practitioners expressed no opinion as to whether they desired increased representation.

Sir Victor Horsley pointed out that his election was not conducted on the question of direct representation.

Dr. Lindsay Stevens accepted the correction, but he merely mentioned the figures to show that there had been no demand for an increased representation or there would have been a larger poll.

Dr. Caton said the representatives of the Universities and Corporations were sent to the Council to support the honour and dignity of the profession more than the particular interests of their particular bodies. So far as he was concerned, he felt that most strongly, and he would decline the honour conferred upon him if he thought he was sent there merely to protect the interests of his university alone.

The President called attention to the fact that the new universities had acquired their representation by the action of Parliament and not by the intervention of this Council or the Privy Council.

Mr. George Brown having replied, the motion was put and declared lost.

At the request of Mr. George Brown, the names and numbers were taken down, when it appeared 10 voted for, 18 against, and 5 did not vote.

Instruction of Medical Students in Midwifery.

Sir John Williams moved:

That a Committee of the Council be appointed to inquire into the operation of the rules regarding the midwifery practice required of candidates for medical qualifications.

He had prepared some statistics, from which it appeared that the mortality from sepsis after labour from 1875 to 1880 was 1.7, 1881 to 1885 2.8, 1886 to 1890 2.4, 1891 to 1895 2.5, and 1896 to 1901 2.0. He brought the matter forward to see whether it was not possible to find some reason for this continued mortality. It was a mortality throughout the country, but it should not be.

Dr. MCVAIL seconded, and it was agreed to.

Sir JOHN WILLIAMS moved, Dr. MCVAIL seconded, and it was resolved, that the following form the Committee: Sir John Williams (Chairman), Dr. McVail, Mr. Jackson, Dr. Barrs, Dr. Caton, Mr. Young, and Sir Christopher Nixon.

EXECUTIVE COMMITTEE.

The following were elected as members of the Executive Committee:

From the English Branch Council: Sir Hugh Beevor, Dr. Pye Smith, Mr. Young, and Mr. Tomes.

From the Scottish Branch Council; Sir John Batty Tuke, Sir Patrick Heron Watson.

From the Irish Branch Council: Sir Christopher Nixon, Sir William Thomson.

PENAL CASES COMMITTEE.

The following members were elected as the Penal Cases Committee:

English Branch Council: Sir Hugh Beevor, Dr. Windle, Mr. Tomes, and Sir Victor Horsley.

Scottish Branch Council: Sir Patrick Heron Watson and Professor Finlay.

Irish Branch Council: Sir Christopher Nixon and Sir William Thomson.

STUDENTS' REGISTRATION.

Sir HUGH BEEVOR moved, Sir VICTOR HORSLEY seconded, and it was resolved:

That the report of the Students' Registration Committee be received, entered on the minutes and approved.

The Committee reported the particulars of cases in which applications had been made for exceptional registration or for the antedating of the commencement of professional studies.

PROCEDURE IN PENAL CASES.

Sir WILLIAM THOMSON moved, Dr. NORMAN MOORE seconded, and it was resolved:

That the Executive Committee be requested to consider, in consultation with the Legal Advisers of the Council, the question of amending the notice of inquiry in penal cases, so as to enable the Council, in cases where more than one charge is brought, to come to a decision on each charge separately.

PROPOSED FEE FOR STUDENTS' REGISTRATION.

Dr. MACKAY moved:

That it be remitted to the Finance and Executive Committees to take into consideration the suggestion made by the President in his address at the opening of the present session, to the effect that a small fee might with advantage be charged for students' registration.

The suggestion was interesting, and the quarter from whence it came made it imperative to ask the Committee to consider the matter.

Dr. LINDSAY STEVEN seconded.

Dr. NORMAN MOORE hoped the motion would not be pressed. He thought that it was very uncertain whether the Council could charge such a fee legally.

Sir PATRICK HERON WATSON thought the proposal could hardly be carried out without the sanction of the Privy Council.

Dr. MCVAIL pointed out that it was not within the power of the Council under the Act to charge such a fee; nothing but an Act of Parliament could give that power.

Sir JOHN BATTY TUKE considered that it would be inexpedient to charge a fee which the Council had no right to impose; it would tend to break down the system of registration of students, which was a most useful part of the machinery of the Council.

Dr. PYE-SMITH asked if it was creditable for a body like the Council to make a charge which it had no power to enforce.

Sir WILLIAM TURNER was of opinion that, although there was no specific power to do it, yet as a matter of administration the Council was perfectly justified with exacting a small fee.

Sir VICTOR HORSLEY would not have intervened but for an apparent misapprehension in the matter. Their position was simply an apostolic succession, and what their predecessors passed something like forty-four years ago, when the *Student's Register* was inaugurated. For the Council not to accede to the motion would be to stultify a belief the Council had held all these years. He could not see any objection to the resolution from the point of view either of expediency or legality.

The PRESIDENT observed that he did not intend that the suggestion should be debated this session; neither did he think the suggestion such a bad one that it ought to be condemned unheard.

The motion was then put and agreed to.

ELECTION OF COMMITTEES.

On the motion of Dr. WINDLE, seconded by Mr. MORRIS, the following nominations by the Branch Councils were agreed to:

EXAMINATION COMMITTEE.

English Branch Council: Dr. Pye-Smith, Mr. Young, Dr. Caton.

Scottish Branch Council: Sir P. Heron Watson, Dr. Finlay, Dr. McVail.

Irish Branch Council: Dr. Little, Sir Wm. Thomson, Sir T. Myles.

EDUCATION COMMITTEE.

English Branch Council: Dr. Windle, Dr. Norman Moore, Sir G. Philipson.

Scottish Branch Council: Dr. Mackay, Sir John Tuke, Dr. McCall Anderson.

Irish Branch Council: Sir Wm. Thomson, Dr. Bennett, Sir C. Nixon.

PUBLIC HEALTH COMMITTEE.

English Branch Council: Sir G. Philipson, Mr. Power, Mr. Jackson.

Scottish Branch Council: Dr. Bruce, Dr. Lindsay Steven, Dr. McVail.

Irish Branch Council: Dr. Bennett, Sir John Wm. Moore.

PHARMACOPOEIA COMMITTEE.

English Branch Council: The President (Chairman), Dr. Norman Moore, Sir G. H. Philipson, Dr. R. Caton, and Dr. A. G. Barrs.

Scottish Branch Council: Sir John Batty Tuke and Dr. McVail.

Irish Branch Council: Sir John Moore and Dr. Little.

FINANCE COMMITTEE.

Dr. Pye-Smith, Chairman; Mr. Tomes, Sir Patrick Heron Watson, Dr. Bennett.

DENTAL COMMITTEE.

The President, Chairman; Mr. Morris, Mr. Tomes, Sir Patrick Heron Watson, Sir Thomas Myles.

DENTAL EDUCATION AND EXAMINATION COMMITTEE.

Mr. Tomes, Chairman; Mr. Morris, Mr. Brown, Dr. Lindsay Steven, Dr. Finlay, Dr. Bennett, Sir Thomas Myles.

STUDENTS' REGISTRATION COMMITTEE.

Sir Hugh Beevor, Chairman; Sir John Batty Tuke, Dr. Mackay, Dr. Bennett, Sir William Thomson, Dr. McCall Anderson.

REAPPOINTMENT OF REGISTRAR.

On the motion of Dr. WINDLE, Mr. Allen was reappointed General Registrar for the following year.

VOTE OF THANKS.

Moved by Dr. NORMAN MOORE, seconded by Sir THOMAS MYLES, and resolved:

That the best thanks of the Council be given to the President for his able services in the chair during the present session.

The PRESIDENT having expressed his thanks, the Council went into *camera* to consider private business, and the proceedings terminated.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on May 25th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

A MIDWIFE STRUCK OFF THE ROLL.

The Board heard the following charges alleged against Annie Bord, a certified midwife. (1) That being in attendance on the confinement of a certain woman, she was guilty of disobeying the rules of the Board in the following respects: (*a*) On the occurrence of rigor she did not decline to attend alone, nor did she advise that a registered medical practitioner should be sent for, as required by Rule E 17 (c) (I) (4); (*b*) on the occurrence of foul-smelling discharges, lasting during several days, she did not decline to attend alone, nor did she advise that a registered medical practitioner should be sent for, as required by Rule E 17 (c) (1) (2); (2) that having been in attendance on a patient suffering from puerperal fever, she did not disinfect herself, nor her instruments, nor her other appliances, nor her clothing, to the satisfaction of the local sanitary authority, before going to another labour.

Annie Bord attended the meeting and protested her innocence, explaining that, even if she had done anything wrong, it was in consequence of her ignorance of the rules of the Board.

The decision of the Board was that the name of Annie Bord was to be removed from the roll of midwives, and the Chairman stated that he hoped the decision of the Board would be a warning to midwives that they cannot plead ignorance of the rules of the Board. Midwives must remember that they must not speculate in the lives of their patients, but must bear in mind the responsibilities of the sacred trust committed to their charge.

MIDWIVES CENSURED.

The Board next heard the following charges alleged against Georgina Eliza Price, a certified midwife: (1) That being in attendance on the confinements of certain persons, she was guilty of malpractice, negligence, or misconduct while in the performance of her duty as a midwife; (2) being drunk when in attendance on certain cases.

This midwife was represented at the meeting of the Board by Mr. P. R. Simner who was instructed by Mr. H. D. Brown.

The Board decided in this case that the midwife, G. E. Price, be severely censured, which was accordingly done by the Chairman.

The Board then considered the following charges alleged against Martha Maria Herbert, a certified midwife: (1) That, being in attendance on a woman in labour, she was guilty of disobeying the following Rules of the Board: (*a*) The case being one of breech presentation in a primipara, she did not decline to attend alone, nor did she advise that a registered medical practitioner should be sent for, as required by Rule E. 17 (*a*) (1). (*b*) She did not express the placenta, as directed by Rule E. 17 (*b*) (4), but within twenty minutes of the birth she pulled on the cord, and then inserted her hand into the vagina and detached the placenta. (2) That, having sent for a registered medical practitioner on the occurrence of secondary post-partum haemorrhage, she failed to notify the same to the local supervising authority, as required by Rules E. 17 and 19 (*b*). (3) That she undertook the duty of laying out the dead, contrary to Rule E. 15.

The midwife, M. M. Herbert, did not attend, and the Board decided in this case that she was to be censured. Accordingly directions were given to the Secretary of the Board to that effect.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,641 births and 4,371 deaths were registered during the week ending Saturday last, May 27th. The annual rate of mortality in these towns, which had been 15 4, 15.0, and 14 4 per 1,000 in the three preceding weeks, rose again last week to 14 6 per 1,000. The rates in the several towns ranged from 6 2 in Hornsey, 7 2 in Willesden, 7.5 in King's Norton, 8.8 in West Hartlepool, 9.0 in Walthamstow, and 9.3 in East Ham. Handsworth (Staffs.) and Cardiff, 10 18.9 in Liverpool, 19 8 in Merthyr Tydfil, 20 0 in West Bromwich, 20.4 in Rhondda, 20.5 in Wigan, and 20.8 in Smethwick. In London the death-rate was 14.6 per 1,000, and it also averaged 14.6 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six towns; in London, also, this death-rate was 1.4 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2 7 in Middlesbrough, 2.8 in Coventry and Merthyr Tydfil, 2 9 in Tynemouth, 3.0 in Stockton-on-Tees, 3.2 in Hanley, 3.3 in Rhondda, 3.8 in Warrington, 6 7 in Smethwick, and 6.9 in West Bromwich. Measles caused a death-rate of 1 4 in Sheffield, 1.5 in Bristol, 1.7 in Rhondda, 2.1 in Merthyr Tydfil, 3.0 in Stockton-on-Tees, 3.8 in Warrington, 4 6 in West Bromwich, and 5 0 in Smethwick; whooping-cough of 1.1 in Bradford, 1.2 in Hull, 1.3 in Aston Manor and in Rhondda, 1.5 in Grimsby, 1 7 in Smethwick, 1.8 in Tottenham, 1.9 in Tynemouth, and 2.4 in Hanley; and diarrhoea of 1 6 in Wolverhampton. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns. No fatal case of small-pox was registered either in London or in any of the large provincial towns. The Metropolitan Asylums Hospitals contained 10 small-pox patients at the end of last week, against 17, 17, and 15 at the end of the three preceding weeks; 1 new case was admitted during the week, against 4, 2, and 3 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,200, against 2,152, 2,177, and 2,211 at the end of the three preceding weeks; 312 new cases were admitted during the week, against 235, 319, and 319 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, May 20th, 1,059 births and 560 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.8, 18 0, and 19.5 per 1,000 in the three preceding weeks, declined again last week to 16 7 per 1,000, but was 2.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 8 9 in Greenock and 10.7 in Perth, to 17.2 in Dundee and 19.4 in Glasgow. The death-rate from the principal infectious diseases averaged 2.3 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 301 deaths registered in Glasgow included 21 which were referred to measles, 13 to whooping-cough, and 11 to diarrhoea. Five fatal cases of measles, 2 of diphtheria, 2 of "fever," and 2 of diarrhoea were recorded in Edinburgh; 2 of whooping-cough and 2 of diarrhoea in Dundee; 3 of diarrhoea in Aberdeen; and 2 of whooping-cough in Paisley and in Greenock.

During the week ending Saturday last, May 27th, 932 births and 606 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.0, 19 5, and 16.7 per 1,000 in the three preceding weeks, increased again to 18.1 per 1,000 last week, and was 3.5 per 1,000 above the mean rate during the same period in the seventy six large English towns. The rates in the eight Scotch towns ranged from 15.4 in Leith and 15 8 in Paisley to 21 0 in Dundee and 21.3 in Perth. The death-rate from the principal infectious diseases averaged 2.2 per 1,000, the highest rates being recorded in Edinburgh and Greenock. The 295 deaths registered in Glasgow included 21 which were referred to measles, 2 to diphtheria, 10 to whooping-cough, 2 to "fever," and 3 to diarrhoea. Seven fatal cases of measles, 5 of diphtheria, 5 of whooping-cough, and 2 of diarrhoea were recorded in Edinburgh; and 4 of whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 13th, 630 births and 380 deaths were registered in six of the principal Irish towns, against 645 births and 357 deaths in the preceding period. The mean annual death-rate in these towns, which had been 20.5, 19.4, and 19.1 per 1,000 in the three preceding weeks, rose to 21.9 per 1,000 in the week under notice, this figure being 6.9 per 1,000 higher than the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 19.1 in Limerick and 19 3 in Belfast to 23 7 in Dublin and 29.2 in Waterford. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.1 per 1,000, or 0.5 per 1,000 lower than during the preceding period, the highest figure—4.1—being recorded in Limerick, while Waterford and Londonderry registered no deaths under this heading at all. There were no deaths registered in the island from small-pox, scarlet fever, whooping-cough, or diphtheria, but 15 deaths were ascribed to measles, and 1 in an outlying district to typhus.

During the week ending Saturday, May 20th, 617 births and 349 deaths were registered in six of the principal Irish towns, against 630 births and 380 deaths in the preceding period. The mean annual death-rate in these towns, which had been 19.4, 19.1, and 21.9 per 1 000 in the three preceding weeks, rose to 22.3 per 1,000 in the week under notice, the figure being 7.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17 4 in Londonderry and 17 9 in Belfast to 27.3 both in Waterford and Limerick. The zymotic death-rate during the same period and in the same six Irish towns averaged 0 7 per 1,000, or 0.4 per 1,000 lower than during the preceding period, the highest figure—1.9—being recorded in Waterford, while Londonderry and Limerick registered no deaths under this heading at all. From measles only 7 deaths in all were recorded, 1 from diphtheria, 3 from enteric fever, and 2 from whooping-cough. Deaths from small-pox, scarlet fever, or typhus were nowhere registered.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEONS H. P. TURNBULL, W. B. MAURICE, S. ROACH, E. ARKWRIGHT, M.B., W. K. HOPKINS, H. E. FRYER, S. CONNER, M.B., and R. H. MORNEMENT are promoted to be Staff Surgeons, May 25th. Their commissions as Surgeons date from May 25th, 1897.

The following appointments have been made at the Admiralty: PERCIVAL K. NIX, Staff Surgeon, to the *Carnarvon*, on commissioning; RICHARD F. BATE, Staff Surgeon, to the *Blake*, on commissioning; HAROLD P. JONES, Staff Surgeon, to the *President*, for three months' course at Adelaide Hospital, Dublin, June 5th; NORMAN I. SMITH, Staff Surgeon, to the *Hermes*, June 5th; ROBERT H. MORNEMENT, Staff Surgeon, to the Royal Marine Artillery Headquarters, Portsmouth, June 5th; W. N. HORSFALL, Surgeon, to the *Ariadne*, June 5th; JAMES M. FRANCE, Fleet Surgeon, to the *Emerald*, to join the *Carnarvon*, on relief, May 25th; P. D. RAMSAY, Surgeon, to the *Juno*, May 30th; ROBERT B. SCRIBNER, Surgeon, to the *Shearwater*, May 26th; FREDERICK F MAHON, Surgeon, to the *Pioneer*, May 26th; PERCY V. JACKSON, Staff Surgeon, to the *Scylla*, May 27th; ARTHUR E. KELSEY, Staff Surgeon, to the *Latona*, May 27th.

ARMY MEDICAL RESERVE.

THE name of Surgeon Lieutenant-Colonel QUINTIN CHALMERS, M.D., is as now described, and not as stated in the *Gazette* of May 12th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN (Captain, Army Medical Reserve) T. F. DEVANE, 1st Volunteer Battalion the Queen's (Royal West Surrey Regiment), resigns his commission May 24th.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant House-Surgeon. Salary at the rate of £70 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DOWNPATRICK: DOWN DISTRICT LUNATIC ASYLUM.—Junior Male Assistant Medical Officer. Salary, £100 per annum.

DUDLEY: GUEST HOSPITAL.—Two Honorary Surgeons.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Assistant Physician.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon, resident. Salary, £60 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Assistant Physician. (2) Anaesthetist. Honorarium, 15 guineas.

HULL: ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £50 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £80 per annum.

LEICESTER INFIRMARY.—Assistant House-Surgeon, resident. Salary at the rate of £50 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

MANCHESTER ROYAL INFIRMARY.—Honorary Assistant Physician.

METROPOLITAN ASYLUMS BOARD.—Fourth Assistant Medical Officer at the Darenth Asylum. Salary £150, rising to £170 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Assistant Physician.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

NOTTINGHAMSHIRE CONSUMPTION SANATORIUM, Mansfield.—Lady Resident Medical Officer. Salary, £100 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House Surgeon. Salary at the rate of £50 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Clinical Assistants.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Senior Resident Medical Officer. (2) Senior Obstetric Assistant. Salary, £100 and £50 per annum respectively.

SALFORD ROYAL HOSPITAL.—(1) Senior House Surgeon. (2) House-Physician. (3) Junior House-Surgeon. Salaries, £110, £100, and £90 per annum respectively.

SALISBURY: FISHERTON ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £120 per annum.

SANITARY INSPECTORS' EXAMINATION BOARD.—Three Examiners, one to be a Medical Officer of Health.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon, resident. Salary at the rate of £80 per annum.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon, resident. Salary, £120 per annum.

WARWICK COUNTY ASYLUM, Hatton.—Third Assistant Medical Officer. Salary, £130 per annum.

WINSLEY: SANATORIUM FOR POORER CONSUMPTIVES.—Resident Medical Officer. Salary, £200, rising to £300.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Dolgelly, co. Merioneth.

APPOINTMENTS.

BEATTIE, D. A., M.D.Toronto, Clinical Assistant to the Chelsea Hospital for Women.

CREASER, Thomas, B.A., M.B., Ch.B.Trin. Coll. Dub., Junior House-Surgeon, Bootle Borough Hospital.

DUDLEY, A. D. P., M.R.C.S.Eng., L.R.C.P., District Medical Officer of the Malling Union.

EVERETT, H. F., L.R.C.P. and S.Edin., L.F.P.S.Glas., Medical Officer of the Workhouse of the Cosford Union.

HILLIS, John D., M.R.C.P., Honorary Consulting Physician to the Rathmines and Pembroke Joint Hospital for Infectious Diseases.

HODGSON, Stanley, M.D., B.S.Lond., M.R.C.S.Eng., Honorary Physician to the Pendleton Branch Dispensary of the Salford Royal Hospital, vice Dr. J. H. Taylor, resigned.

HOOPER, Miss E., M.B., B.S.Lond., Resident Clinical Assistant to the Hospital for Women and Children, Leeds.

HORSFORD, Cyril A. B., M.D.Edin., F.R.C.S.Eng., reappointed Senior Clinical Assistant, Throat Hospital, Golden Square.

JACKSON, W. R., M.D., District Medical Officer of the Liskeard Union.

JONES, J. H., M.D., Medical Officer of Health, Chirbury Rural District.

LYLE, H. Willoughby, M.D., B.S.Lond., F.R.C.S.Eng., Ophthalmic Surgeon to the Royal Ear Hospital, Soho, and Consulting Ophthalmic Surgeon to the Beckenham Cottage Hospital.

MANBY, W. E., M.B., B.S.Camb., District and Workhouse Medical Officer of the Bridport Union.

MITCHELL, Wright, B.A., M.B., Ch.B.Trin. Coll. Dub., Senior House-Surgeon, Bootle Borough Hospital, vice J. N. Laird, M.A., M.D., Ch.B., D.P.H., resigned.

ROTHWELL, T. A., M.D., Ch.B.Vict., Medical Officer of Health, Hale Urban District.

SHARPE, W. Salisbury, M.D., M.R.C.S., M.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

WILSON, George N., M.D., D.P.H.Aberd., Senior Assistant Medical Officer to the Port of Glasgow.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DE JERSEY.—On the 23rd of May, at Netherton, Guildford, the wife of Walter B. de Jersey, M.B.Cantab., of a daughter.

FISH.—On May 20th, at Llanbedr Hall, Ruthin, North Wales, the wife of Cecil E. Fish, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.Lond., of a son.

DEATH.

BURNETT.—On May 8th, suddenly, at Karwar, Kanara, India, Dorothy, wife of Major S. H. Burnett, I.M.S.

DIARY FOR NEXT WEEK.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Dr. W. P. S. Branson: Abdominal Tuberculosis in Childhood. Mr. P. J. Cammidge: The Reaction of Phenylhydrazin with other Substances than Dextrose occurring in the Urine.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Short Communications—Mr. Alban Doran: Repeated Tubal Pregnancy. Dr. Hamilton Bell: On the Appearance of Thyroid-like Structures in Ovarian Cysts. Paper—Surgeon-Captain J. C. Holdich (Leicester): A case of Eclampsia, with death on the sixteenth day after delivery from General Septic Peritonitis, due to rupture of an abscess in the spleen. Various specimens will also be shown by members.

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Address by Dr. Howard Kelly (Baltimore) on Tuberculosis of the Urinary Tract in Females. A conversazione will be held after the meeting.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, W.—At 8 p.m. Card Specimens. At 8.30 p.m., papers by Messrs. Doyne and Stephenson, G. A. Berry, Leslie Paton, L. Werner, F. Richardson Cross, and W. E. Cant.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Medical cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Non-laryngoscopic Diagnosis of Laryngeal Disease; Tuesday, The Treatment of Diseases of the Knee-joint; Wednesday, Pneumonia in Children; Thursday, Lachrymal Obstruction: its Causes and Treatment.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W., Thursday, 5 p.m.—Pneumothorax in Tuberculous Subjects.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—Tuesday, 3.30 p.m., Disseminated Sclerosis. Friday, 3.30 p.m., Myasthenia Gravis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday, The Modern Conception of Eczema. Friday, Prognosis in Heart Disease.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Thursday, 3 p.m., Pregnancy and Ovarian Tumours.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Examination of Stomach and Gastric Contents; Tuesday, (at Claybury Lunatic Asylum) Varieties of Insanity; Wednesday, Practical Medicine; Thursday, Rectal Diseases; Friday, Cases of Skin Disease.

BOOKS, ETC., RECEIVED.

Les Médecins au Théatre de l'Antiquité au Dix-septième Siècle. Par Dr. Witkowski. Paris: A. Maloine. 1905.

Golf and How to Play it. By "An Old Player." London: Horace Cox. 1905. 3s. 6d.

The Dental Annual and Directory, 1905. A Yearbook of Dental Surgery. London: Baillière, Tindall and Cox. 7s. 6d.

A Plea for the More General Use of Tuberculin by the Profession. An Address given at the Annual Meeting of the Dermatological Society of Great Britain and Ireland, May 24th, 1905. By Dr. McCall Anderson. Glasgow: James MacLehose and Sons. 1905.

The Archives of the Middlesex Hospital. Volume V. Fourth report from the Cancer Research Laboratories. Edited for the Cancer Investigation Committee by W. S. Lazarus-Barlow, M.D., F.R.C.P. London: Macmillan and Co., Ltd. 1905.

Strength and Diet: A Practical Treatise with Special Regard to the Life of Nations. By the Hon. R. Russell. London: Longmans, Green and Co. 1905. 12s. 6d.

Friedberger and Fröhner's Veterinary Pathology. Translated by M. H. Hayes, F.R.C.V.S. Edited by John Dunstan, M.R.C.V.S. Vol. II. London: Hurst and Blackett, Ltd. 1905. 10s. 6d.

Hints to Nurses on Tropical Fevers. By S. E. Pollard. London: The Scientific Press. 1s. 6d.

How to Become a Nurse. The Nursing Profession: How and Where to Train. Edited by Sir Henry Burdett, K.C.B. New and revised edition. London: The Scientific Press, Ltd. 1905. 2s.

Ignaz Philipp Semmelweis. Sein Leben und Wirken: Urteile der Mit- und Nachwelt. Von Dr. Fritz Schürer von Waldheim. Wien und Leipzig: A. Hartleben. 1905. M.9.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. (New series.) No. 15. On a Parasite found in Persons suffering from Enlargement of the Spleen in India. (Third report.) By Lieutenant S. R. Christophers, M.B., I.M.S. Calcutta: Office of the Superintendent of Government Printing, India. 1905. Annas 10, or 1s.

Notes on Clinical Blood-pressure Instruments. By E. Birt, M.D. London: J. Bale, Sons and Danielsson, Ltd. 1905. 1s.

In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
June	4...Sunday..	
,,	5...MONDAY ...	
,,	6...TUESDAY ..	Coventry Division, *Birmingham Branch*, Annual Meeting, Coventry and Warwickshire Hospital, 8.30 p.m. Walthamstow Division, *Metropolitan Counties Branch*, Annual Meeting, King's Head Hotel, Chigwell, 5 p.m.; Dinner, 6.45 p.m.
,,	7...WEDNESDAY	LONDON: Medico-Political Committee, 3 p.m. West Dorset Division, *Dorset and West Hants Branch*, Annual Meeting, County Hospital, Dorchester, 3 p.m.
,,	8...THURSDAY...	Birmingham Branch, Annual Meeting, Medical Institute, Edmund Street, Birmingham, 4 p.m.; Dinner, Grand Hotel, 7 p.m. Bristol Division, *Bath and Bristol Branch*, Medical Library, University College, Bristol, 8 p.m. Norwood Division, *South-Eastern Branch*, Art Club, Blackheath, 4 p.m.; Dinner, 6 p.m. South Wales and Monmouthshire Branch, Annual Meeting, Cardiff.
,,	9...FRIDAY ...	West Somerset Branch. Annual Meeting, Beach Hotel, Minehead, 12.30 p.m.
,,	10...SATURDAY...	
,,	11...Sunday..	
,,	12...MONDAY ...	*Bank Holiday.*
,,	13...TUESDAY ...	Matters for consideration by Organization Committee on June 27th should be notified to Medical Secretary on or before this day.
,,	14...WEDNESDAY	Westminster Division, *Metropolitan Counties Branch*, Annual Meeting, 20, Hanover Square, 4.30 p.m.
,,	15...THURSDAY...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester Midland Branch, Annual Meeting, Infirmary, Leicester, 4.30 p.m. North Northumberland Division, *North of England Branch*, Annual Meeting, 20, Bondgate Without, Alnwick, 3.30 p.m. South-Western Branch, Annual Meeting, Athenæum, George Street, Plymouth, 3 p.m.
,,	16...FRIDAY ...	LONDON: Ethical Committee, 2 p.m. Border Counties Branch, Annual Meeting, County Hall, Carlisle, 3.30 p.m. Edinburgh Branch, Annual Meeting, Royal College of Physicians, 9, Queen Street, 4.30 p.m.
,,	17...SATURDAY..	Northern Counties of Scotland Branch, Annual Meeting, Northern Infirmary, Inverness. South-Eastern Counties Division, *Edinburgh Branch*, Annual Meeting, Railway Hotel, Newtown, St. Boswells, 3 p.m.
,,	18...Sunday..	
,,	19...MONDAY ...	LONDON: Scientific Grants Committee, 3 p.m. Election of Representatives: July 3rd
,,	20...TUESDAY ...	Liverpool Southern Division, *Lancashire and Cheshire Branch*, Annual Meeting, Medical Institution, Hope Street, 4.30 p.m.
,,	21...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m. Ulster Branch, Annual Meeting, Warrenpoint, co. Down.
June	22 ..THURSDAY..	LONDON: Hospitals Committee, 2 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m. City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. South Midland Branch, Annual Meeting, Town Hall, St. Albans, 2.30 p.m. Staffordshire Branch, Annual Meeting, North Stafford Hotel, Stoke-on-Trent, 5.30 p.m.; Dinner, 7 p.m.
,,	23 ..FRIDAY ...	
,,	24...SATURDAY...	
,,	25...Sunday..	
,,	26...MONDAY ...	
,,	27...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	28...WEDNESDAY	Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m. Yorkshire Branch, Annual Meeting, Hotel Majestic, Harrogate, 3.30 p.m.; Dinner, 6.30 p.m.
,,	29...THURSDAY...	East Anglian Branch, Annual Meeting, Norwich.
,,	30...FRIDAY ...	Association Research Scholarships expire.
July	1...SATURDAY...	Research Scholarships date from now. Edinburgh Branch, Hawick, 12.15 p.m.; Dinner, Tower Hotel, 6.30 p.m.
,,	2...Sunday..	
,,	3...MONDAY ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	LONDON: Central Council, 10 a.m.
,,	6...THURSDAY...	North Wales Branch, Annual Meeting, Bala.
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
,,	11...TUESDAY ...	
,,	12...WEDNESDAY	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.
,,	13...THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Clapham Junction, 4 p.m.
,,	14...FRIDAY ...	
,,	15 ..SATURDAY ...	
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18 ..TUESDAY ...	
,,	19...WEDNESDAY	
,,	20...THURSDAY...	City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C. 4 p.m.
,,	21...FRIDAY ...	
,,	22...SATURDAY...	
,,	23 ..Sunday..	
,,	24...MONDAY ...	2 p.m., General Meeting, to be followed by Representative Meeting.
,,	25...TUESDAY ...	Council Meeting Adjourned General Meeting, to be followed by Representative Meeting.
,,	26...WEDNESDAY	Ditto.
,,	27...THURSDAY...	Ditto.
,,	28...FRIDAY ...	
,,	29...SATURDAY...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 10TH, 1905.

CONTENTS.

	Page
MATTERS REFERRED TO DIVISIONS:	
SUPERANNUATION SCHEME FOR OFFICE CLERICAL STAFF ...	321
MEETINGS OF BRANCHES AND DIVISIONS:	
Glasgow and West of Scotland Branch: Glasgow (Southern) Division	323
Lancashire and Cheshire Branch: Burnley Division	323
,, ,, Manchester (West) Division ...	323
Metropolitan Counties Branch: City Division	324
,, ,, St. Pancras Division	324
New South Wales Branch	324
North Wales Branch: North Carnarvon and Anglesey Division ...	324
South-Eastern Branch: Brighton Division	325
,, ,, Folkestone Division	325
,, ,, Canterbury, Isle of Thanet and Faversham Divisions	325
Southern Branch: Salisbury Division	325
,, ,, Southampton Division	325
Southern Branch: Winchester Division	325
Staffordshire Branch: South Staffordshire Division	325
BRITISH MEDICAL ASSOCIATION: ANNUAL REPORTS OF BRANCHES	326
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	332
VITAL STATISTICS...	333
NAVAL AND MILITARY APPOINTMENTS	334
VACANCIES AND APPOINTMENTS	334
BIRTHS, MARRIAGES, AND DEATHS	335
DIARY OF THE WEEK	335
BOOKS RECEIVED...	335
CALENDAR	336

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. ***BY ORDER.***

MATTERS REFERRED TO DIVISIONS.

SUPERANNUATION SCHEME FOR OFFICE CLERICAL STAFF.

IN accordance with Minute 41 passed by the Annual Representative Meeting at Oxford,

> That, previous to the administration of the Superannuation Fund, a scheme be formulated and submitted to the Annual Representative Meeting for approval,

the following scheme of superannuation for the Office Clerical Staff, as drafted by Mr. Thomas G. Ackland, F.I.A., Consulting Actuary, is now submitted:

1. In accordance with instructions received from your Secretary, Mr. Guy Elliston, I have investigated the Scheme of Superannuation proposed to be applied to the members of the Clerical Staff of your Association, and also the Provident Scheme proposed for the benefit of the members of the Compositors' Staff. I now beg to submit the result of my investigations.

2. The rules of the proposed Superannuation Fund applicable to the Clerical Staff, as set out in Minutes of your Committee dated January 17th, 1905, and which appear to be on lines commonly adopted by similar funds, are substantially as follows:

That membership of the fund be optional for all present members of the staff who are in receipt of salaries of less than £250 per annum, and compulsory for all future members of the staff. Any existing or future member whose salary shall be raised to £250 per annum or upwards shall benefit by the scheme and contribute to the fund as if his salary were £250 only.

The benefits granted under the scheme to include (*a*) a pension on retirement at age 65 subject to at least 15 years' service, such pension to be computed on the basis of 1-60th of the average salary during the five years prior to retirement, in respect of each year of service completed after the attainment of 21 years of age, but in no case to exceed 40-60ths (or 2-3rds) of such salary. In exceptional cases, to be determined by the Council, pensions computed as above may be granted on retirement at age 60. (*b*) The return of all contributions paid by the members, in the event of death or resignation before entering on a pension, and also in the event of death before pension allowances for five years have been made. The contributions of existing members under 50 years of age and of all future members (who will not be admitted after age 50) to be at the rate of 2½ per cent. upon the amount of their salaries for the time being. Existing members over 50 years of age to pay 3 per cent. upon the amount of their salaries for the time being.

Management expenses to be limited to those actually incurred in connexion with the management and conduct of the fund.

Any deficiency arising on a valuation of the superannuation fund to be met from the funds of the Association.

3. I have been furnished by your Secretary with a detailed list showing the members of your clerical staff who are eligible for membership of the fund, or will be so eligible on the attainment of 21 years of age. This list includes 35 members, of whom 10 are under 21 years of age, and 25 whose ages vary from 21 to 61. The statement furnished also gives particulars as to the salaries of the several employés received in each of the last ten years from 1895 to 1904 inclusive, and also of the total salary received prior to 1895 in the case of the 14 members who were appointed before that year. The total salary received during the year 1904 amounted to £3 384, but as this includes 4 members appointed in the course of that year, the full annual salary will be somewhat greater.

4. As the result of a careful examination of your salary scale according to age and duration of service, I have divided the employés for purposes of my calculations into two classes, in each of which an appropriate scale of salary, increasing with age, has been determined. In the lower class the scale of salary increases from £29 at age 14 to a maximum of £156 at age 43. In the higher class the salary commences with £110 at age 23, and increases to £234 at age 43, and is at all ages from 23 and upwards 50 per cent. in excess of the salary under the lower scale. I find that these assumed scales of salary represent with close approximation the actual salaries paid to the employés as a whole.

5. Upon the basis of these assumed scales of increasing salary, I have computed the necessary tables for valuing the benefits and contributions of members under the scheme. As regards mortality, I have adopted the H^m table of the Institute of Actuaries based upon assured lives, which is in my opinion a table appropriate for the purpose. I have assumed a rate of interest of $3\frac{1}{2}$ per cent. per annum upon the invested funds. This is somewhat higher than that realized on the average by the present investments set apart for the benefit of the fund, which comprise £600 Cape of Good Hope 3 per cent. Stock, yielding nearly $3\frac{1}{4}$ per cent., and entered at cost price of £558 in your balance sheet; also £210 Bank of England Stock, entered at cost price of £649, and yielding rather less than 3 per cent. per annum. It has been desirable, in view of the proposed contributions of the employés and the Association, to assume a rate of interest somewhat higher than that actually realized on present investments, but the Committee should find no difficulty in investing the future funds in trust or other sound securities yielding at least $3\frac{1}{2}$ per cent. per annum, such as (at the present market prices) Colonial Government investments, or Corporation loans in the United Kingdom.

6. From the tables thus computed, I have deduced the contributions required to provide the stipulated benefits, over and above those payable by the employés under the rules; and it has been convenient in the first instance to deduce these in the form of a percentage contribution on the salary to be provided from the funds of the Association. It will be readily understood that such contribution will be materially greater in the case of the existing employés than that payable in respect of future employés, because in the case of the existing employés the benefits secured include an allowance in respect of *past* service with the Association prior to the establishment of the Fund, on account of which no contributions have of course been paid; whilst in the case of future members the contributions both of the members and of the Association will be made from entry and will therefore run concurrently with the years of service.

7. The rates of contribution payable from the funds of the Association in respect of future members as deduced from the investigation and tables above referred to, are set out in the following table according to the age of the member at entry:—

Rates of Contribution (without allowance for Expenses of Management) required from the Funds of the Association, expressed as a percentage upon the current salary.

Applicable for future Members only.

Age at entry.	Rate of contribution.
21	2 55
25	3 10
30	3·40
35	3·93
40	4·66
45	5·63
50	6·84

8. In the case of the existing employés, the true rate of contribution required from the Association will necessarily vary in each individual case, or at any rate in each case where the attained age and the time to run before reaching the maximum term of service qualifying for pensions are different. I have therefore set out in the table given below the names of the existing employés over 21 years of age and the rate of contribution required from the funds of the Association in each individual case, expressed as a percentage of the present and future salary of the employés. These percentages vary as will be seen from 2.5 to no less than 71 3 per cent. of the salary, the latter rate being that appropriate to one employé, who is 61 years of age and will therefore qualify for pension in four years. The table also shows the present age of the employé, and the unexpired term to run before qualifying for the pension.

9. The percentages given in the above table, when applied to the salaries of the existing employés, will of course give the actual amount of contribution required from the funds of the Association in each particular case; and, if preferred, the contribution of the Association could be computed on this basis instead of on the proposed basis of £300 per annum. I find that this amount in the aggregate (computed on the salaries for 1904) would be £436. Of this amount £148 would be payable for four years only—in respect of the employé who is 61 years of age—leaving £288 as approximately the present contribution required from the funds of the Association in respect of the other existing members of 21 years of age and upwards. This latter contribution will of course tend to increase with the increasing salaries of these members.

10. Assuming that the total staff is not subject to increase in number, and that on the retirement of the senior employé a younger person is taken on, I find that in twelve years' time, when two of the staff would also be eligible for retirement under the rules, the total contribution payable by the Association would amount to £350, and assuming as above, that the total number of the staff will not be subject to increase, I consider that from this point the charge upon the Association will steadily diminish, as the pressure of the existing members will be relieved in course of years by deaths or retirements, and the Fund will ultimately be constituted solely of members taken on since its establishment, in respect of whom the contributions required from the Association would be practically constant at an amount materially less than the £300 proposed to be provided.

11. I have made a valuation of the fund by the computed tables referred to earlier in this report, dealing of course only with the existing employés, but assuming that the whole of these become members of the fund at its establishment or on the attainment of 21 years of age. The following statement shows the position of the fund as estimated upon this basis:

VALUATION BALANCE SHEET.

December 31st, 1904.

In respect of Existing Employés only.

Liabilities.	£	Assets.	£
Estimated value of pensions	5,605	Assets as per balance sheet	1,220
Estimated death benefit „ compositors' benefit	451 275	Estimated value of employés' contributions	1,528
Liability for members under 21 years of age	500	Estimated deficiency to be provided from funds of Association	4,083
	£6,831		£6,831

No allowance has been made in the valuation for expenses of management of the Fund, but these would, I imagine, be merely nominal in amount.

12. The value of the compositors' benefit included in the valuation balance-sheet has been arrived at by computing the exact value of the proposed benefit in each case. For this purpose a list of the existing compositors has been supplied to me by your Secretary. These are 14 in number, and their existing terms of service vary from 8 to 26 years. The benefit provided under the scheme for these compositors is by way of a bonus upon retirement or death; a sum of £15 being paid for 15 years' service; £20 for 20 years' service; £25 for 25 years' service; and £30 for 30 years' service. All service to be counted from the attainment of 21 years of age only. For terms of service exceeding 30 years the amount of the bonus will be the £30, accumulated at compound interest. No provision has been made in the valuation for bonuses to compositors entering the employment of the Association after the establishment of the Fund, as I understand that such future appointments will not be likely to be permanent.

13. The contingent liability in respect of the employés under 21 years of age at the date of the establishment of the fund has been ascertained by taking the present value of the liability, which is estimated as arising on their severally joining the fund at 21 years of age, with an arbitrary reduction to allow for the case of some of these not so qualifying for membership.

14. Looking at the scheme of benefit and contribution as a whole, the result of my calculations is in my opinion to justify the establishment of the scheme on the proposed lines. In order, however, to ascertain from time to time the financial position (especially in view of the probable fluctuations in the experience of so small a fund), it would be most desirable to have a periodical valuation, say at the end of every five years, and as a result of these periodical valuations the future contributions of the Association could be varied to meet the necessities of the case. As stated above, the contribution payable by the Association could either be computed for each individual member, or be dealt with by a uniform payment of £300 per annum in respect of the total membership. In the latter case, I anticipate that in the earlier years of the Fund (and especially during the first four years) the proposed contribution of £300 will not be sufficient to provide the true net contribution required in respect of existing members, but that, as time goes on, an equilibrium will be established, by the death or retirement of the existing members of the staff and their replacement by new members. Ultimately, assuming the total number of the staff to remain unaltered, I should anticipate that the contribution of £300 will be more than is required, and upon this result being justified by a valuation, the amount of the future contribution could be reduced, or the benefits to the members extended within proper limits.

THOMAS G. ACKLAND,
Fellow of the Institute of Actuaries,
Consulting Actuary.

May 8th, 1905.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW (SOUTHERN) DIVISION.

THE second annual meeting of this Division was held in the Medical Club, 22, Carlton Place, on June 1st.

Confirmation of Minutes.—The minutes of the last meeting were read and approved of.

Report of Executive Committee.—The annual report of the Executive Committee was presented. The report showed that during the year six general meetings and three Executive Committee meetings had been held, at which the matters referred from the Council of the Association to the Division were discussed. The expenses for the year amounted to £8 os. 9d. The number on the roll is 90.

Election of Officers.—The following were elected office-bearers and members of Committee:—*Chairman:* Dr. Alex. Miller. *Vice-Chairman:* Dr. John Brown. *Secretary and Treasurer:* Dr. John Stewart. *Representatives on Branch Council:* Drs. Miller and Stewart. *Representative in Annual Representative Meeting:* Dr. C. E. Robertson. *Other Members of Committee:* Drs. Wauchope, Macgilvray, Forrester, Burges, Hamilton, Weir, Paton, Wardrop-Forrest, Howie, Hugh Kelly, Rankine, Lawson, Leask, P. F. Shaw.

LANCASHIRE AND CHESHIRE BRANCH:

BURNLEY DIVISION.

THE annual meeting of the above Division was held at the Bull Hotel, Burnley, on May 30th.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr. Sinclair. *Vice-Chairman:* Dr. Marsden. *Secretary:* J. Haworth, M.B., Wilfield House, Burnley. *Executive Committee:* Dr. Giffen, Dr. Slane, Dr. Bird, Dr. Wright. *Representative in Branch Council:* Dr. J. M. Ferguson. *Representative of Joint Division (Blackburn and Burnley) in Representative Meetings:* Dr. R. C. Holt (Burnley)

MANCHESTER (WEST) DIVISION.

THE annual meeting of this Division was held at the Palatine Hotel on Friday, May 26th, at 4.15 p.m.

Confirmation of Minutes.—The minutes of the last meeting were read and signed as correct.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr. Worswick. *Vice-Chairman:* Dr. Stennett Redmond. *Honorary Secretary:* Dr. J. S. Prowse. *Representatives of the Division on the Branch Council:* Dr. Brassey Brierley, Dr. Prowse. *Representative in the Annual Representative Meeting:* Dr. Brassey Brierley. (A deputy Representative was chosen to serve in case of need.) *Executive Committee:* The members elected were Drs. Brierley, Broadbent, Eales, Floyd, and Eckersley Smith.

Report of Executive Committee.—The report of Executive Committee was received and adopted.

Annual Representative Meeting.—The business of the Annual Representative Meeting was discussed, and it was unanimously resolved that, with regard to the resolutions on the Agenda other than those already considered by this Division, the Representative of the Division be instructed to deal with them as they arise as he thinks advisable.

New Rule.—Vacancies among officers. The following rule was adopted:

> In the event of the death or resignation of any officer of the Division, or of his ceasing to be a member of the Division, the Executive Committee shall appoint some member of the Division to hold the office thereby vacated until the next Annual Meeting.

Alteration of Rule.—It was resolved that Rule 6 (Election of Officers) should read as follows:

> The officers shall be elected annually in the Annual Meeting of the Division. The Chairman shall be eligible for re-election, but such re-election shall not exceed three successive terms of office.

Matters Referred to Divisions.—The question of the payment of medical practitioners called in to assist midwives

was discussed, and the decisions arrived at have been communicated to the Medico-Political Committee.

Expenses of the Representative.—It was unanimously resolved that a capitation fee of one shilling should be levied on the members of the Division for the purpose of contributing towards the expenses of their Representative at the Annual Representative Meeting.

Vote of Thanks to Retiring Chairman.—The meeting terminated with a hearty vote of thanks to the retiring Chairman, Dr. J. Brassey Brierley, for his energetic and efficient services during the past year.

METROPOLITAN COUNTIES BRANCH:

City Division.

The third annual general meeting of this Division was held on Thursday, May 25th, at the Great Eastern Hotel, Liverpool Street, E.C., Mr. Hope Grant, the Chairman, presiding.

Report of Executive Committee.—The report of the Executive Committee for the past year was adopted.

Election of Officers.—The following gentlemen were elected to the various offices and committees:—*Chairman*, Dr. J. W. Hunt; *Vice-Chairman*, Dr. Major Greenwood; *Representatives on Branch Council*, Mr. J. Beddon and Mr. Frederick Wallace; *Honorary Secretary*, Dr. E. W. Goodall; *Assistant Honorary Secretary*, Mr. C. R. Salisbury; *Other Members of Executive Committee*, Mr. T. L. Brown, Mr. Hope Grant, Mr. A. Withers Green, Dr. Stuart Hallows, Dr. A. Hirst, Dr. E. A. Lermitte, Mr. F. H. Oliver, Dr. J. W. Oliver, Mr. H. E. Powell, Mr. J. Scott Sequeira, Mr. A. G. Southcombe, Dr. J. King Warry, Dr. W. Whitelaw, and Mr. H. Chisholm Will; *Ethical Committee*, the Chairman and Honorary Secretary, Dr. A. T. Davies, Mr. A. R. F. Eversbed, Mr. Hope Grant, Dr. Major Greenwood, Dr. A. Hirst, Mr. H. E. Powell, Mr. Frederick Wallace; *Representative at Representative Meetings*, Mr. Frederick Wallace.

Matters Referred to Divisions.—The questions of contract medical practice and death certification were discussed, and the resolutions of the Division have been transmitted to the Medico-Political Committee. With regard to the Public Health and other Bills it was unanimously resolved that the Executive Committee should be empowered to act if and when necessary with the view of bringing these subjects before members of Parliament and candidates.

Model Rule.—The model rule suggested by the Organization Committee for the filling of vacancies among officers was adopted.

Vote of Thanks to Retiring Chairman.—A vote of thanks to the retiring Chairman, Mr. Hope Grant, for his services during the past year was carried with acclamation.

St. Pancras Division.

The annual meeting of this Division was held at the St. Pancras Workhouse, King's Road, Pancras Road, on Friday, May 26th, Dr. Wm. Wynn Westcott, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Letters.—The letters were dealt with (1) *re* Queen's Jubilee Hospital; this was taken and read. (2) From the General Secretary, enclosing copy of resolution passed by the Council under date May 4th. (3) *Re* anonymous circular.

Honorary Secretary's Report.—The Honorary Secretary said his report could only cover seven out of nine of the meetings of the Division, as meetings had been held at seven places; that day was the eighth, and there was one more left in which he trusted they would be able to wind up any business that might require attention before the general meeting. He thought they might congratulate themselves on the work of the past session, having heard papers read and enjoyed the pleasure of exchanging views with many leading men. The attendances had not been quite as large in number as they might have been. At the first meeting there were 20; at the second, 21; at the third, 16; at the fourth, 14; at the fifth, 15; at the sixth, 21; at the seventh, 14; giving an average of only 16. This was not a good average for such an important Division, and being about to hand over the minute book to his successor, he felt a little pained at the result of their work. It took a lot of time and no small anxiety to organize these meetings, and he trusted that the work that now passed to other hands would accrue in tenfold better results, and that one and all would do their level best to bring in more members to the meetings and render them every help in their power. In conclusion, he thanked the members for their support during his tenure of office, and asked their forgiveness for any and all his shortcomings.

Vote of Thanks to Retiring Secretary.—A vote of thanks to Dr. Pooley on his retirement was proposed by Dr. Wm. Wynn Westcott, seconded by Dr. Graves, supported by Dr. Walter Smith, and carried by acclamation. It was proposed by Dr. Wm. Wynn Westcott and seconded by Dr. Ladell:

> That the officers now appointed do commence their duties at the next meeting of the Division, and their regulation be added to Rule 6.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr. Buckell. *Vice-Chairman:* Walter Smith. *Secretary:* W. Wynn Westcott. *Assistant Secretary:* Dr. Martin Westcott. *Delegate to Representative Meeting and Delegate to Metropolitan Branch Council:* Dr. Walter Smith. *Executive Committee:* Drs. Graves, Ladell, Yeld, Sykes, Robinson, Thackray, Theobalds.

Consumptive Hospital, Northwood.—June 10th was chosen for a visit to the Consumptive Hospital, Northwood, by the kind invitation of Dr. Kelynack. (Metropolitan Railway, 1.30 from Baker Street.)

Paper.—Mr. R. H. Jocelyn Swan read a paper on some points in the diagnosis of disease. An interesting discussion followed. There was an exhibition of instruments.

NEW SOUTH WALES BRANCH.

The regular monthly meeting of this Branch was held on Friday, April 28th, Dr. J. L. Beeston, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The President announced the election of Dr. C. A. Edwards, of Bondi Junction, as a member of the Association.

Cases and Communications.—An apology was received from Dr. Hinder, who was not able to be present to read his paper. Nine patients were exhibited, showing the results of mastoid operations, and were examined by the members.—Dr. Hankins read a paper on the radical mastoid operation. A discussion ensued, in which Drs. Brady, Kirkland, Nolan, Arthur, and Fiaschi took part. Dr. Hankins replied.

NORTH WALES BRANCH:

North Carnarvon and Anglesey Division.

The annual meeting of this Division was held at the British Hotel, Bangor, on Tuesday, May 30th, Dr. John Roberts, Menai Bridge, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Election of Officers.—The following were elected office-bearers, etc., for 1905-6:—*Chairman:* Dr. J. Lloyd Roberts, Colwyn Bay. *Vice-Chairman:* Dr. G. R. Griffith, Carnarvon. *Honorary Secretary:* Mr. H. Jones Roberts, Pen-y-groes (re-elected). *Representative to Representative Meeting:* Dr. Emyr O. Price, Bangor (re-elected). *Representatives on Branch Council:* Dr. John Roberts (Menai Bridge), Dr. Robert Parry (Carnarvon), Mr. R. Arthur Prichard (Conway), Dr. Lloyd Williams (Llanberis). *Members of Executive Committee:* Dr. John Evans (Carnarvon), Dr. J. R. Prytherch (Llangefni), Dr. J. E. Thomas (Bangor), Dr. John R. Williams (Penmaenmawr).

Dr. W. Jones Morris (Portmadoc) was unanimously nominated for re-election as the Representative of the North Wales and Shropshire (grouped) Branches on the Central Council of the Association.

Vote of Thanks.—A hearty vote of thanks was accorded to the office-bearers and representatives for their services during the past year.

Report of Executive Committee.—The Hon. Secretary read the annual report of the Executive Committee, which was received and adopted.

Matters Referred to Division.—The memorandums on "The Relation of the Medical Profession to Ambulance Work," "The National Deposit Friendly Society," "The Present Legal Position with Respect to Medical Certificates of Unfitness of Children to attend School," "Coroners' Law," and "Death Registration" were submitted and resolutions passed thereon.

Annual Representative Meeting.—The Agenda of the Annual

Meeting, to be held at Leicester in July, was considered, and instructions given to the Representative of the Division thereon.

Paper.—Dr. CORBET W. OWEN (Bangor) read a paper on "A Case of Acute Lead Poisoning." Further remarks on the subject were made by the Chairman, Drs. E. J. LLOYD, E. O. PRICE, R. A. PRICHARD, G. R. GRIFFITH, and J. E. THOMAS.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A MEETING of the Brighton Division was held at the Dispensary, 113, Queen's Road, Brighton, on May 24th, Dr. W. A. HOLLIS in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Annual Representative Meeting.—The provisional agenda for the Annual Representative Meeting (SUPPLEMENT, May 13th) was then taken into consideration. It was decided to ask the Representative to vote against the following amendments:

1. That proposed by the Coventry Division to By-law 17.
2. That proposed by the Wandsworth Division to By-law 23.

It was decided to ask the Representative to vote in favour of the following amendments:

1. That proposed by the Altrincham Division to By-law 17.
2. That proposed by the City Division to By-law 20.
3. That proposed by the Wandsworth Division to By-law 25.
4. That proposed by the Council of the Association to By-law 28.
5. Alteration of Article of Association V as proposed by the Altrincham Division.

With regard to all the other business on the provisional agenda it was thought that the best plan would be to leave the Representative to vote as he might think fit.

FOLKESTONE DIVISION.

THE annual meeting of the Folkestone Division and of the Folkestone, Ashford, and Dover constituency was held at Hotel Wampach, on Tuesday, May 30th, at 7 p.m.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Election of Officers.—The following officers were elected:—*Chairman*, Dr. P. G. Lewis; *Vice-Chairman*, Mr. W. P. Barrett; *Representative on Branch Council*, Mr. W. F. Chambers; *Representative at Representative Meetings*, Dr. A. E. Larking; *Deputy Representative at Representative Meetings*, Dr. P. Vernon Dodd; *Executive Committee*, Drs. Davis, Powell, and Wainwright; *Honorary Secretary of the Folkestone Division and of the Folkestone, Dover, and Ashford Constituency*, Dr. P. Vernon Dodd.

Alteration of Rules.—It was resolved:

That in future fourteen days' notice should be given of the annual meeting of the Folkestone Division instead of one month.

Vote of Thanks to Retiring Chairman.—A vote of thanks was accorded to Dr. Perry, the retiring Chairman, and to the other retiring officers.

Dinner.—Seventeen members stayed to dinner.

CANTERBURY, ISLE OF THANET, AND FAVERSHAM DIVISIONS.

A COMBINED meeting of these Divisions was held at the hospital, Canterbury, on June 1st, Dr. BRIAN RIGDEN in the chair.

Annual Representative Meeting.—Dr. Gosse was unanimously elected to represent the Divisions at the Annual Representative Meeting at Leicester. A discussion on the agenda of the Representative Meeting followed.

SOUTHERN BRANCH:

SALISBURY DIVISION.

A MEETING of this Division was held on May 17th last at the Infirmary, Salisbury.

Election of Officers.—The following were elected officers for the Division: *Chairman*, Dr. Harris, Shaftesbury; *Vice-Chairman*, Dr. Fison, Salisbury; *Honorary Secretary and Treasurer*, J. E. Gordon, Salisbury; *Representatives on the Southern Branch Council:* Dr. Fison, Mr. L. S. Luckham; *Executive Committee:* Dr. Blackmore, Dr. Rempe, Mr. Luckham, Mr. March, Amesbury; Mr. Richmond, Wilton; Mr. Willcox, Warminster; *Representative at Representative Meetings of the Association:* Mr. C. R. Straton, Wilton.

Matters Referred to Division.—At the same meeting the following matters referred to the Division were discussed: (1) National Deposit Friendly Society; (2) ambulance work; (3) hydropathic advertising; (4) consultations between medical witnesses; (5) Proposals for preventing abuse of drugs; (6) the payment of medical men called in to assist midwives; (7) contract practice; (8) Medical Acts Amendment Bill; (9) death registration and coroners; (10) coroners' law. The resolutions passed on these subjects have been communicated to the Medico-Political Committee.

SOUTHAMPTON DIVISION.

THE annual meeting of this Division was held at Southampton on May 18th, Dr. CHINERY, the Chairman, presiding.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman*, Dr. Gwillim; *Vice-Chairman*, Dr. Simmons; *Honorary Secretaries and Treasurers*, Dr. Wade and Dr. Mackeith. *Representatives on Branch Council:* Drs. Purvis and Weston, Colonel MacLeod. *Executive Committee:* Drs. Buckell, Bullar, Shettle, Norman Aldridge, and Chinery. *Representative of the Constituency in Representative Meetings of the Association*, Dr. Mackeith.

Acceptance of Rule.—Rule Z was unanimously accepted.

Medical Defence.—The consideration of the Draft Scheme of Medical Defence was deferred, owing to legal doubts.

Matters Referred to Divisions.—The recommendations of the Medico-Political Committee with respect to the National Deposit Friendly Society were discussed, and the decisions arrived at have been communicated to the Medico-Political Committee.

Annual Representative Meeting.—The necessary instructions were given to the Representative of the Constituency on the various matters referred to the Division.

WINCHESTER DIVISION.

THE annual meeting of this Division was held on May 31st at the Royal Hants County Hospital, Winchester, at 3.30 p.m., Dr. LIVINGSTONE (Chairman) presiding.

Election of Officers.—The following gentlemen were elected office-bearers for the ensuing year:—*Chairman:* T. C. Langdon, F.R.C.S. *Vice-Chairman:* Dr. J. L. Livingstone. *Honorary Secretary and Treasurer:* H. J. Godwin, M.B., F.R.C.S., 35, Southgate Street, Winchester. *Representative for Representative Meeting:* Mr. D. Browne, 78, High Street, Winchester. *Representatives on Branch Council:* Mr. J. F. Briscoe, Mr. W. A. S. Royds, Mr. F. W. Underhill. *Executive Committee:* Messrs. T. C. Langdon, J. L. Livingstone, H. J. Godwin, W. M. Harman, G. F. A. England, T. Wright, J. F. Briscoe, W. A. S. Royds, and F. W. Underhill.

Presentation to Honorary Secretary.—Mr. T. C. LANGDON was presented by the members of the Division with a silver inkstand on his retirement from the post of Honorary Secretary and Treasurer, which post he had held for more than twenty years.

Communications.—Dr. LIVINGSTONE read notes on a case of belladonna poisoning. Messrs. HOYLE, BRISCOE, and BROWNE took part in the discussion following the paper.—Mr. BULLAR read a paper on a scheme for the improvement and organization of contract practice. Messrs. LANGDON, BROWNE, HOYLE, and SCOTT took part in the discussion.—Dr. HARMAN showed a case of advanced tuberculosis of the lung, now in abeyance.—Mr. BRISCOE read a paper on the management of the insane. Messrs. THOMPSON, BROWNE, and ROYDS took part in the discussion.—Mr. ALLAN showed the following cases: (1) A case of tubal nephritis; (2) a case of hemiplegia and aphasia.

STAFFORDSHIRE BRANCH:

SOUTH STAFFORDSHIRE DIVISION.

THE annual meeting of this Division was held on May 25th, Dr. MALET in the chair.

Election of Officers.—The following officers were elected for the year 1905-6:—*Chairman:* J. T. Harthill. *Vice-Chairman:* Dr. Deanesly. *Secretary:* Dr. Codd. *Representative in Representative Meeting of Association:* Dr. Codd. *Representatives on Branch Council:* Dr. Bailey, Mr. J. T. Harthill, Dr. Malet. *Members of Executive of Division:* Mr. W. F. Cholmeley, Mr. W. Clendinnen, Dr. Edge. Mr. HARTHILL thereupon took the chair.

Matters Referred to Divisions.—The following matters were considered: (*a*) National Deposit Friendly Society; (*b*) ambulance work; (*c*) Public Health Bill; (*d*) Revaccination Bill; (*e*) proposals for preventing abuse of drugs; (*f*) payment for assistance of midwives. The resolutions passed have been communicated to the Medico-Political Committee.

British Medical Association.—*Annual Reports of Branches.*

[By-law 9: ". . . . every Branch shall furnish to the Council of the Association not later than March 15th, a report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe."]

BRANCH.	MEMBERS.		MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.	FINANCIAL STATEMENT.			
	1903.	1904	Branch.	Scientific.	Medico-Political, Ethical, etc	Occasions when Members dined together.	Average Attendance.	Branch Council.		Balance from 1903.	Receipts, 1904.	Expenditure, 1904	Balance to 1905.
										£ s. d.	£ s. d.	£ s. d.	£ s. d.
ABERDEEN	198	197	4	1	1	2	18.2	4	——	14 10 10	38 6 0	23 11 6	29 5 4
BATH AND BRISTOL ...	—	—	—	—	—	—	—	1	——	34 0 0½	76 8 0	49 14 1½	60 13 11
BIRMINGHAM	517	557	7	13	—	1	40.4	12	During 1904 the Council of the Birmingham Branch made a grant of a sum not exceeding 1s. per member to each of its Divisions. This was not deemed adequate by some of the Divisions; and although the Council of the Branch was anxious to make the grant larger, it could not possibly do so out of the capitation grant at present received from the Association without seriously jeopardizing the work of the Branch and section. The small balance which the Council has in hand could not be used for increasing the grants to Divisions because it is not more than sufficient to defray the expenses of one extra meeting, which might be called at any time, and such a possible contingency must of necessity be provided for by keeping something in reserve. The Council is of opinion that the capitation grant is in the case of this Branch insufficient to defray necessary expenses incidental to the proper working of the Divisions.	—	97 18 11	83 7 11	9 10 1
BORDER COUNTIES ...	157	147	3	—	—	—	—	—	The attendance at the Branch meetings was greater than has usually been the case. The Branch Council record with pleasure their belief that there is a feeling of increased interest in the affairs of the Association amongst the professional gentlemen living within the Branch area, and it is hoped that this will lead to a considerable increase in the membership. Eleven new members were elected during the year, and there are at present several names of applicants awaiting election. The Branch Council regret to have to record the death of Dr. Thomson of Penrith, in whom they have lost an able colleague and valued friend. The Branch Council decided to adhere to its policy of 1903, and defray the Divisional expenses as they arise, rather than make an allowance per head, and after all the liabilities incurred during 1904 were paid, there remained a balance of £3 15s. 8d. to the good on the year's working.	6 9 3	32 2 0	23 6 4	10 4 11
CAMBRIDGE AND HUNTINGDON	106	156	—	—	—	—	—	—	Several meetings of the Council have been held. The annual general meeting was a great success, over 100 members being present. Photographs of cases from a recent epidemic of variola were distributed among the members at the meeting.	24 13 9	32 6 0	30 5 8	26 14 1
DORSET AND WEST HANTS	189	203	3	—	1	3	34	3	The only matter of Branch organization dealt with was the question of the proposed transfer of the Shaftesbury members to the Southern Branch, to which it was decided to offer no objection. One of the meetings was held in conjunction with the West Somerset Branch, and proved very successful. Two Associate members were elected, Sir Constantine Holman and Dr. John Ward Cousins. The Branch has to deplore the loss of its Honorary Secretary, Dr. Lush, who died suddenly in December; he had acted as Secretary and Treasurer since the formation of the Branch.	17 6 4½	39 7 2	24 3 8½	32 9 10

BRANCH.	MEMBERS.		MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.	FINANCIAL STATEMENT.			
	1903.	1904.	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average Attendance.	Branch Council.		Balance from 1903.	Receipts, 1904.	Expenditure, 1904.	Balance to 1905.
										£ s. d.	£ s. d.	£ s. d.	£ s. d.
DUNDEE	106	109	5	—	5	1	15	9	*Medical Certificate of Unfitness to Attend School.*—In September, 1904, the Dundee School Board began to issue blank forms of medical certificates in all cases where illness was alleged as the reason for children not attending school. The practice was being carried out to a much greater extent than formerly. On enquiry it was elicited that the Board did not intend to pay for their forms being filled up. At a meeting of the Branch it was resolved to charge the usual visiting fee when parents or guardians insisted on getting a medical certificate, and to recommend the medical officers of charities and other public bodies to decline to issue such certificates. These resolutions were communicated to the Dundee School Board, and there has been a cessation of the broadcast distribution of the forms complained of.	7 7 2	20 18 0	16 4 0	12 1 2
EAST ANGLIAN	424	430	3	3	3	3	47	4	The Council has the pleasure to record a prosperous condition of the Branch. The spring meeting was held at Manningtree. Papers were read by Dr. Anton Lieven, of Aix-la-Chapelle, Mr. Morse, and Dr. Bree. The best thanks of the Branch are due to Dr. and Mrs. Baxter for their kind hospitality. The annual meeting was held at Lowestoft, under the presidency of Mr. H. B. Walker. Papers were read by Miss L. Garrett Anderson, Mr. A. E. Lyster, Mr. Hatch, Dr. Herbert Brown, and Dr. Sinclair. The autumn meeting was held at Killing Open-air Sanatorium; this meeting was concerned with the open-air treatment of tuberculosis. The Council records with sincere regret the deaths of Sir Frederick Bateman of Norwich, and Mr. Branford Edwards of Ipswich. Several of the Divisions have done satisfactory work.	17 7 1	80 8 0	73 6 0	24 9 1
EAST YORK AND NORTH LINCOLN	138	140	1	—	—	1	28	3	At the annual meeting, in addition to electing officers for the year, the President (Dr. Francis) delivered an address on the life history of epithelioma of the oral lips.	13 11 8	34 5 0	26 4 0	26 12 8
EDINBURGH...	437	413	2	1	1	1	100	5		38 11 3	86 18 6	50 0 1	75 9 8
FIFE	72	74	3	1	3	1	14	3	The question of Contract Practice was before the Branch in the shape of circulars, replies to which were to be sent to head-quarters. This was the only matter of immediate local interest before the members. Reports of other meetings have already appeared in the SUPPLEMENT.	6 4 1	18 6 0	9 7 6	15 2 7
GLASGOW AND WEST OF SCOTLAND	682	656		1	—	1	—	8	At the clinical meeting a demonstration was given of recent medico-electric therapeutic measures.	74 16 0	128 14 10	79 3 0	124 7 10
GLOUCESTERSHIRE ...	111	129	7	7	4	7	25	11		14 10 1	29 1 0	34 17 0	8 14 1
LANCASHIRE AND CHESHIRE	1,616	1,766	3	2	0	1	150	5	In order to co-ordinate the work of the Divisions of this Branch the Council resolved that, when advisable, the President and Honorary Secretary shall call a conference of the Council of the Branch with Chairmen and Secretaries of Divisions, or a meeting of the Branch, to discuss questions referred to the Divisions by the Council of the Association.	122 16 5	322 13 0	146 16 10	298 12 7
LEINSTER	348	338	1	—	—	1	53	6	1. Organization of Divisions. There are now four Divisions in working order, as compared with three last year. 2. Questions of hospital abuse and the Irish Poor-law Dispensary System occupied the attention of the Branch Council, the former in conjunction with the Dublin Division Executive.	0 10 0 (deficit)	72 18 4	51 4 11½	21 3 4½
METROPOLITAN COUNTIES	2,769	2,525	1	—	1	1	—	6	The early meetings were concerned with the determination of the Divisions and with the methods by which money should be allowed to Divisions. The Midwives Act (obtaining a fee for the medical man called in), and certain ethical matters. Expenses allowable to Divisional Secretaries were the principal objects of discussion, together with the amending of the Branch rules. The Branch has had a good deal of important work to do which hardly appears in report of proceedings.	313 18 5	514 10 4	269 18 3	558 10 6
MIDLAND	520	515	1	—	—	—	—	3	At the annual meeting an alteration of Rules was passed enacting that each candidate for membership should be proposed by two members of the Association to whom he is personally known. A resolution was passed inviting the Association to hold its annual meeting at Leicester in 1905 under the presidency of Mr. G. C. Franklin, F.R.C.S. The President (Mr. F. R. Mutch) read a paper on the duty of the municipality to the health of the community. A special meeting was also held, when a General Committee for the Leicester Meeting was elected. The Branch regrets the loss by death of Mr. Thomas Johnston of Belper, and Mr. T. Henderson Pounds of Derby.	17 14 0	104 7 1	66 5 10	55 15 3

BRANCH.	MEMBERS. 1903.	MEMBERS. 1904.	MEETINGS. Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average Attendance.	Branch Council.	REPORTS OF PROCEEDINGS AND REMARKS.	FINANCIAL STATEMENT. Balance from 1903.	Receipts, 1904.	Expenditure, 1904	Balance to 1905.
										£ s. d.	£ s. d.	£ s. d.	£ s. d.
MUNSTER	—	—	—	—	—	—	—	—					
NORTH OF ENGLAND... ...	548	600	3	2	1	1	50	5	Some of our Divisions are doing very well, but three are practically moribund, partly owing to difficulty of finding suitable secretaries, partly to the fact that the Branch is still greatly occupied in trying to absorb the County of Durham Medical Union. The work of this body overlaps the work of the Branch considerably, and some of the men who would probably be our active workers have been previously secured by the Union. Negotiations are proceeding with every hope of success. The Branch Council meetings are a great success, many members coming from long distances, and the work has been well done. We consider the excellent results quite justify our plan of having a large Branch Council. Since our last report we have absorbed the Northumberland and Newcastle Medical Association, and the results have been quite satisfactory. The Branch Council sent out a circular letter to all the Education Committees in our area asking for a fee for the certificate required for sick school children. Two Committees (Newcastle-on-Tyne and Berwick) have granted a fee of 1s. and 1s. 6d. respectively, while others are considering the matter. A meeting of Divisional Secretaries was held, and found so useful and so well attended that it is shortly to be repeated. The secretarial work increases so much both for Branches and Divisions that it will, in the opinion of the Secretary, get increasingly difficult to get busy men to undertake the office of Secretary. The Secretary voices the opinion of every Secretary in this Branch in urging that all purely mechanical work and all arrangements which can possibly be made at head quarters should be done there.	92 19 4	115 1 6	112 11 2	95 9 8
NORTH LANCASHIRE AND SOUTH WESTMORLAND	121	135	3	3	1	1	23	5	The Branch are trying to come to an agreement with the Border Counties Branch concerning representation on the Central Council. The Lancashire Division, in its annual report, hopes that it may be found possible to bring business before the Divisions at an earlier date.	6 3 0	28 2 6	15 13 0	18 12 6
NORTHERN COUNTIES OF SCOTLAND	110	118	2	2	2	2	30	2	There were no questions of local interest dealt with during the year. The several matters referred by the Central Council were discussed at the meetings. Regarding the question of consultation in legal cases, the Branch considered that it was not desirable that medical witnesses on each side should meet in consultation. The Branch saw no objection to hydropathic establishments announcing the names of their medical practitioners, provided any other medical practitioner was allowed to attend visitors if they (the visitors) so desired. This was done in the only hydropathic establishment within the area of the Branch. The question of medical defence was also discussed, and it was resolved by a majority of those present that the Association should not undertake medical defence. The Registration of Nurses Bill came up for discussion at the October meeting, and the members present were of opinion that no notice should be taken of the Bill, it being purely a question for the nurses themselves to settle.	7 2 5 (deficit)	22 17 0	13 3 3	2 11 4
NORTH WALES AND SHROPSHIRE	322	326	1	1	1	1	35	2	The subject of the dissolution of the Branch as the North Wales and Shropshire was discussed, and at the Council meeting at Chester in December it was resolved to petition the Council of the Association to allow the Branch to resume its old status and area as before the reconstitution scheme. Many other subjects of local professional interest were discussed. Diphtheria and pneumonia were rife in certain districts and discussions upon these and kindred topics took place in the several Divisions; other subjects of organization and ethics were discussed. The divisional meetings are growing in popularity and favour, the attendance is increasing, the discussions are getting more general. Members are not so loth to prepare and read papers as formerly, and now in divisional meetings every member present expresses his opinion, whereas under the old system it was, generally speaking, confined to the most prominent members of the Branch.	8 12 9	57 16 0	68 1 2	1 12 5 (deficit)
OXFORD AND READING ...	268	285	1	—	—	1	—	1	The Oxford and Reading Divisions have held other meetings, but the annual meeting has been the only one of the Branch as a whole. In Reading the Pathological Society meets monthly, and is well attended. It is difficult to get members to come to the meetings of the Divisions.	37 13 0	58 11 4	29 12 11	66 11 5
PERTHSHIRE	51	60	4	2	2	2	13	2		13 19 2	11 10 8	4 17 0	20 12 10

BRANCH.	MEMBERS. 1903	MEMBERS. 1904.	MEETINGS. Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when members dined together.	Average Attendance.	Branch Council.	REPORTS OF PROCEDINGS AND REMARKS.	FINANCIAL STATEMENT. Balance from 1903.	Receipts, 1904.	Expenditure, 1904.	Balance to 1905.
SOUTH-EASTERN	1,247	1,235	1	—	—	1	39	5	The only matter of Branch organization dealt with was the question of dividing the Branch as proposed by Dr. Larking. This matter was referred by the Annual Meeting to the Divisions, ten of which have discussed and voted on the proposal, with the result that six were opposed to and four in favour of such division. Most of the Divisions have found their time fully occupied with the questions referred to them by the Central Council. Their decisions have been sent in to the Central Council, but the Secretary suggests that the form of report of the Division should include these proceedings, so as to enable him to summarize the work of the Division for the annual meeting of the Branch. Several of the Divisions are not yet showing much activity, and it is to be regretted that the Rochester Division has made no progress towards organization. With regard to the financial statement, the warning given last year must be repeated—that the present expenses of the Divisions form no reliable guide as to those which are likely to be incurred in the future, as the active Divisions are finding their expenses increase considerably, and in a Branch with so many Divisions the expenses will probably rise quickly. Further, as the Divisions organize their ethical work better they will be able to devote more time to clinical and scientific meetings, which add very much to their expenses.	£ s. d. 159 10 10	£ s. d. 247 0 0	£ s. d. 97 17 1½	£ s. d. 308 13 8½
SOUTH-EASTERN OF IRELAND	67	65	7	1	7	5	9.1	2	The average attendance at the Branch meetings was very small, and, as far as the Secretary is aware, meetings of the Divisions were not held at all. In his opinion meetings of the Branch should be held in a central situation (Kilkenny), and not more frequently than twice in the year. The Divisions, as units of the Association, require reorganization, and should meet about six times annually. Scientific subjects should be discussed at each meeting of a Division, and less time should be devoted to local grievances.	1 1 7 (deficit)	19 8 0	14 15 3	3 10 6
SOUTHERN	401	400	2	2	1	1	42	4	———	34 10 6	74 9 0	78 5 10	30 13 [illegible]
SOUTH MIDLAND	232	226	2	2	1	1	31	3	———	19 6 7	44 3 0	29 4 7	34 5 0
SOUTH WALES AND MONMOUTH	397	449	4	3	3	1	43	6	A special conference took place between the officers of the Branch and Divisions and the Medical Secretary of the Association. Rule 6 has been altered, making the elections to the Branch Council proportionate to return of numbers in May instead of December. Divisional Secretaries have been made *ex-officio* members of the Council. During the last week of September, Mr. Whitaker, the Medical Secretary of the Association, made a tour of the Branch to inquire into the conditions of contract and colliery practice. A conference of the officers of the Branch and Divisions afterwards took place when Mr. Whitaker gave the results of his inquiry, urged the Branch to organize itself to resist the cheapening of the medical service, and indicated the manner in which this should be done. As yet no steps have been taken. No Branch ethical rules have yet been adopted, but every Division has adopted ethical rules based more or less on the Bradford model. As last year, the ordinary meetings have been three in number, namely, spring, annual, and autumn meetings. One special meeting was held to alter Rule 6. A large number of interesting papers were read at the spring and autumn meetings. The Branch Council desire here to record their appreciation of the value of the services rendered by the Medical Secretary of the Association. His tour of inquiry through the Branch, his subsequent address at the above-mentioned conference, and his advice on several occasions have been of great assistance to them in dealing with difficulties that have arisen. They are of the opinion that if the Branches are to be organized as a whole to deal with ethical matters, the experience he has gained and is gaining of the conditions throughout the Branches must be of inestimable value to the Association.	54 1 5	£4 6 0	7 12 1½	[illegible] 14 [illegible]

BRANCH.	MEMBERS. 1903.	MEMBERS. 1904.	MEETINGS. Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when members dined together.	Average Attendance.	Branch Council.	REPORTS OF PROCEEDINGS AND REMARKS.	FINANCIAL STATEMENT. Balance from 1903.	Receipts, 1904.	Expenditure, 1904	Balance to 1905.
										£ s. d.	£ s. d.	£ s. d.	£ s. d.
SOUTH-WESTERN	416	411	4	3	3	1	40	6	A code of rules to regulate ethical procedure in ethical matters was submitted to the annual meeting and postponed to a special meeting to be called at Plymouth in January, 1905. The question of the remuneration of medical officers of clubs, etc., was postponed, pending the decision of the Central Council, who, it was understood, was moving in the matter. The Medical Secretary of the Association, on the invitation of the Branch Council, gave an address on October 21st to the Branch on branch organization, etc. At the request of the Tiverton and Bampton members they were, with the consent of the Central Council, transferred from the Barnstaple Division to the Exeter Division. It was proposed by the members of the Newton Abbot Division to take the necessary steps to alter the name of that Division, so that it should henceforth be known as "The Torquay Division." The business of the Branch meetings (as formerly) still largely consists in the discussion of scientific matters, questions concerning medical politics and kindred matters being left to the Divisions of the Branch. There is, however, reason to suppose that an alteration in this respect will be brought about in the future.	18 16 10	100 16 6	41 1 6	78 0 10
STAFFORDSHIRE	207	201	5	4	—	—	23	—	The annual meeting was held at Wolverhampton, when the officers were elected and the President delivered an address. The report of the Council of the Branch and financial statement were adopted.	18 17 6	41 2 6	23 1	36 18 9
STIRLING	64	63	2	2	1	—	85	2		0 16 10	12 14 0	5 15	7 15 4
ULSTER	383	371	4	4	4	1	42	6	The Secretary regrets he cannot furnish fuller information, as he only took over the books in August, 1904.	43 1 8	84 14 9	62 5	65 10 8
WEST SOMERSET	80	76	3	3	3	2	20.6	4	Matters referred by the Committee and Council of the Association have been discussed and papers read at the meetings. Owing to the assistants to practitioners and even members taking holiday in the district being included for a short time as members of the Branch, of which one gets no information, except that these names are included in one list of members and absent from the next, it is impossible to follow the changes by change of residence during the last twelve months.	16 8 3	16 6 6	7 5 11	25 8 10
WORCESTERSHIRE AND HEREFORDSHIRE	114	121	3	3	3	—	16	2		10 18 5	24 [illegible] 0	10 13	24 5 3
YORKSHIRE	784	776	—	—	—	—	—	—	Ethical rules have been drawn up and adopted. Only one case of unprofessional conduct has been brought before the Ethical Committee. Capitation grants of 3s. per head have been made to Bradford, Scarborough, and York Divisions, and 2s. per head to the Wakefield and Doncaster Division. The Miners' Association of Yorkshire asked the Branch to recommend lecturers on ankylostomiasis. Several names were mentioned, and Dr. Porter of Sheffield, and Dr. Bateson of Bradford were appointed.	76 2 1	154 0 2	90 18 0	139 4 3
COLONIAL BRANCHES.													
BERMUDA	8	14	—	—	—	—	—	—		1 5 0	2 6 0	1 3 0	2 8 0
BRITISH GUIANA	34	30	—	—	—	—	—	—		0 6 10½ (deficit)	5 8 0	7 16 0½	2 14 11 (deficit)
BURMAH	29	29	—	—	—	—	—	—		48 6 8	41 14 0	30 15 4	59 5 4 (889 Rs.)
CAPE OF GOOD HOPE EASTERN PROVINCES	—	83	9	—	—	—	—	—	The Branch was represented for the first time at the Representative Meeting at Oxford by Dr. J. B. Greathead. The Council is anxious to hear of a member to act in the same capacity at Leicester meeting. Seven new members have joined, one removed, and one died. By the new territorial division of the Cape Colony, the members of our Branch have been raised to 83. This total is the highest yet reached, but is less than one-third of the number of medical men residing in the eastern area and eligible for membership. This year has seen the rules of the Eastern Province Branch and the Grahamstown Division remodelled with the sanction of the Central Council. In this connexion the title of the Branch has been changed, its boundaries defined in conference with the Western and Griqualand West Branches, and provision made for the formation within the Branch of smaller Divisions. The Council would desire to see Divisions originating in such large centres as East London, King Williamstown, Port Elizabeth, Queenstown, and Somerset East. The financial position is satisfactory, though the expenses of printing the Rules and Report will absorb the Capitation Grant of the year.	20 15 3	13 2 3	10 13 7	23 3 11

BRANCH	MEMBERS. 1903	MEMBERS. 1904.	MEETINGS. Branch.	Scientific.	Medico Political, Ethical, etc	Occasions when Members dined together.	Average Attendance.	Branch Council.	REPORTS OF PROCEEDINGS AND REMARKS.	FINANCIAL STATEMENT. Balance from 1903.	Receipts, 1904.	Expenditure, 1904.	Balance to 1905
COLOMBO AND CEYLON ..	121	128	—	—	—	—	—	1		£ s. d. 25 1 7/100 Rs.	£ s. d. 518 1 6/100 Rs.	£ s. d. 543 3 3/100 Rs.	£ s. d 226 6 6/100 Rs.
HONG KONG AND CHINA ...	78	97	4	—	—	—	21 2	7	The following papers were read and discussed: The use of adrenalin chloride, Dr. F. O. Stedman; some notes on the treatment of phthisis by the intravenous injection of formalin, Dr. O. Marriott; mixed infection in tuberculosis, Dr. William Hunter; the paramoecium or balantidium coli, by Lieutenant F. W. Lambelle, R.A.M.C.; modern electro-therapeutics, Dr. G. P. Jordan. The following notes on cases were read: Dr. Stedman, a case of extrauterine fetation; Dr. Laing, a case of purpura haemorrhagica; Staff Surgeon Parker, a case of fracture of the head of fibula; Dr. Laing, a case of caries of the ischium. Numerous pathological specimens, skiagraphs, and photographs of cases were shown during the session. Twenty-one members joined the Branch as follows: 14 naval surgeons, 4 army surgeons, 3 civil practitioners. The "rules" or "by-laws" of the Branch were revised on December 7th, 1903. As they did not meet with the approval of the General Council of the Association they were redrafted on October 10th, 1904. A copy is attached, and it will be seen that the recommendations of the Organization Committee have been carried out. The report was read and approved at a Council meeting held on January 8th, 1904.—(Signed) W. E. Webb, President; E. A. R. Laing, Honorary Secretary and Treasurer. A complimentary dinner was given in honour of Sir Frederick Treves, K.C.V.O., C.B., during his visit to the Colony. The dinner took place on March 3rd, 1904. There were thirty-three subscribers and members of the Branch present. No annual dinner for members of the Branch took place during the session.	$88.71	$164.90	$89.92	$163.69
MALAYA	46	71	5	—	—	—	11	—	The session which has just closed has been a short one, as the unavoidable delay in having the details of the new scheme of Divisions of Branches confirmed at head quarters caused the last annual meeting to be held very late in the year. The Branch continues to show every evidence of prosperity. Two new members have been elected, and the numbers of the Branch now stand at 71. Five ordinary meetings have been held by the Singapore Division, besides the annual meeting at Kuala Lumpor, and the average attendance at each has been eleven. The papers have been as follows: The diffusion of disease, by Dr. Daniels; appendicitis, by Colonel Dick; a recent small-pox epidemic, by Dr. Sheppard; a criticism on the alleged immunity of the Chinese to syphilis, by Dr. Galloway; non-malarial remittent fever, by Dr. Von Tunzelmann; hospital practice in Singapore, by Dr. Ford. All the papers were followed by lively discussions, joined in by nearly every one present, and thus the meetings have been most interesting. Following upon a resolution proposed at last general meeting, the Secretary communicated with the Colonial Secretary regarding the absence of any legislation preventing unqualified medical practice in the Colony. Soon afterwards a Bill was introduced, in most respects identical with that drafted by a Committee of the Association in 1903, except that the penalty for practising medicine or surgery without being registered is removed. As the Council considers that this change will render what would have been a useful and highly necessary measure absolutely ineffective, it recommends that the Association pass a resolution calling for the reinsertion of this penalty. The Council congratulates the members on the healthy condition of the Branch, which it trusts will be maintained.	$76.49	$324	$316.60	$83.89
MALTA AND MEDITERRANEAN	34	50	3	3	—	—	—	—	The meetings were fairly attended and a keen interest was always taken in the proceedings. Six new members were admitted during the year and one complimentary member. In order to make the meetings more profitable to members it has been agreed that ordinary meetings should be held periodically, namely, on the first Monday of January, March, May and November. The Branch was unable to find a suitable hall in which to hold the meetings, but it is hoped that this difficulty will be solved in the future.	10 18 1	13 4 0	4 8 8	19 13 5
NATAL	69	82	—	—	—	—	—	—		—	22 0 0	13 5 1	8 14 11
SOUTH AUSTRALIAN ...	120	126	—	—	—	—	—	—	The meetings are held monthly and are always well attended. The financial state continues sound, as for years past, and many new members have been elected.	162 2 6	269 13 11	263 0 7	169 0 10
SOUTH INDIAN AND MADRAS	166	122	—	—	—	—	—	—		1,235 Rs.	1,933 Rs.	2,072 Rs.	1,096 Rs.
SYDNEY AND NEW SOUTH WALES	472	478	—	—	—	—	—	—	*This contains special subscriptions in addition to Capitation Grant.	189 18 8	1,375 12 4	1,011 7 4	554 3 8*

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

COUNCIL MEETING.

A MEETING of the Council will be held at 10 o'clock in the forenoon of Wednesday, July 5th, in the Board Room of the Metropolitan Asylums Board, by kind permission of the Board. The offices of the Metropolitan Asylums Board are situate on the Victoria Embankment at the corner of Carmelite Street, and near Blackfriars Bridge.

June 8th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held at University College, Bristol, at 4.30 p.m. on June 28th, and the annual dinner of the Branch will take place at the Clifton Down Hotel, Clifton, at 7.30 p.m. on June 28th. Election of members of the Central Council: Nominations, each signed by three members, for the two vacancies on the Central Council should be sent to one of the undersigned on or before June 23rd. If more than two candidates are nominated, voting papers will be sent to members in due course.—NEWMAN NEILD, and W. M. BEAUMONT, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A joint meeting of this Division with the Nuneaton and Tamworth Division and the Warwick and Leamington Division will be held at the Coventry and Warwickshire Hospital, Coventry, on Tuesday, June 20th, at 4 p.m., for the purpose of electing a joint representative of the three Divisions to represent them at the Annual Representative Meeting. Agenda: (1) To elect representative. (2) To give instructions in regard to matters arising at the Annual Representative Meeting (see SUPPLEMENT for May 13th and 27th, 1905; it will be a convenience to members to bring these SUPPLEMENTS with them).—E. H. SNELL, Knighton House, Coventry, Secretary of the Constituency.

BORDER COUNTIES BRANCH.—The annual general meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 16th, at 3.30 p.m., when Sir James Crichton-Browne, M.D., will deliver his Presidential Address.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at Norwich on Thursday, June 29th.

EDINBURGH BRANCH.—The annual meeting of the Branch will be held in the Hall of the Royal College of Physicians (9, Queen Street) on Friday, June 16th, at 4.30 p.m. Business: Election of office-bearers; any other competent business.—NORMAN WALKER, 7, Manor Place, A. LOGAN TURNER, 27, Walker Street, Honorary Secretaries.

EDINBURGH BRANCH.—The summer meeting of the Branch will be held at Hawick on July 1st. Trains from Edinburgh (Waverley) 10.30 a.m. Provisional arrangements: Meeting of Branch, 12.15. Motor drive to Stobs, Hermitage Castle, Newcastleton, Penton Linns, Canonbie, Langholm, Mosspaul and Branxholme. Starting at 1 p.m. Golf match on Hawick Links, 1.45. Dinner at Tower Hotel, 6.30. Dr. Allan Jamieson, President, in the chair. In order to facilitate arrangements members who intend to be present are requested to intimate their intention to one of the Secretaries as soon as possible, and whether they propose to golf or to motor.—NORMAN WALKER, 7, Manor Place, Edinburgh, A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—As arranged at last meeting of Division, the annual meeting will be held on Saturday, June 17th, in the Railway Hotel, Newtown St. Boswells, at 3 o'clock. Business: (1) Election of office-bearers. (2) The consideration of memoranda regarding the National Deposit Friendly Society the Local Government Amendment Bill, the relation of the medical profession to ambulance work, etc. (3) Instructions to representative in regard to the agenda of the annual meeting of the Association at Leicester. (4) Other matters of urgent importance to the Division. It is hoped that members will do their utmost to be present. Dr. Hamilton gives notice of the following motion: "That the Division recommends to the Representative Meeting the desirability of appointing a Committee to consider the question of the formation of a fund for the relief of the widows and orphans formerly dependent on deceased members of the Association."—W. HALL CALVERT, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Election of Representatives: Notice is hereby given that nominations must be intimated to me, as Secretary of this Branch, on or before Wednesday, June 14th.—JAS. H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL (SOUTHERN) DIVISION.—The annual meeting of the Division will be held on June 20th, at 4.30 p.m., at the Medical Institution, Hope Street. Agenda: Minutes of last meeting. Secretary's annual report. Election of new Chairman. Election of officers. Election of Representative for the Meeting of the Association at Leicester. Revision of rules of the Division Consideration of the agenda of the Annual Representative Meeting (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 13th).—J. C. M. GIVEN, Honorary Secretary.

LEINSTER AND SOUTH-EASTERN OF IRELAND BRANCHES.—Nominations of elective members of the Council of the Association for these Branches, each signed by not less than three members, must reach me on or before June 19th.—ARTHUR H. WHITE, Honorary Secretary of Leinster Branch, Derrybawn, Rathgar, co. Dublin.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of candidates for the five offices of Representatives of the Branch on the Central Council for the ensuing year must be made in writing to GEORGE ROWELL, 6, Cavendish Place, W., on or before Saturday, June 10th. Nominations not made by a Division require, by the present Rules of the Branch, to be signed by twelve members of the Branch.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Trocadero Restaurant, Piccadilly Circus, W., on Wednesday, June 28th, at 6 p.m., in the Connaught Room. The meeting will be followed by the annual dinner at 7.30 p.m. in the Balmoral Room. The price of the dinner will be 6s. 6d., payable at the time. Tickets on application to GEORGE ROWELL, 6, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.—A meeting will be held on Thursday, June 22nd, at St. Pancras Northern Infirmary, Dartmouth Park Hill, N., at 4.30 p.m. Dr. Chilcott will show cases. Discussion of matters referred to Divisions.—WILLIAM WYNN WESTCOTT, Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held at Clapham on Thursday, June 29th, at 3.45 p.m., to consider the agenda for Representatives' Meeting, and to instruct Dr. L. S. McManus.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The annual meeting will be held at 20, Hanover Square, on Wednesday, June 14th, at 4.30 p.m. Mr. J. Bland-Sutton will be in the chair. Smoking. Agenda: 1. Minutes. 2. Correspondence. 3. Questions. 4. (*a*) Election of officers, Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee; (*b*) to elect the Representative of the Division in Representative Meetings of the Association; (*c*) to receive the annual report of the Executive Committee; (*d*) to consider the business of the Annual Representative Meeting, vide SUPPLEMENT to the JOURNAL, May 13th, 1905 (members are requested to bring the SUPPLEMENT to the JOURNAL, dated May 13th, with them to the meeting. 5. Medical Acts Amendment Bill (Part V). 6. To consider a memorandum on the legal position of medical men in respect to school certificates. 7. Mr. Forbes Ross will (i) draw attention to the status and wrongfully alleged professional incapabilities for responsible positions of the M.R.C.S. Eng., in view of a recent derogatory ruling by the King Edward's Hospital Fund, which has been published broadcast in the lay press, and which will tend to weaken public confidence in those holding that diploma, and that it is expedient that the Ethical Committee should consider the subject and draw the attention of the King's Fund to the anomalous situation; (ii) draw the attention of the Division to the irregular methods lately adopted in the JOURNAL by its misquotation and misrepresentation of facts, and thereby persistent defamation of eight members of the Association. 8. Any other business.—W. KNOWSLEY SIBLEY, M.B. 70, Duke Street, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Leicester, on Thursday, June 15th, at 4.30 p.m. Tea will be provided before the meeting. Agenda: Minutes. Report of Branch Council and annual financial statement. Election of officers (Dr. Astley Clarke will not seek re-election). Any other business. Copy of resolution of Branch Council passed January 11th, 1905: "That a business meeting only of the Branch be held in June next." The Branch Council will meet at 3.30 p.m.—ASTLEY V. CLARKE, Honorary Secretary and Treasurer, Leicester.

NORTH OF ENGLAND BRANCH.—Owing to the death of Dr. James Murphy, a vacancy occurs in the representation of the Branch on the Council of the Association. Nominations signed by no fewer than three members of the Branch must reach me not later than June 24th. A special meeting of the Branch will be held at 3 p.m. on Wednesday, June 14th, in the Library of the Infirmary, Newcastle-on-Tyne, to consider (*a*) the proposed amalgamation of the County of Durham Medical Union with the Branch; and (*b*) the formation of a Branch defence or indemnity fund. The annual meeting of the Branch will be held at the Zetland Hotel, Saltburn, on Wednesday, June 21st. Further particulars will be sent by circular.—ALFRED COX, Honorary Secretary.

NORTH OF ENGLAND BRANCH: BLYTH DIVISION.—The quarterly meeting will be held in the Star and Garter Hotel, Blyth, on Wednesday, June 14th, at 7 p.m. Agenda: (1) Election of office bearers. (2) Such items in the common Divisional agenda as have not already been discussed.—JAMES ANDERSON, M.B., Seaton Delaval, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.—This Division purposes holding an all-day scientific meeting on Thursday, July 6th, to commence at 10 a.m. At the Royal Infirmary there will be demonstrations in the wards and operating theatres, an exhibition of clinical cases, and a temporary pathological museum. Demonstrations will also be held in the College of Medicine. All medical men in Northumberland and the adjoining counties will be heartily welcome. Complete programmes will shortly be drawn up, and will be sent to all members of the North of England Branch.—R. P. RANKEN LYLE, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—The annual meeting of this Division will be held on Thursday, June 15th, at 3.30 p.m., at the residence of the Secretary. Business: (1) Election of officers for ensuing year, etc., as per rules; (2) such items on the agenda paper, sent out to each member, as have not previously been discussed.—R. B. ROBSON, 20, Bondgate Without, Alnwick, Honorary Secretary.

NORTH WALES BRANCH.—The annual meeting of this Branch will be held in Bala on Thursday, July 6th.—W. JONES MORRIS, Is-y-Coed, Portmadoc, H. JONES ROBERTS, Llywenarth, Pen-y groes, Carnarvonshire, Honorary Secretaries.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held on Saturday, June 17th, at the Northern Infirmary, Inverness. Details of the meeting will be sent to each member by circular. In accordance with By-law 24 of the Association, nominations for the office of Representative on the Central Council must reach me, duly signed by three members, not later than June 17th.—J. MUNRO MOIR, M.D., 4, Ardross Terrace, Inverness, Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH.—Clinical and Pathological Section. The next meeting of the Section will be held at 5 p.m. on Tuesday, June 20th, at the Salop Infirmary. Members who wish to read communications, or show cases or specimens, are requested to communicate with the Honorary Secretary before Tuesday, June 13th.—HAROLD H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretary.

SOUTH-EASTERN BRANCH.—**The annual meeting of this Branch will be held at the Guildhall, Canterbury, on Wednesday, June 21st, at 2.15 p.m. Dr. Whitehead Reid, President-elect, kindly invites members to lunch at the Royal Fountain Hotel, between 1 and 2 o'clock. Agenda: In addition to any business that may be transacted by an ordinary meeting.** (1) To receive the report as to election of officers of the Branch. (2) To receive the annual report of the Branch Council. (3) Mr. J. H. **Ewart** will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." After the meeting excursions will be arranged as follows:—(*a*) The Cathedral; St. Augustine's College; excavations of St. Augustine's Abbey; the Chapel of St. Pancras, etc.; (*b*) Canterbury Asylum and St. Martin's Church; (*c*) Sewage Farm and Sanatorium; (*d*) Waterworks and Gasworks. The proprietors of the Canterbury Weavers will be pleased to show members over their premises during the day. The Dean of Canterbury has kindly consented to conduct members round the Cathedral after the evening service at 4 o'clock. Excursions *b*, *c*, and *d* will start after the annual meeting from the Guildhall about 3 o'clock. Mr. Prentice will be pleased to show members over the Canterbury Hospital at or after 5 o'clock. There will be a display of instruments by the Holborn Surgical Instrument Company; and of Dr. Luke's ethyl chloride inhaler by Messrs. Duncan and Flockhart at the hospital. Members desiring to play golf are kindly requested to notify Dr Henchley, 1, London Road, Canterbury, by June 17th, so that he can make arrangements for driving them to and from the Barham Downs Golf Links. Dinner at the Royal Fountain Hotel, 6.15 for 6.30; charge, 7s. Wine will be supplied by local members. Those who propose to be present are requested to signify their intention to Dr. Henchley not later than Saturday, June 17th.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—**A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.**

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—The annual meeting of this Division will be held at the Church Rooms, Birchington, on Tuesday, June 13th, at 4.30 p.m., Dr. H. G. Harris in the chair. Agenda: Election of officers for the year. To receive the report of the Executive Committee. To consider the business of the Annual Representative Meeting (see SUPPLEMENT, May 13th). To reconsider the report of the Medico-Political Committee with regard to the National Deposit Friendly Society (see SUPPLEMENT, January 14th) The chairman kindly invites members to tea at his residence, S. John's, Birchington, at 4 p.m. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends, but they are not entitled to vote on divisional questions.—HUGH M. RAVEN, Barfield House, Broadstairs, Honorary Divisional Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting will be held at the Town Hall, St. Albans, on Thursday, June 22nd, at 2.30 o'clock, under the presidency of Dr. Lipscomb. The President invites the members to luncheon at the Town Hall at 1 p.m. sharp, and will be glad if those who intend to be present will communicate with him not later than Monday, June 19th. Dr. Boys (St. Albans) and Dr. Clement Dukes (Rugby) have promised to read papers, and Dr. Savory (Bedford) will show specimens.—E. HARRIES JONES, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of the members of the above will be held in the Board Room of the Royal Bucks Hospital, Aylesbury, on Tuesday, June 20th, at 2.30. Agenda: The minutes of the last meeting to be read and confirmed. To elect a Chairman and Vice-Chairman of the Division. To elect an Honorary Secretary and Treasurer. To form an Executive Committee. To elect a Representative for the Annual Representative Meeting. To consider matters referred to the Division by the Medico-Political Committee. To consider whether the interests of this Division and its members would not be better served by the outlying portions of the Division joining other Divisions more accessible to them. Any other business.—HORACE ROSE, Melrose, Aylesbury, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The sixty-sixth annual meeting will be held on Thursday, June 15th, at the Athenaeum, George Street, Plymouth, at 3 p.m., when Dr. R. H. Clay will resign the chair to Mr. G. Jackson, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1904-5 will be presented to the meeting, and the officers of the Branch be elected for the year 1905-6. The reports from the Divisions of the Branch on the resolutions proposed and carried at the Truro intermediate meeting on March 2nd, 1905, and submitted to the Divisions for their consideration, will be brought before the meeting for confirmation. Luncheon, by kind invitation of the President-elect, will take place from 1 to 2.30 p.m. at Goodbody's Restaurant, Bedford Street. After the meeting Dr. Turner kindly invites members to inspect the ancient and historically interesting mansion, Plympton House, where tea will be provided. Trains from Millbay to Plympton, 5.5 p.m., and from Plympton to Millbay, 6.35 p.m. The annual dinner will be held at 7 p.m. at Goodbody's Restaurant, Bedford Street Tickets, (exclusive of wine) 6s., which can be had from the Honorary Secretary of the Branch. On Friday, June 16th, the members of Plymouth, Devonport and district, cordially invite their colleagues to a luncheon, and an excursion by steamer to the breakwater, and thence up the Hamoaze to Cotehele (which will be visited by kind permission of the Right Hon. The Earl of Mount Edgcumbe). Members who accept this invitation are invited to bring their wives or lady friends (limited to two). Notice will be given at the meeting and dinner on the 15th of the time and place of departure of this excursion; and those who wish for further details should communicate with Dr. Webber, 4, Queen Anne Terrace, Plymouth. The Honorary Secretary begs to intimate to those members who purpose attending (1) the visit to Plympton House, (2) the annual dinner, (3) the excursion to Cotehele, that they must inform him on or before June 8th, and at the same time forward the amount of the dinner ticket, in order that the necessary arrangements may be made.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The thirty-second annual meeting of the Branch will be held at the North Stafford Hotel, Stoke-on-Trent, on Thursday, June 22nd, at 5.50 p.m., when an address will be delivered by the President-elect, Dr. G S. Hatton. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Correspondence. (4) Address by the President. (5) Report of the Council. (6) The financial statement. (7) To decide the place of holding the next annual meeting. (8) Election of officers for the ensuing year. (9) Report on the election of the Representative of the Branch on the Council of the Association. Members have the privilege of introducing friends. Dinner at 7 p.m., charge 5s.—G. PETGRAVE JOHNSON, Honorary General Secretary, Stoke-on-Trent.

ULSTER BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 21st, at Warrenpoint, co. Down. The meeting will elect for the ensuing year a President, Treasurer, Secretary, and (with the Connaught Branch) two members of the Central Council. Nominations for these offices must be sent to the Honorory Secretary not later than May 31st. Attention is called to Rule 4, according to which the President shall be a member of the Branch who has not held the said office during the previous five years, and who must not be a member of the same Division as his predecessor.—CECIL E. SHAW, M.D., Honorary Secretary, 18, College Square East, Belfast.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Hotel Majestic, Harrogate, on Wednesday, June 28th, at 3.30. The officers will be elected. Candidates to represent the Branch on the Central Council of the Association must be nominated by at least three members of the Branch, and such nominations must be sent to me on or before Saturday, June 17th. The present Representatives of the Branch are Drs. Burgess and Goyder. The annual dinner will take place at the Hotel Majestic at 6.30. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate with me at once.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,133 births and 4,396 deaths were registered during the week ending Saturday last, June 3rd. The annual rate of mortality in these towns, which had been 15.0, 14 4, and 14 6 per 1,000 in the three preceding weeks, increased to 14.7 per 1,000 last week. The rates in the several towns ranged from 4 3 in Hornsey, 5.5 in Leyton, 7.3 in Hanley, 8.2 in King's Norton, 9.2 in West Ham, 9.4 in Tottenham, and 9.5 in Devonport, to 19.3 in Newcastle-on-Tyne, 19.4 in Preston, 19.5 in Sunderland, 20.5 in Rochdale, 20 9 in Stockton-on-Tees, 22.7 in Swansea, 25.3 in Tynemouth, and 26.0 in Middlesbrough. In London the rate of mortality was 14.7 per 1,000, and it also averaged 14.7 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.4 per 1,000; in London the rate was 1.6 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.4 in Sunderland, 2.5 in Smethwick, 2.6 in Rotherham, 2.7 in Sheffield, 2 9 in Salford and in Tynemouth, 3 1 in Warrington, 4.9 in Coventry, and 5.4 in West Bromwich. Measles caused a death-rate of 1 1 in Willesden and in Salford, 1 3 each in Walthamstow and in Birkenhead, 1.4 in Sunderland and in Merthyr Tydfil, 1.7 in Derby, 1.8 in Sheffield, 2.3 in Warrington, 2.5 in Smethwick, 4.2 in Coventry, and 4 6 in West Bromwich; and whooping-cough of 1.3 in East Ham, 1.5 in Ipswich, 1.6 in Hastings, and 2 9 in Tynemouth. The mortality from scarlet fever, from diphtheria, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Bradford, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 9 small-pox patients at the end of last week, against 17, 15, and 10 at the end of the three preceding weeks; one new case was admitted during the week, against 2, 3, and none in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,177, 2,211, and 2,200 at the end of the three preceding weeks, had risen again to 2,267 at the end of last week; 351 new cases were admitted during the week, against 319, 319, and 312 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 3rd, 1047 births and 567 deaths were registered in eight of the principal Scotch towns. The annual

rate of mortality in these towns, which had been 19.5, 16.7, and 18.1 per 1,000 in the three preceding weeks, declined again to 16 9 per 1,000 last week, but was 2.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 10.2 in Leith and 13.7 in Aberdeen and in Perth to 17 8 in Greenock and 18 3 in Glasgow. The death-rate from the principal infectious diseases in these towns averaged 2.4 per 1000. the highest rates being recorded in Glasgow, Paisley, and Greenock. The 284 deaths registered in Glasgow included 24 which were referred to measles, 2 to scarlet fever, 14 to whooping-cough, and 7 to diarrhoea. Eight fatal cases of measles, 3 of whooping-cough, and 4 of diarrhoea were recorded in Edinburgh; 4 of whooping-cough in Paisley; and 2 of diarrhoea in Dundee and in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, May 27th, 504 births and 339 deaths were registered in six of the principal Irish towns, against 617 births and 349 deaths in the preceding period. The mean annual death-rate in these towns, which had been 19.1, 21.9, and 22 3 per 1,000 in the three preceding weeks, fell to 18.3 per 1,000 in the week under notice, this figure being 3.7 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 9.6 in Limerick and 16.4 in Cork to 20 5 in Belfast and 25.3 in Waterford. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.0 per 1,000, or 0.3 per 1,000 higher than during the preceding period, the highest figure—2.6—being recorded in Belfast, while Londonderry and Waterford registered no deaths under this heading at all. There were 15 deaths from measles in all, 14 of which were recorded in Belfast. No deaths were anywhere recorded from either small-pox, scarlet fever, or typhus, and only 3 deaths from enteric fever and 1 from diphtheria in Dublin.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Alexander G. Wildey, Fleet Surgeon, to the *Indus*, June 1st; Edward T. Meagher, Staff Surgeon, to the *Ramillies*, June 1st; Robert S. Bernard, Staff Surgeon, to the *President*, additional, for three months' hospital course, June 19th; Ernest A. Penfold, M.B, Staff Surgeon, to the *Terrible*, June 19th; Arthur Gaskell, Staff Surgeon, to the *Highflyer*, June 10th; Frederick J. A. Dalton, Staff Surgeon, to Chatham Hospital, June 6th; Alexander C. Renwick, M.B., Surgeon, to the *Indus*, June 4th; Briton S. Robson, M.B., Surgeon, to the *Skipjack*, May 31st; Arthur I. Sheldon, Surgeon, to the *Pembroke*, additional, for disposal, June 6th; Hugh W. Macnamara, Fleet Surgeon, to the *Royal Arthur*, on commissioning, undated; Timothy J. Crowley, M.D., Fleet Surgeon, to the *Impregnable*, June 24th; Thomas Austen, Fleet Surgeon, to the *Albemarle*, June 24th; Horace B. Marriott, Staff Surgeon, to the *King Alfred*, on recommissioning, June 24th; Norman L. Richards, Staff Surgeon, and Frederick E. Anley, Surgeon, to the *Antrim*, on commissioning, undated.

Mr. E. L. Gowland, civil practitioner, has been appointed Surgeon and Agent at East Swale, June 2nd.

Deputy-Inspector-General M. Fitzgerald, C.M.G., has been placed on the retired list, at his own request, with permission to assume the rank of Inspector-General, May 21st. His commissions are thus dated: Surgeon, April 1st, 1873; Staff Surgeon, April 1st, 1885; Fleet Surgeon, January 6th, 1894; and Deputy-Inspector-General, September 1st, 1901. As Surgeon of Malta Hospital he received the expression of their Lordships' satisfaction at receiving the report of his efficient performance of his duties during the recent operations in Egypt, 1882. He accompanied the expedition sent to punish the King of Benin for the massacre of the political expedition in 1897, ending in the capture of Benin city; served as Principal Medical Officer (mentioned in dispatches, medal with clasp, and made C.M.G.)

ARMY MEDICAL SERVICE.

Surgeon-General W. L. Gubbins, M.B., M.V.O., Army Medical Staff, Principal Medical Officer Western Command, India, and Colonel W. T. Saunders, C.B., Royal Army Medical Corps, Principal Medical Officer, 7th (Meerut) Division, India, have been appointed Honorary Surgeons to the Governor-General of India.

ROYAL ARMY MEDICAL CORPS.

Captain J. Conway resigns his commission, June 3rd. He was appointed Lieutenant, January 29th, 1901, and Captain, January 29th, 1904. He was in the South African war in 1901-2, and has received the Queen's medal with four clasps

Major J. D. Fergusson, D.S.O., has been appointed second in command of the Royal Army Medical Corps Dépôt at Aldershot.

ARMY MEDICAL RESERVE

Surgeon-Major H. W. Roberts, to be Surgeon-Lieutenant-Colonel, Feb. 28th.

Surgeon-Major W. H. Packer, M.D., to be Surgeon-Lieutenant-Colonel, May 26th.

Surgeon-Major J. J. de Z. Marshall to be Surgeon-Lieutenant-Colonel, May 27th.

Captain W. R. Matthews, M.B., Manchester Companies, Royal Army Medical Corps (Volunteers), to be Surgeon-Captain, June 7th.

Surgeon-Captain T. F. Devane, having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve, June 7th.

INDIAN MEDICAL SERVICE.

The following notification is substituted for that which appeared in the *Gazette* of February 21st:—Lieutenant-Colonel P. H. Benson, M.B., Madras Establishment, to be Colonel, October 11th, 1904. [The announcement referred to was to the effect that Lieutenant-Colonel Benson had been promoted to be Surgeon General.]

Captain George Campbell Laing, M.B., of the Indian Medical Service, died at Poona on April 27th, in the 34th year of his age. He joined the department as Surgeon-Lieutenant, January 28th, 1898, and became Captain, January 28th, 1901.

Lieutenant-Colonel R. D. Murray, M.B., Bengal Establishment, is promoted to be Colonel from March 29th. He entered the service as Assistant Surgeon March 31st, 1875, and became Brigade-Surgeon-Lieutenant Colonel March 31st, 1905. He was with the Burmese Expedition in 1886-7, was mentioned in dispatches, and received a medal with clasp.

The retirement from the service of Colonel C. Little, M.D, of the Madras Establishment, dated February 12th, which has been already announced in the British Medical Journal, has received the approval of the King.

Extra pensions of £100 a year each have been granted to Lieutenant-Colonel Lewtas, M.D., Bengal Establishment; Lieutenant-Colonel Sturmer, Madras Establishment; and Lieutenant-Colonel Ranking, M.D., Bengal Establishment, on retirement.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Supernumerary Lieutenant (Honorary Lieutenant in the Army) J. W. Hopkins is promoted to be Captain and to remain seconded, February 26th.

IMPERIAL YEOMANRY.

Mr. William T. Rowe, M.D., is appointed Surgeon-Lieutenant in the Nottinghamshire (South Nottinghamshire) Hussars, June 7th.

Mr. Herbert Connop is appointed Surgeon-Lieutenant in the Montgomeryshire Regiment, May 16th.

Surgeon-Captain E. Stewart, Sussex Regiment, resigns his commission, June 3rd.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Lieutenant N. Davidson, M.B., 1st Banff Regiment, resigns his commission, May 27th.

Surgeon-Lieutenant M. B. Hay, 2nd Devonshire Regiment, resigns his commission, June 7th.

Surgeon-Captain (Honorary Captain in the army) A. Thorne, M.B., 2nd Middlesex Regiment, is granted the honorary rank of Surgeon-Major, May 15th.

VOLUNTEER RIFLES.

Surgeon-Lieutenant A. Roxburgh, M.D., 3rd Lanarkshire Regiment, to be Surgeon-Captain, May 27th.

Captain and Honorary Major C. J. J. Harris, M.D. (late of the Pembroke Royal Garrison Artillery Militia), to be Surgeon-Lieutenant in the 1st Surrey (South London) Regiment, May 27th.

Surgeon-Lieutenant W. M. Mackay, M.B., 2nd Volunteer Battalion the Durham Light Infantry, to be Surgeon-Captain, May 27th.

Surgeon-Lieutenant-Colonel J. Pearse, 1st Middlesex (Victoria and St. George's), is granted the honorary rank of Surgeon-Colonel, May 8th.

Surgeon-Captain W. de Watteville, M.B., 1st (Inverness-shire Highland) Volunteer Battalion the Queen's Own Cameron Highlanders, resigns his commission, June 3rd.

Consequent on the reorganization of the 2nd and 3rd Volunteer Battalions of the Welsh Regiment, Surgeon-Major D. Hepburn, M.D., is transferred from the 3rd Volunteer Battalion to be Medical Officer, 2nd Volunteer Battalion the Welsh Regiment, his rank and date of commission remaining unaltered.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant W. A. Gibb, M.D., Harwich Bearer Company, to be Captain, June 3rd.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon; resident. Salary at the rate of £50 per annum.

BRADFORD UNION.—Senior Resident Medical Officer of the Workhouse. Salary, £380 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Assistant Resident Medical Officer for three months. Honorarium, 25 guineas.

DEVONPORT: ROYAL ALBERT HOSPITAL AND EYE INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

DOWNPATRICK: DOWN DISTRICT LUNATIC ASYLUM.—Junior Male Assistant Medical Officer. Salary, £100 per annum.

DUBLIN: RICHMOND HOSPITAL.—Anaesthetist.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Assistant Physician.

GORDON HOSPITAL, Vauxhall Bridge Road, S.W.—Surgeon to Outpatients.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Physician.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £25 for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Assistant Physician (2) Anaesthetist. Honorarium, 15 guineas.

HULL: ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £50 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £80 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEICESTER INFIRMARY.—Assistant House-Surgeon, resident. Salary at the rate of £50 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION.—Honorary Assistant Physician.

LONDON COUNTY COUNCIL.—(1) Assistant Medical Officer in the Education Branch. Salary, £300 per annum. (2) Twenty Local Assistant Medical Officers in the Education Branch. Salary, £150 per annum each.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary, £80 per annum.

MANCHESTER ROYAL INFIRMARY.—Director of the Clinical Laboratory.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Clinical Assistants.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Senior Resident Medical Officer. (2) Senior Obstetric Assistant. Salary, £100 and £50 per annum respectively. (3) Assistant Anaesthetist. (4) Clinical Assistants.

RYDE: ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident Male House-Surgeon. Salary, £90 per annum.

ST. GEORGE'S UNION.—Second Assistant Medical Officer at the Infirmary. Salary, £120 per annum.

SALFORD ROYAL HOSPITAL.—(1) Senior House Surgeon. (2) House-Physician. (3) Junior House-Surgeon. Salaries, £110, £100, and £90 per annum respectively.

SALISBURY: FISHERTON ASYLUM.—Junior Assistant Medical Officer. Salary, £120 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Honorary Medical and Surgical Registrar.

STOKE-ON TRENT: INFECTIOUS DISEASES HOSPITAL, BUCKNALL.—Resident (Lady) Assistant Medical Officer. Salary, £100 per annum.

THROAT HOSPITAL, Golden Square, W.—Senior Clinical Assistants.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Senior Resident Medical Officer.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Shotts, co. Lanark.

APPOINTMENTS.

DEWAR, A., M.D., C.M. (McGill Univ.), L.S.A.Lond., Medical Superintendent of the Royal Hamadryad Seamen's Hospital, Cardiff.

DODD, John, M.D., M.Ch., Visiting Medical Officer Leicester Poor-law Infirmary.

ECCLES, W. McAdam, M.S.Lond., F.R.C.S., Examiner in Surgery to the Society of Apothecaries.

EDWARDS, W. B., M.B., C.M.Glasg., District Medical Officer of the Neath Union.

ELWELL, R. G., B.C.Camb., Assistant Medical Superintendent Lewisham Union Infirmary.

FINIGAN, D. O'C., M.D., M.R.C.S., L.R.C.P., Honorary Assistant Physician to the German Hospital, Dalston.

FORREST, A., M.B., C.M.Glasg., Medical Officer of Health for the Borough of Bridlington, vice W. A. Wetwan, M.R.C.S.Eng., L.S.A., resigned.

GRANT, C. C., M.B., C.M.Glasg., District Medical Officer of the Neath Union.

JONES, T. Henry, M.D., B.A., D.P.H., Education Medical Officer for Surrey.

MORRIS, T. H. P., M.R.C.S., L.R.C.P.Lond., District and Workhouse Medical Officer of the Newcastle-under-Lyme Union.

NESS, T. M., M.D.Ed., Honorary Physician to Margaret Street Hospital for Consumption and Diseases of the Chest, London.

PATTERSON, D. Wells, M.B.Durh., Honorary Assistant to the Department for Diseases of the Skin in the Royal Infirmary, Newcastle-on-Tyne.

ROBB, A. Gardner, M.B.R.U.I., D.P.H., Visiting Medical Superintendent of the City Fever Hospital, Belfast.

ROY, S. Charan, M.B., M.S.Edin., Resident Medical Officer, Leicester Poor-law Infirmary.

SALISBURY, C. R., M.R.C.S., L.R.C.P., D.P.H.Lond., Anaesthetist to the Metropolitan Hospital.

SELBY, P. G., M.R.C.S., L.R.C.P., Medical Officer of Health, Faversham Rural District.

SHARPLEY, C. W., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Ulceby District, Lincolnshire.

SMALL, R., M.R.C.S., L.R.C.P.Lond., Second Assistant Medical Officer, Kensington Parish Infirmary.

STALLARD, Nigel F., M.B.Lond., Honorary Visiting Physician to Fairlight Hall Convalescent Home, Hastings, in connexion with Margaret Street Hospital for Consumption and Diseases of the Chest, London.

TONGUE, E. J., M.R.C.S., L.R.C.P., Medical Officer of Health, Roxby-cum-Risby Urban District.

WARE, A. M., M.A., M.D., B.Sc.Cantab. Honorary Physician to Margaret Street Hospital for Consumptives and Diseases of the Chest, London.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been approved:

Honorary Physician: A. T. Wilkinson, M.D., M.R.C.P.Lond., vice J. Dreschfeld, M.D.Wurzb., F.R.C.P.Lond., resigned.
Accident Room House-Surgeon: E. M. Wilkins, M.B., B.Ch.
Assistant Medical Officer at the Barnes Convalescent Home: W. H. Hey, M.B., Ch.B.
Assistant Surgical Officer: P. R. Wrigley, M.R.C.S., L.R.C.P.
Surgical Registrar: C. Roberts, F.R.C.S. (reappointed).
House-Physicians: G. D. Dawson, M.B., Ch.B.; J. Smalley, M.B., Ch.B.
House-Surgeons: H. Mackenzie, M.B., Ch.B.; T. M. Hughes, M.R.C.S., L.R.C.P.
Medical Officer for Home Patients: George Ashton, M.D.Manch., M.R.C.S., L.R.C.P.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BROUGHTON.—May 30th, at Bank View, Batley, the wife of Alfred G. S. Broughton, M.B., Ch.B., of a daughter.

MARSHALL.—On June 3rd, at West House, Southminster, Essex, the wife of Thomas Bingham Marshall, M.R.C.S., L.R.C.P., of a son.

PITTS-TUCKER.—On June 2nd, at Sutton, Cambs., the wife of F. A. Pitts-Tucker, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

NOBLE—HULKE.—On June 1st, 1905, at St. Mary Abbots, Kensington, by the Rev. Canon Pennefather, Vicar of the parish, assisted by the Rev. Arthur Armitstead, Vicar of All Saints, East Finchley, Hugh Percy Noble, M.B., B.S.Lond., son of Samuel Clarke Noble, M.R.C.S. Eng., L.S.A.Lond., of Kendal, Westmorland, to Dora Backhouse, fifth daughter of the late Frederick Thomas Hulke, M.B.Lond., of Admiralty House, Deal, and of Mrs. F. T. Hulke, of 162, Holland Road, Kensington.

SPARROW—DAVIDSON.—On June 1st, at St. Stephen's, East Twickenham, by the Rev. Alfred O. Russell, M.A., uncle of the bridegroom, assisted by the Rev. F. T. Lewis, M.A., G. R. Sparrow, B.A., M.R.C.S., L.R.C.P., third son of Alex. Sparrow of Ross and Liverpool, to Constance Maud, younger daughter of T. J. Davidson, of Birnam, East Twickenham.

DEATH.

BRADFORD.—On May 31st, at Greenesfield House, Gateshead-on-Tyne (the residence of his brother-in-law, Wilson Worsdell), aged 53 years, Peter Percival Bradford, M.R.C.S., L.R.C.P., of Bracknell, Berks. Interred at St. Andrew's Cemetery, Newcastle-upon-Tyne, June 2nd.

DIARY FOR NEXT WEEK.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W.—At 5.15 p.m., Cases and Specimens.

SATURDAY.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—Provincial meeting at the Children's Hospital, Western Bank, Sheffield, 2.30 p.m., Clinical Cases, Pathological Specimens, and Papers.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, Thursday, 4 p.m.—Surgical cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Wednesday, 4 p.m., Pericarditis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street.—Thursday, 4 p.m., Dental Caries.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—**The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Tuesday, The Treatment of Diseases of the Knee-joint; Wednesday, Ocular Therapeutics; Thursday, The Laryngoscopic Diagnosis of Laryngeal Disease.**

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W., Thursday, 5 p.m.—Demonstration of Cases of Arrested and Advancing Pulmonary Tuberculosis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday, Prognosis in Abdominal Affections; Thursday, Joint Affections in Childhood.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Thursday, 3 p.m., Pelvic Tuberculosis.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—**The following lectures have been arranged for next week, at 5 p.m. each day:** Tuesday, Gynaecology; Wednesday, Practical Medicine; Thursday, Injuries of the Hip; Friday, Anaesthetics.

BOOKS, ETC., RECEIVED.

Blackie's Science Readers. Nos. VI-VII. Lessons on Living: A Reading-book in Physiology and Hygiene. By H. Rowland Wakefield. London: Blackie and Son. 1s 6d.

Greene's Medical Examination for Life Insurance and its Associated Clinical Methods. By Charles Lyman Greene, M.D. Second Edition. London: Kebman, Limited. 1905. 17s.

International Clinics. A Quarterly. By Leading Members of the Medical Profession throughout the World. Edited by A. O. J. Kelly, A.M., M.D. Vol. I, Fifteenth Series, 1905. Philadelphia and London: J. B. Lippincott Co. 1905.

L'Hérédité Morbide. Par le Dr. Paul Raymond. Paris: Vigot Frères. 1905. Fr.5.

Les Perversions Sexuelles. Physiologie-pathologie-thérapeutiques XII. Fétichistes et Erotomanes. Par le Dr. Emile Laurent. Paris: Vigot Frères. 1905. Fr.3.50.

Ueber Störungen des Handelns bei Gehirnkranken. Von Prof. Dr. H. Liepmann. Berlin: S. Karger; London: Williams and Norgate. 1905.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
June	11...Sunday..	
,,	12...MONDAY ...	*Bank Holiday.*
,,	13...TUESDAY ...	Matters for consideration by Organization Committee on June 27th should be notified to Medical Secretary on or before this day. Chichester and Worthing Division, *South Eastern Branch*, Annual Meeting, Infirmary, Worthing, 3.30 p.m. Isle of Thanet Division, *South-Eastern Branch*, Annual Meeting, Church Rooms, Birchington, 4.30 p.m.
,,	14...WEDNESDAY	Blyth Division, *North of England Branch*, Star and Garter Hotel, Blyth, 7 p.m. North of England Branch, Library of the Infirmary, Newcastle-on-Tyne, 3 p.m. Westminster Division, *Metropolitan Counties Branch*, Annual Meeting, 20, Hanover Square, 4.30 p.m.
,,	15...THURSDAY...	The last day upon which the General Secretary can receive references for the Conference of Branch and Division Secretaries on July 25th at Leicester. Midland Branch, Annual Meeting, Infirmary, Leicester, 4.30 p.m. North Northumberland Division, *North of England Branch*, Annual Meeting, 20, Bondgate Without, Alnwick, 3.30 p.m. South-Western Branch, Annual Meeting, Athenaeum, George Street, Plymouth, 3 p.m.
,,	16...FRIDAY ...	LONDON: Ethical Committee, 2 p.m. Border Counties Branch, Annual Meeting, County Hall, Carlisle, 3.30 p.m. Edinburgh Branch, Annual Meeting, Royal College of Physicians, 9, Queen Street, 4.30 p.m.
,,	...SATURDAY...	Northern Counties of Scotland Branch, Annual Meeting, Northern Infirmary, Inverness. South-Eastern Counties Division, *Edinburgh Branch*, Annual Meeting, Railway Hotel, Newtown, St. Boswells, 3 p.m.
,,	17...Sunday..	
,,	19...MONDAY ...	LONDON: Scientific Grants Committee, 3 p.m. Election of Representatives: July 3rd
,,	20...TUESDAY ...	Aylesbury Division, *South Midland Branch*, Annual Meeting, Board Room, Royal Bucks Hospital, Aylesbury, 2.30 p.m. Coventry Division, *Birmingham Branch*, Joint Meeting with Nuneaton and Tamworth Division and Warwick and Leamington Division, Coventry and Warwickshire Hospital, Coventry, 4 p.m. Liverpool Southern Division, *Lancashire and Cheshire Branch*, Annual Meeting, Medical Institution, Hope Street, 4.30 p.m. Shropshire and Mid Wales Branch, Salop Infirmary, 5 p.m.
,,	21...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. North of England Branch, Annual Meeting, Zetland Hotel, Saltburn. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m. Ulster Branch, Annual Meeting, Warrenpoint, co. Down.
,,	22...THURSDAY...	LONDON: Hospitals Committee, 2 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Infirmary, 5 p.m. City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. St. Pancras Division, *Metropolitan Counties Branch*, St. Pancras Northern Infirmary, Dartmouth Park Hill, N., 4.30 p.m. South Midland Branch, Annual Meeting, Town Hall, St. Albans, 2.30 p.m. Staffordshire Branch, Annual Meeting, North Stafford Hotel, Stoke-on-Trent, 5.30 p.m.; Dinner, 7 p.m.
June	23...FRIDAY ...	
,,	24...SATURDAY...	
,,	25...Sunday..	
,,	26...MONDAY ...	
,,	27...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m.
,,	28...WEDNESDAY	LONDON: Journal and Finance Committee, 2 p.m. Bath and Bristol Branch, Annual Meeting, University College, Bristol, 4.30 p.m.; Dinner, Clifton Down Hotel, Clifton, 7.30 p.m. Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m. Metropolitan Counties Branch, Annual Meeting, Trocadero Restaurant, Piccadilly Circus, W. (Connaught Room), 6 p.m.; Dinner (Balmoral Room), 7.30 p.m. Yorkshire Branch, Annual Meeting, Hotel Majestic, Harrogate, 3.30 p.m.; Dinner, 6.30 p.m.
,,	29...THURSDAY...	East Anglian Branch, Annual Meeting, Norwich. Wandsworth Division, *Metropolitan Counties Branch*, Clapham, 3.45 p.m.
,,	30...FRIDAY ...	Association Research Scholarships expire.
July	1...SATURDAY...	Research Scholarships date from now. Edinburgh Branch, Hawick, 12.15 p.m.; Dinner, Tower Hotel, 6.30 p.m.
,,	...Sunday..	
,,	3...MONDAY ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	LONDON: Central Council, 10 a.m.
,,	6...THURSDAY..	Newcastle-on-Tyne Division, *North of England Branch*, Royal Infirmary and College of Medicine, 10 a.m. North Wales Branch, Annual Meeting, Bala.
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
,,	11...TUESDAY ...	
,,	12...WEDNESDAY	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.
,,	13...THURSDAY...	
,,	14...FRIDAY ...	
,,	15...SATURDAY ...	
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	
,,	19...WEDNESDAY	
,,	20...THURSDAY...	City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C. 4 p.m.
,,	21...FRIDAY ...	
,,	22...SATURDAY...	
,,	23 ..Sunday..	
,,	24...MONDAY ...	2 p.m., General Meeting, to be followed by Representative Meeting.
,,	25...TUESDAY ...	Council Meeting. Adjourned General Meeting, to be followed by Representative Meeting.
,,	26 ..WEDNESDAY	Ditto.
,,	27...THURSDAY...	Ditto.

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 17TH, 1905.

CONTENTS.

	Page
MEETINGS OF BRANCHES AND DIVISIONS:	
Border Counties Branch	337
Dorset and West Hants Branch: West Dorset Division	337
Dundee Branch	338
Edinburgh Branch: Southern Division	340
Lancashire and Cheshire Branch: Bootle Division	341
" " Liverpool (Northern) Division	341
" " Manchester (Central) Division	341
Midland Branch: Leicester Division	341
North Lancashire and South Westmorland Branch: Lancaster Division	341
South-Eastern of Ireland Branch	341
South-Eastern Branch: Canterbury and Faversham Division	342
" " Eastbourne Division	342
" " Eastbourne and Hastings Divisions	342
" " Norwood Division	342
West Somerset Branch	342
NOTIFICATION FOR ANNUAL MEETING	343
LIST OF LODGINGS AT LEICESTER	344
MAP OF LEICESTER	347
SPECIAL RAILWAY ARRANGEMENTS	348
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	348
NAVAL AND MILITARY APPOINTMENTS	349
VITAL STATISTICS	350
VACANCIES AND APPOINTMENTS	350
BIRTHS, MARRIAGES, AND DEATHS	351
DIARY OF THE WEEK	351
BOOKS RECEIVED	351
CALENDAR	352

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BORDER COUNTIES BRANCH.

A GENERAL meeting of this Branch was held in the Infirmary, Whitehaven, on March 31st, Dr. HENRY BARNES (President) in the chair.

Matters Referred to Divisions.—Mr. J. SMITH WHITAKER, who had been invited to be present, gave an address on Some Medico-political Subjects which have been referred to the Divisions. He gave an account of the work of the Association as illustrated by the business now being considered in connexion with the forthcoming Representative Meeting. He pointed out that, broadly, the questions under consideration might be classified as (1) those affecting the internal working of the Association; (2) those affecting the interests of the profession in its relation to the community; (3) questions, such as the reorganization of the Local Government Board and vaccination, in which the profession had no direct material interest, but in which it was concerned as the adviser of the community in matters affecting public health. The Medical Secretary then went over the subjects at the time under consideration in greater detail, explaining those points on which he was informed that the Branch specially desired explanation. With reference to contract practice, Mr. Whitaker pointed out that the proposals before the Association were—in part, at least—of such a nature that they depended for their successful execution upon the local action of the Divisions. With regard to the Midwives Act, he pointed out that the necessity for the consideration of the matter arose from the fact that Parliament and the Privy Council had made it incumbent upon the midwife in certain circumstances to send for a medical practitioner, irrespective of the wishes of the patient. The medical practitioner had to decide as to attending in an emergency in which he had no opportunity of ascertaining the capacity or willingness of the patient to pay; and as the State had created the difficulty, it seemed just that the State should underwrite the risk. In the discussion which followed, the following took part: The PRESIDENT, Drs. ABLETT, CRERAR, MACLAREN, MITCHELL, and MURIEL. Mr. WHITAKER answered various questions put in the discussion, and the PRESIDENT thanked him in the name of the meeting for his paper.

Communications.—Dr. F. R. HILL (Carlisle) read notes on and showed the following cases: (1) A marked case of conical cornea, where, in the patient's opinion, the trouble had been caused by an injury. (2) A child of 15 months, with complete aniridia of both eyes. The child's mother was similarly affected, but in her case the cornea had become opaque, while in the case shown it was perfectly clear. (3 and 4) A case of disseminated choroiditis in which the arrangement of the pigment gave rise to appearances closely resembling retinitis pigmentosa and charts of the fields of vision in this case and in one of retinitis pigmentosa were passed round for comparison. The patient in the latter case was to have been present, but had been prevented.—Dr. W. S. SYME (Glasgow) showed (1) specimens illustrating various intra-nasal and naso-pharyngeal conditions giving rise to nasal obstruction; (2) forceps, which he had designed for operations on the maxillary antrum; (3) a large malignant tumour of the thyroid gland, which gave rise, by pressure on the left recurrent nerve, to increasing abductor paralysis and which later invaded the trachea.—Mr. N. MACLAREN (Carlisle) also showed the following: (1) Cast and sections of a tuberculous right kidney, removed from a girl of 22; (2) caecum and appendix showing concretion removed from a child of 1 year and 10 months; (3) a piece of bowel with a malignant ulcer, removed by Kraske's operation; (4) two malignant pustules of the skin, removed from the arm of a butcher who had slaughtered animals suffering from anthrax ten days before; (5) epithelioma of the penis, involvement of corpora cavernosa, total extirpation.

Dinner.—After the meeting dinner was served in the Grand Hotel.

DORSET AND WEST HANTS BRANCH:
WEST DORSET DIVISION.

THE annual meeting of this Division was held at Dorchester on June 7th.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr. MacDonald. *Vice-Chairman:* Dr. Whittingdale. *Secretary:* Dr. Comyns Leach. *Representative in Representative Meetings:* Dr. Comyns Leach.

Representatives of the Division on the Branch Council: Drs. Leach and Whittingdale, Messrs. Bovey, Curme, and Good. *Executive Committee of the Division:* All the above gentlemen, together with Dr. Kerr, Messrs. G. W. Daniell, Flower, Rendall, and Williams.

Annual Representative Meeting.—The business of the Annual Representative Meeting to be held at Leicester was fully considered, and the Representative instructed thereon.

Matters Referred to Divisions.—The question of the payment of medical practitioners called in to assist midwives was considered, and the opinion of the Division has been communicated to the Medico-Political Committee. Other matters of general interest were discussed.

Vote of Thanks to the Honorary Secretary.—A vote of thanks was passed to the retiring Honorary Secretary.

Clinical Meeting.—It was resolved that a clinical meeting should be held at Dorchester in December, if that could be arranged.

DUNDEE BRANCH.

THE annual meeting of this Branch was held in the Students' Union, Dundee, on June 2nd, at 4 o'clock, Dr. MACKIE WHYTE in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Election of Office-bearers.—The following office-bearers were elected for the year 1905-6: *President:* J. Mackie Whyte, Dundee. *President-elect:* G. C. Dickson, Carnoustie. *Past-President:* R. Grant, Glamis. *Vice-Presidents:* W. Kinnear, Dundee; G. Peterkin, Forfar. *Council:* G. Lowson, Dundee (elected 1903); D. Wardrop, Alyth (elected 1903); D. Lennox, Dundee (elected 1904); J. D. Gilruth, Arbroath (elected 1904); J. S. Y. Rogers, Dundee (elected 1904); W. T. Hall, Brechin. *Hon. Treasurer:* D. M. Greig, Dundee. *Hon. Secretaries:* R. C. Buist, Dundee; A. P. Low, Dundee. *Representative on Council of the Association:* R. C. Buist. *Representative in Representative Meeting:* A. P. Low.

Report of the Representative on Central Council.—The Representative on the Council of the Association (Dr. R. C. BUIST) submitted the following report on the proceedings of the Council:

That the present session of the Council and Committees of the Association has been one of great activity is evident from the proceedings already published in the SUPPLEMENT to the JOURNAL, and from the return of the attendances; that it has been of great value, the Annual Reports, which will be in your hands about the time when you receive this, will abundantly demonstrate. There are some matters to which I especially wish to draw your attention, partly because I think them of pre-eminent importance, and partly because, with your support, I have been able to take a large personal share in their development.

The work of the Association may be roughly classified as political and scientific, and it is within all our recollections that the immediate cause of the reconstruction of the Association was the unsatisfactory condition of the political work. The immediate result has been a great development on the political side, and by this, while the central scientific work has remained stationary, that of the Divisions has been to a certain extent pushed into the background. Many of us have regretted the fact that the possible advance of the scientific activities of the Association was so far neglected, but until the new organization was in routine working order neither the necessary time nor energy could be devoted to finding a remedy. The time has now arrived when this problem can be dealt with, and during this year the Council has taken the first steps by appointing a Committee to report on the matter, and by, at its last meeting, uniting most of the science work under one Committee. It should now be possible for the Association to devote much greater energy to fostering the scientific work of the Branches and Divisions, especially by encouraging the multiplication of local reference libraries, and also to bring into closer relation the research work and the discussions at the Annual Meeting.

It will not be out of place to give just a few instances of the increased efficiency of the political work. In Parliament, at the instance of the Association, the medical members of the House of Commons have formed themselves into a Public Health Committee, and though they are in no way responsible to the Association, the result has been to bring them into closer touch with it. This Session the Government introduced an Accidents (Mines and Factories) Bill in which the inquiry of the Certifying Factory Surgeon was in slight accidents to be replaced by that of an Inspector. As the Association very strongly holds that the medical inquiry into slight accidents is the way by which serious accidents in the future may be avoided, action was promptly taken and the Bill was blocked.

In the Ebbw Vale colliery district a dispute arose over a new scheme, under which the Workmen's Doctors Fund Committee would no longer permit their medical officers to engage in private practice, and would admit other persons than the workmen of the Ebbw Vale Colliery Company to the benefits of the fund. Negotiations took place between the Medical Secretary and the local Branch and Division of the Association, and ultimately between the Medical Secretary and the Workmen's Committee, with the result that the Committee were fully informed as to the nature of the objections of the profession to their scheme. Recently they had occasion to seek candidates for the post of their chief medical officer, the emoluments of which are approximately equivalent to an income of a thousand pounds in general practice. They interviewed four young members of the profession, and all of these refused either to accept the post or to act as *locum tenens* until matters had been arranged with the local Division of the British Medical Association. Recently attention was drawn to a "registered American physician" in East London, and the Council, on the recommendation of the Medico-Political Committee, resolved that action should be taken in such cases. In this and other ways the machinery for dealing promptly with "collective medical defence" is now in full working order, and the burden that was formerly borne by the members of the Medical Defence Union for the whole profession can now be rested on the British Medical Association.

The only other matter on which I wish to speak is the arrangement of the internal work of the Association in its Council and Committees; and, as I hope to secure your support in taking an extremely important step for its improvement, I take the liberty of discussing it in some detail. When I became a member of the old Council over four years ago the business was arranged so that most of the Committees met the day preceding the Council meeting, and the Journal and Finance Committee on the morning before the Council. On entering the Council Room in the afternoon each member found the Minutes of all these Committees on long slips, and had as rapidly as possible, while the more formal preliminary business was going on, to glance through these slips in the endeavour to get an idea of the more important matters that were likely to engage his attention. I need hardly say how excellent such a system was for getting business through without the bulk of the Council really knowing the facts underlying many of the recommendations, or having time to realize how far some of the resolutions thus adopted were likely to lead in the future. My first Council meeting left me determined that so far as was in my power this system should be changed. During the past four years several advances have been made. First of all I carried a resolution that the agenda of all Committees meeting at the same time as the Council should be issued to all members of the Council, so that they might at least know what subjects were likely to engage their attention. During this year, in virtue of my appointment to the Chairmanship of the Medico-Political Committee, I have been able to introduce into the Minutes a series of cross-headings which show at a glance the subjects dealt with, and the old system has now finally disappeared under a new Standing Order of the Council that, "except with the special permission of the Council, no minute of a Committee shall be considered unless it has been at least three days in the hands of the members." These changes have certainly increased the number of members who can keep in touch with the whole work of the Council, and perhaps partly from this, but much more from the increasing volume of material handled, the time which the Council needs to get through its work has so much increased that this year each of the three quarterly meetings has been adjourned, and the time spent over the work of the last quarter has been eleven hours instead of the four hours previously required. In spite of the change by which the Council now meets in the morning, I do not think that an addition to the quarterly meetings can be avoided; but, as I had the opportunity of saying in a recent letter in the JOURNAL, the business can be more economically handled if grouped under a series of large Committees than if presented in more numerous minutes by smaller Special Committees. The Council has, I am glad to say, taken steps to effect this for all those Committees which, though appointed each year, are not dealt with under the

by-laws. Owing to special circumstances, a report prepared by a Committee consisting of the Chairmen of all the Standing Committees was not dealt with by the Council in detail, and was rejected, and it has thus become impossible to deal with the whole subject this year except by summoning a special Representative Meeting. As the questions remaining at issue are, I think, ripe for solution, and it is a great loss of time to the Association to be each year tinkering at its regulations, I hope to induce the members of the three conjoined Branches to unite in a requisition for a Special Representative Meeting, to be held at Leicester, for the adjustment of By-law 40, which regulates the Standing Committees. This will not involve any additional expense to the Association, but only require that at a stated time the Representative Meeting already in session be declared a Special Meeting for this purpose.

The following changes in the Committees seem to me so essential for the work of the Association that I shall not rest content unless these have been decided by the Representative Meeting, whether that decision be for or against me. (1) There must be a special Finance Committee; (2) there must be a special Journal Committee; (3) the care of the Libraries of the Association and its Branches and Divisions must be combined with the rest of the scientific work. The present Journal and Finance Committee, from which I withdrew after a year's experience, is not to my mind either a proper Finance Committee or a proper Journal Committee. It has been a General Purposes Committee, which has received the accounts, and then has gone through the agenda of the Council and decided what was to be done on the various items. When a question regarding the JOURNAL arises, the first question should be—What is best for the JOURNAL? The second—Can we afford it? These must be answered by separate Committees. At present the first idea that arises is, "that means more money." I have no personal sympathy with those who disparage the JOURNAL, and I know well the ability and the adaptability of the staff, but I feel very strongly that the JOURNAL and its needs should each year be reported on by a Committee appointed for the purpose, and such a Committee would, I am sure, be a support to the Editor. There is in this no suggestion to re-establish the old Reference Committee, or to impair in any way the personal responsibility of the Editor.

With regard to the present Premises and Library Committee, the only justification for its double function seems to me that the library is an upgrowth that needs premises. The ordinary management of the house property should be effected by a subcommittee of the Finance Committee, and when a question of large reconstruction is being dealt with, as at present, a special temporary Committee should be appointed. The library seems to me so important and essential a part of the scientific work that it should be grouped with it.

The other question on which serious difference of opinion exists is whether it is desirable that the Representative Meeting should appoint some members to other committees than the Medico-Political and Ethical Committees. Some members of Council seem to feel that the proposal is an attempt to aggrandize the Representative Meeting at the expense of the Council. It has never appeared to me in that light, and if the scheme of committee work which I sketched out had been adopted, each member of Council would have been asked to serve on at least one committee. As the Council meetings from October to July will, I think, in future number six, and as the number of meetings of each committee varies from four to ten, apart altogether from the meetings of any subcommittees, each member of Council would be summoned to London at least ten times. Unless a man is in special or official practice, this seems to me as great a demand as can reasonably be made on his time. Would the Association welcome a Council on which the general practitioner would practically be unable to serve, or conditions under which members distant from London would be frequently disfranchised by inability to attend? I think not, and advantage would accrue to the central organization from the diffusion of interest in its work by personal experience of members of the Representative Meeting, and to the Association from having a number of members in training and ready at any time to take their place as Branch Representative in the Council.

If I have been able to enlist your sympathy in this matter of committee organization, and to convince you of its urgency, so that you agree to join in a requisition for a Representative Meeting at Leicester, you will find that the resolutions have been drafted so that each point is put before the meeting, and can be agreed to or negatived without wrecking the scheme as a whole. They include some minor points which have not been discussed above, but of which the bearing is sufficiently obvious.

Requisition for a Special Representative Meeting.—After Dr. Buist's statement, it was resolved to requisition a Special Representative Meeting to be held at Leicester to deal with the Committees of the Association in accordance with the following resolutions:

(Matters in Italics are New.)

That the Division requisition that a Special Representative Meeting be convened at Leicester to deal with the Committees of the Association in accordance with the following resolutions:

A.—STANDING COMMITTEES.

1. *That there be a Finance Committee.*
2. That there be an Organization Committee.
3. That there be a Central Ethical Committee.
4. *That there be a Journal Committee.*
5. *That there be a Science Committee.*
6. That there be a Medico Political Committee.
7. *That there be a Hospitals Committee.*
8. That there be a Public Health Committee
9. That there be a Naval and Military Committee.
10. That there be a Colonial Committee.
11. That there be a Scottish Committee.
12. *That there be an Irish Committee.*
13. *That there be an Arrangements (Annual Meeting) Committee.*
14. That the foregoing be the Standing Committees of the Association.

B.—MEMBERSHIP OF COMMITTEES.

1. FINANCE COMMITTEE.

15. *That the Chairman of the Organization Committee for the time being be ex officio a Member of the Finance Committee.*

16. *That the Chairman of the Journal Committee for the time being be ex officio a Member of the Finance Committee.*

17. *That the Chairman of the Science Committee for the time being be ex officio a Member of the Finance Committee.*

18. *That the Chairman of the Medico-Political Committee for the time being be ex officio a Member of the Finance Committee.*

19. *That in addition to the ex officio Members, the Finance Committee have Eight Ordinary Members appointed by the Council from its own number.*

2. ORGANIZATION COMMITTEE.

20. That the Organization Committee have *Nine* Ordinary Members appointed by the Council, *of whom Six at least shall be from its own number.*

3. CENTRAL ETHICAL COMMITTEE.

21. That the Central Ethical Committee have, as Ordinary Members, Five Members appointed by the Representative Meeting and Five Members appointed by the Council from its own number.

4. JOURNAL COMMITTEE.

22. *That the Journal Committee have as Ordinary Members, Five Members appointed by the Representative Meeting and Five Members appointed by the Council from its own number; or*

23. *If 22 be not carried, That the Journal Committee have Ten Ordinary Members appointed by the Council, of whom Five at least shall be from its own number.*

5. SCIENCE COMMITTEE.

24. *That the Science Committee have as Ordinary Members, Five Members appointed by the Representative Meeting and Five Members appointed by the Council from its own number; or*

25. *If 24 be not carried, That the Science Committee have Ten Ordinary Members appointed by the Council, of whom Five at least shall be from its own number.*

6. MEDICO-POLITICAL COMMITTEE.

26. That the Medico-Political Committee have as Ordinary Members, Six Members appointed by the Representative Meeting and Six Members appointed by the Council from its own number.

7. HOSPITALS COMMITTEE.

27. *That the Hospitals Committee have as Ordinary Members, Six Members appointed by the Representative Meeting and Six Members appointed by the Council from its own number; or*

28. *If 27 be not carried, That the Hospitals Committee have Twelve Ordinary Members appointed by the Council, of whom Six at least shall be from its own number.*

8. PUBLIC HEALTH COMMITTEE.

29. That the Public Health Committee have *Nine* Ordinary Members appointed by the Council, *of whom Five at least shall be from its own number.*

9. NAVAL AND MILITARY COMMITTEE.

30. That the Naval and Military Committee have as Ordinary Members, any Members of Council elected to represent the Royal Navy, Army, and Indian Medical Services, and *Five other Members appointed by the Council from its own number.*

10. COLONIAL COMMITTEE.

31. *That the Colonial Committee have as Members, the Representatives of Colonial Branches on the Council, and Three Ordinary Members appointed by the Council from its own number.*

11. Scottish Committee.

32. That the Scottish Committee have as Members, the Scottish Members of the Council and One Secretary from each Scottish Branch.

12. Irish Committee.

33. As may be determined by the Annual Representative Meeting.

13. Arrangements Committee.

34. That the Arrangements Committee have as Ordinary Members, Six Members appointed by the Council from its own number and Six Members appointed by the Local Executive Committee for the Annual Meeting.

C.—FUNCTIONS OF COMMITTEES.

1. Finance Committee.

35. That it be the duty of the Finance Committee to certify the accounts prior to their presentation to the Council.

36. That it be the duty of the Finance Committee to advise the Council on the administration of any funds held in trust by the Association and of the Superannuation Fund, and, when necessary, the appointment of administrators for any such funds.

37. That it be the duty of the Finance Committee to report to the Council on the financial bearings of any proposals involving special expenditure.

38. That it be the duty of the Finance Committee *to supervise and report to the Council on the general working and organization of the central office.*

39. That it be the duty of the Finance Committee to *consider and report to the Council upon the management of the property of the Association.*

2. Organization Committee.

40. It shall be the duty of the Organization Committee, subject to the direction of the Council, to deal with all questions of the boundaries or area of Divisions and Branches, and the Rules thereof other than those relating to ethical matters, and to advise the Council thereon.

41. It shall be the duty of the Organization Committee to advise the Council in all matters affecting the organization of the Association which are not specially referred to other Committees.

42. It shall be the duty of the Organization Committee to advise the Council on the Articles, By-laws, and Standing Orders.

43. It shall be the duty of the Organization Committee to exercise such powers as may be conferred upon it by the Council in advising and assisting Divisions and Branches in the strengthening of their organization.

3. Central Ethical Committee.

44. It shall be the duty of the Central Ethical Committee to advise the Council on proposed Rules of Divisions and Branches relating to professional conduct.

45. It shall be the duty of the Central Ethical Committee to investigate and report to the Council upon the cases of Members whose professional conduct is to be considered by the Council.

46. It shall be the duty of the Central Ethical Committee to adjudicate in cases of disputes on ethical questions referred to it.

47. It shall be the duty of the Central Ethical Committee generally to advise and, where so directed, to act for the Council on all questions of professional conduct.

4. Journal Committee.

48. It shall be the duty of the Journal Committee to consider and report to the Council upon any matters connected with the Journal or other publications of the Association.

5. Science Committee.

49. It shall be the duty of the Science Committee, subject to the directions of the Council, to deal with the scientific work of the Association, its Branches and Divisions.

50. It shall be the duty of the Science Committee to report to the Council on the programmes of the Sections at the Annual Meeting and assist the Section officers in making their arrangements.

51. It shall be the duty of the Science Committee, subject to the direction of the Council, *to manage the Central Library of the Association and to assist Divisions and Branches in the development of local libraries.*

52. It shall be the duty of the Science Committee to advise the Council as to the awards of the Association scholarships and grants in aid of scientific research.

53. It shall be the duty of the Science Committee *to advise the Council as to the appointment of Committees for special scientific work.*

6. Medico-Political Committee.

54. It shall be the duty of the Medico-Political Committee to deal with all matters involving the public relations of the profession not specially referred to other Committees. The Committee shall report to the Representative Meeting and to the Council, and shall act under the Council except in such matters as have been directly referred to it by the Representative Meeting.

7. Hospitals Committee.

55. It shall be the duty of the Hospitals Committee to consider and report to the Council upon all questions concerning hospitals and other medical charities.

8. Public Health Committee.

56. It shall be the duty of the Public Health Committee to consider and report to the Council upon all questions relating to Public Health and the Poor-law Medical Service.

9. Naval and Military Committee.

57. It shall be the duty of the Naval and Military Committee to report to the Council upon all matters relating to the Medical Services of the Royal Navy, the Royal Army Medical Corps, the Indian Medical Service, and the medical organization of the Auxiliary Forces.

10. Colonial Committee.

58. It shall be the duty of the Colonial Committee to consider and report to the Council on all questions specially relating to the Branches not in the United Kingdom.

11. Scottish Committee.

59. It shall be the duty of the Scottish Committee to report to the Council upon any matters specially concerning Scotland.

60. The Scottish Committee shall appoint a Secretary resident in Scotland, and shall meet at such place and time as the Committee may itself direct.

12. Irish Committee.

61. As may be determined by the Annual Representative Meeting.

13. Arrangements Committee.

62. It shall be the duty of the Arrangements Committee *(a)* to advise the Council on the arrangements for the Annual Meeting, including the definition of Sections and Sub-sections; *(b)* to submit to the Council a list of nominations for the officers of Sections and readers of the addresses.

Co-opted Members of Committees.

63. Each Committee shall have power to co-opt temporarily for any special purpose not more than three additional members.

Subcommittees.

64. Each Standing Committee shall have power to appoint Subcommittees for special purposes, and may, to the extent of not more than half of any Subcommittee, appoint members of the Association who are not members of the Committee.

65. The Chairman of Committee shall *ex officio* be a Member of all its Subcommittees.

D.—QUORUM OF COMMITTEES.

66.	In the Finance	Committee,	*Six*	shall form a quorum.	
67.	,,	Organization	,,	*Four*	,, ,,
68.	,,	Central Ethical	,,	*Four*	,, ,,
69.	,,	Journal	,,	Four	,, ,,
70.	,,	Science	,,	Four	,, ,,
71.	,,	Medico-Political	,,	*Six*	,, ,,
72.	,,	Hospitals	,,	Six	,, ,,
73.	,,	Public Health	,,	Three	,, ,,
74.	,,	Naval and Military	,,	Three	,, ,,
75.	,,	Colonial	,,	Three	,, ,,
76.	,,	Scottish	,,	*Three*	,, ,,
77.	,,	Irish	,,	Three	,, ,,
78.	,,	Arrangements	,,	Three	,, ,,

79. That an Ordinary Member of any Committee, who is absent from more than half the meetings of the Committee, be for one year ineligible for reappointment to the same Committee.

N.B.—This is new as regards members appointed by the Representative Meeting.

80. That it be an instruction to the Chairman, the Secretaries, and the Solicitor to adjust By-law 40 in accordance with these and any non-conflicting Resolutions adopted at the Annual Representative Meeting, and until this be done these Resolutions shall take the place of the present By-law 40.

Annual Representative Meeting.—On questions where the Branch has not previously adopted any resolutions it was agreed to give the Representative power to vote at his discretion. On the question of the individual medical defence, it was resolved to instruct the Representative to vote so that the matter may be discussed further, and the Association may not this year be committed to undertake individual defence.

Vote of Thanks to Retiring President.—A vote of thanks was accorded to the retiring President (Dr. Grant, Glamis).

EDINBURGH BRANCH:

Southern Division.

The annual meeting of the Division was held in the Oddfellows' Hall, Forrest Road, on Thursday, June 1st, at 8.15 p.m., Dr. Duddingston Wilson, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual Report and Treasurer's Statement.—The annual report and Treasurer's statement were read and approved.

Vacancies among Officers.—The new model rules suggested by the Organization Committee to meet vacancies occurring among officers was adopted and ordered to be added to the rules of the Division.

Election of Office Bearers.—The officers, representatives, and Executive Committee were then elected for the ensuing year: *Chairman:* Dr. Duddingston Wilson. *Vice-Chairman:* Dr. A. A. Matheson. *Secretary and Treasurer:* Dr. Michael Dewar. *Representative to Representative Meetings:* Dr. Simla Paterson. *Representatives on Branch Council:* Chairman and Secretary. *Executive Committee:* Drs. Cullen, Kennedy, Lundie, Salt, Proudfoot, Walker, Webster, Gardner, and Scott.

School Certificates.—The question of school certificates of unfitness to attend school was considered. After considerable discussion it was remitted to the Executive to watch development.

Matters Referred to Divisions.—The question of payment of medical men called upon to assist midwives was considered. The opinion of the Branch has been communicated to the Medico-Political Committee.

Proposed Division Dinner.—A suggestion that the Division might have a dinner in the early winter was favourably received, and it was remitted to the Chairman and Secretary to consider the feasibility of the proposal.

Vote of Thanks to Chairman.—The meeting was closed with a vote of thanks to the Chairman.

LANCASHIRE AND CHESHIRE BRANCH:

BOOTLE DIVISION.

THE annual meeting of this Division was held in the Masonic Hall, Merton Road, Bootle, on May 31st, at 8.30 p.m., Dr. WALKER, Chairman, presiding.

Vote of Thanks to retiring Officers.—Dr. WELLS, in a few well-chosen sentences, referred to the efficient and energetic manner in which the retiring Chairman, Dr. Walker, and the retiring Secretary, Dr. Fleetwood, had performed their duties during their year of office, and proposed a vote of thanks, which was passed unanimously.

Election of Office-bearers.—The office-bearers for the ensuing year are: *Chairman:* W. J. Fleetwood, M.D. *Vice-Chairman:* B. Summer, M.D. *Hon. Secretary:* Robt. Turner, M.D., 81, Wadham Road, Bootle.

Representatives on Branch Council.—W. J. Fleetwood, M.D., T. M. Wills, F.R.C.S.I., J.P.

LIVERPOOL (NORTHERN) DIVISION.

THE annual meeting of this Division was held at the Medical Institution on May 31st, Dr. J. SHAW (Vice-Chairman) presiding.

Confirmation of Minutes.—The minutes of the last meeting were taken as read and confirmed. The minutes of the last ordinary meeting were read and confirmed.

Annual Report and Financial Statement.—The annual report and financial statement was read and adopted.

Election of Officers.—The following office-bearers were elected: *Chairman:* J. J. Tisdall. *Vice-Chairman:* J. A. Cooke. *Secretary and Treasurer:* A. W. German. *Representative on Branch Council:* A. W. German. *Representative in Annual Representative Meeting:* James Shaw, M.D. *Executive Committee:* H. Adcock, R. S. Archer, M.D., E. T. Davies, M.D., Percy Edwards, S. Matthews, M.D., and A. Ivor Thomas, together with the *ex-officio* members.

Alteration of Rules.—Rule 11. It was decided that ordinary meetings should be held at least three times yearly, and not less than seven clear days' notice of every such meeting should be given to each member. It was further decided that the annual meeting should be held in May, and not less than seven clear days' notice given to each member. Rule 12. Special meetings to be convened within fourteen days from receipt of proper notice, or of a requisition signed by ten members of the Division. Not less than seven clear days' notice to be given to each member.

Vacancies amongst Officers.—The suggested model rule was adopted.

Matters referred to Division.—The reports on death registration and the amendment of coroner's law were considered. The resolutions of the Division on these matters have been communicated to the Medico-Political Committee.

Notices of Motion for Representative Meeting.—SUPPLEMENT, April 1st: By the City Division—Nos. 1, 2, 3, and 4, approved of unanimously; by the Wandsworth Division—left to discretion of Representative. SUPPLEMENT, April 8th: By the Altrincham Division—Nos. 1 and 2, unanimously disapproved of; by the Furness Division—1, not approved of; 2, 3, 4, and 5, left to Representative's discretion; by the North Manchester Division—approved of; by the Dundee District Branch—unanimously disapproved of. SUPPLEMENT, April 15th: By the Altrincham Division—approved of; by the Leigh Division—no opinion expressed; by the Salford Division—1, already voted upon; 2, unnecessary, as this is now *ultra vires:* by the Stratford Division—1, no opinion expressed; 2, desirable, but impracticable; by the Ulster Branch—1, 2, and 3, agreed to; by the Isle of Thanet Division—strongly approved of. SUPPLEMENT, April 22nd: A. By the Council of the Association—Nos. 1 to 6, agreed to; B. 1, agreed to; 2, agreed to, except the words "or retired," which are recommended to be deleted. The remaining notices of motion were left to the discretion of the Representative as to voting.

MANCHESTER (CENTRAL) DIVISION.

AN ordinary meeting of this Division was held on March 30th, Dr. FERGUSON in the chair.

Financial Report.—The financial report was received and passed.

Matters Referred to Divisions.—The questions of the payment of medical practitioners called in to assist midwives, and the desirability of consultations between medical witnesses in evidence were considered. The resolutions passed have been transmitted to the Medico-Political Committee.

Annual Meeting.—The annual meeting of the Division was held on May 26th at the Queen's Hotel, Dr. J. J. Cox in the chair.

Election of Officers.—Officers and representatives were elected as follows:—*Chairman:* Mr. J. H. Ray. *Vice-Chairman:* Dr. J. J. Cox. *Secretary and Treasurer:* W. K. Walls. *Representatives on Branch Council:* Dr. Booth, Dr. Milligan. *Representative at Representative Meetings:* Dr. Booth. *Other Members of Executive Committee:* Mr. Burgess, Dr. Helme, Dr. Ferguson, Dr. Wood, Dr. Heywood.

Report of Executive Committee.—The Executive Committee made its annual report, which was adopted.

Annual Representative Meeting.—The provisional agenda of the Annual Representative Meeting was considered.

Vacancies among Officers.—The rule concerning vacancies among the officers was adopted.

MIDLAND BRANCH:

LEICESTER DIVISION.

THE annual meeting of this Division was held at the Infirmary, Leicester, on May 31st.

Report of Executive Committee.—The annual report of the Executive Committee of the Division was read, approved, and signed.

Election of Officers.—The following were elected as officers of the Division for the ensuing year: *Chairman:* H. J. Blakesley, F.R.C.S. *Vice-Chairman:* J. T. Tibbles. *Representatives on Branch Council:* R. Pratt, H. J. Blakesley, J. T. Tibbles, R. Sevestre. *Representative of the Division in Representative Meetings of the Association:* R. Sevestre. *Elected Members of Executive Committee:* R. Bullard, W. M. Williams, E. Gibbons, G. C. Clarkson, R. B. Stamford, J. H. Davies, F. W. Lewitt. *Hon. Secretary:* R. Sevestre, M.D., 119, London Road, Leicester.

Matters Referred to Division.—The meeting discussed various matters referred to the Division in the SUPPLEMENTS of the JOURNAL.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

LANCASTER DIVISION.

THE annual meeting of this Division was held at Lancaster on Saturday, June 3rd.

Election of Officers.—The following officers for the ensuing year were elected:—*Chairman:* Mr. R. G. Heathcote, Morecambe. *Vice-Chairman:* Mr. G. R. Parker, Lancaster. *Secretary:* J. A. Gibson, M.D., 38, King Street, Lancaster. *Representative for Representative Meeting:* H. F. Oldham, M.D., Morecambe. *Representatives on Branch Council:* H. F. Oldham and J. A. Gibson. *Committee:* Messrs. H. D. Lamport, W. Hall, R. Bradley, and P. F. Mannix.

SOUTH-EASTERN OF IRELAND BRANCH.

THE annual meeting of this Branch was held at the Victoria Hotel, Kilkenny, on Wednesday, May 24th, Dr. LAFFAN, President, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and duly signed.

Letters of Apology.—Letters of apology were read from Drs. Wynne, O'Brien, and Mac Kesy. Dr. O'Brien stated that he would not be able to represent the Branch at Leicester this year.

Election of Officers.—The following officers were elected for the ensuing year:—*President:* Dr. D. Wynne. *President-elect:* Mr. J. Shee. *Treasurer:* Dr. R. B. Carey. *Secretary:* Dr. J. Quirke.

Representative of Branch at the Annual Meeting of the Associa-

tion.—It was proposed by Dr. Shee, seconded by Dr. Stirling, and carried *nem. con.*:

That as there are two candidates from this Branch for the position of Councillor on the Association, the candidate who does not head the poll in that election be appointed Representative of the Branch at the annual meeting of the Association in Leicester.

Alteration of Rules.—The rules of the Branch were then gone through and some alterations were made.

Vote of Thanks to Retiring Chairman.—Dr. Laffan having left the chair, Dr. Shee, President-elect, was voted to the second chair. The latter proposed a vote of thanks, seconded by Dr. Carey, to the outgoing Chairman for the dignified and able manner in which he had presided over the meetings during the previous year. This was carried unanimously. Dr. Laffan having replied, the meeting terminated.

Luncheon.—The members afterwards lunched together.

SOUTH-EASTERN BRANCH:

Canterbury and Faversham Division.

The annual meeting of this Division was held on Thursday, June 1st, at the Canterbury Hospital, Mr. Brian Rigden presiding.

Next Meeting.—It was decided that the next meeting should be held at Sheerness about the middle of October, and that Surgeon Gittings, M.B., R.N., should be asked to preside.

Election of Officers.—The following officers were elected: *Chairman:* Dr. Gosse, Sittingbourne. *Vice-Chairman:* Mr. Rigden, Canterbury. *Hon. Secretary and Treasurer:* Dr. Henchley, Canterbury. *Representative on Branch Council:* Dr. Evers, Faversham. *Representative at Representative Meeting* (with Thanet): Dr. Gosse, Sittingbourne. *Executive Committee:* Dr. Alexander, Faversham; Dr. C. K. Bowes, Herne Bay; Dr. Etheridge, Whitstable; Mr. Hayward, Whitstable; Mr. Prentice, Canterbury; Mr. Selby, Teynham.

Ambulance Work.—A letter was read from the Hon. Secretary of local centre in Canterbury of the St. John Ambulance Association asking this Division to rescind a resolution passed at the last meeting which declared that ambulance work should no longer be treated as a matter of philanthropy, and that the scale of fees offered by the St. John Ambulance Association would be suitable to this district. It was decided to adhere to this resolution, and that the Hon. Secretary of Canterbury Centre be so informed.

Alteration of Rules.—Certain alterations were made in the rules.

Representative of Canterbury, Faversham, and Thanet Divisions.—At the combined meeting with the Thanet Division Dr. Gosse was re-elected the Representative for the Representative Meeting at Leicester.

Votes of Thanks.—Votes of thanks were passed to the retiring officers and to Mr. Brian Rigden for presiding.

Eastbourne Division.

The annual meeting of this Division was held on Tuesday, May 23rd, in the Mayor's Parlour, Town Hall, Eastbourne, Dr. Muir Smith in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman:* Dr. Habgood. *Vice-Chairman:* Dr. Adams. *Representative on Branch Council:* Mr. J. H. Ewart. *Representative of the Eastbourne and Hastings Divisions:* Dr. Muir Smith. *Honorary Secretary:* Dr. W. J. C. Merry. *Executive Committee:* In addition to the above *ex-officio* officers, Drs. Gabbett, Harper, Hayman Sherwood, and Bateman were elected on the Executive Committee.

Annual Representative Meeting.—It was decided to instruct the Representative as to the wishes of the Division on various matters referred to the Division by the Medico-Political Committee, and on various notices of motion by other Divisions, all of which will come up for debate at the forthcoming Representatives' Meeting at Leicester.

Eastbourne and Hastings Divisions.

An extraordinary meeting of the Eastbourne and Hastings Divisions was held on Thursday, May 25th, at 6.30 p.m., at the Grand Hotel, Eastbourne, at which Mr. Chas. Ballance, F.R.C.S., read a paper entitled, An Echo of the Recent Discussion at the Royal Medical and Chirurgical Society on the Prospects and Vicissitudes of Appendicitis after Operation. The meeting was very well attended, and the paper provoked an animated discussion, in which the views of the lecturer were cordially endorsed.

Dinner.—After the meeting the members sat down to dinner at 8 p.m. in the Prince's Rooms, Grand Hotel, Eastbourne.

Norwood Division.

A meeting of this Division was held at the Art Club, Blackheath, on Thursday, June 8th, at 4 p.m., Dr. Roper of Lewisham in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—It was proposed by Dr. Hetley, and seconded by Dr. Rand:—"That the next meeting should take place at the Lower Sydenham Hospital on Thursday, July 13th, and that Dr. Parnell of Forest Hill be invited to take the chair thereat."

Election of Officers.—The following officers were then elected:—*President:* Dr. Burgess. *Vice-President:* Mr. H. C. Burton. *Representative at Representative Meeting:* Dr. Rand. *Representatives on Branch Council:* Dr. Hetley, Mr. Prangley. *Honorary Secretaries:* Mr. Prangley, Mr. Soper. *Executive Committee:* Dr. Annis, Dr. H. M. Stewart, Dr. Verdon, and Dr. Bailey.

Report of Executive Committee.—The following report was then read: Your Executive Committee has to report that the work of the Association has progressed satisfactorily. Meetings have been held at Norwood, Blackheath, and Streatham, at which scientific papers have been discussed, and each has been followed by a dinner. Besides these, one special meeting was held at Norwood, and clinical meetings at the Miller Hospital, Greenwich, and the St. John's Hospital, Lewisham. During the coming year it is proposed to continue these meetings, and in addition to have meetings at the Lower Sydenham Hospital and the Norwood Cottage Hospital. The members generally have shown a fair amount of interest in the scientific and social side of the work, but the questions referred to the Division from the Representative Meeting and various Committees have received very little consideration and have elicited very little enthusiasm.—Dr. Gooding moved and Dr. Pocock seconded that this report be adopted and entered on the minutes.

Papers, etc.—Mr. Dunn read a paper on the surgical treatment of carcinoma of the stomach. This was discussed by Drs. Roper, Gooding, Rand, and Stewart.—Dr. Purves Stewart read a paper entitled the Diagnosis of Tabes Dorsalis in its Earliest Stage. This was discussed by Drs. Roper, Burgess, Gooding, and Rand.—Messrs. Down Brothers exhibited surgical instruments.

Dinner.—After the meeting twenty members dined together.

WEST SOMERSET BRANCH.

The sixty-third annual meeting of this Branch was held at the Beach Hotel, Minehead, on June 9th. The chair was taken by Mr. Gordon Henry, the new President.

Confirmation of Minutes.—The minutes of the Spring meeting were read and signed.

Annual Report and Balance Sheet.—The annual report and balance sheet were presented by the Secretary and approved.

Election of Officers.—The following motions having been proposed and seconded were carried unanimously: (1) That Dr. Meade-King be elected President-elect; (2) that Dr. Macdonald be re-elected Representative at Representative Meetings; (3) that Mr. Winckworth be re-elected Honorary Secretary and Treasurer; (4) that the Branch Council be re-elected with the exception of Dr. Brown, whose term of office has expired, and that Mr. Joscelyne be elected in his place; (5) that the Branch Council be re-elected the Ethical Committee of the Branch.

President's Address.—The President gave an address on the general practitioner and appendicitis. Mr. Henry read notes of some very interesting abdominal cases which he had seen recently and discussed from the general practitioner's point of view—the question of operation or delay. On the proposal of Dr. Macdonald, seconded by Dr. Bird, a hearty vote of thanks was accorded him for his very practical and useful address.

Luncheon.—The members present lunched together, and dispersed afterwards to spend the afternoon in watching a polo match, playing golf, and motoring.

To be Stamped with a Penny Stamp and Posted.

BRITISH MEDICAL ASSOCIATION.

SEVENTY-THIRD ANNUAL MEETING.

JULY 24th, 25th, 26th, 27th, and 28th, 1905.

Members of the British Medical Association who intend to visit **LEICESTER** during the Annual Meeting will greatly facilitate the labours of the Local Committee if they will fill up the following form and forward it by post as addressed on the other side. This will eventually be sent to the General Secretary of the Association, who will then send a certificate to enable members to obtain Railway Tickets at reduced fares.

MEMBERS DESIRING ACCOMMODATION ARE REFERRED TO NEXT PAGES.

The Forms are intended for the use of Members of the British Medical Association exclusively.

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*It is my intention to be present at the ANNUAL MEETING in LEICESTER and I expect to be accompanied by** .....

Name .....

Address .....

* Here indicate whether accompanied by a lady, as separate vouchers are required to enable Members to obtain Railway Tickets at reduced fares.

It is my intention to be present at the ANNUAL DINNER of the Association on Thursday Evening, July 27th, and I herewith enclose Cheque (or P.O.O.).†

Signature .....

† DINNER TICKET, with Wine inclusive, £1 1s. DINNER TICKET without Wine, but inclusive of Aerated Waters, 15s.

Cheques and Postal Orders should be made payable to F. BOLTON CARTER, Esq., F.R.C.S., and enclosed in an envelope, together with this form, directed as on the reverse.

Early application for Tickets is requested by the Committee, to enable them to provide accommodation and allot seats.

SEVENTY-THIRD ANNUAL MEETING, LEICESTER, July 24th, 25th, 26th, 27th, and 28th, 1905.

LIST OF HOTELS AND LODGINGS, WITH SCALE OF CHARGES.

Name and Address.	Accommodation for	Charges. Bed and Breakfast.	Luncheon.	Dinner.	Full Board per Day.	Notes.
CENTRAL.						
London Road.						
106 Mrs. Gillespie	2	3/6	1/6	2/6	6/6	
159 Mrs. Johnson	2	4/-	1/6	2/6	8/-	
165 Miss Akerman	12	3/6	1/-	2/-	6/6	
169A 'Clovelly,' Mrs. Leam	8	3/6	1/-	2/6	6/6	
New Walk.						
9 Mrs. Hawkins	3	2/6	1/6	2/6	6/6	
15 Mrs. Barnes	4					
17 Mrs. Bodycott	2					
24 Mrs. Windley	2	3/-				Meals by arrange- [ment.
26 Mrs. Roche	2	3/-	1/-	2/6	6/6	Charges moderate.
27 Mrs. Huband	2					
28 Mrs. Neilson	2	3/-	1/3	2/6	6/6	
31 Mrs. Finney	2					
35 Mrs. Blades	2	3/6	1/-	2/6	7/-	
37 Mrs. Moore	2					Charges moderate.
38 Mrs. Mills	2	4/-				Other meals by
43 Mrs. Phillips	2					[arrangement.
46 Mrs. Andrew	2					
94 'Bridgemount' Mrs Garner	3	6/-				Other meals by [arrangement.

Name and Address.	Accommodation for	Charges. Bed and Breakfast.	Luncheon.	Dinner.	Full Board per Day.	Notes.
CENTRAL—*Continued.*						
Princess Road.						
'Craven House,' Mrs Wilshere	4	4/-	1/6	2/6	8/-	Boarding house.
3 Mrs. Spell	8	4/-	1/6	2/-	7/6	
11 Mrs. Bloxom	2	2/6	1/-	2/-	5/6	
17 Mrs. Bates	2					Terms moderate.
25 Miss E. Walker	3	5/-				Inclusive terms by
33 Mrs. Aldridge	2	3/6	1/6	2/6	7/6	[arrangement.
57 Mrs. Abbott	3					
65 Miss Gilbershaw ...	5	4/-	2/6	5/-	10/-	
The Crescent.						
Mrs. Cockshaw	5					Terms on enquiry.
The Newarke.						
49 Mrs. Carrington ..	4					Terms moderate.
Lincoln Street.						
15 Mrs. Colton	2	3/6				
21 Mrs. Maxfield	3	3/6				Other meals by a- [rangement.
Regent Road.						
40 Mrs. Manton	5					
46 Mrs. Moore	2	3/6	1/-	3/-	7/6	

Penny Stamp.

E. BOLTON CARTER, Esq., F.R.C.S.,
99, London Road,
LEICESTER.

LIST OF HOTELS AND LODGINGS, WITH SCALE OF CHARGES—*Continued.*

Name and Address.	Accommodation for	Charges. Bed and Breakfast.	Luncheon.	Dinner.	Full Board per Day.	Notes.
CENTRAL—*Continued*						
Saxe-Coburg Street.						
12 Mrs. Porter	2	3/6				
16 Mrs. Haley	3	3/6				
24 Mrs. Allwood	2					
29 Mrs. Wren	2					
38 Mrs. Breward	7					Terms moderate.
58 Mrs. Thomas	4	4/-	1/6	2/6	8/-	
Upper Tichborne St.						
1 Miss Leary	7	4/-	1/-	2/6	7/-	
Lower Tichborne St.						
6 Mrs. Crofts	2	4/-			7/-	
17 Miss Limber	4					
Granville Road.						
5 Miss Fox	12	6/-	2/-	3/-	12/-	Boarding House, Private Sitting Rooms.
College Street.						
27 Mrs. Harrison	3	3/-	1/3	2/6	6/6	
35 Mrs. Hart	3	3/-				
29 Mrs. Innes	5	3/6				
'Holmwood,' Mrs. Newberry	2					
King Street.						
48 Mrs. Harrison	4	3/6	1/6	2/6	7/-	
81 Mrs. Armitage	4					
Upper King Street.						
1 Mrs. Johnson	1					
13 Mrs. Watson	2	2/6	1/-	2/-	6/6	
19 Mrs. Estlin	2	4/-	1/6	2/6	7/6	
23 Mrs. Lund	2					Terms moderate.
Museum Square.						
1 Mrs. Skerritt	2	4/-				Other meals by arrangement.
High Cross Street.						
142 Miss Bramley	3	3/-				
Hobart Street.						
16 Mrs. Wright	2				5/-	
Crescent Street.						
1 Mrs. Goode	3					
Victoria Road.						
13 Mrs. Carock	5	1/6	3/-	9/-	4/6	Reduction to party
Lower Hastings Street.						
10 Mrs. Adamson	2					Moderate.
37 Mrs. Baxter	4					
West Street.						
49 Miss J. Smith	3					Moderate.
Newtown Street.						
36 Mrs. Kirby	2					
Pelham Street.						
2 Mrs. Herbert	2	2/6				
Horsefair Street.						
27 Mrs. Ashford	12	3/6				Double beds.
HIGHFIELDS DISTRICT. (10 mins. walk. 1d. tram fare).						
Highfield Street.						
17 Mrs. Gilbert	2					
26 Mrs. Storey	4	4/-				
35 Mrs. Hulme	2					
42 Miss Oldroyd	2	4/-	1/6	2/6	7/6	
St. Peter's Road.						
19 Mrs. Frisby	6	3/-				
46A Mrs. Richards	4	3/-				
102 Mr. Hewitt	2	5/-				

Name and Address.	Accommodation for	Charges. Bed and Breakfast.	Luncheon.	Dinner.	Full Board per Day.	Notes.
HIGHFIELDS DISTRICT—*Continued.* (10 mins walk. 1d. tram fare).						
Evington Road.						
3 Mrs. Bakewell	6	3/6				Other meals by arrangement.
8 Mrs. Lamb	5	3/6				
Mecklenburg Street.						
5 Mrs. Green	4	4/-	1/6	2/6	7/6	
23 Mrs. Eaton	2					
Laurel Road.						
75 Mrs. Hartshorn	2	3/-				
Sparkenhoe Street.						
'Rockleigh,' Mrs. Walter	4	3/6				
53 Marcetta House, Mrs. Shaw	6	3/6				
66 Mrs. Blewitt	3	4/6				
Chaucer Street.						
28 Mrs. Upton	4					
Mill Hill Lane.						
24 Mrs. Sharpe	2					Moderate terms.
St. Stephen's Road.						
47 Mrs. A. M. Knight ..	3	5/- 8/- for two				
Melbourne Road.						
76 Mrs. Haylock	3	5/-				
WEST END DISTRICT. (15 mins. walk, 1d. tram.)						
Glenfield Avenue.						
2 Mrs. Ward	4	4/-				Double beds.
3 H. J. Todd	4	3/9				Double beds.
15 Mrs. Hincks	4	4/-				Double beds.
22 Mrs. Voyce	2	3/6				
29 Mrs. Gentle	2					
Fosse Road.						
Mrs. John Smith.	3	7/-				
56 Salisbury House, Mrs Pluskett	10					Terms mod. Single or double beds.
358 Fosse Road N., Mrs. Widdowson	2					
Narborough Road.						
'Ashwood,' Winchester Avenue, Miss Spell ...	3	3/6				
Hinckley Road.						
209 W. J. Cooper	3	6/-				
Church Avenue.						
3 Mrs. Baker	2					Double beds.
9 Mrs. Shaw	2					
Danes Hill Road.						
37 Mrs. Cue	4	3/6				Double beds.
Stretton Road.						
24 Miss Dingley	4				8/-	
14 Mrs. Basford	3				7/-	Double beds.
STONEYGATE DISTRICT. (20 minutes' walk, 1d. tram).						
Clarendon Park Road.						
Mrs. Lawrence	2					
Holbrook Road.						
Mrs. Taylor, Heathfield	2					
Mrs. Shaw, Gayton Villa	2					

It will be seen from the foregoing list that Lodging House Accommodation in Leicester is limited. It will, however, be supplemented by the private hospitality which has been proffered by many residents in the town and neighbourhood. Any member of the Association who intends to visit the meeting, and is unable to secure rooms, should communicate with the Secretary of the Local Committee.

NOTICES.

This List of Hotels and Lodgings has been prepared for the convenience of visitors, who should communicate with them **directly and not through the Local Committee.**

Where possible the charges for bed and breakfast and other meals are quoted, but visitors are requested to arrange their own terms.

The majority of the houses in the list are situated within half a mile radius of the Reception Rooms, and are all within easy reach of the Electric Tram Service.

PRINCIPAL HOTELS.

LEICESTER.—

		Accommodation for
*BELL HOTEL	Humberstone Gate	60
GEORGE HOTEL	Belgrave Gate	32
*GRAND HOTEL	Granby Street	120
GRANVILLE HOTEL	Belvoir Street	16
*ROYAL HOTEL	Horsefair Street	40
STAG AND PHEASANT	Humberstone Gate	30
WELLINGTON	Granby Street	40
WHITE HART	Haymarket	25
WYVERN HOTEL (Temperance)	London Road	70

** Luncheon is provided at these Hotels at a charge of 2s. 6d. per head. All these Hotels are centrally situated.*

LOUGHBOROUGH (12 miles).—Frequent Midland and Great Central Trains until 11.22 p.m.

KING'S HEAD HOTEL. | BULL'S HEAD HOTEL. | GREAT CENTRAL HOTEL.

MARKET HARBOROUGH (16 miles).—Frequent Midland Trains until 11.56 p.m.

THE ANGEL HOTEL and THE THREE SWANS.

MELTON MOWBRAY (15 miles).—Midland and Great Northern Trains until 8.35 p.m.

THE BELL HOTEL. | THE HARBOROUGH HOTEL. | THE GEORGE HOTEL.

DERBY and **NOTTINGHAM.**—With ample Hotel Accommodation are within easy reach. Frequent Trains until a late hour.

CLUBS.—Arrangements will be made whereby a limited number of Members attending the Meeting may become Honorary Members of the Leicester Clubs.

The Clubs at which meals are provided are:—

THE COUNTY CLUB, Bishop Street. | THE CONSTITUTIONAL CLUB, Pocklington's Walk.
THE LEICESTERSHIRE CLUB, Welford Place. | THE LIBERAL CLUB, Bishop Street.

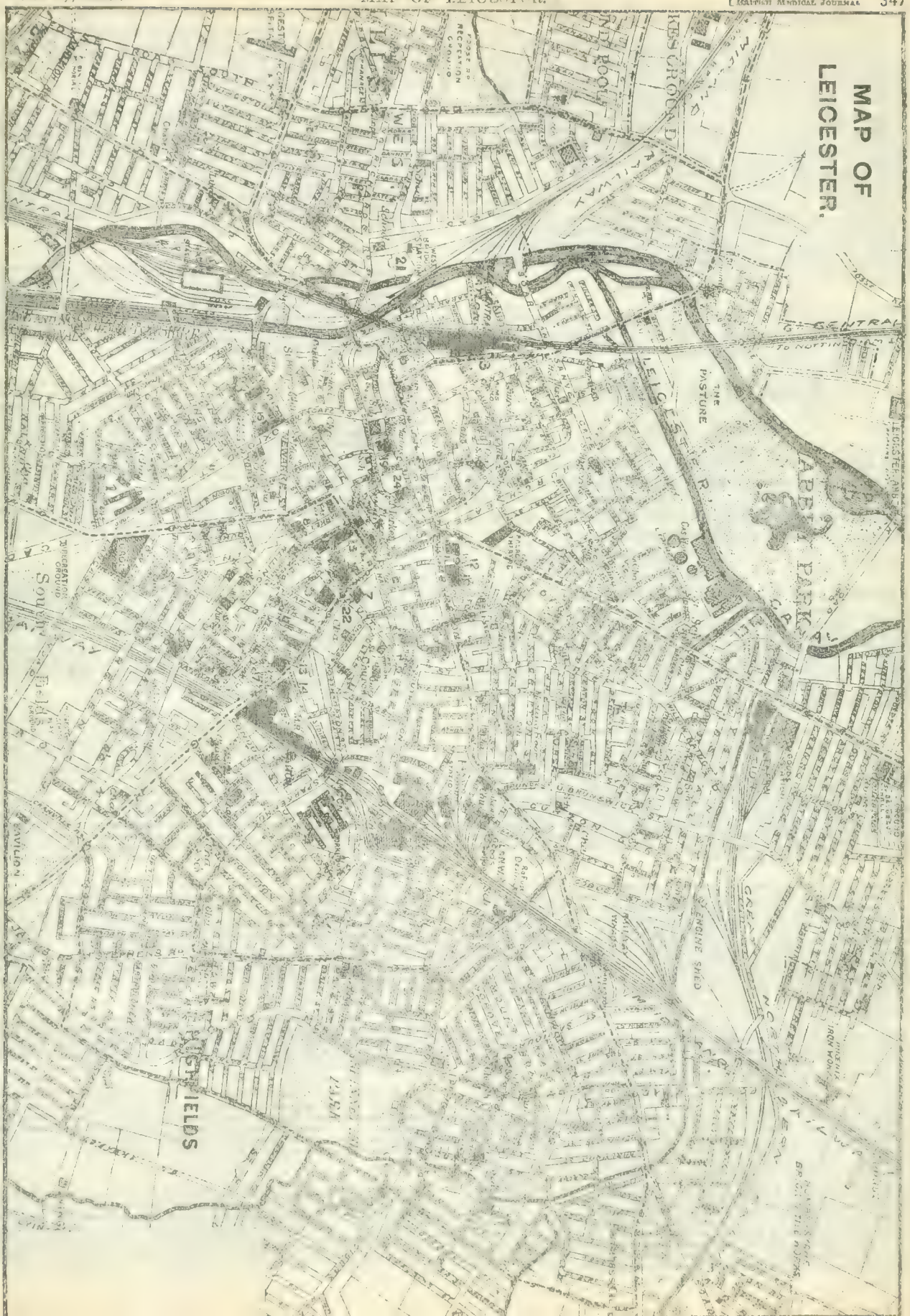
Applications should be made at the Reception Rooms.

MOTOR GARAGE.—Accommodation for Motor Cars can be provided at:—

	Accommodation for	Fees. Washing car.	Per day.
Pans, 63, Friar Lane	30 cars	2/6	1/-
Hamshaw's, Humberstone Gate	9	2/6	2/-
Humber, Granby Street	A large number	2/6	2/-
Clyde, London Road	A large number	2/6	2/-
Lilleys, Welford Place	3	...	...

KEY TO MAP OF LEICESTER *(ON OPPOSITE PAGE).*

1 Infirmary and Children's Hospital.
2 Mid. Station (for Mid. and L. and N. W. Rlys).
3 Great Central Station.
4 Great Northern Station.
5 Grand Hotel.
6 Royal Hotel.
7 Wellington Hotel.
8 Granville Hotel.
9 George Hotel
10 Bell Hotel.
11 White Hart Hotel.
12 Stag and Pheasant Hotel.
13 Victoria Hotel.
14 Wyvern Temperance Hotel.
15 Municipal Buildings.
16 DRILL HALL, Exhibition of Foods, Drugs, Motors, etc.
17 Y. M. CHRISTIAN ASSOCIATION, Reception Room, General and Representative Meetings.
18 TEMPERANCE HALL, Addresses in Medicine and Surgery.
19 ST. MARTIN'S CHURCH, Annual Service.
20 Museum and Art Gallery.
21 West Bridge Station.
22 General Post Office.
23 TECHNICAL AND ARTS SCHOOLS, Section Meetings.
24 OPERA HOUSE, President's Address, Popular Lecture.


MAP OF LEICESTER.
WEST
RACE COURSE
RECREATION GROUND
RAILWAY
CENTRAL
TO NOTTIN
THE PASTURE
LEICESTER R.
ABBEY PARK
SOUTH
RECREATION GROUND
PAVILION
FIELDS
ENGINE SHED
IRON WOR

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Leicester the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 21st to August 1st, both dates inclusive.

Those members desiring to travel to the places where they reside during the meeting of the Association may obtain return tickets at a single fare and a quarter (minimum charge 1s.) on production of cards of membership, from Leicester to any station not more than fifty miles distant to which through bookings are in operation available to return on the same or following day.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

COUNCIL MEETING.

A MEETING of the Council will be held at 10 o'clock in the forenoon of Wednesday, July 5th, in the Board Room of the Metropolitan Asylums Board, by kind permission of the Board. The offices of the Metropolitan Asylums Board are situate on the Victoria Embankment at the corner of Carmelite Street, and near Blackfriars Bridge.

June 8th, 1905. GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held at University College, Bristol, at 4.30 p.m. on June 28th, and the annual dinner of the Branch will take place at the Clifton Down Hotel, Clifton, at 7.30 p.m. on June 28th. Election of members of the Central Council: Nominations, each signed by three members, for the two vacancies on the Central Council should be sent to one of the undersigned on or before June 23rd. If more than two candidates are nominated, voting papers will be sent to members in due course.—NEWMAN NEILD, and W. M. BEAUMONT, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at the Medical Institute, at 4 p.m., on Thursday, June 29th. Business: (1) To elect officers of the Division. (2) To receive the annual report of the Executive Committee. (3) To consider the business of the Annual Representative Meeting, and to instruct the Representative. (See the SUPPLEMENTS to the JOURNAL, May 13th and 27th.) (4) Votes of thanks to retiring officers. (5) Other business. Dr. Short will move that the following words be added to Rule 6: "Nominations for offices, in writing, must reach the Honorary Secretary of the Division not less than three weeks before the date of the annual meeting of the Division."—E. D. KIRBY, Honorary Secretary, 106, Hagley Road.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A joint meeting of this Division with the Nuneaton and Tamworth Division and the Warwick and Leamington Division will be held at the Coventry and Warwickshire Hospital, Coventry, on Tuesday, June 20th, at 4 p.m., for the purpose of electing a joint representative of the three Divisions to represent them at the Annual Representative Meeting. Agenda: (1) To elect representative. (2) To give instructions in regard to matters arising at the Annual Representative Meeting (see SUPPLEMENT for May 13th and 27th, 1905; it will be a convenience to members to bring these SUPPLEMENTS with them).—E. H. SNELL, Knighton House, Coventry, Secretary of the Constituency.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at the Norfolk and Norwich Hospital, Norwich, on Thursday, June 29th. Programme of proceedings: 12.15 pm. Meeting of Branch Council in the Board Room of the hospital. 1 p.m. General meeting of the Branch in the Board Room. Agenda: (1) Minutes. (2) Report of Council. (3) Report of result of election of officers. 1.30 p.m. Luncheon at the Norfolk and Norwich Hospital, by invitation of the President-elect, Dr. Barton. 2.15 p.m. Resumed general meeting in the new pathological museum of the hospital. Agenda: (4) Opening of the new museum by Mr. Jonathan Hutchinson, F.R.S., of London. (5) Introduction of new President by retiring President. Thanks to the retiring President. (6) President's Address. (7) Professor T. Clifford Allbutt, M.D., F.R.C.P., F.R.S., Regius Professor of Physic in the University of Cambridge, will read a paper entitled "Some Reflections on the Treatment of Cardio-Arterial Diseases." 4.30-6.30. Afternoon tea, to which members are invited to bring ladies, at Carrow Abbey, by kind invitation of Mr. and Mrs. James Stuart (carriages and motor cars will be provided to convey members to Carrow Abbey). During the day the hospital wards and operation theatre, the pathological museum, the new electro-therapeutic department, and the new Leicester Nurses Home will be open for the inspection of members of the Association. Dr. A. J. Cleveland will be pleased to show members over the electro-therapeutic department, and the Home sister, Miss Rowdon, over the Leicester Nurses' Home. Exhibition of surgical instruments by Down Brothers, and of pharmaceutical preparations by Parke, Davis, and Co.—B. H. NICHOLSON, H. A. BALLANCE, J. GUTCH, Honorary Secretaries.

EDINBURGH BRANCH.—The summer meeting of the Branch will be held at Hawick on July 1st. Trains from Edinburgh (Waverley) 10.30 a.m. Provisional arrangements: Meeting of Branch, 12.15. Motor drive to Stobs, Hermitage Castle, Newcastleton, Penton Linns, Canonbie, Langholm, Mossdaul and Branxholme. Starting at 1 p.m. Golf match on Hawick Links, 1.45. Dinner at Tower Hotel, 6.30. Dr. Allan Jamieson, President, in the chair. In order to facilitate arrangements members who intend to be present are requested to intimate their intention to one of the Secretaries as soon as possible, and whether they propose to golf or to motor.—NORMAN WALKER, 7, Manor Place, Edinburgh, A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

EDINBURGH BRANCH: NORTH-EAST EDINBURGH DIVISION.—The annual meeting of the Division will be held in the Royal College of Physicians, 9, Queen Street, on Tuesday, June 20th, at 8.15 p.m. Business: (1) Minutes. (2) Secretary's report. (3) Adoption of model rule regarding vacancies among officers. (4) Alteration of rules. (5) Election of office-bearers. (6) Legal opinion about School Board certificates. (7) Matters referred to the Division. (8) Any other competent business.—G. KEPPIE PATERSON, Honorary Secretary, 19, Albany Street, Edinburgh.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—As arranged at last meeting of Division, the annual meeting will be held on Saturday, June 17th, in the Railway Hotel, Newtown St. Boswells, at 3 o'clock. Business: (1) Election of office-bearers. (2) The consideration of memoranda regarding the National Deposit Friendly Society, the Local Government Amendment Bill, the relation of the medical profession to ambulance work, etc. (3) Instructions to representative in regard to the agenda of the annual meeting of the Association at Leicester. (4) Other matters of urgent importance to the Division. It is hoped that members will do their utmost to be present. Dr. Hamilton gives notice of the following motion: "That the Division recommends to the Representative Meeting the desirability of appointing a Committee to consider the question of the formation of a fund for the relief of the widows and orphans formerly dependent on deceased members of the Association."—W. HAIL CALVERT, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The statutory annual meeting of this Branch will be held in the Western Infirmary on the afternoon of Wednesday, June 28th, at 3 o'clock. In addition to the usual business (election of office-bearers, etc.), Dr. Donald Mackintosh, M.V.O., the Superintendent of the infirmary, has kindly consented to conduct the members through the new out-patient and electrical departments, and Professor Muir will give a demonstration in the Pathological Institute, with the aid of the projection microscope, of some rarer forms of tumours, and will discuss recent views on cancer. He will also give a demonstration of specimens preserved by the formalin method.—JAS. H. NICOLL, JAMES HAMILTON, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division willl be held on Thursday, June 22nd, at the Board Room of the hospital, Market Street, Altrincham, at 5 p.m. Agenda: (1) Minutes of meeting of March 30th. (2) Election of Chairman. (3) Election of other officers and Committee. (4) Annual report. (5) Annual Representative Meeting. (6) Rules. (7) Correspondence, etc. (8) Report of Committee of May 31st. (9) Reports of officers. (10) School certificates. (11) Any other business. The following papers will be read and discussed, according to time and opportunity: (1) The Prevention of Puerperal Fever in Private Practice, by Dr. P. R. Cooper. (2) Epilepsy, by Dr. C. J. Renshaw. (3) The Sanatorium Treatment of Phthisis, by Dr. Melland. (4) Fees for Insurance Examinations, by Dr. C. W. Jones. (5) The Midwife, by Dr. Garstang.—T. W. H. GARSTANG, Honorary Secretary, Edge Mount, Altrincham.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL (SOUTHERN) DIVISION.—The annual meeting of the Division will be held on June 20th, at 4.30 p.m., at the Medical Institution, Hope Street. Agenda: Minutes of last meeting. Secretary's annual report. Election of new Chairman. Election of officers. Election of Representative for the Meeting of the Association at Leicester. Revision of rules of the Division. Consideration of the agenda of the Annual Representative Meeting (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 13th).—J. C. M. GIVEN, Honorary Secretary.

LEINSTER AND SOUTH-EASTERN OF IRELAND BRANCHES.—Nominations of elective members of the Council of the Association for these Branches, each signed by not less than three members, must reach me on or before June 10th.—ARTHUR H. WHITE, Honorary Secretary of Leinster Branch, Derrybawn, Rathgar, co. Dublin.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Trocadero Restaurant, Piccadilly Circus, W., on Wednesday, June 28th, at 6 p.m., in the Connaught Room. The meeting will be followed by the annual dinner at 7.30 p.m. in the Balmoral Room. The price of the dinner will be 6s. 6d., payable at the time. Tickets on application to GEORGE ROWELL, 6, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A general meeting of this Division will be held on Thursday, June 22nd, at 4 p.m., at the Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C. Agenda: (1) Minutes. (2) Letters. (3) Further consideration of Death Registration and Coroners Bills. (4) Revised Medical Acts Amendment Bill. (5) Notices of motion for Representative Meeting. (6) Any other business. Smoking is permitted at the meeting.—E. W. GOODALL, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of this Division will be held at the Kensington Town Hall, High Street, Kensington, on Tuesday, June 27th, at 5 p.m. Business: (1) To elect officers for 1905-6 as follows: Chairman, Vice-Chairman, Secretary and Treasurer, four Representatives of Division on Branch Council, and seven Ordinary Members of Executive Committee. (2) To elect the Representative of the Division in Representative Meetings of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider the business of the Annual Representative Meeting. (Members are requested to refer to the SUPPLEMENT of the JOURNAL of May 27th, and bring it with them to the meeting, so that they may note any points about which they wish to inquire or obtain the feeling of the meeting.) (5) To make new rules, or alter or repeal existing rules. Members are reminded that the annual meeting and dinner of the Metropolitan Counties Branch takes place on Wednesday, June 28th, at the Trocadero Restaurant.—G. CRAWFORD THOMSON, M.D., Honorary Secretary, 111, Sinclair Road, West Kensington, W.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.—A meeting will be held on Thursday, June 22nd, at St. Pancras Northern Infirmary, Dartmouth Park Hill, N., at 4.30 p.m. Dr. Chilcott will show cases. Discussion of matters referred to Divisions.—WILLIAM WYNN WESTCOTT, Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held at Clapham on Thursday, June 29th, at 3.45 p.m., to consider the agenda for Representatives' Meeting, and to instruct Dr. L. S. McMANUS.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

NORTH OF ENGLAND BRANCH.—Owing to the death of Dr. James Murphy, a vacancy occurs in the representation of the Branch on the Council of the Association. Nominations signed by no fewer than three members of the Branch must reach me not later than June 24th. A special meeting of the Branch will be held at 3 p.m. on Wednesday, June 14th, in the Library of the Infirmary, Newcastle-on-Tyne, to consider (*a*) the proposed amalgamation of the County of Durham Medical Union with the Branch; and (*b*) the formation of a Branch defence or indemnity fund. The annual meeting of the Branch will be held at the Zetland Hotel, Saltburn, on Wednesday, June 21st. Further particulars will be sent by circular.—ALFRED COX, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.—This Division purposes holding an all-day scientific meeting on Thursday, July 6th, to commence at 10 a.m. At the Royal Infirmary there will be demonstrations in the wards and operating theatres, an exhibition of clinical cases, and a temporary pathological museum. Demonstrations will also be held in the College of Medicine. All medical men in Northumberland and the adjoining counties will be heartily welcome. Complete programmes will shortly be drawn up, and will be sent to all members of the North of England Branch.—R. P. RANKEN LYLE, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held on Saturday, June 17th, at the Northern Infirmary, Inverness. Details of the meeting will be sent to each member by circular. In accordance with By-law 24 of the Association, nominations for the office of Representative on the Central Council must reach me, duly signed by three members, not later than June 17th.—J. MUNRO MOIR, M.D., 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting will be held at Bowness on June 28th, at 2.30. Members wishful to show cases or specimens are requested to communicate with the Honorary Secretary, A. S. BARLING, 2, Queen Square, Lancaster.

NORTH WALES BRANCH.—The annual meeting of this Branch will be held in Bala on Thursday, July 6th.—W. JONES MORRIS, Is-y-Coed, Portmadoc, H. JONES ROBERTS, Llyweuarth, Fen-y groes, Carnarvonshire, Honorary Secretaries.

SHROPSHIRE AND MID-WALES BRANCH.—Clinical and Pathological Section. The next meeting of the Section will be held at 5 p.m. on Tuesday, June 20th, at the Salop Infirmary. Members who wish to read communications, or show cases or specimens, are requested to communicate with the Honorary Secretary before Tuesday, June 13th.—HAROLD H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Guildhall, Canterbury, on Wednesday, June 21st, at 2.15 p.m. Dr. Whitehead Reid, President-elect, kindly invites members to lunch at the Royal Fountain Hotel, between 1 and 2 o'clock. Agenda: In addition to any business that may be transacted by an ordinary meeting. (1) To receive the report as to election of officers of the Branch. (2) To receive the annual report of the Branch Council. (3) Mr. J. H. Ewart will move "That Honorary Secretaries of Divisions be *ex-officio* members of the Branch Council." After the meeting excursions will be arranged as follows:—(*a*) The Cathedral; St. Augustine's College; excavations of St. Augustine's Abbey; the Chapel of St. Pancras, etc.; (*b*) Canterbury Asylum and St. Martin's Church; (*c*) Sewage Farm and Sanatorium; (*d*) Waterworks and Gasworks. The proprietors of the Canterbury Weavers will be pleased to show members over their premises during the day. The Dean of Canterbury has kindly consented to conduct members round the Cathedral after the evening service at 4 o'clock. Excursions *b*, *c*, and *d* will start after the annual meeting from the Guildhall about 3 o'clock. Mr. Prentice will be pleased to show members over the Canterbury Hospital at or after 5 o'clock. There will be a display of instruments by the Holborn Surgical Instrument Company; and of Dr. Luke's ethyl chloride inhaler by Messrs. Duncan and Flockhart at the hospital. Members desiring to play golf are kindly requested to notify Dr. Henchley, 1, London Road, Canterbury, by June 17th, so that he can make arrangements for driving them to and from the Barham Downs Golf Links. Dinner at the Royal Fountain Hotel, 6.15 for 6.30; charge, 7s. Wine will be supplied by local members. Those who propose to be present are requested to signify their intention to Dr. Henchley not later than Saturday, June 17th.—H. M. STEWART, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: DOVER DIVISION.—The annual meeting of this Division will be held at the Grand Hotel, Dover, on Wednesday, June 28th, at 8.30 p.m. Agenda: (1) Reading of minutes. (2) Annual report. (3) Election of officers. (4) Dr. Howden will open a discussion on Public Dispensaries and Out-Patient Departments of Hospitals. (5) Other business, if any.—F. A. OSBORN, Honorary Secretary, Dover.

SOUTH MIDLAND BRANCH.—The annual meeting will be held at the Town Hall, St. Albans, on Thursday, June 22nd, at 2.30 o'clock, under the presidency of Dr. Lipscomb. The President invites the members to luncheon at the Town Hall at 1 p.m. sharp, and will be glad if those who intend to be present will communicate with him not later than Monday, June 19th. Dr. Boys (St. Albans) and Dr. Clement Dukes (Rugby) have promised to read papers, and Dr. Savory (Bedford) will show specimens.—E. HARRIES JONES, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of the members of the above will be held in the Board Room of the Royal Bucks Hospital, Aylesbury, on Tuesday, June 20th, at 2.30. Agenda: The minutes of the last meeting to be read and confirmed. To elect a Chairman and Vice-Chairman of the Division. To elect an Honorary Secretary and Treasurer. To form an Executive Committee. To elect a Representative for the Annual Representative Meeting. To consider matters referred to the Division by the Medico-Political Committee. To consider whether the interests of this Division and its members would not be better served by the outlying portions of the Division joining other Divisions more accessible to them. Any other business.—HORACE ROSE, Melrose, Aylesbury, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The thirty-second annual meeting of the Branch will be held at the North Stafford Hotel, Stoke-on-Trent, on Thursday, June 22nd, at 5.30 p.m., when an address will be delivered by the President-elect, Dr. G. S. Hatton. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Correspondence. (4) Address by the President. (5) Report of the Council. (6) The financial statement. (7) To decide the place of holding the next annual meeting. (8) Election of officers for the ensuing year. (9) Report on the election of the Representative of the Branch on the Council of the Association. Members have the privilege of introducing friends. Dinner at 7 p.m., charge 5s.—G. PETGRAVE JOHNSON, Honorary General Secretary, Stoke-on-Trent.

ULSTER BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 21st, at Warrenpoint, co. Down. The meeting will elect for the ensuing year a President, Treasurer, Secretary, and (with the Connaught Branch) two members of the Central Council. Nominations for these offices must be sent to the Honorary Secretary not later than May 31st. Attention is called to Rule 4, according to which the President shall be a member of the Branch who has not held the said office during the previous five years, and who must not be a member of the same Division as his predecessor.—CECIL E. SHAW, M.D., Honorary Secretary, 13, College Square East, Belfast.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Hotel Majestic, Harrogate, on Wednesday, June 28th, at 3.30. The officers will be elected. Candidates to represent the Branch on the Central Council of the Association must be nominated by at least three members of the Branch, and such nominations must be sent to me on or before Saturday, June 17th. The present Representatives of the Branch are Drs. Burgess and Goyder. The annual dinner will take place at the Hotel Majestic at 6.30. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate with me at once.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

YORKSHIRE BRANCH: BRADFORD DIVISION.—The annual meeting of this Division will be held at the Eye and Ear Hospital, Bradford, on Tuesday, June 27th, at 8.30 p.m. Business: (1) To receive nominations for, and proceed to, the election of officers, representatives of the Division on the Branch Council, and the members of the Executive and Ethical Committees. (2) To elect the Representative of the Division in Representative Meetings of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider the business of the Annual Representative Meeting. (5) To adopt the Model Rule *re* circulation of notices incertain cases. (6) Dr. Metcalfe will move the following resolution: "That the Executive Committee of the Division be instructed to at once take the necessary steps for calling a meeting of the local profession, in order to make arrangements for an invitation to be extended to the Association to hold its annual general meeting in Bradford during the year 1907."—JAMES METCALFE, ANDREW LITTLE, Honorary Secretaries.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: JOHN A. L. CAMPBELL, Staff Surgeon, to the *Repulse*, on recommissioning, June 6th; WILLIAM N. HORSFALL, M.B., Surgeon, to the *Royal Arthur*, on commissioning, undated; FRANCIS F. LOEB, Surgeon, to the *Albemarle*, June 8th; HENRY C. WOODYATT, Surgeon, to the Royal Marines, at Plymouth, June 20th; GERALD NUNN, Surgeon, lent to the Royal Marines, at Plymouth, till Surgeon Woodyatt joins, June 8th; JOHN LOWNEY, Fleet Surgeon, to the *Dominion*, temporary, June 6th; THOMAS E. BUNT, Surgeon, to the *Thames*, additional, for the *Hazard*, June 8th; CHARLES M. WOODS, Surgeon, to the *Fervorable*, additional, for disposal, May 10th; JOHN

G. Peebles, M.B., Surgeon, to the *Victory*, additional, for disposal. May 16th; Thomas W. Myles, M.B., Surgeon, to the *Vivid*, additional, for disposal, May 15th.

The appointments of Surgeons J. G. Peebles, M.B., T. W. Myles, M.B., and C. M. Woods, to the *Glory*, additional, for disposal, have been cancelled.

John M. Rogers, Fleet Surgeon to the *Hood*, on recommissioning, June 24th; William E. Matthew, Staff Surgeon, to the *Actaeon*, June 6th; Christian B. Fairbank, Surgeon, to the *New Zealand*, on commissioning, June 24th.

ROYAL ARMY MEDICAL CORPS.

Lieutenant Colonel J. G. MacNeece is promoted to be Colonel, *vice* W. O. Wolseley, deceased, June 4th. He was appointed Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890; and Lieutenant-Colonel, August 4th, 1893. He served in the Afghan war in 1878-80, including the siege of Kandahar and the battle on September 1st (medal with clasp); in the operations of the Bozdar Field Force in 1881; with the Zhob Valley Expedition in 1884; and in the South African war in 1899-1901, when he had charge of a General Hospital (mentioned in dispatches, Queen's medal with two clasps).

Lieutenant-Colonel D. Semple, M.D., retires on retired pay, June 14th. He entered the service as Surgeon, February 3rd, 1883; and became Surgeon-Major, February 3rd, 1895, and Lieutenant-Colonel, February 3rd, 1903. He has no war record in the Army Lists.

Lieutenant G. W. Heron, from the Seconded List, to be Lieutenant, June 2nd.

ARMY MEDICAL RESERVE.

Surgeon-Captain H. T. Challis to be Surgeon-Major, May 27th.

Surgeon-Lieutenant C. R. Browne, M.D., to be Surgeon-Captain, May 25th.

INDIAN MEDICAL SERVICE.

Colonel J. P. Greany, M.D., Bombay Establishment, is appointed to act as Surgeon-General with the Government of Bombay.

Lieutenant-Colonel W. G. H. Henderson, Bombay Establishment, was appointed to act as Surgeon-General with the Government of Bombay, in addition to his own duties as Civil Surgeon, Poona, pending relief.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Lieutenant A. Young, M.B., 1st Ayrshire and Galloway Regiment, resigns his commission, June 10th.

Honorary Assistant Surgeon J. Welsh, M.D., 1st Fifeshire Regiment, resigns his appointment, and is granted the honorary rank of Surgeon-Captain, retaining his uniform, June 10th.

Surgeon-Major T. M. Dawson, 1st Lancashire Regiment, to be Surgeon-Lieutenant-Colonel, June 10th.

VOLUNTEER RIFLES.

Surgeon-Captain H. G. Thompson, M.D., 1st Volunteer Battalion the Royal Fusiliers (City of London Regiment), Brigade Surgeon Lieutenant-Colonel, Senior Medical Officer, 1st London Volunteer Infantry Brigade), to be Surgeon-Major, September 4th, 1901.

Surgeon-Major D. Lennox, M.D., 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders), is appointed Brigade-Surgeon-Lieutenant-Colonel, and is borne as Supernumerary whilst holding the appointment of Senior Medical Officer of the 34th Field Army Brigades, June 10th.

Surgeon-Captain J. N. Marshall, M.D. 1st (Refrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), resigns his commission, June 10th.

The Christian names of Surgeon-Lieutenant Hubert Samuel Stockton, M.B., 2nd Tower Hamlets, are as now described, and not as stated in the *London Gazette* of May 9th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,528 births and 4,051 deaths were registered during the week ending Saturday last, June 10th. The annual rate of mortality in these towns, which had been 14.4, 14.6, and 14.7 per 1,000 in the three preceding weeks, declined again last week to 13.5 per 1,000. The rates in the several towns ranged from 3.5 in Barrow-in-Furness, 5.0 in Great Yarmouth, 5.9 in Leyton, 6.2 in Hornsey, 6.7 in Reading, 6.8 in Handsworth (Staffs.), 7.7 in Grimsby, and 7.8 in Rotherham, to 17.5 in Plymouth, in West Hartlepool, and in Tynemouth, 20.0 in Smethwick, 20.2 in Hanley, 20.3 in Salford, 22.8 in Middlesbrough, 23.1 in Oldham, and 23.3 in Merthyr Tydfil. In London the rate of mortality was 13.8 per 1,000, while it averaged 13.4 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.5 in Coventry, in St. Helens, and in Merthyr Tydfil, 3.7 in West Hartlepool, 4.2 in Middlesbrough, 4.3 in Derby, 5.0 in Smethwick, and 6.2 in West Bromwich. Measles caused a death-rate of 1.6 in Middlesbrough, 1.7 in St. Helens, 2.1 in Sheffield and in Merthyr Tydfil, 3.4 in Derby, 3.5 in Coventry, 3.7 in West Bromwich, and 5.0 in Smethwick; scarlet fever of 1.1 in Oldham; diphtheria of 1.2 in Rochdale and 1.5 in West Hartlepool; and whooping-cough of 1.3 in Tottenham and in Walthamstow, 1.4 in Preston, 1.6 in Hanley and in Middlesbrough, and 1.7 in East Ham and in Sunderland. The mortality from "fever" and from diarrhoea showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Derby, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 9 small-pox patients at the end of last week, against 15, 10, and 9 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 3, 0, and 1 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,211, 2,200, and 2,267 on the three preceding Saturdays, had further risen to 2,285 on Saturday last, the 10th inst.; 269 new cases were admitted during the week, against 319, 312, and 351 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, June 10th, 1,018 births and 551 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 16.7, 18.1, and 16.9 per 1,000 in the three preceding weeks, further declined last week to 16.4, but was 2.9 per 1,000 in excess of the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12.8 in Leith and 14.9 in Aberdeen, to 20.1 in Paisley and 21.3 in Perth. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in these towns, the highest rates being recorded in Glasgow and Edinburgh. The 251 deaths registered in Glasgow included 14 which were referred to measles, 3 to diphtheria, 16 to whooping-cough, and 7 to diarrhoea. Three fatal cases of measles, 4 of whooping-cough, and 3 of diarrhoea were recorded in Edinburgh; 3 of diarrhoea in Dundee; and 2 of whooping-cough in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, June 3rd, 585 births and 317 deaths were registered in six of the principal Irish towns, against 504 births and 330 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.9, 22.3, and 18.3 per 1,000 in the three preceding weeks, fell to 17.4 per 1,000 in the week under notice, this figure being 2.7 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 14.4 in Cork and 16.4 in Limerick to 19.4 in Dublin and 19.5 in Waterford. The zymotic death rate during the same period, and in the same six Irish towns, averaged 0.6 per 1,000 or 0.4 per 1,000 lower than during the preceding period; the highest figure—2.6—being recorded in Belfast; no other of the six towns, except Dublin, registering any deaths under this heading at all. In Galway 1 death was recorded from typhus, and in all Ireland 10 deaths from measles, 3 from scarlet fever, and 7 from enteric fever, 6 of the latter occurring in Belfast.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Assistant Resident Medical Officer. Honorarium, 25 guineas for three months.

DEVONPORT: ROYAL ALBERT HOSPITAL AND EYE INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

EAST HAM BOROUGH.—Medical Officer of Health and Medical Superintendent Isolation Hospitals, Convalescent Homes and Schools. Combined Salary, £400, rising to £500 per annum.

EDINBURGH HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN.—(1) Junior Surgeon and Gynaecologist; (2) Anaesthetist. Must be registered medical women.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon. Salary, £60 per annum.

ISLINGTON INFIRMARY, Highgate Hill.—Resident Assistant Medical Officer. Salary, £110, rising to £150 per annum.

LIVERPOOL: HOSPITAL FOR WOMEN.—House-Surgeon. Honorarium, £50 for six months.

LIVERPOOL ROYAL INFIRMARY.—Honorary Assistant Gynaecological Surgeon.

MANCHESTER ROYAL INFIRMARY.—Director of the Clinical Laboratory.

MANCHESTER: Victoria University. Junior Demonstrater in Anatomy. Stipend, £100, rising to £150.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Physician in Charge of the Skin Department.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Dental Surgeon.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium, £20 for six months.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

SINGAPORE MUNICIPALITY.—Second Assistant Health Officer. Salary, £400, rising to £450 per annum.

SWANSEA AND GENERAL EYE HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Senior Resident Medical Officer.

WANDSWORTH UNION INFIRMARY, St. John's Hill, S.W.—Male Junior Assistant Medical Officer. Salary at the rate of £100 per annum.

WEYMOUTH AND MELCOMBE REGIS URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £50 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces vacancies in the office of Certifying Factory Surgeon at Prescot, co. Lancaster; Newbridge, co. Kildare; Coxhoe, co. Durham; Rhayader, co. Radnor.

APPOINTMENTS.

Aickin, C. G., M.B., Ch.B., Junior Resident Medical Officer at the Auckland Hospital, New Zealand.

Brander, William, M.B., Ch.B.Aberd., Resident Workhouse Medical Officer and Medical Officer for the Children's Homes, Middlesbrough Union.

CADE, S. E. P., L.R.C.P. and S.Edin., District Medical Officer of the Fareham Union.

CARDIN, H., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Stock District, co. Essex.

CRAWFORD, A. R., M.B., Ch.B., Junior House-Surgeon, Dunedin Hospital, New Zealand.

DAVIES, G. H., L.R.C.P., L.R.C.S.Edin., Honorary Consulting Ophthalmic Surgeon to the Blackburn and East Lancashire Infirmary.

DUNCAN, Andrew, M.D., B.S.Lond., F.R.C.S., M.R.C.P., Physician to the Western General Dispensary.

ELLIS, L. E., M.B., Ch.M., Medical Officer of Manilla Hospital, New South Wales.

GOW, W. B., M.D., M.S., Medical Superintendent, Christchurch Lunatic Asylum, New Zealand.

GRIFFIN, J. Valentine, L.R.C.P. and S.I., Medical Officer for the Crowborough District of the Uckfield Union.

HALL, H. A., M.R.C.S., L.R.C.P.Lond., Medical Officer for the Rotherfield District of the Uckfield Union.

HEYLIGER, E. D. Scott, B.A., M.B., C.M.Glasg., Honorary Ophthalmic Surgeon to the Blackburn and East Lancashire Infirmary.

HOOPER, Gordon, L.D.S.Eng., Dental Surgeon to the Egyptian Army and Soudan Government.

JACKMAN, C. H., L.R.C.P. and S.Edin., District Medical Officer, Flaxton Out Relief Union.

LOCK, J. L., M.B., B.C.Camb., Workhouse Medical Officer of the Uxbridge Union.

MARKS, J. D., M.B., Senior House-Surgeon, Dunedin Hospital, New Zealand.

O'CONNOR, W., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the New Ross District, co. Wexford.

O'SULLIVAN, W. J., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Lisdoonvarna District, co. Clare.

PREBBLE, Philip, M.B., M.Ch.Aberd., Assistant Physician to the Blackburn and East Lancashire Infirmary.

THOMSON, M., M.B., Ch.B., Assistant House-Surgeon, Christchurch Hospital, New Zealand.

TOBIN, R. F., F.R.C.S., Consulting Surgeon to the City Hospital for Diseases of the Skin and Cancer, Dublin, vice Sir Philip Crampton Smyly, F.R.C.S.

WRIGHT, S. R., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Romford Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEATTIE.—At 41, Montague Street, Edinburgh, on June 10th, the wife of William Purvis Beattie, M.B., Ch.B., of a daughter.

BENTLEY.—June 7th, at Gladwins, Limpsfield, Surrey, the wife of J. Reginald Bentley, M.B., B.C.Cantab., etc., of a daughter.

BOTHAM.—On June 11th, at Staindrop, Darlington, the wife of R. H. Botham, M.R.C.S.Eng., L.S.A., of a son.

HAWKINS.—On May 30th, at Inglewood, Bromsgrove, to the wife of C. Louis Hawkins, M.A., M.B., B.C.Cantab.—a son.

MARRIAGES.

BARRACLOUGH—ROSS.—June 8th, at Queen's Road Wesleyan Church, Hull, by the Rev. Owen Davies, assisted by the Rev. Henry Williams, Arthur Milns Barraclough, M.A., M.B., B.C.Cantab., youngest son of Wm. Barraclough, Harcourt Lodge, Chapeltown, Sheffield, to Sarah Elliott (Sallie), youngest daughter of the late Francis Ross, Hull, and Mrs. Ross, 115, Park Avenue, Hull.

SCARF-BROWNE.—On June 10th, at the Church of St. John, Boscombe, Bournemouth, by the Rev. E. P. Pelloe, M.A., Frederick Scarf, of Highfields, West Bromwich, to Gwendolen, daughter of Henry Langley Browne, M.D., Ch.B., F.R.C.S., West Bromwich.

DIARY FOR NEXT WEEK.

WEDNESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 4 p.m.—Harveian Oration by Dr. Frederick T. Roberts.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, Town Hall, Hammersmith, W.—The Cavendish Lecture, by Dr. James F. Goodhart, 8.30 p.m. Subject: Disease of the Heart.

SATURDAY.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, National Hospital, Queen Square, 10 a.m.—Clinical cases.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Wednesday, 3 p.m., Pneumothorax.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.—Thursday, 4 p.m., Enuresis.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST. Central Out-patient Department, 7, Fitzroy Square, W., Thursday, 5 p.m.—Pretuberculous Affections in Early Life.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen's Square, W.C., at 3.30 p.m. each day.—Tuesday, Some Symptoms of Tabes; Friday, Friedreich's Ataxy.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Control of Haemorrhage during Operations; Tuesday, The Treatment of Diseases of the Knee-Joint; Wednesday, The Diagnosis and Treatment of some of the Forms of so-called Rheumatism; Thursday, Pain in Acute Abdominal Disease.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Thursday, 3 p.m., Cases from the Wards.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Etiology of Dental Caries; Tuesday, Clinical Aspects of Pneumonia; Wednesday, Ametropia—its Causation, Diagnosis, and Treatment; Thursday, Rectal Cases; Friday, Cases of Skin Disease.

BOOKS, ETC., RECEIVED.

Exercises in Practical Physiology by Augustus D. Waller, M.D., F.R.S. Part II. Exercises and Demonstrations in Chemical and Physical Physiology. By Augustus D. Waller and W. Legge Symes. London: Longmans, Green, and Co. 1905. 2s. 6d.

Kimpton's Students' Essentials. Essentials of Diseases of the Skin, including the Syphilodermata arranged in the form of Questions and Answers. By Henry W. Stelwagon, M.D., Ph.D. Sixth Edition. London: Henry Kimpton. 1905. 4s.

Kimpton's Students' Essentials. Essentials of the Practice of Medicine. By William R. Williams, A.M., M.D. London: Henry Kimpton. 1905. 6s.

Kimpton's Students' Essentials. Essentials of Obstetrics, arranged in the form of Questions and Answers. By William Easterly Ashton, M.D. Sixth Edition. London: Henry Kimpton. 1905. 4s.

République Française. Ministère de l'Intérieur et des Cultes. Direction de l'Assistance et de l'Hygiène Publiques. Bureau de l'Hygiène Publique. Recueil des Actes Officiels et Documents intéressant l'Hygiène Publique. Travaux du Comité Consultatif d'Hygiène Publique de France. Tome trente-troisième (Année 1903). Melun: Imprimerie Administrative. 1904.

Tumors of the Cerebellum. By Charles K. Mills, M.D., Charles H. Frazier, M.D., George E. de Schweinitz, M.D., T. H. Weisenburg, M.D., and Edward Lodholz, M.D. Reprinted from the New York Medical Journal and Philadelphia Medical Journal for February 11th and 18th, 1905. New York: A. R. Elliott Publishing Co. 1905.

The B.B.B., or Every Briton's Blue Book on Old Age Pensions, etc. By Joseph Henry Tebbutt. London: Bemrose and Sons, Limited. 1905. 6d.

Die Anwendung des Lichtes in der Medizin mit besonderer berücksichtigung von Professor Finsen's Lebenswerk. Von Dr. Valdemar Bie übersetzt von Dr. H. Schramm. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1905. 2s. 6d.

Die Ohrenheilkunde der Gegenwart und ihre Grenzgebiete. In Einzeldarstellungen herausgegeben von Dr. Otto Körner. VI. Die Eiterungen des Ohrlabyrinths. Von E. P. Friedrich. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1905. 9s. 9d.

Die allgemeine Pathologie. Von Prof. Dr. Otto Lubarsch. I Band. 1 Abteilung. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1905. 7s.

Die Ohrenheilkunde der Gegenwart und ihre Grenzgebiete. In Einzeldarstellungen herausgegeben von Dr. Otto Körner. V. Die Verletzungen des Gehörorganes. Von Dr. A. Passow. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1905. 9s. 9d.

Leitfaden in das Studium der experimentellen Biologie der Wassertiere. Von J. v. Mexküll. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1905. 4s.

Travail de l'Institut de Médecine coloniale de Paris. Laboratoire de Parasitologie. Les Filaires du Sang de l'Homme. Par le Dr. Raymond Penel. Deuxième édition. Paris: F. R. de Rudeval. 1905. Fr. 6.

Livingstone College Yearbook, 1905. Containing Hints to Travellers in Matters of Health, Outfit, and Travel. London: Travellers' Health Bureau. 6d.

Traité de Gynécologie, Clinique, et Opératoire. Par S. Pozzi. Quatrième édition revue et augmentée avec la collaboration de F. Jayle. Tome premier. Paris: Masson et Cie. 1905. Fr. 20.

L. Landois' Lehrbuch der Physiologie des Menschen mit besonderer berücksichtigung der praktischen Medizin. Elfte auflage bearbeitet von Prof. Dr. R. Rosemann. Zweite Hälfte (Bogen 34—Schluss.) Berlin and Wien: Urban and Schwarzenberg. 1905. M. 9.

Die Augenheilkunde des praktischen Arztes. Von Dr. Fritz Salzer. Sonderdruck aus der Münchener medizinischen Wochenschrift. 1905. Nr. 16. München: J. F. Lehmann. 1905. Pf. 80.

Fourteenth Edition of the Annual Charities Register and Digest. Introduction by C. S. Loch. London: Longmans, Green, and Co. 1905. 5s.

Squint; its Causes, Pathology, and Treatment. By Claud Worth, F.R.C.S. Second edition. London: John Bale, Sons, and Danielsson, Limited. 1905. 6s.

The Water Supply of Villages and Small Towns. By H. C. H. Shenton, M.S.E. Reprinted from the Local Government Journal. London: S. Edgecumbe Rogers. 6d.

Electric Traction on Street Tramways. By C. Biggs, A.I.E.E. Reprinted from the Local Government Journal. London: S. Edgecumbe Rogers. 6d.

Leitfaden zum Augenspiegelkurs. Von Dr. Fritz Salzer. München: J. F. Lehmann. 1905. M. 5.

The British Sanatoria Annual. 1905. London: John Bale, Sons, and Danielsson, Limited. 1905. 5s.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
June	18...Sunday..	
,,	19...MONDAY ...	LONDON: Officers of Association *re* Alteration of Memorandum, 4.30 p.m. Election of Representatives: July 3rd.
,,	20...TUESDAY ...	LONDON: Scientific Grants Committee, 2.30 p.m. Aylesbury Division, *South Midland Branch*, Annual Meeting, Board Room, Royal Bucks Hospital, Aylesbury, 2.30 p.m. Coventry Division, *Birmingham Branch*, Joint Meeting with Nuneaton and Tamworth Division and Warwick and Leamington Division, Coventry and Warwickshire Hospital, Coventry, 4 p.m. Liverpool Southern Division, *Lancashire and Cheshire Branch*, Annual Meeting, Medical Institution, Hope Street, 4.30 p.m. North-East Edinburgh Division, *Edinburgh Branch*, Annual Meeting, Royal College of Physicians, 9, Queen Street, 8.15 p.m. Shropshire and Mid Wales Branch, Salop Infirmary, 5 p.m.
,,	21...WEDNESDAY	Notices of Motion for Quarterly Council Meeting must be given to General Secretary on or before this day. North of England Branch, Annual Meeting, Zetland Hotel, Saltburn. South-Eastern Branch, Annual Meeting, Guildhall, Canterbury, 2.15 p.m. Ulster Branch, Annual Meeting, Warrenpoint, co. Down.
,,	22...THURSDAY...	LONDON: Hospitals Committee, 2 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, of the Hospital, Market Street, Altrincham, 5 p.m. City Division, *Metropolitan Counties Branch*, Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C., 4 p.m. St. Pancras Division, *Metropolitan Counties Branch*, St. Pancras Northern Infirmary, Dartmouth Park Hill, N., 4.30 p.m. South Midland Branch, Annual Meeting, Town Hall, St. Albans, 2.30 p.m. Staffordshire Branch, Annual Meeting, North Stafford Hotel, Stoke-on-Trent, 5.30 p.m.; Dinner, 7 p.m.
,,	23...FRIDAY ...	
,,	24...SATURDAY ...	
,,	25...Sunday..	
,,	26...MONDAY ...	
,,	27...TUESDAY ...	LONDON: Organization Committee, 10.30 a.m. Bradford Division, *Yorkshire Branch*, Annual Meeting, Eye and Ear Hospital, Bradford, 8.30 p.m. Kensington Division, *Metropolitan Counties Branch*, Annual Meeting, Kensington Town Hall, High Street, Kensington, 5 p.m.
,,	28...WEDNESDAY	LONDON: Medico-Political Committee, 10.30 a.m. ,, Journal and Finance Committee, 2 p.m. Bath and Bristol Branch, Annual Meeting, University College, Bristol, 4.30 p.m.; Dinner, Clifton Down Hotel, Clifton, 7.30 p.m. Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m. Dover Division, *South-Eastern Branch*, Annual Meeting, Grand Hotel, Dover, 8.30 p.m. Glasgow and West of Scotland Branch, Annual Meeting, Western Infirmary, 3 p.m. Metropolitan Counties Branch, Annual Meeting, Trocadero Restaurant, Piccadilly Circus, W. (Connaught Room), 6 p.m.; Dinner (Balmoral Room), 7.30 p.m. North Lancashire and South Westmorland Branch, Annual Meeting, Bowness, 2.30. Yorkshire Branch, Annual Meeting, Hotel Majestic, Harrogate, 3.30 p.m.; Dinner, 6.30 p.m.
June	29...THURSDAY...	Central Division, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. East Anglian Branch, Annual Meeting, Norfolk and Norwich Hospital, Norwich, 1 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham, 3.45 p.m.
,,	30...FRIDAY ...	Association Research Scholarships expire.
July	1...SATURDAY...	Research Scholarships date from now. Edinburgh Branch, Hawick, 12.15 p.m.; Dinner, Tower Hotel, 6.30 p.m.
,,	...Sunday..	
,,	3...MONDAY ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	LONDON: Central Council, 10 a.m.
,,	6...THURSDAY...	Newcastle-on-Tyne Division, *North of England Branch*, Royal Infirmary and College of Medicine, 10 a.m. North Wales Branch, Annual Meeting, Bala.
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9...Sunday..	
,,	10...MONDAY ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
,,	11...TUESDAY ...	
,,	12...WEDNESDAY	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.
,,	13...THURSDAY...	
,,	14...FRIDAY ...	
,,	15...SATURDAY ...	
,,	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	
,,	19...WEDNESDAY	
,,	20...THURSDAY...	City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C. 4 p.m.
,,	21...FRIDAY ...	
,,	22...SATURDAY...	
,,	23...Sunday..	
,,	24...MONDAY ...	2 p.m., General Meeting, to be followed by Representative Meeting.
,,	25...TUESDAY ...	Council Meeting Adjourned General Meeting, to be followed by Representative Meeting.
,,	26...WEDNESDAY	Ditto.
,,	27...THURSDAY...	Ditto.
,,	28...FRIDAY ...	
,,	29...SATURDAY...	
,,	30...Sunday..	
,,	31...MONDAY ...	
August	1...TUESDAY ...	
,,	2...WEDNESDAY	
,,	3...THURSDAY...	
,,	4...FRIDAY ...	
,,	5...SATURDAY...	
,,	6...Sunday..	
,,	7...MONDAY ...	*Bank Holiday.*

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 87, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 24TH, 1905.

CONTENTS.

	Page
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Bath Division	353
,, ,, Bristol Division	353
Birmingham Branch	353
Border Counties Branch: Scottish Division	354
Edinburgh Branch: South-Eastern Counties Division	354
Lancashire and Cheshire Branch: Chester Division	354
Leinster Branch: East Leinster Division	355
etropolitan Counties Branch: Hampstead Division	355
,, ,, ,, Westminster Division	355
Midland Branch: Boston and Spalding Division	356
Munster Branch	356
South-Eastern Branch: Dover Division	356
ASSOCIATION NOTICES.—COUNCIL MEETING.—BRANCH AND DIVISION MEETINGS TO BE HELD	356
NAVAL AND MILITARY APPOINTMENTS	358
VITAL STATISTICS	358
VACANCIES AND APPOINTMENTS	358
BIRTHS, MARRIAGES, AND DEATHS	359
DIARY OF THE WEEK	359
BOOKS RECEIVED	359
CALENDAR	360

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:

BATH DIVISION.

THE annual meeting of this Division was held in Bath on June 8th, Dr. CAVE in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Mr. C. Curd. *Vice-Chairman:* Dr. Field. *Honorary Secretary and Treasurer:* Dr. McDonogh Ellis. *Branch Council:* Dr. Briscoe, Dr. Wigmore, Dr. Symons, Mr. Lace, Mr. Bloxam, Mr. Bayliss, Mr. Helps, Mr. Terry and Mr. Beath. *Executive Committee:* Dr. Cave and Dr. Norburn.

Report of Executive Committee.—The report of the Executive Committee was received and adopted.

Matters Referred to Divisions.—The subject of the National Deposit Friendly Society referred from the Medico-Political Committee was considered, and it was resolved to take no action in the matter. It was also resolved that all other matters referred to the Divisions by the Central Council be left to the discretion of the Representative of the Division as to any action taken.

BRISTOL DIVISION.

THE annual meeting of this Division was held at University College, Bristol, on June 8th, Dr. BARCLAY J. BARON in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Annual Report.—The annual report was read and adopted.

Election of Officers.—The following officers were elected: *Chairman:* Mr. F. R. Cross. *Vice-Chairman:* Dr. J. Michell Clarke. *Honorary Secretary:* Dr. Newman Neild. *Representative at Annual Meeting of Representatives:* Dr. Hedley Hill. *Members of Branch Council:* Mr. James Swain, Dr. E. F. Martin, Mr. C. K. C. Herepath, Mr. R. H. Brew.

Representative Meeting.—The business of the Representative Meeting was considered.

BIRMINGHAM BRANCH.

THE fifty-first annual general meeting of the Branch was held at the Medical Institute on June 8th. The chair was taken at 4 p.m. by the retiring President, Dr. T. E. UNDERHILL.

Confirmation of Minutes.—The minutes of the previous annual general meeting were read, confirmed, and signed.

Reports.—The reports of the Council, of the Representatives of the Branch in the Central Council, and of the Ethical Committee were taken as read. No report from the Pathological and Clinical Section was placed before the meeting, as the report presented was not approved by the Council.

Financial Statement.—A discussion took place on the financial statement, in which Drs. Milner Moore, Shiels, William Thomas, Morrison, Thomas Wilson, and Jordan Lloyd took part. In the absence of the Honorary Treasurer, Mr. Marsh, the Honorary Secretaries were unable to give the meeting information on some of the points referred to.

It was proposed by Dr. THOMAS, seconded by Dr. MOORE, and resolved:

That in future the accumulated fund and expenditures from it appear as separate items in the financial statement.

Election of Officers.—The PRESIDENT then announced that the following elections were made to uncontested offices:—*President-elect:* Dr. O. F. Wyer. *Honorary Treasurer:* Mr. F. Marsh. *Honorary Secretaries:* Drs. Short and Kauffmann. *Representatives on the Council of the Association:* Messrs. Langley Browne and Morrison.

It was proposed from the Chair, and resolved:

That Dr. J. W. Russell be the Hon. Auditor, and Messrs. Charlton and Long the professional Auditors for the ensuing session.

Votes of Thanks.—It was proposed by Dr. SIMON, seconded by Dr. MCCARDIE, and resolved:

That the best thanks of this meeting be, and are hereby, accorded to Messrs. Langley Browne and Morrison, the Representatives of the Branch in the Central Council, for their services during the past year.

It was proposed by Dr. STANLEY, seconded by Mr. NUTHALL, and resolved:

That the best thanks of this meeting be, and are hereby, accorded to

the Hon. Treasurer, Mr. F. Marsh, and the Hon. Auditor, Dr. J. W. Russell, for their services during the past year.

It was proposed by Dr. Plummer, seconded by Dr. Melson, and resolved:

That the best thanks of this meeting be, and are hereby, accorded to Drs Short and Kauffmann, the Hon. Secs., for their services during the past year.

It was proposed by Mr. Morrison, seconded by Mr. Lucas, and resolved:

That the best thanks of this meeting be, and are hereby, accorded the Chairman and Hon. Secs. of the Pathological and Clinical Section, for their services during the past year.

Addition to Rules.—The President then moved, on behalf of the Council, and it was agreed:

(1) That the following addition be made at the end of Rule 4, "If there be no contest, no voting papers will be sent round, and the elections will take place at the Annual Meeting."
(2) That in Rule 7, section (a), subdivision (2), last line, the word "week" be substituted for the word "month."
(3) That in Rule 10, the words in the last paragraph from "unless" to "voting," both inclusive, be omitted, and that the paragraph commence with the word "No."
(4) That in Rule 14, the word "may" be inserted between the words "and" and "levy" in the first sentence, second and third lines; and that the words "by the section" in the last sentence be replaced by the words "at the last sessional meeting of the section, after nomination at the preceding meeting."

Pathological and Clinical Section.—It was proposed by Mr. Lucas and seconded by Mr. William Thomas:

That circulars of all meetings of the Pathological and Clinical Section be sent to all members of the Birmingham Branch.

This was discussed by Mr. Nuthall, Dr. Saundby, Dr. Melson, Mr. Morrison, Dr. Short, Mr. Leedham Green, Drs. Thomas Wilson, Perry, Stanley, Simon, Plummer, and Mr. Marsh. Dr. Milner Moore proposed an amendment, seconded by Dr. Shields, but it was ruled out of order as being a direct negative. When put to the vote Mr. Lucas's resolution was lost by 21 to 12. The resolution down in Dr. Stanley's name, namely:

That the Pathological and Clinical Section cease to meet,

was ruled out of order by the President, as being not in accordance with Rule 15, which was quoted.

Representation of Divisions on Central Council.—It was proposed by Dr. Kirby, seconded by Mr. Morrison, and resolved, as an amendment to Rule 6:

To delete the words, "If a membership of the Branch be 50 or less, such Division shall elect one member of Council," and insert, "If the membership of a Division be 100 or less, such Division shall elect two members of Council, one of whom shall be the Honorary Secretary."

Introduction of New President.—Dr. T. F. Underhill then introduced his successor, Mr. T. F. Chavasse.

Vote of Thanks to Retiring President.—It was proposed by Dr. Thursfield, seconded by Mr. Haslam, and carried with acclamation:

That a vote of thanks be accorded to the retiring President for his services during the past year.

President's Address.—The President (Mr. T. F. Chavasse) then delivered his address. It was proposed by Dr. Underhill, seconded by Dr. Oakes, and resolved:

That the best thanks of the Branch be accorded to the President for his able and interesting address.

BORDER COUNTIES BRANCH:

Scottish Division.

The annual general meeting of this Division was held in the Royal Restaurant, Dumfries, on Friday, June 9th, Dr. Maxwell Ross in the chair.

Election of Officers.—The following officers were elected: *Chairman:* Dr. Smith. *Vice-Chairman:* Dr. Clarke. *Secretary and Treasurer:* Dr. Livingstone (Dumfries). *Four Members of Committee:* Dr. Robertson, Dr. Anderson, Dr. Bell, Dr. Robson. *Members of Branch Council:* Dr. Logan, Dr. Clarke. *Representative at Annual Representative Meeting:* Dr. Livingstone.

EDINBURGH BRANCH:

South-Eastern Counties Division.

The annual meeting of this Division was held in the Railway Hotel, Newtown St. Boswells, on the afternoon of Saturday, June 17th, at 3 o'clock, Dr. Carlyle Johnston, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Election of Officers.—The following office-bearers were elected: *Chairman,* Dr Cullen; *Vice-Chairman,* Dr. Young; *Representative to Annual Meeting of the Association,* Dr. Blair (re-elected); *Representative on Branch Council,* Dr. Hamilton (re-elected); *Secretary and Treasurer,* Dr. Calvert (re-elected). The members of the Executive Committee were re-elected, and Dr. Dixon in place of Dr. Young, now Vice-Chairman.

Annual Representative Meeting.—Dr. Johnstone moved that the business referred to the Division be left to the discretion and judgement of the Representative Member, except in so far as he be specially instructed. This was unanimously agreed to.

Matters Referred to Divisions.—The following matters were considered: The National Deposit Friendly Society; amendment to the Local Government (Scotland) Bill; the relations of medical men to ambulance work; the abuse of drugs; the payment of medical men called in to assist midwives; the payment of medical men called to emergency cases by the police; school certificates in case of absence through illness; the Public Health Bill, and insurance fees. The opinions of the Division on all these matters have been communicated to the Medico-Political Committee.

Annual Representative Meeting.—It was agreed that in regard to all matters in which he has not received definite instructions the Representative Member shall exercise his own discretion, and is fully empowered to act accordingly. For example, in the matter of the superannuation scheme, the Representative is left to deal with it entirely as he thinks fit. Dr. Hamilton's motion was then considered, and it was agreed that the Representative of the Division be empowered to move as an amendment, if required, that the British Medical Association form an insurance fund for the benefit of the widows, orphans, and dependents of deceased members.

LANCASHIRE AND CHESHIRE BRANCH:

Chester Division.

The annual meeting of the two Divisions of Chester and Crewe was held in the Chester General Infirmary Board Room at 5 p.m. on May 23rd, Mr. Taylor, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last annual meeting on May 31st, 1904, were taken as read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was then read by the Honorary Secretary and approved. Among other topics of general interest it dealt with the proposed change in the area of the Chester Division by the absorption of the Crewe area (with the exception of Sandbach).

Change in Area of Division.—A letter from the Medical Secretary was read: it stated that the contemplated change in the area of the Chester Division, etc., had been approved of by the Central Council on May 17th, but that as it could not be published in the Journal until May 27th, it would therefore not be effective until after that date. A short discussion followed.

Election of Officers.—It was decided to proceed with the business of the meeting, to elect office-bearers for the ensuing year, their definite election being deferred until a special meeting on May 30th. It was proposed by Mr. Taylor and seconded by Dr. Mann that Mr. Granger be Chairman; proposed by Dr. Mann and seconded by Dr. Jephcott that Dr. Parry be Vice-Chairman; proposed by Mr. Taylor and seconded by Dr. Mann that Dr. King be Honorary Secretary and Treasurer: proposed by Mr. Taylor and seconded by Dr. Parry that Mr. Granger be Branch Representative. Mr. Taylor then said that he thought it important that the Honorary Secretary, necessarily conversant with the business of the Division, should also represent it on the Branch Council; he therefore proposed and Dr. Mann seconded that Dr. King be the (second) Representative on the Branch Council. It was then proposed by Dr. Parry and seconded by Dr. King that Dr. Duff be the Association Representative. It was proposed by Dr. King and seconded by Dr. Mann that Mr. Taylor and Drs. Duff, Laird, and Jephcott be the other members of the Executive Committee. All these proposals were carried *nem. con.*

Annual Representative Meeting.—It was then proposed by Mr. Taylor and seconded by Dr King, that Dr. Duff, their Representative at Representative Meetings of the Association, should be absolutely free to use his own judgement in voting in the best interests of the Division. This was carried unanimously.

Vote of Thanks to Retiring Chairman.—A cordial vote of

thanks was then accorded to Mr. Taylor for his able conduct in the chair during the past twelve months.

Confirmatory Meeting.—A meeting confirmatory of above was held on May 30th in the Chester General Infirmary at 5 p.m., Dr. STOLTERFOTH in the chair. The minutes were read and the business of the previous meeting confirmed. This concluded the business of the meeting.

LEINSTER BRANCH:

EAST LEINSTER DIVISION.

THE annual general meeting of this Division was held in the Royal College of Physicians, Dublin, on Thursday, June 8th, Dr. USSHER in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Election of Officers.—The election of officers resulted as follows:—*Chairman*, H. C. Earl, M.D.; *Vice-Chairman*, J. D. Hillis, F.R.C.S.I.; *Honorary Secretary and Treasurer*, R. C. Peacocke, M.D., 2, Avoca Terrace, Blackrock; *Representative for Representative Meetings*, J. W. Boyce, M.D.; *Executive Committee*. W. R. Dawson, M.D., H. C. Earl, M.D., R. L. Heard, M.B., J. D. Hillis, F.R.C.S.I., E. W. Lynch, T. Mason, M.B., J. M. Neale, J. F. Pollock, M.D., J. Roantree, M.B., I. W. Ussher, J.P., Professor White (ex-officio); *Representatives on Branch Council*, H. C. Earl, M.D., J. D. Hillis, F.R.C.S.I., J. Mason, M.B., J. M. Neale, I. W. Ussher, J.P.

An Irish Committee.—Professor WHITE proposed, and Dr. PEACOCKE seconded that:

> An Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed, namely, an Irish Committee, consisting of one Secretary from each Irish Branch and the Irish members of the Central Council. It shall have a Secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters concerning Ireland.

The resolution was passed unanimously.

Matters Referred to Divisions.—The reports on Registered Medical Practitioners and Information to Coroners, Revised Medical Acts Amendment Bill, the Relation of the Medical Profession to Ambulance Work, Advertising of the names of Medical Practitioners in Connexion with Hydropathic Establishments, were discussed and instructions concerning them were given to the Representative for the Representative Meeting to be held at Leicester.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

AN ordinary meeting of this Division was held on Friday, June 9th, at the Kilburn Provident Medical Institute at 9 p.m., Dr. HEATH STRANGE in the chair.

Confirmation of Minutes.—The minutes of the previous meeting, having been printed and circulated, were passed as read.

Letters.—A letter from Mr. Henslowe Wellington was read in which he expressed his regret that he was unable to go to Leicester this year. The HONORARY SECRETARY explained that a vote of thanks had been passed by the Committee to Mr. Wellington for his services as Division Representative.

Election of Representatives.—Dr. Macevoy was re-elected and Dr. Oppenheimer elected as Representatives to the Branch Council. Mr. H. W. Armit was elected as Representative to the Representative Meeting.

Vote of Thanks.—A vote of thanks to Mr. Humphreys for his services as Representative to the Branch Council was then carried unanimously.

Matters Referred to Divisions.—The HONORARY SECRETARY read a letter from Mr. Smith Whitaker (Medical Secretary) explaining the present position of the Public Health Bill, the Bill for Reorganization of Local Government Board, and the Revaccination Bill. Dr. OPPENHEIMER proposed:

> That this Division express sympathy with the principles of the three Bills and direct its representatives to take such measures as may be necessary in connexion therewith.

This was seconded by Dr. WILSON and carried.

An Ethical Question.—Mr. ARMIT drew attention to an ethical matter which gave rise to considerable discussion. Mr. HUMPHREYS moved:

> That the subject be referred to the Executive Committee of the Division for consideration and report.

This was seconded by Dr. MACEVOY and carried.

WESTMINSTER DIVISION.

THE annual meeting of this Division was held at 20, Hanover Square on Wednesday, June 14th, at 4.30 p.m. Mr. J. BLAND-SUTTON was in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following officers were duly elected for the coming year: *Chairman* Mr. J. Bland-Sutton; *Vice-Chairman*, Dr. Haslip; *Honorary Secretary and Treasurer*, Dr. Knowsley Sibley; *Representative for Representative Meetings* Dr. William Ewart; *Representatives on the Branch Council*, Drs. Durham, Ewart, Haslip and Sibley; *Executive Committee* E. Cautley, M.D., J. H. Dauber, F. Durham, M.B., W. Ewart, M.D., H. Hilliard, E. Lloyd-Williams, F. J. McCann, M.D., B. O'Connor, M.D., Bruce Porter, M.D., A. E. F. Longhurst, M.D., H. D. Rolleston, M.D., E. Waggett, F. P. Wightwick, M.D., and Hugh Woods, M.D.

Report of Executive Committee for 1904-5.—The Division was formed on May 19th, 1904, and includes all those members of the Association who reside in the Boroughs of Westminster and Holborn, and now numbers 256 members. Six meetings have been held during the year, with an average attendance of 14, and two meetings of the Executive Committee, with an average attendance of 9. The best attended meeting was the one held on the evening of January 20th at St. George's Hospital, when the Vice-Chairman, Dr. William Ewart, opened a most interesting and instructive discussion "On the Value of Sugar in Health and Disease." All the other meetings held have been devoted entirely to discussions and resolutions on various medico-political subjects. Chief among these have been "The Medical Acts Amendment Bill and the Coronership Question." The Division had the misfortune to lose the services of its first Chairman, Sir Isambard Owen, he having left London. The chair has since been ably filled by Mr. Bland-Sutton, supported by Dr. Ewart as Vice-Chairman. The expenses for the year have amounted to £27 19s.

Annual Representative Meeting.—The attention of the meeting was then called to the question of the various motions to be discussed at the Annual Representative Meeting, and there being no definite opinion offered on any of them, it was decided to leave the voting to the discretion of the Representative.

Medical Acts Amendment Bill (Part V, par. 27).—Dr. SIBLEY pointed out the impracticability of this clause, compelling medical men to have their name advertised outside the building in which they practised, as, in many of the more fashionable residential flats and private houses, the landlord would not permit a brass plate. He also spoke of the fact that many of the leading men on the Continent had no door plate either outside the building or inside, in the case of residential flats. After some discussion, in which Dr. FORBES ROSS referred to the imposition of certain landlords at the present day in compelling medical men to pay for a licence to put up a brass plate, Dr. DONALD BAYNES spoke of many houses in the West-End where the landlord would not permit a plate on the door under any circumstances, and Dr. HORACE MANDERS saw no reason why a door plate should be compulsory. He moved, and Dr. FORBES ROSS seconded:

> That this paragraph be deleted.

This was put to the meeting and carried *nem. con.* Attention was drawn to the memorandum on the legal position of medical men in respect to school certificates. After some discussion, in which Dr. LONGHURST, Dr. HUGH WOODS, Dr. O'CONNOR, and Dr. HASLIP spoke, Mr. HILLIARD proposed, and Dr. BRUCE PORTER seconded:

> That the memorandum be placed in the minutes.

Queen's Jubilee Hospital.—Dr. FORBES ROSS, a member of the new staff of the Queen's Jubilee Hospital, was permitted to make two statements:—(1) In the first he condemned the reports of proceedings in connexion with the resignation of the old staff and the appointment of the new, and the comments thereon which had been published in the BRITISH MEDICAL JOURNAL, as showing a bias against the hospital and the new staff. (2) In the second he drew attention to the status and wrongfully alleged professional incapabilities for responsible positions of the M.R.C.S.Eng., in view of a recent derogatory ruling by the King Edward's Hospital Fund, which had been published broadcast in the lay press, and which would tend to weaken public confidence in those holding that diploma, and expressed the opinion that it was expedient that the Ethical Committee should consider the subject and draw the attention of the King's Fund to the anomalous position. The meeting having heard Mr.

Ross's statements, the CHAIRMAN ruled there could be no discussion, and there being no other business the meeting adjourned.

MIDLAND BRANCH:
BOSTON AND SPALDING DIVISION.

THE third annual meeting of this Division was held at the Red Lion Hotel, Boston, on May 30th, Dr. W. H. SMITH, Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Secretary's Report.—The Secretary's report stated that during the past year no attempt had been made to hold ordinary meetings. Two committee meetings had been held, and it was hoped that during the ensuing year members would show more interest in developing the uses of the Division. The membership at the beginning of the year (May, 1904) was 32. The Division had lost two members by removal and one by arrears. It had gained three—Dr. Allan, Wainfleet; Dr. Tate, Gosberton; and Dr. E. G. Walls, Burgh. There was thus no change in numbers.

Treasurer's Report.—This showed a balance of 14s. 5d.

Election of Officers.—The following gentlemen were elected: *Vice-President of the Branch*, Dr. South; *Chairman*, Dr. W. H. Smith; *Vice-Chairman*, Dr. Miller; *Representative on Branch Council*, Dr. Wilson; *Secretary and Treasurer*, Dr. Wilson; *Auditors*, Dr. Mason and Dr. Taylor; *Executive Committee*, Drs. Galloway, Coleman, Mann, Allan, Mason, Moxham, Pilcher, Slocock, and Taylor; *Representative in Representative Meetings of Association*, Dr. Gurney, Lincoln.

Programme for the Year.—It was unanimously agreed to hold four meetings during the year, not counting the annual meeting. It was agreed to hold two meetings before December. After discussion the following dates were chosen: July 21st and October 6th, at 2.15 p.m. The July meeting is to include cases at the hospital. The Committee to arrange details.

Certain Proposals of the Medico-Political, etc., Committees, arising from the Minutes.—Medical fees for assisting midwives: Dr. SPILSBURY poposed and Dr. PILCHER seconded:

> That the minimum fee of one guinea be charged, which need not include subsequent attendance.

Carried *nem. con.* National Deposit Friendly Society: Dr. SOUTH proposed and Dr. MOXHAM seconded that the recommendations of the Medico-Political Committee be adopted (SUPPLEMENT, page 250). Carried *nem. con.* Ambulance Work: It was unanimously agreed that all forms of this work should be paid for.

Luncheon.—Twelve members lunched together in the hotel afterwards.

MUNSTER BRANCH.

THE annual general meeting of this Branch was held on Wednesday, June 14th, Dr. CREMEN in the chair.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Admiralty Surgeons.—Dr. ATKINS proposed and Dr. P. T. O'SULLIVAN seconded the following resolutions, which were carried:

> That this Branch is of opinion that the fees which are at present paid by the Admiralty to their surgeons and agents are inadequate and in need of revision; also, that the wives and families of officers and men of the coastguard on shore be entitled to medical attendance at the cost of the Crown, and that the office of surgeon and agent be made a pensionable one, the pension to be calculated on the average annual payments for the five years preceding the resignation of a surgeon and agent, and according to the Civil Service scale and rules.
>
> That this Branch is of opinion that the fees which are at present paid by the Commissioners of Irish Lights to their medical officers are inadequate and in need of revision; also, that the office of medical officer to the Irish Lights Board be made a pensionable one, the pension to be calculated on the average annual payment for the five years preceding the resignation of a medical officer, and according to the Civil Service scale and rules.

Provincial Practitioners and the General Medical Council.—A circular letter was read from Dr. Kidd (Enniskillen) regarding the claims of a provincial medical practitioner for election on the General Medical Council. The consideration of the matter was postponed.

Irish Committee.—It was proposed by Dr. GIUSANI, seconded by Dr. P. T. O'SULLIVAN, and carried:

> That an Irish Committee be appointed on similar terms to those under which the Scottish Committee is appointed, viz.: an Irish Committee consisting of one Secretary from each Irish Branch and the Irish members of the Central Council. It shall have a Secretary resident in Ireland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters concerning Ireland.

Election of Officers.—The following officers were elected for the ensuing year:—*President:* Dr. Cremen. *Vice-President:* Dr. P. T. O'Sullivan. *Representative to Annual Meeting:* Dr. H. R. Townsend, 6, Sidney Place, Cork. *Branch Council for* 1905-6: Professor Corby, M.D., Professor Cummins, M.D., Drs. J. J. Curran, Giusani, H. N. Hobart, P. J. Macnamara, F.R.C.S.I., O'Meara, O'Connor, Woods, Allsom, N. I. Townsend. Booth. *Hon. Secretary:* Philip G. Lee, 26, Patrick's Hill.

New Members.—The following were elected members of the Association: J. T. O'Connor, L.R.C.P. and S. Ed., District Hospital, Cork; Wm. MacSweeny, M.D., Park Place, Killarney.

SOUTH-EASTERN BRANCH:
DOVER DIVISION.

A MEETING of this Division was held at the Grand Hotel, Dover, at 8.30 p.m., on June 7th, Dr. PARSONS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Matters Referred to Divisions.—The following matters were discussed: Reports on the Public Health Bill; the relation of the medical profession to ambulance work; the National Deposit Friendly Society; advertising in connexion with hydropathic establishments; Revaccination Bill and death registration and coroners' law. The resolutions of the Division on these matters have been communicated to the Medico-Political Committee.

Letter to Non-Members.—The letter to non-members drawn up at the Central Office was read, and the Honorary Secretary was instructed to forward copies to all non-members in their area.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman terminated the proceedings.

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Leicester the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 21st to August 1st, both dates inclusive.

Those members desiring to travel to the places where they reside during the meeting of the Association may obtain return tickets at a single fare and a quarter (minimum charge 1s.) on production of cards of membership, from Leicester to any station not more than fifty miles distant to which through bookings are in operation available to return on the same or following day.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

COUNCIL MEETING.

A MEETING of the Council will be held at 10 o'clock in the forenoon of Wednesday, July 5th, in the Board Room of the Metropolitan Asylums Board, by kind permission of the Board. The offices of the Metropolitan Asylums Board are situate on the Victoria Embankment at the corner of Carmelite Street, and near Blackfriars Bridge.

June 8th, 1905. GUY ELLISTON, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held at University College, Bristol, at 4.30 p.m. on June 28th, and the annual dinner of the Branch will take place at the Clifton Down Hotel, Clifton, at 7.30 p.m. on June 28th. Election of members of the Central Council: Nominations, each signed by three members, for the two vacancies on the Central Council should be sent to one of the undersigned on or before June 23rd. If more than two candidates are nominated, voting papers will be sent to members in due course.—NEWMAN NEILD, and W. M. BEAUMONT, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at the Medical Institute, at 4 p.m., on Thursday, June 29th. Business: (1) To elect officers of the Division. (2) To receive the annual report of the Executive Committee, which is to the following effect: Your Committee begs to report that the membership of the Division remains at about the same level as last year. There are now 291 members of the Division. The funds at the disposal of the Honorary Secretary and Treasurer have been so small as to have necessitated the severest economy, and the expense of postage placed on the Division both by the Branch and the Central Council has left little margin for independent Divisional work. An application was made through the Representatives on the Central Council that that body should pay for the polls if ordered, but without success. During the year ending December 31st, 1904, the expenditure of the Division was £17 4s. 10d., being at the rate of about 1s. 2½d. per head. Your Executive Committee is supposed to manage the financial affairs of the Division, but on account of the method of financing the Division adopted by the Branch, there is at present no balance in hand left to treasure, so that this duty is a sinecure. During the year there have been four general meetings of the Division, with an average attendance of 15, or 5 per cent. of the members. This is not at all a creditable proportion, and your Committee regrets that so small a proportion shows an interest in the important professional questions brought before the meetings. Certainly two of these meetings were only summoned by notices in the BRITISH MEDICAL JOURNAL, which partially accounts for the small numbers. Your Committee has held six meetings during the year, and the attendances have been as follows: Dr. Edginton, 6, Dr. W. P. Whitcombe 2, Dr. E. D. Kirby 6, Dr. Thomas Wilson 4, Dr. Gilbert Barling 0, Dr. J. Neal 3, Dr. F. W. Underhill, 0, Dr. Milligan 3, Dr. Branson 4, Dr. Short 2, Dr. Morrison 4, Dr. Heaton 3, Dr. Gamgee 3, and Dr. Leedham-Green 4. Mr. Gamgee does not seek re-election. A recruiting circular letter has been twice sent to non-members asking them to join the Association, with only very qualified success. It is evident that a personal canvass will be necessary. During the year, at the request of the medical staff of the Birmingham General Provident and Benevolent Institution, the Honorary Secretary has taken steps to obtain an increase of the rate of payment made to the staff by that Institution, as a result of which the request of the medical staff will probably be acceded to. In accordance with the instructions of the Division, the local members of Parliament, eleven in number, have been memoralized in support of the Public Health Bill of the Association. Replies have only been received from two of those written to—namely, Mr. Frank Lowe and Viscount Morpeth. The question of the abuse of local charities, and especially of the Birmingham General Dispensary, has been the subject of a memorandum from your Honorary Secretary to the Central Council. The Medico-Political Committee is now dealing with the matter. Arrangements have been made with the Editor of the *Midland Medical Journal* to send a copy of the *Journal*, containing the rules of the Division, to every member. It is hoped that members will keep this copy for reference. The resolution sent by the Division to the Representative Meeting regarding medical representation in Parliament was adopted by the latter. The Central Council is moving in the matter. The questions considered at the general meetings were chiefly those sent down by the Central Council, and for the most part gave rise to full and animated discussion.—(Signed) ROBERT WILLIAM EDGINTON. (3) To consider the business of the Annual Representative Meeting, and to instruct the Representative. (See the SUPPLEMENTS to the JOURNAL, May 13th and 27th.) (4) Votes of thanks to retiring officers. (5) Other business. Dr. Short will move that the following words be added to Rule 6: "Nominations for offices, in writing, must reach the Honorary Secretary of the Division not less than three weeks before the date of the annual meeting of the Division."—E. D. KIRBY, Honorary Secretary, 106, Hagley Road.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at the Norfolk and Norwich Hospital, Norwich, on Thursday, June 29th. Programme of proceedings: 12.15 pm. Meeting of Branch Council in the Board Room of the hospital. 1 p.m. General meeting of the Branch in the Board Room. Agenda: (1) Minutes. (2) Report of Council. (3) Report of result of election of officers. 1.30 p.m. Luncheon at the Norfolk and Norwich Hospital, by invitation of the President-elect, Dr. Barton. 2.15 p.m. Resumed general meeting in the new pathological museum of the hospital. Agenda: (4) Opening of the new museum by Mr. Jonathan Hutchinson, F.R.S., of London. (5) Introduction of new President by retiring President. Thanks to the retiring President. (6) President's Address. (7) Professor T. Clifford Allbutt, M.D., F.R.C.P., F.R.S., Regius Professor of Physic in the University of Cambridge, will read a paper entitled "Some Reflections on the Treatment of Cardio-Arterial Diseases." 4.30-6.30. Afternoon tea, to which members are invited to bring ladies, at Carrow Abbey, by kind invitation of Mr. and Mrs. James Stuart (carriages and motor cars will be provided to convey members to Carrow Abbey). During the day the hospital wards and operation theatre, the pathological museum, the new electro-therapeutic department, and the new Leicester Nurses' Home will be open for the inspection of members of the Association. Dr. A. J. Cleveland will be pleased to show members over the electro-therapeutic department, and the Home Sister, Miss Rowdon, over the Leicester Nurses' Home. Exhibition of surgical instruments by Down Brothers, and of pharmaceutical preparations by Parke, Davis, and Co.—B. H. NICHOLSON, H. A. BALLANCE, J. GUTCH, Honorary Secretaries.

EDINBURGH BRANCH.—The summer meeting will be held in the Carnegie Library, Hawick, on Saturday, July 1st, at 12.5 p.m. Trains from Waverley 10.30 a.m., 2.35, and 4.25 p.m. Dr. Haddon will show a patient with left hemiplegia of long standing which has improved under dietetic treatment. After lunch there will be a motor drive (tickets 5s.) and a golf match. Dinner in the Tower Hotel at 6.30 p.m. (tickets 5s.) Members who intend to be present are requested to send in their post cards without further delay.—NORMAN WALKER, 7, Manor Place, Edinburgh, A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The statutory annual meeting of this Branch will be held in the Western Infirmary on the afternoon of Wednesday, June 28th, at 3 o'clock. In addition to the usual business (election of office-bearers, etc.), Dr. Donald Mackintosh, M.V.O., the Superintendent of the Infirmary, has kindly consented to conduct the members through the new out-patient and electrical departments, and Professor Muir will give a demonstration in the Pathological Institute, with the aid of the projection microscope, of some rarer forms of tumours, and will discuss recent views on cancer. He will also give a demonstration of specimens preserved by the formalin method.—JAS. H. NICOLL, JAMES HAMILTON, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Trocadero Restaurant, Piccadilly Circus, W., on Wednesday, June 28th, at 6 p.m., in the Connaught Room. The meeting will be followed by the annual dinner at 7.30 p.m. in the Balmoral Room. The price of the dinner will be 6s. 6d., payable at the time. Tickets on application to GEORGE ROWELL, 6, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of this Division will be held at the Kensington Town Hall, High Street, Kensington, on Tuesday, June 27th, at 5 p.m. Business: (1) To elect officers for 1905-6 as follows: Chairman, Vice-Chairman, Secretary and Treasurer, four Representatives of Division on Branch Council, and seven Ordinary Members of Executive Committee. (2) To elect the Representative of the Division in Representative Meetings of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider the business of the Annual Representative Meeting. (Members are requested to refer to the SUPPLEMENT of the JOURNAL of May 27th, and bring it with them to the meeting, so that they may note any points about which they wish to inquire or obtain the feeling of the meeting.) (5) To make new rules, or alter or repeal existing rules. Members are reminded that the annual meeting and dinner of the Metropolitan Counties Branch takes place on Wednesday, June 28th, at the Trocadero Restaurant.—G. CRAWFORD THOMSON, M.D., Honorary Secretary, 111, Sinclair Road, West Kensington, W.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting will be held at Clapham on Thursday, June 29th, at 3.45 p.m., to consider the agenda for Representatives' Meeting, and to instruct Dr. L. S. McMANUS.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

NORTH OF ENGLAND BRANCH.—Owing to the death of Dr. James Murphy, a vacancy occurs in the representation of the Branch on the Council of the Association. Nominations signed by no fewer than three members of the Branch must reach me not later than June 24th.—ALFRED COX, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.—This Division purposes holding an all-day scientific meeting on Thursday, July 6th, to commence at 10 a.m. At the Royal Infirmary there will be demonstrations in the wards and operating theatres, an exhibition of clinical cases, and a temporary pathological museum. Demonstrations will also be held in the College of Medicine. All medical men in Northumberland and the adjoining counties will be heartily welcome. Complete programmes will shortly be drawn up, and will be sent to all members of the North of England Branch.—R. P. RANKEN LYLE, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting will be held at Bowness on June 28th, at 2.30. Members wishful to show cases or specimens are requested to communicate with the Honorary Secretary, A. S. BARLING, 2, Queen Square, Lancaster.

NORTH WALES BRANCH.—The Council of this Branch will meet at the Llandudno Junction Station Hotel on Tuesday, June 27th, at 2 p.m., for the nomination of officers for the ensuing year, the election of candidates for Association membership, and other business.—W. JONES MORRIS, Portmadoc, and H. JONES ROBERTS, Pen-y-groes, Honorary Secretaries.

NORTH WALES BRANCH.—The annual meeting of this Branch will be held in Bala on Thursday, July 6th.—W. JONES MORRIS, Is-y-Coed, Portmadoc, H. JONES ROBERTS, Llywernarth, Pen-y-groes, Carnarvonshire, Honorary Secretaries.

OXFORD AND READING BRANCH.—The annual meeting of this Branch will be held at the Radcliffe Infirmary, Oxford, on Thursday, July 20th.—W. T. FREEMAN, Honorary Secretary, 30, Portland Place, London Road, Reading.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A meeting will be held at the Dispensary, 113, Queen's Road, Brighton, at 4.30 p.m., on the fourth Wednesday in June (28th), annual meeting, October (25th), November (22nd). Members wishing to read papers or show cases at the meetings are requested to give at least a fortnight's notice to the Honorary Secretary, RYDING MARSH, M.D., 49, Sackville Road, Hove.

SOUTH-EASTERN BRANCH: DOVER DIVISION.—The annual meeting of this Division will be held at the Grand Hotel, Dover, on Wednesday

June 28th, at 8.30 p.m. Agenda: (1) Reading of minutes. (2) Annual report. (3) Election of officers. (4) Dr. Howden will open a discussion on Public Dispensaries and Out-Patient Departments of Hospitals. (5) Other business, if any.—F. A. OSBORN, Honorary Secretary, Dover.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 28th at the Hotel Majestic, Harrogate, at 3.30, when the following business will be transacted, and papers read:

1. The President-elect (Dr. Black) will read an address.
2. The Report of the Council will be read.
3. Election of Officers: President and President-elect, Representatives on Central Council, and Secretary and Treasurer.

Papers and Cases.—(1) Dr. Bain Harrogate: An experimental contribution to the treatment of gall stones. (2) Dr. Bateson, Bradford: Personal identification by means of finger-print impressions: with illustrations. (3) Dr. W. Bertram Watson, Harrogate: A case for diagnosis.

Dr. Gibson, Harrogate, will move the following resolution: "That in the place of further mulcting the profession the General Medical Council should grant an annual certificate at a small charge, and that the General Medical Council, in consideration thereof, should protect the registered medical practitioner as well as the public against persons illegally practising for gain, to the serious detriment of the public and injury to the profession."

The Council will meet at 2.45, when the names of a number of candidates for admission to the membership of the Association will be submitted.

The annual dinner will take place at the Hotel Majestic at 6.30 (6s.) Members and friends intending to dine are requested to communicate at once with Dr. Gibson, Beech Grove, Harrogate, so that the necessary arrangements can be made.

Members are requested to fill in the enclosed voting paper and return it to me not later than Tuesday, June 27th. If returned in an envelope, please mark the same "Voting Paper."—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

YORKSHIRE BRANCH: BRADFORD DIVISION.—The annual meeting of this Division will be held at the Eye and Ear Hospital, Bradford, on Tuesday, June 27th, at 8.30 p.m. Business: (1) To receive nominations for, and proceed to, the election of officers, representatives of the Division on the Branch Council, and the members of the Executive and Ethical Committees. (2) To elect the Representative of the Division in Representative Meetings of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider the business of the Annual Representative Meeting. (5) To adopt the Model Rule *re* circulation of notices in certain cases. (6) Dr. Metcalfe will move the following resolution: "That the Executive Committee of the Division be instructed to at once take the necessary steps for calling a meeting of the local profession, in order to make arrangements for an invitation to be extended to the Association to hold its annual general meeting in Bradford during the year 1907."—JAMES METCALFE, ANDREW LITTLE, Honorary Secretaries.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty:—ROBERT W. B. HALL and EDWARD T. BURTON, Surgeons, to the *President*, additional for three months' hospital study at West London Hospital, June 17th; OSWALD MILLS, Surgeon, to the *Defiance*, June 17th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

JOHN W. MACKENZIE, M.D., Seaforth and Cameron Bearer Company, to be Lieutenant, June 17th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN H. D. BROOK, 20th Middlesex (Artists'), is promoted to be Surgeon-Major, May 29th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,437 births and 4,016 deaths were registered during the week ending Saturday last, June 17th. The annual rate of mortality in these towns, which had been 14.6, 14.7, and 13.5 per 1,000 in the three preceding weeks, further declined to 13.4 per 1,000 last week. The rates in the several towns ranged from 5.1 in Handsworth (Staffs.), 5.5 in Leyton, 5.6 in Hornsey, 6.6 in Ipswich, 8.0 in East Ham and in Great Yarmouth, 8.1 in Devonport, 8.2 in Brighton, and 8.5 in Croydon, to 17.0 in Middlesbrough, 17.1 in Birkenhead, 17.3 in Newcastle-on-Tyne, 18.5 in Preston, 19.1 in Merthyr Tydfil, 19.8 in Sunderland, 20.5 in Wigan, 22.5 in Barrow-in-Furness, and 23.3 in Tynemouth. In London the death-rate was 13.3 per 1,000, while it averaged 13.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.2 per 1,000: in London also this death-rate was equal to 1.2 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.2 in Hanley, 3.5 in Coventry, 3.7 in Middlesbrough, 3.8 in Warrington, 4.6 in West Bromwich, and 6.1 in Barrow-in-Furness. Measles caused a death-rate of 1.4 in Sheffield and in Merthyr Tydfil, 1.8 in Walthamstow, 2.2 in Birkenhead, 2.3 in Warrington, 3.5 in Barrow-in-Furness, and 3.8 in West Bromwich; whooping-cough, of 1.0 in Middlesbrough and 1.9 in Tynemouth; and diarrhoea, of 1.3 in Rhondda and 1.6 in Middlesbrough. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Derby and one in Preston, but none in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 7 small-pox patients at the end of last week, against 9 at the end of each of the two preceding weeks; 3 new cases were admitted during the week, against 1 and 3 in the two preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital at the end of last week was 2,355, against 2,200, 2,269, and 2,285 at the end of the three preceding weeks; 291 new cases were admitted during the week, against 312, 351, and 269 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 17th, 1,016 births and 528 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.1, 16.9, and 16.4 per 1,000 in the three preceding weeks, further fell to 15.7 per 1,000 last week, but was 2.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 9.6 in Leith and 12.5 in Aberdeen, to 18.3 in Paisley and 24.4 in Perth. The death-rate from the principal infectious diseases averaged 2.2 per 1,000, the highest rates being recorded in Paisley and Perth. The 259 deaths registered in Glasgow included 16 which were referred to measles, 14 to whooping-cough, 2 to "fever," and 10 to diarrhoea. Eight fatal cases of measles and 8 of whooping-cough were recorded in Edinburgh; 2 of whooping-cough in Dundee; 2 of diarrhoea in Aberdeen; 5 of whooping-cough in Paisley; and 2 of measles in Perth.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 17th, 561 births and 316 deaths were registered in six of the principal Irish towns, against 595 births and 317 deaths in the preceding period. The mean annual death-rate in these towns, which had been 22.3, 18.3, and 17.4 per 1,000 in the three preceding weeks, rose to 17.5 per 1,000 in the week under notice, this figure being 4.0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 9.9 in Londonderry and 11.7 in Waterford, to 21.9 in Cork and 26.0 in Limerick. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.6 per 1,000, or the same as during the preceding period, the highest figure—1.4—being registered in Limerick, while Cork, Londonderry and Waterford recorded no deaths under this heading at all. There were only 5 deaths from measles throughout the country, 2 from whooping-cough, 1 from diphtheria, and 5 from enteric. No deaths were anywhere ascribed to small-pox, scarlet fever, or typhus.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ABERDEEN ROYAL INFIRMARY.—Assistant Medical Electrician.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BRADFORD POOR LAW UNION.—Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £100 per annum.

CHESTER CITY AND BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

DUBLIN: ST. VINCENT'S HOSPITAL.—(1) Hon. Physician to Extern Department: (2) Surgeon to Extern Department.

EAST HAM BOROUGH.—Medical Officer of Health and Medical Superintendent Isolation Hospitals, Convalescent Homes and Schools. Combined Salary, £400, rising to £500 per annum.

EDINBURGH HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN.—(1) Junior Surgeon and Gynaecologist; (2) Anaesthetist. Must be registered medical women.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House Surgeon. Salary, £60 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Assistant Physician.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £20 for six months.

LEEDS: GENERAL INFIRMARY.—Laboratory Curator. Salary, £150 per annum.

LONDON LOCK HOSPITAL.—House Surgeon to the Female Hospital.

MARGATE: ROYAL SEA BATHING HOSPITAL.—Honorary Medical Officer for Electrical Department.

NATIONAL DENTAL HOSPITAL.—Anaesthetist.

NORTH RIDING OF YORKSHIRE LUNATIC ASYLUM, Clifton, York.—Medical Superintendent. Salary, £600 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) Physician in Charge of the Skin Department. (2) Assistant Surgeon.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Dental Surgeon.

OXFORD: RADCLIFFE INFIRMARY.—Honorary Physician.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

QUEEN'S JUBILEE HOSPITAL, Earl's Court, S.W.—Resident House Physician. Salary at the rate of £52 per annum.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W.—Honorary Physician.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Senior Resident Medical Officer.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Junior House Surgeon. Salary at the rate of £80 per annum.

WOKINGHAM: LONDON OPEN-AIR SANATORIUM, Pinewood.—Assistant Resident Medical Officer (male). Salary, £100 per annum.

APPOINTMENTS.

ASE, R. V. C., M.B., B.S Edin., Lecturer on Anatomy, Physiology, and Hygiene to the Carnegie Dunfermline College of Hygiene.

BEAUMONT, W. H., M.B., B.C.Camb., Medical Officer of the Sedbergh Union Workhouse.

CLAY, L., M.B., Junior Resident Assistant Medical Officer at the Crumpsall Workhouse, Manchester.

CLENDINNEN, W. M., M.B., Ch.B., M.R.C.S., L.R.C.P., Surgeon to Guest Hospital, Dudley, vice F. S. Goulder, L.R.C.P.Lond., M.R.C.S., resigned.

DYER, C. Harold, M.D.Aberd., reappointed Medical Officer of Health to the Cleckheaton Urban District Council.

GANGE, F. W., M.D.Brux., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Faversham Union Workhouse.

GIDLEY-MOORE, J. B. G., M.R.C.P.Edin., Certifying Factory Surgeon for the Ongar District, Essex.

LEEBODY, H. A., M.B., C.M.Edin., Medical Officer and Public Vaccinator to the Parish of Corstorphine, Midlothian.

REVELY, J. S., M.D., District Medical Officer for Handsworth.

SHARPLEY, C. W., M.R.C.S., L.R.C.P., District Medical Officer of the Glenford Brigg Union.

TRAILL, A. K., M.B., Ch.B.Edin., Medical Superintendent of the Sidlaw Sanatorium, Auchterhouse, vice R. C. Macfie, M.B., C.M.Aberd., resigned.

TULLOCH, J. P., M.D.Edin., Medical Officer of the Chaguanas District of Trinidad.

WADESON, E. A., M.B., B.C.Camb., District Medical Officer of the Sedbergh Union.

WETHERED, F. J., M.D.Lond., F.R.C.P., Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

HEY.—On the 16th June, at 1, Princess Terrace, Ripon, the wife of Samuel Hey, M.R.C.S., of a son.

MARRIAGE.

NOOTT—LEAVER.—On June 5th, at St. Marylebone Church, by the Rev. Canon Barker, rector of the parish, Reginald H. Nootт, M.B., second son of Major F. H. Nootт, late R.M.L.I., to Beatrice Rose Routh, widow of the late Rev. W. H. A. Leaver, rector of Cooling, Kent.

DIARY FOR NEXT WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W.—Annual General Meeting. Exhibits: Mr. David Hepburn: A series of models illustrating an interesting case of Abnormality and Deficiency of Teeth and Alveoli causing Facial Deformity, and the Treatment by Mechanical Means adopted. Paper: Mr. W. A. Meggs, L.R.C.P.Lond., M.R.C.S., and L.D.S.Eng.: Antiseptic Alveolar Plugs for the After-treatment of Extractions. Valedictory address of the President.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Croonian Lecture by Dr. E. H. Starling, F.R.S., The Chemical Correlation of the Functions of the Body.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Croonian Lecture by Dr. E. H. Starling, F.R.S., The Chemical Correlation of the Functions of the Body.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., 3 p.m.—The Treatment of Inoperable Uterine Cancer.

POST-GRADUATE COURSES AND LECTURES.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Jaundice: Its Meaning; Tuesday, The Surgical Aspects of Colitis; Wednesday, Ocular Therapeutics; Thursday, Haematuria.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Out-patients' Department, 7, Fitzroy Square, W., Thursday, 5 p.m.—Aortic Stenosis.

NORTH-EAST LONDON POST GRADUATE COLLEGE, Tottenham Hospital, N., 4.30 p.m.—Tuesday, Puerperal Temperatures; Thursday, Affections of Peripheral Nerves.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following are the arrangements for next week, at 5 p.m. each day: Monday, Surgical Cases; Tuesday, Ametropia; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, On Anaesthetics.

BOOKS, ETC., RECEIVED.

Southwold. By Ernest R. Cooper. London: The Health Resorts Association. 1905. Free on application to the Town Clerk.

Drugs, Dreams, and Drama. By Moses Green (Septuagenarian). Glasgow: Robert Gibson and Sons, Limited. 6d.

Die Verwundungen durch die modernen Kriegsfeuerwaffen, ihre Prognose und Therapie im Felde. Von Stabsarzt Dr. Hildebrandt. I Band. Allgemeiner Teil. Berlin: August Hirschwald. 1905. M. 8.

May's Medical and General Collector's Book. Wolverhampton: Joseph May. 1s. 6d.

The Diseases of Children. By James Frederick Goodhart, M.D., LL.D. Aberd., F.R.C.P. Eighth edition. Edited by George Frederic Still, M.A., M.D., F.R.C.P. London: J. and A. Churchill. 1905. 12s. 6d.

Veröffentlichungen aus dem Gebiete des Militär-Sanitätswesens. Herausgegeben von der Medizinal-Abteilung des königlich preussischen Kriegsministeriums. Heft 31. Die Genickstarre-Epidemie beim Badischen Pionier-Bataillon No. 14 (Kehl) im Jahre 1903-4. Berlin: August Hirschwald. 1905. M. 3.

Notes on How to Rear an Infant. By G. Bridgeford Proctor. L.R.C.P.E., L.R.C.S.E., L.M., L.F.P.&S.G. London: S. Rentell and Co., Limited. 6d.

The Thyroid and Parathyroid Glands. By Hubert Richardson, M.D. Philadelphia: P. Blakiston's Son and Co.; and London: A. Constable and Co. Limited. 1905.

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CALENDAR OF THE ASSOCIATION.

Month.	Day of Week.	Meetings to be Held.
June	25...Sunday..	
,,	26...MONDAY ...	LONDON: Colonial Committee, 2 p.m.
,,	27..TUESDAY ...	LONDON: Organization Committee, 10.30 a.m. Bradford Division, *Yorkshire Branch*, Annual Meeting, Eye and Ear Hospital, Bradford, 8.30 p.m. Kensington Division, *Metropolitan Counties Branch*, Annual Meeting, Kensington Town Hall, High Street, Kensington, 5 p.m. North Wales Branch, Council Meeting, Llandudno Junction Station Hotel, 2 p.m.
,,	28...WEDNESDAY	LONDON: Medico-Political Committee, 10.30 a.m. ,, Journal and Finance Committee, 2 p.m. Bath and Bristol Branch, Annual Meeting, University College, Bristol, 4.30 p.m.; Dinner, Clifton Down Hotel, Clifton, 7.30 p.m. Brighton Division, *South-Eastern Branch*, Annual Meeting, 113, Queen's Road, Brighton, 4.30 p.m. Dover Division, *South-Eastern Branch*, Annual Meeting, Grand Hotel, Dover, 8.30 p.m. Glasgow and West of Scotland Branch, Annual Meeting, Western Infirmary, 3 p.m. Metropolitan Counties Branch, Annual Meeting, Trocadero Restaurant, Piccadilly Circus, W. (Connaught Room), 6 p.m.; Dinner (Balmoral Room), 7.30 p.m. North Lancashire and South Westmorland Branch, Annual Meeting, Bowness, 2.30. Yorkshire Branch, Annual Meeting, Hotel Majestic, Harrogate, 3.30 p.m.; Dinner, 6.30 p.m.
,,	29...THURSDAY...	LONDON: Premises and Library Committee, 2.45 p.m. Central Division, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. East Anglian Branch, Annual Meeting, Norfolk and Norwich Hospital, Norwich, 1 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Clapham, 3.45 p.m.
,,	30..FRIDAY ...	Association Research Scholarships expire.
July	1...SATURDAY...	Research Scholarships date from now. Edinburgh Branch, Carnegie Library, Hawick, 12.15 p.m.; Dinner, Tower Hotel, 6.30 p.m.
,,	.. Sunday.	
,,	3 ..MONDAY ...	Division Returns of Representatives and Branch Returns for Council this day week. Last day for electing Representatives of Divisions for Representative Meeting.
,,	4...TUESDAY ...	
,,	5...WEDNESDAY	LONDON: Central Council, 10 a.m.
,,	6...THURSDAY...	Newcastle-on-Tyne Division, *North of England Branch*, Royal Infirmary and College of Medicine, 10 a.m. North Wales Branch, Annual Meeting, Bala.
,,	7...FRIDAY ...	
,,	8...SATURDAY...	
,,	9.. Sunday..	
,,	10 ..MONDAY ...	Last day for Division Secretaries to send General Secretary returns of election of Representatives. Refer to Notice of June 1st as to forwarding returns of Election of Branch Representatives.
,,	11...TUESDAY ...	
,,	12...WEDNESDAY	Last day for Branch Representatives to nominate Candidates for Co-option to the Council.
,,	13...THURSDAY...	
,,	14...FRIDAY ...	LONDON: Ethical Committee, 2 p.m.
,,	15...SATURDAY ...	

Month.	Day of Week.	Meetings to be Held.
July	16...Sunday..	
,,	17...MONDAY ...	
,,	18...TUESDAY ...	
,,	19...WEDNESDAY	
,,	20...THURSDAY...	City Division, *Metropolitan Counties Branch*, Great Eastern Hotel, Liverpool Street, E.C. 4 p.m. Oxford and Reading Branch, Annual Meeting, Radcliffe Infirmary, Oxford.
,,	21...FRIDAY ...	
,,	22...SATURDAY...	
,,	23 ..Sunday..	
,,	24...MONDAY ...	2 p.m., General Meeting, to be followed by Representative Meeting.
,,	25 ..TUESDAY ...	Council Meeting Adjourned General Meeting, to be followed by Representative Meeting.
,,	26...WEDNESDAY	Ditto.
,,	27...THURSDAY...	Ditto.
,,	28...FRIDAY ...	
,,	29 ..SATURDAY...	
,,	30...Sunday..	
,,	31...MONDAY ...	
August	1...TUESDAY ...	
,,	2 ..WEDNESDAY	
,,	3...THURSDAY...	
,,	4 ..FRIDAY ...	
,,	5 ..SATURDAY...	
,,	6...Sunday..	
,,	7...MONDAY ...	*Bank Holiday.*
,,	8 ..TUESDAY ...	
,,	9 ..WEDNESDAY	
,,	10 ..THURSDAY...	
,,	11...FRIDAY ...	
,,	12 ..SATURDAY...	
,,	13...Sunday..	
,,	14...MONDAY ...	
,,	15...TUESDAY ...	
,,	16...WEDNESDAY	
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,,	18...FRIDAY ...	
,,	19 ..SATURDAY...	
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,,	23 ..WEDNESDAY	
,,	24...THURSDAY...	
,,	25...FRIDAY ...	
,,	26...SATURDAY...	
,,	27...Sunday..	
,,	28 ..MONDAY ...	
,,	29...TUESDAY ...	
,,	30...WEDNESDAY	
,,	31...THURSDAY...	

ANNUAL MEETING.

The seventy-third annual meeting of the Association will be held at Leicester on July 24th, 25th, 26th, 27th, and 28th. The Honorary Local Secretaries are Dr. Astley V. Clarke, 37, London Road, Leicester, and Mr. F. Bolton Carter, M.S., 99, London Road, Leicester; the Honorary Secretary of the Pathological Museum is Dr. Robert Sevestre, 119, London Road, Leicester.

The Annual General Meeting for business will begin at 2 p.m. on Monday, July 24th, and the first session of the Annual Representative Meeting will be held immediately afterwards. The first meetings of the Sections will begin at 10 a.m. on Wednesday, July 26th.

INDEX TO SUPPLEMENT FOR VOLUME I, 1905.

A

Act, indecent advertisements, amendment of, memorial from Medico-Political Committee, 60, 62, 295

—— the Midwives, payment under, 4; memorandum from Medico-Political Committee re, 17; resolutions by: Aylesbury Division, 109; Cumberland (North) Division, 278; report from Medico-Political Committee, 257

—— Workmen's Compensation, medical certificates under, 35

Acts, the Companies, amendment of, 306

Advertising the names of medical practitioners in connexion with hydropathic and other establishments, 49; resolutions by: Belfast Division, 164; Bournemouth Division, 210; Bradford Division, 156; Bristol Division, 146; Chelsea Division, 146; Dover Division, 356; Dublin Division, 164; Dudley Division, 163; Dundee Branch, 138; East Leinster Division, 355; Folkestone Division, 213; Glasgow, Central Division, 298; Hampstead Division, 108; Isle of Thanet Division, 147; Liverpool (Northern) Division, 211; Manchester (North) Division, 107; Manchester (South) Division, 163; North-East Edinburgh Division, 131; Norwood Division, 164; Portsmouth Division, 279; Preston Division, 131; Salisbury Division, 325; Southport Division, 122; Stratford Division, 139; Wandsworth Division, 132; Westminster Division, 140; Winchester Division, 279

Altrincham Division. See Division

Ambulance competitions, medical men and: memorandum from Medico-Political Committee, 61; resolution of Barnstaple Division, 214

—— work, relations of the medical profession to, 33; report from Medico-Political Committee, 268, 297; resolutions of: Barnstaple Division, 214; Belfast Division, 164; Birkenhead Division, 82; Boston and Spalding Division, 356; Bournemouth Division, 210; Bradford Division, 156; Brighton Division, 149; Bristol Division, 146; Canterbury and Faversham Divisions, 156, 342; Chelsea Division, 146; City Division, 131; Dover Division, 356; Dublin Division, 164; Dudley Division, 162; Dundee Branch, 138; East Leinster Division, 355; Eastern Division (Scotland), 210; Folkestone Division, 213; Furness Division, 187; Glasgow Central Division, 298; Hampstead Division, 108; Harrogate Division, 280; Isle of Thanet Division, 147; Liverpool (Central) Division, 83; Liverpool (Western) Division, 187; Manchester (North) Division, 139; Manchester (South) Division, 163; North-East Edinburgh Division, 131; Norwood Division, 164; Portsmouth Division, 279; Preston Division, 131; Renfrewshire Division, 163; St. Pancras Division, 130; Salisbury Division, 325; Sheffield Division, 214; South Essex Division, 130; South-Eastern Counties Division, 354; Southern Division (Edinburgh Branch), 66; Southport Division, 299; South Staffordshire Division, 315; Stratford Division, 139; Wandsworth Division, 132; West Bromwich Division, 81

Anaesthetics, administration of for registered dentists, 27

Anderson, J. Ford, the abuse of hospitals and the remedies, 301

Apothecaries' Societies and title of licentiates, 306

Appointments, vacant, report of Medical Secretary, 61

Army, British, promotions and appointments in the medical service of, 6, 14, 21, 30, 35, 46, 53, 69, 97, 113, 126, 134, 141, 158, 174, 190, 221, 286, 334, 350, 358; Surgeon-Major-General Sir James A. Hanbury granted distinguished service reward, 153

—— —— changes of station, 22, 69, 113, 158, 221

—— —— Medical Reserve, promotions and appointments, 36, 46, 114, 134, 141, 190, 221, 318, 334, 350

—— —— Medical Staff, promotions and appointments, 6, 36, 158, 190, 221

—— —— Royal Army Medical Corps (Militia), promotions and appointments in the medical service of, 21, 70, 134, 151, 190, 334

—— —— resolution by Royal Naval and Military Committee, 64

—— Indian, promotions and appointments in the medical service of, 6, 21, 36, 46, 53, 70, 85, 114, 126, 134, 141, 151, 158, 174, 190, 221, 286, 334, 350

—— —— Major Robert Bird nominated a companion of the Order of the Indian Empire, 6

—— —— communication from India Office to Royal Naval and Military Committee, 64

ASSOCIATION, BRITISH MEDICAL, annual meeting programme, 124, 148, 216, 282, 283

—— —— Annual Representative meeting, provisional agenda for, 193; standing orders relative to business at, 203; annual reports of Council and Committees to, 225

ASSOCIATION, BRITISH MEDICAL, annual reports of Branches, 326

—— —— Branch. See Branch

—— —— Divisions. See Divisions

—— —— Council proceedings, 25, 58, 161, 177, 277; attendances at, 165; annual report of to Annual Representative meeting, 225

—— —— report of Representative on Central Council to Dundee Branch, 338

—— —— grants for scientific research, 174, 221

—— —— Library, books presented to, 111, 133, 217

—— —— list of members elected during three months up to January 18th, 1905, 28; to April 19th, 1905, 171

—— —— matters referred to Divisions. See Matters

—— —— and medical defence. See Medical

—— —— Medical-Political Committee. See Committee

Attendances of Council, Committees, and Sub-committees, 165

B.

Bath Division. See Division

Belfast Division. See Division

Bermuda Branch. See Branch

Bill, the Aliens, 295

—— the Coroners, resolutions by Renfrewshire Division, 163; report from Medico-Political Committee, 253

—— Local Government (Scotland), resolution of South-Eastern Counties Division, 354

—— Medical Acts Amendment: Medico-Political Committee, report from, 256; memorandum from, 296; resolutions of: Bradford Division, 299; Brighton Division, 212; Central Division (Birmingham Branch), 2; Chester Division, 82; Coventry Division, 80, 106; Dover Division, 140; Dublin Division, 164; Dundee Branch, 42; East Leinster Division, 355; Eastern Division (Scotland), 186; Fife Branch and Division, 13; Furness Division, 186; Harrogate, Richmond and Northallerton Divisions, 68; Isle of Thanet Division, 51; Liverpool (Central) Division, 82; Liverpool (Northern) Division, 211; Liverpool (Western) Division, 122; Manchester (North) Division, 107; Marylebone Division, 108; Monmouthshire, 42; Norwood Division, 164; Portsmouth Division, 279; Preston Division, 131; Salisbury Division, 325; Sheffield Division, 214; South Eastern Counties Division (Edinburgh Branch), 50; South-West Wales Division, 213; Southern Division (Edinburgh Branch), 66; Southport Division, 83; West Bromwich Division, 81; West Norfolk Division, 66; Westminster Division 212, 355; Winchester Division, 279

—— the Midwives, resolutions by Sevenoaks Division, 132

—— the New Pharmacy, 298

—— Nurses Registration, resolutions of Sheffield Division, 214. See also Nurses

—— Public Health, to promote security of tenure to medical officers of health and sanitary inspectors, 10; report of Medico-Political Committee, 269; resolutions by: Altrincham Division, 66; Birkenhead Division, 82; Bradford Division, 156; Cardiff Division, 280; Chester Division, 163; City Division, 324; Darlington Division, 212; Dover Division, 356; Dundee Branch, 42; Eastern Division (Scotland), 210; Furness Division, 187; Glasgow Central Division, 298; Hampstead Division, 355; Harrogate Division, 280; Isle of Thanet Division, 51; Liverpool (North) Division, 211; Manchester (North) Division, 107; Manchester (South) Division, 163; Norwood Division, 164; Stratford Division, 299; South-Eastern Counties Division, 354; South Staffordshire Division, 325; Winchester Division, 279; memorandum from Medico-Political Committee, 62, 269

—— Revaccination, text of, 11; memorandum from Medico-Political Committee, 61, 62; resolutions by: Altrincham Division, 66; Birkenhead Division, 82; Bradford Division, 156; Cardiff Division, 280; Chester Division, 163; Darlington Division, 212; Dover Division 356; Dundee Branch, 42; Eastern Division (Scotland), 210; Furness Division, 187; Glasgow Central Division, 298; Hampstead Division, 355; Isle of Thanet Division, 51; Liverpool (North) Division, 211; Manchester (North) Division, 107; Manchester (South) Division, 163; Norwood Division, 164; Preston Division, 131; South Staffordshire Division, 325; Stratford Division, 299; Winchester Division, 279

—— Workmen's Compensation and Accidents, 294

Birkenhead Division. See Division

Birmingham Division. See Division

Blackburn Division. See Division

Blackman, Dr., resignation of (Portsmouth Division), 50

Board, Central Midwives, meeting, 53, 85, 125, 133, 189, 285, 317; teachers of midwifery and training schools for midwives, 53; Poor-law infirmaries as training schools for midwives, 53, 63, 285; fee for certificates, 85; stringency of regulations, 85; midwives and laying-out the dead, 85; attendance of medical practitioner, 85; midwives to appear before the Board, 85, 285; number of women on the roll, 85, 134, 189, 285; charges against certified midwives, 125, 189; election of inspector, 125; election of members of the Board, 133; suggested reduction of the certificate fee, 133; Belfast Union Maternity Hospital, 133, 285; examination centres, 133; translations of the Board's rules into Welsh, 134; use of the thermometer by midwives, 134; use of antiseptics by midwives, 134; printing of the Midwives Roll, 189; appliances to be carried by midwife, 189; meaning of the word "malpractice," 189; four examinations to be held each year, 189; Poor-law medical officers as inspectors of midwives, 189; suggested alterations of the rules, 189; applications for extension of time for certification, 285; midwives and homes run for profit by the laity, 285; administration of the Midwives Act, 285; Aston Union Infirmary, 285; a certificate refused, 286; recognition of teachers, 286; midwife struck off the roll, 317; midwives censured, 318

—— of Education, memorandum to on the proposed institution of a Government certificate of secondary education, 64, 267

Bootle Division. See Division

Border Counties Branch. See Branch

Boston and Spalding Division. See Division

Boundaries of Divisions and Branches, change of, 51, 84, 132, 187, 280, 298

Bournemouth Division. See Division

Bradford Division. See Division

Branch, Bermuda, meeting, 122; registration of medical practitioners, 122

—— Birmingham, annual general meeting, 353; confirmation of minutes, 353; report, 353; financial statement, 353; election of officers, 353; votes of thanks, 353; addition to rules, 353; Pathological and Clinical Section, 354; representations of Divisions on Central Council, 354; introduction of new President, 354; vote of thanks to retiring President, 354; President's address, 354

—— Border Counties, general meeting, 337; matters referred to Divisions, 337; communications, 337; dinner, 337

—— Cape of Good Hope Eastern Province, ordinary general meeting, 106, 209; confirmation of minutes, 106, 209; visitors at Branch meetings, 106, 209; President's address, 106; recovery of fees, 209; feeding of children, 210; proposed East London Division, 209; communications, 209

—— Cambridge and Huntingdon, confirmation of minutes, 26; President elect, 26; contract medical practice, 26; consultation between medical witnesses, 26; coroners and medical practitioners, 26; reorganization of Local Government Board, 26; sleeping sickness (Dr. Nuttall), 26; vote of thanks, 26

—— Councils and their surplus funds, resolutions by: Rochdale Division, 3; Manchester (West) Division, 26

—— Dorset and West Hants, annual meeting, 278; confirmation of minutes, 278; introduction of new President, 278; vote of thanks to retiring President, 278; deceased members, 278; Representative on Central Council, 279; Treasurer's report, 279; increase of membership, 279; summer meeting, 279; President's address, 279; communications, 279; dinner, 279

—— Dundee, meeting, 42, 138, 209, 338; confirmation of minutes, 42, 138, 338; medical school certificates, 42; votes at local meetings, 42; matters referred to Divisions, 42, 138; representative on Association Council, 138; remuneration of Admiralty medical agents, 138; co-ordination of scientific work, 138; Annual Representative Meeting, 138, 340; specimens, 209; cases, 209; dinner, 210; annual meeting, 338; election of office bearers, 338; report of the Representative on Central Council, 338; requisition for a Special Representative Meeting, 339; vote of thanks to retiring president, 340

—— Dundee District: medical certificates of unfitness to attend school, 2

—— East Anglian, council meeting, 74, 156; spring meeting, 156; new member, 156; annual meeting, 156; confirmation of minutes, 156; resolution of Leinster Branch, 156; papers, 156; exhibits, 156; tea, 156

Branch, Fife, and Division: Matters referred to Divisions, 12; contract medical practice, 12; consultation between medical witnesses, 13; information to coroners, 13; reorganization of Local Government Board, 13; Medical Acts Amendment Bill, 13; prevention of the abuse of drugs, 13; address by Mr. Chiene, 13; dinner, 13
——— Gloucestershire, confirmation of minutes, 2; introduction of new President, 2
——— Grahamstown and Eastern Province, meeting, 2; confirmation of minutes, 2; secretary's report, 2; treasurer's report, 3; election of officers, 3; vote of thanks, 3; communications, 3; President's address, 3
——— Hong Kong and China, meeting, 106, 131; report on working of the Branch, 106; finance, 106; Council, 106; meetings, 106; Branch meetings, 106; members, 107; dinners, 107; rules, 107, 131; confirmation of minutes, 131; election of officers, 131; President's address, 131; vote of thanks to retiring President, 131; cases, 131; specimens, 131
——— Leinster, report of annual meeting, 107; an Irish Committee, 107; fees paid by Admiralty and Commissioners of Irish Lights, 107; medical officers' superannuation, 107
——— Malta and Mediterranean, meeting, 146; confirmation of minutes, 146; paper, 146; adjournment, 146
——— Metropolitan Counties, 33; special general meeting, 33
——— Munster, annual meeting, 356; confirmation of minutes, 356; provincial practitioners and the General Medical Council, 356; Irish Committee, 356; election of officers, 356; new members, 356
——— New South Wales, 324; confirmation of minutes, 324; new member, 324; cases and communications, 324
——— North Wales, 132; formation of Branch, 132; election of officers, 132; by-laws of new Branch, 132; Ethical Committee and rules, 132; annual meeting, 132
——— Perth, meeting, 108; confirmation of minutes, 108; matters referred to Divisions, 108; questions, 109; vote of thanks, 109
——— Queensland, annual meeting, 109; report of council, 109; treasurer's statement, 109; election of officers, 109; presentation to retiring secretary, 109
——— South-Eastern of Ireland, meeting, 155, 213, 341; confirmation of minutes, 155, 213, 341; letters, 155, 213; annual report, 155; amendment of Branch rules, 155; Leinster Branch, 156; note of council at Kilkenny, 213; nomination of officers, 213; resolutions, 213; luncheon, 213, 342; annual meeting, 341; letters of apology, 341; election of officers, 341; representation of Branch at annual meeting of the Association, 341; alteration of rules, 342; vote of thanks to retiring chairman, 342
——— South Wales and Monmouthshire, remarks on vaccination (T. Garrett Horder), 4
——— South-Western, meeting, 109, 110; confirmation of minutes, 109, 110; cases, 110; papers, 110; pathological specimens, 110; use of contraceptives, 110
——— Staffordshire, some problems of public health (Edward Deanesly), 17; communications, 20
——— Sydney and New South Wales, special general meeting, 27; ordinary meeting, 35, 67; the notification of pulmonary tuberculosis, 27, 35; confirmation of minutes, 35, 67; new members, 35, 67; a personal explanation, 35; communications, 35, 67; exhibition of a case, 35; next meeting, 67; widows' and orphans' fund, 67. See also Branch, New South Wales
——— Ulster, confirmation of minutes, 43, 147; report of council, 43, 147; Royal Medical Fund of Ireland, 43; future meetings, 43; statement of accounts, 43; proposed Irish Committee, 147; attendance of office-bearers at council meeting, 147
——— West Somerset, 140; confirmation of minutes, 140; certificates under the Education Act, 140; matters referred to Divisions, 141; annual meeting, 342; confirmation of minutes, 342; annual report and balance sheet, 342; election of officers, 342; president's address, 342; luncheon, 342
Branches, annual reports of, 326
——— and Divisions, notice of changes of boundaries of, 51
——— Scottish, conjoint meeting of, 81; demonstrations, 81; dinner, 82
Brighton Division. See Division
Bristol Division. See Division
Burnley Division. See Division

C.

Cambridge and Huntingdon Branch. See Branch
Canterbury and Faversham Divisions. See Divisions
Canvassing and employment of unqualified assistants, 309, 315
Cape of Good Hope Branch. See Branch
Cardiff Division. See Division
Cautley, Edmund, artificial methods of infant feeding, 35
Certificate, proposed secondary education, memorandum from Medico-Political Committee, 63
Certificates of unfitness to attend school. See School
——— school, communication from General Medical Council, 61, 62
——— school, payment of, 35, 109, 140, 147, 163, 187, 212, 214
——— under the Workmen's Compensation Act, medical, 35
Chelsea Division. See Division
Chester Division. See Division
Chichester and Worthing Division. See Division
Chiene, Mr., address on movement is life, 13
Childe, C. P., elected honorary secretary and treasurer (Portsmouth Division), 20
City Division. See Division.
——— and Tottenham Divisions. See Divisions
——— and Walthamstow Divisions. See Divisions
Colliery appointment, action concerning a, memorandum from Medico-Political Committee, 63; resolution by Monmouth Division, 110
——— disputes, memorandum from Medico-Political Committee, 63
Colonial Committee. See Committee
Committee, Annual Meeting (Sections), meeting, 65, 277; adoption of resolutions, 65
——— Colonial, meeting, 79; election of chairman, 79; election of members, 79; registration in Australia, 79; registration in Ceylon, 79; Colonial medical legislation, 79
——— Colonial (Joint) Constitution, meeting, 79; apologies for absence, 79; reference to the Committee, 79; Colonial members of Central Council, 79; subscription to Australian Branches, 79
——— Dental, report of, 315
——— Education, report of, 312
——— Ethical, annual report to Annual Representative Meeting, 273; report on advertising of the names of medical practitioners in connexion with hydropathic and similar establishments, 49, 273; apologies for absence, 77, 159; ethical inquiries, 77; copyright of the JOURNAL, 77; notices under Rule 3, 77; assistance by general practitioners at operations, 77; refusal to obey decision of Branch Council, 77; Divisions and non-members, 77; rules of Divisions and Branches, 77, 180; professional advertising, 77; sanatorium for inebriates, 77; Secretary's report of visits, 78; advertisement by handbills, 78; appeal to General Medical Council respecting canvassing, 78, 275; advertisements reported to General Medical Council, 78; company and, 78; dispute as to a club appointment, 78; agreement as to club appointments, 78; exclusion from a local medical society, 179; report of cases dealt with, 179; publication of names in trade advertisements, etc., 179; model rule for Branches re circulation of notices in certain cases, 180; regulations of the Association, 181, 273; local regulations, rules of Divisions and Branches, 182, 273; procedure in ethical cases, 183, 273
——— Hospitals, meeting, 65, 162, 297; new members, 65; hospital management, 65; hospital letters, 65; conference on principles of hospital management, 65; Poor-law service and provident dispensaries, 65, 297; procedure for conference with representatives of hospitals, 162; conference, 162; lay representatives appointed to confer with Committee, 162; additional members of Committee, 162; conference amendments to Committee scheme, 162; further deliberations of Committee, 162; letters of apology, 297; charges for Poor-law cases, 297; provident dispensaries, 297; hospitals and the Poor-law medical service, 297
——— Journal and Finance, meeting, 162; research scholarship in tropical medicine, 162; office clerical staff superannuation, 162; medical defence, 162; financial statement, 162
——— Medical Defence, memorandum from, together with the draft scheme, 129, 183, 276
——— Medico-Political, proceedings of, 9, 17, 33, 60, 294; annual report to Annual Representative Meeting, 225, 297; proposals for concerted action by the Divisions with respect to the National Deposit Friendly Society, 9, 60, 61, 63, 94, 250, 294; re Public Health Bill, 10, 62, 269; re Revaccination Bill, 11, 61, 62, 294; memorandum re Midwives Act 1902, 17, 257; relations of the medical profession to ambulance work, 33, 61, 268, 297; apologies for absence, 60, 61, 63, 294, 295; medical attendance in criminal cases, 60, 62; references to Divisions, 60; payment for medical certificates of unfitness to attend school, 60, 265, 294, 297; Amendment of the Indecent Advertisements Act, 60, 62, 295; matters referred to Divisions, 60, 235, 295; preliminary medical education, 60; proceedings of subcommittees, 60; payment of medical men called in to assist midwives, 60, 62, 257; coroner for South-West London, 60; supply of Government lymph to all medical practitioners, 61; security of tenure of medical officers of health, 61; Medical Acts Amendment Bill, 61, 63, 256, 294, 297; school certificates, 61; vacant appointments, 61; registration of nurses, 61, 291; consultation of medical witnesses in London, 61, 244, 296; medical men and ambulance competitions, 61; provident medical service, 61; coroners and medical men, 61, 249, 296; medical witnesses and police fees, 62, 251; Secretary's report of meetings attended, 62; publication in the SUPPLEMENT of matters referred to Divisions, 62; medical profession in Parliament, 62, 249; action concerning a colliery appointment, 63; supplying reprints of reports of the Committee, 63; death registration and coroner's law, 63, 80, 251; parliamentary representation, 63, 249; Medical Secretary's visits to Divisions, 63, 295; colliery dispute, 63; local authorities and post-mortem examination, 63, 294; medical assistance to midwives, 63, 255, 294; fees paid by the police for emergency attendances, 63, 255; parliamentary matters affecting the profession, 63; contract practice inquiry, 63, 294; agreements as to contract practice, 63; proposed secondary education certificate, 63, 267; contract practice, interim report, 242; reorganization of Local Government Board, 245, 296; drug abuse, 249, 297; Coroners Bill, 253; unduly repeated dispensing of prescriptions, 265; further correspondence with the Lord Chancellor, 266; memorandum to the Board of Education, 267; report of Executive Committee of the Norwich Division, 270; Workmen's Compensation Bill and Accidents (Mines and Factories) Bill, 294; Congress of School Hygiene, 294; post-mortem examination, 294; advertising by a nursing institute, 294; medical certificate supplied by a chemist, 294; medicine containing poison supplied by medical practitioners, 294; registration of nurses and nursing homes, 294; medical aid organizations connected with places of worship, 294; case of an unregistered practitioner, 295; Irish Poor-law medical officers' superannuation, 295; Aliens Bill, 295; report of Executive Committee to the Division on the conditions of employment of the medical officers of the Ebbw Vale workmen's doctors' fund and kindred matters, 295; drafting of reports, 297; vaccination expenses, 297; insurance fees, 297; questions before Parliament; 297; provident dispensaries, 297
Committee, Organization, meeting, 74, 181, 297; apologies for absence, 74, 75, 76, 183, 297; matters referred to Divisions, 74; rules of Divisions and Branches, 74, 75, 76, 183, 297; amalgamation of, 74; representation on Central Council, 74; meetings attended by Medical Secretary, 74, 75, 76, 183; interpretation of an article, 74; advisability of Medical Secretary's visits, 74; form of voting paper, 74, 75; representation of Division, 74; East Anglian Branch, Council meeting held at Kelling, Holt, on Thursday, September 29th, 1904, resolutions, 74; annual report forms, 74; circulars to non-members, 74; amalgamation of provincial societies with the Association, 75; proposed conference of Branch and Division secretaries, 75; membership of the Association, 75; circulation of matters referred to Divisions, 75; Divisional changes, 75; model form of annual reports, 75; agenda of Representative Meetings, 76; Branch and Division maps, 76; Division expenditure, 76, 185; the SUPPLEMENT, 76; increasing the membership of the Association, 76; special rules of Colonial Branches, 76; changes of boundaries, 76, 183, 298; annual reports of Branches to Central Council, 76; annual reports of Divisions to Branches, 76; non-members and the "Medical Directory," 76; grouping of Divisions and Branches for representative purposes 1905-6, 76, 184, 298; communication from a Committee of a Branch, 76; constituencies for Representative Meetings for 1905-6, 183; principle adopted in grouping Colonial Branches, 185; qualification for members of Council elected by Colonial Branches, 185; proposed reduction of limit of membership of Divisions for independent representation in Representative Meetings, 185; circulation of reprinted addresses to non-members, 185; suggested payment by Divisions of election expenses of candidates for the Central Council, 186; alteration of Article XXXVIII, 186; Medical Secretary's visits to Divisions, 297; Division and Branch income and expenditure, 298; next meeting, 298
——— Pharmacopoeia, report of, 314
——— Premises and Library, meeting, 162
——— Public Health, meeting, 78; apologies for absence, 78; Public Health Bill, 78; vaccination legislation, 78

Committee, Public Health, report to General Medical Council, 31, 312
——— Royal Naval and Military, meeting, 64; election of chairman, 64; new member, 64; Militia Medical Service, 64; Indian Medical Service, 64
——— Scientific Co-ordination, meeting, 78; appointment of chairman, 78; Therapeutic Committee, 78; general organization of scientific work (*a*) the scientific work of the Divisions and Branches, 78, 105; (*b*) sectional work at the annual meeting, 79, 106; (*c*) special research library, 79, 106; relation of the Association to other scientific societies, 106
——— Scottish, meeting, 80, 277; election of officers, 80; medical certificates of unfitness to attend school, 80; Scottish Poor-law Medical Service, 80; medical evidence in criminal cases, 80; Licensing (Scotland) Act 1903, 277; medical representatives of the defence at official autopsies in criminal cases, 277; association house in Scotland, 277; Education (Scotland) Bill, 277
——— Secretaries of Branches and Divisions, meeting, 276; appointment of committee, 276; common room for Division and Branch secretaries, 277
Committees, attendances at, 105
Contract Medical Practice: Medico-Political Committee, memorandum from, 63, 294; interim report from, 242; resolutions by: Belfast Division, 164; Birmingham Branch, Central Division, 1; Bradford Division, 123; Cambridge and Huntingdon Branch, 26; Chelsea Division, 146; Chester Division, 82; City Division, 324; Coventry Division, 80, 106; Darlington Division, 212; Dover Division, 140; Dublin Division, 164; Eastern Division (Scotland), 186; Edinburgh Division (North-East), 131; Fife Branch and Division, 12; Folkestone Division, 109; Furness Division, 186; Glasgow North Western Division, 42; Isle of Thanet Division, 51; Liverpool (Central) Division, 82; Liverpool (Northern) Division, 211; Liverpool (Western) Division, 50; Manchester (North) Division, 41; Marylebone Division, 108; Monmouthshire Division, 42; Norwood Division, 164; Portadown and West Down Division, 27; Portsmouth Division, 279; Renfrewshire Division, 163; Rochdale Division, 3; Salisbury Division, 325; Sheffield Division, 214; South-Eastern Counties Division, Edinburgh Branch, 50; Southport Division, 83; South Shields Division, 42; South Suffolk Division, 82; South-West Wales Division, 213; Trowbridge Division, 138; West Bromwich Division, 80; Westminster Division, 139
Contraceptives, use of, resolution by South-Western Branch, 110
Coroner for South-West London, report of Conference of Medical Societies on, 60
Coroners, information to: Medico-Political Committee, memorandum from, 61, 296; report from, 249. Resolutions of: Birmingham Branch, Central Division, 2; Bradford Division, 156; Bristol Division, 146; Burnley Division, 66; Cambridge and Huntingdon Branch, 26; Chester Division, 82; Coventry Division, 80; Darlington Division, 212; Dover Division, 140, 356; Dublin Division, 164; Dudley Division, 163; Dundee Branch, 138; East Leinster Division, 355; Eastern Division (Scotland), 186; Edinburgh, North-East, Division, 131; Fife Branch and Division, 13; Folkestone Division, 213; Furness Division, 186; Glasgow Central Division, 208; Hampstead Division, 34; Harrogate, Richmond, and North Allerton Division, 68; Isle of Thanet Division, 51; Liverpool Central Division, 82; Liverpool North Division, 211; Liverpool South Division, 41; Liverpool West Division, 51; Manchester North Division, 51; Marylebone Division, 108; Monmouthshire Division, 43; Norwood Division, 164; Portsmouth Division, 279; Preston Division, 131; Renfrewshire Division, 163; Rochdale Division, 3; St. Pancras Division, 139; Sheffield Division, 214; South-Eastern Counties Division, Edinburgh Branch, 50; Southern Division, Edinburgh Branch, 65; Southport Division, 83; South Shields Division, 42; South Suffolk Division, 82; South-West Wales Division, 67, 213; Swansea Division, 110; Trowbridge Division, 138; Westminster Division, 139
Coroners' Law, Death Registration and: Medico-Political Committee, memorandum from, 93, 80; report from, 251; resolutions by: Bournemouth Division, 210; Bradford Division, 156; Brighton Division, 140; Bristol Division, 146; Furness Division, 187; Liverpool (North) Division, 341; Manchester (South) Division, 163; Norwood Division, 164; Portsmouth Division, 279; Renfrewshire Division, 163; Salisbury Division, 325; Southport Division, 299; Wandsworth Division, 211; Westminster Division, 140, 212; Winchester Division, 279
Council of the Association. See Association, Council
Council, General Medical, 112, 283, 306; meeting of Executive Committee, 112; medical and dental companies, 112, 284; resignation of standing counsel, 112; appointments, 112; Colonial ordinances and acts, 112; a "medical" certificate given by a chemist, 112; dental business, 112, 308, 310; president's address, 283; the council's legal adviser, 284; Anatomy Acts, 284, the council's house, 284; finance, 284; the students' registers, 284; structural alterations, 285; inspections and visitations, 285; the "British Pharmacopœia," 285; other business, 285; the president's duties, 285; new members, 306; president's address, 306; Business Committee, 306; results of examinations, 306; reports received in camera, 306, 315; amendment of the Companies Acts, 306; title of Licentiates of the Societies of Apothecaries, 306; procedure in penal cases, 306, 317; revision of standing orders as to visitation and inspection, 308; a divorce case, 308; "medical" certificate given by a chemist, 308; alleged canvassing and employment of unqualified assistants, 309; disciplinary cases, 309, 311; revised standing orders, 310; Public Health Committee, 310, 312; Education Committee, 312; financial report, 313; inspection of the final examination of the University of Oxford, 314; inspection for the Final Examination of the University of London, 314; report on service examination statistics, 314; Pharmacopœia Committee, 314; report of the Dental Committee, 315; canvassing and advertising, 315; remuneration of members of Council, 315; Apothecaries' Society of London, 315; proposed increase in the number of Direct Representatives, 315; instruction of medical students in midwifery, 316; Executive Committee, 317; Penal Cases Committee, 317; students' registration, 317; proposed fee for students' registration, 317; election of committees, 317; reappointment of registrar, 317; vote of thanks, 317
——— election of Representatives to, resolutions of Sheffield Division, 214
Coventry Division. See Division
Cranio-cerebral topography, 110
Criminal cases, medical attendance in, memorandum from Medico-Political Committee, 60, 62; resolutions by Midland Medical Union, 62
Croydon Division. See Division
Cuthbert, Firmin, presidential address (Gloucestershire Branch), 2

D.

Darlington Division. See Division
Deanesly, Edward, some problems of public health, 17
Death registration and coroners' law. See Coroners
Dentists, registered, administration of anaesthetics for, 27
——— unregistered, 80
Direct Representatives, proposed increase in number of, 315
Disciplinary cases, 308, 309, 311
Dispensing of prescriptions, unduly repeated, report by Medico-Political Committee, 265
Division, Altrincham, quarterly meeting, 3; confirmation of minutes, 3, 66; State registration of nurses, 3; committee meeting, 3; finances, 3; nurses, 3; correspondence, 3; cases, 3; other matters, 3; second representative on Branch Council, 66; matters referred to Divisions, 66
——— Aylesbury, meeting, 109; confirmation of minutes, 109; school certificates, 109; Midwives Act, 109; vote of thanks, 109
——— Barnstaple, annual meeting, 213; paper, 213; case, 213; confirmation of minutes, 213; annual report, 213; election of officers, 213; resolutions referred to Division by Branch, 214; matters referred to Divisions, 214; school certificates, 214; instructions to the Representative at Annual Representative Meeting, 214; visit to infirmary, 214; votes of thanks, 214
——— Bath, report to Branch Council, 42; resignation of Honorary Secretary, 42; medical practitioners and midwives, 42; annual meeting, 353; confirmation of minutes 353; election of officers, 353; report of executive committee, 353; matters referred to Divisions, 353
——— Belfast, 20, 164; autumn meeting, 20; work of the Division, 20; paper on personal administration of anaesthetics (Dr. Fielden), 20; magnets, exhibition of, 20; matters referred to Divisions, 164; resolution of Leinster Branch, 164
——— Birkenhead, meeting, 82; confirmation of minutes, 82; medical practitioners and midwives, 82; National Deposit Friendly Society, 82; Public Health Bill, 82; Revaccination Bill, 82; ambulance work, 82
——— Birmingham Central, confirmation of minutes, 1; letter from Mr. Barling, 1; notices of meeting; contract medical practice, interim report considered, 1; consultation between medical witnesses, 2; information to coroners, 2; reorganization of Local Government Board, 2; Medical Acts Amendment Bill, 2
Division, Blackburn, meeting, 107, 210, 279; vaccination legislation, 107, 210; a medical officer's salary, 107; confirmation of minutes, 210, 279; report of Representative, 210; benevolent and provident scheme, 210; proposed resolutions, 210; proposed additions to standing orders, 210; annual report, 279; election of officers, 279; medical officer of Darwen Division, 279; annual dinner, 279; vote of thanks to retiring officers, 279
——— Bootle, 341; vote of thanks to retiring officers, 341; election of office-bearers, 341; Representatives on Branch Council, 341
——— Boston and Spalding, annual meeting, 355; confirmation of minutes, 355; secretary's report, 355; treasurer's report, 355; election of officers, 355; programme for the year, 355; certain proposals of the Medico-Political Committee, 355; ambulance work, 356; luncheon, 356
——— Bournemouth, 210; confirmation of minutes, 210; election of officers, 210; matters referred to Divisions, 210; case, 210; Isle of Thanet Division, 210
——— Bradford, meeting, 27, 123, 156, 299; confirmation of minutes, 27, 123, 156, 299; National Deposit Friendly Society, 27, 123; administration of anaesthetics for registered dentists, 27; supplementary grants fund, 123, 156; election of members by Divisions, 123; "Medical Register," 123; matters referred to Divisions, 123, 156, 299; next meeting, 123; notices of motion, 299; amalgamation with Bradford Medico-Ethical Union, 299
——— Brighton, meeting, 109, 140, 211, 325; confirmation of minutes, 109, 140, 325; cases, 109, 211; medical practitioners and midwives, 109; matters referred to Divisions, 140; vote of thanks to chairman, 140; Medical Acts Amendment Bill, 212; Annual Representative Meeting, 325
——— Bristol, meeting, 146; matters referred to Divisions, 146; annual meeting, 353; confirmation of minutes, 353; annual report, 353; election of officers, 353; Representative Meeting, 353
——— Burnley, confirmation of minutes, 66; matters referred to Divisions, 66; annual meeting, 323; election of officers, 323
——— Cardiff, annual meeting, 280; confirmation of minutes, 280; election of officers, 280; report of executive committee, 280; Annual Representative Meeting, 280; matters referred to Divisions, 280; vote of thanks to retiring chairman, 280
——— Chelsea, meeting, 146; confirmation of minutes, 146; matters referred to Divisions, 146; communication from Lancashire and Cheshire Branch, 146; nomination of Representative on Central Council, 146; Sir A. Gage Brown, letter of condolence to, 147; instruction to honorary secretary, 147; forthcoming election of officers, 147; vote of thanks to chairman 147
——— Chester, meeting, 82, 162; confirmation of minutes, 82, 163, 354; matters referred to Divisions, 82, 163; tea, 82; amalgamation of Crewe and Chester Divisions, 163; recommendations of Scientific Committee, 163; notices of motion, 163; annual meeting, 354; report of executive committee, 354; changes in areas of Divisions, 354; election of officers, 354; Annual Representative Meeting, 354; vote of thanks to retiring chairman, 354; confirmatory meeting, 355
——— Chichester and Worthing, confirmation of minutes, 27; next meeting, 27; the "Medical Register," 27; papers, 27; dinner, 27
——— City, 131; medical charities in connexion with places of worship, 131; Annual Representative Meeting, 131; representative on Association Council, 131; matters referred to Divisions, 131, 324; annual general meeting, 324; report of executive committee, 324; election of officers, 324; model rule, 324; vote of thanks to retiring chairman, 324
——— Coventry, meeting, 80, 106; specimens, 80; notice of motion for Annual Representative Meeting, 80; contracts with Friendly Societies, 80; unregistered dentists, 80; payment of medical practitioners in midwives cases, 80; interim report on contract practice, 80; consultations between medical witnesses, 80; information to coroners, 80; reorganization of Local Government Board, 80; Medical Act Amendment Bill, 80; abuse of drugs, 80; National Deposit Friendly Society, 80; cases, 106; medical practitioners and Friendly Societies, 106; matters referred to Divisions, 106; representative on Branch Council, 106
——— Croydon, meeting, 122, 279; confirmation of minutes, 122, 279; next meeting, 122, 279; matters referred to Divisions, 122; vote of sympathy with Dr. Owen Fowler, 122, 279;

papers, 122; dinner, 122, 279; election of officers, 279; school certificates, 279; vote of thanks to retiring chairman, 279; cases, 279
Division, Cumberland (North), meeting, 278; matters referred to Divisions, 278; dinner, 278
——— Darlington, 212; confirmation of minutes, 212; matters referred to Divisions, 212; payment of school certificates, 212
——— Dover, 4, 67, 140, 356; confirmation of minutes, 4, 67, 140, 356; proposed division of the Branch, 4; State registration of nurses, 4; reduction of subscription for junior members, 4; payment under Midwives Act, 4; letter from Medical Secretary, 4; future meetings, 4; matters referred to Divisions, 67, 140, 356; vote of thanks, 140, 356; letter to non-member, 356
——— Dublin, 164; confirmation of minutes, 164; proposed formation of an Irish Committee, 164; matters referred to Divisions, 164
——— Dudley, meeting, 162; matters referred to Divisions, 162; payment of school certificates, 162
——— Eastbourne, 342; annual meeting, 342; election of officers, 342; confirmation of minutes, 342; Annual Representative Meeting, 342
——— East Leinster, annual meeting, 355; confirmation of minutes, 355; election of officers, 355; an Irish Committee, 355; matters referred to Divisions, 355
——— Eastern (Scotland), meeting, 186, 210; confirmation of minutes, 186, 210; contract medical practice, 186; "The Medical Register," 186, 210; matters referred to Divisions, 186, 210; notices of motion at Representative Meeting, 210
——— Folkestone, meeting, 109, 213, 325; confirmation of minutes, 109, 213, 325; paper, 100; Division of Branch, 109; matters referred to Divisions, 109, 213; report of Executive Committee, 325; election of officers, 325; alteration of rules, 325; vote of thanks to retiring chairman, 325; dinner, 325
——— Furness, general meeting, 186; confirmation of minutes, 186; matters referred to Divisions, 186
——— Glasgow Central, annual meeting, 298; confirmation of minutes, 298; matters referred to Divisions, 298; school certificates, 298; medical defence, 298; notices of motion, 298; new pharmacy, 208; election of officers, 298
——— Glasgow, North-Western, Annual Representative Meeting, 42; contract medical practice, 42
——— Glasgow West, 323; confirmation of minutes, 323; report of Executive Committee, 323; election of officers, 323
——— Hampstead, 3, 108, 300, 355; confirmation of minutes, 3, 108, 300, 355; contract medical practice, 3; consultations between medical witnesses, 3; paper on siphonage of the stomach (Soltau Fenwick), 4; vote of thanks, 4, 300, 355; a fixed day for meetings, 34; coroners and medical men, 34; reorganization of the Local Government Board, 34; memorandum of the Medico-Political Committee, 35; infant feeding, 35; letter, 108; small attendance, 108; election of members by Divisions, 108; election of Representatives, 108; relation of medical profession to ambulance work, 108; advertising in connexion with hydropathic establishments, 108; alteration of by-laws, 108; communication from Lancashire and Cheshire Branch, 108; canvassing the Division, 108; Wandsworth resolution as to nominated candidates, 300; hospital abuse, 300; letters, 355; election of representatives, 355; matters referred to Divisions, 355; an ethical question, 355
——— Harrogate, meeting, 280; confirmation of minutes, 280; election of officers, 280; matters referred to Divisions, 280; spa doctors and their professional brethren, 280; dinner, 280
——— Isle of Thanet, meeting, 51, 147; special meeting, 51; chairman, 51, 147; Executive Committee, 51; letters, 51; contract medical practice, 51; consultations between medical witnesses, 51; information to coroners, 51; reorganization of Local Government Board, 51, 147; Medical Acts Amendment Bill, 51; abuse of drugs, 51; medical practitioners and midwives, 51; National Deposit Friendly Society, 51; Public Health Bill, 51; Revaccination Bill, 51; vote of thanks, 51, 147; confirmation of minutes, 147; matters referred to Divisions, 147; medico-political questions, 147; paper, 147
——— Lancaster, annual meeting, 341; election of officers, 341
——— Leicester, annual meeting, 341; report of Executive Committee, 341; election of officers, 341; matters referred to Divisions, 341
——— Liverpool (Central), meeting, 82; matters referred to Divisions, 82
——— Liverpool (Northern), 211, 341; matters referred to Divisions, 211, 341; annual meeting, 341; confirmation of minutes, 341; annual report and financial statement, 341; election of officers, 341; alteration of rules, 341; vacancies amongst officers, 341; notices of motion for Representative Meeting, 341
Division, Liverpool (Southern), 41, 163; confirmation of minutes, 41; contract practice, 41; consultations between medical witnesses, 41; information to coroners, 41; Local Government Board, 41; prevention of abuse of dangerous drugs, 41; Annual Representative Meeting, 41; second representative of Division in Central Division, 41; lantern slides, 41; matters referred to Divisions, 41, 163
——— Liverpool (Western), meeting, 50, 122, 187, 298; matters referred to Divisions, 50, 122, 187; confirmation of minutes, 208; reports, 298; election of officers, 298; Annual Representative Meeting, 298; Executive Committee's annual report, 298; miscellaneous, 298
——— Manchester (Central), 341; financial report, 341; matters referred to Divisions, 341; annual meeting, 341; election of officers, 341; report of Executive Committee, 341; Annual Representative Meeting, 341; vacancies among officers, 341
——— Manchester (North), meeting, 41, 51, 107, 138, 211; contract medical practice, 41, 51; vacancies among officers, 51; communication from Exeter Division, 51; information to coroners, 51; reorganization of Local Government Board, 51; consultation between medical witnesses, 51; communication from West Manchester Division, 107; matters referred to Divisions, 107, 138; ambulance work, 139; notices of motion, 139, 211; Branch resolutions forwarded to the Division for consideration, 139; other business, 139; new rule, 211; election of officers, 211; refreshments, 211
——— Manchester (South), meeting, 163; matters referred to Divisions, 163; alteration of by-laws of Association, 163; notices of motion, 163; the Association and medical defence, 163
——— Manchester (West), general meeting, 26; Branch Councils and surplus funds, 26; cost of the organization department, 26; annual meeting, 323; confirmation of minutes, 323; report of Executive Committee, 323; Annual Representative Meeting, 323; new rule, 323; alteration of rule, 323; matters referred to Divisions, 323; expenses of the Representative, 324; vote of thanks to retiring chairman, 324
——— Marylebone, meeting, 108; matters referred to Divisions, 108
——— Monmouth, members present, 27; confirmation of minutes, 27, 42, 110; model rule, 27; proposed memorial to Lord Tredegar, 42, 110; matters referred to Divisions, 42, 110; supervision of midwives, 110; cranio cerebral topography, 110; colliery appointments, 110
——— North Carnarvonshire and Anglesey, confirmation of minutes, 42, 324; University College of North Wales, 24; medical practitioners and midwives, 42; discussion, 42; specimens, 42; vote of thanks, 42; annual meeting, 324; report of Executive Committee, 324; matters referred to Divisions, 324; annual representative meeting, 324; paper, 325
——— North-East Edinburgh, meeting, 130; confirmation of minutes, 130; resignation of chairman, 130; School Board certificates, 130; "Medical Register," 130; circular to non-members, 130; matters referred to Divisions, 130
——— Norwood, meeting, 109, 164, 342; confirmation of minutes, 109, 164, 342; the late Dr. R. M. Miller, 109; next meeting, 109, 342; clinical evening, 109; annual meeting of South-Eastern Branch 1906, 109; King's College Hospital, 109; papers, 109; matters referred to Divisions, 109, 164; dinner, 109, 342; resolutions of Lancashire and Cheshire Branch, 164; vote of thanks to chairman, 164; election of officers, 342; report of Executive Committee, 342; papers, etc., 342
——— Portadown and West Down, matters referred to Divisions, 27
——— Portsmouth, 20, 279; confirmation of minutes, 20; retirement of Dr. Blackman, 20; the late Dr. Wilmer Phillips, 20; election of officers, 279; proposed meeting of Southern Branch at Portsmouth in 1906, 279; matters referred to Divisions, 279
——— Preston, 131; election of officers, 131; matters referred to Divisions, 131; increasing the membership of the Division, 131
——— Renfrewshire, 163; matters referred to Divisions, 163
——— Rochdale, letters of apology, 3; confirmation of minutes, 3; correspondence, 3; contract medical practice, 3; consultation between medical witnesses, 3; report re coroners, 3; report re Local Government Board, 3; drug abuse, 3; resignation of Honorary secretary, 3
——— St. Pancras, meeting, 139, 324; confirmation of minutes, 139, 324; letter from Medical Secretary, 139; matters referred to Divisions, 139; cases, 139; tea, 139; annual meeting, 324; letter, 324; honorary secretary's report, 324; vote of thanks to retiring secretary, 324; election of officers, 324; Consumptive Hospital, 324; paper, 324
Division, Salisbury, 325; election of officers, 325; matters referred to Divisions, 325
——— Scottish, meeting, 122; matters referred to Divisions, 122; paper, 122; dinner, 122; annual general meeting, 354; election of officers, 354
——— Sevenoaks, 132, 299; paper, 132, 299; fees for sickness certificates, 132; matters referred to Divisions, 132, 299; election of officers, 299
——— Sheffield, 214; filling of vacancies among officers of Divisions, 214; matters referred to Divisions,
——— Southampton, 325; election of officers, 325; acceptance of rule, 325; medical defence, 325; matters referred to Divisions, 325; Annual Representative Meeting, 325
——— South-Eastern Counties (Edinburgh Branch), meeting, 50, 354; matters referred to Divisions, 50, 354; registration of medical students, 50; electoral areas, 50; abuse of drugs, 50; other matters, 50; future meetings, 50; confirmation of minutes, 354; election of officers, 354; Annual Representative Meeting, 354
——— South Essex, meeting, 2, 130; cases shown, 2, 130; matters referred to Divisions, 2, 130; confirmation of minutes, 130; paper, 130
——— Southport, meeting, 83, 122, 299; matters referred to Divisions, 83, 122, 299; confirmation of minutes, 299; election of officers, 299; annual report, 299; alteration of rules, 299; medical defence, 299
——— South Shields, matters referred to Divisions, 42
——— South Staffordshire, annual meeting, 325; election of officers, 324; matters referred to Divisions, 325
——— South Suffolk, special meeting, 82; Executive Committee, 82; matters referred to Divisions, 82; medical profession and ambulance work, 82; membership of the Association, 82; vacancies among officials of Divisions, 82; co-ordination of work of Divisions, 82
——— South-West Wales, 67, 213; election of member of Branch Council, 67; Post-Office appointments, 67; matters referred to Divisions, 67, 213; votes of thanks, 67; confirmation of minutes, 213; Ethical Committee, 213; recommendations from special meeting at Carmarthen, 213; information to coroners, 213; papers, 213; next meeting, 213
——— Southern (Edinburgh Branch), confirmation of minutes, 65, 340; apology for absence, 65; letters, 65; Annual Representative Meeting, 65; matters referred to Divisions, 66, 341; vote of thanks, 66; annual meeting, 340; annual report and Treasurer's statement, 340; vacancies among officers, 340; election of office-bearers, 340; school certificates, 341; proposed Division dinner, 341; vote of thanks to chairman, 341
——— Stratford, meeting, 4, 67, 84, 139, 299; demonstration by Sir Patrick Manson showing the value of the microscope in the diagnosis of tropical diseases, 4; vote of thanks, 4; confirmation of minutes, 67, 139, 299; address, 67, 139; Annual Representative Meeting, 67; medical practitioners and midwives, 67, 84; address, 84; letter from Percy Rose, 110; matters referred to Divisions, 139, 299; election of representative on Central Council, 139; affiliation of local medical societies with the Association, 139; lantern demonstration, 299; special general meeting, 299
——— Swansea, meeting, 110; matters referred to Divisions, 110
——— Tottenham, 41, 299; paper, 41; election of officers, 299; Annual Representative Meeting, 299
——— Trowbridge, meeting, 138; confirmation of minutes, 138; balance sheet, 138; matters referred to Divisions, 138
——— Wandsworth, meeting, 17, 34, 83, 131, 211, 299; confirmation of minutes, 17, 34, 83, 131, 211; remuneration of patients exhibited, 17; selection of representatives of Association on Boards and Councils, 17; circular to local midwives, re fees expected, by general practitioners in the Divisional area, 17; memorandum from Medico-Political Committee re Midwives Act 1902, 17; registration of nurses and nursing homes, 17; nomination of Branch representatives on Central Council, 34, 211; Educational Number of the BRITISH MEDICAL JOURNAL, 34; contract medical practice, 34; National Deposit Friendly Society, 34, 83; votes of thanks, 34, 84; the SUPPLEMENT, 34; correspondence, 83; King's College Hospital, report of South London Medical Committee, 83; Annual Representative Meeting, 84; expenses of representatives of Divisions at Annual Representative Meeting, 84; paper, 84, 132; communication from Mr. Marks, 131; com-

munication from the Medical Secretary, 131; nomination of candidates for Central Council, 131; deputation to local M.P.'s, 132; matters referred to Divisions, 132, 211; Representative meeting, 132; annual dinner committee, 132; pathologists in South-West London, 211; paper, 211; dinner, 299; additional rules, 299; election of officers, 300; election of Ethical Committee, 300; nominations for Branch officials, 300
Division, West Dorset, annual meeting, 337; election of officers, 337; Representative of Division on Branch Council, 338; Annual Representative Meeting, 338; matters referred to Divisions, 338; vote of thanks to Honorary Secretary, 338; clinical meeting, 338
——— Westminster, meeting, 34, 139, 211; confirmation of minutes, 34, 139, 211, 355; nomination of representatives of Branch on Central Council, 34, 212; resignation of chairman, 34; matters referred to Divisions, 34, 139; election of representatives on Central Council, 140; communications, 211; "Medical Free Lance," 212; Medical Acts Amendment Bill, 212, 355; death registration and coroner's law, 212; members of Parliament and the Association, 212; the Jubilee Hospital, 212; annual meeting, 355; election of officers, 355; report of executive committee for 1904-5, 355; Annual Representative Meeting, 355; Queen's Jubilee Hospital, 355
——— West Bromwich, meeting, 80; confirmation of minutes, 80; matters referred to Divisions, 80; ethics of examination for life insurance, 81; nomination of Branch representative on Council of Association, 81
——— West Cumberland, meeting, 106; confirmation of minutes, 106; intercommunication between Divisions, 106; matters referred to Divisions, 106; next meeting, 106; information to insurance offices, 106
——— West Norfolk, memorandum from Exeter Division, 2; minimum fee in midwives cases, 2; subscription to the Association, 2; payment of Post-Office surgeons, 2; cases shown, 2; tea, 2, 66; matters referred to Division, 66
——— West Suffolk, medical certificates under the Workmen's Compensation Act, 35; payment for school certificates, 35; financial statement, 35; annual meeting of Branch, 35
——— Winchester, meeting, 27, 279, 325; suggestion of more frequent meetings, 27; Annual Representative Meeting, 27; communications, 27, 325; matters referred to Divisions, 279; annual meeting, 325; election of officers, 325; presentation to honorary secretary, 325
Divisional work, 43
Divisions, Canterbury and Faversham, combined meeting, 4, 156, 212, 325; confirmation of minutes, 4, 212; paper on borderland cases, 4; vote of thanks, 4, 342; amalgamation of Divisions, 156; matters referred to Divisions, 156; next meeting, 212, 342; demonstration of apparatus, 213; visit to hospital wards, 213; annual representative meeting, 325; annual meeting, 342; election of officers, 342; ambulance work, 342; alteration of rules, 342; Representative of Canterbury, Faversham, and Thanet Divisions, 342
——— City and Tottenham, the Association and medical defence, 66; nomination of Branch Representatives, 66; hospital abuse, 67; fees for examination for life insurance, 67
——— City and Walthamstow, 211; election of representative on Central Council, 211; demonstrations, 211; votes of thanks, 211
——— Eastbourne and Hastings, extraordinary meeting, 342; dinner, 342
——— Harrogate, Richmond, and Northallerton, combined meeting, 68; matters referred to Divisions, 68; dinner, 68; adjourned meeting, 68; one-portal system, 68; annual certificate for practitioners, 68; spectacle-makers and sight testing, 68; arrangement of Divisions, 68; abuse of drugs, 68
——— amalgamation of, 74
——— arrangement of, 68
——— and Branches, rules of, 74
——— intercommunication between, 106
——— matters referred to. See Matters
Dorset and West Hants Branch. See Branch
Dover Division. See Division
Drug abuse: report from Medico-Political Committee, 249, 297; resolutions of: Belfast Division, 164; Bradford Division, 156; Canterbury and Faversham Divisions, 156; Chester Division, 80; City Division, 131; Coventry Division, 80; Darlington Division, 212; Dover Division, 140; Dundee Branch, 42; Eastern Division (Scotland), 210; Edinburgh North-East Division, 131; Fife Branch and Division, 13; Folkestone Division, 213; Furness Division, 187; Harrogate, Richmond, and Northallerton Divisions, 68; Isle of Thanet Division, 51; Liverpool Central Division, 82; Liverpool Southern Division, 41; Liverpool Western Division, 187; Marylebone Division, 108; Monmouth Division, 110; Norwood Division, 164; Portsmouth Division, 279; Preston Division, 131; Renfrewshire Division, 163; Rochdale Division, 3; Salisbury Division, 325; South-Eastern Counties Division, Edinburgh Branch, 50, 354; South Essex Division, 2; Southern Division, Edinburgh Branch, 66; Southport Division, 83; South Staffordshire Division, 325; Stratford Division, 139; West Bromwich Division, 81; Westminster Division, 139
Dublin Division. See Division
Dudley Division. See Division
Dundee Branch. See Branch

E.

East Anglian Branch. See Branch
Eastbourne Division. See Division
——— and Hastings Divisions. See Division
East Leinster Division. See Division
Eastern Division (Scotland). See Division
Edinburgh Branch. See Branch
Education certificate, proposed secondary, memorandum from Medico-Political Committee, 63 (see also Board)
English urban mortality. See Mortality
Ethical Committee. See Committee
Examination, final, of Universities of Oxford and London, inspection of, 314

F.

Fee, annual registration, resolutions by Liverpool Western Division, 122
—— for examination for life insurance, 67
—— in midwives' cases, minimum, 2
Fees expected by general practitioners in the Divisional area, circular to local midwives re (Wandsworth Division), 17
—— emergency when called by the police, 354
—— insurance, 297, 354
—— paid by Admiralty and Commissioners of Irish Light, 107
—— police, medical witnesses and, memorandum from Medico-Political Committee, 62, 63
—— for sickness certificates, 132
Fenwick, Soltau, siphonage of the stomach, 4
Fife Branch and Division. See Branch
Folkestone Division. See Division
Friendly Societies. See Contract Medical Practice
Fund, Ebbw Vale Workmen's Doctors', 295
—— Supplementary Grants: resolution by Bradford Division, 123
Furness Division. See Division

G.

General Medical Council. See Council
Glasgow Division. See Division
Gloucestershire Branch. See Branch
Grahamstown and Eastern Province Branch. See Branch

H.

Hampstead Division. See Division
Harrogate Division. See Division
——— Richmond, and Northallerton Divisions. See Divisions
Hong Kong and China Branch. See Branch
Horder, T. Garrett, remarks on vaccination, 4
Hospital abuse, resolution by City and Tottenham Divisions, 67: Hampstead Division, 300
——— address on (J. Ford Anderson), 301
——— administration, conference, 97
——— King's College, annual report of South London Medical Committee, 83; resolutions by, Norwood Division, 109
——— letters, correspondence re, 65
——— management, conference on principles of, recommendations of Hospitals Committee, 65
Hospitals Committee. See Committee

I.

Indecent Advertisements Act. See Act
Insanity in South Africa, 354
Insurance offices, information to, resolutions by West Cumberland Division, 106
Interpretation of an article, 74
Isle of Thanet Division. See Division

L.

Lancaster Division. See Division
Leicester Division. See Division
Life insurance, ethics of examination for, resolutions of West Bromwich Division, 81
Liverpool Division. See Division
Local Government Board, reorganization of, report from Medico-Political Committee, 245, 296. Resolutions of: Altrincham Division, 66; Birmingham Branch, Central Division, 2; Bradford Division, 156; Cambridge and Huntingdon Branch, 26; Cardiff Division, 280; Chester Division, 82; Coventry Division, 80; Darlington Division, 212; Dover Division, 140; Dundee Branch, 42; Eastern Division (Scotland), 186; Edinburgh Division, North-East, 131; Fife Branch and Division, 13; Folkestone Division, 213; Hampstead Division, 34, 355; Harrogate, Richmond, and Northallerton Divisions, 68; Isle of Thanet Division, 51; Liverpool, Central, Division, 82; Liverpool, Northern, Division, 211; Liverpool, South, Division, 41; Liverpool, Western, Division, 51, 122; Manchester, North, Division, 51, 107; Marylebone Division, 108; Monmouthshire Division, 43; Norwood Division, 164; Portadown and West Down Division, 27; Rochdale Division, 3; Sheffield Division, 214; Southern Division, Edinburgh Branch, 66; South-Eastern Counties Division, Edinburgh Branch, 50; Southport Division, 83; South Shields Division, 42; South Suffolk Division, 82; Stratford Division, 299; Swansea Division, 110; West Bromwich Division, 81; Westminster Division, 139
London, vital statistics of, during the last quarter of 1904, 37
Lymph, Government, supply of to all medical practitioners, 61

M.

Malta and Mediterranean Branch. See Branch
Manchester Division. See Division
Manson, Sir Patrick, the value of the microscope in the diagnosis of tropical diseases, 4
Marylebone Division. See Division
Matters referred to Divisions, Representative Meeting at Leicester, notices of motion, 57, 73, 105, 121, 129, 137, 145, 153, 161, 203; provisional agenda for Annual Representative Meeting, order of business, 193; amendments to standing orders, 194; amendments to by-laws, 195; proposed new by-law, 197; proposed alterations of the articles of association, 198; annual reports of Council and Committees, 225
——— memoranda by the Ethical Committee, re the advertising of the names of medical practitioners in connexion with hydropathic and similar establishments, 49; recommendations of the Scientific Co-ordination Committee, 105
——— memoranda by the Medico-Political Committee, 60, 62, 295; re National Deposit Friendly Society, 9; re the Public Health Bill, 10; re the Revaccination Bill, 11; re the Midwives Act, 17; the relations of the medical profession to ambulance work, 33; report on death registration and amendment of coroner's law, 63, 89
——— resolutions of; Altrincham Division, 66; Barnstaple Division, 214; Bath Division, 42, 353; Belfast Division, 164; Birmingham Branch, Central Division, 1; Border Counties Branch, 337; Bournemouth Division, 210; Bradford Division, 27, 123, 156, 299; Brighton Division, 140; Bristol Division, 146; Burnley Division, 66; Cambridge and Huntingdon Branch, 26; Canterbury and Faversham Divisions, 156; Cardiff Division, 280; Carnarvonshire, North, and Anglesey Divisions, 42, 324; Chelsea Division, 146; Chester Division, 82, 163; City Division, 131; Coventry Division, 100; Croydon Division, 122; Cumberland, North, Division, 278; Cumberland, West, Division, 106; Darlington Division, 212; Dover Division, 4, 67, 140, 356; Dublin Division, 104; Dudley Division, 162; Dundee Branch, 42, 138; East Leinster Division, 355; Eastern Division (Scotland), 186, 210; Edinburgh Division, North East, 131; Fife Branch and Division, 12; Folkestone Division, 109, 213; Furness Division, 186; Glasgow Central Division, 298; Glasgow North-Western Division, 42; Glasgow West Division, 323; Hampstead Division, 3, 34, 103, 355; Harrogate Division, 280; Harrogate, Richmond, and Northallerton Divisions, 68; Isle of Thanet Division, 51, 147; Leicester Division, 341; Liverpool Central Division, 82; Liverpool, North, Division, 211, 341; Liverpool, Southern, Division, 41, 163; Liverpool Western Division, 50, 122, 187; Manchester, Central Division, 341; Manchester, North, Division, 41, 51, 107, 138; Manchester, South, Division, 163; Marylebone Division, 108; Monmouth Division, 110; Monmouthshire Division, 42, 110; Norwood Division, 109, 164; Organization Committee, 74; Perth Branch, 108; Portadown and West Down Division, 27; Portsmouth Division, 279; Preston Division, 131; Renfrewshire Division, 163; Rochdale Division, 3; St. Pancras Division, 139; Salisbury Division, 325; Scottish Division, 122; Sevenoaks Division, 132, 299; Sheffield Division, 214; Southampton Division, 325; South-Eastern Counties Division, Edinburgh Branch, 50, 354; Southern Division, Edinburgh Branch, 66, 341; South Essex Division, 2, 130; Southport Division, 83, 122, 299; South Shields Division, 42; South Staffordshire Division, 325; South Suffolk Division, 82; South-West Wales Division, 67, 213; Stratford Division, 139, 299; Swansea Division, 110; Trowbridge Division, 138; Wandsworth Division, 17, 34, 132, 211; West Bromwich Division, 80; West Dorset Division, 338; Westminster Division, 34, 139; West Norfolk Division, 66; West Somerset Branch, 141; West Suffolk Division, 35; Winchester Division, 279. See also: advertising the names of medical practitioners; Bill Medical Acts' Amendment;

Bill, the Midwives and Medical Practitioners'; Bill, Public Health; Bill, Revaccination; contract medical practice; coroners, information to; drug abuse; Local Government Board; medical witnesses, consultation between; National Deposit Friendly Societies; superannuation
Medical Acts Amendment Bill. See Bill
——— "——" certificate given by a chemist, 308
——— certificates of unfitness to attend school, 2, 35, 42, 60, 62, 66, 163, 212, 214. See also school
——— certificates under the Workmen's Compensation Act, 35
——— defence, the Association and; resolutions by: City and Tottenham Divisions, 66; Chelsea Division, 146; Manchester (south) Division, 163; Glasgow Central Division, 298; Southport Division, 299; Southampton Division, 325
——— ——— memorandum by the Medical Defence Committee, with the draft scheme, 129
——— education, preliminary, minutes of subcommittee, 60
——— men and ambulance competitions (see Ambulance); and coroners (see Coroners); and school certificates (see Certificate)
——— officers of health, security of tenure of, 61
——— officers' superannuation, 107; resolutions by Dover Division, 140
——— practitioners and Friendly Societies, resolution by Coventry Division, 106 (see also National Deposit Friendly Society)
——— practitioners and midwives, Medico-Political Committee, memorandum from, 60, 62, 63, 294; report from, 255, 297; resolutions by: Bath Division, 42; Belfast Division, 164; Birkenhead Division, 82; Brighton Division, 109; Bristol Division, 146; Burnley Division, 66; Carnarvonshire, North, and Anglesey Branch, 42; Chester Division, 82; City Division, 131, 324; Coventry Division, 80, 166; Croydon Division, 122; Dover Division, 67; Folkestone Division, 213; Furness Division, 187; Glasgow West Division, 323; Harrogate Division, 280; Isle of Thanet Division, 51; Liverpool Central Division, 82; Liverpool, South, Division, 163; Liverpool, West, Division, 187; Manchester, Central Division, 341; Manchester, North, Division, 138; Marylebone Division, 108; Monmouthshire Division, 42; Norwood Division, 161; Preston Division, 131; Renfrewshire Division, 163; St. Pancras Division, 139; Salisbury Division, 325; Sheffield Division, 214; Southern Division, Edinburgh Branch, 341 354; South Essex Division, 130; Southport Division, 83, 122; South Staffordshire Division, 325; South Suffolk Division, 82; South-West Wales Division, 213; Stratford Division, 67, 84; Swansea Division, 110; Trowbridge Division, 138; West Bromwich Division, 80; West Dorset Division, 338; West Norfolk Division, 66; West Somerset Branch, 141
——— practitioners, registration of, resolutions by Bermuda Branch, 122
——— profession, relations of to ambulance work. See Ambulance
——— Register, resolutions by: Bradford Division, 123; North-East Ediuburgh Division, 131; Eastern Division (Scotland), 186, 210
——— students, registration of, resolution by: Edinburgh Branch, South-Eastern Counties Division, 50; Liverpool Western Division, 122
——— witnesses, consultation between Medico-Political Committee, memorandum from, 61, 296; report from, 244; resolutions by: Altrincham Division, 66; Birmingham Branch, Central Division, 2; Bradford Division, 123; Cambridge and Huntingdon Branch, 26; Chester Division, 82; City Division, 131; Coventry Division, 80; Darlington Division, 212; Dover Division, 140; Dudley Division, 163; Dundee Branch, 42; Eastern Division (Scotland), 186; Edinburgh North-East Division 131; Fife Branch and Division, 13; Folkestone Division, 213; Furness Division, 186; Isle of Thanet Division, 51; Liverpool Central Division, 82; Liverpool Southern Division, 41; Liverpool Western Division, 50; Manchester, Central Division, 341; Manchester North Division, 51; Marylebone Division, 108; Monmouthshire Division, 42; Norwood Division, 164; Portadown and West Down Division, 27; Portsmouth Division, 279; Preston Division, 131; Renfrewshire Division, 163; Rochdale Division, 3; St. Pancras Division, 139; Salisbury Division, 325; South-Eastern Counties Division, Edinburgh Branch, 50; Southern Division, Edinburgh Branch, 66; Southport Division, 83; South Shields Division, 42; South Suffolk Division, 82; Stratford Division, 130; Wandsworth Division, 211; West Bromwich Division, 80; Westminster Division, 139
Medico-Legal Committee. See Committee
Metropolitan Counties Branch. See Branch
Midwifery, instruction of medical students in, 316
Midwives Act. See Act
——— Board. See Board
——— cases, minimum fee in, 2
——— and medical practitioners. See Medical practitioners
——— supervision of, 110
——— training schools for, teachers of midwifery and, 53; Poor-law infirmaries as, 53, 68
Militia. See Army
Monmouth Division. See Division
Mortality, English urban, in the fourth quarter of 1904, 44
——— epidemic, in London, 218
Munster Branch. See Branch

N.

National Deposit Friendly Society, Medico-Political Committee on Proposals, 9, 60, 61, 94; report from, 250; memorandum from, 294. Resolutions by: Altrincham Division, 66; Bath Division, 353; Birkenhead Division, 82; Bournemouth Division, 210; Bradford Division, 27, 123; Bristol Division, 146; Canterbury and Faversham Divisions, 156; Chelsea Division, 146; Coventry Division, 80, 106; Darlington Division, 212; Dover Division, 356; Dublin Division, 164; Eastern Division (Scotland), 212; Folkestone Division, 213; Glasgow Central Division, 296; Isle of Thanet Division, 51, 147; Liverpool (North) Division, 211; Liverpool (West) Division, 187; Manchester (North) Division, 107; Manchester (South) Division, 163; Monmouthshire Division, 42; Norwood Division, 164; Portsmouth Division, 279; Salisbury Division, 325; Sevenoaks Division, 299; Sheffield Division, 214; Southampton Division, 325; South-Eastern Counties Division, 354; Southport Division, 299; South Stafford Division, 325; Wandsworth Division, 34, 83; Westminster Division, 140; West Norfolk Division, 66; Winchester Division, 279
Naval Committee. See Committee
——— Reserve (Volunteers). See Volunteers
Navy, Royal, promotions and appointments in the medical service of, 6, 14, 21, 30, 36, 46, 53, 69, 85, 97, 113, 126, 134, 141, 150, 158, 174, 190, 220, 286, 318, 334, 349, 358
North Carnarvonshire and Anglesey Division. See Division
Norwood Division. See Division
Notices of motion, 57, 73, 105, 121, 129, 137, 145
Nurses, State registration of, resolutions of Altrincham Division, 3; Dover Division, 4; Wandsworth Division, 17; memorandum from Medico-Political Committee, 61, 294; Bournemouth Division, 210 (see also Bill)
Nursing homes, registration of, 17, 294

O.

One-portal system, approved by Harrogate, Richmond, and Northallerton Divisions, 68
Organization Committee. See Committee

P.

Parliament, the medical profession in, Medico-Political Committee, memorandum from, 62, 63; report from, 249
Penal cases, procedure in, 366
Pension to officers of Council, resolutions by Liverpool Western Division, 122
Perth Branch. See Branch
Phillips, Wilmer, resolution of condolence to widow, 20
Police authorities and medical men in emergency cases, report by Medico-Political Committee, 205
Poor-law infirmaries as training schools for midwives, 53, 68
——— medical officers' superannuation, Irish, 295
——— relief in Scotland, 298
Portadown and West Down Division. See Division
Portsmouth Division. See Division
Post-mortem examination, local authorities and, memorandum from Medico-Political Committee, 63
Post-Office surgeons, payment of, resolutions by West Norfolk Division, 2, 66; South-West Wales Division, 67
Practitioners, annual certificate for, resolution by Harrogate, Richmond, and Northallerton Divisions, 68
——— medical, and midwives. See Medical
Prescription, unduly repeated dispensing of, report of Medico-Political Committee
Preston Division. See Division
Provident dispensaries, 207
——— medical services, opinion of Medico-Political Committee, 61
Public Health Bill. See Bill
——— Committee. See Committee
——— some problems of (Edward Deanesly), 17
Pulmonary tuberculosis. See Tuberculosis
Purvis, G. C., presidential address (Grahamstown and Eastern Province Branch), 3

Q.

Queensland Branch. See Branch

R.

Registration of medical practitioners. See Medical
——— of medical students. See Medical students
Renfrewshire Division. See Division
Revaccination Bill. See Bill
Rochdale Division. See Division

S.

St. Pancras Division. See Division
Salisbury Division. See Division
School Board certificates. See Certificates
——— medical certificates of unfitness to attend, 2, 35, 42, 60, 62, 66, 80, 121, 279, 294, 288, 341, 354; report by Medico-Political Committee, 265
Scientific Committee. See Committee
Scottish Branches. See Branches
——— Committee. See Committee
——— Division. See Division
Siphonage of the stomach (Soltau Fenwick), 4
Society, National Deposit Friendly. See National
South-East of Ireland Branch. See Branch
South-Eastern Counties Division. See Division
——— Essex Division. See Division
——— Shields Division. See Division
——— Suffolk Division. See Division
——— Wales and Monmouthshire Branch. See Branch
——— West Wales Division. See Division
Southern Division. See Division
Southport Division. See Division
Spectacle-makers and sight testing, disapproval by Harrogate, Richmond, and Northallerton Divisions, 68
Staffordshire Branch. See Branch
State registration of nurses. See Nurses
Stomach, siphonage of (Soltau Fenwick), 4
Student's registration, proposed fee for, 317
Subcommittees, attendances at, 165
Subscription to the Association, 3
——— ——— for junior members, reduction of, 4
Superannuation scheme for office clerical staff, 371
SUPPLEMENT, publication of matters referred to Divisions, memorandum from Medico-Political Committee, 62
Surgeons to the Post Office, payment of. See Post Office
Swansea Division. See Division
Sydney and New South Wales Branch. See Branch

T.

Tottenham Division. See Division
Training schools for midwives. See Midwives
Tropical diseases, value of the microscope in diagnosis of, 4
Trowbridge Division. See Division
Tuberculosis, pulmonary, notification of, 27, 35

U.

Ulster Branch. See Branch

V.

Vaccination legislation, 107
——— remarks on (T. Garrett Horder), 4
——— and revaccination, 295
Vital statistics, 6, 14, 21, 30, 37, 44, 53, 70, 85, 102, 114, 126, 134, 142, 149, 157, 172, 190, 218, 286, 318, 333, 350, 358; health of English, Scotch, and Irish towns, 6, 14, 21, 30, 44, 53, 70, 85, 102, 114, 126, 134, 142, 150, 157, 172, 190, 220, 286, 318, 333, 350, 358
——— of London during the fourth quarter of 1904, 37, 149; English urban mortality in the fourth quarter of 1904, 44, 114; for the first quarter of 1905, 172; Registrar-General's Quarterly Return, 85, 219; epidemic mortality in London, 218
Volunteer officers' decoration, conferment of, 141
——— Rifles, promotions and appointments in the medical service of, 22, 36, 46, 53, 70, 97, 114, 126, 134, 141, 190, 221, 286, 318, 334, 350, 358
Volunteers, electrical engineers, promotions and appointments in the medical service of, 134
——— Royal Army Medical Corps, promotions and appointments in the service of, 6, 21, 53, 70, 114, 141, 221, 334, 358
——— Royal Engineers, submarine miners, promotions and appointments in the medical service of, 36, 141, 190
——— Royal Garrison Artillery, promotions and appointments in the medical service of, 6, 21, 46, 53, 70, 97, 114, 134, 190, 221, 334, 350
——— Royal Naval Reserve, promotions and appointments in the medical service of, 286

W.

Wandsworth Division. See Division
Westminster Division. See Division
West Cumberland Division. See Division
——— Dorset Division. See Division
——— Norfolk Division. See Division
——— Somerset Branch. See Branch
——— Suffolk Division. See Division
Winchester Division. See Division
Witnesses, medical, consultation between. See Medical

Y

Yeomanry, Imperial, promotions and appointments in the medical service of, 70, 126, 221, 334

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

LIST OF MEMBERS

OF THE

British Medical Association

WITH

BRANCHES AND DIVISIONS.

CORRECTED TO APRIL 29th, 1905.

London:

PRINTED AND PUBLISHED BY THE BRITISH MEDICAL ASSOCIATION AT THEIR OFFICE,

429, STRAND.

British Medical Association.

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Patron: HIS MAJESTY KING EDWARD VII, K.G., F.R.C.P., F.R.C.S.

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CONTENTS.

PAGE.

Officers of the British Medical Association 3

List of Members Returned for the Representative Meeting 1904 5

Members of the Central Council 6

Members of Committees 7

HOME BRANCHES.

Page.

ABERDEEN BRANCH 9
BATH AND BRISTOL BRANCH 9
BIRMINGHAM BRANCH 11
BORDER COUNTIES BRANCH 12
CAMBRIDGE AND HUNTINGDON BRANCH ... 13
CONNAUGHT BRANCH 13
DORSET AND WEST HANTS BRANCH 14
DUNDEE BRANCH 14
EAST ANGLIAN BRANCH 15
EAST YORK AND NORTH LINCOLN BRANCH ... 16
EDINBURGH BRANCH 17
FIFE BRANCH 18
GLASGOW AND WEST OF SCOTLAND BRANCH 18
GLOUCESTERSHIRE BRANCH 20
LANCASHIRE AND CHESHIRE BRANCH ... 21
LEINSTER BRANCH 26
METROPOLITAN COUNTIES BRANCH 27
MIDLAND BRANCH 35
MUNSTER BRANCH 37
NORTH OF ENGLAND BRANCH 37
NORTHERN COUNTIES OF SCOTLAND BRANCH 40
NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH 40
NORTH WALES BRANCH 41
OXFORD AND READING BRANCH 41
PERTH BRANCH 42
SHROPSHIRE AND MID WALES BRANCH ... 42
SOUTH-EASTERN BRANCH 42
SOUTH-EASTERN OF IRELAND BRANCH ... 47
SOUTHERN BRANCH 47
SOUTH MIDLAND BRANCH 49
SOUTH WALES AND MONMOUTHSHIRE BRANCH 49
SOUTH-WESTERN BRANCH 51
STAFFORDSHIRE BRANCH 52
STIRLING BRANCH 53
ULSTER BRANCH 53
WEST SOMERSET BRANCH 54
WORCESTERSHIRE AND HEREFORDSHIRE BRANCH 55
YORKSHIRE BRANCH 55

COLONIAL BRANCHES.

Page.

BARBADOS BRANCH 58
BERMUDA BRANCH 58
BOMBAY BRANCH 58
BRISBANE AND QUEENSLAND BRANCH ... 58
BRITISH GUIANA BRANCH 59
BURMAH BRANCH 59
CAPE OF GOOD HOPE WESTERN BRANCH ... 59
COLOMBO, CEYLON, BRANCH 60
GRIQUALAND WEST BRANCH 60
HALIFAX, NOVA SCOTIA, BRANCH 60
HONG KONG AND CHINA BRANCH 60
JAMAICA BRANCH 61
LEEWARD ISLES BRANCH 61
MALAYA BRANCH 61
MALTA AND MEDITERRANEAN BRANCH 61
MELBOURNE AND VICTORIA BRANCH 62
MONTREAL BRANCH 62
NATAL BRANCH 62
NEW ZEALAND BRANCH 63
SOUTH AUSTRALIAN BRANCH 63
SOUTH INDIAN AND MADRAS BRANCH 64
SYDNEY AND NEW SOUTH WALES BRANCH ... 64
TORONTO BRANCH 65
TRINIDAD AND TOBAGO BRANCH 66
WEST AUSTRALIAN BRANCH 66

MEMBERS RESIDING IN THE DISTRICT OF BRITISH COLUMBIA 58

MEMBERS RESIDING AT GIBRALTAR ... 60

MEMBERS RESIDING IN THE DISTRICT OF MANITOBA AND WEST OF CANADA ... 62

MEMBERS RESIDING IN THE DISTRICT OF THE PUNJAB 63
ROYAL NAVY 66
ARMY MEDICAL SERVICE 67
INDIAN MEDICAL SERVICE 69
FOREIGN AND COLONIAL 71

ANNUAL REPRESENTATIVE MEETING.

LIST OF REPRESENTATIVES RETURNED FOR THE ANNUAL REPRESENTATIVE MEETING, HELD AT OXFORD ON JULY 26TH, 1904.

The total number of Representatives returned was 153.

Branch.	Division.	Representative.
ABERDEEN	Aberdeen	Dr. Ashley W. Mackintosh.
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	Shetland	
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	Trowbridge	
	Bristol	Dr. J. Michell Clarke.
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	Central Birmingham	Dr. Thomas Wilson.
	Coventry	Dr. Milner Moore.
	Nuneaton and Tamworth	
	Warwick and Leamington	Dr. T. W. Thursfield.
	West Bromwich	Dr. J. H. R. Manley.
BORDER COUNTIES	North Cumberland	Dr. F. R. Hill.
	West Cumberland	
	Scottish	Dr. F. H. Clarke.
CAMBRIDGE AND HUNTINGDON		Henry Stear, Esq.
CONNAUGHT	Mid Connaught	No return.
	North Connaught	
	South Connaught	
	Enniskillen	
	Monaghan and Cavan	
	Omagh	
DORSET AND WEST HANTS	Bournemouth	Dr. Wm. Johnson Smyth.
	West Dorset	Dr. T. Henry Jones.
DUNDEE		Dr. D. M. Greig.
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	Mid Essex	Lieutenant-Colonel S. Westcott, C.M.G., R.A.M.C.
	South Essex	
	Norwich	H. A. Ballance, Esq., M.S.
	West Norfolk	
	Mid Norfolk	Dr. J. T. Skrimshire.
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	West Suffolk	G. S. Elliston, Esq.
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	North Lincoln	
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	North-West Edinburgh	James W. B. Hodsdon, Esq.
	South-Eastern Counties	Dr. W. Blair.
	South Edinburgh	Dr. G. W. S. Paterson.
FIFE		Dr. H. W. Laing.
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	Dumbarton and Argyllshire	Dr. John Gilmour.
	Glasgow Central	Dr. T. K. Monro.
	Glasgow Eastern	Dr. William Patrick.
	Glasgow North-West	Dr. J. G. Gray.
	Glasgow Southern	Dr. C. E. Robertson.
	Lanarkshire	Dr. Bruce Goff.
	Renfrewshire	Dr. James Lawrie.
		Dr. G. Bagot Ferguson.
LEICESTERSHIRE	Altrincham	T. W. H. Garstang, Esq.
LANCASHIRE AND CHESHIRE	Ashton-under-Lyne	Dr. W. White.
	Glossop	
	Birkenhead	Dr. J. Lambert.
	Blackburn	E. H. T. Nash, Esq.
	Burnley	
	Blackpool	Dr. F. J. H. Coutts.
	Isle of Man	Jas. Young, Esq.
	Bolton	
	Bury	Dr. Robert Mitchell.
	Rochdale	
	Chester	Dr. H. W. King.
	Crewe	
	Leigh	Dr. F. Rees.
	Wigan	
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	Liverpool (Central)	Dr. A. Gordon Gulian
	Liverpool (Northern)	Dr. E. T. Davies
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	Liverpool (Western)	Dr. K. A. Grossmann.
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	Manchester (West)	Dr J. Brassey Brierley.
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	Warrington	No Return
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	Stockport and Macclesfield	Dr. John B. Hughes.
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	East Leinster	Dr. J. Wallace Boyce.
	Mid Leinster	
	North Leinster	No Return
	North-West Leinster	
	South-East Leinster	
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	City	Dr. E. W. Goodall.
	Ealing	Dr. J. D. Windle.
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	Hexham	Dr. L. G. Fraser.
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	South Shields	Dr. Henry Goudie.
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	Shropshire, Montgomeryshire, and Radnorshire	Dr. G. H. Keyworth.
	South Carnarvon and Merioneth	Dr. Richard Jones.
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	Oxford	Dr. Innes Griffin.
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SOUTH-EASTERN	Ashford	Dr. A. E. Larking.
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	Horsham	
	Croydon	Dr. J. J. Macan.
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	Monmouth	Dr. W. D. Steel.
	North Glamorgan and Brecknock	Evan N. Davies, Esq.
	South West Wales	D. J. Williams, Esq., F.R.C.S.
	Swansea	Dr. H. A. Latimer.
SOUTH-WESTERN	Devonport	A. D. Williams, Esq
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	North Staffordshire	Dr. W. Hind.
	South Staffordshire	Dr. T. Ridley Bailey.
STIRLING		Dr. R. C. Highet.
ULSTER	Fallmoney, North Antrim, and East Derry	Dr. J. G. Cooke.
	Derry	
	Belfast	Dr. A. B. Mitchell.
	Enniskillen	
	Monaghan and Cavan	No return.
	Omagh	
	Portadown and West Down	Dr. J. S. Darling.
		Dr. J. A. Macdonald.
WEST SOMERSET		Dr. Paul Chapman.
WORCESTERSHIRE AND HEREFORDSHIRE	Hereford	Dr. Stanley Haynes.
	Worcester	Dr. W. H. Horrocks.
YORKSHIRE	Bradford	No return.
	Halifax	
	Huddersfield	
	Harrogate	Dr. Charles Gibson.
	Richmond and Northallerton	
	Leeds	Dr. James Allan.
	Sheffield	G. E. Mould, Esq.
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	Colombo and Ceylon	Dr. E. B. Lourensz.
	South Australia	Dr. Alfred Wieg.
	Malta and Mediterranean	Professor S. Grech.
	Grahamstown	Dr. J. B. Greathead
	South Indian and Madras	Colonel T. H. Pope.

DEPUTIES.

DUNDEE	Dundee	Dr. J. Mackie Whyte, vice Dr. D. M. Greig.
FIFE	Fife	Dr. W. E. Henderson, vice Dr. H. W. Laing.
LANCASHIRE AND CHESHIRE	Manchester West	Dr. J. S. Browse, vice Dr. J. Brassey Brierley.
	Southport	Dr. Stanley A. Gill, vice Dr. F. J. Baildon.
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Ross, Dr. J. Maxwell, County Buildings, Dumfries (see also North Lancashire and South Westmorland).

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BURMAH BRANCH.
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Beverley, Dr. Michael, 54, Prince of Wales Road, Norwich.

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Milburn, Dr. C. H., 158, Anlaby Road, Hull (see also Cambridge and Huntingdon).

EDINBURGH BRANCH AND FIFE BRANCH (UNITED).
Johnston, Dr. Robert McKenzie, 2, Drumsheugh Gardens, Edinburgh (see also Fife).
Walker, Dr. Norman, 7, Manor Place, Edinburgh (see also Fife).

FIFE BRANCH AND EDINBURGH BRANCH (UNITED).
Johnston, Dr. Robert McKenzie, 2, Drumsheugh Gardens, Edinburgh (see also Edinburgh).
Walker, Dr. Norman, 7, Manor Place, Edinburgh (see also Edinburgh).

GLASGOW AND WEST OF SCOTLAND BRANCH.
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Hamilton, Dr. James, 1, Royal Crescent, Crosshill, Glasgow.

GLOUCESTERSHIRE BRANCH AND WORCESTERSHIRE AND HEREFORDSHIRE BRANCH (UNITED).
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JAMAICA BRANCH.

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Brierley, Dr. J. Brassey, Alma House, Old Trafford, Manchester.
Helme, Dr. T. Arthur, Mayfield, Victoria Park, Manchester.
Rayner, Dr. Edwin, 19, Teviot Dale, Stockport.

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Walshe, Dr. Denis, Bellevue, Graigue, co. Kilkenny (see also S.E. of Ireland).

MALAYA BRANCH.
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METROPOLITAN COUNTIES BRANCH.
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Fothergill, Dr. E. Rowland, Torquay House, Southfields, S.W.
Greenwood, Dr. Major, 243, Hackney Road, N.E.
Horsley, Sir Victor, F.R.S., 25, Cavendish Square, W.
Morton, Dr. Charles James, 56, Orford Road, Walthamstow.

MIDLAND BRANCH.
Carline, Dr. W. A., Lincoln.
Pope, Dr. F. M., 4, Prebend Street, Leicester.

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Murphy, Dr. James, 6, Thornhill Crescent, Sunderland.

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Tyson, Dr. W. J., 10, Langhorne Gardens, Folkestone.
Verrall, Mr. T. Jenner, 97, Montpellier Road, Brighton.

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Walshe, Dr. Denis, Bellevue, Graigue, co. Kilkenny (see also Leinster).

SOUTHERN BRANCH.

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SOUTH MIDLAND BRANCH.

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SOUTH WALES AND MONMOUTHSHIRE BRANCH.

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SOUTH-WESTERN BRANCH.

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Fox, Dr. Edward Lawrence, 9, Osborne Place, Plymouth.

STAFFORDSHIRE BRANCH.

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Twynam, Dr. G. E., 31, Gledhow Gardens, South Kensington, S.W.

TORONTO BRANCH.

TRINIDAD AND TOBAGO BRANCH.

Lovell, Sir Francis, K.C.M.G., 214, Lauderdale Mansions, Maida Vale, W.

ULSTER BRANCH AND CONNAUGHT BRANCH (UNITED).

Byers, Prof. J. W., M.D., Lower Crescent, Belfast (see also Connaught).

WESTERN AUSTRALIAN BRANCH.

WEST SOMERSET BRANCH AND DORSET AND WEST HANTS BRANCH (UNITED).

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Crowe, Dr. G. W., 43, Foregate Street, Worcester (see also Gloucestershire).

YORKSHIRE BRANCH.

Burgess, Dr. Duncan, 442, Glossop Road, Sheffield.
Goyder, Dr. David, 88, Great Horton Road, Bradford.

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Ferguson, Dr. G. Bagot, Cheltenham.
O'Sullivan, Dr. D. A., London.
Owen, Mr. Edmund, F.R.C.S., London.
Saundby, Professor Robert, M.D., LL.D., Birmingham.

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Tyson, Dr. W. J., 10, Lansborne Gardens, Folkestone
Walker, Dr. Norman, 7, Manor Place, Edinburgh

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Buist, Dr. R. C., 166, Nethergate, Dundee
Craig, Dr. James, 18, Merrion Square North, Dublin
Crocker, Dr. H. Radcliffe, 121, Harley Street, W.
Ferguson, Dr. G. B., Altidore Villa, Pittville, Cheltenham
Galton, Dr. J. H., Chunam, Sylvan Rd., Upper Norwood, S.E.
Thomas, J. Lynn, Esq., C.B., 21, Windsor Place, Cardiff

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Carline, Dr. W. A., Lincoln
Clarke, Dr. Astley V., 37, London Road, Leicester
Franklin, G. C., Esq., F.R.C.S., 39, London Road, Leicester
Pope, Dr. F. M., 4, Prebend Street, Leicester
Pratt, Dr. Reginald, De Montort Ho., London Rd., Leicester

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Goff, Dr. Bruce, The Lindens, Bothwell, N.B.
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Hamilton, Dr. James, 1, Royal Cresc., Crosshill, Glasgow
Morrison, Prof. J. T. J., F.R.C.S., 3, Great Charles Street, Birmingham
Rayner, Dr. Edwin, Tiviot Dale, Stockport
Verrall, T. Jenner, Esq., 97, Montpellier Road, Brighton
White, Prof. A. H., Derrybawn, Rathgar, Dublin

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The President and the Chairman of Council, *ex officio*
Horsley, Sir Victor, F.R.S., 25, Cavendish Square, W. (Chairman of Representative Meetings)
The Treasurer
Beverley, Dr. M., 54, Prince of Wales Road, Norwich
Buist, Dr. R. C., 166, Nethergate, Dundee
Crocker, Dr. H. Radcliffe 121, Harley Street, W.
*Fothergill, Dr. E. Rowland, Torquay Ho., Southfields, S.W.
Goff, Dr. Bruce, The Lindens, Bothwell, N.B.
Griffiths, Dr. T. Druslyn, D.Sc.Oxon., Druslyn, Swansea
Groves, Dr. J., Carisbrooke, Isle of Wight
Owen, Edmund, Esq., F.R.C.S., 64, Gt. Cumberland Pl., W.
Parkinson, C. H. W., Esq., Wimborne Minster
*Rayner, Dr. Edwin, 19, Tiviot Dale, Stockport
Saundby, Professor R., M.D., LL.D., 140b, Great Charles Street, Birmingham
*Thomas, John Lynn, Esq., C.B., 21, Windsor Pl., Cardiff
Verrall, T. Jenner, Esq., 97, Montpellier Road, Brighton

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The President and the Chairman of Council, *ex officio*
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Owen, Edmund, Esq., F.R.C.S., 64, Gt. Cumberland Place, W.

Colonial Representatives on the Council:

Cantlie, James., Esq., F.R.C.S., 46, Devonshire Street, W.
Drake-Brockman, Lieut.-Col. E. F., F.R.C.S., 281, Willesden Lane, Willesden Green, N.W.
Morier, Dr. C. G. D., 1, Hamilton Ter., Regent's Park, N.W.
Smith, Professor W. R., M.D., 74, Great Russell Street, W.C.
Twynam, Dr. G. E., 31, Gledhow Grdns., S. Kensington, S.W.

* *Co-opted Members.*

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Ballance, H. A., Esq., M.S., 46, Prince of Wales Road, Norwich
Cantlie, James., Esq., F.R.C.S., 46, Devonshire Street, W.
*Fox-Symons, Dr. R., 6, Courtfield Road, S.W.
*Marten, Dr. Robert Humphrey, Great Central Hotel, Marylebone Road, N.W.
Morier, Dr. C. G. D., 1, Hamilton Ter., Regent's Park, N.W.
Owen, Edmund, Esq., F.R.C.S., 64, Gt. Cumberland Pl, W.
Verrall, T. Jenner, Esq., 97, Montpellier Road, Brighton
White, Professor A. H., Derrybawn, Rathgar, Dublin
*Williams, Captain C. E., I.M.S., Woodlands, Chaucer Road, Cambridge

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Ferguson, Dr. G. B., Altidore Villa, Pittville, Cheltenham
Goff, Dr. Bruce, The Lindens, Bothwell, N.B.
Jepson, Dr. E., 42, Old Elvet, Durham
O'Sullivan, D. A., Esq., 39, Matheson Road, West Kensington, W.
Saundby, Professor R., M.D., LL.D., 140b, Great Charles Street, Birmingham
Spanton, W. D., Esq., Hanley, Staffs

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Fox, Dr. E. Lawrence, 9, Osborne Place, Plymouth
Hamilton, Dr. John Rogerson, Elm House, Hawick, N.B.
*Hastings, Dr. E. B., 415, Mile End Road, E.
Helme, Dr. T. Arthur, Mayfield, Victoria Park, Manchester
Horder, T. Garrett, Esq., 32, Windsor Place, Cardiff
Owen, Edmund, Esq., F.R.C.S., 64, Gt. Cumberland Pl., W.
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Barr, Dr. James, 72, Rodney Street, Liverpool
Brierley, Dr. J. Brassey, Alma House, Old Trafford
Galton, Dr. J. H., Chunam, Sylvan Rd., Upper Norwood, S.E.
Groves, Dr. J., Carisbrooke, Isle of Wight
Kinsey, R. H., Esq., 10, Rothsay Gardens, Bedford
Morris, W. Jones, Esq., Portmadoc, North Wales
Parkinson, C. H. W., Esq., Wimborne Minster
Saundby, Professor R., M.D., LL.D., 140b, Great Charles Street, Birmingham
Verrall, T. Jenner, Esq., 97, Montpellier Road, Brighton
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Hunter, Dr. J. H., Havelock Street, South Shields
Marshall, Dr. G. Balfour, 19, Sandyford Place, Glasgow
Messiter, M. A., Esq., Charlton House, Dudley, Worcestershire
Morris, W. Jones, Esq., Portmadoc, North Wales
Walshe, Dr. Denis, Graigue, co. Kilkenny

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Greenwood, Dr. Major, 243, Hackney Road, N.E.
Horder, T. Garrett, Esq., 32, Windsor Place, Cardiff
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Galton, Dr. J. H., Chunam, Sylvan Road, Upper Norwood
Goff, Dr. Bruce, The Lindens, Bothwell, N.B.
Griffiths, Dr. T. Druslyn, D.Sc.Oxon., Druslyn, Swansea
Pope, Dr. F. M., 4, Prebend Street, Leicester

LAY REPRESENTATIVES APPOINTED TO CONFER WITH THE HOSPITALS COMMITTEE.

Bunn, W. G., Esq., Secretary, Hospital Saturday Fund, 54, Gray's Inn Road, W.C.
Burdett, Sir Henry, K.C.B., The Lodge, Porchester Sq., W.
Carnt, W. G., Esq., Secretary-Superintendent, Derbyshire Royal Infirmary, Derby
Collins, Howard, Esq., House Governor, General Hospital, Birmingham
Gilman, Sir Charles, Stafford House, Eaton, Norwich
Holland, the Honourable Sydney, London Hospital, E.
Lord, Sir Riley, Newcastle-on-Tyne Infirmary, Newcastle-on-Tyne
Lupton, Charles, Esq., Chairman, General Infirmary, Leeds
Mason, Herbert W., Esq., Manor House, Sproughton, Ipswich
Montefiore, Lt.-Col., c.o. Charity Organisation Society, Denison House, 296, Vauxhall Bridge Road, S.W.
Reade, Arthur E., Esq., Secretary, Charing Cross Hospital, W.C.

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The President and the Chairman of Council, *ex officio*
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Manley, Dr. J. Herbert H., New Street, West Bromwich
Manley, Dr. F. C., 32 Upper Merrion Street, Dublin
McVail, Dr. J. C., 20, Eton Place, Hillhead, Glasgow
Nasmyth, Dr. T. G., St. Michael's, Cupar, Fife
Parkinson, C. H. W., Esq., Wimborne Minster
Thomson, Dr. J. Roberts, Monkchester, Bournemouth

ROYAL NAVAL AND MILITARY COMMITTEE.

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Drake-Brockman, Lieut.-Col. E. F., F.R.C.S., Cheriton, 281, Willesden Lane, Willesden Green, N.W.
Ellis'on, Brig.-Surg.-Lt.-Col. G. S., 2, Museum Street, Ipswich
Evatt, Surg.-Gen. G. J. H., C.B., Junior United Service Club, Charles Street, S.W.
Thomas, Fleet-Surgeon J. Lloyd, R.N., H.M.S. *Excellent*, Portsmouth

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Burgess, Dr. Duncan, 442, Glossop Road, Sheffield
Cave, Dr. E. J., 23, Circus, Bath
Griffiths, Dr. T. Druslyn, D.Sc.Oxon., Druslyn, Swansea
Helme, Dr. T. A., Mayfield, Victoria Park, Manchester
Johnston, Dr. R. McKenzie, 2, Drumsheugh Gardens, Edinburgh
Robinson, H. Betham, Esq., M.S., 1, Upper Wimpole St., W.
Ross, Dr. J. Maxwell, County Buildings, Dumfries
Saundby, Professor R., M.D., LL.D., 140b, Great Charles Street, Birmingham
Starling, Professor E. H., F.R.S., 40, West End Lane, N.W.
White, Professor A. H., Derrybawn, Rathgar, Dublin

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The President and the Chairman of Council, *ex officio*
Horsley, Sir Victor, F.R.S., 25, Cavendish Square, W. (Chairman of Representative Meetings)
The Treasurer
Chairman of Organisation Committee
Barr, Dr. James, 72, Rodney Street, Liverpool
Browne, Dr. H. Langley, West Bromwich
Buist, Dr. R. C., 166, Nethergate, Dundee
Pope, Dr. F. M., 4, Prebend Street, Leicester
Shaw, Dr. Cecil E., 18, College Square East, Belfast

SUPERANNUATION COMMITTEE.

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The Treasurer
Browne, Dr. H. Langley, West Bromwich

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Christie, Dr. J. F., 230, Rosemount Place, Aberdeen
Finlay, Prof. D. W., LL.D., 2, Queen's Terrace, Aberdeen
Fraser, Dr. T., 51, Eimbank Terrace, Aberdeen
Goff, Dr. Bruce, The Lindens, Bothwell (*Chairman*)
Graham, Dr. R. Balfour, Sea View, Leven, Fife
Halley, G., Esq., 7, Airlie Place, Dundee
Hamilton, Dr. James, Royal Crescent, Glasgow
Hill, Dr. F. R., 12, Bolton Place, Carlisle
Johnston, Dr. R. McKenzie, 2, Drumsheugh Gardens, Edinburgh
Low, Dr. A. P., 3, Strathmartine Road, Dundee
Moir, Dr. J. Munro, 4, Ardross Terrace, Inverness
Moorhouse, Dr. J. E., 1, Glebe Avenue, Stirling
Murray, Dr. J., 6, Ardross Terrace, Inverness
Nicoll, Dr. J. H., 4, Woodside Place, Glasgow
Ross, Dr. Maxwell, County Buildings, Dumfries
Taylor, Dr. W. A., 10, Marshall Place, Perth
Trotter, Dr. A., Tayview House, Perth
Turner, Dr. A. Logan, 37, Walker Street, Edinburgh
Walker, Dr. Norman, 7, Manor Place, Edinburgh

SPECIAL CHLOROFORM COMMITTEE.

The President and the Chairman of Council, *ex officio*
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Barr, Dr. James, 72, Rodney Street, Liverpool
Brodie, Dr. T. G., The Laboratories, Examination Hall, Victoria Embankment, W.C.
Buxton, Dr. Dudley W., 82, Mortimer Street, W.
Crocker, Dr. H. Radcliffe, 121, Harley Street, W.
Dunstan, Professor, F.R.S., 30, Thurloe Square, S.W.
Harcourt, Prof. Vernon, F.R.S., Cowley Grange, Oxford
McCardie, Dr. W. J., 54, Newhall Street, Birmingham
Sherrington, Professor C. S., F.R.S., University College, Liverpool

TRUST FUNDS COMMITTEE.

The President and the Chairman of Council, *ex officio*
The Treasurer

LIST OF BRANCHES AND DIVISIONS.

Members are requested to communicate any alteration or correction to the General Secretary without delay.

ABERDEEN BRANCH.

District comprising the Counties of ABERDEEN and KINCARDINE, and the Eastern Portion of BANFF ORKNEY and SHETLAND Islands.

Members of Branch—185.

RECOGNISED 1872.

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President-elect, D. MAYER, M.B., Bucksburn.

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Hon. Treasurer, GEORGE WILLIAMSON, M.D., 236, Union Street, Aberdeen.

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Mackintosh, A. W., M.D.	Russell, G. R. C., M.D.
Ogston, A., M.B.	

No. 1.—Aberdeen Division

NUMBERING 107.

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Bell, C.T., M.B., 4, Albert Street, Aberdeen
Bell, James, M.B., Fahurn, Lumphanan, near Aberdeen
Bennett, W. E., Fleet Surgeon, R.N., 41, Rubislaw Den, South Aberdeen
Beveridge, A. T. G., M.B., 31, King Street, Aberdeen
Black, George, M.B., Tomintoul, Ballindalloch
Booth, J. Mackenzie, M.D., 1, Carden Place, Aberdeen
Brown, William, M.B., Braemar
Brown, W. Brodie, M.B., Aboyne
Bruce, E., M.D., Thoresby, Cults, Aberdeen
Campbell, D., M.D., 102, Desswood Place, Aberdeen
Cash, Professor J. T., M.D., 9, Albyn Place, Aberdeen
Cheyne, W. S., M.D., 23, Queen Street, Aberdeen
Christie, J. F., M.B., 7, Alford Place, Aberdeen
Christie, W., M.B., Woodside, Aberdeen
Clark, W. H., M.D., 323, Clifton Road, Woodside, Aberdeen
Cockburn, W., M.B., Old Meldrum
Cooper, J. S., Esq., Nordrach-on-Dee, Banchory
Cooper, W., M.D., New Machar, Aberdeen
Cran, G., M.D., Banchory-Ternan
Craver, G. P., M.B., The Braes, Turriff
Croll, W. P., M.B., 45, Albert Street, Aberdeen
Crombie, J., M.B., 5, Golden Square, Aberdeen
Crombie, Walter, M.B., 5, Golden Square, Aberdeen
Cruickshank, A. L., M.B., 31, Littleside Street, Fraserburgh
Cruickshank, Alex., M.B., Lochengar, Stonehaven
Dalgarno, J. J. Y., M.B., 25, Bonaccord Terrace, Aberdeen
Davidson, G., M.D., Torphins, Aberdeen
Davidson, J., Brigade-Surgeon-Lieutenant-Colonel (I.M.S. ret.), 84, Crown Street, Aberdeen
Davidson, N., M.B., 59, Queen Street, Peterhead
Davidson, S. G., M.B., Insch
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Finlay, Prof. David W., M.D., 2, Queen's Terrace, Aberdeen
Forbes, Alex., M.B., Inverurie
Forbes, C., M.B., 189, King Street, Aberdeen
Fortescue, W. I., M.B., 7, Bonaccord Square, Aberdeen
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Fowler, J. E., M.D., Woodside, Aberdeen
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Fraser, Thomas, M.B., 51, Elmbank Terrace, Aberdeen
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Galloway, A. R., M.B., 250, Union Street, Aberdeen
Garson, P. C., M.B., 9, Gordon Street, Huntly
Geddie, D. W., M.B., 13, Golden Square, Aberdeen
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Gray, A. E. L., M.B., Wartle-by-Aberdeen
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Gregory, J., M.B., 108, High Street, Old Aberdeen
Greig, C. C., M.B., Bridgend, Fyvie
Hamilton, Professor D. J., M.B., 35, Queen's Road, Aberdeen
Hay, Professor M., M.D., 14, Rubislaw Terrace, Aberdeen
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Hendry, Alex., M.D., Ballater
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Mackintosh, D. D., M.B., Camden Cottage, Aboyne
Mackintosh, F. J., M.B., Kingsfield, Kintore, Aberdeen
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Macleod, P. B. H., M.D., New Deer
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Manresh, J., M.B., 2, Bonaccord Square, Aberdeen
Mayer, D., M.B., Bucksburn, by Aberdeen
Mearns, J. A., M.B., 206, Victoria Road, Torry, Aberdeen
Middleton, J., M.B., 75, Queen Street, Peterhead
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Milne, J. W., M.B., 193, Great Western Road, Aberdeen
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Mitchell, A., M.B., New Deer
Mitchell, Patrick, M.D., Old Rain, Insch
Mitchell, Peter, M.D., Old Aberdeen
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Reid, R. W., M.D., 37, Albyn Place, Aberdeen
Reid, W., M.D., Royal Asylum, Aberdeen
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Sandeman, Laura S., M.B., 443, Union Street, Aberdeen
Shirreffs, Wm., M.B., 352, Holburn Street, Aberdeen
Simpson, James A., M., Forbes, Alford
Sinclair, M., M.B., Rose Cottage, Ellon
Sinclair, W., M.B., Supt., Royal Infirmary, Aberdeen
Slessor, R. A., M.B., 35, High Street, Fraserburgh
Squair, F. W., M.B., E. Urrie Manse
Smart, J., M.B., 241, Rosemount Place, Aberdeen
Smith, H. Watson, M.B., 32, Braemar Place, Aberdeen
Stephen, John H., M.B., Hazlehead, Banff
Stephen, J., M.D., Bath House, Peterhead
Stephenson, Prof. W., M.D., 3, Rubislaw Terrace, Aberdeen
Taylor, W. E., M.B., 7, Barclay Street, Stonehaven
Thompson, Alex., M.B., Huntly, Aberdeen
Thomson, James, M.B., 121, Desswood Place, Aberdeen
Trail, J. W. H., M.D., Marischal College, Aberdeen
Trail, G. S., M.D., Strichen
Usher, C. H., M.B., 3, Bonaccord Square, Aberdeen
Walker, A., M.D., 48, Fountainhall Road, Aberdeen
Wallace, A., M.D., Turriff
Watson, Annie M., L.F.P. and S.G., 443, Union Street, Aberdeen
Watt, John A., M.B., 20, Golden Square, Aberdeen
Westland, A., M.D., 22, Albyn Place, Aberdeen
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Williamson, G., M.B., 256, Union Street, Aberdeen
Williamson, W. H., M.D., 15, Union Terrace, Aberdeen
Willock, R. C., M.D., 4, Golden Square, Aberdeen
Wilson, J. O., M.D., Huntly
Wilson, R. M., M.D., Tarty, Ellon
Wood, Alex., M.B., Longside
Wyness, J. D., M.D., West Craibstone Street, Aberdeen

No. 2.—Orkney Division

NUMBERING 8.

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Dewar, J., M.B., South Ronaldshay, Orkney
Gunn, A. B. M., M.B., Westray, Orkney
Heddle, R. P., M.B., 43, Albert Street, Kirkwall
McNeill, D., M.D., Holm, Kirkwall
Park, W., M.B., Sanday, Orkney
Russell, G. R. C., M.B., Kirkwall, Orkney
Sinclair, G., M.D., 14, Queen Street, Kirkwall

No. 3.—Shetland Division

NUMBERING 10.

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Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting.
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Bowie, J. C., M.B., Clousta-by-Baxter, Shetland
Burns, W. C., M.B., Walls, Shetland
De Sylva, E. M. J., M.D., Scalloway, Shetland Isles
Maclennan, Andrew A., M.B., Church Lane, Lerwick
Pretsell, T., M.B., Galloway
Robertson, J. F., M.D., Viewforth, Lerwick
Saxby, T. E., L.R.C.S.Ed., Halligarth, Shetland, N.B.
Sharp, P. J., M.B., Ollaberry, Shetland
Taylor, H., M.B., Reafirth, Mid Yell, Shetland
Yule, R. M., M.D., Queen's Lane, Lerwick

BATH AND BRISTOL BRANCH.

District comprising in SOMERSETSHIRE the portion north of a line drawn immediately north of Highbridge and south of Glastonbury and Wincanton; in GLOUCESTERSHIRE, the part south of Sharpness, Berkeley Road, and Dursley; in WILTSHIRE, the part north of a line passing due east and west through a point between Westbury and Warminster.

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No. 2.—Bristol Division

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No. 3.—Trowbridge Division.

NUMBERING 36.

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Vice-Chairman, T. H. Haydon, M.B., Marlborough

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Representative for Representative Meeting, J. Pearse M.D., Trowbridge

Representatives on Branch Council.

Flemming, C. E. S., Esq. | Tubb-Thomas, J., Esq.
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Iliffe, C. W., Esq., The Crease, Willenhall, Coventry
Kendermine, F. H., Aneddle, Queen's road, Coventry
Kendrick, H. H., Esq., St. Medards, Norton St., Coventry
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Lynes, E., M.D., 9, Priory Row, Coventry
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Orton, J., M.D., Great Heath House, Coventry
Orton, L. E., Esq., Bedworth, Coventry
Overton, P. E., Esq., Leicester Row, Coventry
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Rice, W. R., M.D., Gosford Green, Coventry
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Smith, W. H., M.B., Meriden
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Soden, T. A. B., Esq., Queen's Road, Coventry
Wood, H. K., Esq., Little Heath, Coventry
Tweedy, R. C., Esq., Abbey House, Kenilworth
Webb-Fowler, Thos., M.B., Coventry
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White, F. F., Esq., Hartford Place, Coventry

No. 4. Dudley Division

NUMBERING 39.

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Vice-Chairman, T. F. Higgs, M.D.
Honorary Secretary, M. A. Messiter, Esq. Cappoly, Dudley
Representative for Representative Meeting, M. A. Messiter, Esq.
Representative on Branch Council, M. A. Messiter, Esq.

Beasley, J. G., Esq., Mountford House, Rowley Regis
Birt, G., M.B., 23, Hagley Road, Stourbridge
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Brown, H. C., Esq., Castle View House, Tipton
Burke, A. St. L., Esq., Netherton, near Dudley.
Buttery, G. B., Esq., Church Square, Oldbury
Clarke, H. H. R., Esq., Penrhyn, Hagley Rd., Stourbridge
Collis, E. L., M.B., Stourcote, Stourbridge
Dando, Edwin A., Esq., Dixon's Green, Dudley
Darby, H. C., Esq., Broadfields, Lye, near Stourbridge
Donaldson-Sim, E., Esq., Guest Hospital, Dudley
Dudley, G. J., Esq., Stourbridge
Ellis, H. D'A., Esq., Amblecote, Stourbridge
Freer, A., Esq., Stourbridge
Freer, H. W., Esq., 7, Hizn Street, Stourbridge
Gifford, G. K., Esq., Brierley Hill
Gaubley, F. S., Esq., 160, Wolverhampton Street, Dudley
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Grimley, Guy, M.B., Audnam, Stourbridge
Hardwicke, E. W., M.B., Lye, Stourbridge
Hickey, E. L., M.D., 87, High Street, Stourbridge
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Phillips, S. T., Esq., Townsend House, Halesowen
Pietersen, J. F. G., M.B., Kingswinford
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Price, J. D., Esq., Ambleside, Dudley
Sharpe, C. H., Esq., Lamdley, near Birmingham
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Young, T. B., M.D., The Laurels, Halesowen

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NUMBERING 17.

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Representative on Branch Council. Nason, E. N., M.D.

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Fausset, H. J., M.D., Tamworth
Jones, J. W., Esq., Coleshill
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Smart, W. H., M.B., Polesworth, Tamworth
Tomlinson, H. T., M.B., Nuneaton
Walt, J. B., Esq., Hazelwood, Coleshill
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No. 6.—Warwick and Leamington Division

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Representatives on Branch Council.

Thursfield, M.D., T. W.	Wyer, O. F., M.D.

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BORDER COUNTIES BRANCH.

District comprising in *Scotland*, the Counties of DUMFRIES, KIRKCUDBRIGHT, and WIGTOWN, in *England*, CUMBERLAND AND WESTMORLAND (north of Ravenglass, Grasmere, Orton, and Kirby Stephen).

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Representatives on Branch Council.

Clarke, F. H.	Logan, G. D.

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Anderson, J. A., M.D., Stranraer
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Cameron, M., M.B., Mainsriddell, Dumfries
Cameron, R. W. D. Macmartin, M.D., Newton Stewart
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Hunter, Joseph, M.B., 31, Castle Street, Dumfries
Huskie, David, M.B., Moffat
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Lucas, C. B., Esq., Greencroft, Annan
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McKie, N. J., M.D., Newton Stewart
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Murdoch, W., M.D., 11, St. John's Road Annan

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Selby, W. Mc D., M.B., Portwilliam
Shaw, [illegible], M.B., Wigtown
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Shaw, R. B., M.B., Balmoral House, Castle Douglas, N.B.
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Smith, J. W., M.B., Dinsmore, Auldgirth
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White, T. B., M.B., Dickson House, Moffat

No. 2.—North Cumberland Division

NUMBERING 56.

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Vice-Chairman, J. E. Bowser, M.B.
Hon. Secretary, Norman Mackaren, F.R.C.S., 23, Portland [illegible]
Representative for Representative Meeting, F. R. Hill, M.B.

Representatives on Branch Council.
Donald, C. W., M.B. | Graham, C. W., Esq.

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Wroughton, W. C. H., Esq., Eden Holme, Wetheral

No. 3.—West Cumberland Division

NUMBERING 34.

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Vice-Chairman, A. A. H. Knight, M.D., Keswick
Honorary Secretary, G. B. Muriel, M.B., 109, Scotch Street, Whitehaven

Representative for Representative Meeting, F. R. Hill, M.B., Carlisle

Representative on Branch Council.
Crerar, J. W., M.B.

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Dudgeon, J. H., Esq. | Mitchell, H., M.D.

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Clark, John, M.B., Cleator Moor
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Dufreon, J. H., Esq., Workington
Eaton, J., M.D., Cleator Moor
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Highet, J., M.D., Workington
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I'Anson, W., M.B., Whitehaven
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Knight, A. A. H., M.D., Keswick
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Muriel, G. B., M.B., 109, Scotch Street, Whitehaven
Muriel, G. J., Esq., The Crescent, Whitehaven
Penny, John, M.B., Great Broughton, near Cockermouth
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Ryan, S. H., M.B., Frizington

CAMBRIDGE AND HUNTINGDON BRANCH.

District comprising the Counties of CAMBRIDGE and HUNTINGDON; in HERTFORDSHIRE, the portion east of a line drawn from Potter's Bar due north to the county boundary, and north of a line drawn from Potter's Bar to High Ongar; in ESSEX, the portion north of the line last mentioned and west of a line from High Ongar to Bartlow Station; in NORTHAMPTONSHIRE, the portion north and east of Thrapston.

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Representative for Representative Meeting.
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NUMBERING 8.

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Vice-Chairman,
Honorary Secretary,
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Costello, M. J. B., M.B., Dunmore, Co. Galway
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District comprising the County of DORSET (Shaftesbury excepted); in SOMERSETSHIRE: Yeovil, Milborne Port, and Templecombe in HAMPSHIRE: the portion west of and including Christchurch and Ringwood.

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Representative for Representative Meeting, T. Henry Jones, M.D., Oriel, Weymouth

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Young, C. S., Esq., 21, South Tay Street, Dundee
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Honorary Secretary, W. L. M. Day, M.B., 4 Head Street, Colchester

Representative for Representative Meeting.

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Turner, J., M.B., Essex County Asylum, Brentwood
Wright, C. St. John, M.B., Felstead, Chelmsford

No. 3.—South Essex Division

NUMBERING 34.

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Vice-Chairman, W. A. Raper, M.D., Great Wakering
Honorary Secretary, W. C. Bluck, M.B., Ludlow, York Road, Southend
Representative on Branch Council.
C. Forsyth, M.B.

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NUMBERING 45.

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Honorary Secretary, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich

Representative for Representative Meeting, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich

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Williams, C., Esq., Norwich

No. 5.—Mid Norfolk Division

NUMBERING 51.

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Vice-Chairman, C. A. O. Owens, M.D.
Honorary Secretary, D. G. Thomson, M.D., Thorpe Norwich.
Representative for Representative Meeting, J. T. Skrimshire, M.D., Holt

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No. 6.—West Norfolk Division

NUMBERING 32.

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Vice-Chairman, Sir Alan Reeve Manby, M.V.O., M.D. East Rudham
Honorary Secretary, A. Gardiner, Esq., Tuesday Market Place, King's Lynn
Representative for Representative Meeting, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich

Representative on Branch Council.

Manby, Sir Alan Reeve, M.V.O., M.D.

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Draper, T. M., Esq., Watlington, Norfolk
Fisher, W. H., M.B., Erkenham, Norfolk

Forrest, J. L., M.B., Sommerville, Terrington St. John
Gardiner, A., M.B., Tuesday Market Place, King's Lynn
Hamill, S. M., M.D., Burnham Market, Norfolk
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Kingdon, J. R., Esq., Nelson Street, King's Lynn
Jackson, Chas., Esq., 18 King Street, King's Lynn
Laver, J. W., Esq., The Limes, Grimston, King's Lynn
Lister, S. R., Esq., Terrington Lodge, King's Lynn
Manby, Sir Alan Reeve, M.V.O., M.D., East Rudham, Norfolk
Masson, G. B., Esq., Fincham, Downham, Norfolk
Parry, G. H., Esq., Docking, Norfolk
Plowright, C. B., M.D., King's Lynn, Norfolk
Porter, G. C., Esq., Castle Acre, Norfolk
Roddis, T. E. E., M.B., Snettisham
Rowell, H. E., M.D., East Rudham, Norfolk
Steele, H. F., Esq., Stoke Ferry, Norfolk
Sturdee, F. H., Esq., F.R.C.S., Walsingham
Thomas, A. W., Esq., Swaffham, Norfolk
Trevor-Roper, G. D., Esq., Gt. Massingham, Norfolk
Wales, E. G., M.B., Downham Market
Wedgwood, W. B., Esq., King's Lynn, Norfolk
Whitlock, A. W. F., Esq., Wells, Norfolk
Whitty, C. R., M.D. Hunstanton, Norfolk

No. 7.—East Norfolk Division

NUMBERING 28.

Chairman, P. G. Gilmour, Esq., Gorleston
Vice Chairman, H. J. M. Wyllys, Esq., Gt. Yarmouth
Honorary Secretary, J. B. N. Vickers Esq., 7, St. George's Terrace, Great Yarmouth
Representative for Representative Meeting, A. C. Mayo Esq., Gt. Yarmouth

Representatives on Branch Council.
Mayo, A. C., Esq.

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Beach, H. W., Esq., Town Hall, Great Yarmouth
Beales, T. W. L., Martham, Great Yarmouth
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Boake, Basil, Esq., Ormesby, Great Yarmouth
Case, William, Esq., Caister-on-Sea, Great Yarmouth
Collier, H., M.D. 21, South Quay, Great Yarmouth
Cutting, E. B., Esq., Stalham, Norfolk
Gilmour, P. G., Esq., Gorleston, Norfolk
Lettis, T., M.D., 6, Regent Road, Great Yarmouth
McClintock, L. P., Esq., Loddon, Norfolk
Mayo, A. C., Esq., St. George's Park House, Gt. Yarmouth
Mayo, H. R., M.B., St. George's Park House, Gt. Yarmouth
Meadowes, A. H., Esq., 141, King Street, Great Yarmouth
Moxon, A. H., Esq., Great Yarmouth
O'Farrell, C., Esq., Great Yarmouth
Potts, Horace, Esq., 146, Wellesley Road, Gt. Yarmouth
Rendall, R., M.B., 19, St. Peter's Road, Yarmouth
Rudd, C. F., Esq., Stalham, Norfolk
Sankey, J. J., Esq., 15, Market Place, Great Yarmouth
Shaw, R. H., M.B., Great Yarmouth
Perman, P. J. W., Esq., Martham
Vickers, J. B. N., Esq., 7, St. George's Terr., Gt. Yarmouth
Williway, F. W., Esq., Lymehurst, Elm Grove Road, Gorleston
Wrigley, R., Esq., Great Yarmouth
Wyllys, H. J. M., Esq., Southtown, Great Yarmouth
Wyllys, W. E., Esq., 25, King Street, Great Yarmouth
Wyllys, W., Esq., 27, Nelson Road, S., Great Yarmouth

No. 8.—North Suffolk Division

NUMBERING 35.

Chairman, W. M. Crowfoot, M.B.
Vice-Chairman, H. B. Walker, Esq.
Honorary Secretary and Treasurer, W. Tyson, M.B., The Beeches, Lowestoft
Representative for Representative Meeting, A. C. Mayo Esq., St. George's Park House, Gt. Yarmouth
Representatives on Branch Council.
Walker, H. B., Esq.

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Hudson, E., Esq.	Warwick, P., Esq.

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Cadge, W. E., Lt.-Col. I.M.S., 4, Esplanade, Lowestoft
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Crowfoot, W. M., M.B., Beccles
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Shann, W. A. M. R., Lowestoft
Smith, J. P., Esq., Lowestoft
Tate, John, [illegible] Gordon College
Tyson, W., M.B., [illegible], Lowestoft
Watt, F. W., M.D., Halesworth
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Warwick, P., Esq., Halesworth
Woodhouse, W., Esq., 357, London Road, South Lowestoft
Worthington, F. S., Esq., Gordon Road, Lowestoft
Worthington, Richard T., M.B., 59, Marine Parade, South Lowestoft

No. 9.—West Suffolk Division

NUMBERING 37.

Chairman, J. S. Holden, M.D.
Vice-Chairman, C. S. Kilner, M.B.
Honorary Secretary, W. J. Cale, M.B., Bury St. Edmunds
Representative for Representative Meeting.
G. S. Elliston, Esq., Ipswich
Representative on Branch Council.
Hinnell, J. S., M.D.

Anderson, R., Lt.-Col. (retired), A.M.S., Southgate Green, Bury St. Edmunds
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Holden, J. S., M.D., Sudbury
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Huntley, E., M.B., Friars Street, Sudbury
Image, F. E., M.B., Bury St. Edmunds
Kilner, C. S., M.B., Bury St. Edmunds
King, H. D., M.B., Sudbury
Lucas, R. H., Esq., 6, Angel Hill, Bury St. Edmunds
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Mimms, P. R. J. B., Esq., Thetford
Page, J. B., M.B., Hop Hall, Hartest, Bury St. Edmunds
Pickworth, A. J., Esq., Lakenheath, Suffolk
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No 10.—South Suffolk Division

NUMBERING 67.

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Vice-Chairman,
Honorary Secretary, J. Gutch, M.D., 28, Fonnereau Road Ipswich
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G. S. Elliston, Esq., S. Edmunds Felixstowe
Representative on Branch Council.
G. S. Elliston, Esq.

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Gutch, J., M.D., 28, Fonnereau Road, Ipswich
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Norman, J. C., Esq., Hadleigh
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Staddon, W. J., Esq., The Priory, Ipswich
Stewart, B. H., Esq., East Bergholt
Thorp, H. J., Esq., Granite Lodge, Ipswich
Tidbury, Robert, M.D., Borough Asylum, Ipswich
Vincent, George, M.D., Ipswich
Wallis, E. D., Esq., Leiston
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Whitwell, J. R., M.B., County Asylum, Melton
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Wright, C. P., Esq., Eye
Wrightson, R. B., M.D., Aldeburgh, Suffolk

EAST YORK & NORTH LINCOLN BRANCH

District comprising in YORKSHIRE Hull; the Holderness Parliamentary Division: the portion of the Buckrose Division south of and excluding Kirkington Junction and Hunmanby, and the portion of the Howdenshire Division south-east of the Railway from Market Weighton to Selby and including Market Weighton, Everingham, and Holme; in LINCOLNSHIRE: Grimsby Borough, and the Brigg Parliamentary Division.

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Harrison, E., M.D.	Westlake, A., M.B.
Howlett, E. H., Esq.	Wilson, J. M., M.D.

No. 1.—East York Division

NUMBERING 103.

Chairman, A. G. FRANCIS, M.B., Hull
Vice-Chairman, T. CAMERON, M.B., Hull
Honorary Secretary, E. M. Hainworth, M.D., 16, Albion Street, Hull
Representative for Representative Meeting.
J. MacNicder, M.B., Hull
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Barker, E., Esq., 355, Hessle Road, Hull
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Briggs, G. F., Esq., 136, Spring Bank, Hull
Briggs, G. J., Esq., Spring Bank, Hull
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Chesnutt, J., Esq., Howden
Close, J. B., M.D., 2, Tryne Street, Hull
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Daly, E. O., M.D., 23, Albion Street, Hull
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Davies, A. D., Esq., 301, Hessle Road, Hull
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Johnson, S. H., Esq., Hessle, near Hull
Johnston, A. H., Esq., Lynton, Newington, Hull
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Lamb, G., Esq., Anlaby Road, Hull
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Lee, C. A., M.D., 1, Tryne Street, Hull
Lowson, D., M.D., 13, Albion Street, Hull
Maclean, Magge S., M.B., 28, Beverley Road, Hull
MacNidder, James, M.B., 228 Anlaby Road, Hull
McWillie, J. G., M.B., 8, Lindum Parade, Hull
Martin, J. C., M.D., 283, Beverley Road, Hull
Martindale, Louisa, M.B., 162, Beverley Road, Hull
Mason, J. W., M.B., Beverley Road, Hull
Menzies, Mary J., M.B., City Lunatic Asylum, Willerby
Merson, J., M.D., City Lunatic Asylum, Willerby
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Morison, D., M.B., Bedford, Hull
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Nicholson, R. H. B., Esq., 21, Albion Street, Hull
Parkin, A., M.D., 24, Albion Street, Hull
Pigeon, H. W., M.B., Albion Street, Hull
Raines, R., Esq., 305, Holderness Road, Hull
Robinson, H., M.B., 161, Beverley Road, Hull
Rockliffe, W. C., M.D., 17, Charlotte Street, Hull
Roe, A. L., Esq., 43, Tryne Street, Hull
Roe, A. J. S., Esq., 82, Prospect Street, Hull
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Sherburn, Sir John, M.B., The Park, Hull
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Sproulle, A. E., Esq., Withernsea
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Stothard, J., Esq., Walker Street, Hull
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Tireman, A. L., Esq., North Boulevard, Hull
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Waters, J. L., M.B., South Boulevard House, Hull
Watson, G. H., Esq., Hall Gate, Cottingham
Wethered, J. A., M.D., Holderness Road, Hull
Wetwan, W. A., Esq., Marine House, Bridlington Quay
Wilson, A., Esq., 311, Anlaby Road, Hull
Wilson, F., Esq., 150, Spring Bank, Hull
Wilson, J. M., M.D., Co. Hall, Beverley
Wray, W. T., Esq., 113, Spring Bank, Hull

No. 2.—North Lincoln Division

NUMBERING 32.

Chairman, C. B. Turner, Esq.

Vice-Chairman, A. Westlake, M.B., Grimsby

Honorary Secretary, J. Matthews Duncan, M.B., Welholme Road W., Grimsby

Representative for Representative Meeting, J. MacNidder, M.B., Hull

Representatives on Branch Council.

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Armitage, Edward, Esq., Waltham, Grimsby
Atkinson, F. H., M.D., Flotterrate House, Grimsby
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Bruce, John, M.B., Town Hall Square, Grimsby
Carter, G. A., Esq., Cleeby, S.O.
Chapman, C. G., Esq., Hainton Street, Grimsby
Conildrey, J., Esq., Scunthorpe
Duncan, J. Matthews, M.B., Welholme Rd. W., Grimsby
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Goodman, G., Esq., Bridge Street, Brigg
Grieve, R., C.M.G., M.D., Surg.-Genl., Barton-on-Humber
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Middlemist, G. E., M.B., Keelby, Brocklesby, R.S.O.
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Turner, C. B., Esq., 163, Freeman Street, Grimsby
Wallace, W., M.B., 15, Hainton Street, Grimsby
Watt, T. M., Esq., Goxhill
Westlake, A., M.B., 5, Yarborough Terrace, Grimsby
Worboys, T. S., Esq., Winterton

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Hodsdon, James, M.D | Wilson, T. D., M.D.

No. 1.—The Lothians Division

NUMBERING 55.

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Badger, W., M.B., Penicuik
Ballantyne, A., M.D., Dalkeith
Ballantyne, H. S., M.B., Ashton, Eskbank, Midlothian
Cameron, James, Esq., Loanhead, Midlothian
Craig, A., M.D., Pathhead Ford, Dalkeith
Crombie, J. F., M.B., Park House, North Berwick
Cross, R., M.B., West Port House, Linlithgow
Dickson, G. A., M.B., Invermac, South Queensferry
Duncan, A. S., M.B., Musbank, Polton
Easterbrook, A. M., M.B., Gorebridge, Midlothian
Fowler, S. C., M.B., Juniper Green, Edinburgh
Gilmour, A., L.R.C.P., Linlithgow
Glegg, C. S., M.B., Mid Calder.
Gordon, J., M.D., Scotscraig, Prestonkirk
Grant, A. J., M.D., Ennerdale, Haddington
Henderson, John, M.B., The Elms, Lasswade
Howden, R., M.B., Maitland Field, Haddington
Hunter, J., M.D., St. Catherine's, Linlithgow
Jeffrey, J. R., M.B., West Linton
Johnston, T. N., M.B., Corstorphine
Keay, J., M.D., Uphall, Linlithgow
Keith, G., Esq., Currie, Midlothian
Kelso, A., M.B., Broxburn, Linlithgow
Kirk, R., M.D., Rowan Bank, Bathgate
Leobody, H. A., M.B., Rose Villa, Corstorphine
Lucas, R., M.D., Buccleuch Street, Dalkeith
Lyon, T. M. Murray, M.D., Calder Hall, Midcalder, N.B.
Macpherson, W. H., Esq., Chiltonville, Blackhall
Maclise, J., M.D., Linwood, Murrayfield
Marshall, John, M.B., 2, Dean Terrace, Bo'ness
Martine, W. R., M.B., Weston, Haddington
Matheson, A., M.D., North Berwick
Morison, J., M.B., Hestival House, Dunbar
Muir, W., M.B., Davidson's Mains, Midlothian
Naismyth, A. M., M.B., Penicuik, Midlothian
Ritchie, Daniel, M.D., Dunbar, Tranent, East Lothian
Robertson, A. G., M.D., Musselburgh, Midlothian
Ronaldson, J. B., M.D., Haddington
Rossie, J. C., M.D., 12, Hopetown St., Bathgate
Scott, Alex., M.B., The Firs, Broxburn
Scott, T. R., M.D., Musselburgh
Shiels, R. D., M.B., 1, Roschery Place, Dunbar
Simpson, W. P., Esq., Viewbank, Bathgate, N.B.
Sinclair, J., M.B., Bo'ness
Smith, A. W., M.D., 9, Dirleton Avenue, North Berwick
Spalding, W., M.D., Gorebridge
Thomson, A. D. R., Esq., Musselburgh
Thomson, F. W., M.B., Major, I.M.S., Bonsyde
Watson, W., M.D., The Lea, Corstorphine
Wilson, G. R., M.D., Lauden Lodge, Loanhead, Midlothian
Young, D. P., M.B., 23, Bridge Street, Musselburgh
Young, W., M.B., Burnvale, West Calder

No. 2.—North-East Edinburgh Division

NUMBERING 61.

Chairman,

Vice-Chairman, James Carmichael, M.D., 22, Northumberland Street, Edinburgh

Honorary Secretary and Treasurer, G. Keppie Paterson, M.B., 19, Albany Street, Edinburgh

Representative for Representative Meeting, James Carmichael, M.D., 22, Northumberland St., Edinburgh

Representative on Branch Council.

Paterson, G. Keppie, M.B.

Executive Committee.

Alexander, W. A. J., M.B. | Mackay, J., Esq.
Balfour, Andrew, M.D. | Mackenzie, W. L., M.D.
Fyfe, G., M.D. | Smith, J. Cormack, M.B.
Langwill, H. G., M.D.

Alexander, W. A. J., M.B., 1, George Place, Edinburgh
Balfour, A., M.D., Abercorn House, Portobello
Balfour, J. H., M.B., 14, East Brighton Cres., Portobello
Berry, R. J. A., M.D., 4, Howard Place, Edinburgh
Butchart, C. A., M.B., 52, Leith Walk, Edinburgh
Butler, James, M.B., 49, Charlotte Street, Leith
Cadell, Grace R., 145, Leith Walk, Edinburgh
Calder, H. L., M.D., 3 Cassell's Place, Leith
Callender, D. A., M.B., 180, Ferry Road, Leith
Cameron, James, M.D., 13, Fettes Row, Edinburgh
Carmichael, E., M.D., 21, Abercromby Place, Edinburgh
Carmichael, J., M.D., 22, Northumberland St., Edinburgh
Cathels, Mildred M. L., M.B., Leith Hospital
Deverell, H. G., M.D., 12, Windsor Street, Edinburgh
Dewar, H., M.B., 26, Brighton Place, Portobello
Dunlop, G. H. M., M.D., 29, Abercromby Place, Edinburgh
Eason, J., M.B., 186, Newhaven Road, Leith
Elder, W., M.D., 4, John's Place, Leith
Erskine, Elizabeth, Oaklands, Trinity, Edinburgh
Farmer, S., Esq., 47, Madeira Street, Leith
Fyfe, G., M.D., 24, Broughton Place, Edinburgh
Garland, O. H., M.D., 35, Charlotte Street, Leith
Giffen, Grace Haxton, 14, Inverleith Gardens, Edinburgh
Gilmour, Andrew, M.D., 9, Inverleith Row, Edinburgh
Gray, J. A., M.D., 107, Ferry Road, Leith
Hall, A. A., M.B., 2, Hermitage Place, Leith
Harvey, James, M.D., 7, Blenheim Place, Edinburgh
Hay, Henry, M.B., 19, Nelson Street, Edinburgh
Henderson, Alex., M.B., 21, Pitt Street, Edinburgh
Hoernlé, Edward F., M.B., 11, John's Place, Leith
Jamieson, J., M.B., 10, Blenheim Place, Edinburgh
Johnston, G. M., M.D., 7, Wellington Place, Leith
Knight, H. A., M.B., Mount Charles, Portobello
Langwill, H. G., M.D., 5, Hermitage Place, Leith
Mackay, J., Esq., 148, Ferry Road, Bonnington
Mackenzie, Colin, M.B., 1, Denham Green Terrace, Trinity, Edinburgh
Mackenzie, W. L., M.D., 1, Stirling Rd., Trinity, Edinburgh
McLarty, M., M.B., 7, Bellevue Place, Edinburgh
Meyer, H. B. W., Esq., 26, London St., Edinburgh
Mill, James, M.B., 26, N. Fort Street, Leith, N.B.
Millard, W. W., M.B., Leith Walk, Edinburgh
Milroy, J. A., M.B., 57, Inverleith Row, Edinburgh
Mouat, Janet, A. S., M.D., 17, Claremont Park, Leith
Osler, W. D., M.B., 11, Montgomery Street, Edinburgh
Paterson, G. Keppie, M.B., 19, Albany Street, Edinburgh
Paterson, W., M.B., 8, Hermitage Place, Leith
Robertson, W., M.D., 74, Constitution Street, Leith
Sloan, Allen T., M.D., 22, Abercromby Place, Edinburgh
Smith, J., M.D., 4, Brunton Place, Edinburgh
Smith, J. Cormack, M.B., 9, Brunton Place, Edinburgh
Stewart, W., M.D., 146, Ferry Road, Leith
Stuart, W. J., M.B., 7, Northumberland Street, Edinburgh
Thin, R., M.B., 38, Albany Street, Edinburgh
Thomson, H. T., M.D., 7, Leopold Place, Edinburgh
Thyne, G., M.B., 13, Brunswick Street, Edinburgh
Titterton, J. T., M.B., 8, Brighton Place, Portobello
Tod, J., M.B., 69, Ferry Road, Leith
White, Alfred F., Esq., 16, Pitt Street, Edinburgh
Whitelaw, T., M.D., Portobello, Midlothian
Wilson, James, M.B., 53, Inverleith Row, Edinburgh
Wright, W. F., M.B., Bonnington Mount, Edinburgh

No. 3.—North-West Edinburgh Division.

NUMBERING 136.

Chairman, J. W. B. Hodsdon, M.D., Edinburgh

Vice-Chairman, James Ritchie, M.D., Edinburgh

Honorary Secretary and Treasurer, T. F. S. Caverhill, M.B., 6, Manor Place, Edinburgh

Representative for Representative Meeting, J. W. B. Hodsdon, M.B., 6, Chester Street, Edinburgh

Representatives on Branch Council.

Hodsdon, J. W. B., M.D. | Littlejohn, H. Harvey, M.B.

Abernethy, R., M.D., 10, St. Colme Street, Edinburgh
Affleck, J. O., M.D., 38, Heriot Row, Edinburgh
Andrew, J., M.D., 2, Atholl Crescent, Edinburgh
Annandale, T., F.R.C.S., 34, Charlotte Square, Edinburgh
Ballantyne, J. W., M.D., 21, Melville Street, Edinburgh
Barbour, A. H. F., M.D., 4, Charlotte Square, Edinburgh
Bell, J., M.D., 2, Melville Crescent, Edinburgh
Berry, George H., M.B., 31, Drumsheugh Gdns., Edinburgh
Black, A., M.B., 18, Howe Street, Edinburgh
Boyd, J. P. W. T., M.D., 22, Manor Place, Edinburgh
Brakenridge, R., M.D., 23, Drumsheugh Gardens, Edinburgh
Brownell, F., M.D., 2, Randolph Place, Edinburgh
Brown, A. C., M.B., 23, Rutland Street, Edinburgh
Brown, W. J., M.B., 6, Manor Place, Edinburgh
Brown, J. J. Graham, M.D., 3, Chester Street, Edinburgh
Brown, J. Macdonald, M.D., 8, Walker Street, Edinburgh
Bruce, A., M.D., 8, Melville Place, Edinburgh
Buchan, Alex. H., M.D., 22, Drumsheugh Gardens, Edinburgh
Bulloch, J. G., M.D., 4, Clifton Terrace, Edinburgh
Burn-Murdoch, T. M., M.B., 14, Charlotte Sq., Edinburgh
Burn, John H., M.D., M.B., 13, Charlotte Square, Edinburgh
Caird, P. M., M.B., 13, Charlotte Square, Edinburgh
Campbell, M., M.B., 17, Walker Street, Edinburgh
Carmichael, E. S., M.B., 32, Rutland Square, Edinburgh
Carruthers, G. J. R., M.B., 4A, Melville Street, Edinburgh
Cathcart, C. W., M.D., 11, Melville Street, Edinburgh
Caverhill, T. F. S., M.B., 6, Manor Place, Edinburgh
Chiene, G. L., M.B., 28, Alva Street, Edinburgh
Chiene, Professor John, C.B., M.D., 26, Charlotte Square Edinburgh
Clark, H. M., M.D., 89, Ann Street, Edinburgh
Clark, J. F. W., Esq., 24, Buckingham Terrace, Edinburgh
Clarke, P. S., M.B., Australasian Club, Edinburgh
Comrie, J. D., M.B., 7, S.E. Circus Place, Edinburgh
Cotterill, J. M., M.B., 23, Manor Place, Edinburgh
Crouan, Sir J., Halliday, M.D., 25, Charlotte Sq., Edinburgh
Cumming, D. J., M.D., F.R.S., 18, Grosvenor Crescent Edinburgh
Dickson, G., M.D., 9, India Street, Edinburgh
Dittmar, F., M.D., Local Government Board, Edinburgh
Douglas, K. M., M.D., 19, Chester Street, Edinburgh
Dowden, J. W., M.B., 27, Walker Street, Edinburgh
Duncanson, J. J. K., M.D., 22, Drumsheugh Gdns., Edinburgh
Dunlop, J. C., M.D., 33, Chester Street, Edinburgh
Dunsmure, J., M.D., 33, Queen Street, Edinburgh
Elder, W. N., M.B., 6, Torphichen Street, Edinburgh
Fargharson, J. M., M.B., 2, Coates Place, Edinburgh
Ferguson, J. H., M.D., 25, Rutland Street, Edinburgh
Fleming, A., M.B., 2, Port Gower Place, Edinburgh
Fleming, R. A., M.D., 10, Chester Street, Edinburgh
Fordyce, A. D., M.B., 15, Melville Street, Edinburgh
Fordyce, William, M.D., 20, Charlotte Square, Edinburgh
Fowler, J. S., M.D., 68, Northumberland Street, Edinburgh
Fox, C. H., M.D., 35, Heriot Row, Edinburgh
Fraser, John, M.B., 13, Heriot Row, Edinburgh
Fraser, J. S., M.B., 13, Heriot Row, Edinburgh
Fraser, Sir Thomas R., M.D., 13, Drumsheugh Gardens Edinburgh
Frost, W. E., M.B., 6 Atholl Place, Edinburgh
Ghose, C. C., Esq., c.o. Messrs. T. Cook and Sons, Princes Street, Edinburgh
Gibbs, J. H., Esq., 59, Queen Street, Edinburgh
Gibson, G. A., M.D., 3, Drumsheugh Gardens, Edinburgh
Giles, A. B., M.D., 4, Palmerston Place, Edinburgh
Gilruth, G. R., L.R.C.P. & S., 48, Northumberland St., Edinb.
Graham, D. J., M.D., 26, Rutland Street, Edinburgh
Grant, J. T., M.D., 3, Manor Place, Edinburgh
Greenfield, W. S., M.D., 7, Heriot Row, Edinburgh
Gulland, G. L., M.D., 11, Chester Street, Edinburgh
Guy, William, F.R.C.S.E., 11, Wemyss Place, Edinburgh
Hart, D. B., M.D., 29, Charlotte Square, Edinburgh
Haultain, F. W. N., M.D., 17, Rutland Street, Edinburgh
Hodsdon, J. W. B., M.D., 6, Chester Street, Edinburgh
Hunter, G., M.D., 33, Palmerston Place, Edinburgh
Hutcheson, J., M.D., 44, Moray Place, Edinburgh
Inglis, Elsie Maud, 8, Walker Street, Edinburgh
James, A., M.D., 10, Melville Crescent, Edinburgh
Jamieson, W. A., M.D., 35, Charlotte Square, Edinburgh
Johnston, W. McK., M.D., 2, Drumsheugh Gdns., Edinburgh
Kerr, George, M.B., 6, St. Colme Street, Edinburgh
Lackie, J. L., M.D., 1, Randolph Crescent, Edinburgh
Lewis, C. J., M.D., 13, Walker Street, Edinburgh
Littlejohn, Sir H. D., M.D., 24, Royal Circus, Edinburgh
Littlejohn, H. Harvey, M.B., 1, Atholl Crescent, Edinburgh
Luke, Thomas D., M.B., 95, Shandwick Place, Edinburgh
Lyall, W. J., M.B., 8, Murrayfield Gardens, Edinburgh
McBride, P., M.D., 16, Chester Street, Edinburgh
Macdonald, Angus, M.B., 31, Rutland Square, Edinburgh
Macdonald, K. N., M.D., 21, Clarendon Cresc., Edinburgh
MacGillivray, C. W., M.D., 13, Charlotte Square, Edinburgh
Macgregor, Jessie McL., M.B., 8, Walker Street, Edinburgh
Mackay, G., M.D., 20, Drumsheugh Gardens, Edinburgh
Macpherson, John, M.D., 8, Barnaway Street, Edinburgh
Menzies, David, M.B., 20, Rutland Square, Edinburgh
Miles, A., M.D., 20, Walker Street, Edinburgh
Miller, A. G., M.D., 7, Coates Crescent, Edinburgh
Miller, W. H., M.D., 51, Northumberland Street, Edinburgh
Milligan, David, M.B., 11, Palmerston Place, Edinburgh
More, F. W., M.B., 114, Viewforth, Edinburgh
Mowat, R. S., M.B., 10, Rachurn Place, Edinburgh
Muirhead, J., M.D., 30, Charlotte Square, Edinburgh
Nicholson, H. O., M.D., 29, Manor Place, Edinburgh
Park, G. W., M.B., 19, Seton Place Edinburgh
Pearson, C. M., M.B., 17, Alva Street Edinburgh
Peddie, H. A., M.B., 24, Palmerston Place, Edinburgh
Pereira, A. L., Esq., 27, East Preston Street, Edinburgh
Philip, R. W., M.D., 75, Charlotte Square, Edinburgh
Playfair, J., M.D., 5, Melville Crescent, Edinburgh
Raeburn, J. A., M.B., 5, Comely Bank Road, Edinburgh
Rainy, Harry, M.D., 16, Gt. Stuart Street, Edinburgh
Ritchie, J., M.D., 22, Charlotte Square, Edinburgh
Ritchie, W. T., M.D., 9, Atholl Place, Edinburgh
Robertson, R., M.B., 26, Royal Circus, Edinburgh
Ronaldson, T. R., M.B., 8, Charlotte Square, Edinburgh
Russell, Beatrice, M.D., 3, Walker Street, Edinburgh
Russell, W., M.D., 3, Walker Street, Edinburgh
Simpson, A. R., M.D., 52, Queen Street, Edinburgh
Simpson, F. D., M.D., 7, Kew Terrace, Edinburgh
Simpson, G. F. B., M.B., 50, Melville Street, Edinburgh
Sinclair, A. H. H., M.D., 5, Walker Street, Edinburgh
Skirving, A. A. S., M.B., C.M.G., 4, Randolph Cres., Edin.
Sloman, H., Esq., 9, Murrayfield Avenue, Edinburgh
Smart, A., M.D., 15, Rutland Square, Edinburgh
Steven, J. W., M.B., 13, Manor Place, Edinburgh
Stiles, H. J., M.B., 8, St. Colme Street, Edinburgh
Struthers, J. W., M.B., 13, Alva Street, Edinburgh
Sym, W. G., M.D., 12, Alva Street, Edinburgh
Thomson, Alexis, F.R.C.S., 39, Drumsheugh Gdns., Edin.
Thomson, J., M.D., 1 Coates Crescent, Edinburgh
Thyne, T. J., M.B., 16, Randolph Crescent, Edinburgh
Turner, A. L., M.D., 27, Walker Street, Edinburgh
Underhill, C. E., M.B., 8, Coates Crescent, Edinburgh
Wade, Henry, F.R.C.S.E., 82, Alva Street, Edinburgh
Walker, Norman, M.D., 7, Manor Place, Edinburgh
Wallace, D., C.M.G., M.B., 14, Rutland Street, Edinburgh
Watson, Douglas Chalmers, M.B., 22, Coates Cres., Edin.
Watson, Sir Patrick Heron, M.D., F.R.S.E., 16, Charlotte Sq., Edinburgh
Wolston, W. T. P., M.D., 46, Charlotte Street, Edinburgh
Wood, R. E., M.B., 9, Dunraway Street, Edinburgh
Wotherspoon, C. C., M.B., 18, Great Stuart St., Edinburgh
Young, P. A., M.D., 25, Manor Place Edinburgh

No. 4.—South-Eastern Counties Division

NUMBERING 49.

Chairman, J. C. Johnstone, M.D., Melrose

Vice-Chairman, W. L. Cullen, M.B., St. Boswells

Honorary Secretary and Treasurer, W. Hall Calvert, M.D., The Laurels, Melrose

Representative for Representative Meeting, W. Blair, M.D., Jedburgh

Representative on Branch Council.

Hamilton, J. R., M.D.

Executive Committee.

Barrie, W. T., M.B. | McVie, S., M.B.
Haddon, J., M.D. | Muir, J. S., M.B.
Henderson, G., M.D. | Young, J., M.B.

Bannerman, G. Gunn, M.B., 27, Bridge Street, Hawick
Barrie, W. T., M.B., 18, Bridge Street, Hawick
Blair, W., M.D., Jedburgh
Brown, R. M., M.B., Denholm, Hawick
Calvert, W. H., M.D., The Laurels, Melrose
Cameron, J., M.D., Innerleithen
Campbell, Alex. J., M.D., Market Square, Duns
Cullen, W. L., M.B., St. Boswells
Dalrymple, J. R., M.B., Yetholm
Davidson, S., M.D., Kelso
Dunsmore, G. H. J., M.B., Coldstream
Dixon, C. J. W., M.D., 25, Bridge Street, Hawick, N.B.
Doig, W., M.D., 7, Roxburgh Street, Galashiels
Dunn, W. L., M.B., Roxburgh Mains, Roxburgh
Evans, R. E., M.D., Newcastleton
Fleming, A. D., M.B., Abbey Row, Kelso
Gunn, C. B., M.D., St. Bernard's, Peebles
Haddon, J., M.D., Denholm
Hamilton, J. R., M.D., Hawick
Henderson, G., M.D., Tweedview, Coldstream
Henderson, Percy J., M.B., 9, Church Street, Galashiels
Hill, W. Hugh, M.D., Bridge Street, Kelso
Johnstone, J. C., M.D., Melrose
Kirkwood, Alexander, M.B., C.M., Peebles
Leighton, P., M.B., Chirnside
Macdonald, T. R., Lieutenant-Colonel I.M.S.(ret.), Buccleuch Street, Hawick
McDougall, J. N., M.D., Coldingham
Macgregor, D., M.D., Friar Bank, Jedburgh
McKehar, G., M.D., 20, Bowmont Street, Kelso
Macvie, S., M.B., Herbertknowe, Chirnside
McWatt, J., M.B., Morelands, Duns
McWhir, James, M.B., Swinton, Duns
Marr, J., M.B., Ivy Lodge, Greenlaw
Meiklejohn, R. W., Esq., Ettrick Lodge, Selkirk
Munr, J. S., M.B., Selkirk
Oliver, M. J., M.B., Hawthorndene, St. Boswells, N.B.
Reeton, D., M.D., Brig.-Surg.-Lt.-Col., A.M.S. (ret.), Chester House, Exmouth
Rodger, Alex., M.B., Yetholm, Kelso
Rogerson, T., M.B., Gordon
Rutherford, T., M.D., 2, Albany Road, Kelso
Somerville, R., M.D., Galashiels
Stevenson, N., M.B., Rutland House, Galashiels
Sturrock, J. P., Esq., Peebles Asylum
Taylor, D. R., Esq., Ayton
Tyrrell, E. M., M.B., Roundtree House, Galashiels
Watson, J. R., M.D., Peebles
Wilson, J., M.B., Kirkbrae, Selkirk
Wilson, G. H., M.B., Glencorse House, Peebles
Young, J., M.B., Earlston

No. 5.—South Edinburgh Division

NUMBERING 122.

Chairman, T. D. Wilson, M.B., Edinburgh

Vice-Chairman, A. A. Matheson, M.D., Edinburgh

Honorary Secretary and Treasurer, M. Dewar, M.D., 24, Lauriston Place, Edinburgh

Representative for Representative Meeting.
G. W. S. Paterson, M.B., 147, Bruntsfield Place, Edinburgh

Representatives on Branch Council.

Wilson, T. D., M.B.	Dewar, M., M.D.

Executive Committee.

Clouston, T. S., M.D.	Proudfoot, T., M.B.
Cullen, G. M., M.D.	Salt, E. G., Esq.
Duncan, J. A. H., M.D.	Walker, W. O., M.B.
Kennedy, C., M.D.	Webster, A. D., M.D.
Lundie, R. A., M.B.	

Aiusha, A. C., M.D., 20, Newington Road, Edinburgh
Aitken, D. M., M.B., 19, Dalhousie Terrace, Edinburgh
Armour, E. F., M.B., 149, Bruntsfield Place, Edinburgh
Arbuckle, H. B., Esq., 28, Claremont Road, Edinburgh
Bannerman, W., M.D., 30, Polwarth Terrace, Edinburgh
Baylis, H. M., Esq., 63, Merchiston Crescent, Edinburgh
Beattie, John S., M.D., Pathological Lab., Univ. of Edin.
Bell, J. H., M.B., 200, Bruntsfield Place, Edinburgh
Bianchi, L. F., Esq., 55, South Clerk Street, Edinburgh
Black, W. G., Surg.-Maj., 2, George Square, Edinburgh
Blaikie, R. H., M.D., 10, Mayfield Gardens, Edinburgh
Bleloch, A., M.B., 2, Lonsdale Terrace, Edinburgh
Bobbie, G. P., M.D., 73, Bruntsfield Place, Edinburgh
Bow, M. R., M.B., 3, Portland Terrace, Edinburgh
Bowie, J. M., M.D., 8, Hope Park Crescent, Edinburgh
Bradley, O. C., M.B., 4, Arnold Park Terrace, Edinburgh
Brander, T. L., M.D., 57, Warrender Park Road, Edinburgh
Bremner, D. C., M.B., Streathan, Canaan Lane, Edinburgh
Brock, Arthur J., M.D., 63, Coniston Road, Edinburgh
Brown, H. G., M.D., 1, Cluny Avenue, Edinburgh
Burns, J. Newton, M.B., 178, Bruntsfield Place, Edinburgh
Carmichael, A. N. S., M.B., 6, Morningside Road, Edinburgh
Cattana, J. G., M.B., 3, Alvanley Terrace, Edinburgh
Chiene, J., Esq., C.B., 9, Charles Street, Edinburgh
Church, H. M., M.D., 36, George Square, Edinburgh
Clark, A. W. G., M.B., 28, Braid Crescent, Morningside, Edinburgh
Clark, J. A., M.B., 4, Cambridge Street, Edinburgh
Clouston, T. S., M.D., Upperlea House, Edinburgh
Cockburn, Lauda Theodora, M.B., Roy. Observ., Edinburgh
Craig, W., M.D., 71, Bruntsfield Place, Edinburgh
Cullen, G. M., M.D., 50, Minto Street, Edinburgh
Cumming, J., F.R.C.S.Ed., 20, Gilmore Place, Edinburgh
Darling, T. B., M.D., 13, Merchiston Place, Edinburgh
Darlington, C. D., M.B., 10, Archibald Place, Edinburgh
Davidson, [illegible], M.D., 11, Morningside Place, Edinburgh
Davidson, [illegible], M.D., 3, Buccleuch Terrace, Edinburgh
Dewar, M., M.D., 24, Lauriston Place, Edinburgh
Dodds, J. F., M.B., 2, Grosvenor Street, Edinburgh
Dodds, J. M., M.B., 35, Newington Road, Edinburgh
Downie, Harriet E., M.D., 4, Montgomery Street, Edinburgh
Drummond, G., M.B., 46, Clerk Street, Edinburgh
Drummond, W. B., M.D., 3, Buckingham Place, Edinburgh
Duncan, J. A. H., M.D., 32, Morningside Drive, Edinburgh
Fry, E. S., M.B., 50, George Square, Edinburgh
Gairdner, Sir W. T., K.C.B., M.D., F.R.S., 32, George Sq., Edin.
Galletly, G. W., M.B., 7, Bruntsfield Place, Edinburgh
Gardiner, F., M.D., 14, Rankeillor Street, Edinburgh
Gibson, J. A., M.D., 12, Coates Crescent, Edinburgh
Goodall, A., M.D., 7, Mayfield Road, Edinburgh
Green, J. L., M.B., 16, Mayfield Gardens, Edinburgh
Herring, P. T., M.D., 13, Glengyle Terrace, Edinburgh
Jamieson, Hugh, M.B., 13, Lauriston Place, Edinburgh
Jamieson, J., M.D., 43, George Street, Edinburgh
Johnston, R. J., M.B., Buccleuch Place, Edinburgh
Kennedy, Charles, M.D., 5, Salisbury Road, Edinburgh
Ker, C. B., M.D., City Hospital, Edinburgh
Leslie, J. H. R., M.D., F.R.S.E., 31, East Trinity Road, Edinburgh
Lundie, R. A., M.B., 55A, Grange Road, Edinburgh
Lyon, Geo., M.D., Pathology Laboratory, University, Edinburgh
McDonald, Alex., M.B., 42, Polwarth Terrace, Edinburgh
McDonald, A. M., M.B., 108, Gilmore Place, Edinburgh
McDonald, S., M.B., 40, Thirlestane Road, Edinburgh
Mackay, G., M.B., 74, Bruntsfield Place, Edinburgh
McLaren, Agnes, M.D., Bruntsfield Lodge, Edinburgh
McLaren, J., M.B., 39, Lauriston Place, Edinburgh
McRae, G. D., M.B., Royal Asylum, Morningside, Edinb'gh
Matheson, A. A., M.D., 41, George Square, Edinburgh
Mears, Isabella, L.R.C.P.I., Woodburn, Edinburgh
Middleton, R. W., M.B., 132, Bruntsfield Place, Edinburgh
Milne, W. M., M.B., 14, Newington Road, Edinburgh
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Young, Archibald, M.B., 34, Berkeley Terrace, Glasgow
Young, A. A., M.B., 2, Woodside Terrace, Glasgow

No. 4.—Glasgow Eastern Division

NUMBERING 78.

Chairman, Wm. Whitelaw, M.D., Kirkintilloch
Vice-Chairman, W. L. Muir, Esq., 1, Seton Terrace Dennistoun
Honorary Secretary and Treasurer, John Patrick, M.B., 23, Westererags, Dennistoun
Representative for Representative Meeting.
W. Patrick, M.D., 143, Greenhead St., Bridgeton, Glasgow
Representatives on Branch Council.
Patrick, J., M.B., | Semple, M., M.B.

Executive Committee.

Armstrong, W. B., M.B.	Findlay, W., M.D.
Black, M., M.D.	McKie, J., M.B.
Bryce, W., M.D.	Marr, H. C., M.D.
Buchanan, P. S., M.B.	Service, R. McC., M.D.
Davidson, R., M.B.	

Anderson, R., M.B., Hazeldene, Shettleston, Glasgow
Armstrong, W. B., M.B., Hazeldene, Kirkintilloch
Barras, T. C., M.B., 7, Belgrove Street, Glasgow
Battersby, J., Esq., Park Head Cross, Glasgow, E.
Black, M., M.D., 5, Canning Place, Glasgow
Blakeley, W. T., M.B., Kirkintilloch, Glasgow
Brownlee, J., M.B., Fever Hospital, Belvedere, Glasgow
Bryce, W., M.D., 686, Gallowgate Street, Glasgow
Buchanan, P. S., M.B., 20, Circus Drive, Dennistoun, Glas.
Buchanan, W., M.B., 1, Craigpark Terrace, Dennistoun
Burns, W. A., M.B., 102, Main Street, Bridgeton, Glasgow
Capie, S., M.B., 287, Duke Street, Glasgow
Carre, H., Esq., Woodlea, Asylum Lenzie
Core, W., M.D., Stobhill Hospital, Glasgow
Cosgrove, Henry J., Esq., Fullarton, Vil., Tollcross, Glasg.
Cowan, D., M.D., Oakley Terrace, Dennistoun
Craig, James, Esq., 14, Annfield Place, Dennistoun
Creighton, Alex., M.D., Shettleston, Glasgow
Cullen, W., M.D., 9, Grafton Place, Glasgow
Davidson, R., M.B., Shettleston
Dunlop, C. W. J., Esq., 226, Parliamentary Road, Glasgow
Dunlop, James, M.B., 3, Seton Terrace, Dennistoun, Glasg.
Findlay, J. W., M.D., 19, Westererags, Dennistoun, Glasg.
Findlay, W., M.D., 67, George Street, Glasgow
Fletcher, T., McGibbon, M.B., 26, Canning Street, Glasgow
Fraser, John, M.D., Kilsyth, near Glasgow
Glaister, J. N., M.B., 4, Grafton Pl., Grafton Sq., Glagow
Granger, J. P., Esq., 25, Monteith R ad, Glasgow
Greenhill, R., M.B., 356, Dalmarnock Road, Glasgow
Hannay, Mary B., M.B., Gartloch, Gartcosh
Jeffery, W., M.D., Kilsyth, Glasgow
Johnston, J. McC., M.D., Eastern District Hospital, Glasg.
Kenyon, R., M.B., 795, Springburn Road, Glasgow
Lamont, Alex., M.B., Esselmont, Chryston, near Glasgow
Lang, J. M. D., M.B., 2, Belgrove Street, Glasgow
Love, D. J., M.B., Cumbernauld, Glasgow
McFarlane, W., M.B., 2, Morris Place, Glasgow
McIntyre, J. P., M.D., 94, North Frederick Street, Glasgow
McKail, D., M.B., 10, Rinnie Place, Glasgow
McKie, J., M.B., 26, Hillside Street, Springburn, Glasgow
McLean, C. R., M.B., 12, Annfield Pl. Dennistoun, Glasgow
McLean, Sam., M.B., 13, Armadale Street, Dennistoun
Macfarlane, A. R., M.B., 278, Golfhill Drive, Dennistoun
Marr, H. C., M.D., Woodilee Asylum, Lenzie
Martin, John, M.B., Wellington Place, Kirkintilloch
Martin, Matthew, M.B., 737, Gallowgate, Glasgow
Mathie, J. W., M.B., 33, Monteith Row, Glasgow
Miller, J. B., M.B., Lillybank, Bishopsbriggs, near Glasgow
Morton, Robert, M.B., 723, London Rd., Bridgeton, Glasgow
Muir, John, M.B., 10, Newbattle Terrace, Bridgeton, Glasgow
Munro, W. L., Esq., 1, Seton Terrace, Dennistoun, Glasgow
Murdoch, A. M., M.D., 92, Clyde Street, Calton, Glasgow
Murray, George, M.B., 3, Westererags, Dennistoun, Glasgow
Neilson, A., Esq., 10, Somerville Place, Glasgow
Parker, W. A., M.B., Gartloch Asylum, Gartcosh
Patrick, J., M.B., 23, Westererags, Dennistoun, Glasgow
Patrick, W., M.D., 143, Greenhead St., Bridgeton, Glasgow
Philip, James, M.B., 1, Whitehill Gardens, Dennistoun
Pole, A., M.B., 1, Regent Square, Lenzie, Glasgow
Ramsay, J. McAllister, Esq., 8, Dalmarnock St., Glasgow
Rankin, P. C., M.B., 18, George Street, Glasgow
Ross, Alex., Esq., Muirhead House, Muirhead, Chryston
Russell, T., M.B., 47, Westminster St., Parkhead, Glasgow
Scott, Robert, M.B., 32, Hillside Terrace, Springburn
Semple, M., M.B., 183, Castle Street, Glasgow
Service, R. McC., M.D., 13, Annfield Pl., Dennistoun, Glasgow
Sinclair, W. J. H., M.B., Barlinnie General Prison, near Glasgow
Smith, J. T., M.B., 56, Whitevale Street, Glasgow
Syson, J. C., M.D., 104, Bellgrove Street, Glasgow
Thom, J. M., M.B., Royal Infirmary, Glasgow
Thomas, D., M.D., Carnegie Avenue, Tollcross, Glasgow
Turner, W. W., Esq., 136, Stirling Road, Glasgow
Valentine, Leslie, M.B., 18, Whitehill St., Dennistoun, Glas.
Whitelaw, R. G., Esq., Victoria Place, Kirkintilloch
Whitelaw, W., M.D., Kirkintilloch
Wilson, J., M.D., 38, Monteith Row, Glasgow
Wilson, W. McK., M.B., 30, Grafton Square, Glasgow
Wright, E., Esq., 123, Moncur Street, Glasgow

No. 5.—Glasgow North-Western Division

NUMBERING 114.

Chairman, Thos. Richmond, L.R.C.P., 22, Holyrood Crescent, Glasgow
Vice-Chairman, W. A. Caskie, M.D., 1, Beechwood Drive Jordanhill
Honorary Secretary, J. G. Gray, M.D., 2, Montgomerie Street, Glasgow
Representative for Representative Meeting.
J. G. Gray, M.D., 2, Montgomerie Street, Glasgow
Representatives on Branch Council.
Muir, J. S., M.B. | Richmond, T., L.R.C.P.

Adamson, R. O., M.D., 15, Grosvenor Crescent, Dowanhill
Allen, Wm., M.B., 48, Kersland Street Hillhead
Anderson, J. B. M., M.B., 8, Buckingham Ter., Glasgow, W.
Anderson, Prof. T. McCall, M.D., The University, Glasgow
Anderson, W. K., M.B., 7, Kersland Terrace, Hillhead, Glasgow
Baird, J., M.B., 3, Wilton Gardens, Kelvinside, N. Glasgow
Bannatyne, C., M.B., 138, Cumbridge Drive, Kelvinside, N.
Brown, C. A., M.B., 189, Hyndland Road, Partick, Glasgow
Brown, T. D., M.D., 12, Highburgh Terrace, Dowanhill, Glasgow
Browning, C. H., M.B., 128, Byres Road, Glasgow
Bruce, R. W., Esq., 65, Waverley Terrace, Glasgow
Bryce, T. H., M.D., 2, Granby Terrace, Glasgow, W.
Buchanan, G. B., M.B., 13, Buckingham Terrace, Glasgow
Buchanan, R. M., M.B., 2, Northbank Terrace, Glasgow
Burton, T. J., M.B., Monklands, Bearsden
Campbell, A. T., M.B., 48, Belmont Gardens, Hillhead, Glas.
Campbell, J. H., M.B., 38, Clarence Drive, Glasgow, W.
Campbell, M., M.B., 6, Wilton Gardens, Glasgow
Caskie, W. A., M.D., 1, Beechwood Drive, Jordanhill, Glasgow
Chalmers, Archibald K., M.D., 7, Buckingham Terrace, Hillhead, Glasgow
Chalmers, Quinton, M.D., 14, Kew Ter., Kelvinside, Glasg.
Charteris, F. J., M.B., 400, Great Western Road, Glasgow
Christie, W. W., M.D., 5, Albion Street, Dowanhill, Glasgow
Cleland, Professor J., M.D., 2, The University, Glasgow
Connal, J. G., M.B., 4, Burnbank Terrace, Glasgow
Crichton, R., M.B., Burgh House, Maryhill, Glasgow
Cumming, R., Esq., Crosslea, Lennoxtown
Curle, D., M.D., 212, New City Road, Glasgow
Currie, J. R., M.B., 7, Strathallan Terrace, Glasgow
Cuthbert, C. C., M.D., 3, Kersland Street, Hillhead, Glasgow
Dickson, A., M.D., 379, St. George's Road, Glasgow
Dinwoodie, D., M.B., 299, New City Road, Glasgow
Donald, John, M.D., 23, Queen Margaret Drive, Glasgow
Edmiston, J. C., M.D., 24, Wilton Gardens, N. Glasgow
Erskine, D., M.D., 10, Rosebery Terrace, Kelvinbridge
Everett, Miss Maud E., L.R.C.P.&S.E., 20, North Gardner Street, Partick Hill, Glasgow, W.
Gilchrist, Marion, M.B., 5, Buckingham Terrace, Glas., W.
Goldie-Scot, T., M.B., Royal Asylum, Gartnavel, Glasgow
Gracie, J., M.B., 26, Balshagray Avenue, Partick
Graham, J. G., M.B., 17, Ashton Ter., Dowanhill, Glasgow
Gray, J. G., M.D., 2, Montgomerie Street, Glasgow
Hay, A. G., M.D., 4, Ancaster Drive, Anniesland, Glasg., W.
Head, L. C. B., M.B., 17, Wilton Mansions, Glasgow, W.
Horne, J., M.B., 5, Windsor Street, Glasgow
Hotchkis, R. D., M.D., Royal Asylum, Gartnavel, Glasgow
Hunter, J., M.B., Scotstoun Villa, Scotstoun, Glasgow
Inglis, R. G., M.B., 3, West Garden Street, Glasgow
Jack, W. R., M.D., 43, Lansdowne Crescent, Glasgow
Johnston, A., M.D., Ruchill Fever Hospital, Glasgow
Jope, R., Esq., Pretoria, Possilpark, Glasgow
Jubb, George, M.D., 7, Clydeview, Partick
Kay, Thomas, M.B., 5, Rosebery Terrace, Kelvinbridge
Kennedy, J. S., Esq., Bearsden
King, Robert, M.B., Park Cottage, Yoker, Glasgow
Kirk, R., M.D., Partick, Glasgow
McDonald, W. P., M.B., 16, Buckingham Terrace, Glasgow
MacGregor, A. S., M.D., 2, Burnbank Terrace, Glasgow
McKendrick, Prof. J. G., M.D., 2, Buckingham Ter., Glasgow
McKendrick, J. S., M.D., 2, Buckingham Terrace, W., Glasgow
Mackintosh, D. J., M.B., M.V.O., Western Infirmary, Glasgow
MacLennan, W., M.B., Buckingham Terrace, Glasgow
Macleod, D., M.D., 3, Burnbank Terrace, Glasgow
McMillan, A. Lewis, M.D., 1, Rosebery Ter., Kelvinbridge
Macniven, E. O., M.B., 4, Queen's Gate, Dowanhill, Glasgow
McNeel, R., M.D., Park Gardens, North Woodside, Glasgow
McVail, D. C., M.D., 3, St. James's Ter., Hillhead, Glasgow
McVail, J. C., M.D., 20, Eton Place, Hillhead, Glasgow
Marshall, C. S., M.D., 123, Cambridge Drive, Glasgow
Meehan, A., M.B., 2, Victoria Crescent, Dowanhill
Morton, J., M.B., 6, Foremount Ter., Dowanhill, Glasgow
Muir, J. S., M.B., Possilpark, Glasgow
Muir, Prof. R., M.D., Western Infirmary, Glasgow, W
Murdoch, G. B., M.D., 14, Bothwell Ter., Hillhead, Glasgow

Murray, W. C., M.B., 3, Belmont Street, Glasgow
Oswald, L. Rose, M.B., Royal Asylum, Gartnavel
Patrick, J. K., M.D., 11, Broomhill Avenue, Partick, W.
Paterson, W. G., M.B., Annfield Cottage, Partick, Glasgow
Pirret, Mary J., M.B., 32, Westbourne Gardens, Kelvinside, Glasgow
Pollock, A. B., M.B., 3, Belgrave Ter., Hillhead, Glasgow
Pollock, F., M.D., Buckingham Ter., Hillhead, Glasgow
Primrose, E. J., M.D., 551, Dumbarton Road, Partick
Rankin, W. L., Esq., Strathblane, Glasgow
Reid, John, M.B., Corndavon, Milngavie
Richmond, T., L.R.C.P., 22, Holyrood Crescent, Glasgow
Ritchie, J., M.B., 12, Belmont Street, Glasgow
Robertson, Rev. David, M.B., 15, Vale View Ter., Glasgow
Robertson, Hugh, M.B., 103, Queensborough Grdns., Glasgow
Robertson, J. McG., M.B., 25, Buckingham Ter., Glasgow
Robertson, P. F., M.D., Milngavie
Ross, A. F., M.B., 29, Hunt y Gardens, Glasgow
Scott, James, M.B., 11, Hill End Gardens, Hyndland Road, Glasgow
Sinclair, D., M.D., Eastpark Terrace, Maryhill, Glasgow
Sloan, A. B., M.B., 54, Kersland Street, Hillhead
Sloan, S. M., M.B., 138, Hyndland Road, Kelvinside
Smart, Margaret H., M.B., 21, Holyrood Cres., Glasgow, W.
Smith, A. M., M.D., 13, Montgomerie Street, Glasgow
Smith, J. D., M.B., Daisy Brae, Maryhill, Glasgow
Snodgrass, W., M.B., 11, Victoria Cres., Dowanhill, Glasgow
Somerville, W. F., M.D., 14, South Park Terrace, Hillhead Glasgow
Sorapure, Y. E., M.B., 65, Bank Street, Glasgow
Spinks, C. F., Esq., Burgh House, Maryhill, Glasgow
Stewart, James W., M.B., Holborn Terrace, N. Kelvinside, Glasgow
Stewart, P., M.D., 16, Athol Gardens, Kelvinside, Glasgow
Stuart, R. W., Esq., 42, Wilton Gardens, N. Kelvinside, Glasgow
Syme, W. S., M.D., 3, Northbank Terrace, N. Kelvinside, Glasgow
Teacher, J. H., M.D., 32, Kingsborough Grdns., Dowanhill
Thomson, Alexander, M.B., 8, Hamilton Park Terrace, Hillhead, Glasgow
Todd, James, M.D., Eastpark Terrace, Maryhill, Glasgow
Westwood, D., M.B., Ashlea, Clydeview, Partick
Whitehouse, H., M.B., 7, Lindsay Terrace, Dowanhill
Wilson, H. G., M.B., 5, St. James Terrace, Glasgow
Wylie, James, M.D., Westmount, Scotstounhill
Yellowlees, D., M.D., 6, Albert Gate, Dowanhill, Glasgow
Young, R. B., M.B., 8, Crown Gardens, Dowanhill, Glasgow

No. 6.—Glasgow Southern Division

NUMBERING 88.

Chairman, James Hamilton, M.B., 1, Royal Crescent, Crosshill, Glasgow

Vice-Chairman, A. Miller, Esq., 1, Royal Terrace, Crosshill, Glasgow

Honorary Secretary and Treasurer, John Stewart, M.D., 3, Royal Crescent, Crosshill

Representative for Representative Meeting.
Robertson, C. E., M.D., 63, Dixon Avenue, Crosshill, Glasgow

Representatives on Branch Council.
Miller, A., Esq. | Stewart, J., M.D.

Executive Committee.

Brown, John, M.D.	Lawson, W., M.D.
Burges, L., Esq.	Leask, H. L. G., M.D.
Dunning, M., M.B.	McGilvray, D., M.B.
Forrester, J., M.B.	Rankin, Alexander, M.D.
Forrest, R. W., M.B.	Thomson, J. T. K., Esq.
Howie, J. C., M.D.	Wauchope, A., M.B.
Kelly, H., M.D.	Weir, J., M.B.

Alexander, S., M.D., 262, Paisley Road, W. Glasgow
Allan, W., M.D., Govandale, Govan
Anderson, John, M.B., Linclnoch, Cathcart, Glasgow
Anderson, R. Yuill, M.B., Redclyffe, Beech Avenue, Glasgow
Brown, John, M.D., 247, Calder Street, Govanhill, Glasgow
Brown, R., M.D., Pollokshields, Glasgow
Buchanan, John, M.B., 7, Hamilton Pl., Cathcart, Glasgow
Buchanan, J. M., M.B., Rutherglen
Burges, L., Esq., 45, Dixon Avenue, Glasgow
Cameron, J. W., M.B., 36, Apsley Place, Glasgow
Campbell, J. J. Y., M.B., 1, Buckingham Square, Govan
Campbell, J. M., M.B., 4, Carment Drive, Shawlands
Carmichael, D. G., M.B., 68, Kenmure Street, Pollokshields
Cassie, Alex. W., M.B., 1, Cleland Place, Paisley Road, Glasgow
Coutts, D., M.B., Paisley Road, W. Glasgow
Duncan, E., M.D., Queen's Park House Crosshill, Glasgow
Dunning, M., M.B., 46, Princes Square Strathbungs, Glasgow
Fairlie, W., M.D., Shawlands, near Glasgow
Forrest, R. Wardrop, M.B., 114, Dixon Avenue, Glasgow
Forrest, W., M.B., 319, Crown Street, Glasgow
Forrester, J., M.B., 26, Langside Road, Glasgow
Gordon, George, M.B., 1, Abercromby Ter., W. Glasgow
Haddow, J., Esq., Armond Bank, Paisley Rd. W., Govan
Hamilton, James, M.B., 1, Royal Cres., Crosshill, Glasgow
Higbet, Campbell, M.B., Cardonald, Govan
Hope, C., M.B., 9, Park Terrace, Govan
Howie, J. Coulson, M.D., 1245, Pollokshaws Road, Glasgow
Hunter, G., Esq., 1, Bellahouston Terrace, Govan
Kelly, H., M.D., Shields Road, Pollokshields
Kelly, J. K., M.D., Queen Mary Avenue, Crosshill, Glasgow
Lamb, D., M.B., 1, Ethel Terrace, Mount Florida, Glasgow
Lambie, J. F., M.B., 3, Edgemont Gardens, Albert Road, Langside, Glasgow
Lapraik, T., M.D., 67, Fotheringay Road, Maxwell Park, Glasgow
Lawson, W., M.D., 88, Glencairn Drive, Pollokshields
Leask, H. L. G., M.D., 79, Dixon Avenue, Glasgow
Leitch, J. W., M.B., 8, Nithsdale Road, Glasgow
Love, J. K., M.D., Oirig, Pollokshields
Lyon, R. Murray, [illegible] re Cathcart
MacCrorie, A., M.[illegible] nue, Crosshill, Glasgow
McCrorie, David, [illegible] ford Place, Glasgow
Macfarlane, W. D. [illegible]
MacFeat, Joseph, M.B., 51, Maxwell Drive, Glasgow
McGilvray, D., M.B., 3, Maxwell Drive, Pollokshields
Mac Ilraith, A. R. MacIntyre, Esq., Brownlie Pl., Cathcart
MacIlraith, W. MacLaren, Esq., Brownlie Place, Cathcart
Mackenzie, J. A., M.B., 7, Sinclair Drive, Langside, Glasgow
McLachlan, J. M., M.B., Wayne Lee, 6, Albert Road E., Croshill, Glasgow
Maclean, James, M.B., 2, Maxwell Square, Pollokshields
MacLean, J. C., Esq., 22, Allison Street, Crosshill, Glasgow
Miller, A., Esq., 1, Royal Terrace, Crosshill, Glasgow
Murdoch, R., Esq., 330, Crown Street, Glasgow
Napier, A., M.D., Queen Mary Avenue, Crosshill, Glasgow
Nisbet, H. S. B., M.B., 65, Smith Street, Govanhill, Glasgow
Pato[illegible], John, M.D., 113, Sinclair Drive, Langside, Glasgow
Peden, W. K., M.B., 177, Crown Street, Glasgow
Pollok, R., M.B., Laurieston Ho., Pollokshields, Glasgow
Rankin, A., M.D., Myrtle Park, Crosshill, Glasgow
Retford, J. H., Esq., 211, Main Street, Glasgow, S.
Richard, W. J., M.B., Merryflatts, Govan
Robertson, C. E., M.D., 63, Dixon Ave., Crosshill, Glasgow
Ross, Marion J., M.D., 4, Balmoral Crescent, Crosshill Glasgow
Roxburgh, A., M.D., Pollokshields, Glasgow
Russell, D. W., M.B., 68, Langside Avenue, Langside
Shaw, P. F., Esq., Mount Blair, Crosshill, Glasgow
Smith, P. A., M.D., 50, Queen Mary Avenue, Glasgow
Steen, A. A. F., M.B., Howdenlea, Queen's Drive, Crosshill, Glasgow
Stewart, Alex., M.B., 18, Pollok Street, Glasgow
Stewart, John, M.D., 3, Royal Crescent, Crosshill, Glasgow
Strang, J., M.B., Thornliebank, by Glasgow
Swan, A. J. T., M.B., 50, Calder Street, Pollokshields
Thomas, M., M.D., Buchanan Drive, Rutherglen
Thomson, J. T. K., Esq., 148, Norfolk Street, Glasgow, S.
Tindal, A. S., M.D., The Rapiloch, Newlands, Langside, Glasgow
Tolmie, J. A., M.B., Olive Villa, Drive Road, South Govan
Vost, A., M.B., Edenside, Newlands Road, Glasgow
Walker, W., M.D., Kirkland Villa, Pollokshaws
Wallace, J. W., M.B., 67, St. Andrew's Drive, Pollokshields
Watson, R. McLeod, M.B., 36, Millbrae Road, Langside, Glasgow
Watson, W. R. K., M.D., Merryflatts, Govan
Wauchope, A., M.B., 150, Crown Street, Glasgow
Weir, James, M.B., 24, Abbotsford Place, Glasgow
West, J. T., M.B., Netherton House, South Avenue, Govan
Whish, C., M.B., 1, Lansdown Place, Shawlands, Glasgow
White, George, M.B., 1, Bogton Park, Glasgow, S.
White, R. N., M.B., 449, Shields Road, Pollokshields
Wilson, J., M.B., 18, Walmer Crescent, Ibrox, Glasgow
Wotherspoon, T. McK., Esq., Cattay, Langlands Road, Govan
Wright, J., M.B., 1, Seyton Avenue, Langside, Glasgow

No. 7.—Lanarkshire Division

NUMBERING 72.

Chairman, Bruce Goff, M.D., The Lindens, Bothwell

Vice-Chairman, John Fotheringham, M.B., Rosshill, Motherwell

Honorary Secretary, J. Livingstone Loudon, M.D., Linnwood, Union Street, Hamilton, N.B.

Representative for Representative Meeting.
Bruce Goff, M.D., The Lindens, Bothwell

Representatives on Branch Council.
Goff, Bruce, M.D. | Loudon, J. Livingstone, M.D.

Executive Committee.

Fotheringham, J., M.B.	Loudon, L., M.D.
Goff, Bruce, M.D.	McPhail, D., M.D.
Kirkland, J., Esq.	Millar, J., M.D.
Lindsay, J., M.D.	

Adam, J., M.B., Park Road, Hamilton
Adams, A. M., Esq., Friarsfield, Lanark
Adams, D. V. Maxwell, M.D., Friarsfield, Lanark
Allison, James, M.B., Hallside, Newton
Arthur, H., M.D., Fruithill, Airdrie
Ballantyne, S. A., M.B., Cold Chapel, Abington
Banks, R. McL., M.B., West Port, Lanark
Banks, T. W., M.B., Hope Street, Lanark
Barr, R. B., M.B., Hollyden, Carluke
Baugh, L. D. H., M.B., Gartloch Hospital, Garteosh
Buchan, J. J., M.B., Mayfield, Cleland
Cordiner, J., M.B., 83, Sunnyside Road, Coatbridge
Crawford, C., M.D., Catherine Bank, Hamilton
Dick, G. W., Esq., Gordon Cottage, Shotts
Findlay, W. S., M.B., Woodend, Mossend
Fotheringham, J., M.B., Rosshill, Motherwell
Gemmell, T. P., M.B., Sornbank, Airdrie
Gibson, A. S., M.B., Tayvilloch, Ballieston
Goff, Bruce, M.D., The Lindens, Bothwell
Goff, John, M.D., The Lindens, Bothwell
Harrison, J., M.B., Lesmahagow
Hislop, J. A., M.D., County Offices, Hamilton
Jack, James, M.D., Wellbank House, Carluke
Jack, R. P., M.B., 24, Brandon Street, Motherwell
Jones, David, M.B., Tirlees House, Motherwell
Kelly, E. H., M.D., Lanark
Kennedy, R., Esq., 110, Bank Street, Coatbridge
Kerr, John, Esq., Roseville, Hamilton
Kerr, N. T., M.B., Hartwood, Shotts, N.B.
Kirkland, J., Esq., Airdrie
Laird, T. D., M.B., The Ingle, Beech Avenue, Cambuslang
Lane, W. L., M.B., Lieutenant-Colonel R.A.M.C., Hamilton Barracks
Laurie, R., M.B., Gartgill, Bothwell
Lees, Adam, Esq., Parkview, Burnbank, Hamilton
Lindsay, J., M.D., Lochanbank, Kirkmuirhill
Lithgow, J., M.D., Cleland
Little, J. W., M.B., Leslie Place, Newmains
Logan, D. D., M.B., Achterhall, Newmains
Loudon, J. L., M.D., Linnwood, Hamilton
Love, J. W., M.B., Greenbank, Clark Street, Airdrie
McDonald, J., M.B., Hawthorn Cottage, Motherwell
MacFeat, Geo., M.B., Bogueside House, Douglas, Lanark
McKay, James, M.B., Westonlee, Coatbridge
McLean, A. H., M.B., Stonehouse
McNay, Thomas, M.B., Dalveen, Larkhall, N.B.
McPhail, D., M.D., Calder Avenue, Coatbridge
McPherson, R. B., M.D., Auchatlan, Cambuslang
McPherson, W. G., M.B., Barrogill, Bothwell
Mains, John H., Esq., The Surgery, Longriggend
Manuel, W., M.B., Calderemix, Airdrie
Mason, W., M.D., Strathaven
Millar, J., M.B., Moss View, New Mains
Miller, John, M.B., Viewbank, Harthill, Lanark
Munro, R., M.D., Coatbridge
Newbiggine, T. D., M.B., Abington, Lanark
Paterson, Robert, Esq., Curatehill, Law, Carluke
Ramsay, A., M.B., Leadhills, S.O.
Reid, H. C., M.B., Kirkland House, Blairhill, Coatbridge
Rennie, J. S., M.B., Coatbridge
Robertson, R., M.B., Windmill Hill Street, Motherwell
Rogerson, John, M.D., Dunecrieff, Dalserf, Netherburn
Service, John, M.D., Mossend
Skeen, J. H., M.B., Kirklands Asylum, Bothwell
Steele, T., M.B., Cadzow Cottage, Hamilton
Tant, Edward B., M.B., East Kilbride
Tant, J. Y., M.D., Uddingston
Thomson, J. M., M.B., Drumclair, Airdrie
Watt, Allan, M.B., Greenside, Strathaven
Wilson, A. J., F.R.C.S.E., Calderbank, by Airdrie
Wilson, J. T., M.D., County Buildings, Hamilton
Wright, Hugh P., M.B., Quarry Howe, Overtown-by-Wishaw
Wyper, Wm., M.B., Ivy House, Motherwell

No. 8.—Renfrewshire Division

NUMBERING 75.

Chairman, A. C. Munro, M.D., Health Dept., Co. Buildings, Paisley

Vice-Chairman, W. S. Cook, M.B., Greenock

Honorary Secretary, R. S. Penman, M.B., 12, St. James's Place, Paisley

Representative for Representative Meeting.
J. Lawrie, M.B., Greenock

Representatives on Branch Council.
Cook, W. S., M.B. | Penman, R. S., M.B.

Berwick, G., M.D., Allt-an-Righ, Port Bannatyne
Blair, R., M.D., Braefoot, Crookston, Paisley
Boyd, W. M., M.B., Largs
Brown, J. P., M.B., Ardmore, Campbeltown
Brownridge, R., M.D., 1, Calside Terrace, Paisley
Burnett, E. C., M.B., Ravenscray, Johnstone
Butler, A. M., Benclatha, Port Glasgow
Campbell, G. J., Esq., 63, Princes Street, Port Glasgow
Carlyle, J., M.D., 43, Regent Street, Greenock
Clow, W., M.B., 97, Causeyside Street, Paisley
Coats, G. W., M.B., 54, High Street, Paisley
Conner, J. B., Esq., 43, Regent Street, Greenock
Cook, W. S., M.B., 2, Ardgowan Square, Greenock
Cunningham, J., M.B., Campbeltown
Donald, H. C., M.B., 5, Gauze Street, Paisley
Dunsmuir, R., M.B., Bars Kimmitry, Paisley Road, Renfrew
Ferguson, Joshua, M.B., 4, Greenlaw Terrace, Paisley
Fraser, D., M.D., 3, Orr Square, Paisley
Fyfe, W. W., M.B., Belmont, Johnstone
Gibb, W. F., M.D., 7, St. James Place, Paisley
Gibson, R. M., M.D., Helenlea, Glasgow Road, Paisley
Gibson, W., M.D., Campbeltown
Graham, T., M.D., 3, Garthland Place, Paisley
Hall, A. J., M.D., 13, Battery Place, Rothesay
Henderson, F., M.D., Craig Roy, Kilmalcolm
Herbertson, J. C., M.D., Bellevue, Johnston
Hill, James, M.D., Argyll Lodge, Renfrew
Holmes, J. D., M.B., 63, Causeyside Street, Paisley
Jamieson, R., M.D., Brodick, Arran
Johnston, Archibald, M.B., Bruchalladdich, Islay
Kydd, D. A. T., M.B., Port Glasgow
Laird, P. A., M.B., Doremia, Kilmalcolm
Lawrie, J., M.B., Greenock
Lawson, J. B., M.D., 1, Battery Place, Rothesay
Lees, David, Esq., 56, Regent Street, Greenock
McCallum, P., Esq., 42, Mearns Street, Greenock
Macdonald, D. S., M.B., Jura, by Greenock
Macdougall, J., M.D., 2, Shaw Place, Greenock
Mackinlay, J., jun., Esq., Meadowbank, Barrhead
McLeod, A. P., Esq., Barrhead
MacRury, J., M.B., Auchengree, Millport
Marshall, J. N., M.D., 7, Battery Place, Rothesay
Martin, T. M., M.D., Lochwinnoch
Miller, Elizabeth H., L.R.C.P., Bishopton
Mudie, R. F., M.B., Kilbarchan
Munro, A. C., M.D., Health Dept., Co. Buildings, Paisley
Nairn, C., M.B., 19, Ardgowan Square, Greenock
Parker, James, M.B., Kilmalcolm
Penman, R. S., M.B., 12, St. James's Place, Paisley
Penney, D. J., M.B., 25, Battery Place, Rothesay
Pride, W. A., M.B., Neilston
Ratcliffe, J. R., M.B., Houston, Renfrewshire
Richmond, A., M.B., 57, Lonsdale Street, Paisley
Robb, Alex., M.D., Public Health Office, Paisley
Robb, J. J., M.B., 20, High Street, Paisley
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Russell, Wm., M.D., Firgrove, Castlehead, Paisley
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Seright, W., M.D., 14, Ardgowan Square, Greenock
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Watt, Thomas, M.B., 44, High Street, Paisley
Whiteford, J., M.D., 6, Forsyth Street, Greenock
Wilson, J. E., M.B., Thorncliffe, Greenock
Wilson, J. P. A., Esq., Overwood, Glasgow Road, Paisley
Wright, W., M.B., Princes Pier, Greenock

GLOUCESTERSHIRE BRANCH.

Comprising the county of GLOUCESTER, north of and including Sharpness, Berkeley Road, and Dursley, but excluding Fairford and Lechlade, and the portion of the county east of Chipping Campden and Stow-on-the Wold.

Members of Branch—126.

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Buchanan, P., M.B.	Pruen, S. T., M.D.
Buckell, W. R., F.R.C.S.	Soutar, J. G., M.D.
Clark, Oscar, M.D.	Storry, F. W., Esq.
Cooke, A. S., Esq.	Wilson, E. T., M.B.
Ellis, T. S., Esq.	

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Lunn, P. T., Esq., Highmead House, Blakeney
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Macartney, R., Esq., Cinderford
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MacMahon, E. J. R., Esq., Elkstone House, Cheltenham
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Munro, D. G. M., M.D., 1, Oriel Villas, Cheltenham
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Payne, J. R., Esq., Lawnstone House, Coleford
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Porteous, H. L., Esq., Chalford, near Stroud
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Scott, G., M.B., School House, Drybrook
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Soutar, J. C., M.D., Barnwood House, Gloucester
Stewart-Billings, Mrs. Grace, M.B., Sussex Lodge, Pittville Gates, Cheltenham
Stilwell, H. F., Esq., Barnwood House, Gloucester
Storry, F. W., Esq., Dirleton House, Stroud
Tatham, E. J., M.D., Hornby House Cumbray Cheltenham
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Todd, H. B., Esq., Keynsham Lodge, Cheltenham
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Waller, A. W., Esq., Waldringfield House, Stroud
Washbourn, W., Esq., Gloucester
Wilkin, Lancelot, Esq., 77, London Road, Gloucester
Wilson, E. T., M.B., Westal, Cheltenham
Wilson, R. M.B., Millbrook, Nailsworth
Worthington, G. V., M.D., Newent

LANCASHIRE AND CHESHIRE BRANCH.

District comprising LANCASHIRE, except Garstang and north thereof; the ISLE OF MAN; CHESHIRE; the YORKSHIRE the Saddleworth and Todmorden districts; the DERBYSHIRE the Glossop district; as far east as the watershed in each case).

Members of Branch—1607

RECOGNISED 1837.

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President-elect, JOHN M. H. MARTIN, M.D., Blackburn

Vice-Presidents.

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KING, H. W., M.D., Chester

Honorary Secretary.

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J. Brassey Brierley, M.D., Manchester
T. A. Helme, M.D., Manchester
Edwin Rayner, M.D., Stockport

Branch Council.

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Barendt, F. H., M.D.
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Ferguson, J. M., Esq.
Fleetwood, W. J., M.D.
Fort, T., Esq.
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Milroy, W. C., M.D.
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Owen, D., Esq.
Pearson, H. L., Esq.
Rayner, A. C., M.D.
Rayner, Edwin, M.D.
Renshaw, C. J., M.D.
Richardson, R. I., M.B.
Robertson, G. J., M.B.
Thorp, C. W., Esq.
Tisdall, J. J., Esq.
Turner, R. T., M.D.
Walker, G. C., M.D.
Wills, T. M., Esq.
White, W., M.D.
Wolstenholme, R. H., Esq.

Honorary Members.

Shuttleworth, G. E., M.D., London
O'Sullivan, D. A., Esq., London

No. 1.—Altrincham Division

NUMBERING 68.

Chairman, E. L. Luckman, Esq., Altrincham
Vice-Chairman, P. R. Cooper, M.D., Bowdon
Honorary Secretary and Treasurer, T. W. H. Garstang, Edge Mount, Altrincham

Representative for Representative Meeting.

T. W. H. Garstang, Esq., Edge Mount, Altrincham

Representatives on Branch Council.

Renshaw, C. J., M.D. | Cox, F., M.D.

Executive Committee.

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Jones, C. W., M.B. | Renshaw, C. A. K., Esq.
MacLaren, J. A., M.D. | Smith, G. H., M.B.

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Alexander, W. C., Esq., Delamer Road, Bowdon
Armstrong, P. L., M.B., 20, Castle Street, Northwich
Ashe, C. S., M.B., Northenden Road, Sale
Blackwell, R., Esq., 21, Urban Road, Sale
Browne, R. J., Esq., The Beach, Hartford
Bucknill, P. J. R., Esq., Manchester Road, Altrincham
Clarke, H. C. W., Esq., Oaklands House, Ashton-in-Mersey
Cooper, P. R., M.D., Glenlyn, Bowdon
Cox, F., M.D., Elmerdene, Ashley Road, Hale, Altrincham
Crowe, L. W., M.D., Ashley Road, Hale, Altrincham
Duggan, M., Esq., Bowdon
Fenn, E. M., M.B., Deva Villa, Ashley Road, Altrincham
Fennell, T., Esq., Princess Street, Knutsford
Fennell, T. L., Esq., Princess Street, Knutsford
Garstang, T. W. H., Esq., Edge Mount, Altrincham
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Gornall, J. P. J., Esq., Roxana, Park Road, Hale
Gough, H. E., Esq., Dunclent, Northwich
Hassall, J., M.D., 2, Dane Street, Northwich
Herbert, Solomon, M.D., Claremont Rd., West Timperley
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Leech, E. B., Esq., Oakmount, Timperley
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Luckman, E. L., Esq., The Downs, Altrincham
Lyon, J., M.D., Dep. Insp.-Gen. R.N., Bowden Hydropathic
MacLaren, J. A., M.D., Regent Road, Altrincham
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Moreton, T., Esq., Hartford, Northwich
Morrow, D., Esq., Yew Bank, Bowdon
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Renshaw, J. A. Knowles, M.D., Laurel Lodge, Ashton-on-Mersey
Renshaw, J. H., M.B., The Lindens, Ashton-on-Mersey
Renshaw, W. A., M.D., Market Place, Altrincham
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Whitlow, S., Esq., Navigation Road, Altrincham
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Withers, P. M.B., Ashford, Hale
Woodhead, H. M., M.B., Chisholme, Sale

No. 2.—Ashton-under-Lyne Division

NUMBERING 48.

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Vice-Chairman, E. C. McCarthy, M.B., Stalybridge
Honorary Secretary, J. W. Talent, M.D., Wellbeck Place, Ashton-under-Lyne

Representative for Representative Meeting.

W. White, M.D., Hadfield

Representative on Branch Council.

Crawshaw, S., M.B.

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Corns, John W., Esq., Town Hall Chambers, Ashton-under-Lyne
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Hill on, A., Esq., Long's Huts, Hurst, Ashton under Lyne
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Miller, James, M.B., 121, Astley Street, Dukinfield
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Park, John R. S., Esq., 183, King Street, Dukinfield
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NUMBERING 79.

Chairman, G. S. Stansfield, Esq., Birkenhead
Vice-Chairman, A. Craigmile, M.D., Liscard
Honorary Secretary, J. H. Fardon, Esq., 59, Grange-mount, Birkenhead

Representative for Representative Meeting.

J. Lamhoit, M.D., 80, Price Street, Birkenhead

Representatives on Branch Council.

Milroy, W. C., M.D. | Pearson, H. L., Esq.

Anderson, W. C., M.B., 2, Falkland Road, Egremont
Anderson, W. H., M.B., Devonshire Park, Birkenhead
Barton, F., Esq., 30, Sea Bank Road, Liscard
Bell, E. A., M.B., 1, Sandymount Drive, New Brighton
Bentley, H. K., Esq., 16, Serpentine Road, Liscard
Bicknell, A., M.B., 17, Banks Road, W. Kirby
Blood, J. F., M.D., Sqn.-Mj., I.M.S., 8, Lorne Rd., Birkenhead
Brewer, G. S., Esq., 7, Park Road East, Birkenhead
Brice, E. H., M.D., Dove-vin, Rock Ferry
Bristow, W. M., Esq., Seabank Road, Liscard
Brown, A. C., M.D., Dacre Hill, Rockferry
Brown, W. Mel., M.B., 2, Park Road, West Kirby
Butcher, A. H., Esq., Park Road East, Birkenhead
Buxton, H., Esq., Somerville, Seacombe
Caine, N., M.D., New Ferry Park, Birkenhead
Carruthers, J., M.D., Rock Ferry
Craigmile, A., M.D., Manor Road, Liscard
Dalzell, W. R., M.B., Normanston, Birkenhead
Davies, J. T. M.B., Liscard Road, Seacombe
Dawson, H. G. F., Esq., 35, Beresford Road, Birkenhead
Dixon, J. H., M.B., Church Road, Birkenhead
Dwyer, H. H., Esq., Hawkshead, Hoylake
Fardon, J. H., Esq., 59, Grangemount, Birkenhead
Floyd, T. S., M.D., 16, Devonshire Road, Birkenhead
Floyd, W. R., M.B., 29, Devonshire Road, Birkenhead
Garson, W. R. J., M.B., Bebington, Birkenhead
Godwin, A. H., Esq., Seaview Lodge, Liscard
Grant, Lewis, M.B., Redcliffe, Neston
Grindrod, Cyril J. W., Esq., 11, Krowsley Road, Rock Ferry
Harrington, S. B., M., Esq., 1, Woodchurch Rd., Birkenhead
Harris, A. C. E., M.B., 2, Devonshire Place, Birkenhead
Heatherley, F. M.B., Bebington, Rock Ferry
Hocken, W. M., Esq., Poulton Villa, Poulton, Seacombe
Hopper, A. S., M.B., 44, Earlston Road, Liscard
Inman, F. W., M.D., 90, Brighton Street, Seacombe
Johnston, F., M.B., 49, Devonshire Rd., Claughton, Birkenh'
Ker, Alice Jane S., M.D., James Street, Oxton
Kidd, W. A., Esq., Price Street, Birkenhead
King, R. T., M.D., West Kirby
Knowles, E., M.D., 19, Church Road, Birkenhead
Lambert, J., M.D., 80, Price Street, Birkenhead
Lawton, W., M.B., Grove Road, Wallasey
Leask, W. M.B., Prenton Road, W., Birkenhead
Lloyd, H. W., Esq., Dudley Road, New Brighton
Luck, T. G., M.B., Rowson House, New Brighton
McAfee, W., M.D., West Kirby, Birkenhead
MacSwiney, E. V., M.D., 12, Wellington Road, Oxton, Birkenhead
Main, W. R., Esq., Heswall
Marsden, R. S., M.B., Town Hall, Birkenhead
Milroy, W. C., M.D., 68, Seabank Road, Liscard
Montgomery, A. W., M.B., 68, St. Paul's Road, Seacombe
Morris, R. D., M.D., 23, Balls Road, Oxton, Birkenhead
Moss, A., M.B., Lisheen, Bank's Road, West Kirby
Murphy, M., Esq., Carrigeen, Woodchurch Rd, B'k'nhead
Murray, J. J. G., M.B., Eblana, Liscard Road, Egremont
Noble, J., M.B., Rockferry
Pearson, H. L., Esq., Holthill, Tranmere, Birkenhead
Pearce, F., M.D., Hoylake, Birkenhead
Philpots, Harris, M.B., 10, Chetwynd Road, Oxton, Birkenhead

Pierce, W. A., Esq., 46, Grange Mount, Birkenhead
Pinkerton, J., M.D., 39, Park Road South, Birkenhead
Pollard, G. W., M.D., 25, Park Road South, Birkenhead
Ransome, A., M.D., F.R.S., 56, Shrewsbury Road, Birkenhead
Ransome, A. C., M.B., 56, Shrewsbury Road, Birkenhead
Riddell, A. W., Esq., 91, Rowson Street, New Brighton
Sanderson, J. A., Esq., 3, St. Martin's Lane, Liscard
Sclater, N. C., Esq., 12, Earlston Road, Liscard
Smith, D. M., M.D., 91, Seabank Road, Liscard
Smythe, J. D., M.D., 11, Euston Grove, Birkenhead
Sproat, J. H., M.B., 47, Cavendish Drive, Rock Ferry
Stansfield, G. S., Esq., 19, Hamilton Square, Birkenhead
Stewart, A., M.D., 55, Devonshire Road, Birkenhead
Stones, G. J., Esq., 14, Melrose Ter., Rake Lane, Liscard
Temple, L. D., M.D., Bedford Road, Reckleriy
Thorp, Winifred, Union Infirmary, Birkenhead
Vacher, F., Esq., Glanmor, Shrewsbury Road, Birkenhead
Wilkinson, S., Esq., 4, Hamilton square, Birkenhead
Wilson, A. R., M.D., Trafford House, Liscard
Yeoman, J. B., M.D., Neston

No. 4.—Blackburn Division

NUMBERING 68.

Chairman, John Barr, M.B., Blackburn

Vice-Chairman, J. T. Ballantyne, M.B., Darwen

Honorary Secretary and Treasurer, A. Greenwood, M.D. Vine House, Revidge Road, Blackburn

Representative for Representative Meeting.
E. H. T. Nash, Esq., Oakfield House, Accrington

Executive Committee.

Baxter, A., M.B.	Martin, J. M. H., M.D.
Craig, Dr.	Wallers, W., Esq.

Representatives on Branch Council.

Moir, W., M.D.	Nash, E. H. T., Esq.

Aitchison, J. P., M.D., 71, Preston New Road, Blackburn
Aitken, R. Y., M.D., 53, Preston New Road, Blackburn
Ballantyne, J. T., M.B., Green Street, Darwen
Bannister, M., M.B., Parkgate, Blackburn
Barker, W. E., M.B., 1, Castle View, Clitheroe
Barr, John, M.B., Willow Grange, Rishton, Blackburn
Barton, John, Esq., 410, Audley Range, Blackburn
Baxter, A., M.B., 39, Sudwell Road, Darwen
Bowen, A. V., Esq., 66, Preston New Road, Blackburn
Bowes, J. E., M.B., Sherwood, Clifton Street, Rishton
Brook, S. W., M.B., Willows Lane, Accrington
Clayton, J. S., M.D., Ewbank House, Accrington
Clegg, R., Esq., Clayton-le-Moors, Accrington
Craig, A. B., M.B., 43, Blackburn Road, Church
Craig, J., Esq., 56, Bolton Road, Darwen
Cran, J., M.D., Great Harwood, near Blackburn
Cunliffe, Riley, M.D., 47, Eanam, Blackburn
Davies, G. H., Esq., 91, Preston New Road, Blackburn
Dougal, J., M.D., 141, Preston New Road, Blackburn
Duthie, W. C., M.B., Beechwood, Infirmary Rd., Blackburn
Fenwick, James, Esq., 15, Avenue Parade, Accrington
Foley, J., Esq., 53, Audley Range, Blackburn
Fox, J. Vincent, M.B., Myrtle House, Accrington
Frankish, T., M.B., Blackburn Road, Accrington
Geddie, W., M.D., Waterloo House, Accrington
Gifford, G. T., M.D., Park Villas, Darwen
Gill, F. A., M.D., Langho Reformatory, Whalley, Blackburn
Greenwood, A., M.D., Vine House, Revidge Rd., Blackburn
Greenwood, Alan Y., M.B., Garbett House, Accrington
Greeves, F. J., Esq., St. Albans View, Blackburn
Gregson, A. H., M.B., 86, Lower Audley Street, Blackburn
Haworth, F. G., Esq., Vale House, Darwen
Heron, D., F.R.C.S., Hampden House, Richmond Hill, Accrington
Heyliger, E. D. S., M.B., 89, Preston New Road, Blackburn
Heywood, T. W., Esq., Lower Bank, Darwen
Hogan, M., Esq., 82, Bury Street, Darwen
Hunt, R., Esq., 54, Preston New Road, Blackburn
Jones, W. E., Esq., 64, Ainsworth Street, Blackburn
Macklin, T. T., M.D., The Croft, Whalley
Marsden, J. T., M.B., 7, Railway Road, Darwen
Martin, J. M. H., M.D., Arnheim, Blackburn
Miller, J. W., M.D., Isolation Hospital, Blackburn
Mitchell, E., Esq., Peveril House, Accrington
Moffatt, A. P., Esq., Bastwell House, Blackburn
Moir, W., M.D., Belgrave Square, Darwen
Musson, A. W., M.B., 15, King Street, Clitheroe
Nash, E. H. T., Esq., Oakfield House, Accrington
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Smith, W. Allan, M.B., Mount Coffer, Darwen
Stahlknecht, B., M.B., 172, St. Hubert's Road, Gt. Harwood
Steele, W. F., Bolton Road, Darwen
Stephenson, P. W. M., M.B., Mayfield, Blackburn
Sutherland, A. L., M.B., 9, Richmond Terrace, Darwen
Taylor, F. W., M.B., 2, Russell Street, Blackburn
Tough, W. R., M.D., Parkside, Accrington
Townley, A. E., M.B., 239, Union Road, Oswaldtwistle
Wallers, W., Esq., Blackburn
Wells, John W., M.D., Springburn House, Blackburn
Willett, John, Esq., Pleasant View, Hollins Grove, Darwen
Wraith, J. H., Esq., Newhaven, Darwen
Wraith, O. S., Esq., Thornleigh, Darwen

No. 5.—Blackpool Division

NUMBERING 49.

Chairman, W. B. Richardson, Esq., Blackpool

Vice-Chairman, A. M. Eason, Esq., Lytham

Honorary Secretary, F. J. H. Coutts, M.D., 264, Hornby Road, Blackpool

Representative for Representative Meeting.
F. J. H. Coutts, M.D., 264, Hornby Road, Blackpool

Representative on Branch Council.
Day, P. H., Esq.

Executive Committee.

Anderson, J., M.B.	Dunderdale, R. H. W., Esq.
Booth, F., M.D.	Forbes, G., M.B.
Court, C., M.B.	Molloy, L. G. S., M.D.
Day, P. H., Esq.	Williams, W. H., M.D.

Anderson, J., M.B., Poulton-le-Fylde
Armstrong, W. L., M.B., West End House, Green Eccleston
Barton, H. T., M.B., 48, Lytham Road, Blackpool
Billing, G., Esq., 120, Church Street, Blackpool
Booth, F., M.D., Sunny Bank, St. Anne's-on-Sea
Conway-Hughes, L. P., Esq., 123, Warbreck Road, Claremont Park, Blackpool
Couper, S., M.B., 50, Alexandra Rd., South Shore Blackpool
Court, C., M.B., Moor Villa, Kirkham
Coutts, F. J. H., M.D., 264, Hornby Road, Blackpool
Day, P. H., Esq., Stalmine Lodge, near Poulton-le-Fylde
Dunderdale, R. H. W., Esq., 4, Raikes View, Blackpool
Eason, A. M., Esq., Park Villa, Lytham
Elliott, A. C., M.B., 29, Wood Street, St. Anne's-on-the-Sea
Falconer, F., M.B., Westbank Avenue, Ansdell, Lytham
Fearnhead, T., Esq., West Beach, Lytham
Fisher, T., Esq., Great Eccleston
Forbes, G., M.B., 2, Kensington Pl., South Shore, Blackpool
Foyl, C. A., Esq., Foxhall Square, Blackpool
Gardner, A., M.B., 2, Devonshire Road, Blackpool
Hardman, W., M.B., Seabank Terrace, Blackpool
Heaney, F. J. S., M.D., 3, Brighton Parade, Blackpool
Hilliard, Ephraim, Esq., Queens Square, Blackpool
Iredale, Allen, M.B., Central Drive, Blackpool
Jackson, W. T., Esq., Morningside, St. Anne's-on-the-Sea
Jeffrey, N. S., M.B., 2, Raikes Road, Blackpool
Johnson, J., Esq., Yates Street, North Shore, Blackpool
Kershaw, John, Esq., 46, North Drive, St. Anne's-on-the-Sea
Knight, E., M.B., Glengarth, St. Anne's-on-the-Sea
Lawton, Arthur, M.B., 37, Warbreck Road, Blackpool
McIntosh, L. M., M.D., 97, Adelaide Street, Blackpool
Merrall, Harry, M.B., 7, North Drive, St. Anne's-on-Sea
Molloy, L. G. S., M.D., 3, Brighton Parade, Blackpool
Monteath, T. P., M.B., 298, Lytham Road, South Shore, Blackpool
O'Connor, J., M.D., 7, Clifton Drive South, St. Anne's-on-Sea
Parkinson, H. R., Esq., Great Eccleston
Porter, T., M.B., St. Anne's Road East, St. Anne's-on-Sea
Preston, J. R., Esq., Beechville, Fleetwood
Rhodes, F. S., Esq., Hope Villa, Thornton, Poulton le Fylde
Richardson, W. B., Esq., 33, Victoria Street, Blackpool
Robinson, W. H., Esq., Mount Road, Fleetwood
Shaw, W. W., Esq., Kirkham
Stewart, John, M.B., Warrick Rd., North Shore, Blackpool
Stott, F. W. A., M.B., Church St., South Shore, Blackpool
Swanson, J. A., Esq., 253, Lytham Road, Blackpool
Taylor, Andrew, M.B., Old Hall, Stalmine, Poulton-le-Fylde
Vinter, C. H. S., Esq., The Gables, Station Road, Blackpool
Walter, R. A., Esq., 282, Lytham Road, Blackpool
Williams, W. H., M.D., Rossall School, Fleetwood
Woodhead, W. F. C., Esq., South Drive, St. Anne's-on-Sea

No. 6.—Bolton Division

NUMBERING 56.

Chairman, C. Macfie, M.D., Bolton

Vice-Chairman,

Honorary Secretary, H. J. Taylor, Esq., 44, St. George's Road, Bolton

Representative for Representative Meeting.
James Young, Esq., Bolton

Representatives on Branch Council.

Macfie, C., M.D.	Kershaw, A., M.D.

Ainsworth, R., M.B., Westholme, Chorley New Road, Bolton
Alderson, G. P., M.B., Bank House, Turton
Boulton, Thomas, Esq., Astley Bank, Blackburn Rd., Bolton
Brazil, W. H., M.D., 365, Blackburn Road, Bolton-le-Moors
Brown, L., Esq., 28, Chorley Old Road, Bolton
Bryce, W. H., M.B., 22, Chorley New Road, Bolton
Coats, J. Mandall, M.B., Scholesbank, Horwich
Cosgrave, A., Esq., The Oaks, near Bolton
Davorén, A. J., M.B., 35, Queen's Gate, Bolton
Dawson, C. H., M.B., 10, Thickelford Rd., Tonge Moor, Bolton
Derham, B., M.D., 110, St. George's Road, Bolton
Ferguson, J. H., Esq., 53, Manchester Road, Bolton
Flitcroft, T. E., Esq., Chorley New Road, Bolton
Garstang, E. M., M.D., Highfield, Radcliffe Road, Bolton
Gilchrist, R. M., M.B., 304, Derby Street, Bolton
Gould, J. E., M.D., Town Hall, Bolton
Hall, J. H., Esq., 383, Manchester Road, Bolton
Higginson, A., Esq., Vernon Street, Bolton
Jefferies, Horace, Esq., 38, St. George's Place, Bolton
Johnston, J., M.D., Lostock Lane, Bolton
Johnston, John, M.B., Long Causeway, Farnworth, R.S.O.
Kerr, F. F., M.D., Kildonan, Horwich
Kershaw, A., M.D., Vicarage Road, Farnworth, Bolton
Kilpatrick, R. R., M.B., 14, Angle Bank, Bolton-le-Moors
Macfie, C., M.D., 240, St. George's Road, Bolton
Mallett, F. R., M.D., Newport House, Bolton
Marsh, J. Holt, Esq., Little Hulton, Bolton-le-Moors
Marshall, Jean M. F., M.B., Derby Street, Bolton
Martin, W. Y., M.D., J.P., Walkden, near Bolton
Monks, Ernest, M.B., Haulgh, Bolton
Morris, W., Esq., 62, St. Helens Road, Bolton
Mothersole, R. D., M.D., 128, St. George's Road, Bolton
Nuttall, W., M.B., Little Lever, near Bolton
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Panton, J. E., M.D., Moss House, Bolton
Park, A. G., M.D., Folds House, Bolton
Patchett, E. J., Esq., 89, Rishton Lane, Bolton
Pattinson, T. W., Esq., 65, Orlando Street, Bolton
Pickford, J. S., Esq., Little Lever, near Bolton
Rigby, W. G., M.B., Adlington
Robinson, J., M.D., Dunscar, near Bolton
Rose, Andrew, M.B., Duff House, Horwich
Sayers, R., M.D., 11, Manchester Road, Walkden, Bolton
Settle, R., M.D., 39, Chorley New Road, Bolton
Sewell, J. S., M.B., Winter Hay House, Horwich
Spencer, G. H., Esq., 185, Albert Road, Farnworth
Taylor, A. R., M.D., 127, High Street, Bolton
Taylor, H. J., Esq., 44, St. George's Road, Bolton
Thompson, J. H., M.D., 248, Chorley Old Road, Bolton
Thornley, J., M.D., 246, Halliwell Road, Bolton
Tong, L., Esq., 851, Chorley Old Road, Bolton
Unsworth, J. W., M.B., Blackrod
Webster, F. B., Esq., 76, Cooper Street, Bolton
Whitaker, G. H., Esq., Horwich
Wood, James, Esq., 141, Derby Street, Bolton
Young, James, Esq., 267, Derby Street, Bolton

No. 7.—Burnley Division

NUMBERING 32.

Chairman, R. C. Holt, M.D., Burnley

Vice-Chairman, C. M. Mitchell, M.D., Nelson-in-Marsden

Honorary Secretary, Jas. Haworth, M.B., Willfield House, Burnley

Representative for Representative Meeting.
E. H. T. Nash, Esq., Oakfield, Accrington

Representative on Branch Council.
Ferguson, J. M., Esq.

Agnew, A. P., M.B., Lyndhurst, Padiham
Alderton, H. C., Esq., Barnoldswick Colne
Anderson, C. A., M.B., 89, Rectory Road, Burnley
Bird, W., M.B., Brierfield, near Burnley
Burns, J., Esq., Fulledge House, Burnley
Cadman, H. C., M.B., Park Road, Barnoldswick
Dickey, A. A. G., M.D., Higgen House, Colne
Ferguson, J. M., Esq., Ash Grove, Burnley
Findlay, Andrew, M.B., 30, Carr Road, Nelson
Giffen, S. M., Esq., 54, Bank Parade, Burnley
Grant, Alex., M.B., 31, Albert Road, Colne
Haworth, James, M.B., Willfield House, Burnley
Holt, Thos., M.B., 36, Colne Road, Burnley
Holt, R. C., M.D., 60, Bank Parade, Burnley
Horn, R., M.D., Crosshill, Padiham
Hoyle, John, Esq., Adlington House, Brierfield
Jones, F. R., M.B., 7, Keighley Road, Colne
Jones, J. Grant, M.D., 47, Church Street, Padiham
Kippax, J., M.B., 7, Colne Road, Burnley
Lovett, W. L., Esq., Colne
Mackenzie, J., M.D., 68, Bank Parade, Burnley
Marsden, F. W., Esq., Rookwood House, Burnley
Millar, A. F., M.D., Nelson-in-Marsden
Mitchell, C. M., M.D., Carr Road, Nelson-in-Marsden
Normington, A. E., M.B., Nelson
Pim, F. E. De B., Esq., Barrowford, Nelson
Piper, W. O., Esq., Bankfield, Nelson, Lancs.
Robb, A., M.D., 38, Carr Road, Nelson
Sinclair, A. M., M.B., Manchester Road, Burnley
Slane, H. J., M.B., 9, Todmorden Road, Burnley
Tate, Isabel, A., M.D., The Infirmary, Burnley
Wright, W., M.D., 56, Oakmount Terrace, Burnley

No. 8.—Bury Division

NUMBERING 34.

Chairman, J. B. Kerr, M.B., Bury

Vice-Chairman, W. Aspinall, Esq., Haslingden

Honorary Secretary, Wm. C. Burns, M.B., 94, Walmersley Road, Bury

Representative for Representative Meeting.
Robert Mitchell, M.D., Bury

Representative on Branch Council.
Kerr, J. B., M.B.

Aspinall, W., Esq., The Willows, Bury Road, Haslingden
Baird, W. J., Esq., Springwell, Manchester Road, Bury
Brindley, A. E., M.D., The Elms, Walmersley Road, Bury
Bromhall, E., Esq., 124, Burnley Road, Rawtenstall
Broomhead, James, M.B., 18, Manchester Rd., Haslingden
Burns, W. C., M.B., 94, Walmersley Road, Bury
Cook, J. W., M.B., 26, Manchester Road, Bury
Coutts, J. A., M.D., Waterfoot, near Manchester
Eames, J. C., M.D., Stonecliough, Manchester
Edwards, A. A., M.D., Bank House, Rawtenstall
Farquharson, D. P. M., M.B., Bank House, Radcliffe
France, W. J., Esq., 65, Stanley Street, Bury
Greenhalgh, H., Esq., 155, Roach Ter., Rochdale Rd., Bury
Harrison, J. A., M.B., Haslingden
Holmes, F. B. G., M.B., 78, Walmersley Road, Bury
Jelly, G. A., Esq., 239, Walmersley Road, Bury
Johnson, I. W., M.D., Brook House, Bury
Kerr, B., M.B., Florence Nightingale Infectious Hospital, Bury
Kerr, J. B., M.B., 9, St. Maries Gate, Bury
Knowles, R., Esq., 12 Well Bank, Haslingden
Lawrie, H., M.B., 43, Bolton Street, Ramsbottom
Lees, J. E., M.B., Elton, Bury
Lucas, Arthur, Esq., Stanley Place, Bury
Lusk, Thos., M.D., 133, Walmesley Road, Bury
MacLaren, C., M.D., 73, Walmersley Road, Bury
Mitchell, Robert, M.D., The Wylde, Bury
Nuttall, A. P., M.D., 18, Clough Street, Bury
Parks, J., Esq., Bank House, Manchester Road, Bury
Rawsthorne, H., Esq., Deardengate House, Haslingden
Robertson, W., Esq., Holly House, Rawtenstall
Saville, H. W. B., Esq., Radcliffe, Manchester
Silverwood, J., Esq., 171, Bolton Road, Elton, Bury
Sugden, S., Esq., Greenfield House, Newchurch
Troup, J., M.B., Allandale, Whitefield

No. 9.—Chester Division

NUMBERING 48.

Chairman, J. Taylor, Esq., Chester

Vice-Chairman, F. M. Granger, Esq., Chester

Honorary Secretary and Treasurer, H. W. King, M.D., 26, Nicholas Street, Chester

Representative for Representative Meeting.
H. W. King, M.D., 26, Nicholas Street, Chester

Representative on Branch Council.
Atkinson, J., Esq., Crewe

Executive Committee.

Cahill, M., Esq.	Jephcott, C., M.B.
Duff, John, M.D.	Parry, T. S., M.B.

Ambler, J. R., Esq., Co. Asylum, Chester
Annett, H. E., M.B., Crofton Lodge, Runcorn
Archer, A. M., M.D., Dee Hill Lodge, Boughton, Chester
Archer, S. L. H., Esq., Edgeley Lodge, Haughton, Tarporley
Blagden, J. J., Esq., 10, Nicholas Street, Chester
Booth, L. T., Esq., Northgate Lodge, Chester
Briant, A. J., Esq., Helsby
Brierley, T. B., Esq., Tattenhall
Burton, W. E., Esq., Brockton, Frodsham
Butt, F. J., M.D., The Limes, Hoole Road, Chester
Cahill, M., Esq., 110, Station Road, Ellesmere Port
Carruthers, W. H., M.D., Halton, Runcorn
Cullen, James, Esq., Tower House, Runcorn
Dobie, W. H., M.B., 2, Hunter Street, Chester
Dobie, W. M., M.D., 4, Hunter Street, Chester
Duff, John, M.D., 5, Abbey Street, Chester
Elliott, John, M.D., 24, Nicholas Street, Chester
Foster, S. W., M.B., Barrow, near Chester
Fraser, D., M.B., Roseneath Cottage, Buckley, Chester
Giffen, J. T., M.D., Esq., 138, Boughton, Chester
Granger, F. M., Esq., 18, Nicholas Street, Chester
Grills, G. H., M.D., County Asylum, Chester
Hamilton, A., Esq., 16, Whitefriars, Chester
Harrison, G., Esq., 13, Whitefriars, Chester
Jephcott, Charles, M.B., 2, The Northgate, Chester
Kenyon, G. A., M.B., Chester
King, H. W., M.D., 26, Nicholas Street, Chester
Lawrence, A., M.D., County Asylum, Chester
Lees, Wm., Esq., Bars House, Foregate Street, Chester
MacLennan, A., M.B., Grove House, Waterloo Rd., Runcorn
Mann, A., M.D., 18, Newgate Street, Chester
Moreton, J. E., Esq., Tarvin, Chester
Newall, W. A., M.D., 9, Grosvenor Street, Chester
Nott, H. W., Esq., Little Sutton, nr. Chester
Pattullo, H. A., M.B., Kelsall, near Chester
Parry, T. S., M.B., The Northgate Chester
Roberts, J., M.D., Abbey Square, Chester
Roberts, J. T., Esq., Dorchester House, Chester
Robinson, J., M.B., The Belvidere, Runcorn
Selby, T. J., M.B., Frodsham
Stolterfoth, H., M.D., 1, Grey Friars, Chester
Sutton, D. C., M.B., 62, Watergate Street, Chester
Taylor, J., Esq., Hargarth House, Chester

Welsh, John, Esq., 83, Turvin Road, Chester
Whichello, H., Esq., The Mount, Tattenhall
Williams, Lewis A., M.B., 67, Hoole Road, Chester
Wright, R. B., Esq., Folliott House, Chester
Young, T. F., M.D., Carlton, Little Sutton

No. 10.—Crewe Division

NUMBERING 49.

Chairman, J. Atkinson, Esq., Crewe

Vice-Chairman, J. W. Moody, Esq., Crewe

Honorary Secretary and Treasurer, A. J. Laird, M.D., Municipal Offices, Crewe

Representative for Representative Meeting.
H. W. King, M.D., 26, Nicholas Street, Chester

Representative on Branch Council.
R. T. Turner, M.D.

Executive Committee.
Lowe, C. E. M., M.B. | Millar, J. B., M.B.

Atkinson, J., Esq., Mirion House, Crewe
Bailey, E. C., M.B., Havelock House, Crewe
Bennett, C. H. W., Esq., Sandbach
Crutchley, H., M.D., Holmcroft, Alsager
Gray, E., Esq., Nantwich Road, Crewe
Harrison, T. H., Esq., Betley, near Crewe
Hodgson, W., Esq., J.P., Helmsville, Crewe
Laird, A. J., M.D., Municipal Offices, Crewe
Lapage, C. C., M.D., Elmwood House, Nantwich
Liddle, E. J., M.B., Lisscole, Crewe
Lowe, C. E. M., M.B., Brookin House, Crewe
Matthews, F. E., Esq., Welsh Row House, Nantwich
Millar, J. B., M.B., Earnscliffe, Edleston Road, Crewe
Moody, J. W., Esq., Hightown, Crewe
Munro, S. H., M.D., Nantwich
Robinson, W. S., Esq., Willaston, near Nantwich
Thomson, W., Esq., Wrenbury, Nantwich
Turner, R. T., M.D., Manor House, Nantwich
Wilson, C., M.D., Co la, Crewe

No. 11.—Glossop Division

NUMBERING 8.

Chairman, R. B. Sidebottom, Esq., Glossop

Vice-Chairman, A. C. Nicol, Esq., Glossop

Honorary Secretary, Arthur Walker, Esq., 16, High Street W., Glossop

* *Representative for Representative Meeting.*
W. White, M.D., Hadfield

Representative on Branch Council.
White, W., M.D.

Bollans, R. W., M.B., Hadfield, near Manchester
Bowden, W. J., M.B., Norfolk Street, Glossop
Mackenzie, D. J., M.D., North Road, Glossop
Mason, H. A., Esq., Broadbottom, near Manchester
Nicol, A. C., Esq., 93, High Street W., Glossop
Sidebottom, R. B., Esq., Redcourt, Glossop
Walker, Arthur, Esq., 16, High Street W., Glossop
White, W., M.D., Hadfield

No. 12.—Isle of Man Division

NUMBERING 16.

Chairman,

Vice-Chairman

Honorary Secretary,

Representative for Representative Meeting.
F. J. H. Coutts, M.D., 22, Read's Avenue, Blackpool

Bailey, J. H., M.B., Church Street, Port Erin, Isle of Man
Barbour, J. M., Esq., Ramsey, Isle of Man
Casey, P. F., Esq., 2, Kingswood Road, Douglas, Isle of Man
Clague, J., Esq., Castletown, Isle of Man
Cordiner, R., Esq., 22, Derby Square, Douglas
Cowin, W. S., Esq., 4, Waterloo Road, Ramsey, Isle of Man
Davies, C. A., M.D., Ramsey, Isle of Man
Gell, R., Esq., Peel, Isle of Man
Goulden, R., Esq., Peel, Isle of Man
Hannay, H. P., M.B., Castletown, Isle of Man
Mackenzie, T., M.D., Sydney Mount, Douglas, Isle of Man
Richardson, W., M.D., Union Mills, Isle of Man
Sugden, H. C., Esq., Ramsey, Isle of Man
Teare, J., M.B., Victoria Road, Castletown, Isle of Man
Thorburn, R., M.B., Bradda, Port Erin, Isle of Man
Wood, T. A., M.D., Albert Terrace, Douglas, Isle of Man

No. 13.—Leigh Division

NUMBERING 27.

Chairman, James King, M.B., Leigh

Vice-Chairman, R. J. Martin, M.D., Atherton

Honorary Secretary, M. J. Halton, Esq., 95, Chapel Street, Leigh

Representative for Representative Meeting.
F. Rees, M.D., 46, Dicconson Street, Wigan

Representative on Branch Council.
Jones B., M.D.

Anden, A. W. M., M.B., Birch House, Leigh
Beckitt, J. C., Esq., The Lindens, Leigh
Blakemore, B., Esq., Ingleside, Tyldesley, Manchester
Blakemore, H., Esq., 60, Market St., Atherton, nr. Manch.
Challinor, C., Esq., Avenue House, Leigh
Doyle, E. A., M.B., Birch House, Leigh
Duncan, W., M.D., Tyldesley
Gray, Thos., M.B., The Thistles, Tyldesley
Gray, William G., Esq., Brunswick House, Leigh
Greenhalgh, John, Esq., Garden House, Atherton
Hall, C. H., M.B., 7A, Leigh Road, Leigh
Hall, H. S., Esq., The Elms, Railway Road, Leigh
Halton, M. J., Esq., 95, Chapel Street, Leigh
Hamer, E. S., Esq., Tyldesley
Hamer, H., M.B., The Square, Tyldesley
Hayes, James, Esq., Stone House, Leigh
Jones, B., M.D., Avenue Gate, Leigh
Jones, Joseph, M.B., Howarth Cross, Henrietta St., Leigh
King, J., M.B., Leigh
Lowe, A. J., Esq., Home Lea, Boothstown
Marshall, B., Esq., Chapel House, Atherton
Martin, J. S., M.D., 84, Railway Road, Leigh
Martin, R. J., M.D., Atherton, Manchester
Sophton, Richard, Esq., 8, Chapel St., Bedford Leigh, Lancs
Sophton, Robert, Esq., Atherton, Manchester
Shaw, G. H., M.B., Burnleigh, Leigh
Wynne, F. P., M.B., 7, Bridge Street, Leigh

No. 14.—Liverpool (Bootle) Division

NUMBERING 64.

Chairman, Joseph Walker, Esq., Bootle

Vice-Chairman, Robert Turner, M.D., Bootle

Honorary Secretary, W. J. Fleetwood, M.D., 63, Walton Vale, Aintree

Representative for Representative Meeting.
Joseph Walker, Esq., Bootle

Representatives on Branch Council.
Fleetwood, W. J., M.D. | Wills, T. M., Esq.

Ahern, J. M., Esq., H.M. Prison, Liverpool
Anderton, W., Esq., Mansion House, Ormskirk
Bark, T. Taylor, M.B., 18, Victoria Road, Waterloo, Liverpool
Bates, T. W., Esq., Oriel House, Bootle, Liverpool
Blair, Mrs. G. A., L.S.A., 21, Church Street, Waterloo
Bradshaw, J. C., Esq., Donald Lodge, Walton, Liverpool
Brown, J. G., M.B., 196, Stanley Road, Bootle
Budden, C. W., M.B., 12, Cable Road, Hoylake, Liverpool
Buxton, Edward, M.D., South Road, Waterloo, Liverpool
Caregan, O. J., Esq., 53, Burscough Street, Ormskirk
Clemmey, W. N., Esq., 27, Merton Road, Bootle
Daley, W., Esq., Claremont House, Bootle
Dickson, M., M.D., 117, Gt. Mersey Street, Liverpool
Dunn, J., Esq., Tullallan, Waterloo, Liverpool
Evans, J. H., Esq., Crosby Road North, Waterloo, Liverpool
Fleetwood, W. J., M.D., 63, Walton Vale, Aintree, Liverpool
Gaskell, R. A., Esq., Glendevon, Huyton, Liverpool
Gasteen, W. C., Lt.-Col. R.A.M.C., Mayfield, Waterloo, Liverpool
German, F. F., Esq., 47, Sandy Road, Seaforth
Gordon, J. F., M.D., Rockfield, Maghull
Gordon, R., M.B., Everest House, Liverpool Road, Great Crosby
Heald, H., Esq., 20, Derby Street, Ormskirk
Hepton, J. C., Esq., Springfields, Waterloo
Houlgrave, A., Esq., 24, St. George's Road, Waterloo, L'pool
Huskie, James, M.B., Romsdal, Blundellsands
Hutchinson, G. A., Esq., Newstead, Crosby Road N., Waterloo
Laing, J. G., Esq., Netherby House, Latham, Ormskirk
Little, G. W., Esq., 49, Cambridge Road, Seaforth
McGeagh, R. T., Surg.-Capt. (ret.), 20, Spellow Lane, L'pool
McMurray, J., M.D., 56, Menton Road, Bootle
McVittie, J. W., Esq., Kirkby, Liverpool
Marsden, H. H., Esq., 28, Burscough Street, Ormskirk
Marsh, W. A., Esq., Skelmersdale, Ormskirk
Matthews, J. C., Esq., Agnes Rd., Blundellsands, Liverpool
Matthews, J., M.D., Porton Lodge, Blundellsands, Liverpool
Maudsley, H. A., M.B., 209, Westminster Road, Liverpool
Merrick, A. A. W., Esq., High Street, Skelmersdale
Metcalfe, G., M.D., 93, High Street, Skelmersdale
Mitchell, James, M.D., 142, County Road, Walton, Liverpool
Moore, W. G., Esq., 36, Everton Valley, Liverpool
Moyles, J. G., M.B., 2, Bedford Road, Walton, Liverpool
Nixon, J. P., M.B., Longmore Lane, Aintree, Liverpool
Oldershaw, George, Esq., 202, County Road, Liverpool
Owen, R., Esq., Sandy Nook, Seaforth
Paddock, T. D., Esq., corner of Linacre Lane and Stanley Road, Bootle
Pearson, A. C., M.D., 17, Walton Park, Liverpool
Pendlebury, J. P., Esq., Knowle House, Ormskirk
Price, A., Esq., Merrichank, Walton Park, Liverpool
Rafter, J., Esq., 41, Crosby Road, Waterloo, Liverpool
Reid, J. M., M.D., Stanley Villas, Great Crosby
Robinson, G. B., M.B., 1, Marine Terrace, Waterloo
Rotherham, W., Esq., Sandy Lane, Skelmersdale
Saunders, J. C., Esq., 76, Bedford Road, Bootle
Scholefield, G. E., M.D., Brentwood, Aughton, nr. Ormskirk
Sheldon, R. G., Esq., 223, Boundary Street, Liverpool
Stevenson, R., M.D., 12, Merton Road, Bootle
Sueden, E. Scott, M.D., Orrell Park, Aintree, Liverpool
Sumner, B., M.D., Capenhurst, Crosby Rd. N., Waterloo
Thomas, Alfred, Esq., 304, Rice Lane, Liverpool
Turner, Robert, M.D., 81, Wadham Road, Bootle
Walker, Joseph, Esq., 23, Merton Road, Bootle, Liverpool
Wild, G. S., M.D., Stanley Mount, Bootle, Liverpool
Wills, T. M., Esq., 44, Merton Road, Bootle, Liverpool
Wright, W. H., Esq., 16, Spellow Lane, Liverpool

No. 15.—Liverpool (Central) Division

NUMBERING 65.

Chairman, C. J. Macalister, M.D.

Vice-Chairman, T. D. Leigh, Esq., Liverpool

Honorary Secretary, Frank H. Parandt, M.D., 65, Rodney Street, Liverpool

Representative for Representative Meeting, A. G. Gullan, M.D., 57, Rodney Street, Liverpool

Representatives on Branch Council.
Barendt, F. H., M.D. | Newbolt, G. P., M.B.

Executive Committee.
Bradshaw, T. R., M.D. | Glynn, E. E., M.B.
Cairns, W. M., M.B. | Newbolt, G. P., M.B.
Douglas-Crawford, D., M.B.,

Alexander, W., M.D., 31, Rodney Street, Liverpool
Armstrong, H., M.D., 7, Rodney Street, Liverpool
Bailey, Frank W., Esq., 51, Grove Street, Liverpool
Barendt, Frank H., M.D., 65, Rodney Street, Liverpool
Barnes, E. W., Esq., 1, Oxford Street, Liverpool
Blackwood, A., M.D., 100, Bedford Street, S., Liverpool
Bligh, J., M.D., 106, Mount Pleasant, Liverpool
Boyce, Professor R., M.B., F.R.S., University of Liverpool
Bradshaw, T. R., M.D., 51, Rodney Street, Liverpool
Brannigan, R. A., M.D., 100, Upper Parliament St., Liverpool
Briggs, H., M.B., 3, Rodney Street, Liverpool
Browne, E. A., Esq., 39, Rodney Street, Liverpool
Bushby, T., M.B., 43, Catharine Street, Liverpool
Cairns, W. M., M.B., 67, Catharine Street, Liverpool
Currey, R. H., Esq., 154, Bedford Street, Liverpool
Dawson, T. M., Esq., 77, Upper Parliament St., Liverpool
Douglas-Crawford, D., M.B., 75, Rodney Street, Liverpool
Ellenbogen, A., Esq., 4, Elizabeth Street, Liverpool
Elliott, H. P., M.B., 111, Chatham Street, Liverpool
Fingland, W., Esq., 61, Rodney Street, Liverpool
Glynn, E. E., M.B., University of Liverpool
Griffith, F., M.B., Manor House, Hale, Liverpool
Grimsdale, T. B., M.B., 29, Rodney Street, Liverpool
Gullan, A. G., M.D., 57, Rodney Street, Liverpool
Hamilton, G. G., M.B., 19, Sandon Street, Liverpool
Harrisson, Damer, Esq., 53, Rodney Street, Liverpool
Hay, John, M.D., 7, Rodney Street, Liverpool
Henderson, W. S., M.B., 83, Rodney Street, Liverpool
Hill, C. A., M.B., 13, Rodney Street, Liverpool
Hopper, A. R., M.D., 63, Rodney Street, Liverpool
Hunt, J. M., M.B., 55, Rodney Street, Liverpool
Jones, H. E., Esq., 19, Rodney Street, Liverpool
Jones, T. C. L., Esq., 93, Rodney Street, Liverpool
Leigh, T. D., Esq., 85, Bedford Street, South, Liverpool
Livsey, W. E., M.D., 78, Rodney Street, Liverpool
Macalister, C. J., M.D., 35, Rodney Street, Liverpool
Marsh, N. P., M.B., 7, Abercromby Square, Liverpool
Monsarrat, K. W., M.B., 11, Rodney Street, Liverpool
Morgan, L. A., M.D., 118, Bedford Street, Liverpool
Murray, R. W., Esq., 15, Rodney Street, Liverpool
Nelson, P., M.D., 73, Rodney Street, Liverpool
Newbolt, G. P., M.B., 42, Catharine Street, Liverpool
Nuttall, J. S. W., M.B., 16, Falkner Square, Liverpool
Orr, W. C., M.B., 11, Oxford Street, Liverpool
Palmer, N. J., M.D., 32, Oxford Street, Liverpool
Parker, Rushton, M.B., 59, Rodney Street, Liverpool
Paterson, A. M., M.D., 21, Abercromby Square, Liverpool
Pegmewan, W., M.D., 7, Rodney Street, Liverpool
Phillips, E. J. M., Esq., 33, Rodney Street, Liverpool
Purser, J. J., M.D., 11, Oxford Street, Liverpool
Puzey, C., Esq., 71, Rodney Street, Liverpool
Robinson, H. A., M.D., 57, Canning Street, Liverpool
Sellers, A. E., Esq., 12, Hope Place, Liverpool
Sheurs, C. H. B., Esq., 19, Upper Duke Street, Liverpool
Sherrington, C. S., M.D., F.R.S., University of Liverpool
Spooner, W., Esq., 13, Gambier Terrace, Liverpool
Stephens, J. W. W., M.D., School of Trop. Med., Liverpool
Stevenson, E., M.D., 39, Rodney Street, Liverpool
Stockdale, E. M., Esq., 13, Upper Duke Street, Liverpool
Walker, A. N., M.B., 45, Rodney Street, Liverpool
Walker, G. E., Esq., 45, Rodney Street, Liverpool
Wallace, A. J., M.D., 1, Gambier Terrace, Liverpool
Warrington, W. B., M.D., 69, Rodney Street, Liverpool
Waters, A. T. H., M.D., 69, Bedford Street, Liverpool
Willett, J. H., M.B., 2 5, Catharine Street, Liverpool

No 16.—Liverpool (Northern) Division

NUMBERING 54.

Chairman, R. I. Richardson, M.B., Liverpool

Vice-Chairman, James Shaw, M.D., Liverpool

Honorary Secretary, A. W. German, Esq., 296, Kensington, Liverpool

Representative for Representative Meeting.
E. T. Davies, M.D., Liverpool

Representatives on Branch Council.
Richardson, R. I., M.B. | German, A. W., Esq.

Adcock, H., Esq., 143, Prescot Road, Fairfield, Liverpool
Anderson, E. L., M.B., 102, Queen's Road, Everton, L'pool
Archer, R. S., M.D., 15, St. Domingo Grove, Liverpool
Arkle, G. M., Esq., 51, Belmont Road, Liverpool
Bailey, Matthias, Esq., 321, West Derby Road, Tue Brook Liverpool
Baxter, J. C., Esq., 110, Robson Street, Everton, Liverpool
Bickerton, J. M., M.B., 6, Shaw Street, Liverpool
Blackledge, W. T., M.B., 2, Somerset Place, Liverpool
Blackwood, H. E., Esq., 335, Prescot Road, Stanley Liverpool
Bligh, Alex. M., Esq., 59, Shaw Street, Liverpool
Bond, J., M.B., 202, Burlington Street, Liverpool
Bowen, O., Esq., Mere Lodge, Everton, Liverpool
Chain, A., Esq., 44, Juvenal Street, Liverpool
Clarke, H. A., M.D., 1, Deane Road, Liverpool
Clegg, W. T., F.R.C.S., 97, Burning Road, Liverpool
Cooke, J. A., Esq., Tuebrook Villa, Liverpool, E.
Cornett, J. A., Esq., 17, Norton Street, Liverpool
Davies, E. T., M.D., 1, St. Domingo Grove, Liverpool
Dimond, J. E., Esq., 157, Breckfield Road North, Liverpool
Duffus, Geo., M.B., Tuebrook Villa, Liverpool
Duncan, George, Esq., 139, Queen's Road, Liverpool
Edwards, Percy, Esq., 1, Newsham Drive, Liverpool
Evans, T. C., Esq., 1, Rose Vale, Everton, Liverpool
Fisher, A., M.B., 86, Shiel Road, Liverpool
German, A. W., Esq., 296, Kensington, Liverpool
Hall, J. P., M.B., 7, Eaton Road, West Derby
Harcourt, R. E., M.D., Stonleigh, Oakfield, Anfield
Hicks, J. S., Esq., 2, Erskine Street, Liverpool
Holmes, I., Esq., Oakfield, Anfield, Liverpool
House, S. H., M.B., 4, Shaw Street, Liverpool
Hutton, Gertrude M., L.R.C.P. and S.E., 1, Elm Bank Walton Breck Road, Liverpool
McFeely, J. D., F.R.C.S.I., 8, Shaw Street, Liverpool
McGeagh, J. P., M.D., Stoneycroft, Liverpool
Mahony, M. J., M.D., 33, Derby Lane, Stoneycroft, Liverp'l
Matthews, S., M.D., 2, Edge Lane, Liverpool
Mitchell, H. McO., M.B., 35, Belmont Road, Liverpool, N.
Murdoch, J. D., Esq., 16, Breck Road, Anfield
Nixon, H. T., M.B., 269, Walton Breck Rd., Anfield, Liv'rpool
O'Leary, A. J., Esq., 3, Brownlow Street, Liverpool
O'Sullivan, J. E., Esq., 37, Shaw Street, Liverpool
Pitts, H., Esq., Tuebrook, Liverpool
Rae, R. Rochfort, Esq., 11, Netherfield Rd. S., Liverpool
Richardson, R. I., M.B., 128, Shiel Road Liverpool
Shaw, James, M.D., 310, Kensington, Liverpool
Smith, Robert Ross, Esq., 1, Shaw Street, Liverpool
Somerville, William, Esq., 30, Breck Road, Liverpool
Stevenson, T., M.B., 1, Springfield, St. Anne's St., Liverpool
Stott, J. E., Esq., 201, Edge Lane, Liverpool
Thomas, A. L., Esq., 25, Derwent Rd., Stoneycroft, Liverpool
Tisdall, J. J., Esq., 8, Edge Lane, Liverpool
Whitford, W., M.D., 47, Shaw Street, Liverpool
Wilkins, Walter, Esq., 2, Haymans Green, Liverpool
Williams, E. C., M.D., 175, Brownlow Hill, Liverpool
Williams, O. T., M.D., 9, Oakfield, Anfield

No. 17.—Liverpool (Southern) Division

NUMBERING 59.

Chairman, G. W. Steeves, M.D., Liverpool

Vice-Chairman, J. N. Cregeen, Esq., Liverpool

Honorary Secretary, J. C. M. Given, M.D., Elmsley Road, Mossley Hall, Liverpool

Representative for Representative Meeting.
J. R. Logan, M.B., 81, Hartington Road, Liverpool

Representative on Branch Council.
Cregeen, J. N., Esq.

Armour, T. R. W., M.B., 25, Park Way, Liverpool
Bell, W. B., M.B., Mayfield, Aigburth, Liverpool
Bennett, W. B., Esq., 2, Ashfield Road, Aigburth, Liverpool
Broad, W. H., M.B., 18, Princes Road, Liverpool
Campbell, W. M., M.D., 1, Princes' Gate, E., Princes Road, Liverpool
Carse, R. F., M.D., 170, Upper Parliament Street, Liverpool
Chisholm, J. M., M.D., Woolton, Liverpool
Cregeen, J. N., Esq., 21, Prince's Avenue, Liverpool
Cronyn, G. R. Esq., 43, Garmoyle Rd., Sefton Pk., Liverpool
Donnelly, D., Esq., 80, Aigburth Road, Liverpool
Evans, O. F., M.D., 71, Mulgrave Street, Liverpool
Fisher, H. W., Esq., Greenbank Drive, Sefton Pk., L'pool
Given, J. C. M., M.D., Elmsley Road, Mossley Hill, Liverpool
Gorst, Henry, Esq., Huyton, Liverpool
Grimes, J., M.D., Grassendale, Liverpool
Groom, H. T., Esq., Island House, Garston
Halton, Henry, M.B., 97, Hartington Road, Liverpool
Harvey, H., M.B., 57, Picton Road, Wavertree, Liverpool
Lee, C. G., Esq., 11, Princes Avenue, Liverpool
Lee, Miss Mary B., 39, Ivanhoe Road, Liverpool, S.
Logan, J. R., M.B., 81, Hartington Rd., Sefton Park, L'pool
Lyle, H. S., Esq., 209, Upper Parliament Street, Liverpool
McArdle, E. L., Esq., 239, Upper Parliament St., Liverpool
McClelland, J., M.D., Sefton Drive, Liverpool
McClelland, W., M.B., 171, Lodge Lane, Liverpool

MacKenna, R. W., M.B., 2, Langdale Rd, Sefton Pk, L'pool
Martin, J. G., M.B., 27, Croxteth Road, Liverpool
Michell, H. S., Esq., Willow Bank, Smithdown Road, Liverpool
Molyneux, E., M.B., 67, Woolton Road, Garston
Monro-Home, G. H., M.D., South Grange, Aigburth Road, Liverpool
Murdoch, W. H., M., M.D., 2, Southwood Road, Liverpool
Myles, T., M.D., 45, Egerton Street, Liverpool
Nisbet, J. Tawse, M.D., 7, Croxteth Road, Liverpool
O'Hagan, J. J., M.B., Woodbourne, Aigburth, Liverpool
Oliver, J. B., M.D., 59, Parkfield Road, Liverpool
Pethick, C. S., M.B., Woolton, Liverpool
Paterson, W. B., M.B., 15, Grassendale Road, Grassendale
Pritchard-Airey, W., Esq., Toxteth Park Infirmary, Liverpool
Reed, W. Cash, M.D., 15, Princes Avenue Liverpool
Rentoul, R. R., M.D., 78, Hartington Road, Liverpool
Roberts, N. E., M.B., 17, Mulgrave Street, Liverpool
Roberts, R. G., M.D., 2, Gresford Avenue, Liverpool
Ross, Ronald, Major, C.B., F.R.S., The Lodge, Aigburth Vale
Sharp, C. J., Esq., 2, Wellington Avenue, Liverpool
Shaw, H. T., M.D., 146, Upper Parliament St., Liverpool
Shaw, S. B., M.D., 23, Princes Avenue, Liverpool
Simpson, A. P. H., Esq., 108, Hartington Road, Liverpool
Smart, D., M.B., 74, Hartington Rd, Sefton Park, Liverpool
Smythe, A. W. S., Esq., 57, Crawford Avenue, Sefton Park, Liverpool
Solomon, C. E., Esq., 42, Bentley Road, Liverpool
Stack, M. T., M.B., 19, High Street, Wavertree, Liverpool
Steeves, G. W., M.D., 53, Parkfield Road Liverpool, S.
Vereker, C. V., Esq., Holly House, Woolton
Walker, A. F., Esq., 97, Arundell Avenue, Sefton Park
Warke, C. L., Esq., 242, Upper Parliament St., Liverpool
Westby, G., Esq., 189, Lodge Lane, Sefton Park, Liverpool
Williams, T. R., M.B., 4, Halkyn Avenue, Liverpool
Wood, R. L., M.B., Brookfield Huyton
Wright, J. D., M.B., 67, Parkfield Road, Liverpool

No. 18.—Liverpool (Western) Division

NUMBERING 61.

Chairman, James Barr, M.D., Liverpool

Vice-Chairman, W. T. Thomas, Esq., Liverpool

Honorary Secretary, K. A. Grossmann, M.D., 70, Rodney Street, Liverpool

Representative for Representative Meeting.
K. A. Grossmann, M.D., 70, Rodney Street, Liverpool

Representatives on Branch Council.
Grossmann, K. A., M.D. | Larkin, F. C., Esq.

Executive Committee.
Drummond, P., M.B. | Stookes, A., M.B.
Law, N., M.D. | Williams, R., Esq.

Abram, J. H., M.D., 74, Rodney Street, Liverpool
Allen, W. T. D., M.B., 77, Mount Pleasant, Liverpool
Arkle, A. S., Esq., 24, Rodney Street, Liverpool
Bark, J., Esq., 54, Rodney Street, Liverpool
Barr, James, M.D., 72, Rodney Street, Liverpool
Bennett, James Moore, M.D., 102, Princes Road, Liverpool
Bickerstett, E. R., Esq., 2, Rodney Street, Liverpool
Bickersteth, R. A., M.B., 10, Rodney Street, Liverpool
Bickerton, T. H., Esq., 84, Rodney Street, Liverpool
Bramwell, W., M.D., 26, Nelson Street, Liverpool
Buchanan, R. J. M., M.D., 6, Rodney Street, Liverpool
Burton, J. E., Esq., 64, Rodney Street, Liverpool
Cameron, J., M.D., 4, Rodney Street, Liverpool
Carter, W., M.D., 80, Rodney Street, Liverpool
Caton, R., M.D., 78, Rodney Street, Liverpool
Crawford, J. D., Esq., 40, Rodney Street, Liverpool
Davey, W. H. C., Esq., 30, Prince's Road, Liverpool
Davidson, F. M. B., 3, St. James Road, Liverpool
Davies, A. N., Esq., 56, Devonshire Road, Liverpool
Davis, A. E., Esq., 30, Great George Square, Liverpool
Drummond, P., M.B., 50, Princes Road, Liverpool
Dun, R. C., M.B., 6, Rodney Street, Liverpool
Finegan, J. H., M.D., 48, Rodney Street, Liverpool
Gemmell, J. E., M.B., 12, Rodney Street, Liverpool
Glynn, T. R., M.D., 62, Rodney Street, Liverpool
Grossmann, K. A., M.D., 70, Rodney Street, Liverpool
Hamilton, R. J., Esq., 42, Rodney Street, Liverpool
Hanna, Wm., M.B., Pier Head, Liverpool
Hawkins-Amber, G. A., Esq., 30, Rodney Street, Liverpool
Hill, Leslie V., Esq., 19, Upper Parliament Street, Liverpool
Holland, C. F., Esq., 23, Princes Road, Liverpool
Hope, E. W., M.D., Municipal Offices, Liverpool
Howard, J. A., Esq., 1, Belvidere Road, Liverpool
Irvine, W., M.D., 55, Peel Street, Liverpool
Johnston, G., M.B., 13, Great George Square, Liverpool
Jones, H., Esq., 184, Upper Warwick Street, Liverpool
Jones, Robert, Esq., 11, Nelson Street, Liverpool
Kelly, R. E., M.B., 24, Rodney Street, Liverpool
Larkin, F. C., Esq., 54, Rodney Street, Liverpool
Lowndes, F. W., Esq., 40, Knight Street, Liverpool
McDerby, M. S., M.D., 177, Park Road, Dingle Hill, Liverpool
McDougall, J. E., M.B., 86, Rodney Street, Liverpool
Meeson, A., Esq., 361, Park Road, Liverpool, S.
Mill, G. R., M.D., Royal Southern Hospital, Liverpool
Morgan, D., M.B., 46, Nelson Street, Liverpool
Mussen, A. A., M.D., Municipal Buildings, Dale St, Liverpool
O'Flaherty, F. B., M.B., 48, Park Place, Liverpool
O'Loughlin, W. F. N., Esq., Adelphi Hotel, Liverpool
Paul, P. T., Esq., 38, Rodney Street, Liverpool
Plant, R. W., M.D., 57, Upper Warwick Street, Liverpool
Raw, N., M.D., 66, Rodney Street Liverpool
Roberts, H. Leslie, M.D., 46 Rodney Street, Liverpool
Roberts, J. Lloyd, M.D., 68, Rodney Street, Liverpool
Shaw, J. H., M.B., South Dispensary, Liverpool
Stookes, A., M.B., 8, Rodney Street, Liverpool
Taylor, G. G. S., M.D., 26, Rodney Street, Liverpool
Thomas, W. T., Esq., 84, Rodney Street, Liverpool
Warlarton, J. W., M.D., 114, Prince's Road, Liverpool
Wilkinson, G., M.D., 3, Dingle Hill, Liverpool
Williams, R., Esq., 82, Rodney Street, Liverpool
Williams, W., M.D., 58, Rodney Street, Liverpool

No. 19.—Manchester (Central) Division

NUMBERING 73.

Chairman, J. J. Cox, M.D., Manchester

Vice-Chairman, J. Ferguson, M.D., Manchester

Honorary Secretary, W. K. Walls, M.B., 14, St. John Street, Manchester

Representative for Representative Meeting.
W. G. Booth, Esq., 30, Swan Street, Manchester

Representatives on Branch Council.
Booth, W. G., Esq. | Milligan, W., M.D.

Annacker, E., M.D., 342, Oxford Road, Manchester
Ashby, H., M.D., 13, St. John Street, Manchester
Ball, A. W., Esq., 2, Chapman Street, Manchester
Bell, Margaret S., L.C.P., 334, Oxford Road, Manchester
Bernstein, M. J., M.B., 17, St. Ann's Square, Manchester
Bishop, E. Stanmore, F.R.C.S., 189, High St., Manchester
Booth, W. G., Esq., 30, Swan Street, Manchester
Boycott, W. F., M.B., 92, Great Ancoats Street, Manchester
Burgess, A. H., M.B., 195 High Street, Manchester
Bury, J. S., M.D., 10, St. John Street, Manchester
Clarke, H. R., M.B., 37, York Chambers, Brazenose Street, Manchester
Clegg, J. G., M.D., 22, St. John Street, Manchester
Clifford, H., M.B., 15, St. John Street, Manchester
Collier, J., M.B., 157, High Street, Manchester
Cox, J. J., M.D., 38, Deansgate, Manchester
Cryer, J., Esq., 50, Upper Brook Street, Manchester
Dahms, Anna, M.D., 17, St. Ann's Square, Manchester
Delépine, Professor S., M.B., 1, Stanley Grove, Manchester
Dulberg, J., M.D., 260, Oxford Road, Manchester
Emrys-Jones, A., M.D., 10, St. John Street, Manchester
Ferguson, J., M.D., 266, Stockport Road, Manchester
FitzGerald, G. W., M.D., 335, Oxford Road, Manchester
Fotheringill, W. E., M.D., 1, Thorncliffe Grove, Manchester
Gibson, R., M.B., 140, Upper Brook Street, Chorlton-on-Medlock, Manchester
Griffith, A. H., M.D., 17, St. John Street, Manchester
Hall, I. Walker, M.B., The Owens College, Manchester
Hardie, J., M.D., 15, St. John Street, Manchester
Harris, T., M.D., 325, Oxford Road, Manchester
Heathcote, G., Esq., 83, Grosvenor Street, Manchester
Helme, T. Arthur, M.D., Mayfield, Victoria Pk, M'chester
Henshaw, W. H., Esq., 30, Swan Street, Manchester
Heywood, C. C., M.B., Winter's Buildings, St. Ann Street, Manchester
Hill, E. F., M.B., 1, High Street, Chorlton-on-Medlock
Hodgkinson, A., M.B., 18, St. John Street, Manchester
Johnston, J. S., Esq., 26, Devonshire Street, All Saints, Manchester
Lamnith, L., M.B., 96, Mosley Street, Manchester
Lea, A. W. W., M.D., 246, Oxford Road, Manchester
Lund, H., M.B., 22, St. John Street, Manchester
McKeown, D., M.D., 25, St. John Street, Manchester
Mann, J. B., Esq., 26, St. John Street, Manchester
McNabb, H. H., M.B., 8A, St. John Street, Manchester
Mallett, W. J., M.D., 23, Lime Gr., Oxford Rd., Manchester
Mann, J. D., M.D., Plymouth Grove, Manchester
Marsden, R. W., M.D., 4, Swinton Grove, Manchester
Melland, C. H., M.D., 96, Mosley Street, Manchester
Milligan, W., M.D., 12, St. John Street, Manchester
Milner, E. T., Esq., 30, St. Ann Street, Manchester
Montgomery, W. F., M.B., 15, St. John Street, Manchester
Moody, W., M.B., 418, Stretford Road, Manchester
Parkinson, R. T., M.D., 236, Oxford Road, Manchester
Platt, J. E., M.D., 191, High Street, Manchester
Pritchard, Frank, M.B., 296, Upper Brook St. Manchester
Pritchard, H. W., Esq., 12, Brunswick Street, Chorlton-on-Medlock
Pritchard, W. B., Esq., 272, Oxford Road, Manchester
Ray, J. H., M.B., 22, St. John Street, Manchester
Reynolds, E. S., M.D., Plant Cottage, Rusholme, M'chester
Roberts, Charles, M.B., 15, St. John Street, Manchester
Roberts, D. L., M.D., 11, St. John Street, Manchester
Roberts, Edward, Esq., 23, St. John Street, Deansgate, Manchester
Scanlon, L. E., Esq., 101, Princess Road, Manchester
Scotson, F. C., M.B., Plymouth Grove West, Manchester
Scott, John, M.D., 249, Upper Brook Street, Manchester
Smith, J. W., Esq., 265, High Street, Manchester
Smith, R. B., Esq., 252, Oxford Road, C.-on-M., Manchester
Stadard, J. P., M.D., 256, Oxford Road, Manchester
Steell, G., M.D., 96, Mosley Street, Manchester
Thorburn, W., M.D., 2, St. Peter's Square, Manchester
Walls, W. K., M.B., 14, St. John Street, Manchester
Wharton, J., Esq., Royal Eye Hospital, Manchester
Whitehead, W., Esq., 17, Market Street, Manchester
Wilkinson, A. T., M.D., 22, St. John Street, Manchester
Williamson, R. T., M.D., 2, St. Peter's Square, Manchester
Wilson, A., Esq., 338, Oxford Road, Manchester
Wood, J. W. A., Esq., 53, Grosvenor Street, C.-on-M., Manchester
Worsley, R. Le Geyt, Esq., H.M. Prison, Manchester
Wright, C. A., M.B., 16 St. John Street, Manchester
Wrigley, P. E., Esq., Hulme Hall, Plymouth Grove, Manchester
Yeats, W., M.D., 57, Brown Street, Manchester

No. 20.—Manchester (North) Division

NUMBERING 66.

Chairman, S. Buckley, M.D., Manchester

Vice-Chairman, C. F. H. Kitchen, Esq., Manchester

Honorary Secretary, R. G. McGowan, M.D., Thomas Street, Cheetham Hill, Manchester

Representative for Representative Meeting.
G. H. Broadbent, Esq., 8, Ardwick Green, Manchester

Representatives on Branch Council.
Baddy, H. W., M.D. | Hargreaves, F. B., Esq.

Arnold, M. B., M.B., Monsall Hospital, Newton Heath, Manchester
Ashworth, J. H., M.B., 385, Cheetham Hill Rd., Manchester
Barnes, E., M.B., The Pole, Failsworth, Manchester
Braddon, W. V., Esq., Rycecroft House, Cheetham Hill
Broadbent, G. H., Esq., 8, Ardwick Green, Manchester
Boddy, H. W., M.D., Cheetham Hill, Manchester
Buck, W., Esq., Beswick House, Manchester
Buckley, S., M.D., Broadhurst, Bury Old Road, Manchester
Bythell, W. J. S., M.B., Woodcliffe, Prestwich
Carruthers, C., Esq., Barton House, Openshaw
Cliff, William, M.B., Highbank House, Openshaw
Dearden, W. F., Esq., Crumpsall Park, Manchester
Dick, J. S., M.B., Morley Place, Harpurhey, Manchester
Finkelstein, S., M.D., 104, Cheetham Hill Road, Manchester
Fraser, Alex., M.D., Queen's Park, Manchester
Fulton, A. B., M.B., Bank House, Cheetham Hill
Gilmour, A. J., M.D., 2, Higher Ardwick, Manchester
Gornall, R. G., Esq., Newton Heath, Manchester
Graff, H., Esq., 148, Cheetham Hill Road, Manchester
Hargreaves, F. B., Esq., 24, Ashton Old Road, Manchester
Holmes, W. S., M.B., 31, Wellington St., Bradford, M'chester
Hopps, Thomas, Esq., 51, Euclid Street, Beswick
Hoyle, John, Esq., 231, Oldham Road, Manchester
Hudson, J., Esq., Ebor House, Bradford, Manchester
Jackson, W. F., M.B., 46, Wycliffe Street, Ardwick
Johnstone, E., M.B., Brunswick House, Clayton
Jones, E. B., Esq., 919, Ashton Old Road, Openshaw
Jones, Leslie H., M.D., Limefield House, Cheetham Hill
Junk, D. C., M.B., Thornton House, Clayton
Kitchen, C. F. H., Esq., 112, Cheetham Hill Road, Manchester
Laing, J., M.B., 780, Rochdale Road, Manchester
Larkham, E. T., M.D., Daisy Bank, Heaton Pk, M'chester
Lawson, Alex., Esq., Holyrood, Prestwich
Lawson, R. P., Esq., 822, Ashton Old Rd., Higher Openshaw
Lee, E., Esq., 618, Rochdale Road, Manchester
McGowan, R. G., M.D., 1, Thomas Street, Cheetham Hill
McGrath, John, Esq., 469, Ashton Old Road, Openshaw
Macmillan, D., M.D., Addiscombe, Prestwich
Macpherson, J. T., M.B., 13A, Brunswick St., Ardwick Gr'n.
Mims, J., Esq., 152, Conran Street, Harpurhey
Moore, F. C., M.D., The Priory, Ardwick Green, Manchester
Moore, J. W., Esq., Miles Platting, Manchester
Morrow, R. W., Esq., 383, Oldham Road, Manchester
Muir, W. S., Esq., 184, Wellington St., Bradford, M'chester
Murray, H. G., Esq., County Asylum, Prestwich
Orr, David, M.D., County Asylum, Prestwich
Paton, R. A., M.B., Hendham House, Harpurhey, Manchstr.
Perceval, F., Esq., Co. Asylum, Prestwich
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Salerton, C. W. S., M.B., 10, Stockport Road, Ardwick
Saul, W. S., Esq., 41, Cheetham Hill Road, Manchester
Scott, B., M.B., 48, Ardwick Green, Manchester
Sellers, A. D., Guest Road, Prestwich
Skinner, C. G. L., M.D., Harpurhey, Manchester
Smith, J. W., Esq., 55 & 57, Pin Mill Brow, Ardwick
Southam, Stanley, Esq., 512, Rochdale Road, Manchester
Stephenson, W. H., Esq., 95, Rochdale Road, Blackley, Manchester
Tytler, P., M.D., 114, Cheetham Hill Road, Manchester
Walker, Edward Jabez, M.D., 118, Great Ducie Street, Manchester
Walsh, R. W., Esq., Ebor Lodge, Bury New Rd., M'chester
Wardman, W., Esq., 421, Rochdale Road, Manchester
Watson, J., M.D., 135, Stockport Road, Manchester
Whitelaw, A., Esq., 38, Rochdale Rd, Harpurhey, Manchstr
Whittington, T., Esq., Woodleigh House, Prestwich
Williams, W. T., Esq., 39, Great Ancoats St., Manchester
Young, T., M.D., 5, Stockport Road, Manchester

No. 21.—Manchester (Salford) Division.

NUMBERING 72.

Chairman, F. L. Roe, Esq., Eccles

Vice-Chairman, D. Owen, Esq., Irlam-o'th'-Heights

Honorary Secretary, J. H. Taylor, M.B., 299, Eccles New Road, Salford

Representative for Representative Meeting.
R. H. Wolstenholme, Esq., 15, Eccles New Road, Salford

Representatives on Branch Council.
Owen, D., Esq. | Wolstenholme, R. H., Esq.

Executive Committee.
Burgess, E. A., Esq. | McNair, S., Esq.
Evison, H. C., M.B. | Serra, C. L., M.D.
Hamill, J. W., M.D.

Albrecht, J. A., Esq., 343, Lower Broughton Rd., M'chester
Balmford, J. T., M.B., 237, Oldfield Road, Salford
Beesley, G. Wm., Esq., 226, Lr. Broughton Rd., Manchester
Bell, W. B., M.B., Brae Lea, Higher Broughton, M'chstr
Berry, J. J., M.D., West Dene, Pendlebury
Birley, H. K., Esq., Penrhyn, Irlam-o'th-Heights
Bold, H. A., M.B., Race Street, Salford
Boutflower, A., Esq., Kersal, Manchester
Bradley, J., Esq., 196, Chapel Street, Salford
Brightmore, H. S., M.B., Lime Field, Broughton Lane, Lower Broughton
Brown, A., M.D., Sandicroft, Higher Broughton
Brown, W. C., Esq., Heathfield, Broughton
Burgess, E. A., Esq., 20, Broad Street, Pendleton
Butterworth, J., jun., M.B., 13, Moorfield Road, Pendleton
Carr, T. G., Esq., Irlams-o'th-Heights, Manchester
Clarke, A. C., M.B., Ch.B. (Vict.), Higher Broughton
Courtenay, P. W. E., Esq., Bank House, Eccles
Cran, R. D., Esq., 187, Regent Road, Salford
Creighton, G. E., Esq., 221, Cross Lane, Salford
Davenport, J. A., M.B., Salford Royal Hospt., Manchester
Dowzer, John, Esq., Fern Acre, Eccles
English, Samuel, M.D., Belmont, Higher Broughton, Manchester
Evison, H. C., M.B., 813, Regent Road, Salford
Ferguson, G. H., M.B., 2, Weaste Road, Weaste
Ferguson, W. A., Esq., 195, Langworthy Road, Seedley
Garrard, C. R. O., Esq., Pendleton
George, A. C., Esq., 538, Eccles New Road, Pendleton
Grange, J. W., M.D., Highfield, Kersall, Manchester
Gray, Charles, M.B., 72, Stephen Street, Salford
Gray, J., Esq., 101, Broughton Lane, Manchester
Hamill, J. W., M.D., Higher Broughton, Manchester
Hamilton, W. M., M.D., Patricroft, Manchester
Hartley, S., M.B., Albany House, Pendleton
Herbert, J. W. O., Esq., Carrington House, Pendlebury
Johnson, T. M., M.D., Oakfield, Pendleton, Manchester
Johnson, W. C., Esq., 11, Trafford Road, Salford
Leach, Edgar, Esq., Pendleton Lodge, Patricroft, Manchstr.
Ludlam, A. K., Esq., 24, Trafford Road, Salford
Macnair, A. D., M.B., Gt. Clowes St., Higher Broughton, Manchester
McNair, S., Esq., 14, Langworthy Rd., Weaste, Manchester
Massey, James, M.B., Fitzwarren Street, Pendleton
Moreland, G., M.B., Gencaird, Cheetham, Manchester
Monteagle, H. W. B., M.D., 78, Broad Street, Pendleton
Morris, J. H., Esq., The Crescent, Salford
Mort, J. H., Esq., 381, Liverpool Road, Patricroft
Mullen, John Wm., Esq., Ladywell Sanatorium, Salford
Nolan, M. J., Esq., 211, Regent Road, Salford
O'Grady, W. F., Esq., Swinton
Orr, J., M.B., 3, Clarendon Road, Eccles
Owen, Esq., St. Brelades, Irlam o'th'Heights
Phipps, H. H., Esq., Larkhill Swinton
Pilkington, J. E., Esq., 24, The Crescent, Salford
Preston, H. H., Esq., 147, Church Street, Pendleton
Pringle, A. M. N., M.B., Darby Road, Weaste, Salford
Roe, F. L., Esq., Welington Road, Eccles Manchester
Serra, C. L., M.D., Eccles, near Manchester
Sowby, E. T., M.B., Windward, Worsley
Sidley, George, Esq., Monk's Hall, Eccles
Snape, H., M.B., 148, Bolton Rd., Barr Hill, Pendleton
Somers, D., Esq., 4, Leaf Square, Pendleton
Spearing, A., Esq., 142 Liverpool Road, Patricroft
Sprott, W. J., M.D., Heathfield, Eccles Old Road, M'chester
Stewart, A., M.D., Holly Bank, Eccles Old Road, Pendleton
Sturrock, A. C., M.D., 11, Victoria Crescent, Eccles
Tattersall, C. H., Esq., M.O.H., Salford
Taylor, J. H., M.B., 299, Eccles New Road, Salford
Walker, Tom, Esq., Chorley Rd, Swinton, Manchester
Williams, A., M.D., 251, Chapel Street, Salford
Williams, J. F., M.D., Broomfield, Swinton, Manchester
Wolstenholme, R. H., Esq., 15, Eccles New Road, Salford
Wood, J., Esq., 4, Spring Bank, Sandy Lane, Pendleton
Young, R. S., M.B., Monton Green, Eccles

No. 22.—Manchester (South) Division

NUMBERING 34.

Chairman, F. H. Collins, M.D., Didsbury

Vice-Chairman, J. M. Rhodes, M.D., Manchester

Honorary Secretary, P. McDougall, M.B., Oaks Villa, Fallowfield

Representative for Representative Meeting.
S. Bagley, Esq., Clowes Street, West Gorton, Manchester

Representatives on Branch Council.
Brown, E. V., M.D. | Glascott, C. E., M.D.

Anderton, W. B., M.B., Elsinore, Raynham Av., Didsbury
Ashton, George, M.D., Crescent Lodge, Fallowfield
Bagley, S., Esq., Clowes Street, West Gorton, Manchester
Barr, James, M.B., 663, Hyde Road, Gorton
Boyd, J. W., M.B., Carlton Terrace, Fallowfield, Manchester
Bride, John, M.D., High Bank, Parkshaw Park, Wilmslow
Brockbank, E. M., M.D., 51, Palatine Road, Withington
Brooke, H. A. G., M.B., Victoria Park, Manchester
Brown, E. Vipont, M.D., 2, Birch Lane, Longsight, Manchester
Byers, Alfred, M.D., Wilmslow, Manchester
Chadwick, A., M.B., Clyde Ho., Heaton Chapel, Manchester
Chadwick, J. M., Esq., 54, Cawdor Road, Fallowfield
Chevers, M. J., Esq., Withington
Christie, J. G., M.B., 397, Stockport Road, Manchester
Claye, E., Esq., 7, Norman Road, Rusholme
Collins, F. H., M.D., Bridge House, Didsbury, Manchester
Conway, B. W., Esq., 2, Newton Avenue, Longsight
Cotterill, A. E., Esq., 42, Brook Road, Fallowfield
Crossley, R., Esq., 173, Clowes St., West Gorton, M'nchester
Crowe, G. E., M.D., 8, Barlow Moor Road, Didsbury
Cruickshank, J. B., M.B., 240 Stockport Road, Levenshulme
Darwin, G. H., M.D., Albert Park, West Didsbury
Davie, G. H. Grant, M.B., 21, Egerton Road, Withington
Dickey, H. J., M.B., 24, Didsbury Road, Heaton Mersey
Donald, A., M.D., Victoria Park, Manchester
Doescheid, Julius, M.D. Stanley House Wilmslow Road, Withington
Edlin, H. E., Esq., Middlemore House, Levenshulme
Featherstone, John, Esq., 251, Wilmslow Road, Fallowfield
Ferriday, W., Esq., Holmwood, Slade Lane, Longsight, Manchester
Floyd, J. E., M.B., 144, Hyde Road, Gorton
Gamble, M., M.B., Arnwood, Wilbraham Rd., Fallowfield
Glascott, C. E., M.D., Lancaster Road, Didsbury
Godson, F. A., M.B., Westbrook, Central Rd., Wt. Didsbury
Goodfellow, T. A., M.D., 101, Palatine Road, West Didsbury
Grant-Johnston J., Esq., Ashford Grange, Wilmslow
Hacking, J. H., Esq., Alderley Road, Wilmslow, Manchester
Haring, N. C., M.B., 112, Wilmslow Road, Rusholme
Helme, G. E., M.B., Gloucester House, Rusholme
Holt, Henry, M.B., 98, Wellington Road, Brookfield, Heaton Chapel, Manchester
Hopkinson, Albert, M.B., 2, Parsonage Road, Withington
Howe, John, M.B., Eskdale, Levenshulme
Ilderton, H. P., Esq., Fairfield, near Manchester
Jones, W. W., M.B., 65, Barlow Moor Road, Didsbury
Jordan, F. W., M.D., Heaton Chapel, Manchester
Lancashire, G. H., Esq., Walton House, Withington
McDougall, P., M.B., Fallowfield, Manchester
Mackenzie, J. B., M.D., 10, Birch Lane, Longsight, Manchester
McNaughton, Maud R., M.B., 73, Barlow Moor Rd., Didsbury
Mayor, J. B., Esq., Westholme, Heaton Chapel
Mitchell, A. M., M.B., 357, Dickenson Road, Longsight
Moon, H. J., Esq., 91, Stockport Road, Levenshulme
Moritz, S., M.D., The Hornbeam, Rusholme, Manchester
Niven, J., M.B., Uplands, Victoria Park, Manchester
Platt, J. Noble, Esq., Whitefield House, Wilmslow
Priestley, J. Esq., Oak Drive, Fallowfield
Rhodes, J. M., M.D., Barlow Moor, Didsbury, Manchester
Rhodes, M. R., Esq., 77, Barlow Moor Road, Didsbury
Riddall, T. B., M.B., 189, Dickenson Road, Rusholme
Rigby, W. B., Esq., 233, Hyde Road, Gorton, Manchester
Robinson, Florence, M.B., 2, Clayton Villas, Gorton
Ross, J. O., M.D., Eaton House, Withington
Russell, G. H., M.D., 235, Stockport Road, Manchester
Salter, S. C., Esq., 391, Dickenson Road, Manchester
Saul, Helene G., M.D., Withington, Manchester
Scott, W. E. Sawers, M.D., 57, Wilmslow Road, Withington
Senior, A. W., Esq., 16, Albert Road, Levenshulme
Smith, H. S., M.B., 327, Stockport Road, Levenshulme
Smith, Prof. J. L., M.D., 35, Palatine Road, Withington
Simcock, J., M.D., Heaton Chapel, Manchester
Somerville, T. A., Esq., Wilmslow, Manchester
Southam, F. A., M.B., Oak Lown, Rusholme
Stirling, Professor W., M.D., Belfield Lodge, Willow Bank Fallowfield, Manchester
Stocks, W. P., Esq., 59, Wilmslow Road, Withington
Stotnard, W. J. Esq., 163, Palatine Road, Didsbury
Thompson, C. H., M.B., Thornville, Longsight, Manchester
Wahltuch, A., M.D., Moon Grove, Rusholme, Manchester
Walker, W., M.B., Rusholme Hall, Manchester
Webb, F. J., M.B., Edenagr ena House, Gorton
Westmacott, F. H., Esq., 21, Ladybarn Road, Fallowfield, Manchester
Wild, R. B., M.D., Wilmslow Road, Fallowfield, Manchester
Willis, J. D., Esq., 169, Hyde Road, West Gorton
Wolfendale, G. A., Esq., 52, Cross Lane, Gorton
Yates, T. P., Esq., 313, Abbey Hey Lane, Abbey Hey, Gorton
Young, A. H., M.D., 3, Norman Rd., Rusholme, Manchester

No. 23.—Manchester (West) Division

NUMBERING 69.

Chairman, J. Brassey Brierley, M.D., Old Trafford

Vice-Chairman, John Broadbent, Esq., Manchester

Honorary Secretary, J. S. Prowse, M.B., Willow Bank, Moss Lane East, Manchester

Representative for Representative Meeting.
J. Brassey Brierley, M.D.

Representative on Branch Council.
Brierley, J. Brassey, M.D.

Barlow, H. W. L., M.B., Urmston
Booth, T. Carter, M.D., Gorse Hill, Urmston
Bowman, G., M.D., Monifieth, Old Trafford, Manchester
Brierley, J. Brassey, M.D., Old Trafford, Manchester
Broadbent, J., Esq., 8, Sunny Bank, Alexandra Rd., Manchstr.
Brown, C. W., M.B., 7, Chorlton Road, Manchester
Burditt, R. A., Esq., 134, Embden Street, Manchester
Byrne, G., Esq., Wilbraham Road, Chorlton-cum-Hardy
Chance, R. F., Esq., Athol House, Brooks's Bar, M'nchester
Chapman, A. W., M.B., 6, Vine Street, Hulme, Manchester
Clegg, J., M.B., Netterley, Urmston, Manchester
Coates, W., Esq., Ingleside, Whalley Range, Manchester
Daly, R. A. S., Esq., 225, Stretford Road, Manchester
Davies, W., Esq., 25 Stretford Road, Manchester
Denholm, Andrew, M.D., Chorlton-cum-Hardy
Dutton, E. C., M.B., 14, Yarburgh St., Moss Side, M'chester
Eales, W., Esq., 80, City Road, Manchester
Edge, A. M., M.D., Demesne Road, Whalley Range, Man'r.
Edwards, Arnold, M.D., Wilbraham Rd., Chorlton-c-Hardy
Fairclough, J. J. K., M.D., 114, Stretford Road, Manchester
Fairweather, W. E., Esq., Lingerwood, Holland Road, Chorlton-cum-Hardy
Faulkner, C. P., M.D., Chester Road, Stretford, Manchester
Fiddes, Thomas, M.D., Moorfield, Urmston
Floyd, E. W., M.B., Westwood St., Moss Side, Manchester
Fraser, A. G., M.D., 98, Alexander Road, Manchester
Garrett, T. J. G., Esq., 159, Princess Road, Moss Side, Manchester
Garner, Charles, M.D., Willow Bank, Irlam & Flixton
Gordon, G. R., M.D., 96, Alexandra Road, Manche
Gordon, T. E., M.D., 5, Barlow Moor Rd., Chorlton
Hartham, H. D., Esq., 2, Derbyshire Lane, Stretford
Heslop, W. J., Esq., 866, Stretford Road, Manchester
Jackson, Edwin, Esq., 77, Withington Road, Manchester
Jones, J. W., Esq., 153, Chorlton Road, Manchester
Lacey, T. S., Esq., Wilbraham Road, Chorlton-cum-Hardy
Lund, J. K., Esq., 923, Chester Road, Gorse Hill, Stratford Manchester
McGlynn, J., M.D., 127, Raanor Street, Hulme, Manchester
Matthews, W. R., M.B., Shrewsbury Street, Brooks Bar, Manchester
Mayne, W. F., Esq., Gloucester Ho., Station Rd., Urmston
Meckler, J. C., Esq., 72, Manchester Road, Chorlton-cum Hardy
Morrison, F., M.B., 117, Boston Street, Hulme
Mumford, A. A., M.D., Gable Nook, Chorlton-cum-Hardy
Nichol, J. C., M.D., 345, Stretford Road, Manchester
O'Flanaghan, M. J., M.B., 98, Alexandra Road, Manchester
Owen, S. H., M.D., Whalley Range, Manchester
Paterson, T. G., M.B., 125, Moss Lane East, Manchester
Pinder, G. H., Esq., 59, Greame Street, Manchester
Pinder, T. H., Esq., Greame St., Alexandra Rd., Manchester
Pownall, A. E., Esq., Beulah House, Chorlton-cum-Hardy
Pringle, John, M.D., 97, Withington Rd., Whalley Range
Prowse, J. S., M.B., Willow Bank, Moss Lane, E. Manchr.
Quayle, E., Esq., Belmont, Urmston, Manchester
Redmond, C. Stennett, Esq., 117, Stretford Rd., Manchester
Renshaw, J. W., Esq., Ash House, Stretford, Manchester
Richardson, W. Herbert, Esq., 139, Up. Lloyd St., Manchester
Ritchie, A. Brown, M.D., Summer Lea, Withington Road, Whalley Range
Sinclair, Sir William Japp, M.D., Garvock House, Dudley Road, Whalley Range
Smith, A. H., Esq., 175, Withington Road, Manchester
Smith, C. R., Esq., Stretford near Manchester
Smith, J. Turvill, Esq., 28, Chorlton Road, Manchester
Smith, J. E., M.B., 120, Alexander Rd, Moss Side, Manch'ter
Smithard, W. R. N., M.B., 15, Stretford Road, Manchester
Spanton, A. T., Esq., Hulme Dispensary, Manchester
Tempest, James, Esq., Whalley Range, Manchester
Walls, J., M.D., Irlam Road, Flixton, near Manchester
Webster, E., Esq., 87, Chapman Street, Hulme, Manchester
Westwood, Andrew, M.B., 1, Leamington Terrace, Stretford
Woodcock, Harold B., M.B., 454, Stretford Rd., Manchester
Worswick, F. H., M.D., Chorlton Road, Manchester
Yonge, E. S., M.D., 16, Belmont Street, Old Trafford

No. 24.—Oldham Division

NUMBERING 60.

Chairman, W. Graham, M.D., Middleton

Vice-Chairman, E. W. Maitland, Esq., Oldham

Honorary Secretary and Treasurer, Frank Radcliffe, M.D., 91, Werneth Hall Road, Oldham

Representative for Representative Meeting, T. Fawsitt, Esq., 46, Union Street West, Oldham

Representatives on Branch Council.
Fort, T., Esq. | Robertson, G. J., M.B.

Executive Committee.
Hodgson, J., M.B. | Thomson, G., M.D.
Ramsden, H., M.D. | White, J. H., Esq.

Apthomas, Griffith, M.B., 5, Union Street, Oldham
Ashton, H., Esq., 423, Middleton Road, Oldham
Bauchop, J., M.B., Glenburn, Hollinwood
Bentley, W. L., Esq., 79, Rochdale Road, Royton
Blayney, J. H., Esq., Ellerslie, Middleton
Bowes, Paul, M.D., 469, Middleton Road, Oldham
Bowes, R., M.D., 86, Union Street West, Oldham
Broomhead, Charles, M.D., 2, Barker Street, Oldham
Buckley, W. H., Esq., 20, Union Street, Oldham
Burd, G. F., Esq., Dobcross, Saddleworth
Carson, T. J., Esq., 117, Union Street, Oldham
Claydon, Olive, M.B., Melford, Belgrave Road, Oldham
Clegg, T., Esq., 372, Chadderton Road, Oldham
Corns, J., M.D., 121, Union Street, Oldham
Cunliffe, T. V., M.D., 75, Greengate Street, Oldham
Currie, James, M.B., County End, Lees, nr. Oldham
Davies, A. V., M.B., Glenarm House, Shaw
Doble, H. T., Esq., 2, Union Street, Oldham
Fawsitt, T., Esq., 46, Union Street West, Oldham
Fort, T., Esq., Falcon House, Oldham
Gill, H. T., M.B., Manchester Road, Oldham
Godson, A. H., M.B., 63, Union Street West, Oldham
Gourlay, R., M.B., Spring Street, Oldham
Graham, W., M.D., Middleton, near Manchester
Heap, H. S., M.B., 1, Crofton Street, Hathershaw
Hearne, W. E., Esq., Westwood House, Oldham
Hodgson, J., M.B., 149, King Street, Oldham
Holt, J. J. H., M.R., The Lodge, Middleton, Manchester
Johnstone, G., M.B., Beech House, Middleton
Kershaw, J. G., M.B., 94, Waterloo Street, Oldham
Law, J., Esq., Bridge House, Hollinwood
Leach, A., Esq., 220, Manchester Street, Oldham
Low, John, M.B., c.o. Dr. Wylie, Oldham
McGowan, J. Sinclair, M.D., 13, King Street, Oldham
Marsden, J., M.B., 68, Shaw Road, Oldham
Maitland, E. W., Esq., 1, Walsham Place, Oldham
Milne, J., M.B., 68, Manchester Old Road, Middleton
Murgatroyd, A., M.B., Sunnyside, Hollinwood
Oliver, William, M.B., Culvert House, Waterhead, Oldham
Park, R. L., Esq., The Rookery, Middleton
Patterson, Wm., Esq., 193, Ripponden Road, Oldham
Pickering, R. W., Esq., Belmont House, Oldham
Price, David, Esq., Greenfield
Radcliffe, F., M.D., 94, Werneth Hall Road, Oldham
Ramsden, Herbert, M.D., Dobcross, Saddleworth
Radcliffe, J. B., Esq., 97, Werneth Hall Road, Oldham
Roberts, T. H., Esq., Linfits, Delph
Robertson, G. J., M.B., 61, Queen's Road, Oldham
Sparrow, R. L., Esq., 370 Manchester Road, Hollinwood
Stafford, A. B., Esq., Parkfield Mount, Middleton
Thomson, G., M.D., 5, Huddersfield Road, Oldham
Wakelam, Edgar, Esq., Millfield House, Waterhead, Oldham
White, John H., Esq., 16, Milnrow Road, Shaw
White, William, M.D., 12, Glodwick, Oldham
Whitmore, John, Esq., 23, Glodwick Road, Oldham
Whitestone, H. L., Esq., Springfield House, Middleton
Wilkinson, J. B., M.D., Health Dept., Town Hall, Oldham
Wylie, A. H., M.D., 33, Manchester Street, Oldham
Yates, W. B., Esq., 368, Lees Road, Oldham
Young, Ralph, M.D., Park House, Royton, near Oldham

No. 25.—Preston Division

NUMBERING 52.

Chairman, R. C. Brown, M.B., Preston

Vice-Chairman, J. E. Garner, M.D., Preston

Honorary Secretary and Treasurer, W. H. Irvin Sellers M.B., 1, Chapel Street, Winckley Square, Preston

Representative for Representative Meeting.
J. E. Garner, M.D., 6, Winckley Square, Preston

Representative on Branch Council.
Rayner, A. C., M.D.

Executive Committee.
Anderson, J., M.B. | Mooney, A. P., M.D.
Dunn, J. E., Esq. | Petyt, A. I., M.B.

Anderson, Joseph, M.B., Garstang Road, Preston
Bell, F., Esq., 17, Winckley Square, Preston
Berry, E., Esq., Leyland, near Preston
Blandford, J. J. G., Esq., Co. Asylum, Whittingham, Preston
Brown, D. W., M.D., 11, Plungington Road, Preston
Brown, R. C., M.B., 27, Winckley Square, Preston
Case, R., Esq., Brunscall, Chorley
Clark, E. M., M.D., County Asylum, Whittingham
Collinson, F. W., M.D., 32, Winckley Square, Preston
Connell, R. P., Esq., Bamber Bridge, near Preston
Cookson, J., M.B., 167, Moor Lane, Preston
Derham, T. H. C., M.B., Garstang Road, Preston
Duckworth, Alfred, Esq., Croston, near Preston
Dunn, J. E., Esq., 25a, Winckley Square, Preston
Ferguson, Malcolm, Esq., 21, Stephenson Terrace, Preston
Fraser, P., M.D., Leyland
Garner, J. E., M.D., 6, Winckley Square, Preston
Gemmel, J. F., M.B., c.o. Asylum, Whittingham, Preston
Harris, J. A., M.D., St. George's House, Chorley
Healey, J. E., M.B., Ravenswood, Preston
Holden, J. E., M.B., 35, Fishergate Hill, Preston
Holden, J. F., M.B., Cromwell Terrace, Preston
Howe, J. D. Esq., Deepdale House, Barrow Rd., Preston
Jackson, T. W., M.D., 13, St. George's Street, Chorley
Jones, J. E., M.D., Lawrence Lodge, Chorley
Langdon, J. W., Esq., 4, Winckley Square, Preston
McDade, W. J., M.B., Bennett Terrace, Preston
Macdonald, F. B., M.B. I., Stanley Place, Preston
Mooney, A. P., M.D., 25a, Winckley Square, Preston
Patchett, R. A., Esq., Ribchester House, Ribchester
Pearson, John B., M.B., Ribbleton Lane, Preston
Peddie, C., Esq., Whittle-le-woods, near Chorley
Petyt, A. I., M.B., Chestnut House, Lytham, Preston
Pinbett, W. H., M.B., 2 Bow Lane, Fishergate Hill, Preston
Pimley, T., M.B., Fulwood, Preston
Rayner, A. C., M.D., 58, Pole Street, Preston
Reid, John, Esq., 146, Deepdale Road, Preston
Richardson, W. S., M.B., Ribbleside Place, Preston
Rigby, W., M.B., 83, Fishergate Hill, Preston
Rigg, R., M.D., 91, Fishergate Hill, Preston
Roger, John, M.B., Waverley House, St. George Street, Chorley
Sames, H. V., M.B., Bank House, Crofton, Preston
Sellers, W. H. I., M.B., 1 Chapel St., Winckley Sq., Preston
Sergeant, E., Esq., County Offices, Preston
Sharples Thomas, Esq., Darosley, Lostock Hall
Smith, P. T., M.B., 2, Fishergate Hill, Preston
Sykes, W., Esq., 20, Fox Street, Fishergate, Preston
Talbot, M. W., M.B., 1, Grasmere Terrace, Preston
Trimble, C. J., Esq., Youth House, Bamber Bridge
Trimble, R., M.D., 9, Winckley Square, Preston
Walmsley, F. T., M.B., Moss Cottage, Preston
Watson, Major A. A., Fulwood Barracks, Preston

No. 26.—Rochdale Division

NUMBERING 51.

Chairman, J. Henry, M.D., Rochdale

Vice-Chairman, C. W. Thorp, Esq., Todmorden

Honorary Secretary, W. H. Bateman, M.B., Daisy Bank, Rochdale

Representative for Representative Meeting.
Robert Mitchell, Esq., Bury

Representative on Branch Council.
Thorp, C. W., Esq.

Ashcroft, J. A., M.D., Littleborough, near Manchester
Baillie, P., M.D., Whitworth, Rochdale
Baldwin, Edgar, Esq., 218, Yorkshire Street, Rochdale
Barker, J. H., M.B., Clairmont, Todmorden
Bateman, W. H., M.B., Daisy Bank, Rochdale
Brooks, Herbert, M.B., 108, Clements Royds St., Rochdale
Brown, J., M.D., Burwood House, Bacup
Brown, J. P., M.B., Burwood House, Bacup
Carse, W. B., M.B., Spotland Bridge, Rochdale
Chadwick, J., Esq., Butterworth Hall, Milnrow, Rochdale
Currie, Wm., M.B., Riverside, Todmorden
Jackson, Arthur, M.D., Quarry House, Healey, Rochdale
Elliott, G. P., Esq., North View, Todmorden
Ewart, R. J., M.B., 235, Halifax Road, Rochdale
Falconer, E. W., M.B., 235, New Church Road, Stackstead near Manchester
Forbes, T. J. L., M.B., Whitworth, Rochdale
Geudes, G., M.D., 2, Rochdale Road East, Heywood
Harris, Herbert, M.D., Wellhead, Oldham Road, Rochdale
Hartley, F. W., Esq., 129, Manchester Street, Heywood
Henry, J., M.D., 107, Drake Street, Rochdale
Hill, T. K., M.B., Heywood
Hirchin, H. H. L., Esq., Rock House, Heywood
Hodgson, W. J., M.D., Thornbury, Rochdale
Hunt, T., M.D., Heywood, Manchester
Jeffcock, A. J., M.D., 2, West Street, Rochdale
Jefferson, George, M.B., Cornholme, Todmorden
Jeffery, H. F., M.B., Sandon House, Heywood
Lomas, Alfred, M.B., Castleton, near Manchester
Lord, S. T., Esq., Castleton, near Manchester
Kerr, W. J., M.D., Vicarage Drive, Rochdale
MacGill, G., Esq., Littleborough, Manchester
Mahm, G. W., Esq., 171, Drake Street, Rochdale
Melvin, James, M.B., Newfield Hall, Rochdale
Menzies, J. A., M.D., 185, Drake Street, Rochdale
Mills, Alton, Esq., Lyncroft, Milnrow
Nuck, Wm., M.B., Union Infirmary, Dearnley, Rochdale
Pitcairn, G. K., M.B., Littleborough
Pooley, W., Esq., 185, Yorkshire Street, Rochdale
Richmond, D., M.B., 176, Drake Street, Rochdale
Rodley, John, Esq., 187, Yorkshire Street, Rochdale
Russell, James L., M.B., West Lodge Todmorden
Scarr, John, Esq., Brierchffe, Littleborough
Sellers, R. B., Esq., Townhead House, Rochdale
Standing, J. G., M.B., Holly Bank, Drake St., Rochdale
Stanwell, W., Esq., 191, Drake Street, Rochdale
Stewart, Wm., M.D., Bank House, Bacup
Taylor, G. P., M.B., York Street, Heywood
Thorp, C. W., Esq., Dobroyd, Todmorden
Thorp, R., M.B., Vale Mause, Cornholme, near Todmorden
Wallace, Arch., M.D., Wellfield House, Rochdale
Welsh, A., M.D., Whitworth, Rochdale

No. 27.—St. Helens Division

NUMBERING 24.

Chairman,

Vice-Chairman, J. Reid, M.D., St. Helens

Honorary Secretary,

Representative for Representative Meeting,

Representative on Branch Council,
Hayward, T. E., M.B.

Bassett, F. P., Esq., Victoria Square, St. Helens
Bates, H. B., Esq., Leach Hall, Sutton, St. Helens
Bolton, J. S., Esq., County Asylum, Rainhill
Brunskill, R. R., M.D., Holly Bank, Ramford
Campbell, A. W., M.D., Rainhill
Cotton, John, Esq., Simonswood, Prescott Road, St. Helen
Dowling, Arthur, Esq., Haydock, near St. Helens
Green, S. M., Esq., 12, Church Street, Prescot
Haslam, W. A., Esq., Whiston Workhouse Infirmary Prescot
Hayward, T. E., M.B., Haydock, St. Helens
Jackson, R., M.B., 69, Church Street, St. Helens
Johnson, Smeaton, M.B., County Asylum, Rainhill
Mouncey, C. J., M.B., 101, Market Street, Earlstown
Patterson, J. N., Esq., Earlstown
Reid, J., M.D., Hardshaw Street, St. Helens
Street, C. T., Esq., Haydock lodge, Newton-le-Willows
Thompson, G. M., M.B., 83, Tontine Street, St. Helens
Valentine, W., Esq., Stanlee House, Earlstown
Walker, J. P., Esq., 98, Market Street, Earlestown
Watkins, H. E., Esq., Stone Leigh, Newton-le-Willows
Wiglesworth, J., M.D., County Asylum, Rainhill
Wild, C. H., Esq., 13, Church Street, Prescot
Wills, E., M.D., Rainhill
Youatt, Leonard, Esq., 1, Aspinall Street, Prescot

No. 28.—Southport Division

NUMBERING 60.

Chairman, J. C. Russel, M.D., Southport

Vice-Chairman, G. C. Walker, M.D., Southport

Honorary Secretary, R. Harris, M.B., 18, Duke Street, Southport

Representative for Representative Meeting.
F. J. Baildon, M.B., 42, Hoghton Street, Southport

Representatives on Branch Council.
Harris, R., M.B. | Walker, G. C., M.D.

Executive Committee.
Barwise, W., Esq. | Gill, Stanley A., M.D.
Brown, S. M., M.D. | Popert, A. W., Esq.

Anderson, Alex., M.B., 39, Sefton Street, Southport
Anderson, G. R., Esq., 18, Hoghton Street, Southport
Ashworth, P., M.D., 65, Leyland Road, Southport
Baildon, F. J., M.B., 42, Hoghton Street, Southport
Barnardo, F. A. E., Esq., 33, York Road, Birkdale Park, Southport
Barnes, J., Esq., Linwood, Blundell Avenue Birkdale
Barrett, W. H., M.B., 24, Park Crescent, Southport
Barwise, W. Esq., 20, Scarisbrick New Road, Southport
Beaman, E. H., Esq., Chaseley, Hesketh Park, Southport
Brereton, F. S., M.D., 3, Queen's Road, Southport
Brown, S. M., M.D., 35, York Road, Birkdale
Burroughs, A. E., M.B., 62, Westbourne Road, Birkdale, Southport
Campbell, Colin G., Esq., 39, Queen's Road, Southport
Chaster, G. W., Esq., 42, Talbot Street, Southport
Charlick, A. J., Esq., 46, Liverpool Rd., Birkdale, Southport
Corkhill, J. G. G., M.D., 21, York Road, Birkdale, Southport
Cottu, T. E., Esq., 57, Scarisbrick Road, Southport
Cox, A. E., M.B., Roslyn, Queen's Road, Southport
Dall, Alex., M.D., 17, Manchester Road, Southport
Edmondson, John, M.B., Burscough, near Ormskirk
Fenn, S. B., Esq., 44, Scarisbrick, New Road, Southport
Forrest, W., Esq., Holly Bank, Mornington Rd., Southport
Gardner, James, M.B., Liverpool Rd. Burscough Bridge
Gill, Stanley A., M.D., Shaftesbury House, Formby
Hare, A. W., M.B., 4, Talbot Street, Southport
Harris, R., M.B., 18, Duke Street, Southport
Hawksley, H. L., Esq., 76, Roe Lane, Southport
Holmes, J., M.D., Sea Verge, Ainsdale, near Southport
Hunton, Alfred W., Esq., 2, Waterloo Road, Birkdale, Southport
Kenworthy, A. B., M.B., Bold Street, Southport
Littler, R. M., Esq., 23, Hawkeshead Street, Southport
Lyttle, L., M.D., 57, Ash Street, Southport
Maccall, W. N., M.D., 7, Argyle Road, Southport
Mackay, W. A., M.D., 30, Hoghton Street, Southport
Martin, C. T., M.D., 117, Sussex Road, Southport
Maule, W., M.B., 69A, Liverpool Road, Birkdale, Southport
Newsham, F., Esq., 59, Liverpool Road, Birkdale, Southport
Ogden, C., Esq., 47, Crescent Road, Birkdale
Payne, H., M.D., Convalescent Hospital, Southport
Pinkerton, C., M.D., 6, Queen's Road, Southport
Popert, A. W., Esq., 119, Cambridge Road, Southport
Reid, J. R., M.D., 87, Liverpool Road, Birkdale, Southport
Roberts, H. S., M.D., 13, Lord Street W., Southport
Roughan, G. F., Esq., Ardmore, Formby
Russel, J. C., M.D., 45, Portland Street, Southport
Rye, Mary E., M.B., 42, Auchton Rd., Birkdale, Southport
Salmon, A. L., Esq., 37, Church Street, Southport
Schofield, C. R., M.B., 17, Church Street, Southport
Sewell, D. Lindley, M.B., 17, Grosvenor Road, Birkdale
Smith, E. A., M.B., 158, Lord Street, Southport
Stewart, W., Esq., 26, Lethbridge Road, Southport
Storrs, A., M.D., 22, Scarisbrick New Rd., Southport
Sykes, J. H., M.D., 33, York Road, Birkdale, Southport
Treadgold, F. C. A., M.B., 34, Grosvenor Road, Birkdale, Southport
Voigt, J. C., M.D., 10, Manchester Road, Southport
Walker, G. F. C., M.B., 19, Preston Road, Southport
Walker, Geo. Chas., M.D., 19, Preston Road, Southport
Walls, W., Esq., 71, Promenade, Southport
Wilshaw, R. H., M.B., 46, Hoghton Street, Southport
Wood, J. F. Esq., 10, Queen's Road, Southport

No. 29.—Stockport, Macclesfield, and East Cheshire Division

NUMBERING 71.

Chairman, James B. Hughes, Esq., Macclesfield

Vice-Chairman, B. W. Housman, Esq., Stockport

Honorary Secretary, E. Rayner, M.D., Tiviot Dale, Stockport

Representative for Representative Meeting.
John B. Hughes, M.B., 65, Roe Street, Macclesfield

Representatives on Branch Council.
Godson, A., M.B. | Rayner, E., M.D.

Executive Committee.
Averill, C., M.D. | Carruthers, E. J. W., M.D.
Browne, P. O. W., M.B. | Goulden, E. A., M.B.,
Allan, H., M.B., Whaley Bridge, by Stockport
Anderson, H. G. S., Esq., Bramhall
Ashworth, J. W., Esq., Heaton Chapel, Stockport
Averill, C., M.D., Park Green, Macclesfield
Bale, W., Esq., 130, Wellington Road North, Stockport
Bale, W. B. Esq., Heathbank, Stockport
Bellamy, H. Rennell, Esq., Greenhill House, Edgeley
Bentley, J. W., Esq., Brunswick House, Stockport
Blake, Lilian M., 22, Greek Street, Stockport
Bond, W. B., Esq., Richmond Terrace, Bramhall
Brennan, J. A. M., Esq., 148, Wellington Rd. N., H'n Norris
Browne, P. O. W., M.B., Hillhead, Alderley Edge
Caut, F., Esq., Woodley House, Woodley, Stockport
Carruthers, E. J. W., M.D., Moody Hall, Congleton
Carver, J. R., M.D., The Meadows, Alderley Edge
Chadwick, J. B., Esq., 49, Sandy Lane, Stockport
Christian, L. M. Frank, M.B., 155, Shaw Heath, Stockport
Clarke, W. H., Esq., Park Green, Macclesfield
Conway, A., Esq., Talbot House, Stockport
Cunniffe, E. N., M.B., Barnes Convalescent Hosp., Cheadle
Davidson, P. M., Esq., Congleton
Don, A. G., Esq., Churchgate House, Stockport
Drury, G. M., Esq., Cheadle Heath, Stockport
Farrow, F., Esq., Heaton Moor House, Heaton Moor
Fern, W. I., Esq., Bradshaw House, Congleton
Godson, A., M.B., Cheadle House, Cheadle
Goulden, E. A., M.B., 8, Greek Street, Stockport
Goulden, J. H. O., Esq., 6, Greek Street, Stockport
Green, James H., M.B., 56, Higher Hillgate, Stockport
Hardman, R. S., M.B., Sillingfurst, Cheadle Hulme
Harrison, J. F., Esq., 86, Wellington Road S., Stockport
Henderson, G. P., M.D., Tiviot Dale, Stockport
Hibbert, C. H., Esq., Marple Bridge
Housman, B. W., Esq., Lyca Ho., Cale Green, Stockport
Hoyle, F., M.B., Heaton Norris, Stockport
Hughes, James B., Esq., Roe street House, Macclesfield
Hughes, John B., M.B., 65, Roe Street, Macclesfield
Jackson, T. L., M.B., Cheadle
Le Page, J. F., M.D., The Poplars, Cheadle, Manchester
McConaghey, J. C., M.B., Parkside Asylum, Macclesfield
McDougall, A., M.B., The David Lewis Colony, Sandle-Bridge, near Alderley Edge
McElfatrick, J., Esq., Alderley Edge
McIlraith, James, Esq., Albert Road, Cheadle-Hulme
McMaster, A. B., M.D., The Elms, Edgeley
Main, D. W., M.B., Brook H., Bollington, nr. Macclesfield
Marriott, Hyde, M.B., The Limes, Hall Street, Stockport
Marsh, J. Hedley, Esq., Cumberland House, Macclesfield
Moore, T., Esq., Hazel Grove, near Stockport
Murray, R. A., M.D., Apsley, Stockport
Phillips, Alic, Esq., Crescent View, Cheadle
Proudfoot, R., M.B., 23, High Street Macclesfield
Rayner, E., M.D., Tiviot Dale, Stockport
Rogerson, J. T., M.D., Heaton Norris, Stockport
Ruston, J. L., M.D., 37, Jordangate, Macclesfield
Scowcroft, W., Esq., Royal Asylum, Cheadle
Sealy, R. B., Esq., Disley
Smith, J. H., M.B., 78, Wellington Road S., Stockport
Smith, T. H., M.D., Reddish Green, Stockport
Sheldon, T. S., M.D., Macclesfield
Smeeth, H. G., M.D., 126, Wellington Road, N. Stockport
Somerville, J., Esq., Park Street, Macclesfield
Sutcliffe, J., Esq., J.P., Royal Asylum, Cheadle
Swainson, E. A. C., M.B., Marple
Taylor, C. B., M.B., Chatham Street, Edgeley
Tierney, T., M.B., Durbeyville, New Road, Marple
Tomlinson, W. H., M.B., Davenport Rd., Hazel Gr., Stockpo
Vernon, J. J., M.B., Longstreet Lane West, Stockport
Willacy, C., Esq., Cheadle Hulme, Stockport
Wilson, H., Esq., The Beeches, Cheadle
Worthington, J., Esq., Beech Ho., Brinnington, Stockport
Young, M., M.D., Park Street, Stockport

No. 30.—Warrington Division

NUMBERING 28.

Chairman, T. A. Murray, Esq., Penketh

Vice-Chairman, C. Hutchinson, M.D., Widnes

Honorary Secretary, O. H. Edwards, Esq., 2, Albert Road, Widnes

Representative for Representative Meeting.

Representative on Branch Council.
Bowden, E. E., Esq.

Anderson, Arthur, M.B., 66, Manchester Road, Warrington
Bennett, James, Esq., Padgate, Warrington
Bowden, E. E., Esq., 29, Bold Street, Warrington
Bower, H. E., M.B., Stretton, near Warrington
Brebner, C. S., M.D., Farnworth, Widnes
Burrowes, H. A., M.D., Lymm
Collins, W. J., Esq., 119, Wilderspool Road, Warrington
Eatock, J. A., Esq., Farnworth-on Widnes
Edwards, Oswald H., Esq., 2, Albert Road, Widnes
Ferguson, D., M.B., 48, Horse Market Street, Warrington
Fox, E. A., M.D., Arundel House, Warrington
Geary, E. J., Esq., 10, Egypt Street, Warrington
Gornall, J. G., M.B., La chford, Warrington
Howard, John A., M.B., 11, Whitefield Road, Stockton Heath, Warrington
Hutchinson C., M.D., Irwell Street, Widnes
Joseph, G. W., M.D., 21, Bold Street, Warrington
Kisby, J. H., Esq., 13, Palmyra Square, Warrington
Langdale, Henry, M.D., Stanley House, Warrington
Lunt, D. C. M. Esq., Brookfield, Lymm
Mercer, T. U., M.B., Ingleside, Hough Green, Widnes
Murray, T. A., Esq., Penketh, near Warrington
Naden, J. B., Esq., 111, Liverpool Road, Warrington
Peacocke, W. J., Esq., Ebenezer House, Warrington
Roberts, J. W., Esq., Cadishead
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No. 31.—Wigan Division

NUMBERING 37.

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Wyatt, H. J., Lt.-Col. R.A.M.C., Military Hospital, Curragh
Yourell, M. J., Esq., 10, Ailesbury Road, Dublin

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Vice-Chairman, R. H. D'O. Duckworth, M.B., Donaghmore

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Kinsella, J. J., M.B., Enenderry
McCann, A. E., Esq., Mountmellick
Mills, W. T., Esq., Rhode, Edenderry
Moorhead, G. A., Esq., Tullamore
Morton, W. A., M.D., 10, Oxmantown Mall, Parsonstown
O'Brien, D. J., Esq., Durrow
Rice, T. W., Esq., Portarlington
Tabuteau, J. M., M.B., Portarlington
Woods, F. W., Esq., Birr

No. 4.—North Leinster Division

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Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting.

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Byrne, J. V., Esq., 33, Laurence Street, Drogheda
Callan, M., Esq., Ardee
Connolly, T. J., Esq., Dromiskin, Castlebellingham
Copley, S., M.D., 3, Palace Street, Drogheda
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Representative for Representative Meeting.
W. St. A. St. John, Esq., 16, Duffield Road, Derby

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Cassidi, F. R., M.D.	

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Court, J., Esq., Staveley, Chesterfield
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Fentem, T., M.D., Catcutt, Bakewell
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Johnston, R. A., [illegible]
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No. 3.—Leicester Division

NUMBERING 143.

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Vice-Chairman, H. J. Blakesley, F.R.C.S., Leicester

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Representative for Representative Meeting
Robert Sevestre, M.D., 119, London Road, Leicester

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Tibbles, J. T., Esq.

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Pickering, W. C., Esq., The Infirmary, Leicester
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Williams, M. W., Esq., Leicester
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Young, R. R., M.D., 148, London Road, Leicester

No. 4.—Lincoln Division

NUMBERING 49.

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Representative on Branch Council.
Harrison, C., M.D.

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Ellis, J. C., Esq.

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White, T. H., Esq., 15, Silver Street, Lincoln
Wilkinson, W. A. H., M.B., Fern Villa, Gainsborough.

No. 5.—Nottingham Division

NUMBERING 136.

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Vice-Chairman, C. J. Palmer, Esq., Mansfield Woodhouse

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Representative for Representative Meeting.
F. H. Jacob, M.B., 28, Regent Street, Nottingham

Representatives on Branch Council.
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Broadbent, Frank, Esq. | Palmer, C. J., Esq.

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Appleby, F. H., Esq., Barnby Gate House, Newark-on-Trent
Ashwell, H. G., Esq., 74, Mansfield Road, Nottingham
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Biurton, J. F., M.B., Arkwright Street, Nottingham
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Boobbyer, P., M.D., Parks de, Derby Road, Nottingham
Bostock, J., Esq., Costock, Loughborough
Broadbent, Frank, Esq., North Collingham
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Chicken, R. C., Esq., Nottingham
Cole, G., Esq., 11, Sneinton Road, Nottingham
Collins, M. C., M.D., 25, Derby Road, Nottingham
Cornwall, C. E., Esq., 1, Nottstone Place, Nottingham
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Duff, C. H., Esq., East Bridgford, Nottingham
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Dunn, W. D., Esq., 304, Alfred Street, Nottingham
Eaton, J. W., Esq., Bingham
Edge, B. E., Esq., Old Basford
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Gray, Sarah, 21, Regent Street, Nottingham
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Handford, H., M.D., Nottingham
Harper, H., M.D., Nottingham
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O'Connor, D. J., M.D.
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Buckham, T., M.B., Lanchester
Charles, John, M.D., Stanley, R.S.O.
Diver, E. W., M.D., Belle Vue House, Shotley Bridge
Ingram-Johnson, R. E., L.R.G.P.& S., L.S.A., South Moor, Chester-le-Street
Knowles-Jones, J. T., M.D., Woodhouse, Shotley
Macintyre, Æ. D. M., M.B., Consett
Marshall, W. S., M.B., Ebchester, Newcastle-on-Tyne
Morison, W. H., Esq., Catchgate, Annfield Plain
Renton, J. M., M.B., Shotley Bridge
Renton, R. S., M.B., Viewlands, Blackhill
Walker, J., M.B., Stanley

No. 6.—Darlington Division

NUMBERING 34.

Chairman, A. H. Thompson, Esq., Darlington
Vice-Chairman, T. Kirsopp, M.B., Darlington
Honorary Secretary, D. V. Haig, M.D., 80, Bondgate, Darlington

Representative for Representative Meeting.
G. V. Miller, M.D., Stockton

Representatives on Branch Council.
Haig, D. V., M.D. | Kirsopp, T., M.B.

Baigent, W., M.D., Northallerton
Carmichael, W. J., M.B., North Villa, Darlington
Chisholm, W., M.D., Barnard
Cockcroft, H. M., Esq., Mashaw
Cockcroft, J., M.D., Middleham, R.S.O.
Eastwood, L., Esq., Brookside, Darlington
Eyres, H. M., M.B., Millgate, Richmond
Fisher, David L., M.B., C.M., 27, North Road, Darlington
Gardner, A. J., M.D., St. John's Crescent, Darlington
Gray, D. C., Esq., Brookside Villa, Darlington
Haig, D. V., M.D., 80, Bondgate, Darlington
Hern, J., M.D., Semmercote, Darlington
Hill, T. E., M.B., Lyndhurst, Grange Road, Darlington
Hime, E. M., M.B., Aysgarth R.S.O., Yorks
Hutchinson, J. A., M.D., Northallerton
Kershaw, H. W., Esq., Dinsdale Park, near Darlington
Kirsopp, T., M.B., Grange Road, Darlington
Lawrence, J., M.D., Darlington
Lightfoot, J. P., Esq., Leyburn
Middlemiss, G. W., M.D., Grange Road, Darlington
Petter, W., M.B., 93, Stanhope Road, Darlington
Raine, G. R., M.D., 2, Victoria Road, Darlington
Smith, P. C., Esq., Middleton Hall, Middleton St. George
Smith, T. H., M.D., West Cottage, Richmond
Spiers, W. C., M.B., Richmond
Steavenson, A. P., M.D., Hurworth-on-Tees
Swenden, B. W., Esq., Woodlands Road, Darlington
Thompson, A. H., Esq., St. Medards, Darlington
Tweedy, C., Esq., Northallerton
Vivian, G. E., Esq., 16, Kennington Terrace, Corporation Road, Darlington
Walker, C. E., M.D., Hurworth-on-Tees
Whitehead, C. B., Esq., 3, Queen's Road, Richmond
Wood, J. H., M.B., Market Place, Leyburn, R.S.O.
Yeoman, G., Esq., Northallerton

No. 7.—Durham Division

NUMBERING 24.

Chairman, E. Jepson, M.D., Elvet, Durham
Vice-Chairman, F. Hare, M.B., Dearness House, Waterhouses, Durham
Honorary Secretary, H. Smith, M.D., Claypath Ho., Drhm.

Representative for Representative Meeting.
John Paxton, M.B., Butterknowle, R.S.O.

Representative on Branch Council.
Jepson, E., M.D.

Anderson, R. S., M.D., Spennymoor
Arthur, J., Esq., Wingate
Booth, L., M.D., Sherburn House, Durham
Brown, J., M.D., Bearpark
Denholm, J., M.B., Meadowfield House, Brandon
Garson, J. H. R., M.B., Sacriston, Durham
Hare, F., M.B., Dearness House, Waterhouses, Durham
Harrison, Alex. Thomas, L.S.A., Sherburn, Durham
Kelly, A. D., M.D., Raglan House, Philadelphia, Fence Houses
Jepson, E., M.D., 42, Old Elvet, Durham
Mills, J. A., M.B., Durham County Asylum, Winterton
Oliver, W., M.B., Linden Villa, Coxhoe R.S.O.
Pain, Arthur, Esq., 26, Sutton Street, Durham
Plummer, S. W., M.D., Old Elvet, Durham
Robson, E. S., Esq., 3, North Bailey, Durham
Ruffmann, H. H., M.B., B.S., 218, Giles-gate, Durham
Shirlaw, J. L., M.D., Ferry Hill
Skeen, W. St. J., M.B., Durham County Asylum, Winterton
Smith, H., M.D., Claypath House, Durham
Stevenson, J., M.B., New Brancepeth, near Durham
Stuart, R., Esq., 20, New Elvet, Durham
Sutherland, J. R., Esq., West Rainton, Fence Houses, Durham
Wilson, J. A., M.B., Langley old Hall, Durham
Wilson, Thomas W., M.B., B.S., Whitefield House, Esh

No. 8.—Gateshead Division

NUMBERING 42.

Chairman, J. L. Spiers, M.B., Gateshead
Vice-Chairman.
Honorary Secretary, Alfred Cox, M.B., Bensham Road, Gateshead
Assistant Honorary Secretary, W. Smith, M.B., Bewick Road, Gateshead

Representative for Representative Meeting.
Alfred Cox, M.B., Bensham Road, Gateshead

Representatives on Branch Council.
Blacklock, A. W., M.D. | Todd, John, Esq.
Mearns, W., M.D.

Abraham, A. A., Esq., 4, Walker Terrace, Gateshead-on Tyne
Anderson, R., M.D., 4, Gladstone Ter., Gateshead-on-Tyne
Arnold, Andrew Paige, M.D., B.S., Regent House, Gateshead
Blacklock, A. W., M.D., Union Workhouse, Gateshead
Clayton, T. M., M.B., Town Hall, Gateshead
Cox, A., M.B., Bensham Road, Gateshead
Davis, W. H., Esq., Low Fell, Gateshead-on-Tyne
Dougall, A., Esq., Dunston-on-Tyne
Durant, W. J., M.D., 40, Coatsworth Road, Gateshead
Foster, F. C., Esq., 10 Bensham Terrace, Gateshead-on-Tyne
Foster, Francis T., M.D., C.M., Dunston-on-Tyne
Galloway, W., Esq., Low Fell, Gateshead-on-Tyne
Gilbert, H. J., M.D., 20, The Crescent, Gateshead-on-Tyne
Green, A., M.B., 13, Gladstone Terrace, Gateshead-on-Tyne
Jaques, A. S., Esq., 2, Fountain Avenue, Gateshead-on-Tyne
Kapp, C. G. B., Esq., Ashgrove Terrace, Gateshead
Kimpster, T. M., M.B., 110, High West Street, Gateshead
Law, J., M.B., The Croft, Wrekenton, Gateshead-on-Tyne
Leech, F. S., Esq., Frondirion, Oxford Terrace, Gateshead-on-Tyne
MacKay, J. W., Esq., Pelaw, Newcastle-on-Tyne
Mearns, W., M.D., Bewick Road, Gateshead
Miller, D. M., M.B., C.M., Felling-on-Tyne
Moore, E. C., M.B., 5, Abbey Terrace, Gateshead-on-Tyne
Morland, R. A., M.B., 36, Bewick Road, Gateshead-on-Tyne
Munro, J. R., M.D., Coatsworth Road, Gateshead
Newcombe, W., M.D., 2, Walker Terrace, Gateshead
Norris, G. H., Esq., 1, Bedford Place, Gateshead-on-Tyne
Patton, J., M.B., 185 Whitehall Road, Gateshead
Peacock, W. E., M.D., Felling-on-Tyne
Ridley, J. H. W., Esq., Holly House, Gateshead-on-Tyne
Robinson, S. V., Esq., 237, Cardigan Terrace, Gateshead
Sergeant, W. R., Esq., Gateshead-on-Tyne
Smith, W., M.B., Bewick Road, Gateshead-on-Tyne
Speirs, J. L., M.B., Ratcliffe House, Gateshead-on-Tyne
Stewart, C. R., M.B., 7, Vernon Parade, Gateshead
Thomson, J. F., Esq., 15, High West Street, Gateshead
Todd, J., Esq., 2, Abbey Terrace, Gateshead
Wilson, Alex. M., L.R.C.P.& S., Dunston-on-Tyne
Wilson, F. G., M.B., Surgeon R.N., 8, Carlton Terrace, Low Fell, Gateshead
Wilson, James, M.B., Ch.B., Felling-on-Tyne
Wilson, R. H., M.D., Gateshead-on-Tyne
Yeates, William, L.R.C.P.& S., L.F.P.S.G., Felling-on-Tyne

No. 9.—Hartlepools Division

NUMBERING 26.

Chairman, A. E. Morison, M.B., West Hartlepool
Vice-Chairman, T. G. Ainsley, M.D., West Hartlepool
Honorary Secretary, Thos. B. Watson, M.B., B.S., 77, York Road, West Hartlepool

Representative for Representative Meeting.
G. V. Miller, M.D., Stockton

Representatives on Branch Council.
Boswell, H. St. G., M.B. | Davis, E. H., Esq.

Ainsley, T. G., M.D., Greylands, West Hartlepool
Biggart, S., M.D., West Hartlepool
Boswell, H. St. G., M.B., 1, Brougham Terrace, Hartlepool
Davis, E. H., Esq., Tower Street, West Hartlepool
DeJong, E. F., Esq., 2, Gladstone Street, Hartlepool
Gamlen, H. E., M.B., Chadwick House, West Hartlepool
Gibb, W. S., M.B., 10, Carlton Terrace, Hartlepool
Gray, W., M.D., Victoria Road, West Hartlepool
Jack, A. E. S., M.B., Stockton Road, West Hartlepool
McCullagh, A. R., Esq., Melbourne Lodge, West Hartlepool
McGregor, A. V., M.D., Victoria Road, West Hartlepool
McGill, H. M., M.D., Church Bank, Hartlepool
Morgan, G. F. E., Esq., Winthorpe House, West Hartlepool
Morison, A. E., M.B., Wellington Road, West Hartlepool
Morison, F. H., M.D., Springfield, Victoria Road, West Hartlepool
Pearson, A. G. W., M.B., B.S., The Lawns, Hartlepool
Rawlings, J., Esq., Hughenden, Hartlepool
Ross, W., M.D., Prospect House, West Hartlepool
Russell, H., M.D., Trimdon Colliery R.S.O., Durham
Schmitz, Herman, M.D., Victoria Road, W. Hartlepool
Strover, H. W. M., M.B., Ch.B., Dudley House, West Hartlepool
Swanwick, E. M., Esq., West Hartlepool
Vallance, J. M., M.B., Wheatley Hill, Thornley, Durham
Wall, Douglas L., M.B., Portland House, West Hartlepool
Watson, Thos. B., M.B., B.S., 77, York Rd., West Hartlepool
Young, M., M.D., West Hartlepool

No. 10.—Hexham Division

NUMBERING 22.

Chairman, H. F. Hurst, Esq., J.P., Lumeah, Hexham
Vice-Chairman, C. R. Kendal, Esq., Abbey Gate House Hexham
Honorary Secretary, J. A. Jackson, M.D., Carntyne, Hexham

Representative for Representative Meeting.
L. G. Fraser, M.D., North Shields

Representative on Branch Council.
Jackson, J. A., M.D.

Boustead, R. J., Esq., Hexham
Buchanan, R. D., M.D., Hexham
Callender, E. J., Esq., Haydon Bridge
Connon, C. J., M.B., Blanchland, Riding Mill, R.S.O.
Eliott, J. P., Esq., Parkside Place, Bellingham
Fraser, G. R., Esq., Wark-on-Tyne
Grey, T. C., Esq., Mount Pleasant, Corbridge-on-Tyne
Hurst, H. F., Esq., J.P., Lumeah, Hexham
Jackson, Daniel, M.D., Netherton, Hexham
Jackson, Daniel Noel, M.B., B.S., Corbridge
Jackson, J. A., M.D., Carntyne, Hexham
Kendal, C. R., Esq., Abbey Gate House, Hexham
McCoull, G. J., Esq., Stocksfield-on-Tyne
McCoull, William, Esq., Ovington Ho., Ovingham-on-Tyne
McLean, H., M.D., Corbridge
Miller, J. G., M.B., Russell Terrace, Bellingham
Penfold, T. C., M.B., South Parade, Stocksfield-on-Tyne
Speirs, W. R., Esq., Hallwhistle, R.S.O.
Stewart, D., M.D., Hexham
Stubbs, R. P., Esq., Woodlands, Stocksfield, R.S.O.
Williams, G. J., M.B., Hawthorn House, Hallwhistle
Woodman, Thomas, M.B., B.S., Hexham

No. 11.—Morpeth Division

NUMBERING 23.

Chairman, F. Barrow, Esq., Rothbury
Vice-Chairman, F. Beaton, M.D., Hirst
Honorary Secretary, J. P. Philip, M.D., Bon Accord House, Morpeth

Representative for Representative Meeting.
R. Laing, Esq., Blyth

Representative on Branch Council.
McDowell, T. W., M.D. | Philip, J. P., M.D.

Barrow, F., Esq., Rothbury
Beaton, F., M.D., Lintonville, Hirst, Morpeth
Bedford, G. H., Esq., Harbottle, Rothbury
Brumell, A., Esq., Morpeth
Buncle, T. M., M.B., Peerswood, Morpeth
Burrow, V., M.D., Newbiggin-by-Sea, Morpeth
Campbell, A. C., Esq., 10, Portland Place, Ashington
Child, H., Esq., The White House, Ashington, Morpeth
Dickie, H., M.D., Morpeth
East, G. B., M.B., County Asylum, Morpeth
Evers, C. H., Esq., North Seaton, Morpeth
Goldie, R. W., M.D., Hirst, Morpeth
Goodall, J., M.B., Capheaton
Gunn, F. W., M.D., Widdrington
Hankin, Miss C. M., M.B., County Asylum, Morpeth
Hedley, A. S., M.B., Rothbury
Lawrence, Hugh H., M.B., Whalton
Lawson, C. W., Esq., Star House, Rothbury
Mills, R. J., M.B., Ashington
McDowall, T. W., M.D., County Asylum, Morpeth
Philip, J. P., M.D., Bon Accord House, Morpeth
Pringle, Agnes M., The Dispensary, Morpeth
Trotter, J. E. M., Esq., Scotland Gate, Choppington, Morpeth

No. 12.—Newcastle-on-Tyne Division

NUMBERING 138.

Chairman, A. T. Wear, M.D., Wentworth Place, Newcastle-on-Tyne
Vice-Chairman, A. M. Martin, M.B., 17, Saville Row, Newcastle-on-Tyne
Honorary Secretary, R. P. R. Lyle, M.D., 11, Ellison Place, Newcastle-on-Tyne

Representative for Representative Meeting.
A. T. Wear, M.D., Wentworth Place, Newcastle-on-Tyne

Representatives on Branch Council.
Burnell, A. C., M.B. | Martin, A. M., M.B.
Dagger, R., Esq. | Vickery, W. H., Esq.
Hudson, J., M.D. | Wear, A. T., M.D.
Lyle, R. P. R., M.D. |

Aitchison, J., M.D., 57, Osborne Road, Newcastle-on-Tyne
Alderson, W. E., M.D., 5, Eldon Square, Newcastle-on-Tyne
Allison, T. M., M.D., 22, Ellison Place, Newcastle-on-Tyne
Anderson, E., M.B., 73, St. George's Terrace, Jesmond, Newcastle-on-Tyne
Angus, H. B., M.B., 4, St. Mary's Pl., Newcastle-on-Tyne
Angus, J. A., Esq., Benfinck Road, Newcastle-on-Tyne
Appleby, G. H. V., M.D., 90, Park Road, Newcastle-on-Tyne
Armstrong, H. E., Esq., Grand Hotel, Newcastle-on-Tyne
Atkinson, G. A., M.D., 52, Jesmond Road, Newcastle-on-T.
Basham, S., Esq., Bigham Place, Newcastle-on-Tyne
Baumgartner, J. R., Esq., 10, Eldon Sq., Newcastle-on-Tyne
Beatley, W. C., M.D., 4, St. Mary's Ter., Newcastle-on-Tyne
Beattie, T., M.D., 3, Ellison Place, Newcastle-on-Tyne
Bennett, H. P., M.B., 12, Victoria Square, Newcastle-on-Tyne
Bentham, Ethel, M.D., 19, Ellison Place, Newcastle-on-Tyne
Bisnop, T. H., Esq., 136, Manor House Road, Newcastle-on-Tyne
Blair, J. A., M.D., D.Sc., 16, Windsor Terrace, Newc.-on-T.
Bolam, R. A., M.D., 3, Saville Place, Newcastle-on-Tyne
Boyd, J. W. H., M.B., Elswick Road, Newcastle-on-Tyne
Bunting, T. L., M.D., Scotswood-on-Tyne
Burn, J. R., M.B., Forest Hall, Northumberland
Burnell, A. C., M.B., 34, Osborne Road, Newcastle-on-Tyne
Burnett, E. N., M.B., 2, Victoria Sq., Newcastle-on-Tyne
Buttercase, R., M.D., Forest Hall, Newcastle-on-Tyne
Callcott, J. T., M.D., City Asylum, Gosforth
Campbell, A., M.B., 44, Heaton Road, Newcastle-on-Tyne
Campbell, J. J., M.D., Prospect Place, Newcastle-on-Tyne
Carmichael, Daniel, Esq., 34, Hawthorn Road, Gosforth
Charlton, W. A. L'Anson, M.B., Westgate Hill House, Newcastle-on-Tyne
Clay, John, M.B., 42, Jesmond Road, Newcastle-on-Tyne
Coley, F. C., M.D., 21, Eldon Square, Newcastle-on-Tyne
Collis, A. J., M.D., 17, Osborne Road, Newcastle-on-Tyne
Coxon, H. C., M.D., 13, Lorraine Terrace, Leamington Scotswood-on-Tyne
Craggs, R. F., M.D., 22, Osborne Road, Jesmond, Newcastle-on-Tyne
Cresswell, John, Esq., Rothbury House, Heaton, Newcastle-on-Tyne
Dagger, R., Esq., Stannington Avenue, Newcastle-on-Tyne
Dawson, R. P., M.B., Welbeck Road, Walker, Newcastle
De Lacey, K. C., M.B., 6, Eldon Square, Newcastle-on-Tyne
Don, James, M.D., 1, Grove Street, Newcastle-on-Tyne
Drummond, D., M.D., D.C.L., 6, Saville Pl., Newc.-on-Tyne
Dryden, A., Esq., 2, Park Parade, Newcastle-on-Tyne
Duke, Alfred, M.B., 45, Osborne Rd. ad, Newcastle-on-Tyne
Dunlop, John T., M.B., 24, Kingsley Ter., Newcastle-on-T.
Farquharson, J. D., M.B., 242, Westgate Road, Newcastle-on-Tyne
Fitzgerald, G. H., M.D., 8, Walter Ter., Newcastle-on-Tyne
Fram, J., M.D., Grosvenor Place, Newcastle-on-Tyne
Fresen, J. J., M.B., 2, Rothbury Terrace, Heaton, Newcastle-on-Tyne
Galbraith, W., Esq., High Street, Gosforth, Newcastle-on-T.
Gibb, C. J., M.D., 52, Westgate Road, Newcastle-on-Tyne
Gover, J. M., M.B., High Street, Gosforth, Newcastle-on-T.
Gowans, T., M.B., 4, Abbotsford Terr., Newcastle-on-Tyne
Grinling, F. N., Esq., Dene House, Walker-on-Tyne
Hardcastle, W., M.B., 52, Westgate Road, Newcastle-on-T.
Harkness, W. T., M.B., 104, St. George's Terrace, Newcastle-on-Tyne
Hay, T. W., M.B., 47, Jesmond Road, Newcastle-on-Tyne
Hector, G. W. K., M.D., 2 Heaton Rd., Newcastle-on-Tyne
Hembrough, J. W., M.D., St. Nicholas Chambers, Newcastle-on-Tyne
Heslop, J. W., M.B., Westfield, Benwell, Newcastle-on-Tyne
Hewitson, J. G., M.B., 23, Brighton Grove, Newcastle-on-T.
Hindhaugh, J., M.D., Elswick Road, Newcastle-on-Tyne
Hitchfield, A. R., Esq., Lougley Street, Newcastle-on-Tyne
Hobbs, A. H., M.B., 24, Ellison Place, Newcastle-on-Tyne
Holmes, C. D., Esq., Newburn-on-Tyne
Holmes, W., Esq., Ponteland, Newcastle-on-Tyne
Howden, R., M.B., 24, Burdon Terrace, Newcastle-on-Tyne
Hudson, J., M.D., 42, Crossley Terrace, Newcastle-on-Tyne
Hume, G. H., M.D., 4, Ellison Place, Newcastle-on-Tyne
l'Anson, W. A., Esq., Westgate Hill Ho., Newcastle-on-T.
Kerr, A. W., Esq., Crawcrook, Ryton-on-Tyne
Kirkwood, T., M.B., 62, Westmorland Rd., Newcastle-on-T.
Kitching, E. B., Esq., 1, Linden Villas, Gosforth
Laws, C. U., M.D., 58, St. George's Ter., Newcastle-on-Tyne
Leech, J. W., M.D., 12, Eldon Square, Newcastle-on-Tyne
Limont, J., M.D., 3, Queen Square, Newcastle-on-Tyne
Livingstone, T. H., Esq., 4, Eldon Square, Newcastle on-T.
Love, J. D., M.B., 18, Westmorland Rd., Newcastle-on-Tyne
Lownds, J. R., Esq., Osborne Road, Newcastle-on-Tyne
Lyle, R. P. R., M.D., 11, Ellison Place, Newcastle-on-Tyne
Lyle, T., M.D., 34, Jesmond Road, Newcastle-on-Tyne
McCoull, Stanley, M.B., The Brow, Wylam-on-Tyne
McCracken, J. S., M.B., 47, Westmoreland Rd., Newcastle-on-Tyne
McCreery, J. O., Esq., Hill House, Whickham, R.S.O.
Manford, John S., M.B., 1, Osborne Terrace, Newcastle-on-Tyne
Martin, A. M., M.B., 17, Saville Row, Newcastle-on-Tyne
Martin, W., M.D., West Villa, Akenside Terrace, Newcastle-on-Tyne
Mason, J. R., Esq., 6, Regent Terrace, Newcastle-on-Tyne
Mathews, H. John, M.B., 1, Lovaine Row, Newcastle-on-T.
Miller, E. J., Esq., 12, Osborn Terrace, Gosforth
Meiser, A. W., M.B., Leamington, Scotswood-on-Tyne
Mitchell, J. R., M.B., Walker, Newcastle
Morison, J. R., M.D., F.R.C.S., 14, Saville Row, Newcastle-on-Tyne
Murray, G. R., M.D., 9, Ellison Place, Newcastle-on-Tyne
Murray, S. S., Esq., Salisbury House, Heaton Road, Newcastle-on-Tyne
Murray, W., M.D., 9, Ellison Place, Newcastle-on-Tyne
Nesham, R. A., Esq., 12, Ellison Place, Newcastle-on-Tyne
Nevin, R. W., M.B., 13, Heaton Grove, Newcastle-on-Tyne
Oliver, T., M.D., 7, Elison Place, Newcastle-on-Tyne
Ouston, T. G., Esq., 4, Graham Park Road, Gosforth
Owen, Sir Isambard, M.D., Armstrong College, Newcastle-on-Tyne
Paige, H. B. W., M.D., 9, Linden Villas, Gosforth, Newcastle
Parkinson, T. S. P., M.B., Forest Hall Northumberland
Patterson, D. W., M.B., 61, Cardigan Terrace, Newcastle-on-Tyne
Penfold, W. J., Esq., 259, Clara St., Benwell, New.-on-T.
Percival, A. S., M.B., 25, Ellison Place, Newcastle-on-Tyne
Phillipson, Sir George Hare, M.D., D.C.L., 7, Eldon Square, Newcastle-on-Tyne
Pieton, G., M.B., Stamfordham, Newcastle-on Tyne
Pirrie, R. R., Esq., Ryton-on-Tyne
Plante, G. R., M.B., Dene Holme, Blaydon-on-Tyne
Rattray, A. M., M.D., City Asylum, Gosforth
Richardson, W. G., M.B., 19, Saville Row, Newcastle-on-T.
Ridley, G. W., M.B., 6, Ellison Place, Newcastle
Ruddock, W. J., M.B., Grainger ville North, Newcastle-on-Tyne
Russell, F., M.B., 41, Heaton Road, Newcastle-on-Tyne
Rutherford, J. V. W., M.B., Jesmond Rd, Newcastle-on-Tyne
Rutter, H. L., M.D., 31, West Parade, Newcastle-on-Tyne
Ruxton, W. L., M.B., 33, West Parade, Newcastle-on-Tyne
Scott, T. O., M.B., 52, Elswick Road, Newcastle-on-Tyne
Simpson, W., M.B., Grainger ville N., Newcastle-on-Tyne
Slater, R. A., M.B., 11, Osborne Terrace, Newcastle-on-Tyne
Slater, Wm., M.D., 102, Rye Hill, Newcastle-on-Tyne
Smith, A., M.D., Whickham, Newcastle-on-Tyne
Smith, J. Esq., 2, Victoria Street, Newcastle-on-Tyne
Smith, J. W., M.D., Balgonie House, Ryton-on-Tyne
Smurthwaite, Henry, M.D., 8, St. Mary's Place, Newcastle-on-Tyne
Spurgin, W. H., Esq., 8, Graingervilles, Newcastle-on-Tyne
Tiplady, W., Esq., 83, Westmorland Rd, Newcastle-on-Tyne
Turner, G. G., M.B., 31, Oxford St., Newcastle-on-Tyne
Vickery, W. H., Esq., 1, Bristol Terrace, Beech Grove, Newcastle-on-Tyne
Walker, F. S., M.D., 48, Osborne Road, Newcastle-on-Tyne
Walker, T. H., Esq., Conyers House, Sandyford Road, Newcastle-on-Tyne
Wardale, J. D., M.B., 31, Eskdale Terrace, Newcastle-on-Tyne
Watson, G. E., Esq., 176, Portland Road, Newcastle-on-Tyne
Wear, A. T., M.D., Wentworth Place, Newcastle on Tyne
Williams, Ethel M. N., M.D., 19, Ellison Pl., Newcastle-on-Tyne
Wilson, A., Esq., Osborne House, Newcastle-on-Tyne
Wilson, T., Esq., 21, Rosebery Crescent, Newcastle-on-Tyne
Wishart, J., M.D., Dudley, Northumberland
Younger, R., M.B., 5, Meldon Terrace, Heaton, Newcastle-on-Tyne

No. 13.—North Northumberland Division

NUMBERING 22.

Chairman, C. C. Burman, Esq., Alnwick
Vice-Chairman, R. A. Welsh, M.B., Felton
Honorary Secretary, R. B. Robson, M.B., 20, Bondgate, Alnwick
Representative for Representative Meeting.
R. Laing, Esq., Blyth
Representatives on Branch Council.
Maclagan, C. G., M.B. | Robson, R. B., M.B.

Burman, C. C., Esq., Alnwick
Coldstream, G. P., M.B., West Street, Belford
Crawford, J. M., M.B., Norham on-Tweed
Dey, Alexander, M.B., Wooler
Elliott, John, Esq., Lowick, Beal
Forrest, J. S., Esq., Warkworth
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No. 15.—Stockton Division

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No. 16.—Sunderland Division

NUMBERING 58.

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Macleod, W., M.B., C.M., Helmsdale
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Murchison, Alex., M.B., Uig, Isle of Skye
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Skinner, W., M.B., Ballindalloch
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Stephens, R., M.B., Brora
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Sutherland, J. F., M.D., Scotsburn Road, Tain
Sutter, J. M., M.B., Eldershie Place, Nairn
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Taylor, J., M.D., Keith
Turner, R. S., M.D., Keith
Watson, Jas. Walker, M.B., 14, North Street, Elgin
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Young, W. B., M.B., Applecross

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

District comprising the Counties of CUMBERLAND and WESTMORLAND, south of and including Ravenglass, Grasmere, Orton, and Kirkby Stephen; the County of LANCASTER, north of and including Garstang; and in YORKSHIRE, Hawes and Settle and the part included by a line joining these and drawn from each to the nearest point of the county boundary.

Members of Branch—137.

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No. 1.—Furness Division

NUMBERING 47.

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Bentley, J. R., M.B., Gladwins, Limpsfield
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Bond, C. H., M.D., The Colony, Ewell
Bourns, C., Esq., West Hill, Oxted, Redhill
Bower, G., Esq., Clifton Crescent, Sutton
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Wray, C., Esq., North End Croydon
Young, H. W. P., M.D., Dursley, Norbury, S.W.

No. 7.—Dartford Division

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Bryden, R. J., Esq., 21, Harmer Street, Gravesend
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Callender, T. M., M.D., Inverard, Sidcup
Cane, H., M.D., The Gables, Belvedere
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Knight, W., Esq., 29, Harmer Street, Gravesend
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Robbs, C. E., M.B., Lodgewood, Gravesend
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Sutton, C. R. A., M.D., Clare House, Sidcup
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Williamson, J. S., M.B., Errigal, Powis Street, Woolwich

No. 8.—Dover Division

NUMBERING 27.

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Representative on Branch Council.
F. A. Osborn, Esq.

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Best, W. J., Esq., 1, Cambridge Terrace, Dover
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Howden, Ian D. C., M.D., 6, Cambridge Terrace, Dover
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Hulke, S. B., Esq., Ivy House, Walmer
Kerswill, Harry, Esq., St. Germans, Sandwich
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Robinson, M. K., M.D., Priory Hill, Dover
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No. 9.—Eastbourne Division

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Vice-Chairman, H. Habgood, M.D., Upperton Road, Eastbourne
Honorary Secretary, W. J. C. Merry, M.D. 2, Chiswick Pl., Eastbourne
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Representative on Branch Council.
Ewart, J. H., Esq., Eastbourne
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Harper, A., M.D.	Watson, T. H., M.D.
Hayman, C. N., M.B.	

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Holman, T., Esq., Gate House, East Hoathly
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Wallis, H., Esq., Alfriston
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No. 10.—Folkestone Division

NUMBERING 28.

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Representative on Branch Council.
Eastes, T., M.D.
Executive Committee.

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Chambers, W. F., Esq.	

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Dodd, P. V., M.D., 14, Manor Road, Folkestone
Eastes, T., M.D., 18, Manor Road, Folkestone
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Hackney, G. H., Esq., Roselle, Lyminge S.O.
Hackney, J., M.D., Hythe
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Perry C. E., M.D., 1, Castle Hill Avenue, Folkestone
Phillips, J. R. P., Esq., The Oaks, Hythe
Powell, H. A., Esq., 44, Sandgate Road, Folkestone
Streatfeild, T., M.D., 113, Sandgate Road, Folkestone
Sworder, E. G., M.B., West Terrace, Folkestone
Tyson, W. J., M.D., 10, Langhorne Gardens, Folkestone
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No. 11.—Guildford Division

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Representative for Representative Meeting, A. Hope Walker, Esq., The Common, Cranleigh
Representative on Branch Council.
Sichel, G., Esq.
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Fisher, G., Esq.	Thorne Thorne, R., M.B.
Kendall, N. F., Esq.	Weaver, T. K., Esq.
Levick, P., Esq.	Winstanley, R. W., Esq.

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Eade, G., Esq., Edencroft, Bramley, Guildford
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Frith, B. G., M.B., Grove Road, Guildford
Gabb, J. P. A., M.D., Guildford
Graham, W. G. J., Esq., Parkside, Wonersh
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Hooley, A., Esq., Cobham
Hudson, A. B., Esq., Vine House, Cobham
Hule, H. G., M.D., Bramfield, Godalming
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Kendall, N. F., Esq., Waterford, Chiddingfold
Lansdown, G. H., Esq., Knapp Hill, Woking
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Levick, P., M.B., Beech Cottage, Guildford
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Sells, C. J., Esq., White Hall, Guildford
Sichel, G., Esq., Eastfield Lodge, Epsom Road, Guildford
Sloman, S. G., Esq., 39, West Street, Farnham
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Sutcliffe, A. H., Esq., Ripley
Tanner, C. E., M.D., Farnham
Thorne, R. Thorne, M.B., Chobham Road, Woking
Tisehurst, C. S., Esq., Havencroft, Point Hill, Playden
Vincent, G. E., Esq., Maybury Road, Woking
Walters, F. R., M.D., Crooksbury Sanatorium, Farnham
Walker, A. H., Esq., The Common, Cranleigh
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Winstanley, R. W., Esq. Haslemere
Wright, Thomas, M.B., Tilford Road, Farnham

No. 12.—Hastings Division

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Representative for Representative Meeting, C. H. Allfrey M.D., Plas Newydd, Prince's Road, St. Leonards
Representative on Branch Council.
Kaye-Smith, E., Esq.
Executive Committee.

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Batterham, J. W., M.B.	Skinner, E. W., M.D.
Brodie, W. H., M.D.	

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Alford, H. G. L., Esq., 29, Cornwallis Gardens, Hastings
Allfrey, C. H., M.D., Plas Newydd, Princes Rd, St. Leonards on-Sea
Atkinson, F. P., M.D., 12, Dorset Road, Bexhill
Bagshawe, F., M.D., 35, Warrior Square, St. Leonards-on-Sea
Baker, A. E., M.B., Torfield House, Hastings
Ballingall, G. A., M.D., 47, Warrior Sq., St. Leonards-on-Sea
Barnett, John Milford, M.D., Surg.-Lieut.-Colonel (Major) Bombay Army (ret.) 21, Amherst Road, Bexhill-on-Sea
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No. 2.—Isle of Wight Division

NUMBERING 54.

Chairman, P. D. Turner, M.D., Ryde
Vice-Chairman, H. Castle, M.B., Newport
Honorary Secretary and Treasurer, G. B. Wood, M.B., Newlands, Sandown
Representative for Representative Meeting, R. Robertson M.D., Ventnor.
Representatives on Branch Council.
Castle, H., M.B. | Turner, P. D., M.D.

Adkins, G., Esq., Stroud, Freshwater
Armstrong, R. H., M.B., 5, Rocks, Blackgang, I.W.
Banks, Alfred, F.R.C.S., West Hill Tower, Ryde
Barker, H. M., M.D., Staincliff, Sandown, Isle of Wight
Bassano, H. F., M.B., Grove House, Ventnor, Isle of Wight
Blake, V. J., M.B., Elsinore, Ventnor
Brown, R. C., M.D., Parkhurst, Newport, Isle of Wight
Castle, H., M.B., Newport, Isle of Wight
Coltis, R. W., Esq., Buena Vista, Sandown, I.W.
Coombs, L. M. B., Esq., St. Nicholas House, Newport, I.W
Cowper, J., M.B., Havelock House, Shanklin
Dally, J. F. H., M.B., Royal National Hospital, Ventnor
Denton, Geo. R., M.B., Medina House, Cowes, I.W.
Ewen, H. W., Esq., York Avenue, East Cowes
Foster, S., Esq., High Street, Newport, I.W.
Gibson, L. P., Esq., West Cowes, Isle of Wight
Goring, C., M.B., H.M. Prison, Parkhurst
Greening, F. J., Esq., Melville Street, Ryde, Isle of Wight
Groves, J., M.B., Carisbrooke, Isle of Wight
Hall, A. R., M.D., Freshwater Bay, Isle of Wight
Hammond, J. A. B., M.B. Lond., Hope Road, Shanklin, I.W
Hands, C. H., M.B., Glendalough, Totland Bay, I.W.
Hill, Alfred, M.D., Valentine Mt., Freshwater Bay
Hoffmeister, H. E. W., M.B., Buckland, E. Cowes
Hoffmeister, J. B., Esq., 3, Parade, West Cowes, I.W.
Hoffmeister, W., M.D., Clifton House, West Cowes, I.W.
Hollis, A., M.D., Freshwater, I.W.
Howard, E., Esq., Felsberg, Shanklin
Ingleby-Mackenzie, K. W., Esq., John Street, Ryde, I.W.
Jolliffe, W. J., Esq., Yafford House, Shorwell, I.W.
Langston, T., M.D., Sunnyside, Sandown
Lowe, G. M., M.D., Newport
Lowther, Esq., Ventnor, Isle of Wight
McIntosh, J. W., M.B., York View, Castle St., E. Cowes
McKay, J. B., M.D., 101, Alexandra Ter., Newport, I.W.
Mayo, T. A., M.B., Cowes, Isle of Wight
Morton, S., M.D., Myrtle Cottage, Bonchurch
Pentreath, H. M., Esq., Galveston, Shanklin, I.W.
Preston, L. L., M.B., Windham House, Melville Street, Ryde
Pridmore, J. W., Esq., Villa D'Este, George Street, Ryde
Robertson, R., M.D., St. Catherine's House, Ventnor, I.W.
Ross, T. A., M.D., St. Andrew's, Ventnor
Scott, H. H., M.D., Medina Lodge, Cowes, Isle of Wight
Shaw, H., M.B., County Asylum, Newport, Isle of Wight
Sim, R., Esq., Parkview, Wroxall, Isle of Wight
Thompson, C. J., Esq., Newport, Isle of Wight
Todd, H. Ross, Esq., Bembridge, Isle of Wight
Treadwell, O. F. N., Esq., Brookfield, Parkhurst, I.W.
Trinder, A. P., Esq., Middleton House, Bembridge, I.W.
Turner, P. D., M.D., Sudbury, Ryde, Isle of Wight
Underhill, S. V. H., Esq., Castle View, West St., Newport
Wilson, H. R., Esq., The Cottage on the Cliff, Sandown
Wood, G. B., M.B., Newlands, Sandown, Isle of Wight
Woodruff, J. W., Esq., Quarr Hill, Binstead, Ryde, I.W

No. 3.—Jersey Division

NUMBERING 19.

Chairman, Col. Falvey, R.A.M.C., St. Lawrence
Vice-Chairman, P. B. Benthf, Esq., Jersey
Honorary Secretary, E. O. B. Voisin, Esq., 56, Bath Street St. Heliers, Jersey
Representative for Representative Meeting, A. C. Godfray, M.B., Jersey

Benthf, P. B., Esq., David Place, Jersey
Bois, C. A., Esq., St. Saviour's Road, Jersey

Brayn, P. J., Esq., Portland Lodge, Jersey
Clarkson, Major T. H. F., R.A.M.C., Station Hospital, Fort Regent, Jersey
Du Heaume, H. T., Esq., 6, Almorah Rd., St. Heliers, Jersey
Dustan, H., Esq., St. Heliers, Jersey
Falvey, J. J., Lt.-Col., R.A.M.C., St. Lawrence
Fraser, F. E., M.D., Great Union Road, Jersey
Gandin, F. N., Esq., The Grove, Jersey
Godfray, A. C., M.B., St. Helier's House, Jersey
Hird, A. E., Esq., Portland House, St. Heliers, Jersey
Le Geyt, E., Esq., 56, David Place, Jersey
Le Rossignol, A., M.D., 2, Casarea Place, Jersey
Robertson, D. Argyll, M.D., Mon Plaisir, St. Aubins, Jersey
Smith, H., Esq., 15, Midvale Road, St. Helers, Jersey
Stamberg, A. C., M.B., 8, Windsor Crescent, Jersey
Sullivan, E. H. C., Esq., 51, David Place, St. Heliers, Jersey
Symons, A. N., Esq., Edgefield, Beaumont, Jersey
Voisin, E. O. B., 59, Bath Street, St. Heliers, Jersey

No. 4.—Portsmouth Division

NUMBERING 108.

Chairman, L. K. H. Hackman, Esq., Landport
Vice-Chairman, R. Emmett, M.D., Portsmouth
Honorary Secretary and Treasurer, C. P. Childe, F.R.C.S., Cranleigh, Kent Road, Southsea
Representative for Representative Meeting, John Ward Cousins, F.R.C.S., Riversdale, Kent Road, Southsea

Representatives on Branch Council.

Blackman, J. G., M.D. | Green, J., Esq.
Claremont, C. C., M.D. |

Executive Committee.

Blackwood, J., Esq. | McEldowney, W. P., M.B.
Dove, R. A., M.D. | Routh, C. F., M.D.
Fraser, A. M., M.D. | Way, H. M., Esq.
Key, M. A., M.B. | Wright, J. L., Esq.

Allen, V., Esq., Heathmount, East Liss
Allen, W. H., Lieutenant-Colonel R.A.M.C., 5, Nightingale Road, Southsea
Baker, T., Esq. Waterloo-ville, Cosham
Bankart, A. R., M.B., M.V.O., Staff-Surgeon R.N., H.M. Yacht, "Victoria and Albert," Portsmouth
Barnes, W. G. K., M.D., Fleet-Surg. R.N. 16, Herbert Rd., Southsea
Bentham, A. L., Esq., Victoria Road, Southsea
Biden, E. J., Fleet Surg. R.N., 29, Osborne Road, Southsea
Blackman, J. G., M.D., Kingston Crescent, Portsmouth
Blackwood, J., Esq., Colaba, Festing Road, Southsea
Brook, T. S., Esq., West Liss
Brook, W. F., Esq., Fareham
Brownfield, H.M., Esq., Petersfield
Buchanan, A. G., Esq., Kilmartin, Liss
Buckell, L. M., Esq., Lee-on-the-Solent, Fareham
Carling, W., M.B., 40, Highland Road, Southsea
Case, G. H., Esq., Fareham
Childe, C. P., Esq., F.R.C.S., Kent Road, Southsea
Claremont, C. C., M.D., 57, Elm Grove, Southsea
Cole-Baker, L., M.D., Kent Road, Southsea
Colt, T. A., Esq., 42, St. Edwards Road, Southsea
Cook, H., M.D., Grove House, Lee-on the Solent
Compton, J. W., M.D., 67, Lawrence Road, Southsea
Cooper, W. R., Esq., F.R.C.S.I., 13, Hampshire Ter., S'thsea
Coppinger, R. W., M.D., Insp.-Gen., R.N., Sandhurst, Bury Road, Gosport
Court, E. P., Esq., Hill View, Hambledon, Cosham
Cousins, J. Ward, M.D., F.R.C.S., Riversdale, Kent Road, Portsmouth
Cross, R. G., Esq., Petersfield
Donald, J., M.B., 7, Foster Road, Alverstoke
Dove, R. A., M.B., 80, Elm Grove, Southsea
Emmett, R., M.D., Winton, North End, Portsmouth
Essery, W. J., M.B., South Parade, Southsea
Evered, F., Esq., Emsworth
Forde, T. A. M., Esq., 21, Clarence Parade, Southsea
Fraser, A. M., M.D., Town Hall, Portsmouth
Goss, S., Esq., Burlington Lodge, Southsea
Green, J., Esq., 129, Commercial Road, Landport
Green, P. H., junr., M.B., Brandon House, Portsmouth
Green, W., Esq., Kingston Crescent, Portsmouth
Hackman, L. K. H., Esq., Landport
Hadlow, H., Insp.-Genl., R.N., 30, St. Edward's Rd., Southsea
Hall, R. W. Basil, Surg. R.N., 4, St. Andrew's Rd., Southsea
Hann, H. F., Esq., 66, Commercial Road, Portsmouth
Hanson, A. S., Esq., Pitchfield, Fareham
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Heygate, W. H., Esq., Dorney Court, Cosham
Hilton, C. T., Esq., Emsworth
Hunter, E. J., Esq., High Street, Gosport
Johnstone, W. E., M.B., Station Hospital, Gosport
Kealy, J. R., M.D., Ashley House, Gosport
Kelso, J. E. H., M.B., Festing Road, Southsea
Key, M. Aston, M.B., 87, Victoria Road N., Southsea
Kinnear, J. C. M., M.B., Wickham
Knott, C., Esq., Elm Grove, Southsea
Kyffin, J., Esq., The Manse, Forton, Gosport
Lamplough, C., M.D., Kirkstall, Alverstoke
Leon, J. T., M.D., Grove Road, Southsea
Lucas, G. R., Esq., 120, Victor a Road North, Southsea
McEldowny, W. P., M.B., Elmhurst, North End, Portsmouth
McGregor, G., Esq., Verona, New Road, Portsmouth
McGregor, J., Esq., Mile End Villa, Commercial Road, Portsmouth
Malpas, J., Esq., Selborne House, Fawcett Road, Southsea
Marwood, A. B., Esq., 5, Campbell Road, Southsea
Matthews, T. A., Esq., 26, Victor a Road North, Southsea
May, A. E., Esq., Chandos, Hayling Island
Maybury, A. V., M.D., Mile End, Landport
Maybury, L., M.D., 9, Hampshire Terrace, Southsea
Mead, T. W., Esq., Fratton Road, Landport
Meade, W., Esq., Anglesey, Gosport
Merry, S. R., Esq., Borough Asylum, Portsmouth
Milne-Thomson, A., M.B., 32, Lion Terrace, Portsea
Morley, G. F., Esq., 45, High Street, Portsmouth
Morley, H. W., Esq., Union Infirmary, Portsmouth
Mugleston, F. C. H., Esq., 3, High Street, Gosport
Mulcahy, T. A., Esq., 30, Kingston Road, Portsmouth
Mulvany, John, Esq., 106, Arundel Street, Portsmouth
Mumby, B. H., M.D., The Asylum, Portsmouth
Nash, C., Esq., The Yews, Horndean, Hants
Nicholson, E. R., M.D., Solent Bo., South Parade, Southsea
Norman, S., Esq., West Street House, Havant
Owen, A. L., M.D., Southsea
Palser, J. R., Esq., 1, Victoria Crescent, Southsea
Parsons, John, Esq., Headley
Penton, R. H., M.D., D.S.O., Maj., R.A.M.C., 19, Western Parade, Portsmouth
Phillips, J., M.B., Osborne Road, Southsea
Read, G. A. O'R., M.B., 9, Victoria Road South, Southsea
Ridout, C. A. S., M.B., Charlton House, Cranesw ater Park, Southsea
Robertson, J. R. S., M.D., 5, Western Parade, Southsea
Routh, C. F., M.D., Clarence Parade, Southsea
Ruel, C. P., Esq., Kent Road, Southsea
Rundle, H., Esq., F.R.C.S., 13, Clarence Parade, Southsea
Salmond, W. A., M.B., Wilton House, Landport Terrace, Southsea
Sexton, E. J., M.D., Brig.-Surgeon I.M.S., Glanmyre, Spencer Road, Southsea
Sheahan, D. A., M.D., 434, Commercial Road, Portsmouth
Snelmerdine, H. M.B., Liphook
Sparrow, T. S., Esq., 29, Clarendon Road, Southsea
Stephens, L. E. W., Esq., Emsworth
Stokes, F. E., M.B., Ranelagh, Elmhurst Road, Gosport
Thomas, A., Esq., Eastmeon, Petersfield
Trevelyan, B. R. T., Esq., 89, Waverley Road, Southsea
Tullis, G. A., M.D., Holmbush, Grove Road, Southsea
Watson, Miss H. Marie, L.R.C.P.&S.Ed., Borough Asylum, Portsmouth
Way, J. H. F., Esq., 151, Victoria Road N., Southsea
Way, M. H., Esq., Clarendon Lodge, Southsea
Welby, S., M.D., Fleatham, Liss
Weston, R. A., Esq., 505, Commercial Road, Landport
Woods, H. C., C.V.O., K.H.P., M.D., R.N., Insp.-Gen., Alv'stk
Wright, A., Bosworth, Esq., Kingston Road, Portsmouth
Wright, J. L., Esq., 4, Lennox Mansions, Southsea

No. 5.—Salisbury Division

NUMBERING 53.

Chairman, W. W. Ord, M.D., Salisbury
Vice-Chairman, W. J. Harris, M.D., Shaftesbury
Honorary Secretary and Treasurer, J. E. Gordon, Esq. 52, Endless Street, Salisbury
Representative for Representative Meeting, C. R. Straton, Esq., Wilton, Salisbury

Representatives on Branch Council.

Kempe, C. G. B., M.D. | Luckham, L. S., Esq.

Executive Committee.

Blackmore, H. P. | Luckham, L. S. Esq.
Fison, E. F. M.D. | Richmond, R. T., Esq.
Kempe, C. G. B. M.D. | Wilcox, R. L., Esq.

Allport, H. K., M.D., Lt.-Col. R.A.M.C., Bulford Camp, Salisbury
Argles, R. L., Capt., R.A.M.C., Bulford Camp, Salisbury
Armitage, J. J., Esq., Salisbury Infirmary
Blackham, R. J., Capt. R.A.M.C., Bulford Camp, Salisbury
Blackmore, H. P., M.D., Salisbury
Bothwell, J., Esq., Hornmgsham, Warminster
Browne, H., Esq., Amesbury
Burt, W. C., Esq., Stockbridge
Carter, H. H. A., Esq. The Abbey House, Shaftesbury
Clay, C., Esq., Manor House, Fovant, Salisbury
Clifton, J., Esq., Fordingbridge
Coates, Harcourt, Esq., Endless Street, Salisbury
Coutts, Lieut.-Col. G., M.B., R.A.M.C., Salisbury
Eddowes, C., Esq., Maddington
Ellis, Sidney, Esq., 42, New Street, Salisbury
Ensor, C. A., Esq., Tisbury
Farnfield, W. W., Esq., Mere
Farr, E., Esq., The Chantry, Andover
Finch, W. C., Esq., Fisherton House Asylum, Salisbury
Fison, E. F., M.D., F.R.C.S.E., 62, St. John Street, Salisbury
Flower, F., Esq., Warminster
Gillett, J. P., Esq., Elm House, Andover
Goodchild, J. A., Esq., Berwick St. John, Salisbury
Gordon, J. E., Esq., 52, Endless Street, Salisbury
Gordon, W., Esq., 4, Marlborough Road, Salisbury
Green, J. Lardner, Esq., Fowlers Road Hill, Salisbury
Harris, W. J., M.D., Avishays, Shaftesbury
Hinton, H. T., M.B., Heytesbury
Johnston, J. W., M.D., Fordingbridge
Kempe, C. G. B., M.D., Salisbury
Langley, A. F., M.D., Handley
Lockyer, G. E., Esq., Amesbury
Luckham, L. S., Esq., 47, Winchester Street, Salisbury
Mainprise, C. W., Capt., R.A.M.C., Tidworth
March, J. O., Esq., Amesbury
Manning, H. J., Esq., Laverstock House, Salisbury
May, W. A., C.B., Col. R.A.M.C., Tidworth House, Andover
Ord, W. W., M.D., Salisbury
Partridge, L. S., Esq., Eversfield House, Warminster
Rake, Herbert, Esq., Fordingbridge
Richmond, R. T., Esq., Wilton
Rutter, F. B., Esq., Mere
Salvage, Major J. V., R.A.M.C., 1, The Avenue, Andover
Saunders, L. J., Esq., Salisbury
Shea, H. F., Capt., R.A.M.C., Bulford Camp, Salisbury
Straton, C. R., Esq., Wilton, Salisbury
Ward, A., M.B., Codford
Ward, A. E. J., Esq., Brown Street, Salisbury
Whiteley, G. W., Esq., Downton
Wilks, H. L. E., Esq., Wilton Road, Salisbury
Willcox, H. L., Esq., Warminster
Willcox, R. L., Esq., Warminster
Williams-Freeman, J. P., M.D., Weyhill, Andover

No. 6.—Southampton Division

NUMBERING 74.

Chairman, E. F. Chinery, Esq., Lymington
Vice-Chairman, R. D. H. Gwillim, Esq., Southampton
Honorary Secretary, A. B. Wade, M.B., 28, Carlton Crescent, Southampton
Representative for Representative Meeting, A. MacKeith, M.B., Howard Road, Southampton

Representatives on Branch Council.

MacLeod, Col. R., M.D. | Weston, G. H., M.B.
Purvis, W. P., M.D. |

Executive Committee.

Aldridge, N. E., M.B. | Shettle, H. W., Esq.
Buckell, E., Esq. | Simmons, E. W., Esq.
Bullar, J. F., M.B. |

Aldridge, N. E., M.B., Rockstone House, Southampton
Allden, J. H., Esq., Richmond Lodge, Shirley, Southampton
Bacon, R. A. E., Esq., Riverside, Bitterne Park, Southampton
Batke, A. J., Esq., 8, Hanover Buildings, Southampton
Bencraft, H. W. R., Esq., 13, Cumberland Pl., Southampton
Breton, L. M., Esq., Kent House, Portswood Road Southampton
Buckell, E., Esq., Romsey
Bullar, J. F., M.B., F.R.C.S., Southampton
Cade, S. E., Esq., Ersh inbrae, Sarisbury, near Southampton
Cheesman, G. E. A., Esq., Church Lane, House, Lymington
Child, G. A., Esq., Hythe, Southampton
Chinery, E. F., F.R.C.S., Lymington
Cooper, W. F., Esq., 55 Shirley Road, Southampton
Cowen, G. H., M.B., F.R.C.S., College Place, Southampton
Dominey, G. H., Esq., Royal Southampton Hospital, Southampton
Easton, Thomas, M.D., 28, East Park Terrace, Southampton
Farquharson, G. S., M.B., 12, Carlton Crescent, S'hampton
Fox, E. H. B. Esq., Itchen, Southampton
Fraser, J. J., Esq., Cumberland House, Southampton
Giles, W. F., Esq., Hythe, Southampton
Gillespie, T., M.B., Forest Lodge, Shirley
Godfrey, A. C., M.D., 3, Waterloo Road, Freemantle, Southampton
Grillin, F. T., M.B., 11, East Park Terrace, Southampton
Gwillim, R. D. H., Esq., 9, Anglesea Place, Southampton
Hall, E. S., M.B., Bath Lodge, Bitterne
Hall, F., Esq., New Alma Road, Southampton
Hall, Walter, Esq., 15, Carlton Crescent, Southampton
Harman, A. B., Esq., 1, Cranbury Terrace, Southampton
Hodson, T. G. S., M.D., Bitterne
Hoey, J. C., Esq., Clevelands, Emsworth Road, Shirley
Hughes, S., M.B., The Avenue, Southampton
Hutchinson, J., Esq., Fawley, Southampton
Ives, W. R. Y., Esq., 14, Portswood Park, Bevois Hill, Southampton
James, F. B., Esq., 12, Brighton Road, Southampton
Jolliffe, W. E., Esq., 24 Carlton Crescent, Southampton
Kay, Lieutenant-Colonel, R.A.M.C., Netley
Keele, J. R., Esq., 3, Sussex Place, Southampton
Keppel-Compton, J. H., Esq., 8, Cranbury Ter., Sthampton.
Lauder, R. B., F.R.C.S., 158, Above Bar, Southampton
Lethbridge, Sir Alfred, K.C.S.I., Windhover, Burseldon
Le Quesne, C. P., Esq., 7, Lawn Road, Southampton
MacDougall, J. M., Esq., 152, St. Mary's St., Southampton
MacKeith, A. A., M.B., Howard Road, Southampton
MacLeod, R., M.D., Col. (ret. I.M.S.), Duncable, Westend
Martin, C. B., Maj. R.A.M.C., Netley
Maturin, F. H., M.B., Old Bank House, Lymington
May, H. J., M.B., Ivanhoe, Archers Road, Southampton
Milward, E. O., Lt.-Col., R.A.M.C., The Docks, Southampton
Parry, G. H., M.B., Ventnor, Howard Road, Southampton
Pern, A., F.R.C.S., Botley, Southampton
Powell, J. A., M.D., St. Cronans, The Avenue, Southampton
Prentice, R. W., Esq., Spring Grove, Bishopstoke
Purvis, W. P., M.D., 14, Carlton Crescent, Southampton
Rainsford, J. E., Esq., Tower Ho., Landguard Rd., Southampton
Remny, A. W., M.B., Durham Road, Shirley
Robson, F. W. H., M.D., Beistone, Howard Road, Southampton
Rogers, A. A., Esq., East Cliff, Woolstone
Saunders, C. H., M.B., Berkeley Lodge, Southampton
Scallon, E. O., Esq., Romsey
Shettle, H. W., Esq., Grosvenor Square, Southampton.
Sheppard, H. A., Esq., Elingfield, Totton
Simmons, E. W., Esq., Haslemere, Bishopstoke
Sleigh, H. P., M.B., 63, Leigh Road, Eastleigh
Stephenson, O. T., Esq., Woolston, Southampton
Stevens, G., Esq., 7, Brunswick Place, Southampton
Stewart, C. H., Esq., Netley Abbey
Sylvester, Lieutenant-Colonel, R.A.M.C., Netley
Wade, A. B., M.B., 28, Carlton Crescent, Southampton
Wales, J. F., M.D., Portswood
Ward, H. P., M.B., Brunswick Place, Southampton
Way, A. O., Esq., Bassett, Southampton
Weston, G. H., M.B., Bassett, Southampton
Wood, W. J. H., Esq., Lake House, Freemantle
Young, J. C., Esq., Incorporation Infirmary, Shirley Warren

No. 7.—Winchester Division

NUMBERING 63.

Chairman, J. L. Livingstone, M.D., Hursley
Vice-Chairman, W. M. Harman, M.D., Winchester
Honorary Secretary, H. J. Godwin, M.B., 35, Southgate Street Winchester
Representative for Representative Meeting, D. Brown, Esq., 78, High street, Winchester

Representatives on Branch Council.

Briscoe, J. F., Esq. | Royds, W. A. S., Esq.
Jollye, F. W., Esq. |

Adam, J. L., M.B., Blackwater
Adams, P. E., M.D., Hartley Wintney, Winchfield
Allen, L. L., Esq., Royal Hants County Hosp., Winchester
Andrews, S., Esq., Basingstoke
Applebe, E. A., Esq., 1, Southgate Road, Winchester
Barclay, W. B., Esq., Mayfield, Eggars Hill, Aldershot
Baxendall, A., Esq., 23, Grosvenor Road, Aldershot
Bevan, W. L. P., M.D., Alton
Briscoe, J. F., Esq., Westbrooke House, Alton
Browne, D., Esq., 78, High Street, Winchester
Burgess, E. J., Esq., Whitchurch
Carsan, R. B., Esq., Ivy Cottage, Westmeon
Churchill, Brooke, Esq., R.A.M.C., Mess, Aldershot
Cohen, Joseph, Esq., 6, Victoria Road, Aldershot
Curtis, G. W., Esq., Alton
Curtis, W., Esq., Alton
Davison, T. H., M.D., Odiham
Despard, Rosina C., M.D., The Dell, Golden Common, Winchester
England, G. F. A., M.D., 12, Southgate Street, Winchester
Gibson, J. H., Esq., 1, Lansdowne Road, Aldershot
Gilmour, J. H., Esq., Hurstbourne Tarrant
Godwin, H. J., M.B., 35, Southgate Street, Winchester
Grenfell, H. O., Esq., Moorcote Sanatorium, Eversley, Winchfield
Griffiths, H. T., M.D., Preston, Candover
Griffiths, W. A., Esq., Wonston, Micheldever
Harman, W. M., M.D., Brig.-Surg., Retired, Winchester
Hartley, E. B., Colonel, V.C., C.M.G., White Lodge, Fleet
Hayes, H. R., Esq., Basingstoke
Hemming, C. P., Esq., Bishops Waltham
Hemsted, R. H., Esq., Hordley House, Whitchurch
Hodgson, Harold, M.B., Lindens, Alresford
Hoole, J. C., M.B., Upham
James, J. A., Esq., Odiham
Jollye, F. W., Esq., R.E.C.S., Alresford
Langdon, T. C., Esq., Northgate House, Winchester
Langley, W. J., Esq., Tadley, Basingstoke
Leslie, E. J. L., Esq., Alton
Lithgow, T. G., Esq., Farnborough
Livingston, J. L., M.D., Hursley, near Winchester
Loveless, W. K., Esq., Steepleton, Stockbridge
Lowne, B. T., M.D., Crondall
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Maturin, H., Esq., Winchfield
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Meyrick, F. R., M.D., Winton House, Basingstoke
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Mulvany, P., Lt.-Col., R.A.M.C., Princess Louise Hospital, Alton
O'Connor, W. M., M.D., Cargate Avenue, Aldershot
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District comprising the County of BEDFORD; in WARWICKSHIRE, Rugby; in NORTHAMPTONSHIRE, the portion south and west of Thrapston; in BUCKINGHAMSHIRE, the portion north of a line drawn from Thame to Chesham, excluding the latter; in HERTFORDSHIRE, the portion north of a line drawn from Chesham immediately south of King's Langley to Potter's Bar, and thence due north to the county boundary.

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Lipscomb, E. H., M.B.	

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Representative for Representative Meeting, C. J. Evans, Esq., Northampton

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SOUTH WALES AND MONMOUTHSHIRE BRANCH.

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Thomas, T. W., Esq., Caerphilly
Thomas, G. M. A., Esq., Bron-y-garn, Maesteg
Thomas, W. J., Esq., Giverthonor Place, Penygam, Cardiff
Thompson, J. T., M.B., 21, Windsor Place, Cardiff
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Treasure, W. B. C., M.D., Esq., 63, Cowbridge Road, Cardiff
Treharne, J. Ll., Esq., Beaufort House, Cardiff
Turner, J. H., Esq., Windsor Place, Cardiff
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Vachell, H. R., M.D., 18, Newport Road, Cardiff
Walford, E., M.D., Town Hall, Cardiff
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Wallace, T., M.D., Newport Road, Cardiff
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Williams, W., M.D., 31, Victoria Road, Penarth
Williams, W. G., Esq., 20, Parade, Cardiff

No. 2. Monmouth Division

NUMBERING 85.

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Vice-Chairman, J. Glendinning, M.D., Abergavenny

Honorary Secretary, W. J. Greer, Esq., 2, Chepstow Road, Newport

Representative for Representative Meeting, W. D. Steel, M.D., Abergavenny

Representatives on Branch Council.

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Paton, R. J., M.D.	

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Bevan, T. W., Esq., Nantyglo
Brewer, H. M., Esq., Newport
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No. 3.—North Glamorgan and Brecknock Division

NUMBERING 78.

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Vice-Chairman, T. W. Parry, Esq., Ferndale

Honorary Secretary, Evan N. Davies, Esq., Pen-y-graig, Rhondda Valley

Representative for Representative Meeting, E. N. Davies, Esq., Pen-y-graig, Rhondda Valley

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Morgan, D. N., Esq.	

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Cresswell, Pegarson Robert, Esq., C.B., Hillside, Dowlais
Cresswell, S. C., Esq., Dowlais
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Davies, D., Esq., Bryngolwg, Aberdare
Davies, E. N., Esq., Pen-y-graig, Rhondda Valley
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White, C. R., Esq., Nixon Villa, Merthyr Vale

No. 4.—South-West Wales Division

NUMBERING 73.

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Vice-Chairman, O. Williams, Esq., Burry Port

Honorary Secretary and Treasurer, J. E. P. Davies, M.B., Castle Hill, Llanelly.

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Williams, J. T. C., Esq.	

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Hopkins, R., Esq.	Williams, E. R., Esq.
Knowling, E. M., M.B.	

Representative for Representative Meeting, D. J. Williams, F.R.C.S., Llanelly

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Evans, E., M.B., Llanelly
Evans, E. R., Esq., Llandyssul
Evans, R. D., Esq., Dale House, Llandilo
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Griffiths, T. R., Esq., Hen Blas, Kidwelly
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Howells, J., Esq., Trimsaran, near Kidwelly
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James, W. T., Esq., Joint Counties Asylum, Carmarthen
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Jones, Evan, Esq., Llanybyther
Jones, V. Ll. W., Esq., St. Clears
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Lewis, J., Esq., Llanon, near Aberystwith
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Williams, W. W., Esq., Glendower House, St. Davids

No. 5.—Swansea Division

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Vice-Chairman, D. A. Davies, M.D., Swansea

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Representative for Representative Meeting, H. A. Latimer, M.D., 4, Belvoir Place, Swansea

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Jones, J. Arnallt, M.D.

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Reid, Edgar, Esq. | Lewis, Llewellyn, Esq.

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Rawlings, J. A., Esq., Sketty, R.S.O.
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Roberts, J. S. H., Esq., Picton Villa, Swansea
Samuel, David, Esq., 81, New Road, Skewen
Stephens, G. A., M.D., 16, Lansdowne Terrace, Swansea
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Whittington, T. P., Esq., Ffrwd Vale, Neath
Williams, John Henry, Esq., Devonshire Place, Aberavon, Port Talbot
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SOUTH-WESTERN BRANCH

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RECOGNISED 1840.

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No. 1.—Barnstaple Division

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Cooke, W., Esq., Barnstaple
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Francis, J. E., Esq., Charlecote, Northam
Gardner, E. F., Esq., Watersmeet, Ilfracombe
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Hay, M. B., Esq., Castle Hill, Lynton
Hopkins, T., M.D., Weare Giffard, Bideford
Jonas, H. C., M.B., Bear Street, Barnstaple
Kendle, F. W., Esq., South Molton
Kettlewell, G. D., Esq., Capstone Lodge, Ilfracombe
Langridge, F. J. W., Esq., Ilfracombe
Leach, R. E. H., Esq., Witheridge
Macindoe, J. G., M.B., Torrington
Manning, F. B., Esq., Medina Cottage, Pilton, Barnstaple
Manning, N. S., Esq., Middleton, Combe Martin
Michell, J. C., Esq., Lynton
Morris, Mary E. H., M.B., N. Devon Infirmary, Barnstaple
Norman, J. H., Esq., Winkleigh
Pearson, Ellis, Esq., Strand House, Bideford
Reston, H., M.D., Ashford, near Barnstaple
Richardson, T. A., Esq., Park House, Combe Martin
Sanders, T., Esq., 112, East Street, South Molton
Siddall, J. B., M.D., Conyheare, Northam, R.S.O., Bideford
Slade-King, E. J., M.D., Bickleighscombe Down, Ilfracombe
Smyth, H. J., Esq., New Road, South Molton
Tave, J. J., Esq., Bideford
Thompson, C. S., M.D., 4, Buttgarden Street, Bideford
Toller, C. W. E., M.D., Castle House, Ilfracombe
Toye, E. J., M.D., Sandhope, Bideford
Tucker, J., Esq., Chulmleigh
Valentine, W. A., M.D., Appledore
Walker, R., Esq., Clovelly, Bideford

No. 2.—Devonport Division

NUMBERING 63.

Chairman, W. Hammond, Esq., Liskeard

Vice-Chairman, F. E. Row, Esq., Devonport

Honorary Secretary, A. D. Williams, Esq., 1, Osborne Villas, Devonport

Representative for Representative Meeting, A. D. Williams, Esq., Stoke

Representatives on Branch Council.

Samuel, J. A., M.D. | Thompson, W. P., M.D.

Adams, A., M.B., Bridgend, W. Looe
Atkins, S. E., Esq., Montsaye House, Hatherleigh
Baber, H. A., Esq., Bere Alston
Benson, C. R., Esq., Lee Down
Bowlay, A. D., M.D., Gunnislake, near Tavistock
Brand, A. M., Esq., Hillside, Stratton
Brown, George, Esq., Callington, R.S.O.
Brough, Daniel, M.B., Royal Albert Hospital, Devonport
Burd, G. V., Esq., Okehampton
Cheves, J. T., Esq., Milbrook
Childs, Christopher, M.D., Boscarn, Looe
Clarke, A. B., Esq., Shebbear
Cole, W. R. N., M.D., St. Tudy, R.S.O.
Crowe, H. W., M.D., Honeyleigh, Yelverton
Cutcliffe, M., Esq., North Tawton
Davis, H., M.D., Callington
Deacon, Mary A. S., M.B., Tor View, Yelverton, R.S.O.
Dingle, H., Esq., Laurel Cottage, Tintagel
Dodgson, Henry, M.D., Broad Street, Launceston
Down, Edgar, Esq., Wingfield House, Stoke, Devonport
Dyer, S. K., Esq., Medical Officer H.M. Prison, Dartmoor
Eden, W. A., Esq., Wadebridge
Forward, F. E., Esq., Princetown
Gard, W. J., Esq., Stoke, Devonport
George, R. J., M.D., Port Isaac
Gill, J. W., Esq., St. Germans
Gould, J., Esq., Hatherleigh
Gray, W., Esq., Holsworthy
Hammond, W., Esq., Stuart House, Liskeard
Hanham, L. L., Esq., 1, Trafalgar Place, Stoke, Devonport
Harman, G. R., Esq., Fairfield, St. Germans
Harvey, F., Esq., Rosehill Cottage, Padstow
Hingston, R., Esq., Liskeard
Horsfall, W. N., M.B., R.N. Barracks, Devonport
Jackson, W. Roy, M.B., Pendowrie, Liskeard
Kerswill, J. B., Esq., St. Germans
King, J., Esq., Stratton
King, T. A., Esq., 1, Belle Vue, Bude
Kingdon, E. O., Esq., Holsworthy
Lander, C. L., Esq., 7, Molesworth Terrace, Stoke
Marshall, L. R., Esq., Black Down, Mary Tavy
McCulloch, Edward, M.B., Rodney Terrace, Stoke
Moran, P. G., M.B., 11, Mount Edgcumbe Terrace, Stoke, Devonport
Musgrave, Cecil, B. T., M.D., Lifton
Nettle, W., Esq., Liskeard
Pearse, E. M., Esq., 2, Varley Terrace, Liskeard
Pearson, G., Esq., Saltash
Rae, G. A., Esq., Stoke, Devonport
Rider, A. G., M.B., 16, Garfield Terrace, Stoke, Devonport
Row, F. E., Esq., Tamar Terrace, Devonport
Ryan, R. P., Esq., Devonport
Samuel, J. A., M.D., North Hill House, Torpoint, Devon'p't
Sandford, G. C., M.D., 1, Collingwood Villas, Devonport
Smith, A. C. P., Esq., St. Budeaux
Smyth, T. E., M.D., 3, Abbeymead, Tavistock
Spearman, B., M.B., Briar Tor, Yelverton
Tatham, C. J. W., Maj., R.A.M.C., Stoke Cottage, Devonp't
Thom, G., Esq., 1, Clarendon Terrace, Devonport
Thompson, D., Esq., Launceston
Thompson, W. F., M.D., Penquite, Launceston
Wade, C., Esq., Tolcarne, Boscastle
Watt, J. L., M.B., Millbrook, Plymouth
Williams, A. D., Esq., 1, Osborne Villas, Stoke, Devonport

No. 3.—Exeter Division

NUMBERING 91.

Chairman, J. Somer, Esq., Exeter

Vice-Chairman,

Honorary Secretary, J. Miller, Esq. 14 East Southernhay Exeter

Representative for Representative Meeting, J. Miller Esq., 14, East Southernhay, Exeter

Representatives on Branch Council.

Beesley, C., Esq. | Leon, G. A., M.B.
Coombe, R. Esq. | Somer, J., Esq.

Ackland, J. M., Esq., 24, Southernhay, Exeter
Alleyne, E. F. M., Esq., High Street, Cullompton
Andrew, H., Esq., 10, East Southernhay, Exeter
Andrews, R. J., Esq., Heavitree, Exeter
Ashford, W., Esq., Riversmeet Terrace, Topsham
Atkinson, J. M., M.B., 22, Danby Terrace, Exmouth
Bartlett, F. P., Esq., Raleigh House, Ottery St. Mary
Barton, G. P., Esq., Lympstone, near Exeter
Baskin, J. L., Esq., The County Asylum, Exminster
Beesley, Clarence, Esq., Exeter Road, Exmouth
Bell, C. E. W., Esq., 17, West Southernhay, Exeter
Bird, A. C., Esq., Old Hayes, Sidmouth
Bridger, J. F. E., Esq., The Dunrimary, Tiverton
Child, H., Esq., 34, Southernhay East, Exeter
Churchill, A. L. M., Esq., Wonford House, Exeter
Clapp, G. T., M.B., Exeter
Cock, J., Esq., 17, Morton Crescent, Exmouth
Coombe, R., Esq., 5, Barnfield Crescent,, Exeter
Cosens, F. R. S., Esq., Brookfield, Colyton
Crooks, James, Esq., Castle Hill House, Axminster
Cullen, R. B., Esq., Fore Street, Tiverton
Date, W. H., Esq., Culmstock
Davis, A. N., Esq., Devon Co. Asylum, Axminster
Davy, H., M.D., Southernhay House, Exeter
Deas, P. M., M.B., Wonford House, Exeter
De Penne, T. Y., Esq., Sidlands Lodge, Sidmouth
Domville, E. J., Esq., Northernhay House, Exeter
Down, A. R., Esq., Winslade, Bampton
Duncan, T., M.B., 94, Sidwell Street, Exeter
Dyball, B., M.B., 47, Queen Street, Exeter
Eames, E. S. B., Esq., Lambscroft, Uffculme
Eaton, O., Esq., Exmouth
Evans, E., Esq., Elmfield, Crediton
Evans, G. E. A., Esq., Seaton
Evans, T. C. C., Esq., Budleigh-Salterton
Evans, W. H., Esq., Colyton
Farrant, Mark, Esq., Beaufort House, St. Thomas, Exeter
Fenwick, C., M.D., Dunsford, Exeter
Fitzsimons, J. B., M.D., Kilrush, Lympstone
Frood, J. N., Esq., Topsham
Gidley, G. G., Esq., Cullompton
Goard, T. A., Esq., 28, West Southernhay, Exeter
Gordon, W., M.D., 3, Barnfield Crescent, Exeter
Goulden, H. E., Esq., Clyst Hydon, Exeter
Grigg, N. B., Esq., Holcombe Regis, Devon
Hanna, G. H., M.B., Alma House, Exmouth
Harris, J. D., Esq., 45, Southernhay, Exeter
Harris-Liston, L., Esq., Digbys, Exeter
Haycroft, C. H., Esq., Fair Park, Bow
Hedden, R., Esq., Plympton House, Honiton
Langran, W., Esq., Axminster
Leon, G. A., M.B., Hillston, Sidmouth
Lipscomb, E. R., Esq., Starcross
Macindoe, A., M.D., High Back, Sidmouth
Mackenzie, L., Esq., Tiverton
Miller, John, Esq., 14, East Southernhay, Exeter
Miller, G. W., Esq., Pinhoe
Mortimer, J., M.B., 6, Northenhy Place, Exeter
Muir, D. K., Esq., Earlsland, Bradninch
Paine, H., Esq., Bampton
Parkes, J. S., Esq., Honiton
Pereira, J. A. W., M.D., 3, Northernhay Place, Exeter
Perkins, A. R. S., Esq., 29, St. Sidwell Street, Exeter
Pickard, R., M.D., 31, East Southernhay, Exeter
Pollock, J. R. R., Esq., Bampton Street, Tiverton
Powne, L., Esq., 52, High Street, Crediton
Pullin, T. H. S., M.D., Sidmouth
Reynolds, F., M.B., Mill Street, Ottery St. Mary
Roper, A. C., Esq., The Shrubbery, Exeter
Sandoe, J. W., M.D., Broadclyst
Sayres, A. W. Fortescue, M.D., St. Andrew's, The Barnfield, Exeter
Scanlan, J., M.B., Lt.-Col. ret. A.M.S., Kerswell, Broadclyst
Semple, H. F., Esq., Budleigh Salterton
Shapland, J. D., senr., Esq., Burnside, Exmouth
Smith, R. Wagstaff, Esq., Mount Rundell, Douglas Avenue, Exmouth
Solly, R. V., M.D., 40, Southernhay, Exeter
Somer, J., Esq., Old Tiverton Road, Exeter
Steele-Perkins, E. B., Esq., 3, Wilton Pl., St. Sidwells, Exeter
Stirk, P. H., Esq., Devon, Exeter Hospital, Exeter
Stokes, C. E., Esq., St. Thomas, Exeter
Thomas, J. R., M.D., Exeter
Thomas, R. S., M.D., 5, Carlton Hill, Exmouth
Thornton, G. L., Esq., 3, The Beacon, Exmouth
Tonge, E., M.B., Ellesmere, Beer, Axminster
Tosswill, L. H., M.B., 1, West Southernhay, Exeter
Tosswill, Leonard R., Esq., 34, West Southernhay, Exeter
Tracey, H. E., M.B., The Gables, Willand, Cullompton
Tweed, E. R., M.D., Pembury, Fort Cross, Honiton
Walker, R., M.D., Budleigh Salterton
Welsford, G. F., M.B., 22, St. Peter Street, Tiverton
Wreford, H., Esq., Denmark Road, Exeter

No. 4.—Plymouth Division

NUMBERING 67.

Chairman,

Vice-Chairman,

Honorary Secretary, H. W. Webber, M.D., 4, Queen Anne Terrace, Plymouth

Representative for Representative Meeting, G. Jackson, Esq., 10, Portland Villas, Plymouth

Representatives on Branch Council.

Pethybridge, W. L., M.D. | Webber, H. W., M.D.
Turner, A., M.D.

Aldous, G. F., Esq., Charlton Ho., Mannamead, Plymouth
Aldridge, C., M.D., Plympton
Andrews, W. H., Esq., 22, Brownston Street, Modbury
Bale, Rosa E., 24, Portland Square, Plymouth
Bate, George, Esq., Linson Road, Plymouth
Bean, C. F., Esq., 19, Lockyer Street, Plymouth

Brenton, W. H., Esq., 12, Portland Villas, Plymouth
Burke R. B., Esq. 14, Portland Square, Plymouth
City, E. H., M.D. Plymouth
Cooke, C. J., M.D., 1, Sussex Terrace, Plymouth
Cooper, C. E., M.B., Ivybridge
Crossley, A. V., Esq., 8, Park Road, Plymouth
Cuming, O. H., M.B., Sussex Street, Plymouth
Currie, John, M.D., Kingsand, near Plymouth
Dawe, J. H., M.B., Alexandra Road, Plymouth
Donbavand, B. J., Esq., Plymstock
Durrant, O. E., Esq., Kingsbridge
Eames, W., Fle-t-Surgeon, R.N., R.N. Hospital, Plymouth
Elliot, E. A. S., Esq., Woodville, Kingsbridge
Fleming, J. C., Esq., Devon and Cornwall Sanatorium Dwdworthy, S. Brent
Fox, E. L., M.D. 9, Osborne Place, Plymouth
Francis, J., M.B., Five Field House, Plymouth
Gardiner, J., Esq., 10, Braidwood Ter., Mutley, Plymouth
Gladstone, A. E., Esq., Newton Ferrers, near Plymouth
Glnn, C. F., Esq., 43, Salisbury Road, Plymouth
Gray, H., M.D., Kingsbridge
Hamilton, W. O., M.B., 6, Queen Anne Terrace, Plymouth
Harston, L. de O. F., Esq., Lower Knowle, Kingsbridge
Hingston, C. A., M.D., 3, Sussex Terrace, Plymouth
Hughes, R. H., M.B., Windsor Villas, Plymouth
Jackson, G., Esq., 10, Portland Villas, Plymouth
Lawday, C. J. L., Esq., Strete, near Dartmouth
Lindsey, C. D., M.D., Blandford Villa, Mannamead, P'mouth
Lucy, R. H., M.B., 9, The Crescent, Plymouth
Mariette, E. P. A., M.B., Ford Park House, Plymouth
May, J. H. S., Esq., Melford House, Plymouth
Miles, H. P., Esq., Modbury
Newbery, W. P. H., Esq., 8, Queen Anne Terrace, Plymouth
Palmer, H. R., Esq., 61, Ebrington Street, Plymouth
Parsloe, H. H., Esq., 5, Buckland Terrace, Plymouth
Pearce, A., Esq., Springfield, Salcombe, R.S.O.
Pethybridge, W. L., M.D. 11, Whitefield Terrace, Plymouth
Prance, G. H. G., Esq., Plympton
Rendle, C. B. R., Esq., 7, Buckland Terrace, Plymouth
Rolston, J. R., Esq., 14, The Crescent, Plymouth
Round, John, Esq., 57, Ebrington Street, Plymouth
Scott, S. N., Esq., Eversleigh, Plymstock
Sheer, W. Esq., 4, Courtenay Terrace, Salcombe
Square, J. R., Esq., 22, Portland Square, Plymouth
Stamp, W. D., Esq., Ridgway, Plympton
Steer, W., Esq., Seacroft, Salcombe
Style, F. W., Esq., South Brent
Swain, W. P., Esq., The Crescent, Plymouth
Thomson, R. R., M.D., Albany Place, Plymouth
Turner, A., M.D., Plympton House, Plympton
Twining, V. W., M.B., Salcombe, Kingsbridge
Wagner, R. H., Esq., 8, Roons Place, Plymouth
Ward, J. P. S., Esq., 10, Tothill Avenue, Plymouth
Webb, W. H., M.D., Kingsbridge
Webber, H. W., M.D., 4, Queen Anne Terrace, Plymouth
Whiteford, C. H., Esq., 5, Sussex Terrace, Plymouth
Williams, F. M., Esq., 60, Durnford Street, Plymouth
Williams, T. H., Esq., 1, Gibbons Street, Plymouth
Wilmot, P. Mck. C., M.B., 6, Sussex Terrace, Plymouth
Wilson, W. C., M.D., 7, Wemworth Villas, Plymouth
Wolferstan, S. S., Esq., Alton Terrace, Plymouth
Woolcombe, W. L., Esq., 16, The Crescent, Plymouth

No. 5.—Torquay Division

NUMBERING 85.

Chairman, W. Powell, M.B., Torquay.
Vice-Chairman J. H. Harris, M.D., Dartmouth.
Honorary Secretary, A. E. Carver, M.D., 4, Park Crescent, Torquay.
Representative for Representative Meeting, W. Odell, M.D., Fernedale, Torquay
Representatives on Branch Council.
Cressey, G. H., Esq. | McGachen, F. W. D., M.D.
Grimbly, R. H., Esq. | Vickers, C. W., Esq.

Adams, H. O., Esq., 1, Bishop's Place, Paignton
Arnold, G. J., Esq. The Towers, Torquay
Arthur, James, Esq., 5, Seaway Terrace, Paignton
Baker, W. R., Esq., Edginswell House, Edginswell, Torquay
Baxter, C. T., Surgeon, R.N., H.M.S. "Britannia," Dartmouth
Bill, W. K., Esq., Shaldon, Teignmouth
Bennett, L. H., M.B., The Elms, Paignton
Black, G., M.B., Chelston, Torquay
Bubb, B., Esq., St. Kilda, Paignton
Cann, F. J. H., Esq., Sefton House, Dawlish
Carver, A. E., M.D., 4, Park Crescent, Torquay
Chapman, W., M.B., Seymour Lodge, Totnes
Collyer, R. J., Esq., Courtland Road, Paignton
Cook, T. D., M.D., Glendon, Torquay
Cosens, C. H., Esq., Sanclaire, Paignton
Cressey, G. H., Esq., Cockington, Torquay
Crordy, F. D., M.D., Belvedere House, Torquay
Culross, J., M.B., Rosencath, Newton Abbot
Cumming, G. W. H., M.D., Overton, Torquay
Dawson, F. A., M.D., Mount Galpin, Dartmouth
Dolman, E. W. F., Esq., Conway Road, Paignton
Dunlop, Thomas, M.B., Cary Park, Babbacombe, Torquay
Eales, G. Y., Esq., 1, Matlock Terrace, Torquay
Edmond, W. R., M.B., Crichel, Totnes
Elliot, R. L., Esq., Tregie, Paignton
Ell s, C. J., M.D., Newcomen Lodge, Dartmouth
Gardner, P. H., Esq., Five Ways, Torquay
Gibson, G. J., M.D., Surg.-Lt.-Col.(ret.), A.M.S., Bridgetown, Totnes
Goodwyn, H., Esq., Bovey Tracey
Gough, J. Harley, M.D., Old Torwood Road, Torquay
Grimbly, R. H., Esq., Newton Abbot
Harris, J. H., M.D., 5, Victoria Terrace, Dartmouth
Haydon, E., M.B., Keyberry House, Newton Abbot
Hayward, Arthur E., Esq., Ivy House, Teignmouth
Horton, T., M.D., Abbey Road, Torquay
Hudson, Arthur, Esq., Ingleside, Dawlish
Hunt, A. W. D., Esq., Chiseford
Hunt, E., Esq., Harlington, Newton Abbot
Hurley, J. U., M.D., 9, Higher Terrace, Torquay
Johnson, G. H., Esq., 7, Den Crescent, Teignmouth
Johnson, H. S., Esq., Colchester House, Totnes
Jones, W. Makeig, M.D., Torquay
Kendall, W. B., Esq., Kingswear
Lake, W. C., M.D., Teignmouth
Little, F. E., Esq., Oakfield, Teignmouth
Lovely, C. N., M.B., The Knowle, Dawlish
MacGachen, F. W. D., M.D., Devon a, Torquay
MacKenzie, H. V., M.D., Torquay
Martin, Charles, M.D., Dagenham House, Newton Abbot
Michelmore, G., Esq., Dulverton, Ruckamore Road, Cockington, Torquay
Newling, H. T., Esq., Torbay Park, Paignton
Nisbet, A. T., M.D., The Laurels, Newton Abbot
Norman, G. A., Esq., Ipplepen
Odell, W., M.D., Fernlale, Torquay
Palmer, W. P., M.D., Babbacombe, Torquay
Pellier, C. de C., Esq., The Manor House, Abbotskerswell, Newton Abbot
Perks, R. H., M.D., Highbury, Torquay Road, Paignton
Phillpotts, H. McD., Esq., Eastcliff, Babbacombe, Torquay
Powell, W., M.B., Hill Garden, Torquay
Quicke, W. J., Esq., West Hill, Brixham
Ranson, Wilson, F.R.C.S.E., Ashburton
Scott, W. G., M.B., Newton Abbot
Scrase, J. J. S., Esq., 54, Wolborough St., Newton Abbot
Searle, G. C., Esq., Brixham
Seccombe, Thos., M.D., Deputy Inspector-General, Torquay
Smith, G. C., Esq., 14, South Road, Newton Abbot
Smith, K. R., M.D., 62, High Street, Totnes
Soper, G. M., Esq., Prospect House, Dartmouth
Stabb, W. W., M.D., Harleston, Torquay
Steele, W. H., jun., M.B., St. Marychurch, Torquay
Steuart, M. B., Esq., Bovey Tracey
Sutherland, R., M.B., Cross Tree House, Moreton Hampstead
Sykes, W., M.D., Redclyffe Lodge, Paignton
Tapson, J. A., Esq., Rookfields, Cary Crescent, Torquay
Thistle, F. T., M.D., Clairville, Torquay
Thorne, F. F., Esq., Sand Park, Shaldon, Teignmouth
Thornton, J. P., M.D., Babbacombe Road, Torquay
Tidswell, H. H., Esq., Fairbanks, Woodfield Rd., Torquay
Tripp, C. L. H., Esq., Hill House, Dawlish
Ubsdell, H., Esq., Buckfastleigh
Vickers, C. W., Esq., Roseneath, Paignton
Ward, T. H., M.D., 1, Bishop's Place, Paignton
Wheatley, R., Esq., 4, Park Place, Torquay
Wiggin, H. P. V., Esq., The Moorings, Bronshill Road Torquay
Wilkin, G. C., Esq., Conway House, Paignton

No. 6.—Truro Division

NUMBERING 68.

Chairman, T. E. Charles, M.D., Falmouth
Vice-Chairman, J. Ratcliff-Gaylard, M.D., Truro
Honorary Secretary and Treasurer.
M. R. Taylor, Esq., Cross Street, Helston
Representative for Representative Meeting.
W. Whitworth, Esq., St. Agnes
Representatives on Branch Council.
Ratcliffe-Gaylard, J., M.D. | Walker, J. C., Esq.
Stephens, R. F., Esq.

Anderson, R. B., Esq., Bodmin
Axford, S. B., Esq., 13, Florence Place, Falmouth
Banks, W., M.B., 10, Greenbank, Falmouth
Barry, D. M., Esq., Grampound
Bennett, W. S., Esq., Escot, Penzance
Blamey, J., Esq., Penryn
Blewitt, Byron, Esq., Mount View, St. Blazey
Bonar, T. M., M.B., Probus
Branwell, C., Esq., 3, South Parade, Penzance
Butlin, C. H., Esq., Camborne
Butler, T. L., Esq., Porthleven
Charles, T. E., M.D., Flushing, Falmouth
Chown, F., M.B., Townshend, Hayle
Clarke, Huntley, Esq., 66, Lemon Street, Truro
Davis, E. S., Esq., Tredenham, St. Blazey
Derry, B. G., Esq., St. Leonard's House, Bodmin
Driver, H. A., Esq., Castle House, St. Agnes
Edwards, E. C., M.D., Shian, Penzance
Edwards, P. H., Esq., Devoran, R.S.O.
Ellis, H. H., Esq., Carbis Water Lelant
Fayrer, Sir Joseph, Bart., M.D., F.R.S., Lamorna, Falmouth
Felton, W. B., Esq., St. Newlyn East, Newquay
Gardiner, P., M.D., Camborne
Gover, L. D., Esq., Clay Point, Flushing, Falmouth
Gregor, Alexander, M.B., Overdale House, Penryn
Grier, C. W. M., M.B., Mevagissey
Hardwick, A., M.D., Newquay
Haughton, J. W., Esq., Grove House, Falmouth
Henry, Edwin, Esq., Porthleven
Hichens, F., M.D., Redruth
Hyne, F. A., Esq., St. Mawes, Falmouth
Jago, A. T., Esq., St. Buryan
Laurie, C., M.D., 58, West End, Redruth
Leverton-Spry, E. J., Esq., St. Keverne, Helston
Lindsey-Birchall, H. A., Esq., Vogue House, St. Day, Scorrier
Limont, A. W., M.B., Veryan, Grampound Road
Mason, W., Esq., St. Austell
Meacher, J. H., Esq., Glen View, St. Breward, Bodmin
Miller, W. R., M.D., Penzance
Milner, E. A., M.B., Lostwithiel
Montgomerie, H. M., M.D., 5, Clarence Place, Penzance
Montgomery, J. B., M.D., Penzance
Morse, Sydney, Esq., Fowey
Mudge, J., jun., Esq., Trewynn, Marazion
Nesbitt, R. G., Esq., St. Just
Oliver, R. S., Esq., 13, Trinity Road, St. Austell
Owen, J. F. H., Esq., 1, Wodehouse Terrace, Falmouth
Panting, L. C., M.D., 45, Lemon Street, Truro
Pardhy, K. M., Esq., Royal Cornwall Infirmary, Truro
Phillips, H. R., M.B., Alexander Terrace, Penzance
Ratcliff-Gaylard, J., M.D., Truro
Richmond, J. R. M., Esq., St. Just, R.S.O.
Ringer, B. S., Esq., Heamoor, near Penzance
Scott, H., M.D., Waverley House, Newquay
Sharp, H., M.B., Truro
Shaw, A. M.D., Bodmin Road, St. Austell
Shore, H. G., Esq., Grosvenor Place, Newquay
Spair, C. M., Esq., 41, Lemon Street, Truro
Stephens, R. F., Esq., St. Austell
Stephens, Wm. J., Esq., Hayne, Newquay
Symons, J., Esq., Penzance
Taylor, M. R., Esq., Cross Street, Helston
Thomas, J. T., Esq., Penvean, Camborne
Tuckey, T. P., M.B., Tywardwreath
Vigurs, C. C., M.D., Newquay
Walker, J. C., Esq., Mevagissey
Whitworth, W., Esq., St. Agnes
Wilson, W. R., Esq., 59, Morrab Road, Penzance

STAFFORDSHIRE BRANCH.

District comprising the County of STAFFORD as far south and east as the boundary marked on the official map.

Members of Branch—293.

RECOGNISED 1874.

President, E. DEANESLY, M.D., Wolverhampton
President-elect, G. S. HATTON, M.D., Newcastle

Vice-Presidents.
F. MILNES BUMER, Esq., Stafford
W. HIND, M.D., Stoke-on-Trent
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Codd, J. A., M.D.	

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Representative on Branch Council.
Porritt, Norman, Esq.

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No. 5.—Leeds Division

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No. 6.—Scarborough Division

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Representative on Branch Council.
Hunt, G. B., M.D.

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No. 7.—Sheffield Division

NUMBERING 125.

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Representatives on Branch Council.

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Waite, Sinclair, M.D.	

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No. 8.—Wakefield and Doncaster Division

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Blackburne, G. H. S., M.B., Public Health Dept., Perth
Blaxland, W., F.R.C.S., Cottesloe, Perth
Burkitt, G. O. E., Esq., Perth
Butler, F. S., M.D., Beverley
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Crutchley, Edgar, Esq., Mount Morgan
Darbyshire, D. E., M.B., Leake Street, Cottesloe
Davis, S. B., Esq., York
Davy, T. G., M.D., Hay Street, Perth
Deravin, A. F., M.B., Public Hospital, Fremantle
Dermer, W. T., M.B., Fremantle
Dunlop, J. B., Esq., Northam
Durack, W. J., Esq., Marble Bar, Perth
Elgie, William, Esq., Midland Junction
Erson, L., Esq., Kalgoorlie
Finlay, Rev. Hunter, M.D., Coolgardie
Flecker, S. O., Esq., Subiaco
Flynn, I. J., M.D., Bunbury
Grey, W. C., M.B., Bulong, W.A.
Harvey, Henry Frederick, Esq., Perth
Hill, C. H., M.D., Kalgoorlie
Hodge, W. T., Esq., Claremont
Hope, J. W., Esq., Fremantle
Horrocks, Herbert, M.D., St. George's Terrace, Perth
Ingoldby, F. J., Esq., Albany
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Saw, Athelstan John Henton, M.D., Perth
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Stewart, James Edmund Fergusson, M.B., Midland Junct.
Stewart, John Mitchell Young, M.B., Guildford
Teague, H. O., M.B., Victoria Park
Thom, Alex., P., M.D., Geraldton
Thompson, James, M.B., Public Hospital, Perth
Thorp, C. G., M.B., Barrack Street, Perth
Thurstan, E. Paget, M.D., St. George's Terrace, Perth
Tratman, F., M.D., Perth
Trethowan, W., M.B., Aberdeen Street, Perth
White, A. T., Esq., Fremantle
Wilson, Thomas, Esq., Ravensthorpe, Phillips River Goldfield

OFFICERS OF THE MEDICAL DEPARTMENT OF THE ROYAL NAVY, THE ARMY MEDICAL AND THE INDIAN MEDICAL SERVICES.

Of retired officers, only those whose names are retained in the official Navy and Army Lists are included in the following Lists.

ROYAL NAVY.

MEMBERS—313.

Adeleson, J. H., M.B., Fleet-Surg. R.N.
Adams, H. C., Surg. R.N.
Anderson, P. F., Surg. R.N.
Andrews, A. G., Fleet-Surg. R.N.
Andrews, John, M.D., Fleet-Surg. R.N.
Andrews, O. W., M.B., Fleet-Surg. R.N.
Arathoon, Hilary, Surg. R.N.
Ashwright, E., M.B., Surg. R.N.
Austen, T., Fleet-Surg. R.N.
Axford, W. G., Fleet-Surg. R.N.
Bankart, A. B., M.B., M.V.O., Staff-Surg. R.N.
Barnes, W. G. K., M.D., Fleet-Surg. R.N.
Barry, Jerome, M.D., Fleet-Surg. R.N.
Bassett-Smith, P. Wm., Fleet-Surg. R.N
Bastian, Wm., Surg. R.N.
Bateman, G. D., Surg., R.N.
Baxter, C. T., Surg. R.N.
Beadnell, C. M., Fleet-Surg. R.N.
Bean, Algernon C., Surg. R.N.
Beardblock, W. J., Fleet-Surg. R.N.
Beattie, J. H., Fleet-Surg. R.N.
Beatty, H. B., Fleet-Surg. R.N.
Bell, A. S. G., Surg. R.N.
Bell, G. A. S., Staff-Surg. R.N.
Bennett, W. E., Fleet-Surg. R.N.
Bentham, R., Dep.-Insp.-Gen. R.N.
Bickford, B. R., Surg. R.N.
Biddulph, E. E., M.B., Fleet-Surg. R.N.
Biden, E. J., Fleet-Surg. R.N.
Bidwell, L., Fleet-Surg. R.N.
Bird, J. W., Surg. R.N.
Birt, S. H., Staff-Surg. R.N.
Bishop, G. T., Staff-Surg. R.N.
Bobardt, A. O., M.D., Staff-Surg., R.N
Bolster, F., Surg. R.N.
Borrett, G. G., Staff-Surg. R.N.
Bowden, Walter, D.S.O., Fleet-Surg. R.N.
Bowie, R. F., Fleet-Surg. R.N.
Boyden, P. H., M.D., Staff-Surg. R.N.
Bradley, C., M.D., Fleet-Surg. R.N.
Bradley, J. M.D., Fleet-Surg. R.N.
Bray, E. E., Fleet-Surg. R.N.
Breton, W. E., Dep.-Insp.-Gen. R.N.
Brice, F. A., Fleet-Surg. R.N.
Broatch, G. T., Fleet Surgeon, R.N.
Brown, R. G., M.B., Deputy Inspector-General R.N.
Buchanan-Hamilton, C. W., Fleet-Surg. R.N.
Buckle, Fleetwood, M.D., Fleet-Surg. R.N. (ret.), Southsea
Bunton, C. L. W., M.B., Staff Surg. R.N.
Burns, F. J., M.D., Fleet-Surg. R.N.
Burton, E. T., Junr. Surg. R.N.
Burniston, H. S., M.B., Staff-Surg. R.N.
Campbell, J. A. L., Staff-Surg. R.N.
Carbery, E. O. B., M.B., Surg. R.N.
Center, W. R. M.B., Surg. R.N.
Chambers, Joseph, M.B., Fleet-Surg. R.N.
Cherry, W. N. L., Surg. R.N.
Clark, R. F., Surg. R.N.
Clayton, F. H. A., M.B., Staff-Surg. R.N.
Clift, Hugh, Staff-Surg. R.N.
Coad, J. E., M.B., Fleet-Surg. R.N.
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Cock, F., Surg. R.N.
Codrington, W. J., Surg. R.N.
Collingwood, F. W., Surg. R.N. (retired)
Collingwood, G. T., Fleet-Surg. R.N.
Conner, S., M.B., Surg. R.N.
Coolican, J. P. J., Fleet-Surg. R.N.
Cooper, E., Staff Surg. R.N.
Coppinger, R. W., M.D., Insp.-Gen. of Hospitals and Fleets R.N.
Corrie, A. T., Fleet-Surg. R.N. (retired)
Cox, A. H. L., Staff-Surg. R.N.
Cox, Edmund, M.B., Surg. R.N.
Craig, J. W., Staff-Surg. R.N.
Craig, W. M., M.B., Fleet-Surg. R.N
Cridland, E. C., M.B., Staff-Surg. R.N.
Crocker, H. L., Fleet-Surg. R.N.
Croneen, Sydney, Surg. R.N.
Cropley, A., Fleet-Surg. R.N.
Crowley, Joseph, M.D., Fleet-Surg. R.N
Cummins, A. D. C., Surg. R.N.
Dalton, F. J. A., Staff-Surg. R.N.
Dartnell, L. E., Surg. R.N.
Davidge, G. S., Surg., R.N.
Davidson, Arthur, M.B., Surg. R.N.
Daw, W. H., Surg. R.N.
Dennis, J. J., M.D., Fleet-Surg. R.N.
Denny, H. R. H., Surg. R.N.
Dimsey, E. R., D.S.O., Fleet-Surg. R.N.
Dow, J. C., M.B., Fleet-Surg R.N.
Doyne, H. W. G., Fleet-Surg. R.N.
Dudding, J. S., Surg. R.N.
Duncan, G. E., Surg., R.N.
Durston, J. C., Staff-Surg. R.N.
Eames, E. T. P., Staff-Surg. R.N
Eames, W., Fleet-Surg. R.N.
Eastcott, J. C., Dep. Insp.-Gen. of Hospitals and Fleets R.N. (ret.), East Southsea
Elliott, H., M.D., Fleet-Surg. R.N. (retired)
Ellis, E. F., Staff-Surg. R.N.
Ellis, H. M., Insp.-Gen. R.N.
Facey, C. S., M.B., Staff-Surg. R.N.
Facey, S. H., Surg. R.N.
Fairbank, C. B., Surg. R.N.
Fedarb, F., M.B., Staff-Surg. R.N.
Ferguson, J. C., M.B., Fleet-Surg. R.N.
Finch, B. J., M.D., Staff-Surg. R.N.
Finlayson, H. W., M.B., Staff-Surg. R.N.
Flood, A. W., Surg. R.N. (retired), Bundoran
Follett, E., Surg. R.N.
Foott, G. H., M.D., Fleet-Surg. R.N
France, J. M., Fleet-Surg. R.N.
French, A. M., Fleet-Surg. R.N.
Fullarton, J., Surg. R.N.
Gibson, George, Surg. R.N.
Gill, H. H., M.B., Staff-Surg. R.N.
Gilmour, R. T., Staff Surg. R.N.
Gittings, C. B., M.B., Surg. R.N.
Glynn, G. E., M.D., Surg. R.N
Gordon, J. M., M.B., Surg. R.N.
Gowans, F. J., M.B., Surg., R.N.

Grant, R., M.B., C.B., Insp.-Gen. of Hosps. & Fleets R.N.
Grazebrook, E. R., Staff-Surg. R.N.
Green, H. W. G., Staff-Surg. R.N.
Greenhalgh, J. F. H., M.B., Surg. R.N.
Hadlow, R., Insp. Genl. of Hosps. & Fleets R.N. (ret.)—S. Br.
Hall, J. F., M.B., Fleet-Surg. R.N.
Hall, R. W. Basil, Surg. R.N.
Handyside, P. B., M.B., Fleet-Surg. R.N.
Harris, N. H., Surg. R.N.
Harvey, C., Fleet-Surg. R.N. (retired), Newton Abbot
Harvey, D'Arcy, M.B., Fleet-Surg. R.N.
Hawton, J. W. H., Fleet-Surg. R.N. (retired)
Hewitt, David, W., M.B., Surg. R.N.
Hewlett, G., M.B., Fleet-Surg. R.N.
Hickson, R., Fleet-Surg. R.N
Hill, R., Staff-Surg. R.N.
Hilston, D., M.D., C.B., Insp.-Gen. of Hosps. & Flts. R.N. (ret.)
Holyoake, H., Fleet-Surg. R.N.
Home, W. E., M.D., Fleet-Surg. R.N.
Honey, T. E., M.D., Staff-Surg. R.N.
Hoskyn, D. T., M.B., Staff-Surg. R.N.
Hughes, Robert, Surg. R.N.
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Jeans, T. T., M.B., Staff-Surg. R.N.
Jeffery, T. W., Surg. R.N.
Johnston, A. J. J., Fleet-Surg. R.N.
Johnston, J. E., Surg. R.N.
Jones, K. H., M.B., Surg. R.N.
Joyce, A. R., Fleet-Surg. R.N. (retired), Caversham
Keays, S., Fleet-Surg. R.N.
Kellett, L. H., M.D., Dep.-Insp.-Gen. R.N.
Kelsond-Kn ght, H. A., Surg. R.N.
Kenn , E. B., M.B., Surg. R.N.
Kennedy, G. E., Fleet-Surg. R.N.
Keogh, J. A., M.B., Staff-Surg. R.N.
Kidd, A., Fleet-Surg. R.N.
Kilroy, L., Staff-Surg. R.N.
Knapp, M. H., Staff-Surg. R.N.
Knightley, W. R., Surg. R.N.
Langford, M. C., Staff-Surg. R.N.
Lambert, J. S., Dep.-Insp.-Gen., R.N.
Laurie, Augustus J., Surg. R.N.
Lavertine, A. X., Surg. R.N.
Levinge, R. T. A., Fleet-Surg. R.N.
Ley, B., Surg. R.N.
Lilly, F. J., Fleet-Surg. R.N.
Lindop, L., Surg. R.N.
Livesay, A. W. B., Staff-Surg. R.N.
Lobb, F. F., Surg. R.N.
Lory, W. M., Fleet-Surg. R.N.
Lowney, J., Fleet-Surg. R.N.
Lumley, F. D., Staff-Surg. R.N.
Luther, E. W., Fleet-Surg. R.N.
Lyon, J., M.D., Dep.-Insp.-Gen. R.N.
M'Curdh-on, Jas., M.B., Surg. R.N.
McKinlay, A., Fleet-Surg. R.N.
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McSwiny, M. O'C. Fleet-Surg. R.N. (ret.)
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Mann, F. R., Surg. R.N.
Mansfield, C. J., M.D., Fleet-Surg. R.N.
Marriott, H. B., Staff-Surg. R.N.
Marshall, W. E., Staff-Surg. R.N.
Martin, John, Surg. R.N.
Martin, W. L., Surg. R.N.
Mathew, W. E., Staff-Surg. R.N.
Matthew, C. G., M.B., Fleet-Surg. R.N.
May, A. W., Dep. Insp.-Gen., R.N.
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Miller, R., M.B., Fleet-Surg. R.N.
Moore, J., M.D., Fleet-Surg. R.N.
Mortimer, Edgar F., Staff-Surg. R.N.
Morris, L. M., Surg. R.N.
Mourilyan, E. P., M.B., Staff-Surg. R.N.
Mowat, James, M.B., Surg. R.N.
Murray, G. B., Dep. Insp.-Gen. of Hospitals & Fleets R.N. (ret.)
Nance, A. S., Fleet-Surg. R.N.
Nicholson, R. H., Fleet-Surg. R.N.
Nimmo, F. H., Surg. R.N.
Nix, P. K., M.B., Staff Surg. R.N.
O'Grady, S. T., Dep. Insp.-Gen. R.N.
O'Hea, John, Surg. R.N.
O'Leary, E. G. E., Surg. R.N.
O'Regan, M. J., M.B., Staff-Surg. R.N.
Osborne, Richd. S., Staff-Surg., R.N.
Pead, J. H., M.B., Staff-Surg. R.N.
Penfold, E. A., M.B., Staff-Surg. R.N.
Penny, H. L., Staff-Surg. R.N.
Philip, T. W., M.B., Staff-Surg. R.N.
Phillips, J. E. H., Surg. R.N.
Pickthorn, A. J., Fleet-Surg. R.N.
Pollard, E. R. H., Insp.-Gen. R.N.
Pope, W. H., Surg. R.N.
Porter, J., C.B., M.D., Dep. Insp.-Gen. R.N.
Preston, T. J., Dep. Insp.-Gen. R.N.
Pryn, W. W., Fleet-Surg. R.N.
Pulsey, W. H., M.D., Fleet-Surg. R.N. (retired)—Met. Br.
Ramsay, P. D., Surg. R.N.
Raymond, J. K., M.B., Surg. R.N.
Reed, J. C. G., Staff-Surg. R.N.
Rees, O., M.D., Staff-Surg. R.N.
Reid, E. S., M.B., Surg. R.N.
Reid, S. T., Staff-Surg. R.N.
Reid, W., M.D., Insp.-Gen. of Hosps. and Fleets R.N. (ret.)
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Rogers, H. I., Surg. R.N.
Ross, G., M.B., Surg. R.N.

Ross, R. A., M.B., Staff-Surg. R.N.
Saunders, E. H., Fleet-Surg. R.N.
Scribaer, R. B., Surg. R.N.
Scccombe, P., M.D., Dep. Insp.-Gen. of Hospitals and Fleets R.N. (retired)
Sequeira, W. S. M., M.B., Staff-Surg. R.N.
Stand, Jonathan, M.B., Fleet-Surg. R.N.
Shaw, E. A., M.B., Staff-Surg. R.N.
Shaw, T. B., M.B., Surg. R.N.
Shewan, C. R., M.B., Surg., R.N.
Shewell, H. W. B., M.B., Surg. R.N.
Simpson, H. B., Surg. R.N.
Smith, J. L., M.B., Fleet-Surg. R.N.
Smith, M. J., M.D., Staff-Surg. R.N.
Sparrow, H. S. R., Fleet-Surg. R.N.
Spry, W., Fleet-Surg. R.N.
Stalkartt, W. H. S., M.D., Staff-Surg. R.N.
Stanton, J. W. W., Staff-Surg. R.N.
Star, P. H. M., Surg. R.N.
Stenhouse, J. H., M.B., Fleet-Surg. R.N.
Stepheus, H. F. D., M.B., Fleet-Surg. R.N.
Stewart, R. W. G., M.B., Surg. R.N.
Stott, W. G., M.B., Fleet-Surg. R.N
Sugrue, J., M.D., Fleet-Surg. R.N.
Sutcliffe, P. T., Surg. R.N.
Tait, W., M.B., Fleet-Surg. R.N.
T omas, Arthur R., Surg. R.N.
Thomas, J. H., Fleet-Surg. R.N.
Thomas, J. Lloyd, Fleet-Surg. R.N
Thompson, W., Staff-Surg. R.N. (retired)
Thornhill, J., M.B., Surg. R.N.
Thorpe, V. G., Fleet-Surg. R.N.
Todd, Howard, Dep.-Insp.-Gen. R.N
Townsend, E. B., Fleet-Surg. R.N.
Turnbull, H. P., Surg. R.N.
Twigg, G. D., Fleet-Surg. R.N.
Underhill, J. W. O., M.B., Fleet-Surg. R.N.
Vasey, C. L., Fleet-Surg. R.N. (ret.)
Vasey, S. W., Fleet-Surg. R.N.
Vaudin, M. L. M., M.B., Surg. R.N.
Verdon, John, Surg. R.N.
Vickers, Thos. H., Surg. R.N.
Wallis, J. G., M.B., Surg. R.N.
Walsh, G. D., Surg. R.N.
Walsh, H. W. D., Fleet-Surg. R.N.
Walsh, J. J., M.B., Fleet-Surg. R.N
Waters, G. A., M.D., Fleet-Surg. R.N.
Watt, James George, Surg. R.N.
Weightman, A. E., Fleet-Surg. R.N.
Westcott, W. G., Surg. R.N.
Whelan, J. H., M.D., Staff-Surg. R.N.
White, R. Dormer, M.D., Dep. Insp.-Gen. R.N.
Whitelegge, W. A., M.D., Fleet-Surg. R.N.
Wilkinson, E. A. G., Surg. R.N.
Williams, J. O'B., M.D., Fleet-Surg. R.N.
Williams, P. G., Surg. R.N.
Williams, R. W., Dep. Insp.-Gen. R.N.
Wilson, F. G., M.B., Surg., R.N.
Wilson, G., M.B., Fleet-Surg. R.N.
Wood, J. C., Staff-Surg. R.N.
Woods, C. M., Surg. R.N.
Woods, H. C., C.V.O., C.B., K.H.P., M.D., Insp.-Gen. of Hospitals and Fleets R.N.
Woodyatt, H. C., Surg. R.N.
Woollcombe, A., Surg. R.N.

ARMY MEDICAL SERVICE.

In this list, Surgeon-Generals of the Army Medical Staff, as well as retired officers of the late Army Medical Staff, are distinguished by the letters A.M.S. Officers of the Royal Army Medical Corps by the letters R.A.M.C., and retired officers of the late Medical Department by the letters A.M.D.

MEMBERS—806.

Adams, G. G. Major, R.A.M.C.
Adamson, H. M., M.B., Major R.A.M.C.
Adcock, Hon. Brig.-Surg. J., M.D., Surg.-Major (retired) A.M.D., 1, Queen's Parade, Bath.
Addison, C. J., Major, R.A.M.C.
Adye-Curran, Wm. J. P., Captain, R.A.M.C.
Ainsworth, R. B., Lieutenant, R.A.M.C.
Alexander, J. D., M.B. Major, R.A.M.C.
Allen, S. G., Major, R.A.M.C.
Allen, W. H., Lt.-Col., R.A.M.C.
Allport, C. W., M.D. Major R.A.M.C.
Allport, H. K., M.D., Lt.-Col., R.A.M.C.
Ambrose, Hon. Brig.-Surg. J., M.D., Lt.-Col. (retired) A.M.S., Southgate Lodge, Devizes
Anderson, A., Lieut.-Colonel, (ret.) R.A.M.C.
Anderson, E. C., Major, R.A.M.C.
Anderson, H. S., Captain, R.A.M.C.
Anderson, Hon Brig.-Surg. J. A., M.D., Lt.-Col. (ret.), A.M.S.
Anderson, J., M.B., Lieut.-Col., R.A.M.C.
Anderson, J. B., Major, R.A.M.C.
Anderson, R., Lt.-Col., (ret.), A.M.S., Bury St. Edmunds
Anthonisz, A. H., M.B., Colonel, R.A.M.C.
Archer, G. J. S., Capt., R.A.M.C.
Archer, S. A., Captain, R.A.M.C.
Archer, T., M.D., Lt.-Col., R.A.M.C.
Argles, R. L., Capt. R.A.M.C.
Armstrong, J., Lieut.-Col., R.A.M.C.
Ashe, Frank, Cap ain, R.A.M.C.
Austin, H. W., Major, R.A.M.C.
Austin, J. H. E., Major, R.A.M.C.
Austin, R. F. E., Major, R.A.M.C.
Aylen, E. V., Captain, R.A.M.C.
Babington, M. H., Captain, R.A.M.C.
Babtie, W., V.C., C.M.G., M.B., Lt.-Col., R.A.M.C.
Bagshawe, H. V., Lieutenant, R.A.M.C.
Baird, A., M.B., Lieut.-Col., R.A.M.C.
Baker, W. J., Lt.-Col., R.A.M.C.
Baker, W. L., Captain, R.A.M.C.
Barbour, J. H., M.B., Captain, R.A.M.C.
Barefoot, G. H., Major, R.A.M.C.
Barker, J., M.D., Surg.-Lt.-Col. A.M.S., R.P.
Barnes, H. J., Lt.-Col., R.A.M.C.
Barratt, H. J., Lt.-Col., R.A.M.C.
Barrow, H. J. W., Colonel, R.A.M.C.
Barrow, H. P. W., Captain, R.A.M.C.
Bartlett, B. S., Captain, R.A.M.C.
Bartlett, C. R., Lieut.-Col., R.A.M.C.
Bate, A. L. F., Major, R.A.M.C.
Battersby, H. L., Lt.-Col., R.A.M.C.
Battersby, J., M.B., Lt.-Col., R.A.M.C.
Baylor, E. T., Major, R.A.M.C.
Beach, T. B. Major, R.A.M.C.
Beamish, J. M., M.D., Colonel, R.A.M.C., R.P.
Beatty, M. C., M.B., Captain, R.A.M.C.

Beevor, W. C., M.B., Lt.-Col., R.A.M.C.
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Berne, J. G., Capt., R.A.M.C.
Berryman, H. A., Major, R.A.M.C.
Berryman, W. E., Lieut.-Col., R.A.M.C.
Best, W. H. G. H., Lieut., R.A.M.C.
Beveridge, W. W. O., M.B., Major, R.A.M.C.
Bewley, A. W., Major, R.A.M.C.
Biggam, Thomas, M.B., Captain, R.A.M.C.
Birrell, E. T. F., M.B., Captain, R.A.M.C.
Birrell, W. G., M.B., Lt.-Col., R.A.M.C.
Birt, C., Lieut.-Col., R.A.M.C.
Black, J. G., M.D., Major, R.A.M.C.
Blackham, R. J., Captain, R.A.M.C.
Blackwell, C. T., Major, R.A.M.C.
Blenkinsop, A. P., Major, R.A.M.C.
Blennerhassett, B. M., C.M.G., Col. R.A.M.C.
Bliss, E. W., Captain, R.A.M.C.
Blood, R., M.D., Col., R.A.M.C. (ret.)
Bodington, P. J., Captain, R.A.M.C.
Bolegan, J. P. H., M.D., Lt.-Col. retired), A.M.S.
Boles, W. S., M.B., Major, R.A.M.C.
Bond, R. P., Major, R.A.M.C.
Bond-Carlson, A. P., Captain, R.A.M.C.
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Boyle, Michael, M.B., Capt., R.A.M.C.
Bransbury, H., Capt., R.A.M.C.
Bray, G. A. T., Major R.A.M.C.
Bray, H. A., Major, R.A.M.C.
Brazier-Creagh, G. W., C.M.G., Lt.-Col., R.A.M.C.
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Browne, E. G., Major, R.A.M.C.
Browning, C. D., Captain, R.A.M.C.
Browning, Thos., Major, R.A.M.C.
Bruce, David, F.R.S., Col., R.A.M.C.
Buchanan, G. J., M.B., Major, R.A.M.C.
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Buist, H. J. M., D.S.O., M.B., Major, R.A.M.C
Buist, John M., M.B., Captain, R.A.M.C.
Bullen, J. W., M.D., Major, R.A.M.C.
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Burnside, E. A., Major, R.A.M.C.
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Corkery, T. H., Major, R.A.M.C.
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Crawford, V. J., Capt. R.A.M.C.
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Cummins, S. L., M.B., Capt., R.A.M.C.
Cunningham, R. A., M.B., Captain, R.A.M.C.
Curtis, J. H., Major, R.A.M.C.
Curme, D. E., Capt. R.A.M.C.
Cusack, R. O., Lieut.-Col., R.A.M.C. (ret.
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Dew, W. M.B., Lt.-Col., R.A.M.C.
Dobson, G. M., Major, R.A.M.C. (R.)
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Donaldson, R. D., M.D., Lt.-Col., R.A.M.C.
Donnet, J. J. C., Lt.-Col., R.A.M.C.
Donovan, H. L., M.D., Lieut.-Colonel, R.F., A.M.S.
Donovan, W., C.B., Surg.-Gen. R.A.M.C.
Dorman, J. C., C.M.G., M.B., Col. R.A.M.C.
Douglass, J. H., M.D., Lieut. R.A.M.C.
Douglass, Percy Clarence, Captain, R.A.M.C.
Dowman, W. S., Major, R.A.M.C.
Doyle, J. C. P., Major, R.A.M.C.
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Duncan, S. E., Lieut.-Col., R.A.M.C.
Dundon, M., M.D., Lt.-Col., R.A.M.C.
Dunn, H. N., Major, R.A.M.C.
Dunsterville, E., M.B., Major, R.A.M.C.
Edge, J. D., M.D., C.B., Surg.-Gen., R.A.M.C.
Elderton, F. D., Major, R.A.M.C.
Elkington, H. P. G., Major, R.A.M.C.
Emery, R. F., Captain, R.A.M.C.
Elliott, C. R., M.D., Major, R.A.M.C.
Ellis, P. M., Col., R.A.M.C.
Elsner, O. W. A., Capt. R.A.M.C.
Emerson, I. R., Lt.-Col., R.A.M.C.
Erskine, W. D., Major, R.A.M.C.
Esmonde-White, H. L., Lt.-Col., R.A.M.C.
Evans, C. R., Captain, R.A.M.C.
Evans, Percy, M.B., Captain, R.A.M.C.
Evatt, G. J. H., M.D., C.B., Surg.-Gen. R.A.M.C.
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Fairrie, S. H., Capt., R.A.M.C.
Falkner, M. W., Capt., R.A.M.C.
Falkner, Percy H., Captain, R.A.M.C.
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Falrey, J. J., Lieut.-Colonel, R.A.M.C.
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Faunce, C. E., Lieut.-Colonel, R.A.M.C.
Fawcett, W. J., M.B., C.B., Surg.-Gen., R.A.M.C.
Fawcus, H. R., M.B., Capt. R.A.M.C.
Fayle, Lt.-Col. R. J. L., D.S.O., R.A.M.C.
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Fean, E. H., C.I.E., Col., R.A.M.C.
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Fowler, C. E. P., Major, R.A.M.C.
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Goggin, G. T., Lt.-Col., R.A.M.C.
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Goodwin, T. H., Major, R.A.M.C.
Gordon, W. R. P., Captain, R.A.M.C.
Gordon, P. G. H., Major, R.A.M.C.

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Graves, W., Surg.-Col., A.M.S., (retired)
Gray, W. L., M.B., Major, R.A.M.C.
Grech, John, Captain, R.A.M.C.
Green, J. S., M.B., Major, R.A.M.C.
Green, S. F. St. D., Captain, R.A.M.C.
Greenwood, Arthur R., Captain, R.A.M.C.
Greig, F. J., Major, R.A.M.C.
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Hall, R. J. D., Major, R.A.M.C.
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Jones, J. L., Lieut., R.A.M.C.
Jones, J. M., Lt.-Col., R.A.M.C.
Jones, T. P., M.B., Major, R.A.M.C.
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Julian, O. R. A., C.M.G., Major, R.A.M.C.
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Kelly, Wm. D. C., M.B., Lieut. R.A.M.C.
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O'Connell, Mathew, D., M.D., Col., R.A.M.C.
O'Connor, A. P., C.B., Lieut.-Col., R.A.M.C.
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O'Gorman, C. J., D.S.O., Captain, R.A.M.C.
O'Grady, S. de C., Capt., R.A.M.C.
O'Halloran, M., D., Major, R.A.M.C.
O'Keeffe, M. W., Lt.-Col., R.A.M.C.
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Palmer, F. J., Captain, R.A.M.C.
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Pinches, W. H., Major, R.A.M.C.
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Power, W. M., Captain, R.A.M.C.
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Price, W. S. M., Surg.-Gen., R.A.M.C.
Probyn, P. J., D.S.O., Captain, R.A.M.C.
Profeit, C. W., Captain, R.A.M.C.
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